

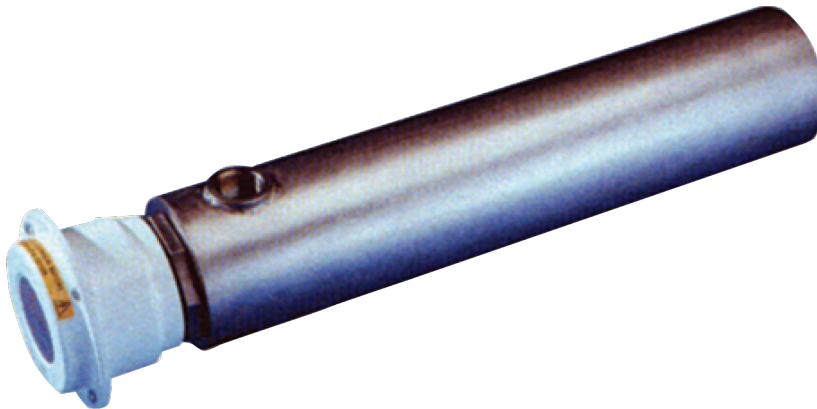
**ATEX**



## **LINE HEATERS**

# MLH MINI LINE HEATERS

The range of mini line heaters consist of a screw plug or flanged type immersion heater mounted in a thermally insulated heating vessel, and is designed to efficiently transfer heat to a flowing medium (liquid or air).

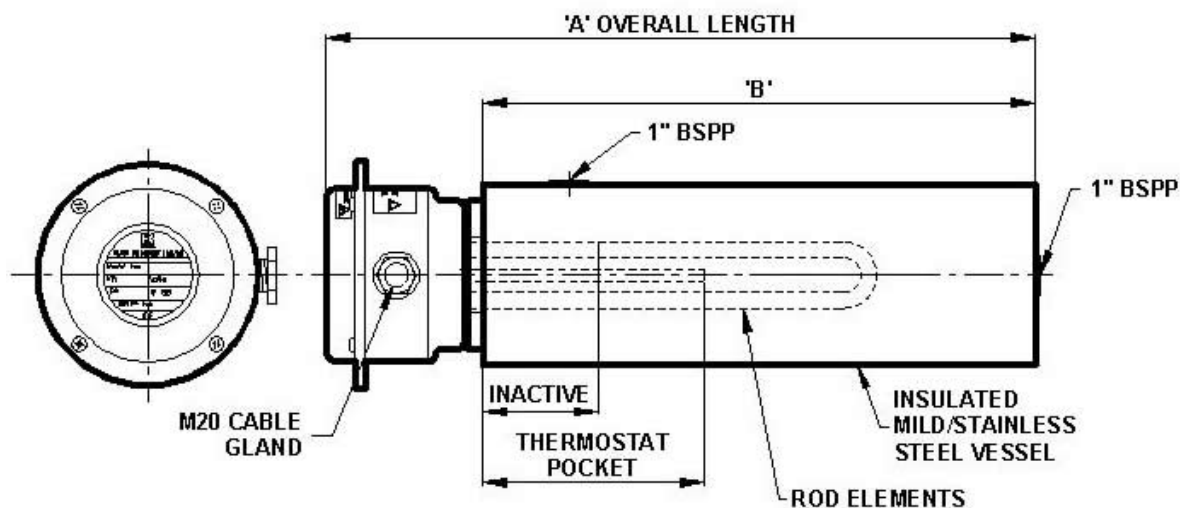


## FEATURES

- Weatherproof protected to IP66
- Choice of built in process temperature sensors and externally adjustable option
- Mild steel or 316 stainless steel vessel
- Standard range of high quality Incoloy or stainless steel rod-type elements, designed for water or withdrawable ceramic core elements, designed for oil
- Maximum allowable working pressure up to 10 barg/145 psig, subject to design parameters
- Designed for both horizontal and vertical installation (if mounted vertically, terminal box must be located at the bottom)

## TYPICAL APPLICATIONS

- Frost protection: Pre-start systems for water cooled engines, fire extinguishing equipment, oil sump heating
- Fuel oil heating: Pre-heating to pumping viscosity
- Heat transfer oils: Moulds, dies and platens, closed loop systems for bitumen, etc
- Water heating: Wash rooms, industrial washing equipment, hot water storage tanks



Model	Loading (kW)	Dimension A (mm)	Dimension B (mm)
MLH1S	1	578	475
MLH2S	2	578	475
MLH3S	3	578	475
MLH6S	6	578	475
MLH9S	9	578	475
MLH3L	3	1028	925
MLH6L	6	1028	925
MLH9L	9	1028	925
MLH12L	12	1028	925

**Note:**

- 475mm Vessel to have 1" BSP Inlet and Outlets
- 925mm Vessel to have 1½" BSP Inlet and Outlets
- 1" BSP Available on requested for 925mm vessels

<b>Cladding</b>	Coated mild steel or 304 stainless steel
<b>Controls</b>	A control thermostat is fitted as standard
<b>Design Code</b>	Sound Engineering Practice (SEP)
<b>Elements</b>	High quality nickel chrome resistance wire compacted in magnesium oxide insulating powder and sheathed in corrosion resistant Incoloy 825/800, 316L stainless steel, withdrawable ceramic core elements housed in mild steel or 316L stainless steel tube
<b>Insulation Pressure</b>	Mineral wool
<b>Thermostat Pockets</b>	Maximum allowable working pressure up to 10 barg/145 psig subject to design parameters
<b>Vessel</b>	One stainless steel pocket brazed to boss
<b>Voltage</b>	Mild steel or stainless steel Standard units are normally designed for 220V to 254V (1 phase) or 380 to 440V (3 phase)

# HEWL LINE HEATERS

The HEWL range of line heaters is suitable for heating all process fluids which are non-corrosive to the materials of construction. They provide a clean and efficient heating method for bulk liquid flow applications.

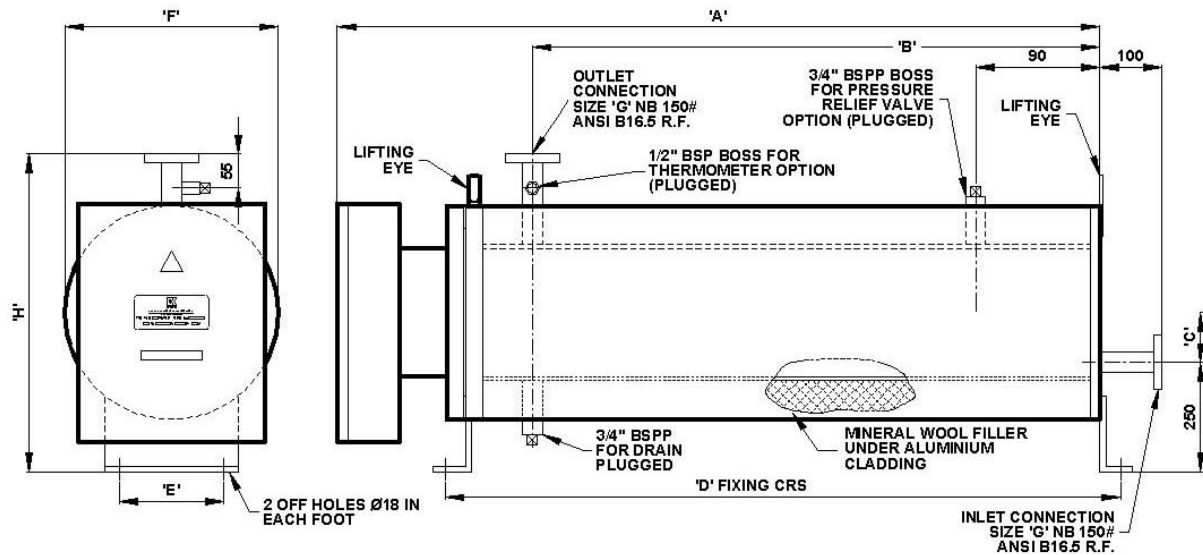


## FEATURES

- Thermal insulation and cladding
- Weatherproof terminal enclosure with protection to IP66
- Internal control thermostats and over-temperature thermostat
- Also available in flameproof construction for hazardous areas utilising the FP range
- Alternative materials of construction available
- Designed for horizontal installation (vertical mounting version available on request)

## TYPICAL APPLICATIONS

- Engine jacket pre-heating
- Fuel oil
- Heat transfer oils
- Indirect heating of liquids
- Industrial washing and rinsing processes
- Lube oil pre-heating
- Temperature maintenance of storage tanks
- Tempering of low grade residual oils for burners and engines
- Under floor heating schemes



Model	Loading (kW)	Dimensions (mm)							
		A	B	C	D	E	F	G	H
HEWL 15	15	1395	1040	50	1265	220	290	40	526
HEWL 18	18	1395	1040	50	1265	220	290	40	526
HEWL 24	24	1705	1350	50	1575	220	290	40	526
HEWL 30	30	1705	1350	50	1575	220	290	40	526
HEWL 45	45	1795	1435	74	1660	260	353	40	575
HEWL 60	60	1795	1435	74	1660	260	353	40	575
HEWL 75	75	1795	1435	100	1660	300	416	40	628
HEWL 90	90	1795	1435	100	1660	300	416	40	628
HEWL 105	105	1795	1435	100	1660	300	416	40	628
HEWL 120	120	1795	1435	100	1660	300	416	40	628

\*Also available in flameproof construction and certified to ATEX/IECEX, CSA, CU TR (EAC), Inmetro, CNEx, CCOE & KGS

<b>Construction</b>	Weatherproof protection to IP66
<b>Element Working</b>	Incoloy 800 or 825, 316L or 304 stainless steel, sheathed rod type
<b>Pressure Design</b>	Up to 10 barg/145 psig, subject to design parameters
<b>Code Vessel</b>	Sound Engineering Practice (SEP)
<b>Insulation</b>	Mild steel or 316 stainless steel
<b>Cladding Voltage</b>	Mineral wool Stucco aluminium Standard supplies up to 690V, subject to design parameters

# HEOL LINE HEATERS

The HEOL range of line heaters is suitable for heating all process fluids which are non-corrosive to the materials of construction. They provide a clean and efficient heating method for bulk liquid flow applications.

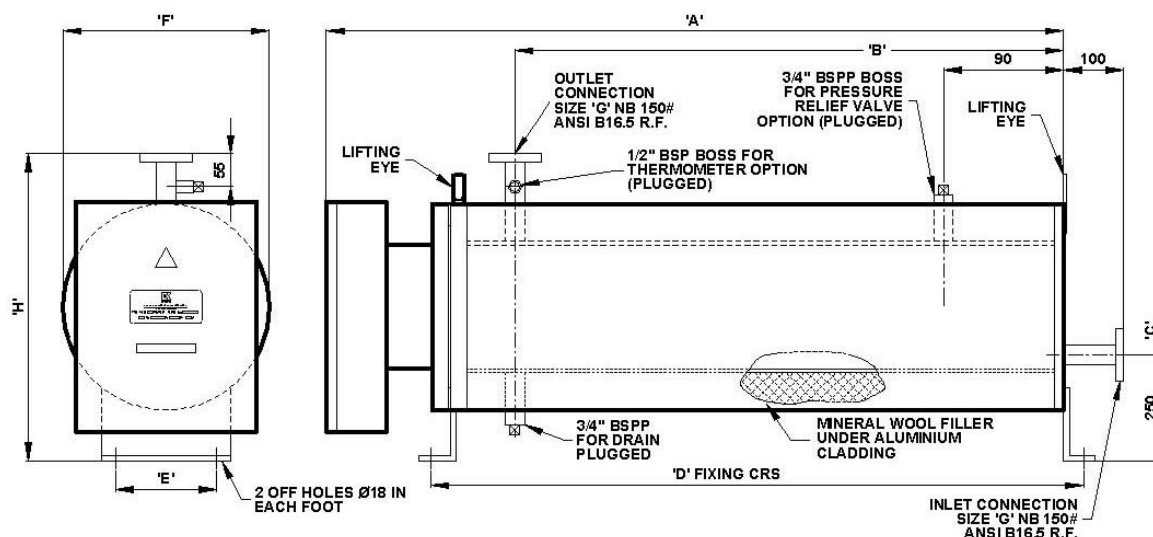


## FEATURES

- Thermal insulation and cladding
- Weatherproof terminal enclosure with protection to IP66
- Internal control thermostats and over-temperature thermostat
- Also available in flameproof construction for hazardous areas utilising the FP range
- Alternative materials of construction available
- Designed for horizontal installation (vertical mounting version available on request)

## TYPICAL APPLICATIONS

- Engine jacket pre-heating
- Fuel oil
- Heat transfer oils
- Indirect heating of liquids
- Industrial washing and rinsing processes
- Lube oil pre-heating
- Temperature maintenance of storage tanks
- Tempering of low grade residual oils for burners and engines
- Under floor heating schemes



Model	Loading (kW)	Dimensions (mm)							
		A	B	C	D	E	F	G	H
HEOL 1/3	3	995	640	50	865	220	290	40	526
HEOL 2/6	6	995	640	50	865	220	290	40	526
HEOL 3/9	9	1395	640	50	865	220	290	40	526
HEOL 3/12	12	1395	1040	50	1265	220	290	40	526
HEOL 3/15	15	1705	1040	50	1265	220	290	40	526
HEOL 3/18	18	1705	1350	50	1575	220	290	40	526
HEOL 6/24	24	1195	835	75	1060	260	353	40	575
HEOL 6/30	30	1395	1035	75	1260	260	353	40	575
HEOL 6/36	36	1595	1235	75	1460	260	353	40	575
HEOL 6/42	42	1795	1435	75	1660	260	353	40	575
HEOL 6/48	48	1995	1635	75	1860	260	353	40	575
HEOL 9/54	54	1595	1235	75	1460	300	416	40	628
HEOL 9/63	63	1795	1435	75	1660	300	416	40	628
HEOL 9/72	72	1995	1635	75	1860	300	416	40	628
HEOL 9/81	81	2195	1835	75	2060	300	416	40	628

\*Also available in flameproof construction and certified to ATEX/IECEX, CSA, CU TR (EAC), Inmetro, CNEC, CCOE & KGS

<b>Construction</b>	Weatherproof protection to IP66
<b>Element</b>	Removable ceramic core type housed in mild steel or 316 stainless steel, or cartridge type housed in 316 stainless steel
<b>Working Pressure</b>	Up to 10 barg/145 psig, subject to design parameters
<b>Design Code</b>	Sound Engineering Practice (SEP)
<b>Vessel</b>	Mild steel or 316 stainless steel
<b>Insulation</b>	Mineral wool
<b>Cladding</b>	Stucco aluminium
<b>Voltage</b>	Standard supplies up to 690V, subject to design parameters
<b>Rating</b>	Up to 120kW (subject to application)

# FP-MLH FLAMEPROOF MINI LINE HEATERS

The range of flameproof mini line heaters consist of a screw plug or flanged type immersion heater mounted in a thermally insulated heating vessel, and is designed to efficiently transfer heat to a flowing medium (liquid, air or gas). The FP-MLH range is certified for use in hazardous areas where the atmosphere is classified as a Zone 1 or 2 (IIA, IIB, IIC) gas group.



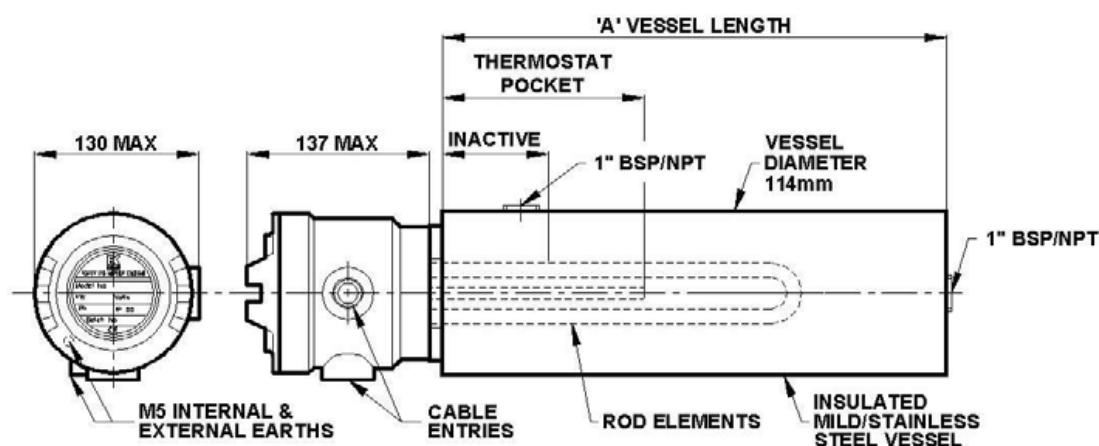
## FEATURES

- Weatherproof protected to IP66 or NEMA 4 (FP4-MLH only)
- Choice of built in process temperature sensors and externally adjustable option
- Mild steel or 316 stainless steel vessel
- Suitable for ambient temperatures from -40°C to +40°C (FP-MLH) and -60°C to +60°C (FP4-MLH)
- Standard range of high quality Incoloy or stainless steel rod-type elements, designed for water or withdrawable ceramic core elements, designed for oil
- Maximum allowable working pressure up to 10 barg/145 psig, subject to design parameters
- Designed for both horizontal and vertical installation (if mounted vertically, terminal box must be located at the bottom)
- FP4-MLH range available with multi approvals

## TYPICAL APPLICATIONS

- Frost protection: Pre-start systems for water cooled engines, fire extinguishing equipment, oil sump heating
- Fuel oil heating: Pre-heating to pumping viscosity
- Heat transfer oils: Moulds, dies and platens, closed loop systems for bitumen, etc
- Water heating: Wash rooms, industrial washing equipment, hot water storage tanks






Model	Loading (kW)	Dimension A (mm)	BSP/NPT
WATER			
Short Body			
FP-MLH1S	1	475	1"
FP-MLH2S	2	475	1"
FP-MLH3S	3	475	1"
Long Body			
FP-MLH3L	3	925	1"
FP-MLH6L	6	925	1"
FP-MLH9L	9	925	1"
FP-MLH12L	12	925	1"
OIL			
Long Body			
FP-MLHX1	1	925	1"
FP-MLHX2	2	925	1"
FP-MLHX3	3	925	1"

Note 1½" BSP Connections available on request

## Certification

**ATEX**  II 2 G

Ex d IIC T4 to T6 Gb Zone 1 and 2

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

**CU TR (EAC)**

FP4-MLH also certified to:

**ATEX/IECEx, CSA, Inmetro, CNEC, CCOE & KGS**

## Enclosure

Cast aluminium alloy with a maximum of one M20 and one M25 cable entry, external and internal earths and screwed terminal cover (FP4-MLH - mild steel or 316 stainless steel)

## Elements

High quality nickel chrome resistance wire compacted in magnesium oxide insulating powder and sheathed in corrosion resistant Incoloy 825/800, 316L stainless steel, withdrawable ceramic core elements housed in mild steel or 316L stainless steel tube

## Pressure

Maximum allowable working pressure up to 10 barg/145 psig subject to design parameters

## Design Code

Sound Engineering Practice (SEP)

## Vessel

Mild steel or stainless steel

## Insulation

Mineral wool

## Cladding

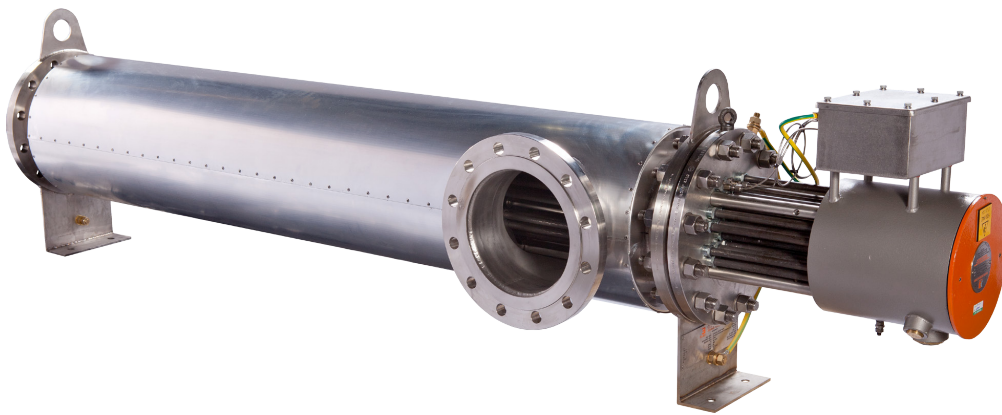
Coated mild steel or 304 stainless steel

## Voltage

Standard units are normally designed for 220V to 254V (1 phase) or 380 to 440V (3 phase)

# EX D FLAMEPROOF LINE HEATERS

The range of Ex d flameproof line heaters are suitable for heating all process fluids which are non-corrosive to the materials of construction, providing a clean and efficient heating method for bulk liquid flow applications. The Ex d flameproof line heater range is certified for use in hazardous areas where the atmosphere is classified as a Zone 1 or 2 (IIA, IIB, IIC) gas group, or a Zone 21 or 22 (IIIA, IIIB, IIIC) dust group.




## FEATURES

- Thermal insulation and cladding
- Weatherproof terminal enclosure to IP66
- Internal control thermostats and over-temperature thermostat
- Alternative materials of construction available
- Designed for horizontal installation (vertical mounting version available on request)

## TYPICAL APPLICATIONS

- Engine jacket pre-heating
- Fuel oil
- Heat transfer oils
- Indirect heating of liquids
- Industrial washing and rinsing processes
- Lube oil pre-heating
- Temperature maintenance of storage tanks
- Tempering of low grade residual oils for burners and engines
- Under floor heating schemes

<b>Certification</b>	<b>ATEX/IECEX</b>  II 2 G/D Ex d IIC T1 to T6 Gb Zone 1 and 2 <b>ATEX/IECEX</b> Ex tb IIIC T450°C to T85°C Db Zone 21 and 22 (IP66) <b>CU TR (EAC), CNEx, CCOE (CCEs), Inmetro &amp; KGS</b> <b>CSA (CEC/NEC)</b> Class I, Div 1, Groups A, B, C, D; T1 to T6, Enclosure Type/NEMA 4 or 4X <b>CSA (CEC)</b> Ex d IIC; T1 to T6 Gb, IP66 (Canada) <b>CSA (NEC)</b> Class I, Zone 1, AEx d IIC; T1 to T6 Gb, IP66 (USA)
<b>Elements</b>	Incoloy 825 or 316L stainless steel sheathed rod-type or removable ceramic core type housed in mild steel or 316L stainless steel
<b>Vessel</b>	Mild steel or 316L stainless steel sheath
<b>Cladding</b>	Stucco aluminium
<b>Voltage</b>	Standard supplies up to 690V (600V CSA)
<b>Construction</b>	Flameproof protection to IP66
<b>Working Pressure</b>	Up to 10 barg/145 psig, subject to design parameters
<b>Design Code</b>	Sound Engineering Practice (SEP)
<b>Rating</b>	Up to 120kW (subject to application)



**ELVARME**

## VORES PRODUKTSORTIMENT INKLUDERER:



**ELPATRONER**



**BADVARMERE**



**GENNEMSTRØM STANDARD**



**FLANGEVARMELEGEMER KUNDEDES.**



**GENNEMSTRØM KUNDEDESIGN**



**ATEX**

## VI FØRER PRODUKTER INDENFOR KATEGORIERNE:



**AUTOMATIK**



**HVAC & BYGNINGS-  
AUTOMATIK**



**KØLEPROFILER**

**NEWTRONIC**

Ove Jensens Alle 35 F  
DK-8700 Horsens  
Denmark  
[www.newtronic.eu](http://www.newtronic.eu)  
[www.newtronic.dk](http://www.newtronic.dk)  
+45 7669 7090