

Danfoss Accelerator – Spray Technologies

# Born in Water

## 75 years of Evolution, time for the next leap

**Danfoss Spray Technologies** is utilizing 75 years of oil spraying knowledge and experience, expanding the portfolio to sustainable water nozzle applications.



Danfoss **Slimline** with SnNi

Danfoss **HX** with SnNi

# A range **that covers** many needs

### Precision

Ensuring the best spraying performance by highest repeatability of each nozzle.

### Performance

Outstanding water atomization combined with high quality spray pattern.

### Efficiency

Best water atomization combined with high quality spray pattern at given system pressure.

# Why is Danfoss different ...

We've put **75 years of experience** into water.

Our new water nozzles are developed, produced, and constantly improved, based on our simplex pressure swirl atomization principle.

## Our **guarantee** and **promise**

Premium quality, best performance, long-lasting reliability, claiming the highest demand on repeatability and efficiency.

75 Years



> 250. Mio Nozzles produced

## Applications

Danfoss water application nozzles are suitable for a wide range of operational areas:



### **Humidification**

Water mist to humidify HVAC systems in buildings



### **Pest control**

Efficient water mist sprays for mosquito control



### **Agriculture**

Efficient water mist sprays for agriculture application



### **Adiabatic cooling**

High quality water mist to cool down ambient air



### **Dust control**

Water mist for dust control in harsh working environments



### **Wood processing**

Perfect evaporation for wood processing



### **Fire fighting**

High pressure water mist for fire protection systems



### **Artificial snow production**

High pressure water mist for snow production

# Get to know our water nozzles

adjusted & customized to fulfill your demand



## Meet the classic HX

### Specifications

#### Material properties

- ▶ **Disk & cone:** Nickel Silver / Stainless Steel (AISI303)
- ▶ **Housing:** Brass – Plating SnNi (Tin-Nickel)
- ▶ **Filter adapter:** Brass – Plating SnNi (Tin-Nickel)
- ▶ **Bottom screw:** Brass – Plating SnNi (Tin-Nickel)
- ▶ **Valve:** Stainless Steel (AISI303)

#### Connection properties

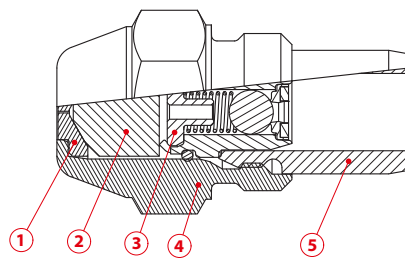
- ▶ **Thread size:** 9/16 – 24 UNEF
- ▶ **Thread size:** 1/4"

#### Operational properties

- ▶ **Angle variation:** 30°–80°
- ▶ **Pressure:** Up to 80 bar
- ▶ **Packaging size:** 50 pcs. / 10 pcs.

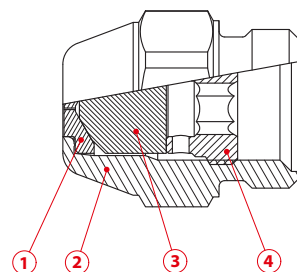
### Technical Facts

- ▶ Angle and capacity are specified at a pressure at **10 bar (25°C Water)**
- ▶ The nozzle valve has an opening pressure of **5,5 bar**
- ▶ Our nozzles are available with or without **Anti drip function**
- ▶ Packaging size: **50 pcs. / 10 pcs.**



Parts list

ITEM	DESCRIPTION
1	Disc
2	Cone
3	HX Valve
4	HX Housing
5	HX Screw



Parts list

ITEM	DESCRIPTION
1	Disc
2	HX Housing
3	Cone
4	Bottom Screw



Danfoss water nozzles are **designed for all water-based fluids.**

Lifetime depends on the nozzle specification you choose.



### Your Benefits

- ✓ 75 years in design & function
- ✓ High corrosive resistant plating
- ✓ Anti drip function
- ✓ Individual customization

# Get to know our water nozzles

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to fulfill your demand



## Meet the Slimline

### Specifications

#### Material properties

- ▶ **Disk & cone:** Nickel Silver / Stainless Steel (AISI303)
- ▶ **Housing:** Brass – Plating SnNi (Tin-Nickel)
- ▶ **Screw:** Brass – Plating SnNi (Tin-Nickel)
- ▶ **Valve:** Stainless Steel (AISI303)

#### Connection properties

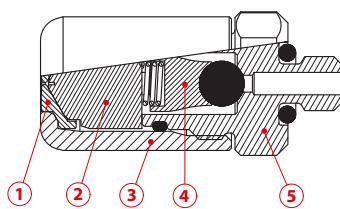
- ▶ **Thread size:** UNC 10-24
- ▶ **Thread size:** UNC 12-24

#### Operational properties

- ▶ **Angle variation:** 30°– 80°
- ▶ **Pressure:** Up to 80 bar
- ▶ **Packaging size:** 50 pcs.

### Technical Facts

- ▶ Angle and capacity are specified at a pressure at **14 bar (25°C Water)**
- ▶ The nozzle valve has an opening pressure of **5,5 bar**
- ▶ Our nozzles are available with or without **Anti drip function**
- ▶ Packaging size: **50 pcs.**



Parts list

ITEM	DESCRIPTION
1	Disc
2	Cone
3	SL Housing
4	SL Valve
5	SL Screw



Danfoss water nozzles are **designed for all water-based fluids.**

Lifetime depends on the nozzle specification you choose.



### Your Benefits

- ✓ Unique & compact design
- ✓ Anti drip function
- ✓ High corrosive resistant plating
- ✓ Mounting by hand
- ✓ Individual customization

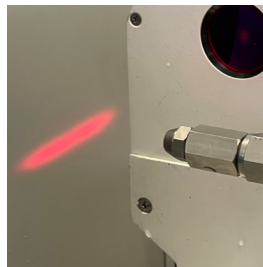
# We have done the measurements.

You can rely on our repeatability and high-end quality.

Extensive investigation and evaluation to match the right performance.

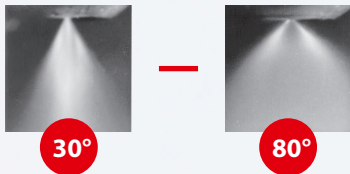
## A lot goes into each small droplet...

Following the premises of Fraunhofer diffraction scattered light absorbent particles method, our nozzles atomize water and water-based fluids into very fine droplets, associated with the best homogeneous spray pattern.



We achieve droplet sizes down to **8  $\mu\text{m}$**  depending on the pressure and the water quality.

*Measured with 50mm distance (at 25°C) and 14 bar.*



## Spray angle and pressure are directly correlated.

We know the dependency by extensive measurements providing an angle range fitting your demands.

## Lifetime...?

### Corrosion resistance

Our **SnNi plating** survives > 240h in salt spray testing according to **DS/EN ISO 9227**



## Assistance & service:

We help with choosing the optimal combination and specification to ensure the best outcome for your demands.



To take advantage of this service, please

✓ **contact your regional sales manager**

OR

✓ **sent an E-mail to: [R159227@danfoss.com](mailto:R159227@danfoss.com)**



Putting what we know  
**into action for you**



Our range of water spray nozzles covers the needs of a very wide range of applications. And we back everything up with the solidity of Danfoss support. In short, **we put a lot in, so you get the right drops out.**