

No:- 65-17-5014

**Specification of Horizontal Autoclave under M&P programme for the Year
2016-2017 under GM's power for DRH BPL**

S.N.	Category No.	Description
1	Major Parameter	<ul style="list-style-type: none"> ● Parameter- *Operating pressure : 1.2 to 2.2 kg/cm² *Operating temperature : 121 to 134° C *Partial Vacuum : 10 " hg *Hydro test : 4.4 kg <hr/> <ul style="list-style-type: none"> ● Features * Fully stainless steel-Deluxe model. *Digital temperature indicator cum controller cum timer & alarm after Completion of cycle. *Recording/printing: Client name shall be available on each data record. Numerical data print for temperature, pressure, time parameter, date and process *In built steam generator. *Auto water feeding pump with low water level controller and special type of copper sensor provided to reduce Electric & Water consumption * Bearing ISI mark IS 3829 part-I&II <hr/> <ul style="list-style-type: none"> ● Mode of Heading- Electrical-3 phase <hr/> <ul style="list-style-type: none"> ● Working Pressure-1.2 to 2.2 kg f/cm² <hr/> <ul style="list-style-type: none"> ● Working Temperature- 121 ° C to 134 ° C <hr/> <ul style="list-style-type: none"> ● Hydraulic test pressure-Jacket 4.4 kgf/cm² g Chamber 3.3 kgf/cm²g <hr/> <p>Material of construction:</p> <p>Chamber-S.S. 316, Quality,4 mm thick. End-ring- S.S. 304, Quality,10 mm thick. Jacket - S.S. 304,Quality,4 mm thick. Back Plate - S.S. 316, Quality,4 mm thick. Door plate- S.S. 316,Quality,12 mm thick. Insulation- Fiber glass wool.(50 mm thick) Outer cover-S.S. 304,20 G (1.2 mm). sheet-mirror polished Pipe lines-S.S. 304, quality seamless Fitting/Connections- S.S. 304, Quality, B.S.P. threading. Lock-Gun metal –chrome plated Radial arm- S.S. 304,Quality-20 mm thick Hinge- S.S. 304,Quality-6 mm thick Gasket-Silicone rubber, joint-less square type. Stand - S.S. 304, Quality with S.S. levelling flange.</p>

• **Steam Generator(Boiler) shall be attached to underneath the jacket & fitted with----**

- a) Steam Generator/Boiler----- S.S. 304 Quality--3 mm thick
- b) Heater plate--- S.S. 304 Quality--12 mm thick
- c) Boiler cover--- S.S. 304 Quality, with perforation
- d) Heater (I.S.I. Mark) --- Water immersion type industrial
- e) Water level magnetic switch-To protect heater from low water level.
- f) Glass tube- To indicate water level in boiler.
- g) S.S. ball Valves- For water inlet & outlet.

• **Electrical Panel:**

- a) Contactor-Siemens make
- b) Pressure Switch- Denfoss make RT-110
- c) Indicating Lamp- Neon lamp for main and heater.
- d) Controller- Digital programmable autoclave controller with Temperature controller, timer and alarm.

• **Detailed Control & Fittings:**

- a) Multi control operating valve- To carry out all function of cycle at one point i.e. Jacket to Chamber, Chamber fast-slow exhaust, Vacuum drying
- b) Door- Single shall be fitted with radial arms & automatic Pressure locking device so that the door cannot be opened till the steam is fully exhausted from the chamber.
- c) Quick vacuum drying- Apparatus- This allows the filtered and sterile air to break the chamber vacuum and helps in quick drying.
- d) Accidental vacuum- breaker/jacket air valve- A safety device for jacket against accidental vacuum and for automatic air removal to obtain saturated steam.
- e) Safety valve- A safety device against excess pressure-
- f) In jacket/steam generator-2 nos.
- g) Dial type thermometer- Indicates sterilization temperature.
- h) Baffle- S.S. 316 quality for even distribution of steam.
- i) Plug screen- A device to prevent large particles from Entering chamber drain line.
- j) Compound Gauge- Indicates chamber pressure/vacuum
- k) Pressure gauge- Indicates jacket/boiler pressure
- l) Steam trap- FT 14 float type.
- m) Non Return Valve- Swing type
- n) Valves- S.S. 304 Quality.
- o) Chamber condensate line- It fitted with a thermostatic steam trap and check valve for thorough evacuation of air and condensate from the chamber to achieve optimum temperature and an extra by-pass line in case of emergency.
- p) Drain line- S.S. 304 quality-2" N.B. drain haider

2	Minor Parameter	Nil
3	Concomitant Accessories Concomitant Accessories	Nil
4	Optional Accessories	Nil
5	Spares	Nil
6	AMC/ CMC Requirement	Nil
7	Warranted Requirement	Warranty one year from the date of invoicing.
8	Special Requirement	Nil

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CMS/BPL