








PRODUCT INFORMATION

1 Explanation of the hazard notes, warnings and cautions


	<p>⚠ DANGER</p> <p>Indicates a high-risk hazard. If the hazard warning is not observed, this will lead directly to serious injuries or death.</p>
	<p>⚠ WARNING</p> <p>Indicates a medium-risk hazard. If the hazard warning is not observed, this may result in serious injuries or death.</p>
	<p>⚠ CAUTION</p> <p>Indicates a low-risk hazard. If the hazard warning is not observed, this may result in minor or moderate injuries.</p>
	<p>⚠ IMPORTANT</p> <p>Hazard or unsafe actions that will cause considerable property damage or financial loss.</p>
	<p>NOTE</p> <p>Displays information that is directly or indirectly related to the safety of personnel or protection of the system. If the note is not observed, this may result in malfunctions or property damage.</p>

2 For your safety


2.1 General information about the safety instructions

	<p>⚠ IMPORTANT</p> <p>This section contains instructions about the selection and operation of SERTO quick disconnect couplings and accessories. These instructions must be used together with all other information published by SERTO that relates to the respective products and their accessories. The following instructions must be read through and followed appropriately before selecting and using a SERTO quick disconnect coupling or the corresponding accessories.</p>
	<p>NOTE</p> <p>SERTO shall provide a warranty for any maintenance/repair work that is carried out by SERTO or by personnel trained by SERTO. If this work is carried out by a third party, SERTO shall assume no liability for any damage or consequential damage.</p>


2.2 Safety precautions

	⚠ WARNING
	<p>Quick disconnect couplings may malfunction completely unexpectedly for several reasons. Personal injury and/or property damage.</p> <p>➔ Please therefore design systems and plant such that the failure of the quick disconnect coupling system, or of the corresponding supply line will not lead to personal injury and/or property damage.</p>


2.3 Distribution of these instructions


	⚠ IMPORTANT
	<p>Provide a copy of all product-relevant instructions to all persons who are involved with the selection or operation of quick disconnect couplings. Read the safety instructions and the product-specific publications before you select and/or use a quick disconnect coupling.</p>

2.4 Wrong selection, incorrect operation


	⚠ DANGER
	<p>Wrong selection or incorrect operation of quick disconnect couplings and accessories. This will lead to property damage, personal injury or death. The following points must be avoided:</p> <ul style="list-style-type: none"> ➔ Quick disconnect couplings or other components flying around in an uncontrolled manner with a high potential to cause damage. ➔ Body parts becoming trapped when reaching in between the coupling sides. ➔ Electrical voltage being applied when in a decoupled state. ➔ Media escaping at high pressure and at high speed. ➔ Collisions or dropping or falling of components due to the drive malfunctioning. ➔ The connection hose swinging around in a dangerous manner (whip effect). ➔ Explosion or ignition of the media used. ➔ Physical contact with health-hazarding media. ➔ Leaking media that are used in chemical processes. ➔ Technical information is not followed.


2.5 Responsibility of the operator

	⚠ IMPORTANT
	<p>The return of quick disconnect couplings that are contaminated with media hazardous to health.</p> <p>Media that are hazardous to health are released during disassembly.</p> <ul style="list-style-type: none"> ➔ The quick disconnect couplings must be completely purified if they are returned to SERTO. The sender (customer) shall assume responsibility for this.

	NOTE
	<p>As a result of the different modes of operation and the wide range of applications for quick disconnect couplings, SERTO and its network of dealers cannot guarantee that a particular quick disconnect coupling is suitable for each specific end application. These short instructions do not analyse all technical details that need to be considered when selecting a quick disconnect coupling. The operator themselves is responsible for the following points in accordance with their own analysis:</p> <ul style="list-style-type: none"> ➔ For the safe operation and compliance with the maintenance and servicing. ➔ Selection of their quick disconnect coupling. ➔ Conforming to the requirement of the end user. ➔ The safety equipment that is required to avoid personal injury and property damage when quick disconnect couplings are being used. ➔ Technical alterations being carried out independently.

2.6 Load specifications, torques, general conditions

	⚠ IMPORTANT
	<p>Load specifications, torques and other general conditions not being complied with.</p> <p>Failure of the quick disconnect coupling.</p> <ul style="list-style-type: none"> ➔ The load specifications, torques and other general conditions specified by SERTO must be complied with.


	NOTE
	<p>You must ask SERTO about these load specifications, torques and other general conditions before carrying out the installation.</p>

2.7 Additional questions


Please contact the place where you bought the product or contact SERTO directly if you have any questions, or if you require any additional information.

3 Notes on the selection of the quick disconnect coupling


3.1 Specifications and standards


	<p>NOTE</p> <p>Country-specific guidelines, industrial standards and the SERTO specifications must all be considered when selecting a quick disconnect coupling.</p>
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3.2 Structure size


	<p>⚠ IMPORTANT</p> <p>Power transfer for incompressible media.</p> <p>Pressure loss and warming or changes in viscosity of the media transported.</p> <p>→ The power transfer for incompressible media will vary depending on the pressure and the flow rate. The size of the quick disconnect coupling and other system components must be designed so that pressure losses and warming or changes in viscosity of the media transported are kept as low as possible.</p>
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3.3 Compatibility of media


	<p>⚠ IMPORTANT</p> <p>Compatibility between the media and the quick disconnect coupling materials.</p> <p>Corrosion, leakages, malfunctions of quick disconnect couplings.</p> <p>→ Ensure the compatibility between the materials of the quick disconnect coupling components and the media used.</p>
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	<p>NOTE</p> <p>More detailed information about compatibility can be found in the appendix to the SERTO catalogue under Seal Materials and Chemical Resistance or at https://shop.serto.com/technische-dokumentation/</p>
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3.4 Fire-resistant media


	<p>NOTE</p> <p>Some flame-retardant media require seal materials different to the material used as standard.</p>
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3.5 Surroundings


	⚠ IMPORTANT
	<p>Environmental conditions such as ultra-violet or radioactive radiation, ozone, mould, water, salt water, air humidity, temperature, chemicals or atmospheric pollution.</p> <p>Premature wear or malfunctions.</p> <p>➔ It should be ensured that the quick disconnect coupling is stored and used under the pre-existing environmental conditions.</p>


3.6 Mechanical loads

	⚠ WARNING
	<p>Accidental opening or accidental movement of the locking system due to external forces. Some external forces could be: The hose line being pulled over an obstruction, a locking system with course contours that can be easily moved or vibrations.</p> <p>Personal injury due to malfunctioning quick disconnect couplings.</p> <p>➔ Quick disconnect couplings should therefore only be used under the operating conditions described above if a safety interlock is present and operational trials have been carried out.</p>

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3.7 Pressure

	⚠ DANGER
	<p>The maximum working pressure of the quick disconnect coupling is exceeded.</p> <p>This will lead to serious injuries or death.</p> <p>➔ Choose the correct quick disconnect coupling that matches the available working pressure of the system.</p>

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	NOTE
	<p>The quick disconnect coupling must be selected such that the maximum working pressure permitted for the coupling is larger than</p> <p>or the same as the system pressure. Pressure spikes in the system that are above the working pressure will shorten the service life of the coupling considerably.</p> <p>Do not confuse the bursting pressure or other pressure specifications with the working pressure and never use the bursting pressure as the working pressure.</p>

3.8 Vacuum

	NOTE
	<p>Not all quick disconnect couplings may be used for vacuum applications. Quick disconnect couplings for vacuum applications must be selected such that they can deal with the special operating conditions and pressures.</p>

3.9 Coupling or decoupling under pressure

	NOTE
	<p>Decoupling under pressure:</p> <p>Quick disconnect couplings should be depressurised for decoupling/when decoupled. This unpressurized condition must be maintained until the next coupling operation unless specified otherwise.</p>


	⚠ IMPORTANT
	<p>The application requires coupling and decoupling under pressure.</p> <p>No proper functioning of the quick disconnect coupling system.</p> <p>➔ Only use a quick disconnect coupling that allows coupling and decoupling under pressure.</p>


	NOTE
	<p>The maximum coupling pressure may be lower than the maximum working pressure.</p>

3.10 Temperature

 	⚠ WARNING
	<p>Exceeding and falling below the temperature values permitted when at a standstill or during operation.</p> <p>Burns or frostbite.</p> <p>➔ Use protective gloves when operating for a short time.</p> <p>➔ Comply with the relevant safety regulations when in contact for a longer period of time.</p>


3.11 Radiation heat

	⚠ WARNING
	<p>Radiation heat acting on quick disconnect couplings can destroy the sealing material or even the body of the coupling.</p> <p>Personal injury</p> <p>➔ This risk must be taken into consideration by the operator during use and suitable measures must be taken.</p>


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4 Correct installation


4.1 Investigation before the installation

	NOTE
	<p>Before installing a quick disconnect coupling, it must be checked whether the material of the components, the sealing material and the reference information correspond to the specifications. Before the final installation, both sides of the coupling should be coupled and decoupled as a trial.</p>


4.2 Quick disconnect coupling or (replacement) parts from other manufacturers


	NOTE
	<p>Please only use SERTO Original (replacement) parts to ensure the safe operation and preservation of your quick disconnect coupling system. We would like to explicitly point out that we shall assume no liability, guarantee or servicing if (replacement) parts from other manufacturers are used, or if it is used in combination with (replacement) parts from other manufacturers.</p>

4.3 Connecting quick disconnect couplings



	NOTE
	<p>Use an appropriate sealant between cylindrical threads or tapered dry seal thread when connecting quick disconnect couplings. Ensure that the sealing material is compatible with the medium transported. Use the provided spanner flats for installation. You must use the correct size of spanner. Never use a pipe wrench or an adjustable spanner. They will destroy the thread/sealing surfaces in the quick disconnect couplings and other components of the quick disconnect coupling system. Tightening torques that are too large may destroy the threads of the quick disconnect system or cause the threaded block to burst.</p>

4.4 Heating (e.g. welding and soldering)


	⚠ WARNING
	<p>When heating coated components, dangerous gases that may damage the seals, among other things, may be given off.</p> <p>Personal injury</p> <ul style="list-style-type: none"> ➔ Use appropriate personal protective equipment when carrying out this activity. ➔ Prevent coated components from heating.

	⚠ IMPORTANT
	<p>When heating coated components, dangerous gases that may damage the seals, among other things, may be given off.</p> <p>Property damage</p> <ul style="list-style-type: none"> ➔ Prevent coated components from heating.


4.5 Connecting electrical components

 	⚠ DANGER
	<p>Electrical voltage of components.</p> <p>This will lead to serious injuries or death if live components are touched.</p> <ul style="list-style-type: none"> ➔ Switch off the power supply. ➔ Secure the power supply against being switched on again. ➔ Observe the electrical circuit diagram. ➔ Check that there is no voltage present.

4.6 Attachment point


	NOTE
	<p>Attach the quick disconnect coupling such that the operator is not in danger of slipping, falling, or of being sprayed with liquid and such that they do not come into contact with hot or moving components.</p>


4.7 Protective caps and protective plugs


	NOTE
	<p>Close the connections on the coupling side if they are not needed to prevent any possible contamination.</p>


5 Maintenance instructions

5.1 Maintenance plan


	⚠ WARNING
	<p>Overdue maintenance, or the maintenance interval is too large.</p> <p>Personal injury</p> <p>➔ Comply with the content of the maintenance plan.</p>


	⚠ IMPORTANT
	<p>Overdue maintenance, or the maintenance interval is too large.</p> <p>Property damage</p> <p>➔ Comply with the content of the maintenance plan.</p>

	NOTE
	<p>A maintenance plan must be created by the user and carried out. This maintenance plan must contain at least the following points that should be inspected and checked during a visual inspection of the quick disconnect coupling system.</p> <ul style="list-style-type: none"> ➔ Check all types of damaged or corroded parts. ➔ Leaks at the connection, valve or other components. ➔ Broken coupling bracket (particularly for breakaway couplings). ➔ These points will require an immediate replacement of or repair of the quick disconnect coupling system.


	NOTE
	<p>A maintenance plan must be created by the user and carried out. This maintenance plan must contain at least the following points that should be inspected during a visual inspection of the system.</p> <ul style="list-style-type: none"> ➔ Contamination in the outside area or in the interconnect zone of the quick disconnect system. ➔ Other mountings. ➔ Safety devices. ➔ Fluid level, fluid characteristics and ventilation of the system. ➔ Strain relief ➔ Bend radii.

5.2 Functional inspection

	NOTE Place the system under working pressure. Check the quick disconnect coupling system for possible malfunctions and leaks. Check the switches and initiators of the safety devices.
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	NOTE After the functional inspection, a test phase must be carried out first before actual operation. The operating personnel should work in a protected manner during the test phase and should wear appropriate personal protective equipment if required.
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5.3 Replacement intervals

	NOTE The particular replacement intervals must be adjusted according to values that you have gained from experience, country-specific guidelines and industrial standards. They also depend on operational safety, non-operational periods and the risk of malfunctions.
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