

Inspired by **temperature**

Only available from Huber!
The whole product range with
natural refrigerants.



Temperature Control Solutions
for the **global academia market**

huber

Precise solutions for the complete Global academia market



Temperature control for the global academia market

In today's academic world, where precision and efficiency are paramount, temperature control technology plays a crucial role. Whether in research, teaching, or laboratory environments, the demands for temperature control and stability are high. As a leading manufacturer of temperature control technology, we understand the specific needs and challenges of the academic sector and offer tailored solutions that meet the highest standards.

Our innovative temperature control systems are designed to ensure consistent and precise temperatures, essential for a wide range of applications in science and research. From materials science to biotechnology to chemistry, our units support scientists and researchers in conducting their experiments and studies under optimal conditions.

A central aspect of our philosophy is close collaboration with academic institutions. Through continuous exchange with universities and research facilities, we constantly develop our products and adapt them to the latest scientific findings and technological advancements. This enables us to offer solutions that not only meet current requirements but are also forward-looking.

Our temperature control technology is characterised by high energy efficiency, reliability, and user-friendliness. With a wide range of units designed for different temperature ranges and applications, we offer flexible and scalable solutions that seamlessly integrate into existing systems. Additionally, we place great emphasis on sustainability and resource conservation to make a positive contribution to the environment.

Empowering academic excellence and innovation

Our target markets

Academic institutions

In academic environments, precise temperature control technology is essential to ensure optimal conditions for research and teaching. Our solutions support professors and students in achieving accurate and reproducible results, whether in chemistry, biology, or physics.

Research groups

Research groups benefit from our state-of-the-art temperature control technology, which enables complex experiments to be conducted under controlled conditions. Our equipment provides the reliability and accuracy necessary for groundbreaking discoveries.

Research institutions

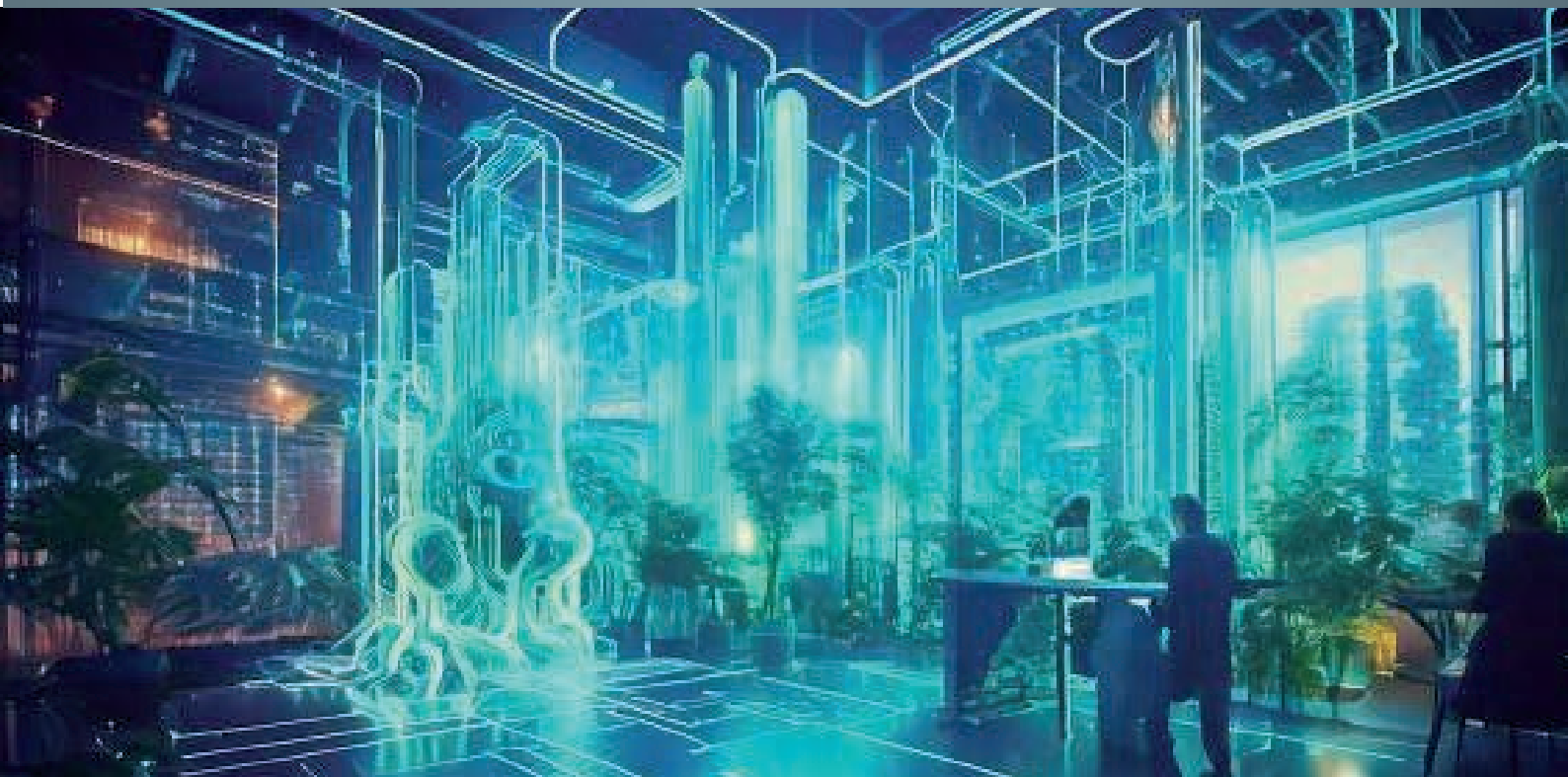
In large research institutions, such as national laboratories and specialised institutes, temperature control plays a crucial role. Our technologies help ensure that scientific projects are carried out efficiently and successfully.

Educational labs

Educational labs at universities and colleges use our temperature control technology to provide students with hands-on experience. By integrating our equipment into the curriculum, future scientists and engineers can learn and experience under realistic conditions.

University spin-out companies

Start-ups emerging from university research projects need reliable temperature control technology to turn their innovative ideas into marketable products. Our solutions support these young companies in translating their research findings into practice and achieving growth.



Inspired by **temperature**

4
YEARS
WARRANTY

✓
PROVEN
PERFORMANCE
OVER 200 CASE
STUDIES

MADE IN
GERMANY
TOP
INNOVATOR

NATURAL
REFRIGERANTS
LOWEST
GWP

EASY
OPERATION
PLUG &
PLAY



A technology leader with sustainability – Natural refrigerants since 1976

The complete range with natural refrigerants

ONLY FROM HUBER



Synthetic refrigerants are on the brink of extinction. In the race against global warming, a gradual phase a gradual phase-down in which synthetic refrigerants will be banned worldwide. We have alternatives, because natural refrigerants have been standard here for decades.

Only from Huber you can get the entire range from -125 to +425 °C with natural refrigerants – that is unique in the world.

In response to the impending bans on synthetic refrigerants, we say: „Finally, it’s about time!“ The future belongs to natural refrigerants with a low GWP value. We recognized this as early as 1976 and launched circulation coolers and refrigerated circulators with propane R290 and propene R1270 on the market. In addition, we have consistently expanded our range with high-performance CO₂ solutions, including the new Unistats in the GL series (Green Line). We are the only supplier on the global market that are able to supply the entire spectrum from ultra-compact laboratory coolers to high-performance industrial process thermostats with natural refrigerants – we look forward to hearing from you!

World market leader for temperature control units with natural refrigerant – since 1976

Our products make us an ecological pioneer in environmental protection. Our entire product range for the laboratory already works with natural refrigerants as standard. Our products are made of high-quality materials with high recyclability are durable and sustainable.

The environment has been our focus since the company was founded. One of the company’s first goals was to develop alternatives to the then widespread use of fresh water for cooling. Another measure was the voluntary phase-out of CFC/HCFC refrigerants long before legal regulation.

We are pioneers in the temperature control technology industry in the use of environmentally friendly hydrocarbons as refrigerants. All laboratory temperature control units in our range have been available with natural refrigerants for years – at no extra charge as standard.

Our factory and offices demonstrate our commitment and practice of responsible use of water and energy shows that we take environmental protection seriously. The tan-

go factory is an example of environmental conscious architecture. Made of solid concrete with triple-glazed windows, a thick layer of insulation and kilometers of plastic pipes in the floor, ceiling and walls within which water is recirculates to efficiently control the ambient temperature and acts as a gigantic heat exchanger with minimal energy requirements.

In 2016, we were awarded the environmental prize for companies by the state of Baden-Württemberg and in 2023 we were the first company in the whole of Baden-Württemberg to receive the KEFF+ label from the Ministry of the Environment for the resource savings we have implemented.

Free extension 4 year warranty

Comprehensive and free – our 4 year warranty package

We offer an extensive warranty extension with numerous benefits. To take advantage of this option an online registration of the Huber unit is required. The standard warranty is for 12 months from the shipping date (Ex Works Offenburg, Germany).

The 4-year warranty is provided at no extra cost. Registration of the end customer's address must be completed within 3 months from the delivery date.



4 years warranty

for all electronic, electrical, refrigeration
and mechanical components

Our bestsellers

With natural refrigerants

BESTSELLER
for the laboratory since 1976

Investing in a temperature control unit with natural refrigerants is an investment into an environmentally friendly, futureproof and sustainable technology. However, natural refrigerants are only one aspect of environmentally friendly solutions. Our temperature control units combine natural refrigerants with extremely low energy consumption, making them particularly energy and resource efficient.

Back in the 1970s, our company founder Peter Huber developed the first cooling appliances with natural refrigerants and was the first to the market. In the following years the entire range of laboratory temperature control was converted to natural refrigerants. As a result, over 90 % of our temperature control units sold in 2018 were supplied with natural refrigerants.

In practice, natural refrigerants such as R290, R1270 and R744 have considerable advantages, including low pressure losses in pipes and heat exchangers as well as low energy consumption during compression. Disposal is also easier than with synthetic substances. As they are natural substances, these refrigerants can be released into the atmosphere in a controlled manner.



Ministats

Ministats are the smallest refrigerated circulators in the world. With their small dimensions, the devices occupy minimal bench space and can be operated in the tightest of spaces, for example in a fume cupboard.



Compact-cooling circulators

Working temperature -45 ... 200 °C
Cooling power up to 600 W



Minichillers

Minichillers are a space-saving, cost-effective and environmentally friendly cooling solution for numerous laboratory applications. By reducing water consumption to zero, Minichillers pay for themselves within a short time.



Circulation chillers

Working temperature -20 ... 100 °C
Cooling power up to 1200 W



TC

The TC immersion coolers significantly reduce the consumption of dry ice, minimising environmental impact. Additionally, they lower solvent usage, making them an eco-friendly choice for modern laboratories. They are available with natural refrigerants.



Immersion coolers

Working temperature -100 ... 100 °C
Cooling power up to 300 W



KISS and CC

KISS and CC (Compatible Control) series cooling thermostats are designed for temperature control tasks down to -90 °C. The devices are suitable for many typical heating and cooling tasks such as sample temperature control, material testing and quality control.



Baths/Circulators

Working temperature -55 ... 200 °C
Cooling power up to 1500 W

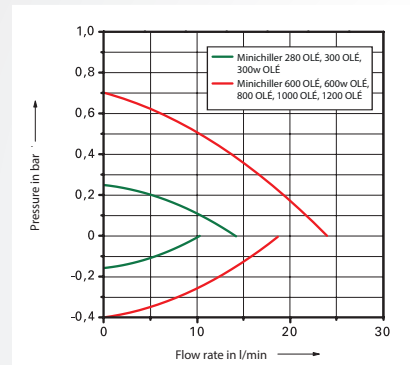
Efficient and sustainable Minichiller

The Minichiller series offers compact, efficient, and environmentally friendly cooling solutions designed for various laboratory applications and routine tasks in research and industry. These chillers provide reliable temperature control, ensuring optimal performance for critical processes. The OLÉ controller combines modern technology and easy operation with practice-orientated features including USB, RS232 and OLED display.

The Minichiller units are space-saving and cost-effective, making them suitable for academic institutions seeking high-quality and sustainable cooling systems. Due to the low purchase price, the investment pays off after just a few months.

Each Minichiller is engineered to deliver consistent and precise cooling, even in demanding environments. With a focus on sustainability, these chillers are built to minimise energy consumption and reduce operational costs. Their robust design and advanced technology ensure long-term reliability and ease of maintenance, supporting uninterrupted operation for laboratory needs.

- ➔ **Down to -20 °C**
Working temperature
- ➔ **Up to 1,2 kW**
Cooling power
- ➔ **Up to 24 l/min**
Pump capacity
- ➔ **OLÉ controller**
OLED display



 **Pump curve**
according to DIN 12876 with water at 20 °C



➔ Minichiller 600 OLÉ

➔ Minichiller 280 OLÉ

Water saving information

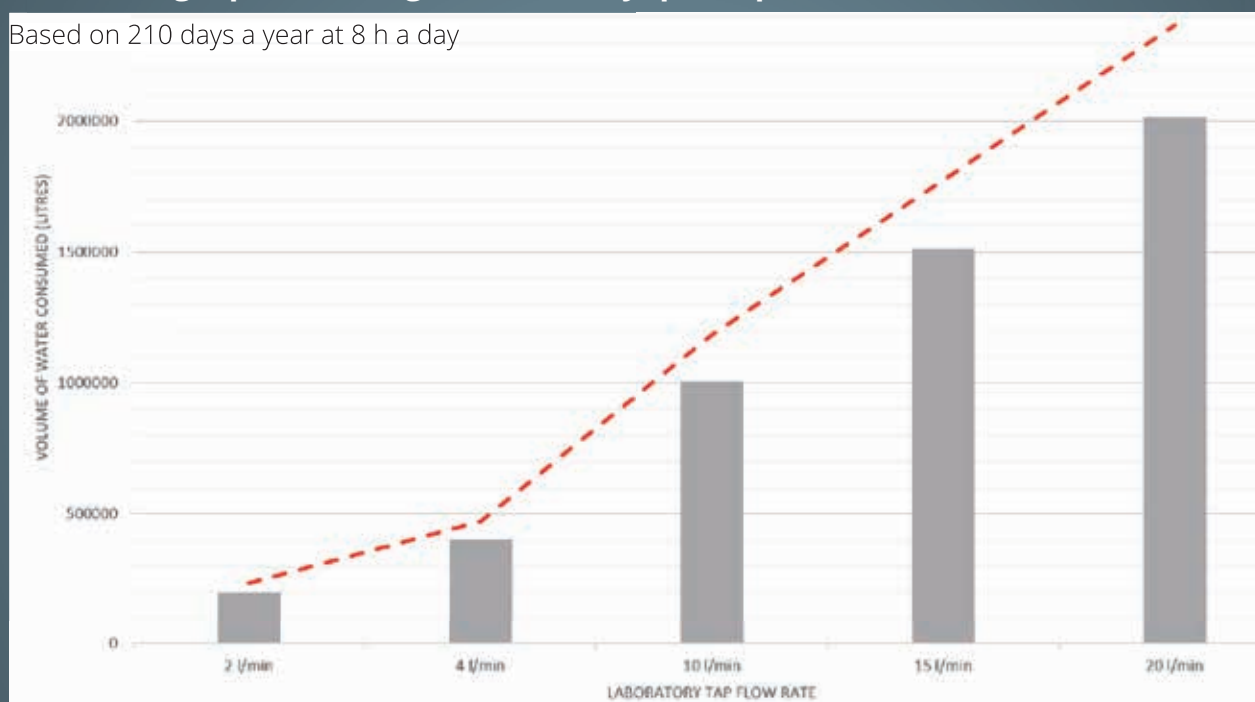
With distillation of solvents being a common place procedure globally we have a lot of factors that can adjust reproducibility. First of which is the stability of the water used in laboratory in particular teaching labs, with respect to temperature and pressure of supply. Further more by using water cooled apparatus you run the significant risk of a connection failure which will result in a flooding of the building. In the case of chemistry-based buildings this can lead to extensive infrastructure and equipment damage / down time.

Later on we will look at the increase in % recovery of volatile solvents, which is in the first place a Health and Safety improvement for the lab environment and secondly a cost reduction based on the improved recovery.

In addition to this the majority of institutions have to pay for water in to the building and water out to the waste drains. By opting to use a recirculating chiller you can negate these costs and quickly get a return on investment for your chiller. How quickly this occurs can be hard to asses so what we have done is graphed the volume and cost of running a single tap for 210 working days a year at 8 hours a day. We have taken various flow rates based on what we have observed at academic institutions throughout the UK.

Cost of single pass cooling in laboratory (per tap)

Based on 210 days a year at 8 h a day



Cost of water in/out based on
www.gov.uk/government/statistical-data-sets/international-industrial-energy-prices

Volume of Water Cost of Water in/out

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Use of single chiller to multiple rotary evaporators

With a view on smart investment in to a recirculating chiller it may be possible to connect multiple applications to a

single rotary evaporator. Using the on water saving we can make the following suggestions.

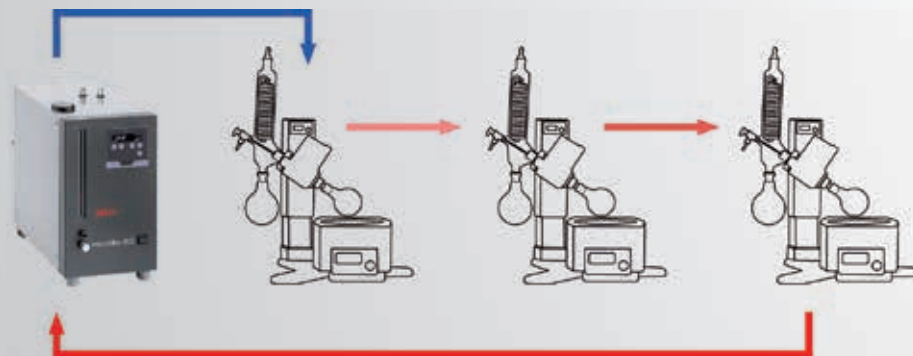


Huber	MC 280	MC 300	MC 300	MC 600	MC 600	MC 600	MC 1000	MC 1200
Solvent Group	A/B	A/B	A/B	A/B	A/B	A/B	A/B	A/B
Flask Size	>1 Liter	> 0.5 Liter	1-2 Liter	> 0.5 Liter	1-2 Liter	> 3 Liter	> 3 Liter	> 10 Liter
No. of Rotary Evaporators	1	2	1	4	2	1	2	1

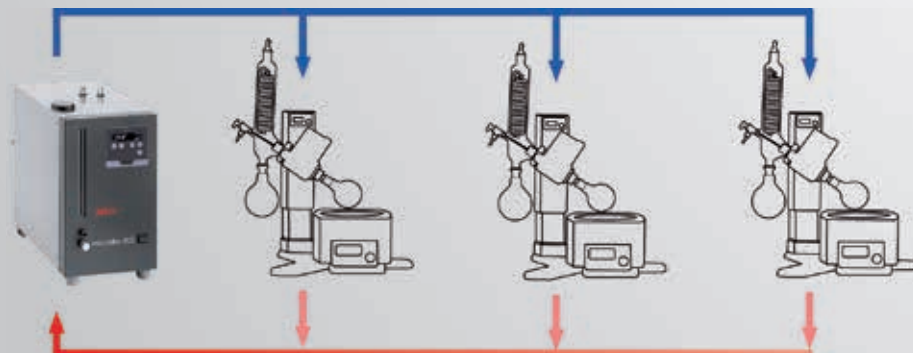
Whilst using a single recirculating chiller to cool multiple applications is advantageous we have to ensure that the apparatus is connected to ensure the most efficient deliv-

ery of the thermal fluid and removal of the heat load. The two methods of connection is 1. in series and 2. in parallel.

1. Unbalanced multiapplication cooling



2. Balanced multiapplication cooling

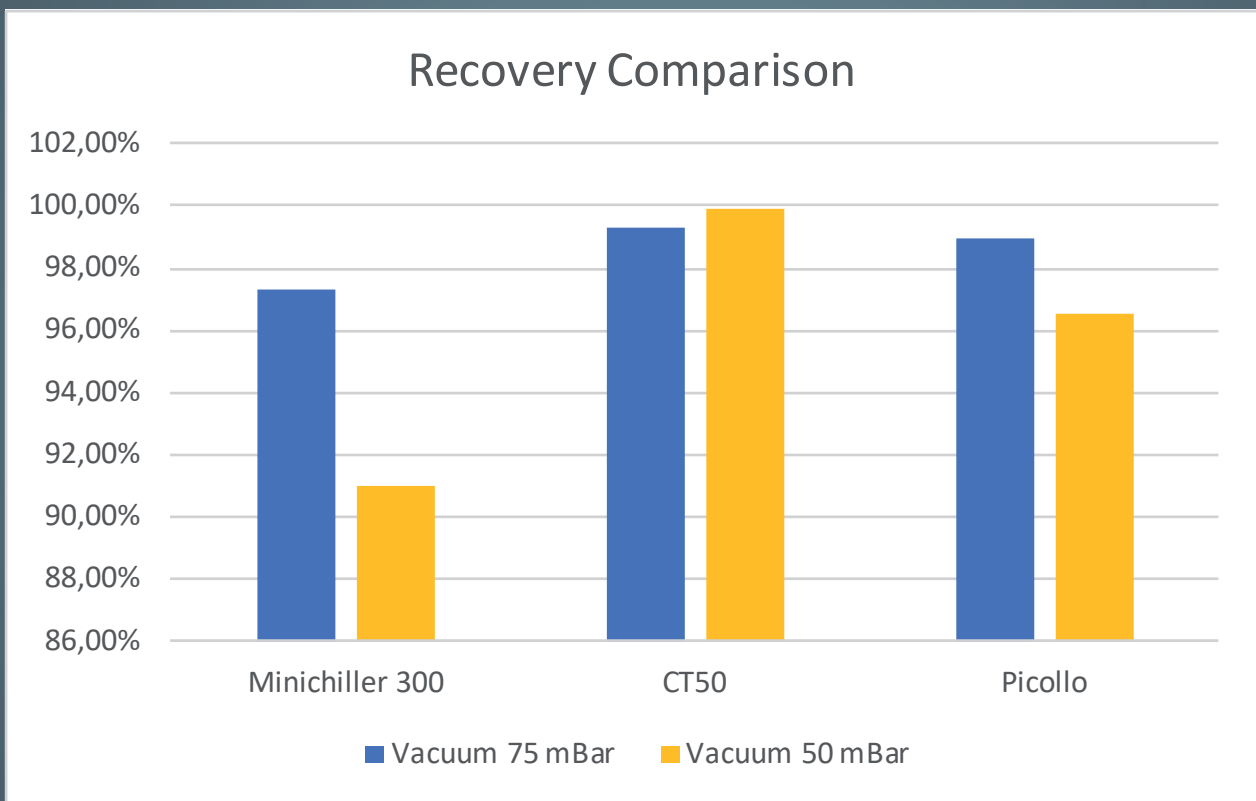


Solvent recovery

The main purpose of a recirculating chiller is to supply a consistent and reliable supply temperature. Deviations in cooling temperature can have a dramatic effect on the recovery rate of solvents in general and academic teaching lab. This unrecovered solvent is quite often passed through inefficient systems and exits to the atmosphere via the vacuum exhaust system.

Initial studies performed have shown when using a recirculating chiller, a consistent percentage recovery across a range of solvent types vs a large deviation when single pass water is used to cool rotary evaporator condenser coil.

Percentage solvent recovery: Minichiller 300 vs CT50 vs Piccolo



The diagram compares the recovery percentages of three different units under two different vacuum conditions: Minichiller 300, CT50, and Piccolo at 75 mBar and 50 mBar. The results are as follows:

The Minichiller 300 shows a higher recovery percentage at 75 mBar compared to 50 mBar. This indicates that the unit works more efficiently under these conditions.

The CT50 has a slightly higher recovery percentage at 50 mBar compared to 75 mBar. This could suggest that the CT50 performs better under a higher vacuum, although the difference is minimal.

The Piccolo shows, similar to the Minichiller 300, a higher recovery percentage at 75 mBar compared to 50 mBar, suggesting that this unit also performs better under these conditions.

Inspired by **temperature**

Expanded Minichiller range

The compact Minichillers are a cost-effective and environmentally friendly cooling solution for multiple laboratory applications. The Minichiller range has now been expanded to include the Minichiller 800, 1000 and 1200 models.

Due to the low purchase price, the investment is amortised after a short time. A calculation of water and waste water costs shows that a Minichiller can save up to 48,000 litres of water in one working week. The units take up very little space on the laboratory bench and are therefore ideal for cooling reactor blocks, vapour barriers, vacuum pumps, rotary evaporators or heat exchangers.

Applications benefit from a constant and stable temperature, pressure and flow rate and allow continuous operation at ambient temperatures of up to +40°C.

Despite the affordable purchase price, the chillers are well equipped and have a large temperature display, fill level indicator and status LEDs for the pump, cooling and heating. An optional heater is available to extend the temperature range to +100 °C. Minichillers are available in air and water-cooled versions, all models work with natural refrigerants.



➔ OLÉ controller with OLED display and menu navigation (Pilot ONE controller from Minichiller 600 on request)

Model	Working temperature range (°C)	Pump data				Cooling power (kW) at (°C)				Dimensions B x T x H (mm)	Cat. No.	G
		max. pressure (l/min)	max. suction (bar)	max. suction (l/min)	max. suction (bar)	15	0	-10	-20			
Minichiller 280 OLÉ	-5...40	14	0,25	10,5	0,17	0,28	0,2	-	-	225 x 360 x 380	3065.0001.98	2
Minichiller 300 OLÉ	-20...40 (80)*	14	0,25	10,5	0,17	0,3	0,2	0,14	0,07	225 x 360 x 380	3006.0089.98	2
Minichiller 300w OLÉ	-20...40 (80)*	14	0,25	10,5	0,17	0,3	0,2	0,14	0,07	225 x 360 x 380	3006.0090.98	2
Minichiller 600 OLÉ	-20...40	24	0,7	18,0	0,4	0,6	0,5	0,35	0,15	280 x 490 x 424	3066.0002.98	2
Minichiller 600w OLÉ	-20...40	24	0,7	18,0	0,4	0,6	0,5	0,35	0,15	280 x 490 x 424	3066.0004.98	2
Minichiller 800 OLÉ	-20...40	24	0,7	18,0	0,4	0,8	0,6	0,45	0,3	280 x 490 x 424	3079.0001.98	2
Minichiller 800w OLÉ	-20...40	24	0,7	18,0	0,4	0,8	0,6	0,45	0,3	280 x 490 x 424	3079.0003.98	2
Minichiller 1000 OLÉ	-20...40	24	0,7	18,0	0,4	1,0	-	-	-	280 x 511 x 424	3080.0001.98	2
Minichiller 1000w OLÉ	-20...40	24	0,7	18,0	0,4	1,0	-	-	-	280 x 490 x 424	3080.0003.98	2
Minichiller 1200 OLÉ	-20...40	24	0,7	18,0	0,4	1,2	0,9	0,7	0,34	280 x 511 x 424	3078.0001.98	2
Minichiller 1200w OLÉ	-20...40	24	0,7	18,0	0,4	1,2	0,9	0,7	0,34	280 x 490 x 424	3078.0003.98	2

* Permissible return temperature +80 °C

All models use natural refrigerant as standard

Options on request: heater, Pilot ONE controller

Cold trap for evaporation tasks

CT50 OLÉ

With the cold trap CT50 Single OLÉ evaporation task in the laboratory are now even easier and less expensive to implement. The cold trap has been especially developed for highly efficient solvent recovery in the laboratory.

The CT50 cold trap can be connected to rotary evaporators or applications where low temperatures are required to recover solvents and / or continuous flow options.

The unit convinces with a direct and fast cooling as well as low operating costs. The compact design requires only little space on the laboratory bench. The CT50 cold trap works environmentally and climate friendly with natural refrigerant. Operation is easy and comfortable via the modern OLÉ controller. The controller has numerous features which make your daily work easier. These include a bright OLED display with menu guidance as well as USB and RS232 connections for data communication.

The CT50 cold trap has high quality used by Huber, i. e. a robust, durable construction and high quality materials. The evaporator is made of stainless steel.

Further models with lower temperatures and larger cooling capacities are available in planning or on request. The evaporator can be flexibly designed according to customer requirements.



➔ OLÉ controller with large, bright OLED display




- ➔ Glass set for CT50, #505286
Consisting of 1-ltr receiver flask, glass trap body, 3-way valve, quick release clamp 100mm, O-Ring FFKM DN100. The glass set is NOT included as standard.
- ➔ Glass adaptor, #504545
An adapter 50 mm Flange to GL14 for connection to rotary evaporators is available separately.

Model	Working temperature range (°C)	Cool down rate (min) from		Weight (kg)	Dimensions WxDxH (mm)	Cat. No.
		+20...-45°C	+20...-50°C			
CT50 Single OLÉ	-50...50	>= 2,5	>= 4,0	32	330x450x576	3045.0003.98

Immersion coolers

TC[®]

Immersion coolers are a flexible solution for the fast cooling of liquids and for counter-cooling of heating circulator. The devices are available without control for continuous cooling and as variant with type addition "E" with temperature control (accuracy ± 0.5 K), Pt100 sensor connection (sensor in the scope of delivery) and LED temperature display with setpoint input. All models either with spiral or flexible immersion cooling probe made of stainless steel. Special evaporators for thermal analysis devices from Mettler, Perkin Elmer, Gerstel etc. available on request.

 **Down to -100 °C**
Working temperature

 **Up to 0,3 kW**
Cooling power

 **Special evaporators**
e.g. for thermal analysis



Model	Working temperature range (°C)	Cooling power (kW) at (°C)				Dimensions W x D x H (mm)	Cat.No. "standard"	Cat.No. with flexible cooling probe	G
		0	-20	-30	-90				
TC45	-45...100	0,24	0,18	0,1	–	190 x 295 x 360	3003.0043.00	3003.0044.00	2
TC45E	-45...100	0,24	0,18	0,1	–	190 x 295 x 360	3003.0002.99	3003.0004.99	2
TC50	-50...50	0,3	0,26	0,2	–	260 x 330 x 415	3004.0019.00	3004.0020.00	2
TC50E	-50...50	0,3	0,26	0,2	–	260 x 330 x 415	3004.0002.99	3004.0004.99	2
TC100	-100...40	0,16	0,15	0,14	0,07	295 x 500 x 570	3005.0127.00	3005.0128.00	2
TC100E	-100...40	0,16	0,15	0,14	0,07	295 x 500 x 570	3005.0105.99	3005.0107.99	2

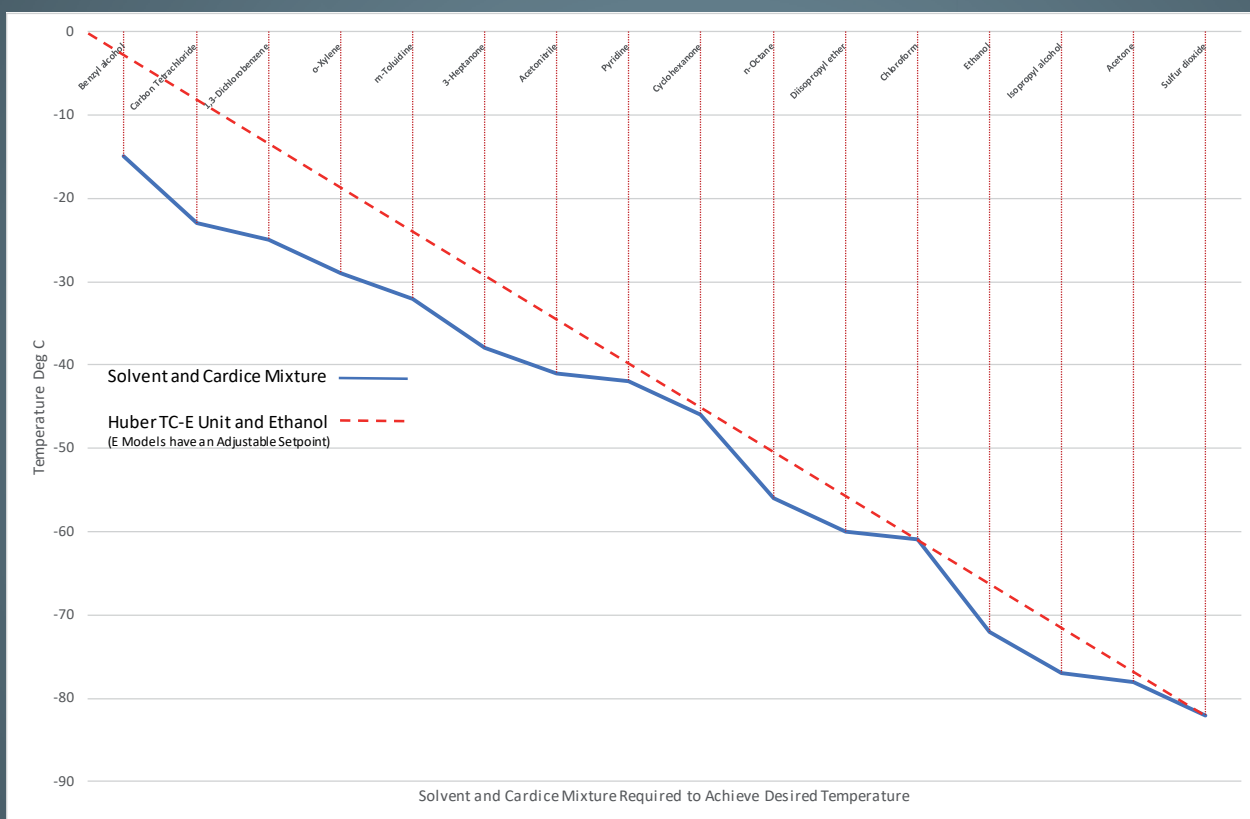
Options on request: various other special cooling probes available

Consistent cooling

In academic processes, the consistency of cooling plays a crucial role. Consistent cooling is required to preserve the chemical integrity of sensitive materials and ensure high-quality results. Different cooling methods affect not only the efficiency of processes, but also their sustainabil-

ity and environmental impact. It is therefore essential to consider not only the achievable temperature, but also the environmental impact of the materials and methods used.

Cooling consistency: Solvent and cardice mixture vs. TC-E unit



The diagram illustrates the temperature control options of two different cooling methods. The blue line shows the temperatures that can be achieved by mixing different solvents with carbon dioxide. However, it is important to note that many of these solvents are not environmentally-friendly. In contrast, the red line shows the temperatures that can be achieved with our TC-E unit using ethanol as a solvent. This method not only offers a more consistent

cooling, but is also significantly more sustainable and environmentally-friendly.

Our TC-E unit represents a superior solution, as it ensures consistent cooling and fulfils ecological requirements at the same time. The use of ethanol as a solvent enables sustainable and environmentally-friendly cooling that meets the high quality requirements of research and industrial processes in the academic sector.

Inspired by **temperature**

Old fashioned method:
Use of solid CO₂ (card ice)
or liquid nitrogen



Solvent mixture	Temperature deg C	Solvent mixture	Temperature deg C
p-Xylene / liquid nitrogen	13	n-Butyl amine / liquid nitrogen	-50
p-Dioxane / liquid nitrogen	12	Diethyl carbitol / dry ice	-52
Cyclohexane / liquid nitrogen	6	n-Octane / liquid nitrogen	-56
Benzene / liquid nitrogen	5	Chloroform / dry ice	-61
Formamide / liquid nitrogen	2	Chloroform / liquid nitrogen	-63
Aniline / liquid nitrogen	-6	Methyl iodide / liquid nitrogen	-66
Cycloheptane / liquid nitrogen	-12	Carbitol acetate / dry ice	-67
Benzonitrile / liquid nitrogen	-13	t-Butyl amine / liquid nitrogen	-68
Ethylene glycol / dry ice	-15	Ethanol / dry ice	-72
o-Dichlorobenzene / liquid nitrogen	-18	Trichloroethylene / liquid nitrogen	-73
Tetrachloroethane / liquid nitrogen	-22	Butyl acetate / liquid nitrogen	-77
Carbon tetrachloride / liquid nitrogen	-23	Acetone / dry ice	-78
Carbon tetrachloride / dry ice	-23	Isopropanol / dry ice	-78
m-Dichlorobenzene / liquid nitrogen	-25	Isoamyl acetate / liquid nitrogen	-79
Nitromethane / liquid nitrogen	-29	Acrylonitrile / liquid nitrogen	-82
o-Xylene / liquid nitrogen	-29	Sulfur dioxide / dry ice	-82
Bromobenzene / liquid nitrogen	-30	Ethyl acetate / liquid nitrogen	-84
Iodobenzene / liquid nitrogen	-31	Ethyl methyl ketone / liquid nitrogen	-86
Thiophene / liquid nitrogen	-38	Acrolein / liquid nitrogen	-88
3-Heptanone / dry ice	-38	Nitroethane / liquid nitrogen	-90
Acetonitrile / liquid nitrogen	-41	Heptane / liquid nitrogen	-91
Pyridine / liquid nitrogen	-42	Cyclopentane / liquid nitrogen	-93
Acetonitrile / dry ice	-42	Hexane / liquid nitrogen	-94
Chlorobenzene / liquid nitrogen	-45	Toluene / liquid nitrogen	-95
Cyclohexanone / dry ice	-46	Methanol / liquid nitrogen	-98
m-Xylene / liquid nitrogen	-47	Diethyl ether / dry ice	-100

- Use of expensive, restricted, toxic and / or carcinogenic chemicals -

Our method: TC-Immersion Chiller



- ✓ Universal solution for many cooling tasks
- ✓ Rapid cooling of fluids
- ✓ Ideal for replacement of dry ice
- ✓ LED temperature display
- ✓ Easy operation with only three keys
- ✓ Compact
- ✓ Round the clock operation



Huber unit	Solvent	Temperature deg C
TC45	Acetone	(-45 to +30)
TC45	Thermal Fluid	(-45 to +100)
TC50	Acetone	(-50 to +30)
TC50	Thermal Fluid	(-50 to +50)
TC100	Acetone	(-100 to +30)
TC100	Thermal Fluid	(-50 to +40)

- Contact us for demonstration -

Temperature control without refrigerant

Piccolo 280 OLÉ chiller

Ultra-compact, easy to handle and versatile – the new Piccolo chiller convinces entirely with state-of-the-art thermoelectric Peltier technology. This technology enables accurate and rapid heating or cooling, entirely without refrigerant, which is a clear benefit for the environment. Furthermore this model is maintenance-free.

With working temperatures of 4 to 70 °C and cooling capacities up to 280 W at 20 °C, the new Piccolo model is extremely versatile, for example in analysis, quality control, research laboratory, and material tests.

Thanks to modern fan technology, the Piccolo chiller is extremely quiet in operation and hardly requires any floor space. The device impresses with small dimensions, but also with low weight and intuitive operation via the new OLÉ controller.

Equipped with OLED display, USB and RS232 interface, the Piccolo is also capable of demanding tasks.



➔ OLÉ controller with OLED display and menu navigation



➔ Extremely quiet operation with latest fan technology



Model	Working temperature range (°C)	Heating power at 20 °C (kW)	Cooling power at 20 °C (W)	Pump max. (l/min)	Pump max. (bar)	Weight (kg)	Dimensions WxDxH (mm)	Cat. No.
Piccolo 280 OLÉ	4...70	0,62	280	1,85	0,95	13,0	215x310x312	3044.0002.98

How to connect the Piccolo to a rotary evaporator



1. Connect the hoses to the Piccolo.



2. Connect the hoses to the rotary evaporator



Cooling Bath Circulators

KISS K6 & CC K6

The circulators are split into two product lines: the Compatible Control models (CC) and the simpler KISS models. Both product lines represent classically constructed laboratory circulators with open baths.

Cooling bath circulators with insulated baths made of stainless steel are suitable for the temperature control of objects directly in the thermostat bath and for the temperature control of externally closed or externally open (with optional level control) applications. The cooling circulators work in an environmentally and climate friendly manner using natural refrigerants.

➡ **Down to -25 °C**
Working temperature range

➡ **Up to 0,26 kW**
Cooling power

➡ **Up to 27 l/min**
Pump capacity

⊕ CC-K6 /
CC-K6s



⊕ KISS K6 /
KISS K6s



Model	Working temp. range (°C)	Heating power (kW)	Bath			Pump data				Cooling power (kW) at (°C)			Dimensions WxDxH (mm)	Cat.No.	G
			opening (mm)	depth (mm)	volume (ltr)	max. pressure (l/min) (bar)	max. suction (l/min) (bar)	20	0	-20					
CC-K6	-25...200	1,6 - 2,1	140x120	150	4,5	27	0,7	22	0,4	0,20	0,15	0,05	210x400x546	2008.0005.01	2
KISS K6	-25...200	1,6 - 2,1	140x120	150	4,5	14	0,25	10,5	0,17	0,20	0,15	0,05	210x400x546	2008.0043.98	2
CC-K6s	-25...200	1,6 - 2,1	140x120	150	4,5	27	0,7	22	0,4	0,26	0,21	0,05	210x400x546	2008.0052.01	2
KISS K6s	-25...200	1,6 - 2,1	140x120	150	4,5	14	0,25	10,5	0,17	0,26	0,21	0,05	210x400x546	2008.0044.98	2

All units use natural refrigerant as standard

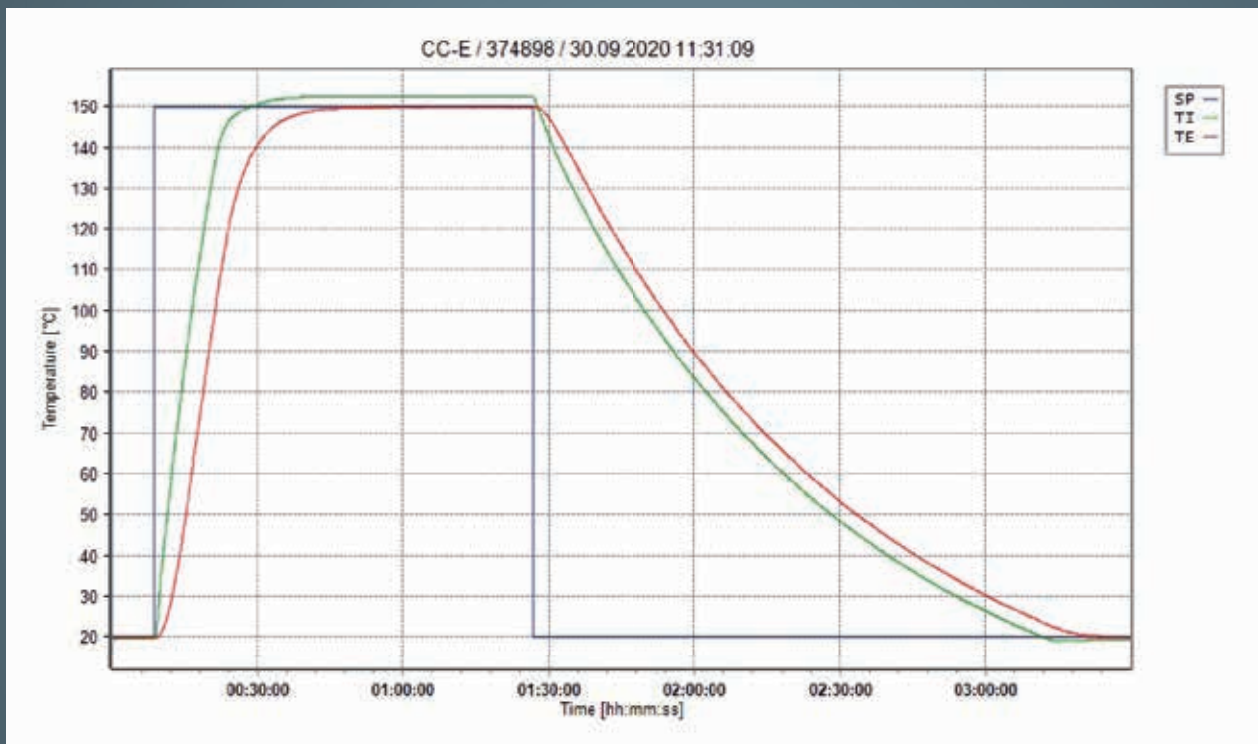
Temperature stability: CC ±0,02 K; KISS ±0,05 K

Cooling of jacketed applications

In scientific research and development, precise temperature control is of paramount importance. This case study examines the application of a CC-K6 in a demanding academic environment. By utilising the unit, significant improvements in cooling consistency and environmental

sustainability can be achieved. This case study demonstrates how our innovative solutions enhance efficiency and sustainability in research, thereby contributing valuable support to scientific excellence.

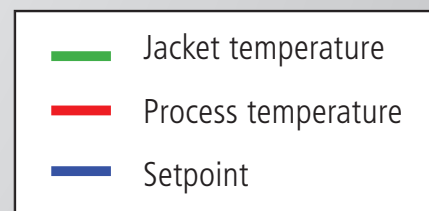
CC-K6 controlling a 1 liter vacuum insulated reactor



This case study demonstrates the speed and accuracy when a CC-K6 is connected together with an one liter vacuum insulated reactor over the temperature range +20 °C to +150 °C and back to +20 °C.

The diagram illustrates the temperature profile over time for three different parameters: "SP" (setpoint), "TI" (target temperature), and "TE" (temperature end).

The data show how the temperature is maintained at 150 °C for a certain period before gradually returning to 20 °C. This highlights the efficiency and precision of our CC-K6 unit, which is crucial in scientific and industrial processes.



Van der Heijden Labortechnik GmbH

Part of Peter Huber Kältemaschinenbau

Temperature control units for research and science

For more than 50 years, Van der Heijden Labortechnik GmbH has been manufacturing compact, energy-efficient and environmentally-friendly temperature control units for a wide range of applications. The product portfolio includes air-cooled and water-cooled temperature control units with active cooling. It also includes system separators with passive cooling and an output of up to 150 kW (to utilise the energy in existing domestic cooling water supply networks).

In addition to a wide range of standardised products, Van der Heijden Labortechnik GmbH specialises in custom-made products that are designed precisely for the user's purposes. A versatile selection of options and accessories rounds off the product range. It is precisely because of Van der Heijden's wide range of applications that their temperature control units are used in the fields of research and science.

All temperature control units from Van der Heijden can be customised. For example, it is possible to design cooling units for a complete outdoor installation. The cooling units are placed outside the building. This eliminates the noise level and the waste heat to the surrounding room indoors. This can be realised by so-called split systems. Another advantage is that the main emissions from the unit, in terms of waste heat and noise, do not take place in the laboratory.



Van der Heijden also offers special flow-through coolers without internal tanks for supplying the customer's existing containers, tanks and basins as well as systems for operation with deionised water. Their product portfolio also includes water distributors for connecting different applications to a temperature control unit.



Customised solutions

Van der Heijden is specialised in customer-specific solutions and can offer customised composite systems that are optimally designed for the customer's requirements.

Pump configurations can be supplied as required for flow rates up to $>36 \text{ m}^3/\text{h}$ or pressures $>10 \text{ bar}$, for example. Special pumps with a pressure of up to 20 bar can also be realised. We also offer frequency-controlled pumps. These are also available with individual special configurations.

CS Chillers

Cool and smart combined in one unit

The CS Chillers from Van der Heijden Labortechnik GmbH extend the Huber product range with compact and very cost-effective coolers. CS chillers combine cool and intelligent technology in one device. For many applications, the recirculating chillers further reduce water consumption and lower operating costs.



Budget-friendly
purchasing price



Economic and ecological solution
to eliminate expensive water waste



Working temperature
from -20 °C to +85 °C



Easy to use and
maintenance-free



Cooling power
up to 70 kW



Quiet operation
less than 78 db



Model	Working temperature range (°C)	Pump data		Cooling power (kW) at (°C)				Heating power (kW)	Dimensions B x T x H (mm)	Cat. No.
		max. pressure (l/min)	(bar)	15	0	-10	-20			
CS 20	-20...15	10	3,5	2,2	1,3	0,9	0,5	-	530x580x750	VDH1101106
CS 20-H	-20...85	10	3,5	2,2	1,3	0,9	0,5	1	580x660x820	VDH4100341
CS 25	-20...15	40	4,5	3,5	1,6	0,98	0,7	-	580x660x820	VDH1101107
CS 25-H	-20...85	40	4,5	3,5	1,6	0,98	0,7	1	590x620x1210	VDH4100342
CS 50	-20...15	70	3,7	8	4,2	3,5	2	-	680x730x1520	VDH1101108
CS 50-H	-20...85	70	3,7	8	4,2	3,5	2	3	680x730x1520	VDH4100300
CS 75	-20...15	70	3,7	9	5,5	3	2,4	-	800x850x1665	VDH1101109
CS 75-H	-20...85	70	3,7	9	5,5	3	2,4	3	800x850x1665	VDH4100108
CS 100	-20...15	70	3,7	18	9,5	7,5	4,5	-	1400x1000x1800	VDH1101110
CS 100-H	-20...85	70	3,7	18	9,5	7,5	4,5	6	1400x1000x1800	VDH4100343

All models are aircooled. H = Heating

Inspired by **temperature**
designed for you



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