



## [ APPLICATIONS ]

- **Flow Lines**
- **Chemical Disposal Lines**
- **Injection Lines**
- **Recirculating Lines**
- **Solution Mining**
- **Water Processing**

*Centron® SPH Series Surface Pipe with its unique high strength, multiple seal joint, makes it the choice for corrosive oil field and other demanding fluid transport applications. Available in 4" through 10" pipe. Centron's Quality System is certified to API Specification Q1 and ISO 9001, assuring customers of the highest quality products in the industry.*

## Joining System &gt;

## Features

- Multiple seal for high reliability—threads—O-ring
- Coarse threads (4-inch)—no cross threading—hi-strength—no thrust blocks required
- Patented non-galling composite threads available
- Make-up to specified torque or position
- No special tools required for installation

## Features &gt;

- Balanced filament wound construction using only the highest quality raw materials and modern manufacturing equipment
- Centron's complete line of fittings and adapters have the same safety factors as the pipe and are manufactured with the same high quality materials to provide complete reliability throughout the pipeline system.

## Advantages &gt;

- About 1/4 the weight of steel
- Assemble in any weather—no adhesives required
- Superior flow characteristics
- Coarse threads—no cross threading
- Excellent corrosion resistance, long service life
- Exceptional pressure and axial load capabilities
- Low installation costs
- Low paraffin and scale build-up



**Q1, 15LR, 15HR  
ISO 9001**

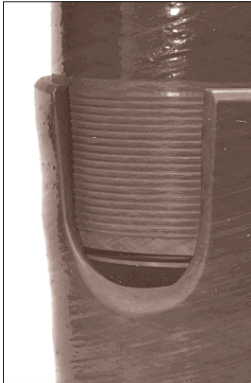
*Centron International Inc. manufactures a complete line of fiberglass surface pipe, line pipe, tubing, casing and associated fittings. See your Centron distributor or call Centron International Inc. for all your fiberglass tubular product needs.*

Nominal Size Inches (mm)	Series/ Rating @ 100°F (38°C)	Static Pressure Rating (PSI)			Nominal O.D. Inches (mm)	Nominal I.D. Inches (mm)	Wall Thickness Inches (mm)	Nominal Box O.D. Inches (mm)	Weight Lbs/Ft (Kg/M)
		125°F (52°C)	150°F (65°C)	180°F (82°C)					
4 (100)	SPH 1500	1400	1250	1150	4.40 (111.8)	3.98 (101.1)	0.210 (5.3)	5.74 (146)	2.34 (3.48)
	SPH 2000	1850	1650	1500	4.56 (115.8)	3.98 (101.1)	0.290 (7.4)	5.85 (149)	3.29 (4.90)
	SPH 2500	2300	2100	1850	4.70 (119.4)	3.98 (101.1)	0.360 (9.1)	5.95 (151)	4.15 (6.18)
	SPH 3000	2750	2500	2250	4.86 (123.4)	3.98 (101.1)	0.440 (11.2)	6.05 (154)	5.16 (7.69)
6 (150)	SPH 800	750	650	550	6.44 (163.6)	6.10 (154.9)	0.170 (4.3)	8.05 (204)	2.83 (4.21)
	SPH 1000	950	850	750	6.52 (165.6)	6.10 (154.9)	0.210 (5.3)	8.20 (208)	3.52 (5.24)
	SPH 1250	1150	1050	900	6.64 (168.7)	6.10 (154.9)	0.270 (6.9)	8.35 (212)	4.56 (6.80)
	SPH 1500	1400	1250	1150	6.74 (171.2)	6.10 (154.9)	0.320 (8.14)	8.50 (216)	5.45 (8.12)
	SPH 2000	1850	1650	1500	6.98 (177.3)	6.10 (154.9)	0.440 (11.2)	8.95 (227)	7.64 (11.38)
7 <sup>3</sup> / <sub>4</sub> (195)	SPH 1000	950	850	750	8.29 (210.6)	7.75 (196.9)	0.270 (6.9)	9.6 (245)	5.75 (8.56)
	SPH 1250	1150	1050	900	8.43 (214.1)	7.75 (196.9)	0.340 (8.6)	9.8 (248)	7.30 (10.88)
	SPH 1500	1400	1250	1150	8.57 (217.7)	7.75 (196.9)	0.410 (10.4)	9.9 (252)	8.88 (13.23)
	SPH 1800	1650	1500	1350	8.75 (222.3)	7.75 (196.9)	0.500 (12.7)	10.1 (257)	10.95 (16.31)
8 (200)	SPH 400 <sup>s</sup>	370	330	300	8.66 (220.0)	8.42 (213.9)	0.120 (3.0)	9.90 (251)	2.72 (4.05)
	SPH 600	550	500	450	8.76 (222.5)	8.42 (213.9)	0.170 (4.3)	10.0 (254)	3.88 (5.77)
	SPH 800	750	650	550	8.88 (225.6)	8.42 (213.9)	0.230 (5.8)	10.2 (259)	5.28 (7.87)
	SPH 1000	950	850	750	9.00 (228.6)	8.42 (213.9)	0.290 (7.4)	10.4 (264)	6.70 (9.99)
	SPH 1250	1150	1050	900	9.16 (232.7)	8.42 (213.9)	0.370 (9.4)	10.6 (269)	8.63 (12.86)
10 (250)	SPH 400 <sup>s</sup>	370	330	300	9.98 (253.5)	9.72 (246.9)	0.130 (3.3)	12.0 (304.8)	3.40 (5.06)
	SPH 500	450	400	350	10.06 (255.5)	9.72 (246.9)	0.170 (4.3)	12.2 (307.3)	4.46 (6.65)
	SPH 800	750	650	550	10.26 (260.6)	9.72 (246.9)	0.270 (6.9)	12.4 (315.0)	7.16 (10.67)

1. Pipe Ratings are based on currently available long term and other test data. In all cases, chemical compatibility must be considered along with all other known operating conditions in selecting the proper system for given service.
2. Centron® SPH Series Surface Pipe Joints are 29.5 feet (9.00 meters) overall length with a "make-up" length of 29.00 feet (8.84 meters), except for sizes 8" & 10" which are 29.17 feet (8.89 meters) overall length with a "make-up" length of 28.67 feet (8.74).
3. Vacuum breakers may be required.

Nominal Size Inches (mm)	Series/ Rating	Minimum Bend Radius Ft (M)	Offset per joint Inches (mm)	Support Spacing Ft (M)	TYPICAL ULTIMATE VALUES		Short Term <sup>1</sup> Weep Pressure PSI (MPa)	Ext. Collapse Pressure PSI (MPa)
					Axial Thread Load lbs	Kg		
4 (100)	SPH 1500	220.0 (67.1)	25 (0.6)	20 (6.1)	90,000	(40,800)	3750 (25.8)	860 (5.93)
	SPH 2000	228.0 (69.5)	24 (0.6)	22 (6.7)	90,000	(40,800)	4500 (31.0)	2050 (14.14)
	SPH 2500	235.0 (71.6)	23 (0.6)	24 (7.3)	90,000	(40,800)	5000 (34.5)	3590 (24.76)
	SPH 3000	243.0 (74.1)	22 (0.6)	26 (7.9)	90,000	(40,800)	5500 (37.9)	5930 (40.90)
6 (150)	SPH 800	322.0 (98.1)	17 (0.4)	20 (6.1)	150,000	(68,000)	2400 (16.5)	140 (0.97)
	SPH 1000	326.0 (99.4)	17 (0.4)	22 (6.7)	150,000	(68,000)	3000 (20.7)	260 (21.79)
	SPH 1250	332.0 (101.2)	16 (0.4)	24 (7.3)	150,000	(68,000)	3750 (26.5)	530 (3.66)
	SPH 1500	337.0 (102.7)	16 (0.4)	25 (7.6)	150,000	(68,000)	4500 (31.0)	850 (5.86)
	SPH 2000	349.0 (106.4)	15 (0.4)	26 (7.9)	150,000	(68,000)	5000 (35.0)	2000 (13.79)
7 <sup>3</sup> / <sub>4</sub> (195)	SPH 1000	414.5 (126.3)	13 (0.3)	24 (7.3)	230,000	(105,000)	2500 (17.2)	270 (1.86)
	SPH 1250	421.5 (128.5)	13 (0.3)	25 (7.6)	230,000	(105,000)	3150 (21.7)	520 (3.59)
	SPH 1500	428.5 (130.6)	13 (0.3)	26 (7.9)	230,000	(105,000)	3700 (25.5)	870 (6.00)
	SPH 1800	437.5 (133.3)	12 (0.3)	27 (8.2)	230,000	(105,000)	4500 (31.0)	1490 (10.28)
8 (200)	SPH 300	433.0 (132.0)	12 (0.3)	20 (6.1)	250,000	(113,400)	900 (6.21)	20 (0.14)
	SPH 500	438.0 (133.5)	12 (0.3)	22 (6.7)	250,000	(113,400)	1250 (8.60)	50 (0.34)
	SPH 800	444.0 (135.3)	12 (0.3)	24 (7.3)	250,000	(113,400)	2000 (13.7)	130 (0.90)
	SPH 1000	450.0 (137.2)	12 (0.3)	25 (7.6)	250,000	(113,400)	2500 (17.2)	260 (1.79)
	SPH 1250	458.0 (139.6)	12 (0.3)	26 (7.9)	250,000	(113,400)	3150 (21.7)	520 (3.59)
10 (250)	SPH 300	499.0 (152.1)	11 (0.3)	22 (6.7)	290,000	(131,457)	900 (6.21)	10 (0.07)
	SPH 500	503.0 (153.3)	11 (0.3)	24 (7.3)	290,000	(131,457)	1250 (8.60)	30 (0.21)
	SPH 800	513.0 (156.4)	11 (0.3)	26 (7.9)	290,000	(131,457)	2000 (13.7)	140 (0.97)

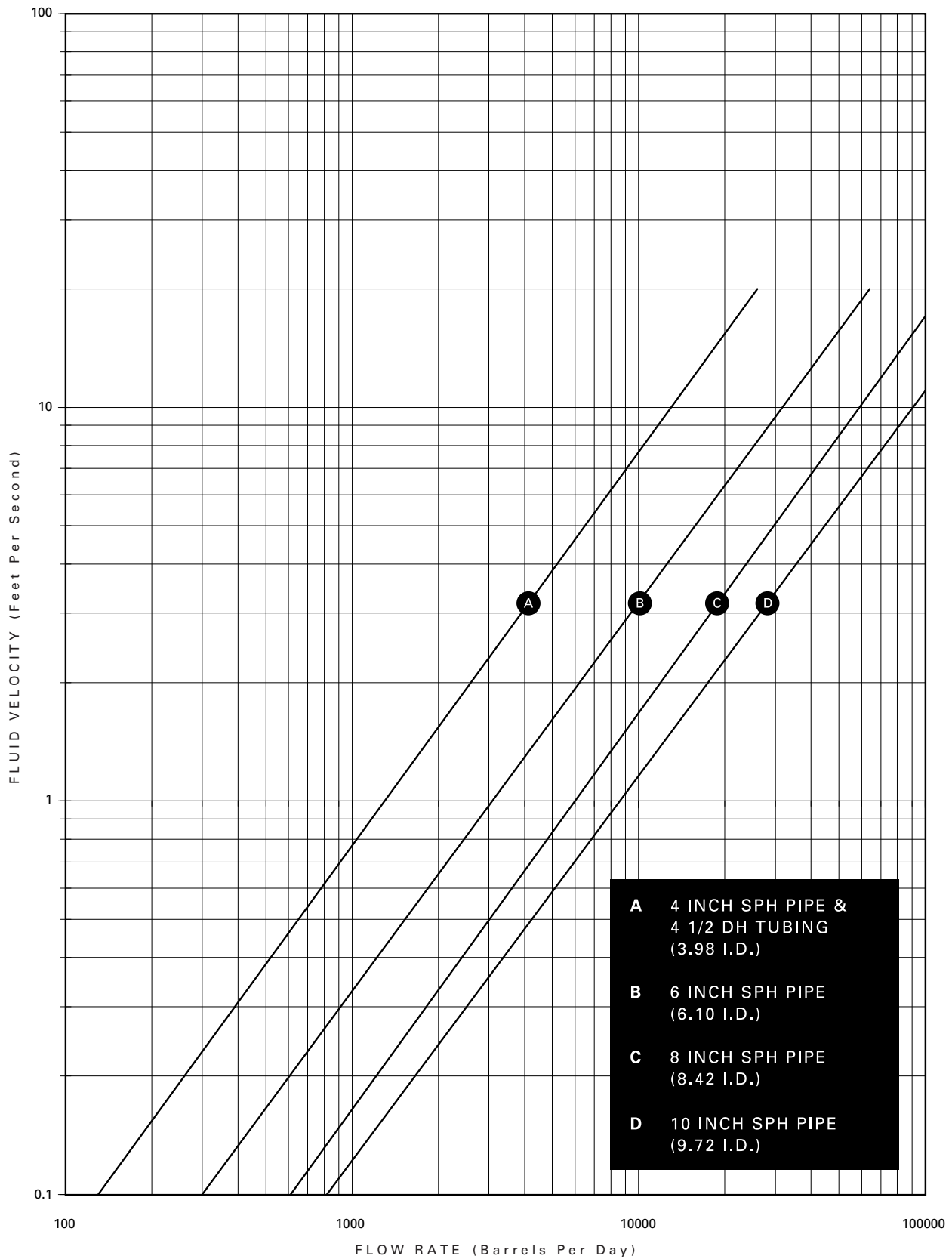
1. Unrestrained across the joint strength



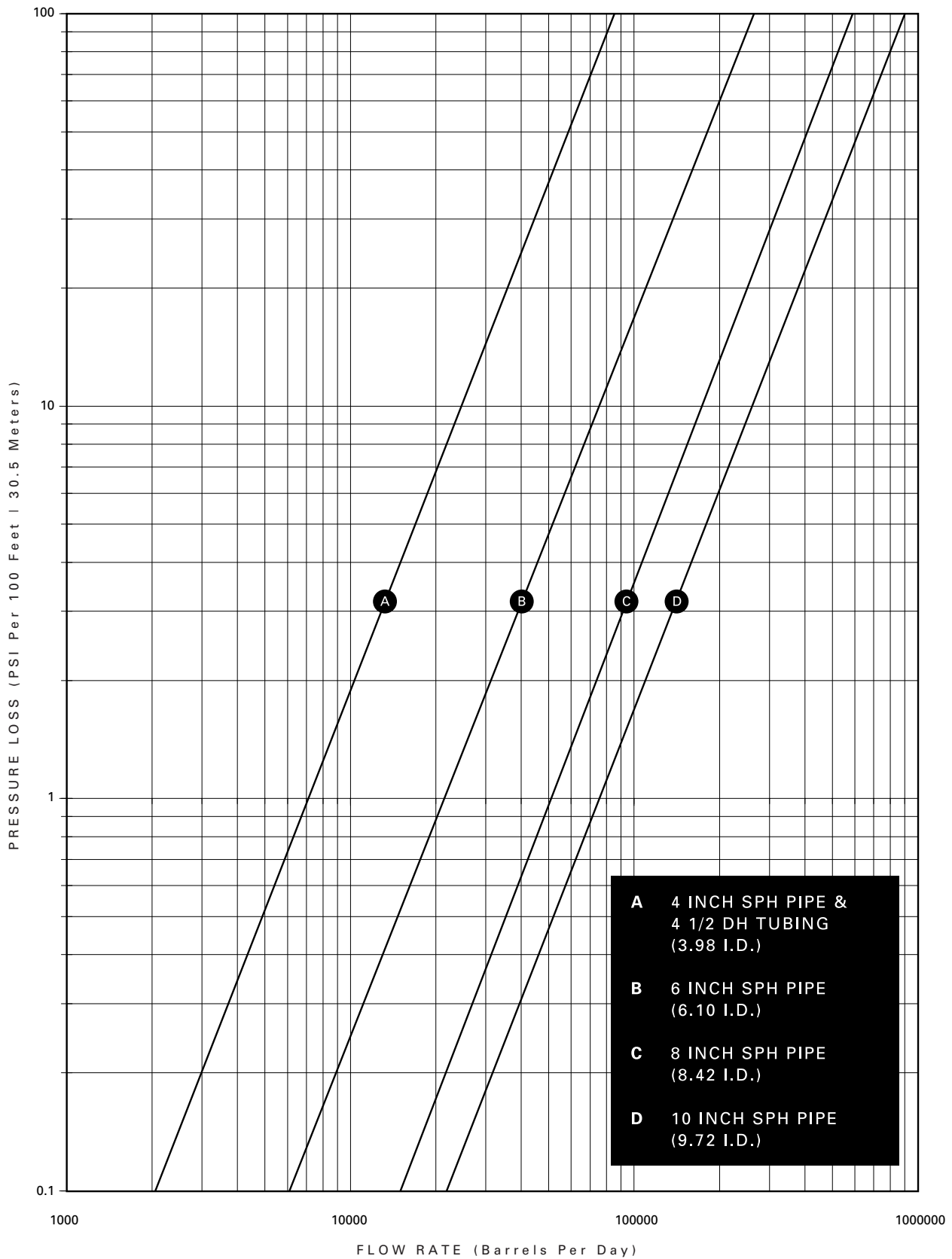
Detail

<i>Mill Test Pressure:</i>	Operating Pressure x 1.25
<i>Axial Modulus of Elasticity:</i>	1.85 x 10 <sup>6</sup> PSI (1.27 x 10 <sup>4</sup> MPa)
<i>Hoop Modulus of Elasticity:</i>	3.00 x 10 <sup>6</sup> PSI (2.05 x 10 <sup>4</sup> MPa)
<i>Density:</i>	0.07 lbs/in <sup>3</sup> (Sp. Gr. = 1.95)
<i>Coefficient of Thermal Expansion:</i>	1.0 x 10 <sup>-5</sup> in/in/°F (1.8 x 10 <sup>-5</sup> m/m/°C)
<i>Hazen-Williams Flow Factor:</i>	150
<i>Poissons Ratio (Hoop/Tensile):</i>	.60
<i>Poissons Ratio (Axial Tensile):</i>	.45

INTEGRAL JOINT SURFACE PIPE AND TUBING

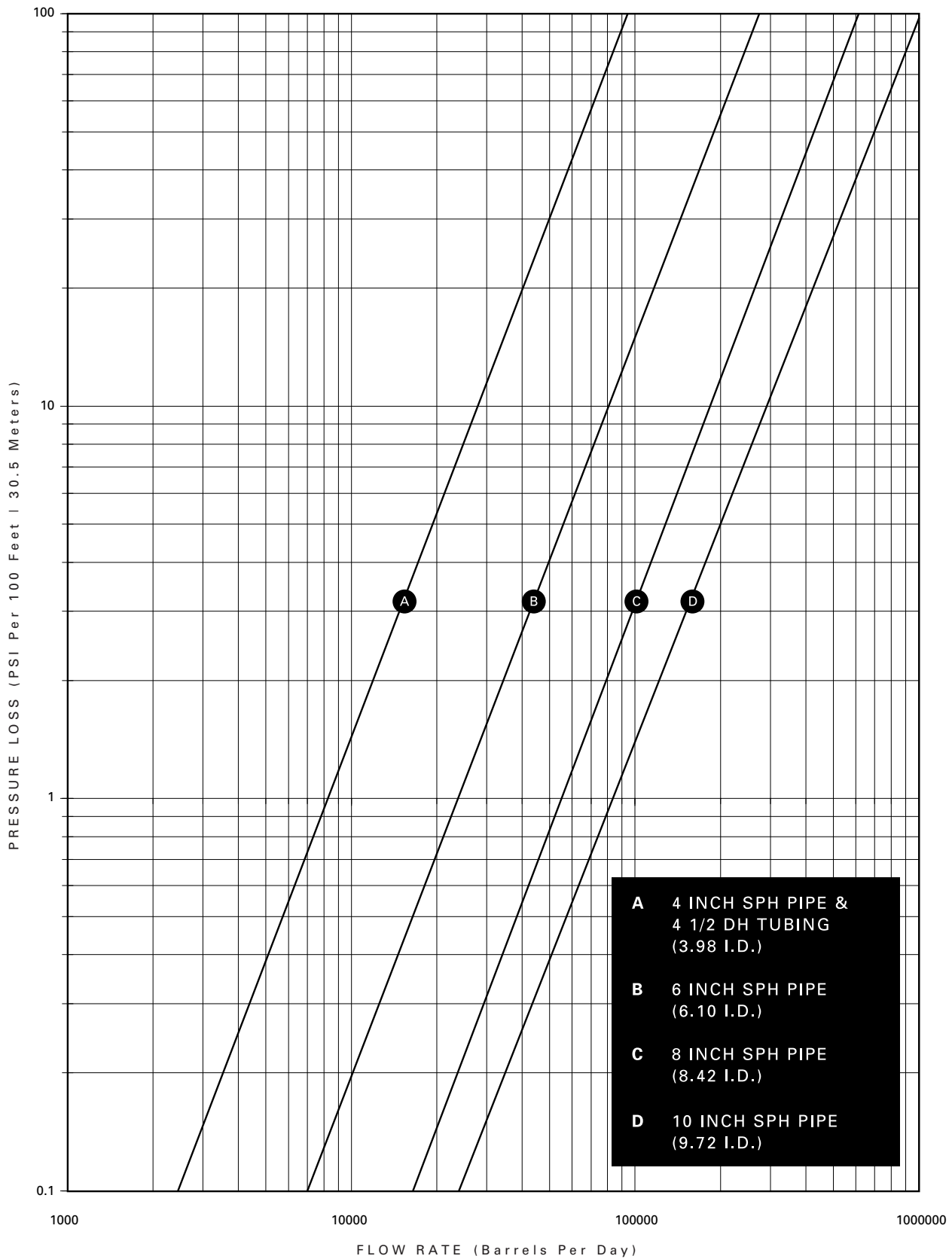


INTEGRAL JOINT SURFACE PIPE

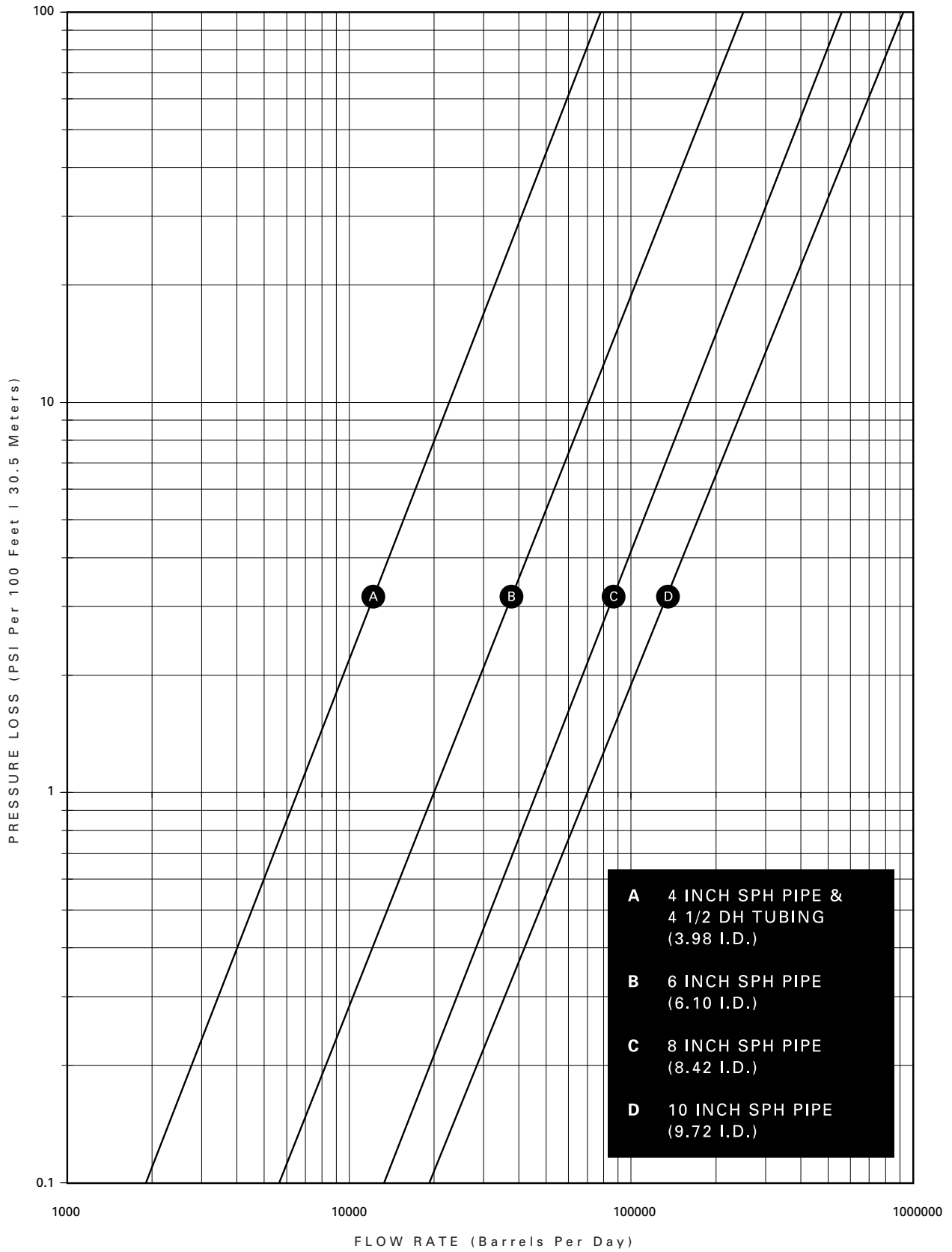


- A** 4 INCH SPH PIPE & 4 1/2 DH TUBING (3.98 I.D.)
- B** 6 INCH SPH PIPE (6.10 I.D.)
- C** 8 INCH SPH PIPE (8.42 I.D.)
- D** 10 INCH SPH PIPE (9.72 I.D.)

INTEGRAL JOINT SURFACE PIPE



INTEGRAL JOINT SURFACE PIPE



APPROXIMATE LENGTHS ADDED FOR COMMON FITTINGS WHEN CALCULATING PRESSURE DROP IN SURFACE PIPE

Centron Fitting	Surface Pipe Size					
	1 <sup>1</sup> / <sub>2</sub> Feet (M)	2 <sup>3</sup> / <sub>8</sub> Feet (M)	2 <sup>7</sup> / <sub>8</sub> Feet (M)	3 <sup>1</sup> / <sub>2</sub> Feet (M)	4 <sup>1</sup> / <sub>2</sub> Feet (M)	6 Feet (M)
<b>45° ELBOW</b>	2 (0.6)	4 (1.2)	5 (1.5)	6.5 (2.0)	8 (2.4)	12 (3.7)
<b>90° ELBOW</b>	5 (1.5)	8 (2.4)	9.5 (3.0)	12 (3.7)	16 (4.9)	28 (8.5)
<b>TEE-RUN</b>	1 (0.3)	1.5 (0.5)	2.0 (0.6)	2.5 (0.8)	3 (0.9)	4.5 (1.4)
<b>TEE-BRANCH</b>	7 (2.1)	13 (4.0)	16 (4.9)	18 (5.5)	25 (7.6)	37 (11.3)
<b>REDUCER SIZE DOWN</b>	1 (0.3)	1.3 (0.4)	1.8 (0.6)	2.1 (0.6)	3 (0.9)	3.5 (1.1)