






# Safety instructions for handling quick coupling systems and accessories from WALTHER-PRÄZISION

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These operating instructions are not subject to change management

## 1 Explain the dangerous- and warning hints

	<p><b>⚠ DANGER</b></p> <p>Indicates a danger with high risk. If a warning is not observed, serious injuries or death are the direct consequence.</p>
	<p><b>⚠ WARNING</b></p> <p>Indicates a danger with medium risk. If a warning is not observed, serious injuries or death are possible.</p>
	<p><b>⚠ CAUTION</b></p> <p>Indicates a danger with low risk. If a warning is not observed, minor to medium severity injuries are possible.</p>
	<p><b>⚠ ATTENTION</b></p> <p>Risk or unsafe handling which may cause considerable property or financial damages.</p>
	<p><b>NOTE</b></p> <p>Shows information which is concerned either directly or indirectly with the safety of personnel or the protection of the system. If the notification is not observed, faults or property damages are possible.</p>


## 2 For your safety

### 2.1 General information regarding safety precautions


	<b>⚠ ATTENTION</b>
	<p>This lists instructions for the selection and handling of WALTHER-PRÄZISION quick coupling systems and accessories. These instructions must be applied in conjunction with all other information issued by WALTHER-PRÄZISION pertaining to the relevant products and their accessories. The following instructions must be read and observed prior to the selection and use of a WALTHER-PRÄZISION quick coupling system or the appropriate accessories.</p>

	<b>NOTE</b>
	<p>WALTHER-PRÄZISION grants a warranty for maintenance/repairs carried out by WALTHER-PRÄZISION or by personnel trained by WALTHER-PRÄZISION. If this work is carried out by a third-party, WALTHER-PRÄZISION accepts no liability for (subsequent) damages.</p>

### 2.2 Safety precautions

	<b>⚠ WARNING</b>
	<p><b>Quick coupling systems may fail unpredictably for many reasons.</b></p> <p>Personal injury and/or property damages.</p> <ul style="list-style-type: none"> <li>▶ For this reason, design all systems and plants in such a way that a failure of the quick coupling system or the relevant supply line will not result in personal injury and/or property damages.</li> </ul>

### 2.3 Distribution of existing instructions

	<b>⚠ ATTENTION</b>
	<p>Give a copy of all product-relevant instructions to all persons entrusted with the selection or handling of quick coupling systems. Read the safety precautions and the product-specific publications before selecting and/or using a quick coupling system.</p>

## 2.4 Incorrect selection, improper handling





### **⚠ DANGER**

#### **Incorrect selection or improper handling of quick coupling systems and accessories.**



The consequences are property damage, injuries or death. The following points must be prevented:

- ▶ Uncontrolled flying of the quick coupling systems or other components with high potential risk.
- ▶ Trapping of body parts caused by reaching between the coupling sides.
- ▶ Application of electrical voltage in decoupled state.
- ▶ Leaking of media under high pressure and at high speed.
- ▶ Impacting, dropping or falling of components caused by a failure of the power unit.
- ▶ Dangerous lashing out of the connection hose (whip effect).
- ▶ Explosion or taking fire of the employed media.
- ▶ Body contact with dangerous media.
- ▶ Leaking of media that is used in chemical processes.
- ▶ Technical specifications are not maintained.

## 2.5 Responsibility of the user

	<p><b>⚠ ATTENTION</b></p>
	<p><b>Return of quick coupling systems that are contaminated with a type of media that is a risk to health.</b></p> <p>Media that is a risk to health is released during the removal process.</p> <ul style="list-style-type: none"> <li>▶ The quick coupling system must be completely clean when returning it to WALTHER-PRÄZISION. The sender (client) is responsible for ensuring this.</li> </ul>
	<p><b>NOTE</b></p>
	<p><b>Due to the different functionalities and the versatility of use of quick coupling systems, WALTHER-PRÄZISION and the associated network of dealers is not able to guarantee that a specific quick coupling system is suitable for each specific end use. These brief instructions do not analyse all of the technical details that are to be taken into consideration in the selection of a quick coupling system. The user is responsible for their own analysis of the following points.</b></p> <ul style="list-style-type: none"> <li>▶ For the safe operation and observation of the maintenance and servicing.</li> <li>▶ The selection of their quick coupling system.</li> <li>▶ The fulfilment of the requirements of the end user.</li> <li>▶ The safety precautions necessary for the use of quick coupling systems.</li> <li>▶ Own technical changes.</li> </ul>

## 2.6 Load specifications, torques, framework conditions

	<p><b>⚠ ATTENTION</b></p>
	<p><b>Not observed load specifications, torques and other framework conditions.</b></p> <p>Failure of the quick coupling system.</p> <ul style="list-style-type: none"> <li>▶ The load specifications, torques and other framework conditions specified by WALTHER-PRÄZISION must be maintained.</li> </ul>
	<p><b>NOTE</b></p>
	<p><b>Inquire at WALTHER-PRÄZISION for these load specifications, torques and other framework conditions prior to installation.</b></p>

## 2.7 Other questions


If you have questions or would like further information, please consult either your supplier or WALTHER-PRÄZISION directly.

### 3 Instructions for the selection of a quick coupling system


#### 3.1 Specifications and standards

	<b>NOTE</b>
	<p>When selecting a quick coupling system, country-specific directives, industrial standards and the specifications of WALTHER-PRÄZISION must be taken into account and observed.</p>

#### 3.2 Construction size


	<b>⚠ ATTENTION</b>
	<p><b>Power transfer for incompressible media.</b></p> <p>Pressure losses and warming or changes in viscosity of the transported media.</p> <ul style="list-style-type: none"> <li>▶ The power transfer for incompressible media varies according to pressure and flow rates. The construction size of the quick coupling system and other system components must be designed in such a way that pressure losses and warming or changes in viscosity of the transported media are kept as low as possible.</li> </ul>

#### 3.3 Compatibility of media


	<b>⚠ ATTENTION</b>
	<p><b>Compatibility between the media and the materials of the quick coupling system.</b></p> <p>Corrosion, leaks and failure of the quick coupling system</p> <ul style="list-style-type: none"> <li>▶ Ensure the compatibility between the materials of the components of the quick coupling system and the media used.</li> </ul>

	<b>NOTE</b>
	<p>More information regarding compatibility can be found in the seal and material table in your technical catalogue from WALTHER-PRÄZISION.</p>


#### 3.4 Media with low inflammability


	<b>NOTE</b>
	<p>Some types of media with low inflammability require a different seal material compared to the material used as standard.</p>

### 3.5 Environment


	<b>⚠ ATTENTION</b>
	<p><b>Environmental conditions such as UV or radioactive radiation, ozone, mould, water, salt water, air humidity, temperature, chemicals or air contamination.</b></p> <p>Early wear or failures.</p> <ul style="list-style-type: none"> <li>▶ Attention should be paid to ensure that the relevant quick coupling system can be stored/used in the relevant environment.</li> </ul>


### 3.6 Mechanical loads

	<b>⚠ WARNING</b>
	<p><b>Unintentional opening or movement of the locking mechanism caused by external forces acting upon it. External forces may include: Pulling the hose over an obstacle, locking mechanism with coarse contours that can be easily moved, or vibrations.</b></p> <p>Personal injuries caused by failure of the quick coupling system.</p> <ul style="list-style-type: none"> <li>▶ Quick coupling systems should, for this reason, only be used in the above conditions if a safety lock is present and usage testing has been carried out.</li> </ul>

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### 3.7 Pressure

	<b>⚠ DANGER</b>
	<p><b>The maximum operating pressure of the quick coupling system is exceeded.</b></p> <p>The consequences are serious injuries or death.</p> <ul style="list-style-type: none"> <li>▶ The correct selection of the quick coupling system in accordance with the existing operating pressure of the plant.</li> </ul>


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	<p><b>The maximum operating pressure of the quick coupling system is exceeded.</b></p> <p>The consequences are property damages.</p> <ul style="list-style-type: none"> <li>▶ The correct selection of the quick coupling system in accordance with the existing operating pressure of the plant.</li> </ul>


	<b>NOTE</b>
	Do not confuse bursting pressure with operating pressure.

### 3.8 Vacuum


	<b>NOTE</b>
	Not all quick coupling systems can be used for vacuum applications. Quick coupling systems for vacuum applications must be selected in such a way that they do justice to the special operating conditions and pressures.

### 3.9 Coupling or decoupling under pressure

	<b>⚠ ATTENTION</b>
	<p>The application requires coupling and decoupling under pressure. No proper functionality of the quick coupling system.</p> <ul style="list-style-type: none"> <li>▶ Only use quick coupling systems that enable coupling and decoupling under pressure.</li> </ul>



	<b>NOTE</b>
	The maximum coupling pressure may be lower than the maximum operating pressure.

### 3.10 Temperature

	<b>⚠ WARNING</b>
	<p>Exceeding or undercutting the permitted temperature values at a standstill or in active operation. Burning or freezing.</p> <ul style="list-style-type: none"> <li>▶ For brief handling procedures, use protective gloves.</li> <li>▶ For longer-lasting contact, observe the appropriate current safety regulations.</li> </ul>




### 3.11 Radiation heat


	<p><b>⚠ WARNING</b></p> <p>Radiation heat acting on quick coupling systems may ruin the sealing material or even the body of the coupling.</p> <p>Personal injury</p> <p>▶ This risk must be taken into account by the user and suitable measures must be taken.</p>
	<p><b>⚠ ATTENTION</b></p> <p>Radiation heat acting on quick coupling systems may ruin the sealing material or even the body of the coupling.</p> <p>Property damage</p> <p>▶ This risk must be taken into account by the user and suitable measures must be taken.</p>

## 4 Correct Installation


### 4.1 Examination prior to installation

	<b>NOTE</b>
	<p>Prior to installing the quick coupling system, you must check whether the material of the components, the seal material and the reference data match the specifications. Prior to final installation, both sides of the coupling should be coupled and decoupled as a test.</p>


### 4.2 Quick coupling systems or (replacement) parts from other manufacturers


	<b>NOTE</b>
	<p>Use only WALTHER-PRÄZISION original (replacement) parts in order to ensure the operation and maintenance of your quick coupling system. We expressly remind you that we do not offer liability, warranty and service, when (replacement) parts from other manufacturers are used or when combinations are employed which use (replacement) parts from other manufacturers.</p>

### 4.3 Connecting quick couplings systems



	<b>NOTE</b>
	<p>When connecting quick coupling systems, use an appropriate sealant between the cylindrical threads or conical sealing threads. Make sure that the sealant is compatible with the material to be conveyed. Use the provided spanner flats during installation. Always use the correctly sized wrench. Never use pipe tongs or a variable wrench since this will ruin the thread/sealing surfaces in the quick coupling systems and other components of the quick coupling system. Too great a tightening torque may ruin the threads of the quick coupling systems or burst the thread block.</p>

### 4.4 Heating (e.g. welding and soldering)


	<b>⚠ WARNING</b>
	<p>When heating coated components, dangerous gases may be generated which may, among other things, damages seals.</p> <p>Personal injury</p> <ul style="list-style-type: none"> <li>▶ Use the appropriate guards and wear personal protective equipment when carrying out this task.</li> <li>▶ Prevent heating of coated components.</li> </ul>

	<b>⚠ ATTENTION</b>
	<p>When heating coated components, dangerous gases may be generated which may, among other things, damage seals.</p> <p>Property damage</p> <ul style="list-style-type: none"> <li>▶ Prevent heating of coated components.</li> </ul>

## 4.5 Connecting electrical components

<b>⚠ DANGER</b>	
	<b>Electrical voltage to components.</b> Serious injuries or death may result from touching components which carry power.
	<ul style="list-style-type: none"><li>▶ Switch off the power supply.</li><li>▶ Secure the power supply to prevent it from being switched back on.</li><li>▶ Pay attention to the wiring diagram.</li><li>▶ Check that no voltage is present.</li></ul>

## 4.6 Installation location


<b>NOTE</b>	
	<b>Install the quick coupling system in such a way that the user is not at risk of slipping, falling, being sprayed, or coming into contact with hot or moving parts.</b>


## 4.7 Protective caps and connectors


<b>NOTE</b>	
	<b>Seal the connections on the coupling sides when they are not required in order to prevent contamination.</b>


## 5 Maintenance instructions

### 5.1 Maintenance plan


	<b>⚠ WARNING</b>
	<p><b>Failure to carry out maintenance or too large a maintenance gap.</b></p> <p>Personal injury</p> <ul style="list-style-type: none"> <li>▶ Observe the contents of the maintenance plan.</li> </ul>

	<b>⚠ ATTENTION</b>
	<p><b>Failure to carry out maintenance or too large a maintenance gap.</b></p> <p>Property damage</p> <ul style="list-style-type: none"> <li>▶ Observe the contents of the maintenance plan.</li> </ul>

	<b>NOTE</b>
	<p><b>A maintenance plan must be created and executed by the user. This maintenance plan should contain, at least, the following points, which are to be taken into account and examined in a visual inspection of the quick coupling system.</b></p> <ul style="list-style-type: none"> <li>▶ Check for damaged or corroded components of all types.</li> <li>▶ Leaks from the connection, valve or other components.</li> <li>▶ Broken coupling mounts (especially for breakaway quick closing devices).</li> <li>▶ These points require the immediate replacement or repair of the quick coupling system.</li> </ul>

	<b>NOTE</b>
	<p><b>A maintenance plan must be created and executed by the user. This maintenance plan should contain, at least, the following points which are to be taken into account in a visual inspection of the plant.</b></p> <ul style="list-style-type: none"> <li>▶ Contamination of the exterior or the connection zone of the quick coupling system.</li> <li>▶ Other mounts.</li> <li>▶ Protective mechanisms.</li> <li>▶ Fluid level, fluid characteristics and ventilation of the system.</li> <li>▶ Tension relief</li> <li>▶ Bending radii.</li> </ul>

### 5.2 Functional testing

	<b>NOTE</b>
	<p><b>Please put the system under working pressure. Check the quick coupling system for potential faults and leaks. Check the switches and initiators of safety mechanisms.</b></p>



### **NOTE**

After functional testing, carry out a test phase prior to actual operation. The operating personnel should be protected by the appropriate personal protective equipment as they work on the test phase.

## 5.3 Replacement intervals



### **NOTE**

The special replacement intervals must be adapted to correspond to values related to experience, country-specific directives and industrial standards. They also depend on operating safety, standstill times and failure risks.