Data sheet



Oil Nozzles

LE

sales@prom-elec.com / ООО ПРОМЭЛЕКТРОНИКА

Description

Oil nozzles type LE are special versions of standard nozzles type OD with built-in cut-off valve. In combination with an oil pump with LE-function (e.g. BFP 21 LE) the LE nozzle prevents drop formation when preheating and from oil expansion in the nozzle line at burner stop. Alternatively the LE-function can be obtained by using a preheater with incorporated LE-valve (FPHB-LE) in combination with an OD-nozzle.
LE nozzles are available with 3 spray angles, 2 spray patterns and capacities from 0.40 to 2.0 USgal/h. The nozzles are equipped with sintered bronze filter.

Features & Benefits

- Light oil
- Low Emission
- 100% test of capacity and performance

Applications

- Oil preheaters

Ordering

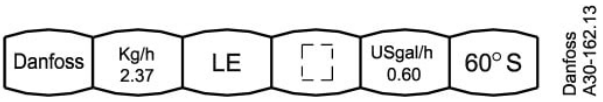
Product code numbers

Product group	Type	Spray angle [°]	Capacity [USgal/h]	Code number
Oil Nozzles	LE	80	0.40	030B0445
Oil Nozzles	LE	80	0.40	030H8704
Oil Nozzles	LE	60	0.40	030F6704
Oil Nozzles	LE	60	0.40	030H6704
Oil Nozzles	LE	60	0.45	030H6706
Oil Nozzles	LE	60	0.45	030F6706
Oil Nozzles	LE	80	0.45	030F8706
Oil Nozzles	LE	80	0.45	030H8706
Oil Nozzles	LE	80	0.50	030B0444
Oil Nozzles	LE	60	0.50	030H6708
Oil Nozzles	LE	80	0.50	030H8708
Oil Nozzles	LE	60	0.50	030F6708
Oil Nozzles	LE	20	0.50	030F2408
Oil Nozzles	LE	80	0.50	030F8708
Oil Nozzles	LE	45	0.50	030F4708
Oil Nozzles	LE	45	0.55	030F4710
Oil Nozzles	LE	60	0.55	030F6710
Oil Nozzles	LE	80	0.55	030H8710
Oil Nozzles	LE	60	0.55	030H6710
Oil Nozzles	LE	80	0.60	030B0447
Oil Nozzles	LE	45	0.60	030F4712
Oil Nozzles	LE	60	0.60	030H6712
Oil Nozzles	LE	80	0.60	030F8712
Oil Nozzles	LE	20	0.60	030F2412
Oil Nozzles	LE	80	0.60	030H8712
Oil Nozzles	LE	45	0.65	030F4714
Oil Nozzles	LE	60	0.65	030F6714
Oil Nozzles	LE	60	0.65	030H6714

Oil Nozzles	LE	80	0.65	030F8714
Oil Nozzles	LE	60	0.75	030F6716
Oil Nozzles	LE	45	0.75	030F4716
Oil Nozzles	LE	20	0.75	030F2416
Oil Nozzles	LE	80	0.75	030H8716
Oil Nozzles	LE	60	0.75	030H6716
Oil Nozzles	LE	80	0.85	030F8718
Oil Nozzles	LE	60	0.85	030H6718
Oil Nozzles	LE	45	0.85	030F4718
Oil Nozzles	LE	80	0.85	030H8718
Oil Nozzles	LE	60	1.00	030F6720
Oil Nozzles	LE	80	1.00	030H8720
Oil Nozzles	LE	45	1.00	030F4720
Oil Nozzles	LE	60	1.00	030H6720
Oil Nozzles	LE	80	1.10	030F8722
Oil Nozzles	LE	80	1.35	030H8726
Oil Nozzles	LE	60	1.50	030F6728
Oil Nozzles	LE	45	1.50	030F4728
Oil Nozzles	LE	60	1.75	030F6730
Oil Nozzles	LE	80	1.75	030H8730

Identification

The nozzle is marked with the following information:



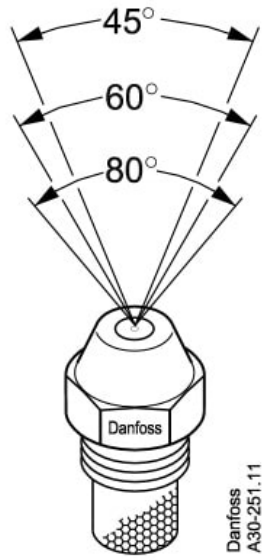
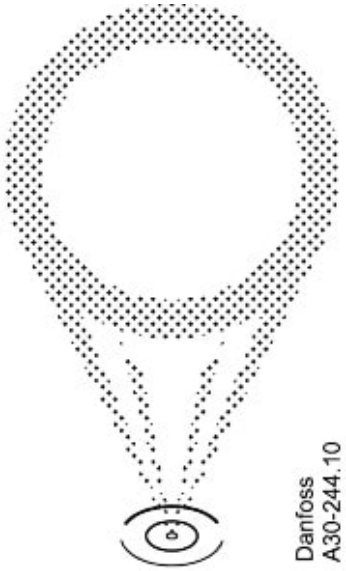
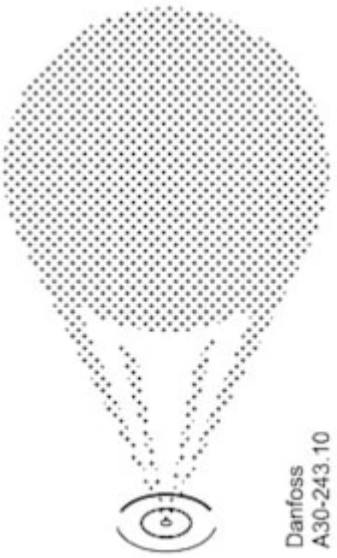
Stamped on the flats:

2.37	Specified capacity (kg/h)
Specification point	1160 kPa (11.6 bar), 3.4 cSt., 840 kg/m^3 [10 bar + 1.6 bar = 11.6 bar] Capacity tolerance: ± 6%
LE	Type (Low Emission)
[ ]	Serial number for internal use
0.60	Reference capacity (USgal/h)
Reference specification point	860 kPa (8.6 bar), 3.4 cSt.,820 kg/m^3 point [7.0 bar + 1.6 bar = 8.6 bar]
60° S	Spray angle & pattern (S = Solid) (H = Hollow)

Functions

Operation

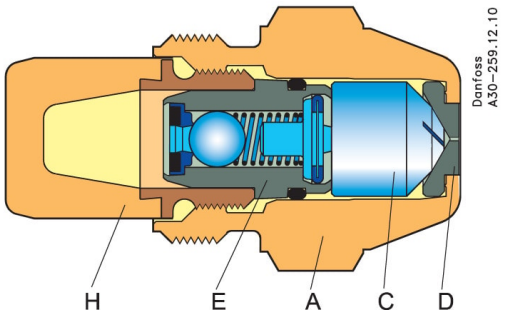
Spray angles and spray pattern

	H	S
		
	Hollow	**Solid**

Product details

Design

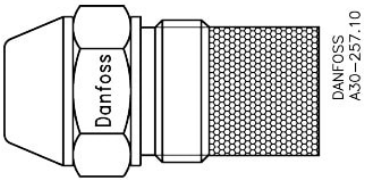
A Nozzle housing
C Nozzle cone
D Orifice disc
E LE-valve
H Filter



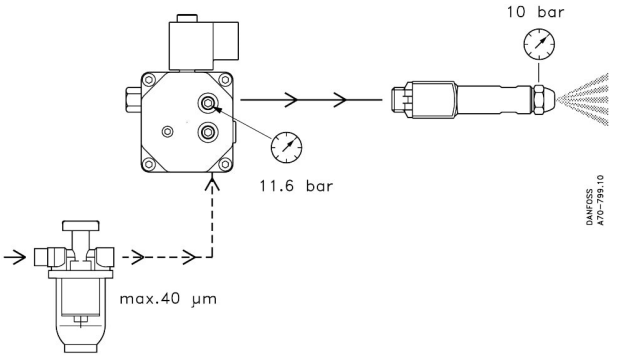
Capacity

Filters

Capacity 0.40-2.0 USgal/h:
30 µm sintered bronze



Note!
The LE-function must be protected by an effective pre-filter (max. 40 µm).



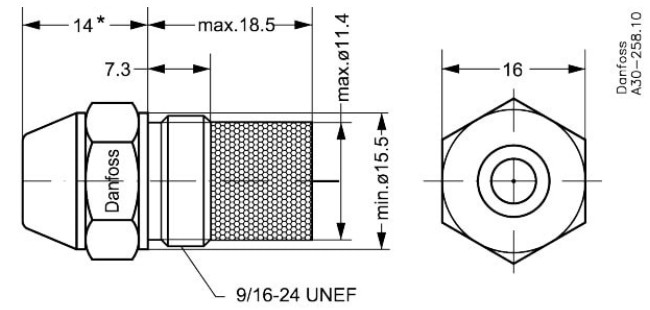
Oil Nozzles Type LE

The capacity and spray pattern is precisely the same as on an OD nozzle. I.e. an 0.5 USgal/h, 60°S LE-nozzle is identical to an 0.5 USgal/h, 60°S OD-nozzle. The difference is that the pressure on the pump must be increased by 1.6 bar in order to get the same capacity from an LE as from an OD.

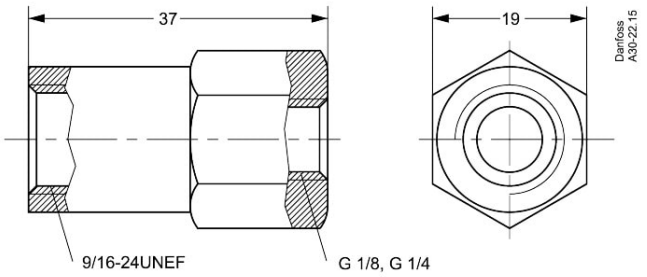
Reference capacity [USgal/h]	Spray angles /patterns						Specified capacity [kg/h]
	45°		60°		80°		
0.40*	S		H	S	H	S	1.46
0.45*	S		H	S	H	S	1.66
0.50	H	S	H	S	H	S	1.87
0.55	H	S	H	S	H	S	2.11
0.60	H	S	H	S	H	S	2.37
0.65	H	S	H	S	H	S	2.67
0.75	H	S	H	S	H	S	2.94
0.85	H	S	H	S	H	S	3.31
1.00	H	S	H	S	H	S	3.72
1.10	H	S	H	S	H	S	4.24
1.20	H	S	H	S	H	S	4.45
1.25	H	S	H	S	H	S	4.71
1.35	H	S	H	S	H	S	5.17
1.50	H	S	H	S	H	S	5.84
1.65	H	S	H	S	H	S	6.08
1.75	H	S	H	S	H	S	6.55
2.00	H	S	H	S	H	S	7.42

* This nozzle capacity should not be used for oil with viscosities lower than1.6 cSt.

Dimensions & weights



*EN norm



Nozzle holder

Weight

Nozzles type HR and SR	
Gross weight	0.036 kg
Net weight	0.033 kg
Volume	0.024 Liter

Installation

Tightening torques

Recommended tightening torque	15 to 20 Nm (1.5 to 2.0 kpm)
Max. tightening torque	25 Nm (2.5 kpm)

Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
Manufacturer's Declaration	Danfoss MD 030BHF.01	Danfoss	EU RoHS
Export Control Declaration	Oil Nozzles	Danfoss	

Contact details

Online support

Danfoss offers a wide range of support along with our products, including digital information, software, mobile apps and expert guidance. See the possibilities below.

The Danfoss Design center

Discover the Design Center, our advanced digital platform that streamlines product selection. With integrated tools and enhanced type pages, it's simpler than ever to access product information and documentation, and to select the right products. Check the availability of Danfoss products at partner locations and enjoy seamless transitions from selection to purchase with our basket-to-basket functionality. Whether you're buying from our distributors or directly from the Product Store, the Design Center simplifies your experience. Learn more at: designcenter.danfoss.com.

The Danfoss product store

The Danfoss Products Store is a one-stop shop available 24/7 for our customers, no matter where you are in the world or what area of industry you work in. Browse our catalog, check product details and documentation, view your prices and product availability, and quickly finalize your purchase. Start browsing at: store.danfoss.com.

Danfoss Partner Portal/Product Data tool

Designed to support you with easy access to product data extracts, essential resources, tools, and information. The Partner Portal provides a centralized hub for product documentation, training materials, marketing assets, and technical support, ensuring you have everything you need to succeed and grow your business with Danfoss. The Partner Portal is available 24/7 at: partner.danfoss.com and is ready to support your business.

Find technical documentation

Find technical documentation you need to get your project up running. Get direct access to our official collection of data sheets, certificates and declarations, manuals and guides, 3D models and drawings, case stories, brochures, and much more. Start searching now at: documentation.danfoss.com.

Danfoss Learning

Danfoss Learning is a free online learning platform. It features courses and materials specifically designed to help engineers, installers, service technicians, and wholesalers better understand the products, applications industry topics, and trends that will help you do your job better. Find your local Danfoss website here: learning.danfoss.com.

Get local information and support

Local Danfoss websites are the main sources for help and information about our company and products. Find product availability, get the latest reginal news, or connect with a nearby expert - all in your own language. Find your local Danfoss website here: danfoss.com.

Danfoss A/S

Climate Solutions . danfoss.com . +45 7488 2222

Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues description, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material. Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the products. All trademarks in this material are property of Danfoss A/S or Danfoss group companies. Danfoss and the Danfoss logo are trademarks of Danfoss A/S. All rights reserved.