

Table 82.40-4
MAXIMUM ALLOWABLE LOAD FOR COPPER TUBE—TYPE K, ASTM B88

Pressure Loss Due to Friction (in lbs. per 100 ft. of length)	Pipe Diameter (in inches)																								
	1/2"		3/4"		1"		1-1/4"		1-1/2"		2"		2-1/2"		3"		4"								
	G P M	WSFU FM	G P M	WSFU FM	G P M	WSFU FM	G P M	WSFU FM	G P M	WSFU FM	G P M	WSFU FM	G P M	WSFU FM	G P M	WSFU FM	G P M	WSFU FM							
0.5	—	—	0.5	—	3.0	—	3.0	—	6.0	—	12.0	—	18.0	—	31.0	—	51.0	—	132	—	230	—	300	—	425
1	—	—	2.0	—	4.0	—	4.0	—	10.0	—	18.0	—	27.0	—	48.0	—	75.0	—	128	—	250	—	300	—	425
2	—	—	3.0	—	6.5	—	6.5	—	8.0	—	12.0	—	17.0	—	39.0	—	50.0	—	108	—	225	—	300	—	425
3	1.0	—	4.0	—	8.0	—	8.0	—	10.0	—	15.0	—	22.0	—	50.0	—	65.0	—	128	—	250	—	300	—	425
4	1.5	—	4.0	—	9.0	—	9.0	—	12.0	—	17.0	—	25.0	—	56.0	—	73.0	—	154	—	375	—	450	—	695
5	2.0	—	5.0	—	11.0	—	11.0	—	15.0	—	19.0	—	28.5	—	65.0	—	85.0	—	200	—	450	—	580	—	1630
6	2.0	—	5.5	—	12.0	—	12.0	—	17.0	—	21.0	—	32.0	—	70.0	—	90.0	—	200	—	450	—	580	—	1630
7	2.5	—	6.0	—	13.0	—	13.0	—	18.0	—	23.0	—	38.0	—	73.0	—	95.0	—	240	—	500	—	620	—	1630
8	2.5	—	6.5	—	14.0	—	14.0	—	20.0	—	25.0	—	43.0	—	80.0	—	100	—	245	—	500	—	620	—	1630
9	3.0	—	7.0	—	15.0	—	15.0	—	22.0	—	27.0	—	47.0	—	85.0	—	115	—	245	—	500	—	620	—	1630
10	3.0	—	7.5	—	16.0	—	16.0	—	23.0	—	28.0	—	50.0	—	90.0	—	115	—	245	—	500	—	620	—	1630
11	3.0	—	7.5	—	17.0	—	17.0	—	25.0	—	30.0	—	55.0	—	108	—	NP	—	NP	—	NP	—	NP	—	NP
12	3.5	—	8.0	—	18.0	—	18.0	—	27.0	—	33.0	—	60.0	—	120	—	NP	—	NP	—	NP	—	NP	—	NP
13	3.5	—	8.5	—	19.0	—	19.0	—	30.0	—	36.0	—	65.0	—	120	—	NP	—	NP	—	NP	—	NP	—	NP
14	3.5	—	9.0	—	20.0	—	20.0	—	33.0	—	40.0	—	70.0	—	120	—	NP	—	NP	—	NP	—	NP	—	NP
15	3.5	—	9.0	—	20.0	—	20.0	—	36.0	—	42.0	—	75.0	—	120	—	NP	—	NP	—	NP	—	NP	—	NP
16	3.5	—	9.5	—	21.0	—	21.0	—	39.0	—	45.0	—	80.0	—	120	—	NP	—	NP	—	NP	—	NP	—	NP
17	4.0	—	9.5	—	22.0	—	22.0	—	42.0	—	48.0	—	85.0	—	120	—	NP	—	NP	—	NP	—	NP	—	NP
18	4.0	—	10.0	—	23.0	—	23.0	—	45.0	—	50.0	—	90.0	—	120	—	NP	—	NP	—	NP	—	NP	—	NP
19	4.0	—	10.5	—	24.0	—	24.0	—	48.0	—	55.0	—	95.0	—	120	—	NP	—	NP	—	NP	—	NP	—	NP
20	4.0	—	11.0	—	25.0	—	25.0	—	50.0	—	60.0	—	100.0	—	120	—	NP	—	NP	—	NP	—	NP	—	NP
21	4.5	—	5.0	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP
22	4.5	—	5.0	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP
23	4.5	—	5.0	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP
24	4.5	—	5.0	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP
25	5.0	—	6.0	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP
26	5.0	—	6.0	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP
27	5.0	—	6.0	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP
28	5.0	—	6.0	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP
29	5.5	—	6.5	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP
30	5.5	—	6.5	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP	—	NP

Notes:
 WSFU means water supply fixture units.
 GPM means gallons per minute.
 FM means predominately flushometer type water closets or syphon jet urinals.
 FT means predominately flush tank type water closets or washdown urinals.
 NP means not permitted, velocities exceed 8 feet per second.
 For using this table, round the calculated pressure loss due to friction to the next higher number shown.
 Comm 82.40 (7) (f) and (g) specifies minimum sizes for water distribution piping.

Table 82.40-5
MAXIMUM ALLOWABLE LOAD FOR COPPER TUBE—TYPE L, ASTM B88

Pressure Loss Due to Friction (in lbs. per 100 ft. of length)	Pipe Diameter (in inches)																																	
	1/2"		3/4"		1"		1-1/4"		1-1/2"		2"		2-1/2"		3"		4"																	
	G P M	WSFU FM FT	G P M	WSFU FM FT	G P M	WSFU FM FT	G P M	WSFU FM FT	G P M	WSFU FM FT	G P M	WSFU FM FT	G P M	WSFU FM FT	G P M	WSFU FM FT	G P M	WSFU FM FT																
0.5	—	—	1.0	—	1.0	—	3.0	—	3.0	—	7.0	—	12.0	19.0	6.0	28.5	34.0	19.0	67.0	54.0	112	112	144	144	164	164	240	240	315	315	435	435	715	715
1	—	—	2.5	—	2.5	—	5.0	—	5.0	—	10.0	—	18.0	28.0	11.0	50.0	50.0	48.0	128	128	164	164	240	240	315	315	450	450	605	605	700	700	1540	1540
2	0.5	—	3.5	—	3.5	—	7.0	—	7.0	—	17.0	—	24.0	40.0	13.0	80.0	80.0	77.0	192	192	240	240	325	325	450	450	605	605	700	700	700	700	700	700
3	1.5	—	4.5	—	4.5	—	9.0	—	9.0	—	22.0	—	24.0	40.0	13.0	80.0	80.0	77.0	192	192	240	240	325	325	450	450	605	605	700	700	700	700	700	700
4	2.0	—	5.0	—	5.0	—	10.0	—	10.0	—	27.0	—	29.0	45.0	14.0	90.0	90.0	87.0	210	210	270	270	365	365	475	475	605	605	700	700	700	700	700	700
5	2.0	—	5.5	—	5.5	—	12.0	—	12.0	—	32.0	—	33.0	50.0	15.0	100.0	100.0	97.0	230	230	300	300	365	365	475	475	605	605	700	700	700	700	700	700
6	2.5	—	6.5	—	6.5	—	13.0	—	13.0	—	38.0	—	36.0	55.0	16.0	110.0	110.0	107.0	250	250	330	330	400	400	475	475	605	605	700	700	700	700	700	700
7	2.5	—	7.0	—	7.0	—	14.0	—	14.0	—	43.0	—	39.0	60.0	17.0	120.0	120.0	117.0	270	270	360	360	425	425	500	500	605	605	700	700	700	700	700	700
8	3.0	—	7.5	—	7.5	—	15.0	—	15.0	—	48.0	—	42.0	65.0	18.0	130.0	130.0	127.0	290	290	390	390	460	460	550	550	605	605	700	700	700	700	700	700
9	3.0	—	8.0	—	8.0	—	16.0	—	16.0	—	53.0	—	45.0	70.0	19.0	140.0	140.0	137.0	310	310	420	420	500	500	600	600	605	605	700	700	700	700	700	700
10	3.0	—	8.5	—	8.5	—	17.0	—	17.0	—	58.0	—	48.0	75.0	20.0	150.0	150.0	147.0	330	330	450	450	550	550	600	600	605	605	700	700	700	700	700	700
11	3.5	—	9.0	—	9.0	—	18.0	—	18.0	—	63.0	—	51.0	80.0	21.0	160.0	160.0	157.0	350	350	480	480	600	600	600	600	605	605	700	700	700	700	700	700
12	3.5	—	9.5	—	9.5	—	19.0	—	19.0	—	68.0	—	54.0	85.0	22.0	170.0	170.0	167.0	370	370	510	510	600	600	600	600	605	605	700	700	700	700	700	700
13	3.5	—	10.0	—	10.0	—	20.0	—	20.0	—	73.0	—	57.0	90.0	23.0	180.0	180.0	177.0	390	390	540	540	600	600	600	600	605	605	700	700	700	700	700	700
14	4.0	—	10.5	—	10.5	—	21.0	—	21.0	—	78.0	—	60.0	95.0	24.0	190.0	190.0	187.0	410	410	570	570	600	600	600	600	605	605	700	700	700	700	700	700
15	4.0	—	11.0	—	11.0	—	22.0	—	22.0	—	83.0	—	63.0	100.0	25.0	200.0	200.0	197.0	430	430	600	600	600	600	600	600	605	605	700	700	700	700	700	700
16	4.0	—	11.5	—	11.5	—	23.0	—	23.0	—	88.0	—	66.0	105.0	26.0	210.0	210.0	207.0	450	450	630	630	600	600	600	600	605	605	700	700	700	700	700	700
17	4.5	—	12.0	—	12.0	—	24.0	—	24.0	—	93.0	—	69.0	110.0	27.0	220.0	220.0	217.0	470	470	660	660	600	600	600	600	605	605	700	700	700	700	700	700
18	4.5	—	12.5	—	12.5	—	25.0	—	25.0	—	98.0	—	72.0	115.0	28.0	230.0	230.0	227.0	490	490	690	690	600	600	600	600	605	605	700	700	700	700	700	700
19	4.5	—	13.0	—	13.0	—	26.0	—	26.0	—	103.0	—	75.0	120.0	29.0	240.0	240.0	237.0	510	510	720	720	600	600	600	600	605	605	700	700	700	700	700	700
20	4.5	—	13.5	—	13.5	—	27.0	—	27.0	—	108.0	—	78.0	125.0	30.0	250.0	250.0	247.0	530	530	750	750	600	600	600	600	605	605	700	700	700	700	700	700
21	5.0	—	14.0	—	14.0	—	28.0	—	28.0	—	113.0	—	81.0	130.0	31.0	260.0	260.0	257.0	550	550	780	780	600	600	600	600	605	605	700	700	700	700	700	700
22	5.0	—	14.5	—	14.5	—	29.0	—	29.0	—	118.0	—	84.0	135.0	32.0	270.0	270.0	267.0	570	570	810	810	600	600	600	600	605	605	700	700	700	700	700	700
23	5.0	—	15.0	—	15.0	—	30.0	—	30.0	—	123.0	—	87.0	140.0	33.0	280.0	280.0	277.0	590	590	840	840	600	600	600	600	605	605	700	700	700	700	700	700
24	5.0	—	15.5	—	15.5	—	31.0	—	31.0	—	128.0	—	90.0	145.0	34.0	290.0	290.0	287.0	610	610	870	870	600	600	600	600	605	605	700	700	700	700	700	700
25	5.5	—	16.0	—	16.0	—	32.0	—	32.0	—	133.0	—	93.0	150.0	35.0	300.0	300.0	297.0	630	630	900	900	600	600	600	600	605	605	700	700	700	700	700	700
26	5.5	—	16.5	—	16.5	—	33.0	—	33.0	—	138.0	—	96.0	155.0	36.0	310.0	310.0	307.0	650	650	930	930	600	600	600	600	605	605	700	700	700	700	700	700
27	5.5	—	17.0	—	17.0	—	34.0	—	34.0	—	143.0	—	99.0	160.0	37.0	320.0	320.0	317.0	670	670	960	960	600	600	600	600	605	605	700	700	700	700	700	700
28	6.0	—	17.5	—	17.5	—	35.0	—	35.0	—	148.0	—	102.0	165.0	38.0	330.0	330.0	327.0	690	690	990	990	600	600	600	600	605	605	700	700	700	700	700	700
29	6.0	—	18.0	—	18.0	—	36.0	—	36.0	—	153.0	—	105.0	170.0	39.0	340.0	340.0	337.0	710	710	1020	1020	600	600	600	600	605	605	700	700	700	700	700	700

Notes: WSFU means water supply fixture units.
 GPM means—gallons per minute.
 FM means—predominately flushometer type water closets or syphon jet urinals.
 FT means—predominately flush tank type water closets or washdown urinals.
 NP means—not permitted, velocities exceed 8 feet per second.
 For using this table, round the calculated pressure loss due to friction to the next higher number shown.
 Comm 82.40 (7) (f) and (g) specifies minimum sizes for water distribution piping.

Table 82.40-6
MAXIMUM ALLOWABLE LOAD FOR COPPER TUBE—TYPE M, ASTM B88

Pressure Loss Due to Friction (in lbs. per 100 ft. of length)	Pipe Diameter (in inches)																								
	1/2"		3/4"		1"		1-1/4"		1-1/2"		2"		2-1/2"		3"		4"								
	G P M	WSFU FT	G P M	WSFU FT	G P M	WSFU FT	G P M	WSFU FT	G P M	WSFU FT	G P M	WSFU FT	G P M	WSFU FT	G P M	WSFU FT	G P M	WSFU FT							
0.5	—	—	1.5	—	3.5	—	3.5	—	7.0	—	9.5	—	12.5	—	6.5	30.0	34.0	19.0	67.0	56.0	154	110	334	450	
1	—	—	3.0	—	6.0	—	6.0	—	12.0	—	14.0	—	20.0	—	12.0	52.0	50.0	48.0	128	80.0	148	275	160	700	750
2	1.0	—	4.0	—	7.5	—	9.5	—	18.0	—	20.0	—	30.0	—	30.0	100	75.0	128	250	120	365	475	250	1350	
3	1.5	—	5.0	—	9.5	—	12.5	—	23.0	—	25.0	—	42.0	—	53.0	136	93.0	205	340	150	555	640	280	1630	
4	2.0	—	5.5	—	11.0	—	15.0	—	28.5	—	30.0	—	55.0	—	80.0	184	110	300	425	175	740	780	NP	NP	
5	2.5	—	6.5	—	12.5	—	17.5	—	35.0	—	34.0	—	67.0	—	108	225	120	365	475	NP	NP	NP	NP	NP	
6	2.5	—	7.0	—	14.0	—	20.0	—	40.0	—	24.0	—	77.0	—	136	260	NP	NP	NP	NP	NP	NP	NP	NP	
7	3.0	—	7.5	—	15.0	—	22.0	—	45.0	—	26.0	—	87.0	—	148	275	NP	NP	NP	NP	NP	NP	NP	NP	
8	3.5	—	8.0	—	16.0	—	23.0	—	50.0	—	28.0	—	107	—	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
9	3.5	—	8.5	—	17.0	—	25.0	—	55.0	—	30.0	—	113	—	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
10	3.5	—	9.5	—	18.0	—	27.0	—	57.0	—	31.0	—	NP	—	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
11	4.0	—	10.0	—	19.0	—	28.0	—	60.0	—	32.0	—	NP	—	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
12	4.0	—	10.0	—	20.0	—	30.0	—	60.0	—	32.0	—	NP	—	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
13	4.0	—	10.5	—	21.0	—	32.0	—	60.0	—	32.0	—	NP	—	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
14	4.5	—	11.0	—	21.0	—	32.0	—	60.0	—	32.0	—	NP	—	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
15	4.5	—	11.5	—	21.0	—	32.0	—	60.0	—	32.0	—	NP	—	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
16	4.5	—	12.0	—	21.0	—	32.0	—	60.0	—	32.0	—	NP	—	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
17	5.0	—	12.5	—	21.0	—	32.0	—	60.0	—	32.0	—	NP	—	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
18	5.0	—	13.0	—	21.0	—	32.0	—	60.0	—	32.0	—	NP	—	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	
19	5.0	—	6.0	—	6.0	—	6.0	—	6.0	—	6.0	—	6.0	—	6.0	—	6.0	—	6.0	—	6.0	—	6.0	—	6.0
20	5.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5
21	5.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5
22	5.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5
23	5.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5	—	6.5
24	6.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0
25	6.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0
26	6.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0
27	6.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0	—	7.0
28	6.5	—	8.0	—	8.0	—	8.0	—	8.0	—	8.0	—	8.0	—	8.0	—	8.0	—	8.0	—	8.0	—	8.0	—	8.0

Notes:
 WSFU means water supply fixture units.
 GPM means—gallons per minute.
 FM means—predominately flushometer type water closets or syphon jet urinals.
 FT means—predominately flush tank type water closets or washdown urinals.
 NP means—not permitted, velocities exceed 8 feet per second.
 For using this table, round the calculated pressure loss due to friction to the next higher number shown.
 Comm 82.40 (7) (f) and (g) specifies minimum sizes for water distribution piping.

Table 82.40-8
 MAXIMUM ALLOWABLE LOAD FOR POLYBUTYLENE TUBING—ASTM D3309 and
 CHLORINATED POLYVINYL CHLORIDE TUBING—ASTM D2846

Pressure Loss Due to Friction (in lbs. per 100 ft. of length)	Pipe Diameter (in inches)																										
	1/2"			3/4"			1"			1-1/4"			1-1/2"			2"											
	G P M	WSFU FM FT		G P M	WSFU FM FT		G P M	WSFU FM FT		G P M	WSFU FM FT		G P M	WSFU FM FT		G P M	WSFU FM FT										
0.5	—	—	—	0.5	—	0.5	—	—	2.5	—	2.5	—	4.0	—	4.0	—	6.5	—	8.0	—	13.0	—	13.0	—	4.5	—	18.0
1	—	—	—	1.5	—	1.5	—	—	3.5	—	3.5	—	6.0	—	6.0	—	9.5	—	12.5	—	19.0	—	19.0	—	6.0	—	28.5
2	—	—	—	2.5	—	2.5	—	—	5.5	—	5.5	—	9.0	—	9.0	—	14.0	—	20.0	—	28.0	—	28.0	—	11.0	—	50.0
3	0.5	—	0.5	3.5	—	3.5	—	—	6.5	—	6.5	—	11.5	—	11.5	—	17.0	—	25.0	—	35.0	—	35.0	—	20.0	—	70.0
4	1.0	—	1.0	4.0	—	4.0	—	—	7.5	—	7.5	—	13.0	—	13.0	—	20.0	—	30.0	—	42.0	—	42.0	—	30.0	—	100
5	1.5	—	1.5	4.5	—	5.0	—	—	8.5	—	8.5	—	15.0	—	15.0	—	23.0	—	37.0	—	47.0	—	47.0	—	42.0	—	117
6	2.0	—	2.0	5.0	—	6.0	—	—	9.5	—	9.5	—	16.5	—	16.5	—	25.0	—	43.0	—	52.0	—	52.0	—	53.0	—	136
7	2.0	—	2.0	5.5	—	6.5	—	—	10.5	—	10.5	—	18.0	—	18.0	—	27.0	—	48.0	—	58.0	—	58.0	—	70.0	—	165
8	2.0	—	2.0	6.0	—	7.0	—	—	11.5	—	11.5	—	19.0	—	19.0	—	30.0	—	55.0	—	—	—	—	—	NP	—	—
9	2.5	—	2.5	6.0	—	7.0	—	—	12.0	—	12.0	—	20.5	—	20.5	—	32.0	—	60.0	—	—	—	—	—	—	—	—
10	2.5	—	2.5	6.5	—	8.0	—	—	12.5	—	12.5	—	22.0	—	22.0	—	34.0	—	67.0	—	—	—	—	—	—	—	—
11	2.5	—	2.5	7.0	—	9.0	—	—	13.5	—	13.5	—	23.0	—	23.0	—	34.0	—	NP	—	—	—	—	—	—	—	—
12	3.0	—	3.0	7.0	—	9.5	—	—	14.0	—	14.0	—	24.0	—	24.0	—	38.0	—	—	—	—	—	—	—	—	—	—
13	3.0	—	3.0	7.5	—	10.0	—	—	14.5	—	14.5	—	24.0	—	24.0	—	40.0	—	—	—	—	—	—	—	—	—	—
14	3.0	—	3.0	8.0	—	10.0	—	—	15.5	—	15.5	—	25.0	—	25.0	—	—	—	—	—	—	—	—	—	—	—	—
15	3.0	—	3.0	8.0	—	11.0	—	—	16.0	—	16.0	—	26.0	—	26.0	—	—	—	—	—	—	—	—	—	—	—	—
16	3.5	—	3.5	8.5	—	11.0	—	—	16.5	—	16.5	—	27.0	—	27.0	—	—	—	—	—	—	—	—	—	—	—	—
17	3.5	—	3.5	8.5	—	12.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18	3.5	—	3.5	9.0	—	12.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19	3.5	—	3.5	9.0	—	12.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	4.0	—	4.0	9.5	—	12.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21	4.0	—	4.0	10.0	—	13.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22	4.0	—	4.0	—	—	NP	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
23	4.0	—	4.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
24	4.0	—	4.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
25	4.0	—	4.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
26	4.0	—	4.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
27	4.5	—	4.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
28	4.5	—	4.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
29	4.5	—	4.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	5.0	—	5.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
31	5.0	—	5.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Note: WSFU means water supply fixture units.
 GM means gallons per minute.
 FM means predominately flushometer type water closets or syphon jet urinals.
 FT means predominately flush tank type water closets or washdown urinals.
 NP means not permitted, velocities exceed 8 feet per second.

For using this table, round the calculated pressure loss due to friction to the next higher number shown.

Comm 82.40 (f) and (g) specifies minimum sizes for water distribution piping.

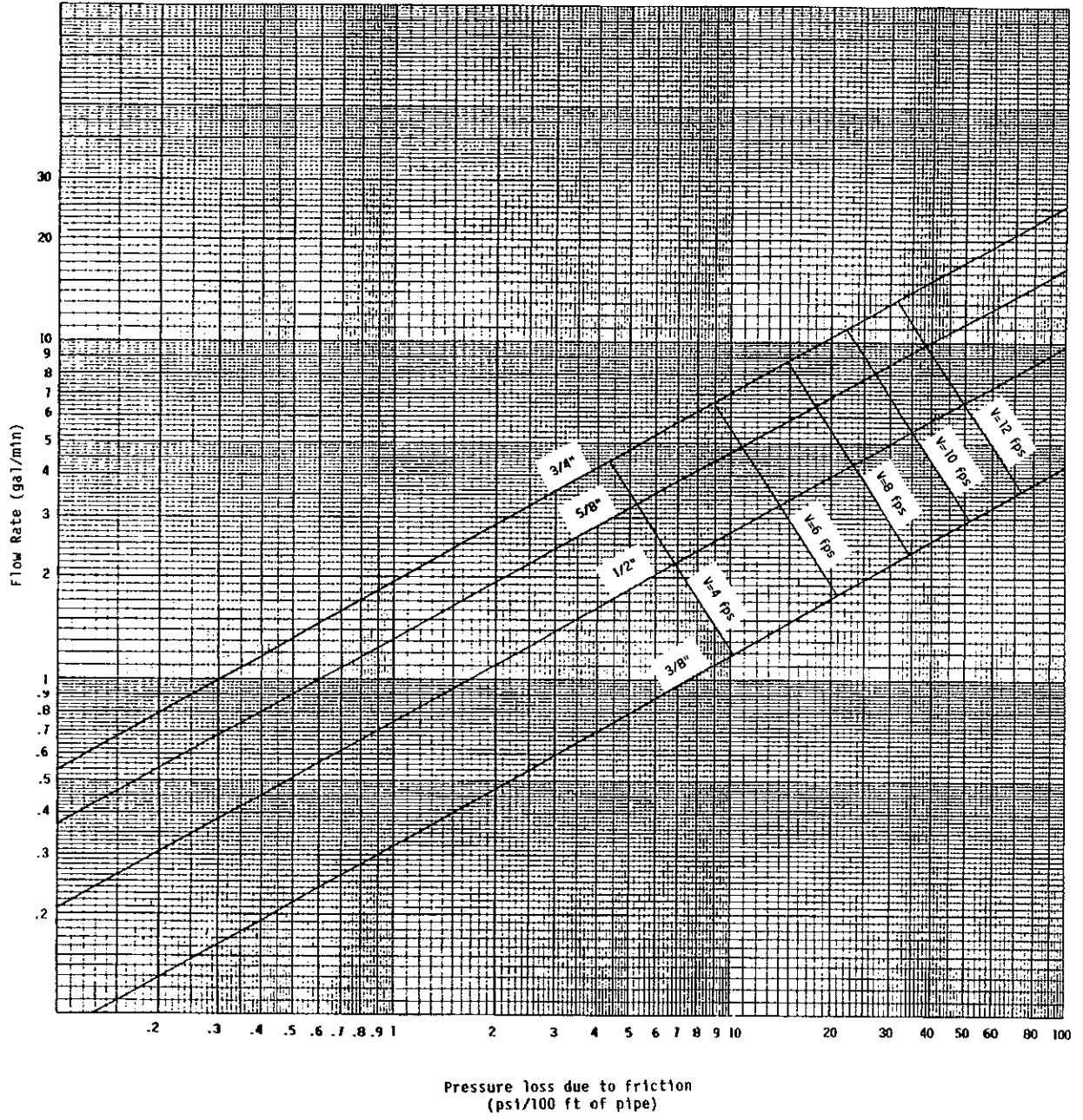
Table 82.40-9
 MAXIMUM ALLOWABLE LOAD FOR CROSSLINKED POLYETHYLENE (PEX) TUBING
 ASTM F876 and F877

Pressure Loss Due to Friction (in lbs per 100 ft. of length)	Pipe Diameter (in inches)					
	1/2"		5/8"		3/4"	
	GPM	WSFU FT	GPM	WSFU FT	GPM	WSFU FT
0.5	0.5	0.5	1.0	1.0	1.5	1.5
1.0	0.5	0.5	1.5	1.5	2.0	2.0
2.0	1.0	1.0	2.0	2.0	3.0	3.0
3.0	1.5	1.5	2.5	2.5	3.5	3.5
4.0	1.5	1.5	2.5	2.5	4.0	4.0
5.0	2.0	2.0	3.0	3.0	4.5	5.0
6.0	2.0	2.0	3.5	3.5	5.0	6.0
7.0	2.0	2.0	4.0	4.0	5.5	6.0
8.0	2.5	2.5	4.0	4.0	6.0	7.0
9.0	2.5	2.5	4.5	5.0	6.5	8.0
10.0	2.5	2.5	4.5	5.0	7.0	9.0
11.0	3.0	3.0	5.0	6.0	7.5	9.5
12.0	3.0	3.0	5.0	6.0	7.5	9.5
13.0	3.0	3.0	5.5	6.5	8.0	10.0
14.0	3.0	3.0	5.5	6.5	8.5	11.0
15.0	3.5	3.5	5.5	6.5	8.5	11.0
16.0	3.5	3.5	6.0	7.0	9.0	12.0
17.0	3.5	3.5	6.0	7.0	NP	NP
18.0	3.5	3.5	6.5	8.0		
19.0	4.0	4.0	6.5	8.0		
20.0	4.0	4.0	NP	NP		
21.0	4.0	4.0				
22.0	4.0	4.0				
23.0	4.0	4.0				
24.0	4.5	5.0				
25.0	4.5	5.0				
26.0	NP	NP				

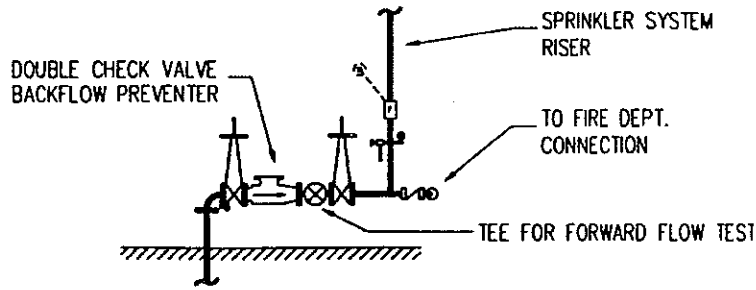
Note:
 WSFU means—water supply fixture units.
 GPM means—gallons per minute.
 FT means—predominately flush tank type water closets or washdown urinals.
 NP means—not permitted, velocities exceed eight feet per second.
 For using this table, round the calculated pressure loss due to friction to the next higher number shown.
 Comm. 82.40 (7) (f) and (g) specifies minimum sizes for water distribution piping.

History: 1-2-56; r. and recr. Register, November, 1972, No. 203, eff. 12-1-72; r. and recr. Register, February, 1979, No. 278, eff. 3-1-79; r. and recr. Register, July, 1983, No. 331, eff. 8-1-83; r. and recr. from ILHR 82.13 and r. and recr. (2) (b) and (4) (d) 1., am. (4) (c) 3. and (6) (a) (intro), cr. (6) (D), Register, February, 1985, No. 350, eff. 3-1-85; r. and recr. Register, May, 1988, No. 389, eff. 6-1-88; am. (5) (d) 5, a, r. and recr. (7) (b) 1. and (8) (c) r. and recr. (8) 2. to be (8) (b) 4. to 8. and am. (8) (b) 4. c., Register, August, 1991, No. 428, eff. 9-1-91; am. (8) (b) 1. and 2., Register, April, 1992, No. 456, eff. 5-1-92; r. and recr. (3) (c) and (8) (a) to be (3) (c) 2. and (8) (a) 1. and am. (8) (a) 1., cr. (3) (c) 1., (e), (8) (a) 2. and Table 82.40-9, am. (7) (c) r. (3) (b) 1. b. and c., Register, February, 1994, No. 458, eff. 3-1-94; r. (5) (b) 3., r. and recr. (5) (b) 4., 5. to be (5) (b) 3., 4., Register, December, 1996, No. 480, eff. 4-1-96; correction in (5) (b) 3., made under s. 13.93 (2m) (b) 7., Stats., Register, October, 1996, No. 490, r. and recr. (5) (b), Register, February, 1997, No. 494, eff. 4-1-97; reprinted to restore dropped copy, Register, April, 1997, No. 496.

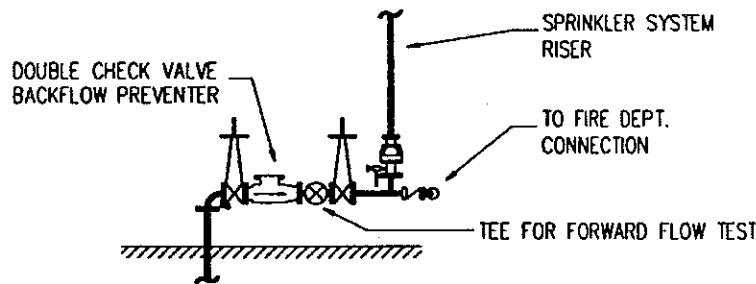
Graph A-82.40 (7)-6
Pressure losses due to flow friction
Material: Crosslinked Polyethylene (PEX) Tubing, ASTM F876



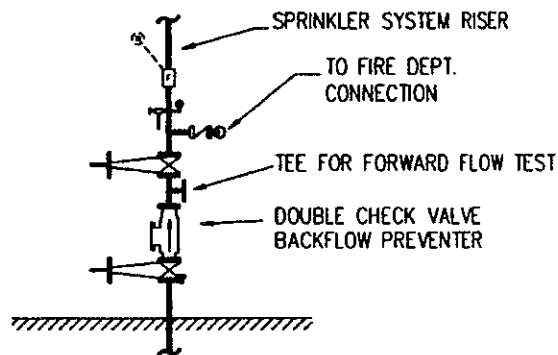
A82.41 (4) (g) 2. TEST OUTLET



SINGLE WET SYSTEM ARRANGEMENT

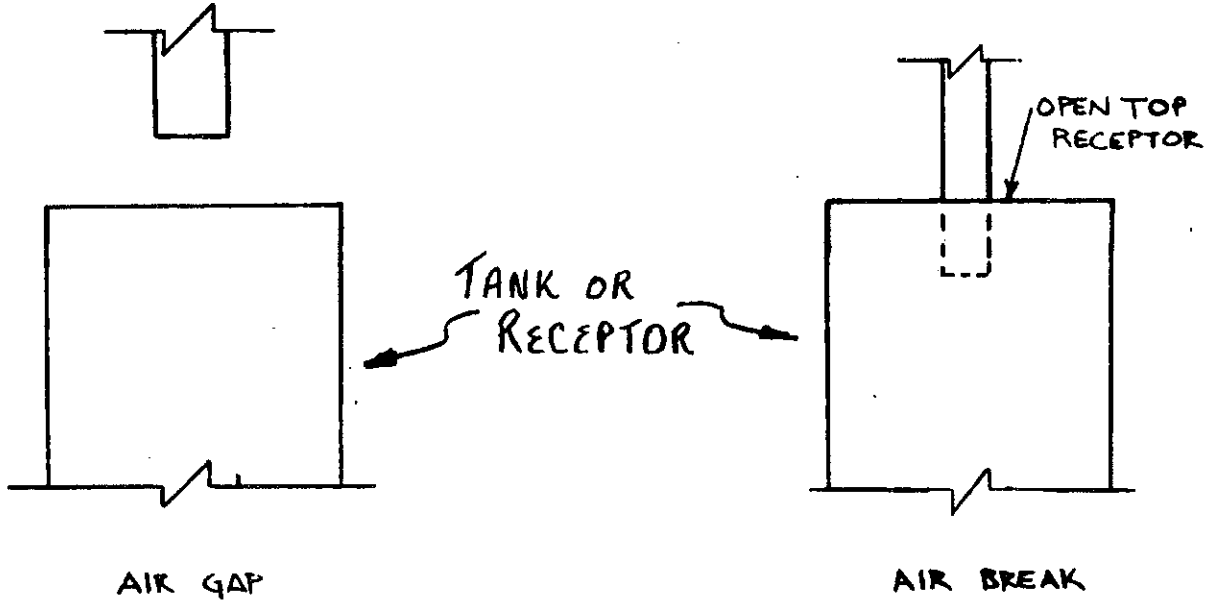


SINGLE DRY SYSTEM ARRANGEMENT



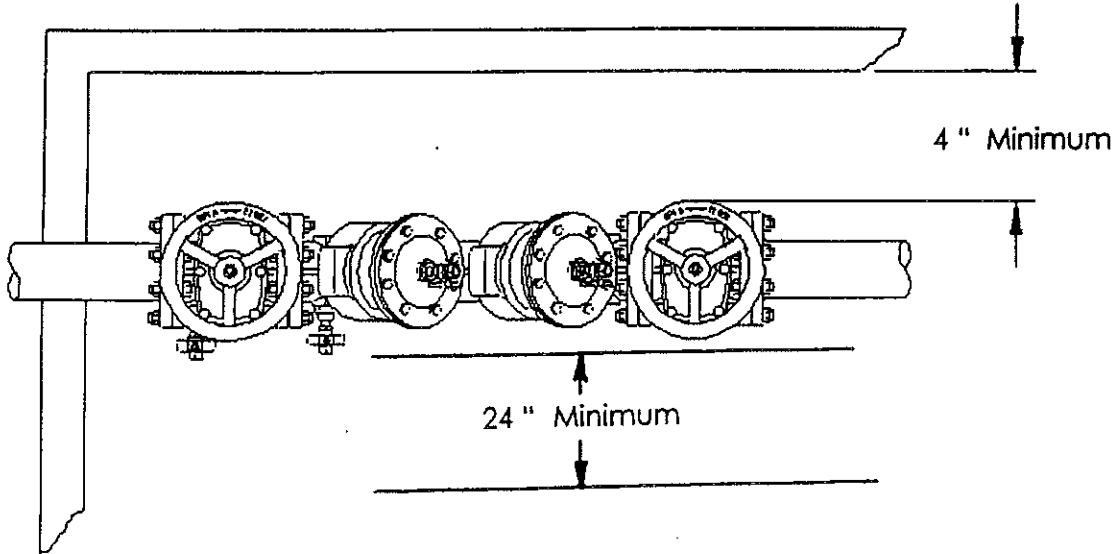
SINGLE WET SYSTEM ARRANGEMENT

A-82.41 (5) (a) AIR GAP.

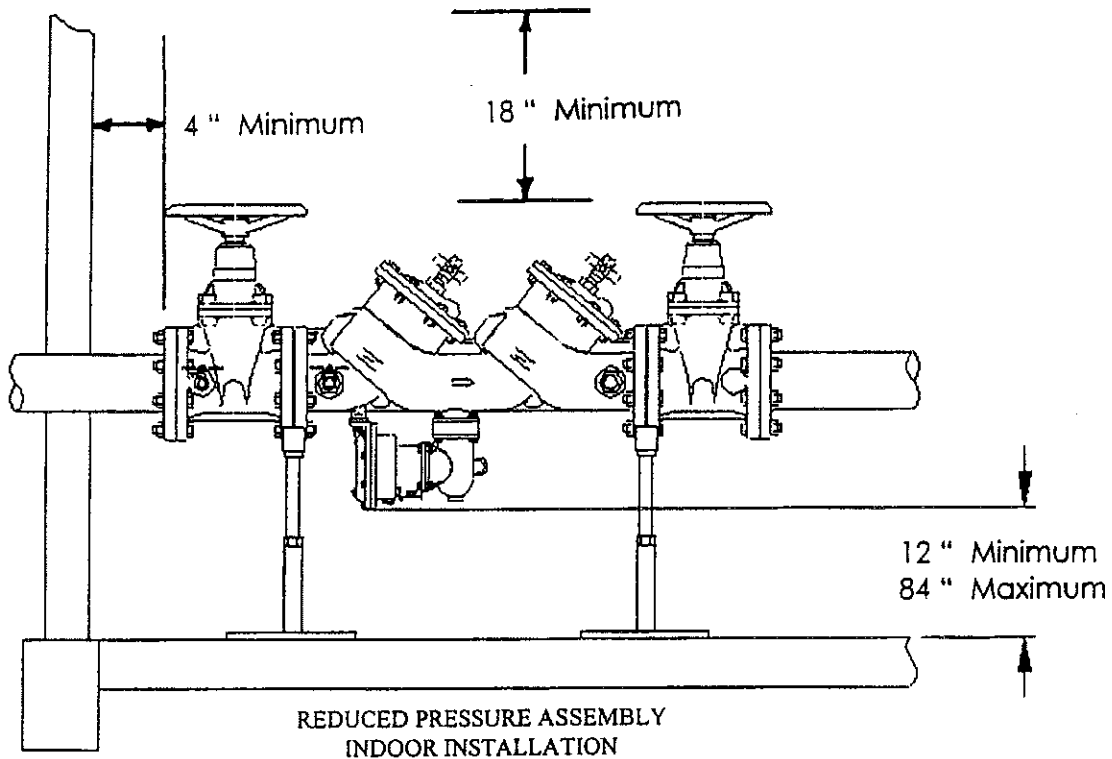


ANSI STANDARD A112.1.2 DESCRIBES OTHER ACCEPTABLE TYPES OF AIR GAPS.

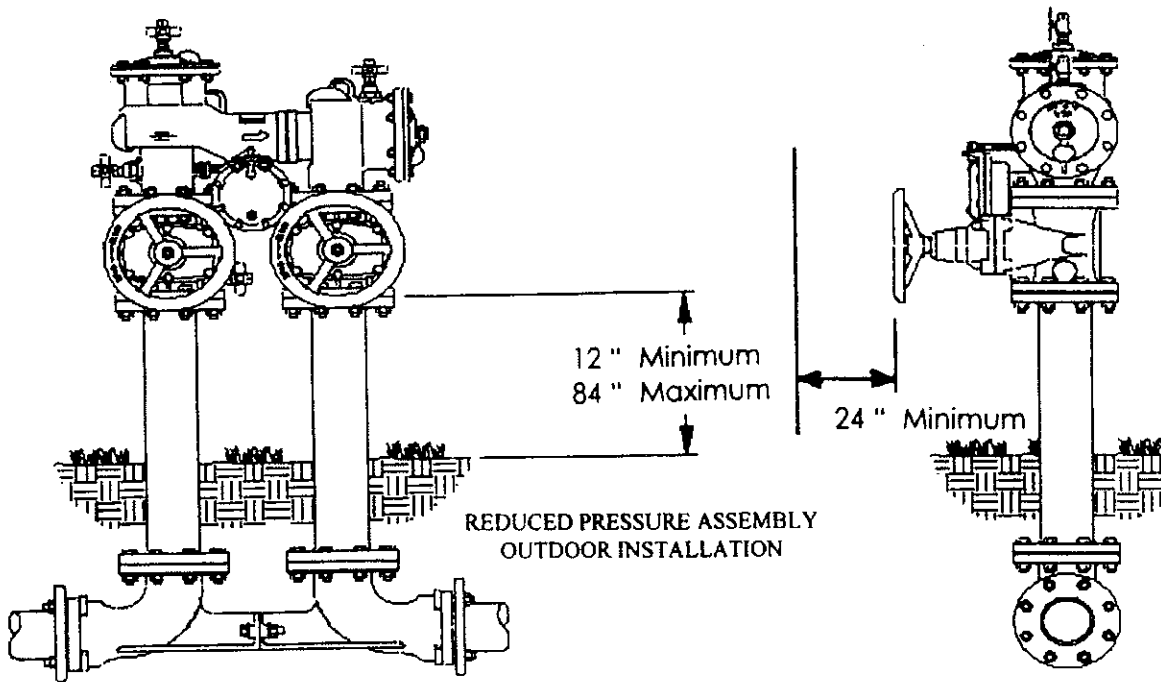
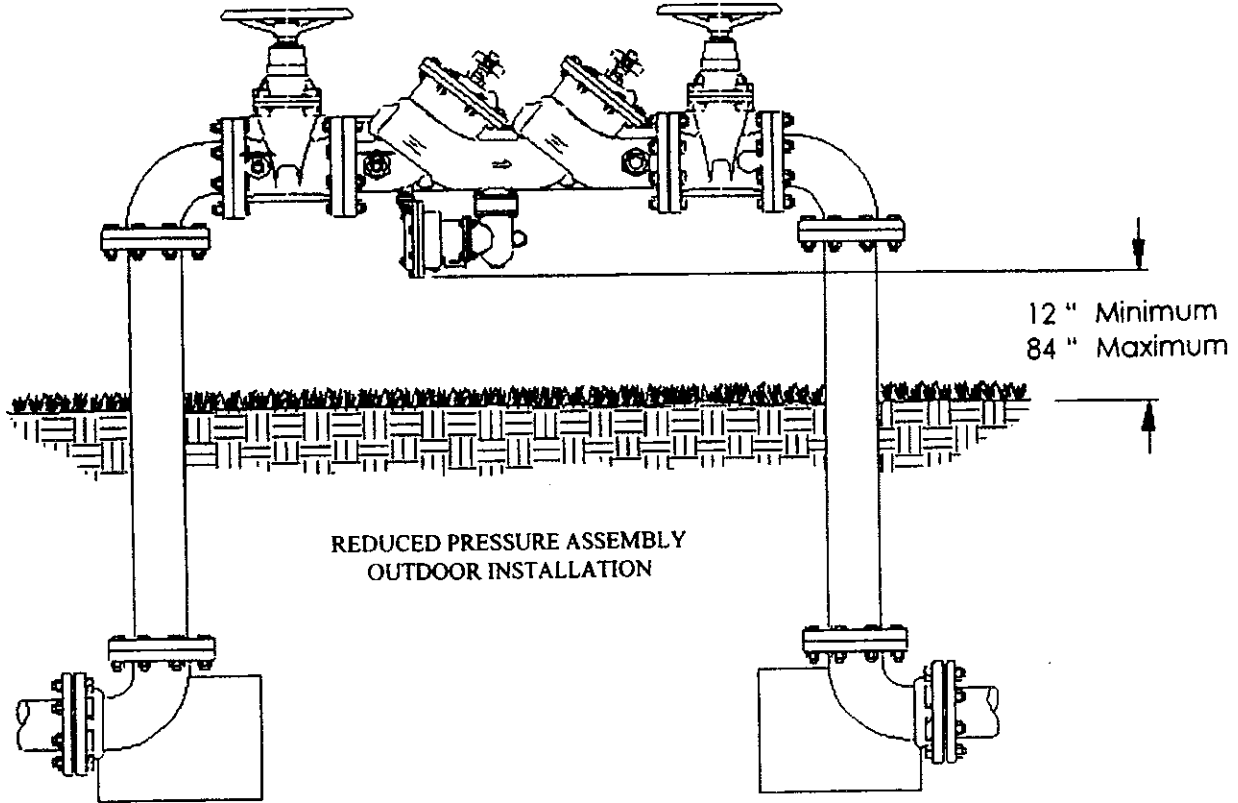
A-82.41 (5) (f) CROSS CONNECTION CONTROL DEVICE INSTALLATION.



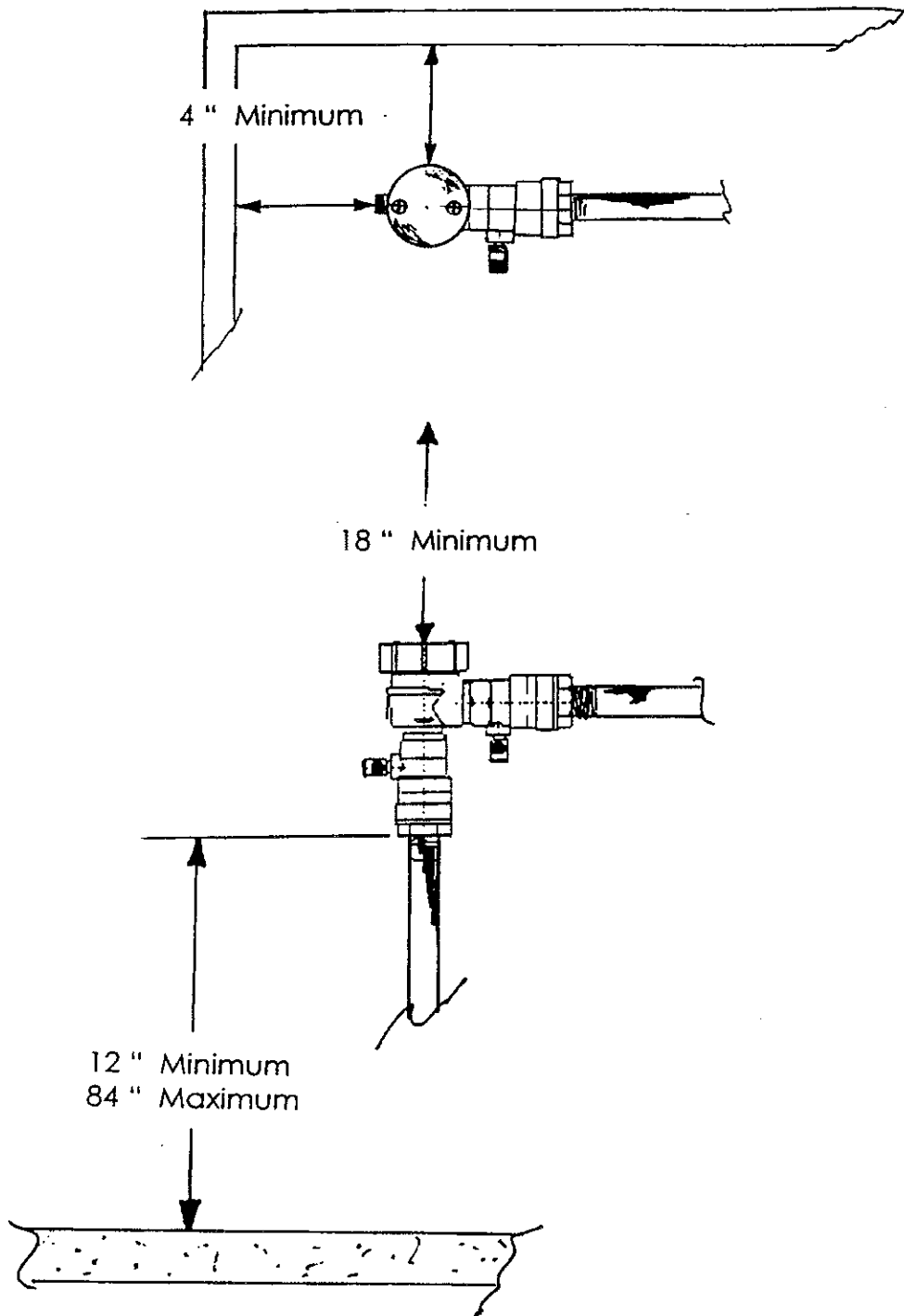
NOTE: ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION SPECIFICATIONS OR WITHIN THE DIMENSIONS SHOWN.



A-82.41 (5) (f) CROSS CONNECTION CONTROL DEVICE INSTALLATION.

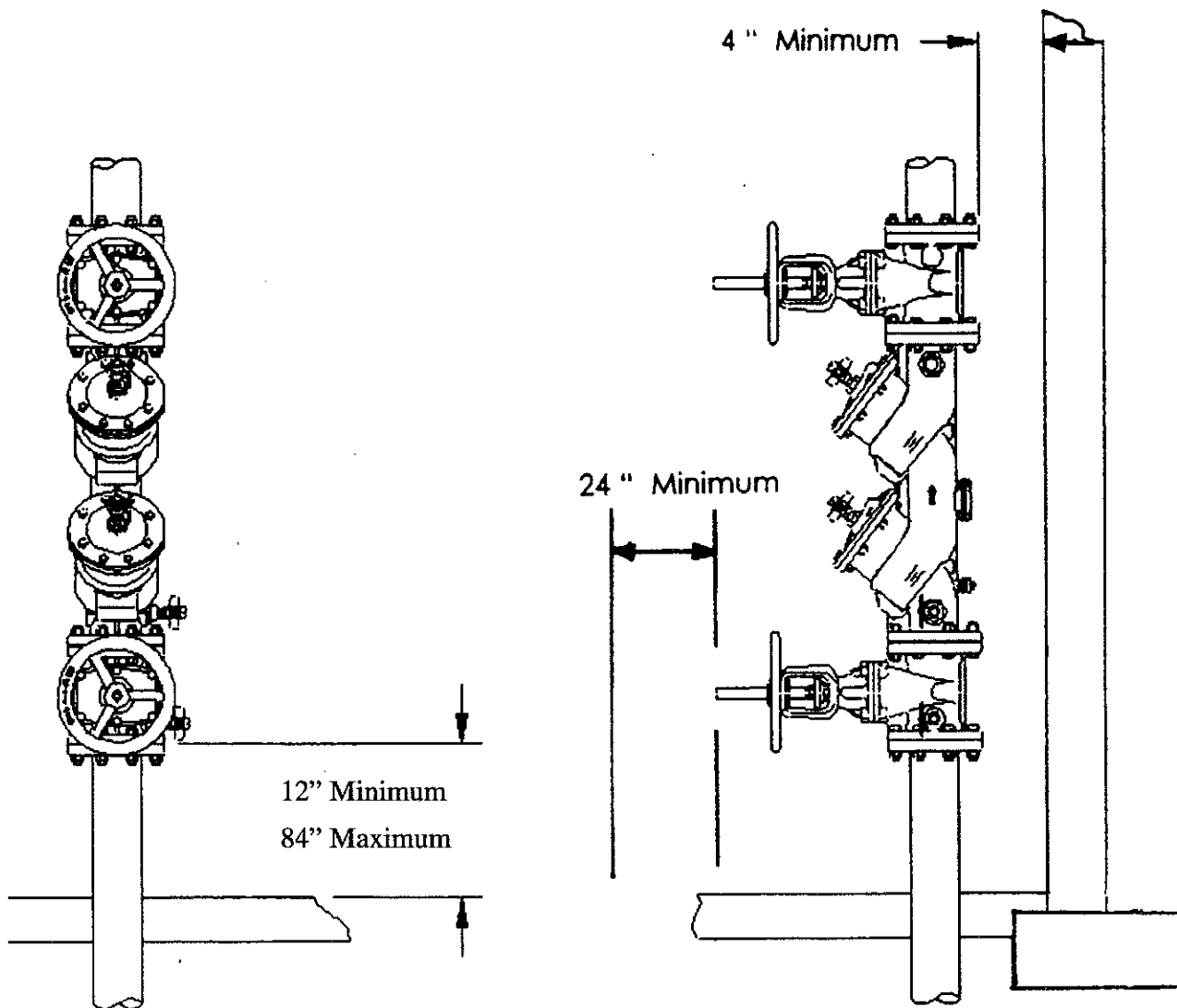


A-82.41 (5) (f) CROSS CONNECTION CONTROL DEVICE INSTALLATION



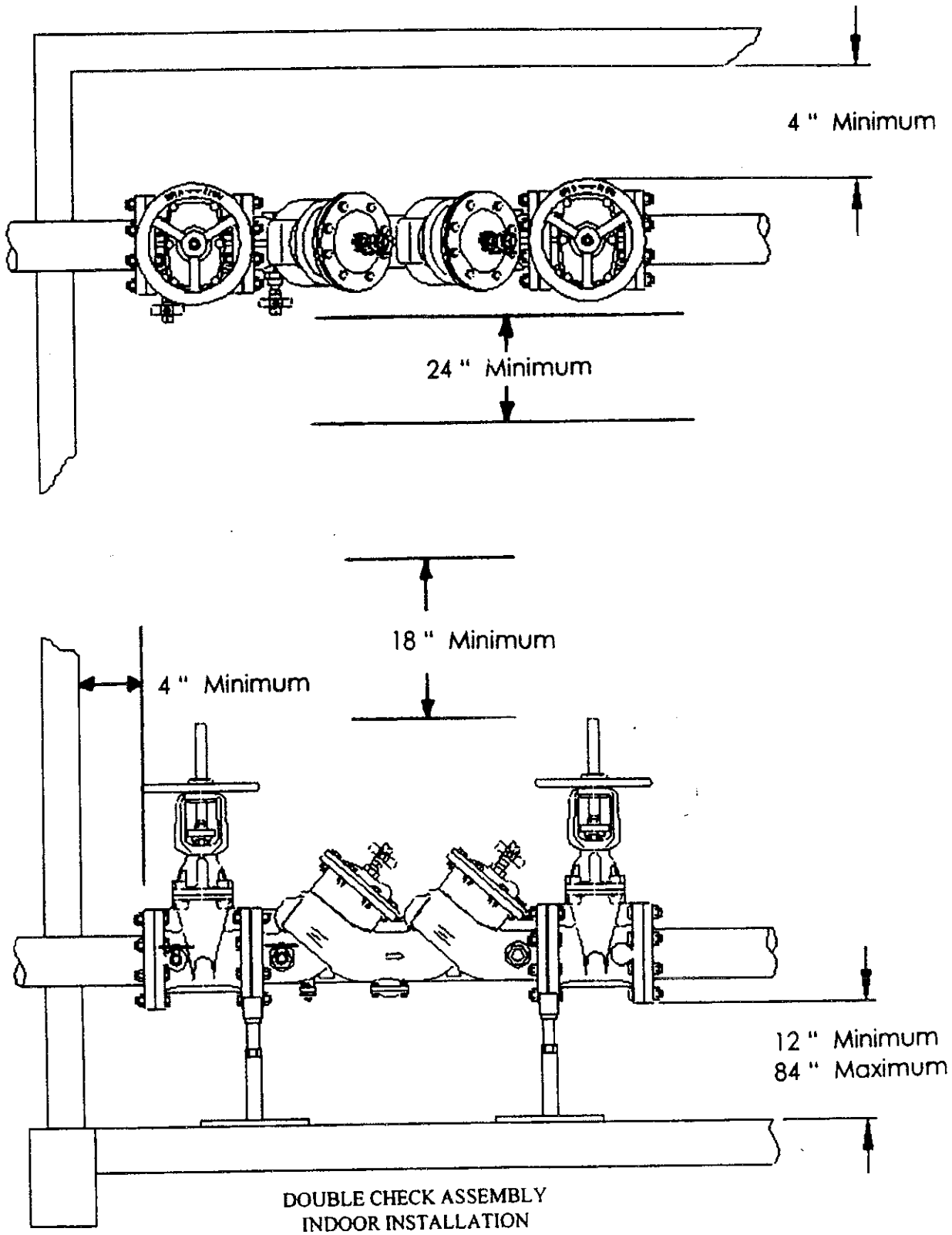
PRESSURE VACUUM BREAKER ASSEMBLY
BACK SIPHONAGE BACKFLOW VACUUM BREAKER

A-82.41 (5) (f) CROSS CONNECTION CONTROL DEVICE INSTALLATION.

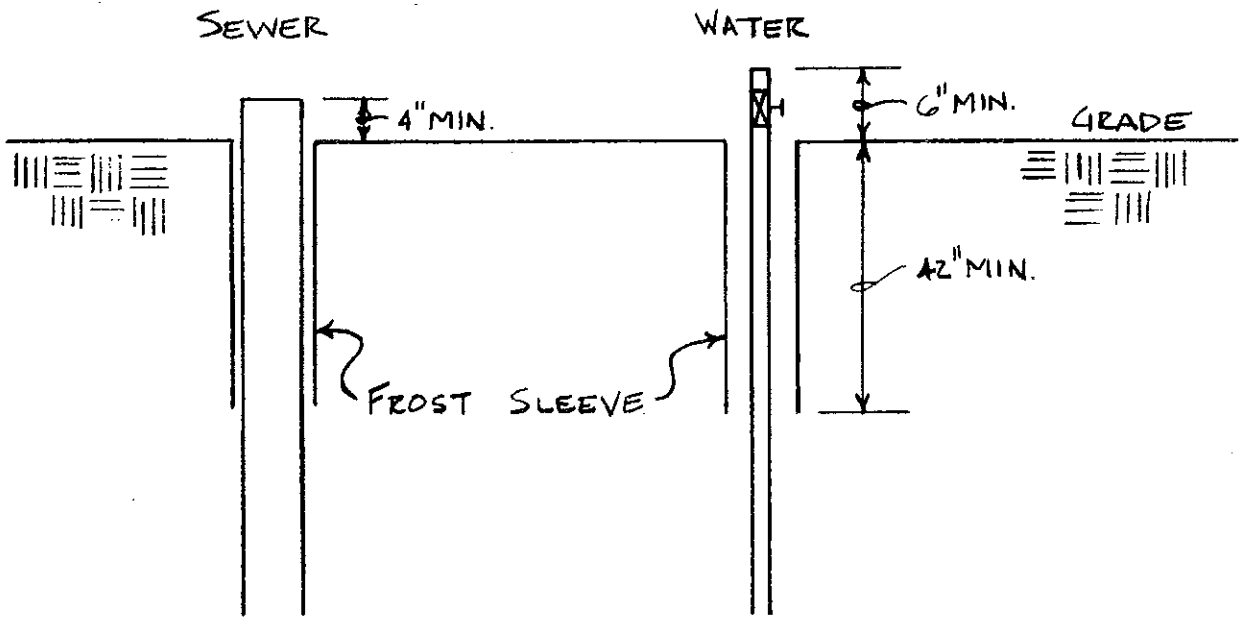


DOUBLE CHECK ASSEMBLY
INDOOR VERTICAL INSTALLATION

A-82.41 (5) (f) CROSS CONNECTION CONTROL DEVICE INSTALLATION.



A-82.51 (3) MOBILE HOME SITES AND PARKS.



MOBILE HOME BUILDING SEWER AND WATER SERVICE TERMINATIONS

