



# Installation and Operating Instructions

WC-flusher for concealed installation NILplus 2001UP with self-cleaning jet-bore.



Cover plate no. 2500

## 1. Article numbers and scope of delivery

### 1.1 Description

Toilet-flusher for concealed installation, model: **NILplus 2001 UP**

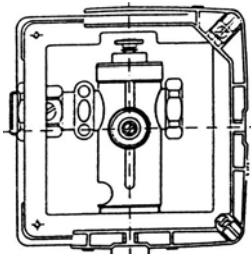
### 1.2 Material for 1<sup>st</sup> stage of delivery, order-no. 2001UP:

Concealed flusher with lockable connection fitting  $\frac{3}{4}$ ", optionally with left- or right side connection, factory setting with left side-connection, outlet screwing for flush-pipe  $\varnothing 28 \times \varnothing 26$  mm.

Sound-proof wall installation case 162 x 162 x 73 mm with 2 screws DIN 96 VZ 5 x 40 and 2 dowels S6 for installation to the wall or in pre-wall mounting elements.

Concealed flush-pipe  $\varnothing 28 \times \varnothing 26$  mm, suitable for inlet fitting  $\varnothing 45$  mm for wall-hung toilets (order-no. 248/2) or pedestal toilets (order-no. 248/4), adjustable height 600  $\pm$  20 mm. Polystyrene insulation and 1<sup>st</sup> stage cover plug for flush-pipe.

Installation and operating instruction.

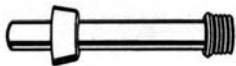


1st stage of installation set with included concealed flush-pipe order-no. 2001UP

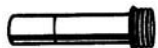
### 1.3 Material for 2<sup>nd</sup> stage of delivery, order-no. 2500:

Wall-cover, brushed stainless steel, with chrome-plated push-button. Mounting frame with 4 screws DIN 84 A2 M4 x 80, installation and operating instruction.

Order-no. 2500-51, 2500-52, .....(wall-cover and push-button coloured versions).



Inlet fitting for pedestal toilets order no. 248/1



Inlet fitting for wall-hung toilets order-no. 248/2

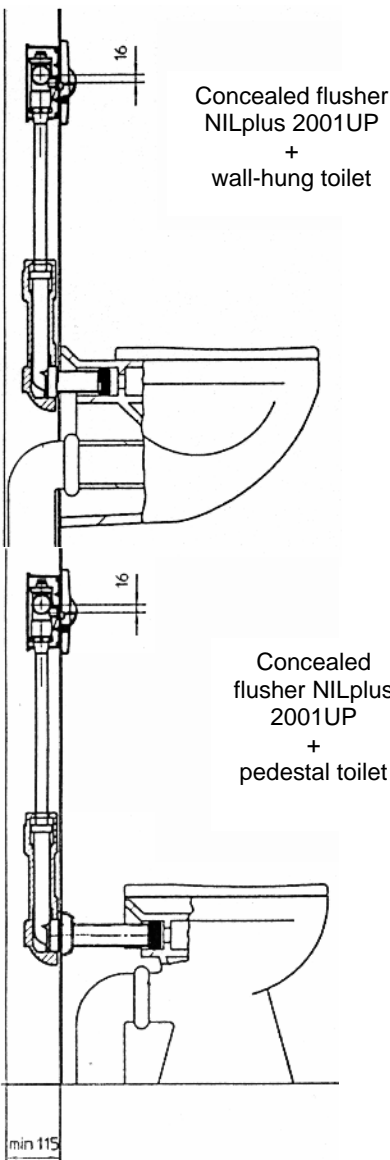
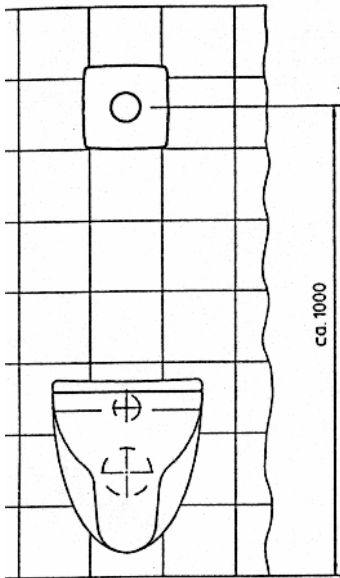
## 2. Technical data

Connection thread size:	DN 20 $\frac{3}{4}$ "
Outlet:	Solder-connection according to DIN 3265 for flush-pipe $\varnothing 28 \times \varnothing 26$ mm.
Flow-pressure:	1,2 to 4,0 bar
Hydraulic specifications:	According to DIN 3265 Test registration no. DIN DVGW 449
Noise specifications:	According to DIN 4109 Test registration no. PA-IX 2716 / I Group of fittings: I



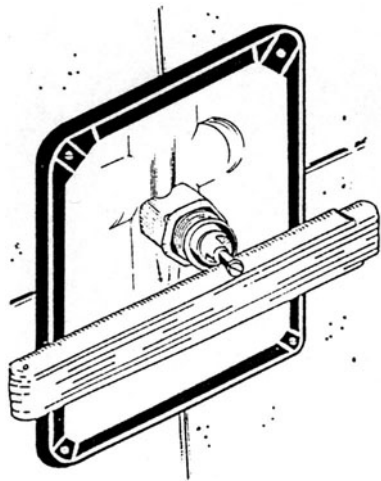
### 3. Installation of 1<sup>st</sup> stage material

3.1 Installation of the 1<sup>st</sup> stage material in wall niches and pre-wall mounting elements.



- Remove polystyrene cover and protective cap from installation case.
- Put installation case with factory left side-set connection into the wall niche. If the supply pipe comes from the right side, the lockable connection screwing has to be re-set. Connect the installation case to the wall with two dowels, or fix it within the wall niche with fast-binding cement. Check the horizontal and vertical position of the installation case with a level.
- Installation of the installation case with 2 self-cutting screws (not within scope of delivery) into the pre-wall mounting element plain and horizontal/vertical to the wall. Check arrow-marks on the installation case with a level.
- Connect the outlet screwing with the outlet pipe to the flusher, put flusher into the installation case and connect it to the connection fitting. Make sure that the operating button of the supply-stop is set exactly to the front.
- Connect the height-adjustable concealed flush-pipe to the flusher and position it according to the drawings on the left. Secure the flush-pipe with fast-binding cement or a pipe clamp. Take care of horizontal setting. The protection plug remains on the flush-pipe.
- When checking the supply pipe with a max. pressure of 16 bar, make sure the supply-stop valve is closed. Only open it when a toilet bowl is installed.
- After installation of the installation case, please put the protective covers back on the installation frame.
- Close wall openings and prepare everything for the plasterer.

## 4. Final installation and operation

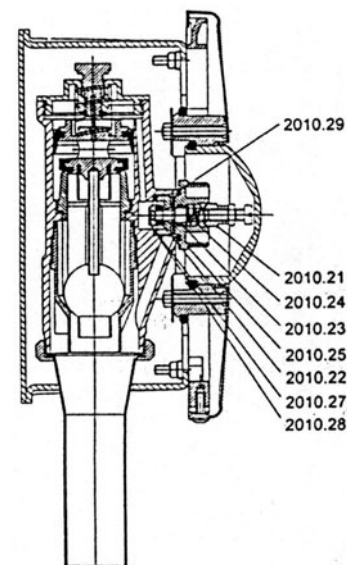
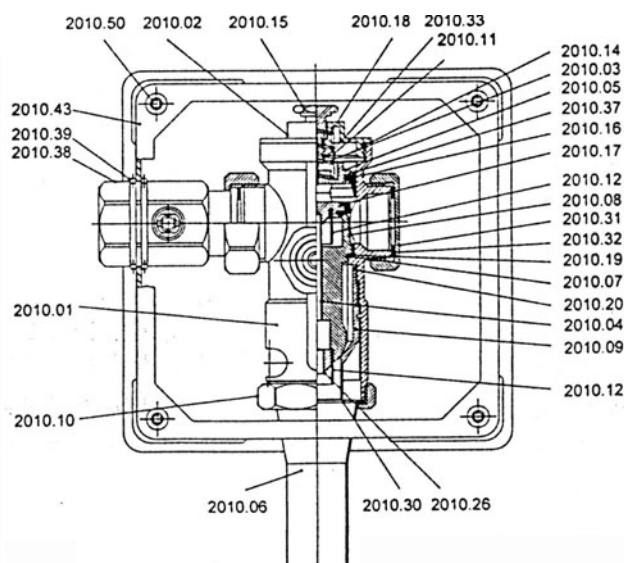
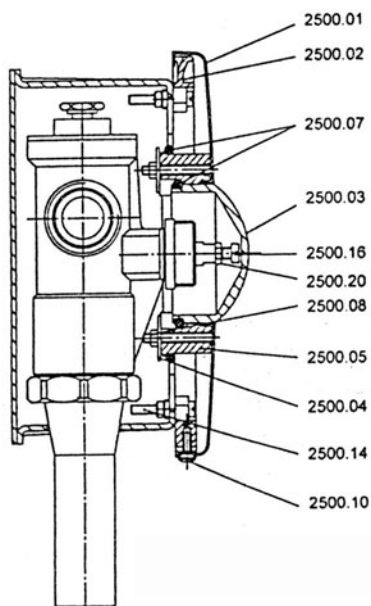


- Remove the protective plug from the flush-pipe, cut the inlet fitting to size to the toilet bowl and install it, fix the WC-connector and install the toilet bowl.
- Remove the polystyrene cover from the installation case.
- Fix installation frame with 4 screws.

- Screw the operation screw into the push-button of the flusher, adjust and cut it to size (if necessary), secure it with hexagonal nuts. NOTE: The head of the screw has to be plain to a horizontal set metric measure (as shown on the picture on the right).
- Open the supply-stop valve. Hang-in the wall cover and fix it from the bottom side with a screw. The push-button should be free to move about 2 mm to each side.

## 5. Operating principle

Pressing the push-button (2500/3) and thereby pressing the push-rod (2010/21) against the auxiliary valve spring (2010/24), the auxiliary valve (2010/27) opens through the release channel (I) the piston chamber (IV) above the piston (2010/5). The piston lip seal seals the piston chamber, initially under pressure. The release water flows through the release channel (II) in direction of the pressureless side of the flusher. The piston (2010/5) is released and is lift-up from the water pressure towards the piston spring (2010/11). The flushing process has now begun.



When releasing the push-button (2500/3), the auxiliary valve (2010/27) closes the piston chamber again. The piston chamber now refills through the ring channel (III), located between the piston drilling and piston rod (2010/3), while the piston (2010/5) is pressed in direction of the valve seat (V). The piston closes the valve seat, within the piston chamber the water pressure of the supply pipe is built up; the flushing process is now complete.

## 6. Setting of flush volume and flush rate

Factory pre-setting of flush rate: 1,0 l/sec. (1,3 l/sec.) at a flow-pressure of 2,5 bar (4,0 bar).

To **increase** the **flush rate** or adjust to a lower flow-pressure:

Turn the throttle sleeve (2010/9) with the provided allen-key or a screwdriver up to ¼ of a turn clockwise.

To **decrease** the **flush rate** or adjust to a higher flow-pressure:

Turn the throttle sleeve (2010/9) with the provided allen-key or a screwdriver up to ¼ of a turn counter-clockwise.

Factory pre-setting of the flush volume 6,0l – 6,5l at a flow-pressure of 2,5 bar and pushing the push-button for 1 sec.

To **increase** the **flush volume** turn the limitation screw (2010/15) counter-clockwise. ½ of a turn causes an increase of the flush volume of approx. 1 litre.

To **decrease** the **flush volume** turn the limitation screw (2010/15) clockwise. ½ of a turn causes a decrease of the flush volume of approx. 1 litre.

Adjustment of the flush volume by pressing the push-button for a longer/shorter time.

## 7. Spare parts

Article description	Article-no.
<b>Complete replacement flusher</b>	2010/1K
<b>Complete head section</b> (head piece 2, piston pin 3, upper section seal 14, limitation screw 15, o-ring for limitation screw 18, securing disc 33)	2010/2K
<b>Complete piston</b> (pressure relief pipe 4, piston 5, piston nipple seal 12, piston lip seal 16, piston seal 17, piston seal circlip 37)	2010/5K
<b>Complete auxiliary valve head section</b> (pressure rod 21, auxiliary valve seal 22, o-ring for pressure rod 23, auxiliary valve spring 24, auxiliary valve head section 25, auxiliary valve 27, auxiliary valve head section seal 28 and 29)	2010/25K
<b>Set of spare parts</b> (seals and springs)	2010/72
<b>Set of seals</b>	2010/73
<b>Boxed assortment of spare parts</b> (1x complete head section 2010/2K, 2x complete piston 2010/5K, 1x set of spare parts 2010/72)	2010/74K

## 8. Trouble-shooting

8.1 Flusher runs continuously: Clean head piece (2010/2K) and piston (2010/5K) thoroughly or completely replace these parts.

8.2 Flusher does not run: Clean or replace piston sleeve (2010/16).

8.3 Flush volume too small at correct flow-pressure: Cleaning of head piece (2010/2K), piston (2010/5K) and throttle sleeve (2010/9K).