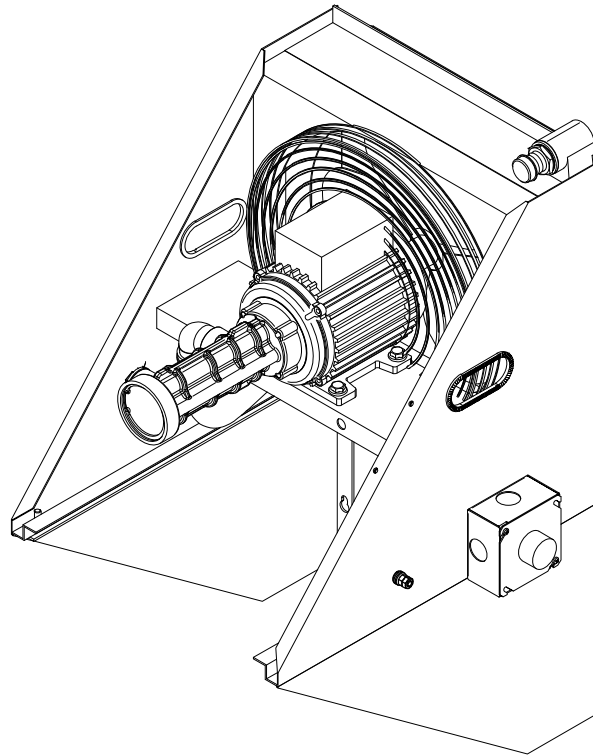


# AIR - OIL COOLER - NETHY#06M2TFPTO



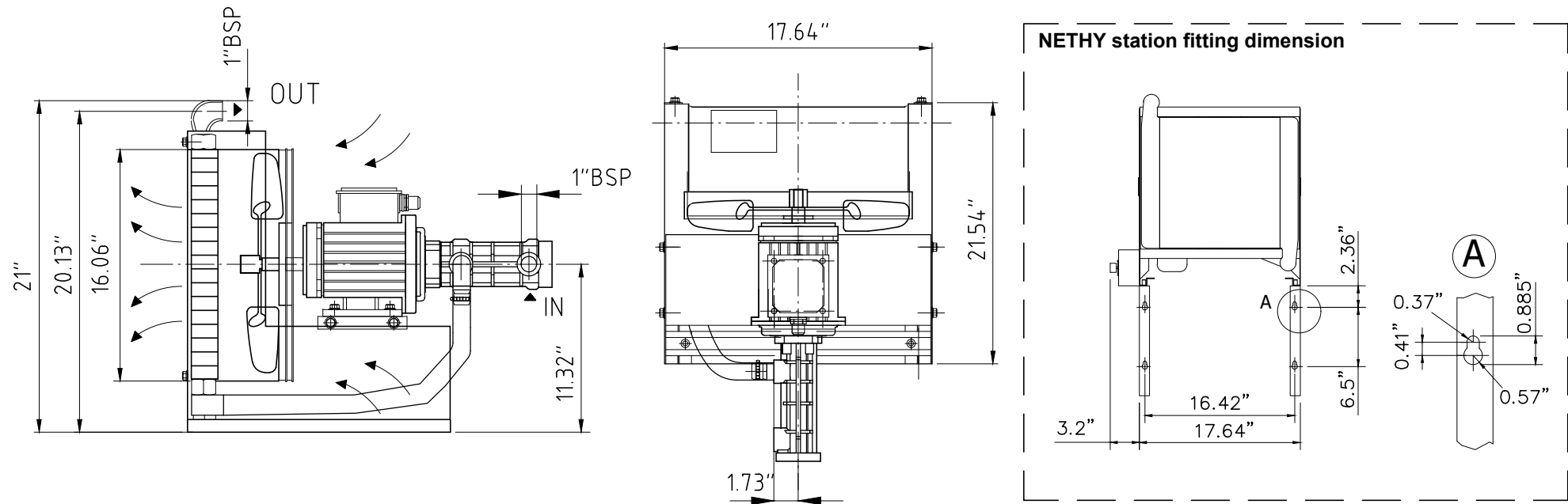
## INSTRUCTION MANUAL



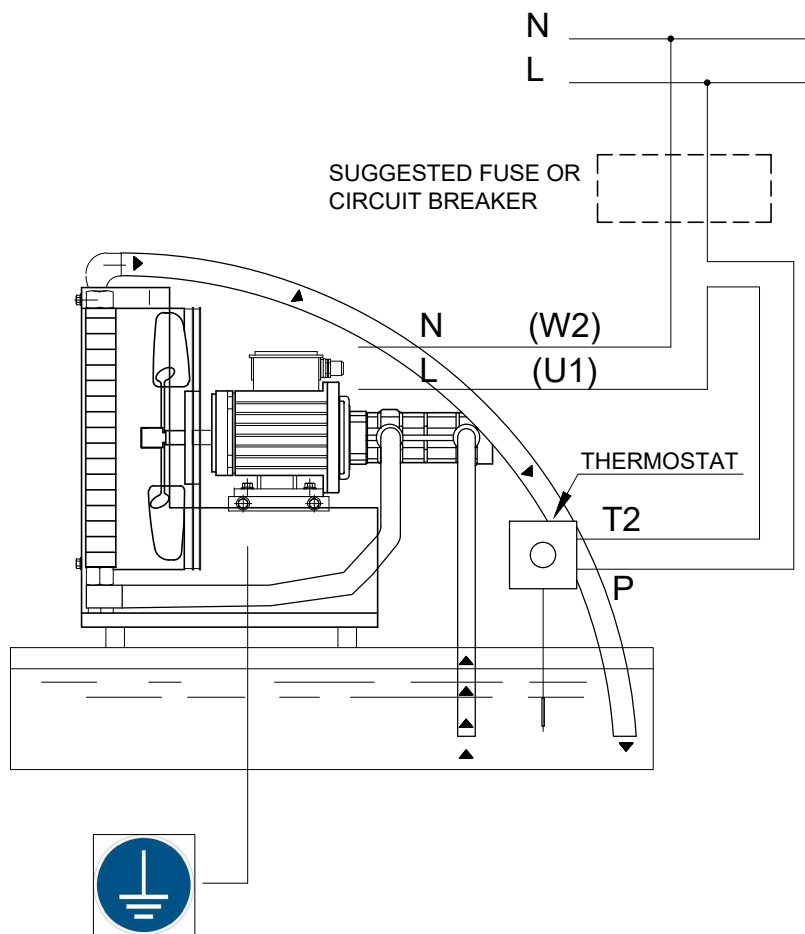
<b>Index</b>		
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# 1 - System description

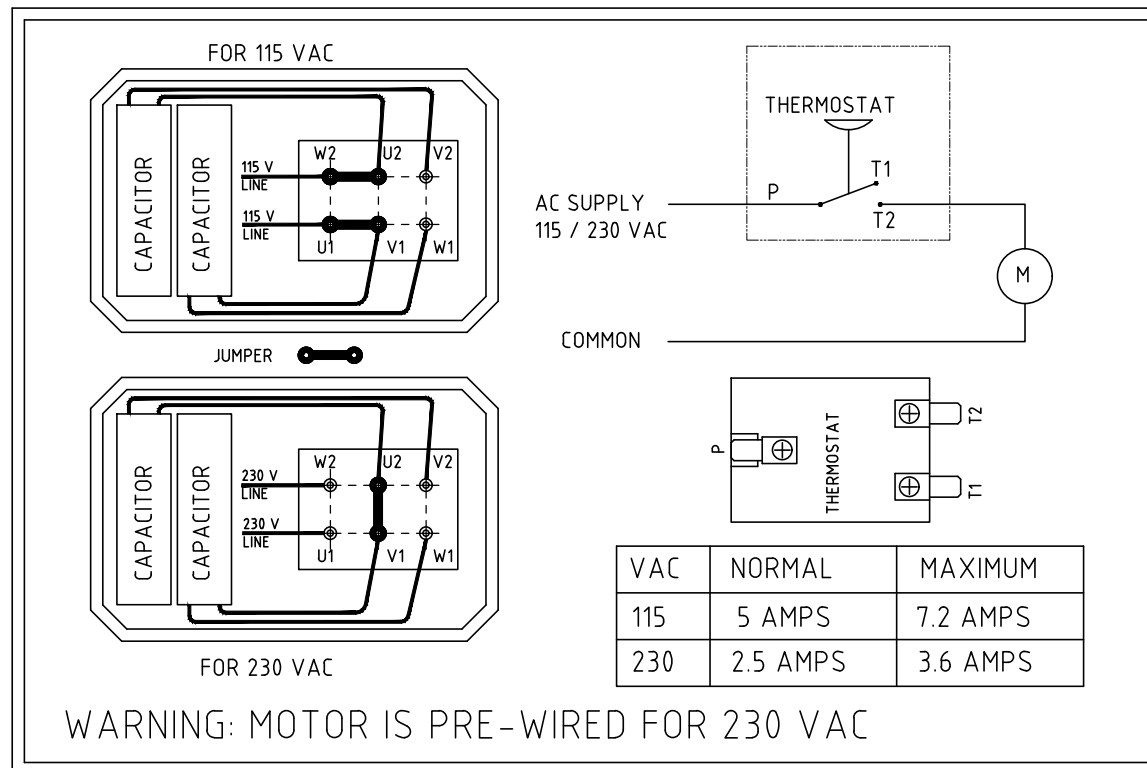
## 1.1 - Overall dimensions (inches) NETHY#06M2TF00



## 2 - Electrical connection for motor (115-230 V 60 Hz Single phase)



EARTHING: THROUGH CONNECTION POINT ON FRAME



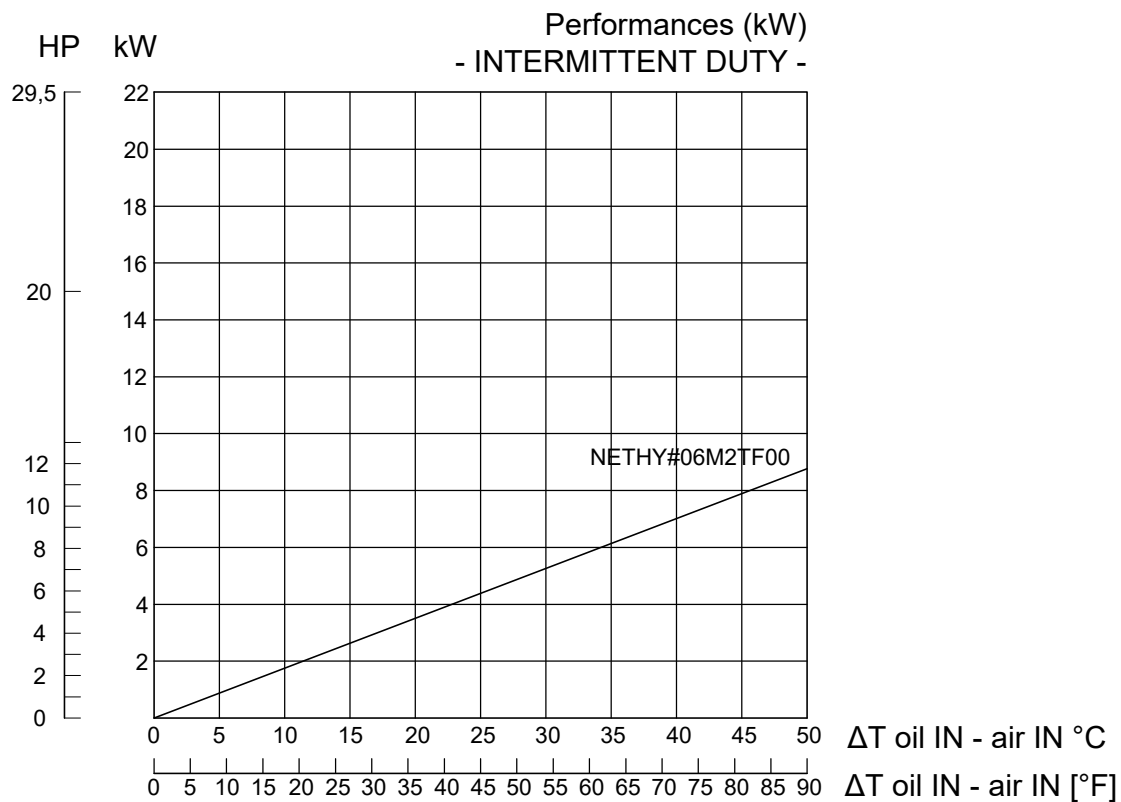
YELLOW BACK GROUND WITH BLACK TEXT TAG LOCATED ABOVE THE CONDUIT BOX MOUNTED ON THE SIDE OF THE FRAME

# 3 - Technical specifications

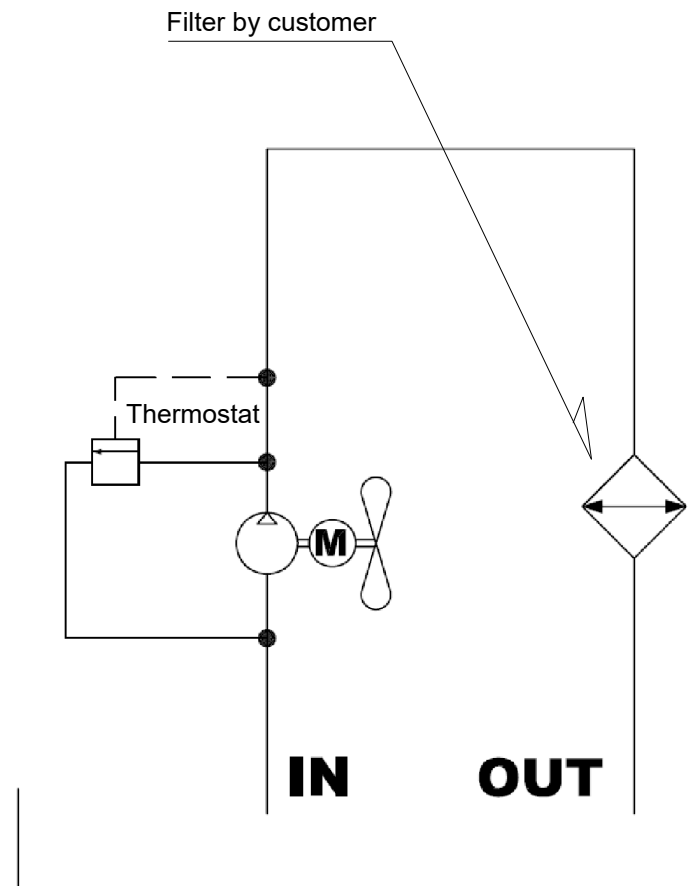
## 3.1 - Thermal exchange diagram

The values indicated in the diagram refer to hydraulic oil with a kinematic viscosity of 32 cSt at 104°F and an ambient temperature during testing of 68°F.

$$\Delta T = T_{\text{oil IN}} - T_{\text{air IN}}$$



## 3.2 - Plumbing diagram



### 3.3 - Operating features

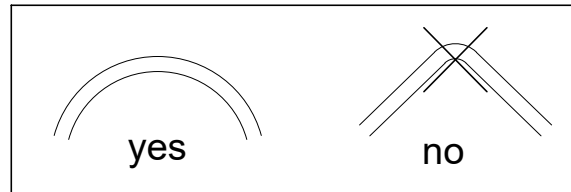
		<b>NETHY#06M2TFPTO</b>
Dispersion when dT = 63 °F (ambient temperature 68°F)	kW kCal/h BTU	6,98 6000 23810
Pump flow rate	l/min USGPM	36 9,5
Fan capacity	m³/h CFM	1000 588
Oil viscosity		parameter 10 - 100 cSt
Running speed	giri RPM	1750
Average noise level	dB(A)	67
Weight	DaN LBS	35 78,7
MIN-MAX oil temp	°C °F	20-70 68-150
Max admitted pressure	bar PSI	4 58
Required NpsH	bar PSI	-0,4 -5,8



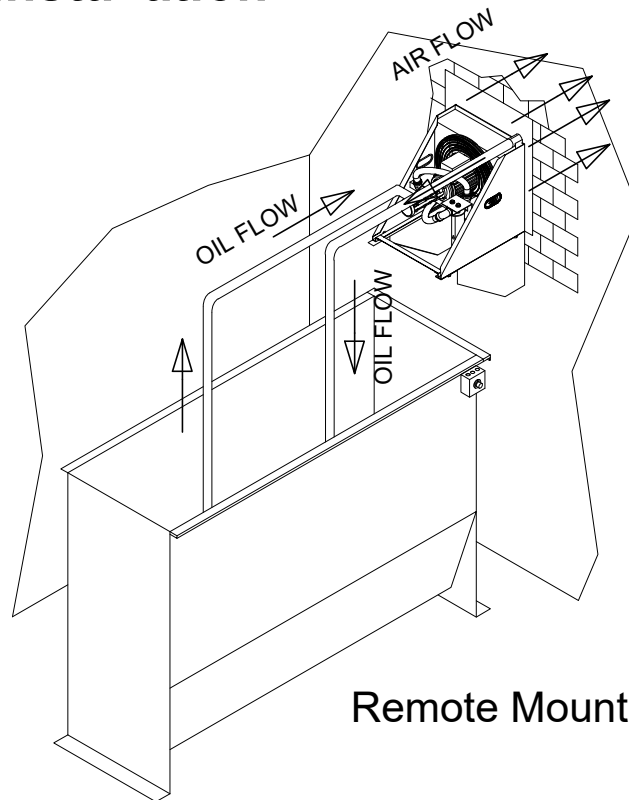
Do not start the cooler during low winter temperature when the oil viscosity might be higher than indicated above indicated. Long suction pipe lines need to be filled in with oil (priming) prior to first start up of the pump.



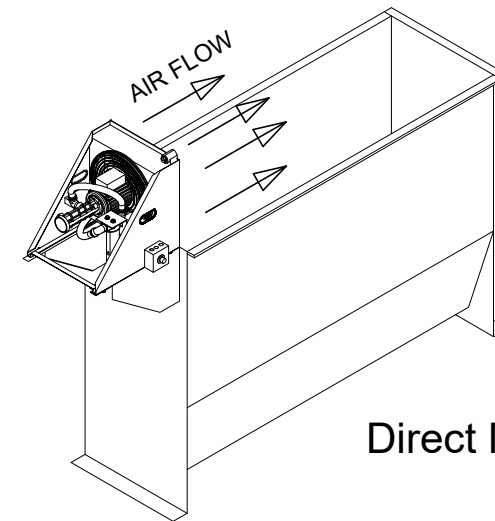
Do not bend or throttle the pipe.



## 4 - Typical installation

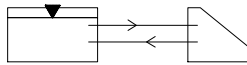
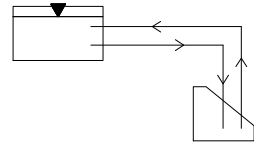
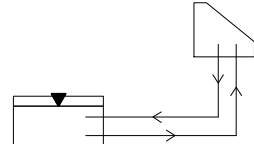


Remote Mount



Direct Mount

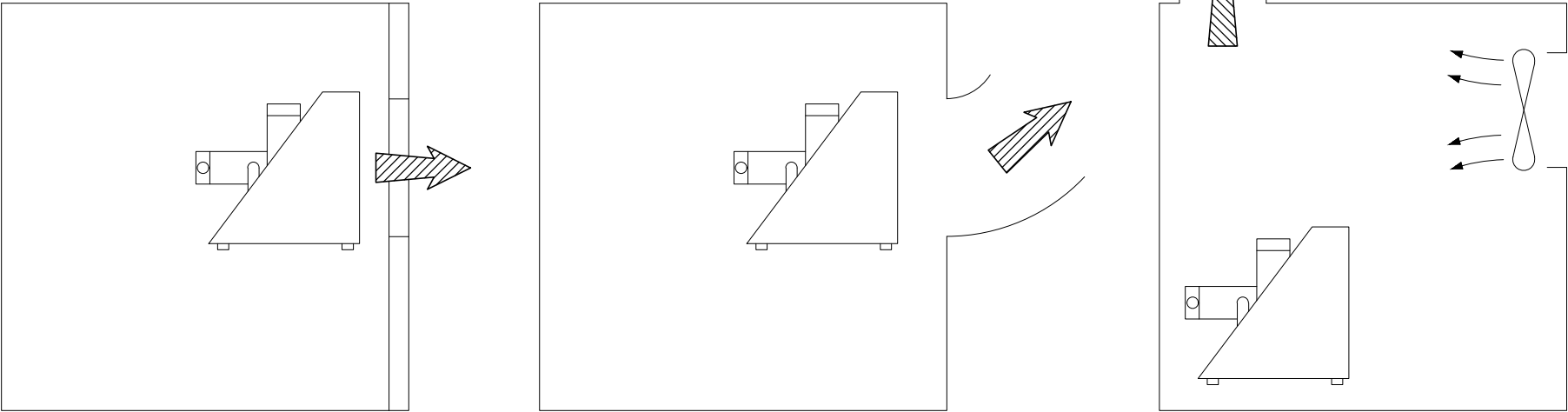
# 4 - Typical installation

		<i>inside diameter of hose: 1 1/4"</i>		
<b>A</b>	NETHY#06M2TFPTO	maximum length of hose:32,8 ft		Power unit and cooler almost at the same level
<b>B</b>	NETHY#06M2TFPTO	maximum length of hose:42,7 ft		Power unit at 1 floor above (13,1 feet approx) the cooler
<b>C</b>	NETHY#06M2TFPTO	maximum length of hose:19,7 ft		Power unit at 1 floor below (13,1 feet approx) the cooler

**SUCTION LINE DEVELOPMENT LENGTH:**  
 Calculated for a typical viscosity of 75 cSt  
 Every 90 degree elbow subtract 6 feet from the max length of the hose



# 4 - Typical installation



 Warm air

# 5 - General information

## 5.1 - Introduction

This manual is intended for use by operators of air-oil heat exchanger units of the NETHY#06M2TFPTO series.

Although this document contains all the indications and warnings necessary for the correct use of the machine, it is assumed that current safety regulations are complied to in the area where the machine is installed.

The instruction manual is not an accessory, but an integral part of the heat exchanger. It should be kept in good condition, near the cooler unit, and should be handed over to any user or final user of the heat exchanger. The manual should not be damaged, has to be kept integral (do not tear pages away) and kept safe from humidity and oil, without deteriorating its readability.

## 5.2 - Symbols description

/ Important for CE certification

+ Important notice



WARNING SIGN

## 5.3 - System description

The SEIM air-oil heat exchanger unit is extremely efficient in carrying out its intended task of cooling the oil in the hydraulic unit in which they are installed.

The heart of the circuit consists of a SEIM triple screw pump, highly reliable and silent.

The oil is cooled using air produced by a fan mounted coaxially with the screw pump.



When possible suggested elbow – pipe for oil inlet should be UPWARD in order to keep some oil inside the pump  
Hose connections need to be airtight; in case that at restart the system shows large air bubbles inside oil recheck tightness  
When possible at hose suction foresee a strainer for preventing inlet of foreign material  
Before first start add oil where possible, even a little quantity in suction port – line is an important help for first start  
Do not run dry  
Do not run in cold condition, with cold oil

# 6 - Operating information

## 6.1 - Operating standard

In order to ensure the best functioning of the SEIM heat exchanger, the unit should be installed in a clean environment where suitable climatic conditions can be guaranteed (68-104°F). Installation and maintenance staff should be trained and qualified; SEIM declines all responsibility for damage or risk occurring due to bad connections carried out by unqualified persons or due to the incorrect use of the unit.

Particular attention should be paid to ensure a minimum distance of 1.25 inches between the radiator side of the unit and the wall of the room where the heat exchanger is installed. The fan side should be kept clear and should be at a distance of the least 3 feet from the nearest wall.



It is important that the cooling oil has the required chemical characteristics and density, i.e. hydraulic oil only with a viscosity of between 10-100 cSt should be used; suspended pollutants should be non-abrasive and have a max. diameter of 300 microns. The cooling oil should maintain its kinematic viscosity characteristics even at high temperatures up to at least 195 °F.

Do not cover the fan protection grate as this would result in the system overheating causing considerable damage.

- + Avoid cleaning with water.

## 6.2 - Use

SEIM unit has been specifically designed for cooling the oil present in hydraulic circuits.

- + The use of the machine for any other purpose may cause damage to persons or the machine itself.
- + The manufacturer declines any responsibility whatsoever related to the use of oils different viscosity and temperature characteristics than those indicated in the paragraph 3.3.

## 6.3 - Motor shutdown

The motor must be turned off before routine cleaning operations and before any eventual repair work is carried out.

In order to ensure maximum safety conditions, the following provisions must be applied:

- a) When the machine is running, ensure that the purpose it serves is not in a critical phase whereby a temporary pause in the SEIM unit could cause damage.
- b) If the above mentioned situation arises, disconnect the main switch.
- c) Allow a time lapse of at least two minutes after the main switch has been turned off before beginning maintenance operations.

## 6.4 - Machine handling

+ Do not overturn the cooler unit during transport. Please follow the warnings on the package



## 6.5 - Recommendations

+ At first motor start-up limit the operation to the short time necessary to check that the sense of rotation corresponds to the one shown on the pump nameplate, to prevent partial or complete damage of the pump.

+ In case the line will not prime immediately, stop the motor within 30 seconds and repeat the operation with 1 minute stop time interval. If the line will not prime verify the system conformity.

+ Protect the pump from foreign particles by a proper filtration system. Verify the recommended filtration level on the technical data sheet.

## 6.6 - Trouble Shoot

+ The motor does not turn:

1. Check if have power.
2. Check to see if wired properly according to incoming voltage
3. Check thermostat setting

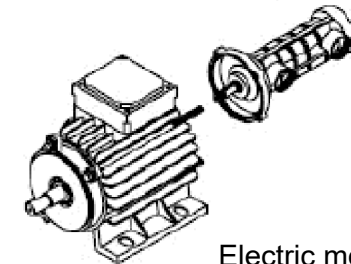
+ Motor running sluggish:

1. Check to see if wired properly according to incoming voltage
2. Check Typical Installation Chart - A.B.C.

- + There is no suction but motor is running:
1. Check the fan turning direction which should turn counter-clockwise
  2. Check the hose connection and seal

## 7 - Spare parts

Three screw pump  
PDA32#2AS1D05D0100



Electric motor  
USMOT#080N4S0M2



Thermostat  
1TERMUS

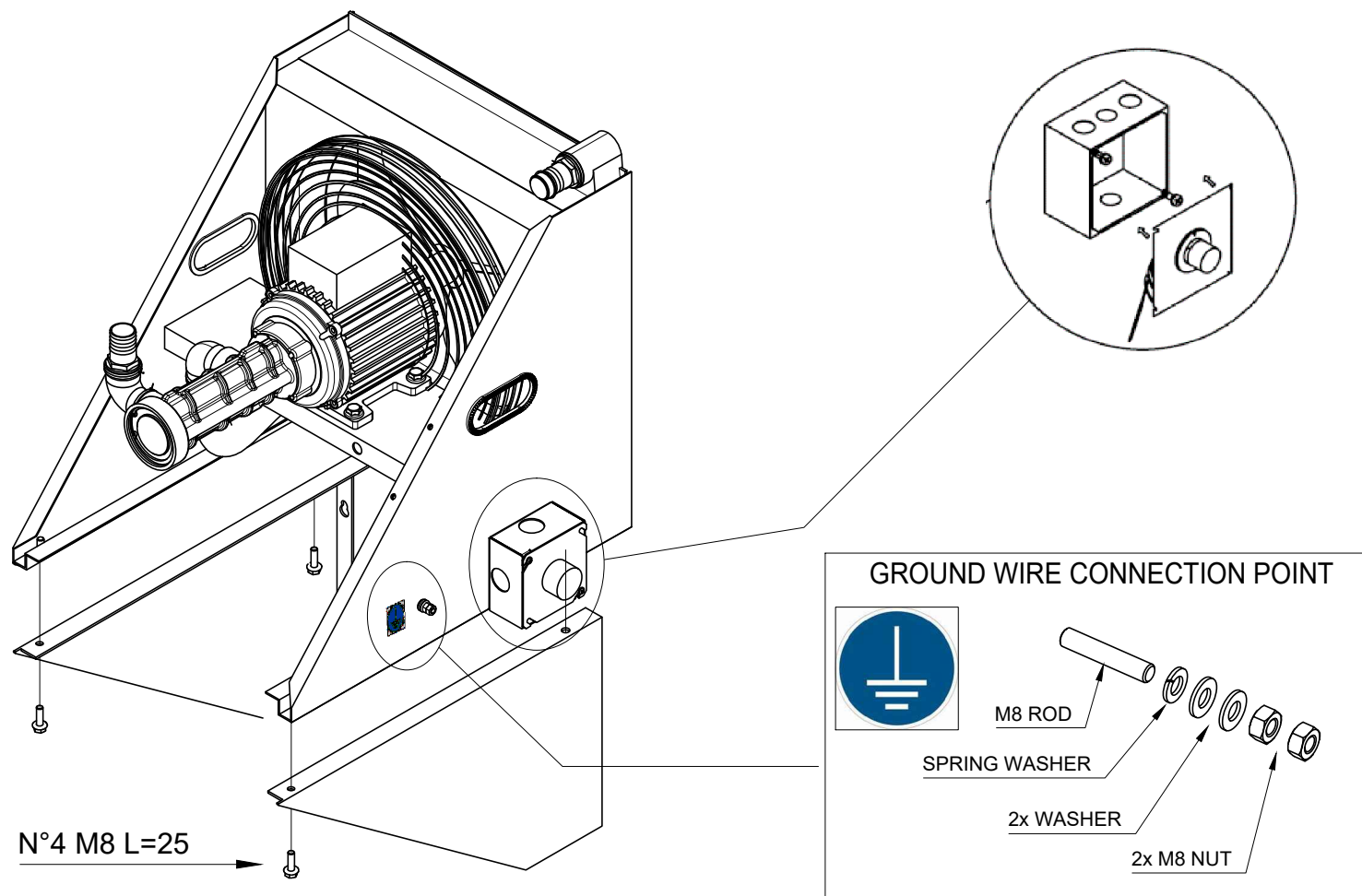


Fan  
1VENT#3518

N°	Description
PDA32#2AS1D05D0100	Three screws pump
USMOT#080N4S0M2	Electric motor
1VENT#3518	Fan
1TERMUS	Thermostat

*Spare parts kit*

## 8 - Installation / NETHY station fitting



*For dimensions see the sect.1.1 in this manual*