LIFE SCIENCES VAPOR COMPRESSION DISTILLERS

Aqua-Chem’s HSFD-P-05T vapor compression distillers produce consistent, reliable, high-purity Water for Injection (WFI) for parenteral solutions, cell culture growth, vaccines and other critical applications.

DESIGN FEATURES

EVAPORATOR
The evaporator features a horizontal design using the Spray Film\textsuperscript{®} process, which utilizes a straight tube configuration. The horizontal configuration eliminates the large shell gaskets in use on vertical distillers that are prone to forming leaks and require frequent replacement.

HEAT SOURCE
The vapor compression process uses its own compressed steam as its primary heat source, resulting in vastly improved efficiency.

SANITARY COMPONENTS
Aqua-Chem’s vapor compression distillers are manufactured using sanitary valves, instruments, pumps and piping.

AUTOMATION
Aqua-Chem’s vapor compression distiller operation is fully automatic requiring minimal operator input. Addition of variable capacity control allows the unit to vary output flow rate based on demand, reducing the number of start/stops of the unit.

DEAERATOR
A 316L stainless steel deaerator removes carbon dioxide, oxygen and other noncondensable gases from feedwater and distillate.

INSULATION
The evaporator and deaerator are insulated with low-chloride fiberglass and covered with polished stainless steel lagging.

COMPACT SIZE
Compact dimensions allow unit to be shipped in standard shipping containers. In addition, the horizontal design allows the unit to fit through standard industrial building hallways and doorways.

MATERIALS OF CONSTRUCTION
Standard materials used are 316L stainless steel and product contact surfaces are 15-25 RA finish.

BENEFITS
Aqua-Chem’s design offers reduced energy consumption and less stringent feedwater requirements as compared to other distillation processes like multiple-effect systems.

Aqua-Chem’s patented horizontal Spray Film\textsuperscript{®} evaporator design provides improved wetting of the evaporator tubes and reduced scaling. This means less downtime for cleaning and higher operating efficiency.

All major components are accessible from floor-level, with the compressor and pumps located at the edge of the skid.

Proven technology assures superior TOC and THM (Trihalomethane) removal with minimal pretreatment.

EQUIPMENT CHARACTERISTICS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>HSFD-P-05T</th>
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<tbody>
<tr>
<td>Capacity (Gallons per Hour/Tonnes per Hour)</td>
<td>1320 (5)</td>
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<tr>
<td>Dimensions L x W x H (inches/meters)</td>
<td>226 x 88.5 x 99.75 (5.74 x 2.25 x 2.53)</td>
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