

## 1. Important basic information

### 1.1 Introduction

This operating instruction is addressed to qualified, trained and skilled staff, that assembles valves.

### 1.2 Importance of the instruction

This instruction is a part of the valve and must be accessible at any time for authorized users. At no time chapters may be removed from this manual. A missing instruction or missing pages - in particular the chapter "security advices" - must be replaced in case of loss. The instruction must be passed on at each successive user of the product.

### 1.3 Legal references

This document is not subject to revision. Changes in this document can be done without further notice.

Rötelmann GmbH gives no implicit guarantee on usual qualities and suitabilities for a defined application.

The purchaser must indicate the working conditions. In case they are unknown to Rötelmann, the user acts at his own risk.

After an arbitrary modification or replacement of parts of the ball valve, Rötelmann is possibly no longer considered as manufacturer of the ball valve. In this case the procedure of conformity assessment according to 97/23/EU must be newly implemented.

## 2. About this operating instruction





### 2.1 Applicable documents

Information for the interpretation and selection of suitable ball valves can be found in the Rötelmann catalogue.

### 2.2 Important note



The following security advices are to be understood as addition of the already valid national laws and rules for the prevention of accidents. Existing operating instructions and rules for the prevention of accidents must be considered in each case.

### 2.3. Explanation of the pictograms and meaning of the signal words

 <b>Danger</b>	
	This symbol with the word „ <b>danger</b> “ indicates danger for persons (danger of life, risk of injury).
 <b>Caution</b>	
	This symbol with the word „ <b>caution</b> “ indicates danger for material and environment.

The most important aim of the security advices consists of preventing injuries of persons.

- If a safety reference is marked with the symbol „**danger**“, then danger for material and environment are not excluded.
- If a safety reference is marked with the symbol „**caution**“, then however there is no danger for persons.

	
 <b>Hinweis</b>	This symbol signalizes application hints and other useful information.









### 3. Basic security advices

#### 3.1 Intended use

Rötelnmann ball valves are conceived and manufactured exclusively for industrial use. Please use the ball valves only for their intended purpose. A different utilization can lead to damages and even to injuries of persons. The Rötelnmann GmbH does not assume adhesion for damages resulting of another or wrong use.







#### 3.2. Protection for persons

##### 3.2.1 Security advices for the assembly

 <b>Danger</b>	<b>Electric shock!</b>  Endangerment of persons by electric shock during the electrical installation of accessories! Separate the machine from the power line! Do not touch live parts! Maintenance, repair and installation works may be accomplished only by authorized specialists!
	
 <b>Danger</b>	<b>Danger of squeezing!</b>  endangerment of persons during work at automated valves Interrupt the power supply of the drives! Make sure that extremities are not be clamped by moving components!
	
 <b>Danger</b>	<b>Danger of contamination and chemical burn!</b>  endangerment by leaking of aggressive medium Get information about the used medium. Wear appropriate protection equipment! In the case of doubt contact the authorized person for safety!
	
 <b>Danger</b>	<b>Danger of explosion!</b>  endangerment through valves under pressure Accomplish work only in pressure-less condition! Get information about the used medium. Danger of explosion with some gases, steams and liquids is possible! Regard the according instructions!
	



### 3. Basic security advices



 <b>Danger</b>	<b>Danger of burning!</b>
	<p>danger of injury by hot surfaces Valves that are operated with high (&gt; 40°C) or low (&lt; 0°C) media must be protected against contact by applicable measures. Assembly / disassembly only after cooling down of the ball valve.</p>
 <b>Danger</b>	<b>Danger of falling!</b>
	<p>Danger of slipping when mounting the valve or the piping. Don't use valves/piping as steps!</p>
 <b>Caution</b>	<b>Environmental Protection Regulations</b>
	<p>During all operations on ball valves/valves the statutory duties for waste prevention and proper recycling/disposal have to be attended. Especially during assembly/disassembly operations no water pollutants as</p> <ul style="list-style-type: none"> <li>• lubrication grease and oil</li> <li>• hydraulic oil</li> </ul> <p>must strain the ground or reach the canalization. These substances have to be stored, transported, collected and disposed in suitable containers.</p>



#### 3.2.2 Personal protection equipment



	<b>Personal protection equipment</b>
	 <p>Persons, who assemble, set and start operation and persons who are nearby, must wear suitable protection equipment.</p>

## 3. Basic security advices



### 3.3 Security advices for the setting / start of operation



 <b>Danger</b>	<b>Lethal atmosphere!</b>
	<p>The flow of gases, steams and liquids can be made possible or interrupted by the start-up (pneumatically, electrically or manually) of the valve!</p> <p>Make sure that there is no danger for persons or environment from start-up and/or from test positions!</p>

 <b>Caution</b>	<b>Independent adjusting!</b>
	<p>Through vibrations independent adjusting is possible.</p>

	<b>Closing direction of the ball valves</b>
 <p>Hinweis</p>	<p>Manually operated ball valves are pure OPEN/CLOSE-valves, by top view the closing direction is clockwise according to DIN. They are not suitable for throttling respectively adjusting the flow rate of the medium and therefore an intermediate position is not allowed.</p>

### 3.4 Security Advices for Maintenance and Repair

	<b>Storage</b>
 <p>Hinweis</p>	<p>Ball valves must be always stored in the completely opened condition, in order to avoid damages of the surface of the ball.</p>

	<b>Assembly</b>
 <p>Hinweis</p>	<p>At new installations and after repairs of the piping with fully opened ball valve the pipeline must be rinsed in order to remove solids.</p>

## 4. Identification mark

### 4.1 Marking remarks

For identification and to recognize the most important technical facts, the valves will be provided with a type plate or a marking according to their type. The markings may not be removed or changed.

- **Material**
- **Seat material**
- **Nominal pressure (PN)**
- **Dimension (DN)**
- **Manufacturing date**

**Applies to the following articles:****High-pressure ball valve, steel, lightweight series**

Art. No.	Type No.
103498 to 103505	392.01 to 392.08

**High-pressure ball valve, steel, heavy-duty series**

Art. No.	Type No.
103506 to 103513	392.11 to 392.18

**High-pressure ball valve, steel, with G female thread**

Art. No.	Type No.
103514 to 103520	392.21 to 392.27