

**RASHTRIYA ISPAT NIGAM LIMITED
VISA KHAPATNAM STEEL PLANT
VISA KHAPATNAM**



List of Preferred Vendors / Makes
for
Projects

March 2022

**DESIGN & ENGINEERING DEPARTMENT
VISA KHAPATNAM STEEL PLANT
VISA KHAPATNAM**

List of Preferred Vendors / Makes for Projects

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List of Preferred Vendors / Makes - General Components/ Equipment

Sl. No.	Item description	Preferred vendors / Makes
1.	Helical Geared Motor	SEW-EURODRIVE / Power Build Private Limited / Bauer Gear Motor / Shanti Gears / Nord Drive systems / Timken
2.	Worm geared Motor	SEW-EURODRIVE / Power Build Private Limited / Bauer Gear Motor / Shanti Gears / Nord Drive systems / Timken
3.	Burners	Fives Stein / Techint / Wesman / Fives North American / Hotwork / Honeywell Thermal Systems
4.	Hydraulic jacks & pullers	Lukas Hydraulic GMBH / Mekaster Tools Ltd. / Orione Hydraulics Pvt. Ltd. / Power Team Engineers / Powerjac Systems Pvt. Ltd. / Griphold Engineering (P) Ltd. / Bemco Jacking Systems Pvt. Ltd. / Vanjax Sales Pvt. Ltd. / Vankos & Company / Oriental Engg. Works Pvt. Ltd.
5.	Puller	Crushmore Maxban India (Maxpull) / Tractel-Tirfor / SPX Flow (Power team)
6.	Diesel Engine	Cummins / Caterpillar / Komatsu / Greaves / Ashok Layland / Ruston / KOEL
7.	Recuperator	Eastern Equipment & Engineers Pvt. Ltd. / Bharat Heavy Electricals Ltd / Bharat Heavy Electricals Ltd-ISBG / ISGEC Heavy Engineering Limited / G.B. Engg. Enterprises Pvt. Ltd. / Graduate Agro & Mechanical Engineer / Tinita Engineering Pvt. Ltd. / TPP Boilers Pvt. Ltd. / Sundaram Aircon Engineers Pvt. Ltd. / HRS Process Systems Limited / Encon Enterprises Pvt. Ltd.
8.	High tensile fasteners	GKW Limited / Sundaram Fasteners Limited / Fit Tight Fasteners/ GKW Limited / LPS Bossard Pvt. Ltd. / Sundaram Fasteners Limited / Bolts Nuts & Forgings Co. / Deepak Fasteners Ltd. / Bolt Master (India) Pvt. Ltd. / Vinayak Business Pvt. Ltd. / Udehra Fasteners Ltd. / D.N. Sircar S.K.Das Private Limited / Kay Hi-Tech Engineers (P) Ltd. / Lakshmi Precision Screws Ltd. / Precision Auto Engineers / Tightwell Forgings Ltd. / SMEW Technologies Pvt. Ltd. / Nord-Lock Pte Ltd. / Kundan Industries Ltd. / Morning Star Industries / Udehra Fasteners Ltd. / SMEW Technologies Pvt. Ltd. / Nemat Engineering Pvt. Ltd. / Modern Engineering Works
9.	Foundation bolts	Project Toolings Systems / Supreme
10.	Manufacturing and assembly of mechanical equipment / items	Larsen & Toubro Ltd. / The KCP Ltd. / Simplex Engg. & Foundry Works Ltd. / ISGEC Heavy Engineering Limited / Bhilai Engg. / Beekay / Professional Engrs / LLOYD / PP Rolling Mills Mfg. Co. / Rana Udyog

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Sl. No.	Item description	Preferred vendors / Makes
11.	Fabricated equipment / items	HMTC / Rourkela Fabricators / L&T / Professional Engineers / Ray Industries / Bhilai Engg. / Pratibha Flowcon Engg. / Nuberg Engg. / Esskay Machinery – Bhubaneswar / Beekay Engg. Corporation / Lloyd Steel Industries Ltd. / Rana Udyog Pvt. Ltd. / Bharat Heavy Electricals Ltd. / Heavy Engg. Corpn. Ltd. / Bharat Heavy Electricals Ltd-Isbg / Bridge & Roof Co (I) Ltd. / Hindustan Shipyard Ltd. / Industrial Radiographs Corporation / Sri Lakshmi Prabha Engg. Industries / Sri Raja Corpn. / The KCP Ltd / Manjira Machine Builders Pvt. Ltd. / N.S. Engineering Company (P) Limited / Aster Private Limited / Mukand Ltd. / Thyssenkrupp Industries India Pvt./ ISGEC Heavy Engineering Limited / Tata Iron & Steel Co Ltd / Simplex Engg & Foundry Works Ltd. / Larsen & Toubro Ltd / Bhilai Engg. Corpn. Ltd. / Bhilai Engineering Works / Jana & Co / Graduate Agro & Mechanical Engineer / Bijay Industries / Bhilai Techneeds / Hydrofab Engineering Concern / Beekay Engineering Corporation / Dheeraj Engg. Works / General Fabricators / J S Forge Private Limited / A R F Engineering Ltd. / Bharat Forge Ltd. / Associated Plates & Vessels Pvt. Ltd. / Jindal Steel & Power Limited /Metropolitan Equipts & Consultants / Mascot International / Renuka Equipments Pvt. Ltd. / Sree Raja Engineering & Fabrication / Pratibha Flowcon Engineering Private Limited / Prowess International Pvt. Ltd. / Sree Krishna Engineering Works / Electrotherm India Ltd. / Suleka Industries / OTTO

List of Preferred Vendors/Makes - Mechanical

Repair & maintenance facilities

Sl. No.	Item description	Preferred Vendors/Makes
1.	Centre Lathe	HMT Machine Tools Ltd. / Mysore Kirloskar / Heavy Engineering Corporation / WMW Machinery Company / R P Engineering / Top Engineers
2.	Sample turning lathe	Sri Yantra Engineers (P) Ltd. – Bangalore / Pinacho
3.	Universal Milling Machine	HMT Machine Tools Ltd. / Bharat Fritz Werner / Batliboi / WMW Machinery Company
4.	Milling machine for Guide shop	Bharat Fritz Werner Ltd. / WMW Machinery Company / HMT Machine Tools Ltd.
5.	Shaper	Sagar Heavy Engineerings Private Limited
6.	Radial Drilling Machine	HMT Machine Tools Ltd./ Batliboi / Heavy Engineering Corporation
7.	Column Drilling Machine	HMT Machine Tools Ltd. / EIFCO Machine Tools (P) Ltd. / Batliboi
8.	Bench Drilling Machine	Accumax Machine / EIFCO Machine Tools (P) Ltd.
9.	Horizontal Boring Machine	HMT Machine Tools Ltd. / Heavy Engineering Corporation / Geeta Machine Tools
10.	Cylindrical Grinder	HMT Machine Tools Ltd. / Mysore Kirloskar
11.	Submerged Arc Welding Set	Adore Welding Limited / ESAB India Limited / Lincoln Electric Company (India) Private Limited
12.	Welding Rectifier	Adore Welding Limited / ESAB India Limited
13.	Welding Transformer	Adore Welding Limited / ESAB India Limited / MEMCO / Olivine Industries / Kukreja Transformer Mfg. Co.
14.	Cast Iron Plate	Jash Precision Tools Private Limited / Madras Gauge Room Equipment Private Limited
15.	Power Hacksaw	ITL Industries Limited / EIFCO Machine Tools (P) Ltd / Atlas Machines (India)
16.	Tools & Tackles	Mekaster Tools Limited / Miranda Tools / CMH Tools Limited / Kennametal India Limited / Sandvik Asia Ltd / BIPICO Industries (Tools) Pvt. Ltd. / TaeguTec India P Limited / Addison & Co., Ltd. / Birla Precision Technologies Limited / Capital Tool Industries / Ceratizit India Pvt. Ltd. / Alfa Tools Private Limited / ATC Tools Private Limited / Cut Fast Tooling Solutions / Forbes & Company Ltd. / Bosch / Taparia / Mekaster Tools Limited / Nippon Pneumatic Manufacturing Co. Ltd. / Hindustan Everest Tools / Black & Decker / Cicago Pneumatic / Godrej / Freeman
17.	CNC Notch Milling & Branding machine	Maschinenfabrik Herkules GmbH & Co. KG / Sparkonix (India) Pvt. Ltd. / Atomat SpA / Wendt India / Wendt GmbH
18.	CNC Roll Turning Lathe	Maschinenfabrik Herkules GmbH & Co. KG / Atomat SpA / SAFOP S.R.L.



Sl. No.	Item description	Preferred Vendors/Makes
19.	Rolls	Deem Roll Tech Limited / Tayo Rolls Limited / Bharat Forge Limited / Bharat Roll Industries Pvt. Ltd. / Gontermann-Peipers (India) Limited / Heavy Engg Corpn. Ltd. / Steel Authority Of India Ltd, VISL / Jsc "Heavy Engineering Ormeto-Yumz' / Jamshedpur Engg & Machine Mfg Compa / Shaifali Steels Limited / Union Electric Åkers / Professional Engineers

Refractory and Insulating materials

Sl. No.	Item description	Preferred Vendors/Makes
1.	Alumino silicate	TRL / OCL / Maithan / OIL / BRL / MPR / RASSI / Vishwakarma / Kabita / Mahakoshal Valley / Manishri / Rajhans / SKG / Nilachal / National / Associated Ceramics / Rhi / Brahma / Tirumalesha Ceramics / Arvind Industries / Carborandum Universal Ltd / Refcom India Pvt. Ltd.
2.	Basic	TRL / OIL / OCL / MPR / BRL / RASSI / SKG / Burn Standard
3.	Castables	TRL / ACE Calderys / OCL / MPR / BRL / RASSI / SKG / OAL / RHI / Vesuvius India Ltd. / REFCOM (INDIA) PVT. LTD. / IFGL / Associated Ceramics Ltd / Industrial Associate
4.	Insulation materials	CUMI / MAITHAN / ACC Refractories / Achint Chemicals / Rajhans / Sharad Refractories / Chamund / Tap Nirodhak / Nutec Refractory / Calderys Refractories
5.	Blanket, fibre, boards, felts, papers, etc.	UNIFRAX / MMTCL / Lloyds Insulation / Megha Insulation / Hyderabad Industries

Fluid systems & piping engineering (Lubrication & Hydraulics)

Sl. No.	Item description	Area of application	Preferred Vendors/Makes
1.	Centrifugal Pump for Descaling System	Descaling	KSB / Halberg / Wier
2.	Piston Pump for Descaling System	Descaling	Uraca / Wepuko / Hauhinco / UT Pump
3.	Centrifugal Pump (12 Bar & below)	Water	KSB / Kirloskar Brothers Limited / Mather & Platt / Wier / Grundfos Pumps India Private Ltd. / Voltas
4.	Submersible type Sump Pump	Sump	KSB Pumps Ltd / Xylem (Flygt) / Grundfos Pumps India Pvt. Ltd. / Darling Pumps Pvt. Ltd. / Mody Industries (F.C.) Pvt. Ltd. / Kirloskar Brothers Limited / SU Pumps / Goodwin Pumps India Private Limited / Harison Pumps Pvt. Ltd. / Kishor Pumps Pvt. Ltd. / Viraj Electricals / Varat Pump & Machinery Pvt. Ltd. / SB Pump Industries / Kulkarni Pumps Private Limited / Flowserve India Controls Pvt. Ltd. / MBH Pumps (Guj) Pvt. Ltd. / C.R.I. Pumps Private Limited / Mody Pumps (India) Pvt. Ltd. / Moniba Anand Electricals Pvt. Ltd. / Leakless (India) Engineering / A M U Pumps Industries
5.	Manual valves		
5.1	Manual Gate / Globe Valves with & without gear for High Pressure application		KSB / BHEL / L&T / Fouress Engineering (India) Private Limited
5.2	Manual Gate / Globe Valves with & without for Low Pressure application (16 Bar and Low)	Oil Lubrication / Descaling	KSB / BHEL / Emersion / L&T / Fouress Engineering (India) Private Limited / Akay
5.3	Butterfly Valve	Oil Lubrication / Descaling	L&T / Emersion Bharat Heavy Electricals Ltd-Isbg / Fouress Engineering (India) Private Limited / Leader Valves Limited / Kirloskar Brothers Limited / Larsen & Toubro Ltd. / Weir BDK Valves/ Hawa Engineers Ltd. / Advance Valves Pvt. Ltd. / RMEBS Controls Private Limited / Joshijampala Engineering Pvt. Ltd. / EBRO Armaturen International / DelVal Flow Controls Pvt. Ltd. / Orbinox India Private Limited / Dembla Valves Pvt. Ltd. / FESTO /

Sl. No.	Item description	Area of application	Preferred Vendors/Makes
			Xomox Sanmar Limited / Valtech Industries / S & M Industrial Valves Ltd. / Keromiyons Intech (P) Ltd. / Sealmech Valves / Hawa Valves (India) Pvt. Ltd. / Brightech Valves and Controls Pvt. Ltd. / Aira Euro Automation Private Limited / Advance Systems Control / Jupiter Engineering Co. / Tyco Valves & Controls India Pvt. Ltd. / Intervalve Poonawalla Ltd. / Flowserve India Controls Pvt. Ltd. / Ramesh & Shanti Engineering Works / Surya Valves and Instruments Mfg. Company / Tarama Engineering Udyog / R K Control Instruments Pvt. Ltd. / Flotek Industries / Norflow Controls / Valve Tech Industries / Sigma Flow Control India Ltd. / Micon Engineers Hubli Pvt. Ltd. / Belgaum Aqua Valves Pvt. Ltd. / Kamala Valves & Engineering Pvt. Ltd. / Pee Industrial Valves Pvt. Ltd. / Dintech Valves Pvt. Ltd. / Severn Glocon India / Stafford Controls / 2l Engineers / Shree Krishna Industries / Nilon Valves Pvt. Ltd. / Nupro Engineering Syndicate Pvt. Ltd. / Crawley & Ray (F&E) Pvt. Ltd. / Hawa Engineers Ltd. / Canle Valves Pvt. Ltd. / Cair Euromatic Automation Pvt. Ltd.
5.4	Ball Valve	Oil Lubrication / Descaling	L&T / Fouress Engineering (India) Private Limited / Emersion
5.5	Check Valve (Disc Type) - Low Pressure	Oil Lubrication / Descaling	L&T / Fouress Engineering (India) Private Limited
5.6	Check Valve (Spring Loaded) - Low Pressure	Oil Lubrication / Descaling	L&T / Fouress Engineering (India) Private Limited
6.	Control Valve for oil lubrication system	Oil Lubrication	Forbes Marshall / Samson Controls / Emersion / RK Controls / Bharat Heavy Electricals Ltd-Isbg / Fouress Engineering (India) Pvt. Ltd. / Larsen & Toubro Ltd. / Dembla Valves Pvt. Ltd. / Darling Muesco (India) Pvt. Ltd. / Brightech Valves And Controls Pvt. Ltd. / Aira Euro Automation Private Limited / Advance Systems Control / KSB Mil Controls Limited / Samson Controls Pvt. Ltd.

Sl. No.	Item description	Area of application	Preferred Vendors/Makes
7.	Actuators for operating valves	Oil Lubrication	L & T / Emersion / Rotex / AVCON / Auma India Private Limited / ABB India Limited / Rotork Controls (India) Pvt. Limited / Marsh Engineers / Limitorque India Limited / Antrieb Technik Pvt. Ltd. / Cair Euromatic Automation Pvt. Ltd.
8.	Air Release Valve	Water	Upadhyay / Steam & Mining Industries / Weir BDK Valves
9.	Air / Gas Safety Relief Valve	Descaling	L & T / Leser India / Mankenberg / LESER India
10.	Auto backwash filter	Descaling / Water	Boll & Kirch / Hydac / Fluid Engineering
11.	HP Compressor	Descaling	Ingersoll Rand (I) Ltd. / Aerotecnica Coltri / Atlas Copco (India) Ltd. / Elgi Equipments Ltd. / Kirloskar Pneumatic Co. Ltd. / Godrej & Boyce Mfg. Co. Ltd. / Frick India Ltd. / Swam Pneumatics Pvt. Ltd. / Kay International Ltd. / Holman-Climax Manufacturing Company / Hoerbiger India Pvt. Ltd. / Elgi Sauer Compressors Ltd.
12.	Level Indicator Switch	Descaling	Sigma Instruments Company / Levcon Group / Shridhan Automation Pvt. Ltd./ Magnetrol International / Buhler Technologies / Pune Techtrol Private Limited / WEKA / Emersion / Kobold
13.	Pressure Gauge & Temperature Gauge	Descaling / Utility Services	A.N. Instruments Private Limited / H.Guru Instruments / Wika Instruments India Pvt. Ltd. / Forbes Marshal / Stauff / Hydac / kobold / Altop Industries Ltd. / Endress + Hauser (India) Pvt. Ltd. / Waaree Instruments Limited / Walchandnagar Industries Ltd. / Manometer (I) Pvt. Ltd. / Sree Guru Instruments & Appliances / Radix / Bose Panda Instruments Pvt. Ltd. / Radix Electrosystems Pvt. Ltd. / Anand Industries / Asiatic Engineers (India) / Hirlekar Precision / Thermal Instrument



Sl. No.	Item description	Area of application	Preferred Vendors/Makes
14.	Pressure Switch	Descaling	Bosch Rexroth (India) Ltd. / Switzer Process Instruments Pvt. Ltd. / Hydac / Parker Hannifin India Pvt. Ltd. / Danfoss / Kobold / WIKA Instruments India Pvt. Ltd. / Endress + Hauser (India) Pvt. Ltd. / Waaree Instruments Ltd / Radix Electrosystems Pvt. Ltd. / Kaustubha Udyog / Anand Industries / Indfos Industries Ltd / Honeywell Automation India Limited / Schneider Electric India Pvt. Ltd. / Gauges Bourdon (India) Pvt. Ltd.
15.	Differential Pressure Transmitter	Descaling	Fisher Rosemount / Forbes Marshall
16.	Thermostat	Descaling	Hydac / Trafag / Johnson Control / Kobold
17.	Differential Pressure Gauge cum Switch	Descaling	Switzer Process Instruments Pvt. Ltd. / Danfoss / Indfoss / Hydac
18.	Temperature Transmitter		Hydac / Forbes Marshall / Kobold / Johnson Control / Siemens Ltd. / ABB India Limited / Emerson Process Management(Ind) Pvt. / Wika Instruments India Pvt. Ltd. / Endress + Hauser (India) Pvt. Ltd. / Waaree Instruments Ltd. / Medical & Control Instruments House / Radix Electrosystems Pvt. Ltd. / Lectrotek Systems Pvt. Ltd. / Honeywell Automation India Limited / Protocontrol Instruments (I) Pvt. L / Yokogawa India Ltd.
19.	Flow Switch	Descaling	Forbes Marshall / Kobold / SMC Corporation (India) Pvt. Ltd./ Hyloc Hydrotechnic Pvt. Ltd. / Flow Mon / Magnetrol International / Siemens / Levcon Group / Switzer Process Instruments Pvt. Ltd. / Forbes Marshall / Krohne Marshall Pvt. Ltd. / D K Instruments Pvt. Ltd. / Lectrotek Systems Pvt. Ltd. / EIP Technologies
20.	Flowmeter cum Totaliser	Descaling	Rockwin / Forbes Marshall / Levcon Group / Waaree Instruments Ltd. / Medical & Control Instruments House / Radix Electrosystems Pvt. Ltd. / Honeywell Automation India Limited Masibus Automation And Instrumentation Pvt. Ltd. / Industrial Controls & Drives (India) Pvt. Ltd. / Yokogawa India Ltd.

Sl. No.	Item description	Area of application	Preferred Vendors/Makes
21.	Pipes / Tubes		
23.1	Carbon Steel Seamless Pipes / Tubes	Hydraulics / Oil Lubrication / Descaling	Jindal SAW Limited / Ratnamani Metals & Tubes Ltd. / Maharashtra Seamless / MJ Patel (India) Ltd./ Indian Seamless / BHEL / Bharat Heavy Electricals Ltd-Isbg / Jindal Saw Ltd. / Sandvik Asia Private Ltd. / RMG Alloy Steel Limited / Mahalaxmi Seamless Limited / Ratnadeep Metal & Tubes Ltd. / Lalbaba Seamless Tubes Pvt. Ltd. / ISMT Limited / Sainest Tubes Pvt. Ltd. / SLS Tubes Pvt. Ltd. / Heavy Metal & Tubes (India) Pvt. Ltd. / Sanghvi Metal Corporation / Maharashtra Seamless Limited / Krystal Steel Manufacturing Private Limited / Remi Edelstahl Tubulars Limited / Anand Seamless Tubes Private Limited / Maxim Tubes Company Pvt. Ltd. / Steamline Industries Ltd / JR Seamless Pvt. Ltd. / Tubacex Prakash India Pvt. Ltd. / Hindustan Inox Ltd. / Divine Tubes Pvt. Ltd. / Ratnadeep
23.2	Stainless Steel Seamless Pipes / Tubes	Hydraulics / Oil Lubrication / Descaling	Jindal SAW Limited / Choksi Tubes / Ratnamani Metals & Tubes Ltd. / MJ Patel (India) Ltd. / Ratnadeep
23.3	Carbon Steel ERW - SAW Pipes / Tubes	Hydraulics / Oil Lubrication / Descaling	Maharashtra Seamless / MJ Patel (India) Ltd. / SAIL / Jindal Pipes Limited / Ratnamani Metals & Tubes Ltd. / Surya Roshni Ltd. / MAN Industries (India) Ltd. / Wellspun Corp Limited / Ratnadeep
23.4	Seamless Pipes & Tubes (65 NB SS pipe, 100 NB SS pipe, 200 NB SS pipe, 6 mm tubes, 10 mm tubes)		Sumitomo / Sandvik / Nippon Steel / Mannesmann /-Bharat Heavy Electricals Ltd-Isbg / Jindal Saw Ltd. / Sandvik Asia Private Ltd. / RMG Alloy Steel Limited / Mahalaxmi Seamless Limited / Ratnadeep Metal & Tubes Ltd. / Lalbaba Seamless Tubes Pvt. Ltd. / ISMT Limited / Sainest Tubes Pvt. Ltd. / SLS Tubes Pvt. Ltd. / Heavy Metal & Tubes (India) Pvt. Ltd. / Sanghvi Metal Corporation / Maharashtra Seamless Limited / Krystal Steel Manufacturing Private Limited / Remi Edelstahl Tubulars Limited / Anand Seamless Tubes Private Limited / Maxim Tubes

Sl. No.	Item description	Area of application	Preferred Vendors/Makes
			Company Pvt. Ltd. / Steamline Industries Ltd / JR Seamless Pvt. Ltd. / Tubacex Prakash India Pvt. Ltd. / Hindustan Inox Ltd. / Divine Tubes Pvt. Ltd.
22.	Pipes / Tubes Fittings	Hydraulics / Oil Lubrication / Descaling	Hyd-air Engineering Works / Hyloc Hydrotechnic Pvt. Ltd. / M. S. Fittings Manufacturing Co. Pvt. Ltd. / N. L. Hazra & Son / Project Tooling Systems / Parker Hannifin India Pvt. Ltd. / AVIT / Engineering Services Enterprises - Kolkata / Project Tooling Systems / Gujarat Infrapipes Pvt. Ltd. / Hyd-Air Engineering Works Lonavla
23.	Clamps (Polypropylene Clamp, U-Bolts)	Hydraulics / Oil Lubrication / Descaling	Project Tooling Systems / Stauff / Hyd-Air
24.	Hose with end fittings	Hydraulics / Oil Lubrication / Descaling	Hydrokrimp / Hydrolines / Super Seal Flexible Hose Limited / Parker Hannifin India Pvt. Ltd. / Eaton
25.	Expansion Joint		Stanflex / Elaflex / Seiris Flex India (P) Limited / Lonestar Industries / Keld Ellentoft India Private Limited / Sur Industries Private Limited / Integral Engineering / Metallic Bellows (India) Pvt. Ltd. / Eagle Burgmann KE Pvt. Ltd. / RRD Decors Pvt. Ltd. / RM Applied Engineers / Cori Engineers Pvt. Ltd. / GBM Mfg. Pvt. Ltd. / Bachmann Industries India Limited / Madras Hydraulic Hose Pvt. Ltd. / Systec Flexo Products Private Limited / Frenzelit India Pvt. Ltd. / C L Engineers / Insaplex
26.	Flanges	Descaling	Echjay Industries Pvt. Ltd. / N. L. Hazra & Son / M. S. Fittings Manufacturing Co. Pvt. Ltd.
27.	Flushing Oil		Indian Oil Corporation Limited / Hindustan Petroleum Corporation Ltd./ BP / Castrol Limited / Exxon Mobile / Shell India Markets Private Limited / Balmer Lawrie & Co. Ltd.
28.	Hydraulic oil		Indian Oil Corporation Limited / Hindustan Petroleum Corporation Ltd./ BP / Castrol Limited / Exxon Mobile / Shell India Markets Private Limited / Balmer Lawrie & Co. Ltd. / Hardcastle Petrofer Pvt. Ltd.

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Sl. No.	Item description	Area of application	Preferred Vendors/Makes
29.	Lubricating oil		Indian Oil Corporation Limited / Hindustan Petroleum Corporation Ltd. / BP / Castrol Limited / Mobil Exxon / Shell India Markets Private Limited / Balmer Lawrie & Co. Ltd. / Kluber Lubrication India Pvt. Ltd. / Hardcastle Petrofer Private Limited / Bharat Petroleum Corporation Ltd.
30.	Water in Oil detector		IMA / Parker Hannifin India Pvt. Ltd.
31.	Grease		Indian Oil Corporation Limited / Hindustan Petroleum Corporation Ltd. / BP / Castrol Limited / Shell India Markets Private Limited / Balmer Lawrie & Co. Ltd. / GP Petroleums Ltd. / Asianol Lubricants Ltd. / Shell India Markets Private Limited / OKS Speciality Lubricants (I) Pvt. Ltd. / Kluber Lubrication India Private Limited / Anand Engineers Pvt. Ltd. / Dow Chemical International Pvt. Ltd. / Fuchs Europe Schmierstoffe GmbH / Lubrilog

Sl. No.	Item description	Approved Vendors/Makes
1.	Air-oil system	REBS Zentralschmiertechnik GmbH / DropsA / Bijur Delimon International / Nortek / Lincoln Helios (India) Ltd.

Hydraulic systems

Sl. No.	Item description	Preferred Vendors/Makes
1.	Hydraulic Systems	Eaton India / Yuken India Limited / Parker Hannifin India Pvt. Ltd. / Bosch Rexroth (India) Ltd. / Hydac
2.	Low Speed High Torque Hydraulic Motor (complete with power unit and hydraulic system)	Bosch Rexroth (India) Ltd. / Parker Hannifin India Pvt. Ltd.
3.	Pumps (main pumps)	Bosch Rexroth (India) Ltd. / Eaton India / Parker Hannifin India Pvt. Ltd./ Yuken India Limited
4.	Piston / Vane Pumps & Hydraulic Motors	Bosch Rexroth (India) Ltd. / Parker Hannifin India Pvt. Ltd./ Kawasaki / Eaton India / Maha Hydraulics
5.	Gear Pump	Del PD Pumps & Gears Private Limited (Rotodel) / Allweiler India Pvt. Ltd. / Bosch Rexroth (India) Ltd. / Parker Hannifin India Pvt. Ltd./ Alfa Pumps and Systems / Prakash Lubriquipment Pvt. Ltd.
6.	Screw Pump	CIRCOR / Allweiler India Pvt. Ltd. / Nortek / Roto Pumps Ltd. / Del Pd-Pumps & Gears Private Limited / Rotomac Industries Pvt. Ltd. / Delta Corporation / UT Pumps & Systems Pvt. Limited
7.	<u>Circulation pumps:</u>	
7.1	Screw pumps	CIRCOR / Allweiler India Pvt. Ltd. / Nortek / Roto Pumps Ltd. / Del Pd-Pumps & Gears Private Limited / Rotomac Industries Pvt. Ltd. / Delta Corporation / UT Pumps & Systems Pvt. Limited
7.2	Gear pumps	Bosch Rexroth (India) Ltd. / Parker Hannifin India Pvt. Ltd./ Rickmeier / Prakash Lubriquipment Pvt. Ltd. / Del Pd-Pumps & Gears Pvt. Ltd.
8.	Compensator in suction line	Bosch Rexroth (India) Ltd. / Parker Hannifin India Pvt. Ltd. / Eaton India / Yuken India Limited
9.	Various types of hydraulic valves	Bosch Rexroth (India) Ltd./ Eaton India / Parker Hannifin India Pvt. Ltd./ Yuken India Limited / SUN Hydraulics
10.	Hydraulic Proportional Valve	Bosch Rexroth (India) Ltd. / Parker Hannifin India Pvt. Ltd./ Eaton India / Yuken India Limited / SUN Hydraulics
11.	Hydraulic Control Valve	Bosch Rexroth (India) Ltd. / Parker Hannifin India Pvt. Ltd./ Eaton India / Yuken India Limited / SUN Hydraulics
12.	Hydraulic Servo Valve	Moog / Bosch Rexroth (India) Ltd. / SUN Hydraulics
13.	Shut-off valve (ball type)	Flutec Valves / L&T / Parker Hannifin India Pvt. Ltd./ Hydac



Sl. No.	Item description	Preferred Vendors/Makes
14.	Filters	Hydac / Pall Corporation / Parker Hannifin India Pvt. Ltd./ EPE (UK) Ltd / FILTREC / Vizag Filters Pvt. Ltd. / Mikroflo Filters Pvt. Ltd. / EPE Process Filters & Accumalators Pvt. Ltd. / Jitsan Filter Industries / Ultra Filters (India) Pvt. Ltd. / Superflo Filters Pvt. Ltd. / Davey Products / Bhagwati Filters Pvt. Ltd. / Jitsan Filter Industries / EPE Proess Filters & Accumulators Pvt. Ltd. / SUN Hydraulics
15.	Pressure Filter	Hydac / Pall Corporation / Parker Hannifin India Pvt. Ltd. / SUN Hydraulics
16.	Return Filter	Hydac / Pall Corporation / Parker Hannifin India Pvt. Ltd. / SUN Hydraulics
17.	Basket Strainer for water	Superflo Filters Pvt. Ltd. / Hydac / EPE Process Filters & Accumalators Pvt. Ltd. / Multitex
18.	Heat exchanger (plate type), gasketed design	Alfa Laval India Private Limited / GEA / Tranter India Pvt. Ltd. / HRS Process Systems Ltd. / Danfoss (Sondex Heat Exchangers India Pvt. Ltd.) / Kelvion India Pvt. Ltd.
19.	Accumulators	Hydac / Bosch Rexroth (India) Ltd. / EPE (UK) Limited / Parker Hannifin India Pvt. Ltd. / Oil Air Techniques / EPE Process Filters & Accumulators
20.	Accumulator with safety shut off block	Christy / Hydac / Parker Hannifin India Pvt. Ltd. / EPE Process Filters & Accumulators
21.	Accumulator Charging Kit	Christy / Hydac / Parker Hannifin India Pvt. Ltd. / EPE Process Filters & Accumulators
22.	Coupling	Love Joy (Timken) / KTR Systems GmbH / J.K. Fenner (India) Limited / Unique Transmission (India) Pvt. Ltd. / National Engineering Company / New Allenberry Works / Buddhadeb Enterprises / Perfect Industrial Enterprise / GBM Manufacturing. Pvt. Ltd. / Rathi Transpower (P) Ltd. / Kapsek Engineers Pvt. Ltd. / Macro Tech Engineers / / Lakshmi Engineering Enterprises / Swastika Industries
23.	Pressure switch	Bosch Rexroth (India) Ltd. / Switzer Process Instruments Pvt. Ltd. / Hydac / Parker Hannifin India Pvt. Ltd. / Danfoss / Kobold / Eaton India / WIKA Instruments India Pvt. Ltd. / Endress + Hauser (India) Pvt. Ltd. / Waaree Instruments Ltd / Radix Electrosystems Pvt. Ltd. / Kaustubha Udyog / Anand Industries / Indfos Industries Ltd / Honeywell Automation India Limited / Schneider Electric India Pvt. Ltd. / Gauges Bourdon (India) Pvt. Ltd.
24.	Differential Pressure Gauge cum Switch	Switzer Process Instruments Pvt. Ltd. / Danfoss / Hydac

Sl. No.	Item description	Preferred Vendors/Makes
25.	Hydraulic motors	Danfoss / Staffa Motor / Parker Hannifin India Pvt. Ltd.
26.	Weld-on type pipe fittings	Hyloc Hydrotechnic Pvt. Ltd. / Parker Hannifin India Pvt. Ltd. / AVIT
27.	Pipe	Gandhi Special Tubes Ltd. / Indian Seamless / Heavy Metal & Tubes (India) Pvt. Ltd. / Ratnamani Metals & Tubes Ltd.
28.	Pressure indicator	Wika Instruments India Pvt. Ltd. / Stauff / Switzer Process Instruments Pvt. Ltd.
29.	Temperature indicator	Wika Instruments India Pvt. Ltd. / Stauff
30.	Thermostat	Trafag / Hydac / Johnson Controls / Kobold
31.	Level indicator	Bosch Rexroth (India) Ltd. / Levcon Group / Stauff / PINTSCH / Pune Techtrol Private Limited
32.	Level switch	Levcon Group / Stauff / PINTSCH
33.	Level Indicator Switch	Sigma Instruments Company / Levcon Group / Shridhan Automation Pvt. Ltd. / Magnetrol International / Buhler Technologies / Pune Techtrol Private Limited / WEKA / Emersion / Kobold
34.	Hydraulic cylinder	Hunger / Bosch Rexroth (India) Ltd. / Parker Hannifin India Pvt. Ltd. / Hainzl / Eaton India / Wipro Infrastructure Engineering Ltd. / Yuken India Limited / Veljan Hydrair Limited / Oscar Equipments Private Limited / Jami Hydraulics Pvt. Ltd. / Anandsheel Hydraulics Pvt. Ltd. / Salzgitter Hydraulics Pvt. Ltd. / Oil Air Techniques / Hydraulics India Services Pvt. Ltd. / Vektra Engineering Private Limited / United Van Der Horst Ltd. / Om Shakthi Hydraulics Private Limited / Canara Hydraulics Pvt. Ltd. / Allweld Engineers Private Limited / Apex Fluidomatics Pvt. Ltd. / Oriental Engineering Works Pvt. Ltd. / Polyhydron Systems Pvt. Ltd. / Powerjac Systems Private Limited / Fluid Power Systems Pvt. Ltd. / Ruhfus System Hydraulik GmbH / Silvio Fossa S.P.A
35.	Hydraulic Power Pack / Cylinders	Bosch Rexroth (India) Ltd. / Eaton India / Wipro Infrastructure Engineering Ltd. / Yuken India Limited / Veljan Hydrair Limited / Oscar Equipments Private Limited / Parker Hannifin India Pvt. Ltd./ Hunger / Anandsheel Hydraulics Pvt. Ltd. / Salzgitter Hydraulics Pvt. Ltd. / Oil Air Techniques / TA Hydraulics Pvt. Ltd. / Om Shakthi Hydraulics Private Limited / Eaton India / Fluid Power Machines Private Limited / Oriental / Engineering Works Pvt. Ltd. / Polyhydron Systems Pvt. Ltd. / Jaypee Engg & Hydraulic Equipment

Sl. No.	Item description	Preferred Vendors/Makes
		Company Limited / Concord Hydraulics Pvt. Ltd. / Hydac (India) Pvt. Ltd. / Powerjac Systems Pvt. Ltd. / Maha Hydraulics Pvt. Ltd. / Suvera Fluid Power Pvt. Ltd. / Fluid Power Systems
36.	Flanges	Echjay Industries Pvt. Ltd. / N. L. Hazra & Son / M. S. Fittings Manufacturing Co. Pvt. Ltd.
37.	SAE flanges	AVIT / Parker Hannifin India Pvt. Ltd./ Hyloc Hydrotechnic Pvt. Ltd. / STAUFF
38.	Butt/socket weld fittings	AVIT / Parker Hannifin India Pvt. Ltd. / Hyloc Hydrotechnic Pvt. Ltd.
39.	Air breather (with silica gel)	Hydac / STAUFF / Pall Corporation
40.	Air Breathers	Parker Hannifin India Pvt. Ltd. / Hydac
41.	Pipe clamp	STAUFF / Hyloc Hydrotechnic Pvt. Ltd./ Hyd-Air / Project Tooling
42.	<u>Flexible hose :</u>	
45.1	Hose	Gates Corporation / Aeroquip / Markwel Hose Assemblies Pvt. Ltd. / Welfit Flexibles & Hydraulics Ltd. / Hydrax International / Vestas Hose Division Pvt. Ltd. / India Flex / RM Applied Engineers / INSAP Engineers Pvt. Ltd. / Jyothi Rubber Udyog India Limited / Pik India / Shreeram Rubber Industries / Presidency Rubber Mills Pvt. Ltd. / Lebracs Rubber Linings Pvt. Ltd. / Deepjyoti Hydraulic Engineering Com / Vestas Hose Division Pvt. Ltd. / Gaytri Industrial Corporation / Hydroflex Pipe (P.) Ltd. / RM Applied Engineers / Dewas Hydroquip Pvt. Ltd. / Hydroflex Engineering Co. / Bengal Industries Pvt. Ltd. / Aeroflex Industries Ltd. / Indo Thai Flexible Tubes Ltd. / Madras Hydraulic Hose Pvt. Ltd. / Quality Foils (India) Pvt. Ltd. / Allzflex Engineers / Gates India Pvt. Ltd. / Sri Chakradhar Engineering Pvt. Ltd. / Hydrax International / Vestas Hose Division Pvt. Ltd. / INSAP Engineers Pvt. Ltd. / Markwel Hose Industries Pvt. Ltd. / Deep-Jyoti Hydraulic Engg. Co.
45.2	Hose assembly	Gates Corporation / Hydrokrimp A.C Pvt. Ltd. / INSAP Engineers Pvt. Ltd. / Parker Hannifin India Pvt. Ltd. / K.B Engineers
43.	Centrifuge	Alfa Laval India Private Limited / GEA / Pennwalt Limited
44.	Low Vacuum Dehydrating equipment	Kleentek / Ferrocure Machines Private limited / Trident Engineering
45.	Electrostatic liquid cleaner	Kleentek / Ferrocure Machines Private limited

Sl. No.	Item description	Preferred Vendors/Makes
46.	Hydraulic seals	Merkel / Trelleborg Sealing Solutions / Hunger International / Hallite / Max Spare Limited / Vijay Seals / Parker Hannifin India Pvt. Ltd. / Hunger International / Seal Jet India Pvt. Ltd. / James Walker Inmarco Industries Pvt. Ltd.
47.	Quick release coupling	Parker Hannifin India Pvt. Ltd./ STAUFF
48.	Nitrogen Booster Station	Hydac / Parker
49.	Mobile Motorised Pump-Motor-Filter Unit for Oil Filling	Pall Corporation / Hydac / Parker Hannifin India Pvt. Ltd.
50.	Electrical Heater	Escorts / Alco / Helios
51.	Portable Filter Unit	Hydac / Bosch Rexroth (India) Ltd. / Parker
52.	Contamination Analysis Kit	Pall Corporation / Hydac / Parker
53.	Vacuum Dehydrator	Filtervac / Pall Corporation / Parker Hannifin India Pvt. Ltd./ Nortek
54.	Pressure Transmitter	Hydac / Forbes Marshall
55.	Pressure Gauge & Temperature Gauge	A.N. Instruments Private Limited / H. Guru Instruments / Wika Instruments India Pvt. Ltd. / Forbes Marshal / STAUFF / Hydac / kobold / Altop Industries Ltd. / Endress + Hauser (India) Pvt. Ltd. / Waaree Instruments Limited / Walchandnagar Industries Ltd. / Manometer (I) Pvt. Ltd. / Sree Guru Instruments & Appliances / Radix / Bose Panda Instruments Pvt. Ltd. / Radix Electrosystems Pvt. Ltd. / Anand Industries / Asiatic Engineers (India) / Hirlekar Precision / Thermal Instrument
56.	Heat Exchanger	Alfa Laval India Private Limited / Tranter India Pvt. Ltd. / Bharat Heavy Electricals Ltd / Bharat Heavy Electricals Ltd-ISBG / Excel Industries / G.B. Engg. Enterprises Pvt. Ltd. / Graduate Agro & Mechanical Engineer / Tinita Engineering Pvt. Ltd. / Chemiquip Industries / Aero Engineers / Novatech Process Equipments (P) Ltd. / Ammus Engineers (P) Ltd. / Radiant Heat Exchanger Pvt. Ltd. / Laxmi Engg Industries (Bhopal) Pvt. / Reliance Fabrications (P) Ltd. / Steelcons Engineers Pvt. Ltd. / United Cooling Systems (P) Ltd. / Universal Heat Exchangers Ltd. / GEI Industrial Systems Ltd. / Hindustan Radiators and Heat Exchangers Pvt. Ltd. / Sundaram Aircon Engineers Pvt. Ltd. / Maccann Engineering Private Limited / Acoustics India Private Limited / HRS Process Systems Limited / Oriental Manufacturers / Standard Equipments Pvt. Ltd. / Kelvion India Pvt. Ltd. / Ram Tech

Grease lubrication systems:

Sl. No.	Item description	Preferred Vendors/Makes
1.	Grease lubrication system	Lincoln Helios (India) Ltd./ Bijur Delimon International / Nortek / Lubcon / Prakash
2.	Main grease pumping station	Lincoln Helios (India) Ltd./ Bijur Delimon International
3.	Metering feeders	Lincoln Helios (India) Ltd./ Bijur Delimon International
4.	Changeover valves	Lincoln Helios (India) Ltd./ Bijur Delimon International
5.	Grease filling pump (electrical)	Lincoln Helios (India) Ltd./ Bijur Delimon International
6.	Grease filling pump (pneumatic)	ELGI / Lincoln Helios (India) Ltd./ Bijur Delimon International
7.	Isolation valves	Flutec / Parker
8.	Flexible hoses	Gates Corporation / HYDROKRIMP A.C / INSAP
9.	Pipes	Gandhi Special / Indian Seamless / Heavy Metals & Tubes / Ratnamani Metals & Tubes Ltd. / Maharashtra Seamless
10.	Fittings	Hyloc Hydrotechnic Pvt. Ltd./ Parker Hannifin India Pvt. Ltd. / AVIT / Hyd-Air
11.	Pressure gauge	Wika Instruments India Pvt. Ltd. / Switzer Process Instruments Pvt. Ltd. / STAUFF / Altop Industries Ltd. / Forbes Marshall / Endress + Hauser (India) Pvt. Ltd. / Waaree Instruments Limited / Walchandnagar Industries Ltd. / Manometer (I) Pvt. Ltd. / Sree Guru Instruments & Appliances / Radix / Bose Panda Instruments Pvt. Ltd. / Radix Electrosystems Pvt. Ltd. / Anand Industries / H Guru Instruments / Asiatic Engineers (India) / Hirlekar Precision / Thermal Instrument
12.	Pressure switch	Bosch Rexroth (India) Ltd. / Switzer Process Instruments Pvt. Ltd. / Hydac / Parker Hannifin India Pvt. Ltd./ Danfoss / Kobold / Lincoln Helios (India) Ltd./ Bijur Delimon International / WIKA Instruments India Pvt. Ltd. / Endress + Hauser (India) Pvt. Ltd. / Waaree Instruments Ltd / Radix Electrosystems Pvt. Ltd. / Kaustubha Udyog / Anand Industries / Indfos Industries Ltd / Honeywell Automation India Limited / Schneider Electric India Pvt. Ltd. / Gauges Bourdon (India) Pvt. Ltd.
13.	End of line pressure switch	Lincoln Helios (India) Ltd./ Bijur Delimon International

Oil lubrication systems

Sl. No.	Item description	Preferred Vendors/Makes
1.	Oil lubrication system	Shaan Lube Equipment Pvt. Ltd. / Lincoln Helios (India) Ltd. / Prakash Lubriquipment Pvt. Ltd./ Hydac / Cenlub Industries Ltd. / Lubcon Universal (P) Ltd. / Centraline Lubro-Tech Engineers Pvt. Ltd. / Bijur Delimon International
2.	Screw pumps	CIRCOR / Allweiler India Pvt. Ltd. / Nortek / Roto Pumps Ltd. / Del Pd-Pumps & Gears Private Limited (Rotodel) / Rotomac Industries Pvt. Ltd. / Delta Corporation / UT Pumps & Systems Pvt. Limited
3.	Gear pumps	Del PD Pumps & Gears Private Limited (Rotodel) / Allweiler India Pvt. Ltd. / Bosch Rexroth (India) Ltd. / Parker Hannifin India Pvt. Ltd./ Alfa Pumps and Systems / Prakash Lubriquipment Pvt. Ltd.
4.	Filters	Boll & Kirch / Pall Corporation / Hydac / Vizag Filters Pvt. Ltd. / Evergreen Filters / Genius Filters & Systems Pvt. Ltd. / Mikroflo Filters (P) Ltd. / AOF Filtration Systems (P) Ltd. / Refilcon Filters Pvt. Ltd. / Adarsh Udyog Pvt. Ltd. / Superflo Filters Pvt. Ltd. / Puromatic Filters Pvt. Ltd. / Cadillac Engineering Works / Davey Products / Filtration Engineering India Pvt. Ltd. / Gujarat Otofilt / Filter Concept Private Limited / Omega Filters India
5.	Basket Filter	Hydac / Pall Corporation / Ball Filters / Mikroflo Filters (P) Ltd. / AOF Filtration Systems (P) Ltd. / Refilcon Filters Pvt. Ltd. / Adarsh Udyog Pvt. Ltd. / Superflo Filters Pvt. Ltd. / Puromatic Filters Pvt. Ltd. / Cadillac Engineering Works / Davey Products / Filtration Engineering India Pvt. Ltd. / Gujarat Otofilt / Filter Concept Private Limited / Omega Filters India
6.	Basket Strainer for water	Superflo / Hydac / Multitex
7.	Heat exchanger (plate type), gasketed design	Alfa Laval India Private Limited / Tranter India Pvt. Ltd. / HRS Process Systems Ltd. / Danfoss (Sondex Heat Exchangers India Pvt. Ltd.) / Kelvion India Pvt. Ltd.
8.	Valves (globe, check, ball)	L & T Valves / KSB / Fouress Engineering (India) Private Limited / XOMOX
9.	Plug valves	L & T Valves / XOMOX / Bharat Heavy Electricals Ltd-ISBG / Leader Valves Limited / Chemtrols Samil (India) Pvt. Ltd. / S & M Industrial Valves Ltd. / Kamal Valves Pvt. Ltd. / Hawa Valves (India) Pvt. Ltd. / Flowserve India Controls Pvt. Ltd. / Ramesh & Shanti Engineering Works / Rasaii Flow Lines Private Ltd. / Valve-Tech Industries / Hawa Engineers Ltd / Canle Valves Pvt. Ltd. / Weir BDK Valves
10.	Relief valve	Leader / Samson Controls Private Limited / Forbes Marshall



Sl. No.	Item description	Preferred Vendors/Makes
11.	Pressure gauge	Wika Instruments India Pvt. Ltd. / STAUFF / Switzer Process Instruments Pvt. Ltd. / Altop Industries Ltd. / Forbes Marshall / Endress + Hauser (India) Pvt. Ltd. / Waaree Instruments Limited / Walchandnagar Industries Ltd. / Manometer (I) Pvt. Ltd. / Sree Guru Instruments & Appliances / Radix / Bose Panda Instruments Pvt. Ltd. / Radix Electrosystems Pvt. Ltd. / Anand Industries / H Guru Instruments / Asiatic Engineers (India) / Hirlekar Precision / Thermal Instrument
12.	Pressure switch	Switzer Process Instruments Pvt. Ltd./ Hydac / Danfoss / Bosch Rexroth (India) Ltd. / Parker Hannifin India Pvt. Ltd./ Kobold / WIKA Instruments India Pvt. Ltd. / Endress + Hauser (India) Pvt. Ltd. / Radix Electrosystems Pvt. Ltd. / Kaustubha Udyog / Anand Industries / Bosch Rexroth (India) Ltd. / Indfos Industries Ltd / Honeywell Automation India Limited / Schneider Electric India Pvt. Ltd. / Gauges Bourdon (India) Pvt. Ltd. / Waaree Instruments Ltd.
13.	Temperature indicator	Switzer Process Instruments Pvt. Ltd./ WIKA Instruments India Pvt. Ltd. / STAUFF
14.	Temperature switch	Switzer Process Instruments Pvt. Ltd./ WIKA Instruments India Pvt. Ltd. / Radix Electrosystems Pvt. Ltd. / Anand Industries / Lectrotek Systems (Pune) Pvt. Ltd.
15.	Thermostat	Hydac / Trafag / Johnson Control / Kobold
16.	Level indicator	Levcon Group / PINTSCH / Pune Tectral Private Limited / Stauff / Bosch Rexroth (India) Ltd.
17.	Level switch	Levcon Group / PINTSCH
18.	Level Indicator Switch	Sigma Instruments Company / Levcon Group / Shridhan Automation Pvt. Ltd. / Magnetrol International / Buhler Technologies / Pune Tectrol Private Limited / WEKA / Emersion / Kobold
19.	Flow switch	Kobold / SMC Corporation (India) Pvt. Ltd. / Flow Mon Limited / Levcon Group / Forbes Marshall / Magnetrol International / Siemens Switzer Process Instruments Pvt. Ltd. Krohne Marshall Pvt. Ltd. / D K Instruments Pvt. Ltd. / Lectrotek Systems Pvt. Ltd. / EIP Technologies
20.	Coupling	Love Joy (Timken) / KTR Systems GmbH
21.	Valve positioners	Fouress Engineering (India) Private Limited / Arca Controls Limited / Samson Controls Private Limited / ABB India Limited / KSB Limited / KOSO India Private Limited
22.	Air breather	Parker Hannifin India Pvt. Ltd. / Hydac / Pall Corporation
23.	Compensator (S.S)	Flexican Bellows & Hoses Private limited / Metallic Bellows (India) Pvt. Ltd.
24.	Heater	Alco / Escorts / Helios
25.	Pipes	Tata Steel / BST Infratech Limited / Jindal Pipes Limited / Indian Seamless / Maharashtra Seamless Limited / Choksi Tubes / Ratnamani Metals & Tubes Ltd.

Sl. No.	Item description	Preferred Vendors/Makes
26.	Fittings	N. L. Hazra & Son / Shyam Engineering
27.	Flanges	Echjay Industries Pvt. Ltd. / N. L. Hazra & Son / M. S. Fittings Manufacturing Co. Pvt. Ltd.
28.	Hoses	Gates Corporation / INSAP Engineers Pvt. Ltd. / Hydrokrimp A.C.
29.	Centrifuge	Alfa Laval India Private Limited / GEA / Pennwalt Limited
30.	Mobile motorised pump-motor filter unit for oil filling	Pall Corporation / Hydac / Parker Hannifin India Pvt. Ltd.
31.	Vacuum Dehydrator	Filtervac / Pall Corporation / Parker Hannifin India Pvt. Ltd. / Nortek
32.	Pressure Gauge & Temperature Gauge	A.N. Instruments Private Limited / H. Guru / WIKA Instruments India Pvt. Ltd. / Forbes Marshal / Hydac / kobold / Altop Industries Ltd. / Forbes Marshall / Wika Instruments India Pvt. Ltd. / Endress + Hauser (India) Pvt. Ltd. / Waaree Instruments Limited / Walchandnagar Industries Ltd. / Manometer (I) Pvt. Ltd. / Sree Guru Instruments & Appliances / Radix / Bose Panda Instruments Pvt. Ltd. / Radix Electrosystems Pvt. Ltd. / Anand Industries / H Guru Instruments / Asiatic Engineers (India) / Hirlekar Precision / Thermal Instrument / Stauff
33.	Differential Pressure Gauge cum Switch	Switzer Process Instruments Pvt. Ltd. / Danfoss / Indfoss / Hydac
34.	Heat Exchanger	Alfa Laval India Private Limited / Tranter India Pvt. Ltd. / Bharat Heavy Electricals Ltd / Bharat Heavy Electricals Ltd- ISBG / Excel Industries / G.B. Engg. Enterprises Pvt. Ltd. / Aero Engineers / Graduate Agro & Mechanical Engineer / Tinita Engineering Pvt. Ltd. / Chemiquip Industries / Novatech Process Equipments (P) Ltd. / Ammus Engineers (P) Ltd. / Radiant Heat Exchanger Pvt. Ltd. / Laxmi Engg Industries (Bhopal) Pvt. / Reliance Fabrications (P) Ltd. / Steelcons Engineers Pvt. Ltd. / United Cooling Systems (P) Ltd. / Universal Heat Exchangers Ltd. / GEI Industrial Systems Ltd. / Hindustan Radiators and Heat Exchangers Pvt. Ltd. / Sundaram Aircon Engineers Pvt. Ltd. / Maccann Engineering Private Limited / Acoustics India Private Limited / HRS Process Systems Limited / Oriental Manufacturers / Standard Equipments Pvt. Ltd. / Kelvion India Pvt. Ltd. / Ram Tech
35.	Flowmeter cum Totaliser	Rockwin / Forbes Marshall
36.	Oil Seals	Vaco Oil Seals / Rubber Equipment & Engg. / Sealjet India (Pune) / Champion Seals / Bijay Engineering Works / Kondapalli Enterprises / Venkateswara Rubber Products / Raghavendra Rubber Products / Indian Rubber Industries / Rolon Seals / S.S. Rubbers Pvt Ltd / Visakha Rubber

**RASHTRIYA ISPAT NIGAM LIMITED
VISAKHAPATNAM STEEL PLANT**



Sl. No.	Item description	Preferred Vendors/Makes
		Products / Max Spare Ltd. / Bright Rubber Works / Vako Seals Pvt. Ltd. / Crown Rubber Works / V.C. Polymers / Dichta Seals India Pvt. Ltd / India Oil Seals And Synthetic Produ / Pik India / Vijay Seals / Brite Rubber Industries / B J & P Engineers Pvt. Ltd / Paitandi Fluorocarbon Seals Pvt Ltd / Elastomeric Engineers / Seal Jet India Pvt Ltd / Rubber Equipment & Engg Co Pvt Ltd / Triple SSS Rubbers & Plastics / Presidency Rubber Mills Pvt Ltd / Pelican Rubber Industries / Asian Rubber Industrial Products / Veena Rubber Industries

Pneumatic systems

Sl. No.	Item description	Preferred Vendors/Makes
1.	Pneumatic system	Nucon Industries Pvt. Ltd. / Ross Controls India Pvt. Ltd. / SMC Corporation (India) Pvt. Ltd. / Eaton India / FESTO / Bosch Rexroth (India) Ltd. / Parker Hannifin India Pvt. Ltd. / Ruhfus Systemhydraulik GmbH
2.	Pneumatic valves	FESTO / Nucon Industries Pvt. Ltd. / Ross Controls India Pvt. Ltd. / Shavo Norgren (I) Pvt. Ltd. / SMC Corporation (India) Pvt. Ltd. / Hydac / Fouress Engineering (India) Pvt. Ltd. / Duncan Engineering Ltd. / Aira Euro Automation Private Limited / Fluidtecq Pneumatics Private Limited / R K Control Instruments Pvt. Ltd. / Xomox Sanmar Limited / Intervale Poonawalla Ltd.
3.	Pneumatic FRL unit	Veljan Hydrair Limited / Norgren / Ross Controls India Pvt. Ltd. / SMC Corporation (India) Pvt. Ltd. / FESTO / WIKA
4.	Pneumatic cylinders	Veljan Hydrair Limited / Nucon Industries Pvt. Ltd. / Schrader Bellows / Norgren / SMC Corporation (India) Pvt. Ltd. / Parker Hannifin India Pvt. Ltd. / Bosch Rexroth (India) Ltd. / Jami Hydraulics Private Limited / Salzgitter Hydraulics Pvt. Ltd. / Duncan Engineering Limited / FESTO / Om Shakthi Hydraulics Private Limited / Advance Systems Controls / Fluidtecq Pneumatics (P) Ltd. / R K Control Instruments Pvt. Ltd.
5.	Pneumatic Actuators	Technomech / Nucon Industries Pvt. Ltd. / Oscar Equipments Private Limited / Veljan Hydrair Limited
6.	Pressure switch	WIKA Instruments India Pvt. Ltd. / Switzer Process Instruments Pvt. Ltd. / Endress + Hauser (India) Pvt. Ltd. / Radix Electrosystems Pvt. Ltd. / Kaustubha Udyog / Anand Industries / Bosch Rexroth (India) Ltd. / Indfos Industries Ltd / Honeywell Automation India Limited / Schneider Electric India Pvt. Ltd. / Gauges Bourdon (India) Pvt. Ltd. / Waaree Instruments Ltd / Danfoss
7.	Pressure reducing valve	FESTO / Nucon Industries Pvt. Ltd. / Ross Controls India Pvt. Ltd. / SMC Corporation (India) Pvt. Ltd.
8.	Pneumatic speed control/ flow control valve	FESTO / Nucon Industries Pvt. Ltd. / Ross Controls India Pvt. Ltd. / SMC Corporation (India) Pvt. Ltd.
9.	Air Controls	Rotex / Schrader Bellows / Norgren / Nucon Industries Pvt. Ltd. / Ross Controls India Pvt. Ltd. / SMC Corporation (India) Pvt. Ltd. / Bosch Rexroth (India) Ltd. / Parker
10.	Airline silencer	FESTO / Nucon Industries Pvt. Ltd. / Ross Controls India Pvt. Ltd. / SMC Corporation (India) Pvt. Ltd.
11.	Pneumatic solenoid valve	FESTO / Nucon Industries Pvt. Ltd. / Ross Controls India Pvt. Ltd. / SMC Corporation (India) Pvt. Ltd.

List of Preferred Vendors/Makes – Electrical

Sl. No.	Item description	Preferred Vendors/Makes
A.	Extra High Tension (EHT) Substation Equipment (For 132 kV and above)	
1.	SF6 Circuit Breakers (SPRINGSPRING)	ABB / GE T&D / CGL / SIEMENS / BHEL
2.	Disconnecting Switch/ Isolators	SIEMENS / HIVELM / ALLIANCE
3.	Lightning Arrestors	SIEMENS / CGL / ELPRO / OBLUM / ABB / GE T&D / Raychem RPG
4.	CTs	BHEL / ABB / TELK / CGL / GE T&D / SIEMENS / AE
5.	Electromagnetic PTs	BHEL / ABB / TELK / CGL / GE T&D / SIEMENS / AE
6.	a. Power Transformers	BHEL / TELK / CGL / ABB / SIEMENS / GE T&D
	b. Dissolved Gas Analyzers (DGA)	SIEMENS / TRANSPO / A-EBURLEY / QUALITROL
7.	Insulators (Disc & Solid Core)	JAYASHRI INSULATOR / WSI / MODERN INSULATOR / BHEL
8.	Indoor GIS & Accessories	ABB / GE T&D / HITACHI / TOSHIBA / SIEMENS
9.	Control and Relay Panel	ABB / GE T&D / SIEMENS - (manufacturing in their own works)
B.	High Tension (HT) Substation Equipment (3.3 kV & above)	
1.	GIS & Accessories (CB-Vacuum)	SIEMENS / ABB / SCHNEIDER
2.	Vacuum Circuit Breaker Distribution Board (including circuit breakers)	BHEL / SIEMENS / SCHNEIDER (AREVA) / ABB / JYOTHI - (manufacturing in their own works)
3.	PTs (Panel mounted TYPE)	AE / PRAGATI / PRAYOG ELECTRICALS / SILKANS / KAPPA / INSTRANS / SCHNEIDER (AREVA) / ABB
4.	CTs (Panel mounted type)	AE / PRAGATI / PRAYOG ELECTRICALS / SILKANS / KAPPA / INSTRANS / SCHNEIDER (AREVA) / ABB / KALPA
5.	Busduct	C&S / ENPRO / NARMADA SWITCHGEAR / REEP Industries / STARDRIVE
6.	Reactor Air Cored Dry Type	HIND RECTIFIER / PS Electricals / QUALITY POWER / SUDHIR TRANSFORMERS / SHRIHANS
7.	Capacitors	BHEL / ABB / UNISTAR
8.	Vacuum Contactors	SCHNEIDER / BHEL / SIEMENS / ABB
9.	Lightning Arrestors & ZnO Surge Suppressors	ELPRO / RAYCHEM (TYCO) / SCHNEIDER / SIEMENS AG / OBLUM
10.	RC Surge Suppressors	RAYCHEM (TYCO) / MADHAV / OBLUM / ELPRO / JYOTHI
11.	HRC Fuses	SCHNEIDER / DP / S&S / COOPER BUSSMAN
12.	Neutral Grounding Resistor	NARKHADE / PEFCO / RESITECH / NATIONAL
13.	Indoor HT Isolators	DP / A BOND STRAND / ESWARI



Sl. No.	Item description	Preferred Vendors/Makes
14.	a.Power transformers (33 KV)	BHEL / BB / CGL / SCHNEIDER / TELK / ABB / SIEMENS / GE T&D / TRANSFORMERS AND RECTIFIERS / VOLTAMP / EMCO / KIRLOSKAR (KEC)
	b.Power Transformers (below 33 KV and earthing transformers)	BHEL / BB / CGL / SCHNEIDER / TELK / ABB / SIEMENS / GE T&D / TRANSFORMERS AND RECTIFIERS / VOLTAMP / EMCO / KIRLOSKAR (KEC) / INDOTECH Transformers / ESENNAR TRANSFORMERS
15.	LCSS distribution transformers (Oil-filled)	BB / CGL / SCHNEIDER / VOLTAMP / EMCO / KIRLOSKAR (KEC) / INDOTECH Transformers / SUDHIR Transformers / ESENNAR TRANSFORMERS / PETE-HAMMOND POWER SOLUTIONS PVT. LT.
16.	Cast Resin type distribution transformers	ABB / VOLTAMP / BHEL / KIRLOSKAR (KEC) / UNIVERSAL / RPG Raychem / SUDHIR TRANSFORMERS / PETE-HAMMOND POWER SOLUTIONS PVT.LT. / CGL
17.	Dry type distribution transformers (VPI)	KIRLOSKAR (KEC) / ABB / BHEL / VOLTAMP / BB / CGL / AMES IMPEX / SUDHIR TRANSFORMERS / PETE-HAMMOND POWER SOLUTIONS PVT. LT.
18.	Control and Relay Panel	ABB / GE T&D / SIEMENS / ENPRO / L&T / SCHNEIDER - (manufacturing in their own works)
19.	Power Socket outlets	A BOND STRAND / DP / INDO ASIAN / BCH
20.	Furnace Transformers	SIEMENS AG / AREVA (GE T&D) / ABB(ITALY) / TAMINI (ITALY)
C.	Medium Voltage / Low Voltage Switchgear and Control Gear(up to 1100 V)	
1.	ESP TR Sets	ADOR / KRAFT POWERCON / BHEL / HIND RECTIFIER
2.	Air Circuit Breaker Switch Board, fully drawout, single front for Substation (Process)	L&T / SIEMENS / ABB / SCHNEIDER / BCH / C&S
3.	Switch Board, fully drawout or semi drawout with ACBs & MCCBs single front for auxiliaries & Non process units	SIEMENS / BCH / L&T / SCHNEIDER / ABB / COSMIC POWER SYSTEM / Vijaya Switchgear Controls / MK Engineers / Control & Switchgear / UNILEC / MEDITRON / Innovative Systems / IND POWER / Divya Engineers
4.	Busduct	STARDRIVE / ECC Engg. Pvt. Ltd. / C&S / BRIGHT ENGINEERS / ENPRO UNITED ELECTRIC / COSMIC POWER SYSTEM / MK ENGINEERS
5.	Air Circuit Breaker	SIEMENS / L&T / ABB / SCHNEIDER / TERASAKI / C&S
6.	Moulded Case Circuit Breaker (MCCB)	SIEMENS / L&T / ABB / SCHNEIDER / BCH / HAVELLS / LEGRAND / Andrew Yule
7.	Intelligent Motor Control Centre	SIEMENS / ABB / SCHNEIDER / L&T / Rockwell-(manufacturing in their own works)
8.	Motor Control Centre for process units	L&T / SIEMENS / ABB / SCHNEIDER / BCH
9.	Motor Control Centre for auxiliaries & non-process units	SIEMENS / BCH / L&T / C&S / SEN & SINGH / MK Engineers / POWER & PROTECTION / COSMIC POWER SYSTEM / VIJAYA SWITCHGEAR CONTROLS / SCHNEIDER / INDPOWER, Vizag / MEDITRON / ABB /



Sl. No.	Item description	Preferred Vendors/Makes
		INNOVATIVE Systems / Divya Engineers / Padmaja Electricals
10.	Power Distribution Boards, Outdoor distribution boards Lighting Distribution boards and MCBDB (Custom Built)	ABB / SIEMENS / BCH / L&T / CGL / C&S / SEN & SINGH / IND POWER / MK Engineers / TECHNOCRATS / POWER & PROTECTION / COSMIC POWER SYSTEM / VIJAYA SWITCHGEAR CONTROLS / SCHNEIDER / SANTOSH ENGG WORKS, VIZAG / POWER CONTROL / UNILEC / MEDITRON / INNOVATIVE SYSTEMS / PADMAJA ELECTRICALS / Divya Engineers / ECC / ADLER ENSERV
11.	MPCB	SIEMENS / L&T / ABB / SCHNEIDER / C&S / BCH
12.	Enclosure for Automation Panels	BCH / RITTAL / Pyrotech / OEMs standard panels
13.	Enclosure for Drive Panels	BCH / RITTAL / OEMs standard panels
D.	Motors	
1.	HT AC Motor	KEC / BHEL / CGL / MARATHON / ABB / SIEMENS / WEG / TMEIC / JEUMONT / JYOTHI
2.	a. Synchronous & Sq. Cage Motors above 3000 kW	BHEL / SIEMENS / ABB / WEG
	b. Excitation system for Synchronous machines	BHEL / ABB / BASLER / SIEMENS
3.	LT AC Sq-cage induction Motor (General purpose)	SIEMENS / CGL / ABB / MARATHON / BB / KIRLOSKAR / ELGI / HINDUSTAN ELECTIC MOTORS / LHP / JYOTHI
4.	LT AC Motor (Flame proof)	KIRLOKAR (KEC) / CGL / SIEMENS / BB / MARATHON / HINDUSTAN ELECTIC MOTORS / LHP
5.	L.T. Geared Motor	KIRLOSKAR (KEC) / POWER BUILD / IC / BB / SEW / FIMET / NORD / DEMAG / ROSSI (ITALY) / KEB (GERMANY) / SIEMENS / LHP / New Allenberry Works
6.	DC Motors	CGL / KIRLOSKAR (KEC) / BHEL / SIEMENS / ABB / IEC
7.	Roller Table Motors (AC)	BB / KIRLOSKAR (KEC) / CGL / MARATHON (AREVA) / IC / ABB / ELECTROADDA Spa / NORD / WEG / LHP
8.	Motors For AC Drives (Inverter Duty)	ABB / SIEMENS / MARATHON / CGL / KIRLOSKAR / BBL / LHP / TMEIC / WEG
E.	Drives and Control Equipment	
1.	Converter duty cast resin transformer	BHEL / ABB / KEC / VOLTAMP / BB / RPG Raychem / SIEMENS / SCHNEIDER
2.	HT AC drives	SIEMENS / ABB / ROCKWELL / HITACHI / TMEIC
3.	AC drive for process units	BHEL / SIEMENS / ABB / ROCKWELL / SCHNEIDER / HITACHI / YASKAWA
4.	AC Drives for non-process units & auxiliary motors	BHEL / SIEMENS / ABB / YASKAWA / SCHNEIDER / Rockwell / DANFOSS / HITACHI / AMTECH / DELTA / L&T / FUJI
5.	DC Drive	SIEMENS / ABB / Control Technique / ANSALDO / SCHNEIDER / ROCKWELL AUTOMATION



Sl. No.	Item description	Preferred Vendors/Makes
6.	UPS	HITACHI HI-REL / VERTIV / LIVELINE / SCHNEIDER-APC / POWERONE / ABB / SIEMENS/CONSUL / GE / KELTRON / EMERSON (LIEBERT) / APLAB / AMARA RAJA
7.	Isolator	SIEMENS / L&T / C&S / ABB / BCH / SCHNEIDER / KAYCEE
8.	AC Power Contactor	SIEMENS / L&T / BCH / ABB / SCHNEIDER / C&S
9.	DC Power Contactor	BCH / SIEMENS / L&T / ABB / SCHNEIDER
10.	LT Capacitor	UNISTAR / CGL / DANDAPANI / Madhav / ABB
11.	Semiconductor Fuse	ALSTOM / SIEMENS / FERRAZ / COOPER BUSSMAN / ABB / Panicker switchgear
12.	Vacuum Contactor	SCHNEIDER / L&T / SIEMENS / ABB / CGL
13.	Soft-starter (LT)	ABB / ROCKWELL / SIEMENS / SCHNEIDER
F.	Control Desks and Control Devices	
1.	Control Desk	PYROTECH / RITTAL / L&T / BCH
2.	Control Panel/ Control Station /Power Junction Box	PYROTECH / RITTAL / SIEMENS / L&T / BCH / BHEL / C&S / TECHNOCRAT / MEDITRON / SEN & SINGH / POWER & PROTECTION / VIJAYA SWITCHGEAR / COSMIC POWER SYSTEM / MK ENGINEERS / INNOVATIVE SYSTEMS / ABB / SCHNEIDER / INDPOWER, VIZAG / ECC / SWITCHING CIRCUITS
3.	Push Button	SIEMENS / BCH / L&T / VAISHNO / C&S / SCHNEIDER / TECHNIC / ESSEN / SALZER / KAYCEE
4.	Limit Switch	AG SYSTEMS / JAY BALAJI / TECHNOCRATS / ELECTROMAG / JSI / TECHNIC / SIEMENS / BCH / KAKKU (EPCC) / INDUSTRIES SYNDICATE / DYNATROL / STROMKRAFT / ESSEN / JAYSHREE / KAYCEE
5.	Change Over Switch / Selector Switch / Control Switch	SEIMENS / L&T / KAYCEE / C&S / SALZWR ELECTRONICS / STANDARD / HHE / BCH / INDOASIAN / ABB /SWITRON / HAVELLS / HPL / SCHNEIDER / VAISHNO / ABB
6.	Discrepancy Control Switch	ABB / AG SYSTEMS / DAV
7.	Time Delay Relay	BCH / L&T / SIEMENS / ABB
8.	Emergency Switch / Belt Sway Switch / Pull Cord Switch / Belt Slip Switch	JSI / AG SYSTEMS / PB / JAI BALAJI / JAYASHREE / KAKKU (EPCC) / TELEMCHANIQUE / STROMKRAFT / PROTO CONTROL / EPC
9.	Semaphore Indicator	ALSTOM / SIEMENS / DAV
10.	Auxiliary Relay/ Control Contactor	SIEMENS / L&T / BCH / C&S / ABB / SCHNEIDER / ROCKWELL
11.	Master Controller	SIEMENS / STROMKRAFT / ELECTROMAG AG Magnetics / Perfect Electrics / KAKKU (EPCC) / SCHNEIDER / SPEED-O-CONTROL
12.	Control Transformer	Sudheer Transformers / SIEMENS / AE / INDUSREE / KAPPA / ANU ELECTRICALS / INSTRANS / POWER SERVICES, Kolkata / INDUSREE, Kolkata



Sl. No.	Item description	Preferred Vendors/Makes
13.	Voltage / Power / Current / Frequency / Energy Transducers	ABB / AE / SIEMENS / ELSTER / ADEPT / ALSTOM
14.	Indicating Lamp (Cluster LED type)	SIEMENS / VAISHNO / TECHNIK / BINAY / J-AUER / BCH / ESSEN / L&T / AVNI / SCHNEIDER
15.	Temperature Scanner	JYOTI / APLAB / SYSTECH / MASIBUS
16.	Hooter / Buzzer / Bell	KHERAJ / KAKKU (EPCC) / VAISHNO / BEMCO / GETCO / BRITISH ELECTRIC
17.	Solid State Annunciator	APLAB / L&T / PROCON / CONTROL AND DYNAMICS / MINILEC / ELECMECH / ALAN
18.	Proximity Limit Switches (Non-contact type)	JSI / AG SYSTEMS / ROCKWELL / TELEMECHANIQUE / P&F / SICK / VIRTUAL / TRUCK India Automation Pvt. Ltd / IFM
19.	Zero Speed Switches	JAYSHREE / TELEMECHANIQUE / AG MECHANICAL / KAKKU / TECHNOCRATS / SCHNEIDER-SAMWHA / SIEMENS / ROCKWELL / KANA
20.	LT Current Transformer	AE / KAPPA / Sudheer Transformers / ABB / JAYASHREE / PRECISE / INSTRANS
21.	LT Voltage Transformer	AE / KAPPA / Sudheer Transformers / ABB / JAYASHREE / PRECISE / INSTRANS
22.	Tachos / Encoders	BAUMER-HUBNER / IFM / LEINE & LINDE / ROCKWELL AUTOMATION (ALLEN BRADLEY) / P&F / VURLEY-TELEDYNE / JOHANNES HUBNER / KUEBLER / EXELLA (For analog Tacho) / JAYASHREE (For analog Tacho)
23.	Track Type Limit Switches	TECHNOCRATS / SROM-CRAFT / KAKKU (ELECTRONIC & POWER CONTROL) / ELETROMAG / UNION ENGG / JAIBALAJI / INDUSTRIES SYNDICATE / BCH / EP & C / R.K. ELECTRICALS / SPEED-O-CONTROL / JAYASHREE / BENGAL TECHNOCRATS / AG SYSTEMS / JSI / TECHNIC / SIEMENS
G.	Protection Relays	
1.	Numerical Protection Relays (for HT system) / Sub-station Automation system (SAS)	ABB / SIEMENS / SCHNEIDER (Micom) / GE T&D (Multilin, Micom) / E-ABERLE (only Transformer management relay)
2.	Numerical Protection Relays (for LT system)	ABB / SIEMENS / GE (Multilin) / SCHNEIDER / L&T (MM30) / ASHIDA
3.	a. Electronic Motor Protection Relays / Electronic over current relay	SCHNEIDER / L&T / SIEMENS / ABB / C&S / BCH
	b. Microprocessor based Motor Protection Relays for LT Motors	SIEMENS / L&T / SCHNEIDER / ABB
	c. Microprocessor based Protection Relays for HT Motors	ABB / GE T&D / SCHNEIDER / SIEMENS



Sl. No.	Item description	Preferred Vendors/Makes
4.	Thermal Overload Relay	SEIMENS / L&T / ABB/ BCH / C&S / ANDREW YULE / ROCKWELL / JYOTHI LTD / JVS / SCHNEIDER / TELEMCHANIC & CONTROL
H.	Electrical Measuring and Testing Equipment	
1.	Ammeter / Voltmeter (Digital)	AE / MECO / RISHAB / CONZERV / SEMS / MINILEC / L&T
2.	Watt-hour meter	ALSTOM / BHEL / IMP / MECO / HPL / SEMS
3.	PF meter	AE / IMP / MECO / SEMS
4.	Frequency meter	AE / IMP / SEMS
5.	Electronic energy meter	CONZERV (ENERCON) / SEMS / SATEC / L&T / HOTLINE / IMP / MOTWANE / HPL
6.	Multifunction Meter	CONZERV / SEMS / L&T / SCHNEIDER / HPL
I.	Special Instruments	
1.	Microprocessor based digital power meter	AE / MECO / ALACRITY / DIGI
2.	Maximum demand meter	AE / MECO / SEMS
3.	Relay testing kit	OMICRON / MEGGER / KREJA / DOBLE / SCOPE
4.	IR tester	MEGGER / FLUKE / MOTWANI / MECO / RISABH / SCOPE / YUKOGAWA
5.	Cable fault locator	BAUR / MEGGER / DYNATEL / HIPTRONICS / FLUKE
J.	Lighting And Power Wiring Equipment And Accessories	
1.	LED Lighting Fitting	PHILIPS / HAVELLS / BAJAJ / CROMPTON / WIPRO
2.	Flameproof Lighting Fittings and Accessories	BAJAJ / BALIGA / CROMPTON / SUDHIR / FCG / CEAG / PROMPT/ GOVAN
3.	a. 240 V Switch Socket Outlet (10A&20A)	HENSEL / HAVELL'S / BCH / ABB / LEGRAND/ SUDHIR / INDO ASIAN / HPL
	b. 415 V Switch Socket Outlet (30A, 63A&100A)	BCH / ABB / HENSEL / LEGRAND / INDO ASIAN / HPL
4.	Flame-proof Equipment	BALIGA / SUDHIR / FCG / PROMPT / GOVAN / CEAG
5.	MCB	LEGRAND / STANDARD / SIEMENS / HPL / HAVELL'S / SCHNEIDER / INDO ASIAN / ABB / L&T / C&S
6.	ELCB	LEGRAND / SIEMENS / SCHNEIDER / HAVELL'S / HPL / HAGER / INDOASIAN / ABB / C&S
7.	MCB DB	LEGRAND/ HAVELL'S / SCHNEIDER / SIEMENS / HPL/ INDOASIAN / ABB / HENSEL / C&S
8.	Single-core flexible copper wire	RAJNIGANDHA / HAVELL'S / FINOLEX / THERMO PAD / NICCO / RPG / FINECAB / RADIANT / POLYCAB / LAPP / DELTON / UNIFLEX / KDK
9.	High Mast Towers	BAJAJ / BP Projects / VENTURA / UTKARSH / VALMONT, Hyderabad
10.	Street Light Poles	BAJAJ / BP Projects / VENTURA / UTKARSH / VALMONT, Hyderabad / SURYA ROHINI



Sl. No.	Item description	Preferred Vendors/Makes
11.	Dry type transformers (Lighting)	AE / SAITECH(VIZAG) / ANU ELECTRICALS / SUDHIR TRANSFORMERS / VOLTAMP / KEC
12.	FRP / SMC Junction boxes, switch socket outlets, P. B. stations)	RITTAL / HENSEL / DEVI POLY MERS / SHRENICK / SINTEX / LOTUS FIBRE
13.	240 V Modular Switches, Ceiling Fan Regulators & Socket Outlets	LEGRAND / HAVELLS / SCHNEIDER / ABB
14.	Ceiling Fans / Exhaust Fans / Wall Mounted / Pedestal Fans	ALMONARD / CGL / HAVELLS / BAJAJ / USHA / ORIENT / KHAITAN / SCHNEIDER
15.	Timer	BCH / L&T / SIEMENS / ABB / LEGRAND/ SCHNEIDER / MINILEC / C&S / BCH
K.	Cables and Cabling Accessories	
1.	220 KV XLPE Cable	CCI (INDIA) / UNIVERSAL CABLES (INDIA) / BRUGGS CABLE (UK) / PHELPS DODGE (THAILAND) / NEXANS (SWITZERLAND)
2.	33 kV / 11 kV / 6.6 kV XLPE Cable (Triple extrusion dry cured method)	KEC / UNIVERSAL / CCI / TORRENT CABLES / CRYSTAL / UNIFLEX / RAVIN / POLYCAB / KEI / GUPTA POWER INFRASTRUCTURE LIMITED
3.	a. LT PVC / XLPE / HRPVC Cable (Power)	KEC / UNIVERSAL / CCI / TORRENT / POLYCAB / FINECAB / RADIANT / CRYSTAL / SPECIAL / RAVIN / HAVELLS / KEI / GLOSTER / GUPTA / LAPPS / CORDS / THERMO CABLES LTD / GEMSCAB INDUSTRIES LTD / PRESTIGE CABLE INDUSTRIES / PRIME CABLE INDUSTRIES / NANGALWALA INDUSTRIES PRIVATE LIMITED / BMI CABLES PRIVATE LIMITED / INSUCON CABLES & COND. (P) LTD
	b. LT PVC / XLPE / HRPVC Cables (Control)	KEC / UNIVERSAL/ TORRENT / POLYCAB / DELTON / CCI / CORDS / SPECIAL / CAPCAB / FINECAB / RADIANT / CRYSTAL / LAPP / Thermopads / KEI / RAVIN / HAVELLS / FINOLEX / RR KABEL / PRESTIGE CABLE INDUSTRIES / GEMSCAB INDUSTRIES LTD / NANGALWALA INDUSTRIES PRIVATE LIMITED / BMI CABLES PRIVATE LIMITED / GUPTA POWER INFRASTRUCTURE LIMITED / INSUCON CABLES & COND. (P) LTD / PRIME CABLE INDUSTRIES / SHYAM CABLE INDUSTRIES / TC COMMUNICATIONS PVT LTD / ADVANCE CABLE TECHNOLOGIES (P) LTD / MANOJ CABLES LIMITED / NESKEB CABLES PVT LTD
4.	Silicon Rubber insulated copper Cable	KEC / UNIFLEX / UNIVERSAL / INCAB / CCI / POLYCAB / LAPP / TORRENT / UNITED / BMI
5.	Flexible trailing copper cable	RPG / UNIVERSAL / CCI / LAPP / Thermopads / POLYCAB / TORRENT / KEI / PRESTIGE CABLE INDUSTRIES / IMT CABLES PVT. LTD / BMI CABLES PRIVATE LIMITED / SHYAM CABLE INDUSTRIES / UNITED CABLE INDUSTRIES

Sl. No.	Item description	Preferred Vendors/Makes
6.	33 KV / 11 KV / 6.6 KV Cable Termination Kit / straight through jointing kits	RAYCHEM RPG / 3-M / YAMUNA GASES (DENSION)
7.	1.1KV Cable Termination Kit / straight through jointing kits	RAYCHEM RPG / 3-M / DENSION / CCI
8.	Cable Reeling Drum	ELECTRO ZAVOD / ELECTROMAG / BENGAL TECHNOCRATS / STEMMANN TECHNIC / INDUSTRIES SYNDICATE
9.	220KV Cable Termination Kit / straight through jointing kits	ABB KABELDON / PFISTERER / NEXANS / BRUGGS / SEFAG / TYCO
L.	Miscellaneous	
1.	Battery (Lead Acid)	EXIDE / AMCO / STANDARD / HBL-NIFE (SABNIFE) / AMAR RAJA / Hoppecke / RELIANCE
2.	Battery (SMF)/ NiCd Battery	EXIDE / HBL-NIFE / AMAR RAJA / AMCO
3.	Winding and Oil Temperature Indicator	SKII / PRECI MEASURE / PRECISION INSTRUMENT / PERFECT CONTROL / OSMADIAL / PECON
4.	Magnetic Oil Level Indicator	SUKRUT / PRESS-N-FORGE / ATVUS / Preci Measure
5.	Buchholz Relay	PRAYOG / ATVUS / PRESS-N-FORGE /SUKRUT
6.	Battery Charger	HBL-NIFE (SABNIFE) / CHHABI ELECTRICALS / DEBIKAY / DUBAS / CHLORIDE / AMAR RAJA / HI-RECT / UNIVERSAL / AE / AP LAB / CONTROL TECHNIQUE / KELTRON
M	Crane Electrics	
1.	a. Motors	SIEMENS / ABB / (KIRLOSKAR) KEC / MARATHON / BB / CGL (CGL shall not be used for heavy duty / extra heavy duty cranes)
	b. Inverter Duty Motors (Heavy Duty / Extra Heavy Duty)	(KIRLOSKAR) KEC / MARATHON / BBL / SIEMENS / ABB / WEG
	c. Inverter Duty Motors (Other Than Heavy Duty / Extra Heavy Duty)	KIRLOSKAR (KEC) / MARATHON / BBL / SIEMENS / ABB / CGL / LHP / WEG
2.	AC Power Contactor	SIEMENS/ BCH / L&T / ABB / SCHNEIDER
3.	Electronic Overload Relay	SIEMENS / L&T / ABB / SCHNEIDER
4.	Push Button	SIEMENS / L&T / BCH / VAISHNO / SCHNEIDER / TECHNIC / KAYCEE / C&S
5.	Master Controller	SIEMENS / KAKKU (EPCC) / STROMKRAFT / ELEKTROMAG (EMM) / Schneider / Speed-O- Control
6.	Terminal (Screw Type Hexagonal Head)	ESSEN / ELMEX / CONNECTWELL / PHOENIX
7.	Safety Switch	SIEMENS / L&T / KAYCEE / KAKKU (EPCC)
8.	Time Delay Relay	BCH / SIEMENS / L&T / ABB / SCHNEIDER



Sl. No.	Item description	Preferred Vendors/Makes
9.	Control Panel	SIEMENS / BCH / ABB / SCHNEIDER / RITTAL
10.	Crane Power Conductor Accessories	ARMATIC / IMSS / ENGG. SPARES / STROMAG / VAHLE (Imported) / IEP
11.	Trailing Cable Arrangement / E-Chain Systems	IGUS / CONDUCTIX / BEWA- GERMANY / VAHLE(IMPORTED) / STEMMANN TECHNIK
12.	Ergonomic Control Station with Cabin	BRIEDCABINS (Imported) / EMCO
13.	Remote Radio Control	CONTROL CHIEF / ACROPOLIS / STROMAG / SPEED-O-CONTROL / LOTUS (NBB MAKE) / EMM / SNT
14.	AC Drive	SIEMENS / ABB / ROCKWELL / SCHNEIDER / YASKAWA / DELTA (for cranes other than heavy duty and Extra heavy duty) / FUJI (for cranes other than heavy duty and Extra heavy duty)
15.	Air Conditioner	LINTERN/ SULZER/ DAIKEN / IPW / FRIGORTEC
16.	Electro Magnet (Circular) - Cold Material Handling	KAKKU (EPCC) / ELEKTOMAG (EMM) / SUPERLIFT / SGM / TRUNINGER
17.	Electro Magnet (Rectangular) - Hot Material Handling	TRUNINGER / SGM / SHINKO / OHIO / SARDA
18.	Joystick Controller	SPOHN & BUCKHARDT / SIEMENS / KAKKU(EPCC) / STROMKRAFT / ELEKTROMAG (EMM) / GESSMENN
19.	Armchair Unit	KAKKU / BRIEDCABINS
20.	Rotary Cam Limit Switches (Mech.)	TECHNOCRATS / A G ENGG / A G MECHANICAL / STROM-CRAFT / KAKKU (ELECTRONIC & POWER CONTROL)
21.	Flame Proof Switches / Sockets / Control Stn. / Local Push Button Stn. / JB's	FLAME PROOF CONTROL GEAR PVT LTD / BALIGA / SUDHIR / GOVAN / PROMPT

**List of Preferred Vendors/Makes-Instrumentation, Automation,
Telecommunication, Datacom & FDA**

A) Control Room Equipment

Sl. No.	Item description	Preferred Vendors/Makes
1.	Distributed Control System (DCS)	YOKOGAWA / HONEYWELL / EMERSON / ABB / SIEMENS
2.	PLC System	ROCKWELL AUTOMATION / SIEMENS / ABB / SCHNEIDER / GE / HONEYWELL
3.	HMI Software	WONDERWARE (INTOUCH) / INTELLUTION(FIX) / US DATA (FACTORY LINK) / SIEMENS-WINCC
4.	Controller	YOKOGAWA / HONEYWELL / SIEMENS / ABB / EURO THERM
5.	Recorder (Chartless)	YOKOGAWA / LAXONS(CHINO) / EURO THERM / ABB / HONEYWELL / SIEMENS
6.	Bargraph Indicator & Digital Indicator	MASIBUS / EURO THERM / YOKOGAWA / HONEYWELL LECTROTEK / MICRO SYSTEMS / TOSHNIWAL / ASHE CONTROLS / FORBES MARSHALL / PYROTECH
7.	Totaliser	YOKOGAWA / ABB / MASIBUS / HONEYWELL
8.	Scanner	MASIBUS / APLAB / ECIL / WAAREE / M B CONTROLS / PROCON / LECTROTEK / MICRO SYSTEMS / PYROELECTRIC / TOSHNIWAL
9.	Alarm Annunciator	IIC / MINILEC / PROCON / PIRI / APLAB / ICA / DIGICONT / MB CONTROLS & SYSTEM / MINILEC / PROCON / SEMUDA / PYROTECH / MICRO SYSTEMS / LEKTROTEK / L&T / CONTROL AND DYNAMICS / ELECMECH / ALAN
10.	Signal Isolator/ Multiplier	MTL / YOKOGAWA / MASIBUS / PEPPERL & FUCHS / PHOENIX / STAHL / RADIX
11.	PLC/ DCS Panel	RITTAL / PYROTECH / PLC & DCS manufacturers standard
12.	Instrument Panel / Cabinet / Desk / Consoles	HOFFMANN / RADHAKRISHNA CONTROLS / RITTAL / PYROTECH / SIMCON / VERO
13.	Power Supply Unit	SIEMENS / PHOENIX / MTL / COSEL / P&F / SCHNEIDER / APLAB / PYROTECH / ABB / LAMDA
14.	Intrinsic Safety Barrier	MTL / P&F / ABB / STAHL / TURCK
15.	Interposing Relay	OMRON / OEN / SIEMENS / PHOENIX

B) Field Instruments

Sl. No.	Item description	Preferred Vendors/Makes
1.	Pressure Gauge	GIC / H.GURU / WAREE / GE GAUGES PVT LTD / WIKA / FORBES MARSHALL / AN INSTRUMENTS / GENERAL INSTRUMENTS / BAUMER / WALCHANDNAGAR / ASHCROFT / RADIX / STANDARD INSTRUMENTS / THERMAL INSTRUMENTS / GAUGES BOURDON
2.	Differential Pressure Gauge / Draft Gauge	WAREE / WIKA / AN INSTRUMENTS / GENERAL INSTRUMENTS / BAUMER / ASHCROFT / RADIX / STANDARD INSTRUMENTS / THERMAL INSTRUMENTS / SWITZER
3.	Pressure and DP (Flow and Level) Transmitters (Electronic / Smart Type)	EMERSON / YOKOGAWA / HONEYWELL / ABB / SIEMENS / ENDRESS & HAUSER / FUJI
4.	Pressure Switch / DP Switch (Solid State)	WIKA / E+H / SWITZER / INDFOSS / IFM / HYDAC / BAUMER / ASHCROFT / GAUGES BOURDON / KAUSTUBHA / TURCK
5.	Temperature Gauge	WIKA/ GIC / H.GURU / A N INSTRUMENTS / WAAREE / BAUMER / WALCHANDNAGAR / ASHCROFT / FORBES MARSHALL / GOA INSTRUMENTS / GAUGES BOURDON / MANOMETER INDIA
6.	Thermocouple & RTD with Thermowell	NAGMAN / TEMPSENS / TOSHNIWAL / GIC / PYRO ELECTRIC INSTRUMENTS / INDUSTRIAL INSTRUMENTATION / BAUMER / ALTOP / THERMAL INSTRUMENTS / STANDARD INSTRUMENTS / GAUGES BOURDON / GOA INSTRUMENTS / TEMCON / RADIX / TECHNO INSTRUMENTS
7.	Temperature Transmitter	YOKOGAWA / ABB / HONEYWELL/ EMERSON / SIEMENS / ENDRESS & HAUSER.
8.	Temperature Switch	SWITZER / INDFOSS / HONEYWELL / VERMA TRAFAG / ENDRESS & HAUSER / WIKA / ASHCROFT / GOA INSTRUMENTS / IFM
9.	Level Gauge	GIC/ DKI/ BLISS ANAND / PUNE TECHTROL / BAUMER / CHEMTROLS / GAUGES BOURDON / SIGMA / V AUTOMAT / DK INSTRUMENTS
10.	Level Switch (Conductivity / Capacitance / RF Type)	ENDRESS & HAUSER / VEGA / SBEM PVT. LTD. / PUNE TECHTROL / NIVO CONTROLS / SAPCON / SIEMENS / TOSHBRO / KROHNE / ENDRESS & HAUSER / SWITZER / IFM / V AUTOMAT / EIP ENVIRO (FOR CAPACITANCE TYPE) / PROTOCONTROLS (FOR CAPACITANCE TYPE)/ FLOW STAR
11.	Level Switch (Vibrating Fork / Rod Type)	SBEM / NIVO CONTROLS / SAPCON / EMERSON / SIEMENS / VEGA / ENDRESS & HAUSER / K-TEK

SL. No.	Item description	Preferred Vendors/Makes
12.	Level Switch (Float / Displacer Type)	D K INSTRUMENTS / CHEMTROLS / EMERSON / PUNE TECHTROLS / SBEM / SCIENTIFIC DEVICES / GAUGES BOURDON / BAUMER / SIGMA / V AUTOMAT
13.	Level Transmitter / Switch (Ultrasonic type)	ENDRESS & HAUSER / SIEMENS / FORBES MARSHALL / EMERSON / SBEM / VEGA / ABB / CHEMTROLS / K-TEK / KROHNE
14.	Level Transmitter / Switch (Radar type)	VEGA / ENDRESS & HAUSER / EMERSON / SIEMENS / FORBES MARSHALL / SBEM / MATSUSHIMA / K-TEK / ABB / KROHNE
15.	Electronic Drum Level Indicator	HI-TECH / YARWAY / SOLATRON / BHEL
16.	Junction Box	RITTAL / PYROTECH / BALIGA / HENSEL / PEPPERL & FUCHS / SUMIP
17.	Nucleonic Level Gauge	CONCORD (BERTHOLD) / EMERSON (K-RAY) / ECIL / ENDRESS & HAUSER / THERMO-FISHER / VEGA
18.	Rotameter	KHRONE / IEPL / EMERSON(BROOKS) / FORBES MARSHALL / INSTRUMENTATION ENGINEERS / KROHNE MARSHALL / PLACKA / EUREKA / CHEMTROLS / SCIENTIFIC DEVICES / ROTA INSTRUMENTS
19.	Flow Elements (Orifice Plate, Nozzle, Ventury Tube)	ENGINEERING SPECIALITIES / MECH. ENGR./ MICRO-PRECISION / CHEMTROLS / UNICONTROLS MINCO INDIA / FLOW ELEMENTS PVT. LTD. / EUREKA (ORIFICES) / HYDRO-PNEUMATICS
20.	Electromagnetic Flowmeter	ENDRESS & HAUSER / FORBES MARSHALL / YOKOGAWA / EMERSON / HEINRICHS / BURKERT / KHRONE / ABB
21.	Ultrasonic Flowmeter	ENDRESS & HAUSER / FORBES MARSHALL / YOKOGAWA / EMERSON / GE / KHRONE / ABB
22.	Positive Displacement Flowmeter	TOSH. HYD(BOPP&REUTHER) / ROCKWIN / ABB / SWITZER / DANIEL / SMITH / LIQUID CONTROLS
23.	Vortex Flowmeter	ENDRESS & HAUSER / YOKOGAWA / KROHNE / EMERSON / ABB / FORBES MARSHALL / GE / SIEMENS
24.	Mass Flowmeter	EMERSON / ABB/ ENDRESS & HAUSER / YOGOKAWA / KROHNE / FORBES MARSHALL / ROCKWIN / SIEMENS / HEINRICH
25.	DP type flowmeter	EMERSON / ABB / ENDRESS & HAUSER / YOGOKAWA / KROHNE
26.	Control Valve And On-Off Valve	IL / FISHER-XOMOX / SAMSON / DRESSER MASONEILAN / FOURESS / FORBES MARSHALL (ARCA) / DEMBLA / METSO / FLOWSERVE (VALTEX) / SEVERN GLOCON
27.	Electric Actuator	AUMA / LIMITORQUE / ROTORK / ABB / EL-O-MATIC / MARSH / ANTRIEB / BERNARD / KEYSTONE
28.	I/ P converter	YOKOGAWA / EMERSON / MOORE / ABB / HONEYWELL / FORBES MARSHALL / FISHER-XOMOX



SL. No.	Item description	Preferred Vendors/Makes
		/ SHREYAS- BARTON / BELLOFRAM INSTRUMENTS / MIL CONTROLS / WATSON SMITH
29.	Electro-Pneumatic Positioner/ Pneumatic Actuator & Positioner	IL / FISHER-XOMOX / SAMSON / DRESSER MASONEILAN / SIEMENS / FORBES MARSHALL / INSTRUMENTATION LTD. / MIL CONTROLS / DEMBLA / SAMSON / FORBES MARSHALL / ELOMATIC / METSO / FLOWERVE (VALTEK) / KEYSTONE / SMC PNEUMATICS
30.	Pneumatic Power Cylinder	ASCO / NORGREN-HERION / INSTRUMENTATION LTD.
31.	Electro-Hydraulic Actuator	REXA / REINEKE
32.	Stainless Steel Impulse Tube / Pipe	FLOWTECH / FLUID CONTROLS / HYDAIR / CHOKSI TUBES / SANDVIK / MAHALAKHSMI
33.	Solenoid Valve	AVCON / ROTEX / ASCO / SCHRADER / BURKET / NORGREN-HERION / PRECISION / FESTO
34.	Air Filter Regulator	PLACA / SHAVO NORGREN / SCHRADER-SCHOVILL / ASCO / NORGREN-HERION / BELLOFRAM INSTRUMENTS
35.	Encoder	P&F / ROCKWELL / HUBNER / LIEN&LINDE / IFM / VURLEY-TELEDYNE
36.	Flow Switch	ENDRESS & HAUSER / IFM / D.K. INSTRUMENTS, TURCK, SWITZER
37.	Mass Flow Controllers cum Indicators	BRONKHORST / BURKERT / BROOKES
38.	Hydraulic Electronic Pressure transmitters	HYDAC / WIKA / REXROTH / TURCK / IFM / PARKER / BARKSDALE / SCHNEIDER
39.	Hydraulic Electronic Pressure SWITCHES CUM transmitters	HYDAC/WIKA / REXROTH / TURCK / IFM / PARKER / BARKSDALE / SCHNEIDER

C) Special Instruments

Sl. No.	Item description	Preferred Vendors/Makes
1.	Electronic Weighing System	ABB / SCHENCK / SARTORIOUS MECHATRONICS / TRANSWEIGH / METTLER- TOLEDO / KLISTER-MORSE / RICELAKE / ASHBEE / AVERY / SCHENCK / SENLOGIC / ESSAE DIGITRONICS / DIGITAL WEIGHING / VISHAY SANMAR / MINEBEA INTEC / BCS ITALY / IPA
2.	In-Motion Rail Weigh Bridges	RDSO APPROVED AGENCIES
3.	Road Weighbridges	Approved OEM of Weights & Measures Authority
4.	Static Rail Weighbridges	Approved OEM of Weights & Measures Authority
5.	Gas Analysers	EMERSON / ABB ANALYTICAL / SIEMENS / YOKOGAWA / HONEYWELL (TELEDYNE)/ FUJI / SICK-MAIHAK / FORBES MARSHALL / AMETEK (O2) / THERMO ELECTRON / PANAMETRICS / SERVOMEX
6.	Gas Detection System	MSA/ BEILER LANGE / EMERSON / DRAEGER / HONEYWELL / OLDHAM / GENERAL MONITORS / DETRONICS / CROWCON
7.	Steam & Water Analysis System	FORBES MARSHALL / ABB ANALYTICAL / YOKOGAWA / E+H / EMERSON / THERMO FISHER / HACH-POLYMETRON / ORION
8.	ORP/ PH and conductivity meter	EMERSON / ABB ANALYTICAL / YOKOGAWA / FORBES MARSHALL / TOSHBRO CONTROLS / THERMO FISHER / ENDRESS & HAUSER / HONEYWELL / HACH
9.	Infrared Pyrometer	IRCON / LAND / HONEYWELL / FLUKE / TOSHNIWAL (RAYTEK) / KELLER, HCW / WILLIAMSON/TEMPSENS/EARTH TEKNIKS
10.	Molten Metal Temperature/ Oxygen Measurement System	HERAEUS ELECTRO-NITE / FERROTRON GMBH / SEIDERMES (ITALY)
11.	Moisture Analyser	CONCORD (BERTHOLD) / EMERSON (K-RAY) / ECIL / YOKOGAWA / CHINO- LAXSONS / ABB ANALYTICAL / MICHELLE / FOXBORO / BARTEC / GE-PANAMETRICS / MOIST TECH
12.	Moisture Analysers (Nucleonic)	DR. BERTHOLD / EMERSON
13.	Vibration Monitoring Systems (For critical equipments like Turbine, Compressor, Blowers, etc.)	BENTLEY-NEVADA / SHINKAWA
14.	Vibration Sensor & Monitor	BENTLEY-NEVADA / SHINKAWA / SCHENCK / ROCKWELL AUTOMATION / SPM INSTRUMENTS / IRD MECHANALYSIS / SCHENK-ROTEC / METSO / FORBES MARSHALL / MASIBUS / BRUEL & KJAER

Sl. No.	Item description	Preferred Vendors/Makes
15.	Pollution Control & Stack Monitoring System	DRAGER / HONEYWELL / ENVIROTECH / EMERSON / DURAG / FORBES MARSHALL / OPSIS / THERMO FISHER / SINTROL
16.	Flame Detector	HONEYWELL / FIRE-EYE / KROM SCHODER / DURAG
17.	Calorific Value Analyser	UNION / REINEKE / YOKOGAWA / SIEMENS / ANALYSEN / MESS-UND SYSTEMTECHNIK (AMS)
18.	Hot Metal Detector	WEBER SENSORS / DELTA / IMPAC ELECTRONICS / P&F / AMERICAN SENSORS / LOGIKA
19.	Loop Scanner	DELTA / DANIELI

D) Cables and Accessories

SL. No.	Item description	Preferred Vendors/Makes
1.	Screened Cables, Control Cables	DELTON / FINOLEX / SPECIAL CABLES / ELKAY TELELINKS / CORDS / TOSHNIWAL / GOYOLENE / UNIVERSAL / CMI / LAPP / RELIANCE CABLES / BROOKE CABLES / THERMOCABLES / SERVEL INDIA. TC COMMUNICATION / ADVANCE CABLE / INSUCON CABLES / KEI INDUSTRIES / PARAMOUNT CABLES / OCEAN CABLES / PAGODA CABLES / ASSOCIATED CABLES / KEC INTERNATIONAL / NETCO / NICCO / TORRENT / INDUSTRIAL / POLYCAB / CCI / CAPCAB / FINECAB / RADIANT / CRYSTAL / THERMOPADS/ RAVIN / HAVELLS
2.	Thermocouple Compensating Cable	DELTON / CORDS CABLE / THERMO CABLES / TC COMMUNICATION / TEMCON INSTRUMENTS, PARAMOUNT CABLES / TEMSENS / FINOLEX / SPECIAL CABLES / ELKAY / TELELINKS / TOSHNIWAL / LAPP / RELIANCE CABLES / BROOKE CABLES / UNIVERSAL / CMI
3.	Fibre Optic Cables, Co-Axial,UTP/ STP Cable and passive components	KEC INTERNATIONAL / RPG / AT & T / MOLEX / LUCENT / HFCL / D-LINK / BELDEN / LAPP / AMP / SYSTIMAX (COMMSCOPE) / SCHNEIDER / TYCO / ADC / KRONE / OPTERNA / CLIPSAL / AMP / DIGILINK
4.	Telephone Cables	CMI / DELTON / FINOLEX / RPG (KEC) / VINDHYA TELELINK / RELIANCE / INCAB / NICCO / TELELINK
5.	Power Cables	GUPTA / LAPPS / CORDS / UNIVERSAL / CCI / TORRENT / POLYCAB / FINECAB / RADIANT / CRYSTAL / KEI / SPECIAL / RAVIN / HAVELLS / GLOSTER / KEC
6.	Instrument Fittings/ Ball-Type Isolation Valve	SWAGALOK / PARKER / EXCEL-HYDROPNEUMATIC / WAREE / FLOWTECH / FLUID CONTROLS / HYDAIR / HYLOK / DK-LOK / POWERTECH VALVES (I)

E) Process Control Computer System/ Process Automation System

Sl. No.	Item description	Preferred Vendors/Makes
1.	Computer Systems - PCS / Workstation / Servers	HP / DELL / LENOVO
2.	Printers / Scanners / Plotters	HP / CANON / KONICA / XEROX / KYOSERA
3.	NetworkComponents	
	a) Switches / Routers	CISCO / 3-COM / NORTEL / HP / EXTREME
	b) Converters / Repeater / Modems / Radio Modems	MULTI TECH / US ROBOTICS / PRUDENT / LOTUS / DLINK / COMSCOPE / ADC KHRONE / TYCO / SYSTEMAX / MOREX / SCHNEIDER(DIGI LINK) / OPTERNA / CLIPSAL / AMP
4.	Network Rack / Server Rack	RITTAL / PYROTECH / HCL / NETRACK / APW (SCHNEIDER) / VALRACK
5.	CraneTerminals	ADVANTECH / INTERMEC / B&R / PSIONTEKLOGIX / LXE
6.	Converters,Repeaters,Mode ms	MULTI TECH / US / MOXA / CISCO / ROBOTICS / PRUDENT / DLINK
7.	Radio Modem, Radio Etherent Eqpt	CISCO / MOTOROLA / DATARADIO / PROSOFT / LOTUS / DLINK / PHOENIX
8.	Fibre Optic Cables, Co-Axial, UTP/ STP Cable and PassiveComponents	KEC INTERNATIONAL / RPG / AT & T / MOLEX / LUCENT / HFCL / D-LINK / BELDEN / LAPP / AMP / SYSTIMAX (COMMSCOPE) / SCHNEIDER / TYCO / ADC KRONE / DILINK / OPTERNA / CLIPSAL / AMP / DIGILINK
9.	Process ControlSystems:	
	A) Iron Making	PRIMETALS / DANIELI / CORUS / PAUL WURTH / POSEC INC
	B) Steel Making	SMS SIEMAG / PRIMETALS / DANIELI / KUTTNER / THYSSEN / KRUPP
	C) Rolling Mills & Reheating Furnace	PRIMETALS / SMS SIEMAG / SMS MEER / DANIELI / MORGAN / J P PLANTECH / MITSUBISHI / TMEIC / CONVERTEM / WATERBURY FARREL / ANDRITZ / ABB / SIEMENS / TENOVA / BRICMONT / FIVESTEIN / CMI
10.	MES	PSI / POSDATA / DANIELI AUTOMATION
11.	SCADA System:	
	A) Process, Water & Utility	WONDERWARE (INTOUCH) / INTELLUTION / CITECH / ABB (OPERATE IT) / MICRO SCADA / HONEYWELL AUTOMATION (EXPERION) / GE FANUC (IFIX / CIMPLICITY) / SIEMENS(WINCC) / ROCKWELL AUTOMATION (RS-VIEW) / YOKOGAWA (FASTTOOLS)
	B) Power System	GE ENERGY(XA-21) / ABB (NETWORK MANAGER) / AREVA(E-TERRA)
	C) Remote Terminal Unit	ABB / AREVA / HONEYWELL AUTOMATION / GE /



Sl. No.	Item description	Preferred Vendors/Makes
		SIEMENS /ROCKWELL AUTOMATION / YOKOGAWA / SCHNEIDER
12.	LargeScreenDisplay	BARCO / LG / SAMSUNG / SONY
13.	Large Video Projection System (LVS)	BARCO / CHRISTIE
14.	Network Software/ Network ManagementSoftware	CISCO / AGILENT / HP / 3-COM / IBM / NORTEL
15.	Network Monitoring Software	HP / IBM / CA / CISCO / NORTEL
16.	HMI/Visualisation Software	WONDERWARE (INTOUCH) / INTELLUTION / ABB (OPERATE IT) HAIL (PLANTSCAPE) / FACTORY LINK / GE (SIMPLICITY) / SIEMENS (WINCC) / ROCKWELL AUTOMATION (RS-VIEW) / ALSTOM (COGITO)
17.	Database Management System	ORACLE / MS SQL SERVER
18.	Firewall Appliance	CISCO, FORTINET / CHECKPOINT / PALO / ALTO
19.	Control Desk / Computer Desk	RITTAL / PYROTECH
20.	Sub-Station Automation System (SAS)	ABB (MICROSCADA) / SCHNEIDER (PACIS) / SIEMENS (SICAM) / GE (CIMPLICITY) / HONEYWELL AUTOMATION (EXPERION)
21.	Industrial Grade Network Switch	SIEMENS(RUGGEDCOM) / GE / HIRSCHMANN / GARRETCOM
22.	Operating System:	
	A) Servers	LATEST WINDOWS / UNIX / LINUX
	B) HMI	LATEST WINDOWS
23.	Antivirus Software	SYMANTEC / MCAFEE / CA / AVG / TREND MICRO / KASPERSKY

F) Telecommunication, CCVM & FDA systems:

SL. No.	Item description	Preferred Vendors/Makes
1.	Plant Telephone System	
	A) EPABAX System with Software	AVAYA / TADIRAN / ALCATEL / SIEMENS
	B) Telephone Handset	AVAYA / BEETEL / SIEMENS / ITI / PANASONIC
	C) Rectifier-Cum-Charger	AMARA RAJA / PULSE POWER / SIGNOTRON / DYNA
	D) Battery	EXIDE / AMARA RAJA / HBL
	E) Distribution Cabinet/ CT Box	ADC KRONE / HENSEL
2.	Loudspeaker Intercommunication System (PA)	
	A) Selective Calling type	INDUSTRONICS / NEUMANN
	B) Page Party type	BOSCH / BNA / PHI-AUDIOCOM
3.	Loudspeaker Broadcasting (PA) System	BOSCH / MOTWANE / INDUSTRONICS / NEUMANN / HARITASA, BANGALORE / POWER SYSTEMS, KOLKATA
4.	Radio Communication System	MOTOROLA / KENWOOD
5.	Closed Circuit Video Monitoring System including IP Based Cameras and Software	PELCO / BOSCH / HONYWELL / INDIGOVISION / SONY / DVTEL / AXIS / VICON / GE / INFINOVA / PANASONIC / AVAYA / ALCATEL / SIEMENS
6.	Video Monitoring Software (VMS)	OFFERED CAMERA OEM, MILESTONE
7.	Network Rack	RITTAL / PYROTECH / HCL / APW (SCHNEIDER) / VALRACK / NETRACK / APW PRESIDENT
8.	Cables and Accessories	
	A) Fibre Optic Cable/ UTP/ STP Cable and Other Passive Component	MOLEX / SYSTIMAX (COMMSCOPE) / SCHNEIDER / TYCO / ADC KRONE / D-LINK / OPTERNA / CLIPSAL / AMP / DIGILINK
	B) Telephone Cables	CMI / DELTON / FINOLEX / RPG (KEC) / VINDHYA TELELINK / RELIANCE / INCAB / NICCO / TELELINK
	C) Power Cables	RPG / UNIVERSAL / CCI / NICCO / TORRENT/ INDUSTRIAL / POLYCAB / FINECAB / RADIANT / CRYSTAL / KEI / SPECIAL / RAVIN / HAVELLS/ GLOSTER/ KEC
9.	FDA System (UI / FM / LPCB / VDS Approved)	EDWARDS / SIEMENS / HONEYWELL / NOTIFIER / SIMPLEX
10.	VHF Sets	MOTOROLA / KENWOOD



G) Testing & Calibration Instruments

SL. No.	Item description	Preferred Vendors/Makes
1.	Portable Digital Multimeter (4½ Digit)	FLUKE / YOKOGAWA/ PHILIPS/ MECO / MOTWANE / RUTTONSHAW / SEMS
2.	Millivolt/ Milliampere Feed & Measure	BEAMEX / DRUCK / SCANDURA / YOKOGAWA / FLUKE / EMERSON
3.	Portable Temperature Calibrator	DRUCK / SCANDURA / BEAMEX / FLUKE / YOKOGAWA
4.	Portable Pressure Calibrator with Pumps	DRUCK / SCANDURA / BEAMEX / FLUKE / YOKOGAWA
5.	Universal HART Configurator	EMERSON / TRANSMITTER MANUFACTURER
6.	Cathode Ray Oscilloscope	PHILLIPS / HEWLETT PACKARD / YOKOGAWA / TEKTRONIX
7.	Soldering &Desoldering Station	Q MAX / WELLER
8.	Vacuum Cleaner	EUREKA FORBES / BPL / PHILIPS
9.	Megger	MOTWANI / FLUKE
10.	Pressure Calibrator / Deadweight Tester	NAGMAN / MASIBUS /DRUCK
11.	Temperature Calibrator / Bath	NAGMAN / TEMPSSENS /DRUCK
12.	Test Bench	NAGMAN / MASIBUS /DRUCK
13.	Portable Process Clamp Meter	FLUKE / YOKOGAWA

List of Preferred Vendors / Makes – Material Handling - General

A. General Components/ Equipment

Sl. No.	Item description	<u>Preferred Vendors / Makes</u>
1.	Tyre Coupling	Fenner / ESBI / Timken / Siemens / J.K.FENNER (INDIA) LIMITED / LAKSHMI ENGINEERING ENTERPRISES / UNIQUE TRANSMISSION (INDIA) PVT. LT / DAS ENGINEERING WORKS / SWASTIKA INDUSTRIES / GBM MFG.PVT LTD / RATHI TRANSPower (P) LTD / KAPSEK ENGINEERS PVT LTD / ESBI-HI FLEX PVT LTD
2.	Gear Coupling	<p>NAW / Fenner / Elecon / FMG / Hi-Cliff / WMI Cranes / Flender / Concord Steel / Siemens / Ameridrive / Jaure / Wellman / GBM / Alliance / Uniflex / Alflex / Rathi</p> <p><u>Gear coupling for cranes:</u> HEAVY ENGG CORPN LTD / KONECRANES AND DEMAG PRIVATE LIMITE / UNIQUE INDUSTRIAL HANDLERS PVT LTD / SHANTHI GEARS LTD/ NEW ALLENBERRY WORKS/ REVA INDUSTRIES LTD / SCHMIEDE AND MASCHINEN PVT LTD / MACKEIL & COMPANY(PVT)LTD / CONCORD STEEL WORKS PVT LTD /ESCO COUPLINGS & TRANSMISSIONS PVT / GREEN GEAR TRASMISSIONI SRL</p> <p><u>Gear coupling-non critical:</u> SUN ENGG WORKS / VSG INFRATECH (P) LTD / MANJIRA MACHINE BUILDERS PVT LTD / LAKSHMI ENGINEERING ENTERPRISES / CUBIC TRANSMISSIONS PVT. LIMITED / ROTEC TRANSMISSIONS (P) LTD / WELLMAN INCANDESCENT INDIA LIMITED / LYKA ENGG WORKS/ ASSOCIATED ENGINEERING INDUSTRIES / VULCAN INDUSTRIAL ENGG.CO.LTD / PREM INDUSTRIES / SANDEEP MECH. ENGINEERS LTD / GHOSH INDUSTRIES / FLEX-TRAN INDUSTRIES / COMMERCIAL ENGINEERING WORKS / BUDDHADEB ENTERPRISES / MA KALI ENTERPRISE / PIONEER GEARS & EQUIPMENTS / SRI KRISHNA ENTERPRISE / DAS ENGINEERING WORKS / M.N. ENGINEERING WORKS / WELLMAN WACOMA LIMITED / PERFECT INDUSTRIAL ENTERPRISE / S.B.ENGINEERING WORKS / SUPER GEAR PVT. LTD / MCCOY TECHNORISE COMPANY / TECHNOLINKERS/ TETEX INDUSTRIAL CORPORATION / ASSOCIATED ENGINEERING WORKS / SHAH ENGINEERING WORKS / VIKRANT FORGE LIMITED / SCHMIEDE AND MASCHINEN PVT LTD/ GBM MFG.PVT LTD / MACKEIL & COMPANY(PVT)LTD / CONCORD STEEL WORKS PVT LTD / MEGA DRIVES PVT LTD / KAPSEK ENGINEERS PVT LTD / ACCESSORIES ENGINEERING WORKS / MACRO TECH ENGINEERS/ J B ENTERPRISE / SUVAWI INDUSTRIES / SARBAMANGALA ENGINEERING WORKS / G.D. ENGINEERING WORKS</p>
3.	Pin-Bush Coupling	NAW / Fenner / Elecon / Timken / Siemens / GBM

Sl. No.	Item description	Preferred Vendors / Makes
4.	Resilient Coupling	GBM / Fenner / Elecon / Kop-Flex / WELLMAN INCANDESCENT INDIA LIMITED / UNIQUE TRANSMISSION (INDIA) PVT. LT / NATIONAL ENGINEERING COMPANY / NEW ALLENBERRY WORKS / BUDDHADEB ENTERPRISES / SRI KRISHNA ENTERPRISE / PERFECT INDUSTRIAL ENTERPRISE / RATHI TRANSPower (P) LTD / KAPSEK ENGINEERS PVT LTD / MACRO TECH ENGINEERS
5.	Fluid Coupling	Voith / Elecon / Fluidomat / Premium / Ghatga Patel
6.	Seize-Resistant Ball Bearing	SKF / NBC / ABL / SBL / Timken / ZKL
7.	Ball Bearing	SKF / KOYO / NTN / NBC / FAG / ZKL / INA / Timken / Asian Bearings
8.	Roller Bearing	SKF / KOYO / NTN / FAG / ZKL / Timken / Asian Bearings
9.	Split Roller Bearing	Cooper / HKT (Korea) / FAG / Timken / LYC / SKF / Asian Bearings
10.	Bearings (MM List)	<p><u>CRITICAL BEARINGS:</u> TIMKEN INDIA LTD / SKF INDIA LIMITED / Schaeffler India Ltd / INA BEARINGS / MINSK BEARING PLANT / OOO Torgovyi Dom SPZ –GRUPP / GPZ MIDEAST FZE</p> <p><u>NON CRITICAL BRG:</u> TIMKEN INDIA LTD / KOYO SINGAPORE BEARING (PTE) LTD / TATA STEEL LIMITED / INGERSOLL RAND (I) LTD / SKF INDIA LIMITED / ASIAN BEARING LTD / NRB BEARINGS LTD / Schaeffler India Ltd / ZKL BEARINGS (INDIA) PVT. LTD / AUSTIN ENGINEERING COMPANY LIMITED / NATIONAL ENGG.INDUSTRIES LIMITED / INA BEARINGS / MINSK BEARING PLANT / OOO Torgovyi Dom SPZ –GRUPP / HKT BEARINGS LIMITED / GPZ MIDEAST FZE</p> <p><u>NON CRTICL BRG/EMG:</u> TIMKEN INDIA LTD / SKF INDIA LIMITED / ASIAN BEARING LTD / NRB BEARINGS LTD / NATIONAL ENGG INDUSTRIES LTD/ Schaeffler India Ltd / ZKL BEARINGS (INDIA) PVT. LTD / AUSTIN ENGINEERING COMPANY LIMITED / INA BEARINGS</p> <p><u>SPL BRG/INA/ELGES EQ:</u> SKF INDIA LIMITED / Schaeffler India Ltd / J MANGSUN & CO / INA BEARINGS / HUNGER MASCHINEN GMBH</p> <p><u>NON STD BEARINGS:</u> MAC MARKETING CORPORATION / EAGLE IMPEX CORPORATION / THE EL DORADO INTERNATIONAL / KESSLER INTERNATIONAL CORPORATION / EICH ROLLENLAGER GMBH / PRIMETALS TECHNOLOGIES USA LLC / SMS SIEMAG AG / HKT BEARINGS LIMITED</p> <p><u>BEARINGS:</u> IMO GmbH & CO. KG</p>



Sl. No.	Item description	<u>Preferred Vendors / Makes</u>
11.	Helical/Bevel Helical Gear Box (Solid shaft)	<p>Elecon / Shanti Gears / Greaves Cotton / NAW / Flender / Vulcan Engineers / Premium / Siemens / Timken</p> <p><u>Gear Box-big:</u> BRAITHWAITE & CO LTD / JESSOP & CO LTD / HEAVY ENGG CORPN LTD / P.P ROLLING MILLS MFG.CO. PVT. LTD. / MANJIRA MACHINE BUILDERS PVT. LTD. / J.K.FENNER (INDIA) LIMITED / PLACEBO GEARS & TRANSMISSIONS / ROTEC TRANSMISSIONS (P) LTD / KIRLOSKAR PNEUMATIC CO LTD / MUKAND LTD / KONECRANES AND DEMAG PRIVATE LIMITE / LARSEN & TOUBRO LTD / TRIVENI ENGG & INDUSTRIES LTD / WALCHANDNAGAR INDUSTRIES LTD / ENTELLCAD ENGINEERING / SCHMIEDE AND MASCHINEN PVT LTD / IPM ENGINEERING LIMITED / MASS GEAR / SAN ENGG & LOCOMOTIVE CO LTD / NMTG MECHTRANS TECHNIQUES PVT.LTD. / DANIELI & C</p> <p><u>Gear Box - Small:</u> VSG INFRATECH (P) LTD / P.P ROLLING MILLS MFG.CO. PVT LTD / MANJIRA MACHINE BUILDERS PVT LTD / PLACEBO GEARS & TRANSMISSIONS / ROTEC TRANSMISSIONS (P) LTD / ESSENTIAL POWER TRANSMISSION PVT.LT / LYKA ENGG WORKS / ROSSI GEAR MOTORS (INDIA) PVT LTD /CALCUTTA GEARS PVT LTD / PREM INDUSTRIES / SANDEEP MECH. ENGINEERS LTD. / COMMERCIAL ENGINEERING WORKS / MA KALI ENTERPRISE / KAY PEE EQUIPMENTS PVT. LTD., / M.P. STEEL FABRICATORS / PIONEER GEARS & EQUIPMENTS / DEE-KAY GEARS / TNS HEAVY ENGINEERING PVT. LTD. / DAS ENGINEERING WORKS / SUPER GEAR PVT. LTD / ENTELLCAD ENGINEERING / BIJAY INDUSTRIES / AGNEE TRANSMISSIONS INDIA (P) LTD / TETEX / INDUSTRIAL CORPORATION/ SCHMIEDE AND MASCHINEN PVT LTD / MACKEIL & COMPANY(PVT)LTD / IPM ENGINEERING LIMITED / DASSNAGAR PRECISION INDUSTRIES / BENGAL GEAR & PINION MFG CO / MASS GEAR / SAN ENGG & LOCOMOTIVE CO LTD / DANIELI & C</p>
12.	Helical/Bevel Helical Gear Box (Hollow shaft)	Elecon / Shanti Gears / Cyclo / Greaves Cotton / NAW / Fenner / Vulcan Engineers / Premium / Siemens / Timken / ROSSI / Flender
13.	Planetary Gear Box	Elecon / Cyclo / Flender / Shanti Gears / Siemens / Top Gear / NAW / Greaves Cotton / BRAITHWAITE & CO LTD / JESSOP & CO LTD / BONFIGLIOLI TRANSMISSIONS PVT.LTD / ROSSI GEAR MOTORS (INDIA) PVT LTD / DEE-KAY GEARS / MAGTORQ PRIVATE LIMITED / SAN ENGG & LOCOMOTIVE CO LTD
14.	Worm reducer	Elecon / NAW / Shanti / Greaves Cotton / Premium / Nord India / Flender /MANJIRA MACHINE BUILDERS PVT LTD / J.K.FENNER (INDIA) LIMITED / PLACEBO GEARS & TRANSMISSIONS / KIRLOSKAR PNEUMATIC CO LTD /

**RASHTRIYA ISPAT NIGAM LIMITED
VISAKHAPATNAM STEEL PLANT**



Sl. No.	Item description	<u>Preferred Vendors / Makes</u>
		TRIVENI ENGG & INDUSTRIES LTD / ROSSI GEAR MOTORS (INDIA) PVT LTD / AGNEE TRANSMISSIONS INDIA (P) LTD / IPM ENGINEERING LIMITED / CAVEX GmbH & CO. KG
15.	Sprocket	ROLCON / TI / DIAMOND / ROLON / LAKSHMI ENGINEERING ENTERPRISES / RENOLD CHAIN INDIA PRIVATE LIMITED/ INDIAN CHAIN PVT LTD/ TUBE INVESTMENTS OF INDIA LTD/ ARUN ENGINEERS & FABRICATORS / VINAR SYSTEMS PVT LTD / WEVIN PRIVATE LIMITED / GALAXY CONVEYORS PRIVATE LIMITED / TECHNOTRAK CHAINS & CONVEYOR SYSTEMS
16.	Transfer car	METCO / ITW / IPM / ARMATIK / HEC / L&T / Hyderabad Ind. / MUKAND / EQIPT ENGRS / ELECON / TRF / FLSMIDTH

List of Preferred Vendors/Makes - Material Handling Equipment & Components

1.0 Belt Conveyor Components

Sl. No.	Item description	Preferred vendors/Makes
1.	Belt conveyor pulley	ELECON / TRF / MBE / MACMET / HEC / GOLDEN ENGG INDUSTRIES / KALI / BEVCON / INDIANA / HITECH EQUIPMNT / KALYANI ALLOY CASTINGS LIMITED/ AP HEAVY MACHINERY & ENGINEERING L / INDUSTRIAL RADIOGRAPHS CORPORATION / SRI RAJA CORPN / KONDAPALLI CONVEYORS & ENGG PVT LTD / I G P ENGINEERS LTD. / TECPRO SYSTEMS LIMITED / TECHNO IMPEX / NANDY ENGG CONCERN / GHOSH INDUSTRIES / DEVAS ENGINEERING SYSTEMS (P) LTD / GREWAL ROLLERS PRIVATE LIMITED / G.R. INDUSTRIES / TNS HEAVY ENGINEERING PVT. LTD. / LYKO ENGINEERING WORKS / DAS ENGINEERING WORKS / SHERA TUBE FORGE PVT LTD / BHARAT CONVEYOR SYSTEM / JANA & CO / STALLION ENGINEERING SYSTEMS (P) LT / SANJAY INDUSTRIES / HYDROFAB ENGINEERING CONCERN / DURGA ENGINEERING AND WELDING WORKS / KOSHALA ENGINEERS / VISHWA INDUSTRIALCOMPANY LTD / SYSMOTECH / P BROTHERS & CO / TURBO ENGINEERS (CBE) / HOWRAH STEEL & METAL CRAFTS PVT. LT / ARUN ENGINEERS & FABRICATORS / A R F ENGINEERING LTD / PETRO GENERAL ENGG WORKS / OMKAR BIJAY / GOLDEN ENGINEERING INDUSTRIES / NEW ERA CONVEYORS PVT LTD / AMPS ENGINEERING & EQUIPMENTS PVT. / V N INDUSTRIES / I & B ENGINEERS PRIVATE LIMITED / COOMER FABRICO / SINHA INDUSTRIES / ARUDRA ENGINEERS PVT LTD / VISWAKIRTI PROJECTS PVT LTD / BELCOSYS INFRA TECH PVT LTD / DEYASHI ENTERPRISE / MET FAB INDIA /SAHU ENGINEERING ENTERPRISE/ HI-TECH HYDRAULIC ENGINEERS
2.	Belt Scraper / Belt Cleaner	HOSCH EQUIPMENT / KAVERI / VINAR IDC / MACMET / HINDUSTAN UDYOG LTS / KARAM CHAND THAPPER / COBIT ENGG /ELECON / TRF / PROMAC / BMH CONCARE / SCORPIO / THEJO <u>Belt cleaning system:</u> RADIANT ELASTOMERS PRIVATE LIMITED / TECHNOFAB ENGG LTD / METSO INDIA PVT LTD / MARTIN ENGINEERING COMPANY INDIA PV / FLEXIBLE STEEL LACING COMPANY PVT. LTD.
3.	Belt conveyor idler set	ELECON / TRF / KALI / MCNALLY BHARAT / HINDUSTAN UDYOG LTD / MACMET / GOLDEN ENGG INDUSTRIES / BEVCON / INDIANA / PRAYAS / HITECH EQUIPMNT / KALYANI ALLOY CASTINGS LIMITED / A P HEAVY MACHINERY & ENGINEERING L / KONDAPALLI CONVEYORS & ENGG PVT LTD / I G P ENGINEERS LTD/ TECHNO IMPEX / AMAR CONVEYOR ROLLER INDUSTRY / THE NEW INDIA CONVEYOR COMPANY (P) /

Sl. No.	Item description	Preferred vendors/Makes
		DEVAS ENGINEERING SYSTEMS (P) LTD / GREWAL ROLLERS PRIVATE LIMITED / TNS HEAVY ENGINEERING PVT. LTD. / SHERA TUBE FORGE PVT. LTD. / JANA & CO / STALLION ENGINEERING SYSTEMS (P) LT / SANJAY INDUSTRIES / HYDROFAB ENGINEERING CONCERN / KOSHALA ENGINEERS / VISHWA INDUSTRIALCOMPANY LTD / SYSMOTECH / P BROTHERS & CO / TURBO ENGINEERS (CBE) / OMKAR BIJAY / GOLDEN ENGINEERING INDUSTRIES / NEW ERA CONVEYORS PVT. LTD. / AMPS ENGINEERING & EQUIPMENTS PVT. / V N INDUSTRIES / I & B ENGINEERS PRIVATE LIMITED / SINHA INDUSTRIES / ARUDRA ENGINEERS PVT LTD / VANTAGE MACHINE TOOLS PVT. LTD. / VISWAKIRTI PROJECTS PVT. LTD. / BELCOSYS INFRA TECH PVT. LTD.
4.	Modular skirt & skirt rubber	TEGA / THEJO / TECHNOFAB / KAVERI / FORECH
5.	Tracker roller	HOSCH / KAVERI
6.	Impact pad for belt conveyor	TEGA / KAVERI / FORECH
7.	Conveyor belting (steel cord)	PHOENIX-YULE / FORECH / IMAS / DUNLOP
8.	Conveyor belting (fabric) all categories	NORTH LAND RUBBER / PHOENIX-YULE / ORIENTAL RUBBER / MRF / HINDUSTAN / YOKOHAMA / FORECH / SAMPERTANS / ANIL RUBBER
9.	COB <=1.2MW GRM24 (In addition to Sl. No. 8 above)	MERCURY RUBBER MILLS / PREMIER RUBBER MILLS / M.R.BELTINGS / OXFORD RUBBERS (P) LIMITED / RAVASCO TRANSMISSION & PACKING PVT / NRC INDUSTRIES LTD / JONSON RUBBER INDUSTRIES
10.	COB UPTO 1.2MW GRHR: (In addition to Sl. No. 8 above)	MERCURY RUBBER MILLS / PREMIER RUBBER MILLS / OXFORD RUBBERS (P) LIMITED / RAVASCO TRANSMISSION & PACKING PVT / NRC INDUSTRIES LTD
11.	COB >1.2M <=1.6MW GRM24: (In addition to Sl. No. 8 above)	MERCURY RUBBER MILLS / OXFORD RUBBERS (P) LIMITED / RAVASCO TRANSMISSION & PACKING PVT / NRC INDUSTRIES LTD / JONSON RUBBER INDUSTRIES
12.	COB >1.2M <=1.6MW GRHR (In addition to Sl. No. 8 above)	MERCURY RUBBER MILLS / OXFORD RUBBERS (P) LIMITED / RAVASCO TRANSMISSION & PACKING PVT / NRC INDUSTRIES LTD
13.	COB >1.6M <=2.0MW GRHR (In addition to Sl. No. 8 above)	NRC INDUSTRIES LTD
14.	Conveyor belting (high angle)	PHOENIX-YULE / FLEXOWELL / SBS
15.	Belt vulcanizing unit	NILOS INDIA / SHAW ALMEX / SV DATTAR / THEJO

2.0 Chute & Hopper Liner

Sl. No.	Item description	Preferred vendors/Makes
1.	Rubber liner	TEGA / KAVERI / FORECH Rubber liner- wear: THEJO ENGINEERING LIMITED / POLYMER PRODUCTS OF INDIA / PRESIDENCY RUBBER MILLS PVT. LTD.
2.	Polymer Liner	TEGA / KAVERI Polymer lining: POLYMER INDUSTRIES INDIA LTD. / VAM POLY PLAST PRIVATE LIMITED / RADIANT ELASTOMERS PRIVATE LIMITED / SWAGATH URETHENE PRIVATE LIMITED / ELASTOLAN ENGINEERS PVT. LTD. / FLONY CHEM ENGINEERS / CLASSIC POLYMERS & RESINS / SONI ROLLERS PVT LTD / PRESIDENCY RUBBER MILLS PVT. LTD. / ELASTOCHEM SYSTEMS / ROECHLING ENGG. PLASTICS (I) PVT. LT. / SIGMA WEAR RESIST PRODUCTS PVT. LTD.
3.	Polyethelene / UHMWPE Liner	KAVERI / TEGA / POLI-HI SOLIDURE
4.	Polyurethane liner	KAVERI ULTRA POLYMERS / TEGA / ELASTOKRAFT

3.0 Miscellaneous Equipment

Sl. No.	Item description	Preferred vendors/Makes
1.	Magnetic separator	ELECTROMAG / MAGNET CORPORATON / ELECTROMAGNETIC IND/ SARTORIUS / HANS BOCKELS / KRUPP FORDER / TECHNICK / ERIEZ / POWER BUILD / ELECTROZAVOD / KAKKU / EAST COAST MAGNETS PVT LTD. / KONECRANES AND DEMAG PRIVATE LIMITE LTD / GUJARAT ELEKTROMAG INDUSTRIES PVT L / SUPERLIFT MAGNETS PVT LTD / ELECTRO FLUX EQUIPMENTS PVT. LTD .
2.	Suspended electromagnet	ERIEZ / ELECTROMAG / POWER BUILD / ELECTROZAVOD / KAKKU
3.	Metal detector	THERMO-RAMSEY / ELEKTROMAG / PBL / ELECTROZAVOD
4.	Belt scale	TRANSWEIGH / SCHENCK J&N / AVERY / SARTORIUS / MECHATRONICS / IPA / PBL <u>WEIGHINGSCALES/SPRS:</u> SIEMENS LTD / HYDERABAD TULAMAN PVT.LTD / ESSAE-TERAOKA PVT. LTD. / MINEBEA INTEC INDIA PRIVATE LIMITED / BLUE STAR LTD. / ACME AUTOMATION PRIVATE LIMITED / APNA SCIENTIFIC SUPPLIES (P) LTD. / OMEGA ELECTRONIC SCALE CO. LTD. / SENLOGIC AUTOMATION (P) LTD.
5.	Belt weigh feeder	TRANSWEIGH /SARTORIUS MECHATRONICS / AVERY / SCHENCK J&N / THERMO-RAMSEY / PRECIA MOLEN / PBL
6.	Weigh hopper / Bin weighing system (load cell based)	SARTORIUS MECHATRONICS / TRANSWEIGH / AVERY / JENSON NICHOLSON / PRECIA MOLEN / SCHENCK PROCESS <u>WEIGH SYS & LOADCELLS:</u> SIEMENS LTD. / POWER BUILD LTD. / ENCADIO-RITE ELECTRONICS PVT. LTD. / ABB INDIA LIMITED / TRANSWEIGH (INDIA) LTD. / MINEBEA INTEC INDIA PRIVATE LIMITE / STRATEGIC WEIGHING SYSTEMS / GANDHI AUTOMATIONS PRIVATE LIMITED / DIGITAL WEIGHING SYSTEMS (P) LTD. / ACME AUTOMATION PRIVATE LIMITED / IPA PVT. LTD. / PRECIA MOLEN INDIA PVT. LTD. / VISHAY TRANSDUCERS INDIA PVT. LTD. / SENLOGIC AUTOMATION (P) LTD.
7.	Belt feeder	VINAR / IDC / HEC / ORIEN / MACMET / ELECON / TRF / COBIT

Sl. No.	Item description	Preferred vendors/Makes
8.	Electro Mechanical / Motorized Linear Actuators	PREPEC / TECHNOMECH / PEBCO / HEIN LEHMANN / INDIANA / PREPEC / ACTUATOR INDIA Electrical actuator: INSTRUMENTATION LIMITED / EL-O-MATIC INDIA (PVT) LTD. / AUMA (INDIA) PRIVATE LTD. / ABB INDIA LIMITED / ROTORK CONTROLS (INDIA) PVT. LIMITED / MARSH ENGINEERS / LIMITORQUE (INDIA) LTD. / ANTRIEB TECHNIK PVT. LTD. / CAIR EUROMATIC AUTOMATION PVT. LTD.
9.	Electro-magnetic / Electro-mechanical vibro-feeder	ELECTROMAG / IC / TRF / ELECON / ORIEN ENGINEERS / MBE – SAYAJI EM VIBROFEEDERS/MOTO: ELECTRO ZAVOD INDIA PVT. LTD. / SCHENCK PROCESS INDIA PRIVATE LIMITED / TECPRO SYSTEMS LIMITED / ELEKTROMAG-JOEST VIBRATION PVT. LTD. / HOWRAH STEEL & METAL CRAFTS PVT. LTD. / HITECH EQUIPMENTS PVT. LTD. / ELECTRO FLUX EQUIPMENTS PVT. LTD.
10.	Circular/ Linear motion vibrating screen	IC / TRF / ELECON / MBE-SAYAJI / METSO / SANDVIK
11.	Flexi-deck vibrating screen	HEIN LEHMANN / BINDER / IC / MBE / TECPRO / TRF/ METSO/ SANDVIK
12.	Apron feeder	TRF / L&T / MBE / ELECON / TKII / TSUBAKI / METSO / SANDVIK
13.	Crusher (cone)	HEC / SANDVIK / METSO / KOBE
14.	Crusher (hammer mill, roll & ring granulator)	MBE-SAYAJI / TRF / HEC / ELECON / SANDVIK / TKII (THYSSENKRUPP) / L&T / METSO / KOBE
15.	Air blaster	TEGA / KAVARI
16.	Sampler (scoop and box type)	EASTMN CRUSHER /ADVANCED SYSTEM SAMPLING (P) LTD / PRISECTOR (UK) / RAMSAY ENGG (USA) / MERIT
17.	Bucket elevator	Moktali / GOLDEN ELECTRICAL / HINDUSTAN UDYOG / VINAR / COBIT / SHREE CONVEYOR / IDC / ORIEN / MACMET / ELECON / TRF / DECCAN MECH &CHEMICAL INDUSTRIES PV / BELCOSYS INFRA TECH PVT. LTD.
18.	Bin vibrator	ELECTROMAG / ELECTROMAGNETIC INDUSTRIES / IC / MITEK (AMIT ENGG) / NATIONAL ELECTRIC
19.	R&P gate/ flap gate/ sector gate	VINAR / IDC / MACMET / TRF / PRECISION PROCESSING / MOKTAIL / HOLTZMAN / MINING & MATERIAL / CHENNAI RADHA / PREPEC / BEVCON / INDIANA
20.	Belt changing device	NILOS / SHAWAL MEX / BD IMPEX
21.	Reclaimer	METSO / L&T / ELECON / TRF / HEC / FLSMIDTH / SANDVIK / TKII
22.	Stacker	METSO / L&T / ELECON / TRF / HEC / FLSMIDTH / SANDVIK / TKII
23.	Stacker-cum-reclaimer	METSO / L&T / ELECON / TRF / HEC / FLSMIDTH / SANDVIK / TKII
24.	Wagon tippler	L&T / HEC / ELECON / TRF / METSO / MBE

Sl. No.	Item description	Preferred vendors/Makes
25.	Transfer car (Stockyard purpose)	METCO / HEC / L&T / Hyderabad Ind. / MUKAND / EQIPT ENGRS / ELECON / TRF / FLSMIDTH
26	Rail clamp	Bengal Technocrates / PAGODA
27	Low speed high torque hydraulic motor (complete with power unit and hydraulic system)	Hagglunds / Maha Hydraulics

4.0 Crane Components

Sl. No.	Item description	Preferred vendors/Makes
1.	Gear Box	Own Make / Shanti gears / Elecon / NAW/ Flender
2.	Hooks	Herman Mohтта / Free Trading Corporation / Steel Forging / Forging Enterprises / EE Karachiwala
3.	C- Hooks	Own make / Concast/Armatic
4.	Flexible Gear Coupling	Hecliff / Uniflex / Alflex / NAW / Wellman Incandescent / Concord / David Brown & Greaves Ltd. / GBM / Rathi / Alliance / HEAVY ENGG CORPN LTD. / J.K. FENNER (INDIA) LIMITED / ELECON ENGG. COMPANY LTD. / KONECRANES AND DEMAG PRIVATE LIMITED / SIEMENS LIMITED/ UNIQUE INDUSTRIAL HANDLERS PVT. LTD. / SHANTHI GEARS LTD. / REVA INDUSTRIES LTD. / SCHMIEDE AND MASCHINEN PVT. LTD. / MACKEL & COMPANY (PVT) LTD. / ESCO COUPLINGS & TRANSMISSIONS PVT. / GREEN GEAR TRASMISSIONI SRL
5.	Barrel Coupling	Malmedie/ Jaure
6.	Wire Ropes	Usha Martin / Fort Williams / JK Steels / Diepa / Casar / Arcelor Mittal / Orion / Aradhya Wire Ropes / Bharat Wire Ropes Below 20 mm VISAKHA WIRE ROPES LTD / USHA MARTIN LIMITED/ SUTLEJ ROPES PVT. LTD. / ASAHI ROPES PVT. LTD / VIKRANT ROPES PVT LTD / DESH WIRE PRODUCTS PVT. LTD / ORION ROPES PVT.LTD / MAHADEV INDUSTRIES / VARDHAMAN ROPES / BHARAT WIRE ROPES LTD / ARADHYA WIRE ROPES PVT.LTD / DAVANGERE WIRE ROPE INDUSTRY PVT. L / BEDMUTHA INDUSTRIES LTD Above 20 mm VISAKHA WIRE ROPES LTD / J C T LTD / MOHATTA & HECKEL LTD / USHA MARTIN LIMITED / SUTLEJ ROPES PVT. LTD. / VIKRANT ROPES PVT LTD / DESH WIRE

Sl. No.	Item description	Preferred vendors/Makes
		PRODUCTS PVT. LTD. / ORION ROPES PVT. LTD. / MAHADEV INDUSTRIES / VARDHAMAN ROPES / BHARAT WIRE ROPES LTD. / ARADHYA WIRE ROPES PVT. LTD. / DAVANGERE WIRE ROPE INDUSTRY PVT. L
7.	Slew Bearing	Rothe Erde / LYC / Liebherr / Timken
8.	Wheels	Own Make / Simplex / Kran Radar / STEEL AUTHORITY OF INDIA LTD / STEEL AUTHORITY OF INDIA LTD, GD / P K ENGG & FORGING (P) LTD. / UNIQUE INDUSTRIAL HANDLERS PVT. LTD. / THE MINING & ENGG CORPN / SHEFFIELD MACHINE TOOLS / NORTHERN ALLOYS BHAVNAGAR LTD. / HMTG ENGINEERING COMPANY (KOLKATA) / DAS ENGINEERING WORKS / SHASHI STEEL & FORGINGS / SHERA TUBE FORGE PVT LTD / BIJAY INDUSTRIES / ASSOCIATED ENGINEERING WORKS / VIKRANT FORGE LIMITED / VIKASH FORGE PVT. LTD. / BEEKAY ENGINEERING CORPORATION / SANGAM FORGINGS (PVT) LTD./ MACKEL & COMPANY (PVT) LTD. / THE PROGRESSIVE ENTERPRISE (INDIA) / ARUN ENGINEERS & FABRICATORS / J S FORGE PRIVATE LIMITED / BHARAT FORGE LTD / MASS GEAR / MAX (INDIA) INTERNATIONAL / EASTERN ENGINEERING SYNDICATE / SWASTIKA INDUSTRIES INDIA
9.	Hydraulic Buffer	Oleo, Koba
10.	Air Conditioner	Lintern / Frigotec / Sulzer / Daiken
11.	Grab Bucket	STEEL AUTHORITY OF INDIA LTD, GD / THE INDIAN IRON & STEEL CO., LTD. / TATA IRON & STEEL CO. LTD. / SIMPLEX ENGG & FOUNDRY WORKS LTD. / LARSEN & TOUBRO LTD. / BHILAI ENGG CORPN LTD. / ARMATIC ENGG PVT. LTD. / GRADUATE AGRO & MECHANICAL ENGINEER / ACE ENGINEERING TECHNOLOGIES (I) PV / BEEKAY ENGINEERING CORPORATION / FLUID CONTROL & ENGG CO. / STANDARD ENGINEERING CO. / PETRO GENERAL ENGG WORKS / GRIP ENGINEERS PVT. LTD.

5.0 Handling and Hoisting Equipment

Sl. No.	Item description	Preferred vendors/Makes
1.	Single girder Under Slung Crane	Armsel / Brady & Morris / IEICO / MM Engg. / Shivpra / Smaco Engg.
2.	Single Girder EOT Cranes	Alpha Services / Armsel / Brady & Morris / Century Cranes / IEICO / Meltech Cranes / MM Engg. / Smaco Engg.
3.	Medium duty DG EOT Crane (Up to 50T capacity)	Alpha Services / FAFECO / HEC / Jessop / Kone / Meltech Cranes / Mukand / Unique/ Smaco Engg.
4.	Medium Duty DG EOT Cranes (above 50 T capacity)	Anupam / FAFECO / HEC / Jessop / Kone / Mukand / Unique / Pedvak

Sl. No.	Item description	Preferred vendors/Makes
5.	Heavy Duty / Extra Heavy Duty DG EOT Cranes	Anupam / Dalian / Demag Cranes / FAFECO / HEC / Kone Cranes / Mukand / Tata Growth Shop / Unique
6.	Four Girder EOT Cranes	Anupam / Dalian / Demag Cranes / HEC / Kone Cranes / Mukand / Tata Growth Shop
7.	Electrical Hoists	Alpha Services / Armsel / Brady & Morris / Century Crane / Grip Engg. / Hi Tech / IEICO / MM Engg. / Meltech Cranes / Shivpra / Tractel Tirfor / Hercules / Smaco Engg. / SOUTHERN PLANTAIDS PVT. LTD. / HINDUSTHAN PARSONS LTD. / VOLTAS LIMITED / L M M INTERNATIONAL / REVA INDUSTRIES LTD. / ELECTRO THERAPY / TECHNO INDUSTRIES / ACE ENGINEERING TECHNOLOGIES (I) PV / MEGA DRIVES PVT. LTD. / CRUSHMORE MAXBAN INDIA / ACROPOLIS ENGINEERING LTD. / STANDARD ENGINEERING CO. / ANIRUDH ENGINEERS / KEPRO TECHNOLOGIES PVT. LTD. / BAKELITE ELECTRICAL MFG CO PVT. LTD. / MAX INDUSTRIES / Universal Hoist O Fabrik
8.	Chain Pulley Blocks, Hand operated Travelling Cranes & Hoists	Armsel / Batliboi / Brady & Morris / Century Cranes / Crushmore Maxban / Hercules / Hi-Tech / Light Lift India / MR Engg. Lifting Equipment / Tractel Tirfor
9.	Fork-Lift-Truck	GODREJ / VOLTAS / TIL / PUNJAB TRACTORS / MACNEILL / SPARES CORPN / GODREJ & BOYCE MFG. CO. LTD. / NILKAMAL LIMITED / GREENFIELDS CORPORATION / KION INDIA PVT. LTD.
10.	Shunting Winch	Beekay / HEC / Armsel / Century Cranes / Nirmal Equipments / Mining & MH Equipment / Cyclo Transmission / HEBENKRAFT / METAL ENGG. & TREATMENT CO PVT LTD. / NEW ALLENBERRY WORKS / L M M INTERNATIONAL / REVA INDUSTRIES LTD / ELECTRO THERAPY / CONCORD STEEL WORKS PVT. LTD. / MEGA DRIVES PVT. LTD. / CRUSHMORE MAXBAN INDIA / STANDARD ENGINEERING CO. / GRIP ENGINEERS PVT. LTD.
11.	Jib Crane	Brady & Morris / Century Cranes / Hi-Tech / Grip Engg. / Elite / Light Lifting / Armsel / MM Engg. / Meltech Cranes / IEICO / Alpha / Smaco Engg.
12.	Crawler Mounted Mobile Crane	TIL / Tata - P&H / Liebherr / TELCO CONSTRUCTION EQPT. CO. LTD. / ESCORTS CONSTRUCTION EQUIPMENT LIM I / VOLTAS LIMITED / JCB INDIA LIMITED / DEMAG CRANES AND COMPONENTS (I) PVT / SIEMENS AG
13.	Excavator / Shovel	TIL / BEML / Caterpillar / L&T / Volvo / TATA- Hitachi
14.	Front End Loader	TIL / Caterpillar / L&T / Volvo / TATA- Hitachi
15.	Elevator / Lift (Freight & Passenger)	OTIS / Omega / Kone / ECE / Thyssenkrupp (ECE) / IBIJI

List of Preferred Vendors/Makes - Utilities - General

Piping Systems

Sl. No.	Item Description	Preferred Vendors/Makes
1.	Pipes	TATA / BST / JINDAL / THE INDIAN SEAMLESS AND METAL TUBES / MAHARASHTRA SEAMLESS LTD. / SAIL / ROURKELA / KALYANI SEAMLESS / RATNAMANI / WELSPUN/ PSL
2.	SW / SAW / ERW / EFW MS Pipes	SAIL / BHEL / TISCO / Jindal / Ajanta / Zenith / Saw Pipes / Welspun / Man Industries / Surindra Engg. / Maharashtra Seamless / Indian Seamless / BST / Advance Steel / Good Luck / Indus Tubes / Mukat / Lloyds / Poonam Enterprises / Soor Neogi Koumar
3.	Seamless / Stainless Steel Pipes / Tubes	Amardeep Steel / Choksy Tubes / MJ Patel / Nagardas Kanji / Poonam Enterprises / Sandulk Asia / MEC Tubes / Nagardas &K usai / Noble Tubes / Allied Steel / Kamlesh Tube / Menilal & Bro / Uday Tubes / SAIL / Maharastra Seamless (P) Ltd / Imperial Steel / Soor Neogi Koumar
4.	Carbon steel seamless tubes (Up to DN 80)	TATA / GANDHI TUBES / INDIAN SEAMLESS / MAHARASHTRA SEAMLESS / JINDAL
5.	Stainless Steel Flats/ SS Fittings / Tubes	JINDAL / LLOYDS / ZENITH / REMI / PRAKASH / SANDVIK CHOKSI /SAIL Salem Steel / Heavy Metal Tubes / Nobel Tubes / Sterling Supply Agency / Vitrag / Poonam Enterprises / N.L. Hazra / M.S. Fittings / RATNAMANI / RAJENDRA MECH. IND. / BHARAT PIPES AND FITTINGS / EBY Ind. / High-Tech / Hydro technic / Hydro- Air Engg. / Project Toolings / Shivananda / M.J. Patel / Nagardas & Kusai / MEC Tubes / Amardeep Steel / Allied Steel / Kamlesh Tube / Menilal & Bros
6.	Pipe Fittings	N.L. HAZRA / SHYAM ENGG / LIFE STYLE MARKETING / M.S. FITTINGS / TEEKAY TUBE / CHARGESON / VIVIAL FORGE PVT. LTD. / TRUE FORGE / TUBE BEND / HEAVY METAL TUBES / NOBEL TUBES / RAJENDRA MECH. IND. / VITRAG / POONAM ENTERPRISES / STERLING
7.	Traps & Strainers	UNI KLINGER / ESCO/ FORBES MARSHAL
8.	Expansion Joints (Metallic & Non-Metallic)	ZAVERCHAND / ANUP ENGG. / METTALIC BELLOW / SYSTEC FLEXO / SUR INDUSTRIES / IWKA
9.	Gas Tight Isolator	FOURESS / L&T
10.	CAST BASALT PIPES	DECCAN MECH &CHEMICAL INDUSTRIES PV / ENVIRO BULKK HANDLING SYSTEMS PVT. / TURBO ENGINEERS (CBE) / VIDYUT GREENBANK (INDIA) PVT. LTD.



Sl. No.	Item Description	Preferred Vendors/Makes
11.	CI PIPES & FITTINGS	BENGAL IRON CORPN / CHANDIMATA IRON INDUSTRIES / ELECTROSTEEL CASTINGS LTD / ENGINEERING SERVICE ENTERPRISE / IDCOL KALINGA IRON WORKS LTD. / KAPILANSH DHATU UDYOG PRIVATE LIMIT / KESORAM SPUN PIPES AND FOUNDRIES / PARAMOUNT CENTRISPUN CASTINGS PVT L / S.K. FOUNDRY / STEEL AUTHORITY OF INDIA LTD / TESHI ENGINEERS & SALES PROMOTORS (P) / THE INDIAN IRON & STEEL CO.,LTD / TRU-FORM ENGINEERS
12.	COPPER & AL PIPES	ARISTO METAL INDUSTRIES / CHAMPAK STEEL & ENGG CO / INDIGO METALLOYS PRIVATE LIMITED / JIGAR TUBE INDUSTRIES / KHANDELWAL BROTHERS / MARUTI METAL INDUSTRIES / METAL ALLOYS CORPORATION / METAL TUBE INDUSTRIES
13.	ERW PIPES	ADVANCE STEEL TUBES LTD. / ALLIED STEEL & TUBES / APL APOLLO TUBES LTD / ARISTO METAL INDUSTRIES / ASIAN MILLS PVT.LTD / ASRANI TUBES LTD / BENGAL PIPE INDUSTRIES / BHARAT ENTERPRISES / BMS INTERNATIONAL BOMBAY LLP / DENHOLM STEELS LTD / DIVINE TUBES PVT LTD / GOOD LUCK STEEL TUBES LTD. / IMPERIAL TUBES PVT LTD / INDUS TUBES LTD / JINDAL (INDIA) LTD / JINDAL PIPES LIMITED / JOTINDRA STEEL & TUBES LIMITED / KAMLESH STEEL & ENGINEERING CO. / LALIT PIPES & PIPES LTD / MAHARASHTRA SEAMLESS LIMITED / MAXIM TUBES COMPANY PRIVATE LIMITED / NAVRATAN PIPE AND PROFILE LIMITED / NEZONE TUBES LIMITED / P.S. STEEL TUBES LIMITED / PRECISION PIPES & TUBES PVT LTD / RAJENDRA PIPING & FITTINGS / SAMBHAV PIPES & FITTINGS / SANGHVI METALS / SHREE LAXMI UDYOG / SHYAM METALICS AND ENERGY LTD / SKRK ENTERPRISES PVT LTD / STEEL AUTHORITY OF INDIA LTD / STERLITE METAL INDUSTRIES / SURYA ROSHINI LTD., / SWASTIK PIPES LIMITED / TATA IRON & STEEL CO LTD / TUBES INDIA / UTKARSH TUBES & PIPES LIMITED / VISHAL PIPES LIMITED
14.	IBR PIPE FITTINGS	AK PIPE FITTINGS PVT LTD / BHARAT FORGE & PRESS INDUSTRIES / BHARAT HEAVY ELECTRICALS LTD- ISBG / FLASH FORGE (P) LTD / GUJARAT INFRAPIPES PRIVATE LIMITED / INTER-TECH FITTINGS INDIA PVT.LTD / KHANDELWAL BROTHERS / NAV DURGA FORGING & FITTINGS / PARAS ENGINEERING WORKS / PETRO CHEM INDUSTRIES / PRECISION ENGINEERING CORPORATION / SAWAN ENGINEERS PVT LTD / SUPER FORGE PRIVATE LIMITED / TESHI ENGINEERS & SALES PROMOTORS (P)



Sl. No.	Item Description	Preferred Vendors/Makes
15.	PIPE FITTINGS / CRITICAL	ASTER ENGINEERING / FLUID CONTROLS PVT LTD / GEM ENGINEERING INDUSTRIES / GUJARAT INFRAPIPES PRIVATE LIMITED / HYD-AIR ENGINEERING PVT. LTD. / HYLOC HYDROTECHNIC PVT LTD / HY-TECH ENGINEERS PVT LTD / PIX TRANSMISSIONS LTD / PROJECT TOOLING SYSTEMS
16.	PIPE FITTINGS-TEES	AMARDEEP STEEL CENTRE / ARISTO METAL INDUSTRIES / BHARAT FORGE & PRESS INDUSTRIES / BOMBAY METAL (INDIA) / EFFECTUAL ENGINEERING EQUIPMENTS / ENGINEERING SERVICE ENTERPRISE / FIT TECH INDUSTRIES / FLASH FORGE (P) LTD / GUJARAT INFRAPIPES PRIVATE LIMITED / HINDUSTAN UDYOG LTD / HYDRO MECH ENGINEERS / HYDRO PNEUMATICS / I S P SALES (EASTERN) PVT LTD / J J HYDRAULICS PVT LTD / JIGAR TUBE INDUSTRIES / JYOTI INDUSTRIES / KALPESH TUBE INDIA / KAMLESH STEEL & ENGINEERING CO. / KHANDELWAL BROTHERS / METAL FORGINGS PVT LTD / METAL TUBE INDUSTRIES / N L HAZRA & SON / NAV DURGA FORGING & FITTINGS / NAVKAR FITTINGS & FORGINGS PVT LTD / PARAS ENGINEERING WORKS / PARAS FITTINGS PVT.LTD / PAUL INDUSTRIES / PETRO CHEM INDUSTRIES / POONAM ENTERPRISES / RECKON ENGINEERS / SAMBHAV PIPES & FITTINGS / SANGHVI FORGING & ENGINEERING LTD / SANGHVI METALS / SAWAN ENGINEERS PVT LTD / SHREE LAXMI UDYOG / SIPRA ENTERPRISE / STEEL FAB / STEEL SALES COMPANY / STEEL SALES CORPORATION / STERLITE METAL INDUSTRIES / SUPER FORGE PRIVATE LIMITED / SWASTIK LLOYDS ENGG PVT LTD / TEEKAY TUBES PVT LTD / TESHI ENGINEERS & SALES PROMOTORS (P / TRUE FAB ENGINEERS (P) LTD / TRUE FORGE PVT LTD / TUBE BEND (CALCUTTA) PVT LTD / TUBE PRODUCTS INCORPORATE / TUBES INDIA / VIRATRA METAL INDUSTRIES / Vishal Steels / VIVIAL FORGE PVT. LTD. / WESMEC ENGINEERING PVT. LTD.
17.	PIPES DIA ABV 30"	BMS INTERNATIONAL BOMBAY LLP / JCO GAS PIPE LIMITED / MAN INDUSTRIES (INDIA) LTD. / MAXIM TUBES COMPANY PRIVATE LIMITED / RATNAMANI METALS & TUBES LTD / REMI EDELSTAHL TUBULARS LTD / SKRK ENTERPRISES PVT. LTD. / SREEVATSA TUBE CORPORATION / STEEL AUTHORITY OF INDIA LTD.



Sl. No.	Item Description	Preferred Vendors/Makes
18.	SEAMLESS PIPES	ALLIED STEEL & TUBES / AMARDEEP STEEL CENTRE / ANAND SEAMLESS TUBES PRIVATE LIMITE / ARISTO METAL INDUSTRIES / ARVIND STEEL CORPORATION / BHARAT ENTERPRISES / BHARAT HEAVY ELECTRICALS LTD-ISBG / BMS INTERNATIONAL BOMBAY LLP / BOMBAY METAL (INDIA) / CHAMPAK STEEL & ENGG CO / DIVINE TUBES PVT LTD / HEAVY METAL & TUBES (INDIA) PVT LTD / HINDUSTAN INOX LTD / IMPERIAL ENTERPRISES / INDUSTRIAL METAL CORPORATION / ISMT LIMITED / JIGAR TUBE INDUSTRIES / JINDAL SAW LIMITED / JR SEAMLESS PVT LTD / KALPESH TUBE INDIA / KAMLESH STEEL & ENGINEERING CO. / KRYSTAL STEEL MANUFACTURING P LTD / KWALITY TUBES / LALBABA SEAMLESS TUBES PVT.LTD / MAHALAXMI SEAMLESS LIMITED / MAHARASHTRA SEAMLESS LIMITED / MAXIM TUBES COMPANY PRIVATE LIMITED / METAL TUBE INDUSTRIES / PRECISION PIPES & TUBES PVT LTD / RAJENDRA PIPING & FITTINGS / RATNADEEP METAL & TUBES LTD. / REMI EDELSTAHL TUBULARS LTD / REMI METALS GUJARAT LTD / RIDHI SIDDHI STEEL CORPORATION / SAINEST TUBES PVT. LTD / SAMBHAV PIPES & FITTINGS / SANDVIK ASIA PRIVATE LIMITED / SANGHVI METALS / SHREE LAXMI UDYOG / SKRK ENTERPRISES PVT LTD / SLS TUBES PVT LTD / SREEVATSA TUBE CORPORATION, / STEAMLINER INDUSTRIES LTD / STEEL SALES COMPANY / STEEL SALES CORPORATION / STERLITE METAL INDUSTRIES / TUBACEX PRAKASH INDIA PVT LTD / TUBES INDIA / VIRATRA METAL INDUSTRIES
19.	SS PIPES	ARISTO METAL INDUSTRIES / BHANDARI FOILS AND TUBES LTD. / BHARAT ENTERPRISES / BMS INTERNATIONAL BOMBAY LLP / BOMBAY METAL (INDIA) / CALICO METAL INDUSTRIES PVT LTD / CHAMPAK STEEL & ENGG CO / DIVINE TUBES PVT LTD / HINDUSTAN INOX LTD / IMPERIAL ENTERPRISES / JIGAR TUBE INDUSTRIES / JINDAL SAW LIMITED / KALPESH TUBE INDIA / KAMLESH STEEL & ENGINEERING CO. / KRYSTAL STEELMANUFACTURING P LTD / KWALITY TUBES / MAXIM TUBES COMPANY PRIVATE LIMITED / MBM TUBES PRIVATE LIMITED / METAL TUBE INDUSTRIES / METALLICA METALS INDIA / MODERN TUBE INDUSTRIES LTD / NUCLEAR FUEL COMPLEX / PRAKASH STEELAGE LTD. / PRECISION PIPES & TUBES PVT LTD / RAJENDRA PIPING & FITTINGS / RATNADEEP METAL & TUBES LTD. / RATNAMANI METALS & TUBES LTD / RELIANT ENGINEERING INDUSTRIES / REMI EDELSTAHL TUBULARS LTD / REMI METALS GUJARAT LTD / RIDHI SIDDHI STEEL



Sl. No.	Item Description	Preferred Vendors/Makes
		CORPORATION / SAMBHAV PIPES & FITTINGS / SANDVIK ASIA PRIVATE LIMITED / SANGHVI METALS / SCORODITE STAINLESS (INDIA) PVT. LT / SHEKASA ENGG CO.(P) LTD / SHREE LAXMI UDYOG / SHUBHLAXMI METALS AND TUBES PVT. LT / SLS TUBES PVT LTD / STEAMLINE INDUSTRIES LTD / STEEL SALES COMPANY / STEEL SALES CORPORATION / STEEL TUBE COMPANY (SOUTH) / STERLITE METAL INDUSTRIES / SURAJ LIMITED / TRIVENI METAL & ENGG CO / TUBACEX PRAKASH INDIA PVT LTD / VENUS PIPES & TUBES PVT LTD / VIRATRA METAL INDUSTRIES / Vishal Steels

Valves

Sl. No.	Item Description	Preferred Vendors/Makes
I	<u>GATE/ GLOBE & CHECK VALVES:</u>	
1.	Cast Iron	GM DALUI & SONS / LEADER VALVES / LEVCON VALVES / NECCO SCHUBERT & SALZER LTD / UPADHYAYA VALVES / H.SARKAR & CO. /AV VALVES / IVC / SHIVA DURGA / VALTECH INDUSTRIES / FLUID LINE VALVES / HAWA ENGINEERING / BDK / DURGA VALVES / FOURESS / KBL / IVI / KALPANA / STEAM & MINING / IVPL / K.L. PARUI & SONS
2.	Cast Carbon Steel	FISHER XOMER SANMAR / NECO SCHUBERT & SALZER / LEADER VALVES / KSB / FOURESS / BDK / AUDCO / VALTECH INDUSTRIES / HAWA ENGINEERING / AV VALVES / OSWAL INDUSTRIES / SAKHI / STEAM & MINING / ASSOCIATED TOOLING / LEADER / VIRGO /L&T / KBL / HI-TECH / IVC / XOMOX / VAAS / R&D MULTIPLE / AL SAUNDERS/ ASSOCIATEDTOOLING
		AVC Engg. / BDK / BHEL / Crowley & Ray / DK / FISHER / FOURESS/FOURESS ENGG(INDIA) / HAWA ENGINEERING / HI-TECH BUTTERFLY VALVES / INTERVALVE / IVC / IVPL / Keystone / Kirloskar Brothers / KSB /LEADER / LEADER VALVES / Microfinish / NECO SCHUBERT & SALZER / Niton / NITTOR / OSWAL INDUSTRIES / R&D MULTIPLE / REYNOLDS / SAKHI / SANMAR / STEAM & MINING /SWAL INDUSTRIES / Tyco / United Engineers / VALTECH INDUSTRIES / Vass Ind / VIRGO / XOMOX
3.	Forged Steel	AUDCO / BDK / FOURESS / LEADER / NECO SCHUBERT / FISHER-XOMOX / AV VALVES / VALTECH INDUSTRIES / HAWA ENGINEERING / OSWAL INDUSTRIES / L&T /KSB / KBL / HI-TECH / IVC / XOMOX / BHEL / OSWAL / VAAS / R&D MULTIPLE
4.	Knife edge Gate Valves	A V Valves / VAAS / FOURESS / BDK / VAG / MICRO FINISH / KEYSTONE / JASH



Sl. No.	Item Description	Preferred Vendors/Makes
5.	VALVE,KNIFE EDGE	CANLE VALVES PVT LTD / CRAWLEY & RAY (F&E) PVT LTD / FLUIDFLOW TECH CONTROLS (INDIA) PVT / JASH ENGINEERING LIMITED / JRS CONTROLS / KATEEL ENGINEERING INDUSTRY (P) LTD / MILENIUM TECHNOLOGIES (I) PVT. LTD / ORBINOX INDIA PVT LTD / PEE INDUSTRIAL VALVES PVT LTD / STAFFORD CONTROLS LTD
6.	CAST CS GATE/GLOBE	A.V. VALVES LIMITED / BHARAT HEAVY ELECTRICALS LTD-ISBG / CHEMTECH INDUSTRIAL VALVES PVT LTD. / DINTECH VALVES PVT LTD / EXPERT ENGINEERING ENTERPRISES / FLOSTEER ENGINEERS (P) LTD / FLOTEK INDUSTRIES / FLUIDFLOW TECH CONTROLS (INDIA) PVT / FOURESS ENGINEERING (INDIA) PVT LTD / HAWA ENGINEERS LTD / HYDROTECH ENGINEERING CO / INTERVALVE POONAWALLA LTD / KSB PUMPS LTD / LARSEN & TOUBRO LTD / LEADER VALVES LIMITED / METROPOLITAN INDUSTRIES / N S S L LIMITED / OSWAL INDUSTRIES LTD. / SAP INDUSTRIES LTD / STEELSTRONG VALVES (I) PVT.LTD / VALTECH INDUSTRIES / WEIR BDK VALVES-A UNIT OF WEIR(I PV / ZED VALVES CO. PVT LTD / METROPOLITAN INDUSTRIES / MICON ENGINEERS (HUBLI) PVT LTD / STEELSTRONG VALVES (I) PVT.LTD
II	BALL VALVES :	
7.	Cast Iron	AUDCO / BDK / FOURESS / REYNOLDS / VALTECH INDUSTRIES / Vass Ind / KSB / Microfinish / Niton / AL Saunders / Xomox / Virgo / United Engineers / Steam & Mining / Hi-Tech B.Valves / L&T / FISCHER / NITTOR
8.	Cast Carbon Steel	AUDCO /BDK / FOURESS / VIRGO / FISHER / XOMOX / SANMAR /OSWAL INDUSTRIES / REYNOLDS / VALTECH INDUSTRIES / LEADER / Vass Ind / KSB Microfinish / Niton / AL Saunders / Virgo / United Engineers / Steam & Mining / Hi-Tech / L&T / NITTOR / AL SAUNDERS
9.	Forged Steel	AUDCO / BDK / FOURESS / VIRGO / OSWAL INDUSTRIES / REYNOLDS / VALTECH INDUSTRIES / LEADER / Vass Ind / KSB / Microfinish / Niton / AL Saunders / Virgo / United Engineers / Steam & Mining / Hi-Tech /L&T / FISCHER / XOMOX / NITTOR

VALVES:

Sl. No.	Item Description	Preferred Vendors/Makes
1.	Cast Iron	AL Saunders / AUDCO / AVC Engg / BDK / CHEMTROL / Crowley & Ray / DURGA VALVES / FISHER / FLUID LINE VALVES / FOURESS / GM Dalui / GM DALUI & SONS / H. SARKAR & CO. / HAWA ENGINEERING / HI-TECH BUTTERFLY VALVES / INTER VALVE (INDIA) / IVC / IVI / IVPL / K.L. PARUI & SONS / KALPANA / KBL/ Keystone /



Sl. No.	Item Description	Preferred Vendors/Makes
		Kirloskar Brothers / KSB PUMPS / L&T / LEADER VALVES / LEVCON VALVES / NECCO SCHUBERIL & SALZER LTD / SANMAR / SHIVA DURGA / Steam and Mining / TUFLIN / Tyco / UPADHYAYA VALVES / V VALVES / VALTECH INDUSTRIES / Vass Ind. / Virgo / XOMOX / AL Saunders / FISCHER / Microfinish / Niton / NITTOR / REYNOLDS / Steam & Mining / United Engineers
2.	CAST IRON/CS BODY	AMCO INDUSTRIAL VALVES / BANGALORE FLUID SYSTEM COMPONENTS P / BELGAUM AQUA VALVES PVT LTD / BS HYDRO-PNEUMATIC PRIVATE LIMITED / CAIR EUROMATIC AUTOMATION PVT LTD / CANLE VALVES PVT LTD / CHEMTECH INDUSTRIAL VALVES PVT LTD. / FESTO INDIA PRIVATE LIMITED / FLOCON SYSTEMS PVT LTD / FLOWJET VALVES PVT.LTD / FLUIDTECQ PNEUMATICS PRIVATE LIMITE / HAWA ENGINEERS LTD / HYD AIR ENGG WORKS (GOA) / INTERVALVE POONAWALLA LTD / JOSHIJAMPALA ENGINEERING PVT.LTD / KAMAL VALVES PVT. LTD / KAMALA VALVES & ENGINEERING WORKS / LARSEN & TOUBRO LTD / LEADER VALVES LIMITED / METROPOLITAN INDUSTRIES / MICON ENGINEERS (HUBLI) PVT LTD / MICROFINISH VALVES PVT. LTD / N S S L LIMITED / OSWAL INDUSTRIES LTD. / R K CONTROL INSTRUMENTS PVT. LTD. / REINEKE ENGINEERING PVT. LTD. / REYNOLD VALVES LTD / RMEBS CONTROLS PRIVATE LIMITED / S & M INDUSTRIAL VALVES LIMITED / SAP INDUSTRIES LTD / SHREE CHAMUNDA VALVES PVT LTD / STAUFF INDIA PVT. LTD. / SURYA VALVES ANDINSTRUMENTS MFG CO /TARAMA ENGINEERING UDYOG / THE NEW BHAGYA LAKSHMI PATTERN WORK / VALTECH INDUSTRIES / VIRGO ENGINEERS LIMITED / VOLTECH TEJAS VALVES PVT. LTD / WEIR BDK VALVES / XOMOX SANMAR LIMITED
3.	CAST/FORGED AS/SS	BANGALORE FLUID SYSTEM COMPONENTS P / BELGAUM AQUA VALVES PVT LTD / CAIR EUROMATIC AUTOMATION PVT LTD / FLOCON SYSTEMS PVT LTD / FLOWSERVE INDIA CONTROLS PVT. LTD. / FLUIDFLOW TECH CONTROLS (INDIA) PVT / FLUIDTECQ PNEUMATICS PRIVATE LIMITE / G.M.ENGINEERING PVT.LTD / INTERVALVE POONAWALLA LTD / KAMALA VALVES & ENGINEERING WORKS / L&T / LEADER VALVES LIMITED / MICON ENGINEERS (HUBLI) PVT LTD / N S S L LIMITED / OSWAL INDUSTRIES LTD. / REYNOLD VALVES LTD / RMEBS CONTROLS PRIVATE LIMITED / SHREE CHAMUNDA VALVES PVT LTD / TARAMA ENGINEERING UDYOG / THE NEW BHAGYA LAKSHMI PATTERN WORK / VALVE TECH INDUSTRIES / VIRGO ENGINEERS LIMITED / WEIR BDK VALVES-A UNIT OF WEIR(I PV / XOMOX SANMAR LIMITED



Sl. No.	Item Description	Preferred Vendors/Makes
4.	CONTROL VALVES	ADVANCE SYSTEMS CONTROLS / AIRA EURO AUTOMATION PRIVATE LIMITE / Bestobell / BHARAT HEAVY ELECTRICALS LTD-ISBG / BHEL / Blue Star / BRIGHTECH VALVES AND CONTROLS PVT L / CAIR EUROMATIC AUTOMATION PVT LTD / DARLING / DARLING MUESCO (INDIA) PVT LTD / DCV DANDY / DEMBLA VALVES PVT LTD / DRESSER / EL-O-MATIC INDIA (PVT) LTD / FISCHER / Fluid Line / Forbes Marshal / FOURESS ENGINEERING (INDIA) PVT LTD / IL / ILP / INSTRUMENTATION LIMITED / ISHER ROSEMOUNT / JNM / Kosan Metal / KSB MIL CONTROLS LIMITED / LARSEN & TOUBRO LTD / Leader / MASOLEN / Mazda / MEKASTER VALVES & ENGG.SERVICES PVT / METSO / MIL CONTROLS / N S S L LIMITED / NECO SCHARBET / Nirmal Ind. / OCV DANDY CONTROL PVT LTD / PNEUCON VALVES PVT LTD / R K CONTROL INSTRUMENTS PVT. LTD. / RMEBS CONTROLS PRIVATE LIMITED / SABIM VALVES / SAMSON CONTROLS / SAMSON CONTROLS PVT LTD / SEVERN GLOCON INDIA PRIVATE LIMITED / TECNIK VALVES PVT LTD / TOSHNIWAL / UNIFLOW CONTROL INSTRUMENTS PVT LTD / Vanaz / Vass Ind. / XOMOX
5.	GAS REGULATRS & VLVS	ALCHEMIE GASES & CHEMICALS PVT. LTD / ASHOMECH/ BESTOBELL VALVES LTD / ESAB INDIA LIMITED / HYDROGAS INDIA LIMITED / CYLINDERS LTD. / LINDE INDIA LIMITED / NIRMAL INDUSTRIAL CONTROLS (P) LTD / SAMSON AG /INOX AIR PRODUCTS LTD / JAI MARUTI GAS SHELL-N- TUBE (P)LTD /TEKNO VALVES /VANAZ ENGINEERS LTD
6.	GUNMETAL / BRASS VLV	AMCO INDUSTRIAL VALVES / G M DALUI & SONS PVT. LTD / LEADER VALVES LIMITED / N S S L LIMITED / RAMESH & SHANTI ENGINEERING WORKS / SANT VALVES PVT. LTD. / UPADHYAYA VALVES MFRS.PVT.LTD. / VALTECH INDUSTRIES / WHITE & BROWN ALLOY CASTINGS PVT LT
7.	TECHNOLOGICAL VALVES	BHARAT HEAVY ELECTRICALS LTD-ISBG / CHEMTECH INDUSTRIAL VALVES PVT LTD. / FOURESS ENGINEERING (INDIA) PVT LTD / JOSHIJAMPALA ENGINEERING PVT.LTD / KIRLOSKAR BROS LTD / KSB PUMPS LTD / LARSEN & TOUBRO LTD
8.	Stainless Steel	AUDCO / BDK / CHEMTROL / FISCHER / GM Dalui / H.Sarkar / L&T / Leader / SANMAR / Steam and Mining / TUFLIN / Vass Ind. / VIGO / Virgo / XOMOX
9.	STEEL STRAPING,SEAL	E CRIMP TECHNOLOGIES / GRIP STRAPPING TECHNOLOGIES PVT.LTD / I T W INDIA LTD / MIDFIELD INDUSTRIES LIMITED / SIDDHI VINAYAKA METAL PRESSING WORK / SIGNODE INDIA LIMITED / WALZEN STRIPS PVT. LTD.
10.	VALVES	HYQUIP SYSTEMS LTD / MILENIUM TECHNOLOGIES (I) PVT. LTD / TECHEDGE AIR ENGINEERING PVT LTD



Sl. No.	Item Description	Preferred Vendors/Makes
11.	VALVES & ACC FOR VAC	ALCATEL VACUUM TECHNOLOGY / HIND HIGH VACUUM COMPANY PVT. LTD. / LAWRENCE & MAYO (I) PVT LTD / NEW POONA INDUSTRIES / TOSHNIWAL BROS (HYD) PVT LTD
12.	Valves 800 PR & beyond	A.V. VALVES LTD / ASSOCIATED TOOLING (INDIA) PVT.LTD / BHARAT HEAVY ELECTRICALS LTD-ISBG / BS HYDRO-PNEUMATIC PRIVATE LIMITED / FOURESS ENGINEERING (INDIA) PVT LTD / G M VALVE PVT LTD / HAWA ENGINEERS LTD / INTEGRAL PROCESS CONTROLS INDIA PVT / KSB PUMPS LTD / LARSEN & TOUBRO LTD / LEADER VALVES LIMITED / METROPOLITAN INDUSTRIES / N S S L LIMITED / NORFLOW CONTROLS / OSWAL INDUSTRIES LTD. / SAP INDUSTRIES LTD / SEMPELL VALVES PVT LTD / STEELSTRONG VALVES (I) PVT.LTD / THE NEW BHAGYA LAKSHMI PATTERN WORK / VALTECH INDUSTRIES / WEIR BDK VALVES-A UNIT OF WEIR (I) PV / WESMEC ENGINEERING PVT LTD
13.	Valves beyond 600 PR	BHARAT HEAVY ELECTRICALS LTD-ISBG / FLUIDFLOW TECH CONTROLS (INDIA) PVT / FOURESS ENGINEERING (INDIA) PVT LTD / HYDROTECH ENGINEERING CO / LARSEN & TOUBRO LTD / METROPOLITAN INDUSTRIES / N S S L LIMITED / NORFLOW CONTROLS / S & M INDUSTRIAL VALVES LIMITED
14.	VALVES UPTO 16KG/SQCM	A.V. VALVES LIMITED / A.V. VALVES LTD / AJAY VALVES PVT.LTD / BRIGHTCH VALVES AND CONTROLS PVT L / CALSENS PVT LTD / CANLE VALVES PVT LTD / CHEMTECH INDUSTRIAL VALVES PVT LTD. / CRAWLEY & RAY (F&E) PVT LTD / DURGA ENGINEERING COMPANY / EXPERT ENGINEERING ENTERPRISES / FESTO INDIA PRIVATE LIMITED / FLOSTEER ENGINEERS (P) LTD / FLOTEK INDUSTRIES / FLOWJET VALVES PVT.LTD / FLOW-TEK VALVES & CONTROLS / FLUIDLINE VALVES COMPANY / FLUIDTECH EQUIPMENT PVT.LTD / G M DALUI & SONS PVT. LTD / H SARKER & CO / HAWA ENGINEERS LTD / HAWA VALVES (INDIA) PVT. LTD / INTERVALVE POONAWALLA LTD / JUPITER ENGINEERING CO / KALPANA VALVES MFG.CO.(P) LTD / KAMALA VALVES & ENGINEERING WORKS / KEROMIYONS INTECH (P) LTD / KIRLOSKAR BROS LTD / LALITHA METALS / LEADER VALVES LIMITED / LEVCON VALVES PVT LTD / MCMIRA & COMPANY / MICON VALVES INDIA PVT LIMITED / N S S L LIMITED / NANDINA IRON & STEELS LTD / NILON VALVES PRIVATE LIMITED / NUPRO ENGINEERING SYNDICATE PVT LTD / OCEAN VALVES MANUFACTURING COMPANY / OSWAL INDUSTRIES LTD. / PRIMA ENGINEERING WORKS / PRIME INIDUSTRIAL VALVES MFG.CO. / R K CONTROLINSTRUMENTS PVT. LTD. / RAMESH & SHANTIENGGWORKS / RONEX ENGG COMPANY / S.ROY & COMPANY / SANT VALVES PVT. LTD. / SAP INDUSTRIES LTD /SEALMECH VALVES / SHIVA DURGA IRON WORKS PVT LTD / SHREE CHAMUNDA



Sl. No.	Item Description	Preferred Vendors/Makes
		VALVES PVT LTD / SIGMA FLOW CONTROL INDIA LTD / SURYA VALVES AND INSTRUMENTS MFG CO / TARAMA ENGINEERING UDYOG / THE INDIAN VALVE COMPANY / THE NEW BHAGYA LAKSHMI PATTERN WORK / UPADHYAYA VALVES MFRS.PVT.LTD. / VALTECH INDUSTRIES / VALVE TECH INDUSTRIES / VENUS PUMP & ENGG. WORKS / WHITE & BROWN ALLOY CASTINGS PVT LT
15.	VALVES UPTO 600 PR	2L ENGINEERS / A.V. VALVES LTD / AJAY VALVES PVT.LTD / BELGAUM AQUA VALVES PVT LTD / BHARAT HEAVY ELECTRICALS LTD-ISBG / CADMAXX SOLUTIONS PVT LTD / CAIR EUROMATIC AUTOMATION PVT LTD / CANLE VALVES PVT LTD / CHEMTECH INDUSTRIAL VALVES PVT LTD. / DINTECH VALVES PVT LTD / FLOSTEER ENGINEERS (P) LTD / FLOWJET VALVES PVT.LTD / FLUIDFLOW TECH CONTROLS (INDIA) PVT / FOURESS ENGINEERING (INDIA) PVT LTD / HAWA ENGINEERS LTD / HAWA VALVES (INDIA) PVT. LTD / HI-TEC VALVES / INTEGRAL PROCESS CONTROLS INDIA PVT / INTERVALVE POONAWALLA LTD / JOSHIJAMPALA ENGINEERING PVT.LTD / KAMALA VALVES & ENGINEERING WORKS / KIRLOSKAR BROS LTD / KSB PUMPS LTD / LARSEN & TOUBRO LTD / LEADER VALVES LIMITED / MCMIRA & COMPANY / METROPOLITAN INDUSTRIES / MICON ENGINEERS (HUBLI) PVT LTD / MICON VALVES INDIA PVT LIMITED / N S S L LIMITED / NIRMAL INDUSTRIAL CONTROLS (P) LTD / OCEAN VALVES MANUFACTURING COMPANY / OSWAL INDUSTRIES LTD. / S.ROY & COMPANY / SAP INDUSTRIES LTD / SHIVA DURGA IRON WORKS PVT LTD / SHREE CHAMUNDA VALVES PVT LTD / STEELSTRONG VALVES (I) PVT.LTD / TARAMA ENGINEERING UDYOG / UPADHYAYA VALVES MFRS.PVT.LTD. / VALTECH INDUSTRIES / VALVE TECH INDUSTRIES / WEIR BDK VALVES-A UNIT OF WEIR (I) PV / ZED VALVES CO. PVT LTD

Sl. No.	Item Description	Preferred Vendors/Makes
III	<u>BUTTERFLY VALVES:</u>	
1.	Cast Iron	AUDCO / BDK / FOURESS / INTER VALVE (INDIA) / KSB PUMPS / SHIVA DURGA / UPADHAYA VALVES / HI-TECH BUTTERFLY VALVES / Kirloskar Brothers / IVPL / Virgo / AL Saunders / Keystone / Leader / AVC Engg. / Crowley & Ray / Xomox / Tyco
2.	Cast Carbon Steel	AUDCO / BDK / FOURESS ENGG(INDIA) / INTERVALVE / HI-TECH BUTTERFLY VALVES / Kirloskar Brothers / IVPL / Virgo/ AL Saunders / Keystone / Leader / AVC Engg. / Crowley & Ray / Xomox / Tyco



Sl. No.	Item Description	Preferred Vendors/Makes
3.	Forged Steel	AUDCO /BDK / FOURESS ENGG(INDIA) / INTERVALVE / HI-TECH BUTTERFLY VALVES / Kirloskar Brothers / IVPL / Virgo / AL Saunders / Keystone / Leader / AVC Engg./ Crowley & Ray / Xomox / Tyco
4.	BUTTERFLY VALVES:	2L ENGINEERS / ADVANCE SYSTEMS CONTROLS / ADVANCE VALVES PVT. LTD. / AIRA EURO AUTOMATION PRIVATE LIMITE / BELGAUM AQUA VALVES PVT LTD / BHARAT HEAVY ELECTRICALS LTD-ISBG / BRIGHTCH VALVES AND CONTROLS PVT. LTD. / CAIR EUROMATIC AUTOMATION PVT. LTD. / CANLE VALVES PVT. LTD. / CRANE PROCESS FLOW TECH.S (INDIA) L / CRAWLEY & RAY (F&E) PVT LTD / DELVAL FLOW CONTROLS (P) LTD. / DEMBLA VALVES PVT LTD / DINTECH VALVES PVT LTD / EBRO ARMATUREN INTERNATIONAL EST & / FESTO INDIA PRIVATE LIMITED / FLOCON SYSTEMS PVT. LTD. / FLOTEK INDUSTRIES / FLOWSERVE INDIA CONTROLS PVT. LTD. / FLUIDFLOW TECH CONTROLS (INDIA) PVT / FOURESS ENGINEERING (INDIA) PVT LTD / HAWA ENGINEERS LTD. / HAWA VALVES (INDIA) PVT. LTD. / INSTRUMENTATION LIMITED / INTERVALVE POONAWALLA LTD. / JOSHIJAMPALA ENGINEERING PVT.LTD / JRS CONTROLS / JUPITER ENGINEERING CO. / KAMALA VALVES & ENGINEERINGWORKS /KATEEL ENGINEERING INDUSTRY (P) LTD. / KEROMIYONS INTECH (P) LTD. / KIRLOSKAR BROS LTD. / LARSEN & TOUBRO LTD. / LEADER VALVES LIMITED / MICON ENGINEERS (HUBLI) PVT. LTD. / NILON VALVES PRIVATE LIMITED / NORFLOW CONTROLS / NUPRO ENGINEERING SYNDICATE PVT. LTD. / ORBINOX INDIA PVT. LTD. / PEE INDUSTRIAL VALVES PVT. LTD. / R K CONTROL INSTRUMENTS PVT. LTD. / RAMESH & SHANTI ENGINEERING WORKS / REINEKE ENGINEERING PVT. LTD. / RMEBS CONTROLS PRIVATE LIMITED / S & M INDUSTRIAL VALVES LIMITED / SEALMECH VALVES / SEVERN GLOCON INDIA PRIVATE LIMITED / SHREE KRISHNA INDUSTRIES / SIGMA FLOW CONTROL INDIA LTD / STAFFORD CONTROLS LTD. / SURYA VALVES AND INSTRUMENTS MFG. CO. / TARAMA ENGINEERING UDYOG / THE NEW BHAGYA LAKSHMI PATTERN WORK / TYCO VALVES & CONTROLS INDIA PVT. LTD. / U.V. INTERNATIONAL / VALTECH INDUSTRIES / VALVE TECH INDUSTRIES / WEIR BDK VALVES-A UNIT OF WEIR (I) PV / XOMOX SANMAR LIMITED / ZED VALVES CO. PVT. LTD.
IV	PLUG VALVES :	
5.	Cast Iron	AUDCO / FISHER / XOMOX / SANMAR / Vass Ind./ Virgo / BDK / Leader / Steam and Mining / GM Dalui / H.Sarkar / CHEMTROL / L&T / TUFLIN
6.	Carbon Steel	AUDCO / FISCHER / XOMOX / SANMAR / Vass Ind. / Virgo / BDK / Leader / Steam and Mining / GM Dalui / H.Sarkar / CHEMTROL / L&T / TUFLIN



Sl. No.	Item Description	Preferred Vendors/Makes
7.	Forged Steel	AUDCO / FISCHER / XOMOX / SANMAR / Vass Ind./ Virgo / BDK / Leader / Steam and Mining / GM Dalui / H.Sarkar / CHEMTROL / L&T / TUFLIN
8.	Stainless Steel	Vass Ind./ Virgo / BDK / Leader / Steam and Mining / GM Dalui / H.Sarkar / AUDCO / FISCHER / XOMOX / SANMAR / CHEMTROL / VIGO / L&T / TUFLIN
9.	PLUG VALVES	BHARAT HEAVY ELECTRICALS LTD-ISBG / CAIR EUROMATIC AUTOMATION PVT LTD / CANLE VALVES PVT LTD / CHEMTECH INDUSTRIAL VALVES PVT LTD. / CHEMTROLS SAMIL (I) PVT.LTD. / DEMBLA VALVES PVT LTD / FLOWSERVE INDIA CONTROLS PVT. LTD. / G M DALUI & SONS PVT. LTD. / HAWA ENGINEERS LTD. / HAWA VALVES (INDIA) PVT. LTD. / KAMAL VALVES PVT. LTD / LARSEN & TOUBRO LTD. / LEADER VALVES LIMITED / NILON VALVES PRIVATE LIMITED / RAMESH & SHANTI ENGINEERING WORKS / RASAI FLOW LINES PRIVATE LIMITED / RMEBS CONTROLS PRIVATE LIMITED / S & M INDUSTRIAL VALVES LIMITED / THE NEW BHAGYA LAKSHMI PATTERN WORK / VALVE TECH INDUSTRIES / WEIR BDK VALVES-A UNIT OF WEIR(I PV / WEIR MINERALS (INDIA) PVT. LTD. / WHITE & BROWN ALLOY CASTINGS PVT LT / XOMOX SANMAR LIMITED
10.	Control Valves	JNM / FISCHER / XOMOX / FISHER ROSEMOUNT / METSO / R.K. CONTROL / TOSHNIWAL / ILP / Fouress / Bestobell / Mazda / Nirmal Ind. / Vanaz / Kosan Metal / Vass Ind. / Fluid Line / Forbes Marshal / Leader/ Blue Star / IL / DRESSER / SAMSON CONTROLS / MASOLEN / DEMBLA / BHEL / L&T / MIL CONTROLS / NECO SCHARBET / SABIM VALVES / DCV DANDY / DARLING
11.	Pressure Release Valves	JNM / FISCHER XOMOX / AUDCO CROSBY/ Anderson/ BHEL/ BLISS ANAND/ DANFOSS/ EMPELL/ FAINGER/ FORBES MARSHALL/ FOURESS/ IL/ KEYSTONE/ KOSAN/ L&T/ LESER VALVES (P) LTD
12.	SAFETY/PRESSURE REL	BRIGHTCH VALVES AND CONTROLS PVT. L / CHEMTECH INDUSTRIAL VALVES PVT LTD. / DARLING MUESCO (INDIA) PVT LTD / EL-O-MATIC INDIA (PVT) LTD / FAINGER LESER VALVES (P) LTD. / FLOCON SYSTEMS PVT LTD / FLUIDLINE VALVES COMPANY / HAWA ENGINEERS LTD / INSTRUMENTATION LIMITED / LARSEN & TOUBRO LTD / LEADER VALVES LIMITED / N S S L LIMITED / NIRMAL INDUSTRIAL CONTROLS (P) LTD
13.	Needle Valves	FISCHER XOMOX / TUFLIN / AUDCO / BDK / L&T / METSO
14.	Float Valves	LEVCON / LEADER / SHIVA DURGA / UPADHYAY / IVI / IVC / H.SARKAR / G.M.DALUI / DURGA VALVES / IVPL / IM ENGINEERS
15.	Air Release Valves	LEVCON / LEADER / SHIVA DURGA / UPADHYAY / IVI / IVC / H. SARKAR / G.M. DALUI / FLUID CONTROL / VAG / FOURESS / R&D MULTIPLE / M&P / IVPL / IM ENGINEERS / STEAM & MINING / SCHRODER DUNCUM / FLUID LINE VALVES



Sl. No.	Item Description	Preferred Vendors/Makes
16.	Valve Actuators	AUMA / LIMITORQUE / ROTORK CONTROLS / EL-O-MATIC
17.	VALVE POSITIONERS	ABB INDIA LIMITED / CHEMTROLS INDUSTRIES LTD. / GE Oil & Gas India Pvt. Ltd. / INSTRUMENTATION LTD / KOSO INDIA PRIVATE LIMITED / KSB MIL CONTROLS LIMITED / SICAL YAMATAKE LTD / SIEMENS LTD / XOMOX SANMAR LIMITED
18.	CS / FS / SS Valves for Steam / Feed Water / & LPG (Gate / Globe / NRV)	L&T (Audco Div) / Fouress / BHEL / KSB / GM Dalui / Leader / BDK / NECO / Associated Tooling / Hawa Eng. / Vass Ind / Advance Valves / Kalpana Valves
19.	GM Valves	Bombay Metals / GM Dalui / Leader / NECO / Kalpana Valves / BANKIM / NECO / UPADHYAY VALVES
20.	Diaphragm Valves	AL Saunders / Fluid System / Leader / BDK / Xomox / Steam & Mining / CRANE
21.	Fabricated Gate Valves	Fouress / Cimmco / BECO / Beekay / L&T / Kalpana Valves
22.	Safety Relief Valve (Pressure relief Valves)	BHEL / Keystone / Bliss Anand / L&T / empell / Fainger / Leser Valves (P) Ltd. / IL / Anderson / Kosan / AUDCO / FORBES MARSHALL / FOURESS / DANFOSS / JNM
23.	AIR VALVES	AIRA EURO AUTOMATION PRIVATE LIMITE / BHARAT HEAVY ELECTRICALS LTD-ISBG / CAIR EUROMATIC AUTOMATION PVT LTD / DUNCAN ENGINEERING LIMITED / FLUIDLINE VALVES COMPANY / HAWA ENGINEERS LTD / KALPANA VALVES MFG.CO.(P) LTD / RONEX ENGG COMPANY

List of Preferred Vendors/Makes - Utility System

A. Air Conditioning & Ventilation Systems

Sl. No.	Item Description	Preferred Vendors/Makes
1.	Chiller Units	BLUE STAR / CARRIER / DUNHAM BUSH / VOLTAS / YORK / TRANE / KIRLOSKAR / DAIKIN / HITACHI / DENCO / FRIOTHERM / HEUCH / McQUAY
2.	Cooling towers	PAHARPUR / MIHIR / ADVANCE / GAMMON INDIA / Southern Cooling Towers Ltd. / SHRIRAM TOWER TECH.
3.	Air Handling Units	BLUE STAR / CARRIER / EMERSON / EDGE TECH / VOLTAS / ALSTOM / BATLIBOI / ROOTS COOLING / ZECO / ETA / CLIVET
4.	Package Air Conditioners	BLUE STAR / CARRIER / EMERSON / BATLIBOI / HITACHI / VOLTAS
5.	Split Air Conditioners	BLUE STAR / CARRIER / EMERSON / O GENERAL / DAIKIN / VOLTAS / HITACHI / FEEDERS LLOYD / LG
6.	Window Air Conditioners	BLUE STAR / CARRIER / VOLTAS / HITACHI / Lloyd / LG / DAIKIN / O GENERAL
7.	Package Type FRP Cooling Towers	DBR / HAMMON / PAHARPUR / SREERAM / THERMOPAK
8.	Valves for air conditioning	DANFOSS / HONEYWELL / BLUE STAR
9.	Vibration isolators	DUNLOP/ EMERALD / ARF
10.	Centrifugal horizontal pumps	KSB / BEACON WEIR / VOLTAS / MATHER & PLATT
11.	Horizontal split casing pumps	VOLTAS / BEACON WEIR / KSB / MATHER & PLATT
12.	Ventilation Systems	C.DOCTOR / DUSTVEN / NADI / S.K SYSTEM / VOLTAS / ABB
13.	Centrifugal/Axial Flow Fan For Ventilation System	C. DOCTOR / DUSTVEN / NADI / FLAKTWOODS / S.K.SYSTEM / Thermax / EFE / Andrew Yule / RIECO / BATLIBOI / Flaktwood / REITZ / ACCEL / ALMONARD / INDFAN
14.	Centrifugal fans for De-dusting	BHEL / TLT / Thermax / C.Doctor / Andrew Yule / RIECO / Batliboi / F.Harley / Flaktwood / REITZ / DUSTUEN / INDFAN
15.	Tube axial fans / Propeller Fans	C.Doctor / EFE / Flaktwood / REITZ / Dustven / ALMONARD / ACCEL / KHAITAN / AEROVENT / INDFAN
16.	Panel filter for air	FMI / Clean Filter Industries / EFE / ACCEL / FILTRONIC / FLOWLINK / CADILLAC / C. DOCTOR
17.	Air washer	C.Doctor / EFE / FHARLEY / ALSTOM / Dustven / BATLIBOI / FMI / SK SYSTEMS
18.	Man coolers	C.Doctor / KHAITAN / ALMONARD / DUSTVEN
19.	Roof exhauster	C.Doctor / EFE / ACCEL / ALMONARD / FLOWLINK / INDFAN / AEROVENT
20.	Insulation	BEARDSHELL / FGP / LLOYD / UP TWIGA / TWIGA / BAKELITE HYLAM / MALANPUR ENTECH

Sl. No.	Item Description	Preferred Vendors/Makes
21.	Air Filter	C.DOCTOR / DYNA / FMI / S.K SYSTEMS
22.	GI Sheets	JINDAL / SAIL / TATA / ISPAT / BHUSAN
23.	Aluminium Sheets	BALCO / HINDALCO / INDAL

B. Air Pollution Control System

Sl. No.	Item Description	Preferred Vendors/Makes
1.	DE system	RIECO / FLS / Thermax / Alstom
2.	Bag Filter	THERMAX / RIECO / ALSTOM / ACC / ANDREW YULE
3.	Bag filters (Cap – 10/000 m ³ /h to 80/000 m ³ /h)	THERMAX / ALSTOM / ANDREW YULE / RIECO / C.DOCTOR / F.HARLEY / Dustven / BATLIBOI
4.	Bag filters(Cap – above 80/000 m ³ /h)	ALSTOM / RIECO / ACC / THERMAX / VAI / Dustven / BATLIBOI
5.	ESP	THERMAX / BHEL/ ACC / ALSTOM / ANDREW YULE / VOLTAS / ABB / VAI / FLS
6.	Fan	FLAKT WOODS / TLT /C.DOCTOR / ANDREW YULE / BHEL / NADI AIRTECHNICS / ARF / DUSTVEN / RITZ / ACCO / BATLIBOI
7.	Chain Conveyor	DEMECH / MECP
8.	DFDS system	TPS / SSIPL / F HARLEY
9.	Expansion Joints	KELD / GBM
10.	Damper	FOURESS / BACHMAN / TSC / Damper Technology India Pvt. Ltd.
11.	Cyclones	THERMAX / RIECO / ALSTOM / C.DOCTOR / F.HARLEY / Dustven / EFE
12.	Multicyclones	THERMAX / ALSTOM / C. DOCTOR / BATLIBOI / RIECO / F.HARLEY / EFE
13.	Wet scrubbers	ALSTOM / THERMAX / BATLIBOI / RIECO / C.DOCTOR / F.HARLEY / EFE / SOIL & ENVIRO SYSTEM
14.	Venturi scrubbers	BATLIBOI / THERMAX / RIECO / ALSTOM / Dustven
15.	Silencers for Boiler Piping	S G Acoustics Engineering & Services PVT. Ltd. - Eachikalanpatti

C. Valves

Sl. No.	Item Description	Preferred Vendors/Makes
1.	STEAM TRAP(IBR) STRA	DEMBLA VALVES PVT LTD / DINTECH VALVES PVT LTD / FLOTEK INDUSTRIES / FLUIDLINE VALVES COMPANY / GUJARAT OTOFILT / HAWA ENGINEERS LTD / LEADER VALVES LIMITED / NORFLOW CONTROLS / PENNANT ENGINEERING PVT. LTD. / SEALMECH VALVES / THE INDIAN VALVE COMPANY / UNI KLINGER LTD

Sl. No.	Item Description	Preferred Vendors/Makes
III	<u>BUTTERFLY VALVES</u>	
1.	CRITICAL BUTTERFLY VALVES	FOURESS ENGINEERING (INDIA) PVT LTD / INTERVALVE POONAWALLA LTD / LARSEN & TOUBRO LTD / RMEBS CONTROLS PRIVATE LIMITED / SEVERN GLOCON INDIA PRIVATE LIMITED / WEIR BDK VALVES-A UNIT OF WEIR (I) PVT.
2.	UTL/BUTTERFLY VALVES	FLOWERVE INDIA CONTROLS PVT. LTD. / INTERVALVE POONAWALLA LTD / LARSEN & TOUBRO LTD / RMEBS CONTROLS PRIVATE LIMITED
IV	<u>PLUG VALVES :</u>	
1.	Goggle Valve	AUDCO LTD / FOURESS ENGG (INDIA)
2.	Large Diameter Goggle Valve	Audco / Fouress / Cimmco / L&T
3.	Pressure Reducing Valves	JNM / FISCHER / XOMOX / ILP / RK Control / Fouress / Bestobell / Mazda / Nirmal Ind. / Vanaz / Kosan Metal / Vass Ind. / Fluid Line / Forbes Marshal / Leader / ARCA / BLUESTAR / IL / AUDCO CROSBY/ FISCHER
4.	C.I. Valves for Fuel Gas & Compressed Air (gate/globe/NRV)	Kirloskar Brothers / GM Dalui / Steam & Mining / H.Sarker / IVPL / AV Valves / Leader / Associated tooling / BDK / Kalpana Valves

D. Valves for Oxygen Services

Sl. No.	Item Description	Preferred Vendors/Makes
I	<u>Non-Ferrous:</u>	
1.	For Isolation	Bestobell (UK) / ETH IRELAND (France) / RT Orseal (UK) / Truflo (Belgium) / Worcester Controls (UK)
2.	Quick Sheet-off Valve	Bestobell (UK) / ETH IRELAND (France) / RT Orseal (UK) / Truflo (Belgium) / Worcester Controls (UK) / Moorco / SEBIM
3.	Pressure Control Valve (PCV) & Flow Control Valve (FCV)	SEVERN (UK) / NELES SECK GLOKON (UK) / IL (Palghat)
4.	Solenoid Valve	AVCON / SEITZ / ROTEX / ASCO
5.	Safety Relief Valve (SRV)	KUNKLE (USA) / KEYSTONE (USA) / BROADY (UK) / OORCO / SEBIM / IL (Palghat)
6.	UTL/CRYO CNTRL VLV	AMRI / FLOWERVE S.A.S. / HYDRO PNEU TECHNOLOGY / INSTRUMENTATION LIMITED / METSO SINGAPORE PTE LTD / SAMSON AG / SEVERN GLOCON LTD / XOMOX SANMAR LIMITED
7.	UTL/CRYO VLVS MANUAL	ANDERSON GREENWOOD CROSBY SANMAR LT / BESTOBELL VALVES LTD / ETSH IRELAND / FLOCON SYSTEMS PVT LTD / HYDRO PNEU TECHNOLOGY / INSTRUMENTATION LIMITED / LARSEN & TOUBRO LTD / MEKASTER VALVES & ENGG.SERVICES PVT / TAKAMISAWA VALVE

		CO LTD / VALVE TECH INDUSTRIES / WEIR BDK VALVES-A UNIT OF WEIR (I) PV
8.	UTL/VALVES O2 NONFE	AMRI / BESTOBELL VALVES LTD / ETSH IRELAND / SEVERN GLOCON LTD / TAKAMISAWA VALVE CO LTD / XOMOX SANMAR LIMITED
9.	UTL/VLV FOR OXYGEN	AMRI / BESTOBELL VALVES LTD / ETSH IRELAND / FLOWSERVE S.A.S. / LARSEN & TOUBRO LTD / METSO SINGAPORE PTE LTD / RMEBS CONTROLS PRIVATE LIMITED / SAMSON AG / SEVERN GLOCON LTD / TAKAMISAWA VALVE CO LTD / XOMOX SANMAR LIMITED
10.	VLVES FOR O2 SERVICE	B O C INDIA LTD / BHARAT HEAVY ELECTRICALS LTD-ISBG / FOURESS ENGINEERING (INDIA) PVT LTD / RMEBS CONTROLS PRIVATE LIMITED / THE INDIAN VALVE COMPANY / WEIR BDK VALVES-A UNIT OF WEIR (I) PV
11.	Pressure Regulators (Self-regulating with pressure gauge) for Oxygen	ESAB / BOC / Speciality Gases / Kamrup Industrial Gases / Venaz Engineers / Nirmal Ind.
II	<u>Stainless Steel (SS) (manual):</u>	Precision Engg. / BDK / Niton / Akay / Leader / Audco / Sakhi& Co. / KSB

E. Miscellaneous Gas Facility & Compressed Air Equipment

Sl. No.	Item Description	Preferred Vendors/Makes
1.	Oxygen Acetylene & LPG Manifolds	Kamrup Industrial Gases / INOX / Titan Engg. / BOC / Ramba Hydrogen / Asiatic Oxygen
2.	SS Bellows Expansion Joints	Flexican / Flexatherm / SURR Ind / Pressel (Cuttack) / BD Engr / Eludyne Engr. / SPB / SEPL / PEBI / Lonestar / GBM Mfg / TI Flexible Tube.
3.	Centrifugal Gas Booster	Andrew Yule / TLT / James Howden (U.K) / Donkin (U.K) / Hibhen
4.	Twin Lobe Type Booster	Skoda / CKD Kompressors / MD Pneumatics / DemagDelavl / Bryan Donkin Sulzer / Oil & Gas Plant Engg. / (Tuthill) / Kay International
5.	Hoses	Flexican / Gaytri Industrial Corpn. / Inalsa / Teksons / Sudeep Industries / Markwell
6.	Gas / Air Compressor	ATLAS COPCO / IR / ELGI / KIRLOSKER PNEUMATICS / KG Khosla / Chicago Pneumatic / MannesmanDemag / Eliat / Cooper / Sulzor / Corken (USA)
7.	Air Dryer	DELAIR / INDCON / ATLAS COPCO / PACE /Chemech / Cleanair / Mellcon
8.	Insulation	LLOYDS INSULATION / ROCKWOOL INDIA / JAYASHREE INSULATORS / FGP LIMITED / U.P.TWIGA FIBREGLASS LTD.

9.	GAS COMPRESSORS AND SPARES	AIR CONTROL & CHEMICAL ENGG COMPANY / ENGINEERING & MACHINERY / FRICK INDIA LTD / GODREJ & BOYCE MFG CO LTD / HOERBIGER INDIA PVT LTD / INGERSOLL-RAND (I) LTD / ORIENTAL COMPRESSOR ACCESSORIES PVT / SULZER INDIA LTD / THE KAMRUP INDUSTRIAL GASES LTD
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F. Pneumatic System

Sl. No.	Item Description	Preferred Vendors/Makes
1.	Pneumatic Conveying System	RIECO / MBE / MACAWBER-BEEKAY / MAHINDRA ASHTECH / ENERGO / VCC
2.	Pneumatic Sample Conveying System	INDO-BERG LTD. / KERRY DRYING & CONVEYING SYSTEM PVT. LTD.
3.	Gas Holder	CLAYTON WALKER / SMS DEMAG
4.	Pressure Vessels	BHARAT HEAVY PLATES & VESSELS / ISGEC / ASSOCIATED PLATES & VESSELS / DECTEL / LLOYDS STEEL / L & T / BOC
5.	Flare Stack	AIROIL FLAREGAS / COMBUSTION CONTROL / JOHN ZINK / ADOR WELDING LTD.
6.	Electrical Heat Tracing	ADOR COOPERHEAT / RAYCHEM / THERMOGUARD / INDCON PROJECTS & EQUIPMENT / UNITECH SYSTEMS

G. Power & Energy

Sl. No.	Item Description	Preferred Vendors/Makes
1.	Condensate Pumps	KSB / BHEL / Kirloskar Brothers / Mather & Platt / Khimline / Sigma
2.	Ejector	BHEL / Weigand / Newfield / Mazda
3.	Trap & Strainer for Compressed Air & Steam	Uniklinger / ESCO / JNM / Dryton Greaves / Forbes Marshall / Hawa Engrs. / Mazda
4.	Heat Exchanger (Shell & Tube Type)	BHEL / Kaveri / Texmaco / Thermax / Babcock & Wicox / Parkair Engg. / Rhine / Universal Heat Exchanger / Godrej / L&T / GEI Godavari / Patel Air Temp. / Hindustan Radiation
5.	Pressure Vessel & Tanks	Beekay Engg. / BHEL / ISGEC / Kaveri Engg. / TSL / Lloyds Steel / Mukand / Parkair Engg. / Grasim Industries / Anup Thermal System / Texmaco / SV Tank / Grasim Industries / Hyderfuel Industries
6.	Thermal Insulation	Hyderapad Industries / Lloyds Insulation / Rockwool / Thermax Heat Tracers / U.P. Twiga Fibreglass.
7.	Suction Filters	FMI / KAAF / L&T / Flakt / Autokiln Filter / GEC Alstom / Filtration Engr. / ARF Engg. / ABB / Dyna Filter / Purolator Filters / GM Dalui

Sl. No.	Item Description	Preferred Vendors/Makes
	<u>TPP:</u>	
1.	TPP - BOILER TUBES	BHARAT HEAVY ELECTRICALS LTD-ISBG / BOSTIN ENGINEERS PVT LTD / ISMT LIMITED / JR SEAMLESS PVT LTD / MAHALAXMI SEAMLESS LIMITED / MAXIM TUBES COMPANY PRIVATE LIMITED / TATA IRON & STEEL CO LTD
2.	TPP MECHANICAL SEALS	EAGLE BURGMANN INDIA PVT. LTD. / FLOWSERVE SANMAR LTD
3.	TPP/OIL BURNERS,COAL	ARUN ENGINEERS & FABRICATORS / BHARAT HEAVY ELECTRICALS LTD-ISBG / IYAPPAN ENGG INDUSTRIES PVT LTD / POWERAID (INDIA) PVT LTD / PRECISION ENGINEERING CORPORATION / SWP (MADRAS) LTD / THE COIMBATORE COMBUSTION EQUIPMENT / UNI ABEX ALLOY PRODUCTS LTD.
4.	TPP/STRAINERS-EXCHAN	DRIPLEX WATER ENGG. PVT LTD / N K INDUSTRIES / VP ENGINEERS

H. Oxygen Plant

Sl. No.	Item Description	Preferred Vendors/Makes
1.	Feed Air Compressor	SIEMENS-GERMANY / ATLAS COPCO – GERMANY / USA / KOBE – JAPAN / MAN TURBO – GERMANY / COOPER – USA / MITSUBISHI – JAPAN / ELLIOT – USA / CAMEROON – USA / BHEL - INDIA
2.	Booster Compressor	SIEMENS-GERMANY / ATLAS COPCO – GERMANY / USA / KOBE – JAPAN / MAN TURBO – GERMANY / COOPER – USA / MITSUBISHI – JAPAN / ELLIOT – USA / CAMEROON – USA / BHEL - INDIA
3.	Nitrogen Compressor	SIEMENS-GERMANY / ATLAS COPCO – GERMANY / USA / KOBE – JAPAN / MAN TURBO – GERMANY / COOPER – USA / MITSUBISHI – JAPAN / ELLIOT – USA / CAMEROON – USA / INGERSOLL RAND (CENTAC) – INDIA / BHEL - INDIA
4.	Cryogenic Pumps	CRYOMECH / FIVES CRYO, SWITZERLAND / CRYOSTAR, FRANCE / ACD, USA / CRYOGENIC MACHINERY-USA / CRYOEQUP.-USA / SEFCO, SWITZERLAND.
5.	Turbo Expander	ATLAS COPCO, GERMANY /CRYOSTAR, FRANCE / ACD, USA
6.	Chiller	YORK, FRANCE / CARRIER, USA / TRANE, USA / MCWAY, USA / DUNHUM BUSH, USA / HEUCH, AUSTRALIA / DENCO, UK / FRIOTHERM / VOLTAS, INDIA
7.	Chilled Water Pumps	GRUNDFOSS / KIRLOSKAR / KSB / MATHER & PLATT
8.	Non Ferrous Control Valves For Cryogenic Service	FISHER / SAMSON / SEVERN GLOCON (UK) / TOMOE / TAKAMISAVA / FLOWSERVE / METSO

Sl. No.	Item Description	Preferred Vendors/Makes
9.	Non Ferrous Control Valves For Gaseous Oxygen Service	FISHER / SAMSON / SEVERN GLOCON (UK) / TOMOE / TAKAMISAVA / FLOWSERVE / METSO
10.	Cryogenic Safety Valves	BESTOBELL / HEROSE / IRIIRELAND / TYCO-SANMAR / INDIA / SEBIM / ROCKWOOD- USA / METSO
11.	Non Ferrous On -Off Valves For Cryogenic Service	FISHER / SAMSON / HEROSE / SEVERN GLOCON (UK) / ETSH IRELAND / FLOWSERVE AND TAKAMISAVA / METSO
12.	Cyclomatic Valves	ORBINOX-SPAIN / FRIATECGERMANY / NBS CORPORATIONJAPAN / GEC ALSTHOM-FRANCE / METSO
13.	Non Cryogenic Service Safety Valves	TYCO SANMAR / SEBIM / RSBD IL PALAGHAT / L&T
14.	Brazed Aluminium Heat Exchangers	ALPEMA MEMBERS ONLY
15.	Regeneration Heaters	SANDVIK ASIA - PUNE / HEATERUK / KLOPPERTERM - GERMANY / ASET FRANCE
16.	Cryogenic Manual Valves	BESTOBELL / ETSH IRELAND / REGO / HEROSE

I. MISCELLANEOUS ITEMS:

Sl. No.	Item Description	Preferred Vendors/Makes
1.	Jointing & Sealing compound	CALDERYS INDIA REFRACTORIES LIMITED / Dalmia Cement (Bharat) Ltd / HI TECH CHEMICALS PVT LTD / IFGL REFRACTORIES LTD / ORIENT REFRACTORIES LTD / THE ASSOCIATED CEMENT COMPANIES LTD / VESUVIUS INDIA LIMITED / VISHVA VISHAL ENGG LTD
2.	Foundation bolts	Nandy Works / Project Toolings Systems / Supreme / Zenith Enterprises
3.	Spring Supports	SUPPORTS SYSTEM / TECHNO INDUSTRIES

List of Preferred Vendors / Makes - Water System

Sl. No.	Item description	<u>Preferred Vendors / Makes</u>
A.	Pump sets	
1.	Horizontal centrifugal	KSB / KIRLOSKAR BROTHERS LIMITED / WILO Mather and Platt Pumps Pvt. Ltd. / WPIL / FLOWMORE / Jyoti Ltd.
2.	Vertical centrifugal	KSB / KIRLOSKAR BROTHERS LIMITED / SU MOTORS / GRUNDFOSS / KISHOR / WILO Mather and Platt Pumps Pvt. Ltd.
3.	Vertical turbine	KIRLOSKAR BROTHERS LIMITED / WPIL / WILO Mather and Platt Pumps Pvt. Ltd. / JYOTI / FLOWMORE / GRUNDFOSS
4.	Submersible (borewell)	KSB / GRUNDFOSS / CRI / CALAMA / SU / KIRLOSKAR BROTHERS LIMITED / WILO Mather and Platt Pumps Pvt. Ltd.
5.	Submersible drainage	KSB / GRUNDFOSS / SU / WASP / DARLING / KIRLOSKAR BROTHERS LIMITED / KISHOR / WILO Mather and Platt Pumps Pvt. Ltd. / XYLEM / MBH / SAM TURBO / Goodwin India Pvt. Limited
6.	Slurry/sludge	WARMAN / DENVER / AKAY / SAM TURBO / WEIR MINERALS / METSO / SVEDALA / / MBE / HYDERABAD INDUSTRIES / METSO MINERALS / KIRLOSKAR BROTHERS LIMITED / KSB / FLOWMORE PUMPS
7.	Submersible Sewage	KIRLOSKAR BROTHERS LIMITED / M&P / KISHOR / MBH / KSB / SAM TURBO / DARLING / GRUNDFOSS / SU / WASP / XYLEM
8.	Chemical (centrifugal)	AKAY / KHIMLINE / KSB / KIRLOSKAR BROTHERS LIMITED / PROCESS PUMPS / ANTICO / SAM TURBO / ANALA
9.	Dosing (Pos. disp)	ASIA-LMI / PROMINENT / SHAPOTOOLS / VK PUMPS / TOSHNIWAL / MILTON ROY INDIA / ROTO PUMPS / Positive Metering Pumps I Pvt. Ltd.
10.	Blowers	KAY / SWAM / EVEREST / NADI / FLAKT / BATLIBOI / DUVENT / KLENAIR
11.	RO High Pressure Pump	GRUNDFOSS / KSB / KIRLOSKAR BROTHERS LIMITED / WILO Mather and Platt Pumps Pvt. Ltd.
12.	Vertical Wet Pit Type Pumps	SU MOTORS / KISHORE PUMPS / KIRLOSKAR BROTHERS / KSB / PROCESS PUMPS
B.	Cooling towers	
1.	Cooling tower	PCT / GAMMON / HAMMON / THERMOPACK / SOUTHERN COOLING TOWERS / NORTH STREET / SHRI RAM TOWER TECH
2.	Cooling tower fan	COOL FLOW/ RECONDO / HAMMON STORK / PCT / NORTH STREET / Paru Engineers Pvt. Ltd.

Sl. No.	Item description	Preferred Vendors / Makes
3.	Cooling tower gear box	ELECON / RADICON / PCT / New Allenberry Works / NORTH STREET
4.	Nozzles	VP ENGINEERS – CHENNAI / MMAQUA / PCT
C.	Heat Exchanger	
1.	Plate type	ALFA LAVAL / TRANTER / KELVION / GEA
2.	Finned tube type	PCT / KELVION

Sl. No.	Item description	Preferred Vendors / Makes
D.	Treatment Plants	
1.	Filtration plant (Sand Filters)	
	- high rate	THERMAX / NICCO / VATECH / ION EXCHANGE / TATA PROJECTS
	- ordinary (Pressure Filters)	THERMAX / NICCO / MARS MINERALS / RESIN / VATECH / ION EXCHANGE / DRIPLEX / DOSHION / WABAG / VEM / AQUATECH
	AVG Filters	ION EXCHANGE / THERMAX / SUREFLO / OTOKLIN
2.	Waste water treatment plant equipment	FL SMIDTH / THERMAX / EIMCO KCP / NICCO / TRIVENI / HINDUSTAN DORR-OLIVER LIMITED
3.	Reverse osmosis (R.O.) plant	THERMAX / VATECH / SUEZ / ION EXCHANGE / AQUATECH / PRAJ
4.	R.O. membrane	HYDRONAUTICS / DOW / LG / OSMONICS / TORAY
5.	Ultra filtration membrane	HYDRONAUTICS / KOCH / DOW / INGE / XENON / NORIT
6.	Centrifuge / Decanter	ALFA LAVAL / PENWALT / HUMBOLDT WEDAG / ANDRITZ
7.	Filter Press	DINSHAW / NAVGIRE / ANDRITZ / AUTOTEC / FL SMIDTH / PRESWELL FILTERS / PURAV
8.	Bowl Desilter (Bowl Rake Classifier)	WESTECH PROCESS EQUIPMENT INDIA PVT LTD - NEW DELHI / FL SMIDTH / HINDUSTAN DORR-OLIVER LIMITED
E.	Pipes & Pipe Fittings (for Water Services)	
1.	FRP pipes and fittings	FIBRO PLASTICHEM / NOCIL / PIL / COROMONDEL / ORISSA PLASTICS / GRAPHITE INDIA / STRATEGIC ENGG
2.	FRP vessels / tanks / lining of tanks	FIBRO PLASTICHEM / NOCIL / PIL / COROMONDEL / ORISSA PLASTICS / DEVI POLYMERS / SINTEX / STRATEGIC ENGG.
3.	CI pipes	ELECTROSTEEL / ASOKA FERROCAST / KESORAM / KEJRIWAL
4.	DI pipes	ELECTROSTEEL / KALAHASTI / JSW

Sl. No.	Item description	Preferred Vendors / Makes
5.	RCC pipes & Fittings	IHP / OCL / SUR INDUSTRIAL PIPES / HIND CERAMICS / INDIAN HUME PIPES / DAYA CONCRETING
6.	HDPE / PVC pipes (with ISI mark only)	NOCIL / PIL / CPE / MANIKYA / HASTI / ORIPLAST / GODAVARI / MARUTI / RELIANCE / EMCO / KWH HELIPLASTIC POLYOLEFINS / FINOLEX / BHARAT PIPE & FITTINGS / SUPREME INDUSTRIES
7.	Gaskets	CHAMPION / IGP / REINZ / TALBROS / ZAVERCHAND / UNIKLINGER / MECH PICKLING / PRIMER GASKET
8.	Expansion joints (metallic and non-metallic)	METALLIC BELLOW / IWKA / KELD-ELENOTOFT / SUR INDUSTRIES / D WREN / SYSTEC / CORI / LONESTAR
9.	Hoses including rubber steel cladding	HYDROCRIMP / SENIOR INDIA / BENGAL INDUSTRIES / PAREKH BROTHERS
10.	Stainless steel hoses	BENGAL INDUSTRIES / SENIOR INDIA / PAREKH BROTHERS
F.	Valves (for Water Services)	
1.	Globe Valves (Cast Steel or Forged Steel)	BHEL / L&T / KSB / FOURESS / BDK / KIRLOSKAR BROTHERS LIMITED / NECO / HI-TECH / AV VALVES / LEADER / OSWAL / VAAS
2.	Non-return valve (CS)	BHEL / L&T / KSB / FOURESS / BDK / KIRLOSKAR BROTHERS LIMITED / NECO / VAAS / OSWAL / HI-TECH / R&D MULTIPLE / ADVANCE / INTERVALVE
3.	Lift check	LEADER / UPADHYAY / IVC
4.	Strainer (with SS wedge wire filter element) / filters (manual)	SUPERFLO / FILTRATION ENGG / BOLL & KIRCH / IMETROL / OTOKLIN / JPG / J.N. MARSHALL / MASTURLAL FABRICATION / ARF ENGG / PUROLATOR FILTERS / ABB / FILTERS MFD INDIA / TRIVENI PLENTY / FILTER MFG. IND. / PUROLATOR
	Duplex Strainers	FILTRATION ENGRS/ OTOKILN / SUPERFLO
5.	Sluice gate valves	IVC/JASH / DURGA / R&D MULTIPLE / IVPL / GM DALUI / H-SARKAR / ASSOCIATES TOOLINGS
6.	Butterfly valves	L&T / AUDCO / XOMOX / BDK / INTERVALVE / BK / VAG / HI-TECH / ADVANCE / R&D MULTIPLE / FOURESS / KIRLOSKAR BROTHERS / IVPL / VIRGO / AL SAUNDERS / KEYSTONE / SPITMAN / BHEL
7.	Knife gate valve	VAAS / FOURESS / BDK / VAG / MICRO FINISH / KEYSTONE / JASH / A V Valves Ltd., Agra
8.	Landing valve	ASCO STRUMECH / NEW AGE / STEELAGE INDUSTRIES / VIJAY FIRE / ZENITH
9.	Solenoid valves	ROTEX MANUFACTURERS / ASCO / SCHRADER / BURKERT / SICMAG / SCHARDER / NECO INDFOS / EASTERN PNEUMATIC / BLUESTAR / ASCO

Sl. No.	Item description	Preferred Vendors / Makes
10.	Travelling water screen	MACMET / TRIVENI / OTOKILN / MECGALE(NAGPUR) / GENERAL MECHANICAL
G.	Miscellaneous	
1.	Chlorination System	CAPITAL CONTROL / BANACO / PENWALT / GRUNDFOSS / PURITA WATER / IEC / VASU CHEMICALS - MUMBAI
2.	Chemical dosing system	SEWZ / NALCO / ION EXCHANGE / VASU CHEMICALS / GRUNDFOSS / PURITA WATER / IEC
3.	Fire-fighting system	M&P / VIJAY / NEW AGE / UTC FIRE & SECURITY / DE's TECHNICO / TYCO FIRE & SECURITY / STERLING WILSON / FLEXITECH TECHNICO / AGNICE / SIEMENS / MINI MAX / KIDDE / FIRE KNOCK / TECHNICO INDIA PVT LTD - KOLKATA / STERLING AND WILSON LTD - KOLKATA / MX SYSTEMS INTERNATIONAL PVT LTD / NEW FIRE ENGINEERS
4.	Fire Hydrants	NEW AGE INDUSTRIES / STEELAGE INDUSTRIES / ASCO / STRUMECH / VIJAY FIRE / ZENITH
5.	Fire Extinguishers	NEW FIRE / VIPL / ZENITH / ASCO STRUMECH / SAFEX FIRE SERVICES LTD - MUMBAI
6.	Fixed fire protection system	NEW AGE / AGNICE / VIJAY INDUSTRIES & PROJECT / LLOYDS INSULATION / TECHNO FIRE CONTROLS
7.	Deluge valves	MATHER & PLATT / ACE TURNKEY / VIJAY FIRE PROTECTION SYSTEM LTD / HD FIRE
8.	Spray nozzles / Projectors	LAXMI SPRINKLERS / RELIABLE / AVON / MATHER & PLATT / HD FIRE
9.	Surge / water hammer control system	SURESEAL / FOURESS
10.	Clarifier / thickener mechanism	TRIVENI / EIMCO-KCP / THERMAX / VATECH / VOLTAS / DORR EIMCO (GLV) / FL SMIDTH / WESTECH / RAMAKRISHNA / NEO PARISRUDHAN
11.	Sludge scraper	MATA / RAMAKRISHNA / TRINENI / NEO-PARISRUTAN / GEOMILLER
12.	Mechanical seal	SEALOL / DURAMETALLIC / BURGMANN / FLOWSERVE
13.	Oil skimmer (belt, tube, MOP, floating disc)	OIL SKIMMER INC. USA / ABANAKI / JIT ENGG. / JVM ENGG / POTENTIAL ENGG / PREMIER / REMA ENGRS
14.	Auto backwash strainer	AMIAD / HYDAC / BOLL & KIRCH / FILTOMAT / DANGO & DANEIL
15.	Centrifugal solid liquid separator	LAKOS / TIMEX
16.	Float type level indicator	LEVCON / DK INSTRUMENTS / CHEMTROLS SAMIL

Sl. No.	Item description	<u>Preferred Vendors / Makes</u>
17.	Dust suppression system (sprinkler / dry-fog type)	TPS / F. HARLEY / KAVERI / ECODEA / AIROCHEM
18.	Tape (buried pipelines)	IWL / CARPOTES / RUSHTECH / HIMADRI CHEMICALS
19.	RO Pressure Vessel	ADVANCE COMPOSITE / MAXIMA
20.	Agitator / Flocculator/ Flash Mixer	STANDARD ENGINEERS / REMI / DELKOR / FIBRE & FIBRE / PROMINENT / HYDELBERG / RAMKRISHNA / VALLABDAS / SJ INDUSTRIES
21.	Rubber Dismantling Joints	BDX / CORI ENGINEERS / D.WREN / SUR INDUSTRIES / FORBES MARSHAL
22.	Basalt Liners	DEMECH / VIDYUT GREEN BANK / ENVIRO ABRASIAN / GARDEN REACH SHIP BUILDERS & ENGG
23.	Surge Tanks	ANUP ENGG / GOVINDA ENG. / PERFECT ENGG. / SAKTHI HITECH / ENGINEERING FABRICATORS & ENTERPRISE
24.	Thermal Insulation	HYDERABAD INDUSTRIES / LLOYDS INSULATION / ROCKWOOL / THERMAX HEAT TRACERS / U.P. TWIGA FIBREGLASS
25.	Suction Filters	FMI / KAAF / L&T / FLAKT / AUTOKILN FILTER / GEC ALSTHOM / FILTRATION ENGR. / ARF ENGG. / ABB / DYNA FILTER / PUROLATOR FILTERS / GM DALUI
26.	Softening & DM Plant	DOSHI / RESIN INDIA / THERMAX / THERMAX CULLINYAN / URMINUS / VA TECH / ION EXCHANGE / TRIVENI

List of Preferred Vendors/Makes – Laboratory equipment

Sl. No.	Item description	Preferred Vendors/Makes
1.	Instrumental Analysis Equipment	SPECTRO / PANALYTICAL / THERMO ELECTRON / LECO / ROSE MOUNT / ARUN TECHNOLOGY
2.	Wet Chemical Equipment	NIULAB / SREEMA / SCIENTIFIC INSTRUMENT / B.B. ENGG. / METTLER TOLEDO / NETEL / LABMAN
3.	Sample Preparation Equipment	SREEMA / M.P. EQP. / B.B. ENG. / BIEN ARTIUM / AMALGAMATED / INSMART / EASTMAN CRUSHER / SAYAJI
4.	Physical Test Equipment	BIENARTIUM / AMALGAMATED / B.B.ENG / M.P EQUIPMENT / SREEMA ENG. / LABINDIA / NASKAR
5.	Metallography (Imported)	LEITZ / CARL ZESIS / BUEHLER / LECO / OLYMPUS
6.	Mechanical Testing (Imported)	ZWICK / INSTRON