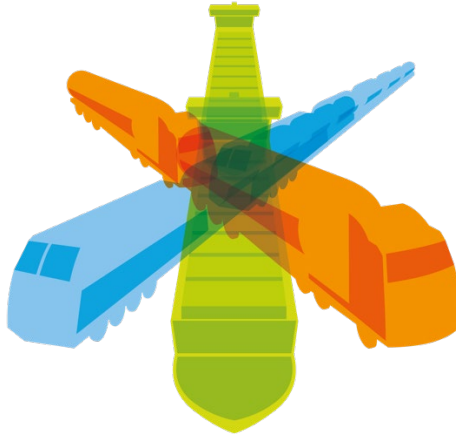




Loading and unloading a silo

Procedure

Loading:

- Use the correct PPE
- Wear a high-visibility vest or jacket
- Report to the gatehouse and have all required information, such as reference numbers, ready.
- Follow the instructions of the on-site personnel.
- Present the cleaning certificate when requested. You will often need to hand over a copy. Carry several copies, as one must also be attached to the consignment note.
- Position the vehicle correctly on the weighbridge and weigh in and out in the same way. If uncoupling, weigh only the load unit.
- Before starting, make sure that the silo container and all its components are not pressurised.
- Do not break any seal without the loader being present.
- When the loader authorises removal of the cleaning seals, remove all of them and replace all seals with the customer seals received after loading.
- Dispose of all broken seals in a suitable waste bin.
- Check that the silo container is completely clean and dry.
- Check that the air line and air distributor are clean and dry.
- Check that the discharge cone is closed correctly and evenly. Use the correct tool to check that the clamps are secure. Do not overtighten them; tight is tight.
- Check that the discharge cone is tightened evenly and that the fluidising ring is fitted. A missing fluidising ring increases the risk of leakage and residual load.



INCORRECT:



The discharge cone is tightened unevenly. Rubber is contacting rubber, so the fluidising ring is missing.

CORRECT:



The discharge cone is tightened evenly and the fluidising ring is fitted.

- Ensure that the outlet butterfly valve is closed and the blanking cap is fitted.
- Keep the windows and doors closed.
- When loading indoors, set the ventilation to recirculate air inside the cab to prevent dust intake. Switch the heater off completely. Dust drawn into the cab will clog the air filter.
- Make sure that you are positioned beneath the correct loading pipe. Always have this verified by on-site personnel.





- When working on top of the silo, comply with the rules for working at height. See Safety during loading and unloading.
- Open the manhole cover only when positioned under the loading station.
- Open only the manhole cover used for loading.
- Prevent items such as pens, Bluetooth earpieces or mobile phones from falling into the silo container. Never carry loose items in your pockets.
- Loading may take place from above or by blowing through the manhole. In exceptional cases, loading takes place through the Storz blanking caps on top of the silo container.
- Always monitor ventilation because of dust and pressure build-up. The silo container must be able to release air.
- Do not allow too much product to enter the manhole. The manhole may overflow and product may remain in the loading bellows.
- Let er goed op dat je niet te veel product in het mangat laat lopen. Het mangat kan dan overstromen en/of er blijft product achter in de laadbalg

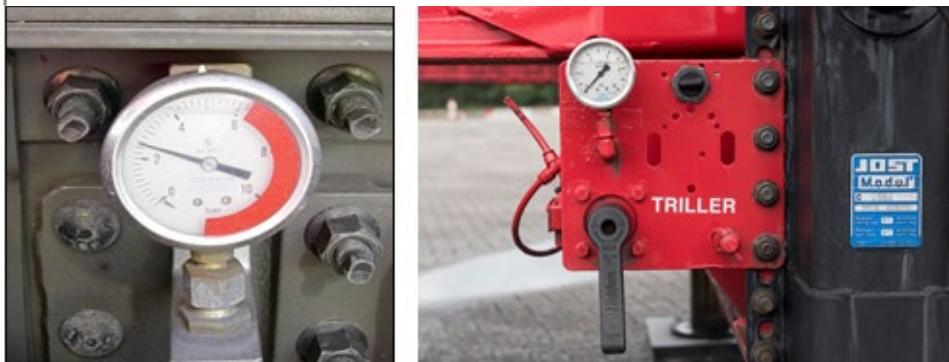


- Proper distribution balances axle loads between truck and trailer. Slightly more may be loaded at the rear, for example 40/60.
- For example, use the second cover from the front and the second from the rear.
- A 50/50 distribution is also possible, using the third cover from the front and the second from the rear.
 - The vehicle combination is usually loaded to its maximum permitted weight, so axle loads must be monitored carefully.



- Maximum axle loads are stated on the registration documents for both tractor and trailer.
- A 50/50 load distribution is also possible by using the third manhole cover from the front and the second manhole cover from the rear.
- A pressure gauge on the drive axle or chassis air-suspension controls may indicate the load on that axle. There are no fixed values; readings differ by truck and trailer make.
- The maximum axle loads are stated on the vehicle registration documents for both the tractor unit and the trailer.

Product sampling is the customer's responsibility. At the customer's request, the driver may take the sample, but this must be reported to the planner.



Position the cover flat and centrally before tightening it crosswise by hand. Do not kick the wing nuts.

- Check whether the twist locks require tightening. The container weight often makes this necessary.
- Seal the load unit.
- Lower the handrail immediately.
- Complete the CMR fully and check the seal numbers.
- Kijk of de twist Locks moeten worden aangedraaid. Door het gewicht in de container is dit vaak het geval
- Important: after loading, ensure that everything is securely closed. Leave the vent valve open to prevent condensation and fit the insect filter during transport.
- Lower the handrail immediately.
- Unloading

If documents are missing, incorrect or doubtful, contact your planner immediately.



Use the correct PPE.

- Wear a high-visibility vest or jacket.
- Follow the instructions of on-site personnel, including weighing and sampling.
- Product sampling is the customer's responsibility. At the customer's request, the driver may take the sample, but this must be reported to the planner.
- Position the vehicle correctly on the weighbridge when full and empty.
- Never remove seals yourself. Remove them only on the recipient's instructions and in the recipient's presence.
- Ask the person assigning the unloading point to record the exact silo number on the CMR and sign it. If nobody is available or willing to sign, contact your planner. Waiting is less costly than unloading into the wrong silo.
- Monsteringen van het product is de verantwoording van de klant. Op verzoek van de klant kan de monsternamen door de chauffeur uitgevoerd worden. Dit moet wel gemeld worden aan de planner
- Preparing for unloading
- Verwijder de verzegeling nooit zelf, maar altijd in opdracht van de ontvanger en in diens bijzijn
- Checks on top

Unloading – supervisor hereby orders to unload the above mentioned product in:

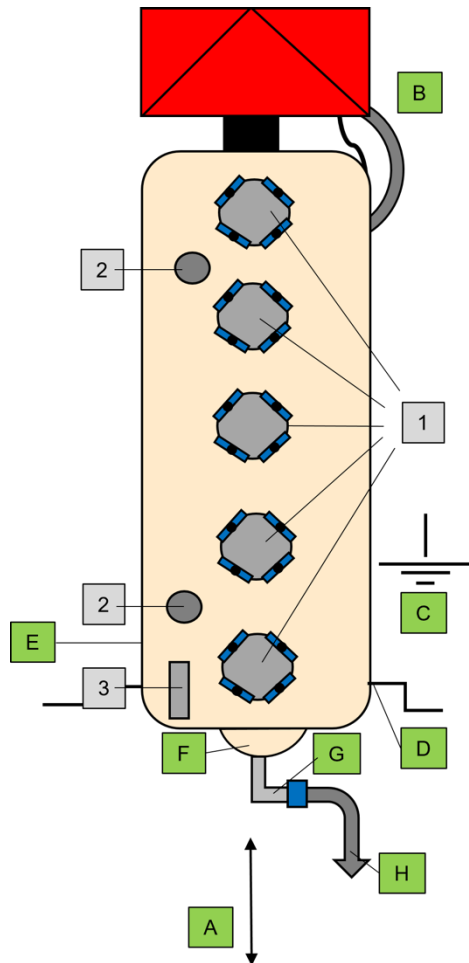
SILO:

SIGNATURE:

Unloading – supervisor hereby signs for giving the order to unload the product in the above mentioned silo and also accounts for giving the driver an instruction which is clear and is not liable for more than one interpretation.



Use the silo key to check that the blanking caps are tightened.



Checks on top

1. Check the gaskets and ensure that the manhole covers are properly tightened.
2. Use the silo key to check that the blanking caps are properly tightened.
3. Check that the vent valve is closed.

Preparing to unload

- A. Ensure sufficient space behind the silo, at least 4 metres.
 - B. Connect the compressor hose and tipping cable.
 - C. Connect the earthing cable.
 - D. Lower the support legs and ensure that the trailer is level.
 - E. Lower the trailer's air suspension.
 - F. Check that the discharge cone is properly tightened.
 - G. Connect the discharge elbow and air hoses.
 - H. Connect the discharge hose.
 - I. Take a "Zen moment".
- Take an extra minute to confirm that everything has been completed correctly.

• Preparing to unload



- Connect the earthing cable.
- Lower the support legs and ensure that the trailer is level.
- Lower the trailer air suspension.



- Take a “Zen moment”.
- Take an extra minute to confirm that everything has been completed correctly.



Check that all hoses, couplings, the discharge elbow and air distribution block are clean.



Check that all hoses and couplings are securely connected and protected against coming loose with clamps or other locking devices wherever possible.

- Always secure the discharge hose, including at the customer’s silo.



- **At some unloading sites, factory air must be used instead of the tractor compressor.**
- Important: some companies use nitrogen (N2). Confirm whether this applies. If in doubt, ask. If the customer cannot provide a clear answer, contact Planning. Never enter the container after unloading; this is life-threatening.



- Before tipping a silo container, always check that the twist locks are secure.
- Place the truck in driving mode and keep it in driving mode during unloading. The method differs by truck type.
- Do not tip the silo container higher than necessary. Many products do not require full tipping, or only when the container is nearly empty.
- In strong winds of Beaufort force 6 or higher, stop unloading and lower the silo container. Inform your planner.
- Never drive with a tipped silo container.
- The tipping cylinder can support the weight of a full silo container only while stationary. The risk of overturning is extremely high. Tipping is permitted only when the tipping chassis is stabilised by the support legs.
- **Remain with the vehicle during unloading so that you can intervene if anything goes wrong.**
Monitor the pressure gauge. If the pressure does not rise, there is probably a leak.
- Important: if a silo container leaks at a manhole cover, NEVER tighten it while the container is pressurised.
- First stop the compressor.
- Then lower the silo container.
 - Release ALL pressure.
 - Loosen the clamps but do not remove them.
 - Move the manhole cover to check whether pressure remains.
 - Only then remove the clamps.
 - Open the manhole cover.
 - Check the gasket and replace it if necessary.
 - Close the manhole cover and tighten the clamps crosswise.
 - Unloading methods for different product groups





Unloading methods for different product groups

Specific unloading methods have been established for different product groups to ensure that the unloading process is carried out as efficiently and quickly as possible. These unloading methods are described in the illustrations below.

PROFESSIONAL DRIVER



Unloading Procedure SILO

Products:
Fish Meal
Poultry Meal

1: Pressure



Step 1: Start with **building up pressure** by running **compressor** and **opening top air valve**.

2: Air Valve



Step 2: **Open the injector air** and the **product valve** and start unloading.

3: Aerator



Step 3: **Open the aerator to stir up** the product to unload. (not continuously open to prevent product to heat up to much.)

4: Cylinder



Step 4: **When backend is empty**, start **tipping** and unload further with use of top air and injector air. Aerator only when needed.

PROFESSIONAL DRIVER



Unloading Procedure SILO

Products: **Plastics**
PVC powder Granulat PE / PET
PP

1. Cylinder



Step 1: Start with **building up pressure** by running **compressor** and **opening top air valve**.
Maximum pressure 1 Bar

2. Pressure



Step 2: **Open the injector air** and the **product valve** and start unloading.

3. Air Valve



Step 3: When **backend is empty** **start tipping** upto **3 cylinders** and unload as normal. To check if empty tip maximum at end of unloading.

If short distance (6 meter) to customer silo, product valve max open.

4. Aerator



No use of Aertor !!!!!



PROFESSIONAL DRIVER



Unloading Procedure SILO

Products:

2 GU	5GU	Microcarb
Stealim	Steamac	Calcium Carbonaat
Kalk	Talk	Krijt

1. Cylinder



Step 1: Start with **tip-ping max cylinder** (5/6 depending on chassis).

2. Pressure



Step 2: Start with **building up pressure** by running **compressor** and **opening top air valve**. Also use Aerator from start. Max pressure depending customer.

3. Air Valve



Step 3: **Open** the **injector air** and the **product valve** and start **unloading**. Open product valve max, injector air should be opened (approx half open) until pressure stays around 1 bar.

At end **close product valve to quart** and let aerator work on product. If you don't get product out, repeatedly let pressure of and start build up from start.

4. Aerator



Step 4: **Aerator open** during unloading process. Valve approx half open during all unloading.

PROFESSIONAL DRIVER



Unloading Procedure SILO

Products:

(Kalk) Steentjes
Carolith
Zware Korrel Producten

1. Cylinder



Step 1: **Tip to max 3 cylinders.**

Start build up pressure can be done at same time.

2. Pressure



Step 2: Start with **building up pressure** by running **compressor** and **opening top air valve**.

Max pressure 1 Bar.

3. Air Valve



Step 3: **Open** the **injector air** and the **product valve** and start unloading. Injector full open, product valve semi open.

4. Aerator



Step 4: **Aerator only when needed.**

Normally only needed with Carolith.



If venting is not permitted, allow for a weight difference of 50 to 60 kg compared with the normal tare weight. Pressurised air is not weightless.

- Have the CMR signed, stating the unloaded weight, waiting and unloading times, and any deviations such as a difference between loaded and unloaded weight.
- Ensure that the CMR is signed at the bottom right without remarks. If remarks are added, report them to Planning while still at the unloading site and await further instructions.
- Switch off the compressor. The truck engine may now also be switched off.
- Lower the silo container.
- Disconnect the tipping plug immediately and stow the cable.
- When venting, comply with the applicable site rules. Venting may not be permitted on the customer's premises, so ask about this when entering the site.
- Vent through the customer's silo only with the customer's permission.
- Disconnect the hoses only when you are certain that no pressure remains.
- Prevent product spillage when disconnecting the hose and discharge elbow. Catch any product that is unexpectedly released in a bucket and dispose of it in the designated waste container.
- Return the trailer's air suspension to the driving position.
- Fully retract the support legs.
- Disconnect and store the earthing cable.
- Before departure, walk around the vehicle and check that everything has been cleared away, stored in the correct location and properly secured. Do not forget your tools.
- If venting is not permitted, allow for a weight difference of 50 to 60 kg compared with the normal unladen weight. Pressurised air is not weightless.



Tipping over a pit, gravity unloading:



This involves risks. Observe the following rules.

- Extend the support legs and lower the air suspension as for normal compressor unloading.
- **Driving in the tipped position is prohibited.**
- Check whether the silo container is pressurised.
- Fully loosen the discharge cone. Start with the upper wing nuts and loosen the lower ones last.
- The product weight may cause the discharge cone to swing backwards when the final wing nut is loosened. Stand beside the discharge cone, never behind or underneath it.
- Before tipping, open at least the front manhole cover.
- **Otherwise, the silo container will implode because of the vacuum created when the load slides down.**
- If product remains stuck, do not continue tipping because too much product may suddenly discharge. Use a shovel or long pole to loosen it. Stand to the side, never behind or beneath the silo container.
- Some product may fall onto the bumper and chassis. Clean everything at the unloading address.
- **If you cannot resolve the situation or believe tipping cannot be done safely, do not proceed and contact your planner.**