

# AGS Full Flow Fittings with Vic-Rings®



Victaulic offers a line of AGS (Advanced Groove System) full flow fittings with Vic-Rings in sizes from 12 – 48”/300 – 1200mm for abrasive applications in a variety of straight and reducing styles.

Fittings are supplied with tangents for full flow service. Each tangent adds 6”/152.4mm to the standard C to E dimensions for the fitting. For fittings where E to E dimensions are published an extra 12” /304.8mm tangent is supplied.

These fittings include integral Victaulic Type D AGS™ Vic-Rings®. These fittings can be supplied in standard weight or extra heavy construction. The use of the Vic-Ring® maintains a smooth bore through the fitting with no reduction in wall thickness at the joints making it ideal for abrasive services.

The fittings are pressure rated to conform to the pressure ratings of Victaulic Style W07/W77 AGS Couplings. All fittings are supplied with AGS grooves to permit fast installation without field preparation. The AGS design permits increased pipe end/component end separation for easy alignment. These fittings are designed for use exclusively with Victaulic W07 (rigid) and W77 (flexible) AGS couplings with AGS rings.

Fittings are painted orange enamel with a galvanized finish available as an option. Contact Victaulic for details.



**WARNING**

**WARNING**

- Victaulic Type D AGS Vic-Rings include the AGS groove profile and are only available from Victaulic. These fittings must be used with pipe with the same Type D AGS Vic-Rings only available from Victaulic.
- Failure to use AGS products on AGS Vic-Rings could result in serious personal injury, property damage, joint leakage or joint separation.**

**MATERIAL SPECIFICATIONS**

Carbon steel pipe conforming to ASTM A 53, Grade B or equivalent  
 Forged steel conforming to ASTM A 234, Grade WPB, or equivalent  
 Forged steel conforming to ASTM A 105, or equivalent

**JOB/OWNER**

System No. \_\_\_\_\_  
 Location \_\_\_\_\_

**CONTRACTOR**

Submitted By \_\_\_\_\_  
 Date \_\_\_\_\_

**ENGINEER**

Spec Sect \_\_\_\_\_ Para \_\_\_\_\_  
 Approved \_\_\_\_\_  
 Date \_\_\_\_\_

[www.victaulic.com](http://www.victaulic.com)

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# AGS Full Flow Fittings with Vic-Rings®

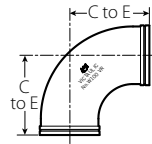
## DIMENSIONS

Full Flow With Vic-Rings, Elbows, Tees

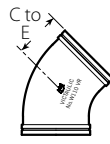
NO. W100 VR 90° Elbow

NO. W110 VR 45° Elbow

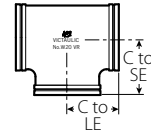
NO. W20 VR Tee



NO. W100 VR



NO. W110 VR



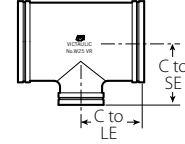
NO. W20 VR

Size		No. W100 VR 90° Elbow		No. W110 VR 45° Elbow		No. W20 VR Tee		
Nominal Size Inches mm	Actual Outside Diameter Inches mm	C to E Inches mm	Approx. Weight Each Lbs. kg	C to E Inches mm	Approx. Weight Each Lbs. kg	C to LE Inches mm Run	C to SE Inches mm Branch	Approx. Weight Each Lbs. kg
12 300	12.75 323.9	24.00 609.6	206.7 93.8	13.50 342.9	147.1 66.7	16.00 406.4	16.00 406.4	217.7 98.7
14 350	14.00 355.6	27.00 685.8	282.7 128.2	14.75 374.7	205.1 93.0	17.00 431.8	17.00 431.8	287.0 130.2
16 400	16.00 406.4	30.00 762.0	345.7 156.8	16.00 406.4	244.7 111.0	18.00 457.2	18.00 457.2	347.5 157.6
18 450	18.00 457.2	33.00 838.2	418.6 189.9	17.25 438.2	290.7 131.9	19.50 495.3	19.50 495.3	403.6 183.1
20 500	20.00 508.0	36.00 914.4	497.7 225.8	18.50 469.9	338.7 153.6	21.00 533.4	21.00 533.4	488.4 221.5
24 600	24.00 609.6	42.00 1066.8	714.6 324.1	21.00 533.4	485.8 220.4	23.00 584.2	23.00 584.2	671.2 304.5
26 650	26.00 660.4	45.00 1143.0	815.8 370.0	22.00 558.8	545.7 247.5	25.50 647.7	25.50 647.7	789.0 357.9
28 700	28.00 711.2	48.00 1219.2	977.8 443.5	23.25 590.6	638.3 289.5	26.50 673.1	26.50 673.1	909.1 412.4
30 750	30.00 762.0	51.00 1295.4	1038.8 471.2	24.50 622.3	676.8 307.0	28.00 711.2	28.00 711.2	1034.6 469.3
32 800	32.00 812.8	54.00 1371.6	1191.8 540.6	25.75 654.1	766.3 347.6	29.50 749.3	29.50 749.3	1382.9 627.3
36 900	36.00 914.4	60.00 1524.0	1422.7 645.3	28.25 717.6	900.9 408.6	32.50 825.5	32.50 825.5	1509.7 684.8
40 1000	40.00 1016.0	66.00 1676.4	1739.6 789.1	30.88 784.4	1089.2 494.1	35.50 901.7	35.50 901.7	1759.4 798.1
42 1050	42.00 1066.8	69.00 1752.6	1882.9 854.1	32.00 812.8	1169.9 530.7	36.00 914.4	34.00 863.6	2082.3 944.5
46 1150	46.00 1168.4	75.00 1905.0	2889.2 1310.5	34.62 879.3	1731.8 785.5	39.50 1003.3	37.50 952.5	2503.5 1135.6
48 1200	48.00 1219.2	78.00 1981.2	3089.9 1401.6	35.88 911.4	1839.9 834.6	41.00 1041.4	39.00 990.6	3684.5 1671.3

# AGS Full Flow Fittings with Vic-Rings®

## Full Flow Tees With Vic-Rings

### NO. W25 VR Reducing Tee



NO. W25 VR

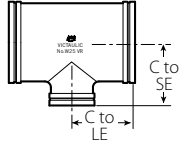
Size	No. W25 VR Reducing Tee		Approx. Weight Each
	Nominal Size Inches mm	C to LE Run Inches mm	C to SE Branch Inches mm
14 × 14 × 12 350 × 350 × 300	16.00 406.4	17.62 447.5	417.1 189.2
		18.00 457.2	450.8 204.5
16 × 16 × 12 400 × 400 × 300	18.00 457.2	17.62 447.5	450.8 204.5
		18.00 457.2	471.3 213.8
18 × 18 × 14 450 × 450 × 350	19.50 495.3	19.00 482.6	524.6 238.0
		19.50 495.3	532.6 241.6
20 × 20 × 14 500 × 500 × 350	21.00 533.4	20.00 508.0	604.3 274.1
		21.00 533.4	623.4 282.8
		21.00 533.4	632.4 286.9
24 × 24 × 14 600 × 600 × 350	23.00 584.2	22.00 558.8	810.4 367.6
		23.00 584.2	818.5 371.3
		23.00 584.2	838.5 380.3
		23.00 584.2	847.5 384.4
		23.00 584.2	872.0 395.5
26 × 26 × 14 650 × 650 × 350	25.50 647.7	23.00 584.2	872.0 395.5
		23.00 584.2	893.6 405.3
		23.50 596.9	920.2 417.4
		24.00 609.6	949.1 430.5
		25.00 635.0	1022.4 463.8
28 × 28 × 14 700 × 700 × 350	26.50 673.1	24.00 609.6	970.1 440.0
		24.00 609.6	995.0 451.3
		24.50 622.3	1024.0 464.5
		25.00 635.0	1054.0 478.1
		26.00 660.4	1132.1 513.5
		26.50 673.1	1154.0 523.4

Size	No. W25 VR Reducing Tee		Approx. Weight Each
	Nominal Size Inches mm	C to LE Run Inches mm	C to SE Branch Inches mm
30 × 30 × 16 750 × 750 × 400	28.00 711.2	25.00 635.0	1095.0 496.7
		25.50 647.7	1127.6 511.5
		26.00 660.4	1158.7 525.6
		27.00 685.8	1243.0 563.8
		27.50 698.5	1277.2 579.3
		28.00 711.2	1305.9 592.3
		29.50 749.3	1418.8 643.6
		28.00 711.2	1509.7 684.8
32 × 32 × 20 800 × 800 × 500	29.50 749.3	27.00 685.8	1418.8 643.6
		28.00 711.2	1509.7 684.8
		28.50 723.9	1541.8 699.3
		28.50 723.9	1577.0 715.3
		29.00 736.6	1615.7 732.9
		28.50 723.9	1564.0 709.4
		29.00 736.6	1602.0 726.7
36 × 36 × 18 900 × 900 × 450	32.50 825.5	29.00 736.6	1602.0 726.7
		30.00 762.0	1642.1 744.8
		30.50 774.7	1680.8 762.4
		30.50 774.7	1716.1 778.4
		31.00 787.4	1750.3 793.9
		31.50 800.1	1790.0 811.9
		32.50 825.5	1840.0 834.6
		32.50 825.5	1889.0 856.8
40 × 40 × 20 1000 × 1000 × 500	35.50 901.7	31.00 787.4	1794.0 813.8
		32.00 812.8	1840.0 834.6
		32.50 825.5	1889.0 856.8
		32.50 825.5	1935.2 877.8
		33.50 850.9	1980.5 898.3
		34.00 863.6	2026.8 919.3
		35.00 889.0	2083.1 944.9
		35.50 901.7	2138.4 969.9
		35.50 901.7	2183.7 994.9
		35.50 901.7	2229.0 1019.9

# AGS Full Flow Fittings with Vic-Rings®

## Full Flow Tees With Vic-Rings

**NO. W25 VR**  
Reducing Tee

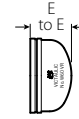


**NO. W25 VR**

Size			No. W25 VR Reducing Tee		Approx. Weight Each
Nominal Size Inches	Nominal Size mm	Run	C to LE Run Inches	C to SE Branch Inches	Lbs. / kg
42 1050	42 1050	24 600	36.00 914.4	32.00 812.8	2243.0 1017.4
		26 650	36.00 914.4	33.50 850.9	2254.7 1022.7
		28 700	36.00 914.4	33.50 850.9	2265.7 1027.7
		30 750	36.00 914.4	34.00 863.6	2324.2 1054.2
		32 800	36.00 914.4	34.00 863.6	2335.2 1059.2
		36 900	36.00 914.4	34.00 863.6	2457.6 1114.7
		40 1000	36.00 914.4	34.00 863.6	2557.0 1159.8
		46 1150	46 1150	26 650	39.50 1003.3
28 700	39.50 1003.3			35.00 889.0	2612.7 1185.1
30 750	39.50 1003.3			35.00 889.0	2649.6 1201.8
32 800	39.50 1003.3			35.50 901.7	2687.0 1218.8
36 900	39.50 1003.3			36.00 914.4	2761.0 1252.4
40 1000	39.50 1003.3			36.50 927.1	2841.9 1289.1
42 1050	39.50 1003.3			37.00 939.8	2880.3 1306.5
48 1200	48 1200			26 650	41.00 1041.4
		28 700	41.00 1041.4	36.00 914.4	3239.3 1469.3
		30 750	41.00 1041.4	36.00 914.4	3328.7 1509.9
		32 800	41.00 1041.4	37.00 939.8	3339.7 1514.9
		36 900	41.00 1041.4	37.00 939.8	3433.5 1557.4
		40 1000	41.00 1041.4	38.00 965.2	3613.6 1639.1
		42 1050	41.00 1041.4	38.00 965.2	3625.6 1644.5
		46 1150	41.00 1041.4	39.00 990.6	3753.0 1702.3

## Cap

**NO. W60 VR**



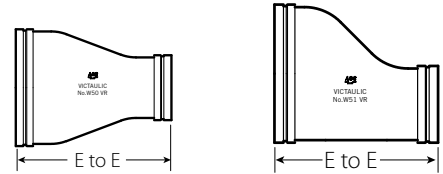
**NO. W60 VR**

Size		No. W60 VR Cap	
Nominal Size Inches	Actual Outside Diameter Inches	E to E Inches	Approx. Weight Each Lbs. / kg
12 300	12.75 323.9	12.00 304.8	76.9 34.9
14 350	14.00 355.6	12.50 317.5	99.6 45.2
16 400	16.00 406.4	13.00 330.2	118.6 53.8
18 450	18.00 457.2	14.00 355.6	138.6 62.9
20 500	20.00 508.0	15.00 381	160.9 73.0
24 600	24.00 609.6	16.50 419.1	229.8 104.2
26 650	26.00 660.4	20.50 520.7	248.2 112.6
28 700	28.00 711.2	21.00 533.4	272.8 123.8
30 750	30.00 762.0	21.50 546.1	296.1 134.3
32 800	32.00 812.8	22.00 558.8	320.3 145.3
36 900	36.00 914.4	23.00 584.2	366.5 166.2
40 1000	40.00 1016.0	24.00 609.6	429.5 194.8
42 1050	42.00 1066.8	24.50 622.3	460.7 209.0
46 1150	46.00 1168.4	25.50 647.7	691.7 313.8
48 1200	48.00 1219.2	26.00 660.4	770.0 349.3

# AGS Full Flow Fittings with Vic-Rings®

## Full Flow With Vic-Rings Concentric/Eccentric Reducer

NO. W50 VR Concentric Reducer  
 NO. W51 VR Eccentric Reducer



NO. W50 VR

NO. W51 VR

Size		No. W50 VR Concentric Reducer		No. W51 VR Eccentric Reducer	
Nominal Size Inches mm		E to E Inches mm	Approx. Weight Each Lbs. kg	E to E Inches mm	Approx. Weight Each Lbs. kg
14 350	× 12 300	25.00	171.6	25.00	171.6
		635	77.8	635	77.8
16 400	× 12 300	26.00	191.7	26.00	191.7
		660.4	87.0	660.4	87.0
		14 350	214.2	26.00	214.2
		660.4	97.2	660.4	97.2
18 450	× 14 350	27.00	236.7	27.00	236.7
		685.8	107.4	685.8	107.4
		16 400	247.8	27.00	247.8
		685.8	112.4	685.8	112.4
20 500	× 14 350	32.00	289.8	32.00	289.8
		812.8	131.4	812.8	131.4
		16 400	300.7	32.00	300.7
		812.8	136.4	812.8	136.4
		18 450	313.9	32.00	313.9
		812.8	142.4	812.8	142.4
24 600	× 16 400	32.00	360.7	32.00	360.7
		812.8	163.6	812.8	163.6
		18 450	372.8	32.00	372.8
		812.8	169.1	812.8	169.1
		20 500	385.8	32.00	385.8
		812.8	175.0	812.8	175.0
26 650	× 18 450	36.00	419.6	36.00	419.6
		914.4	190.3	914.4	190.3
		20 500	428.7	36.00	428.7
		914.4	194.4	914.4	194.4
		24 600	466.7	36.00	466.7
		914.4	211.7	914.4	211.7
28 700	× 18 450	36.00	440.8	36.00	440.8
		914.4	199.9	914.4	199.9
		20 500	449.8	36.00	449.8
		914.4	204.0	914.4	204.0
		24 600	487.8	36.00	487.8
		914.4	221.3	914.4	221.3
		26 650	497.8	36.00	497.8
		914.4	225.8	914.4	225.8
30 750	× 20 500	36.00	470.2	36.00	470.2
		914.4	213.3	914.4	213.3
		24 600	508.2	36.00	508.2
		914.4	230.5	914.4	230.5
		26 650	518.2	36.00	518.2
		914.4	235.1	914.4	235.1
		28 700	529.2	36.00	529.2
		914.4	240.0	914.4	240.0

Size		No. W50 VR Concentric Reducer		No. W51 VR Eccentric Reducer	
Nominal Size Inches mm		E to E Inches mm	Approx. Weight Each Lbs. kg	E to E Inches mm	Approx. Weight Each Lbs. kg
32 800	× 24 600	36.00	552.3	36.00	552.3
		914.4	250.5	914.4	250.5
		26 650	562.3	36.00	562.3
		914.4	255.0	914.4	255.0
		28 700	573.3	36.00	573.3
		914.4	260.0	914.4	260.0
		30 750	583.3	36.00	583.3
		914.4	264.6	914.4	264.6
36 900	× 24 600	36.00	604.2	36.00	604.2
		914.4	274.0	914.4	274.0
		26 650	614.2	36.00	614.2
		914.4	278.6	914.4	278.6
		30 750	635.2	36.00	635.2
		914.4	288.1	914.4	288.1
		32 800	646.2	36.00	646.2
		914.4	293.1	914.4	293.1
40 1000	× 30 750	36.00	694.1	36.00	694.1
		914.4	314.8	914.4	314.8
		32 800	705.1	36.00	705.1
		914.4	319.8	914.4	319.8
		36 900	726.1	36.00	726.1
		914.4	329.3	914.4	329.3
42 1050	× 30 750	36.00	725.9	36.00	725.9
		914.4	329.3	914.4	329.3
		32 800	736.9	36.00	736.9
		914.4	334.3	914.4	334.3
		36 900	757.9	36.00	757.9
		914.4	343.8	914.4	343.8
		40 1000	786.0	36.00	786.0
		914.4	356.5	914.4	356.5
46 1150	× 40 1000	40.00	997.1	40.00	997.1
		1016.0	452.3	1016.0	452.3
		42 1050	1009.1	40.00	1009.1
		1016.0	457.7	1016.0	457.7
48 1200	× 40 1000	40.00	1039.1	40.00	1039.1
		1016.0	471.3	1016.0	471.3
		42 1050	1051.1	40.00	1051.1
		1016.0	476.8	1016.0	476.8
		46 1150	1101.3	40.00	1101.3
		1016.0	499.5	1016.0	499.5

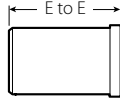
# AGS Full Flow Fittings with Vic-Rings®

## Adapter Nipples

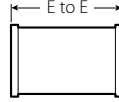
**NO. W42 VR** Grv. × Bev.

**NO. W43 VR** Grv. × Grv.

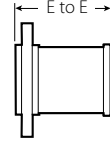
**NO. W45 VR** Grv. × Flg.



NO. W42 VR



NO. W43 VR



NO. W45 VR

Size		No. W42 VR Adapter Nipple		No. W43 VR Adapter Nipple		No. W45 VR Adapter Nipple	
Nominal Size Inches mm	Actual Outside Diameter Inches mm	E to E Inches mm	Approx. Weight Each Lbs. kg	E to E Inches mm	Approx. Weight Each Lbs. kg	E to E Inches mm	Approx. Weight Each Lbs. kg
12 300	12.75 323.9	12.00 304.8	68.6 31.1	12.00 304.8	87.6 39.7	12.00 304.8	129.6 58.8
14 350	14.00 355.6	12.00 304.8	91.6 41.6	12.00 304.8	128.6 58.3	12.00 304.8	174.6 79.2
16 400	16.00 406.4	12.00 304.8	103.6 47.0	12.00 304.8	144.6 65.6	12.00 304.8	209.6 95.1
18 450	18.00 457.2	12.00 304.8	116.7 52.9	12.00 304.8	162.7 73.8	12.00 304.8	225.7 102.4
20 500	20.00 508.0	12.00 304.8	129.7 58.8	12.00 304.8	180.7 82.0	12.00 304.8	277.7 125.9
24 600	24.00 609.6	12.00 304.8	175.7 79.7	12.00 304.8	256.7 116.4	12.00 304.8	379.7 172.2
26 650	26.00 660.4	12.00 304.8	189.7 86.1	12.00 304.8	276.7 125.5	12.00 304.8	422.7 191.7
28 700	28.00 711.2	12.00 304.8	204.7 92.9	12.00 304.8	298.7 135.5	12.00 304.8	479.7 217.6
30 750	30.00 762.0	12.00 304.8	218.8 99.2	12.00 304.8	318.8 144.6	12.00 304.8	518.8 235.3
32 800	32.00 812.8	12.00 304.8	233.8 106.0	12.00 304.8	340.8 154.6	12.00 304.8	603.8 273.9
36 900	36.00 914.4	12.00 304.8	262.8 119.2	12.00 304.8	382.8 173.6	12.00 304.8	722.8 327.9
40 1000	40.00 1016.0	12.00 304.8	298.8 135.6	12.00 304.8	438.8 199.1	12.00 304.8	897.8 407.3
42 1050	42.00 1066.8	12.00 304.8	314.9 142.8	12.00 304.8	462.9 209.9	12.00 304.8	1004.9 455.8
46 1150	46.00 1168.4	12.00 304.8	403.3 183.0	12.00 304.8	563.3 255.5	12.00 304.8	1172.3 531.8
48 1200	48.00 1219.2	12.00 304.8	421.9 191.4	12.00 304.8	589.9 267.6	12.00 304.8	1261.9 572.4

Note:

No.W45 VR flange adapters include Class 150 flat or raised face flanges.

No.W46 VR flange adapters are available with Class 300 flat or raised face flanges, contact Victaulic for details.

# AGS Full Flow Fittings with Vic-Rings®

## Fittings Dimensions:

Fittings with Type D AGS™ Vic-Rings®

For abrasive applications fittings are supplied with Victaulic Type D AGS™ Vic-Rings®, which are one nominal size larger than the fitting/pipe size, as illustrated in the diagrams below. The required AGS coupling size is listed in the table. The fittings can be supplied with AGS Vic-Rings for un-lined pipe or with abrasion or corrosion resistant rubber lining.

The C-E and E-E dimensions of plain and rubber lined fittings are detailed in the previous pages.

Fitting NPS	Coupling Size
12	14
14	16
16	18
18	20
20	24
24	26
26	28
28	30
30	32
34	36
36	38
38	40
40	42
44	46
46	48
48	50

### WARRANTY

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

### 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.

For complete contact information, visit [www.victaulic.com](http://www.victaulic.com)

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