



Conversion Unit

• Under different pressure, the nozzle angle will have different changes

When the pressure is low, the Angle will become smaller and the impact force will be relatively small. When the pressure gradually increases, the injection Angle will gradually increase, and the impact cleaning force will gradually increase. Different materials have different pressure tolerance, so the general nozzle will be required to be used under standard pressure. On the one hand, it will change the flow rate of the nozzle, but also affect its standard injection Angle, the flow rate increases, the pressure will decrease, the Angle will decrease accordingly, the wear nozzle will change the direction of the injection, the use efficiency is greatly reduced.

Area			
cm ²	m ²	in ²	ft ²
1	1x10 ⁻⁴	0.155	1.08x10 ⁻⁶
1x10 ⁴	1	1.55x10 ³	10.8
6.45	6.45x10 ⁻⁴	1	6.94x10 ⁻³
9.30x10 ²	9.30x10 ⁻²	1.44x10 ²	1

Length					
μm	mm	cm	m	in	ft
1	1x10 ⁻³	1x10 ⁻⁴	1x10 ⁻⁶	3.94x10 ⁻⁵	3.28x10 ⁻⁶
1,000	1	0.1	1x10 ⁻³	3.94x10 ⁻²	3.28x10 ⁻³
1x10 ⁴	10	1	1x10 ⁻²	3.94x10 ⁻¹	3.28x10 ⁻²
1x10 ⁶	1x10 ³	100	1	3.94x10	3.28
2.54x10 ⁴	25.4	2.54	2.54x10 ⁻²	1	8.33x10 ⁻²
3.05x10 ⁵	3.05x10 ²	3.05x10	3.05x10 ⁻¹	12	1

Flow Rate						
L/min	m ³ /min	m ³ /h	in ³ /h	ft ³ /h	gal/min	gal/min
1	0.001	0.06	3.66x10 ³	2.12	0.264	0.22
1,000	1	60	3.66x10 ⁶	2.12x10 ³	264	220
16.67	0.017	1	6.10x10 ⁴	35.3	4.40	3.67
2.73x10 ⁻⁴	2.7x10 ⁻⁷	1.64x10 ⁻⁵	1	5.79x10 ⁻⁴	7.22x10 ⁻⁵	60.1x10 ⁻⁵
0.472	4.72x10 ⁴	0.028	1.728	1	0.125	0.104
3.79	0.004	0.227	1.39x10 ⁴	8.02	1	0.833
4.55	0.005	0.273	1.66x10 ⁴	9.63	1.2	1

Pressure						
Kpa	Bra	kg/cm ²	ib/in ² (psi)	Atm	MHg	MH ₂ O(mAg)
1	0.01	0.01	0.145	9.87x10 ⁻³	7.50x10 ⁻³	0.102
100	1	1.020	14.5	0.987	0.750	10.2
98.07	0.981	1	14.22	0.968	0.736	10.01
6.89	0.069	0.070	1	0.068	0.052	0.704
1.01x10 ²	1.013	1.033	14.7	1	0.76	10.34
1.33x10 ²	1.33	1.36	19.3	1.32	1	13.61
9.807	0.098	0.10	1.42	0.097	0.073	1

Volume					
cm ³	L	M ³ (kl)	ft ³	gal	gal
1	1x10 ⁻³	1x10 ⁻⁶	3.53x10 ⁻⁵	2.2x10 ⁻⁴	2.64x10 ⁻⁴
1000	1	1x10 ⁻³	3.52x10 ⁻²	0.22	0.264
1x10	1000	1	353	220	264
2.83x10 ⁴	28.3	2.83x10 ⁻²	1	0.623	0.749
4.55x10 ³	4.55	4.55x10 ⁻³	1.6	1	1.2
3.79x10 ³	3.79	3.79x10 ⁻³	1.34	0.833	1

Other	
Viscosity	1p=100cp 1st=100cst
Weight	1kg=2.205lb 1ib=0.454kg
Temperature	[°F]=([°C]×5/9)+32 [°C]=5/9([°F]-32)

Water flow and appropriate piping diameter					Water flow and appropriate piping diameter				
Diameter		Steel Pipe		The flow rate when the pipe length is 10cm and the pressure loss is 0.01-0.03mpa (L/min)	Diameter		Steel Pipe		The flow rate when the pipe length is 10cm and the pressure loss is 0.01-0.03mpa (L/min)
A	B	Inside diameter	Outer diameter		A	B	Inside diameter	Outer diameter	
6A	1/8B	6.5	10.5	1.3-2.2	40A	1-1/2B	41.6	48.6	120-210
8A	1/4B	9.2	13.8	3-5.2	50A	2B	52.9	60.5	215-370
10A	3/8B	12.7	17.3	7-12	65A	2-1/2B	67.9	76.3	410-700
15A	1/2B	16.1	21.7	12-21	80A	3B	80.7	89.1	680-1200
20A	3/4B	21.6	27.2	22-38	100A	4B	105.3	114.3	1200-2100
25A	1B	27.6	34.0	38-65	125A	5B	130.8	139.8	2100-3600
32A	1-1/4B	35.7	42.7	70-120	150A	6B	155.2	165.2	3300-5700