General installation conditions. By SCHELL.

SCHELL fittings are designed and produced according to the technical norms and regulations valid in Germany and in Europe/internationally, as far as possible. The fittings are designed in such a way that they guarantee trouble-free operation while complying with installation regulations, professional installation, as well as proper servicing and maintenance.

Water quality

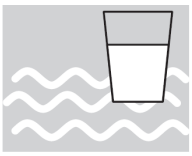
1. Water quality (suitability)

SCHELL products are suitable for use with drinking water according to the Drinking Water Ordinance 2001 (TrinkwV). The alloy components meet the requirements of DIN EN 50930 Section 6 and the German Federal Office for the Environment ("Umweltbundesamt") (list "UBA" "Suitable metallic materials for drinking water hygiene"). Irrespective of this, the suitability of materials must be examined according to DIN EN 12502 (corrosion probability of metal materials in drinking water distributor systems).
Limits to function as well as a general risk of corrosion is to be expected for the following types of water:

1. Sea and salt water
2. Chlorinated water
3. Mineral water
4. Treated rain water
5. Treated waste water from domestic waste water systems (grey water)
6. Drinking water with a hardness > 14 °dH* (provide softening systems)
7. Water from domestic wells
8. Low-oxygen water

*> 2,5 millimole calcium carbonate hardness/l

SCHELL recommends commissioning a drinking water analysis before selecting a material type. In special cases, it may be necessary to install other brass alloys. In critical cases, you must consult with SCHELL.

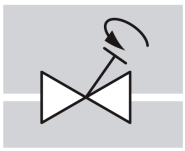


Drinking water quality

2. Maintaining drinking water quality

The way that a drinking water system is operated affects drinking water hygiene. The following points must be observed:

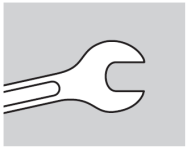
- Install safety fittings according to DIN EN 1717 or DIN 1988 Section 4
- Avoid stagnating water/periods (see information from the German Federal Office for the Environment 2004)
- Maintain water temperatures - avoid heating of cold-water pipes and low temperatures in hot-water pipes (see DVGW worksheet W 551)
- Install fittings with test symbols



Commissioning

3. Commissioning

When commissioning the fittings, make sure that all pipes are flushed through and that there are no dirt particles which could impair the function of the fittings (see DIN 1988 Section 2). All connection points must be subjected to a pressure test while simultaneously checking if the fittings are also leak-tight.
When transferring the installation to the system operator, carry out and document instructions concerning function and any necessary service work (VDI 6023).

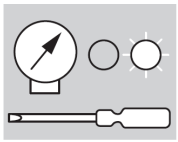


Installation instructions

4. General installation instructions

Drinking water fittings may only be installed by suitable professionals. The right tools (wrench, screwdriver, Allen key) must be used to avoid damaging surfaces. Do not apply any excessive force to the components during installation (Code of Practice). Use approved sealing materials if hemp connections are created. There must be no excessive force allowed to build up on connection points when applying hemp. Secure the fittings (if relevant) at the flats provided. Stress from the pipe systems may not be transferred to the fittings.

We refer to the fact that SCHELL fittings contain silicone seals and grease. For this reason, the fittings are not approved for use in lacquering/painting businesses.



Service work

5. Service instructions

Fittings and their components are subject to natural wear, like other mechanical components. Sealing elements are particularly affected, especially those that should be replaced at regular intervals on systems with a need for high operational reliability (clinics) or a high degree of use (public facilities).

Sealing devices such as backflow preventers, etc. must be inspected according to DIN 1988 Section 7 at the stated intervals, and replaced if necessary.

Maintenance instructions

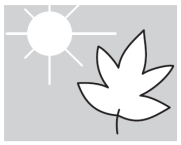
6. Maintenance instructions

Only treat and clean chrome surfaces and brass components with mild detergents.
Do not use any cleaning agents or disinfectants that are abrasive, scouring or contain alcohol or acid. Do not allow components to come into contact with aggressive media (e.g. silicone, ammonia, nitrates, acids, PU foam, etc.). Do not clean with steam-jet units.

Environmental influences

7. Protect against external influences

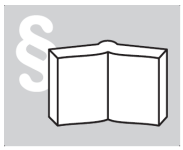
The surfaces of fittings must not be subjected to any aggressive environmental influences. External influences from atmospheres created by the sea or thermal baths/spas or outdoor installations can negatively affect the surface quality of components.



Environment

8. Environmental protection

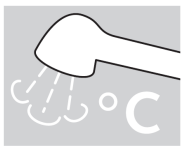
SCHELL uses only materials that do not have any negative effects on drinking water quality. All production processes are designed to conserve resources. Furthermore, brass as a material is easily recyclable. The plastics used should be sorted and recycled. SCHELL fittings are designed to operate in a way that saves water. However, drinking water hygiene requirements are given higher priority.



Norms+regulations

9. Norms and regulations

In all circumstances, the applicable installation norms and regulations, as well as the recognised status of technology, must be observed. Comply with stipulations regarding technical connection from the relevant electricity and water utility companies! Observe the safety ranges (low voltage) for electronically controlled fittings. Make sure that external power sources and magnetic fields do not negatively impair the function of the electronic controls.
Adhere to SCHELL installation manuals and operating instructions.



Hot water temperature

10. General operating instructions

Fittings and installations must be planned and installed in such a way as to avoid any scald hazard from hot water.