

MICROFILTER SPECIFICATION. <u>Ver 001</u>

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REV	DATE	DESCRIPTION	BY	CKD	APPROVED

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MICROFILTERS

This document covers the technical requirements for manufacture, assembly; testing, supply and delivery of microfilters.

The unit shall install at BILLU terminal.

SITE CONDITIONS:

- 1. The units shall be installed outdoor.
- 2. Site altitude is about 70 m' above sea level.
- 3. Ambient temperature varies between 0°C 48°C .
- 4. Relative humidity varies between 35% 90%.
- 5. Rain falls about 350-550 mm' / year.

6.

TECHNICAL REQUIREMENTS:

Standards:

The units shall be manufactured, tested and delivered in accordance with the requirements of EI 1590 3th: Specifications and qualification procedures for aviation fuel microfilters.

The strainers vessels shall be manufactured tested and marked accordance with the requirements of EI 1596 3th: Design and construction of aviation fuel filter vessels

General Requirements:

The units shall be fitted with cartridges 6" diameter according catalog number quoted for filtration of 5 microns: FO-656A5TB

Filter flow rate:

Flow rate: 2000 gpm

Rating:

Vessel rating flange connections: #150 ANSI, RF flanges.

Design pressure: 10.3 bar @ 121 °C

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Vessels:

The vessels housing and cover shall be made of carbon steel.

The vessels shall be internally lined with epoxy lining suitable for jet-fuel services, in according with EI 1541.

The exterior surface shall be epoxy painted according to manufacturer standard.

The vessels shall be stamped and certified to ASME Code Section VIII.

The vessels shall be fitted with dome cover, swing bolt closure with Viton seals, O-ring.

The cover shall be lift up by mechanical jack. The jack shall be supply by the vendor.

The vessel shall be fitted with side inlet and outlet flanges connection according to the filter rating.

The vessel legs shall be of "angle –shape" type welded to the vessel housing.

Filters Accessories:

Each filter shall be fitted with the following accessories:

- 1" Dia. Bottom Drain valve & plug drain.
- 3/4" Steel, NPT, Automatic air vent fitted with check valve manufacture by "Gammon" models GTP-11 & GTP-2916.
- 3/4", Aluminum, NPT, Pressure relief valve, pressure set point according to vessel pressure rating.
- 1/4" NPT, Differential Pressure gauging unit manufacture by "Gammon", model GTP-534, Aluminum construction. The unit shall be fitted with 3-way test valve, a built-in thermal relief valve and peak hold.
- The vessels elements cartridges shall be hold in position against vibration by a spider assembly
- 1/4" NPT for 2 x "Gammon" Sampling probes kit model GTP #7 for each strainer nozzles. (For the inlet and outlet pipe connections).
- 1" NPT vessel side entry.



Nozzles Connections Descriptions:

Nozzles	Flange /NPT	Size	Rating
Inlet	RF	10"	150#
Outlet	RF	10"	150#
Drain (min'.)	RF	1"	#150
Vent	NPT	3/4"	#3000
Pressure Relief.	NPT	3/4"	#3000
Side drain	NPT	1.5"	#3000
Diff'. Pressure	NPT	1/4"	#3000
Sampling	NPT	1/4"	#3000

TAG AND MARKING:

The unit shall bear name plate made of stainless steel.

The plate thickness shall be 1.5 mm'.

The plate shall contain the following data:

- Manufacturer name.
- Manufacturer country.
- Equipment model.
- Manufacturer item number.
- Size.
- Pressure rating and temperature.
- Element quantity and catalog number
- Etc.'



COMERCIALS TERMS:

In order to evaluate the tender's quotation, the following information must be given:

- unit drawings.
- Operation and maintenance instruction.
- Accessories drawings.
- List of recommended spare parts with pricing.
- Delivery date.
- List of Israeli customers including contact address.
- Price for the offer.

GUARANTEE:

The vender shall guarantee materials and workmanship for a period of 12 months from the date of commissioning.

Should any defect due to faulty design, materials or bad workmanship become apparent during the guarantee period, the vendor shall repair or otherwise rectify the defects, and free of charge to purchaser. Changes shall be made at a time and a manner agreeable to the client.

QUANTITY TABLE:

Item	Location	Flow ;Rates (gpm)	Description	Quantity	Total price (\$)
1	BILLU	2000; 150#	Vertical	1	