

Appendix G

Pressure Loss Charts

Pressure Loss Per 100 Feet

¼" Wirsbo hePEX™ and Uponor AquaPEX® (100% Water)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.05	0.35	0.51	0.47	0.45	0.43	0.41	0.40	0.39	0.38
0.1	0.70	1.84	1.69	1.61	1.55	1.48	1.44	1.41	1.38
0.2	1.41	6.62	6.11	5.80	5.60	5.34	5.19	5.09	4.99
0.3	2.11	14.01	12.93	12.28	11.85	11.31	10.99	10.77	10.56
0.4	2.81	23.85	22.01	20.91	20.18	19.26	18.71	18.35	17.98
0.5	3.52	36.04	33.27	31.60	30.49	29.11	28.28	27.72	27.17
0.6	4.22	50.49	46.61	44.28	42.73	40.78	39.62	38.84	38.06
0.7	4.92	67.16	61.99	58.89	56.83	54.24	52.69	51.66	50.63
0.8	5.63	85.98	79.36	75.39	72.75	69.44	67.46	66.14	64.81
0.9	6.33	106.91	98.68	93.75	90.46	86.35	83.88	82.24	80.59
1.0	7.03	129.92	119.92	113.93	109.93	104.93	101.93	99.93	97.94
1.1	7.74	154.97	143.05	135.89	131.13	125.16	121.59	119.20	116.82
1.2	8.44	182.03	168.03	159.63	154.03	147.02	142.82	140.02	137.22
1.3	9.14	211.08	194.85	185.10	178.61	170.49	165.62	162.37	159.12
1.4	9.85	242.10	223.48	212.30	204.85	195.54	189.96	186.23	182.51
1.5	10.55	275.06	253.90	241.21	232.74	222.16	215.82	211.59	207.35

Pressure Loss Per 100 Feet

¼" Wirsbo hePEX and Uponor AquaPEX (30% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.05	0.35	0.63	0.58	0.55	0.53	0.51	0.50	0.49	0.48
0.1	0.70	2.28	2.10	2.00	1.93	1.84	1.79	1.75	1.72
0.2	1.41	8.20	7.57	7.19	6.94	6.63	6.44	6.31	6.18
0.3	2.11	17.37	16.03	15.23	14.70	14.03	13.63	13.36	13.09
0.4	2.81	29.57	27.30	25.93	25.02	23.89	23.20	22.75	22.29
0.5	3.52	44.69	41.25	39.19	37.81	36.09	35.06	34.37	33.69
0.6	4.22	62.61	57.80	54.91	52.98	50.57	49.13	48.16	47.20
0.7	4.92	83.27	76.87	73.03	70.46	67.26	65.34	64.06	62.78
0.8	5.63	106.61	98.41	93.49	90.21	86.11	83.65	82.01	80.37
0.9	6.33	132.57	122.37	116.25	112.17	107.07	104.01	101.97	99.93
1.0	7.03	161.09	148.70	141.27	136.31	130.12	126.40	123.92	121.44
1.1	7.74	192.16	177.38	168.51	162.60	155.20	150.77	147.81	144.86
1.2	8.44	225.72	208.36	197.94	190.99	182.31	177.10	173.63	170.16
1.3	9.14	261.74	241.61	229.53	221.48	211.41	205.37	201.34	197.31
1.4	9.85	300.21	277.11	263.26	254.02	242.47	235.55	230.93	226.31
1.5	10.55	341.08	314.84	299.10	288.60	275.48	267.61	262.37	257.12

Pressure Loss Per 100 Feet

¼" Wirsbo hePEX and Uponor AquaPEX (40% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.05	0.35	0.68	0.62	0.59	0.57	0.55	0.53	0.52	0.51
0.1	0.70	2.44	2.25	2.14	2.07	1.97	1.91	1.88	1.84
0.2	1.41	8.80	8.12	7.72	7.45	7.11	6.90	6.77	6.63
0.3	2.11	18.63	17.20	16.34	15.76	15.05	14.62	14.33	14.04
0.4	2.81	31.72	29.28	27.82	26.84	25.62	24.89	24.40	23.91
0.5	3.52	47.93	44.24	42.03	40.56	38.71	37.61	36.87	36.13
0.6	4.22	67.16	61.99	58.89	56.83	54.24	52.69	51.66	50.63
0.7	4.92	89.32	82.45	78.33	75.58	72.14	70.08	68.71	67.33
0.8	5.63	114.35	105.55	100.27	96.76	92.36	89.72	87.96	86.20
0.9	6.33	142.19	131.25	124.69	120.31	114.84	111.56	109.37	107.19
1.0	7.03	172.79	159.50	151.52	146.20	139.56	135.57	132.91	130.25
1.1	7.74	206.10	190.25	180.74	174.40	166.47	161.71	158.54	155.37
1.2	8.44	242.10	223.48	212.30	204.85	195.54	189.96	186.23	182.51
1.3	9.14	280.74	259.15	246.19	237.55	226.75	220.27	215.96	211.64
1.4	9.85	321.99	297.23	282.36	272.46	260.07	252.64	247.69	242.73
1.5	10.55	365.83	337.69	320.81	309.55	295.48	287.04	281.41	275.78

Pressure Loss Per 100 Feet

¼" Wirsbo hePEX and Uponor AquaPEX (50% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.05	0.35	0.71	0.66	0.62	0.60	0.58	0.56	0.55	0.54
0.1	0.70	2.57	2.37	2.25	2.17	2.08	2.02	1.98	1.94
0.2	1.41	9.26	8.55	8.12	7.84	7.48	7.27	7.12	6.98
0.3	2.11	19.61	18.10	17.20	16.59	15.84	15.39	15.08	14.78
0.4	2.81	33.39	30.82	29.28	28.25	26.97	26.20	25.68	25.17
0.5	3.52	50.45	46.57	44.24	42.69	40.75	39.59	38.81	38.03
0.6	4.22	70.69	65.25	61.99	59.82	57.10	55.47	54.38	53.29
0.7	4.92	94.02	86.79	82.45	79.56	75.94	73.77	72.32	70.88
0.8	5.63	120.37	111.11	105.55	101.85	97.22	94.44	92.59	90.74
0.9	6.33	149.67	138.16	131.25	126.64	120.89	117.43	115.13	112.83
1.0	7.03	181.88	167.89	159.50	153.90	146.90	142.71	139.91	137.11
1.1	7.74	216.95	200.26	190.25	183.58	175.23	170.22	166.89	163.55
1.2	8.44	254.84	235.24	223.48	215.64	205.83	199.95	196.03	192.11
1.3	9.14	295.52	272.79	259.15	250.05	238.69	231.87	227.32	222.77
1.4	9.85	338.94	312.87	297.23	286.80	273.76	265.94	260.72	255.51
1.5	10.55	385.09	355.46	337.69	325.84	311.03	302.14	296.22	290.29

Pressure Loss Per 100 Feet

5/16" Wirsbo hePEX and Uponor AquaPEX (100% Water)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.48	0.20	0.18	0.18	0.17	0.16	0.16	0.15	0.15
0.2	0.96	0.72	0.67	0.63	0.61	0.58	0.57	0.55	0.54
0.3	1.44	2.60	2.40	2.28	2.20	2.10	2.04	2.00	1.96
0.4	1.92	5.50	5.08	4.83	4.66	4.45	4.32	4.23	4.15
0.5	2.40	9.37	8.65	8.22	7.93	7.57	7.35	7.21	7.07
0.6	2.87	14.16	13.07	12.42	11.98	11.44	11.11	10.89	10.68
0.7	3.35	19.84	18.32	17.40	16.79	16.03	15.57	15.26	14.96
0.8	3.83	26.39	24.36	23.14	22.33	21.32	20.71	20.30	19.90
0.9	4.31	33.79	31.19	29.63	28.59	27.29	26.51	25.99	25.47
1.0	4.79	42.01	38.78	36.84	35.55	33.93	32.96	32.32	31.67
1.1	5.27	51.06	47.13	44.77	43.20	41.24	40.06	39.27	38.49
1.2	5.75	60.90	56.22	53.40	51.53	49.19	47.78	46.85	45.91
1.3	6.23	71.54	66.03	62.73	60.53	57.78	56.13	55.03	53.93
1.4	6.71	82.95	76.57	72.74	70.19	67.00	65.09	63.81	62.53
1.5	7.19	95.14	87.83	83.43	80.51	76.85	74.65	73.19	71.72
1.6	7.67	108.10	99.78	94.79	91.47	87.31	84.81	83.15	81.49
1.7	8.14	121.81	112.44	106.81	103.07	98.38	95.57	93.70	91.82
1.8	8.62	136.26	125.78	119.49	115.30	110.06	106.91	104.82	102.72
1.9	9.10	151.46	139.81	132.82	128.16	122.33	118.84	116.51	114.18
2.0	9.58	167.39	154.52	146.79	141.64	135.20	131.34	128.76	126.19

Pressure Loss Per 100 Feet

5/16" Wirsbo hePEX and Uponor AquaPEX (30% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.48	0.25	0.23	0.22	0.21	0.20	0.19	0.19	0.19
0.2	0.96	0.89	0.83	0.78	0.76	0.72	0.70	0.69	0.67
0.3	1.44	3.22	2.98	2.83	2.73	2.60	2.53	2.48	2.43
0.4	1.92	6.83	6.30	5.99	5.78	5.51	5.36	5.25	5.15
0.5	2.40	11.62	10.73	10.19	9.83	9.39	9.12	8.94	8.76
0.6	2.87	17.56	16.21	15.40	14.86	14.18	13.78	13.51	13.24
0.7	3.35	24.61	22.71	21.58	20.82	19.87	19.31	18.93	18.55
0.8	3.83	32.73	30.21	28.70	27.69	26.43	25.68	25.17	24.67
0.9	4.31	41.90	38.67	36.74	35.45	33.84	32.87	32.23	31.58
1.0	4.79	52.10	48.09	45.69	44.08	42.08	40.88	40.07	39.27
1.1	5.27	63.31	58.44	55.52	53.57	51.13	49.67	48.70	47.73
1.2	5.75	75.52	69.71	66.22	63.90	60.99	59.25	58.09	56.93
1.3	6.23	88.71	81.88	77.79	75.06	71.65	69.60	68.23	66.87
1.4	6.71	102.86	94.95	90.20	87.04	83.08	80.71	79.13	77.54
1.5	7.19	117.98	108.90	103.46	99.83	95.29	92.57	90.75	88.94
1.6	7.67	134.04	123.73	117.54	113.42	108.26	105.17	103.11	101.05
1.7	8.14	151.04	139.42	132.45	127.80	121.99	118.51	116.18	113.86
1.8	8.62	168.96	155.97	148.17	142.97	136.47	132.57	129.97	127.37
1.9	9.10	187.81	173.36	164.70	158.92	151.69	147.36	144.47	141.58
2.0	9.58	207.57	191.60	182.02	175.63	167.65	162.86	159.67	156.47

Pressure Loss Per 100 Feet

5/16" Wirsbo hePEX and Uponor AquaPEX (40% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.48	0.27	0.25	0.23	0.23	0.21	0.21	0.20	0.20
0.2	0.96	0.96	0.89	0.84	0.81	0.77	0.75	0.74	0.72
0.3	1.44	3.46	3.19	3.03	2.93	2.79	2.71	2.66	2.61
0.4	1.92	7.32	6.76	6.42	6.19	5.91	5.74	5.63	5.52
0.5	2.40	12.47	11.51	10.93	10.55	10.07	9.78	9.59	9.40
0.6	2.87	18.84	17.39	16.52	15.94	15.21	14.78	14.49	14.20
0.7	3.35	26.39	24.36	23.14	22.33	21.32	20.71	20.30	19.90
0.8	3.83	35.10	32.40	30.78	29.70	28.35	27.54	27.00	26.46
0.9	4.31	44.94	41.48	39.41	38.02	36.30	35.26	34.57	33.88
1.0	4.79	55.88	51.58	49.00	47.28	45.13	43.84	42.98	42.12
1.1	5.27	67.90	62.68	59.55	57.46	54.85	53.28	52.23	51.19
1.2	5.75	81.00	74.77	71.03	68.54	65.42	63.55	62.31	61.06
1.3	6.23	95.14	87.83	83.43	80.51	76.85	74.65	73.19	71.72
1.4	6.71	110.33	101.84	96.75	93.36	89.11	86.57	84.87	83.17
1.5	7.19	126.54	116.81	110.97	107.07	102.21	99.29	97.34	95.39
1.6	7.67	143.77	132.71	126.07	121.65	116.12	112.80	110.59	108.38
1.7	8.14	162.00	149.54	142.06	137.08	130.85	127.11	124.62	122.12
1.8	8.62	181.23	167.29	158.92	153.35	146.38	142.19	139.41	136.62
1.9	9.10	201.44	185.95	176.65	170.45	162.70	158.05	154.96	151.86
2.0	9.58	222.63	205.51	195.23	188.38	179.82	174.68	171.26	167.83

Pressure Loss Per 100 Feet

5/16" Wirsbo hePEX and Uponor AquaPEX (50% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.48	0.28	0.26	0.25	0.24	0.23	0.22	0.22	0.21
0.2	0.96	1.01	0.93	0.89	0.85	0.82	0.79	0.78	0.76
0.3	1.44	3.64	3.36	3.19	3.08	2.94	2.86	2.80	2.74
0.4	1.92	7.71	7.11	6.76	6.52	6.22	6.05	5.93	5.81
0.5	2.40	13.12	12.11	11.51	11.10	10.60	10.30	10.09	9.89
0.6	2.87	19.83	18.30	17.39	16.78	16.01	15.56	15.25	14.95
0.7	3.35	27.78	25.64	24.36	23.51	22.44	21.80	21.37	20.94
0.8	3.83	36.95	34.11	32.40	31.26	29.84	28.99	28.42	27.85
0.9	4.31	47.30	43.66	41.48	40.03	38.21	37.11	36.39	35.66
1.0	4.79	58.82	54.29	51.58	49.77	47.51	46.15	45.25	44.34
1.1	5.27	71.48	65.98	62.68	60.48	57.73	56.08	54.98	53.88
1.2	5.75	85.26	78.70	74.77	72.14	68.86	66.90	65.59	64.27
1.3	6.23	100.15	92.45	87.83	84.74	80.89	78.58	77.04	75.50
1.4	6.71	116.14	107.20	101.84	98.27	93.80	91.12	89.34	87.55
1.5	7.19	133.20	122.96	116.81	112.71	107.59	104.51	102.46	100.41
1.6	7.67	151.34	139.69	132.71	128.05	122.23	118.74	116.41	114.08
1.7	8.14	170.53	157.41	149.54	144.29	137.73	133.80	131.17	128.55
1.8	8.62	190.77	176.09	167.29	161.42	154.08	149.68	146.74	143.81
1.9	9.10	212.04	195.73	185.95	179.42	171.27	166.37	163.11	159.85
2.0	9.58	234.35	216.32	205.51	198.30	189.28	183.87	180.27	176.66

Pressure Loss Per 100 Feet

3/8" Wirsbo hePEX and Uponor AquaPEX (100% Water)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.33	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06
0.2	0.67	0.30	0.28	0.26	0.25	0.24	0.23	0.23	0.23
0.3	1.00	1.08	0.99	0.94	0.91	0.87	0.84	0.83	0.81
0.4	1.33	2.28	2.10	2.00	1.93	1.84	1.79	1.75	1.72
0.5	1.67	3.88	3.58	3.40	3.28	3.14	3.05	2.99	2.93
0.6	2.00	5.87	5.41	5.14	4.96	4.74	4.60	4.51	4.42
0.7	2.33	8.22	7.59	7.21	6.95	6.64	6.45	6.32	6.20
0.8	2.67	10.93	10.09	9.59	9.25	8.83	8.58	8.41	8.24
0.9	3.00	13.99	12.92	12.27	11.84	11.30	10.98	10.76	10.55
1.0	3.33	17.40	16.06	15.26	14.72	14.05	13.65	13.38	13.12
1.1	3.67	21.14	19.52	18.54	17.89	17.08	16.59	16.27	15.94
1.2	4.00	25.22	23.28	22.12	21.34	20.37	19.79	19.40	19.01
1.3	4.34	29.63	27.35	25.98	25.07	23.93	23.25	22.79	22.33
1.4	4.67	34.36	31.71	30.13	29.07	27.75	26.96	26.43	25.90
1.5	5.00	39.40	36.37	34.55	33.34	31.83	30.92	30.31	29.70
1.6	5.34	44.77	41.32	39.26	37.88	36.16	35.13	34.44	33.75
1.7	5.67	50.45	46.57	44.24	42.68	40.74	39.58	38.80	38.03
1.8	6.00	56.43	52.09	49.49	47.75	45.58	44.28	43.41	42.54
1.9	6.34	62.73	57.90	55.01	53.08	50.66	49.22	48.25	47.29
2.0	6.67	69.33	63.99	60.79	58.66	55.99	54.39	53.33	52.26
2.1	7.00	76.23	70.36	66.84	64.50	61.57	59.81	58.64	57.46
2.2	7.34	83.43	77.01	73.16	70.59	67.38	65.46	64.17	62.89
2.3	7.67	90.92	83.93	79.73	76.94	73.44	71.34	69.94	68.54
2.4	8.00	98.72	91.12	86.57	83.53	79.73	77.46	75.94	74.42
2.5	8.34	106.80	98.59	93.66	90.37	86.27	83.80	82.16	80.51
3.0	10.00	115.18	106.32	101.01	97.46	93.03	90.37	88.60	86.83

Pressure Loss Per 100 Feet

3/8" Wirsbo hePEX and Uponor AquaPEX (30% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.33	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.08
0.2	0.67	0.37	0.34	0.32	0.31	0.30	0.29	0.28	0.28
0.3	1.00	1.34	1.23	1.17	1.13	1.08	1.05	1.03	1.01
0.4	1.33	2.83	2.61	2.48	2.39	2.28	2.22	2.17	2.13
0.5	1.67	4.81	4.44	4.22	4.07	3.89	3.78	3.70	3.63
0.6	2.00	7.27	6.71	6.38	6.15	5.87	5.71	5.59	5.48
0.7	2.33	10.19	9.41	8.94	8.62	8.23	8.00	7.84	7.68
0.8	2.67	13.55	12.51	11.89	11.47	10.95	10.63	10.43	10.22
0.9	3.00	17.35	16.02	15.22	14.68	14.01	13.61	13.35	13.08
1.0	3.33	21.58	19.92	18.92	18.26	17.43	16.93	16.60	16.26
1.1	3.67	26.22	24.20	22.99	22.19	21.18	20.57	20.17	19.77
1.2	4.00	31.28	28.87	27.43	26.46	25.26	24.54	24.06	23.58
1.3	4.34	36.74	33.91	32.22	31.09	29.67	28.82	28.26	27.69
1.4	4.67	42.60	39.32	37.36	36.05	34.41	33.43	32.77	32.11
1.5	5.00	48.86	45.10	42.85	41.34	39.46	38.34	37.59	36.83
1.6	5.34	55.51	51.24	48.68	46.97	44.84	43.56	42.70	41.85
1.7	5.67	62.55	57.74	54.85	52.93	50.52	49.08	48.12	47.15
1.8	6.00	69.98	64.59	61.36	59.21	56.52	54.90	53.83	52.75
1.9	6.34	77.78	71.80	68.21	65.82	62.82	61.03	59.83	58.64
2.0	6.67	85.96	79.35	75.38	72.74	69.43	67.45	66.13	64.80
2.1	7.00	94.52	87.25	82.89	79.98	76.34	74.16	72.71	71.25
2.2	7.34	103.45	95.49	90.72	87.53	83.56	81.17	79.58	77.98
2.3	7.67	112.75	104.07	98.87	95.40	91.06	88.46	86.73	84.99
2.4	8.00	122.41	112.99	107.34	103.58	98.87	96.05	94.16	92.28
2.5	8.34	132.44	122.25	116.14	112.06	106.97	103.91	101.88	99.84
3.0	10.00	142.83	131.84	125.25	120.85	115.36	112.06	109.87	107.67

Pressure Loss Per 100 Feet

3/8" Wirsbo hePEX and Uponor AquaPEX (40% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.33	0.11	0.10	0.10	0.09	0.09	0.09	0.08	0.08
0.2	0.67	0.40	0.37	0.35	0.34	0.32	0.31	0.31	0.30
0.3	1.00	1.43	1.32	1.26	1.21	1.16	1.12	1.10	1.08
0.4	1.33	3.03	2.80	2.66	2.57	2.45	2.38	2.33	2.29
0.5	1.67	5.16	4.77	4.53	4.37	4.17	4.05	3.97	3.89
0.6	2.00	7.80	7.20	6.84	6.60	6.30	6.12	6.00	5.88
0.7	2.33	10.93	10.09	9.59	9.25	8.83	8.58	8.41	8.24
0.8	2.67	14.54	13.42	12.75	12.30	11.74	11.41	11.18	10.96
0.9	3.00	18.61	17.18	16.32	15.75	15.03	14.60	14.32	14.03
1.0	3.33	23.14	21.36	20.29	19.58	18.69	18.16	17.80	17.45
1.1	3.67	28.12	25.96	24.66	23.80	22.71	22.07	21.63	21.20
1.2	4.00	33.55	30.96	29.42	28.38	27.09	26.32	25.80	25.29
1.3	4.34	39.40	36.37	34.55	33.34	31.83	30.92	30.31	29.70
1.4	4.67	45.69	42.18	40.07	38.66	36.91	35.85	35.15	34.45
1.5	5.00	52.41	48.38	45.96	44.34	42.33	41.12	40.31	39.51
1.6	5.34	59.54	54.96	52.21	50.38	48.09	46.72	45.80	44.89
1.7	5.67	67.09	61.93	58.84	56.77	54.19	52.64	51.61	50.58
1.8	6.00	75.06	69.28	65.82	63.51	60.62	58.89	57.74	56.58
1.9	6.34	83.43	77.01	73.16	70.59	67.38	65.46	64.17	62.89
2.0	6.67	92.20	85.11	80.86	78.02	74.47	72.34	70.93	69.51
2.1	7.00	101.38	93.58	88.90	85.78	81.88	79.55	77.99	76.43
2.2	7.34	110.96	102.42	97.30	93.89	89.62	87.06	85.35	83.65
2.3	7.67	120.93	111.63	106.05	102.33	97.67	94.88	93.02	91.16
2.4	8.00	131.30	121.20	115.14	111.10	106.05	103.02	101.00	98.98
2.5	8.34	142.05	131.12	124.57	120.20	114.73	111.46	109.27	107.08
3.0	10.00	153.19	141.41	134.34	129.63	123.73	120.20	117.84	115.48

Pressure Loss Per 100 Feet

3/8" Wirsbo hePEX and Uponor AquaPEX (50% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.33	0.12	0.11	0.10	0.10	0.09	0.09	0.09	0.09
0.2	0.67	0.42	0.39	0.37	0.35	0.34	0.33	0.32	0.32
0.3	1.00	1.51	1.39	1.32	1.28	1.22	1.18	1.16	1.14
0.4	1.33	3.19	2.95	2.80	2.70	2.58	2.50	2.46	2.41
0.5	1.67	5.43	5.02	4.77	4.60	4.39	4.26	4.18	4.10
0.6	2.00	8.21	7.58	7.20	6.95	6.63	6.44	6.32	6.19
0.7	2.33	11.51	10.62	10.09	9.74	9.29	9.03	8.85	8.67
0.8	2.67	15.30	14.13	13.42	12.95	12.36	12.01	11.77	11.54
0.9	3.00	19.59	18.08	17.18	16.58	15.82	15.37	15.07	14.77
1.0	3.33	24.36	22.49	21.36	20.61	19.68	19.11	18.74	18.36
1.1	3.67	29.60	27.33	25.96	25.05	23.91	23.23	22.77	22.32
1.2	4.00	35.31	32.59	30.96	29.88	28.52	27.71	27.16	26.62
1.3	4.34	41.48	38.29	36.37	35.10	33.50	32.54	31.91	31.27
1.4	4.67	48.10	44.40	42.18	40.70	38.85	37.74	37.00	36.26
1.5	5.00	55.17	50.92	48.38	46.68	44.56	43.28	42.43	41.59
1.6	5.34	62.68	57.85	54.96	53.03	50.62	49.18	48.21	47.25
1.7	5.67	70.62	65.19	61.93	59.76	57.04	55.41	54.33	53.24
1.8	6.00	79.01	72.93	69.28	66.85	63.81	61.99	60.77	59.56
1.9	6.34	87.82	81.06	77.01	74.31	70.93	68.90	67.55	66.20
2.0	6.67	97.06	89.59	85.11	82.12	78.39	76.15	74.66	73.17
2.1	7.00	106.72	98.51	93.58	90.30	86.19	83.73	82.09	80.45
2.2	7.34	116.80	107.81	102.42	98.83	94.34	91.64	89.84	88.05
2.3	7.67	127.29	117.50	111.63	107.71	102.82	99.88	97.92	95.96
2.4	8.00	138.21	127.57	121.20	116.94	111.63	108.44	106.31	104.19
2.5	8.34	149.53	138.02	131.12	126.52	120.77	117.32	115.02	112.72
3.0	10.00	161.26	148.85	141.41	136.45	130.25	126.52	124.04	121.56

Pressure Loss Per 100 Feet

½" Wirsbo hePEX and Uponor AquaPEX (100% Water)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.18	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05
0.2	0.36	0.24	0.22	0.21	0.21	0.20	0.19	0.19	0.18
0.3	0.54	0.52	0.48	0.45	0.44	0.42	0.40	0.40	0.39
0.4	0.72	0.88	0.81	0.77	0.74	0.71	0.69	0.68	0.66
0.5	0.91	1.33	1.23	1.16	1.12	1.07	1.04	1.02	1.00
0.6	1.09	1.86	1.72	1.63	1.57	1.50	1.46	1.43	1.40
0.7	1.27	2.47	2.28	2.17	2.09	2.00	1.94	1.90	1.86
0.8	1.45	3.17	2.92	2.78	2.68	2.56	2.48	2.44	2.39
0.9	1.63	3.94	3.63	3.45	3.33	3.18	3.09	3.03	2.97
1.0	1.81	4.79	4.42	4.20	4.05	3.87	3.75	3.68	3.61
1.1	1.99	5.71	5.27	5.01	4.83	4.61	4.48	4.39	4.30
1.2	2.17	6.70	6.19	5.88	5.67	5.42	5.26	5.16	5.05
1.3	2.35	7.78	7.18	6.82	6.58	6.28	6.10	5.98	5.86
1.4	2.53	8.92	8.23	7.82	7.55	7.20	7.00	6.86	6.72
1.5	2.72	10.13	9.35	8.88	8.57	8.18	7.95	7.79	7.64
1.6	2.90	11.42	10.54	10.01	9.66	9.22	8.96	8.78	8.61
1.7	3.08	12.77	11.79	11.20	10.81	10.32	10.02	9.82	9.63
1.8	3.26	14.20	13.10	12.45	12.01	11.47	11.14	10.92	10.70
1.9	3.44	15.69	14.48	13.76	13.28	12.67	12.31	12.07	11.83
2.0	3.62	17.25	15.92	15.13	14.60	13.93	13.54	13.27	13.00
2.1	3.80	18.88	17.43	16.56	15.98	15.25	14.81	14.52	14.23
2.2	3.98	20.58	18.99	18.04	17.41	16.62	16.15	15.83	15.51
2.3	4.16	22.34	20.62	19.59	18.90	18.04	17.53	17.19	16.84
2.4	4.35	24.17	22.31	21.20	20.45	19.52	18.97	18.59	18.22
2.5	4.53	26.07	24.06	22.86	22.06	21.05	20.45	20.05	19.65
3.0	5.43	36.52	33.72	32.03	30.91	29.50	28.66	28.10	27.53
3.5	6.34	48.58	44.84	42.60	41.10	39.24	38.11	37.37	36.62
4.0	7.24	62.19	57.41	54.54	52.62	50.23	48.80	47.84	46.88
4.5	8.15	77.33	71.38	67.81	65.43	62.46	60.68	59.49	58.30
5.0	9.05	93.97	86.74	82.41	79.52	75.90	73.73	72.29	70.84
5.5	9.96	112.09	103.47	98.30	94.85	90.54	87.95	86.23	84.50
6.0	10.86	131.67	121.54	115.47	111.41	106.35	103.31	101.29	99.26

Pressure Loss Per 100 Feet

½" Wirsbo hePEX and Uponor AquaPEX (30% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.18	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06
0.2	0.36	0.30	0.28	0.26	0.26	0.24	0.24	0.23	0.23
0.3	0.54	0.64	0.59	0.56	0.54	0.52	0.50	0.49	0.48
0.4	0.72	1.09	1.01	0.96	0.92	0.88	0.85	0.84	0.82
0.5	0.91	1.65	1.52	1.44	1.39	1.33	1.29	1.27	1.24
0.6	1.09	2.31	2.13	2.02	1.95	1.86	1.81	1.77	1.74
0.7	1.27	3.07	2.83	2.69	2.60	2.48	2.41	2.36	2.31
0.8	1.45	3.93	3.62	3.44	3.32	3.17	3.08	3.02	2.96
0.9	1.63	4.88	4.51	4.28	4.13	3.94	3.83	3.76	3.68
1.0	1.81	5.93	5.48	5.20	5.02	4.79	4.66	4.56	4.47
1.1	1.99	7.08	6.53	6.21	5.99	5.72	5.55	5.44	5.34
1.2	2.17	8.31	7.67	7.29	7.04	6.72	6.52	6.40	6.27
1.3	2.35	9.64	8.90	8.45	8.16	7.79	7.56	7.42	7.27
1.4	2.53	11.06	10.21	9.70	9.36	8.93	8.68	8.51	8.34
1.5	2.72	12.56	11.60	11.02	10.63	10.15	9.86	9.66	9.47
1.6	2.90	14.16	13.07	12.41	11.98	11.43	11.11	10.89	10.67
1.7	3.08	15.84	14.62	13.89	13.40	12.79	12.43	12.18	11.94
1.8	3.26	17.60	16.25	15.44	14.89	14.22	13.81	13.54	13.27
1.9	3.44	19.45	17.96	17.06	16.46	15.71	15.26	14.97	14.67
2.0	3.62	21.39	19.75	18.76	18.10	17.28	16.78	16.45	16.13
2.1	3.80	23.41	21.61	20.53	19.81	18.91	18.37	18.01	17.65
2.2	3.98	25.52	23.55	22.38	21.59	20.61	20.02	19.63	19.24
2.3	4.16	27.70	25.57	24.29	23.44	22.38	21.74	21.31	20.88
2.4	4.35	29.97	27.67	26.28	25.36	24.21	23.52	23.06	22.59
2.5	4.53	32.32	29.84	28.35	27.35	26.11	25.36	24.86	24.37
3.0	5.43	45.29	41.81	39.72	38.32	36.58	35.54	34.84	34.14
3.5	6.34	60.24	55.60	52.82	50.97	48.65	47.26	46.34	45.41
4.0	7.24	77.12	71.18	67.62	65.25	62.29	60.51	59.32	58.13
4.5	8.15	95.89	88.51	84.09	81.14	77.45	75.24	73.76	72.29
5.0	9.05	116.53	107.56	102.19	98.60	94.12	91.43	89.64	87.84
5.5	9.96	139.00	128.30	121.89	117.61	112.27	109.06	106.92	104.78
6.0	10.86	163.27	150.71	143.18	138.15	131.87	128.11	125.59	123.08

Pressure Loss Per 100 Feet

½" Wirsbo hePEX and Uponor AquaPEX (40% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.18	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07
0.2	0.36	0.32	0.30	0.28	0.27	0.26	0.25	0.25	0.24
0.3	0.54	0.69	0.63	0.60	0.58	0.55	0.54	0.53	0.52
0.4	0.72	1.17	1.08	1.02	0.99	0.94	0.92	0.90	0.88
0.5	0.91	1.77	1.63	1.55	1.49	1.43	1.39	1.36	1.33
0.6	1.09	2.47	2.28	2.17	2.09	2.00	1.94	1.90	1.86
0.7	1.27	3.29	3.04	2.89	2.78	2.66	2.58	2.53	2.48
0.8	1.45	4.21	3.89	3.69	3.56	3.40	3.30	3.24	3.18
0.9	1.63	5.24	4.83	4.59	4.43	4.23	4.11	4.03	3.95
1.0	1.81	6.36	5.87	5.58	5.39	5.14	4.99	4.90	4.80
1.1	1.99	7.59	7.01	6.66	6.42	6.13	5.96	5.84	5.72
1.2	2.17	8.92	8.23	7.82	7.55	7.20	7.00	6.86	6.72
1.3	2.35	10.34	9.55	9.07	8.75	8.35	8.11	7.95	7.80
1.4	2.53	11.86	10.95	10.40	10.04	9.58	9.31	9.12	8.94
1.5	2.72	13.48	12.44	11.82	11.40	10.88	10.57	10.37	10.16
1.6	2.90	15.18	14.02	13.32	12.85	12.26	11.91	11.68	11.45
1.7	3.08	16.99	15.68	14.90	14.37	13.72	13.33	13.07	12.80
1.8	3.26	18.88	17.43	16.56	15.98	15.25	14.81	14.52	14.23
1.9	3.44	20.87	19.26	18.30	17.66	16.85	16.37	16.05	15.73
2.0	3.62	22.94	21.18	20.12	19.41	18.53	18.00	17.65	17.30
2.1	3.80	25.11	23.18	22.02	21.25	20.28	19.70	19.32	18.93
2.2	3.98	27.37	25.26	24.00	23.16	22.11	21.47	21.05	20.63
2.3	4.16	29.71	27.43	26.06	25.14	24.00	23.31	22.86	22.40
2.4	4.35	32.15	29.68	28.19	27.20	25.97	25.22	24.73	24.23
2.5	4.53	34.67	32.00	30.40	29.34	28.00	27.20	26.67	26.14
3.0	5.43	48.58	44.84	42.60	41.10	39.24	38.11	37.37	36.62
3.5	6.34	64.61	59.64	56.66	54.67	52.18	50.69	49.70	48.70
4.0	7.24	82.71	76.35	72.53	69.99	66.81	64.90	63.63	62.35
4.5	8.15	102.85	94.94	90.19	87.03	83.07	80.70	79.12	77.53
5.0	9.05	124.98	115.37	109.60	105.76	100.95	98.06	96.14	94.22
5.5	9.96	149.08	137.62	130.74	126.15	120.41	116.97	114.68	112.39
6.0	10.86	175.12	161.65	153.57	148.18	141.45	137.40	134.71	132.02

Pressure Loss Per 100 Feet

½" Wirsbo hePEX and Uponor AquaPEX (50% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.1	0.18	0.09	0.09	0.08	0.08	0.08	0.08	0.07	0.07
0.2	0.36	0.34	0.31	0.30	0.29	0.28	0.27	0.26	0.26
0.3	0.54	0.72	0.67	0.63	0.61	0.58	0.57	0.56	0.54
0.4	0.72	1.23	1.14	1.08	1.04	0.99	0.96	0.95	0.93
0.5	0.91	1.86	1.72	1.63	1.57	1.50	1.46	1.43	1.40
0.6	1.09	2.60	2.40	2.28	2.20	2.10	2.04	2.00	1.96
0.7	1.27	3.46	3.20	3.04	2.93	2.80	2.72	2.66	2.61
0.8	1.45	4.43	4.09	3.89	3.75	3.58	3.48	3.41	3.34
0.9	1.63	5.51	5.09	4.83	4.66	4.45	4.33	4.24	4.16
1.0	1.81	6.70	6.18	5.87	5.67	5.41	5.26	5.15	5.05
1.1	1.99	7.99	7.38	7.01	6.76	6.45	6.27	6.15	6.02
1.2	2.17	9.39	8.66	8.23	7.94	7.58	7.37	7.22	7.08
1.3	2.35	10.89	10.05	9.55	9.21	8.79	8.54	8.37	8.21
1.4	2.53	12.48	11.52	10.95	10.56	10.08	9.80	9.60	9.41
1.5	2.72	14.18	13.09	12.44	12.00	11.46	11.13	10.91	10.69
1.6	2.90	15.98	14.75	14.02	13.52	12.91	12.54	12.29	12.05
1.7	3.08	17.88	16.50	15.68	15.13	14.44	14.03	13.75	13.48
1.8	3.26	19.87	18.35	17.43	16.82	16.05	15.59	15.29	14.98
1.9	3.44	21.97	20.28	19.26	18.59	17.74	17.23	16.90	16.56
2.0	3.62	24.15	22.29	21.18	20.44	19.51	18.95	18.58	18.21
2.1	3.80	26.43	24.40	23.18	22.37	21.35	20.74	20.33	19.93
2.2	3.98	28.81	26.59	25.26	24.38	23.27	22.60	22.16	21.72
2.3	4.16	31.28	28.87	27.43	26.47	25.26	24.54	24.06	23.58
2.4	4.35	33.84	31.24	29.68	28.63	27.33	26.55	26.03	25.51
2.5	4.53	36.49	33.69	32.00	30.88	29.48	28.63	28.07	27.51
3.0	5.43	51.13	47.20	44.84	43.27	41.30	40.12	39.33	38.55
3.5	6.34	68.01	62.78	59.64	57.55	54.93	53.36	52.31	51.27
4.0	7.24	87.07	80.37	76.35	73.67	70.32	68.31	66.97	65.63
4.5	8.15	108.26	99.94	94.94	91.61	87.44	84.95	83.28	81.61
5.0	9.05	131.56	121.44	115.37	111.32	106.26	103.23	101.20	99.18
5.5	9.96	156.93	144.86	137.62	132.79	126.75	123.13	120.72	118.30
6.0	10.86	184.34	170.16	161.65	155.98	148.89	144.64	141.80	138.96

Pressure Loss Per 100 Feet

5/8" Wirsbo hePEX and Uponor AquaPEX (100% Water)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.2	0.25	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07
0.3	0.37	0.21	0.19	0.18	0.17	0.17	0.16	0.16	0.15
0.4	0.50	0.35	0.32	0.31	0.30	0.28	0.27	0.27	0.26
0.5	0.62	0.53	0.49	0.46	0.45	0.43	0.41	0.41	0.40
0.6	0.74	0.74	0.68	0.65	0.63	0.60	0.58	0.57	0.56
0.7	0.87	0.98	0.91	0.86	0.83	0.80	0.77	0.76	0.74
0.8	0.99	1.26	1.16	1.11	1.07	1.02	0.99	0.97	0.95
0.9	1.12	1.57	1.45	1.37	1.33	1.27	1.23	1.21	1.18
1.0	1.24	1.90	1.76	1.67	1.61	1.54	1.49	1.47	1.44
1.1	1.36	2.27	2.10	1.99	1.92	1.84	1.78	1.75	1.71
1.2	1.49	2.67	2.46	2.34	2.26	2.16	2.09	2.05	2.01
1.3	1.61	3.10	2.86	2.71	2.62	2.50	2.43	2.38	2.33
1.4	1.74	3.55	3.28	3.11	3.00	2.87	2.79	2.73	2.68
1.5	1.86	4.03	3.72	3.54	3.41	3.26	3.16	3.10	3.04
1.6	1.98	4.54	4.20	3.99	3.85	3.67	3.57	3.50	3.43
1.7	2.11	5.08	4.69	4.46	4.30	4.11	3.99	3.91	3.83
1.8	2.23	5.65	5.22	4.96	4.78	4.56	4.43	4.35	4.26
1.9	2.36	6.25	5.77	5.48	5.28	5.04	4.90	4.80	4.71
2.0	2.48	6.87	6.34	6.02	5.81	5.55	5.39	5.28	5.18
2.1	2.60	7.52	6.94	6.59	6.36	6.07	5.90	5.78	5.67
2.2	2.73	8.19	7.56	7.18	6.93	6.62	6.43	6.30	6.18
2.3	2.85	8.89	8.21	7.80	7.53	7.18	6.98	6.84	6.70
2.4	2.98	9.62	8.88	8.44	8.14	7.77	7.55	7.40	7.25
2.5	3.10	10.38	9.58	9.10	8.78	8.38	8.14	7.98	7.82
3.0	3.72	14.54	13.42	12.75	12.30	11.74	11.41	11.18	10.96
3.5	4.34	19.34	17.85	16.96	16.36	15.62	15.17	14.88	14.58
4.0	4.96	24.76	22.85	21.71	20.95	20.00	19.42	19.04	18.66
4.5	5.58	30.78	28.42	26.99	26.05	24.86	24.15	23.68	23.21
5.0	6.20	37.41	34.53	32.80	31.65	30.21	29.35	28.78	28.20
5.5	6.82	44.62	41.19	39.13	37.76	36.04	35.01	34.32	33.64
6.0	7.44	52.42	48.38	45.96	44.35	42.34	41.13	40.32	39.51
6.5	8.06	60.78	56.11	53.30	51.43	49.09	47.69	46.75	45.82
7.0	8.68	69.71	64.35	61.13	58.99	56.31	54.70	53.62	52.55
7.5	9.30	79.20	73.11	69.45	67.02	63.97	62.14	60.93	59.71
8.0	9.92	89.25	82.38	78.26	75.52	72.08	70.02	68.65	67.28
8.5	10.54	99.84	92.16	87.55	84.48	80.64	78.34	76.80	75.26

Pressure Loss Per 100 Feet

5/8" Wirsbo hePEX and Uponor AquaPEX (30% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.2	0.25	0.12	0.11	0.11	0.10	0.10	0.09	0.09	0.09
0.3	0.37	0.25	0.24	0.22	0.22	0.21	0.20	0.20	0.19
0.4	0.50	0.43	0.40	0.38	0.37	0.35	0.34	0.33	0.33
0.5	0.62	0.66	0.60	0.57	0.55	0.53	0.51	0.50	0.49
0.6	0.74	0.92	0.85	0.81	0.78	0.74	0.72	0.71	0.69
0.7	0.87	1.22	1.13	1.07	1.03	0.99	0.96	0.94	0.92
0.8	0.99	1.56	1.44	1.37	1.32	1.26	1.23	1.20	1.18
0.9	1.12	1.94	1.79	1.70	1.64	1.57	1.53	1.50	1.47
1.0	1.24	2.36	2.18	2.07	2.00	1.91	1.85	1.82	1.78
1.1	1.36	2.82	2.60	2.47	2.38	2.28	2.21	2.17	2.12
1.2	1.49	3.31	3.06	2.90	2.80	2.67	2.60	2.55	2.49
1.3	1.61	3.84	3.54	3.37	3.25	3.10	3.01	2.95	2.89
1.4	1.74	4.40	4.06	3.86	3.72	3.56	3.45	3.39	3.32
1.5	1.86	5.00	4.62	4.39	4.23	4.04	3.92	3.85	3.77
1.6	1.98	5.64	5.20	4.94	4.77	4.55	4.42	4.33	4.25
1.7	2.11	6.30	5.82	5.53	5.33	5.09	4.95	4.85	4.75
1.8	2.23	7.01	6.47	6.14	5.93	5.66	5.50	5.39	5.28
1.9	2.36	7.74	7.15	6.79	6.55	6.26	6.08	5.96	5.84
2.0	2.48	8.52	7.86	7.47	7.21	6.88	6.68	6.55	6.42
2.1	2.60	9.32	8.60	8.17	7.89	7.53	7.31	7.17	7.03
2.2	2.73	10.16	9.38	8.91	8.59	8.20	7.97	7.81	7.66
2.3	2.85	11.03	10.18	9.67	9.33	8.91	8.65	8.48	8.31
2.4	2.98	11.93	11.01	10.46	10.10	9.64	9.36	9.18	8.99
2.5	3.10	12.87	11.88	11.28	10.89	10.39	10.10	9.90	9.70
3.0	3.72	18.03	16.64	15.81	15.26	14.56	14.15	13.87	13.59
3.5	4.34	23.98	22.13	21.03	20.29	19.37	18.81	18.45	18.08
4.0	4.96	30.70	28.34	26.92	25.98	24.79	24.09	23.61	23.14
4.5	5.58	38.17	35.24	33.47	32.30	30.83	29.95	29.36	28.78
5.0	6.20	46.39	42.82	40.68	39.25	37.47	36.40	35.68	34.97
5.5	6.82	55.33	51.08	48.52	46.82	44.69	43.41	42.56	41.71
6.0	7.44	64.99	60.00	57.00	55.00	52.50	51.00	50.00	49.00
6.5	8.06	75.37	69.57	66.09	63.77	60.87	59.14	57.98	56.82
7.0	8.68	86.44	79.79	75.80	73.14	69.82	67.82	66.49	65.16
7.5	9.30	98.21	90.66	86.12	83.10	79.32	77.06	75.55	74.04
8.0	9.92	110.67	102.15	97.05	93.64	89.38	86.83	85.13	83.43
8.5	10.54	123.80	114.28	108.56	104.75	99.99	97.14	95.23	93.33

Pressure Loss Per 100 Feet

5/8" Wirsbo hePEX and Uponor AquaPEX (40% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.2	0.25	0.13	0.12	0.11	0.11	0.10	0.10	0.10	0.10
0.3	0.37	0.27	0.25	0.24	0.23	0.22	0.21	0.21	0.21
0.4	0.50	0.47	0.43	0.41	0.39	0.38	0.36	0.36	0.35
0.5	0.62	0.70	0.65	0.62	0.59	0.57	0.55	0.54	0.53
0.6	0.74	0.98	0.91	0.86	0.83	0.80	0.77	0.76	0.74
0.7	0.87	1.31	1.21	1.15	1.11	1.06	1.03	1.01	0.99
0.8	0.99	1.68	1.55	1.47	1.42	1.35	1.32	1.29	1.26
0.9	1.12	2.08	1.92	1.83	1.76	1.68	1.64	1.60	1.57
1.0	1.24	2.53	2.34	2.22	2.14	2.05	1.99	1.95	1.91
1.1	1.36	3.02	2.79	2.65	2.56	2.44	2.37	2.32	2.28
1.2	1.49	3.55	3.28	3.11	3.00	2.87	2.79	2.73	2.68
1.3	1.61	4.12	3.80	3.61	3.48	3.32	3.23	3.17	3.10
1.4	1.74	4.72	4.36	4.14	3.99	3.81	3.70	3.63	3.56
1.5	1.86	5.36	4.95	4.70	4.54	4.33	4.21	4.13	4.04
1.6	1.98	6.04	5.58	5.30	5.11	4.88	4.74	4.65	4.56
1.7	2.11	6.76	6.24	5.93	5.72	5.46	5.31	5.20	5.10
1.8	2.23	7.52	6.94	6.59	6.36	6.07	5.90	5.78	5.67
1.9	2.36	8.31	7.67	7.28	7.03	6.71	6.52	6.39	6.26
2.0	2.48	9.13	8.43	8.01	7.73	7.38	7.17	7.03	6.89
2.1	2.60	10.00	9.23	8.77	8.46	8.07	7.84	7.69	7.54
2.2	2.73	10.89	10.06	9.55	9.22	8.80	8.55	8.38	8.21
2.3	2.85	11.83	10.92	10.37	10.01	9.55	9.28	9.10	8.92
2.4	2.98	12.80	11.81	11.22	10.83	10.34	10.04	9.84	9.65
2.5	3.10	13.80	12.74	12.10	11.68	11.15	10.83	10.62	10.40
3.0	3.72	19.34	17.85	16.96	16.36	15.62	15.17	14.88	14.58
3.5	4.34	25.72	23.74	22.55	21.76	20.77	20.18	19.78	19.39
4.0	4.96	32.93	30.39	28.87	27.86	26.59	25.83	25.33	24.82
4.5	5.58	40.94	37.79	35.90	34.64	33.07	32.12	31.49	30.86
5.0	6.20	49.75	45.93	43.63	42.10	40.19	39.04	38.27	37.51
5.5	6.82	59.35	54.78	52.04	50.22	47.93	46.56	45.65	44.74
6.0	7.44	69.71	64.35	61.13	58.99	56.31	54.70	53.62	52.55
6.5	8.06	80.84	74.62	70.89	68.40	65.29	63.43	62.18	60.94
7.0	8.68	92.72	85.59	81.31	78.45	74.89	72.75	71.32	69.89
7.5	9.30	105.34	97.24	92.38	89.13	85.08	82.65	81.03	79.41
8.0	9.92	118.70	109.57	104.09	100.44	95.87	93.13	91.31	89.48
8.5	10.54	132.79	122.57	116.44	112.36	107.25	104.19	102.14	100.10

Pressure Loss Per 100 Feet

5/8" Wirsbo hePEX and Uponor AquaPEX (50% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.2	0.25	0.14	0.13	0.12	0.11	0.11	0.11	0.10	0.10
0.3	0.37	0.29	0.27	0.25	0.24	0.23	0.23	0.22	0.22
0.4	0.50	0.49	0.45	0.43	0.41	0.40	0.38	0.38	0.37
0.5	0.62	0.74	0.68	0.65	0.63	0.60	0.58	0.57	0.56
0.6	0.74	1.04	0.96	0.91	0.88	0.84	0.81	0.80	0.78
0.7	0.87	1.38	1.27	1.21	1.17	1.11	1.08	1.06	1.04
0.8	0.99	1.76	1.63	1.55	1.49	1.43	1.38	1.36	1.33
0.9	1.12	2.19	2.03	1.92	1.86	1.77	1.72	1.69	1.65
1.0	1.24	2.67	2.46	2.34	2.26	2.15	2.09	2.05	2.01
1.1	1.36	3.18	2.94	2.79	2.69	2.57	2.50	2.45	2.40
1.2	1.49	3.74	3.45	3.28	3.16	3.02	2.93	2.87	2.82
1.3	1.61	4.33	4.00	3.80	3.67	3.50	3.40	3.33	3.27
1.4	1.74	4.97	4.59	4.36	4.21	4.01	3.90	3.82	3.75
1.5	1.86	5.65	5.21	4.95	4.78	4.56	4.43	4.34	4.26
1.6	1.98	6.36	5.87	5.58	5.38	5.14	4.99	4.89	4.80
1.7	2.11	7.12	6.57	6.24	6.02	5.75	5.58	5.48	5.37
1.8	2.23	7.91	7.30	6.94	6.69	6.39	6.21	6.09	5.96
1.9	2.36	8.74	8.07	7.67	7.40	7.06	6.86	6.73	6.59
2.0	2.48	9.61	8.87	8.43	8.14	7.77	7.54	7.40	7.25
2.1	2.60	10.52	9.71	9.23	8.90	8.50	8.26	8.09	7.93
2.2	2.73	11.47	10.59	10.06	9.70	9.26	9.00	8.82	8.65
2.3	2.85	12.45	11.49	10.92	10.54	10.06	9.77	9.58	9.39
2.4	2.98	13.47	12.43	11.81	11.40	10.88	10.57	10.36	10.15
2.5	3.10	14.53	13.41	12.74	12.29	11.73	11.40	11.18	10.95
3.0	3.72	20.36	18.79	17.85	17.22	16.44	15.97	15.66	15.34
3.5	4.34	27.07	24.99	23.74	22.91	21.87	21.24	20.83	20.41
4.0	4.96	34.66	31.99	30.39	29.33	27.99	27.19	26.66	26.13
4.5	5.58	43.10	39.78	37.79	36.47	34.81	33.81	33.15	32.49
5.0	6.20	52.37	48.34	45.93	44.31	42.30	41.09	40.29	39.48
5.5	6.82	62.47	57.67	54.78	52.86	50.46	49.02	48.05	47.09
6.0	7.44	73.38	67.74	64.35	62.09	59.27	57.58	56.45	55.32
6.5	8.06	85.09	78.55	74.62	72.00	68.73	66.77	65.46	64.15
7.0	8.68	97.60	90.09	85.59	82.58	78.83	76.58	75.07	73.57
7.5	9.30	110.88	102.35	97.24	93.83	89.56	87.00	85.30	83.59
8.0	9.92	124.95	115.33	109.57	105.72	100.92	98.03	96.11	94.19
8.5	10.54	139.78	129.02	122.57	118.27	112.90	109.67	107.52	105.37

Pressure Loss Per 100 Feet

¾" Wirsbo hePEX and Uponor AquaPEX (100% Water)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.4	0.36	0.16	0.15	0.14	0.14	0.13	0.13	0.13	0.12
0.5	0.45	0.25	0.23	0.22	0.21	0.20	0.19	0.19	0.19
0.6	0.54	0.35	0.32	0.30	0.29	0.28	0.27	0.27	0.26
0.7	0.64	0.46	0.43	0.40	0.39	0.37	0.36	0.35	0.35
0.8	0.73	0.59	0.54	0.52	0.50	0.48	0.46	0.45	0.44
0.9	0.82	0.73	0.68	0.64	0.62	0.59	0.58	0.56	0.55
1.0	0.91	0.89	0.82	0.78	0.75	0.72	0.70	0.69	0.67
1.1	1.00	1.06	0.98	0.93	0.90	0.86	0.83	0.82	0.80
1.2	1.09	1.25	1.15	1.09	1.06	1.01	0.98	0.96	0.94
1.3	1.18	1.45	1.34	1.27	1.23	1.17	1.14	1.11	1.09
1.4	1.27	1.66	1.53	1.46	1.41	1.34	1.30	1.28	1.25
1.5	1.36	1.89	1.74	1.65	1.60	1.52	1.48	1.45	1.42
1.6	1.45	2.13	1.96	1.86	1.80	1.72	1.67	1.64	1.60
1.7	1.54	2.38	2.20	2.09	2.01	1.92	1.87	1.83	1.79
1.8	1.63	2.64	2.44	2.32	2.24	2.14	2.07	2.03	1.99
1.9	1.72	2.92	2.70	2.56	2.47	2.36	2.29	2.25	2.20
2.0	1.81	3.21	2.97	2.82	2.72	2.59	2.52	2.47	2.42
2.1	1.91	3.52	3.25	3.08	2.98	2.84	2.76	2.70	2.65
2.2	2.00	3.83	3.54	3.36	3.24	3.10	3.01	2.95	2.89
2.3	2.09	4.16	3.84	3.65	3.52	3.36	3.26	3.20	3.14
2.4	2.18	4.50	4.16	3.95	3.81	3.64	3.53	3.46	3.39
2.5	2.27	4.85	4.48	4.26	4.11	3.92	3.81	3.73	3.66
3.0	2.72	6.80	6.28	5.96	5.76	5.49	5.34	5.23	5.13
3.5	3.18	9.05	8.35	7.93	7.65	7.31	7.10	6.96	6.82
4.0	3.63	11.58	10.69	10.16	9.80	9.35	9.09	8.91	8.73
4.5	4.08	14.40	13.29	12.63	12.19	11.63	11.30	11.08	10.86
5.0	4.54	17.50	16.15	15.35	14.81	14.13	13.73	13.46	13.19
5.5	4.99	20.87	19.27	18.31	17.66	16.86	16.38	16.06	15.74
6.0	5.44	24.52	22.63	21.50	20.75	19.80	19.24	18.86	18.48
6.5	5.90	28.43	26.25	24.93	24.06	22.97	22.31	21.87	21.43
7.0	6.35	32.61	30.10	28.60	27.59	26.34	25.59	25.09	24.58
7.5	6.80	37.05	34.20	32.49	31.35	29.93	29.07	28.50	27.93
8.0	7.26	41.75	38.54	36.61	35.33	33.72	32.76	32.12	31.47
8.5	7.71	46.71	43.11	40.96	39.52	37.72	36.65	35.93	35.21
9.0	8.17	51.92	47.92	45.53	43.93	41.93	40.73	39.93	39.14
9.5	8.62	57.38	52.96	50.31	48.55	46.34	45.02	44.14	43.25
10.0	9.07	63.09	58.23	55.32	53.38	50.96	49.50	48.53	47.56
10.5	9.53	69.05	63.74	60.55	58.42	55.77	54.18	53.11	52.05
11.0	9.98	75.25	69.46	65.99	63.68	60.78	59.04	57.89	56.73
11.5	10.43	81.70	75.42	71.65	69.13	65.99	64.11	62.85	61.59

Pressure Loss Per 100 Feet

¾" Wirsbo hePEX and Uponor AquaPEX (30% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.4	0.36	0.20	0.19	0.18	0.17	0.16	0.16	0.16	0.15
0.5	0.45	0.31	0.28	0.27	0.26	0.25	0.24	0.24	0.23
0.6	0.54	0.43	0.40	0.38	0.36	0.35	0.34	0.33	0.32
0.7	0.64	0.57	0.53	0.50	0.48	0.46	0.45	0.44	0.43
0.8	0.73	0.73	0.68	0.64	0.62	0.59	0.57	0.56	0.55
0.9	0.82	0.91	0.84	0.80	0.77	0.73	0.71	0.70	0.69
1.0	0.91	1.11	1.02	0.97	0.94	0.89	0.87	0.85	0.83
1.1	1.00	1.32	1.22	1.16	1.12	1.06	1.03	1.01	0.99
1.2	1.09	1.55	1.43	1.36	1.31	1.25	1.21	1.19	1.17
1.3	1.18	1.80	1.66	1.57	1.52	1.45	1.41	1.38	1.35
1.4	1.27	2.06	1.90	1.81	1.74	1.66	1.62	1.58	1.55
1.5	1.36	2.34	2.16	2.05	1.98	1.89	1.84	1.80	1.76
1.6	1.45	2.64	2.43	2.31	2.23	2.13	2.07	2.03	1.99
1.7	1.54	2.95	2.72	2.59	2.50	2.38	2.31	2.27	2.22
1.8	1.63	3.28	3.03	2.87	2.77	2.65	2.57	2.52	2.47
1.9	1.72	3.62	3.34	3.18	3.07	2.93	2.84	2.79	2.73
2.0	1.81	3.98	3.68	3.49	3.37	3.22	3.13	3.06	3.00
2.1	1.91	4.36	4.02	3.82	3.69	3.52	3.42	3.35	3.29
2.2	2.00	4.75	4.39	4.17	4.02	3.84	3.73	3.66	3.58
2.3	2.09	5.16	4.76	4.52	4.37	4.17	4.05	3.97	3.89
2.4	2.18	5.58	5.15	4.89	4.72	4.51	4.38	4.29	4.21
2.5	2.27	6.02	5.56	5.28	5.09	4.86	4.72	4.63	4.54
3.0	2.72	8.43	7.79	7.40	7.14	6.81	6.62	6.49	6.36
3.5	3.18	11.22	10.35	9.84	9.49	9.06	8.80	8.63	8.46
4.0	3.63	14.36	13.26	12.59	12.15	11.60	11.27	11.05	10.83
4.5	4.08	17.86	16.48	15.66	15.11	14.42	14.01	13.74	13.46
5.0	4.54	21.70	20.03	19.03	18.36	17.53	17.03	16.69	16.36
5.5	4.99	25.88	23.89	22.70	21.90	20.91	20.31	19.91	19.51
6.0	5.44	30.41	28.07	26.66	25.73	24.56	23.86	23.39	22.92
6.5	5.90	35.26	32.55	30.92	29.83	28.48	27.66	27.12	26.58
7.0	6.35	40.44	37.33	35.46	34.22	32.66	31.73	31.11	30.48
7.5	6.80	45.94	42.41	40.29	38.88	37.11	36.05	35.34	34.63
8.0	7.26	51.77	47.79	45.40	43.81	41.81	40.62	39.82	39.03
8.5	7.71	57.92	53.46	50.79	49.01	46.78	45.44	44.55	43.66
9.0	8.17	64.37	59.42	56.45	54.47	52.00	50.51	49.52	48.53
9.5	8.62	71.15	65.67	62.39	60.20	57.46	55.82	54.73	53.63
10.0	9.07	78.23	72.21	68.60	66.19	63.18	61.38	60.18	58.97
10.5	9.53	85.62	79.03	75.08	72.45	69.15	67.18	65.86	64.54
11.0	9.98	93.31	86.14	81.83	78.96	75.37	73.22	71.78	70.34
11.5	10.43	101.31	93.52	88.84	85.72	81.83	79.49	77.93	76.37

Pressure Loss Per 100 Feet

¾" Wirsbo hePEX and Uponor AquaPEX (40% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.4	0.36	0.22	0.20	0.19	0.18	0.18	0.17	0.17	0.16
0.5	0.45	0.33	0.30	0.29	0.28	0.27	0.26	0.25	0.25
0.6	0.54	0.46	0.43	0.40	0.39	0.37	0.36	0.35	0.35
0.7	0.64	0.61	0.57	0.54	0.52	0.49	0.48	0.47	0.46
0.8	0.73	0.78	0.72	0.69	0.66	0.63	0.62	0.60	0.59
0.9	0.82	0.98	0.90	0.86	0.83	0.79	0.77	0.75	0.74
1.0	0.91	1.19	1.09	1.04	1.00	0.96	0.93	0.91	0.89
1.1	1.00	1.41	1.31	1.24	1.20	1.14	1.11	1.09	1.07
1.2	1.09	1.66	1.53	1.46	1.41	1.34	1.30	1.28	1.25
1.3	1.18	1.93	1.78	1.69	1.63	1.56	1.51	1.48	1.45
1.4	1.27	2.21	2.04	1.94	1.87	1.78	1.73	1.70	1.67
1.5	1.36	2.51	2.32	2.20	2.12	2.03	1.97	1.93	1.89
1.6	1.45	2.83	2.61	2.48	2.39	2.28	2.22	2.18	2.13
1.7	1.54	3.16	2.92	2.77	2.68	2.55	2.48	2.43	2.38
1.8	1.63	3.52	3.25	3.08	2.98	2.84	2.76	2.70	2.65
1.9	1.72	3.89	3.59	3.41	3.29	3.14	3.05	2.99	2.93
2.0	1.81	4.27	3.94	3.75	3.62	3.45	3.35	3.29	3.22
2.1	1.91	4.68	4.32	4.10	3.96	3.78	3.67	3.60	3.53
2.2	2.00	5.10	4.70	4.47	4.31	4.12	4.00	3.92	3.84
2.3	2.09	5.53	5.11	4.85	4.68	4.47	4.34	4.26	4.17
2.4	2.18	5.99	5.53	5.25	5.07	4.84	4.70	4.61	4.51
2.5	2.27	6.46	5.96	5.66	5.46	5.21	5.07	4.97	4.87
3.0	2.72	9.05	8.35	7.93	7.65	7.31	7.10	6.96	6.82
3.5	3.18	12.03	11.11	10.55	10.18	9.72	9.44	9.26	9.07
4.0	3.63	15.40	14.22	13.51	13.03	12.44	12.09	11.85	11.61
4.5	4.08	19.15	17.68	16.80	16.21	15.47	15.03	14.73	14.44
5.0	4.54	23.28	21.48	20.41	19.69	18.80	18.26	17.90	17.55
5.5	4.99	27.76	25.63	24.35	23.49	22.42	21.78	21.36	20.93
6.0	5.44	32.61	30.10	28.60	27.59	26.34	25.59	25.09	24.58
6.5	5.90	37.82	34.91	33.16	32.00	30.54	29.67	29.09	28.51
7.0	6.35	43.37	40.04	38.04	36.70	35.03	34.03	33.36	32.70
7.5	6.80	49.28	45.49	43.21	41.70	39.80	38.66	37.91	37.15
8.0	7.26	55.53	51.26	48.69	46.99	44.85	43.57	42.71	41.86
8.5	7.71	62.12	57.34	54.47	52.56	50.17	48.74	47.78	46.83
9.0	8.17	69.05	63.74	60.55	58.42	55.77	54.18	53.11	52.05
9.5	8.62	76.31	70.44	66.92	64.57	61.64	59.87	58.70	57.53
10.0	9.07	83.91	77.45	73.58	71.00	67.77	65.83	64.54	63.25
10.5	9.53	91.83	84.77	80.53	77.70	74.17	72.05	70.64	69.23
11.0	9.98	100.09	92.39	87.77	84.69	80.84	78.53	76.99	75.45
11.5	10.43	108.66	100.31	95.29	91.95	87.77	85.26	83.59	81.92

Pressure Loss Per 100 Feet

¾" Wirsbo hePEX and Uponor AquaPEX (50% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.4	0.36	0.23	0.21	0.20	0.19	0.18	0.18	0.18	0.17
0.5	0.45	0.35	0.32	0.30	0.29	0.28	0.27	0.27	0.26
0.6	0.54	0.48	0.45	0.43	0.41	0.39	0.38	0.37	0.37
0.7	0.64	0.64	0.60	0.57	0.55	0.52	0.51	0.50	0.49
0.8	0.73	0.83	0.76	0.72	0.70	0.67	0.65	0.64	0.62
0.9	0.82	1.03	0.95	0.90	0.87	0.83	0.81	0.79	0.77
1.0	0.91	1.25	1.15	1.09	1.06	1.01	0.98	0.96	0.94
1.1	1.00	1.49	1.37	1.31	1.26	1.20	1.17	1.14	1.12
1.2	1.09	1.75	1.61	1.53	1.48	1.41	1.37	1.34	1.32
1.3	1.18	2.03	1.87	1.78	1.72	1.64	1.59	1.56	1.53
1.4	1.27	2.32	2.15	2.04	1.97	1.88	1.82	1.79	1.75
1.5	1.36	2.64	2.44	2.32	2.24	2.13	2.07	2.03	1.99
1.6	1.45	2.98	2.75	2.61	2.52	2.40	2.34	2.29	2.24
1.7	1.54	3.33	3.07	2.92	2.82	2.69	2.61	2.56	2.51
1.8	1.63	3.70	3.42	3.25	3.13	2.99	2.90	2.85	2.79
1.9	1.72	4.09	3.78	3.59	3.46	3.30	3.21	3.15	3.08
2.0	1.81	4.50	4.15	3.94	3.81	3.63	3.53	3.46	3.39
2.1	1.91	4.92	4.54	4.32	4.17	3.98	3.86	3.79	3.71
2.2	2.00	5.36	4.95	4.70	4.54	4.33	4.21	4.13	4.04
2.3	2.09	5.82	5.38	5.11	4.93	4.70	4.57	4.48	4.39
2.4	2.18	6.30	5.82	5.53	5.33	5.09	4.94	4.85	4.75
2.5	2.27	6.80	6.27	5.96	5.75	5.49	5.33	5.23	5.12
3.0	2.72	9.52	8.79	8.35	8.06	7.69	7.47	7.32	7.18
3.5	3.18	12.66	11.69	11.11	10.72	10.23	9.94	9.74	9.55
4.0	3.63	16.21	14.97	14.22	13.72	13.10	12.72	12.47	12.22
4.5	4.08	20.16	18.61	17.68	17.06	16.28	15.82	15.51	15.20
5.0	4.54	24.50	22.62	21.48	20.73	19.79	19.22	18.85	18.47
5.5	4.99	29.22	26.98	25.63	24.73	23.60	22.93	22.48	22.03
6.0	5.44	34.33	31.69	30.10	29.05	27.73	26.93	26.41	25.88
6.5	5.90	39.81	36.75	34.91	33.68	32.15	31.23	30.62	30.01
7.0	6.35	45.66	42.14	40.04	38.63	36.88	35.82	35.12	34.42
7.5	6.80	51.87	47.88	45.49	43.89	41.90	40.70	39.90	39.10
8.0	7.26	58.45	53.95	51.26	49.46	47.21	45.86	44.96	44.06
8.5	7.71	65.39	60.36	57.34	55.33	52.81	51.30	50.30	49.29
9.0	8.17	72.68	67.09	63.74	61.50	58.70	57.03	55.91	54.79
9.5	8.62	80.33	74.15	70.44	67.97	64.88	63.03	61.79	60.55
10.0	9.07	88.32	81.53	77.45	74.73	71.34	69.30	67.94	66.58
10.5	9.53	96.67	89.23	84.77	81.79	78.08	75.85	74.36	72.87
11.0	9.98	105.35	97.25	92.39	89.15	85.09	82.66	81.04	79.42
11.5	10.43	114.38	105.59	100.31	96.79	92.39	89.75	87.99	86.23

Pressure Loss Per 100 Feet

1" Wirsbo hePEX and Uponor AquaPEX (100% Water)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.5	0.27	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06
0.6	0.33	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.08
0.7	0.38	0.14	0.13	0.12	0.12	0.11	0.11	0.10	0.10
0.8	0.44	0.17	0.16	0.15	0.15	0.14	0.14	0.13	0.13
0.9	0.49	0.22	0.20	0.19	0.18	0.18	0.17	0.17	0.16
1.0	0.55	0.26	0.24	0.23	0.22	0.21	0.21	0.20	0.20
1.1	0.60	0.31	0.29	0.28	0.27	0.25	0.25	0.24	0.24
1.2	0.66	0.37	0.34	0.32	0.31	0.30	0.29	0.28	0.28
1.3	0.71	0.43	0.40	0.38	0.36	0.35	0.34	0.33	0.32
1.4	0.77	0.49	0.45	0.43	0.42	0.40	0.39	0.38	0.37
1.5	0.82	0.56	0.51	0.49	0.47	0.45	0.44	0.43	0.42
2.0	1.10	0.95	0.88	0.83	0.80	0.77	0.75	0.73	0.72
2.5	1.37	1.43	1.32	1.26	1.21	1.16	1.13	1.10	1.08
3.0	1.65	2.01	1.86	1.76	1.70	1.62	1.58	1.55	1.52
3.5	1.92	2.67	2.47	2.34	2.26	2.16	2.10	2.06	2.02
4.0	2.20	3.42	3.16	3.00	2.90	2.77	2.69	2.63	2.58
4.5	2.47	4.26	3.93	3.73	3.60	3.44	3.34	3.27	3.21
5.0	2.75	5.17	4.78	4.54	4.38	4.18	4.06	3.98	3.90
6.0	3.30	7.25	6.69	6.36	6.13	5.85	5.69	5.58	5.46
7.0	3.85	9.64	8.90	8.45	8.16	7.79	7.56	7.42	7.27
8.0	4.40	12.34	11.39	10.82	10.44	9.97	9.68	9.49	9.30
9.0	4.95	15.35	14.17	13.46	12.99	12.40	12.04	11.80	11.57
10.0	5.50	18.65	17.21	16.35	15.78	15.06	14.63	14.35	14.06
11.0	6.05	22.24	20.53	19.51	18.82	17.97	17.45	17.11	16.77
12.0	6.60	26.13	24.12	22.91	22.11	21.10	20.50	20.10	19.70
13.0	7.15	30.30	27.97	26.57	25.64	24.47	23.77	23.31	22.84
14.0	7.70	34.75	32.08	30.48	29.41	28.07	27.27	26.73	26.20
15.0	8.25	39.48	36.45	34.62	33.41	31.89	30.98	30.37	29.76
16.0	8.80	44.49	41.07	39.02	37.65	35.94	34.91	34.22	33.54
17.0	9.35	49.77	45.94	43.65	42.11	40.20	39.05	38.29	37.52
18.0	9.90	55.32	51.07	48.51	46.81	44.68	43.41	42.56	41.71
19.0	10.45	61.14	56.44	53.62	51.74	49.38	47.97	47.03	46.09
20.0	11.00	67.23	62.06	58.95	56.89	54.30	52.75	51.71	50.68

Pressure Loss Per 100 Feet

1" Wirsbo hePEX and Uponor AquaPEX (30% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.5	0.27	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07
0.6	0.33	0.13	0.12	0.11	0.11	0.10	0.10	0.10	0.10
0.7	0.38	0.17	0.16	0.15	0.14	0.14	0.13	0.13	0.13
0.8	0.44	0.22	0.20	0.19	0.18	0.17	0.17	0.17	0.16
0.9	0.49	0.27	0.25	0.24	0.23	0.22	0.21	0.21	0.20
1.0	0.55	0.33	0.30	0.29	0.28	0.26	0.26	0.25	0.25
1.1	0.60	0.39	0.36	0.34	0.33	0.31	0.31	0.30	0.29
1.2	0.66	0.46	0.42	0.40	0.39	0.37	0.36	0.35	0.35
1.3	0.71	0.53	0.49	0.47	0.45	0.43	0.42	0.41	0.40
1.4	0.77	0.61	0.56	0.53	0.52	0.49	0.48	0.47	0.46
1.5	0.82	0.69	0.64	0.61	0.59	0.56	0.54	0.53	0.52
2.0	1.10	1.18	1.09	1.03	1.00	0.95	0.92	0.91	0.89
2.5	1.37	1.78	1.64	1.56	1.51	1.44	1.40	1.37	1.34
3.0	1.65	2.49	2.30	2.19	2.11	2.01	1.96	1.92	1.88
3.5	1.92	3.32	3.06	2.91	2.81	2.68	2.60	2.55	2.50
4.0	2.20	4.25	3.92	3.72	3.59	3.43	3.33	3.27	3.20
4.5	2.47	5.28	4.87	4.63	4.47	4.26	4.14	4.06	3.98
5.0	2.75	6.41	5.92	5.63	5.43	5.18	5.03	4.93	4.84
6.0	3.30	8.99	8.30	7.88	7.61	7.26	7.05	6.91	6.78
7.0	3.85	11.95	11.03	10.48	10.11	9.65	9.38	9.20	9.01
8.0	4.40	15.30	14.13	13.42	12.95	12.36	12.01	11.77	11.54
9.0	4.95	19.03	17.57	16.69	16.10	15.37	14.93	14.64	14.35
10.0	5.50	23.12	21.35	20.28	19.57	18.68	18.14	17.79	17.43
11.0	6.05	27.58	25.46	24.19	23.34	22.28	21.64	21.22	20.79
12.0	6.60	32.40	29.91	28.41	27.42	26.17	25.42	24.92	24.43
13.0	7.15	37.57	34.68	32.95	31.79	30.35	29.48	28.90	28.32
14.0	7.70	43.09	39.78	37.79	36.46	34.81	33.81	33.15	32.49
15.0	8.25	48.96	45.19	42.93	41.43	39.54	38.41	37.66	36.91
16.0	8.80	55.17	50.93	48.38	46.68	44.56	43.29	42.44	41.59
17.0	9.35	61.72	56.97	54.12	52.22	49.85	48.42	47.47	46.53
18.0	9.90	68.60	63.32	60.16	58.05	55.41	53.83	52.77	51.71
19.0	10.45	75.82	69.99	66.49	64.15	61.24	59.49	58.32	57.15
20.0	11.00	83.36	76.95	73.10	70.54	67.33	65.41	64.13	62.84

Pressure Loss Per 100 Feet

1" Wirsbo hePEX and Uponor AquaPEX (40% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.5	0.27	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07
0.6	0.33	0.14	0.13	0.12	0.12	0.11	0.11	0.10	0.10
0.7	0.38	0.18	0.17	0.16	0.15	0.15	0.14	0.14	0.14
0.8	0.44	0.23	0.21	0.20	0.20	0.19	0.18	0.18	0.17
0.9	0.49	0.29	0.27	0.25	0.24	0.23	0.23	0.22	0.22
1.0	0.55	0.35	0.32	0.31	0.30	0.28	0.27	0.27	0.26
1.1	0.60	0.42	0.39	0.37	0.35	0.34	0.33	0.32	0.32
1.2	0.66	0.49	0.45	0.43	0.42	0.40	0.39	0.38	0.37
1.3	0.71	0.57	0.53	0.50	0.48	0.46	0.45	0.44	0.43
1.4	0.77	0.65	0.60	0.57	0.55	0.53	0.51	0.50	0.49
1.5	0.82	0.74	0.68	0.65	0.63	0.60	0.58	0.57	0.56
2.0	1.10	1.26	1.17	1.11	1.07	1.02	0.99	0.97	0.95
2.5	1.37	1.91	1.76	1.67	1.61	1.54	1.50	1.47	1.44
3.0	1.65	2.67	2.47	2.34	2.26	2.16	2.10	2.06	2.02
3.5	1.92	3.56	3.28	3.12	3.01	2.87	2.79	2.74	2.68
4.0	2.20	4.55	4.20	3.99	3.85	3.68	3.57	3.50	3.43
4.5	2.47	5.66	5.23	4.96	4.79	4.57	4.44	4.36	4.27
5.0	2.75	6.88	6.35	6.03	5.82	5.56	5.40	5.29	5.19
6.0	3.30	9.64	8.90	8.45	8.16	7.79	7.56	7.42	7.27
7.0	3.85	12.82	11.84	11.24	10.85	10.36	10.06	9.86	9.67
8.0	4.40	16.41	15.15	14.39	13.89	13.26	12.88	12.63	12.37
9.0	4.95	20.41	18.84	17.90	17.27	16.49	16.01	15.70	15.39
10.0	5.50	24.80	22.90	21.75	20.99	20.03	19.46	19.08	18.70
11.0	6.05	29.59	27.31	25.94	25.03	23.90	23.21	22.76	22.30
12.0	6.60	34.75	32.08	30.48	29.41	28.07	27.27	26.73	26.20
13.0	7.15	40.30	37.20	35.34	34.10	32.55	31.62	31.00	30.38
14.0	7.70	46.22	42.67	40.53	39.11	37.33	36.27	35.55	34.84
15.0	8.25	52.51	48.47	46.05	44.43	42.42	41.20	40.40	39.59
16.0	8.80	59.17	54.62	51.89	50.07	47.79	46.43	45.52	44.61
17.0	9.35	66.20	61.10	58.05	56.01	53.47	51.94	50.92	49.90
18.0	9.90	73.58	67.92	64.52	62.26	59.43	57.73	56.60	55.47
19.0	10.45	81.32	75.06	71.31	68.81	65.68	63.81	62.55	61.30
20.0	11.00	89.41	82.54	78.41	75.66	72.22	70.16	68.78	67.41

Pressure Loss Per 100 Feet

1" Wirsbo hePEX and Uponor AquaPEX (50% Glycol)

Head (Feet of Water) Per 100 Feet of Tubing									
gpm	Velocity (ft/s)	40°F 4°C	60°F 16°C	80°F 27°C	100°F 38°C	120°F 49°C	140°F 60°C	160°F 71°C	180°F 82°C
0.5	0.27	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.08
0.6	0.33	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.11
0.7	0.38	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.14
0.8	0.44	0.24	0.23	0.21	0.21	0.20	0.19	0.19	0.18
0.9	0.49	0.30	0.28	0.27	0.26	0.25	0.24	0.23	0.23
1.0	0.55	0.37	0.34	0.32	0.31	0.30	0.29	0.28	0.28
1.1	0.60	0.44	0.41	0.39	0.37	0.36	0.35	0.34	0.33
1.2	0.66	0.52	0.48	0.45	0.44	0.42	0.41	0.40	0.39
1.3	0.71	0.60	0.55	0.53	0.51	0.48	0.47	0.46	0.45
1.4	0.77	0.69	0.63	0.60	0.58	0.56	0.54	0.53	0.52
1.5	0.82	0.78	0.72	0.68	0.66	0.63	0.61	0.60	0.59
2.0	1.10	1.33	1.23	1.17	1.12	1.07	1.04	1.02	1.00
2.5	1.37	2.01	1.85	1.76	1.70	1.62	1.58	1.55	1.51
3.0	1.65	2.81	2.60	2.47	2.38	2.27	2.21	2.17	2.12
3.5	1.92	3.74	3.46	3.28	3.17	3.02	2.94	2.88	2.82
4.0	2.20	4.79	4.42	4.20	4.06	3.87	3.76	3.69	3.61
4.5	2.47	5.96	5.50	5.23	5.04	4.81	4.68	4.58	4.49
5.0	2.75	7.24	6.69	6.35	6.13	5.85	5.68	5.57	5.46
6.0	3.30	10.15	9.37	8.90	8.59	8.20	7.96	7.81	7.65
7.0	3.85	13.50	12.46	11.84	11.42	10.90	10.59	10.38	10.17
8.0	4.40	17.28	15.95	15.15	14.62	13.96	13.56	13.29	13.03
9.0	4.95	21.48	19.83	18.84	18.18	17.35	16.86	16.53	16.20
10.0	5.50	26.11	24.10	22.90	22.09	21.09	20.49	20.08	19.68
11.0	6.05	31.14	28.75	27.31	26.35	25.15	24.44	23.96	23.48
12.0	6.60	36.58	33.77	32.08	30.95	29.55	28.70	28.14	27.58
13.0	7.15	42.42	39.16	37.20	35.89	34.26	33.28	32.63	31.98
14.0	7.70	48.65	44.91	42.67	41.17	39.30	38.17	37.43	36.68
15.0	8.25	55.28	51.03	48.47	46.77	44.65	43.37	42.52	41.67
16.0	8.80	62.29	57.50	54.62	52.71	50.31	48.87	47.91	46.96
17.0	9.35	69.68	64.32	61.10	58.96	56.28	54.67	53.60	52.53
18.0	9.90	77.45	71.49	67.92	65.54	62.56	60.77	59.58	58.39
19.0	10.45	85.60	79.02	75.06	72.43	69.14	67.16	65.85	64.53
20.0	11.00	94.12	86.88	82.54	79.64	76.02	73.85	72.40	70.95