



## Focus on the big ones

Ball valve  
type 546  
in the dimensions  
DN65 to DN100

# ● Safety in every detail

ergonomic lever  
with optional locking

integrated tool for  
the union bush

rated breaking  
point in the stem

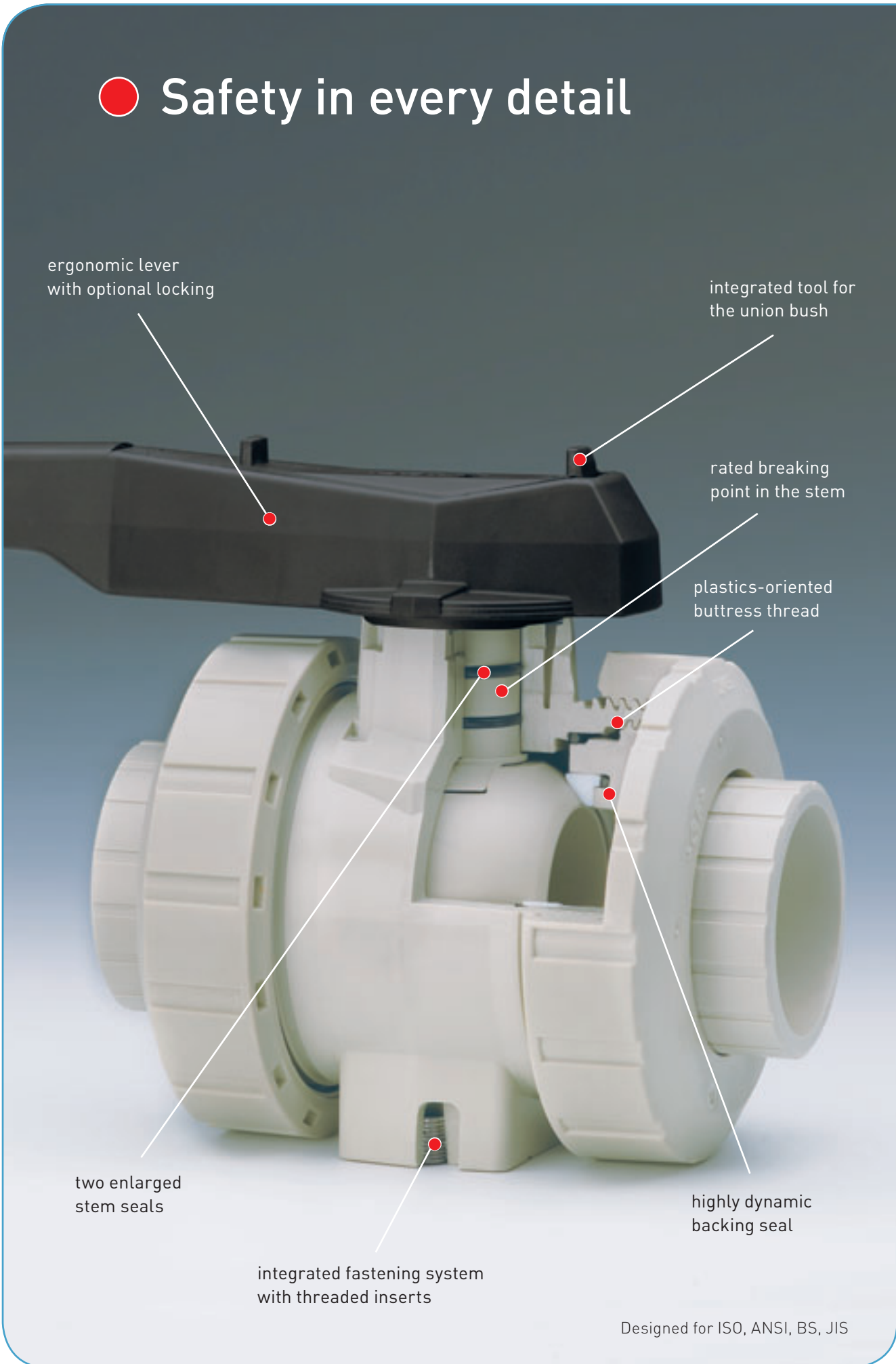
plastics-oriented  
buttress thread

two enlarged  
stem seals

highly dynamic  
backing seal

integrated fastening system  
with threaded inserts

Designed for ISO, ANSI, BS, JIS



# The system overview

## A complete program

### for a technically refined system:

The 546 Ball Valve is another innovative product from GF Piping Systems, which comprises extensive know-how and the latest technology. A broad spectrum of product features provides you with quality, flexibility, reliability and most notably modularity.

We have expanded our program to include DN65 to DN100 – in the materials PVC-U, PVC-C, ABS and PP-H.

We have the right ball valve for all your industrial applications. International compatibility is also given with all the standard connections, such as ISO, ANSI, BS and JIS.

### From manual valve to control valve:

The 546 Ball Valve is extremely versatile. From the no-frills standard version to the high-tech actuated version and with a wide range of accessories to

choose from, we have a model that fits your needs exactly. Even the manual version has additional options sure to interest you, such as an integrated fastening system and a lockable lever with indexing. The multifunctional module provides feedback on the «open/closed» valve position in a variety of

signals. It also serves as an interface for electric or pneumatic actuators. So you see: multifunctionality is the order of the day.



Standard Ball Valve

Ball Valve with lockable index lever; optional electric feedback

Ball Valve with fine adjustment

Ball Valve with pneumatic actuator – double acting, optional manual override

Ball Valve with electric actuator

# The Ball Valve 546 in the dimensions DN

Georg Fischer has a 200-year tradition of durability and reliability. Our products are a guarantee of quality, functionality and innovation.

The ball valve type 546 is a perfected product, embodying GF Piping Systems' extensive experience in the field of plastic valves. The new dimensions DN65 to DN100 complement the existing DN10 to DN50 series. The design, which expresses form and function ideally, is consistent for the whole type series.

## All-around perfection

The ball of the type 546 has a smooth, glassy surface, guaranteeing excellent leak tightness in the passage and preventing the formation of deposits, while also maintaining a low actuation torque. The ball seal features a positive fit. The special backing seal makes sure the passage is sealed tight – even if there is pulsation or water hammer. The backing O-ring, which being a dynamic seal presses the ball seal on the ball, always remains in position. The union bush with left-hand thread, which causes the floating ball to remain tight, is another sophisticated feature.

## Made for plastics – the buttress thread

A plastics-oriented jointing technology has been realized for the ball valve type 546 in the buttress thread.

Compared to the trapezoidal thread, the buttress thread delivers:

- approx. 50% higher overlapping on the thread flanks
- no radial-force components due to contact of vertical flanks in the utilized direction
- max. protection against displacement of coupling nut in case of water hammer.

## Ingenious solutions

### Integrated feedback

The electric feedback provides information on the actual status of the system. It is integrated in the optional multifunctional module, which offers even more extras:

- splash-proof thanks to covering of the enclosed switches
- safe torque transmission with stainless steel coupling

### Integrated fastening

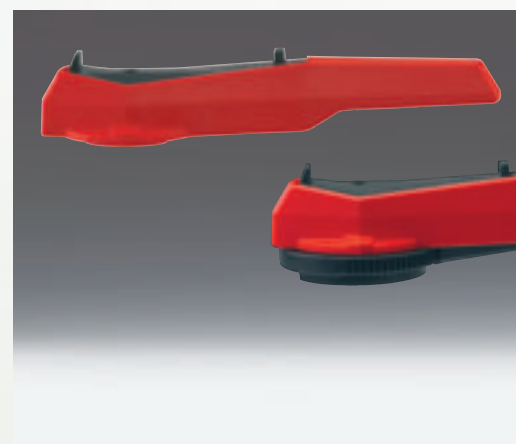
The ball valve type 546 is easy to mount with the built-in stainless steel threaded inserts. No need to fasten a holding fixture to the valve. Mounting is fast and easy.

### Integrated tool

The fiberglass-reinforced polypropylene (PPGF) lever is more than just a handle – it contains the tool for adjusting the union bush. So you always have the right tool for adjustments at hand.

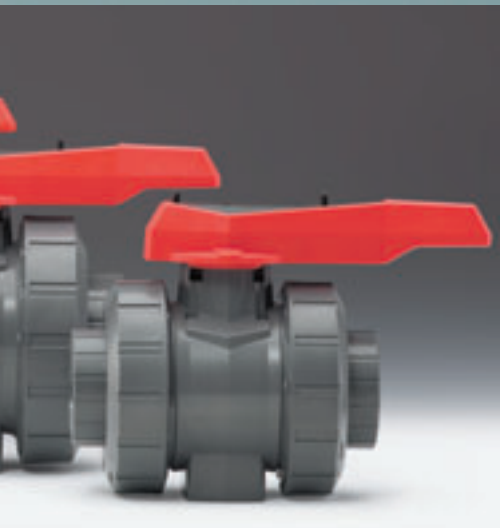
### Multitalented: Lever and module

The ball valve type 546 has been conceived with a great deal of thought given to function and





# 65 to DN100



## Type 546 in DN65 to DN100

e.g. in PVC-U  
with solvent cement socket



### Safe connection:

Plastics-oriented butress thread on coupling nut and union bush



### Integrated

#### fastening system:

Comes with optional threaded inserts for direct mounting

### Lockable lever with 5° increments:

Protects against unauthorized use and indicates the aperture angle of the ball

### Electric feedback:

Complete process monitoring and process documentation, also for manual valves

### Three lever versions:

Standard, lockable with 5° increments, or clampable in any desired position



design. These consistent details guarantee comfort and safety:

- ratchet setting in increments of 5°
- exact, safe positioning
- lockable and protected against unauthorized use
- made of rugged PPGF

The GF Piping Systems multifunctional module is a real pro.

It allows you to expand the ball valve's range of possibilities with a variety of important functions. The benefits of this module are:

- standardized, mechanical interface according to EN ISO 5211
- all-plastic housing and robust construction ensure secure fastening of the type 546
- optional microswitches in Ag-Ni, Au as well as inductive switches with NPN, PNP and Namur (as electric feedback and position indicator for manual and actuated valves)

### Standards and approvals

- EN ISO 16135:  
Industrial valves –  
Thermoplastic ball valves  
(ISO 16135:2006)
- ISO 9393:  
Thermoplastic ball valves for  
industrial applications
- EN 558 (in preparation):  
Face-to-face length of valves with  
flanges
- DIBt (Deutsches Institut  
für Bautechnik- German center of  
competence for civil engineering),  
pending
- NSF 61: System components for  
drinking water, pending

# GF Piping Systems know-how



Precision and reliability is exercised for every process step up to final assembly. Our qualified and experienced staff makes sure that the necessary quality is realized at all times.

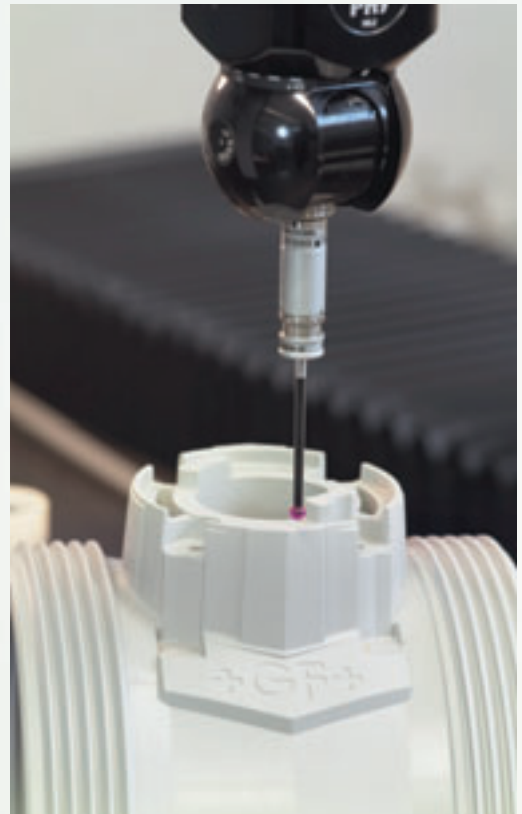
To determine their service life, our ball valves are tested at full medium pressure for over 50,000 cycles.



GF Piping Systems has approx. 500 approvals worldwide for its products. These are obtained and monitored in our test laboratory, accredited to EN ISO IEC 17025.

Tests performed at GF Piping Systems have an identical rating as testing by approval authorities.

Tests are conducted in the development stage and later in running production. The standards for production quality are an integral part of the stringent guidelines of GF Piping Systems. For example, central components are subjected continuously to leak testing during production.



**All the individual ball valve components are precision tested in the factory with state-of-the-art measurement technology.**

# Support and service included



Innovative products and first-class service – inseparable for GF Piping Systems. For us, it goes without saying that we support you in every stage of your project. Our competent employees discuss the technical details with you on location and put together a package for your specific application. This means you always have a system solution which is exactly right for you.

## **Planning made easy:**

### **CAD product library**

GF Piping Systems supplies a CAD product library free of charge – an excellent tool for planning and visualization.

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GMST 6000/4 (10.06)

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Printed in Switzerland

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