Design Data for Shell and Tube Heat Exchangers or Air Coolers

The following listing describes which data is required for the calculation of a shell and tube heat exchanger or an air cooler as a service. The data are basis of our best price quotation.

Design

>>>At least one of the following values is calculated and is therefore not required as input value.

- Tube side and shell side medium (incl. physical properties for extraordinary media)
- Mass flow (shell side and tube side)
- Demanded inlet and outlet temperatures
- Performance / Capacity
- Is there a phase change of the media (Evaporation/Condensation)?
  If yes: Installation position (vertical up/down or horizontal)?
- Inlet pressure (shell side / tube side)
- Fouling factors
- Diameter of nozzles, if given.

The following data is optional:

- Maximum geomatrical dimensions of the exchanger
- Maximum pressure drop
- Maximum fan performance (air coolers)
- Preferred length, diameter, wall thickness of tubes
- Heat exchanger material (e.g for corrosive media)
- Finned tubes?
  If yes: Are there any limitations regarding shape, material, fin pitch, height or thickness?
- Any further special demands like easy cleaning possibility (Pharmaceutical industry and food processing), Accesibility of nozzles from one side only, Fouling tendency of media, etc.
- Floating head?

Rating

- Complete geometrical data (e.g. drawing) and used materials
- Known process engineering data
  (Mass flows, temperatures, pressures)