

Nessie® Water Mist Nozzles with Anti-Drip



Applications

This nozzle has been widely used within the humidification industry for years. It is tailored for fine water atomization in applications like comfort humidity control, open space humidification, adiabatic cooling etc.

The nozzle generates billions of very small droplets at a size of 20 micron (D90-value), depending on pressure and water quality. The nozzle has a long life expectancy; due to the stainless steel design the droplet size and spraying pattern will not rapidly deteriorate.

The stainless steel design allows operating the nozzle with ordinary tap water as well as any treated water like deionized, demineralized or reverse osmosis water.

All nozzles come with a built-in check valve as standard. In connection with Danfoss' advanced 3/2-way valve technology an absolutely "dripping-free" operation of the system can be achieved.

Benefits

- Dripping-free operation can be achieved
- Suitable for ordinary tap water as well as treated water
- Long service life
- Excellent spray pattern

Filtration

It is a general rule that the better the filtration of the water, the higher the expected service life of the nozzles, and the less risk of clogging. Pre-filtration is therefore highly recommended.

Technical data and code numbers

Litre per hour	Litre per min.	US Gallon per min. (gpm)	US Pounds per hour	Orifice (mm/inch)	Spray angle	Max. pressure (bar/psi)	Nozzle thread	Code number
2.5	0.04	0.011	6.95	0.15/0.06	60°	70/1000	12/24 UNC	180Z1939
3.3	0.06	0.015	7.28	0.2/0.008	60°	70/1000	10/24 UNC	180Z1946
3.3	0.06	0.015	7.28	0.2/0.008	60°	70/1000	12/24 UNC	180Z1940
4.9	0.08	0.022	10.80	0.22/0.009	60°	70/1000	10/24 UNC	180Z1947
4.9	0.08	0.022	10.80	0.22/0.009	60°	70/1000	12/24 UNC	180Z1941
6.5	0.11	0.029	14.30	0.3/0.12	60°	70/1000	12/24 UNC	180Z1949
8.5	0.14	0.037	18.74	0.33/0.013	60°	70/1000	12/24 UNC	180Z1944
11.0	0.18	0.049	24.25	0.40/0.016	60°	70/1000	12/24 UNC	180Z1945
15.0	0.25	0.066	33.07	0.50/0.020	60°	70/1000	12/24 UNC	180Z1948

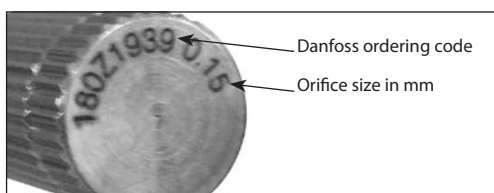
Capacity measured at 70 bar/1000 psi. Variation of capacity of ±10% may occur.
Nozzles and blind plug must be ordered in multiplum of 10 pieces.

Material Body and spring stainless steel (AISI 304), ball and O-ring Viton

Thread Outer thread of 10/24 or 12/24 UNC 2A, depth 4 mm/0.15 inch

Size and weight Ø9.5 mm/0.374 inch; length 17.5 mm/0.69 inch; 8.5 g/0.3 oz

Marking on the nozzles



Adapters

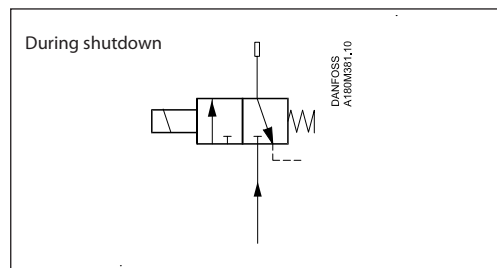
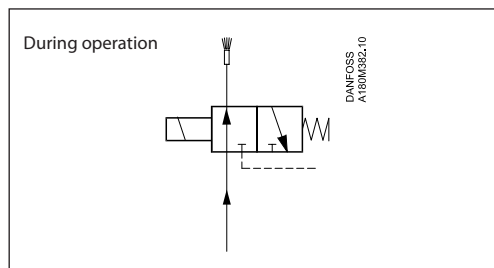
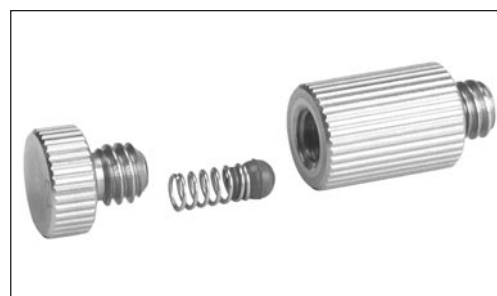


Version No.	Connections	Material	Weight	Length (mm/inch)	Code number
1	12/24 UNC 2B (female) to 12 mm/0.47 inch pipe (male)	AISI 304	20 g/0.7 oz.	30/1.18	180Z0022
2	12/24 UNC 2B (female) to 10 mm/0.39 inch pipe (male)	AISI 304	12 g/0.4 oz.	30/1.18	180Z0023
3	12/24 UNC 2B (female) to 3/8" NPT (male)	AISI 304	55 g/1.94 oz.	34/1.34	180Z0029
4	12/24 UNC 2B (female) to Ø9.525 mm/3/8" (male)	AISI 304	12 g/0.4 oz.	30/1.18	180Z0047

Adapter no. 2 is suitable to be welded on a stainless steel pipe.

No dripping operation

The integrated spring loaded check valve closes at a pressure of approx. 5 bar / 70 psi preventing water from dripping when the nozzle is shut down. To achieve the optimum performance, the supply line pressure should be relieved rapidly the moment the nozzle is shut down. Danfoss 3/2-way valves allow relieving the pressure instantaneously to atmosphere. In tap water applications, calcification of the nozzles can thus be widely avoided.



Mounting

The nozzle is easy to install; it is hand tightened and comes with an O-ring seal, by means no other sealing materials like Loctite or Teflon tape are needed for installation.

To prevent particles from entering into the system and clogging the nozzles the following procedure must be followed:

- Deburr and clean pipes and fittings prior to installation.
- Flush the system with water after assembling and before the nozzles are mounted

Blind plug

	Code number
Blind plug for 12/24 UNC	180Z1938



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