

The P style coupling is designed expressly for brackish, MF, UF and NF membrane filtration, permeate and other low pressure applications

### Pressure rating

2 X Safety margin

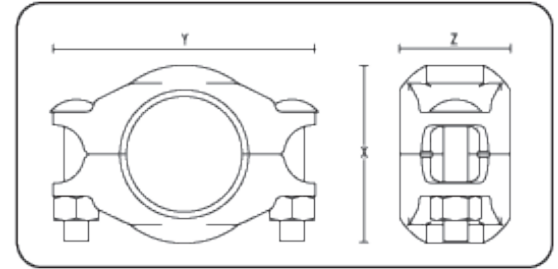
0.75" – 2.5"	250 psi (17 bar)
3.0" – 4.0"	225 psi (16 bar)
6.0" – 8.0"	100 psi (7 bar)

### Description

- Housing - Glass fiber composite resin, UV resistant, non-water absorptive. Completely corrosion resistant.

- Gaskets - EPDM rubber, suitable for hot and cold water service. NSF (ANSI 61) approved for drinking water system components. *Not suitable for petroleum service.*

- Bolts/Nuts - Round-head, square-neck, type 316 stainless steel bolts and heavy hex nuts conform to ASTM F-593, Group 2, condition CW.



### Style P Specifications

Nominal size	Dimensions			Aprx Weight
	X	Y	Z	
Inches	inches (mm)	inches (mm)	inches (mm)	lbs. (kg)
3/4	2.2 (54.7)	3.02 (77)	1.77 (45.1)	0.375 (0.17)
1	2.63 (66.8)	3.42 (86.8)	1.76 (45.1)	0.44 (0.2)
1-1/4	2.9 (73.7)	3.65 (92.7)	1.76 (45.1)	0.47 (0.2)
1-1/2	3.23 (82.1)	3.9 (99.2)	1.76 (45.1)	0.49 (0.22)
2	3.73 (94.7)	4.39 (111.5)	1.75 (44.6)	0.75 (0.34)
2-1/2	4.23 (107.5)	5.26 (133.7)	1.81 (46.1)	0.79 (0.36)
3	5.33 (135)	6.39 (162)	2.08 (53)	1.3 (0.59)
4	5.9 (150)	7.25 (184)	2.5 (63.5)	2.2 (0.99)
6	10.1 (257)	10.25 (260.4)	2.49 (63.2)	3.4 (1.56)
8	10.9 (277)	14 (356)	2.75 (70)	6.4 (2.90)



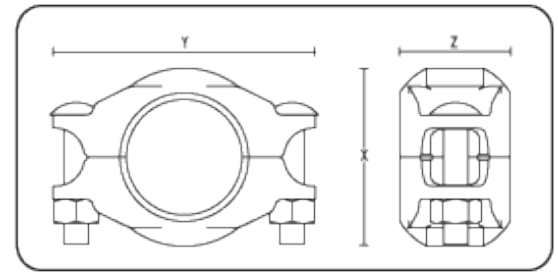
**Pressure Rating:**  
**300 psi (20 bar) working pressure**  
**with schedule 40s pipe with**  
**cut groove only.**

Pressure ratings for other pipe schedules and groove types, please consult with Piedmont.

- Housing - 316 stainless steel grade CF8M, conforming to ASTM A 351.

- Gaskets - EPDM rubber, suitable for hot and cold water service. NSF/ANSI 61 approved for drinking water system components.  
*Not suitable for petroleum service*

- Bolts / nuts - Round-head, square-neck, type 316 stainless steel bolts and heavy hex nuts conform to ASTM F-593 and 594, Group 2, condition CW.



### Style K Specifications

Nominal size	Dimensions			Aprx Weight	Pressure rating when cut grooves and SCH40 pipes are used
	X	Y	Z		
Inches	inches (mm)	inches (mm)	inches (mm)	lbs. (kg)	PSI (BAR)
3/4	1.82 (46)	2.90 (74)	1.68 (43)	0.7 (0.33)	300 (20)
1	2.21 (55)	3.40 (88)	1.68 (43)	0.8 (0.35)	300 (20)
1-1/4	2.42 (62)	3.60 (92)	1.71 (43)	0.8 (0.35)	300 (20)
1-1/2	2.56 (68)	3.90 (99)	1.70 (43)	0.9 (0.39)	300 (20)
2	3.14 (80)	4.13 (105)	1.70 (43)	0.9 (0.41)	300 (20)
2-1/2	3.63 (94)	5.00 (127)	1.70 (43)	1.5 (0.67)	300 (20)
3	4.30 (110)	5.50 (140)	1.90 (47)	1.8 (0.83)	300 (20)
4	5.18 (132)	6.81 (173)	1.90 (47)	3.3 (1.48)	300 (20)
6	7.90 (201)	9.75 (248)	1.90 (47)	5.2 (2.37)	300 (20)
8	9.94 (253)	12.13 (308)	2.25 (57)	8.6 (3.91)	300 (20)
10	12.12 (308)	14.26 (361)	2.25 (57)	8.6 (3.91)	300 (20)
12	14.18 (360)	16.26 (413)	2.25 (57)	12.2 (5.51)	300 (20)
16	20.9 (530)	21.85 (555)	2.95 (75)	52.8 (233)	300 (20)

### Working Pressure Ratings

Pipe weight	Under 2" dia.	2" dia. & larger
Schedule 40s	300 psi (20 bar)	300 psi (20 bar)
Schedule 10s	300 psi (20 bar)	150 psi (10 bar)
Schedule 5s	300 psi (20 bar)	150 psi (8 bar)



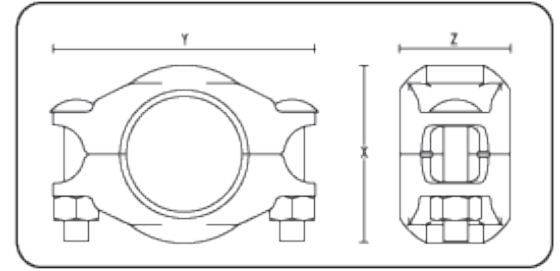
**Pressure Rating:**  
**400 psi (28 bar) working pressure**  
**with schedule 40s pipe with**  
**cut groove only.**

Pressure ratings for other pipe schedules and groove types, please consult with Piedmont.

- Housing - Duplex or Superduplex stainless steel type CE8MN, conform to ASTM A995 Grade 2A. Piedmont also offers this coupling style in CE3MN (Grade 5A) for even higher corrosion resistance. Other alloys are also available, contact Piedmont for details.

- Gaskets - EPDM rubber, suitable for hot and cold water service. Two shapes of gaskets available: C-shaped or Flush-fit. NSF/ANSI 61 approved for drinking water system components. *Not suitable for petroleum service.*

- Bolts / nuts - Round-head, square-neck, type 316 stainless steel bolts and heavy hex nuts conform to ASTM F-593 and 594, Group 2, condition CW.



Style F Specifications					
Nominal size	Dimensions			Aprx Weight	Pressure rating when cut grooves and SCH40 pipes are used
	X	Y	Z		
Inches	inches (mm)	inches (mm)	inches (mm)	lbs. (kg)	PSI (BAR)
3/4	1.82 (46)	2.90 (74)	1.68 (43)	0.7 (0.33)	400 (28)
1	2.21 (55)	3.40 (88)	1.68 (43)	0.8 (0.35)	400 (28)
1-1/4	2.42 (62)	3.60 (92)	1.71 (43)	0.8 (0.35)	400 (28)
1-1/2	2.56 (68)	3.90 (99)	1.70 (43)	0.9 (0.39)	400 (28)
2	3.14 (80)	4.13 (105)	1.70 (43)	0.9 (0.41)	400 (28)
2-1/2	3.63 (94)	5.00 (127)	1.70 (43)	1.5 (0.67)	400 (28)
3	4.30 (110)	5.50 (140)	1.90 (47)	1.8 (0.83)	400 (28)
4	5.18 (132)	6.81 (173)	1.90 (47)	3.3 (1.48)	400 (28)
6	7.90 (201)	9.75 (248)	1.90 (47)	5.2 (2.37)	400 (28)
8	9.94 (253)	12.13 (260.4)	2.25 (57)	8.6 (3.91)	400 (28)
10	12.12 (308)	14.26 (361)	2.25 (57)	8.6 (3.91)	400 (28)
12	14.18 (360)	16.26 (413)	2.25 (57)	12.2 (5.51)	400 (28)
16	20.9 (530)	21.85 (555)	2.95 (75)	52.8 (233)	400 (28)



Working Pressure Ratings		
Pipe weight	Under 2" dia.	2" dia. & larger
Schedule 40s	400 psi (28 bar)	400 psi (28 bar)
Schedule 10s	400 psi (28 bar)	150 psi (10 bar)
Schedule 5s	400 psi (28 bar)	120 psi (8 bar)

**Pressure Rating:**  
**1200 psi (82 bar) with schedule 40s pipe (special alloys) with cut groove only - all sizes.**

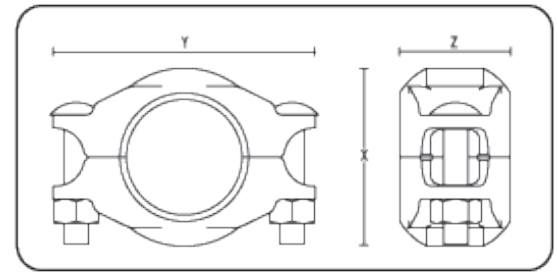
- Housing - DUPLEX or SUPERDUPLEX stainless steel type CE8MN, conform to ASTM A-890 grade A2. Piedmont also offers this coupling style in CE3MN (Grade 5A) for even higher corrosion resistance. Other alloys are also available, contact Piedmont for details.

- Gaskets - EPDM rubber, suitable for hot and cold water service. Two shapes of gaskets available: C-shaped or Flush-fit. NSF/ANSI 61 approved for drinking water system components.  
*Not suitable for petroleum service.*

- Bolts / nuts / washers - Round-head, square-neck, type 316 stainless steel bolts conform to ASTM F-593, group 2, condition CW. For couplings sizes of ¾” and 3”, use heavy hex type 651 silicon bronze nuts, for couplings of 4” and up use 316 stainless steel nuts. Washers are heavy pattern 316 stainless steel.

### Caution

*Style D coupling is not recommended for use on Danfoss Axial Piston pumps. Contact Piedmont for details.*



Style D Specifications					
Nominal size	Dimensions			Aprx Weight	Pressure rating when cut grooves and SCH40 pipes are used
	X	Y	Z		
Inches	inches (mm)	inches (mm)	inches (mm)	lbs. (kg)	PSI (BAR)
3/4	2.00 (50.8)	3.20 (81.3)	1.71 (43.4)	1.04 (0.47)	1200 (82)
1	2.29 (58.2)	3.42 (86.9)	1.68 (42.7)	0.97 (0.44)	1200 (82)
1-1/4	2.50 (63.5)	3.65 (92.7)	1.68 (42.7)	1.08 (0.49)	1200 (82)
1-1/2	2.76 (70.1)	4.06 (103.1)	1.71 (43.4)	1.21 (0.55)	1200 (82)
2	3.74 (95.0)	4.46 (113.3)	1.85 (47.0)	1.92 (0.87)	1200 (82)
2-1/2	3.74 (95.0)	5.30 (134.6)	1.85 (47.0)	2.14 (0.97)	1200 (82)
3	4.48 (113.8)	5.88 (149.3)	1.85 (47.0)	2.64 (1.20)	1200 (82)
4	5.21 (132.3)	6.90 (175.3)	2.02 (51.3)	4.54 (2.06)	1200 (82)
5	7.26 (184.4)	9.50 (241.5)	2.00 (50.9)	9.30 (4.23)	1200 (82)
6	8.18 (207.8)	10.25 (260.4)	2.02 (51.3)	9.28 (4.21)	1200 (82)
8	10.90 (276.6)	14.00 (355.6)	2.40 (61.0)	24.50 (11.10)	1200 (82)
10	13.28 (337.3)	15.88 (403.2)	2.55 (64.8)	33.46 (15.18)	1200 (82)
12	15.28 (387.9)	17.38 (441.3)	2.55 (64.8)	34.82 (15.80)	1200 (82)

*Note: Working pressure ratings based upon generally accepted pressure piping design standards and testing in accordance with ASME Section VIII Division 1 pressure vessel test method.*



**Pressure Rating:**  
**600 psi (40 bar) with schedule 40s  
 pipe with cut groove only – all  
 sizes.**

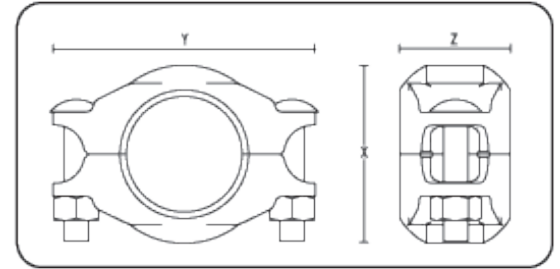
For pressure ratings for other pipe  
 schedules and groove types,  
 please refer to the table below  
 or consult with Piedmont

### Description

- Housing - Solid 316 stainless steel grade CF8M, conform to ASTM A 351, A 743 & A 744.
- Gaskets - EPDM rubber, suitable for hot and cold water service. Two shapes of gaskets available: C-shaped or Flush-fit. *Not suitable for petroleum service.*
- Bolts / nuts - Round-head, square-neck, 316 stainless steel bolts and heavy hex nuts conform to ASTM F-593 and 594, group 2, condition CW.

### Special Note

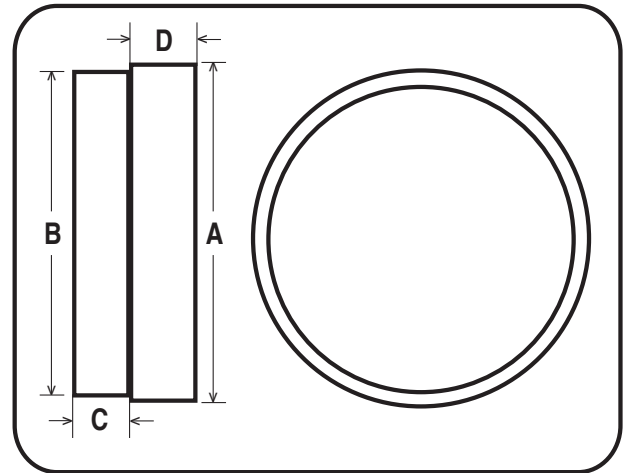
Style B couplings are not recommended for direct attachment to piston type positive displacement pumps. Contact Piedmont for details.



Style B Specifications					
Nominal size	Dimensions			Aprx Weight	Pressure rating when cut grooves and SCH40 pipes are used
	X	Y	Z		
Inches	inches (mm)	inches (mm)	inches (mm)	lbs. (kg)	PSI (BAR)
1	2.29 (58)	3.42 (87)	1.68 (43)	0.9 (0.43)	600 (40)
1-1/4	2.50 (64)	3.65 (93)	1.68 (43)	1.0 (0.46)	600 (40)
1-1/2	2.76 (70)	4.06 (104)	1.71 (43)	1.2 (0.56)	600 (40)
2	3.24 (82)	4.13 (105)	1.85 (47)	1.4 (0.63)	600 (40)
2-1/2	3.74 (95)	5.00 (127)	1.85 (47)	2.1 (0.96)	600 (40)
3	4.36 (111)	5.50 (149)	1.85 (47)	2.3 (1.03)	600 (40)
4	5.21 (132)	6.81 (173)	2.02 (51)	4.6 (2.07)	600 (40)
6	8.18 (208)	9.75 (248)	2.02 (51)	9.6 (4.38)	600 (40)

Working Pressure Ratings		
Pipe weight	Under 2" dia.	2" dia. & larger
Schedule 40s	600 psi (40 bar)	600 psi (40 bar)
Schedule 10s	600 psi (40 bar)	350 psi (24 bar)
Schedule 5s	300 psi (20 bar)	175 psi (12 bar)





### DUPLEX and SUPERDUPLEX MACHINED END CAPS

Pressure Rating:  
1200 psi (82 bar) with schedule 40s pipe  
(special alloys) with cut groove only - all sizes.

Duplex 2205 and SuperDuplex 2507 conform  
to ASTM A240

### STAINLESS STEEL 316 END CAPS

Pressure rating:  
600 psi (40 bar) with schedule 40s with cut  
grooves.

150 psi (10 bar) with schedule 10s with rolled  
grooves.

Stainless steel 316 conform to ASTM A240

Specifications					
Nominal size	Dimensions				Aprx Weight
	A	B	C	D	
Inches	inches (mm)	inches (mm)	inches (mm)	inches (mm)	lb (kg)
3/4	1.05 (27)	0.94 (24)	0.31 (8)	0.63 (16)	0.22 (0.10)
1	1.32 (33)	1.19 (30)	0.50 (13)	0.63 (16)	0.40 (0.18)
1-1/4	1.66 (42)	1.54 (39)	0.50 (13)	0.63 (16)	0.64 (0.29)
1-1/2	1.90 (48)	1.78 (45)	0.50 (13)	0.63 (16)	0.72 (0.33)
2	2.38 (60)	2.25 (57)	0.50 (13)	0.63 (16)	1.34 (0.61)
2-1/2	2.88 (73)	2.72 (69)	0.50 (13)	0.63 (16)	1.93 (0.88)
3	3.50 (89)	3.34 (85)	0.50 (13)	0.63 (16)	2.96 (1.34)
4	4.50 (114)	4.33 (110)	0.50 (13)	0.63 (16)	4.98 (2.26)
6	6.63 (168)	6.46 (164)	0.63 (16)	0.63 (16)	11.76 (5.33)
8	8.63 (219)	8.44 (214)	0.63 (16)	0.75 (19)	21.74 (9.86)
10	10.75 (273)	10.56 (268)	0.75 (19)	0.75 (19)	37.31 (16.93)
12	12.75 (324)	12.50 (318)	0.75 (19)	0.75 (19)	52.58 (23.85)

### Gaskets

A complete coupling consists of coupling housing, nuts, bolts, and gasket. The coupling housing contains and compresses the gasket, which effects proper sealing of the joint. Piedmont gaskets are designed for a tight seal in high pressure industrial applications

Gasket materials: Piedmont gaskets are EPDM (Ethylene Propylene Diene Monomer) rubber based. NSF (ANSI 61) approved for potable water.

Temperature range: -20°F to 230°F (-29°C to 110°C)

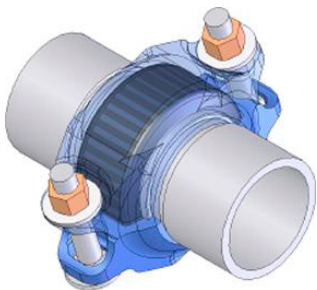
Service recommendations: Hot water service within the temperature range, seawater, and brinewater, dilute acids, oil-free air and many chemical services. Potable water.

**NOT SUITABLE FOR PETROLEUM SERVICES**

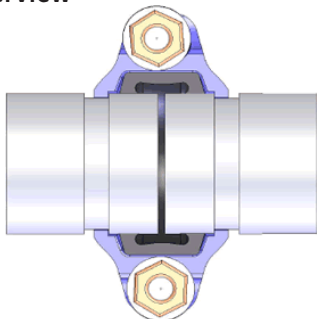
For other services, please contact Piedmont.

Piedmont offers two different shapes of gaskets: C-Shaped and Flush-fit.

The Flush-fit type is recommended for vacuum services. The inner lip minimizes turbulence in high-velocity applications.



Gasket Overview

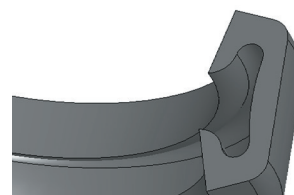


Allowable Pipe End Separation

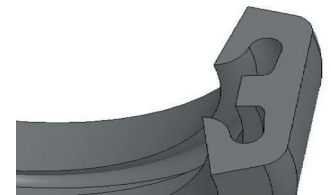
### Pipe End Separation & Allowable Deflection

Piedmont maximum allowed pipe end separation and maximum deflection values are for standard roll-grooved pipe joints. For cut groove pipe joints, these values may be doubled. Please note that these values are maximum values. We recommend that for design and installation these values be reduced by 50% for 3/4-3" sizes and 25% for 4" and larger.

Flexible Coupling Performance			
Nominal Size	Allowable End Pipe Separation	Maximum Deflection	
		degrees	inches/ft mm/m
inches	inches mm		
3/4	0-0.06 0-1.6	3.44°	0,72 60
1	0-0.06 0-1.6	2.72°	0,57 48
1-1/4	0-0.06 0-1.6	2.15°	0,45 38
1-1/2	0-0.06 0-1.6	1.91°	0,40 33
2	0-0.06 0-1.6	1.53°	0,32 27
2-1/2	0-0.06 0-1.6	1.24°	0,26 22
3	0-0.06 0-1.6	1.05°	0,22 18
4	0-0.13 0-3.2	1.62°	0,34 28
6	0-0.13 0-3.2	1.10°	0,23 19
8	0-0.13 0-3.2	0.86°	0,18 15
10	0-0.13 0-3.2	0.62°	0,13 11
12	0-0.13 0-3.2	0.53°	0,11 9



C-Shaped Gasket

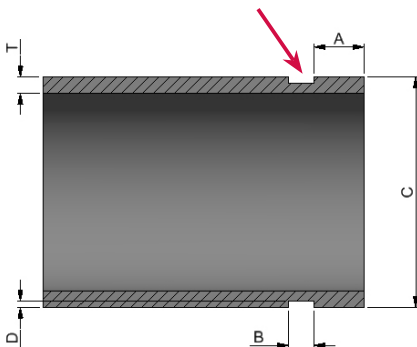


Flush-fit Gasket

STANDARD CUT GROOVE PIPE SPECIFICATION FOR FLEXIBLE COUPLINGS									
Nominal size	Tolerance for outer diameter of pipe			Gasket Seat "A"	Groove width "B"	Groove diameter "C"		Groove depth "D"	Min. wall thickness "T"
Inches	Basic OD inches mm	tol (+) inches mm	tol (-) inches mm	tol (+/- 0.031) inches (+/-0.78) mm	tol (+/- 0.031) inches (+/-0.78) mm	Basic inches mm	tol (+0.00) inches mm	Inches mm	Inches mm
3/4	1.050 26.70	0.010 0.25	0.010 0.25	0.625 15.88	0.313 7.95	0.938 23.83	-0.015 -0.38	0.056 1.42	0.113 2.87
1	1.315 33.40	0.013 0.33	0.013 0.33	0.625 15.88	0.313 7.95	1.190 30.23	-0.015 -0.38	0.063 1.60	0.133 3.38
1-1/4	1.660 42.20	0.016 0.41	0.016 0.41	0.625 15.88	0.313 7.95	1.535 38.99	-0.015 -0.38	0.063 1.60	0.140 3.56
1-1/2	1.900 48.30	0.019 0.48	0.019 0.48	0.625 15.88	0.313 7.95	1.775 45.09	-0.015 -0.38	0.063 1.60	0.145 3.68
2	2.375 60.30	0.024 0.61	0.024 0.61	0.625 15.88	0.313 7.95	2.250 57.15	-0.015 -0.38	0.063 1.60	0.154 3.91
2-1/2	2.875 73.00	0.029 0.74	0.029 0.74	0.625 15.88	0.313 7.95	2.72 69.09	-0.018 -0.46	0.078 1.98	0.188 4.78
3	3.500 88.90	0.035 0.89	0.031 0.79	0.625 15.88	0.313 7.95	3.344 84.94	-0.018 -0.46	0.078 1.98	0.188 4.78
4	4.500 114.30	0.045 1.14	0.031 0.79	0.625 15.88	0.375 9.53	4.334 110.08	-0.020 -0.51	0.083 2.11	0.203 5.16
6	6.625 168.30	0.062 1.60	0.031 0.79	0.625 15.88	0.375 9.53	6.455 163.96	-0.022 -0.56	0.085 2.16	0.219 5.56
8	8.625 219.10	0.062 1.60	0.031 0.79	0.750 19.05	0.438 11.13	8.441 214.40	-0.022 -0.64	0.092 2.34	0.238 6.05
10	10.750 273.00	0.062 1.60	0.031 0.79	0.750 19.05	0.500 12.70	10.562 268.28	-0.027 -0.69	0.094 2.39	0.250 6.35
12	12.750 323.90	0.062 1.60	0.031 0.79	0.750 19.05	0.500 12.70	12.531 318.29	-0.030 -0.76	0.109 2.77	0.279 7.09
16	16.00 406.40	0.062 1.60	0.031 0.79	0.938 23.83	0.500 12.70	15.781 400.84	-0.030 -0.76	0.109 2.77	0.312 7.93

### IMPORTANT

2x fillet 0.010" min - 0.015" max  
(0.25mm min - 0.38mm max)



**Gasket seat "A":** Must be smooth and free of indentations, roll marks, scratches, imperfections and projections from the end of the pipe to the groove in order to provide a proper sealing surface. Dimension "A" to be measured from square-cut end of pipe. Beveled end pipe not recommended.

**Groove width "B":** The bottom of the groove to be free of dirt, chips, etc. that may interfere with the coupling assembly.  
*See radius notes on drawing on the left.*

**Groove depth "D":** Must be uniform depth for the entire pipe circumference and must maintain within the "C" dimension tolerance listed.

**Min. wall thickness "T":** For information only. Actual dimensions must be per groove diameter "C".

### Notes:

1. Pipe ends to be square cut and shall be neat free from imperfections that may affect durability, operability, and safety.
2. Metal shall be free from fins, burrs and sharp/rough edges, flame cutting is not permitted.
3. Break all corners 0.01-0.03 in. chamfer unless otherwise specified.
4. In the event of a conflict between these notes and references cited in the drawings, except for detail specifications, these notes shall take precedence.