

**VEXVE** / VEXVE  
ARMATORY  
GROUP

# High-quality and reliable valve solutions for HVAC/R



# Reliable and economical heating and cooling distribution

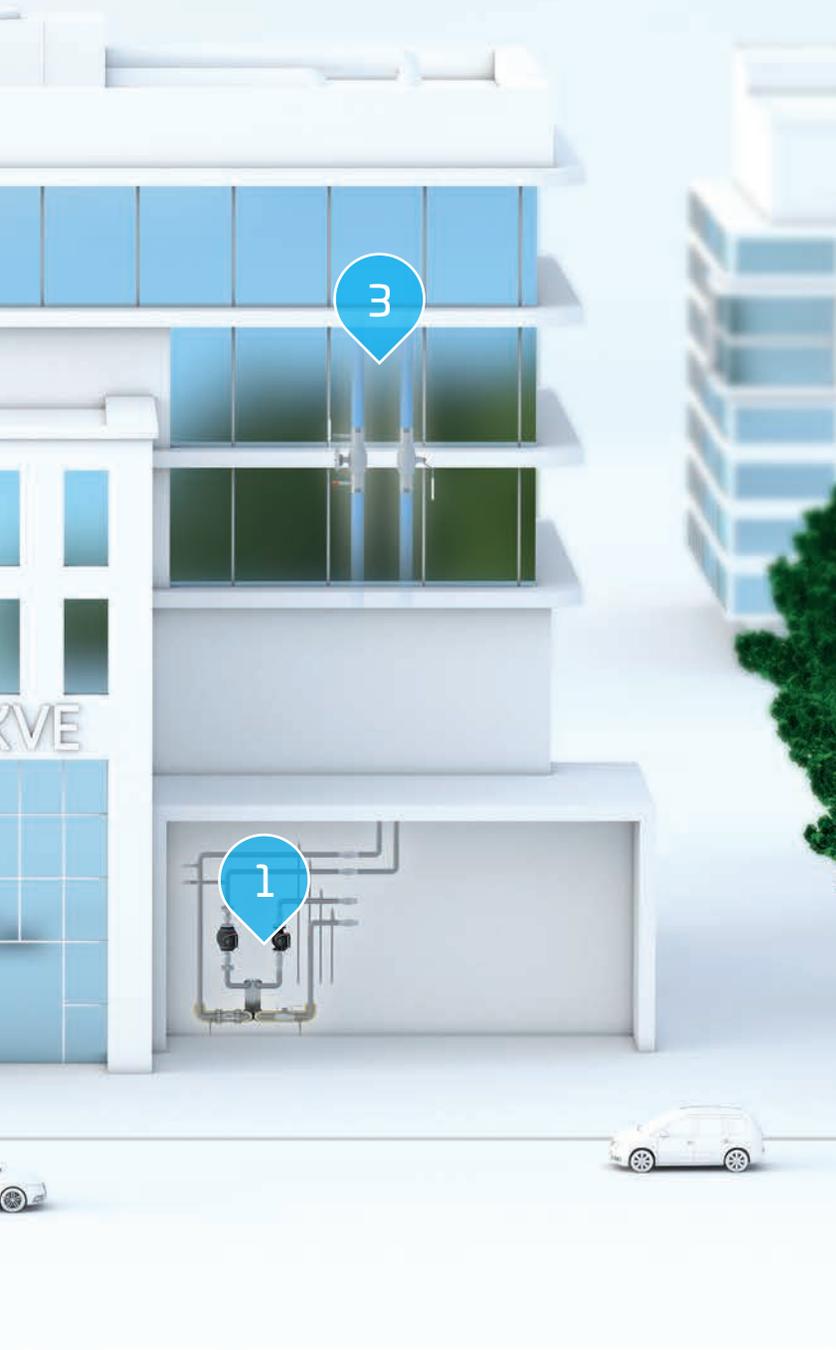
Vexve is the globally leading supplier of valve solutions for the heating and cooling needs of cities and industry. Our products are made in Finland, and they are used around the world in district heating networks and power plants, as well as in the heating and cooling systems of buildings.

Vexve's high-quality valves are designed for uninterrupted and economical distribution of heating and cooling in various buildings, such as shopping centres, hospitals, business premises and residential properties. They act as a reliable part of district heating substations, cooling units, heating and cooling networks, as well as other HVAC/R systems. In addition, our stainless steel valves have Finnish type-approval for domestic water.



## Key benefits of Vexve valves:

- Reliable and maintenance-free construction
- Certified and standardized quality product made in Finland
- Easy and quick to install
- Vexve's skilful customer and expert services at your use
- Great availability through Vexve's wholesalers and distributors



1

District energy substations



2

Heating pipelines



3

Cooling and domestic water pipes



4

Ventilation engine rooms



# The benefits of our products in HVAC/R

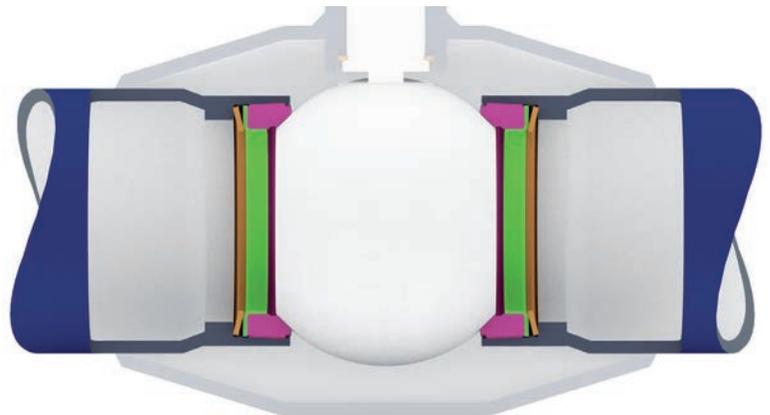


Thanks to its fully welded structure, the valve is:

- completely tight and uniform construction
- maintenance-free throughout its life cycle
- easy to install and insulate completely

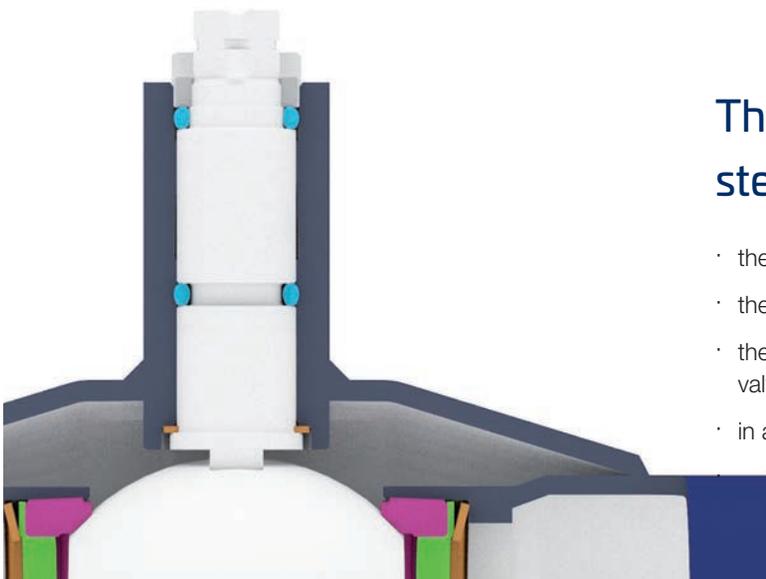
Floating ball structure with spring-loaded ball seals:

- provide total bi-directional tightness
- ensures valve operation in high temperatures and compensates possible pressure shocks
- ensure easy usability



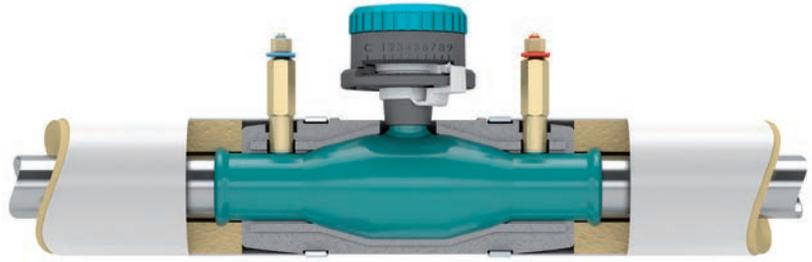
Thanks to the blow-out safe stem construction:

- the valve can be operated safely
- the handle can be removed during use
- the top o-ring of the stem can be changed, even when the valve is pressurised
- in addition, valves have a 90-degree position limiter



## The valve can be completely insulated:

- no risk of oxygen diffusion in the welded structure and connections
- minimises heat loss
- off-the-shelf insulation modules available



## Additional benefits of balancing valves:

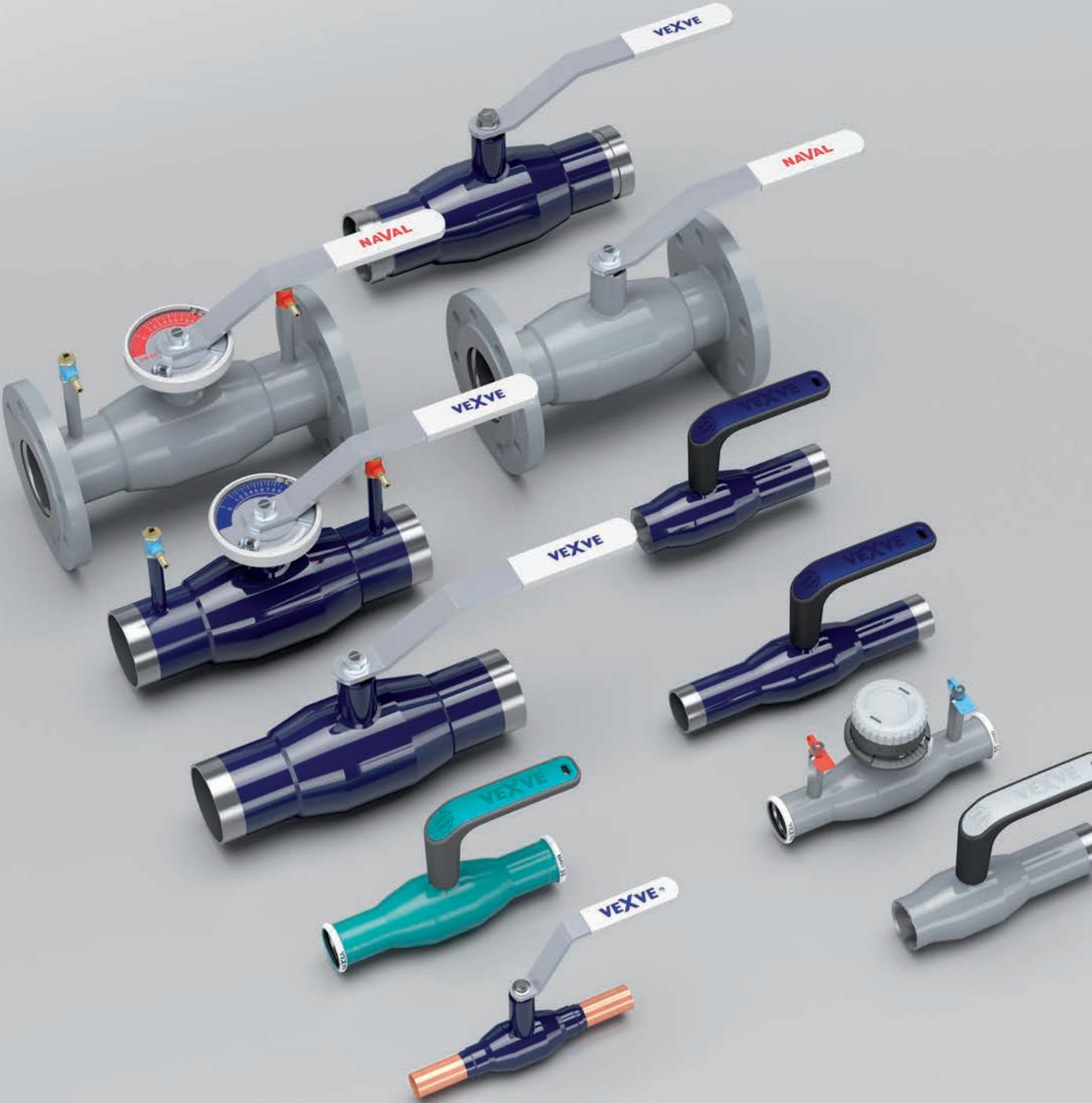
- the ball's V opening guarantees a wide and precise range of control
- the control scale is easy to read and lock
- the same valve can be used for both to shut-off and balance the network
- DN 65 and larger valves with a display plate, smaller ones with a precision control knob

## Made of high-quality pressure vessel steel:

- significantly lighter than the traditional cast structure
- a very strong, durable and long-lasting material
- the valve and the pipeline are of the same material
- pressure-vessel steel is suitable to be installed directly into a carbon steel pipeline
- stainless steel is suitable to be installed directly into a stainless steel pipeline



# A wide HVAC/R valve portfolio from the same manufacturer – 5 different connection methods



From our extensive HVAC/R product portfolio you can choose just the right valve for you with the desired connection end. Our portfolio includes weldable, flanged, threaded, copper end and press fit valves, as well as valves that combine these coupling ends. Our steel shut-off valves with flanges are also available in renovation lengths.

### Shut-off valves, steel

- Welding (DN 10–800)
- Flange (DN 15–800)
- Threads (DN 10–50)
- Press-fit (18–54 mm)
- Copper (DN 15–50)

### Balancing valves, steel

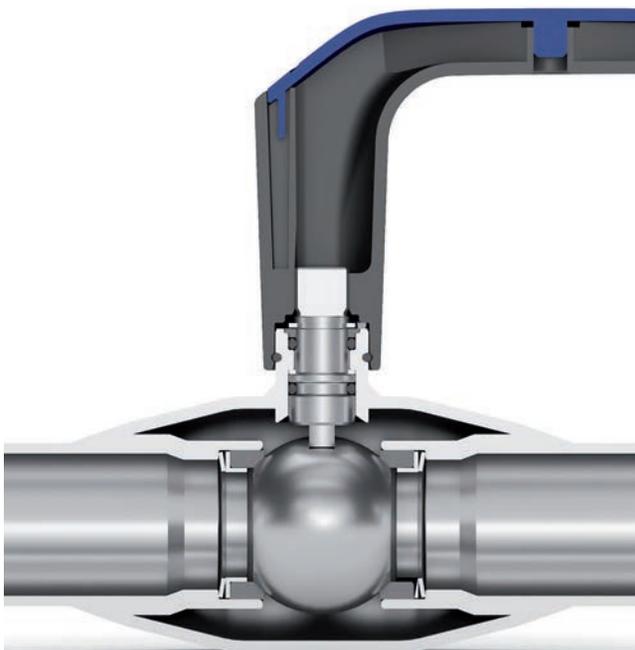
- Welding (DN 15–400)
- Flange (DN15–400)
- Press-fit (18–54 mm)

### Shut-off valves, stainless steel

- Welding (DN 10–250)
- Flange (DN 15–250)
- Threads (DN 10–50)
- Press-fit (18–54 mm)

### Balancing valves, stainless steel

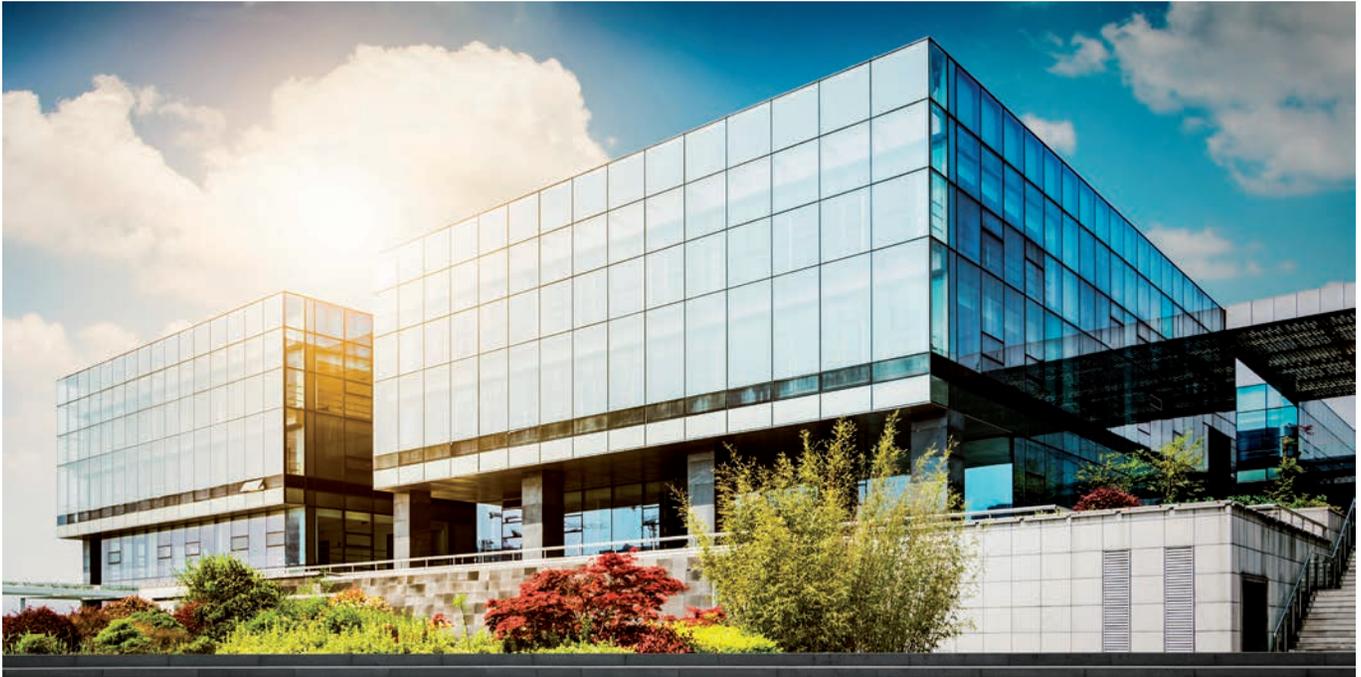
- Welding (DN 10–250)
- Flange (DN 15–250)
- Press-fit (18–54 mm)



### The X product family is expanding

The Vexve X valve portfolio now covers all connection ends most commonly used in HVAC/R in addition to press fit connections. The shut-off and balancing valves in the series (DN 10–50) were designed to optimise the shut-off and balancing of heating and cooling networks in buildings.

The valves in the X series have several new technical features that enhance the use of the valve, such as composite handle, precision control knob and a lower stem construction. In addition, the X series balancing valves have better Kv values than before (av. 15%).



## High-quality valve solutions for the needs of HVAC/R

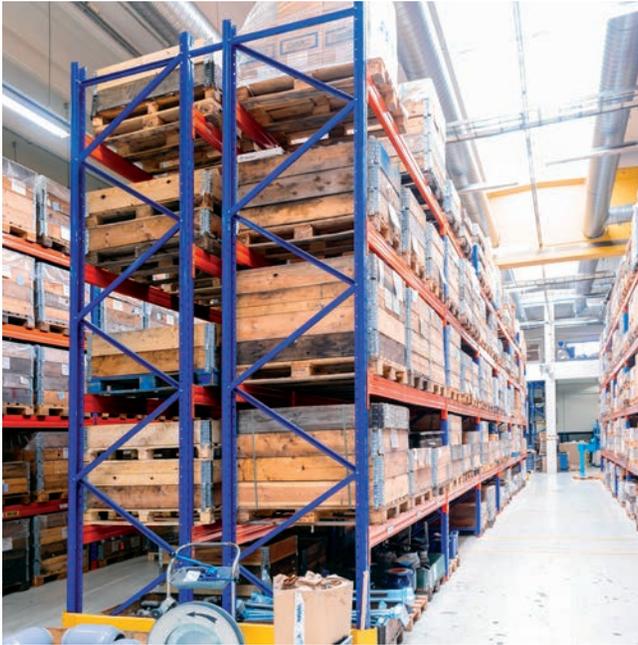
Vexve offers a wide portfolio of high-quality valves for the various HVAC/R needs. From us, you will also find actuator flanges, actuators, insulation modules, repair kits and other spare parts for valves. Decades of experience and our expertise in valve technology and the special characteristics of HVAC/R systems has made us the industry's leading product developer.

Our automated and modern production and advanced quality assurance system ensure that our standardized and certified valve solutions fulfil the strictest quality criteria. As a responsible company, we also operate in accordance with the ISO 26000 standard, and our business operations are ISO 9001:2015 and ISO 14001:2015 certified.

## Comprehensive support services

Our experts specialized in Vexve's valve technology and the special characteristics of HVAC/R systems help you to select the suitable valve solution for your needs. Our technical expert service is also at your use during the project's planning and implementation phase, as well as in possible special situations during the operation. 3D images of our products can be downloaded from MagiCloud. Vexve's customer service, praised for its speed, responds to the order and delivery related questions within 24 hours of your contact.



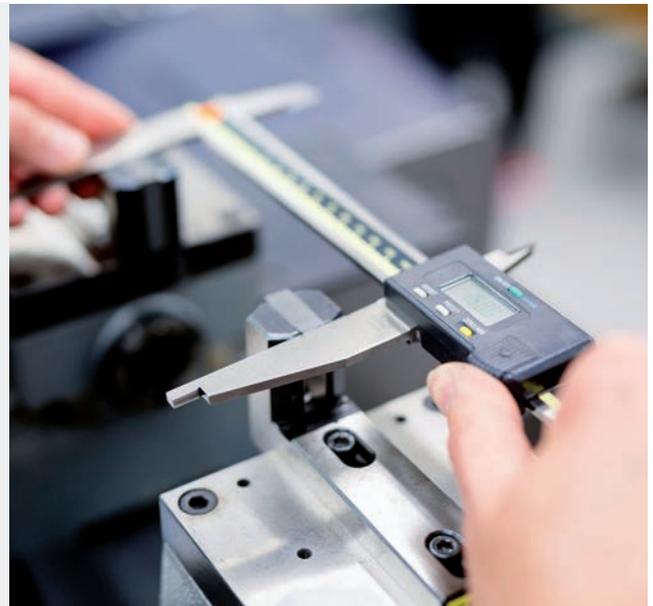


## General standards and certificates

- ISO 9001 – Quality management system
- ISO 14001 – Environmental management system
- ISO 26000 – Social responsibility
- ISO 3834-2 – Welding quality specifications
- ISO 5817 Class B – Welding quality assurance
- ISO 9606-1 (287) and ISO 14732 (1418) – Requirements for welders
- ISO 9712 and ISO 17637 – Assurance of weldings and other visual quality
- EN 19 – Marking of valves
- EN 10204 – Metallic Products: Types of Inspection Documents
- PED (2014/68/EU, Module H) – Pressure Equipment Directive

## Design standards

- ISO EN 13445 – Strength requirements for valves
- EN 1983 – Industrial valves: Steel ball valves, structural specifications
- EN 12627 and EN 253+A2 – Industrial valve: Shapes of welding ends
- EN 1092-1:2018 – Flanges and flanged connections
- ISO EN 5211:2017 – Actuator mounts
- EN 12570 – Industrial valves: Operating parts sizing method



## Testing

EN12266-1, leakage rate A (bubble tight)

- P10 – Valve body strength
- P11 – Valve body tightness
- P12 – Valve closing tightness
- F20 – Usability

**Each one of our valves is tested before delivery to the customer!**

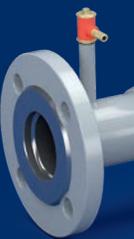
# References



## Amos Rex

The Amos Rex Museum, which opened in August 2018 as a part of the Lasipalatsi complex, has refreshed the appearance of the Helsinki city center. It brings art to the middle of people's daily lives. The exhibition space in the center of the Lasipalatsi piazza is heated and cooled with Gebwell's district heating substations that use Vexve's valves.

The total power output of the district heating substation is 1,040 kW and the district cooling substation's 800 kW. Gebwell has been using valves manufactured by Vexve already since 2007 due to their technical quality. The district heating substations of Amos Rex contain Vexve's stainless steel and steel shut-off and balancing valves, among others.





## Kalaneuvos Oy

Kalaneuvos Oy is the biggest fish-smoking plant in the Nordic countries. In addition to the Nordic countries, the company exports its products to Europe and Asia. The Sastamala-based company increased its production facilities from 5,000 m<sup>2</sup> to more than 11,000 m<sup>2</sup> in 2019.

The new plant extension utilizes an industrial central cooling system with the aim of achieving better energy efficiency. The heat energy generated by the cooling system is also utilized with the help of heat pumps. The wood chip heating system of the old plant provides back-up for heating.

The plant's heating and cooling system uses Vexve's shut-off and balancing valves with welded connections. The ventilation (heating and heat recovery) equipment also includes X range steel shut-off and balancing valves with press-fit connections.



## Hospital Nova of Central Finland

Hospital Nova of Central Finland, which was completed in Jyväskylä in 2020, is the first central hospital in Finland to be built in the 21st century. The total area of the new hospital is around 100,000 brm<sup>2</sup>. Most of the premises will be used by special health care services and a smaller share by primary health care services of the City of Jyväskylä.

The latest technology has been utilized in the construction work of this versatile hospital, such as VR technology in the design of ventilation, heating, water, and sewage systems. Vexve's shut-off and balancing valves are a part of Nova's energy-efficient and reliable heating and cooling system.

# INSPIRED BY YOUR FLOW



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