## Stainless Steel Welding Elbows

## Smooth Flow Elbows



Long Radius $90^{\circ}$


Long Radius $\mathbf{4 5}^{\circ}$


Short Radius $90^{\circ}$

■ Elbows and other fitting configurations (see pages 7 thru 20) are available in either the "as welded" or "an nealed" condition in accordance with one of the specifications referenced below.
■ "As welded" elbows and other "as welded" fittings are the most economical type of stainless steel fittings and are available in the widest variety of diameters and wall thicknesses for maximum design flexibility and cost advantage. They are formed and welded from ASTM A 240 material and are generally used with "as welded" piping. ASTM 774 is considered to be the most applicable ASTM specification for "as welded" elbows and other "as welded" fittings.
■ "Annealed" elbows and other "annealed" fittings are available per ASTM A 403, Classes WP-S, WP-W, WP-WX and CR are generally used with "annealed" pipe. (See page 55 for a detailed explanation of ASTM A 403).
■ "Annealed" elbows and other "annealed" fittings may be specified to ASME SA-403 and are available Section VIII (Division 1) of the ASME Boiler and Pressure Vessel Code.
■ Alloys stocked include Types 304, 304L, 316, 316L and 317L. However, elbows and other fitting configurations can normally be produced in any weldable corrosion resistant alloy.
■ Non-standard diameters and elbow angles are available.
■ ID size elbows are available.

| Nominal <br> Pipe Size | Outside <br> Diameter | A | B | C |
| :--- | :--- | :--- | :--- | :--- |
|  | $1 / 2$ | $3 / 4$ | $5 / 16$ |  |
| $1 / 2$ | 840 | $11 / 2$ | $5 / 8$ |  |
|  | $3 / 4$ | $11 / 8$ | $7 / 16$ |  |
| $3 / 4$ | 1.05 | $11 / 8$ | $7 / 16$ |  |
|  | 1 | $11 / 2$ | $7 / 8$ |  |
| 1 | 1.31 | $11 / 2$ | $7 / 8$ |  |
|  | $11 / 4$ | $17 / 8$ | 1 |  |
| $1 / 4$ | 1.66 | $17 / 8$ | 1 |  |
|  | $11 / 2$ | $21 / 4$ | $11 / 8$ |  |
| $11 / 2$ | 1.90 | $21 / 4$ | $11 / 8$ |  |
|  | 2 | 3 | $13 / 8$ |  |
| 2 | $23 / 8$ | 3 | $13 / 8$ |  |
|  | $21 / 2$ | $33 / 4$ | $13 / 4$ |  |
| $21 / 2$ | $27 / 8$ | $31 / 4$ | $13 / 4$ |  |
| 3 | 3 | $41 / 2$ | 2 | 3 |
|  | $31 / 2$ | $41 / 2$ | 2 | 3 |
| 4 | 4 | 6 | $21 / 2$ | 4 |
|  | $41 / 2$ | 6 | $21 / 2$ | 4 |


| Nominal Pipe Size | Outside Diameter | A | B | C |
| :---: | :---: | :---: | :---: | :---: |
|  | 5 | $71 / 2$ | $31 / 8$ | 5 |
| 5 | $5 \% 16$ | $71 / 2$ | $31 / 8$ | 5 |
|  | 6 | 9 | $33 / 4$ | 6 |
| 6 | $65 / 8$ | 9 | $3{ }^{3} / 4$ | 6 |
|  | 8 | 12 | 5 | 8 |
| 8 | $8 \frac{5}{8}$ | 12 | 5 | 8 |
|  | 10 | 15 | $61 / 4$ | 10 |
| 10 | $10^{3 / 4}$ | 15 | $61 / 4$ | 10 |
|  | 12 | 18 | $71 / 2$ | 12 |
| 12 | $12 \frac{3}{4}$ | 18 | $71 / 2$ | 12 |
|  | 14 | 21 | $8 \frac{3}{4}$ | 14 |
|  | 16 | 24 | 10 | 16 |
|  | 18 | 27 | $111_{4}$ | 18 |
|  | 20 | 30 | $12 \frac{1}{2}$ | 20 |
|  | 22 | 33 | $131 / 2$ | 22 |
|  | 24 | 36 | 15 | 24 |
|  | 30 | *45 | $181 / 2$ | (Pg. 7) |
|  | 36 | *54 | $221 / 4$ | (Pg. 7) |

Dimensions for LR $90^{\circ}$ and LR $45^{\circ}$ elbows per ANSI B16.9. Short Radius $90^{\circ}$ elbow dimensions per ANSI B16.28.
Dimensions are in inches. *Indicates 4 piece construction.
Alloys: pg. 55 Wall Thicknesses: pg. 45-47 Tolerances: pg. 57 Specifications: 53, 54. Shipping Weights: pg. 45-47

