



## STANDARD FEATURES

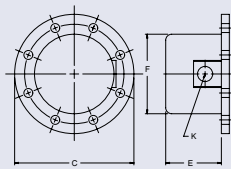
- » Welded construction between elements and flanges on steel & stn. steel heaters
- » Standard sheath materials copper, incoloy, steel
- » Recompacted bends to restore MgO density
- » Elements moisture sealed to prevent entrance of contaminants
- » Heavy duty metal sheath elements
- » NEMA 1 housing
- » Hydrostatic pressure testing done on steel & st. stl flanges
- » Silver braze construction on non-ferrous flanges
- » Thermowells for existing or optional thermostats
- » Flange, 150 LB. rating ASA drill pattern 1/16" raised face
- » Corrosion resistant hardware



## OPTIONAL FEATURES

- » NEMA 4 OR 7 MOISTURE OR EXPLOSION RESISTANT ENCLOSURES.
- » THERMOSTATIC CONTROLS IN NEMA 1, 4, OR 7 ENCLOSURES AVAILABLE IN 3 TEMPERATURE RANGES.
- » PASSIVATED ELEMENTS AND FLANGES FOR PURE AND DEIONIZED WATER. PHOTO CHEMICALS AND SPECIAL PROCESSES.
- » STANDOFF HOUSING DESIGN FOR HIGH TEMPERATURE APPLICATIONS.
- » OTHER SHEATH MATERIALS... CARPENTER 20, MONEL 400, INCONEL 600. HASTELLOY AND TITANIUM
- » TYPE 304 OR 316 STAINLESS STEEL FLANGES.

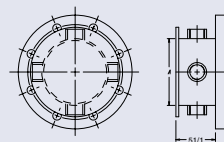
## FLANGED HOUSINGS



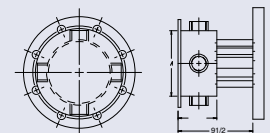
**NEMA 1 HOUSING**

STANDARD FOR FLANGE SCREW PLUG HEATERS

FLANGE	C	F	E	K
3"-150 #	7-1/2	4	3-1/2	1-5/16
5"-150 #	10	6	5	1-5/16
6"-150 #	11	6	5	1-5/16
8"-150 #	13-1/2	9-3/4	5	1-5/16
10"-150 #	16	15	5	1-3/4
12"-150 #	19	19	5-3/4	2
14"-150 #	21	16	5-3/4	2-7/16



**NEMA 4 & 7 HOUSING**



**NEMA 4 & 7 HOUSING NEMA 4 & 7 HOUSING2  
STAND OFF**

### OPTIONAL TERMINAL HOUSING DATA

FLANGE SIZE	"A" MAX.	NO.	SIZE
3"	4-1/2	1	1" NPT
5"	6-3/4	1	1" NPT
6"	6-3/4	1	1" NPT
8"	8-3/4	2	1" NPT
10"	10-3/4	2	1-1/2 NPT
12"	12-3/4	3	1-1/2 NPT
14"	14	3	2 NPT

# FLANGE IMMERSION HEATERS



## APPLICATION: CLEAR WATER

3" 150 LB ANSI FLANGE	IMMERSED LENGTH	KW	VOLTAGE				NUMBER OF ELEMENTS	WATT DENSITY	PART NUMBER
			240V 1PH	240V 3PH	480V 1PH	480V 3PH			
<b>COPPER SHEATHED ELEMENTS</b>	15-1/2	6.0	■	■	■	■	3	60	MFPR-C15HA-6000 N
	21-1/2	9.0	■	■	■	■	3	60	MFPR-C21HA-9000 N
	27	12.0	■	■	■	■	3	60	MFPR-C27OA-120C N
	32-1/2	15.0	■	■	■	■	3	60	MFPR-C32HA-150C N
	38	18.0	■	■	■	■	3	60	MFPR-C38OA-180C N
	51	25.0	■	■	■	■	3	60	MFPR-C51OA-250C N
	60-1/2	30.0	■	■	■	■	3	60	MFPR-C60HA-300C N

## APPLICATION: PROCESS WATER

3" 150 LB ANSI FLANGE	IMMERSED LENGTH	KW	VOLTAGE				NUMBER OF ELEMENTS	WATT DENSITY	PART NUMBER
			240V 1PH	240V 3PH	480V 1PH	480V 3PH			
<b>INCOLOY SHEATHED ELEMENTS</b>	13-1/2	4.9	■	■	■	■	3	48	MFPR-N13HA-4500ooN
	18	6.0	■	■	■	■	3	48	MFPR-N18OA-6000ooN
	20-1/2	7.5	■	■	■	■	3	48	MFPR-N20HA-7500ooN
	25-1/2	9.0	■	■	■	■	3	48	MFPR-N25HA-9000ooN
	33	12.0	■	■	■	■	3	48	MFPR-N33OA-120CooN
	40-1/2	15.0	■	■	■	■	3	48	MFPR-N40HA-150CooN
	48	18.0	■	■	■	■	3	48	MFPR-N48OA-180CooN

## APPLICATION: FORCED AIR AND GASES, CAUSTIC SOLUTIONS, DEGREASING SOLUTIONS

3" 150 LB ANSI FLANGE	IMMERSED LENGTH	KW	VOLTAGE				NUMBER OF ELEMENTS	WATT DENSITY	PART NUMBER
			240V 1PH	240V 3PH	480V 1PH	480V 3PH			
<b>INCOLOY SHEATHED ELEMENTS</b>	18	3.0	■	■	■	■	3	23	MFPR-N18OA-3000ooN
	25-1/2	4.5	■	■	■	■	3	23	MFPR-N25HA-4500ooN
	33	6.0	■	■	■	■	3	23	MFPR-N33OA-6000ooN
	40-1/2	7.5	■	■	■	■	3	23	MFPR-N40HA-7500ooN
	48	9.0	■	■	■	■	3	23	MFPR-N48OA-9000ooN
	64-1/2	12.5	■	■	■	■	3	23	MFPR-N64HA-125CooN
	77	15.0	■	■	■	■	3	23	MFPR-N77OA-150CooN

## APPLICATION: LIGHTWEIGHT OILS, DEGREASING SOLUTIONS, HEAT TRANSFER OILS

3" 150 LB ANSI FLANGE	IMMERSED LENGTH	KW	VOLTAGE				NUMBER OF ELEMENTS	WATT DENSITY	PART NUMBER
			240V 1PH	240V 3PH	480V 1PH	480V 3PH			
<b>STEEL SHEATHED ELEMENTS</b>	18	3.0	■	■	■	■	3	23	MFPR-B18OA-3000ooN
	25-1/2	4.5	■	■	■	■	3	23	MFPR-B25HA-4500ooN
	33	6.0	■	■	■	■	3	23	MFPR-B33OA-6000ooN
	40-1/2	7.5	■	■	■	■	3	23	MFPR-B40HA-7500ooN
	48	9.0	■	■	■	■	3	23	MFPR-B48OA-9000ooN
	64-1/2	12.5	■	■	■	■	3	23	MFPR-B64HA-125CooN
	77	15.0	■	■	■	■	3	23	MFPR-B77OA-150CooN

## APPLICATION: BUNKER C AND #6 FUEL OILS

3" 150 LB ANSI FLANGE	IMMERSED LENGTH	KW	VOLTAGE				NUMBER OF ELEMENTS	WATT DENSITY	PART NUMBER
			240V 1PH	240V 3PH	480V 1PH	480V 3PH			
<b>STEEL SHEATHED ELEMENTS</b>	33	2.0	■	■	■	■	3	8	MFPR-B33OA-2000ooN
	48	3.5	■	■	■	■	3	8	MFPR-B48OA-3000ooN
	64-1/2	4.0	■	■	■	■	3	8	MFPR-B64HA-4000ooN
	77	5.5	■	■	■	■	3	8	MFPR-B77OA-5000ooN