LIANG CHEW HARDWARE
联 洲 五 金

NORIKA PEX F5 MULTILAYER PIPES AND FITTINGS

Scan for
installation video:

EQAIMS
European Quality Assurance
ISO 9001:2015

SINGAPORE GREEN BUILDING PRODUCT CERTIFICATE

AWARDED TO

Liang Chew Hardware Pte Ltd

133 Kitchener Road
Singapore 208517

FOR THE PRODUCT

Pipe & Fittings - Potable Water

PRODUCT BRAND

Norika

PRODUCT MODEL

Refer to Appendix

THE PRODUCT HAS BEEN ASSESSED ACCORDING TO THE ASSESSMENT CRITERIA OF SINGAPORE GREEN BUILDING PRODUCT CERTIFICATION SCHEME. IT HAS BEEN AWARDED THE RATING:

SINGAPORE GREEN BUILDING PRODUCT SGBC GOOD

Director
SGBC Pte Ltd

Certificate Number	Original Issue Date	Revised Date	Valid Till
SGBP 4219	07 December 2023	-	06 December 2025

✓Good ✓✓Very Good ✓✓✓Excellent ✓✓✓✓Leader

The use and reliance on this certificate is subject to the terms and conditions of the Singapore Green Building Product Certification Scheme. Revised certificates may also be issued at the discretion of the Council. The certification status may be verified at the Singapore Green Building Council website (www.sgbc.sg).

SINGAPORE GREEN BUILDING PRODUCT CERTIFICATE

Appendix

Certificate Number: SGBP 4219

Models

[PIPES] - PIPPEX: [16mm, 20mm, 25mm, 32mm, 40mm, 50mm, 63mm and 75mm],[Fittings, Push-Fit] - (16mm, 20mm, 25mm and 32mm)(PEXF6EC || PEXF6E90 || PEXF6ET || PEXF6ES || PEXF6MIA || PEXF6FIA || PEXF6MIE || PEXF6FIE || PEXF6FE || PEXF6MIT || PEXF6FIT || PEXF6RT) // (20mm, 25mm and 32mm) (PEXF6RS || PEXF6RE90) // (16mm, 20mm, and 25mm) (PEXF6BV) // (16mm and 20mm) (PEXF6FE) ,[Fittings] - (16mm, 20mm, 25mm, 32mm, 40mm, 50mm, 63mm and 75mm) (PEXF5ES || PEXF5RS || PEXF5E90 || PEXF5RE90 || PEXF5EC16 || PEXF5ET16 || PEXF5RT || PEXF5MIT || PEXF5FIT || PEXF5MIA || PEXF5FIA) // (16mm, 20mm, 25mm, 32mm, 40mm, 50mm & 63mm) (PEXF5MIE || PEXF5FIE) // (16mm, 20mm, 25mm, 32mm, 40mm and 50mm) (PEXF5FJC) // (16mm, 20mm and 25mm) (PEXF5FE || PEXF5BV) // (16mm and 20mm) (PEXF5FES)

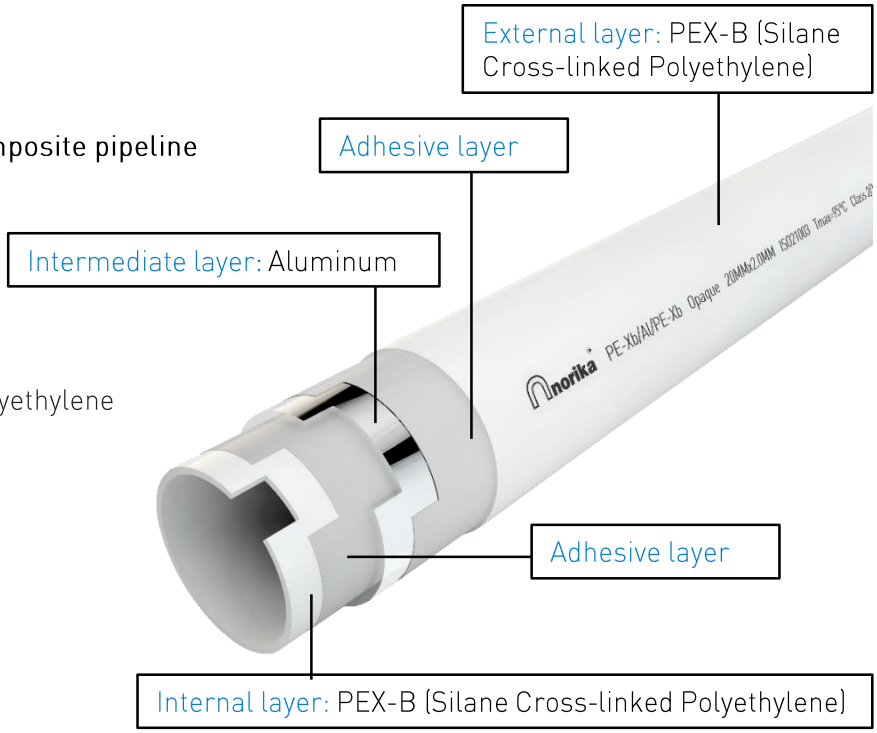
The **Norika® Multilayer PEX pipes**, is a three layer pipe in which it consist of materials PEX-B for its outside and inside layer while the middle layer is made of aluminum. The **Norika® Multilayer PEX pipes** have an operating pressure of 10bar and working temperature of 0℃ to 70℃. External and internal layer is made of silane cross-linked polyethylene that is extensively used in distribution of potable water. The silane cross-linking provides superior chemical and mechanical properties. While the intermediate layer is an aluminum alloy with overlapped welding that guarantees a total barrier to the passage of oxygen and light and provides excellent mechanical and chemical properties. It is applicable for hot and cold potable water applications also used for under floor heating system. Main advantages of multilayer pipes:

- Increase in internal pressure resistance.
- Ductility. Thanks to its aluminum layer, once pipes have been curved it will keep that form.
- Tightness to oxygen diffusion.
- Dimensional stability.
- Long service life.
- Higher flow.

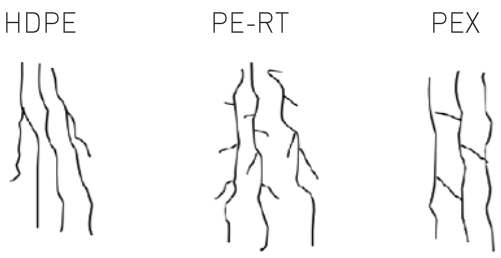
PAP——Polyethylene-Aluminum composite pipeline

Raw Material

- HDPE-AL-HDPE
  HDPE: High density polyethylene
- PERT-AL-PERT
  PERT: Heat resistant reinforced polyethylene
- PEX-AL-PEX
  PEX: Cross-linked polyethylene



Why Crosslinking?



Changing the structure to increase heat resistance and strength of the pipe.

- Insoluble & infusible – solvent resistance, high-temperature resistance
- Crosslinked construction – Impact / tensile strength, creep resistance, scratch resistance

Comparison Of The Three Cross-Linking Methods

	PEX-A		PEX-B		PEX-C		
Production Process	Engel (Peroxide plunger method)	Daoplas (Infrared cross-linking method)	Monsil (One-step method)	Sioplas (Two-step method)	γ-co	β-accelerator	UV
Basic formulation of Materials	HDPE + Peroxide + Antioxidants		HDPE + Peroxide + Antioxidants + Silane + Catalyst		HDPE + Antioxidants + Photosensitizer		
Agglomerate Structure	Planar Crosslinking		Volume Crosslinking		Volume Crosslinking		
Reaction by-Products	Initiator by-products (can be removed by post-treatment)		Initiator by-products + silane oligomers + silane hydrolysis by-products (Silane is difficult to remove)		Photosensitizer byproduct (Generally does not require post-processing)		
Rigidity	Poor		Good		Average		
Flexibility	Good		Poor		Average		
Hygiene Performance	Average		Poor		Good		
Aging Resistance	Poor		Average		Poor		
Memorability	Excellent memory effect, especially for use with cold expansion connections		Minimal shape memory, not suitable for cold expansion fittings		Minimal shape memory, not suitable for cold expansion fittings		
Cracking & Repair	Heat the kinked area with a heat gun until the material becomes translucent, then allow to cool.		The pipe is bent into a kink will produce white cracks, for the dead bend of the pipe, can not be repaired		PEX-C can use a heat gun to heat to transparent for small kink recovery, the effect is not as perfect as PEX-A		
Cross-linking Degree	≥70%		≥65%		≥60%		

Comparison Of Hydrostatic Stress

Test Conditions	Hydrostatic stress (MPa)	
	PE-RT	PE-X
20℃, 1h	9.9	12
95℃, 22h	3.8	4.7
95℃, 165h	3.6	4.6
95℃, 1000h	3.4	4.4

PEX-A, PEX-B, PERT+EVOH & Multilayer Technical Parameter Comparison Table

	PEX-A (Other Brand)	PEX (PEX-B)	EVOH+PERT pure plastic pipe (Other Brand)	NORIKA Multilayer (PEX multilayer pipe)	Note
Production Process	Engel (Peroxide plunger method)	Monsil (One-step method)	multilayer co-extrusion	Multilayer co-extrusion + metal welding + tube boiling crosslink	
Basic formulation of materials	HDPE + Peroxide + Antioxidants	HDPE + Peroxide + Antloxdants + Silane + Catalyst	PERT+EVOH	PEX-B Raw Material+Aluminium	
Agglomerate structure	Planar Crosslinking	volume Crosslinking	PERT+EVOH	PEXB-AL-PEXB	NORIKA multilayer pipe, based on the bulk crosslinking of PEXb, has a metal layer for reinforcement, achieving the most stable state.
Rigidity	LOW	AVERAGE	LOW	HIGH	
Flexibility	HIGH	HIGH	HIGH	AVERAGE Can be bent by hand	
Hygiene perfomance	AVERAGE	AVERAGE	GOOD	EXCELLENT	Due to the metal layer, NORIKA multilayer pipe can 100% barriers off light and oxygen
Aging resistance	LOW	AVERAGE	AVERAGE	HIGH	
Memorability	HIGH	LOW	LOW	LOW	
Cracking & Repair	AVERAGE Dead bend can be repaired	AVERAGE Slight bend can be repaired	LOW Crack cannot be repaired	EXCELLENT Crack cannot be repaired	The structure with multi-layer distribution of metal and non-metal significantly enhances crack resistance.
Cross-linking degree	≥70%	≥65%	No Crosslink	Same With NORIKA PEX-b	
Average coefficient of expansion(mm/mK)	HIGH (0.15)	HIGH (0.2)	NA	LOW (0.025) Hard to be deformed	The lower the value, the smaller the deformation impact caused by hot-cold alternation, and the less damage to the building.
roughness (mm)	AVERAGE (0.007)	LOW (0.0001)	NA	LOW (0.0007)	A low roughness can reduce water flow resistance and prevent sediment accumulation, further improving hygiene.
Max working temperature (Tmax,℃)	90	90	NA	95	The maximum temperature at which the pipe can work normally for a long term.
Short time extream high temperature (Tmal,℃)	100	100	NA	110	Extremely high temperature. Under this temperature, the pipe usually works for no more than 100 hours.
Working pressure (70℃, MPa)	1	1	NA	1	
Density (g/cm^3)	NA	0.946	0.941	0.946 (Plastic Layer)	
Vicat Softening temperature (℃)	NA	133	125	133 (Plastic Layer)	It is generally understood as the critical temperature at which the pipe softens and deforms due to heat.
Yeild Streee (kg/cm^2)	NA	210	210	210 (Plastic Layer)	
Elongation at Break (%)	NA	468	750	468 (Plastic Layer)	

Norika® PEX Multilayer Extrapolated Strength Values

Prediction 20°C				Prediction 70°C			
Time [h]	Time [y]	σLPL [MPa]	σLTHS [MPa]	Time [h]	Time [y]	σLPL [MPa]	σLTHS [MPa]
1	0.00	22.99	23.15	1	0.00	15.61	15.78
10	0.00	21.44	21.59	10	0.00	14.03	14.18
22	0.00	20.94	21.08	22	0.00	13.53	13.67
100	0.01	20.00	20.14	100	0.01	12.61	12.74
165	0.02	19.70	19.83	165	0.02	12.32	12.44
1000	0.11	18.65	18.78	1000	0.11	11.32	11.44
4000	0.46	17.89	18.01	4000	0.46	10.62	10.80
8760	1.00	17.47	17.59	8760	1.00	10.24	10.34
438000	50.00	15.51	15.62	438000	50.00	8.53	8.62

Prediction 95°C				Prediction 110°C			
Time [h]	Time [y]	σLPL [MPa]	σLTHS [MPa]	Time [h]	Time [y]	σLPL [MPa]	σLTHS [MPa]
1	0.00	11.56	11.71	1	0.00	9.08	9.23
10	0.00	10.09	10.22	10	0.00	7.74	7.87
22	0.00	9.63	9.76	22	0.00	7.33	7.45
100	0.01	8.80	8.92	100	0.01	6.60	6.71
165	0.02	8.55	8.66	165	0.02	6.38	6.48
1000	0.11	7.68	7.78	1000	0.11	5.63	5.72
4000	0.46	7.08	7.17	4000	0.46	5.11	5.19
8760	1.00	6.75	6.84	8760	1.00	4.84	4.92

Temperature	Extrapolation time [h]	Extrapolation time [y]	Test temperature used	Extrapolation time factor, ke
20°C	876000	100.00	95°C	100.00
70°C	490707	56.02	110°C	50.00
95°C	39257	4.48	110°C	4.00
110°C	9814	1.12	110°C	1.00

Pressure loss

Calculation formula: Colebrook - White Equation

$$r = f \times \frac{L}{D} \times P \times \frac{V^2}{2}$$

$$\frac{1}{\sqrt{f}} = -2\log\left(\frac{e}{3.7D} + \frac{2.51}{Re\sqrt{f}}\right)$$

$$Re = \frac{\rho \times V \times D}{\mu}$$

Description:

- r = heath loss (Pa)
- f = friction factor
- ρ = density of the fluid (kg/m^3)
- V = the velocity of the fluid (m/s)
- D = the pipe inner diameter (m)
- L = pipe length (m)
- e = relative roughness
- Re = reynolds number
- μ = dynamic viscosity (Pa·s)

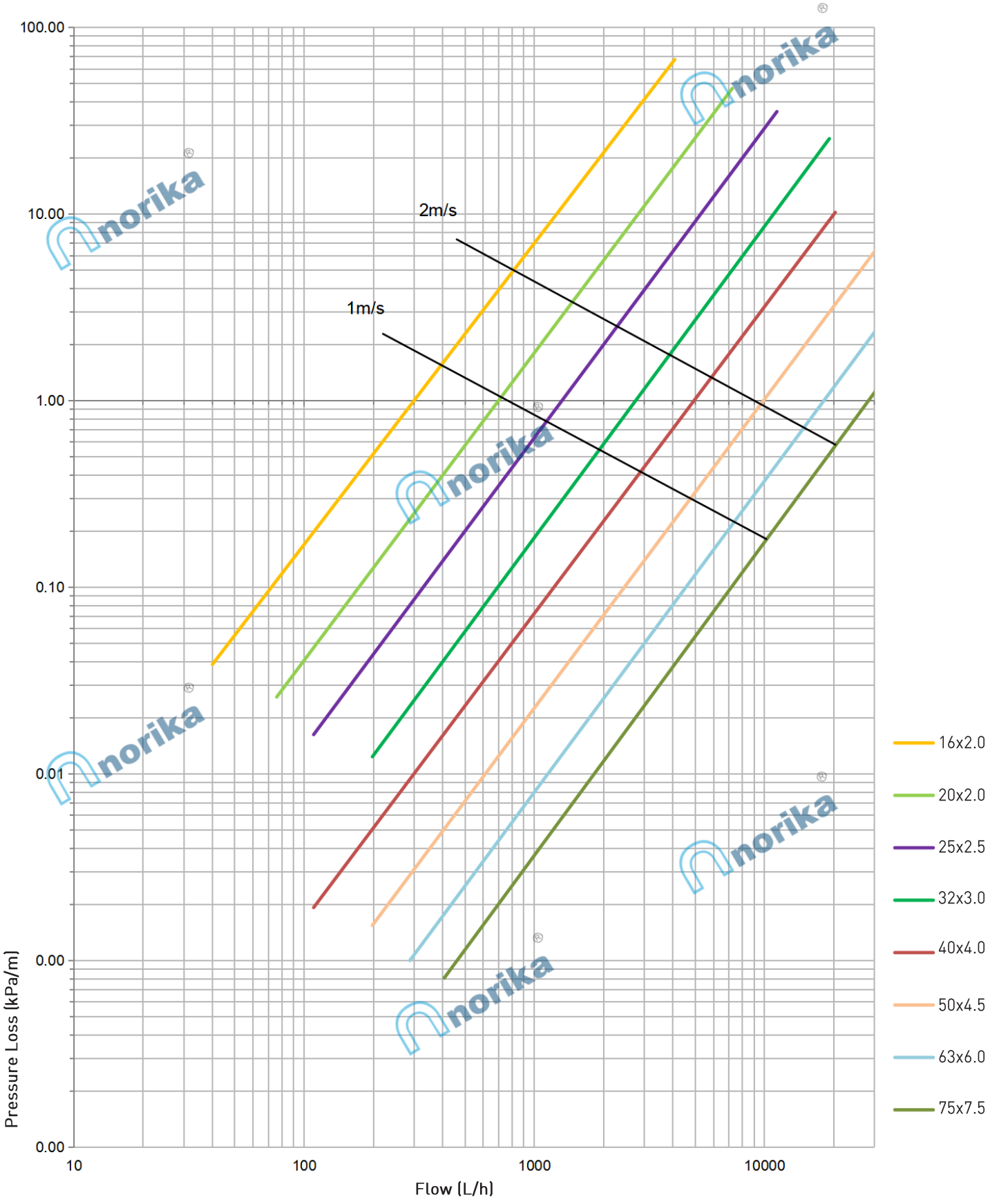
Pressure Loss Table of Multilayer PEX Pipe, Water Temperature = 10°C																	
		16×2.0		20×2.0		25×2.5		32x3.0		40x4.0		50x4.5		63x6.0		75x7.5	
Flow		Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP
(L/h)	(L/s)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)
23	0.01																
29	0.01																
40	0.01	0.098	0.053														
54	0.02	0.133	0.076														
76	0.02	0.187	0.117	0.105	0.034												
110	0.03	0.270	0.188	0.152	0.054	0.097	0.021			0.038	0.003						
198	0.06	0.486	0.436	0.274	0.120	0.175	0.045	0.104	0.014	0.068	0.006	0.042	0.002				
230	0.06	0.565	0.559	0.318	0.149	0.203	0.055	0.120	0.018	0.079	0.007	0.048	0.002				
288	0.08	0.707	0.825	0.398	0.212	0.255	0.076	0.151	0.024	0.099	0.010	0.061	0.003	0.039	0.001		
350	0.10	0.860	1.147	0.484	0.297	0.309	0.104	0.183	0.031	0.121	0.013	0.074	0.004	0.048	0.002		
406	0.11	0.997	1.478	0.561	0.382	0.359	0.133	0.212	0.039	0.140	0.015	0.085	0.005	0.055	0.002	0.040	0.001
460	0.13	1.130	1.837	0.636	0.472	0.407	0.166	0.241	0.048	0.159	0.019	0.097	0.006	0.063	0.002	0.045	0.001
573	0.16	1.407	2.668	0.792	0.688	0.507	0.240	0.300	0.070	0.198	0.026	0.121	0.008	0.078	0.003	0.056	0.002
688	0.19	1.690	3.563	0.951	0.944	0.608	0.329	0.360	0.096	0.238	0.036	0.145	0.011	0.094	0.004	0.068	0.002
720	0.20	1.768	3.832	0.995	1.019	0.637	0.356	0.377	0.103	0.249	0.039	0.151	0.012	0.098	0.004	0.071	0.002
850	0.24	2.088	5.335	1.174	1.334	0.752	0.474	0.445	0.137	0.294	0.052	0.179	0.016	0.116	0.006	0.084	0.003
916	0.25	2.250	6.005	1.266	1.499	0.810	0.538	0.479	0.156	0.316	0.059	0.193	0.018	0.125	0.007	0.090	0.003
1000	0.28	2.456	6.902	1.382	1.750	0.884	0.621	0.523	0.182	0.345	0.068	0.210	0.021	0.136	0.008	0.098	0.004
1146	0.32	2.815	8.580	1.583	2.288	1.013	0.769	0.600	0.229	0.396	0.086	0.241	0.027	0.156	0.010	0.113	0.004
1220	0.34	2.996	9.489	1.685	2.527	1.079	0.852	0.638	0.255	0.421	0.096	0.257	0.030	0.166	0.011	0.120	0.005
1373	0.38	3.372	11.488	1.897	3.048	1.214	1.096	0.718	0.308	0.474	0.118	0.289	0.036	0.187	0.013	0.135	0.006
1413	0.39	3.470	12.034	1.952	3.191	1.249	1.148	0.739	0.322	0.488	0.124	0.297	0.038	0.192	0.014	0.139	0.006
1450	0.40	3.561	12.553	2.003	3.326	1.282	1.196	0.759	0.336	0.501	0.129	0.305	0.040	0.197	0.014	0.142	0.007
1603	0.45	3.937	14.805	2.215	3.905	1.417	1.402	0.839	0.396	0.554	0.152	0.337	0.048	0.218	0.017	0.157	0.008
1690	0.47	4.151	16.153	2.335	4.252	1.494	1.524	0.884	0.455	0.584	0.165	0.356	0.052	0.230	0.019	0.166	0.009
1833	0.51	4.502	18.479	2.532	4.852	1.621	1.735	0.959	0.520	0.633	0.188	0.386	0.060	0.249	0.021	0.180	0.010
1900	0.53	4.667	19.622	2.625	5.143	1.680	1.838	0.994	0.551	0.656	0.199	0.400	0.064	0.258	0.023	0.187	0.011
1980	0.55	4.863	21.017	2.735	5.501	1.751	1.963	1.036	0.588	0.684	0.214	0.417	0.068	0.269	0.024	0.195	0.011
2062	0.57	5.064	22.491	2.849	5.879	1.823	2.096	1.079	0.627	0.712	0.239	0.434	0.073	0.280	0.026	0.203	0.012
2200	0.61	5.403	25.107	3.039	6.544	1.945	2.327	1.151	0.695	0.760	0.268	0.463	0.080	0.299	0.029	0.216	0.014
2262	0.63	5.556	26.306	3.125	6.850	2.000	2.434	1.183	0.727	0.781	0.281	0.476	0.084	0.308	0.031	0.222	0.014
2290	0.64	5.624	26.853	3.164	6.991	2.025	2.484	1.198	0.741	0.791	0.286	0.482	0.086	0.311	0.031	0.225	0.015
2400	0.67	5.895	29.074	3.316	7.557	2.122	2.681	1.256	0.799	0.829	0.308	0.505	0.092	0.326	0.034	0.236	0.016
2442	0.68	5.998	29.951	3.374	7.780	2.159	2.758	1.278	0.821	0.843	0.317	0.514	0.095	0.332	0.035	0.240	0.016
2545	0.71	6.251	32.129	3.516	8.334	2.250	2.952	1.332	0.877	0.879	0.338	0.535	0.102	0.346	0.037	0.250	0.017
2700	0.75	6.631	35.533	3.730	9.199	2.387	3.253	1.413	0.965	0.933	0.338	0.568	0.119	0.367	0.041	0.265	0.019
2770	0.77	6.803	37.121	3.827	9.605	2.449	3.394	1.449	1.006	0.957	0.387	0.583	0.124	0.377	0.043	0.272	0.020
2828	0.79	6.946	38.501	3.907	9.948	2.501	3.511	1.480	1.040	0.977	0.400	0.595	0.128	0.385	0.044	0.278	0.021
2895	0.80	7.110	40.043	4.000	10.347	2.560	3.650	1.515	1.080	1.000	0.415	0.609	0.133	0.394	0.046	0.284	0.022
3100	0.86	7.614	45.056	4.283	11.617	2.741	4.090	1.622	1.207	1.071	0.463	0.652	0.148	0.422	0.051	0.305	0.024
3258	0.91	8.002	49.098	4.501	12.636	2.881	4.445	1.705	1.310	1.125	0.502	0.685	0.160	0.443	0.057	0.320	0.026
3325	0.92	8.167	50.855	4.594	13.082	2.940	4.599	1.740	1.354	1.148	0.519	0.700	0.165	0.452	0.060	0.327	0.027
3450	0.96	8.474	54.216	4.766	13.931	3.050	4.893	1.805	1.439	1.192	0.550	0.726	0.175	0.469	0.064	0.339	0.029
3665	1.02	9.002	60.243	5.063	15.447	3.241	5.416	1.917	1.589	1.266	0.607	0.771	0.193	0.498	0.071	0.360	0.032
3880	1.08	9.530	66.448	5.360	17.027	3.431	5.964	2.030	1.748	1.340	0.666	0.816	0.212	0.528	0.078	0.381	0.036
4070	1.13	9.996	72.223	5.623	18.494	3.599	6.468	2.129	1.893	1.406	0.721	0.856	0.229	0.553	0.084	0.400	0.040

Medium: Water; 1 mbar/m = 100 Pa/m

Pressure Loss Table of Multilayer PEX Pipe, Water Temperature = 10°C																	
		16×2.0		20×2.0		25×2.5		32x3.0		40x4.0		50x4.5		63x6.0		75x7.5	
Flow		Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP
(L/h)	(L/s)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)
4250	1.18			5.872	19.932	3.758	6.962	2.224	2.034	1.468	0.774	0.894	0.245	0.578	0.090	0.418	0.043
4340	1.21			5.996	20.661	3.837	7.215	2.271	2.107	1.499	0.801	0.913	0.253	0.590	0.093	0.426	0.044
4432	1.23			6.123	21.429	3.919	7.480	2.319	2.182	1.531	0.829	0.932	0.262	0.603	0.096	0.435	0.045
4720	1.31			6.521	23.902	4.173	8.332	2.469	2.426	1.630	0.920	0.993	0.290	0.642	0.106	0.464	0.050
4990	1.39			6.894	26.327	4.412	9.166	2.611	2.666	1.723	1.010	1.050	0.318	0.679	0.116	0.490	0.055
5065	1.41			6.998	27.019	4.478	9.405	2.650	2.733	1.749	1.035	1.066	0.326	0.689	0.119	0.498	0.056
5300	1.47			7.322	29.228	4.686	10.172	2.773	2.953	1.831	1.117	1.115	0.351	0.721	0.128	0.521	0.060
5540	1.54			7.654	31.552	4.898	10.981	2.898	3.184	1.913	1.202	1.166	0.378	0.753	0.137	0.544	0.065
5790	1.61			7.999	34.018	5.119	11.850	3.029	3.433	2.000	1.296	1.218	0.406	0.787	0.147	0.569	0.070
6150	1.71			8.497	37.467	5.438	13.158	3.218	3.806	2.124	1.434	1.294	0.449	0.836	0.163	0.604	0.077
6515	1.81			9.001	40.569	5.761	14.546	3.409	4.203	2.250	1.582	1.371	0.494	0.886	0.179	0.640	0.084
6900	1.92			9.533	44.114	6.101	16.070	3.610	4.639	2.383	1.744	1.452	0.544	0.938	0.197	0.678	0.092
7235	2.01			9.996	47.510	6.397	17.431	3.785	5.036	2.499	1.892	1.522	0.589	0.984	0.213	0.711	0.100
7650	2.13					6.764	19.052	4.002	5.548	2.642	2.081	1.610	0.647	1.040	0.233	0.752	0.109
7920	2.20					7.003	20.076	4.144	5.890	2.735	2.209	1.666	0.687	1.077	0.247	0.778	0.116
8680	2.41					7.675	22.836	4.541	6.908	2.998	2.587	1.826	0.802	1.180	0.288	0.853	0.135
9050	2.51					8.002	24.408	4.735	7.427	3.126	2.780	1.904	0.861	1.231	0.309	0.889	0.144
9560	2.66					8.453	26.873	5.002	8.142	3.302	3.057	2.011	0.946	1.300	0.339	0.939	0.158
10180	2.83					9.001	30.069	5.326	8.981	3.516	3.411	2.142	1.054	1.384	0.377	1.000	0.176
10700	2.97					9.461	32.884	5.598	9.629	3.696	3.720	2.251	1.149	1.455	0.410	1.051	0.191
11310	3.14					10.000	36.301	5.917	10.460	3.906	4.093	2.380	1.264	1.538	0.451	1.111	0.210
12500	3.47							6.540	12.320	4.317	4.805	2.630	1.503	1.700	0.535	1.228	0.249
13380	3.72							7.000	13.906	4.621	5.283	2.815	1.692	1.819	0.602	1.315	0.279
14500	4.03							7.586	16.091	5.008	5.986	3.051	1.945	1.972	0.692	1.425	0.321
15300	4.25							8.005	17.747	5.284	6.566	3.219	2.128	2.080	0.759	1.503	0.352
16300	4.53							8.528	19.910	5.630	7.350	3.429	2.339	2.216	0.848	1.601	0.392
17200	4.78							8.999	21.939	5.941	8.081	3.619	2.521	2.339	0.931	1.690	0.430
18300	5.08							9.574	24.600	6.321	9.039	3.850	2.768	2.488	1.036	1.798	0.479
19110	5.31							9.998	26.603	6.600	9.786	4.021	2.978	2.599	1.112	1.877	0.517
20280	5.63									7.004	10.905	4.267	3.309	2.758	1.217	1.992	0.573
22080	6.13											4.646	3.857	3.002	1.373	2.169	0.662
23750	6.60											4.997	4.397	3.229	1.546	2.333	0.740
26000	7.22											5.470	5.177	3.535	1.812	2.554	0.841
28500	7.92											5.996	6.129	3.875	2.142	2.800	0.980
29500	8.19											6.207	6.517	4.011	2.277	2.898	1.042
31000	8.61											6.522	7.137	4.215	2.491	3.046	1.138
33250	9.24											6.996	8.120	4.521	2.833	3.267	1.291
36800	10.22													5.004	3.410	3.615	1.552
40700	11.31													5.534	4.103	3.999	1.866
44100	12.25													5.997	4.752	4.333	2.160
48000	13.33													6.527	5.552	4.716	2.522
51500	14.31													7.003	6.333	5.060	2.874
56500	15.69															5.551	3.409
61100	16.97															6.003	3.939
68000	18.89															6.681	4.798
72000	20.00															7.074	5.339

Medium: Water; 1 mbar/m = 100 Pa/m

Pipes Pressure Loss at 10°C (kPa/m)



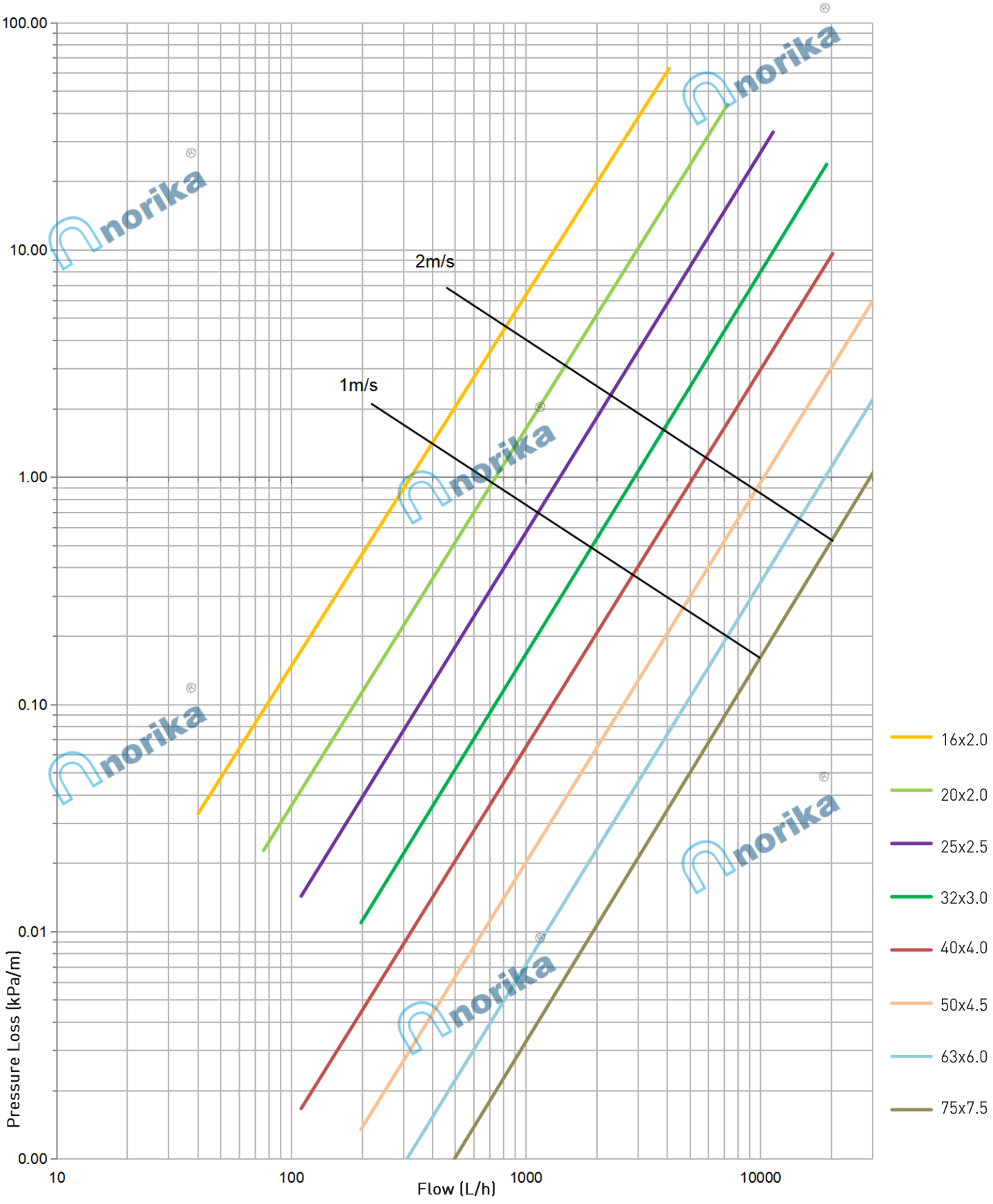
Pressure Loss Table of Multilayer PEX Pipe, Water Temperature = 20°C																	
		16×2.0		20×2.0		25×2.5		32x3.0		40x4.0		50x4.5		63x6.0		75x7.5	
Flow		Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP
(L/h)	(L/s)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)
23	0.01																
29	0.01																
40	0.01	0.098	0.043														
54	0.02	0.133	0.062														
76	0.02	0.187	0.097	0.105	0.028												
110	0.03	0.270	0.159	0.152	0.045	0.097	0.017			0.038	0.002						
198	0.06	0.486	0.402	0.274	0.104	0.175	0.038	0.104	0.012	0.068	0.005	0.042	0.002				
230	0.06	0.565	0.520	0.318	0.133	0.203	0.048	0.120	0.015	0.079	0.006	0.048	0.002				
288	0.08	0.707	0.760	0.398	0.197	0.255	0.069	0.151	0.021	0.099	0.008	0.061	0.003	0.039	0.001		
350	0.10	0.860	1.065	0.484	0.274	0.309	0.096	0.183	0.028	0.121	0.011	0.074	0.004	0.048	0.001		
406	0.11	0.997	1.374	0.561	0.353	0.359	0.124	0.212	0.036	0.140	0.014	0.085	0.004	0.055	0.002	0.040	0.001
460	0.13	1.130	1.690	0.636	0.438	0.407	0.153	0.241	0.045	0.159	0.017	0.097	0.005	0.063	0.002	0.045	0.001
573	0.16	1.407	2.412	0.792	0.637	0.507	0.223	0.300	0.065	0.198	0.024	0.121	0.008	0.078	0.003	0.056	0.001
688	0.19	1.690	3.419	0.951	0.854	0.608	0.305	0.360	0.088	0.238	0.033	0.145	0.010	0.094	0.004	0.068	0.002
720	0.20	1.768	3.673	0.995	0.916	0.637	0.330	0.377	0.096	0.249	0.036	0.151	0.011	0.098	0.004	0.071	0.002
850	0.24	2.088	4.783	1.174	1.276	0.752	0.430	0.445	0.128	0.294	0.048	0.179	0.015	0.116	0.005	0.084	0.002
916	0.25	2.250	5.392	1.266	1.438	0.810	0.480	0.479	0.145	0.316	0.054	0.193	0.017	0.125	0.006	0.090	0.003
1000	0.28	2.456	6.213	1.382	1.651	0.884	0.591	0.523	0.167	0.345	0.063	0.210	0.020	0.136	0.007	0.098	0.003
1146	0.32	2.815	7.755	1.583	2.052	1.013	0.738	0.600	0.207	0.396	0.080	0.241	0.025	0.156	0.009	0.113	0.004
1220	0.34	2.996	8.594	1.685	2.269	1.079	0.814	0.638	0.229	0.421	0.088	0.257	0.028	0.166	0.010	0.120	0.005
1373	0.38	3.372	10.447	1.897	2.746	1.214	0.983	0.718	0.295	0.474	0.107	0.289	0.034	0.187	0.012	0.135	0.006
1413	0.39	3.470	10.961	1.952	2.877	1.249	1.029	0.739	0.309	0.488	0.111	0.297	0.036	0.192	0.013	0.139	0.006
1450	0.40	3.561	11.447	2.003	3.000	1.282	1.072	0.759	0.322	0.501	0.116	0.305	0.037	0.197	0.013	0.142	0.006
1603	0.45	3.937	13.539	2.215	3.536	1.417	1.260	0.839	0.377	0.554	0.145	0.337	0.044	0.218	0.016	0.157	0.007
1690	0.47	4.151	14.795	2.335	3.858	1.494	1.372	0.884	0.410	0.584	0.158	0.356	0.047	0.230	0.017	0.166	0.008
1833	0.51	4.502	16.985	2.532	4.413	1.621	1.566	0.959	0.467	0.633	0.180	0.386	0.054	0.249	0.020	0.180	0.009
1900	0.53	4.667	18.056	2.625	4.686	1.680	1.661	0.994	0.494	0.656	0.191	0.400	0.057	0.258	0.021	0.187	0.010
1980	0.55	4.863	19.357	2.735	5.019	1.751	1.777	1.036	0.528	0.684	0.204	0.417	0.062	0.269	0.022	0.195	0.011
2062	0.57	5.064	20.753	2.849	5.373	1.823	1.900	1.079	0.564	0.712	0.217	0.434	0.069	0.280	0.024	0.203	0.011
2200	0.61	5.403	23.171	3.039	5.989	1.945	2.114	1.151	0.626	0.760	0.241	0.463	0.077	0.299	0.026	0.216	0.013
2262	0.63	5.556	24.313	3.125	6.278	2.000	2.214	1.183	0.655	0.781	0.252	0.476	0.081	0.308	0.028	0.222	0.013
2290	0.64	5.624	24.849	3.164	6.41	2.025	2.260	1.198	0.668	0.791	0.257	0.482	0.082	0.311	0.028	0.225	0.013
2400	0.67	5.895	26.939	3.316	6.942	2.122	2.444	1.256	0.721	0.829	0.277	0.505	0.088	0.326	0.030	0.236	0.014
2442	0.68	5.998	27.744	3.374	7.148	2.159	2.516	1.278	0.742	0.843	0.284	0.514	0.091	0.332	0.032	0.240	0.015
2545	0.71	6.251	29.791	3.516	7.667	2.250	2.695	1.332	0.794	0.879	0.304	0.535	0.097	0.346	0.035	0.250	0.016
2700	0.75	6.631	33.001	3.730	8.477	2.387	2.977	1.413	0.875	0.933	0.335	0.568	0.107	0.367	0.039	0.265	0.017
2770	0.77	6.803	34.512	3.827	8.858	2.449	3.107	1.449	0.912	0.957	0.349	0.583	0.111	0.377	0.041	0.272	0.018
2828	0.79	6.946	35.773	3.907	9.180	2.501	3.218	1.480	0.944	0.977	0.361	0.595	0.115	0.385	0.042	0.278	0.019
2895	0.80	7.110	37.262	4.000	9.555	2.560	3.348	1.515	0.982	1.000	0.375	0.609	0.119	0.394	0.044	0.284	0.020
3100	0.86	7.614	41.948	4.283	10.748	2.741	3.760	1.622	1.100	1.071	0.419	0.652	0.133	0.422	0.049	0.305	0.023
3258	0.91	8.002	45.73	4.501	11.705	2.881	4.091	1.705	1.195	1.125	0.455	0.685	0.144	0.443	0.053	0.320	0.025
3325	0.92	8.167	47.342	4.594	12.124	2.940	4.234	1.740	1.237	1.148	0.470	0.700	0.149	0.452	0.054	0.327	0.026
3450	0.96	8.474	50.284	4.766	12.923	3.050	4.512	1.805	1.316	1.192	0.500	0.726	0.158	0.469	0.058	0.339	0.027
3665	1.02	9.002	54.992	5.063	14.350	3.241	5.004	1.917	1.457	1.266	0.552	0.771	0.174	0.498	0.064	0.360	0.030
3880	1.08	9.530	59.620	5.360	15.844	3.431	5.517	2.030	1.604	1.340	0.607	0.816	0.191	0.528	0.070	0.381	0.033
4070	1.13	9.996	63.967	5.623	17.217	3.599	5.993	2.129	1.740	1.406	0.658	0.856	0.207	0.553	0.075	0.400	0.036

Medium: Water; 1 mbar/m = 100 Pa/m

Pressure Loss Table of Multilayer PEX Pipe, Water Temperature = 20°C																	
		16×2.0		20×2.0		25×2.5		32x3.0		40x4.0		50x4.5		63x6.0		75x7.5	
Flow		Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP
(L/h)	(L/s)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)
4250	1.18			5.872	18.570	3.758	6.458	2.224	1.873	1.468	0.707	0.894	0.222	0.578	0.081	0.418	0.038
4340	1.21			5.996	19.250	3.837	6.697	2.271	1.940	1.499	0.733	0.913	0.230	0.590	0.084	0.426	0.039
4432	1.23			6.123	19.954	3.919	6.941	2.319	2.012	1.531	0.759	0.932	0.24	0.603	0.086	0.435	0.041
4720	1.31			6.521	21.999	4.173	7.747	2.469	2.240	1.630	0.844	0.993	0.264	0.642	0.096	0.464	0.045
4990	1.39			6.894	23.864	4.412	8.532	2.611	2.465	1.723	0.928	1.050	0.290	0.679	0.105	0.490	0.049
5065	1.41			6.998	24.427	4.478	8.757	2.650	2.528	1.749	0.952	1.066	0.297	0.689	0.108	0.498	0.049
5300	1.47			7.322	26.024	4.686	9.476	2.773	2.736	1.831	1.028	1.115	0.321	0.721	0.116	0.521	0.054
5540	1.54			7.654	28.075	4.898	10.222	2.898	2.952	1.913	1.109	1.166	0.346	0.753	0.125	0.544	0.059
5790	1.61			7.999	30.194	5.119	10.984	3.029	3.187	2.000	1.196	1.218	0.372	0.787	0.134	0.569	0.063
6150	1.71			8.497	33.419	5.438	12.000	3.218	3.539	2.124	1.326	1.294	0.412	0.836	0.148	0.604	0.070
6515	1.81			9.001	37.140	5.761	13.038	3.409	3.914	2.250	1.466	1.371	0.455	0.886	0.163	0.640	0.076
6900	1.92			9.533	41.299	6.101	14.227	3.610	4.323	2.383	1.618	1.452	0.501	0.938	0.180	0.678	0.084
7235	2.01			9.996	44.983	6.397	15.391	3.785	4.686	2.499	1.756	1.522	0.544	0.984	0.195	0.711	0.091
7650	2.13					6.764	17.037	4.002	5.121	2.642	1.935	1.610	0.598	1.040	0.214	0.752	0.100
7920	2.20					7.003	18.120	4.144	5.385	2.735	2.056	1.666	0.635	1.077	0.227	0.778	0.106
8680	2.41					7.675	21.342	4.541	6.139	2.998	2.409	1.826	0.744	1.180	0.266	0.853	0.124
9050	2.51					8.002	23.086	4.735	6.565	3.126	2.584	1.904	0.800	1.231	0.285	0.889	0.133
9560	2.66					8.453	25.469	5.002	7.209	3.302	2.816	2.011	0.879	1.300	0.313	0.939	0.146
10180	2.83					9.001	28.548	5.326	8.059	3.516	3.073	2.142	0.981	1.384	0.349	1.000	0.162
10700	2.97					9.461	31.232	5.598	8.857	3.696	3.310	2.251	1.070	1.455	0.380	1.051	0.176
11310	3.14					10.000	34.576	5.917	9.761	3.906	3.621	2.380	1.177	1.538	0.419	1.111	0.194
12500	3.47							6.540	11.694	4.317	4.319	2.630	1.377	1.700	0.498	1.228	0.231
13380	3.72							7.000	13.238	4.621	4.877	2.815	1.513	1.819	0.561	1.315	0.259
14500	4.03							7.586	15.327	5.008	5.638	3.051	1.721	1.972	0.643	1.425	0.298
15300	4.25							8.005	16.872	5.284	6.215	3.219	1.888	2.080	0.699	1.503	0.327
16300	4.53							8.528	18.992	5.630	6.975	3.429	2.112	2.216	0.764	1.601	0.365
17200	4.78							8.999	21.035	5.941	7.696	3.619	2.327	2.339	0.827	1.690	0.400
18300	5.08							9.574	23.532	6.321	8.620	3.850	2.604	2.488	0.915	1.798	0.438
19110	5.31							9.998	25.523	6.600	9.330	4.021	2.819	2.599	0.988	1.877	0.466
20280	5.63									7.004	10.419	4.267	3.140	2.758	1.100	1.992	0.508
22080	6.13											4.646	3.663	3.002	1.281	2.169	0.587
23750	6.60											4.997	4.187	3.229	1.461	2.333	0.668
26000	7.22											5.470	4.945	3.535	1.724	2.554	0.787
28500	7.92											5.996	5.857	3.875	2.039	2.800	0.929
29500	8.19											6.207	6.243	4.011	2.173	2.898	0.989
31000	8.61											6.522	6.839	4.215	2.381	3.046	1.083
33250	9.24											6.996	7.793	4.521	2.708	3.267	1.230
36800	10.22													5.004	3.264	3.615	1.481
40700	11.31													5.534	3.934	3.999	1.783
44100	12.25													5.997	4.564	4.333	2.069
48000	13.33													6.527	5.340	4.716	2.421
51500	14.31													7.003	6.079	5.060	2.757
56500	15.69															5.551	3.273
61100	16.97															6.003	3.785
68000	18.89															6.681	4.615
72000	20.00															7.074	5.128

Medium: Water; 1 mbar/m = 100 Pa/m

Pipes Pressure Loss at 20°C (kPa/m)



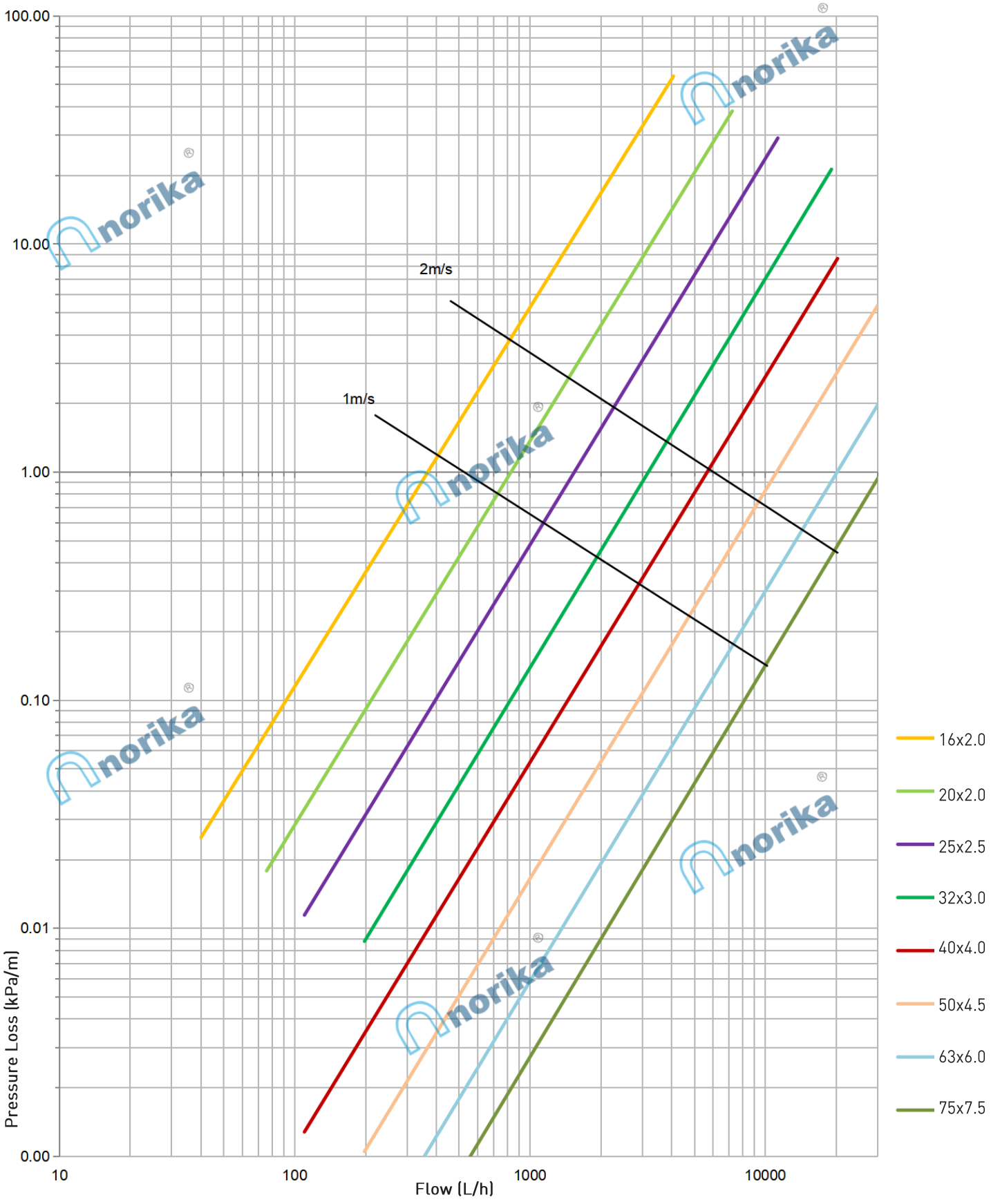
Pressure Loss Table of Multilayer PEX Pipe, Water Temperature = 45°C																	
		16×2.0		20×2.0		25×2.5		32x3.0		40x4.0		50x4.5		63x6.0		75x7.5	
Flow		Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP
(L/h)	(L/s)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)
23	0.01																
29	0.01																
40	0.01	0.10	0.029														
54	0.02	0.13	0.043														
76	0.02	0.19	0.070	0.10	0.020												
110	0.03	0.27	0.126	0.15	0.033	0.10	0.012			0.04	0.002						
198	0.06	0.49	0.344	0.27	0.089	0.18	0.031	0.10	0.009	0.07	0.004	0.04	0.001				
230	0.06	0.56	0.446	0.32	0.114	0.20	0.040	0.12	0.012	0.08	0.004	0.05	0.001				
288	0.08	0.71	0.648	0.40	0.169	0.25	0.059	0.15	0.017	0.10	0.006	0.06	0.002	0.04	0.001		
350	0.10	0.86	0.898	0.48	0.235	0.31	0.082	0.18	0.024	0.12	0.009	0.07	0.003	0.05	0.001		
406	0.11	1.00	1.192	0.56	0.298	0.36	0.106	0.21	0.031	0.14	0.012	0.09	0.004	0.06	0.001	0.04	0.001
460	0.13	1.13	1.453	0.64	0.366	0.41	0.131	0.24	0.038	0.16	0.014	0.10	0.004	0.06	0.002	0.05	0.001
573	0.16	1.41	2.065	0.79	0.550	0.51	0.186	0.30	0.055	0.20	0.021	0.12	0.006	0.08	0.002	0.06	0.001
688	0.19	1.69	2.779	0.95	0.735	0.61	0.264	0.36	0.074	0.24	0.029	0.14	0.009	0.09	0.003	0.07	0.001
720	0.20	1.77	2.994	0.99	0.791	0.64	0.284	0.38	0.080	0.25	0.031	0.15	0.010	0.10	0.003	0.07	0.002
850	0.24	2.09	3.940	1.17	1.034	0.75	0.370	0.44	0.111	0.29	0.040	0.18	0.013	0.12	0.005	0.08	0.002
916	0.25	2.25	4.464	1.27	1.168	0.81	0.417	0.48	0.125	0.32	0.045	0.19	0.014	0.12	0.005	0.09	0.002
1000	0.28	2.46	5.173	1.38	1.350	0.88	0.480	0.52	0.144	0.35	0.055	0.21	0.017	0.14	0.006	0.10	0.003
1146	0.32	2.81	6.518	1.58	1.692	1.01	0.600	0.60	0.178	0.40	0.069	0.24	0.021	0.16	0.008	0.11	0.004
1220	0.34	3.00	7.248	1.69	1.878	1.08	0.664	0.64	0.197	0.42	0.076	0.26	0.024	0.17	0.008	0.12	0.004
1373	0.38	3.37	8.876	1.90	2.290	1.21	0.808	0.72	0.239	0.47	0.092	0.29	0.029	0.19	0.010	0.13	0.005
1413	0.39	3.47	9.319	1.95	2.405	1.25	0.847	0.74	0.250	0.49	0.096	0.30	0.031	0.19	0.011	0.14	0.005
1450	0.40	3.56	9.751	2.00	2.512	1.28	0.884	0.76	0.261	0.50	0.100	0.31	0.032	0.20	0.011	0.14	0.005
1603	0.45	3.94	11.600	2.21	2.980	1.42	1.047	0.84	0.308	0.55	0.118	0.34	0.038	0.22	0.014	0.16	0.006
1690	0.47	4.15	12.712	2.33	3.261	1.49	1.144	0.88	0.336	0.58	0.128	0.36	0.041	0.23	0.015	0.17	0.007
1833	0.51	4.50	14.639	2.53	3.748	1.62	1.313	0.96	0.384	0.63	0.146	0.39	0.046	0.25	0.017	0.18	0.008
1900	0.53	4.67	15.574	2.62	3.987	1.68	1.395	0.99	0.408	0.66	0.155	0.40	0.049	0.26	0.018	0.19	0.009
1980	0.55	4.86	16.719	2.74	4.281	1.75	1.496	1.04	0.437	0.68	0.166	0.42	0.053	0.27	0.019	0.19	0.009
2062	0.57	5.06	17.923	2.85	4.593	1.82	1.604	1.08	0.468	0.71	0.178	0.43	0.056	0.28	0.021	0.20	0.010
2200	0.61	5.40	19.736	3.04	5.139	1.95	1.792	1.15	0.522	0.76	0.198	0.46	0.062	0.30	0.023	0.22	0.011
2262	0.63	5.56	20.484	3.13	5.394	2.00	1.879	1.18	0.547	0.78	0.207	0.48	0.065	0.31	0.024	0.22	0.011
2290	0.64	5.62	20.865	3.16	5.510	2.02	1.919	1.20	0.558	0.79	0.211	0.48	0.067	0.31	0.024	0.22	0.012
2400	0.67	5.89	22.259	3.32	5.980	2.12	2.081	1.26	0.605	0.83	0.229	0.50	0.072	0.33	0.026	0.24	0.012
2442	0.68	6.00	22.894	3.37	6.162	2.16	2.143	1.28	0.623	0.84	0.235	0.51	0.074	0.33	0.027	0.24	0.013
2545	0.71	6.25	24.507	3.52	6.616	2.25	2.302	1.33	0.668	0.88	0.252	0.54	0.079	0.35	0.029	0.25	0.014
2700	0.75	6.63	27.259	3.73	7.318	2.39	2.551	1.41	0.739	0.93	0.279	0.57	0.087	0.37	0.032	0.27	0.015
2770	0.77	6.80	28.464	3.83	7.637	2.45	2.666	1.45	0.772	0.96	0.291	0.58	0.091	0.38	0.033	0.27	0.016
2828	0.79	6.95	29.556	3.91	7.889	2.50	2.764	1.48	0.800	0.98	0.301	0.60	0.094	0.38	0.034	0.28	0.016
2895	0.80	7.11	30.876	4.00	8.193	2.56	2.879	1.51	0.832	1.00	0.314	0.61	0.098	0.39	0.036	0.28	0.017
3100	0.86	7.61	34.677	4.28	9.009	2.74	3.244	1.62	0.937	1.07	0.352	0.65	0.110	0.42	0.040	0.30	0.019
3258	0.91	8.00	38.004	4.50	9.686	2.88	3.535	1.70	1.020	1.13	0.383	0.69	0.120	0.44	0.043	0.32	0.020
3325	0.92	8.17	39.480	4.59	9.991	2.94	3.660	1.74	1.057	1.15	0.397	0.70	0.124	0.45	0.045	0.33	0.021
3450	0.96	8.47	42.299	4.77	10.677	3.05	3.893	1.81	1.126	1.19	0.423	0.73	0.132	0.47	0.047	0.34	0.022
3665	1.02	9.00	47.228	5.06	11.802	3.24	4.265	1.92	1.251	1.27	0.469	0.77	0.146	0.50	0.053	0.36	0.025
3880	1.08	9.53	52.49	5.36	13.060	3.43	4.624	2.03	1.381	1.34	0.517	0.82	0.161	0.53	0.058	0.38	0.027
4070	1.13	10.00	57.006	5.62	14.276	3.60	4.953	2.13	1.502	1.41	0.562	0.86	0.174	0.55	0.063	0.40	0.029

Medium: Water; 1 mbar/m = 100 Pa/m

Pressure Loss Table of Multilayer PEX Pipe, Water Temperature = 45°C																	
		16×2.0		20×2.0		25×2.5		32x3.0		40x4.0		50x4.5		63x6.0		75x7.5	
Flow		Speed (m/s)	ΔP (kPa/m)	Speed (m/s)	ΔP (kPa/m)	Speed (m/s)	ΔP (kPa/m)	Speed (m/s)	ΔP (kPa/m)	Speed (m/s)	ΔP (kPa/m)	Speed (m/s)	ΔP (kPa/m)	Speed (m/s)	ΔP (kPa/m)	Speed (m/s)	ΔP (kPa/m)
(L/h)	(L/s)																
4250	1.18			5.87	15.424	3.76	5.324	2.22	1.617	1.47	0.606	0.89	0.188	0.58	0.067	0.42	0.032
4340	1.21			6.00	16.052	3.84	5.509	2.27	1.677	1.50	0.628	0.91	0.195	0.59	0.070	0.43	0.033
4432	1.23			6.12	16.611	3.92	5.713	2.32	1.736	1.53	0.651	0.93	0.202	0.60	0.072	0.44	0.034
4720	1.31			6.52	18.712	4.17	6.396	2.47	1.913	1.63	0.727	0.99	0.225	0.64	0.080	0.46	0.038
4990	1.39			6.89	20.639	4.41	7.077	2.61	2.070	1.72	0.801	1.05	0.247	0.68	0.088	0.49	0.041
5065	1.41			7.00	21.256	4.48	7.268	2.65	2.111	1.75	0.822	1.07	0.253	0.69	0.091	0.50	0.042
5300	1.47			7.32	23.036	4.69	7.891	2.77	2.262	1.83	0.888	1.12	0.274	0.72	0.098	0.52	0.046
5540	1.54			7.65	24.925	4.90	8.533	2.90	2.436	1.91	0.956	1.17	0.297	0.75	0.106	0.54	0.049
5790	1.61			8.00	27.175	5.12	9.230	3.03	2.628	2.00	1.022	1.22	0.320	0.79	0.114	0.57	0.053
6150	1.71			8.50	30.300	5.44	10.331	3.22	2.918	2.12	1.113	1.29	0.355	0.84	0.126	0.60	0.059
6515	1.81			9.00	33.835	5.76	11.457	3.41	3.241	2.25	1.212	1.37	0.392	0.89	0.140	0.64	0.065
6900	1.92			9.53	37.423	6.10	12.766	3.61	3.591	2.38	1.333	1.45	0.434	0.94	0.155	0.68	0.072
7235	2.01			10.00	40.955	6.40	13.902	3.79	3.925	2.50	1.447	1.52	0.467	0.98	0.167	0.71	0.079
7650	2.13					6.76	15.420	4.00	4.327	2.64	1.600	1.61	0.505	1.04	0.185	0.75	0.086
7920	2.20					7.00	16.412	4.14	4.619	2.74	1.701	1.67	0.531	1.08	0.196	0.78	0.090
8680	2.41					7.67	19.447	4.54	5.455	3.00	2.009	1.83	0.612	1.18	0.229	0.85	0.107
9050	2.51					8.00	21.011	4.73	5.901	3.13	2.166	1.90	0.660	1.23	0.244	0.89	0.115
9560	2.66					8.45	23.264	5.00	6.509	3.30	2.394	2.01	0.723	1.30	0.264	0.94	0.126
10180	2.83					9.00	26.115	5.33	7.308	3.52	2.684	2.14	0.811	1.38	0.288	1.00	0.142
10700	2.97					9.46	28.677	5.60	8.014	3.70	2.939	2.25	0.884	1.45	0.312	1.05	0.152
11310	3.14					10.00	31.715	5.92	8.880	3.91	3.257	2.38	0.981	1.54	0.346	1.11	0.163
12500	3.47							6.54	10.675	4.32	3.909	2.63	1.185	1.70	0.415	1.23	0.195
13380	3.72							7.00	12.119	4.62	4.436	2.82	1.337	1.82	0.468	1.31	0.214
14500	4.03							7.59	14.045	5.01	5.143	3.05	1.544	1.97	0.542	1.42	0.247
15300	4.25							8.00	15.513	5.28	5.680	3.22	1.704	2.08	0.599	1.50	0.269
16300	4.53							8.53	17.467	5.63	6.386	3.43	1.926	2.22	0.661	1.60	0.315
17200	4.78							9.00	19.314	5.94	7.063	3.62	2.113	2.34	0.742	1.69	0.335
18300	5.08							9.57	21.667	6.32	7.908	3.85	2.372	2.49	0.822	1.80	0.384
19110	5.31							10.00	23.494	6.60	8.570	4.02	2.580	2.60	0.897	1.88	0.410
20280	5.63									7.00	9.567	4.27	2.872	2.76	1.004	1.99	0.455
22080	6.13											4.65	3.361	3.00	1.164	2.17	0.529
23750	6.60											5.00	3.853	3.23	1.338	2.33	0.606
26000	7.22											5.47	4.547	3.54	1.574	2.55	0.730
28500	7.92											6.00	5.423	3.88	1.874	2.80	0.861
29500	8.19											6.21	5.747	4.01	2.005	2.90	0.920
31000	8.61											6.52	6.299	4.22	2.213	3.05	0.989
33250	9.24											7.00	7.173	4.52	2.532	3.27	1.212
36800	10.22													5.00	3.000	3.62	1.395
40700	11.31													5.53	3.671	4.00	1.659
44100	12.25													6.00	4.235	4.33	1.976
48000	13.33													6.53	4.925	4.72	2.117
51500	14.31													7.00	5.674	5.06	2.620
56500	15.69															5.55	3.203
61100	16.97															6.00	3.617
68000	18.89															6.68	4.375
72000	20.00															7.07	4.729

Medium: Water; 1 mbar/m = 100 Pa/m

Pipes Pressure Loss at 45°C (kPa/m)



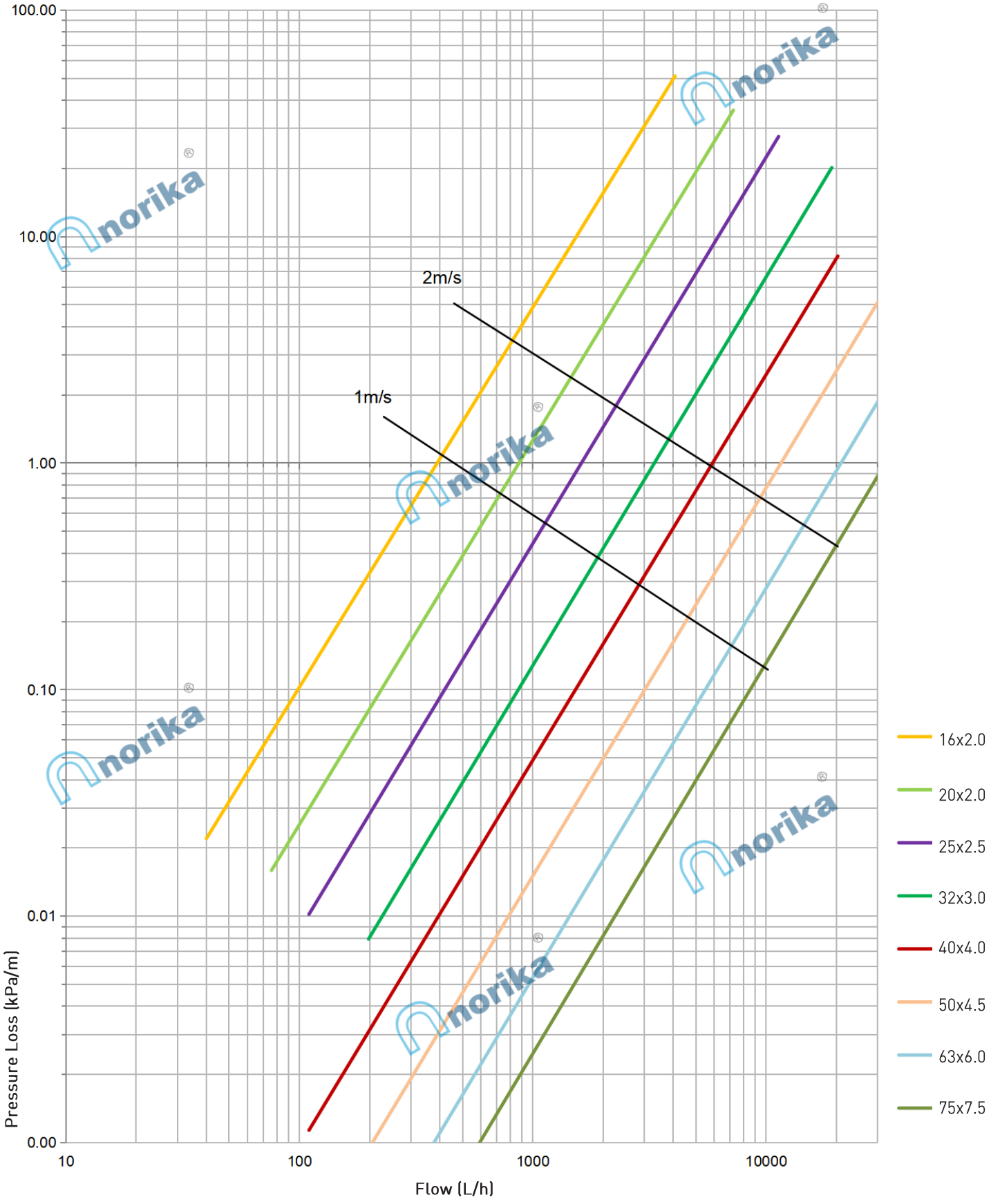
Pressure Loss Table of Multilayer PEX Pipe, Water Temperature = 60°C																	
		16×2.0		20×2.0		25×2.5		32x3.0		40x4.0		50x4.5		63x6.0		75x7.5	
Flow		Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP
(L/h)	(L/s)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)
23	0.01																
29	0.01																
40	0.01	0.098	0.025														
54	0.02	0.133	0.037														
76	0.02	0.187	0.062	0.152	0.017												
110	0.03	0.270	0.117	0.274	0.030	0.097	0.011			0.038	0.001						
198	0.06	0.486	0.319	0.318	0.082	0.175	0.029	0.104	0.008	0.068	0.003	0.042	0.001				
230	0.06	0.565	0.408	0.398	0.106	0.203	0.037	0.120	0.011	0.079	0.004	0.048	0.001				
288	0.08	0.707	0.620	0.484	0.155	0.255	0.055	0.151	0.016	0.099	0.006	0.061	0.002	0.039	0.001		
350	0.10	0.860	0.847	0.561	0.211	0.309	0.076	0.183	0.022	0.121	0.008	0.074	0.003	0.048	0.001		
406	0.11	0.997	1.073	0.636	0.286	0.359	0.096	0.212	0.029	0.140	0.011	0.085	0.003	0.055	0.001	0.040	0.001
460	0.13	1.130	1.311	0.792	0.349	0.407	0.120	0.241	0.035	0.159	0.013	0.097	0.004	0.063	0.001	0.045	0.001
573	0.16	1.407	1.875	0.951	0.495	0.507	0.178	0.300	0.050	0.198	0.019	0.121	0.006	0.078	0.002	0.056	0.001
688	0.19	1.690	2.539	0.995	0.666	0.608	0.238	0.360	0.071	0.238	0.026	0.145	0.008	0.094	0.003	0.068	0.001
720	0.20	1.768	2.739	1.174	0.717	0.637	0.256	0.377	0.077	0.249	0.028	0.151	0.009	0.098	0.003	0.071	0.001
850	0.24	2.088	3.623	1.266	0.943	0.752	0.335	0.445	0.100	0.294	0.039	0.179	0.012	0.116	0.004	0.084	0.002
916	0.25	2.250	4.112	1.382	1.067	0.810	0.378	0.479	0.112	0.316	0.043	0.193	0.013	0.125	0.005	0.090	0.002
1000	0.28	2.456	4.777	1.583	1.236	0.884	0.437	0.523	0.130	0.345	0.050	0.210	0.016	0.136	0.005	0.098	0.003
1146	0.32	2.815	6.038	1.685	1.556	1.013	0.548	0.600	0.162	0.396	0.062	0.241	0.020	0.156	0.007	0.113	0.003
1220	0.34	2.996	6.727	1.897	1.730	1.079	0.608	0.638	0.179	0.421	0.069	0.257	0.022	0.166	0.008	0.120	0.004
1373	0.38	3.372	8.256	1.952	2.118	1.214	0.742	0.718	0.218	0.474	0.083	0.289	0.026	0.187	0.010	0.135	0.004
1413	0.39	3.470	8.682	2.003	2.225	1.249	0.779	0.739	0.228	0.488	0.087	0.297	0.028	0.192	0.010	0.139	0.005
1450	0.40	3.561	9.078	2.215	2.326	1.282	0.814	0.759	0.238	0.501	0.091	0.305	0.029	0.197	0.011	0.142	0.005
1603	0.45	3.937	10.774	2.335	2.765	1.417	0.965	0.839	0.282	0.554	0.107	0.337	0.034	0.218	0.012	0.157	0.006
1690	0.47	4.151	11.727	2.532	3.029	1.494	1.057	0.884	0.308	0.584	0.117	0.356	0.037	0.230	0.013	0.166	0.006
1833	0.51	4.502	13.071	2.625	3.489	1.621	1.215	0.959	0.353	0.633	0.134	0.386	0.042	0.249	0.015	0.180	0.007
1900	0.53	4.667	13.836	2.735	3.714	1.680	1.292	0.994	0.375	0.656	0.142	0.400	0.045	0.258	0.016	0.187	0.008
1980	0.55	4.863	14.792	2.849	3.990	1.751	1.388	1.036	0.403	0.684	0.152	0.417	0.048	0.269	0.017	0.195	0.008
2062	0.57	5.064	15.888	3.039	4.280	1.823	1.489	1.079	0.432	0.712	0.163	0.434	0.051	0.280	0.019	0.203	0.009
2200	0.61	5.403	17.787	3.125	4.764	1.945	1.666	1.151	0.482	0.760	0.182	0.463	0.057	0.299	0.021	0.216	0.010
2262	0.63	5.556	18.699	3.164	4.966	2.000	1.748	1.183	0.506	0.781	0.191	0.476	0.060	0.308	0.022	0.222	0.010
2290	0.64	5.624	19.100	3.316	5.06	2.025	1.786	1.198	0.516	0.791	0.195	0.482	0.061	0.311	0.022	0.225	0.010
2400	0.67	5.895	20.770	3.374	5.397	2.122	1.938	1.256	0.560	0.829	0.211	0.505	0.066	0.326	0.024	0.236	0.011
2442	0.68	5.998	21.344	3.516	5.561	2.159	1.997	1.278	0.577	0.843	0.217	0.514	0.068	0.332	0.024	0.240	0.012
2545	0.71	6.251	23.190	3.730	5.877	2.250	2.146	1.332	0.619	0.879	0.233	0.535	0.073	0.346	0.026	0.250	0.012
2700	0.75	6.631	25.600	3.827	6.494	2.387	2.369	1.413	0.686	0.933	0.258	0.568	0.080	0.367	0.029	0.265	0.014
2770	0.77	6.803	26.910	3.907	6.782	2.449	2.470	1.449	0.717	0.957	0.269	0.583	0.084	0.377	0.030	0.272	0.014
2828	0.79	6.946	27.937	4.000	7.052	2.501	2.548	1.480	0.744	0.977	0.279	0.595	0.087	0.385	0.031	0.278	0.015
2895	0.80	7.110	29.223	4.283	7.311	2.560	2.637	1.515	0.774	1.000	0.290	0.609	0.090	0.394	0.032	0.284	0.015
3100	0.86	7.614	33.019	4.501	8.273	2.741	2.899	1.622	0.872	1.071	0.327	0.652	0.101	0.422	0.036	0.305	0.017
3258	0.91	8.002	36.24	4.594	9.064	2.881	3.132	1.705	0.951	1.125	0.356	0.685	0.110	0.443	0.040	0.320	0.019
3325	0.92	8.167	37.656	4.766	9.398	2.940	3.243	1.740	0.985	1.148	0.369	0.700	0.114	0.452	0.041	0.327	0.019
3450	0.96	8.474	40.312	5.063	10.031	3.050	3.550	1.805	1.049	1.192	0.393	0.726	0.122	0.469	0.044	0.339	0.020
3665	1.02	9.002	44.908	5.360	11.195	3.241	3.845	1.917	1.154	1.266	0.437	0.771	0.135	0.498	0.048	0.360	0.023
3880	1.08	9.530	50.026	5.623	12.446	3.431	4.253	2.030	1.253	1.340	0.482	0.816	0.149	0.528	0.053	0.381	0.025
4070	1.13	9.996	54.503	5.872	13.592	3.599	4.640	2.129	1.339	1.406	0.524	0.856	0.162	0.553	0.058	0.400	0.027

Medium: Water; 1 mbar/m = 100 Pa/m

Pressure Loss Table of Multilayer PEX Pipe, Water Temperature = 60°C																	
		16×2.0		20×2.0		25×2.5		32x3.0		40x4.0		50x4.5		63x6.0		75x7.5	
Flow		Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP
(L/h)	(L/s)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)
4250	1.18			5.996	14.652	3.758	5.021	2.224	1.435	1.468	0.564	0.894	0.174	0.578	0.062	0.418	0.029
4340	1.21			6.123	15.249	3.837	5.211	2.271	1.483	1.499	0.583	0.913	0.181	0.590	0.064	0.426	0.030
4432	1.23			6.521	15.916	3.919	5.411	2.319	1.538	1.531	0.604	0.932	0.19	0.603	0.067	0.435	0.031
4720	1.31			6.894	17.847	4.173	6.067	2.469	1.715	1.630	0.661	0.993	0.209	0.642	0.074	0.464	0.035
4990	1.39			6.998	19.753	4.412	6.714	2.611	1.899	1.723	0.715	1.050	0.230	0.679	0.082	0.490	0.038
5065	1.41			7.322	20.246	4.478	6.891	2.650	1.950	1.749	0.732	1.066	0.236	0.689	0.084	0.498	0.039
5300	1.47			7.654	22.001	4.686	7.492	2.773	2.113	1.831	0.786	1.115	0.256	0.721	0.091	0.521	0.042
5540	1.54			7.999	23.915	4.898	8.120	2.898	2.292	1.913	0.848	1.166	0.275	0.753	0.098	0.544	0.045
5790	1.61			8.497	25.939	5.119	8.810	3.029	2.481	2.000	0.928	1.218	0.295	0.787	0.106	0.569	0.049
6150	1.71			9.001	28.959	5.438	9.847	3.218	2.776	2.124	1.022	1.294	0.321	0.836	0.118	0.604	0.054
6515	1.81			9.533	32.105	5.761	10.950	3.409	3.078	2.250	1.133	1.371	0.349	0.886	0.130	0.640	0.060
6900	1.92			9.996	35.913	6.101	12.174	3.610	3.423	2.383	1.258	1.452	0.383	0.938	0.143	0.678	0.066
7235	2.01			10.569	39.050	6.397	13.307	3.785	3.729	2.499	1.371	1.522	0.416	0.984	0.154	0.711	0.072
7650	2.13					6.764	14.742	4.002	4.133	2.642	1.517	1.610	0.460	1.040	0.167	0.752	0.080
7920	2.20					7.003	15.704	4.144	4.407	2.735	1.615	1.666	0.489	1.077	0.175	0.778	0.084
8680	2.41					7.675	18.629	4.541	5.216	2.998	1.908	1.826	0.577	1.180	0.203	0.853	0.097
9050	2.51					8.002	20.092	4.735	5.634	3.126	2.061	1.904	0.622	1.231	0.219	0.889	0.103
9560	2.66					8.453	22.276	5.002	6.241	3.302	2.282	2.011	0.687	1.300	0.241	0.939	0.112
10180	2.83					9.001	25.001	5.326	7.004	3.516	2.561	2.142	0.772	1.384	0.270	1.000	0.124
10700	2.97					9.461	27.453	5.598	7.669	3.696	2.810	2.251	0.845	1.455	0.295	1.051	0.135
11310	3.14					10.000	30.393	5.917	8.517	3.906	3.113	2.380	0.935	1.538	0.326	1.111	0.149
12500	3.47							6.540	10.244	4.317	3.745	2.630	1.124	1.700	0.392	1.228	0.179
13380	3.72							7.000	11.605	4.621	4.246	2.815	1.275	1.819	0.443	1.315	0.202
14500	4.03							7.586	13.482	5.008	4.927	3.051	1.478	1.972	0.514	1.425	0.234
15300	4.25							8.005	14.880	5.284	5.452	3.219	1.634	2.080	0.547	1.503	0.258
16300	4.53							8.528	16.737	5.630	6.124	3.429	1.837	2.216	0.638	1.601	0.290
17200	4.78							8.999	18.496	5.941	6.772	3.619	2.027	2.339	0.704	1.690	0.320
18300	5.08							9.574	20.751	6.321	7.578	3.850	2.250	2.488	0.790	1.798	0.358
19110	5.31							9.998	22.496	6.600	8.220	4.021	2.463	2.599	0.856	1.877	0.388
20280	5.63									7.004	9.170	4.267	2.748	2.758	0.955	1.992	0.433
22080	6.13											4.646	3.219	3.002	1.118	2.169	0.506
23750	6.60											4.997	3.688	3.229	1.279	2.333	0.579
26000	7.22											5.470	4.358	3.535	1.511	2.554	0.686
28500	7.92											5.996	5.165	3.875	1.793	2.800	0.813
29500	8.19											6.207	5.514	4.011	1.911	2.898	0.866
31000	8.61											6.522	6.038	4.215	2.097	3.046	0.950
33250	9.24											6.996	6.882	4.521	2.388	3.267	1.081
36800	10.22													5.004	2.883	3.615	1.306
40700	11.31													5.534	3.472	3.999	1.575
44100	12.25													5.997	4.033	4.333	1.827
48000	13.33													6.527	4.719	4.716	2.137
51500	14.31													7.003	5.377	5.060	2.435
56500	15.69															5.551	2.892
61100	16.97															6.003	3.346
68000	18.89															6.681	4.081
72000	20.00															7.074	4.538

Medium: Water; 1 mbar/m = 100 Pa/m

Pipes Pressure Loss at 60°C (kPa/m)



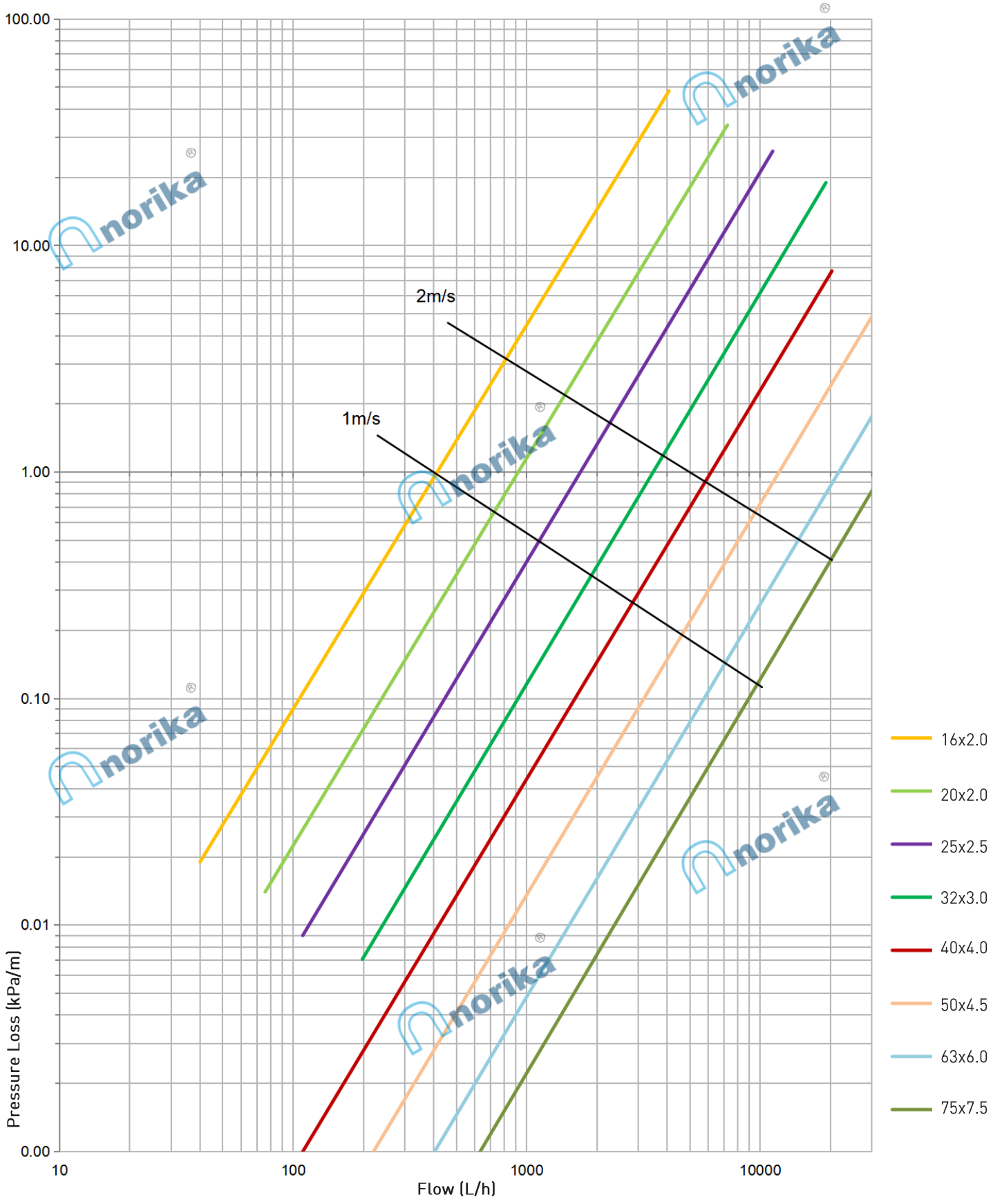
Pressure Loss Table of Multilayer PEX Pipe, Water Temperature = 80°C																	
		16×2.0		20×2.0		25×2.5		32x3.0		40x4.0		50x4.5		63x6.0		75x7.5	
Flow		Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP
(L/h)	(L/s)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)
23	0.01																
29	0.01																
40	0.01	0.098	0.021														
54	0.02	0.133	0.032														
76	0.02	0.187	0.057	0.105	0.015												
110	0.03	0.270	0.106	0.152	0.028	0.097	0.010			0.038	0.001						
198	0.06	0.486	0.283	0.274	0.075	0.175	0.026	0.104	0.008	0.068	0.003	0.042	0.001				
230	0.06	0.565	0.385	0.318	0.096	0.203	0.034	0.120	0.010	0.079	0.004	0.048	0.001				
288	0.08	0.707	0.550	0.398	0.145	0.255	0.049	0.151	0.015	0.099	0.005	0.061	0.002	0.039	0.001		
350	0.10	0.860	0.752	0.484	0.200	0.309	0.068	0.183	0.020	0.121	0.008	0.074	0.002	0.048	0.001		
406	0.11	0.997	0.956	0.561	0.253	0.359	0.091	0.212	0.026	0.140	0.010	0.085	0.003	0.055	0.001	0.040	0.001
460	0.13	1.130	1.174	0.636	0.310	0.407	0.111	0.241	0.032	0.159	0.012	0.097	0.004	0.063	0.001	0.045	0.001
573	0.16	1.407	1.692	0.792	0.442	0.507	0.158	0.300	0.047	0.198	0.018	0.121	0.005	0.078	0.002	0.056	0.001
688	0.19	1.690	2.307	0.951	0.599	0.608	0.212	0.360	0.063	0.238	0.024	0.145	0.007	0.094	0.003	0.068	0.001
720	0.20	1.768	2.492	0.995	0.646	0.637	0.229	0.377	0.068	0.249	0.026	0.151	0.008	0.098	0.003	0.071	0.001
850	0.24	2.088	3.310	1.174	0.854	0.752	0.301	0.445	0.089	0.294	0.034	0.179	0.011	0.116	0.004	0.084	0.002
916	0.25	2.250	3.767	1.266	0.970	0.810	0.341	0.479	0.100	0.316	0.038	0.193	0.012	0.125	0.004	0.090	0.002
1000	0.28	2.456	4.385	1.382	1.126	0.884	0.395	0.523	0.116	0.345	0.044	0.210	0.014	0.136	0.005	0.098	0.002
1146	0.32	2.815	5.559	1.583	1.423	1.013	0.498	0.600	0.145	0.396	0.055	0.241	0.018	0.156	0.006	0.113	0.003
1220	0.34	2.996	6.181	1.685	1.585	1.079	0.553	0.638	0.162	0.421	0.061	0.257	0.019	0.166	0.007	0.120	0.003
1373	0.38	3.372	7.361	1.897	1.945	1.214	0.678	0.718	0.197	0.474	0.075	0.289	0.024	0.187	0.009	0.135	0.004
1413	0.39	3.470	7.688	1.952	2.045	1.249	0.712	0.739	0.207	0.488	0.078	0.297	0.025	0.192	0.009	0.139	0.004
1450	0.40	3.561	8.008	2.003	2.139	1.282	0.744	0.759	0.216	0.501	0.082	0.305	0.026	0.197	0.009	0.142	0.004
1603	0.45	3.937	9.430	2.215	2.543	1.417	0.885	0.839	0.257	0.554	0.097	0.337	0.030	0.218	0.011	0.157	0.005
1690	0.47	4.151	10.359	2.335	2.774	1.494	0.970	0.884	0.281	0.584	0.106	0.356	0.033	0.230	0.012	0.166	0.006
1833	0.51	4.502	11.947	2.532	3.112	1.621	1.118	0.959	0.323	0.633	0.122	0.386	0.038	0.249	0.014	0.180	0.006
1900	0.53	4.667	12.778	2.625	3.287	1.680	1.190	0.994	0.343	0.656	0.129	0.400	0.040	0.258	0.015	0.187	0.007
1980	0.55	4.863	13.796	2.735	3.482	1.751	1.278	1.036	0.369	0.684	0.139	0.417	0.043	0.269	0.016	0.195	0.007
2062	0.57	5.064	14.819	2.849	3.733	1.823	1.368	1.079	0.396	0.712	0.149	0.434	0.046	0.280	0.017	0.203	0.008
2200	0.61	5.403	16.712	3.039	4.189	1.945	1.512	1.151	0.443	0.760	0.166	0.463	0.052	0.299	0.019	0.216	0.009
2262	0.63	5.556	17.587	3.125	4.401	2.000	1.573	1.183	0.465	0.781	0.174	0.476	0.054	0.308	0.019	0.222	0.009
2290	0.64	5.624	17.967	3.164	4.499	2.025	1.595	1.198	0.475	0.791	0.178	0.482	0.055	0.311	0.020	0.225	0.009
2400	0.67	5.895	19.583	3.316	4.910	2.122	1.707	1.256	0.515	0.829	0.193	0.505	0.060	0.326	0.021	0.236	0.010
2442	0.68	5.998	20.269	3.374	5.039	2.159	1.752	1.278	0.531	0.843	0.199	0.514	0.062	0.332	0.022	0.240	0.010
2545	0.71	6.251	21.746	3.516	5.427	2.250	1.877	1.332	0.570	0.879	0.213	0.535	0.066	0.346	0.024	0.250	0.011
2700	0.75	6.631	24.161	3.730	6.046	2.387	2.076	1.413	0.630	0.933	0.237	0.568	0.073	0.367	0.026	0.265	0.012
2770	0.77	6.803	25.494	3.827	6.336	2.449	2.174	1.449	0.655	0.957	0.247	0.583	0.076	0.377	0.027	0.272	0.013
2828	0.79	6.946	26.473	3.907	6.569	2.501	2.257	1.480	0.676	0.977	0.256	0.595	0.079	0.385	0.028	0.278	0.013
2895	0.80	7.110	27.613	4.000	6.862	2.560	2.348	1.515	0.699	1.000	0.267	0.609	0.082	0.394	0.029	0.284	0.014
3100	0.86	7.614	31.266	4.283	7.779	2.741	2.667	1.622	0.769	1.071	0.301	0.652	0.093	0.422	0.033	0.305	0.015
3258	0.91	8.002	34.436	4.501	8.529	2.881	2.914	1.705	0.832	1.125	0.327	0.685	0.101	0.443	0.036	0.320	0.017
3325	0.92	8.167	35.668	4.594	8.847	2.940	3.019	1.740	0.859	1.148	0.338	0.700	0.105	0.452	0.037	0.327	0.017
3450	0.96	8.474	38.132	4.766	9.515	3.050	3.230	1.805	0.919	1.192	0.358	0.726	0.112	0.469	0.040	0.339	0.018
3665	1.02	9.002	42.613	5.063	10.597	3.241	3.608	1.917	1.021	1.266	0.390	0.771	0.124	0.498	0.044	0.360	0.021
3880	1.08	9.530	47.362	5.360	11.795	3.431	4.002	2.030	1.130	1.340	0.424	0.816	0.137	0.528	0.049	0.381	0.023
4070	1.13	9.996	51.916	5.623	12.849	3.599	4.365	2.129	1.234	1.406	0.457	0.856	0.149	0.553	0.053	0.400	0.025

Medium: Water; 1 mbar/m = 100 Pa/m

Pressure Loss Table of Multilayer PEX Pipe, Water Temperature = 80°C																	
		16×2.0		20×2.0		25×2.5		32x3.0		40x4.0		50x4.5		63x6.0		75x7.5	
Flow		Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP	Speed	ΔP
(L/h)	(L/s)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)	(m/s)	(kPa/m)
4250	1.18			5.872	13.915	3.758	4.723	2.224	1.336	1.468	0.493	0.894	0.160	0.578	0.057	0.418	0.026
4340	1.21			5.996	14.472	3.837	4.910	2.271	1.385	1.499	0.512	0.913	0.165	0.590	0.059	0.426	0.027
4432	1.23			6.123	14.992	3.919	5.100	2.319	1.436	1.531	0.531	0.932	0.171	0.603	0.061	0.435	0.028
4720	1.31			6.521	16.913	4.173	5.736	2.469	1.611	1.630	0.594	0.993	0.187	0.642	0.068	0.464	0.032
4990	1.39			6.894	18.737	4.412	6.349	2.611	1.783	1.723	0.657	1.050	0.202	0.679	0.075	0.490	0.035
5065	1.41			6.998	19.314	4.478	6.531	2.650	1.831	1.749	0.675	1.066	0.207	0.689	0.077	0.498	0.036
5300	1.47			7.322	20.928	4.686	7.094	2.773	1.991	1.831	0.733	1.115	0.223	0.721	0.083	0.521	0.039
5540	1.54			7.654	22.673	4.898	7.705	2.898	2.162	1.913	0.795	1.166	0.241	0.753	0.089	0.544	0.042
5790	1.61			7.999	24.697	5.119	8.361	3.029	2.344	2.000	0.860	1.218	0.261	0.787	0.095	0.569	0.045
6150	1.71			8.497	27.567	5.438	9.340	3.218	2.618	2.124	0.961	1.294	0.291	0.836	0.104	0.604	0.050
6515	1.81			9.001	30.600	5.761	10.386	3.409	2.910	2.250	0.961	1.371	0.323	0.886	0.114	0.640	0.055
6900	1.92			9.533	34.055	6.101	11.540	3.610	3.233	2.383	1.187	1.452	0.358	0.938	0.126	0.678	0.059
7235	2.01			9.996	37.186	6.397	12.595	3.785	3.534	2.499	1.294	1.522	0.390	0.984	0.137	0.711	0.063
7650	2.13					6.764	13.986	4.002	3.534	2.642	1.434	1.610	0.432	1.040	0.151	0.752	0.069
7920	2.20					7.003	14.939	4.144	4.175	2.735	1.526	1.666	0.460	1.077	0.161	0.778	0.074
8680	2.41					7.675	17.678	4.541	4.951	2.998	1.811	1.826	0.544	1.180	0.190	0.853	0.087
9050	2.51					8.002	19.113	4.735	5.358	3.126	1.956	1.904	0.588	1.231	0.205	0.889	0.093
9560	2.66					8.453	21.147	5.002	5.917	3.302	2.165	2.011	0.650	1.300	0.227	0.939	0.103
10180	2.83					9.001	23.786	5.326	6.650	3.516	2.432	2.142	0.730	1.384	0.254	1.000	0.116
10700	2.97					9.461	26.068	5.598	7.287	3.696	2.671	2.251	0.800	1.455	0.279	1.051	0.127
11310	3.14					10.000	28.865	5.917	8.079	3.906	2.955	2.380	0.887	1.538	0.308	1.111	0.140
12500	3.47							6.540	9.721	4.317	3.557	2.630	1.066	1.700	0.370	1.228	0.168
13380	3.72							7.000	11.028	4.621	4.033	2.815	1.209	1.819	0.420	1.315	0.191
14500	4.03							7.586	12.812	5.008	4.691	3.051	1.403	1.972	0.487	1.425	0.221
15300	4.25							8.005	14.138	5.284	5.164	3.219	1.551	2.080	0.538	1.503	0.244
16300	4.53							8.528	15.927	5.630	5.817	3.429	1.744	2.216	0.605	1.601	0.274
17200	4.78							8.999	15.927	5.941	6.419	3.619	1.924	2.339	0.669	1.690	0.303
18300	5.08							9.574	19.708	6.321	7.207	3.850	2.163	2.488	0.750	1.798	0.340
19110	5.31							9.998	21.374	6.600	7.823	4.021	2.343	2.599	0.813	1.877	0.368
20280	5.63									7.004	8.734	4.267	2.614	2.758	0.908	1.992	0.411
22080	6.13											4.646	3.062	3.002	1.063	2.169	0.481
23750	6.60											4.997	3.503	3.229	1.216	2.333	0.551
26000	7.22											5.470	4.143	3.535	1.439	2.554	0.652
28500	7.92											5.996	4.916	3.875	1.706	2.800	0.772
29500	8.19											6.207	5.240	4.011	1.817	2.898	0.824
31000	8.61											6.522	5.736	4.215	1.994	3.046	0.903
33250	9.24											6.996	6.534	4.521	2.270	3.267	1.028
36800	10.22													5.004	2.741	3.615	1.242
40700	11.31													5.534	3.304	3.999	1.496
44100	12.25													5.997	3.835	4.333	1.736
48000	13.33													6.527	4.489	4.716	2.032
51500	14.31													7.003	5.115	5.060	2.317
56500	15.69															5.551	2.751
61100	16.97															6.003	3.181
68000	18.89															6.681	3.883
72000	20.00															7.074	4.318

Medium: Water; 1 mbar/m = 100 Pa/m

Pipes Pressure Loss at 80°C (kPa/m)



PRODUCT CERTIFICATION

TEST CERTIFICATE
POTABLE WATER FITTINGS SCHEME

Certificate Number : TC-J0243
Issue No: 04

This Certificate is awarded to the following product(s) which has / have complied with the requirements of the listed standard(s) in accordance with Stipulation of Standards and Requirements for Water Fittings for Use in Potable Water Service Installations.

Client	:	**Liang Chew Hardware Pte Ltd** 133 Kitchener Road Singapore 208517
Product	:	Multilayer Pipes & Fittings (Pressfit)
Brand / Model	:	Norika / PIPPEX & PEXF5
Detail	:	Sizes (mm): 16, 20, 25, 32, 40, 50, 63 & 75
Test Standard(s)	:	BS EN ISO 21003-1: 2008, BS EN ISO 21003-2: 2008 + A1: 2011, BS EN ISO 21003-3: 2008, BS EN ISO 21003-5: 2008, AS/NZS 4020: 2005, AS/NZS 4020: 2018, SS 375: 2015, BS EN 12165: 2016
Test Report(s)	:	2524186-OYC, 1820215/02A-OYC, 1820215/03A-OYC, 1820215/01-OYC, 2020852-CPC, 1820215/04-CPC, 2020843/01-CPC, 2020889-CPC, 21802731-CLC

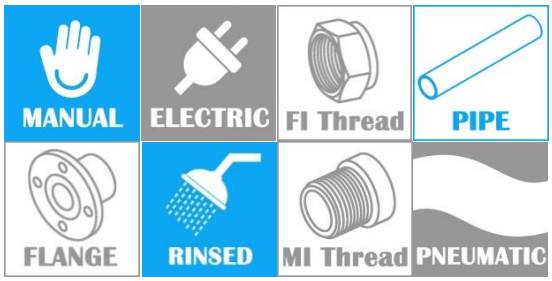
A sample of the product submitted was tested and found to comply with the test requirements of the above standard(s).

Date of Original Issue	:	10 March 2021
Date of Last Revision	:	04 March 2025
Date of Expiry	:	09 March 2027

Head, Certification
Singapore Test Lab Pte Ltd

Singapore Test Lab Pte Ltd certifies according to ISO / IEC 17065

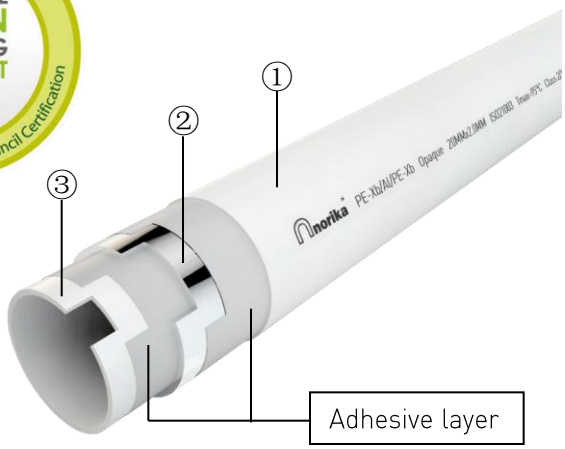
PEX-B/AL/PEX-B THREE LAYER PIPE



COMPLY WITH BS EN ISO 21003-1:2008
BSEN ISO 21003-2:2008+A1:2011
AS/NZS 4020:2005
SS 375:2015

STRAIGHT TUBE
SKU: PIPPEXL016~075

COILING TUBE
SKU: PIPPEX016~032



**Exclusively indoor installation only.

STANDARD SPECIFICATION	
Working Pressure	10 Bar
Working Temperature	0 ~ 70℃
Applications	Hot and cold potable water system.

COMPONENT PARTS

ITEM	PARTS	MATERIAL
1	Outside layer	PEX-B (Silane Cross-linked Polyethylene)
2	Middle layer	Aluminum
3	Inside layer	PEX-B (Silane Cross-linked Polyethylene)

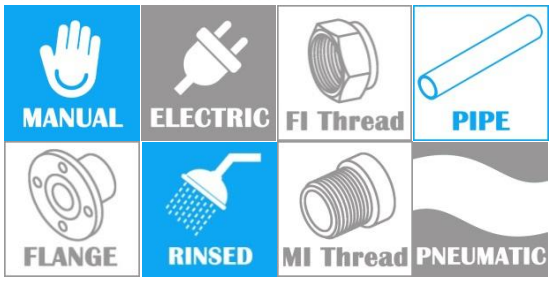
DIMENSIONS

SKU	Outside Diameter (mm)	Inside Diameter (mm)	Thickness (mm)	Tolerance Of Pipe Thickness (mm)	Length (mm)	WEIGHT (kg/m)
PIPPEXL016	16	12	2.0	2.00~2.25	5800	0.121
PIPPEXL020	20	16	2.0	2.00~2.30	5800	0.166
PIPPEXL025	25	20	2.5	2.40~2.70	5800	0.235
PIPPEXL032	32	26	3.0	2.90~3.25	5800	1.040
PIPPEXL040	40	32	4.0	4.00~4.60	5800	0.567
PIPPEXL050	50	41	4.5	4.50~5.20	5800	0.820
PIPPEXL063	63	51	6.0	6.00~6.80	5800	1.334
PIPPEXL075	75	60	7.5	7.50~8.50	5800	1.893

DIMENSIONS

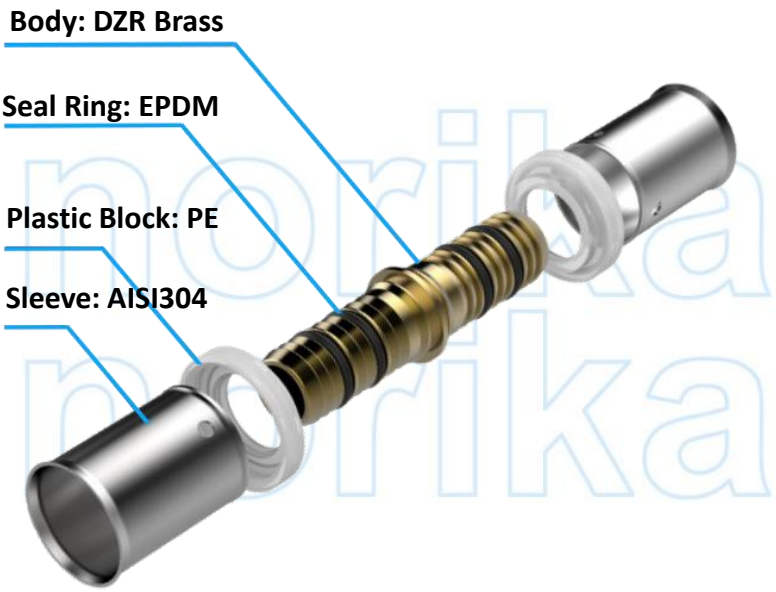
SKU	Outside Diameter (mm)	Inside Diameter (mm)	Thickness (mm)	Tolerance Of Pipe Thickness (mm)	WEIGHT (kg/m)	M/CTN
PIPPEX016	16	12	2.0	2.00~2.25	0.121	200M
PIPPEX020	20	16	2.0	2.00~2.30	0.166	200M
PIPPEX025	25	20	2.5	2.40~2.70	0.235	100M
PIPPEX032	32	26	3.0	2.90~3.25	1.040	50M

PEX MULTI LAYER PIPES AND FITTINGS



COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005 / 2018
SS 375:2015

F5 PRESS-FIT



COMPONENTS:

Body
The main body of F5 PRESS-FIT is made out of Brass CW602N material, which greatly improves the corrosion resistance, eliminates processing stress, and ensures no cracking and dimensional stability.

Seal Ring
High-quality EPDM material with excellent weather resistance and corrosion resistance. Double seal to ensure no leakage.

Plastic Block
Safe and environmentally friendly PE material, with strong strength, effectively preventing the entry of impurities and protecting the fitting.

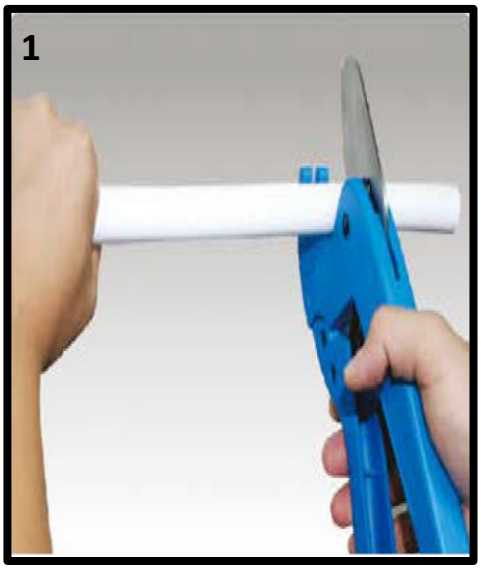
Sleeve
AISI304 material with weather resistance and corrosion resistance.

STANDARD SPECIFICATION	
Working Pressure	10 Bar
Working Temperature	0 ~ 70℃
Applications	Hot and cold potable water system, Underfloor heating system

INSTALLATION GUIDE:

1. Pipe cutting

Cut the pipe vertically and precisely with a sharp pipe cutter.



2. Rounding and beveling

- **Multilayer pipe:**

Round and bevel the end holes with reamer.

- **Pex pipe:**

Round the end holes with reamer, no need to bevel.

If you want to insert quickly and easily, you can bevel the pipe.

INSTALLATION GUIDE:

3. Inserting

Choose the right size sleeved-fitting for the pipe, then aim the pipe end at the ring-shape hole of the fitting integrated with sleeve and slide the fitting insert into the pipe until it reaches the plastic block. Check the inserting depth by looking through the inspection holes on the sleeve shoulder to ensure that the pipe is completely inserted.

4. Pressing

① Select jaw .

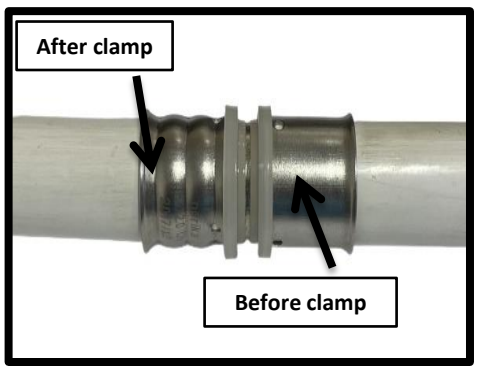
② Install jaw on to the Tool.

③ Adjust the Pressing Tool.

④ Open the Pressing Tool and position the tool right onto the sleeve.

⑤ Close the handles until the two touch points on the handles touch each other.

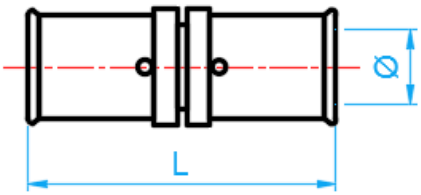
⑥ Please don't release the handles before the jaw is fully closed.



PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 EQUAL SOCKET



SIDE VIEW

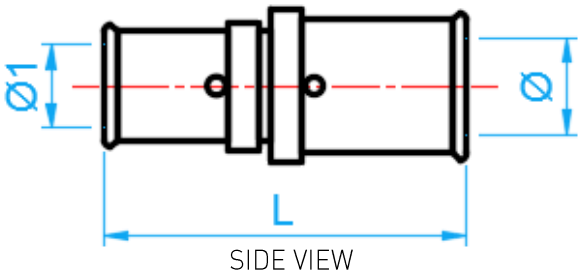
DIMENSIONS

SKU	SIZE (mm)	Ø (mm)	L (mm)	WEIGHT (kg)	PCS/CTN
PEXF5ES016	16	11.8	53.0	0.036	320
PEXF5ES020	20	15.8	53.0	0.043	224
PEXF5ES025	25	19.8	66.2	0.109	120
PEXF5ES032	32	25.8	66.2	0.144	90
PEXF5ES040	40	31.8	92.0	0.323	45
PEXF5ES050	50	40.8	92.0	0.463	35
PEXF5ES063	63	50.7	138.0	0.900	15
PEXF5ES075	75	59.6	138.5	1.250	10

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 REDUCING SOCKET



SIDE VIEW

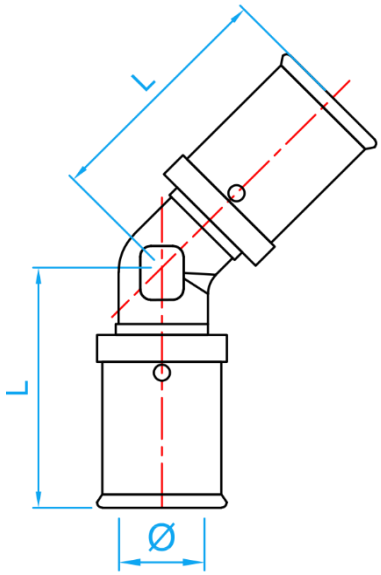
DIMENSIONS

SKU	SIZE (mm)	Ø (mm)	Ø1 (mm)	L (mm)	WEIGHT (kg)	PCS/CTN
PEXF5RS02016	20x16	15.8	11.8	53.0	0.044	296
PEXF5RS02516	25x16	19.8	11.8	59.6	0.069	160
PEXF5RS02520	25x20	19.8	15.8	59.6	0.075	144
PEXF5RS03216	32x16	25.8	11.8	59.6	0.089	80
PEXF5RS03220	32x20	25.8	15.8	59.6	0.100	96
PEXF5RS03225	32x25	25.8	19.8	66.2	0.125	96
PEXF5RS04020	40x20	31.8	15.8	73.0	0.191	80
PEXF5RS04025	40x25	31.8	19.8	79.6	0.212	60
PEXF5RS04032	40x32	31.8	25.8	79.6	0.217	60
PEXF5RS05025	50x25	40.8	19.8	79.6	0.278	45
PEXF5RS05032	50x32	40.8	25.8	79.6	0.295	40
PEXF5RS05040	50x40	40.8	31.8	92.0	0.357	30
PEXF5RS06316	63x16	50.7	15.8	96.0	0.550	18
PEXF5RS06320	63x20	50.7	15.8	96.0	0.560	18
PEXF5RS06325	63x25	50.7	19.8	102.6	0.600	18
PEXF5RS06332	63x32	50.7	25.8	102.6	0.520	16
PEXF5RS06340	63x40	50.7	31.8	115.0	0.589	18
PEXF5RS06350	63x50	50.7	40.8	115.0	0.611	18
PEXF5RS07532	75x32	59.6	25.8	107.2	0.757	16
PEXF5RS07540	75x40	59.6	31.8	115.5	0.800	16
PEXF5RS07550	75x50	59.6	40.8	115.5	0.772	14
PEXF5RS07563	75x63	59.6	50.7	138.5	1.000	12

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 45° EQUAL ELBOW



SIDE VIEW

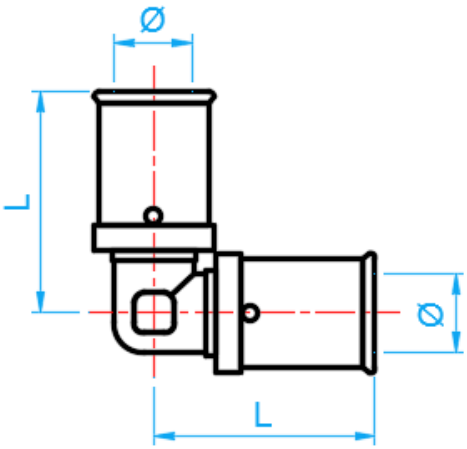
DIMENSIONS

SKU	SIZE (mm)	Ø (mm)	L (mm)	WEIGHT (kg)	PCS/CTN
PEXF5E45016	16	11.8	34.5	0.045	160
PEXF5E45020	20	15.8	37.0	0.067	144
PEXF5E45025	25	19.8	43.5	0.128	96
PEXF5E45032	32	25.8	44.5	0.200	45
PEXF5E45040	40	31.8	61.0	0.393	20
PEXF5E45050	50	40.8	64.0	0.567	15
PEXF5E45063	63	50.7	92.0	0.800	10
PEXF5E45075	75	59.6	92.0	1.583	6

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 90° ELBOW



SIDE VIEW

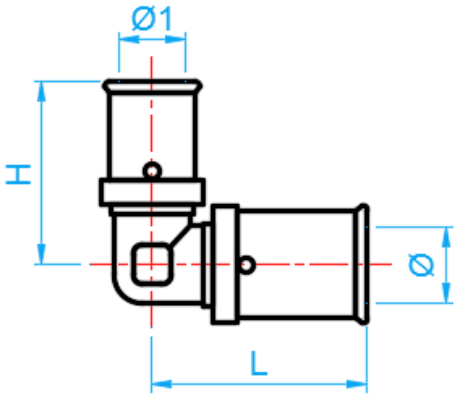
DIMENSIONS

SKU	SIZE (mm)	Ø (mm)	L (mm)	WEIGHT (kg)	PCS/CTN
PEXF5E90016	16	11.8	37.0	0.051	256
PEXF5E90020	20	15.8	40.5	0.071	176
PEXF5E90025	25	19.8	49.0	0.136	88
PEXF5E90032	32	25.8	52.0	0.194	48
PEXF5E90040	40	31.8	68.0	0.392	36
PEXF5E90050	50	40.8	73.0	0.571	24
PEXF5E90063	63	50.7	103.0	1.060	10
PEXF5E90075	75	59.6	108.5	1.567	6

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 90° REDUCING ELBOW



SIDE VIEW

DIMENSIONS

SKU	SIZE (mm)	Ø (mm)	Ø1 (mm)	L (mm)	H (mm)	WEIGHT (kg)	PCS/CTN
PEXF5RE9002016	20X16	15.8	11.8	38.5	40.5	0.060	200
PEXF5RE9002516	25X16	19.8	11.8	45.5	42.5	0.092	128
PEXF5RE9002520	25X20	19.8	15.8	47.5	42.5	0.104	112
PEXF5RE9003216*	32X16	25.8	11.8	45.5	46.0	-	-
PEXF5RE9003220*	32X20	25.8	15.8	47.5	46.0	-	-
PEXF5RE9003225	32X25	25.8	19.8	49.5	52.5	0.160	80
PEXF5RE9004025*	40X25	31.8	19.8	60.0	55.0	-	-
PEXF5RE9004032*	40X32	31.8	25.8	64.0	55.1	-	-
PEXF5RE9005025*	50X25	40.8	19.8	60.0	60.0	-	-
PEXF5RE9005032*	50X32	40.8	25.8	64.0	60.0	-	-
PEXF5RE9005040	50X40	40.8	31.8	67.5	72.5	0.488	24
PEXF5RE9006332*	63X32	50.7	25.8	87.0	67.0	-	-
PEXF5RE9006340*	63X40	50.7	31.8	90.0	79.5	-	-
PEXF5RE9006350	63X50	50.7	40.8	95.5	79.5	0.900	8

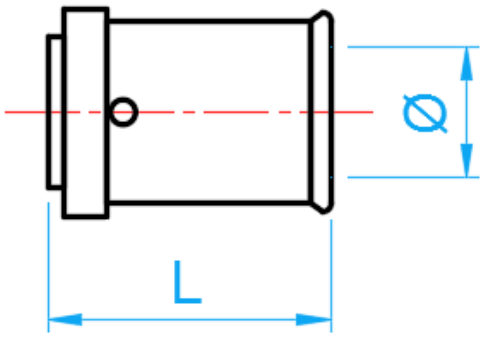
*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

MANUAL RINSED PIPE

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 END CAP



SIDE VIEW

DIMENSIONS

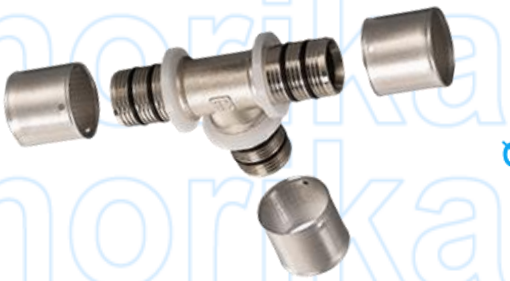
SKU	SIZE (mm)	Ø (mm)	L (mm)	WEIGHT (kg)	PCS/CTN
PEXF5EC016	16	11.8	28.0	0.020	640
PEXF5EC020	20	15.8	28.0	0.029	448
PEXF5EC025	25	19.8	34.6	0.063	192
PEXF5EC032	32	25.8	34.6	0.094	128
PEXF5EC040	40	31.8	48.0	0.130	80
PEXF5EC050	50	40.8	48.0	0.184	72
PEXF5EC063	63	50.7	71	0.363	40
PEXF5EC075	75	59.6	71	0.665	20

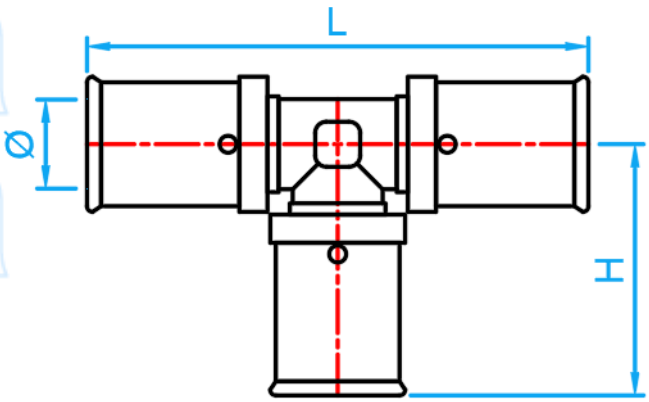
*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 EQUAL TEE





SIDE VIEW

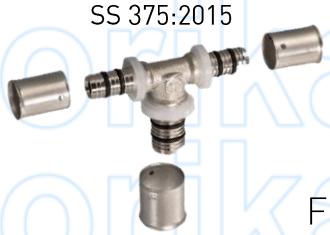
DIMENSIONS

SKU	SIZE (mm)	Ø (mm)	L (mm)	H (mm)	WEIGHT (kg)	PCS/CTN
PEXF5ET016	16	11.8	74	37.0	0.076	160
PEXF5ET020	20	15.8	80	40.0	0.100	112
PEXF5ET025	25	20.8	95	47.5	0.188	48
PEXF5ET032	32	25.8	101	50.5	0.272	32
PEXF5ET040	40	31.8	136	68.0	0.550	24
PEXF5ET050	50	40.8	145	72.5	0.811	18
PEXF5ET063	63	50.7	206	103.0	1.500	4
PEXF5ET075	75	59.6	216	108.0	2.167	4

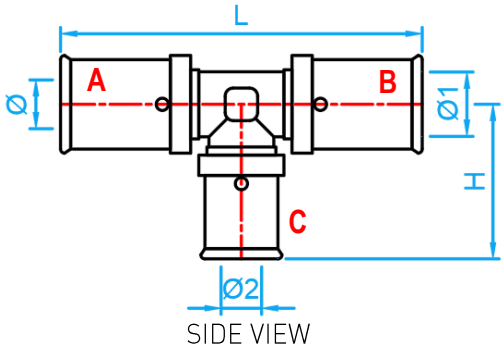
PEX PRESS-FIT FITTINGS (U PROFILE)

MANUAL | RINSED | PIPE

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015



F5 REDUCING TEE



SIDE VIEW

DIMENSIONS

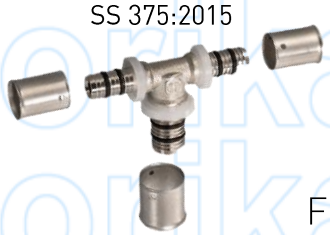
SKU (A*B*C)	SIZE (A*C*B)	Ø (mm)	Ø1 (mm)	Ø2 (mm)	L (mm)	H (mm)	WEIGHT (kg)	PCS/CTN
PEXF5RT0161620*	16×20×16	11.8	11.8	15.8	79.4	39.7	0.086	120
PEXF5RT0161625*	16×25×16	11.8	11.8	19.8	83.0	45.0	0.120	80
PEXF5RT0201616	20×16×16	15.8	11.8	11.8	76.0	40.0	0.088	120
PEXF5RT0202016	20×16×20	15.8	15.8	11.8	76.0	40.0	0.100	112
PEXF5RT0201620	20×20×16	15.8	11.8	15.8	80.0	40.0	0.088	120
PEXF5RT0202025*	20×25×20	15.8	15.8	19.8	84.4	47.1	0.124	96
PEXF5RT0251616*	25×16×16	19.8	11.8	11.8	82.8	42.2	0.110	96
PEXF5RT0252016*	25×16×20	19.8	15.8	11.8	83.0	45.5	0.116	96
PEXF5RT0252516	25×16×25	19.8	19.8	11.8	87.0	41.5	0.142	72
PEXF5RT0251620*	25×20×16	19.8	11.8	15.8	86.5	42.2	0.128	70
PEXF5RT0251625*	25×25×16	19.8	11.8	19.8	94.8	51.5	0.157	70
PEXF5RT0252020*	25×20×20	19.8	15.8	15.8	86.8	42.2	0.131	70
PEXF5RT0252520	25×20×25	19.8	19.8	15.8	91.0	41.5	0.155	64
PEXF5RT0252025*	25×25×20	19.8	15.8	19.8	91.0	49.0	0.167	70
PEXF5RT0252532*	25×32×25	19.8	19.8	25.8	107.2	48.6	0.222	70
PEXF5RT0322020*	32×20×20	25.8	15.8	15.8	86.8	45.2	0.166	48
PEXF5RT0322025*	32×25×20	25.8	15.8	19.8	92.7	51.6	0.202	40
PEXF5RT0322032*	32×32×20	25.8	15.8	25.8	97.3	51.6	0.227	32
PEXF5RT0322520*	32×20×25	25.8	19.8	15.8	94.2	44.2	0.189	48
PEXF5RT0322525*	32×25×25	25.8	19.8	19.8	97.0	50.0	0.213	40
PEXF5RT0322532*	32×32×25	25.8	19.8	25.8	103.2	51.6	0.248	32
PEXF5RT0323216	32×16×32	25.8	25.8	11.8	87.0	44.5	0.190	40
PEXF5RT0323220	32×20×32	25.8	25.8	15.8	91.0	44.5	0.213	40
PEXF5RT0323225	32×25×32	25.8	25.8	19.8	97.0	50.0	0.218	40

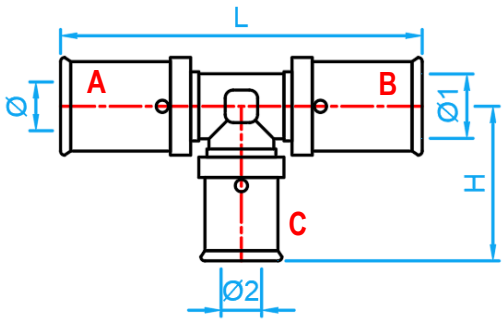
*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

MANUAL | RINSED | PIPE

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015





SIDE VIEW

F5 REDUCING TEE

DIMENSIONS

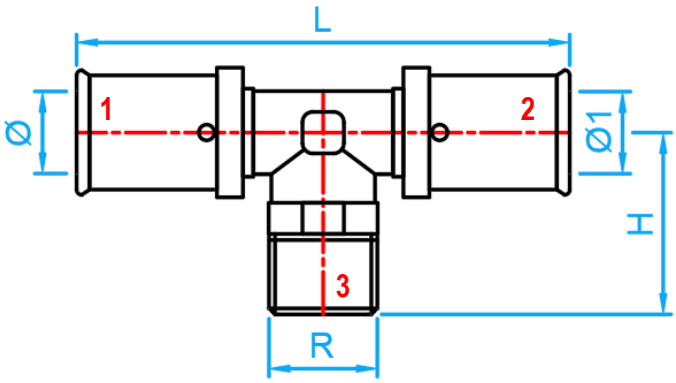
SKU (A*B*C)	SIZE (A*C*B)	Ø (mm)	Ø1 (mm)	Ø2 (mm)	L (mm)	H (mm)	WEIGHT (kg)	PCS/CTN
PEXF5RT0403225*	40×25×32	31.8	25.8	19.8	112.1	56.6	0.36	36
PEXF5RT0403232	40×32×32	31.8	25.8	25.8	120.1	56.6	0.393	36
PEXF5RT0404016	40×16×40	31.8	31.8	11.8	114.0	48.8	0.409	36
PEXF5RT0404020	40×20×40	31.8	31.8	15.8	114.0	48.5	0.389	36
PEXF5RT0404025	40×25×40	31.8	31.8	19.8	120.0	55.0	0.425	32
PEXF5RT0403232*	40×32×32	31.8	25.8	25.8	115.5	55.0	0.402	36
PEXF5RT0404032	40×32×40	31.8	31.8	25.8	128.0	57.0	0.478	28
PEXF5RT0503232*	50×32×32	40.8	25.8	25.8	120.1	61.6	0.488	20
PEXF5RT0504025*	50×25×40	40.8	31.8	19.8	-	-	-	-
PEXF5RT0504032*	50×32×40	40.8	31.8	25.8	134.0	61.6	0.57	20
PEXF5RT0504040*	50×40×40	40.8	31.8	31.8	-	-	-	-
PEXF5RT0505016	50×16×50	40.8	40.8	11.8	114.0	53.0	0.534	20
PEXF5RT0505020	50×20×50	40.8	40.8	15.8	115.0	53.5	0.548	20
PEXF5RT0505025	50×25×50	40.8	40.8	19.8	120.0	53.5	0.547	20
PEXF5RT0505032	50×32×50	40.8	40.8	25.8	128.0	60.0	0.600	18
PEXF5RT0505040	50×40×50	40.8	40.8	31.8	136.0	73.0	0.680	18
PEXF5RT0636320*	63×20×63	50.7	50.7	15.8	171	60.7	1.042	7
PEXF5RT0636325	63×25×63	50.8	50.8	19.8	174.0	68.6	1.014	7
PEXF5RT0636332	63×32×63	50.8	50.8	25.8	174.0	67.0	1.014	7
PEXF5RT0636340*	63×40×63	50.8	50.8	31.8	181.0	79.5	1.157	7
PEXF5RT0636350	63×50×63	50.8	50.8	40.8	191.0	79.5	1.390	8
PEXF5RT0757532	75×32×75	59.6	59.6	25.8	174.0	73.0	1.600	5
PEXF5RT0757540	75×40×75	59.6	59.6	31.8	194.0	87.0	1.880	4
PEXF5RT0757550*	75×50×75	59.6	59.6	40.8	194.0	85.0	2.475	4
PEXF5RT0757563	75×63×75	59.6	59.6	50.8	205.0	109.0	2.250	4

*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 MI TEE



SIDE VIEW

DIMENSIONS

SKU	SIZE (mm x mm x inch)	Ø (mm)	Ø1 (mm)	R BSPT (inch)	L (mm)	H (mm)	WEIGHT (kg)	PCS/CTN
PEXF5MIT01616	16×16×1/2"	11.8	11.8	½"	77	32.5	0.085	144
PEXF5MIT01620*	16×16×3/4"	11.8	11.8	¾"	82	34.5	-	-
PEXF5MIT02016	20×20×1/2"	15.8	15.8	½"	77	34.5	0.117	120
PEXF5MIT020*	20×20×3/4"	15.8	15.8	¾"	82	36.5	-	-
PEXF5MIT02516*	25×25×1/2"	19.8	19.8	½"	90	38.0	-	-
PEXF5MIT02520*	25×25×3/4"	19.8	19.8	¾"	96	39.0	-	-
PEXF5MIT03220*	32×32×3/4"	25.8	25.8	¾"	96	43.0	-	-
PEXF5MIT03225*	32×32×1"	25.8	25.8	1"	104	45.0	-	-
PEXF5MIT05040*	50×50×11/2"	40.8	40.8	1½"	150	50.0	-	-

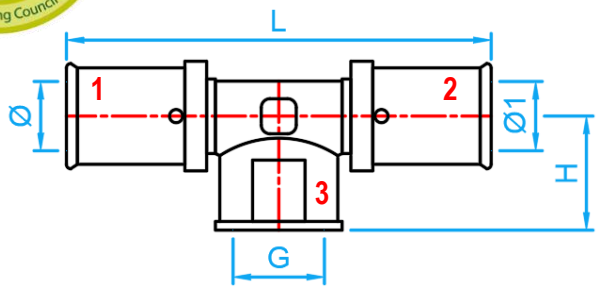
*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

SINGAPORE GREEN BUILDING PRODUCT ✓ GOOD
Singapore Green Building Council Certification

F5 FI TEE



SIDE VIEW

DIMENSIONS

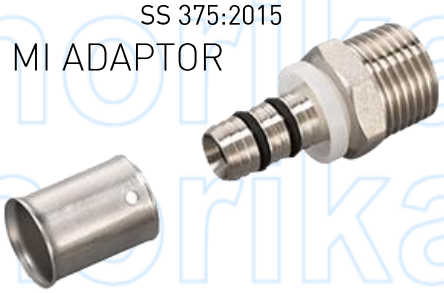
SKU	SIZE (mm x mm x inch)	Ø (mm)	Ø1 (mm)	G BSPT (inch)	L (mm)	H (mm)	WEIGHT (kg)	PCS/CTN
PEXF5FIT01616	16×16×1/2"	11.8	11.8	½"	82	23.0	0.089	120
PEXF5FIT01620*	16×16×3/4"	11.8	11.8	¾"	88	24.0	0.113	80
PEXF5FIT02016	20×20×1/2"	15.8	15.8	½"	82	25.0	0.123	96
PEXF5FIT02020	20×20×3/4"	15.8	15.8	¾"	88	26.0	0.128	96
PEXF5FIT02516	25×25×1/2"	19.8	19.8	½"	96	26.0	0.161	64
PEXF5FIT02520	25×25×3/4"	19.8	19.8	¾"	102	27.0	0.205	56
PEXF5FIT03216	32×32×1/2"	25.8	25.8	½"	102	30.0	0.200	48
PEXF5FIT03220	32×32×3/4"	25.8	25.8	¾"	102	30.0	0.244	32
PEXF5FIT03225	32×32×1"	25.8	25.8	1"	110	31.0	0.313	24
PEXF5FIT0403220	40×32×3/4"	31.8	25.8	¾"	113.5	31.0	0.354	32
PEXF5FIT04020	40×40×3/4"	31.8	31.8	¾"	126	31.0	0.424	25
PEXF5FIT04025	40×40×1"	31.8	31.8	1"	131	40.0	0.483	30
PEXF5FIT04032*	40×40×11/4"	31.8	31.8	1¼"	144	38.0	0.559	20
PEXF5FIT04040*	40×40×11/2"	31.8	31.8	1½"	150	38.0	0.596	20
PEXF5FIT0504020*	50×40×3/4"	40.8	31.8	¾"	128	36.0	0.530	22
PEXF5FIT05020*	50×50×3/4"	40.8	40.8	¾"	128	36.0	0.588	22
PEXF5FIT05025	50×50×1"	40.8	40.8	1"	132	40.0	0.551	22
PEXF5FIT05032	50×50×11/4"	40.8	40.8	1¼"	150	42.0	0.700	18
PEXF5FIT05040	50×50×11/2"	40.8	40.8	1½"	150	42.0	0.710	20
PEXF5FIT05050*	50×50×2"	40.8	40.8	2"	163	44.0	0.881	30
PEXF5FIT0635020*	63×50×3/4"	50.7	40.8	¾"	150	43.0	0.850	12
PEXF5FIT06320*	63×63×3/4"	50.7	50.7	¾"	174	43.0	1.083	12
PEXF5FIT06325	63×63×1"	50.7	50.7	1"	180	45.0	1.092	12
PEXF5FIT06340*	63×63×11/2"	50.7	50.7	1½"	196	48.0	1.208	8
PEXF5FIT06350	63×63×2"	50.7	50.7	2"	214	51.0	1.250	8
PEXF5FIT06363	63×63×21/2"	50.7	50.7	2½"	240	64.5	1.750	4
PEXF5FIT07540	75×75×11/2"	59.6	59.6	1½"	209	52.0	1.647	8
PEXF5FIT07550	75×75×2"	59.6	59.6	2"	209	56.0	1.875	8
PEXF5FIT07563	75×75×21/2"	59.6	59.6	2½"	240	61.5	2.251	4

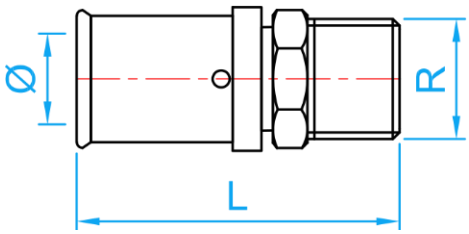
*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 MI ADAPTOR





SIDE VIEW

DIMENSIONS

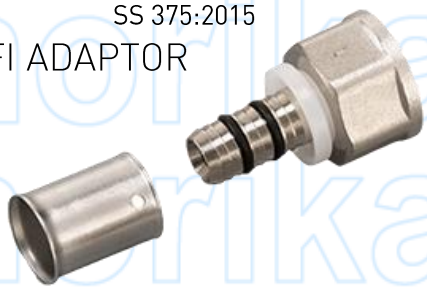
SKU	SIZE (mm x inch)	Ø (mm)	L (mm)	R BSPT (inch)	WEIGHT (kg)	PCS/CTN
PEXF5MIA01616	16×1/2"	11.8	46.0	½"	0.046	400
PEXF5MIA01620	16×3/4"	11.8	47.0	¾"	0.065	320
PEXF5MIA01625*	16×1"	11.8	48.0	1"	-	-
PEXF5MIA02016	20×1/2"	15.8	46.0	½"	0.056	320
PEXF5MIA02020	20×3/4"	15.8	47.0	¾"	0.067	224
PEXF5MIA02516*	25×1/2"	19.8	52.6	½"	0.095	144
PEXF5MIA02520	25×3/4"	19.8	54.0	¾"	0.104	144
PEXF5MIA02525	25×1"	19.8	55.0	1"	-0.119	128
PEXF5MIA03220	32×3/4"	25.8	54.0	¾"	0.141	96
PEXF5MIA03225	32×1"	25.8	55.0	1"	0.142	96
PEXF5MIA03232	32×11/4"	25.8	58.5	1¼"	0.181	90
PEXF5MIA04025	40×1"	30.8	76.0	1"	0.287	72
PEXF5MIA04032	40×11/4"	30.8	79.0	1¼"	0.310	60
PEXF5MIA04040	40×11/2"	30.8	79.5	1½"	0.383	60
PEXF5MIA05025*	50×1"	40.8	71.0	1"	-	-
PEXF5MIA05040	50×11/2"	40.8	79.0	1½"	0.402	48
PEXF5MIA05050	50×2"	40.8	84.0	2"	0.475	40
PEXF5MIA06332*	63×11/4"	50.7	101.5	1¼"	-	-
PEXF5MIA06342*	63×11/2"	50.7	103.0	1½"	-	-
PEXF5MIA06350	63×2"	50.7	107.0	2"	0.820	20
PEXF5MIA06363	63×21/2"	50.7	107.0	2½"	1.038	20
PEXF5MIA07550*	75×2"	59.6	111.0	2"	-	-
PEXF5MIA07563	75×21/2"	59.6	111.0	2½"	1.180	14
PEXF5MIA07575	75×3"	59.6	111.0	3"	1.186	12

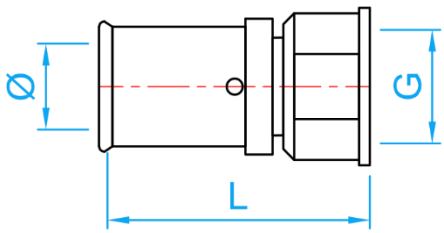
*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 FI ADAPTOR





SIDE VIEW

DIMENSIONS

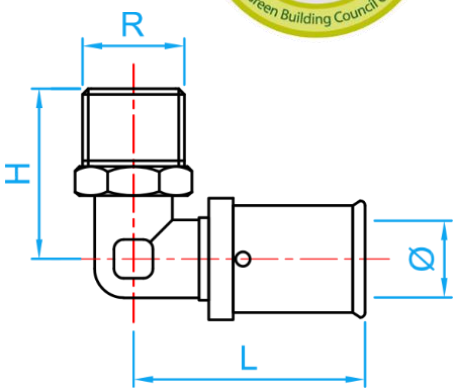
SKU	SIZE (mm x inch)	Ø (mm)	L (mm)	G BSP (inch)	WEIGHT (kg)	PCS/CTN
PEXF5FIA01616	16×1/2"	11.8	42.5	½"	0.051	320
PEXF5FIA01620*	16×3/4"	11.8	44.0	¾"	0.069	240
PEXF5FIA02016*	20×1/2"	15.8	42.5	½"	0.054	280
PEXF5FIA02020	20×3/4"	15.8	44.0	¾"	0.075	240
PEXF5FIA02025*	20×1"	15.8	45.5	1"	-	-
PEXF5FIA02516*	25×1/2"	19.8	49.0	½"	0.078	160
PEXF5FIA02520*	25×3/4"	19.8	50.5	¾"	0.086	160
PEXF5FIA02525	25×1"	19.8	52.0	1"	0.135	96
PEXF5FIA03220*	32×3/4"	25.8	50.5	¾"	0.111	128
PEXF5FIA03225*	32×1"	25.8	52.0	1"	0.141	96
PEXF5FIA03232*	32×11/4"	25.8	54.5	1¼"	0.177	84
PEXF5FIA04025*	40×1"	31.8	66.0	1"	0.250	80
PEXF5FIA04032	40×11/4"	31.8	67.0	1¼"	0.290	72
PEXF5FIA04040	40×11/2"	31.8	68.5	1½"	0.330	60
PEXF5FIA05025*	50×1"	40.8	66.0	1"	0.350	48
PEXF5FIA05032*	50×11/4"	40.8	68.5	1¼"	-	-
PEXF5FIA05040*	50×11/2"	40.8	69.0	1½"	0.375	40
PEXF5FIA05050	50×2"	40.8	75.0	2"	0.545	32
PEXF5FIA06325	63×1"	50.7	88.0	1"	0.595	20
PEXF5FIA06340*	63×11/2"	50.7	92.0	1½"	-	-
PEXF5FIA06350	63×2"	50.7	98.0	2"	0.720	20
PEXF5FIA06363	63×21/2"	50.7	98.0	2½"	0.929	16
PEXF5FIA07540*	75×11/2"	59.6	94.0	1½"	-	-
PEXF5FIA07563*	75×21/2"	59.6	107.0	2½"	1.089	12

*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 MI ELBOW



SIDE VIEW

DIMENSIONS

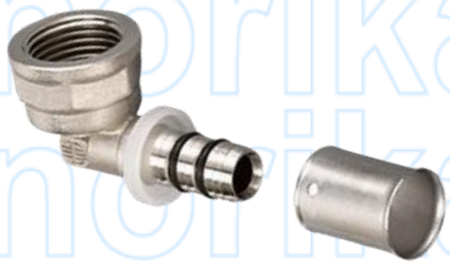
SKU	SIZE (mm x inch)	Ø (mm)	R BSPT (inch)	L (mm)	H (mm)	WEIGHT (kg)	PCS/CTN
PEXF5MIE01616	16×1/2"	11.8	½"	38.5	31.5	0.061	200
PEXF5MIE01620	16×3/4"	11.8	¾"	41.0	33.5	0.086	160
PEXF5MIE01625*	16×1"	11.8	1"	45.0	35.5	-	-
PEXF5MIE02016	20×1/2"	15.8	½"	38.5	33.5	0.074	192
PEXF5MIE02020	20×3/4"	15.8	¾"	41.0	35.5	0.096	120
PEXF5MIE02025*	20×1"	15.8	1"	45.0	37.5	-	-
PEXF5MIE02516*	25×1/2"	19.8	½"	45.0	36.0	0.108	80
PEXF5MIE02520*	25×3/4"	19.8	¾"	48.0	37.0	0.126	96
PEXF5MIE02525	25×1"	19.8	1"	52.0	39.0	0.163	96
PEXF5MIE03220*	32×3/4"	25.8	¾"	48.5	42.0	-	-
PEXF5MIE03225*	32×1"	25.8	1"	52.0	43.0	0.200	64
PEXF5MIE03232	32×11/4"	25.8	1¼"	57.0	46.0	0.299	64
PEXF5MIE04025	40×1"	31.8	1"	68.0	42.0	0.295	40
PEXF5MIE04032	40×11/4"	31.8	11/4"	71.0	44.5	0.352	30
PEXF5MIE05025*	50×1"	40.8	1"	68.0	44.5	-	-
PEXF5MIE05040	50×11/2"	40.8	1½"	75.0	50.0	0.479	24
PEXF5MIE05050*	50×2"	40.8	2"	82.0	53.5	-	-
PEXF5MIE06340*	63×11/2"	50.7	1½"	98.0	55.0	-	-
PEXF5MIE06350*	63×2"	50.7	2"	105.0	60.0	-	-

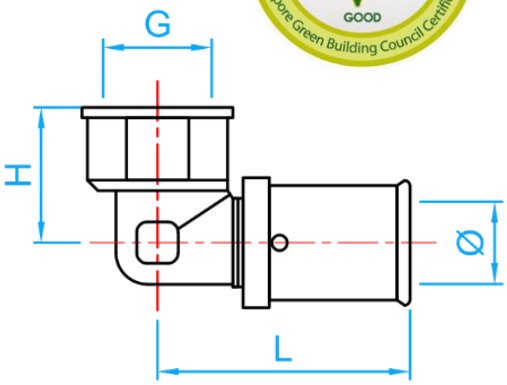
*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 FI ELBOW





SIDE VIEW

DIMENSIONS

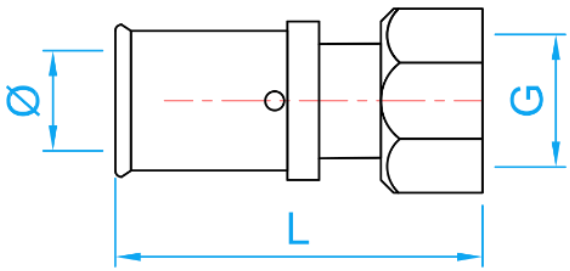
SKU	SIZE (mm x inch)	Ø (mm)	G BSP (inch)	L (mm)	H (mm)	WEIGHT (kg)	PCS/CTN
PEXF5FIE01616	16×1/2"	11.8	½"	41	23	0.067	240
PEXF5FIE01620	16×3/4"	11.8	¾"	44.0	24.0	0.086	144
PEXF5FIE02016	20×1/2"	15.8	½"	41.0	25.0	0.077	176
PEXF5FIE02020	20×3/4"	15.8	¾"	44.0	26.0	0.099	120
PEXF5FIE02025*	20×1"	15.8	1"	48.0	26.5	-	-
PEXF5FIE02516*	25×1/2"	19.8	½"	48.0	26.0	0.109	96
PEXF5FIE02520	25×3/4"	19.8	¾"	51.0	27.0	0.129	80
PEXF5FIE02525	25×1"	19.8	1"	55.0	28.0	0.158	72
PEXF5FIE03220*	32×3/4"	25.8	¾"	51.0	29.5	0.164	72
PEXF5FIE03225*	32×1"	25.8	1"	55.0	30.5	0.195	64
PEXF5FIE03232	32×11/4"	25.8	1¼"	60.0	34.0	0.262	78
PEXF5FIE04025	40×1"	31.8	1"	65.5	33.0	0.260	40
PEXF5FIE04032	40×11/4"	31.8	1¼"	72.0	38.0	0.360	25
PEXF5FIE04040	40×11/2"	31.8	1½"	75.0	38.0	0.412	25
PEXF5FIE05025*	50×1"	40.8	1"	66.5	37.0	0.368	25
PEXF5FIE05040*	50×11/2"	40.8	1½"	75.0	42.0	0.483	30
PEXF5FIE05050	50×2"	40.8	2"	81.5	48.0	0.625	24
PEXF5FIE06325*	63×1"	50.7	1"	90.0	42.0	-	-
PEXF5FIE06350*	63×2"	50.7	2"	104.5	49.0	-	-

*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 DEMOUNTABLE FEMALE STRAIGHT UNION



SIDE VIEW

DIMENSIONS

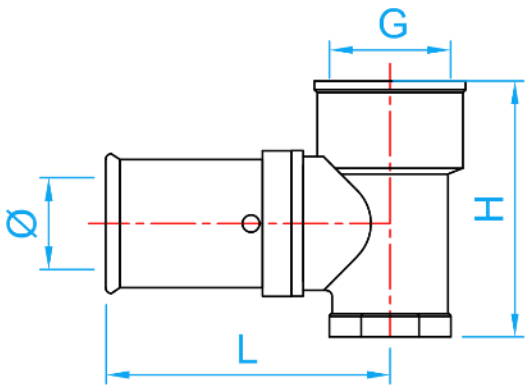
SKU	SIZE (mm x inch)	Ø (mm)	G BSP (inch)	L (mm)	WEIGHT (kg)	PCS/CTN
PEXF5FJC016*	16×1/2"	11.8	½"	51.0	0.060	384
PEXF5FJC01620*	16×3/4"	15.8	½"	52.0	0.077	200
PEXF5FJC02016*	16×1/2"	15.8	½"	52.0	0.067	240
PEXF5FJC020*	20×3/4"	15.8	¾"	52.5	0.089	192
PEXF5FJC02520*	25×3/4"	19.8	¾"	58.5	0.111	144
PEXF5FJC025*	25×1"	19.8	1"	61.0	0.156	96
PEXF5FJC03225*	32×1"	25.8	1"	61.0	0.172	96
PEXF5FJC032*	32×11/4"	25.8	1¼"	62.5	-	-
PEXF5FJC04032*	40×11/4"	31.8	1¼"	78.0	-	-
PEXF5FJC05040*	50×11/2"	40.8	1½"	83.5	-	-

*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 FI WALLPLATE ELBOW



SIDE VIEW

DIMENSIONS

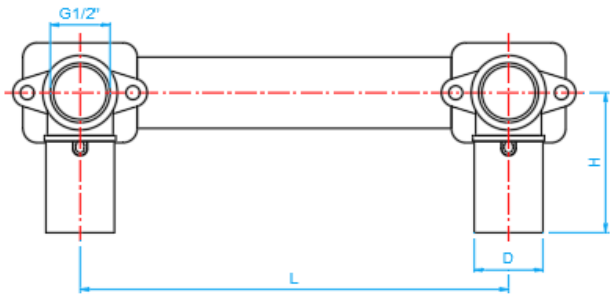
SKU	SIZE (mm x inch)	ø (mm)	L (mm)	G BSP (inch)	H (mm)	WEIGHT (kg)	PCS/CTN
PEXF5FE016	16×1/2"	11.8	41.5	½"	38.5	0.096	112
PEXF5FE01620*	16×3/4"	11.8	44.0	¾"	43.0	-	-
PEXF5FE02016*	20×1/2"	15.8	41.5	½"	43.0	0.108	96
PEXF5FE020*	20×3/4"	15.8	44.0	¾"	44.0	0.135	96
PEXF5FE02520*	25×3/4"	19.8	50.5	¾"	48.0	0.177	64

*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

PEX PRESS-FIT FITTINGS (U PROFILE)

COMPLY WITH BS EN ISO 21003-1:2008
BS EN ISO 21003-3:2008
BS EN ISO 21003-5:2008
BS EN 12165:2016
AS/NZS 4020:2005
SS 375:2015

F5 ASSEMBLY DOUBLE ELBOW



SIDE VIEW

DIMENSIONS

SKU	SIZE (mm)	D (mm)	L (mm)	H (mm)	WEIGHT (kg)	PCS/CTN
PEXF5FE016S*	16X1/2"	11.8	150	49.5	0.415	20
PEXF5FE02016S*	20X1/2"	15.8	150	51.0	0.450	16

*This item requires special ordering. Please consult with a salesperson for the estimated lead time.

LIANG CHEW HARDWARE
联 洲 五 金

Built For Water

Main Office

133 Kitchener Road
Singapore 208517

Mon-Fri: 8:00am - 5:30pm
Sat: 8:00am - 1:00pm
Sun & PH: Closed

North Office

10 Admiralty Street, North
Link Building #02-45
Singapore 757695

Mon-Fri: 8:00am - 5:00pm
Sat: 8:00am - 1:00pm
Sun & PH: Closed