

DATASHEET-A(To be confirmed by Bidder)			
SERVICE WATER BOOSTER PUMP			
S.NO	DESCRIPTION	SERVICE WATER BOOSTER PUMP	SERVICE WATER BOOSTER PUMP
1.0	SERVICE		
1.1	Project	Neyveli New 2x500MW project	Neyveli New 2x500MW project
1.2	Total no. of pumps for project	3 Nos. (Common for both units)	2 Nos. (Common for both units)
1.3	No. of working & Standby pumps	2W + 1S	2W
1.4	Liquid handled	Service water	Service water
1.5	Location(Indoor/Outdoor)	Outdoor	Outdoor
1.6	Duty	Continous	Intermittent
1.7	No. of pumps working in parallel	2	2
1.8	Specific gravity	1	1
1.9	System design pressure(kg/sqcm),g	10	12
2.0	DESIGN PARAMETERS		
2.1	Design capacity each, cum/hr	20 cum/hr	276 cum/hr
2.2	Total head(MWC)	80 MWC	90 MWC
2.3	Suction pressure(MWC)	40 MWC	40 MWC
2.4	Design temperature(deg C)	60	60
2.5	Suction pipe size ODxTHK in mm	OD88.9x5.49mm	OD273.1x6.0mm
2.6	Discharge pipe size ODxTHK in mm	OD88.9x5.49mm	OD273.1x6.0mm
2.7	End connection at both suction and discharge	Flanged as per ANSI B16.5	Flanged as per ANSI B16.5
2.8	Flanged Eccentric reducer/expander at both suction and discharge sides as applicable	Vendor to match the pump terminals with the connecting pipe sizes as indicated above.	Vendor to match the pump terminals with the connecting pipe sizes as indicated above.
2.9	Counter flanges along with fixing nut, bolts & gaskets as applicable.	Pump vendor scope	Pump vendor scope
2.10	Max. limit on shut off head corresponding to pump TDH(MWC) at 51.5 Hz	Not to exceed 90MWC	
2.11	Operating range	30-130% of design duty point flow	
2.12	Permissible tolerance in rated capacity & TDH	No negative tolerance	
2.13	Permissible tolerance in efficiency at rated capacity(%)	No negative tolerance	
2.14	Performance/Design standard	HIS/IS-5120/Equivalent standard	
3.0	CONSTRUCTION FEATURES		
3.1	Pump type	Horizontal centrifugal type	Horizontal centrifugal type
3.2	Impeller type	Closed	Closed
3.3	Casing type	To be decided by bidder	To be decided by bidder
3.4	Coupling type	Flexible type	Flexible type
3.5	Sealing arrangement	Gland packing	Gland packing
3.6	Type of bearing lubrication	Oil/Grease	Oil/Grease
3.7	Pump characteristics	Non overloading type & Stable	Non overloading type & Stable
3.8	Drain plugs, vent with 3-way SS isolating valve, lifting lugs, priming connection	Required	Required
4.0	MATERIALS OF CONSTRUCTION		
4.1	Casing	IS 210 FG 260	IS 210 FG 260
4.2	Impeller	ASTM A-743 Gr.CF8M	ASTM A-743 Gr.CF8M
4.3	Shaft	ASTM A-276 Gr.410	ASTM A-276 Gr.410
4.4	Shaft sleeves	SS-316	SS-316
4.5	Wearing rings	ASTM A-743 Gr.C 440	ASTM A-743 Gr.C 440
4.6	Wetted fasteners (Refer note no.4)	SS AISI 304	SS AISI 304
4.7	Fasteners(others)(Refer note no.4)	As per IS 1367 or Equivalent	As per IS 1367 or Equivalent
4.8	Gland/Seal cover	SS-304	SS-304
4.9	Lantern ring	Manufacture standard	Manufacture standard
4.10	Mech.seal	NA	NA
4.11	Gland packing	Braided impregnated Teflon (Asbestos free)	Braided impregnated Teflon (Asbestos free)
4.12	Base plate	MS fabricated IS-2062 (min thk.10mm)Epoxy coated	MS fabricated IS-2062 (min thk.10mm)Epoxy coated
4.13	Stuffing box	IS 210 FG 260	IS 210 FG 260
4.14	Coupling	SS	SS
4.15	Connection pipe material(for deciding counterflange material)	Piping <=150NB, Carbon steel ERW conforming IS1239(Heavy grade-Black) Piping >150NB, Carbon steel IS2062 plates rolled and welded as per IS 3589.	
5.0	MANDATORY SPARES		
5.1	Impeller	2 nos.	2 nos.
5.2	Shafts	1 no.	1 no.
5.3	Shaft sleeve	3 sets	3 sets
5.4	Casing wear ring	6 sets	6 sets
5.5	impeller bearings	2 sets	2 sets
5.6	Motor bearings	2 sets	2 sets
5.7	Thrust bearings	2 sets	2 sets
5.8	Radial bearings	2 sets	2 sets
5.9	Gland packing	2 sets	2 sets
5.10	Fasteners	1 set	1 set
5.11	Complete coupling (pump& motor)	1 set	1 set
5.12	Motor	1 no. of each type	1 no. of each type