

## Ex d Flameproof Line Heaters

**THORNE &  
DERRICK**  
INTERNATIONAL**Thorne & Derrick**  
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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)

