



# SHREE ARBUDA STEEL

"QUALITY MAKERS"

Manufacturers & Stockist, Suppliers of Stainless Steel Forge Flanges, Forge Fitting in all Grade, Size & Shape, Ferrous & Non-Ferrous Metals.





# SHREE ARBUDA STEEL

Mobile : +91 8108105140 / 8850182889



## Company Profile



**Shree Arbuda Steel** was founded, it has been our mission to not only manufacture butt weld fittings, long radius (3D, 5D, Customized) bends and large diameter welded 2 Halves Pipe Fittings but also provide complete piping package solutions to our customers.

By flexibility, skill, experience and dedication to our work as well as long-standing relationships with leading manufacturers for all piping related products, we have become over the years a well-known and leading supplier to EPC and End users across the globe.

We have also become a ONE STOP SHOP for reliable Indian origin Piping Supplies for various stockists and traders around the world. Hard-to-find items, short delivery times, rare material grades and similar tasks are just as much our daily business as standard items from mass production. We find solutions for your individual requirements.

We have our own in-house inspection and commissioning staff enabling us to satisfy each customer's individual logistical requirements.

## Quality Policy

Quality is our mission, the quality policy is our main tool in achieving it.  
Utmost Satisfaction of client's expectation.  
Innovative, Cost and time effective services  
Consistent and Continuous quality improvement  
Fulfillments of defined quality objective targets  
Develop the organization as an International for excellence  
Continuous evaluation of market to explore challenging areas of operation

The group is determined to improve productivity and focus continuously on and people



### Testing Facility Available

- Chemical Analysis
- Mechanical Tests
- Metallography Test
- Hydrostatic
- Corrosion Test
- Ultrasonic Test
- Radiography
- Miscellaneous Test

Email: [shreearbudasteel@gmail.com](mailto:shreearbudasteel@gmail.com) / [export@shreearbudasteel.com](mailto:export@shreearbudasteel.com) • Website : [www.shreearbudasteel.com](http://www.shreearbudasteel.com)



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## FLANGES.....



|                                  |                                                                          |
|----------------------------------|--------------------------------------------------------------------------|
| <b>Stainless Steel</b>           | : ASTM A182, F304, 304L, 304H, 316, 316L, 317, 317L, 321, 310, 347, 904L |
| <b>Carbon Steel</b>              | : ASTM A105, A694 F42, A350 Lf2                                          |
| <b>Duplex &amp; Super Duplex</b> | : UNS S31803, UNS S32750, UNS S32760,                                    |
| <b>Hastelloy Alloy</b>           | : ASTM B564 Hastelloy B2, C276, C22                                      |
| <b>Incoloy Alloys</b>            | : ASTM B564 Alloy 20, Alloy A286<br>Alloy 800H/800HT, Alloy 825,         |
| <b>Inconel Alloys</b>            | : ASTM B564 Alloy 600, Alloy 601, Alloy 625, Alloy 718, Alloy 725,       |
| <b>Monel Alloys</b>              | : ASTM B564 Monel 400, Monel K500.                                       |
| <b>Alloy Steel</b>               | : ASTM A182 F1, F5, F9, F11, F22, F91                                    |
| <b>Size</b>                      | : 1/2" NB TO 72" NB                                                      |
| <b>Class</b>                     | : 150#, 300#, 600#, 900#, 1500# & 2500#.                                 |

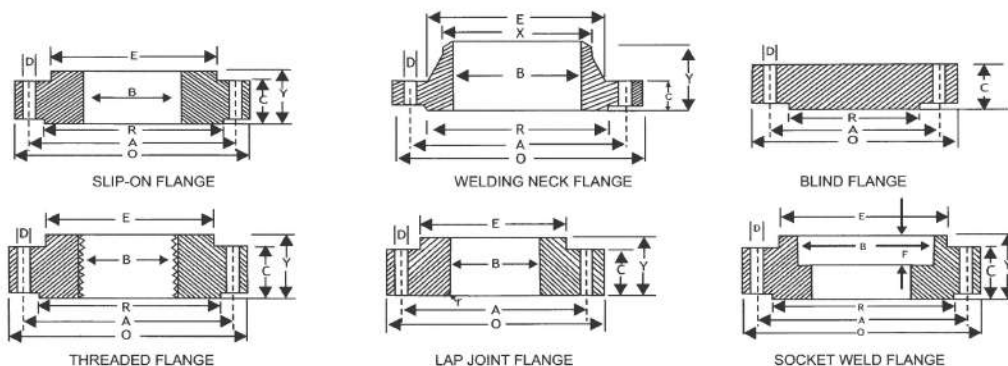
### TYPE

- |                         |                                    |
|-------------------------|------------------------------------|
| ● SLIP-ON FLANGE        | ● THREADED FLANGE                  |
| ● LAP JOINT FLANGE      | ● SOCKETWELD FLANGE                |
| ● WELDNECK FLANGE       | ● BLIND FLANGE (DUMMY FLANGE)      |
| ● ORIFACE FLANGE        | ● RTJ FLANGE                       |
| ● LONG WELD NECK FLANGE | ● TABLE FLANGES (D, E, F, H TABLE) |



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## Dimensions of Class 150 Flanges as per ANSI B 16.5

| Nominal Pipe Size | Flange Dia<br>O | Dia of Bolt Circle<br>A | No. Of Bolt Holes<br>D | No. Of Holes | Thk of Flange<br>C | Dia of Hub<br>E | Length through Hub |          |          | Dia Bore       |          | Dia of R/F<br>R | Depth of Socket<br>F | Pipe Dia<br>X |
|-------------------|-----------------|-------------------------|------------------------|--------------|--------------------|-----------------|--------------------|----------|----------|----------------|----------|-----------------|----------------------|---------------|
|                   |                 |                         |                        |              |                    |                 | S/O & S/W<br>Y     | W/N<br>Y | L/J<br>Y | S/O & S/W<br>B | L/J<br>B |                 |                      |               |
| 15                | 88.9            | 60.3                    | 15.9                   | 4            | 11.1               | 30.2            | 15.9               | 47.6     | 15.9     | 22.3           | 22.9     | 34.9            | 9.5                  | 21.33         |
| 20                | 98.4            | 69.8                    | 15.9                   | 4            | 12.7               | 38.1            | 15.9               | 52.4     | 15.9     | 27.7           | 28.2     | 42.9            | 11.1                 | 26.67         |
| 25                | 107.9           | 79.4                    | 15.9                   | 4            | 14.3               | 49.2            | 17.5               | 55.6     | 17.5     | 34.5           | 35.0     | 50.8            | 12.7                 | 33.40         |
| 32                | 117.5           | 88.9                    | 15.9                   | 4            | 15.9               | 58.7            | 20.6               | 57.1     | 20.6     | 43.2           | 43.7     | 63.5            | 14.3                 | 42.16         |
| 40                | 127.0           | 98.4                    | 15.9                   | 4            | 17.5               | 65.1            | 22.2               | 61.9     | 22.2     | 49.5           | 50.0     | 73.0            | 15.9                 | 48.26         |
| 50                | 152.4           | 120.6                   | 19.0                   | 4            | 19.0               | 77.8            | 25.4               | 63.5     | 25.4     | 62.0           | 62.5     | 92.1            | 17.5                 | 60.31         |
| 65                | 177.8           | 139.7                   | 19.0                   | 4            | 22.2               | 90.5            | 28.6               | 69.8     | 28.6     | 74.7           | 75.4     | 104.8           | 19.0                 | 73.02         |
| 80                | 190.5           | 152.4                   | 19.0                   | 4            | 23.8               | 107.9           | 30.2               | 69.8     | 30.2     | 90.7           | 91.4     | 127.0           | 20.6                 | 88.90         |
| 100               | 228.6           | 190.5                   | 19.0                   | 8            | 23.8               | 134.9           | 33.3               | 76.2     | 33.3     | 116.1          | 116.8    | 157.2           | 23.8                 | 114.30        |
| 125               | 254.0           | 215.9                   | 22.2                   | 8            | 23.8               | 163.5           | 36.5               | 88.9     | 36.5     | 143.8          | 144.5    | 185.7           | 23.8                 | 141.30        |
| 150               | 279.4           | 241.3                   | 22.2                   | 8            | 25.4               | 192.1           | 39.7               | 88.9     | 39.7     | 170.7          | 171.4    | 215.9           | 27.0                 | 168.27        |
| 200               | 342.9           | 298.4                   | 22.2                   | 8            | 28.6               | 246.1           | 44.4               | 101.6    | 44.4     | 221.5          | 222.2    | 269.9           | 31.7                 | 219.07        |
| 250               | 406.4           | 361.9                   | 25.4                   | 12           | 30.2               | 304.8           | 49.2               | 101.6    | 49.2     | 276.3          | 277.4    | 323.8           | 33.3                 | 273.05        |
| 300               | 482.6           | 431.8                   | 25.4                   | 12           | 31.8               | 365.1           | 55.6               | 114.3    | 55.6     | 327.1          | 328.2    | 381.0           | 39.7                 | 323.85        |
| 350               | 533.4           | 476.2                   | 28.6                   | 12           | 34.9               | 400.0           | 57.1               | 127.0    | 79.4     | 359.1          | 360.2    | 412.7           | 41.3                 | 355.60        |
| 400               | 596.9           | 539.7                   | 28.6                   | 16           | 36.5               | 457.2           | 63.5               | 127.0    | 87.3     | 410.5          | 411.2    | 469.9           | 44.4                 | 406.40        |
| 450               | 635.0           | 577.8                   | 31.7                   | 16           | 39.7               | 504.8           | 68.3               | 139.7    | 96.8     | 461.8          | 462.3    | 533.4           | 49.2                 | 457.20        |
| 500               | 698.5           | 635.0                   | 31.7                   | 20           | 42.9               | 558.8           | 73.0               | 144.5    | 103.2    | 513.1          | 514.3    | 584.2           | 54.0                 | 508.00        |
| 600               | 812.8           | 749.3                   | 34.9                   | 20           | 47.6               | 663.6           | 82.5               | 152.4    | 111.1    | 615.9          | 615.9    | 692.1           | 63.5                 | 609.60        |

## Dimensions of Class 300 Flanges as per ANSI B 16.5

| Nominal Pipe Size | Flange Dia<br>O | Dia of Bolt Circle<br>A | No. Of Bolt Holes<br>D | No. Of Holes | Thk of Flange<br>C | Dia of Hub<br>E | Length through Hub |          |          | Dia Bore       |          | Dia of R/F<br>R | Depth of Socket<br>F | Pipe Dia<br>X |
|-------------------|-----------------|-------------------------|------------------------|--------------|--------------------|-----------------|--------------------|----------|----------|----------------|----------|-----------------|----------------------|---------------|
|                   |                 |                         |                        |              |                    |                 | S/O & S/W<br>Y     | W/N<br>Y | L/J<br>Y | S/O & S/W<br>B | L/J<br>B |                 |                      |               |
| 15                | 95.2            | 66.7                    | 15.9                   | 4            | 14.3               | 38.1            | 22.2               | 52.4     | 22.2     | 22.3           | 22.9     | 34.9            | 9.5                  | 21.33         |
| 20                | 117.5           | 82.5                    | 19.0                   | 4            | 15.9               | 47.6            | 25.4               | 57.1     | 25.4     | 27.7           | 28.2     | 42.9            | 11.1                 | 26.67         |
| 25                | 123.8           | 88.9                    | 19.0                   | 4            | 17.5               | 54.0            | 27.0               | 61.9     | 27.0     | 34.5           | 35.0     | 50.8            | 12.7                 | 33.40         |
| 32                | 133.3           | 98.4                    | 19.0                   | 4            | 19.0               | 63.5            | 27.0               | 65.1     | 27.0     | 43.2           | 43.7     | 63.5            | 14.3                 | 42.16         |
| 40                | 155.6           | 114.3                   | 22.2                   | 4            | 20.6               | 69.8            | 30.2               | 68.3     | 30.2     | 49.5           | 50.0     | 73.0            | 15.9                 | 48.26         |
| 50                | 165.1           | 127.0                   | 19.0                   | 8            | 22.2               | 84.1            | 33.3               | 69.8     | 33.3     | 62.0           | 62.5     | 92.1            | 17.5                 | 60.31         |
| 65                | 190.5           | 149.2                   | 22.2                   | 8            | 25.4               | 100.0           | 38.1               | 76.2     | 38.1     | 74.7           | 75.4     | 104.8           | 19.0                 | 73.02         |
| 80                | 209.5           | 168.3                   | 22.2                   | 8            | 28.6               | 117.5           | 42.9               | 79.4     | 42.9     | 90.7           | 91.4     | 127.0           | 20.6                 | 88.90         |
| 100               | 254.0           | 200.0                   | 22.2                   | 8            | 31.8               | 146.0           | 47.6               | 85.7     | 47.6     | 116.1          | 116.8    | 157.2           | 23.8                 | 114.30        |
| 125               | 279.4           | 234.9                   | 22.2                   | 8            | 34.9               | 177.8           | 50.8               | 98.4     | 50.8     | 143.8          | 144.5    | 185.7           | -                    | 141.30        |
| 150               | 317.5           | 269.9                   | 22.2                   | 12           | 36.5               | 206.4           | 52.4               | 98.4     | 52.4     | 170.7          | 171.4    | 215.9           | -                    | 168.27        |
| 200               | 381.0           | 330.2                   | 25.4                   | 12           | 41.3               | 260.3           | 61.9               | 111.1    | 61.9     | 221.5          | 222.2    | 269.9           | -                    | 219.07        |
| 250               | 444.5           | 387.3                   | 28.6                   | 16           | 47.6               | 320.7           | 66.7               | 117.5    | 95.2     | 276.3          | 277.4    | 323.8           | -                    | 273.05        |
| 300               | 520.7           | 450.8                   | 31.7                   | 16           | 50.8               | 374.6           | 73.0               | 130.2    | 101.6    | 327.1          | 328.2    | 381.0           | -                    | 323.85        |
| 350               | 584.2           | 514.3                   | 31.7                   | 20           | 54.0               | 425.4           | 76.2               | 142.9    | 111.1    | 359.1          | 360.2    | 412.7           | -                    | 355.60        |
| 400               | 647.7           | 571.5                   | 34.9                   | 20           | 57.2               | 482.6           | 82.5               | 146.0    | 120.6    | 410.5          | 411.2    | 469.9           | -                    | 406.40        |
| 450               | 711.2           | 628.5                   | 34.9                   | 24           | 60.3               | 533.4           | 88.9               | 158.7    | 130.2    | 461.8          | 462.3    | 533.4           | -                    | 457.20        |
| 500               | 774.7           | 685.8                   | 34.9                   | 24           | 63.5               | 587.4           | 95.2               | 161.9    | 139.7    | 513.1          | 514.3    | 584.2           | -                    | 508.00        |
| 600               | 914.4           | 812.8                   | 41.3                   | 24           | 69.8               | 701.7           | 106.4              | 168.3    | 152.4    | 615.9          | 615.9    | 692.1           | -                    | 609.60        |

Metric values are direct conversion from Inches table of B16.5

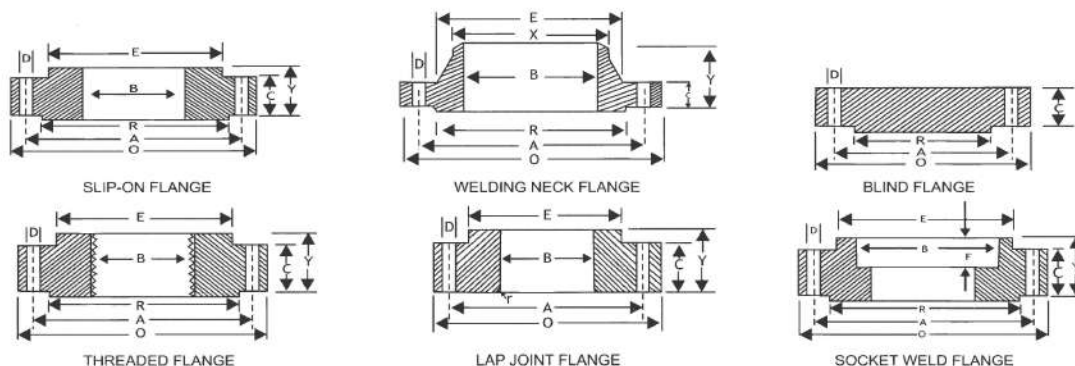
Flanges except Lap Joint will be furnished with (1.6 mm) raised face, Which is included in " Thickness" ( C ) and Length Through Hub (Y).

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## Dimensions of Class 600 Flanges as per ANSI B 16.5

| Nominal<br>Pipe<br>Size | Flange<br>Dia<br>O | Dia of<br>Bolt<br>Circle<br>A | No. of<br>Bolt<br>Holes<br>D | No. of<br>Holes | Thk of<br>Flange<br>C | Dia of<br>Hub<br>E | Length through Hub |          |          | Dia Bore       |          | Dia of<br>R/F<br>R | Depth of<br>Socket<br>F | Pipe<br>Dia<br>X |
|-------------------------|--------------------|-------------------------------|------------------------------|-----------------|-----------------------|--------------------|--------------------|----------|----------|----------------|----------|--------------------|-------------------------|------------------|
|                         |                    |                               |                              |                 |                       |                    | S/O & S/W<br>Y     | W/N<br>Y | L/J<br>Y | S/O & S/W<br>B | L/J<br>B |                    |                         |                  |
| 15                      | 95.2               | 66.7                          | 15.9                         | 4               | 14.3                  | 38.1               | 22.2               | 52.4     | 22.3     | 22.3           | 22.8     | 34.9               | 9.5                     | 21.33            |
| 20                      | 117.5              | 82.5                          | 19.0                         | 4               | 15.9                  | 47.6               | 25.4               | 57.1     | 25.4     | 27.7           | 28.1     | 42.9               | 11.1                    | 26.67            |
| 25                      | 123.8              | 88.9                          | 19.0                         | 4               | 17.5                  | 54.0               | 27.0               | 61.9     | 26.9     | 34.5           | 35.0     | 50.8               | 12.7                    | 33.40            |
| 32                      | 133.3              | 98.4                          | 19.0                         | 4               | 20.6                  | 63.5               | 28.6               | 66.7     | 28.4     | 43.2           | 43.6     | 63.5               | 14.2                    | 42.16            |
| 40                      | 155.6              | 114.3                         | 22.2                         | 4               | 22.2                  | 69.8               | 31.7               | 69.8     | 31.7     | 49.5           | 50.0     | 73.0               | 15.8                    | 48.26            |
| 50                      | 165.1              | 127.0                         | 19.0                         | 8               | 25.4                  | 84.1               | 36.5               | 73.0     | 36.5     | 62.0           | 62.4     | 92.1               | 17.4                    | 60.31            |
| 65                      | 190.5              | 149.2                         | 22.2                         | 8               | 28.6                  | 100.0              | 41.3               | 79.4     | 41.1     | 74.7           | 75.4     | 104.8              | 19.0                    | 73.02            |
| 80                      | 209.5              | 168.3                         | 22.2                         | 8               | 31.8                  | 117.5              | 46.0               | 82.5     | 45.9     | 90.7           | 91.4     | 127.0              | -                       | 88.90            |
| 100                     | 273.0              | 215.9                         | 25.4                         | 8               | 38.1                  | 152.4              | 54.0               | 101.6    | 53.8     | 116.1          | 116.8    | 157.2              | -                       | 114.30           |
| 125                     | 330.2              | 266.7                         | 28.6                         | 8               | 44.4                  | 188.9              | 60.3               | 114.3    | 60.4     | 143.8          | 141.5    | 185.7              | -                       | 141.30           |
| 150                     | 355.6              | 292.1                         | 28.6                         | 12              | 47.6                  | 222.2              | 66.7               | 117.5    | 66.5     | 170.7          | 171.4    | 215.9              | -                       | 168.27           |
| 200                     | 419.1              | 349.2                         | 31.7                         | 12              | 55.6                  | 273.0              | 76.2               | 133.3    | 76.2     | 221.5          | 222.2    | 269.9              | -                       | 219.07           |
| 250                     | 508.0              | 431.8                         | 34.9                         | 16              | 63.5                  | 342.9              | 85.7               | 152.4    | 111.2    | 276.3          | 277.3    | 323.8              | -                       | 273.05           |
| 300                     | 558.8              | 488.9                         | 34.9                         | 20              | 66.7                  | 400.0              | 92.1               | 155.6    | 117.3    | 327.1          | 328.1    | 381.0              | -                       | 323.85           |
| 350                     | 603.2              | 527.0                         | 38.1                         | 20              | 69.9                  | 431.8              | 93.7               | 165.1    | 127.0    | 359.1          | 360.1    | 412.7              | -                       | 355.60           |
| 400                     | 685.8              | 603.2                         | 41.3                         | 20              | 76.2                  | 495.3              | 106.4              | 177.8    | 139.7    | 410.5          | 411.2    | 469.9              | -                       | 406.40           |
| 450                     | 742.9              | 654.0                         | 44.4                         | 20              | 82.6                  | 546.1              | 117.5              | 184.1    | 152.4    | 461.8          | 462.2    | 533.4              | -                       | 457.20           |
| 500                     | 812.8              | 723.9                         | 44.4                         | 24              | 88.9                  | 609.6              | 127.0              | 190.5    | 165.1    | 513.1          | 514.3    | 584.2              | -                       | 508.00           |
| 600                     | 939.8              | 838.2                         | 50.8                         | 24              | 101.6                 | 717.5              | 139.7              | 203.2    | 184.1    | 615.9          | 615.9    | 692.1              | -                       | 609.60           |

## Dimensions of Class 900 Flanges as per ANSI B 16.5

| Nominal<br>Pipe<br>Size | Flange<br>Dia<br>O | Dia of<br>Bolt<br>Circle<br>A | No. of<br>Bolt<br>Holes<br>D | No. of<br>Holes | Thk of<br>Flange<br>C | Dia of<br>Hub<br>E | Length through Hub |          |          | Dia Bore       |          | Dia of<br>R/F<br>R | Depth of<br>Socket<br>F | Pipe<br>Dia<br>X |
|-------------------------|--------------------|-------------------------------|------------------------------|-----------------|-----------------------|--------------------|--------------------|----------|----------|----------------|----------|--------------------|-------------------------|------------------|
|                         |                    |                               |                              |                 |                       |                    | S/O & S/W<br>Y     | W/N<br>Y | L/J<br>Y | S/O & S/W<br>B | L/J<br>B |                    |                         |                  |
| 15                      | 120.6              | 82.5                          | 22.2                         | 4               | 22.2                  | 38.1               | 31.7               | 60.3     | 31.7     | 22.3           | 22.8     | 34.9               | 9.5                     | 21.33            |
| 20                      | 130.2              | 88.9                          | 22.2                         | 4               | 25.4                  | 44.4               | 34.9               | 69.8     | 35.0     | 27.7           | 28.1     | 42.9               | 11.1                    | 26.67            |
| 25                      | 149.2              | 101.6                         | 25.4                         | 4               | 28.6                  | 52.4               | 41.3               | 73.0     | 41.1     | 34.5           | 35.0     | 50.8               | 12.7                    | 33.40            |
| 32                      | 158.7              | 111.1                         | 25.4                         | 4               | 28.6                  | 63.5               | 41.3               | 73.0     | 41.1     | 43.2           | 43.6     | 63.5               | 14.2                    | 42.16            |
| 40                      | 177.8              | 123.8                         | 28.6                         | 4               | 31.8                  | 69.8               | 44.4               | 82.5     | 44.4     | 49.5           | 50.0     | 73.0               | 15.8                    | 48.26            |
| 50                      | 215.9              | 165.1                         | 25.4                         | 8               | 38.1                  | 104.8              | 57.1               | 101.6    | 57.1     | 62.0           | 62.4     | 92.1               | 17.4                    | 60.31            |
| 65                      | 244.5              | 190.5                         | 28.6                         | 8               | 41.3                  | 123.8              | 63.5               | 104.8    | 63.5     | 74.7           | 75.4     | 104.8              | 19.0                    | 73.02            |
| 80                      | 241.3              | 190.5                         | 25.4                         | 8               | 38.1                  | 127.0              | 53.9               | 101.6    | 53.8     | 90.7           | 91.4     | 127.0              | -                       | 88.90            |
| 100                     | 292.1              | 234.9                         | 31.7                         | 8               | 44.4                  | 158.7              | 69.8               | 114.3    | 69.8     | 116.0          | 116.8    | 157.1              | -                       | 114.30           |
| 125                     | 349.2              | 279.4                         | 35.0                         | 8               | 50.8                  | 190.5              | 79.3               | 127.0    | 79.2     | 143.7          | 144.5    | 185.7              | -                       | 141.30           |
| 150                     | 381.0              | 317.5                         | 31.7                         | 12              | 55.6                  | 234.9              | 85.8               | 139.7    | 85.8     | 170.6          | 171.4    | 215.9              | -                       | 168.27           |
| 200                     | 469.9              | 393.7                         | 38.1                         | 12              | 63.5                  | 298.4              | 101.6              | 162.0    | 114.3    | 221.4          | 222.2    | 269.8              | -                       | 219.07           |
| 250                     | 546.1              | 469.9                         | 38.1                         | 16              | 69.8                  | 368.3              | 107.9              | 184.1    | 127.0    | 276.3          | 277.3    | 323.8              | -                       | 273.05           |
| 300                     | 609.6              | 533.4                         | 38.1                         | 20              | 79.3                  | 419.1              | 117.4              | 200.0    | 142.7    | 327.1          | 328.1    | 381.0              | -                       | 323.85           |

Metric values are direct conversion from Inches table of B16.5

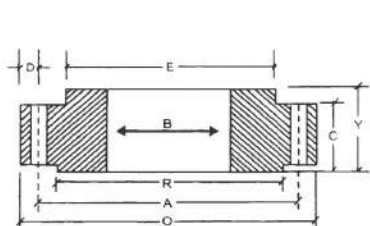
RF Thickness 6.3 mm Extra to be provided (Except Lap Joint Flange & FF Flanges).

Email: shreearbudasteel@gmail.com / export@shreearbudasteel.com • Website : www.shreearbudasteel.com

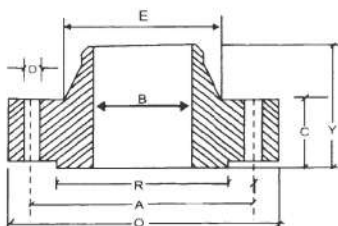


# SHREE ARBUDA STEEL

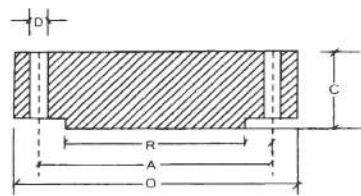
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SLIP-ON FLANGE



WELDING NECK FLANGE



BLIND FLANGE

## DIMENSIONS OF CLASS 1500 FLANGES AS PER ANSI B 16.5

| Nominal Pipe Size | Flange Dia | Dia of Bolt Circle A | Dia of Bolt Holes D | Dia of Holes | Thk of Flange C | Dia of Hub E | Length through Hub |       |       | Dia of Bore |       | Dia of R/F R | Depth of Socket F | Pipe Dia X |
|-------------------|------------|----------------------|---------------------|--------------|-----------------|--------------|--------------------|-------|-------|-------------|-------|--------------|-------------------|------------|
|                   |            |                      |                     |              |                 |              | S/O & S/W Y        | W/N Y | L/J Y | S/O & S/W B | L/J Y |              |                   |            |
| (MM)              | (INCH.)    | O                    | A                   | D            |                 |              |                    |       |       |             |       |              |                   |            |
| 15                | 1/2        | 120.6                | 82.5                | 22.2         | 4               | 22.2         | 31.7               | 60.3  | 31.7  | 22.3        | 22.8  | 34.9         | 9.5               | 21.33      |
| 20                | 3/4        | 130.2                | 88.9                | 22.2         | 4               | 25.4         | 34.9               | 69.8  | 34.9  | 27.7        | 28.1  | 42.9         | 11.1              | 26.67      |
| 25                | 1          | 149.2                | 101.6               | 25.4         | 4               | 28.6         | 41.3               | 73.0  | 41.3  | 34.5        | 35.0  | 50.8         | 12.7              | 33.40      |
| 32                | 1 1/4      | 158.7                | 111.1               | 25.4         | 4               | 28.6         | 41.3               | 73.0  | 41.3  | 43.2        | 43.6  | 63.5         | 14.2              | 42.16      |
| 40                | 1 1/2      | 177.8                | 123.8               | 28.6         | 4               | 31.8         | 44.4               | 82.5  | 44.4  | 49.5        | 50.0  | 73.0         | 15.8              | 48.26      |
| 50                | 2          | 215.9                | 165.1               | 25.4         | 8               | 38.1         | 57.1               | 101.6 | 57.1  | 62.0        | 62.0  | 92.1         | 17.4              | 60.31      |
| 65                | 2 1/2      | 244.5                | 190.5               | 28.6         | 8               | 41.3         | 63.5               | 104.8 | 63.5  | 74.7        | 75.4  | 104.8        | 19.0              | 73.02      |
| 80                | 3          | 266.7                | 203.2               | 31.7         | 8               | 47.6         | 73.0               | 117.5 | 73.0  | 90.7        | 91.4  | 127.0        | -                 | 88.90      |
| 100               | 4          | 311.1                | 241.3               | 34.9         | 8               | 54.0         | 90.5               | 123.0 | 90.4  | 116.1       | 116.8 | 157.2        | -                 | 114.30     |
| 125               | 5          | 374.6                | 292.1               | 41.3         | 8               | 73.0         | 104.8              | 155.6 | 104.8 | 143.8       | 144.5 | 185.7        | -                 | 141.30     |
| 150               | 6          | 393.7                | 317.5               | 38.1         | 12              | 82.6         | 119.1              | 171.4 | 119.1 | 170.7       | 171.4 | 215.9        | -                 | 168.27     |
| 200               | 8          | 482.6                | 393.7               | 44.4         | 12              | 92.1         | 142.9              | 212.7 | 142.8 | 221.5       | 222.2 | 269.9        | -                 | 219.07     |
| 250               | 10         | 584.2                | 482.6               | 50.8         | 12              | 107.9        | 158.7              | 254.0 | 177.8 | 276.3       | 277.3 | 323.8        | -                 | 273.05     |
| 300               | 12         | 673.1                | 571.5               | 54.0         | 16              | 123.8        | 181.0              | 282.5 | 218.9 | 327.1       | 328.1 | 381.0        | -                 | 323.85     |

All Dimensions are in Millimeters • Flanges except Lap Joint will be furnished with (1.6mm) Raised Face, which is included in Thickness(C) and Length through Hub(Y).

## DIMENSIONS OF CLASS 2500 FLANGES AS PER ANSI B 16.5

| Nominal Pipe Size | Flange Dia | Dia of Bolt Circle A | Dia of Bolt Holes D | Dia of Holes | Thk of Flange C | Dia of Hub E | Length through Hub |       |       | Dia of Bore |       | Dia of R/F R | Depth of Socket F | Pipe Dia X |
|-------------------|------------|----------------------|---------------------|--------------|-----------------|--------------|--------------------|-------|-------|-------------|-------|--------------|-------------------|------------|
|                   |            |                      |                     |              |                 |              | S/O & S/W Y        | W/N Y | L/J Y | S/O & S/W B | L/J Y |              |                   |            |
| (MM)              | (INCH.)    | O                    | A                   | D            |                 |              |                    |       |       |             |       |              |                   |            |
| 15                | 1/2        | 133.3                | 88.9                | 22.2         | 4               | 30.2         | 39.7               | 73.0  | 39.7  | 22.3        | 22.3  | 34.9         | -                 | 21.33      |
| 20                | 3/4        | 139.7                | 95.3                | 22.2         | 4               | 31.7         | 42.9               | 79.4  | 42.9  | 27.7        | 27.7  | 42.9         | -                 | 26.67      |
| 25                | 1          | 158.7                | 107.9               | 25.4         | 4               | 34.9         | 47.7               | 88.9  | 47.7  | 34.5        | 34.5  | 50.8         | -                 | 33.40      |
| 32                | 1 1/4      | 184.1                | 130.2               | 28.6         | 4               | 38.1         | 52.4               | 95.2  | 52.4  | 43.2        | 43.2  | 63.5         | -                 | 42.16      |
| 40                | 1 1/2      | 203.2                | 146.0               | 31.7         | 4               | 44.4         | 60.3               | 111.1 | 60.3  | 49.5        | 49.5  | 73.0         | -                 | 48.26      |
| 50                | 2          | 234.9                | 171.4               | 28.6         | 8               | 50.8         | 69.8               | 127.0 | 69.8  | 62.4        | 62.0  | 92.1         | -                 | 60.31      |
| 65                | 2 1/2      | 266.7                | 196.8               | 31.7         | 8               | 57.1         | 79.4               | 142.9 | 79.4  | 74.7        | 74.7  | 104.8        | -                 | 73.02      |
| 80                | 3          | 304.8                | 228.6               | 34.9         | 8               | 66.7         | 92.1               | 168.3 | 92.1  | 90.7        | 90.7  | 127.0        | -                 | 88.90      |
| 100               | 4          | 355.6                | 273.0               | 41.2         | 8               | 76.2         | 107.9              | 190.5 | 107.9 | 116.1       | 116.1 | 157.2        | -                 | 114.30     |
| 125               | 5          | 419.1                | 323.8               | 47.6         | 8               | 92.1         | 130.0              | 228.6 | 130.0 | 143.8       | 143.8 | 185.7        | -                 | 141.30     |
| 150               | 6          | 482.6                | 368.3               | 54.0         | 8               | 107.9        | 152.4              | 273.0 | 152.4 | 170.7       | 170.7 | 215.9        | -                 | 168.27     |
| 200               | 8          | 552.4                | 438.1               | 54.0         | 12              | 127.0        | 177.8              | 317.5 | 177.8 | 221.5       | 221.5 | 269.9        | -                 | 219.07     |
| 250               | 10         | 673.1                | 539.7               | 66.7         | 12              | 165.1        | 228.6              | 419.1 | 228.6 | 276.3       | 276.3 | 323.8        | -                 | 273.05     |
| 300               | 12         | 762.0                | 619.1               | 73.0         | 12              | 184.1        | 254.0              | 463.5 | 254.0 | 327.1       | 327.1 | 381.0        | -                 | 323.85     |

All Dimensions are in Millimeters • Flanges except Lap Joint will be furnished with (1.6mm) Raised Face, which is included in Thickness(C) and Length through Hub(Y).

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# SHREE ARBUDA STEEL

Mobile : +91 8108105140 / 8850182889

## FORGED FITTINGS & FLANGES ASTM

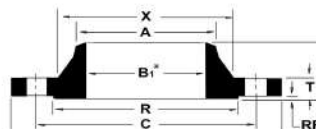
### MATERIAL SPECIFICATION FOR FORGED FITTINGS & FLANGES

| SPECIFICATION<br>(ASTM-2002) | CHEMICAL PROPERTIES |           |             |             |           | MECHANICAL PROPERTIES |           |           |                        |                      | OTHERS |                     |                                                 |
|------------------------------|---------------------|-----------|-------------|-------------|-----------|-----------------------|-----------|-----------|------------------------|----------------------|--------|---------------------|-------------------------------------------------|
|                              | C%                  | Mn%       | P%<br>(Max) | S%<br>(Max) | Si%       | Cr%                   | Ni%       | Mo%       | U.T.S.<br>(Min)<br>Mpa | Y.S.<br>(Min)<br>Mpa |        | ELONG<br>(Min)<br>% | RED<br>AREA<br>%                                |
| STAINLESS STEEL              |                     |           |             |             |           |                       |           |           |                        |                      |        |                     |                                                 |
| A 182 Gr. F 304              | 0.080 Max           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 18.0-20.0             | 8.0-11.0  | -         | 515                    | 205                  | 30     | 50                  | -                                               |
| A 182 Gr. F 304L             | 0.030 Max           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 18.0-20.0             | 8.0-13.0  | -         | 485                    | 170                  | 30     | 50                  | -                                               |
| A 182 Gr. F 304H             | 0.04-0.10           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 18.0-20.0             | 8.0-11.0  | -         | 515                    | 205                  | 30     | 50                  | -                                               |
| A 182 Gr. F 304LN            | 0.030 Max           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 18.0-20.0             | 8.0-10.5  | -         | 515                    | 205                  | 30     | 50                  | N%=0.10-0.16                                    |
| A 182 Gr. F 309H             | 0.04-0.10           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 22.0-24.0             | 12.0-15.0 | -         | 515                    | 205                  | 30     | 50                  | -                                               |
| A 182 Gr. F 310              | 0.25 Max            | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 24.0-26.0             | 19.0-22.0 | -         | 515                    | 205                  | 30     | 50                  | -                                               |
| A 182 Gr. F 316              | 0.080 Max           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 16.0-18.0             | 10.0-14.0 | 2.0-3.0   | 515                    | 205                  | 30     | 50                  | -                                               |
| A 182 Gr. F 316L             | 0.030 Max           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 16.0-18.0             | 10.0-15.0 | 2.0-3.0   | 485                    | 170                  | 30     | 50                  | -                                               |
| A 182 Gr. F 316H             | 0.04-0.10           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 16.0-18.0             | 10.0-14.0 | 2.0-3.0   | 515                    | 205                  | 30     | 50                  | -                                               |
| A 182 Gr. F 316LN            | 0.030 Max           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 16.0-18.0             | 11.0-14.0 | 2.0-3.0   | 515                    | 205                  | 30     | 50                  | N%=0.10-0.16                                    |
| A 182 Gr. F 317              | 0.080 Max           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 18.0-20.0             | 11.0-15.0 | 3.0-4.0   | 515                    | 205                  | 30     | 50                  | -                                               |
| A 182 Gr. F 317L             | 0.030 Max           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 18.0-20.0             | 11.0-15.0 | 3.0-4.0   | 485                    | 170                  | 30     | 50                  | -                                               |
| A 182 Gr. F 321              | 0.080 Max           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 17.0-19.0             | 9.0-12.0  | -         | 515                    | 205                  | 30     | 50                  | Ti%=(5xC)+0.70                                  |
| A 182 Gr. F 321H             | 0.04-0.10           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 17.0-19.0             | 9.0-12.0  | -         | 515                    | 205                  | 30     | 50                  | Ti%=(4xC)+0.70                                  |
| A 182 Gr. F 347              | 0.080 Max           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 17.0-20.0             | 9.0-13.0  | -         | 515                    | 205                  | 30     | 50                  | Cb%=(10xC)-1.10                                 |
| A 182 Gr. F 347H             | 0.04-0.10           | 2.00 Max  | 0.045       | 0.030       | 1.00 Max  | 17.0-20.0             | 9.0-13.0  | -         | 515                    | 205                  | 30     | 50                  | Cb%=(8xC)-1.10                                  |
| CARBON STEEL                 |                     |           |             |             |           |                       |           |           |                        |                      |        |                     |                                                 |
| A 105                        | 0.035 Max           | 0.60-1.05 | 0.035       | 0.040       | 0.10-0.35 | 0.30 Max              | 0.40 Max  | 0.12 Max  | 485                    | 250                  | 22     | 30                  | 187                                             |
| LOW TEMPERATURE CARBON STEEL |                     |           |             |             |           |                       |           |           |                        |                      |        |                     |                                                 |
| A 350 Gr. LF 1               | 0.30 Max            | 0.60-1.35 | 0.035       | 0.040       | 0.15-0.30 | 0.30 Max              | 0.40 Max  | 0.12 Max  | 415-585                | 205                  | 25     | 38                  | 197                                             |
| A 350 Gr. LF 2               | 0.30 Max            | 0.60-1.35 | 0.035       | 0.040       | 0.15-0.30 | 0.30 Max              | 0.40 Max  | 0.12 Max  | 485-655                | 250                  | 22     | 30                  | 197                                             |
| A 350 Gr. LF 3               | 0.20 Max            | 0.90 Max  | 0.035       | 0.040       | 0.20-0.35 | 0.30 Max              | 3.30-3.70 | 0.12 Max  | 485-655                | 260                  | 22     | 35                  | 197                                             |
| ALLOY STEEL                  |                     |           |             |             |           |                       |           |           |                        |                      |        |                     |                                                 |
| A 182 Gr. F 1                | 0.28 max            | 0.60-0.90 | 0.045       | 0.045       | 0.15-0.35 | -                     | -         | 0.44-0.65 | 485                    | 275                  | 20     | 30                  | 143-192                                         |
| A 182 Gr. F 2                | 0.05-0.21           | 0.30-0.80 | 0.040       | 0.040       | 0.10-0.60 | 0.50-0.81             | -         | 0.44-0.65 | 485                    | 275                  | 20     | 30                  | 143-192                                         |
| A 182 Gr. F 5                | 0.15 max            | 0.30-0.60 | 0.030       | 0.030       | 0.50 Max  | 4.0-6.0               | 0.5 Max   | 0.44-0.65 | 485                    | 275                  | 20     | 35                  | 143-217                                         |
| A 182 Gr. F 9                | 0.15 max            | 0.30-0.60 | 0.030       | 0.030       | 0.50-1.00 | 8.0-10.0              | -         | 0.90-1.10 | 585                    | 380                  | 20     | 40                  | 179-217                                         |
| A 182 Gr. F 11 CL1           | 0.05-0.15           | 0.30-0.60 | 0.030       | 0.030       | 0.50-1.00 | 1.0-1.50              | -         | 0.44-0.65 | 415                    | 205                  | 20     | 45                  | 121-174                                         |
| A 182 Gr. F 11 CL2           | 0.10-0.20           | 0.30-0.80 | 0.040       | 0.040       | 0.50-1.0  | 1.0-1.50              | -         | 0.40-0.65 | 485                    | 275                  | 20     | 30                  | 143-207                                         |
| A 182 Gr. F 11 CL3           | 0.10-0.20           | 0.30-0.80 | 0.040       | 0.040       | 0.50-1.0  | 1.0-1.50              | -         | 0.44-0.65 | 515                    | 310                  | 20     | 30                  | 156-207                                         |
| A 182 Gr. F 12 CL1           | 0.05-0.15           | 0.30-0.60 | 0.045       | 0.045       | 0.50 Max  | 0.80-1.25             | -         | 0.44-0.65 | 415                    | 220                  | 20     | 45                  | 121-174                                         |
| A 182 Gr. F 12 CL2           | 0.10-0.20           | 0.30-0.80 | 0.040       | 0.040       | 0.10-0.60 | 0.80-1.25             | -         | 0.44-0.65 | 485                    | 275                  | 20     | 30                  | 143-207                                         |
| A 182 Gr. F 22 CL1           | 0.05-0.15           | 0.30-0.60 | 0.040       | 0.040       | 0.50 Max  | 2.0-2.5               | -         | 0.87-1.13 | 415                    | 205                  | 20     | 35                  | 170                                             |
| A 182 Gr. F 22 CL3           | 0.05-0.15           | 0.30-0.60 | 0.040       | 0.040       | 0.50 Max  | 2.0-2.50              | -         | 0.87-1.13 | 515                    | 310                  | 20     | 30                  | 156-207                                         |
| A 182 Gr. F 91               | 0.08-0.12           | 0.30-0.60 | 0.020       | 0.010       | 0.20-0.50 | 8.0-9.5               | 0.40 Max  | 0.85-1.05 | 585                    | 415                  | 20     | 40                  | 248                                             |
|                              |                     |           |             |             |           |                       |           |           |                        |                      |        |                     | Cu% = 0.06-0.10 W% = 0.03-0.07, Va% = 0.18-0.25 |



## FLANGES TOLERANCE

### ANSI



| THREADED,,                              |                                                             |                    |
|-----------------------------------------|-------------------------------------------------------------|--------------------|
| Outside Diameter (O)                    | When O.D. is 24 or less                                     | $\pm 1/16$ *       |
|                                         | When O.D. is over 24                                        | $\pm 1/8$ *        |
| Inside Diameter (B Slip-on & Lap Joint: | Threaded: Within limits on boring gauge                     |                    |
|                                         | 10 and smaller                                              | $+1/32, 0$         |
|                                         | 12 and larger                                               | $+1/16, 0$         |
| Diameter of Contact Face (R)            | 1/16 Raised Face                                            | $\pm 1/32$         |
|                                         | 1/4 Raised Face, Tongue and Groove, or male and Female      | $\pm 1/64$         |
| Diameter of Counterbore                 | Same as for Inside Diameter                                 |                    |
| Outside Dia. of Hub (X)                 | 12 and Smaller                                              | $+3/32$ * $1/16$ * |
|                                         | Over 12                                                     | $\pm 1/8$          |
| Drilling                                | Bolt Circle                                                 | $\pm 1/16$         |
|                                         | Bolt hole spacing                                           | $\pm 1/32$         |
|                                         | Eccentricity of: Bolt Circle with respect to bore           | $1/32$ Max *       |
|                                         | Eccentricity of: Facing with respect to bore                | $1/32$ Max *       |
| Overall Height (Y)                      | On all flanges 18 and smaller                               | $+ 1/8 \ 1/32$     |
|                                         | On all flanges larger than 18                               | $+ 3/16 \ 1/16$    |
| Thickness (T)                           | 18 and smaller                                              | $+ 1/8 \ 0$        |
|                                         | Over 18                                                     | $+ 3/16 \ 0$       |
|                                         | Where allowance has been left on face for finish: All sizes | $+ 1/8 \ 1/16$     |

| WELDING NECK FLANGES                    |                                                             |                       |
|-----------------------------------------|-------------------------------------------------------------|-----------------------|
| Outside Diameter (O)                    | When O.D. is 24 or less                                     | $\pm 1/16$ *          |
|                                         | When O.D. is over 24                                        | $\pm 1/8$ *           |
| Inside Diameter (O)                     | 10 and smaller                                              | $\pm 1/32$            |
|                                         | 12 to 18                                                    | $\pm 1/16$            |
|                                         | Over 18                                                     | $+ 1/8 \ 1/16$        |
| Diameter of Contact Face (R)            | 1/16 Raised Face                                            | $\pm 1/32$            |
|                                         | 1/4 Raised Face, Tongue and Groove, or male and Female      | $\pm 1/64$            |
| Diameter of Hub at Point of Welding (A) | 5 and smaller                                               | $+ 3/32 \ 1/32$       |
|                                         | 6 and smaller                                               | $+ 5/32 \ 1/32$       |
| Diameter of Hub at Base (X)             | X 24 and under                                              | $\pm 1/16$            |
|                                         | X over 24                                                   | $\pm 1/8$             |
| Drilling                                | Bolt Circle                                                 | $\pm 1/16$            |
|                                         | Bolt hole spacing                                           | $\pm 1/32$            |
|                                         | Eccentricity of: Bolt Circle with respect to bore           | $1/32$ Max *          |
|                                         | Eccentricity of: Facing with respect to bore                | $1/32$ Max *          |
| Width of Land                           | All sizes                                                   | $\pm 1/32$ *          |
| Angle of Hub Bevel                      | All sizes                                                   | $\pm 2 \ 1/2^\circ$ * |
| Overall Height (Y)                      | 10 and smaller                                              | $\pm 1/16$            |
|                                         | 12 and larger                                               | $\pm 1/8$             |
| Thickness (T)                           | Over 18                                                     | $+ 3/16 \ 0$          |
|                                         | Where allowance has been left on face for finish: All sizes | $+ 1/8$ * $1/16$      |

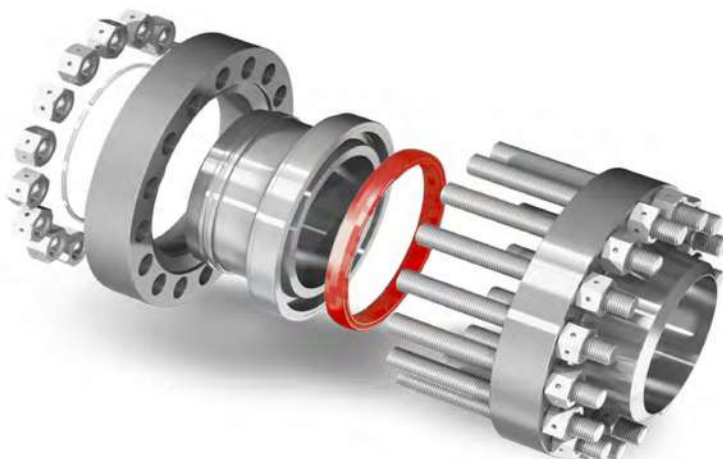
\* This tolerance not covered by ANSI B16.5. Orifice Flanges are not covered by this standard, but all ANSI flange tolerances, where applicable, apply to all Coastal Orifice Flange dimensions except the bore.

## Quality Assurance

Our technical research facilities & our product development teams are ready to meet the needs of most demanding customers.

Testing facilities available from Laboratory like:

- CHEMICALS
- MECHANICAL & PHYSICAL
- MICRO & MACRO
- IGC (Pr. A, B, C, D, E) NACE
- ULTRA
- HARDNESS
- IMPACT
- HYDROSTATIC
- FLATTENING
- HEAT TREATMENT
- BEND TEST
- X'RAY
- SPECTRO
- OTHER MISCELLANEOUS TEST

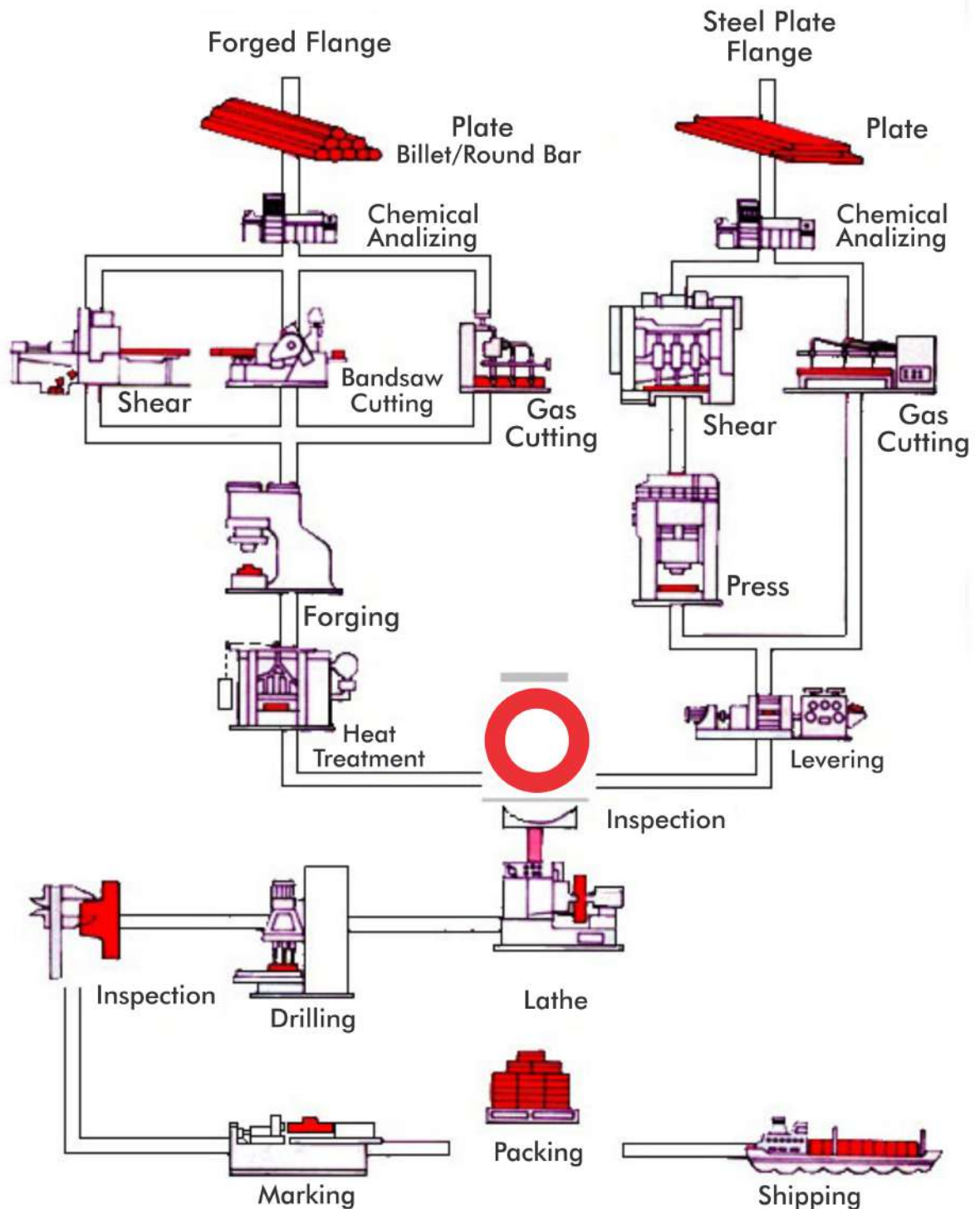




# SHREE ARBUDA STEEL

Mobile : +91 8108105140 / 8850182889

## Flanges Manufacturing Flow Chart





# SHREE ARBUDA STEEL

Mobile : +91 8108105140 / 8850182889



## BUTTWELD FITTINGS.....



|                                  |                                                                           |
|----------------------------------|---------------------------------------------------------------------------|
| <b>Stainless Steel</b>           | : ASTM A403, WP304, 304L, 304H, 316, 316L, 317, 317L, 321, 310, 347, 904L |
| <b>Duplex &amp; Super Duplex</b> | : UNS S31803, UNS S32750, UNS S32760,                                     |
| <b>Hastelloy Alloy</b>           | : ASTM B366 Hastelloy B2, Hastelloy C276, Hastelloy C22                   |
| <b>Incoloy Alloys</b>            | : ASTM B366 Alloy 20, Alloy 800H/800HT, Alloy 825, Alloy A286             |
| <b>Inconel Alloys</b>            | : ASTM B366 Alloy 600, Alloy 601, Alloy 625, Alloy 718, Alloy 725,        |
| <b>Monel Alloys</b>              | : ASTM B366 Monel 400, Monel K500.                                        |
| <b>Carbon Steel</b>              | : ASTM A234 WPB, A420 WPL3, A420 WPL6, MSS-SP-75 WPHY 42/46/52            |
| <b>Alloy Steel</b>               | : ASTM A234WP1, WP5, WP9, WP11, WP22                                      |
| <b>Size</b>                      | : 1/4" NB TO 24" NB (seamless)<br>4" NB TO 72" NB (welded)                |
| <b>Wall Thickness</b>            | : Sch. 5s To Sch. XXS                                                     |

### TYPE OF BUTTWELD FITTINGS

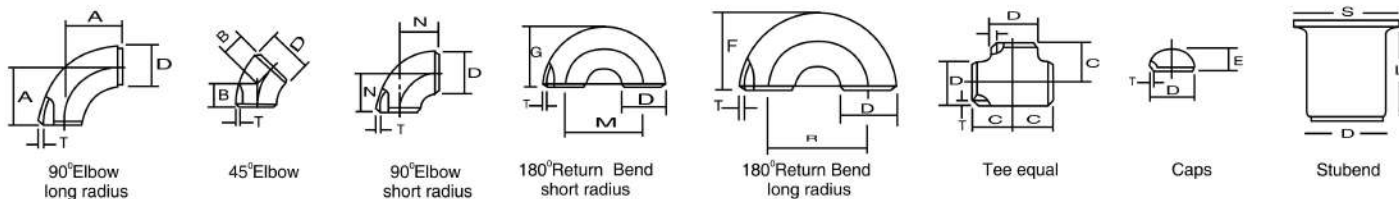
- |                         |                                 |
|-------------------------|---------------------------------|
| ● ELBOW (1D/1.5D/3D/5D) | ● 180° RETURN BEND / MITER BEND |
| ● EQUAL TEE             | ● REDUCING TEE / CROSS TEE      |
| ● LONG STUBEND          | ● SHORT STUBEND                 |
| ● REDUCER (CON./ECC.)   | ● END CAP / DISH END CAP        |



# SHREE ARBUDA STEEL

Mobile : +91 8108105140 / 8850182889

## Butt Welding Pipe Fittings Dimensional Standard ANSI B-16.9, B-16.28



| Nominal Pipe Size |      | Outside Diameter | Center to Face |     |     |      | Back to Face |      |     | Center to Center |      |       | Length 'L' |             |
|-------------------|------|------------------|----------------|-----|-----|------|--------------|------|-----|------------------|------|-------|------------|-------------|
| Inch.             | mm   | D                | A              | B   | C   | N    | E            | F    | G   | R                | M    | S     | MSS SP43   | ANSI B 16.9 |
| 1/2               | 15   | 21.3             | 38             | 16  | 25  | —    | 25           | 48   | —   | 76               | —    | 34.9  | 50.8       | 76.2        |
| 3/4               | 20   | 26.7             | 38             | 11  | 29  | —    | 25           | 43   | —   | 57               | —    | 42.8  | 50.8       | 76.2        |
| 1                 | 25   | 33.4             | 38             | 22  | 38  | 25   | 38           | 56   | 41  | 76               | 51   | 50.8  | 50.8       | 101.6       |
| 1 1/4             | 32   | 42.2             | 48             | 25  | 48  | 32   | 38           | 70   | 52  | 95               | 64   | 63.5  | 50.8       | 101.6       |
| 1 1/2             | 40   | 48.3             | 57             | 29  | 57  | 38   | 38           | 83   | 62  | 114              | 76   | 73.0  | 50.8       | 101.6       |
| 2                 | 50   | 60.3             | 76             | 35  | 64  | 51   | 38           | 106  | 81  | 152              | 102  | 92.0  | 63.5       | 152.4       |
| 2 1/2             | 65   | 73.0             | 95             | 44  | 76  | 64   | 38           | 132  | 100 | 191              | 127  | 104.8 | 63.5       | 152.4       |
| 3                 | 80   | 88.9             | 114            | 51  | 86  | 76   | 51           | 159  | 121 | 229              | 152  | 127.0 | 63.5       | 152.4       |
| 3 1/2             | 90   | 101.6            | 133            | 57  | 95  | 89   | 64           | 184  | 140 | 267              | 178  | 139.7 | 76.2       | 152.4       |
| 4                 | 100  | 114.3            | 152            | 64  | 105 | 102  | 64           | 210  | 159 | 305              | 203  | 157.2 | 76.2       | 152.4       |
| 5                 | 125  | 141.3            | 190            | 79  | 124 | 127  | 76           | 262  | 197 | 381              | 254  | 185.7 | 76.2       | 203.2       |
| 6                 | 150  | 168.3            | 229            | 95  | 143 | 152  | 89           | 313  | 237 | 457              | 305  | 215.9 | 88.9       | 203.2       |
| 8                 | 200  | 219.1            | 305            | 127 | 178 | 203  | 102          | 414  | 313 | 610              | 406  | 270.0 | 101.6      | 203.2       |
| 10                | 250  | 273.1            | 381            | 159 | 216 | 254  | 127          | 518  | 391 | 762              | 508  | 324.0 | 127.0      | 254.0       |
| 12                | 300  | 323.9            | 457            | 190 | 254 | 305  | 152          | 619  | 467 | 914              | 610  | 381.0 | 152.4      | 254.0       |
| 14                | 350  | 355.6            | 533            | 222 | 279 | 356  | 165          | 711  | 533 | 1067             | 711  | 412.8 | 152.4      | 305.0       |
| 16                | 400  | 406.4            | 610            | 254 | 305 | 406  | 178          | 813  | 610 | 1219             | 813  | 470.0 | 152.4      | 305.0       |
| 18                | 450  | 457.2            | 686            | 286 | 343 | 457  | 203          | 914  | 686 | 1372             | 914  | 533.4 | 152.4      | 305.0       |
| 20                | 500  | 508.0            | 762            | 318 | 381 | 508  | 229          | 1016 | 762 | 1524             | 1016 | 584.2 | 152.4      | 305.0       |
| 22                | 550  | 559.0            | 838            | 343 | 419 | 559  | 254          | 1118 | 838 | 1676             | 1118 | 614.4 | 152.4      | 305.0       |
| 24                | 600  | 610.0            | 914            | 381 | 432 | 610  | 267          | 1219 | 914 | 1829             | 1219 | 692.2 | 152.4      | 305.0       |
| 26                | 650  | 660.0            | 991            | 406 | 495 | 660  | 267          | —    | —   | —                | —    | —     | —          | —           |
| 28                | 700  | 711.0            | 1067           | 438 | 521 | 711  | 267          | —    | —   | —                | —    | —     | —          | —           |
| 30                | 750  | 762.0            | 1143           | 470 | 559 | 762  | 267          | —    | —   | —                | —    | —     | —          | —           |
| 32                | 800  | 813.0            | 1219           | 502 | 597 | 813  | 267          | —    | —   | —                | —    | —     | —          | —           |
| 34                | 850  | 864.0            | 1295           | 533 | 635 | 864  | 267          | —    | —   | —                | —    | —     | —          | —           |
| 36                | 900  | 914.0            | 1372           | 565 | 673 | 914  | 267          | —    | —   | —                | —    | —     | —          | —           |
| 38                | 950  | 965.0            | 1448           | 600 | 711 | 965  | 305          | —    | —   | —                | —    | —     | —          | —           |
| 40                | 1000 | 1016.0           | 1524           | 632 | 749 | 1016 | 305          | —    | —   | —                | —    | —     | —          | —           |
| 42                | 1050 | 1067.0           | 1600           | 660 | 762 | 1067 | 305          | —    | —   | —                | —    | —     | —          | —           |
| 44                | 1100 | 1118.0           | 1676           | 695 | 813 | 1118 | 343          | —    | —   | —                | —    | —     | —          | —           |
| 46                | 1150 | 1168.0           | 1753           | 727 | 851 | 1168 | 343          | —    | —   | —                | —    | —     | —          | —           |
| 48                | 1200 | 1219.0           | 1829           | 759 | 889 | 1219 | 343          | —    | —   | —                | —    | —     | —          | —           |

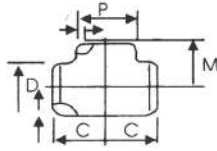




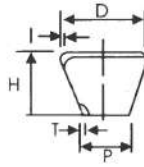
# SHREE ARBUDA STEEL

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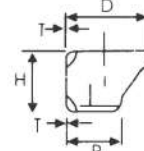
## DIMENSION OF BUTT-WELDING FITING ANSI B-16.9 / B-16.28



REDUCING TEES



CONCENTRIC REDUCERS



ECCENTRIC REDUCERS

| Nominal Pipe Size |           | Outside Diameter |       | Center to End |     | Length |
|-------------------|-----------|------------------|-------|---------------|-----|--------|
| Inch.             | mm        | D                | P     | C             | M   | H      |
| 1/2 x 3/8         | 15 x 10   | 21.3             | 17.1  | 25            | 25  | -      |
| 1/2 x 1/4         | 15 x 8    | 21.3             | 13.7  | 25            | 25  | -      |
| 3/4 x 1/2         | 20 x 15   | 26.7             | 21.3  | 29            | 29  | 38     |
| 3/4 x 3/8         | 20 x 10   | 26.7             | 17.1  | 29            | 29  | 38     |
| 1 x 3/4           | 25 x 20   | 33.4             | 26.7  | 38            | 38  | 51     |
| 1 x 1/2           | 25 x 15   | 33.4             | 21.3  | 38            | 38  | 51     |
| 1 1/4 x 1         | 32 x 25   | 42.2             | 33.4  | 48            | 48  | 51     |
| 1 1/4 x 3/4       | 32 x 20   | 42.2             | 26.7  | 48            | 48  | 51     |
| 1 1/4 x 1/2       | 32 x 15   | 42.2             | 21.3  | 48            | 48  | 51     |
| 1 1/2 x 1 1/2     | 40 x 32   | 48.3             | 42.2  | 57            | 57  | 64     |
| 1 1/2 x 1         | 40 x 25   | 48.3             | 33.4  | 57            | 57  | 64     |
| 1 1/2 x 3/4       | 40 x 20   | 48.3             | 26.7  | 57            | 57  | 64     |
| 1 1/2 x 1/2       | 40 x 15   | 48.3             | 21.3  | 57            | 57  | 64     |
| 2 x 1 1/2         | 50 x 40   | 60.3             | 48.2  | 64            | 60  | 76     |
| 2 x 1 1/4         | 50 x 32   | 60.3             | 42.2  | 64            | 57  | 76     |
| 2 x 1             | 50 x 25   | 60.3             | 33.4  | 64            | 51  | 76     |
| 2 x 3/4           | 50 x 20   | 60.3             | 26.7  | 64            | 44  | 76     |
| 2 1/2 x 2         | 65 x 50   | 73.0             | 60.3  | 76            | 70  | 89     |
| 2 1/2 x 1 1/2     | 65 x 40   | 73.0             | 48.3  | 76            | 67  | 89     |
| 2 1/2 x 1 1/4     | 65 x 32   | 73.0             | 42.2  | 76            | 64  | 89     |
| 2 1/2 x 1         | 65 x 25   | 73.0             | 33.4  | 76            | 57  | 89     |
| 3 x 2 1/2         | 80 x 65   | 88.9             | 73.0  | 86            | 83  | 89     |
| 3 x 2             | 80 x 50   | 88.9             | 60.3  | 86            | 76  | 89     |
| 3 x 1 1/2         | 80 x 40   | 88.9             | 48.3  | 86            | 73  | 89     |
| 3 x 1 1/4         | 80 x 32   | 88.9             | 42.2  | 86            | 70  | 89     |
| 3 1/2 x 3         | 90 x 80   | 101.6            | 88.9  | 95            | 92  | 102    |
| 3 1/2 x 2 1/2     | 90 x 65   | 101.6            | 73.0  | 95            | 89  | 102    |
| 3 1/2 x 2         | 90 x 50   | 101.6            | 60.3  | 95            | 83  | 102    |
| 3 1/2 x 1 1/2     | 90 x 40   | 101.6            | 48.3  | 95            | 79  | 102    |
| 3 1/2 x 1 1/4     | 90 x 32   | 101.6            | 42.2  | -             | -   | 102    |
| 4 x 3 1/2         | 100 x 90  | 114.3            | 101.6 | 105           | 102 | 102    |
| 4 x 3             | 100 x 80  | 114.3            | 88.9  | 105           | 98  | 102    |
| 4 x 2 1/2         | 100 x 65  | 114.3            | 73.0  | 105           | 95  | 102    |
| 4 x 2             | 100 x 50  | 114.3            | 60.3  | 105           | 89  | 102    |
| 4 x 1 1/2         | 100 x 40  | 114.3            | 48.3  | 105           | 86  | 102    |
| 5 x 4             | 125 x 100 | 141.3            | 114.3 | 124           | 117 | 127    |
| 5 x 3 1/2         | 125 x 90  | 141.3            | 101.6 | 124           | 114 | 127    |
| 5 x 3             | 125 x 80  | 141.3            | 88.9  | 124           | 111 | 127    |
| 5 x 2 1/2         | 125 x 65  | 141.3            | 73.0  | 124           | 108 | 127    |
| 5 x 2             | 125 x 50  | 141.3            | 60.3  | 124           | 105 | 127    |
| 6 x 5             | 150 x 125 | 168.3            | 141.3 | 143           | 137 | 140    |
| 6 x 4             | 150 x 100 | 168.3            | 114.3 | 143           | 130 | 140    |
| 6 x 3 1/2         | 150 x 90  | 168.3            | 101.6 | 143           | 127 | 140    |
| 6 x 3             | 150 x 80  | 168.3            | 88.9  | 143           | 124 | 140    |
| 6 x 2 1/2         | 150 x 65  | 168.3            | 73.0  | 143           | 121 | 140    |

| Nominal Pipe Size |           | Outside Diameter |       | Center to End |     | Length |
|-------------------|-----------|------------------|-------|---------------|-----|--------|
| Inch.             | mm        | D                | P     | C             | M   | H      |
| 8 x 6             | 200x150   | 219.1            | 168.3 | 178           | 168 | 152    |
| 8 x 5             | 200 x 125 | 219.1            | 141.3 | 178           | 162 | 152    |
| 8 x 4             | 200 x 100 | 219.1            | 114.3 | 178           | 156 | 152    |
| 8 x 3 1/2         | 200 x 90  | 219.1            | 101.6 | 178           | 152 | 152    |
| 10 x 8            | 250 x 200 | 273.1            | 219.1 | 216           | 203 | 178    |
| 10 x 6            | 250 x 150 | 273.1            | 168.1 | 216           | 194 | 178    |
| 10 x 5            | 250 x 125 | 273.1            | 141.3 | 216           | 191 | 178    |
| 10 x 4            | 250 x 100 | 273.1            | 114.3 | 216           | 184 | 178    |
| 12 x 10           | 300 x 250 | 323.9            | 273.1 | 254           | 241 | 203    |
| 12 x 8            | 300 x 200 | 323.9            | 219.1 | 254           | 229 | 203    |
| 12 x 6            | 300 x 150 | 323.9            | 168.3 | 254           | 219 | 203    |
| 12 x 5            | 300 x 125 | 323.9            | 141.3 | 254           | 216 | 203    |
| 14 x 12           | 350 x 300 | 355.6            | 323.9 | 279           | 270 | 330    |
| 14 x 10           | 350 x 250 | 355.6            | 273.1 | 279           | 257 | 330    |
| 14 x 8            | 350 x 200 | 355.6            | 219.1 | 279           | 248 | 330    |
| 14 x 6            | 350 x 150 | 355.6            | 168.3 | 279           | 238 | 330    |
| 16 x 14           | 400 x 350 | 406.4            | 355.6 | 305           | 305 | 356    |
| 16 x 12           | 400 x 300 | 406.4            | 323.9 | 305           | 295 | 356    |
| 16 x 10           | 400 x 250 | 406.4            | 273.1 | 305           | 283 | 356    |
| 16 x 8            | 400 x 200 | 406.4            | 219.1 | 305           | 273 | 356    |
| 16 x 6            | 400 x 150 | 406.4            | 168.3 | 305           | 264 | 356    |
| 18 x 16           | 450 x 400 | 457.0            | 406.4 | 343           | 330 | 381    |
| 18 x 14           | 450 x 350 | 457.0            | 355.6 | 343           | 330 | 381    |
| 18 x 12           | 450 x 300 | 457.0            | 323.9 | 343           | 321 | 381    |
| 18 x 10           | 450 x 250 | 457.0            | 273.1 | 343           | 308 | 381    |
| 18 x 8            | 450 x 200 | 457.0            | 219.1 | 343           | 298 | 381    |
| 20 x 18           | 500 x 450 | 508.0            | 457.0 | 381           | 368 | 508    |
| 20 x 16           | 500 x 400 | 508.0            | 406.4 | 381           | 356 | 508    |
| 20 x 14           | 500 x 350 | 508.0            | 355.6 | 381           | 356 | 508    |
| 20 x 12           | 500 x 300 | 508.0            | 323.9 | 381           | 346 | 508    |
| 20 x 10           | 500 x 250 | 508.0            | 273.1 | 381           | 333 | 508    |
| 20 x 8            | 500 x 200 | 508.0            | 219.1 | 381           | 324 | 508    |
| 22 x 20           | 550 x 500 | 559.0            | 508.0 | 419           | 406 | 508    |
| 22 x 18           | 550 x 450 | 559.0            | 457.0 | 419           | 394 | 508    |
| 22 x 16           | 550 x 400 | 559.0            | 406.4 | 419           | 381 | 508    |
| 22 x 14           | 550 x 350 | 559.0            | 355.6 | 419           | 381 | 508    |
| 22 x 12           | 550 x 300 | 559.0            | 323.9 | 419           | 371 | 508    |
| 24 x 10           | 550 x 250 | 559.0            | 273.1 | 419           | 359 | 508    |
| 24 x 22           | 600 x 550 | 610.0            | 559.0 | 432           | 432 | 508    |
| 24 x 20           | 600 x 500 | 610.0            | 508.0 | 432           | 432 | 508    |
| 24 x 18           | 600 x 450 | 610.0            | 457.0 | 432           | 419 | 508    |
| 24 x 16           | 600 x 400 | 610.0            | 406.4 | 432           | 406 | 508    |
| 24 x 14           | 600 x 350 | 610.0            | 355.6 | 432           | 406 | 508    |
| 24 x 12           | 600 x 300 | 610.0            | 323.9 | 432           | 397 | 508    |
| 24 x 10           | 600 x 250 | 610.0            | 273.1 | 432           | 384 | 508    |



# SHREE ARBUDA STEEL

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## BUTT-WELD FITTINGS ASTM

### MATERIALS SPECIFICATION FOR SEAMLESS BUTT-WELDING PIPE-FITTINGS

| SPECIFICATION<br>(ASTM-2002)                                 | CHEMICAL PROPERTIES |           |             |             |           | MECHANICAL PROPERTIES |           |                 |               |                     | OTHERS |                          |
|--------------------------------------------------------------|---------------------|-----------|-------------|-------------|-----------|-----------------------|-----------|-----------------|---------------|---------------------|--------|--------------------------|
|                                                              | C%                  | Mn%       | P%<br>(Max) | S%<br>(Max) | Cr%       | Mo%                   | Ni%       | U.T.S.<br>(Mpa) | Y.S.<br>(Mpa) | ELONG<br>(Min)<br>L |        | Hardness<br>(Max)<br>BHN |
| STAINLESS STEEL                                              |                     |           |             |             |           |                       |           |                 |               |                     |        |                          |
| A 403 Gr. WP 304                                             | 0.080 Max           | 2.00 Max  | 0.045       | 0.030       | 18.0-20.0 | -                     | 8.0-11.0  | 515             | 205           | 28                  | 20     | -                        |
| A 403 Gr. WP 304L                                            | 0.030 Max           | 2.00 Max  | 0.045       | 0.030       | 18.0-20.0 | -                     | 8.0-12.0  | 485             | 170           | 28                  | 20     | -                        |
| A 403 Gr. WP 304H                                            | 0.04-0.10           | 2.00 Max  | 0.045       | 0.030       | 18.0-20.0 | -                     | 8.0-11.0  | 515             | 205           | 28                  | 20     | -                        |
| A 403 Gr. WP 304LN                                           | 0.030 Max           | 2.00 Max  | 0.045       | 0.030       | 18.0-20.0 | -                     | 8.0-11.0  | 515             | 205           | 28                  | 20     | N%=0.10-0.16             |
| A 403 Gr. WP 309                                             | 0.20 Max            | 2.00 Max  | 0.045       | 0.030       | 22.0-24.0 | -                     | 12.0-15.0 | 515             | 205           | 28                  | 20     | -                        |
| A 403 Gr. WP 310S                                            | 0.080 Max           | 2.00 Max  | 0.045       | 0.030       | 24.0-26.0 | -                     | 19.0-22.0 | 515             | 205           | 28                  | 20     | -                        |
| A 403 Gr. WP 316                                             | 0.080 Max           | 2.00 Max  | 0.045       | 0.030       | 16.0-18.0 | 2.0-3.0               | 10.0-14.0 | 515             | 205           | 28                  | 20     | -                        |
| A 403 Gr. WP 316L                                            | 0.030 Max           | 2.00 Max  | 0.045       | 0.030       | 16.0-18.0 | 2.0-3.0               | 10.0-14.0 | 485             | 170           | 28                  | 20     | -                        |
| A 403 Gr. WP 316H                                            | 0.04-0.10           | 2.00 Max  | 0.045       | 0.030       | 16.0-18.0 | 2.0-3.0               | 10.0-14.0 | 515             | 205           | 28                  | 20     | -                        |
| A 403 Gr. WP 316LN                                           | 0.030 Max           | 2.00 Max  | 0.045       | 0.030       | 16.0-18.0 | 2.0-3.0               | 10.0-13.0 | 515             | 205           | 28                  | 20     | N%=0.10-0.16             |
| A 403 Gr. WP 317                                             | 0.080 Max           | 2.00 Max  | 0.045       | 0.030       | 18.0-20.0 | 3.0-4.0               | 11.0-15.0 | 515             | 205           | 28                  | 20     | -                        |
| A 403 Gr. WP 317L                                            | 0.030 Max           | 2.00 Max  | 0.045       | 0.030       | 18.0-20.0 | 3.0-4.0               | 11.0-15.0 | 515             | 205           | 28                  | 20     | -                        |
| A 403 Gr. WP 321                                             | 0.080 Max           | 2.00 Max  | 0.045       | 0.030       | 17.0-19.0 | -                     | 9.0-12.0  | 515             | 205           | 28                  | 20     | Ti%=(5XC)+0.70           |
| A 403 Gr. WP 321H                                            | 0.04-0.10           | 2.00 Max  | 0.045       | 0.030       | 17.0-19.0 | -                     | 9.0-12.0  | 515             | 205           | 28                  | 20     | Ti%=(4XC)+0.70           |
| A 403 Gr. WP 347                                             | 0.080 Max           | 2.00 Max  | 0.045       | 0.030       | 17.0-19.0 | -                     | 9.0-12.0  | 515             | 205           | 28                  | 20     | Cb%=(10XC)-1.10          |
| A 403 Gr. WP 347H                                            | 0.04-0.10           | 2.00 Max  | 0.045       | 0.030       | 17.0-19.0 | -                     | 9.0-12.0  | 515             | 205           | 28                  | 20     | Cb%=(8XC)-1.10           |
| CARBON STEEL                                                 |                     |           |             |             |           |                       |           |                 |               |                     |        |                          |
| A 234 Gr. WPB                                                | 0.30 Max            | 0.29-1.06 | 0.050       | 0.058       | 0.10 Min  | 0.40 Max              | 0.15 Max  | 415-655         | 240           | 30                  | 20     | 197                      |
| A 234 Gr. WPC                                                | 0.35 Max            | 0.29-1.06 | 0.050       | 0.058       | 0.10 Min  | 0.40 Max              | 0.15 Max  | 485-655         | 275           | 30                  | 20     | 197                      |
| LOW TEMPERATURE CARBON STEEL                                 |                     |           |             |             |           |                       |           |                 |               |                     |        |                          |
| A 420 Gr. WPL6                                               | 0.30 Max            | 0.50-1.35 | 0.035       | 0.040       | 0.15-0.40 | 0.30 Max              | 0.12 Max  | 415-655         | 240           | 30                  | 16.5   | 197                      |
| A 420 Gr. WPL 3                                              | 0.20 Max            | 0.31-0.64 | 0.050       | 0.050       | 0.13-0.37 | -                     | 3.20-3.80 | 450-620         | 240           | 30                  | 20     | 197                      |
| ALLOY STEEL                                                  |                     |           |             |             |           |                       |           |                 |               |                     |        |                          |
| A 234 Gr. WP 1                                               | 0.28 Max            | 0.30-0.90 | 0.045       | 0.045       | 0.10-0.50 | -                     | 0.44-0.65 | 380-550         | 205           | 30                  | 20     | 197                      |
| A 234 Gr. WP 5                                               | 0.15 Max            | 0.30-0.60 | 0.040       | 0.030       | 0.50 Max  | 4.0-6.0               | 0.44-0.65 | 415-585         | 205           | 30                  | 20     | 217                      |
| A 234 Gr. WP 9                                               | 0.15 Max            | 0.30-0.60 | 0.030       | 0.030       | 1.00 Max  | 8.0-10.0              | 0.90-1.10 | 415-585         | 205           | 30                  | 20     | 217                      |
| A 234 Gr. WP 11 CL1                                          | 0.05-0.15           | 0.30-0.60 | 0.030       | 0.030       | 0.50-1.0  | 1.0-1.5               | 0.44-0.65 | 415-585         | 205           | 30                  | 20     | 197                      |
| A 234 Gr. WP 11 CL2                                          | 0.05-0.20           | 0.30-0.80 | 0.040       | 0.040       | 0.50-1.0  | 1.0-1.5               | 0.44-0.65 | 485-655         | 275           | 30                  | 20     | 197                      |
| A 234 Gr. WP 11 CL3                                          | 0.05-0.20           | 0.30-0.80 | 0.040       | 0.040       | 0.50-1.0  | 1.0-1.5               | 0.44-0.65 | 520-690         | 310           | 30                  | 20     | 197                      |
| A 234 Gr. WP 12 CL1                                          | 0.05-0.20           | 0.30-0.80 | 0.045       | 0.045       | 0.60 Max  | 0.80-1.25             | 0.44-0.65 | 415-585         | 220           | 30                  | 20     | 197                      |
| A 234 Gr. WP 12 CL2                                          | 0.05-0.20           | 0.30-0.80 | 0.045       | 0.045       | 0.60 Max  | 0.80-1.25             | 0.44-0.65 | 485-655         | 275           | 30                  | 20     | 197                      |
| A 234 Gr. WP 22 CL1                                          | 0.05-0.15           | 0.30-0.60 | 0.040       | 0.040       | 0.50 Max  | 1.90-2.60             | 0.87-1.13 | 415-585         | 205           | 30                  | 20     | 197                      |
| A 234 Gr. WP 22 CL3                                          | 0.05-0.15           | 0.30-0.60 | 0.040       | 0.040       | 0.50 Max  | 1.90-2.60             | 0.87-1.13 | 520-690         | 310           | 30                  | 20     | 197                      |
| A 234 Gr. WP 91                                              | 0.08-0.12           | 0.30-0.60 | 0.020       | 0.010       | 0.20-0.50 | 8.0-9.5               | 0.85-1.05 | 585-760         | 415           | 20                  | -      | 248                      |
| Val%=0.15-0.25; Cb%=-0.06-0.10; N%=-0.03-0.07; Al%=-0.04 Max |                     |           |             |             |           |                       |           |                 |               |                     |        |                          |



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## SOCKETWELD FITTINGS

|                        |                                                                          |
|------------------------|--------------------------------------------------------------------------|
| <b>Stainless Steel</b> | : ASTM A182, F304, 304L, 304H, 316, 316L, 317, 317L, 321, 310, 347, 904L |
| <b>High Nickel</b>     | : Monel, Nickel, Inconel, Hastelloy                                      |
| <b>Carbon Steel</b>    | : ASTM A105, A694 F42, A350 LF2                                          |
| <b>Alloy Steel</b>     | : ASTM A182 F1, F5, F9, F11, F22, F91                                    |
| <b>Size</b>            | : 1/4" NB TO 4" NB                                                       |
| <b>Class</b>           | : 3000#, 6000#, 9000#                                                    |



- Stainless Steel & Duplex Steel
- Nickel Alloy & Copper Nickel Alloy
- Carbon Steel & Alloy Steel

**Types :** Elbow, Tee, Union, Cross, Coup Bushing, Plug, Swage Nipple, Welding Boss, Hexagon Nipple, Barrel Nipple, Welding Nipple, Parallel Nipple, Street Elbow, Hexagon Nut, Hose Nipple, Bend, Adapter, Insert, Weldolet, Elbowlet, Sockolet, Thredolet, Nipolet, Letrolet, etc.



## DIMENSIONS OF SOCKET-WELDING FITTINGS ANSI B 16.11

| Nom. Pipe Size | Socket Bore Diameter | Socket Wall Thickness, C |      |      | Body Wall, G |      | Depth of Socket Min | Center to Bottom of Socket                        |                                |                |                | Laying Lengths |      | End Wall Thickness Class Designation Min K |      |      |
|----------------|----------------------|--------------------------|------|------|--------------|------|---------------------|---------------------------------------------------|--------------------------------|----------------|----------------|----------------|------|--------------------------------------------|------|------|
|                |                      | 3000                     | 6000 | 9000 | Min.         | Min. |                     | 90° Elbows, Tees, and Crosses Class Designation A | 45° Elbows Class Designation A | Full Couplings | Half Couplings | Min            | K    |                                            |      |      |
| DN             | NPS                  | d1                       |      |      |              |      | J                   |                                                   |                                |                |                | E              | F    |                                            |      |      |
| 6              | 1/8                  | 10.8-11.2                | 3.18 | 3.43 | -            | 2.41 | 9.5                 | 11                                                | -                              | 8              | 8              | 6.5            | 16   | 4.8                                        | 6.4  | -    |
| 8              | 1/4                  | 14.2-14.6                | 3.3  | 4.01 | -            | 3.02 | 9.5                 | 11                                                | -                              | 8              | 8              | 6.5            | 16   | 4.8                                        | 6.4  | -    |
| 10             | 3/8                  | 17.6-18                  | 3.5  | 4.37 | -            | 3.2  | 9.5                 | 13.5                                              | -                              | 8              | 11             | 6.5            | 17.5 | 4.8                                        | 6.4  | -    |
| 15             | 1/2                  | 21.8-22.2                | 4.09 | 5.18 | 8.18         | 3.73 | 9.5                 | 15.5                                              | 19                             | 12.5           | 15.5           | 9.5            | 22.5 | 6.4                                        | 7.9  | 11.2 |
| 20             | 3/4                  | 27.2-27.6                | 4.27 | 6.04 | 8.56         | 3.91 | 12.5                | 19                                                | 22.5                           | 13             | 14             | 9.5            | 24   | 6.4                                        | 7.9  | 12.7 |
| 25             | 1                    | 33.9-34.3                | 4.98 | 6.93 | 9.96         | 4.55 | 12.5                | 22.5                                              | 27                             | 32             | 17.5           | 12.5           | 28.5 | 9.6                                        | 11.2 | 14.2 |
| 32             | 1 1/4                | 42.7-43.1                | 5.28 | 6.93 | 10.62        | 4.85 | 12.5                | 27                                                | 32                             | 35             | 20.5           | 12.5           | 30   | 9.6                                        | 11.2 | 14.2 |
| 40             | 1 1/2                | 48.8-49.2                | 5.54 | 7.8  | 11.12        | 5.08 | 12.5                | 32                                                | 38                             | 20.5           | 25.5           | 12.5           | 32   | 11.2                                       | 12.7 | 15.7 |
| 50             | 2                    | 61.2-61.7                | 6.04 | 9.5  | 12.12        | 5.54 | 16                  | 38                                                | 41                             | 25.5           | 28.5           | 19             | 41   | 12.7                                       | 15.7 | 19.0 |
| 65             | 2 1/2                | 73.9-74.4                | 7.67 | -    | -            | 7.01 | 16                  | 41                                                | -                              | 28.5           | -              | 19             | 43   | 15.7                                       | 19.0 | -    |
| 80             | 3                    | 89.8-90.3                | 8.3  | -    | -            | 7.62 | 16                  | 57                                                | -                              | 32             | -              | 19             | 44.5 | 19.0                                       | 22.4 | -    |
| 100            | 4                    | 115.2-115.7              | 9.35 | -    | -            | 8.56 | 19                  | 66.5                                              | -                              | 41             | -              | 19             | 48   | 22.4                                       | 28.4 | -    |

90-deg Elbow

Cross

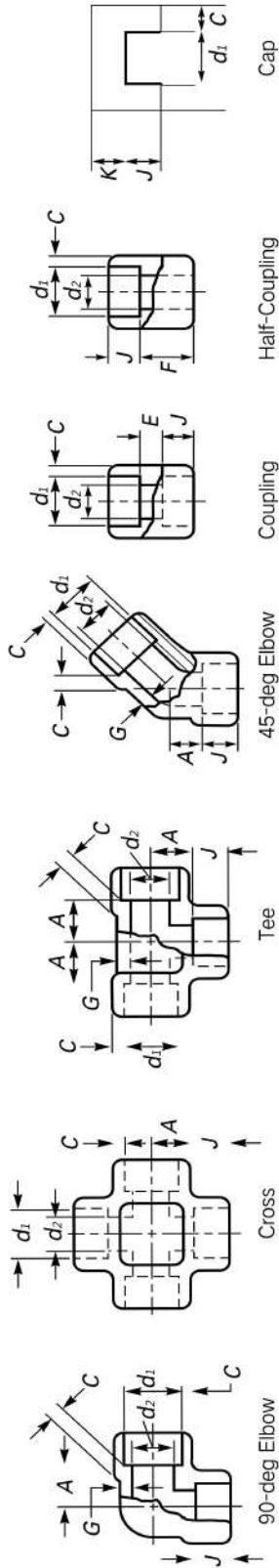
Tee

45-deg Elbow

Coupling

Half-Coupling

Cap



(1) All Dimensions Are in Millimeters

(2) Upper and lower values for each size are the respective maximum and minimum dimensions.

(3) Average of socket wall thickness around periphery shall be no less than listed values. The minimum values are permitted in localized areas.

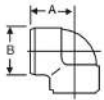


# SHREE ARBUDA STEEL

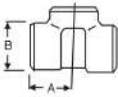
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## DIMENSION IN MM OF FORGED SCREWED FITTINGS TO ANSI B-16.11 THREADED TO ASA B 2.1

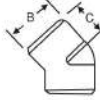
90° ELBOWS



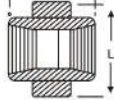
TEE



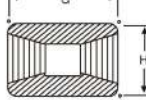
45° ELBOW



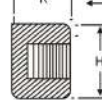
UNION



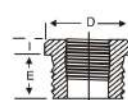
COUPLING



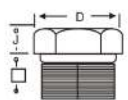
PIPE CAP



BUSHING



HEX HEAD PLUG

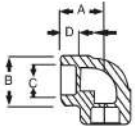


HALF COUPLING = G/2

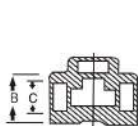
| NOM<br>BORE | PIPE<br>O.D. | 3000 L.B.S. |     |    |     |     |    | COMMON FACTORS |    |     |    |    |     | 6000 L.B.S |     |    |     |     |    |
|-------------|--------------|-------------|-----|----|-----|-----|----|----------------|----|-----|----|----|-----|------------|-----|----|-----|-----|----|
|             |              | A           | B   | C  | G   | H   | K  | D              | E  | F   | I  | J  | L   | A          | B   | C  | G   | H   | K  |
| 1/8"        | 10.3         | 21          | 22  | 17 | 32  | 16  | 19 | 11             | 10 | 40  | -  | 6  | -   | 25         | 25  | 19 | 32  | 22  | -  |
| 1/4"        | 13.7         | 25          | 25  | 19 | 35  | 19  | 25 | 16             | 11 | 43  | 3  | 6  | 32  | 29         | 33  | 22 | 35  | 25  | 27 |
| 3/8"        | 17.2         | 29          | 33  | 22 | 38  | 22  | 25 | 17.5           | 13 | 48  | 4  | 8  | 38  | 33         | 38  | 25 | 38  | 32  | 27 |
| 1/2"        | 21.3         | 33          | 38  | 25 | 48  | 29  | 32 | 22             | 15 | 51  | 5  | 8  | 46  | 38         | 46  | 29 | 48  | 38  | 33 |
| 3/4"        | 26.7         | 38          | 46  | 29 | 51  | 35  | 37 | 27             | 16 | 57  | 6  | 10 | 51  | 44         | 56  | 33 | 51  | 44  | 38 |
| 1"          | 33.4         | 44          | 56  | 33 | 60  | 44  | 41 | 35             | 19 | 64  | 6  | 10 | 60  | 51         | 62  | 35 | 60  | 57  | 43 |
| 1 1/4"      | 42.2         | 51          | 62  | 35 | 67  | 57  | 44 | 44.5           | 21 | 70  | 7  | 14 | 72  | 60         | 75  | 43 | 67  | 64  | 46 |
| 1 1/2"      | 48.3         | 60          | 75  | 43 | 79  | 64  | 44 | 51             | 21 | 79  | 8  | 16 | 80  | 64         | 84  | 44 | 79  | 76  | 48 |
| 2"          | 60.3         | 64          | 84  | 45 | 86  | 76  | 48 | 63.5           | 22 | 88  | 9  | 17 | 94  | 83         | 102 | 52 | 86  | 92  | 51 |
| 2 1/2"      | 73.02        | 83          | 102 | 52 | 92  | 92  | 60 | 76             | 27 | 118 | 10 | 21 | 122 | 95         | 121 | 64 | 92  | 108 | 64 |
| 3"          | 89.0         | 95          | 121 | 64 | 108 | 108 | 65 | 89             | 29 | 121 | 10 | 25 | 140 | 106        | 146 | 79 | 108 | 127 | 68 |
| 4"          | 114.5        | 114         | 152 | 79 | 121 | 140 | 68 | 117.5          | 32 | 150 | 13 | 25 | 180 | 114        | 152 | 79 | 121 | 159 | 75 |

## SOCKET WELD FITTING TO ANSI B-16.11

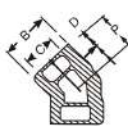
90° ELBOWS



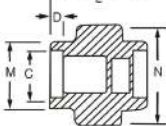
TEE



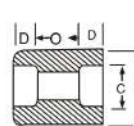
45° ELBOW



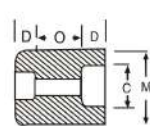
UNION



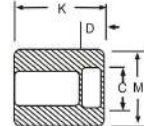
COUPLING



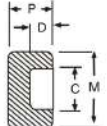
REDUCER



HALF COUPLING



CAP



| NOM<br>BORE | PIPE<br>O.D. | 3000 L.B.S. |      |    |    |     |       |     |      |    | COMMON FACTORS |      |      |      | 6000 L.B.S |     |    |    |     |
|-------------|--------------|-------------|------|----|----|-----|-------|-----|------|----|----------------|------|------|------|------------|-----|----|----|-----|
|             |              | A           | B    | K  | J  | L   | M     | N   | P    | Q  | Cmin           | Dmin | Omin | Omax | A          | B   | M  | K  | N   |
| 1/8"        | 10.3         | 22          | 18.5 | 26 | 16 | 40  | 17.3  | 32  | 17.5 | 10 | 10.7           | 10   | 5    | 8    | 22         | 22  | 20 | 25 | 46  |
| 1/4"        | 13.7         | 22          | 22   | 26 | 18 | 43  | 21.2  | 32  | 17.5 | 10 | 14.1           | 10   | 5    | 8    | 27         | 25  | 24 | 25 | 51  |
| 3/8"        | 17.2         | 25          | 25   | 26 | 19 | 48  | 25.4  | 36  | 19   | 10 | 17.6           | 10   | 3    | 9    | 27         | 28  | 28 | 26 | 60  |
| 1/2"        | 21.3         | 27          | 32   | 30 | 21 | 51  | 31    | 43  | 22   | 10 | 21.7           | 10   | 6    | 13   | 31         | 34  | 34 | 31 | 72  |
| 3/4"        | 26.7         | 34          | 38   | 36 | 24 | 57  | 37    | 50  | 25   | 13 | 27             | 13   | 6    | 13   | 37         | 42  | 41 | 35 | 80  |
| 1"          | 33.4         | 37          | 46   | 40 | 25 | 64  | 45.2  | 60  | 27   | 13 | 33.8           | 13   | 9    | 17   | 42         | 50  | 50 | 40 | 94  |
| 1 1/4"      | 42.2         | 42          | 56   | 40 | 29 | 70  | 55    | 70  | 30   | 13 | 42.6           | 13   | 9    | 17   | 47         | 59  | 58 | 41 | 100 |
| 1 1/2"      | 48.3         | 47          | 62   | 40 | 30 | 79  | 61.4  | 78  | 32   | 13 | 48.7           | 13   | 9    | 17   | 53         | 67  | 55 | 43 | 122 |
| 2"          | 60.3         | 56          | 75   | 52 | 37 | 89  | 75    | 95  | 38   | 13 | 61.2           | 16   | 15   | 23   | 59         | 84  | 83 | 55 |     |
| 2 1/2"      | 73.02        | 60          | 92   | 52 | 48 | 114 | 91.3  | 125 | 38   | 16 | 73.8           | 16   | 14   | 24   |            | 102 |    | 56 |     |
| 3"          | 89.00        | 76          | 110  | 52 | 51 | 127 | 108.8 | 140 | 44   | 16 | 89.8           | 16   | 14   | 24   |            | 121 |    | 58 |     |
| 4"          | 114.50       | 88          | 137  | 58 |    | 150 | 136.9 |     | 48   | 19 | 115.5          | 19   | 14   | 24   |            | 152 |    | 64 |     |

DIMENSIONS AND OTHERS SPECIFICATIONS AS PER CUSTOMERS REQUIREMENTS ARE AVAILABLE ON REQUEST

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# SHREE ARBUDA STEEL

Mobile : +91 8108105140 / 8850182889



## SPECTACLE FLANGES

**Stainless Steel :** 304, 304L, 304H, 316, 316L, 317, 317L

**High Nickel Alloy :**

**Carbon Steel :** A105, A350 Lf2

**Alloy Steel :** A182 F1, F5, F9, F11, F22, F91

**Size :** 1/2" (15NB) to 48" (1200NB)

**Standard :** ASME B16.48

**Class :** 150#, 300#, 600#, 900#, 1500#, 2500#

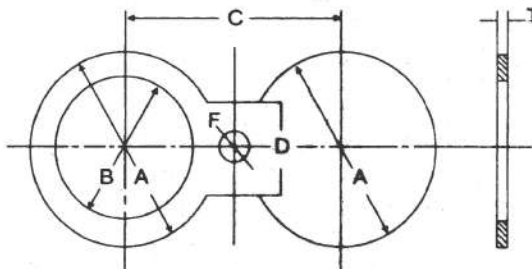




# SHREE ARBUDA STEEL

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## SPECTACE FLG & FF, SPACER & BLANKS SPECTACLE FLANGES 150 CLASS, 300 CLASS, 600 CLASS, 900 CLASS



| CLASS 150 |                   |                    |                        |             |             |
|-----------|-------------------|--------------------|------------------------|-------------|-------------|
| NPS       | Inside Diameter B | Outside Diameter O | Centerline Dimension A | Thickness t | Web Width W |
| 1/2       | 16                | 44                 | 60                     | 3           | 38          |
| 3/4       | 21                | 54                 | 70                     | 3           | 38          |
| 1         | 27                | 64                 | 79                     | 3           | 38          |
| 1 1/4     | 42                | 73                 | 89                     | 6           | 38          |
| 1 1/2     | 48                | 83                 | 99                     | 6           | 38          |
| 2         | 60                | 102                | 121                    | 6           | 51          |
| 2 1/2     | 73                | 121                | 140                    | 6           | 51          |
| 3         | 89                | 133                | 152                    | 6           | 64          |
| 3 1/2     | 102               | 159                | 178                    | 10          | 64          |
| 4         | 114               | 171                | 190                    | 10          | 64          |
| 5         | 141               | 197                | 216                    | 10          | 76          |
| 6         | 168               | 219                | 241                    | 13          | 76          |
| 8         | 219               | 276                | 298                    | 13          | 76          |
| 10        | 273               | 337                | 362                    | 16          | 102         |
| 12        | 324               | 406                | 432                    | 19          | 102         |
| 14        | 356               | 448                | 476                    | 19          | 108         |
| 16        | 406               | 511                | 540                    | 22          | 108         |
| 18        | 457               | 546                | 578                    | 25          | 114         |
| 20        | 508               | 603                | 635                    | 28          | 121         |
| 24        | 610               | 714                | 749                    | 32          | 140         |

| CLASS 300 |                   |                    |                        |             |             |
|-----------|-------------------|--------------------|------------------------|-------------|-------------|
| NPS       | Inside Diameter B | Outside Diameter O | Centerline Dimension A | Thickness t | Web Width W |
| 1/2       | 16                | 51                 | 60                     | 6           | 38          |
| 3/4       | 21                | 64                 | 70                     | 6           | 38          |
| 1         | 27                | 70                 | 79                     | 6           | 38          |
| 1 1/4     | 42                | 79                 | 89                     | 6           | 38          |
| 1 1/2     | 48                | 92                 | 99                     | 6           | 51          |
| 2         | 60                | 108                | 121                    | 10          | 51          |
| 2 1/2     | 73                | 127                | 140                    | 10          | 64          |
| 3         | 89                | 146                | 152                    | 10          | 64          |
| 3 1/2     | 102               | 162                | 178                    | 13          | 64          |
| 4         | 114               | 178                | 190                    | 13          | 64          |
| 5         | 141               | 213                | 216                    | 16          | 76          |
| 6         | 168               | 248                | 241                    | 16          | 76          |
| 8         | 219               | 305                | 298                    | 22          | 89          |
| 10        | 273               | 359                | 362                    | 25          | 102         |
| 12        | 324               | 419                | 432                    | 28          | 102         |
| 14        | 356               | 483                | 476                    | 32          | 121         |
| 16        | 406               | 537                | 540                    | 38          | 124         |
| 18        | 457               | 594                | 578                    | 41          | 114         |
| 20        | 508               | 651                | 635                    | 44          | 121         |
| 24        | 610               | 772                | 749                    | 51          | 140         |

| CLASS 600 |                   |                    |                        |             |             |
|-----------|-------------------|--------------------|------------------------|-------------|-------------|
| NPS       | Inside Diameter B | Outside Diameter O | Centerline Dimension A | Thickness t | Web Width W |
| 1/2       | 16                | 51                 | 67                     | 6           | 38          |
| 3/4       | 21                | 64                 | 83                     | 6           | 38          |
| 1         | 27                | 70                 | 89                     | 10          | 57          |
| 1 1/4     | 37                | 79                 | 99                     | 10          | 57          |
| 1 1/2     | 43                | 92                 | 114                    | 10          | 67          |
| 2         | 55                | 108                | 127                    | 10          | 57          |
| 2 1/2     | 67                | 127                | 149                    | 13          | 67          |
| 3         | 83                | 146                | 168                    | 13          | 67          |
| 3 1/2     | 96                | 159                | 184                    | 16          | 76          |
| 4         | 108               | 191                | 216                    | 16          | 76          |
| 5         | 135               | 238                | 267                    | 19          | 86          |
| 6         | 162               | 264                | 292                    | 22          | 86          |
| 8         | 212               | 318                | 349                    | 28          | 95          |
| 10        | 265               | 397                | 432                    | 38          | 105         |
| 12        | 315               | 454                | 489                    | 41          | 105         |
| 14        | 346               | 489                | 527                    | 44          | 114         |
| 16        | 397               | 562                | 603                    | 51          | 124         |
| 18        | 448               | 610                | 654                    | 54          | 133         |
| 20        | 497               | 679                | 724                    | 64          | 133         |
| 24        | 597               | 787                | 838                    | 73          | 152         |

| CLASS 900 |                   |                    |                        |             |             |
|-----------|-------------------|--------------------|------------------------|-------------|-------------|
| NPS       | Inside Diameter B | Outside Diameter O | Centerline Dimension A | Thickness t | Web Width W |
| 1/2       | 16                | 60                 | 83                     | 6           | 38          |
| 3/4       | 21                | 67                 | 89                     | 6           | 41          |
| 1         | 27                | 76                 | 102                    | 6           | 57          |
| 1 1/4     | 37                | 86                 | 111                    | 10          | 57          |
| 1 1/2     | 43                | 95                 | 124                    | 10          | 67          |
| 2         | 55                | 140                | 165                    | 13          | 57          |
| 2 1/2     | 67                | 162                | 190                    | 13          | 67          |
| 3         | 83                | 165                | 190                    | 16          | 67          |
| 4         | 108               | 203                | 235                    | 19          | 76          |
| 5         | 135               | 244                | 279                    | 22          | 86          |
| 6         | 162               | 286                | 318                    | 25          | 86          |
| 8         | 212               | 356                | 394                    | 35          | 95          |
| 10        | 265               | 432                | 470                    | 41          | 105         |
| 12        | 315               | 495                | 533                    | 48          | 105         |
| 14        | 346               | 518                | 559                    | 54          | 114         |
| 16        | 397               | 572                | 616                    | 60          | 124         |
| 18        | 448               | 635                | 686                    | 67          | 133         |
| 20        | 497               | 695                | 749                    | 73          | 133         |
| 24        | 597               | 835                | 902                    | 89          | 152         |

### Notes:-

- (1) Thickness (dimension) includes a corrosion allowed allowance of 0.05 inch (1.3 millimeters) for material groups 1.1, 1.7, 1.9, 1, 10, and 1.12, Corrosion allowance is 0.00 inch for material groups 2.1, 2.2, 2.4 and 2.5
- (2) Hole size (where required due to bolt spacing) shall be the same as the flange bolt hole.

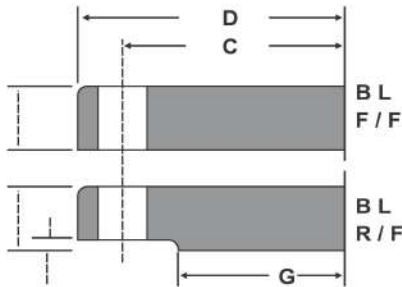
- (3) The thickness of the web (or tie bar) dimension Wt, shall be 0.25 inch (6.4 millimeter) minimum, except when r is less than 0.25 inch Wt shall equal



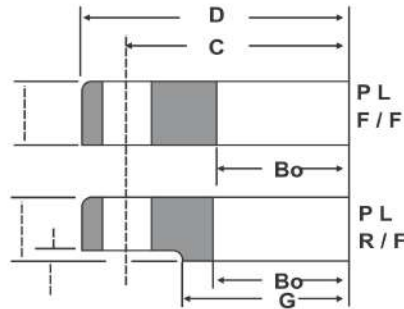
# SHREE ARBUDA STEEL

Mobile : +91 8108105140 / 8850182889

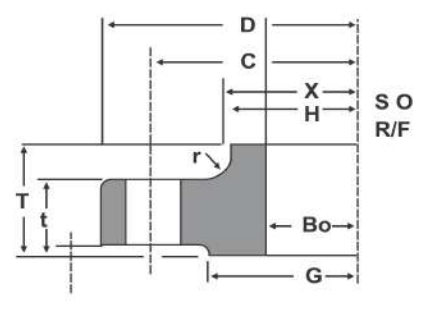
## JIS Flanges 5 Kg/cm<sup>2</sup>



Blind



Plate



Slip-On

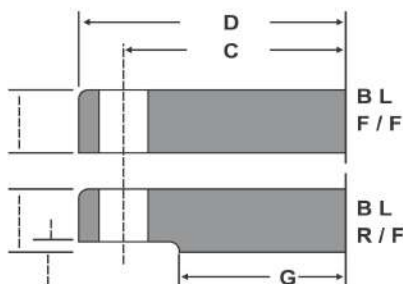
| Pipe  |      | Pipe   | Bo     | D          |      | t  | T  | G    | f | r | H    | X          | C    | Holes | Bolt Dia. |
|-------|------|--------|--------|------------|------|----|----|------|---|---|------|------------|------|-------|-----------|
| inch  | mm   |        |        |            |      |    |    |      |   |   |      |            |      |       |           |
| 3/8   | 10   | 17.3   | 17.8   | +0.5<br>-0 | 75   | 9  | -  | 42   | 1 | - | -    | -          | 55   | 4     | 12        |
| 1/2   | 15   | 21.7   | 22.2   |            | 80   | 9  | -  | 48   | 1 | - | -    | -          | 60   | 4     | 12        |
| 3/4   | 20   | 27.2   | 27.7   |            | 85   | 10 | -  | 52   | 1 | - | -    | -          | 65   | 4     | 12        |
| 1     | 25   | 34.0   | 34.5   |            | 95   | 10 | -  | 62   | 1 | - | -    | -          | 75   | 4     | 12        |
| 1-1/4 | 32   | 42.7   | 43.2   |            | 115  | 12 | -  | 72   | 2 | - | -    | -          | 90   | 4     | 15        |
| 1-1/2 | 40   | 48.6   | 49.1   | +1.0<br>-0 | 120  | 12 | -  | 78   | 2 | - | -    | -          | 95   | 4     | 15        |
| 2     | 50   | 60.5   | 61.1   |            | 130  | 14 | -  | 88   | 2 | - | -    | -          | 105  | 4     | 15        |
| 2-1/2 | 65   | 76.3   | 77.1   |            | 155  | 14 | -  | 112  | 2 | - | -    | -          | 130  | 4     | 15        |
| 3     | 80   | 89.1   | 90.0   |            | 180  | 14 | -  | 125  | 2 | - | -    | -          | 145  | 4     | 19        |
| 3-1/2 | 90   | 101.6  | 102.6  |            | 190  | 14 | -  | 135  | 2 | - | -    | -          | 155  | 4     | 19        |
| 4     | 100  | 114.3  | 115.4  | +1.0<br>-0 | 200  | 16 | -  | 145  | 2 | - | -    | -          | 165  | 8     | 19        |
| 5     | 125  | 139.8  | 141.2  |            | 235  | 16 | -  | 180  | 2 | - | -    | +2.0<br>-0 | 200  | 8     | 19        |
| 6     | 150  | 165.2  | 166.6  |            | 265  | 18 | -  | 210  | 2 | - | -    | -          | 230  | 8     | 19        |
| 7     | 175  | 190.7  | 192.1  |            | 300  | 18 | -  | 235  | 2 | - | -    | -          | 260  | 8     | 23        |
| 8     | 200  | 216.3  | 218.0  |            | 320  | 20 | -  | 255  | 2 | - | -    | -          | 280  | 8     | 23        |
| 9     | 225  | 241.8  | 243.7  | +1.5<br>-0 | 345  | 20 | -  | 280  | 2 | - | -    | -          | 305  | 12    | 23        |
| 10    | 250  | 267.4  | 269.5  |            | 385  | 22 | 32 | 320  | 2 | 5 | 286  | 290        | 345  | 12    | 23        |
| 12    | 300  | 318.5  | 321.0  |            | 430  | 22 | 34 | 365  | 3 | 5 | 338  | 342        | 390  | 12    | 23        |
| 14    | 350  | 355.6  | 358.1  |            | 480  | 24 | 36 | 405  | 3 | 5 | 378  | 382        | 435  | 12    | 25        |
| 16    | 400  | 406.4  | 409.0  |            | 540  | 24 | 36 | 465  | 3 | 5 | 432  | 436        | 495  | 16    | 25        |
| 18    | 450  | 457.2  | 460.0  | +2.0<br>-0 | 605  | 24 | 40 | 525  | 3 | 5 | 495  | 500        | 555  | 16    | 25        |
| 20    | 500  | 508.0  | 511.0  |            | 655  | 24 | 40 | 575  | 3 | 5 | 546  | 552        | 605  | 20    | 25        |
| 22    | 550  | 558.8  | 562.0  |            | 720  | 26 | 42 | 630  | 3 | 5 | 597  | 603        | 665  | 20    | 27        |
| 24    | 600  | 609.6  | 613.0  |            | 770  | 26 | 44 | 680  | 3 | 5 | 648  | 654        | 715  | 20    | 27        |
| 26    | 650  | 660.4  | 664.0  |            | 825  | 26 | 48 | 735  | 3 | 5 | 702  | 708        | 770  | 24    | 27        |
| 28    | 700  | 711.2  | 715.0  | +2.5<br>-0 | 875  | 26 | 48 | 785  | 3 | 5 | 751  | +2.5<br>-0 | 758  | 24    | 27        |
| 30    | 750  | 762.0  | 766.0  |            | 945  | 28 | 52 | 840  | 3 | 5 | 802  | 810        | 880  | 24    | 33        |
| 32    | 800  | 812.8  | 817.0  |            | 995  | 28 | 52 | 890  | 3 | 5 | 854  | 862        | 930  | 24    | 33        |
| 34    | 850  | 863.6  | 868.0  |            | 1045 | 28 | 54 | 940  | 3 | 5 | 904  | +3.0<br>-0 | 912  | 24    | 33        |
| 36    | 900  | 914.4  | 919.0  |            | 1095 | 30 | 56 | 990  | 3 | 5 | 956  | 964        | 1030 | 24    | 33        |
| 40    | 1000 | 1016.0 | 1021.0 | +3.0<br>-0 | 1195 | 32 | 60 | 1090 | 3 | 5 | 1058 | 1066       | 1130 | 28    | 33        |
| 44    | 1100 | 1117.6 | 1123.0 |            | 1305 | 32 | -  | 1200 | 3 | - | -    | -          | 1240 | 28    | 33        |
| 48    | 1200 | 1219.2 | 1224.0 |            | 1420 | 34 | -  | 1305 | 3 | - | -    | +3.5<br>-0 | 1350 | 32    | 33        |
| 54    | 1350 | 1371.6 | 1377.0 |            | 1575 | 34 | -  | 1460 | 3 | - | -    | -          | 1505 | 32    | 33        |
| 60    | 1500 | 1524.0 | 1529.0 |            | 1730 | 36 | -  | 1615 | 3 | - | -    | -          | 1660 | 36    | 33        |



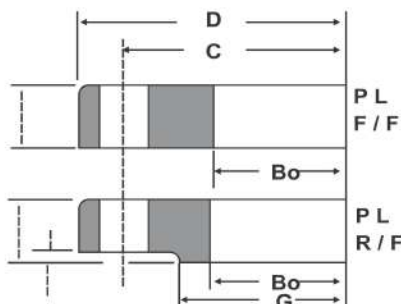
# SHREE ARBUDA STEEL

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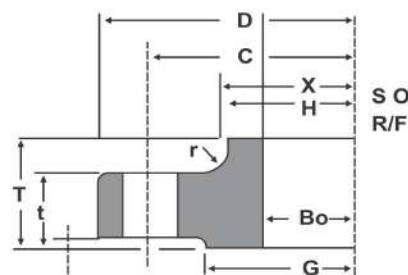
## JIS Flanges 10 Kg/cm<sup>2</sup>



Blind



Plate



Slip-On

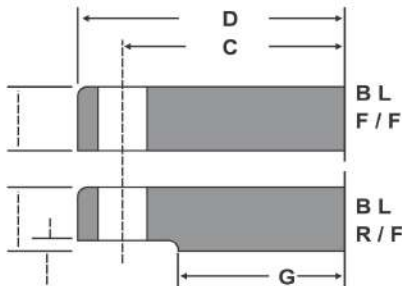
| Pipe  | Pipe | Pipe   | Bo     | D    | t  | T  | G    | f | r | H    | X    | C    | Holes | Bolt Dia. |
|-------|------|--------|--------|------|----|----|------|---|---|------|------|------|-------|-----------|
| inch  | mm   |        |        |      |    |    |      |   |   |      |      |      |       |           |
| 3/8   | 10   | 17.3   | 17.8   | 90   | 12 | -  | 48   | 1 | - | -    | -    | 65   | 4     | 15        |
| 1/2   | 15   | 21.7   | 22.2   | 95   | 12 | -  | 52   | 1 | - | -    | -    | 70   | 4     | 15        |
| 3/4   | 20   | 27.2   | 27.7   | 100  | 14 | -  | 58   | 1 | - | -    | -    | 75   | 4     | 15        |
| 1     | 25   | 34.0   | 34.5   | 125  | 14 | -  | 70   | 1 | - | -    | -    | 90   | 4     | 19        |
| 1-1/4 | 32   | 42.7   | 43.2   | 135  | 16 | -  | 80   | 2 | - | -    | -    | 100  | 4     | 19        |
| 1-1/2 | 40   | 48.6   | 49.1   | 140  | 16 | -  | 85   | 2 | - | -    | -    | 105  | 4     | 19        |
| 2     | 50   | 60.5   | 61.1   | 155  | 16 | -  | 100  | 2 | - | -    | -    | 120  | 4     | 19        |
| 2-1/2 | 65   | 76.3   | 77.1   | 175  | 18 | -  | 120  | 2 | - | -    | -    | 140  | 4     | 19        |
| 3     | 80   | 89.1   | 90.0   | 185  | 18 | -  | 130  | 2 | - | -    | -    | 150  | 8     | 19        |
| 3-1/2 | 90   | 101.6  | 102.6  | 195  | 18 | -  | 140  | 2 | - | -    | -    | 160  | 8     | 19        |
| 4     | 100  | 114.3  | 115.4  | 210  | 18 | -  | 155  | 2 | - | -    | -    | 175  | 8     | 19        |
| 5     | 125  | 139.8  | 141.2  | 250  | 20 | -  | 185  | 2 | - | -    | -    | 210  | 8     | 23        |
| 6     | 150  | 165.2  | 166.6  | 280  | 22 | -  | 215  | 2 | - | -    | -    | 240  | 8     | 23        |
| 7     | 175  | 190.7  | 192.1  | 305  | 22 | 32 | 240  | 2 | 6 | 208  | 212  | 265  | 12    | 23        |
| 8     | 200  | 216.3  | 218.0  | 330  | 22 | 32 | 265  | 2 | 6 | 234  | 238  | 290  | 12    | 23        |
| 9     | 225  | 241.8  | 243.7  | 350  | 22 | 34 | 285  | 2 | 6 | 260  | 264  | 310  | 12    | 23        |
| 10    | 250  | 267.4  | 269.5  | 400  | 24 | 36 | 325  | 2 | 6 | 288  | 292  | 355  | 12    | 25        |
| 12    | 300  | 318.5  | 321.0  | 445  | 24 | 38 | 370  | 3 | 6 | 340  | 346  | 400  | 16    | 25        |
| 14    | 350  | 355.6  | 358.1  | 490  | 26 | 42 | 415  | 3 | 6 | 380  | 386  | 445  | 16    | 25        |
| 16    | 400  | 406.4  | 409.0  | 560  | 28 | 44 | 475  | 3 | 6 | 436  | 442  | 510  | 16    | 27        |
| 18    | 450  | 457.2  | 460.0  | 620  | 30 | 48 | 530  | 3 | 6 | 496  | 502  | 565  | 20    | 27        |
| 20    | 500  | 508.0  | 511.0  | 675  | 30 | 48 | 585  | 3 | 6 | 548  | 554  | 620  | 20    | 27        |
| 22    | 550  | 558.8  | 562.0  | 745  | 32 | 52 | 640  | 3 | 6 | 604  | 610  | 680  | 20    | 33        |
| 24    | 600  | 609.6  | 613.0  | 795  | 32 | 52 | 690  | 3 | 6 | 656  | 662  | 730  | 24    | 33        |
| 26    | 650  | 660.4  | 664.0  | 845  | 34 | 56 | 740  | 3 | 6 | 706  | 712  | 780  | 24    | 33        |
| 28    | 700  | 711.2  | 715.0  | 905  | 34 | 58 | 800  | 3 | 6 | 762  | 770  | 840  | 24    | 33        |
| 30    | 750  | 762.0  | 766.0  | 970  | 36 | 62 | 855  | 3 | 6 | 816  | 824  | 900  | 24    | 33        |
| 32    | 800  | 812.8  | 817.0  | 1020 | 36 | 64 | 905  | 3 | 6 | 868  | 876  | 950  | 28    | 33        |
| 34    | 850  | 863.6  | 868.0  | 1070 | 36 | 66 | 955  | 3 | 6 | 920  | 928  | 1000 | 28    | 33        |
| 36    | 900  | 914.4  | 919.0  | 1120 | 38 | 70 | 1005 | 3 | 6 | 971  | 979  | 1050 | 28    | 33        |
| 40    | 1000 | 1016.0 | 1021.0 | 1235 | 40 | 74 | 1110 | 3 | 6 | 1073 | 1081 | 1160 | 28    | 39        |
| 44    | 1100 | 1117.6 | 1123.0 | 1345 | 42 | 78 | 1220 | 3 | 8 | 1175 | 1185 | 1270 | 28    | 39        |
| 48    | 1200 | 1219.2 | 1224.0 | 1465 | 44 | 82 | 1325 | 3 | 8 | 1278 | 1290 | 1380 | 32    | 39        |
| 54    | 1350 | 1371.6 | 1377.0 | 1630 | 48 | 88 | 1480 | 3 | 8 | 1432 | 1450 | 1540 | 36    | 45        |
| 60    | 1500 | 1524.0 | 1529.0 | 1795 | 50 | 90 | 1635 | 3 | 8 | 1585 | 1600 | 1700 | 40    | 45        |



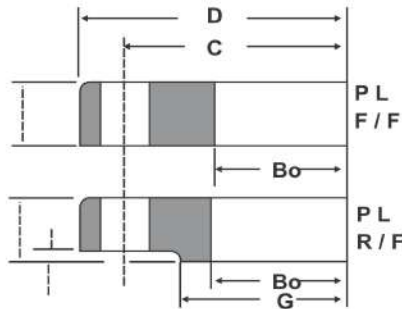
# SHREE ARBUDA STEEL

Mobile : +91 8108105140 / 8850182889

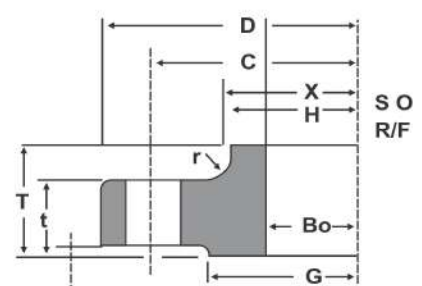
## JIS Flanges 16 Kg/cm<sup>2</sup>



Blind



Plate



Slip-On

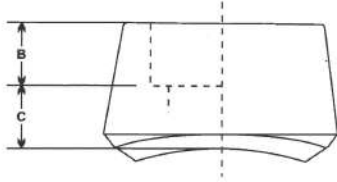
| Pipe<br>inch | Pipe<br>mm | Pipe   | Bo     | D    | t  | T   | G    | f | r  | H    | X    | C    | Holes | Bolt<br>Dia. |
|--------------|------------|--------|--------|------|----|-----|------|---|----|------|------|------|-------|--------------|
| 3/8          | 10         | 17.3   | 17.8   | 90   | 12 | 16  | 48   | 1 | 4  | 26   | 28   | 65   | 4     | 15           |
| 1/2          | 15         | 21.7   | 22.2   | 95   | 12 | 16  | 52   | 1 | 4  | 30   | 32   | 70   | 4     | 15           |
| 3/4          | 20         | 27.2   | 27.7   | 100  | 14 | 20  | 58   | 1 | 4  | 38   | 42   | 75   | 4     | 15           |
| 1            | 25         | 34.0   | 34.5   | 125  | 14 | 20  | 70   | 1 | 4  | 46   | 50   | 90   | 4     | 19           |
| 1-1/4        | 32         | 42.7   | 43.2   | 135  | 16 | 22  | 80   | 2 | 5  | 56   | 60   | 100  | 4     | 19           |
| 1-1/2        | 40         | 48.6   | 49.1   | 140  | 16 | 24  | 85   | 2 | 5  | 62   | 66   | 105  | 4     | 19           |
| 2            | 50         | 60.5   | 61.1   | 155  | 16 | 24  | 100  | 2 | 5  | 76   | 80   | 120  | 8     | 19           |
| 2-1/2        | 65         | 76.3   | 77.1   | 175  | 18 | 26  | 120  | 2 | 5  | 94   | 98   | 140  | 8     | 19           |
| 3            | 80         | 89.1   | 90.0   | 200  | 20 | 28  | 135  | 2 | 6  | 108  | 112  | 160  | 8     | 23           |
| 3-1/2        | 90         | 101.6  | 102.6  | 210  | 20 | 30  | 145  | 2 | 6  | 120  | 124  | 170  | 8     | 23           |
| 4            | 100        | 114.3  | 115.4  | 225  | 22 | 34  | 160  | 2 | 6  | 134  | 138  | 185  | 8     | 23           |
| 5            | 125        | 139.8  | 141.2  | 270  | 22 | 34  | 195  | 2 | 6  | 164  | 170  | 225  | 8     | 25           |
| 6            | 150        | 165.2  | 166.6  | 305  | 24 | 38  | 230  | 2 | 6  | 196  | 202  | 260  | 12    | 25           |
| 7            | 175        | 190.7  | 192.1  | 325  | 26 | 40  | 250  | 2 | 6  | 216  | 222  | 280  | 12    | 25           |
| 8            | 200        | 216.3  | 218.0  | 350  | 26 | 40  | 275  | 2 | 6  | 244  | 252  | 305  | 12    | 25           |
| 9            | 225        | 241.8  | 243.7  | 385  | 26 | 40  | 325  | 2 | 6  | 266  | 272  | 335  | 12    | 27           |
| 10           | 250        | 267.4  | 269.5  | 430  | 28 | 44  | 345  | 2 | 6  | 304  | 312  | 380  | 12    | 27           |
| 12           | 300        | 318.5  | 321.0  | 480  | 30 | 48  | 395  | 3 | 8  | 354  | 364  | 430  | 16    | 27           |
| 14           | 350        | 355.6  | 358.1  | 540  | 34 | 52  | 440  | 3 | 8  | 398  | 408  | 480  | 16    | 33           |
| 16           | 400        | 406.4  | 409.0  | 605  | 38 | 60  | 495  | 3 | 10 | 446  | 456  | 540  | 16    | 33           |
| 18           | 450        | 457.2  | 460.0  | 675  | 40 | 64  | 560  | 3 | 10 | 504  | 514  | 605  | 20    | 33           |
| 20           | 500        | 508.0  | 511.0  | 730  | 42 | 68  | 615  | 3 | 10 | 558  | 568  | 660  | 20    | 33           |
| 22           | 550        | 558.8  | 562.0  | 795  | 44 | 70  | 670  | 3 | 10 | 612  | 622  | 720  | 20    | 39           |
| 24           | 600        | 609.6  | 613.0  | 845  | 46 | 74  | 720  | 3 | 10 | 666  | 676  | 770  | 24    | 39           |
| 26           | 650        | 660.4  | 664.0  | 895  | 48 | 77  | 770  | 5 | 10 | 704  | 726  | 820  | 24    | 39           |
| 28           | 700        | 711.2  | 715.0  | 960  | 50 | 80  | 820  | 5 | 10 | 754  | 776  | 875  | 24    | 42           |
| 30           | 750        | 762.0  | 766.0  | 1020 | 52 | 83  | 880  | 5 | 10 | 806  | 832  | 935  | 24    | 42           |
| 32           | 800        | 812.8  | 817.0  | 1085 | 54 | 86  | 930  | 5 | 10 | 865  | 885  | 990  | 24    | 48           |
| 34           | 850        | 863.6  | 868.0  | 1135 | 56 | 89  | 980  | 5 | 10 | 916  | 936  | 1040 | 24    | 48           |
| 36           | 900        | 914.4  | 919.0  | 1185 | 58 | 93  | 1030 | 5 | 10 | 968  | 986  | 1090 | 28    | 48           |
| 40           | 1000       | 1016.0 | 1021.0 | 1320 | 62 | 99  | 1140 | 5 | 12 | 1070 | 1098 | 1210 | 28    | 56           |
| 44           | 1100       | 1117.6 | 1123.0 | 1420 | 66 | 105 | 1240 | 5 | 12 | 1180 | 1200 | 1310 | 32    | 56           |
| 48           | 1200       | 1219.2 | 1225.0 | 1530 | 70 | 112 | 1350 | 5 | 12 | 1282 | 1302 | 1420 | 32    | 56           |
| 52           | 1300       | 1320.8 | 1326.0 | 1645 | 74 | -   | 1450 | 5 | -  | -    | -    | 1530 | 32    | 62           |
| 54           | 1350       | 1371.6 | 1377.0 | 1700 | 76 | -   | 1510 | 5 | -  | -    | -    | 1590 | 32    | 62           |
| 56           | 1400       | 1422.4 | 1428.0 | 1755 | 78 | -   | 1560 | 5 | -  | -    | -    | 1640 | 36    | 62           |
| 60           | 1500       | 1524.0 | 1529.0 | 1865 | 80 | -   | 1670 | 5 | -  | -    | -    | 1750 | 36    | 62           |

Email: shreearbudasteel@gmail.com / export@shreearbudasteel.com • Website : www.shreearbudasteel.com

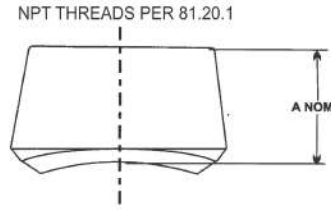


# SHREE ARBUDA STEEL

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## OLETS



### Dimension of Branch Outlet Socket Welding as per MSS SP 97

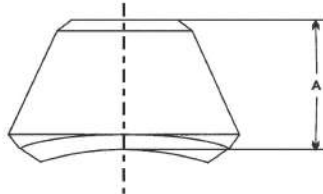
| OUTLET DN | OUTLET NPS | B<br>MIN | C<br>MAX |      |
|-----------|------------|----------|----------|------|
|           |            |          | 3000     | 6000 |
| 6         | 1/8        | 6        | 19       |      |
| 8         | 1/4        | 8        | 19       |      |
| 10        | 3/8        | 10       | 21       |      |
| 15        | 1/2        | 15       | 25       |      |
| 20        | 3/4        | 2        | 27       | 32   |
| 25        | 1          | 25       | 33       | 37   |
| 32        | 1.1/4      | 32       | 33       | 40   |
| 40        | 1.1/2      | 40       | 35       | 41   |
| 50        | 2          | 50       | 38       | 43   |
| 65        | 2.1/2      | 65       | 46       | 52   |
| 80        | 3          | 80       | 51       |      |
| 100       | 4          | 100      | 57       |      |

Tolerance : 1/8 - 3/4  $\pm$  0.8MM 1 - 4  $\pm$  1.6mm  
Dimensions are in millimeters

### Dimension of Branch Outlet Threaded as per MSS SP 97

| OUTLET DN | OUTLET NPS | A<br>FACE OF FITTINGS TO CROTCH THREADED |      |
|-----------|------------|------------------------------------------|------|
|           |            | 3000                                     | 6000 |
| 6         | 1/8        | 19                                       |      |
| 8         | 1/4        | 19                                       |      |
| 10        | 3/8        | 21                                       |      |
| 15        | 1/2        | 25                                       |      |
| 20        | 3/4        | 27                                       | 32   |
| 25        | 1          | 33                                       | 37   |
| 32        | 1.1/4      | 33                                       | 40   |
| 40        | 1.1/2      | 35                                       | 41   |
| 50        | 2          | 38                                       | 43   |
| 65        | 2.1/2      | 46                                       | 52   |
| 80        | 3          | 51                                       |      |
| 100       | 4          | 57                                       |      |

Tolerance : 1/8 - 3/4  $\pm$  0.8MM 1 - 4  $\pm$  1.6mm  
Dimensions are in millimeters



Dimensions are in millimeters  
Tolerance : 1/8 - 3/4  $\pm$  0.8mm  
1 - 4  $\pm$  1.6mm  
5 - 12  $\pm$  3.2mm  
14 - 24  $\pm$  4.8mm

### Dimension of Branch Outlet - Butt Welding as per MSS SP 97

| OUTLET DN | OUTLET NPS | A<br>FACE OF FITTINGS TO CROTCH |      |              |      |              |      |
|-----------|------------|---------------------------------|------|--------------|------|--------------|------|
|           |            | Standard                        |      | Extra Strong |      | Schedule 160 |      |
|           |            | Reducing                        | Full | Reducing     | Full | Reducing     | Full |
| 6         | 1/2        | 16                              |      | 16           |      |              |      |
| 8         | 1/4        | 16                              |      | 16           |      |              |      |
| 10        | 3/8        | 19                              |      | 19           |      |              |      |
| 15        | 1/2        | 19                              | 19   | 19           | 19   | 28           | 28   |
| 20        | 3/4        | 22                              | 22   | 22           | 22   | 32           | 32   |
| 25        | 1          | 27                              | 27   | 27           | 27   | 38           | 38   |
| 32        | 1.1/4      | 32                              | 32   | 32           | 30   | 44           | 44   |
| 40        | 1.1/2      | 33                              | 33   | 33           | 33   | 51           | 51   |
| 50        | 2          | 38                              | 38   | 38           | 38   | 55           | 55   |
| 65        | 2.1/2      | 41                              | 41   | 41           | 41   | 62           | 62   |
| 80        | 3          | 44                              | 44   | 44           | 44   | 73           | 73   |
| 90        | 3.1/2      | 48                              | 51   | 48           | 51   | -            | -    |
| 100       | 4          | 51                              | 51   | 51           | 51   | 84           | 84   |



# SHREE ARBUDA STEEL

**"QUALITY MAKERS"**

**Office :** Shop No. 9, Ground Floor, 91/95, Mukund Bhuvan, 3rd Kumbharwada, Dr. M.G. Mahimtura Marg, Mumbai - 400004.

**Godown :** Ground Floor, Shop No. 9, A-Wing, Parshuram Pupala Marg, Anjuman High School, Mumbai Central, Mumbai - 400008.

**Factory :** Industrial Gala No. 17, Aakash Industrial Estate, Gate No. 123, Plot No. 20, Village Padghe, Taluka Palghar, Dist. Palghar.



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