Heat transfer stations
TransTherm

Hoval

Responsibility for energy and environment

Ready-to-connect complete systems – from compact stations for single family homes right up to custom-made transfer stations for complex system solutions.

Front page:
Close-up view of the heat exchanger in the TransTherm heat transfer station.

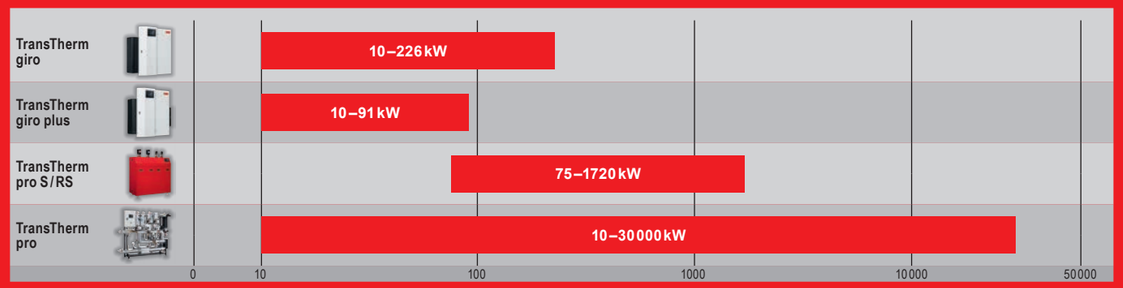
TransTherm.
Heat transfer stations for local and district heating networks.

Systems where heat is supplied from a central location and then distributed via local or district heating networks are being used more and more often in large residential, commercial, administration and municipal buildings, as well as by other consumers with high heat demands.

Heat transfer stations play a crucial role in such systems, as efficient and reliable distributors of heat. Hoval heat transfer stations fulfil this task at the highest possible level, due to the materials used in them and their sophisticated yet compact design. Hoval offers four type series, covering a range of power outputs suitable for single family homes right up to large high-energy buildings.

The benefit of choosing Hoval: from design and commissioning work to the instrumentation and control system, everything is supplied from a single source, meaning that all components are perfectly coordinated with one another and work with maximum efficiency. This saves money and protects the environment.

TransTherm overview of types and outputs:



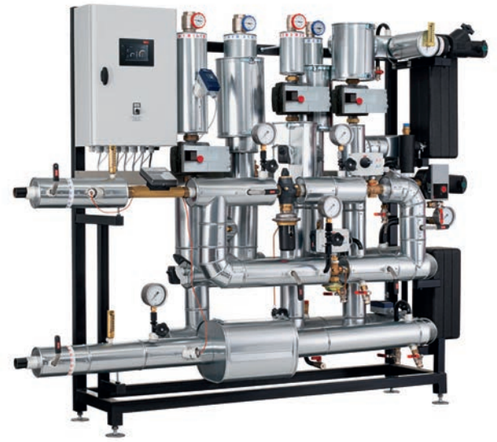
Hoval TransTherm heat transfer stations: 4 models for an extremely wide range of applications covering an output range from 10–30000 kW.

TransTherm.
For all application areas.

TransTherm giro (10, 20, 40, 60, 80)
Compact heat transfer station
for refurbishments and new buildings.
Heat outputs: 10–226 kW

TransTherm giro plus (10, 20, 40)
Compact heat transfer station
with integrated fresh water module
and heating valves for
refurbishments and new buildings.
Heat outputs: 10–91 kW

TransTherm pro S/RS
Compact station for heat transfer and regulation of
heating and hot water production systems.
Heat outputs: 75–1720 kW.



TransTherm pro
Custom-made heat transfer station
for any application and power range.
Heat outputs: 10–30000 kW

TransTherm heat transfer stations.
Advantages at a glance.

Sophisticated

Customised solutions

- **System solutions with an excellent price/performance ratio**
  based on efficient, customised products for every requirement
- **Planning certainty and efficient solutions**
  due to Hoval's systems expertise

Economical

Preservation of value

- **Maximum operating safety and longevity**
  due to high-quality materials and robust workmanship
- **Minimum heat loss**
  due to first-rate thermal insulation

Easy to use

Ready-to-connect complete systems

- **Time-saving, simple installation**
  due to an intelligent design
- **Minimum space requirements**
  due to compact size
- **Individualised coordination and adaptation**
  by Hoval district heating specialists

Ecological

Assured efficiency

- **Efficient heat transfer**
  due to high-quality stainless-steel heat exchangers
- **Economical, needs-oriented heat supply**
  governed by the TopTronic® E controller

TransTherm heat transfer stations.
Making efficient use of local and district heating energy.

Complete, installation-friendly solution

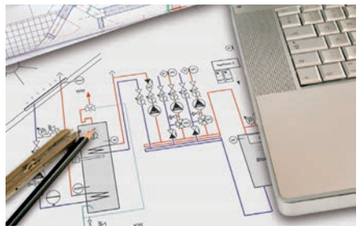
When designing the TransTherm heat transfer stations, the focus was on creating units that are flexible and simple to install. The stations are delivered as ready-to-connect complete systems, fully equipped with all subassemblies. The systems are preassembled at the Hoval production facility to ensure rapid and trouble-free installation on-site. Due to their compact design, the installed units have minimal space requirements.

Flexible installation options

All control units and measuring instruments are clearly arranged and integrated in an accessible manner. Since the connections to the heating network can be positioned flexibly, the operating elements are readily accessible in all design variants.

Preservation of value

High-quality materials such as stainless steel for the plate heat exchangers and careful workmanship that meets the high quality standards of Hoval ensure a long service life and preserve the value of your investment.



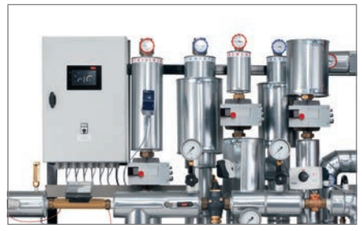
Designed properly from the very start

The great flexibility of the TransTherm models, which is based on their power spectrum and design, combined with Hoval's systems expertise, enables systems to be created which fully exploit all factors to achieve the optimum price/performance ratio. From the very beginning of the design process, system requirements regarding temperature and pressure, the individual heat demand of the consumer and the technical connection conditions of the heat supplier are taken into account, amongst other aspects.

Proven and tested quality

Hoval heat transfer stations are designed, configured and manufactured in close adherence to the following regulations:

- Technical connection requirements of the energy supply company (TAB)
- DIN and AGFW regulations
- EN Pressure Equipment Directives



High-quality and fully equipped

All Hoval heat transfer stations are delivered fully equipped. All components are already integrated, as is the controller.
High-efficiency circulation pumps ensure economical operation in terms of the amount of electricity used. Stainless-steel plate heat exchangers provide superior heat transmission from the heating networks to the heat distribution system in the building.

A suitable solution for every requirement and power range

The high-quality heat transfer stations from Hoval offer a suitable solution for every requirement, ensuring that the energy is safely and reliably transferred from the heating network to the building heating system with a very high level of efficiency.

The heat source for Hoval transfer stations can be a biomass heating system or waste and residual heat from power plants. Hoval's wide product range and systems expertise is brought fully to bear in micro-networks, as in such cases the heat generator is supplied by Hoval directly in the centralised heating system.

It is easy to create customised solutions for the high power range, e.g. for steam networks and energy-intensive processes, using the TransTherm pro.

TransTherm giro (10, 20, 40, 60, 80). Compact heat transfer station for refurbishments and new buildings.

The TransTherm giro compact heat transfer station is particularly well suited to projects where building heating systems are to be integrated into a heating network with existing components. The fully-welded stations feature flexible connection options and low pressure losses, as well as being easy to maintain and virtually indestructible.

Secondary connections at the top and bottom
for flexible, rapid installation.

Complete system with an integrated TopTronic® E controller
for:
- 1 direct circuit
- 1 mixer circuit
- 1 hot water charging

Flexible connection options
avoid pipe crossovers during installation. The connections to the district heating network can be arranged on the left or right.

Stainless-steel plate heat exchangers
ensure efficient heat transmission and a long service life.

Compact design
requires little space and facilitates transport whilst also providing ready access to all system parts for service.

Preassembled at the factory
so saves time and effort during installation.

100% heat insulation
as a result of being completely lined with insulating non-woven pads.

Dependable, durable design with corrosion-resistant aluminium casing
provides longevity due to the fully welded design and operating safety due to proven technology.

Excellent workmanship
ensures low pressure losses and high efficiency levels.

Technical data TransTherm giro (10, 20, 40, 60, 80)		District heating, heating water	Secondary heating
Heat output	kW	10–226	10–120 at tVL 45–75 °C
Operating temperature	°C	max. 110/150	max. 100
Operating pressure	bar	16/25	3
Volume flow	m3/h	max. 2.8	max. 3.5
Connection size		DN 20 (¾" IG)	DN 25 (1" AG)
Closing pressure of valve actuating drive*	bar	max. 0.45–4 / 20	
Casing dimensions W/H/D	mm	791–887 / 800 / 408	
Weight	kg	35	

* Depends on the valve type

Subject to modifications

TransTherm giro plus (10, 20, 40). Compact heat transfer station with DHW module and group of heating valves.

The TransTherm giro plus is a compact heat transfer station with an integrated fresh water module and heating valve group. Due to its flexible connection options, it is equally suited to refurbishments and new buildings.

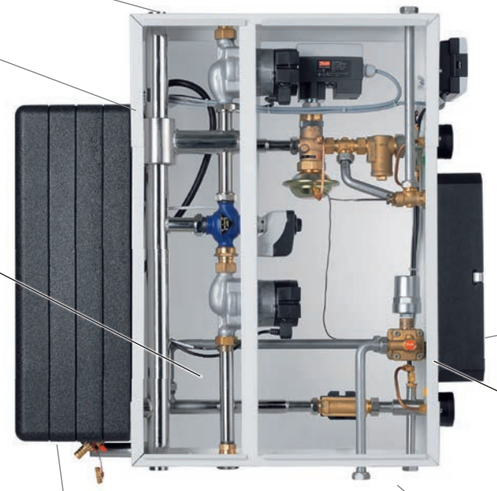
Secondary connections at the top and bottom
for flexible, rapid installation.

Compact design
requires little space and facilitates transport whilst also providing ready access to all system parts for service.

Preassembled at the factory
so saves time and effort during installation.

100% heat insulation
as a result of being completely lined with insulating non-woven pads.

Flexible connection options
avoid pipe crossovers during installation. The connections to the district heating network can be arranged on the left or right.



Stainless-steel plate heat exchangers
ensure efficient heat transmission without losses and a long service life.

Complete system with an integrated TopTronic® E controller
for:
- 1 direct circuit
- 1 mixer circuit
- 1 hot water charging

Fresh water module
for producing hot water as required.

Dependable, durable design with corrosion-resistant aluminium casing
provides longevity due to the fully welded design and operating safety due to proven technology.

Excellent workmanship
ensures low pressure losses and high efficiency levels.

Technical data TransTherm giro plus (10, 20, 40)		District heating, heating water	Secondary heating	Fresh water module
Heat output	kW	10–91	10–91 at t_{VL} 45–75 °C	33–55 (2,3)
Operating temperature	°C	max. 110/150	max. 100	65...45–10 °C
Operating pressure	bar	16/25	3	10
Volume flow	m^3/h	max. 1.5	max. 3.21	max. 1.76
Connection size		DN 20 (¾" IG)	DN 25 (1" AG)	DN 20 (¾" AG)
Closing pressure of valve actuating drive(1)	bar	max. 0.45–4 / 20		
Casing dimensions W/H/D	mm	750–900 / 800 / 408		
Weight	kg	48		

1) Depends on the valve type
2) Depends on the temperature program
3) Depends on the valve and heat transmitter type

Subject to modifications

TransTherm pro S/RS (A-66 – H-200). High-quality compact station in 8 output ratings with and without casing for larger systems.

TransTherm pro S/RS is a compact district heating station for conventional connection to the district or local heating network. It is available in 8 different output ratings for connection outputs from 30 –1720 kW. The TransTherm pro RS design is available with casing.

The TransTherm pro RS design with aluminium sheet casing.

Secondary flow and return

Primary flow and return

TopTronic® E controller
can be operated from the outside to enable the system to be controlled in a user-friendly, needs-oriented manner. The usage periods are freely programmable.

Control panel

Integrated heat meter (optional)
precisely records and monitors consumption.

Stainless-steel plate heat exchangers
ensure efficient heat transmission and a long service life.

Sturdy metal frame

Combination valve
regulates output.

Image: TransTherm pro S

Overview of types and outputs TransTherm pro S / RS		(A-66)	(B-96)	(C-80)	(D-120)	(E-140)	(F-160)	(G-180)	(H-200)
Heat output *	kW	149	194	240	400	494	572	915	1417

Technical data TransTherm pro S / RS		District heating, heating water	Secondary heating
Heat output*	kW	149 – 1417	149 – 1417
Operating temperature	°C	max. 110/150	max. 110
Operating pressure	bar	16/25	max. 6
Connection size		DN 32 – 100	DN 40 – 125
Closing pressure of valve actuating drive*	bar	12 – 20	
Casing dimensions (W/H/D) TransTherm pro RS (A–C) TransTherm pro RS (D–G) incl. heat exchanger without heat exchanger	mm	1190 / 1440 / 600 2350 / 1600 / 640 1765 / 1600 / 640	

* Reference temperature primary 90-52 °C / secondary 70-50 °C

Subject to modifications

TransTherm pro. Heat transfer station produced individually to suit every application.

The TransTherm pro offers a made-to-measure solution to suit all requirements and all power ranges above 10 kW. TransTherm pro stations are designed and constructed specifically for your building from the ground up. Heating power of 10 to 30 000 kilowatts and more can be achieved.

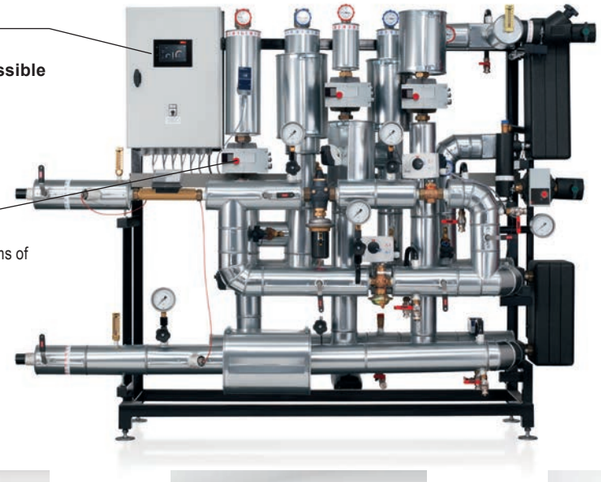
Individually designed and manufactured

TransTherm pro enables you to meet an extremely wide range of requirements regarding the efficient distribution of heat to the building and the dimensioning of the heat output. Each system is individually designed and the transfer station is custom-constructed and manufactured. However, the installation process stays simple, since the TransTherm pro is supplied ready to connect. In addition, the Hoval instrumentation and control system, as well as Hoval Service, guarantee highly efficient and reliable operation.

3D planning aid

On request, our specialists create 3D design drawings of stations with complex designs or difficult local conditions. These are useful instruments when planning the transport of systems into buildings and their final location.

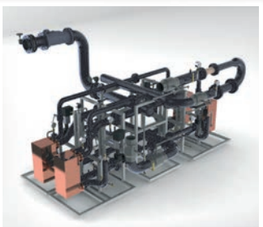
Integration into central control equipment is possible



High-efficiency pump
for economical operation in terms of the amount of electricity used.

Pre-wired and ready to connect
This is how all electrical components such as the district heating controller and all field devices including pumps, drives, sensors, etc. are supplied as standard.

TransTherm pro district heating stations with a fully welded design are mounted in a non-vibrating manner on a floor or wall mounting frame. Special paintwork provides effective protection against corrosion.



Optimised pre-wiring in cascade systems with a multi-frame design keeps connection work to a minimum.

If cramped local conditions make it difficult to transport the station into the building, the unit can be designed with a modular structure that allows it to be separated into multiple parts.

TransShare.
Heating distributor.

The flexible TransShare heating distributor with a fully welded design is mounted in a non-vibrating manner on a floor mounting frame. Nominal pressures up to PN10 and maximum temperatures up to 110 °C can be achieved. In order to achieve lower return temperatures, the distributor can take the form of a three-chamber distributor with flow, medium-temperature return and low-temperature return if necessary. The type of connection to the heat generator can be freely selected prior to production and is either on the left or right facing up. The heating distributor design can include a controller and an electric control panel. The DDC controller and all electrical field devices (drive and sensor) are then wired and ready to connect. Complete preassembly shortens installation times and minimises the amount of work involved.

For cold applications below the dew point, we offer the TransShare cold distributor with the appropriate valves, double corrosion protection coating and cold insulation.

The system is designed and manufactured in line with the generally recognised codes of practice and is certified according to ISO 9001.

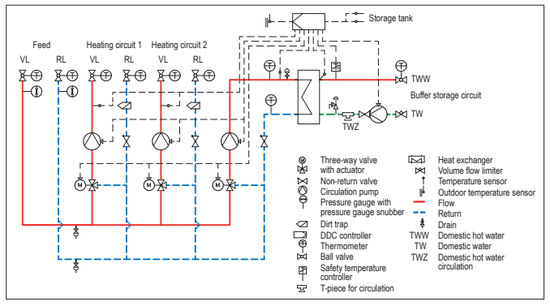
TransShare 1E-2H-1IL technical data		Power supply
Output		30...10 000 kW [1,2]
Nominal pressure	PN	10 bar [2]
Maximum pressure	PS	3 / 5 / 10 bar
Test pressure	PT	5 / 8 / 15 bar
Min. differential pressure	ΔPmin.	0.1 bar [3]
Max. differential pressure	ΔPmax.	0.2...4.0 bar [2]
Operating temperature	TB	100...70 – 55 °C [2]
Maximum temperature	TS	110 °C [2]
Connection dimension	DN	20 – 500
Heat insulation:		50% acc. to EnEV / specific heat loss coefficient BDS < 3,9 kWh/(a*K*kW [1,3])
Electrical connection:		230 VAC / 50 Hz / 50 – 5000 W
Dimensions (H/W/D)		1710 – 4670 mm / 1000 – 9000 mm / 600 – 1500 mm
Weight		50 – 8000 kg [2,3]

[1] Depends on the temperature program
[2] Depends on the valve and heat transmitter type
[3] Without heat meter

Subject to modifications

Application:

- Direct or indirect connection to the heating network, power range up to PN40 / 300 °C
- Customised production according to the supplier's technical connection requirements
- Number and type of heating circuits and domestic water heating systems pre-wired and ready to connect as required or according to customers' wishes, available on floor or wall mounting frame



TransShare 1E-2H-1IL flow chart

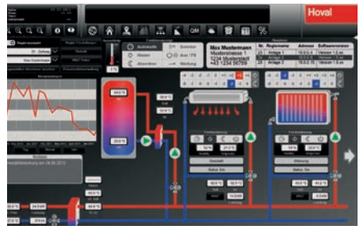
TransShare 1E-2H-1IL 3D system visualisation

TransShare 1E-2H-1IL end product

TopTronic system controller.
For heat transfer stations and entire heating networks.

TopTronic® E control module for the district heating station.

TopTronic® E room control module for excellent convenience.



Clear system visualisation on the screen of the TopTronic® supervisor.

TopTronic® E: Intelligent command centre for your heating system

The TopTronic® E district heating controller communicates with the TopTronic® supervisor instrumentation and control system. This makes it possible to read out all relevant system data using a bus system.
The setpoint and actual temperature values, heating times and settings are monitored and adjusted remotely. M-bus-compatible heat meters transmit the data to the TopTronic® supervisor instrumentation and control system, which in turn analyses the data and then provides the user with information about the cost-effectiveness of the particular heating system.

User-friendly operation with the optional room station

The room station provides ideal convenience for heat regulation. This remote control with a room thermostat is easy to use and regulates the room temperature according to the settings that have been made. It can also be used to set the various operating modes, activation times and timer programs.

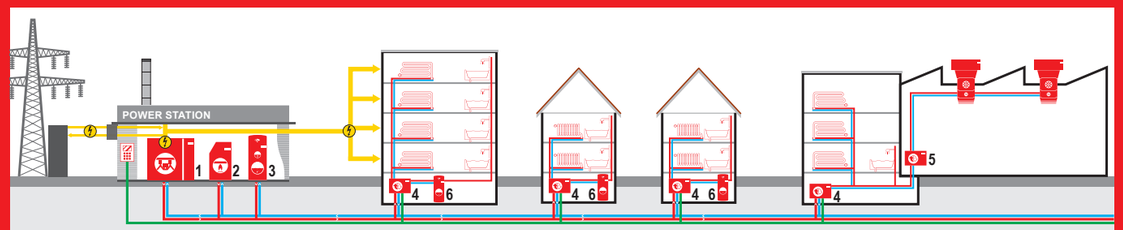
Remote control on the go and via Hoval Desk

TopTronic® supervisor: Total control over the entire heating network

The TopTronic® supervisor control and communication unit executes the higher-level control tasks in complex heating networks and communicates with the TopTronic® E control unit in the TransTherm heat transfer stations. The system monitors and controls the heating network and the transfer of information to the building technology system, whilst also continuously providing all relevant operational data, which can be conveniently monitored and analysed on the screen. It also optimises energy usage during heat generation.

Hoval system solutions. Heating networks from a single source.

In addition to the controller, Hoval will also provide you with the other key components for a heating network.
This guarantees efficient system solutions – including support for design, implementation and service.



Heating network with Hoval components: power station with PowerBloc combined heat and power plant (1), UltraGas® heat generator (2) and buffer storage tank (3), TransTherm heat transfer stations (4), TransShare heating distributor (5) and calorifiers (6) – all connected by the TopTronic system controller.

Hoval TopTronic® system controller

1 **Hoval PowerBloc combined heat and power plant**

2 **Hoval UltraGas® condensing boiler**

3 **Hoval buffer storage tank**

4 **Hoval TransTherm heat transfer stations**

5 **Hoval TransShare heating distributor**

6 **Hoval calorifiers**

Solutions you can rely on.

Hoval

Responsibility for energy and environment.

The Hoval brand is internationally recognised as one of the leading suppliers of indoor climate control solutions. Around 70 years of experience have given us the necessary capabilities and motivation to continuously develop exceptional solutions and technically superior equipment.
Maximising energy efficiency and thus protecting the environment are both our conviction and our incentive. Hoval has established itself as an expert provider of intelligent heating and climate control systems that are exported to over 50 countries worldwide.

Hoval indoor climate systems

Indoor climate systems ensure top air quality and economical usability. Hoval has been installing decentralised systems for many years. The key to its work is using combinations of multiple air conditioning units (even those of different types) that can be controlled individually, but also together as a single system. This enables Hoval to respond flexibly to a wide range of requirements for heating, cooling and ventilation.

Design support from experts.

Take advantage of the expertise of our experienced specialists. We will be happy to support you throughout all project phases when designing your system.
Working in close cooperation with you and taking into account all the specifications of the energy supplier, we develop the most efficient and cost-effective solution for you.

Hoval service expertise.

Hoval systems are professionally commissioned by specially trained and experienced Hoval service technicians, ensuring that the systems will operate perfectly from day one.
Maintenance and troubleshooting are performed on-site by an expert customer service team.

Hoval Group
Switzerland
Hoval AG
8706 Feldmeilen ZH
www.hoval.ch
Austria
Hoval Gesellschaft m.b.H
4614 Marchtrenk
www.hoval.at
Germany
Hoval GmbH
85609 Aschheim-Dornach
www.hoval.de
United Kingdom
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Newark Notts. NG 24 1JN
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China
Hoval Ltd.
100016 Beijing P.R. China
www.hoval.com.cn
Singapore
Hoval Corporation
Singapore 187966
www.hoval.com

Hoval Aktiengesellschaft
Austrasse 70
9490 Vaduz, Liechtenstein
www.hoval.com