

DFN Dual Filtration New Technology

The use of Dual Filtration products in millions of heating installations throughout Europe is proof that Hago's new filtration technology is leading the way in plugging resistance.

The DFN is uniquely designed to assist in overcoming the clogging problems normally associated with very low flow rate nozzle products. The internal openings of oil nozzles are as thin as a human hair, which make them vulnerable to contaminate within fuel oil. These contaminants, although very small, can and do clog, reducing combustion efficiency and effectiveness. The use of double filtration gives an added degree of security against nozzle failure that is unmatched in the industry today.

Our nozzle comes equipped with Hago's unique external ribbed sintered bronze filter that provides up to 30% more filtration than any competitive product. In addition, a second internal filter of sintered bronze catches impurities that the primary filter may have missed. This inner filter provides an additional 35% more surface filtration area virtually guaranteeing resistance to clogging and plugging. Both filters are made of grade 68 HP bronze powder and are nominally rated at 30-40 microns (0.03mm-0.04mm) filtration levels.

To maximize your options, Hago's DFN is offered in two spray patterns, the DFN-B solid cone and the DFN-H hollow cone. With either version, your installation reliability against premature burner shut down on low flow rate applications (based upon nozzle clogging) will virtually disappear when compared to conventional nozzle products.

Features

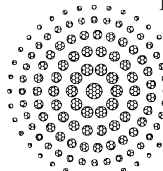
- Outer & Inner Filtration
- Ribbed Bronze Sintered Filter
- Two Spray Patterns
- Hago Product
- Eco-Valve Adaptation

Benefits

- 35% More Surface Filtration
- Rated At 30-40 Microns Each
- Meets Virtually All Applications
- Assurance of Finest Quality Product
- Positive Shut Off, Clear/Clean Burn

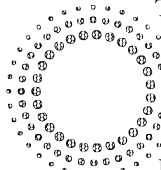
Defining Patterns

Type DFN-B Solid Cone Pattern

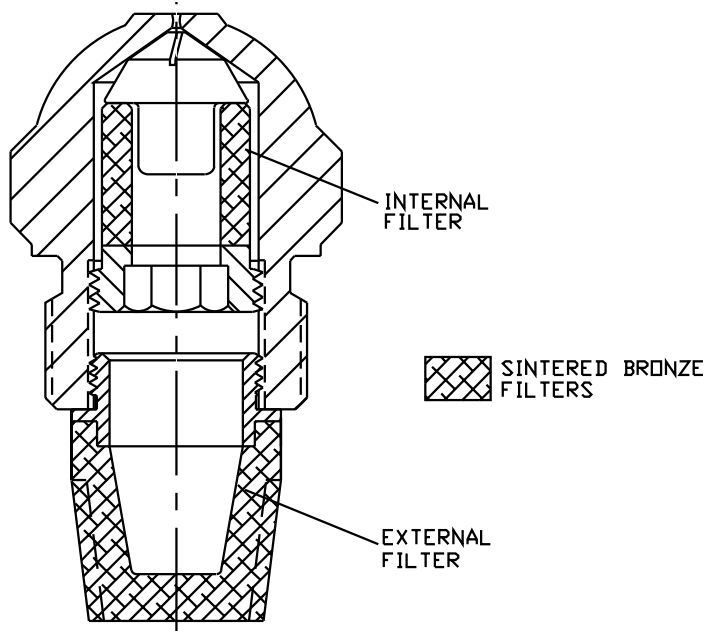


The spray pattern is identical to Hago's standard "B" pattern. This pattern has been proven extremely reliable in providing the cleanest possible combustion in today's high static pressure boilers. Developed in cooperation with the engineering groups at leading burner manufacturers, this pattern is becoming the nozzle of choice with original equipment manufacturers and technician installers everywhere. Our product-to-product consistency makes Hago products the one that you can be confident in, each and every time.

Type DFN-H Hollow Cone Pattern



The hollow cone spray pattern has been found to be extremely effective in producing optimum combustion results within burners throughout the world. In an era where lower particulates and Nox emissions are critical, our extra hollow pattern has proven itself to be most effective.



Applications

For protection against clogging with low flow rates in combustion (particularly manufactured or mobile homes) or special industrial applications.

Materials/Construction

Nozzle parts are type 416 Stainless Steel
Filters are of sintered bronze. Inner and outer filter are rated @ nominal 30-40 microns. (.0012”-.0016”)
Special materials upon request. DFN nozzles are supplied in protective plastic tubes with yellow caps.

Availability / Spray Angles

Flow rates from .30-1.35 GPH.
All sizes: spray angles of 30°, 45°, 60°, 80° and 90°.

Tolerances

Flows are rated at 100 PSI on test oil of 35 SSU (2.7 Cstk) viscosity.
.30-.35 GPH = -2% to +8% • .40-1.50 GPH = -2% to +6% • 1.65 + up = + or - 2.5%

Ordering Information

Specify the nominal flow rate, the spray angle and the nozzle type, “DFN-B or DFN-H”.
Example: .30-60° - DFN-B.

Available Flow Rates (USGPH)

.30	.45	.60	.85	
.35	.50	.65	.90	
.40	.55	.75	1.00	1.35

For Manufactured And Mobile Homes

Our special model for manufactured home use, the #559 DFN-H nozzle delivers the extra margin of protection needed in these installations that are typically difficult, operating under severe conditions and often with more frequent service calls due to nozzle clogging. This nozzle is rated at 0.55 GPH with a 90° spray angle. It provides a short, clean, bushy fire with minimal likelihood of rear wall impingement in the combustion chamber.

DFN Nozzles And Eco-valves

The special construction of the DFN Nozzles allows the use of Hago’s anti-drip strainer check valve, the EcoValve™. This provides a powerful combination of benefits to give the cleanest, most long lasting installations on manufactured or mobile homes and other low flow rate applications.

HAGO PRECISION SPRAY NOZZLES
100% Tested 100% Guaranteed 100% Stainless Steel