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Annexure-I

<u>ITEM NO.2</u>	:	Filtrate pump for primary drum filter with motor, base, tyre (mech. seal, coupling) - 2 sets
Duty	:	Horizontal centrifugal pump to pump acidic uranium liquor Containing 0.25 % free sulphuric acid & 500 ppm. Of slimes from filtrate receiver of rotary vacuum drum filter to storage tank.
Capacity	:	35 m <sup>3</sup> /hr.
T.D.H.	:	35 mtr.
Suction	:	3" O.S.S. line from filtrate receivers of Rotary vacuum Drum Filter operating at 650 mm. Of Hg. The Receiver is situated at an elevation of 10' above the suction line of the pump.
NPSH Available	:	1.5 mtr.
Delivery	:	Open to tank.
PH	:	1.5 to 2.0
Temperature	:	Ambient
Specific Gravity	:	1.05
Viscosity	:	0.85 cp.
M.O.C.	:	Alloy-20 for all wetted parts. Shaft should be SS-316.
Impeller	:	Semi open or open.
Gland Arrangement	:	Gland packed with external sealing water discharging out of the pump.
Pump Speed	:	1440 RPM.
MOC of Motor	:	Siemens/Bharat Bijlee/ Kirloskar Motors/ABB
Important Note	:	As the pump's suction is from filter operating under vacuum at times liquor is emptied out due to less flow of liquor bringing the pump under vacuum. Apart from this the inflow liquor contains entrained air bubble also. So the pump may be provided with vacuum equalizer connection or any other suitable arrangement to take care of air locking due to the above facts.

The offer must be submitted in the given format

Pump model & type offered	-	
Speed of the pump	-	
Suction & discharge (mm)		
Type of drive (V belt or direct coupled)	-	
Type & make of coupling	-	
Capacity offered (m <sup>3</sup> /hr)	-	
Head Offered (m)	-	
NPSH required	-	
BKW required	-	
Motor offered make & rating	-	
Impeller type & diameter offered	-	
Full size of impeller offered	-	
Drive end bearing No.	-	
Non drive end bearing No.	-	
Shaft diameter at impeller end	-	
Distance between NDE bearing and impeller	-	
Distance between bearings (NDE & DE)	-	
Weight of bare pump (Kgs.)	-	
Weight of structural base (Kgs.)	-	
Weight of motor (Kgs.)	-	
Type of lubrication offered	-	
Material of construction of		
a) Casing	-	
b) Impeller	-	
c) shaft	-	
d) shaft sleeve	-	
Gland sealing arrangement / mechanical seal	-	
Pressure & flow of gland sealing water required	-	
Efficiency of pump		

Pump flange shall be drilled as per BS Table 10 D

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The offer must contain the following details.

1. Material of construction of parts.
2. Weight of pump, structure & base separately.
3. Detail constructional drawing / sectional drawing of pump with details of bearing fitted along with leaflets.
4. G.A. drawing of pump & motor with dimensions.
5. Dimension of pump base and associated structure.
6. Characteristics curve containing impeller size, type of impeller, head, efficiency, power, NPSH ® etc.
7. All the pumps should be supplied with heavy duty bearing for continuous service.
8. Coupling should be of tyre coupling type only of UNIQUE MAKE. Base should be structurally fabricated. Cast base is not acceptable.
9. Bifurcation of price of pump, motor, base & accessories must be given because order may be placed for full set or part thereof. Taxes, duties, P&F charges should be mentioned clearly.
10. Offer must contain details of guarantee period of performance of pump. Bank guarantee of amount equivalent to 5% of the value of the order valid for performance guarantee period will have to be submitted before the release of full payment.

Offer without the aforesaid details will be rejected outrightly and no further communication will be entertained.

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