



**WINKELMANN**  
OEM Competence

# Flat Expansion Vessels

# WINKELMANN

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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

## Flat expansion vessels

Pressure is created in heating and cooling systems by temperature and process-inherent volume changes in the water system. The pressure in the systems is maintained by the functional principle of an expansion vessel which absorbs these changes in volume and therefore largely keeps the pressure constant.

Our flat expansion vessels are designed for the installation in boilers of heating, cooling and heat pumps systems. Its flat geometry is space-saving and therefore the ideal component for the efficient integration in your application.

- ✓ For closed heating, cooling and heat pumps systems
- ✓ Long-lasting epoxy resin coating
- ✓ With standard and customized thread connection
- ✓ Non-replaceable membrane according to DIN EN 13831



### Innovative PP membrane

The PP membrane that we produce for our flat vessels was awarded with the Plus X Award as Best Product 2017 as well as in the categories Innovation, High Quality and Functionality.



### Certified quality

The production sites have been certified according to the common standards for industrial and sustainable manufacturing (ISO 9001 and ISO 14001). 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 flat expansion vessels 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.



# Our product range

## Technical Features

- For closed heating and cooling systems, particular for installation in a boiler
- Membrane according to DIN EN 13831
- Colour: red/silver
- Max. operating pressure: 3 bar



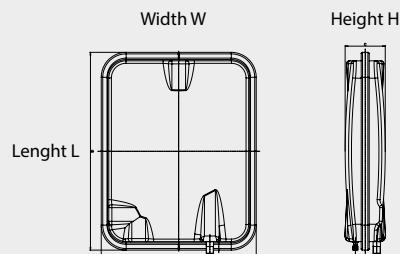
	Type	Dimensions L x W [mm]	Height [mm]	Operating temperature [°C]	Pre-charge pressure [bar]	Connection
<b>CRF</b>	CRF 7	438 x 250	85	90	0.75	G 3/8"
	CRF 8		94			G 3/8", G 1/2"
	CRF 10		111			G 3/8", G 1/2"
	CRF 12		136			G 3/8", G 1/2"

<b>ROM</b>	ROM 12	444 x 350	108	90-120	0.75	G 3/8", G 1/2"
	ROM 13		118			G 1/2"
	ROM 15		134			G 1/2", G 3/4"
	ROM 18		158			
	ROM 24		180			

<b>CRI</b>	CRI 6.5	340 x 300	74	90	0.75	G 3/8"
	CRI 8		94			G 3/8", G 1/2"
	CRI 10		110			G 3/8", G 1/2"

<b>RN</b>	RN 6	500 x 210	84	90-110	0.75	G 3/8"
	RN 8		100			G 3/8", G 1/2"
	RN 10		150			G 3/8", G 1/2"
	RN 12		175			G 3/8", G 1/2"
	RN 15		220			G 1/2", G 3/4"

<b>CRX</b>	CRX 6	410 x 267	84	90-110	0.75	G 1/2"
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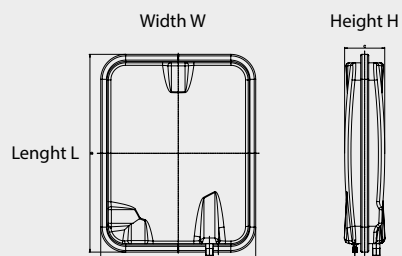
# Our product range

## Technical Features

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	Type	Dimensions L x W [mm]	Height [mm]	Operating temperature [°C]	Pre-charge pressure [bar]	Connection
<b>BRF</b>	BRF 6	423 x 260	78	90	0.75	G ½"
<b>SVR</b>	SVR 7	461 x 333	58	90	0.75	G ¾"
<b>VKC</b>	VKC 10	430 x 389	72,5	90	0.75	G ¾"
<b>VKN</b>	VKN 12	464 x 404	93	90-110	0.75	G ¾", G ½"
<b>RUK</b>	RUK 12	470 x 212	170	90	0.75	G ¾"



# Our product range

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	Type	Dimensions [mm]	Height [mm]	Operating temperature [°C]	Pre-charge pressure [bar]	Connection
<b>DXM</b>	DXM 8	Ø 324	115	90	0.75	G 3/8"



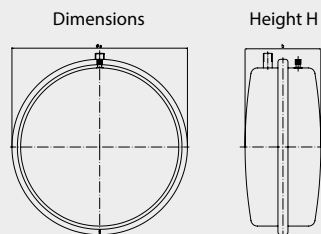
<b>DUK</b>	DUK 6	Ø 337	75	90	0.75	G 3/8", G 1/2"
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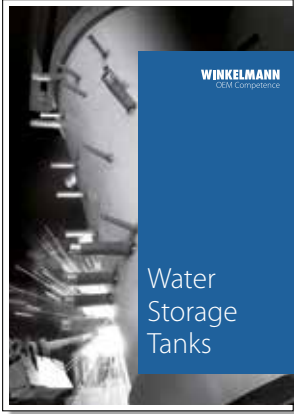
<b>DN</b>	DN 6.5	Ø 380	90.5	90	0.75	G 1/2"
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	Type	Dimensions	Height		Operating temperature [°C]	Pre-charge pressure [bar]	Connection
			Height [mm]	Height H [mm]			
<b>DGN</b>	DGN 5	Ø 389	60	90	0.75	G 3/8", G 1/2"	
	DGN 6		72.5				G 3/8"
	DGN 7		82				G 3/8"
	DGN 8		88				G 3/8", G 1/2", G 3/4"
	DGN 10		92.5				G 3/8", G 1/2"
	DGN 11		118				G 3/8", G 1/2"
	DGN 12		138				G 3/8", G 1/2"



Further OEM brochures available  
for the following product ranges:



OET1800en / 9126855 / 01-18 / 500  
Subject to technical changes

Get in touch with your regional contact:  
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PART OF  
**WINKELMANN**  
BUILDING+INDUSTRY

**WINKELMANN**  
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