1. Intended use
Metering ball valves of type 523 are exclusively intended to block or convey media within the allowed pressure and temperature limits or regulate the flow of fluid after installation into a piping system. The valve is intended to be used within the chemical stability of the entire valve and all its components.

2. Related Documents
You may obtain the Planning Fundamentals as further information from your Georg Fischer representative or from Georg Fischer Piping Systems Ltd. CH-8201 Schaffhausen Switzerland. Info@georgfischer.com or www.piping.georgfischer.com.

3. Safety and responsibility
• Only use metering ball valve as intended
• Only have installation, operation, maintenance, and repairs executed by qualified personnel.
• Regularly train personnel regarding all applicable issues of the locally effective regulations for occupational health and safety, environmental protection, and most of all for pressure-retaining piping systems.
• Make sure that personnel is familiar with the operating instructions and its contents, that they understand them and follow them.

The same safety regulations apply to ball valves as to the piping systems. The maximum operating duration is 25 years.

4. Transport and storage
• Transport and store metering ball valve in its original packaging with care
• Protect from damaging influences such as dust, dirt, moisture as well as thermal and UV radiation
• Prevent connecting parts from damage by either mechanical or other influences
• Store metering ball valve in open lever position.

5. Assembly

6. Commissioning
Pressure test
The test pressure of the ball valve, the same instructions apply as for the piping system. For detailed information, please refer to the GF Piping Systems “Planning Fundamentals”, chapter Commissioning and Pressure Testing.

7. Maintenance
Ball valves do not require maintenance with normal operation. However, the following provisions must be taken:
• Periodic inspection to make sure that there is no leakage of media to the outside.
• Operate ball valves that are always in the same position 1-2 per year in order to check their functionality.

8. Mounting and dismantling
8.1. Dismount ball valve from pipe

CAUTION
Risk of injury due to uncontrolled evasion of the medium
If the pressure was not relieved completely, the medium can escape uncontrolled. Depending on the type of medium, risk of injury may exist.
• Completely relieve pressure in the pipes prior to dismantling.
• Completely empty and rinse pipe prior to dismantling in connection with harmful, flammable, or explosive media. Pay attention to potential residual.
• Provide for safe collection of the medium by implementing appropriate actions (e.g. connection to receiver). After dismantling, the ball valve should be stored or disassembled.
• Partially open the dismantled ball valve (45° position) and let drain in vertical position. Collect the medium.

8.2 Mount ball valve to pipe

CAUTION
Risk of injury due to false mounting of the ball valve to the pipe
Nonobservance may lead to severe injuries or death.
• The ball valve must always be installed in open position.

It is recommended to only remove the ball valve from its original packaging immediately prior to installation.

Ball valve and pipe must be aligned so that the assembly is unobstructed by mechanical demands. To mount to the pipe, specific connection regulations for cemented, welded, or screw joints must be followed. Please find further information in the "Georg Fischer Planning Fundamentals”.

9. Functional test
Step 1: Turn the lever clockwise as far as it will go. To check whether the ball is closed, take a look into the fixed side.
Step 2: Turn the lever counter-clockwise (approx. 180°) as far as it will go. To check whether the ball is open, take a look into the fixed side.

10. Troubleshooting
To troubleshoot, please refer to chapter "Troubleshooting" in the Planning Fundamentals as well as to the warnings contained in this document. You may obtain the Planning Fundamentals on the Internet or request them from your Georg Fischer representative.

11. EC declaration of conformity
The manufacturer Georg Fischer Piping Systems Ltd., 8201 Schaffhausen (Switzerland) declares that ball valves of type 523 comply with the harmonized design norm EN-16135. 1 pressure-retaining armatures in terms of the EC pressure supervision regulation 97/23/EG and correspond with such requirements of this regulation regarding the assemblies.
• and comply with the requirements of the building product regulation (91/158/EG) pertaining to the assemblies.

The commissioning of this ball valve is prohibited until the conformity of the entire system, which the ball valve is integrated into, has been declared in accordance with one of the mentioned EC regulations. Modifications to the ball valve, which impact the specified technical data and the intended use, void the manufacturer’s declaration. Additional information may be found in the “Georg Fischer Planning Fundamentals”.

Schaffhausen, 28.02.2012
Dirk Petry
R&D Manager
Georg Fischer Piping Systems

The technical data are not binding. They neither constitute expressly warranted characteristics nor guaranteed properties nor guaranteed durability. They are subject to modification. Our General Terms of Sale apply.