

Product Description

- Pressure - Up to 4000 psi (27,6 MPa)
- Resin System - Aliphatic Amine Cured Epoxy
- Reinforcement - Premium Fiberglass
- Joining Systems - API 8rd and Mechanical O-Ring (SSS)
- Joint Length - 30 Feet (9,1 Meters) Nominal
Random Lengths of 20 to 32 Feet (6,1 to 9,8 Meters)
- Fittings - A variety of filament wound API threaded fittings are available.
Purchase all fittings by thread size and design pressure rating only.
- Temperature - Up to 200° F (93.3° C) Maximum
- Sizes - 1½ through 8 inches API 8rd
8", 10" & 12" SSS

High Pressure Design ≥ 500 psi

- Life Expectancy - 20 years at full rating
- Design Temperature - 150° F (65.6° C)
- Wall Thickness - Nominal
- Hoop Stress - Average Long Term Hydrostatic Strength (LTHS), ASTM D2992-B
- 100% Factory Hydrotest - All products are tested at a minimum of 1.25 x the series rated pressure of 150° F (65.6° C)
- Non API Design

Performance Ratings vs. Temperature

ASTM D 2992-B		73.4° F (23° C)	150° F* (65.6° C)	180° F* (82.2° C)	200° F (93.3° C)
• 11.4 Year Life, LTHS	psi (MPa)	26,353 (181,7)	22,203 (153,1)	20,578 (141,9)	19,494 (134,4)
• 20 Year Life, LTHS	psi (MPa)	26,004 (179,3)	21,404 (147,6)	19,602 (135,2)	18,401 (126,9)
• 20 Year Life, LCL (Lower Confidence Limit)	psi (MPa)	24,596 (169,6)	20,335 (140,2)	18,666 (128,7)	17,554 (121,0)

* 150° F and 180° F data are interpolated

Benefits

- Corrosion Control
- Reduced Installation Costs
- Improved Flow Efficiency
- Reduced Paraffin & Scale Build-Up
- Reduced Maintenance Cost

Physical Properties

- Density = 124 lbs/cu ft
- Density = 1986 kgs/cu m
- Specific Gravity = 1.99

Thermal Properties

- Coefficient of Thermal Conductivity
0.23 BTU/(ft•hr•° F) 0.14 w/(m) (°C)
- Coefficient of Thermal Expansion
8.7 x 10⁻⁶ in/in/°F (15,7 x 10⁻⁶ mm/mm/°C)

Applications

- Flow or Injection Lines
- Transfer or Disposal Lines
- Oil, Gas, Saltwater, CO₂ and H₂S

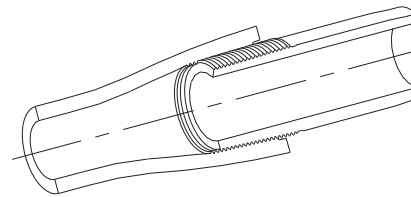
Flow Factors

- Hazen Williams C=150
- Absolute Roughness = 0.00021 in.
(0.00533 mm)

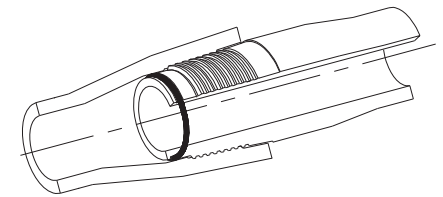
Nominal Moduli

- Modulus of Elasticity
Hoop - 3.3 PSI x 10⁶ (GPa 22,8)
Axial - 2.0 PSI x 10⁶ (GPa 13,8)
- Poisson's Ratio (Minor) = 0.39

Joining System (Refer to Page 4 for Joining System specifications)



Advanced Composite Thread (ACT)



Star Super Seal (SSS)



Pipe-Thread Size Inches	PIPE DIMENSIONS (NOMINAL)						Minimum Bending Radius Ft (m)	Maximum Deflection In/jt (cm/jt)	START™ RATED PRESSURES ⁽⁴⁾						Pressure ASTM D-1599 psi (MPa)	Maximum Support Span Ft (m)	Collapse Rating psi (MPa)	Short Term Tensile Rating Lbs (kgs)	Capacity Bbls/1,000 ft (m³/km)	Threaded Adapter Product Code	
	Inside Diameter In (mm)	Outside Diameter In (mm)	Wall Thickness In (mm)	Pipe Weight Lbs/ft (kg/m)	Connection Diameter In (mm)	Static ⁽¹⁾			Pressure	Support Span	Collapse Rating	Short Term Tensile Rating	Capacity								
						150° F (65.6° C) psi (MPa)								180° F (82.2° C) psi (MPa)							200° F (93.3° C) psi (MPa)
Series 500 - PGT (All Sizes) or SSS (8", 10", 12")																					
3	3 1/2	2.94 (74,7)	3.07 (78,0)	0.07 (1,8)	0.70 (1,0)	4.20 (106,7)	154 (46,9)	34 (86,4)	500 (3,4)	450 (3,1)	400 (2,8)	1400 (9,7)	10 (3,1)	30 (0,2)	1700 (771)	8.40 (4,4)	35NU				
4	4 1/2	3.85 (97,8)	4.01 (101,9)	0.08 (2,0)	1.20 (1,8)	5.45 (138,4)	201 (61,3)	26 (66,0)	500 (3,4)	450 (3,1)	400 (2,8)	1300 (9,0)	11 (3,4)	30 (0,2)	2900 (1315)	14.40 (7,5)	45NU				
5	TC5 1/2	4.74 (120,4)	4.91 (124,7)	0.09 (2,3)	1.80 (2,7)	6.25 (158,8)	246 (75,0)	21 (53,3)	500 (3,4)	450 (3,1)	400 (2,8)	1100 (7,6)	12 (3,7)	16 (0,1)	3600 (1633)	21.80 (11,4)	55NR				
6	6 5/8	5.93 (150,6)	6.15 (156,2)	0.11 (2,8)	2.10 (3,1)	7.10 (180,3)	308 (93,9)	17 (43,2)	500 (3,4)	450 (3,1)	400 (2,8)	1100 (7,6)	13 (4,0)	16 (0,1)	5800 (2631)	34.20 (17,8)	65NS				
8	8 5/8	7.74 (196,6)	8.03 (204,0)	0.15 (3,8)	3.90 (5,8)	9.25 (235,0)	401 (122,2)	13 (33,0)	500 (3,4)	450 (3,1)	400 (2,8)	1200 (8,3)	15 (4,6)	18 (0,1)	10300 (4672)	58.10 (30,3)	85NS				
8SS (5)	7.74 (196,6)	8.01 (203,5)	0.14 (3,6)	3.50 (5,2)	9.39 (238,5)	401 (122,2)	13 (33,0)	500 (3,4)	450 (3,1)	400 (2,8)	1100 (7,6)	15 (4,6)	15 (0,1)	9600 (4355)	58.10 (30,3)	088R					
10SS (5)	9.84 (249,9)	10.20 (259,1)	0.18 (4,6)	6.60 (9,8)	12.10 (307,3)	510 (155,4)	10 (25,4)	500 (3,4)	450 (3,1)	400 (2,8)	1100 (7,6)	17 (5,2)	16 (0,1)	15900 (7212)	94.10 (49,1)	05AR					
12SS (5)	11.8 (300,0)	12.23 (310,6)	0.21 (5,3)	8.60 (12,8)	14.10 (358,1)	611 (186,2)	9 (22,9)	500 (3,4)	450 (3,1)	400 (2,8)	1100 (7,6)	18 (5,5)	15 (0,1)	22400 (10161)	135.5 (70,7)	05CR					
Series 800 - ACT, PGT (All Sizes) or SSS (8", 10" 12")																					
2	2 3/8	1.94 (49,3)	2.11 (53,6)	0.08 (2,0)	0.50 (.7)	3.05 (77,5)	105 (32,0)	49 (124,5)	800 (5,5)	700 (4,8)	650 (4,5)	2600 (17,9)	9 (2,8)	190 (1,3)	1400 (635)	3.70 (1,9)	23NR				
2 1/2	2 7/8	2.37 (60,2)	2.53 (64,3)	0.08 (2,0)	0.60 (.9)	3.55 (90,2)	127 (38,7)	41 (104,1)	800 (5,5)	700 (4,8)	650 (4,5)	2200 (15,2)	10 (3,1)	110 (0,8)	1800 (816)	5.40 (2,8)	27NU				
3	3 1/2	2.94 (74,7)	3.11 (79,0)	0.09 (2,3)	0.90 (1,3)	4.25 (108,0)	156 (47,5)	33 (83,8)	800 (5,5)	700 (4,8)	650 (4,5)	1800 (12,4)	10 (3,1)	60 (0,4)	2300 (1043)	8.40 (4,4)	35NU				
4	4 1/2	3.85 (97,8)	4.08 (103,6)	0.12 (3,0)	1.60 (2,4)	5.55 (141,0)	204 (62,2)	26 (66,0)	800 (5,5)	700 (4,8)	650 (4,5)	1900 (13,1)	12 (3,7)	80 (0,6)	4200 (1905)	14.40 (7,5)	45NU				
5	TC5 1/2	4.74 (120,4)	5.02 (127,5)	0.14 (3,6)	2.50 (3,7)	6.25 (158,8)	251 (76,5)	21 (53,3)	800 (5,5)	700 (4,8)	650 (4,5)	1800 (12,4)	13 (4,0)	70 (0,5)	6100 (2767)	21.80 (11,4)	55NR				
6	6 5/8	5.50 (139,7)	5.83 (148,1)	0.17 (4,3)	3.10 (4,6)	7.35 (186,7)	292 (89,0)	18 (45,7)	800 (5,5)	700 (4,8)	650 (4,5)	1800 (12,4)	14 (4,3)	70 (0,5)	8300 (3765)	29.40 (15,3)	65NU				
6	6 5/8	5.93 (150,6)	6.27 (159,3)	0.17 (4,3)	3.10 (4,6)	7.30 (185,4)	314 (95,7)	17 (43,2)	800 (5,5)	700 (4,8)	650 (4,5)	1800 (12,4)	15 (4,6)	60 (0,4)	9200 (4173)	34.20 (17,8)	65NS				
8	8 5/8	7.74 (196,6)	8.18 (207,8)	0.22 (5,6)	5.80 (8,6)	9.55 (242,6)	409 (124,7)	13 (33,0)	800 (5,5)	700 (4,8)	650 (4,5)	1800 (12,4)	17 (5,2)	60 (0,4)	15800 (7167)	58.10 (30,3)	85NS				
8SS (5)	7.74 (196,6)	8.18 (207,8)	0.22 (5,6)	5.50 (8,2)	9.63 (244,6)	409 (124,7)	13 (33,0)	800 (5,5)	700 (4,8)	650 (4,5)	1800 (12,4)	17 (5,2)	60 (0,4)	15600 (7076)	58.10 (30,3)	088R					
10SS (5)	9.84 (249,9)	10.41 (264,4)	0.28 (7,1)	9.70 (14,4)	12.35 (313,7)	520 (158,5)	10 (25,4)	800 (5,5)	700 (4,8)	650 (4,5)	1800 (12,4)	19 (5,9)	60 (0,4)	25600 (11612)	94.10 (49,1)	N/A					
12SS (5)	11.8 (300,0)	12.48 (317,0)	0.33 (8,4)	12.50 (18,6)	14.40 (365,8)	624 (190,2)	8 (20,3)	800 (5,5)	700 (4,8)	650 (4,5)	1700 (11,7)	20 (6,2)	60 (0,4)	36100 (16375)	135.5 (70,7)	N/A					
Series 1000 - ACT (All Sizes), PGT (All Sizes Except 8") or SSS (8", 10" 12")																					
2	2 3/8	1.94 (49,3)	2.11 (53,6)	0.08 (2,0)	0.50 (.7)	3.10 (78,7)	105 (32,0)	49 (124,5)	1000 (6,9)	900 (6,2)	850 (5,9)	2600 (17,9)	9 (2,8)	190 (1,3)	1400 (635)	3.70 (1,9)	23NR				
2 1/2	2 7/8	2.37 (60,2)	2.54 (64,5)	0.09 (2,3)	0.70 (1,0)	3.55 (90,2)	127 (38,7)	41 (104,1)	1000 (6,9)	900 (6,2)	850 (5,9)	2300 (15,9)	10 (3,1)	130 (0,9)	1900 (862)	5.40 (2,8)	27NU				
3	3 1/2	2.94 (74,7)	3.15 (80,0)	0.11 (2,8)	1.00 (1,5)	4.30 (109,2)	158 (48,2)	33 (83,8)	1000 (6,9)	900 (6,2)	850 (5,9)	2200 (15,2)	11 (3,4)	120 (0,8)	2800 (1270)	8.40 (4,4)	35NU				
4	4 1/2	3.85 (97,8)	4.13 (104,9)	0.14 (3,6)	1.90 (2,8)	5.60 (142,2)	206 (62,8)	25 (63,5)	1000 (6,9)	900 (6,2)	850 (5,9)	2200 (15,2)	12 (3,7)	130 (0,9)	5000 (2268)	14.40 (7,5)	45NU				
5	TC5 1/2	4.74 (120,4)	5.09 (129,3)	0.17 (4,3)	2.90 (4,3)	6.25 (158,8)	254 (77,4)	21 (53,3)	1000 (6,9)	900 (6,2)	850 (5,9)	2200 (15,2)	14 (4,3)	120 (0,8)	7500 (3402)	21.80 (11,4)	55NR				
6	6 5/8	5.50 (139,7)	5.91 (150,1)	0.21 (5,3)	3.70 (5,5)	7.45 (189,2)	296 (90,2)	18 (45,7)	1000 (6,9)	900 (6,2)	850 (5,9)	2300 (15,9)	15 (4,6)	130 (0,9)	10400 (4717)	29.40 (15,3)	65NU				
6	6 5/8	5.93 (150,6)	6.38 (162,1)	0.22 (5,6)	4.10 (6,1)	7.50 (190,5)	319 (97,2)	16 (40,6)	1000 (6,9)	900 (6,2)	850 (5,9)	2300 (15,9)	15 (4,6)	130 (0,9)	12000 (5443)	34.20 (17,8)	65NS				
8	8 5/8	7.74 (196,6)	8.29 (210,6)	0.28 (7,1)	7.10 (10,6)	9.75 (247,7)	415 (126,5)	13 (33,0)	1000 (6,9)	900 (6,2)	850 (5,9)	2200 (15,2)	17 (5,2)	120 (0,8)	19800 (8981)	58.10 (30,3)	N/A				
8SS (5)	7.74 (196,6)	8.29 (210,6)	0.28 (7,1)	6.90 (10,3)	9.79 (248,7)	415 (126,5)	13 (33,0)	1000 (6,9)	900 (6,2)	850 (5,9)	2200 (15,2)	17 (5,2)	120 (0,8)	19900 (9027)	58.10 (30,3)	N/A					
10SS (5)	9.84 (249,9)	10.56 (268,2)	0.36 (9,1)	11.80 (17,6)	12.50 (317,5)	528 (160,9)	10 (25,4)	1000 (6,9)	900 (6,2)	850 (5,9)	2200 (15,2)	20 (6,2)	120 (0,8)	32500 (14742)	94.10 (49,1)	N/A					
12SS (5)	11.8 (300,0)	12.65 (321,3)	0.42 (10,7)	15.30 (22,8)	14.70 (373,4)	633 (192,9)	8 (20,3)	1000 (6,9)	900 (6,2)	850 (5,9)	2200 (15,2)	22 (6,8)	120 (0,8)	45800 (20775)	135.5 (70,7)	N/A					
Series 1250 - ACT (All Sizes), PGT (2", 2 1/2", 3" and 4" Sizes) or SSS (8", 10" 12")																					
2	2 3/8	1.94 (49,3)	2.13 (54,1)	0.1 (2,5)	0.60 (.9)	3.15 (80,0)	107 (32,6)	49 (124,5)	1250 (8,6)	1100 (7,6)	1050 (7,2)	3100 (21,4)	9 (2,8)	310 (2,1)	1700 (771)	3.70 (1,9)	23NR				
2 1/2	2 7/8	2.37 (60,2)	2.58 (65,5)	0.11 (2,8)	0.80 (1,2)	3.60 (91,4)	129 (39,3)	40 (101,6)	1250 (8,6)	1100 (7,6)	1050 (7,2)	2800 (19,3)	10 (3,1)	230 (1,6)	2300 (1043)	5.40 (2,8)	27NU				
3	3 1/2	2.94 (74,7)	3.22 (81,8)	0.14 (3,6)	1.30 (1,9)	4.35 (110,5)	161 (49,1)	32 (81,3)	1250 (8,6)	1100 (7,6)	1050 (7,2)	2900 (20,0)	11 (3,4)	250 (1,7)	3700 (1678)	8.40 (4,4)	35NU				
4	4 1/2	3.85 (97,8)	4.19 (106,4)	0.17 (4,3)	2.30 (3,4)	5.70 (144,8)	210 (64,0)	25 (63,5)	1250 (8,6)	1100 (7,6)	1050 (7,2)	2800 (19,3)	13 (4,0)	230 (1,6)	6100 (2767)	14.40 (7,5)	45NU				
5	TC5 1/2	4.74 (120,4)	5.18 (131,6)	0.22 (5,6)	3.50 (5,2)	6.45 (163,8)	259 (78,9)	20 (50,8)	1250 (8,6)	1100 (7,6)	1050 (7,2)	2800 (19,3)	14 (4,3)	240 (1,7)	9600 (4355)	21.80 (11,4)	55NR				
6	6 5/8	5.50 (139,7)	6.00 (152,4)	0.25 (6,4)	4.50 (6,7)	7.57 (192,3)	300 (91,4)	17 (43,2)	1250 (8,6)	1100 (7,6)	1050 (7,2)	2800 (19,3)	15 (4,6)	230 (1,6)	12700 (5761)	29.40 (15,3)	N/A				
6	7	5.93 (150,6)	6.48 (164,6)	0.27 (6,9)	5.20 (7,7)	8.00 (203,2)	324 (98,8)	16 (40,6)	1250 (8,6)	1100 (7,6)	1050 (7,2)	2800 (19,3)	16 (4,9)	240 (1,7)	14900 (6759)	34.20 (17,8)	N/A				
8	9 5/8	7.74 (196,6)	8.44 (214,4)	0.35 (8,9)	8.80 (13,1)	10.00 (254,0)	422 (128,6)	12 (30,5)	1250 (8,6)	1100 (7,6)	1050 (7,2)	2800 (19,3)	18 (5,5)	230 (1,6)	25300 (11476)	58.10 (30,3)	N/A				
8SS (5)	7.74 (196,6)	8.45 (214,6)	0.36 (9,1)	8.60 (12,8)	10.00 (254,0)	422 (128,6)	12 (30,5)	1250 (8,6)	1100 (7,6)	1050 (7,2)	2800 (19,3)	18 (5,5)	240 (1,7)	25700 (11658)	58.10 (30,3)	N/A					
10SS (5)	9.84 (249,9)	10.74 (272,8)	0.45 (11,4)	14.50 (21,6)	12.80 (325,1)	537 (163,7)	10 (25,4)	1250 (8,6)	1100 (7,6)	1050 (7,2)	2800 (19,3)	21 (6,5)	240 (1,7)	41400 (18779)	94.10 (49,1)	N/A					
12SS (5)	11.8 (300,0)	12.89 (327,4)	0.54 (13,7)	19.20 (28,6)	15.00 (381,0)	645 (196,6)	8 (20,3)	1250 (8,6)	1100 (7,6)	1050 (7,2)	2800 (19,3)	23 (7,1)	240 (1,7)	59400 (26944)	135.5 (70,7)	N/A					

Pipe-Thread Size Inches	PIPE DIMENSIONS (NOMINAL)						Minimum Bending Radius Ft (m)	Maximum Deflection In/jt (cm/jt)	STAR™ RATED PRESSURES ⁽⁴⁾			Pressure ASTM D-1599 psi (MPa)	Maximum Support Span Ft (m)	Collapse Rating psi (MPa)	Short Term Tensile Rating Lbs (Kgs)	Capacity Bbls/1,000 ft (m³/km)	Threaded Adapter Product Code
	Inside Diameter In (mm)	Outside Diameter In (mm)	Wall Thickness In (mm)	Pipe Weight Lbs/ft (kg/m)	Connection Diameter In (mm)	Static ⁽¹⁾ 150° F (65.6° C) psi (MPa)			Static ⁽¹⁾ 180° F (82.2° C) psi (MPa)	Static ⁽¹⁾ 200° F (93.3° C) psi (MPa)							
Series 1500 - ACT (All Sizes) or PGT (2", 2½", 3" and 4" Sizes)																	
1 1/2	1.90	1.44 (36,6)	1.60 (40,6)	0.08 (2,0)	0.40 (0,6)	2.70 (68,6)	80 (24,4)	64 (162,6)	1500 (10,3)	1350 (9,3)	1250 (8,6)	3400 (23,4)	8 (2,5)	440 (3,0)	1100 (499)	2.00 (1,0)	19NR
2	2 3/8	1.94 (49,3)	2.17 (55,1)	0.12 (3,0)	0.70 (1,0)	3.20 (81,3)	109 (33,2)	48 (121,9)	1500 (10,3)	1350 (9,3)	1250 (8,6)	3600 (24,8)	10 (3,1)	500 (3,4)	2100 (953)	3.70 (1,9)	23NR
2 1/2	2 7/8	2.37 (60,2)	2.62 (66,5)	0.13 (3,3)	1.00 (1,5)	3.67 (93,2)	131 (39,9)	40 (101,6)	1500 (10,3)	1350 (9,3)	1250 (8,6)	3300 (22,8)	11 (3,4)	390 (2,7)	2800 (1270)	5.40 (2,8)	27NU
3	3 1/2	2.94 (74,7)	3.26 (82,8)	0.16 (4,1)	1.50 (2,2)	4.42 (112,3)	163 (49,7)	32 (81,3)	1500 (10,3)	1350 (9,3)	1250 (8,6)	3300 (22,8)	12 (3,7)	400 (2,8)	4400 (1996)	8.40 (4,4)	35NU
4	4 1/2	3.85 (97,8)	4.28 (108,7)	0.22 (5,6)	2.70 (4,0)	5.80 (147,3)	214 (65,2)	24 (61,0)	1500 (10,3)	1350 (9,3)	1250 (8,6)	3400 (23,4)	13 (4,0)	420 (2,9)	7700 (3493)	14.40 (7,5)	45NT
5	5 1/2	4.74 (120,4)	5.27 (133,9)	0.26 (6,6)	4.20 (6,2)	6.60 (167,6)	263 (80,2)	20 (50,8)	1500 (10,3)	1350 (9,3)	1250 (8,6)	3400 (23,4)	15 (4,6)	410 (2,8)	11700 (5307)	21.80 (11,4)	55NQ
6	6 5/8	5.50 (139,7)	6.11 (155,2)	0.31 (7,9)	5.50 (8,2)	7.74 (196,6)	306 (93,3)	17 (43,2)	1500 (10,3)	1350 (9,3)	1250 (8,6)	3400 (23,4)	16 (4,9)	410 (2,8)	15700 (7122)	29.40 (15,3)	N/A
6	7	5.93 (150,6)	6.59 (167,4)	0.33 (8,4)	6.30 (9,4)	8.20 (208,3)	330 (100,6)	16 (40,6)	1500 (10,3)	1350 (9,3)	1250 (8,6)	3400 (23,4)	17 (5,2)	410 (2,8)	18200 (8256)	34.20 (17,8)	N/A
8	9 5/8	7.74 (196,6)	8.59 (218,2)	0.43 (10,9)	12.10 (18,0)	11.40 (289,6)	430 (131,1)	12 (30,5)	1500 (10,3)	1350 (9,3)	1250 (8,6)	3400 (23,4)	19 (5,9)	410 (2,8)	31100 (14107)	58.10 (30,3)	N/A

Series 1750 - ACT (All Sizes) or PGT (2", 2½", 3" and 4" Sizes)																	
1 1/2	1.90	1.44 (36,6)	1.63 (41,4)	0.10 (2,5)	0.50 (0,7)	2.75 (69,9)	82 (25,0)	63 (160,0)	1750 (12,1)	1550 (10,7)	1450 (10,0)	4000 (27,6)	8 (2,5)	690 (4,8)	1300 (590)	2.00 (1,0)	19NR
2	2 3/8	1.94 (49,3)	2.20 (55,9)	0.13 (3,3)	0.80 (1,2)	3.25 (82,6)	110 (33,5)	47 (119,4)	1750 (12,1)	1550 (10,7)	1450 (10,0)	4100 (28,3)	10 (3,1)	720 (5,0)	2400 (1089)	3.70 (1,9)	23NR
2 1/2	2 7/8	2.37 (60,2)	2.67 (67,8)	0.15 (3,8)	1.20 (1,8)	3.76 (95,5)	134 (40,8)	39 (99,1)	1750 (12,1)	1550 (10,7)	1450 (10,0)	3900 (26,9)	11 (3,4)	630 (4,3)	3400 (1542)	5.40 (2,8)	27NU
3	3 1/2	2.94 (74,7)	3.32 (84,3)	0.19 (4,8)	1.80 (2,7)	4.52 (114,8)	166 (50,6)	31 (78,7)	1750 (12,1)	1550 (10,7)	1450 (10,0)	3900 (26,9)	12 (3,7)	640 (4,4)	5300 (2404)	8.40 (4,4)	35NU
4	4 1/2	3.85 (97,8)	4.36 (110,7)	0.26 (6,6)	3.30 (4,9)	5.90 (149,9)	218 (66,4)	24 (61,0)	1750 (12,1)	1550 (10,7)	1450 (10,0)	4000 (27,6)	14 (4,3)	690 (4,8)	9300 (4218)	14.40 (7,5)	45NS
5	5 1/2	4.74 (120,4)	5.35 (135,9)	0.30 (7,6)	4.80 (7,1)	7.00 (177,8)	267 (81,4)	19 (48,3)	1750 (12,1)	1550 (10,7)	1450 (10,0)	3900 (26,9)	15 (4,6)	620 (4,3)	13600 (6169)	21.80 (11,4)	N/A
6	6 5/8	5.50 (139,7)	6.21 (157,7)	0.36 (9,1)	6.30 (9,4)	7.92 (201,2)	311 (94,8)	17 (43,2)	1750 (12,1)	1550 (10,7)	1450 (10,0)	3900 (26,9)	17 (5,2)	630 (4,3)	18500 (8392)	29.40 (15,3)	N/A
6	7	5.93 (150,6)	6.70 (170,2)	0.38 (9,7)	7.30 (10,9)	8.39 (213,1)	335 (102,1)	16 (40,6)	1750 (12,1)	1550 (10,7)	1450 (10,0)	3900 (26,9)	17 (5,2)	640 (4,4)	21600 (9798)	34.20 (17,8)	N/A
8	9 5/8	7.74 (196,6)	8.73 (221,7)	0.50 (12,7)	13.80 (20,5)	11.60 (294,6)	437 (133,2)	12 (30,5)	1750 (12,1)	1550 (10,7)	1450 (10,0)	3900 (26,9)	19 (5,9)	630 (4,3)	36500 (16556)	58.10 (30,3)	N/A

Series 2000 - ACT (All Sizes) or PGT (2", 2½", 3" and 4" Sizes)																	
1 1/2	1.90	1.44 (36,6)	1.67 (42,4)	0.11 (2,8)	0.60 (0,9)	2.75 (69,9)	83 (25,3)	62 (157,5)	2000 (13,8)	1800 (12,4)	1700 (11,7)	4700 (32,4)	9 (2,8)	1140 (7,9)	1500 (680)	2.00 (1,0)	19NR
2	2 3/8	1.94 (49,3)	2.24 (56,9)	0.15 (3,8)	0.90 (1,3)	3.30 (83,8)	112 (34,1)	46 (116,8)	2000 (13,8)	1800 (12,4)	1700 (11,7)	4600 (31,7)	10 (3,1)	1030 (7,1)	2700 (1225)	3.70 (1,9)	23NR
2 1/2	2 7/8	2.37 (60,2)	2.72 (69,1)	0.18 (4,6)	1.40 (2,1)	3.85 (97,8)	136 (41,5)	38 (96,5)	2000 (13,8)	1800 (12,4)	1700 (11,7)	4500 (31,0)	11 (3,4)	970 (6,7)	4000 (1814)	5.40 (2,8)	27NU
3	3 1/2	2.94 (74,7)	3.38 (85,9)	0.22 (5,6)	2.10 (3,1)	4.63 (117,6)	169 (51,5)	31 (78,7)	2000 (13,8)	1800 (12,4)	1700 (11,7)	4400 (30,3)	12 (3,7)	930 (6,4)	6100 (2767)	8.40 (4,4)	35NS
4	4 1/2	3.85 (97,8)	4.43 (112,5)	0.29 (7,4)	3.70 (5,5)	6.00 (152,4)	221 (67,4)	24 (61,0)	2000 (13,8)	1800 (12,4)	1700 (11,7)	4500 (31,0)	14 (4,3)	1000 (6,9)	10700 (4854)	14.40 (7,5)	45NR
5	5 1/2	4.74 (120,4)	5.45 (138,4)	0.36 (9,1)	5.50 (8,2)	7.00 (177,8)	273 (83,2)	19 (48,3)	2000 (13,8)	1800 (12,4)	1700 (11,7)	4500 (31,0)	16 (4,9)	980 (6,8)	16200 (7348)	21.80 (11,4)	N/A
6	6 5/8	5.50 (139,7)	6.33 (160,8)	0.41 (10,4)	7.30 (10,9)	8.11 (206,0)	316 (96,3)	16 (40,6)	2000 (13,8)	1800 (12,4)	1700 (11,7)	4500 (31,0)	17 (5,2)	970 (6,7)	21700 (9843)	29.40 (15,3)	N/A
6	7	5.93 (150,6)	6.82 (173,2)	0.44 (11,2)	8.40 (12,5)	8.59 (218,2)	341 (103,9)	15 (38,1)	2000 (13,8)	1800 (12,4)	1700 (11,7)	4400 (30,3)	18 (5,5)	940 (6,5)	25000 (11340)	34.20 (17,8)	N/A
8	9 5/8	7.74 (196,6)	8.90 (226,1)	0.58 (14,7)	16.00 (23,8)	12.00 (304,8)	445 (135,6)	12 (30,5)	2000 (13,8)	1800 (12,4)	1700 (11,7)	4500 (31,0)	20 (6,2)	970 (6,7)	43000 (19505)	58.10 (30,3)	N/A

Series 2250 - ACT (All Sizes) or PGT (2", 2½" and 3" Sizes)																	
1 1/2	1.90	1.44 (36,6)	1.70 (43,2)	0.13 (3,3)	0.60 (0,9)	2.80 (71,1)	85 (25,9)	61 (154,9)	2250 (15,5)	2050 (14,1)	1900 (13,1)	5300 (36,5)	9 (2,8)	1570 (10,8)	1700 (771)	2.00 (1,0)	19NR
2	2 3/8	1.94 (49,3)	2.27 (57,7)	0.17 (4,3)	1.10 (1,6)	3.35 (85,1)	114 (34,7)	46 (116,8)	2250 (15,5)	2050 (14,1)	1900 (13,1)	5100 (35,2)	10 (3,1)	1420 (9,8)	3100 (1406)	3.70 (1,9)	23NR
2 1/2	2 7/8	2.37 (60,2)	2.77 (70,4)	0.20 (5,1)	1.60 (2,4)	3.94 (100,1)	139 (42,4)	37 (94,0)	2250 (15,5)	2050 (14,1)	1900 (13,1)	5100 (35,2)	12 (3,7)	1430 (9,9)	4600 (2087)	5.40 (2,8)	27NT
3	3 1/2	2.94 (74,7)	3.44 (87,4)	0.25 (6,4)	2.40 (3,6)	4.74 (120,4)	172 (52,4)	30 (76,2)	2250 (15,5)	2050 (14,1)	1900 (13,1)	5000 (34,5)	13 (4,0)	1350 (9,3)	7000 (3175)	8.40 (4,4)	35NS
4	4 1/2	3.85 (97,8)	4.51 (114,6)	0.33 (8,4)	4.20 (6,2)	6.05 (153,7)	226 (68,9)	23 (58,4)	2250 (15,5)	2050 (14,1)	1900 (13,1)	5100 (35,2)	15 (4,6)	1430 (9,9)	12300 (5579)	14.40 (7,5)	N/A
6	6 5/8	5.50 (139,7)	6.45 (163,8)	0.48 (12,2)	8.50 (12,6)	8.40 (213,4)	323 (98,5)	16 (40,6)	2250 (15,5)	2050 (14,1)	1900 (13,1)	5100 (35,2)	18 (5,5)	1430 (9,9)	25300 (11476)	29.40 (15,3)	N/A

Series 2500 - ACT (All Sizes) or PGT (2", 2½" and 3" Sizes)																	
1 1/2	1.90	1.44 (36,6)	1.71 (43,4)	0.14 (3,6)	0.70 (1,0)	2.84 (72,1)	86 (26,2)	60 (152,4)	2500 (17,2)	2250 (15,5)	2100 (14,5)	5600 (38,6)	9 (2,8)	1840 (12,7)	1900 (862)	2.00 (1,0)	19NR
2	2 3/8	1.94 (49,3)	2.32 (58,9)	0.19 (4,8)	1.20 (1,8)	3.40 (86,4)	116 (35,4)	45 (114,3)	2500 (17,2)	2250 (15,5)	2100 (14,5)	5800 (40,0)	11 (3,4)	2080 (14,3)	3600 (1633)	3.70 (1,9)	23NS
2 1/2	2 7/8	2.37 (60,2)	2.82 (71,6)	0.23 (5,8)	1.80 (2,7)	4.03 (102,4)	141 (43,0)	37 (94,0)	2500 (17,2)	2250 (15,5)	2100 (14,5)	5700 (39,3)	12 (3,7)	1910 (13,2)	5200 (2359)	5.40 (2,8)	27NR
3	3 1/2	2.94 (74,7)	3.51 (89,2)	0.29 (7,4)	2.80 (4,2)	4.85 (123,2)	176 (53,6)	30 (76,2)	2500 (17,2)	2250 (15,5)	2100 (14,5)	5700 (39,3)	13 (4,0)	1980 (13,7)	8200 (3720)	8.40 (4,4)	35NR
4	4 1/2	3.85 (97,8)	4.58 (116,3)	0.37 (9,4)	4.60 (6,8)	6.11 (155,2)	229 (69,8)	23 (58,4)	2500 (17,2)	2250 (15,5)	2100 (14,5)	5600 (38,6)	15 (4,6)	1900 (13,1)	13800 (6260)	14.40 (7,5)	N/A
6	7	5.50 (139,7)	6.56 (166,6)	0.53 (13,5)	9.70 (14,4)	9.01 (228,9)	328 (100,0)	16 (40,6)	2500 (17,2)	2250 (15,5)	2100 (14,5)	5600 (38,6)	18 (5,5)	1900 (13,1)	28300 (12837)	29.40 (15,3)	N/A

Pipe-Thread Size Inches	PIPE DIMENSIONS (NOMINAL)					Minimum Bending Radius Ft (m)	Maximum Deflection In/jt (cm/jt)	STAR™ RATED PRESSURES ⁽⁴⁾			Pressure ASTM D-1599 psi (MPa)	Maximum Support Span Ft (m)	Collapse Rating psi (MPa)	Short Term Tensile Rating Lbs (kgs)	Capacity Bbls/1,000 ft (m³/km)	Threaded Adapter Product Code
	Inside Diameter In (mm)	Outside Diameter In (mm)	Wall Thickness In (mm)	Pipe Weight Lbs/ft (kg/m)	Connection Diameter In (mm)			Static ⁽¹⁾ 150° F (65.6° C) psi (MPa)	Static ⁽¹⁾ 180° F (82.2° C) psi (MPa)	Static ⁽¹⁾ 200° F (93.3° C) psi (MPa)						

Series 2750 - ACT (All Sizes) or PGT (2" and 2½" Sizes)

1 1/2	1.90	1.44 (36,6)	1.74 (44,2)	0.15 (3,8)	0.80 (1,2)	2.90 (73,7)	87 (26,5)	59 (149,9)	2750 (19,0)	2500 (17,2)	2350 (16,2)	6200 (42,7)	9 (2,8)	2470 (17,0)	2100 (953)	2.00 (1,0)	N/A
2	2 3/8	1.94 (49,3)	2.35 (59,7)	0.21 (5,3)	1.30 (1,9)	3.49 (88,6)	118 (36,0)	44 (111,8)	2750 (19,0)	2500 (17,2)	2350 (16,2)	6200 (42,7)	11 (3,4)	2540 (17,5)	3900 (1769)	3.70 (1,9)	N/A
2 1/2	2 7/8	2.37 (60,2)	2.87 (72,9)	0.25 (6,4)	2.00 (3,0)	4.13 (104,9)	143 (43,6)	36 (91,4)	2750 (19,0)	2500 (17,2)	2350 (16,2)	6200 (42,7)	12 (3,7)	2510 (17,3)	5800 (2631)	5.40 (2,8)	N/A
3	3 1/2	2.94 (74,7)	3.57 (90,7)	0.32 (8,1)	3.10 (4,6)	4.98 (126,5)	179 (54,6)	29 (73,7)	2750 (19,0)	2500 (17,2)	2350 (16,2)	6300 (43,4)	13 (4,0)	2620 (18,1)	9100 (4128)	8.40 (4,4)	N/A
3 1/2	4 1/2	3.33 (84,6)	4.04 (102,6)	0.36 (9,1)	4.30 (6,4)	6.60 (167,6)	202 (61,6)	26 (66,0)	2750 (19,0)	2500 (17,2)	2350 (16,2)	6200 (42,7)	14 (4,3)	2560 (17,7)	11600 (5262)	10.80 (5,6)	N/A
4	5 1/2	3.85 (97,8)	4.68 (118,9)	0.42 (10,7)	5.90 (8,8)	7.29 (185,2)	234 (71,3)	22 (55,9)	2750 (19,0)	2500 (17,2)	2350 (16,2)	6300 (43,4)	15 (4,6)	2650 (18,3)	15800 (7167)	14.40 (7,5)	N/A

Series 3000 - ACT (All Sizes) or PGT (2" and 2½" Sizes)

1 1/2	1.90	1.44 (36,6)	1.78 (45,2)	0.17 (4,3)	0.80 (1,2)	2.98 (75,7)	89 (27,1)	58 (147,3)	3000 (20,7)	2700 (18,6)	2550 (17,6)	6800 (46,9)	10 (3,1)	3320 (22,9)	2400 (1089)	2.00 (1,0)	N/A
2	2 3/8	1.94 (49,3)	2.40 (61,0)	0.23 (5,8)	1.50 (2,2)	3.57 (90,7)	120 (36,6)	43 (109,2)	3000 (20,7)	2700 (18,6)	2550 (17,6)	6800 (46,9)	11 (3,4)	3300 (22,8)	4400 (1996)	3.70 (1,9)	N/A
2 1/2	2 7/8	2.37 (60,2)	2.92 (74,2)	0.28 (7,1)	2.20 (3,3)	4.23 (107,4)	146 (44,5)	36 (91,4)	3000 (20,7)	2700 (18,6)	2550 (17,6)	6800 (46,9)	12 (3,7)	3250 (22,4)	6500 (2948)	5.40 (2,8)	N/A
3	3 1/2	2.94 (74,7)	3.63 (92,2)	0.34 (8,6)	3.40 (5,1)	5.10 (129,5)	181 (55,2)	29 (73,7)	3000 (20,7)	2700 (18,6)	2550 (17,6)	6800 (46,9)	14 (4,3)	3280 (22,6)	10000 (4536)	8.40 (4,4)	N/A
3 1/2	4 1/2	3.33 (84,6)	4.12 (104,6)	0.40 (10,2)	4.70 (7,0)	6.65 (168,9)	206 (62,8)	25 (63,5)	3000 (20,7)	2700 (18,6)	2550 (17,6)	6800 (46,9)	14 (4,3)	3380 (23,3)	13100 (5942)	10.80 (5,6)	N/A
4	5 1/2	3.85 (97,8)	4.75 (120,7)	0.45 (11,4)	6.40 (9,5)	7.47 (189,7)	237 (72,2)	22 (55,9)	3000 (20,7)	2700 (18,6)	2550 (17,6)	6800 (46,9)	15 (4,6)	3290 (22,7)	17200 (7802)	14.40 (7,5)	N/A

Series 3500 - ACT (ONLY)

1 1/2	1.90	1.44 (36,6)	1.85 (47,0)	0.2 (5,1)	1.00 (1,5)	3.13 (79,5)	92 (28,0)	56 (142,2)	3500 (24,1)	3150 (21,7)	2950 (20,3)	8000 (55,2)	10 (3,1)	5340 (36,8)	2900 (1315)	2.00 (1,0)	N/A
2	2 3/8	1.94 (49,3)	2.48 (63,0)	0.27 (6,9)	1.80 (2,7)	3.75 (95,3)	124 (37,8)	42 (106,7)	3500 (24,1)	3150 (21,7)	2950 (20,3)	7900 (54,5)	11 (3,4)	5250 (36,2)	5300 (2404)	3.70 (1,9)	N/A
2 1/2	2 7/8	2.37 (60,2)	3.04 (77,2)	0.34 (8,6)	2.70 (4,0)	4.45 (113,0)	152 (46,3)	34 (86,4)	3500 (24,1)	3150 (21,7)	2950 (20,3)	8100 (55,8)	13 (4,0)	5500 (37,9)	8100 (3674)	5.40 (2,8)	N/A
3	3 1/2	2.94 (74,7)	3.76 (95,5)	0.41 (10,4)	4.90 (7,3)	7.00 (177,8)	188 (57,3)	28 (71,1)	3500 (24,1)	3150 (21,7)	2950 (20,3)	7900 (54,5)	14 (4,3)	5250 (36,2)	12200 (5534)	8.40 (4,4)	N/A
3 1/2	4 1/2	3.33 (84,6)	4.26 (108,2)	0.46 (11,7)	5.40 (8,0)	6.74 (171,2)	213 (64,9)	24 (61,0)	3500 (24,1)	3150 (21,7)	2950 (20,3)	7900 (54,5)	15 (4,6)	5210 (35,9)	15700 (7122)	10.80 (5,6)	N/A
4	5 1/2	3.85 (97,8)	4.92 (125,0)	0.54 (13,7)	7.60 (11,3)	7.86 (199,6)	246 (75,0)	21 (53,3)	3500 (24,1)	3150 (21,7)	2950 (20,3)	7900 (54,5)	16 (4,9)	5260 (36,3)	21000 (9526)	14.40 (7,5)	N/A

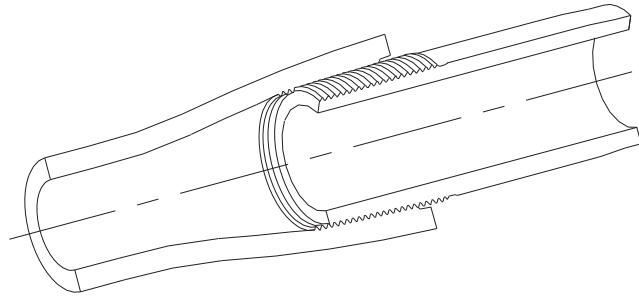
N/A - Not Available (Repair Joint Required)

Series 4000 - ACT (Only) Available Upon Request

Joining System Information (Metric Conversions are in Parenthesis)

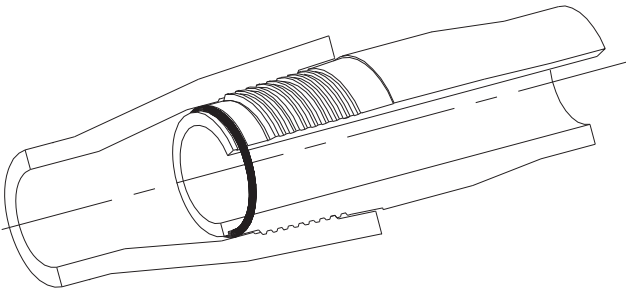
Pipe Size - Inches Joining System	1 1/2	2	2 1/2	3	4	5	6	6	8	8	8SS	10SS	12SS
Thread Size ⁽³⁾	1.90" EUE 10rd	2 3/8" EUE 8rd	2 7/8" EUE 8rd	3 1/2" EUE 8rd	4 1/2" EUE 8rd	5 1/2" OD 8rd	6 5/8" OD 8rd	7" OD 8rd	8 5/8" OD 8rd	9 5/8" OD 8rd	Super Seal	Super Seal	Super Seal
• Pin Upset O.D.	In (mm) 2.15 (54,6)	In (mm) 2.60 (66,0)	In (mm) 3.10 (78,7)	In (mm) 3.75 (95,3)	In (mm) 4.75 (120,7)	In (mm) 5.55 (141,0)	In (mm) 6.65 (168,9)	In (mm) 7.05 (179,1)	In (mm) 8.65 (219,7)	In (mm) 9.65 (245,1)	In (mm) 4.75 (120,7)	In (mm) 6.65 (168,9)	In (mm) 8.65 (219,7)
• Thread Length	In (mm) 2.36 (59,9)	In (mm) 2.94 (74,7)	In (mm) 3.25 (82,6)	In (mm) 3.50 (88,9)	In (mm) 3.88 (98,6)	In (mm) 4.75 (120,7)	In (mm) 4.25 (108,0)	In (mm) 4.88 (124,0)	In (mm) 4.85 (123,2)	In (mm) 5.13 (130,3)	In (mm) 3.88 (98,6)	In (mm) 4.25 (108,0)	In (mm) 4.85 (123,2)
• Make Up Length Loss	In (mm) 2.06 (52,4)	In (mm) 2.56 (65,1)	In (mm) 2.88 (73,0)	In (mm) 3.13 (79,4)	In (mm) 3.50 (88,9)	In (mm) 4.38 (111,1)	In (mm) 3.88 (98,4)	In (mm) 4.50 (114,3)	In (mm) 4.50 (114,3)	In (mm) 4.75 (120,7)	In (mm) 3.50 (88,9)	In (mm) 3.88 (98,4)	In (mm) 4.50 (114,3)
• O-Ring Dash Number											2-369	2-449	2-453

Joining System



API Threads

- Advanced Composite Thread (ACT) - Molded threads using a graphite, ceramic and epoxy composite for high performance applications. (patent No's 4,999,389 & 5,179,140)
- Precision Ground Thread (PGT) - Typical ground threads produced with numerical controlled grinding equipment.
- All 1½" EUE 10rd and 2-3/8" - 4½" EUE 8rd API threads conform to API 5B Table 14 (L4 is minimum) and all 5½" - 9 5/8" OD 8rd casing threads conform to API 5B Table 7 (L4 is minimum).



Star Super Seal (SSS)

- Fast, Reliable Installation
- Proprietary Self Restrained Mechanical O-Ring Seal
 - 2"-6" 4 Threads per inch
 - 8"-12" 2 Threads per inch
- All Weather Connection
- Standard O-Rings are Standard Nitrile for Applications up to 200° F (93.3° C), PH to 8.
- Special O-Rings available for high concentrations of CO₂, H₂S and other special applications.

Corresponding Numbered Notes:

1. **STATIC PRESSURE RATING** - Maximum operating pressure at design temperature.
2. **ULTIMATES** - The typical mode of failure for pressure is weep and for tensile it is an across the joint pipe body shear.
3. **API CONNECTIONS** - All products are produced integral joint unless indicated (TC) Threaded and Coupled. Any order may include up to 15% threaded and coupled pipe. All 1½" EUE 10rd and 2 3/8" - 4½" EUE 8rd API threads conform to API 5B Table 14 (L4 is minimum) and all 5½" - 9 5/8" OD 8rd casing thread conform to API 5B Table 7 (L4 is minimum).
4. **CYCLIC** - Consult a Fiber Glass Systems technical services personnel in applications where pressure fluctuations of more than 20 percent of the steady pressure rating are anticipated.
5. **O-RINGS** - Standard commercial 70 durometer nitrile unless otherwise specified. Refer to Section 2.5 of the Fiber Glass Systems Threaded Line Pipe Installation and Application Practices for additional o-ring specifications.

LIMITED WARRANTY

Seller warrants that PRODUCTS manufactured by Seller when properly installed, used, and maintained shall be free from defects in material and workmanship. Seller's responsibility under this warranty shall be limited to replacing or repairing PRODUCTS, at Seller's option, the PRODUCTS that prove defective in material or workmanship within one (1) year from the date of installation, provided that Buyer gives Seller prompt notice of any defect or failure and satisfactory proof thereof. Any defective product must be returned to Seller's factory, or any other repair facility designated by Seller. Seller will deliver replacement of defective PRODUCTS to Buyer freight prepaid to the destination provided for in the original order. PRODUCTS returned to Seller for which Seller provides replacement under this warranty shall become the property of the Seller.

This limited warranty does not apply to failure of PRODUCTS caused by abrasive materials, exposure to aggressive fluids, improper application, mishandling, or abuse.

In the event PRODUCTS are altered or repaired by the Buyer and/or end user without prior written approval of the Seller, all warranties are void. Equipment and accessories not manufactured by the seller warranted only to the extent of and by the original manufacturer's warranty. A new warranty period shall not be established for repaired or replaced materials, PRODUCTS, or supplies. Such items shall remain under warranty only for the remainder of the warranty period on original materials, PRODUCTS, or supplies.

The foregoing warranties are in lieu of all other warranties, whether oral, written, express, implied or statutory. Implied warranties of fitness and merchantability shall not apply. Seller's warranty obligations and Buyer's remedies thereunder (except as to title) are solely and exclusively as stated herein. In no case will Seller be liable for consequential damages, labor performed in connection with removal and replacement of the PRODUCTS, loss of production or any other loss incurred because of interruption of service.

IMPORTANT NOTICE

This literature is intended as a guide only. All values listed in this product specification are nominal. Unsatisfactory product results may occur due to environmental fluctuations, variations in operating procedures, or interpolation of data. We suggest that personnel using this data have specialized training and experience in the application of these products and their normal installation and operating conditions. Your intended application of these products should be verified for propriety by your engineers. We expressly disclaim responsibility for any consequential or incidental damages resulting from the installation or use of these products since we do not determine the degree of care utilized during the product installation or service. We reserve the right to revise this data, as necessary, without notice. We welcome comments regarding this product literature.

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FiberGlass Systems 
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HEADQUARTERS

P.O. Box 37389
2425 S.W. 36th Street
San Antonio, Texas 78237
Phone: 1 (210) 434-5043
Fax: 1 (210) 434-7543
www.fiberglasssystems.com
E-Mail: info@starfiberglass.com