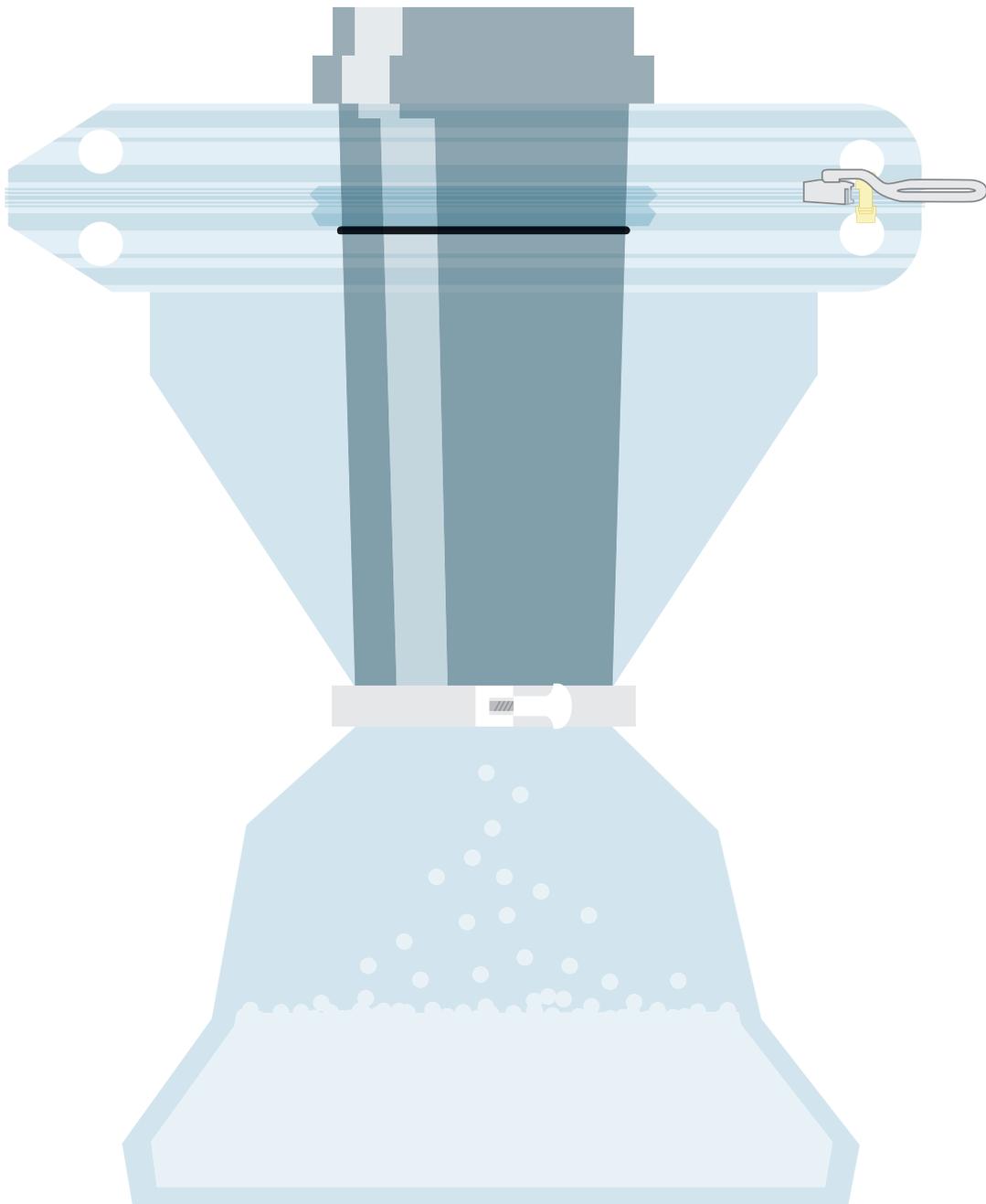


# OPERATING MANUAL

Flecotec MTS (Material Transfer System)



# Flecotec MTS (Material Transfer System)

## GENERAL INFORMATION:

Flecotec MTS is the latest Flecotec concept for safe charging/discharging of Flecozip charge bags with powder, granulate, tablets, etc.

This concept ensures that the Flecozip profiles do not come into contact with the product during any transfer process steps.

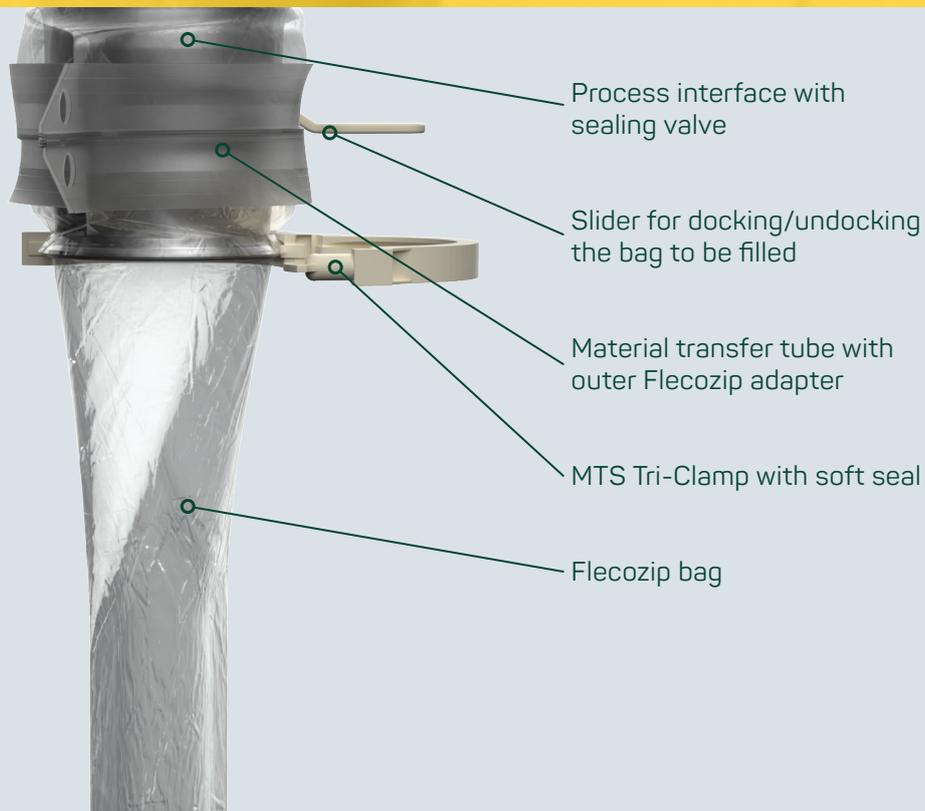
The number of transfers depends on the product. If used correctly, up to 15 cycles can be realized with one Flecozip adaptor. If a Flecozip profile no longer runs "smoothly", it must be replaced immediately.



## TECHNICAL DATA:

- Dust emission values in OEB 5 level (0.1 – 1.0 µg/m<sup>3</sup>)
- Available sizes: MTS Flecozip adaptor with zip connections for DN: 4", 6", 8" + reducing adaptor 6"/4", 6"/8". Material: Stainless Steel 1.4404
- Available sizes Flecozip charge bag: 5 / 10 / 15 / 25 L
- Material Flecozip charge bag: Flecofilm DL (Double Layer PE, antistatic)
- Material MTS transfer tube: Stainless Steel 1.4404, HDPE
- Material transfer ring: HDPE
- Material MTS Tri-Clamp: PA (Nylon)
- Internal pressure max. +200pa = 2mbar

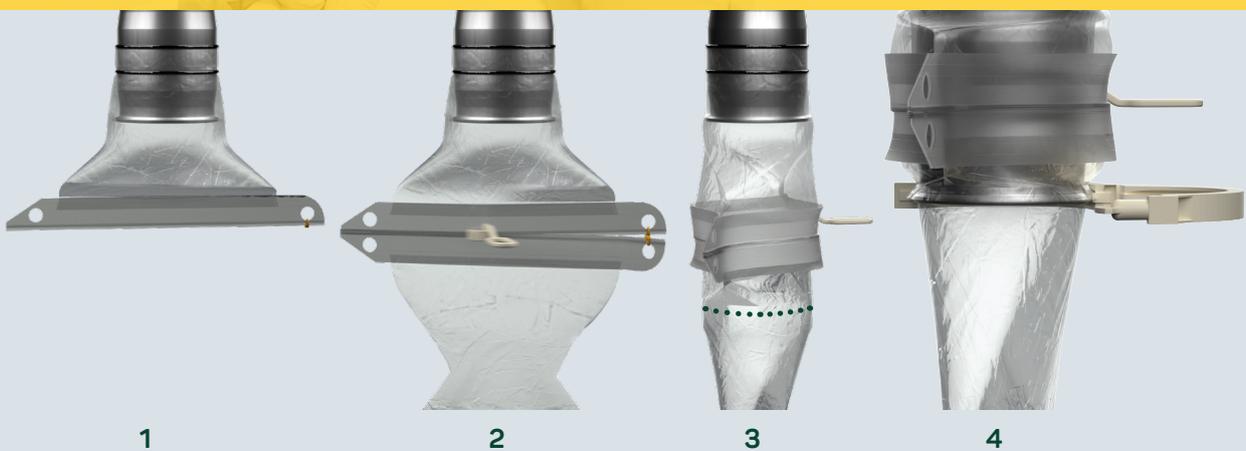
## CHARGING A FLECOZIP BAG:



The Flecozip adapter is pulled over the transfer tube and fixed/sealed with two O-rings. The photo **1** shows the two middle grooves used for this fixation.

To charge the bag, the Flecozip bag and the adaptor are docked together (**2**), opened and pulled over the transfer tube up to the marks visible on the MTS bag neck (**3**).

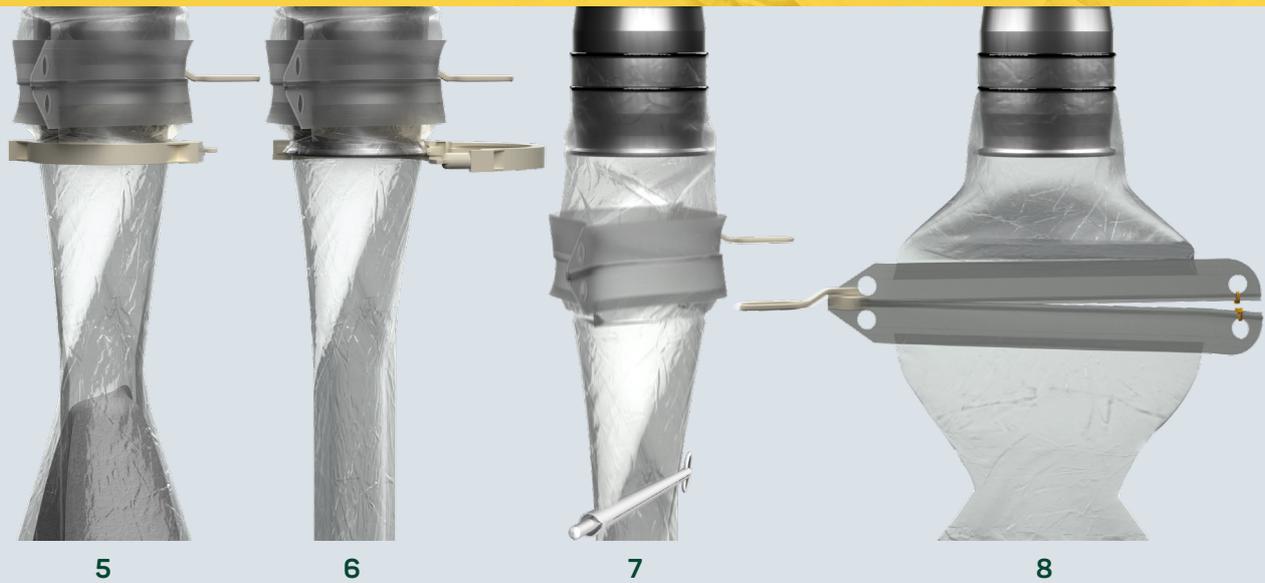
To avoid any product dust coming in contact with the zip profiles during the transfer process, the bag neck is sealed against the transfer tube with the MTS Tri-Clamp (**4**) (screw position 90° offset from zip).



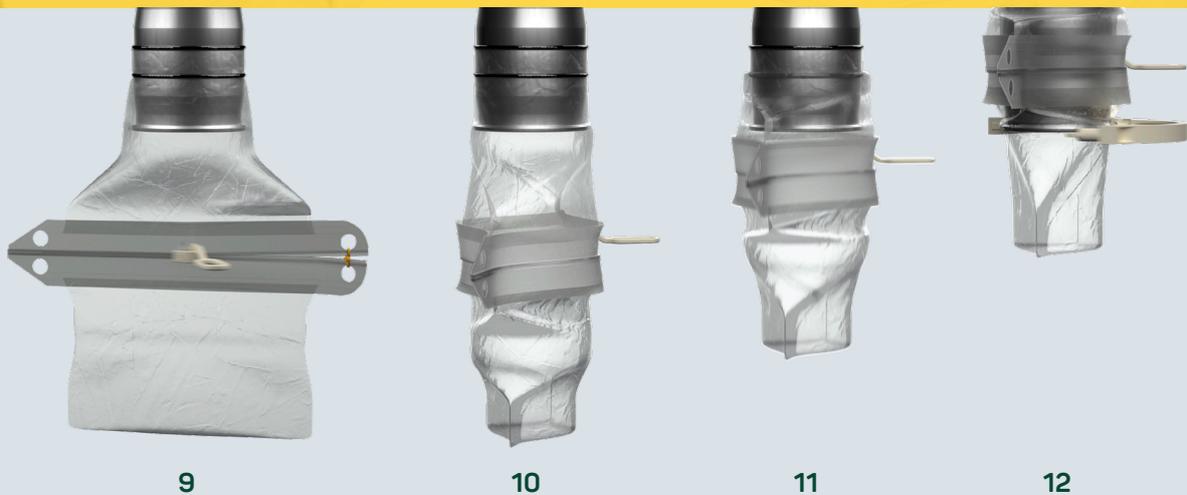
After charging (5) and closing the valve above the transfer tube, any residual material in the tube is removed by gently tapping the transfer tube with, for instance, a plastic hammer.

**Note: The above-mentioned valve is essential for proper function!**

The tri-clamp is opened (6) and the bag pulled down. The bag is then secured by an additional sticklock, which is positioned on the bag neck in the area where the marks are (7). The filled and secured bag can then be undocked (8) and transferred to an **MTS discharge unit**, where the bags can be discharged with the same dust emission level. The slider, tri-clamp and sticklock can be used multiple times, for example, for a complete campaign.



To avoid any material falling into the zip area of the closed adaptor when a Flecozip bag is not docked, a dummy bag can be docked (9), the zips opened (10), then pulled over the transfer tube (11) and secured by an MTS Tri-Clamp (12).



## DISCHARGING A FLECOZIP BAG



When using the MTS system with an outer Flecozip adapter, the adapter is pulled over the transfer tube and fixed/sealed with two O-rings. The O-ring welded in the adapter must be placed in the lower of the two middle grooves and the other O-ring positioned in the uppermost groove of the transfer tube. Alternatively, a transfer tube version is available with an inner liner in the Flecozip adapter (13). If the bag is suspended during discharge, the sticklock **must** be positioned **50 mm** above the transfer tube (16). This ensures enough film material is available to manually remove any residual product in the folds after the bag is emptied. For bag discharging, the transfer ring is first pushed over the bag neck, close to the level of the sticklock. After aligning the zips in a parallel, horizontal position, the zips are docked together (14), opened (15) and then pulled over the transfer tube (16).



**Important: Please always pull, not push, the zips over the transfer tube. Otherwise, the zips could potentially become deformed which could lead to uncontrolled opening of the system.**

The transfer ring is then pushed into the tube inlet and fixed in place with an MTS Tri-Clamp (screw position 90° offset from zip) (17). This folds the bag neck into the tube inlet and seals it, ensuring a correct material flow.

The sticklock is then removed to start the material flow (18).

**After material transfer, any residual material within the film folds must be removed manually and returned to the process.**

The tri-clamp can now be removed and the transfer ring carefully pushed up, while keeping the folded bag neck in position. The pushed-up transfer ring allows better access to the folded bag neck to **enable final removal of any material residues (19)**.

**It must be ensured that there is no visible material remaining in the bag film folds to guarantee correct implementation of the next discharging process.**

The bag can then be undocked and disposed of (20). The slider, tri-clamp, transfer ring and sticklock can be used multiple times, for example, for a complete campaign.



## ADAPTER CHANGE

The number of transfer processes depends on the product! If handled properly, up to 15 cycles can be executed with one Flecozip adapter. The adapter must be replaced after 15 cycles. Otherwise, the zip profile will become harder and harder to operate properly and this could even lead to an incorrect docking process.

The adapter to be replaced is attached to the MTS transfer tube with two O-rings (21). In the first step, the outer O-ring is pulled out of the groove and then positioned outside the adapter over the transfer tube (22). In the next step, the new adapter is pulled over the old one, so that the welded-in O-ring is positioned between the loose O-ring and the old adapter (23). The dummy bag is then docked to the outer, new adapter, the profile is opened and the bag pulled over the transfer tube with the adapter (24/25).



**Important: Please always pull, not push, the opened zips over the transfer tube. Otherwise, the zips could potentially become deformed which could lead to an uncontrolled opening.**

The old adapter can now be pulled off the transfer tube through the new adapter by using the dummy bag (26). The welded-in O-ring of the new adapter slides automatically into the correct groove. The O-ring positioned on the transfer tube is then pulled over the new adapter and positioned in the second, middle groove (27).

The old adapter is now in the dummy bag and this can be undocked and disposed of (28).



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