

SV-SERIES

VACUUM VAPOR COMPRESSION DISTILLERS

Aqua-Chem supplies an innovative vacuum vapor compression distillation system. Vacuum evaporation improves the performance of the distillation process by lowering the evaporation operating temperature. The lower operating temperature retards the formation of scale, improves the heat transfer, and reduces maintenance and chemical cleaning cycles.

DESIGN FEATURES

COMPRESSORS

Our compressors use high-speed journal bearings to ensure maximum life. In addition, thin film oil technology protects the bearings and shaft from wear. Materials of construction include titanium impellers and 90/10 CuNi or stainless steel housing.

EVAPORATOR

Our evaporator features a horizontal shell and tube design that uses our patented Spray-Film® process.

HEAT SOURCE

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

VACUUM EVAPORATION TECHNOLOGY

This technology reduces the boiling point of the water to less than 150°F / 65°C, which helps to retard the formation of scale while concurrently increasing the running time between maintenance and cleaning.

CUSTOM DESIGN

Our units can be easily customized to comply with standards established by CE, ABS, DNV and others. The flexibility to make modifications to meet your specific requirements helps set us apart in the industry.

MATERIALS OF CONSTRUCTION

Our components are made of the strongest, most durable materials available to extend system life. Evaporation shells include 90/10 copper nickel or stainless steel, while our evaporator tubes are made with titanium and copper nickel, or duplex stainless steel and aluminum brass. All the piping in our vacuum vapor compression distillers consists of copper nickel, stainless steel or bronze.



BENEFITS

Aqua-Chem distillers supply high-quality potable and process water to meet critical customer specifications.

Distillation can be used in any seawater condition, regardless of salinity, temperature or silt. Distillation produces the most consistent, high-quality water, with less than 5 ppm TDS.

Aqua-Chem distillers have set the standard for innovations that reduce maintenance costs and downtime, while increasing operating life. We have units that continue to provide excellent service after more than 30 years of operation. Over the years, continual improvements have solidified our reputation as the most innovative designer of offshore desalination equipment.

All Aqua-Chem vacuum vapor compression distillers use our patented Spray-Film evaporator design, which provides improved wetting of the tube bundle and reduced scaling compared to rising film or plate-type designs. This results in less downtime for cleaning. The Spray-Film design also includes built-in on-line cleaning for removing scale, thus avoiding any disassembly or manual cleaning.

Aqua-Chem distillers offer improved safety and ease of maintenance with all major components readily accessible from the deck level. The compressor and pumps are specifically located at the edge of the skid for easy serviceability, encouraging regular maintenance and ensuring a long operating life.

EQUIPMENT CHARACTERISTICS

MODEL	SV30	SV50	SV70	SV100
Capacity (m³/day)	30m³	50m³	70m³	100m³
L x W x H (feet/meters)	7.2 x 9.7 x 9.6 2.2 x 3.0 x 2.9	7.2 x 9.7 x 9.6 2.2 x 3.0 x 2.9	7.2 x 11.7 x 9.6 2.2 x 3.6 x 2.9	7.2 x 11.7 x 9.6 2.2 x 3.6 x 2.9
Weight (lbs/kg)	10,000lbs (4,450kg)	15,000lbs (6,800kg)	18,000lbs (8,170kg)	21,000lbs (9,545kg)

