Instructions and warning

The incorrect use of products can cause malfunctioning and safety risks.

Therefore, before using Stucchi products, we strongly recommend reading and following the "general instructions for selection and use of the products" and the "instructions of use" of the specified product intending to use (to be asked to the Stucchi technical service).

⚠ WARNING

A defect, a wrong choice or an improper use of products, can cause injury to persons, animals and objects.
Connection under pressure are under residual pressure.
Never connect or disconnect with dynamic pressure (e.g. pump on).
Make sure that the medium used is compatible with seal and material as indicated for each series.
The interchangeability is mentioned under the assumption that the manufacturer of the considered products has not changed any dimension.
It is mandatory to carefully read and closely follow the instructions before selecting or using any Stucchi products.
Always refer to the version uploaded in the Instructions and warnings section of stucchigroup.com website for the latest release.
In case of doubt or for specific product-related instructions, please contact Stucchi technical service.

1.0 GENERAL INSTRUCTIONS

1.1 Context
These safety instructions form a supplement and shall be used as one document together with the technical documentation related to the specified product to be installed.

1.2 Safeguarding
It is recommended that all systems and equipment be protected so that safety of people, animals and objects will be guaranteed in case of defect of the product.

1.3 Distribution of the instruction
A copy of these instructions has to be supplied to every person responsible for the selection and/or usage of the products.

1.4 Responsibility of the user
Due to the most various range of operating use and conditions of the products, Stucchi does not guarantee that every product can be used for every application.
These safety instructions don't analyse all technical parameters that have to be considered by selecting the products.

The end user, through their own analyses and tests, is responsible for the following:
- Final selection of the product
- Ascertainment that the requirements of the end user are satisfied and that the predicted use does not present a safety risk.
- Supply of all warnings regarding the safety of the equipment on which Stucchi products will be used.
- Correct disposal of the product at the end of its life, see paragraph 'disposal instructions'.

2.0 INSTRUCTIONS FOR SELECTION OF THE PRODUCT

2.1 Application fields
Check that the product is suitable for the specific application.
In case of doubt, contact the Stucchi Technical Support.

2.2 Type of product
Select the type of product most suitable for the working environment.
Flat face couplings: suitable for working environments where it is necessary to reduce to minimum the fluid loss during disconnection and to avoid dirt inclusion during connection.
Screw couplings: they are suitable for high working pressure and frequent impulses; they are connectable with high residual pressure.
Poppet valve couplings: widely used in the agricultural field.

2.3 Materials and treatments
Make sure that the materials and treatments of the product conform to the exposed working environment.

2.4 Dimensions
Choose the product with dimensions and flow suited to the circuit in order to avoid over stress damaging the product.

2.5 Flow inversion
For application with flow inversion during operation, use only products designed for that scope.
Flow inversion during operation generates turbulences inside the product that can cause damage on the components.

2.6 Thread
Choose the product with thread suitable for the application.
For high pressure conditions, over 50 MPa, products with taper thread NPT are recommended.

2.7 Type of medium
Verify that the seals of the product are compatible with the medium used in case of doubts please contact Stucchi Technical Support.
Make sure that other not compatible fluids do not come in contact with the seals in case of maintenance.
Do not use the products with inflammable, explosive or dangerous fluids without approval of Stucchi.

2.8 Medium temperature
Verify that the working temperature is within the functional limits of the coupling and its seals.

The couplings must not be connected and disconnected with a temperature higher than 80 degrees Celsius.
In case of connection-disconnection with temperature higher than 30 Celsius degrees, the operator must be protected using gloves and/or other devices to prevent any leakage or splashing causing injury to himself, persons, animals and objects.

2.9 Environment temperature
With extreme temperature conditions, the mechanical resistance of the products changes.
The use and handling of couplings in case of ice can be difficult due to ice inclusion in the blocking mechanisms.
Use protective gloves in applications with hot and cold operating temperature.
Do not overheat the coupling in a closed circuit, as it may lead to overpressure and consequential burst or damage.

2.10 Pressure
Verify always if the maximum working pressure of the product is the same or higher than the pressure peaks of the application.

Do not make confusion between the burst pressure and the maximum working pressure, so do not use the value of the burstpressure for your selection.

Check that the number of impulse cycles which the product has been tested is compatible with the impulse number of the application.

2.11 Residual pressure
For connection and disconnection with residual pressure use only couplings that are developed for this scope.

The term 'internal residual pressure' means: the static pressure retained in the system, which has not be generated by a working pump or other accessories in movement.

The structure of the machine or plant in which these products are placed, must be suitable to limit accidental splashing and fluid losses caused by wrong usage or malfunctioning of the product, in order to avoid direct and indirect damage on persons, animals or objects.
The temperature of the fluid must not exceed the limits mentioned in point 2.8

2.12 Connection frequency
It is important to know the connection frequency with which the coupling is used, while this has significant influence on the life of both springs and seals.

An under-estimated value can cause unexpected fluid loss.

2.13 Safety device
If used in environments or machines in strict closeness at persons, animals or objects (1 meter), within easy accidental disconnection conditions, it is highly recommended to use ball locked couplings with security system or screw couplings and to make sure that the preventive disconnection mechanism is correctly screwed together.

2.14 Mechanical loads
Side loads, mechanical stresses in general and vibrations reduce significantly the life of the product and are often the cause of sudden damages.

It is recommended to assemble quick release couplings without risks of mechanical damage and over-loading caused by stress generated in flexible or rigid hoses and to assemble quick release couplings on hoses with proper dimensions referred to the nominal passage of the quick release coupling.

2.15 Rotation
In case of applications with rotation use only products developed for this scope.
In case of rotation between male and female part it is necessary to inform in advance Stucchi Technical Support or to provide the connection with swivel joints suitable for this scope.

2.16 Special applications
You should be advised to take particular attention to special applications (such as vacuum use, high temperature, etc...).

Please consult Stucchi Technical Support who is able to give instructions concerning the use of Stucchi products.

Do not use Stucchi products in nuclear, aircraft or military field; do not use Stucchi products in explosive environment or with inflammable, explosive or dangerous fluid. In this cases contact Stucchi Technical Support for assistance.



3.0 INSTRUCTIONS FOR STOCK PRESERVATION

For a correct preservation of the product and in order to avoid damage before even starting to use the product read carefully the following instructions.

3.1 Packaging
The products have to be kept in closed packaging to protect the components, mainly the seals, from dust and ultraviolet rays.

3.2 Environments
The products shall be kept in environments with low percentage of humidity, no condensation, no salt, protected from atmospheric factors, far away from heating devices and magnetic fields. Eliminate equipment that can produce ozone, as this element is extremely destructive for the seals.

3.3 Protection cap
The protection cap assembled on the thread has to be removed at the moment of the product installation only.

3.4 Special packaging
In case of requests for special packaging contact the customer service.

4.0 INSTALLATION INSTRUCTIONS

4.1 Pre Installation inspections
Before installation of the product it is necessary to inspect it visually and to verify if the part number and description of the product refers to the one requested.

4.2 Hose size
The optimal is to use the hoses having the same sizes as the coupling body, can be used the hoses having one size more (step up) than the coupling but not bigger otherwise they can overstress the coupling with risk of failure.

4.3 Hose assembling
In case of single coupling one part (female or male) can be assembled directly on the rigid tube, but the other part shall be assembled on the flexible hose in order to allow an easy connection and absorb better the vibration and mechanical stress.
In case of the multicoupling both parts (fixed and mobile) shall be assembled on the flexible hoses to avoid the misalignment of the couplings. Once connected the flexible hose should create a right radius according to the hose manufacturer specifications, in this way the connection/disconnection of the couplings takes place in easy way and aligned position.

4.4 Side load
Don't apply radial/axial loads that create misalignment of the couplings during connection/disconnection and can cause damage on the connection and sealing parts.

4.5 Fitting assembling
Use fittings and sealing systems conform to the thread of the product only.
To install and remove the couplings use proper tools and act only on flat spanner surfaces of the coupling. Do not use improper tools (spanner for hoses, bench vice, pincer etc.) while these can cause damage on the coupling with malfunction as result.
Use the tightening torque stabilized by the norm to screw the fittings

4.6 Positioning of the coupling
It is suggested to install the couplings in such way that they can easy be connected and disconnected, reducing to the minimum the forces and risks for the operator.
It's suggested to install the coupling not exposed in order to protect if from collision with other parts. It is suggested to protect the couplings using shelters and protections (see sector norms) to guarantee the security and to prevent damage.

5.0 INSTRUCTIONS OF USE

5.1 Modality of use
The modality of use changes in accordance to the type of product used.

For every type of product, the modality of use described in the catalogue or the specific usage instructions supplied by Stucchi have to be carefully followed .The system has to be immediately stopped and the product should be replaced whenever one of the following conditions will occur:

- Visible damage, damaged parts of the product, cracks and corrosion.
- Difficulties in connection and disconnection generated by too high force compared to the data mentioned in the catalogue.
- Presence of leakage.
- Malfunctioning of the valve.

In the above mentioned cases please contact Stucchi Technical Support for information.

5.2 Connection / Disconnection
Before connecting, the parts of the couplings involved in the connection have to be cleaned. Connection with dirty parts may cause damage such as unexpected and dangerous leakage on the coupling.
Another consequence of dirt is contamination of the system.
Do connect and disconnect the coupling only as indicated in the modality of use: do not use other unsuitable tools.
A loss of fluid contained in the circuit may occur during the disconnection of the coupling. The approximate spillage values are shown in the catalog. It is recommended to pay maximum attention during the disconnection phase and to activate the necessary precautions to avoid the dispersion of fluids in the environment.

5.3 Mechanical damage
The product shall not be exposed to mechanical damages while they can cause damage and malfunctioning.
Do not use tools to open the valves to release residual pressure trapped in the circuit.

5.4 Circuits cleaning
Use the products in clean circuits.
Dirt can damage components of the product and cause malfunctioning.

5.5 Protection caps
Use anti-dust caps when coupling is disconnected to avoid dirt and contamination and to protect the surface from accidental damage caused by collisions.

5.6 Use of semi-couplings of other manufacturers.
Do not connect Stucchi half-couplings with other not compatible half-couplings.
In case of connection of a Stucchi half-coupling with a half-coupling from another manufacturer, do not exceed the lowest nominal pressure of the two products.

6.0 MAINTENANCE INSTRUCTIONS
The good functional of product is often compromised by a lack of maintenance.
To avoid unexpected damage that can cause times of arrest and safety risks it is necessary to apply maintenance periodically.

The period dedicated to the maintenance of the product has to be defined by the user and depends on the type of application and on the working conditions the product is exposed to.

6.1 Ordinary - Preventive maintenance
First, the product should be well cleaned and the area where it is installed as well, then you should check and verify the following steps:

- Absence of breakage or various damage on the products.
- Absence of leakage in general.
- Correctness of tightening torque of the adapters.
- Check the level of circuit contamination.
- The connected parts or the parts in movement should be greased with grease compatible with the seals assembled in the products.
- The replacement of the coupling should be planned in accordance with the requested endurance for the specific application.

6.2 Repair
In case of reparation of the products it is recommended to follow Stucchi's specific instructions and use spare parts, tools and documentation supplied by Stucchi only.
Please contact Stucchi Technical Support for the above specific information.

7.0 Disposal instructions
Do not litter the product after use.
The product must be disposed according to the local law and the requirements of the relevant local authorities.
Details about product composition are reported in the catalogs on stucchigroup.com.
The user is responsible for the waste characterization and its disposal.

IT IS THE RESPONSIBILITY OF THE USER TO SELECT, INSTALL AND USE THE QUICK RELEASE COUPLING IN THE CORRECT WAY.

The texts, data and illustrations indicated in this catalogue, may be changed by Stucchi S.p.A at any time without notice.
For more information please contact the Stucchi Technical Support, in any case we remind for **last updated version always applied at time of installation, see latest written Instruction on stucchigroup.com before selecting or using Stucchi products.**