

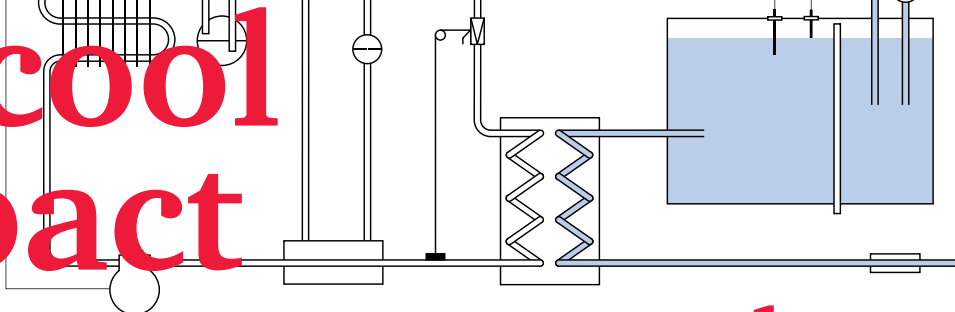
8kW – 16kW – 25kW – 36kW

# Aquacool Compact



- Compact, vertical design with minimal footprint
- Vertical exhaust air
- Easy to install with water tubes
- In-door or out-door installation possible
- Efficient scroll compressors with 20% less energy consumption
- Large water tanks for consistent water temperature
- Touch screen operated
- Built-in timer
- Optional heater (H-versions)
- Optional water to water condenser
- Environmentally friendly R 407C refrigerant

# Aquacool Compact compressor water coolers



**Aquacool Compact C** is a microprocessor controlled compact compressor water cooler with a large water tank. It is an ideal remote cooling source for IRTC (Ink Roller Temperature Control) systems, dampening water circulators, coating circulators, IR and UV dryers and other ancillary equipment that requires a constant temperature to maintain a uniform quality in offset printing.

**Aquacool Compact H** is upgraded with a built-in heater, which makes it a simple IRTC system for wet offset presses and eliminates the need for a separate IRTC system.

The rugged construction also allows outside installation, as long as Aquacool Compact C is not exposed to direct rain or snow and is secured against freezing with glycol.

To remove the warm air, Aquacool Compacts have big fans in the roof of the cabinet. This vertical construction assures that the exhaust air is blown upwards and away from the cooler. The vertical construction also secures the minimal footprint in relation to the cooling capacity. The strong cooling capacity requires a large amount of circulating air, so Aquacool Compact C must be installed in areas with appropriate air circulation.

Aquacool Compact C can be delivered with an optional water-to-water heat exchanger, so the warm exhaust air is eliminated while the heat is transported by liquid to an external cooling source.

An optional 3 kWatt heating element upgrades Aquacool Compact from a "C" to a "H" model, which changes it into a simple IRTC system. This way it is possible to maintain a constant temperature in the offset press, even if this temperature is above room temperature, and it is also possible to pre-heat the press to an appropriate operating temperature.

Aquacool Compact C and H are operated via touch screen. The water temperature can be preset. The system has a timer that can start Aquacool Compact C and H at any set time.

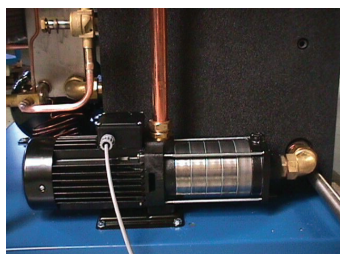
**A**quacool Compact C is a line of compressor water coolers with 8, 16, 25 and 36 kWatt cooling capacities. This range covers smaller sheet-fed presses up to 6 color 40" presses (waterless offset) and 8 color 40" presses (wet offset) at 15,000 iph. (For even larger presses or if one cooler has to drive more than one press, we refer to our Aquacool Jumbo line with up to 145 kW in cooling capacity).

All Aquacool Compacts have large water tanks that secure constant access to lots of cold water, which again secures a consistent printing temperature and reduces the number of compressor starts/stops. This increases the lifetime of the cooling compressor. The new scroll compressors reduce energy consumption around 20% at a specific cooling capacity and use the most environmentally friendly refrigerant available: R 407C.

A consistent printing quality requires a consistent press temperature, so it is imperative to remove as much heat as possible via the chilled inking rollers and the dampening system. As pressroom conditions have a fundamental impact on the printing conditions, it is also important that the central cooler is installed a significant distance from the press to eliminate any impact on pressroom temperature and relative humidity caused by warm exhaust air. All Aquacool Compact models have strong Grundfos circulation pumps, which allows installation in remote areas – even one floor below the press.

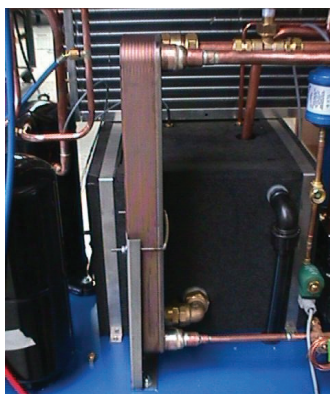
Using water as cooling media makes the tubing/piping between Aquacool Compact and the various users extremely easy. With the optional tube kits (available for most presses) installation is completed in a fraction of the normal installation time.

# Special Aquacool Compact features



## Strong circulation pump

All Aquacool Compact models have strong Grundfos CH circulation pumps. These pumps run stable 24 hours a day, 7 days a week, 365 days per year. The pumps secure an appropriate water flow into the heat exchangers of the various consumers of cold water (IRTC systems, dampening water circulators, UV lamps, etc.) and in the case of Aquacool Compact H models directly into the press' printing units. Maintenance is at an absolute minimum and service is easy. Grundfos is one of the world leaders in pumps. Therefore skilled technicians are on call around the clock all over the world.



## Powerful heat exchangers

The cooling water to the press or other equipment runs through the primary circuit of a powerful plate heat exchanger, before returning to the cooling tank. The cooling liquid runs in a separate circuit that contains the scroll compressor, condenser, receiver and evaporator into the secondary side of the plate heat exchanger. Plate heat exchangers are extremely efficient and assure an effective cooling with a minimal energy consumption.



## Large water tank

An insulated, large water tank has always been an important part of the concept of Aquacool Compact. Using water for the cooling process, secures a very simple installation, because one only has to install simple water tubes or pipes between the remotely installed cooler and the press. Secondly the large water tank acts as an energy buffer. There is always a large quantity of cold water ready for the cooling process, and the large water tank absorbs a lot of cooling energy. Therefore the compressor runs for longer periods with less starts and stops, which significantly increases the lifetime and reliability of the compressor system.



## Energy saving scroll compressor

Cooling the water is performed by an air cooled condenser (water cooled is optional) driven by a scroll compressor. Scroll compressors give around 20% more cooling capacity at a given energy consumption, so all Aquacool Compact models are among the most efficient water coolers. The condenser uses the most environmental friendly cooling liquid: R 407C.



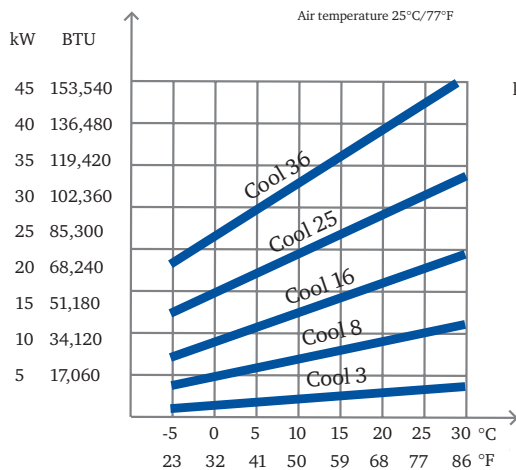
## Micro processor controlled touch screen

Aquacool Compact is operated from a microprocessor controlled touch screen. It is possible to key in the desired temperature and also observe the actual temperatures. A timer makes it possible to start Aquacool Compact at a given time any day.

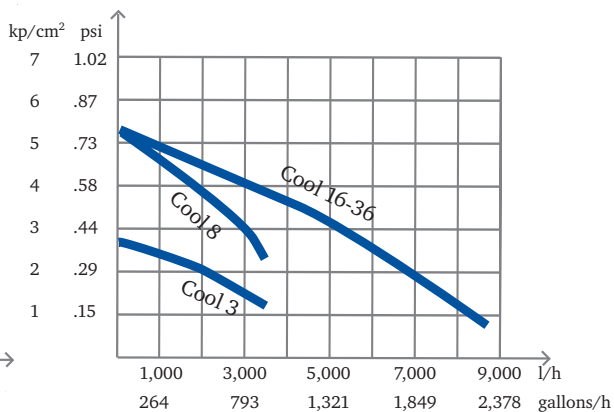


A modern offset press generates a significant quantity of heat, when it prints. Without an irtc system only the dampening water and the air in the pressroom can cool it.

## Cooling capacities



## Pump capacities



## Technical specifications

### Aquacool Compact Compact C (cooling only) & H (with heating)

Type Aquacool		8	16	25	36
Tank size	Liters/Gallons	48/13	200/53	200/53	200/53
Cooling capacity	kWatt/BTU	8/27,320	16/54,640	25/85,375	36/122,940
Air temperature/Water temperature 25C/15C(75F/62F°)					
Heating capacity (H only) kWatt/BTU		3/10,245	3/10,245	3/10,245	3/10,245
Compressor Capacity	kWatt/HP	2.25/3.06	4.26/5.79	7.00/9.52	9.82/13.36
Total Power consumption kWatt/HP		3.38/4.60	6.39/8.69	9.13/12.42	12.72/17.30
Exhaust Energy	kWatt/BTU	11.38/38,863	22.39/76,462	34.13/116,554	48.72/166,379
Required Air Circulation	M3 <sup>2</sup> /feet3 <sup>2</sup> /hour	4,200/148,410	7,500/265,018	7,500/265,018	15,000/530,035
Pump type	Grundfos	CH 2-60	CH 4-60	CH 4-60	CH 4-60
Pump Circulation	Liters/Gallons/hour	3,500/925	8,500/2,246	8,500/2,246	8,500/2,246
Pump Pressure	Bars/psi	5,6/78.41	5.6/78.41	5,6/78.41	5,6/78.41
Length	mm/inches	900/35.43	1,275/50.20	1,275/50.20	1,275/50.20
Width	mm/inches	650/25.59	860/33.86	860/33.86	860/33.86
Height	mm/inches	1,240/48.82	1,730/68.11	1,930/75.98	1,930/75.98
Weight	kg/pounds	198/436	350/770	440/968	450/990



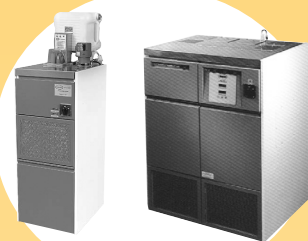
Cool Graphics is a Danish company, which develops and manufactures dampening water premixers, ink roller temperature control systems and other ancillary equipment for offset presses to improve press performance, productivity and impact on the environment.

Cool Graphics markets and services its products in Europe through Royse Europe ApS, which is a joint venture between Royse Manufacturing Company and Cool Graphics ApS. In the USA Cool Graphics' products are marketed and serviced through Royse Manufacturing Company in Dallas, Texas, USA. In Japan and the Far East, Cosmotech Co. Ltd. represents both Royse Manufacturing Company and Cool Graphics.

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Royse's dampening water circulators (DWC) with individual and central tank configurations. Available with Classic supply pumps with return suction or with the new Clearwater technology with pre-filtration tanks



CG-Combi combination systems with Royse's DWCs and Cool Graphics IRTC systems. Available in small (S), medium (M) and large (L) sizes with Classic or Clearwater pumping/ filtration configurations. Available for most sheet- and web fed presses.



Royse coater circulators for 1) water based coatings 2) UV coatings 3) water based & UV coatings



Ecotemp and Digitemp single- and multi-zone ink roller temperizers.



Eco- and Digimix premixer systems use accurate doser pumps and a premixer tank to prepare highly consistent dampening water.