


'FP/BFP' Range of Explosionproof/Flameproof Certified Process Flow Heaters

The 'FP/BFP' type flameproof electric heaters comprise a large range of process flow heaters, certified for use in a Zone 1 or Class 1, Div 1 Hazardous Area, custom built to meet client specifications.



FEATURES

- Up to 1000KW (larger ratings achieved by a combination of enclosures.)
- ATEX approved  11 2 G/D.
- Certified EEx'd', Zone 1, Gas Group II, A, B, C.
- Certified Class 1, Div 1, Gas Group, B, C, D.
- CENELEC, Standards Australia, CSA, FM.
- Terminal box is certified weatherproof to IP66/67 or NEMA 7.
- Temperature classifications T1 – T6.
- Elements are specially sealed to prevent moisture ingress.
- Elements are individually replaceable on site without the need for special tools.
- Suitable and certified for use in high ambient temperatures, e.g. Middle East.
- Anti-condensation heaters fitted, if required.

TYPICAL APPLICATIONS

- Fuel Gas
- Natural Gas
- Molecular Sieve Regeneration
- Industrial Gases
- Heat Transfer Oils
- Fuel Oils
- Water
- Crude Oil / Hydrocarbon /Liquids
- Heating Medium

Vessel Design Codes

- PED Compliant
- Stoomwezen
- CODAP
- PD 5500 2000 Cat 1
- ASME VIII Div 1/2
- A.D. Merkblatter
- AS 1210

Vessel Materials

- Carbon Steel
- Stainless Steel
- Titanium
- Monel
- Low Temperature Steel
- Duplex
- Super Austenitic
- Nickel Alloys

Elements

Manufactured from 80/20 NiCr resistance wire with high purity compacted Magnesium Oxide powder sheathed within corrosion/erosion resistant tube, e.g.:

- Incoloy 800/825
- Inconel 600/625
- Titanium
- 316/316L Stainless Steel
- 321 Stainless Steel
- Monel

Element sheath available in welded or seamless tube up to 1.6mm thick.

Internals

Elements are supported in a segmental or rod type baffle assembly to prevent flow induced vibration and hot spots, generally complying with TEMA standards.

Element to Tubesheet

Generally, elements are sealed into the flange by 'Bite' type couplings which provide a 100% seal at pressures up to 400 bar.g and give the opportunity to replace individual elements on site.

Vessel Materials

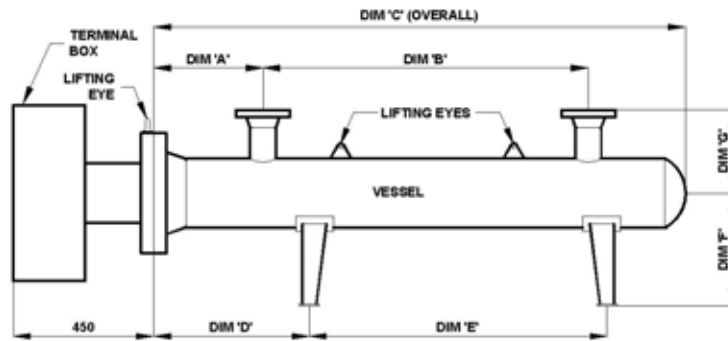
Elements can be welded to the tubesheet, in stand-off and non-stand-off configurations.

Terminal Box

Manufactured from either Cast Iron or Stainless Steel.

Voltage

Suitable for voltages up to 690v.



Tables indicate EXHEAT standard designs for hydrocarbon gas heating applications. Dimensions may vary from other mediums on compliance with project specification

Short Option										
kW	Withdrawal	A	B	C	D	E	F	G	Diameter (Inches)	Diameter (mm)
25	2200	1490	1605	1985	215	1555	400	250	4	100
50	2200	240	1555	2035	265	1505	400	275	6	150
75	2200	240	1555	2035	265	1505	400	275	6	150
100	2200	240	1555	2035	265	1505	400	275	6	150
125	2200	290	1520	2100	315	1470	400	300	8	200
150	2200	290	1520	2100	315	1470	400	300	8	200
175	2200	290	1520	2100	315	1470	400	300	8	200
200	2200	333	1500	2166	358	1450	400	325	10	250
225	2200	335	1500	2170	360	1450	400	325	10	250
250	2200	335	1500	2170	360	1450	400	325	10	250
275	2200	335	1500	2170	360	1450	400	325	10	250
300	2200	335	1500	2170	360	1450	400	325	10	250
325	2200	385	1450	2220	410	1400	400	350	12	300
350	2200	385	1450	2220	410	1400	400	350	12	300
375	2200	385	1450	2220	410	1400	400	350	12	300
400	2200	385	1450	2220	410	1400	400	350	12	300
425	2200	385	1450	2220	410	1400	400	350	12	300
450	2200	385	1450	2220	410	1400	400	350	12	300
475	2200	425	1440	2290	450	1390	400	375	14	350
500	2200	425	1440	2290	450	1390	400	375	14	350
600	2200	450	1410	2310	475	1360	400	400	16	400
700	2200	450	1410	2310	475	1360	400	400	16	400
800	2200	500	1375	2375	525	1325	400	425	18	450
900	2200	500	1375	2375	525	1325	400	425	18	450

Long Option										
kW	Withdrawal	A	B	C	D	E	F	G	Diameter (Inches)	Diameter (mm)
50	3600	190	3005	3385	215	2955	400	250	4	100
100	3600	240	2955	3435	265	2905	400	275	6	150
150	3600	240	2955	3435	265	2905	400	275	6	150
200	3600	240	2955	3435	265	2905	400	275	6	150
250	3600	290	2920	3500	315	2870	400	300	8	200
300	3600	290	2920	3500	315	2870	400	300	8	200
350	3600	290	2920	3500	315	2870	400	300	8	200
400	3600	335	2900	3570	360	2850	400	325	10	250
450	3600	335	2900	3570	360	2850	400	325	10	250
500	3600	335	2900	3570	360	2850	400	325	10	250
600	3600	335	2900	3570	360	2850	400	325	10	250
700	3600	385	2850	3620	410	2800	400	350	12	300
800	3600	385	2850	3620	410	2800	400	350	12	300
900	3600	385	2850	3620	410	2800	400	350	12	300