

Table 7. DriscoPlex® 4000/4100 Minimum Bend Radius

DriscoPlex® 4000/4100 Minimum Bend Radius													
4100 IPS Size (in)	Minimum Bend Radius (ft)			Length of Pipe Required to Make a 90° Bend (ft)			4000 DIPS Size (in)	Minimum Bend Radius (ft)			Length of Pipe Required to Make a 90° Bend (ft)		
	DR 9	DR 11 DR 13.5	DR 17 DR 21	DR 9	DR 11 DR 13.5	DR 17 DR 21		DR 9	DR 11 DR 14.3	DR 21	DR 9	DR 11 DR 14.3	DR 21
2	4.0	4.9	5.3	6.2	7.8	8.4	---		---	---		---	---
3	5.8	7.3	7.9	9.2	11.5	12.4	---		---	---		---	---
4	7.5	9.4	10.1	11.8	14.7	15.9	4	8.0	10.0	10.8	12.6	15.7	17.0
6	11.0	13.8	14.9	17.3	21.7	23.4	6	11.5	14.4	15.5	18.1	22.6	24.4
8	14.4	18.0	19.4	22.6	28.2	30.5	8	15.1	18.9	20.4	23.7	29.6	32.0
10	17.9	22.4	24.2	28.1	35.2	38.0	10	18.5	23.1	25.0	29.1	36.3	39.2
12	21.3	26.6	28.7	33.4	41.7	45.1	12	22.0	27.5	29.7	34.6	43.2	46.7
14	23.3	29.2	31.5	36.7	45.8	49.5	14	25.5	31.9	34.4	40.1	50.1	54.1
16	26.7	33.3	36.0	41.9	52.4	56.5	16	29.0	36.3	39.2	45.6	56.9	61.5
18	30.0	37.5	40.5	47.1	58.9	63.6	18	32.5	40.6	43.9	51.1	63.8	68.9
20	33.3	41.7	45.0	52.4	65.5	70.7	20	36.0	45.0	48.6	56.5	70.7	76.3
22	36.7	45.8	49.5	57.6	72.0	77.8	---		---	---		---	---
24	40.0	50.0	54.0	62.8	78.5	84.8	24	43.0	53.8	58.1	67.5	84.4	91.2
28	46.7	58.3	63.0	73.3	91.6	99.0	---		---	---		---	---
30	50.0	62.5	67.5	78.5	98.2	106.0	30		66.7	72.0		104.7	113.1
32		66.7	72.0		104.7	113.1	---		---	---		---	---
34		70.8	76.5		111.3	120.2	---		---	---		---	---
36		75.0	81.0		117.8	127.2	36		79.8	86.2		125.3	135.4
42		87.5	94.5		137.4	148.4	42		92.7	100.1		145.6	157.3
48			108.0			169.6	---		---	---		---	---
54			121.5			190.9	---		---	---		---	---

When fittings or flanges are present the bend radius is normally taken as 100 times the pipe diameter.

Table 8. Safe Pull Strength for DriscoPlex® 4000/4100

Safe Pull Strength for DriscoPlex® 4000/4100 (PE4710)										
4100 IPS Nom. Size (in)	Safe Pull Strength (lbs)					4000 DIPS Nom. Size (in)	Safe Pull Strength (lbs)			
	DR 9	DR 11	DR 13.5	DR 17	DR 21		DR 9	DR 11	DR 14.3	DR 21
2	2,275	1,904	1,580	1,275	1,045	--	--	--	--	--
3	4,941	4,135	3,431	2,770	2,269	--	--	--	--	-
4	8,168	6,835	5,672	4,579	3,751	4	9,294	7,777	6,120	4,267
6	17,704	14,814	12,294	9,924	8,129	6	19,204	16,070	12,647	8,818
8	30,007	25,109	20,838	16,820	13,779	8	33,037	27,644	21,756	15,170
10	46,614	39,005	32,371	26,130	21,404	10	49,699	41,587	32,728	22,821
12	65,572	54,869	45,536	36,757	30,110	12	70,282	58,811	46,283	32,273
14	79,060	66,155	54,903	44,317	36,303	14	94,424	79,012	62,181	43,358
16	103,262	86,407	71,709	57,884	47,416	16	122,123	102,190	80,422	56,077
18	130,691	109,359	90,757	73,259	60,011	18	153,380	128,345	101,005	70,430
20	161,346	135,011	112,046	90,443	74,088	20	188,194	157,477	123,931	86,416
22	195,229	163,363	135,576	109,436	89,646	--	--	--	--	--
24	232,339	194,416	161,346	130,238	106,686	24	268,496	224,672	176,813	123,289
28	316,239	264,621	219,610	177,269	145,212	--	--	--	--	--
30	363,029	303,775	252,104	203,497	166,697	30	--	345,628	272,003	189,664
32	--	345,628	286,838	231,535	189,664	--	--	--	--	--
34	--	390,182	323,813	261,381	214,113	--	--	--	--	--
36	--	437,435	363,029	293,036	240,044	36	--	410,898	389,647	271,696
42	--	--	494,123	398,855	326,726	42	--	--	526,010	366,780
48	--	--	--	520,953	426,745	--	--	--	--	--
54	--	--	--	--	540,099	--	--	--	--	--

Table 9. AWWA M-55 Minimum and Maximum Depths without doing calculations

AWWA M-55 Design Window	
DriscoPlex® 4000/4100 Pipe DR7.3 through DR21	
Minimum Cover Depth with no surface load	2 feet
Minimum Cover Depth with H2O truck load	3 feet
Maximum Cover Depth	25 feet
Requirements	
Minimum E' of native soil of 1000 psi. Maximum backfill weight of 120 pcf. No water above ground surface. Granular embedment soil around pipe with a minimum density of 85% Standard Proctor. Pipe installed per ASTM D2774 and PP-901.	

Table 10. DriscoPlex® 4000/4100 Collapse Resistance (Vacuum Resistance)

DriscoPlex® 4000/4100 External Pressure Resistance PE4710									
Service Temperature	Pipe DR	External Differential Pressure or Vacuum Resistance 3% ovality with 2:1 safety factor¹ (psi)							
		50 yr	10 yr	1 yr	1000 hr	100 hr	10 hr	0.5 hr	Short-Term
<i>Modulus Value (psi)</i>		<i>29000</i>	<i>34000</i>	<i>40000</i>	<i>46000</i>	<i>55000</i>	<i>65000</i>	<i>82000</i>	<i>130000</i>
73°F	9	54.0	63.3	74.5	85.6	102.4	121.0	152.6	242.0
	11	27.6	32.4	38.1	43.8	52.4	61.9	78.1	123.9
	13.5	14.1	16.6	19.5	22.4	26.8	31.7	40.0	63.4
	14.3	11.7	13.8	16.2	18.6	22.3	26.3	33.2	52.7
	17	6.7	7.9	9.3	10.7	12.8	15.1	19.1	30.2
	21	3.5	4.1	4.8	5.5	6.6	7.7	9.8	15.5
120°F	9	31.3	36.7	43.2	49.7	59.4	70.2	88.5	140.3
	11	16.0	18.8	22.1	25.4	30.4	35.9	45.3	71.9
	13.5	8.2	9.6	11.3	13.0	15.6	18.4	23.2	36.8
	14.3	6.8	8.0	9.4	10.8	12.9	15.3	19.3	30.5
	17	3.9	4.6	5.4	6.2	7.4	8.8	11.1	17.5
	21	2.0	2.3	2.8	3.2	3.8	4.5	5.7	9.0

¹Gray shading indicates value equals or exceeds full vacuum of 14.7 psi.