

TwinXtract Series

Coalescing Air & Dirt Separator



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Installation, Operation and Maintenance Manual

1. Foreword

Thank you for choosing our product. This manual should be read carefully prior to installation. This manual has been carefully prepared to provide instructions on installation, operation, and maintenance of the Winflo TwinXtract series coalescing air & dirt separator.

This manual is intended to be used in conjunction with other literature provided with the Winflo-EauTechnik products. Install, operate and maintain the unit in accordance with this manual and with the statutory regulations and codes of practice in force at the place of installation. Where the building authority, civil defence, a utility or a project consultant imposes additional requirements, those requirements also apply.

Installation and maintenance of Winflo-EauTechnik products must be performed by qualified professionals where civil and mechanical work is required.

This document is intended to provide information only and does not form a contract with third parties.

Intended use: the TwinXtract series is intended for the removal of entrained air, microbubbles, suspended dirt and ferrous particles from clean, non-explosive water or water-glycol media in closed-loop hydronic heating and chilled-water systems, within the limits of the technical data. Any use beyond this — including non-approved fluids, operation outside the specified limits, or unauthorised conversion — is misuse and voids all warranty and liability claims.

Note: EauTechnik reserves the right to modify and update product technical specifications, components, and documentation without

notice and without obligation to update existing equipment. It is the user's responsibility to ensure that the latest version of this manual is being used that is available by contacting EauTechnik GmbH or any of its authorized distributors.

Note: The texts and drawings in this manual are correct to the best of our knowledge. Your own calculations and plans, under consideration of the current standards and directions should be the only basis for your projects. We do not offer a guarantee for the completeness of the drawings and texts of this manual — they only represent some examples. They can only be used at your own risk. No liability is assumed for incorrect, incomplete, or false information and / or the resulting damages. The design and the specifications can be changed without notice. The illustrations may differ from the original product.

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3. General Instructions

Read these instructions and warnings carefully. Instructions contain vital information regarding the safe installation, operation, and maintenance of this product. Failure to comply with the instructions in this manual can cause product/property damage, severe personal injury, and/or loss of life for which the manufacturer shall not be liable.

1. This manual must be kept in a suitable place with easy access for users and operators, protected from dust and damp. The manual must accompany the unit during the entire life cycle.
2. Examine the product when it is received to be sure that there is no damage in shipping. If any damage is evident, report it to the transportation company and have it inspected by them. Check the nameplate to verify the correct unit has been received.
3. The responsibility of installation lies with the installer and must be performed by an authorized and qualified professional.
4. Using the product for reasons other than those specified in this manual are strictly prohibited. The manufacturer shall not be held liable for any damage caused by improper or unjustifiable use or by failure to comply with the instructions in the manual.
5. Do not weld, drill, cut or otherwise modify the pressure boundary (shell, heads, nozzles or flanges). Any such modification invalidates the pressure-equipment conformity and the warranty and may render the unit unsafe.
6. Incorrect handling, installation, operation, and maintenance of the product may cause personal injury or damage to property. The manufacturer shall not be held liable for such damage.
7. Installation, maintenance, and other special work on the product must be performed by an authorized professional, always in compliance with instructions provided in this manual

and any other further instructions provided by the manufacturer.

8. Keep all packaging materials out of reach of children.
9. All repairs must be performed exclusively by an authorized specialist, using only the appropriate parts. Failure to comply with the instructions above may endanger your safety and relieves the manufacturer of all responsibility.
10. The product is for its intended use only.

Symbols

	WARNING – A hazardous situation which, if not avoided, could result in death or serious personal injury.
	NOTICE – These instructions are highly recommended and indicate the product's general and specific cautions, instructions and standards.

Note: Failure to follow the procedures and instructions in this manual will void the warranty and EauTechnik may not be held liable for any damages to property nor injury or death.

4. Safety Standards

4.1. Personnel

- Installation, dismantling and maintenance must be carried out only by technicians trained in the necessary tools and fixing materials and familiar with the system medium; operation only by persons instructed in the system.
- All work on the product must be carried out with the unit isolated from the system, fully depressurised, cooled to a safe temperature, and drained.
- The operator must confirm the competence of all personnel, provide the required personal protective equipment (safety shoes, gloves, goggles; helmet under suspended loads), and keep all labels on the unit legible.

4.2. General Safety Standards

1. The unit and the system are pressurised. Relieve pressure through the blowdown or vent and confirm zero pressure before loosening any joint.
2. Risk of burns and scalding. In heating service, accessible surfaces and escaping fluid can exceed 68 °C; guard or insulate hot surfaces and open vents with care.
3. Observe the national regulations for working at height and cordon off the area below the working position.
4. Do not leave flammable materials in the vicinity of the unit, and do not place anything beneath it that could be damaged by a leak.
5. The product is not to be used by children or by persons with reduced physical, sensory or mental capacity without supervision.
6. Do not leave the packaging materials (staples, plastic bags, expanded polystyrene, etc.) within the reach of children.

4.3. Residual Risks

Even after all design-level safeguards, the following residual risks remain. Operators and maintainers must remain aware of them at all times:

- Pressurised vessel and possible release of hot contained fluid in the event of a gasket or joint failure.
- Hot surfaces in heating service.
- Lifting loads — unit weight rises steeply with size.
- **Strong magnetic field** on magnetic models (Neodymium N52). Persons with pacemakers or implanted defibrillators must keep at least 300 mm from the magnet; keep ferrous tools, magnetic data media and electronic devices clear during magnet removal and handling.

5. Transport, Handling & Storage

5.1. Delivery Inspection

On receipt of the product:

1. Inspect the shipping crate / packaging visually; photograph any damage before opening.
2. Verify the packing list against the physical items; tick off each item.
3. Confirm the nameplate matches the order / datasheet (model code, serial number, size, pressure rating and duty conditions).
4. Check for bent flanges or missing port blanks, and that the automatic air vent, skim valve, blowdown valve and (where fitted) magnet assembly and insulation jacket are present and undamaged.

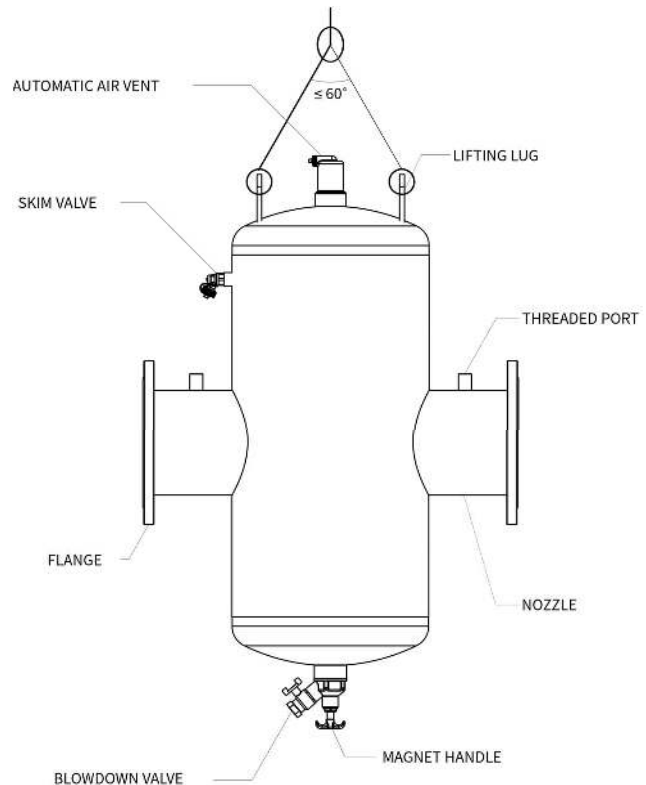
Any damage or discrepancy must be notified to the carrier within **48 hours** and to EauTechnik / Winflo Service within **10 days** of receipt, in writing, to preserve warranty entitlement.

5.2. Lifting & Handling



WARNING - Suspended load. Use only rated rigging, operated by qualified personnel. Never stand under a suspended load.

1. Lift loads above 30 kg with rated hoisting gear. Lifting lugs are fitted on DN125 and above (sized for the dry weight, for handling only); on smaller units sling to the body supports. Never lift by the air vent, skim valve, valves or flange bolt holes.
2. Maintain a sling angle of $\leq 60^\circ$, protect slings from sharp edges and prevent the unit from swinging.
3. Support feet and brackets are anchoring points only; secure the unit against tipping until it is connected and supported.



**DO NOT LIFT BY THE AIR VENT, VALVES, OR FLANGE BOLT HOLES.
USE LIFTING LUGS AND/OR NOZZLES TO LIFT.**

Fig: Lifting Schematic

5.3. Storage

- Store indoors in a clean, dry, ventilated place, out of direct sunlight, ideally at 5–40 °C, with all port covers in place. In hot climates keep units shaded and avoid prolonged storage in uncooled spaces; protect EPDM seals and the coating from UV and extreme heat.
- Do not stack loads on the unit. Inspect periodically for condensation and corrosion.

6. Product Description

6.1. General Overview

The Winflo TwinXtract is a coalescing air & dirt separator for closed-loop hydronic heating and chilled-water systems. Installed in the pipework, it continuously removes entrained air and microbubbles, separates suspended dirt and sludge, and — on magnetic models — captures ferrous magnetite, protecting pumps, control valves, heat exchangers and coils and helping to maintain system efficiency.

Key features:

- Three functions in one vessel: air separation (deaeration), dirt separation and — on magnetic models — magnetite capture.
- Corrosion-resistant stainless-steel (SS304) coalescing element; filtration to approximately 5 µm.
- Low, stable pressure drop, with Base (1.5 m/s) and High-Flow (3 m/s) capacities.
- Factory-assembled with an automatic air vent, side skim valve, blowdown valve with hose connection and full-port ball isolation valve.

- Demountable option for in-line cleaning of the coalescing element; magnetic option for magnetite capture; removable insulation jacket option.
- PN16 / PN25; flanged, welded or grooved connections; gauge-port taps for differential-pressure monitoring.

6.2. Design Features and Variants

1. Capacity. Base (nominal 1.5 m/s) or High-Flow (nominal 3 m/s) bodies. Both achieve the same separation performance; the High-Flow body passes a higher flow per connection size.
2. Body. Closed, or Demountable — a bolted, gasketed bottom flange that allows the coalescing element to be withdrawn for inspection and cleaning without removing the vessel.
3. Magnetic option. A withdrawable Neodymium N52 magnet ($\geq 14,000$ Gauss) in a sealed SS304 dry sleeve that never contacts the water, integrated with the blowdown as a single bottom service assembly; it is drawn downward out of the sleeve to release captured magnetite for blowdown.
4. Standard scope. Factory-assembled with an automatic air vent, side skim valve, blowdown valve with hose connection and full-port ball isolation valve. Optional: Neodymium magnet (magnetic models) and a removable insulation jacket.
5. Gauge taps. Threaded gauge-port taps on the inlet and outlet nozzles allow differential-pressure monitoring ($G\frac{1}{4}$ " up to DN80; $G\frac{1}{2}$ " from DN100).

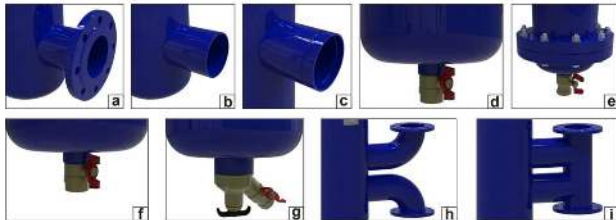


Fig: Connection types and options: (a) flanged, (b) welded-end, (c) grooved, (d/f) drain, (e) demountable element, (g) magnetic, (h-i) vertical in-line connections

6.3. Type Key / Model Code

Each unit is identified by a ten-position model code, for example **CTX-HD250F16MB-SW**

Position	Code	Meaning
Series	CTX	TwinXtract coalescing air & dirt separator
1 Capacity	B / H	Base (1.5 m/s) / High-Flow (3 m/s)
2 Body	C / D	Closed / Demountable
3 Size	050...600	Nominal size DN, three-digit
4 Connection	F / W / G	Flanged / Welded / Grooved (on request)
5 Pressure	16 / 25	PN16 / PN25
6 Magnet	M / –	Magnetic / non-magnetic
7 Supports	– / L / B	None / floor legs / body brackets
8 Construction	– / X	Standard / customised

Position	Code	Meaning
9 Mesh	S / M / L	SS304 / SS316 / SS316L
10 Body	W / S / M / L	Carbon steel / SS304 / SS316 / SS316L

6.4. Nameplate

Each unit carries a nameplate that identifies it and states its rating. The nameplate governs over this manual wherever a unit-specific value differs. Record the model code and serial number before contacting Winflo Service or ordering spares.



Fig: TwinXtract nameplate (DN300 magnetic model)

Nameplate fields:

Field	Meaning
Part Number	Twelve-digit EauTechnik ordering number
Model	Ten-position model code (Section 6.3)
Size	Nominal size DN (with inch equivalent)
Connections	Pressure rating and flange standard (e.g. PN25 Flange EN 1092-1)
Max. Flow Rate	Maximum recommended flow, m³/h
Max. Working Pressure (PS)	Maximum allowable pressure, bar
Working Temperature (TS)	Permissible temperature range (0–110 °C; 0–80 °C on magnetic models)
Serial Number	Unit serial number

The nameplate also carries the Winflo (brand) and EauTechnik GmbH (brand owner) identification, **CE** mark, the DN call-out, and the **strong-magnet** warning symbol on magnetic models (see the magnetic-field precautions, Section 4.3).

7. Technical Data

7.1. Operating Limits

Parameter	Range
Nominal pressure (PN) / max. working pressure (PS)	PN16 or PN25 (PS = 16 or 25 bar)
Shell test pressure	1.5 × PN (PN16 → 24 bar; PN25 → 37.5 bar)
Working temperature (TS)	0–110 °C (magnetic models 0–80 °C — standard N52 magnet; N52H option for higher temperature)
Ambient (installation)	0–50 °C — covers temperate and high-ambient conditions; see Section 8.6
Medium	Closed-loop water or water-glycol (≤ 50 %); not for potable, flammable or chemically aggressive media
Filtration rating	≈ 5 µm (rated); magnet captures sub-5 µm magnetite
Velocity basis	Base 1.5 m/s · High-Flow 3 m/s (at the connection nozzle)

Performance. Approximately 80 % of particles of 30 µm and larger are removed within 100 passes, trending toward ≈ 5 µm over time.

7.2. Materials of Construction

Component	Material (standard / option)
Body, heads, nozzles	Carbon steel S235JR (ST37) · SS304 / SS316 / SS316L option
Flanges	C22.8, drilled to BS EN 1092-1
Coalescing element	SS304 · SS316 / SS316L option
Magnet (magnetic models)	Neodymium N52 in a sealed SS304 dry sleeve
Air vent, skim valve, blowdown valve	Brass (air vent with PP float, EPDM seal)
Seals and gaskets	EPDM
Finish	Thermoset epoxy powder coat, Blue RAL 5002

Magnetic strength: ≥ 14,000 Gauss (Neodymium N52).

7.3. Connections

Flanged to BS EN 1092-1 (PN16 / PN25); welded-end; or grooved on request. Gauge-port taps are provided plugged on the inlet and outlet nozzles: G¼" up to DN80 and G½" from DN100 (BSPP, ISO 228-1).

7.4. Standards

- Pressure Equipment Directive 2014/68/EU (PED); design and construction to EN 13445.
- Flanges to BS EN 1092-1; welding-procedure approval to EN ISO 15612; valve pressure test to EN 12266-1; threads to ISO 228-1.
- Quality management to ISO 9001. Shell/hydrostatic test at 1.5 × PN.

PED classification. As is standard for coalescing separators, the route depends on the unit's size in closed-loop hydronic water service (a Group 2 liquid): the smaller sizes fall under Article 4.3 (sound engineering practice) — built to EN 13445 but not CE-

marked under the PED, and supplied with a manufacturer's statement of sound engineering practice — while the larger sizes exceed the categorisation threshold (from the pressure PS and the volume V) and are CE-marked under the PED with the EU Declaration of Conformity (Appendix A). The route for a given unit is stated on its nameplate.

8. Installation

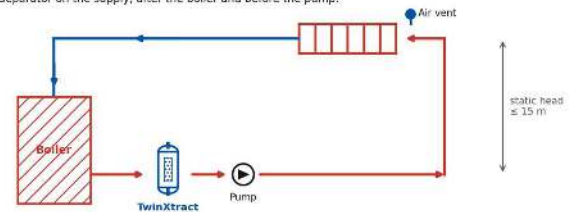
	WARNING - Pressurised system. Isolate and depressurise the relevant section, and ensure only qualified personnel carry out installation. Wear the required PPE.
	WARNING - Strong permanent magnet (magnetic models). Keep persons with pacemakers or implanted defibrillators at least 300 mm from the magnet, and keep ferrous tools, data media and electronic devices clear during installation and magnet handling.

8.1. Location in the system

- Install the air & dirt separator at the point of lowest air solubility — the hottest, lowest-pressure point of the circuit. In heating systems this is on the supply, at the boiler or heat-exchanger outlet; in chilled-water systems it is on the return, at the chiller inlet or the pump-suction header.
- Connect the expansion-tank / make-up line at or adjacent to the separator so that the point of no pressure change is at the pump suction.
- Locate dirt-separation duty upstream of the equipment to be protected (chillers, heat exchangers, control valves, pumps).
- Keep the static head above the separator within about 15 m in heating and 5 m in chilled-water systems for effective air release; fit high-point air vents where air can collect.

Heating system

Separator on the supply, after the boiler and before the pump.



Chilled-water system

Separator on the return, ahead of the chiller.

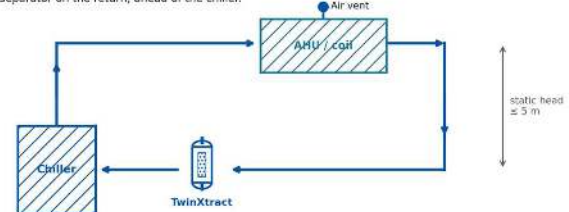


Fig: Typical Locations

8.2. Orientation, supports and mounting

- Install vertically (within about 2° of vertical), with the automatic air vent uppermost and the blowdown lowermost.
- Pipeline supports and anchoring shall be designed and installed by competent and trained professionals.

- Ensure the pipeline weight is independently supported and not acting on the flanges and nozzles of the separator. The unit must not carry pipe weight or act as a pipe anchor.
- Standard separators should be installed with appropriate pipe supports connected to the nozzles to support the weight of the separator.
- Larger sized separators are supplied standard with 4 welded body brackets to connect supports directly to the body. Supports connected to the body brackets can either be mounted to a level and load-bearing base or the ceiling.
- Alternatively, separators can be ordered with integrated legs for a floor mounted installation on a level and load-bearing base.
- Allow clearance above for the air vent, and below for blowdown, magnet withdrawal and (demountable models) removal of the coalescing element.

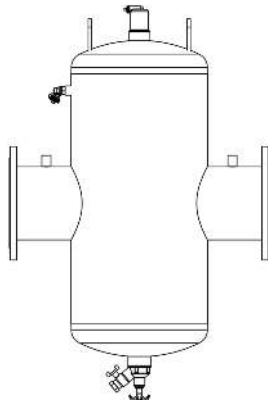


Fig. Standard Separators (no dedicated fixing points).

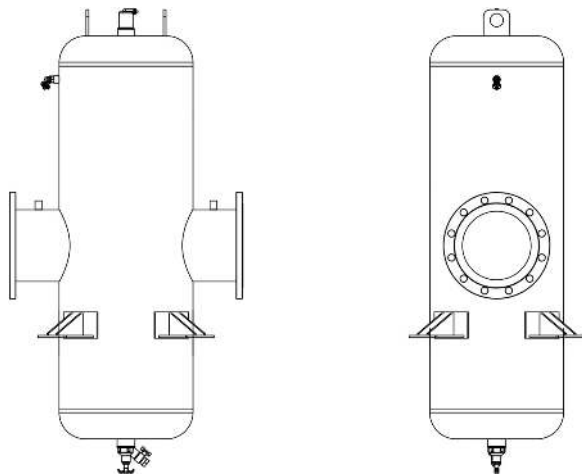


Fig. Separators with welded body brackets.

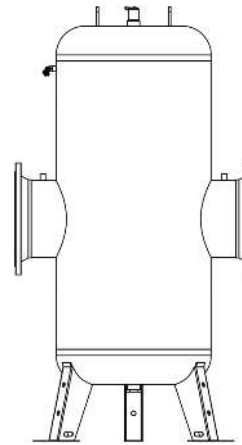


Fig. Separators with integrated legs for floor mounted installations.

8.3. Connections and Piping

- Install isolation valves on the inlet and outlet so the unit can be serviced without draining the system.
- For a single unit on uninterruptible duty, provide a full-size bypass with isolation valves; this is not required for N+1 parallel banks.
- Pipe the blowdown to a floor drain; a hose connection is provided. Fit pressure monitoring devices such as transmitters or gauges (or a differential gauge) to the threaded gauge-port taps to monitor pressure drop.
- Align the piping to the unit, independently supported, so that no pipe load is transferred to the nozzles.

8.4. Insulation

A removable insulation jacket is available as an option and is recommended for chilled-water service to prevent condensation. For chilled-water duty a closed-cell elastomeric foam (thermal conductivity $\approx 0.033 \text{ W/m}\cdot\text{K}$) is used; for heating duty a removable silicone-coated glass-fibre jacket (rated to 230 °C). The jacket allows the air vent, blowdown and (demountable) bottom flange to remain accessible. Do not apply hard-shell insulation to demountable units.

8.5. Installation Environment

- Suit the installation to the local climate. The unit is rated for an ambient of 0–50 °C, covering both temperate and high-ambient locations.
- Cold and temperate climates. Protect the unit and exposed pipework from frost; where freezing is possible, drain the unit through the blowdown or provide trace heating, and insulate against heat loss in heating service (Sections 8.4 and 9.6).
- Hot climates. In plant rooms and on rooftops the ambient can approach 50 °C; ventilate the space to limit heat build-up and shade the automatic air vent from direct solar radiation. In dusty locations keep the air-vent outlet and gauge-port taps protected against ingress.
- Coastal, humid or high-chloride locations. Maintain the external coating and inspect for corrosion; for aggressive water or atmospheres specify a stainless-steel coalescing element and body.

9. Commissioning, Startup & Shutdown

9.1. Pre-Start Checklist

#	Check	✓
1	Unit anchored, vertical, air vent uppermost; isolation valves fitted both sides	☐
2	Piping independently supported; no pipe load on the nozzles	☐
3	System flushed clean and refilled with the correct medium	☐
4	Blowdown piped to drain; gauges fitted to the gauge-port taps	☐
5	Insulation jacket fitted (chilled-water / demountable); service access clear	☐
6	Unit and system filled and vented; air-vent cap open one turn	☐
7	Area clean; tools removed	☐

9.2 System Cleanliness

- Fill the system slowly and allow the unit to fill completely; open the automatic air-vent cap one turn so it can operate.
- Vent residual air at the system high points.

9.3 Pressure Test

Field test pressure must not exceed $1.5 \times$ the maximum working pressure. Before a compressed-air or inert-gas test, close or cap the automatic air vent so it does not release the test medium, and re-open it afterwards.

9.4 Start-up

- Confirm the unit is full and vented.
- Open the isolation valves fully and bring the system into normal operation.
- Check for leaks at the flanges, valves and (demountable) bottom flange.
- Carry out an initial blowdown once flow is established (Section 11.2).

Commissioning blow-down: The system sheds the most debris in its first weeks. Blow down at start-up and again within 24–48 hours, then daily for the first week, weekly for the first month and monthly for the first three months; thereafter follow the maintenance schedule (Section 11.1). Increase the frequency in heavy-dirt or commissioning duty.

9.5 Shutdown & Freeze Protection

- For extended shutdown, isolate the unit; for freeze risk, drain it through the blowdown and protect exposed pipework.
- Do not use antifreeze that is incompatible with the system or with EPDM seals.

10. Operation

10.1. Normal Operation and Monitoring

- The automatic air vent operates continuously; a slight discharge of air during the first days of operation is normal.
- Monitor the differential pressure across the unit using the gauge-port taps; a stable, low pressure drop indicates correct operation.

- Blow down periodically until the discharge runs clear (Section 11.2).

11. Maintenance

11.1. Maintenance Schedule



WARNING - Before any maintenance: isolate the unit, relieve all pressure through the blowdown/vent, allow it to cool, and drain it. Observe the magnetic-field precautions on magnetic models.

Task	6 Mo.	1 Yr	Notes
Blow down until the discharge runs clear	•		1st month, then 6-monthly (1–2 monthly in heavy-dirt service)
Check the automatic air vent operates and does not weep	•		
Wipe the magnet (magnetic models)	•		At each blowdown
Check differential pressure vs commissioning baseline	•		
Inspect / clean the coalescing element (demountable models)			Annually, or on rising ΔP
External inspection (coating, leaks, supports, valves)		•	

11.2. Blowdown/dirt purge

- Connect a hose from the blowdown valve to a drain.
- Open the blowdown gradually and allow dirt-laden water and magnetite to discharge until it runs clear, then close it.
- On magnetic models, withdraw the magnet first so that captured magnetite is released. Allow a few moments for the magnetite to settle down and then re-insert the magnet.
- Record each blowdown; increase the frequency if the discharge is heavily laden.

11.3. Automatic air-vent service

Check the air vent annually. If it weeps continuously or fails to release air, isolate and depressurise the unit and renew the vent cartridge. Keep the vent cap one turn open in normal operation.

11.4. Magnet Servicing (magnetic models only)

- Observe the magnetic-field precautions (keep ≥ 300 mm from pacemakers/ICDs; keep ferrous tools and data media clear).
- Pull the magnet handle downward to draw the magnet out of the separator and out of its dry sleeve. The captured magnetite around the sleeve drops down and settles near the blowdown.
- Let the magnet return gradually and repeat once or twice for best effect.
- Open the blow down valve briefly to flush the released dirt and magnetite.
- Close the blowdown valve once the water runs clear.

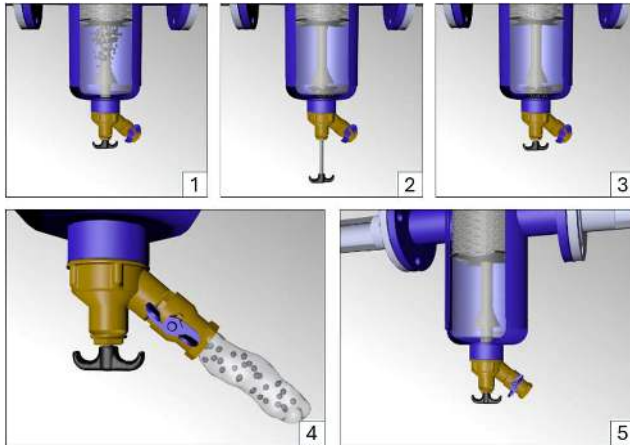


Fig: Blowdown Flushing



NOTICE - Handling the magnet. The withdrawn magnet stays fully magnetised - keep ferrous tools, electronics and data media clear, and keep at least 300 mm from anyone with a pacemaker or implanted defibrillator. Allow the released magnetite a minute or two to settle before blowing down.

11.5. Coalescing element cleaning (demountable models only)

1. Isolate the unit, relieve pressure, allow it to cool, and drain it through the blowdown.
2. Remove the insulation jacket from the bottom flange.
3. Support the coalescing element and the bottom flange before unbolting — the element rests on the vessel floor, can topple, and is heavy when laden with dirt. Then evenly unbolt and lower the bottom flange and withdraw the element.
4. Rinse the element with clean water (low-pressure); do not use corrosive cleaners; inspect for damage.
5. Refit with a new bottom-flange gasket and tighten the bolts crosswise, in 30 %, 60 % and 100 % increments.
6. Re-fill, vent and pressure-test, then return to service and blow down.

Bolt size	Torque—dry (N·m)	Torque—lubricated (N·m)
M20	300	240
M24	500	400
M27	700	560

Bolt torque. Tighten crosswise in 30 %, 60 % and 100 % passes with a new gasket. Lubricated figures assume about 20 % less torque than dry for the same bolt preload — use the value matching the thread condition. For larger bolts, refer to the dimension drawing or Winflo Service.



Fig: Demountable coalescing-element cleaning sequence

12. Troubleshooting

Isolate and depressurise the unit before any intervention other than routine blowdown. Where the fault is not resolved by the actions below, contact Winflo Service (Appendix D).

Symptom	Possible cause	Remedy
Air / noise persists in the system	Unit not at the hottest/lowest-pressure point; air vent fouled or closed; system not fully vented	Confirm location (8.1); service the air vent (11.3); vent the system
Dirt / magnetite not being removed	Infrequent blowdown; magnet not serviced; element fouled	Blow down until clear (11.2); service the magnet (11.4); clean the element (11.5)
High or rising pressure drop	Coalescing element fouled (demountable); isolation valve part-closed	Clean the element (11.5); open the valves fully

Symptom	Possible cause	Remedy
Continuous weep at the air vent	Worn vent cartridge / debris on seat	Isolate, depressurise, renew the vent cartridge
Leak at the demountable bottom flange	Gasket damaged or bolts unevenly torqued	Renew the gasket; re-torque evenly (11.5)
Leak at a nozzle / joint	Pipe strain; gasket failure	Support and re-align piping; renew the gasket

13. Spare Parts

Use genuine Winflo parts only. Quote the model code and serial number from the nameplate with every order.

No.	Spare part
1	Automatic air vent
2	Side skim valve
3	Blowdown valve with hose connection
4	Full-port ball (isolation) valve
5	Coalescing element (per size)
6	Bottom-flange gasket (demountable)
7	Blowdown valve with magnet assembly (magnetic models)
8	Insulation jacket (per size)

13.1. Spare-Parts Ordering

Required with every order: model code and serial number (from the nameplate), and quantity. Contact Winflo Service (Appendix D).

14. Decommissioning & Disposal



A crossed-out wheelie-bin symbol on the nameplate means the product must be disposed of separately from household waste. When the product reaches end of life, take it to a collection point designated by the local waste-disposal authorities. Separate collection and recycling protect the environment and human health.

- Isolate, depressurise, cool and drain the unit; flush out the system medium.
- Separate and recycle by material class: carbon steel / stainless steel, brass, EPDM, and the Neodymium magnet assembly.
- Dispose of any collected sludge and the system fluid in accordance with local regulations.
- A unit that has handled fluids injurious to health must be decontaminated before return; EauTechnik may refuse a unit returned without confirmation that it is safe to handle.

Appendix A – Commissioning Checklist

Part No.			
Model			
Serial No.			
Location/Tag		Date	

Pre-start checks completed (Section 9.1): ☐

Air-vent operation confirmed: ☐

Magnet fitted (magnetic models): ☐

Pressure Reading (after blowdown – no dirt/debris in separator):

Suction Pressure	
Discharge Pressure	

#	Check	✓
1	Unit anchored, vertical, air vent uppermost; isolation valves fitted both sides	
2	Piping independently supported; no pipe load on the nozzles	
3	System flushed clean and refilled with the correct medium	
4	Blowdown piped to drain; gauges fitted to the gauge-port taps	
5	Insulation jacket fitted (chilled-water / demountable); service access clear	
6	Unit and system filled and vented; air-vent cap open	
7	Area clean; tools removed	

Installer Name	
Operator Name	

Appendix B - Maintenance Log Template

[illegible]

Appendix C – Warranty & Contact

Warranty Terms: EauTechnik GmbH warrants this product to be free from defects in materials and workmanship for two (2) years from the date of purchase, provided it has been installed, operated and maintained in accordance with this manual and the applicable regulations. Proof of purchase must be retained and genuine spare parts used.

The warranty does not apply, and may be rendered invalid, in cases of: faulty or improper installation; operation outside the intended use or the limits stated in Section 7; incompetent or improper use; unauthorised modification, or repair or service by non-authorised personnel; use of non-genuine parts; or damage arising from improper storage or handling before installation, system debris, improper water treatment, or chemically aggressive or unapproved media.

Excluded from the warranty: normal wear parts (for example the automatic air-vent, gaskets and seals) after their service life, and any consequential damage or losses arising from a failure.

To make a claim, contact Winflo Service in writing, quoting the model code and serial number from the nameplate and enclosing proof of purchase. The full EauTechnik warranty policy governs the complete terms.

Contact: EauTechnik GmbH — Winflo Service — info@eautek.com
— www.eautek.com