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COOLTECH FINLAND OY
INDUSTRIAL REFRIGERATION MACHINERY

Required information for selection of shell and tube gas cooler COOLTECH

Name: _____

Position: _____

Company: _____

Address: _____

E-mail: _____

Phone number: _____

1. Name of cooled gas
   - ☐ associated petroleum gas
   - ☐ mixture of hydrocarbons
   - ☐ other _____

2. Preferred refrigerant
   - ☐ R717 (ammonia)
   - ☐ R290 (propane)
   - ☐ R22
   - ☐ R507a
   - ☐ R404a
   - ☐ R134a
   - ☐ Other _____

3. Mass flow rate _____(kg/hr) or cooling capacity_____kW.

4. Inlet pressure _____MPa (gauge).

5. Design inlet pressure (if there is an estimate) _____MPa.

6. Expected gas pressure drop through the evaporator _____kPa.

7. Gas inlet/outlet temperature_____/_____°C.

8. Fouling resistance (if there is an estimate)_____m^2K/W.

9. Required number of evaporators_____ pcs.

10. Is thermal insulation required?
    - ☐ yes
    - ☐ no

11. Other requirements _____

_____

12. Gas composition (mass or mole fractions), %

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№	Name of component	Fraction
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Example of gas composition (mass fractions)

1	Nitrogen	0,14086
2	CO2	0,000539
3	Methane	0,103464
4	Ethane	0,23899
5	Propane	0,26153
6	i-Butane	0,033826
7	n-Butane	0,053152
8	i-Pentane	0,0088
9	n-Pentane	0,008253
10	n-Hexane	0,000839
11	Mcyclopentan	0,0004578
12	Benzene	2,89E-05
13	Cyclohexane	0,0001168
14	n-Heptane	0,000367
15	Mcyclohexane	3,44E-05
16	Toluene	4,92E-06
17	n-Octane	4,30E-06
18	H2O	0,016
19	EGlycol	0,13273
20	Oxygen	0