

**Questionnaire**

**Evaporation Technology**

**General information**

Project title / Keyword: .....

Company: .....

Department: .....

Address: .....

Contact person: .....

Phone: .....

Email: .....

Date: .....

Motivation of the project: .....

.....

Project status and schedule: .....

.....

Installation site: .....

Quotation request:  Feasibility  Budget  Detailed Offer

Thin Film Evaporator

Thin Film Evaporator and further components

### **Feed**

Name of product: .....

Concentration of highboilers .....in wt.%, concentration of lowboilers .....in wt.%

For multi-component mixtures indicate composition on the chart „Physical data“ (see page 5)

It is a  solution  emulsion  suspension

Does any precipitation occur during the evaporation process?  yes  no

Does the product foam?  yes  no

Does the product form deposits on the heating surface?  yes  no

At what temperature is the product available? ..... °C

What is the valuable product?  the distillate  the concentrate

### **Distillate**

Required yield (with regard to the lowboilers) ..... wt.-%

Allowable residual content of highboilers ..... wt.-%

For multi-component mixtures indicate composition on the chart „Physical data“ (see page 5).

### **Bottom product**

Required concentration of highboilers ..... wt.-%

Allowable residual content of lowboilers ..... wt.-%

For multi-component mixtures indicate composition on the chart „Physical data“ (see page 5).

Property of bottom product

pure liquid  slurry

Is a maximum temperature of the bottom product to be considered? ..... °C

### **Operating conditions of the planned installation**

Throughput quantity:

Feed ..... kg/h, distillate ..... kg/h, bottom product ..... kg/h

Operating hours per day .....

Proposed process product operating pressure:

Vacuum ..... mbar Overpressure ..... barg

How should the vacuum be generated? (steam ejector-, water ring-, dry running vacuum pump, etc.) .....

**Available utilities**

Steam: Pressure .....barg Temperature .....°C  
 Heat transfer oil: Type ..... Supply temperature .....°C  
 Hot water: Supply temperature .....°C  
 Cooling water: max. supply temperature .....°C  
 Chilled medium: Type ..... max. supply temperature .....°C  
 Electricity: Voltage.....V Frequency.....Hz

**Further information**

Standard construction material of our evaporators is stainless steel DIN 1.4404 (316L) for product wetted parts.

Does this meet your requirements?  yes  no

If not, which material is recommended? .....

Which materials are suitable for seals/gaskets? .....

What space is available for the erection of the installation?

Length (m) .....Width (m) .....Height (m) .....

Is there any information about the process available? (existing plants / trials / process simulations) .....

.....  
 .....

Special remarks .....

Composition						
Component	Name	Formula	wt.-%	Feed	Distillate	Bottom product
A						
B						
C						
D						
E						

Component properties										
		Unit	Feed	Distillate	Bottom product	Component				
						A	B	C	D	E
Molecular weight		kg/ kmol								
Specific weight		kg/ m <sup>3</sup>								
Specific heat		kJ/ kg.K								
Heat conductivity		W/ m.K								
Viscosity	..... °C	mPas								
	..... °C	mPas								
	..... °C	mPas								
Boiling temperature	1013 mbar	°C								
	500 mbar	°C								
	100 mbar	°C								
	10 mbar	°C								
	1 mbar	°C								
Melting point		°C								
Evaporation heat	t .....°C	kJ/kg								

Is the product

non-dangerous     toxic     caustic     inflammable     explosive?

Flash point ..... °C

Ignition temperature ..... °C

Ex-Protection and zone specification.....

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