



MATHURA REFINERY
MECHANICAL MAINTENANCE
TECHNICAL SPECIFICATION

REF:
TPS/MM

December 18, 2017

Instrument Vendor List

- Orifice
 1. General Instruments
 2. Micro Precision Products
 3. Technomatic SPA
 4. Excel Hydropneumatics
 5. Baliga Lighting
- Pressure Gauges/ Differential Pressure Gauges
 1. Odin India
 2. Wika
 3. Manometer India
 4. A. N. Instruments
 5. H. Guru
 6. Forbes Marshall
 7. General Instruments Consortium
 8. Pyroelectric Goa
- Pressure / DP/Flow (DP Type)/ Level (DP type) Transmitters
 1. Emerson Process Management (Rosemount)
 2. Honeywell
 3. Yokogawa
 4. Endress& Hauser
- Pressure /Diff. Pressure Switches
 1. SOR inc.
 2. UE
 3. Custom Control Sensors, UK
 4. Ashcroft
 5. Dresser
 6. Dwyer
 7. Switzer
- Level Gauge
 1. Chemtrols
 2. Richard Klingner
 3. Technomatic, Italy
 4. Yarway
 5. Bliss Anand



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6. R. K. Dutt concerns
7. Pratolina
8. Magnetrol
9. V. Automat

- Temperature Elements (Thermocouples/RTD)

1. General Instruments
2. Fabrika
3. Thermoelectric, international
4. AltopIndustires
5. Pyroelectric
6. A. N Instruments
7. Forbes Marshall

- Mercury in steel / Bimetallic Temperature Gauge

1. General Instruments
2. Forbes Marshall
3. A. N.Instruments
4. H. Guru
5. Pyroelectric, Goa
6. Wika

- Temperature Switches

1. UE
2. SOR
3. CCS, UK
4. Dwyer

- Control Valves (Globe/plug type)& PCV

1. Fisher Sanmar
2. Dresser Masoneilan, India
3. Instrumentation Limited, Palakkad
4. Metso Automation
5. Flowserve
6. MIL
7. Samson

- On-Off Valves (Ball type)

1. Virgo
2. Metso Automation
3. Tyco Valves (Keystone)



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4. Flowserve

- Smart Positioners and Valve Position indicators

1. Fisher Sanmar
2. Metso Automation
3. Foxboro
4. Siemens

- Speed probe

1. GE
2. Ametek

- Solenoid Valves

1. ASCO
2. Herion

- Air Filter Regulator

1. Fairchild
2. Norgren
3. Parker-Hannifin
4. Fisher

- Limit/Proximity Switch

1. Honeywell
2. Allen Bradley (imported)
3. Cutler-Hammer (imported)

- Switches, Lamps and Push buttons

1. Allen Bradley
2. Siemens
3. GE
4. L&T
5. Teknik

- Screwed terminals

1. Wago
2. Elmex



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3. Phoenix

- IS Barriers, Isolators, Trip amplifiers, Multiplexers
 - 1. MTL 5000 series
 - 2. P&F KFD series
- Instrument Power, Signal, Control and Temp. Cables
 - 1. Associated Cables
 - 2. UdeyPyrocables
 - 3. Brooks Cable
 - 4. Toshniwal Cables
 - 5. Thermopads
 - 6. Universal Cables
 - 7. Finolex Cables
- Junction Box, Local Push Button Stations, Cable Glands
 - 1. Flexpro
 - 2. Exprotecta
 - 3. FCG Flameproof Control gears
 - 4. Baliga Lighting
- Tube Fittings
 - 1. Swagelok
 - 2. Parker



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MANDATORY SPARES FOR INSTRUMENT ITEMS

S. No.	Part Description	Quantity Required	Quoted: Yes/No/Not Applicable and with price
Mandatory spares shall be quoted and included in base price as follows:			
	FIELD INSTRUMENTS		
1.	Pressure Gauges	Two Numbers	
2.	Temperature Gauges with thermowell	Two numbers	
3.	Level Gauges	A) For transparent gauges, one set of illuminators with holder and reflector B) In case of magnetic type level gauges, displacer for each gauge to be provided in addition to above. C) One Set of glass of each type, size along with pair of Gaskets(Cushion & Wet Gaskets)	
4.	SMART Transmitters Pressure, Flow (DP), Level(DP) and Temperature	One set of each type, range, make and material of construction, whichever is higher.	
5.	Speed probe & associated local display	3 nos of speed probes & 3 nos of local display	

NOTE :

- | | |
|---|---|
| 1 | Above mentioned mandatory spares list defines the minimum requirement. Contractor to provide any additional items as recommended by manufacturer. Contractor to submit mandatory spares list to Owner for approval. |
| 2 | All spare items required for commissioning shall be supplied by contractor. |

ALL technical data sheet of the turbine, motor ,Instrumentation items etc has to be duly filled and uploaded while quoting for the product failing which technical evaluation cannot be carried out

The Existing Lube oil scheme is attached as Annexure 2 with few of the proposed modification marked in it. The same is Proprietary property of OEM and should not be reused/replicated in any form without the consent of OEM of our turbine.

The annexure -3 is a general guideline for selection, supply of centrifugal . Mandatory spares details as mentioned in annexure -3 to be ignored

The annexure -4 is a general guideline for selection, supply of screw pumps.Mandatory spares details as mentioned in annexure -4 to be ignored