

ROTEX oil condensing boilers

a member of **DAIKIN** group

ROTEX

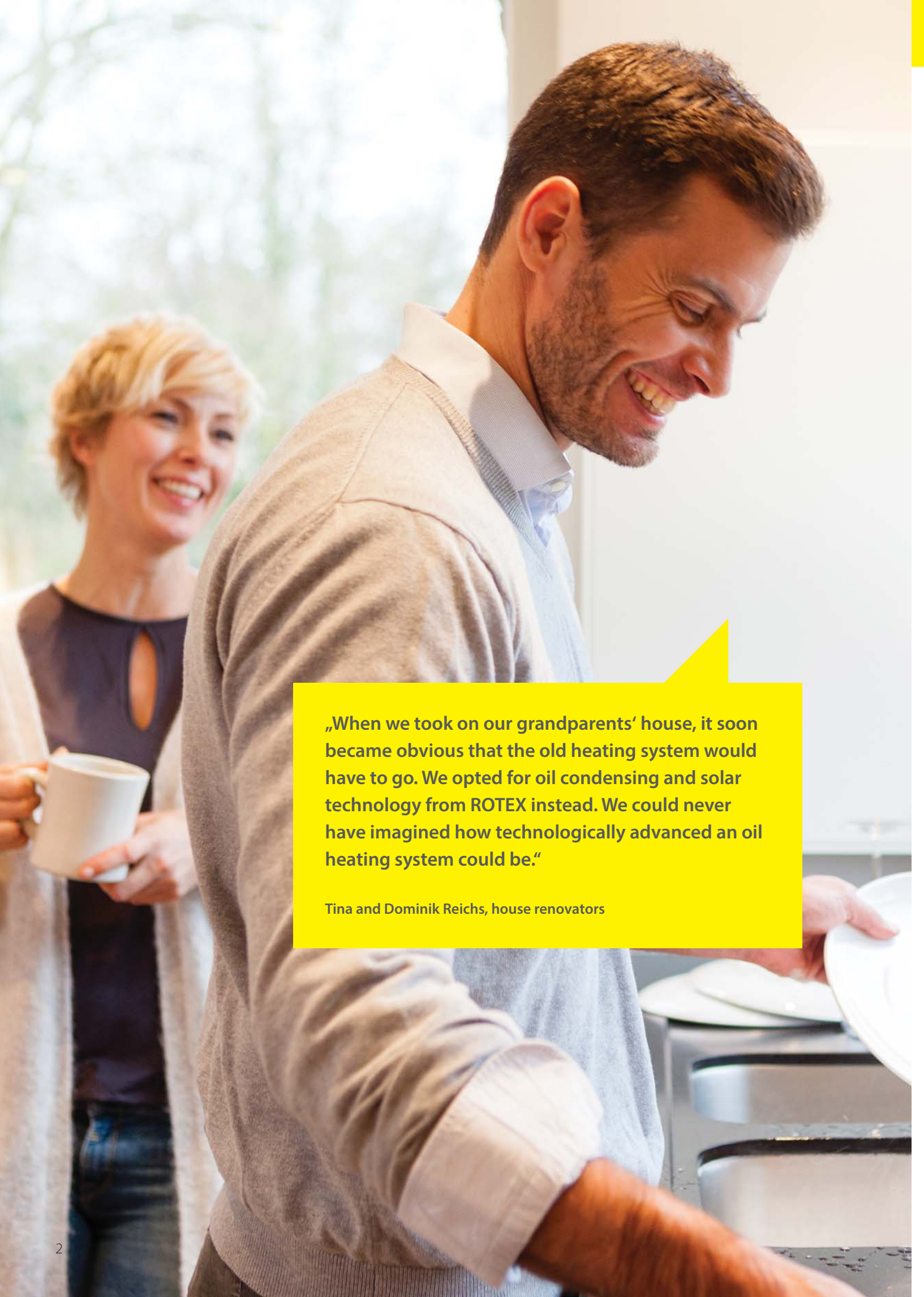


Advanced oil heating system

The ROTEX A2 **oil condensing boiler** with a large modulation range



A



„When we took on our grandparents' house, it soon became obvious that the old heating system would have to go. We opted for oil condensing and solar technology from ROTEX instead. We could never have imagined how technologically advanced an oil heating system could be.“

Tina and Dominik Reichs, house renovators

Our mission: to keep you cosy and warm – and bring oil heating into the 21st century

ROTEX's oil condensing technology is a worthwhile investment

Choosing the right boiler for your oil heating system is a decision that will affect you for the next 15 to 25 years. Over this period, the cost of the fuel used will prove to be a much bigger outlay than the boiler's original purchase price. Therefore, this is the area where you can make the greatest savings.

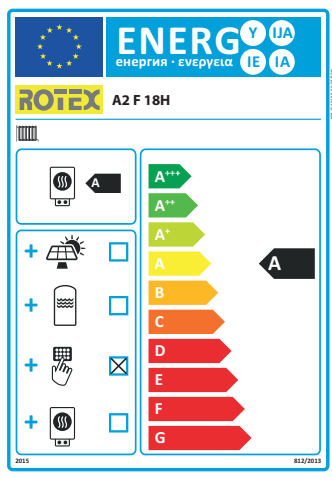
Advanced oil heating system

A modern oil heating system will fit seamlessly into your home. Oil condensing boilers minimise emissions, are very easy to operate and convert fuel into available heat with virtually no losses. The fuel supply can be stored in the same room as the boiler thanks to modern safety tanks which are fitted with odour barriers. Combining the boiler with a solar thermal system and hygienic thermal store add the perfect finishing touches.



The advanced oil heating system from ROTEX:

- A2 oil condensing boiler
- Sanicube hygienic thermal store
- Solaris solar thermal system
- variosafe safety fuel oil tank



Product label
A2 F 24H

Energy efficiency label for heating systems – safe in the knowledge it's ROTEX

All ROTEX products are tested and meet the criteria of the Ecodesign Directive. For both individual products and packaged solutions, energy labels are a reliable indicator of the precise efficiency class. Perfectly matched in terms of their individual components, our complete systems provide both maximum convenience and the highest safety standards.

New design

Smart Start function with 1:64 modulation and intelligent storage management (ISM)

Modulating blue flame burner

RoCon digital control unit can be controlled via app in combination with the gateway

Stainless steel boiler body

Innovative flue gas turbulators

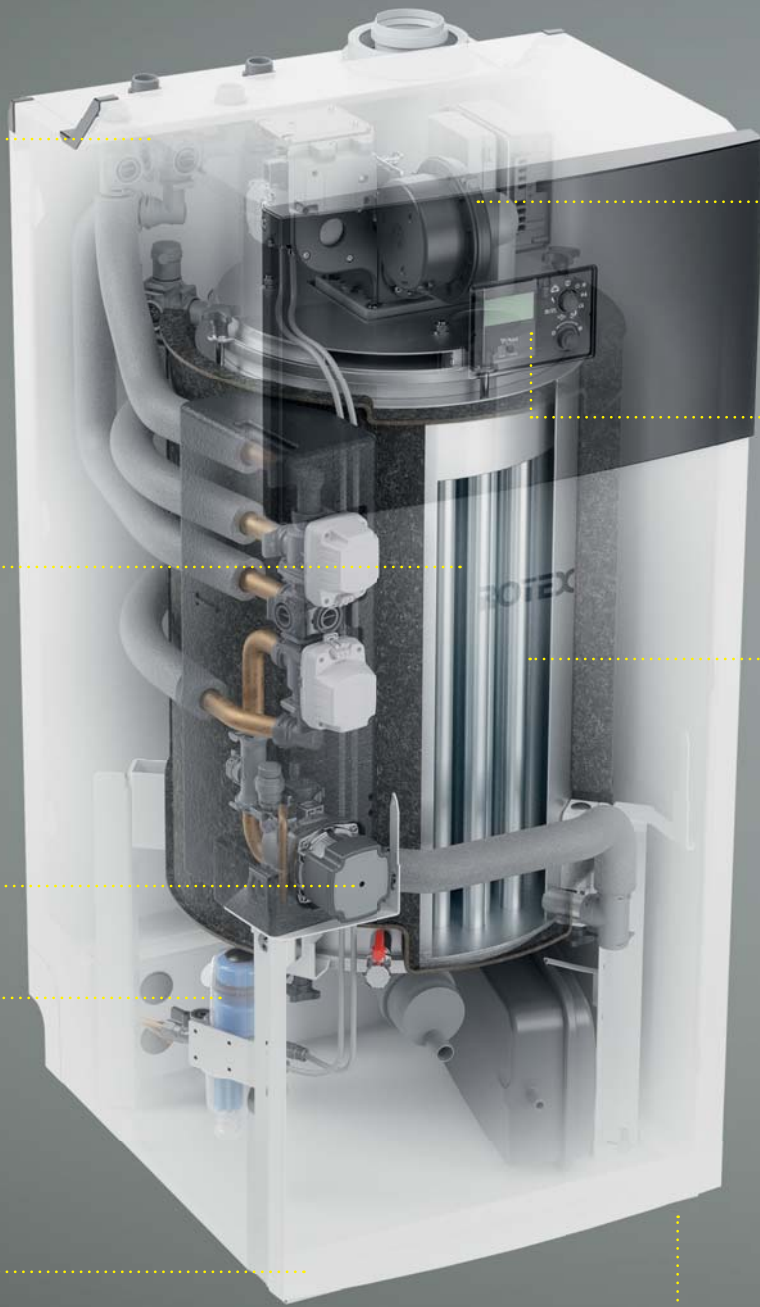
HE pump

Oil bleed filter

Integrated condensate treatment in slot-in unit

Small installation area
60 x 71,6 cm

Integrated accessories



Smart technology for your convenience

ROTEX A2 – ideal for boiler replacements in existing systems

The ROTEX A2 is ideally suited to replacing older boilers, thanks to the great flexibility it offers when integrated into existing systems, plus its low weight and compact dimensions.

Perfect even in new buildings

Thanks to the Smart Start function, the ROTEX A2 is also a good choice in new buildings. It can already handle the lowest heat requirements and delivers the highest DHW convenience.

A boiler with a large modulation range

The heat demand of a building varies widely depending on weather conditions and utilisation patterns. The modulating A2 constantly adjusts its output in line with demand. This ensures optimum energy utilisation. It has a particularly large modulation range of 1:2.5. This can even be broadened to 1:64 with the new Smart Start function.

Smart Start function and intelligent storage management (ISM)

With the optional Smart Start kit, the A2 can deliver 0-100 percent output to meet demand and provide continuous heat distribution. The content of the thermal store then serves as an active buffer, including for the heating system. With ISM optimisation, even the lowest heat requirements of 500 watts or more can be covered in the building, yet you can still have as much hot water as you need. Frequent cycling is avoided by optimising the oil condensing boiler's burner runtimes. Fewer burner starts mean much lower emissions of harmful substances and increased energy efficiency. With this optimisation, ROTEX is well able to meet the steadily increasing need for a constant and immediate supply of hot water – especially with the trend for ever more luxurious bathrooms and multiple shower units in our homes, but decreasing heating requirements as building insulation improves.

How you can benefit from a ROTEX A2 oil condensing boiler

Outstanding efficiency

- Energy saving condensing technology
- Optimum heat transfer due to innovative flue gas turbulators in the boiler body

Space saving

- Small installation area of 0.43 m²
- Approved for siting directly beside safety fuel oil tanks

Innovative technology

- Next generation modulating burner (1:2.5)
- Smart Start function offers modulation of 1:64 and intelligent storage management (ISM)
- Intuitively operated electronic control unit
- Ready for bio-oil (B10) and all commercially available fuel oils

Meets your needs

- Ideal for replacing an existing oil boiler
- Straightforward chimney refurbishment
- Easy maintenance
- Odour-proof flexible stainless steel pipes prevent the smell of fuel oil
- If used with a ROTEX thermal store, possibility of direct combination with a solar thermal system or woodburning stove with back boiler



Advanced oil heating system

Intelligent controls

The ROTEX RoCon digital control unit meets the most demanding standards and is intuitive to use. Values and parameters are displayed clearly. All operating modes and parameters can be set and changed quickly and easily. Key system parameters can be checked and adjusted by a contractor. The heating water temperature is regulated according to the outdoor temperature. The control unit automatically detects when it's winter or summer, switching heating mode on or off accordingly. It features individually adjustable time programs for convenient control of the heating circuit and domestic hot water heating. A room controller for regulating and monitoring the heating system can also be added.

The hybrid manager

Apart from A2 control functions, the RoCon hybrid control unit also manages the thermal store, which is the heart of the hybrid heating system. This comprehensive hybrid management system ensures the highest levels of system efficiency and optimum convenience for central heating and domestic hot water. With its intuitive menu navigation and optional control via smartphone with the ROTEX app, the ROTEX A2 is straightforward and reliable to use.

Provides clean and hygienic domestic hot water at all times

The ROTEX Sanicube thermal store is the perfect complement to the ROTEX A2 heating system, having been designed with the latest heating technology and domestic hot water hygiene standards in mind. It has been specially engineered to guarantee domestic hot water of the highest quality. Sludge and rust deposits, sedimentation and even the growth of dangerous legionella bacteria, such as can be found in many large tanks, cannot occur here.

Advanced fuel oil storage

In combination with the ROTEX variosafe twin wall, odour-proof fuel oil tank, the oil can be stored in the same room as the boiler – even right next to it. You can then put the space previously used to store your fuel oil to better use, e.g. convert it to a hobby room or sauna. And no need to wall the tank off or use an oil drip pan. The ROTEX variosafe fuel oil tank with watersafe equipment is even approved for siting in areas prone to flooding. It is compact enough to fit through standard sized doors. Ideal for modernisation projects.



Enjoy convenient control of your ROTEX heating system from your smartphone

Our intuitive app offers you a wide range of options. Set the required heating temperature – easily and conveniently. The ROTEX Control app also enables you to change time programs and operating modes. Additional information is available, too – as well as the outdoor temperature, the app also displays weather updates and forecasts for the next three days.

The perfect combination: oil condensing + solar technology

Low expenditure – high yield

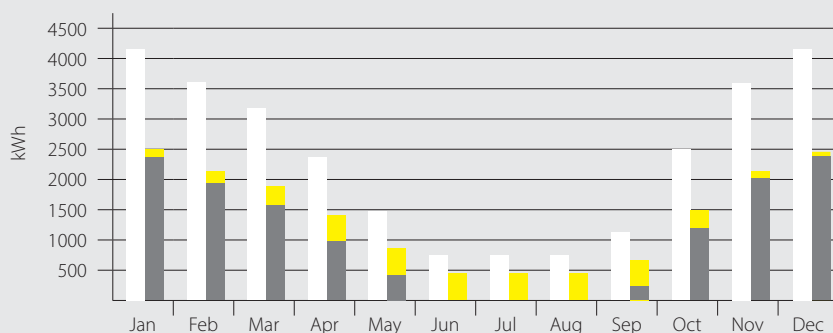
At peak levels, 80 % of solar energy that has been captured can be converted into usable heat. The high efficiency of ROTEX flat-plate collectors makes this possible. Solar energy and the A2 oil condensing boiler ideally complement each other here. Depending on demand, the boiler contributes the necessary amount of heat to the heating system.

From the very beginning of the product development process, we took into account the need to ensure that the ROTEX A2 could be easily combined with solar energy generation. Together with the A2 oil condensing boiler, running energy costs can be reduced to approx. 51 % of those of currently available standard heating systems with a low temperature boiler.

Solaris high performance solar thermal system for domestic hot water and central heating backup

ROTEX Solaris solar thermal systems use the free energy of the sun very efficiently for domestic hot water and provide effective central heating backup.

Solaris flat-plate collectors come in three versions. They can be installed on pitched or flat roofs, or integrated into the roof. All ROTEX thermal stores are already optimised for connection to a solar thermal system. They store solar heat with exceptional efficiency and offer optimum domestic hot water hygiene using freshwater technology. Connecting a solar thermal system is the most effective way to reach a higher energy efficiency class for the overall heating system.



Monthly energy consumption of an average detached house

The graph shows the monthly energy consumption of an average detached house. It compares two types of systems: the white bars show energy consumption with an older boiler. The grey/yellow bars show a system with a ROTEX A2 and four solar collectors.

□ Older system ■ Condensing boiler ■ Solar energy usage

Think water hygiene when buying a heating system

Clean water is a prerequisite for life

Fresh hot water is a basic necessity in every home, be it for showering, bathing, cooking or handwashing. These days we could not imagine living without a steady supply of hot water, readily available whenever we want it. And naturally, we also expect this water to be hygienic. Conventional water heaters can often fall short in this respect. That is why we have made it our business to focus on water hygiene!

Optimum water hygiene – day after day

The ROTEX Sanicube thermal store has been designed with the latest heating technology and domestic hot water hygiene standards in mind. It is fundamentally different in design from conventional high volume domestic hot water tanks. Sludge and rust deposits, sedimentation and even the growth of dangerous legionella bacteria, such as can be found in many large tanks, cannot occur here. Its design concept means that it can provide 100 % hygienic domestic hot water at all times.

The domestic hot water is contained in a high performance indirect coil made from durable stainless steel (INOX). Your hot water will always be perfectly hygienic.

The storage tank only needs to be filled with water once, when it is commissioned, and then simply provides thermal storage. The water is neither replaced nor consumed. The interior and exterior walls of the tank are made from shock- and impact-resistant polypropylene and the space in between is filled with highly effective foam insulation. This results in excellent insulation values and minimum surface losses.

ECH₂O



Technical specifications



A2				A2 F 18H R9HA2018A	A2 E 24H R9HA2024A	A2 F 32H R9HA2032A
Energy efficiency class Scale A++ - G Scale in combination with integrated control A+++ - G	Space heating	flow temperature 55 °C (without control)		A	A	A
		flow temperature 55 °C with integra- ted control		A	A	A
Boiler	Rated output to DIN-EN 303		kW	18	24	32
	Adjustment range with standard equipment		kW*	7.5-18	10-24	13-32
	Water volume		l	60	56	50
Heat losses	Stand-by boiler qS (Stand-by losses EN 304)		kW	0.3	0.3	0.3
Dimensions	Device	Height	mm	1,340	1,340	1,340
		Width	mm	600	600	600
		Depth	mm	716	716	716
Weight	Device		kg	97	102	111
Pump	Type			High ESP pump (OPHP)		
	No. of speeds			PWM		
	Power input max.		W	60	60	60
Flue gas (Qn, max)	Connection		mm	80	80	80
	Max. temperature	80/60 °C	° C	68	70	72
	Max. temperature	40/30 °C	° C	46	46	46
Supply air	Connection		mm	125	125	125
Water circuit - Central heating	Temperature	Max	° C	85	85	85
		Water pressure	Max	bar	3	3
Sound power level	nominal		dbA	63	65	66
Power supply	Frequency		Hz	50	50	50
	Voltage		V	230	230	230
	Phase			1~	1~	1~
Power supply	Fuse		A	4	4	4

* Parameterizable via Rocon control



Safety oil tank variosafe VSF				1500 l	1000 l	750 l	600 l
Dimensions	Unit	Height	mm	1,920	1,960	1,680	1,390
		Width	mm	780	780	780	780
		Depth	mm	1340	980	780	780
Weight	Unit		kg	82	57	39	32
DIBt approval no.				Z-40.21-196	Z-40.21-196	Z-40.21-196	Z-40.21-196
Collection facility				not required!	not required!	not required!	not required!
Manufacturer's guarantee				15 years	15 years	15 years	15 years



Thermal stores			SCS 538/16/0-DB	SCS 538/16/16-DB	SCS 328/14/0-P	SCS 538/16/0-P	SCS 538/16/16-P	
Tank	Water volume	l	294	477	294	477	477	
	Energy efficiency class (Scale A-G)		B	B	B	B	B	
Dimensions	Device	Height	mm	1,660	1,660	1,650	1,660	1,660
		Width	mm	790	790	595	790	790
		Depth	mm	790	790	615	790	790
Weight		kg	74	79	53	80	86	
Domestic water volume in heat exchanger		l	24.5	24.5	19	25.9	25.9	
Hygienic hot water-generation in instantaneous through-flow principle			•	•	•	•	•	
Solar combination	Drain-Back		•	•		•		
	Pressurised solar				•		•	
	Solar heating support		•	•		•	•	
Dual mode solution (combination with additional heat generator or swimming pool)				•			•	

Innovative heat storage concept - Hygienic, flexible and sustainable

All ROTEX products with the ECH₂O-Seal are characterized by a unique heat storage principle. Particular space-saving, with the highest level of DHW comfort and open for additional heat sources.



Solaris flat-plate collectors			V21P	V26P	H26P
Dimensions	Height	mm	2,000	2,000	1,300
	Width	mm	1,006	1,300	2,000
	Depth	mm	85	85	85
Weight		kg	35	42	42
Water content (Volume)		l	1.3	1.7	2.1
Surface area	Gross (outside)	m ²	2.01	2.6	2.6
Coating			Miro-Therm (absorption max. 96%, emission approx. 5%± 2%)		
Absorber			Harp-shaped Cu pipe matrix with welded on highly selective coated aluminum plate		
Glazing			Single pane safety glass, Transmission approx. 92%		
Permitted roof pitch	Min.	°	15	15	15
	Max.	°	80	80	80

The solar panels are standstill resistant over a long period and are tested for thermal shock. Minimum collector yield over 525 kWh / m² per year with 40 % cloud coverage (location Würzburg, Germany)

More store types, all ROTEX accessories as well as information about tank batteries with ROTEX variosafe can be found in the current ROTEX price list. Note on ROTEX variosafe: Due to legal requirements, the storable quantity of oil is lower than the volume capacity (depending on the setup method). Please ask your heating specialist.

Information in printed materials subject to correction and technical modification.

Energy efficiency labels and current product datasheets can be obtained using the Energy Label Generator at www.rotex-heating.com.

a member of **DAIKIN** group

ROTEX

What makes ROTEX different?

We offer individual solutions for optimum living and working that are straightforward, intelligent, and futureproof.

ROTEX is a manufacturer and supplier of complete innovative and environmentally responsible heating systems – building on decades of experience. Since 1973, ROTEX has stood for innovation and know-how in the field of heat generation, storage and distribution. In the development of products for our high grade and perfectly matched components we focus on user benefits.

The ROTEX product range extends from heat pumps, condensing boilers for oil and gas, solar thermal systems and thermal stores, not forgetting underfloor heating and heating oil tanks right up to rainwater tanks. Innovative systems that enable optimum use of conventional and alternative energy sources in both detached houses and apartment buildings. Whether in new build or modernisation projects. ROTEX products stand for unique cost efficiency with maximum environmental compatibility and the highest levels of flexibility.

ROTEX Heating Systems GmbH is a wholly owned subsidiary of Daikin Europe NV, making it a member of the DAIKIN Group, the world's leading manufacturer and supplier of products for heating, ventilation and climate control. Our combined competence generates optimum product solutions to meet the highest user aspirations.

ROTEX Heating Systems GmbH

Langwiesenstraße 10
D-74363 Güglingen
www.rotex-heating.com