

HUBER competence in stainless steel All around the manhole



Certainly the right choice!

➤ HUBER stainless steel manhole covers.
The best solution for every application.



SD 1

Weatherproof HUBER stainless steel square manhole covers. Standard models available, with the options of an air vent, insulation, or insulation and air vent.



SD 2

Weatherproof HUBER stainless steel round manhole covers. Standard models available, with the options of an air vent, insulation, or insulation and air vent.



SD 3*

Weatherproof with additional security HUBER stainless steel square manhole covers. Standard models available, with the options of an air vent, insulation, or insulation and air vent.

* security tested by TU Karlsruhe



SD 4*

Weatherproof with additional security HUBER stainless steel round manhole covers. Standard models available, with the options of an air vent, insulation, or insulation and air vent.



SD 5

Watertight (up to 1 m water gauge) HUBER stainless steel square manhole covers. Standard models available with the option of insulation.



SD 6

Watertight (up to 1 m water gauge) HUBER stainless steel round manhole covers. Standard models available with the option of insulation.

* security tested by TU Karlsruhe

➤ Manhole cover SD7 for flush fitting, load tested in accordance with DIN 1229/EN 124: 15 kN, 125 kN, 400 kN, sealable with rubber seal, optionally available for big-volume traffic

Delivery complete with concrete foundation to minimise installation time



SD7 before installation, cast into a sufficiently sized concrete foundation in the factory

Delivery complete with hinged railing as antifall guard



SD7, open cover, folded down railing



SD7 during installation



SD7, open cover, folded down railing, fall protection on four sides



SD7 after installation into the driveway



Manhole cover SD7.R, round design, class D400

➤ Installation examples



➤ Safer personnel with HUBER Safety Access Systems



SIS 2
Safety climbing ladders with integrated guard rail and hinged landings



SIS 2/3
Fall arrestor type S5b with safety traveller, approved for a weight of 136 kg



SIS 2
Safety climbing ladder with integrated guard rail and backrest



SIS 2
Safety climbing ladder with integrated guard rail and insertable pivotable entrance aid



SIS 1
Safety climbing ladder, 300 mm width, with collapsible hand post



SIS 1
Safety climbing ladder, 300 mm width, with fold-back/extensible entrance aid

►► Correct handling of stainless steel products

HUBER stainless steel products are carefully manufactured under precisely the right conditions for the material. The final pickling bath treatment and subsequent passivation ensures that each product receives the best possible protection against corrosion. It is however essential that this protection is not damaged by improper storage or handling in transit or on site.

►► Don'ts

Stainless steel must not come into contact with other metal. Do not ...

- store with other metals (storage platforms, scaffolding, tools).
- fix stainless steel with fixings of dissimilar materials (galvanised nuts, brackets).
- attach stainless steel products with other metals directly (pipelines).

Stainless steel must not be treated improperly. Do not ...

- clean stainless steel with carbon steel brushes.
- expose stainless steel to high concentrations of chlorine.
- allow stainless steel to be "sprayed" when grinding (always cover up).
- use grinding discs containing iron.
- carry out thermal or mechanical treatment without subsequent pickling and passivation.

►► Dos

Avoid "cold welding", caused by fixing stainless steel of the same grade. Do ...

- use screws made of 1.4301 (304) and nuts made of 1.4571 (316).
- use suitable lubricants (approved for drinking water where applicable).

Separate stainless steel from other materials electrically. Do ...

- use synthetic gaskets, washers and sleeves.

Connections on site should be preferably bolted. If on site welding cannot be avoided, it should be carried out correctly. Do ...

- use the correct welding supplements.
- use only TIG welding with filler rod for one sided butt welding.
- use MIG or electric arc welding only for two sided butt welding.
- always pickle the surface with a suitable compound after welding.
- allow passivation by flushing the surface with water after pickling.

When setting in concrete. Do ...

- use stainless steel wall ducts.
- allow for different rates of thermal expansion.

Careful treatment of the surface. Do ...

- use only suitable cleaning materials and always flush afterwards.
- use a protective covering when burying stainless steel in ground containing iron.

Properly treated stainless steel does not require any further corrosion protection. However, if the surface must be painted for aesthetic reasons, do ...

- use a suitable primer.

Only with your cooperation, to ensure correct storage and installation, can we guarantee you the best from our stainless steel products. In doing so, you will also promise the operator maintenance and trouble free operation for years.

Contact us and make the change to Stainless Steel!

➤➤ Manhole safety

HUBER Safety Access Systems for supply and disposal structures meet

requirements – laws – standards.

Safety climbing devices are always required for the safe inspection of manholes or structures:

- Safety climbing ladder
- Safety climbing device
- Safety guard rail
- Step irons
- Step pockets

Relevant standards and regulations:

DIN EN 14396

DIN 24532 „Senkrechte, ortsfeste Leitern aus Stahl“

DIN 18799 part 1 „Steigleitern an baulichen Anlagen“

BGVD 36 „Leitern und Tritte“

BGR 177 „Steigeisen und Steigeisengänge“

Workplaces ordinance

What you should know:

BGR 177

Material:

Due to the danger of ignition sparks that may be produced when aluminium meets rusty iron (aluminothermal reaction) the use of aluminium for step irons is not permissible in explosive areas of zone 0 and 1. Explosive areas of zone 1 are for example enclosed sewers and their entrance points (manholes). What applies to step irons, also applies to safety climbing ladders and safety climbing devices. Therefore: **stainless steel only.**

Every climbing system, whether safety climbing ladder or safety climbing device, is a statically loaded part subject to weakening through corrosion. Therefore: **stainless steel only.**

➤➤ HUBER stainless steel safety climbing systems meet the requirements, standards, laws.

BGR 177

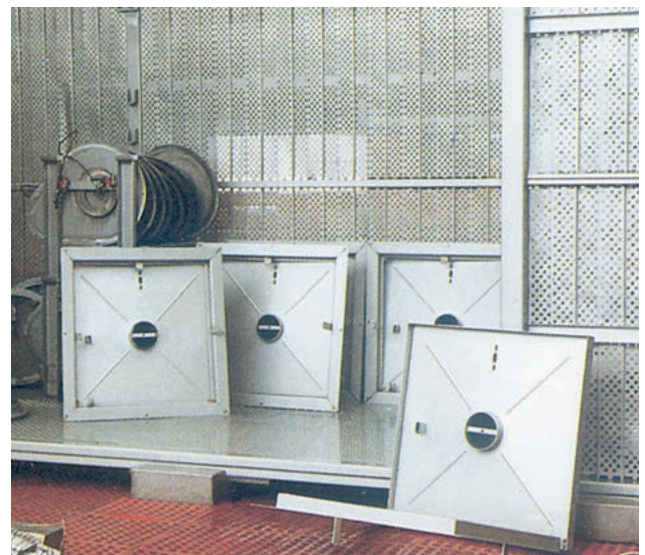
6.1 Pole step corridors must have a handhold at their exit to provide for safe entry and exit.

6.2 As far as operationally possible, pole step corridors longer than 5 m (rising height) must be equipped with devices that protect personnel against falls from a height.

BGVD 36

15 (4) As far as operationally possible, climbing ladders with a theoretical fall height of more than 5 m must be equipped with devices that protect personnel against falls from a height.

HUBER offers such protection with the HUBER safety guard rail and safety climbing device.



We promise that all stainless steel products leaving our factory have been acid-treated for corrosion protection.

➤➤ HUBER STAINLESS STEEL = Safety for personnel & Security for investments

➤ All around the prefabricated manhole



FSG 1
Prefabricated manhole during installation



FSG 1
Prefabricated manhole installation



FSG 1
Prefabricated manhole with entrance door type TT2.1

►► Installation examples



SD 1

Rectangular manhole cover with air vent



BAK 1

Ventilating chimney with odour filter



BAK 1

Ventilating chimney with airlifter

►► HUBER competence in stainless steel

➤➤ Special design



SD 2.2
Two-part manhole cover with dismountable cross bar



SD 1
Rectangular manhole cover with crown cover



SD 1.2
Two-part manhole cover for stairway, railing as antiffall guard



SD 1
Manhole cover SD 1, rectangular, with window

➤➤ Prefabricated stainless steel manhole covers save costs



SD 1
Manhole covers, airport Leipzig

➤➤ Available from stock



HUBER manhole covers meet any requirements:

- in accordance with DIN, BGV and BGR
- correct installation by trained engineers if required
- easy to handle
- weatherproof, watertight, secure, odourtight, load bearing
- technical advice service with long experience

HUBER stainless steel products are the perfect solution for municipal and industrial water supply and wastewater treatment applications. So, you should choose a material that satisfies the highest needs:

- Unrivalled product life
- Maximum corrosion protection through acid treatment in a pickling bath and passivation
- Design assurance and cost advantages with standard models
- Hygienic conditions on the highest possible level provide safety for men and environment.

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Manhole Covers
PG 1