

Aqua

The Temperature Control People.

single
created for your perfection

easitemp[®]
The New Standard in Temperature Control

Exclusive Programs Water-based Temperature Control Units



Your Benefits. Every Single Day.

Your Savings. Every single day.

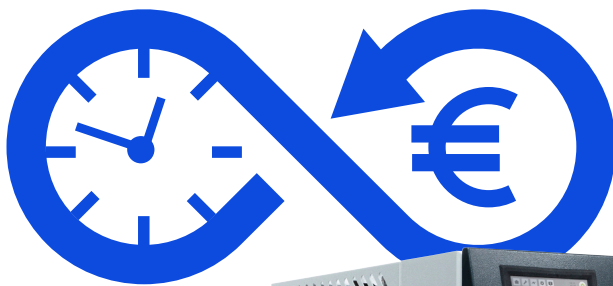
Lower energy consumption

new benchmark for energy efficiency

Single temperature-control systems save up to 70% of process energy, depending on the application. To provide our customers with this energy efficiency in production, our developers use a four-pronged approach: An intelligent pump controller adjusts the rotational speed as needed. A speed reduction of 20% saves up to 50% of energy. In addition, the insulation is highly effective. The efficiency of our top-of-the-range centrifugal pumps is excellent. In combination with our ultra-modern class IE3 electric motors, these factors together reduce energy consumption by two thirds! We are happy to use these savings potentials as a measure of our excellence.



Created For Your Perfection.



Your Speed. Every single day.

Reduced cycle times -

ecotemp cycles reduced by 15% on average

Our engineers have thought hard about how to add even more efficiency to our customers' production processes - and they came up with a creative solution: EcoTemp uses intelligent valve technology to control the flow of the cooling medium. This achieves a dramatic reduction of the cooling-down phase and hence the cycle time - while ensuring top quality of the parts. One of our customers really did the math: On average, they are saving 15%. That's worth it, no doubt!

Your Control.

Every single day.

Intelligent control – easy operation and monitoring of temperature-control systems

Easy intelligence. That is what our engineers wanted to build into networked temperature-control systems – so they developed the Smart Line IoT system. At the core of this Industry 4.0 application is the Smart Controller, an intelligent unit for open-loop and closed-loop control. Our customers can use Smart Line to control all temperature devices centrally from an in-house website. The sensors capture almost 100 relevant data points, and the data analysis detects faults immediately. Smart Line reduces downtimes, improves product quality and minimises costs. Its ease of use and customising options for special processes set standards in temperature control engineering. Intelligence made easy.



Your Product.

Every single day.



Truly made by single

At Single, we are particular about our workmanship. For a simple reason. Because we develop and manufacture our systems completely in-house, we can be 100% certain that they work perfectly. And that is what our customers like.



Global Presence

Quick, local support is often crucial in production. Our global sales and partner network is always there for you. Just give us a call, and we will be on site to solve whatever problems or challenges have come up.

Your Quality.

Every single day.

Optimised quality – att reaches ultimate quality

Quality produces quality. This is Single's simple credo that drives us to keep improving our systems so that our customers can reach new heights of product quality. EcoTemp, our passive system for mould temperature control, delivers a really good performance. But our developers were not happy yet – they came up with ATT (Alternating Temperature Technology) to take things to the next level. Two separate water circuits for heating and cooling with an intelligent controller allow for extremely quick temperature changes. The result is the perfect temperature in the mould and the perfect quality of the moulded part. And that is what matters after all – ultimate quality.



EASITEMP 2.0 – Simply Reliable

So you want a TCU with a maximum operating temperature of 150°C? Then its simple, the Easitemp 2.0 with its precise control and compact design is the one. With the Easitemp temp series you do not have to compromise on robustness, quality or safety. We guarantee the highest capabilities with the most economical operation. In both the Easitemp 95 2.0 and Easitemp 2.0 150 you have everything you want.



Exact

Microprocessor-controlled controller: display of set and actual temperature, resolution adjustable to 0.1 °C or 1 °C.

Easi-Connect

Interface TTY 20 ma on 9 pin. Connector Sub D (assignment „Arburg“)- protocols of popular injection molding machine manufacture.

Precise

- PID- controller with adjustable control parameters and self-tuning
- Status indication by 5 LEDs (heating, cooling, leak stop operation, temperature warning and alarm)

Powerful

- Cooling via powerful brazed stainless steel plate heat exchanger and solenoid valve
- High heating and pump output

Reliable

- Solid state relay for heating control - wear free control of heating
- Heating via tubular heating elements made of highly corrosion-resistant incoloy
- Stainless steel float switch

User-Friendly

- Reversing circuit for leak stop operation.
- Filling time monitoring, aquatimer, automatic cooling on shutdown (each adjustable)
- Automatic filling via cooling water
- Unit on rollers, front rollers steerable with brake
- Connection via cekon plug

Energy Saving

- Highly insulated components save costs

Safe

- Level monitoring by magnetic float switch
- Alarm relay (maximum load (250V; 2,5A) e.g. for connection of horn or light lamp
- IP54
- Redundant heating switch-off by means of additional temperature fuse.
- First-class safety architecture by independent TÜV-tested safety valve; additional pressure gauge
- Dirt filter in return ... and cooling water inlet.

Service Friendly Design

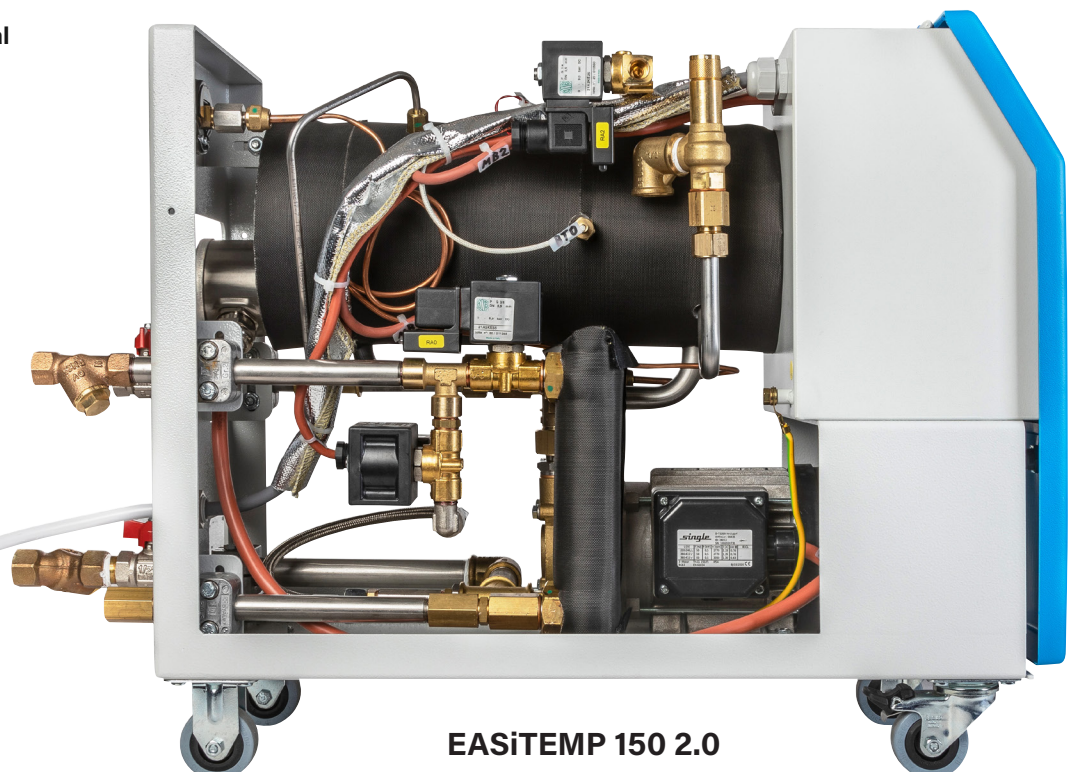
- Easy access to components

Technical Data

Assemblies		EasiTemp 95 2.0	EasiTemp 150 2.0
Max. temperature range	°C	95	150
Max. external volume	L	50	9
Heating capacity	kW	6	6
Type of cooling (via heat exchanger)	-	Indirect	Indirect
Cooling capacity (80 °C flow/15 °C cooling water)	kW	45	45
Max. flow rate	L/min	40	27
Max. pressure	bar	3.8	4.5
Pump motor output	kW	0.5	0.5
Circulation medium connectors	inch	1/2"	1/2"
Cooling water connectors	inch	3/8"	3/8"
Dimensions without connectors:			
Length	mm	514	600
Width	mm	238	238
Height	mm	493	493
Weight	kg	30	43

Optional Accessories

- Flow measurement via spring-loaded floats (only Easitemp 95 2.0)
- Filling nozzle for manual filling
- Hoses and hose nozzle
- Interface cable



TK / TKN / TKS - Series

The compact water temperature control units for applications and requirements in the low to medium performance range and temperatures up to 90°C are very popular for plastics injection moulding but can also be used for other processes. They are suited to the temperature control of sophisticated applications and support the documentation of process parameters.

Robust
Hydraulic parts made from stainless steel and non-ferrous metals.

Safe & Long-lasting
SSR heating control

Compact & Powerful
Compact design with excellent heating and cooling capacities.

Many Options

- Flow measurement
- Tool draining sucking
- Various interfaces
- 7" touch controller with additional functions (4.0 capable)

Made in Germany
Developed and manufactured in Germany.

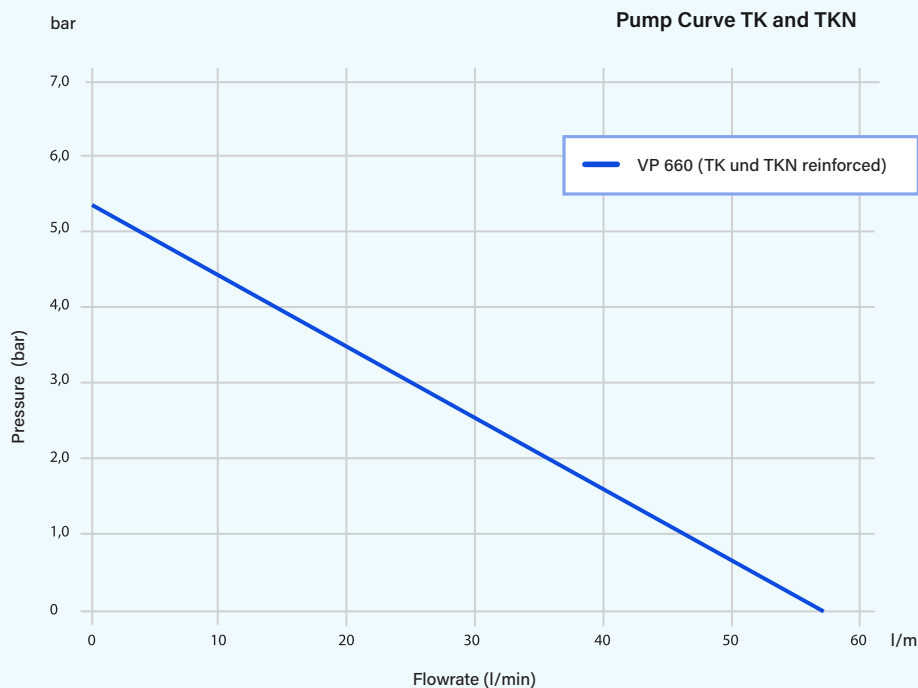
Reliable
High reliability and availability thanks to smart and robust design using corrosion-free materials. High protection rating IP54. (hydraulic area and switch cabinet). Non-wearing heating control using solid-state relays.

Save
Leak stop function for TK and TKN IP54 leak-tightness.

Interfaces
Connections for various analog and digital electrical interfaces.

Control
Ultra-modern controllers offer a wide range of control options. The 7" SSC controller is 4.0-enabled - Smart Line!

Convenient
Automatic filling and replenishing.





Technical Data

		TK IM09D	TK IM90F	TKN IM09G	TKS IM90H
Max. temperature range	°C	90	90	90	90
Max. external volume	L	50	50	69	159
Heating capacity	kW	9	9	18	36
Type of cooling (via heat exchanger)	-	50	50	80	116
Max. flow rate	L/min	58	58	57	135
Max. pressure	bar	5.3	5.3	5.3	3.8
Pump motor output	kW	0.5	0.95	0.95	1.1
Circulation medium connectors	inch	1/2"	1/2"	3/4"	1"
Cooling water connectors	inch	1/2"	1/2"	1/2"	1/2"
Dimensions without connectors:					
Length	mm	639	639	739	839
Width	mm	266	266	276	356
Height	mm	562	562	772	873
Weight	kg	50	50	75	100

Equipment

	TK	TK	TKN	TKS
3.5" touch controller	✓	✗	✓	✓
7" touch controller, network-enabled, Smartline-ready, OPC UA-ready	✗	✓	✗	✗
Durable heating control SSR (Solid State Relay)	✓	✓	✓	✓
Flow measurement	✓	✓	✓	✓
High cooling performance with plate heat exchanger	✓	✓	✓	✓
Frequency converter for speed control	✓	✓	✓	✓
Return flow temperature indicator	✗	✓	✗	✗
Pressure sensor in supply flow	✗	✓	✗	✗
Interface connection via 9-pin D-Sub connector (Current interface) 20mA/TTY, Arburg pin assignment	✓	✓	✓	✓
PT100 can be connected in 2-conductor circuit including socket outlet and plug, with quasi cascade control Tool draining	✗	✓	✗	✗
Suction of external consumer 16 A plug / CEE	✓	✓	✓	✗
16 A Plug/ CEE	✓	✓	✗	✗
32 A Plug/ CEE	✗	✗	✓	✗
Plugs mounted	✓	✓	✓	✗

WK3 AND WK4 SERIES UP TO 160°C

Robust

- Magnetic drive pump – 160°C and higher
- Stainless steel pressure vessel and pipes reduce corrosion-related failures even with inconsistent water quality

Multi-Talented

Broad range of features and options

Upgrades

Modular system supports subsequent upgrades.

Made In Germany

Developed and manufactured in Germany

Compact and Powerful

Top cooling performance in this power range! With plate heat exchanger.

Energy Efficiency

High energy efficiency and low heat losses due to complete insulation of all heat-carrying components and optional variable-speed pump.

Reliable

High reliability and availability thanks to smart and robust design using corrosion-free materials. (Components exposed to water made from stainless steel and non-ferrous metals). High protection rating IP54 (hydraulic area and switch cabinet). Non-wearing heating control using solid-state relays.



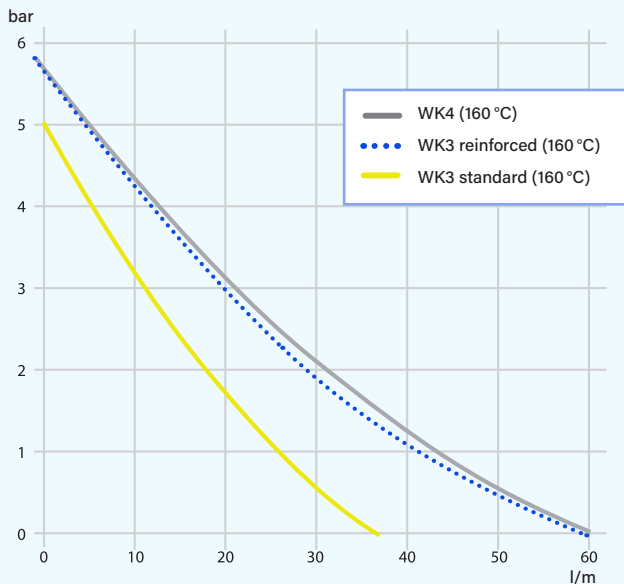
Control

Our 3.5" and 7" controllers (see photo) offer the latest technology for operation and control! State-of-the-art 7" SSC touch controller with Smart Line is Industry 4.0-enabled (optional).

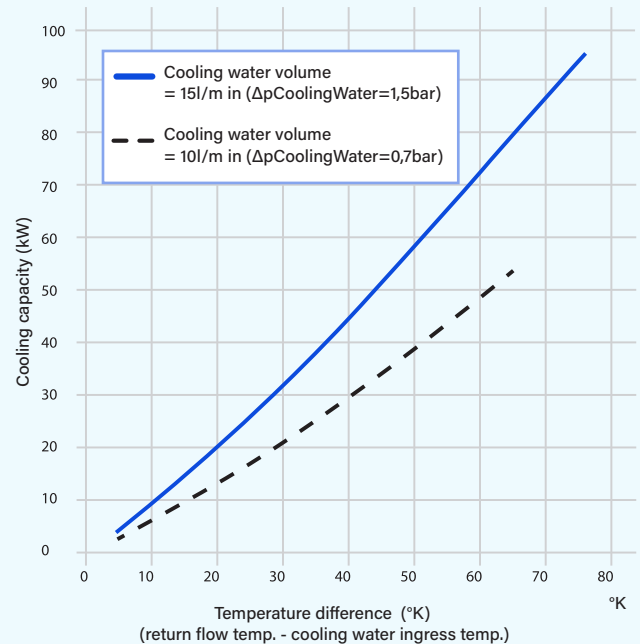
Many Options

- Flow measurement
- Tool draining with suction /compressed air
- Various interfaces
- 7" touch controller with additional functions (Industry 4.0-enabled)
- Pressure measurement
- Return stop
- Manual filling
- ...and many more

Pumpcurve WK4



Cooling capacity WK4...-80





Technical Data

		WK IM160E	WK IM160F	WK4 IM60G
Max. temperature range	°C	160	160	160
Max. external volume	L	15	14	14
Heating capacity	kW	9	9	18
Type of cooling (via heat exchanger)	-	50	50	80
Max. flow rate	L/min	38	57	57
Max. pressure	bar	5.0	6.0	6.0
Pump motor output	kW	0.5	1.0	1.0
Circulation medium connectors	inch	1/2"	1/2"	3/4"
Cooling water connectors	inch	1/2"	1/2"	1/2"
Dimensions without connectors:				
Length	mm	835	835	780
Width	mm	305	305	276
Height	mm	705	705	705
Weight	kg	72-90	72-90	72-90

Equipment

3.5" touch controller	✓	✗	✓
7" touch controller, network-enabled, Smartline-ready, OPC UA-ready	✗	✗	✓
Durable heating control SSR (Solid State Relay)	✓	✓	✓
Flow measurement	✓	✓	✓
Stainless-steel tank, only corrosion-proof materials	✓	✓	✓
Heaters from made incoly	✓	✓	✓
Robust Design	✓	✓	✓
High cooling performance with plate heat exchanger	✓	✓	✓
Excellent insulation of pipes	✓	✓	✓
Frequency converter for speed control	✗	✓	✗
Continuous bypass of heat exchanger	✗	✓	✗
Corrosion-proof materials	✗	✓	✗
Return flow temperature indicator	✗	✓	✗
Electronic pressure sensor in supply flow	✗	✓	✗
Interface connection via 9-pin D-Sub connector (Current interface) 20mA/TTY, Arburg pin assignment	✓	✓	✓
PT100can be connected in 2-conductor circuit including socket outlet and plug, with quasi cascade control Tool draining	✗	✓	✗
Suction of external consumer	✓	✓	✓
16 A plug / CEE, fully assembled	✓	✓	✓

Unbeatable in every way: our fields of application.

Our series of temperature control units are used wherever exact temperatures are of the essence. Here are a few examples:

We Fulfil The Highest Requirements

For our customers in the pharmaceuticals industry, we fulfil the strictest requirements even in clean rooms. We guarantee seamless documentation. And operation is gentle on pressure-sensitive devices at high temperatures.



We Ensure A Long Service Life

This is a benefit for the chemical industry. In this field, we work with maximum precision, for example by heating double-walled vessels. This improves the service life and availability of devices.



We Enjoy High Precision

We are strong in the production of cereals and animal feed. Also in the food industry. Our exact temperature control systems help our customers improve the shelf life, quality, taste and visual appeal of food items.



We Move Things Forward

As partner to the automotive industry, we can ensure the optimal temperature of the underbody coating, for example. But we also control the operating temperatures of axle or motor test stands.



We Think Big

We enable our customers to manufacture extremely large plastic parts with seamless top quality. This benefits makers of white goods as well as the automotive industry. We are also strong in 3K plastics production with contour-aligned temperature control.



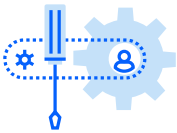
We Think Ahead

Test facilities for semiconductors or temperature control units for extruder systems, for the product of PET bottles and blanks.... For our systems, the sky is the limit. Talk to our experts! You will be amazed.



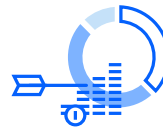
5 Reasons, to choose single.

All of our work has one single goal – to help you, our customers, do your work a little bit better every time. In this, we support you all the way. – True to our motto: Single – created for your perfection.



Easy Maintenance

The sophisticated design of our units makes them extremely easy to service and repair. This saves a lot of time and money in day-to-day business.



Lower Energy Consumption

Our new temperature control units save between 40 and 70 per cent of energy, depending on the application. They also need less cooling water and have a longer service life. This creates a win-win-win situation for our customers.



Premium Quality

More than ever, manufacturers today need to produce flawless quality. We are a solid partner. Our temperature control units and their intelligent temperature controllers enable our customers to achieve impressive quality.



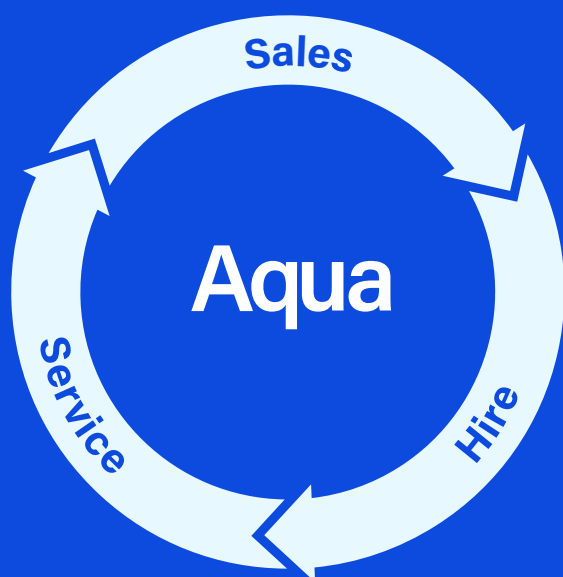
Really Made In Germany

We value the quality of German workmanship. For a simple reason: Because we develop and manufacture our units completely in Germany, we can be 100 per cent certain that they work perfectly. And that is what our customers like.



Global Presence

Our new temperature control Quick, local support is often crucial in production. Our global sales and partner network is always there for you. A phone call is all it takes ... and we will be there to solve any problems and handle any challenges our customers might face.



Sales, Hire, Service. Nationwide Coverage, Local Presence.

Aqua are temperature control specialists, committed to designing & delivering market-leading solutions with a focus on energy efficiency, technical excellence and great customer service. Our Sales, Hire & Service divisions work together to offer a 360° approach.

With Engineers located across the UK, we deliver a local service with all the benefits you'd expect from a national company. Our Service Engineers are all F-Gas registered and Aqua are ISO 9001 and SafeContractor accredited.

Whether you're looking to purchase equipment, hire on a short or longer term basis, or needing support with service, maintenance & parts, we can help.

Contact us today and discover the Aqua Difference.



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