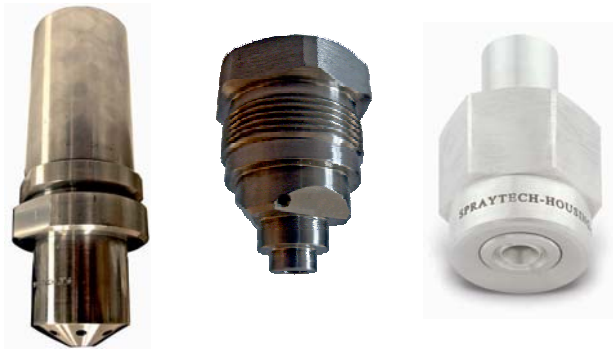


Special Purpose Spray Nozzle

Max Flow Spray Nozzle



Application example :

Gas Cooling in medium sized and large Gas Cooling Towers, e.g. in the Cement, Lime, Glass and Iron & Steel Industry

Technical data :

Spray Angle: 90°, 60°, 45°
Turn down ratio: ≥ 10 : 1
Typical operating pressure: 35 bar (g)

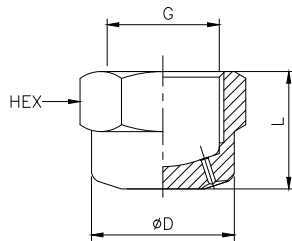
Spillback Spray Nozzle



Atomize liquids as a fine hollow cone Irrespective of the atomized flow rate, the medium is always carried to the nozzles at the same high pressure.

Regulation is performed by opening a control valve in the Reverse Flow Nozzle line which takes a partial flow rate from the atomization and carries it back to the tank. The maximum atomized flow rate is achieved with the control valve closed. Even, fine liquid atomization is achieved across the entire control range.

Fog Spray Nozzle



Design Features : This non clogging nozzle gives fine atomization with the aid of several flat spraying into one another.

Applications : Fire Protection, Dust Control, Aerating, Chemical Processing.

Nozzle Conn. (G)	D	L	Hex
3/4"	31.5	25.4	32
1"	40.5	29.4	41
1-1/4"	45.5	31	46

M.O.C. : SS304, SS316, Brass, PVC, etc.

Nozzle Inlet Conn. NPT/BSP T/ BSPP	Hose Size	Nozzle Type		Capacity					
		Spray Angle	Conn. Female	1 bar	2 bar	3 bar	5 bar	7 bar	10 bar
3/4"	1"	70° / 90°	✓	11	16	19.5	25.5	30	36
3/4"	1"	70° / 90°	✓	21.5	30	36.5	47	56	67
3/4"	1"	70° / 90°	✓	28	40	49	63	75	89.5
3/4"	1"	70° / 90°	✓	42.5	60	73.5	95	112	134
1"	1-1/4"	70° / 90°	✓	57	80	98	126.5	150	179
1"	1-1/4"	70° / 90°	✓	79	112	137	177	209	250.5
1-1/4"	1-1/2"	70° / 90°	✓	113	160	196	253	299.5	358
1-1/4"	2"	70° / 90°	✓	159.5	225	275.5	356	421	503

Dry Fog Spray Nozzle

Nozzle For Humidification -
Nozzle Flow Charts at Nominal Settings



Water Flow Litres / hour	Water Pressure Bar	Air Pressure Bar	Air Rate Litres / sec (cfm)	Droplet Size Range micron
Nozzle size 03 5H	0.4-8 lts/hr			
3	1.0	4.0	0.8 (1.7)	1 to 5
Nozzle size 05 2H	1-20 lts/hr			
8	1.0	5.0	1.84 (3.9)	3 to 8
Nozzle size 08 6H	2-26 lts/hr			
20	1.0	5.0	5.19 (11.0)	5 to 20
Nozzle Size 12 5H	4-55 lts/hr			
40	1.0	5.0	7.08 (15.0)	25 to 65
Nozzle size ST52	1-20 lts/hr			
8	1.0	5.0	1.84 (3.9)	3 to 10
Nozzle size ST47	2-30 lts/hr			
18	1.0	5.0	5.19 (11.0)	5 to 20
Nozzle size ST33	8-55 lts/hr			
40	1.0	5.0	7.08 (15.0)	25 to 65

Desuperheaters

Desuperheating, sometimes called attemperation or steam conditioning, is the reduction of gas temperature. Its most common application is the reduction of temperature in a steam line through the direct contact and vaporation of water. Desuperheaters use uniquely effective methods to inject the water and maximize the surface contact area between the steam and water to increase the rate of water evaporation. Most of our Desuperheaters inject water through several small holes into the path of the high velocity steam where the water is atomized into small water droplets and quickly evaporated into the steam.

The simple spray type Desuperheater is used in applications where the steam load remains relatively constant. Cooling water is injected into the superheated steam through a nozzle. The steam temperature is reduced by evaporative cooling. The maximum turndown ratio of the spray type Desuperheaters is 2:1. Air atomizing type Spray Nozzles & Hollow Cone type Spray Nozzles are a good option for Spray type Desuperheaters.



Deaerator

Deaeration is a process by which dissolved gases are removed from water. Since proper deaeration of boiler feed water is essential to minimise oxygen corrosion and carbon dioxide attack, almost every boiler plant uses deaerating systems. Nowadays modern deaerating systems can be designed to obtain a residual oxygen content as low as 0.005 ml/liter.

Spray type Deaerators are simple, cost effective and virtually maintenance free systems that can operate under variable loads without significant impact on heating or deaerating performances. For the above reasons, this kind of Deaerator is widely used for industrial applications. Spray Deaerators do not require corrosion resistant materials because all the water in contact with the shell is sufficiently deaerated and non-corrosive at the operating conditions.

Full Cone and Spiral Full Cone series of Spraytech Nozzles can be used for this purpose.

