

Issue March 2024

GIGA SUCCESS HERZGULES SAVES IN THE

NATURAL HISTORY MUSEUM

FROM PAGE 16

WALTER SKOFF WINE FROM THE MOUNTAIN WITH HAND & HERZ FROM PAGE 4

HERZ ON TOUR **OUR HEART BEATS GLOBALLY** FROM PAGE 8

HERZ NEWS



Dear reader,

the exciting trade fair season for our industry is in full swing. We have already successfully completed EXPO Frauenthal in Vienna and VSK in Utrecht and are now moving on. Next on our programme are Webuild Wels and the MCE Mostra Convegno, where we will be shaping the future of energy efficiency together with our visitors. In this issue, I am already giving you a small foretaste of our product highlights: Our HERZ dynamic thermostatic valve, which we describe as the radiator valve of the future, is the

centre of attention. Despite its small size, it achieves a high level of efficiency thanks to its intelligent inner workings.

An impressive success story comes from our home country: the Natural History Museum in Vienna was able to utilise the HERZ thermostatic head HERZCULES in just one heating season, saving an incredible 440 MWh of heating energy - equivalent to a CO2 reduction of 58 tonnes. In southern Styria, Mr Sauvignon, Walter Skoff, relies on the production of his internationally recognised Skoff Original wines using a HERZ wood chip system. Two exciting interviews await you.

Finally, there is an exclusive technical article by one of the most renowned experts in the field of heating systems, engineer Gerald Paukovits. As a successful and court-certified expert, Mr Paukovits sheds light in his article on a topic that is often underestimated, but is nevertheless of crucial importance: hydraulic balancing.

Enjoy reading

Nurgül Akbas HERZ News Editorial

PS: Would you like to tell us something or be included in the next issue? We look forward to any feedback, suggestions and proposals from you by e-mail at: herznews@herz.eu

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Note: To improve readability, the masculine form is used for personal nouns, which of course refers to both the feminine and all other gender identities.

CONTENT

TO BE OR NOT TO BE



Dear customers and partners, dear friends of HERZ!

"What to do", said Zeus, "The gods are drunk and puke all over Olympus". Although somewhat colloquial, this saying is based on Friedrich Schiller's poem "The Division of the Earth". Zeus, the father of the gods in Greek mythology, has divided up the world; a poet, lost in admiration of the gods, arrived too late and complains to the father of the gods, who only offers him the possibility of occasional visits to him in Olympus, as there was nothing left to distribute.

Our gods are sitting in Brussels at the EU, in Frankfurt at the ECB and in reduced form at Ballhausplatz and scattered around the first district of Vien-

na, suffering from helplessness like Zeus, the father of the gods. The money has been spent, a years-long zero interest rate policy has triggered an inflationary surge that is to be curbed by massively rising interest rates - and thus financing costs - since mid-2022. By giving gifts and vouchers to the population and avoiding anti-inflationary measures, our state has put itself at the forefront of the European inflation leaders. Not unexpected is the reaction of the trade unions, who are calling for inflation compensation while neglecting the aforementioned state gifts. This is a real poisonous cocktail for companies like Herz that produce in Austria and rely heavily on exports. High interest rates and therefore financing costs as well as massively increased labour costs are impacting on production costs, which cannot be accommodated in the product prices.

"What to do?" - This question is being asked not only by Zeus in Olympus but also by medium-sized companies in Austria, particularly in the construction and building technology sectors. German companies from all sectors of industry are relocating activities to Asia and North America in order to escape the effects of European politics and national governments. The resulting deindustrialisation also means a loss of prosperity and an increase in social tensions.

The situation is particularly difficult for medium-sized industrial companies like HERZ. In contrast to large corporations, we are highly location-bound and relocating production to other continents is difficult or even impossible. Locations of our group of companies in Poland, Slovenia and Serbia are currently still mitigating the cost problem, but the convergence to Western European cost levels is progressing dynamically. This does not bode particularly well for the EU as a business location and for Austria in particular.

It will take a lot of brainpower, hard work and good fortune to overcome these challenges. We are willing to work, we hope to have brain power and a lucky hand, so we are looking positively to the future.

m'arer

Gerhard Glinzerer

HERZ FAIRS 2024

AUSTRIA

Wels WEBUILD Energiesparmesse o6. – 10. March 2024



Milan MCE Mostra Convegno 12. – 15. March2024

GERMANY

Essen SHK Essen 19. - 22. March 2024

Nuremberg IFH Intherm 23. - 26. April 2024

Hamburg GET NORD 21. - 23. November 2024



SWEDEN

Stockholm Nordbygg 23. - 26. April 2024



Scan now for HERZ trade fair calendar 2024 overview! <complex-block>

WALTER SKOFF WINE FROM THE MOUNTAIN WITH HAND & HEART

Mr Sauvignon - that's how the whole world knows the native Styrian. Walter Skoff is known for his award-winning wines, especially his Sauvignon Blanc, which was honoured with the golden "Denis Dubourdieu Trophy" in 2017, the industry's world championship title. A success for Styria, a success for Austria. At the age of 13, he was already helping his father with the business, which he has now been running successfully for 40 years. He took over a total vineyard area of 1.7 hectares, which he has increased to 60 hectares over the years. For his 700,000 bottles per year, he needed a system that would provide the required starting temperature for the fermentation process and also serve as an efficient heat supplier for the premises. The decision was made in favour of Austrian quality - the HERZ firematic 401 wood chip system.

Passed down from generation to generation, the Skoff family is deeply rooted in our homeland and the tradition of Styrian wine. Walter Skoff is the fourth generation to take over the business and cultivates a proud 60 hectares with grape varieties typical of the region. Originally a mixed farm with pig breeding, he had to do stable work from an early age and even experienced his first tractor accident as a primary school child.

Walter Skoff's future already seemed to be mapped out by his father Skoff. After the early death of his older brother, he was the next eldest son to take over the business. As a student, the motto was: "You stay at home, don't study". He was unable to escape his fate - thank goodness, because who else would have made Styrian wines so world-famous?

The wild white

Sauvignon Blanc, a grape variety created in the 18th century from a natural cross between Traminer and Chenin Blanc, began its triumphal march around the globe from France. Its name is derived from the French words "sauvage" (wild) and "blanc" (white), which refers to the wild character of the grape variety. The wild white is one of the Bukett grape varieties with a particularly wide range of flavours. It is not for nothing that Walter Skoff calls it the "queen of all wine varieties". In an interview with HERZ News, Walter Skoff shares his success story as well as the challenges he faces as a winemaker.

HERZ News: Dear Mr Skoff, why Sauvignon?

Walter Skoff: It was very important to me, especially influenced by my father, that we grow wines that are typical of the region. We realised that the bouquet varieties present themselves very well and we concentrated on the right varieties, especially those that have an inter-

Sauvignon Blanc as Muscat Sylvaner in Styria

Legend has it that the grape variety was first planted in Styria at the beginning of the 19th century by the "Styrian Prince" Archduke Johann under the name "Muskat-Sylvaner". Archduke Johann was the brother of Emperor Franz II, the last emperor of the Holy Roman Empire of the German Nation. Threatened by Napoleon's expansionist policies, he founded the Austrian Empire in 1804 and declared the end of the Roman-German Empire in 1806. He thus prevented Napoleon from taking over the German imperial crown. The Austrian Empire with its capital Vienna extended over Austria, Hungary, the Czech Republic, Slovakia, parts of Poland and Ukraine in the north and parts of Italy, Slovenia, Croatia, Romania and Serbia in the south-east.

The name Muscat Sylvaner is forbidden today as it is misleading, as Sauvignon Blanc is neither related to a Muscat variety nor to a Sylvaner.



Painting by Friedrich von Amerling: Franz I. (1768 - 1835) of Austria with the insignia of the Austrian Empire.

national reputation. I analysed the soil every time I bought new land. The conglomerate-rich soils are ideal for fragrant grape varieties. My condition was that Sauvignon must be present everywhere. So today we have 13 different Sauvignons from 13 different vineyards, which we have successively acquired over the last few years. Sauvignon has a special significance for me because there are so many different characters to work out. You have to take your time, like raising a small child.

HERZ News: What characterises a wine for you as a long-standing winemaker? What must be taken into account? Walter Skoff: For me, it is important that the wine reflects the region. I want to recognise the region and the variety. It must be fragrant, fruity and animating and have character. On the other hand, wines with ageing potential should be in harmony with wood. Wood has roasted aromas and brings in different nuances, but you can still recognise the variety very well. Wine simply needs time to develop. It is important for winemakers to engage with nature. Artificial help is useless. Nature will find its own way, I just have to understand how to deal with it. Once you've done that, you can feel the vintages even more deeply.

HERZ News: What is the biggest challenge for you as a winemaker?

Walter Skoff: We are facing climatic challenges. When it is dry, the vines receive little water, which is disadvantageous for them on the one hand, but on the other hand it makes them more independent and gives them more minerals. We want to stress the vines a little so that they adapt to the drought and develop deeper roots.

HERZ News: What makes viticulture so unique and multifaceted?

Walter Skoff: Several factors play a role

For me, Sauvignon is the queen of all wine varieties. - Walter Skoff, Multiple award-winning winemaker

www.skofforiginal.com

in viticulture. The different vineyards and also the size of the vineyards are important. Our USP is that we have different terrains. We have a lot of room for manoeuvre within the large areas. Due to the different harvesting and harvesting processes, you get 4-5 different types within one vineyard. This is the result of experience and experimentation. Our expertise and our long-standing employees are the most important factors.

HERZ News: You have your vineyards in Styria, which is an ideal region for wine-growing, isn't it?

Walter Skoff: In Styria, we have the Illyrian climate, the air currents from the Adriatic and the Alps, which allow rainfall to fall. This has a very favourable effect on viticulture. Burgundy varieties, which are very popular worldwide, thrive on the calcareous soils. It is very important to bring in nature. We also have an organic wine farm. I have to admit, organic is a real challenge in southern Styria.

HERZ News: Why is that?

Walter Skoff: Organic wine needs some explaining. In our steep vineyards, orga-

nic means more work, lower yields, but a convincing quality in terms of flavour. We choose airier sites for organic viticulture and grow more resistant varieties there. In the organic system, we fertilise with our own compost. Plant protection is very nature-orientated and we have achieved great success with beneficial insects. We also try to keep our CO₂ emissions low by combining our work and focussing on effective working methods.

HERZ News: Did this love of nature make you decide in favour of a HERZ wood chip system?

Walter Skoff: I needed a system that achieves optimum combustion values, has low emissions and also delivers the right output. The wood chip system not only serves as a heat supplier for the premises, but also has an important function in wine production. During the fermentation process, I need a certain starting temperature that has to be reached quickly. With HERZ, this simply works perfectly. I have been impressed by the quality and the service itself. Everything runs automatically and I have a minimal workload with maximum convenience. What more could you want?

Herz

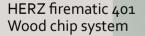
HERZ News: The fuel for the system comes from your own forest?

Walter Skoff: Yes, exactly. I'm a farmer, so it's important to me that everything is kept clean. The leftover wood is ideal for the plant, even offcuts are processed into wood chips. The wood is sufficiently dried and then chopped. In this way, the wood produced in-house can be used as fuel in optimum quality. It is a circular economy.

HERZ News: Finally, what would you like to tell our HERZ News readers?

Walter Skoff: I want people to enjoy life. Matching wine and food brings joy to life, as does consciously enjoying meals together with the family. Enjoying company and togetherness creates a better and wonderful feeling. A good wine, a good meal and good heating - then you have everything (laughs).

HERZ News: You can only toast this statement. Thank you very much for your time and the smooth interview. ⊠



The firematic 401 wood chip pellet system is characterised by its modular design with combustion chamber and heat exchanger module. The HERZ firematic's staircase grate technology, developed in-house, ensures optimum air supply and therefore energy-efficient and clean combustion. The 7" touch display of the boiler control system enables user-friendly operation thanks to clear menu navigation and simple 3D display; the T-Control also enables remote visualisation and remote maintenance via smartphone, PC or tablet. VEverything works perfectly with HERZ.

> - Walter Skoff about his HERZ firematic 401 wood chip system.

HERZ PRESSURE-INDEPENDENT 6-WAY CONTROL BALL VALVE

PRECISE AND SIMPLE CONTROL

Heating and cooling are not only used in combination in new buildings, but are also popular in refurbishments to meet the individual needs of users. The HERZ pressure-independent 6-way characterised control valve takes the control of heating and cooling ceilings and fan coils in 4-pipe systems to a new level. The product ensures precise control of the heating and cooling functions in systems and, thanks to the integrated differential pressure controller, enables efficient adaptation to the different needs of end users. The versatile control valve, which also functions as a changeover valve, offers practical benefits for installers, has a positive effect on energy efficiency and also saves costs.

A ball valve with several functions

HERZ pressure-independent 6-way control ball valve is a combination of a 6-way valve, regulating ball valve and pressure-independent control valve in a single unit. This combination enables the product to function as a control valve as well as a changeover valve. The automatic changeover depending on the selected function ensures that heating and cooling are seamlessly and effectively combined to maximise comfort in buildings. For installers, this means a more efficient installation with fewer components and a smaller footprint. From a technical perspective, precise flow control allows for optimal energy utilisation, leading to a potential reduction in operating costs.



Installing a HERZ pressure-independent 6-way characterised control valve reduces the number of valves required to switch and regulate the system. With a 90° turn of a rotary actuator, both the heating/cooling changeover and the regulation of the heating side and the cooling side can be carried out. The integrated differential pressure controller keeps the differential pressure constant via the control valve. The internal safety function prevents unintentional pressure rises, which further increases the reliability of the system. Regardless of changes in the system differential pressure, the same set flow rate always flows through the control ball valve. The flow rate can be regulated by intermediate positions. HERZ pressure-independent 6-way characterised control valve will be available in sizes DN 15 - DN 20 from autumn 2024. 💟

HERZ Pressure-independent 6-way control valve Order nr.: 1 2460 XX Actuator Order nr.: 1 7711 70

- For controlling, regulating and shutting off consumers in 4-pipe systems
- Pressure-relieved for small torsional forces
- Pressure-independent The integrated differential pressure controller keeps the differential pressure constant via the control valve
- Developed in Austria, produced at European HERZ Group sites

You can now find technical product information, installation examples and much more on our YouTube channel.



HERZ ON TOUR OUR HEART BEATS GLOBALLY

Across continents, HERZ is synonymous with pioneering, time-saving, compact and efficient products for building technology. From Canada to the Fiji Islands, HERZ products are in high demand and successfully in use worldwide. In order to continue exporting to the whole world as an Austrian company, HERZ is strengthening its presence in all markets. In order to achieve the HERZ goals, HERZ took part in numerous trade fairs last year. Particular attention was paid to African countries in 2023. HERZ has expanded and strengthened its presence in Africa and expanded and intensified its partnerships in this region.



MENA Cool Forum - UAE





Libya Construction Expo - L

AFRICA

HERZ has had a strong presence in various African countries for years, including Ghana, Nigeria, Ethiopia, South Africa, Tunisia, Morocco, Algeria, Egypt, Namibia and Kenya. Libya has now also been included since 2023. In the world's warmest continent, HERZ products for drinking water and cooling, from small dimensions to large flange designs, are in particularly high demand and are used extensively.

HERZ is also particularly active at trade fairs in African countries. In November 2023, for example, HERZ products for drinking water and cooling were in the spotlight at **BIG5 Construct in Kenya**. In the same month, HERZ successfully took part in the **Construction Expo in Libya**. Even though there is currently a civil war in Libya, the country is of great importance as an oil exporter. In addition, many new projects are taking place in Libya, in which HERZ products are providing cosy warmth and thus hopefully a peaceful atmosphere in the country.

MIDDLE EAST

HERZ can look back on more than 25 years of partnerships in the Middle East. Many successful references and trade fair appearances strengthen HERZ's position in the Arab market. In October 2023, HERZ once again took part in the **MENA Cool Forum** (Middle East & North Africa), which was held jointly with the Arab Housing & Development Forum in Abu Dhabi, UAE. This was followed in December by HERZ's presence at the **BIG5 Global** trade fair in Dubai. This trade fair is one of the largest construction industry events in the Middle East, Africa and South Asia. HERZ has been represented by its own subsidiary in the UAE since 2012.

"HERZ is active throughout Africa, but is also recognised across the pond. We have had partners in the New World for over 20 years, with whom we are growing steadily and have become an integral part of the markets. Regardless of the climatic conditions, we have even seen increased demand for surface heating in the Middle East, South East Asia and Oceania," says HERZ Vice President Zoran Bankovic.

SOUTH EAST ASIA

HERZ has been active in Southeast Asia since 2009. Starting in Vietnam, where the company was already involved in major projects such as the German House in Ho Chi Minh and the parliament in the capital Hanoi, HERZ expanded its partnerships in all directions. In the Philippines, for example, HERZ products, in particular the all-rounder HerzCON, are indispensable. HERZ concluded its most recent partnership in Southeast Asia in Singapore in 2022.

SCANDINAVIA

Denmark was one of HERZ's first export countries. HERZ has been active in Scandinavia since 1965, at that time still under the name Gebauer & Lehrner. Even in the early years, the company recognised the importance of these markets and decisively expanded its presence. Over the years, HERZ has established a strong position in the Northern European market from its base in Glostrup, Denmark. Today, HERZ is not only present in Denmark, but also has a strong presence in Finland, Iceland, Norway and Sweden. HERZ products that are particularly in demand in Northern Europe include connection systems, return valves, compression sets and thermostatic heads. HERZ regulating and control valves as well as flanged fittings and room thermostats are also essential for efficient heating in the cold Scandinavian countries. HERZ has been an active participant in Nordbygg, Northern Europe's largest and most important construction trade fair, for many years and will be exhibiting again in 2024.







Melnikov (left) and Kazakh partners together with

Gerhard Glinzerer in Vienna.

- Libya

BIG5 Global - Dubai

CENTRAL ASIA & CAUCASUS

HERZ has been active in Central Asia and the Caucasus for decades. From Kazakhstan to Uzbekistan, Kyrgyzstan, Turkmenistan, Tajikistan and the Caucasus countries of Azerbaijan, Georgia and Armenia, HERZ products are market leaders. Since the beginning of the 21st century, HERZ has been working closely with many local partners in these regions and is recognised as a specialist for technical solutions. HERZ even has its own subsidiary in Kazakhstan. The intensive market support provided by local HERZ employees has led to rapid growth of the subsidiary, which is also a leader in Kazakhstan, particularly in the area of surface heating systems and pump groups.

However, HERZ's successes in Central

Asia are not limited to Kazakhstan. In 2020, HERZ won the Silk Road Award from the Austrian Chamber of Commerce for the supply of control valves for the major Dasmia project in Kyrgyzstan.

HERZ has a strong overall market presence in Central Asia with differential pressure controllers, combination valves, pump groups for underfloor heating as well as control and regulating valves and panel heating systems. "Competition is particularly difficult in product groups that require less technical knowledge such as ball valves, pipe fittings, etc. - but the market is very competitive. When it comes to competition, the main players in these markets are generally companies from China and Turkey due to their geographical and cultural proximity, but also their attractive prices," says HERZ Business Development Director for CIS Anatolii Karenin.

However, HERZ knows no boundaries when it comes to market competition and is aware of its strengths: "Our advantage in these markets is a strong engineering team, extensive knowledge of hydraulics and high-quality, precise products. We are seeing positive changes in these regions in terms of product quality requirements. The quality and the 5-year guarantee of our products and, in particular, the on-site support give our customers the certainty that they have chosen the right products with HERZ," adds Anatolii Karenin.

HERZ GLOBAL

HERZ clever&smart

REDUCING ENERGY COSTS WHILE INCREASING COMFORT

In an era where innovation sets the tone, HERZ Armaturen proudly presents a pioneering solution for modern heating and cooling systems -HERZ clever&smart. Just as smartphones and networked household appliances have transformed our everyday lives, HERZ is taking the control and customisation of heating and cooling applications to a whole new level with this intelligent product range. A ground-breaking system that not only focuses on ease of use, but also on intelligent and efficient control to optimally adapt your home to your individual requirements. Welcome to the future of building technology - welcome to HERZ clever&smart.



HERZ clever&smart Room Controller with Touch Display. Order nr.: 3 **F810** XX

The intelligent set

Consisting of a control box, a room controller and additional LED controllers or room sensors, HERZ clever&smart can be customised. A distinction is made between systems for heating only or heating and cooling. Whether wired or wireless - the HERZ clever&smart family offers the right smart solution for all comfort lovers.

The control box is not just a simple signal distributor, but a heating and cooling controller. The flow temperature can be controlled according to the weather and dew point. The climate room controller, equipped with a colour touch display, measures the temperature and relative humidity. It is also used to configure and operate the system. The climate LED controller also measures and displays the air quality.

Comfort at the highest level

In addition to the 2 main operating modes (heating and cooling), HERZ clever-&smart offers 4 modules thanks to its smart technology: Normal, Turbo, Eco and Off. This makes it easy to choose between preset modules for heating and cooling or to adapt the room temperature to everyday life by specifying the time window on the selected day. The modules as well as the heating and cooling times, which room should have how many degrees and when, can be set directly on the room controller or conveniently via the mobile phone.

The air is clean

The Index of Air Quality (IAQ) serves as a guide value for air quality. This plays a major role for our health indoors. The more stale the air is, the higher the risk of infection and the risk of airborne diseases and infections. In most cases, ventilation is only carried out when the stuffy air is already noticeable.

HERZ clever&smart LEDcontroller Climate uses the integrated sensors to measure the air quality and CO₂ content in the interior and shows these via colour codes on the LEDcontroller display. In this way, the first signal to take action is given in real time and before it is too late.



Scan now for more information!



The mobile technology

If desired, the entire system can also be connected to a smartphone via WiFi. The app can be used to conveniently set the desired room temperature at the desired time from anywhere and adapt it to your own daily routine. The app, which is available in various languages, also offers simple communication for the service technician.



HERZ clever&smart App with display of the individual rooms, individual setting of the cooling/heating time and module selection.

HERZ clever&smart Family



Control Box and Control Box Clima:

- Status displays by means of 14 LEDs
- ☑ 8 zones each with up to 4 actuators controllable
- Outputs for pump and mixer, heating and cooling demand
- Mixer control weather-compensated or dew point controlled
- Control of up to 16 rooms in 1 residential unit
- Several residential units can share data

Room Controller and Room Controller Clima:

- To configure and operate the system
- $\ensuremath{\boxtimes}$ Versions for heating or for heating and cooling with humidity detection
- Dew point-controlled flow temperature control
- 🖾 With or without WLAN module
- Coloured touch display with glass surface for easy operation

LEDcontroller and LEDcontroller Clima:

- In addition to temperature measurement, Clima version also records relative humidity, airquality and CO₂
- Coloured display of air quality (IAQ) via LED
- $\ensuremath{\boxtimes}$ Displaying and setting the temperature via the touch display
- Communication via WiFi with Room Controller Clima WiFi
- Dew point-controlled flow temperature control

Room Sensor and Room Sensor Clima:

- Measurement of temperature and relative humidity
- ☑ Versions for heating or for heating and cooling with humidity detection
- ☑ With or without WLAN module

HERZ INTER





3.500

Employees worldwide

Modern technology means using less energy while maintaining or increasing comfort and no need to be ashamed of having a warm home. For this reason, HERZ is continuously developing innovations and efficient product solutions so that this comfort can remain affordable for everyone.

The Austrian HERZ Group, with its focus on energy efficiency and the associated production of biomass systems, heat pumps, fittings, district heating stations, control technology and insulation materials, supplies the products required for efficient supply and is uniquely structured in this form in Europe.



As an Austrian company, HERZ is present with great success in the HVAC sector on all continents with 50 subsidiaries and 44 production sites in



12 European countries. HERZ products are considered indispensable when it comes to efficient supply and long-lasting quality. That is why they are in high demand and successfully in use worldwide, from Canada to the Fiji Islands.

INDIA



Shiv Nadar University is one of India's leading universities. Specialising in engineering, natural sciences, humanities and social sciences, management and entrepreneurship as well as the Academy for Continuing Education, it offers its students a promising educational future.

When expanding the premises, the university opted for the proven quality of HERZ. The now world-renowned, successful HerzCON model was used for efficient air conditioning and ventilation in various rooms in the new block at Shiv

Nadar University. HERZ products make a significant contribution to the university's energy efficiency and environmental friendliness, which fits in seamlessly with the educational institution's mission.





The new "Stockholm" residential complex was built in the centre of Astana and features state-of-the-art technology. Unconventionally for Central Asia, the flats are heated with surface heating, using numerous HERZ products. Hydraulic balancing was achieved by using HERZ balancing valves in combination with differential pressure controllers. This measure not only ensures even heat distribution in the flats, but is also crucial for the efficiency of the entire heating system.

In addition, numerous HERZ stainless

steel manifolds and pump groups were installed to ensure a reliable and efficient heat supply even under the extreme weather conditions in Kazakhstan. 🖾

\heartsuit	Capital city:	Astana
\heartsuit	Language:	Kazakh
\heartsuit	Area:	2,72 Mil. km²
\heartsuit	Population:	20 Mil.
\heartsuit	Currency:	Tenge
		1€=481,22 KZT

RNATIONAL

NEW ZEALAND



The Ministry of Education in New Zealand is focussing on Austrian quality in its schools. The Ministry is currently replacing coal-fired boilers in all public schools with sustainable and efficient heating systems. Over the next 18 months, HERZ will supply New Zealand's schools with pellet boilers in the output range from 150 kW to 1,500 kW.

Implementation has already begun at Gore Main School in the south of the island. The HERZ firematic 151 pellet boiler is characterised by its staircase grate technology, which enables an optimal air supply and thus ensures energy-efficient and clean combustion to provide comfortable heat in the classrooms.

\bigtriangledown	Capital city:	Wellington
\heartsuit	Language:	English
\heartsuit	Area:	269.652 km²
\heartsuit	Population:	5,12 Mio.
$\overline{\mathbf{a}}$	Currency:	New Zealand Dollar
		1€=1,78 NZD





The 5-star Okura Hotel in the Newport World Resorts in Pasay City, Philippines, opted for the internationally successful HerzCON model to ensure the smooth and efficient operation of its cooling system. HerzCON offers control, regulation, filling, flushing, backflushing, draining, shutting off and filtering in a compact form from a single source.

As a prefabricated direct connection, HerzCON ensures a reliable and fast connection between FanCoils and the heating or cooling system. With 81 hotels worldwide, the luxury hotel chain epitomises elegance and refined Japanese hospitality (also known as Omotenashi). In the Philippines, the hotel offers its guests the perfect combination of Japanese omotenashi and Filipino warmth.





A country with three capitals and eleven official languages - welcome to the Republic of South Africa. In 2003, brothers Etienne and Johan Botma founded the BOTMA poultry farm based near Worcester, South Africa. Due to rising demand, increased production and the high heating costs of LPG gas, the brothers were looking for an alternative heating solution. The decision was made in favour of a Binder boiler that can also burn chicken litter. The project started in October 2023 and is scheduled for completion in Spring 2024. In the first phase, the so-called Binder chicken boiler with an output of 2,100 kW will ensure cosy warmth in the premises. The system is fuelled with a mixture of wood chips and chicken droppings. \square

\bigtriangledown	Capital city:	Pretoria, Cape Town,
		Bloemfontein
\bigtriangledown	Language:	Afrikaans, English
$\overline{\mathbf{a}}$	Area:	1,22 Mil. km²
$\overline{\mathbf{a}}$	Einwohner:	62,03 Mil.
\heartsuit	Currency:	Rand
		1€=20,89ZAR

REFERENCES 13

HERZ HYDRAULIC INTERFACE UNIT



HIU Renova Order nr.: 1 4022 XX

PRECISE CONTROL, RELIABLE HEAT TRANSFER

Domestic transfer stations transfer the heat energy from the central supply system to the individual residential units. Thanks to the individual control of the residential units, demand-led provision of heating and hot water, highly efficient heat exchangers and insulated pipes that help to prevent heat loss, HERZ domestic transfer stations ensure lower operating costs with maximum performance. In times of rising energy prices, this is a clever way to save costs.

he versatility of HERZ domestic transfer stations is demonstrated by their ability to interact seamlessly with different heating systems. Whether in conjunction with efficient district heating networks, environmentally friendly heat pumps or conventional boiler systems - HERZ ensures that the transfer stations can be optimally integrated into the existing heating system. Regardless of which energy source is preferred or whether the current gas boiler is to be replaced -HERZ domestic transfer stations are the right interface to ensure an efficient heat supply in any context. This flexibility makes it possible to utilise the advantages of modern technologies without having

to do without tried and tested heating systems. HERZ therefore offers a wide range of home transfer stations.

Low system temperatures are the key to the energy transition

Low flow and return temperatures are the key to meeting today's requirements for system efficiency in the production and transport of heat. In contrast to gas boilers, HERZ domestic transfer stations offer a sustainable and efficient heat supply. Thanks to the extraordinarily high transfer capacity of the heat exchanger, the return temperature of the entire system is particularly low. A feature that works very well in combination with energy-efficient systems such as district or local heating, heat pumps or even condensing biomass systems.

Restriction of legionella formation

The issue of legionella bacteria is also effectively contained with HERZ domestic transfer stations. As hot drinking water does not have to be stored at any time during normal operation, the development of harmful legionella cultures is practically ruled out.

HIU Renova

The perfect replacement for your gas boiler

The use of HIU Renova is recommended when retrofitting existing gas boilers. This domestic transfer station has been specially designed for use as a replacement for wall-hung gas boilers. A standard connection sequence, modelled on typical gas boilers, facilitates boiler replacement. Extremely small dimensions in combination with the option of connecting the station to the supply pipes from above or below make it possible to replace the gas boiler in the flat without any problems. The supply pipes can be installed in the former chimney, which can now be converted into an installation shaft.

HIU Renova is a compact solution for space heating and hot water. It transfers the heating energy directly to the existing radiator heating system and has a zone valve for convenient control of the home heating via a room thermostat. The heat is produced as required. Unwanted heat loss is prevented thanks to the insulated pipes. The patented pressure temperature regulator ensures uniform tap temperatures for different hot water outputs.

HIU Renova will be available from April 2024 in different hot water output levels from 11 to 18 l/min to meet different needs.

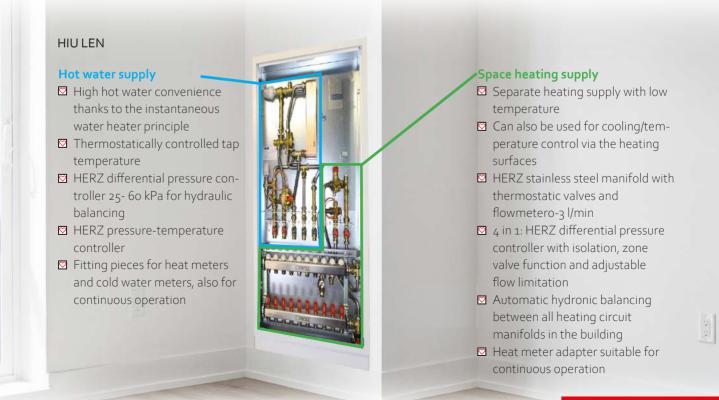
HIU LEN Separate supply, maximum efficiency

HERZ LEN domestic transfer station is the compact home transfer station with minimal space requirements and separate supply for heating and hot water. It has all the necessary components to control both space heating and hot water production in an energy-efficient manner.

While surface heating works at much lower temperatures than water heating, the HIU LEN, as a 4-pipe station with a separate primary supply, ensures more efficient operation at precisely this point. As a result, a heat pump can perform in the optimum temperature range when generating space heating, which ensures lower heating costs.

The HERZ LEN domestic transfer station uses a highly efficient heat exchanger for decentralised hot water heating on demand in the high-temperature circuit. At the same time, thanks to the extraordinarily high transfer capacity of the heat exchanger, the return temperature of the entire system is particularly low. It is not for nothing that the station is called HIU LEN - Low Energy Network. You can now find technical product information, installation examples and much more on our YouTube channel.





Christian Fischer, NHM Technical Director, in an interview with HERZ News.

CHARTER T. T.

GIGANTIC SUCCESS HERZCULES SAVES 440 MEGAWATT HOURS

Just as an asteroid ended the era of the dinosaurs in one fell swoop, HERZCULES is putting an end to unnecessary heat consumption and the considerable amount of CO₂ emissions in the Natural History Museum. In the first heating season after the refurbishment, HERZCULES thermostatic heads were already saving 440 megawatt hours of heating energy. The consequences for the environment and the museum's finances are extremely pleasing: 58 tonnes of CO₂ emissions were avoided by modernising the 674 radiators. Sometimes it really is the small measures that protect our environment.

The collections of the Natural History Museum date back to 1750. Franz Stephan of Lorraine, husband of Maria Theresa and Holy Roman Emperor from 1745 to 1765, acquired the largest and most famous natural history collection in the world at the time from the important late Baroque natural history collector Johann Ritter von Baillou. After the emperor's death, Maria Theresa donated the collection to the state. It was housed in the newly built wing of the Hofburg and was open to the public twice a week. Over time, many more exhibits were added by the Habsburgs, such as the hunting trophies and the Hofburg proved to be too small. For this reason, the two court museums were also designed in the course of the Ringstrasse buildings: The Natural History Museum for natural exhi-



Entrance hall in the Vienna Court Museum of Natural History.

bits and the Art History Museum for paintings. The Natural History Museum was opened by Emperor Franz Joseph I. on 10 August 1889. Today, the Natural History Museum is one of the largest non-university scientific institutions in Austria, with around 30 million exhibits and 60 scientists employed to conduct lively research on the artefacts from various disciplines.

Gigantic success -A function that will not die out

As part of a co-operation, HERZ donated 674 HERZCULES thermostatic heads to the Natural History Museum for the existing radiators, which until then had no suitable control system. With HERZ-CULES, the temperature is set using a special tool and cannot be manipulated from the outside. However, HERZCULES is not only protected against unauthorised operation, but is also theft-proof and resistant to vandalism. A dream come true for all public institutions, as experience has shown that many visitors regard thermostatic heads as souvenirs. Christian Fischer, Technical Director at the Natural History Museum, talks about the co-operation and the successful results in an interview with HERZ News.

HERZ News: How did the cooperation with HERZ come about?

Christian Fischer: When I started my position at the NHM in 2020, I found a relatively undocumented infrastructure. My first task was to have the entire HVAC system structure recorded, from valves to radiators, pipework and so on. During the first recording run, I realised that we had 674 radiators, but no thermostatic heads. I then asked HERZ if we could get thermostatic heads at cost price and, to my great delight, Mr Glinzerer provided us with the thermostatic heads free of charge.

HERZ News: In other words, all the radiators were not regulated at all before?

Christian Fischer: Yes, unfortunately. Visitors always take souvenirs from the museum, in this case it was the thermostat heads. They were also always turning the



thermostatic head. In winter it was unbearably hot, as we also have quite a high number of visitors and the heat from the lighting adds to that. So we needed something that was also theft-proof and not adjustable. HERZCULES was just what we needed. **HERZ News**: What is used for heating in the Natural History Museum?

Christian Fischer: We have been using district heating since 1976. The house used to be heated with brown coal. On a cold January day, around 10 tonnes of lignite were used. The heating was switched on early at 6 a.m. and was diligently topped up during the day. Since the NHM no longer uses lignite for heating, the air quality in Vienna is much better (*laughs*).

HERZ News: We already have one heating season behind us, what are the results since the radiators have been controlled with HERZCULES?

Christian Fischer: Very successful. Thanks to the control system with HERZCULES, we have saved 440 MWh of heating energy and thus reduced our environmental impact by 58 tonnes of CO₂. That's marvellous.

HERZ News: That's great news. What other technical adaptations are in the pipeline?

Christian Fischer: We have many projects, but for capacity reasons we can only continue working in small steps. I am also personally very interested in optimising the energy efficiency of such a historic building. For example, the building relies on window ventilation to gua-

A new era begins

It has been 66 million years since an asteroid with a diameter of 14 km and a speed of 72,000 km/h hit the earth, formed the Chicxulub impact crater on Yucatán in Mexico and wiped out around 75 per cent of all living creatures. For comparison: at this speed, the flight time from Vienna to Mexico would only take 8 minutes.

Due to the speed, mass and angle of impact of the meteorite, the crater floor rose several kilometres high, a mega-tsunami broke out, rock material reached the stratosphere and rained back down to the earth's surface as glowing chunks and particles spread over thousands of kilometres, causing fires. The impact also caused several billion tonnes of sulphur to evaporate and mix with water vapour in the atmosphere. This destroyed the ozone layer, which led to a cooling of the global climate for more than a decade due to solar dimming. This in turn triggered a massive extinction of species both on land and in the sea. A chain reaction of catastrophes occurred.

This event marked the transition from the Mesozoic Era to the New Era, i.e. the age of birds, mammals and humans.

In 2013, vertebrate palaeontologist Robert DePalma discovered fossils from the day of the meteorite impact in North Dakota, 3,200 km away from the Yucatán impact site, which were brought there by the tidal wave.



"Birds are the living dinosaurs of our age." - Feathered dinosaur "Dinobird" in the NHM.

rantee the fresh air requirement because we can't install ventilation ducts in the historic rooms. In the past, the vertical shafts that run from the cellar to the roof were used to distribute warm and cool air throughout the house. For fire safety reasons, however, the outlet openings were bricked up. One project that is particularly close to my heart is to revitalise such a historic air shaft and use it for core cooling of the house in summer.

HERZ News: You have a large number of sensitive exhibits here. What are the requirements for heating the premises?

Christian Fischer: The easiest are the many bones and rocks. They don't care whether the room is 20 or 30 degrees. In contrast, we pay close attention to the room temperature for our stuffed specimens and in the botanical garden. We have to protect them from bio-invaders, i.e. moths and the like. We therefore make sure that the temperature in the mammal collection is fairly low so that the moths don't want to reproduce. We achieve this at around 10 degrees. Salt minerals and meteorites are also very delicate, as a certain level of humidity promotes the formation of rust.



The HERZ thermostatic head in solid construction is "tough as nails", but under its hard shell is an intelligent core: a highly sensitive liquid sensor that regulates the room temperature.

HERZCULES Order nr.: 1 9860/9861 XX

	ALL.
	CHERQULES
Ber	hefits
	Solid design Theft-proof Vandal-proof Flame retardant
	Protection against unauthorised use For all public facilities

HERZ News: It is possible to support the Natural History Museum through a sponsorship. Would you like to tell us something about it?

Christian Fischer: Any interest in the natural sciences benefits the museum. The Natural History Museum has so-called type specimens. These are animals and plants on the basis of which a genus and species were described for the first time. This is a very special matter. There is still a lot to research and collect, but we have a very tight purchasing budget for collections. Every donation at www.nhm-wien.ac.at supports science and research and enables us to purchase collections. In addition, every donation provides food for the dinosaur (*laughs*).

HERZ News: What is the last thing you would like to tell our HERZ News readers?

Christian Fischer: Conserve our resources and our environment. If we don't look after our planet, the Natural History Museum will soon run out of display cases to house all the extinct animal species.

HERZ News: That's very well said. I hope it makes some people think. Thank you very much for the nice interview. ⊠





HERZ DYNAMIC THERMOSTATIC VALVE THE RADIATOR VALVE OF THE FUTURE

In the dynamic world of heating control, HERZ proudly presents the radiator valve of the future - HERZ Dynamic Thermostatic Valve. This valve, which is mounted directly on radiators, skilfully combines the tried and tested functionality of a classic thermostatic valve with a differential pressure controller in one housing. The integrated differential pressure controller ensures that the required amount of water is available to each radiator. The combination of these two crucial functions is the easiest way to achieve an efficient heat supply.

The integrated differential pressure controller enables the HERZ dynamic thermostatic valve to keep the flow rate at the radiator constant under changing pressure conditions. Pressure fluctuations caused by the opening or closing of other radiators in the system are regulated completely automatically. A decisive advantage: neither system changes or system extensions require readjustment or a change to the setting on the dynamic thermostatic valve, which minimises the effort required for hydronic balancing.

In combination with the HERZ thermostatic heads, the tried and tested HERZ thermostatic valve insert provides highly efficient and reliable room temperature control. Precision, accuracy and efficiency meet the high expectations of a HERZ thermostatic valve.

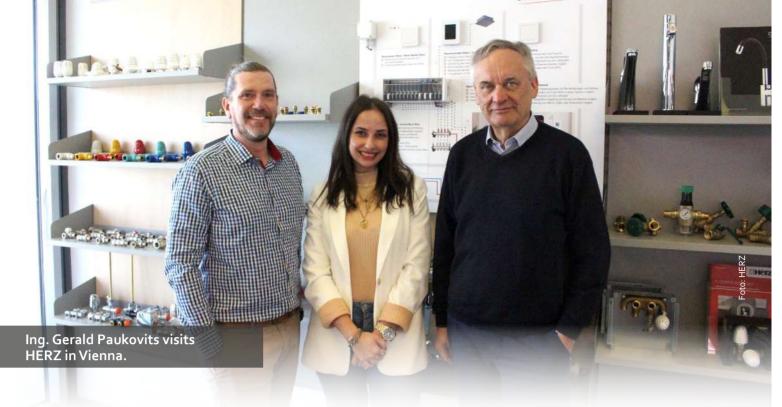
The HERZ dynamic thermostatic valve offers a flexible solution for different areas of application in the angle version, straight-through version and reverse angle version. The control of flow rates from 10 l/h to 120 l/h and the maximum differential pressure of 60 kPa enable a wide range of applications. HERZ dynamic thermostatic valve will be available from April 2024 in the angle and straight-through versions in DN 15, followed by the reverse angle version from Autmn 2024. ⊠



Benefits

- Optimum energy-efficient room temperature control with HERZ thermostatic heads
- Precise flow control independent of differential pressure
- No readjustment effort for system changes
- Automatic mode of operation

PRODUCT 19



HYDRAULIC BALANCING THIS IS THE REALITY

Funding for hydraulic balancing? Yes, there is. For years, the importance of hydraulic balancing was underestimated. The main victims were the end users - some due to insufficient heat in the rooms, others due to overheating of the rooms. What they all had in common, however, were the high operating costs resulting from the excess energy consumption caused by the unregulated heating system. Converting the system requires knowledge, time and money.

Since last year, funding has been available for heating optimisation in multi-storey residential buildings with at least six units. This time, the focus is also on consultation, as only projects in which both the consultation and the investment measures are carried out are subsidised. Industry expert and sworn expert Gerald Paukovits writes for our HERZ News readers about hydraulic balancing and its simple realisation:

What is it that everyone is talking about?

Hydraulic balancing of heating systems is an important process for ensuring efficient and even heat distribution in buildings. This process is becoming increasingly important in Austria, as it not only saves energy but also protects the environment. With hydraulic balancing, the radiators or underfloor heating systems in a building are adjusted so that each room receives the required amount of heat. This is done by individually adjusting the flow rates at each heat-emitting surface according to the heating load in accordance with ÖNORM H 7500 or ÖNORM EN 12831.

Without hydraulic balancing, heat distribution may be uneven, leading to increased energy consumption and a loss of comfort. The larger or more extensive the circumstances and therefore the supply network, the more precisely the control or regulating valves must be calculated in order to ensure an even heat supply. Whether differential pressure regulators, volume flow regulators or static regulating valves are used depends on the respective circumstances. In this case, it is essential to carry out an on-site survey or review the existing building documents.

Funding

In Austria, the hydraulic balancing of heating systems is subsidised by various measures. For example, there are funding programmes at federal and state level that offer homeowners financial incentives for carrying out hydraulic balancing. These subsidies can cover part of the costs and thus make the investment more attractive for homeowners.

Funding is available for projects carried out from 1 April 2023 that include both service and investment costs. Registration for the subsidy is exclusively online at www.umweltfoerderung.at and can be submitted by building owners or their authorised representatives. The grant is calculated as a lump sum for each heated unit and is limited to 50% of the eligible consultancy costs and 50% of the eligible investment costs.

More information at: www.umweltfoerderung.at

What is important?

Г

The calculated volume flows can only be efficiently transported to the respective heat-emitting surfaces by correctly setting all the control components of a building with suitable measuring devices. Water is a "lazy" medium and always seeks the path of least resistance. Correct hydraulic balancing adjusts the resistances so that the medium is distributed correctly throughout the system. Even to the most distant heating surfaces.

An example from practice -Conversion of an old apartment block

An example of successful hydraulic balancing can be illustrated using an old apartment block with little to poor thermal insulation in Wiener Neudorf. The building had a single-pipe heating system without temperature or volume flow regulation for the individual residential units. Room temperature control could only be realised using the "window ventilation" method. The reason for this was that, despite the radiators being switched off, heat continued to be emitted into the room via the ring of the single-pipe heating system in the floor. This was no longer acceptable. We proposed and implemented a room temperature control system that acts on an adjustable zone valve with actuator for each residential unit in the stairwell of the respective storey or the route to the flat. This made it possible to adapt the volume flows of the individual residential units to the heating load. The room temperature controller in conjunction with the zone valve had the advantage that when the desired room temperature was reached, the zone valve also closed the ring of the single-pipe heating system via the actuator. This measure made it possible to get the problem of overheating under control.

Through the adjustment, the water quantities could be reduced to such an extent that they actually correspond to the calculation according to ÖNORM H 7500 or ÖNORM EN 12831. Subsequently, the heating pumps were converted to operation so that they can react to the number of active flats and thus adjust the volume flow.

The result - 36 % savings in the amount of heat

By controlling the room temperature and regulating the heating circuits with the correct volume flow per unit, lower return temperatures could be achieved. Regulated flats generally have a lower

messpunkt

Ing. Gerald Paukovits has been working in the field of hydraulic balancing for over 10 years and runs the company Messpunkt GmbH. As a sworn and court-certified expert for heating technology, sanitary installations, drinking water hygiene, ventilation technology and air conditioning technology he supports his customers from the initial consultation and calculation of the necessary measures through to the installation of the control or regulating valves and the recording of the hydraulic balancing in accordance with ÖNORM EN 14336.

Contact:

Messpunkt GmbH Gumpendorferstraße 43 / 2-3 A-1060 Vienna www.messpunkt.at

heat requirement and therefore less heat loss. Thanks to these measures, a saving of 36 % of the previously purchased heat was achieved in this property.

HERZ News would like to thank Mr Paukovits for his exclusive contribution, which gives our readers an insight into the practical world of hydraulic balancing. ⊠





HEAT AND EFFICIENCY COMBINED

HERZ district heating transfer stations play a central role in the efficient distribution of heat in residential and industrial buildings. As the link between the district heating network and the consumers, the district heating transfer station transfers and measures the amount of heat supplied and enables integration into a remote monitoring and control system. Its benefits are of great importance both for the environment and for consumers.

Individual designs

HERZ offers 3 different models of district heating transfer stations, depending on the area of application. Basically, the following applies: On the primary district heating side, the output of all district heating transfer stations is controlled electronically. The installation of a heat meter is prepared. Depending on the model and customer requirements, prefabricated models in different output groups can be purchased or a customised model with outputs from 20 kW to 4 MW can be transferred. A modular system makes it possible to respond quickly to different customer requirements using standard modules.

Adaptation to customer needs

Each station is planned and produced in accordance with the technical guidelines of the district heating provider and can also be manufactured according to special requirements. The dimensions can be adapted to the intended installation location. The compact design and good accessibility of components enable user-friendly maintenance. Special attention is paid to user training by HERZ specialists for the operation and maintenance of the district heating transfer station.

HERZ District heating transfer station 35 kW - 200 kW

HERZ offers various models of district heating transfer stations. The HERZ district heating transfer station 35 kW - 200 kW stands out in particular with its compact design. The model is ideal for supplying single and multi-family homes, but also for commercial enterprises and is available in 4 different output groups:

- 🖾 35-55 kW
- 🗹 45-90 kW
- 🖾 75-150 kW
- 💟 100-200 kW



The fail-safe drive on the primary side contributes to safety and reliability in the event of a power failure. In this case, it closes the pressure independent control valve and thus protects the system from overheating or overpressurisation. The pre-installed safety group on the secondary side with automatic air vent, pressure gauge and 3 bar safety valve ensures proper functioning and provides overpressure relief. This prevents damage to the district heating transfer station or other system components.

Less heat loss through high-quality insulation

A special feature in addition to the technical aspects is the high-quality insulation of the district heating transfer station. The stainless steel heat exchanger is insulated with custom-fit rigid foam polyurethane insulation. Due to its closed-cell structure, this type of insulation offers a high thermal insulation capacity

and helps to reduce heat loss. All pipe sections are insulated with PU foam and aluminium coarse-grain lamination.

The customised and finished insulation kit is supplied with the product and provides energy benefits and visual elegance. The new HERZ district heating transfer stations therefore make a significant contribution to reducing energy consumption, protecting the environment and ensuring a reliable heat supply.

Primary:

Max. operating temperature: 110 °C Max. operating pressure: 16 bar

Secondary:

Max. operating temperature: 80 °C Max. operating pressure: 3 bar

HERZ district heating transfer station 20 kW - 4 MW



From single and multi-family homes to large plants and businesses, HERZ district heating transfer stations knows no limits. The standard model includes a heat exchanger (soldered or screwed), a combination valve, an electric actuator, an ultrasonic flow meter, a circulation pump (speed-controlled), temperature and pressure measuring devices, strainer, non-return valves and a safety valve.

Depending on the location and customer requirements, the HERZ district heating transfer station can transfer up to 4 MW of power. The operating parameters can also be adapted.

Primary:

Max. operating temperature: 150 °C Max. operating pressure: 25 bar

Secondary:

Max. operating temperature: 95 °C Max. operating pressure: 16 bar

HERZ district heating transfer station 12 kW - 30 kW



Compact and fully equipped district heating transfer station with all necessary components, safety devices and control technology up to 30 kW output. Ideally suited for detached houses and apartment buildings looking for a compact solution, as this station integrates hot water preparation and heating circuits on the secondary side ready for connection.

The control system with all sensors and actuators is pre-wired. One or two low-temperature heating circuits as well as high-temperature heating circuits or one low-temperature and one high-temperature heating circuit can be implemented.

Primary:

Max. operating temperature: 110 °C Max. operating pressure: 16 bar

Secondary:

Max. operating temperature: 70 °C Max. operating pressure: 3 bar



DYNAMIC THERMOSTATIC VALVE

The radiator value of the future.







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