

**HB Products – dedicated to optimal solutions for level measurement and control of oil and refrigerants.**

HB Products is a development-oriented company, which specializes in the development and production of sensors for industrial refrigeration systems. Apart from expertise within oil and refrigerant control, we have great know-how in the design and optimization of industrial refrigeration systems. This knowledge enables us to develop and produce the best sensors!

Since its start more than 20 years ago, HB Products has attained a strong global position. This is the result of our ability to think in terms of new technological solutions, create trustworthy products, and provide a high level of service.

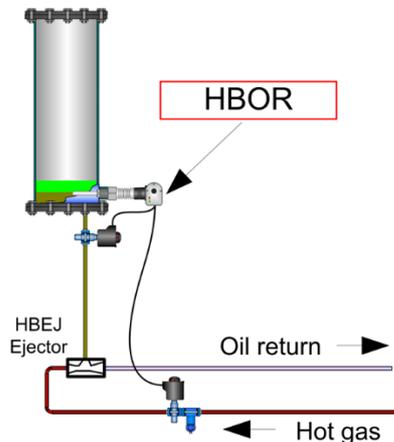
For further info and guidance please visit our homepage  
[www.hbproducts.dk](http://www.hbproducts.dk)



## Quick guide

### HBEJ ejector

For oil level control in oil pots and return of refrigerant and oil in CO<sub>2</sub> systems

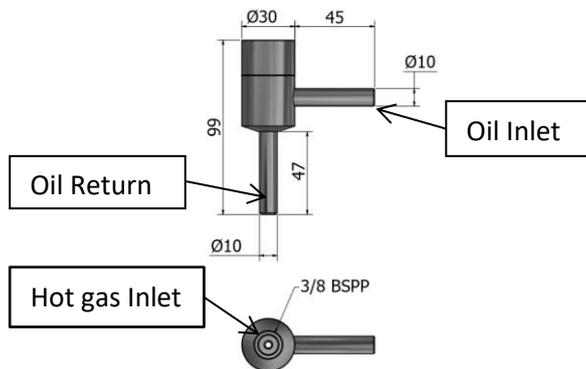


#### Functionality: (sketch shows NH<sub>3</sub>-system)

The HBEJ ejector is made to emptying NH<sub>3</sub> and CO<sub>2</sub> industrial refrigeration systems for oil automatically. The HBEJ ejector can be used in combination with HBOR sensor and controller and 2 x solenoid valves.

If HBEJ is to be used in a different way, prior approval must be obtained from HB Products.

**Caution:** Only qualified personnel should work with the product. The technician must be aware of the consequences of an improperly installed sensor and must be committed to adhering to the applicable local legislation.



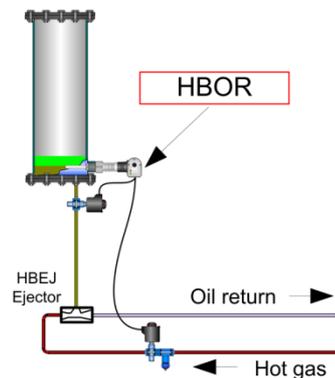
**Mechanical specifications:**

Ambient temperature: -30...+50°C  
 Liquid/hot-gas temperature: -60...+150°C  
 Max. pressure: 130 bar  
 Material, mechanical: AISI304 & PEEK  
 Hot-gas connection: 3/8" BSPP  
 Oil return line: 10 mm  
 Oil inlet: 10 mm

**Installation guide:**

Hot-gas is connected with thread connection 3/8" BSPP. Oil return and oil inlet can use progressive ring fitting connections or be brazed. The oil return and oil inlet connections must NOT be shortened.

**System design**



**Function and outputs (NH3-system):**

HBOR/C is a level switch with built-in timer and control for controlling the oil return from the oil pot and collection points in a refrigeration/cooling system. The sensor is installed in the oil pot for automatic draining the oil, when the sensor detects oil it will automatically activate the solenoid valves to feed hot gas in the HBEJ ejector. The HBEJ ejector forming a vacuum so that the oil pot will be emptied automatically. The oil empty function is set by a HB PC tool.

HBOR oil return ejector could be used on **CO2 system** to return the collected oil / refrigerant mixture from the evaporator to the suction line on flooded systems.

The ejector will empty 0,05 l/minute minimum.

**System components:**

Sensor and controller: HBOR/C-2 (3/4" NPT) or HBOR/C-6 (3/4" BSPP)  
 Ejector: HBEJ-0.05-G3/8-MK2  
 Solenoid valves: 2 pieces