

ANNEXURE -XIII

List of 2 Yr. Operational spares

Standard list for 2 Year Spares for Gas Conditioning Skids

NOTES:

Bidder to quote unit rates separately for the following items.

In case, any item is not applicable for the present skid, bidder may suitably indicate “ Not Applicable” against that item.

Sl. No.	Part Description	Quantity Required
1	Filter elements	4Sets (1 Set stands for requirement of 1 No. of filter separator vessel)
2	Field instruments Pressure Gauges, Temperature Gauges, Differential Pressure Gauges, Draft Gauge, Field indicators, RTD / Thermocouple (With Thermowell), Thermowells. Skin Thermocouple sets, speed probe and transmitters (As applicable)	10% subject to minimum 1 No. of each
3	Transmitters for pressure, Level, Flow, Temperature & differential pressure	
4	Complete Transmitter	5% subject to minimum 1 No. of each type.
5	Spare Parts i) Body Gasket ii) O ring iii) Three way manifold iv) Output meter	10% subject to minimum 2 No. of each type
6	Pressure / Differential Pressure switch	10% subject to minimum 2 No. of each type
7	Solenoid Valves	
a)	Complete Solenoid valve	5% subject to minimum 1 No. of each type.
b)	Spare Parts i) Coils ii) Repair Kit	10% subject to minimum 2 No. of each type
8	Level Gauge glasses i) Glass with gasket set ii) Offset cocks	10% subject to minimum 2 No. of each type
9	Level Transmitters (Float / Displacer type) i) Sensor ii) Gasket iii) Span potentiometer iv) RVDI v) Microprocessor Board vi) Torque tube rod and assembly vii) Displacer viii) Knife edge	10% subject to minimum 2 No. of each type
	Line mounted Instruments	
10	Level Switches i) Magnet switch assembly ii) Float iii) Microswitch iv) Float rod	10% subject to minimum 2 No. of each type
11	Control Valves, Shutdown valves & Dampers i) Plug & Set ii) Diaphragm of Actuator iii) Positioner with linkage iv) Positioner repairing kit v) Bonnet Gaskets / Special Gaskets vi) Gland Packing	10% subject to minimum 2 No. of each type

	vii) Piston O ring viii) Volume Booster ix) Limit Switches x) Special Regulator xi) Lock relay xii) Seal ring xiii) Bearing & Liner for Butterfly valves	
12	Safety valve	10% subject to minimum 2 No. of each type
a)	i) Disc ii) Spring	
b)	i) Bellows ii) Gasket sets	5% subject to minimum 1No. of each type
13	i) Self Actuated regulators ii) Plug & Seat iii) Diaphragm of Actuator iv) Bonnet Gaskets / Special Gaskets v) Gland packing vi) Regulating pilots	10% subject to minimum 2 No. of each type
14	Flame Arrestor	
a)	Bank	1 No. for each flame arrestor
b)	Gasket set	10% subject to minimum 2 No. of each type
15	CONTROL PANEL Each type of module used in control panel like 10 cards, all type of processor cards, all type of power supply cards, communication cards, interface cards, controller cards etc. as required for the system.	5% of total installed quantity
	IS isolating Barriers	5% of total installed quantity of each type.
	Isolators / signal Multipliers	5% of total installed quantity of each type.
	IS m V/I Converters, IS RTD/I Converters, Alarm cards (receiver switches)	5% of total installed quantity of each type.
	Prefabricated cables	10 set with connecting plugs for each type of peripherals and I/O hardware
	Keyboard	Full 2 Nos. of each type
	Hard Disk	2Nos. of each type
	CRT	2 Nos.
	Relays	5% of total installed quantity of each type
	Push Buttons, Lamps, Selector switches, Switches	5% of total installed quantity of each type
	MCBS	5% of total installed quantity of each type
	System Cabinet air filter	100%
	Annunciators	
	Power Supply Module	5% subject to minimum 1No. of each type
	Flasher Module	5% subject to minimum 1No. of each type
	Tone Generator Card	5% subject to minimum 1No. of each type
	I/O Module	5% subject to minimum 1No. of each type
	Lamps	10 dozen
	Fuges	1 dozen
	Cartridge	For six month operation (minimum 1000 hard copies/copier)

	Printer Head	For six month operation (minimum 2 Nos./printer)
	Fuges	100% of each type
	Lamps	Minimum 150 nos.
	Single Loop controller	10% subject to minimum 1No. of each type

NOTES:

1. The word 'TYPE' means the Make, Model No., Type Range, Size / Length, Rating, Material as applicable.
2. Wherever % age is identified, Contractor shall supply next rounded figure.
3. For consumable spares, the quantity shall be calculated based upon continuous usage of the system for the period specified.
4. Mandatory spares for any item not covered in the above list, shall be as per manufacturers recommendations with documentary evidence.
5. The terminology used under 'Part Description' is the commonly used name of the part and may vary from manufacturer to manufacturer.