



weco **Compact chillers**



**Powerful and reliable.
Also for high ambient
temperatures.**

gwk

The smart approach to cooling. Energy-efficient

Innovative technology

The new compact chillers are equipped according to the latest developments in technology. The use of powerful compressors together with standard designed components in the refrigerant circuit guarantees a high efficiency. Consequently the units are running at low operating costs, have a high reliability and long life.

The overall technical design of the unit and the precise measurement and control technology coupled with tailor made microprocessor control enable a high temperature stability for every application. The high capacity together with a compact footprint enable the chiller to be sited even in restricted areas.

Environmentally friendly

As a specialist manufacturer of energy-saving technology we are taking responsibility for the environment. For many years we have led the way in developing equipment using environmentally friendly refrigerants.

For more than a decade our products have been equipped with the chlorine-free refrigerant R 134a and we hereby completely renounce the application of partly halogenated cooling agents. Thus the drastic damage to the ozone layer can be entirely avoided. A further advantage of R134a is its behaviour at high ambient temperatures – every production manager will appreciate the better performance and the higher reliability during hot summer days.

In addition efforts are constantly being made in the use of newly developed refrigerants with a low global warming potential (GWP). This way we guarantee that our water chillers correspond to the stricter legal requirements that will become effective in future.



Improve parts quality



Increase productivity



Lower operating costs



Produce eco-friendly

cient. Competent.

Economic efficiency

Many industrial processes require the supply of heating or cooling energy. The excess process heat in the consumer is specifically extracted by means of cold water. The process quality is directly dependent on the stability of the cooling water temperature.

Due to varying conditions found both on the production site and within the environment globally producing constant cold water can only be achieved by the use of independent cold water chillers. In the low and middle capacity range this is the main application for compact packaged chillers.

In the protection of the environment it makes sense to use recirculating water chillers. Together with the global industrialization the cooling water consumption in nearly every branch of industry is increasing. Shortage in water and the related increasing water costs in combination with stronger regulation of waste water control increases the need for these systems. The decision for the environment is easy because the chillers also offer possibilities to save on running costs. Also the recirculating high productivity chillers offer much lower operating and service costs than open systems resulting in a decrease in the cost of production.

Quality guaranteed

All our chillers are quality products and the result of more than 40 years of experience in industrial cooling. Many units that have been delivered to machine manufacturers still work after more than 20 years under the toughest operating conditions. Important elements of our quality philosophy are:

- In-house development and manufacturing with skilled labour only.
- Exclusive use of renowned high quality components.
- Corrosion resistant materials for all water contacted components.
- Trial run before delivery on one of our test banks.
- Certified manufacturing procedures according to DIN ISO 9001.



Series weco 15.1 - 300.1

Precise and compact

The overall technical design of the unit and the precise measurement and control technology coupled with tailor made micro-processor control enable a high temperature stability for every application. The high capacity together with a compact footprint enable the chiller to be sited even in restricted areas.

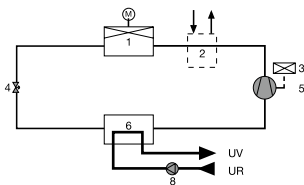
Set up, connect, ready

gwk compact water chillers are turnkey products. For end users this implies that the machine can be installed and connected without extensive assembly and that it is ready for immediate operation.

New fan and compressor concept

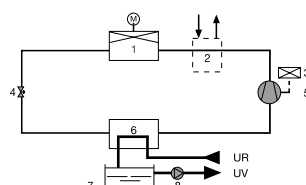
A new fan concept with pressure controlled speed control reduces the noise level of the machines. By the use of high-performance compressors in combination with large-dimensioned components of the cooling circuit a very high degree of efficiency can be achieved. This results in low operating costs, high operating reliability and long service life of the chiller.

Available systems



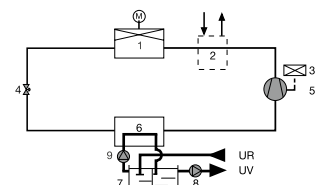
Basic Design (G)

Chiller with pump, but without internal water tank, ready for use together with open consumer circuits such as existing cold water storage tanks or extrusion baths.



Standard Design (B)

Chiller with pump and internal water tank. Ready for connection to cold water systems like mould cooling or hydraulic cooling of single injection moulding presses.



Central cooling plant (Z)

The unit is equipped with two pumps and a water tank with cold and hot water section. We recommend the use of this version together with several consumers and high variations in the cooling load of the connected system.

Legend: 1 = condenser / 2 = additional heating condenser* / 3 = temp. regulator / 4 = expansion valve / 5 = compressor / 6 = evaporator / 7 = water tank / 8 = process pump / 9 = evaporator pump / UV = to consumer / UR = from consumer / — = cold water circuit / — = refrigerant circuit / * = option



More options for exact temperature control

Thanks to a large number of useful options like redundant / frequency-controlled operating pumps, stainless steel pumps and various evaporator executions the modular machine design can be optimally adapted to the different fields of application.

With a heat exchanger for heat recovery the **weco** series 15.1 up to 300.1 can be optionally connected to a heating system. An equipment package with radial fans, air nozzles and canvas support provides the quick and flexible connection to an air duct system. Depending on the design warm exhaust air is either removed out of the building or is used for heating. With the appropriate equipment the chillers can also

be installed directly outside the building with frost protected operation.

The most important facts at a glance

Model	Nom. cooling capacity (kW)	Flow (m ³ /bar) ¹	Pressure (bar) ¹	Dimensions (L x W x H)	Weight (kg)
weco 15.1	15	4,2	4,9	1.000 x 1.630 x 2.000 mm	405
weco 24.1	24	6,3	4,9	1.000 x 1.630 x 2.000 mm	447
weco 35.1	35	6,3	4,9	1.000 x 1.630 x 2.000 mm	505
weco 48.1	48	15,0	4,8	1.000 x 2.450 x 2.000 mm	771
weco 59.1	58	15,0	4,8	1.000 x 2.450 x 2.000 mm	825
weco 71.1	69	15,0	4,8	1.000 x 2.450 x 2.000 mm	842
weco 85.1	91	22,0	5,2	1.220 x 3.100 x 2.150 mm	1.333
weco 100.1	112	22,0	5,2	1.220 x 3.100 x 2.150 mm	1.413
weco 120.1	134	30,0	5,2	1.220 x 3.100 x 2.150 mm	1.497
weco 145.1	147	50,0	4,5	3.825 x 1.750 x 2.420 mm	2.230
weco 170.1	172	50,0	4,5	3.825 x 1.750 x 2.420 mm	2.475
weco 190.1	192	50,0	4,5	3.825 x 1.750 x 2.420 mm	2.530
weco 230.1	220	50,0	4,5	3.825 x 1.750 x 2.420 mm	2.700
weco 250.1	266	84,0	4,5	3.825 x 1.750 x 2.420 mm	2.750
weco 300.1	325	84,0	4,5	3.825 x 1.750 x 2.420 mm	3.250

¹ Standard pump / Process pumps with higher capacities for weco Z series optionally

Subject to technical modification without notice!

Series weco split



The **gwk** chillers in split design allow the separated installation of condenser and water chiller. The heat from the cooling circuit is dissipated across the outside condenser while the water chiller is installed inside the building.

For the safe operation of the split water chiller throughout the year it disposes of a refrigerant collector to compensate the refrigerant migration in the circuit in case of varying ambient temperatures.

The **gwk** collectors are designed in a way that the refrigerant volume of the split condenser is stored intermediately during service and maintenance works and has not to be drained. Shut-off valves at the inlet and outlet side ensure a further reduction of maintenance costs.

The most important data at a glance

Model	Nom. cooling capacity (kW)	Flow (m ³ /bar) ¹	Pressure (bar) ¹	Dimensions (L x W x H)	Weight (kg)
weco 24.1 Sp	24	6,3	4,9	1.000 x 1.630 x 2.000 mm	430
weco 35.1 Sp	35	6,3	4,9	1.000 x 1.630 x 2.000 mm	634
weco 48.1 Sp	48	15,0	4,8	1.000 x 2.450 x 2.000 mm	803
weco 59.1 Sp	58	15,0	4,8	1.000 x 2.450 x 2.000 mm	861
weco 71.1 Sp	69	15,0	4,8	1.000 x 2.450 x 2.000 mm	868
weco 85.1 Sp	91	22,0	5,2	1.220 x 3.100 x 2.150 mm	1.369
weco 100.1 Sp	112	22,0	5,2	1.220 x 3.100 x 2.150 mm	1.447
weco 120.1 Sp	134	30,0	5,2	1.220 x 3.100 x 2.150 mm	1.494

¹⁾ Standard pump / Process pumps with higher capacities for weco Z series optionally

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Series weco T

gwk low temperature chillers are primarily applied in the chemical and pharmaceutical industry, but also in medical and food technologies.

Depending on the design standard water chillers of the weco T series are constructed for medium temperatures of +2 °C up to -15 °C. The serial equipment of the machines includes an additional insulation of the tank, the pump and the water pipes, a manual top-up as well as pump shut-off valves at the pressure and suction side with pressure gauge at the discharge side. In addition to the standard series tailor-made designs up to -50 °C are available, on request also with integrated temperature control circuits.



Temperature control circuit for medium temperatures from -30 °C up to +90 °C.

The most important data at a glance

Model	Nom. cooling capacity (kW)	Flow (m ³ /bar) ¹	Pressure (bar) ¹	Dimensions (L x W x H)	Weight (kg)
weco 15.1 T	12	4,2	4,9	1.360 x 1.060 x 2.030 mm	400
weco 24.1 T	19	6,3	4,9	1.360 x 1.060 x 2.080 mm	415
weco 35.1 T	30	6,3	4,9	1.900 x 1.060 x 2.030 mm	635
weco 59.1 T	39	15	4,8	2.150 x 1.215 x 2.265 mm	795
weco 85.1 T	56	30	4,5	2.650 x 1.215 x 2.265 mm	1.260
weco 120.1 T	76	30	4,5	2.650 x 1.215 x 2.265 mm	1.400

¹ Standard pump / Process pumps with higher capacities for weco Z series optionally

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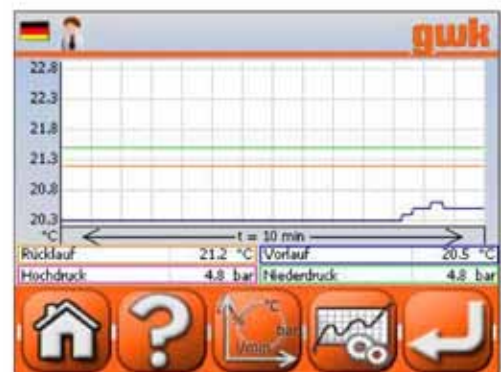
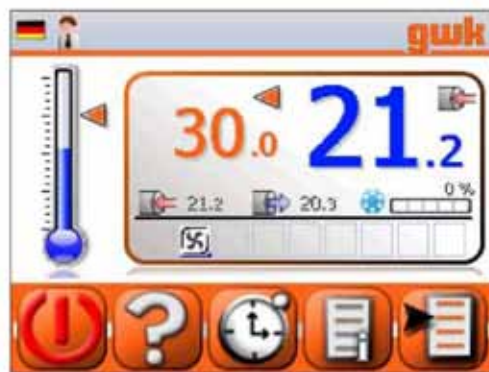
Easy operation with touch screen

The proven **weco** series has been upgraded by the installation of a user-friendly touch-screen with new integrated functions. By a light touch on symbols on the start page useful functions like temperature control, pressure control etc. can be selected. Due to the modular controller design an expansion with a uniform operating concept is possible for all components. In order to supplement the operational safety, maintenance intervals and advice are indicated in clear text on the service page.

Temperature input and temperature display

The clear temperature trend display allows a process evaluation by visualisation of temperature differences for a freely selectable period of time.

The actual process evaluation is effected by the direct comparison of set and actual values with alphanumeric display and graphically by means of a thermometer. So with a simple glance it can be checked whether the requested temperature has been reached.



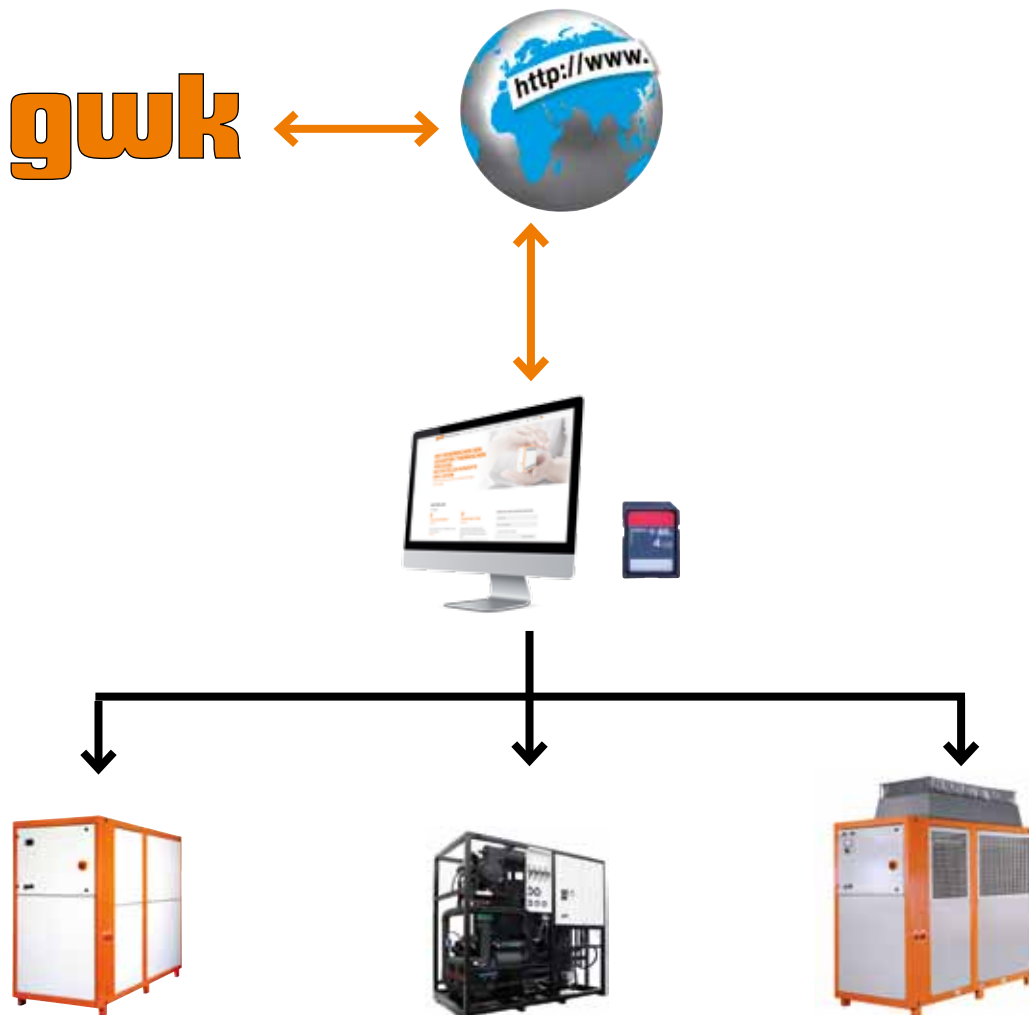
Pressure control

Visualisation of the pressure control allows a quick evaluation of the cooling circuit. By means of the option "service module" the temperatures in the cooling circuit can be displayed as well.

Network connection for remote maintenance (service module)

By means of the network connection remote maintenance is possible. This is realised by a RJ45 socket.

Access to the machine data is allowed internally as well as from the outside. For service purposes the data can be monitored by remote control or stored on a SD-card. With Microsoft Excel the recorded data can be presented in curve form and be interpreted.



Series weco 01 - 09

Air or water cooled up to 9 kW

The **gwk** compact water chillers, type weco 01 - 09 are aircooled units - size 07 and 09 are optionally available as water cooled version - that are piped and wired ready for connection. The sizes 01 and 03 are equipped with an assembly out of compressor, collector and condenser. The sizes 07 and 09 dispose of scroll compressors, separate condensers and fans as well as robust coaxial evaporators.

The tank volume of this machine series is rather large for the small capacities, so that the chillers are suitable for a wide range of application. The housing is designed as profile frame construction out of galvanized and varnished sheet steel with access from all four sides and steerable castors with two stop brakes. As standard the chillers are equipped with the **gwk** compact controller.

The most important data at a glance

Model	Nom. cooling capacity (kW)	Flow (m ³ /bar) ¹	Pressure (bar) ¹	Dimensions (L x W x H)	Weight (kg)
weco 01	1,3	3,6	3,8	675 x 735 x 1.000 mm	134
weco 03	2,9	3,6	3,8	675 x 735 x 1.000 mm	134
weco 07	7,4	4,2	4,9	675 x 835 x 1.250 mm	161
weco 09	9,1	4,2	4,9	675 x 835 x 1.250 mm	170

¹⁾ Standard pump / Process pumps with higher capacities for weco Z series optionally

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Tailor-made compact chillers

Various production processes, individual customer demands, national regulations and specific standards in different industrial sectors present a large number of requirements to the technical design of a water chiller. In close cooperation with customers of various industrial branches a new machine concept in modular design has been created over several decades.

One major strength of our company is our know-how in cooling technology by means of which we can convert thermal process requirements into constructive solutions in order to design tailor-made solutions for our customers with a high level of vertical integration.

Our experts will be pleased to advise you in the implementation of your requirements.

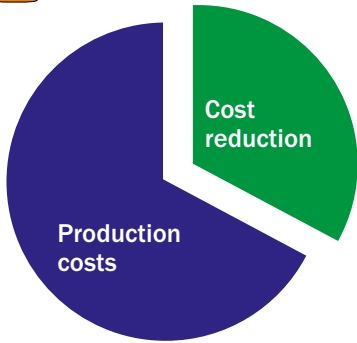


*Water chiller
in explosion proof design*



*Compact water
chiller with 1000 kW
cooling capacity*

gwk Perfect Cooling and Temperature Control

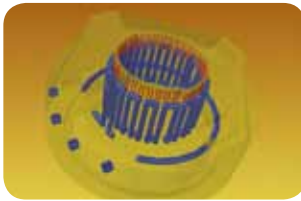


Increased productivity

In many areas of the industry, cooling and temperature control provides a great potential for increasing productivity and thus for lowering costs.

Many factors serve to improve productivity:

- Reduction of cooling time, therefore savings in required machine hours
- Improvement of product quality
- Increasing availability of production plants
- Decreasing running cost
- Reduction of maintenance cost



gwk integrat 4D

Optimal product quality through homogeneous temperature distribution by temperature control with close-to-cavity mould inserts.



gwk SKL/SKW

Reliable and economic supply of cooling water in the low temperature range, even under the toughest ambient conditions.



gwk teco cs

The universal solution for applications in the temperature range up to 225 °C. Provides efficient options for continuous process monitoring.



gwk hermeticool hybrid

Innovative cooling system to decrease the running and maintenance cost in comparison to conventional cooling systems.



gwk system integrat

Increase of productivity by means of specific and segmented mould temperature control.



gwk moldclean

Increased productivity through effective, automatically controlled cleaning of heat exchange surfaces in cooling and temperature controlled circuits.



gwk tecma

High process stability with customised temperature control solutions for all applications with high performance requirements up to 400 °C.



gwk active

Adjusting and maintaining optimum capacity by means of constantly clean water, supplied by a fully automatic water treatment system.



gwk teco cw

Most economic system to extract heat from consumers at very low temperatures by patented cold water temperature control.



gwk service

Decreasing the maintenance cost and protection of company owned resources through professional execution of installation and maintenance works incl. cooling water treatment.



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