



TECHNICAL PROPOSAL

LIME DOSING PUMP SKID

Project	Feroze Gandhi Unchahar Thermal Power Project.
Owner	M/s. NTPC Limited
LSTK Contractor	M/s. GE Power
Package Vendor	M/s. Prorites Equipments Pvt. Ltd.
Vendor Offer No.	QTN/PEPL/21-22/113

1	Oct-27-2021	First Issued	S.K.K	P.J
REV	DATE	DESCRIPTION	APP.D	PREP.D

SCOPE OF SUPPLY

- Supply of Lime Dosing Pump for Unchahar FGD Project.

SR. NO.	ITEM	UOM	QTY
A	Lime Dosing Pump Skid	No.	2
1	Lime Dosing Pump	No.	2
2	Drive Motor	No.	2
3	PRV (Pressure Relief Valve)	No.	2
4	Pressure Gauge	No.	2
5	Pulsation Dampener	No.	2
6	Suction Strainer	No.	2
7	Ball Valve (Suction & Discharge Side) 40NB	No.	4
8	Ball Valve (Suction & Discharge Side) 15NB	No.	2
9	NRV (Non Return Valve)	No.	2
10	Piping (Suction & Discharge Side) 40NB	Set.	1
11	Flanges (Suction & Discharge Side) 40NB	Set.	1
12	Fittings (Suction & Discharge Side) 40NB	Set.	1
13	Hardware	Set	1
14	Base Frame	Set	1
15	Canopy	No.	2



LIME DOSING PUMP SKID

TECHNICAL SPECIFICATIONS

SR. NO.	EQUIPMENT	SPECIFICATION
1	Lime Dosing Pump	• Pump Type: - Hydraulically Actuated Single Diaphragm Pump • Service: - Lime Solutions • Required Flow Rate (L/H): - 1600 • Suction Pressure (Bar): - Flooded • Discharge Pressure (Bar): - 1.4 • Control Type: - Manual Stroke • Turn Down Ratio: - 10:01 • Pump Speed: - 100 SPM • Design Code: - API 675 • Wetted Part MOC: - SS316 • Head MOC: - SS316 • Diaphragm MOC: - PTFE
2	Drive Motor for Lime Dosing Pump	• Type: Squirrel Cage Induction, TEFC, Safe Area • Rating: 2.2 KW • RPM: - 1400 • Power Supply: 415VAC, 3-Phase, 50 HZ • Mounting: Foot Mounted. • Ingress Protection: IP 55 • Area Classification: Non Flame Proof
3	PRV (Pressure Relief Valve)	• Type: Spring Loaded • MOC: SS316 • End Connection: 1" BSP (F). • Set Pressure: - 2.0 kg/cm²
4	Pressure Gauge	• Type: - Bourdon Sensing with Chemical Seal. • Wetted Parts MOC: - SS316 • Dial Size: - 100mm. • Range: - 0 – 4.2 Kg/Cm² • Enclosure: - IP-66 • Connection: - ½" NPT(M)
5	Pulsation Dampener	• Type: Volume Bottle Type. • MOC: SS316 • Size: 8 Liter

6	Suction Strainer	- Type: Y- Type Strainer. - MOC: SS316 - End Connection: 40NB SW
7	Ball Valve 40NB	- Type: 3 PC Design, Full Port. - MOC: - CF8 / F316 - End Connection: Ends. - SW Class: #600
8	Ball Valve 15NB	- Type: 3 PC Design, Full Port. - MOC: - CF8 / F316 - End Connection: Ends. - SW Class: #600
9	NRV (Non-Return Valve) 40NB	- Type: LIFT CHECK VALVE - PISTON LIFT, BOLTED COVER - MOC: CF8 / F316 - End Connection: 40NB Flange Ends. - Class: #800 - Design Code: API 602
10	Piping 40NB (Suction & Discharge Side)	- Type: Seamless - Size: - 40NB - Thickness: SCH 40 - MOC: SS316 (SA312 TP 316)
11	Flanges 40NB (Discharge Side)	- Type: SWRF, ASME B 16.5 - End Class: #150 - MOC: SS316 (SA182 F316)
12	Fittings 40NB (Suction & Discharge Side)	- Size: - 40NB - End Connection: SW - MOC: SS316 (SA312 TP 316)
13	Hardware, Gasket & Foundation Bolts	- Hardware MOC: - SS304 - Gasket: - CNAF Gaskets - Foundation Bolts: - M12 x 200L – Anchor Bolt
14	Base Frame	Common base frame fabricated from IS2062 channels.
15	Canopy (Weather wood)	Canopy for Pump Drive Motors.



APPROVED SUB VENDOR LIST

Sr. No.	EQUIPMENT	APPROVED MAKE	Location
1	Lime Dosing Pump	V.K Pump	India
2	Drive Motor	ABB / CGL / Siemens	India
3	PRV	V.K Pump / Prorites	India
4	Pressure Gauge	GIC / MASS / BAUMER	India
5	Pulsation Dampener	Prorites	India
6	Suction Strainer	Triveni / Prorites	India
7	Ball Valve	L&T / BDK / Micon	India
8	NRV	Micon / BDK / Steel Strong	India

ND

BALL VALVE

STRAINER

PULSATION DAMPNER

CHECK VALVE

P & I FOR 1

- | | |
|---|-------------------|
|  | BALL VALVE |
|  | STRAINER |
|  | PULSATION DAMPNER |
|  | CHECK VALVE |

P & I DIAGRAM

FOR 1 NO SKID

[illegible]

CUSTOMER : GE POWER – STEAM
NOIDA



PRORITES EQUIPMENTS PVT LTD.
JYOTIBANAGAR, TALAWADE, PUNE-411062
MAHARASHTRA STATE, INDIA

PROJECT:	UNCHA HAR
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TITLE: LIME DOSING PUMPING SKID

QTY: 2 Nos

LOCATION:	INDIA
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DRAWING No:
PEPL-PID-74-2

SCALE: 1:1

SHT. 1/1