## Design Questionnaire For Electrically Trace Heated Hose

Please complete the following questionnaire as accurately and as fully as possible.

### HOSE SPECIFICATION

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hose Type:</td>
<td></td>
</tr>
<tr>
<td>Nominal Bore:</td>
<td></td>
</tr>
<tr>
<td>Hose Length:</td>
<td></td>
</tr>
<tr>
<td>End Fitting One:</td>
<td></td>
</tr>
<tr>
<td>End Fitting Two:</td>
<td></td>
</tr>
</tbody>
</table>

### WORKING CONDITIONS

<table>
<thead>
<tr>
<th>Condition</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Working Pressure:</td>
<td>- Bar</td>
</tr>
<tr>
<td>Vacuum Requirements:</td>
<td>- mBar</td>
</tr>
<tr>
<td>Minimum bend radius required</td>
<td></td>
</tr>
<tr>
<td>Fluid to be transferred:</td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature:</td>
<td>- °C Min.- °C Max.</td>
</tr>
<tr>
<td>Location</td>
<td>Indoors [ ] Outdoors [ ]</td>
</tr>
</tbody>
</table>

Will the hose be subject to external Corrosion from Chemicals or Water etc? [YES] [NO]
If Yes please describe: -

Will the hose be subject to Abrasion or Mechanical abuse? [YES] [NO]
Will the hose be supported or hanging from End Fittings? [YES] [NO]
Are there any maintenance requirements? (Eg. Steam Cleaning) [YES] [NO]
If Yes please describe: -

Brief description of the exact duty of the hose: - (E.g. Tanker Off Loading)

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The World’s Leading Manufacturer of PTFE Flexible Hose.

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Sowerby Bridge, Halifax, West Yorkshire, HX6 3BW
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Email: Sales@aflex-hose.co.uk Website: www.aflex-hose.co.uk
HEATING REQUIREMENTS

Temperature of product entering hose _________°C Min. _________ °C Max
Temperature of product exiting hose _________°C Min. _________ °C Max
Temperature to be maintained: ____________°C Min. ____________ °C Max.

Supply Voltage: - 220-240v □ 110-120v □ Specify if other: ______________
Self Regulating □ Series Resistance □
Up to 150°C □ Not available for hazardous applications □
Must be used with thermostatic control

Which end of the hose is to have the Electrical Connection? __________________________
What is the required length of the external heater leads? ____________________________(M)

Is a melt out facility required? □ YES □ NO
(only available up to 120°C)
If Yes please provide the following information:
Melt Out Time ____________________(Hours) Flow Rate _____________________(M/Min)
Specific Weight of Media ____________(KG/M³)
Specific Heat of Media ______________(KJ/KG/°C)
Specific Heat of Fusion ______________(KJ/KG/°C)

AREA REQUIREMENTS

Has the area in which the hose is to be used been given a Hazardous Classification by the
following bodies: - □ YES □ NO
If No please proceed to the “Control Requirement” Section.
If Yes please tick the relevant box below:

<table>
<thead>
<tr>
<th></th>
<th>Ex</th>
<th>Ex</th>
<th>UL</th>
<th>Ex</th>
<th>SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTB</td>
<td>Cenelec</td>
<td>Community Mark</td>
<td>Underwriters Laboratory</td>
<td>BASEEFA</td>
<td>Canadian Standard Association</td>
</tr>
</tbody>
</table>

Please state which zone, temperature classification and gas group is pertinent: -
Zone 0 □ In which an explosive Gas/Air mixture is continuously present for long period.
Zone 1 □ In which an explosive Gas/Air mixture is likely to occur in normal operation.
Zone 2 □ In which an explosive Gas/Air mixture is not likely to occur in normal operation.

Please state the temperature classification:
T1 – 450°C □ T2 – 300°C □ T3 – 200°C □ T4 – 135°C □ T5 – 100°C □ T6 – 85°C □
**Area Requirements (continued)**

Are there any unusual external conditions that could create a Potentially Explosive Atmosphere or fire risk due to an ignition source being present. For example, airborne dust or flammable vapours. Please state: -

**Area Requirements – (continued)**

Please state the gas grouping: - (further gases may be identified in Table 7 BS 5345:Part 1)

<table>
<thead>
<tr>
<th>Gas Group</th>
<th>Representative Gas</th>
<th>T-Class</th>
<th>Ignition Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Methane</td>
<td>T1</td>
<td>595°C</td>
</tr>
<tr>
<td>IIA</td>
<td>Propane</td>
<td>T1</td>
<td>470°C</td>
</tr>
<tr>
<td>IIB</td>
<td>Ethylene</td>
<td>T2</td>
<td>425°C</td>
</tr>
<tr>
<td>IIC</td>
<td>Hydrogen</td>
<td>T1</td>
<td>560°C</td>
</tr>
</tbody>
</table>

**CONTROL REQUIREMENTS**

**NOTES: -**

When using a series or constant wattage heater, a temperature sensor is always required, in conjunction with a temperature controller. It may also be necessary to use sensors and controllers with self-regulating heaters when very tight temperature limits are required. *(Aflex will advise of this if applicable).*

If Hazardous Area conditions it is possible to supply Special Hazardous Area Controllers for use with certain types of heaters. However, it is preferable that Standard Controllers be placed outside the Hazardous Area, in a Non-Hazardous location if possible. The Hazardous Area Controllers are supplied with PT100 (RTD) temperature sensors connected to the hose via flexible conduit lengths of up to 1.5 metres are available for this type of controller.

*Please indicate which type of sensor is required (if any): -*

PT100 [ ] K Type [ ] J Type [ ] Specify Other ____________________________

Is a Temperature Controller required? [ ] YES [ ] NO

Please give any further relevant information:

QUESTIONNAIRE COMPLETED BY: - ___________________________ DATE: - __________
POSITION: - _________________________________________________