Tech Note 30:
Flow Rates & Pressure Loss (Press-Fit)

TN.30

Chart M – Flow Rates & Pressure Loss for AusPress Metric Press-Fit Diameters
Conditions: Potable Water, 10°C.

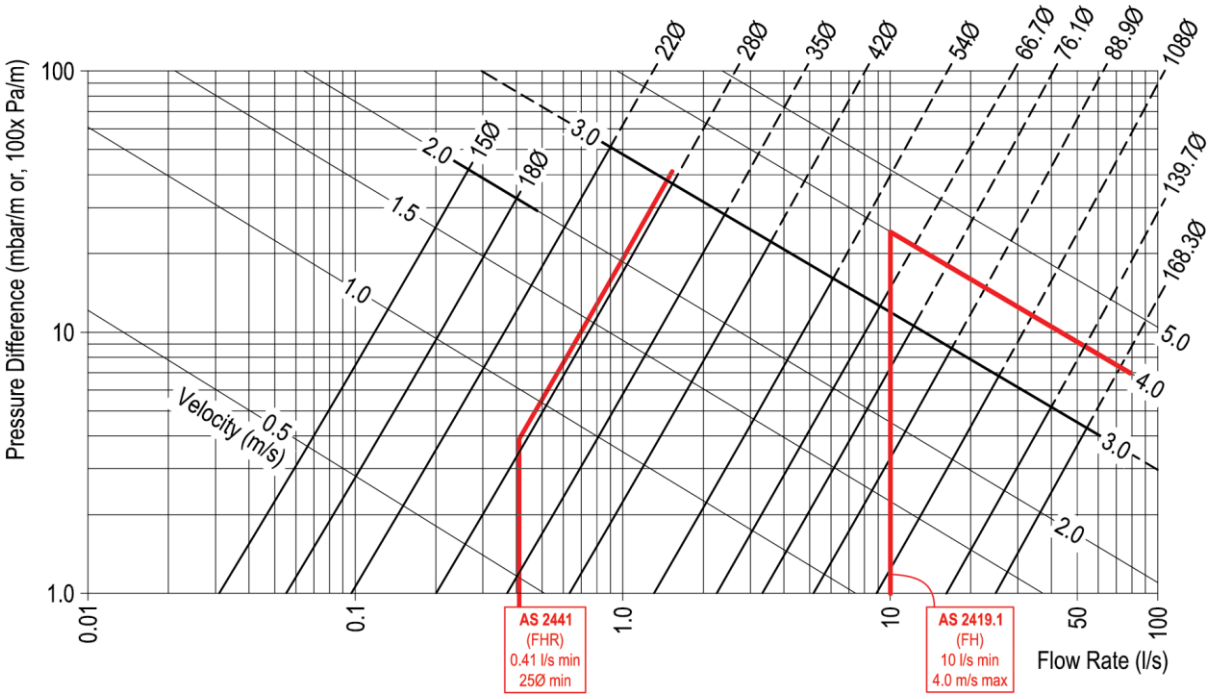
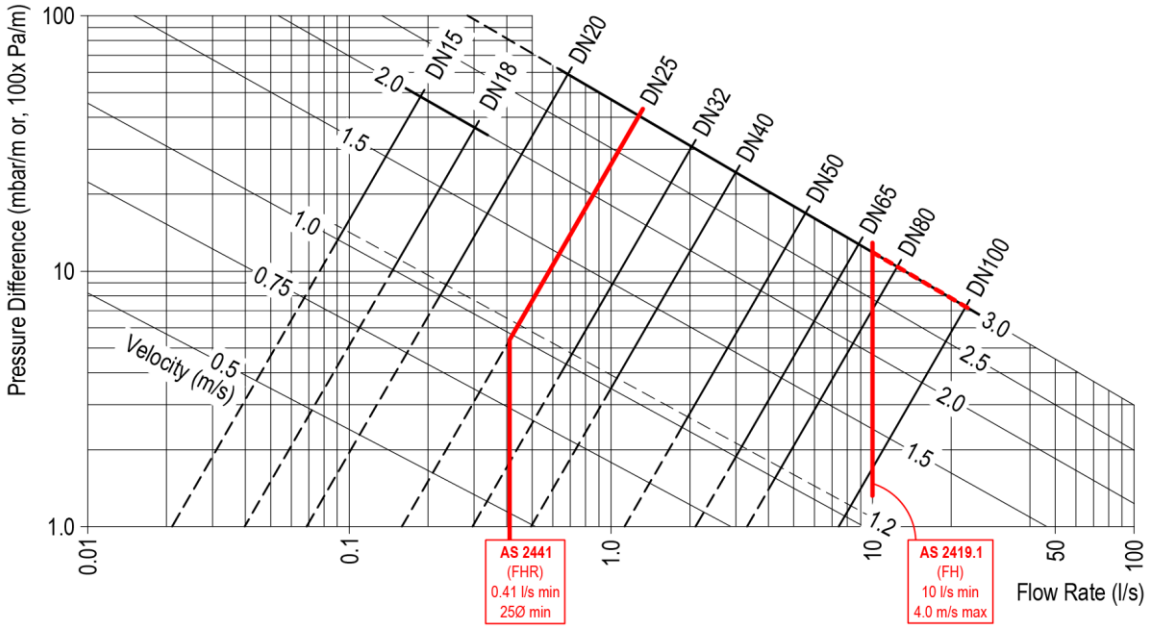


Chart V – Flow Rates & Pressure Loss for AusPress Copper Press-Fit Diameters
Conditions: Type B Tube, Potable Water, 15°C.



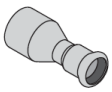
Design Considerations

- Systems are to be professionally design in accordance with AS 3500 and installed by a licenced plumber.
- Maximum velocity values to be respected…
  - AusPress 316 Stainless: 3.0m/s max (AS 3500); 40.0m/s max.
  - AusPress Copper: 3.0m/s max <70°C (AS 3500), recommend 1.5m/s max >70°C.
  - AusPress Copper Nickel (CuNiFe): To prevent internal fowling, design flow velocities between 1.0 and max 3.0m/s (DIN EN 85004-2).

Fitting Equivalent Pipe Length (m)

A simplified method to estimate the pressure loss for a run by adding the equivalent pipe length value per fitting to the overall run length for a 'longer run' value for loss to be calculated.

Conditions: 2.0m/s

Item							
	90 Bend	45 Bend	Coupling	Reducer	Tee (Line)	Tee (Br)	BSP 90
"K" Loss Coefficient	0.7	0.5	0.1	0.4	0.3	1.3	1.5
15Ø	0.22m	0.17	0.09	0.07	0.11	0.65	0.56
18Ø	0.26	0.19	0.09	0.08	0.12	0.83	0.78
22Ø	0.33	0.25	0.12	0.09	0.16	1.03	0.90
28Ø	0.42	0.30	0.12	0.12	0.19	1.45	-
35Ø	0.54	0.40	0.17	0.14	0.26	1.86	-
42Ø	0.66	0.47	0.18	0.16	0.30	2.43	-
54Ø	0.86	0.60	0.18		0.37	3.47	-
66.7Ø	0.99	0.62	0.18		0.37	4.45	-
76.1Ø	1.11	0.66	0.19	0.12	0.38	5.74	-
88.9Ø	1.33	0.78	0.19	0.15	0.39	7.06	-
108Ø	1.68	0.99	0.19		0.46	9.14	-
139.7Ø[μ]				-			-
168.3Ø[μ]				-			-

[μ] Fittings of this diameter measured at 0.7m/s velocity.

Tee (Bullhead) loss coefficient K = 1.5 at branch inlet.

Reducer fitting calculated from next diameter larger to diameter shown in chart (ie 28mm = 35x28 Reducer).

Further Information

For additional or specific information, please contact technical@auspress.com.au