Aholanmäentie 88, 49630
Vehkajoki, Hamina, Finland
Phone: +358-53-57-71-00
Site: www.cooltech.fi • E-mail: info@cooltech.fi

COOLTECH FINLAND OY
INDUSTRIAL REFRIGERATION MACHINERY

Required information for selection of shell and tube / plate heat exchanger

Name: _____

Position: _____

Company: _____

Address: _____

E-mail: _____

Phone number: _____

	Dimension	Hot fluid	Cold fluid
Fluid name	-		
Exchanger duty[1]	kW		
Mass flow rate (min/max)[1]	kg / hr		
Inlet temperature[2]	°C		
Outlet temperature[2]	°C		
Allowed pressure drop	kPa		
Inlet pressure	MPa (gauge)		
Design inlet pressure	MPa (gauge)		
Fouling resistance	m^2K/W		
Specific heat capacity	J/kg-K		
Density	kg/m^3		
Thermal conductivity	W/m-K		
Dynamic viscosity	Pa·s		

[1] – either the exchanger duty or mass flow rate of one of the fluid is specified

[2] – the input and output temperature of one of the fluid is specified, and, if necessary, the input/output temperature of the second fluid

1. The hot stream is located on the
   (only for shell and tube exchanges is specified):
   ☐ tubeside
   ☐ shellside
2. Тип теплообменника:
   ☐ Heater
   ☐ Cooler
   ☐ Recuperator
   ☐ Evaporator
   ☐ Condenser
3. The presence of hydrogen sulfide medium
   ☐ yes
   ☐ no

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4. Corrosion activity of hot/cold fluid
   ☐ yes
   ☐ no

5. Is access to the inner surface of the tubes/shell required for mechanical cleaning? (only for shell and tube exchanges is specified)
   ☐ yes
   ☐ no

6. Required number of heat exchanger_____pcs.

7. Is the thermal insulation required?
   ☐ yes
   ☐ no

8. Hot/cold fluid composition (mass or mole fractions), %

   (specified for multicomponent fluids, if known)

Name of component	Fraction

Example of fluid composition (mass fractions, %):

Carbon dioxide	0,9
Water	82,1
Ethanol	16,94
Isopropanol	0,0085
Methanol	0,0073
Diacetyl	0,0051
Propanol	0,0082
Acetone	0,0083
Acrolein	0,0047
Acetic acid	0,0089
Formic acid	0,009

9. Other requirements _____

_____

_____