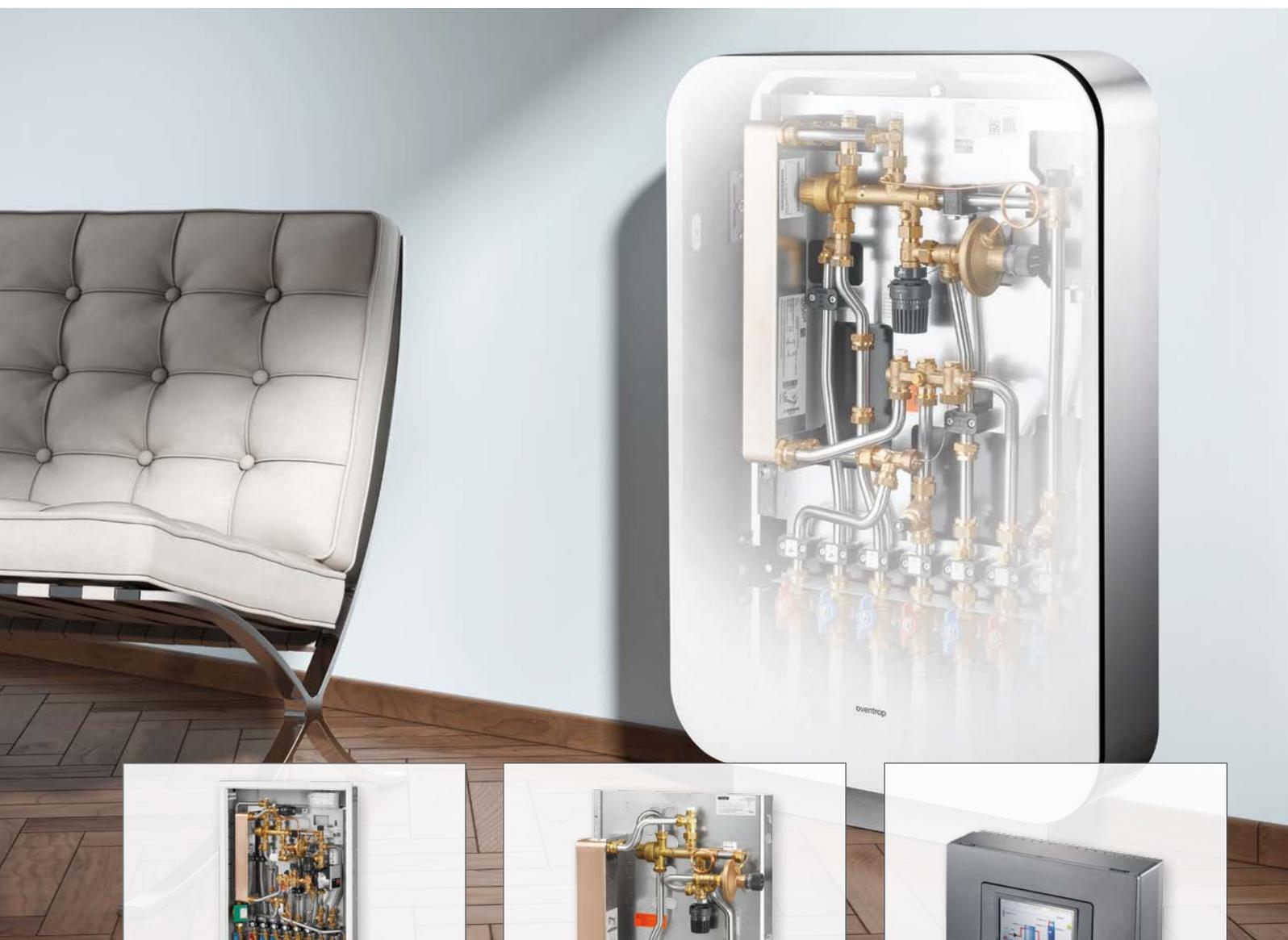
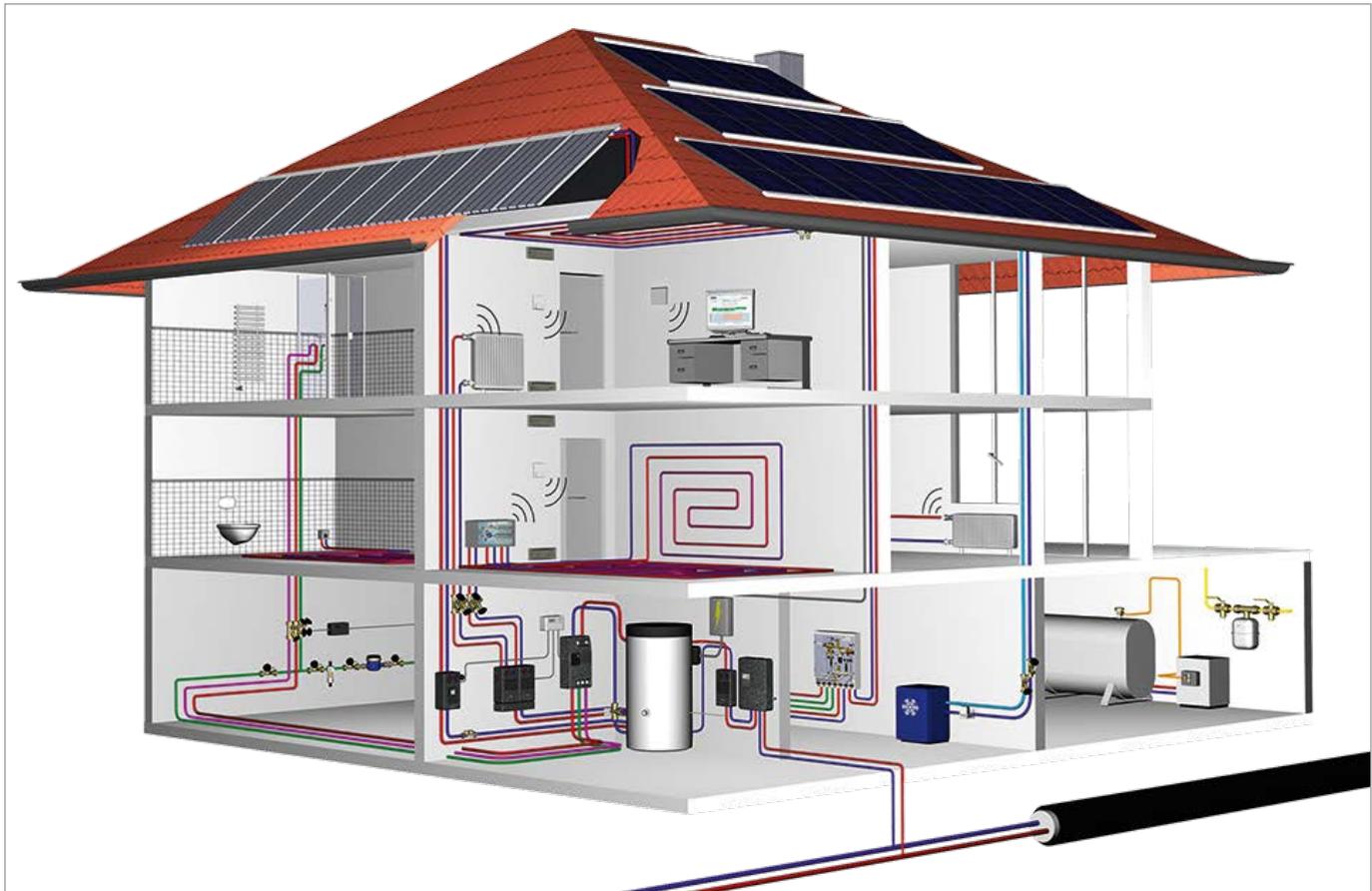


# oventrop

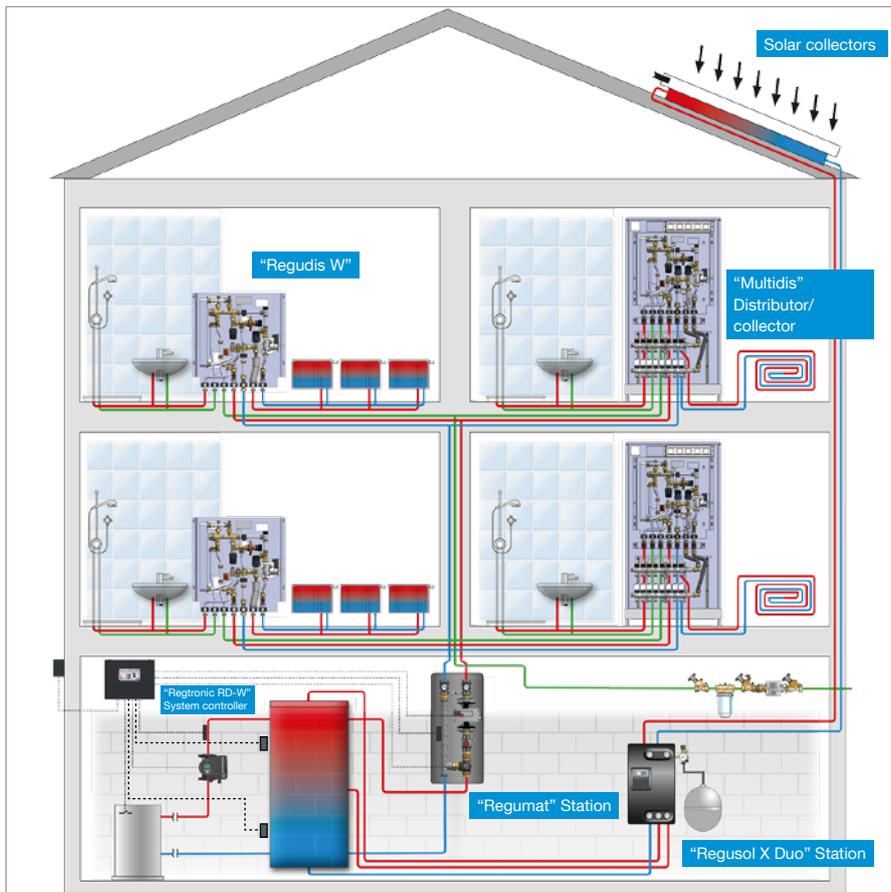
Stations, Storage cylinders, Pipes

“Regudis W” Dwelling stations





<b>3</b>	<b>“Regudis W” Dwelling stations</b>
<b>4</b>	<b>General technical data</b>
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Oventrop products and systems allow for an improved energy efficiency of installations in new buildings and during refurbishment of existing ones.

The Oventrop dwelling stations “Regudis W” supply heat as well as hot and cold potable water to individual dwellings or commercial units without using auxiliary energy.

The option to combine the dwelling stations with solar plants, complies with the legal specifications which increasingly regard the use of regenerative energies. The hot water for heating purposes is provided by a central heat supply, for instance by a district heating network, an oil, gas or wood burning boiler and a buffer storage cylinder. The potable water is heated locally via a heat exchanger according to the continuous flow principle.

### Advantages for the owner



- lower costs than the installation of new wall hanging heating devices and gas flow heaters in each dwelling
- time- and cost-saving installation as only three supply pipes are required in one riser for all dwellings
- smart optical integration due to surface-mounted cover or cabinet
- central heat supply allowing for the combination with regenerative energies
- no circulation pipe required if the water volume in the potable hot water pipe is less than 3 litres
- no examination for legionella required according to the Decree for Potable Water
- no potable water reserve required
- low return temperatures
- piping of the station and heat exchanger made of high quality stainless steel
- station completely pre-assembled on a base plate, leakage and function tested at works
- heat exchanger resistant to scaling due to the thermal compensation which is achieved through the installation position, sufficient thermal length and type of hydronic connection
- low maintenance costs

### Advantages for the user



- setting of the potable water temperature (PWH)
- hygienic, energy efficient operation
- a heat meter and a cold water meter can be integrated into the station and allow for an exact calculation of the water and energy consumption of each dwelling
- only one contract with an energy supplier required which may result in better conditions
- individual night/zone setback
- the surface-mounted cover or cabinet allows for a discrete integration of the “Regudis W” in any room
- increased comfort due to full-year heating operation



Dwelling station "Regudis W-HTU" with plate heat exchanger for the transmission of heat from a central heat supply to the sanitary and heating installation of a dwelling



"PM controller" (DVGW certified)

### "Regudis W" Dwelling stations

Oventrop provides different models of the dwelling station "Regudis W". Distinction is made between three types: "Regudis W-HTU", "Regudis W-HTO" and "Regudis W-HTF".

Abbreviation explanation:

- **W:** Living
- **H:** Heating
- **T:** Hot potable water preparation
- **U:** Connections from below
- **O:** Connections from the top
- **F:** Flat format (depth 110 mm)

The dwelling station "Regudis W" features all necessary connections:

- Supply and return connection for the central heat supply
- Supply and return connection for the heating circuit of the dwelling
- Connection for cold and hot potable water

Integrated spacers allow for the connection of heat and water meters.

#### Technical data:

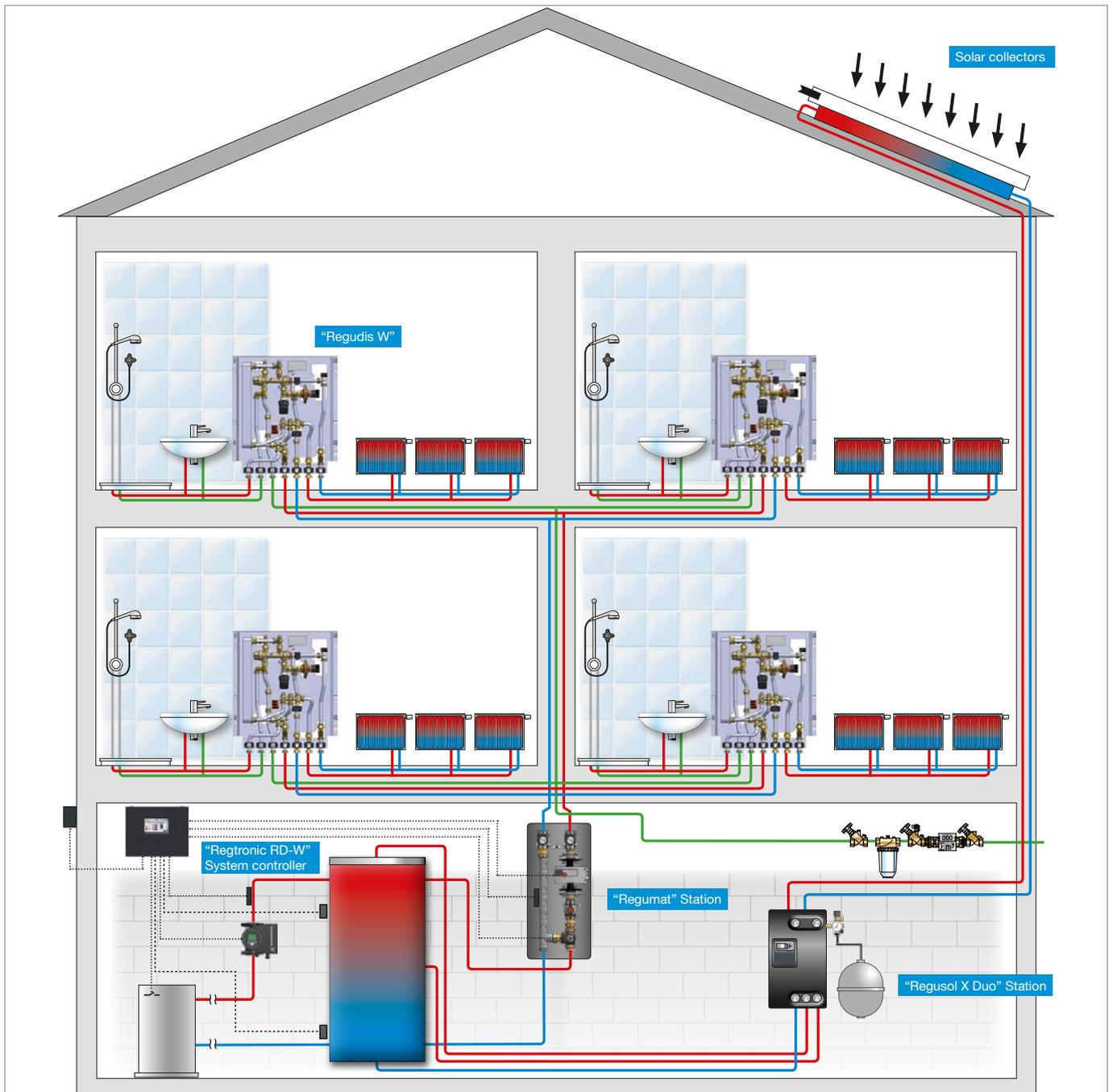
Nominal pressure:	PN 10
Connections:	G ¾
Collar nut:	flat sealing
Max. operating temperature $t_{\text{supply}}$ (heating water - supply):	90°C
Draw off temperature $t_{\text{draw off}}$ :	40-70°C
Min. flow temperature :	$t_{\text{draw off}} + 15\text{K}$
Performance range 1 max. draw off capacity (PWH):	12 l/min
Performance range 2 max. draw off capacity (PWH):	15 l/min
Performance range 3 max. draw off capacity (PWH):	17 l/min
Plate heat exchanger:	Stainless steel 1.4401, copper or nickel brazed

#### Note:

All models of the "Regudis W" dwelling station are also available with nickel brazed heat exchanger for use in mixed installations or in regions with aggressive water where copper brazed heat exchangers cannot be used.

### "PM controller"

All parts of the body coming into contact with potable water are coated so that scaling and the formation of bio films are avoided. The stem coating also prevents scaling and damage to the O-rings is thus avoided. Long-term functional reliability is guaranteed. Due to the construction, the piston will not get stuck and a failure of the hot potable water preparation is avoided.



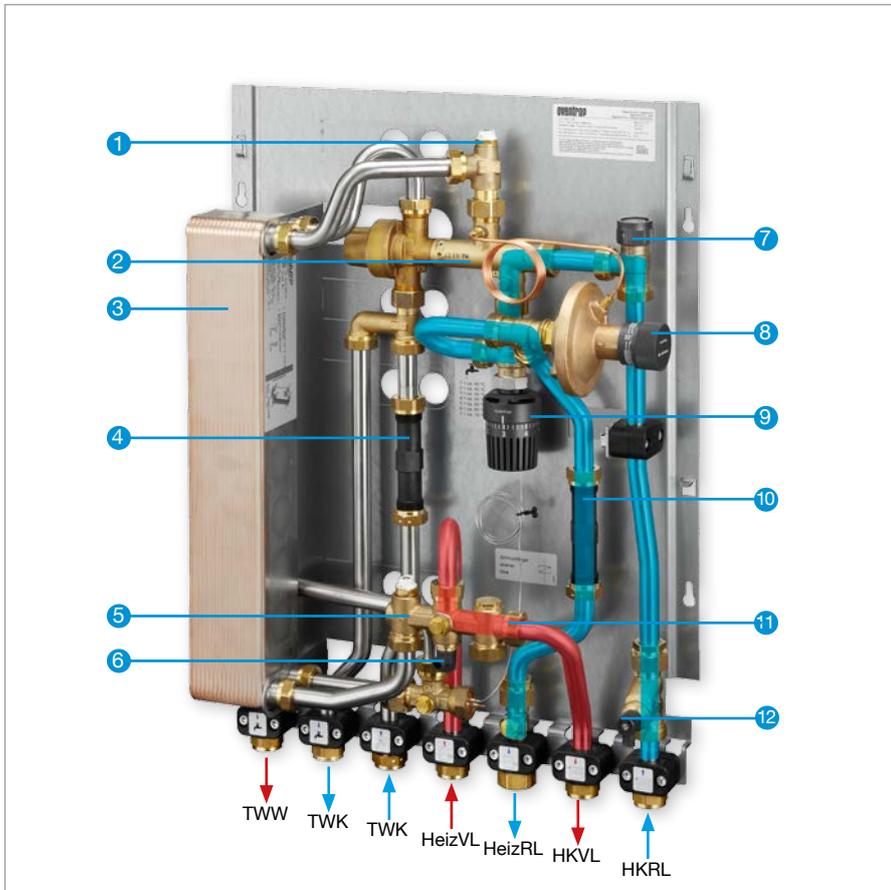
The illustration shows the Oventrop dwelling stations “Regudis W” in a **radiator heating system** with a combination conventional heat generator and solar thermal plant.

The integration of different heat sources (such as oil, gas, or wood burning boiler or local or district heating) is detailed on page 17.

Buffer storage cylinders which are required for the supply of the dwelling stations, allow for an energy efficient integration of a solar thermal plant into the complete system.

High solar shares can be feasible.

The illustrated system for radiator connection can also be combined with a surface heating system so that an existing building with radiators can be complemented by surface heating.



Heating operation – Flow paths and relevant components

“Regudis W-HTU”

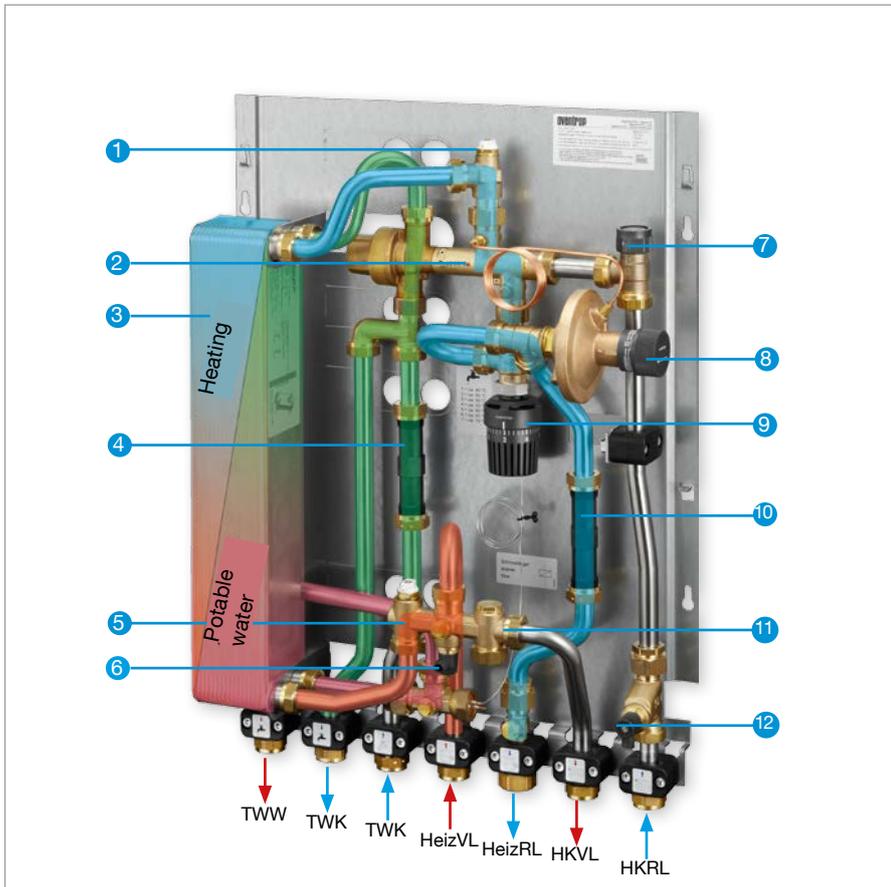
The dwelling station “Regudis W-HTU” consists of the following components:

- 1 Deaeration heating circuit
- 2 Proportional flow controller
- 3 Plate heat exchanger
- 4 Spacer for water meter
- 5 Connection facility for temperature sensor for heat meter
- 6 Draining valve heating circuit
- 7 Zone valve for heating circuit control (the installation of a time zone control is required to comply with section 14 (2) of the German Energy Saving Directive)
- 8 Differential pressure regulator
- 9 Thermostatic temperature controller
- 10 Spacer for heat meter
- 11 Strainer primary supply
- 12 Strainer heating circuit return

**Heating operation – Flow paths and relevant components**

Heating water enters the heating circuit supply (HKVL) of the dwelling via the primary supply (HeizVL). The proportional flow controller (2) opens the path between the heating circuit return (HKRL) and the primary return (HeizRL).

- Heating circuit return/primary return
- Heating circuit supply/primary supply

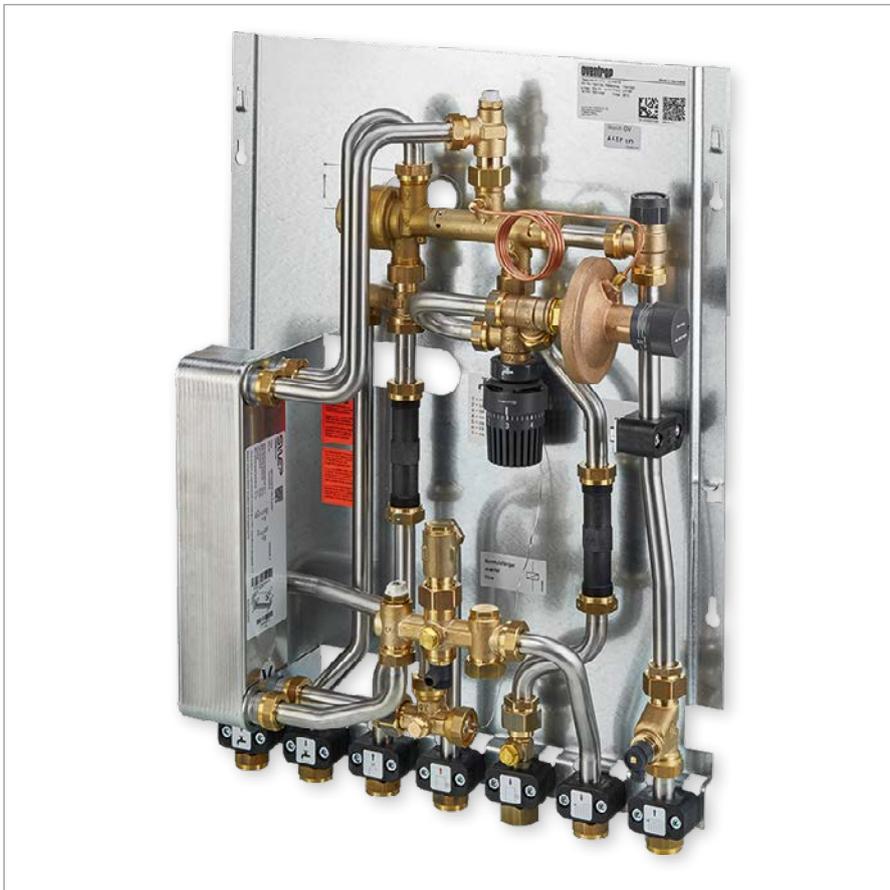


Potable water operation – Flow paths and relevant components

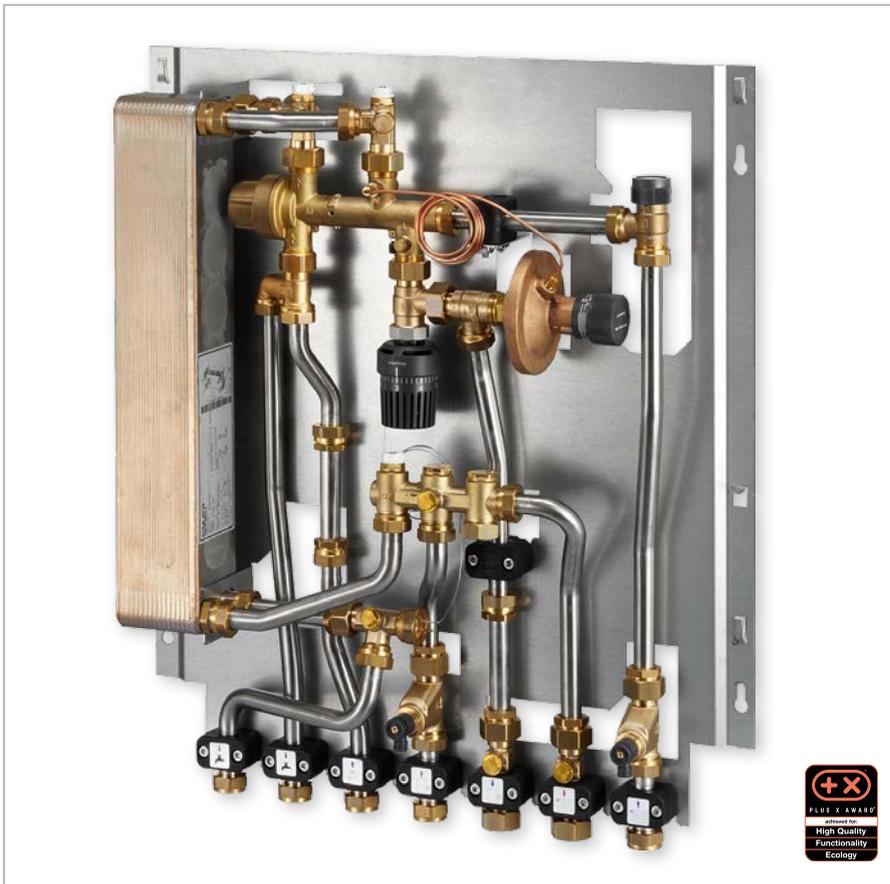
**Potable water operation – Flow paths and relevant components**

The proportional flow controller (2) switches to potable water priority function, if hot water is demanded in the dwelling and a draw off point is opened. The heating water of the primary supply (HeizVL) passes across the plate heat exchanger (3) and the PM controller (2) and enters the primary return (HeizRL). The cold potable water (TWK = PWC) is warmed up according to the continuous flow principle and is available at (TWW = PWH).

- Primary return
- Potable cold water
- Primary supply
- Potable hot water



“Regudis W-HTU” (installation depth 150 mm)



“Regudis W-HTF” with constant temperature heating circuit (installation depth 110 mm)

### “Regudis W-HTU/W-HTF”

The dwelling stations “Regudis W-HTU/HTF” consist of the following components:

- copper or nickel brazed stainless steel heat exchanger, vertically installed, which reduces the risk of calcification
- proportional flow controller with potable water priority function (the components of the potable water circuit are coated)
- thermostatic temperature controller with quick-reacting sensor for the control of the hot water outlet temperature
- spacer (110 mm, G ¾) for installation of a heat meter
- cold water dwelling connection with spacer for a cold water meter 110 mm, G ¾, to meter the total water consumption of a dwelling
- a valve for zone control which can be equipped with an actuator
- facility for the deaeration and draining of the heating circuit
- differential pressure regulator in the primary return for differential pressure control during quickly alternating operational conditions when drawing off hot water and for differential pressure control in the heating circuit of the dwelling
- strainer in the primary supply and heating circuit return
- flat sealing G ¾ collar nuts for the connection of the station to the supply pipes and the heating and potable water circuit of the dwelling
- complete piping of the station made of stainless steel, 18x1

#### “Regudis W-HTU”

Heat exchanger copper brazed

Item no.	Draw off capacity
1341030	12 l/min
1341031	15 l/min
1341032	17 l/min

Item no.	Draw off capacity
1341050	12 l/min
1341051	15 l/min
1341052	17 l/min

Item no.	Draw off capacity
1341050	12 l/min
1341051	15 l/min
1341052	17 l/min

Item no.	Draw off capacity
1341050	12 l/min
1341051	15 l/min
1341052	17 l/min

Heat exchanger nickel brazed

Item no.	Draw off capacity
1341050	12 l/min
1341051	15 l/min
1341052	17 l/min

Item no.	Draw off capacity
1341050	12 l/min
1341051	15 l/min
1341052	17 l/min

Item no.	Draw off capacity
1341050	12 l/min
1341051	15 l/min
1341052	17 l/min

Item no.	Draw off capacity
1341050	12 l/min
1341051	15 l/min
1341052	17 l/min

#### “Regudis W-HTF”

constant temperature heating circuit

Heat exchanger copper brazed

Item no.	Draw off capacity
1341130	12 l/min
1341131	15 l/min
1341132	17 l/min

Item no.	Draw off capacity
1341130	12 l/min
1341131	15 l/min
1341132	17 l/min

Item no.	Draw off capacity
1341130	12 l/min
1341131	15 l/min
1341132	17 l/min

Heat exchanger nickel brazed

Item no.	Draw off capacity
1341150	12 l/min
1341151	15 l/min
1341152	17 l/min

Item no.	Draw off capacity
1341150	12 l/min
1341151	15 l/min
1341152	17 l/min

Item no.	Draw off capacity
1341150	12 l/min
1341151	15 l/min
1341152	17 l/min

Item no.	Draw off capacity
1341150	12 l/min
1341151	15 l/min
1341152	17 l/min

Item no.	Draw off capacity
1341150	12 l/min
1341151	15 l/min
1341152	17 l/min

Item no.	Draw off capacity
1341150	12 l/min
1341151	15 l/min
1341152	17 l/min





Ball valve connector block

Item no.	
1341080	for “Regudis W-HTU”
1341180	for “Regudis W-HTF”



Ball valve connector block with flushing function of the supply pipe

Item no.	
1341082	for “Regudis W-HTU”

### Ball valve connector block

The block consists of seven ball valves mounted onto a bracket for the isolation of all connection of the “Regudis W” station.

Connections:

- to the station G ¼ flat sealing male thread
- to the pipework Rp ¾ female thread

### Ball valve connector block with flushing function of the supply pipe

The block with flushing functions consists of five ball valves and “Flypass” connection fitting mounted onto a bracket. The Oventrop “Flypass” connection fitting is used for the isolation and flushing of the supply and return pipe serving the “Regudis” station.

Connections:

- to the station G ¼ flat sealing male thread
- to the pipework Rp ¾ female thread



Derivative temperature control set

Item no.	
1341088	for “Regudis W-HTU/TU”
1341089	for “Regudis W-HTO”
1341188	for “Regudis W-HTF”



Room thermostat and electrothermal actuator

Item no.	
1152561	Flush-mounting room thermostat
1012415	Actuator “Aktor T 2P”

### Derivative temperature control set

The set is used for maintaining the flow temperature in the “Regudis W” station to guarantee a quick supply of hot potable water outside the heating period.

### Room thermostat and electrothermal actuator

Room thermostat and electrothermal actuator (230 V). One of each is required per “Regudis W” station to comply with section 14 (2) of the German Energy Saving Directive (timed zone control).



Return temperature limiter set

Item no.	
1341091	for “Regudis W-HTU”



Connection set for “Regudis W”

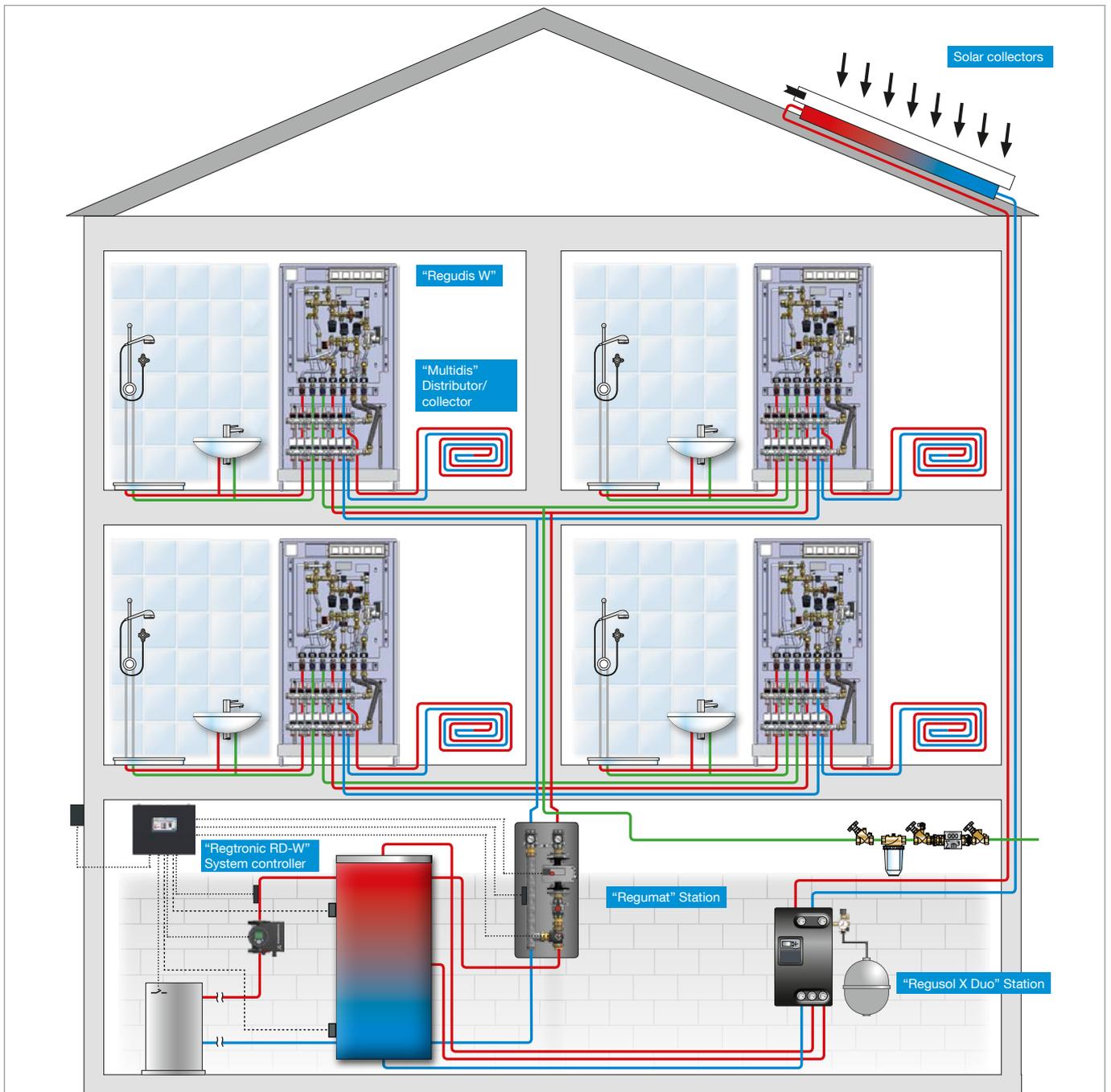
Item no.	
11341081	for “Regudis W”

### Return temperature limiter set

The set is used for the limitation of the heating circuit return temperature (control range 0-40 °C) of the “Regudis W-HTU” station.

### Connection set for “Regudis W”

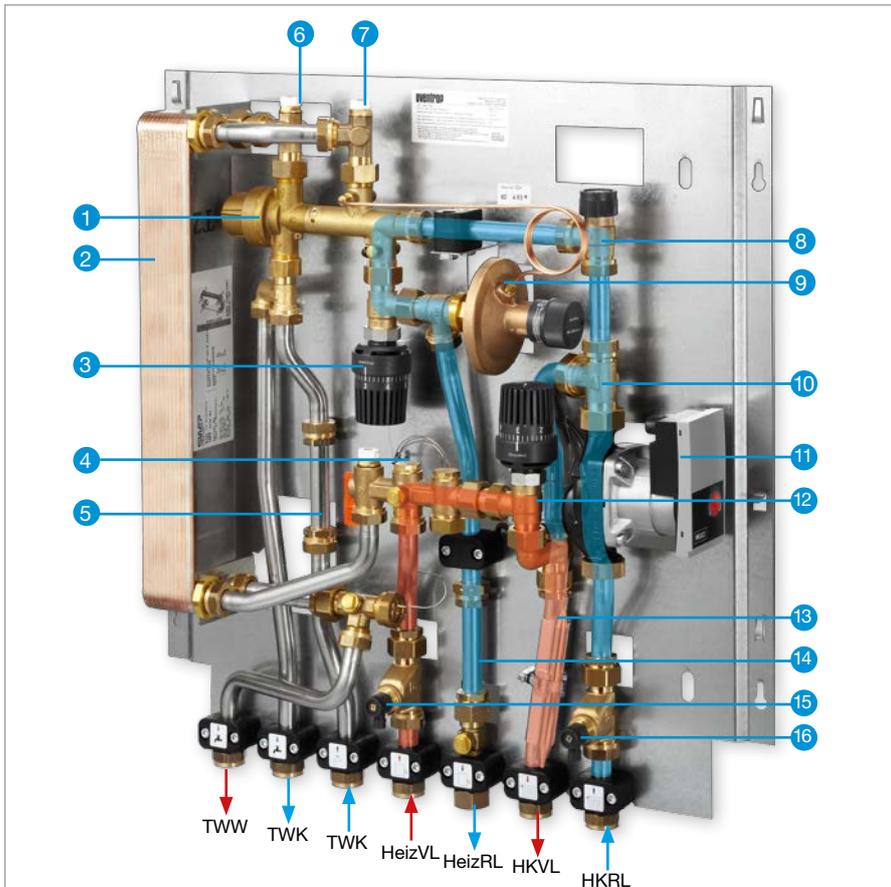
The set consists of seven flexible corrugated hoses which may be cut to required length for a flexible connection.



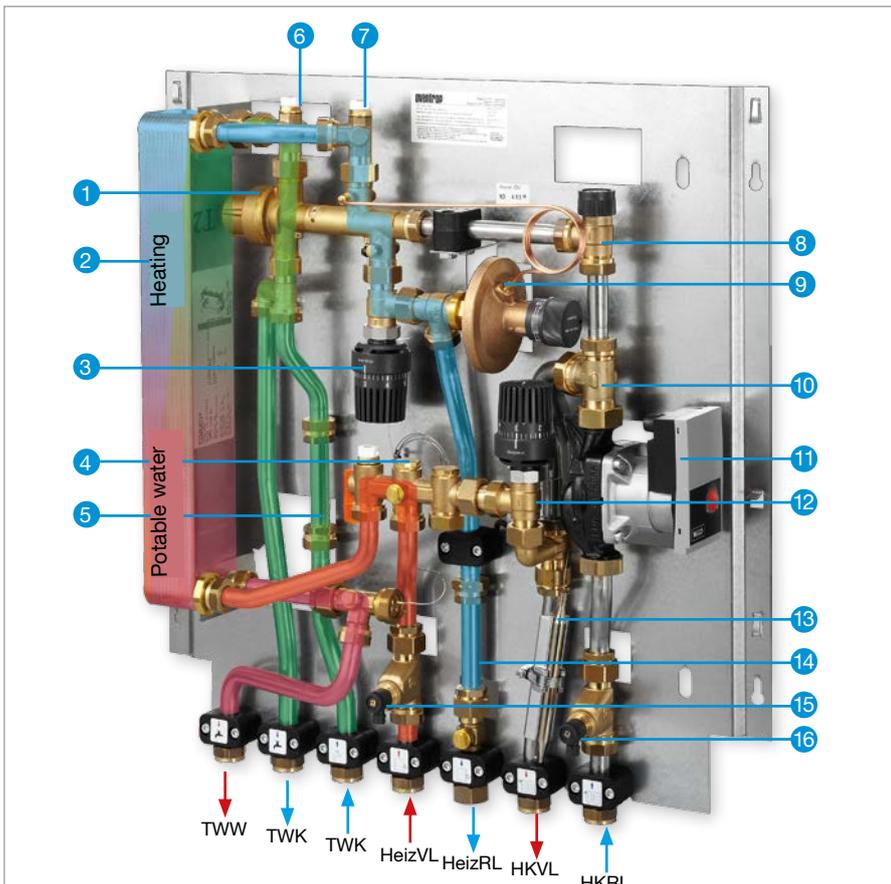
The illustration shows the Oventrop dwelling stations “Regudis W” in a **surface heating system** with a combination conventional heat generator and solar thermal plant.

A flow temperature which is suitable for surface heating systems is guaranteed by the mixing circuit in the “Regudis W” station.

The integration of different heat sources (e.g. oil, gas or wood burning boiler or local or district heating) is detailed on page 17.



Heating operation – Flow paths and relevant components



Potable water operation – Flow paths and relevant components

“Regudis W-HTF”

The dwelling station “Regudis W-HTF” with variable temperature heating circuit consists of the following components:

- 1 Proportional flow controller
- 2 Plate heat exchanger
- 3 Thermostatic temperature controller
- 4 Connection facility for temperature sensor for heat meter
- 5 Spacer for water meter
- 6 Deaeration potable water circuit
- 7 Deaeration heating circuit
- 8 Zone valve for heating circuit control
- 9 Differential pressure regulator
- 10 Check valve
- 11 High-efficiency pump
- 12 Angle pattern valve with thermostat control
- 13 Contact sensor
- 14 Meter for heat meter
- 15 Strainer (with draining facility) primary supply
- 16 Strainer (with draining facility) heating circuit return

**Heating operation – Flow paths and relevant components**

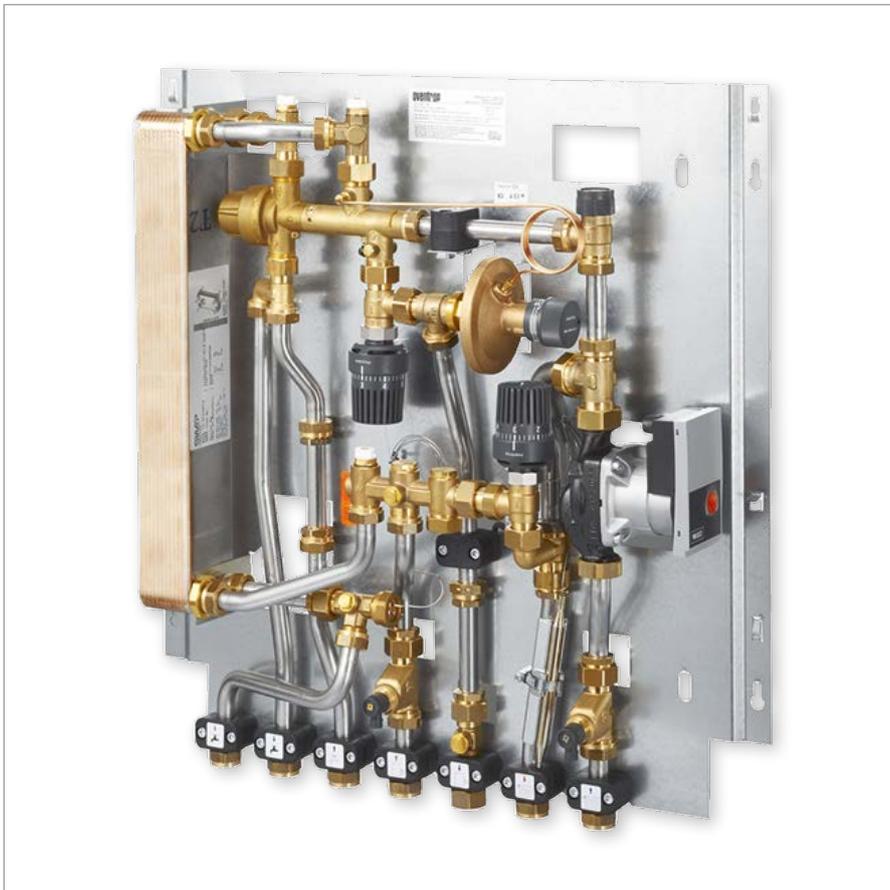
Heating water enters the heating circuit supply (HKVL) of the dwelling via the primary supply (HeizVZL). The proportional flow controller (1) opens the path between the heating circuit return (HKRL) and the primary return (HeizRL). The flow temperature of the heating circuit supply is continuously controlled by the contact sensor (13) and the volume flow of the hot fluid is adjusted by the angle pattern valve (12). Depending on the setting of the angle pattern valve (12), cold water from the heating circuit return (HKRL) is added to the heating circuit supply (HKVL) via the check valve (10) (mixing function).

- Heating circuit return / Primary return
- Variable temperature heating circuit
- Primary supply

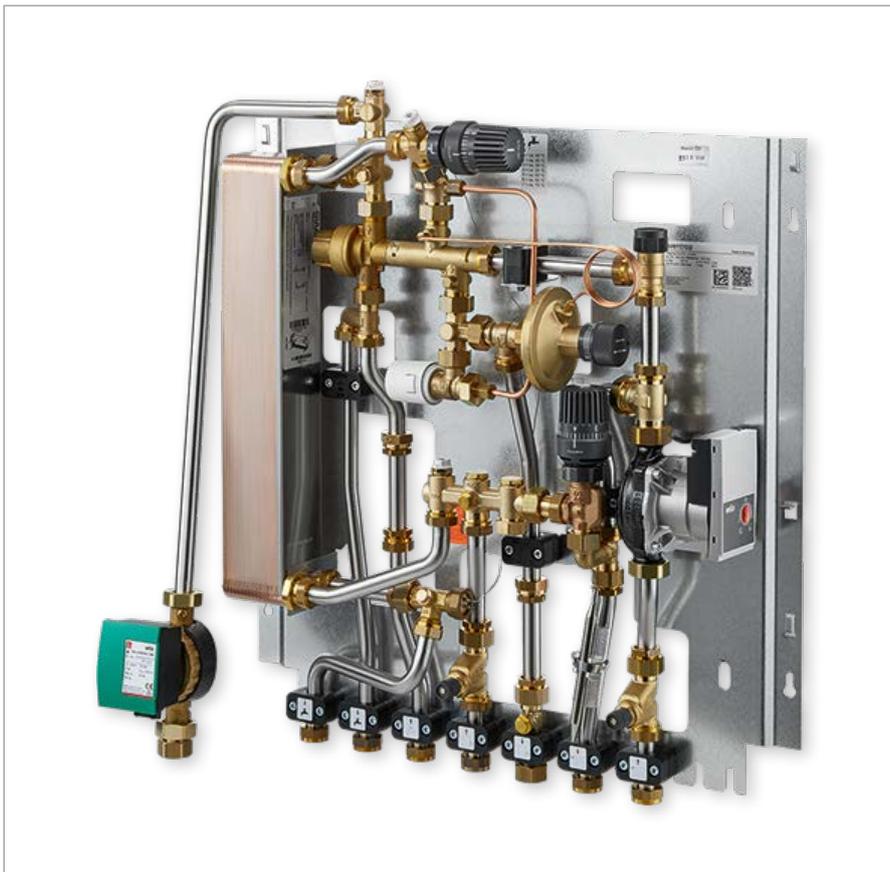
**Potable water operation – Flow paths and relevant components**

The proportional flow controller (1) switches to potable water priority function, if hot water is demanded in the dwelling. The heating water of the primary supply (HeizVZL) passes across the plate heat exchanger (2) and the PM controller (1) and enters the primary return (HeizRL). The cold potable (TWK = PWC) is warmed up according to the continuous flow principle and is available at (TWW = PWH).

- Primary return
- Potable cold water
- Primary supply
- Potable hot water



“Regudis W-HTF” with variable temperature heating circuit, fixed value control. The station can be upgraded with a weather guided flow temperature control



“Regudis W-HTF” with variable temperature heating circuit, circulation pipe and additional outlet for a radiator circuit and a time controlled potable water circulation pipe

“Regudis W-HTF”  
(variable temperature heating circuit)

The dwelling station “Regudis W-HTF” which is mounted on a fixing sheet is a completely pre-assembled and leak tested unit.

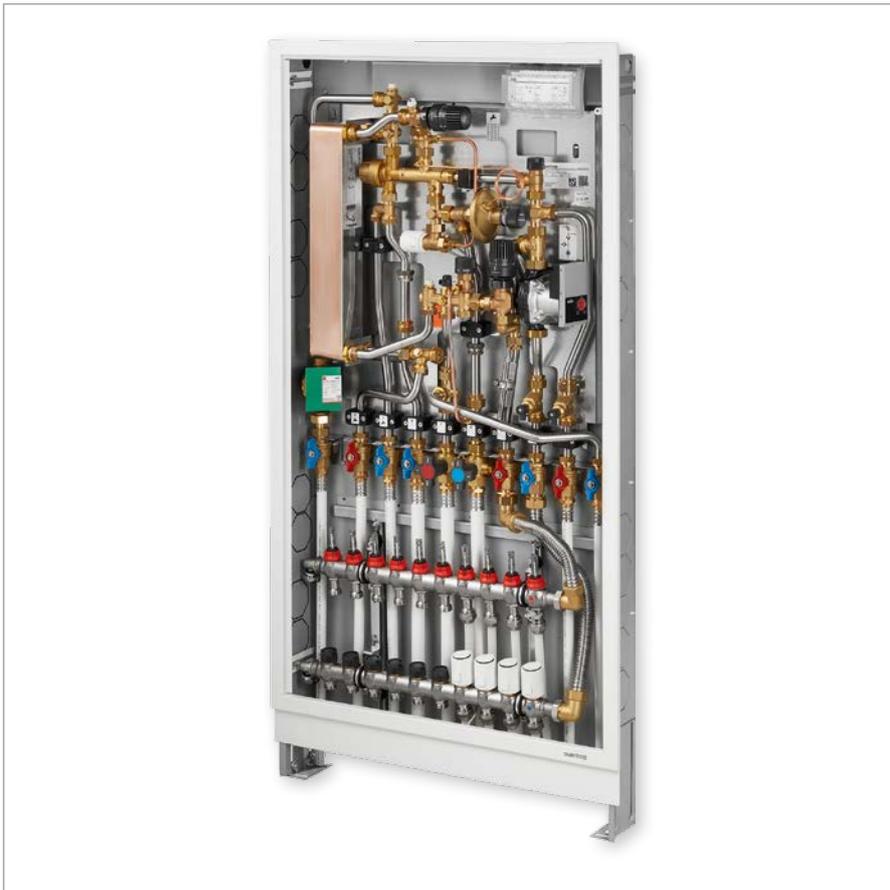
The station either supplies a dwelling with potable water and hot water for the surface heating (illustr. 1) or with potable water and hot water for the surface heating and radiators (illustr. 2).

The station consist of:

- copper or nickel brazed stainless steel heat exchanger, vertically installed, which reduces the risk of calcification
- proportional flow controller with potable water priority function (the components of the potable water circuit are coated)
- thermostatic temperature controller with quick-reacting sensor for the control of the hot water outlet temperature
- spacer (110 mm, G 3/4) for installation of a heat meter
- cold water dwelling connection with spacer for a water meter 110 mm, G 3/4, to meter the total water consumption of a dwelling
- valve for zone control which can be equipped with an actuator
- facility for the deaeration and draining of the heating circuit
- differential pressure regulator in the primary return for differential pressure control during quickly alternating operational conditions when drawing off hot water and for differential pressure control in the heating circuit of the dwelling
- strainer in the primary supply and heating circuit return
- flat sealing G 3/4 collar nuts for the connection of the station to the supply pipes and the heating and potable water circuit of the dwelling
- complete piping of the station made of stainless steel, 18x1

“Regudis W-HTF”,  
variable temperature heating circuit  
Heat exchanger copper brazed

Item no.	Draw off capacity
1341140	12 l/min
1341141	15 l/min
1341142	17 l/min
Heat exchanger nickel brazed	
1341160	12 l/min
1341161	15 l/min
1341162	17 l/min



“Regudis W-HTF” - Complete model

### “Regudis W-HTF” (complete model)

The complete model for a dwelling with surface heating system, radiators and potable water circulation consists of:

- “Regudis W-HTF” dwelling station
- “R-Con” wireless receiver, 230 V, without plug, wiring on site
- Electrothermal actuator
- Cabinet - long model for the direct installation of the dwelling station and the stainless steel distributor/collector for surface heating systems, steel, galvanized, frame and door white lacquered, removable screen
- Derivative temperature control set for maintaining the flow temperature in the “Regudis W” station to guarantee a quick supply of hot potable water outside the heating period
- Ball valve connector block, seven ball valves mounted onto a bracket for the isolation of all connections of the “Regudis W-HTF“  
Connections: to the station G 3/4 flat sealing male thread, to the pipework Rp 3/4 female thread
- Ball valve connector block, two ball valves mounted onto a bracket for the isolation of the high temperature connection of the “Regudis W-HTF”, with variable temperature heating circuit and high temperature circuit
- Ball valve connection set, one ball valve mounted onto a bracket for the isolation of the circulation pipe of the “Regudis W-HTF” with variable temperature circuit and circulation pipe
- Connection set for stainless steel distributor/collector for the connection of the “Regudis W-HTF” to the stainless steel distributor/collector “Multidis SF”
- “Multidis SF” stainless steel distributor/collector for 10 circuits with integrated flow measuring and regulating devices



#### For upgrading

Weather guided flow temperature control for “Regudis W-HTF” with variable temperature heating circuit

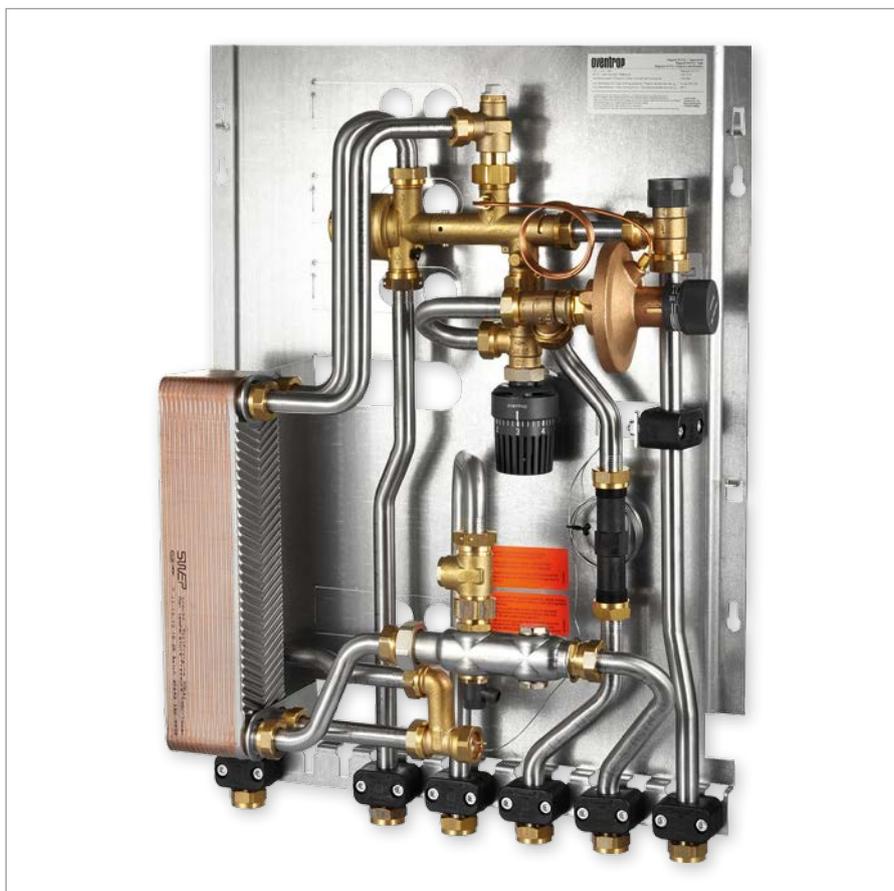
Item no.	Designation
1152093	Controller “Regtronic RH”
1012703	Electromotive actuator (two point), closed with current “off”, 230 V, 2 m connecting cable



#### Room thermostat and electrothermal actuator

One of each is required per “Regudis W” station to comply with section 14 (2) of the German Energy Saving Directive (timed zone control)

Item no.	Designation
1152561	Flush-mounting room thermostat
1012415	Actuator “Aktor T 2P”



“Regudis W-HTU”

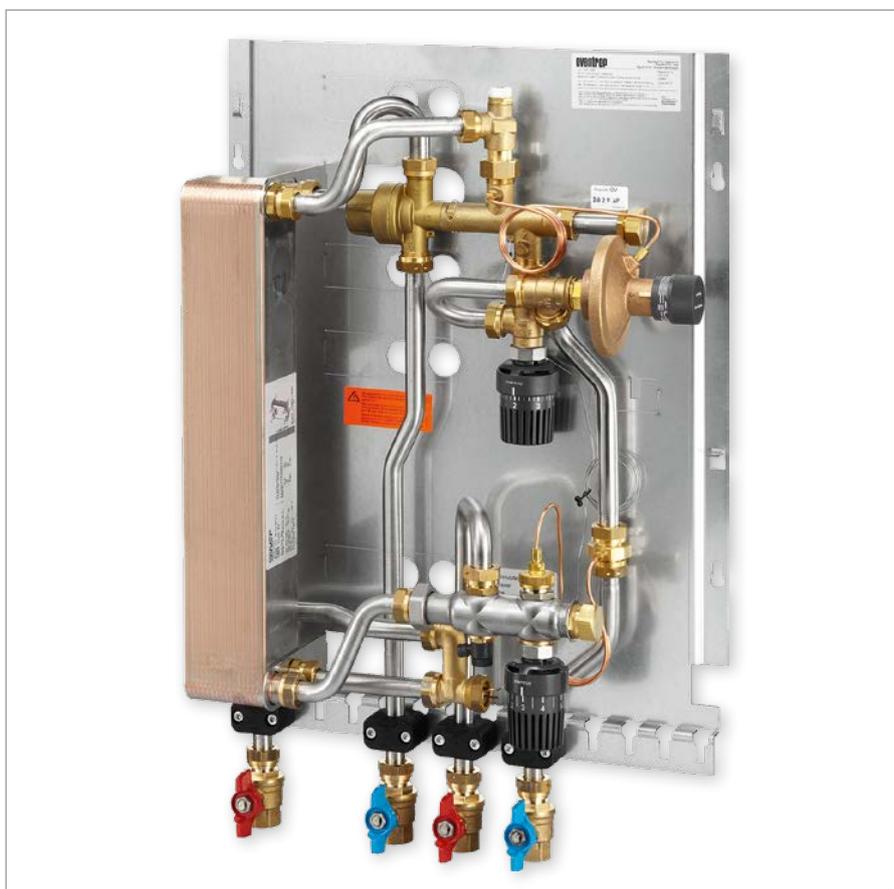
### Special models of the dwelling stations “Regudis W-HTU/W-TU”

The draw off capacity of the dwelling station “**Regudis W-HTU**” amounts to 15 l/min. The heat exchanger is copper brazed and the station is supplied without cold water outlet and without spacer for a water meter.

The draw off capacity of the dwelling station “**Regudis W-TU**” amounts to 17 l/min. The stations serves hot potable water preparation in public buildings (e.g. retirement homes). The station is supplied without spacer for a heat meter and without cold water outlet to the dwelling.

#### Dwelling stations - Special models

Item no.	
1341231	“Regudis W-HTU”
1341262	“Regudis W-TU”



“Regudis W-TU”



“Regudis W-HTU Duo”

### Special models of the dwelling stations “Regudis W-HTU Duo/W-HTO”

The dwelling station **“Regudis W-HTU Duo”** with heating circuit separation system serves the supply of heating water and hot and cold potable water to individual dwellings. The hot water for heating purposes is supplied by a central heat supply. The potable water is heated locally via a heat exchanger according to the continuous flow principle. The additional heat exchanger on the primary side allows for the separation of the primary circuit and the heating circuit of the dwelling.

The dwelling station **“Regudis W-HTO”** with supply connections from the top features a strainer in the cold water inlet but is supplied without cold water outlet for the dwelling and without spacer for a water meter. The double nipple for the installation of the derivative temperature control set is integrated and six ball valves are included.

#### Dwelling stations - Special models

Item no.	
1341332	“Regudis W-HTU Duo”
1341274	“Regudis W-HTO”



“Regudis W-HTO”



“Regtronic RD-W”

### “Regtronic RD-W”

For the control engineered integration of the dwelling station “Regudis W” into the heat supply.

The controller offers the following control options:

- Buffer storage cylinder loading
- Flow temperature control with heat demand recognition
- Differential pressure control of the heating circuit pump with heat demand recognition

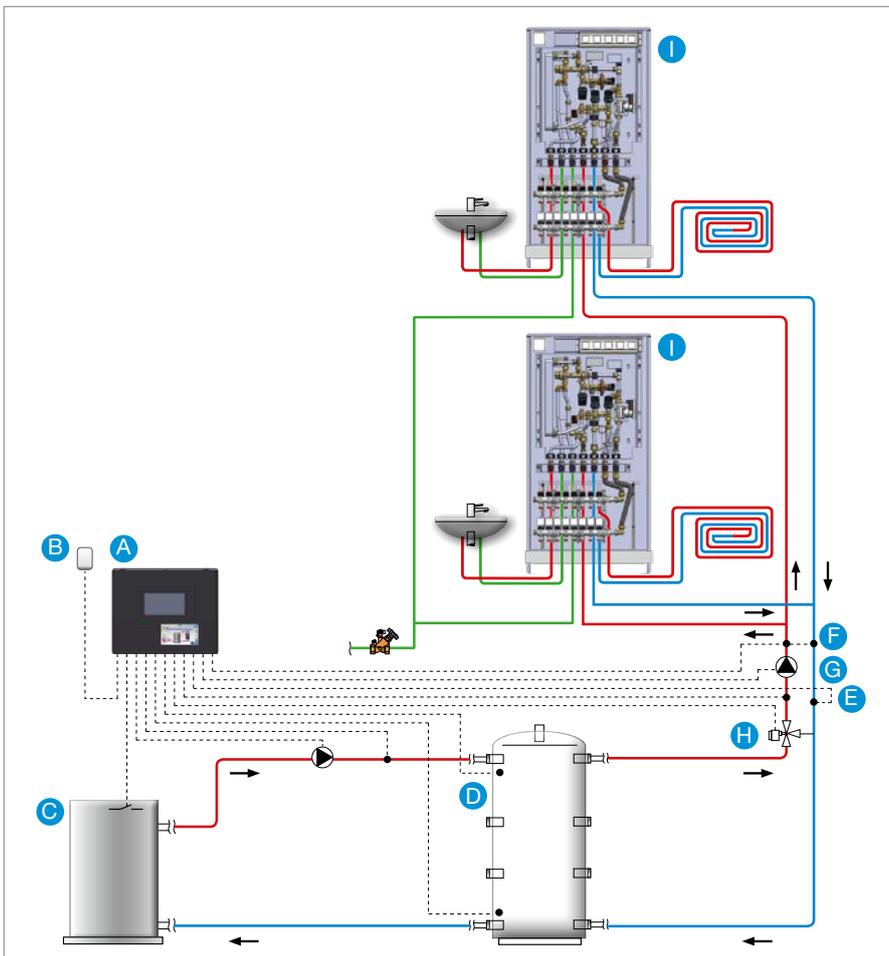
As the buffer storage cylinder is loaded at a constant temperature, the number of burner starts is reduced. Control of the flow temperature from the heat generator to the storage cylinder is carried out by the activation of a speed controlled pump with 0-10 V interface.

As an option, the 0-10 V signal can also be connected to a modulating heat generator. Control of the mixing valve is weather guided, a minimum riser temperature (e.g. 60 °C) is set at the controller.

The riser and buffer storage temperature as well as the differential pressure can be set back according to adjustable timed programmes, for instance overnight. This way, the systems can be operated more efficiently.

### System illustration

- Ⓐ “Regtronic RD-W” System controller
- Ⓑ Outdoor sensor
- Ⓒ Heat generator
- Ⓓ “Hydrocor” Buffer storage cylinder
- Ⓔ Flow and return temperature sensor
- Ⓕ Differential pressure sensor
- Ⓖ Speed controlled pump with 0-10 V interface
- Ⓗ Three-way mixing valve
- Ⓘ “Regudis W” Dwelling stations



System illustration



### "Regubox" Surface-mounted exclusive cabinet

The cabinet with its geometric design has an appealing shape. The lines are clear and smooth without angles and edges. The frame surface is made of brushed stainless steel. The white glass front door is lockable.

### Surface- and flush-mounted cabinets and surface-mounted bonnets

Oventrop offers different models of surface- and flush-mounted cabinets as well as surface-mounted bonnets for the dwelling stations "Regudis W" which are detailed in our catalogue and on the Internet.

"Regubox"



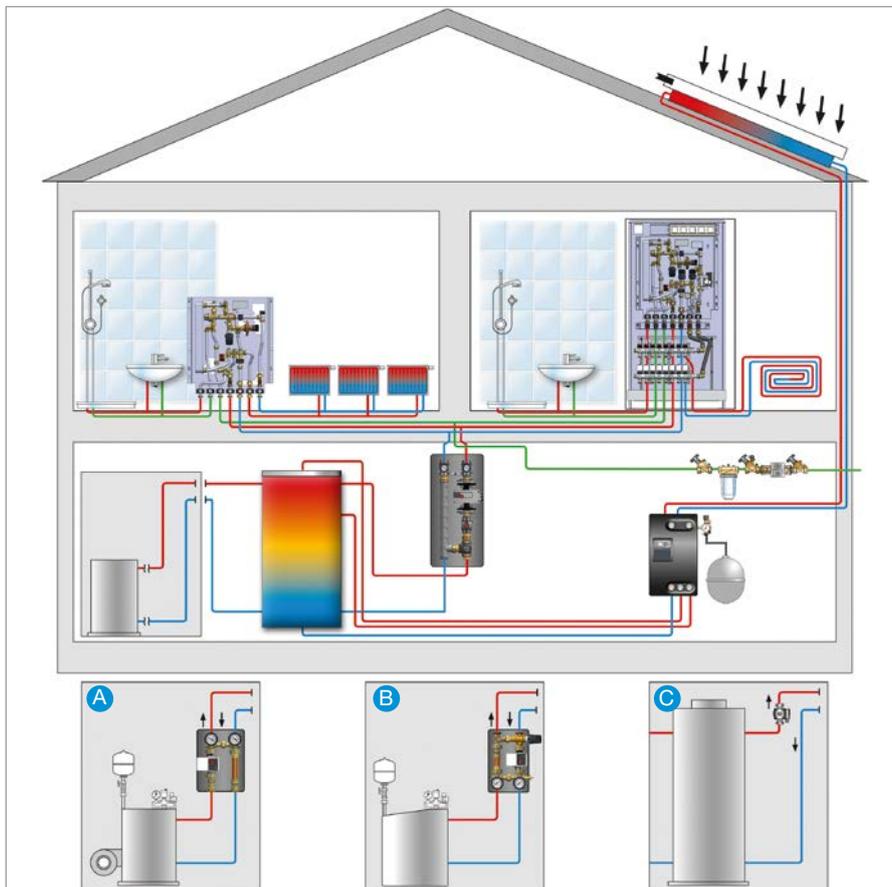
Surface-mounted cabinet



Flush-mounted cabinet



Surface-mounted bonnet



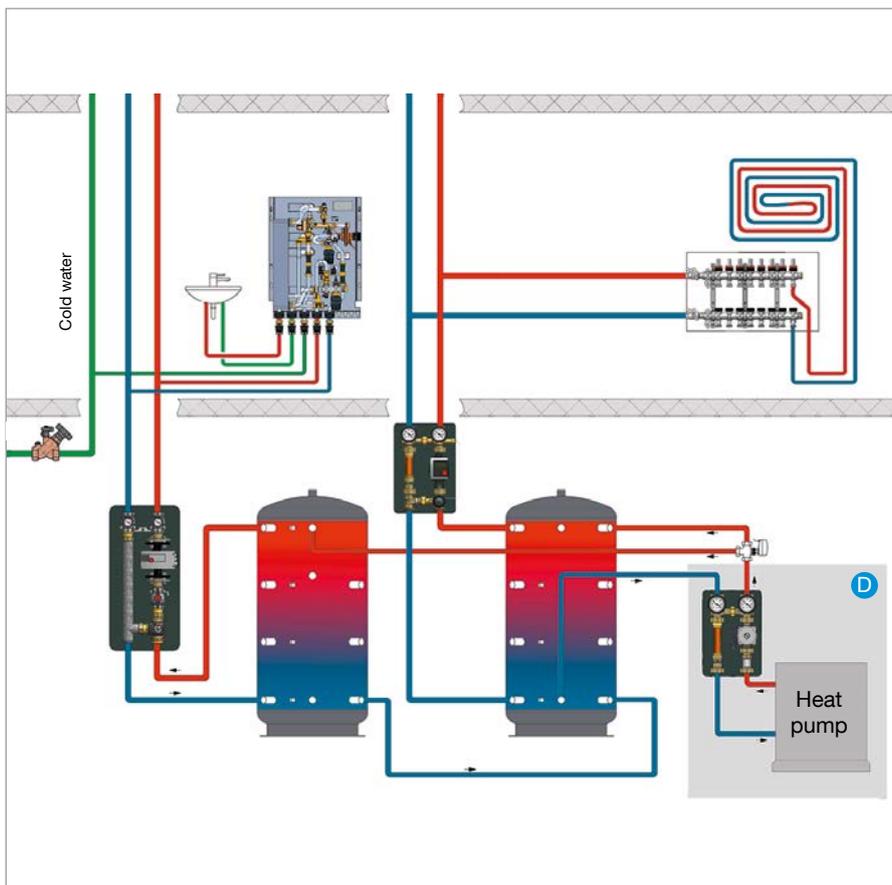
System illustration with integration of different heat sources

**System illustration with integration of different heat sources**

The “Regudis W” station connects a central heat generator to a local hot water preparation which allows for the use of different heat generators. The buffer storage cylinder can be loaded by an oil, gas or solid fuel boiler or a solar plant. After system separation, connection to a local or district heating network is also possible.

Three pipes, i.e. primary supply, primary return and cold potable water are installed in the building

- A e.g. conventional oil/gas boiler
- B e.g. solid fuel/pellet boiler
- C e.g. district/local heating network



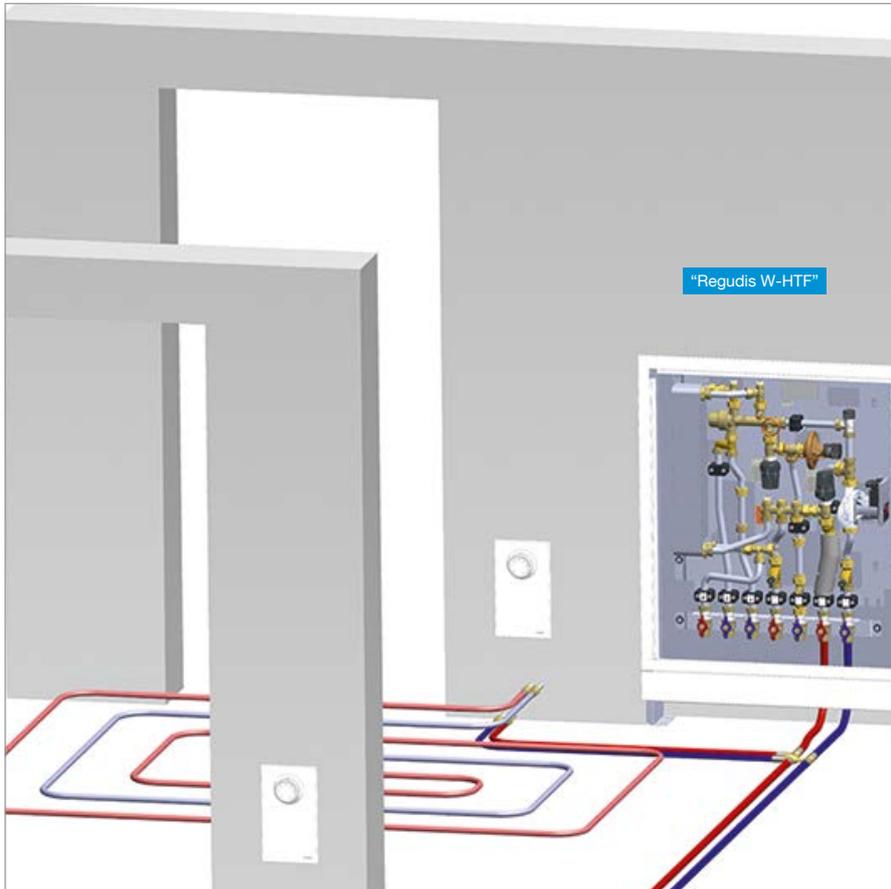
System illustrations with connection of heat pumps

**System illustration with connection of heat pumps**

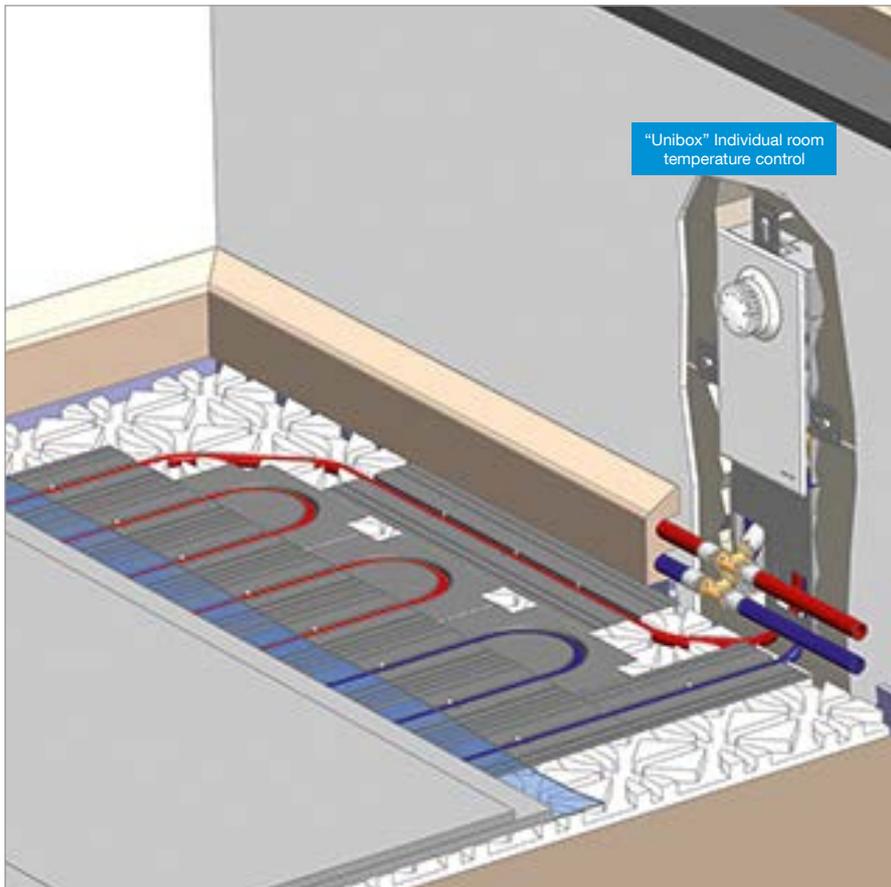
When using heat pumps, a four pipe heating system is often installed for reasons of energy efficiency (COP of the heat pump). A buffer storage cylinder with 55°C is used for hot water preparation. The dwelling station “Regudis W-TU” is a special station with a performance range of 12 l/min. requires an excess temperature of 10 K in order to guarantee a hot potable water temperature of 45 °C. The surface heating is operated with a separate buffer storage cylinder and with a separate pipework at a lower temperature level.

- D Heat pump/geothermics

Dwelling station for potable water supply	
Item no.	Designation
1341257	“Regudis W-TU”



Surface heating “Unidis” with dwelling station “Regudis W-HTF” with variable temperature heating circuit



Surface heating “Unidis” with skirting board system and dry-build system “Cofloor”

### “Unidis”

The surface heating system “Unidis” is the ideal complement to the “Regudis” systems and is characterized by the fact that it works without flow distributor and return collector. Uncontrolled heat transfers and heat loss caused by a central gathering of supply and return pipes in front of the distributor/collector cabinets are avoided. As the “Unidis” system works without auxiliary energy, the installation of electrical room thermostats and actuators for the surface heating circuits is not necessary.

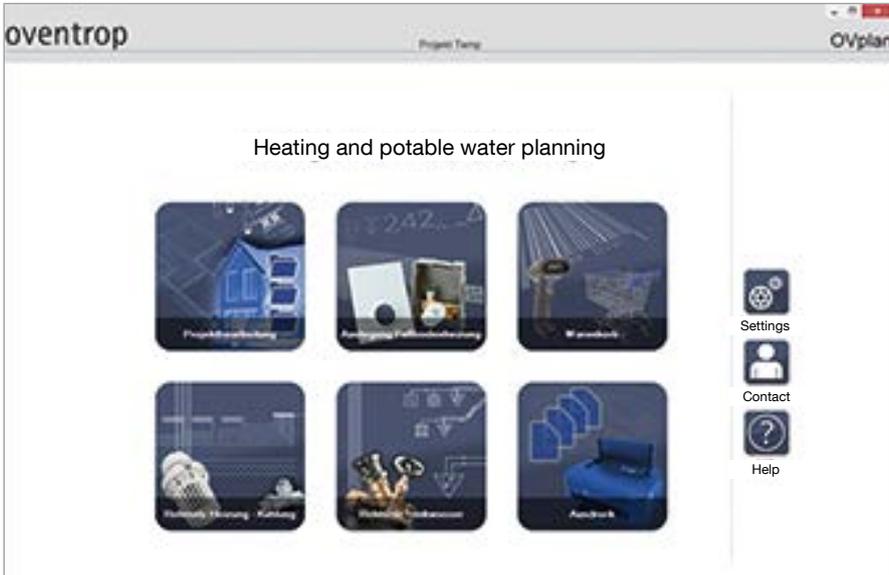
The “Unidis” system mainly consists of the following components:

- “Unibox E BV” Individual room temperature control with isolation and presetting of the flow volume
- Fixing channel suitable for different wall constructions and with different adjustment options for the adaptation to different screed heights



### Advantages (of the “Unidis” system compared with conventional surface heating systems):

- no central gathering of hot supply pipes in front of the distributor/collector cabinets
- no uncontrolled heat output of distributor/collector cabinets and supply pipes
- separate heating circuit in hallways
- room temperature control via room thermostats without auxiliary energy
- no electric smog
- maintenance-free room thermostats
- steady controllers instead of “on/off” controllers
- the self-regulating effect is improved by a mechanically controlled bypass
- temperature fluctuations of the floor surface are reduced (only with bypass)
- oversizing is avoided by larger minimum pipe distances in the screed (only with bypass)
- quicker heating up after a setback period (only with bypass) by maintaining a basic heat which avoids a complete cooling down of the floor
- ideal for use with heat pumps due to the minimum flow rate (only with bypass)
- especially suitable for skirting board systems



Design options of the software “OVplan”

## “OVplan”

Oventrop offers free design software “OVplan” for the hydronic design of a system with “Regudis” dwelling stations.

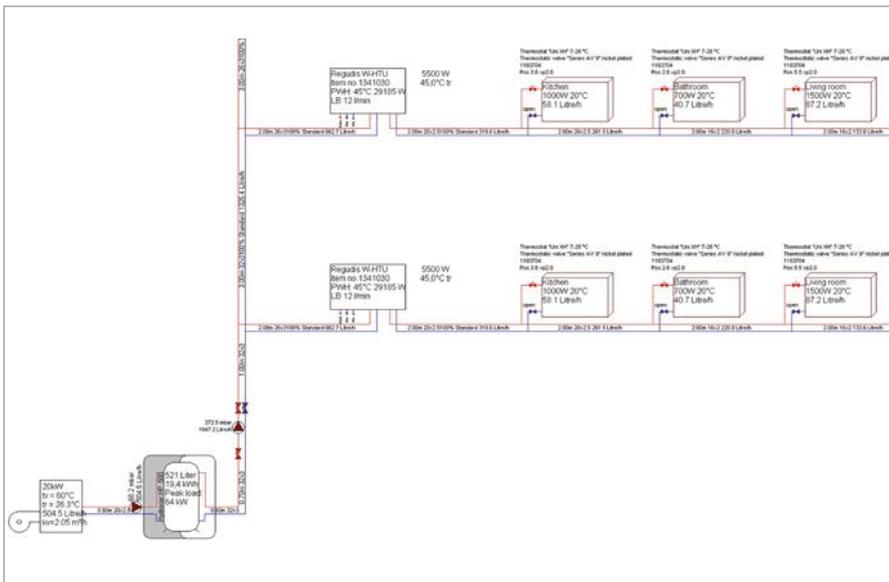
The programme is very user friendly and the simple menu navigation facilitates the design of the “Regudis W” dwelling stations.

For pipe dimensioning, “OVplan” considers the volume flow required for the supply of the heating circuits and for the supply of potable water via the heat exchangers of the stations.

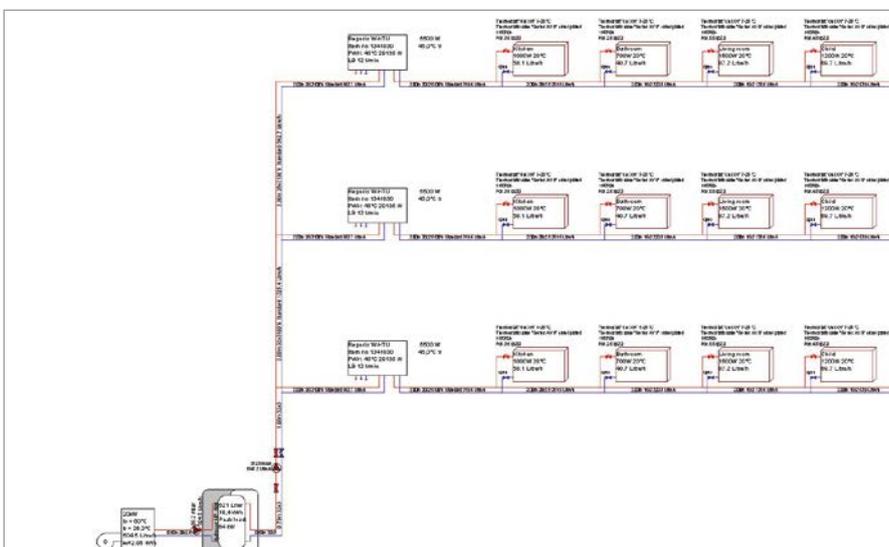
Proceeding from the selected hot water capacity of the heat exchanger (12, 15 or 17 l/min.) and the required hot water temperature, the following values are determined amongst others:

- the heat output capacity of the station
- the heating volume flow for hot potable water supply
- the required heating flow temperature

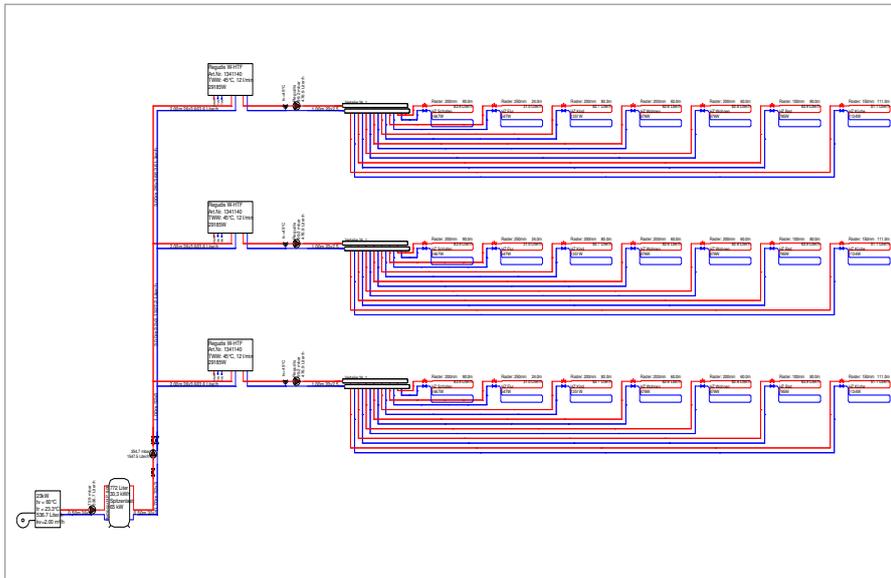
In order to determine the maximum volume flow, the dwelling stations are designed in the light of the simultaneity factor for hot potable water supply (see recommendations of the Dresden Technical University).



The outputs of the individual radiators of one dwelling can be entered manually as lump sum.



Alternatively, the radiators can be entered behind the dwelling stations and the respective output can be allocated to each individual radiator. The radiator outputs will be added up by “OVplan”.



Design options with “OVplan”

Mode	PW	Heating
Capacity	20185	7000 Watt
Flow rate	592.7	400.7 Litre/h
Differential pressure	300.0	300.0 mbar
Diff. pressure behind station		150.0 mbar
Flow temperature		60 °C
Return temperature		-45.0 °C

Design options with “OVplan” – Dwelling station

System data:	Value
Heat load	70.000 kW
PWH-load	261.845 kW
Max. peak load	100.054 kW
Secondary volume flow	4844.6 Litre/h

Energy:	Value
Volume	521 Litre
Usable volume	504 Litre
Energy content	14.2 kWh
Reserve	60.0 %
Desorption	92.6 W
Energy loss	0.786 kWh (per day)

Design options with “OVplan” – Buffer storage cylinder

## Design with “OVplan”

If the design of a surface heating system has been carried out with the help of “OVplan”, the distributor/collector with the circuits can be attached to the dwelling station. In this instance, the output of the distributor/collector will be assigned to the dwelling station but it can also be entered manually.

The heating capacity for a dwelling can be determined by “OVplan” by entering the total sum of the room heat load values or by entering radiators and the room heat load.

Furthermore, the presetting values for the thermostatic valves can be determined by entering and calculating the radiators.



## Advantages

- quick and simple calculation of the peak volume flows for heating water and hot potable water supply
- pipework dimensioning in the light of the simultaneity factors for potable water starting from the storage cylinder up to the stations
- thermostatic valve design taking the differential pressure in the secondary heating circuit into consideration
- design of the central pump with pump head and volume flow
- design of the storage cylinder volume and type
- determination of the boiler capacity depending on the storage cylinder volume, the performance range of the dwelling station and the heating capacity
- quick drawing up of a pipe scheme with simple graphical integration of the dwelling stations supported by copy functions, subsequent pipework calculation and output of a list showing the required components

oventrop		Project sheet / Service agreement for the design of "Regudis W" dwelling stations	
Building / Project		Builder, Street / City	
Installer / Designer		Person in charge	
Street / City		Phone / Mail	
<b>Primary side (supply)</b>			
<b>Potable water</b>			
Supply pressure:	min. _____ bar	max. _____ bar	
<b>Heating</b>	_____	<b>Heat generator</b>	<input type="checkbox"/> Boiler
Flow temperature *:	_____ °C		<input type="checkbox"/> District heating
Pipe material:	_____		<input type="checkbox"/> Heat pump **
			<input type="checkbox"/> _____
<b>Secondary side (dwelling)</b>			
<input type="checkbox"/> "Regudis W-HTE" (electromotive)		<input type="checkbox"/> "Regudis W-HTU/W-HTF" (hydronic)	
<b>Stainless steel heat exchanger ***:</b>		<b>Stainless steel heat exchanger ***:</b>	
<input type="checkbox"/> copper brazed <input type="checkbox"/> copper brazed/coated		<input type="checkbox"/> copper brazed <input type="checkbox"/> nickel brazed	
<b>Potable water</b>		<b>Potable water</b>	
Required hot water temperature: _____ °C		Required hot water temperature: _____ °C	
<b>Performance range</b>	<b>Number:</b>	<b>Design discharge capacity:</b>	
<input type="checkbox"/> PR 1	_____	_____ l/min	<input type="checkbox"/> PR 1
<input type="checkbox"/> PR 2	_____	_____ l/min	<input type="checkbox"/> PR 2
<input type="checkbox"/> PR 3	_____	_____ l/min	<input type="checkbox"/> PR 3

Project sheet

## Service

Oventrop offers a free design service for the "Regudis" stations which is based on the Oventrop project sheet. The latter is filled in by the customer and includes all required parameters and data such as heating system temperature, capacity of the heat generator, potable water temperature, heat load of the dwelling etc.

The Oventrop design includes all parameters required for a successful realization of the installation. The following data is supplied by Oventrop for customers use:

- Determination of the number and performance range of the "Regudis" stations
- Design of the required storage cylinder volume
- Determination of the boiler capacities required for the "Regudis" stations
- Calculation of the pipe diameters
- Pump design

Oventrop supports you and your customers sustainably. Besides the software "OVplan", Oventrop offers the following assistance:

- Personal service
- Training courses
- Design support
- Consultation

Supply of the following aids

- Oventrop App
- Software
- Brochures
- Technical data sheets
- Installation instructions

Assistance with the current topics

- ErP
- Hydronic balancing
- Surface heating systems
- Dwelling stations
- Potable water
- Solar thermal energy



Oventrop professional seminar



Dwellings in Brilon

## Dwellings in Brilon

Project information:

- 26 dwelling stations "Regudis W-HTF" with variable temperature heating circuit, 17 l/min, combined with a surface heating
- 70 kW pellet boiler
- 60 kW gas flow heater (peak load)
- 1500 l buffer storage cylinder

The dwelling stations "Regudis W-HTF" were installed in a cabinet in the hallway



Installation situation





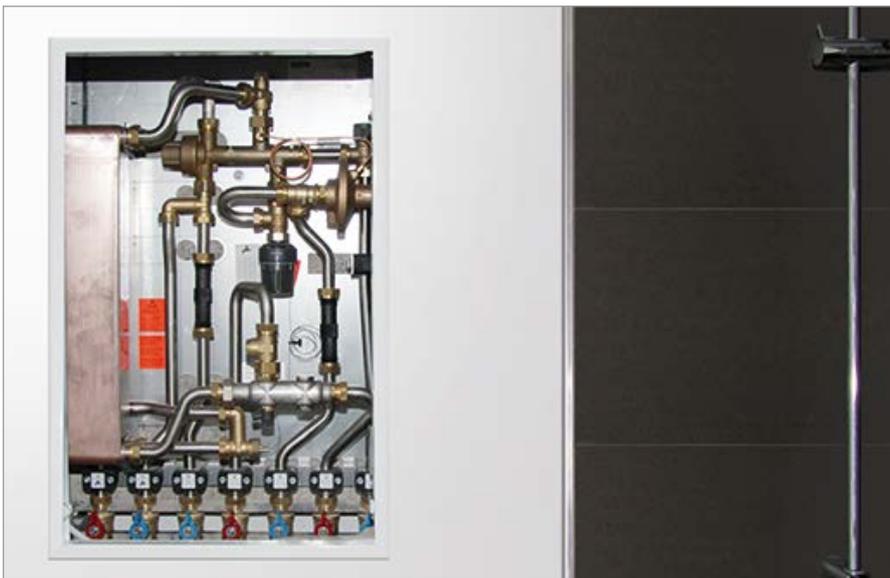
“White Max” in Düsseldorf

### “White Max” in Düsseldorf

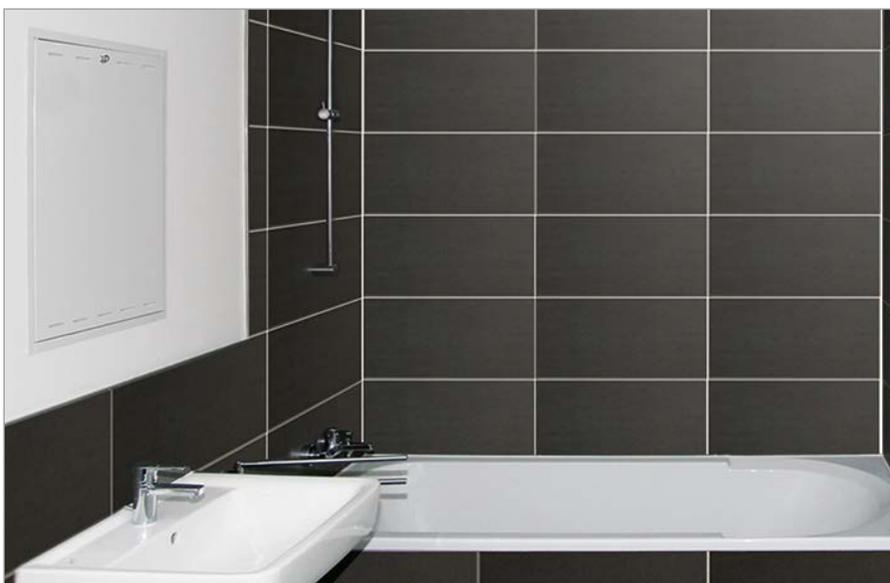
Project information:

- 305 dwelling stations “Regudis W-HTU”, 17 l/min., for the connection of radiators and for hot potable water preparation
- 2 x 1500 kW gas boiler

The dwelling stations “Regudis W-HTU” were installed in the bathrooms



Installation situation (internal)



Installation situation (external)

Room climate

Hydronics

Stations  
Storage  
cylinders  
Pipes

Potable water

Oil  
Solar

Smart Home  
Smart Building

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Private persons may purchase our  
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Presented by:



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