

# LIGHT AND MEDIUM WEIGHT OIL APPLICATIONS

## NWHO/NWHOB Series

- ✓ 3 to 10" ANSI Blind Flange Design
- ✓ 3 to 10" Carbon Steel Pipe Body, 150 Lb Construction
- ✓ 3 to 120 kW
- ✓ 240 and 480V, 1 and 3 Phase
- ✓ General Purpose, Moisture Resistant/Explosion Resistant, Explosion Resistant or Moisture Resistant Terminal Enclosure
- ✓ 0.475" Dia. Steel Sheath Elements (20 to 23 W/in<sup>2</sup>)
- ✓ With and Without Side Mounted AR Thermostat (200 to 550°F)
- ✓ UL, CSA and Other Third Party Approval, Listing or Certification Available

## APPLICATIONS

**Light and Medium Weight Oil:** Temperature maintenance and heating of heat transfer oils. Improve flow ability of medium weight oils.

## FEATURES

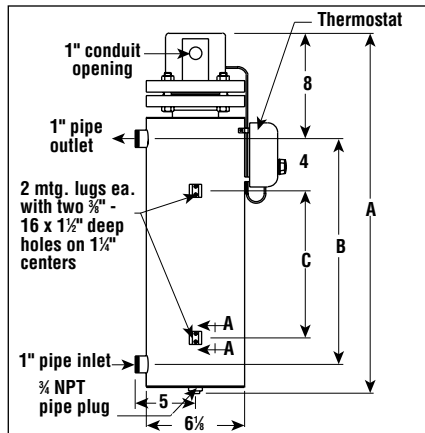
### Terminal Enclosure:

E1 General Purpose is standard. E2 Moisture Resistant/Explosion Resistant, E3 Explosion Resistant or E4 Moisture Resistant Enclosures available.

**Elements:** 0.475" diameter steel sheath elements.

**Flange:** 3 to 10" ANSI B-16.5 Blind flange with 1/2" thermowell for thermostat bulb and a 1/2" NPT threaded opening for a thermocouple or RTD.

Dimensions: in  
NWHO-03



Note: Add 2" to A dimension for E2 enclosure.

**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:** Series 3 and 6 stock and assembly stock heaters come equipped with side mounted thermostat. Series 18 and 27 are furnished without thermostat.



NWHO-03-003P-E1/240 shown smaller than actual size.

**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 online.

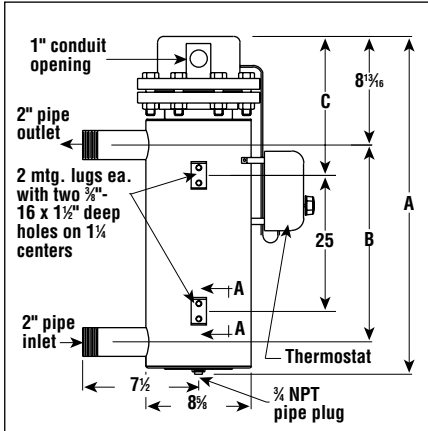
To Order							
kW	Volts	Ckt & Phase	Dimensions: in			Model No.	Wt. lb
			A	B	C		
<b>Series 03—3", 150 lb Carbon Steel Vessel—3 Steel Elements (23 W/in<sup>2</sup>) with Side Mounted Thermostat—1 NPT Pipe Inlet and Outlet</b>							
3	240	1-1	32 <sup>15</sup> / <sub>16</sub>	22 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub>	NWHO-03-003P-E1/240	70
3	240	1-3	32 <sup>15</sup> / <sub>16</sub>	22 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub>	NWHO-03-003P-E1/240/3P	70
3	480	1-1	32 <sup>15</sup> / <sub>16</sub>	22 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub>	NWHO-03-003P-E1/480	70
3	480	1-3	32 <sup>15</sup> / <sub>16</sub>	22 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub>	NWHO-03-003P-E1/480/3P	70
4.5	240	1-1	32 <sup>15</sup> / <sub>16</sub>	22 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub>	NWHO-03-04P5-E1/240	70
4.5	240	1-3	32 <sup>15</sup> / <sub>16</sub>	22 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub>	NWHO-03-04P5-E1/240/3P	70
4.5	480	1-1	32 <sup>15</sup> / <sub>16</sub>	22 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub>	NWHO-03-04P5-E1/480	70
4.5	480	1-3	32 <sup>15</sup> / <sub>16</sub>	22 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub>	NWHO-03-04P5-E1/480/3P	70
6	240	1-1	42 <sup>15</sup> / <sub>16</sub>	32 <sup>1</sup> / <sub>2</sub>	26 <sup>1</sup> / <sub>2</sub>	NWHO-03-006P-E1/240	80
6	240	1-3	42 <sup>15</sup> / <sub>16</sub>	32 <sup>1</sup> / <sub>2</sub>	26 <sup>1</sup> / <sub>2</sub>	NWHO-03-006P-E1/240/3P	80
6	480	1-1	42 <sup>15</sup> / <sub>16</sub>	32 <sup>1</sup> / <sub>2</sub>	26 <sup>1</sup> / <sub>2</sub>	NWHO-03-006P-E1/480	80
6	480	1-3	42 <sup>15</sup> / <sub>16</sub>	32 <sup>1</sup> / <sub>2</sub>	26 <sup>1</sup> / <sub>2</sub>	NWHO-03-006P-E1/480/3P	80
7.5	480	1-1	55 <sup>7</sup> / <sub>16</sub>	45	39	NWHO-03-07P5-E1/480	94
7.5	480	1-3	55 <sup>7</sup> / <sub>16</sub>	45	39	NWHO-03-07P5-E1/480/3P	94
9	240	1-1	55 <sup>7</sup> / <sub>16</sub>	45	39	NWHO-03-009P-E1/240	94
9	240	1-3	55 <sup>7</sup> / <sub>16</sub>	45	39	NWHO-03-009P-E1/240/3P	94
9	480	1-1	55 <sup>7</sup> / <sub>16</sub>	45	39	NWHO-03-009P-E1/480	94
9	480	1-3	55 <sup>7</sup> / <sub>16</sub>	45	39	NWHO-03-009P-E1/480/3P	94

Ordering Examples: NWHO-03-04P5-E1/480/3P, 4.5 kWt, 3-phase 480V heater. NWHO-03-009P-E1/480, 9 kW, 1-phase 480V heater.

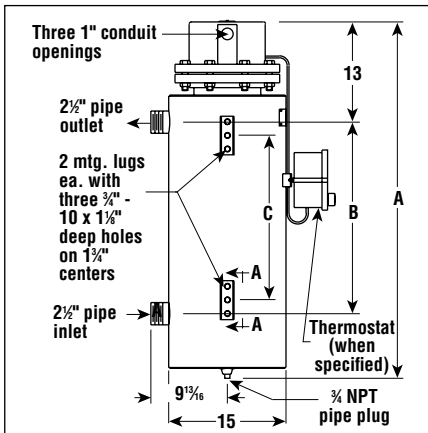
# LIGHT AND MEDIUM WEIGHT OIL APPLICATIONS

## NWHO/NWHOB Series

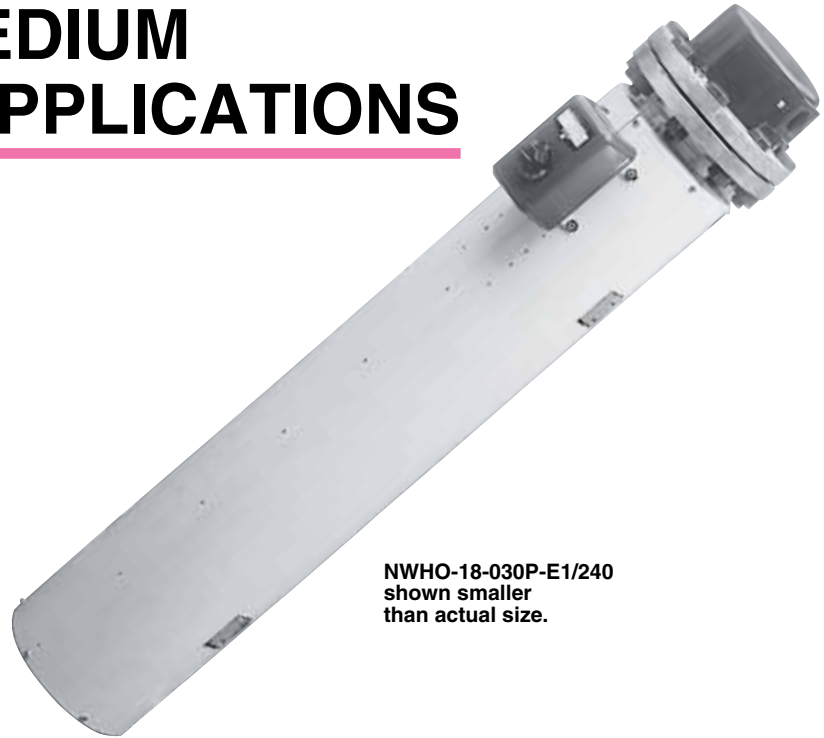
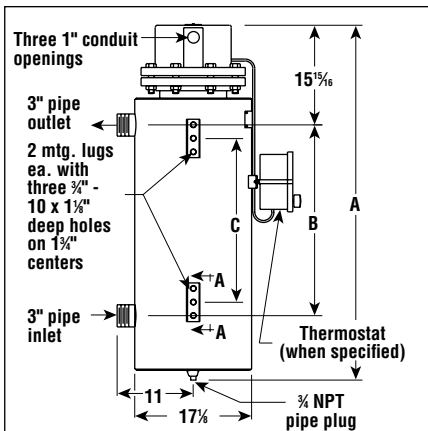
Dimensions: in, NWHO-06



## NWHO-18



## NWHO-27



NWHO-18-030P-E1/240 shown smaller than actual size.

## To Order

kW	Volts	Ckt & Phase	Dimensions: in			Model No.	Wt. lb
			A	B	C		
<b>Series 06—5", 150 lb Carbon Steel Vessel—6 Steel Elements (23 W/in<sup>2</sup>) with Side Mounted Thermostat—2 NPT Pipe Inlet and Outlet</b>							
12	240	1-3	41 3/4	30	11 1/8	NWHO-06-012P-E1/240	140
12	480	1-3	41 3/4	30	11 1/8	NWHO-06-012P-E1/480	140
15	240	1-3	48 3/4	37	14 1/8	NWHO-06-015P-E1/240	155
15	480	1-3	48 3/4	37	14 1/8	NWHO-06-015P-E1/480	155
20	240	2-3	60 1/4	48 1/2	20 3/8	NWHO-06-020P-E1/240/2C	176
20	480	1-3	60 1/4	48 1/2	20 3/8	NWHO-06-020P-E1/480	176
25	480	2-3	73 3/8	61 1/8	27 1/8	NWHO-06-025P-E1/480/2C	212
25	480	1-3	73 3/8	61 1/8	27 1/8	NWHO-06-025P-E1/480	212
30	480	2-3	86 3/8	74 3/8	33 1/8	NWHO-06-030P-E1/480/2C	240
30	480	1-3	86 3/8	74 3/8	33 1/8	NWHO-06-030P-E1/480	240
<b>Series 18—8", 150 lb Carbon Steel Vessel—18 Steel Elements (20 W/in<sup>2</sup>)—2 1/2" NPT Pipe Inlet and Outlet</b>							
30	240	3-3	53 1/4	32 1/16	29 3/16	NWHO-18-030P-E1/240	360
30	480	3-3	53 1/4	32 1/16	29 3/16	NWHO-18-030P-E1/480	360
40	240	3-3	60 1/4	39 1/16	36 3/16	NWHO-18-040P-E1/240	436
40	480	3-3	60 1/4	39 1/16	36 3/16	NWHO-18-040P-E1/480	436
50	240	3-3	67 1/8	47 1/16	43 13/16	NWHO-18-050P-E1/240	500
50	480	3-3	67 1/8	47 1/16	43 13/16	NWHO-18-050P-E1/480	500
60	240	3-3	77 3/8	56 13/16	53 5/16	NWHO-18-060P-E1/240	600
60	480	3-3	77 3/8	56 13/16	53 5/16	NWHO-18-060P-E1/480	600
70	240	3-3	86 3/8	65 13/16	62 3/16	NWHO-18-070P-E1/240	660
70	480	3-3	86 3/8	65 13/16	62 3/16	NWHO-18-070P-E1/480	660
80	240	3-3	96 3/8	75 13/16	72 3/16	NWHO-18-080P-E1/240	750
80	480	3-3	96 3/8	75 13/16	72 3/16	NWHO-18-080P-E1/480	750
<b>Series 27—10", 150 lb Carbon Steel Vessel—27 Steel Elements (20 W/in<sup>2</sup>)—3 NPT Pipe Inlet and Outlet</b>							
80	240	3-3	77 3/16	52	48 1/2	NWHO-27-080P-E1/240	720
80	480	3-3	77 3/16	52	48 1/2	NWHO-27-080P-E1/480	720
90	240	3-3	81 1/16	56	52 1/2	NWHO-27-090P-E1/240	735
90	480	3-3	81 1/16	56	52 1/2	NWHO-27-090P-E1/480	735
100	480	3-3	87 3/16	62	58 1/2	NWHO-27-100P-E1/480	750
120	480	3-3	97 3/16	72	68 1/2	NWHO-27-120P-E1/480	765

Note: Refer to the controls section for side mounted controls or control panels.

Ordering Examples: NWHO-18-060P-E1/240, 60 kW, 240V heater.

NWHO-06-012P-E1/240, 12 kW, 240V heater.

# LIGHT AND MEDIUM WEIGHT OIL APPLICATIONS

## NWHO/NWHOB Series

To Order							
kW	Volts	Ckt & Phase	Dimensions: in			Model No.	Wt. lb
			A	B	C		
<b>Series 18—8", 150 lb Carbon Steel Vessel—18 Baffled Steel Elements (20 W/in<sup>2</sup>)—2½ NPT Pipe Inlet and Outlet</b>							
30	240	3-3	53¼	32 <sup>11</sup> / <sub>16</sub>	29 <sup>13</sup> / <sub>16</sub>	NWHOB-18-030P-E1/240	366
30	480	3-3	53¼	32 <sup>11</sup> / <sub>16</sub>	29 <sup>13</sup> / <sub>16</sub>	NWHOB-18-030P-E1/480	368
40	240	3-3	60¼	39 <sup>11</sup> / <sub>16</sub>	36 <sup>13</sup> / <sub>16</sub>	NWHOB-18-040P-E1/240	442
40	480	3-3	60¼	39 <sup>11</sup> / <sub>16</sub>	36 <sup>13</sup> / <sub>16</sub>	NWHOB-18-040P-E1/480	442
50	240	3-3	67 <sup>7</sup> / <sub>16</sub>	47 <sup>7</sup> / <sub>16</sub>	43 <sup>13</sup> / <sub>16</sub>	NWHOB-18-050P-E1/240	506
50	480	3-3	67 <sup>7</sup> / <sub>16</sub>	47 <sup>7</sup> / <sub>16</sub>	43 <sup>13</sup> / <sub>16</sub>	NWHOB-18-050P-E1/480	506
60	240	3-3	77 <sup>3</sup> / <sub>16</sub>	56 <sup>13</sup> / <sub>16</sub>	53 <sup>3</sup> / <sub>16</sub>	NWHOB-18-060P-E1/240	606
60	480	3-3	77 <sup>3</sup> / <sub>16</sub>	56 <sup>13</sup> / <sub>16</sub>	53 <sup>3</sup> / <sub>16</sub>	NWHOB-18-060P-E1/480	606
70	240	3-3	86 <sup>3</sup> / <sub>16</sub>	65 <sup>13</sup> / <sub>16</sub>	62 <sup>3</sup> / <sub>16</sub>	NWHOB-18-070P-E1/240	666
70	480	3-3	86 <sup>3</sup> / <sub>16</sub>	65 <sup>13</sup> / <sub>16</sub>	62 <sup>3</sup> / <sub>16</sub>	NWHOB-18-070P-E1/480	666
80	240	3-3	96 <sup>3</sup> / <sub>16</sub>	75 <sup>13</sup> / <sub>16</sub>	72 <sup>3</sup> / <sub>16</sub>	NWHOB-18-080P-E1/240	756
80	480	3-3	96 <sup>3</sup> / <sub>16</sub>	75 <sup>13</sup> / <sub>16</sub>	72 <sup>3</sup> / <sub>16</sub>	NWHOB-18-080P-E1/480	756
<b>Series 27—10", 150 lb Carbon Steel Vessel—27 Baffled Steel Elements (20 W/in<sup>2</sup>)—3 NPT Pipe Inlet and Outlet</b>							
80	240	3-3	77 <sup>7</sup> / <sub>16</sub>	52	48½	NWHOB-27-080P-E1/240	726
80	480	3-3	77 <sup>7</sup> / <sub>16</sub>	52	48½	NWHOB-27-080P-E1/480	726
90	240	3-3	81 <sup>1</sup> / <sub>16</sub>	56	52½	NWHOB-27-090P-E1/240	741
90	480	3-3	81 <sup>1</sup> / <sub>16</sub>	56	52½	NWHOB-27-090P-E1/480	741
100	480	3-3	87 <sup>7</sup> / <sub>16</sub>	62	58½	NWHOB-27-100P-E1/480	756
120	480	3-3	97 <sup>7</sup> / <sub>16</sub>	72	68½	NWHOB-27-120P-E1/480	771

Note: Refer to the controls section for side mounted controls or control panels.

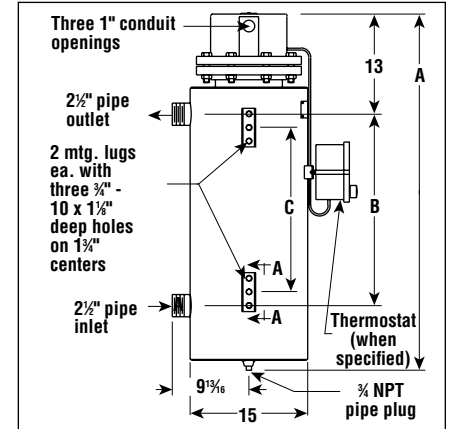
Ordering Example: NWHOB-18-060P-E1/240, 60 kW, 240V heater.

### Ordering Information:

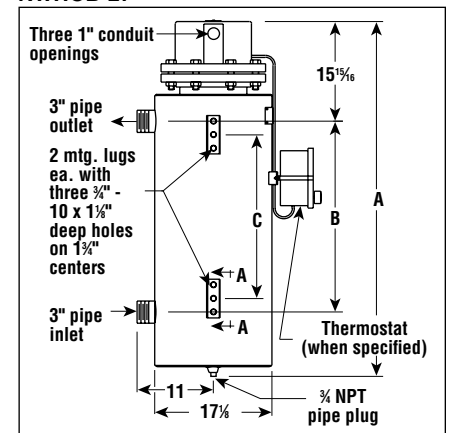
To Order—  
Complete the  
Model Number  
using the Matrix  
provided.

Model	Light and Medium Weight Oil			
NWHO	Oil Circulation Heater			
	Internal Baffles			
B	Code	Number of Elements		
	03	Three		
	06	Six		
	18	Eighteen		
	27	Twenty Seven		
	Code	kW		
	003P	3		
	04P5	4.5		
	006P	6		
	07P5	7.5		
	009P	9		
	012P	12		
	015P	15		
	020P	20		
	025P	25		
	030P	30		
	040P	40		
	050P	50		
	060P	60		
	070P	70		
	080P	80		
	090P	90		
	100P	100		
	120P	120		
	Code	Terminal Enclosure		
	E1	General Purpose		
	E2	Moisture Resistant/Explosion Resistant		
	E3	Explosion Resistant		
	E4	Moisture Resistant		
NWHOB	18	030P	E1	Typical Model Number

Dimensions: in  
NWHOB-18



NWHOB-27



NWHOB-AA

