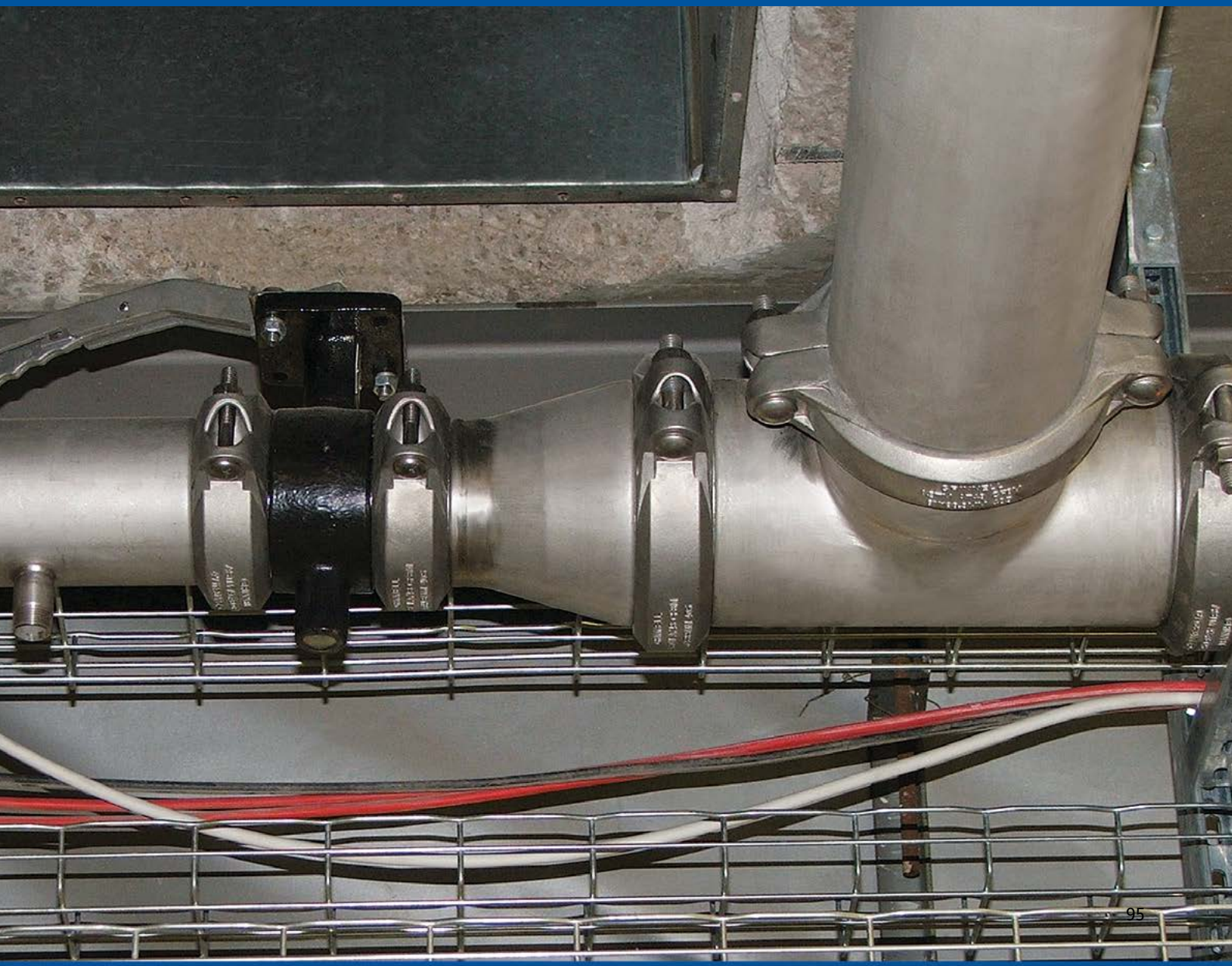


Stainless Steel Systems



Stainless Steel Systems Table of Contents

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Caution

Pressure performance values shown for GRINNELL couplings on light wall (Sch. 5 & Sch. 10 ISO Metric) stainless steel pipe are dependent on the use of required special rolls for roll grooving light-wall stainless steel pipe. Failure to utilize the required special rolls for roll grooving light-wall stainless steel pipe may result in equipment failure.

General notes: Additional information is included in our data sheets and is available upon request. It is the Designer's responsibility to select products suitable for the intended service and to ensure that pressure ratings and performance data is not exceeded. Always read and understand the installation constructions. Never remove any piping components nor correct or modify any piping deficiencies without first depressurising and draining the system. Material and gasket selection should be verified with the gasket recommendation listing for the specific application.

Reference pages 142-144 will have recent pressure testing and ISO on ISO metric stainless steel pipe. Tech Data G815.

Coupling Specifications

Material Specifications

Stainless Steel Housing Specifications

- Type 316, ASTM A 743/A 743M – Standard specification for castings, iron-chromium, iron-chromium-nickel, corrosion resistant; for general application Grade CR-8M.
- Tensile strength, minimum 4826 Bar (70,000 psi)
- Yield strength, minimum 2068 Bar (30,000 psi)
- Elongation in 50mm (2") minimum 30%

Bolt/Nut Specifications

- Stainless steel bolts are metric track head bolts conforming to ASTM A 193M Class 2, Type 316 Grade B8M
- Class 2 stainless steel nuts are heavy hex nuts conforming to ASTM A 194M, Type 316, Grade 8M
- Bolts are coated with an anti-galling agent

Gasket Specifications

- Grade "E" EPDM gaskets have a Green colour code stripe identification and conform to ASTM D 2000 for service temperatures from -34°C to 110°C (-30°F to 230°F). They are recommended for hot water not to exceed 110°C (230°F) plus a variety of dilute acids, oil free air, and many chemical services. They are not recommended for petroleum services.
- Grade "T" Nitrile gaskets have an Orange colour code stripe identification and conform to ASTM D 2000 for service temperatures from -29°C to 82°C (-20°F to 180°F). They are recommended for petroleum products, vegetable oils, mineral oils, and air with oil vapours.
- Grade "L" Silicone gaskets are Red colour code stripe and conform to ASTM D 2000 for service temperatures from -34°C to 177°C (-30°F to 350°F). They are recommended for air without hydrocarbons, or dry heat.
- Grade "O" Fluoroelastomer gaskets have a Blue colour code stripe and conform to ASTM D 2000. They are recommended for oxidizing acids, petroleum products, hydraulic fluids, lubricants, and halogenated hydrocarbons.

Fitting Specifications

Tech Data Sheet: G571

Material Specifications

- Fabricated: 304/316 stainless steel conforming to ASTM A 312, Schedule 10 and Schedule 40
- Full-flow: 304/316 stainless steel conforming to ASTM A 403 WPW or A 403 CR
- Pipe wall thickness in groove area of standard stainless steel fittings are"
 - 2.0mm (0.08") for sizes 25 to 100mm (1" to 4");
 - 3.0mm (0.12") for 125 to 200mm (5" to 8"); and
 - 4.0mm (0.16") for 250 to 300mm (10" and 12"). Fittings are fabricated from SS316Ti / 1.4571

Fittings are available in full-flow and fabricated versions in 304 and 316 S.S. Fabricated fittings are available with Schedule 10 or Schedule 40 wall thickness.

For pressure ratings of fittings, refer to data sheet G571.



For detailed Listing / Approval
information contact
GRINNELL Mechanical Products

For local country potable water approvals, contact a GRINNELL Sales Representative.

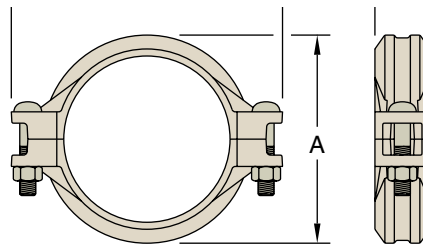
Figure 472 Stainless Steel Rigid Couplings

Tech Data Sheet: G560



The GRINNELL Figure 472 Rigid Coupling is made of cast 316 stainless steel and is capable of pressure up to 41.4 Bar (600 psi).

The GRINNELL Figure 472 Patented Coupling universal tongue-and-groove design allows the housing to grip along the full 360° of circumference of the pipe. Sizes 32mm – 100mm (1 1/4" – 4") have gripping teeth to prevent rotation during installation.



Part Number	Pipe Size		Max.† Pressures Bar psi	Max.† End Load kN Lbs.	Max.*‡ End Gap Inches mm Inches	Dimensions			Coupling Bolts Size** mm Inches	Approx. Weight kg Lbs.
	Nominal mm Inches	O.D. mm Inches				A mm Inches	B mm Inches	C mm Inches		
472MD00424	32	42.4	41.4	5.78	1.5	69.9	111.3	46.0	M10 x 57	0.9
	1 1/4	1.660	600	1,298.5	0.06	2.75	4.38	1.81	3/8 x 2 1/4	2.0
472MD00484	40	48.3	41.4	7.57	2.0	76.2	117.3	46.0	M10 x 57	1.0
	1 1/2	1.900	600	1,701.1	0.08	3.00	4.62	1.81	3/8 x 2 1/4	2.1
472MD00604	50	60.3	41.4	11.82	3.3	86.6	130.0	47.8	M10 x 57	0.9
	2	2.375	600	2,658.0	0.13	3.41	5.12	1.88	3/8 x 2 1/4	1.9
472MD00734	65	73.0	41.4	17.32	3.3	99.3	143.0	47.8	M10 x 57	1.5
	2 1/2	2.875	600	3,895.0	0.13	3.91	5.63	1.88	3/8 x 2 1/4	3.2
472MD00764	65	76.1	41.4	18.86	3.3	106.4	145.3	50.8	M10 x 57	1.6
	76,1mm	3.000	600	4,241.0	0.13	4.19	5.72	2.00	–	3.5
472MD00894	80	88.9	41.4	25.68	3.3	117.6	158.8	47.8	M12 x 89	1.6
	3	3.500	600	5,772.5	0.13	4.63	6.25	1.88	1/2 x 3	3.5
472MD01144	100	114.3	41.4	42.44	4.8	147.6	190.5	50.0	M12 x 89	2.5
	4	4.500	600	9,542.3	0.19	5.81	7.50	1.97	1/2 x 3	5.6
472MD01394	125	139.7	41.4	63.40	4.8	178.3	246.9	52.3	M16 x 83	3.9
	139,7mm	5.500	600	14,254.6	0.19	7.02	9.72	2.06	–	8.5
472MD01414	125	141.3	41.4	64.87	4.8	180.1	246.6	51.8	M16 x 83	3.9
	5	5.563	600	14,583.0	0.19	7.09	9.71	2.04	5/8 x 3 1/4	8.5
472MD01684	150	168.3	41.4	92.00	4.8	205.5	267.5	54.1	M16 x 83	4.3
	6	6.625	600	20,682.4	0.19	8.09	10.53	2.13	5/8 x 3 1/4	9.4
472MD02194	200	219.1	41.4	155.92	4.8	268.2	344.4	66.5	M20 x 121	8.8
	8	8.625	600	35,054.7	0.19	10.56	13.56	2.62	3/4 x 4 3/4	19.4
472MD02734	250	273.0	41.4	242.22	3.3	326.1	416.8	66.5	–	14.5
	10	10.750	600	54,455.9	0.13	12.84	16.41	2.62	1 x 6 1/2	32.0
472MD03244	300	323.9	41.4	340.73	3.3	391.4	478.5	66.5	–	19.5
	12	12.750	600	76,603.5	0.13	15.41	18.84	2.62	1 x 6 1/2	43.0

Figure 472 Rigid Couplings have an Anti-Rotation Feature of "gripping teeth" along the coupling keys in sizes 1 1/4" – 4" (32mm – 100mm), making the Figure 472 perfectly suited for installations where the likelihood of rotation is greatest.

* Maximum available gap between pipe ends. Minimum gap = 0.

† Maximum Pressure and End Load are total from all loads based on standard weight stainless steel pipe. Pressure ratings and end loads may differ for other pipe materials and/or wall thickness. Contact a GRINNELL Sales Representative for details.

‡ Max end gap is for cut grooved standard weight stainless steel pipe. Values for roll grooved pipe will be half that of cut grooved.

** Contact a GRINNELL Sales Representative for availability of inch bolt sizes vs. metric bolt sizes.

For information on alternative sizes, contact a GRINNELL Sales Representative.

See page 95 for stainless steel coupling specifications and pages 116 – 127 for gasket information.

Note: The Fig. 472 Stainless Steel Heavy Duty Rigid Coupling does not provide compensation for pipe system expansion and/or contraction associated with pipe system temperature changes.

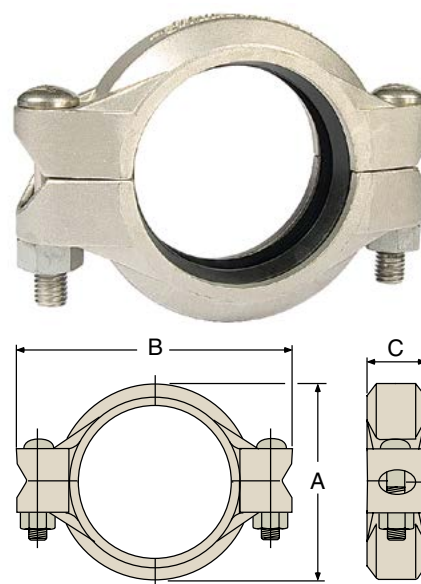
For instructions on part numbers, ordering information, and availability, refer to page 13 or contact a GRINNELL Sales Representative.

Figure 405 Stainless Steel Flexible Couplings

Tech Data Sheet: G565



The GRINNELL Figure 405 Flexible Coupling is made of 316 stainless steel and is capable of pressures up to 51.7 Bar (750 psi), depending on pipe size and wall thickness.



Compare pressure and load rates with the data sheet

Pipe Size		Max.† Pressures Bar psi	Max.† End Load Lbs. kN	Max.** End Gap Inches mm	Deflectionc		Nominal Dimensions			Coupling Bolts		Approx. Weight Lbs Kg
Nominal ANSI Inches DN	O.D. Inches mm				Degrees per coupling	Inches/ Foot mm/m	A Inches mm	B Inches mm	C Inches mm	Qty.	Size Inches mm	
1 25	1.315 33,4	750 51,7	1,019 4,5	0.13 3,3	5° 26'	0.90 95,1	2.20 56,0	3.82 97,0	1.81 46,0	2	3/8 x 2-1/4 M10 x 57	1.5 0,6
1 1/4 32	1.660 42,4	750 51,7	1,623 7,2	0.13 3,3	4° 19'	0.90 75,0	2.56 65,0	4.19 106,4	1.81 46,0	2	3/8 x 2-1/4 M10 x 57	1.5 0,7
1 1/2 40	1.900 48,3	750 51,7	2,127 9,5	0.13 3,3	3° 46'	0.79 65,8	2.75 69,9	4.44 112,8	1.81 46,0	2	3/8 x 2-1/4 M10 x 57	1.6 0,7
2 50	2.375 60,3	500 34,5	2,215 9,9	0.13 3,3	3° 1'	0.63 52,5	3.25 82,6	4.88 124,0	1.88 47,8	2	3/8 x 2-1/4 M10 x 57	1.7 0,8
2 1/2 65	2.875 73,0	500 34,5	3,246 14,4	0.13 3,3	2° 29'	0.52 43,3	3.69 93,7	5.50 139,7	1.88 47,8	2	3/8 x 2-1/4 M10 x 57	2.0 0,9
- 65	3.000 76,1	500 34,5	3,534 15,7	0.13 3,3	2° 23'	0.50 41,7	4.00 101,6	5.75 146,1	1.88 47,8	2	- M12 x 76	3.1 1,4
3 80	3.500 88,9	500 34,5	4,810 21,4	0.13 3,3	2° 3'	0.43 35,8	4.38 111,3	6.50 165,1	1.88 47,8	2	1/2 x 3 M12 x 76	3.1 1,4
4 100	4.500 114,3	500 34,5	7952 35,3	0.25 6,4	3° 11'	0.67 55,8	5.69 144,5	7.75 196,9	2.06 52,3	2	1/2 x 3 M12 x 76	4.0 1,8
- 125	5.500 139,7	450 31,0	10,691 47,6	0.25 6,4	2° 36'	0.55 45,5	6.81 173,0	9.75 247,7	2.06 52,3	2	- M16 x 83	7.2 3,3
5 125	5.563 141,3	450 31,0	10,933 48,7	0.25 6,4	2° 35'	0.54 45,0	6.88 174,8	9.75 247,7	2.06 52,3	2	5/8 x 3-1/4 M16 x 83	7.1 3,2
6 150	6.625 168,3	450 31,0	15,512 69,0	0.25 6,4	2° 10'	0.45 37,5	7.94 201,7	10.69 271,5	2.06 52,3	2	5/8 x 3-1/4 M16 x 83	7.1 3,2
8 200	8.625 219,1	450 31,0	29,261 117	0.25 6,4	1° 40'	0.35 29,2	10.19 258,8	13.56 344,4	2.50 63,5	2	3/4 x 4-3/4 M20 x 121	14.5 6,6

Values for roll grooved pipe will be half that of cut grooved.

* Maximum available gap between pipe ends. Minimum gap = 0.

† Maximum Pressure and end load are total from all loads based on standard weight stainless steel pipe. Pressure ratings and end loads may differ for other pipe materials and/or wall thickness. Contact a GRINNELL Sales Representative for details.

‡ Max End Gap and Deflection is for cut grooved standard weight stainless steel pipe.

** Contact a GRINNELL Sales Representative for availability of inch bolt sizes vs. metric bolt sizes.

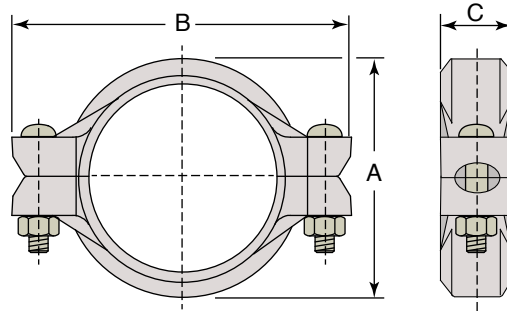
For information on alternative sizes, contact a GRINNELL Sales Representative.

See page 95 for stainless steel coupling specifications and pages 116 - 127 for gasket information.

For fire protection equipment listing and approval pressure ratings contact Tyco FPP.

For instructions on part numbers, ordering information, and availability, refer to page 13 or contact a GRINNELL Sales Representative.

Figure 705R
Rilsan Coated Flexible Coupling



Part Number	Pipe Size		Max. Wk Pressure † Bar Psi	Max. End Load † kN Lbs	Max. End Separation † mm Inches	Deflection		Dimensions			Coupling Bolt Size (Qty 2) mm Inches	Approx Weight kg Lbs.
	Nominal mm Inches	O.D. mm Inches				Per Coupling Degrees	Pipe mm/m in/ft	A mm Inches	B mm Inches	C mm Inches		
705MES042r	32	42.4	16.0	2.21	3.3	4° 19'	75.0	65	106	46	M10x60	0.7
	1 ¼	1.660	230	496.8	0.13		0.90	2.56	4.17	1.81		1.5
705MES048r	40	48.3	16.0	2.90	3.3	3° 46'	65.8	70	113	46	M10x60	0.7
	1 ½	1.900	230	651.9	0.13		0.79	2.76	4.45	1.81		1.5
705MES060r	50	60.3	16.0	4.53	3.3	3° 01'	52.5	83	124	48	M10x60	0.8
	2	2.375	230	1,018.4	0.13		0.63	3.27	4.88	1.89		1.8
705MES076r	65	76.1	16.0	7.23	3.3	2° 23'	41.7	102	146	48	M12x80	1.4
	76.1mm	3.000	230	1,625.4	0.13		0.50	4.02	5.75	1.89		3.1
705MES089r	80	88.9	16.0	9.84	3.3	2° 03'	35.8	111	165	48	M12x80	1.4
	3	3.500	230	2,212.1	0.13		0.43	4.37	6.50	1.89		3.1
705MES114r	100	114.3	16.0	16.27	6.4	3° 11'	55.8	145	197	52	M12x80	1.8
	4	4.500	230	3,657.6	0.25		0.67	5.71	7.76	2.05		4.0
705MES139r	125	139.7	16.0	24.31	6.4	2° 36'	45.0	173	248	52	M16x90	3.3
	139.7mm	5.500	230	5,465.1	0.25		0.54	6.81	9.76	2.05		7.3
705MES141r	125	141.3	16.0	24.87	6.4	2° 35'	45.0	175	248	52	M16x90	3.2
	5	5.563	230	5,591.0	0.25		0.54	6.89	9.76	2.05		7.1
705MES165r	150	165.1	16.0	33.95	6.4	2° 12'	38.3	197	272	52	M16x90	3.2
	165.1mm	6.500	230	7,632.3	0.25		0.46	7.76	10.71	2.05		7.1
705MES168r	150	168.3	16.0	35.27	6.4	2° 10'	37.5	202	272	52	M16x90	3.2
	6	6.625	230	7,929.0	0.25		0.45	7.95	10.71	2.05		7.1
705MES219r	200	219.1	16.0	59.78	6.4	1° 40'	29.2	259	344	64	M20x120	6.6
	8	8.625	230	13,439.1	0.25		0.35	10.20	13.54	2.52		14.6

†: Maximum pressure and end load are total from all loads based on standard weight steel pipe. Pressure ratings and end loads may differ on pipe materials and/or wall thickness. Contact a GRINNELL Sales Representative for details. For fire protection equipment listing and approval pressure ratings contact a GRINNELL Sales Representative..

‡: Maximum pipe end separation is for cut grooved standard weight pipe. Values for roll grooved will be ½ that of cut grooved. Standard Stainless Steel 316 Bolt, Nuts and Washer.

Standard Stainless Steel 316 Bolt, Nuts and Washer.

Always use washers in combination with Fig 705R Rilsan Coated Couplings

Because of the Rilsan coating FM/UL/VDS/LPC approvals do not apply.

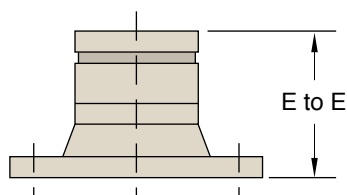
Also available with zinc plated bolts and nuts. Part code: 705ME...R (e.g. 705ME114R)

See page 95 for stainless steel coupling specifications and pages 116 – 127 for gasket information.

For information on alternative sizes, contact a GRINNELL Sales Representative.

For instructions on part numbers, ordering information, and availability, refer to page 13 or contact a GRINNELL Sales Representative.

Figure 443 & 444 Flange Adapters
(PN16/PN10 BS 4504)



Pipe Size		Figure 443 - PN16					Figure 444 - PN10 BS 4504				
Nominal mm Inches	O.D. mm Inches	Part Number	E to E mm Inches	Mating Flange Bolt	Approx. Weight kg Lbs.	Qty.	Part Number	E to E mm Inches	Mating Flange Bolt	Approx. Weight kg Lbs.	Qty.
				Size *					Size *		
32	42.4	443H000424	90	M16 x 65	1.8	4	-	-	-	-	-
1 1/4	1.660		3.54		4.0			-	-	-	
40	48.3	443H000484	92	M16 x 65	2.0	4	-	-	-	-	-
1 1/2	1.900		3.62		4.4			-	-	-	
50	60.3	443H000604	95	M16 x 65	2.7	4	-	-	-	-	-
2	2.375		3.74		6.0			-	-	-	
65	76.1	443H000764	95	M16 x 65	3.3	4	-	-	-	-	-
76,1mm	3.000		3.74		7.3			-	-	-	
80	88.9	443H000894	100	M16 x 70	4.0	8	-	-	-	-	-
3	3.500		3.94		8.8			-	-	-	
100	114.3	443H001144	102	M16 x 70	4.6	8	-	-	-	-	-
4	4.500		4.02		10.1			-	-	-	
125	139.7	443H001394	105	M16 x 75	6.0	8	-	-	-	-	-
139.7mm	5.500		4.13		13.2			-	-	-	
150	168.3	443H001684	105	M20 x 80	7.2	8	-	-	-	-	-
6	6.625		4.13		15.9			-	-	-	
200	219.1	-	-	-	-	-	444H002194	112.0	M20 x 80	10.2	8
8	8.625		-	-	-			4.41		22.5	
250	273.0	-	-	-	-	-	444h002734	128.0	M20 x 90	18.0	12
10	10.750		-	-	-			5.04		39.7	
300	323.9	-	-	-	-	-	444h003244	117.0	M20 x 90	22.4	12
12	12.750		-	-	-			4.61		49.4	

* = Bolts are not supplied. Bolt lengths shown are standard; it is the responsibility of the purchaser to verify correct lengths for intended applications

For information on alternative sizes, contact a GRINNELL Sales Representative.

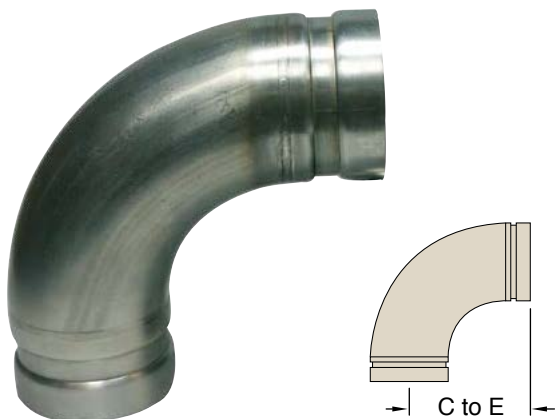
Schedule 40 fittings available upon request, contact a GRINNELL Sales Representative.

See page 32 for flange washer Adaptor and page 144 Flange Drilling Specifications

See page 95 for stainless steel specifications.

For instructions on part numbers, ordering information, and availability, refer to page 13 or contact a GRINNELL Sales Representative.

Figure 410 90°
Stainless Steel Elbows
Tech Data Sheet: G571



Part Number	Pipe Size		C to E mm Inches	Approx. Weight kg Lbs.
	Nominal mm Inches	O.D. mm Inches		
410H000344	25	33.7	73.0	0.5
	1	1.315	2.87	1.1
410H000424	32	42.4	82.0	0.5
	1 1/4	1.660	3.23	1.1
410H000484	40	48.3	92.0	0.5
	1 1/2	1.900	3.62	1.1
410H000604	50	60.3	111.0	0.9
	2	2.375	4.37	2.0
410H000764	65	76.1	130.0	1.4
	76,1mm	3.000	5.12	3.1
410H000894	80	88.9	149.0	2.0
	3	3.500	5.87	4.4
410H001144	100	114.3	187.0	3.9
	4	4.500	7.36	8.6
410H001394	125	139.7	225.0	6.1
	139.7mm	5.500	8.86	13.4
410H001684	150	168.3	263.0	8.4
	6	6.625	10.35	18.5
410H002194	200	219.1	345.0	16.6
	8	8.625	13.58	36.6
410H002734	250	273.0	440.0	27.2
	10	10.750	17.32	60.0
410H003244	300	323.9	517.0	30.4
	12	12.750	20.35	67.0

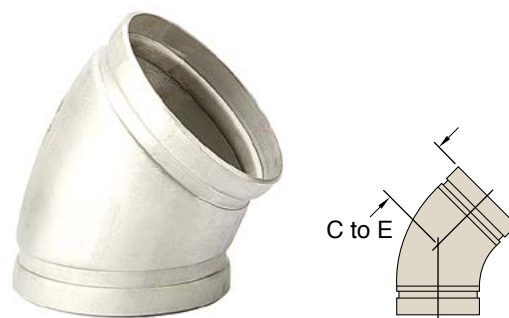
For information on alternative sizes, contact a GRINNELL Sales Representative.

Schedule 40 fittings available upon request, contact a GRINNELL Sales Representative.

See page 95 for stainless steel fitting specifications.

For instructions on part numbers, ordering information, and availability, refer to page 13 or contact a GRINNELL Sales Representative.

Figure 401 45°
Stainless Steel Elbows
Tech Data Sheet: G571



Part Number	Pipe Size		C to E mm Inches	Approx. Weight kg Lbs.
	Nominal mm Inches	O.D. mm Inches		
401H000344	25	33.7	50.0	0.5
	1	1.315	1.97	1.1
401H000424	32	42.4	54.0	0.5
	1 1/4	1.660	2.13	1.1
401H000484	40	48.3	58.0	0.5
	1 1/2	1.900	2.28	1.1
401H000604	50	60.3	65.0	0.9
	2	2.375	2.56	2.0
401H000764	65	76.1	73.0	1.4
	76,1mm	3.000	2.87	3.1
401H000894	80	88.9	80.0	2.0
	3	3.500	3.15	4.4
401H001144	100	114.3	95.0	3.9
	4	4.500	3.74	8.6
401H001394	125	139.7	110.0	6.1
	139.7mm	5.500	4.33	13.4
401H001684	150	168.3	125.0	8.4
	6	6.625	4.92	18.5
401H002194	200	219.1	166.0	16.6
	8	8.625	6.54	36.6
401H002734	250	273.0	210.0	27.2
	10	10.750	8.27	60.0
401H003244	300	323.9	349.0	30.4
	12	12.750	13.74	67.0

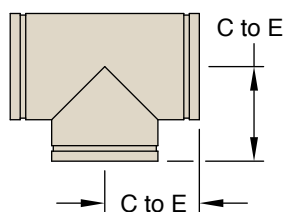
For information on alternative sizes, contact a GRINNELL Sales Representative.

Schedule 40 fittings available upon request, contact a GRINNELL Sales Representative.

See page 95 for stainless steel fitting specifications.

For instructions on part numbers, ordering information, and availability, refer to page 13 or contact a GRINNELL Sales Representative.

Figure 419 Tees
Tech Data Sheet: G571



Part Number	Pipe Size		C to E mm Inches	Approx. Weight kg Lbs.
	Nominal mm Inches	O.D. mm Inches		
419H000344	25	33.7	73.0	0.5
	1	1.315	2.87	1.1
419H000424	32	42.4	60.0	0.5
	1 1/4	1.660	2.36	1.1
419H000484	40	48.3	62.0	0.5
	1 1/2	1.900	2.44	1.1
419H000604	50	60.3	68.0	0.9
	2	2.375	2.68	2.0
419H000764	65	76.1	76.0	1.4
	76,1mm	3.000	2.99	3.1
419H000894	80	88.9	86.0	2.0
	3	3.500	3.39	4.4
419H001144	100	114.3	105.0	3.9
	4	4.500	4.13	8.6
419H001394	125	139.7	160.0	6.1
	139.7mm	5.500	6.30	13.4
419H001684	150	168.3	178.0	8.4
	6	6.625	7.01	18.5
419H002194	200	219.1	178.0	16.6
	8	8.625	7.01	36.6
419H002734	250	273.0	250.0	27.2
	10	10.750	9.84	60.0
419H003244	300	323.9	255.0	30.4
	12	12.750	10.04	67.0

For information on alternative sizes, contact a GRINNELL Sales Representative.
Schedule 40 fittings available upon request, contact a GRINNELL Sales Representative.

See page 95 for stainless steel fitting specifications.

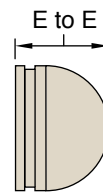
For instructions on part numbers, ordering information, and availability, refer to page 13 or contact a GRINNELL Sales Representative.

Figure 460 End Caps

Tech Data Sheet: G571



Part Number	Pipe Size		Nominal E to E mm Inches	Approx. Weight kg Lbs.
	Nominal mm Inches	O.D. mm Inches		
460H000344	25	33.7	50.0	0.5
	1	1.315	1.97	1.1
460H000424	32	42.4	51.0	0.5
	1 1/4	1.660	2.01	1.1
460H000484	40	48.3	54.0	0.5
	1 1/2	1.900	2.13	1.1
460H000604	50	60.3	57.0	0.9
	2	2.375	2.24	2.0
460H000764	65	76.1	62.0	1.4
	76,1mm	3.000	2.44	3.1
460H000894	80	88.9	62.0	2.0
	3	3.500	2.44	4.4
460H001144	100	114.3	64.0	3.9
	4	4.500	2.52	8.6
460H001394	125	139.7	74.0	6.1
	139.7mm	5.500	2.91	13.4
460H001684	150 *	168.3	86.0	8.4
	6	6.625	3.39	18.5
460H002194	200 *	219.1	98.0	16.6
	8	8.625	3.86	36.6
460H002734	250 *	273.0	114.0	27.2
	10	10.750	4.49	60.0
460H003244	300 *	323.9	150.0	30.4
	12	12.750	5.91	67.0



* Dished Cap

For information on alternative sizes, contact a GRINNELL Sales Representative.
Schedule 40 fittings available upon request, contact a GRINNELL Sales Representative.

See page 95 for stainless steel fitting specifications.

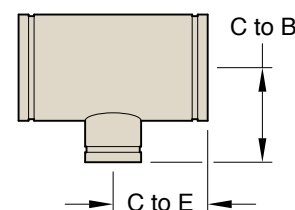
For instructions on part numbers, ordering information, and availability, refer to page 13 or contact a GRINNELL Sales Representative.

Figure 421 Reducing Tees

Tech Data Sheet: G571



Part Number	Pipe Size		C to E mm Inches	C to B mm Inches	Approx. Weight kg Lbs.
	Nominal mm Inches	O.D. mm Inches			
421H020104	50 x 50 x 25	60.3 x 60.3 x 33.7	68.0	68.0	1.0
	2 x 2 x 1	2.375 x 2.375 x 1.315	2.68	2.68	2.2
421H020124	50 x 50 x 32	60.3 x 60.3 x 42.4	100.0	83.0	1.1
	2 x 2 x 1 1/4	2.375 x 2.375 x 1.660	3.94	3.27	2.4
421H020154	50 x 50 x 40	60.3 x 60.3 x 48.3	68.0	68.0	1.1
	2 x 2 x 1 1/2	2.375 x 2.375 x 1.900	2.68	2.68	2.4
421H026154	50 x 50 x 40	76.1 x 76.1 x 48.3	76.0	76.0	1.2
	76.1 x 76.1mm x 1 1/2	3.000 x 3.000 x 1.900	2.99	2.99	2.6
421H026204	50 x 50 x 50	76.1 x 76.1 x 60.3	76.0	76.0	2.0
	76.1 x 76.1mm x 2	3.000 x 3.000 x 2.375	2.99	2.99	4.4
421H030204	80 x 80 x 50	88.9 x 88.9 x 60.3	86.0	83.0	2.5
	3 x 3 x 2	3.500 x 3.500 x 2.375	3.39	3.27	5.5
421H030264	80 x 80 x 65	88.9 x 88.9 x 76.1	86.0	83.0	2.6
	3 x 3 x 76.1mm	3.500 x 3.500 x 3.000	3.39	3.27	5.7
421H042204	100 x 100 x 50	114.3 x 114.3 x 60.3	105.0	95.0	4.6
	4 x 4 x 2	4.500 x 4.500 x 2.375	4.13	3.74	10.1
421H042264	100 x 100 x 65	114.3 x 114.3 x 76.1	105.0	95.0	5.1
	4 x 4 x 76.1mm	4.500 x 4.500 x 3.000	4.13	3.74	11.2
421H042304	100 x 100 x 80	114.3 x 114.3 x 88.9	105.0	95.0	5.2
	4 x 4 x 3	4.500 x 4.500 x 3.500	4.13	3.74	11.5
421h052304	125 x 125 x 80	139.7 x 139.7 x 88.9	160.0	160.0	6.7
	139.7 x 139.7mm x 3	5.000 x 5.000 x 3.500	6.30	6.30	14.8
421H052424	125 x 125 x 100	139.7 x 139.7 x 114.3	160.0	160.0	6.7
	139.7 x 139.7mm x 3	5.000 x 5.000 x 4.500	6.30	6.30	14.8
421H063204	150 x 150 x 50	168.3 x 168.3 x 88.9	143.0	122.0	11.8
	6 x 6 x 2	6.625 x 6.625 x 2.375	5.63	4.80	26.0
421h063264	150 x 150 x 65	168.3 x 168.3 x 76.1	143.0	122.0	12.0
	6 x 6 x 76.1mm	6.625 x 6.625 x 3.000	5.63	4.80	26.5
421h063304	150 x 150 x 80	168.3 x 168.3 x 60.3	143.0	122.0	12.1
	6 x 6 x 3	6.625 x 6.625 x 3.500	5.63	4.80	26.7
421h063424	150 x 150 x 100	168.3 x 168.3 x 114.3	143.0	122.0	12.2
	6 x 6 x 4	6.625 x 6.625 x 4.500	5.63	4.80	26.9
421h063524	150 x 150 x 125	168.3 x 168.3 x 139.7	178.0	178.0	17.5
	6 x 6 x 139.7	6.625 x 6.625 x 5.000	7.01	7.01	38.6
421h080424	200 x 200 x 100	219.1 x 219.1 x 114.1	178.0	148.0	18.0
	8 x 8 x 4	8.625 x 8.625 x 4.500	7.01	5.83	39.7
421h080524	200 x 200 x 125	219.1 x 219.1 x 139.7	178.0	178.0	23.5
	8 x 8 x 139.7	8.625 x 8.625 x 5.000	7.01	7.01	51.8
421h080634	200 x 200 x 150	219.1 x 219.1 x 168.3	218.0	203.0	24.2
	8 x 8 x 6	8.625 x 8.625 x 6.625	8.58	7.99	53.4
421h011634	250 x 250 x 150	273.0 x 273.0 x 168.3	250.0	216.0	25.0
	10 x 10 x 6	10.750 x 10.750 x 6.625	9.84	8.50	55.1
421h011804	250 x 250 x 200	273.0 x 273.0 x 219.1	250.0	216.0	30.0
	10 x 10 x 8	10.750 x 10.750 x 8.625	9.84	8.50	66.1
421h013804	300 x 300 x 200	323.9 x 323.9 x 219.1	255.0	230.0	34.0
	12 x 12 x 8	12.750 x 12.750 x 8.625	10.04	9.06	75.0
421h013114	300 x 300 x 250	323.9 x 323.9 x 273.0	255.0	230.0	35.0
	12 x 12 x 10	12.750 x 12.750 x 10.750	10.04	9.06	77.2



For information on alternative sizes, contact a GRINNELL Sales Representative.

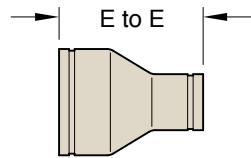
Schedule 40 fittings available upon request, contact a GRINNELL Sales Representative.

See page 95 for stainless steel fitting specifications.

For instructions on part numbers, ordering information, and availability, refer to page 13 or contact a GRINNELL Sales Representative.

Figure 450 Concentric Reducers

Tech Data Sheet: G571



Part Number	Pipe Size		E to E mm Inches	Approx. Weight kg Lbs.
	Nominal mm Inches	O.D. mm Inches		
450H012104	32 x 25	42.4 x 33.7	85.0	0.7
	1 1/4 x 1	1.660 x 1.315	3.35	1.5
450H015104	40 x 25	48.3 x 33.7	134.0	0.5
	1 1/2 x 1	1.900 x 1.315	5.28	1.1
450H015124	40 x 32	48.3 x 42.4	135.0	0.9
	1 1/2 x 1 1/4	1.900 x 1.660	5.31	2.0
450H020154	50 x 40	60.3 x 48.3	111.0	1.0
	2 x 1 1/2	2.375 x 1.900	4.37	2.2
450h026154	65 x 40	76.1 x 48.3	125.0	1.0
	76.1mm x 1 1/2	3.000 x 1.900	4.92	2.2
450H026204	65 x 50	76.1 x 60.3	125.0	1.1
	76.1mm x 2	3.000 x 2.375	4.92	2.4
450h030154	80 x 40	88.9 x 48.3	125.0	1.1
	3 x 1 1/2	3.500 x 1.900	4.92	2.4
450h030204	80 x 50	88.9 x 60.3	125.0	1.1
	3 x 2	3.500 x 2.375	4.92	2.4
450h030264	80 x 65	88.9 x 76.1	125.0	1.1
	3 x 76.1mm	3.500 x 3.000	4.92	2.4
450h042204	100 x 50	114.3 x 60.3	135.0	1.1
	4 x 2	4.500 x 2.375	5.31	2.4
450h042264	100 x 65	114.3 x 76.1	135.0	1.3
	4 x 76.1mm	4.500 x 3.000	5.31	2.9
450h042304	100 x 80	114.3 x 88.9	135.0	1.3
	4 x 3	4.500 x 3.500	5.31	2.9
450h052304	125 x 80	139.7 x 88.9	162.0	1.3
	139.7mm x 3	5.500 x 3.500	6.38	2.9
450h052424	125 x 100	139.7 x 114.3	162.0	1.6
	139.7mm x 4	5.500 x 4.500	6.38	3.5
450h063424	150 x 100	168.3 x 114.3	175.0	1.6
	6 x 4	6.625 x 4.500	6.89	3.5

Part Number	Pipe Size		E to E mm Inches	Approx. Weight kg Lbs.
	Nominal mm Inches	O.D. mm Inches		
450H063524	150 x 125	168.3 x 139.7	210.0	1.7
	6 x 139.7mm	6.625 x 5.500	8.27	3.7
450H080424	200 x 100	219.1 x 114.3	227.0	1.7
	8 x 4	8.625 x 4.500	8.94	3.7
450H080524	200 x 125	219.1 x 139.7	227.0	2.5
	8 x 139.7mm	8.625 x 5.500	8.94	5.5
450H080634	200 x 150	219.1 x 168.3	227.0	2.5
	8 x 6	8.625 x 6.625	8.94	5.5
450H011634	250 x 150	273.0 x 168.3	278.0	2.5
	10 x 6	10.750 x 6.625	10.94	5.5
450H011804	250 x 200	273.0 x 219.1	278.0	3.4
	10 x 8	10.750 x 8.625	10.94	7.5
450H013804	300 x 200	323.9 x 219.1	300.0	4.7
	12 x 8	12.750 x 8.625	11.81	10.4
450H013114	300 x 250	323.9 x 273.0	300.0	5.2
	12 x 10	12.750 x 10.750	11.81	11.5

For information on alternative sizes, contact a GRINNELL Sales Representative.

Schedule 40 fittings available upon request, contact a GRINNELL Sales Representative.

See page 95 for stainless steel fitting specifications.

For instructions on part numbers, ordering information, and availability, refer to page 13 or contact a GRINNELL Sales Representative.