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1. Objectives

This shipping and packaging regulation applies to all suppliers of goods and services to the Pfannenberg Group and outlines our requirements and their responsibilities. Non-compliance with these specifications may result in a chargeable complaint and negatively impact the supplier evaluation. The Pfannenberg Group reserves the right to charge suppliers for any additional effort caused by non-compliance, with a minimum flat fee of $75 per incorrectly delivered order item. Any deviations from this shipping and packaging regulation must be agreed upon in writing between the supplier and Pfannenberg. We also reserve the right to establish article-specific shipping and packaging regulations with suppliers.

The following shipping and packaging regulation ensures, through specific packaging requirements, that:

- Products delivered by suppliers to Pfannenberg are not impaired or damaged during transport, handling, or storage.
- Only approved packaging materials are used.
- The contents are clearly identifiable.
- From an ecological perspective, no avoidable or non-reusable packaging waste is generated.

2. Validity and Delivery Address

This shipping and packaging regulation applies to all products and services delivered to the Pfannenberg Group. Please be sure to follow the delivery and billing address details provided in our order documents.

For Site 1:
Dock 2
Pfannenberg GmbH
Werner-Witt-Straße 1
21035 Hamburg
(Zufahrt via Wilhelm-Iwan-Ring)

For Site 2:
Dock 4
Pfannenberg GmbH
Wilhelm-Iwan-Ring 17
21035 Hamburg

Goods receiving Hours:	*Monday - Thursday*	*07.30 bis 16.00*
	Friday	*07.30 bis 15.00*

Contact Goods receiving: *Site 1 - Tel.: 040 / 734 12 – 234*
Site 2 - Tel.: 040 / 734 12 – 196

Ramp Height: *0,75 - 1,45 Meter*

Important Notes:

- *No unloading of third-party goods*
- *Side unloading is not possible*
- *Delivery with “Jumbo” or “Gooseneck” trucks is not permitted*

3. Responsibility

The strategic purchasing department is responsible for agreeing on packaging specifications. Packaging must be defined prior to the first delivery.

4. General Packaging Requirements

All product packaging and packaging materials delivered to the Pfannenberg Group must comply with EU Directives **PPWR - Regulation (EU) 2025/40 (*Packaging and Packaging Waste Regulation),* 94/62/EC** and **97/129/EC** and must be appropriately labeled. We are requested by this regulation to document the packaging and packaging materials we use in relation to material, composition, recyclability, recycled content and other requirements. The selected packaging must meet the requirements of the goods being packaged.

Since suppliers from Pfannenberg deliver products to Pfannenberg in the European Union from a non-EU country, we need basic information about the packaging used for shipment, protection and transport.

Please provide the following information for the packaging used for your products:

- product / item number supplied to Pfannenberg
- packaging type, e.g. carton, bag, film, foam, pallet, label, filling material, strapping, etc.
- material of each packaging component, e.g. cardboard, paper, wood, PE, PP, PET, etc.
- weight of each packaging component
- information whether the packaging contains plastic components
- recycled content for plastic packaging
- information on recyclability
- available technical data sheets, specifications, certificates or test reports
- information on substances of concern or substance restrictions (REACH and PFAS)

Please include all relevant packaging components, not only the outer carton. This also includes pallets, stretch film, straps, labels and protection material. The requested data will be used internally for PPWR assessment, technical documentation and packaging waste reporting in the EU.

Excess packaging materials should be avoided. Only environmentally friendly and recyclable packaging materials may be used. Packaging must withstand the stresses of the intended mode of transport. The transport route means of transport, and potential influencing factors such as weather conditions and handling during transshipment must be considered. The sender is liable for any damage or costs resulting from unsuitable packaging that does not meet the above requirements.

4.1. Basic Principals

- All delivered products must be packaged to prevent deformation, contamination, corrosion, or damage caused by moisture, weather, shock, vibration, or other harmful influences.
- All packaging materials must be suitable for the products they are intended to protect.
- Delivered products must be packaged and labeled securely for transport and storage, either individually or in matched sets/pairs. Supplementary components of assemblies must be packaged in sets corresponding to the assemblies. For bulk goods or mass-produced parts, the quantity contained must be indicated on the outer packaging.

- Different products must always be separated by individual outer packaging and clearly labeled.
- Reusable packaging is generally preferred over disposable packaging.

- All load carriers and packaging must be suitable for transport using forklifts or pallet trucks, depending on size and weight. For items weighing more than 12 kg, lifting aids (e.g., crane lugs) should be provided on the delivered products where possible.
- All packaging units should generally be stackable. If stackability is limited, the maximum stacking height and weight must be indicated on the packaging.
- Cartons on pallets must not protrude beyond the transport unit. The same applies to goods shipped solely on pallets—overhang must be strictly avoided. If necessary, a suitable pallet must be custom-made.
- Load carriers and packaging must be securely fastened to the pallets using at least **two plastic strapping bands** to prevent shifting. **Edge protection** made of cardboard or sturdy plastic must be placed under the strapping bands on the cartons.
- Damaged load carriers and packaging must not be used and are to be sorted out. New packaging must always be used. Alternatively, reusable packaging adapted to specific requirements may be used.
- Both packaging and outer packaging should be dimensioned as compactly as possible.
- For the protection of painted products, **foam film** (not bubble wrap) must be applied directly to the paint surface. The paint must be fully cured.
- Sharp-edged products must be packaged and labeled in a way that eliminates any risk of injury.
- The **maximum loading height**, including the pallet, is **1,500 mm**.
- **Maximum weight per pallet:** 1,000 kg
- **Maximum weight per individual package/carton:** less than 15 kg (or according to container size)
- The **overall load overhang**, including any tilt, must be less than **25 mm**.
- An adequate number of film layers must be used depending on the height and weight of the shipment.
- Overhanging film, paper, labels, straps, etc., are not permitted.
- All materials must be palletized by type. Mixed palletization must be approved by Pfannenberg. All mixed pallets must be clearly labeled as such.

Hazardous goods must be packaged and labeled in accordance with the current hazardous goods regulations. The required **safety data sheets** must be sent in advance to Pfannenberg at: purchasing@pfannenberg.com.

All necessary information must be affixed to the packages and also provided to the shipping company responsible for transporting the goods at the time of assignment.

5. Packaging

For all types of shipment, packaging must be adequate, appropriate for the goods, and secure for transport. Any transport damage not recognized by insurers due to insufficient packaging shall be the responsibility of the supplier.

5.1 Special Reusable Packaging

Special reusable packaging may include:

- Transport racks for control cabinets, assemblies, and sheet metal components (e.g., Creform systems)
- (Custom) crates
- EURO containers
- Insert containers
- Thermoformed inserts (workpiece carriers)
- Rotopack, Rectangular pack

The use of reusable packaging requires a separate written agreement between the supplier and Pfannenberg

5.2 Disposable Packaging

Disposable packaging may include:

- Cardboard boxes (The bottom must be suitable for the product's weight; if necessary, a pallet should be used for items ≥ 30 kg)
- Bags (packed inside a cardboard box)

5.3 Pallets

Preferred exchangeable load carriers include:

- Reusable pallets (Euro pallets) according to DIN EN 13698-1 (800 x 1200 mm)
- Mesh boxes (800 x 1200 mm)
- Railway pallets (800 x 1200 mm)
- Disposable pallets (120 x 80 mm and 60 x 80 mm)
- Plastic pallets (120 x 80 mm)

5.4 Packaging for Electrostatic-Sensitive Devices and Assemblies (ESDS)

5.4.1 General Requirements

Electrostatic-sensitive devices and assemblies (ESDS) must be delivered in shielding packaging as defined in DIN EN 61340-5-1 / VDE 0300-5-1.

For assemblies containing a backup battery, suitable measures must be taken to ensure that the battery is not discharged by the packaging.

5.4.2 Packaging Design

This packaging must be marked externally with the following symbol, either printed or applied in a non-removable manner.

Labeling of Electrostatic Protective Products



Direct Contact Packaging:

(Semi-)transparent metallized bags (electrostatically shielding) for the primary electrical protection of the assembly according to DIN EN 61340-5-1, Section 3.18.2.

Enclosing Packaging:

ESD disposable shipping cartons (electrostatically shielding) with PU foam inserts or bubble wrap (both at least electrostatically dissipative).

Only ESD-compliant packaging materials may be used in the enclosing packaging, in accordance with DIN EN 61340-5-1, Section 3.18.2.

Notice	
	The enclosing packaging may be omitted if explicitly stated in the order. This does not affect the mechanical protection of the products.

Labeling of Enclosing Packaging:

With a label indicating:

- Article number
- Supplier identification
- Manufacturing date

Secondary Packaging:

If applicable, outer packaging for multiple assemblies. No antistatic properties required—only mechanical protection during transport.

5.5 Packaging for End Customers

If supplied products are to be delivered in packaging intended for onward shipment to Pfannenberg customers, there must be no references to suppliers, such as printed logos or included third-party documentation.

This packaging is coordinated separately by Supply Management with the supplier and forms part of the framework agreement or purchase order.

5.6 Packaging Materials

5.6.1 Permitted Materials:

- Cardboard / Paper / Cellulose / Glass / Sheet metal
- Flo-Pack (foamed polystyrene)
- PE bags / PE film / PE mesh sleeves / PE bubble wrap (Polyethylene)
- PET film / PET clear packaging (Polyethylene terephthalate)
- Molded parts made of PE foam
- Antistatic packaging (see Section 5.4)
- Wood
- Wood composites

5.6.1 Prohibited Materials

- PUR foam
- PVC foam
- Styrofoam (PS-E foam)
- PVC (e.g., blister packs and clear packaging)
- PUR (e.g., sheet material)
- Composite packaging (e.g., skin packs, blister packs, coated cardboard—except antistatically coated cardboard)
- Dipping compound (cellulose acetate butyrate)
- Foamed potato starch (chips)
- Foamed corn (chips)
- Wood wool
- Other foreign materials not directly suitable for packaging

5.7 Preservation

5.7.1 Corrosion Protection

If corrosion protection agents are used, written approval of the products from the Pfannenberg Group must be obtained.

5.7.2 Desiccants

Desiccants are intended to protect the packaged goods from moisture damage during transport and storage under various climatic conditions.

If necessary (supplier's responsibility), desiccants according to **DIN 55473** must be included in the packaging within a climate-controlled enclosure. The quantity of desiccant units is determined according to **DIN 55474**.

The required **safety data sheets** for the desiccants must be submitted in advance to Pfannenberg at: purchasing@pfannenberg.com.

6. Delivery Note

The delivery note must be clearly visible and attached to the front side of the package using a shipping pouch. If a shipment consists of multiple packages or pallets, it must be consolidated into a single forwarding order, and each pallet/package must be listed with its contents on a packing list.

The delivery note must include the following information:

- Sender and recipient of the goods
- Order and item number
- Issue date of the delivery note
- Our article number and description, if applicable batch number
- Delivery quantity and unit of measure
- Note for partial delivery (only by prior agreement)
- Numbering of packages
- Minimum shelf life date (MHD), if available
- If applicable, project or production order number
- Barcode of the Pfannenberg article number according to **EAN 128**

7. Packaging, Labelling

All delivered goods must be clearly identifiable on all packages down to the smallest packaging unit as follows. Where necessary, handling pictograms according to **DIN EN ISO 780** must be affixed to the packaging:

- Pfannenberg order number
- Pfannenberg article number
- Barcode of the Pfannenberg article number according to **EAN 128**
- Pfannenberg article description

- Quantity of the item contained in the package
- Numbering of the packages





Labeling must be clearly visible and affixed to both the front and long sides when pallets are stacked!

Minimum size: 10mm x 10mm

Article-No. as :

- SCANCODE EAN128
- Spelled-out number
- Item description

(Barcode EAN 128)

7.1 Center of Gravity Marking

For products and assemblies with a high or off-center center of gravity, the center of gravity must be determined and marked on at least two non-opposing side surfaces of the packaging using the following symbol (DIN EN ISO 780 – Center of Gravity):



Contrary to **DIN EN ISO 780**, stickers or signs may also be used, provided that permanent attachment is ensured.

The determination of the center of gravity can be carried out, for example, according to **DIN EN 13054 Method B**. In this case, it is sufficient to determine the center of gravity in the horizontal plane; the vertical position of the center of gravity is assumed to be at **2/3 of the height**.

7.1 Execution of Marking

Marking can be applied directly to the packaging or by means of labeling. The font size should be appropriately adjusted to the size of the packaging or label.

If multiple products are packed within one outer packaging, the marking on the outer packaging must include all contained products. Additionally, each individual product must be separately packaged and labeled.

We expressly point out that **any failure to comply with these requirements will result in additional costs being charged to you**.