

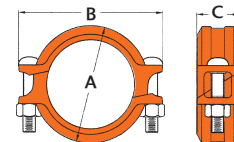
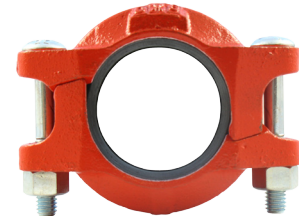


MODEL V-Z05 STANDARD RIGID COUPLING

Angle-Pad Design

The VGS Model V-Z05 is an angle-pad design standard rigid coupling for general piping applications where rigidity is required including valve connections, mechanical rooms, fire mains and long straight runs. The angle-pad design allows the coupling housings to slide along the bolt pads when tightened. The result is an offset clamping action which provides a rigid joint that resists flexural and torsional loads. Support and hanging requirements correspond to ANSI B31.1, B31.9 and NFPA 13.

Sizes available: 1-1/4 in ~ 10 in / 32 mm ~ 200 mm
Working Pressure: Up to 300 psi / 20 bar



1-1/4" ~ 10"

Nominal Size mm/in	Pipe O. D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Dimensions			Bolts Size		Weight Kgs/Lbs
					A mm/in	B mm/in	C mm/in	No.	mm/in	
32	42.2	20	2.80	0 ~ 1.2	66	102	46		M10 x 55	0.6
1.25	1.660	300	649	0 ~ 0.05	2.60	4.00	1.81	2	3/8 x 2-1/8	1.4
40	48.3	20	3.66	0 ~ 1.2	72	109	46		M10 x 55	0.7
1.5	1.900	300	850	0 ~ 0.05	2.83	4.29	1.81	2	3/8 x 2-1/8	1.5
50	60.3	20	5.71	0 ~ 1.7	85	117	47		M10 x 70	0.8
2	2.375	300	1330	0 ~ 0.07	3.35	4.61	1.85	2	3/8 x 2-3/4	1.7
65	73.0	20	8.37	0 ~ 1.7	98	132	47		M10 x 70	0.9
2.5	2.875	300	1950	0 ~ 0.07	3.86	5.20	1.85	2	3/8 x 2-3/4	2.1
65	76.1	20	11.01	0 ~ 1.7	100	136	47		M10 x 70	1.0
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80	88.9	20	12.41	0 ~ 1.7	113	148	48		M10 x 70	1.2
3	3.500	300	2885	0 ~ 0.07	4.45	5.83	1.88	2	3/8 x 2-3/4	2.6
100	114.3	20	24.77	0 ~ 4.1	146	182	53		M10 x 70	1.9
4	4.500	300	5565	0 ~ 0.16	5.75	7.17	2.09	2	3/8 x 2-3/4	4.1
125	141.3	20	32.45	0 ~ 4.1	175	229	53		M12 x 75	2.6
5	5.563	300	7290	0 ~ 0.16	6.89	9.02	2.09	2	1/2 x 3	5.7
150	165.1	20	44.30	0 ~ 4.1	200	246	54		M12 x 75	3.1
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150	168.3	20	46.02	0 ~ 4.1	203	249	54		M12 x 75	3.1
6	6.625	300	10340	0 ~ 0.16	8.00	9.80	2.13	2	1/2 x 3	6.8
200	219.1	20	78.00	0 ~ 4.8	264	330	64		M16 x 135	6.1
8	8.625	300	17525	0 ~ 0.19	10.40	12.99	2.52	2	5/8 x 5-5/16	13.4

MODEL V-Z07 STANDARD RIGID COUPLING



Nominal Size mm/in	Pipe O. D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Dimensions			Bolts Size		Weight Kgs/Lbs
					A mm/in	B mm/in	C mm/in	No.	mm/in	
250	273.0	35	202.21	0 ~ 3.2	327	431	65		---	10.3
10	10.750	500	45400	0 ~ 0.13	12.86	16.98	2.56	2	7/8 x 6-1/2	22.9

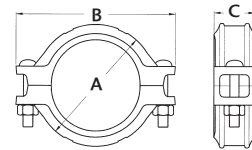
* Also available with hot dip zinc galvanized finished (optional).



MODEL V-7705 STANDARD FLEXIBLE COUPLING

The VGS Model V-7705 flexible coupling is designed for use in a variety of piping applications of moderate or high pressure services. Working pressure is usually dictated by the wall thickness and rating of the pipe being used. The Model V-7705 couplings feature flexibility that can deal with misalignment, distortion, thermal stress, vibration and noise and also resist seismic tremors. With the use of Model V-7705 couplings you can even design a curved layout. See Typical Applications – Flexible Couplings on page 25.

Sizes available: 1-1/2" ~ 8" / 40mm ~ 200mm
Working Pressure: Up to 500 psi / 35 bar



1-1/2" ~ 8"

Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Dimensions			Bolt Size mm/in	Weight Kgs/Lbs
					A mm/in	B mm/in	C mm/in		
40	48.3	35	6.3	1.6	72	108	46	M10 x 55	0.7
1.5	1.900	500	1420	0.0625	2.83	4.25	1.81	3/8 x 2-1/8	1.6
50	60.3	35	9.9	1.6	84	129	48	M10 x 55	0.8
2	2.375	500	2210	0.0625	3.31	5.08	1.89	3/8 x 2-1/8	1.8
65	73.0	35	14.4	1.6	99	142	48	M10 x 55	0.9
2.5	2.875	500	3240	0.0625	3.9	5.59	1.89	3/8 x 2-1/8	2.0
65	76.1	35	15.7	1.6	102	147	48	M10 x 55	1.0
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80	88.9	35	21.4	1.6	116	169	48	M12 x 75	1.3
3	3.500	500	4810	0.0625	4.57	6.65	1.89	1/2 x 3	2.8
100	114.3	35	35.4	3.2	145	197	52	M12 x 75	1.9
4	4.500	500	7950	0.125	5.71	7.76	2.05	1/2 x 3	4.1
125	141.3	31	48.6	3.2	172	234	52	M16 x 90	2.6
5	5.563	450	10930	0.125	6.77	9.21	2.05	5/8 x 3-1/2	5.7
150	165.1	31	66.4	3.2	196	260	54	M16 x 90	3.1
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150	168.3	31	69.0	3.2	200	268	62	M16 x 90	3.2
6	6.625	450	15500	0.125	7.87	10.55	2.44	5/8 x 3-1/2	7.0
200	219.1	31	116.9	3.2	260	350	64	M16 x 90	5.8
8	8.625	450	26280	0.125	10.24	13.78	2.52	5/8 x 3-1/2	12.8

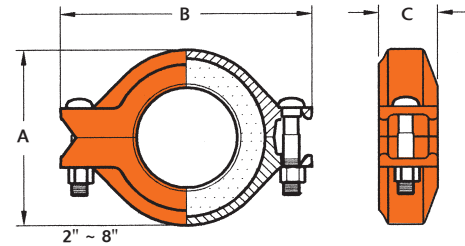
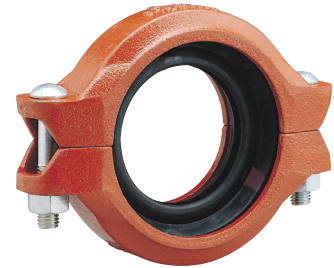
* Also available with hot dip zinc galvanized finished (optional).



MODEL V-7706 REDUCING COUPLING

The VGS Model V-7706 reducing coupling allows for direct reduction on a piping run and eliminates the need for a concentric reducer and couplings. The specially designed rubber gasket helps prevent small pipe from telescoping into larger pipe during vertical assembly.

Caution: The Model V-7706 couplings should not be used with an end cap, as the end cap may be sucked into the pipe when draining the system.



Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Angular Movement		Dimensions			Bolt Size mm/in	Weight Kgs/Lbs
					Per Coupling Degree (°)	Per Pipe mm/m in/ft	A mm/in	B mm/in	C mm/in		
50 x 40	60.3 x 48.3	24	4.40	0 ~ 3.2	3° - 02'	26.0	85	122	48	M10 x 55	0.9
2 x 1.5	2.375 x 1.900	350	1550	0 ~ 0.13		0.31	3.35	4.80	1.89	3/8 x 2-1/8	2.0
65 x 50	73.0 x 60.3	24	6.85	0 ~ 3.2	2° - 30'	22.0	96	144	48	M10 x 55	1.2
2.5 x 2	2.875 x 2.375	350	2270	0 ~ 0.13		0.26	3.78	5.67	1.89	3/8 x 2-1/8	2.6
65 x 50	76.1 x 60.3	24	6.85	0 ~ 3.2	2° - 24'	21.0	102	138	48	M10 x 55	1.2
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80 x 50	88.9 x 60.3	24	6.85	0 ~ 3.2	2° - 04'	18.0	116	168	48	M12 x 75	1.5
3 x 2	3.500 x 2.375	350	3370	0 ~ 0.13		0.22	4.57	6.61	1.89	1/2 x 3	3.3
80 x 65	88.9 x 73.0	24	10.04	0 ~ 3.2	2° - 04'	18.0	116	168	48	M12 x 75	1.7
3 x 2.5	3.500 x 2.875	350	3370	0 ~ 0.13		0.22	4.57	6.61	1.89	1/2 x 3	3.7
80 x 65	88.9 x 76.1	24	10.91	0 ~ 3.2	2° - 04'	18.0	116	168	48	M12 x 75	1.7
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100 x 50	114.3 x 60.3	24	6.85	0 ~ 4.8	2° - 04'	21.0	146	198	52	M12 x 75	2.4
4 x 2	4.500 x 2.375	350	5560	0 ~ 0.19		0.25	5.75	7.80	2.05	1/2 x 3	5.3
100 x 65	114.3 x 73.0	24	10.04	0 ~ 4.8	2° - 24'	21.0	146	198	52	M12 x 75	2.6
4 x 2.5	4.500 x 2.875	350	5560	0 ~ 0.19		0.25	5.75	7.80	2.05	1/2 x 3	5.7
100 x 65	114.3 x 76.1	24	10.91	0 ~ 4.8	2° - 24'	21.0	146	198	52	M12 x 75	2.6
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100 x 80	114.3 x 88.9	24	14.89	0 ~ 4.8	2° - 24'	21.0	146	198	52	M12 x 75	2.4
4 x 3	4.500 x 3.500	350	5560	0 ~ 0.19		0.25	5.75	7.80	2.05	1/2 x 3	5.3
150 x 100	165.1 x 114.3	24	24.61	0 ~ 6.4	2° - 14'	20.0	202	269	52	M16 x 90	4.5
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150 x 100	168.3 x 114.3	24	24.61	0 ~ 6.4	2° - 12'	19.0	208	275	52	M16 x 90	4.5
6 x 4	6.625 x 4.500	350	12060	0 ~ 0.25		0.23	8.19	10.83	2.05	5/8 x 3-1/2	9.9
200 x 150	219.1 x 168.3	24	53.35	0 ~ 6.4	1° - 40'	15.0	260	334	57	M20 x 120	7.6
8 x 6	8.625 x 6.625	350	20440	0 ~ 0.25		0.18	10.24	13.15	2.24	3/4 x 4-3/4	16.7
200 x 150	219.1 x 165.1	24	51.35	0 ~ 6.4	1° - 40'	15.0	260	334	57	M20 x 120	7.6
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Deflection or angular movement is the maximum value that a coupling allows under no internal pressure.

* Also available with hot dip zinc galvanized finished (optional).



GROOVED ELBOWS

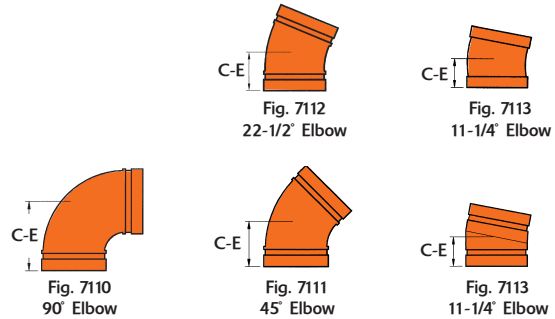
MODEL V-7110 90° ELBOW

MODEL V-7111 45° ELBOW

MODEL V-7112 22-1/2° ELBOW

MODEL V-7113 11-1/4° ELBOW

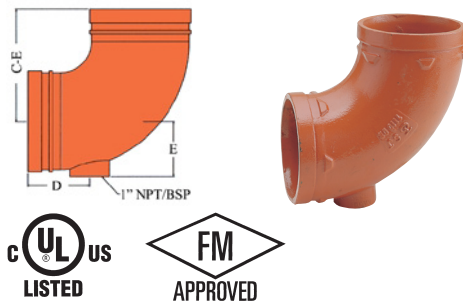
VGS grooved fittings are cast of ductile iron.



Nominal Size mm/in	Pipe O.D. mm/in	V-7110 90° Elbow		V-7111 45° Elbow		V-7112 22-1/2° Elbow		V-7113 11-1/4° Elbow	
		C - E	Kgs/Lbs	C - E	Kgs/Lbs	C - E	Kgs/Lbs	C - E	Kgs/Lbs
32	42.2	70	0.5	45	0.3	45	0.3	35	0.2
1.25	1.660	2.75	1.1	1.75	0.7	1.75	0.7	1.38	0.4
40	48.3	70	0.7	45	0.4	45	0.6	35	0.3
1.5	1.900	2.75	1.5	1.75	0.9	1.75	1.3	1.38	0.7
50	60.3	83	0.9	51	0.7	48	0.8	35	0.8
2	2.375	3.25	2.0	2.00	1.5	1.88	1.8	1.38	1.8
65	73.0	95	1.2	57	0.9	51	1.0	38	1.0
2.5	2.875	3.75	2.6	2.25	2.0	2.01	2.2	1.50	2.2
65	76.1	95	1.4	57	1.0	51	1.0	38	1.0
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80	88.9	108	2.0	64	1.3	57	1.4	38	0.8
3	3.500	4.25	4.3	2.50	2.9	2.25	3.1	1.50	1.8
114.3	127	2.8	76	2.0	73	2.0	45	---	---
4	4.500	5.00	6.2	3.00	4.4	2.88	4.4	1.75	3.3
125	141.3	140	5.0	83	3.5	---	---	---	---
5	5.563	5.50	11.0	3.25	7.7	---	---	---	---
150	168.3	165	6.4	89	4.4	79	5.0	51	3.4
6	6.625	6.50	14.1	3.50	9.7	3.12	11.0	2.00	7.5
150	165.1	165	5.7	89	4.4	79	5.0	51	3.4
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200	219.1	197	12.5	108	9.0	98	10.0	51	5.5
8	8.625	7.75	27.5	4.25	19.8	3.88	22.0	2.00	12.1
250	273.0	229	24.0	121	17.0	---	---	---	---
10	10.750	9.00	52.8	4.75	37.4	---	---	---	---

MODEL V-7110DR DRAIN ELBOW

The Model V-7110DR is a grooved-end ductile iron cast elbow with an integral 1" NPT or BSP drain. The V-7110DR was primarily designed for, but not limited to, use on fire protection standpipes.



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions			Weight Kgs/Lbs
		C - E mm/in	D mm/in	E mm/in	
50	60.3	83	57.2	40	1.2
2	2.375	3.27	2.25	1.57	2.5
65	73.0	95	70	40	1.3
2.5	2.875	3.75	2.75	1.57	2.8
65	76.1	95	70	40	1.3
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80	88.9	108	70	49	2.0
3	3.500	4.25	2.75	1.93	4.4
100	114.3	127	70	63	3.0
4	4.500	5.00	2.75	2.48	6.6
150	165.1	165	70	90	7.0
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150	168.3	165	70	90	7.0
6	6.625	6.50	2.75	3.54	15.4
200	219.1	197	83	114	12.7
8	8.625	7.76	3.27	4.49	27.9

* Also available with hot dip zinc galvanized finished (optional).



MODEL V-7120 TEE MODEL V-7135 CROSS

VGS grooved fittings are cast of ductile iron.

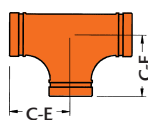


Fig. V-7120 Tee

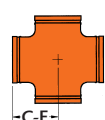


Fig. V-7135 Cross

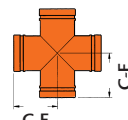


Fig. V-7135 Cross

Nominal Size mm/in	Pipe O.D. mm/in	V-7120 Tee		V-7135 Cross	
		C - E	Kgs/Lbs	C - E	Kgs/Lbs
32	42.2	70	0.7	70	1.0
1.25	1.660	2.75	1.5	2.75	2.2
40	48.3	70	0.9	70	1.1
1.5	1.900	2.75	2.0	2.75	2.5
50	60.3	83	1.3	83	1.2
2	2.375	3.25	2.9	3.25	2.7
65	73.0	95	2.2	95	3.0
2.5	2.875	3.75	4.8	3.75	6.7
65	76.1	95	2.3	95	3.0
---	---	---	---	---	---
80	88.9	108	3.1	108	3.1
3	3.500	4.25	6.8	4.25	6.8
100	114.3	127	4.6	127	5.2
4	4.500	5.00	10.1	5.00	11.5
125	141.3	140	6.5	---	---
5	5.563	5.50	14.3	---	---
150	168.3	165	10.0	165	14.5
6	6.625	6.50	22.0	6.50	32.0
150	165.1	165	8.5	165	14.5
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200	219.1	197	20.0	197	20.00
8	8.625	7.75	44.0	7.75	44.1

* Also available with hot dip zinc galvanized finished (optional).



Product Specifications | Grooved Fittings

MODEL V-7121 REDUCING TEE

VGS reducing tees are cast of ductile iron.

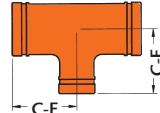


Fig. V-7121 Reducing Tee

Nominal Size mm/in	Pipe O.D. mm/in	Standard C - E mm/in	Weight Kgs/Lbs
50 x 50 x 25	60.3 x 60.3 x 33.4	83	1.2
2 x 2 x 1	2.375 x 2.375 x 1.315	3.25	2.7
50 x 50 x 40	60.3 x 60.3 x 48.3	83	1.2
2 x 2 x 1.5	2.375 x 2.375 x 1.900	3.25	2.6
65 x 65 x 25	73.0 x 73.0 x 33.4	95	1.7
2.5 x 2.5 x 1	2.875 x 2.875 x 1.315	3.75	3.8
65 x 65 x 40	76.1 x 76.1 x 48.3	95	1.8
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65 x 65 x 50	73.0 x 73.0 x 60.3	95	2.0
2.5 x 2.5 x 2	2.875 x 2.875 x 2.375	3.75	4.4
65 x 65 x 50	76.1 x 76.1 x 60.3	95	2.0
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80 x 80 x 25	88.9 x 88.9 x 33.4	108	2.8
3 x 3 x 1	3.500 x 3.500 x 1.315	4.25	6.1
80 x 80 x 40	88.9 x 88.9 x 48.3	108	2.9
3 x 3 x 1.5	3.500 x 3.500 x 1.900	4.25	6.5
80 x 80 x 50	88.9 x 88.9 x 60.3	108	2.8
3 x 3 x 2	3.500 x 3.500 x 2.375	4.25	6.2
80 x 80 x 65	88.9 x 88.9 x 73.0	108	2.8
3 x 3 x 2.5	3.500 x 3.500 x 2.875	4.25	6.2
80 x 80 x 65	88.9 x 88.9 x 76.1	108	2.8
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100 x 100 x 25	114.3 x 114.3 x 33.4	95	3.5
4 x 4 x 1	4.500 x 4.500 x 1.315	3.75	7.8
100 x 100 x 50	114.3 x 114.3 x 60.3	127	4.2
4 x 4 x 2	4.500 x 4.500 x 2.375	5.00	9.2
100 x 100 x 65	114.3 x 114.3 x 73.0	127	4.3
4 x 4 x 2.5	4.500 x 4.500 x 2.875	5.00	---
100 x 100 x 65	114.3 x 114.3 x 76.1	127	4.3
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100 x 100 x 80	114.3 x 114.3 x 88.9	127	4.5
4 x 4 x 3	4.500 x 4.500 x 3.500	5.00	9.9
125 x 125 x 50	141.3 x 141.3 x 60.3	140	6.6
5 x 5 x 2	5.563 x 5.563 x 2.375	5.50	14.5
125 x 125 x 100	141.3 x 141.3 x 114.3	140	6.2
5 x 5 x 4	5.563 x 5.563 x 4.500	5.50	13.6
150 x 150 x 50	168.3 x 168.3 x 60.3	165	8.0
6 x 6 x 2	6.625 x 6.625 x 2.375	6.50	17.6
150 x 150 x 65	168.3 x 168.3 x 73.0	165	8.5
6 x 6 x 2.5	6.625 x 6.625 x 2.875	6.50	18.7
150 x 150 x 80	168.3 x 168.3 x 88.9	165	9.2
6 x 6 x 3	6.625 x 6.625 x 3.500	6.50	20.2
150 x 150 x 100	168.3 x 168.3 x 114.3	165	8.8
6 x 6 x 4	6.625 x 6.625 x 4.500	6.50	19.4
150 x 150 x 50	165.1 x 165.1 x 60.3	165	8.0
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150 x 150 x 65	165.1 x 165.1 x 76.1	165	8.5
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150 x 150 x 80	165.1 x 165.1 x 88.9	165	9.2
6 x 6 x 3	6.500 x 6.500 x 3.500	6.50	20.2
150 x 150 x 100	165.1 x 165.1 x 114.3	165	8.8
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200 x 200 x 80	219.1 x 219.1 x 88.9	197	16.8
8 x 8 x 3	8.625 x 8.625 x 3.500	7.75	37.0
200 x 200 x 100	219.1 x 219.1 x 114.3	197	20.0
8 x 8 x 4	8.625 x 8.625 x 4.500	7.75	44.0
200 x 200 x 150	219.1 x 219.1 x 168.3	197	21.0
8 x 8 x 6	8.625 x 8.625 x 6.625	7.75	46.2

* Also available with hot dip zinc galvanized finished (optional).



Product Specifications | Grooved Fittings

MODEL V-7150 CONCENTRIC REDUCER

The VGS concentric reducers are cast using ductile iron. The end-to-end dimensions of these reducers are less than that of fabricated reducers of the same size.



Fig. V-7150 Conc. Reducer

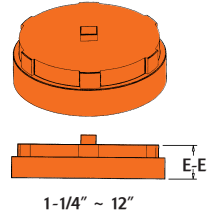
Nominal Size mm/in	Pipe O.D. mm/in	V-7150 Conc. Reducer	
		E - E mm/in	Weight kgs/Lbs
32 x 25	42.2 x 33.4	64	0.20
1.25 x 1	1.660 x 1.315	2.50	0.44
40 x 25	48.3 x 33.4	64	0.23
1.5 x 1	1.900 x 1.315	2.50	0.51
40 x 32	48.3 x 42.2	64	0.28
1.5 x 1.25	1.900 x 1.660	2.50	0.62
50 x 32	60.3 x 42.2	64	0.4
2 x 1.25	2.375 x 1.660	2.50	0.9
50 x 40	60.3 x 48.3	64	0.35
2 x 1.5	2.375 x 1.900	2.50	0.77
65 x 50	73.0 x 60.3	64	0.60
2.5 x 2	2.875 x 2.375	2.50	1.30
65 x 50	76.1 x 60.3	64	0.5
---	---	---	---
80 x 50	88.9 x 60.3	64	0.6
3 x 2	3.500 x 2.375	2.50	1.3
80 x 65	88.9 x 73.0	64	0.6
3 x 2.5	3.500 x 2.875	2.5	1.3
80 x 65	88.9 x 76.1	64	0.6
---	---	---	---
100 x 50	114.3 x 60.3	76	1.1
4 x 2	4.500 x 2.375	3.00	2.2
100 x 65	114.3 x 73.0	76	1.0
4 x 2.5	4.500 x 2.875	3.0	2.2
100 x 65	114.3 x 76.1	76	1.0
---	---	---	---
100 x 80	114.3 x 88.9	76	1.0
4 x 3	4.500 x 3.500	3.00	2.2
125 x 100	141.3 x 114.3	89	2.0
5 x 4	5.563 x 4.500	3.50	4.4
150 x 50	168.3 x 60.3	102	1.9
6 x 2	6.625 x 2.375	4.00	4.2
150 x 80	168.3 x 88.9	102	2.0
6 x 3	6.625 x 3.500	4.00	4.4
150 x 100	168.3 x 114.3	102	2.1
6 x 4	6.625 x 4.500	4.00	4.6
150 x 125	168.3 x 141.3	102	2.5
6 x 5	6.625 x 5.563	4.00	5.5
200 x 100	219.1 x 114.3	127	5.1
8 x 4	8.625 x 4.500	5.00	11.2
200 x 150	219.1 x 168.3	127	5.2
8 x 6	8.625 x 6.625	5.00	11.4

* Also available with hot dip zinc galvanized finished (optional).



Product Specifications | Grooved Fittings

MODEL V-7160 END CAP



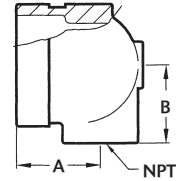
Nominal Size mm/in	Pipe O.D. mm/in	V-7160 End Cap	
		E - E mm/in	Kgs/Lbs
32	42.2	25	0.2
1.25	1.660	1.00	0.4
40	48.3	25	0.2
1.5	1.900	1.00	0.4
50	60.3	25	0.3
2	2.375	1.00	0.7
65	73.0	25	0.4
2.5	2.875	1.00	0.9
65	76.1	25	0.4
---	---	---	---
80	88.9	25	0.7
3	3.500	1.00	1.5
100	108.0	25	1.1
4	4.250	1.00	2.4
125	141.3	25	1.7
5	5.563	1.00	3.7
150	168.3	25	3.0
6	6.625	1.00	6.6
150	165.1	25	3.0
---	---	---	---
200	219.1	30	5.5
8	8.625	1.18	12.1
250	273.0	32	7.0
10	10.750	1.25	15.4
300	323.9	32	10.0
12	12.750	1.25	22.0

* Also available with hot dip zinc galvanized finished (optional).



MODEL V-899 END-ALL FITTING

The Model V-899 End-All fitting is a unique domed end cap fitting available with 1/2", 3/4" and 1" NPT threaded outlets. Designed as an end of line fitting the End-All features two multi-function bosses which can be used for the direct connection of sprinkler heads, sprigs, drops, drains and or gauges.

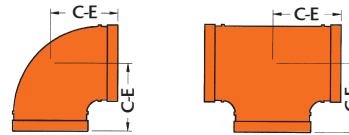


Nominal Size Grooved X Threaded mm/in	Dimensions		Weight Kgs/Lbs
	A mm/in	B mm/in	
32 x 15	44.5	30.1	0.3
1.25 x 0.5	1.750	1.190	0.7
32 x 20	44.5	30.1	0.3
1.25 x 0.75	1.750	1.190	0.7
32 x 25	48.3	31.8	0.3
1.25 x 1	1.900	1.250	0.7
40 x 15	44.5	33.3	0.4
1.5 x 0.5	1.750	1.313	0.9
40 x 20	44.5	33.3	0.4
1.5 x 0.75	1.750	1.313	0.9
40 x 25	48.3	34.9	0.4
1.5 x 1	1.900	1.375	0.9
50 x 15	44.5	39.7	0.5
2 x 0.5	1.750	1.562	1.1
50 x 20	44.5	39.7	0.5
2 x 0.75	1.750	1.562	1.1
50 x 25	48.3	41.3	0.5
2 x 1	1.900	1.625	1.1
66 x 15	44.5	44.5	0.6
2.5 x 0.5	1.750	1.750	1.3
66 x 20	44.5	44.5	0.6
2.5 x 3/4	1.750	1.750	1.3
66 x 25	48.3	46.0	0.6
2.5 x 1	1.900	1.813	1.3

* Also available with hot dip zinc galvanized finished (optional).



MODEL V-901 SHORT RADIUS 90° ELBOW
MODEL V-903 SHORT RADIUS TEE



Nominal Size mm/in	Pipe O.D. mm/in	V-901 SR 90° Elbow		V-903 SR Straight Tee	
		C - E (mm/in)	Kgs/Lbs	C - E (mm/in)	Kgs/Lbs
50	60.3	70	0.7	70	1.0
2	2.375	2.75	1.5	2.75	2.2
65	73.0	76	0.9	76	1.3
2.5	2.875	3.00	2.0	3.00	2.9
65	76.1	76	0.9	76	1.3
---	---	---	---	---	---
80	88.9	86	1.4	86	2.0
3	3.500	3.38	3.1	3.38	4.4
100	114.3	102	1.7	102	3.6
4	4.500	4.00	3.7	4.00	7.9
125	141.3	124	3.5	124	4.6
5	5.563	4.88	7.7	4.88	10.1
150	165.1	140	5.5	140	8.6
---	---	---	---	---	---
150	168.3	140	5.5	140	8.6
6	6.625	5.50	12.1	5.50	18.9
200	219.1	176	11.0	176	16.5
8	8.625	6.94	24.2	6.94	36.3

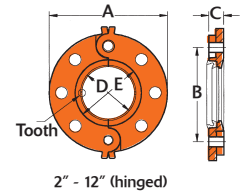
* Also available with hot dip zinc galvanized finished (optional).



Product Specifications | Grooved Fittings

MODEL V-7041 FLANGE ANSI CLASS 125/150

VGS Model V-7041 flange adapters 2" through 12" (50mm ~ 300mm) are supplied hinged as a single assembly. Maximum working pressure is up to 300 psi (20 bar).



Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Dimensions			Sealing Surface		Bolt		Weight Kgs/Lbs
				A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	Size mm/in	No.	
50	60.3	20	5.7	152	121	19	60	87	---	4	2.0
2	2.375	300	1330	6.00	4.75	0.75	2.36	3.42	5/8	4	4.4
65	73.0	20	8.4	178	140	22	73	102	---	4	2.5
2.5	2.875	300	1950	7.00	5.50	0.87	2.87	4.00	5/8	4	5.5
80	88.9	20	12.3	190	152	24	89	116	---	4	3.4
3	3.500	300	2890	7.50	6.00	0.94	3.50	4.56	5/8	4	7.5
100	114.3	20	20.5	229	191	24	114	141	---	8	4.0
4	4.500	300	4770	9.00	7.50	0.94	4.50	5.56	5/8	8	8.8
150	168.3	20	44.5	279	241	25	168	198	---	8	5.5
6	6.625	300	10340	11.00	9.50	1.00	6.62	7.79	3/4	8	12.1
200	219.1	20	75.3	343	298	28	219	254	---	8	8.0
8	8.625	300	17520	13.50	11.75	1.12	8.62	10.00	3/4	8	17.6
250	273.0	20	117.0	405	355	26	273	308	---	12	11.7
10	10.750	300	27210	16.00	14.25	1.18	10.75	12.12	7/8	12	25.7
300	323.9	20	164.7	460	410	28	324	359	---	12	17.7
12	12.750	300	38280	19.00	17.00	1.25	12.75	14.13	7/8	12	38.9

* Also available with hot dip zinc galvanized finished (optional).



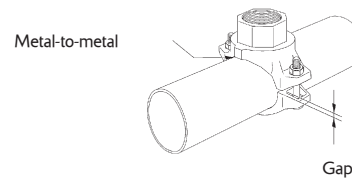
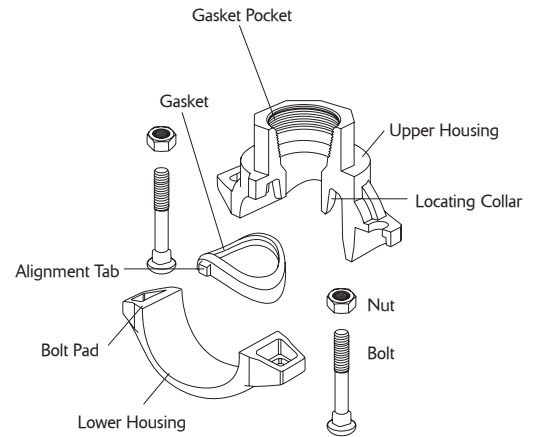
MODEL V-M21 & V-M22 MECHANICAL TEES

The VGS Models V-M21 & V-M22 are compact and advanced design mechanical tees. The Model V-M21 comes with a female threaded outlet and V-M22 with a grooved-end outlet. VGS mechanical tees provide a fast and easy mid-point branch outlet eliminating the need for welding or the use of multiple fittings. The mechanical tee is comprised of ductile iron housing segments, a grade "E" EPDM gasket and plated track bolts and nuts. The locating collar is seated in the hole to secure a positive joint.

When bolts are tightened with a proper torque, the outlet housing comes to metal-to-metal contact with the outer surface of the pipe.

Notes:

1. V-M21 and V-M22 housing segments and gaskets are compatible with each other.
2. The hole must be clearly cut using the correct size hole saw and shall have a smooth edge. Never use a torch for cutting a hole.
3. **It is normal to see equal bolt pad gaps on both sides of mechanical tee.**

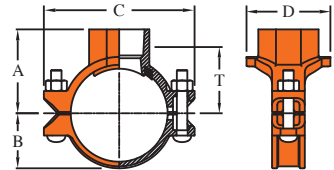


It is normal to see bolt pad gaps



MODEL V-M21 MECHANICAL TEE FEMALE THREADED OUTLET

The VGS Model V-M21 mechanical tee provides a fast and easy mid-pipe threaded branch outlet. Threads are NPT per ANSI B1.20.1. UL/FM working pressure is rated 300 psi (20 bar).



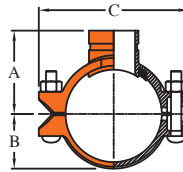
Nominal Size Run x Branch mm/in	Hole Dia. +3.2, -0 / +0.13, -0 mm/in	Dimensions					Bolt Size mm/in	Weight Kgs/Lbs
		T* mm/in	A mm/in	B mm/in	C mm/in	D mm/in		
50 X 25	38	47	63.5	38.1	115.9	81	M10 X 55	1.09
2 X 1	1.50	1.85	2.50	1.50	4.56	3.19	3/8 X 2-1/8	2.40
50 X 32	[45]	52	73.0	38.1	115.9	84	M10 X 55	1.26
2 X 1.25	[1.75]	2.05	2.87	1.50	4.56	3.31	3/8 X 2-1/8	2.77
50 X 40	[45]	52	76.2	38.1	115.9	84	M10 X 55	1.37
2 X 1.5	[1.75]	2.08	3.00	1.50	4.56	3.31	3/8 X 2-1/8	3.01
65 X 25	38	53	69.9	44.5	141.3	81	M12 X 60	1.30
2.5 X 1	1.50	2.09	2.75	1.75	5.56	3.19	1/2 X 2-3/8	2.86
65 X 32	51	58	76.2	44.5	141.3	94	M12 X 60	1.46
2.5 X 1.25	2.00	2.28	3.00	1.75	5.56	3.70	1/2 X 2-3/8	3.21
65 X 40	51	58	76.2	44.5	141.3	94	M12 X 60	1.56
2.5 X 1.5	2.00	2.28	3.00	1.75	5.56	3.70	1/2 X 2-3/8	3.43
80 X 25	38	61	77.8	53.2	157.2	81	M12 X 75	1.53
3 X 1	1.50	2.40	3.06	2.09	6.19	3.19	1/2 X 3	3.37
80 X 32	51	65	82.6	53.2	157.2	94	M12 X 75	1.81
3 X 1.25	2.00	2.56	3.25	2.09	6.19	3.70	1/2 X 3	3.98
80 X 40	51	71	88.9	53.2	157.2	94	M12 X 75	1.88
3 X 1.5	2.00	2.80	3.50	2.09	6.19	3.70	1/2 X 3	4.14
80 X 50	64	70	88.9	53.2	157.2	108	M12 X 75	2.07
3 X 2	2.50	2.76	3.50	2.09	6.19	4.25	1/2 X 3	4.55
100 X 25	38	73	93.7	66.7	182.6	79.4	M12 X 75	1.70
4 X 1	1.50	2.87	3.69	2.63	7.19	3.13	1/2 X 3	3.74
100 X 32	51	78	92.1	66.7	182.6	101.6	M12 X 75	1.90
4 X 1.25	2.00	3.07	3.63	2.63	7.19	4.00	1/2 X 3	4.18
100 X 40	51	84	92.1	66.7	182.6	101.6	M12 X 75	2.04
4 X 1.5	2.00	3.31	3.63	2.63	7.19	4.00	1/2 X 3	4.49
100 X 50	64	83	101.6	66.7	182.6	101.6	M12 X 75	2.27
4 X 2	2.50	3.27	4.00	2.63	7.19	4.00	1/2 X 3	5.00
100 X 65	70	73	101.6	66.7	182.6	112.7	M12 X 75	2.47
4 X 2.5	2.75	2.87	4.00	2.63	7.19	4.44	1/2 X 3	5.43
100 X 80	89	84	104.8	66.7	182.6	128.6	M12 X 75	2.91
4 X 3	3.50	3.31	4.13	2.63	7.19	5.06	1/2 X 3	6.41
125 X 50	64	83	120.7	81.0	223.8	106.4	M16 X 90	2.90
5 X 2	2.50	3.27	4.75	3.19	8.81	4.19	5/8 X 3-1/2	6.38
150 X 32	51	112	130.2	94.5	250.8	92.1	M16 X 90	2.91
6 X 1.25	2.00	4.41	5.13	3.72	9.87	3.63	5/8 X 3-1/2	6.41
150 X 40	51	112	130.2	94.5	250.8	92.1	M16 X 90	2.99
6 X 1.5	2.00	4.41	5.13	3.72	9.87	3.63	5/8 X 3-1/2	6.58
150 X 50	64	111	130.2	94.5	250.8	106.4	M16 X 90	3.18
6 X 2	2.50	4.37	5.13	3.72	9.87	4.19	5/8 X 3-1/2	7.00
150 X 65	70	101	130.2	94.5	250.8	112.7	M16 X 90	3.58
6 X 2.5	2.75	3.98	5.13	3.72	9.87	4.44	5/8 X 3-1/2	7.88

1. Hole diameters listed are suggested hole saw diameters. 2. *T: Take-out (Center of run to end of pipe to be engaged)



MODEL V-M22 MECHANICAL TEE, GROOVED-END OUTLET

The VGS Model V-M22 mechanical tee provides a fast and easy mid-pipe grooved-end branch outlet. The groove dimensions conform to AWWA C606. UL/FM working pressure is rated 300 psi (20 bar).



Nominal Size Run x Branch mm/in	Pipe O.D. mm/in	Hole Dia. +32, -0 / +0.13, -0 mm/in	Dimensions				Bolt Size mm/in	Weight Kgs/Lbs
			A mm/in	B mm/in	C mm/in	D mm/in		
80 X 40	88.9 X 48.3	51	90.5	53.2	157.2	94.0	M12 X 75	1.70
3 X 1.5	3.500 X 1.900	2.00	3.56	2.09	6.19	3.70	1/2 X 3	3.74
80 X 50	88.9 X 60.3	64	90.5	53.2	157.2	108.0	M12 X 75	1.83
3 X 2	3.500 X 2.375	2.50	3.56	2.09	6.19	4.25	1/2 X 3	4.03
100 X 40	114.3 X 48.3	51	92.1	66.7	182.6	101.6	M12 X 75	1.81
4 X 1.5	4.500 X 1.900	2.00	3.63	2.63	7.19	4.00	1/2 X 3	3.98
100 X 50	114.3 X 60.3	64	101.6	66.7	182.6	101.6	M12 X 75	1.93
4 X 2	4.500 X 2.375	2.50	4.00	2.63	7.19	4.00	1/2 X 3	4.25
100 X 65	114.3 X 73.0	70	101.6	66.7	182.6	112.7	M12 X 75	2.66
4 X 2.5	4.500 X 2.875	2.75	4.00	2.63	7.19	4.44	1/2 X 3	5.85
100 X 80	114.3 X 88.9	89	104.8	66.7	182.6	128.6	M12 X 75	2.41
4 X 3	4.500 X 3.500	3.50	4.13	2.63	7.19	5.06	1/2 X 3	5.30
125 X 50	141.3 X 60.3	64	120.7	81.0	223.8	106.4	M16 X 90	2.63
5 X 2	5.563 X 2.375	2.50	4.75	3.19	8.81	4.19	5/8 X 3-1/2	5.79
125 X 65	141.3 X 73.0	70	120.7	81.0	223.8	112.7	M16 X 90	2.88
5 X 2.5	5.563 X 2.875	2.75	4.75	3.19	8.81	4.44	5/8 X 3-1/2	6.34
150 X 50	168.3 X 60.3	64	130.2	94.5	250.8	106.4	M16 X 90	2.92
6 X 2	6.625 X 2.375	2.50	5.13	3.72	9.87	4.19	5/8 X 3-1/2	6.42
150 X 65	168.3 X 73.0	70	130.2	94.5	250.8	112.7	M16 X 90	3.22
6 X 2.5	6.625 X 2.875	2.75	5.13	3.72	9.87	4.44	5/8 X 3-1/2	7.08
150 X 80	168.3 X 88.9	89	130.2	94.5	250.8	131.8	M16 X 90	3.68
6 X 3	6.625 X 3.500	3.50	5.13	3.72	9.87	5.19	5/8 X 3-1/2	8.10
150 X 100	168.3 X 114.3	114	137.1	94.5	250.8	158.8	M16 X 90	4.05
6 X 4	6.625 X 4.500	4.50	5.40	3.72	9.87	6.25	5/8 X 3-1/2	8.91

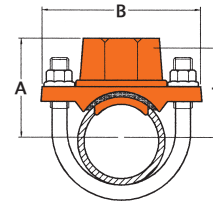
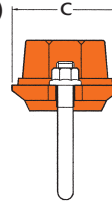
1. Hole diameters listed are suggested hole saw diameters.



Product Specifications | Hole-Cut System

MODEL V-723 SADDLE-LET (Small Mechanical Tee)

The Model 723 Saddle-Let is the ideal outlet fitting for direct connections to sprinkler heads, drop nipples and or gauges. No need for welding, just cut or drill a hole at the desired outlet location. Position the Saddle-Let so that the locating collar fits within the hole and secure with the U-bolt and nuts. The Saddle-Let comes with a standard black finish or as an option can be supplied electro zinc plated or painted orange. The Saddle-Let allows full bore flow and is pressure rated to 300 psi (20 bar).



Nominal Size mm/in	Hole Dia. +1.6, -0/+0.063, -0 mm/in	Dimensions-mm/in			Take-Out T mm/in	Bolt Size in	Bolt Torque N-M/Lb-Ft	Weight Kgs/Lbs
		A	B	C				
32 x 15	30	53.0	89.0	56.0	35.0	3/8ø	20 - 30	0.4
1.25 x 0.5	1.18	2.08	3.50	2.20	1.38	U-Bolt	15 - 22	0.9
32 x 20	30	53.0	89.0	56.0	35.0	3/8ø	20 - 30	0.4
1.25 x 0.75	1.18	2.08	3.50	2.20	1.38	U-Bolt	15 - 22	0.9
32 x 25	30	56.0	89.0	56.0	38.0	3/8ø	20 - 30	0.4
1.25 x 1	1.18	2.20	3.50	2.20	1.50	U-Bolt	15 - 22	0.9
40 x 15	30	55.0	89.0	56.0	35.0	3/8ø	20 - 30	0.4
1.5 x 0.5	1.18	2.16	3.50	2.20	1.38	U-Bolt	15 - 22	0.9
40 x 20	30	55.0	89.0	56.0	35.0	3/8ø	20 - 30	0.4
1.5 x 0.75	1.18	2.16	3.50	2.20	1.38	U-Bolt	15 - 22	0.9
40 x 25	30	58.0	89.0	56.0	38.0	3/8ø	20 - 30	0.4
1.5 x 1	1.18	2.28	3.50	2.20	1.50	U-Bolt	15 - 22	0.9
50 x 15	30	64.0	98.0	56.0	42.0	3/8ø	20 - 30	0.4
2 x 0.5	1.18	2.51	3.85	2.20	1.65	U-Bolt	15 - 22	0.9
50 x 20	30	64.0	98.0	56.0	42.0	3/8ø	20 - 30	0.4
2 x 0.75	1.18	2.51	3.85	2.20	1.65	U-Bolt	15 - 22	0.9
50 x 25	30	67.0	98.0	56.0	45.0	3/8ø	20 - 30	0.4
2 x 1	1.18	2.63	3.85	2.20	1.77	U-Bolt	15 - 22	0.9
65 x 15	30	69.0	111.0	56.0	51.0	3/8ø	20 - 30	0.4
2.5 x 0.5	1.18	2.71	4.37	2.20	2.00	U-Bolt	15 - 22	0.9
65 x 20	30	69.0	111.0	56.0	51.0	3/8ø	20 - 30	0.4
2.5 x 0.75	1.18	2.71	4.37	2.20	2.00	U-Bolt	15 - 22	0.9
65 x 25	30	72.0	111.0	56.0	54.0	3/8ø	20 - 30	0.5
2.5 x 1	1.18	2.83	4.37	2.20	2.13	U-Bolt	15 - 22	1.1

- Hole diameters listed are suggested hole saw diameters.
- *T: Take-out (Center of run to end of pipe to be engaged)