

DIMEN-  
SIONS

ASME  
B 16.5

WELDING  
NECK  
FLANGES

ASME  
B 16.5

SLIP-ON  
FLANGES

ASME  
B 16.5

LAP  
JOINT  
FLANGES

ASME  
B 16.5

BLIND  
FLANGES

ASME  
B 16.5

SOCKET  
WELDING  
FLANGES

ASME  
B 16.5

THREA-  
DED  
FLANGES



FLANGE TECHNICAL HANDBOOK **ULMA Piping**



BRITISH  
STD

B.S.  
3293

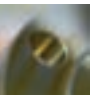
ASME  
B 16.47

SERIES  
A

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APPENDIX



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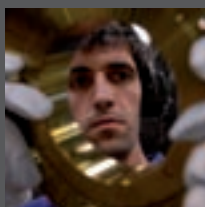
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APPENDIX





## GOLD QUALITY, TOP RELIABILITY



[www.ulmapiping.com](http://www.ulmapiping.com)

ULMA is one of the world's leading manufacturers of flanges. Our flanges are made from a wide variety of materials, including carbon steel, low alloy steel, stainless steel and special alloys. ULMA flanges are designed and manufactured to withstand some of the world's harshest conditions, which they often need to endure in specialized market sectors such as oil & gas, petrochemicals, power generation and mineral refining.

The company, established in 1962, is located in the town of Oñati in the Basque Country of northern Spain, an area with a deep-rooted industrial tradition.

We are equipped with the most modern facilities and a highly qualified workforce, enabling us to offer the widest possible range of flanges. Our product line embodies the highest standards in quality, productivity and dependability. This, combined with our cutting-edge technology, experience and tradition of excellence, has led to our unrivalled reputation for quality and service. Management systems based on the strictest quality standards allow ULMA to develop the products and services that best satisfy our customers' needs of flanges and high quality pressure fittings.

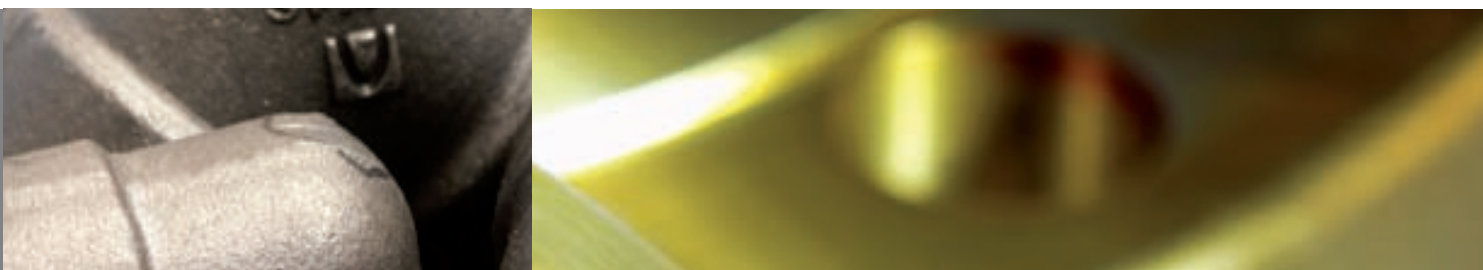
ULMA supports its customers with expertise and quality products in over 70 countries worldwide.

**WITH THE EXPERIENCE AND KNOW-HOW  
OF ULMA'S HIGHLY QUALIFIED TEAM WE  
CAN OFFER PRODUCTS AND SERVICES THAT  
EXCEED OUR CUSTOMERS' EXPECTATIONS.**

ULMA is proud of its workforce. We are specialized and experienced, highly trained and motivated. Our dedication and thorough understanding of customers' work processes enables us to offer the highest quality in our products and specialized solutions. Our solutions are flexible, customized and ready to perform flawlessly under even the most extreme conditions.

Since 1970 ULMA has actively participated in hundreds of major projects worldwide, always offering the highest quality products together with committed, flexible service. Over these years we have fulfilled and surpassed client expectations, acquiring tremendously valuable know-how that now enables us to handle even the most complex and demanding international projects.





**OUR GOAL IS TO SATISFY OUR CUSTOMERS  
BY OFFERING PRODUCTS AND SERVICES  
THAT NOT ONLY MEET THEIR REQUIRE-  
MENTS BUT ALSO EXCEED THEIR EXPECTA-  
TIONS.**

The innovation in our production processes through continuous technological re-engineering assures ever-increasing levels of quality, product reliability and efficiency.

As technological demands in the market become greater and greater, innovation plays an increasingly important role. At ULMA we always work with this in mind, and our in-house department collaborates closely with the top European R+D+I Centres to achieve true excellence for our customers.

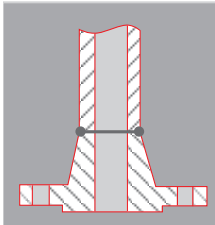
## **FOR THEIR HIGH QUALITY AND RELIABILITY**



### **EFFICIENT PERFORMANCE**

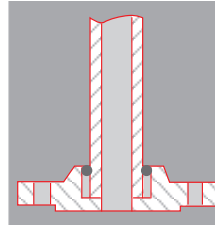
Our highly motivated staff, efficient production system and cutting-edge technology allow us to supply products of the highest quality with tight turnaround times, enabling us to meet the demands of our customers under even the most challenging circumstances.

### **RELIABLE DELIVERY**



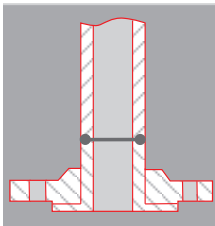
### WELDING NECK FLANGE

This group of flanges is designed with a hub on the backside tapering to a diameter that will match the pipe to which it will be welded. These flanges are bored to match the inside diameter of the mating pipe so there will be no restriction of product flow. This prevents turbulence at the joint and reduces erosion. Welding neck flanges are preferred for use in severe service applications involving high pressure, sub-zero and/or elevated temperatures. They also provide excellent stress distribution through the tapered hub and are easily radiographed for flaw detection.



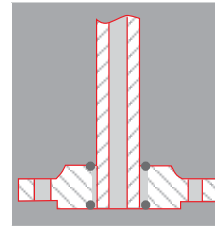
### SOCKET WELDING FLANGE

These flanges are similar to slip-on flanges except they have a bore diameter equal to that of the matching pipe. They also have a counterbore from the hub side slightly larger than the outside diameter of the matching pipe. The counterbore provides a "socket" into which the end of the pipe is inserted. The flange is then attached to the pipe by a fillet weld at the hub. The shoulder made by the difference between the bore and counterbore is the same width as the wall of the pipe, thereby providing for an unrestricted flow of product through the connection. These flanges were initially developed for use in small diameter, high-pressure lines. Internally welded socket type flanges are typically used in chemical processes, hydraulic lines and steam distribution lines.



### LAP JOINT FLANGE

Used in conjunction with a "Lap Joint Stub End," these flanges are nearly identical to a slip-on flange with the exception of a radius at the intersection of the flange face and the bore to accommodate the flanged portion of the stub end. These flanges are used in applications where the joint must be frequently disassembled for cleaning or where there is a need to facilitate bolt alignment.

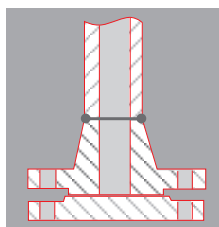


### SLIP-ON FLANGE

Slip-on flanges are designed to slide over the outside diameter of the pipe to which it will be welded. These flanges are attached to the pipe by fillet welding at the hub and at the end of the pipe inside the flange. Because of the low hub and method of attachment, these flanges are not normally used in high stress applications.

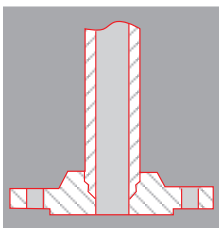
## FLANGE TYPES





### BLIND FLANGES

These flanges are manufactured without a bore and used as closures or seals for the ends of piping systems. They are also used to provide access covers for pressure vessels. Blind flanges are provided with or without a hub, depending on customer requirements. Under pressure and bolt loading, the blind flange is subjected to more stresses than any other flange type. However, the maximum stresses are bending stresses at the center and are easily absorbed by the flange.



### THREADED FLANGE

Threaded flanges are threaded in the bore to match an external thread on the pipe. The threads are tapered to create a seal between the flange and pipe as the tapers approach the same diameter. These flanges are normally designed for low pressure, non-cyclic applications. They are also used in applications where welding is hazardous.

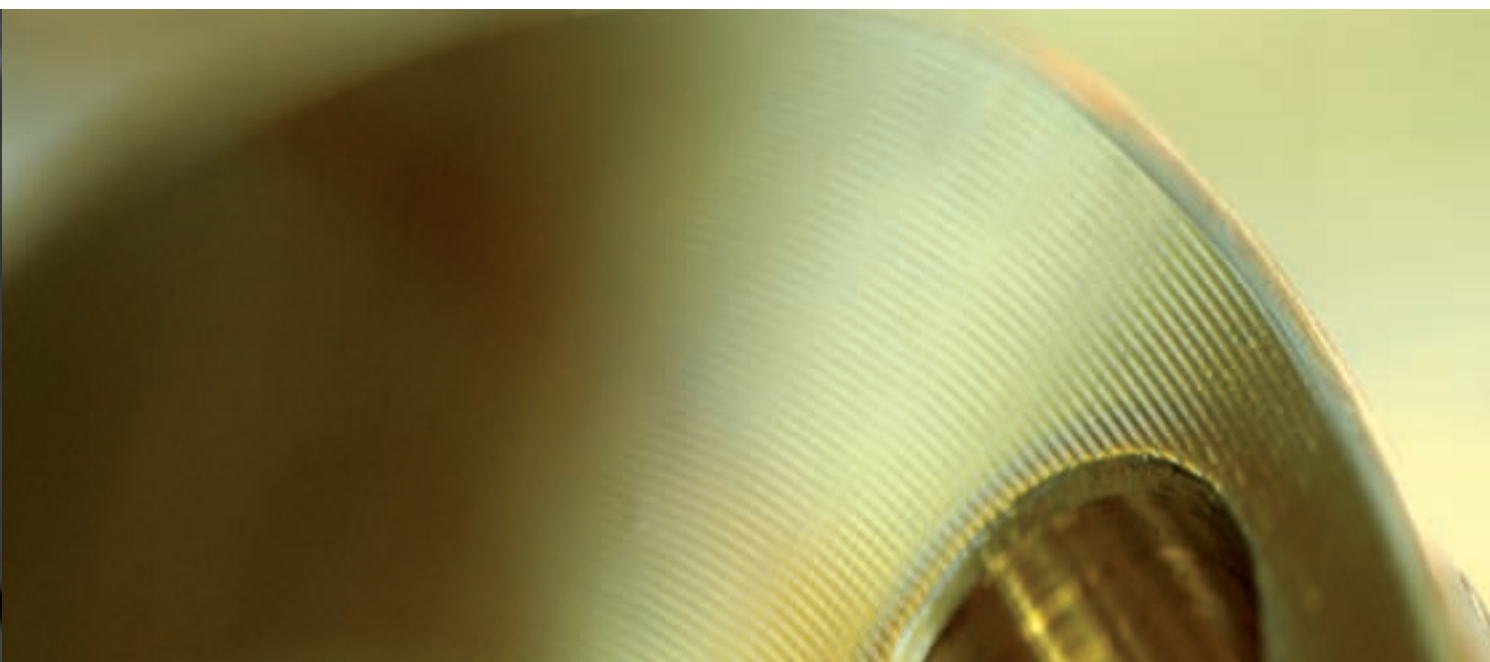
### ORIFICE FLANGES

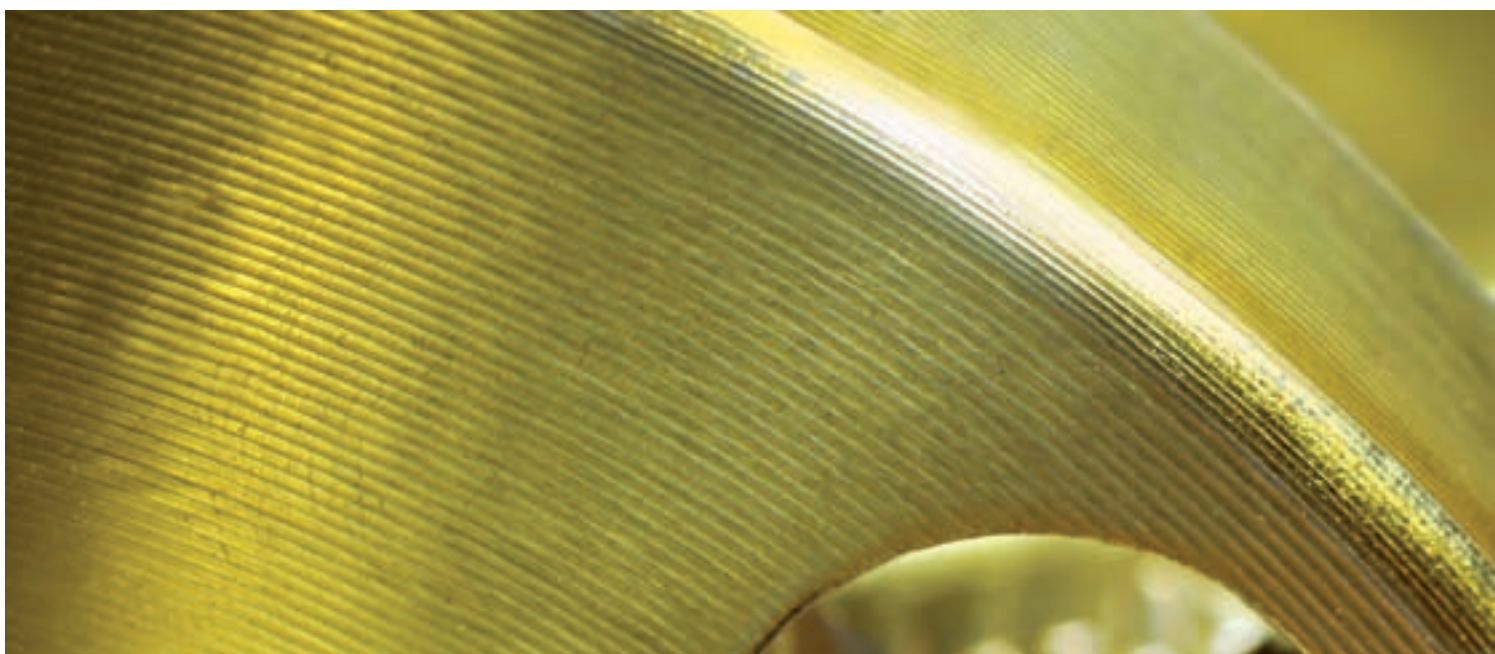
Designed for flow metering systems. Two of these flanges with bolts and jack screws are called an "orifice flange union" and are used in conjunction with an "orifice plate." The orifice plate is a separate commodity and is not sold as a part of the flange assembly. Each flange is provided with a pair of pressure taps for measurement of pressure drop in the flow through the orifice plate. The taps are precisely located with respect to the orifice plate. Orifice flanges may be provided in one of three types of flanges: Welding Neck, Slip On and Threaded.

### REDUCING FLANGES

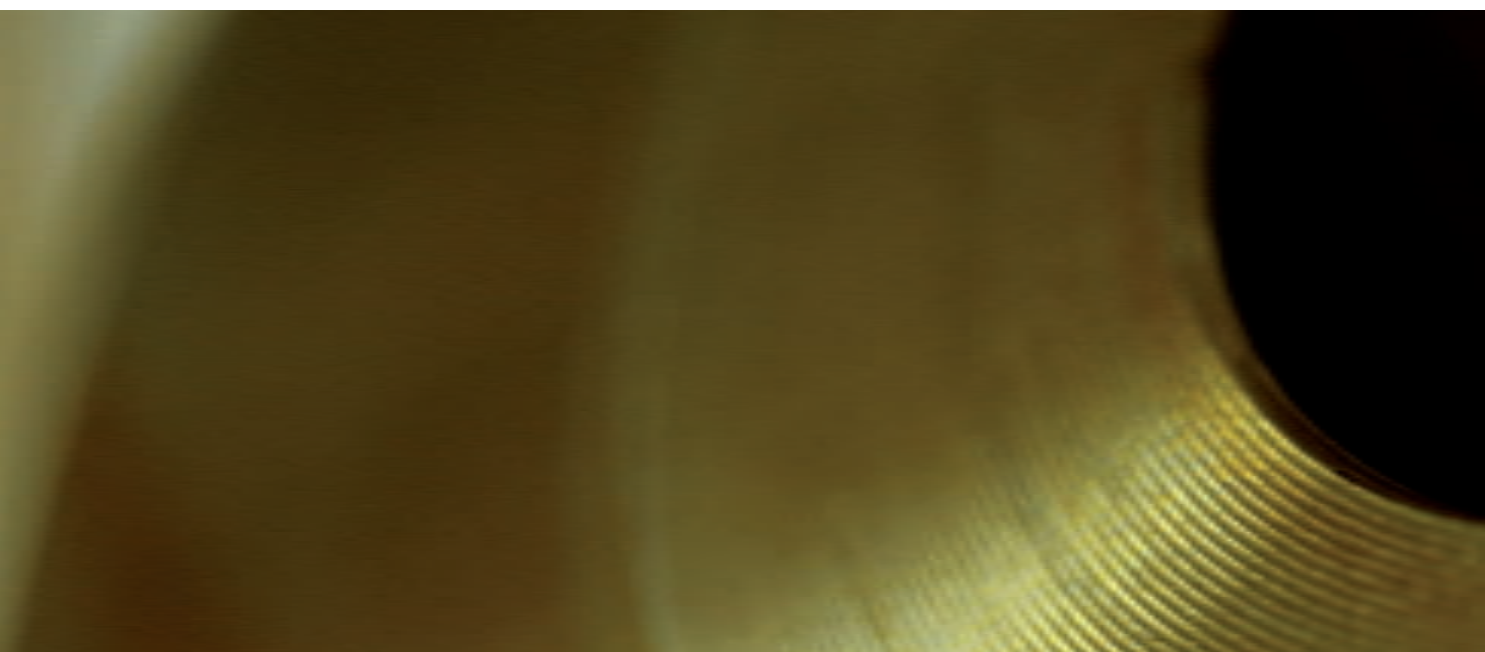
Designed for use in changing diameters in a piping system. A reducing flange consists of a flange with one specified diameter having a bore of a different and smaller, diameter. Except for the bore and hub dimensions, the flange will have dimensions of the larger pipe size. Reducing flanges are normally provided as one of three types: Welding Neck, Slip On and Threaded.

## FLANGE TYPES





## DIMENSIONS





# PRODUCTION RANGE

When using printed standards, the most recent issue of the original version shall prevail

| Type of Flange                          | ASME<br>B 16.5                 | B. S.<br>3293 * | ASME<br>B16.47<br>Series A<br>MSS<br>SP-44 * | ASME<br>B 16.47<br>Series B<br>API Std<br>605 * | ASME<br>B 16.36 |
|-----------------------------------------|--------------------------------|-----------------|----------------------------------------------|-------------------------------------------------|-----------------|
|                                         | Nominal Pressure<br>lb/sq. in. |                 |                                              |                                                 |                 |
| Welding Neck Flanges                    | 150-2500                       | 150-600         | 150-900                                      | 75-900                                          |                 |
| Welding Neck Flanges<br>Ring Joint Type | 150-2500                       | 300-600         | 300-900                                      |                                                 |                 |
| Slip-on Flanges                         | 150-1500                       | 150-600         |                                              |                                                 |                 |
| Slip-on Flanges<br>Ring Joint Type      | 150-1500                       | 300-600         |                                              |                                                 |                 |
| Lap Joint Flanges                       | 150-2500                       |                 |                                              |                                                 |                 |
| Blind Flanges                           | 150-2500                       |                 |                                              | 75-900                                          |                 |
| Socket Welding Flanges                  | 150-1500                       |                 |                                              |                                                 |                 |
| Threaded Flanges                        | 150-2500                       |                 |                                              |                                                 |                 |
| Reducing Flanges                        | 150-2500                       |                 |                                              |                                                 |                 |
| Orifice 1                               |                                |                 |                                              |                                                 | 300-2500        |
| Short Stub Ends 1                       |                                |                 |                                              |                                                 |                 |
| Long Welding Necks 1                    |                                |                 |                                              |                                                 |                 |

**SIZES OVER 60" AVAILABLE ON REQUEST**

\* for flanges from nominal size 26 and above  
1 Flanges of special design on enquiry

# GENERAL SURVEY AND TECHNICAL TERMS OF DELIVERY

## TYPE OF FLANGE

| Nominal Pressure lb/sq. in. | 150<br>10,6<br>104               | 300<br>21,1<br>207 | 400<br>28,1<br>276 | 600<br>42,2<br>414 | 900<br>63,3<br>621 | 1500<br>106<br>1030 | 2500<br>176<br>1726 |
|-----------------------------|----------------------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
| Type of Flange              | From 1/2" to max. Nominal Sizes* |                    |                    |                    |                    |                     |                     |
| Welding Neck Flanges        | 24"                              | 24"                | 24"                | 24"                | 24"                | 24"                 | 12"                 |
| Slip-on Flanges             | 24"                              | 24"                | 24"                | 24"                | 24"                | 2 1/2"              | -                   |
| Lap Joint Flanges           | 24"                              | 24-                | 24"                | 24"                | 24"                | 24"                 | 12"                 |
| Blind Flanges               | 24"                              | 24"                | 24"                | 24"                | 24"                | 24"                 | 12"                 |
| Socket welding Flanges      | 3"                               | 3"                 | -                  | 3"                 | -                  | 2 1/2"              | -                   |
| Threaded Flanges            | 24"                              | 24"                | 24"                | 24"                | 24"                | 12"                 | 12"                 |

\*) for larger flanges than 24- see B. S. 3293, ASME 16.47 Series A and B

### Technical Terms of delivery

Flanges are furnished faced and drilled.  
Flanges are back faced or spot faced according to MSS-SP 9. This applies to spot facing. Flanges are bored to the foreseen dimensions unless otherwise required.

### Additional Remark for Tolerances

(Not covered by ASME B 16.5) Tolerances followed DIN 2512  
Height of Facing  
+- 0,5 mm

### Example of Marking

Flanges are marked as required in ASME B 16.5 with the following datas:  
Manufacturer's name or trade mark  
B 16  
Nominal size  
Primary service pressure  
Material designation  
Heat code  
Schedule No.  
Ring Number only when using Ring Joint Flanges

# DIMENSIONS OF WELDED AND SEAMLESS STEEL PIPE

## ASME B 36.10 / 36.19

| Nominal Pipe Size<br>DN<br>in. | Outside Diameter |      | Wall Thickness                                              |                                                       | Inside Diameter                                             |                                                      | Identification |                  |                                  | Stainless               |
|--------------------------------|------------------|------|-------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------|----------------|------------------|----------------------------------|-------------------------|
|                                | in.              | mm   | in.                                                         | mm                                                    | in.                                                         | mm                                                   | API Standard   | Std.1 XS;XXS     | Schedule Nr.                     |                         |
| 1/8"                           | 0.405            | 10,3 | 0.049<br>0.057<br>0.068<br>0.095                            | 1,24<br>1,45<br>1,73<br>2,41                          | 0.307<br>0.291<br>0.269<br>0.215                            | 7,8<br>7,4<br>6,8<br>5,5                             | 5L<br>5L       | STD<br>XS        | 10<br>30<br>40<br>80             | 10S<br>40S<br>80S       |
| 1/4"                           | 0.540            | 13,7 | 0.065<br>0.073<br>0.088<br>0.119                            | 1,65<br>1,85<br>2,24<br>3,02                          | 0.410<br>0.394<br>0.364<br>0.302                            | 10,4<br>10,0<br>9,2<br>7,7                           | 5L<br>5L       | STD<br>XS        | 10<br>30<br>40<br>80             | 10S<br>40S<br>80S       |
| 3/8"                           | 0.675            | 17,1 | 0.065<br>0.073<br>0.091<br>0.126                            | 1,65<br>1,85<br>2,31<br>3,20                          | 0.545<br>0.529<br>0.493<br>0.423                            | 13,8<br>13,4<br>12,5<br>10,7                         | 5L<br>5L       | STD<br>XS        | 10<br>30<br>40<br>80             | 10S<br>40S<br>80S       |
| 1/2"                           | 0.840            | 21,3 | 0.065<br>0.083<br>0.095<br>0.109<br>0.147<br>0.188<br>0.294 | 1,65<br>2,11<br>2,41<br>2,77<br>3,73<br>4,78<br>7,47  | 0.710<br>0.674<br>0.650<br>0.622<br>0.546<br>0.464<br>0.252 | 18,0<br>17,1<br>16,5<br>15,8<br>13,8<br>11,7<br>6,4  | 5L<br>5L<br>5L | STD<br>XS<br>XXS | 5<br>10<br>30<br>40<br>80<br>160 | 5S<br>10S<br>40S<br>80S |
| 3/4"                           | 1.050            | 26,7 | 0.065<br>0.083<br>0.095<br>0.113<br>0.154<br>0.219<br>0.308 | 1,65<br>2,11<br>2,41<br>2,87<br>3,91<br>5,56<br>7,82  | 0.920<br>0.884<br>0.860<br>0.824<br>0.742<br>0.612<br>0.434 | 23,4<br>22,5<br>21,9<br>21,0<br>18,9<br>15,6<br>11,1 | 5L<br>5L<br>5L | STD<br>XS<br>XXS | 5<br>10<br>30<br>40<br>80<br>160 | 5S<br>10S<br>40S<br>80S |
| 1"                             | 1.315            | 33,4 | 0.065<br>0.109<br>0.114<br>0.133<br>0.179<br>0.250<br>0.358 | 1,65<br>2,77<br>2,90<br>3,38<br>4,55<br>6,35<br>9,09  | 1.185<br>1.097<br>1.087<br>1.049<br>0.957<br>0.815<br>0.599 | 30,1<br>27,9<br>27,6<br>26,6<br>24,3<br>20,7<br>15,2 | 5L<br>5L<br>5L | STD<br>XS<br>XXS | 5<br>10<br>30<br>40<br>80<br>160 | 5S<br>10S<br>40S<br>80S |
| 1 1/4"                         | 1.660            | 42,2 | 0.065<br>0.109<br>0.117<br>0.140<br>0.191<br>0.250<br>0.382 | 1,65<br>2,77<br>2,97<br>3,56<br>4,85<br>6,35<br>9,70  | 1.530<br>1.442<br>1.426<br>1.380<br>1.278<br>1.160<br>0.896 | 38,9<br>36,7<br>36,3<br>35,1<br>32,5<br>29,5<br>22,8 | 5L<br>5L<br>5L | STD<br>XS<br>XXS | 5<br>10<br>30<br>40<br>80<br>160 | 5S<br>10S<br>40S<br>80S |
| 1 1/2"                         | 1.900            | 48,3 | 0.065<br>0.109<br>0.125<br>0.145<br>0.200<br>0.281<br>0.400 | 1,65<br>2,77<br>3,18<br>3,68<br>5,08<br>7,14<br>10,15 | 1.770<br>1.682<br>1.650<br>1.610<br>1.500<br>1.338<br>1.100 | 45,0<br>42,8<br>41,9<br>40,9<br>38,1<br>34,0<br>28,0 | 5L<br>5L<br>5L | STD<br>XS<br>XXS | 5<br>10<br>30<br>40<br>80<br>160 | 5S<br>10S<br>40S<br>80S |
| 2"                             | 2.375            | 60,3 | 0.065<br>0.109<br>0.125<br>0.154<br>0.218<br>0.344<br>0.436 | 1,65<br>2,77<br>3,18<br>3,91<br>5,54<br>8,74<br>11,07 | 2.245<br>2.157<br>2.125<br>2.067<br>1.939<br>1.687<br>1.503 | 57,0<br>54,8<br>53,9<br>52,5<br>49,2<br>42,8<br>38,2 | 5L<br>5L<br>5L | STD<br>XS<br>XXS | 5<br>10<br>30<br>40<br>80<br>160 | 5S<br>10S<br>40S<br>80S |

1 Std. = Standard Wall  
XS = Extra Strong, XXS = Double Extra Strong

# DIMENSIONS OF WELDED AND SEAMLESS STEEL PIPE

## ASME B 36.10 / 36.19

| Nominal Pipe Size<br>DN<br>in. | Outside Diameter |       | Wall Thickness |       | Inside Diameter |       | Identification    |                  |                      | Stain-<br>less |
|--------------------------------|------------------|-------|----------------|-------|-----------------|-------|-------------------|------------------|----------------------|----------------|
|                                | in.              | mm    | in.            | mm    | in.             | mm    | API Stan-<br>dard | Std. 1<br>XS;XXS | Sche-<br>dule<br>Nr. |                |
| 2 1/2"                         | 2.875            | 73,0  | 0.083          | 2,11  | 2.709           | 68,8  |                   |                  | 5                    | 5S             |
|                                |                  |       | 0.120          | 3,05  | 2.635           | 66,9  |                   |                  | 10                   | 10S            |
|                                |                  |       | 0.188          | 4,78  | 2.499           | 63,4  |                   |                  | 30                   |                |
|                                |                  |       | 0.203          | 5,16  | 2.469           | 62,7  | 5L                |                  | 40                   | 40S            |
|                                |                  |       | 0.276          | 7,01  | 2.323           | 59,0  | 5L                | STD              | 80                   | 80S            |
|                                |                  |       | 0.375          | 9,53  | 2.125           | 53,9  |                   |                  | 160                  |                |
|                                |                  |       | 0.552          | 14,02 | 1.771           | 45,0  | 5L                | XXS              |                      |                |
|                                |                  |       |                |       |                 |       |                   |                  |                      |                |
| 3"                             | 3.500            | 88,9  | 0.083          | 2,11  | 3.334           | 84,7  |                   |                  | 5                    | 5S             |
|                                |                  |       | 0.120          | 3,05  | 3.260           | 82,8  |                   |                  | 10                   | 10S            |
|                                |                  |       | 0.125          | 3,18  | 3.250           | 82,5  | 5L                |                  |                      |                |
|                                |                  |       | 0.156          | 3,96  | 3.188           | 81,0  | 5L                |                  |                      |                |
|                                |                  |       | 0.188          | 4,78  | 3.124           | 79,3  | 5L                |                  | 30                   |                |
|                                |                  |       | 0.216          | 5,49  | 3.068           | 77,9  | 5L                | STD              | 40                   | 40S            |
|                                |                  |       | 0.250          | 6,35  | 3.000           | 76,2  | 5L                |                  |                      |                |
|                                |                  |       | 0.281          | 7,14  | 2.938           | 74,6  | 5L                |                  |                      |                |
|                                |                  |       | 0.300          | 7,62  | 2.900           | 73,7  | 5L                | XS               | 80                   | 80S            |
|                                |                  |       | 0.438          | 11,13 | 2.624           | 66,6  |                   |                  | 160                  |                |
|                                |                  |       | 0.600          | 15,24 | 2.300           | 58,4  | 5L                | XXS              |                      |                |
|                                |                  |       |                |       |                 |       |                   |                  |                      |                |
| 3 1/2"                         | 4.000            | 101,6 | 0.083          | 2,11  | 3.834           | 97,4  |                   |                  | 5                    | 5S             |
|                                |                  |       | 0.120          | 3,05  | 3.760           | 95,5  |                   |                  | 10                   | 10S            |
|                                |                  |       | 0.125          | 3,18  | 3.750           | 95,2  | 5L                |                  |                      |                |
|                                |                  |       | 0.156          | 3,96  | 3.688           | 93,7  | 5L                |                  |                      |                |
|                                |                  |       | 0.188          | 4,78  | 3.624           | 92,0  | 5L                |                  | 30                   |                |
|                                |                  |       | 0.226          | 5,74  | 3.548           | 90,1  | 5L                | STD              | 40                   | 40S            |
|                                |                  |       | 0.250          | 6,35  | 3.500           | 88,9  | 5L                |                  |                      |                |
|                                |                  |       | 0.281          | 7,14  | 3.438           | 87,3  | 5L                |                  |                      |                |
|                                |                  |       | 0.318          | 8,08  | 3.364           | 85,4  | 5L                | XS               | 80                   | 80S            |
|                                |                  |       |                |       |                 |       |                   |                  |                      |                |
| 4"                             | 4.500            | 114,3 | 0.083          | 2,11  | 4.334           | 110,1 |                   |                  | 5                    | 5S             |
|                                |                  |       | 0.120          | 3,05  | 4.260           | 108,2 |                   |                  | 10                   | 10S            |
|                                |                  |       | 0.125          | 3,18  | 4.250           | 107,9 | 5L                |                  |                      |                |
|                                |                  |       | 0.156          | 3,96  | 4.188           | 106,4 | 5L                |                  |                      |                |
|                                |                  |       | 0.188          | 4,78  | 4.124           | 104,7 | 5L                |                  | 30                   |                |
|                                |                  |       | 0.219          | 5,56  | 4.062           | 103,2 | 5L                |                  |                      |                |
|                                |                  |       | 0.237          | 6,02  | 4.026           | 102,3 | 5L                | STD              | 40                   | 40S            |
|                                |                  |       | 0.250          | 6,35  | 4.000           | 101,6 | 5L                |                  |                      |                |
|                                |                  |       | 0.281          | 7,14  | 3.938           | 100,0 | 5L                |                  |                      |                |
|                                |                  |       | 0.312          | 7,92  | 3.876           | 98,5  | 5L                |                  |                      |                |
|                                |                  |       | 0.337          | 8,56  | 3.826           | 97,2  | 5L                | XS               | 80                   | 80S            |
|                                |                  |       | 0.438          | 11,13 | 3.624           | 92,0  |                   |                  | 120                  |                |
|                                |                  |       | 0.531          | 13,49 | 3.438           | 87,3  |                   |                  | 160                  |                |
|                                |                  |       | 0.674          | 17,12 | 3.152           | 80,1  | 5L                | XXS              |                      |                |
|                                |                  |       |                |       |                 |       |                   |                  |                      |                |
|                                |                  |       |                |       |                 |       |                   |                  |                      |                |
| 5"                             | 5.563            | 141,3 | 0.109          | 2,77  | 5.345           | 135,8 |                   |                  | 5                    | 5S             |
|                                |                  |       | 0.134          | 3,40  | 5.295           | 134,5 |                   |                  | 10                   | 10S            |
|                                |                  |       | 0.156          | 3,96  | 5.251           | 133,4 | 5L                |                  |                      |                |
|                                |                  |       | 0.188          | 4,78  | 5.187           | 131,7 | 5L                |                  |                      |                |
|                                |                  |       | 0.219          | 5,56  | 5.125           | 130,2 | 5L                |                  |                      |                |
|                                |                  |       | 0.258          | 6,55  | 5.047           | 128,2 | 5L                | STD              | 40                   | 40S            |
|                                |                  |       | 0.281          | 7,14  | 5.001           | 127,0 | 5L                |                  |                      |                |
|                                |                  |       | 0.312          | 7,92  | 4.939           | 125,5 | 5L                |                  |                      |                |
|                                |                  |       | 0.344          | 8,74  | 4.875           | 123,8 | 5L                |                  |                      |                |
|                                |                  |       | 0.375          | 9,53  | 4.813           | 122,2 | 5L                | XS               | 80                   | 80S            |
|                                |                  |       | 0.500          | 12,70 | 4.563           | 115,9 |                   |                  | 120                  |                |
|                                |                  |       | 0.625          | 15,88 | 4.313           | 109,5 |                   |                  | 160                  |                |
|                                |                  |       | 0.750          | 19,05 | 4.063           | 103,2 | 5L                | XXS              |                      |                |
|                                |                  |       |                |       |                 |       |                   |                  |                      |                |
|                                |                  |       |                |       |                 |       |                   |                  |                      |                |
|                                |                  |       |                |       |                 |       |                   |                  |                      |                |

1 Std. = Standard Wall

XS = Extra Strong, XXS = Double Extra Strong

# DIMENSIONS OF WELDED AND SEAMLESS STEEL PIPE

## ASME B 36.10 / 36.19

| Nominal Pipe Size<br>DN<br>in. | Outside Diameter |       | Wall Thickness |       | Inside Diameter |       | Identification |               |              | Stainless |
|--------------------------------|------------------|-------|----------------|-------|-----------------|-------|----------------|---------------|--------------|-----------|
|                                | in               | mm    | in.            | mm    | in.             | mm    | API Standard   | Std. 1 XS;XXS | Schedule Nr. |           |
| 6"                             | 6.625            | 168,3 | 0.109          | 2,77  | 6.407           | 162,8 |                |               | 5            | 5S        |
|                                |                  |       | 0.134          | 3,40  | 6.357           | 161,5 |                |               | 10           | 10S       |
|                                |                  |       | 0.188          | 4,78  | 6.249           | 158,7 | 5L             |               |              |           |
|                                |                  |       | 0.219          | 5,56  | 6.187           | 157,2 | 5L             |               |              |           |
|                                |                  |       | 0.250          | 6,35  | 6.125           | 155,6 | 5L             |               |              |           |
|                                |                  |       | 0.280          | 7,11  | 6.065           | 154,1 | 5L             | STD           | 40           | 40S       |
|                                |                  |       | 0.312          | 7,92  | 6.001           | 152,5 | 5L             |               |              |           |
|                                |                  |       | 0.344          | 8,74  | 5.937           | 150,8 | 5L             |               |              |           |
|                                |                  |       | 0.375          | 9,53  | 5.875           | 149,2 | 5L             |               |              |           |
|                                |                  |       | 0.432          | 10,97 | 5.761           | 146,4 | 5L             | XS            | 80           | 80S       |
|                                |                  |       | 0.562          | 14,27 | 5.501           | 139,8 |                |               | 120          |           |
|                                |                  |       | 0.719          | 18,26 | 5.187           | 131,8 |                |               | 160          |           |
|                                |                  |       | 0.864          | 21,95 | 4,897           | 124,4 | 5L             | XXS           |              |           |
| 8"                             | 8.625            | 219,1 | 0.109          | 2,77  | 8.407           | 213,6 |                |               | 5            | 5S        |
|                                |                  |       | 0.148          | 3,76  | 8.329           | 211,6 |                |               | 10           | 10S       |
|                                |                  |       | 0.188          | 4,78  | 8.249           | 209,5 | 5L             |               |              |           |
|                                |                  |       | 0.219          | 5,56  | 8.187           | 208,0 | 5L             |               |              |           |
|                                |                  |       | 0.250          | 6,35  | 8.125           | 206,4 | 5L             |               |              |           |
|                                |                  |       | 0.277          | 7,04  | 8.071           | 205,0 | 5L             |               | 20           |           |
|                                |                  |       | 0.312          | 7,92  | 8.001           | 203,3 | 5L             |               | 30           |           |
|                                |                  |       | 0.322          | 8,18  | 7.981           | 202,7 | 5L             | STD           | 40           | 40S       |
|                                |                  |       | 0.344          | 8,74  | 7.937           | 201,6 | 5L             |               |              |           |
|                                |                  |       | 0.375          | 9,53  | 7.875           | 200,0 | 5L             |               |              |           |
|                                |                  |       | 0.406          | 10,31 | 7.813           | 198,5 |                |               | 60           |           |
|                                |                  |       | 0.438          | 11,13 | 7.749           | 196,8 | 5L             |               |              |           |
|                                |                  |       | 0.500          | 12,70 | 7.625           | 193,7 | 5L             | XS            | 80           | 80S       |
|                                |                  |       | 0.594          | 15,09 | 7.437           | 188,9 |                |               | 100          |           |
|                                |                  |       | 0.719          | 18,26 | 7.187           | 182,6 |                |               | 120          |           |
|                                |                  |       | 0.812          | 20,62 | 7.001           | 177,9 |                |               | 140          |           |
|                                |                  |       | 0.875          | 22,23 | 6.875           | 174,6 |                |               |              |           |
|                                |                  |       | 0.906          | 23,01 | 6.813           | 173,1 | 5L             | XXS           | 160          |           |
| 10"                            | 10.750           | 273,0 | 0.134          | 3,40  | 10.482          | 266,2 |                |               | 5            | 5S        |
|                                |                  |       | 0.165          | 4,19  | 10.420          | 264,6 |                |               | 10           | 10S       |
|                                |                  |       | 0.188          | 4,78  | 10.374          | 263,4 | 5L             |               |              |           |
|                                |                  |       | 0.219          | 5,56  | 10.312          | 261,9 | 5L             |               |              |           |
|                                |                  |       | 0.250          | 6,35  | 10.250          | 260,3 | 5L             |               | 20           |           |
|                                |                  |       | 0.279          | 7,09  | 10.192          | 258,8 | 5L             |               |              |           |
|                                |                  |       | 0.307          | 7,80  | 10.136          | 257,4 | 5L             |               | 30           |           |
|                                |                  |       | 0.344          | 8,74  | 10.062          | 255,5 | 5L             |               |              |           |
|                                |                  |       | 0.365          | 9,27  | 10.020          | 254,5 | 5L             | STD           | 40           | 40S       |
|                                |                  |       | 0.438          | 11,13 | 9.874           | 250,7 | 5L             |               |              |           |
|                                |                  |       | 0.500          | 12,70 | 9.750           | 247,6 | 5L             | XS            | 60           | 80S       |
|                                |                  |       | 0.594          | 15,09 | 9.562           | 242,8 |                |               | 80           |           |
|                                |                  |       | 0.719          | 18,26 | 9.312           | 236,5 | 5L             |               | 100          |           |
|                                |                  |       | 0.844          | 21,44 | 9.062           | 230,1 |                |               | 120          |           |
|                                |                  |       | 1.000          | 25,40 | 8.750           | 222,2 | 5L             | XXS           | 140          |           |
|                                |                  |       | 1.125          | 28,58 | 8.500           | 215,8 |                |               | 160          |           |
| 12"                            | 12.750           | 323,8 | 0.156          | 3,96  | 12.438          | 315,9 |                |               | 5            | 5S        |
|                                |                  |       | 0.180          | 4,57  | 12.390          | 314,7 |                |               | 10           | 10S       |
|                                |                  |       | 0.203          | 5,16  | 12.344          | 313,5 | 5L             |               |              |           |
|                                |                  |       | 0.219          | 5,56  | 12.312          | 312,7 | 5L             |               |              |           |
|                                |                  |       | 0.250          | 6,35  | 12.250          | 311,1 | 5L             |               | 20           |           |
|                                |                  |       | 0.281          | 7,14  | 12.188          | 309,5 | 5L             |               |              |           |
|                                |                  |       | 0.312          | 7,92  | 12.126          | 308,0 | 5L             |               |              |           |
|                                |                  |       | 0.330          | 8,38  | 12.090          | 307,0 | 5L             |               | 30           |           |
|                                |                  |       | 0.344          | 8,74  | 12.062          | 306,3 | 5L             |               |              |           |

1 Std. = Standard Wall

XS = Extra Strong, XXS = Double Extra Strong

# DIMENSIONS OF WELDED AND SEAMLESS STEEL PIPE

## ASME B 36.10 / 36.19

| Nominal<br>Pipe<br>Size<br>DN<br>in. | Outside Diameter |       | Wall Thickness                                                                                                                                                 |                                                                                                                                                       | Inside Diameter                                                                                                                                                                  |                                                                                                                                                                | Identification                                                                                     |                          |                                                                           | Stain-<br>less |
|--------------------------------------|------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------|----------------|
|                                      | in.              | mm    | in.                                                                                                                                                            | mm                                                                                                                                                    | in.                                                                                                                                                                              | mm                                                                                                                                                             | API<br>Stan-<br>dard                                                                               | Std.1<br>XS;XXS          | Sche-<br>dule<br>Nr.                                                      |                |
| 12"                                  | 12.750           | 323,8 | 0.375<br>0.406<br>0.438<br>0.500<br>0.562<br>0.688<br>0.844<br>1.000<br>1.125<br>1.312                                                                         | 9,53<br>10,31<br>11,13<br>12,70<br>14,27<br>17,48<br>21,44<br>25,40<br>28,58<br>33,32                                                                 | 12.000<br>11.938<br>11.874<br>11.750<br>11.626<br>11.374<br>11.062<br>10.750<br>10.500<br>10.126                                                                                 | 304,7<br>303,2<br>301,5<br>298,4<br>295,3<br>288,8<br>280,9<br>273,0<br>266,6<br>257,2                                                                         | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L                                           | STD<br><br>XS<br><br>XXS | 40<br><br>60<br>80<br>100<br>120<br>140<br>160                            | 40S<br><br>80S |
| 14"                                  | 14.000           | 355,6 | 0.156<br>0.188<br>0.210<br>0.219<br>0.250<br>0.281<br>0.312<br>0.344<br>0.375<br>0.438<br>0.469<br>0.500<br>0.594<br>0.750<br>0.938<br>1.094<br>1.250<br>1.406 | 3,96<br>4,78<br>5,33<br>5,56<br>6,35<br>7,14<br>7,92<br>8,74<br>9,53<br>11,13<br>11,91<br>12,70<br>15,09<br>19,05<br>23,83<br>27,79<br>31,75<br>35,71 | 13.688<br>13.624<br>13.580<br>13.562<br>13.500<br>13.438<br>13.376<br>13.312<br>13.250<br>13.124<br>13.062<br>13.000<br>12.812<br>12.500<br>12.124<br>11.812<br>11.500<br>11.188 | 347,7<br>346,0<br>344,9<br>344,5<br>342,9<br>341,3<br>339,8<br>338,1<br>336,5<br>333,3<br>331,8<br>330,2<br>325,4<br>317,5<br>307,9<br>300,0<br>292,1<br>284,2 | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L | STD<br><br>XS            | 5<br><br>10<br>20<br>30<br>40<br><br>60<br>80<br>100<br>120<br>140<br>160 | 5S<br>10S      |
| 16"                                  | 16.000           | 406,4 | 0.165<br>0.188<br>0.219<br>0.250<br>0.281<br>0.312<br>0.344<br>0.375<br>0.438<br>0.469<br>0.500<br>0.656<br>0.844<br>1.031<br>1.219<br>1.438<br>1.594          | 4,19<br>4,78<br>5,56<br>6,35<br>7,14<br>7,92<br>8,74<br>9,53<br>11,13<br>11,91<br>12,70<br>16,66<br>21,44<br>26,19<br>30,96<br>36,53<br>40,49         | 15.670<br>15.624<br>15.562<br>15.500<br>15.438<br>15.376<br>15.312<br>15.250<br>15.124<br>15.062<br>15.000<br>14.688<br>14.312<br>13.938<br>13.562<br>13.124<br>12.812           | 398,0<br>396,8<br>395,3<br>393,7<br>392,1<br>390,6<br>388,9<br>387,3<br>384,1<br>382,6<br>381,0<br>373,1<br>363,5<br>354,0<br>344,5<br>333,3<br>325,4          | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L       | STD<br><br>XS            | 5<br><br>10<br>20<br>30<br><br>40<br>60<br>80<br>100<br>120<br>140<br>160 | 5S<br>10S      |
| 18"                                  | 18.000           | 457,2 | 0.165<br>0.188<br>0.250<br>0.281<br>0.312<br>0.344<br>0.375<br>0.406<br>0.438<br>0.469                                                                         | 4,19<br>4,78<br>6,35<br>7,14<br>7,92<br>8,74<br>9,53<br>10,31<br>11,13<br>11,91                                                                       | 17.670<br>17.624<br>17.500<br>17.438<br>17.376<br>17.312<br>17.250<br>17.188<br>17.124<br>17.062                                                                                 | 448,8<br>447,6<br>444,5<br>442,9<br>441,4<br>439,7<br>438,1<br>436,6<br>434,9<br>433,4                                                                         | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L                                           | STD                      | 5<br><br>10<br>20<br><br>30                                               | 5S<br>10S      |

1 Std. = Standard Wall

XS = Extra Strong, XXS = Double Extra Strong

# DIMENSIONS OF WELDED AND SEAMLESS STEEL PIPE

## ASME B 36.10 / 36.19

| Nominal Pipe Size<br>DN<br>in. | Outside Diameter |       | Wall Thickness |       | Inside Diameter |       | Identification |              |                                                  | Stainless |
|--------------------------------|------------------|-------|----------------|-------|-----------------|-------|----------------|--------------|--------------------------------------------------|-----------|
|                                | in.              | mm    | in.            | mm    | in.             | mm    | API Standard   | Std.1 XS;XXS | Schedule Nr.                                     |           |
| 18"                            | 18.000           | 457,2 | 0.500          | 12,70 | 17.000          | 431,8 | 5L             | XS           | 40<br>60<br>80<br>100<br>120<br>140<br>160       |           |
|                                |                  |       | 0.562          | 14,27 | 16.876          | 428,7 | 5L             |              |                                                  |           |
|                                |                  |       | 0.750          | 19,05 | 16.500          | 419,1 | 5L             |              |                                                  |           |
|                                |                  |       | 0.938          | 23,83 | 16.124          | 409,5 | 5L             |              |                                                  |           |
|                                |                  |       | 1.156          | 29,36 | 15.688          | 398,5 |                |              |                                                  |           |
|                                |                  |       | 1.375          | 34,93 | 15.250          | 387,3 |                |              |                                                  |           |
|                                |                  |       | 1.562          | 39,67 | 14.876          | 377,9 |                |              |                                                  |           |
|                                |                  |       | 1.781          | 45,24 | 14.438          | 366,7 |                |              |                                                  |           |
| 20"                            | 20.000           | 508,0 | 0.188          | 4,78  | 19.624          | 498,4 |                | STD          | 5<br>10<br>20                                    | 5S<br>10S |
|                                |                  |       | 0.219          | 5,54  | 19.562          | 496,9 | 5L             |              |                                                  |           |
|                                |                  |       | 0.250          | 6,35  | 19.500          | 495,3 | 5L             |              |                                                  |           |
|                                |                  |       | 0.281          | 7,14  | 19.438          | 493,7 | 5L             |              |                                                  |           |
|                                |                  |       | 0.312          | 7,92  | 19.376          | 492,2 | 5L             |              |                                                  |           |
|                                |                  |       | 0.344          | 8,74  | 19.312          | 490,5 | 5L             |              |                                                  |           |
|                                |                  |       | 0.375          | 9,53  | 19.250          | 488,9 | 5L             |              |                                                  |           |
|                                |                  |       | 0.406          | 10,31 | 19.188          | 487,4 | 5L             |              |                                                  |           |
|                                |                  |       | 0.438          | 11,13 | 19.124          | 485,7 | 5L             |              |                                                  |           |
|                                |                  |       | 0.469          | 11,91 | 19.062          | 484,2 | 5L             |              |                                                  |           |
|                                |                  |       | 0.500          | 12,70 | 19.000          | 482,6 | 5L             | XS           | 30<br>40<br>60<br>80<br>100<br>120<br>140<br>160 |           |
|                                |                  |       | 0.594          | 15,09 | 18.812          | 477,8 |                |              |                                                  |           |
|                                |                  |       | 0.812          | 20,62 | 18.376          | 466,8 | 5L             |              |                                                  |           |
|                                |                  |       | 1.031          | 26,19 | 17.938          | 455,6 |                |              |                                                  |           |
|                                |                  |       | 1.281          | 32,54 | 17.438          | 442,9 |                |              |                                                  |           |
|                                |                  |       | 1.500          | 38,10 | 17.000          | 431,8 |                |              |                                                  |           |
|                                |                  |       | 1.750          | 44,45 | 16.500          | 419,1 |                |              |                                                  |           |
|                                |                  |       | 1.969          | 50,01 | 16.062          | 408,0 |                |              |                                                  |           |
| 22"                            | 22.000           | 558,8 | 0.188          | 4,78  | 21.624          | 549,2 |                | STD          | 5<br>10<br>20                                    | 5S<br>10S |
|                                |                  |       | 0.218          | 5,54  | 21.564          | 547,7 | 5L             |              |                                                  |           |
|                                |                  |       | 0.250          | 6,35  | 21.500          | 546,1 | 5L             |              |                                                  |           |
|                                |                  |       | 0.281          | 7,14  | 21.438          | 544,5 | 5L             |              |                                                  |           |
|                                |                  |       | 0.312          | 7,92  | 21.376          | 543,0 | 5L             |              |                                                  |           |
|                                |                  |       | 0.344          | 8,74  | 21.312          | 541,3 | 5L             |              |                                                  |           |
|                                |                  |       | 0.375          | 9,53  | 21.250          | 539,7 | 5L             |              |                                                  |           |
|                                |                  |       | 0.406          | 10,31 | 21.188          | 538,2 | 5L             |              |                                                  |           |
|                                |                  |       | 0.438          | 11,13 | 21.124          | 536,5 | 5L             |              |                                                  |           |
|                                |                  |       | 0.469          | 11,91 | 21.062          | 535,0 | 5L             | XS           | 30<br>60<br>80<br>100<br>120<br>140<br>160       |           |
|                                |                  |       | 0.500          | 12,70 | 21.000          | 533,4 | 5L             |              |                                                  |           |
|                                |                  |       | 0.625          | 15,88 | 20.750          | 527,0 | 5L             |              |                                                  |           |
|                                |                  |       | 0.875          | 22,23 | 20.250          | 514,3 | 5L             |              |                                                  |           |
|                                |                  |       | 1.125          | 28,58 | 19.750          | 501,6 | 5L             |              |                                                  |           |
|                                |                  |       | 1.375          | 34,93 | 19.250          | 488,9 | 5L             |              |                                                  |           |
|                                |                  |       | 1.625          | 41,28 | 18.750          | 476,2 | 5L             |              |                                                  |           |
|                                |                  |       | 1.875          | 47,63 | 18.250          | 463,5 |                |              |                                                  |           |
|                                |                  |       | 2.125          | 53,98 | 17.750          | 450,8 |                |              |                                                  |           |
| 24"                            | 24.000           | 609,6 | 0.218          | 5,54  | 23.564          | 598,5 |                | STD          | 5<br>10<br>20                                    | 5S<br>10S |
|                                |                  |       | 0.250          | 6,35  | 23.500          | 596,9 | 5L             |              |                                                  |           |
|                                |                  |       | 0.281          | 7,14  | 23.438          | 595,3 | 5L             |              |                                                  |           |
|                                |                  |       | 0.312          | 7,92  | 23.376          | 593,8 | 5L             |              |                                                  |           |
|                                |                  |       | 0.344          | 8,74  | 23.312          | 592,1 | 5L             |              |                                                  |           |
|                                |                  |       | 0.375          | 9,53  | 23.250          | 590,5 | 5L             |              |                                                  |           |
|                                |                  |       | 0.406          | 10,31 | 23.188          | 589,0 | 5L             |              |                                                  |           |
|                                |                  |       | 0.438          | 11,13 | 23.124          | 587,3 | 5L             | XS           | 30                                               |           |
|                                |                  |       | 0.469          | 11,91 | 23.062          | 585,8 | 5L             |              |                                                  |           |
|                                |                  |       | 0.500          | 12,70 | 23.000          | 584,2 | 5L             |              |                                                  |           |
|                                |                  |       | 0.562          | 14,27 | 22.876          | 581,1 | 5L             |              |                                                  |           |

# DIMENSIONS OF WELDED AND SEAMLESS STEEL PIPE

## ASME B 36.10 / 36.19

| Nominal Pipe Size DN in. | Outside Diameter |       | Wall Thickness                                                                                  |                                                                                            | Inside Diameter                                                                                            |                                                                                                 | Identification                                                 |                                       |                                                  | Stainless     |
|--------------------------|------------------|-------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------|--------------------------------------------------|---------------|
|                          | in.              | mm    | in.                                                                                             | mm                                                                                         | in.                                                                                                        | mm                                                                                              | API Standard                                                   | Std.1 XS;XXS                          | Schedule Nr.                                     |               |
| 24"                      | 24.000           | 609,6 | 0.688<br>0.969<br>1.219<br>1.531<br>1.812<br>2.062<br>2.344                                     | 17,48<br>24,61<br>30,96<br>38,89<br>46,02<br>52,37<br>59,54                                | 22.624<br>22.062<br>21.562<br>20.938<br>20.376<br>19.876<br>19.312                                         | 574,6<br>560,4<br>547,7<br>531,8<br>517,6<br>504,9<br>490,5                                     | 5L                                                             |                                       | 40<br>60<br>80<br>100<br>120<br>140<br>160       |               |
| 26"                      | 26.000           | 660,4 | 0.250<br>0.281<br>0.312<br>0.344<br>0.375<br>0.406<br>0.438<br>0.469<br>0.500<br>0.562          | 6,35<br>7,14<br>7,92<br>8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>14,27          | 25.500<br>25.438<br>25.376<br>25.312<br>25.250<br>25.188<br>25.124<br>25.062<br>25.000<br>24.876           | 647,7<br>646,1<br>644,6<br>642,9<br>641,3<br>639,8<br>638,1<br>636,6<br>635,0<br>631,9          | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L       | STD<br><br><br><br><br><br><br><br>XS | 10<br><br><br><br><br><br><br><br>20             |               |
| 28"                      | 28.000           | 711,2 | 0.250<br>0.281<br>0.312<br>0.344<br>0.375<br>0.406<br>0.438<br>0.469<br>0.500<br>0.625          | 6,35<br>7,14<br>7,92<br>8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>15,88          | 27.500<br>27.438<br>27.376<br>27.312<br>27.250<br>27.188<br>27.124<br>27.062<br>27.000<br>26.750           | 698,5<br>696,9<br>695,4<br>693,7<br>692,1<br>690,6<br>688,9<br>687,4<br>685,8<br>679,4          | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L       | STD<br><br><br><br><br><br><br><br>XS | 10<br><br><br><br><br><br><br><br>20<br>30       |               |
| 30"                      | 30.000           | 762,0 | 0.250<br>0.281<br>0.312<br>0.344<br>0.375<br>0.406<br>0.438<br>0.469<br>0.500<br>0.625          | 6,35<br>7,14<br>7,92<br>8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>15,88          | 29.500<br>29.438<br>29.376<br>29.312<br>29.250<br>29.188<br>29.124<br>29.062<br>29.000<br>28.750           | 749,3<br>747,7<br>746,2<br>744,5<br>742,9<br>741,4<br>739,7<br>738,2<br>736,6<br>730,2          | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L       | STD<br><br><br><br><br><br><br><br>XS | 5<br>10<br><br><br><br><br><br>20<br>30          | 5S<br><br>10S |
| 32"                      | 32.000           | 812,8 | 0.250<br>0.281<br>0.312<br>0.344<br>0.375<br>0.406<br>0.438<br>0.469<br>0.500<br>0.625<br>0.688 | 6,35<br>7,14<br>7,92<br>8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>15,88<br>17,48 | 31.500<br>31.438<br>31.376<br>31.312<br>31.250<br>31.188<br>31.124<br>31.062<br>31.000<br>30.750<br>30.624 | 800,1<br>798,5<br>797,0<br>795,3<br>793,7<br>792,2<br>790,5<br>789,0<br>787,4<br>781,0<br>777,8 | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L | STD<br><br><br><br><br><br><br><br>XS | 10<br><br><br><br><br><br><br><br>20<br>30<br>40 |               |

1 Std. = Standard Wall

XS = Extra Strong, XXS = Double Extra Strong

# DIMENSIONS OF WELDED AND SEAMLESS STEEL PIPE

## ASME B 36.10 / 36.19

| Nominal<br>Pipe<br>Size<br>DN<br>in. | Outside Diameter |        | Wall Thickness                                                                                           |                                                                                                     | Inside Diameter                                                                                                      |                                                                                                          | Identification                                                       |                                           |                                                      | Stain-<br>less |
|--------------------------------------|------------------|--------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------|----------------|
|                                      | in.              | mm     | in.                                                                                                      | mm                                                                                                  | in.                                                                                                                  | mm                                                                                                       | API<br>Stan-<br>dard                                                 | Std.1<br>XS;<br>XXS                       | Sche-<br>dule<br>Nr.                                 |                |
| 34"                                  | 34.000           | 863,6  | 0.250<br>0.281<br>0.312<br>0.344<br>0.375<br>0.406<br>0.438<br>0.469<br>0.500<br>0.625<br>0.688          | 6,35<br>7,14<br>7,92<br>8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>15,88<br>17,48          | 33.500<br>33.438<br>33.376<br>33.312<br>33.250<br>33.188<br>33.124<br>33.062<br>33.000<br>32.750<br>32.624           | 850,9<br>849,3<br>847,8<br>846,1<br>844,5<br>843,0<br>841,3<br>839,8<br>838,2<br>831,8<br>828,6          | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L       | STD<br><br><br><br><br><br><br><br><br>XS | 10<br><br><br><br><br><br><br><br><br>20<br>30<br>40 |                |
| 36"                                  | 36.000           | 914,4  | 0.250<br>0.281<br>0.312<br>0.344<br>0.375<br>0.406<br>0.438<br>0.469<br>0.500<br>0.562<br>0.625<br>0.750 | 6,35<br>7,14<br>7,92<br>8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>14,27<br>15,88<br>19,05 | 35.500<br>35.438<br>35.376<br>35.312<br>35.250<br>35.188<br>35.124<br>35.062<br>35.000<br>34.876<br>34.750<br>34.500 | 901,7<br>900,1<br>898,6<br>896,9<br>895,3<br>893,8<br>892,1<br>890,6<br>889,0<br>885,9<br>882,6<br>876,3 | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L | STD<br><br><br><br><br><br><br><br><br>XS | 10<br><br><br><br><br><br><br><br><br>20<br>30<br>40 |                |
| 38"                                  | 38.000           | 965,2  | 0.312<br>0.344<br>0.375<br>0.406<br>0.438<br>0.469<br>0.500<br>0.562<br>0.625<br>0.688<br>0.750          | 7,92<br>8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>14,27<br>15,88<br>17,48<br>19,05        | 37.376<br>37.312<br>37.250<br>37.188<br>37.124<br>37.062<br>37.000<br>36.876<br>36.750<br>36.624<br>36.500           | 949,4<br>947,7<br>946,1<br>944,6<br>942,9<br>941,4<br>939,8<br>936,7<br>933,4<br>930,2<br>927,1          | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L       | STD<br><br><br><br><br><br><br><br><br>XS |                                                      |                |
| 40"                                  | 40.000           | 1016,0 | 0.312<br>0.344<br>0.375<br>0.406<br>0.438<br>0.469<br>0.500<br>0.562<br>0.625<br>0.688<br>0.750          | 7,92<br>8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>14,27<br>15,88<br>17,48<br>19,05        | 39.376<br>39.312<br>39.250<br>39.188<br>39.124<br>39.062<br>39.000<br>38.876<br>38.750<br>38.624<br>38.500           | 1000,2<br>998,5<br>996,9<br>995,4<br>993,7<br>992,2<br>990,6<br>987,5<br>984,2<br>981,0<br>977,9         | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L       | STD<br><br><br><br><br><br><br><br><br>XS |                                                      |                |
| 42"                                  | 42.000           | 1066,8 | 0.344<br>0.375<br>0.406<br>0.438<br>0.469<br>0.500<br>0.562<br>0.625<br>0.688<br>0.750                   | 8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>14,27<br>15,88<br>17,48<br>19,05                | 41.312<br>41.250<br>41.188<br>41.124<br>41.062<br>41.000<br>40.876<br>40.750<br>40.624<br>40.500                     | 1049,3<br>1047,7<br>1046,2<br>1044,5<br>1043,0<br>1041,4<br>1038,3<br>1035,0<br>1031,8<br>1028,7         | 5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L<br>5L             | STD<br><br><br><br><br><br><br><br><br>XS |                                                      |                |

1 Std. = Standard Wall  
XS = Extra Strong, XXS = Double Extra Strong

# DIMENSIONS OF WELDED AND SEAMLESS STEEL PIPE

## ASME B 36.10 / 36.19

| Nominal<br>Pipe<br>Size<br>DN<br>in. | Outside Diameter |        | Wall Thickness                                                                                                                                                 |                                                                                                                                                              | Inside Diameter                                                                                                                                                                  |                                                                                                                                                                                  | Identification                                                      |                 |                      | Stain-<br>less |
|--------------------------------------|------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------|----------------------|----------------|
|                                      | in.              | mm     | in.                                                                                                                                                            | mm                                                                                                                                                           | in.                                                                                                                                                                              | mm                                                                                                                                                                               | API<br>Stan-<br>dard                                                | Std.1<br>XS;XXS | Sche-<br>dule<br>Nr. |                |
| 44"                                  | 44.000           | 1117,6 | 0.344<br>0.375<br>0.406<br>0.438<br>0.469<br>0.500<br>0.562<br>0.625<br>0.688<br>0.750<br>0.812<br>0.875<br>0.938<br>1.000<br>1.062<br>1.125<br>1.188<br>1.250 | 8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>14,27<br>15,88<br>17,48<br>19,05<br>20,62<br>22,23<br>23,83<br>25,40<br>26,97<br>28,58<br>30,18<br>31,75 | 43.312<br>43.250<br>43.188<br>43.124<br>43.062<br>43.000<br>42.876<br>42.750<br>42.624<br>42.500<br>40.376<br>40.250<br>40.124<br>40.000<br>39.876<br>39.750<br>39.624<br>39.500 | 1100,1<br>1098,5<br>1097,0<br>1095,3<br>1093,8<br>1092,2<br>1089,1<br>1085,8<br>1082,6<br>1079,5<br>1076,4<br>1073,1<br>1069,9<br>1066,8<br>1063,7<br>1060,4<br>1057,2<br>1054,1 | 5L<br><br>STD<br><br><br><br><br><br><br>XS<br>5L<br>5L<br>5L<br>5L |                 |                      |                |
| 46"                                  | 46.000           | 1168,0 | 0.344<br>0.375<br>0.406<br>0.438<br>0.459<br>0.500<br>0.562<br>0.625<br>0.688<br>0.750<br>0.812<br>0.875<br>0.938<br>1.000<br>1.062<br>1.125<br>1.188<br>1.250 | 8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>14,27<br>15,88<br>17,48<br>19,05<br>20,62<br>22,23<br>23,83<br>25,40<br>26,97<br>28,58<br>30,18<br>31,75 | 45.312<br>45.250<br>45.188<br>45.124<br>45.082<br>45.000<br>44.876<br>44.750<br>44.624<br>44.500<br>44.376<br>44.250<br>44.124<br>44.000<br>43.876<br>43.750<br>43.624<br>43.500 | 1150,5<br>1148,9<br>1147,4<br>1145,7<br>1144,2<br>1142,6<br>1139,5<br>1136,2<br>1133,0<br>1129,9<br>1126,8<br>1123,5<br>1120,3<br>1117,2<br>1114,1<br>1110,8<br>1107,6<br>1104,5 | <br><br>STD<br><br><br><br><br><br><br>XS<br><br><br><br><br>       |                 |                      |                |
| 48"                                  | 48.000           | 1219,0 | 0.344<br>0.375<br>0.406<br>0.438<br>0.469<br>0.500<br>0.562<br>0.625<br>0.688<br>0.750<br>0.812<br>0.875<br>0.938<br>1.000<br>1.062<br>1.125<br>1.188<br>1.250 | 8,74<br>9,53<br>10,31<br>11,13<br>11,91<br>12,70<br>14,27<br>15,88<br>17,48<br>19,05<br>20,62<br>22,23<br>23,83<br>25,40<br>26,97<br>28,58<br>30,18<br>31,75 | 47.312<br>47.250<br>47.188<br>47.124<br>47.062<br>47.000<br>46.876<br>46.750<br>46.624<br>46.500<br>46.376<br>46.250<br>46.124<br>46.000<br>45.876<br>45.750<br>45.624<br>45.500 | 1201,5<br>1199,9<br>1198,4<br>1196,7<br>1195,2<br>1193,6<br>1190,5<br>1187,2<br>1184,0<br>1180,9<br>1177,8<br>1174,5<br>1171,3<br>1168,2<br>1165,1<br>1161,8<br>1158,6<br>1155,5 | <br><br>STD<br><br><br><br><br><br><br>XS<br><br><br><br><br>       |                 |                      |                |

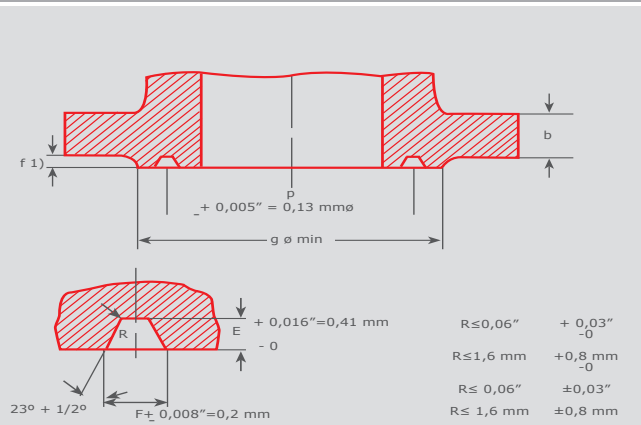
1 Std. = Standard Wall  
XS = Extra Strong, XXS = Double Extra Strong

# DIMENSIONS OF WELDED AND SEAMLESS STEEL PIPE

## ASME B 36.10 / 36.19

| Nominal Pipe Size<br>DN<br>in. | Outside Diameter |        | Wall Thickness |       | Inside Diameter |        | Identification |             |              | Stainless |
|--------------------------------|------------------|--------|----------------|-------|-----------------|--------|----------------|-------------|--------------|-----------|
|                                | in.              | mm     | in.            | mm    | in.             | mm     | API Standard   | Std. XS;XXS | Schedule Nr. |           |
| 52"                            | 52,000           | 1321,0 | 0.375          | 9,53  | 51.250          | 1301,9 |                |             |              |           |
|                                |                  |        | 0.406          | 10,31 | 51.188          | 1300,4 |                |             |              |           |
|                                |                  |        | 0.438          | 11,13 | 51.124          | 1298,7 |                |             |              |           |
|                                |                  |        | 0.469          | 11,91 | 51.062          | 1297,2 |                |             |              |           |
|                                |                  |        | 0.500          | 12,70 | 51.000          | 1295,6 |                |             |              |           |
|                                |                  |        | 0.562          | 14,27 | 50.876          | 1292,5 |                |             |              |           |
|                                |                  |        | 0.625          | 15,88 | 50.750          | 1289,2 |                |             |              |           |
|                                |                  |        | 0.688          | 17,48 | 50.624          | 1286,0 |                |             |              |           |
|                                |                  |        | 0.750          | 19,05 | 50.500          | 1282,9 |                |             |              |           |
|                                |                  |        | 0.812          | 20,62 | 50.376          | 1279,8 |                |             |              |           |
|                                |                  |        | 0.875          | 22,23 | 50.250          | 1276,5 |                |             |              |           |
|                                |                  |        | 0.938          | 23,83 | 50.124          | 1273,3 |                |             |              |           |
|                                |                  |        | 1.000          | 25,40 | 50.000          | 1270,2 |                |             |              |           |
|                                |                  |        | 1.062          | 26,97 | 49.876          | 1267,1 |                |             |              |           |
|                                |                  |        | 1.125          | 28,58 | 49.750          | 1263,8 |                |             |              |           |
|                                |                  |        | 1.188          | 30,18 | 49.624          | 1260,6 |                |             |              |           |
|                                |                  |        | 1.250          | 31,75 | 49.500          | 1257,5 |                |             |              |           |
| 56"                            | 56.000           | 1422,0 | 0.375          | 9,53  | 55.250          | 1402,9 |                |             |              |           |
|                                |                  |        | 0.406          | 10,31 | 55.188          | 1401,4 |                |             |              |           |
|                                |                  |        | 0.438          | 11,13 | 55.124          | 1399,7 |                |             |              |           |
|                                |                  |        | 0.469          | 11,91 | 55.062          | 1398,2 |                |             |              |           |
|                                |                  |        | 0.500          | 12,70 | 55.000          | 1396,6 |                |             |              |           |
|                                |                  |        | 0.562          | 14,27 | 54.876          | 1393,5 |                |             |              |           |
|                                |                  |        | 0.625          | 15,88 | 54.750          | 1390,2 |                |             |              |           |
|                                |                  |        | 0.688          | 17,48 | 54.624          | 1387,0 |                |             |              |           |
|                                |                  |        | 0.750          | 19,05 | 54.500          | 1383,9 |                |             |              |           |
|                                |                  |        | 0.812          | 20,62 | 54.376          | 1380,8 |                |             |              |           |
|                                |                  |        | 0.875          | 22,23 | 54.250          | 1377,5 |                |             |              |           |
|                                |                  |        | 0.938          | 23,83 | 54.124          | 1374,3 |                |             |              |           |
|                                |                  |        | 1.000          | 25,40 | 54.000          | 1371,2 |                |             |              |           |
|                                |                  |        | 1.062          | 26,97 | 53.876          | 1368,1 |                |             |              |           |
|                                |                  |        | 1.125          | 28,58 | 53.750          | 1364,8 |                |             |              |           |
|                                |                  |        | 1.188          | 30,18 | 53.624          | 1361,6 |                |             |              |           |
|                                |                  |        | 1.250          | 31,75 | 53.500          | 1358,5 |                |             |              |           |
| 60"                            | 60.000           | 1524,0 | 0.375          | 9,53  | 59.250          | 1504,9 |                |             |              |           |
|                                |                  |        | 0.406          | 10,31 | 59.188          | 1503,4 |                |             |              |           |
|                                |                  |        | 0.438          | 11,13 | 59.124          | 1501,7 |                |             |              |           |
|                                |                  |        | 0.469          | 11,91 | 59.062          | 1500,2 |                |             |              |           |
|                                |                  |        | 0.500          | 12,70 | 59.000          | 1498,6 |                |             |              |           |
|                                |                  |        | 0.562          | 14,27 | 58.876          | 1495,5 |                |             |              |           |
|                                |                  |        | 0.625          | 15,88 | 58.750          | 1492,2 |                |             |              |           |
|                                |                  |        | 0.688          | 17,48 | 58.624          | 1489,0 |                |             |              |           |
|                                |                  |        | 0.750          | 19,05 | 58.500          | 1485,9 |                |             |              |           |
|                                |                  |        | 0.812          | 20,62 | 58.376          | 1482,8 |                |             |              |           |
|                                |                  |        | 0.875          | 22,23 | 58.250          | 1479,5 |                |             |              |           |
|                                |                  |        | 0.938          | 23,83 | 58.124          | 1476,3 |                |             |              |           |
|                                |                  |        | 1.000          | 25,40 | 58.000          | 1473,2 |                |             |              |           |
|                                |                  |        | 1.062          | 26,97 | 57.876          | 1470,1 |                |             |              |           |
|                                |                  |        | 1.125          | 28,58 | 57.750          | 1466,8 |                |             |              |           |
|                                |                  |        | 1.188          | 30,18 | 57.624          | 1463,6 |                |             |              |           |
|                                |                  |        | 1.250          | 31,75 | 57.500          | 1460,5 |                |             |              |           |





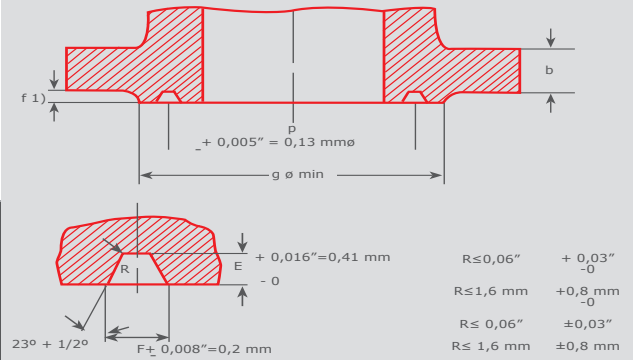
# RING JOINT FACINGS

## ASME B 16.5

| Nominal Size<br>DN   |                      |                                                      |                      |                                                       |                       |                       | Ring<br>Num-<br>ber | Groove Dimensions<br>in./ mm |              |               |                    | Diameter Raised Face<br>in./ mm<br>g |                             |                      |                       |                       |
|----------------------|----------------------|------------------------------------------------------|----------------------|-------------------------------------------------------|-----------------------|-----------------------|---------------------|------------------------------|--------------|---------------|--------------------|--------------------------------------|-----------------------------|----------------------|-----------------------|-----------------------|
| 150<br>lb/sq.<br>in. | 300<br>lb/sq.<br>in. | 400<br>lb/sq.<br>in.                                 | 600<br>lb/sq.<br>in. | 900<br>lb/sq.<br>in.                                  | 1500<br>lb/sq.<br>in. | 2500<br>lb/sq.<br>in. |                     | Pitch<br>Diam-<br>eter       | Depth        | Width         | Radius a<br>Bottom | 150<br>lb/sq.<br>in.                 | 300<br>400<br>600<br>lb/sq. | 900<br>lb/sq.<br>in. | 1500<br>lb/sq.<br>in. | 2500<br>lb/sq.<br>in. |
|                      |                      |                                                      |                      |                                                       |                       |                       |                     | P                            | E            | F             | R                  |                                      |                             |                      |                       |                       |
|                      | 1/2"                 | For sizes 1/2" to 3 1/2" data for 600 lb to be used. | 1/2"                 | For sizes 1/2" to 2 1/2" data for 1500 lb to be used. |                       |                       | R11                 | 1,344<br>34,1                | 0,219<br>5,6 | 0,281<br>7,1  | 0,03<br>0,8        |                                      | 2,00<br>50,8                |                      |                       |                       |
|                      |                      |                                                      |                      |                                                       | 1/2"                  |                       | R12                 | 1,562<br>39,7                | 0,250<br>6,4 | 0,344<br>8,7  | 0,03<br>0,8        |                                      |                             |                      | 2,38<br>60,5          |                       |
|                      | 3/4"                 |                                                      | 3/4"                 |                                                       |                       | 1/2"                  | R13                 | 1,688<br>42,9                | 0,250<br>6,4 | 0,344<br>8,7  | 0,03<br>0,8        |                                      | 2,50<br>63,5                |                      |                       | 2,56<br>65,0          |
|                      |                      |                                                      |                      |                                                       | 3/4"                  |                       | R14                 | 1,750<br>44,5                | 0,250<br>6,4 | 0,344<br>8,7  | 0,03<br>0,8        |                                      |                             |                      | 2,62<br>66,5          |                       |
| 1"                   |                      |                                                      |                      |                                                       |                       |                       | R15                 | 1,875<br>47,6                | 0,250<br>6,4 | 0,344<br>8,7  | 0,03<br>0,8        | 2,50<br>63,5                         |                             |                      |                       |                       |
|                      | 1"                   |                                                      | 1"                   |                                                       | 1"                    | 3/4"                  | R16                 | 2,000<br>50,8                | 0,250<br>6,4 | 0,344<br>8,7  | 0,03<br>0,8        |                                      | 2,75<br>69,9                |                      | 2,81<br>71,4          | 2,88<br>73,2          |
| 1 1/4"               |                      |                                                      |                      |                                                       |                       |                       | R17                 | 2,250<br>57,2                | 0,250<br>6,4 | 0,344<br>8,7  | 0,03<br>0,8        | 2,88<br>73,2                         |                             |                      |                       |                       |
|                      | 1 1/4"               |                                                      | 1 1/4"               |                                                       | 1 1/4"                | 1"                    | R18                 | 2,375<br>60,3                | 0,250<br>6,4 | 0,344<br>8,7  | 0,03<br>0,8        |                                      | 3,12<br>79,2                |                      | 3,19<br>81,0          | 3,25<br>82,6          |
| 1 1/2"               |                      |                                                      |                      |                                                       |                       |                       | R19                 | 2,562<br>65,1                | 0,250<br>6,4 | 0,344<br>8,7  | 0,03<br>0,8        | 3,25<br>82,5                         |                             |                      |                       |                       |
|                      | 1 1/2"               |                                                      | 1 1/2"               |                                                       | 1 1/2"                |                       | R20                 | 2,688<br>68,3                | 0,250<br>6,4 | 0,344<br>8,7  | 0,03<br>0,8        |                                      | 3,55<br>90,4                |                      | 3,62<br>91,9          |                       |
|                      |                      |                                                      |                      |                                                       |                       | 1 1/4"                | R21                 | 2,844<br>72,2                | 0,312<br>7,9 | 0,469<br>11,9 | 0,03<br>0,8        |                                      |                             |                      |                       | 4,00<br>101,6         |
| 2"                   |                      |                                                      |                      |                                                       |                       |                       | R22                 | 3,250<br>82,6                | 0,250<br>6,4 | 0,344<br>8,7  | 0,03<br>0,8        | 4,00<br>101,6                        |                             |                      |                       |                       |
|                      | 2"                   |                                                      | 2"                   |                                                       | 1 1/2"                |                       | R23                 | 3,250<br>82,6                | 0,312<br>7,9 | 0,469<br>11,9 | 0,03<br>0,8        |                                      | 4,25<br>108,0               |                      |                       | 4,50<br>114,3         |
|                      |                      |                                                      |                      |                                                       | 2"                    |                       | R24                 | 3,750<br>95,3                | 0,312<br>7,9 | 0,469<br>11,9 | 0,03<br>0,8        |                                      |                             |                      | 4,88<br>124,0         |                       |
| 2 1/2"               |                      |                                                      |                      |                                                       |                       |                       | R25                 | 4,000<br>101,6               | 0,250<br>6,4 | 0,344<br>8,7  | 0,03<br>0,8        | 4,75<br>120,7                        |                             |                      |                       |                       |
|                      | 2 1/2"               |                                                      | 2 1/2"               |                                                       | 2"                    |                       | R26                 | 4,000<br>101,6               | 0,312<br>7,9 | 0,469<br>11,9 | 0,03<br>0,8        |                                      | 5,00<br>127,0               |                      |                       | 5,25<br>133,4         |
|                      |                      |                                                      |                      |                                                       | 2 1/2"                |                       | R27                 | 4,250<br>108,0               | 0,312<br>7,9 | 0,469<br>11,9 | 0,03<br>0,8        |                                      |                             |                      | 5,38<br>136,7         |                       |
|                      |                      |                                                      |                      |                                                       | 2 1/2"                |                       | R28                 | 4,375<br>111,1               | 0,375<br>9,5 | 0,531<br>13,5 | 0,06<br>1,5        |                                      |                             |                      |                       | 5,88<br>149,4         |

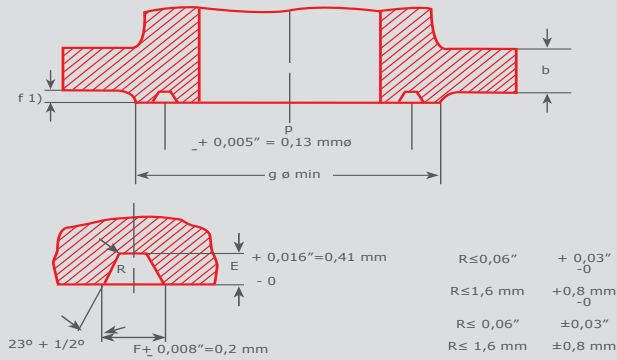
# RING JOINT FACINGS

## ASME B 16.5



| Nominal Size<br>DN   |                      |                                                      |                      |                      |                       |                       | Ring<br>Num-<br>ber | Groove Dimensions<br>in./ mm |                |                 |                             | Diameter of Raised Face<br>in./ mm<br>g |                                    |                      |                       |                       |
|----------------------|----------------------|------------------------------------------------------|----------------------|----------------------|-----------------------|-----------------------|---------------------|------------------------------|----------------|-----------------|-----------------------------|-----------------------------------------|------------------------------------|----------------------|-----------------------|-----------------------|
| 150<br>lb/sq.<br>in. | 300<br>lb/sq.<br>in. | 400<br>lb/sq.<br>in.                                 | 600<br>lb/sq.<br>in. | 900<br>lb/sq.<br>in. | 1500<br>lb/sq.<br>in. | 2500<br>lb/sq.<br>in. |                     | Pitch<br>Diameter<br>p       | Depth<br>E     | Width<br>F      | Radius<br>at<br>Bottom<br>R | 150<br>lb/sq.<br>in.                    | 300<br>400<br>600<br>lb/sq.<br>in. | 900<br>lb/sq.<br>in. | 1500<br>lb/sq.<br>in. | 2500<br>lb/sq.<br>in. |
| 3"                   |                      | For sizes 1/2" to 3 1/2" data for 600 lb to be used. |                      |                      |                       |                       | R29                 | 4,500<br>114,3               | 0,250<br>6,4   | 0,344<br>8,7    | 0,03<br>0,8                 | 5,25<br>133,4                           |                                    |                      |                       |                       |
|                      | *)                   |                                                      | *)                   |                      |                       |                       | R30                 | 4,625<br>117,5               | 0,312<br>7,9   | 0,469<br>11,9   | 0,03<br>0,8                 |                                         |                                    |                      |                       |                       |
|                      | *)3"                 |                                                      | *)3"                 | 3"                   |                       |                       | R31                 | 4,875<br>123,8               | 0,312<br>7,9   | 0,469<br>1,9    | 0,03<br>0,8                 |                                         | 5,75<br>146,1                      | 6,12<br>155,4        |                       |                       |
|                      |                      |                                                      |                      |                      |                       | 3"                    | R32                 | 5,000<br>127,0               | 0,375<br>9,5   | 0,531<br>13,5   | 0,06<br>1,5                 |                                         |                                    |                      |                       | 6,62<br>168,1         |
| 3 1/2"               |                      |                                                      |                      |                      |                       |                       | R33                 | 5,188<br>131,8               | 0,250 I<br>6,4 | 0,344<br>8,7    | 0,03<br>0,8                 | 6,06<br>153,9                           |                                    |                      |                       |                       |
|                      | 3 1/2"               |                                                      | 3 1/2"               |                      |                       |                       | R34                 | 5,188<br>131,8               | 0,312<br>7,9   | 0,469<br>11,9   | 0,03<br>0,8                 |                                         | 6,25<br>158,8                      |                      |                       |                       |
|                      |                      |                                                      |                      |                      | 3"                    |                       | R35                 | 5,375<br>136,5               | 0,312<br>7,9   | 0,469<br>11,9   | 0,03<br>0,8                 |                                         |                                    |                      | 6,62<br>168,1         |                       |
| 4"                   |                      |                                                      |                      |                      |                       |                       | R36                 | 5,875<br>149,2               | 0,250<br>6,4   | 0,344<br>8,7    | 0,03<br>0,8                 | 6,75<br>171,5                           |                                    |                      |                       |                       |
|                      | 4"                   | 4"                                                   | 4"                   | 4"                   |                       |                       | R37                 | 5,875<br>149,2               | 0,312<br>7,9   | 0,469<br>11,9   | 0,03<br>0,8                 |                                         | 6,88<br>174,8                      | 7,12<br>180,8        |                       |                       |
|                      |                      |                                                      |                      |                      |                       | 4"                    | R38                 | 6,188<br>157,2               | 0,438<br>11,1  | 0,656<br>16,7   | 0,06<br>1,5                 |                                         |                                    |                      |                       | 8,00<br>203,2         |
|                      |                      |                                                      |                      |                      | 4"                    |                       | R39                 | 6,375<br>161,9               | 0,312<br>7,9   | 0,469 I<br>11,9 | 0,03<br>0,8                 |                                         |                                    |                      | 7,62<br>193,5         |                       |
| 5"                   |                      |                                                      |                      |                      |                       |                       | R40                 | 6,750<br>171,5               | 0,250<br>6,4   | 0,344<br>8,7    | 0,03<br>0,8                 | 7,62<br>193,5                           |                                    |                      |                       |                       |
|                      | 5"                   | 5"                                                   | 5"                   | 5"                   |                       |                       | R41                 | 7,125<br>181,0               | 0,312<br>7,9   | 0,469<br>11,9   | 0,03<br>0,8                 |                                         | 8,25<br>209,5                      | 8,50<br>215,9        |                       |                       |
|                      |                      |                                                      |                      |                      |                       | 5"                    | R42                 | 7,500<br>190,5               | 0,500<br>22,0  | 0,781<br>19,8   | 0,06<br>1,5                 |                                         |                                    |                      |                       | 9,50<br>241,3         |
| 6"                   |                      |                                                      |                      |                      |                       |                       | R43                 | 7,625<br>193,7               | 0,250<br>6,4   | 0,344<br>8,7    | 0,03<br>0,8                 | 8,62<br>218,9                           |                                    |                      |                       |                       |
|                      |                      |                                                      |                      |                      | 5"                    |                       | R44                 | 7,625<br>193,7               | 0,312<br>7,9   | 0,469 I<br>11,9 | 0,03<br>0,8                 |                                         |                                    |                      | 9,00<br>228,6         |                       |
|                      | 6"                   | 6"                                                   | 6"                   | 6"                   |                       |                       | R45                 | 8,312<br>211,1               | 0,312<br>7,9   | 0,469<br>11,9   | 0,03<br>0,8                 |                                         | 9,50<br>241,3                      | 9,50<br>241,3        |                       |                       |

\*) For ring joint with lapped flanges in the 300 and 600 lb standards ring and groove number R30 are used instead of R31.



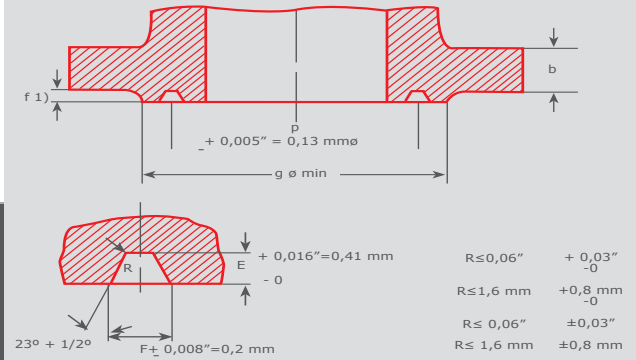
## RING JOINT FACINGS

### ASME B 16.5

| Nominal Size<br>DN     |                     |                      |                      |                      |                       |                       | Ring<br>Num-<br>ber<br><br>p | Groove Dimensions<br>in./mm |                |                |                        | Diameter of Raised Face<br>in./ mm<br>g |                                    |                      |                       |                       |
|------------------------|---------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|------------------------------|-----------------------------|----------------|----------------|------------------------|-----------------------------------------|------------------------------------|----------------------|-----------------------|-----------------------|
| 150<br>lb/sq. I<br>in. | 300<br>b/sq.<br>in. | 400<br>lb/sq.<br>in. | 600<br>lb/sq.<br>in. | 900<br>lb/sq.<br>in. | 1500<br>lb/sq.<br>in. | 2500<br>lb/sq.<br>in. |                              | Pitch<br>Dia-<br>meter<br>E | Depth<br>F     | Width<br>R     | Radius<br>at<br>Bottom | 150<br>lb/sq.<br>in.                    | 300<br>400<br>600<br>lb/sq.<br>in. | 900<br>lb/sq.<br>in. | 1500<br>lb/sq.<br>in. | 2500<br>lb/sq.<br>in. |
|                        |                     |                      |                      |                      | 6"                    |                       | R46                          | 8,312<br>211,1              | 0,375<br>9,5   | 10,531<br>13,5 | 0,06<br>1,5            |                                         |                                    |                      | 9,75<br>247,7         |                       |
|                        |                     |                      |                      |                      |                       | 6"                    | R47                          | 9,000<br>228,6              | 0,500<br>12,7  | 0,781<br>19,8  | 0,06<br>1,5            |                                         |                                    |                      |                       | 11,00<br>279,4        |
| 8"                     |                     |                      |                      |                      |                       |                       | R48                          | 9,750<br>247,7              | 0,250<br>6,4   | 0,344<br>8,7   | 0,03<br>0,8            | 10,75<br>273,1                          |                                    |                      |                       |                       |
|                        | 8"                  | 8"                   | 8"                   | 8"                   |                       |                       | R49                          | 10,625<br>269,9             | 10,312<br>7,9  | 0,469<br>11,9  | 0,03<br>0,8            |                                         | 11,88<br>301,8                     | 12,12<br>307,8       |                       |                       |
|                        |                     |                      |                      |                      | 8"                    |                       | R50                          | 10,625<br>269,9             | 0,438<br>11,1  | 0,656<br>16,7  | 0,06<br>1,5            |                                         |                                    |                      | 12,50<br>317,5        |                       |
|                        |                     |                      |                      |                      |                       | 8"                    | R51                          | 11,000<br>279,4             | 0,562<br>14,3  | 0,906<br>23,0  | 0,06<br>1,5            |                                         |                                    |                      |                       | 13,38<br>339,9        |
| 10"                    |                     |                      |                      |                      |                       |                       | R52                          | 12,000<br>304,8             | 0,250<br>6,4   | 0,344<br>8,7   | 0,03<br>0,8            | 13,00<br>330,2                          |                                    |                      |                       |                       |
|                        | 10"                 | 10"                  | 10"                  | 10"                  |                       |                       | R53                          | 12,750<br>323,9             | 0,312<br>7,9   | 0,469<br>11,9  | 0,03<br>0,8            |                                         | 14,00<br>355,6                     | 14,25<br>362,0       |                       |                       |
|                        |                     |                      |                      |                      | 10"                   |                       | R54                          | 12,750<br>323,9             | 0,438<br>11,1  | 0,656<br>16,7  | 0,06<br>1,5            |                                         |                                    |                      | 14,62<br>371,3        |                       |
|                        |                     |                      |                      |                      |                       | 10"                   | R55                          | 13,500<br>342,9             | 0,688<br>17,5  | 1,188<br>30,2  | 0,09<br>2,3            |                                         |                                    |                      |                       | 16,75<br>425,5        |
| 12"                    |                     |                      |                      |                      |                       |                       | R56                          | 15,000<br>381,0             | 10,250<br>6,4  | 0,344<br>8,7   | 0,03<br>0,8            | 16,00<br>406,4                          |                                    |                      |                       |                       |
|                        | 12"                 | 12"                  | 12"                  | 12"                  |                       |                       | R57                          | 15,000<br>381,0             | 0,312<br>7,9   | 0,469<br>11,9  | 0,03<br>0,8            |                                         | 16,25<br>412,8                     | 16,50<br>419,1       |                       |                       |
|                        |                     |                      |                      |                      | 12"                   |                       | R58                          | 15,000<br>381,0             | 0,562<br>14,3  | 0,906<br>23,0  | 0,06<br>1,5            |                                         |                                    |                      | 17,25<br>438,2        |                       |
| 14"                    |                     |                      |                      |                      |                       |                       | R59                          | 15,625<br>396,9             | 0,250<br>6,4   | 0,344<br>8,7   | 0,03<br>0,8            | 16,75<br>425,5                          |                                    |                      |                       |                       |
|                        |                     |                      |                      |                      |                       | 12"                   | R60                          | 16,000<br>406,4             | 0,688<br>17,5  | 1,312<br>33,3  | 0,09<br>2,3            |                                         |                                    |                      |                       | 19,50<br>495,3        |
|                        | 14"                 | 14"                  | 14"                  |                      |                       |                       | R61                          | 16,500<br>419,1             | 0,312<br>7,9   | 0,469<br>11,9  | 0,03<br>0,8            |                                         | 18,00<br>457,2                     |                      |                       |                       |
|                        |                     |                      |                      | 14"                  |                       |                       | R62                          | 16,500<br>419,1             | 10,438<br>11,1 | 0,656<br>16,7  | 0,06<br>1,5            |                                         |                                    | 18,38<br>466,9       |                       |                       |
|                        |                     |                      |                      |                      | 14"                   |                       | R63                          | 16,500<br>419,1             | 0,625<br>15,9  | 1,062<br>27,0  | 0,09<br>2,3            |                                         |                                    |                      | 19,25<br>489,0        |                       |

# RING JOINT FACINGS

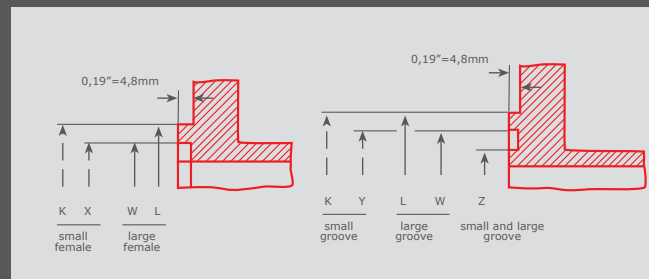
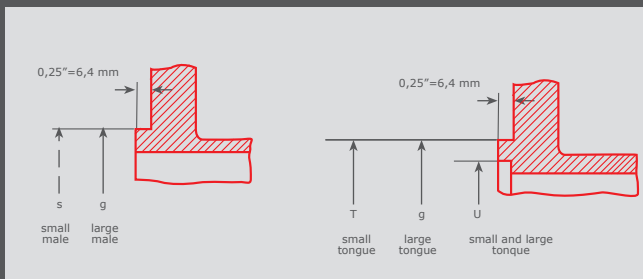
## ASME B 16.5



| Nominal Size<br>DN   |                      |                      |                      |                      |                       |                       | Ring<br>Num-<br>ber | Groove Dimensions<br>in./mm |                     |                      |                             | Diameter of Raised Face<br>in./ mm<br>g |                                    |                      |                       |                       |
|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|---------------------|-----------------------------|---------------------|----------------------|-----------------------------|-----------------------------------------|------------------------------------|----------------------|-----------------------|-----------------------|
| 150<br>lb/sq.<br>in. | 300<br>lb/sq.<br>in. | 400<br>lb/sq.<br>in. | 600<br>lb/sq.<br>in. | 900<br>lb/sq.<br>in. | 1500<br>lb/sq.<br>in. | 2500<br>lb/sq.<br>in. |                     | Pitch Dia-<br>meter<br>p    | Depth<br>Tiefe<br>E | Width<br>Breite<br>F | Radius<br>at<br>Bottom<br>R | 150<br>lb/sq.<br>in.                    | 300<br>400<br>600<br>lb/sq.<br>in. | 900<br>lb/sq.<br>in. | 1500<br>lb/sq.<br>in. | 2500<br>lb/sq.<br>in. |
| 16"                  |                      |                      |                      |                      |                       |                       | R64                 | 17,875<br>454,0             | 0,250<br>6,4        | 0,344<br>8,7         | 0,03<br>0,8                 | 19,00<br>482,6                          |                                    |                      |                       |                       |
|                      | 16"                  | 16"                  | 16"                  |                      |                       |                       | R65                 | 18,500<br>469,9             | 0,312<br>7,9        | 0,469<br>11,9        | 0,03<br>0,8                 |                                         | 20,00<br>508,0                     |                      |                       |                       |
|                      |                      |                      |                      | 16"                  |                       |                       | R66                 | 18,500<br>469,9             | 0,438<br>11,1       | 0,656<br>16,7        | 0,06<br>1,5                 |                                         |                                    | 20,62<br>523,7       |                       |                       |
|                      |                      |                      |                      |                      | 16"                   |                       | R67                 | 18,500<br>469,9             | 0,688<br>17,5       | 1,188<br>30,2        | 0,09<br>2,3                 |                                         |                                    |                      | 21,50<br>546,1        |                       |
| 18"                  |                      |                      |                      |                      |                       |                       | R68                 | 20,375<br>517,5             | 0,250<br>6,4        | 0,344<br>8,7         | 0,03<br>0,8                 | 21,50<br>546,1                          |                                    |                      |                       |                       |
|                      | 18"                  | 18"                  | 18"                  |                      |                       |                       | R69                 | 21,000<br>533,4             | 0,312<br>7,9        | 0,469<br>11,9        | 0,03<br>0,8                 |                                         | 22,62<br>574,5                     |                      |                       |                       |
|                      |                      |                      |                      | 18"                  |                       |                       | R70                 | 21,000<br>533,4             | 0,500<br>12,7       | 0,781<br>19,8        | 0,06<br>1,5                 |                                         |                                    | 23,38<br>593,9       |                       |                       |
|                      |                      |                      |                      |                      | 18"                   |                       | R71                 | 21,000<br>533,4             | 0,688<br>17,5       | 1,188<br>30,2        | 0,09<br>2,3                 |                                         |                                    |                      | 24,12<br>612,6        |                       |
| 20"                  |                      |                      |                      |                      |                       |                       | R72                 | 22,000<br>558,8             | 0,250<br>6,4        | 0,344<br>8,7         | 0,03<br>0,8                 | 123,50<br>596,9                         |                                    |                      |                       |                       |
|                      | 20"                  | 20"                  | 20"                  |                      |                       |                       | R73                 | 23,000<br>584,2             | 0,375<br>9,5        | 0,531<br>13,5        | 0,06<br>1,5                 |                                         | 25,00<br>635,Q                     |                      |                       |                       |
|                      |                      |                      |                      | 20"                  |                       |                       | R74                 | 23,000<br>584,2             | 0,500<br>12,7       | 0,781<br>19,8        | 0,06<br>1,5                 |                                         |                                    | 25,50<br>647,7       |                       |                       |
|                      |                      |                      |                      |                      | 20"                   |                       | R75                 | 23,000<br>584,2             | 0,688<br>17,5       | 1,312<br>33,3        | 0,09<br>2,3                 |                                         |                                    |                      | 26,50<br>673,1        |                       |
| 24"                  |                      |                      |                      |                      |                       |                       | R76                 | 26,500<br>673,1             | 0,250<br>6,4        | 0,344<br>8,7         | 0,03<br>0,8                 | 28,00<br>711,2                          |                                    |                      |                       |                       |
|                      | 24"                  | 24"                  | 24"                  |                      |                       |                       | R77                 | 27,250<br>692,2             | 0,438<br>11,1       | 0,656<br>16,7        | 0,06<br>1,5                 |                                         | 29,50<br>749,3                     |                      |                       |                       |
|                      |                      |                      |                      | 24"                  |                       |                       | R78                 | 27,250<br>692,2             | 0,625<br>15,9       | 1,062<br>27,0        | 0,09<br>2,3                 |                                         |                                    | 30,38<br>771,7       |                       |                       |
|                      |                      |                      |                      |                      | 24"                   |                       | R79                 | 27,250<br>692,2             | 0,812<br>20,6       | 1,438<br>36,5        | 0,09<br>2,3                 |                                         |                                    |                      | 31,25<br>793,8        |                       |

# LARGE AND SMALL MALE / FEMALE FACINGS LARGE AND SMALL TONGUE / GROOVE FACINGS 150 - 2500 LB/SQ. IN.

## ASME B 16.5

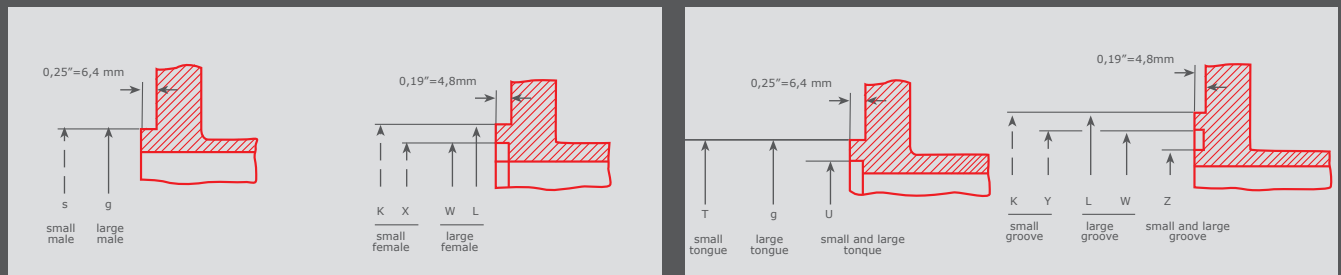


| Nom.<br>Pipe<br>Size<br>DN | Outside Diameter in/ mm                 |               |                 | Inside<br>Dia.<br>of Large<br>and Small<br>Tongue<br>in/mm | Outside Diameter in./ mm                    |                 |                 | Inside<br>Dia.<br>of Large<br>and Small<br>Groove<br>in./ mm | Diameter<br>of Raised Face<br>min. in./ mm |                                  |
|----------------------------|-----------------------------------------|---------------|-----------------|------------------------------------------------------------|---------------------------------------------|-----------------|-----------------|--------------------------------------------------------------|--------------------------------------------|----------------------------------|
|                            | Large<br>Male<br>and<br>Large<br>Tongue | Small<br>Male | Small<br>tongue |                                                            | Large<br>Fema-<br>le and<br>Large<br>Groove | Small<br>Female | Small<br>Groove |                                                              | Small<br>Female<br>and Gro-<br>ove         | Large<br>Female<br>and<br>Groove |
|                            | g                                       | s             | T               | U                                                          | W                                           | X               | Y               | Z                                                            | K                                          | L                                |
| 1/2"                       | 1,38<br>35,1                            | 0,72<br>18,3  | 1,38<br>35,1    | 1,00<br>25,4                                               | 1,44<br>36,6                                | 0,78<br>19,8    | 1,44<br>36,6    | 0,94<br>23,9                                                 | 1,75<br>44,5                               | 1,81<br>46,0                     |
| 3/4"                       | 1,69<br>42,9                            | 0,941<br>23,9 | 1,69<br>42,9    | 1,31<br>33,3                                               | 1,75<br>44,5                                | 1,00<br>25,4    | 1,75<br>44,5    | 1,25<br>31,8                                                 | 2,06<br>52,3                               | 2,12<br>53,8                     |
| 1"                         | 2,00<br>50,8                            | 1,19<br>30,2  | 1,88<br>47,8    | 1,50<br>38,1                                               | 2,06<br>52,3                                | 1,25<br>31,8    | 1,94<br>49,3    | 1,44<br>36,6                                                 | 2,25<br>57,2                               | 2,44<br>62,0                     |
| 1 1/4"                     | 2,50<br>63,5                            | 1,50<br>38,1  | 2,25<br>57,2    | 1,88<br>47,8                                               | 2,56<br>65,0                                | 1,56<br>39,6    | 2,31<br>58,7    | 1,81<br>46,0                                                 | 2,62<br>66,5                               | 2,94<br>74,7                     |
| 1 1/2"                     | 2,88<br>73,2                            | 1,75<br>44,5  | 2,50<br>63,5    | 2,12<br>53,8                                               | 2,94<br>74,7                                | 1,81<br>46,0    | 2,56<br>65,0    | 2,06<br>52,3                                                 | 2,88<br>73,2                               | 3,31<br>84,1                     |
| 2"                         | 3,62<br>91,9                            | 2,25<br>57,2  | 3,25<br>82,6    | 2,88<br>73,2                                               | 3,69<br>93,7                                | 2,31<br>58,7    | 3,31<br>84,1    | 2,81<br>71,4                                                 | 3,62<br>91,9                               | 4,06<br>103,1                    |
| 2 1/2"                     | 4,12<br>104,6                           | 2,69<br>68,3  | 3,75<br>95,3    | 3,38<br>85,9                                               | 4,19<br>106,4                               | 2,75<br>69,9    | 3,81<br>96,8    | 3,31<br>84,1                                                 | 4,12<br>104,6                              | 4,56<br>115,8                    |
| 3"                         | 5,00<br>127,0                           | 3,31<br>84,1  | 4,62<br>117,3   | 4,25<br>108,0                                              | 5,06<br>128,5                               | 3,38<br>85,9    | 4,69<br>119,1   | 4,19<br>106,4                                                | 5,00<br>127,0                              | 5,44<br>138,2                    |
| 3 1/2"                     | 5,50<br>139,7                           | 3,81<br>96,8  | 5,12<br>130,0   | 4,75<br>120,7                                              | 5,56<br>141,2                               | 3,88<br>98,6    | 5,19<br>131,8   | 4,69<br>119,1                                                | 5,50<br>139,7                              | 5,94<br>150,9                    |
| 4"                         | 6,19<br>157,2                           | 4,31<br>109,5 | 5,69<br>144,5   | 5,19<br>131,8                                              | 6,25<br>158,8                               | 4,38<br>111,3   | 5,75<br>146,1   | 5,12<br>130,0                                                | 6,19<br>157,2                              | 6,62<br>168,1                    |

Large male and female face and large tongue and groove are not applicable to Class 150 because of potential dimensional conflicts.

# LARGE AND SMALL MALE / FEMALE FACINGS LARGE AND SMALL TONGUE / GROOVE FACINGS 150 - 2500 LB/SQ. IN.

## ASME B 16.5



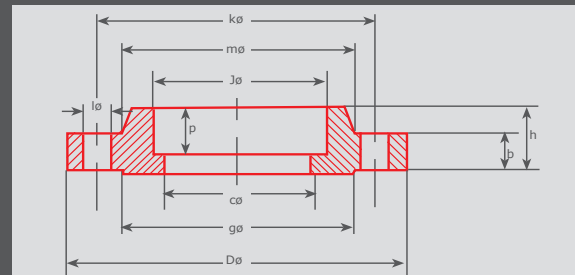
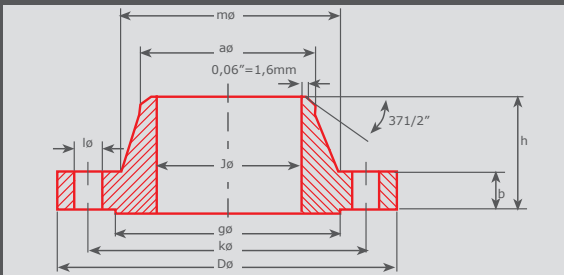
| Nom.<br>Pipe<br>Size<br>ON | Outside Diameter in./ mm                |                |                 | Inside<br>Dia.<br>of Large<br>and<br>Small<br>Tongue<br>in./<br>mm | Outside Diameter in./ mm                  |                 |                 | Inside<br>Dia.<br>of Large<br>and<br>Small<br>Groove<br>in./ mm | Diameter<br>of Raised Face<br>min. in./ mm |                                  |
|----------------------------|-----------------------------------------|----------------|-----------------|--------------------------------------------------------------------|-------------------------------------------|-----------------|-----------------|-----------------------------------------------------------------|--------------------------------------------|----------------------------------|
|                            | Large<br>Male<br>and<br>Large<br>Tongue | Small<br>Male  | Small<br>Tongue |                                                                    | Large<br>Female<br>and<br>Large<br>Groove | Small<br>Female | Small<br>Groove |                                                                 | Small<br>Female<br>and<br>Groove           | Large<br>Female<br>and<br>Groove |
|                            | g                                       | S              | T               |                                                                    | W                                         | X               | Y               |                                                                 | K                                          | L                                |
| 5"                         | 7,31<br>185,7                           | 5,38<br>136,7  | 6,81<br>173,0   | 6,31<br>160,3                                                      | 7,38<br>187,5                             | 5,44<br>138,2   | 6,88<br>174,8   | 6,25<br>158,8                                                   | 7,31<br>185,7                              | 7,75<br>196,9                    |
| 6"                         | 8,50<br>215,9                           | 6,38<br>162,1  | 8,00<br>203,2   | 7,50<br>190,5                                                      | 8,56<br>217,4                             | 6,44<br>163,6   | 8,06<br>204,7   | 7,44<br>189,0                                                   | 8,50<br>215,9                              | 8,94<br>227,1                    |
| 8"                         | 10,62<br>269,7                          | 8,38<br>212,9  | 10,00<br>254,0  | 9,38<br>238,3                                                      | 10,69<br>271,5                            | 8,44<br>214,4   | 10,06<br>255,5  | 9,31<br>236,5                                                   | 10,62<br>269,7                             | 11,06<br>280,9                   |
| 10"                        | 12,75<br>323,9                          | 10,50<br>266,7 | 12,00<br>304,8  | 11,25<br>285,8                                                     | 12,81<br>325,4                            | 10,56<br>268,3  | 12,06<br>306,3  | 11,19<br>284,2                                                  | 12,75<br>323,9                             | 13,19<br>335,0                   |
| 12"                        | 15,00<br>381,0                          | 12,50<br>317,5 | 14,25<br>362,0  | 13,50<br>342,9                                                     | 15,06<br>382,5                            | 12,56<br>319,0  | 14,31<br>363,5  | 13,44<br>341,4                                                  | 15,00<br>381,0                             | 15,44<br>392,2                   |
| 14"                        | 16,25<br>412,8                          | 13,75<br>349,3 | 15,50<br>393,7  | 14,75<br>374,7                                                     | 16,31<br>414,3                            | 13,81<br>350,8  | 15,56<br>395,2  | 14,69<br>373,1                                                  | 16,25<br>412,8                             | 16,69<br>423,9                   |
| 16"                        | 18,50<br>469,9                          | 15,75<br>400,1 | 17,62<br>447,5  | 16,75<br>425,5                                                     | 18,56<br>471,4                            | 15,81<br>401,6  | 17,69<br>449,3  | 16,69<br>423,9                                                  | 18,50<br>469,9                             | 18,94<br>481,1                   |
| 18"                        | 21,00<br>533,4                          | 17,75<br>450,9 | 20,12<br>511,0  | 19,25<br>489,0                                                     | 21,06<br>534,9                            | 17,81<br>452,4  | 20,19<br>512,8  | 19,19<br>487,4                                                  | 21,00<br>533,4                             | 21,44<br>544,6                   |
| 20"                        | 23,00<br>584,2                          | 19,75<br>501,7 | 22,00<br>558,8  | 21,00<br>533,4                                                     | 23,06<br>585,7                            | 19,81<br>503,2  | 22,06<br>560,3  | 20,94<br>531,9                                                  | 23,00<br>584,2                             | 23,44<br>595,4                   |
| 24"                        | 27,25<br>692,2                          | 23,75<br>603,3 | 26,25<br>666,8  | 25,25<br>641,4                                                     | 27,31<br>693,7                            | 23,81<br>604,8  | 26,31<br>668,3  | 25,19<br>639,8                                                  | 27,25<br>692,2                             | 27,69<br>703,3                   |

Large male and female face and large tongue and groove are not applicable to Class 150 because of potential dimensional conflicts.

# DIMENSIONAL TOLERANCES

## WELDING NECK FLANGES / SOCKED WELDING FLANGES

### ASME B 16.5



|     |                                        |                                                                                                                                                                                                        |                                                                                               |
|-----|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| D   | Outside Diameter 1)                    | When OD is 24" or less<br>When OD is over 24"                                                                                                                                                          | ± 0,06"<br>± 0,12"<br>± 1,6 mm<br>± 3,2 mm                                                    |
| J,c | Inside Diameter 2)                     | 10" and smaller<br>12" to 18"<br>20" and larger                                                                                                                                                        | +0,03"<br>+0,06"<br>+0,12" - 0,06"<br>+0,8 mm<br>+ 1,6 mm<br>+3,2 mm - 1,6 mm                 |
| g   | Diameter of Contact Face               | 0.06" Raised Face<br>0.25" Raised Face<br>Tongue and Groove. Male and Female                                                                                                                           | ± 0,03"<br>± 0,02"<br>± 0,02"<br>± 0,8 mm<br>± 0,5 mm<br>± 0,5 mm                             |
| a   | Diameter of Hub at Point of Welding 2) | 5" and smaller<br>6" and larger                                                                                                                                                                        | +0,09" - 0,03"<br>+0,16" - 0,03"<br>+2,4 mm - 0,8 mm<br>+4,0 mm - 0,8 mm                      |
| m   | Diameter of Hub at Base 1)             | When Hub Base is 24" or less<br>When Hub Base is over 24"                                                                                                                                              | ± 0,06"<br>± 0,12"<br>± 1,6 mm<br>± 3,2 mm                                                    |
| I   | Drilling and Facing                    | Bolt Circle Diameter k<br>Center-to-center of adjacent bolt holes<br>Max. eccentricity between bolt circle dia. k<br>and machined facing diameters:<br>sizes 2 1/2" and smaller<br>sizes 3" and larger | ± 0,06"<br>± 0,03"<br><br>0.03"<br>0.06"<br>± 1,6 mm<br>± 0,8 mm<br><br>0.8mm<br>1.6 mm       |
| h   | Overall Length through Hub             | 4" and smaller<br>5" to 10"<br>12" and larger                                                                                                                                                          | ± 0,06"<br>+0,06", -0,12"<br>+0,12", -0,18"<br>± 1,6mm<br>+ 1,6 mm, -3,2 mm<br>+3,2mm, -4,6mm |
| b   | Thickness                              | 18" and smaller<br>20" and larger                                                                                                                                                                      | +0,12"<br>+0,19"<br>+3,2 mm<br>+4,8 mm                                                        |

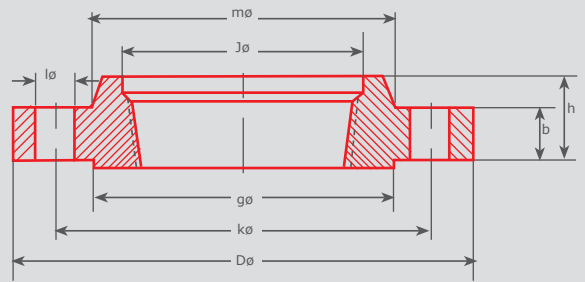
1) This tolerance is not covered by ASME B 16.5

2) Regardless of the tolerances of the dimensions J and a, the wall thickness shall not be less than 87,5 % of the nominal wall thickness.

# DIMENSIONAL TOLERANCES

## LAP JOINT, SLIP-ON, THREADED AND BLIND FLANGES

### ASME B 16.5



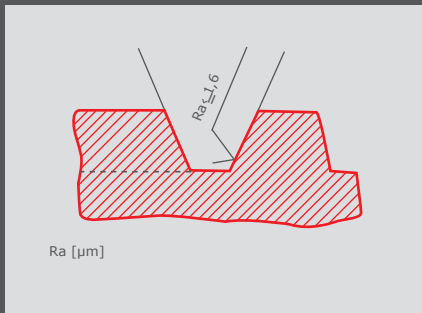
|                                 |                                                                                                                                                                                                   |                                                                                                                                                      |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| D<br>Outside Diameter<br>1)     | When OD is 24" or less<br>When OD is over 24"                                                                                                                                                     | $\pm 0,06"$<br>$\pm 0,12"$<br>$\pm 1,6 \text{ mm}$<br>$\pm 3,2 \text{ mm}$                                                                           |
| J<br>Inside Diameter            | Slip-on and Lap Joint 10" and smaller<br>12" and larger<br>Threaded                                                                                                                               | $+ 0,03"$<br>$+ 0,06"$<br>Within limits on boring gauge<br>$+ 0,8 \text{ mm}$<br>$+ 1,6 \text{ mm}$                                                  |
| Diameter of Counterbore         | Same as for Inside Diameter                                                                                                                                                                       |                                                                                                                                                      |
| g<br>Diameter of Contact Face   | 0,06" Raised Face<br>0,25" Raised Face<br>Tongue and Groove, Male and Female                                                                                                                      | $\pm 0,03"$<br>$\pm 0,02"$<br>$\pm 0,02"$<br>$\pm 0,8 \text{ mm}$<br>$\pm 0,5 \text{ mm}$<br>$\pm 0,5 \text{ mm}$                                    |
| m<br>Outside Diameter of Hub 1) | 12" and smaller<br>14" and larger                                                                                                                                                                 | $+ 0,09" - 0,06"$<br>$\pm 0,12"$<br>$+ 2,4 \text{ mm} - 1,6 \text{ mm}$<br>$\pm 3,2 \text{ mm}$                                                      |
| I<br>Drilling and Facing        | Bolt Circle Diameter k<br>Center-to-center of adjacent bolt holes<br>Max. eccentricity between bolt circle dia. and machined facing diameters:<br>sizes 2 1/2" and smaller<br>sizes 3" and larger | $\pm 0,06"$<br>$\pm 0,03"$<br><br>$0,03"$<br>$0,06"$<br><br>$\pm 1,6 \text{ mm}$<br>$\pm 0,8 \text{ mm}$<br><br>$0,8 \text{ mm}$<br>$1,6 \text{ mm}$ |
| h<br>Overall Length of Hub 1)   | 18" and smaller<br>20" and larger                                                                                                                                                                 | $+0,12" - 0,03"$<br>$+0,19" - 0,03"$<br>$+3,2 \text{ mm} - 0,8 \text{ mm}$<br>$+4,8 \text{ mm} - 1,6 \text{ mm}$                                     |
| b<br>Thickness                  | 18" and smaller<br>20" and larger                                                                                                                                                                 | $+0,12"$<br>$+0,19"$<br>$+3,2 \text{ mm}$<br>$+4,8 \text{ mm}$                                                                                       |

1) Tolerances are not covered by ASME B 16.5

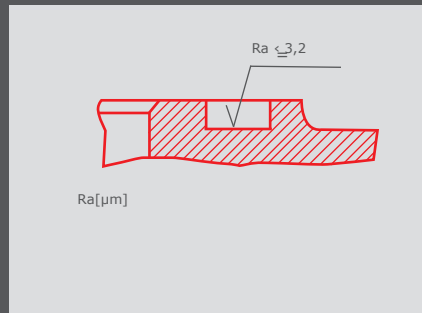
# FACINGS

Facing is made by mechanical turning, resulting the following surface conditions:

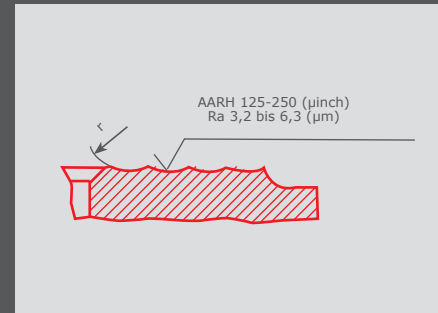
## Ring Joint Facings



## Tongue/Groove Small Male/Female Facings



## Raised Face Large Male / Female Facings



Facings in other design on enquiry

r - 0,06- or larger

0,45 - 0,57 mm/U

Feet rate

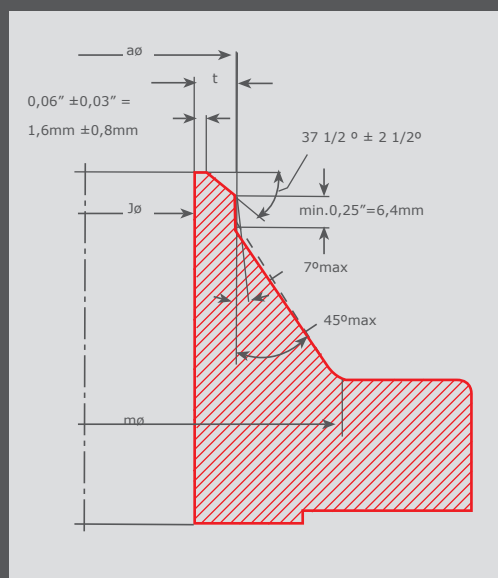
per revolution: 0,018 - 0,023 in/rev.

# WELDING ENDS

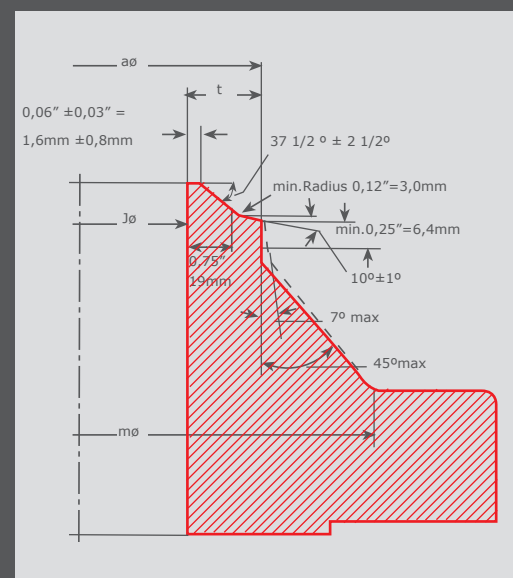
a = Outside diameter of pipe

J = Inside diameter of pipe

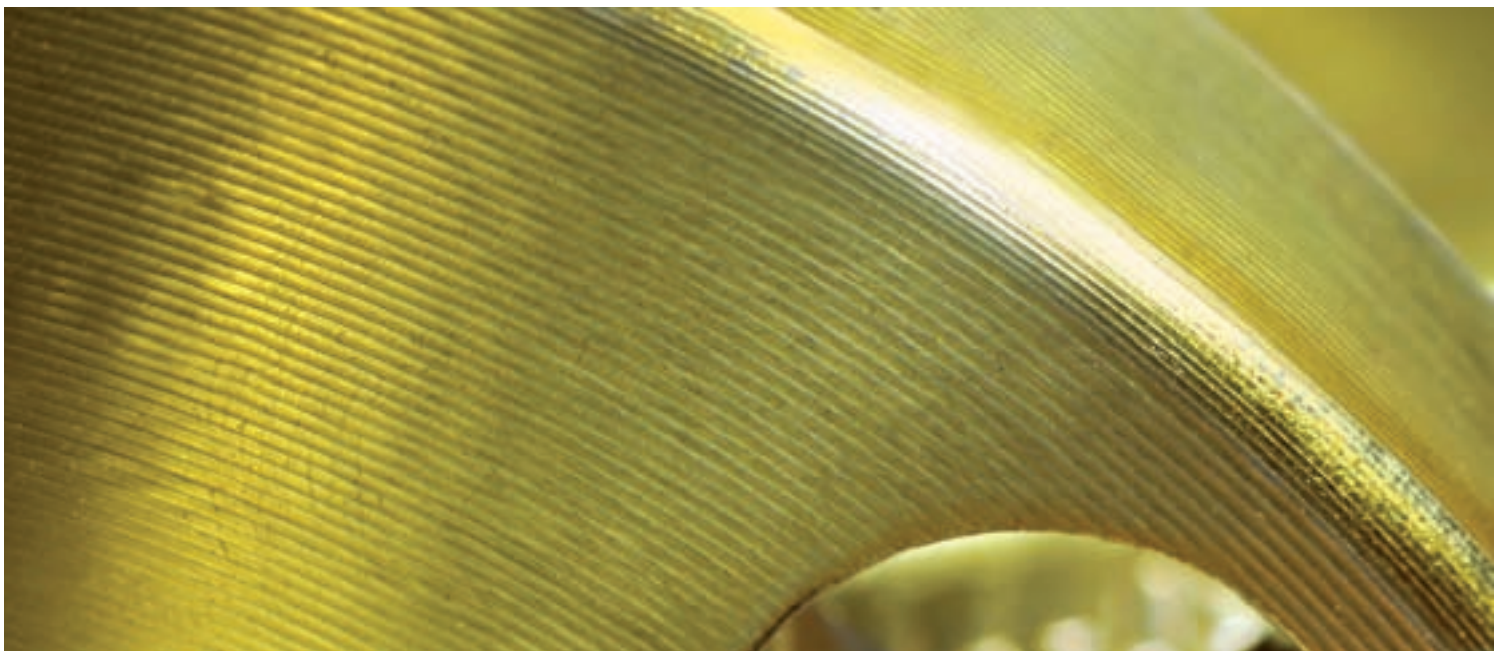
t = Wall thickness of pipe



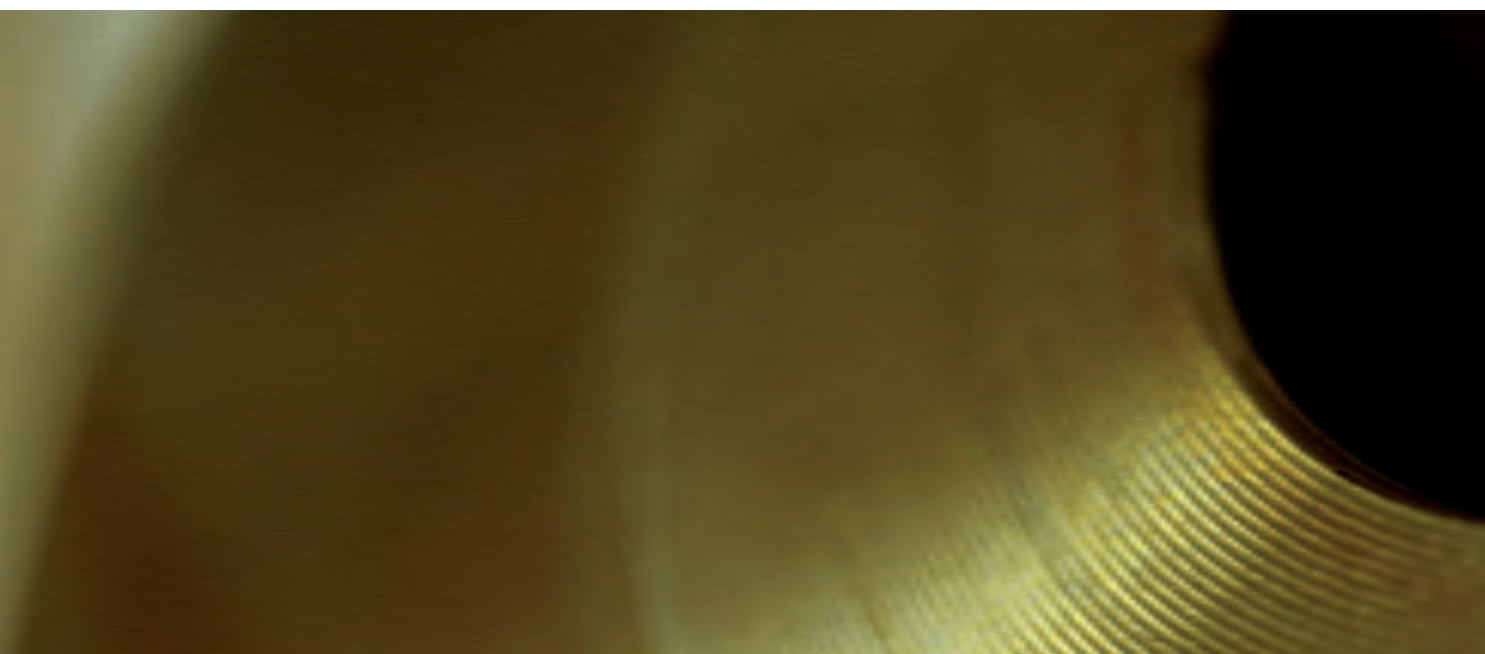
Bevel for Wall Thicknesses (t) 0,19" to 0,88" inclusive



Bevel for Wall Thicknesses (t) greater than 0,88"



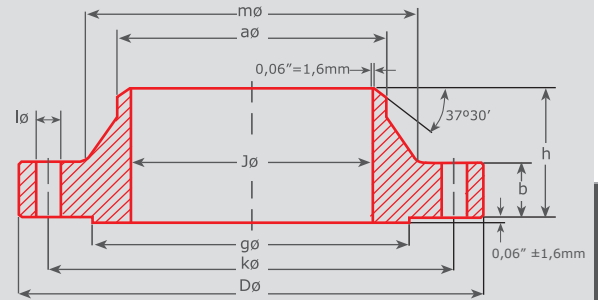
## **WELDING NECK FLANGES ACC. TO ASME B 16.5**



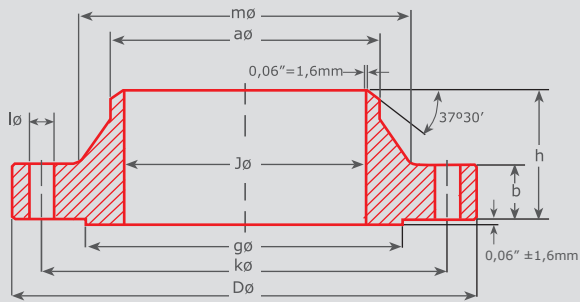
# 150 LB/SQ. IN.

## WELDING NECK FLANGES

### ASME B 16.5



| Pipe         |                | Flange         |                                  |              |               | Hub            |                | Raised Face    | Drilling Template |              |                | Approx Weight |
|--------------|----------------|----------------|----------------------------------|--------------|---------------|----------------|----------------|----------------|-------------------|--------------|----------------|---------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm                         | b in. mm     | h in. mm      | a in. mm       | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo          |
| 1/2"         | 0,84<br>21,3   | 3,50<br>88,9   | 0,62<br>15,7                     | 0,38<br>9,6  | 1,82<br>46,2  | 0,84<br>21,3   | 1,19<br>30,2   | 1,38<br>35,1   | 4                 | 0,62<br>15,7 | 2,38<br>60,5   | 0,48          |
| 3/4"         | 1,05<br>26,7   | 3,88<br>98,6   | 0,82<br>20,8                     | 0,44<br>11,1 | 2<br>50,7     | 1,05<br>26,7   | 1,50<br>38,1   | 1,69<br>42,9   | 4                 | 0,62<br>15,7 | 2,75<br>69,9   | 0,71          |
| 1"           | 1,315<br>33,4  | 4,25<br>108,0  | 1,05<br>26,7                     | 0,5<br>12,6  | 2,13<br>54    | 1,315<br>33,4  | 1,94<br>49,3   | 2,00<br>50,8   | 4                 | 0,62<br>15,7 | 3,12<br>79,2   | 1,01          |
| 1 1/4"       | 1,66<br>42,2   | 4,62<br>117,3  | 1,38<br>35,1                     | 0,56<br>14,1 | 2,19<br>55,6  | 1,66<br>42,2   | 2,31<br>58,7   | 2,50<br>63,5   | 4                 | 0,62<br>15,7 | 3,50<br>88,9   | 1,33          |
| 1 1/2"       | 1,90<br>48,3   | 5,00<br>127,0  | 1,61<br>40,9                     | 0,63<br>15,9 | 2,38<br>60,4  | 1,90<br>48,3   | 2,56<br>65,0   | 2,88<br>73,2   | 4                 | 0,62<br>15,7 | 3,88<br>98,6   | 1,72          |
| 2"           | 2,375<br>60,3  | 6,00<br>152,4  | 2,07<br>52,6                     | 0,69<br>17,5 | 2,44<br>61,9  | 2,375<br>60,3  | 3,06<br>77,7   | 3,62<br>91,9   | 4                 | 0,75<br>19,1 | 4,75<br>120,7  | 2,58          |
| 2 1/2"       | 2,875<br>73,0  | 7,00<br>177,8  | 2,47<br>62,7                     | 0,82<br>20,8 | 2,69<br>68,3  | 2,875<br>73,0  | 3,56<br>90,4   | 4,12<br>104,6  | 4                 | 0,75<br>19,1 | 5,50<br>139,7  | 4,11          |
| 3"           | 3,50<br>88,9   | 7,50<br>190,5  | 3,07<br>78,0                     | 0,88<br>22,3 | 2,69<br>68,3  | 3,50<br>88,9   | 4,25<br>108,0  | 5,00<br>127,0  | 4                 | 0,75<br>19,1 | 6,00<br>152,4  | 4,92          |
| 3 1/2"       | 4,00<br>101,6  | 8,50<br>215,9  | 3,55<br>90,2                     | 0,88<br>22,3 | 2,75<br>69,8  | 4,00<br>101,6  | 4,81<br>122,2  | 5,50<br>139,7  | 8                 | 0,75<br>19,1 | 7,00<br>177,8  | 6,08          |
| 4"           | 4,50<br>114,3  | 9,00<br>228,6  | 4,03<br>102,4                    | 0,88<br>22,3 | 2,94<br>74,6  | 4,50<br>114,3  | 5,31<br>134,9  | 6,19<br>157,2  | 8                 | 0,75<br>19,1 | 7,50<br>190,5  | 6,84          |
| 5"           | 5,563<br>141,3 | 10,00<br>254,0 | 5,05<br>128,3                    | 0,88<br>22,3 | 3,44<br>87,3  | 5,563<br>141,3 | 6,44<br>163,6  | 7,31<br>185,7  | 8                 | 0,88<br>22,4 | 8,50<br>215,9  | 8,56          |
| 6"           | 6,625<br>168,3 | 11,00<br>279,4 | 6,07<br>154,2                    | 0,94<br>23,8 | 3,44<br>87,3  | 6,625<br>168,3 | 7,56<br>192,0  | 8,50<br>215,9  | 8                 | 0,88<br>22,4 | 9,50<br>241,3  | 10,6          |
| 8"           | 8,625<br>219,1 | 13,50<br>342,9 | 7,98<br>202,7                    | 1,06<br>26,8 | 3,94<br>100   | 8,625<br>219,1 | 9,69<br>246,1  | 10,62<br>269,7 | 8                 | 0,88<br>22,4 | 11,75<br>298,5 | 17,6          |
| 10"          | 10,75<br>273   | 16,00<br>406,4 | 10,02<br>254,5                   | 1,13<br>28,6 | 3,94<br>100   | 10,75<br>273   | 12,00<br>304,8 | 12,75<br>323,9 | 12                | 1,00<br>25,4 | 14,25<br>362,0 | 24,0          |
| 12"          | 12,75<br>323,8 | 19,00<br>482,6 | 12,00<br>304,8                   | 1,19<br>30,2 | 4,44<br>112,7 | 12,75<br>323,8 | 14,38<br>365,3 | 15,00<br>381,0 | 12                | 1,00<br>25,4 | 17,00<br>431,8 | 36,5          |
| 14"          | 14,0<br>355,6  | 21,00<br>533,4 | To be specified by the purchaser | 1,32<br>33,5 | 4,94<br>125,4 | 14,0<br>355,6  | 15,75<br>400,1 | 16,25<br>412,8 | 12                | 1,12<br>28,4 | 18,75<br>476,3 | 48,4          |
| 16"          | 16,0<br>406,4  | 23,50<br>596,9 |                                  | 1,38<br>35   | 4,94<br>125,4 | 16,0<br>406,4  | 18,00<br>457,2 | 18,50<br>469,9 | 16                | 1,12<br>28,4 | 21,25<br>539,8 | 60,6          |
| 18"          | 18,0<br>457,2  | 25,00<br>635,0 |                                  | 1,5<br>38    | 5,44<br>138,1 | 18,0<br>457,2  | 19,88<br>505,0 | 21,00<br>533,4 | 16                | 1,25<br>31,8 | 22,75<br>577,9 | 68,3          |
| 20"          | 20,0<br>508    | 27,50<br>698,5 |                                  | 1,63<br>41,3 | 5,63<br>142,9 | 20,0<br>508    | 22,00<br>558,8 | 23,00<br>584,2 | 20                | 1,25<br>31,8 | 25,00<br>635,0 | 84,5          |
| 24"          | 24,0<br>609,6  | 32,00<br>812,8 |                                  | 1,82<br>46,2 | 5,94<br>150,8 | 24,0<br>609,6  | 26,12<br>663,4 | 27,25<br>692,2 | 20                | 1,38<br>35,1 | 29,50<br>749,3 | 115           |



# 300 LB/SQ. IN.

## WELDING NECK FLANGES

### ASME B 16.5

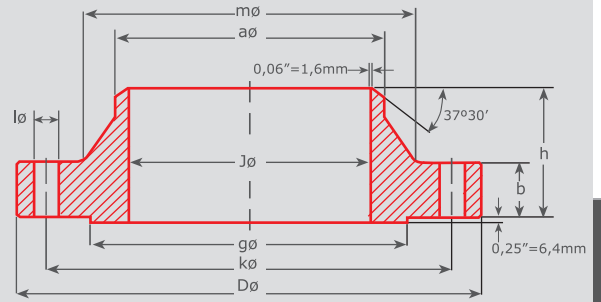
ASME  
B 16.5  
WELDING  
NECK  
150  
300

| Pipe         |                | Flange         |                                  |              |               | Hub            |                | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------------------------|--------------|---------------|----------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm                         | b in. mm     | h in. mm      | a in. mm       | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 3,75<br>95,2   | 0,62<br>15,7                     | 0,5<br>12,6  | 2<br>50,7     | 0,84<br>21,3   | 1,50<br>38,1   | 1,38<br>35,0   | 4                 | 0,62<br>15,7 | 2,62<br>66,5   | 0,75           |
| 3/4"         | 1,05<br>26,7   | 4,62<br>117,3  | 0,82<br>20,8                     | 0,56<br>14,1 | 2,19<br>55,6  | 1,05<br>26,7   | 1,88<br>47,8   | 1,69<br>42,9   | 4                 | 0,75<br>19,1 | 3,25<br>82,6   | 1,26           |
| 1"           | 1,315<br>33,4  | 4,88<br>124,0  | 1,05<br>26,7                     | 0,63<br>15,9 | 2,38<br>60,4  | 1,315<br>33,4  | 2,12<br>53,8   | 2,00<br>50,8   | 4                 | 0,75<br>19,1 | 3,50<br>88,9   | 1,52           |
| 1 1/4"       | 1,66<br>42,2   | 5,25<br>133,4  | 1,38<br>35,1                     | 0,69<br>17,5 | 2,5<br>63,4   | 1,66<br>42,2   | 2,50<br>63,5   | 2,50<br>63,5   | 4                 | 0,75<br>19,1 | 3,88<br>98,6   | 2,03           |
| 1 1/2"       | 1,90<br>48,3   | 6,12<br>155,4  | 1,61<br>40,9                     | 0,75<br>19   | 2,63<br>66,7  | 1,90<br>48,3   | 2,75<br>69,9   | 2,88<br>73,2   | 4                 | 0,88<br>22,4 | 4,50<br>114,3  | 2,89           |
| 2"           | 2,375<br>60,3  | 6,50<br>165,1  | 2,07<br>52,6                     | 0,82<br>20,8 | 2,69<br>68,3  | 2,375<br>60,3  | 3,31<br>84,0   | 3,62<br>91,9   | 8                 | 0,75<br>19,1 | 5,00<br>127,0  | 3,40           |
| 2 1/2"       | 2,875<br>73,0  | 7,50<br>190,5  | 2,47<br>62,7                     | 0,94<br>23,8 | 2,94<br>74,6  | 2,875<br>73,0  | 3,94<br>100,1  | 4,12<br>104,6  | 8                 | 0,88<br>22,4 | 5,88<br>149,4  | 5,17           |
| 3"           | 3,50<br>88,9   | 8,25<br>209,6  | 3,07<br>78,0                     | 1,06<br>26,8 | 3,06<br>77,6  | 3,50<br>88,9   | 4,62<br>117,3  | 5,00<br>127,0  | 8                 | 0,88<br>22,4 | 6,62<br>168,1  | 6,93           |
| 3 1/2"       | 4,00<br>101,6  | 9,00<br>228,6  | 3,55<br>90,2                     | 1,13<br>28,6 | 3,13<br>79,4  | 4,00<br>101,6  | 5,25<br>133,4  | 5,50<br>139,7  | 8                 | 0,88<br>22,4 | 7,25<br>184,2  | 8,67           |
| 4"           | 4,50<br>114,3  | 10,00<br>254,0 | 4,03<br>102,4                    | 1,19<br>30,2 | 3,32<br>84,3  | 4,50<br>114,3  | 5,75<br>146,1  | 6,19<br>157,2  | 8                 | 0,88<br>22,4 | 7,88<br>200,2  | 11,2           |
| 5"           | 5,563<br>141,3 | 11,00<br>279,4 | 5,05<br>128,3                    | 1,32<br>33,5 | 3,82<br>97    | 5,563<br>141,3 | 7,00<br>177,8  | 7,31<br>185,7  | 8                 | 0,88<br>22,4 | 9,25<br>235,0  | 15,1           |
| 6"           | 6,625<br>168,3 | 12,50<br>317,5 | 6,07<br>154,2                    | 1,38<br>35   | 3,82<br>97    | 6,625<br>168,3 | 8,12<br>206,2  | 8,50<br>215,9  | 12                | 0,88<br>22,4 | 10,62<br>269,7 | 19,1           |
| 8"           | 8,625<br>219,1 | 15,00<br>381,0 | 7,98<br>202,7                    | 1,56<br>39,5 | 4,32<br>109,7 | 8,625<br>219,1 | 10,25<br>260,4 | 10,62<br>269,7 | 12                | 1,00<br>25,4 | 13,00<br>330,2 | 29,9           |
| 10"          | 10,75<br>273   | 17,50<br>444,5 | 10,02<br>254,5                   | 1,82<br>46,2 | 4,56<br>115,7 | 10,75<br>273   | 12,62<br>320,5 | 12,75<br>323,9 | 16                | 1,12<br>28,4 | 15,25<br>387,4 | 42,7           |
| 12"          | 12,75<br>323,8 | 20,50<br>520,7 | 12,00<br>304,8                   | 1,94<br>49,2 | 5,06<br>128,4 | 12,75<br>323,8 | 14,75<br>374,7 | 15,00<br>381,0 | 16                | 1,25<br>31,8 | 17,75<br>450,9 | 61,8           |
| 14"          | 14,00<br>355,6 | 23,00<br>584,2 | To be specified by the purchaser | 2,06<br>52,2 | 5,56<br>141,1 | 14,00<br>355,6 | 16,75<br>425,5 | 16,25<br>412,8 | 20                | 1,25<br>31,8 | 20,25<br>514,4 | 85,8           |
| 16"          | 16,00<br>406,4 | 25,50<br>647,7 |                                  | 2,19<br>55,6 | 5,69<br>144,5 | 16,00<br>406,4 | 19,00<br>482,6 | 18,50<br>469,9 | 20                | 1,38<br>35,1 | 22,50<br>571,5 | 106            |
| 18"          | 18,00<br>457,2 | 28,00<br>711,2 |                                  | 2,32<br>58,9 | 6,19<br>157,2 | 18,00<br>457,2 | 21,00<br>533,4 | 21,00<br>533,4 | 24                | 1,38<br>35,1 | 24,75<br>628,7 | 131            |
| 20"          | 20,00<br>508   | 30,50<br>774,7 |                                  | 2,44<br>61,9 | 6,32<br>160,5 | 20,00<br>508   | 23,12<br>587,2 | 23,00<br>584,2 | 24                | 1,38<br>35,1 | 27,00<br>685,8 | 158            |
| 24"          | 24,00<br>609,6 | 36,00<br>914,4 |                                  | 2,69<br>68,2 | 6,56<br>166,5 | 24,00<br>609,6 | 27,62<br>701,5 | 27,25<br>692,2 | 24                | 1,62<br>41,1 | 32,00<br>812,8 | 230            |

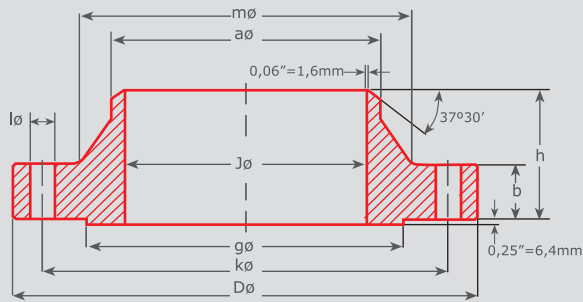
# 400 LB/SQ. IN.

## WELDING NECK FLANGES

### ASME B 16.5



| Pipe         |                | Flange                                |                                  |              |               | Hub            |                | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|---------------------------------------|----------------------------------|--------------|---------------|----------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in.         | D in. mm                              | J in. mm                         | b in. mm     | h in. mm      | a in. mm       | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | Use 600 lb dimensions for these sizes |                                  |              |               |                |                |                |                   |              |                |                |
| 3/4"         | 1,05<br>26,7   |                                       |                                  |              |               |                |                |                |                   |              |                |                |
| 1"           | 1,315<br>33,4  |                                       |                                  |              |               |                |                |                |                   |              |                |                |
| 1 1/4"       | 1,66<br>42,2   |                                       |                                  |              |               |                |                |                |                   |              |                |                |
| 1 1/2"       | 1,90<br>48,3   |                                       |                                  |              |               |                |                |                |                   |              |                |                |
| 2"           | 2,375<br>60,3  |                                       |                                  |              |               |                |                |                |                   |              |                |                |
| 2 1/2"       | 2,875<br>73,0  |                                       |                                  |              |               |                |                |                |                   |              |                |                |
| 3"           | 3,50<br>88,9   |                                       |                                  |              |               |                |                |                |                   |              |                |                |
| 3 1/2"       | 4,00<br>101,6  |                                       |                                  |              |               |                |                |                |                   |              |                |                |
| 4"           | 4,50<br>114,3  | 10,00<br>254,0                        | To be specified by the purchaser | 1,38<br>35,1 | 3,50<br>88,9  | 4,50<br>114,3  | 5,75<br>146,1  | 6,19<br>157,2  | 8                 | 1,00<br>25,4 | 7,88<br>200,2  | 12,8           |
| 5"           | 5,563<br>141,3 | 11,00<br>279,4                        |                                  | 1,50<br>38,1 | 4,00<br>101,6 | 5,563<br>141,3 | 7,00<br>177,8  | 7,31<br>185,7  | 8                 | 1,00<br>25,4 | 9,25<br>235,0  | 16,9           |
| 6"           | 6,625<br>168,3 | 12,50<br>317,5                        |                                  | 1,62<br>41,1 | 4,06<br>103,1 | 6,625<br>168,3 | 8,12<br>206,2  | 8,50<br>215,9  | 12                | 1,00<br>25,4 | 10,62<br>269,7 | 22,0           |
| 8"           | 8,625<br>219,1 | 15,00<br>381,0                        |                                  | 1,88<br>47,8 | 4,62<br>117,3 | 8,625<br>219,1 | 10,25<br>260,4 | 10,62<br>269,7 | 12                | 1,12<br>28,4 | 13,00<br>330,2 | 34,7           |
| 10"          | 10,75<br>273   | 17,50<br>444,5                        |                                  | 2,12<br>53,8 | 4,88<br>124,0 | 10,75<br>273   | 12,62<br>320,5 | 12,75<br>323,9 | 16                | 1,25<br>31,8 | 15,25<br>387,4 | 48,5           |
| 12"          | 12,75<br>323,8 | 20,50<br>520,7                        |                                  | 2,25<br>57,2 | 5,38<br>136,7 | 12,75<br>323,8 | 14,75<br>374,7 | 15,00<br>381,0 | 16                | 1,38<br>35,1 | 17,75<br>450,9 | 69,6           |
| 14"          | 14,0<br>355,6  | 23,00<br>584,2                        |                                  | 2,38<br>60,5 | 5,88<br>149,4 | 14,0<br>355,6  | 16,75<br>425,5 | 16,25<br>412,8 | 20                | 1,38<br>35,1 | 20,25<br>514,4 | 95,5           |
| 16"          | 16,0<br>406,4  | 25,50<br>647,7                        |                                  | 2,50<br>63,5 | 6,00<br>152,4 | 16,0<br>406,4  | 19,00<br>482,6 | 18,50<br>469,9 | 20                | 1,50<br>38,1 | 22,50<br>571,5 | 118            |
| 18"          | 18,0<br>457,2  | 28,00<br>711,2                        |                                  | 2,62<br>66,5 | 6,50<br>165,1 | 18,0<br>457,2  | 21,00<br>533,4 | 21,00<br>533,4 | 24                | 1,50<br>38,1 | 24,75<br>628,7 | 145            |
| 20"          | 20,0<br>508    | 30,50<br>774,7                        |                                  | 2,75<br>69,9 | 6,62<br>168,1 | 20,0<br>508    | 23,12<br>587,2 | 23,00<br>584,2 | 24                | 1,62<br>41,1 | 27,00<br>685,8 | 173            |
| 24"          | 24,0<br>609,6  | 36,00<br>914,4                        |                                  | 3,00<br>76,2 | 6,88<br>174,8 | 24,0<br>609,6  | 27,62<br>701,5 | 27,25<br>692,2 | 24                | 1,88<br>47,8 | 32,00<br>812,8 | 249            |



# 600 LB/SQ. IN.

## WELDING NECK FLANGES

### ASME B 16.5

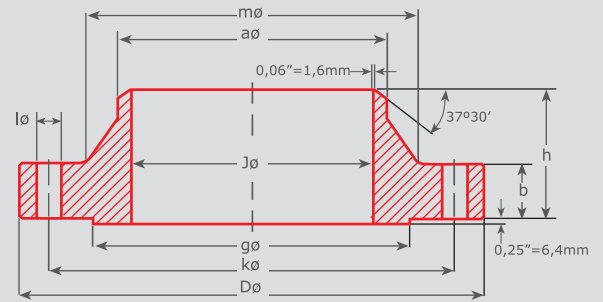
ASME  
B 16.5  
WELDING  
NECK  
400  
600

| Pipe         |                | Flange         |                                  |               |               | Hub            |                | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------------------------|---------------|---------------|----------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm                         | b in. mm      | h in. mm      | a in. mm       | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 3,75<br>95,3   | To be specified by the purchaser | 0,56<br>14,2  | 2,06<br>52,3  | 0,84<br>21,3   | 1,50<br>38,1   | 1,38<br>35,1   | 4                 | 0,62<br>15,7 | 2,62<br>66,5   | 0,87           |
| 3/4"         | 1,05<br>26,7   | 4,62<br>117,3  |                                  | 0,62<br>15,7  | 2,25<br>57,2  | 1,05<br>26,7   | 1,88<br>47,8   | 1,69<br>42,9   | 4                 | 0,75<br>19,1 | 3,25<br>82,6   | 1,45           |
| 1"           | 1,315<br>33,4  | 4,88<br>124,0  |                                  | 0,69<br>17,5  | 2,44<br>62,0  | 1,315<br>33,4  | 2,12<br>53,8   | 2,00<br>50,8   | 4                 | 0,75<br>19,1 | 3,50<br>88,9   | 1,76           |
| 1 1/4"       | 1,66<br>42,2   | 5,25<br>133,4  |                                  | 0,81<br>20,6  | 2,62<br>66,5  | 1,66<br>42,2   | 2,50<br>63,5   | 2,50<br>63,5   | 4                 | 0,75<br>19,1 | 3,88<br>98,6   | 2,49           |
| 1 1/2"       | 1,90<br>48,3   | 6,12<br>155,4  |                                  | 0,88<br>22,4  | 2,75<br>69,9  | 1,90<br>48,3   | 2,75<br>69,9   | 2,88<br>73,2   | 4                 | 0,88<br>22,4 | 4,50<br>114,3  | 3,49           |
| 2"           | 2,375<br>60,3  | 6,50<br>165,1  |                                  | 1,00<br>25,4  | 2,88<br>73,2  | 2,375<br>60,3  | 3,31<br>84,1   | 3,62<br>91,9   | 8                 | 0,75<br>19,1 | 5,00<br>127,0  | 4,36           |
| 2 1/2"       | 2,875<br>73,0  | 7,50<br>190,5  |                                  | 1,12<br>28,4  | 3,12<br>79,2  | 2,875<br>73,0  | 3,94<br>100,1  | 4,12<br>104,6  | 8                 | 0,88<br>22,4 | 5,88<br>149,4  | 6,43           |
| 3"           | 3,50<br>88,9   | 8,25<br>209,6  |                                  | 1,25<br>31,8  | 3,25<br>82,6  | 3,50<br>88,9   | 4,62<br>117,3  | 5,00<br>127,0  | 8                 | 0,88<br>22,4 | 6,62<br>168,1  | 8,53           |
| 3 1/2"       | 4,00<br>101,6  | 9,00<br>228,6  |                                  | 1,38<br>35,1  | 3,38<br>85,9  | 4,00<br>101,6  | 5,25<br>133,4  | 5,50<br>139,7  | 8                 | 1,00<br>25,4 | 7,25<br>184,2  | 10,7           |
| 4"           | 4,50<br>114,3  | 10,75<br>273,1 |                                  | 1,50<br>38,1  | 4,00<br>101,6 | 4,50<br>114,3  | 6,00<br>152,4  | 6,19<br>157,2  | 8                 | 1,00<br>25,4 | 8,50<br>215,9  | 17,4           |
| 5"           | 5,563<br>141,3 | 13,00<br>330,2 |                                  | 1,75<br>44,5  | 4,50<br>114,3 | 5,563<br>141,3 | 7,44<br>189,0  | 7,31<br>185,7  | 8                 | 1,12<br>28,4 | 10,50<br>266,7 | 29,2           |
| 6"           | 6,625<br>168,3 | 14,00<br>355,6 |                                  | 1,88<br>47,8  | 4,62<br>117,3 | 6,625<br>168,3 | 8,75<br>222,3  | 8,50<br>215,9  | 12                | 1,12<br>28,4 | 11,50<br>292,1 | 34,9           |
| 8"           | 8,625<br>219,1 | 16,50<br>419,1 |                                  | 2,19<br>55,6  | 5,25<br>133,4 | 8,625<br>219,1 | 10,75<br>273,1 | 10,62<br>269,7 | 12                | 1,25<br>31,8 | 13,75<br>349,3 | 53,9           |
| 10"          | 10,75<br>273   | 20,00<br>508,0 |                                  | 2,50<br>63,5  | 6,00<br>152,4 | 10,75<br>273   | 13,50<br>342,9 | 12,75<br>323,9 | 16                | 1,38<br>35,1 | 17,00<br>431,8 | 86,5           |
| 12"          | 12,75<br>323,8 | 22,00<br>558,8 |                                  | 2,62<br>66,5  | 6,12<br>155,4 | 12,75<br>323,8 | 15,75<br>400,1 | 15,00<br>381,0 | 20                | 1,38<br>35,1 | 19,25<br>489,0 | 103            |
| 14"          | 14,0<br>355,6  | 23,75<br>603,3 |                                  | 2,75<br>69,9  | 6,50<br>165,1 | 14,0<br>355,6  | 17,00<br>431,8 | 16,25<br>412,8 | 20                | 1,50<br>38,1 | 20,75<br>527,1 | 122            |
| 16"          | 16,0<br>406,4  | 27,00<br>685,8 |                                  | 3,00<br>76,2  | 7,00<br>177,8 | 16,0<br>406,4  | 19,50<br>495,3 | 18,50<br>469,9 | 20                | 1,62<br>41,1 | 23,75<br>603,3 | 170            |
| 18"          | 18,0<br>457,2  | 29,25<br>743,0 |                                  | 3,25<br>82,6  | 7,25<br>184,2 | 18,0<br>457,2  | 21,50<br>546,1 | 21,00<br>533,4 | 20                | 1,75<br>44,5 | 25,75<br>654,1 | 204            |
| 20"          | 20,0<br>508    | 32,00<br>812,8 |                                  | 3,50<br>88,9  | 7,50<br>190,5 | 20,0<br>508    | 24,00<br>609,6 | 23,00<br>584,2 | 24                | 1,75<br>44,5 | 28,50<br>723,9 | 254            |
| 24"          | 24,0<br>609,6  | 37,00<br>939,8 |                                  | 4,00<br>101,6 | 8,00<br>203,2 | 24,0<br>609,6  | 28,25<br>717,6 | 27,25<br>692,2 | 24                | 2,00<br>50,8 | 33,00<br>838,2 | 358            |

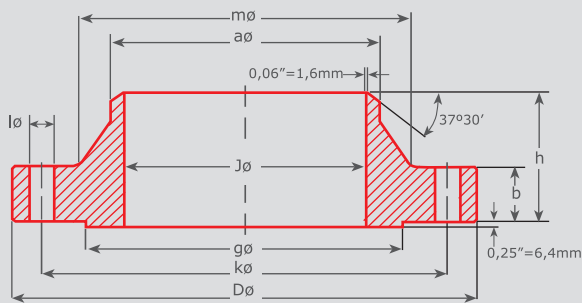
# 900 LB/SQ. IN.

## WELDING NECK FLANGES

### ASME B 16.5



| Pipe         |                | Flange                                 |                                  |               |                | Hub            |                | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------------------------------|----------------------------------|---------------|----------------|----------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm                               | J in. mm                         | b in. mm      | h in. mm       | a in. mm       | m in. mm       | 9 in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | Use 1500 lb dimensions for these sizes |                                  |               |                |                |                |                |                   |              |                |                |
| 3/4"         | 1,05<br>26,7   |                                        |                                  |               |                |                |                |                |                   |              |                |                |
| 1"           | 1,315<br>33,4  |                                        |                                  |               |                |                |                |                |                   |              |                |                |
| 1 1/4"       | 1,66<br>42,2   |                                        |                                  |               |                |                |                |                |                   |              |                |                |
| 1 1/2"       | 1,90<br>48,3   |                                        |                                  |               |                |                |                |                |                   |              |                |                |
| 2"           | 2,375<br>60,3  |                                        |                                  |               |                |                |                |                |                   |              |                |                |
| 2 1/2"       | 2,875<br>73,0  |                                        |                                  |               |                |                |                |                |                   |              |                |                |
| 3"           | 3,50<br>88,9   | 9,50<br>241,3                          | To be specified by the purchaser | 1,50<br>38,1  | 4,00<br>101,6  | 3,50<br>88,9   | 5,00<br>127,0  | 5,00<br>127,0  | 8                 | 1,00<br>25,4 | 7,50<br>190,5  | 13,7           |
| 4"           | 4,50<br>114,3  | 11,50<br>292,1                         |                                  | 1,75<br>44,4  | 4,50<br>114,3  | 4,50<br>114,3  | 6,25<br>158,7  | 6,19<br>157,2  | 8                 | 1,25<br>31,8 | 9,25<br>234,9  | 22,5           |
| 5"           | 5,563<br>141,3 | 13,75<br>349,3                         |                                  | 2,00<br>50,8  | 5,00<br>127,0  | 5,563<br>141,3 | 7,50<br>190,5  | 7,31<br>185,7  | 8                 | 1,38<br>35,1 | 11,00<br>279,4 | 37,4           |
| 6"           | 6,625<br>168,3 | 15,00<br>381,0                         |                                  | 2,19<br>55,6  | 5,50<br>139,7  | 6,625<br>168,3 | 9,25<br>235,0  | 8,50<br>215,9  | 12                | 1,25<br>31,8 | 12,50<br>317,5 | 47,7           |
| 8"           | 8,625<br>219,1 | 18,50<br>469,9                         |                                  | 2,50<br>63,5  | 6,38<br>162,1  | 8,625<br>219,1 | 11,75<br>298,5 | 10,62<br>269,7 | 12                | 1,50<br>38,1 | 15,50<br>393,7 | 81,3           |
| 10"          | 10,75<br>273   | 21,50<br>546,1                         |                                  | 2,75<br>69,9  | 7,25<br>184,2  | 10,75<br>273   | 14,50<br>368,3 | 12,75<br>323,9 | 16                | 1,50<br>38,1 | 18,50<br>469,9 | 119            |
| 12"          | 12,75<br>323,8 | 24,00<br>609,6                         |                                  | 3,12<br>79,2  | 7,88<br>200,2  | 12,75<br>323,8 | 16,50<br>419,1 | 15,00<br>381,0 | 20                | 1,50<br>38,1 | 21,00<br>533,4 | 157            |
| 14"          | 14,0<br>355,6  | 25,25<br>641,4                         |                                  | 3,38<br>85,9  | 8,38<br>212,9  | 14,0<br>355,6  | 17,75<br>450,9 | 16,25<br>412,8 | 20                | 1,62<br>41,1 | 22,00<br>558,8 | 180            |
| 16"          | 16,0<br>406,4  | 27,75<br>704,9                         |                                  | 3,50<br>88,9  | 8,50<br>215,9  | 16,0<br>406,4  | 20,00<br>508,0 | 18,50<br>469,9 | 20                | 1,75<br>44,5 | 24,25<br>616   | 217            |
| 18"          | 18,0<br>457,2  | 31,00<br>787,4                         |                                  | 4,00<br>101,6 | 9,00<br>228,6  | 18,0<br>457,2  | 22,25<br>565,2 | 21,00<br>533,4 | 20                | 2,00<br>50,8 | 27,00<br>685,8 | 292            |
| 20"          | 20,0<br>508    | 33,75<br>857,3                         |                                  | 4,25<br>108   | 9,75<br>247,7  | 20,0<br>508    | 24,50<br>622,3 | 23,00<br>584,2 | 20                | 2,12<br>53,8 | 29,50<br>749,3 | 362            |
| 24"          | 24,0<br>609,6  | 41,00<br>1041,4                        |                                  | 5,50<br>139,7 | 11,50<br>292,1 | 24,0<br>609,6  | 29,50<br>749,3 | 27,25<br>692,2 | 20                | 2,62<br>66,5 | 35,50<br>901,7 | 665            |



# 1500 LB/SQ. IN.

## WELDING NECK FLANGES

### ASME B 16.5

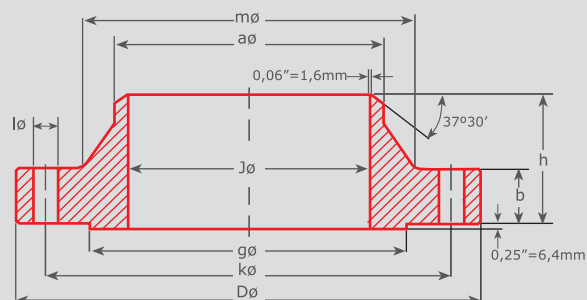
ASME  
B 16.5  
WELDING  
NECK  
900  
1500

| Pipe         |                | Flange          |                                  |               |                | Hub            |                | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|-----------------|----------------------------------|---------------|----------------|----------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm        | J in. mm                         | b in. mm      | h in. mm       | a in. mm       | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 4,75<br>120,7   | To be specified by the purchaser | 0,88<br>22,4  | 2,38<br>60,5   | 0,84<br>21,3   | 1,50<br>38,1   | 1,38<br>35,1   | 4                 | 0,88<br>22,4 | 3,25<br>82,6   | 1,87           |
| 3/4"         | 1,05<br>26,7   | 5,12<br>130,0   |                                  | 1,00<br>25,4  | 2,75<br>69,9   | 1,05<br>26,7   | 1,75<br>44,5   | 1,69<br>42,9   | 4                 | 0,88<br>22,4 | 3,50<br>88,9   | 2,56           |
| 1"           | 1,315<br>33,4  | 5,88<br>149,4   |                                  | 1,12<br>28,4  | 2,88<br>73,2   | 1,315<br>33,4  | 2,06<br>52,3   | 2,00<br>50,8   | 4                 | 1,00<br>25,4 | 4,00<br>101,6  | 3,74           |
| 1 1/4"       | 1,66<br>42,2   | 6,25<br>158,8   |                                  | 1,12<br>28,4  | 2,88<br>73,2   | 1,66<br>42,2   | 2,50<br>63,5   | 2,50<br>63,5   | 4                 | 1,00<br>25,4 | 4,38<br>111,3  | 4,33           |
| 1 1/2"       | 1,90<br>48,3   | 7,00<br>177,8   |                                  | 1,25<br>31,8  | 3,25<br>82,6   | 1,90<br>48,3   | 2,75<br>69,9   | 2,88<br>73,2   | 4                 | 1,12<br>28,4 | 4,88<br>124    | 5,94           |
| 2"           | 2,375<br>60,3  | 8,50<br>215,9   |                                  | 1,50<br>38,1  | 4,00<br>101,6  | 2,375<br>60,3  | 4,12<br>104,6  | 3,62<br>91,9   | 8                 | 1,00<br>25,4 | 6,50<br>165,1  | 10,8           |
| 2 1/2"       | 2,875<br>73,0  | 9,62<br>244,3   |                                  | 1,62<br>41,1  | 4,12<br>104,6  | 2,875<br>73,0  | 4,88<br>124    | 4,12<br>104,6  | 8                 | 1,12<br>28,4 | 7,50<br>190,5  | 15,0           |
| 3"           | 3,50<br>88,9   | 10,50<br>266,7  |                                  | 1,88<br>47,8  | 4,62<br>117,3  | 3,50<br>88,9   | 5,25<br>133,4  | 5,00<br>127,0  | 8                 | 1,25<br>31,8 | 8,00<br>203,2  | 19,9           |
| 4"           | 4,50<br>114,3  | 12,25<br>311,2  |                                  | 2,12<br>53,8  | 4,88<br>124    | 4,50<br>114,3  | 6,38<br>162,1  | 6,19<br>157,2  | 8                 | 1,38<br>35,1 | 9,50<br>241,3  | 29,9           |
| 5"           | 5,563<br>141,3 | 14,75<br>374,7  |                                  | 2,88<br>73,2  | 6,12<br>155,4  | 5,563<br>141,3 | 7,75<br>196,9  | 7,31<br>185,7  | 8                 | 1,62<br>41,1 | 11,50<br>292,1 | 55,4           |
| 6"           | 6,625<br>168,3 | 15,50<br>393,7  |                                  | 3,25<br>82,6  | 6,75<br>171,5  | 6,625<br>168,3 | 9,00<br>228,6  | 8,50<br>215,9  | 12                | 1,50<br>38,1 | 12,50<br>317,5 | 68,4           |
| 8"           | 8,625<br>219,1 | 19,00<br>482,6  |                                  | 3,62<br>91,9  | 8,38<br>212,9  | 8,625<br>219,1 | 11,50<br>292,1 | 10,62<br>269,7 | 12                | 1,75<br>44,5 | 15,50<br>393,7 | 117            |
| 10"          | 10,75<br>273   | 23,00<br>584,2  |                                  | 4,25<br>108,0 | 10,00<br>254,0 | 10,75<br>273   | 14,50<br>368,3 | 12,75<br>323,9 | 12                | 2,00<br>50,8 | 19,00<br>482,6 | 194            |
| 12"          | 12,75<br>323,8 | 26,50<br>673,1  |                                  | 4,88<br>124   | 11,12<br>282,4 | 12,75<br>323,8 | 17,75<br>450,9 | 15,00<br>381,0 | 16                | 2,12<br>53,8 | 22,50<br>571,5 | 288            |
| 14"          | 14,0<br>355,6  | 29,50<br>749,3  |                                  | 5,25<br>133,4 | 11,75<br>298,5 | 14,0<br>355,6  | 19,50<br>495,3 | 16,25<br>412,8 | 16                | 2,38<br>60,5 | 25,00<br>635,0 | 380            |
| 16"          | 16,0<br>406,4  | 32,50<br>825,5  |                                  | 5,75<br>146,1 | 12,25<br>311,2 | 16,0<br>406,4  | 21,75<br>552,5 | 18,50<br>469,9 | 16                | 2,62<br>66,5 | 27,75<br>704,9 | 485            |
| 18"          | 18,0<br>457,2  | 36,00<br>914,4  |                                  | 6,38<br>162,1 | 12,88<br>327,2 | 18,0<br>457,2  | 23,50<br>596,9 | 21,00<br>533,4 | 16                | 2,88<br>73,2 | 30,50<br>774,7 | 644            |
| 20"          | 20,0<br>508    | 38,75<br>984,3  |                                  | 7,00<br>177,8 | 14,00<br>355,6 | 20,0<br>508    | 25,25<br>641,4 | 23,00<br>584,2 | 16                | 3,12<br>79,2 | 32,75<br>831,9 | 775            |
| 24"          | 24,0<br>609,6  | 46,00<br>1168,4 |                                  | 8,00<br>203,2 | 16,00<br>406,4 | 24,0<br>609,6  | 30,00<br>762,0 | 27,25<br>692,2 | 16                | 3,62<br>91,9 | 39,00<br>990,6 | 1232           |

# 2500 LB/SQ. IN.

## WELDING NECK FLANGES

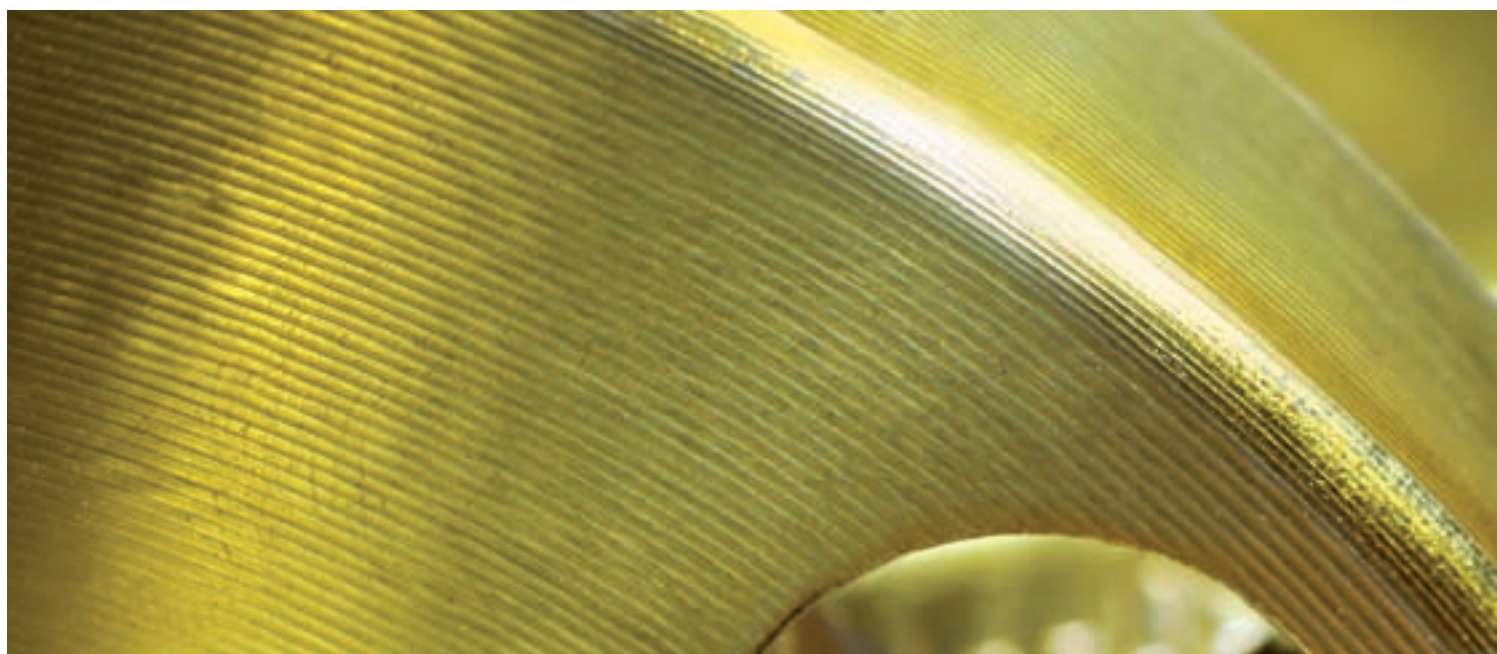
### ASME B 16.5



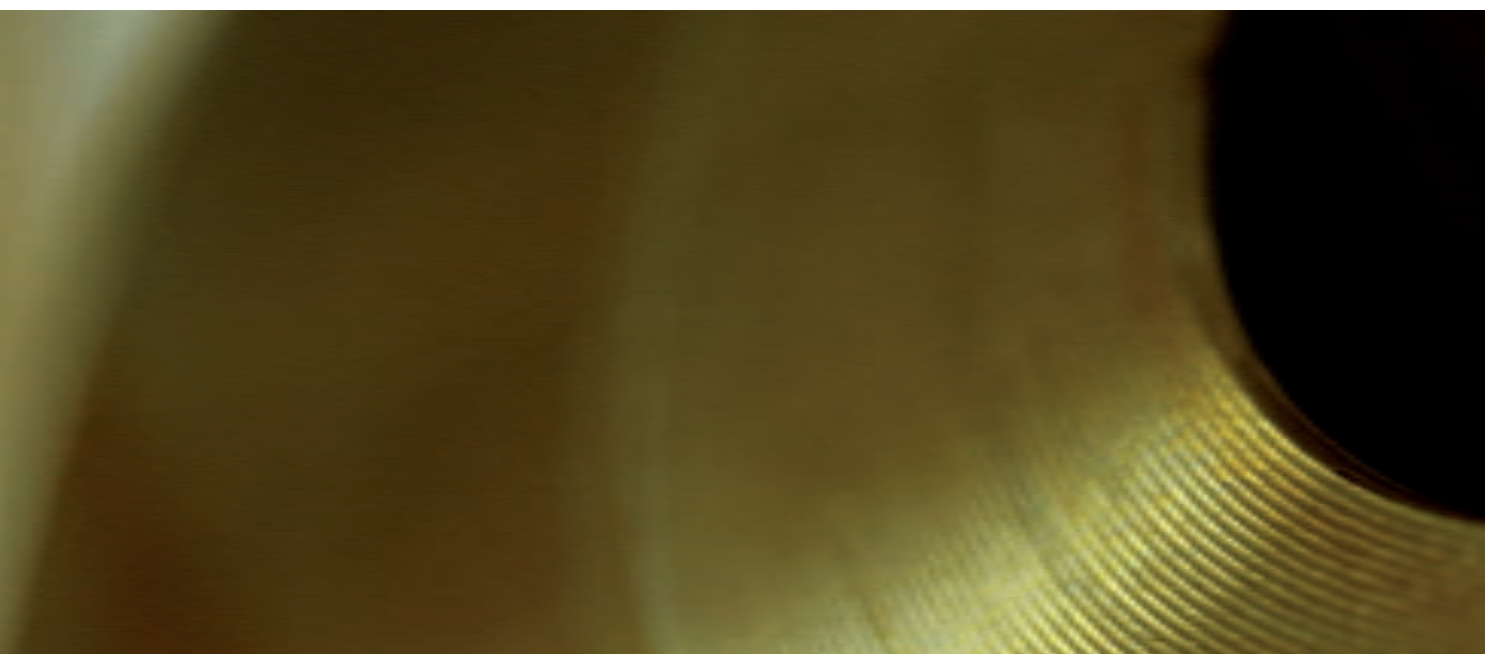
| Pipe         |                | Flange         |                                  |               |                | Hub            |                | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------------------------|---------------|----------------|----------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm                         | b in. mm      | h in. mm       | a in. mm       | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 5,25<br>133,4  | To be specified by the purchaser | 1,19<br>30,2  | 2,88<br>73,2   | 0,84<br>21,3   | 1,69<br>42,9   | 1,38<br>35,1   | 4                 | 0,88<br>22,4 | 3,50<br>88,9   | 3,12           |
| 3/4"         | 1,05<br>26,7   | 5,50<br>139,7  |                                  | 1,25<br>31,8  | 3,12<br>79,2   | 1,05<br>26,7   | 2,00<br>50,8   | 1,69<br>42,9   | 4                 | 0,88<br>22,4 | 3,75<br>95,3   | 3,70           |
| 1"           | 1,315<br>33,4  | 6,25<br>158,8  |                                  | 1,38<br>35,1  | 3,50<br>88,9   | 1,315<br>33,4  | 2,25<br>57,2   | 2,00<br>50,8   | 4                 | 1,00<br>25,4 | 4,25<br>108,0  | 5,24           |
| 1 1/4"       | 1,66<br>42,2   | 7,25<br>184,2  |                                  | 1,50<br>38,1  | 3,75<br>95,3   | 1,66<br>42,2   | 2,88<br>73,2   | 2,50<br>63,5   | 4                 | 1,12<br>28,4 | 5,12<br>130,0  | 7,74           |
| 1 1/2"       | 1,90<br>48,3   | 8,00<br>203,2  |                                  | 1,75<br>44,5  | 4,38<br>111,3  | 1,90<br>48,3   | 3,12<br>79,2   | 2,88<br>73,2   | 4                 | 1,25<br>31,8 | 5,75<br>146,1  | 10,9           |
| 2"           | 2,375<br>60,3  | 9,25<br>235,0  |                                  | 2,00<br>50,8  | 5,00<br>127,0  | 2,375<br>60,3  | 3,75<br>95,3   | 3,62<br>91,9   | 8                 | 1,12<br>28,4 | 6,75<br>171,5  | 16,2           |
| 2 1/2"       | 2,875<br>73,0  | 10,50<br>266,7 |                                  | 2,25<br>57,2  | 5,62<br>142,7  | 2,875<br>73,0  | 4,50<br>114,3  | 4,12<br>104,6  | 8                 | 1,25<br>31,8 | 7,75<br>196,9  | 23,7           |
| 3"           | 3,50<br>88,9   | 12,00<br>304,8 |                                  | 2,62<br>66,5  | 6,62<br>168,1  | 3,50<br>88,9   | 5,25<br>133,4  | 5,00<br>127,0  | 8                 | 1,38<br>35,1 | 9,00<br>228,6  | 36,2           |
| 4"           | 4,50<br>114,3  | 14,00<br>355,6 |                                  | 3,00<br>76,2  | 7,50<br>190,5  | 4,50<br>114,3  | 6,50<br>165,1  | 6,19<br>157,2  | 8                 | 1,62<br>41,1 | 10,75<br>273,1 | 55,3           |
| 5"           | 5,563<br>141,3 | 16,50<br>419,1 |                                  | 3,62<br>91,9  | 9,00<br>228,6  | 5,563<br>141,3 | 8,00<br>203,2  | 7,31<br>185,7  | 8                 | 1,88<br>47,8 | 12,75<br>323,9 | 92,5           |
| 6"           | 6,625<br>168,3 | 19,00<br>482,6 |                                  | 4,25<br>108,0 | 10,75<br>273,1 | 6,625<br>168,3 | 9,25<br>235,0  | 8,50<br>215,9  | 8                 | 2,12<br>53,8 | 14,50<br>368,3 | 143            |
| 8"           | 8,625<br>219,1 | 21,75<br>552,5 |                                  | 5,00<br>127,0 | 12,50<br>317,5 | 8,625<br>219,1 | 12,00<br>304,8 | 10,62<br>269,7 | 12                | 2,12<br>53,8 | 17,25<br>438,2 | 215            |
| 10"          | 10,75<br>273   | 26,50<br>673,1 |                                  | 6,50<br>165,1 | 16,50<br>419,1 | 10,75<br>273   | 14,75<br>374,7 | 12,75<br>323,9 | 12                | 2,62<br>66,5 | 21,25<br>539,8 | 406            |
| 12"          | 12,75<br>323,8 | 30,00<br>762,0 |                                  | 7,25<br>184,2 | 18,25<br>463,6 | 12,75<br>323,8 | 17,38<br>441,5 | 15,00<br>381,0 | 12                | 2,88<br>73,2 | 24,38<br>619,3 | 572            |

## ASME B 16.5

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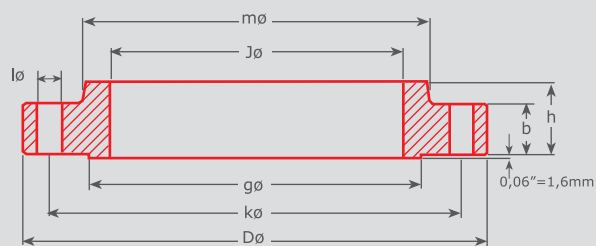


## SLIP ON FLANGES ACC. TO ASME B 16.5



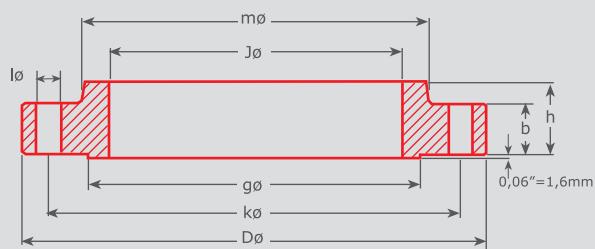
# 150 LB/SQ. IN.

## SLIP ON FLANGES



## ASME B 16.5

| Pipe         |                | Flange         |                |              |              | Hub            | Raised Face    | Drilling Template |              |                | Approx Weight |
|--------------|----------------|----------------|----------------|--------------|--------------|----------------|----------------|-------------------|--------------|----------------|---------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm       | b in. mm     | h in. mm     | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo          |
| 1/2"         | 0,84<br>21,3   | 3,50<br>88,9   | 0,88<br>22,4   | 0,38<br>9,6  | 0,56<br>14,1 | 1,19<br>30,2   | 1,38<br>35,1   | 4                 | 0,62<br>15,7 | 2,38<br>60,5   | 0,39          |
| 3/4"         | 1,05<br>26,7   | 3,88<br>98,6   | 1,09<br>27,7   | 0,44<br>11,1 | 0,56<br>14,1 | 1,50<br>38,1   | 1,69<br>42,9   | 4                 | 0,62<br>15,7 | 2,75<br>69,9   | 0,56          |
| 1"           | 1,315<br>33,4  | 4,25<br>108,0  | 1,36<br>34,5   | 0,5<br>12,6  | 0,63<br>15,9 | 1,94<br>49,3   | 2,00<br>50,8   | 4                 | 0,62<br>15,7 | 3,12<br>79,2   | 0,78          |
| 1 1/4"       | 1,66<br>42,2   | 4,62<br>117,3  | 1,70<br>43,2   | 0,56<br>14,1 | 0,75<br>19   | 2,31<br>58,7   | 2,50<br>63,5   | 4                 | 0,62<br>15,7 | 3,50<br>88,9   | 1,03          |
| 1 1/2"       | 1,90<br>48,3   | 5,00<br>127,0  | 1,95<br>49,5   | 0,63<br>15,9 | 0,82<br>20,8 | 2,56<br>65,0   | 2,88<br>73,2   | 4                 | 0,62<br>15,7 | 3,88<br>98,6   | 1,32          |
| 2"           | 2,375<br>60,3  | 6,00<br>152,4  | 2,44<br>62,0   | 0,69<br>17,5 | 0,94<br>23,8 | 3,06<br>77,7   | 3,62<br>91,9   | 4                 | 0,75<br>19,1 | 4,75<br>120,7  | 2,06          |
| 2 1/2"       | 2,875<br>73,0  | 7,00<br>177,8  | 2,94<br>74,7   | 0,82<br>20,8 | 1,06<br>26,8 | 3,56<br>90,4   | 4,12<br>104,6  | 4                 | 0,75<br>19,1 | 5,50<br>139,7  | 3,28          |
| 3"           | 3,50<br>88,9   | 7,50<br>190,5  | 3,57<br>90,7   | 0,88<br>22,3 | 1,13<br>28,6 | 4,25<br>108,0  | 5,00<br>127,0  | 4                 | 0,75<br>19,1 | 6,00<br>152,4  | 3,85          |
| 3 1/2"       | 4,00<br>101,6  | 8,50<br>215,9  | 4,07<br>103,4  | 0,88<br>22,3 | 1,19<br>30,2 | 4,81<br>122,2  | 5,50<br>139,7  | 8                 | 0,75<br>19,1 | 7,00<br>177,8  | 4,81          |
| 4"           | 4,50<br>114,3  | 9,00<br>228,6  | 4,57<br>116,1  | 0,88<br>22,3 | 1,25<br>31,7 | 5,31<br>134,9  | 6,19<br>157,2  | 8                 | 0,75<br>19,1 | 7,50<br>190,5  | 5,30          |
| 5"           | 5,563<br>141,3 | 10,00<br>254,0 | 5,66<br>143,8  | 0,88<br>22,3 | 1,38<br>35   | 6,44<br>163,6  | 7,31<br>185,7  | 8                 | 0,88<br>22,4 | 8,50<br>215,9  | 6,07          |
| 6"           | 6,625<br>168,3 | 11,00<br>279,4 | 6,72<br>170,7  | 0,94<br>23,8 | 1,5<br>38    | 7,56<br>192,0  | 8,50<br>215,9  | 8                 | 0,88<br>22,4 | 9,50<br>241,3  | 7,45          |
| 8"           | 8,625<br>219,1 | 13,50<br>342,9 | 8,72<br>221,5  | 1,06<br>26,8 | 1,69<br>42,9 | 9,69<br>246,1  | 10,62<br>269,7 | 8                 | 0,88<br>22,4 | 11,75<br>298,5 | 12,1          |
| 10"          | 10,75<br>273   | 16,00<br>406,4 | 10,88<br>276,4 | 1,13<br>28,6 | 1,88<br>47,7 | 12,00<br>304,8 | 12,75<br>323,9 | 12                | 1,00<br>25,4 | 14,25<br>362,0 | 16,5          |
| 12"          | 12,75<br>323,8 | 19,00<br>482,6 | 12,88<br>327,2 | 1,19<br>30,2 | 2,13<br>54   | 14,38<br>365,3 | 15,00<br>381,0 | 12                | 1,00<br>25,4 | 17,00<br>431,8 | 26,2          |
| 14"          | 14,0<br>355,6  | 21,00<br>533,4 | 14,14<br>359,2 | 1,32<br>33,5 | 2,19<br>55,6 | 15,75<br>400,1 | 16,25<br>412,8 | 12                | 1,12<br>28,4 | 18,75<br>476,3 | 34,6          |
| 16"          | 16,0<br>406,4  | 23,50<br>596,9 | 16,16<br>410,5 | 1,38<br>35   | 2,44<br>61,9 | 18,00<br>457,2 | 18,50<br>469,9 | 16                | 1,12<br>28,4 | 21,25<br>539,8 | 44,8          |
| 18"          | 18,0<br>457,2  | 25,00<br>635,0 | 18,18<br>461,8 | 1,5<br>38    | 2,63<br>66,7 | 19,88<br>505,0 | 21,00<br>533,4 | 16                | 1,25<br>31,8 | 22,75<br>577,9 | 48,9          |
| 20"          | 20,0<br>508    | 27,50<br>698,5 | 20,20<br>513,1 | 1,63<br>41,3 | 2,82<br>71,6 | 22,00<br>558,8 | 23,00<br>584,2 | 20                | 1,25<br>31,8 | 25,00<br>635,0 | 61,9          |
| 24"          | 24,0<br>609,6  | 32,00<br>812,8 | 24,25<br>616,0 | 1,82<br>46,2 | 3,19<br>81   | 26,12<br>663,4 | 27,25<br>692,2 | 20                | 1,38<br>35,1 | 29,50<br>749,3 | 86,9          |



# 300 LB/SQ. IN.

## SLIP ON FLANGES

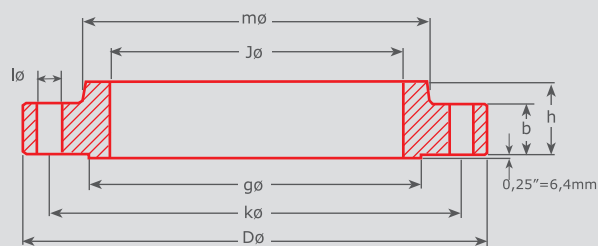
### ASME B 16.5

ASME  
B 16.5SLIP-ON  
FLANGES150  
300

| Pipe         |                | Flange         |                |              |               | Hub            | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------|--------------|---------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm       | b in. mm     | h in. mm      | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 3,75<br>95,3   | 0,88<br>22,4   | 0,5<br>12,6  | 0,82<br>20,8  | 1,50<br>38,1   | 1,38<br>35,1   | 4                 | 0,62<br>15,7 | 2,62<br>66,5   | 0,64           |
| 3/4"         | 1,05<br>26,7   | 4,62<br>117,3  | 1,09<br>27,7   | 0,56<br>14,1 | 0,94<br>23,8  | 1,88<br>47,8   | 1,69<br>42,9   | 4                 | 0,75<br>19,1 | 3,25<br>82,6   | 1,12           |
| 1"           | 1,315<br>33,4  | 4,88<br>123,9  | 1,36<br>34,5   | 0,63<br>15,9 | 1<br>25,3     | 2,12<br>53,8   | 2,00<br>50,8   | 4                 | 0,75<br>19,1 | 3,50<br>88,9   | 1,36           |
| 1 1/4"       | 1,66<br>42,2   | 5,25<br>133,4  | 1,70<br>43,2   | 0,69<br>17,5 | 1<br>25,3     | 2,50<br>63,5   | 2,50<br>63,5   | 4                 | 0,75<br>19,1 | 3,88<br>98,6   | 1,68           |
| 1 1/2"       | 1,90<br>48,3   | 6,12<br>155,4  | 1,95<br>49,5   | 0,75<br>19   | 1,13<br>28,6  | 2,75<br>69,9   | 2,88<br>73,2   | 4                 | 0,88<br>22,4 | 4,50<br>114,3  | 2,49           |
| 2"           | 2,375<br>60,3  | 6,50<br>165,1  | 2,44<br>62,0   | 0,82<br>20,8 | 1,25<br>31,7  | 3,31<br>84,1   | 3,62<br>91,9   | 8                 | 0,75<br>19,1 | 5,00<br>127,0  | 2,87           |
| 2 1/2"       | 2,875<br>73,0  | 7,50<br>190,5  | 2,94<br>74,7   | 0,94<br>23,8 | 1,44<br>36,5  | 3,94<br>100,1  | 4,12<br>104,6  | 8                 | 0,88<br>22,4 | 5,88<br>149,4  | 4,32           |
| 3"           | 3,50<br>88,9   | 8,25<br>209,6  | 3,57<br>90,7   | 1,06<br>26,8 | 1,63<br>41,3  | 4,62<br>117,3  | 5,00<br>127,0  | 8                 | 0,88<br>22,4 | 6,62<br>168,1  | 5,85           |
| 3 1/2"       | 4,00<br>101,6  | 9,00<br>228,6  | 4,07<br>103,4  | 1,13<br>28,6 | 1,69<br>42,9  | 5,25<br>133,4  | 5,50<br>139,7  | 8                 | 0,88<br>22,4 | 7,25<br>184,2  | 7,34           |
| 4 "          | 4,50<br>114,3  | 10,00<br>254,0 | 4,57<br>116,1  | 1,19<br>30,2 | 1,82<br>46,2  | 5,75<br>146,1  | 6,19<br>157,2  | 8                 | 0,88<br>22,4 | 7,88<br>200,2  | 9,61           |
| 5 "          | 5,563<br>141,3 | 11,00<br>279,4 | 5,66<br>143,8  | 1,32<br>33,5 | 1,94<br>49,2  | 7,00<br>177,8  | 7,31<br>185,7  | 8                 | 0,88<br>22,4 | 9,25<br>235    | 12,3           |
| 6"           | 6,625<br>168,3 | 12,50<br>317,5 | 6,72<br>170,7  | 1,38<br>35   | 2<br>50,7     | 8,12<br>206,2  | 8,50<br>215,9  | 12                | 0,88<br>22,4 | 10,62<br>269,7 | 15,6           |
| 8"           | 8,625<br>219,1 | 15,00<br>381,0 | 8,72<br>221,5  | 1,56<br>39,5 | 2,38<br>60,4  | 10,25<br>260,4 | 10,62<br>269,7 | 12                | 1,00<br>25,4 | 13,00<br>330,2 | 24,2           |
| 10 "         | 10,75<br>273   | 17,50<br>444,5 | 10,88<br>276,4 | 1,82<br>46,2 | 2,56<br>64,9  | 12,62<br>320,5 | 12,75<br>323,9 | 16                | 1,12<br>28,4 | 15,25<br>387,4 | 34,1           |
| 12 "         | 12,75<br>323,8 | 20,50<br>520,7 | 12,88<br>327,2 | 1,94<br>49,2 | 2,82<br>71,6  | 14,75<br>374,7 | 15,00<br>381,0 | 16                | 1,25<br>31,8 | 17,75<br>450,9 | 49,8           |
| 14 "         | 14,0<br>355,6  | 23,00<br>584,2 | 14,14<br>359,2 | 2,06<br>52,2 | 2,94<br>74,6  | 16,75<br>425,5 | 16,25<br>412,8 | 20                | 1,25<br>31,8 | 20,25<br>514,4 | 69,9           |
| 16 "         | 16,0<br>406,4  | 25,50<br>647,7 | 16,16<br>410,5 | 2,19<br>55,6 | 3,19<br>81    | 19,00<br>482,6 | 18,50<br>469,9 | 20                | 1,38<br>35,1 | 22,50<br>571,5 | 88,1           |
| 18 "         | 18,0<br>457,2  | 28,00<br>711,2 | 18,18<br>461,8 | 2,32<br>58,9 | 3,44<br>87,3  | 21,00<br>533,4 | 21,00<br>533,4 | 24                | 1,38<br>35,1 | 24,75<br>628,7 | 109            |
| 20 "         | 20,0<br>508    | 30,50<br>774,7 | 20,20<br>513,1 | 2,44<br>61,9 | 3,69<br>93,7  | 23,12<br>587,2 | 23,00<br>584,2 | 24                | 1,38<br>35,1 | 27,00<br>685,8 | 134            |
| 24 "         | 24,0<br>609,6  | 36,00<br>914,4 | 24,25<br>616,0 | 2,69<br>68,3 | 4,13<br>104,8 | 27,62<br>701,5 | 27,25<br>692,2 | 24                | 1,62<br>41,1 | 32,00<br>812,8 | 201            |

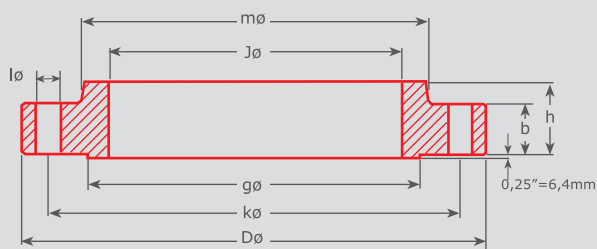
# 400 LB/SQ. IN.

## SLIP ON FLANGES



## ASME B 16.5

| Pipe         |                | Flange                                |                |              |               | Hub            | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|---------------------------------------|----------------|--------------|---------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm                              | J in. mm       | b in. mm     | h in. mm      | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | Use 600 lb dimensions for these sizes |                |              |               |                |                |                   |              |                |                |
| 3/4"         | 1,05<br>26,7   |                                       |                |              |               |                |                |                   |              |                |                |
| 1"           | 1,315<br>33,4  |                                       |                |              |               |                |                |                   |              |                |                |
| 1 1/4"       | 1,66<br>42,2   |                                       |                |              |               |                |                |                   |              |                |                |
| 1 1/2"       | 1,90<br>48,3   |                                       |                |              |               |                |                |                   |              |                |                |
| 2"           | 2,375<br>60,3  |                                       |                |              |               |                |                |                   |              |                |                |
| 2 1/2"       | 2,875<br>73,0  |                                       |                |              |               |                |                |                   |              |                |                |
| 3"           | 3,50<br>88,9   |                                       |                |              |               |                |                |                   |              |                |                |
| 3 1/2"       | 4,00<br>101,6  |                                       |                |              |               |                |                |                   |              |                |                |
| 4"           | 4,50<br>114,3  | 10,00<br>254,0                        | 4,57<br>116,1  | 1,38<br>35,1 | 2,00<br>50,8  | 5,75<br>146,1  | 6,19<br>157,2  | 8                 | 1,00<br>25,4 | 7,88<br>200,2  | <b>11,1</b>    |
| 5"           | 5,563<br>141,3 | 11,00<br>279,4                        | 5,66<br>143,8  | 1,50<br>38,1 | 2,12<br>53,8  | 7,00<br>177,8  | 7,31<br>185,7  | 8                 | 1,00<br>25,4 | 9,25<br>235,0  | <b>13,9</b>    |
| 6"           | 6,625<br>168,3 | 12,50<br>317,5                        | 6,72<br>170,7  | 1,62<br>41,1 | 2,25<br>57,2  | 8,12<br>206,2  | 8,50<br>215,9  | 12                | 1,00<br>25,4 | 10,62<br>269,7 | <b>18,3</b>    |
| 8"           | 8,625<br>219,1 | 15,00<br>381,0                        | 8,72<br>221,5  | 1,88<br>47,8 | 2,69<br>68,3  | 10,25<br>260,4 | 10,62<br>269,7 | 12                | 1,12<br>28,4 | 13,00<br>330,2 | <b>28,6</b>    |
| 10"          | 10,75<br>273   | 17,50<br>444,5                        | 10,88<br>276,4 | 2,12<br>53,8 | 2,88<br>73,2  | 12,62<br>320,5 | 12,75<br>323,9 | 16                | 1,25<br>31,8 | 15,25<br>387,4 | <b>39,2</b>    |
| 12 "         | 12,75<br>323,8 | 20,50<br>520,7                        | 12,88<br>327,2 | 2,25<br>57,2 | 3,12<br>79,2  | 14,75<br>374,7 | 15,00<br>381,0 | 16                | 1,38<br>35,1 | 17,75<br>450,9 | <b>57,0</b>    |
| 14 "         | 14,0<br>355,6  | 23,00<br>584,2                        | 14,14<br>359,2 | 2,38<br>60,5 | 3,31<br>84,1  | 16,75<br>425,5 | 16,25<br>412,8 | 20                | 1,38<br>35,1 | 20,25<br>514,4 | <b>79,1</b>    |
| 16 "         | 16,0<br>406,4  | 25,50<br>647,7                        | 16,16<br>410,5 | 2,50<br>63,5 | 3,69<br>93,7  | 19,00<br>482,6 | 18,50<br>469,9 | 20                | 1,50<br>38,1 | 22,50<br>571,5 | <b>101</b>     |
| 18 "         | 18,0<br>457,2  | 28,00<br>711,2                        | 18,18<br>461,8 | 2,62<br>66,5 | 3,88<br>98,6  | 21,00<br>533,4 | 21,00<br>533,4 | 24                | 1,50<br>38,1 | 24,75<br>628,7 | <b>123</b>     |
| 20 "         | 20,0<br>508    | 30,50<br>774,7                        | 20,20<br>513,1 | 2,75<br>69,9 | 4,00<br>101,6 | 23,12<br>587,2 | 23,00<br>584,2 | 24                | 1,62<br>41,1 | 27,00<br>685,8 | <b>146</b>     |
| 24 "         | 24,0<br>609,6  | 36,00<br>914,4                        | 24,25<br>616,0 | 3,00<br>76,2 | 4,50<br>114,3 | 27,62<br>701,5 | 27,25<br>692,2 | 24                | 1,88<br>47,8 | 32,00<br>812,8 | <b>219</b>     |



# 600 LB/SQ. IN.

## SLIP ON FLANGES

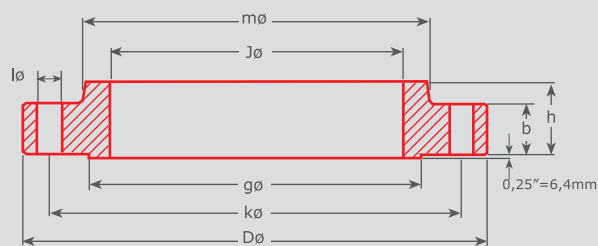
### ASME B 16.5

ASME  
B 16.5SLIP-ON  
FLANGES400  
600

| Pipe         |                | Flange         |                |               |               | Hub            | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm       | b in. mm      | h in. mm      | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 3,75<br>95,3   | 0,88<br>22,4   | 0,56<br>14,2  | 0,88<br>22,4  | 1,50<br>38,1   | 1,38<br>35,1   | 4                 | 0,62<br>15,7 | 2,62<br>66,5   | 0,74           |
| 3/4"         | 1,05<br>26,7   | 4,62<br>117,3  | 1,09<br>27,7   | 0,62<br>15,7  | 1,00<br>25,4  | 1,88<br>47,8   | 1,69<br>42,9   | 4                 | 0,75<br>19,1 | 3,25<br>82,6   | 1,27           |
| 1"           | 1,315<br>33,4  | 4,88<br>124,0  | 1,36<br>34,5   | 0,69<br>17,5  | 1,06<br>26,9  | 2,12<br>53,8   | 2,00<br>50,8   | 4                 | 0,75<br>19,1 | 3,50<br>88,9   | 1,52           |
| 1 1/4"       | 1,66<br>42,2   | 5,25<br>133,4  | 1,70<br>43,2   | 0,81<br>20,6  | 1,12<br>28,4  | 2,50<br>63,5   | 2,50<br>63,5   | 4                 | 0,75<br>19,1 | 3,88<br>98,6   | 2,03           |
| 1 1/2"       | 1,90<br>48,3   | 6,12<br>155,4  | 1,95<br>49,5   | 0,88<br>22,4  | 1,25<br>31,8  | 2,75<br>69,9   | 2,88<br>73,2   | 4                 | 0,88<br>22,4 | 4,50<br>114,3  | 2,96           |
| 2"           | 2,375<br>60,3  | 6,50<br>165,1  | 2,44<br>62,0   | 1,00<br>25,4  | 1,44<br>36,6  | 3,31<br>84,1   | 3,62<br>91,9   | 8                 | 0,75<br>19,1 | 5,00<br>127,0  | 3,62           |
| 2 1/2"       | 2,875<br>73,0  | 7,50<br>190,5  | 2,94<br>74,7   | 1,12<br>28,4  | 1,62<br>41,1  | 3,94<br>100,1  | 4,12<br>104,6  | 8                 | 0,88<br>22,4 | 5,88<br>149,4  | 5,28           |
| 3"           | 3,50<br>88,9   | 8,25<br>209,6  | 3,57<br>90,7   | 1,25<br>31,8  | 1,81<br>46,0  | 4,62<br>117,3  | 5,00<br>127,0  | 8                 | 0,88<br>22,4 | 6,62<br>168,1  | 7,00           |
| 3 1/2"       | 4,00<br>101,6  | 9,00<br>228,6  | 4,07<br>103,4  | 1,38<br>35,1  | 1,94<br>49,3  | 5,25<br>133,4  | 5,50<br>139,7  | 8                 | 1,00<br>25,4 | 7,25<br>184,2  | 8,84           |
| 4 "          | 4,50<br>114,3  | 10,75<br>273,1 | 4,57<br>116,1  | 1,50<br>38,1  | 2,12<br>53,8  | 6,00<br>152,4  | 6,19<br>157,2  | 8                 | 1,00<br>25,4 | 8,50<br>215,9  | 14,5           |
| 5 "          | 5,563<br>141,3 | 13,00<br>330,2 | 5,66<br>143,8  | 1,75<br>44,5  | 2,38<br>60,5  | 7,44<br>189,0  | 7,31<br>185,7  | 8                 | 1,12<br>28,4 | 10,50<br>266,7 | 24,4           |
| 6 "          | 6,625<br>168,3 | 14,00<br>355,6 | 6,72<br>170,7  | 1,88<br>47,8  | 2,62<br>66,5  | 8,75<br>222,3  | 8,50<br>215,9  | 12                | 1,12<br>28,4 | 11,50<br>292,1 | 28,7           |
| 8 "          | 8,625<br>219,1 | 16,50<br>419,1 | 8,72<br>221,5  | 2,19<br>55,6  | 3,00<br>76,2  | 10,75<br>273,1 | 10,62<br>269,7 | 12                | 1,25<br>31,8 | 13,75<br>349,3 | 43,4           |
| 10 "         | 10,75<br>273   | 20,00<br>508,0 | 10,88<br>276,4 | 2,50<br>63,5  | 3,38<br>85,9  | 13,50<br>342,9 | 12,75<br>323,9 | 16                | 1,38<br>35,1 | 17,00<br>431,8 | 70,3           |
| 12 "         | 12,75<br>323,8 | 22,00<br>558,8 | 12,88<br>327,2 | 2,62<br>66,5  | 3,62<br>91,9  | 15,75<br>400,1 | 15,00<br>381,0 | 20                | 1,38<br>35,1 | 19,25<br>489,0 | 84,2           |
| 14 "         | 14,0<br>355,6  | 23,75<br>603,3 | 14,14<br>359,2 | 2,75<br>69,9  | 3,69<br>93,7  | 17,00<br>431,8 | 16,25<br>412,8 | 20                | 1,50<br>38,1 | 20,75<br>527,1 | 98,7           |
| 16 "         | 16,0<br>406,4  | 27,00<br>685,8 | 16,16<br>410,5 | 3,00<br>76,2  | 4,19<br>106,4 | 19,50<br>495,3 | 18,50<br>469,9 | 20                | 1,62<br>41,1 | 23,75<br>603,3 | 142            |
| 18 "         | 18,0<br>457,2  | 29,25<br>743,0 | 18,18<br>461,8 | 3,25<br>82,6  | 4,62<br>117,3 | 21,50<br>546,1 | 21,00<br>533,4 | 20                | 1,75<br>44,5 | 25,75<br>654,1 | 173            |
| 20 "         | 20,0<br>508    | 32,00<br>812,8 | 20,20<br>513,1 | 3,50<br>88,9  | 5,00<br>127,0 | 24,00<br>609,6 | 23,00<br>584,2 | 24                | 1,75<br>44,5 | 28,50<br>723,9 | 220            |
| 24 "         | 24,0<br>609,6  | 37,00<br>939,8 | 24,25<br>616,0 | 4,00<br>101,6 | 5,50<br>139,7 | 28,25<br>717,6 | 27,25<br>692,2 | 24                | 2,00<br>50,8 | 33,00<br>838,2 | 312            |

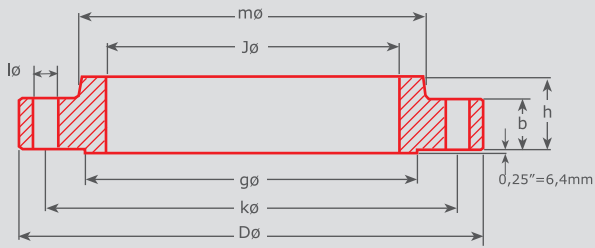
# 900 LB/SQ. IN.

## SLIP ON FLANGES



## ASME B 16.5

| Pipe         |                | Flange                                 |                |               |               | Hub            | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------------------------------|----------------|---------------|---------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm                               | J in. mm       | b in. mm      | h in. mm      | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | Use 1500 Ib dimensions for these sizes |                |               |               |                |                |                   |              |                |                |
| 3/4"         | 1,05<br>26,7   |                                        |                |               |               |                |                |                   |              |                |                |
| 1"           | 1,315<br>33,4  |                                        |                |               |               |                |                |                   |              |                |                |
| 1 1/4"       | 1,66<br>42,2   |                                        |                |               |               |                |                |                   |              |                |                |
| 1 1/2"       | 1,90<br>48,3   |                                        |                |               |               |                |                |                   |              |                |                |
| 2"           | 2,375<br>60,3  |                                        |                |               |               |                |                |                   |              |                |                |
| 2 1/2"       | 2,875<br>73,0  |                                        |                |               |               |                |                |                   |              |                |                |
| 3 "          | 3,50<br>88,9   | 9,50<br>241,3                          | 3,57<br>90,7   | 1,50<br>38,1  | 2,12<br>53,8  | 5,00<br>127,0  | 5,00<br>127,0  | 8                 | 1,00<br>25,4 | 7,50<br>190,5  | <b>11,6</b>    |
| 4 "          | 4,00<br>101,6  | 11,50<br>292,1                         | 4,57<br>116,1  | 1,75<br>44,4  | 2,75<br>69,9  | 6,25<br>158,8  | 6,19<br>157,2  | 8                 | 1,25<br>31,8 | 9,25<br>235    | <b>19,7</b>    |
| 5 "          | 5,563<br>141,3 | 13,75<br>349,3                         | 5,66<br>143,8  | 2,00<br>50,8  | 3,12<br>79,2  | 7,50<br>190,5  | 7,31<br>185,7  | 8                 | 1,38<br>35,1 | 11,00<br>279,4 | <b>31,9</b>    |
| 6 "          | 6,625<br>168,3 | 15,00<br>381,0                         | 6,72<br>170,7  | 2,19<br>55,6  | 3,38<br>85,9  | 9,25<br>235    | 8,50<br>215,9  | 12                | 1,25<br>31,8 | 12,50<br>317,5 | <b>41,1</b>    |
| 8 "          | 8,625<br>219,1 | 18,50<br>469,9                         | 8,72<br>221,5  | 2,50<br>63,5  | 4,00<br>101,6 | 11,75<br>298,5 | 10,62<br>269,8 | 12                | 1,50<br>38,1 | 15,50<br>393,7 | <b>70,7</b>    |
| 10 "         | 10,75<br>273   | 21,50<br>546,1                         | 10,88<br>276,4 | 2,75<br>69,9  | 4,25<br>107,9 | 14,50<br>368,3 | 12,75<br>323,8 | 16                | 1,50<br>38,1 | 18,50<br>469,9 | <b>101</b>     |
| 12 "         | 12,75<br>323,8 | 24,00<br>609,6                         | 12,88<br>327,2 | 3,12<br>79,2  | 4,62<br>117,3 | 16,50<br>419,1 | 15,00<br>381,0 | 20                | 1,50<br>38,1 | 21,00<br>533,4 | <b>133</b>     |
| 14 "         | 14,0<br>355,6  | 25,25<br>641,4                         | 14,14<br>359,2 | 3,38<br>85,9  | 5,12<br>130,0 | 17,75<br>450,9 | 16,25<br>412,8 | 20                | 1,62<br>41,1 | 22,00<br>558,8 | <b>153</b>     |
| 16 "         | 16,0<br>406,4  | 27,75<br>704,9                         | 16,16<br>410,5 | 3,50<br>88,9  | 5,25<br>133,4 | 20,00<br>508,0 | 18,50<br>469,9 | 20                | 1,75<br>44,5 | 24,25<br>616   | <b>185</b>     |
| 18 "         | 18,0<br>457,2  | 31,00<br>787,4                         | 18,18<br>461,8 | 4,00<br>101,6 | 6,00<br>152,4 | 22,25<br>565,2 | 21,00<br>533,4 | 20                | 2,00<br>50,8 | 27,00<br>685,8 | <b>258</b>     |
| 20 "         | 20,0<br>508    | 33,75<br>857,3                         | 20,20<br>513,1 | 4,25<br>108,0 | 6,25<br>158,8 | 24,50<br>622,3 | 23,00<br>584,2 | 20                | 2,12<br>53,8 | 29,50<br>749,3 | <b>317</b>     |
| 24 "         | 24,0<br>609,6  | 41,00<br>1041,4                        | 24,25<br>616   | 5,50<br>139,7 | 8,00<br>203,2 | 29,50<br>749,3 | 27,25<br>692,2 | 20                | 2,62<br>66,5 | 35,50<br>901,7 | <b>606</b>     |



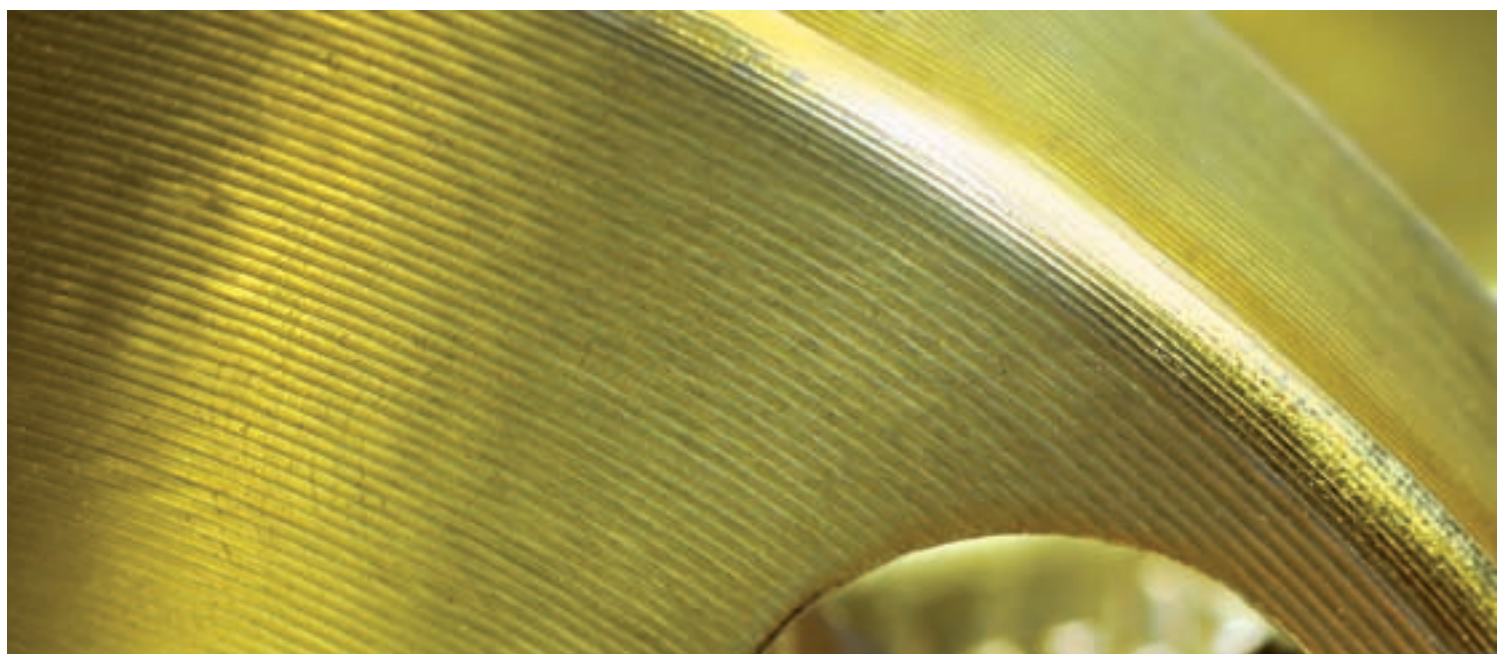
# 1500 LB/SQ. IN.

## SLIP ON FLANGES

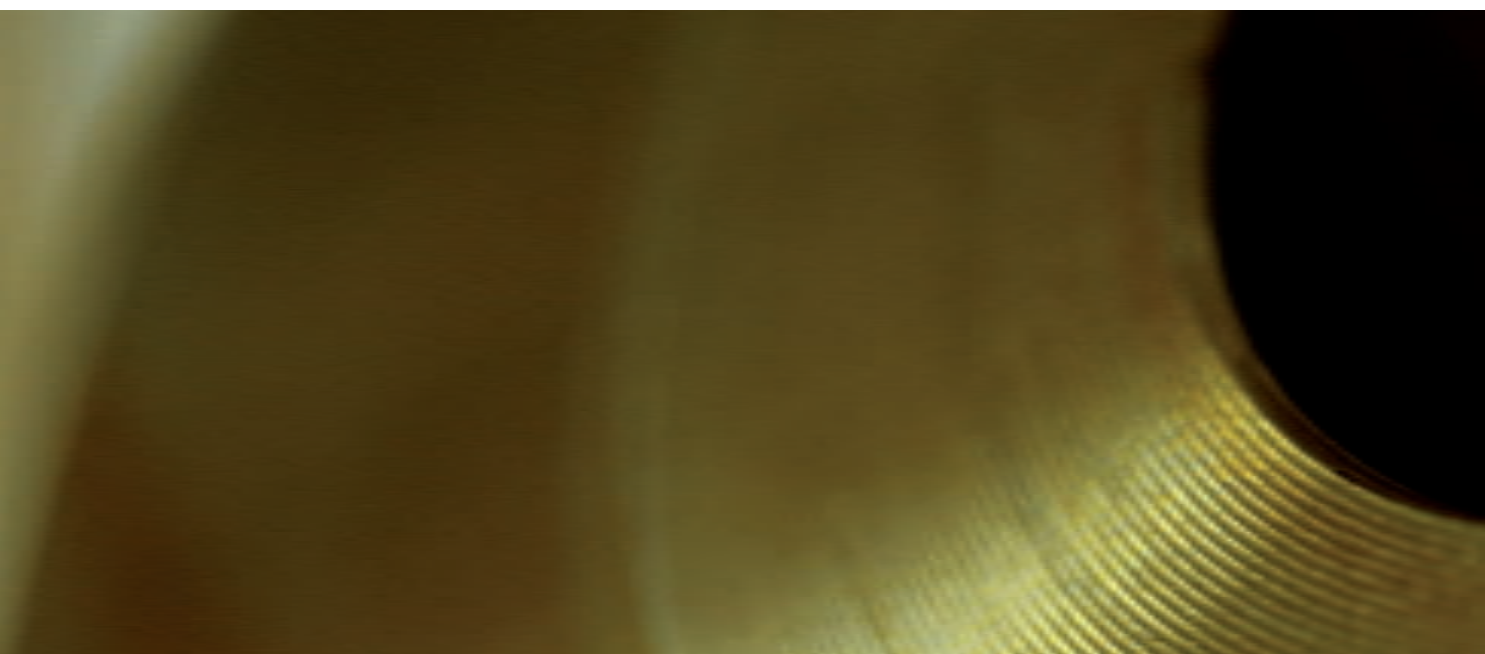
### ASME B 16.5

ASME  
B 16.5SLIP-ON  
FLANGES900  
1500

| Pipe         |               | Flange        |              |              |              | Hub           | Raised Face   | Drilling Template |              |               | Approx. Weight |
|--------------|---------------|---------------|--------------|--------------|--------------|---------------|---------------|-------------------|--------------|---------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm      | J in. mm     | b in. mm     | h in. mm     | m in. mm      | g in. mm      | Number            | I in. mm     | k in. mm      | Kilo           |
| 1/2"         | 0,84<br>21,3  | 4,75<br>120,7 | 0,88<br>22,4 | 0,88<br>22,4 | 1,25<br>31,8 | 1,50<br>38,1  | 1,38<br>35,1  | 4                 | 0,88<br>22,4 | 3,25<br>82,6  | 1,74           |
| 3/4"         | 1,05<br>26,7  | 5,12<br>130,0 | 1,09<br>27,7 | 1,00<br>25,4 | 1,38<br>35,1 | 1,75<br>44,5  | 1,69<br>42,9  | 4                 | 0,88<br>22,4 | 3,50<br>88,9  | 2,34           |
| 1"           | 1,315<br>33,4 | 5,88<br>149,4 | 1,36<br>34,5 | 1,12<br>28,4 | 1,62<br>41,1 | 2,06<br>52,3  | 2,00<br>50,8  | 4                 | 1,00<br>25,4 | 4,00<br>101,6 | 3,44           |
| 1 1/4"       | 1,66<br>42,2  | 6,25<br>158,7 | 1,70<br>43,2 | 1,12<br>28,4 | 1,62<br>41,1 | 2,50<br>63,5  | 2,50<br>63,5  | 4                 | 1,00<br>25,4 | 4,38<br>111,3 | 3,91           |
| 1 1/2"       | 1,90<br>48,3  | 7,00<br>177,8 | 1,95<br>49,5 | 1,25<br>31,8 | 1,75<br>44,5 | 2,75<br>69,9  | 2,88<br>73,2  | 4                 | 1,12<br>28,4 | 4,88<br>124   | 5,36           |
| 2"           | 2,375<br>60,3 | 8,50<br>215,9 | 2,44<br>62,0 | 1,50<br>38,1 | 2,25<br>57,2 | 4,12<br>104,6 | 3,62<br>91,9  | 8                 | 1,00<br>25,4 | 6,50<br>165,1 | 9,85           |
| 2 1/2"       | 2,875<br>73,0 | 9,62<br>244,3 | 2,94<br>74,7 | 1,62<br>41,1 | 2,50<br>63,5 | 4,88<br>124   | 4,12<br>104,6 | 8                 | 1,12<br>28,4 | 7,50<br>190,5 | 13,7           |



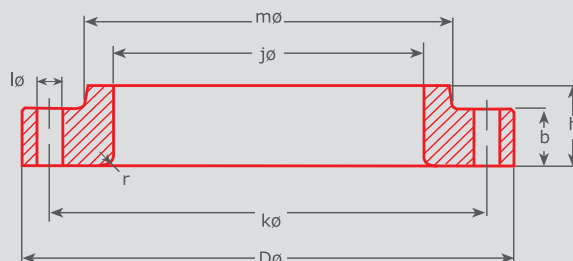
## LAP JOINT FLANGES ACC. TO ASME B 16.5



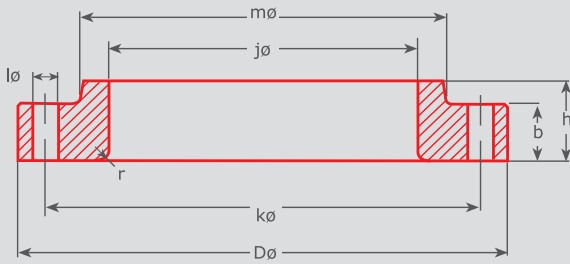
# 150 LB/SQ. IN.

## LAP JOINT FLANGES

### ASME B 16.5



| Pipe         |                | Flange         |                |              |               |              | Hub            | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------|--------------|---------------|--------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm       | b in. mm     | h in. mm      | r in. mm     | m in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 3,50<br>88,9   | 0,90<br>22,9   | 0,44<br>11,2 | 0,62<br>15,7  | 0,12<br>3,0  | 1,19<br>30,2   | 4                 | 0,62<br>15,7 | 2,38<br>60,5   | 0,38           |
| 3/4"         | 1,05<br>26,7   | 3,88<br>98,6   | 1,11<br>28,2   | 0,50<br>12,7 | 0,62<br>15,7  | 0,12<br>3,0  | 1,50<br>38,1   | 4                 | 0,62<br>15,7 | 2,75<br>69,9   | 0,55           |
| 1"           | 1,315<br>33,4  | 4,25<br>108,0  | 1,38<br>35,1   | 0,56<br>14,2 | 0,69<br>17,5  | 0,12<br>3,0  | 1,94<br>49,3   | 4                 | 0,62<br>15,7 | 3,12<br>79,2   | 0,76           |
| 1 1/4"       | 1,66<br>42,2   | 4,62<br>117,3  | 1,72<br>43,7   | 0,62<br>15,7 | 0,81<br>20,6  | 0,19<br>4,8  | 2,31<br>58,7   | 4                 | 0,62<br>15,7 | 3,50<br>88,9   | 1,01           |
| 1 1/2"       | 1,90<br>48,3   | 5,00<br>127,0  | 1,97<br>50,0   | 0,69<br>17,5 | 0,88<br>22,4  | 0,25<br>6,4  | 2,56<br>65,0   | 4                 | 0,62<br>15,7 | 3,88<br>98,6   | 1,30           |
| 2"           | 2,375<br>60,3  | 6,00<br>152,4  | 2,46<br>62,5   | 0,75<br>19,1 | 1,00<br>25,4  | 0,31<br>7,9  | 3,06<br>77,7   | 4                 | 0,75<br>19,1 | 4,75<br>120,7  | 2,03           |
| 2 1/2"       | 2,875<br>73,0  | 7,00<br>177,8  | 2,97<br>75,4   | 0,88<br>22,4 | 1,12<br>28,4  | 0,31<br>7,9  | 3,56<br>90,4   | 4                 | 0,75<br>19,1 | 5,50<br>139,7  | 3,25           |
| 3"           | 3,50<br>88,9   | 7,50<br>190,5  | 3,60<br>91,4   | 0,94<br>23,9 | 1,19<br>30,2  | 0,38<br>9,7  | 4,25<br>108,0  | 4                 | 0,75<br>19,1 | 6,00<br>152,4  | 3,81           |
| 3 1/2"       | 4,00<br>101,6  | 8,50<br>215,9  | 4,10<br>104,1  | 0,94<br>23,9 | 1,25<br>31,8  | 0,38<br>9,7  | 4,81<br>122,2  | 8                 | 0,75<br>19,1 | 7,00<br>177,8  | 4,76           |
| 4 "          | 4,50<br>114,3  | 9,00<br>228,6  | 4,60<br>116,8  | 0,94<br>23,9 | 1,31<br>33,3  | 0,44<br>11,2 | 5,31<br>134,9  | 8                 | 0,75<br>19,1 | 7,50<br>190,5  | 5,25           |
| 5 "          | 5,563<br>141,3 | 10,00<br>254,0 | 5,69<br>144,5  | 0,94<br>23,9 | 1,44<br>36,6  | 0,44<br>11,2 | 6,44<br>163,6  | 8                 | 0,88<br>22,4 | 8,50<br>215,9  | 6,02           |
| 6 "          | 6,625<br>168,3 | 11,00<br>279,4 | 6,75<br>171,5  | 1,00<br>25,4 | 1,56<br>39,6  | 0,50<br>12,7 | 7,56<br>192,0  | 8                 | 0,88<br>22,4 | 9,50<br>241,3  | 7,40           |
| 8 "          | 8,625<br>219,1 | 13,50<br>342,9 | 8,75<br>222,3  | 1,12<br>28,4 | 1,75<br>44,5  | 0,50<br>12,7 | 9,69<br>246,1  | 8                 | 0,88<br>22,4 | 11,75<br>298,5 | 12,1           |
| 10 "         | 10,75<br>273   | 16,00<br>406,4 | 10,92<br>277,4 | 1,19<br>30,2 | 1,94<br>49,3  | 0,50<br>12,7 | 12,00<br>304,8 | 12                | 1,00<br>25,4 | 14,25<br>362,0 | 16,4           |
| 12 "         | 12,75<br>323,8 | 19,00<br>482,6 | 12,92<br>328,2 | 1,25<br>31,8 | 2,19<br>55,6  | 0,50<br>12,7 | 14,38<br>365,3 | 12                | 1,00<br>25,4 | 17,00<br>431,8 | 26,1           |
| 14 "         | 14,0<br>355,6  | 21,00<br>533,4 | 14,18<br>360,2 | 1,38<br>35,1 | 3,12<br>79,2  | 0,50<br>12,7 | 15,75<br>400,1 | 12                | 1,12<br>28,4 | 18,75<br>476,3 | 34,5           |
| 16 "         | 16,0<br>406,4  | 23,50<br>596,9 | 16,19<br>411,2 | 1,44<br>36,6 | 3,44<br>87,4  | 0,50<br>12,7 | 18,00<br>457,2 | 16                | 1,12<br>28,4 | 21,25<br>539,8 | 44,6           |
| 18 "         | 18,0<br>457,2  | 25,00<br>635,0 | 18,20<br>462,3 | 1,56<br>39,6 | 3,81<br>96,8  | 0,50<br>12,7 | 19,88<br>505,0 | 16                | 1,25<br>31,8 | 22,75<br>577,9 | 48,7           |
| 20 "         | 20,0<br>508    | 27,50<br>698,5 | 20,25<br>514,4 | 1,69<br>42,9 | 4,06<br>103,1 | 0,50<br>12,7 | 22,00<br>558,8 | 20                | 1,25<br>31,8 | 25,00<br>635,0 | 61,6           |
| 24 "         | 24,0<br>609,6  | 32,00<br>812,8 | 24,25<br>616,0 | 1,88<br>47,8 | 4,38<br>111,3 | 0,50<br>12,7 | 26,12<br>663,4 | 20                | 1,38<br>35,1 | 29,50<br>749,3 | 86,6           |



## 300 LB/SQ. IN. LAP JOINT FLANGES

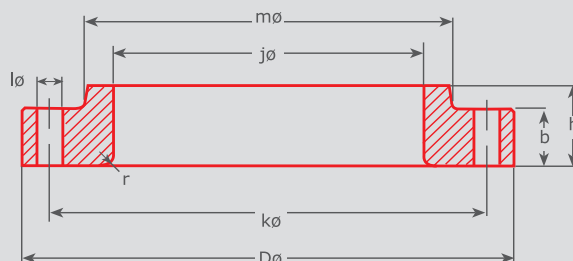
### ASME B 16.5

| Pipe         |                | Flange         |                |              |               |              | Hub            | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------|--------------|---------------|--------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm       | b in. mm     | h in. mm      | r in. mm     | m in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 3,75<br>95,3   | 0,90<br>22,9   | 0,56<br>14,2 | 0,88<br>22,4  | 0,12<br>3,0  | 1,50<br>38,1   | 4                 | 0,62<br>15,7 | 2,62<br>66,6   | 0,62           |
| 3/4"         | 1,05<br>26,7   | 4,62<br>117,3  | 1,11<br>28,2   | 0,62<br>15,7 | 1,00<br>25,4  | 0,12<br>3,0  | 1,88<br>47,8   | 4                 | 0,75<br>19,1 | 3,25<br>82,6   | 1,10           |
| 1"           | 1,315<br>33,4  | 4,88<br>124    | 1,38<br>35,1   | 0,69<br>17,5 | 1,06<br>26,9  | 0,12<br>3,0  | 2,12<br>53,8   | 4                 | 0,75<br>19,1 | 3,50<br>88,9   | 1,33           |
| 1 1/4"       | 1,66<br>42,2   | 5,25<br>133,4  | 1,72<br>43,7   | 0,75<br>19,1 | 1,06<br>26,9  | 0,19<br>4,8  | 2,50<br>63,5   | 4                 | 0,75<br>19,1 | 3,88<br>98,6   | 1,65           |
| 1 1/2"       | 1,90<br>48,3   | 6,12<br>155,4  | 1,97<br>50,0   | 0,81<br>20,6 | 1,19<br>30,2  | 0,25<br>6,4  | 2,75<br>69,9   | 4                 | 0,88<br>22,4 | 4,50<br>114,3  | 2,44           |
| 2"           | 2,375<br>60,3  | 6,50<br>165,1  | 2,46<br>62,5   | 0,88<br>22,4 | 1,31<br>33,3  | 0,31<br>7,9  | 3,31<br>84,1   | 8                 | 0,75<br>19,1 | 5,00<br>127,0  | 2,83           |
| 2 1/2"       | 2,875<br>73,0  | 7,50<br>190,5  | 2,97<br>75,4   | 1,00<br>25,4 | 1,50<br>38,1  | 0,31<br>7,9  | 3,94<br>100,1  | 8                 | 0,88<br>22,4 | 5,88<br>149,4  | 4,25           |
| 3"           | 3,50<br>88,9   | 8,25<br>209,6  | 3,60<br>91,4   | 1,12<br>28,4 | 1,69<br>42,9  | 0,38<br>9,7  | 4,62<br>117,3  | 8                 | 0,88<br>22,4 | 6,62<br>168,1  | 5,78           |
| 3 1/2"       | 4,00<br>101,6  | 9,00<br>228,6  | 4,10<br>104,1  | 1,19<br>30,2 | 1,75<br>44,5  | 0,38<br>9,7  | 5,25<br>133,4  | 8                 | 0,88<br>22,4 | 7,25<br>184,2  | 7,27           |
| 4 "          | 4,50<br>114,3  | 10,00<br>254,0 | 4,60<br>116,8  | 1,25<br>31,8 | 1,88<br>47,8  | 0,44<br>11,2 | 5,75<br>146,1  | 8                 | 0,88<br>22,4 | 7,88<br>200,2  | 9,55           |
| 5 "          | 5,563<br>141,3 | 11,00<br>279,4 | 5,69<br>144,5  | 1,38<br>35,1 | 2,00<br>50,8  | 0,44<br>11,2 | 7,00<br>177,8  | 8                 | 0,88<br>22,4 | 9,25<br>235    | 12,2           |
| 6 "          | 6,625<br>168,3 | 12,50<br>317,5 | 6,75<br>171,5  | 1,44<br>36,6 | 2,06<br>52,3  | 0,50<br>12,7 | 8,12<br>206,2  | 12                | 0,88<br>22,4 | 10,62<br>269,7 | 15,5           |
| 8 "          | 8,625<br>219,1 | 15,00<br>381,0 | 8,75<br>222,3  | 1,62<br>41,1 | 2,44<br>62    | 0,50<br>12,7 | 10,25<br>260,4 | 12                | 1,00<br>25,4 | 13,00<br>330,2 | 24,1           |
| 10 "         | 10,75<br>273   | 17,50<br>444,5 | 10,92<br>277,4 | 1,88<br>47,8 | 3,75<br>95,3  | 0,50<br>12,7 | 12,62<br>320,5 | 16                | 1,12<br>28,4 | 15,25<br>387,4 | 34,4           |
| 12 "         | 12,75<br>323,8 | 20,50<br>520,7 | 12,92<br>328,2 | 2,00<br>50,8 | 4,00<br>101,6 | 0,50<br>12,7 | 14,75<br>374,7 | 16                | 1,25<br>31,8 | 17,75<br>450,9 | 50,4           |
| 14 "         | 14,0<br>355,6  | 23,00<br>584,2 | 14,18<br>360,2 | 2,12<br>53,8 | 4,38<br>111,3 | 0,50<br>12,7 | 16,75<br>425,5 | 20                | 1,25<br>31,8 | 20,25<br>514,3 | 70,9           |
| 16 "         | 16,0<br>406,4  | 25,50<br>647,7 | 16,19<br>411,2 | 2,25<br>57,2 | 4,75<br>120,7 | 0,50<br>12,7 | 19,00<br>482,6 | 20                | 1,38<br>35,1 | 22,50<br>571,5 | 89,5           |
| 18 "         | 18,0<br>457,2  | 28,00<br>711,2 | 18,20<br>462,3 | 2,38<br>60,5 | 5,12<br>130,0 | 0,50<br>12,7 | 21,00<br>533,4 | 24                | 1,38<br>35,1 | 24,75<br>628,7 | 111            |
| 20 "         | 20,0<br>508    | 30,50<br>774,7 | 20,25<br>514,4 | 2,50<br>63,5 | 5,50<br>139,7 | 0,50<br>12,7 | 23,12<br>587,2 | 24                | 1,38<br>35,1 | 27,00<br>685,8 | 137            |
| 24 "         | 24,0<br>609,6  | 36,00<br>914,4 | 24,25<br>616,0 | 2,75<br>69,9 | 6,00<br>152,4 | 0,50<br>12,7 | 27,62<br>701,5 | 24                | 1,62<br>41,1 | 32,00<br>812,8 | 204            |

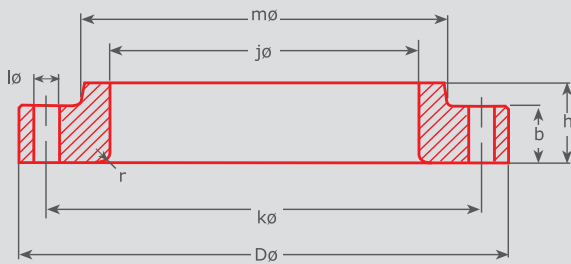
# 400 LB/SQ. IN.

## LAP JOINT FLANGES

### ASME B 16.5



| Pipe         |                | Flange                                |                |              |               |              | Hub            | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|---------------------------------------|----------------|--------------|---------------|--------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm                              | J in. mm       | b in. mm     | h in. mm      | r in. mm     | m in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | Use 600 Ib dimensions for these sizes |                |              |               |              |                |                   |              |                |                |
| 3/4"         | 1,05<br>26,7   |                                       |                |              |               |              |                |                   |              |                |                |
| 1"           | 1,315<br>33,4  |                                       |                |              |               |              |                |                   |              |                |                |
| 1 1/4"       | 1,66<br>42,2   |                                       |                |              |               |              |                |                   |              |                |                |
| 1 1/2"       | 1,90<br>48,3   |                                       |                |              |               |              |                |                   |              |                |                |
| 2"           | 2,375<br>60,3  |                                       |                |              |               |              |                |                   |              |                |                |
| 2 1/2"       | 2,875<br>73,0  |                                       |                |              |               |              |                |                   |              |                |                |
| 3"           | 3,50<br>88,9   |                                       |                |              |               |              |                |                   |              |                |                |
| 3 1/2"       | 4,00<br>101,6  |                                       |                |              |               |              |                |                   |              |                |                |
| 4 "          | 4,50<br>114,3  | 10,00<br>254,0                        | 4,60<br>116,8  | 1,38<br>35,1 | 2,00<br>50,8  | 0,44<br>11,2 | 5,75<br>146,1  | 8                 | 1,00<br>25,4 | 7,88<br>200,2  | <b>10,9</b>    |
| 5 "          | 5,563<br>141,3 | 11,00<br>279,4                        | 5,69<br>144,5  | 1,50<br>38,1 | 2,12<br>53,8  | 0,44<br>11,2 | 7,00<br>177,8  | 8                 | 1,00<br>25,4 | 9,25<br>235,0  | <b>13,7</b>    |
| 6 "          | 6,625<br>168,3 | 12,50<br>317,5                        | 6,75<br>171,5  | 1,62<br>41,1 | 2,25<br>57,2  | 0,50<br>12,7 | 8,12<br>206,2  | 12                | 1,00<br>25,4 | 10,62<br>269,7 | <b>18,0</b>    |
| 8 "          | 8,625<br>219,1 | 15,00<br>381,0                        | 8,75<br>222,3  | 1,88<br>47,8 | 2,69<br>68,3  | 0,50<br>12,7 | 10,25<br>260,4 | 12                | 1,12<br>28,4 | 13,00<br>330,2 | <b>28,3</b>    |
| 10 "         | 10,75<br>273   | 17,50<br>444,5                        | 10,92<br>277,4 | 2,12<br>53,8 | 4,00<br>101,6 | 0,50<br>12,7 | 12,62<br>320,5 | 16                | 1,25<br>31,8 | 15,25<br>387,4 | <b>38,8</b>    |
| 12 "         | 12,75<br>323,8 | 20,50<br>520,7                        | 12,92<br>328,2 | 2,25<br>57,2 | 4,25<br>108,0 | 0,50<br>12,7 | 14,75<br>374,7 | 16                | 1,38<br>35,1 | 17,75<br>450,9 | <b>56,6</b>    |
| 14 "         | 14,0<br>355,6  | 23,00<br>584,2                        | 14,18<br>360,2 | 2,38<br>60,5 | 4,62<br>117,3 | 0,50<br>12,7 | 16,75<br>425,5 | 20                | 1,38<br>35,1 | 20,25<br>514,4 | <b>78,6</b>    |
| 16 "         | 16,0<br>406,4  | 25,50<br>647,7                        | 16,19<br>411,2 | 2,50<br>63,5 | 5,00<br>127,0 | 0,50<br>12,7 | 19,00<br>482,6 | 20                | 1,50<br>38,1 | 22,50<br>571,5 | <b>100</b>     |
| 18 "         | 18,0<br>457,2  | 28,00<br>711,2                        | 18,20<br>462,3 | 2,62<br>66,5 | 5,38<br>136,7 | 0,50<br>12,7 | 21,00<br>533,4 | 24                | 1,50<br>38,1 | 24,75<br>628,7 | <b>122</b>     |
| 20 "         | 20,0<br>508    | 30,50<br>774,7                        | 20,25<br>514,4 | 2,75<br>69,9 | 5,75<br>146,1 | 0,50<br>12,7 | 23,12<br>587,2 | 24                | 1,62<br>41,1 | 27,00<br>685,8 | <b>145</b>     |
| 24 "         | 24,0<br>609,6  | 36,00<br>914,4                        | 24,25<br>616,0 | 3,00<br>76,2 | 6,25<br>158,8 | 0,50<br>12,7 | 27,62<br>701,5 | 24                | 1,88<br>47,8 | 32,00<br>812,8 | <b>217</b>     |



# 600 LB/SQ. IN.

## LAP JOINT FLANGES

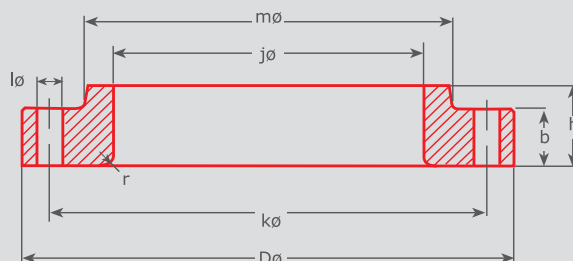
### ASME B 16.5

| Pipe         |                | Flange         |                |               |               |              | Hub            | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------|---------------|---------------|--------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm       | b in. mm      | h in. mm      | r in. mm     | m in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 3,75<br>95,3   | 0,90<br>22,9   | 0,56<br>14,2  | 0,88<br>22,4  | 0,12<br>3,0  | 1,50<br>38,1   | 4                 | 0,62<br>15,7 | 2,62<br>66,5   | 0,72           |
| 3/4"         | 1,05<br>26,7   | 4,62<br>117,3  | 1,11<br>28,2   | 0,62<br>15,7  | 1,00<br>25,4  | 0,12<br>3,0  | 1,88<br>47,8   | 4                 | 0,75<br>19,1 | 3,25<br>82,6   | 1,25           |
| 1"           | 1,315<br>33,4  | 4,88<br>124,0  | 1,38<br>35,1   | 0,69<br>17,5  | 1,06<br>26,9  | 0,12<br>3,0  | 2,12<br>53,8   | 4                 | 0,75<br>19,1 | 3,50<br>88,9   | 1,50           |
| 1 1/4"       | 1,66<br>42,2   | 5,25<br>133,4  | 1,72<br>43,7   | 0,81<br>20,6  | 1,12<br>28,4  | 0,19<br>4,8  | 2,50<br>63,5   | 4                 | 0,75<br>19,1 | 3,88<br>98,6   | 2,00           |
| 1 1/2"       | 1,90<br>48,3   | 6,12<br>155,4  | 1,97<br>50,0   | 0,88<br>22,4  | 1,25<br>31,8  | 0,25<br>6,4  | 2,75<br>69,9   | 4                 | 0,88<br>22,4 | 4,50<br>114,3  | 2,92           |
| 2"           | 2,375<br>60,3  | 6,50<br>165,1  | 2,46<br>62,5   | 1,00<br>25,4  | 1,44<br>36,6  | 0,31<br>7,9  | 3,31<br>84,1   | 8                 | 0,75<br>19,1 | 5,00<br>127,0  | 3,55           |
| 2 1/2"       | 2,875<br>73,0  | 7,50<br>190,5  | 2,97<br>75,4   | 1,12<br>28,4  | 1,62<br>41,1  | 0,31<br>7,9  | 3,94<br>100,1  | 8                 | 0,88<br>22,4 | 5,88<br>149,4  | 5,23           |
| 3"           | 3,50<br>88,9   | 8,25<br>209,6  | 3,60<br>91,4   | 1,25<br>31,8  | 1,81<br>46,0  | 0,38<br>9,7  | 4,62<br>117,3  | 8                 | 0,88<br>22,4 | 6,62<br>168,1  | 6,95           |
| 3 1/2"       | 4,00<br>101,6  | 9,00<br>228,6  | 4,10<br>104,1  | 1,38<br>35,1  | 1,94<br>49,3  | 0,38<br>9,7  | 5,25<br>133,4  | 8                 | 1,00<br>25,4 | 7,25<br>184,2  | 8,78           |
| 4 "          | 4,50<br>114,3  | 10,75<br>273,1 | 4,60<br>116,8  | 1,50<br>38,1  | 2,12<br>53,8  | 0,44<br>11,2 | 6,00<br>152,4  | 8                 | 1,00<br>25,4 | 8,50<br>215,9  | 14,4           |
| 5 "          | 5,563<br>141,3 | 13,00<br>330,2 | 5,69<br>144,5  | 1,75<br>44,5  | 2,38<br>60,5  | 0,44<br>11,2 | 7,44<br>189,0  | 8                 | 1,12<br>28,4 | 10,50<br>266,7 | 24,3           |
| 6 "          | 6,625<br>168,3 | 14,00<br>355,6 | 6,75<br>171,5  | 1,88<br>47,8  | 2,62<br>66,5  | 0,50<br>12,7 | 8,75<br>222,3  | 12                | 1,12<br>28,4 | 11,50<br>292,1 | 28,5           |
| 8 "          | 8,625<br>219,1 | 16,50<br>419,1 | 8,75<br>222,3  | 2,19<br>55,6  | 3,00<br>76,2  | 0,50<br>12,7 | 10,75<br>273,1 | 12                | 1,25<br>31,8 | 13,75<br>349,3 | 43,1           |
| 10 "         | 10,75<br>273   | 20,00<br>508,0 | 10,92<br>277,4 | 2,50<br>63,5  | 4,38<br>111,3 | 0,50<br>12,7 | 13,50<br>342,9 | 16                | 1,38<br>35,1 | 17,00<br>431,8 | 70,5           |
| 12 "         | 12,75<br>323,8 | 22,00<br>558,8 | 12,92<br>328,2 | 2,62<br>66,5  | 4,62<br>117,3 | 0,50<br>12,7 | 15,75<br>400,1 | 20                | 1,38<br>35,1 | 19,25<br>489,0 | 86,1           |
| 14 "         | 14,0<br>355,6  | 23,75<br>603,3 | 14,18<br>360,2 | 2,75<br>69,9  | 5,00<br>127,0 | 0,50<br>12,7 | 17,00<br>431,8 | 20                | 1,50<br>38,1 | 20,75<br>527,1 | 100            |
| 16 "         | 16,0<br>406,4  | 27,00<br>685,8 | 16,19<br>411,2 | 3,00<br>76,2  | 5,50<br>139,7 | 0,50<br>12,7 | 19,50<br>495,3 | 20                | 1,62<br>41,1 | 23,75<br>603,3 | 145            |
| 18 "         | 18,0<br>457,2  | 29,25<br>743,0 | 18,20<br>462,3 | 3,25<br>82,6  | 6,00<br>152,4 | 0,50<br>12,7 | 21,50<br>546,1 | 20                | 1,75<br>44,5 | 25,75<br>654,1 | 177            |
| 20 "         | 20,0<br>508    | 32,00<br>812,8 | 20,25<br>514,4 | 3,50<br>88,9  | 6,50<br>165,1 | 0,50<br>12,7 | 24,00<br>609,6 | 24                | 1,75<br>44,5 | 28,50<br>723,9 | 225            |
| 24 "         | 24,0<br>609,6  | 37,00<br>939,8 | 24,25<br>616,0 | 4,00<br>101,6 | 7,25<br>184,2 | 0,50<br>12,7 | 28,25<br>717,6 | 24                | 2,00<br>50,8 | 33,00<br>838,2 | 318            |

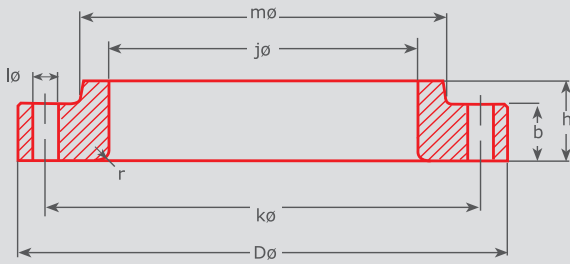
# 900 LB/SQ. IN.

## LAP JOINT FLANGES

### ASME B 16.5



| Pipe         |                | Flange                                 |                |               |                |              | Hub            | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------------------------------|----------------|---------------|----------------|--------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm                               | J in. mm       | b in. mm      | h in. mm       | r in. mm     | m in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | Use 1500 Ib dimensions for these sizes |                |               |                |              |                |                   |              |                |                |
| 3/4"         | 1,05<br>26,7   |                                        |                |               |                |              |                |                   |              |                |                |
| 1"           | 1,315<br>33,4  |                                        |                |               |                |              |                |                   |              |                |                |
| 1 1/4"       | 1,66<br>42,2   |                                        |                |               |                |              |                |                   |              |                |                |
| 1 1/2"       | 1,90<br>48,3   |                                        |                |               |                |              |                |                   |              |                |                |
| 2"           | 2,375<br>60,3  |                                        |                |               |                |              |                |                   |              |                |                |
| 2 1/2"       | 2,875<br>73,0  |                                        |                |               |                |              |                |                   |              |                |                |
| 3 "          | 3,50<br>88,9   | 9,50<br>241,3                          | 3,60<br>91,4   | 1,50<br>38,1  | 2,12<br>53,8   | 0,38<br>9,7  | 5,00<br>127,0  | 8                 | 1,00<br>25,4 | 7,50<br>190,5  | <b>11,3</b>    |
| 4 "          | 4,50<br>114,3  | 11,50<br>292,1                         | 4,60<br>116,8  | 1,75<br>44,5  | 2,75<br>69,9   | 0,44<br>11,2 | 6,25<br>158,8  | 8                 | 1,25<br>31,8 | 9,25<br>235    | <b>19,2</b>    |
| 5 "          | 5,563<br>141,3 | 13,75<br>349,3                         | 5,69<br>144,5  | 2,00<br>50,8  | 3,12<br>79,2   | 0,44<br>11,2 | 7,50<br>190,5  | 8                 | 1,38<br>35,1 | 11,00<br>279,4 | <b>31,2</b>    |
| 6 "          | 6,625<br>168,3 | 15,00<br>381,0                         | 6,75<br>171,5  | 2,19<br>55,6  | 3,38<br>85,9   | 0,50<br>12,7 | 9,25<br>235    | 12                | 1,25<br>31,8 | 12,50<br>317,5 | <b>40,5</b>    |
| 8 "          | 8,625<br>219,1 | 18,50<br>469,9                         | 8,75<br>222,2  | 2,50<br>63,5  | 4,50<br>114,3  | 0,50<br>12,7 | 11,75<br>298,5 | 12                | 1,50<br>38,1 | 15,50<br>393,7 | <b>71,5</b>    |
| 10 "         | 10,75<br>273   | 21,50<br>546,1                         | 10,92<br>277,4 | 2,75<br>69,9  | 5,00<br>127,0  | 0,50<br>12,7 | 14,50<br>368,3 | 16                | 1,50<br>38,1 | 18,50<br>469,9 | <b>104</b>     |
| 12 "         | 12,75<br>323,8 | 24,00<br>609,6                         | 12,92<br>328,2 | 3,12<br>79,2  | 5,62<br>142,7  | 0,50<br>12,7 | 16,50<br>419,1 | 20                | 1,50<br>38,1 | 21,00<br>533,4 | <b>139</b>     |
| 14 "         | 14,0<br>355,6  | 25,25<br>641,3                         | 14,18<br>360,2 | 3,38<br>85,9  | 6,12<br>155,4  | 0,50<br>12,7 | 17,75<br>450,9 | 20                | 1,62<br>41,1 | 22,00<br>558,8 | <b>161</b>     |
| 16 "         | 16,0<br>406,4  | 27,75<br>704,9                         | 16,19<br>411,2 | 3,50<br>88,9  | 6,50<br>165,1  | 0,50<br>12,7 | 20,00<br>508,0 | 20                | 1,75<br>44,5 | 24,25<br>616   | <b>194</b>     |
| 18 "         | 18,0<br>457,2  | 31,00<br>787,4                         | 18,20<br>462,3 | 4,00<br>101,6 | 7,50<br>190,5  | 0,50<br>12,7 | 22,25<br>565,2 | 20                | 2,00<br>50,8 | 27,00<br>685,8 | <b>267</b>     |
| 20 "         | 20,0<br>508    | 33,75<br>857,3                         | 20,25<br>514,4 | 4,25<br>108   | 8,25<br>209,6  | 0,50<br>12,7 | 24,50<br>622,3 | 20                | 2,12<br>53,8 | 29,50<br>749,3 | <b>334</b>     |
| 24 "         | 24,0<br>609,6  | 41,00<br>1041,4                        | 24,25<br>616   | 5,50<br>139,7 | 10,50<br>266,7 | 0,50<br>12,7 | 29,50<br>749,3 | 20                | 2,62<br>66,5 | 35,50<br>901,7 | <b>618</b>     |



# 1500 LB/SQ. IN.

## LAP JOINT FLANGES

### ASME B 16.5

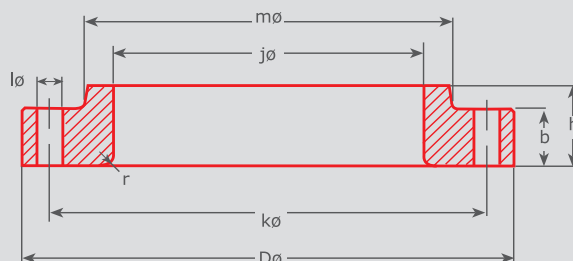
| Pipe         |                | Flange          |                |               |                |              | Hub            | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|-----------------|----------------|---------------|----------------|--------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm        | J in. mm       | b in. mm      | h in. mm       | r in. mm     | m in. mm       | Number            | r in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 4,75<br>120,7   | 0,90<br>22,9   | 0,88<br>22,4  | 1,25<br>31,8   | 0,12<br>3,0  | 1,50<br>38,1   | 4                 | 0,88<br>22,4 | 3,25<br>82,6   | 1,71           |
| 3/4"         | 1,05<br>26,7   | 5,12<br>130,0   | 1,11<br>28,2   | 1,00<br>25,4  | 1,38<br>35,1   | 0,12<br>3,0  | 1,75<br>44,5   | 4                 | 0,88<br>22,4 | 3,50<br>88,9   | 2,30           |
| 1"           | 1,315<br>33,4  | 5,88<br>149,4   | 1,38<br>35,1   | 1,12<br>28,4  | 1,62<br>41,1   | 0,12<br>3,0  | 2,06<br>52,3   | 4                 | 1,00<br>25,4 | 4,00<br>101,6  | 3,40           |
| 1 1/4"       | 1,66<br>42,2   | 6,25<br>158,8   | 1,72<br>43,7   | 1,12<br>28,4  | 1,62<br>41,1   | 0,19<br>4,8  | 2,50<br>63,5   | 4                 | 1,00<br>25,4 | 4,38<br>111,3  | 3,85           |
| 1 1/2"       | 1,90<br>48,3   | 7,00<br>177,8   | 1,97<br>50,0   | 1,25<br>31,8  | 1,75<br>44,5   | 0,25<br>6,4  | 2,75<br>69,9   | 4                 | 1,12<br>28,4 | 4,88<br>124    | 5,28           |
| 2"           | 2,375<br>60,3  | 8,50<br>215,9   | 2,46<br>62,5   | 1,50<br>38,1  | 2,25<br>57,2   | 0,31<br>7,9  | 4,12<br>104,6  | 8                 | 1,00<br>25,4 | 6,50<br>165,1  | 9,78           |
| 2 1/2"       | 2,875<br>73,0  | 9,62<br>244,3   | 2,97<br>75,4   | 1,62<br>41,1  | 2,50<br>63,5   | 0,31<br>7,9  | 4,88<br>124    | 8                 | 1,12<br>28,4 | 7,50<br>190,5  | 13,6           |
| 3 "          | 3,50<br>88,9   | 10,50<br>266,7  | 3,60<br>91,4   | 1,88<br>47,8  | 2,88<br>73,2   | 0,38<br>9,7  | 5,25<br>133,4  | 8                 | 1,25<br>31,8 | 8,00<br>203,2  | 17,8           |
| 4 "          | 4,50<br>114,3  | 12,25<br>311,2  | 4,60<br>116,8  | 2,12<br>53,8  | 3,56<br>90,4   | 0,44<br>11,2 | 6,38<br>162,1  | 8                 | 1,38<br>35,1 | 9,50<br>241,3  | 27,5           |
| 5 "          | 5,563<br>141,3 | 14,75<br>374,7  | 5,69<br>144,5  | 2,88<br>73,2  | 4,12<br>104,6  | 0,44<br>11,2 | 7,75<br>196,9  | 8                 | 1,62<br>41,1 | 11,50<br>292,1 | 51,5           |
| 6 "          | 6,625<br>168,3 | 15,50<br>393,7  | 6,75<br>171,5  | 3,25<br>82,6  | 4,69<br>119,1  | 0,50<br>12,7 | 9,00<br>228,6  | 12                | 1,50<br>38,1 | 12,50<br>317,5 | 62,0           |
| 8 "          | 8,625<br>219,1 | 19,00<br>482,6  | 8,75<br>222,3  | 3,62<br>91,9  | 5,62<br>142,7  | 0,50<br>12,7 | 11,50<br>292,1 | 12                | 1,75<br>44,5 | 15,50<br>393,7 | 105            |
| 10 "         | 10,75<br>273   | 23,00<br>584,2  | 10,92<br>277,4 | 4,25<br>108   | 7,00<br>177,8  | 0,50<br>12,7 | 14,50<br>368,3 | 12                | 2,00<br>50,8 | 19,00<br>482,6 | 179            |
| 12 "         | 12,75<br>323,8 | 26,50<br>673,1  | 12,92<br>328,2 | 4,88<br>124   | 8,62<br>218,9  | 0,50<br>12,7 | 17,75<br>450,9 | 16                | 2,12<br>53,8 | 22,50<br>571,5 | 269            |
| 14 "         | 14,0<br>355,6  | 29,50<br>749,3  | 14,18<br>360,2 | 5,25<br>133,4 | 9,50<br>241,3  | 0,50<br>12,7 | 19,50<br>495,3 | 16                | 2,38<br>60,5 | 25,00<br>635,0 | 365            |
| 16 "         | 16,0<br>406,4  | 32,50<br>825,5  | 16,19<br>411,2 | 5,75<br>146,1 | 10,25<br>260,4 | 0,50<br>12,7 | 21,75<br>552,5 | 16                | 2,62<br>66,5 | 27,75<br>704,9 | 459            |
| 18 "         | 18,0<br>457,2  | 36,00<br>914,4  | 18,20<br>462,3 | 6,38<br>162,1 | 10,88<br>276,4 | 0,50<br>12,7 | 23,50<br>596,9 | 16                | 2,88<br>73,2 | 30,50<br>774,7 | 598            |
| 20 "         | 20,0<br>508    | 38,75<br>984,3  | 20,25<br>514,4 | 7,00<br>177,8 | 11,50<br>292,1 | 0,50<br>12,7 | 25,25<br>641,4 | 16                | 3,12<br>79,2 | 32,75<br>831,9 | 712            |
| 24 "         | 24,0<br>609,6  | 46,00<br>1168,4 | 24,25<br>616   | 8,00<br>203,2 | 13,00<br>330,2 | 0,50<br>12,7 | 30,00<br>762,0 | 16                | 3,62<br>91,9 | 39,00<br>990,6 | 1090           |

ASME  
B 16.5  
LAP  
JOINT  
FLANGES  
900  
1500

# 2500 LB/SQ. IN.

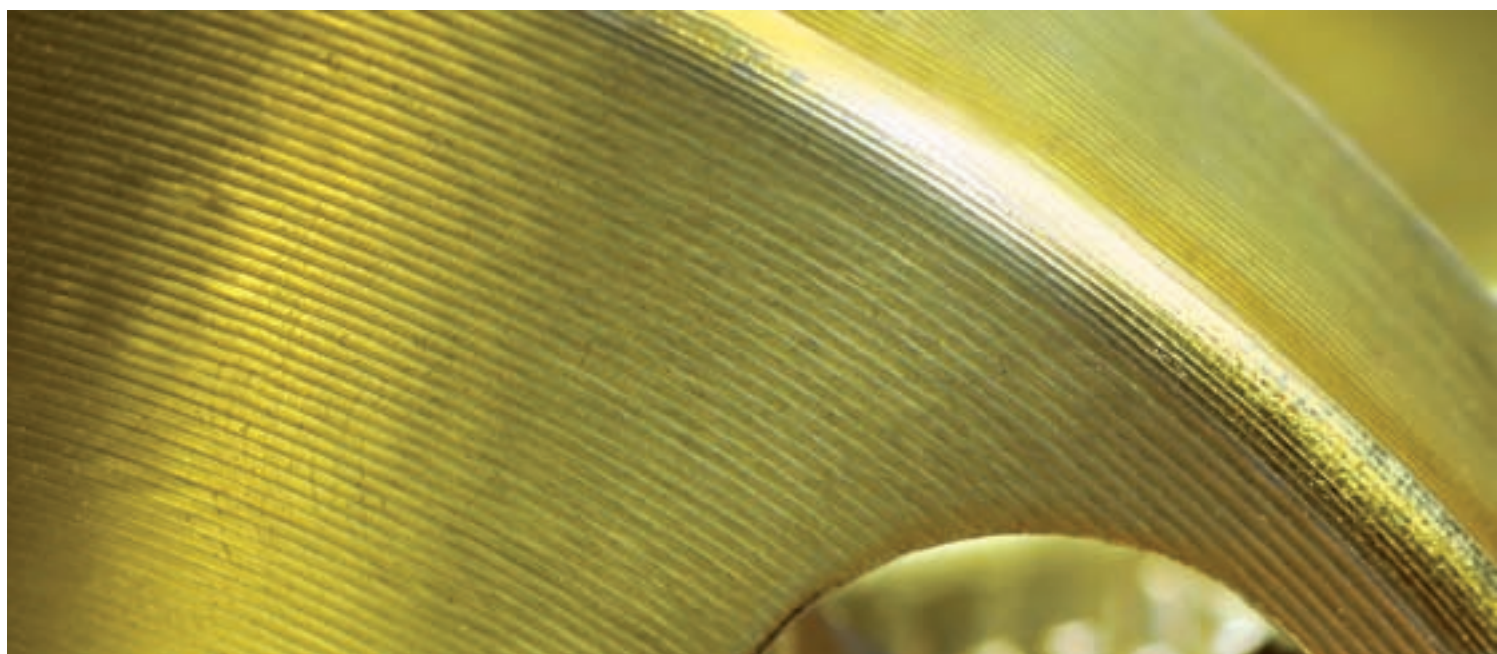
## LAP JOINT FLANGES

### ASME B 16.5

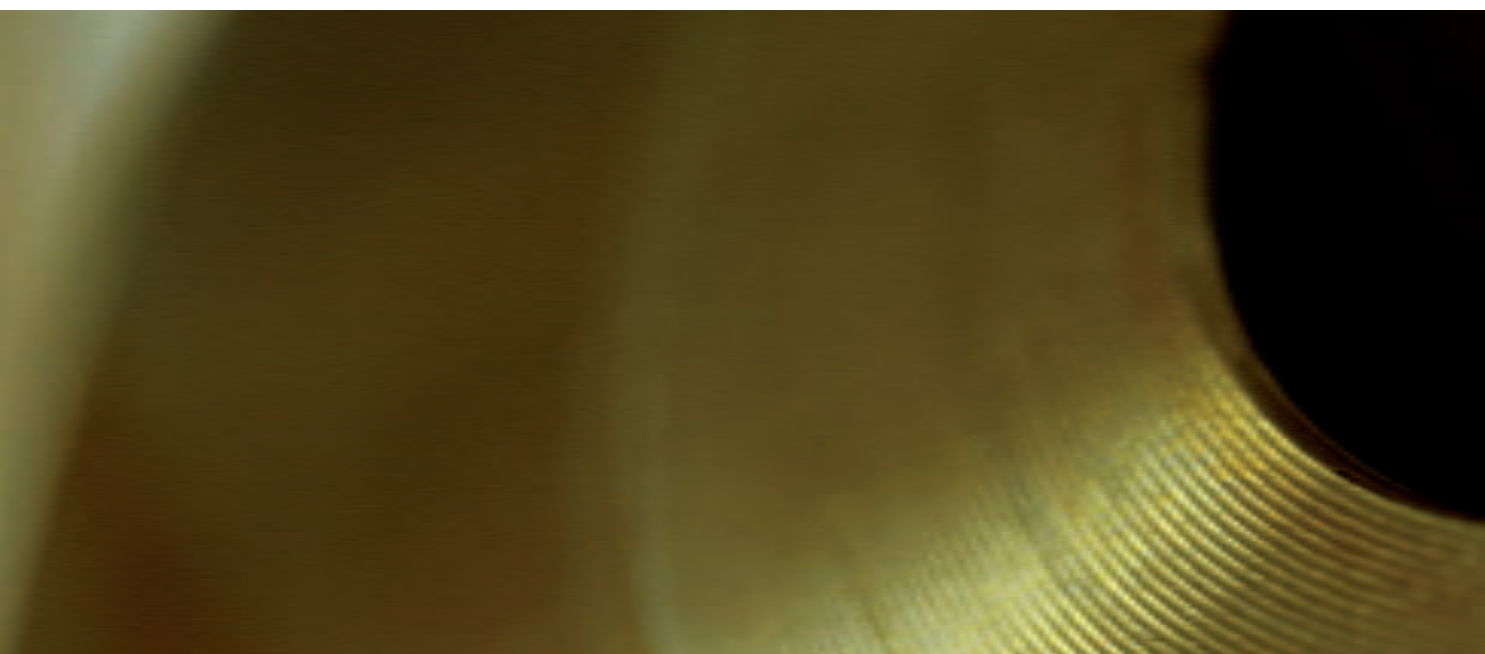


| Pipe         |                | Flange         |                |               |                |              | Hub            | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------|---------------|----------------|--------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm       | b in. mm      | h in. mm       | r in. mm     | m in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 5,25<br>133,4  | 0,90<br>22,9   | 1,19<br>30,2  | 1,56<br>39,6   | 0,12<br>3,0  | 1,69<br>42,9   | 4                 | 0,88<br>22,4 | 3,50<br>88,9   | 2,92           |
| 3/4"         | 1,05<br>26,7   | 5,50<br>139,7  | 1,11<br>28,2   | 1,25<br>31,8  | 1,69<br>42,9   | 0,12<br>3,0  | 2,00<br>50,8   | 4                 | 0,88<br>22,4 | 3,75<br>95,3   | 3,40           |
| 1"           | 1,315<br>33,4  | 6,25<br>158,8  | 1,38<br>35,1   | 1,38<br>35,1  | 1,88<br>47,8   | 0,12<br>3,0  | 2,25<br>57,2   | 4                 | 1,00<br>25,4 | 4,25<br>108,0  | 4,77           |
| 1 1/4"       | 1,66<br>42,2   | 7,25<br>184,2  | 1,72<br>43,7   | 1,50<br>38,1  | 2,06<br>52,3   | 0,19<br>4,8  | 2,88<br>73,2   | 4                 | 1,12<br>28,4 | 5,12<br>130,0  | 7,08           |
| 1 1/2"       | 1,90<br>48,3   | 8,00<br>203,2  | 1,97<br>50,0   | 1,75<br>44,5  | 2,38<br>60,5   | 0,25<br>6,4  | 3,12<br>79,2   | 4                 | 1,25<br>31,8 | 5,75<br>146,1  | 9,93           |
| 2"           | 2,375<br>60,3  | 9,25<br>235,0  | 2,46<br>62,5   | 2,00<br>50,8  | 2,75<br>69,9   | 0,31<br>7,9  | 3,75<br>95,3   | 8                 | 1,12<br>28,4 | 6,75<br>171,5  | 14,7           |
| 2 1/2"       | 2,875<br>73,0  | 10,50<br>266,7 | 2,97<br>75,4   | 2,25<br>57,2  | 3,12<br>79,2   | 0,31<br>7,9  | 4,50<br>114,3  | 8                 | 1,25<br>31,8 | 7,75<br>196,9  | 21,3           |
| 3 "          | 3,50<br>88,9   | 12,00<br>304,8 | 3,60<br>91,4   | 2,62<br>66,5  | 3,62<br>91,9   | 0,38<br>9,7  | 5,25<br>133,4  | 8                 | 1,38<br>35,1 | 9,00<br>228,6  | 32,3           |
| 4 "          | 4,50<br>114,3  | 14,00<br>355,6 | 4,60<br>116,8  | 3,00<br>76,2  | 4,25<br>108,0  | 0,44<br>11,2 | 6,50<br>165,1  | 8                 | 1,62<br>41,1 | 10,75<br>273,1 | 52,5           |
| 5 "          | 5,563<br>141,3 | 16,50<br>419,1 | 5,69<br>144,5  | 3,62<br>91,9  | 5,12<br>130,0  | 0,44<br>11,2 | 8,00<br>203,2  | 8                 | 1,88<br>47,8 | 12,75<br>323,9 | 82,6           |
| 6 "          | 6,625<br>168,3 | 19,00<br>482,6 | 6,75<br>171,5  | 4,25<br>108,0 | 6,00<br>152,4  | 0,50<br>12,7 | 9,25<br>235,0  | 8                 | 2,12<br>53,8 | 14,50<br>368,3 | 127            |
| 8 "          | 8,625<br>219,1 | 21,75<br>552,5 | 8,75<br>222,3  | 5,00<br>127,0 | 7,00<br>177,8  | 0,50<br>12,7 | 12,00<br>304,8 | 12                | 2,12<br>53,8 | 17,25<br>438,2 | 186            |
| 10 "         | 10,75<br>273   | 26,50<br>673,1 | 10,92<br>277,4 | 6,50<br>165,1 | 9,00<br>228,6  | 0,50<br>12,7 | 14,75<br>374,7 | 12                | 2,62<br>66,5 | 21,25<br>539,8 | 352            |
| 12 "         | 12,75<br>323,8 | 30,00<br>762,0 | 12,92<br>328,2 | 7,25<br>184,2 | 10,00<br>254,0 | 0,50<br>12,7 | 17,38<br>441,5 | 12                | 2,88<br>73,2 | 24,38<br>619,3 | 501            |



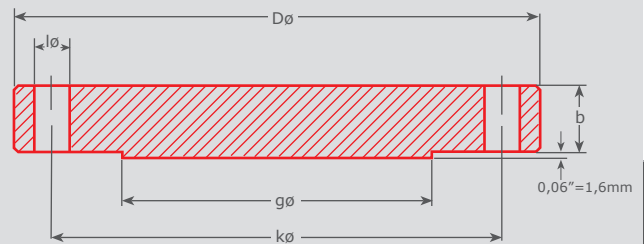


## **BLIND FLANGES ACC. TO ASME B 16.5**



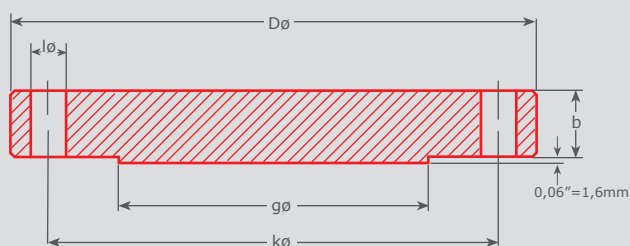
# 150 LB/SQ. IN.

## BLIND FLANGES



## ASME B 16.5

| Pipe            |                | Flange         |              | Raised Face    | Drilling Template |              |                | Approx. Weight |
|-----------------|----------------|----------------|--------------|----------------|-------------------|--------------|----------------|----------------|
| Nominal Size DN | OD in. mm      | D in. mm       | b in. mm     | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"            | 0,84<br>21,3   | 3,50<br>88,9   | 0,38<br>9,6  | 1,38<br>35,1   | 4                 | 0,62<br>15,7 | 2,38<br>60,5   | <b>0,42</b>    |
| 3/4"            | 1,05<br>26,7   | 3,88<br>98,6   | 0,44<br>11,1 | 1,69<br>42,9   | 4                 | 0,62<br>15,7 | 2,75<br>69,9   | <b>0,61</b>    |
| 1"              | 1,315<br>33,4  | 4,25<br>108,0  | 0,5<br>12,6  | 2,00<br>50,8   | 4                 | 0,62<br>15,7 | 3,12<br>79,2   | <b>0,86</b>    |
| 1 1/4"          | 1,66<br>42,2   | 4,62<br>117,3  | 0,56<br>14,1 | 2,50<br>63,5   | 4                 | 0,62<br>15,7 | 3,50<br>88,9   | <b>1,17</b>    |
| 1 1/2"          | 1,90<br>48,3   | 5,00<br>127,0  | 0,63<br>15,9 | 2,88<br>73,2   | 4                 | 0,62<br>15,7 | 3,88<br>98,6   | <b>1,53</b>    |
| 2"              | 2,375<br>60,3  | 6,00<br>152,4  | 0,69<br>17,5 | 3,62<br>91,9   | 4                 | 0,75<br>19,1 | 4,75<br>120,7  | <b>2,42</b>    |
| 2 1/2"          | 2,875<br>73,0  | 7,00<br>177,8  | 0,82<br>20,8 | 4,12<br>104,6  | 4                 | 0,75<br>19,1 | 5,50<br>139,7  | <b>3,94</b>    |
| 3"              | 3,50<br>88,9   | 7,50<br>190,5  | 0,88<br>22,3 | 5,00<br>127,0  | 4                 | 0,75<br>19,1 | 6,00<br>152,4  | <b>4,93</b>    |
| 3 1/2"          | 4,00<br>101,6  | 8,50<br>215,9  | 0,88<br>22,3 | 5,50<br>139,7  | 8                 | 0,75<br>19,1 | 7,00<br>177,8  | <b>6,17</b>    |
| 4 "             | 4,50<br>114,3  | 9,00<br>228,6  | 0,88<br>22,3 | 6,19<br>157,2  | 8                 | 0,75<br>19,1 | 7,50<br>190,5  | <b>7,00</b>    |
| 5 "             | 5,563<br>141,3 | 10,00<br>254,0 | 0,88<br>22,3 | 7,31<br>185,7  | 8                 | 0,88<br>22,4 | 8,50<br>215,9  | <b>8,63</b>    |
| 6 "             | 6,625<br>168,3 | 11,00<br>279,4 | 0,94<br>23,8 | 8,50<br>215,9  | 8                 | 0,88<br>22,4 | 9,50<br>241,3  | <b>11,3</b>    |
| 8 "             | 8,625<br>219,1 | 13,50<br>342,9 | 1,06<br>26,8 | 10,62<br>269,7 | 8                 | 0,88<br>22,4 | 11,75<br>298,5 | <b>19,6</b>    |
| 10 "            | 10,75<br>273   | 16,00<br>406,4 | 1,13<br>28,6 | 12,75<br>323,8 | 12                | 1,00<br>25,4 | 14,25<br>362,0 | <b>28,8</b>    |
| 12 "            | 12,75<br>323,8 | 19,00<br>482,6 | 1,19<br>30,2 | 15,00<br>381,0 | 12                | 1,00<br>25,4 | 17,00<br>431,8 | <b>43,2</b>    |
| 14 "            | 14,0<br>355,6  | 21,00<br>533,4 | 1,32<br>33,5 | 16,25<br>412,8 | 12                | 1,12<br>28,4 | 18,75<br>476,3 | <b>58,1</b>    |
| 16 "            | 16,0<br>406,4  | 23,50<br>596,9 | 1,38<br>35   | 18,50<br>469,9 | 16                | 1,12<br>28,4 | 21,25<br>539,8 | <b>76,0</b>    |
| 18 "            | 18,0<br>457,2  | 25,00<br>635,0 | 1,5<br>38    | 21,00<br>533,4 | 16                | 1,25<br>31,8 | 22,75<br>577,9 | <b>93,7</b>    |
| 20 "            | 20,0<br>508    | 27,50<br>698,5 | 1,63<br>41,3 | 23,00<br>584,2 | 20                | 1,25<br>31,8 | 25,00<br>635,0 | <b>122</b>     |
| 24 "            | 24,0<br>609,6  | 32,00<br>812,8 | 1,82<br>46,2 | 27,25<br>692,2 | 20                | 1,38<br>35,1 | 29,50<br>749,3 | <b>185</b>     |



# 300 LB/SQ. IN.

## BLIND FLANGES

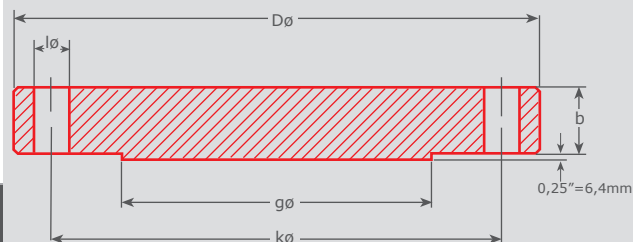
### ASME B 16.5

| Pipe            |                | Flange         |              | Raised Face    | Drilling Template |              |                | Approx. Weight |
|-----------------|----------------|----------------|--------------|----------------|-------------------|--------------|----------------|----------------|
| Nominal Size DN | OD in. mm      | D in. mm       | b in. mm     | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"            | 0,84<br>21,3   | 3,75<br>95,2   | 0,5<br>12,6  | 1,38<br>35,1   | 4                 | 0,62<br>15,7 | 2,62<br>66,6   | 0,64           |
| 3/4"            | 1,05<br>26,7   | 4,62<br>117,3  | 0,56<br>14,2 | 1,69<br>42,9   | 4                 | 0,75<br>19,1 | 3,25<br>82,6   | 1,11           |
| 1"              | 1,315<br>33,4  | 4,88<br>124    | 0,63<br>15,9 | 2,00<br>50,8   | 4                 | 0,75<br>19,1 | 3,50<br>88,9   | 1,39           |
| 1 1/4"          | 1,66<br>42,2   | 5,25<br>133,4  | 0,69<br>17,5 | 2,50<br>63,5   | 4                 | 0,75<br>19,1 | 3,88<br>98,6   | 1,79           |
| 1 1/2"          | 1,90<br>48,3   | 6,12<br>155,4  | 0,75<br>19   | 2,88<br>73,2   | 4                 | 0,88<br>22,4 | 4,50<br>114,3  | 2,66           |
| 2"              | 2,375<br>60,3  | 6,50<br>165,1  | 0,82<br>20,8 | 3,62<br>91,9   | 8                 | 0,75<br>19,1 | 5,00<br>127,0  | 3,18           |
| 2 1/2"          | 2,875<br>73,0  | 7,50<br>190,5  | 0,94<br>23,8 | 4,12<br>104,6  | 8                 | 0,88<br>22,4 | 5,88<br>149,4  | 4,85           |
| 3"              | 3,50<br>88,9   | 8,25<br>209,5  | 1,06<br>26,8 | 5,00<br>127,0  | 8                 | 0,88<br>22,4 | 6,62<br>168,1  | 6,81           |
| 3 1/2"          | 4,00<br>101,6  | 9,00<br>228,6  | 1,13<br>28,6 | 5,50<br>139,7  | 8                 | 0,88<br>22,4 | 7,25<br>184,2  | 8,71           |
| 4 "             | 4,50<br>114,3  | 10,00<br>254,0 | 1,19<br>30,2 | 6,19<br>157,2  | 8                 | 0,88<br>22,4 | 7,88<br>200,2  | 11,5           |
| 5 "             | 5,563<br>141,3 | 11,00<br>279,4 | 1,32<br>33,5 | 7,31<br>185,7  | 8                 | 0,88<br>22,4 | 9,25<br>235    | 15,6           |
| 6 "             | 6,625<br>168,3 | 12,50<br>317,5 | 1,38<br>35   | 8,50<br>215,9  | 12                | 0,88<br>22,4 | 10,62<br>269,7 | 20,9           |
| 8 "             | 8,625<br>219,1 | 15,00<br>381,0 | 1,56<br>39,5 | 10,62<br>269,7 | 12                | 1,00<br>25,4 | 13,00<br>330,2 | 34,3           |
| 10 "            | 10,75<br>273   | 17,50<br>444,5 | 1,82<br>46,2 | 12,75<br>323,8 | 16                | 1,12<br>28,4 | 15,25<br>387,4 | 53,3           |
| 12 "            | 12,75<br>323,8 | 20,50<br>520,7 | 1,94<br>49,2 | 15,00<br>381,0 | 16                | 1,25<br>31,8 | 17,75<br>450,9 | 78,8           |
| 14 "            | 14,0<br>355,6  | 23,00<br>584,2 | 2,06<br>52,2 | 16,25<br>412,8 | 20                | 1,25<br>31,8 | 20,25<br>514,4 | 105            |
| 16 "            | 16,0<br>406,4  | 25,50<br>647,7 | 2,19<br>55,6 | 18,50<br>469,9 | 20                | 1,38<br>35,1 | 22,50<br>571,5 | 137            |
| 18 "            | 18,0<br>457,2  | 28,00<br>711,2 | 2,32<br>58,9 | 21,00<br>533,4 | 24                | 1,38<br>35,1 | 24,75<br>628,7 | 175            |
| 20 "            | 20,0<br>508    | 30,50<br>774,7 | 2,44<br>61,9 | 23,00<br>584,2 | 24                | 1,38<br>35,1 | 27,00<br>685,8 | 221            |
| 24 "            | 24,0<br>609,6  | 36,00<br>914,4 | 2,69<br>68,3 | 27,25<br>692,2 | 24                | 1,62<br>41,1 | 32,00<br>812,8 | 339            |

ASME  
B 16.5  
BLIND  
FLANGES  
150  
300

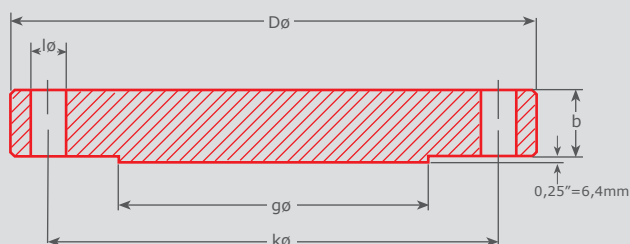
# 400 LB/SQ. IN.

## BLIND FLANGES



## ASME B 16.5

| Pipe            |                | Flange                                |              | Raised Face    | Drilling Template |              |                | Approx. Weight |
|-----------------|----------------|---------------------------------------|--------------|----------------|-------------------|--------------|----------------|----------------|
| Nominal Size DN | OD in. mm      | D in. mm                              | b in. mm     | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"            | 0,84<br>21,3   | Use 600 Ib dimensions for these sizes |              |                |                   |              |                |                |
| 3/4"            | 1,05<br>26,7   |                                       |              |                |                   |              |                |                |
| 1"              | 1,315<br>334   |                                       |              |                |                   |              |                |                |
| 1 1/4"          | 1,66<br>422    |                                       |              |                |                   |              |                |                |
| 1 1/2"          | 1,90<br>48,3   |                                       |              |                |                   |              |                |                |
| 2"              | 2,375<br>60,3  |                                       |              |                |                   |              |                |                |
| 2 1/2"          | 2,875<br>73,0  |                                       |              |                |                   |              |                |                |
| 3"              | 3,50<br>66,9   |                                       |              |                |                   |              |                |                |
| 3 1/2"          | 4,00<br>101,6  |                                       |              |                |                   |              |                |                |
| 4 "             | 4,50<br>114,3  | 10,00<br>254,0                        | 1,38<br>35,1 | 6,19<br>157,2  | 8                 | 1,00<br>25,4 | 7,66<br>200,2  | <b>13,7</b>    |
| 5 "             | 5,563<br>141,3 | 11,00<br>279,4                        | 1,50<br>38,1 | 7,31<br>185,7  | 8                 | 1,00<br>25,4 | 9,25<br>235,0  | <b>16,5</b>    |
| 6 "             | 6,625<br>166,3 | 12,50<br>317,5                        | 1,62<br>41,1 | 6,50<br>215,9  | 12                | 1,00<br>25,4 | 10,62<br>269,7 | <b>25,5</b>    |
| 8 "             | 6,625<br>219,1 | 15,00<br>361,0                        | 1,66<br>47,6 | 10,62<br>269,7 | 12                | 1,12<br>26,4 | 13,00<br>330,2 | <b>42,6</b>    |
| 10 "            | 10,75<br>273   | 17,50<br>444,5                        | 2,12<br>53,8 | 12,75<br>323,8 | 16                | 1,25<br>31,8 | 15,25<br>387,4 | <b>64,5</b>    |
| 12 "            | 12,75<br>323,8 | 20,50<br>520,7                        | 2,25<br>57,2 | 15,00<br>361,0 | 16                | 1,38<br>35,1 | 17,75<br>450,9 | <b>94,3</b>    |
| 14 "            | 14,0<br>355,6  | 23,00<br>584,2                        | 2,38<br>60,5 | 16,25<br>412,8 | 20                | 1,38<br>35,1 | 20,25<br>514,4 | <b>124</b>     |
| 16 "            | 16,0<br>406,4  | 25,50<br>647,7                        | 2,50<br>63,5 | 16,50<br>469,9 | 20                | 1,50<br>38,1 | 22,50<br>571,5 | <b>162</b>     |
| 18 "            | 16,0<br>457,2  | 28,00<br>711,2                        | 2,62<br>66,5 | 21,00<br>533,4 | 24                | 1,50<br>38,1 | 24,75<br>628,7 | <b>205</b>     |
| 20 "            | 20,0<br>508    | 30,50<br>774,7                        | 2,75<br>69,9 | 23,00<br>584,2 | 24                | 1,62<br>41,1 | 27,00<br>665,8 | <b>254</b>     |
| 24 "            | 24,0<br>609,6  | 36,00<br>914,4                        | 3,00<br>76,2 | 27,25<br>692,2 | 24                | 1,68<br>47,6 | 32,00<br>612,8 | <b>386</b>     |



# 600 LB/SQ. IN.

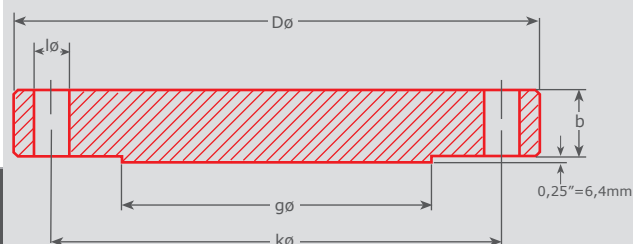
## BLIND FLANGES

### ASME B 16.5

| Pipe            |                | Flange         |               | Raised Face    | Drilling Template |              |                | Approx. Weight |
|-----------------|----------------|----------------|---------------|----------------|-------------------|--------------|----------------|----------------|
| Nominal Size DN | OD in. mm      | D in. mm       | b in. mm      | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"            | 0,84<br>21,3   | 3,75<br>95,3   | 0,56<br>14,2  | 1,38<br>35,1   | 4                 | 0,62<br>15,7 | 2,62<br>66,6   | 0,76           |
| 3/4"            | 1,05<br>26,7   | 4,62<br>117,3  | 0,62<br>15,8  | 1,69<br>42,9   | 4                 | 0,75<br>19,1 | 3,25<br>82,6   | 1,28           |
| 1"              | 1,315<br>33,4  | 4,88<br>124,0  | 0,69<br>17,5  | 2,00<br>50,8   | 4                 | 0,75<br>19,1 | 3,50<br>88,9   | 1,60           |
| 1 1/4"          | 1,66<br>42,2   | 5,25<br>133,4  | 0,81<br>20,6  | 2,50<br>63,5   | 4                 | 0,75<br>19,1 | 3,88<br>98,6   | 2,23           |
| 1 1/2"          | 1,90<br>48,3   | 6,12<br>155,4  | 0,88<br>22,4  | 2,88<br>73,2   | 4                 | 0,88<br>22,4 | 4,50<br>114,3  | 3,25           |
| 2"              | 2,375<br>60,3  | 6,50<br>165,1  | 1,00<br>25,4  | 3,62<br>91,9   | 8                 | 0,75<br>19,1 | 5,00<br>127,0  | 4,15           |
| 2 1/2"          | 2,875<br>73,0  | 7,50<br>190,5  | 1,12<br>28,4  | 4,12<br>104,6  | 8                 | 0,88<br>22,4 | 5,88<br>149,4  | 6,13           |
| 3"              | 3,50<br>88,9   | 8,25<br>209,6  | 1,25<br>31,8  | 5,00<br>127,0  | 8                 | 0,88<br>22,4 | 6,62<br>168,1  | 8,44           |
| 3 1/2"          | 4,00<br>101,6  | 9,00<br>228,6  | 1,38<br>35,1  | 5,50<br>139,7  | 8                 | 1,00<br>25,4 | 7,25<br>184,2  | 11,0           |
| 4 "             | 4,50<br>114,3  | 10,75<br>273,1 | 1,50<br>38,1  | 6,19<br>157,2  | 8                 | 1,00<br>25,4 | 8,50<br>215,9  | 17,3           |
| 5 "             | 5,563<br>141,3 | 13,00<br>330,2 | 1,75<br>44,5  | 7,31<br>185,7  | 8                 | 1,12<br>28,4 | 10,50<br>266,7 | 29,4           |
| 6 "             | 6,625<br>168,3 | 14,00<br>355,6 | 1,88<br>47,8  | 8,50<br>215,9  | 12                | 1,12<br>28,4 | 11,50<br>292,1 | 36,1           |
| 8 "             | 8,625<br>219,1 | 16,50<br>419,1 | 2,19<br>55,6  | 10,62<br>269,7 | 12                | 1,25<br>31,8 | 13,75<br>349,3 | 58,9           |
| 10 "            | 10,75<br>273   | 20,00<br>508,0 | 2,50<br>63,5  | 12,75<br>323,8 | 16                | 1,38<br>35,1 | 17,00<br>431,8 | 97,5           |
| 12 "            | 12,75<br>323,8 | 22,00<br>558,8 | 2,62<br>66,5  | 15,00<br>381,0 | 20                | 1,38<br>35,1 | 19,25<br>489,0 | 124            |
| 14 "            | 14,0<br>355,6  | 23,75<br>603,3 | 2,75<br>69,9  | 16,25<br>412,8 | 20                | 1,50<br>38,1 | 20,75<br>527,1 | 151            |
| 16 "            | 16,0<br>406,4  | 27,00<br>685,8 | 3,00<br>76,2  | 18,50<br>469,9 | 20                | 1,62<br>41,1 | 23,75<br>603,3 | 214            |
| 18 "            | 18,0<br>457,2  | 29,25<br>743,0 | 3,25<br>82,6  | 21,00<br>533,4 | 20                | 1,75<br>44,5 | 25,75<br>654,1 | 272            |
| 20 "            | 20,0<br>508    | 32,00<br>812,8 | 3,50<br>88,9  | 23,00<br>584,2 | 24                | 1,75<br>44,5 | 28,50<br>723,9 | 349            |
| 24 "            | 24,0<br>609,6  | 37,00<br>939,8 | 4,00<br>101,6 | 27,25<br>692,2 | 24                | 2,00<br>50,8 | 33,00<br>838,2 | 533            |

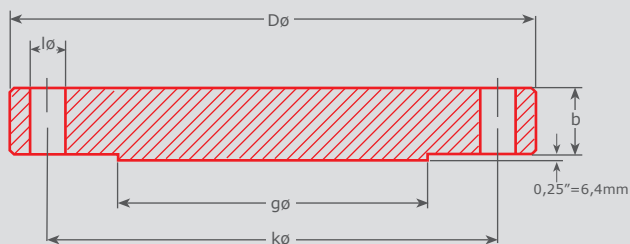
# 900 LB/SQ. IN.

## BLIND FLANGES



## ASME B 16.5

| Pipe            |                | Flange                                 |               | Raised Face    | Drilling Template |              |                | Approx. Weight |
|-----------------|----------------|----------------------------------------|---------------|----------------|-------------------|--------------|----------------|----------------|
| Nominal Size DN | OD in. mm      | D in. mm                               | b in. mm      | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"            | 0,84<br>21,3   | Use 1500 lb dimensions for these sizes |               |                |                   |              |                |                |
| 3/4"            | 1,05<br>26,7   |                                        |               |                |                   |              |                |                |
| 1"              | 1,315<br>33,4  |                                        |               |                |                   |              |                |                |
| 1 1/4"          | 1,66<br>42,2   |                                        |               |                |                   |              |                |                |
| 1 1/2"          | 1,90<br>48,3   |                                        |               |                |                   |              |                |                |
| 2"              | 2,375<br>60,3  |                                        |               |                |                   |              |                |                |
| 2 1/2"          | 2,875<br>73,0  |                                        |               |                |                   |              |                |                |
| 3 "             | 3,50<br>88,9   | 9,50<br>241,3                          | 1,50<br>38,1  | 5,00<br>127,0  | 8                 | 1,00<br>25,4 | 7,50<br>190,5  | <b>13,1</b>    |
| 4 "             | 4,50<br>114,3  | 11,50<br>292,1                         | 1,75<br>44,5  | 6,19<br>157,2  | 8                 | 1,25<br>31,8 | 9,25<br>235    | <b>26,9</b>    |
| 5 "             | 5,563<br>141,3 | 13,75<br>349,3                         | 2,00<br>50,8  | 7,31<br>185,7  | 8                 | 1,38<br>35,1 | 11,00<br>279,4 | <b>36,5</b>    |
| 6 "             | 6,625<br>168,3 | 15,00<br>381,0                         | 2,19<br>55,6  | 8,50<br>215,9  | 12                | 1,25<br>31,8 | 12,50<br>317,5 | <b>47,4</b>    |
| 8 "             | 8,625<br>219,1 | 18,50<br>469,9                         | 2,50<br>63,5  | 10,62<br>269,7 | 12                | 1,50<br>38,1 | 15,50<br>393,7 | <b>82,5</b>    |
| 10 "            | 10,75<br>273   | 21,50<br>546,1                         | 2,75<br>69,9  | 12,75<br>323,8 | 16                | 1,50<br>38,1 | 18,50<br>469,9 | <b>122</b>     |
| 12 "            | 12,75<br>323,8 | 24,00<br>609,6                         | 3,12<br>79,2  | 15,00<br>381,0 | 20                | 1,50<br>38,1 | 21,00<br>533,4 | <b>173</b>     |
| 14 "            | 14,0<br>355,6  | 25,25<br>641,4                         | 3,38<br>85,9  | 16,25<br>412,8 | 20                | 1,62<br>41,1 | 22,00<br>558,8 | <b>206</b>     |
| 16 "            | 16,0<br>406,4  | 27,75<br>704,9                         | 3,50<br>88,9  | 18,50<br>469,9 | 20                | 1,75<br>44,5 | 24,25<br>616   | <b>259</b>     |
| 18 "            | 18,0<br>457,2  | 31,00<br>787,4                         | 4,00<br>101,6 | 21,00<br>533,4 | 20                | 2,00<br>50,8 | 27,00<br>685,8 | <b>367</b>     |
| 20 "            | 20,0<br>508    | 33,75<br>857,2                         | 4,25<br>108   | 23,00<br>584,2 | 20                | 2,12<br>53,8 | 29,50<br>749,3 | <b>463</b>     |
| 24 "            | 24,0<br>609,6  | 41,00<br>1041,4                        | 5,50<br>139,7 | 27,25<br>692,2 | 20                | 2,62<br>66,5 | 35,50<br>901,7 | <b>876</b>     |



# 1500 LB/SQ. IN.

## BLIND FLANGES

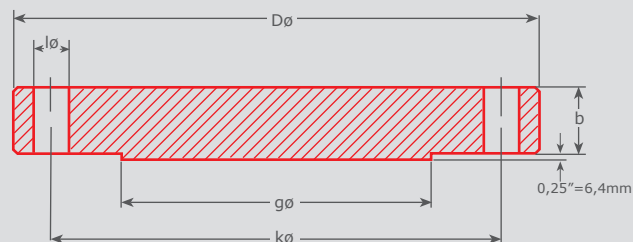
### ASME B 16.5

| Pipe            |                | Flange          |               | Raised Face    | Drilling Template |              |                | Approx. Weight |
|-----------------|----------------|-----------------|---------------|----------------|-------------------|--------------|----------------|----------------|
| Nominal Size DN | OD in. mm      | D in. mm        | b in. mm      | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"            | 0,84<br>21,3   | 4,75<br>120,7   | 0,88<br>22,4  | 1,38<br>35,1   | 4                 | 0,88<br>22,4 | 3,25<br>82,6   | 1,77           |
| 3/4"            | 1,05<br>26,7   | 5,12<br>130,0   | 1,00<br>25,4  | 1,69<br>42,9   | 4                 | 0,88<br>22,4 | 3,50<br>88,9   | 2,42           |
| 1"              | 1,315<br>33,4  | 5,88<br>149,4   | 1,12<br>28,4  | 2,00<br>50,8   | 4                 | 1,00<br>25,4 | 4,00<br>101,6  | 3,57           |
| 1 1/4"          | 1,66<br>42,2   | 6,25<br>158,8   | 1,12<br>28,4  | 2,50<br>63,5   | 4                 | 1,00<br>25,4 | 4,38<br>111,3  | 4,14           |
| 1 1/2"          | 1,90<br>48,3   | 7,00<br>177,8   | 1,25<br>31,8  | 2,88<br>73,2   | 4                 | 1,12<br>28,4 | 4,88<br>124    | 5,75           |
| 2"              | 2,375<br>60,3  | 8,50<br>215,9   | 1,50<br>38,1  | 3,62<br>91,9   | 8                 | 1,00<br>25,4 | 6,50<br>165,1  | 10,1           |
| 2 1/2"          | 2,875<br>73,0  | 9,62<br>244,4   | 1,62<br>41,1  | 4,12<br>104,6  | 8                 | 1,12<br>28,4 | 7,50<br>190,5  | 14,0           |
| 3 "             | 3,50<br>88,9   | 10,50<br>266,7  | 1,88<br>47,8  | 5,00<br>127,0  | 8                 | 1,25<br>31,8 | 8,00<br>203,2  | 19,1           |
| 4 "             | 4,50<br>114,3  | 12,25<br>311,2  | 2,12<br>53,8  | 6,19<br>157,2  | 8                 | 1,38<br>35,1 | 9,50<br>241,3  | 29,9           |
| 5 "             | 5,563<br>141,3 | 14,75<br>374,7  | 2,88<br>73,2  | 7,31<br>185,7  | 8                 | 1,62<br>41,1 | 11,50<br>292,1 | 58,4           |
| 6 "             | 6,625<br>168,3 | 15,50<br>393,7  | 3,25<br>82,6  | 8,50<br>215,9  | 12                | 1,50<br>38,1 | 12,50<br>317,5 | 71,8           |
| 8 "             | 8,625<br>219,1 | 19,00<br>482,6  | 3,62<br>91,9  | 10,62<br>269,7 | 12                | 1,75<br>44,5 | 15,50<br>393,7 | 122            |
| 10 "            | 10,75<br>273   | 23,00<br>584,2  | 4,25<br>108   | 12,75<br>323,8 | 12                | 2,00<br>50,8 | 19,00<br>482,6 | 210            |
| 12 "            | 12,75<br>323,8 | 26,50<br>673,1  | 4,88<br>124   | 15,00<br>381,0 | 16                | 2,12<br>53,8 | 22,50<br>571,5 | 316            |
| 14 "            | 14,0<br>355,6  | 29,50<br>749,3  | 5,25<br>133,4 | 16,25<br>412,8 | 16                | 2,38<br>60,5 | 25,00<br>635,0 | 420            |
| 16 "            | 16,0<br>406,4  | 32,50<br>825,5  | 5,75<br>146,1 | 18,50<br>469,9 | 16                | 2,62<br>66,5 | 27,75<br>704,9 | 558            |
| 18 "            | 18,0<br>457,2  | 36,00<br>914,4  | 6,38<br>162,1 | 21,00<br>533,4 | 16                | 2,88<br>73,2 | 30,50<br>774,7 | 760            |
| 20 "            | 20,0<br>508    | 38,75<br>984,3  | 7,00<br>177,8 | 23,00<br>584,2 | 16                | 3,12<br>79,2 | 32,75<br>831,9 | 965            |
| 24 "            | 24,0<br>609,6  | 46,00<br>1168,4 | 8,00<br>203,2 | 27,25<br>692,2 | 16                | 3,62<br>91,9 | 39,00<br>990,6 | 1558           |

ASME  
B 16.5  
BLIND  
FLANGES  
900  
1500

# 2500 LB/SQ. IN.

## BLIND FLANGES

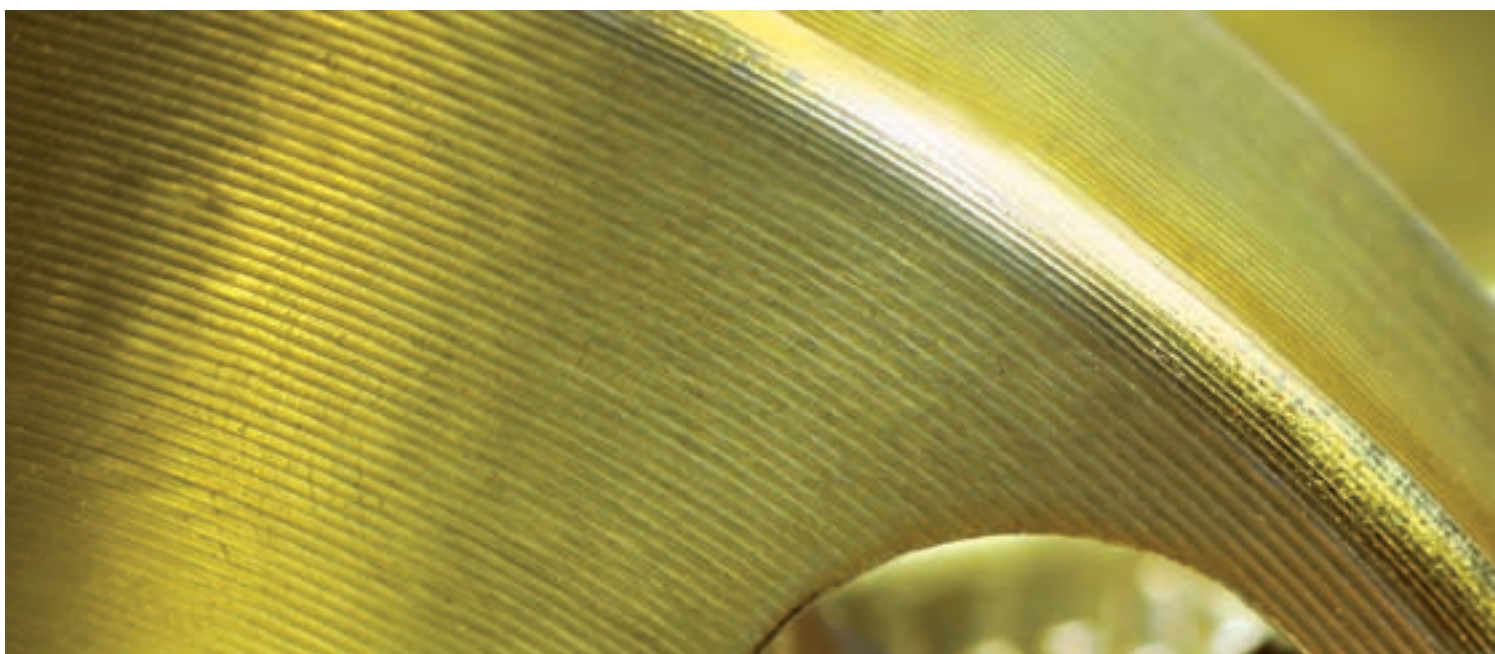


## ASME B 16.5

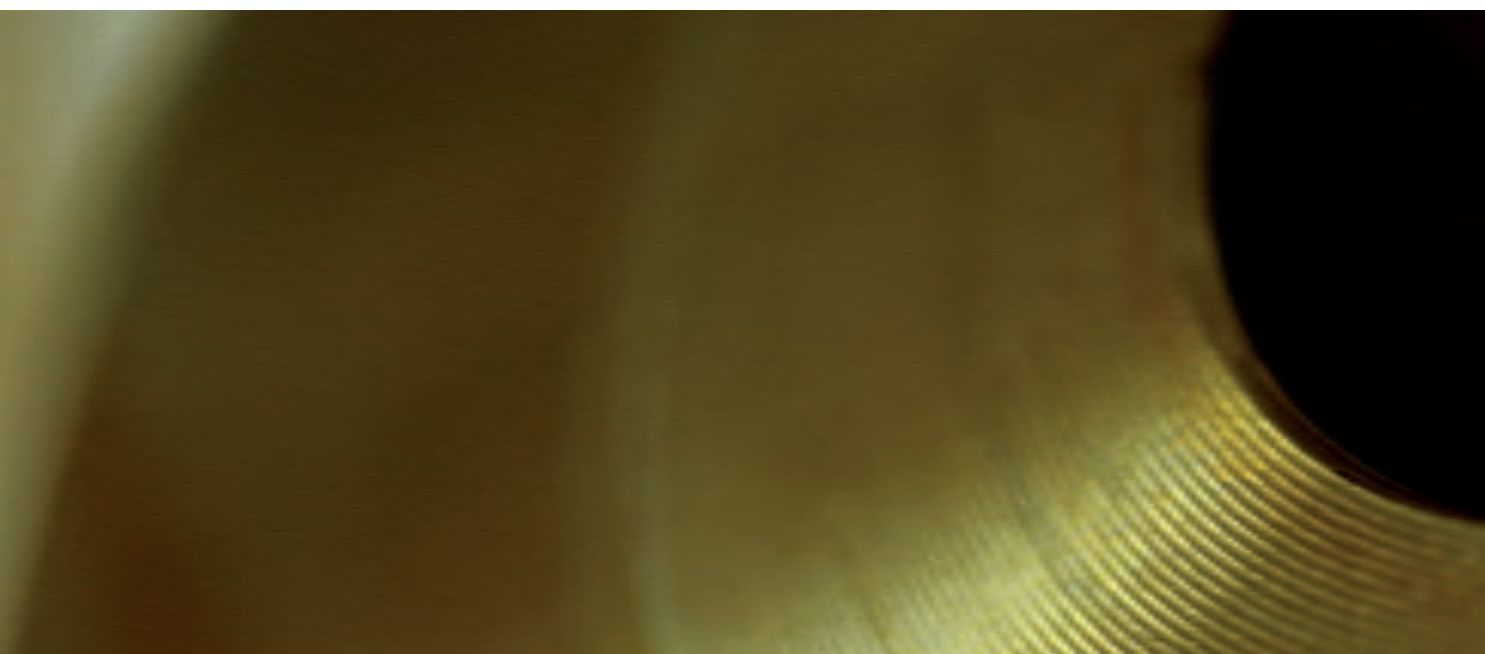
| Pipe            |                | Flange         |               | Raised Face    | Drilling Template |              |                | Approx. Weight |
|-----------------|----------------|----------------|---------------|----------------|-------------------|--------------|----------------|----------------|
| Nominal Size DN | OD in. mm      | D in. mm       | b in. mm      | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"            | 0,84<br>21,3   | 5,25<br>133,4  | 1,19<br>30,2  | 1,38<br>35,1   | 4                 | 0,88<br>22,4 | 3,50<br>88,9   | 2,99           |
| 3/4"            | 1,05<br>26,7   | 5,50<br>139,7  | 1,25<br>31,8  | 1,69<br>42,9   | 4                 | 0,88<br>22,4 | 3,75<br>95,3   | 3,50           |
| 1"              | 1,315<br>33,4  | 6,25<br>158,8  | 1,38<br>35,1  | 2,00<br>50,8   | 4                 | 1,00<br>25,4 | 4,25<br>108,0  | 4,96           |
| 1 1/4"          | 1,66<br>42,2   | 7,25<br>184,2  | 1,50<br>38,1  | 2,50<br>63,5   | 4                 | 1,12<br>28,4 | 5,12<br>130,0  | 7,35           |
| 1 1/2"          | 1,90<br>48,3   | 8,00<br>203,2  | 1,75<br>44,5  | 2,88<br>73,2   | 4                 | 1,25<br>31,8 | 5,75<br>146,1  | 10,4           |
| 2"              | 2,375<br>60,3  | 9,25<br>235,0  | 2,00<br>50,8  | 3,62<br>91,9   | 8                 | 1,12<br>28,4 | 6,75<br>171,5  | 15,6           |
| 2 1/2"          | 2,875<br>73,0  | 10,50<br>266,7 | 2,25<br>57,2  | 4,12<br>104,6  | 8                 | 1,25<br>31,8 | 7,75<br>196,9  | 22,6           |
| 3 "             | 3,50<br>88,9   | 12,00<br>304,8 | 2,62<br>66,5  | 5,00<br>127,0  | 8                 | 1,38<br>35,1 | 9,00<br>228,6  | 34,8           |
| 4 "             | 4,50<br>114,3  | 14,00<br>355,6 | 3,00<br>76,2  | 6,19<br>157,2  | 8                 | 1,62<br>41,1 | 10,75<br>273,1 | 53,9           |
| 5 "             | 5,563<br>141,3 | 16,50<br>419,1 | 3,62<br>91,9  | 7,31<br>185,7  | 8                 | 1,88<br>47,8 | 12,75<br>323,8 | 90,8           |
| 6 "             | 6,625<br>168,3 | 19,00<br>482,6 | 4,25<br>108,0 | 8,50<br>215,9  | 8                 | 2,12<br>53,8 | 14,50<br>368,3 | 141            |
| 8 "             | 8,625<br>219,1 | 21,75<br>552,5 | 5,00<br>127,0 | 10,62<br>269,7 | 12                | 2,12<br>53,8 | 17,25<br>438,2 | 214            |
| 10 "            | 10,75<br>273   | 26,50<br>673,1 | 6,50<br>165,1 | 12,75<br>323,8 | 12                | 2,62<br>66,5 | 21,25<br>539,8 | 411            |
| 12 "            | 12,75<br>323,8 | 30,00<br>762,0 | 7,25<br>184,2 | 15,00<br>381,0 | 12                | 2,88<br>73,2 | 24,38<br>619,3 | 592            |

## ASME B 16.5

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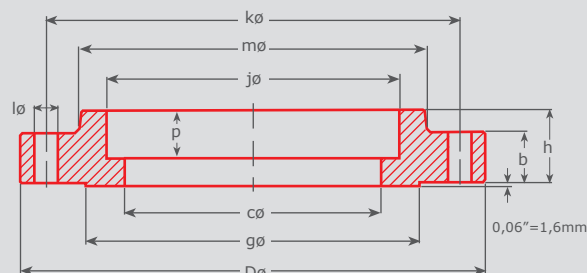
## **SOCKET WELDING FLANGES ACC. TO ASME B 16.5**



# 150 LB/SQ. IN.

## SOCKET WELDING FLANGES

### ASME B 16.5

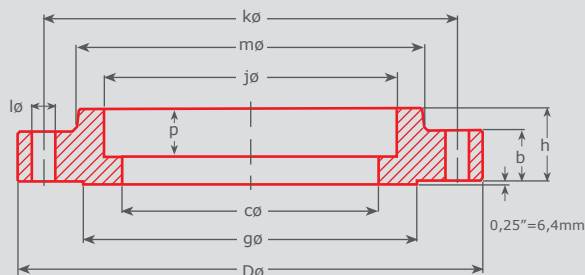


| Pipe         |               | Flange        |              |              |              |              |              | Hub           | Raised Face   | Drilling Template |              |               | Approx. Weight |
|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|-------------------|--------------|---------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm      | J in. mm     | c in. mm     | P in. mm     | b in. mm     | h in. mm     | m in. mm      | g in. mm      | Number            | I in. mm     | k in. mm      | Kilo           |
| 1/2"         | 0,84<br>21,3  | 3,50<br>88,9  | 0,88<br>22,4 | 0,62<br>15,7 | 0,38<br>9,7  | 0,38<br>9,6  | 0,56<br>14,1 | 1,19<br>30,2  | 1,38<br>35,1  | 4                 | 0,62<br>15,7 | 2,38<br>60,5  | 0,42           |
| 3/4"         | 1,05<br>26,7  | 3,88<br>98,6  | 1,09<br>27,7 | 0,82<br>20,8 | 0,44<br>11,2 | 0,44<br>11,1 | 0,56<br>14,1 | 1,50<br>38,1  | 1,69<br>42,9  | 4                 | 0,62<br>15,7 | 2,75<br>69,9  | 0,59           |
| 1"           | 1,315<br>33,4 | 4,25<br>108,0 | 1,36<br>34,5 | 1,05<br>26,7 | 0,50<br>12,7 | 0,5<br>12,6  | 0,63<br>15,9 | 1,94<br>49,3  | 2,00<br>50,8  | 4                 | 0,62<br>15,7 | 3,12<br>79,2  | 0,81           |
| 1 1/4"       | 1,66<br>42,2  | 4,62<br>117,3 | 1,70<br>43,2 | 1,38<br>35,1 | 0,56<br>14,2 | 0,56<br>14,1 | 0,75<br>19   | 2,31<br>58,7  | 2,50<br>63,5  | 4                 | 0,62<br>15,7 | 3,50<br>88,9  | 1,07           |
| 1 1/2"       | 1,90<br>48,3  | 5,00<br>127,0 | 1,95<br>49,5 | 1,61<br>40,9 | 0,62<br>15,7 | 0,63<br>15,9 | 0,82<br>20,8 | 2,56<br>65,0  | 2,88<br>73,2  | 4                 | 0,62<br>15,7 | 3,88<br>98,6  | 1,36           |
| 2"           | 2,375<br>60,3 | 6,00<br>152,4 | 2,44<br>62,0 | 2,07<br>52,6 | 0,69<br>17,5 | 0,69<br>17,5 | 0,94<br>23,8 | 3,06<br>77,7  | 3,62<br>91,9  | 4                 | 0,75<br>19,1 | 4,75<br>120,7 | 2,10           |
| 2 1/2"       | 2,875<br>73,0 | 7,00<br>177,8 | 2,94<br>74,7 | 2,47<br>62,7 | 0,75<br>19,1 | 0,82<br>20,8 | 1,06<br>26,8 | 3,56<br>90,4  | 4,12<br>104,6 | 4                 | 0,75<br>19,1 | 5,50<br>139,7 | 3,33           |
| 3 "          | 3,50<br>88,9  | 7,50<br>190,5 | 3,57<br>90,7 | 3,07<br>78,0 | 0,81<br>20,6 | 0,88<br>22,3 | 1,13<br>28,6 | 4,25<br>108,0 | 5,00<br>127,0 | 4                 | 0,75<br>19,1 | 6,00<br>152,4 | 3,90           |

# 300 LB/SQ. IN.

## SOCKET WELDING FLANGES

| Pipe         |               | Flange        |              |              |              |              |              | Hub           | Raised Face   | Drilling Template |              |               | Approx. Weight |
|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|-------------------|--------------|---------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm      | J in. mm     | c in. mm     | P in. mm     | b in. mm     | h in. mm     | m in. mm      | g in. mm      | Number            | I in. mm     | k in. mm      | Kilo           |
| 1/2"         | 0,84<br>21,3  | 3,75<br>95,3  | 0,88<br>22,4 | 0,62<br>15,7 | 0,38<br>9,7  | 0,5<br>12,6  | 0,82<br>20,8 | 1,50<br>38,1  | 1,38<br>35,1  | 4                 | 0,62<br>15,7 | 2,62<br>66,5  | 0,66           |
| 3/4"         | 1,05<br>26,7  | 4,62<br>117,3 | 1,09<br>27,7 | 0,82<br>20,8 | 0,44<br>11,2 | 0,56<br>14,1 | 0,94<br>23,8 | 1,88<br>47,8  | 1,69<br>42,9  | 4                 | 0,75<br>19,1 | 3,25<br>82,6  | 1,15           |
| 1"           | 1,315<br>33,4 | 4,88<br>124   | 1,36<br>34,5 | 1,05<br>26,7 | 0,50<br>12,7 | 0,63<br>15,9 | 1<br>25,3    | 2,12<br>53,8  | 2,00<br>50,8  | 4                 | 0,75<br>19,1 | 3,50<br>88,9  | 1,40           |
| 1 1/4"       | 1,66<br>42,2  | 5,25<br>133,4 | 1,70<br>43,2 | 1,38<br>35,1 | 0,56<br>14,2 | 0,69<br>17,5 | 1<br>25,3    | 2,50<br>63,5  | 2,50<br>63,5  | 4                 | 0,75<br>19,1 | 3,88<br>98,6  | 1,75           |
| 1 1/2"       | 1,90<br>48,3  | 6,12<br>155,4 | 1,95<br>49,5 | 1,61<br>40,9 | 0,62<br>15,7 | 0,75<br>19   | 1,13<br>28,6 | 2,75<br>69,9  | 2,88<br>73,2  | 4                 | 0,88<br>22,4 | 4,50<br>114,3 | 2,55           |
| 2"           | 2,375<br>60,3 | 6,50<br>165,1 | 2,44<br>62,0 | 2,07<br>52,6 | 0,69<br>17,5 | 0,82<br>20,8 | 1,25<br>31,7 | 3,31<br>84,1  | 3,62<br>91,9  | 8                 | 0,75<br>19,1 | 5,00<br>127,0 | 2,93           |
| 2 1/2"       | 2,875<br>73,0 | 7,50<br>190,5 | 2,94<br>74,7 | 2,47<br>62,7 | 0,75<br>19,1 | 0,94<br>23,8 | 1,44<br>36,5 | 3,94<br>100,1 | 4,12<br>104,6 | 8                 | 0,88<br>22,4 | 5,88<br>149,4 | 4,40           |
| 3 "          | 3,50<br>88,9  | 8,25<br>209,5 | 3,57<br>90,7 | 3,07<br>78,0 | 0,81<br>20,6 | 1,06<br>26,8 | 1,63<br>41,3 | 4,62<br>117,3 | 5,00<br>127,0 | 8                 | 0,88<br>22,4 | 6,62<br>168,1 | 5,92           |



# 600 LB/SQ. IN.

## SOCKET WELDING FLANGES

### ASME B 16.5

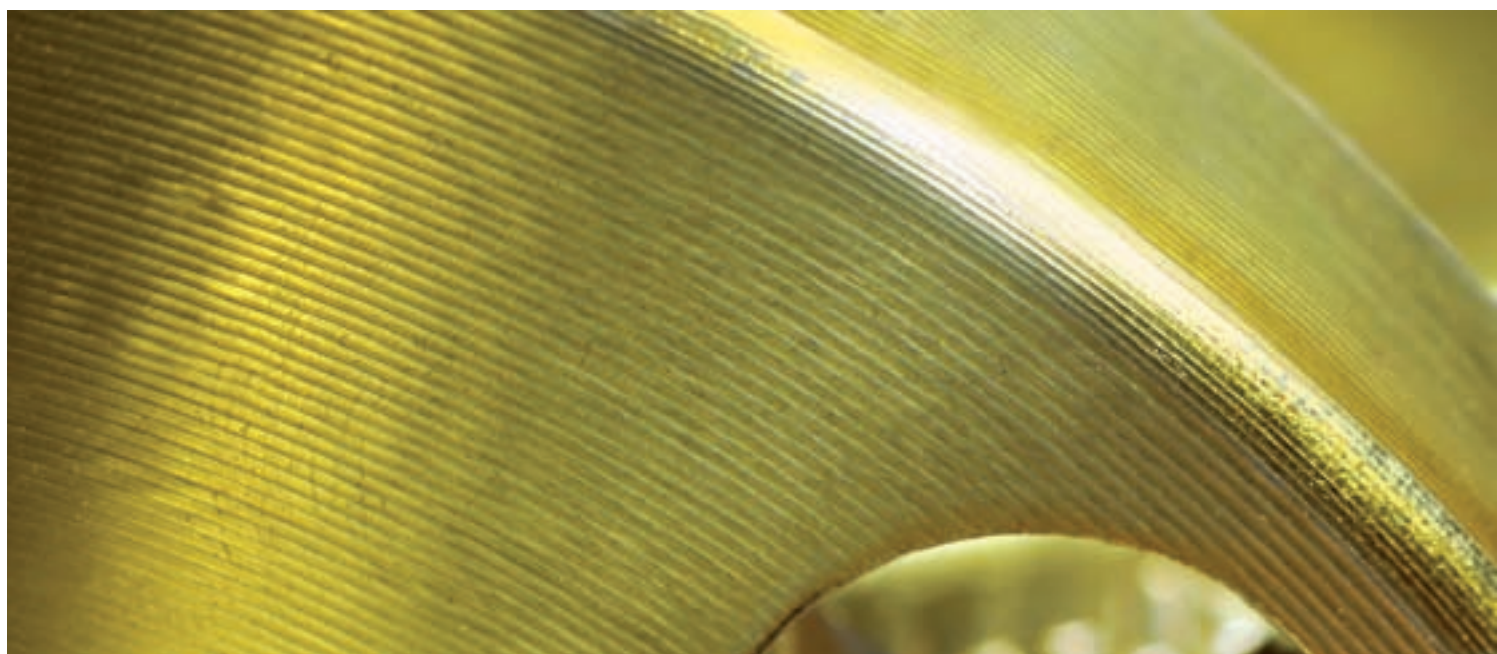
| Pipe         |               | Flange        |              |                                  |              |              |              | Hub           | Raised Face   | Drilling Template |              |               | Approx. Weight |
|--------------|---------------|---------------|--------------|----------------------------------|--------------|--------------|--------------|---------------|---------------|-------------------|--------------|---------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm      | J in. mm     | c in. mm                         | P in. mm     | b in. mm     | h in. mm     | m in. mm      | g in. mm      | Number            | J in. mm     | k in. mm      | Kilo           |
| 1/2"         | 0,84<br>21,3  | 3,75<br>95,3  | 0,88<br>22,4 | To be specified by the purchaser | 0,38<br>9,7  | 0,56<br>14,2 | 0,88<br>22,4 | 1,50<br>38,1  | 1,38<br>35,1  | 4                 | 0,62<br>15,7 | 2,62<br>66,5  | 0,76           |
| 3/4"         | 1,05<br>26,7  | 4,62<br>117,3 | 1,09<br>27,7 |                                  | 0,44<br>11,2 | 0,62<br>15,7 | 1,00<br>25,4 | 1,88<br>47,8  | 1,69<br>42,9  | 4                 | 0,75<br>19,1 | 3,25<br>82,6  | 1,29           |
| 1"           | 1,315<br>33,4 | 4,88<br>124,0 | 1,36<br>34,5 |                                  | 0,50<br>12,7 | 0,69<br>17,5 | 1,06<br>26,9 | 2,12<br>53,8  | 2,00<br>50,8  | 4                 | 0,75<br>19,1 | 3,50<br>88,9  | 1,55           |
| 1 1/4"       | 1,66<br>42,2  | 5,25<br>133,4 | 1,70<br>43,2 |                                  | 0,56<br>14,2 | 0,81<br>20,6 | 1,12<br>28,4 | 2,50<br>63,5  | 2,50<br>63,5  | 4                 | 0,75<br>19,1 | 3,88<br>98,6  | 2,06           |
| 1 1/2"       | 1,90<br>48,3  | 6,12<br>155,4 | 1,95<br>49,5 |                                  | 0,62<br>15,7 | 0,88<br>22,4 | 1,25<br>31,8 | 2,75<br>69,9  | 2,88<br>73,2  | 4                 | 0,88<br>22,4 | 4,50<br>114,3 | 3,00           |
| 2"           | 2,375<br>60,3 | 6,50<br>165,1 | 2,44<br>62,0 |                                  | 0,69<br>17,5 | 1,00<br>25,4 | 1,44<br>36,6 | 3,31<br>84,1  | 3,62<br>91,9  | 8                 | 0,75<br>19,1 | 5,00<br>127,0 | 3,67           |
| 2 1/2"       | 2,875<br>73,0 | 7,50<br>190,5 | 2,94<br>74,7 |                                  | 0,75<br>19,1 | 1,12<br>28,4 | 1,62<br>41,1 | 3,94<br>100,1 | 4,12<br>104,6 | 8                 | 0,88<br>22,4 | 5,88<br>149,4 | 5,35           |
| 3"           | 3,50<br>88,9  | 8,25<br>209,6 | 3,57<br>90,7 |                                  | 0,81<br>20,6 | 1,25<br>31,8 | 1,81<br>46,0 | 4,62<br>117,3 | 5,00<br>127,0 | 8                 | 0,88<br>22,4 | 6,62<br>168,1 | 7,06           |

 ASME  
B 16.5  
SOCKET  
WELDING  
FLANGES

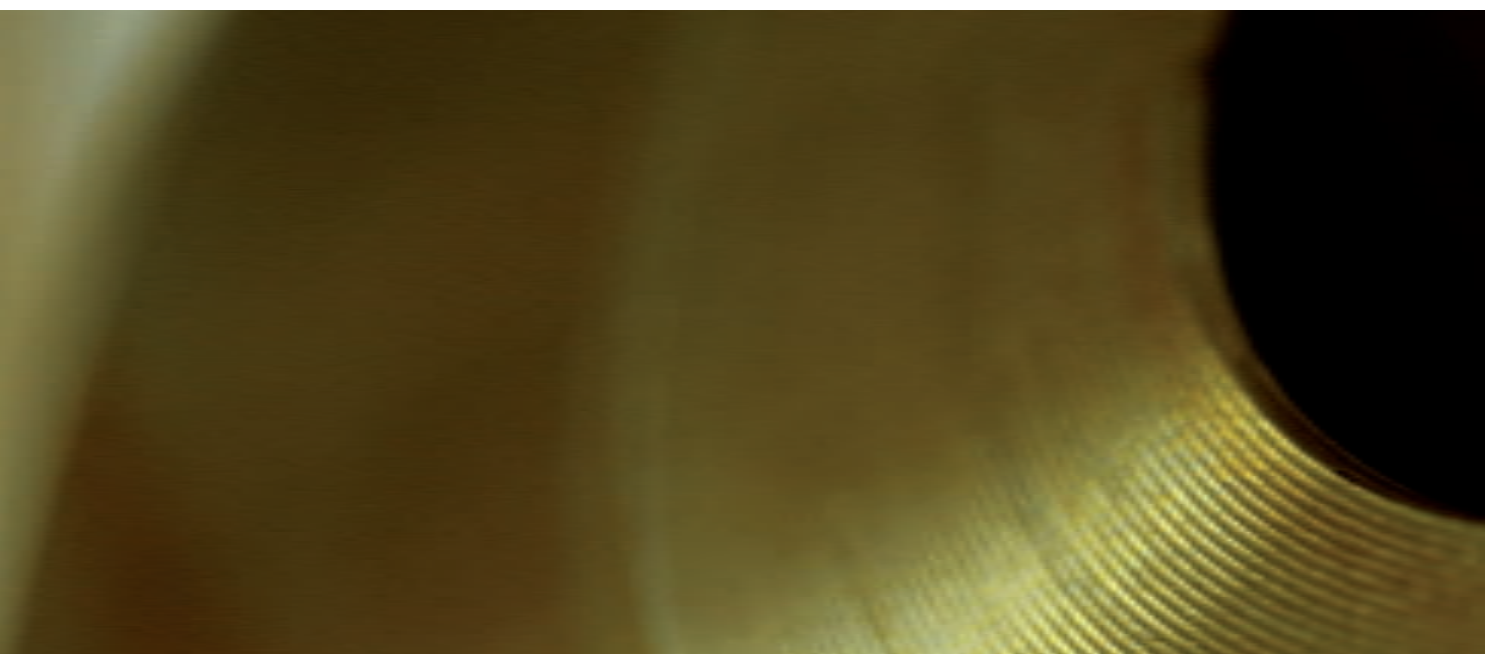
# 1500 LB/SQ. IN.

## SOCKET WELDING FLANGES

| Pipe         |               | Flange        |              |                                  |              |              |              | Hub           | Raised Face   | Drilling Template |              |               | Approx. Weight |
|--------------|---------------|---------------|--------------|----------------------------------|--------------|--------------|--------------|---------------|---------------|-------------------|--------------|---------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm      | J in. mm     | c in. mm                         | P in. mm     | b in. mm     | h in. mm     | m in. mm      | g in. mm      | Number            | J in. mm     | k in. mm      | Kilo           |
| 1/2"         | 0,84<br>21,3  | 4,75<br>120,7 | 0,88<br>22,4 | To be specified by the purchaser | 0,38<br>9,7  | 0,88<br>22,4 | 1,25<br>31,8 | 1,50<br>38,1  | 1,38<br>35,1  | 4                 | 0,88<br>22,4 | 3,25<br>82,6  | 1,80           |
| 3/4"         | 1,05<br>26,7  | 5,12<br>130,0 | 1,09<br>27,7 |                                  | 0,44<br>11,2 | 1,00<br>25,4 | 1,38<br>35,1 | 1,75<br>44,5  | 1,69<br>42,9  | 4                 | 0,88<br>22,4 | 3,50<br>88,9  | 2,41           |
| 1"           | 1,315<br>33,4 | 5,88<br>149,4 | 1,36<br>34,5 |                                  | 0,50<br>12,7 | 1,12<br>28,4 | 1,62<br>41,1 | 2,06<br>52,3  | 2,00<br>50,8  | 4                 | 1,00<br>25,4 | 4,00<br>101,6 | 3,55           |
| 1 1/4"       | 1,66<br>42,2  | 6,25<br>158,8 | 1,70<br>43,2 |                                  | 0,56<br>14,2 | 1,12<br>28,4 | 1,62<br>41,1 | 2,50<br>63,5  | 2,50<br>63,5  | 4                 | 1,00<br>25,4 | 4,38<br>111,3 | 4,02           |
| 1 1/2"       | 1,90<br>48,3  | 7,00<br>177,8 | 1,95<br>49,5 |                                  | 0,62<br>15,7 | 1,25<br>31,8 | 1,75<br>44,5 | 2,75<br>69,9  | 2,88<br>73,2  | 4                 | 1,12<br>28,4 | 4,88<br>124   | 5,45           |
| 2"           | 2,375<br>60,3 | 8,50<br>215,9 | 2,44<br>62,0 |                                  | 0,69<br>17,5 | 1,50<br>38,1 | 2,25<br>57,2 | 4,12<br>104,6 | 3,62<br>91,9  | 8                 | 1,00<br>25,4 | 6,50<br>165,1 | 10,2           |
| 2 1/2"       | 2,875<br>73,0 | 9,62<br>244,3 | 2,94<br>74,7 |                                  | 0,75<br>19,1 | 1,62<br>41,1 | 2,50<br>63,5 | 4,88<br>124   | 4,12<br>104,6 | 8                 | 1,12<br>28,4 | 7,50<br>190,5 | 13,9           |



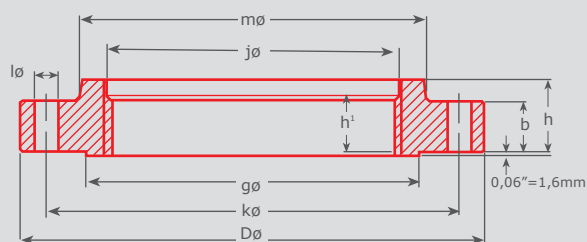
## **THREADED FLANGES ACC. TO ASME B 16.5**



# 150 LB/SQ. IN.

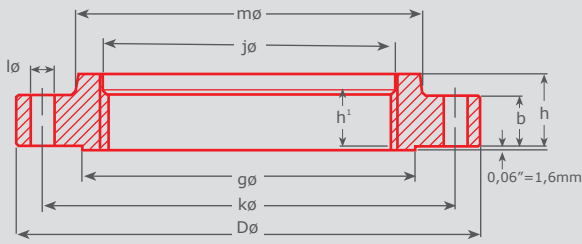
## THREADED FLANGES

### ASME B 16.5



Thread type: Standard taper pipe thread to ANSI B 2.1

| Pipe         |                | Flange         |                                                     |              |                         | Hub            | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|-----------------------------------------------------|--------------|-------------------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm                                            | b in. mm     | h/h <sub>1</sub> in. mm | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 3,50<br>88,9   | No Counter Bore Required on 150 lb Threaded Flanges | 0,38<br>9,6  | 0,56<br>14,1            | 1,19<br>30,2   | 1,38<br>35,1   | 4                 | 0,62<br>15,7 | 2,38<br>60,5   | 0,39           |
| 3/4"         | 1,05<br>26,7   | 3,88<br>98,6   |                                                     | 0,44<br>11,1 | 0,56<br>14,1            | 1,50<br>38,1   | 1,69<br>42,9   | 4                 | 0,62<br>15,7 | 2,75<br>69,9   | 0,56           |
| 1"           | 1,315<br>33,4  | 4,25<br>108,0  |                                                     | 0,5<br>12,6  | 0,63<br>15,9            | 1,94<br>49,3   | 2,00<br>50,8   | 4                 | 0,62<br>15,7 | 3,12<br>79,2   | 0,78           |
| 1 1/4"       | 1,66<br>42,2   | 4,62<br>117,3  |                                                     | 0,56<br>14,1 | 0,75<br>19              | 2,31<br>58,7   | 2,50<br>63,5   | 4                 | 0,62<br>15,7 | 3,50<br>88,9   | 1,03           |
| 1 1/2"       | 1,90<br>48,3   | 5,00<br>127,0  |                                                     | 0,63<br>15,9 | 0,82<br>20,8            | 2,56<br>65,0   | 2,88<br>73,2   | 4                 | 0,62<br>15,7 | 3,88<br>98,6   | 1,32           |
| 2"           | 2,375<br>60,3  | 6,00<br>152,4  |                                                     | 0,69<br>17,5 | 0,94<br>23,8            | 3,06<br>77,7   | 3,62<br>91,9   | 4                 | 0,75<br>19,1 | 4,75<br>120,7  | 2,06           |
| 2 1/2"       | 2,875<br>73,0  | 7,00<br>177,8  |                                                     | 0,82<br>20,8 | 1,06<br>26,8            | 3,56<br>90,4   | 4,12<br>104,6  | 4                 | 0,75<br>19,1 | 5,50<br>139,7  | 3,28           |
| 3"           | 3,50<br>88,9   | 7,50<br>190,5  |                                                     | 0,88<br>22,3 | 1,13<br>28,6            | 4,25<br>108,0  | 5,00<br>127,0  | 4                 | 0,75<br>19,1 | 6,00<br>152,4  | 3,85           |
| 3 1/2"       | 4,00<br>101,6  | 8,50<br>215,9  |                                                     | 0,88<br>22,3 | 1,19<br>30,2            | 4,81<br>122,2  | 5,50<br>139,7  | 8                 | 0,75<br>19,1 | 7,00<br>177,8  | 4,81           |
| 4 "          | 4,50<br>114,3  | 9,00<br>228,6  |                                                     | 0,88<br>22,3 | 1,25<br>31,7            | 5,31<br>134,9  | 6,19<br>157,2  | 8                 | 0,75<br>19,1 | 7,50<br>190,5  | 5,30           |
| 5 "          | 5,563<br>141,3 | 10,00<br>254,0 |                                                     | 0,88<br>22,3 | 1,38<br>35              | 6,44<br>163,6  | 7,31<br>185,7  | 8                 | 0,88<br>22,4 | 8,50<br>215,9  | 6,07           |
| 6 "          | 6,625<br>168,3 | 11,00<br>279,4 |                                                     | 0,94<br>23,8 | 1,5<br>38               | 7,56<br>192,0  | 8,50<br>215,9  | 8                 | 0,88<br>22,4 | 9,50<br>241,3  | 7,45           |
| 8 "          | 8,625<br>219,1 | 13,50<br>342,9 |                                                     | 1,06<br>26,8 | 1,69<br>42,9            | 9,69<br>246,1  | 10,62<br>269,7 | 8                 | 0,88<br>22,4 | 11,75<br>298,5 | 12,1           |
| 10 "         | 10,75<br>273   | 16,00<br>406,4 |                                                     | 1,13<br>28,6 | 1,88<br>47,7            | 12,00<br>304,8 | 12,75<br>323,8 | 12                | 1,00<br>25,4 | 14,25<br>362,0 | 16,5           |
| 12 "         | 12,75<br>323,8 | 19,00<br>482,6 |                                                     | 1,19<br>30,2 | 2,13<br>54              | 14,38<br>365,3 | 15,00<br>381,0 | 12                | 1,00<br>25,4 | 17,00<br>431,8 | 26,2           |
| 14 "         | 14,0<br>355,6  | 21,00<br>533,4 |                                                     | 1,32<br>33,5 | 2,19<br>55,6            | 15,75<br>400,1 | 16,25<br>412,8 | 12                | 1,12<br>28,4 | 18,75<br>476,3 | 34,6           |
| 16 "         | 16,0<br>406,4  | 23,50<br>596,9 |                                                     | 1,38<br>35   | 2,44<br>61,9            | 18,00<br>457,2 | 18,50<br>469,9 | 16                | 1,12<br>28,4 | 21,25<br>539,8 | 44,8           |
| 18 "         | 18,0<br>457,2  | 25,00<br>635,0 |                                                     | 1,5<br>38    | 2,63<br>66,7            | 19,88<br>505,0 | 21,00<br>533,4 | 16                | 1,25<br>31,8 | 22,75<br>577,9 | 48,9           |
| 20 "         | 20,0<br>508    | 27,50<br>698,5 |                                                     | 1,63<br>41,3 | 2,82<br>71,6            | 22,00<br>558,8 | 23,00<br>584,2 | 20                | 1,25<br>31,8 | 25,00<br>635,0 | 61,9           |
| 24 "         | 24,0<br>609,6  | 32,00<br>812,8 |                                                     | 1,82<br>46,2 | 3,19<br>81              | 26,12<br>663,4 | 27,25<br>692,2 | 20                | 1,38<br>35,1 | 29,50<br>749,3 | 86,9           |



Thread type: Standard taper pipe thread to ANSI B 2.1

# 300 LB/SQ. IN. THREADED FLANGES

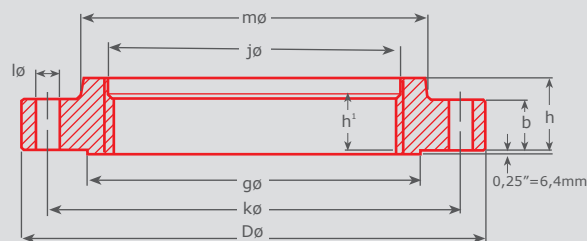
## ASME B 16.5

| Pipe         |                | Flange         |                |              |               |                       | Hub            | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------|--------------|---------------|-----------------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm       | b in. mm     | h in. mm      | h <sub>1</sub> in. mm | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 3,75<br>95,2   | 0,93<br>23,6   | 0,5<br>12,6  | 0,82<br>20,7  | 0,56<br>14,1          | 1,50<br>38,1   | 1,38<br>35,0   | 4                 | 0,62<br>15,7 | 2,62<br>66,5   | 0,64           |
| 3/4"         | 1,05<br>26,7   | 4,62<br>117,3  | 1,14<br>29,0   | 0,56<br>14,1 | 0,94<br>23,8  | 0,56<br>14,1          | 1,88<br>47,8   | 1,69<br>42,9   | 4                 | 0,75<br>19,1 | 3,25<br>82,6   | 1,12           |
| 1"           | 1,315<br>33,4  | 4,88<br>124    | 1,41<br>35,8   | 0,63<br>15,9 | 1<br>25,3     | 0,63<br>15,9          | 2,12<br>53,8   | 2,00<br>50,8   | 4                 | 0,75<br>19,1 | 3,50<br>88,9   | 1,36           |
| 1 1/4"       | 1,66<br>42,2   | 5,25<br>133,4  | 1,75<br>44,5   | 0,69<br>17,5 | 1<br>25,3     | 0,75<br>19            | 2,50<br>63,5   | 2,50<br>63,5   | 4                 | 0,75<br>19,1 | 3,88<br>98,6   | 1,68           |
| 1 1/2"       | 1,90<br>48,3   | 6,12<br>155,4  | 1,99<br>50,5   | 0,75<br>19   | 1,13<br>28,6  | 0,82<br>20,8          | 2,75<br>69,9   | 2,88<br>73,2   | 4                 | 0,88<br>22,4 | 4,50<br>114,3  | 2,49           |
| 2"           | 2,375<br>60,3  | 6,50<br>165,1  | 2,50<br>63,5   | 0,82<br>20,8 | 1,25<br>31,7  | 1,06<br>26,8          | 3,31<br>84,1   | 3,62<br>91,9   | 8                 | 0,75<br>19,1 | 5,00<br>127,0  | 2,87           |
| 2 1/2"       | 2,875<br>73,0  | 7,50<br>190,5  | 3,00<br>76,2   | 0,94<br>23,8 | 1,44<br>36,5  | 1,19<br>30,2          | 3,94<br>100,1  | 4,12<br>104,6  | 8                 | 0,88<br>22,4 | 5,88<br>149,4  | 4,32           |
| 3"           | 3,50<br>88,9   | 8,25<br>209,6  | 3,63<br>92,2   | 1,06<br>26,8 | 1,63<br>41,3  | 1,19<br>30,2          | 4,62<br>117,3  | 5,00<br>127,0  | 8                 | 0,88<br>22,4 | 6,62<br>168,1  | 5,85           |
| 3 1/2"       | 4,00<br>101,6  | 9,00<br>228,6  | 4,13<br>104,9  | 1,13<br>28,6 | 1,69<br>42,9  | 1,38<br>35            | 5,25<br>133,4  | 5,50<br>139,7  | 8                 | 0,88<br>22,4 | 7,25<br>184,2  | 7,34           |
| 4"           | 4,50<br>114,3  | 10,00<br>254,0 | 4,63<br>117,6  | 1,19<br>30,2 | 1,82<br>46,2  | 1,38<br>35            | 5,75<br>146,1  | 6,19<br>157,2  | 8                 | 0,88<br>22,4 | 7,88<br>200,2  | 9,61           |
| 5"           | 5,563<br>141,3 | 11,00<br>279,4 | 5,69<br>144,5  | 1,32<br>33,5 | 1,94<br>49,2  | 1,63<br>41,3          | 7,00<br>177,8  | 7,31<br>185,7  | 8                 | 0,88<br>22,4 | 9,25<br>235    | 12,3           |
| 6"           | 6,625<br>168,3 | 12,50<br>317,5 | 6,75<br>171,5  | 1,38<br>35   | 2<br>50,7     | 1,75<br>44,4          | 8,12<br>206,2  | 8,50<br>215,9  | 12                | 0,88<br>22,4 | 10,62<br>269,7 | 15,6           |
| 8"           | 8,625<br>219,1 | 15,00<br>381,0 | 8,75<br>222,3  | 1,56<br>39,5 | 2,38<br>60,4  | 1,94<br>49,2          | 10,25<br>260,4 | 10,62<br>269,7 | 12                | 1,00<br>25,4 | 13,00<br>330,2 | 24,2           |
| 10"          | 10,75<br>273   | 17,50<br>444,5 | 10,88<br>276,4 | 1,82<br>46,2 | 2,56<br>64,9  | 2,13<br>54            | 12,62<br>320,5 | 12,75<br>323,8 | 16                | 1,12<br>28,4 | 15,25<br>387,4 | 34,1           |
| 12"          | 12,75<br>323,8 | 20,50<br>520,7 | 12,94<br>328,7 | 1,94<br>49,2 | 2,82<br>71,6  | 2,32<br>58,9          | 14,75<br>374,7 | 15,00<br>381,0 | 16                | 1,25<br>31,8 | 17,75<br>450,9 | 49,8           |
| 14"          | 14,0<br>355,6  | 23,00<br>584,2 | 14,19<br>360,4 | 2,06<br>52,2 | 2,94<br>74,6  | 2,44<br>61,9          | 16,75<br>425,5 | 16,25<br>412,8 | 20                | 1,25<br>31,8 | 20,25<br>514,4 | 69,9           |
| 16"          | 16,0<br>406,4  | 25,50<br>647,7 | 16,19<br>411,2 | 2,19<br>55,6 | 3,19<br>81    | 2,63<br>66,7          | 19,00<br>482,6 | 18,50<br>469,9 | 20                | 1,38<br>35,1 | 22,50<br>571,5 | 88,1           |
| 18"          | 18,0<br>457,2  | 28,00<br>711,2 | 18,19<br>462   | 2,32<br>58,9 | 3,44<br>87,3  | 2,69<br>68,3          | 21,00<br>533,4 | 21,00<br>533,4 | 24                | 1,38<br>35,1 | 24,75<br>628,7 | 109            |
| 20"          | 20,0<br>508    | 30,50<br>774,7 | 20,19<br>512,8 | 2,44<br>61,9 | 3,69<br>93,7  | 2,82<br>71,6          | 23,12<br>587,2 | 23,00<br>584,2 | 24                | 1,38<br>35,1 | 27,00<br>685,8 | 134            |
| 24"          | 24,0<br>609,6  | 36,00<br>914,4 | 24,19<br>614,4 | 2,69<br>68,3 | 4,13<br>104,8 | 3,19<br>81            | 27,62<br>701,5 | 27,25<br>692,2 | 24                | 1,62<br>41,1 | 32,00<br>812,8 | 201            |

ASME  
B 16.5  
THREADED  
FLANGES  
150  
300

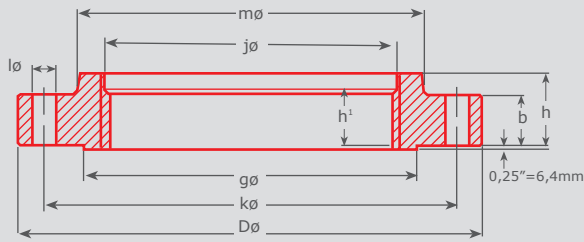
# 400 LB/SQ. IN. THREADED FLANGES

## ASME B 16.5



Thread type: Standard taper pipe thread to ANSI B 2.1

| Pipe         |                | Flange                                |                |              |               |                       | Hub            | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|---------------------------------------|----------------|--------------|---------------|-----------------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm                              | J in. mm       | b in. mm     | h in. mm      | h <sub>1</sub> in. mm | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | Use 600 Ib dimensions for these sizes |                |              |               |                       |                |                |                   |              |                |                |
| 3/4"         | 1,05<br>26,7   |                                       |                |              |               |                       |                |                |                   |              |                |                |
| 1"           | 1,315<br>33,4  |                                       |                |              |               |                       |                |                |                   |              |                |                |
| 1 1/4"       | 1,66<br>42,2   |                                       |                |              |               |                       |                |                |                   |              |                |                |
| 1 1/2"       | 1,90<br>48,3   |                                       |                |              |               |                       |                |                |                   |              |                |                |
| 2"           | 2,375<br>60,3  |                                       |                |              |               |                       |                |                |                   |              |                |                |
| 2 1/2"       | 2,875<br>73,0  |                                       |                |              |               |                       |                |                |                   |              |                |                |
| 3"           | 3,50<br>88,9   |                                       |                |              |               |                       |                |                |                   |              |                |                |
| 3 1/2"       | 4,00<br>101,6  |                                       |                |              |               |                       |                |                |                   |              |                |                |
| 4 "          | 4,50<br>114,3  | 10,00<br>254,0                        | 4,63<br>117,6  | 1,38<br>35,1 | 2,00<br>50,8  | 1,44<br>36,6          | 5,75<br>146,1  | 6,19<br>157,2  | 8                 | 1,00<br>25,4 | 7,88<br>200,2  | <b>11,1</b>    |
| 5 "          | 5,563<br>141,3 | 11,00<br>279,4                        | 5,69<br>144,5  | 1,50<br>38,1 | 2,12<br>53,8  | 1,69<br>42,9          | 7,00<br>177,8  | 7,31<br>185,7  | 8                 | 1,00<br>25,4 | 9,25<br>235,0  | <b>13,9</b>    |
| 6 "          | 6,625<br>168,3 | 12,50<br>317,5                        | 6,75<br>171,5  | 1,62<br>41,1 | 2,25<br>57,2  | 1,81<br>46,0          | 8,12<br>206,2  | 8,50<br>215,9  | 12                | 1,00<br>25,4 | 10,62<br>269,7 | <b>18,3</b>    |
| 8 "          | 8,625<br>219,1 | 15,00<br>381,0                        | 8,75<br>222,3  | 1,88<br>47,8 | 2,69<br>68,3  | 2,00<br>50,8          | 10,25<br>260,4 | 10,62<br>269,7 | 12                | 1,12<br>28,4 | 13,00<br>330,2 | <b>28,6</b>    |
| 10 "         | 10,75<br>273   | 17,50<br>444,5                        | 10,88<br>276,4 | 2,12<br>53,8 | 2,88<br>73,2  | 2,19<br>55,6          | 12,62<br>320,5 | 12,75<br>323,8 | 16                | 1,25<br>31,8 | 15,25<br>387,4 | <b>39,2</b>    |
| 12 "         | 12,75<br>323,8 | 20,50<br>520,7                        | 12,94<br>328,7 | 2,25<br>57,2 | 3,12<br>79,2  | 2,38<br>60,5          | 14,75<br>374,7 | 15,00<br>381,0 | 16                | 1,38<br>35,1 | 17,75<br>450,9 | <b>57,0</b>    |
| 14 "         | 14,0<br>355,6  | 23,00<br>584,2                        | 14,19<br>360,4 | 2,38<br>60,5 | 3,31<br>84,1  | 2,50<br>63,5          | 16,75<br>425,5 | 16,25<br>412,8 | 20                | 1,38<br>35,1 | 20,25<br>514,4 | <b>79,1</b>    |
| 16 "         | 16,0<br>406,4  | 25,50<br>647,7                        | 16,19<br>411,2 | 2,50<br>63,5 | 3,69<br>93,7  | 2,69<br>68,3          | 19,00<br>482,6 | 18,50<br>469,9 | 20                | 1,50<br>38,1 | 22,50<br>571,5 | <b>101</b>     |
| 18 "         | 18,0<br>457,2  | 28,00<br>711,2                        | 18,19<br>462,0 | 2,62<br>66,5 | 3,88<br>98,6  | 2,75<br>69,9          | 21,00<br>533,4 | 21,00<br>533,4 | 24                | 1,50<br>38,1 | 24,75<br>628,7 | <b>123</b>     |
| 20 "         | 20,0<br>508    | 30,50<br>774,7                        | 20,19<br>512,8 | 2,75<br>69,9 | 4,00<br>101,6 | 2,88<br>73,2          | 23,12<br>587,2 | 23,00<br>584,2 | 24                | 1,62<br>41,1 | 27,00<br>685,8 | <b>146</b>     |
| 24 "         | 24,0<br>609,6  | 36,00<br>914,4                        | 24,19<br>614,4 | 3,00<br>76,2 | 4,50<br>114,3 | 3,25<br>82,6          | 27,62<br>701,5 | 27,25<br>692,2 | 24                | 1,88<br>47,8 | 32,00<br>812,8 | <b>219</b>     |



Thread type: Standard taper pipe thread to ANSI B 2.1

# 600 LB/SQ. IN. THREADED FLANGES

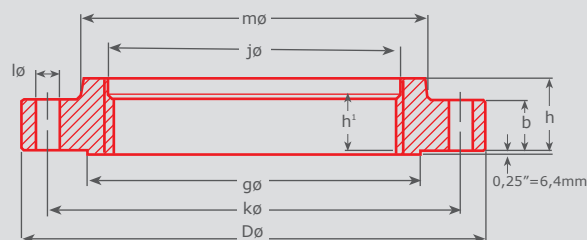
## ASME B 16.5

| Pipe         |                | Flange         |                |               |               |                       | Hub            | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------|---------------|---------------|-----------------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom, Size DN | OD In. mm      | D in. mm       | J in. mm       | b in. mm      | h in. mm      | h <sub>1</sub> in. mm | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 3,75<br>95,3   | 0,93<br>23,6   | 0,56<br>14,2  | 0,88<br>22,4  | 0,62<br>15,7          | 1,50<br>38,1   | 1,38<br>35,1   | 4                 | 0,62<br>15,7 | 2,62<br>66,5   | 0,74           |
| 3/4"         | 1,05<br>26,7   | 4,62<br>117,3  | 1,14<br>29,0   | 0,62<br>15,7  | 1,00<br>25,4  | 0,62<br>15,7          | 1,88<br>47,8   | 1,69<br>42,9   | 4                 | 0,75<br>19,1 | 3,25<br>82,6   | 1,27           |
| 1"           | 1,315<br>33,4  | 4,88<br>124,0  | 1,41<br>35,8   | 0,69<br>17,5  | 1,06<br>26,9  | 0,69<br>17,5          | 2,12<br>53,8   | 2,00<br>50,8   | 4                 | 0,75<br>19,1 | 3,50<br>88,9   | 1,52           |
| 1 1/4"       | 1,66<br>42,2   | 5,25<br>133,4  | 1,75<br>44,5   | 0,81<br>20,6  | 1,12<br>28,4  | 0,81<br>20,6          | 2,50<br>63,5   | 2,50<br>63,5   | 4                 | 0,75<br>19,1 | 3,88<br>98,6   | 2,03           |
| 1 1/2"       | 1,90<br>48,3   | 6,12<br>155,4  | 1,99<br>50,5   | 0,88<br>22,4  | 1,25<br>31,8  | 0,88<br>22,4          | 2,75<br>69,9   | 2,88<br>73,2   | 4                 | 0,88<br>22,4 | 4,50<br>114,3  | 2,96           |
| 2"           | 2,375<br>60,3  | 6,50<br>165,1  | 2,50<br>63,5   | 1,00<br>25,4  | 1,44<br>36,6  | 1,12<br>28,4          | 3,31<br>84,1   | 3,62<br>91,9   | 8                 | 0,75<br>19,1 | 5,00<br>127,0  | 3,62           |
| 2 1/2"       | 2,875<br>73,0  | 7,50<br>190,5  | 3,00<br>76,2   | 1,12<br>28,4  | 1,62<br>41,1  | 1,25<br>31,8          | 3,94<br>100,1  | 4,12<br>104,6  | 8                 | 0,88<br>22,4 | 5,88<br>149,4  | 5,28           |
| 3"           | 3,50<br>88,9   | 8,25<br>209,6  | 3,63<br>92,2   | 1,25<br>31,8  | 1,81<br>46,0  | 1,38<br>35,1          | 4,62<br>117,3  | 5,00<br>127,0  | 8                 | 0,88<br>22,4 | 6,62<br>168,1  | 7,00           |
| 3 1/2"       | 4,00<br>101,6  | 9,00<br>228,6  | 4,13<br>104,9  | 1,38<br>35,1  | 1,94<br>49,3  | 1,56<br>39,6          | 5,25<br>133,4  | 5,50<br>139,7  | 8                 | 1,00<br>25,4 | 7,25<br>184,2  | 8,84           |
| 4 "          | 4,50<br>114,3  | 10,75<br>273,1 | 4,63<br>117,6  | 1,50<br>38,1  | 2,12<br>53,8  | 1,62<br>41,1          | 6,00<br>152,4  | 6,19<br>157,2  | 8                 | 1,00<br>25,4 | 8,50<br>215,9  | 14,5           |
| 5 "          | 5,563<br>141,3 | 13,00<br>330,2 | 5,69<br>144,5  | 1,75<br>44,5  | 2,38<br>60,5  | 1,88<br>47,8          | 7,44<br>189,0  | 7,31<br>185,7  | 8                 | 1,12<br>28,4 | 10,50<br>266,7 | 24,4           |
| 6 "          | 6,625<br>168,3 | 14,00<br>355,6 | 6,75<br>171,5  | 1,88<br>47,8  | 2,62<br>66,5  | 2,00<br>50,8          | 8,75<br>222,3  | 8,50<br>215,9  | 12                | 1,12<br>28,4 | 11,50<br>292,1 | 28,7           |
| 8 "          | 8,625<br>219,1 | 16,50<br>419,1 | 8,75<br>222,3  | 2,19<br>55,6  | 3,00<br>76,2  | 2,25<br>57,2          | 10,75<br>273,1 | 10,62<br>269,7 | 12                | 1,25<br>31,8 | 13,75<br>349,3 | 43,4           |
| 10 "         | 10,75<br>273   | 20,00<br>508,0 | 10,88<br>276,4 | 2,50<br>63,5  | 3,38<br>85,9  | 2,56<br>65,0          | 13,50<br>342,9 | 12,75<br>323,8 | 16                | 1,38<br>35,1 | 17,00<br>431,8 | 70,3           |
| 12 "         | 12,75<br>323,8 | 22,00<br>558,8 | 12,94<br>328,7 | 2,62<br>66,5  | 3,62<br>91,9  | 2,75<br>69,9          | 15,75<br>400,1 | 15,00<br>381,0 | 20                | 1,38<br>35,1 | 19,25<br>489,0 | 84,2           |
| 14 "         | 14,0<br>355,6  | 23,75<br>603,3 | 14,19<br>360,4 | 2,75<br>69,9  | 3,69<br>93,7  | 2,88<br>73,2          | 17,00<br>431,8 | 16,25<br>412,8 | 20                | 1,50<br>38,1 | 20,75<br>527,1 | 98,7           |
| 16 "         | 16,0<br>406,4  | 27,00<br>685,8 | 16,19<br>411,2 | 3,00<br>76,2  | 4,19<br>106,4 | 3,06<br>77,7          | 19,50<br>495,3 | 18,50<br>469,9 | 20                | 1,62<br>41,1 | 23,75<br>603,3 | 142            |
| 18 "         | 18,0<br>457,2  | 29,25<br>743,0 | 18,19<br>462,0 | 3,25<br>82,6  | 4,62<br>117,3 | 3,12<br>79,2          | 21,50<br>546,1 | 21,00<br>533,4 | 20                | 1,75<br>44,5 | 25,75<br>654,1 | 173            |
| 20 "         | 20,0<br>508    | 32,00<br>812,8 | 20,19<br>512,8 | 3,50<br>88,9  | 5,00<br>127,0 | 3,25<br>82,6          | 24,00<br>609,6 | 23,00<br>584,2 | 24                | 1,75<br>44,5 | 28,50<br>723,9 | 220            |
| 24 "         | 24,0<br>609,6  | 37,00<br>939,8 | 24,19<br>614,4 | 4,00<br>101,6 | 5,50<br>139,7 | 3,62<br>92,0          | 28,25<br>717,6 | 27,25<br>692,2 | 24                | 2,00<br>50,8 | 33,00<br>838,2 | 312            |

ASME  
B 16.5  
THREADED  
FLANGES  
400  
600

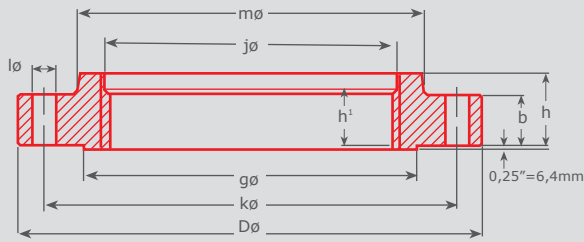
# 900 LB/SQ. IN. THREADED FLANGES

## ASME B 16.5



Thread type: Standard taper pipe thread to ANSI B 2.1

| Pipe         |                | Flange                                 |                |               |               |                       | Hub            | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------------------------------|----------------|---------------|---------------|-----------------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm                               | J in. mm       | b in. mm      | h in. mm      | h <sub>1</sub> in. mm | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | Use 1500 Ib dimensions for these sizes |                |               |               |                       |                |                |                   |              |                |                |
| 3/4"         | 1,05<br>26,7   |                                        |                |               |               |                       |                |                |                   |              |                |                |
| 1"           | 1,315<br>33,4  |                                        |                |               |               |                       |                |                |                   |              |                |                |
| 1 1/4"       | 1,66<br>42,2   |                                        |                |               |               |                       |                |                |                   |              |                |                |
| 1 1/2"       | 1,90<br>48,3   |                                        |                |               |               |                       |                |                |                   |              |                |                |
| 2"           | 2,375<br>60,3  |                                        |                |               |               |                       |                |                |                   |              |                |                |
| 2 1/2"       | 2,875<br>73,0  |                                        |                |               |               |                       |                |                |                   |              |                |                |
| 3 "          | 3,50<br>88,9   | 9,50<br>241,3                          | 3,63<br>92,2   | 1,50<br>38,1  | 2,12<br>53,8  | 1,62<br>41,1          | 5,00<br>127,0  | 5,00<br>127,0  | 8                 | 1,00<br>25,4 | 7,50<br>190,5  | <b>11,6</b>    |
| 4 "          | 4,50<br>114,3  | 11,50<br>292,1                         | 4,63<br>117,6  | 1,75<br>44,5  | 2,75<br>69,8  | 1,88<br>47,8          | 6,25<br>158,7  | 6,19<br>157,2  | 8                 | 1,25<br>31,8 | 9,25<br>235    | <b>19,7</b>    |
| 5 "          | 5,563<br>141,3 | 12,75<br>349,3                         | 5,69<br>144,5  | 2,00<br>50,8  | 3,12<br>79,2  | 2,12<br>53,8          | 7,50<br>190,5  | 7,31<br>185,7  | 8                 | 1,38<br>35,1 | 11,00<br>279,4 | <b>31,9</b>    |
| 6 "          | 6,625<br>168,3 | 15,00<br>381,0                         | 6,75<br>171,5  | 2,19<br>55,6  | 3,38<br>85,9  | 2,25<br>57,2          | 9,25<br>235    | 8,50<br>215,9  | 12                | 1,25<br>31,8 | 12,50<br>317,5 | <b>41,1</b>    |
| 8 "          | 8,625<br>219,1 | 18,50<br>469,9                         | 8,75<br>222,3  | 2,50<br>63,5  | 4,00<br>101,6 | 2,50<br>63,5          | 11,75<br>298,5 | 10,62<br>269,7 | 12                | 1,50<br>38,1 | 15,50<br>393,7 | <b>70,7</b>    |
| 10 "         | 10,75<br>273   | 21,50<br>546,1                         | 10,88<br>276,4 | 2,75<br>69,9  | 4,25<br>108   | 2,81<br>71,4          | 14,50<br>368,3 | 12,75<br>323,8 | 16                | 1,50<br>38,1 | 18,50<br>469,9 | <b>101</b>     |
| 12 "         | 12,75<br>323,8 | 24,00<br>609,6                         | 12,94<br>328,7 | 3,12<br>79,3  | 4,62<br>117,3 | 3,00<br>76,2          | 16,50<br>419,1 | 15,00<br>381,0 | 20                | 1,50<br>38,1 | 21,00<br>533,4 | <b>133</b>     |
| 14 "         | 14,0<br>355,6  | 25,25<br>641,4                         | 14,19<br>360,4 | 3,38<br>85,9  | 5,12<br>130,0 | 3,25<br>82,6          | 17,75<br>450,9 | 16,25<br>412,8 | 20                | 1,62<br>41,1 | 22,00<br>558,8 | <b>153</b>     |
| 16 "         | 16,0<br>406,4  | 27,75<br>704,9                         | 16,19<br>411,2 | 3,50<br>88,9  | 5,25<br>133,4 | 3,38<br>85,9          | 20,00<br>508,0 | 18,50<br>469,9 | 20                | 1,75<br>44,5 | 24,25<br>616   | <b>185</b>     |
| 18 "         | 18,0<br>457,2  | 31,00<br>787,4                         | 18,19<br>462,0 | 4,00<br>101,6 | 6,00<br>152,4 | 3,50<br>88,9          | 22,25<br>565,2 | 21,00<br>533,4 | 20                | 2,00<br>50,8 | 27,00<br>685,8 | <b>258</b>     |
| 20 "         | 20,0<br>508    | 33,75<br>857,3                         | 20,19<br>512,8 | 4,25<br>108   | 6,25<br>158,8 | 3,62<br>91,9          | 24,50<br>622,3 | 23,00<br>584,2 | 20                | 2,12<br>53,8 | 29,50<br>749,3 | <b>317</b>     |
| 24 "         | 24,0<br>609,6  | 41,00<br>1041,4                        | 24,19<br>614,4 | 5,50<br>139,7 | 8,00<br>203,2 | 4,00<br>101,6         | 29,50<br>749,3 | 27,25<br>692,2 | 20                | 2,62<br>66,5 | 35,50<br>901,7 | <b>606</b>     |



Thread type: Standard taper pipe thread to ANSI B 2.1

# 1500 LB/SQ. IN. THREADED FLANGES

## ASME B 16.5

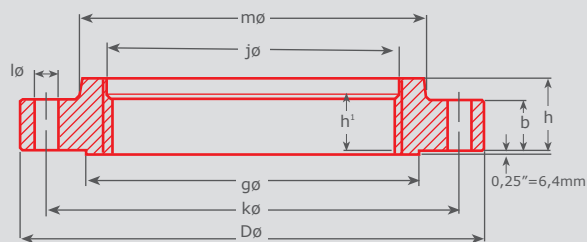
| Pipe         |                | Flange                                 |                |               |               |               | Hub            | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------------------------------|----------------|---------------|---------------|---------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm                               | J in. mm       | b in. mm      | h in. mm      | h, in. mm     | m in. mm       | g in. mm       | Number            | I in. mm     | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | Use 1500 Ib dimensions for these sizes |                |               |               |               |                |                |                   |              |                |                |
| 3/4"         | 1,05<br>26,7   |                                        |                |               |               |               |                |                |                   |              |                |                |
| 1"           | 1,315<br>33,4  |                                        |                |               |               |               |                |                |                   |              |                |                |
| 1 1/4"       | 1,66<br>42,2   |                                        |                |               |               |               |                |                |                   |              |                |                |
| 1 1/2"       | 1,90<br>48,3   |                                        |                |               |               |               |                |                |                   |              |                |                |
| 2"           | 2,375<br>60,3  |                                        |                |               |               |               |                |                |                   |              |                |                |
| 2 1/2"       | 2,875<br>73,0  |                                        |                |               |               |               |                |                |                   |              |                |                |
| 3 "          | 3,50<br>88,9   | 9,50<br>241,3                          | 3,63<br>92,2   | 1,50<br>38,1  | 2,12<br>53,8  | 1,62<br>41,1  | 5,00<br>127,0  | 5,00<br>127,0  | 8                 | 1,00<br>25,4 | 7,50<br>190,5  | 11,6           |
| 4 "          | 4,50<br>114,3  | 11,50<br>292,1                         | 4,63<br>117,6  | 1,75<br>44,5  | 2,75<br>69,8  | 1,88<br>47,8  | 6,25<br>158,7  | 6,19<br>157,2  | 8                 | 1,25<br>31,8 | 9,25<br>235    | 19,7           |
| 5 "          | 5,563<br>141,3 | 12,75<br>349,3                         | 5,69<br>144,5  | 2,00<br>50,8  | 3,12<br>79,2  | 2,12<br>53,8  | 7,50<br>190,5  | 7,31<br>185,7  | 8                 | 1,38<br>35,1 | 11,00<br>279,4 | 31,9           |
| 6 "          | 6,625<br>168,3 | 15,00<br>381,0                         | 6,75<br>171,5  | 2,19<br>55,6  | 3,38<br>85,9  | 2,25<br>57,2  | 9,25<br>235    | 8,50<br>215,9  | 12                | 1,25<br>31,8 | 12,50<br>317,5 | 41,1           |
| 8 "          | 8,625<br>219,1 | 18,50<br>469,9                         | 8,75<br>222,3  | 2,50<br>63,5  | 4,00<br>101,6 | 2,50<br>63,5  | 11,75<br>298,5 | 10,62<br>269,7 | 12                | 1,50<br>38,1 | 15,50<br>393,7 | 70,7           |
| 10 "         | 10,75<br>273   | 21,50<br>546,1                         | 10,88<br>276,4 | 2,75<br>69,9  | 4,25<br>108   | 2,81<br>71,4  | 14,50<br>368,3 | 12,75<br>323,8 | 16                | 1,50<br>38,1 | 18,50<br>469,9 | 101            |
| 12 "         | 12,75<br>323,8 | 24,00<br>609,6                         | 12,94<br>328,7 | 3,12<br>79,3  | 4,62<br>117,3 | 3,00<br>76,2  | 16,50<br>419,1 | 15,00<br>381,0 | 20                | 1,50<br>38,1 | 21,00<br>533,4 | 133            |
| 14 "         | 14,0<br>355,6  | 25,25<br>641,4                         | 14,19<br>360,4 | 3,38<br>85,9  | 5,12<br>130,0 | 3,25<br>82,6  | 17,75<br>450,9 | 16,25<br>412,8 | 20                | 1,62<br>41,1 | 22,00<br>558,8 | 153            |
| 16 "         | 16,0<br>406,4  | 27,75<br>704,9                         | 16,19<br>411,2 | 3,50<br>88,9  | 5,25<br>133,4 | 3,38<br>85,9  | 20,00<br>508,0 | 18,50<br>469,9 | 20                | 1,75<br>44,5 | 24,25<br>616   | 185            |
| 18 "         | 18,0<br>457,2  | 31,00<br>787,4                         | 18,19<br>462,0 | 4,00<br>101,6 | 6,00<br>152,4 | 3,50<br>88,9  | 22,25<br>565,2 | 21,00<br>533,4 | 20                | 2,00<br>50,8 | 27,00<br>685,8 | 258            |
| 20 "         | 20,0<br>508    | 33,75<br>857,3                         | 20,19<br>512,8 | 4,25<br>108   | 6,25<br>158,8 | 3,62<br>91,9  | 24,50<br>622,3 | 23,00<br>584,2 | 20                | 2,12<br>53,8 | 29,50<br>749,3 | 317            |
| 24 "         | 24,0<br>609,6  | 41,00<br>1041,4                        | 24,19<br>614,4 | 5,50<br>139,7 | 8,00<br>203,2 | 4,00<br>101,6 | 29,50<br>749,3 | 27,25<br>692,2 | 20                | 2,62<br>66,5 | 35,50<br>901,7 | 606            |

ASME  
B 16.5  
THREADED  
FLANGES  
900  
1500

# 2500 LB/SQ. IN.

## THREADED FLANGES

### ASME B 16.5

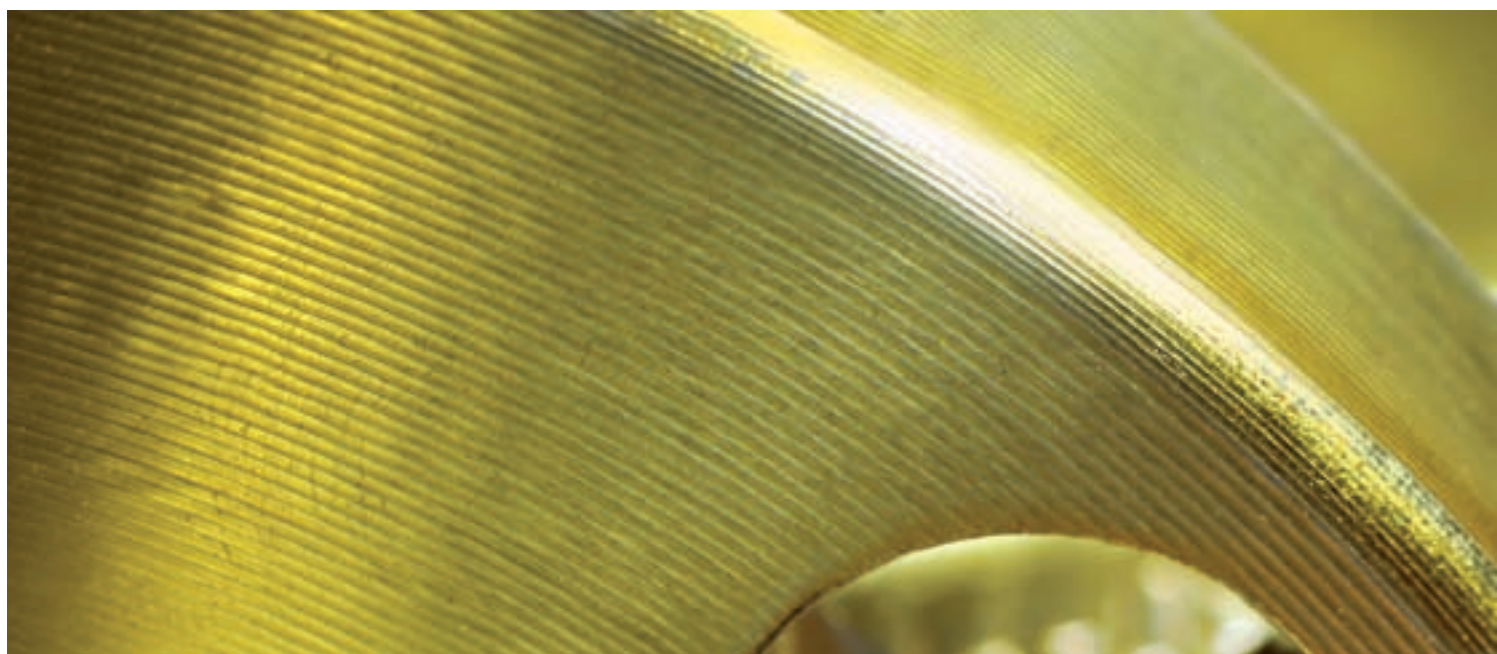


Thread type: Standard taper pipe thread to ANSI B 2.1

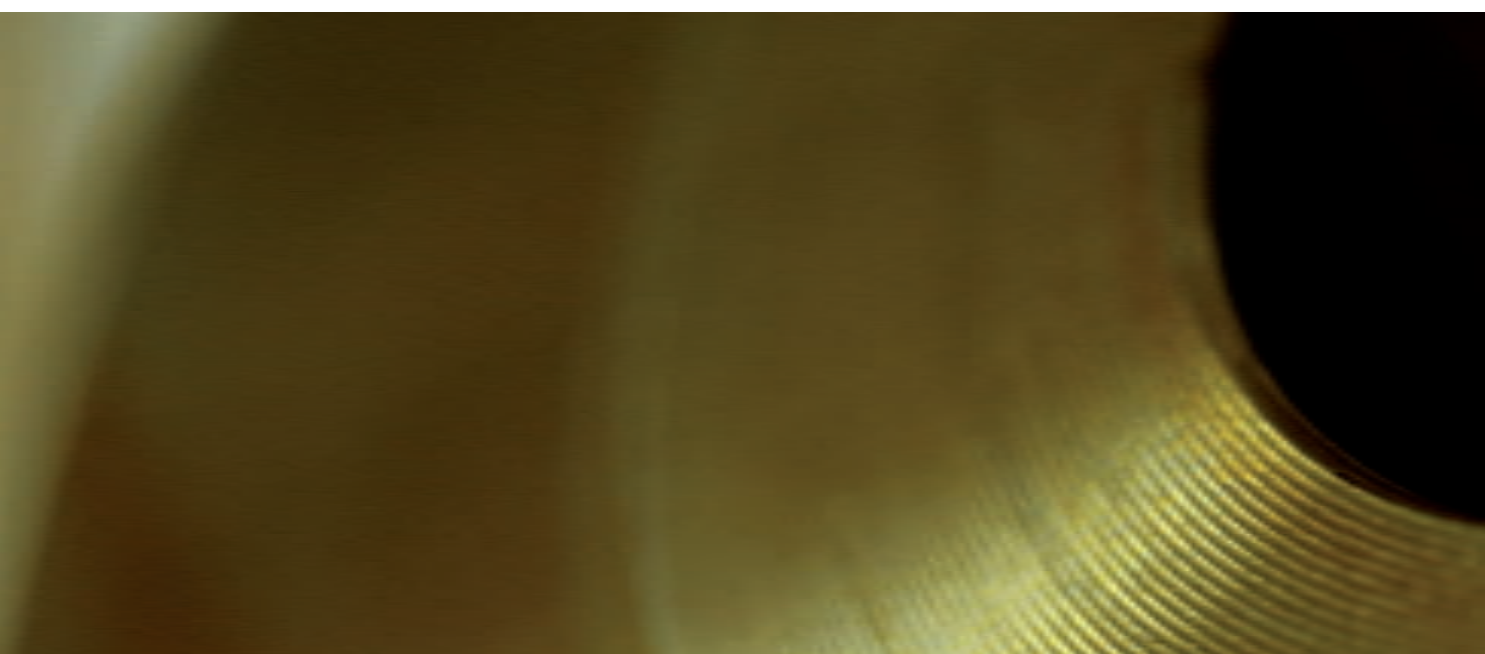
| Pipe         |                | Flange         |                |               |                |               | Hub            | Raised Face    | Drilling Template |              |                | Approx. Weight |
|--------------|----------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|-------------------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm       | J in. mm       | b in. mm      | h in. mm       | h1 in. mm     | m in. mm       | g in. mm       | Number            | I in mm      | k in. mm       | Kilo           |
| 1/2"         | 0,84<br>21,3   | 5,25<br>133,4  | 0,93<br>23,6   | 1,19<br>30,2  | 1,56<br>39,6   | 1,12<br>28,4  | 1,69<br>42,9   | 1,38<br>35,1   | 4                 | 0,88<br>22,4 | 3,50<br>88,9   | <b>2,95</b>    |
| 3/4"         | 1,05<br>26,7   | 5,50<br>139,7  | 1,14<br>29,0   | 1,25<br>31,8  | 1,69<br>42,9   | 1,25<br>31,8  | 2,00<br>50,8   | 1,69<br>42,9   | 4                 | 0,88<br>22,4 | 3,75<br>95,3   | <b>3,44</b>    |
| 1"           | 1,315<br>33,4  | 6,25<br>158,8  | 1,41<br>35,8   | 1,38<br>35,1  | 1,88<br>47,8   | 1,38<br>35,1  | 2,25<br>57,2   | 2,00<br>50,8   | 4                 | 1,00<br>25,4 | 4,25<br>108,0  | <b>4,82</b>    |
| 1 1/4"       | 1,66<br>42,2   | 7,25<br>184,2  | 1,75<br>44,5   | 1,50<br>38,1  | 2,06<br>52,3   | 1,50<br>38,1  | 2,88<br>73,2   | 2,50<br>63,5   | 4                 | 1,12<br>28,4 | 5,12<br>130,0  | <b>7,14</b>    |
| 1 1/2"       | 1,90<br>48,3   | 8,00<br>203,2  | 1,99<br>50,5   | 1,75<br>44,5  | 2,38<br>60,5   | 1,75<br>44,5  | 3,12<br>79,2   | 2,88<br>73,2   | 4                 | 1,25<br>31,8 | 5,75<br>146,1  | <b>10,0</b>    |
| 2"           | 2,375<br>60,3  | 9,25<br>235,0  | 2,50<br>63,5   | 2,00<br>50,8  | 2,75<br>69,9   | 2,00<br>50,8  | 3,75<br>95,3   | 3,62<br>91,9   | 8                 | 1,12<br>28,4 | 6,75<br>171,5  | <b>14,8</b>    |
| 2 1/2"       | 2,875<br>73,0  | 10,50<br>266,7 | 3,00<br>76,2   | 2,25<br>57,2  | 3,12<br>79,2   | 2,25<br>57,2  | 4,50<br>114,3  | 4,12<br>104,6  | 8                 | 1,25<br>31,8 | 7,75<br>196,9  | <b>21,5</b>    |
| 3 "          | 3,50<br>88,9   | 12,00<br>304,8 | 3,63<br>92,2   | 2,62<br>66,5  | 3,62<br>91,9   | 2,50<br>63,5  | 5,25<br>133,4  | 5,00<br>127,0  | 8                 | 1,38<br>35,1 | 9,00<br>228,6  | <b>32,6</b>    |
| 4 "          | 4,50<br>114,3  | 14,00<br>355,6 | 4,63<br>117,6  | 3,00<br>76,2  | 4,25<br>108,0  | 2,75<br>69,9  | 6,50<br>165,1  | 6,19<br>157,2  | 8                 | 1,62<br>41,1 | 10,75<br>273,1 | <b>52,9</b>    |
| 5 "          | 5,563<br>141,3 | 16,50<br>419,1 | 5,69<br>144,5  | 3,62<br>91,9  | 5,12<br>130,0  | 3,00<br>76,2  | 8,00<br>203,2  | 7,31<br>185,7  | 8                 | 1,88<br>47,8 | 12,75<br>323,8 | <b>83,1</b>    |
| 6 "          | 6,625<br>168,3 | 19,00<br>482,6 | 6,75<br>171,5  | 4,25<br>108,0 | 6,00<br>152,4  | 3,25<br>82,6  | 9,25<br>235,0  | 8,50<br>215,9  | 8                 | 2,12<br>53,8 | 14,50<br>368,3 | <b>128</b>     |
| 8 "          | 8,625<br>219,1 | 21,75<br>552,5 | 8,75<br>222,3  | 5,00<br>127,0 | 7,00<br>177,8  | 3,75<br>95,3  | 12,00<br>304,8 | 10,62<br>269,7 | 12                | 2,12<br>53,8 | 17,25<br>438,2 | <b>188</b>     |
| 10 "         | 10,75<br>273   | 26,50<br>673,1 | 10,88<br>276,4 | 6,50<br>165,1 | 9,00<br>228,6  | 4,25<br>108,0 | 14,75<br>374,7 | 12,75<br>323,8 | 12                | 2,62<br>66,5 | 21,25<br>539,8 | <b>355</b>     |
| 12 "         | 12,75<br>323,8 | 30,00<br>762,0 | 12,94<br>328,7 | 7,25<br>184,2 | 10,00<br>254,0 | 4,75<br>120,7 | 17,38<br>441,5 | 15,00<br>381,0 | 12                | 2,88<br>73,2 | 24,38<br>619,3 | <b>504</b>     |

## ASME B 16.5

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## **WELDING NECK FLANGES & SLIP ON FLANGES ACC. TO ASME B.S.3293**



## **B.S. 3293**

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# WELDING NECK AND SLIP-ON FLANGES ACC. TO B. S. 3293

Nominal Sizes larger than 24"

BRITISH STANDARD 3293 is a specification for carbon steel pipe flanges for the petroleum industry.

## B.S. 3293

### GENERAL SURVEY

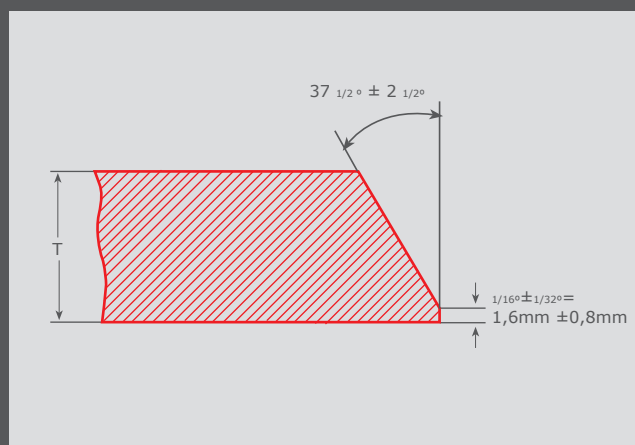
|                               |                                |      |      |      |
|-------------------------------|--------------------------------|------|------|------|
| Nominal Pressure lb/sq. in.   | 150                            | 300  | 400  | 600  |
| Nennndruck kp/cm <sup>2</sup> | 10,6                           | 21,1 | 28,1 | 42,2 |
| Nennndruck N/cm <sup>2</sup>  | 104                            | 207  | 276  | 414  |
| Type of flange                | from 26" to max. Nominal Sizes |      |      |      |
| Welding Neck Flanges          | 48"                            | 36"  | 36"  | 36"  |
| same, Ring Joint Type         | -                              | 36"  | 36"  | 36"  |
| Slip-on Flanges               | 48"                            | 36"  | 36"  | 36"  |
| same, Ring Joint Type         | -                              | 36"  | 36"  | 36"  |

Materials: according to ASTM, corresponding to the details on the pages 97 to 99.

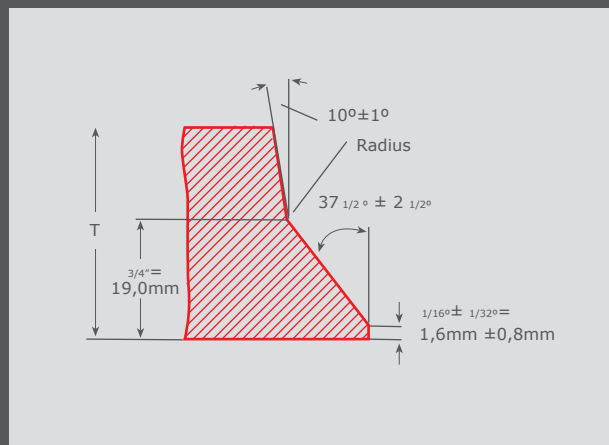
Other materials on enquiry.

### FACINGS AND DIMENSIONAL TOLERANCES ACC. TO ASME B 16.5 EXCEPT LENGTH »H« AT SLIP-ON FLANGES = $\pm 0,125"$

### WELDING ENDS



Recommended Bevel for Wall Thicknesses (T) at End of Flange, 3/4" or less.

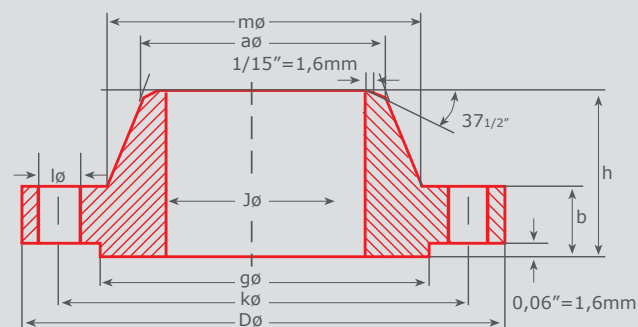


Recommended Bevel for Wall Thicknesses (T) at End of Flange, greater than 3/4".

# 150 LB/SQ. IN.

## WELDING NECK FLANGES

### B.S. 3293

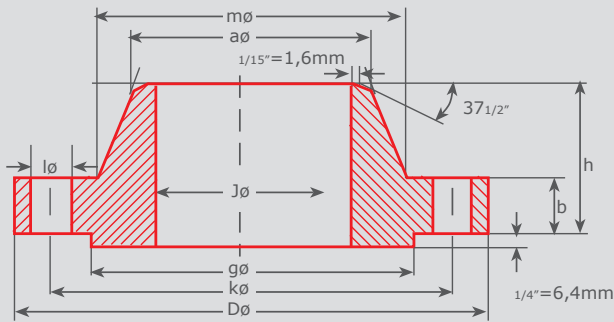


| Pipe         |                | Flange           |                                  |                 |                  | Hub          |                  | Raised Face      | Drilling Template |               |                  | Approx. Weight |
|--------------|----------------|------------------|----------------------------------|-----------------|------------------|--------------|------------------|------------------|-------------------|---------------|------------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm         | J in. mm                         | b in. mm        | h in. mm         | a in. mm     | m in. mm         | g in. mm         | Number            | I in. mm      | k in. mm         | Kilo           |
| 26"          | 26,0<br>660,4  | 34 1/4<br>870    | To be specified by the purchaser | 2<br>50,8       | 5<br>127,0       | 26<br>660,4  | 28 1/2<br>723,9  | 29 1/4<br>743    | 24                | 1 3/8<br>34,9 | 31 3/4<br>806,5  | 118            |
| 28"          | 28,0<br>711,2  | 36 1/2<br>927,1  |                                  | 2 1/16<br>52,4  | 5 1/16<br>128,6  | 28<br>711,2  | 30 3/4<br>781,1  | 31 1/4<br>793,8  | 28                | 1 3/8<br>34,9 | 34<br>863,6      | 134            |
| 30"          | 30,0<br>762    | 38 3/4<br>984,3  |                                  | 2 1/8<br>54,0   | 5 1/8<br>130,2   | 30<br>762,0  | 32 3/4<br>831,9  | 33 3/4<br>857,3  | 28                | 1 3/8<br>34,9 | 36<br>914,4      | 153            |
| 32"          | 32,0<br>812,8  | 41 3/4<br>1060,5 |                                  | 2 1/4<br>57,2   | 5 1/4<br>133,4   | 32<br>812,8  | 35<br>889,0      | 35 3/5<br>908,1  | 28                | 1 5/8<br>41,3 | 38 1/2<br>977,9  | 190            |
| 34"          | 34,0<br>863,6  | 43 3/4<br>1111,3 |                                  | 2 5/16<br>58,8  | 5 5/16<br>135    | 34<br>863,6  | 37<br>939,8      | 37 3/4<br>958,8  | 32                | 1 5/8<br>41,3 | 40 1/2<br>1028,7 | 212            |
| 36"          | 36,0<br>914,4  | 46<br>1168,2     |                                  | 2 3/8<br>60,3   | 5 3/8<br>136,5   | 36<br>914,4  | 39 1/4<br>997    | 40 1/4<br>1022,4 | 32                | 1 5/8<br>41,3 | 42 3/4<br>1085,9 | 242            |
| 38"          | 38,0<br>965,2  | 48 3/4<br>1238,3 |                                  | 2 3/8<br>60,3   | 5 3/8<br>136,5   | 38<br>965,2  | 41 3/4<br>1060,5 | 42 1/4<br>1073,2 | 32                | 1 5/8<br>41,3 | 45 1/4<br>1149,4 | 284            |
| 40"          | 40,0<br>1016,0 | 50 3/4<br>1289,1 |                                  | 2 1/2<br>63,5   | 5 1/2<br>139,7   | 40<br>1016,0 | 43 3/4<br>1111,3 | 44 1/4<br>1124   | 36                | 1 5/8<br>41,3 | 47 1/4<br>1200,2 | 311            |
| 42"          | 42,0<br>1066,8 | 53<br>1346,2     |                                  | 2 5/8<br>66,7   | 5 5/8<br>142,9   | 42<br>1066,8 | 46<br>1168,4     | 47<br>1193,8     | 36                | 1 5/8<br>41,3 | 49 1/2<br>1257,3 | 358            |
| 44"          | 44,0<br>1117,6 | 55 1/4<br>1403,4 |                                  | 2 5/8<br>66,7   | 5 5/8<br>142,9   | 44<br>1117,6 | 48<br>1219,2     | 49<br>1244,6     | 40                | 1 5/8<br>41,3 | 51 3/4<br>1314,5 | 376            |
| 46"          | 46,0<br>1168,4 | 57 1/4<br>1454,2 |                                  | 2 11/16<br>68,3 | 5 11/16<br>144,5 | 46<br>1168,4 | 50<br>1270,0     | 51<br>1295,4     | 40                | 1 5/8<br>41,3 | 53 3/4<br>1365,3 | 399            |
| 48"          | 48,0<br>1219,2 | 59 1/2<br>1511,3 |                                  | 2 3/4<br>69,9   | 5 3/4<br>146,1   | 48<br>1219,2 | 52 1/4<br>1327,2 | 53 1/2<br>1358,9 | 44                | 1 5/8<br>41,3 | 56<br>1422,4     | 440            |

# 300 LB/SQ. IN.

## WELDING NECK FLANGES

| Pipe         |               | Flange           |                                  |                |                | Hub              |                   | Raised Face      | Drilling Template |               |                  | Approx. Weight |
|--------------|---------------|------------------|----------------------------------|----------------|----------------|------------------|-------------------|------------------|-------------------|---------------|------------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm                         | b in. mm       | h in. mm       | a in. mm         | m in. mm          | g in. mm         | Number            | I in. mm      | k in. mm         | Kilo           |
| 26"          | 26,0<br>660,4 | 38 1/4<br>971,6  | To be specified by the purchaser | 3 1/8<br>79,4  | 7 1/4<br>184,2 | 26 1/4<br>666,8  | 28 3/8<br>720,7   | 29 1/2<br>749,3  | 28                | 1 3/4<br>44,5 | 34 1/2<br>876,3  | 279            |
| 28"          | 28,0<br>711,2 | 40 3/4<br>1035,1 |                                  | 3 3/8<br>85,7  | 7 3/4<br>196,9 | 28 1/4<br>717,6  | 30 1/2<br>774,7   | 31 1/2<br>800,1  | 28                | 1 3/4<br>44,5 | 37<br>939,8      | 340            |
| 30"          | 30,0<br>762   | 43<br>1092,2     |                                  | 3 5/8<br>92,1  | 8 1/4<br>209,6 | 30 1/4<br>768,4  | 32 9/16<br>827,1  | 33 3/4<br>857,3  | 28                | 1 7/8<br>47,6 | 39 1/4<br>997,0  | 390            |
| 32"          | 32,0<br>812,8 | 45 1/4<br>1149,4 |                                  | 3 7/8<br>98,4  | 8 3/4<br>222,3 | 32 1/4<br>819,2  | 34 11/16<br>881,1 | 36<br>914,4      | 28                | 2<br>50,8     | 41 1/2<br>1054,1 | 435            |
| 34"          | 34,0<br>863,6 | 47 1/2<br>1206,5 |                                  | 4<br>101,6     | 9 1/8<br>231,8 | 34 5/16<br>871,5 | 36 7/8<br>936,6   | 38<br>965,2      | 28                | 2<br>50,8     | 43 1/2<br>1104,9 | 504            |
| 36"          | 36,0<br>914,4 | 50<br>1270,0     |                                  | 4 1/8<br>104,8 | 9 1/2<br>241,3 | 36 5/16<br>922,3 | 39<br>990,6       | 40 1/4<br>1022,4 | 32                | 2 1/8<br>54,0 | 46<br>1168,4     | 560            |



## 400 LB/SQ. IN. WELDING NECK FLANGES

### B.S. 3293

| Pipe         |               | Flange           |                                  |                |                | Hub              |                   | Raised Face      | Drilling Template |               |                  | Approx. Weight |
|--------------|---------------|------------------|----------------------------------|----------------|----------------|------------------|-------------------|------------------|-------------------|---------------|------------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm                         | b in. mm       | h in. mm       | a in. mm         | m in. mm          | g in. mm         | Number            | I in. mm      | k in. mm         | Kilo           |
| 26 "         | 26,0<br>660,4 | 38 1/4<br>971,6  | To be specified by the purchaser | 3 1/2<br>88,9  | 7 5/8<br>193,7 | 26 5/16<br>668,3 | 28 5/8<br>727,1   | 29 1/2<br>749,3  | 28                | 1 7/8<br>47,6 | 34 1/2<br>876,3  | 340            |
| 28 "         | 28,0<br>711,2 | 40 3/4<br>1035,1 |                                  | 3 3/4<br>95,3  | 8 1/8<br>206,4 | 28 5/16<br>719,1 | 30 13/16<br>782,6 | 31 1/2<br>800,1  | 28                | 2<br>50,8     | 37<br>939,8      | 399            |
| 30 "         | 30,0<br>762   | 43<br>1092,2     |                                  | 4<br>101,6     | 8 5/8<br>219,1 | 30 5/16<br>769,9 | 32 15/16<br>836,6 | 33 3/4<br>857,3  | 28                | 2 1/8<br>54,0 | 39 1/4<br>997    | 454            |
| 32 "         | 32,0<br>812,8 | 45 1/4<br>1149,4 |                                  | 4 1/4<br>108,0 | 9 1/8<br>231,8 | 32 3/8<br>822,3  | 35<br>889,0       | 36<br>914,4      | 28                | 2 1/8<br>54,0 | 41 1/2<br>1054,1 | 522            |
| 34 "         | 34,0<br>863,6 | 47 1/2<br>1206,5 |                                  | 4 3/8<br>111,1 | 9 1/2<br>241,3 | 34 3/8<br>873,1  | 37 3/16<br>944,6  | 38<br>965,2      | 28                | 2 1/8<br>54,0 | 43 1/2<br>1104,9 | 590            |
| 36 "         | 36,0<br>914,4 | 50<br>1270,0     |                                  | 4 1/2<br>114,3 | 9 7/8<br>250,9 | 36 7/16<br>925,5 | 39 3/8<br>1000,1  | 40 1/4<br>1022,4 | 32                | 2 1/8<br>54,0 | 46<br>1168,4     | 669            |

## 600 LB/SQ. IN. WELDING NECK FLANGES

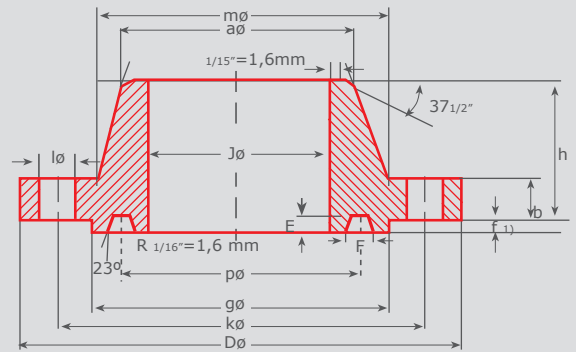
| Pipe         |               | Flange           |                                  |                |                 | Hub              |                   | Raised Face      | Drilling Template |               |                  | Approx. Weight |
|--------------|---------------|------------------|----------------------------------|----------------|-----------------|------------------|-------------------|------------------|-------------------|---------------|------------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm                         | b in. mm       | h in. mm        | a in. mm         | m in. mm          | g in. mm         | Number            | I in. mm      | k in. mm         | Kilo           |
| 26"          | 26,0<br>660,4 | 40<br>1016,0     | To be specified by the purchaser | 4 1/4<br>108   | 8 3/4<br>222,3  | 26 7/16<br>671,5 | 29 7/16<br>747,7  | 29 1/2<br>749,3  | 28                | 2<br>50,8     | 36<br>914,4      | 437            |
| 28"          | 28,0<br>711,2 | 42 1/4<br>1073,2 |                                  | 4 3/8<br>111,1 | 9 1/4<br>235    | 28 1/2<br>723,9  | 31 5/8<br>803,3   | 31 1/2<br>800,1  | 28                | 2 1/8<br>54,0 | 38<br>965,2      | 508            |
| 30"          | 30,0<br>762   | 44 1/2<br>1130,3 |                                  | 4 1/2<br>114,3 | 9 3/4<br>247,7  | 30 1/2<br>774,7  | 33 15/16<br>862,0 | 33 3/4<br>857,3  | 28                | 2 1/8<br>54,0 | 40 1/4<br>1022,4 | 559            |
| 32"          | 32,0<br>812,8 | 47<br>1193,8     |                                  | 4 5/8<br>117,5 | 10 1/4<br>260,4 | 32 1/2<br>825,5  | 36 1/8<br>917,6   | 36<br>914,4      | 28                | 2 3/8<br>60,3 | 42 1/2<br>1079,5 | 680            |
| 34"          | 34,0<br>863,6 | 49<br>1244,6     |                                  | 4 3/4<br>120,7 | 10 5/8<br>269,9 | 34 9/16<br>877,9 | 38 5/16<br>973,1  | 38<br>965,2      | 28                | 2 3/8<br>60,3 | 44 1/2<br>1130,3 | 717            |
| 36"          | 36,0<br>914,4 | 51 3/4<br>1314,5 |                                  | 4 7/8<br>123,8 | 11 1/8<br>282,6 | 36 9/16<br>928,7 | 40 5/8<br>1031,9  | 40 1/4<br>1022,4 | 28                | 2 5/8<br>66,7 | 47<br>1193,8     | 780            |

# 300 LB/SQ. IN.

## WELDING NECK FLANGES

### RING JOINT TYPE

# B.S. 3293

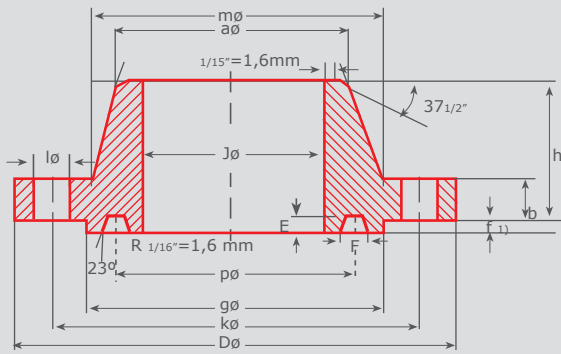


| Pipe         |               | Flange           |                                  |                |                | Hub              |                   | Raised Face      | Drilling Template |               |                  | Ring Joint       |              |               | Approx. Weight |
|--------------|---------------|------------------|----------------------------------|----------------|----------------|------------------|-------------------|------------------|-------------------|---------------|------------------|------------------|--------------|---------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm                         | b in. mm       | h in. mm       | a in. mm         | m in. mm          | g in. mm         | Number            | I in. mm      | k in. mm         | p in. mm         | E in. mm     | F in. mm      | Kilo           |
| 26"          | 26,0<br>660,4 | 38 1/4<br>971,6  | To be specified by the purchaser | 3 1/8<br>79,4  | 7 1/4<br>184,2 | 26 1/4<br>666,8  | 28 3/8<br>720,7   | 31 7/8<br>809,6  | 28                | 1 3/4<br>44,5 | 34 1/2<br>876,3  | 29 1/2<br>749,3  | 1/2<br>12,7  | 25/32<br>19,8 | 298            |
| 28"          | 28,0<br>711,2 | 40 3/4<br>1035,1 |                                  | 3 3/8<br>85,7  | 7 3/4<br>196,9 | 28 1/4<br>717,6  | 30 1/2<br>774,7   | 33 7/8<br>860,4  | 28                | 1 3/4<br>44,5 | 37<br>939,8      | 31 1/2<br>800,1  | 1/2<br>12,7  | 25/32<br>19,8 | 360            |
| 30"          | 30,0<br>762   | 43<br>1092,2     |                                  | 3 5/8<br>92,1  | 8 1/4<br>209,6 | 30 1/4<br>768,4  | 32 9/16<br>827,1  | 36 1/8<br>917,6  | 28                | 1 7/8<br>47,6 | 39 1/4<br>997    | 33 3/4<br>857,3  | 1/2<br>12,7  | 25/32<br>19,8 | 412            |
| 32"          | 32,0<br>812,8 | 45 1/4<br>1149,4 |                                  | 3 7/8<br>98,4  | 8 3/4<br>222,3 | 32 1/4<br>819,2  | 34 11/16<br>881,1 | 38 3/4<br>984,3  | 28                | 2<br>50,8     | 41 1/2<br>1054,1 | 36<br>914,4      | 9/16<br>14,3 | 29/32<br>23,0 | 465            |
| 34"          | 34,0<br>863,6 | 47 1/2<br>1206,5 |                                  | 4<br>101,6     | 9 1/8<br>231,8 | 34 5/16<br>871,5 | 36 7/8<br>936,6   | 40 3/4<br>1035,1 | 28                | 2<br>50,8     | 43 1/2<br>1104,9 | 38<br>965,2      | 9/16<br>14,3 | 29/32<br>23,0 | 536            |
| 36"          | 36,0<br>914,4 | 50<br>1270,0     |                                  | 4 1/8<br>104,8 | 9 1/2<br>241,3 | 36 5/16<br>922,4 | 39<br>990,6       | 43<br>1092,2     | 32                | 2 1/6<br>54,0 | 46<br>1168,4     | 40 1/4<br>1022,4 | 9/16<br>14,3 | 29/32<br>23,0 | 595            |

# 400 LB/SQ. IN.

## WELDING NECK FLANGES RING JOINT TYPE

| Pipe         |               | Flange           |                                  |                |                | Hub              |                   | Raised Face      | Drilling Template |               |                  | Ring Joint       |              |               | Approx. Weight |
|--------------|---------------|------------------|----------------------------------|----------------|----------------|------------------|-------------------|------------------|-------------------|---------------|------------------|------------------|--------------|---------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm                         | b in. mm       | h in. mm       | a in. mm         | m in. mm          | g in. mm         | Number            | I in. mm      | k in. mm         | p in. mm         | E in. mm     | F in. mm      | Kilo           |
| 26"          | 26,0<br>660,4 | 38 1/4<br>971,6  | To be specified by the purchaser | 3 1/2<br>88,9  | 7 5/8<br>193,7 | 26 5/16<br>668,4 | 28 5/8<br>727,1   | 31 7/8<br>809,6  | 28                | 1 7/8<br>47,6 | 34 1/2<br>876,3  | 29 1/2<br>749,3  | 1/2<br>12,7  | 25/32<br>19,8 | 349            |
| 28"          | 28,0<br>711,2 | 40 3/4<br>1035,1 |                                  | 3 3/4<br>95,3  | 8 1/8<br>206,4 | 28 5/16<br>719,2 | 30 13/16<br>782,7 | 33 7/8<br>860,4  | 28                | 2<br>50,8     | 37<br>939,8      | 31 1/2<br>800,1  | 1/2<br>12,7  | 25/32<br>19,8 | 409            |
| 30"          | 30,0<br>762   | 43<br>1092,2     |                                  | 4<br>101,6     | 8 5/8<br>219,1 | 30 5/16<br>770   | 32 15/16<br>836,6 | 36 1/8<br>917,6  | 28                | 2 1/8<br>54,0 | 39 1/4<br>997    | 33 3/4<br>857,3  | 1/2<br>12,7  | 25/32<br>19,8 | 465            |
| 32"          | 32,0<br>812,8 | 45 1/4<br>1149,4 |                                  | 4 1/4<br>108   | 9 1/8<br>231,8 | 32 3/8<br>822,3  | 35<br>889,0       | 38 3/4<br>984,3  | 28                | 2 1/8<br>54,0 | 41 1/2<br>1054,1 | 36<br>914,4      | 9/16<br>14,3 | 29/32<br>23,0 | 539            |
| 34"          | 34,0<br>863,6 | 47 1/2<br>1206,5 |                                  | 4 3/8<br>111,1 | 9 1/2<br>241,3 | 34 3/8<br>873,1  | 37 3/16<br>944,6  | 40 3/4<br>1035,1 | 28                | 2 1/8<br>54,0 | 43 1/2<br>1104,9 | 38<br>965,2      | 9/16<br>14,3 | 29/32<br>23,0 | 608            |
| 36"          | 36,0<br>914,4 | 50<br>1270,0     |                                  | 4 1/2<br>114,3 | 9 7/8<br>250,8 | 36 7/16<br>925,5 | 39 3/8<br>1000,1  | 43<br>1092,2     | 32                | 2 1/8<br>54,0 | 46<br>1168,4     | 40 1/2<br>1022,4 | 9/16<br>14,3 | 29/32<br>23,0 | 689            |



# 600 LB/SQ. IN.

## WELDING NECK FLANGES

### RING JOINT TYPE

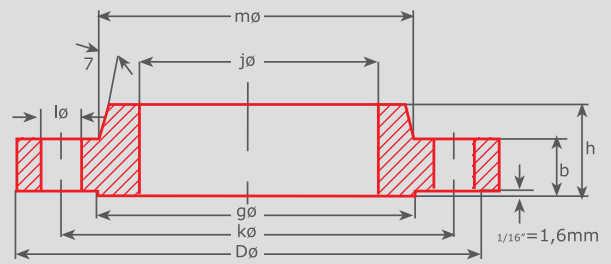
# B.S. 3293

| Pipe         |               | Flange           |                                  |                |                 | Hub              |                   | Raised Face      | Drilling Template |               |                  | Ring Joint       |              |               | Approx. Weight |
|--------------|---------------|------------------|----------------------------------|----------------|-----------------|------------------|-------------------|------------------|-------------------|---------------|------------------|------------------|--------------|---------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm                         | b in. mm       | h in. mm        | a in. mm         | m in. mm          | g in. mm         | Number            | I in. mm      | k in. mm         | P in. mm         | E in. mm     | F in. mm      | Kilo           |
| 26"          | 26,0<br>660,4 | 40<br>1016,0     | To be specified by the purchaser | 4 1/4<br>108   | 8 3/4<br>222,3  | 26 7/16<br>671,5 | 29 7/16<br>747,7  | 31 7/8<br>809,6  | 28                | 2<br>50,8     | 36<br>914,4      | 29 1/2<br>749,3  | 1/2<br>12,7  | 25/32<br>19,8 | 446            |
| 28"          | 28,0<br>711,2 | 42 1/4<br>1073,2 |                                  | 4 3/8<br>111,1 | 9 1/4<br>235    | 28 1/2<br>723,9  | 31 5/8<br>803,3   | 33 7/8<br>860,4  | 28                | 2 1/8<br>54,0 | 38<br>965,2      | 31 1/2<br>800,1  | 1/2<br>12,7  | 25/32<br>19,8 | 518            |
| 30"          | 30,0<br>762   | 44 1/2<br>1130,3 |                                  | 4 1/2<br>114,3 | 9 3/4<br>247,7  | 30 1/2<br>774,7  | 33 15/16<br>862,0 | 36 1/8<br>917,6  | 28                | 2 1/8<br>54,0 | 40 1/4<br>1022,4 | 33 3/4<br>857,3  | 1/2<br>12,7  | 25/32<br>19,8 | 570            |
| 32"          | 32,0<br>812,8 | 47<br>1193,8     |                                  | 4 5/8<br>117,5 | 10 1/4<br>260,4 | 32 1/2<br>825,5  | 36 1/8<br>917,6   | 38 3/4<br>984,2  | 28                | 2 3/8<br>60,3 | 42 1/2<br>1079,5 | 36<br>914,4      | 9/16<br>14,3 | 29/32<br>23,0 | 697            |
| 34"          | 34,0<br>863,6 | 49<br>1244,6     |                                  | 4 3/4<br>120,7 | 10 5/8<br>269,9 | 34 9/16<br>877,9 | 38 5/16<br>973,2  | 40 3/4<br>1035,1 | 28                | 2 3/8<br>60,3 | 44 1/2<br>1130,3 | 38<br>965,2      | 9/16<br>14,3 | 29/32<br>23,0 | 735            |
| 36"          | 36,0<br>914,4 | 51 3/4<br>1314,5 |                                  | 4 7/8<br>123,8 | 11 1/8<br>282,6 | 36 9/16<br>928,7 | 40 5/8<br>1031,9  | 43<br>1092,2     | 28                | 2 5/8<br>66,7 | 47<br>1193,8     | 40 1/4<br>1022,4 | 9/16<br>14,3 | 29/32<br>23,0 | 800            |

# 150 LB/SQ. IN.

## SLIP ON FLANGES

### B.S. 3293

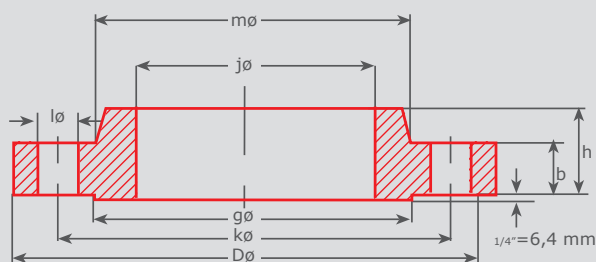


| Pipe         |                | Flange           |                  |                 |                 | Hub              |                  | Raised Face | Drilling Template |                  |            | Approx. Weight |
|--------------|----------------|------------------|------------------|-----------------|-----------------|------------------|------------------|-------------|-------------------|------------------|------------|----------------|
| Nom. Size DN | OD in. mm      | D in. mm         | J in. mm         | b in. mm        | h in. mm        | m in. mm         | g in. mm         | Num-ber     | I in. mm          | k in. mm         | Kilo       |                |
| 26"          | 26,0<br>660,4  | 34 1/4<br>870    | 26 1/4<br>666,8  | 2 5/8<br>50,8   | 3 3/8<br>85,7   | 28 1/2<br>723,9  | 29 1/4<br>743    | 24          | 1 3/8<br>34,9     | 31 3/4<br>806,5  | <b>107</b> |                |
| 28"          | 28,0<br>711,2  | 36 1/2<br>927,1  | 28 1/4<br>717,6  | 2 1/16<br>52,4  | 3 7/16<br>87,3  | 30 3/4<br>781,1  | 31 1/4<br>793,8  | 28          | 1 3/8<br>34,9     | 34<br>863,6      | <b>122</b> |                |
| 30"          | 30,0<br>762    | 38 3/4<br>984,3  | 30 1/4<br>768,4  | 2 1/8<br>54,0   | 3 1/2<br>88,9   | 32 3/4<br>831,9  | 33 3/4<br>857,3  | 28          | 1 3/8<br>34,9     | 36<br>914,4      | <b>138</b> |                |
| 32"          | 32,0<br>812,8  | 41 3/4<br>1060,5 | 32 1/4<br>819,2  | 2 1/4<br>57,2   | 3 5/8<br>92,1   | 35<br>889,0      | 35 3/4<br>908,1  | 28          | 1 5/8<br>41,3     | 38 1/2<br>977,9  | <b>170</b> |                |
| 34"          | 34,0<br>863,6  | 43 3/4<br>1111,3 | 34 1/4<br>870    | 2 5/16<br>58,8  | 3 11/16<br>93,7 | 37<br>939,8      | 37 3/4<br>958,9  | 32          | 1 5/8<br>41,3     | 40 1/2<br>1028,7 | <b>184</b> |                |
| 36"          | 36,0<br>914,4  | 46<br>1168,4     | 36 1/4<br>920,8  | 2 3/8<br>60,3   | 3 3/4<br>95,3   | 39 1/4<br>997    | 40 1/4<br>1022,4 | 32          | 1 5/8<br>41,3     | 42 1/2<br>1085,9 | <b>211</b> |                |
| 38"          | 38,0<br>965,2  | 48 3/4<br>1238,3 | 38 1/4<br>971,6  | 2 3/8<br>60,3   | 3 3/4<br>95,3   | 41 3/4<br>1060,5 | 42 1/4<br>1073,2 | 32          | 1 5/8<br>41,3     | 45 1/4<br>1149,4 | <b>249</b> |                |
| 40"          | 40,0<br>1016,0 | 50 3/4<br>1289,1 | 40 1/4<br>1022,4 | 2 1/2<br>63,5   | 3 7/8<br>98,4   | 43 3/4<br>1111,3 | 44 1/4<br>1124   | 36          | 1 5/8<br>41,3     | 47 1/4<br>1200,2 | <b>272</b> |                |
| 42"          | 42,0<br>1066,8 | 53<br>1346,2     | 42 1/4<br>1073,2 | 2 5/8<br>66,7   | 4<br>101,6      | 46<br>1168,4     | 47<br>1193,8     | 36          | 1 5/8<br>41,3     | 49 1/2<br>1257,3 | <b>313</b> |                |
| 44"          | 44,0<br>1117,6 | 55 1/4<br>1403,4 | 44 1/4<br>1124   | 2 5/8<br>66,7   | 4<br>101,6      | 48<br>1219,2     | 49<br>1244,6     | 40          | 1 5/8<br>41,3     | 51 3/4<br>1314,5 | <b>331</b> |                |
| 46"          | 46,0<br>1168,4 | 57 1/4<br>1454,2 | 46 1/4<br>1174,8 | 2 11/16<br>68,3 | 4 1/16<br>103,3 | 50<br>1270,0     | 51<br>1295,4     | 40          | 1 5/8<br>41,3     | 53 3/4<br>1365,3 | <b>349</b> |                |
| 48"          | 48,0<br>1219,2 | 59 1/2<br>1511,3 | 48 1/4<br>1225,6 | 2 3/4<br>69,9   | 4 1/8<br>104,8  | 52 1/4<br>1327,2 | 53 1/2<br>1358,9 | 44          | 1 5/8<br>41,3     | 56<br>1422,4     | <b>381</b> |                |

# 300 LB/SQ. IN.

## SLIP ON FLANGES

| Pipe         |               | Flange           |                 |                |                | Hub              |                   | Raised Face      | Drilling Template |               |                  | Approx. Weight |
|--------------|---------------|------------------|-----------------|----------------|----------------|------------------|-------------------|------------------|-------------------|---------------|------------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm        | b in. mm       | h in. mm       | a in. mm         | m in. mm          | g in. mm         | Num-ber           | I in. mm      | k in. mm         | Kilo           |
| 26"          | 26,0<br>660,4 | 38 1/4<br>971,6  | 26 1/4<br>666,8 | 3 1/8<br>79,4  | 7 1/4<br>184,2 | 27 1/16<br>687,4 | 28 3/8<br>720,7   | 29 1/2<br>749,3  | 28                | 1 3/4<br>44,5 | 34 1/2<br>876,3  | <b>251</b>     |
| 28"          | 28,0<br>711,2 | 40 3/4<br>1035,1 | 28 1/4<br>717,6 | 3 3/8<br>85,7  | 7 3/4<br>196,9 | 29 1/8<br>739,8  | 30 1/2<br>774,7   | 31 1/2<br>800,1  | 28                | 1 3/4<br>44,5 | 37<br>939,8      | <b>313</b>     |
| 30"          | 30,0<br>762   | 43<br>1092,2     | 30 1/4<br>768,4 | 3 5/8<br>92,1  | 8 1/4<br>209,6 | 3 13/16<br>792,2 | 32 9/16<br>827,1  | 33 3/4<br>857,3  | 28                | 1 7/8<br>47,6 | 39 1/4<br>997    | <b>354</b>     |
| 32"          | 32,0<br>812,8 | 45 1/4<br>1149,4 | 32 1/4<br>819,2 | 3 7/8<br>98,4  | 8 3/4<br>222,3 | 33 1/4<br>844,6  | 34 11/16<br>881,1 | 36<br>914,4      | 28                | 2<br>50,8     | 41 1/2<br>1054,1 | <b>395</b>     |
| 34"          | 34,0<br>863,6 | 47 1/2<br>1206,5 | 34 1/4<br>870   | 4<br>101,6     | 9 1/8<br>231,8 | 35 5/16<br>896,9 | 36 7/8<br>936,6   | 38<br>965,2      | 28                | 2<br>50,8     | 43 1/2<br>1104,9 | <b>460</b>     |
| 36"          | 36,0<br>914,4 | 50<br>1270,0     | 36 1/4<br>920,8 | 4 1/8<br>104,8 | 9 1/2<br>241,3 | 37 3/8<br>949,3  | 39<br>990,6       | 40 1/4<br>1022,4 | 32                | 2 1/8<br>54,0 | 46<br>1168,4     | <b>513</b>     |



## 400 LB/SQ. IN. SLIP ON FLANGES

### B.S. 3293

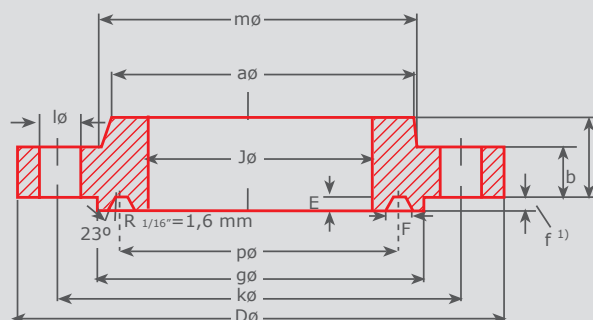
| Pipe         |               | Flange           |                 |                |                | Hub              |                   | Raised Face      | Drilling Template |               |                  | Approx. Weight |
|--------------|---------------|------------------|-----------------|----------------|----------------|------------------|-------------------|------------------|-------------------|---------------|------------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm        | b in. mm       | h in. mm       | a in. mm         | m in. mm          | g in. mm         | Number            | I in. mm      | k in. mm         | Kilo           |
| 26"          | 26,0<br>660,4 | 38 1/4<br>971,6  | 26 1/4<br>666,8 | 3 1/2<br>88,9  | 7 5/8<br>193,7 | 27 5/16<br>693,8 | 28 5/8<br>727,1   | 29 1/2<br>749,3  | 28                | 1 7/8<br>47,6 | 34 1/2<br>876,3  | 295            |
| 28"          | 28,0<br>711,2 | 40 3/4<br>1035,1 | 28 1/4<br>717,6 | 3 3/4<br>95,3  | 8 1/8<br>206,4 | 29 3/8<br>746,1  | 30 13/16<br>782,7 | 31 1/2<br>800,1  | 28                | 2<br>50,8     | 37<br>939,8      | 354            |
| 30"          | 30,0<br>762   | 43<br>1092,2     | 30 1/4<br>768,4 | 4<br>101,6     | 8 5/8<br>219,1 | 31 1/2<br>800,1  | 32 15/16<br>836,6 | 33 3/4<br>857,3  | 28                | 2 1/8<br>54,0 | 39 1/4<br>997    | 408            |
| 32"          | 32,0<br>812,8 | 45 1/4<br>1149,4 | 32 1/4<br>819,2 | 4 1/4<br>108   | 9 1/8<br>231,8 | 33 9/16<br>852,5 | 35<br>889,0       | 36<br>914,4      | 28                | 2 1/8<br>54,0 | 41 1/2<br>1054,1 | 465            |
| 34"          | 34,0<br>863,6 | 47 1/2<br>1206,5 | 34 1/4<br>870   | 4 3/8<br>111,1 | 9 1/2<br>241,3 | 35 5/8<br>904,9  | 37 3/16<br>944,6  | 38<br>965,2      | 28                | 2 1/8<br>54,0 | 43 1/2<br>1104,9 | 522            |
| 36"          | 36,0<br>914,4 | 50<br>1270,0     | 36 1/4<br>920,8 | 4 1/2<br>114,3 | 9 7/8<br>250,8 | 37 3/4<br>958,8  | 39 3/8<br>1000,1  | 40 1/4<br>1022,4 | 32                | 2 1/8<br>54,0 | 46<br>1168,4     | 601            |

## 600 LB/SQ. IN. SLIP ON FLANGES

| Pipe         |               | Flange           |                 |                |                 | Hub               |                   | Raised Face      | Drilling Template |               |                  | Approx. Weight |
|--------------|---------------|------------------|-----------------|----------------|-----------------|-------------------|-------------------|------------------|-------------------|---------------|------------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm        | b in. mm       | h in. mm        | a in. mm          | m in. mm          | g in. mm         | Number            | I in. mm      | k in. mm         | Kilo           |
| 26"          | 26,0<br>660,4 | 40<br>1016,0     | 26 1/4<br>666,8 | 4 1/4<br>108   | 8 3/4<br>222,3  | 27 13/16<br>706,5 | 29 7/16<br>747,7  | 29 1/2<br>749,3  | 28                | 2<br>50,8     | 36<br>914,4      | 408            |
| 28"          | 28,0<br>711,2 | 42 1/4<br>1073,2 | 28 1/4<br>717,6 | 4 3/8<br>111,1 | 9 1/4<br>235    | 29 15/16<br>760,4 | 31 5/8<br>803,3   | 31 1/2<br>800,1  | 28                | 2 1/6<br>54,0 | 38<br>965,2      | 472            |
| 30"          | 30,0<br>762   | 44 1/2<br>1130,3 | 30 1/4<br>768,3 | 4 1/2<br>114,3 | 9 3/4<br>247,6  | 32 1/16<br>814,4  | 33 15/16<br>862,0 | 33 3/4<br>857,2  | 28                | 2 1/8<br>54,0 | 40 1/4<br>1022,3 | 526            |
| 32"          | 32,0<br>812,8 | 47<br>1193,8     | 32 1/4<br>819,2 | 4 5/8<br>117,5 | 10 1/4<br>260,4 | 34 3/16<br>868,4  | 36 1/8<br>917,6   | 36<br>914,4      | 28                | 2 3/8<br>60,3 | 42 1/2<br>1079,5 | 605            |
| 34"          | 34,0<br>863,6 | 49<br>1244,6     | 34 1/4<br>870   | 4 3/4<br>120,7 | 10 5/8<br>269,9 | 36 5/16<br>922,4  | 38 5/16<br>973,2  | 38<br>965,2      | 28                | 2 3/8<br>60,3 | 44 1/2<br>1130,3 | 652            |
| 36"          | 36,0<br>914,4 | 51 3/4<br>1314,5 | 36 1/4<br>920,8 | 4 7/8<br>123,8 | 11 1/8<br>282,6 | 38 7/16<br>976,3  | 40 5/8<br>1031,9  | 40 1/4<br>1022,4 | 28                | 2 5/8<br>66,7 | 47<br>1193,8     | 744            |

# 300 LB/SQ. IN.

## SLIP ON FLANGES RING JOINT TYPE



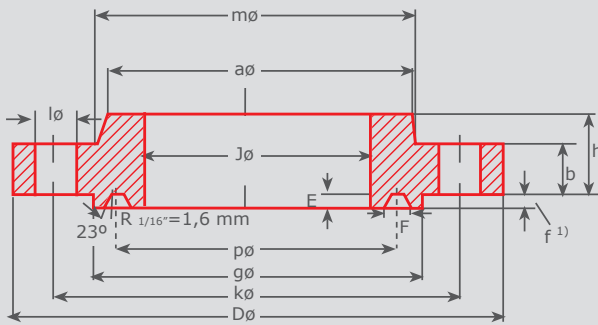
## B.S. 3293

| Pipe         |               | Flange           |                 |                |                |                  | Hub               |                  | Raised Face | Drilling Template |                  |                  | Ring Joint   |               |            | Approx. Weight |
|--------------|---------------|------------------|-----------------|----------------|----------------|------------------|-------------------|------------------|-------------|-------------------|------------------|------------------|--------------|---------------|------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm        | b in. mm       | h in. mm       | a in. mm         | m in. mm          | g in. mm         | Number      | I in. mm          | k in. mm         | p in. mm         | E in. mm     | F in. mm      | Kilo       |                |
| 26"          | 26,0<br>660,4 | 38 1/4<br>971,6  | 26 1/4<br>666,8 | 3 1/8<br>79,4  | 7 1/4<br>184,2 | 27 1/16<br>687,4 | 28 3/8<br>720,7   | 31 7/8<br>809,6  | 28          | 1 3/4<br>44,5     | 34 1/2<br>876,3  | 29 1/2<br>749,3  | 1/2<br>12,7  | 25/32<br>19,8 | <b>270</b> |                |
| 28"          | 28,0<br>711,2 | 40 3/4<br>1035,1 | 28 1/4<br>717,6 | 3 3/8<br>85,7  | 7 3/4<br>196,9 | 29 1/8<br>739,8  | 30 1/2<br>774,7   | 33 7/8<br>860,4  | 28          | 1 3/4<br>44,5     | 37<br>939,8      | 31 1/2<br>800,1  | 1/2<br>12,7  | 25/32<br>19,8 | <b>333</b> |                |
| 30"          | 30,0<br>762   | 43<br>1092,2     | 30 1/4<br>768,4 | 3 5/8<br>92,1  | 8 1/4<br>209,6 | 31 3/16<br>792,2 | 32 9/16<br>827,1  | 36 1/8<br>917,6  | 28          | 1 7/8<br>47,6     | 39 1/4<br>997    | 33 3/4<br>857,3  | 1/2<br>12,7  | 25/32<br>19,8 | <b>376</b> |                |
| 32"          | 32,0<br>812,8 | 45 1/4<br>1149,4 | 32 1/4<br>819,2 | 3 7/8<br>98,4  | 8 3/4<br>222,3 | 33 1/4<br>844,6  | 34 11/16<br>881,1 | 38 3/4<br>984,3  | 28          | 2<br>50,8         | 41 1/2<br>1054,1 | 36<br>914,4      | 9/16<br>14,3 | 29/32<br>23,0 | <b>425</b> |                |
| 34"          | 34,0<br>863,6 | 47 1/2<br>1206,5 | 34 1/4<br>870   | 4<br>101,6     | 9 1/8<br>231,8 | 35 5/16<br>896,9 | 36 7/8<br>936,6   | 40 3/4<br>1035,1 | 28          | 2<br>50,8         | 43 1/2<br>1104,9 | 38<br>965,2      | 9/16<br>14,3 | 29/32<br>23,0 | <b>492</b> |                |
| 36"          | 36,0<br>914,4 | 50<br>1270,0     | 36 1/4<br>920,8 | 4 1/8<br>104,8 | 9 1/2<br>241,3 | 37 3/8<br>949,3  | 39<br>990,6       | 43<br>1092,2     | 32          | 2 1/8<br>54,0     | 46<br>1168,4     | 40 1/4<br>1022,4 | 9/16<br>14,3 | 29/32<br>23,0 | <b>548</b> |                |

# 400 LB/SQ. IN.

## WELDING NECK FLANGES RING JOINT TYPE

| Pipe         |               | Flange           |                 |                |                |                  | Hub               |                  | Raised Face | Drilling Template |                  |                  | Ring Joint   |               |            | Approx. Weight |
|--------------|---------------|------------------|-----------------|----------------|----------------|------------------|-------------------|------------------|-------------|-------------------|------------------|------------------|--------------|---------------|------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm        | b in. mm       | h in. mm       | a in. mm         | m in. mm          | g in. mm         | Number      | I in. mm          | k in. mm         | p in. mm         | E in. mm     | F in. mm      | Kilo       |                |
| 26"          | 26,0<br>660,4 | 38 1/4<br>971,6  | 26 1/4<br>666,8 | 3 1/2<br>88,9  | 7 5/8<br>193,7 | 27 5/16<br>693,7 | 28 5/8<br>727,1   | 31 7/8<br>809,6  | 28          | 1 7/8<br>47,6     | 34 1/2<br>876,3  | 29 1/2<br>749,3  | 1/2<br>12,7  | 25/32<br>19,8 | <b>304</b> |                |
| 28"          | 28,0<br>711,2 | 40 3/4<br>1035,1 | 28 1/4<br>717,6 | 3 3/4<br>95,3  | 8 1/8<br>206,4 | 29 3/8<br>746,1  | 30 13/16<br>782,6 | 33 7/8<br>860,4  | 28          | 2<br>50,8         | 37<br>939,8      | 31 1/2<br>800,1  | 1/2<br>12,7  | 25/32<br>19,8 | <b>364</b> |                |
| 30"          | 30,0<br>762   | 43<br>1092,2     | 30 1/4<br>768,4 | 4<br>101,6     | 8 5/8<br>219,1 | 31 1/2<br>800,1  | 32 15/16<br>836,6 | 36 1/8<br>917,6  | 28          | 2 1/8<br>54,0     | 39 1/4<br>997    | 33 3/4<br>857,3  | 1/2<br>12,7  | 25/32<br>19,8 | <b>419</b> |                |
| 32"          | 32,0<br>812,8 | 45 1/4<br>1149,4 | 32 1/4<br>819,2 | 4 1/4<br>108   | 9 1/8<br>231,8 | 33 9/16<br>852,5 | 35<br>889,0       | 38 3/4<br>984,3  | 28          | 2 1/8<br>54,0     | 41 1/2<br>1054,1 | 36<br>914,4      | 9/16<br>14,3 | 29/32<br>23,0 | <b>482</b> |                |
| 34"          | 34,0<br>863,6 | 47 1/2<br>1206,5 | 34 1/4<br>870   | 4 3/8<br>111,1 | 9 1/2<br>241,3 | 35 5/8<br>904,9  | 37 3/16<br>944,6  | 40 3/4<br>1035,0 | 28          | 2 1/8<br>54,0     | 43 1/2<br>1104,9 | 38<br>965,2      | 9/16<br>14,3 | 29/32<br>23,0 | <b>540</b> |                |
| 36"          | 36,0<br>914,4 | 50<br>1270,0     | 36 1/4<br>920,8 | 4 1/2<br>114,3 | 9 7/8<br>250,8 | 37 3/4<br>958,9  | 39 3/8<br>1000,1  | 43<br>1092,2     | 32          | 2 1/8<br>54,0     | 46<br>1168,4     | 40 1/4<br>1022,4 | 9/16<br>14,3 | 29/32<br>23,0 | <b>621</b> |                |

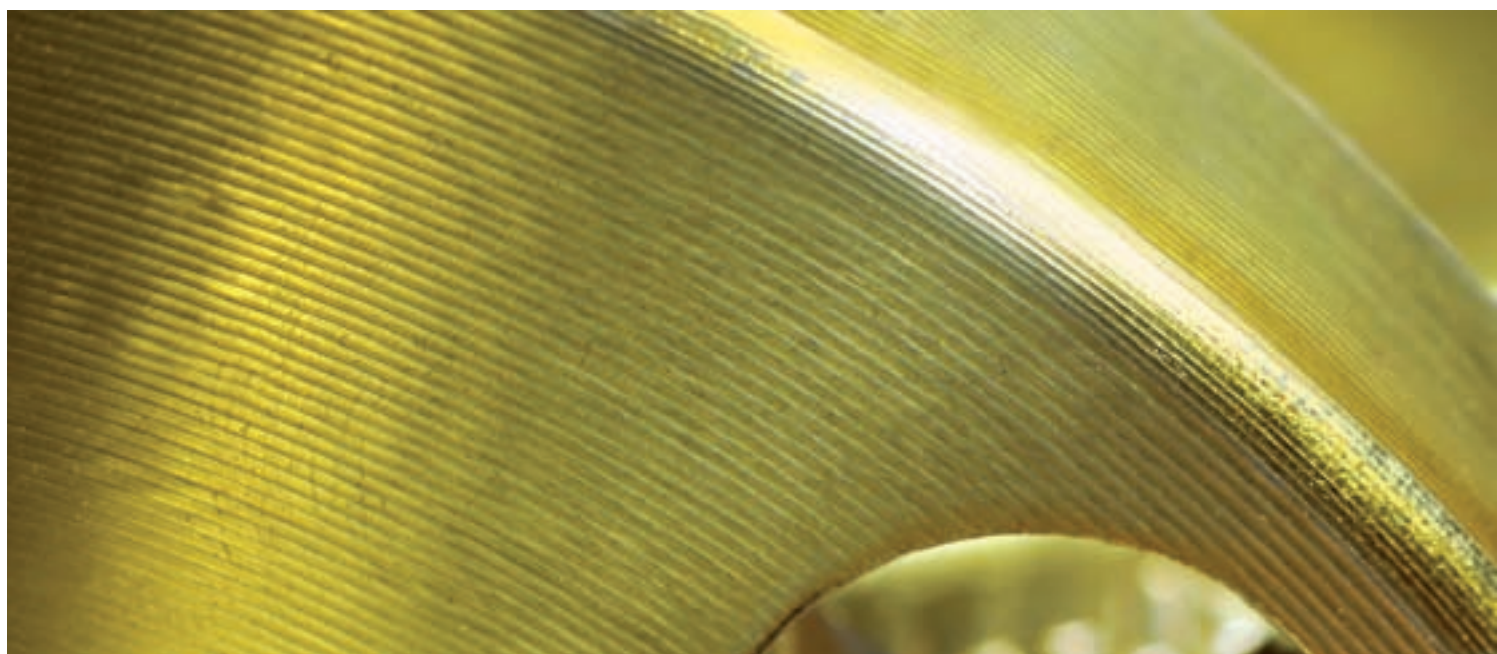


# 600 LB/SQ. IN.

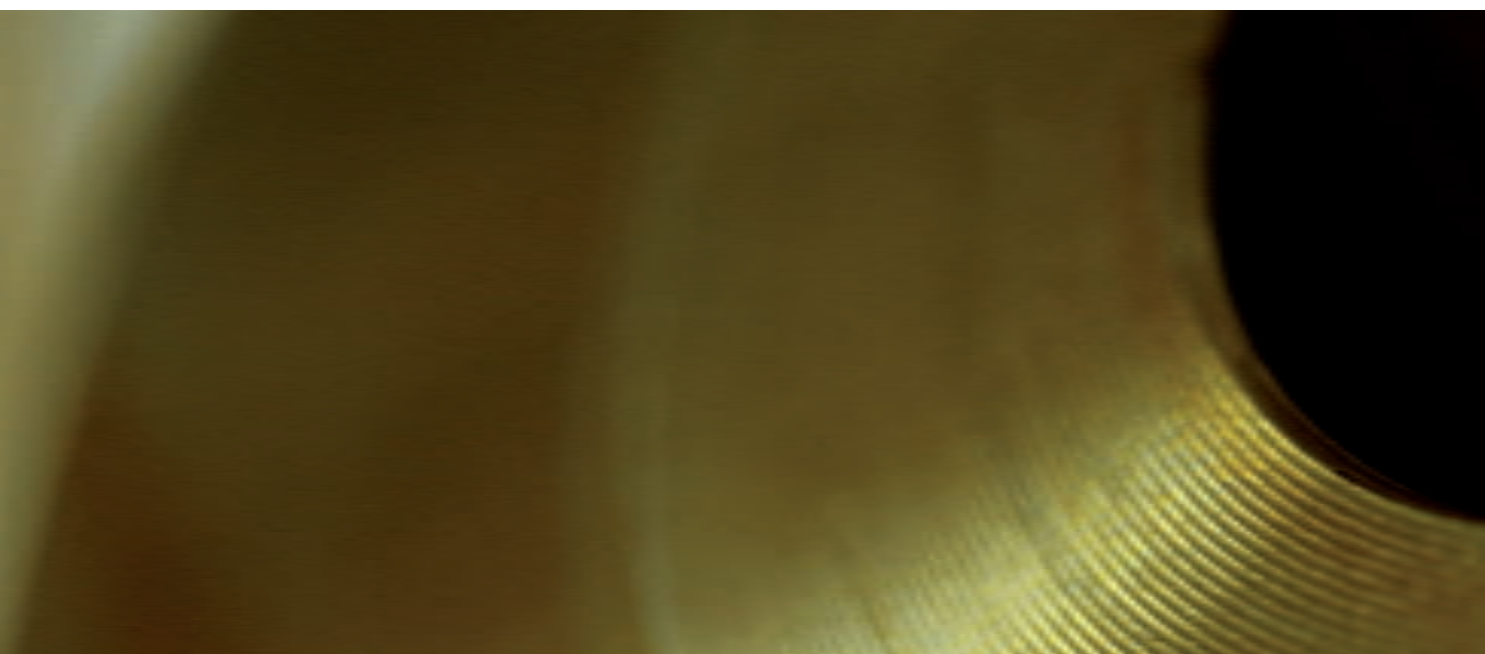
## SLIP ON FLANGES RING JOINT TYPE

### B.S. 3293

| Pipe         |               | Flange           |                 |                |                 | Hub               |                   | Raised Face      | Drilling Template |               |                  | Ring Joint       |              |               | Approx. Weight |
|--------------|---------------|------------------|-----------------|----------------|-----------------|-------------------|-------------------|------------------|-------------------|---------------|------------------|------------------|--------------|---------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm         | J in. mm        | b in. mm       | h in. mm        | a in. mm          | m in. mm          | g in. mm         | Number            | I in. mm      | k in. mm         | p in. mm         | E in. mm     | F in. mm      | Kilo           |
| 26"          | 26,0<br>660,4 | 40<br>1016,0     | 26 1/4<br>666,8 | 4 1/4<br>108   | 8 3/4<br>222,3  | 27 13/16<br>706,4 | 29 7/16<br>747,7  | 31 7/8<br>809,6  | 28                | 2<br>50,8     | 36<br>914,4      | 29 1/2<br>749,3  | 1/2<br>12,7  | 25/32<br>19,8 | 417            |
| 28"          | 28,0<br>711,2 | 42 1/4<br>1073,2 | 28 1/4<br>717,6 | 4 3/8<br>111,1 | 9 1/4<br>235    | 29 15/16<br>760,4 | 31 5/8<br>803,3   | 33 7/8<br>860,4  | 28                | 2 1/8<br>54,0 | 38<br>965,2      | 31 1/2<br>800,1  | 1/2<br>12,7  | 25/32<br>19,8 | 482            |
| 30"          | 30,0<br>762   | 44 1/2<br>1130,3 | 30 1/4<br>768,4 | 4 1/2<br>114,3 | 9 3/4<br>247,7  | 32 1/16<br>814,4  | 33 15/16<br>862,0 | 36 1/8<br>917,6  | 28                | 2 1/8<br>54,0 | 40 1/4<br>1022,4 | 33 3/4<br>857,3  | 1/2<br>12,7  | 25/32<br>19,8 | 537            |
| 32"          | 32,0<br>812,8 | 47<br>1193,8     | 32 1/4<br>819,2 | 4 5/8<br>117,5 | 10 1/4<br>260,4 | 34 3/16<br>868,4  | 36 1/8<br>917,6   | 38 3/4<br>984,3  | 28                | 2 3/8<br>60,3 | 42 1/2<br>1079,5 | 36<br>914,4      | 9/16<br>14,3 | 29/32<br>23,0 | 622            |
| 34"          | 34,0<br>863,6 | 49<br>1244,6     | 34 1/4<br>870   | 4 3/4<br>120,7 | 10 5/8<br>269,9 | 36 5/16<br>922,3  | 38 5/16<br>973,2  | 40 3/4<br>1035,0 | 28                | 2 3/8<br>60,3 | 44 1/2<br>1130,3 | 38<br>965,2      | 9/16<br>14,3 | 29/32<br>23,0 | 670            |
| 36"          | 36,0<br>914,4 | 51 3/4<br>1314,5 | 36 1/4<br>920,8 | 4 7/8<br>123,8 | 11 1/8<br>282,6 | 38 7/16<br>976,3  | 40 5/8<br>1031,9  | 43<br>1092,2     | 28                | 2 5/8<br>66,7 | 47<br>1193,8     | 40 1/4<br>1022,4 | 9/16<br>14,3 | 29/32<br>23,0 | 764            |



## **WELDING NECK & BLIND FLANGES ACC. TO ASME B 16.47 SERIES A**



# WELDING NECK FLANGES ACC. TO ASME B 16.47 SERIES A

Nominal Sizes from 26" to 60"

MSS SP-44 is a Standard Practice for steel pipe line flanges, developed and approved by the "Manufacturers' Standardization Society of the Valve and Fittings industry, inc." 127 Park Street, N. E., Vienna, Virginia 22180 USA

## ASME B 16.47 SERIES A

### GENERAL SURVEY

|                                                                                                                                                                                                                                                   |                                |                    |                    |                    |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------|--------------------|--------------------|--------------------|
| Nominal Pressure Ib/sq. in.<br>Nenndruck kp/cm <sup>2</sup><br>Nenndruck N/cm <sup>2</sup>                                                                                                                                                        | 150<br>10,6<br>104             | 300<br>21,1<br>207 | 400<br>28,1<br>276 | 600<br>42,2<br>414 | 900<br>63,3<br>621 |
| Type of Flange                                                                                                                                                                                                                                    | from 26" to max. Nominal Sizes |                    |                    |                    |                    |
| Welding Neck Flanges                                                                                                                                                                                                                              | 60"                            | 60"                | 60"                | 60"                | 48"                |
| Welding Neck Flanges<br>Ring Joint Type                                                                                                                                                                                                           | -                              | 36"                | 36"                | 36"                | 36"                |
| <b>Materials</b><br>The steel used shall be suitable for field welding to other flanges, fittings, or pipe manufactured under ASTM specifications A105, A53, A106, A381, A694, A707, or API Standards 5L and 5LX, C max, 0.35 %, C.E.max, 0.50 %. |                                |                    |                    |                    |                    |
| $C.E. = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$                                                                                                                                                                            |                                |                    |                    |                    |                    |

### Dimensional Tolerances

Outside diameter, 0.06 in. (1.6 mm) raised face: Sizes NPS 26 and larger: 0.08 in. (2 mm). Outside diameter, 0.25 in. (6.4 mm) raised face: Sizes NPS 26 and larger: 0.04 in. (1 mm).

### Flange Thickness

|                                        |                             |
|----------------------------------------|-----------------------------|
| To 1.0 in. (25.4 mm):                  | + 0.12 in. (3.0 mm),<br>- 0 |
| 1.0 in. (25.4 mm) - 2.0 in. (50.8 mm): | + 0.19 in. (4.8 mm),<br>- 0 |
| 2.0 in. (50.8 mm) - 3.0 in. (76.2 mm): | + 0.31 in. (7.9 mm),<br>- 0 |
| Over 3.0 in. (76.2 mm):                | + 0.38 in. (9.7 mm),<br>- 0 |

### Nominal outside diameter of welding ends of welding neck flanges

|                         |                                             |
|-------------------------|---------------------------------------------|
| Sizes NPS 26 and larger | + 0.21 in. (5.4 mm),<br>- 0.06 in. (1.6 mm) |
|-------------------------|---------------------------------------------|

### Nominal inside diameter of welding ends of welding neck flanges

|                         |                                             |
|-------------------------|---------------------------------------------|
| Sizes NPS 26 and larger | + 0.12 in. (3.0 mm),<br>- 0.06 in. (1.6 mm) |
|-------------------------|---------------------------------------------|

### Bolt circle diameter, ± 0.06 in. (1.6 mm)

|                                          |                    |
|------------------------------------------|--------------------|
| Center-to-center of adjacent bolt holes, | ± 0.03 in. (0.8mm) |
|------------------------------------------|--------------------|

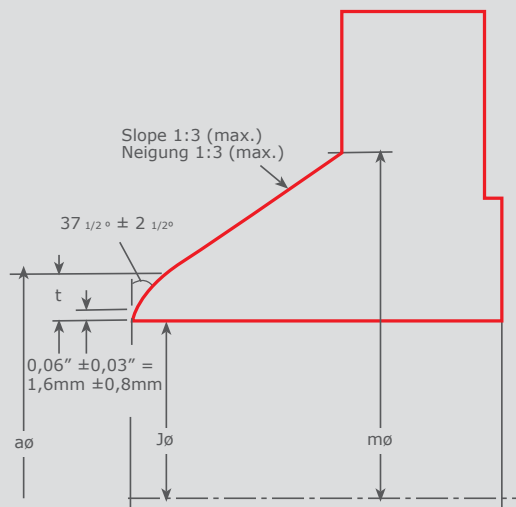
### Eccentricity between bolt circle diameter and machined facing diameters

|                           |                   |
|---------------------------|-------------------|
| Sizes NPS 26 and larger ° | 0.06 in. (1.6 mm) |
|---------------------------|-------------------|

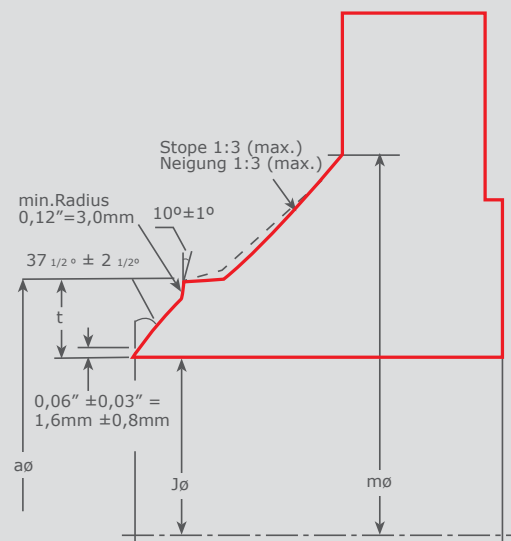
# WELDING ENDS (WELDING NECK FLANGES)

## ASME B 16.47 SERIES A

a = Outside diameter of hub (top)  
t = Nominal pipe wall thickness  
J = Inside diameter  
m = Diameter of hub



Bevel for Wall Thicknesses (t) 0.19" to 0.88" inclusive



Bevel for Wall Thicknesses (t) greater than 0.88"

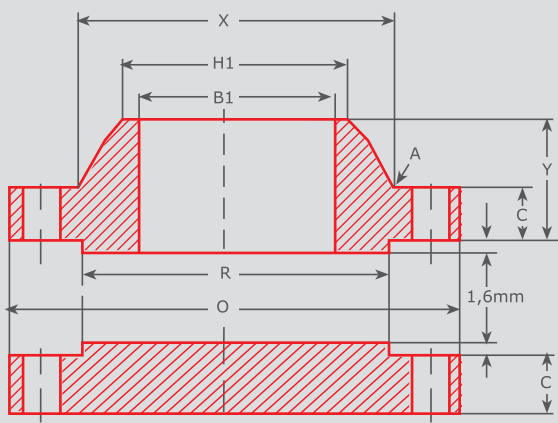
## MARKING

Flanges shall be marked in accordance with the rules established in MSS Standard Practice SP-25, Standard Marking System for Valves, Fittings, Flanges, and Unions. In addition, the letters, "PL" shall precede the grade symbol marking.

# ASME B 16.47

## SERIES A

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# 150 LB/SQ. IN.

## WELDING NECK FLANGES

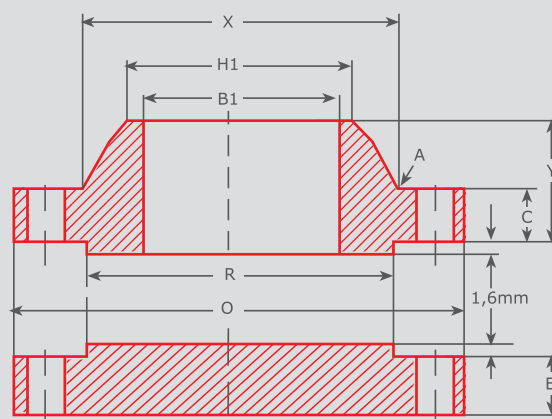
## ASME B 16.47 SERIES A

| Pipe Size       | Flange Dimensions |                 |                 | Hub Dimen.       | Drilling          |                    |                     | Raised Face Dia. | Fillet Radius (min) | Approx. Weight  |          |
|-----------------|-------------------|-----------------|-----------------|------------------|-------------------|--------------------|---------------------|------------------|---------------------|-----------------|----------|
|                 | OD Of Flange      | Thick of Flange | Length Thru Hub | OD Large End Hub | No. of Bolt Holes | Dia. of Bolt Holes | Dia. of Bolt Circle |                  |                     |                 |          |
|                 | O                 | C               | Y               | X                |                   |                    |                     | R                | A                   |                 |          |
| in. mm          | in. mm            | in. mm          | in. mm          | in. mm           |                   | in. mm             | in. mm              | in. mm           | Radius in. mm       | Welding-Neck kg | Blind kg |
| 26,00<br>660,4  | 34,25<br>870,0    | 2,63<br>66,7    | 4,69<br>119,1   | 26,62<br>676,1   | 24                | 1,38<br>35,1       | 31,75<br>806,5      | 29,50<br>749,3   | 0,38<br>9,7         | 147             | 306      |
| 28,00<br>711,2  | 36,50<br>927,1    | 2,75<br>69,8    | 4,88<br>123,9   | 28,62<br>726,9   | 28                | 1,38<br>35,1       | 34,00<br>863,6      | 31,50<br>800,1   | 0,44<br>11,2        | 163             | 363      |
| 30,00<br>762,0  | 38,75<br>984,3    | 2,88<br>73,1    | 5,32<br>135,1   | 30,75<br>781,1   | 28                | 1,38<br>35,1       | 36,00<br>914,4      | 33,75<br>857,3   | 0,44<br>11,2        | 190             | 430      |
| 32,00<br>812,8  | 41,75<br>1060,5   | 3,12<br>79,2    | 5,63<br>142,9   | 32,75<br>831,9   | 28                | 1,62<br>41,1       | 38,50<br>977,9      | 36,00<br>914,4   | 0,44<br>11,2        | 238             | 537      |
| 34,00<br>863,6  | 43,75<br>1111,3   | 3,19<br>81      | 5,82<br>147,8   | 34,75<br>882,7   | 32                | 1,62<br>41,1       | 40,50<br>1028,7     | 38,00<br>965,2   | 0,50<br>12,7        | 255             | 600      |
| 36,00<br>914,4  | 46,00<br>1168,4   | 3,5<br>88,8     | 6,13<br>155,6   | 36,75<br>933,5   | 32                | 1,62<br>41,1       | 42,75<br>1085,9     | 40,25<br>1022,4  | 0,50<br>12,7        | 302             | 730      |
| 38,00<br>965,2  | 48,75<br>1238,3   | 3,38<br>85,8    | 6,13<br>155,6   | 39,00<br>990,6   | 32                | 1,62<br>41,1       | 45,25<br>1149,4     | 42,25<br>1073,2  | 0,50<br>12,7        | 342             | 792      |
| 40,00<br>1016,0 | 50,75<br>1289,1   | 3,5<br>88,8     | 6,38<br>162     | 41,00<br>1041,4  | 36                | 1,62<br>41,1       | 47,25<br>1200,2     | 44,25<br>1124,0  | 0,50<br>12,7        | 366             | 893      |
| 42,00<br>1066,8 | 53,00<br>1346,2   | 3,75<br>95,2    | 6,69<br>169,9   | 43,00<br>1092,2  | 36                | 1,62<br>41,1       | 49,50<br>1257,3     | 47,00<br>1193,8  | 0,50<br>12,7        | 419             | 1044     |
| 44,00<br>1117,6 | 55,25<br>1403,4   | 3,94<br>100     | 6,94<br>176,2   | 45,00<br>1143,0  | 40                | 1,62<br>41,1       | 51,75<br>1314,5     | 49,00<br>1244,6  | 0,50<br>12,7        | 459             | 1190     |
| 46,00<br>1168,4 | 57,25<br>1454,2   | 4<br>101,5      | 7,25<br>184,1   | 47,12<br>1196,8  | 40                | 1,62<br>41,1       | 53,75<br>1365,3     | 51,00<br>1295,4  | 0,50<br>12,7        | 500             | 1299     |
| 48,00<br>1219,2 | 59,50<br>1511,3   | 4,19<br>106,4   | 7,5<br>189,7    | 49,12<br>1247,6  | 44                | 1,62<br>41,1       | 56,00<br>1422,4     | 53,50<br>1358,9  | 0,50<br>12,7        | 552             | 1470     |
| 50,00<br>1270,0 | 61,75<br>1568,5   | 4,32<br>109,7   | 7,94<br>201,6   | 51,25<br>1301,8  | 44                | 1,88<br>47,8       | 58,25<br>1479,6     | 55,50<br>1409,7  | 0,50<br>12,7        | 592             | 1615     |
| 52,00<br>1320,8 | 64,00<br>1625,6   | 4,5<br>114,2    | 8,19<br>208     | 53,25<br>1352,6  | 44                | 1,88<br>47,8       | 60,50<br>1536,7     | 57,50<br>1460,5  | 0,50<br>12,7        | 660             | 1817     |
| 54,00<br>1371,6 | 66,25<br>1682,8   | 4,69<br>119,1   | 8,44<br>214,3   | 55,25<br>1403,4  | 44                | 1,88<br>47,8       | 62,75<br>1593,9     | 59,50<br>1511,3  | 0,50<br>12,7        | 726             | 2031     |
| 56,00<br>1422,4 | 68,75<br>1746,3   | 4,82<br>122,4   | 8,94<br>227     | 57,38<br>1457,5  | 48                | 1,88<br>47,8       | 65,00<br>1651,0     | 62,00<br>1574,8  | 0,50<br>12,7        | 805             | 2244     |
| 58,00<br>1473,2 | 71,00<br>1803,4   | 5<br>126,9      | 9,19<br>233,4   | 59,38<br>1508,3  | 48                | 1,88<br>47,8       | 67,25<br>1708,2     | 64,00<br>1625,6  | 0,50<br>12,7        | 884             | 2491     |
| 60,00<br>1524,0 | 73,00<br>1854,2   | 5,13<br>130,2   | 9,38<br>238,2   | 61,38<br>1559,1  | 52                | 1,88<br>47,8       | 69,25<br>1759,0     | 66,00<br>1676,4  | 0,50<br>12,7        | 930             | 2697     |

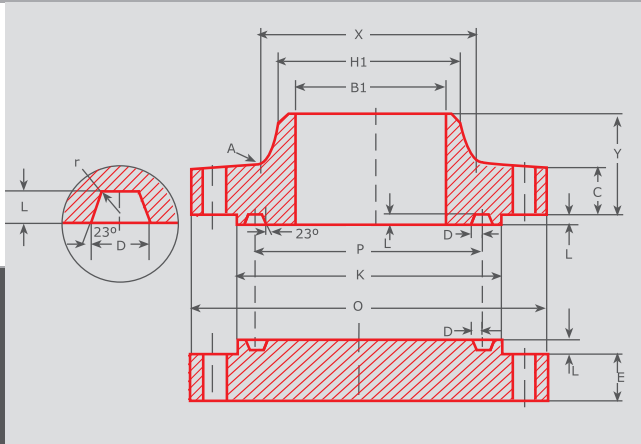
# 300 LB/SQ. IN.

## WELDING NECK FLANGES

### ASME B 16.47 SERIES A



| Pipe Size       | Flange Dimensions |                           |               |                 | Hub Dimen.<br>OD Large End Hub | Drilling         |                    |                     | Approx. Weight |             |
|-----------------|-------------------|---------------------------|---------------|-----------------|--------------------------------|------------------|--------------------|---------------------|----------------|-------------|
|                 | OD Of Flange      | Thick of Flange Weld-Neck | Bid. fig.     | Length Thru Hub |                                | No of Bolt Holes | Dia. of Bolt Holes | Dia. of Bolt Circle |                |             |
|                 | O                 | C                         | E             | y               | X                              |                  |                    |                     | Welding Neck   | Blind       |
| in. mm          | in. mm            | in. mm                    | in. mm        | in. mm          | in. mm                         |                  | in. mm             | in. mm              | kg             | kg          |
| 26,00<br>660.4  | 38,25<br>971.6    | 3,06<br>77,6              | 3,31<br>84.1  | 7,19<br>182,6   | 28,38<br>720.9                 | 28               | 1,75<br>44,5       | 34,50<br>876.3      | <b>275</b>     | <b>460</b>  |
| 28,00<br>711.2  | 40,75<br>1035,1   | 3,32<br>84,3              | 3,56<br>90.4  | 7,69<br>195,3   | 30,50<br>774.7                 | 28               | 1,75<br>44.5       | 37,00<br>939.8      | <b>340</b>     | <b>566</b>  |
| 30,00<br>762.0  | 43,00<br>1092,2   | 3,56<br>90,3              | 3,75<br>95.3  | 8,19<br>208     | 32,56<br>827,0                 | 28               | 1,88<br>47.8       | 39,25<br>997.0      | <b>389</b>     | <b>663</b>  |
| 32,00<br>812.8  | 45,25<br>1149.4   | 3,82<br>97                | 3,94<br>100.1 | 8,69<br>220,7   | 34,69<br>881.1                 | 28               | 2,00<br>50.8       | 41,50<br>1054.1     | <b>438</b>     | <b>770</b>  |
| 34,00<br>863,6  | 47,50<br>1206.5   | 3,94<br>100               | 4,12<br>104.6 | 9,06<br>230     | 36,88<br>936.8                 | 28               | 2,00<br>50.8       | 43,50<br>1104.9     | <b>498</b>     | <b>894</b>  |
| 36,00<br>914.4  | 50,00<br>1270.0   | 4,06<br>103               | 4,38<br>111.3 | 9,44<br>239,7   | 39,00<br>990,6                 | 32               | 2,12<br>53.8       | 46,00<br>1168.4     | <b>563</b>     | <b>1040</b> |
| 38,00<br>965.2  | 46,00<br>1168.4   | 4,19<br>106,4             | 4,25<br>108.0 | 7,06<br>179,2   | 39,12<br>993.6                 | 32               | 1,62<br>41.1       | 43,00<br>1092.2     | <b>307</b>     | <b>872</b>  |
| 40,00<br>1016,0 | 48,75<br>1238.3   | 4,44<br>112,7             | 4,50<br>114,3 | 7,56<br>191,9   | 41,25<br>1047.8                | 32               | 1,75<br>44.5       | 45,50<br>1155.7     | <b>372</b>     | <b>1035</b> |
| 42,00<br>1066.8 | 50,75<br>1289.1   | 4,63<br>117,5             | 4,69<br>119.1 | 7,82<br>198,6   | 43,25<br>1098,6                | 32               | 1,75<br>44.5       | 47,50<br>1206.5     | <b>409</b>     | <b>1173</b> |
| 44,00<br>1117.6 | 53,25<br>1352.6   | 4,82<br>122,4             | 4,88<br>124.0 | 8,06<br>204,6   | 45,25<br>1149.4                | 32               | 1,88<br>47.8       | 49,75<br>1263.7     | <b>464</b>     | <b>1340</b> |
| 46,00<br>1168,4 | 55,75<br>1416.1   | 5<br>126,9                | 5,06<br>128.5 | 8,44<br>214,3   | 47,38<br>1203.5                | 28               | 2,00<br>50.8       | 52,00<br>1320.8     | <b>544</b>     | <b>1600</b> |
| 48,00<br>1219.2 | 57,75<br>1466.9   | 5,19<br>131,8             | 5,25<br>133.4 | 8,75<br>221,3   | 49,38<br>1254.3                | 32               | 2,00<br>50.8       | 54,00<br>1371.6     | <b>567</b>     | <b>1700</b> |
| 50,00<br>1270.0 | 60,25<br>1530.4   | 5,44<br>138,1             | 5,50<br>139.7 | 9,06<br>230     | 51,38<br>1305.1                | 32               | 2,12<br>53,8       | 56,25<br>1428,8     | <b>643</b>     | <b>1936</b> |
| 52,00<br>1320.8 | 62,25<br>1581.2   | 5,63<br>142,9             | 5,69<br>144.5 | 9,32<br>236,7   | 53,38<br>1355,9                | 32               | 2,12<br>53,8       | 58,25<br>1479.6     | <b>694</b>     | <b>2143</b> |
| 54,00<br>1371.6 | 65,25<br>1657.4   | 5,94<br>150,8             | 6,00<br>152.4 | 9,88<br>250,9   | 55,50<br>1409.7                | 28               | 2,38<br>60.5       | 61,00<br>1549.4     | <b>832</b>     | <b>2486</b> |
| 56,00<br>1422.4 | 67,25<br>1708.2   | 6<br>152,3                | 6,06<br>153.9 | 10,19<br>258,8  | 57,62<br>1463.5                | 28               | 2,38<br>60.5       | 63,00<br>1600.2     | <b>882</b>     | <b>2674</b> |
| 58,00<br>1473.2 | 69,25<br>1759.0   | 6,19<br>157,2             | 6,25<br>158.8 | 10,44<br>265,1  | 59,62<br>1514,3                | 32               | 2,38<br>60.5       | 65,00<br>1651.0     | <b>928</b>     | <b>2913</b> |
| 60,00<br>1524,0 | 71,25<br>1809,8   | 6,38<br>162               | 6,44<br>163,6 | 10,69<br>271,5  | 61,62<br>1565,1                | 32               | 2,38<br>60,5       | 67,00<br>1701,8     | <b>989</b>     | <b>3184</b> |



# 300 LB/SQ. IN. WELDING NECK FLANGES

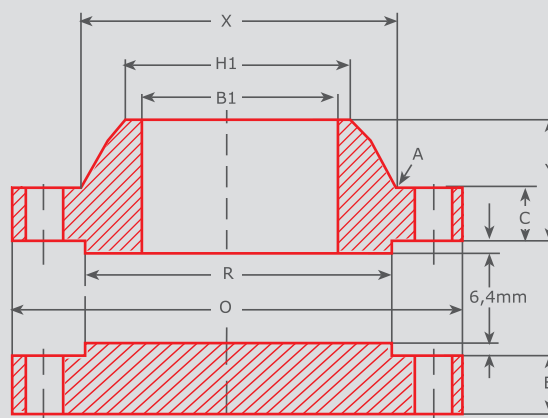
## ASME B 16.47 SERIES A

| Pipe<br>Size    | Raised<br>Face<br>Dia, | Fillet<br>Radius<br>(min) | Facing Dimensions |                    |                 |                    |             | Groove<br>Fillet<br>Radius |
|-----------------|------------------------|---------------------------|-------------------|--------------------|-----------------|--------------------|-------------|----------------------------|
|                 |                        |                           | Ring Type Joint   |                    |                 |                    |             |                            |
|                 |                        |                           | Facing<br>Dia.    | Depth of<br>Groove | Pitch<br>Dia,   | Width of<br>Groove | Ring<br>No. |                            |
|                 | R                      | A                         | K                 | L                  | P               | D                  | A           | r                          |
| in.<br>mm       | in.<br>mm              | Radius<br>in.<br>mm       | in.<br>mm         | in.<br>mm          | in.<br>mm       | in.<br>mm          | Ring<br>Nr. | Radius<br>in.<br>mm        |
| 26,00<br>660,4  | 29,50<br>749,3         | 0,38<br>9,7               | 31,88<br>809,8    | 0,50<br>12,7       | 29,50<br>749,3  | 0,78<br>19,8       | R93         | 0,06<br>1,5                |
| 28,00<br>711,2  | 31,50<br>800,1         | 0,44<br>11,2              | 33,88<br>860,6    | 0,50<br>12,7       | 31,50<br>800,1  | 0,78<br>19,8       | R94         | 0,06<br>1,5                |
| 30,00<br>762,0  | 33,75<br>857,3         | 0,44<br>11,2              | 36,12<br>917,4    | 0,50<br>12,7       | 33,75<br>857,3  | 0,78<br>19,8       | R95         | 0,06<br>1 5                |
| 32,00<br>812,8  | 36,00<br>914,4         | 0,44<br>11,2              | 38,75<br>984,3    | 0,56<br>14,3       | 36,00<br>914,4  | 0,91<br>23,0       | R96         | 0,06<br>1,5                |
| 34,00<br>863,6  | 38,00<br>965,2         | 0,50<br>12,7              | 40,75<br>1035,1   | 0,56<br>14,3       | 38,00<br>965,2  | 0,91<br>23,0       | R97         | 0,06<br>1,5                |
| 36,00<br>914,4  | 40,25<br>1022,4        | 0,50<br>12,7              | 43,00<br>1092,2   | 0,56<br>14,3       | 40,25<br>1022,4 | 0,91<br>23,0       | R98         | 0,06<br>1,5                |
| 38,00<br>965,2  | 40,50<br>1028,7        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 40,00<br>1016,0 | 42,75<br>1085,9        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 42,00<br>1066,8 | 44,75<br>1136,7        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 44,00<br>1117,6 | 47,00<br>1193,8        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 46,00<br>1168,4 | 49,00<br>1244,6        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 48,00<br>1219,2 | 51,25<br>1301,8        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 50,00<br>1270,0 | 53,50<br>1358,9        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 52,00<br>1320,8 | 55,50<br>1409,7        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 54,00<br>1371,6 | 57,75<br>1466,9        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 56,00<br>1422,4 | 59,75<br>1517,7        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 58,00<br>1473,2 | 62,00<br>1574,8        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 60,00<br>1524,0 | 64,00<br>1625,6        | 0,50<br>12,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |

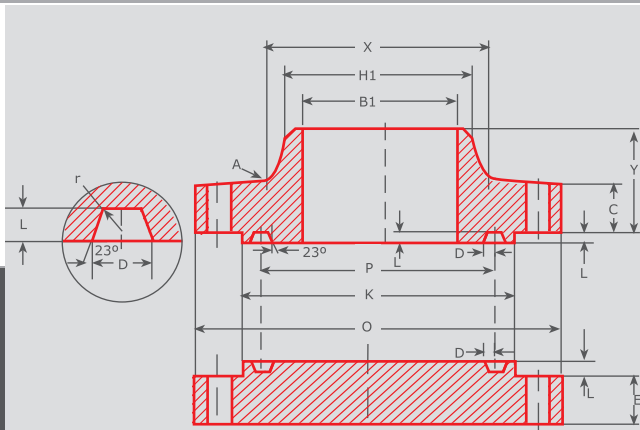
# 400 LB/SQ. IN.

## WELDING NECK FLANGES

### ASME B 16.47 SERIES A



| Pipe Size       | Flange Dimensions |                 |               |                 | Hub Dimen.      | Drilling          |                    |                     | Approx. Weight  |          |
|-----------------|-------------------|-----------------|---------------|-----------------|-----------------|-------------------|--------------------|---------------------|-----------------|----------|
|                 | OD of Flange      | Thick of Flange |               | Length Thru Hub |                 | No. of Bolt Holes | Dia. of Bolt Holes | Dia. of Bolt Circle |                 |          |
|                 | O                 | C               | E             | Y               | X               |                   |                    |                     |                 |          |
| in. mm          | in. mm            | in. mm          | in. mm        | in. mm          | in. mm          |                   | in. mm             | in. mm              | Welding Neck kg | Blind kg |
| 26,00<br>660,4  | 38,25<br>971,6    | 3,50<br>88,9    | 3,88<br>98,6  | 7,62<br>193,5   | 28,62<br>726,9  | 28                | 1,88<br>47,8       | 34,50<br>876,3      | 304             | 534      |
| 28,00<br>711,2  | 40,75<br>1035,1   | 3,75<br>95,3    | 4,12<br>104,6 | 8,12<br>206,2   | 30,81<br>782,6  | 28                | 2,00<br>50,8       | 37,00<br>939,8      | 362             | 645      |
| 30,00<br>762,0  | 43,00<br>1092,2   | 4,00<br>101,6   | 4,38<br>111,3 | 8,62<br>218,9   | 32,94<br>836,7  | 28                | 2,12<br>53,8       | 39,25<br>997,0      | 415             | 760      |
| 32,00<br>812,8  | 45,25<br>1149,4   | 4,25<br>108,0   | 4,56<br>115,8 | 9,12<br>231,6   | 35,00<br>889,0  | 28                | 2,12<br>53,8       | 41,50<br>1054,1     | 478             | 885      |
| 34,00<br>863,6  | 47,50<br>1206,5   | 4,38<br>111,3   | 4,81<br>122,2 | 9,50<br>241,3   | 37,19<br>944,6  | 28                | 2,12<br>53,8       | 43,50<br>1104,9     | 538             | 1035     |
| 36,00<br>914,4  | 50,00<br>1270,0   | 4,50<br>114,3   | 5,06<br>128,5 | 9,88<br>251,0   | 39,38<br>1000,3 | 32                | 2,12<br>53,8       | 46,00<br>1168,4     | 604             | 1205     |
| 38,00<br>965,2  | 47,50<br>1206,5   | 4,88<br>124,0   | 4,88<br>124,0 | 8,12<br>206,2   | 39,50<br>1003,3 | 32                | 1,88<br>47,8       | 44,00<br>1117,6     | 406             | 1055     |
| 40,00<br>1016,0 | 50,00<br>1270,0   | 5,12<br>130,0   | 5,12<br>130,0 | 8,50<br>215,9   | 41,50<br>1054,1 | 32                | 2,00<br>50,8       | 46,25<br>1174,8     | 473             | 1229     |
| 42,00<br>1066,8 | 52,00<br>1320,8   | 5,25<br>133,4   | 5,52<br>133,4 | 8,81<br>223,8   | 43,62<br>1107,9 | 32                | 2,00<br>50,8       | 48,25<br>1225,6     | 513             | 1366     |
| 44,00<br>1117,6 | 54,50<br>1384,3   | 5,50<br>139,7   | 5,50<br>139,7 | 9,19<br>233,4   | 45,62<br>1158,7 | 32                | 2,12<br>53,8       | 50,50<br>1282,7     | 586             | 1569     |
| 46,00<br>1168,4 | 56,75<br>1441,5   | 5,75<br>146,1   | 5,75<br>146,1 | 9,62<br>244,3   | 47,75<br>1212,9 | 36                | 2,12<br>53,8       | 52,75<br>1339,9     | 648             | 1776     |
| 48,00<br>1219,2 | 59,50<br>1511,3   | 6,00<br>152,4   | 6,00<br>152,4 | 10,12<br>256,0  | 49,88<br>1267,0 | 28                | 2,38<br>60,5       | 55,25<br>1403,4     | 768             | 2043     |
| 50,00<br>1270,0 | 61,75<br>1568,5   | 6,19<br>157,2   | 6,25<br>158,8 | 10,56<br>268,2  | 52,00<br>1320,8 | 32                | 2,38<br>60,5       | 57,50<br>1460,5     | 832             | 2294     |
| 52,00<br>1320,8 | 63,75<br>1619,3   | 6,38<br>162,1   | 6,44<br>163,6 | 10,88<br>276,4  | 54,00<br>1371,6 | 32                | 2,38<br>60,5       | 59,50<br>1511,3     | 897             | 2500     |
| 54,00<br>1371,6 | 67,00<br>1701,8   | 6,69<br>169,9   | 6,75<br>171,5 | 11,38<br>289,1  | 56,12<br>1425,4 | 28                | 2,62<br>66,5       | 62,25<br>1581,2     | 1086            | 2900     |
| 56,00<br>1422,4 | 69,00<br>1752,6   | 6,88<br>174,8   | 6,94<br>176,3 | 11,75<br>298,5  | 58,25<br>1479,6 | 32                | 2,62<br>66,5       | 64,25<br>1632,0     | 1139            | 3174     |
| 58,00<br>1473,2 | 71,00<br>1803,4   | 7,00<br>177,8   | 7,12<br>180,8 | 12,06<br>306,3  | 60,25<br>1530,4 | 32                | 2,62<br>66,5       | 66,25<br>1682,8     | 1208            | 3462     |
| 60,00<br>1524,0 | 74,25<br>1886,0   | 7,31<br>185,7   | 7,44<br>189,0 | 12,56<br>319,0  | 62,38<br>1584,5 | 32                | 2,88<br>73,2       | 69,00<br>1752,6     | 1408            | 3940     |



# 400 LB/SQ. IN. WELDING NECK FLANGES

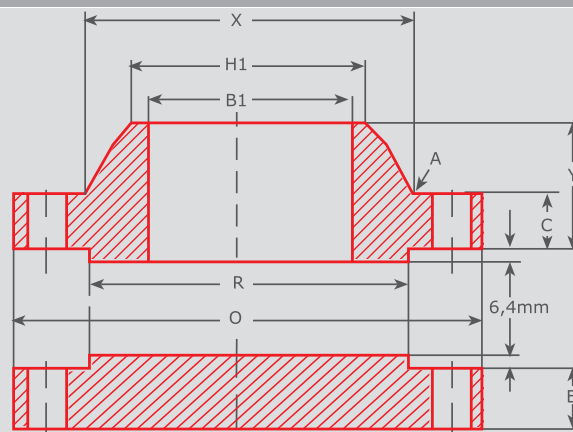
## ASME B 16.47 SERIES A

| Pipe<br>Size     | Raised<br>Face<br>Dia. | Fillet<br>Radius<br>(min) | Facing Dimensions |                    |                 |                    |             | Groove<br>Fillet<br>Radius |
|------------------|------------------------|---------------------------|-------------------|--------------------|-----------------|--------------------|-------------|----------------------------|
|                  |                        |                           | Ring Type Joint   |                    |                 |                    |             |                            |
|                  |                        |                           | Facing<br>Dia.    | Depth of<br>Groove | Pitch<br>Dia.   | Width of<br>Groove | Ring<br>No. |                            |
|                  | R                      | A                         | K                 | L                  | P               | D                  | A           | r                          |
| in.<br>mm        | in.<br>mm              | Radius<br>in.<br>mm       | in.<br>mm         | in.<br>mm          | in.<br>mm       | in.<br>mm          | Ring<br>Nr. | Radius<br>in.<br>mm        |
| 26,00<br>660,4   | 29,50<br>749,3         | 0,44<br>11,2              | 31,88<br>809,8    | 0,50<br>12,7       | 29,50<br>749,3  | 0,78<br>19,8       | R93         | 0,06<br>1,5                |
| 28,00<br>711.2   | 31,50<br>800,1         | 0,50<br>12,7              | 33,88<br>860,6    | 0,50<br>12,7       | 31,50<br>800.1  | 0,78<br>19,8       | R94         | 0,06<br>1,5                |
| 30,00<br>762,0   | 33,75<br>857,3         | 0,50<br>12,7              | 36,12<br>917,4    | 0,50<br>12,7       | 33,75<br>857,3  | 0,78<br>19,8       | R95         | 0,06<br>1,5                |
| 32,00<br>812.8   | 36,00<br>914,4         | 0,50<br>12,7              | 38,75<br>984,3    | 0,56<br>14,3       | 36,00<br>914.4  | 0,91<br>230        | R96         | 0,06<br>1,5                |
| 34,00<br>863,6   | 38,00<br>965,2         | 0,56<br>14,2              | 40,75<br>1035,1   | 0,56<br>14.3       | 38,00<br>965,2  | 0,91<br>23,0       | R97         | 0,06<br>1,5                |
| 36,00<br>914.4   | 40,25<br>1022,4        | 0,56<br>14.2              | 43,00<br>1092.2   | 0,56<br>14.3       | 40,25<br>1022,4 | 0,91<br>23.0       | R98         | 0,06<br>1,5                |
| 38,00<br>965,2   | 40,75<br>1035.1        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 40,00<br>1016.0  | 43,00<br>1092.2        | 0,56<br>142               | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 42,00<br>1 066.8 | 45,00<br>1143.0        | 0,56<br>142               | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 44,00<br>1117,6  | 47,25<br>1200.2        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 46,00<br>1168,4  | 49,50<br>1257,3        | 0,56<br>142               | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 48,00<br>1219.2  | 51,50<br>1308.1        | 0,56<br>142               | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 50,00<br>1270.0  | 53,62<br>1361.9        | 0,56<br>142               | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 52,00<br>1320.8  | 55,62<br>1412.7        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 54,00<br>1371.6  | 57,88<br>1470.2        | 0,56<br>142               | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 56,00<br>1422,4  | 60,12<br>1527.0        | 0,56<br>142               | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 58,00<br>1473,2  | 62,12<br>1577.8        | 0,56<br>142               | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 60,00<br>1524,0  | 64,38<br>1635,3        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |

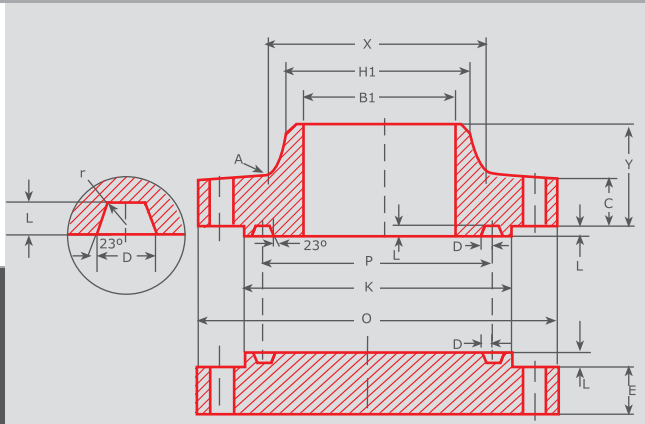
# 600 LB/SQ. IN.

## WELDING NECK FLANGES

### ASME B 16.47 SERIES A



| Pipe Size       | Flange Dimensions |                 |               |                | Hub Dimen.<br>OD Large End Hub | Drilling         |                    |                     | Approx. Weight  |          |
|-----------------|-------------------|-----------------|---------------|----------------|--------------------------------|------------------|--------------------|---------------------|-----------------|----------|
|                 | OD of Flange      | Thick of Flange |               | Length         |                                | No of Bolt Holes | Dia, of Bolt Holes | Dia. of Bolt Circle |                 |          |
|                 | O                 | C               | E             | Y              | X                              |                  |                    |                     |                 |          |
| in. mm          | in. mm            | in. mm          | in. mm        | in. mm         | in. mm                         |                  | in. mm             | in. mm              | Welding Neck kg | Blind kg |
| 26,00<br>660.4  | 40<br>1016        | 4,25<br>108     | 4,94<br>125.5 | 8,75<br>222,3  | 29,44<br>747.8                 | 28               | 2<br>50,8          | 36<br>914.4         | 427             | 740      |
| 28,00<br>711,2  | 42,25<br>1073,2   | 4,38<br>111.3   | 5,19<br>131,8 | 9,25<br>235    | 31,62<br>803.1                 | 28               | 2,12<br>53.8       | 38<br>965.2         | 479             | 869      |
| 30,00<br>762    | 44,5<br>1130,3    | 4,5<br>114.3    | 5,5<br>139,7  | 9,75<br>247.7  | 33,94<br>862.1                 | 28               | 2,12<br>53.8       | 40,25<br>1022.4     | 545             | 1030     |
| 32,00<br>812.8  | 47<br>1193.8      | 4,62<br>117.3   | 5,81<br>147.6 | 10,25<br>260,4 | 36,12<br>917.4                 | 28               | 2,38<br>60,5       | 42,5<br>1079,5      | 610             | 1204     |
| 34,00<br>863,6  | 49<br>1244.6      | 4,75<br>120.7   | 6,06<br>153.9 | 10,62<br>269.7 | 38,31<br>973.1                 | 28               | 2,38<br>60.5       | 44,5<br>1130,3      | 666             | 1371     |
| 36,00<br>914,4  | 51,75<br>1314,5   | 4,88<br>124     | 6,38<br>162.1 | 11,12<br>282.4 | 40,62<br>1031,7                | 28               | 2,62<br>66,5       | 47<br>1193.8        | 755             | 1600     |
| 38,00<br>965.2  | 50<br>1270        | 6<br>152,4      | 6,12<br>155.7 | 10<br>254      | 40,25<br>1022,4                | 28               | 2,38<br>60,5       | 45,75<br>1162,1     | 640             | 1447     |
| 40,00<br>101.6  | 52<br>1320,8      | 6,25<br>158.8   | 6,38<br>162.1 | 10,38<br>263.7 | 42,25<br>1073.2                | 32               | 2,38<br>60.5       | 47,75<br>1212.9     | 683             | 1620     |
| 42,00<br>1066.8 | 55,25<br>1403.4   | 6,62<br>168,1   | 6,75<br>171,5 | 11<br>279.4    | 44,38<br>1127,3                | 28               | 2,62<br>66.5       | 50,5<br>1282.7      | 754             | 1948     |
| 44,00<br>1117,6 | 57,25<br>1454,2   | 6,81<br>173     | 7<br>177,8    | 11,38<br>289.1 | 46,5<br>1181.1                 | 32               | 2,62<br>66.5       | 52,5<br>1333.5      | 903             | 2100     |
| 46,00<br>1168,4 | 59,5<br>1511.3    | 7,06<br>179.3   | 7,31<br>185.7 | 11,81<br>300   | 48,62<br>1234.9                | 32               | 2,62<br>66.5       | 54,75<br>1390.7     | 1054            | 2450     |
| 48,00<br>1219,2 | 62,75<br>1593,9   | 7,44<br>189     | 7,69<br>195.3 | 12,44<br>314.7 | 50,75<br>1289,1                | 32               | 2,88<br>73,2       | 57,5<br>1460.5      | 1200            | 2850     |
| 50,00<br>1270   | 65,75<br>1670,1   | 7,75<br>196,9   | 8<br>203,2    | 12,94<br>328.7 | 52,88<br>1343.2                | 28               | 3,12<br>79.2       | 60<br>1524          | 1363            | 3233     |
| 52,00<br>1320,8 | 67,75<br>1720,9   | 8<br>203.2      | 8,25<br>209.6 | 13,25<br>336.6 | 54,88<br>1394                  | 32               | 3,12<br>79.2       | 62<br>1574.8        | 1466            | 3570     |
| 54,00<br>1371,6 | 70<br>1778        | 8,25<br>209.6   | 8,56<br>217.4 | 13,75<br>349.3 | 57<br>1447.8                   | 32               | 3,12<br>79.2       | 64,25<br>1632       | 1605            | 3968     |
| 56,00<br>1422,4 | 73,00<br>1854,2   | 8,56<br>217,4   | 8,88<br>225,6 | 14,25<br>362,0 | 59,12<br>1501,6                | 32               | 3,38<br>85,9       | 66,75<br>1695,5     | 1709            | 4450     |
| 58,00<br>1473,2 | 75,00<br>1905,0   | 8,75<br>222,3   | 9,12<br>231.6 | 14,56<br>369.8 | 61,12<br>1552,4                | 32               | 3,38<br>85,9       | 68,75<br>1746,3     | 1916            | 4850     |
| 60,00<br>1524,0 | 78,50<br>1993,9   | 9,19<br>233,4   | 9,56<br>242,8 | 15,31<br>388,9 | 63,38<br>1609,9                | 28               | 3,62<br>91,9       | 71,75<br>1822,5     | 2300            | 5588     |



# 600 LB/SQ. IN. WELDING NECK FLANGES

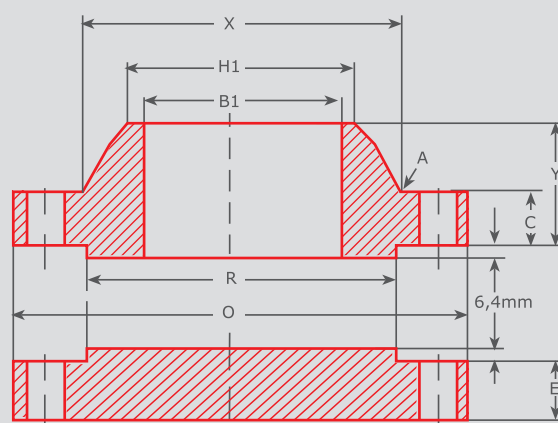
## ASME B 16.47 SERIES A

| Pipe<br>Size    | Raised<br>Face<br>Dia. | Fillet<br>Radius<br>(min) | Facing Dimensions |                    |                 |                    |             | Groove<br>Fillet<br>Radius |
|-----------------|------------------------|---------------------------|-------------------|--------------------|-----------------|--------------------|-------------|----------------------------|
|                 |                        |                           | Ring Type Joint   |                    |                 |                    |             |                            |
|                 |                        |                           | Facing<br>Dia.    | Depth of<br>Groove | Pitch<br>Dia.   | Width of<br>Groove | Ring<br>No. |                            |
|                 | R                      | A                         | K                 | L                  | P               | D                  | A           | r                          |
| in.<br>mm       | in.<br>mm              | in.<br>mm                 | in.<br>mm         | in.<br>mm          | in.<br>mm       | in.<br>mm          | Ring<br>Nr. | Radius<br>in.<br>mm        |
| 26,00<br>660,4  | 29,50<br>749,3         | 0,50<br>12,7              | 31,88<br>809,8    | 0,50<br>12,7       | 29,50<br>49,3   | 0,78<br>19,8       | R93         | 0,06<br>1,5                |
| 28,00<br>711,2  | 31,50<br>800,1         | 0,50<br>12,7              | 33,88<br>860,6    | 0,50<br>12,7       | 31,50<br>800,1  | 0,78<br>19,8       | R94         | 0,06<br>1,5                |
| 30,00<br>762,0  | 33,75<br>857,3         | 0,50<br>12,7              | 36,12<br>917,4    | 0,50<br>12,7       | 33,75<br>857,3  | 0,78<br>19,8       | R95         | 0,06<br>1,5                |
| 32,00<br>812,8  | 36,00<br>914,4         | 0,50<br>12,7              | 38,75<br>984,3    | 0,56<br>14,3       | 36,00<br>914,4  | 0,91<br>23,0       | R96         | 0,06<br>1,5                |
| 34,00<br>863,6  | 38,00<br>965,2         | 0,56<br>14,2              | 40,75<br>1035,1   | 0,56<br>14,3       | 38,00<br>965,2  | 0,91<br>23,0       | R97         | 0,06<br>1,5                |
| 36,00<br>914,4  | 40,25<br>1022,4        | 0,56<br>14,2              | 43,00<br>1092,2   | 0,56<br>14,3       | 40,25<br>1022,4 | 0,91<br>23,0       | R98         | 0,06<br>1,5                |
| 38,00<br>965,2  | 41,50<br>1054,1        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 40,00<br>1016,0 | 43,75<br>1111 ,3       | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 42,00<br>1066,8 | 46,00<br>1168,4        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 44,00<br>1117,6 | 48,25<br>1225,6        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 46,00<br>1168,4 | 50,25<br>1276,4        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 48,00<br>1219,2 | 52,50<br>1333,5        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 50,00<br>1270,0 | 54,50<br>1384,3        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 52,00<br>1320,8 | 56,50<br>1435,1        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 54,00<br>1371,6 | 58,75<br>1492,3        | 0,56<br>14,2              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 56,00<br>1422,4 | 60,75<br>1543,1        | 0,62<br>15,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 58,00<br>1473,2 | 63,00<br>1600,2        | 0,62<br>15,7              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |
| 60,00<br>1524,0 | 65,25<br>1657,4        | 0,69<br>17,5              | -<br>-            | -<br>-             | -<br>-          | -<br>-             | -<br>-      | -<br>-                     |

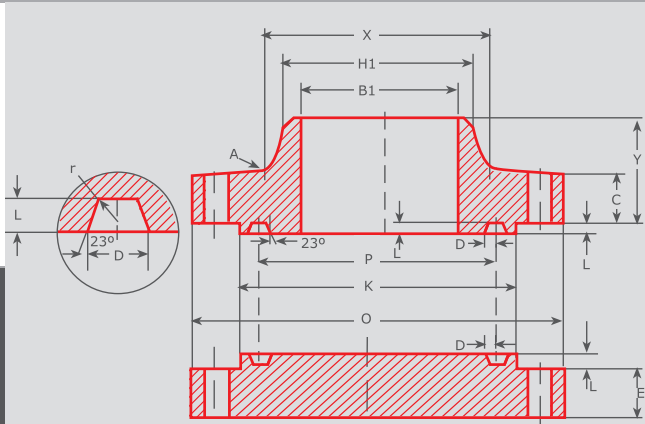
# 900 LB/SQ. IN.

## WELDING NECK FLANGES

### ASME B 16.47 SERIES A



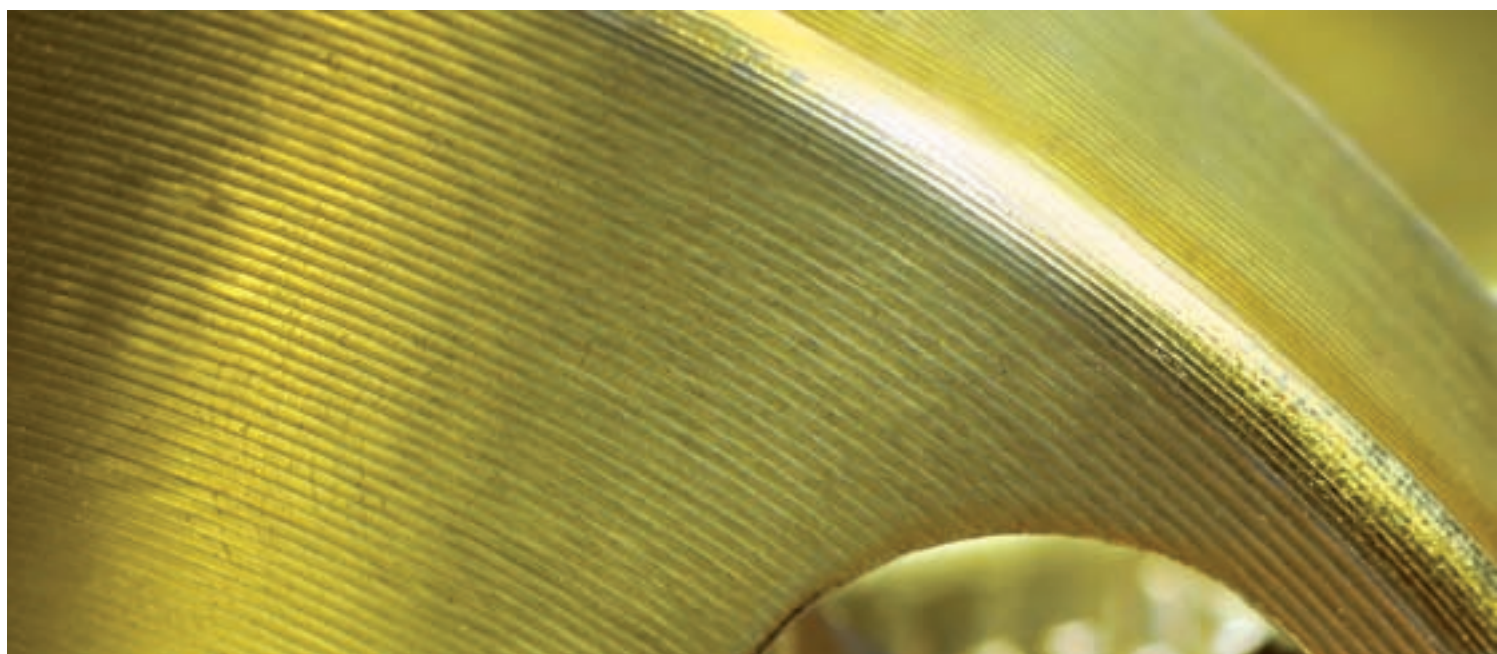
| Pipe<br>Size    | Flange Dimensions  |                 |                |                       | Hub                       | Drilling |                          |                           | Approx.<br>Weight         |                 |
|-----------------|--------------------|-----------------|----------------|-----------------------|---------------------------|----------|--------------------------|---------------------------|---------------------------|-----------------|
|                 | OD<br>of<br>Flange | Thick of Flange |                | Length<br>Thru<br>Hub | aD<br>Large<br>End<br>Hub | Dimen    | Dia.<br>of Bolt<br>Holes | Dia.<br>of Bolt<br>Circle |                           |                 |
|                 |                    | Weld-<br>Neck   | Bid.<br>fig.   |                       |                           |          |                          |                           |                           |                 |
|                 | O                  | C               | E              | Y                     | X                         |          |                          |                           |                           |                 |
| in.<br>mm       | in.<br>mm          | in.<br>mm       | in.<br>mm      | in.<br>mm             | in.<br>mm                 |          | in.<br>mm                | in.<br>mm                 | Welding<br>Neck<br><br>kg | Blind<br><br>kg |
| 26,00<br>660,4  | 42,75<br>1085,9    | 5,50<br>139,7   | 6,31<br>160,3  | 11,25<br>285,8        | 30,50<br>774,7            | 20       | 2,88<br>73,2             | 37,50<br>952,5            | 692                       | 1060            |
| 28,00<br>711,2  | 46,00<br>1168,4    | 5,62<br>142,7   | 6,75<br>171,5  | 11,75<br>298,5        | 32,75<br>831,9            | 20       | 3,12<br>79,2             | 40,25<br>1 022,4          | 822                       | 1306            |
| 30,00<br>762,0  | 48,50<br>1231,9    | 5,88<br>149,4   | 7,18<br>182,4  | 12,25<br>311,2        | 35,00<br>889,0            | 20       | 3,12<br>79,2             | 42,75<br>1085,9           | 962                       | 1565            |
| 32,00<br>812,8  | 51,75<br>1314,5    | 6,25<br>158,8   | 7,62<br>193,5  | 13,00<br>330,2        | 37,25<br>946,2            | 20       | 3,38<br>85,9             | 45,50<br>1155,7           | 1155                      | 1885            |
| 34,00<br>863,6  | 55,00<br>1397,0    | 6,50<br>165,1   | 8,06<br>204,7  | 13,75<br>349,3        | 39,62<br>1006,3           | 20       | 3,62<br>91,9             | 48,25<br>1225,6           | 1348                      | 2250            |
| 36,00<br>914,4  | 57,50<br>1460,5    | 6,75<br>171,5   | 8,44<br>214,4  | 14,25<br>362,0        | 41,88<br>1063,8           | 20       | 3,62<br>91,9             | 50,75<br>1289,1           | 1541                      | 2595            |
| 38,00<br>965,2  | 57,50<br>1460,5    | 7,50<br>190,5   | 8,50<br>215,9  | 13,88<br>352,6        | 42,25<br>1073,2           | 20       | 3,62<br>91,9             | 50,75<br>1289,1           | 1537                      | 2610            |
| 40,00<br>1016,0 | 59,50<br>1511,3    | 7,75<br>196,9   | 8,81<br>223,8  | 14,31<br>363,5        | 44,38<br>1127,3           | 24       | 3,62<br>91,9             | 52,75<br>1339,9           | 1643                      | 2870            |
| 42,00<br>1066,8 | 61,50<br>1562,1    | 8,12<br>206,2   | 9,12<br>231,6  | 14,62<br>371,3        | 46,31<br>1176,3           | 24       | 3,62<br>91,9             | 54,75<br>1390,7           | 1798                      | 3195            |
| 44,00<br>1117,6 | 64,88<br>1648,0    | 8,44<br>214,4   | 9,56<br>242,8  | 15,38<br>390,7        | 48,62<br>1234,9           | 24       | 3,88<br>98,6             | 57,62<br>1463,5           | 1952                      | 3720            |
| 46,00<br>1168,4 | 68,25<br>1733,6    | 8,88<br>225,6   | 10,06<br>255,5 | 16,18<br>411,0        | 50,88<br>1292,4           | 24       | 4,12<br>104,6            | 60,50<br>1536,7           | 2107                      | 4579            |
| 48,00<br>1219,2 | 70,25<br>1784,4    | 9,19<br>233,4   | 10,38<br>263,7 | 16,50<br>417,5        | 52,88<br>1343,2           | 24       | 4,12<br>104,6            | 62,50<br>1587,5           | 2260                      | 4730            |



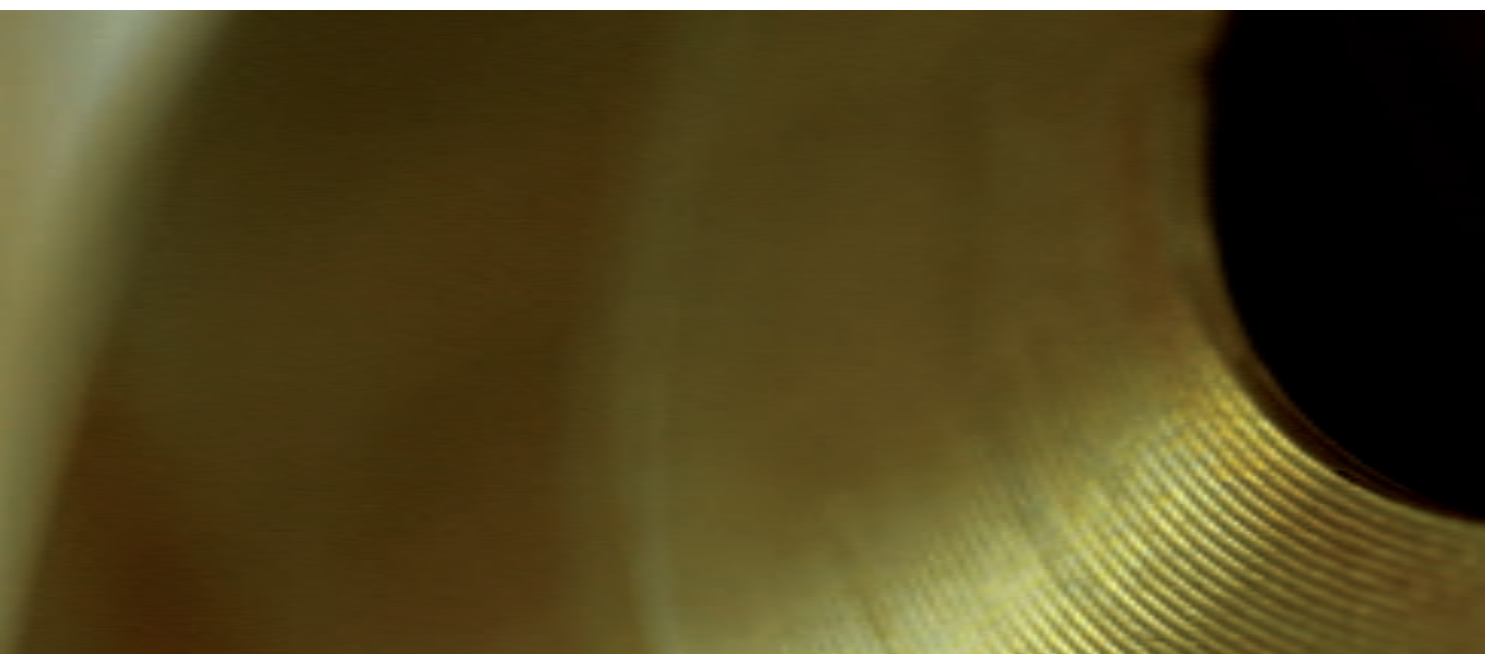
# 900 LB/SQ. IN. WELDING NECK FLANGES

## ASME B 16.47 SERIES A

| Pipe Size       | Raised Face Dia. | Fillet Radius (min) | Facing Dimensions |                 |                 |                 |          | Groove Fillet Radius |
|-----------------|------------------|---------------------|-------------------|-----------------|-----------------|-----------------|----------|----------------------|
|                 |                  |                     | Ring Type Joint   |                 |                 |                 |          |                      |
|                 |                  |                     | Facing Dia        | Depth of Groove | Pitch Dia.      | Width of Groove | Ring No. |                      |
|                 | R                | A                   | K                 | L               | P               | D               | A        | r                    |
| in. mm          | in. mm           | Radius in. mm       | in. mm            | in. mm          | in. mm          | in. mm          | Ring Nr. | Radius in. mm        |
| 26,00<br>660,4  | 29,50<br>749,3   | 0,44<br>11,2        | 32,75<br>831,9    | 0,69<br>17,5    | 29,50<br>749,3  | 1,19<br>30,2    | R100     | 0,09<br>2,3          |
| 28,00<br>711,2  | 31,50<br>800,1   | 0,50<br>12,7        | 35,00<br>889,0    | 0,69<br>17,5    | 31,50<br>800,1  | 1,31<br>33,3    | R101     | 0,09<br>2,3          |
| 30,00<br>762,0  | 33,75<br>857,3   | 0,50<br>12,7        | 37,25<br>946,2    | 0,69<br>17,5    | 33,75<br>857,3  | 1,31<br>33,3    | R102     | 0,09<br>2,3          |
| 32,00<br>812,8  | 36,00<br>914,4   | 0,50<br>12,7        | 39,50<br>1003,3   | 0,69<br>17,5    | 36,00<br>914,4  | 1,31<br>33,3    | R103     | 0,09<br>2,3          |
| 34,00<br>863,6  | 38,00<br>965,2   | 0,56<br>14,2        | 42,00<br>1066,8   | 0,81<br>20,6    | 38,00<br>965,2  | 1,44<br>36,5    | R104     | 0,09<br>2,3          |
| 36,00<br>914,4  | 40,25<br>1022,4  | 0,56<br>14,2        | 44,25<br>1124,0   | 0,81<br>20,6    | 40,25<br>1022,4 | 1,44<br>36,5    | R105     | 0,09<br>2,3          |
| 38,00<br>965,2  | 43,25<br>1098,6  | 0,75<br>19,1        | -<br>-            | -<br>-          | -<br>-          | -<br>-          | -<br>-   | -<br>-               |
| 40,00<br>1016,0 | 45,75<br>1162,1  | 0,81<br>20,6        | -<br>-            | -<br>-          | -<br>-          | -<br>-          | -<br>-   | -<br>-               |
| 42,00<br>1066,8 | 47,75<br>1212,9  | 0,81<br>20,6        | -<br>-            | -<br>-          | -<br>-          | -<br>-          | -<br>-   | -<br>-               |
| 44,00<br>1117,6 | 50,00<br>1270,0  | 0,88<br>22,4        | -<br>-            | -<br>-          | -<br>-          | -<br>-          | -<br>-   | -<br>-               |
| 46,00<br>1168,4 | 52,50<br>1333,5  | 0,88<br>22,4        | -<br>-            | -<br>-          | -<br>-          | -<br>-          | -<br>-   | -<br>-               |
| 48,00<br>1219,2 | 54,50<br>1384,3  | 0,94<br>23,9        | -<br>-            | -<br>-          | -<br>-          | -<br>-          | -<br>-   | -<br>-               |



## **WELDING NECK & BLIND FLANGES ACC. TO ASME B 16.47 SERIES B**



# ASME B 16.47

## SERIES B

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# ASME B 16.47 SERIES B WELDING NECK AND BLIND FLANGES

Nominal Sizes from 26" to 60"

The API-605 flanges are designated as Series B in this standard.

## ASME B 16.47 SERIES B

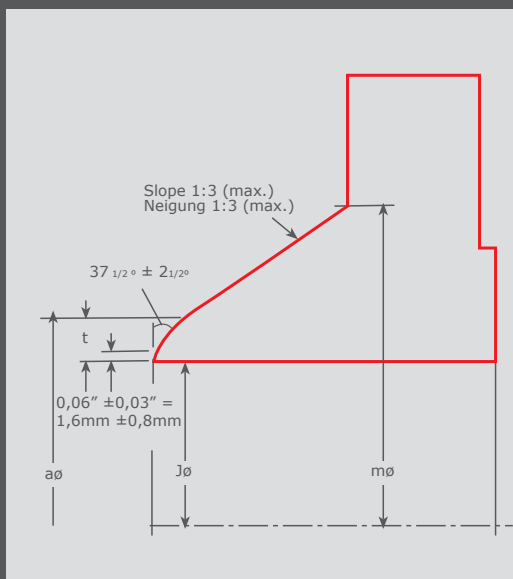
### GENERAL SURVEY

|                                                                                            |                                |                    |                    |                    |                    |                    |
|--------------------------------------------------------------------------------------------|--------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Nominal Pressure lb/sq. in.<br>Nenndruck kp/cm <sup>2</sup><br>Nenndruck Niem <sup>2</sup> | 75<br>5,3<br>52                | 150<br>10,6<br>104 | 300<br>21,1<br>207 | 400<br>25,1<br>276 | 600<br>42,2<br>414 | 900<br>63,3<br>621 |
| Type of Flange                                                                             | from 26" to max. Nominal Sizes |                    |                    |                    |                    |                    |
| Welding Neck Flanges                                                                       | 60"                            | 60"                | 60"                | 36"                | 36"                | 36"                |
| Blind Flanges                                                                              | 60"                            | 50"                | 60"                | 36"                | 36-                | 36"                |

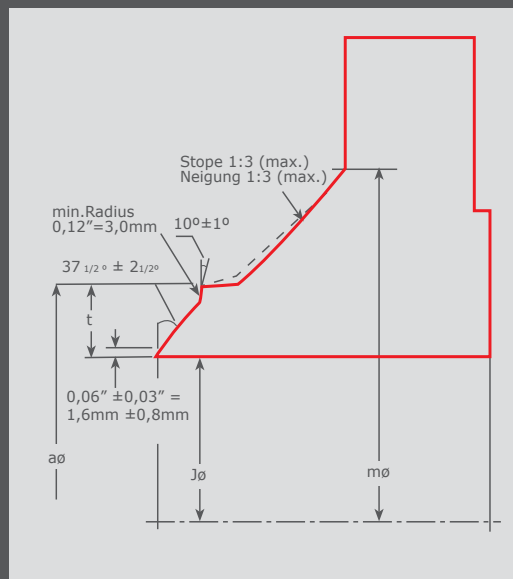
Facings, Dimensional Tolerances and Marking  
in acc. to ASME 816.47

### WELDING ENDS (WELDING NECK FLANGES)

a = Outside diameter of hub (top)  
t = Nominal pipe wall thickness  
J = Inside diameter  
m = Diameter of hub



Bevel for Wall Thicknesses (t) 0.19" to 0.55" inclusive

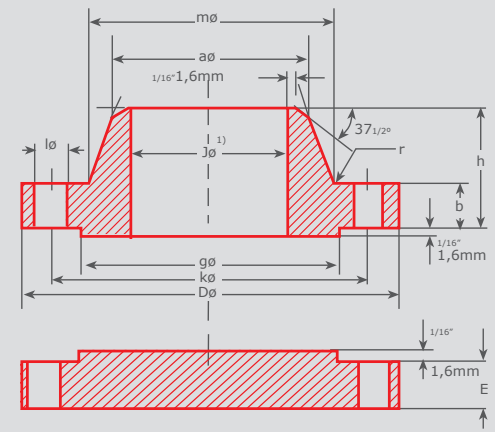


Bevel for Wall Thicknesses (t) greater than 0.55"

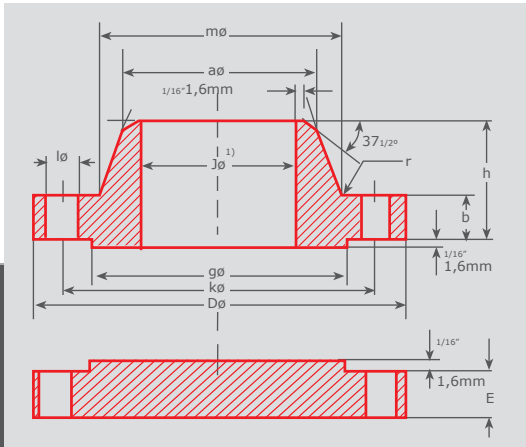
# 75 LB/SQ. IN.

## WELDING NECK & BLIND FLANGES

### ASME B 16.47 SERIES B



| Pipe         |              | Flange Dimensions |           |           |            | Hub          |              |           | Raised Face  | Drilling Template |           |              | Approx. Weight | Approx. Weight |
|--------------|--------------|-------------------|-----------|-----------|------------|--------------|--------------|-----------|--------------|-------------------|-----------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm    | D in. mm          | E in. mm  | b in. mm  | h in. mm   | a in. mm     | m in. mm     | r in. mm  | g in. mm     | Number            | I in. mm  | k in. mm     | Weld. N. Kilo  | Blind Kilo     |
| 26"          | 26 660,4     | 30 762,0          | 1,31 33,3 | 1,25 31,7 | 2,25 57,1  | 26,06 661,9  | 26,62 676,1  | 0,31 7,9  | 27,75 704,9  | 36                | 0,75 19,1 | 28,5 723,9   | 40             | 116            |
| 28"          | 28,0 711,2   | 32 812,8          | 1,31 33,3 | 1,25 31,7 | 2,38 60,4  | 28,06 712,7  | 28,62 726,9  | 0,31 7,9  | 29,75 755,7  | 40                | 0,75 19,1 | 30,5 774,7   | 44             | 132            |
| 30"          | 30 762,0     | 34 863,6          | 1,31 33,3 | 1,25 31,7 | 2,5 63,4   | 30,06 763,5  | 30,62 777,7  | 0,31 7,9  | 31,75 806,5  | 44                | 0,75 19,1 | 32,5 825,5   | 48             | 150            |
| 32"          | 32 812,8     | 36 914,4          | 1,44 36,6 | 1,32 33,5 | 2,69 68,3  | 32,06 814,3  | 32,62 828,5  | 0,31 7,9  | 33,75 857,3  | 48                | 0,75 19,1 | 34,5 876,3   | 54             | 177            |
| 34"          | 34 863,6     | 38 965,2          | 1,50 38,1 | 1,32 33,5 | 2,82 71,6  | 34,06 865,1  | 34,62 879,3  | 0,31 7,9  | 35,75 908,1  | 52                | 0,75 19,1 | 36,5 927,1   | 59             | 196            |
| 36"          | 36 914,4     | 40,69 1033,5      | 1,67 42,4 | 1,38 35   | 3,32 84,3  | 36,06 915,9  | 36,81 935,0  | 0,38 9,7  | 38 965,2     | 40                | 0,88 22,4 | 39,06 992,1  | 78             | 236            |
| 38"          | 38,00 965,2  | 42,69 1084,3      | 1,75 44,5 | 1,44 36,5 | 3,44 87,3  | 38,06 966,7  | 38,81 985,8  | 0,38 9,7  | 40 1016,0    | 40                | 0,88 22,4 | 41,06 1042,9 | 85             | 271            |
| 40"          | 40,00 1016,0 | 44,69 1135,1      | 1,75 44,5 | 1,44 36,5 | 3,56 90,3  | 40,06 1017,5 | 40,81 1036,6 | 0,38 9,7  | 42 1066,8    | 44                | 0,88 22,4 | 43,06 1093,7 | 93             | 346            |
| 42"          | 42 1066,8    | 46,69 1185,9      | 1,88 47,8 | 1,5 38    | 3,69 93,7  | 42,06 1068,3 | 42,81 1087,4 | 0,38 9,7  | 44 1117,6    | 48                | 0,88 22,4 | 45,06 1144,5 | 100            | 407            |
| 44"          | 44 1117,6    | 49,25 1251,0      | 1,94 49,3 | 1,63 41,3 | 4,06 103   | 44,06 1119,1 | 44,88 1140,0 | 0,38 9,7  | 46,25 1174,8 | 36                | 1,00 25,4 | 47,38 1203,5 | 113            | 484            |
| 46"          | 46 1168,4    | 51,25 1301,8      | 2,00 50,8 | 1,69 42,9 | 4,19 106,4 | 46,06 1169,9 | 46,88 1190,8 | 0,38 9,7  | 48,25 1225,6 | 40                | 1,00 25,4 | 49,38 1254,3 | 127            | 539            |
| 48"          | 48 1219,2    | 53,25 1352,6      | 2,12 53,8 | 1,75 44,4 | 4,32 109,7 | 48,06 1220,7 | 48,88 1241,6 | 0,38 9,7  | 50,25 1276,4 | 44                | 1,00 25,4 | 51,38 1305,1 | 141            | 598            |
| 50"          | 50,00 1270,0 | 55,25 1403,4      | 2,18 55,4 | 1,82 46,2 | 4,5 114,2  | 50,06 1271,5 | 50,94 1293,9 | 0,38 9,7  | 52,25 1327,2 | 44                | 1,00 25,4 | 53,38 1355,9 | 153            | 684            |
| 52"          | 52,00 1320,8 | 57,38 1457,5      | 2,25 57,2 | 1,82 46,2 | 4,69 119,1 | 52,06 1322,3 | 52,94 1344,7 | 0,38 9,7  | 54,25 1378,0 | 48                | 1,00 25,4 | 55,50 1409,7 | 160            | 758            |
| 54"          | 54,00 1371,6 | 59,38 1508,3      | 2,38 60,5 | 1,88 47,7 | 4,88 123,9 | 54,06 1373,1 | 55,00 1397,0 | 0,38 9,7  | 56,25 1428,8 | 48                | 1,00 25,4 | 57,50 1460,5 | 177            | 837            |
| 56"          | 56,00 1422,4 | 62,00 1574,8      | 2,44 62,0 | 1,94 49,2 | 5,25 133,3 | 56,06 1423,9 | 57,12 1450,8 | 0,44 11,2 | 58,50 1485,9 | 40                | 1,12 28,4 | 59,88 1521,0 | 198            | 959            |
| 58"          | 58,00 1473,2 | 64,00 1625,6      | 2,50 63,5 | 2 50,7    | 5,38 136,6 | 58,06 1474,7 | 59,12 1501,6 | 0,44 11,2 | 60,50 1536,7 | 44                | 1,12 28,4 | 61,88 1571,8 | 218            | 1046           |
| 60"          | 60,00 1524,0 | 66,00 1676,4      | 2,62 66,5 | 2,13 54   | 5,63 142,9 | 60,06 1525,5 | 61,12 1552,4 | 0,44 11,2 | 62,50 1587,5 | 44                | 1,12 28,4 | 63,88 1622,6 | 245            | 1137           |



150 LB/SQ. IN.

WELDING NECK & BLIND FLANGES

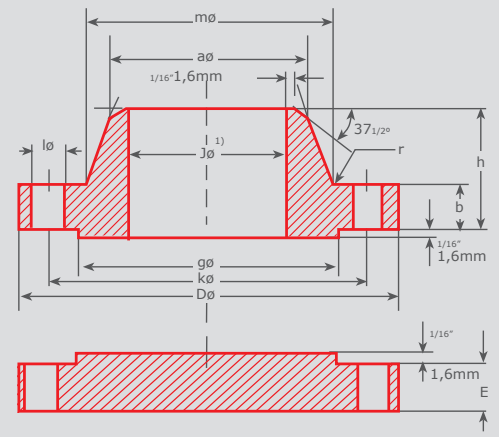
ASME B 16.47  
SERIES B

| Pipe         |              | Flange Dimensions |           |           |            | Hub          |              |           | Raised Face  | Drilling Template |           |              | Approx. Weight | Approx. Weight |
|--------------|--------------|-------------------|-----------|-----------|------------|--------------|--------------|-----------|--------------|-------------------|-----------|--------------|----------------|----------------|
| Nom. Size DN | OD in. mm    | D in. mm          | E in. mm  | b in. mm  | h in. mm   | a in. mm     | m in. mm     | r in. mm  | g in. mm     | Number            | I in. mm  | k in. mm     | Weld. N. Kilo  | Blind Kilo     |
| 26"          | 26 660,4     | 30,94 785,9       | 1,75 44,5 | 1,56 39,5 | 3,44 87,3  | 26,06 661,9  | 26,94 684,3  | 0,38 9,7  | 28 711,2     | 36                | 0,88 22,4 | 29,31 744,5  | 63             | 165            |
| 28"          | 28,0 711,2   | 32,94 836,7       | 1,88 47,8 | 1,69 42,9 | 3,69 93,7  | 28,06 712,7  | 28,94 735,1  | 0,38 9,7  | 30 762,0     | 40                | 0,88 22,4 | 31,31 795,3  | 74             | 200            |
| 30"          | 30 762,0     | 34,94 887,5       | 2,00 50,8 | 1,69 42,9 | 3,88 98,5  | 30,06 763,5  | 31 787,4     | 0,38 9,7  | 32 812,8     | 44                | 0,88 22,4 | 33,31 846,1  | 80             | 226            |
| 32"          | 32 812,8     | 37,06 941,3       | 2,12 53,8 | 1,75 44,4 | 4,19 106,4 | 32,06 814,3  | 33,06 839,7  | 0,38 9,7  | 34 863,6     | 48                | 0,88 22,4 | 35,44 900,2  | 92             | 263            |
| 34"          | 34 863,6     | 39,56 1004,8      | 2,25 57,2 | 1,88 47,7 | 4,28 108,6 | 34,06 865,1  | 35,12 892,0  | 0,38 9,7  | 36,25 920,8  | 40                | 1,00 25,4 | 37,69 957,3  | 113            | 320            |
| 36"          | 36 914,4     | 41,62 1057,1      | 2,31 58,7 | 2 50,7    | 4,56 115,7 | 36,06 915,9  | 37,19 944,6  | 0,38 9,7  | 38,25 971,6  | 44                | 1,00 25,4 | 39,75 1009,7 | 129            | 374            |
| 38"          | 38,00 965,2  | 44,25 1124,0      | 2,50 63,5 | 2,06 52,2 | 4,82 122,4 | 38,12 968,2  | 39,25 997,0  | 0,38 9,7  | 40,25 1022,4 | 40                | 1,12 28,4 | 42,12 1069,8 | 150            | 434            |
| 40"          | 40,00 1016,0 | 46,25 1174,8      | 2,62 66,5 | 2,13 54   | 5 126,9    | 40,12 1019,0 | 41,31 1049,3 | 0,38 9,7  | 42,5 1079,5  | 44                | 1,12 28,4 | 44,12 1120,6 | 162            | 489            |
| 42"          | 42 1066,8    | 48,25 1225,6      | 2,69 68,3 | 2,25 57,1 | 5,19 131,8 | 42,12 1069,8 | 43,38 1101,9 | 0,44 11,2 | 44,5 1130,3  | 48                | 1,12 28,4 | 46,12 1171,4 | 184            | 560            |
| 44"          | 44 1117,6    | 50,25 1276,4      | 2,81 71,4 | 2,32 58,9 | 5,32 135,1 | 44,12 1120,6 | 45,38 1152,7 | 0,44 11,2 | 46,5 1181,1  | 52                | 1,12 28,4 | 48,12 1222,2 | 192            | 626            |
| 46"          | 46 1168,4    | 52,81 1341,4      | 2,94 74,7 | 2,38 60,4 | 5,63 142,9 | 46,12 1171,4 | 47,44 1205,0 | 0,44 11,2 | 48,62 1234,9 | 40                | 1,25 31,8 | 50,56 1284,2 | 224            | 709            |
| 48"          | 48 1219,2    | 54,81 1392,2      | 3,06 77,7 | 2,5 63,4  | 5,82 147,8 | 48,12 1222,2 | 49,5 1257,3  | 0,44 11,2 | 50,75 1289,1 | 44                | 1,25 31,8 | 52,56 1335,0 | 231            | 799            |
| 50"          | 50,00 1270,0 | 56,51 1435,4      | 3,18 80,8 | 2,63 66,7 | 6 152,3    | 50,12 1273,0 | 51,50 1308,1 | 0,44 11,2 | 52,75 1339,9 | 48                | 1,25 31,8 | 54,56 1385,8 | 263            | 899            |
| 52"          | 52,00 1320,8 | 58,81 1493,8      | 3,31 84,1 | 2,69 68,3 | 6,13 155,6 | 52,12 1323,8 | 53,56 1360,4 | 0,44 11,2 | 54,75 1390,7 | 52                | 1,25 31,8 | 56,56 1436,6 | 285            | 985            |
| 54"          | 54,00 1371,6 | 61,00 1549,4      | 3,44 87,4 | 2,75 69,8 | 6,32 160,5 | 54,12 1374,6 | 55,62 1412,7 | 0,44 11,2 | 56,75 1441,5 | 56                | 1,25 31,8 | 58,75 1492,3 | 287            | 1081           |
| 56"          | 56,00 1422,4 | 63,00 1600,2      | 3,56 90,4 | 2,82 71,6 | 6,5 165    | 56,12 1425,4 | 57,69 1465,3 | 0,56 14,2 | 58,75 1492,3 | 60                | 1,25 31,8 | 60,75 1543,1 | 323            | 1181           |
| 58"          | 58,00 1473,2 | 65,94 1674,9      | 3,68 93,5 | 2,88 73,1 | 6,82 173,2 | 58,12 1476,2 | 59,69 1516,1 | 0,56 14,2 | 60,75 1543,1 | 48                | 1,38 35,1 | 63,44 1611,4 | 384            | 1322           |
| 60"          | 60,00 1524,0 | 67,94 1725,7      | 3,81 96,8 | 2,94 74,6 | 7 177,7    | 60,12 1527,0 | 61,81 1570,0 | 0,56 14,2 | 63,00 1600,2 | 52                | 1,38 35,1 | 65,44 1662,2 | 388            | 1430           |

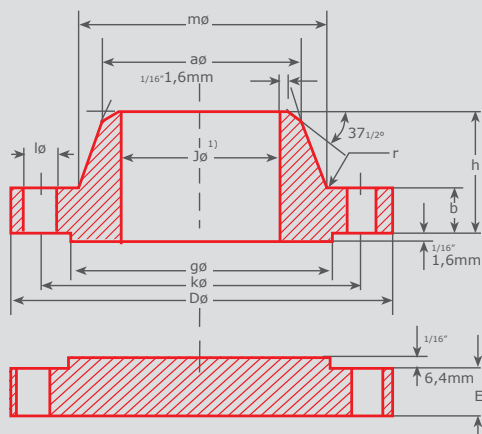
# 300 LB/SQ. IN.

## WELDING NECK & BLIND FLANGES

### ASME B 16.47 SERIES B



| Pipe               |                 | Flange Dimensions |                |                |                | Hub             |                 |                | Rai-<br>sed<br>Face | Drilling Template |                |                 | Approx.<br>Weight       | Approx.<br>Weight |
|--------------------|-----------------|-------------------|----------------|----------------|----------------|-----------------|-----------------|----------------|---------------------|-------------------|----------------|-----------------|-------------------------|-------------------|
| Nom.<br>Size<br>DN | OD<br>in.<br>mm | D<br>in.<br>mm    | E<br>in.<br>mm | b<br>in.<br>mm | h<br>in.<br>mm | a<br>in.<br>mm  | m<br>in.<br>mm  | r<br>in.<br>mm | g<br>in.<br>mm      | Num-<br>ber       | I<br>in.<br>mm | k<br>in.<br>mm  | Weld.<br>N.<br><br>Kilo | Blind<br><br>Kilo |
| 26"                | 26<br>660,4     | 34,12<br>866,6    | 3,50<br>88,9   | 3,44<br>87,3   | 5,63<br>142,9  | 26,19<br>665,2  | 27,62<br>701,5  | 0,56<br>14,2   | 29<br>736,6         | 32                | 1,38<br>35,1   | 31,62<br>803,1  | 181                     | 404               |
| 28"                | 28,0<br>711,2   | 36,25<br>920,8    | 3,50<br>88,9   | 3,44<br>87,3   | 5,82<br>147,8  | 28,19<br>716,0  | 29,75<br>755,7  | 0,56<br>14,2   | 31<br>787,4         | 36                | 1,38<br>35,1   | 33,75<br>857,3  | 203                     | 457               |
| 30"                | 30<br>762,0     | 39<br>990,6       | 3,69<br>93,7   | 3,63<br>92,1   | 6,16<br>156,4  | 30,25<br>768,4  | 32<br>812,8     | 0,56<br>14,2   | 33,25<br>844,6      | 36                | 1,50<br>38,1   | 36,25<br>920,8  | 268                     | 555               |
| 32"                | 32<br>812,8     | 41,5<br>1054,1    | 4,06<br>103,1  | 4<br>101,5     | 6,56<br>166,5  | 32,25<br>819,2  | 34<br>863,6     | 0,62<br>15,7   | 35,5<br>901,7       | 32                | 1,62<br>41,1   | 38,5<br>977,9   | 330                     | 693               |
| 34"                | 34<br>863,6     | 43,62<br>1107,9   | 4,06<br>103,1  | 4<br>101,5     | 6,75<br>171,4  | 34,25<br>870,0  | 36,12<br>917,4  | 0,62<br>15,7   | 37,5<br>952,5       | 36                | 1,62<br>41,1   | 40,62<br>1031,7 | 357                     | 765               |
| 36"                | 36<br>914,4     | 46,12<br>1171,4   | 4,06<br>103,1  | 4<br>101,5     | 7,06<br>179,2  | 36,25<br>920,8  | 38<br>965,2     | 0,62<br>15,7   | 39,75<br>1009,7     | 32                | 1,75<br>44,5   | 42,88<br>1089,2 | 405                     | 858               |
| 38"                | 38,00<br>965,2  | 48,12<br>1222,2   | 4,38<br>111,3  | 4,32<br>109,7  | 7,5<br>190,4   | 38,25<br>971,6  | 40,00<br>1016,0 | 0,62<br>15,7   | 41,75<br>1060,5     | 36                | 1,75<br>44,5   | 44,88<br>1140,0 | 416                     | 1005              |
| 40"                | 40,00<br>1016,0 | 50,12<br>1273,0   | 4,56<br>115,8  | 4,5<br>114,2   | 7,75<br>196,8  | 40,25<br>1022,4 | 42<br>1066,8    | 0,62<br>15,7   | 43,88<br>1114,6     | 40                | 1,75<br>44,5   | 46,88<br>1190,8 | 450                     | 1132              |
| 42"                | 42<br>1066,8    | 52,5<br>1333,5    | 4,69<br>119,1  | 4,63<br>117,5  | 8<br>203,1     | 42,31<br>1074,7 | 44<br>1117,6    | 0,62<br>15,7   | 46<br>1168,4        | 36                | 1,88<br>47,8   | 49<br>1244,6    | 502                     | 1280              |
| 44"                | 44<br>1117,6    | 54,5<br>1384,3    | 5<br>127,0     | 4,94<br>125,4  | 8,38<br>212,8  | 44,31<br>1125,5 | 46,19<br>1173,2 | 0,62<br>15,7   | 48<br>1219,2        | 40                | 1,88<br>47,8   | 51<br>1295,4    | 552                     | 1466              |
| 46"                | 46<br>1168,4    | 57,5<br>1460,5    | 5,12<br>130,1  | 5<br>126,9     | 8,69<br>220,7  | 46,31<br>1176,3 | 48,38<br>1228,9 | 0,62<br>15,7   | 50<br>1270,0        | 36                | 2,00<br>50,8   | 53,75<br>1365,3 | 650                     | 1657              |
| 48"                | 48<br>1219,2    | 59,5<br>1511,3    | 5,31<br>134,9  | 5<br>126,9     | 8,75<br>222,2  | 48,31<br>1227,1 | 50,31<br>1277,9 | 0,62<br>15,7   | 52,25<br>1327,2     | 40                | 2,00<br>50,8   | 55,75<br>1416,1 | 731                     | 1772              |
| 50"                | 50,00<br>1270,0 | 61,50<br>1562,1   | 5,50<br>139,7  | 5,38<br>136,6  | 9,19<br>233,4  | 50,31<br>1277,9 | 52,38<br>1330,5 | 0,62<br>15,7   | 54,25<br>1378,0     | 44                | 2,00<br>50,8   | 57,75<br>1466,9 | 760                     | 2029              |
| 52"                | 52,00<br>1320,8 | 63,50<br>1612,9   | 5,68<br>144,3  | 5,56<br>141,1  | 9,5<br>241,2   | 52,31<br>1328,7 | 54,44<br>1382,8 | 0,62<br>15,7   | 56,25<br>1428,8     | 48                | 2,00<br>50,8   | 59,75<br>1517,7 | 800                     | 2230              |
| 54"                | 54,00<br>1371,6 | 65,88<br>1673,4   | 5,88<br>149,4  | 5,32<br>135,1  | 9,38<br>238,2  | 54,31<br>1379,5 | 56,50<br>1435,1 | 0,62<br>15,7   | 58,25<br>1479,6     | 48                | 2,00<br>50,8   | 62,12<br>1577,8 | 898                     | 2310              |
| 56"                | 56,00<br>1422,4 | 69,50<br>1765,3   | 6,18<br>157,0  | 6<br>152,3     | 10,5<br>266,6  | 56,31<br>1430,3 | 58,81<br>1493,8 | 0,69<br>17,5   | 60,50<br>1536,7     | 36                | 2,38<br>60,5   | 65,00<br>1651,0 | 1143                    | 2891              |
| 58"                | 58,00<br>1473,2 | 71,94<br>1827,3   | 6,38<br>162,1  | 6<br>152,3     | 10,75<br>273   | 58,31<br>1481,1 | 60,94<br>1547,9 | 0,69<br>17,5   | 62,75<br>1593,9     | 40                | 2,38<br>60,5   | 67,44<br>1713,0 | 1217                    | 3093              |
| 60"                | 60,00<br>1524,0 | 73,94<br>1878,1   | 6,56<br>166,6  | 5,88<br>149,3  | 10,63<br>269,9 | 60,31<br>1531,9 | 62,94<br>1598,7 | 0,69<br>17,5   | 65,00<br>1651,0     | 40                | 2,38<br>60,5   | 69,44<br>1763,8 | 1311                    | 3213              |



# 400 LB/SQ. IN.

## WELDING NECK & BLIND FLANGES

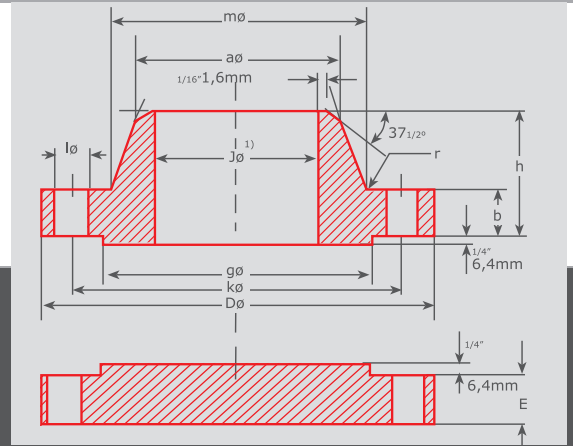
## ASME B 16.47 SERIES B

| Pipe         |            | Flange Dimensions |            |            |            | Hub      |             |           | Raised Face | Drilling Template |           |             | Approx. Weight | Approx. Weight |
|--------------|------------|-------------------|------------|------------|------------|----------|-------------|-----------|-------------|-------------------|-----------|-------------|----------------|----------------|
| Nom. Size DN | OD in. mm  | D in. mm          | E in. mm   | b in. mm   | h in. mm   | a in. mm | m in. mm    | r in. mm  | g in. mm    | Number            | I in. mm  | k in. mm    | Weld. N. Kilo  | Blind Kilo     |
| 26"          | 26 660,4   | 33,5 850,9        | 3,5 88,9   | 3,5 88,9   | 5,88 149,4 | 26 660,4 | 27,12 688,8 | 0,44 11,2 | 28 711,2    | 28                | 1,5 38,1  | 30,75 781,1 | 176            | 398            |
| 28"          | 28,0 711,2 | 36 914,4          | 3,75 95,3  | 3,75 95,3  | 6,25 158,8 | 28 711,2 | 29,12 739,6 | 0,5 12,7  | 30 762,0    | 24                | 1,62 41,1 | 33 838,2    | 216            | 492            |
| 30"          | 30 762,0   | 38,25 971,6       | 4 101,6    | 4 101,6    | 6,99 177,5 | 30 762,0 | 31,25 793,8 | 0,5 12,7  | 32,25 819,2 | 28                | 1,62 41,1 | 35,25 895,4 | 253            | 592            |
| 32"          | 32 812,8   | 40,75 1035,1      | 4,25 108,0 | 4,25 108,0 | 7,06 179,3 | 32 812,8 | 33,25 844,6 | 0,5 12,7  | 34,38 873,3 | 28                | 1,75 44,5 | 37,5 952,5  | 300            | 714            |
| 34"          | 34 863,6   | 42,75 1085,9      | 4,38 111,3 | 4,38 111,3 | 7,38 187,5 | 34 863,6 | 35,38 898,7 | 0,56 14,2 | 36,5 927,1  | 32                | 1,75 44,5 | 39,5 1003,3 | 327            | 810            |
| 36"          | 36 914,4   | 45,5 1155,7       | 4,69 119,1 | 4,69 119,1 | 7,88 200,2 | 36 914,4 | 37,5 952,5  | 0,56 14,2 | 38,62 980,9 | 28                | 1,88 47,8 | 42 1066,8   | 402            | 982            |

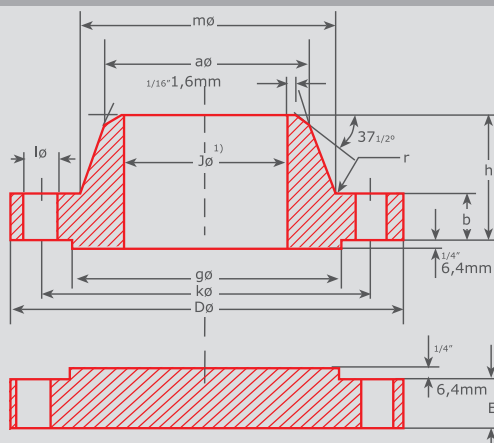
# 600 LB/SQ. IN.

## WELDING NECK & BLIND FLANGES

### ASME B 16.47 SERIES B



| Pipe         |               | Flange Dimensions |               |               |               | Hub         |                |              | Raised Face     | Drilling Template |              |                | Approx. Weight | Approx. Weight |
|--------------|---------------|-------------------|---------------|---------------|---------------|-------------|----------------|--------------|-----------------|-------------------|--------------|----------------|----------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm          | E in. mm      | b in. mm      | h in. mm      | a in. mm    | m in. mm       | r in. mm     | g in. mm        | Number            | I in. mm     | k in. mm       | Weld. N. Kilo  | Blind Kilo     |
| 26"          | 26<br>660,4   | 35<br>889,0       | 4,38<br>111,3 | 4,38<br>111,3 | 7,12<br>180,8 | 26<br>660,4 | 27,5<br>698,5  | 0,5<br>12,7  | 28,62<br>726,9  | 28                | 1,75<br>44,5 | 31,75<br>806,5 | 267            | 534            |
| 28"          | 28,0<br>711,2 | 37,5<br>952,5     | 4,56<br>115,8 | 4,56<br>115,8 | 7,5<br>190,5  | 28<br>711,2 | 29,62<br>752,3 | 0,5<br>12,7  | 30,88<br>784,4  | 28                | 1,88<br>47,8 | 34<br>863,6    | 326            | 637            |
| 30"          | 30<br>762,0   | 49,25<br>1022,4   | 5<br>127,0    | 4,94<br>125,5 | 8,06<br>204,7 | 30<br>762,0 | 31,75<br>806,5 | 0,5<br>12,7  | 33,12<br>841,2  | 28                | 2,00<br>50,8 | 36,5<br>927,1  | 402            | 793            |
| 32"          | 32<br>812,8   | 42,75<br>1085,9   | 5,31<br>134,9 | 5,12<br>130,0 | 8,5<br>215,9  | 32<br>812,8 | 33,88<br>860,6 | 0,5<br>12,7  | 35,25<br>895,4  | 28                | 2,12<br>53,8 | 38,75<br>984,3 | 462            | 925            |
| 34"          | 34<br>863,6   | 45,75<br>1162,1   | 5,68<br>144,3 | 5,56<br>141,2 | 9,19<br>233,4 | 34<br>863,6 | 36<br>914,4    | 0,56<br>14,2 | 37,5<br>952,5   | 24                | 2,38<br>60,5 | 41,5<br>1054,1 | 582            | 1150           |
| 36"          | 36<br>914,4   | 47,75<br>1212,9   | 5,94<br>150,9 | 5,75<br>146,1 | 9,56<br>242,8 | 36<br>914,4 | 38,12<br>968,2 | 0,56<br>14,2 | 39,75<br>1009,7 | 28                | 2,38<br>60,5 | 43,5<br>1104,9 | 627            | 1290           |

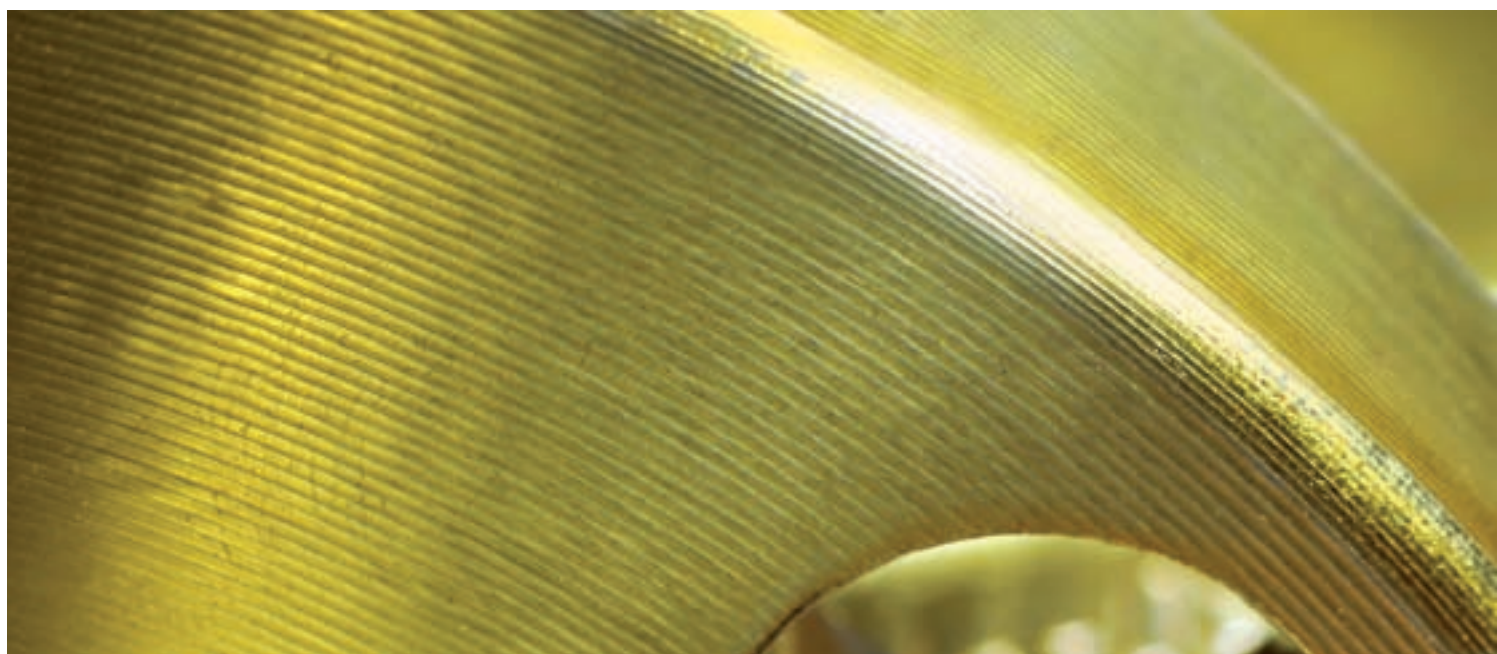


# 900 LB/SQ. IN.

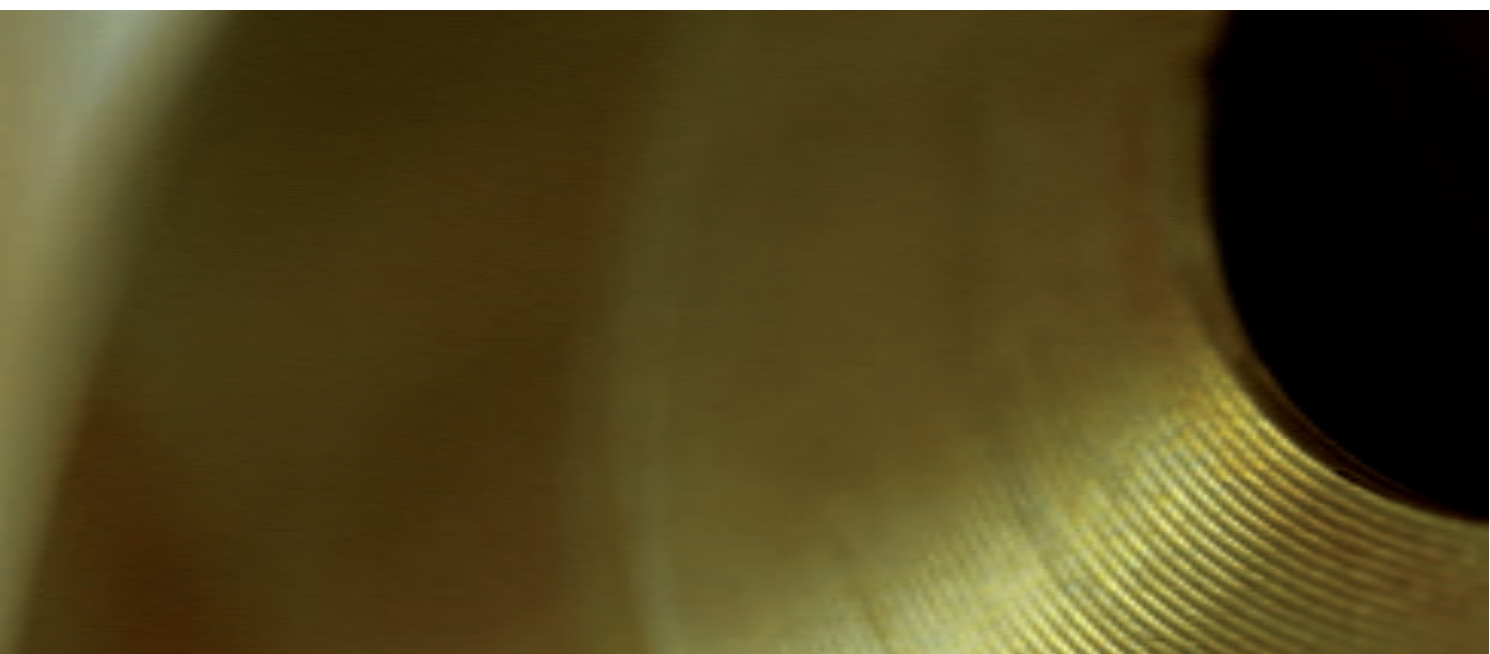
## WELDING NECK & BLIND FLANGES

## ASME B 16.47 SERIES B

| Pipe         |               | Flange Dimensions |               |               |                | Hub         |                |              | Raised Face    | Drilling Template |              |                 | Approx. Weight | Approx. Weight |
|--------------|---------------|-------------------|---------------|---------------|----------------|-------------|----------------|--------------|----------------|-------------------|--------------|-----------------|----------------|----------------|
| Nom. Size DN | OD in. mm     | D in. mm          | E in. mm      | b in. mm      | h in. mm       | a in. mm    | m in. mm       | r in. mm     | g in. mm       | Number            | I in. mm     | k in. mm        | Weld. N. Kilo  | Blind Kilo     |
| 26"          | 26<br>660.4   | 40,25<br>1022,4   | 6,06<br>153,9 | 5,31<br>134,9 | 10,19<br>258,8 | 26<br>660,4 | 29,25<br>743,0 | 0,44<br>11,2 | 30<br>762,0    | 20                | 2,62<br>66,5 | 35,5<br>901,7   | 564            | 993            |
| 28"          | 28,0<br>711,2 | 43,5<br>1104,9    | 6,56<br>166,6 | 5,81<br>147,6 | 10,88<br>276,4 | 28<br>711,2 | 31,38<br>797,1 | 0,5<br>12,7  | 32,25<br>819,2 | 20                | 2,88<br>73,2 | 38,25<br>971,6  | 706            | 1256           |
| 30"          | 30<br>762.0   | 46.5<br>1181,1    | 6,93<br>176,0 | 6,12<br>155,4 | 11,38<br>289,1 | 30<br>762,0 | 33,5<br>850,9  | 0,5<br>12,7  | 34,5<br>876,3  | 20                | 3,12<br>79,2 | 40,75<br>1035,1 | 833            | 1516           |
| 32"          | 32<br>812,8   | 48,75<br>1238,3   | 7,31<br>185,7 | 6,31<br>160,3 | 11,94<br>303,3 | 32<br>812,8 | 35,75<br>908,1 | 0,5<br>12,7  | 36,5<br>927,1  | 20                | 3,12<br>79,2 | 43<br>1092,2    | 919            | 1757           |
| 34"          | 34<br>863.6   | 51,75<br>1314,5   | 7,68<br>195,1 | 6,75<br>171,5 | 12,56<br>319,0 | 34<br>863,6 | 37,88<br>962,2 | 0,56<br>14,2 | 39<br>990,6    | 20                | 3,38<br>85,9 | 45,5<br>1155,7  | 1105           | 2080           |
| 36"          | 36<br>914,4   | 53<br>1346,2      | 7,94<br>201,7 | 6,81<br>173,0 | 12,81<br>325,4 | 36<br>914,4 | 40<br>1016,0   | 0,56<br>14,2 | 40,5<br>1028,7 | 24                | 3,12<br>79,2 | 47,25<br>1200,2 | 1124           | 2256           |



## APPENDIX



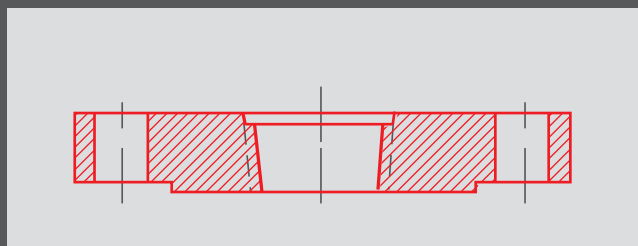
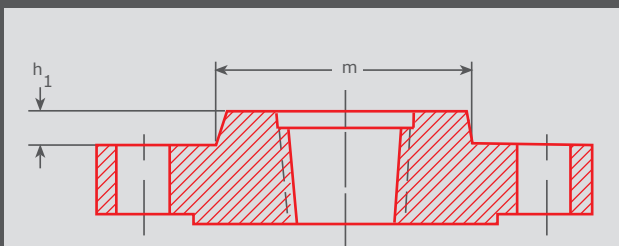
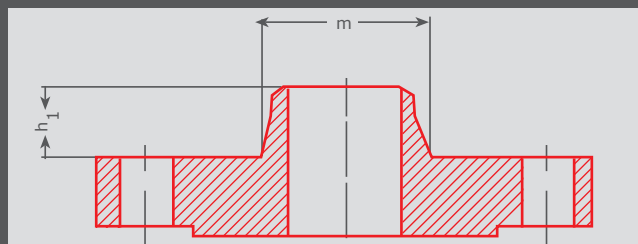
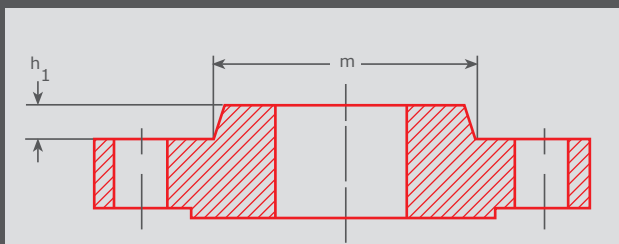
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# 150 - 2500 LB/SQ. IN.

## REDUCING FLANGES

### ASME B 16.5

| Nominal Pipe Size | Minimum Bore or Tapping of Hub Flange | Nominal Pipe Size | Minimum Bore or Tapping of Hub Flange | Nominal Pipe Size | Minimum Bore or Tapping of Hub Flange |
|-------------------|---------------------------------------|-------------------|---------------------------------------|-------------------|---------------------------------------|
| DN                |                                       | DN                |                                       | DN                |                                       |
|                   |                                       | 3 1/2"            | 1 1/2"                                |                   |                                       |
| 1"                | 1/2"                                  | 4"                | 1 1/2"                                | 14"               | 3 1/2"                                |
| 1 1/4"            | 1/2"                                  | 5"                | 1 1/2"                                | 16"               | 4"                                    |
| 1 1/2"            | 1/2"                                  | 6"                | 2 1/2"                                | 18"               | 4"                                    |
| 2"                | 1"                                    | 8"                | 3"                                    | 20"               | 4"                                    |
| 2 1/2"            | 1 1/4"                                | 10"               | 3 1/3"                                |                   |                                       |
| 3"                | 1 1/4"                                | 12"               | 3 1/3"                                | 24"               | 4"                                    |



#### Dimensional References

##### Outside Diameter, Thickness, Facing and Drilling Template:

All these dimensions correspond exactly with those of the full size flange of the nominal pipe size from which the reduction is being made.

As in the case of regular full size flanges, the 1/16" Raised Face on 150 lb. and 300 lb. reducing flanges is included in thickness. The 1/4" Raised Face on flanges in the 400 lb. and higher Pressure Standards is not included in thicknesses. Any other facing can be furnished.

##### Hub Diameter and Height:

For Reducing Slip-on and Threaded flanges, regardless of the amount of reduction, the hub diameter at base (m) and height of hub (h<sub>1</sub>) are the same as those of a full size flange of the same type and Pressure Standard, but one nominal pipe size smaller than the size from which the reduction is being made. For Reducing Welding Neck flanges hub dimensions are the same as those of a full size flange of the nominal pipe size (and Pressure Standard) to which the reduction is being made.

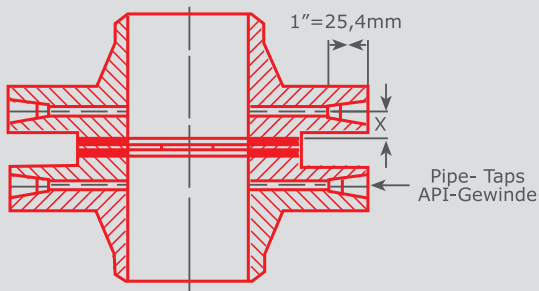
##### Bore:

Reducing Slip-on flanges are bored to the same diameters as full size flanges of the size (and Pressure Standard) to which the reduction is made. Reducing Threaded flanges in the 150 lb. Standard do not require a counterbore. On 300 lb. and higher Pressure Standards depth of counterbore is 1/4" for tappings 2" and smaller and 3/8" for tappings 2 1/2" and larger. Counter-bore diameters are the same as for full size flanges of identical tapping.

##### Minimum Bores:

The smallest sizes to which hubbed flanges can be bored are listed in the above table. For reductions to sizes smaller than listed, BLIND FLANGES are furnished bored or tapped to required nominal pipe size.

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## 300-2500 LB/SQ.IN ORIFICE FLANGES

Orifice Flanges are ruled in ASME/ANSI B 16.36.

In various fields (facing, marking etc.) they are in accordance with ASME/ANSI B 16.5.

### sizes: Threaded Orifice Flange:

300 lbs 1" - 8"

### Slip-on Orifice Flange:

300 lbs 1" - 24"

### Welding Neck Orifice Flange:

300 lbs 1" - 24"

400 lbs 4" - 24"

600 lbs 1" - 24"

900 lbs 3" - 24"

1500 lbs 1" - 24"

2500 lbs 1" - 12"

The minimum flange thickness is 38.1 mm. The overall length of hub increases in the same way as the flange thickness.

Tolerances on all dimensions shall be as shown in ASME/ANSI B 16.5 except for:

### 1. Pressure tap location:

Tolerance on location of centre of pressure tap hole from flange faces shall be:

- flange smaller than 4"  $\pm 0.02$ "
- flange 4" and larger  $\pm 0.03$ "

### 2. Inside diameter:

Bore diameter tolerance (welding neck flanges only) is  $\pm 0.5$  % of nominal value.

Height of RF-Orifice Flanges 600 lbs 1" - 3" is 0.06".

Each Orifice Flange is provided with 2 pressures tap holes 1/2" NPT, displaced by 180°.

Each hole shall be equipped with a pipe plug. Tap hole diameters are:

Orifice Flanges

|               |         |
|---------------|---------|
| 1" - 2 1/2 "  | 6,4 mm  |
| 3"            | 9,5mm   |
| 4" and larger | 12,7 mm |

The distance x from the centre line of the hole to the face is for RF-Flanges 23.8 mm and for all RT J-

Flanges 19.1 mm and shall be measured at the bore. For depth of groove 11.1 mm or larger there are due to insufficient material between groove and pressure tap hole modifications of diameter of hole or type of hole necessary.

Each Flange shall have a machine bolt mounted in a hole drilled on the flange centre line at 90° from the pressure taps, for use as jackscrew. Machine bolt shall be regular with one heavy hex nut.

The depth of the slot shall admit the nut so that there is no interference with the joining of the flanges when bolted together without orifice plate.

MATERIALS

CHEMICAL REQUIREMENTS

|  | C | Mn | Si | P | S | Cr | Ni | Mo | Nb | V | Cu | Al | Ti | Other elem. | TENSILE STRENGTH | YIELD STRENGTH | HARD-NESS | IMPACT TEST | HEAT TREATMENT |
|--|---|----|----|---|---|----|----|----|----|---|----|----|----|-------------|------------------|----------------|-----------|-------------|----------------|
|  |   |    |    |   |   |    |    |    |    |   |    |    |    |             | KSI              | N/mm           | HB        | oC          | Joules         |

CARBON STEEL

|              |           |           |           |       |       |      |      |      |      |      |      |             |         |  |       |         |     |     |         |    |  |    |
|--------------|-----------|-----------|-----------|-------|-------|------|------|------|------|------|------|-------------|---------|--|-------|---------|-----|-----|---------|----|--|----|
| A105N        | 0,35      | 0,60-1,35 | 0,10-0,35 | 0,035 | 0,040 | 0,30 | 0,40 | 0,12 |      | 0,08 | 0,40 |             |         |  | 70    | 485     | 36  | 250 | 137-187 |    |  | N  |
| C21          | 0,18-0,23 | 0,8-1,35  | 0,15-0,35 | 0,035 | 0,030 | 0,30 | 0,40 | 0,12 | 0,02 | 0,03 | 0,40 |             |         |  | 70-91 | 485-630 | 36  | 250 | 137-187 | 20 |  | 31 |
| BF48N        | 0,23      | 0,70-1,35 | 0,15-0,30 | 0,035 | 0,035 |      | 1,45 |      |      |      |      |             |         |  | 67-86 | 470-600 | 37  | 255 | 137-187 |    |  | N  |
| CSAGR248CATI | 0,35      | 1,35      | 0,35      | 0,050 | 0,060 | 0,30 | 0,40 | 0,12 | 0,05 | 0,10 | 0,40 |             |         |  | 60    | 414     | 358 | 248 | 137-187 |    |  | N  |
| ESPULMA      | 0,18-0,21 | 0,80-1,10 | 0,15-0,30 | 0,020 | 0,010 | 0,30 | 0,40 | 0,12 | 0,02 | 0,03 | 0,40 | 0,020-0,050 | N:0,012 |  | 70    | 485     | 36  | 250 | 137-187 | 20 |  | 37 |

CARBON AND ALLOY STEEL FOR LOW TEMPERATURE

|               |      |           |           |       |       |      |         |      |      |           |      |  |  |             |        |         |    |     |         |      |    |       |
|---------------|------|-----------|-----------|-------|-------|------|---------|------|------|-----------|------|--|--|-------------|--------|---------|----|-----|---------|------|----|-------|
| A350LF2Class1 | 0,30 | 0,60-1,35 | 0,15-0,30 | 0,035 | 0,040 | 0,30 | 0,40    | 0,12 | 0,02 | 0,08      | 0,40 |  |  |             | 70-95  | 485-655 | 36 | 250 | 137-197 | -46  | 20 | N     |
| A350LF2Class2 | 0,30 | 0,60-1,35 | 0,15-0,30 | 0,035 | 0,040 | 0,30 | 0,40    | 0,12 | 0,02 | 0,08      | 0,40 |  |  |             | 70-95  | 485-655 | 36 | 250 | 137-197 | -18  | 27 | N     |
| BF48F         | 0,20 | 0,90-1,40 | 0,35      | 0,030 | 0,020 |      | 0,45    |      |      |           |      |  |  |             | 67-86  | 470-600 | 37 | 255 | 137-187 | -46  | 21 | N     |
| CSAGR248CATI  | 0,35 | 1,35      | 0,35      | 0,050 | 0,060 | 0,30 | 0,40    | 0,12 | 0,05 | 0,10      | 0,40 |  |  |             | 60     | 414     | 36 | 248 | 137-197 | -46  | 27 | N     |
| A350LF3Class1 | 0,20 | 0,90      | 0,20-0,35 | 0,035 | 0,040 | 0,30 | 3,3-3,7 | 0,12 | 0,02 | 0,03      | 0,40 |  |  |             | 70-95  | 485-655 | 38 | 260 | 137-197 | -101 | 20 | N     |
| A350LF3Class2 | 0,20 | 0,90      | 0,20-0,35 | 0,035 | 0,040 | 0,30 | 3,3-3,7 | 0,12 | 0,02 | 0,03      | 0,40 |  |  |             | 70-95  | 485-655 | 38 | 260 | 137-197 | -101 | 27 | N     |
| A350LF6Class1 | 0,22 | 1,15-1,50 | 0,15-0,30 | 0,025 | 0,025 | 0,30 | 0,40    | 0,12 | 0,02 | 0,04-0,11 | 0,40 |  |  | N:0,01-0,03 | 66-91  | 455-630 | 52 | 360 | 137-197 | -51  | 20 | N     |
| A350LF6Class2 |      |           |           | 0,025 | 0,025 | 0,30 | 0,40    | 0,12 | 0,02 | 0,04-0,11 | 0,40 |  |  |             | 75-100 | 515-690 | 60 | 415 | 137-197 | -51  | 27 | N     |
| A350LF6Class3 |      |           |           | 0,025 | 0,025 | 0,30 | 0,40    | 0,12 | 0,02 |           |      |  |  |             | 75-100 | 515-690 | 60 | 415 | 137-197 | -18  | 27 | N     |
| A707L3Class3  | 0,22 | 1,15-1,50 | 0,30      | 0,025 | 0,025 | 0,30 | 0,40    | 0,12 | 0,02 | 0,04-0,11 | 0,20 |  |  | N:0,01-0,03 | 75     | 515     | 60 | 415 | 156-235 | -46  | 68 | Q & T |
| A707L3Class4  |      |           |           | 0,025 | 0,025 | 0,30 | 0,40    | 0,12 | 0,02 |           |      |  |  |             | 90     | 620     | 75 | 515 | 179-265 | -46  | 68 | Q & T |

CARBON STEEL FOR HIGH YIELD

|         |      |      |           |       |       |  |  |  |  |  |  |  |  |  |    |     |    |     |  |  |  |  |  |
|---------|------|------|-----------|-------|-------|--|--|--|--|--|--|--|--|--|----|-----|----|-----|--|--|--|--|--|
| A694F42 | 0,26 | 1,40 | 0,15-0,35 | 0,025 | 0,025 |  |  |  |  |  |  |  |  |  | 60 | 415 | 42 | 290 |  |  |  |  |  |
| A694F52 |      |      |           | 0,025 | 0,025 |  |  |  |  |  |  |  |  |  | 66 | 455 | 52 | 360 |  |  |  |  |  |
| A694F60 |      |      |           | 0,025 | 0,025 |  |  |  |  |  |  |  |  |  | 75 | 515 | 60 | 415 |  |  |  |  |  |
| A694F65 |      |      |           | 0,025 | 0,025 |  |  |  |  |  |  |  |  |  | 77 | 530 | 65 | 455 |  |  |  |  |  |
| A694F70 |      |      |           | 0,025 | 0,025 |  |  |  |  |  |  |  |  |  | 82 | 565 | 70 | 485 |  |  |  |  |  |

LOW ALLOY STEEL

|                 |           |           |           |       |       |       |           |           |           |           |  |       |  |  |    |     |    |     |         |  |  |       |
|-----------------|-----------|-----------|-----------|-------|-------|-------|-----------|-----------|-----------|-----------|--|-------|--|--|----|-----|----|-----|---------|--|--|-------|
| A182F1          | 0,28      | 0,60-0,90 | 0,15-0,35 | 0,045 | 0,045 |       |           | 0,44-0,65 |           |           |  |       |  |  | 70 | 485 | 40 | 275 | 143-192 |  |  | N & T |
| A182F5          | 0,15      | 0,30-0,60 | 0,50      | 0,030 | 0,030 | 4-6   | 0,50      | 0,44-0,65 |           |           |  |       |  |  | 70 | 485 | 40 | 275 | 143-217 |  |  | N & T |
| A182F5a         | 0,25      | 0,60      | 0,50      | 0,040 | 0,030 | 4-6   | 0,50      | 0,44-0,65 |           |           |  |       |  |  | 90 | 620 | 65 | 450 | 187-248 |  |  | N & T |
| A182F9          | 0,15      | 0,30-0,60 | 0,50-1    | 0,030 | 0,030 |       | 0,90-1,10 |           |           |           |  |       |  |  | 85 | 585 | 55 | 380 | 179-217 |  |  | N & T |
| A182F91         | 0,08-0,12 | 0,30-0,60 | 0,20-0,50 | 0,020 | 0,010 | 8-9,5 | 0,40      | 0,85-1,05 | 0,06-0,10 | 0,18-0,25 |  | 0,040 |  |  | 85 | 585 | 60 | 415 | 248     |  |  | N & T |
| A182F11Class1   | 0,05-0,15 | 0,30-0,60 | 0,50-1    | 0,030 | 0,030 | 1-1,5 |           | 0,44-0,65 |           |           |  |       |  |  | 60 | 415 | 30 | 205 | 121-174 |  |  | N & T |
| A182F11Class2   | 0,10-0,20 | 0,30-0,60 | 0,50-1    | 0,040 | 0,040 | 1-1,5 |           | 0,44-0,65 |           |           |  |       |  |  | 70 | 485 | 40 | 275 | 143-207 |  |  | N & T |
| A182F22Class1y3 | 0,05-0,15 | 0,30-0,60 | 0,50      | 0,040 | 0,040 | 2-2,5 |           | 0,87-1,13 |           |           |  |       |  |  | 75 | 515 | 45 | 310 | 156-207 |  |  | N & T |

# MATERIALS

## CHEMICAL REQUIREMENTS

| CHEMICAL REQUIREMENTS      |           |      |      |       |       |       |       |     |    |            |     |    |           |             |     |      |     |      | TENSILE STRENGTH |    | YIELD STRENGTH |   | HARD-NESS |  | IMPACT TEST |  | HEAT TREATMENT |
|----------------------------|-----------|------|------|-------|-------|-------|-------|-----|----|------------|-----|----|-----------|-------------|-----|------|-----|------|------------------|----|----------------|---|-----------|--|-------------|--|----------------|
|                            | C         | Mn   | Si   | P     | S     | Cr    | Ni    | Mo  | Nb | V          | Cu  | Al | Ti        | Other elem. | KSI | N/mm | KSI | N/mm | HB               | oC | Joules         |   |           |  |             |  |                |
| AUSTENITIC STAINLESS STEEL |           |      |      |       |       |       |       |     |    |            |     |    |           |             |     |      |     |      |                  |    |                |   |           |  |             |  |                |
| A182F304                   | 0,08      | 2,00 | 1,00 | 0,045 | 0,030 | 18-20 | 8-11  |     |    |            |     |    |           |             | 75  | 515  | 30  | 205  |                  |    |                | A |           |  |             |  |                |
| A182F304H                  | 0,04-0,10 | 2,00 | 1,00 | 0,045 | 0,030 | 18-20 | 8-11  |     |    |            |     |    |           |             | 75  | 515  | 30  | 205  |                  |    |                | A |           |  |             |  |                |
| A182F304L                  | 0,03      | 2,00 | 1,00 | 0,045 | 0,030 | 18-20 | 8-13  |     |    |            |     |    |           |             | 70  | 485  | 25  | 170  |                  |    |                | A |           |  |             |  |                |
| A182F316                   | 0,08      | 2,00 | 1,00 | 0,045 | 0,030 | 16-18 | 10-14 | 2-3 |    |            |     |    |           |             | 75  | 515  | 30  | 205  |                  |    |                | A |           |  |             |  |                |
| A182F316H                  | 0,04-0,10 | 2,00 | 1,00 | 0,045 | 0,030 | 16-18 | 10-14 | 2-3 |    |            |     |    |           |             | 75  | 515  | 30  | 205  |                  |    |                | A |           |  |             |  |                |
| A182F316L                  | 0,03      | 2,00 | 1,00 | 0,045 | 0,030 | 16-18 | 10-15 | 2-3 |    |            |     |    |           |             | 70  | 485  | 25  | 170  |                  |    |                | A |           |  |             |  |                |
| A182F321                   | 0,08      | 2,00 | 1,00 | 0,045 | 0,030 | 17-19 | 9-12  |     |    |            |     |    | 5x%C-0,70 |             | 75  | 515  | 30  | 205  |                  |    |                | A |           |  |             |  |                |
| A182F321H                  | 0,04-0,10 | 2,00 | 1,00 | 0,045 | 0,030 | 17-19 | 9-12  |     |    |            |     |    | 4x%C-0,70 |             | 75  | 515  | 30  | 205  |                  |    |                | A |           |  |             |  |                |
| A182F347                   | 0,08      | 2,00 | 1,00 | 0,045 | 0,030 | 17-20 | 9-13  |     |    | 10x%C-1,10 |     |    |           |             | 75  | 515  | 30  | 205  |                  |    |                | A |           |  |             |  |                |
| A182F347H                  | 0,04-0,10 | 2,00 | 1,00 | 0,045 | 0,030 | 17-20 | 9-13  |     |    | 8x%C-1,10  |     |    |           |             | 75  | 515  | 30  | 205  |                  |    |                | A |           |  |             |  |                |
| A182F904L                  | 0,02      | 2,00 | 1,00 | 0,040 | 0,030 | 19-23 | 23-28 | 4-5 |    |            | 1-2 |    |           | N:0,10      | 71  | 490  | 31  | 215  |                  |    |                | A |           |  |             |  |                |

## FERRITIC- AUSTENITIC STAINLESS STEEL (DUPLEX)

|          |      |         |      |       |       |       |         |         |  |           |  |  |  |             |         |         |    |     |     |   |
|----------|------|---------|------|-------|-------|-------|---------|---------|--|-----------|--|--|--|-------------|---------|---------|----|-----|-----|---|
| A182F50  | 0,03 | 2,00    | 1,00 | 0,045 | 0,030 | 24-26 | 5,5-6,5 | 1,2-2   |  |           |  |  |  | N:0,14-0,2  | 100-130 | 690-900 | 65 | 450 |     | A |
| A182F51  | 0,03 | 2,00    | 1,00 | 0,030 | 0,020 | 21-23 | 4,5-6,5 | 2,5-3,5 |  |           |  |  |  | N:0,08-0,2  | 90      | 620     | 65 | 450 |     | A |
| A182F52  | 0,03 | 2,00    | 0,60 | 0,035 | 0,010 | 26-29 | 3,5-5,2 | 1-2,5   |  |           |  |  |  | N:0,15-0,35 | 100     | 690     | 70 | 485 |     | A |
| A182F53  | 0,03 | 1,20    | 0,80 | 0,035 | 0,020 | 24-26 | 6-8     | 3-5     |  | 0,50      |  |  |  | N:0,24-0,32 | 116     | 800     | 80 | 550 | 310 | A |
| A182F54* | 0,03 | 1,00    | 0,80 | 0,030 | 0,020 | 24-26 | 6-8     | 2,5-3,5 |  | 0,20-0,80 |  |  |  | N:0,24-0,32 | 116     | 800     | 80 | 550 | 310 | A |
| A182F55* | 0,03 | 1,00    | 1,00 | 0,030 | 0,010 | 24-26 | 6-8     | 3-4     |  | 0,50-1    |  |  |  | N:0,20-0,3  | 109-130 | 750-895 | 80 | 550 |     | A |
| A182F57* | 0,03 | 0,80    | 0,80 | 0,025 | 0,002 | 24-26 | 6,5-8   | 3-4     |  | 1,2-2     |  |  |  | N:0,23-0,33 | 118     | 820     | 85 | 585 |     | A |
| A182F59  | 0,03 | 1,50    | 0,80 | 0,035 | 0,020 | 24-26 | 5,5-8   | 3-5     |  | 0,5-3     |  |  |  | N:0,20-0,35 | 112     | 770     | 80 | 550 |     | A |
| A182F60  | 0,03 | 2,00    | 1,00 | 0,030 | 0,020 | 22-23 | 4,5-6,5 | 3-3,5   |  |           |  |  |  | N:0,14-0,2  | 95      | 655     | 70 | 485 |     | A |
| A182F61  | 0,04 | 1,50    | 1,00 | 0,040 | 0,030 | 24-27 | 4,5-6,5 | 2,9-3,9 |  | 1,5-2,5   |  |  |  | N:0,10-0,25 | 109     | 750     | 80 | 550 |     | A |
| A182F65  | 0,03 | 0,8-1,5 | 0,80 | 0,030 | 0,030 | 28-30 | 5,8-7,5 | 1,5-2,6 |  | 0,80      |  |  |  | N:0,30-0,4  | 109     | 750     | 80 | 550 |     | A |

(\*) TUNGSTEN (W) REQUIRED

N = NORMALIZED  
Q = QUENCHED  
T = TEMPERED  
A = ANNEALED

CHEMICAL REQUIREMENTS ARE MAXIMUM AND MECHANICAL REQUIREMENTS ARE MINIMUM







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