

Annexure - 14 Mandatory Spares			
S.No.	Item description	Recommended Qty.	Required Qty.
A. Mechanical Items			
1	Solenoid Valves	20% or minimum 2 nos. of solenoid valves of each type used.	2 Nos of each type
2	ESD/ Shut down valve	a)10% or minimum one of valve with actuator of each type. b) 20% (subject to minimum of 1) of Air filter regulators, whichever is higher. c) Seal kit consisting of O rings, gaskets, etc. against each valve. d) 20% (subject to minimum of 1) of proximity switches, whichever is higher. e) 20% (subject to minimum of 1) of solenoid valves of each type, whichever is higher. f) 20% (subject to minimum of 1) of accessories like quick exhaust valves and temperature dependent fuses, whichever is higher.	1 No. of Complete ESD Valve
3	Valve upto 2" size	20% of total population or minimum 2 nos for each type, size and rating which ever is higher.	As per Recommended Qty.
4	Valve Gasket, Gland Packing for size above 2"	20% of total population or minimum 2 nos for each type, size and rating which ever is higher.	As per Recommended Qty.
5	Bolts	20% of total population or minimum 2 nos for each type, size and rating which ever is higher.	As per Recommended Qty.
6	Filter Element for Filter Skid	1 set (set means replacement of total filter element of One no. Filter Separator)	As per Recommended Qty.
B. Instrumentation Items			
1	Pressure Gauges & Differential Pressure Gauges	20% (Subject to min. of 1) of each type, whichever is higher.	1 No. of each type
2	Level Gauges	20% (Subject to min. of 1) of total level gauges for each type,	1 No. of each type
3	SMART Transmitters for Level (DP) including remote seals(if applicable)	15% or minimum of 2, whichever is higher of each type, model no., make of whole unit.	2 Nos of each type
4	Instrument Valves / Tube Fittings / Tube / Junction Box & Cable glands	10% subject to minimum one no. for each type, size whichever is higher	As per Recommended Qty.