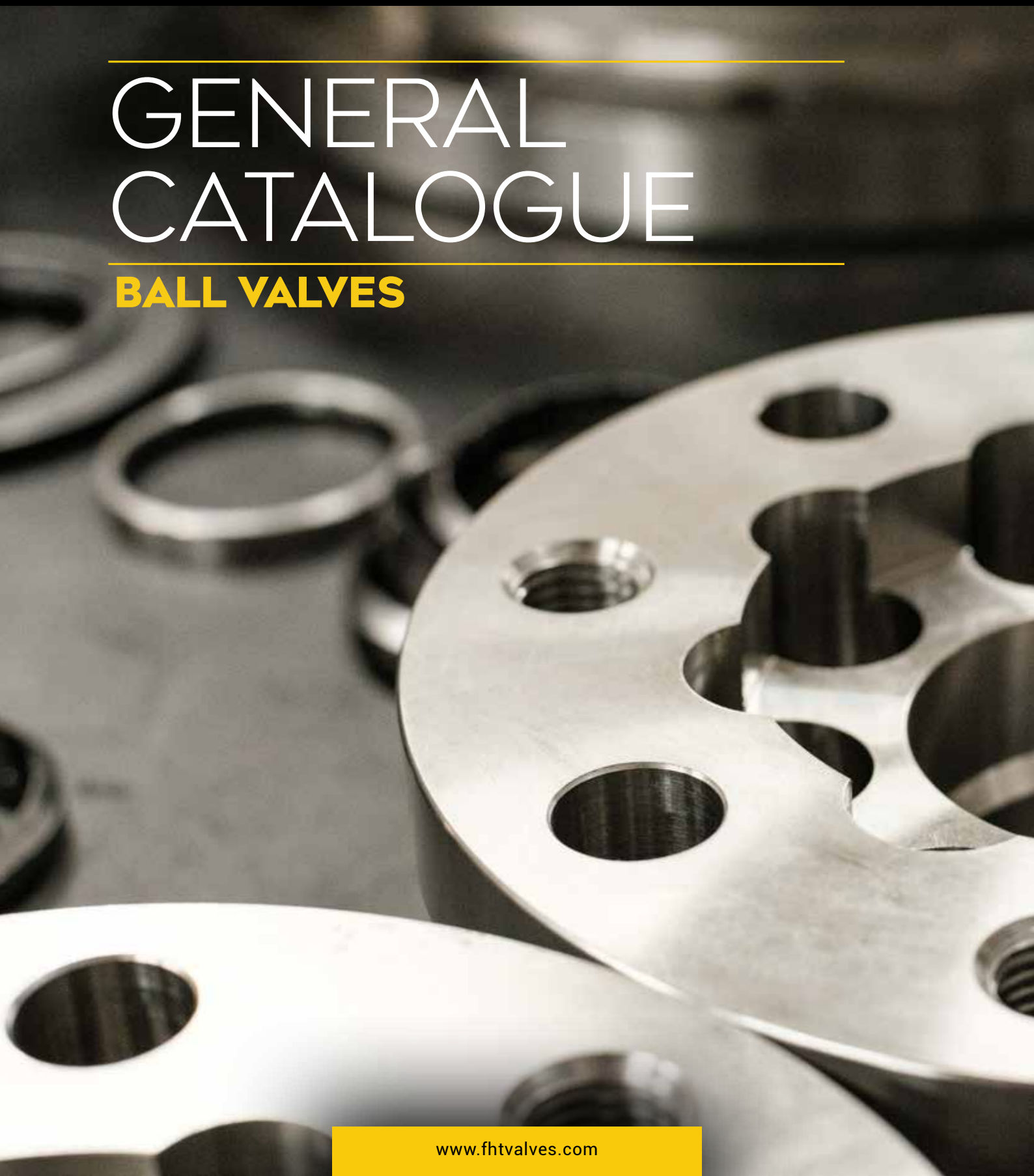
FHT VALVES
FLOW EXPERIENCE

REV.0 • **NOV 24**

GENERAL CATALOGUE

BALL VALVES



www.fhtvalves.com

MORE THAN 25 YEARS OF ENDLESS INNOVATION

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Index:

2022
BORN AGAIN

The year 2022 marks a turning point for FHT. It is a year in which we make major investments in facilities, personnel, machinery and technology. But at a strategic level, it is no longer enough to have customer satisfaction, we want to innovate with new technologically superior products and explore new markets.

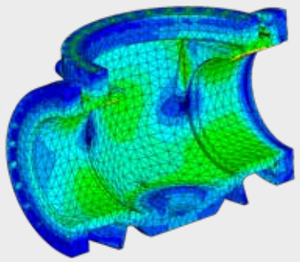
FHT is a state-of-the-art factory, manufacturing high quality ball valves since 1997. Our roots go back to the first historical manufacturers and German designs. Using our experience in the field of chemical industry through the years, we improved those designs, to reach the best possible quality valves and highest performance.

During these years we have expanded our scope of production and developed the strategy to be present worldwide. Our factory is close to reaching perfection in quality with no NC from our clients nor accidents in our workshops. We are increasingly focused on clean processes such as hydrogen and green energies as well as the rest of the industries such as CHEMICAL, PETROCHEMICAL, HYDROGEN, OIL & GAS, POWER, PULP & PAPER, WATER, SHIPBUILDING.

We are putting our experience and know-how to the service of the industries and the safety of processes.

ENDLESS INNOVATION

A young company with a lot of experience



The people behind FHT VALVES project are the most involved in the quality of our products, so we like to have direct contact with our customers.

CONTINUOUS IMPROVEMENT

We have our own team of engineers who are in charge of improving and adapting our models to the needs of the market, even offering, sometimes a really competitive design service on demand.

COMMITMENT

We are committed to customer satisfaction, we guarantee the performance of all our valves.

Quality

fulfilling with the highest standards

FHT delivers the following certificates:

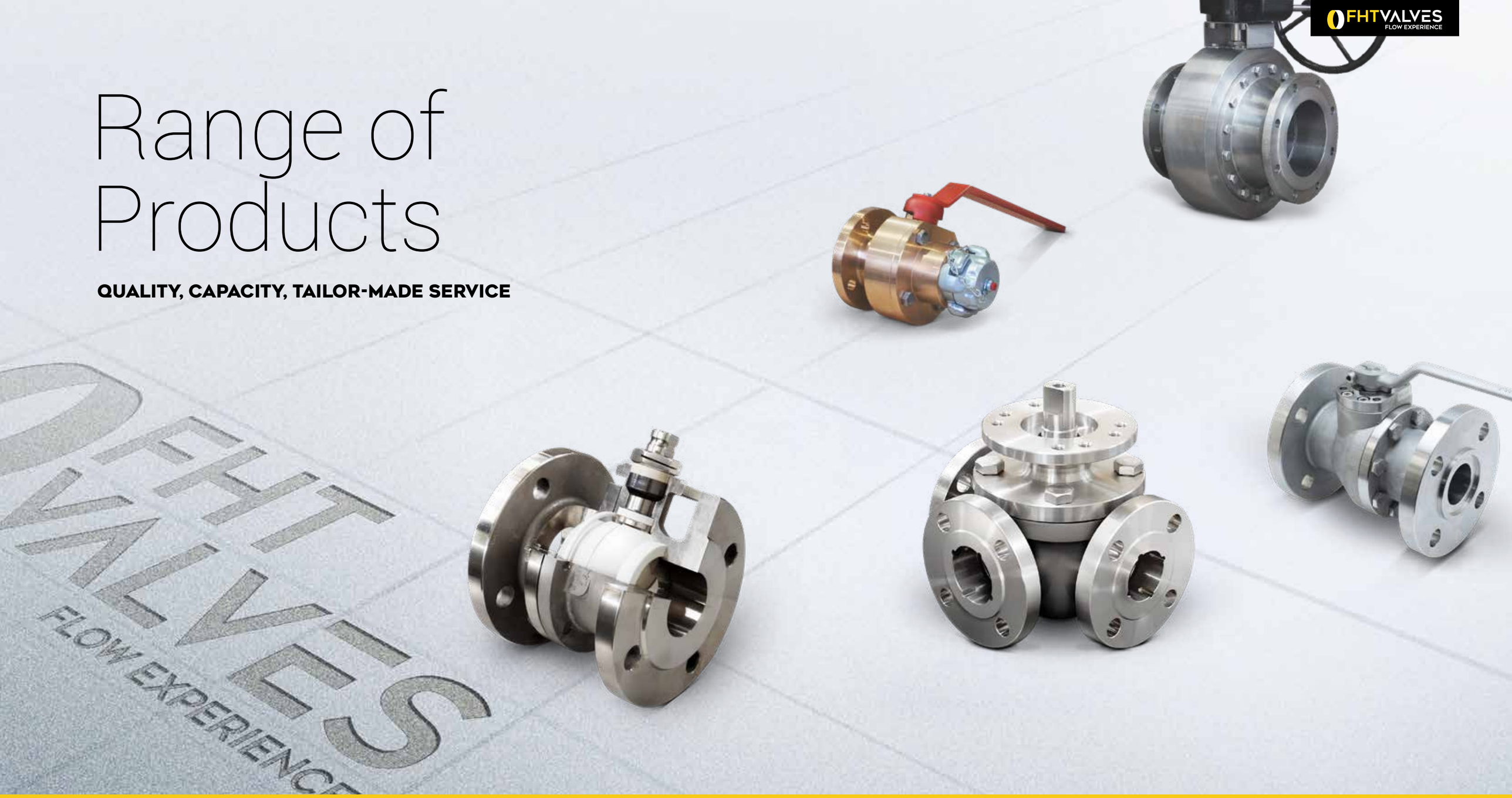
- Mill certificate 3.1
- Hydro-static certificate 3.1
- Functional test certificate
- 3.2 certificate upon request
- ITP upon request
- Third Party Inspections
- API
- CE
- FIRE SAFE
- ISO 9001
- Fugitive Emission
- Atex
- SIL certificate upon request.
- SIL calculation upon request.
- All types of NDEs
- PAS 1085
- EN 161

PRODUCT CERTIFICATES	
TA - LUFT	STEM TIGHTNESS FOR GAS EMISSIONS
SIL	SIL 3 CAPABILITY EN 61508:2010 FOR FLOATING AND TRUNNION
ATEX	EUROPEAN DIRECTIVE 2014/34/EC
ISO 15484-1	FUGITIVE EMISSION TEST ACC. ISO 15848-1:2006
FIRE SAFE	BS 6755 / EN-ISO 10497 / API 607
AD 2000 MERKBLATT	AD 2000 MERKBLATT W 0 / A 4
API MONOGRAM	STANDARD API 6D - 0613
CE 0036	MODULE H, DESIGN, MANUFACTURE AND SALE

COMPANY CERTIFICATES	
ISO 9001	QUALITY MANAGEMENT SYSTEM
ISO 14001	ENVIRONMENTAL MANAGEMENT SYSTEM
API MONOGRAM	API Q1, QUALITY MANAGEMENT SYSTEM

Range of Products

QUALITY, CAPACITY, TAILOR-MADE SERVICE



RAW MATERIALS

To manufacture our valves we use three sources of raw materials:

1. OWN FOUNDRY
European high-performance foundry with quick deliveries.

2. EXTERNAL FOUNDRY
Top quality microfusion foundry for commodity products.

3. DIRECTLY MACHINED FROM BAR
Any requested material from bar for short deliveries
Hastelloys, Titanium, Monel, 304, 174PH, 904L...

We have divided our production catalogue into two :

1. *Standard valves*

FLOATING SOFT SEATED
FLOATING METAL SEATED
TRUNNION SOFT SEATED
TRUNNION METAL SEATED
BRONZE

2. *Specialities*

CAVITY FILLER
TANK BOTTOM
3 / 4 WAYS
SEVERE SERVICES
HYDROGEN
TAILOR MADE
OXYGEN SERVICE
OPTIONS

1. Standard valves

Optimized standard model designs
to provide the best performance.
Quality, reliability and high production capacity.

1.1
SOFT SEATED

Soft seat valves have sealing surfaces made of non-metallic thermoplastic materials such as PTFE, Nylon, PEEK and others... They work for temperatures below 270°C (depends on sealing material).
Under the right conditions, soft seat valves can offer a very high level of sealing throughout their service life, usually more than a conventional metal valve.

1.1.1
TRUNNION SOFT SEATED

TWO PIECE
115G
Autoadjustable Packing, Spring Loaded

117G
Protected Seats & Spring Loaded, Autoadjustable Packing

3 WAYS
TRUNNION SOFT SEATED
120
Autoadjustable Packing, Spring Loaded

1.1.2
FLOATING SOFT SEATED

TWO PIECE
112
Double Packing & Double Stem Seal

113GL
Double Packing & Double Stem Seal, Spring Loaded

115
Autoadjustable Packing

125
Autoadjustable Packing, Friction-Free Shaft

125GL
Autoadjustable Packing, Friction-Free Shaft, Spring Loaded

130
Autoadjustable Packing, Threaded Ends

131
Autoadjustable Packing, Welding Ends

1.2
BRONZE

Due to the high durability of the bronze, the use of bronze valves guarantees a high profitability, since they have a very high service life, as well as a minimum maintenance, which generates the consequent savings in costs. Bronze can be recycled an almost unlimited number of times without losing its mechanical properties, it is a totally environmentally friendly material.

FLOATING SOFT SEATED
TWO PIECE
310 - LB
Simple Packing

FLOATING SOFT SEATED
THREE PIECE
311 - LB
Simple Packing

3 WAYS
FLOATING SOFT SEATED
THREE PIECE
320- LB
Double Packing & Double Stem Seal

1.3 METAL SEATED

Metal seats are suitable for corrosive environments and products as well as high temperatures. They are also suitable for solid particles in suspension. Copper alloy, for example, is a suitable material for low pressure valves. Nickel-based alloys are often the ideal choice for corrosive media.
Depending on the type of material, these valves **can generally withstand tougher conditions than soft seat valves, including acids, heat, abrasives, hydraulic shock, erosion, corrosion and pressure.**

1.3.1 TRUNNION METAL TO METAL

TWO PIECE
116G
Autoadjustable Packing, Spring Loaded

118G
Protected Seats & Spring Loaded, Autoadjustable Packing

THREE PIECE
116G-3P
Autoadjustable Packing, Spring Loaded

118G-3P
Protected Seats & Spring Loaded, Autoadjustable Packing

3 WAYS TRUNNION METAL SEATED
121
Autoadjustable Packing, Spring Loaded

1.3.2 FLOATING METAL TO METAL

TWO PIECE
114
Autoadjustable Packing, Spring Loaded

Custom designs.
We adapt to the needs of each project even in small orders.

2.1 CAVITY FILTER

FREE FROM UNCOATED SPACES FOR CLEAN INDUSTRIES
Highly configurable valves available in 2-way and 3-way bodies and can even be supplied with a V-ball for flow control.

DESIGNED FOR FOOD & BEVERAGE
The ball valves of FHT valves are specifically designed for solids have an integral seat that occupies the space around the ball, avoiding the possibility of accumulation of pollutants.

TWO PIECE
112
Double Packing & Double Stem Seal

113GL
Double Packing & Double Stem Seal, Spring Loaded

115
Autoadjustable Packing

125
Autoadjustable Packing, Friction-Free Shaft

125GL
Autoadjustable Packing, Friction-Free Shaft, Spring Loaded

130
Autoadjustable Packing, Threaded Ends

131
Autoadjustable Packing, Welding Ends

3 WAY
120
Autoadjustable Packing & Spring Loaded

TANK BOTTOM
112-FC
Double Packing & Double Stem Seal

113-FC
Double Packing & Double Stem Seal, Spring Loaded

2.2
TANK BOTTOM

Tank Bottom ball valves are designed to be used at the bottom of a tank or vessel to drain while minimizing the inner sump and avoiding any dead space in which bacteria or microorganisms may be housed.

TANK BOTTOM SOFT SEATED TWO PIECE
112FC
Double Packing & Double Stem Seal

113FC
Double Packing & Double Stem Seal, Spring Loaded

TANK BOTTOM METAL SEATED TWO PIECE
112FCM
Double Packing & Double Stem Seal

Tilted Stem for the actuator.
FHT Tank Bottom ball valves are designed with a tilted stem which allows the assembly of an actuator for tanks that are insulated. Our valve is designed so that the flow does not have obstructions to empty or fill the tank effectively. Quarter turn operation and direct actuator mounting capability make easier automation. Our design allows Cavity Filler as an option to ensure that there is no uncoated spaces and a complete drain

Especially suitable for the food, pharmaceutical and health industries.

2.3
3/4 WAYS

Three-way ball valves are used in applications with more than one pipe or to divert fluid in two different directions. Depending on the direction of flow, the three ports are assigned as one output and two inputs or one input and two outputs.

Three-way ball valves have three ports and can be operated manually or automated with an electric or pneumatic actuator. The hole through the ball comes in two varieties: port “L” and “T”. Three-way valves can:

- • Cut or close the flow
- • Change the flow between two different sources
- • Combine the flow from two different sources
- • Alternative flow between two different destinations
- • Divert flow from one source to another destination
- • Split flow from one source between two output destinations

2.4 BALL VALVES FOR OXYGEN SERVICES

Ball valves for oxygen service are a critical safety component in any system handling gaseous or liquid oxygen.

Critical safety component in any system handling gaseous or liquid oxygen. Unlike standard ball valves, These are meticulously manufactured from materials that do not ignite or react with oxygen, such as stainless steel or special alloys.
such as stainless steel or special alloys.

They are subjected to rigorous cleaning processes to remove any contaminants that could pose a fire risk. This meticulous design ensures safe and reliable control of oxygen flow while minimizing the risk of combustion. These valves are found in a variety of applications, from hospitals and welding equipment to industrial oxygen production facilities.

2.5 DOUBLE BLOCK & BLEED

Double Block and Bleed (DBB) ball valves are specialized types of valves used primarily in industries requiring reliable isolation and safety, such as oil and gas, chemical processing, and power generation. DBB ball valves are designed to provide double isolation from the process flow, preventing leaks and ensuring that maintenance can be carried out safely on downstream equipment.

Key Features
Dual Isolation: DBB valves are essentially two ball valves in a single body, each capable of sealing the flow independently. This provides two levels of isolation (double block) and reduces the risk of process leaks.

Bleed Port: Positioned between the two block valves, the bleed port is a small valve that allows the release of pressure or any trapped fluid between the two ball valves. This bleed function enables operators to verify that both valves are isolating effectively by detecting any leaks in either valve seat.

High-Integrity Seals: These valves are designed to provide high-integrity sealing, often with metal-to-metal or elastomeric seats that maintain a tight seal even under high pressures.

2.6 HYDROGEN BALL VALVES

Hydrogen ball valves are the workhorses of the hydrogen industry, designed specifically for the safe and efficient control of hydrogen gas flow.

Unlike standard ball valves, these are made from hydrogen-compatible materials that do not degrade or become brittle over time.

To further ensure safety, they often incorporate special seals and packing materials that minimize leakage, a crucial feature for such a volatile gas as hydrogen.

These valves are available in different sizes to suit different applications, from flow control in hydrogen fuel cells to managing large pipelines for hydrogen transport. They can also withstand the high pressures typically found in hydrogen storage and refueling stations, making them a vital component of the hydrogen infrastructure.

2.7 SEVERE SERVICE BALL VALVES

Severe service ball valves stand out as essential components for the most demanding environments. Although standard ball valves excel in many applications with their simple design and reliable shutoff, they often fall short in extreme conditions.

This type of ball valves are designed to withstand high pressures, extreme temperatures and corrosive or erosive fluids, these valves are perfect for critical applications such as steam lines, high pressure pipelines and automated processes with frequent cycles.

Severe service ball valves provide unmatched reliability and performance, ensuring that your operations run smoothly even in the harshest conditions.

2.8 WAFER VALVES

Wafer valves offer several advantages, making them a preferred choice in many applications.

Compact Design
Wafer connection valves are designed to fit between two flanges in a pipeline, resulting in a more compact and lightweight installation compared to other valve types like flanged valves.

Cost-Effective
Their compact design often translates to lower material costs and reduced shipping expenses. Additionally, installation and maintenance costs are generally lower.

Easy Installation
These valves can be installed easily between existing flanges, requiring fewer bolts and less alignment precision, which simplifies the installation process and reduces downtime.

Reduced Leakage Points
The wafer design minimizes the number of potential leak paths since it has fewer joints and connections compared to other valve types. This increases the overall integrity of the system.

Wide Range of Applications
Wafer connection valves are used in a variety of industries, including water treatment, chemical processing, HVAC, and more, due to their adaptability to different types of media and conditions.

2.9 TAILOR MADE-OPTIONS

Custom Manufacturing
Our experience in the sector allows us to offer tailor-made solutions according to the needs of our customers. We design and develop our products according to your specifications and in a continuous collaborative process, we define and develop the project. Each project involves a multidisciplinary team that evaluates and addresses each new design with the aim of achieving maximum efficiency and the lowest possible cost of the project.

All our valves can be supplied equipped with the accessories required by our customers (actuators, gears, heating chamber, etc.). Likewise, its design allows the installation of the necessary accessories for its automation even once mounted in the installation.

What are *the competitive advantages of FHT?*

We are manufacturers of high performance quality valves.(1). We use successful designs and develop our own models (2). Short delivery times (3) We are able to manufacture under customer's custom requirements (4).

1.

100% European Manufacturing

With our local foundry we are able to offer the best quality for our customers, with High Performance, Efficiency and many competitive advantages, what sets us apart from our competitors.

2.

Original designs

Preserving our forefather design which endorses us and allows us the greatest guarantee of the market.

3.

Short deliveries

Very high compliance with deadlines. Specialized in short delivery times with no competence according to industry demand, specifically in the maintenance section.

4.

Tailor made

We can offer options such as Cavity Filler, Tank Bottom valves, V ball, polished ball, segmented, regulating ball valve, metal to metal with 0 leakage, wafer construction.

Contact whith us:

If you need more information, please feel free to contact our commercial department

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Your clever choice

100% EUROPEAN MANUFACTURING

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