

RECOMMENDATIONS FOR CONNECTION PIPE DIAMETER






To simplify your work, here are DELABIE's recommendations for selecting the correct internal diameter for horizontal final pipework (*table 1*). These diameters are calculated according to the base flow rates recommended by DELABIE for each point-of-use as well as the simultaneous coefficient calculated following the rules detailed in the previous chapter.

For pipes that are joined or connected using other types of quick connectors, the interior diameter of the passage through the connection should be verified.

Important: after choosing the diameter, check whether the residual dynamic pressure is sufficient at the valve inlets. Loss of pressure in the installation should also be considered.

TABLE 1 / PIPEWORK DIAMETER RELATIVE TO THE NUMBER OF TIME FLOW OR ELECTRONIC VALVES

Horizontal pipe runs - Design velocity 2 m/sec.

Time flow or electronic valve	Number of valves supplied on the same pipe run	FLOW RATE		PIPE Minimum interior diameter
		Gross flow rate L/sec.	Design corrected L/sec.	
 BASIN Base flow rate 0.05 L/sec.	1	0.05	0.05	6
	2 or 3	0.10 to 0.15	0.08	7
	4 to 6	0.20 to 0.30	0.09 to 0.11	8
	7 to 11	0.35 to 0.55	0.11 to 0.14	9
	12 to 17	0.60 to 0.85	0.14 to 0.17	10
	18 to 25	0.90 to 1.25	0.17 to 0.20	11
	26 to 36	1.30 to 1.80	0.21 to 0.24	12
	37 to 50	1.85 to 2.50	0.25 to 0.29	13
 SHOWER Base flow rate 0.10 L/sec.	1	0.10	0.10	8
	2 or 3	0.20 to 0.30	0.16 to 0.17	10
	4 or 5	0.40 to 0.50	0.18 to 0.20	11
	6 to 8	0.60 to 0.80	0.21 to 0.24	12
	9 to 15	0.90 to 1.50	0.25 to 0.32	13 to 14
	16 to 27	1.60 to 2.70	0.33 to 0.42	15 to 16
	28 to 50	2.80 to 5	0.43 to 0.57	17 to 19
	 URINAL With water nozzle and stall Flow rate 0.15 L/sec.	1	0.15	0.15
2 to 4		0.3 to 0.60	0.24 to 0.28	12 to 13
5 to 8		0.75 to 1.20	0.30 to 0.36	14 to 15
9 to 14		1.35 to 2.10	0.38 to 0.47	16 to 17
15 to 23		2.25 to 3.45	0.48 to 0.59	18 to 19
24 to 35		3.60 to 5.25	0.60 to 0.72	20 to 21
36 to 50		5.40 to 7.50	0.73 to 0.86	22 to 23
 SIPHON ACTION URINAL With small independent plastic or ceramic waste Base flow rate 0.25 L/sec.	1	0.25	0.25	13
	2 or 3	0.50 to 0.75	0.40 to 0.42	16
	4 to 7	1 to 1.75	0.46 to 0.57	17 to 19
	8 to 14	2 to 3.50	0.60 to 0.78	20 to 22
	15 to 25	3.75 to 6.25	0.80 to 1.02	23 to 25
	26 to 34	6.50 to 8.50	1.04 to 1.18	26 to 27
	35 to 50	8.75 to 12.50	1.20 to 1.43	28 to 30
 DIRECT FLUSH WC ¾" to 1¼" Base flow rate 1 L/sec.	1	1	1	20
	2 or 3	2 to 3	1	25
	4 to 12	4 to 12	2	36
	13 to 24	13 to 24	3	44
	25 to 50	25 to 50	4	50
	+50	+50	5	56