

PE 100 ball valve

THE MAINTENANCE-FREE
HIGH-PERFORMANCE VALVE





The Plastics Experts.

The AGRU isolation valve makes it possible to install continuous PE 100 / PE 100 RC pipelines without the extra effort of integrating metal components. The patented PE 100 ball valve with control shaft extension is already considered state-of-the-art technology for modern, underground pipe networks. If you need reliability, safety and ease of operation, you can rely on the AGRU PE 100 ball valve.

The AGRU success story has been unfolding now for around seven decades. Founded back in 1948 by Alois Gruber senior, nowadays the company is one of the world's most important single-source suppliers for piping systems, semi-finished products, concrete protection liners and lining systems made from engineering plastics. Our ability to supply everything from a single source sets us apart. We use only top-grade thermoplastic polymers as our raw materials. When it comes to application-technical consulting, we are your best partner in the field.



Quality

At AGRU, customer satisfaction comes first. Technical consultations, training courses, welding instruction and expert supervision on site are essential parts. The AGRU quality assurance system is compliant with ISO 9001:2008 and its environmental management system fulfils ISO 14001:2004. This in turn ensures that the products comply with international norms, as monitored and evaluated on an ongoing basis by independent testing agencies standards.

The start-to-finish attention to quality ensures that the products meet and beat the strictest technical specifications, providing safe operation within gas, water and wastewater infrastructures.

Ball Valve

completes the PE 100-RC piping system

The patented AGRU PE 100 ball valve is the best solution for PE 100/PE 100-RC piping systems for transporting gas, water and sewage, as well as for compressed air and vacuum. Manufactured, tested and certified according to the EN 12201 (black/water) and EN 1555 (orange/gas) standards, as well as according to ASTM D2513 (with connection dimensions in inches), the ball valve opens up a broad range of applications. The robust construction and seamless outer casing made of PE 100 make it easy to integrate the valve in PE 100 and PE100-RC piping systems.

Maintenance-free for the entire lifetime

Unique product design

The inner cage made of glass-fibre-reinforced plastic provides:

- protection for the ball against external influences such as temperature fluctuations or structural loads
- a self-cleaning function upon each actuation due to integrated scraper rings
- redundant sealing system with gaskets protected against being flushed out
- easy actuation over the entire lifetime because the ball is supported, cleaned and enclosed by the cage housing
- a design without dead space or deposits, making it completely maintenance free

Completes any PE 100-RC piping system

Product range covers all applications

Extremely flexible implementation

- regulates volume flow rate for gas, water, sewage, compressed air and vacuum systems
- available with or without a gear system
- for underground installation with a control shaft extension and for above-ground installation with an actuation lever
- permanent welding or detachable flange and threaded connections are possible

Unsurpassed cost efficiency

Easy handling and installation at your construction site

Particularly time and cost-saving thanks to

- direct and perfect-fit welding of the ball valve with the PE piping
- same bore as the piping (full bore) with no reduction of the inner diameter, resulting in perfect flow characteristics, low energy costs and piggable
- significant weight savings compared to metal products

Excellent operational reliability

High reliability

Thanks to ingenious features like

- monobloc design. This patented construction makes the ball valve extremely resistant against deformation, temperature fluctuations, pressure surges and seismic activity
- protective bell. This protects the actuating spindle against being infiltrated by foreign material
- long spigots. Can be welded twice, making it possible to remove the ball valve from the piping system and then re-install it at a different location
- completely corrosion-resistant. Thanks to the all-plastic design, there is no danger of corrosion or incrustation, both inside and out.



AGRULINE PE 100 Ball Valve System



The inner cage - the strong core of the fitting

- Constructed of glass-fibre-reinforced polyarylamide
- Absorbs structural loads and guarantees form stability for the ball, gaskets and actuating spindle
- Equipped with media-optimised gaskets and scraper rings (NBR for gas, EPDM for water)
- Sealing gaskets are protected against pullout and permanently locked between cage housing and ball
- Supports and stabilises the ball
- Ball made of POM provides excellent gliding properties

The patented monobloc design - a single piece of reliability

- Homogenous overmoulded inner cage without weak points such as weld lines
- Extremely resistant against bending and pressure (tested up to 50 bar of internal pressure)
- Uncompromising power transmission via the brass operating shaft
- Same inside diameter as the piping



Version without gear system

- ¼ rotation to open and close
- Housing with fixed stop according to EN 12201/EN1555
- Closed or open position quickly reached
- Position marked by arrows on top of the ball valve



Version with gear system

- 1 ½ rotations to open and close
- Slow opening prevents water hammer from occurring
- Transmission ration of 1:6 for smooth actuation and low breakaway torque
- Housing with fixed stop according to EN 12201/EN1555

Product range

The right version for any application

WATER/GAS metric (product code 25.333)		
Dimension (mm)	Without gear system	With gear system
32	x	
40	x	
50	x	
63	x	x
90	x	x
110	x	x
125	x	x
160		x
180		x
225		x





Application PE 100 Ball Valve

Process water

Perfect for use as an isolation valve for industrial process cooling water systems. The gear system reduces the risk of water hammers and lowers the breakaway torque, required for opening even after long idle periods.



Below-ground installation - with an extension spindle

Ideal for below-ground applications: The AGRU ball valve is easy to integrate in a piping system thanks to its compact design and generously long spigots for welding.

The ball valve can be combined with a rigid extension spindle from 0.9 m – 1.5 m or a telescopic extension spindle from 0.75 m – 2.85 m according to DVGW-GW 336, and is delivered with a protective bell as a standard.

The protective bell stabilises the extension spindle and seals up the control equipment. The bell protects the actuation mechanism against sediments being flushed in and guarantees ease of operation and functionality for many years.



Above-ground installation

The AGRU ball valve with actuator lever or wheel is well-suited for above-ground piping systems. Ideal in combination with the AGRU pipe clip for affixing it on steel profiles. Due to the robust monobloc design, the ball valve can easily withstand longitudinal forces in the system.

Special versions

Ball valve exhaust unit

Prefabricated ball valve exhaust unit. The high-quality safety fitting is available with either a single or double exhaust unit. The unit makes it possible to quickly close and ventilate pipe sections for maintenance or when the piping system has suffered damages.

Dimensions: 110, 160, 180, 225, all with exhaust vents size 63.
More dimensions available upon request



Tapping ball valve

In order to install a branch to an existing pressurised pipe system, you can use our hot tapping ball valve. It is delivered pre-welded to a spigot saddle, which can then be welded to the main pipe and drilled through with special hot tapping equipment.

Main dimensions / branches
160, 180, 225, 250, 315 / 63, 90, 110



IPS ball valve with connection dimensions in inches

Now also available for water or gas applications where connecting dimensions in inches are needed. Equipped with spigots, which act as a transition from the metric to the imperial system. The ball valve fulfills ATM D 2513 requirements.



WATER/GAS INCHES

Dimension (inches)	Without gear system	With gear system
1	x	
1 ½	x	
2	x	x
3	x	x
4	x	x
6		x
8		x



The Plastics Experts.

Your distributor

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