

SpiroTop	automatic air vents
SpiroVent	micro bubbles deaerators, brass
SpiroVent	micro bubbles deaerators, steel
SpiroTrap	dirt separators, brass
SpiroTrap	dirt separators, steel
SpiroTrap	dirt separators demountable, steel
SpiroCombi	micro bubbles air/dirt separators, brass
SpiroCombi	micro bubbles air/dirt separators, steel
SpiroCombi	micro bubbles air/dirt separators demountable, steel
SpiroVent	Superior vacuum degassers
SpiroCross	hydraulic separators, air and dirt separators, brass
SpiroCross	hydraulic separators, air and dirt separators, steel

Comments:

- Other materials, temperatures and pressures are available on request.
- All products have been designed and manufactured according to 97/23/EC (PED).
- AutoCAD drawings are available at Stabiplan and Nordined.
- Additional info can be found at: www.spirotech.com

Position	Quantity	Description	Specification
		<p>VENT</p> <p>Automatic Air Vent: Manufacturer: Spirotech bv, Helmond Series: SpiroTop Type: AB...</p> <p>Operation principle: The system can be deaerated by means of an automatic, non shutoff valve during the filling, and is venting during the draining of the system.</p> <p>Connections: Vertical. Bottom connection: G ½" f.t. Vent valve: G ½" m.t.</p> <p>Range: Medium temperature: 0 - 110 °C Medium pressure: 0 - 10 bar</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	Article number ...

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Position	Quantity	Description	Specification
		<p>VENT</p> <p>Solar - Automatic Air Vent: Manufacturer: Spirotech bv, Helmond Series: SpiroTop Solar Type: AB.../008</p> <p>Operation principle: The system can be deaerated by means of an automatic, non shutoff valve during the filling, and during the draining of the system.</p> <p>Connections: Vertical. Bottom connection: G ½" f.t. Vent valve: G ½" m.t.</p> <p>Range: Medium temperature: 0 - 180 °C Medium pressure: 0 - 10 bar</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	<p>Article number ...</p>

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Position	Quantity	Description	Specification
		<p>VENT</p> <p>Automatic air vent: Manufacturer: Spirotech bv, Helmond Series: SpiroTop Solar Autoclose Type: AB.../FBA08</p> <p>Operation principle: The system can be deaerated by means of an automatic, non shutoff valve during the filling, and can be aerated during the draining of the system. The special construction will close the outlet valve when the system temperature is approaching 100 °C. This is to prevent vapor from being discharged from the system. When the temperature drops below 95 °C, the valve will open automatically to remove gasses again.</p> <p>Connections: Horizontal. Bottom connection: G ½" f.t. Vent valve: G ½" m.t.</p> <p>Range: Medium temperature: 0 - 180 °C Medium pressure: 0 - 10 bar</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	<p>Article number ...</p>

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Position	Quantity	Description	Specification
		<p>DEAERATOR</p> <p>Micro bubbles deaerator, brass: Manufacturer: Spirotech bv, Helmond Series: SpiroVent Type: AA...</p> <p>Operation principle: The unique SpiroTube element causes a local change in the flow pattern in the brass housing, from turbulent to laminar. Because of this, micro bubbles of air are separated from the fluid. They are collected in the air chamber and released to the environment by means of an automatic, non-shutoff valve.</p> <p>Connections: Horizontal version: 22 mm rapid coupling, G ¾", G 1", G 1¼", G 1½", G 2" f.t Vertical version: 22 mm rapid coupling, G ¾", G 1" f.t Vent valve: G ½" m.t</p> <p>Range: Medium temperature: 0 - 110 °C Medium pressure: 0 - 10 bar Nominal flow rate: 0 - 7.5 m³/h Nominal flow velocity: 0 -1 m/s</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	Article number ...

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Position	Quantity	Description	Specification
		<p>DEAERATOR</p> <p>Micro bubbles deaerator, brass: Manufacturer: Spirotech bv, Helmond Series: SpiroVent Solar Autoclose Type: AA...</p> <p>Operation principle: The unique SpiroTube element causes a local change in the flow pattern in the brass housing, from turbulent to laminar. Because of this, micro bubbles of air are separated from the fluid. They are collected in the air chamber and released to the environment by means of an automatic, non-shutoff valve. The special construction will close the outlet valve when the system temperature is approaching 100 °C. This is to prevent vapor from being discharged from the system. When the temperature drops below 95 °C, the valve will open automatically to remove gasses again.</p> <p>Connections: Horizontal version: 22 mm rapid coupling, G ¾", G 1", G 1¼", G 1½" f.t. Vertical version: 22 mm rapid coupling, G ¾", G 1" f.t. Vent valve: G ½" m.t.</p> <p>Range: Medium temperature: 0 - 180 °C Medium pressure: 0 - 10 bar Nominal flow rate: 0 - 7.5 m³/h Nominal flow velocity: 0 - 1 m/s</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	<p>Article number ...</p>

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Position	Quantity	Description	Specification
		<p>DEAERATOR</p> <p>Micro bubbles deaerator, steel: Manufacturer: Spirotech bv, Helmond Series: SpiroVent Type: BA .../ HA...</p> <p>Operation principle: The unique SpiroTube element causes a local change in the flow pattern in the steel housing, from turbulent to laminar. Because of this, micro bubbles of air are separated from the fluid. They are collected in the air chamber and released to the environment by means of an automatic, non-shutoff valve.</p> <p>Connections: Horizontal. Welding end: DN 50 - DN 600 Flange PN16: DN 50 - DN 600 Victaulic: DN 50 - DN 300 Vent valve: G ½" m.t. Drain valve: G ¾" m.t.</p> <p>Range: Medium temperature: 0 - 110 °C Medium pressure: 0 - 10 bar Nominal flow rate: BA 0 - 1530 m³/h HA 0 - 3000 m³/h Nominal flow velocity: BA 0 - 1.5 m/s HA 0 - 3 m/s</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	<p>Article number ...</p>

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Position	Quantity	Description	Specification
		<p>DIRT SEPARATOR</p> <p>Dirt separator, brass: Manufacturer: Spirotech bv, Helmond Series: SpiroTrap Type: AE...</p> <p>Operation principle: The unique SpiroTube element causes a change in flow locally in the brass housing, from turbulent to laminar. Because of this, dirt particles sink down out of the fluid. These are collected at the bottom of the separator and can be drained manually during operation. This ensures a proper flow through the pipe.</p> <p>Connections: Horizontal version: 22 mm rapid coupling, G ¾", G 1", G 1¼", G 1½", G 2" f.t. Vertical version: 22 mm rapid coupling, G ¾", G 1" f.t. Drain valve: G ¾" m.t.</p> <p>Range: Medium temperature: 0 - 110 °C Medium pressure: 0 - 10 bar Nominal flow rate: 0 - 7.5 m³/h Nominal velocity: 0 - 1 m/s</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	Article number ...

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Position	Quantity	Description	Specification
		<p>DIRT SEPARATOR</p> <p>Dirt separator, steel: Manufacturer: Spirotech bv, Helmond Series: SpiroTrap Type: BE .../ HE...</p> <p>Operation principle: The unique SpiroTube element causes a change in flow locally in the steel housing, from turbulent to laminar. Because of this, dirt particles sink down out of the fluid. These are collected at the bottom of the separator and can be drained manually during operation. This ensures a proper flow through the pipe.</p> <p>Connections: Horizontal. Welding end: DN 50 - DN 600 Flange PN16: DN 50 - DN 600 Victaulic: DN 50 - DN 300 Drain valve: G 1" f.t. for DN 50 - DN 200 G 2" f.t. for DN 250 - DN 600</p> <p>Range: Medium temperature: 0 - 110 °C Medium pressure: 0 - 10 bar Nominal flow rate: BA 0 - 1530 m³/h HA 0 - 3000 m³/h Nominal flow velocity: BA 0 - 1.5 m/s HA 0 - 3 m/s</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	Article number ...

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Position	Quantity	Description	Specification
		<p>DIRT SEPARATOR</p> <p>Demountable dirt separator, steel: Manufacturer: Spirotech bv, Helmond Series: SpiroTrap Type: BF .../ HF... With demountable separator element for cleaning/replacing.</p> <p>Operation principle: The unique SpiroTube element causes a change in flow locally in the steel housing, from turbulent to laminar. Because of this, dirt particles sink down out of the fluid. These are collected at the bottom of the separator and can be drained manually during operation. This ensures a proper flow through the pipe.</p> <p>Connections: Horizontal. Welding end: DN 50 - DN 600 Flange PN16: DN 50 - DN 600 Victaulic: DN 50 - DN 300 Drain valve: G 1" f.t. for DN 50 - DN 200 G 2" f.t. for DN 250 - DN 600</p> <p>Range: Medium temperature: 0 - 110 °C Medium pressure: 0 - 10 bar Nominal flow rate: BF 0 - 1530 m³/h HF - 3000 m³/h Nominal flow velocity: BF 0 - 1.5 m/s HF 0 - 3 m/s</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	Article number ...

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Position	Quantity	Description	Specification
		<p>AIR AND DIRT SEPARATOR</p> <p>Micro bubbles air and dirt separator, brass: Manufacturer: Spirotech bv, Helmond Series: SpiroCombi Type: AC...</p> <p>Operation principle: The unique SpiroTube element causes a change in flow locally in the brass housing, from turbulent to laminar. Because of this, micro bubbles of air are separated from the fluid and dirt particles sink down out of the fluid. This ensures a proper flow through the pipe. The microbubbles are collected and released to the environment by means of an automatic, non shutoff valve. The dirt particles are collected at the bottom of the separator and can be released manually during operation. A good flow through of the piping is guaranteed.</p> <p>Connections: Horizontal version: 22 mm rapid coupling and G 1" f.t. Vertical version: 22 mm rapid coupling Vent valve: G ½" m.t. Drain valve: G ¾" m.t.</p> <p>Range: Medium temperature: 0 - 110 °C Medium pressure: 0 - 10 bar Nominal flow rate: 0 - 2 m³/h Nominal flow velocity: 0 - 1 m/s</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	<p>Article number ...</p>

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Position	Quantity	Description	Specification
		<p>AIR AND DIRT SEPARATOR</p> <p>Micro bubbles air and dirt separator, steel: Manufacturer: Spirotech bv, Helmond Series: SpiroCombi Type: BC .../ HC...</p> <p>Operation principle: The unique SpiroTube element causes a change in flow locally in the steel housing, from turbulent to laminar. Because of this, micro bubbles of air are separated from the fluid and dirt particles sink down out of the fluid. This ensures a proper flow through the pipe. The microbubbles are collected in the air chamber and released to the environment by means of an automatic, non shutoff valve. The dirt particles are collected at the bottom of the separator and can be released manually during operation. A good flow trough of the piping is guaranteed.</p> <p>Connections: Horizontal. Welding end: DN 50 - DN 600 Flange PN16: DN 50 - DN 600 Victaulic: DN 50 - DN 300 Vent valve: G ½" m.t. Drain connection for floating dirt: G ¾" Drain valve: G 1" f.t. for DN 50 - DN 200 G 2" f.t. for DN 250 - DN 600</p> <p>Range: Medium temperature: 0 - 110 °C Medium pressure: 0 - 10 bar Nominal flow rate: BC 0 - 1530 m³/h HC 0 - 3000 m³/h Nominal flow velocity: BC 0 - 1.5 m/s HC 0 - 3 m/s</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	<p>Article number ...</p>

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Position	Quantity	Description	Specification
		<p>AIR AND DIRT SEPARATOR</p> <p>Demountable air and dirt separator, steel: Manufacturer: Spirotech bv, Helmond Series: SpiroCombi Type: BD .../ HD... With demountable separator element for cleaning/replacing.</p> <p>Operation principle: The unique SpiroTube element causes a change in flow locally in the steel housing, from turbulent to laminar. Because of this, micro bubbles of air are separated from the fluid and dirt particles sink down out of the fluid. This ensures a proper flow through the pipe. The microbubbles are collected in the air chamber and released to the environment by means of an automatic, non shutoff valve. The dirt particles are collected at the bottom of the separator and can be released manually during operation. A good flow trough of the piping is guaranteed.</p> <p>Connections: Horizontal. Welding end: DN 50 - DN 600 Flange PN16: DN 50 - DN 600 Victaulic: DN 50 - DN 300 Vent valve: G ½ " m.t. Drain connection for floating dirt: G ¾" Drain valve: G 1" f.t. for DN 50 - DN 200 G 2" f.t. for DN 250 - DN 600</p> <p>Range: Medium temperature: 0 - 110 °C Medium pressure: 0 - 10 bar Nominal flow rate: BD 0 - 1530 m³/h HD 0 - 3000 m³/h Nominal flow velocity: BD 0 - 1.5 m/s HD 0 - 3 m/s</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	<p>Article number ...</p>

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Position	Quantity	Description	Specification
		<p>AIR SEPARATOR</p> <p>Vacuum deaerator:</p> <p>Manufacturer: Spirotech bv, Helmond</p> <p>Series: SpiroVent Superior</p> <p>Type: MA04...</p> <p>Operation principle:</p> <p>S4A / MA04A...: In a repeating process a part of the system fluid will be drained through a magnetic valve and collected in a vessel. Then the pressure is reduced by a continuously running pump and micro bubbles of air will be separated from the fluid. The air is collected in the air chamber and released to the environment by means of an automatic, non shutoff valve. The deaerated fluid is returned to the system by the pump.</p> <p>Once all the air has been removed from the system, the device will switch automatically to the standby status by means of the Smart Switch.</p> <p>S4A-R / MA04R...: As S4A expanded with a refill function. In the event that the system pressure drops under the set minimum pressure, degassed fluid will be automatically added to the system. The complete system can be automatically filled with degassed fluid.</p> <p>Connections:</p> <p>Supply and return (swivel): G ½" f.t.</p> <p>Refill connection (swivel): G ¾" f.t.</p> <p>Overflow refill: G 1" m.t.</p> <p>Dimensions: (hwxwd): 490 x 340 x 340 mm</p> <p>Weight: 16 /17 kg</p> <p>Range:</p> <p>Medium: water/water glycol (40% max.)</p> <p>Medium temperature: 0 - 90 °C</p> <p>Medium pressure: 1 - 4.5 bar</p> <p>System water volume: recommended up to 25 m³</p> <p>Pump/Control:</p> <p>Pump: Chain wheel pump</p> <p>Control: Electronic</p> <p>Connection voltage: 1 x 230 VAC/50 - 60 Hz</p> <p>Power consumption: 100 Watt</p> <p>GBS contacts:</p> <p>S4A: potential free notifications, max.24V/1A</p> <p>S4A-R : potential free notifications, max.24V/1A</p> <p>Refill on/off by external device: potential free 5 VDC</p> <p>Backflow safeguard for S4R to prevent drinking water: Built in break tank</p>	

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Position	Quantity	Description	Specification
		<p>AIR SEPARATOR Continuation</p> <p>User interface: Menu sent with 2 line display. Registration of operating and error data. Adjustable parameters for optimal operation. Adjustable refill alarms: too many, too long, too often.</p> <p>Mounting: Plug & Play. As shown on the diagram/drawing. According to the instructions of the manufacturer.</p>	<p>Article number ...</p>

Position	Quantity	Description	Specification
		<p>AIR SEPARATOR</p> <p>Vacuum degasser: Manufacturer: Spirotech bv, Helmond Series: SpiroVent Superior Type: MA06...</p> <p>Operation principle: S6A / MA06A...: In a repeating process a part of the system fluid will be drained through a magnetic valve and collected in a vessel. Then the pressure is reduced by a continuously running pump and micro bubbles of air will be separated from the fluid. The air is collected in the air chamber and released to the environment by means of an automatic, non shutoff valve. The deaerated fluid is returned to the system by the pump. Once all the air has been removed from the system, the device will switch automatically to the standby status by means of the Smart Switch. S6A-R / MA06R...: As S6A expanded with a refill function. In the event that the system pressure drops under the set minimum pressure, degassed fluid will be automatically added to the system. The complete system can be automatically filled with degassed fluid. S6A-R 2P: If S6R equipped with a back up pump to refill.</p> <p>Connections: Supply and return (swivel): G ¾" f.t. Refill connection (swivel): G ¾" f.t.</p> <p>Dimensions (hwxwd): 880 x 590 x 350 mm</p> <p>Weight: 57 / 59 / 67 kg</p> <p>Range: Medium: water / water glycol (40% max.) Medium temperature: 0 - 90 °C Medium pressure: 1 - 6 bar System water content: recommended up to 300 m³</p> <p>Pump/Control: Pump: Vertical multi-phase centrifugal pump Back-up pump S6A-R 2P: Peripheral pump Control: Electronic Connection voltage: 1 x 230 VAC/50 - 60Hz Power consumption: 800 / 800 / 1300 Watt</p> <p>GBS contacts: S6A: potential free notifications of operations and malfunctions 24 VAC (in) device release/stop S6A-R/S6A-R 2P: refill 24 VAC (in) Refill on/off by external device: 5 VDC (out)</p>	

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Position	Quantity	Description	Specification
		<p>AIR SEPARATOR Continuation</p> <p>User interface: Menu sent with 2 line display. Registration of operating and error data. Adjustable parameters for optimal operation. Adjustable refill alarms: too many, too long, too often.</p> <p>Mounting: Plug & Play. As shown on the diagram/drawing. According to the instructions of the manufacturer.</p>	<p>Article number ...</p>

Position	Quantity	Description	Specification
		<p>AIR SEPARATOR</p> <p>Vacuum degasser: Manufacturer: Spirotech bv, Helmond Series: SpiroVent Superior Type: MA10...</p> <p>Operation principle: S10A/S16A, MA10A/MA16A...: In a repeating process a part of the system fluid will be drained through a magnetic valve and collected in a vessel. Then the pressure is reduced by a continuously running pump and micro bubbles of air will be separated from the fluid. The air is collected in the air chamber and released to the environment by means of an automatic, non shutoff valve. The deaerated fluid is returned to the system by the pump. Once all the air has been removed from the system, the device will switch automatically to the standby status by means of the Smart Switch. S10A-R, MA10R/MA16R...: As S10A expanded with a refill function. In the event that the system pressure drops under the set minimum pressure, degassed fluid will be automatically added to the system. The complete system can be automatically filled with degassed fluid.</p> <p>Connections: Supply and return: G ¾" f.t. Refill connection (swivel): G ¾" f.t.</p> <p>Dimensions (hxwx): 1272 x 744 x 400 mm</p> <p>Weight: S10A 77 kg, S10R 79 kg S16A 90 kg, S16R 92 kg</p> <p>Range: Medium: Water / water glycol (40% max.) Medium temperature: 0 - 90 °C Medium pressure: MA10... 5 - 10 bar MA16... 9 - 16 bar System water content: Recommended up to 300 m³</p> <p>Pump/Control: Pump: Vertical multi-phase centrifugal pump Control: Electronic Connection voltage: 3 x 400 VAC/50 - 60Hz Power consumption: MA10... 1150 Watt MA16... 2250 Watt</p>	

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Position	Quantity	Description	Specification
		<p>AIR SEPARATOR Continuation</p> <p>GBS contacts:</p> <p>S10A/S16A: potential free notifications of operations and malfunctions 24 VAC (in) device release/stop</p> <p>S10A-R/S16A-R: Refill 24 VAC (in) Refill on/off by external device: 5 VDC (out)</p> <p>Mounting: Plug & Play. As shown on the diagram/drawing. According to the instructions of the manufacturer.</p>	<p>Article number ...</p>

Position	Quantity	Description	Specification
		<p>Hydraulic separator</p> <p>Hydraulic separator with integrated micro bubbles air and dirt separator, brass Manufacturer: Spirotech bv, Helmond Series: SpiroCross Type: AX...</p> <p>Operation principle: Working principle Air and Dirt separation: The unique copper SpiroTube element causes a local change of the flow in the brass housing, from turbulent to laminar. Through that microbubbles of gas will rise in the fluid and solid particles will settle. The microbubbles are collected in the air chamber and released to the environment by means of an automatic, non shutoff valve. The dirt particles are collected on the bottom of the separator and can be released manually during operation. A good flow through of the piping is guaranteed.</p> <p>Working principle low loss header (hydraulic system separation): The SpiroCross functions as a low loss header and is so effectively dividing the system in a primary system and a secondary system which will not influence each other hydraulically. The effect is that generation and distribution can function independently, which increases efficiency in generation as well as distribution.</p> <p>Connections: Horizontal : G 1", G 1¼" en G 1½" f.t. Drain valve: G ¾" m.t.</p> <p>Range: Medium temperature: 0 - 110 °C Medium pressure: 0 - 10 bar Nominal flow rate: 0 - 2 m³/u, 0 - 3.6 m³/u en 0 - 5 m³/u Nominal flow velocity: 0 - 1.0 m/s Connection voltage: 0 - 118 kw</p> <p>Mounting: As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	Article number ...

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Position	Quantity	Description	Specification
		<p>SEPARATOR</p> <p>Hydraulic separator with integrated micro bubbles air and dirt separator, steel</p> <p>Manufacturer: Spirotech bv, Helmond</p> <p>Series: SpiroCross</p> <p>Type: XC</p> <p>Operation principle:</p> <p>Working principle Air and Dirt separation: The unique copper SpiroTube element causes a local change of the flow in the steel housing, from turbulent to laminar. Through that microbubbles of gas will rise in the fluid and solid particles will settle. The microbubbles are collected in the air chamber and released to the environment by means of an automatic, non shutoff valve. The dirt particles are collected on the bottom of the separator and can be released manually during operation. A good flow through of the piping is guaranteed.</p> <p>Working principle low loss header (hydraulic system separation): The SpiroCross functions as a low loss header and is so effectively dividing the system in a primary system and a secondary system which will not influence each other hydraulically. The effect is that generation and distribution can function independently, which increases efficiency in generation as well as distribution.</p> <p>Connections:</p> <p>Horizontal.</p> <p>Welding end: DN 50 - DN 600</p> <p>Flange, PN16: DN 50 - DN 600</p> <p>Victaulic: DN 50 - DN 300</p> <p>Drain valve: G ¾" m.t.</p> <p>Range:</p> <p>Medium temperature: 0 - 110 °C</p> <p>Medium pressure: 0 - 10 bar</p> <p>Nominal flow rate: 0 - 1530 m/h</p> <p>Nominal flow velocity: 0 - 1.5 m/s</p> <p>Connection voltage: 0 - 9450 Kw</p> <p>Mounting:</p> <p>As shown on the diagram/drawing. Housing in vertical position. According to the instructions of the manufacturer.</p>	Article number ...

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