

Transport, packaging and handling guideline

This guideline contains general instructions for transporting, packaging and handling of machines and deliveries from KraussMaffei Technologies GmbH.

Additionally, applicable national regulations and laws are to be followed.

These instructions must be followed to prevent damage to the machine and hazards to personnel!

You can find specific data about the machine in the respective operating instructions, in the layout and on the rating plate.



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Contents

General safety instructions	3
Transport/lifting	4
Attachment points, lashing points.....	4
Securing the load.....	5
Delivery of the machine/checking delivery	6
Details for unloading	6
Storage	6
Overseas transport of machines.....	7
Symbols on the packaging	8
Packaging examples	11
Overseas (For loading on lorries, in containers, on flat racks, Mafi, etc.).....	11
Surface transport (For loading on lorries with tarp)	13

General safety instructions



Hazard from falling loads!

When transporting a load there is always the risk of it falling down.

- Never walk or stand under raised loads!
- Maintain a safe distance from suspended loads.
- Before transporting a load, compare the weight of the item and the load-bearing capacity of the ropes and cranes as well as other auxiliary tackle and select a means of transportation which offers sufficient safety and lifting capacity.
- When transporting with a crane, secure the ropes on the crane hook to ensure that the load does not capsize.
- When transporting a load with a forklift, ensure that the forks have adequate load bearing capacity and are the proper size.
- Avoid impacts and make sure the package/machine is not tilted!



Risk of slipping!

When transporting a load, operating materials may escape and contaminate the area around the machine.

- Drain the machine before operating it and/or secure the operating material reservoirs to prevent any fluids from escaping.
- Immediately clean up any escaped operating materials in an environmentally responsible manner.



Wear personal protective equipment!

When transporting a load, hazardous situations may occur which can result in injuries.

- When carrying out transport work, always wear protective clothing in conformity with the currently valid accident prevention regulations (e.g. safety shoes, protective gloves, etc.)



Risk from toppling loads!

When a load is being carried, there is always a risk of it toppling.

- Secure the load correctly to prevent it from toppling and drive slowly during transport within the work premises.



Caution when working above head height!

- For installation and removal work above head height, use climbing equipment and work platforms that conform to safety requirements.
- Do not use parts of the machine as an aid for climbing.

Transport/lifting

Attachment points, lashing points



The attachment points for lifting the machine are identified on all machines with the symbol illustrated.

- Only hang machines at these points for transport.



Installing transport locks for transport!

If the transport locks are missing, this may result in severe damage to the machine and transportation personnel may be at risk.

- Install the transport locks before transporting the machine.



Warning!

If not properly attached, this may result in severe damage to the machine and transportation personnel may be at risk.

- Match lengths of rope.



Important!

- Before lifting the machine, it is mandatory to check that the cables do not collide with machine components.



Important!

In general, our packages have a very high centre of gravity.

- Packages with a weight > 15,000 kg must be transported only on a lorry with a load platform height not exceeding 1 m.



Risk of injury!

- Always remove lifting eyes immediately after installation.

Failure to observe these instructions can lead to serious injury.

Securing the load

Depending on properties, the machine must be secured against toppling, shifting and falling off during transport in/on suitable means of transport with a sufficient load bearing capacity.

The following safety measures must be taken corresponding to the anticipated load on the means of transport and the transport route, while observing the respective national and international guidelines and technical regulations:

- Use of friction-increasing materials (anti-slip mats),
- Direct securing of the load (diagonal and/or direct lashing) and/or
- positive locking of the load.



Important!

- For direct securing, use the lashing points provided by KraussMaffei.
- Lashing and securing elements must be sufficiently sized and be in technically perfect condition and checked for damage.

- Load the equipment only on lorries in perfect technical condition.
- When loading the machine onto a lorry, always ensure that the longitudinal centre of gravity of the machine is positioned on the longitudinal axis of the lorry.
- The person responsible for the loading operation must be satisfied that the machine has been properly loaded and secured prior to handing over the shipping documents.



Important!

As a general rule, only the attachment and lashing points provided by KraussMaffei are to be used for lifting and transporting the machine.



Important!

Lashing may not be done across the top of the machine!



Delivery of the machine/checking delivery

- The customer has to check the delivery for transport-related damage before unloading.
- The customer has to check the delivery for completeness.
- Record potential damage in writing on the freight documentation and have it confirmed by the forwarding agent. Furthermore, the transport-related damages have to be documented with photographs so that the scope and, if necessary, the cause of the damage can be ascertained.
- If transport-related damages are not readily apparent upon delivery, the customer must show these to the carrier after discovery without delay, 7 days after delivery at the latest.
- The customer must inform the supplier of the transport damages and the claim immediately.
- Claims due to transport damages that were recorded improperly or not indicated in a timely manner are not accepted

(also refer to KraussMaffei's General Terms and Conditions / Section 9.3
www.kraussmaffei.de/agb).

Details for unloading



Follow the procedure described in the operating instructions.

Storage



Important!

- Machines and accessories must not be transported while uncovered.
- Do not store outdoors. Protect from direct sunlight and moisture.
- If possible, store in the production hall. If storage outdoors cannot be avoided, all packages must also be covered with a UV-resistant tarp (the max. outdoor storage period for deliveries with undamaged and unopened packaging that are covered with a UV-resistant tarp: 4 days!)
- Avoid damage to the packaging.
- Take note of the symbols on the package.



With regard to proper storage, please follow the symbols and corresponding instructions on page 8 and 9 under *Symbols on the packaging!*

Overseas transport of machines



Risk from toppling loads!

When a load is being carried, there is always a risk of it toppling.

- Always go slowly during transport within the work premises or handling transport in a port (terminal transport).



Important!

During terminal transport it is important to make sure that:

- The vehicles/chassis taking on the goods in the port or transporting through the terminal is proven and permitted to support the corresponding axle load!
- The parts/container and flat racks are properly secured to the vehicle at all times (e.g. container chassis secured to the container)!



Important!

Top-heaviness!

- Machines or machine parts with a weight > 15,000 kg must be transported only on a jumbo trailer or semi-trailer with a load platform height (= distance between ground and loading edge) **not exceeding 1 m**.
- Transporting these machines or machine parts on surface transport stored on flat - rack - containers is not permitted.



Important!

- **Only stow the machine below deck when shipping!**

- Shipment via container ship should be done in a container or on a flat rack if at all possible!



Important!

- Only use the marked attachment points provided.



Important!

- Stacking is absolutely prohibited!

Symbols on the packaging





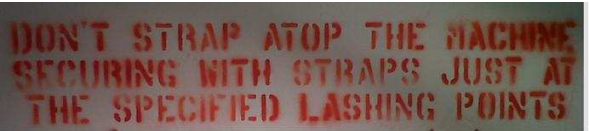





Important!

The symbols on the packaging and the instructions listed must absolutely be followed regarding handling and storage of packages.

Explanation of the symbols and instructions that may appear on KMT delivery packaging.

		Protect against moisture! Do not store outdoors! / Do not transport uncovered!
		Protect from direct sunlight! Do not store outdoors! / do not transport uncovered!
		Do not damage the barrier layer!
		Caution! → <u>Extreme danger of tipping</u> from high centre of gravity!
		Caution, fragile!
		This side up!

		<p>Do not stack!</p>
		<p>Lifting with a forklift is prohibited!</p>
		<p>Attachment points are only for lifting, not for securing the load!</p>
		<p>Only attach means of securing the load (straps/chains) at the points provided for securing the load. Lashing down across the top of the machine is prohibited.</p>
		<p>Only attach means of securing the load (straps/chains) at the points provided for securing the load. Lashing down across the top of the machine is prohibited. → DO NOT LASH ACROSS THE TOP OF THE MACHINE!</p>
		<p>Note on closing or re-sealing the packaging film at the attachment points. For crates brought along (see page 12 / part 6), the lids on the crates must be re-sealed.</p>

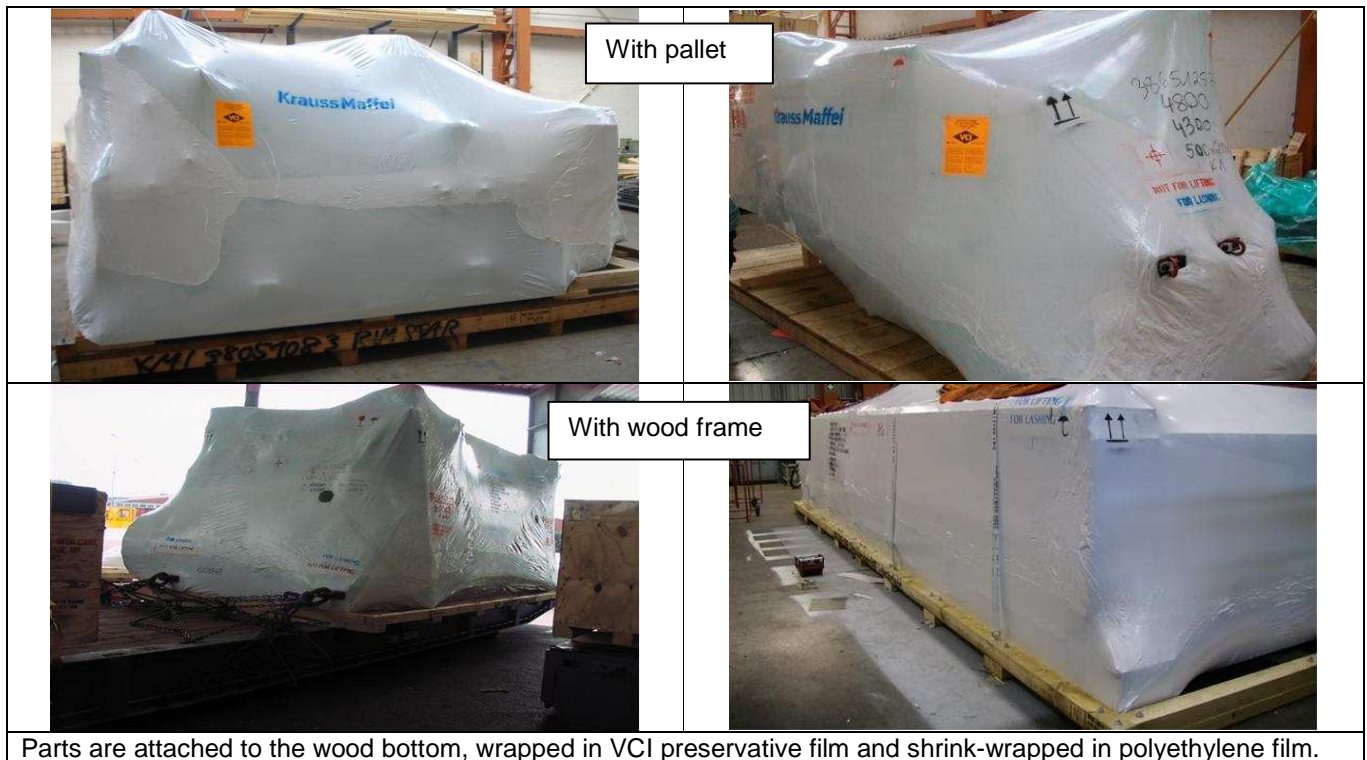
		A ladder can be placed against the area marked in green for reaching attachment points for lifting.
		Do not enter this area.

Packaging examples

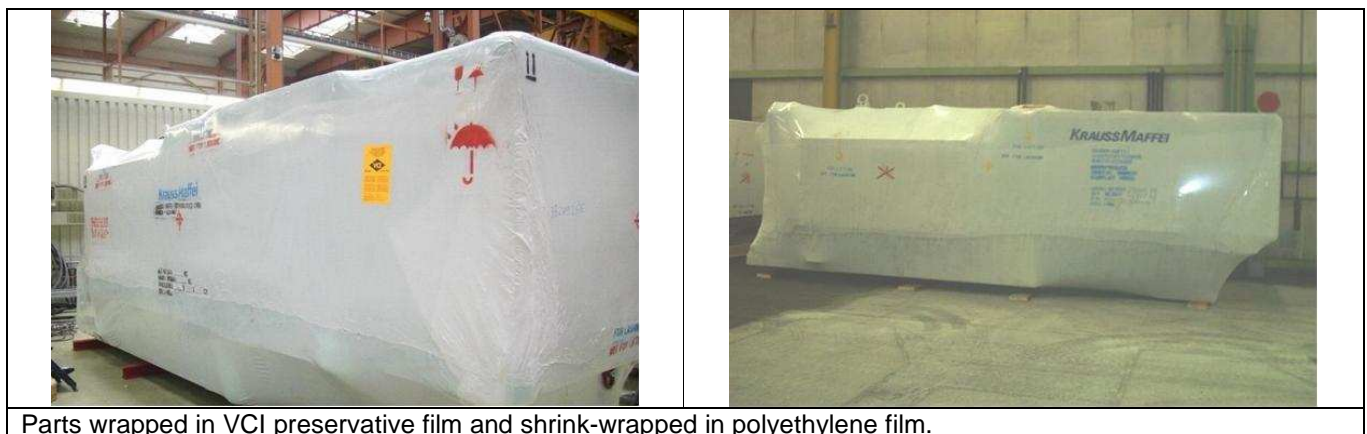
The following figures are provided solely for orientation! Packaging may differ in individual cases. Specific information can be found in the delivery papers and the operating instructions.

Overseas (For loading on lorries, in containers, on flat racks, Mafi, etc.)

1. Platform with VCI film, shrink-wrapped in polyethylene

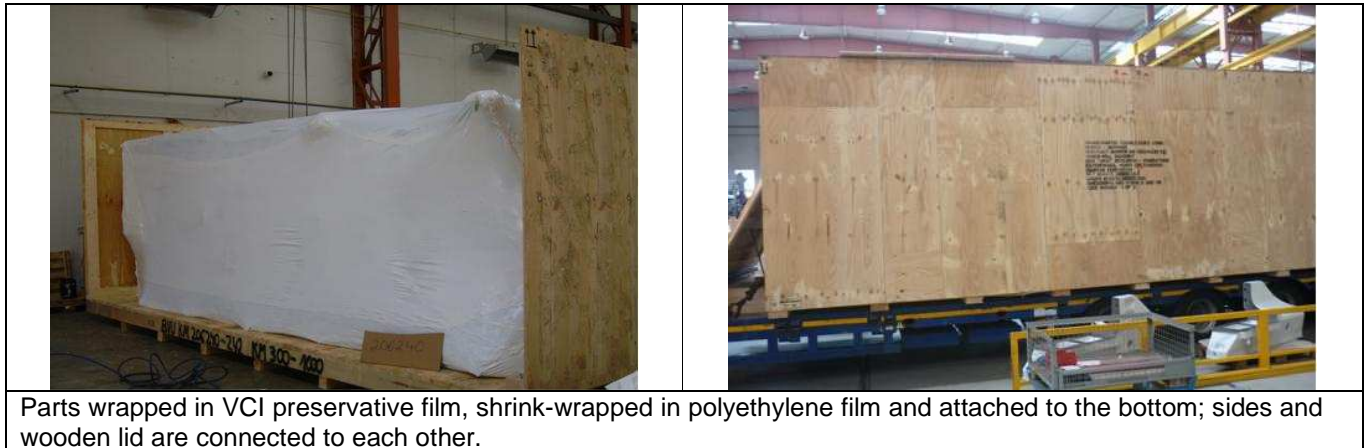


2. VCI film, shrink-wrapped in polyethylene without bottom or slides



3. Crate

3.1. Internal packaging: VCI, shrink-wrapped in polyethylene



3.2. Internal packaging: crate, compound aluminium foil



3.3. Outer packaging: Crates bearing packaging



3.4. Outer packaging: Crates with accompanying packaging



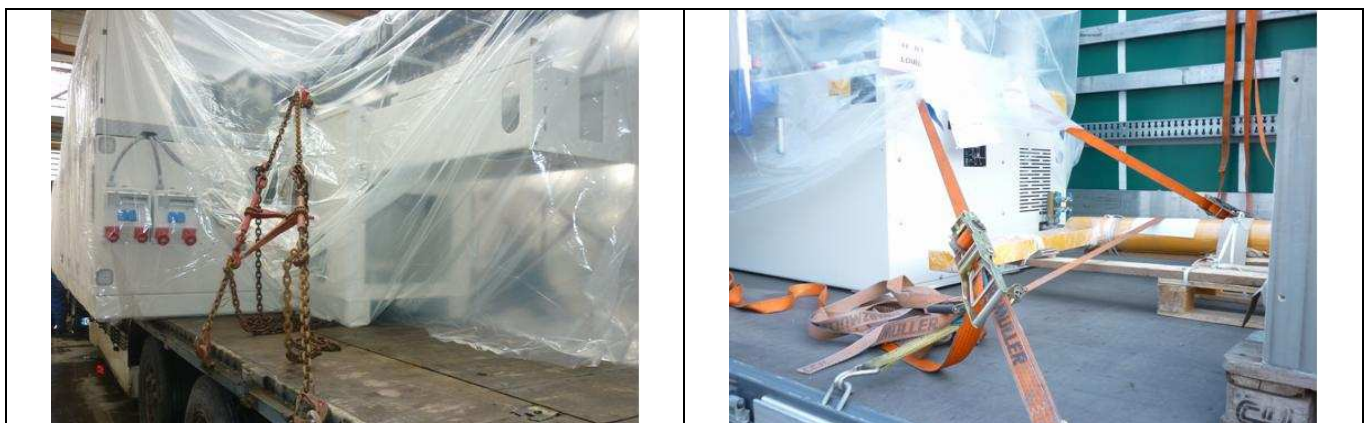
Packaging is only "brought along" – attachment points are on the machine. / **Important:** be absolutely sure to re-seal flaps on the film and on the crate!



Machines are preserved with grease and stored with dust protection tarps in the container.

Surface transport (For loading on lorries with tarp)

1. Tarp



Machines are loaded unpacked in a dust protection film on a lorry.