



## Questionnaire for design of Vacuum/Pressure Equipment

Company \_\_\_\_\_ Contact person name \_\_\_\_\_

Address \_\_\_\_\_

Tel. \_\_\_\_\_ Fax \_\_\_\_\_ E-mail \_\_\_\_\_

Unit/Item tag No: \_\_\_\_\_

### 1. Scope of work

- Installation with grassroots unit
- Replacing the existing vacuum system
- Installation of conveying equipment.

### 2. Type of vacuum equipment

- Water/Liquid ring vacuum pump (name seal liquid and its properties if not water)
- Oil sealed vacuum pump
- Dry Screw vacuum pump
- Steam jet ejector vacuum system,  Water jet ejector system
- Hybrid steam jet + water/ liquid ring vacuum pump
- Mechanical booster system

### 3. Type of pressure equipment

- Twin lobe roots blower
- Watering blower

### 4. Brief description of process. (Pl. attach sketch)

\_\_\_\_\_

\_\_\_\_\_.

5. Estimated system volume- \_\_\_\_\_ m<sup>3</sup> required evacuation time- \_\_\_\_\_ minutes.

6. The load data for vacuum system (only for vacuum)

Suction pressure, - at the suction of vacuum equipment - Precondenser inlet (If existing)		Mbar/ mm Hg abs. Mbar/ mm Hg abs.
Suction Temperature		°C
Suction flow: Consisting of		
- Non-condensables (not air) **		kg/hr
- Condensable **		kg/hr
- Air		kg/hr
Molecular weights :		
- Non condensables		kmol/kg
- condensable vapours		kmol/kg
Discharge Pressure, abs		kg/cm <sup>2</sup> abs

6. Parameters of utilities:

6.1 For motive steam: Minimum pressure \_\_\_\_\_ bar, Temperature \_\_\_\_\_ °C

6.2 For cooling agent: Maximum initial/ final temperature of cooling water - \_\_\_/\_\_\_ °C

6.3 Costs for utilities: Motive steam \_\_\_\_\_ Rs. /Ton

Cooling water \_\_\_\_\_ Rs. / m<sup>3</sup>/hr

Electric energy \_\_\_\_\_ Rs. /kWh

7. Material of construction required for various system components:

8. Barometric pressure:

9. The operating conditions of vacuum system: Outer  or internal  installation

\*\* please provide names, weight % composition, molecular weight, Sp. Heat and vapor pressure chart for each vapor.

10. P.H Level:----- ph.

(Please, mark the chosen for answer items  by the cross)