Questionnaire for preliminary projection with reference to

Request for quotation for a Wiped Film or Short Path Distillation Unit, dated: .................

Please, complete the questionnaire as far as possible

Company: ...........................................

Address: ...........................................

Responsibility: ....................................

Tel. No. with extension: ...........................

Fax-No.: ...........................................

Project title/Product: .................................................................

1) General Data:

1.1) Quotation for: □ components □ complete unit

1.2) Is vacuum required for the distillation? □ no □ yes

1.3) Are solids in the feed? □ no □ yes, particle size: ......... µm

1.4) Do you have experience in distilling the product? □ no □ yes

   - If “yes”, which kind of experience? ...................................................
   - Have you already made preliminary tests on Wiped Film or Short Path Evaporators?
   - Which ones? .............................................................................
   - Which process was used up to now? .............................................
   - Is the substance foaming? ............................................................
   - Additional important information: ...............................................

2) Information to the projected unit (please, answer as far as available):

2.1) Feed quantity: ......................... kg/hr or ...................... l/h

2.2) Density of the feed: .............................................................. kg/m³

2.3) Temperature of the feed product in initial state: ...................... °C

2.4) Melting point of feed: ........................................................... °C

2.5) Viscosity of the feed: ........................................................... mPa·s

2.6) Specific heat capacity of the feed: ........................................... kJ/kg·K

2.7) Maximum allowable temperature of the product: ...................... °C

2.8) Melting point of the distillate: ................................................ °C

2.9) Melting point of the residue: ................................................... °C
2.10) Viscosity of the residue: ........................................ mPas
2.11) Vapour pressure of the distillate: .............. mbar at ................°C
2.12) Is a vapour pressure diagram of the distillate available? If “yes”, please attach.
2.13) Required fabrication material for product wetted parts (e.g. 1.4571): ....................
2.14) Required material for gaskets (e.g. FKM / Viton): ...........................................
2.15) Available space on-site: length: .............m, width: .............m, height: ....... m
2.16) Time of operation: .......................... hr/d, .................. hr/a
2.17) Is explosion proof design required? □ no □ yes
   If “yes”, classification according to code 94/9/EG (e.g. ATEX II2G IIB T2): .................
2.18) Which components should be offered for the requested unit (tick where applicable)?
   - Evaporator X
   - Feed and discharge pumps □
   - Vacuum pumps □
   - Buffer vessels □
   - Required heat exchangers □
   - Cooling and heating units □
   - Product piping □
   - Vacuum piping □
   - Utility piping □
   - Measuring instruments □
   - Switch cabinet with manual control elements (= MCE) □
   - Switch cabinet with MCE, programmable logic control (= PLC) □
   - Switch cabinet with PLC, PC SCADA system (visualization) □
   - Others: □

3) Available utilities on-site:
   □ Steam: .................. barg, □ saturated □ overheated
   □ Thermal oil: .................. °C, supply pressure: ........ barg
   □ Hot water: .................. °C, supply pressure: ........ barg
   □ Cooling water  .................. °C, supply pressure: ........ barg
   □ Refrigerant .................. °C, supply pressure: ........ barg

4) Available electrical supply on-site:
   Power grid: Quantity of phases: ......., loadable neutral wire: □ no □ yes
   Voltage: .................. V, Frequency: .................. Hz

5) In which state is the project, when will it be realized? ........................................
<table>
<thead>
<tr>
<th>composition</th>
<th>unit</th>
<th>feed material</th>
<th>distillate 1</th>
<th>distillate 2 (for the design of a double stage unit, if required)</th>
<th>residue</th>
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<tbody>
<tr>
<td>name of components</td>
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<tr>
<td>substance A</td>
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<td>°C, at ........mbar</td>
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<td>melting point</td>
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<td>viscosity at reference temperature</td>
<td>m Pa·s (cP), at ....°C</td>
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