

Grooved End Fittings

Victaulic offers a broad line of fittings in sizes through 48"/1200mm in a variety of straight and reducing styles. Most standard fittings are cast of durable ductile iron to precise tolerances. Victaulic standard fittings pressure ratings conform to the ratings of Victaulic Style 77 couplings.

All fittings are supplied with grooves or shoulders to permit fast installation without field preparation. The grooved design permits flexibility for easy alignment. *These fittings are not intended for use with Victaulic couplings for plain end pipe (refer to Section 14.04 for fittings available for plain end applications).*

Fittings are provided in various materials including ductile iron, steel or segmentally welded steel depending on styles and size. Fittings are painted orange enamel with a galvanized finish available as an option, contact Victaulic for details.

Victaulic fittings are designed specifically for use in grooved piping systems. Fittings are provided grooved or with shoulders conforming to standard steel pipe outside diameters. When connecting wafer or lug-type butterfly valves directly to Victaulic fittings with 741 or 743 Vic-Flange® adapters, check disc clearance dimensions with I.D. dimension of fitting.



NO. 20 TEE



NO. 10 ELBOW



AGS – ADVANCED GROOVE SYSTEM

Advanced Groove System – For 14 – 24"/350 – 600mm piping systems, Victaulic now offers the Advanced Groove System (AGS). Refer to Section 20.05 for AGS fitting details.

Stainless Steel – Grooved end fittings are available in Schedule 10 Type 316 stainless steel (Schedule 5, 40 and Type 304 available as an option) in various sizes. Fitting center-to-end dimensions will vary depending upon type and schedule. Refer to Section 17.04 and 17.16 for details.

Aluminum – Grooved end fittings are available in aluminum alloy 356 T6, in sizes from 1 – 8"/25 – 200mm. Refer to Section 21.03 or contact Victaulic for details.

ALTERNATE STYLES



Extra Heavy EndSeal® "ES" Fittings – EndSeal fittings are available in 2 – 12"/50 – 300mm for use with "ES" grooved pipe and HP-70ES EndSeal couplings. "ES" fittings are painted black for easy identification. EndSeal (and standard) fittings may be easily internally coated (by others) for severe service requirements. Always specify "ES EndSeal fittings" when ordering. See Section 07.03 for information on EndSeal fittings.

Fittings Machined for Rubber or Urethane Lining (MRL) – For severe abrasive services, Victaulic fittings may be rubber or urethane lined (by others). Lining may be inside diameter/end (abrasion resistance) or wrap-around (corrosion and/or abrasion) machined. Refer to Section 25.03 or contact Victaulic for specific details.

JOB/OWNER

System No. _____

Location _____

CONTRACTOR

Submitted By _____

Date _____

ENGINEER

Spec Sect _____ Para _____

Approved _____

Date _____

Grooved End Fittings



NO. 10 ELBOW

NO. 20 TEE

MATERIAL SPECIFICATIONS

Fitting: Ductile iron conforming to ASTM A-536, grade 65-45-12. Ductile iron conforming to ASTM A-395, grade 65-45-15, is available upon special request.

- **Or:** Segmentally welded steel as shown under nipples

Nipples: (adapter, swaged & hose)

- $\frac{3}{4}$ – 4"/20 – 100mm: Carbon steel, Schedule 40, conforming to ASTM A-53, Type F
- 5 – 6"/125 – 150mm: Carbon steel, Schedule 40, conforming to ASTM A-53, Type E or S, Gr. B
- 8 – 12"/200 – 300mm: Carbon steel, Schedule 30 or 40, conforming to ASTM A-53, Type E or S, Gr. B

Flanged Adapter Nipples: (Nipple – see above)

- Class 125 Flange: Cast iron conforming to ANSI B-16.1
- Class 150 Flange: Carbon steel conforming to ANSI B-16.5, raised or flat face
- Class 300 Flange: Carbon steel conforming to ANSI B-16.5, raised or flat face

Fitting Coatings: Orange enamel

- **Optional:** Hot dip galvanized and others. Some fittings supplied electroplated as standard – see product specifications.

Flanged Adapter Nipple Coating: None (Unfinished)

- **Optional:** Orange enamel, hot dip galvanized and others.

Grooved End Fittings



NO. 10 ELBOW



NO. 20 TEE

Cap

NO. 60
(Ductile Iron)



NO. 60

Size		No. 60 Cap	
Nominal Size Inches mm	Actual Outside Diameter Inches mm	T Thickness Inches mm	Approx. Weight Each Lbs. kg
3/4 20	1.050 26.9	0.88 22	0.2 0.1
1 25	1.315 33.7	0.88 22	0.3 0.1
1 1/4 32	1.660 42.4	0.88 22	0.3 0.1
1 1/2 40	1.900 48.3	0.88 22	0.5 0.2
2 50	2.375 60.3	0.88 22	0.6 0.3
2 1/2 65	2.875 73.0	0.88 22	1.0 0.5
76.1 mm	3.000 76.1	0.88 22	1.2 0.5
3 80	3.500 88.9	0.88 22	1.2 0.5
3 1/2 90	4.000 101.6	0.88 22	2.5 1.1
108.0 mm	4.250 108.0	1.00 25	2.3 1.0
4 100	4.500 114.3	1.00 25	2.5 1.1
4 1/2 120	5.000 127.0	1.00 25	2.5 1.1
133.0 mm	5.250 133.0	1.00 25	4.5 2.0
139.7 mm	5.500 139.7	1.00 25	4.5 2.0
5 125	5.563 141.3	1.00 25	4.6 2.1
159.0 mm	6.250 159.0	1.00 25	6.8 3.1

Size		No. 60 Cap	
Nominal Size Inches mm	Actual Outside Diameter Inches mm	T Thickness Inches mm	Approx. Weight Each Lbs. kg
165.1 mm	6.500 165.1	1.00 25	7.3 3.3
6 150	6.625 168.3	1.00 25	6.1 2.8
8 200	8.625 219.1	1.19 30	13.1 5.9
10 250	10.750 273.0	1.25 32	21.0 9.5
12 300	12.750 323.9	1.25 32	35.6 16.2
14 # 350	14.000 355.6	9.50 241	*
16 # 400	16.000 406.4	10.00 254	*
18 # 450	18.000 457.0	11.00 279	*
20 # 500	20.000 508.0	12.00 305	*
24 # 600	24.000 610.0	*	*
14 – 24 350 – 600	AGS™ For AGS fitting information, see publication 20.05		

IMPORTANT NOTES:

* Steel dish caps available through 24"/600mm, contact Victaulic.

No. 60 cap is not suitable for use in vacuum service with Style 72 or 750 couplings. No. 61 bull plugs should be used, see pg. 35.

For use on cut grooved systems only. For roll grooved systems, Victaulic offers the Advanced Groove System (AGS). For pricing and availability of cut groove fittings in this size, contact your nearest Victaulic sales office.