

# VAE CONTROLS GROUP

## BALL VALVES

for industrial applications

VAE  
CONTROLS



COMPANY OF  
THE YEAR '99

**BALL VALVES** are shut-off valves for heavy duty applications in:

- Petrochemical industry
- Oil and gas industry
- Chemical industry
- Power generation
- LPG distribution

Produced also in special design DBB (Double Block and Bleed) for perfect sealing with operational check in closed position. DBB valves are used in calibration lines for custody transfer measurement.



### Features

- Intended for water, weak acids, hydrocarbons, crude oil products, air, natural gas, coke-oven gas, blastfurnace gas, city gas, propane-butane and other media
- Temperature range of transported media is  $-200^{\circ}\text{C}$  to  $+200^{\circ}\text{C}$
- Nominal diameters range from DN 25 to DN 400
- Operating pressures PN 16 – 160
- Controlled by a lever, hand wheel with worm-gear, electric, pneumatic or hydropneumatic actuator

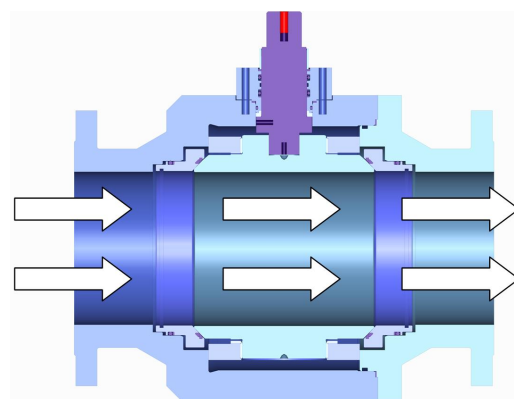
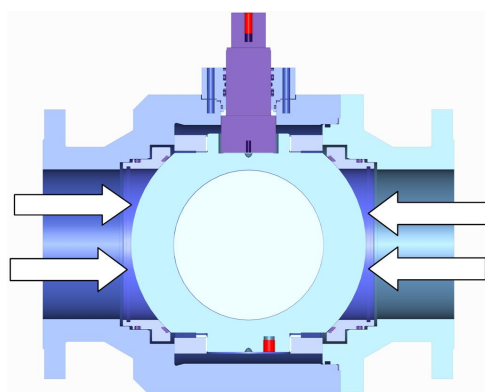
### Applications

Ball valves serve as shut-off valves to provide complete closing or opening of the transported medium flow in both directions. They are designed so that no sediments restraining functionality originate inside the flow channel.

If constructed as DBB (double block and bleed), they enable also operational check of perfect sealing in closed position. This function is used especially for calibration lines.



Ball valve in closed position



Ball valve in open position

### Installation

The ball valves may be installed into the piping in any arbitrary position. No special adjustments or maintenance after installation is required except from one cycle operational test once a year. They are operable at the full pressure drop which equals to designed PN.

# VAE CONTROLS GROUP BALL VALVES

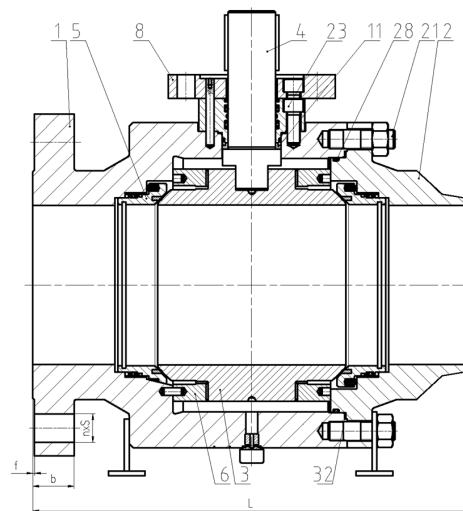
*for industrial applications*

## Technical description

The body and bonnet are manufactured by cutting from a forged bar or a smith forged piece and joined with stud bolts. Dimensions of the upper body flange for connecting the drive correspond to ISO 5211.

The ball is pivoted on two pins. Surface of the rust-free ball is hardly chrome plated. The pilot pin is pivoted in the separate bearing, which ensures long lasting maintenance-free operation.

The valve tightness is ensured (depending on the seat design) by the soft seat ring or by the metal seat surface completed with the secondary rubber ring. The metal seats are provided with the weld deposit and lapped together with the ball. The seats are embedded in the cock body as „floating“. Other seals are designed as O-rings, graphite and PTFE packing.



## Standards

Building lengths, flanges dimensions and weld ends comply with standardised dimensions according to ANSI, DIN, GOST, ČSN or customer's demands.

All valves are tested according to EN 12 266-1, i.e. shell strength test P10, shell tightness test P11 and seat tightness test P12 (water pressure 1.1 x PN and air pressure 0.6Mpa). Additional tests may be performed on request.

The valves are supplied with the documentation according to EN 10 204 / 3.1 or further on customer's demands.

## The valves can be delivered also in special design

- Double Block and Bleed (DBB)
- Antistatic (AS)
- Single Piston Effect (SPE)
- Double Piston Effect (DPE)
- Fire Safe

All standard and special valves are produced in highest quality with permanent supervision which guarantees perfect functionality and user's satisfaction.

