



WINKELMANN
OEM Competence

Expansion Vessels & Separators

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Winkelmann is one of the global leading original equipment manufacturers (OEM) for water storage tanks, expansion vessels, separators and manifolds.

As part of the Winkelmann Building+Industry business unit of the Winkelmann Group in Germany, the brand Winkelmann represents our OEM business with components and systems in buildings of all types and sizes as well as in a wide variety of industrial sectors and industries.

Comprehensive technological expertise, holistic thinking and systematic customer focus make us a reliable OEM partner developing and manufacturing customized and unique solutions.

Customized components and systems

Winkelmann offers a broad range of standard products as well as customized solutions in the field of:

- ✓ Water storage tanks
- ✓ Flat expansion vessels
- ✓ Expansion vessels & separators
- ✓ Manifolds

Our OEM competence

Your business and requirements are the starting point of operations in each project phase—from the idea, via production up to logistics. We devise solutions in collaboration with you to meet the high demands of your market.

Customer focus—We understand your needs.

Our thorough understanding for your needs, the importance of your processes as well as your current and future challenges are the core of our collaboration. We aim to become an integrated part of your business and thus pave the way for your success.

Reliability—You can rely on us in each project phase.

Competent and comprehensive support by dedicated contact persons ensures the highest reliability at any point in the process—from technical coordination and production in one of our highly efficient production sites up to conceiving tried and tested logistics concepts.

Flexibility—We create your individual solution.

We offer a broad range of standard products that, after minor modification, can be used for a wide range of applications. We also develop individual components meeting the most diversified customer demands. This applies to the geometry and material selection of the construction but also to the definition of process and quality specifications.

Your journey with our OEM team:

- 1** **Idea & Concept**
 - initial meeting and analysis of application requirements
 - development of proposal and first price estimation
- 2** **Co-design & Construction**
 - open design process
 - close collaboration with our customers R&D departments
 - full documentation
- 3** **Production**
 - prototyping and testing
 - efficient production for a maximum of availability
 - multi-stage quality control
- 4** **Logistics**
 - on-time delivery
 - customised logistic and packaging concepts
- 5** **Optimization & Service**
 - further development and continuous improvements
 - global support by your personal contact person

Expansion Vessels & Separators

The correct pressure and water quality is the fundamental requirement for the proper operation of water based heating, solar, cooling and pressure booster systems. For this reason Winkelmann offers a broad range of expansion vessels and separation technology.

Our vessels maintain the pressure, compensate volume fluctuations and provide a water seal, while our separation technology improves the water quality by preventing the reduction of performance and service life caused by unwanted particles and substances.

- ✓ **Vessels for heating, chilled water & solar applications**
- ✓ **Vessels for potable water and service water applications**
- ✓ **Separation technology for eliminating air, sludge and dirt particles**



Durable and reliable systems

The high-quality expansion vessels and separation technology prevent corrosion and operation failures. Thus our customers benefit from long lasting systems and a maximum of operational safety.



Certified quality

The production sites have been certified according to the common standards for industrial manufacturing. In this way, we can provide evidence of compliance with all required international standards to our OEM customers—confirmed by independent certification authorities.



Efficient production

Our expansion vessels and separators are manufactured in our modern and high efficient production sites, which guarantee best quality and flexibility every day. Due to automated assembly lines we are able to produce high capacities and handle large volumes within a very short time.



Expansion Vessels

Heating, chilled water & solar applications



NG vessel

Technical Features

- For closed heating and cooling systems
- With thread connections
- Vertical from 35 litres
- Non-replaceable diaphragm according to DIN EN 13831
- Max. operating temperature 70°C
- For antifreeze addition of maximum 50%
- Approval according to Pressure Equipment Directive 97/23/EC
- Long-lasting epoxy resin coating
- Max. permissible system temperature 120°C

Type	Dimensions [mm]	Height H [mm]	Height h [mm]	perm. op. over-pressure [bar]	Connection
NG 8	Ø 206	318	-	1.5	R ¾"
NG 12	Ø 280	275	-		R ¾"
NG 18	Ø 280	382	-		R ¾"
NG 25	Ø 280	494	-		R ¾"
NG 35	Ø 354	459	130		R ¾"
NG 50	Ø 409	469	158		R ¾"
NG 80	Ø 480	565	165		R 1"
NG 100	Ø 480	675	165		R 1"
NG 140	Ø 480	886	165		R 1"

Further standard sizes are available up to 1,000 litres

Expansion Vessels

Potable water and service water applications



DC vessel

Technical Features

- Only for systems not required to meet DIN 1988, such as fire-fighting and service water systems, underfloor heating
- Components in contact with water are corrosion-protected
- Non-replaceable diaphragm according to DIN EN 1383
- Max. operating temperature 70°C
- Pre-charge pressure: 2.0/4.0 bar
- Approval according to Pressure Equipment Directive 97/23/EC
- Long-lasting epoxy resin coating
- With factory-pressurised gas chamber
- WRAS and ACS certified

Type	Dimensions [mm]	Height H [mm]	Height h [mm]	perm. op. over-pressure [bar]	Connection
DC 25	Ø 280	510	-	10.0	G 1"
DC 50	Ø 409	588	113		R 1"
DC 80	Ø 480	680	104		
DC 100	Ø 480	785	104		
DC 140	Ø 480	997	104		
DC 200	Ø 634	883	91		
DC 300	Ø 634	1,184	93		
DC 400	Ø 740	1,173	81		
DC 500	Ø 740	1,392	82		
DC 600	Ø 740	1,629	73		

Expansion Vessels

Potable water and service water applications



DE vessel

Technical Features

- Only for systems not required to meet DIN 1988, such as fire-fighting and service water systems, underfloor heating and geothermal installations
- Components in contact with water are corrosion-protected
- Bladder according to DIN EN 13831/ replaceable from 50 litres
- Max. operating temperature 70°C
- From Ø 1,000 mm including pressure gauge
- Approval according to Pressure Equipment Directive 97/23/EC
- Long-lasting epoxy resin coating
- WRAS and ACS certified

Type	Dimensions [mm]	Height H [mm]	Height h [mm]	perm. op. over-pressure [bar]	Connection
DE 0.65	Ø 122	130	-	10.0	G 1/2"
DE 1	Ø 122	170	-		G 1/2"
DE 2	Ø 132	260	-		G 3/4"
DE 8	Ø 206	335	-		G 3/4"
DE 12	Ø 280	307	-		G 3/4"
DE 18	Ø 280	410	-		G 3/4"
DE 25	Ø 280	520	-		G 3/4"
DE 33	Ø 354	454	-		G 3/4"
DE 33	Ø 354	520	66		G 3/4"
DE 50	Ø 409	604	102		G 1"
DE 60	Ø 409	734	161		G 1"
DE 80	Ø 480	745	153		G 1"
DE 100	Ø 480	850	153		G 1"
DE 200	Ø 634	967	150		G 1 1/4"
DE 300	Ø 634	1,267	150		G 1 1/4"
DE 400	Ø 740	1,256	139		G 1 1/4"
DE 500	Ø 740	1,516	133		G 1 1/4"
DE 600	Ø 740	1,859	263		G 1 1/2"
DE 800	Ø 740	2,325	263		G 1 1/2"
DE 1000	Ø 740	2,805	263		G 1 1/2"
DE 1000	Ø 1,000	2,001	286		DN65/PN16
DE 1500	Ø 1,200	1,991	291		DN65/PN16
DE 2000	Ø 1,200	2,451	291		DN65/PN16
DE 3000	Ø 1,500	2,521	320		DN65/PN16
DE 4000	Ø 1,500	3,070	320		DN65/PN16
DE 5000	Ø 1,500	3,635	320		DN65/PN16

Further standard vessels are also available in 16 bar and 25 bar

Separators

Exvoid, Exvoid T, Exdirt, Extwin



Exvoid

Micro bubble separator

Technical Features

- Connection diameter: A 22–2" (DN 20–DN 50)
- Flow rate: 1.25–8.0 m³/h (at v ≈ 1.0 m/s)
- Exiso heat insulation: A 22–2" (DN 20–DN 50)
- Brass housing
- Application range: To 110°C or 180°C and 10 bar (solar to 180°C)
- Installation position: Horizontal, vertical



Exvoid T

Automatic air vent

Technical Features

- Brass housing
- Quadruple-tested venting valve with high operational reliability
- For vertical installation
- With IG ½" and G ¾" system connection, incl. connection thread at the venting valve of G ½"
- Application range to 110°C or 180°C and 10 bar



Exdirt

Dirt separator

Technical Features

- Connection diameter: A 22–2" (DN 20–DN 50)
- Flow rate: 1.25–8.0 m³/h (at v ≈ 1.0 m/s)
- Exiso heat insulation: A 22–2" (DN 20–DN 50)
- Brass housing
- Application range: To 110°C and 10 bar
- Installation position: Horizontal, vertical
- Removes remotely-circulating dirt and sludge particles up to 5 µm



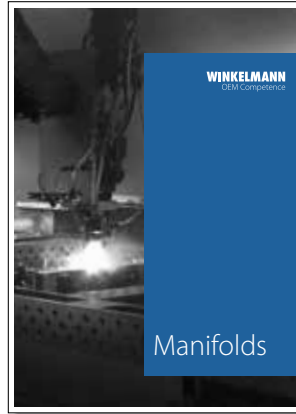
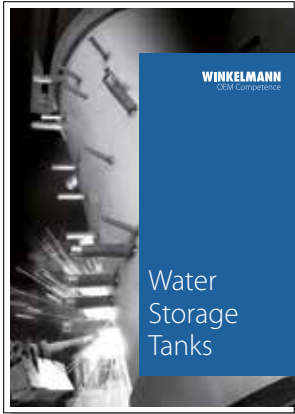
Extwin

Micro bubble-/dirt separator

Technical Features

- Connection variants: Thread and clamping ring
- Connection diameter A22–1" (DN 20–DN 25)
- Flow rate: 1.25–2.0 m³/h (at v ≈ 1.0 m/s)
- Brass housing
- Installation position: Horizontal, vertical
- Application range: To 110°C and 10 bar

Further OEM brochures available
for the following product ranges:



OET802en / 9126853 / 01-18 / 500
Subject to technical changes

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