



MUNICIPEX[®] PEX_a WATER SERVICE LINE

PRESSURE LOSS TABLES

SCOPE

This technical information applies to the planning, installation and connection of REHAU MUNICIPEX PEXa pipes.

Pressure loss tables are typically used when manually designing PEXa piping systems for water service applications. These tables are used to select the appropriate pipe size for water service applications.

The designer should also review the pertinent REHAU technical instructions and the REHAU *PEXa Limited Warranty* before beginning to design a system with PEXa pipes.

It is recommended to follow the *MUNICIPEX Installation Guide* and attend a REHAU Academy training seminar for water service piping. Designers should also periodically check the REHAU Resource Center for the latest updates to technical instructions.

If you do not have prior experience with water service systems or require additional assistance, please contact your regional REHAU sales office.

Table 1A: Pressure Loss for Inch-Sized SDR9 REHAU PEXa Carrier Pipe With 100% Water

Flow Rate GPM	Flow Velocity ft/sec					pressure loss in psi per 100 ft of pipe									
						73.4°F (23°C) Water					180°F (82.2°C) Water				
	3/4"	1"	1-1/4"	1-1/2"	2"	3/4"	1"	1-1/4"	1-1/2"	2"	3/4"	1"	1-1/4"	1-1/2"	2"
1	0.9	0.5	0.4	0.3	0.1	0.35	0.11	0.04	0.02	<.01	0.26	0.08	0.03	0.01	<.01
2	1.8	1.1	0.7	0.5	0.3	1.16	0.35	0.14	0.06	0.02	0.90	0.27	0.10	0.05	0.01
3	2.6	1.6	1.1	0.8	0.4	2.35	0.71	0.27	0.12	0.04	1.86	0.55	0.21	0.09	0.03
4	3.5	2.1	1.4	1.0	0.6	3.91	1.18	0.45	0.21	0.06	3.13	0.92	0.35	0.16	0.04
5	4.4	2.7	1.8	1.3	0.7	5.82	1.74	0.67	0.30	0.08	4.72	1.39	0.52	0.23	0.06
6	5.3	3.2	2.1	1.5	0.9	8.07	2.41	0.92	0.42	0.12	6.61	1.93	0.73	0.33	0.09
7	6.2	3.7	2.5	1.8	1.0	10.6	3.17	1.21	0.55	0.15	8.80	2.56	0.96	0.43	0.12
8	7.0	4.3	2.9	2.0	1.2	13.5	4.02	1.53	0.69	0.19	11.3	3.27	1.23	0.55	0.15
9	7.9	4.8	3.2	2.3	1.3	16.8	4.97	1.89	0.85	0.23	14.1	4.07	1.52	0.68	0.18
10	8.8	5.3	3.6	2.6	1.5	20.3	6.01	2.28	1.02	0.28	17.1	4.94	1.85	0.82	0.22
11	9.7	5.9	3.9	2.8	1.6	24.2	7.13	2.71	1.21	0.33	20.5	5.90	2.20	0.97	0.26
12		6.4	4.3	3.1	1.8		8.35	3.17	1.42	0.39		6.94	2.58	1.14	0.31
13		6.9	4.6	3.3	1.9		9.65	3.65	1.63	0.45		8.06	3.00	1.32	0.36
14		7.5	5.0	3.6	2.1		11.0	4.18	1.87	0.51		9.26	3.44	1.51	0.41
15		8.0	5.4	3.8	2.2		12.5	4.73	2.11	0.58		10.5	3.91	1.72	0.46
16		8.5	5.7	4.1	2.4		14.1	5.31	2.37	0.65		11.9	4.40	1.94	0.52
17		9.1	6.1	4.4	2.5		15.7	5.93	2.64	0.72		13.3	4.93	2.17	0.58
18		9.6	6.4	4.6	2.7		17.5	6.58	2.93	0.80		14.9	5.48	2.41	0.65
19			6.8	4.9	2.8			7.26	3.23	0.88			6.07	2.66	0.71
20			7.1	5.1	3.0			7.97	3.54	0.97			6.68	2.93	0.78
22			7.9	5.6	3.3			9.48	4.21	1.15			7.99	3.49	0.93
24			8.6	6.1	3.6			11.1	4.93	1.34			9.41	4.11	1.09
26			9.3	6.7	3.9			12.9	5.70	1.55			10.9	4.77	1.27
28				7.2	4.2				6.53	1.77				5.48	1.45
30				7.7	4.5				7.40	2.00				6.24	1.65
32				8.2	4.8				8.33	2.25				7.05	1.86
34				8.7	5.1				9.31	2.51				7.90	2.08
36				9.2	5.4				10.3	2.79				8.80	2.32
38				9.7	5.7				11.4	3.07				9.75	2.56
40					6.0					3.38					2.82
42					6.3					3.69					3.09
44					6.6					4.02					3.37
46					6.9					4.35					3.66
48					7.2					4.71					3.97
50					7.5					5.07					4.28
52					7.8					5.45					4.61
54					8.1					5.84					4.95
56					8.4					6.24					5.30
58					8.7					6.66					5.66
60					9.0					7.08					6.04
65					9.7					8.21					7.03

- Flow velocity above 8 fps (2.5 m/s) might result in excessive pressure loss, noise or erosion of the system components.
- Table values shown in pressure loss units of psi per 100 ft (30.5 m) of pipe.
Example: for 200 lineal ft of pipe, double the value listed in this table.
- To express pressure loss in terms of feet of head, multiply the table value by 2.307.
Example: 1 psi = 2.307 ft of head.

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