

The flex.line

The flexible ones!

 flex.line



Appreciated around the globe:

our product portfolio.



Cold-water temperature controllers



Compact water chillers



Industrial cooling equipment



Free cooling systems



Central cooling systems



Water treatment systems



Mold cleaning

Cooling and water supply systems

HotCooled solutions – in a unique temperature spectrum.



Innovative, efficient, sustainable.



directly installed at the consumer. Visualization on the device.



Flexible Installation



Process monitoring with vortex or Ultrasonic measurement

factory fitted to the temperature control unit (also retrofittable)

water distributor

Temperature control units



Basic standard temperature controllers



Innovative standard temperature controllers



Highly efficient premium temperature controllers



Temperature controllers with water distributors



Customised premium temperature controllers

Temperature control machines



Customised premium temperature control machines



Temperature control systems



Variothermal temperature control systems

We have the perfect solution for you!

Our temperature control units are divided into four product lines: **base.line**, **high.line**, **eco.line** and **flex.line**. These temperature control units differ essentially in their operating concept with regard to comfort, analysis functions, and the efficiency technology that is being applied. The temperature controller series of the **base.line**, **high.line** and **eco.line** is largely preconfigured with extensive features and can be customized with individual options. The performance range of the preconfigured temperature controllers includes units with a heating capacity of up to 36 kW, a flow rate of up to 230 l/min and a media temperature of up to 180 °C. In the **flex.line** series, the temperature controller can be individually and flexibly configured on request with extensive features and numerous options.

The performance range of the flexible temperature controllers includes units with a heating capacity of up to 72 kW, a flow rate of up to 350 l/min and a media temperature of up to 350 °C.

A special feature of almost all standard technotrans temperature control units is the longlife heater with zero-loss heat transfer. Together, all four product lines and both degrees of individualisation stand for high quality and reliability, as well as the “MADE IN GERMANY” label.

The “longlife” stainless steel heating cartridges used in the **high.line** and **eco.line** come with an additional 10-year long-term guarantee.



Our product lines and their key features!

b base.line

The inexpensive ones!

In terms of its efficiency and user-friendliness, the **base.line** series is in line with the current „simpler“ market standard which is based on peripheral pumps.

h high.line

The individual ones!

In terms of its efficiency and user-friendliness, the **high.line** series is in line with the current „more sophisticated“ market standard which is based on peripheral or centrifugal pumps.

e eco.line

The efficient ones!

The **eco.line**, with its peripheral impeller and highly efficient centrifugal pumps, in combination with speed control, sets new standards in the market in terms of efficiency and ease of use.

f flex.line

The flexible ones!

The **flex.line** allows a high degree of freedom in unit configuration. Customer requirements can be met individually from a comprehensive modular system.



Efficient

Reduced energy and operating costs through the use of high-efficiency pump designs, performance-controlled pump drives, and optimized heat transfer.



Sustainable

Both customers and the climate benefit in the long term from resource-saving operation – efficient cooling and temperature control solutions not only reduce operating costs, but also protect the environment.



Reliable

High process and operational reliability – in combination with proven technology – ensure high quality, availability, and reproducibility; for example, extremely precise temperature control ensures reliable processes.



Innovative

Efficient cooling and temperature control systems ensure consistent performance and extend the service life of the processes. Low-vibration, smooth-running, and efficient solutions reduce the CO2 footprint.

Highly flexible and still standard!

On the basis of an extensive and standardized modular system, technotrans is in a position to respond flexibly to individual customer requirements with an outstanding price/performance ratio.

The modular concept also enables short delivery times for freely configured temperature control units.

The extensive equipment features and available options are a special feature on the market.

„At technotrans, we can configure our temperature control unit the way we need it for our process. We can't get that anywhere else.“

Customer statement

flex.line

Direct cooling (wd)

NEW

Medium water

Typ	Medium	Temperature-range [°C]	Heating power max. [kW]	Cooling power max. [kW]	Pump capacity Modulating duty max. [l/min / bar]
teco wd 140 flex 125	water	140	0/9/18/27/36/45/54/63/72	120/350/900	125/6,8
teco wd 140 flex 250	water	140	0/9/18/27/36/45/54/63/72	105/235/400/800	250/6,8
teco wd 140 flex 350	water	140	0/9/18/27/36/45/54/63/72	215/350/600/1500	350/5,9

Indirect cooling (wi)

NEW

teco wi 140 flex 85	water	140	0/9/18/27/36/45/54 (35/60)	0/210/350	83/6,5
teco wi 140 flex 125	water	140	0/9/18/27/36/45/54/63/72 (35/60/100)	0/225/385/475	125/6,8
teco wi 140 flex 250	water	140	0/9/18/27/36/45/54/63/72 (35/60/100)	0/215/400/530/755	250/6,8
teco wi 140 flex 350	water	140	0/9/18/27/36/45/54/63/72 (60/100/160)	0/620/890/1300	350/5,9

teco wi 160 flex 125	water	160	0/9/18/27/36/45/54/63/72 (35/60/100)	0/225/385/475	125/5,0
teco wi 160 flex 250	water	160	0/9/18/27/36/45/54/63/72 (35/60/100)	0/215/400/530/755	250/5,5
teco wi 160 flex 350	water	160	0/9/18/27/36/45/54/63/72 (60/100/160)	0/620/890/1300	350/6,3

Indirect cooling (wh)

teco wh 90	water	200	0/9/18/27	50/90/150	80/5,0
teco wh 120	water	200	0/18/27/36/45/54	50/90/150/250	200/6,3

Medium termo oil

flex.line

Indirect cooling (tt)

Typ	Medium	Temperature-range [°C]	Heating power max. [kW]	Cooling power max. [kW]	Pump capacity Modulating duty max. [l/min / bar]
teco tt 50	thermal oil	300	4/6/8	0/15/30	60/6,0
teco tt 60	thermal oil	300	9/13,5/18	0/82/110/200	60/6,3
teco tt 100	thermal oil	300	9/12/18/27/36	0/82/110/200/250/275	100/8,0
teco tt 140	thermal oil	300	12/18/27/36/45/54	0/82/110/200/250/275/450	160/7,0

Indirect cooling (th)

teco th 60	thermal oil	350	6	0/82/110	60/6,3
teco th 100	thermal oil	350	6/9/12	0/82/110	100/8,0
teco th 140	thermal oil	350	9/18/27	0/82/110/200	160/7,0

The most flexible way to temper!



Page 14

teco wd flex
(direct cooling)
Temperature control unit [water]
140 °C



Page 16

teco wi flex
(indirect cooling)
Temperature control unit [water]
140 °C, 160 °C



Page 18

teco wh
(indirect cooling)
Temperature control unit [water]
200 °C



Page 20

teco tt
(indirect cooling)
Temperature control unit [Thermal oil]
300 °C



Page 21

teco th
(indirect cooling)
Temperature control unit [Thermal oil]
350 °C

flex.line

As much as possible, but only as much as necessary!

The pump efficiency module (PEM), which is already included as standard in the eco.line, offers various options for setpoint specification for controlling the speed.

Customers prefer to use the control according to the temperature difference between the circulation medium supply flow and the circulation medium return flow. Alternatively, specifying the flow rate as an absolute value in L/min or as a percentage value of the speed are available as an option.

Hands-on example of a standard temperature control unit application:

In a customised project, different scenarios could be compared under production conditions:



lesser CO₂ footprint

Customer specification:

Flow rate : 85l/min
Heating power : 27 kW

Result 1 - Technology used so far

Device of a market competitor with unregulated peripheral impeller pump
Annual electricity consumption in a three-shift operation: **14.495 kWh**

Result 2 - technotrans high.line instruments

Instrument of our high.line series with unregulated peripheral impeller pump
Annual electricity consumption in a three-shift operation: **12.756 kWh**

Result 3 - technotrans eco.line instruments

Instrument of our eco.line series with centrifugal pump without control mode
Annual electricity consumption in a three-shift operation: **10.436 kWh**

Result 4 - technotrans eco.line instruments

Instrument of our eco.line series with centrifugal pump in control mode (ΔT control)
Annual electricity consumption in a three-shift operation: **1.160 kWh**

Savings with the technotrans PEM

13,335 kWh/year = 92% or 5.8 CO₂ / year*

*Basi CO₂ factor as of 05/2023

Putting the CO₂-savings effect into perspective!

How a CO₂ savings of 5,8 t per year can be achieved by using just one eco.line temperature-control unit is shown in the customer example. Here, comparisons with the possibility of offsetting beech trees or the CO₂ emissions from flying are used.

Just **1** efficient technotrans temperature control unit can make so much difference, because



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beech trees are needed to offset approx **5,8 t CO₂ per year**, or ...

(1 beech with a height of 23 m = neutralization of 12,5 kg CO₂)

... **1** Person flying

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times between Cologne and Munich generates approx. **5,8 t of CO₂**.



(1 flight Cologne/Munich = 65.9 kg CO₂ per person)

The product line **f**flex.line...



With the flex.line, technotrans offers a highly flexible product line that can be configured from an extensive modular system.

... sustainable and inexpensive!

»High reliability, maximum operating cost savings and subsidies making amortisation periods as short as possible.«



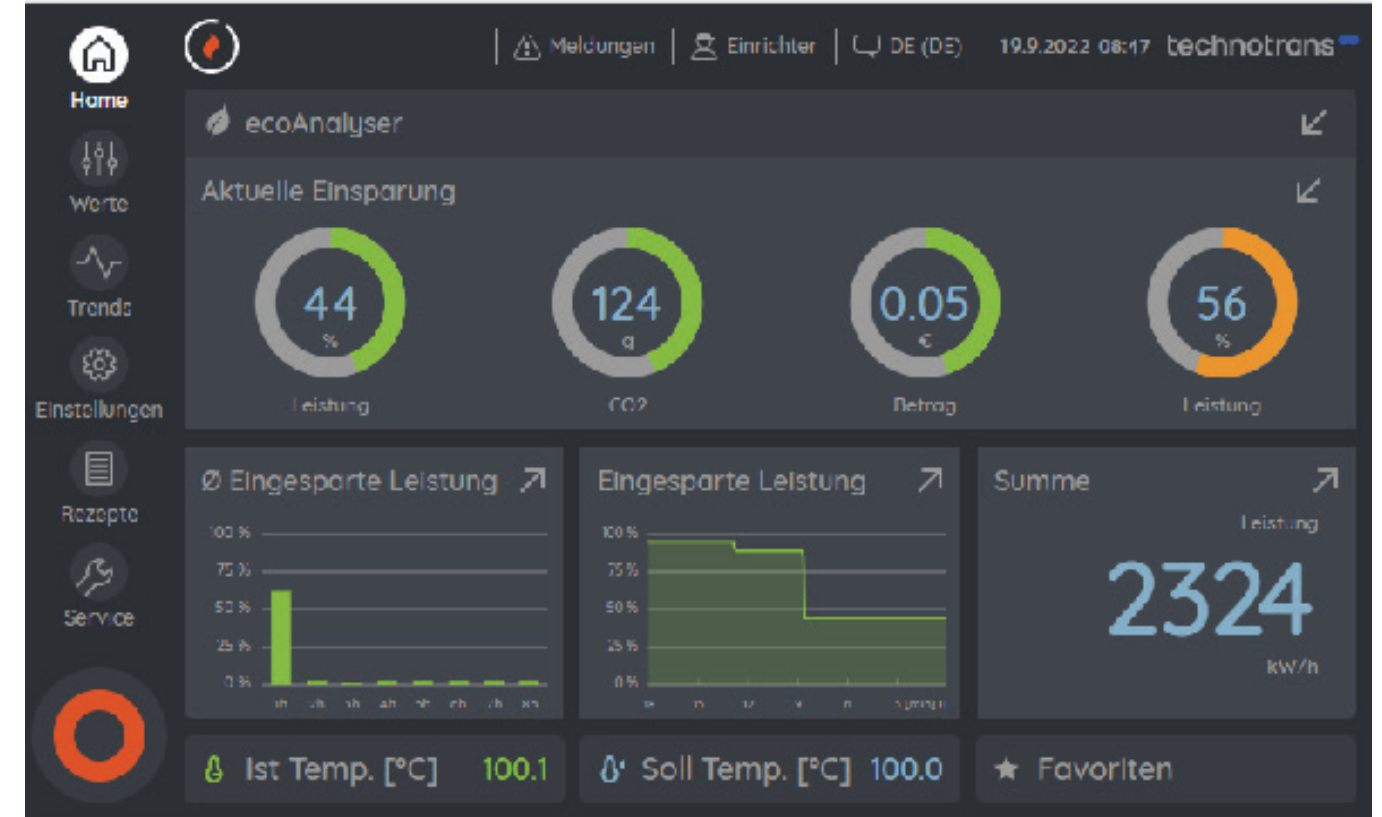
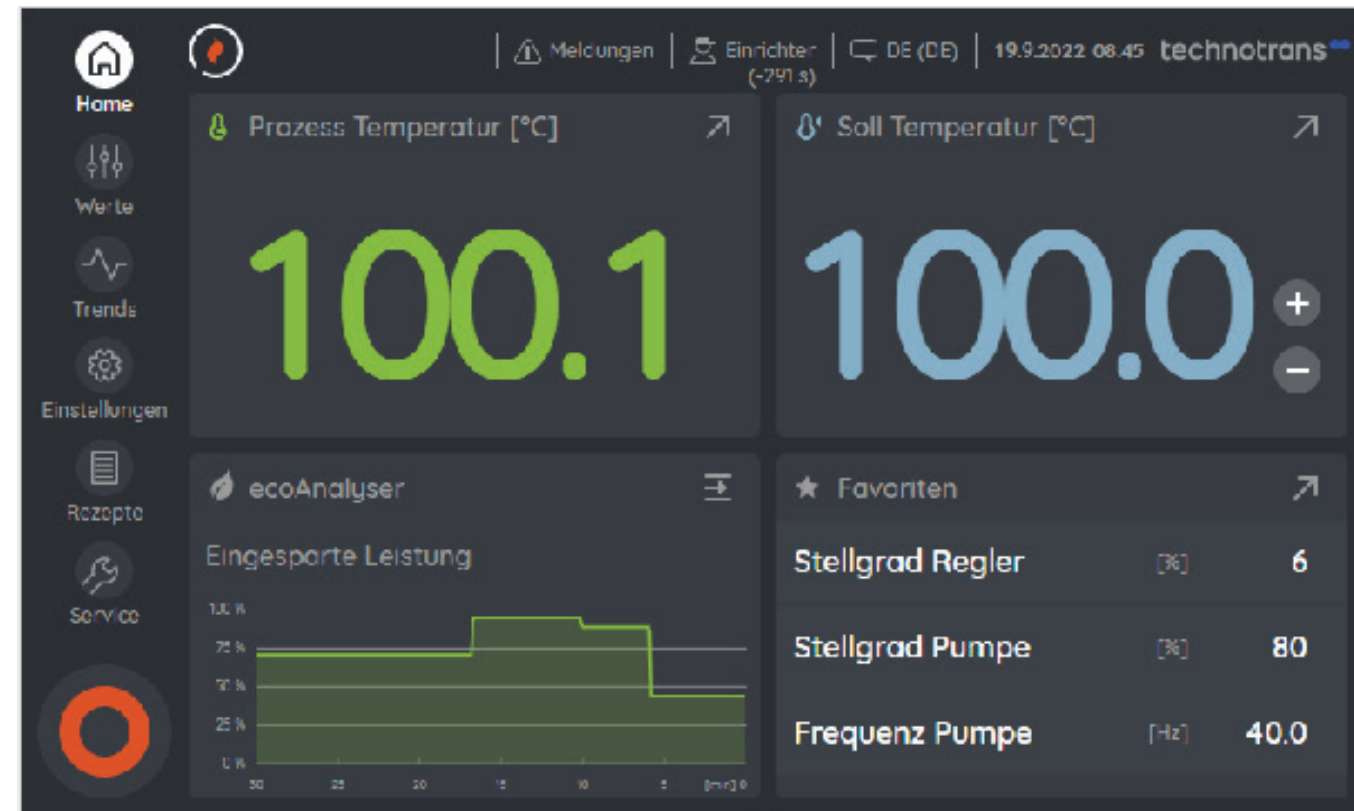
The technotrans ecoAnalyser

The intelligent add-on for logotherm with pump efficiency module (PEM) makes it easy to keep an eye on the complete energy management. Thanks to the unique usability, all essential efficiency data are visualized and individually retrievable with one click on the leaf icon:

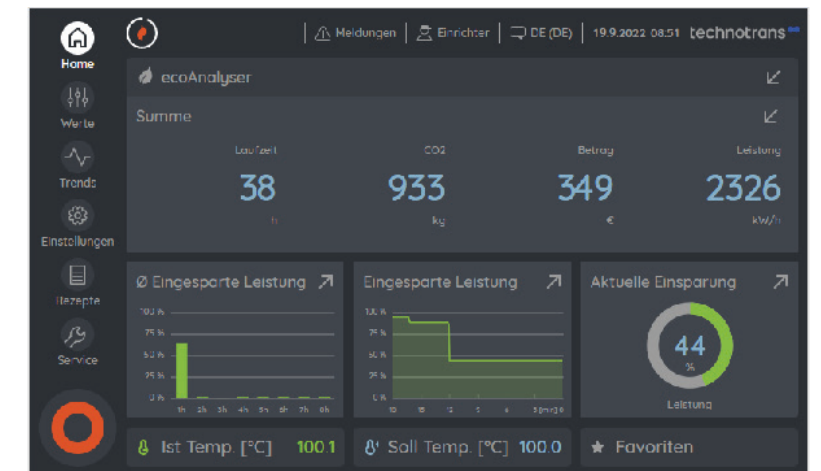


»One step ahead with innovations«

- Balance: Energy saving (kW) of the last 24 hours
- Trend: Energy saving (kW) of the last hour in the course
- Current: Required and saved power (kW), CO2 savings and cost savings
- Total: Total efficiency data saved over the entire runtime (assigned to the process).



»The essential information at a glance«



teco wd flex – temperature control units with direct cooling in 140 °C version ...



- Convenient operation via gesture-enabled logotherm 7" multi-touch display
- Stainless steel „longlife“ heating cartridge with long-term guarantee
- Long-life and highly efficient centrifugal pump
- Pump speed control (PEM) optional
- „Tankless“ unit for minimum oxygen consumption
- Splash-proof control cabinet acc. to IP 54
- Digital system pressure indication
- also available in bifrequency multivoltage
- Interface port integrated in front of unit (e.g. for optional interface analog, serial, Profibus, Profinet or OPC UA)
- Optional external sensor connection
- Color: RAL 7035 light gray / RAL 260 40 45 LED blue
- Customised paint on request

»Sustainable and inexpensive with high performance«



Example: Display

...flexibly configurable from an extensive modular system!

An investment that pays for itself in a very short time.

Experience shows that energy cost savings of more than 50 % can be achieved when using the PEM in the ΔT control mode. In numerous applications, savings of > 90 % have already been achieved.

Model calculation for savings potential in 3-shift operation with 5,940 h
(with an electricity price of € 0.26/kWh and a conversion factor of 0.435 t CO₂/MWh):

		50 %	75 %	90 %	
1,0 kW	Power consumption to be saved	2.970,00	4.455,00	5.346,00	kWh/Jahr
	Electricity costs to be saved	772,20	1158,30	1389,96	€/Jahr
	CO ₂ emission to be saved	1,29	1,94	2,33	CO ₂ in t/Jahr

*according to BDEW, average electricity price July 23: € 0.26/kWh

New model series (replaces previous teco wd 100-400)

• = standard / ◦ = option / Values in () optional

140 °C

Model teco	wd 140 flex 125	wd 140 flex 250	wd 140 flex 350
Medium	water	water	water-
Temperature max. [°C]	140	140	140
Pump capacity max. [l/min / bar]	125/6,5	250/6,8	350/5,9
Heating capacity max. [kW]	0/9/18/27/ 36/45/54/63/72	0/9/18/27/ 36/45/54/63/72	0/9/18/27/ 36/45/54/63/72
Cooling	direct	direct	direct
Cooling capacity [kW] ¹⁾	120/350/900	105/235/400/800	215/350/600/1500
Weight [kg]	70-340	90-350	160-380
Circulating medium supply and return connections	Rp 1 ^{1/4}	Rp 1 ^{1/2}	DN 50 / PN 16
Cooling water supply and return connections	Rp 1 ^{1/2} 3/4 1	Rp 1 ^{1/2} 3/4 1/1 ^{1/4}	Rp 1 ^{3/4} 1 ^{1/2}
Dimensions without attachment parts in mm [D x W x H]	1110x450x905 ²⁾	1110x450x905 ²⁾	1290x570x1055 ²⁾
7" logotherm multi-touch display	•	•	•
Pump operating speed controlled	◦	◦	◦
„longlife“ stainless steel heating cartridge with long-term guarantee	•	•	•
Continuous heating control via solid state relays	•	•	•
Automatic filling and replenishment	•	•	•
Strainer in cooling water connection	•	•	•
Strainer in circulation medium return	◦	◦	◦
Wetted parts made of corrosion-resistant materials	◦	◦	◦
CEE socket	◦	◦	◦
Mold draining	◦	◦	◦
Low maintenance flow measurement	◦	◦	◦
Return temperature indication	◦	◦	◦

¹⁾ at 15 °C cooling water temperature and 90 °C flow temperature

²⁾ Specification in [] for steam heating Temperature difference 40 Kelvin

Technical modifications reserved.

teco wi flex - temperature control units with indirect cooling in 140 °C and 160 °C versions ...



- Convenient operation via gesture-enabled logotherm 7" multi-touch display
- Stainless steel „longlife“ heating cartridge with long-term guarantee
- Long-life and highly efficient pump
- Speed control of the pump (PEM) optional
- „Tankless“ unit for minimum oxygen consumption
- Splash-proof control cabinet acc. to IP 54
- Digital system pressure indication
- System pressure overlay (at 160°C)
- Interface port integrated in front panel (e.g. for optional interface analog, serial, Profibus, Profinet or OPC UA)
- Optional external sensor connection
- Color: RAL 7035 light gray / RAL 260 40 45 LED blue
- Customised paint on request

New model series (replaces previous teco wi 85-400)

• = standard / ◦ = option / Values in () optional

140 °C

Model teco	wi 140 flex 85	wi 140 flex 125	wi 140 flex 250	wi 140 flex 350
Medium	water	water	water	water
Temperature max. [°C]	140	140	140	140
Pump capacity max. [l/min / bar]	83/6,5	125/6,5	250/6,8	350/5,9
Heating capacity [kW]	0/9/18/27/36/45/54 (35/60)	0/9/18/27/36/45/54 (35/60/100)	0/9/18/27/36/45/54 (35/60/100)	0/9/18/27/36/45/54 (35/60/100/160)
Cooling	indirect	indirect	indirect	indirect
Cooling capacity [kW] ¹⁾	0/210/350	0/225/385/475	0/215/400/530/755	0/620/890/1300
Weight [kg]	60 - 160	60 - 370	70 - 380	100 - 400
Circulating medium supply and return connections	Rp 1"	Rp 1 1/4"	Rp 1 1/2"	DN 50 / PN 16
Cooling water supply and return connections	Rp 1/2" / 3/4"	Rp 1/2" / 3/4" / 1"	Rp 3/4" / 1" / 1 1/4"	Rp 1" / 1 1/4" / 1 1/2"
Dimensions without attachment parts in mm [D x W x H]	1110 x 450 x 905 ³⁾	1110 x 450 x 905 ³⁾	1110 x 450 x 905 ³⁾	1290 x 570 x 1055 ³⁾
7" logotherm multi-touch display	•	•	•	•
Pump operating speed controlled	◦	◦	◦	◦
Stainless steel „longlife“ heating cartridge with long-term guarantee	•	•	•	•
Continuous heating control via solid state relays	•	•	•	•
Automatic filling and replenishment	•	•	•	•
Strainer in cooling water connection	•	•	•	•
Strainer in circulation medium return	◦	◦	◦	◦
Wetted parts made of corrosion-resistant materials	◦	◦	◦	◦
CEE socket	◦	◦	◦	◦
Mold draining	◦	◦	◦	◦
Low maintenance flow measurement	◦	◦	◦	◦
Return temperature indication	◦	◦	◦	◦

Technical data

Equipment/Options

¹⁾ At 15 °C cooling water temperature and 130 °C circulating medium flow
²⁾ Specification in [] for steam heating temperature difference 40 Kelvin.
³⁾ Specification for basic rack: Dimensions increase with increasing power configuration.

Technical modifications reserved.

... flexible from an extensive modular system!

An investment that pays for itself in a very short time.

Experience shows that energy cost savings of more than 50 % can be achieved when using the PEM in the ΔT control mode. In numerous applications, savings of > 90 % have already been achieved.

Model calculation for savings potential in 3-shift operation with 5,940 h
 (with an electricity price of € 0.26 /kWh and a conversion factor of 0.435 t CO₂/MWh):

		50 %	75 %	90 %	
1,1 kW	Power consumption to be saved	3.267,00	4.900,50	5.880,60	kWh/Jahr
	Electricity costs to be saved	849,42	1.274,13	1.528,96	€/Jahr
	CO ₂ emission to be saved	1,42	2,13	2,56	CO ₂ in t/Year
2,2 kw	Power consumption to be saved	6.534,00	9.801,00	11.761,20	kWh/Jahr
	Electricity costs to be saved	1.698,84	2.548,26	3.057,91	€/Jahr
	CO ₂ emission to be saved	2,84	4,26	5,12	CO ₂ in t/Year
4,0 kW	Power consumption to be saved	11.880,00	17.820,00	21.384,00	kWh/Jahr
	Electricity costs to be saved	3.088,80	4.633,20	5.559,84	€/Jahr
	CO ₂ emission to be saved	5,17	7,75	9,30	CO ₂ in t/Year

*according to BDEW, average electricity price July 23: € 0.26/kWh

New model series (replaces previous teco wi 100 - 400)

• = standard / ◦ = option / Values in () optional

160 °C

Model teco	wi 160 flex 125	wi 160 flex 250	wi 160 flex 350
Medium	water	water	water
Temperature max. [°C]	160	160	160
Pump capacity [l/min / bar]	125/5,0	250/5,5	350/6,3
Heating capacity [kW]	0/9/18/27/36/45/54 (35/60/100)	0/9/18/27/36/45/54 (35/60/100)	0/9/18/27/36/45/54 (35/60/100/160)
Cooling	indirect	indirect	indirect
Cooling capacity [kW] ¹⁾	0 - 475	0 - 755	0 - 1300
Weight [kg]	60 - 370	70 - 380	100 - 400
Circulating medium supply and return connections	Rp 1 1/4"	Rp 1 1/2"	DN 50 / PN 16
Cooling water supply and return connections	Rp 1/2" / 3/4" / 1"	Rp 1/2" / 3/4" / 1" / 1 1/4"	Rp 1" / 1 1/4" / 1 1/2"
Dimensions without attachment parts in mm [D x W x H]	1420 x 600 x 1230 ³⁾	1420 x 600 x 1230 ³⁾	1570 x 700 x 1510 ³⁾
7" logotherm multi-touch display	•	•	•
Pump operating speed controlled	◦	◦	◦
Stainless steel „longlife“ heating cartridge with long-term guarantee	•	•	•
Continuous heating control via solid state relays	•	•	•
Automatic filling and replenishment	•	•	•
Strainer in cooling water connection	•	•	•
Strainer in circulation medium return	◦	◦	◦
Wetted parts made of corrosion-resistant materials	◦	◦	◦
CEE socket	◦	◦	◦
Mold draining	◦	◦	◦
Low maintenance flow measurement	◦	◦	◦
Return temperature indication	◦	◦	◦

Technical data

Equipment/Options

¹⁾ At 15 °C cooling water temperature and 130 °C circulating medium flow
²⁾ Specification in [] for steam heating temperature difference 40 Kelvin.
³⁾ Specification for basic rack: Dimensions increase with increasing power configuration.

Technical modifications reserved.

teco wh - temperature control units with indirect cooling in 200 °C version ...



- Convenient operation via gesture-enabled logotherm 7" multi-touch display
- Stainless steel „longlife“ heating cartridge
- Sealless stainless steel pump (magnetically coupled)
- Speed control of the pump (PEM) optional
- „Tankless“ unit for minimum oxygen consumption
- splash-proof control cabinet acc. to IP 54
- also available in bifrequency multivoltage
- Interface port integrated in control cabinet (e.g. for optional interface analog, serial, Profibus, Profinet or OPC UA)
- Optional external sensor connection
- Color: RAL 7035 light gray / RAL 260 40 45 LED blue
- Customised paint on request

»For high water temperatures«



Example: Display

... flexible from an extensive modular system!

An investment that pays for itself in a very short time.

Experience shows that energy cost savings of more than 50 % can be achieved when using the PEM in the ΔT control mode. In numerous applications, savings of > 90 % have already been achieved.

Model calculation for savings potential in 3-shift operation with 5,940 h (with an electricity price of € 0.26 /kWh and a conversion factor of 0.435 t CO₂/MWh):

		50 %	75 %	90 %	
1,1 kW	Power consumption to be saved	3.267,00	4.900,50	5.880,60	kWh/Year
	Electricity costs to be saved	849,42	1.274,13	1.528,96	€/Year
	CO ₂ emission to be saved	1,42	2,13	2,56	CO ₂ in t/Year
2,2 kW	Power consumption to be saved	6.534,00	9.801,00	11.761,20	kWh/Year
	Electricity costs to be saved	1.698,84	2.548,26	3.057,91	€/Year
	CO ₂ emission to be saved	2,84	4,26	5,12	CO ₂ in t/Year
4,0 kW	Power consumption to be saved	11.880,00	17.820,00	21.384,00	kWh/Year
	Electricity costs to be saved	3.088,80	4.633,20	5.559,84	€/Year
	CO ₂ emission to be saved	5,17	7,75	9,30	CO ₂ in t/Year

*according to BDEW, average electricity price July 23: € 0.26/kWh

• = standard / ◦ = option

	200 °C	
	wh 90	wh 120
Model teco		
Medium	water	water
Temperature max. [°C]	200	200
Pump capacity [l/min / bar]	80/5,0	200/6,3
Heating capacity [kW]	0/9/18/27	0/9/18/27/36/45/54
Cooling	indirect	indirect
Cooling capacity [kW] ¹⁾	50/90/150	50/90/150/250
Weight [kg]	170 - 340	180 - 380
Circulating medium supply and return connections	DN32 / PN40	DN32 / PN40
Cooling water supply and return connections	Rp 1/2" / 3/4"	Rp 1/2" / 3/4"
Dimensions without attachment parts in mm [D x W x H]	1320 x 570 x 1275 ²⁾	1320 x 570 x 1275 ²⁾
7" logotherm multi-touch display	•	•
Pump operating speed controlled	◦	◦
Stainless steel „longlife“ heating cartridge with long-term guarantee	•	•
Continuous heating control via solid state relays	•	•
Automatic filling and replenishment	•	•
Strainer in cooling water connection	•	•
Strainer in circulation medium return	◦	◦
Wetted parts made of corrosion-resistant materials	◦	◦
CEE socket	◦	◦
Mold draining	◦	◦
Low maintenance flow measurement	•	•
Return temperature indication	•	•

¹⁾ at 15 °C cooling water temperature and 200 °C circulating medium flow.

²⁾ Specification for base rack: Dimensions increase with increasing power configuration.

Technical modifications reserved.

teco tt/th - oil temperature control units in 300 °C and 350 °C version ...



- Convenient operation via gesture-enabled logotherm 7" multi-touch display
- Stainless steel „longlife“ heating cartridge
- Sealless stainless steel pump (magnetically coupled)
- Speed control of the pump (PEM) optional
- Splash-proof control cabinet acc. to IP 54
- also available in bifrequency multivoltage
- Cold oil reservoir to avoid air-oxygen ingress
- Interface port integrated in control cabinet (e.g. for optional interface analog, serial, Profibus, Profinet or OPC UA)
- Optional external sensor connection
- Color scheme: RAL 7035 light gray / RAL 260 40 45 LEDblue
- Customised paint on request

• = standard / ◦ = option / – = not available / Values in () optional

300 °C

Model teco	tt 50	tt 60	tt 100	tt 140
Medium	thermal oil	thermal oil	thermal oil	thermal oil
Temperature max. [°C]	300	300	300	300
Pump capacity max. [l/min / bar]	60/6,0	60/6,3	100/8,0	160/6,0 (7,0)
Heating capacity [kW]	4/6/8	9/13,5/18	9/12/18/27/36	12/18/27/36/45/54
Cooling	indirect	indirect	indirect	indirect
Cooling capacity [kW] ¹⁾	0 - 30	0 - 200	0 - 275	0 - 450
Weight [kg]	80	150 - 320	170 - 340	180 - 380
Circulating medium supply and return connections	DN20 / PN40	DN25 / PN40	DN25 / PN40	DN32 / PN40
Cooling water supply and return connections	Rp 1/2"	Rp 1/2" / 3/4"	Rp 1/2" / 3/4" / 1"	Rp 1/2" / 3/4" / 1" / 1 1/2"
Dimensions without attachment parts in mm [D x W x H]	860 x 350 x 735	1320 x 500 x 1275 ²⁾	1320 x 570 x 1275 ²⁾	1320 x 570 x 1275 ²⁾
7" logotherm Multitouch-Display	•	•	•	•
Pump operating mode speed controlled	◦	◦	◦	◦
„longlife“ stainless steel heating cartridge with long-term	•	•	•	•
Continuous heating control via solid state guarantee relays	•	•	•	•
Automatic filling and replenishment	•	•	•	•
Strainer in cooling water connection	•	•	•	•
Strainer in the circulation medium return	•	•	•	•
Wetted parts made of corrosion-resistant materials	-	•	•	•
CEE plug	◦	◦	◦	◦
Mold draining	◦	◦	◦	◦
Low maintenance flow measurement	•	•	•	•
Return temperature indication	•	•	•	•

¹⁾ at 15 °C cooling water temperature and 300 °C circulating medium flow.
²⁾ Specification for base rack: Dimensions increase with increasing power configuration.

Technical modifications reserved.

... flexible from an extensive modular system!

An investment that pays for itself in a very short time.

Experience shows that energy cost savings of more than 50 % can be achieved when using the PEM in the ΔT control mode. In numerous applications, savings of > 90 % have already been achieved.

Model calculation for savings potential in 3-shift operation with 5,940 h
 (with an electricity price of € 0.26/kWh and a conversion factor of 0.435 t CO₂ / MWh):

		50 %	75 %	90 %	
1,1 kW	Power consumption to be saved	3.267,00	4.900,50	5.880,60	kWh/Year
	Electricity costs to be saved	849,42	1.274,13	1.528,96	€/Year
	CO ₂ emission to be saved	1,42	2,13	2,56	CO ₂ in t/Year
1,5 kW	Power consumption to be saved	4.455,00	6.682,50	8.019,00	kWh/Year
	Electricity costs to be saved	1.158,30	1.737,45	2.084,94	€/Year
	CO ₂ emission to be saved	1,94	2,91	3,49	CO ₂ in t/Year
2,8 kW	Power consumption to be saved	8.316,00	12.474,00	14.968,80	kWh/Year
	Electricity costs to be saved	2.162,16	3.243,24	3.891,89	€/Year
	CO ₂ emission to be saved	3,62	5,43	6,51	CO ₂ in t/Year

^{*} according to BDEW, average electricity price July 23: € 0.26/kWh

• = standard / ◦ = option / Values in () optional

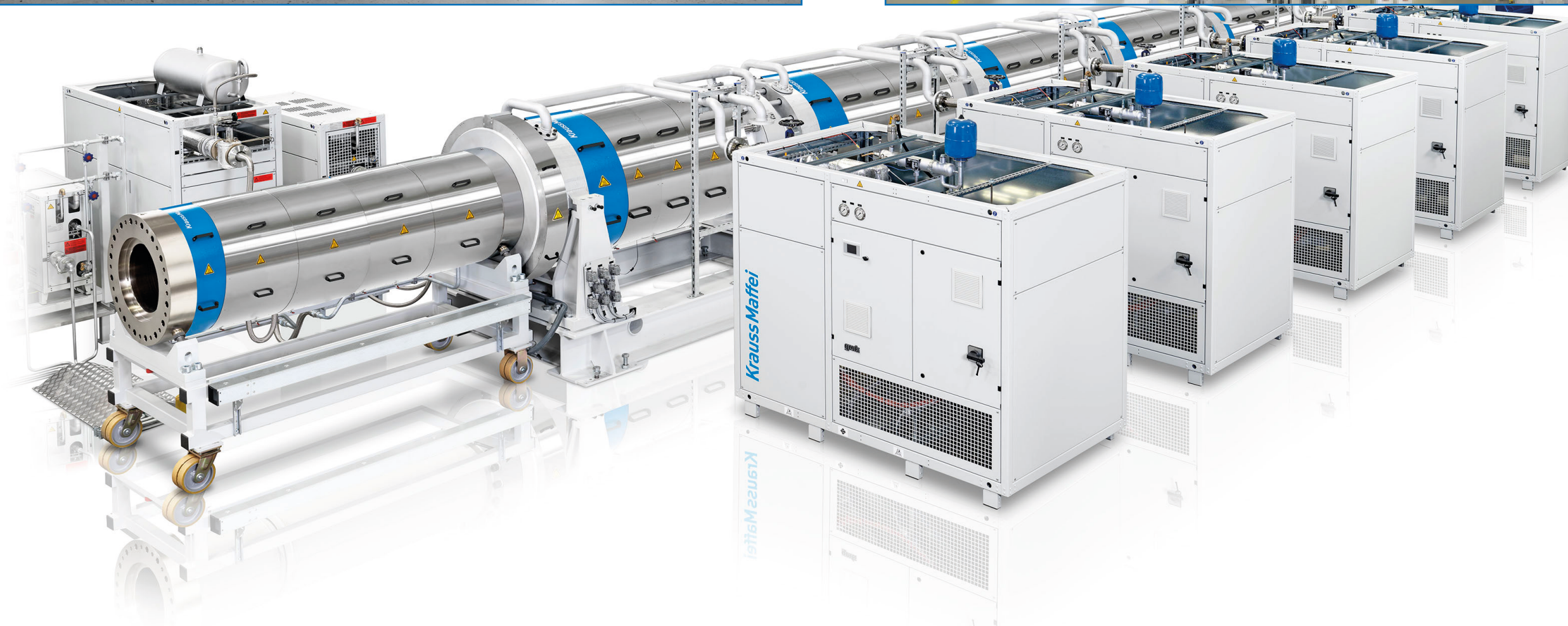
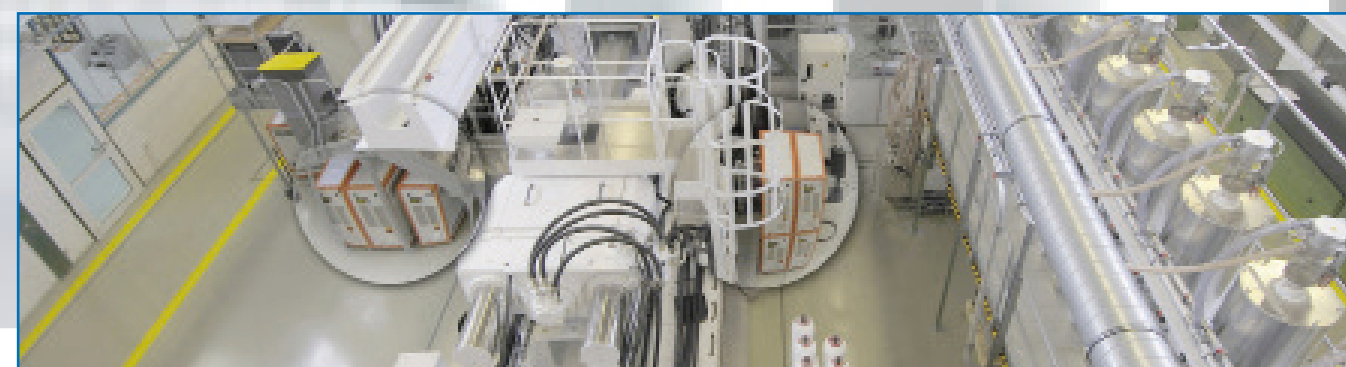
350 °C

Model teco	th 60	th 100	th 140
Medium	thermal oil	thermal oil	thermal oil
Temperature max. [°C]	350	350	350
Pump capacity [l/min / bar]	60/6,3	100/8,0	160/6,0 (7,0)
Heating capacity [kW]	6	6/9/12	9/18/27
Cooling	indirect	indirect	indirect
Cooling capacity [kW] ¹⁾	0/82/110	0/82/110	0/82/110/127
Weight [kg]	150 - 320	170 - 340	180 - 380
Circulating medium supply and return connections	DN25 / PN40	DN25 / PN40	DN32 / PN40
Cooling water supply and return connections	Rp 1/2"	Rp 1/2" / 3/4"	Rp 1/2" / 3/4"
Dimensions without attachment parts in mm [D x W x H]	1320 x 500 x 1275 ²⁾	1320 x 570 x 1275 ²⁾	1320 x 570 x 1275 ²⁾
7" logotherm multi-touch display	•	•	•
Pump operating speed controlled	◦	◦	◦
Stainless steel „longlife“ heating cartridge with long-term guarantee	•	•	•
Continuous heating control via solid state relays	•	•	•
Automatic filling and replenishment	•	•	•
Strainer in cooling water connection	•	•	•
Strainer in circulation medium return	•	•	•
Wetted parts made of corrosion-resistant materials	•	•	•
CEE socket	◦	◦	◦
Mold draining	◦	◦	◦
Low maintenance flow measurement	•	•	•
Return temperature indication	•	•	•

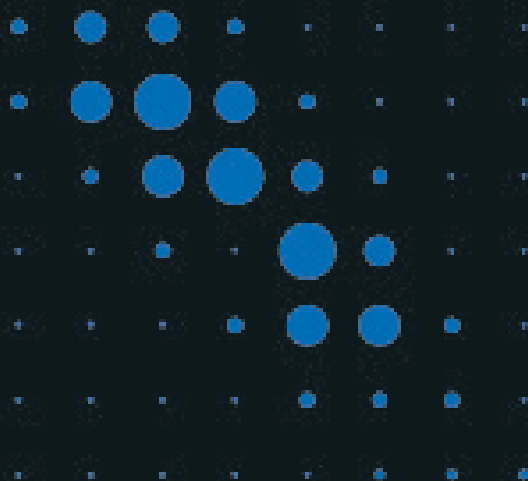
¹⁾ at 15 °C cooling water temperature and 300 °C circulating medium flow.
²⁾ Specification for base rack: Dimensions increase with increasing power configuration.

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Impressions



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