

ORIGINAL OPERATING INSTRUCTIONS

System:

- Clamping lever with internal thread 06454-02, clamping lever with external thread 06464-02
- Sealing and shim washer 07300-03



Intended use:

The clamping levers with internal and external thread 06454-02, 06464-02 in combination with the special sealing washer 07300-03 are primarily used on machines or systems for clamping or rapidly securing and positioning components where special requirements for hygiene and easy cleaning are in place. Any use that deviates from the stated possible uses is considered improper and is not permitted.

The threaded pin or the tapped hole for mounting the clamping levers must be in an enclosed installation space (see Fig. 1 and 2).

In its initial state, the lever can turn freely and has no connection to the clamping point. Clamping or loosening can only be carried out by pressing the lever down to engage the internal toothing. A spring returns the grip to the start position upon release.

Fig. 1:

Clamping lever with internal thread 06454-02

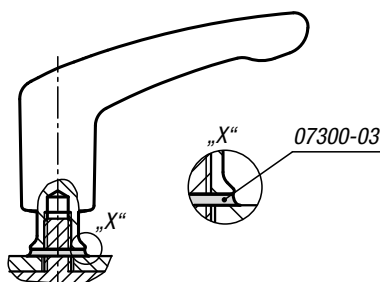
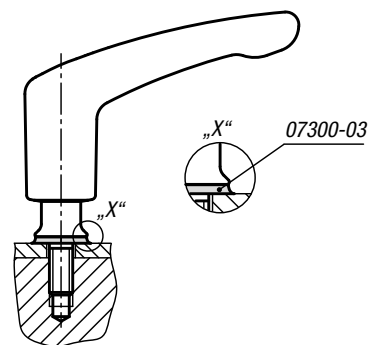


Fig.:

Clamping lever with external thread 06464-02



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Operating conditions

Sealing material temperature range:

- 75 EPDM 295 (black): -40°C to 150°C
- 70 EPDM 253815 (white): -40°C to 150°C
- 75 FLUOROPRENE® XP (blue): -15°C to 200°C

Table 1: Sealing material chemical resistance

Medium	°C	XP	EPDM
Butyl alcohol	60	✓	✓
Aqueous acetic acid, 25 to 60%	60	✓	✓
Fats, mineral, animal or vegetable	80	✓	X
Methanol	60	✓	✓
Caustic soda	20	✓	✓
Diluted nitric acid	80	✓	O
Water	100	✓	✓
Water vapour	130	✓	✓
Aqueous hydrogen peroxide	20	✓	✓

Excellent ✓
Moderate O
Unsuitable X

Please note that the material selected for the clamping lever shaft seal and the sealing and shim washer should be identical.

The use of different sealing materials is only permissible if both material properties fulfil the conditions of use.

Installation and assembly instructions

The hygienic properties are only achieved by correct assembly, which can be found in the following installation and assembly instructions.

The following points must be observed when planning and installing the clamping levers in combination with the sealing and shim washers:

An appropriate installation position should be selected to avoid horizontal surfaces from which liquids cannot drain off by themselves. If this cannot be avoided, such surfaces must be dried manually (see the chapter on cleaning and disinfection).

Make sure that the mounting area provides sufficient free space for cleaning.

To achieve the required hygienic sealing, the mounting surface for the clamping lever must be smooth and even, e.g. stainless steel with a surface finish of $Ra \leq 0.8 \mu m$. In addition, the tapped holes or threaded pins must be aligned at right angles to the mounting surface. The sealing face of the sealing and shim washer must also lie completely and fully on the mounting surface. For through holes, observe the maximum diameter specified in Table 2.

It is imperative that only the corresponding sealing and shim washer be used for the respective clamping lever thread size. The required information for the appropriate component selection can be taken from the following table.

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Table 2: Component selection

Clamping lever thread sizes	Maximum diameter of through holes [mm]	Order numbers for the Hygienic USIT® sealing and shim washers
M4	4,5	07300-03.041, 07300-03.042, 07300-03.044
M5	5,5	07300-03.051, 07300-03.052, 07300-03.054
M6	6,6	07300-03.054, 07300-03.062, 07300-03.064
M8	9	07300-03.081, 07300-03.082, 07300-03.084
M10	11	07300-03.101, 07300-03.102, 07300-03.104
M12	14	07300-03.121, 07300-03.122, 07300-03.124
M16	18	07300-03.161, 07300-03.162, 07300-03.164

Dirt can impair and even prevent the proper sealing effect. Installation must only be carried out on clean surfaces. All contact faces of the seal point (mounting face, clamping lever collar, sealing and shim washer) must therefore be checked for cleanliness before mounting and cleaned if necessary.

General pre-assembly:

Clamping lever with internal thread 06454-02:

By the clamping lever with internal thread, the sealing and shim washer 07300-03 is first placed over the threaded pin onto which the lever is to be mounted. The clamping lever can then be screwed onto the threaded pin. The threaded pin should be made from stainless steel. Make sure that the pin is of a suitable length, so that the seal can lie flat on the mounting surface and the face of the lever collar when the lever is screwed down.

Clamping lever with external thread 06464-02:

By the clamping lever with external thread, the sealing and shim washer 07300-03 is first placed on the mounting surface over the tapped hole before screwing the clamping lever through the washer into the hole. Make sure that the tapped hole is deep enough, so that the seal can lie flat on the mounting surface and the face of the lever collar when the lever is screwed down.

When installed correctly, the circumferential sealing bead of the sealing washer is pressed elastically outwards and seals against the collar of the clamping lever. The flush seating as well as the circumferential contact of the seal should be visually checked and realigned if necessary.

After installation or before commissioning, the complete system should be cleaned/disinfected in accordance with the cleaning and disinfection instructions.

If a fitting component is damaged, it must be replaced immediately.

Cleaning and disinfection

General observations:

For cleaning, all external surfaces must be accessible and cleansed. Do not use cleaning tools that could damage the stainless steel surfaces or the seal. These include among others, sharp and hard tools such as steel brushes. High-pressure cleaners may only be used if damage to the system and impairment of the sealing effect can be ruled out.

Cleaning agent recommendations:

The cleaning agents should be selected according to the materials used and should not negatively affect or damage them. Alkaline cleaning agents are recommended for wet cleaning.

The resistance of the sealing materials can be verified by referring to the attached guideline values (see Table 1). The specific cleaning instructions as stated by the cleaning agent manufacturers regarding use, concentration etc. must be observed.

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Disinfectant recommendations:

If necessary, the system can also be disinfected. The disinfectants should be selected according to the materials used and should not negatively affect or damage them. The manufacturer's information regarding use, exposure time, etc. must be observed when using a disinfectant.

Recommended cleaning methods:

The system can be dry and wet cleaned. The choice of method depends on the operational conditions and cleanliness requirements. Dry and wet cleaning can also be combined.

After completion check the cleaning results. If the desired cleanliness has not been achieved, another cleaning process will be required.

Dry cleaning:

We recommend removing coarse, dry dirt with special vacuum cleaners and/or with the aid of suitable cleaning tools (note the instructions above) until the desired cleanliness is achieved. Please note that hard dirt particles (e.g. sand) can damage the surfaces during mechanical cleaning. Therefore, care should be taken to ensure that no surfaces are damaged and no dirt is introduced into any sealing crevices.

Important:

To clean the fixed shaft, lower and raise the clamping lever several times during the cleaning process.

Wet cleaning:

We recommend rinsing the entire system with clean water first to remove the coarse and water-soluble dirt. Then apply the cleaning agent mixture over the entire surface. Follow the manufacturer's instructions regarding mixing ratio and exposure time. To loosen and remove stubborn dirt, cleaning tools (note the specifications made for this above) can be used to mechanically assist the cleaning operation. Work carefully so that no surfaces are damaged and no dirt is deposited in any capillary gaps. Then rinse all surfaces with clean water until all dirt and detergent residues are completely removed.

Note: We recommend using potable water for the last rinse cycle.

Then dry the system using a suitable method such as air drying.

Important:

To clean the fixed shaft, lower and raise the clamping lever several times during the cleaning process.

Disinfection:

If necessary, the system can be disinfected after cleaning. Follow the disinfectant manufacturer's instructions regarding use, exposure time and other measures.

All surfaces that cannot guarantee autonomous drainage of liquids must be checked for residues after drying and dried again manually if necessary.

Important:

To disinfect the fixed shaft, lower and raise the clamping lever several times during the disinfection process.

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Cleaning and disinfection intervals:

It should be noted that the cleaning intervals may vary depending on the application conditions (e.g. temperature, product dimension and cleaning media). This can only be determined empirically on site.

The cleaning interval should be based on the plant-specific cleaning schedule, which is individually configured to meet the hygiene requirements. The same applies to the disinfection intervals.

Maintenance:

To maintain the required levels of hygiene, the entire system must be regularly inspected and maintained. Ageing reduces the sealing properties of the sealing material. The service life of all components also depends on the cleaning agents used, the temperature range, the frequency of mounting operations and the number of actuation cycles.

We therefore recommend checking the seals in particular for damage at least once a week. In hygienically sensitive areas and when used outdoors, shorter inspection intervals may be necessary.

The respective components must be replaced if damaged.

The installation and assembly instructions must be observed when replacing one or more components.

Note:

The shaft seal on the thread insert cannot be replaced. If this is damaged, the entire clamping lever must be replaced.

Note:

If the stipulations of these operating instructions are not observed, the hygienic properties of the clamping levers can, to some extent no longer be fulfilled.

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