

ANNEXURE - 4
(Technical Data regarding selection of Agitator)
(for ETP SLUDGE TRANSFER tank)

General :

- 1) Purpose of agitation : To suspend solids
- 2) Degree of agitation : Medium
Too much agitation will cause : generation of fines
Too little agitation will cause : settling
Preferred degree of agitation : Medium
Foaming tendency : None

Operating Conditions:

- 1) Location : Outdoor
- 2) Operation Schedule : Continuous
- 3) Process feed components : suspended solids
- 4) Type of solids : soft in nature
- 5) % Solids (w/w) : 40-50 %
- 6) Solid Density (T/m³) : 1.45
- 7) Particle size (μ/mm) : 100% -325 mesh
- 8) Solution density (T/m³) : Water (1gm/cc)
- 9) Working Temp. (° C) : ambient (40 – 50) ° C
- 10) Working Pressure (bar/ Kg per cm²) : nil
- 11) pH : 9-10

Vessel Details :

- 1) Tank Dimension: diameter x height (mm x mm) : 3700mm X 2370mm
- 2) Tank Top : closed
- 3) Tank Bottom : Flat
- 4) Liquid level (mm) : 2120mm
- 5) Free board (mm) : level varies from 200mm to 1120mm
- 6) Baffle details : 370mm X 1470mm, 3 NOS.
- 7) Agitator mounting : Channel
- 8) M.O.C. of tank : MSRL

Agitator Type Preferred :

- 1) Top entry with Pedestal / Lantern Stool with suitable bearings and Stuffing Box
- 2) MOC of wetted parts : MSRL, Soft lined and Spark tested
- 3) Power transmission between Motor and Gearbox : Belt and Pulley drive
- 4) Power transmission between Gear box and Lantern Stool : Pin Bush Coupling
- 5) Power transmission between Lantern Stool and Agitator Shaft : Rigid Coupling
- 6)

Note :

Motor : 3 Ø, 440 volt, foot mounted, only Crompton Greaves/ABB/Kirloskar/Siemens make

Gear Box : Only Heavy Duty Worm type Reducer Premium Energy Transmission Ltd./Radicon make of Service Factor 2 (minimum)

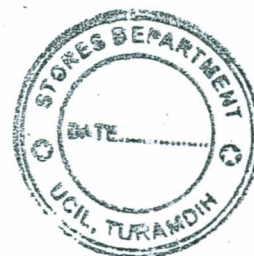
Coupling : Only Fenner/SKF make preferred

Bearings (Gear Box/Pedestal) : Only SKF/FAG make preferred

Party shall submit GA Drawings, Gear Box details (make, model, ratio, service factor), Motor detail (make, rpm, frame size, mounting type), make of pulley, coupling, v belt & bearings and agitator output rpm.

Party shall provide the Certificate of Radiography and Ultrasonic Stress Testing for Shaft and Dynamic Balancing for Impeller.

Party shall submit Material TC of wetted material from any Govt. recognized lab at the time of dispatch



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