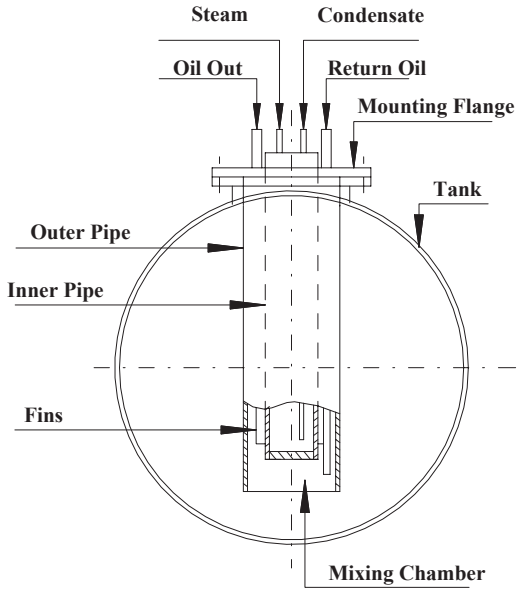
1408 Seabury Ave. Bronx, NY 10461 tel 718.824.4901 fax 718.409.3605 • alstromcorp.com

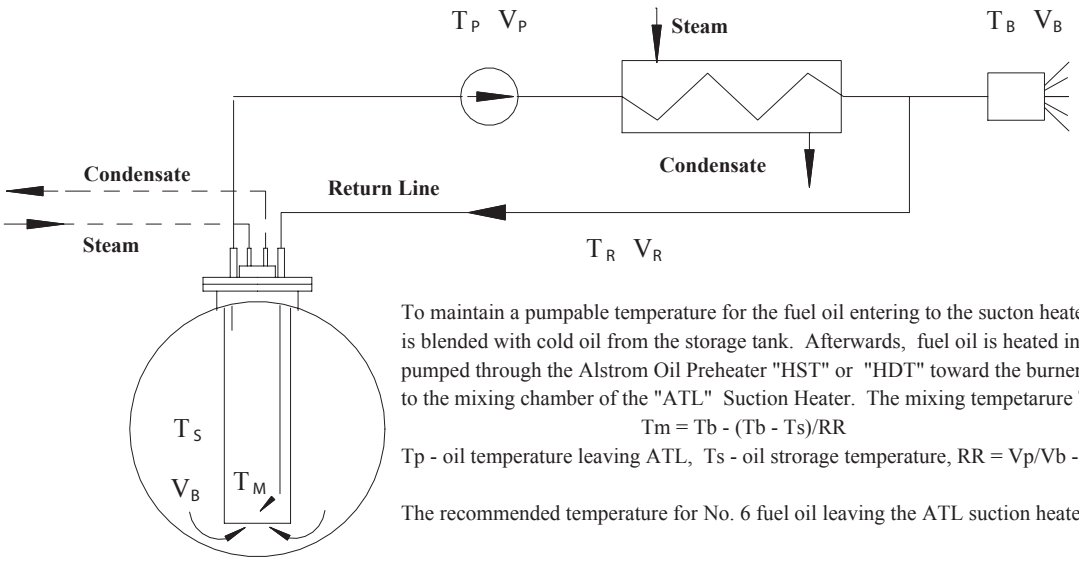
Tubeless Suspension Suction Heaters Series "ATL"

The inner pipe with welded longitudinal fins creates an efficient extended heat transfer surface.
Unique all welded construction eliminates any possible leak or damage of the heater.

Typical Applications Fuel oil underground storage tanks	**To have the capacity to heat_____(gph) (gpm) of # _____fuel oil** **from_____F to_____F using_____ , entering at_____.**
Highly reliable mechanical design Unaffected by thermal expansion Low pressure drop	**Unit to be constructred in accordance with ASME requirements. ASME Stamp is (not) required.** **Unit to have no more than_____ft. of length and_____psi pressure drop in the shell.**



Pumpoil Preheaterburner



To maintain a pumpable temperature for the fuel oil entering to the sucton heater, hot oil from the return line is blended with cold oil from the storage tank. Afterwards, fuel oil is heated in the "ATL" Suction Heater and pumped through the Alstrom Oil Preheater "HST" or "HDT" toward the burner. The excessive oil is returned to the mixing chamber of the "ATL" Suction Heater. The mixing tempetarure Tm is equal to :

$$Tm = Tb - (Tb - Ts)/RR$$

Tp - oil temperature leaving ATL, Ts - oil strorage temperature, RR = Vp/Vb - recirculation ratio.

The recommended temperature for No. 6 fuel oil leaving the ATL suction heater is 110 - 120 deg.F.

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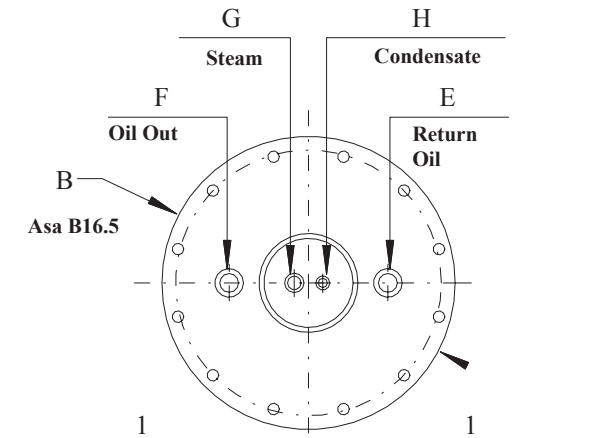
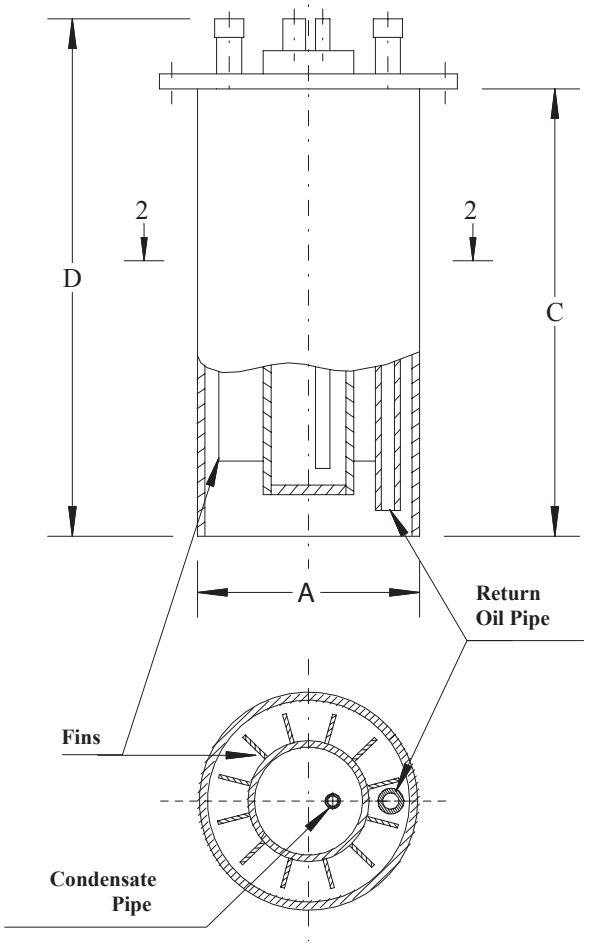
Tubeless Suspension Suction Heaters Series "ATL"

ALSTROM ENERGY GROUP LLC

The Alstrom Tubeless Suspension Suction Heaters Series "ATL" provide the heating of fuel oil or any other viscous liquids with steam. The steam is condensed on the internal surface of inner pipe. The heated liquid passes through the space between outer and inner pipe. The heat transfer area is created by the inner pipe and longitudinal fins welded to the inner pipe. At the bottom of the heateris a mixing chamber where the cold liquid from the storage tank is mixed with the return hot liquid. As a result, the viscosity of liquid is drastically reduced.

View 1 - 1





Section 2 - 2

Dimensions in inches and weights in lbs.

	S		M		L	
A	12-3/4		14		16	
B	18-3/4		21-1/4		22-3/4	
C	D	WGT. APPROX.	D	WGT. APPROX.	D	WGT. APPROX.
24	30	250	30	300	32	360
48	54	380	54	480	56	560
72	78	540	78	670	80	780
96	102	680	102	850	104	990
120	126	820	126	1030	128	1190
144	150	960	150	1210	152	1400

Recommended connections sizes - Inches

E	F	G	H

The actual size of connections depends upon the performance of heater. Please contact the factory.

Complete model number as per the following example:

ATL-72-S

- Nominal shell diameter
- Immersion Length C
- "ATL" Series

* - Various materials and working conditions can be provided.
- Legs can be supplied when specified.
- Space equal to or greater than dimension "B" should be provided for removal of tube bundle.

* - All Heat Exchangers are designed and manufactured according to ASME Code, Section VIII, Div.1. ASME U-1 Form, Stamp, and N.B. Number are provided upon request for an additional cost.

* - All heaters have a one year guarantee against failure caused by materials or workmanship, but not against gasket failure or damage caused by corrosion, water hammer, fouling, sealing, excessive pressure or temperature, incorrect installation or other factor beyond the manufacturer's control.