



# AFFTECH PHARMA MACHINE



**PLOT NO. 1373, MIE, PART-B, BAHADURGARH, DIST. JHAJJAR  
HARYANA - 124507, INDIA**

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# MULTICOLUMN DISTILLATION PLANT

## *Capacity 80 Ltr./Hr. to 3000 Ltr./Hr.*

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AFFTECH PHARMA Make **Multi Column Distillation Plant** ( 500 Ltrs/ Hr @ 3 kgs/cm<sup>2</sup>) is based on spiral FINN AQUA arrangement design. It consists of five heat exchangers Columns - and 2 Nos. Cooler for Feed Water & Cooling Water, Feed water pump, Cooling water pump one pre-heater & PLC Control Panel. The above components are properly fixed on a sturdy tubular stand. All the contact parts are of SS 316 L and Non-Contact Parts are of SS 304. The design of each and every part are carried out considering the safety, required output, optimum utility, energy saving and to produce the Water For Injection of Pharma quality. Controlling of different Utilities as per requirement controlled through fully automatic control panel with PLC. All the SS contact parts are internally Electro Polished (Avg. Ra < 0.5) to avoid any possibility of scaling formation during long run and externally Mirror Polished (Avg. Ra < 0.8) to prevent scaling for a long period.



# PURE STEAM GENERATOR

The AFFTECH PHARMA MACHINE make Pure Steam Generator – 100 to 3000 Kg/Hr; is a unique concept in the field of generating pure sterile steam as per USP 34 Grade. The simplicity of design, operation and maintenance are the essence of this machine. The D.M. water is preheated in Pre Heaters; before going to main column where it gets converted into Pure Pyrogen Free Sterile Steam by taking heat from boiler steam at 6 Kg/Cm<sup>2</sup> pressure. Pure Pyrogen Free Sterile Steam is used for sterilization in autoclave, pipelines, and reactors and also for humidification of sterile area. Controlling of different Utilities as per requirement controlled through fully automatic control panel with PLC.

The Plant is also provided with Non Condensable Gases Removal column with SS304 cladding. The Purified water coming from loop system will directly enter in this NCGR column where it gets heated to about 65 - 70 Deg C by the Boiler steam entering at 6 Bar pressure. The steam passes through tube coil imparts the heat to purified water. Thus the temperature of the water starts rising. The moist steam generated starts rising upwards and carries the gases. These gases will be removed from filter housing provided on top of the NCGR column. Further this heated water will be fed to column feed pump to perform the regular operation. All the related controls are achieved automatically through PLC. Being NCGR column mounted directly on the same PSG structure, a lot of space is saved. All the SS parts including Piping, Fitting, Seamless Tubes, Columns, and Cladding & Stand are mirror polished to prevent scaling & All the contact parts are Internally Electro Polished.



# APM High Pressure Steam Sterilizer

With APM you use the technical edge for economical, independent production due to, its, automatic/semi-automatic sterilization process. This sterilizer offer the user maximum reliability in view of material quality operations and performance. APM high-pressure horizontal rectangular sterilizer, steam-jacketed vessel, designed for an operating pressure of 30 PSIG, factory preset at the desires working pressure. The chamber pressure of 30 PSIG, factory preset at the desires working pressure. The chamber pressure will be maintained corresponding to the temperature. The sterilizer will have independent steam boiler underneath the chamber.

## APPLICATIONS:

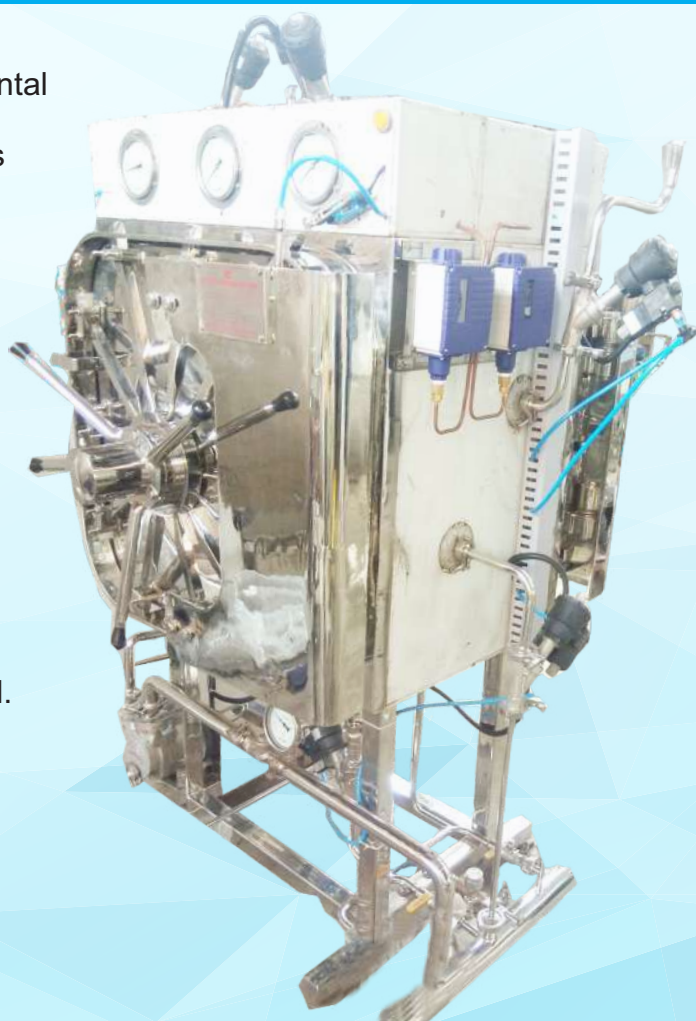
Sterilizers are suitable for solutions in glass containers like ampules, vials & bottles empty glass wares, utensils, instruments etc. Drying of vessels, machine parts, change parts, rubber bungs etc. Porous material like Laboratories dresses, gloves, masks etc. Bulk powders sterilization.

## CONTROLS.:

APM sterilizers have specially designed control systems for process automation. The sterilizer will be provided with all mountings & fitting such as pressure gauge compound gauge, dial thermometer, steam trap steam inlets & outlets, safety valves. We also provides micro-based controlled processors i.e. programmable Logical control.

## SALIENT FEATURES:

1. All sizes in rectangular & Cylindrical horizontal vertical chamber available.
2. Radial locking of door / sliding door models available.
3. Doors are provided with pressure locking system which operators on chamber pressure and prevent opening of door under pressure.
4. Fully Automatic by Electrical / PLC based system covering all parameter, facility for printing and manual mode operation. (Optional) Online printing & Recording. (Optional)
6. Electrical steam generator, vacuum pump, trolley, carriage, chart recorder, data logger and PLC are optional at extra cost.
7. Provision for rubber bung Drying / Sterilization and processing can be supplied.
8. Suitable for standard sterilization cycle / HPHC Cycle, leak test cycle /Bowie Dick test cycles/Salient Features.



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