



1.0 PRODUCT DESCRIPTION

Available Sizes:

- 14 – 24"/350 – 600 mm

Maximum Pressure Rating:

- Fitting pressure ratings are equivalent to the pressure ratings of the coupling used to install them. (See section 7.0 for Reference Materials.)

Function:

- Connects pipe sections, provides change in direction, and adapts sizes or components. Provides transitions between different joining methods.
- Stainless steel AGS fittings are supplied with Victaulic AGS grooves. Fittings are exclusively for use with Victaulic couplings, valves, accessories and pipe which feature ends formed with the Victaulic AGS groove profile.

Codes and Requirements:

- Support hanger spacing corresponds to ASME B31.1 Power Piping Code and ASME B31.9 Building Services Piping Code.

2.0 CERTIFICATION/LISTINGS

- This system is certified to ISO 9001:2008 by the LPCB under certificate No. 104.

3.0 MATERIAL SPECIFICATIONS

Wrought Fittings: Stainless steel conforming to ASTM A 403M Grade WP, Class 5 Types 304L or 316L, as specified

Segmentally Welded Fittings and Pipe Nipples: Fabricated from stainless steel pipe conforming to ASTM A 312/A 312M, Types 304L or 316L, as specified.

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

System No.		Location	
Submitted By		Date	

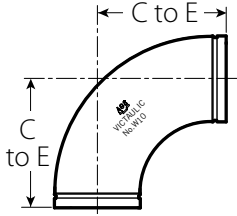
Spec Section		Paragraph	
Approved		Date	

4.0 DIMENSIONS

No. W410 90° Long Radius Elbow

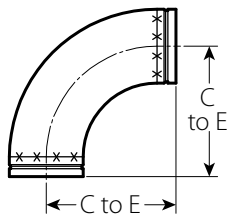
No. W411 45° Elbow

No. W420 Tee



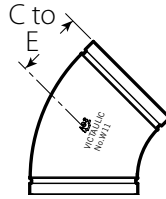
NO. W410

14-16"/350-400 mm
direct grooved only



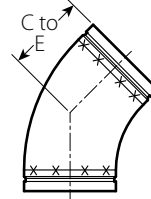
NO. W410

18-24"/450-600 mm
w/welded tangents



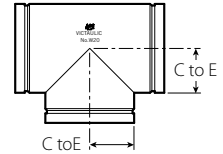
NO. W411

14-16"/350-400 mm
direct grooved only



NO. W411

18-24"/450-600 mm
w/welded tangents



NO. W420

Size		No. W410 90° Elbow		No. W411 45° Elbow		No. W420 Tee	
Nominal Size	Actual Outside Diameter	C to E	Approx. Weight Each	C to E	Approx. Weight Each	C to E	Approx. Weight Each
inches DN	inches mm	inches mm	lb kg	inches mm	lb kg	inches mm	lb kg
14 DN350	14.000 355.6	21.00 533	158.0 71.7	8.75 222	83.0 37.6	11.00 279	102.0 46.3
16 DN400	16.000 406.4	24.00 610	204.3 92.7	10.00 254	101.0 45.8	12.00 305	123.5 56.0
18 DN450	18.000 457.0	30.00 762	272.3 123.5	14.25 362	129.0 58.5	13.50 343	281.0 127.5
20 DN500	20.000 508.0	33.00 838	312.0 141.5	15.50 394	165.3 75.0	15.00 381	350.0 158.7
24 DN600	24.000 610.0	39.00 990	559.8 253.9	18.00 457	264.5 120.0	17.00 432	503.7 228.5

NOTE

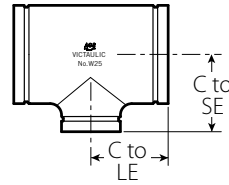
- Note: No. W420 Tee's are segmentally welded.

4.1 DIMENSIONS

Tees

No. W425 REDUCING TEE

(Segmentally Welded Stainless Steel)



NO. W425

Size				No. W425 Reducing Tee		Approx. Weight Each lb kg	
Nominal Size inches DN				C to LE inches mm	C to SE inches mm		
14 DN350	x	14 DN350	x	4 DN100	11.00 279	9.38 238	101.4 46.0
				6 DN150	11.00 279	9.38 238	101.4 46.0
				8 DN200	11.00 279	9.75 248	102.5 46.5
				10 DN250	11.00 279	10.12 257	105.1 47.7
				12 DN300	11.00 279	10.62 270	108.1 49.0
16 DN400	x	16 DN400	x	4 DN100	12.00 305	10.38 264	126.2 57.2
				6 DN150	12.00 305	10.38 264	126.2 57.2
				8 DN200	12.00 305	10.75 273	127.4 57.8
				10 DN250	12.00 305	11.12 282	129.8 58.9
				12 DN300	12.00 305	11.62 295	132.5 60.1
				14 DN350	12.00 305	12.00 305	134.6 61.1
18 DN450	x	18 DN450	x	6 DN150	13.50 343	11.38 289	160.0 72.6
				8 DN200	13.50 343	11.75 298	161.0 73.0
				10 DN250	13.50 343	12.12 308	163.1 74.0
				12 DN300	13.50 343	12.62 321	165.6 75.1
				14 DN350	13.50 343	13.00 330	167.6 76.0
				16 DN400	13.50 343	13.00 330	168.2 76.3

NOTE

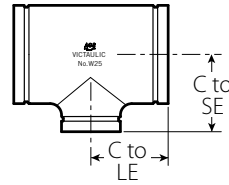
- Outlet sizes 12"/300 mm and smaller will be provided with original IPS Victaulic roll grooves, suitable for use with original Victaulic grooved couplings in that size range.

4.1 DIMENSIONS CONTINUED

Tees

No. W425 REDUCING TEE

(Segmentally Welded Stainless Steel)



NO. W425

Size				No. W425 Reducing Tee		Approx. Weight Each	
Nominal Size inches DN				C to LE inches mm	C to SE inches mm		
20 DN500	x	20 DN500	x	6 DN150	15.00 381	12.38 314	197.0 89.5
				8 DN200	15.00 381	12.75 324	198.5 90.0
				10 DN250	15.00 381	13.12 333	200.5 90.9
				12 DN300	15.00 381	13.62 346	202.9 92.0
				14 DN350	15.00 381	14.00 356	204.7 92.9
				16 DN400	15.00 381	14.00 356	205.0 93.0
				18 DN450	15.00 381	14.50 368	208.4 94.5
				24 DN600	x	24 DN600	x
8 DN200	17.00 432	14.75 375	270.0 123.0				
10 DN250	17.00 432	15.12 384	271.7 123.2				
12 DN300	17.00 432	15.62 397	273.8 124.2				
14 DN350	17.00 432	16.00 406	275.4 125.0				
16 DN400	17.00 432	16.00 406	275.3 125.0				
18 DN450	17.00 432	16.50 419	278.1 127.1				
20 DN500	17.00 432	17.00 432	282.1 128.0				

NOTE

- Outlets 12"/300 mm and smaller will be provided with original Victaulic roll grooves, suitable for use with original Victaulic grooved couplings in that size range.

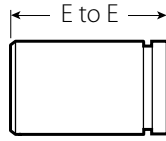
4.2 DIMENSIONS

Adapter Nipple

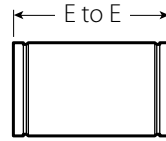
No. W442 AGS Grv. × Bev.

No. W443 AGS Grv. × AGS Grv.

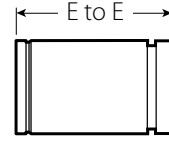
No. W449 AGS Grv. × OGS Grv.



NO. W442



NO. W443



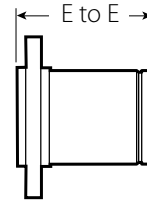
NO. W449

Size		No. W442 Adapter Nipple		No. W443 Adapter Nipple		No. W449 Adapter Nipple	
Nominal Size	Actual Outside Diameter	E to E	Approx. Weight Each	E to E	Approx. Weight Each	E to E	Approx. Weight Each
inches DN	inches mm	inches mm	lb kg	inches mm	lb kg	inches mm	lb kg
14 DN350	14.000 355.6	8.00 203	36.0 16.3	8.00 203	36.0 16.3	8.00 203	36.0 16.3
16 DN400	16.000 406.4	8.00 203	42.0 19.1	8.00 203	42.0 19.1	8.00 203	42.0 19.1
18 DN450	18.000 457.0	8.00 203	47.0 21.3	8.00 203	47.0 21.3	8.00 203	47.0 21.3
20 DN500	20.000 508.0	8.00 203	52.0 23.6	8.00 203	52.0 23.6	8.00 203	52.0 23.6
24 DN600	24.000 610.0	8.00 203	63.0 28.6	8.00 203	63.0 28.6	8.00 203	63.0 28.6

4.3 DIMENSIONS

Flanged Adapter Nipple

No. W445R ANSI Class 150 Raised Face



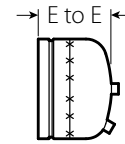
NO. W445R

Size		No. W445R Flanged Adapter Nipple		
Nominal Size inches DN	Actual Outside Diameter inches mm	E to E inches mm	Approx. Weight Each lb kg	
14 DN350	14.000 355.6	8.00 203	122.0 55.3	
16 DN400	16.000 406.4	8.00 203	136.0 61.7	
18 DN450	18.000 457.0	8.00 203	168.0 76.2	
20 DN500	20.000 508.0	8.00 203	208.0 94.3	
24 DN600	24.000 610.0	8.00 203	274.0 124.3	

4.4 DIMENSIONS

Cap

No. W460



NO. W460

Size		No. W460 Cap		
Nominal Size inches DN	Actual Outside Diameter inches mm	E to E inches mm	Approx. Weight Each lb kg	
14 DN350	14.000 355.6	9.50 241.3	33.2 15.1	
16 DN400	16.000 406.4	10.00 254.0	41.2 18.7	
18 DN450	18.000 457.0	11.00 279.4	54.6 24.8	
20 DN500	20.000 508.0	12.00 304.8	67.5 30.6	
24 DN600	24.000 610.0	13.50 342.9	96.0 43.5	

NOTE

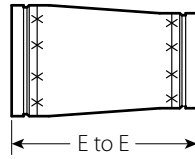
- Threaded weld outlets optional. Please contact Victaulic for tap sizes.

4.5 DIMENSIONS

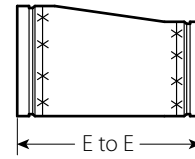
Concentric/Eccentric Reducer

No. W450 Concentric

No. W451 Eccentric



NO. W450



NO. W451

Size		No. W450 Concentric Reducer		No. W451 Eccentric Reducer		
Nominal Size inches DN	x	DN	E to E	Approx. Weight Each	E to E	Approx. Weight Each
			inches mm	lb kg	inches mm	lb kg
14 DN350	x	6 DN150	11.00 279.4	32.3 14.6	11.00 279.4	32.3 14.6
		8 DN200	11.00 279.4	35.4 16.1	11.00 279.4	35.4 16.1
		10 DN250	11.00 279.4	38.7 17.6	11.00 279.4	38.7 17.6
		12 DN300	11.00 279.4	42.1 19.1	11.00 279.4	42.1 19.1
16 DN400	x	6 DN150	12.00 304.8	39.3 17.8	12.00 304.8	39.3 17.8
		8 DN200	12.00 304.8	42.4 19.2	12.00 304.8	42.4 19.2
		10 DN250	12.00 304.8	44.7 20.3	12.00 304.8	44.7 20.3
		12 DN300	12.00 304.8	47.1 21.4	12.00 304.8	47.1 21.4
		14 DN350	12.00 304.8	50.1 22.7	12.00 304.8	50.1 22.7
18 DN450	x	10 DN250	13.50 342.9	50.7 23.0	13.50 342.9	50.7 23.0
		12 DN300	13.50 342.9	54.1 24.5	13.50 342.9	54.1 24.5
		14 DN350	13.50 342.9	56.1 25.4	13.50 342.9	56.1 25.4
		16 DN400	13.50 342.9	59.1 26.8	13.50 342.9	59.1 26.8
20 DN500	x	12 DN300	15.00 381.0	81.7 37.1	15.00 381.0	81.7 37.1
		14 DN350	15.00 381.0	84.7 38.4	15.00 381.0	84.7 38.4
		16 DN400	15.00 381.0	89.7 40.7	15.00 381.0	89.7 40.7
		18 DN450	15.00 381.0	93.7 42.5	15.00 381.0	93.7 42.5

NOTE

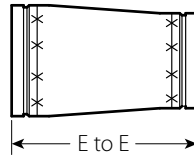
- Outlets 12"/300 mm and smaller will be provided with standard Victaulic roll grooves, suitable for use with standard Victaulic grooved couplings in that size range.

4.5 DIMENSIONS

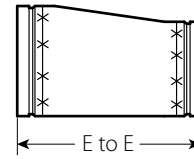
Concentric/Eccentric Reducer

No. W450 Concentric

No. W451 Eccentric



NO. W450



NO. W451

Size		No. W450 Concentric Reducer		No. W451 Eccentric Reducer		
		E to E inches mm	Approx. Weight Each lb kg	E to E inches mm	Approx. Weight Each lb kg	
24 DN600	x	10 DN250	17.00 431.8	102.6 46.5	17.00 431.8	102.6 46.5
		12 DN300	17.00 431.8	107.9 49.0	17.00 431.8	107.9 49.0
		14 DN350	17.00 431.8	110.9 50.3	17.00 431.8	110.9 50.3
		16 DN400	17.00 431.8	113.9 51.7	17.00 431.8	113.9 51.7
		18 DN450	17.00 431.8	117.9 53.5	17.00 431.8	117.9 53.5
		20 DN500	17.00 431.8	124.5 56.5	17.00 431.8	124.5 56.5

NOTE

- Outlets 12"/300 mm and smaller will be provided with standard Victaulic roll grooves, suitable for use with standard Victaulic grooved couplings in that size range.

5.0 PERFORMANCE

The chart expresses the frictional resistance of various Victaulic fittings as equivalent feet/meters of straight pipe. Fittings not listed can be estimated from the data given, for example, a 22½° elbow is approximately one-half the resistance of a 45° elbow.

Size		Tees			
Nominal Size inches DN	Actual Outside Diameter inches mm	90° Elbows	45° Elbows	W420	
		No. W410	No. W411	Branch	Run
14 DN350	14.000 355.6	15.8 4.8	11.0 3.4	70.0 21.3	23.0 7.0
16 DN400	16.000 406.4	18.0 5.5	13.0 4.0	80.0 24.4	27.0 8.2
18 DN450	18.000 457.0	20.0 6.1	14.0 7.2	90.0 27.4	30.0 9.1
20 DN500	20.000 406.4	22.5 6.9	16.0 4.9	100.0 30.5	33.0 10.1
24 DN600	24.000 406.4	27.0 8.2	19.0 5.8	120.0 36.6	40.0 12.2

NOTE

- The flow data listed is based upon the pressure drop of Schedule 10S pipe.
- Contact Victaulic for data on sizes not shown above.

6.0 NOTIFICATIONS

WARNING

- Victaulic AGS products use a patented groove profile that requires the use of special AGS rolls. AGS products must not be used on pipe that has been grooved using standard grooving rolls. Failure to use AGS products on AGS grooved pipe could result in serious personal injury, property damage, joint leakage or joint separation.

7.0 REFERENCE MATERIALS

[05.01 Seal Selection Guide](#)

[17.16 OGS Stainless Steel Fittings](#)

[20.15 W89 AGS Rigid Coupling](#)

[16.15 Vic-Ring AGS Rigid Coupling for Stainless Style W89](#)

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, as well as Victaulic performance, maintenance, safety, and warning instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, installation guide, or this disclaimer.

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Note

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

Installation

Reference should always be made to the Victaulic installation handbook or installation instructions of the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at www.victaulic.com.

Warranty

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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