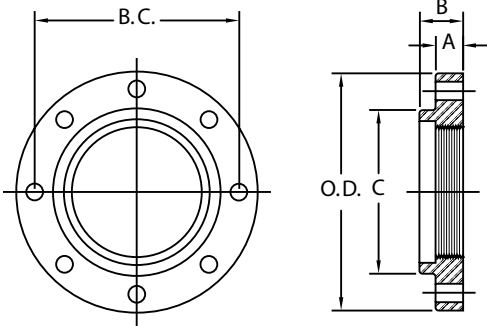




# Flanges

ANSI/AWWA C115/A21.15

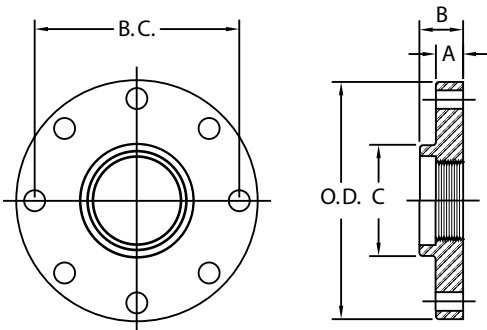


### GENERAL SPECIFICATIONS

- MATERIAL:** Ductile Iron per ASTM A536
- PRESSURE:** 250 PSI
- DRILLING:** In accordance with ANSI/AWWA C110/21.10, ASME B16.1 Class 125 and ASME B16.42 Class 150
- DIMENSIONS:** Per ANSI/AWWA C115/A21.15  
Flange O.D. & thickness per ANSI/AWWA C110/21.10
- FLANGE THREADS:** Taper pipe thread per ASME B1.20.1 adapted to ductile iron pipe O.D.

### HI HUB THREADED 125 LB. FLANGES FOR DUCTILE PIPE (DUCTILE IRON)

| NOM. SIZE | OD PIPE | FLANGE THK. A | FLANGE THK. B | THREAD LENGTH | OD FLANGE O.D. | HUB DIA. C | BOLT CIRCLE B.C. | BOLT HOLE DIA. | BOLT DIA. & LENGTH | NO. OF BOLT HOLES | WT (LBS.) |
|-----------|---------|---------------|---------------|---------------|----------------|------------|------------------|----------------|--------------------|-------------------|-----------|
| 2         | 2.50    | 0.62          | 1.25          | 1.00          | 6.00           | 3.06       | 4.75             | 3/4            | 5/8 x 2 1/4        | 4                 | 4         |
| 3         | 3.96    | 0.75          | 1.69          | 1.25          | 7.50           | 4.45       | 6.00             | 3/4            | 5/8 x 2 1/2        | 4                 | 7         |
| 4         | 4.80    | 0.94          | 1.81          | 1.37          | 9.00           | 5.32       | 7.50             | 3/4            | 5/8 x 3            | 8                 | 12        |
| 6         | 6.90    | 1.00          | 2.00          | 1.53          | 11.00          | 7.56       | 9.50             | 7/8            | 3/4 x 3 1/2        | 8                 | 17        |
| 8         | 9.05    | 1.12          | 2.25          | 1.75          | 13.50          | 9.69       | 11.75            | 7/8            | 3/4 x 3 1/2        | 8                 | 26        |
| 10        | 11.10   | 1.19          | 2.44          | 1.88          | 16.00          | 12.00      | 14.25            | 1              | 7/8 x 4            | 12                | 37        |
| 12        | 13.20   | 1.25          | 2.56          | 2.12          | 19.00          | 14.06      | 17.00            | 1              | 7/8 x 4            | 12                | 55        |
| 14        | 15.30   | 1.38          | 2.62          | 2.12          | 21.00          | 16.25      | 18.75            | 1 1/8          | 1 x 4 1/2          | 12                | 70        |
| 16        | 17.40   | 1.44          | 2.75          | 2.12          | 23.50          | 18.44      | 21.25            | 1 1/8          | 1 x 4 1/2          | 16                | 80        |
| 18        | 19.50   | 1.56          | 3.00          | 2.25          | 25.00          | 20.53      | 22.75            | 1 1/4          | 1 1/8 x 5          | 16                | 85        |
| 20        | 21.60   | 1.69          | 3.25          | 2.44          | 27.50          | 22.63      | 25.00            | 1 1/4          | 1 1/8 x 5          | 20                | 106       |
| 24        | 25.80   | 1.88          | 3.50          | 2.75          | 32.00          | 26.82      | 29.50            | 1 3/8          | 1 1/4 x 5 1/2      | 20                | 147       |
| 30        | 32.00   | 2.12          | 3.75          | 3.37          | 38.75          | 32.75      | 36.00            | 1 3/8          | 1 1/4 x 6 1/2      | 28                | 224       |
| 36        | 38.30   | 2.38          | 5.00          | 4.00          | 46.00          | 39.12      | 42.75            | 1 5/8          | 1 1/2 x 7          | 32                | 337       |
| 42        | 44.50   | 2.62          | 5.12          | 4.50          | 53.00          | 46.00      | 49.50            | 1 5/8          | 1 1/2 x 7 1/2      | 36                | 495       |
| 48        | 50.80   | 2.75          | 5.50          | 5.12          | 59.50          | 52.25      | 56.00            | 1 5/8          | 1 1/2 x 8          | 44                | 622       |
| 54        | 57.56   | 3.00          | 6.45          | 4.75          | 66.25          | 58.75      | 62.75            | 2              | 1 3/4 x 8 1/2      | 44                | 711       |
| 60        | 61.61   | 3.12          | 6.75          | 5.00          | 73.00          | 63.00      | 69.25            | 2              | 1 3/4 x 9          | 52                | 1084      |
| 64        | 65.67   | 3.38          | 7.06          | 5.25          | 80.00          | 67.18      | 76.00            | 2              | 1 3/4 x 9          | 52                | 1575      |



### GENERAL SPECIFICATIONS

- MATERIAL:** Ductile Iron per ASTM A536
- PRESSURE:** 250 PSI
- DRILLING:** In accordance with ANSI/AWWA C110/21.10, ASME B16.1 Class 125 and ASME B16.42 Class 150
- DIMENSIONS:** Per ANSI/AWWA C115/A21.15  
Flange O.D. & thickness per ANSI/AWWA C110/21.10
- FLANGE THREADS:** Taper pipe thread per ASME B1.20.1 adapted to ductile iron pipe O.D.

### REDUCING 125 LB. FLANGES FOR DUCTILE PIPE (DUCTILE IRON)

| NOM. SIZE | OD PIPE | FLANGE THK. A | FLANGE THK. B | THREAD LENGTH | OD FLANGE O.D. | HUB DIA. C | BOLT CIRCLE B.C. | BOLT HOLE DIA. | BOLT DIA. & LENGTH | NO. OF BOLT HOLES | WT (LBS.) |
|-----------|---------|---------------|---------------|---------------|----------------|------------|------------------|----------------|--------------------|-------------------|-----------|
| 4 x 3     | 3.96    | 0.94          | 1.37          | 0.94          | 9.00           | 4.45       | 7.50             | 3/4            | 5/8 x 3            | 8                 | 16        |
| 6 x 4     | 4.80    | 1.00          | 1.56          | 1.00          | 11.00          | 5.32       | 9.50             | 7/8            | 3/4 x 3 1/2        | 8                 | 25        |
| 8 x 4     | 4.80    | 1.12          | 1.75          | 1.00          | 13.50          | 5.32       | 11.75            | 7/8            | 3/4 x 3 1/2        | 8                 | 40        |
| 8 x 6     | 6.90    | 1.12          | 1.75          | 1.16          | 13.50          | 7.56       | 11.75            | 7/8            | 3/4 x 3 1/2        | 8                 | 35        |
| 10 x 8    | 9.05    | 1.19          | 2.00          | 1.38          | 16.00          | 9.69       | 14.25            | 1              | 7/8 x 4            | 12                | 50        |
| 12 x 8    | 9.05    | 1.25          | 2.19          | 1.38          | 19.00          | 9.69       | 17.00            | 1              | 7/8 x 4            | 12                | 85        |
| 12 x 10   | 11.10   | 1.25          | 2.19          | 1.38          | 19.00          | 12.00      | 17.00            | 1              | 7/8 x 4            | 12                | 65        |

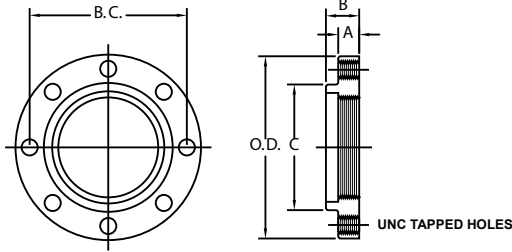


STAR<sup>®</sup> PIPE PRODUCTS



# Flanges

## ANSI/AWWA C115/A21.15

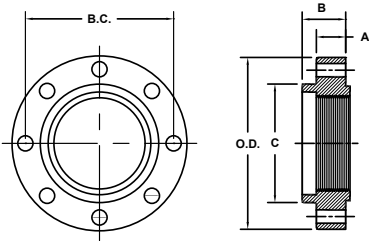


### GENERAL SPECIFICATIONS

- MATERIAL:** Ductile Iron per ASTM A536
- PRESSURE:** 250 PSI
- DRILLING:** In accordance with ANSI/AWWA C110/21.10, ASME B16.1 Class 125 and ASME B16.42 Class 150
- DIMENSIONS:** Per ANSI/AWWA C115/A21.15  
Flange O.D. & thickness per ANSI/AWWA C110/21.10
- BOLT HOLE THREADS:** UNC-2B Per ASME B1.1
- FLANGE THREADS:** Taper pipe thread per ASME B1.20.1 adapted to ductile iron pipe O.D.

### THREADED 125 LB. FLANGES FOR STUDS FOR DUCTILE PIPE (DUCTILE IRON)

| NOM. SIZE | OD PIPE | FLANGE THK. A | FLANGE THK. B | THREAD LENGTH | OD FLANGE O.D. | HUB DIA. C | BOLT CIRCLE B.C. | BOLT HOLE THREADS (UNC-2B) | NO. OF BOLT HOLES | WT (LBS.) |
|-----------|---------|---------------|---------------|---------------|----------------|------------|------------------|----------------------------|-------------------|-----------|
| 2         | 2.50    | 0.62          | 1.25          | 1.00          | 6.00           | 3.06       | 4.75             | 5/8 - 11                   | 4                 | 4         |
| 3         | 3.96    | 0.75          | 1.69          | 1.25          | 7.50           | 4.45       | 6.00             | 5/8 - 11                   | 4                 | 7         |
| 4         | 4.80    | 0.94          | 1.81          | 1.37          | 9.00           | 5.32       | 7.50             | 5/8 - 11                   | 8                 | 12        |
| 6         | 6.90    | 1.00          | 2.00          | 1.53          | 11.00          | 7.56       | 9.50             | 3/4 - 10                   | 8                 | 17        |
| 8         | 9.05    | 1.12          | 2.25          | 1.75          | 13.50          | 9.69       | 11.75            | 3/4 - 10                   | 8                 | 26        |
| 10        | 11.10   | 1.19          | 2.44          | 1.88          | 16.00          | 12.00      | 14.25            | 7/8 - 9                    | 12                | 37        |
| 12        | 13.20   | 1.25          | 2.56          | 2.12          | 19.00          | 14.06      | 17.00            | 7/8 - 9                    | 12                | 55        |
| 14        | 15.30   | 1.38          | 2.62          | 2.12          | 21.00          | 16.25      | 18.75            | 1 - 8                      | 12                | 70        |
| 16        | 17.40   | 1.44          | 2.75          | 2.12          | 23.50          | 18.44      | 21.25            | 1 - 8                      | 16                | 80        |
| 18        | 19.50   | 1.56          | 3.00          | 2.25          | 25.00          | 20.53      | 22.75            | 1 1/8 - 7                  | 16                | 85        |
| 20        | 21.60   | 1.69          | 3.25          | 2.44          | 27.50          | 22.63      | 25.00            | 1 1/8 - 7                  | 20                | 106       |
| 24        | 25.80   | 1.88          | 3.50          | 2.75          | 32.00          | 26.82      | 29.50            | 1 1/4 - 7                  | 20                | 147       |
| 30        | 32.00   | 2.12          | 3.75          | 3.37          | 38.75          | 32.75      | 36.00            | 1 1/4 - 7                  | 28                | 224       |
| 36        | 38.30   | 2.38          | 5.00          | 4.00          | 46.00          | 39.12      | 42.75            | 1 1/2 - 6                  | 32                | 337       |
| 42        | 44.50   | 2.62          | 5.12          | 4.50          | 53.00          | 46.00      | 49.50            | 1 1/2 - 6                  | 36                | 495       |
| 48        | 50.80   | 2.75          | 5.50          | 5.12          | 59.50          | 52.25      | 56.00            | 1 1/2 - 6                  | 44                | 622       |
| 54        | 57.56   | 3.00          | 6.45          | 4.75          | 66.25          | 58.75      | 62.75            | 1 3/4 - 5                  | 44                | 711       |
| 60        | 61.61   | 3.12          | 6.75          | 5.00          | 73.00          | 63.00      | 69.25            | 1 3/4 - 5                  | 52                | 1084      |
| 64        | 65.67   | 3.38          | 7.06          | 5.25          | 80.00          | 67.18      | 76.00            | 1 3/4 - 5                  | 52                | 1575      |



### GENERAL SPECIFICATIONS

- MATERIAL:** Ductile Iron per ASTM A536
- PRESSURE:** 640 PSI
- DRILLING:** In accordance with ASME B16.1 Class 250 and ASME B16.42 Class 300
- DIMENSIONS:** Per ANSI/B16.1 Class 250 and ASME B16.42 Class 300.
- FLANGE THREADS:** Taper pipe thread per ASME B1.20.1 adapted to ductile iron pipe O.D.

### THREADED 250 LB. FLANGES FOR DUCTILE PIPE (DUCTILE IRON)

| NOM. SIZE | OD PIPE | FLANGE THK. A | FLANGE THK. B | THREAD LENGTH | OD FLANGE O.D. | HUB DIA. C | BOLT CIRCLE B.C. | BOLT HOLE DIA. | BOLT DIA. & LENGTH | NO. OF BOLT HOLES | WT (LBS.) |
|-----------|---------|---------------|---------------|---------------|----------------|------------|------------------|----------------|--------------------|-------------------|-----------|
| 3         | 3.96    | 1.12          | 1.56          | 1.19          | 8.25           | 4.62       | 6.62             | 7/8            | 3/4 x 3 1/2        | 8                 | 10        |
| 4         | 4.80    | 1.25          | 1.75          | 1.31          | 10.00          | 5.75       | 7.88             | 7/8            | 3/4 x 4            | 8                 | 19        |
| 6         | 6.90    | 1.44          | 1.94          | 1.56          | 12.50          | 8.12       | 10.62            | 7/8            | 3/4 x 4            | 12                | 31        |
| 8         | 9.05    | 1.62          | 2.19          | 1.75          | 15.00          | 10.25      | 13.00            | 1              | 7/8 x 4 1/2        | 12                | 47        |
| 10        | 11.10   | 1.88          | 2.38          | 1.94          | 17.50          | 12.62      | 15.25            | 1 1/8          | 1 x 5 1/2          | 16                | 70        |
| 12        | 13.20   | 2.00          | 2.56          | 2.19          | 20.50          | 14.75      | 17.75            | 1 1/4          | 1 1/8 x 5 1/2      | 16                | 114       |
| 14        | 15.30   | 2.12          | 2.69          | 2.25          | 23.00          | 16.25      | 20.25            | 1 1/4          | 1 1/8 x 6          | 20                | 122       |
| 16        | 17.40   | 2.25          | 2.88          | 2.50          | 25.50          | 18.38      | 22.50            | 1 3/8          | 1 1/4 x 6 1/2      | 20                | 159       |
| 18        | 19.50   | 2.38          | 3.00          | 2.56          | 28.00          | 20.53      | 24.75            | 1 3/8          | 1 1/4 x 6 1/2      | 24                | 205       |
| 20        | 21.60   | 2.50          | 3.31          | 2.87          | 30.50          | 22.63      | 27.00            | 1 3/8          | 1 1/4 x 7          | 24                | 220       |
| 24        | 25.80   | 2.75          | 3.75          | 3.25          | 36.00          | 26.82      | 32.00            | 1 3/8          | 1 1/2 x 7 1/2      | 24                | 342       |
| 30        | 32.00   | 3.00          | 4.75          | 4.33          | 43.00          | 35.00      | 39.25            | 2              | 1 3/4 x 8 1/2      | 28                | 502       |
| 36        | 38.30   | 3.38          | 5.37          | 4.63          | 50.00          | 41.25      | 46.00            | 2 1/4          | 2 x 9 1/2          | 32                | 690       |
| 42        | 44.50   | 3.69          | 6.00          | 5.38          | 57.00          | 48.50      | 52.75            | 2 1/4          | 2 x 10             | 36                | 986       |
| 48        | 50.80   | 4.00          | 6.63          | 6.25          | 65.00          | 56.55      | 60.75            | 2 1/4          | 2 x 11             | 40                | 1499      |

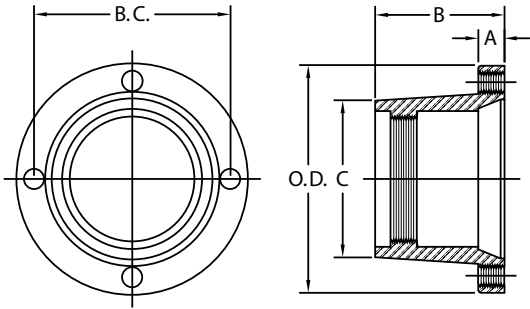
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\* REGISTERED TRADEMARK OF STAR PIPE PRODUCTS

STAR<sup>®</sup> PIPE PRODUCTS



# Flanges

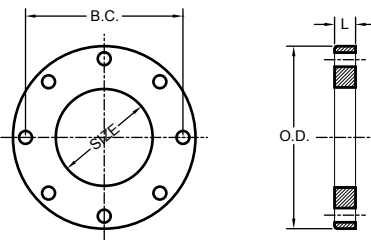
ANSI/AWWA C115/A21.15



### GENERAL SPECIFICATIONS

- MATERIAL:** Ductile Iron per ASTM A536
- PRESSURE:** 350 PSI 3"-24" and 250 PSI 30"-48"
- DRILLING:** In accordance with ANSI/AWWA C111/A21.11
- DIMENSIONS:** MJ BELL per ANSI/AWWA C111/A21.11
- BOLT HOLE THREADS:** UNC-2B Per ASME B1.1
- FLANGE THREADS:** Taper pipe thread per ASME B1.20.1 adapted to ductile iron pipe O.D.

| MJ THREADED BELL FOR DUCTILE PIPE (DUCTILE IRON) |         |               |              |               |                |            |                  |                            |                   |           |
|--|---------|---------------|--------------|---------------|----------------|------------|------------------|----------------------------|-------------------|-----------|
| NOM. SIZE  | OD PIPE | FLANGE THK. A | TOTAL THK. B | THREAD LENGTH | OD FLANGE O.D. | HUB DIA. C | BOLT CIRCLE B.C. | BOLT HOLE THREADS (UNC-2B) | NO. OF BOLT HOLES | WT (LBS.) |
| 3  | 3.96    | 0.94          | 4.12         | 0.94          | 7.69           | 4.50       | 6.19             | 5/8 - 11                   | 4                 | 11        |
| 4  | 4.80    | 1.00          | 4.25         | 1.00          | 9.12           | 5.32       | 7.50             | 3/4 - 10                   | 4                 | 15        |
| 6  | 6.90    | 1.06          | 4.43         | 1.16          | 11.12          | 7.56       | 9.50             | 3/4 - 10                   | 6                 | 22        |
| 8  | 9.05    | 1.12          | 4.75         | 1.38          | 13.37          | 9.73       | 11.75            | 3/4 - 10                   | 6                 | 35        |
| 10   | 11.10   | 1.19          | 4.87         | 1.50          | 15.69          | 12.06      | 14.00            | 3/4 - 10                   | 8                 | 46        |
| 12   | 13.20   | 1.25          | 5.12         | 1.75          | 17.94          | 14.16      | 16.25            | 3/4 - 10                   | 8                 | 55        |
| 14   | 15.30   | 1.31          | 6.50         | 1.87          | 20.31          | 16.25      | 18.75            | 3/4 - 10                   | 10                | 94        |
| 16   | 17.40   | 1.38          | 6.75         | 2.06          | 22.56          | 18.44      | 21.00            | 3/4 - 10                   | 12                | 118       |
| 18   | 19.50   | 1.44          | 7.00         | 2.25          | 24.83          | 20.53      | 23.25            | 3/4 - 10                   | 12                | 125       |
| 20   | 21.60   | 1.50          | 7.25         | 2.44          | 27.08          | 22.63      | 25.50            | 3/4 - 10                   | 14                | 150       |
| 24   | 25.80   | 1.62          | 7.50         | 2.75          | 31.58          | 26.82      | 30.00            | 3/4 - 10                   | 16                | 235       |
| 30   | 32.00   | 1.81          | 9.13         | 3.37          | 39.12          | 32.75      | 36.88            | 1 - 8                      | 20                | 375       |
| 36   | 38.30   | 2.00          | 9.75         | 4.00          | 46.00          | 39.12      | 43.75            | 1 - 8                      | 24                | 500       |
| 42   | 44.50   | 2.00          | 10.50        | 4.00          | 53.12          | 46.00      | 50.62            | 1 1/4 - 7                  | 28                | 735       |
| 48   | 50.80   | 2.00          | 11.00        | 4.12          | 60.00          | 52.25      | 57.50            | 1 1/4 - 7                  | 32                | 940       |
| 54   | 57.56   | 2.00          | 11.50        | 4.25          | 65.70          | 59.18      | 63.20            | 1 1/4 - 7                  | 36                | 978       |
| 60   | 61.61   | 2.00          | 11.50        | 5.00          | 70.22          | 63.00      | 67.72            | 1 1/4 - 7                  | 36                | 1109      |



### GENERAL SPECIFICATIONS

- MATERIAL:** Standard: Gray Iron Per ASTM A48 Class 30B  
Optional: Ductile Iron per ASTM A536
- DRILLING:** In accordance with ANSI/AWWA C110/21.10, ASME B16.1 Class 125  
And ASME B16.42 Class 150

| FILLER FLANGES (DUCTILE IRON & CAST GRAY IRON) |                |                  |                |                   |                |     |     |       |     |     |     |     |     |  |
|--|----------------|------------------|----------------|-------------------|----------------|-----|-----|-------|-----|-----|-----|-----|-----|--|
| NOM. SIZE                                      | OD FLANGE O.D. | BOLT CIRCLE B.C. | BOLT HOLE DIA. | NO. OF BOLT HOLES | L / WT. (LBS.) |     |     |       |     |     |     |     |     |  |
|  |                |                  |                |                   | 1/2            | 3/4 | 1   | 1 1/2 | 2   | 3   | 4   | 5   | 6   |  |
| 3  | 7.50           | 6.00             | 3/4            | 4                 | 5              | 7   | 9   | 14    | 18  | 27  | 36  | 45  | 54  |  |
| 4  | 9.00           | 7.50             | 3/4            | 8                 | 6              | 9   | 12  | 19    | 25  | 37  | 49  | 62  | 74  |  |
| 6  | 11.00          | 9.50             | 7/8            | 8                 | 8              | 12  | 16  | 24    | 32  | 48  | 64  | 81  | 97  |  |
| 8  | 13.50          | 11.75            | 7/8            | 8                 | 11             | 17  | 23  | 34    | 46  | 69  | 92  | 114 | 137 |  |
| 10   | 16.00          | 14.25            | 1              | 12                | 15             | 22  | 29  | 44    | 59  | 88  | 118 | 147 | 176 |  |
| 12   | 19.00          | 17.00            | 1              | 12                | 21             | 31  | 42  | 63    | 84  | 126 | 167 | 209 | 251 |  |
| 14   | 21.00          | 18.75            | 1.12           | 12                | 23             | 35  | 47  | 70    | 94  | 141 | 188 | 235 | 282 |  |
| 16   | 23.50          | 21.25            | 1.12           | 16                | 28             | 42  | 56  | 85    | 113 | 169 | 225 | 282 | 338 |  |
| 18   | 25.00          | 22.75            | 1.25           | 16                | 28             | 42  | 56  | 85    | 113 | 169 | 225 | 282 | 338 |  |
| 20   | 27.50          | 25.00            | 1.25           | 20                | 33             | 50  | 66  | 100   | 133 | 199 | 265 | 332 | 398 |  |
| 24   | 32.00          | 29.50            | 1.38           | 20                | 42             | 63  | 84  | 126   | 167 | 251 | 335 | 419 | 502 |  |
| 30   | 38.75          | 36.00            | 1.38           | 28                | 56             | 84  | 112 | 168   | 224 | 336 | 448 | 560 | 672 |  |
| 36   | 46.00          | 42.75            | 1.63           | 32                | 75             | 113 | 150 | 225   | 300 | 450 | 601 | 751 | 901 |  |



STAR<sup>®</sup> PIPE PRODUCTS

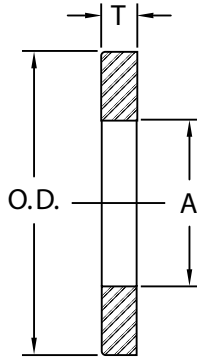
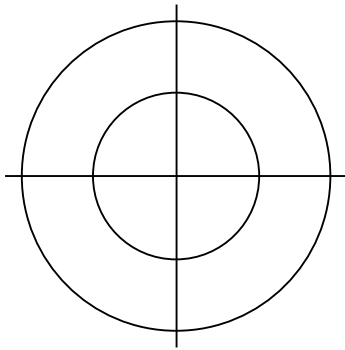


# Flanges

ANSI/AWWA C115/A21.15

## GENERAL SPECIFICATIONS

**MATERIAL:** Ductile iron per ASTM A536



## DUCTILE IRON ANCHOR FLANGES

| NOM. SIZE | THICKNESS T | OD FLANGE O.D. | ID FLANGE A | WT (LBS.) |
|-----------|-------------|----------------|-------------|-----------|
| 3         | 0.50        | 6.50           | 4.06        | 3         |
| 4         | 0.50        | 7.40           | 4.90        | 3         |
| 6         | 0.50        | 9.50           | 7.00        | 4         |
| 8         | 0.50        | 12.00          | 9.15        | 6         |
| 10        | 0.50        | 14.10          | 11.20       | 7         |
| 12        | 0.50        | 16.25          | 13.30       | 9         |
| 14        | 0.50        | 18.40          | 15.44       | 10        |
| 16        | 0.50        | 21.00          | 17.54       | 14        |
| 18        | 0.50        | 23.10          | 19.64       | 15        |
| 20        | 0.50        | 25.70          | 21.74       | 19        |
| 24        | 0.50        | 30.00          | 25.94       | 23        |
| 30        | 0.63        | 37.00          | 32.17       | 43        |
| 36        | 0.63        | 43.40          | 38.47       | 52        |
| 42        | 1.00        | 50.00          | 44.67       | 103       |
| 48        | 1.00        | 56.50          | 50.97       | 121       |
| 54        | 1.25        | 62.50          | 57.73       | 146       |
| 60        | 1.25        | 69.00          | 61.78       | 241       |
| 64        | 1.25        | 75.75          | 65.84       | 358       |

STAR® PIPE PRODUCTS

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\* REGISTERED TRADEMARK OF STAR PIPE PRODUCTS