

Industrial Duty Air Cooled Chillers



Standard Units from 1/2 to 40 Tons

H2O Chiller - Air Cooled Chillers are the perfect solution, for any application:

-Plastics & Rubber: presses, injection molding, extrusion (sheet & profile), blow molding, thermoforming, PET

-Lasers: cutting, welding, profiling, optics, medical, engraving

-Food & Beverage: confectionary, bakeries, distilleries, breweries, wineries, dairies, bottling, carbonation, meat and fish processing, vegetable and salad processing, storage

-Chemical & Pharmaceutical: jacketed vessels, polyurethane foam mixers, natural gas, industrial cleaning, laboratories, healthcare, solvents, paints, photo processing, oil cooling

-Metal Working: processing and transformation of precious metals, aluminum working and processing

-Mechanical & Engineering: machine tools, welding machines, rolling mills, presses, extruders, cutting, profiling, polishing, electric spark machinery, hydraulic control unit oil cooling, pneumatic transport, heat treatment

- Paper & Related Applications: printers, cardboard, labels, plastic film

-Other Applications: ceramics, textiles, wood, rental, air compressor cooling, concrete batch plants, semi-conductor testing, military, mri cooling, dynamometer, furnace

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or visit our web site

<https://dvachvac.com/chillers>

Features

■ Pump

A 43 psi pump, standard on all models, is mounted within the chiller itself. Various other pump options are available. Centrifugal pumps are fitted (from 015), models 015-251 feature a stainless steel water-side.

■ Advanced Microprocessor

The microprocessor (from M05) offers icon messages and a digital water outlet temperature reading. Up to 10 alarms are offered, plus extensive programming to individual needs. An alarm history, volt free general alarm contact and protective plastic cover are standard from model 015.

■ Compressor

Piston (M03 and 015-051), rotary (M05-10) or scroll (from 81) compressors are utilized. Scroll compressors offer reduced energy consumption, low vibrations, less moving parts and high resistance to liquid refrigerant returns.

■ Condensing Section

Air-cooled condensers (copper tubes/aluminum fins) are fitted on one side only, reducing space needs. A pre-filter is standard (from 031).

Water-cooled models feature a plate (015-020), co-axial (031-161) or shell and tube (201-602) configuration. H2O Chillers condenser maximizes efficiency in the heat pump mode, when it inverts to an evaporator function.

■ Evaporator-in-tank Configuration

The innovative evaporator-in-tank configuration (co-axial copper coil with stainless steel tank on M03-10, finned aluminum/copper coil with carbon steel tank from 015), allows operation even with impure liquids. Unit dimensions are reduced, and a steady water temperature is ensured as the evaporator also cools the tank itself. Ambient heat gain is reduced, increasing efficiency.

Choose between atmospheric pressure or (from 015) pressurized (max 87 psig) operation, with matching fill kits. Bleed and drain valves and a water level sensor are fitted (from 015); the water by-pass and antifreeze warning ensure fail-safe operation.

The oversized evaporator design improves efficiency and reduces pressure drops. The tank is insulated and removable.

■ Multiple components

Units with 2 compressors (from 201) or 4 compressors within 2 circuits (from 402) feature compressor rotation and a compressor unloading function which improves operation in harsh conditions. Models from 402 feature multi-step fan speed control.



Benefits

Unlike typical chillers, H2O Chillers have been designed specifically for industry. The fruit of over 20 years in the industrial chilling market, with hundreds of thousands of refrigerating machines installed worldwide, H2O Chillers perfectly match the needs of a diverse range of industries. This is thanks to:

- **Generous operating limits, both as regards the water inlet and outlet temperature.**
- **Weatherproof construction with high temperature limits, allowing operation in all conditions.**
- **An extensive range of accessories with allow units to be personalized to all individual applications.**
- **A fully packaged and easy-to-use solution, with integrated pump and tank.**

■ Lowest Operating Costs

Thanks especially to energy efficient scroll compressors, the oversized evaporator and the unique evaporator-in-tank configuration, H2O Chillers achieves leading energy efficiency levels. This is mated to low maintenance needs, ensuring H2O Chillers are a highly economical long-term proposition.

■ Suited to All Conditions

Water inlet limits of 18-78° F and outlet limits of 14-85 °F (depending on model) ensures our chillers are suited to all industrial applications. Weatherproof protection (from 031), full frontal access, easily removable panels and a separate refrigeration compartment (from 015) facilitate ease of use.

■ Assured Quality

All models are individually waterside tested at nominal operating conditions, and also undergo operating tests, refrigerant change and leakage controls, and microprocessor and safety device setting verifications. Leading brand components are used throughout ensuring long term reliability.

■ Fail-safe Operation

Our chillers operate in all conditions, thanks to an internal trace water by-pass, numerous safety devices, generous water temperature limits, a 115 °F ambient temperature limit, antifreeze protection and an internal water level sensor. The advanced microprocessor ensures fail-safe operation at all times.

■ **D-VAC Sales Inc** has the expertise, ability and the experience to meet nearly any custom requirement. We have been modifying our off-the-shelf chillers to meet unique customer needs for many years. For example we have made:

- *Explosionproof Chillers*
- *Weatherproof Chillers*
- *Stainless Steel Chillers*
- *Dry Coolers*
- *many, many more...*

Contact us with your custom requirement today!



■ Closed Circuit Operation

H2O Chillers operate in a closed circuit offering the several advantages.

Our chiller have an extremely precise water temperature control, independent of ambient conditions. They react quickly to any sudden load changes, ensuring steady operating conditions. The same water is continuously reutilized thereby avoiding both unwanted high water costs and sewage/disposal fees.

■ Maximum Control

The large tank and evaporator ensure steady water temperatures, even during sudden load variations. This is further enhanced by passing the water through the evaporator before entering the tank, offering a ready chilled water supply. HP, LP and water manometers (from 031) give a quick overview of status.

Option Packages

As applications differ, so H2O' Chillers can be adapted to each individual need thanks to numerous configurations and accessories:

-Pump options: 3bar pumps are supplied as standard, 5bar pumps or no pump on request (from 015). Twin pumps are also offered (from 201).

-Water Circuit: A non-ferrous option (stainless steel water tank, copper/brass exchanger, stainless steel pump if not already standard) is offered on models 015-351. Alternatively, models 015-351 can be supplied with a prismatic stainless steel tank and an external stainless steel plate heat exchanger (designed for open circuit operation); this configuration is also available with an evaporator flow switch which protects against water flow stoppages.

- Condenser section: electronic fan speed control is offered from model 031. Centrifugal fans (from 031) are ideal for ducted or indoor installation. Pre-treated and copper-copper condenser coils (all from 015) cater to harsh environments.

- Low ambient temperature operation: possible with special option packages

- Special voltages: 50 Hz or 60 Hz versions and various single and 3-phase voltages are available

-"Close Control" special order: the Laser version offers extremely precise temperature regulation (± 1 °F) thanks to the application of hot gas by-pass control.



-Differing Refrigerants: R134a, R22 can be supplied on request

-Other accessories: industrial caster wheels, crankcase heaters, expansion tanks, and auto fill kits can be supplied upon request.



Technical Information

Model	Compr. Type	Compr. / Circuit	Cooling Capacity (Tons) **	* Full Load Amps	Fans	Dimensions (inches)			Dry Weight (lbs.)	Tank Volume (Gal)	Process Water Conn. (NPT)
						W	D	H			
HCCPS005	Recip.	1 / 1	0.5	6.2	1	23.0	26.0	32.0	233	7	1/2"
HCCPS010	Recip.	1 / 1	1.0	13.8	1	23.0	26.0	32.0	250	7	1/2"
HCCPS015	Recip.	1 / 1	1.5	6.0	1	22.0	49.8	31.9	285	16	3/4"
HCCPS020	Recip.	1 / 1	2.0	7.2	1	22.0	49.8	31.9	285	16	3/4"
HCCPS031	Recip.	1 / 1	3.1	11.0	1	25.9	51.6	55.1	445	30	1"
HCCPS051	Recip.	1 / 1	4.4	14.0	1	25.9	51.6	55.1	490	30	1"
HCCPS081	Scroll	1 / 1	6.9	18.0	1	29.9	73.2	56.9	735	37	1 1/2"
HCCPS101	Scroll	1 / 1	9.8	20.0	2	29.9	73.2	56.9	856	67	1 1/2"
HCCPS121	Scroll	1 / 1	12.4	27.0	2	29.9	73.2	56.9	898	67	1 1/2"
HCCPS161	Scroll	1 / 1	13.8	33.0	2	29.9	73.2	56.9	923	67	1 1/2"
HCCPS201	Scroll	2 / 1	15.9	36.0	2	34.1	88.2	81.3	1225	93	2"
HCCPS251	Scroll	2 / 1	19.0	41.0	2	34.1	88.2	81.3	1438	93	2"
HCCPS301	Scroll	2 / 1	21.1	50.0	3	34.1	88.2	81.3	1637	93	2"
HCCPS351	Scroll	2 / 1	23.9	55.0	3	34.1	88.2	81.3	1675	93	2"
HCCPS402	Scroll	4 / 2	28.2	71.0	2	49.4	129.7	84.3	2750	132	2 1/2"
HCCPS502	Scroll	4 / 2	31.6	81.0	2	49.4	129.7	84.3	2838	132	2 1/2"
HCCPS602	Scroll	4 / 2	38.9	94.0	2	49.4	129.7	84.3	2976	132	2 1/2"

Notes:

* **Full Load Amps** based on the following standard voltages:

HCCPS005 - 010 = 230/1/60

HCCPS015 - 602 = 460/3/60

Other Voltages Available and in Stock:

115V, 208V, 230V (Single and Three Phase)

** **Cooling Capacity** based on performance data for the following conditions:

- Outlet Water Temperature = 45°F
- Water Temperature Gradient = 10°F
- Ambient Temperature = 95°F

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