

**HLL LIFECARE LIMITED****User Requirement Specification - SS 316 Centrifuge**

<b>Type</b>	Four Point Suspension- Manual Top Discharge.
<b>Material of Construction</b>	All Contact Parts in SS 316: Non-contact Parts in SS304
<b>Basket Size</b>	36" x 18"
<b>Basket Type</b>	6 mm thick SS 316 perforated shell :
<b>Volume</b>	300 Litres
<b>Filtration Area</b>	1.25 m <sup>2</sup>
<b>Basket Speed</b>	0-1440 rpm
<b>Max Load</b>	250 Kg
<b>Motor Specification</b>	Flame proof Motor, Type TEFC, Suitable rating : 7.5 HP (Min), 3-Phase, 4 Pole, 415 VAC, 50 Hz, Speed 1440 rpm, Rating Continuous, Make: Siemens / Crompton Greaves / Hindustan Motors / Bharat Bijali / ABB
<b>Control Panel</b>	<p>Electrical Control Panel will consists VFD for change the Speed, Start / Stop &amp; Protection of the Motor, Provision for Local Start / Stop, external interlocks etc... duly wired control panel. It will be installed at Non Flame proof area given by HLL.</p> <p>Flameproof Control Panel will be installed near to the Centrifuge Machine, will have provision to Start / Stop the Motor, Change the speed by Potentiometer, Indicators for Motor On, Off, Trip, Inter lock failed etc... Digital RPM Indicator with provision for display scaling.</p> <p>Above both Panels and Accessories Design, Supply, Installation, Inter connections, Commissioning, Testing etc... with all materials in vendor scope. Approval should be taken for Panels design &amp; Bill of materials used.</p> <p>HLL will provide Electrical Power to the Control Panel only.</p> <p>All Instruments / Indicators / Control Panels / Terminations / Wires / Glands should comply for application in Flameproof Gas Zones II A and II B and <b>CMRI/DGMS</b> Certificate must be produced for all such items used in Flameproof Area.</p>
<b>Pulley</b>	Centrifugal Clutch pulley to be provided to the motor and basket driven by 3 flat belts.

<b>Brakes</b>	Not required.
<b>Controls</b>	1. Machine should start only if the stop lock is open. 2. Motor should not start if the dome is open.
<b>Earthing</b>	Motor Body Earthing: Double Earthing to motor body with Copper wire of suitable size up to the system grid.
<b>Noise Level</b>	Should not be more than <b>90db</b>
<b>Documentation Requirement</b>	<ol style="list-style-type: none"> <li>1). The party should provide DQ Drawing for approval by HLL before Manufacturing.</li> <li>2). Installation and Operational Qualification Protocol should be provided for approval from HLL.</li> <li>3). All Instruments / Indicators / Control Panels / Terminations / Wires / Glands should comply for application in Flameproof Gas Zones II A and II B and <b>CMRI/DGMS</b> Certificate must be produced for all such items used.</li> <li>4). Warranty Certificate</li> <li>5). Centrifuge Filter Test Certificate.</li> </ol>

SL. NO.	<b>SCOPE OF SUPPLY</b>
1.	Supply Installation and Commissioning of SS Centrifuge as per specification given in the document.
2.	The Supplier has to arrange for Manpower, Tools and Consumables.
3.	All Electrical Wiring, internal to the machine, as per current Electricity Rules are in the Supplier's Scope and only incoming supply and its termination will be in the scope of HLL
4.	The party has to submit the Design Qualification Drawing (GA) and Electrical Wiring with appropriate ferrule numbering for all nodes, without omission and duplication, and Documents for Approval before commencement of Manufacturing.
5.	A Factory Acceptance Test should be arranged by the Supplier once the manufacturing is complete.
6.	All Qualification Documents are to be approved by HLL prior to Installation and Operational Qualification at Site.