

# 4" Inside Radius Flush Weld Elbows

These **Elbows** are precision mandrel bent parts - **without seams** - except as noted.

1.50" **Tube Elbows** have a 4.25" inside radius.

| Nominal Pipe Size | OD     | Inside Radius (r) | Center Line Radius (R) | Theoretical Center to Center Diam. (C-C) |
|-------------------|--------|-------------------|------------------------|--|
| 1"                | 1.315" | 4.092"            | 4.75"                  | 9.50"                                    |
|                   | 1.50"  | 4.25"             | 5.00"                  | 10.00"                                   |
| 1 1/4"            | 1.66"  | 4.00"             | 4.83"                  | 9.66"                                    |
| 1 1/2"            | 1.90"  | 4.00"             | 4.95"                  | 9.90"                                    |
| 2"                | 2.375" | 4.00"             | 5.188"                 | 10.375"                                  |

## 35° Elbow *Cut to order. Ship within 48 hours.*

| Pipe Size | OD     | Wall Thick. | STEEL  | ALUMINUM |
|-----------|--------|-------------|--------|----------|
| 1"        | 1.315" | .133"       | 5601   | 5611     |
|           | 1.50"  | .120"       | 6950-5 |          |
| 1 1/4"    | 1.66"  | .140"       | 5631*  |          |
| 1 1/2"    | 1.90"  | .145"       | 5661   | 5671     |
| 2"        | 2.375" | .154"       | 5720   | 5734     |

## 35° Elbow with Two 2" Tangents

| Pipe Size | OD    | Wall Thick. | STEEL  |
|-----------|-------|-------------|--------|
| 1 1/4"    | 1.66" | .140"       | 5631-2 |

## 45° Elbow *Cut to order. Ship within 48 hours.*

| Pipe Size | OD     | Wall Thick. | STEEL  | ALUMINUM |
|-----------|--------|-------------|--------|----------|
| 1"        | 1.315" | .133"       | 5602   | 5612     |
|           | 1.50"  | .120"       | 6952-5 |          |
| 1 1/4"    | 1.66"  | .140"       | 5632*  |          |
| 1 1/2"    | 1.90"  | .145"       | 5662   | 5672     |
| 2"        | 2.375" | .154"       | 5722   | 5736     |

## 45° Elbow with Two 2" Tangents

| Pipe Size | OD     | Wall Thick. | STEEL  |
|-----------|--------|-------------|--------|
| 1 1/2"    | 1.90"  | .145"       | 5662-2 |
| 2"        | 2.375" | .154"       | 5723   |

## 55° Elbow *Cut to order. Ship within 48 hours.*

| Pipe Size | OD     | Wall Thick. | STEEL  | ALUMINUM | STAINLESS         |
|-----------|--------|-------------|--------|----------|-------------------|
| 1"        | 1.315" | .133"       | 5603   | 5613     | 5623              |
|           | 1.50"  | .120"       | 6954-5 |          |                   |
| 1 1/4"    | 1.66"  | .140"       | 5633*  |          |                   |
| 1 1/2"    | 1.90"  | .145"       | 5663   | 5673     | 5683              |
| 2"        | 2.375" | .154"       | 5724   | 5738     | 5752 <sup>†</sup> |

## 55° Elbow with Two 2" Tangents

| Pipe Size | OD    | Wall Thick. | STEEL  |
|-----------|-------|-------------|--------|
|           | 1.50" | .120"       | 6955-5 |
| 1 1/4"    | 1.66" | .140"       | 5633-3 |
| 1 1/2"    | 1.90" | .145"       | 5663-3 |



Mandrel Bent Elbow



Seamed Elbow

**STEEL**  
**ALUMINUM** 3003, 6061; 6063  
**STAINLESS STEEL** Type 304

Made in MILWAUKEE

\* Stainless Steel Type 316; Brass Alloys C23000 and C27200; and Bronze C38500 are available upon request to [rfq@mailwagner.com](mailto:rfq@mailwagner.com).

## 90° Elbow

| Pipe Size | OD     | Wall Thick. | STEEL  | ALUMINUM | STAINLESS         |
|-----------|--------|-------------|--------|----------|-------------------|
| 1"        | 1.315" | .133"       | 5604   | 5614     | 5624              |
|           | 1.50"  | .120"       | 6956-5 | 6967-5   | 6975-5            |
| 1 1/4"    | 1.66"  | .140"       | 5634*  | 5644     | 5654              |
| 1 1/2"    | 1.90"  | .145"       | 5664   | 5674     | 5684              |
| 2"        | 2.375" | .154"       | 5726   | 5740     | 5754 <sup>†</sup> |

## 90° Elbow with One 2" Tangent *Cut to order.*

| Pipe Size | OD     | Wall Thick. | STEEL  | ALUMINUM | STAINLESS         |
|-----------|--------|-------------|--------|----------|-------------------|
| 1"        | 1.315" | .133"       | 5605   | 5615     | 5625              |
|           | 1.50"  | .120"       | 6957-5 | 6968-5   | 6976-5            |
| 1 1/4"    | 1.66"  | .140"       | 5635   | 5645     | 5655              |
| 1 1/2"    | 1.90"  | .145"       | 5665   | 5675     | 5685              |
| 2"        | 2.375" | .154"       | 5727   | 5741     | 5755 <sup>†</sup> |

## 90° Elbow with Two 2" Tangents

| Pipe Size | OD     | Wall Thick. | STEEL  | ALUMINUM | STAINLESS         |
|-----------|--------|-------------|--------|----------|-------------------|
| 1"        | 1.315" | .133"       | 5606   | 5617     |                   |
|           | 1.50"  | .120"       | 6958-5 | 6969-5   | 6977-5            |
| 1 1/4"    | 1.66"  | .140"       | 5640   | 5650     |                   |
| 1 1/2"    | 1.90"  | .145"       | 5670   | 5680     | 5690              |
| 2"        | 2.375" | .154"       | 5728   | 5742     | 5756 <sup>†</sup> |

## 125° Elbow *Cut to order. Ship within 48 hours.*

| Pipe Size | OD    | Wall Thick. | STEEL |
|-----------|-------|-------------|-------|
| 1 1/4"    | 1.66" | .140"       | 5636  |
| 1 1/2"    | 1.90" | .145"       | 5666  |

## 135° Elbow *Cut to order. Ship within 48 hours.*

| Pipe Size | OD    | Wall Thick. | STEEL |
|-----------|-------|-------------|-------|
| 1 1/4"    | 1.66" | .140"       | 5637  |
| 1 1/2"    | 1.90" | .145"       | 5667  |

## 145° Elbow *Cut to order. Ship within 48 hours.*

| Pipe Size | OD    | Wall Thick. | STEEL  |
|-----------|-------|-------------|--------|
| 1 1/4"    | 1.66" | .140"       | 5637-4 |
| 1 1/2"    | 1.90" | .145"       | 5667-4 |

## 180° Elbow

| Pipe Size | OD     | Wall Thick. | STEEL  | ALUMINUM | STAINLESS         |
|-----------|--------|-------------|--------|----------|-------------------|
| 1"        | 1.315" | .133"       | 5608   | 5618     | 5629              |
|           | 1.50"  | .120"       | 6962-5 | 6970-5   | 6978-5            |
| 1 1/4"    | 1.66"  | .140"       | 5638   | 5648     | 5657              |
| 1 1/2"    | 1.90"  | .145"       | 5668   | 5678     | 5688              |
| 2"        | 2.375" | .154"       | 5732   | 5746     | 5760 <sup>†</sup> |

## 180° Elbow with Two 3" Tangents Untrimmed

| Pipe Size | OD     | Wall Thick. | STEEL   | ALUMINUM | STAINLESS          |
|-----------|--------|-------------|---------|----------|--------------------|
| 1"        | 1.315" | .133"       | 5609B   | 5619B    | 5630B              |
|           | 1.50"  | .120"       | 6963-5B | 6971-5B  | 6979-5B            |
| 1 1/4"    | 1.66"  | .140"       | 5639B   | 5649B    | 5658B              |
| 1 1/2"    | 1.90"  | .145"       | 5669B   | 5679B    | 5689B              |
| 2"        | 2.375" | .154"       | 5733B   | 5747B    | 5761B <sup>†</sup> |

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