

# Flow rates – Waterjet orifices

- liters per minute

Diameter	Pressure (bars)							
	500	1 000	1 500	2 000	2 500	3 000	3 500	4 000
0.08	0.06	0.09	0.11	0.13	0.14	0.16	0.17	0.18
0.10	0.10	0.14	0.17	0.20	0.23	0.25	0.27	0.29
0.12	0.15	0.21	0.25	0.29	0.33	0.36	0.38	0.41
0.13	0.17	0.24	0.30	0.34	0.38	0.42	0.45	0.48
0.15	0.23	0.32	0.39	0.45	0.51	0.56	0.60	0.64
0.18	0.33	0.46	0.57	0.65	0.73	0.80	0.87	0.93
0.20	0.40	0.57	0.70	0.81	0.90	0.99	1.07	1.14
0.23	0.53	0.76	0.93	1.07	1.19	1.31	1.41	1.51
0.25	0.63	0.89	1.09	1.26	1.41	1.55	1.67	1.79
0.28	0.79	1.12	1.37	1.58	1.77	1.94	2.09	2.24
0.30	0.91	1.29	1.57	1.82	2.03	2.23	2.40	2.57
0.33	1.10	1.56	1.90	2.20	2.46	2.69	2.91	3.11
0.35	1.24	1.75	2.14	2.47	2.77	3.03	3.27	3.50
0.38	1.46	2.06	2.53	2.92	3.26	3.57	3.86	4.12
0.40	1.62	2.28	2.80	3.23	3.61	3.96	4.27	4.57

## Formula

$$Q \text{ (l/min)} = D^2 \sqrt{P} \times 0.634 \times F$$

Q = flow rate in liters per minute

D = diameter of orifice in mm

P = pressure in bar

K = 0.634 constant

F = Efficiency coefficient. Waterjet orifices F = 0.7123