

PRODUCT DATA SHEET

EWO® ACTIV F1 6/4" – DN65

Natural chemical-free heating / cooling water treatment with active anti-corrosion and integrated flushable filter bag technology



ACTIV F1 6/4" & 2"

DN65

APPLICATION

Black, muddy heating water results from unnatural conditions in the heating circuit, which can lead to technical problems.

A 1mm thick covering can increase energy consumption by up to 10%. Maintenance costs and costs increase with poorly functioning heaters.

The EWO® ACTIV F1 is installed in the heating circuit (return line) and protects against corrosion and sludge on the heating water side when operated, assembled and serviced properly.

A continuous and permanent function is given. (prerequisite: regular anode replacement and filter maintenance)

EWO® ACTIV F1 must not be installed in systems with aluminum materials that come into contact with water and a water-antifreeze mixture.

When using the ACTIV F1 technology, no chemical additives or corrosion protection agents/inhibitors may be used.

FUNCTIONALITY

The slow degradation of the magnesium anode (s) reduces the oxygen in the heating water. The pH value is raised to the optimum range by the alkaline magnesium and stabilizes. A passive layer can thus form on the metals. Passivity, e.g. iron (steel), carbon-steel



The electrochemical processes resulting from the use of materials with different potentials are minimized.

Electrochemical series, e.g. iron -0,44V; copper +0,34V; magnesium -2,34V

The magnesium anode (s) as the less noble material dissolves over time.



Thanks to the EWO® method, the heating water remains in a stable equilibrium over the long term; a corresponding test was carried out at OFI Technologie & Innovation GmbH and the Institute for Food Safety and Hygiene at HYGIENICUM GmbH.

The flow is calmed by the large inner chamber and the built-in components. This allows the magnetic rod to pick up magnetically reacting parts and particles to settle in the lower part of the device.

In our modern EWO® ACTIV F1 technology, the included magnesium anode technology brings magnesium hydroxide into solution to alkalize the heating / cooling water and increase the pH value, the oxygen is reduced and active corrosion protection is created. This can increase the total hardness in the systems due to the dissolved magnesium hydroxide! In our water analysis, the total hardness as well as the calcium content and the magnesium content are measured and specified separately! However, since the magnesium content in the follow-up analysis, which is included in the total hardness (°dH) and which is also measured and specified, can hardly be deposited, there are no problems in the systems with 0.6 °dH specification!

Additional info: If the magnesium content in the water were to drop out, it would no longer be measurable in the follow-up analyzes! The measurable magnesium (magnesium hydroxide) in the water is only the confirmation of the optimal function of this chemical-free technology for sustainable heating water stabilization!
www.de.wikipedia.org/wiki/Magnesiumhydroxid

PRE-CONDITIONS FOR INSTALLATION

Before installing EWO® ACTIV F1, an analysis of the existing heating water must be carried out and any necessary measures implemented (in the case of old systems)

Local installation regulations, general guidelines and technical data must be observed.

The installation location must be frost-proof and ensure protection against chemicals, dyes, solvents, vapors and environmental influences.

The EWO® ACTIV F1 is not suitable for the separation of oils, greases, solvents, soaps, other lubricants and water-soluble substances.

The heating system must be flushed, filled and installed in accordance with Austrian Standard ÖNORM H5195-1. In Germany, the regulations of VDI 2035 and those based on the recommendation of DIN EN14336 apply analogously.

When using EWO® ACTIV F1 technology, no chemical additives or corrosion protection agents/inhibitors may be used.

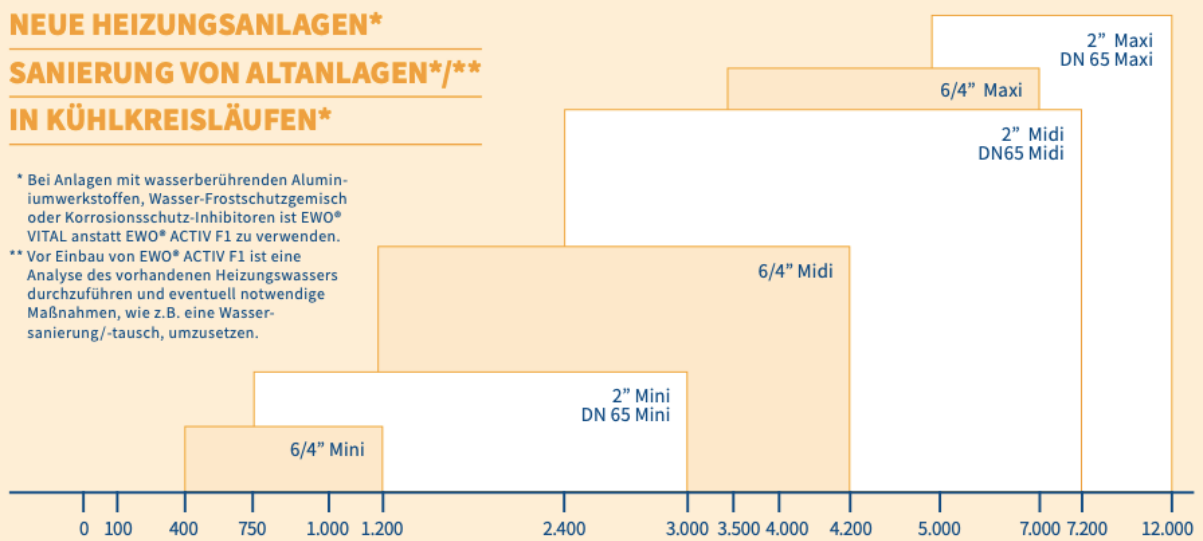
AREAS OF APPLICATION

NEUE HEIZUNGSANLAGEN*

SANIERUNG VON ALTANLAGEN*/**

IN KÜHLKREISLÄUFEN*

- * Bei Anlagen mit wasserberührenden Aluminiumwerkstoffen, Wasser-Frostschutzgemisch oder Korrosionsschutz-Inhibitoren ist EWO® VITAL anstatt EWO® ACTIV F1 zu verwenden.
- ** Vor Einbau von EWO® ACTIV F1 ist eine Analyse des vorhandenen Heizungswassers durchzuführen und eventuell notwendige Maßnahmen, wie z.B. eine Wasser-sanierung/-tausch, umzusetzen.



Die Geräte-Dimension ist zusätzlich abhängig von den hydraulischen Bedingungen wie z.B.: Volumenstrom, Druckverlust, Durchflussleistung,... Sollte auf Grund des Systeminhalts sowohl ein Mini oder Midi, oder ein Midi oder Maxi einsetzbar sein, so ist immer das vom Systeminhalt kleinere Gerät in der erforderlichen Dimension zu verwenden.

MOUNTING INSTRUCTIONS

- Horizontal installation between two shut-off valves in the heating return (shut-off valves for anode replacement and cleaning of the magnetic separator are already included in the scope of delivery of the ACTIV F1 6/4 "and 2")
- Allow sufficient space for replacing the magnesium anodes and cleaning the magnetic separator and change of the filter bag
- Use neutral junctions made of brass, red brass or stainless steel for device connection
- ACTIV F1 has a certain flow direction**
- Keep at least 50cm distance (linear distance) to electrical equipment, e.g. pumps (distance to electrical and electromagnetic fields)
- Pay attention to good equipotential bonding of the heating system
- A device isolation is worth considering
- A bypass is recommended for maintenance
- Mount electrical device bridging
- The heating system must be flushed with at least twice the amount of water in the system in order to flush out any residues from the construction or from the built-in components. Otherwise, residues could negatively affect the water quality.
- For EWO® technology, we recommend filling in accordance with standards
- When using the ACTIV F1 technology, no chemical additives or corrosion protection agents/inhibitors may be used.
- In the case of existing or renovation systems, an analysis of the existing heating water must be carried out before installation and any necessary measures, such as water renovation/replacement, must be implemented.

TECHNICAL DATA

ACTIV F1		Technical Data								
Dimension	inch	6/4" Mini	6/4" Midi	6/4" Maxi	2" Mini	2" Midi	2" Maxi	DN65 Mini	DN65 Midi	DN65 Maxi
Nominal width	DN	40	40	40	50	50	50	65	65	65
max. operating pressure	bar	10 (unit) / 0 -4 (manometer)								
Operating temperature	°C	1 – 90								
Flow rate Δp 0,1bar*	m³/h	22	22	22	29	29	29	30,4	30,4	30,4
Flow rate Δp 0,2bar*	m³/h	30,5	30,5	30,5	41	41	41	42,7	42,7	42,7
Total height incl. T-piece for deaerator	mm	790	790	790	790	790	790	790	790	790
Installation width	mm	512	512	512	517,5	517,5	517,5	420	420	420
Diameter housing cover incl. handles	mm	440	440	440	440	440	440	440	440	440
Diameter filter housing	mm	220,8	220,8	220,8	220,8	220,8	220,8	220,8	220,8	220,8
height anode / filter bag exchange, minimum	mm	480	480	480	480	480	480	480	480	480
Weight	kg	32,6	32,6	33,2	33,8	33,8	34,4	36,8	36,8	37,4
Anodes	pcs.	1	1	2	1	1	2	1	1	2
System volume	l	400	1.200	3.500	750	2.400	5.000	750	2.400	5.000
		-	-	-	-	-	-	-	-	-
Magnetic separator	pcs.	1.200	4.200	7.000	3.000	7.200	12.000	3.000	7.200	12.000
		1								

* measured with clean filter bag 200µm



ACTIV F1 6/4" & 2"



ACTIV F1 DN65



ACTIV F1 filter bag	
Material	Polypropylene needle felting, single layer, glazed
Filter area	0,25m²
Bottom of bag	V-shaped
Filter fineness	25, 50, 75, 100, 150, 200µm



OPERATION & MAINTENANCE**Change of magnesium anode:**

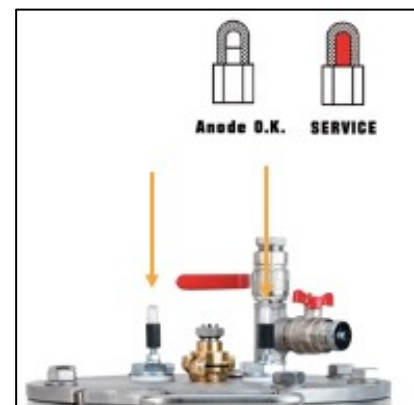
It is only necessary to replace the anode when the color capsule turns red.

Measure the pH-value in the heating water before replacing the anode.

If this is in the optimal range (9.5 – 10 for unalloyed steel), no anode replacement is required. Afterwards, the pH-value has to be checked every 2 years.

The magnesium anode corresponds to EU standard 12438.

Depending on water quality and operating conditions, the service life is approx. 2 years.

**Magnetic- and sludge separator**

Regular cleaning and rinsing is required (at least twice a year) and can e.g. be carried out in the course of boiler maintenance.

Filter

A visual differential pressure check must be carried out regularly on the pressure gauges of the filter. If necessary, the filter must be rinsed out and / or the filter bag cleaned or replaced.

Filling-up water

Conforming to standards

Heating-water analysis

Initial analysis after at least 3 months of operation with EWO® ACTIV F1 at the earliest. Subsequently, according to the recommendations of the relevant standards.

SCOPE OF DELIVERY

- 1 EWO® ACTIV F1 with threads or flange (depending on device size)
- 1 or more magnesium anodes (depending on device size and system volume)
- 1 Magnetic separator
- 3 Ball valves ¾"
- 2 Glycerin-Manometer
- 1 Drain valve ½" incl. elbow fitting
- 1 Electrical bridging (earthing clamps and cable)
- 1 Connection option for deaerator

SPARE PARTS

- Drain valve ½"
- Magnesium anode
- Magnetic separator
- Filter bag
- Glycerin-Manometer
- Ball valve ¾"

WARRANTY

The latest version of the national statutory warranty provisions apply.

Contact:

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