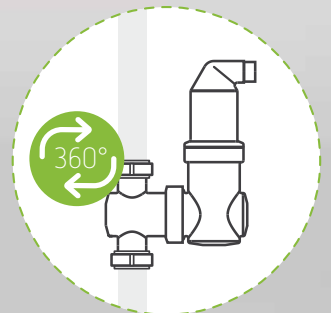


reflex

Thinking solutions.

New: Twist separators

Rotatable brass separators Exvoid, Exdirt and Extwin



Complete rotation without raster for installation in any position

Space-saving and easy to install also in existing systems

Exdirt and Extwin with new high performance magnet Exferro Easy Clip for optimal magnetite separation

Learn more at: www.reflex-winkelmann.com/en

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Background information

The disruption-free operation of a heating system depends on many factors. Air, micro-bubbles, dirt and sludge can considerably disturb the function. They reduce the efficiency of energy transmission and create corrosion risks. This inevitably leads to further impairment of the system operation, to damages of expensive system components and even total failures. The water as one of the most important

system components should therefore be free of foreign substances. Reflex separators remove gas bubbles, dirt and sludge particles reliably from the system. The result: better system safety, a longer service life, less maintenance and more efficient energy transfer of the entire system.

Exvoid



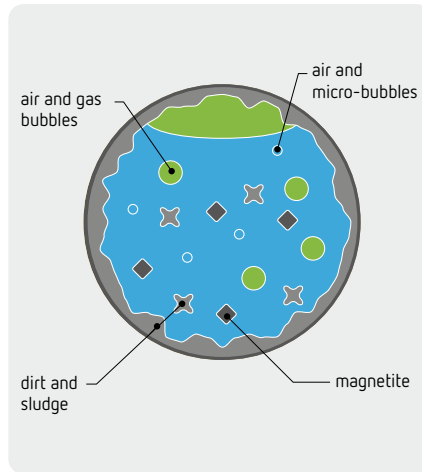
Separation of air and micro-bubbles.

Micro-bubbles are formed in heating, cooling and solar systems at places where heat is generated, temperatures rise and where high flow rates with simultaneous pressure reduction occur. If the micro-bubbles remain in the system, they will accumulate in system components with low flow rates to form larger gas and air cushions. This has to be avoided to prevent malfunctions.

Extwin



Combined micro-bubble, dirt and sludge separator. The Extwin combines the functions of the Exdirt and Exvoid in a single, compact fitting, as it removes air bubbles, micro-bubbles, dirt and sludge from the system water at the same time. Combined micro-bubble, dirt and sludge separator. The Extwin combines the functions of the Exdirt and Exvoid in a single, compact fitting, as it removes air bubbles, micro-bubbles, dirt and sludge from the system water at the same time.



Cross section of a heating pipe with gas enrichments

Exferro Easy Clip



Separation of magnetic dirt particles (magnetite). Systems that mainly consist of iron and steel materials are exposed to constant corrosion. The resulting magnetite can be effectively separated with the magnet Exferro Easy Clip for the Exdirt and Extwin.

Exdirt

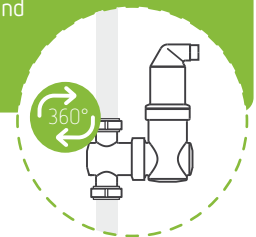


Separation of dirt and sludge. Dirt and sludge are caused by corrosion processes, old or poorly cleaned pipelines, get into the system via the filling and make-up water or arises in the form of limescale (depending on temperature and degree of hardness). The dirt particles deposit on the inside of the pipes, narrow the flow cross-sections, act there as an insulating layer and increase the pressure loss, which must be compensated by an increased pump output. In addition, suspended particles and loosening deposits can damage system components such as valves and pumps. Dirt and sludge separators are used in the return flow upstream of heat generators and sensitive equipment and thus prevent impurities from being carried along with the flow and from settling in the system.

Advantages

- + Reliably remove disruptive factors without energy input
- + Support the proper functioning of heat generators, thermostatic valves, pumps, etc. and reduce the risk of defects and failures in the long term.
- + Permanently optimize heating and cooling performance
- + Maintenance and sludge removal of the Exdirt and Extwin can be carried out in the shortest time without interrupting the system operation
- + High performance plug-on magnet Exferro Easy Clip for optimum separation of ferromagnetic dirt particles such as magnetite and for easy cleaning is included in the Exdirt and Extwin scope of delivery

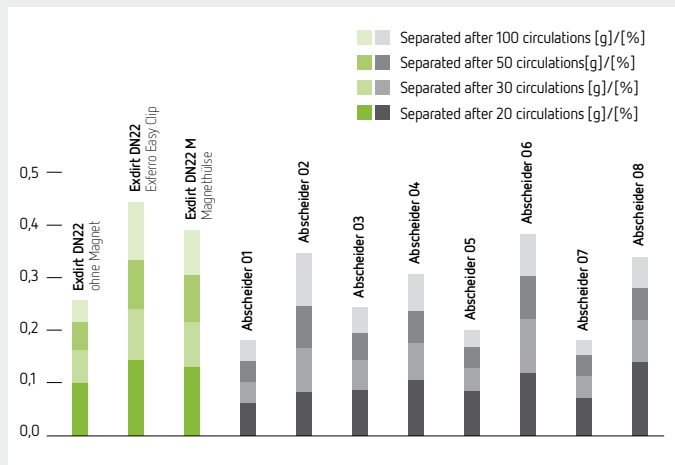
The connections of the twist separators can be twisted 360° and are therefore suitable for various installation positions such as ascending, horizontal and vertical pipelines. The connection can be adjusted by hand and allows easy installation in existing and new systems.



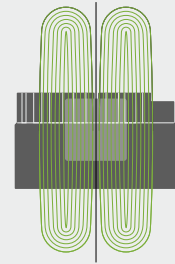


New: Exferro Easy Clip high performance magnet

All Exdirt and Extwin brass separators are equipped with a high performance plug-on magnet. The neodymium magnet with 14.4 kg holding force and axial alignment is simply plugged on from below.



Magnetic field lines of Exferro Easy Clip

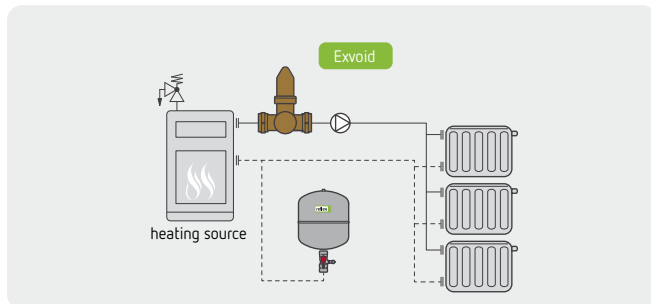


The magnetic field strength has a maximum effect on the fluid in the separator and enables optimum separation of ferromagnetic dirt particles.

Installation

Exvoid micro-bubble separator

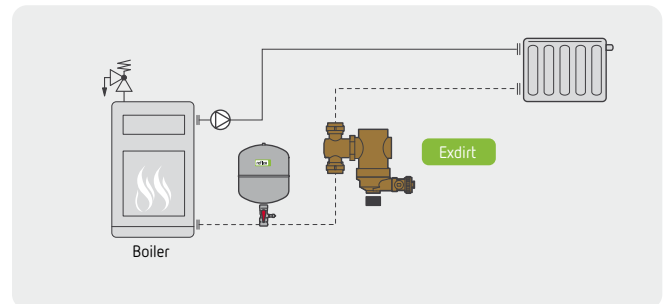
In a heating system directly behind the boiler in the flow, in a cooling system in front of the chiller in the return line.



Exvoid brass in a heating system

Exdirt dirt and sludge separator

In heating and cooling systems in the return line upstream of the heat generators to be protected, of heat exchangers, bypass and upstream of sensitive components and circulating pumps.

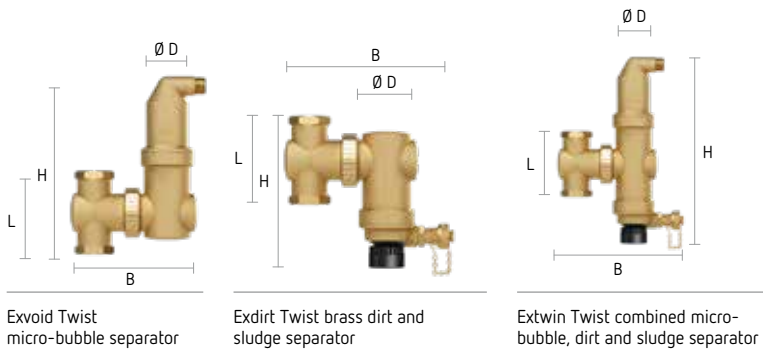


Exdirt brass in a heating system

Extwin combined micro-bubble, dirt and sludge separator

To be used depending on the prioritization of the function: If micro-bubble separation is prioritised, Extwin is installed in the flow (heating system). If dirt and sludge separation is prioritised, Extwin is installed in the return flow. In cooling systems upstream of the chiller in the return line.

Rotatable brass separators Twist



Exvoid Twist
micro-bubble separator

Exdirt Twist brass dirt and
sludge separator

Extwin Twist combined micro-
bubble, dirt and sludge separator

Technical features

- Brass housing
- Application range:
up to 110°C and 10 bar
- Exferro Easy Clip is included in scope
of delivery of Exdirt and Extwin

	Type	Art.-No.	Connection	V_{max} [m ³ /h]	Ø D [mm]	H [mm] (incl. magnet for DT and TWT)	B [mm]	L [mm]	Weight [kg]	
10 bar 110°C	Exvoid Twist rotatable micro-bubble separator									
	AT 22	9257200	22 mm	1,25	63,6	218	162	109	2,0	
	AT 28	9257210	28 mm	2	63,6	218	162	111	2,2	
	AT ¾	9257220	IG ¾"	1,25	63,6	207	162	85	1,9	
	AT 1	9257230	IG 1"	2	63,6	214	162	100	2,0	
	AT 1 ¼	9257240	IG 1 ¼"	3,75	63,6	264	175	100	2,6	
	AT 1 ½	9257250	IG 1 ½"	5	63,6	264	175	100	2,5	
10 bar 110°C	Exdirt Twist rotatable dirt and sludge separator									
	DT 22 M	9257300	22 mm	1,25	63,6	176	195	109	2,0	
	DT 28 M	9257310	28 mm	2	63,6	177	195	111	2,1	
	DT ¾ M	9257320	IG ¾"	1,25	63,6	164	195	85	1,8	
	DT 1 M	9257330	IG 1"	2	63,6	172	195	100	2,0	
	DT 1 ¼ M	9257340	IG 1 ¼"	3,75	63,6	223	208	100	2,5	
	DT 1 ½ M	9257350	IG 1 ½"	5	63,6	223	208	100	2,3	
10 bar 110°C	Extwin Twist rotatable, combined micro-bubble, dirt and sludge separator									
	TWT 22 M	9257100	22 mm	1,25	63,6	285	195	109	2,5	
	TWT 28 M	9257110	28 mm	2	63,6	285	195	111	2,7	
	TWT ¾ M	9257120	IG ¾"	1,25	63,6	285	195	85	2,4	
	TWT 1 M	9257130	IG 1"	2	63,6	285	195	100	2,5	
	TWT 1 ¼ M	9257140	IG 1 ¼"	3,75	63,6	285	208	100	3,0	
	TWT 1 ½ M	9257150	IG 1 ½"	5	63,6	285	208	100	2,9	

Exiso Twist heat insulation



Technical features

- Heat insulation Exiso Twist 22-1" and Exiso Twist 1 ¼ - 1 ½" are available on request, consisting of universally applicable form- and temperature-stable, adaptable, form-fitting half shells made of Expanded Polypropylene (EPP)
- Thermal conductivity 0.035 W/mK (10°C)
- Application temperature up to 110°C
- Fire protection class B2 acc. to DIN 4102 and E acc. to EN 13501-1
- Modular design for flexible insulation with one option each for Exdirt, Exvoid and Extwin 22 mm to 1" and 1 ¼" to 1 ½"

Exiso

RE1918en / 9127656
Subject to technical changes