

## General Shipping and Packaging Instructions for Suppliers of NETZSCH Pumpen & Systeme GmbH in Waldkraiburg

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## 1. **Aim and Purpose of the General Shipping and Packaging Instructions**

The following NETZSCH Pumpen & Systeme GmbH (NPS) regulations for the packaging and delivery of goods shall supplement the contractual provisions of the General Terms and Conditions of Purchase and shall be part of the basis of our Terms and Conditions. The Supplier shall be responsible for making sure that all parts, whether supplied internally or externally, are properly and adequately preserved, protected and packaged to ensure that they arrive at their delivery destination safely and in perfect condition. The Supplier shall undertake to observe the stipulations of these Packaging Instructions and any additional national and international regulations that may apply.

## 2. **Delivery Address**

Please take note of the details provided in our orders regarding the delivery and invoice address.

## 3. **Goods Acceptance Hours**

### 3.1 **Incoming Goods Factory I, Liebigstraße 28, 84478**

#### **Waldkraiburg**

|                     |                                    |
|---------------------|------------------------------------|
| Monday to Thursday: | 7–9 am; 9.15 am–12.15 pm<br>1–3 pm |
| Friday:             | 7–9 am; 9.15 am–12.00 pm           |

### 3.2 **Incoming goods Factory II, Geretsrieder Straße 1, 84478**

#### **Waldkraiburg**

|                     |                                    |
|---------------------|------------------------------------|
| Monday to Thursday: | 7–9 am; 9.15 am–12.15 pm<br>1–3 pm |
| Friday:             | 7–9 am; 9.15 am–12.00 pm           |

### 3.3 **Incoming Goods Factory III, Daimlerstraße 39, 84478**

#### **Waldkraiburg**

|                     |                       |
|---------------------|-----------------------|
| Monday to Thursday: | 10 am–12 pm<br>1–3 pm |
| Friday:             | 10 am–12 pm           |

### 3.4 **Incoming Goods Neuötting, Simbacherstraße 35, 84524**

#### **Neuötting**

|                   |           |
|-------------------|-----------|
| Monday to Friday: | 7 am–3 pm |
|-------------------|-----------|

## 4. Packaging Requirements and Regulations

### 4.1 General packaging requirements

In accordance with Sections 407 et seq. of the German Commercial Code (*HGB*), the selected packaging must suit the requirements of the product being packed. It shall also be able to withstand the loads and stresses of the intended transport means. This means that the transportation route and means are to be taken into account, along with any circumstances that may affect it, such as weather influences and the immediate transportation, handling and storage processes (*TUL*). When specifying packaging for both reuse or a disposable concept, the following requirements are to be considered:

The goods must be protected against damage, contamination and environmental factors which may adversely affect quality. It is imperative that corrosion of the goods is ruled out ([see 4.7.1](#)). The containers and packages must be suitable for storage and stacking ([see 4.6.1](#)).

The consignor shall be liable for any damage and expenses incurred as a result of packages which do not conform with the above requirements.

### 4.2 Specific packaging requirements

Notwithstanding the selected packaging, it is to be ensured that the delivery meets the following requirements:

- The parts are to be delivered without any loss of quality and free of contamination.
- Do only use not damaged packaging material
- The packaging used for shipping shall guarantee that handling is safe and easy during loading and unloading.
- Loading units are to be streamlined and transportation capacities used efficiently (units can be stacked).
- Use of sufficient transport safeguards.
- Safe and easy handling when removing the parts from the packaging.
- Proper labelling.
- Use of materials from the point of view of environmental protection.
- One material number for each individual package, i.e. single type (e.g. separated left/right).
- If mixed content containers cannot be avoided, the parts are to be visibly and clearly separated, labelled and organised appropriately ([see 4.6.3](#))
- Alternative packaging options are to be considered (e.g. standard reusable packaging such as (EURO) pallets and mesh crates, etc., see [Appendix](#)).
- If there is a risk of damage occurring due to slippage or abrasion, suitable dividers/inlays are to be used.
- Appropriate padding is to be provided for parts susceptible to scratching and/or shock (e.g. bubble wrap; see [Appendix](#)).
- Surface protection is to be used for shafts/shanks (e.g. POLY-NET; see [Appendix](#))

- For transnational goods transport, the import regulations for wooden packaging materials are to be observed. This shall include the proper labelling of all treated materials in accordance with the IPPC standard ([ISPM15](#))

## 4.3 Packaging functions

The packaging is required to fulfil multiple functions during transportation, handling and storage processes and other movements of the goods:

- 🗑️ **Protective function:** Protection against physical damage and environmental damage. Adequate stability for maximum stacking height.
- 🗑️ **Loading and transportation** Transport packaging is to be designed in such a way as to ensure easy and safe holding, lifting, moving, setting down and storing of the load.
- 🗑️ **Storage function:** The packaging must be able to withstand the static and ambient-related stresses and loads it shall be exposed to during storage. An optimal package aims to streamline the storage and retrieval process. The storage area is to be used to best advantage. The use of appropriate packing material will enable systematic arrangement of the stored goods.
- 🗑️ **Ease of use:** Easy to use and safe to handle.
- 🗑️ **Informative function:** Required shipping and delivery information is attached visibly.
- 🗑️ **Eco-friendliness:** Eco-friendliness and least problematic recycling or disposal option and adherence to statutory regulations.
- 🗑️ **Warranty function:** Upon delivering an undamaged package, the supplier guarantees that the details provided on the outside correspond with the content.
- 🗑️ **Streamlining:** Efficient shipping and storage units in terms of the shipping method, route and weight, the utilisation of transport capacities and safe handling during loading and unloading, storage, opening and disposal.

## 4.4 Inlays

When shipping goods, the mesh crates are to be lined with corrugated cardboard for the delivery of small parts and mixed goods containers. In the case of components with sensitive surfaces (e.g. coated, polished, etc.) cardboard, bubble wrap or similar is to be placed between the individual parts to protect them.

Attention: Using recycled material in relation to materials from substance groups 0 and 1 (apart from non-rust steels) is not permitted in accordance with DIN EN 1560.

## 4.5 Use of disposable and reusable containers

When developing the packaging concept, the use of both reusable and disposable packaging is to be considered. Reusable packaging is to be favoured on principle. However, disposable packaging may be used if it can be shown that this will be more cost-effective to use than reusable packaging. The cost of disposal of disposable packaging is to be considered in the feasibility study.

- Reusable packaging
  - Wooden pallets 1200 x 800 x 150 mm (DIN EN 13698)
  - Mesh crate pallets 1240 x 835 x 970 mm (DIN 15155/8 - UIC 435-3)
  - Universal boxes and small load carriers
  - Retainers for specific parts agreed with NPS
  - Half mesh crates and similar
  - Liquid containers
  
- Disposable packaging
  - Disposable cardboard packaging
  - Disposable pallets
  - Disposable packing material
  - Disposable protective packaging
  - Disposable liquid container

The Supplier shall procure the disposable packaging. Eco-friendly, recyclable materials that are comprehensively accepted for recycling are to be used for all disposable packaging. Adhesive/packing tapes, films, labels and goods tags must not compromise the recyclability of the base material.

**When planning the disposable packaging, the following points are to be considered:**

- Type and material
- Reusable materials (recycling)
- Module capabilities
- Stackability
- Packaging aids (workpiece carrier, insert, and interlays)
- Disposal
- Design (printing, design clamps, sealing)
- Optimised fill quantity
- Easy to handle
- Goods tags/labels

## **4.6 Loading units of reusable and disposable packaging**

A loading unit is the load comprising objects or packages of auxiliary tools and materials compiled in a manner that allows it to be handled, transported, stacked and stored as a unit.

## 4.6.1 Stackability of loading units

If a loading unit is made up of small containers (special or universal containers, disposable packaging), this is to conform with the standard dimensions or pallet.



## 4.6.2 Making up loading units

The basic dimension of the loading units (1200 x 800 mm) is not to be exceeded by the packaged goods/loading units. The entire height of the loading units is to be made secure to ensure that the shipping packages cannot slip during transit. This can be achieved, for example, by using plastic tapes or stretch films. Fastening straps must not be allowed to cut into the cardboard and is to be prevented by using edge protectors. If partial quantities are removed from a loading unit, it is to be ensured that the remainder remains stable.



### 4.6.3 Mixed packages

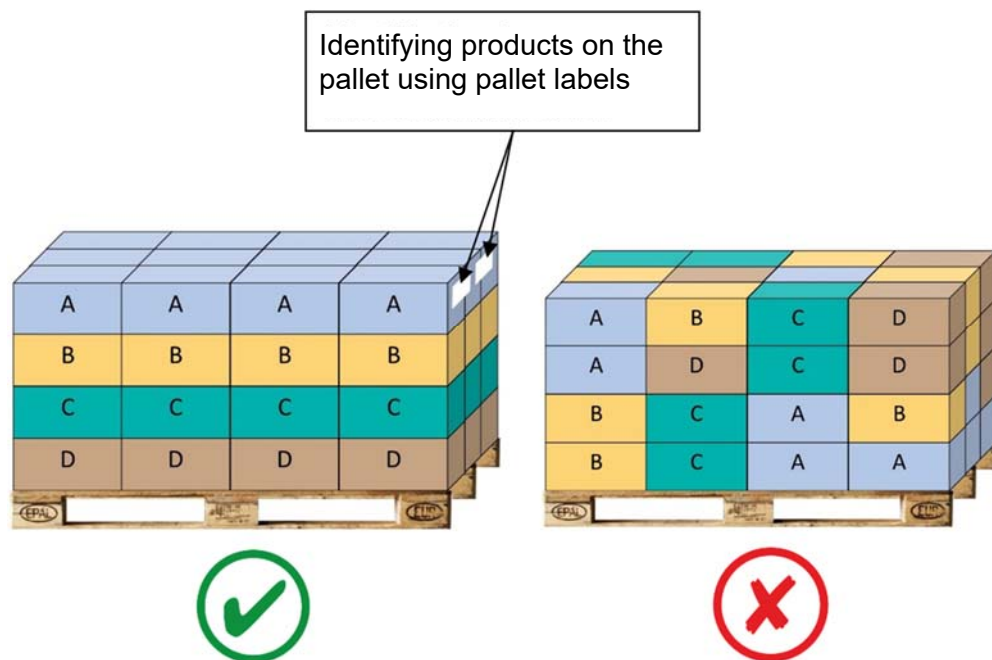
Products must not be mixed, and multiple product types are not to be stacked on one pallet; that is, this is only allowed if the packaged unit is not full → see following images

In addition to this, the packaged unit is to be labelled providing information indicating the multiple product types enclosed. Products are to be stacked according to type and must never be mixed under any circumstances.

The weight and size of the different products must be taken into account so that they are stacked in ever decreasing weights/sizes. In other words, large, heavy products are to be stacked at the bottom and small, light ones at the top.

The following is not permitted.

- Stacking one half with one type according to height and the other half with a different item or product type
- Mixed stacking in layers
- Stacking products on one pallet which have been ordered by different companies: supplier A, B or C.



## 4.7 General corrosion protection

Corrosion is when materials are attacked or destroyed as a result of chemical or electro-chemical reactions with agents in the surrounding environment. Corrosive agents are those substances surrounding the parts, affecting the material, and causing the corrosion, e.g. dirt, gases, salts or dust. Any parts susceptible to corrosion and any machined and ground/polished surfaces (especially processed cast and forged parts) require special protection as a result; therefore, preventative measures are to be taken to provide protection against corrosion. Preventative protective measures involve protecting the material from corrosion by using corrosion protection and adequate packaging.

The type, nature and time of implementing corrosion protection depends on:

- The protection required by NPS specifications
- The sensitivity of technical surfaces to corrosion and other harmful influences (dust, dirt, contamination, etc.)
- Transport conditions and duration of transit
- Storage conditions and storage period
- Subsequent treatment
- Subsequent intended use.

### 4.7.1 Corrosion protection on the material

The Supplier is to implement the anti-corrosion measures required by NPS as per the applicable specification/drawing, unless agreed otherwise. Parts supplied without the stipulated corrosion protection shall be considered faulty and a complaint shall be lodged with the Supplier.

Only the preservatives agreed with NPS are to be used, e.g. Hakudren HKS17 – Kluthe for grey cast iron.



## 4.7.2 Anti-corrosion packaging

Regardless of the corrosion protection applied to the material, parts are to be delivered with protection provided against corrosive agents and surface damage during transit and storage. Suitable protection shall be provided by covers, films, plugs, covering or other suitable means. If necessary, anti-corrosion films are to be used, e.g. VCI film or paper suitable for the substance group, which can be sent to normal film/paper recycling.

## 4.7.3 Anti-corrosion films

Anti-corrosion films contain chemical substances that gradually evaporate. They provide a protective film on the surface of the packaged parts thereby warding off oxygen. Usually, enveloping the parts in protective film will suffice, but the distance between the anti-corrosion film and the parts must not exceed 30 cm. Airtight packaging is not necessary; however, the anti-corrosion films are to be kept in a closed package to ensure the efficacy of the corrosion protection. The anti-corrosion film must be compatible with the respective parts and/or alloys. If there are components with different alloys, it may be that only a few of the parts are protected against corrosion. In this case, desiccants may provide better protection. NPS recommends consulting a corrosion protection specialist on both selection and application in order to work in optimal conditions and prevent damage occurring.

## 4.8 Environmental protection

NPS requires that the disposable and reusable packaging and load carriers used are made of recyclable materials. However, the use of reusable packaging and load carriers are to be prioritised. To this end, NPS – along with its suppliers – shall pursue the waste management objective set out by environmental legislation following the ecological principle of “**prevention before reduction before recycling**”, thereby consistently contributing to waste minimisation.

### Packaging waste minimisation

Packaging waste shall be limited to the immediate levels necessary.

### Packaging reduction

Reusable and disposable packaging is to be defined in terms of ecological and economic factors and only the necessary amount is to be used.

## 5.

## Supply Chain Security

Particularly in the case of the movement of merchandise (movable material goods mainly resold unchanged), all shipments are to be packaged to be tamper-proof. This means that the packages are to be provided in a manner which makes it impossible to access the content without leaving externally visible signs. For example, this can be guaranteed by the following measures:

- Security seals around the edges and/or sealing of the straps
- The package openings (covers/bases/etc.) must be sealed well to prevent access to the inside of the package (overlaps are useful in this case)
- The package must be identifiable (company logo, or layout/print agreed and approved by NPS on the packaging)
- Recessed grips in the packages must not allow for any access inside.
- Clamping cardboard packaging

**If there are any queries concerning whether the requirements of these instructions are to be observed for a particular point, the responsible specialist purchaser is to be consulted and approvals made in writing.**

## 6. Weights and dimensions

The permitted gross weight for package shipping is **max. 31.5 kg**.

The permitted gross weight for a loading unit is

- For deliveries of mesh crates **max. 1000 kg**
- For deliveries of reusable (EURO) or disposable pallets with the dimensions 800 x 1200 mm **max. 1000 kg**

**If there are any queries concerning whether the requirements of these instructions are to be observed for a particular point, the responsible specialist purchaser is to be consulted and approvals made in writing.**



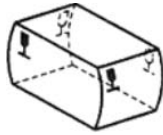

## 7. Identification of the Package and Delivery Notes

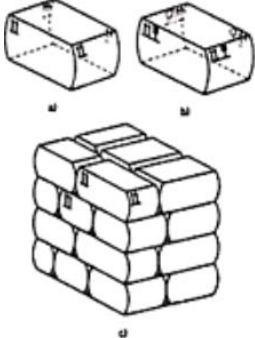

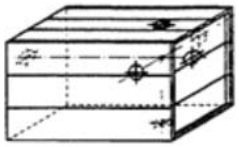



Each package and the respective delivery notes are to be labelled as follows:

| Mandatory details on the <b>delivery note</b>  | Mandatory details on the <b>package</b>   |
|--|---|
| Order number/item number(s) of NPS<br>Delivery note number<br>NPS material number<br>Material description<br>Quantity/piece number/weight if required as basis for settlement<br>Batch number if relevant material is ordered<br>Designation/type/size | Order number(s) of NPS  |
| Optional details on the <b>delivery note</b>   | Optional details on the <b>package</b>  |
| Clerk<br>Other usual information   | Delivery note number<br>NPS material number<br>Material description<br>Quantity/piece number/weight if required as basis for settlement<br>Batch number if relevant material is ordered |

## 7.1 Identification by symbols

Symbols are to be used in line with DIN 55 402 (Deutsches Institut für Normung) and ISO standard R/780 (International Organization for Standardization).

| No. | Meaning of symbol                              | Symbol  | Function  | Acc. to DIN | Acc. to ISO | Notes   |
|-----|--|---|---|-------------|-------------|---|
| 1.  | Vor Nässe schützen/<br>keep dry                |  | The package is to be kept in dry conditions.                  | x           | x           | ISO 7000; no. 0626  |
| 2.  | zerbrechlich/<br>Fragile –<br>Handle with care |  | The package content is fragile and must be handled with care. | x           | x           | ISO 7000, no. 0621,<br>example of application:<br> |
| 3.  | Oben/This way up                               |  | Indicates the correct upright position of the package.        | x           | x           | ISO 7000, no. 0623,<br>example of application:  |

|    |   |   |  |   |   |  |
|----|---|---|--|---|---|--|
|    |   |   |  |   |   |   |
| 4. | Schwerpunkt/<br>Centre of gravity                         |    | Indicates the centre of gravity of the package, which is handled as a single unit.   | x | x | ISO 7000, no. 0627, example of application:<br> |
| 5. | nicht stapeln/<br>do not stack -<br>not stackable         |    | Stacking the packages is not permitted; no load is to be placed on the package.  | x | x | ISO 7000; no. 2402   |
| 6. | Sperrschicht nicht beschädigen/<br>Do not destroy barrier |  | Underneath the outer packaging, there is a (nearly) water vapour-proof barrier which contains desiccants for corrosion protection. This protective function will be destroyed if the barrier is damaged. | x |   | -  |
| 7. | Keine Handhaken verwenden/<br>Use no hooks                |  | Hooks must not be used for handling purposes as they will subject the packaged shipments to point loads, thereby potentially causing damage.   | x | x | -  |

## **8. Exemption Provision**

If specific packaging requirements require deviation from these Packaging Instructions, appropriate consultation and written approval shall be required from NPS.

## 9. Appendix

Pallet (EURO): 1200 x 800 x 150 mm (DIN EN 13698)



Mesh crate (EURO): 1240 x 835 x 970 mm (DIN 15155/8 - UIC 435-3)



Bubble wrap:



POLY-NET:

