

HSFD-P-30T

LIFE SCIENCES VAPOR COMPRESSION DISTILLERS

Aqua-Chem's HSFD-P-30T Series 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

COMPRESSORS

Low-speed, direct drive compressors are offered on all units 2,500 gph and above. High-speed compressors on smaller units use high-speed journal bearings for maximum life.

EVAPORATOR

The evaporator features a horizontal design using the Spray-Film® process. It has a straight tube or U-tube configuration depending on size, a tube bundle life of 25-30 years—and no large gaskets requiring routine maintenance.

HEAT SOURCE

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

HOT OR COLD DISTILLATE

The stills can be designed to produce hot (180° F) distillate, cold (90° F) distillate or both. Output can range 300-9,000 USGPH.

SANITARY COMPONENTS

Stills are manufactured using sanitary valves, instruments, pumps and piping. Heat exchangers have double tube sheets.

AUTOMATION

Stills are designed to operate automatically; stopping and starting based on level signals from distillate tanks. A programmable logic controller (PLC) and human machine interface (HMI) are standard on distillers.

VARIABLE OUTPUT

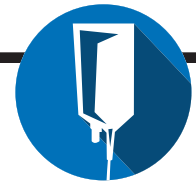
Our stills can include variable speed to allow turndown to around 60 percent of design flow, allowing the still to match tank drawdown while reducing stops and starts.

DEAERATOR

A 316L SST deaerator removes carbon dioxide, oxygen and other noncondensable gases from the feedwater or distillate.

MATERIALS OF CONSTRUCTION

Standard materials are 316L stainless steel, product contact surfaces are 25 RA, and evaporator tubes are bright annealed. Material certifications are provided for traceability and electropolish is available. The evaporator and deaerator are insulated with fiberglass and covered with polished SS cladding.



VAPOR COMPRESSION

BENEFITS

Spray-Film® vapor compression units produce consistent, reliable, high-purity Water for Injection (WFI) for parenteral solutions, cell culture growth, vaccines and other critical applications.

Patented Spray-Film evaporator design provides improved wetting of the tube bundle and reduced scaling. This means less downtime for cleaning and reduced blowdown for less water waste.

Spray-Film design includes built-in on-line cleaning for removing scale and re-passivating, reducing maintenance costs and increasing operating life.

Provides improved safety and ease of maintenance to extend operating life. All major components are accessible from floor level, with the compressor and pumps located at the edge of the skid for easy serviceability.

Higher capacity distillers (2,500 to 9,000 U.S. gph) use low-speed compressors (< 6,000 rpm) for greatly increased reliability and longer life.

Cuts energy requirements in half compared to multi-effect distillers. Energy savings can be up to 5x using cold distillate.

Proven technology assures superior TOC and endotoxin removal with minimal pretreatment.

EQUIPMENT CHARACTERISTICS

MODEL	HSFD-P-30T
Capacity (Gallons per Hour/Tonnes per Hour)	30m ³
Dimensions L x W x H (inches/meters)	345 x 159 x 156 (8.7 x 4.0 x 4)