

## Project Planning Information for Vessels Electric Trace Heating Systems

Company	Web site
Street	Contact person
Post code/Town	E-mail
Country	Phone

### Application of Electrical Trace Heating System

Frost protection	<input type="checkbox"/>
Temperature maintenance	<input type="checkbox"/>
Heating up and temperature maintenance	<input type="checkbox"/>

### Vessel properties (please attach drawings)

Body	<input type="checkbox"/> cylindrical	<input type="checkbox"/> rectangular	
Type	<input type="checkbox"/> horizontal	<input type="checkbox"/> vertical	
Bottom (for vertical vessel)	<input type="checkbox"/> Flat	<input type="checkbox"/> Dome	
Top (for vertical vessel)	<input type="checkbox"/> Flat	<input type="checkbox"/> Dome	
Sides (for horizontal vessel)	<input type="checkbox"/> Flat	<input type="checkbox"/> Dome	
For vertical vessel	Height	m $\emptyset$ m	
For horizontal vessel	Length	m $\emptyset$ m	
For rectangular vessel (H x W x L)		x    x    m	
Supports	<input type="checkbox"/> Feet	<input type="checkbox"/> Slab	<input type="checkbox"/> Saddle
Number of supports		pcs.	
Specific heat of the vessel material		J/(kg·K)	
Wall thickness*		mm	
Density of the vessel material*		kg/m <sup>3</sup>	
Location	<input type="checkbox"/> indoor	<input type="checkbox"/> outdoor	

### Thermal insulation information

Material	
Thickness	mm
Thermal conductivity	W/(m·K) at mean temperature    °C
Density*	kg/m <sup>3</sup>
Specific heat*	J/(kg·K)
Upper limit temperature of thermal insulation material	°C

\*required for temperature raise

### Product information

Medium	
Density*	kg/m <sup>3</sup>
Specific heat*	J/(kg·K)
Phase change temperature* (if undergo)	°C
Latent heat of fusion*	J/kg

### Process data

Initial temperature*	°C
Final temperature*	°C
Required heat up period*	h
Maintain temperature	°C
Max. allowed temperature of the product	°C
Min. ambient temperature	°C
Max. ambient temperature	°C
Startup temperature	°C

### Temperature limitations

Max. operating vessel temperature (continuously, trace heater energized)	°C
Max. exposure heater temperature (intermittently, trace heater de-energized)	°C

### Electrical data, area classification, approvals/certifications

Supply voltage	V AC	Frequency	50 Hz <input type="checkbox"/>	60 Hz <input type="checkbox"/>
Installation in potentially explosive atmospheres	Yes <input type="checkbox"/>	No <input type="checkbox"/>		
Temperature class				
ATEX <input type="checkbox"/>	IECEX <input type="checkbox"/>	CSA <input type="checkbox"/>	EAC <input type="checkbox"/>	
INMETRO <input type="checkbox"/>	KOSHA <input type="checkbox"/>			