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Midland Combustion Bio-Fuel Electric Line Heaters with Integral Panels

Midcom has developed a range of Electric Line Heaters specifically designed for heating bio-fuel. The bio-fuel is heated to specific temperatures and controlled precisely either by traditional thermostat and contactor or alternatively solid state electronic control in conjunction with a temperature sensor and controller offering more accurate temperature control and power saving.

Long life low watts density removable ceramic core elements are designed for optimum trouble free service and ease of maintenance. The elements are housed in stainless steel sheaths to limit corrosion attack and for ease of maintenance

All **Midcom** Horizontal Line Heaters from ELW range are fitted with an adjustable over temperature "cut out" thermostat. Depending on the heating load, the elements can be arranged in multiple heating banks for efficient heater control with multiple thermostats fitted into pockets located within the weather tight enclosure.

The heaters are suitable for all manner of small and large applications such as diesel generator Installations, light oil systems, combustion systems, furnaces etc. where accurate temperature control of bio-fuel is needed.

All heaters are compliant with European legislation covering CE markings/PED approval with the basic design complying with PD5500 and/or ASME.

The first design pressure range is 11.67 **barg** but heaters as high as 70 **barg** are designed and supplied for specific process conditions.

One advantage of the **Midcom** Electric Line Heater is that a failed electric element can be replaced without the need to isolate and drain the heater.

Electric Heaters as large as 2000 kW have been supplied and packaged with Electric Control Gear by **Midcom**.

Products are hydraulic and electrical tested before they leave the factory.

Midland Combustion Limited

Station Works, Four Ashes, Wolverhampton WV10 7BX, UK

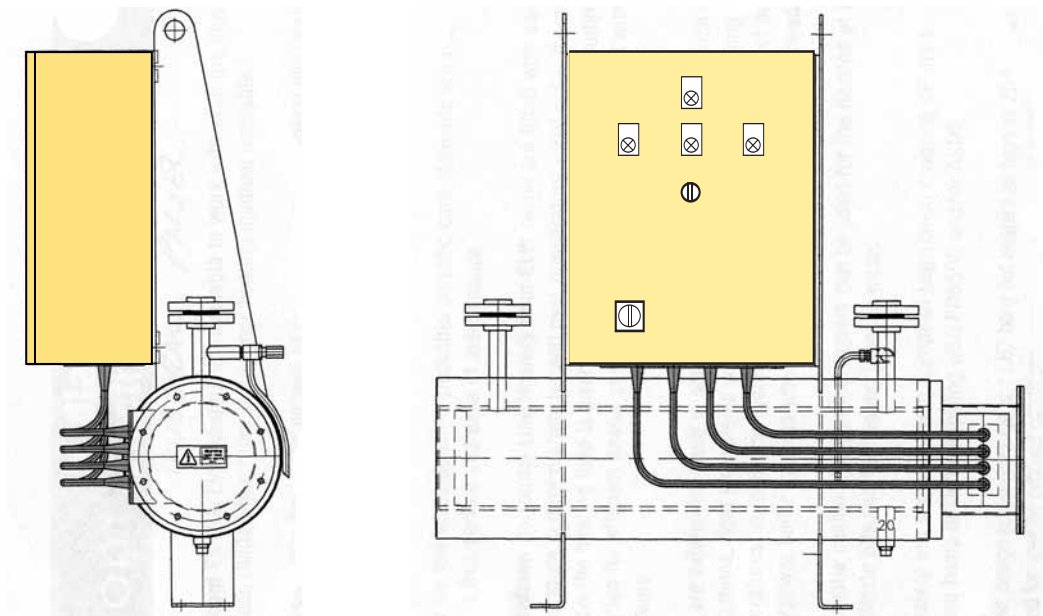
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Midcom Code	Bio-Oils	Maximum Heating Capacity for Bio-Oils Through 45°C
	kW	kg / hr
ELW 4 - 18	1.35	53.5
ELW 4 - 24	1.8	71.5
ELW 4 - 30	2.25	89.0
ELW 4 - 36	2.7	107.0
ELW 4 - 42	3.15	125.0
ELW 4 - 48	3.6	142.5
ELW 4 - 60	4.5	178.0
ELW 4 - 72	5.4	214.0
ELW 4 - 84	6.3	249.5
ELW 4 - 96	7.2	285.0
ELW 6 - 24	5.4	372.5
ELW 6 - 30	6.75	267.5
ELW 6 - 42	9.45	374.5
ELW 6 - 48	10.8	427.5
ELW 6 - 60	13.5	534.5
ELW 6 - 72	16.2	641.5
ELW 6 - 84	18.9	748.5
ELW 6 - 96	21.6	855.5



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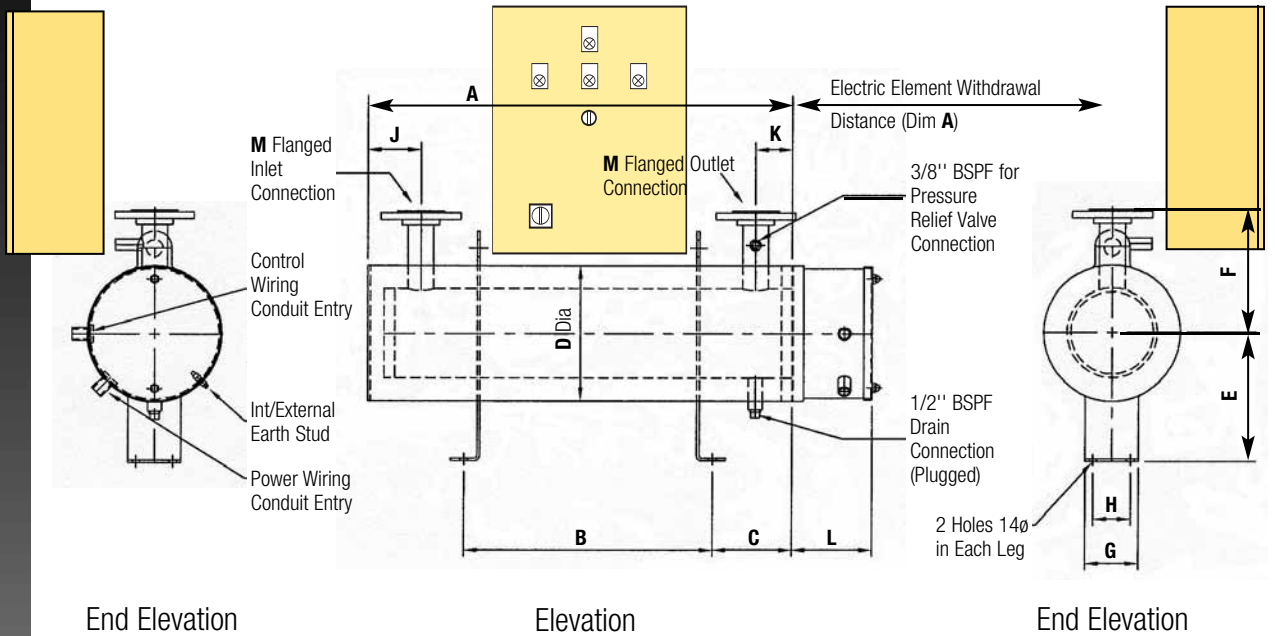
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Midcom Code	Bio-Oils	Maximum Heating Capacity for Bio-Oils Through 45°C
	kW	kg / hr
ELW 8 - 30	11.25	445.5
ELW 8 - 36	13.5	534.5
ELW 8 - 42	15.75	624.0
ELW 8 - 48	18.0	713.0
ELW 8 - 60	22.5	891.0
ELW 8 - 72	27.0	1069.5
ELW 8 - 84	31.5	1247.5
ELW 8 - 96	36.0	1425.5
ELW 10 - 36	24.3	962.5
ELW 10 - 42	28.35	1123.0
ELW 10 - 48	32.4	1283.0
ELW 10 - 60	40.5	1604.0
ELW 10 - 72	48.6	1925.0
ELW 10 - 84	56.7	2245.5
ELW 10 - 96	64.8	2566.5
ELW 12 - 42	37.8	1497.0
ELW 12 - 48	43.2	1711.0
ELW 12 - 54	48.6	1925.0
ELW 12 - 60	54.0	2138.5
ELW 12 - 72	64.8	2566.5
ELW 12 - 84	75.6	2994.0
ELW 12 - 96	86.4	3422.0



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Note: Standard heater flanged terminal connections can be supplied with either ANSI B16.5 CL.150# or BS EN 1092:1 2001 PN16 Customer to specify when ordering.

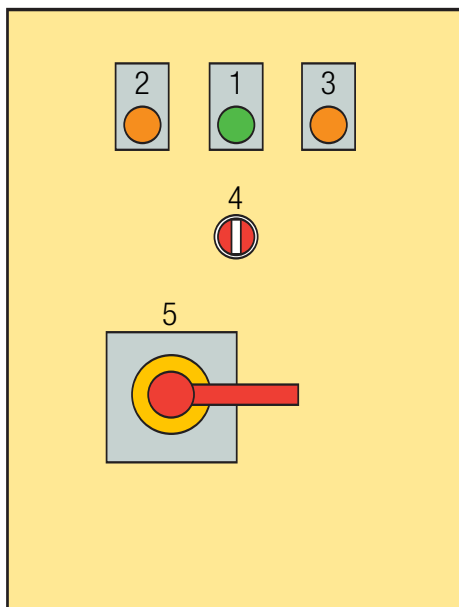
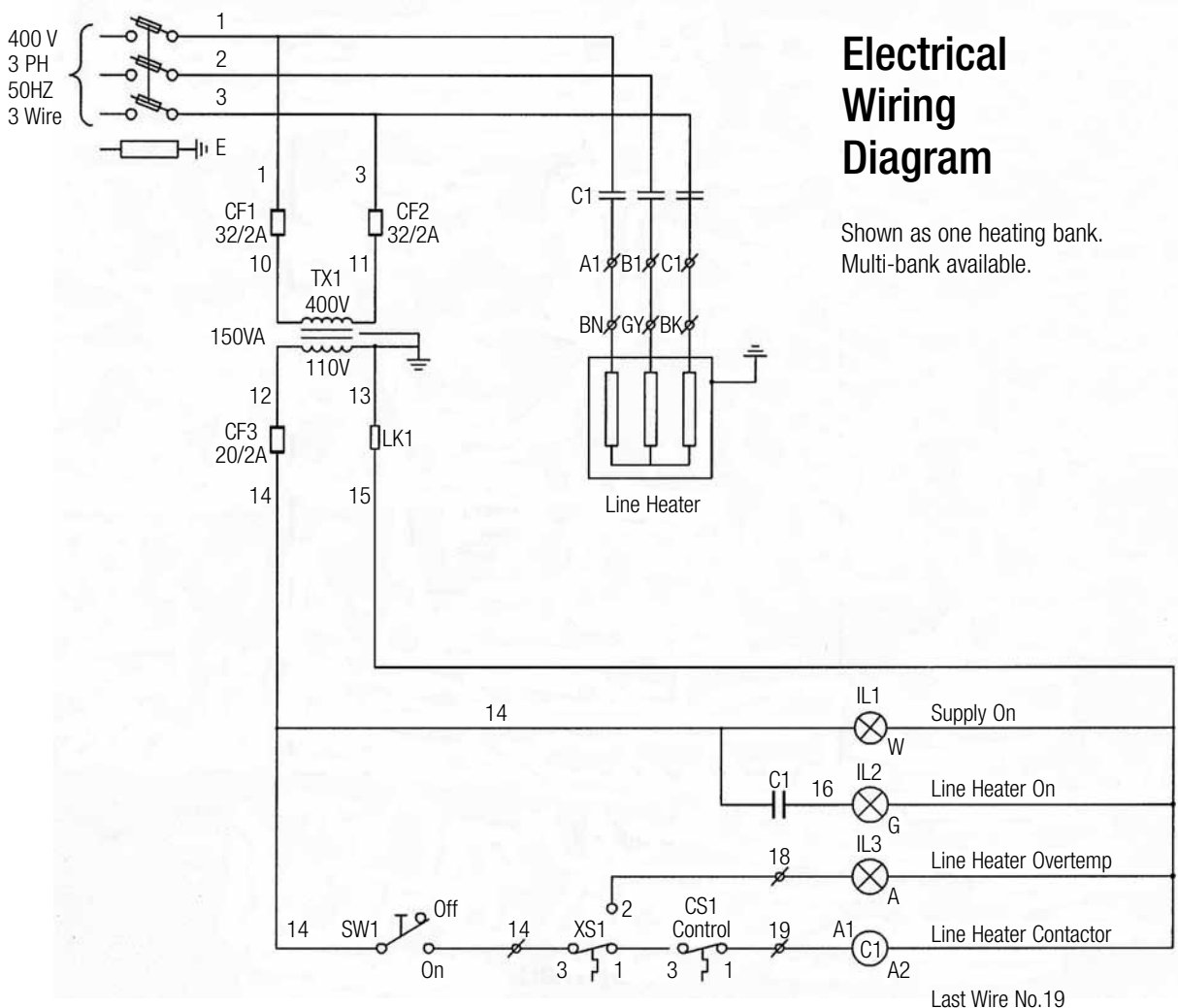
Midcom Code	mm D	mm E	mm F	mm G	mm H	mm Min J	mm Min K	mm L	NB M
ELW 4	204	200	180	100	70	95	65	160	40
ELW 6	259	240	230	100	70	100	70	160	40
ELW 8	324	280	255	150	110	100	70	160	40
ELW 10	384	325	300	200	150	110	80	160	50
ELW 12	424	350	330	250	200	110	80	160	50

	ins	ins	ins	ins	ins	ins	ins	ins	ins	ins
Length	18	24	30	36	42	48	60	72	84	96
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
A	500	650	805	955	1110	1260	1565	1870	2175	2480
B	200	320	475	465	620	770	935	1240	1385	1690
C	135	150	150	230	230	230	300	300	380	380



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Door Layout for Electric Line Heater IP65 Control Panel

1. Supply On Light (IL1)
2. Line Heater On Light (IL2)
3. Line Heater Overtemp Light (IL3)
4. Line Heater Off/On Selector Switch
5. Fuse Switch Handle