



# LIGHT, MEDIUM & HEAVY WEIGHT OIL APPLICATIONS

## NWHO, NWHOA & NWHMTO Series

- ✓ Screw Plug or Flange Heater Design
- ✓ 2 - 14" Carbon Steel Pipe Body, 150 Lb Construction
- ✓ 1 - 200 kW
- ✓ 120, 240 and 480V, 1 & 3 Phase
- ✓ General Purpose, Moisture Resistant/Explosion Resistant or Moisture Resistant Terminal Enclosure
- ✓ 0.475" Dia. Steel Sheath Elements (12 - 23 W/In<sup>2</sup>)
- ✓ With & Without Thermostat
- ✓ UL, CSA and Other Third Party Approval, Listing or Certification Available on Many Models

### APPLICATIONS

#### Light and Medium Weight Oil (20 - 23 W/In<sup>2</sup>):

Ideal for temperature maintenance and for improving flow characteristics of oils. They are also used to heat Heat Transfer Oils under proper conditions.

#### Heavy or Fuel Oil (5 - 15 W/In<sup>2</sup>):

Heating heavy oils reduces the viscosity, thereby improving flow and process efficiency. Preheating fuel oils provides better atomization at the burners and allows the use of lower grade fuel oils.

### FEATURES

**Terminal Enclosures:** Standard stock heater terminal enclosures are E1 General Purpose. Moisture Resistant/Explosion Resistant E2, Explosion Resistant E3 and Moisture Resistant E4 Enclosures are available as assembly stock.

**Elements:** Sturdy 0.475" diameter steel sheath elements provide

superior strength and rigidity. OMEGALUX elements utilize high quality resistance wire for coil construction. The coil is surrounded with high purity magnesium oxide which is compacted to a dense solid to ensure high thermal conductivity and dielectric strength.

**Flanges:** Carbon Steel Flanges are standard on 3" and larger light and heavy weight oil circulation heaters. Flange dimensions conform to ANSI B16.5 standards. Series NWHOA heaters utilize oval manifold flanges in a General Purpose Terminal Enclosure. NWHMTO heaters utilize a steel screw plug.

**Vessels:** OMEGALUX vessels consist of a pipe body, nozzles and end cap. The pipe body and nozzles are ASTM A53B carbon steel pipe. The end cap or disk is ASTM A516 Grade 70 carbon steel plate. Mounting lugs are welded to the pipe wall. The vessel is wrapped with thermal insulation and covered with a painted sheet metal jacket.

**Baffle Assemblies:** Internal baffle assemblies are provided for OMEGALUX circulation heaters for use in heating highly viscous or heavy fuel oils. Baffles reduce the internal cross sectional area thereby increasing the velocity of the fluid in contact with the heating element sheaths. Increasing the velocity of the fluid reduces the tendency of heavy oils to overheat and break down or carbonize.

**Wiring:** Wiring terminals are spaced to provide proper arcing and creepage clearances per the NEC. Termination insulators provide electrical isolation between the terminals and the grounded metal sheath to enhance personnel safety and equipment service life. Heavy duty jumper straps and other terminal parts assure tight connections and an extra margin of current carrying capacity.



**Controls:** All stock and assembly stock heaters come equipped with mechanical AR thermostats. These thermostats are suitable for most applications. Explosion-resistant and liquid-tight thermostats are provided on E2/E3 and E4 units, respectively.

**WARNING:** Hazard of Fire. These devices function as temperature controls only. Because they do not fail-safe, an approved temperature and/or pressure safety control must be used for safe operation. Consult Controls section of this catalog.

**Control Panels:** Integral or remote mounted control panels with electronic controls and solid state (SCR) or contactor power controllers can be provided using virtually any combination of control devices. Consult the Controls section for details.



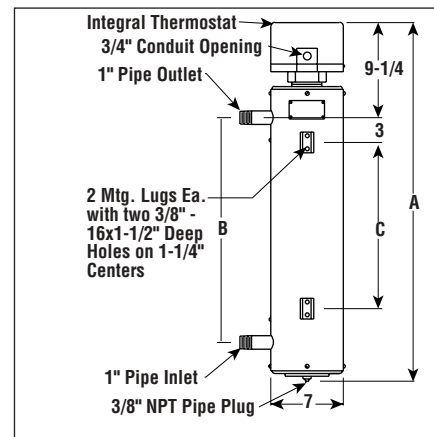
# LIGHT & MEDIUM WEIGHT OIL APPLICATIONS

## NWHMTO Series

- ✓ 2½" NPT Steel Screw Plug Design
- ✓ 2½" Carbon Steel Pipe Body, 150 Lb Construction
- ✓ 3 - 9 kW
- ✓ 120, 240 and 480V, 1 & 3 Phase
- ✓ General Purpose, Moisture Resistant/Explosion Resistant or Moisture Resistant Terminal Enclosure
- ✓ Three 0.475" Dia. Steel Sheath Elements (23 W/In<sup>2</sup>)
- ✓ Integral Thermostat (200 - 550°F)
- ✓ UL, CSA and Other Third Party Approval, Listing or Certification Available



Dimensions (Inches)



Note — Add 2" to A dimension for E2 Enclosure.

### APPLICATIONS

**Light and Medium Weight Oil:**  
Low-cost solution to heating lubricating and cutting oils in remote applications.

### FEATURES

#### Terminal Enclosure:

E1 General Purpose is standard. E2 Moisture Resistant/Explosion Resistant and E4 Moisture Resistant Enclosures available.

#### Elements:

Three steel sheath elements.

#### Screw Plug:

2½" NPT Steel screw plug with ½" thermowell for thermostat bulb.

**Vessel:** Pipe body and nozzles are ASTM A53B carbon steel pipe. The end disk is ASTM A516 Grade 70 carbon steel plate. Provided with thermal insulation and painted sheet metal jacket.

#### Wiring:

Convenient field wiring terminals are provided for easy installation.

**Controls:** Stock and assembly stock heaters come equipped with integral thermostat.

### To Order (Specify Model Number)

**MOST POPULAR ITEMS HIGHLIGHTED**

kW	Volts	Ckt & Phase	Dimensions (In.)			Model No.	Price	Wt. (Lbs.)
			A	B	C			
3	240	1-1	34%	22½	16½	NWHMTO-03-003P-E1/240	\$966	22
3	240	1-3	34%	22½	16½	NWHMTO-03-003P-E1/240/3P	966	22
3	480	1-1	34%	22½	16½	NWHMTO-03-003P-E1/480	966	22
3	480	1-3	34%	22½	16½	NWHMTO-03-003P-E1/480/3P	966	22
4.5	240	1-1	34%	22½	16½	NWHMTO-03-04P5-E1/240	1092	22
4.5	240	1-3	34%	22½	16½	NWHMTO-03-04P5-E1/240/3P	1092	22
4.5	480	1-1	34%	22½	16½	NWHMTO-03-04P5-E1/480	1092	22
4.5	480	1-3	34%	22½	16½	NWHMTO-03-04P5-E1/480/3P	1092	22
6	240	1-1	57%	45%	39%	NWHMTO-03-006P-E1/240	1182	40
6	240	1-3	57%	45%	39%	NWHMTO-03-006P-E1/240/3P	1182	40
6	480	1-1	57%	45%	39%	NWHMTO-03-006P-E1/480	1182	40
6	480	1-3	57%	45%	39%	NWHMTO-03-006P-E1/480/3P	1182	40
7.5	240	1-1	57%	45%	39%	NWHMTO-03-07P5-E1/240	1276	40
7.5	240	1-3	57%	45%	39%	NWHMTO-03-07P5-E1/240/3P	1276	40
7.5	480	1-1	57%	45%	39%	NWHMTO-03-07P5-E1/480	1276	40
7.5	480	1-3	57%	45%	39%	NWHMTO-03-07P5-E1/480/3P	1276	40
9	240	1-1	57%	45%	39%	NWHMTO-03-009P-E1/240	1439	40
9	240	1-3	57%	45%	39%	NWHMTO-03-009P-E1/240/3P	1439	40
9	480	1-1	57%	45%	39%	NWHMTO-03-009P-E1/480	1439	40
9	480	1-3	57%	45%	39%	NWHMTO-03-009P-E1/480/3P	1439	40

Ordering Example: NWHMTO-03-07P5-E1/240/3P is a 7.5 kW, 3 Phase, 240 Volt Heater, \$1276.

Model	Light and Medium Weight Oil			
NWHMTO	Oil Circulation Heater with Screw Plug			
Code	Number of Elements			
03	Three			
Code	kW			
003P	3	07P5	7.5	
04P5	4.5	009P	9	
006P	6			
Code	Terminal Enclosure			
E1	General Purpose			
E2	Moisture Resistant/Explosion Resistant			
E4	Moisture Resistant			
NWHMTO 03	003P	E1	Typical Model Number	

### Ordering Information

To Order — Complete the Model Number using the Matrix provided.

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