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Design and supply of 3000 litre fully automatic autoclave for the pharmaceutical industry

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6.2 Doors

All chamber doors shall incorporate a mechanism that automatically prevents the opening of the doors when a pressure greater than 27 Kpa exists in the sterilizer chamber. The opening of the doors is to be controlled by manual pushbuttons. The opening of both doors is to be impossible unless overriden by means of a key switch.

6.3 Handles

The temperature of all handwheels, handles, or similar devices used by the operator during normal operation of the sterilizer, shall not exceed 50°C (122°F), if metal, or 60°C (140°F) if non-metal.

6.4 ON/OFF Switch

Means of switching off the power shall be located within easy reach of the operator and shall be clearly labelled.

6.5 Thermal insulation

Thermal insulation shall be provided. The insulation shall be of expanded polyurethane with air break between jacket.

6.6 Vacuum break valve

An automatically operated Vacuum-break valve is to be supplied, with a manual over-ride.

7.0 PUMPS

HI-VAC vacuum pumps and 2 Rapid Allweiler centrifugal circulating pumps as required are to be provided by supplier.

8.0 TROLLEYS AND CARRIERS

No ramps are required, but 2 stainless steel trolleys and 2 stainless steel carriers are to be provided by the supplier, free of charge. The design of these to be approved by the client before fabrication.

9.0 COMMISSIONING

Included in the price, is a maximum period of 3 days after installation on site for commissioning by Albert Moore.

10.0 DELIVERY

20 weeks from date of order or telex, i.e. June 13, 1984, to site in Johannesburg. This includes 3 days middle inspection, 1 week validation tests, inspections and 1 week for transportation.

A penalty of 1% per week of total value of order to be imposed for late delivery to a maximum of 5%.

If any unforeseen delays occur, supplier to inform Kemmek (Pty) Limited immediately so that situation can be reviewed.

11.0 PAYMENT

20% with order, 60% on delivery, 20% 90 days from commissioning and acceptance.

12.0 INSURANCE AND PACKING

Kemmek to provide all necessary insurance cover for shipping to site.

Equipment to be properly packed and marked to ensure safe delivery to site.

13.0 SERVICES

Services which will be provided to supplier at the Adcock-Ingram Factory. (Kemmek to advise 2 weeks from date of order, if this list is not satisfactory):

13.1 300 Kpag sterile air

13.2 350 Kpag steam

13.3 Approved quality water (400 Kpag if off mains)

13.4 380V, 30KW Power Supply

13.5 Offloading facilities on site

13.6 Drain line (100 mm)

13.7 Cooling tower water for heat exchanger

14.0 GUARANTEE

The guarantee to be for 12 months after accepted delivery on site during which time Ablert Moore will be responsible for any costs arising from poor workmanship and faulty equipment.

15.0 INSPECTIONS

15.1 A satisfactory inspection of the works was carried out by Adcock-Ingram on January 12, 1984.

15.2 Inspection of Autoclave to be carried out by both Kemmek (Pty) Limited and Adcock-Ingram before final assembly. Kemmek to advise 10 days in advance when inspection is suitable.

15.3 Simulated commissioning of Autoclave at Albert Moore's works before despatch of Autoclave. This inspection will be by both Kemmek (Pty) Limited and Adcock-Ingram. Supplier to ensure all service facilities and provided for such a test. Again Kemmek to advise 10 days in advance.

At this stage a port or gland is required on the Autoclave to enable validation. RTD's to be introduced into the chamber. These RTD's to be provided by Adcock-Ingram.

16.0 DEVIATIONS

If the supplier wishes to deviate from any of the above conditions or requirements, alternative proposals to be submitted in writing to Kemmek & Adcock-Ingram Laboratories within 2 weeks of date of this order for approval.

17.0 MAINTENANCE

Supplier to recommend maintenance procedure of equipment.

18.0 MANUALS

3 Sets of comprehensive manuals to accompany the vessel.

19.0 SPARES

Supplier to submit a priced recommended spares list of 6 months operation.

20.0 PAINT

Supplier to submit paint specification for mild steel sections, for approval prior to application.

21.0 WELDS

All welds to be ground, polished and properly pacified and generally as per sample supplied to Adcock-Ingram.

22.0 WEIGHT

For offloading purposes, the maximum load of crate to be 3 tons. If the load exceeds 3 tons, the doors to be supplied separately and assembled satisfactorily on site by supplier.

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