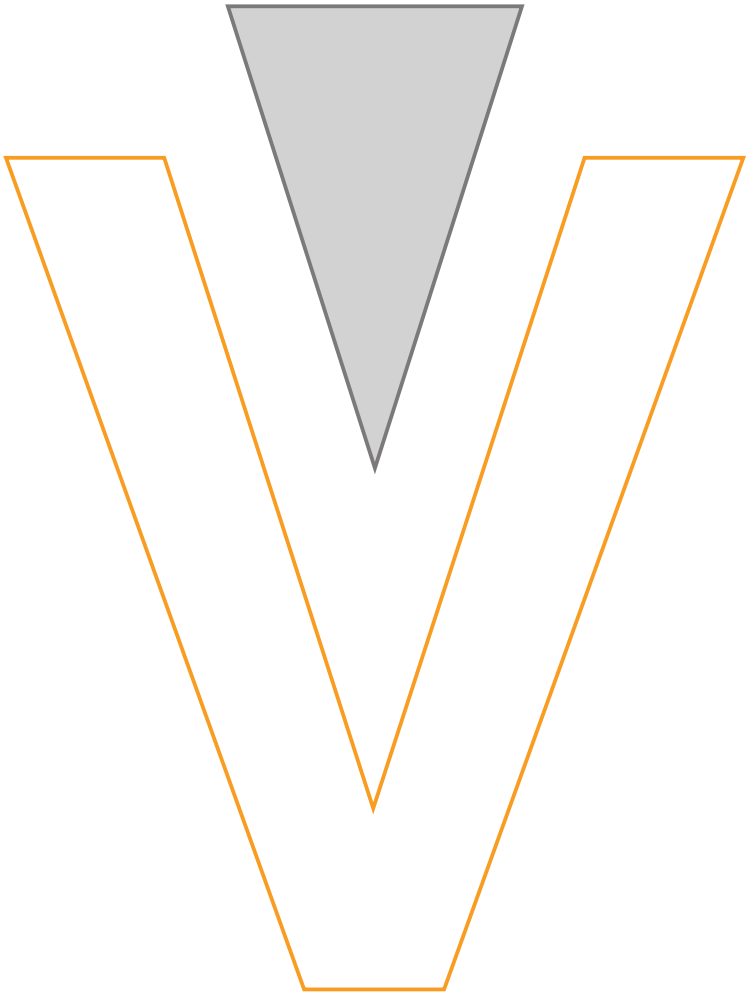
VARINOX

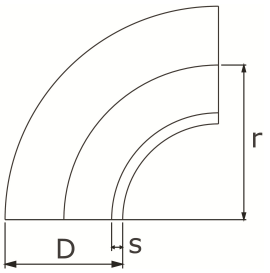
Product Sheet



# Bend 90° Type 3D

welded from two half shells

made of stainless steel




| D | s | r | kg | Art.-Nr. |
|---|---|---|---|---|
| 457,2 | 3,0 | 686,0 | 36,800 | 3B-457-030 |
| 457,2 | 4,0 | 686,0 | 49,000 | 3B-457-040 |
| 508,0 | 4,0 | 762,0 | 62,200 | 3B-508-040 |
| 508,0 | 5,0 | 762,0 | 75,200 | 3B-508-050 |
| 610,0 | 4,0 | 914,0 | 87,200 | 3B-610-040 |
| 610,0 | 5,0 | 914,0 | 107,800 | 3B-610-050 |
| 711,2 | 4,0 | 1067,0 | 119,500 | 3B-711-040 |
| 711,2 | 5,0 | 1067,0 | 152,500 | 3B-711-050 |

available material: ask

Bends › Type 3D, r=1,5xD › 3D 90° › DN > 400

**Welded bends 90°**

| Feature |
|---|
| • welded form 2 half shells acc. DIN EN 10253 Part 3 |
| • Design A (reduced utilization factor) |
| • Type 3D (bend radius = ca. 1,5x clear pipe diameter) |
| • materials 1.4307/ AISI 304L - 1.4571 |
| • matte pickled |
| • without heat treatment, without pressure test |
| • smooth, square-cut ends acc. EN 29 692 1.2 |
| • with certificate 3.1 |

Dimensional range

| DN | Outer-Ø (mm) | Wall thickness (mm) |
|---|---|---|
| 125 | 139,7 | 2,0 - 6,0 |
| 150 | 168,3 | 2,0 - 6,0 |
| 200 | 216 und 219,1 | 2,0 - 8,0 |
| 250 | 267 und 273,0 | 2,0 - 8,0 |
| 300 | 318 und 323,9 | 2,0 - 10,0 |
| 350 | 368 und 355,6 | 2,0 - 10,0 |
| 400 | 406,4 und 419 | 2,5 - 10,0 |
| 450 | 457,2 | 2,5 - 10,0 |
| 500 | 508,0 | 3,0 - 10,0 |
| 600 | 609,6 | 4,0 - 10,0 |
| 700 | 711,2 | 5,0 - 10,0 |

**EN 10253**

Butt-welding Fittings

This European Standard specifies the technical delivery conditions for welded fittings for butt welding made of austenitic and austenitic-ferritic (duplex-) stainless steel, intended for pressure- and corrosion-resistant applications at ambient temperature, low temperature, or elevated temperatures.

Comparison of designations according to the old DIN and new EN standards:

| DIN | EN |
|---|---|
| DIN 2605 | EN 10253-3 |
| DIN 2609 | EN 10253-4 |

Weld factor

| Norm | Weld factor |
|---|---|
| EN 10253-3 | V=0,7 |
| EN 10253-4 | V=1,0 |

Utilization factor

| Norm | Utilization factor* |
|---|---|
| Typ A | reduced |
| Typ B | full |

(*) = Wall thickness at the reduced section

**Design pressure**

| Outer-Ø | Wall thickness | bar |
|---|---|---|
| 139,7 | 2,0 | 20 |
| 139,7 | 2,6 | 26 |
| 139,7 | 3,0 | 29 |
| 139,7 | 4,0 | 40 |
| 154,0 | 2,0 | 19 |
| 156,0 | 3,0 | 28 |
| 158,0 | 4,0 | 38 |
| 168,3 | 2,0 | 16 |
| 168,3 | 2,6 | 21 |
| 168,3 | 3,0 | 24 |
| 168,3 | 4,0 | 33 |
| 168,3 | 5,0 | 42 |
| 204,0 | 2,0 | 14 |
| 205,0 | 2,5 | 18 |
| 206,0 | 3,0 | 21 |
| 208,0 | 4,0 | 27 |
| 210,0 | 5,0 | 34 |
| 219,1 | 2,0 | 13 |
| 219,1 | 2,6 | 17 |
| 219,1 | 3,0 | 18 |
| 219,1 | 4,0 | 26 |
| 219,1 | 5,0 | 32 |
| 254,0 | 2,0 | 11 |
| 255,0 | 2,5 | 14 |
| 256,0 | 3,0 | 14 |
| 258,0 | 4,0 | 22 |
| 260,0 | 5,0 | 27 |
| 273,0 | 2,0 | 10 |
| 273,0 | 2,5 | 13 |
| 273,0 | 3,0 | 15 |
| 273,0 | 4,0 | 20 |
| 273,0 | 5,0 | 26 |
| 273,0 | 6,0 | 31 |

The design pressure was determined for material 1.4307 at +20°C in acc. with EN 10253-3, Type A

**Design pressure**

| Outer-Ø | Wall thickness | bar |
|---|---|---|
| 304,0 | 2,0 | 9 |
| 305,0 | 2,5 | 11 |
| 306,0 | 3,0 | 14 |
| 308,0 | 4,0 | 19 |
| 310,0 | 5,0 | 23 |
| 312,0 | 6,0 | 25 |
| 323,9 | 2,0 | 8 |
| 323,9 | 3,0 | 12 |
| 323,9 | 4,0 | 17 |
| 323,9 | 5,0 | 22 |
| 323,9 | 6,0 | 26 |
| 355,6 | 3,0 | 11 |
| 355,6 | 4,0 | 16 |
| 355,6 | 5,0 | 20 |
| 355,6 | 6,0 | 24 |
| 358,0 | 4,0 | 16 |
| 406,4 | 3,0 | 10 |
| 406,4 | 4,0 | 14 |
| 406,4 | 5,0 | 17 |
| 406,4 | 6,0 | 21 |
| 408,0 | 4,0 | 14 |
| 456,0 | 3,0 | 9 |
| 457,0 | 3,0 | 9 |
| 457,0 | 4,0 | 12 |
| 457,0 | 5,0 | 15 |
| 457,0 | 6,0 | 17 |
| 506,0 | 3,0 | 8 |
| 508,0 | 4,0 | 11 |
| 508,0 | 5,0 | 14 |
| 508,0 | 6,0 | 17 |
| 606,0 | 3,0 | 8 |
| 608,0 | 4,0 | 9 |
| 610,0 | 3,0 | 7 |
| 610,0 | 4,0 | 9 |
| 610,0 | 5,0 | 12 |
| 610,0 | 6,0 | 14 |
| 610,0 | 8,0 | 17 |

The design pressure was determined for material 1.4307 at +20°C in acc. with EN 10253-3, Type A

**Tolerances**

| Description | Tolerance limits |
|---|---|
| [D] Diameter | ± 1,0 % or 0,5 mm** (EN tolerance class D2) |
| [R] Radius | ≤ D 219,1 mm ± 2,0 mm / ≤ D 762 mm ± 5,0 mm |
| [T] Wall thickness | -12,5% / +15% |
| [X] Squareness, Axiality | 1% of the outer-Ø or 1 mm** |

* ≤ D 610 mm

** the higher value applies Wert