



DAS HERZ DER FRISCHE

GENERAL PACKAGING RULES

BITZER KÜHLMASCHINENBAU GMBH

BITZER KÜHLMASCHINENBAU SCHKEUDITZ GMBH

Version 1.1

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1. Aim and purpose of the rules

BITZER aims to optimise the increasing flow of materials, whether within the company or involving deliveries to and from other companies.

One significant opportunity to optimise the process of receiving goods is to use standardised packaging, which has been agreed with the suppliers. This ensures that our storage system can quickly process delivered goods without any avoidable, additional costs due to repackaging work, additional checks, relabelling, rearrangement of goods in the warehouse or disposal of the packaging/loading aids.

2. Scope and legal relevance

These general packaging guidelines apply for all goods delivered to BITZER Kühlmaschinenbau GmbH, with plants in Rottenburg-Hailfingen and Rottenburg-Ergenzingen, and to BITZER Kühlmaschinenbau Schkeuditz GmbH.

Special aspects with regard to packaging will be agreed with BITZER in writing in special, material-specific packaging rules. Special agreements already made with BITZER regarding packaging will remain in force.

All **changes to packaging**, whether concerning the packaging itself or a packaged unit, require written approval from the BITZER materials management department in advance.

Any approval by BITZER of packaging independently selected by the supplier, together with any changes made, has no effect whatsoever on the supplier's **liability** for defective packaging and any damage that may result during transport.

For deliveries which do not concern internal EU trade, the supplier must acquaint itself with the packaging regulations applicable in that country as well as the required accompanying documents for the shipment and must modify the packaging for the prevailing circumstances.

If these general rules on packaging are **not complied with**, BITZER reserves the right to return the goods or to charge the supplier for any additional costs which may arise during the process of receiving the goods.

For each started hour, BITZER charges a flat rate of €100 for additional costs.

The supplier is solely responsible for conforming to the legal and contractual conditions with regard to packaging. This also applies to conformance with public regulations regarding packaging.

Should any of these regulations be completely or partially ineffective, or subsequently lose legal force, the rest of these provisions shall nevertheless remain effective. In place of the ineffective or infeasible provision, an effective and feasible provision shall replace it which matches the original intent and purpose as closely as possible.

3. Permitted loading aids and their correct use

Specific packaging shall be individually agreed with the supplier. The thickness of the wood used for boxes, crates and runners must be adjusted to the weight, sensitivity, centre of gravity and value of the goods as well as the stresses to be expected during transport, handling and storage.

For all deliveries not covered by the 'specific packaging' point, the following **standardised loading aids** must be used.

3.1 Euro pallets and Euro box pallets

- Euro pallets in conformance with **DIN 13698-1**; UIC standard 435-2
- Euro box pallets in conformance with **DIN 15155**; UIC standard 435-3
- Suitable for exchange in an open Euro Pool
- Suitable for stacking
- The use of aids (such as stacking corners) is recommended
- The goods loaded must neither protrude lengthwise nor crosswise beyond the edge of the loading aids for Euro pallets and box pallets
- It must be ensured that the load is evenly distributed over the loading aids, point loads and sagging bottom boards must be avoided

	Rottenburg	Schkeuditz
Maximum total gross weight	950 kg	800 kg
Dimensions, maximum (L x W x H)	1,200 x 800 x 1,400 mm	1,200 x 800 x 1650 mm

Table 1: High-bay warehouse data



Fig. 1: Euro pallet

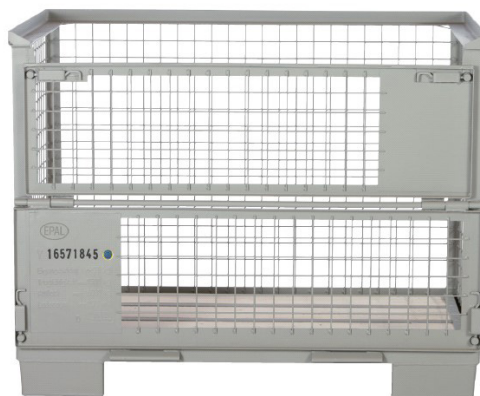


Fig. 2: Euro box pallet

3.2 Euro containers

- Modular, matched to Euro pallets
- Suitable for pooling
- Suitable for stacking
- If possible, with a closed lid
- Total gross weight: 20 kg maximum
- Dimensions according to SSI Schäfer specifications:
Material numbers EF 6150, EF 6220 and EF 6420



Fig. 3: SSI Schäfer reusable container

3.3 Disposable packaging

Generally, the packaging should be chosen depending upon the quantity to be delivered. This means that a delivery should not be spread over multiple small packages, but should rather be collected together and delivered on a Euro pallet if possible. Disposable packaging should be avoided as far as is possible in order to reduce environmental pollution to a minimum.

If, however, disposable packaging is used (e.g. cardboard boxes), then this should not exceed the basic dimensions defined in table 2. There is also an option to store the disposable packaging in a modular way and harmonised with the Euro dimensions. It must be assured that both disposable and reusable packaging can be recycled in an environmentally compatible manner.

Maximum total gross weight	20 kg
Dimensions, maximum (L × W × H)	550 × 350 × 400 mm

Table 2: Maximum dimensions and weights for disposable packaging

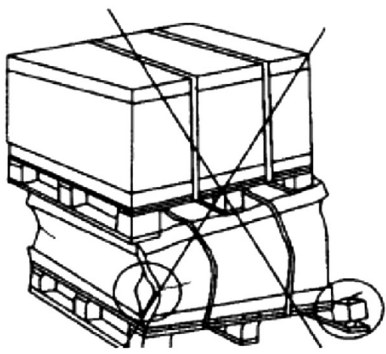
4. Formation of loading units

4.1 Suitability for stacking

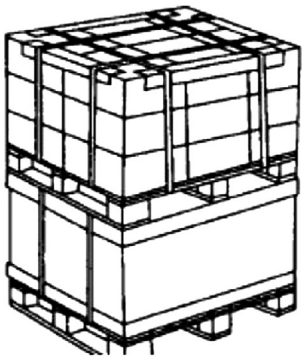
Loading units must be put together so that they can be handled, transported, stacked and stored as a unit.

If loading units are made up of smaller containers, then they must be matched to the pallets' standard dimensions.

No more than **two different materials** may be packed, unmixed, next to one another, separated by intermediate layers (never on top of one another) to form a loading unit. Care must be taken that **similar items** are not in the same loading unit to avoid mistakes and incorrect bookings.

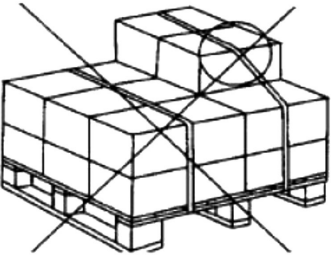


Wrong

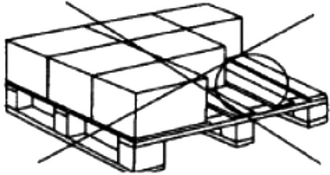


Correct

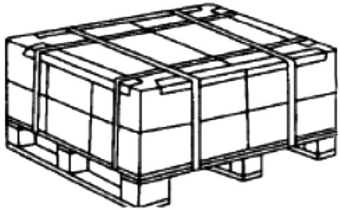
Fig. 4: Suitability for stacking



Wrong



Wrong



Correct

Fig. 5: Loaded

4.2 Securing loads

Packaging should always be selected so that it can be properly secured for transport with no difficulties. This prevents the goods from slipping and being damaged during transport. Goods can be secured using **shrink covers**, **strapping** and **stretch film**.

Edge protection strips must be used to prevent strapping from cutting into the cardboard.

Pallet collars must be used to prevent stacked loads from slipping. The sender is responsible for ensuring the flawless technical state of the pallet collars.

When removing only **part** of a loading unit, it must be ensured that the remaining items are stable.

To ensure that **handling is possible** using floor-level conveyors and automatic conveying equipment, there must be sufficient clearance between the pallet's runners. This must not be impaired by the means taken to secure the load for transport.

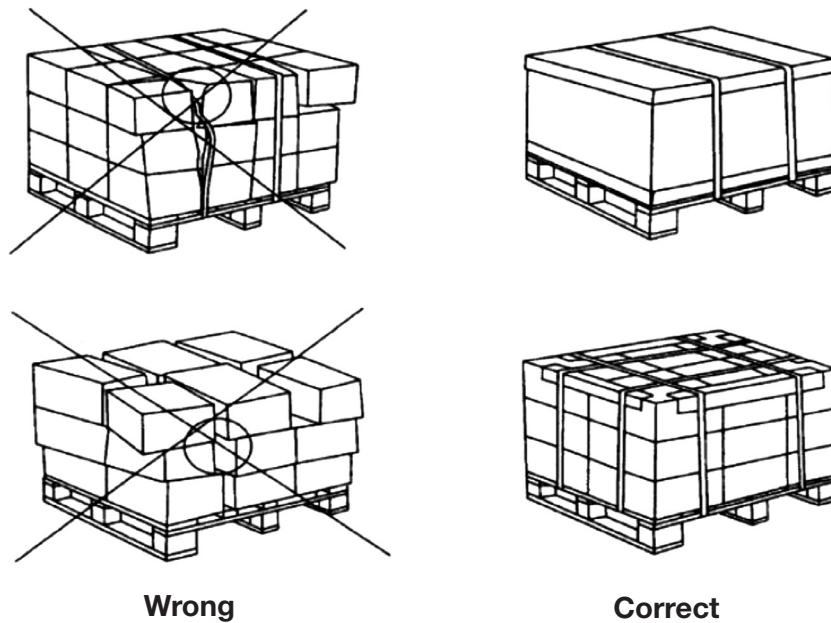


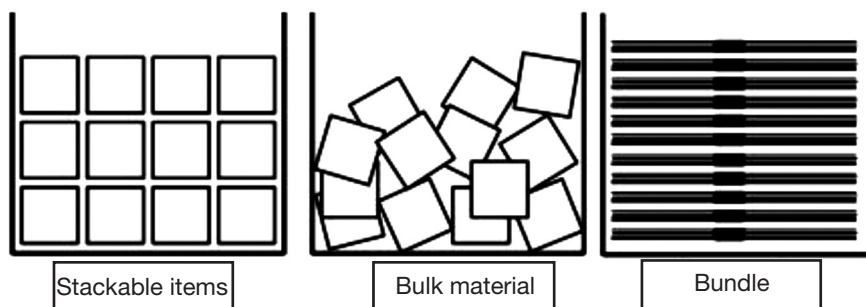
Fig. 6: Securing loads

Stackable items must be delivered in the specified unit quantities in suitable packaging which has been agreed with BITZER. Stackable items must be stacked in the packaging and secured so that no slippage or other movement is possible during transport and general handling.

Bulk material must be delivered in the specified unit quantities in suitable packaging which has been agreed with BITZER.

Components with **sensitive surfaces** (e.g. sealing surfaces, profiles) and which are thus susceptible to damage from pressure must not be delivered as bulk material.

Bundles must be supplied unmixed and packaged to prevent slippage. To prevent long items (e.g. pipes) from bending during transport, they must be adequately supported with square timber. To ensure proper handling when using lifting gear, drums must either be fitted with loops or be supplied resting on square timber. When transporting pipes, the openings must be closed using suitable protective caps. Maximum total weight of 500 kg per bundle.



5. Technical state of the packaging

5.1 General

The packaging must keep moisture, dirt and dust out. The load carriers – particularly the surfaces in contact with the material – must be in a clean and technically flawless state. No used packaging aids (e.g. cardboard, sheets, etc.) may be reused.

5.2 Cleanliness of kanban and reusable containers

The supplier must ensure that the loading aids used – particularly reusable containers – are not contaminated with preserving agents, oils, oil paper or other foreign materials.

As required to protect against contamination, the supplier must put PE bags with a rectangular base as supplied by BITZER into the containers.

If contaminated kanban and reusable containers are delivered, BITZER reserves the right either to have them cleaned by a specialist at the supplier's expense or to return them.

5.3 Exchanging loading aids

UIC fact sheet 435-4 specifies the conditions for exchanging loading aids. Loading aids which cannot be exchanged will be separately recorded and considered in an account of non-exchangeable empties. Defective loading aids can only be returned after their repair and payment of the repair costs and an administration fee to BITZER.

If disposable pallets or disposable box pallets are used for deliveries, BITZER will dispose of them with no right to compensation.

5.4 Examples of Euro pallets which cannot be exchanged

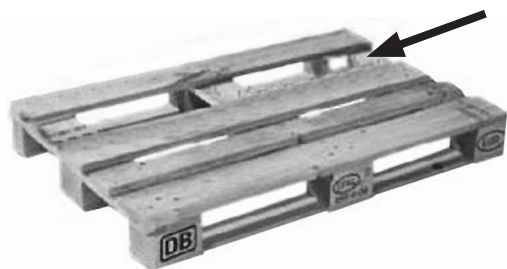


Fig. 8: Pallet 1

A board is missing.



Fig. 9: Pallet 2

A block is missing or is so split that more than one nail is visible.



Fig. 10: Pallet 3

Poor general condition – for example, rotten material, heavy splintering, boards which are too thin, blocks which are too narrow.

The 'EUR' mark to the right and the 'EPAL' mark to the left are missing.



Fig. 11: Pallet 4

A bottom or top deck board is missing or is so damaged that more than one nail or screw shaft is visible.



Fig. 12: Pallet 5

A board is broken at an angle or lengthwise.

More than two bottom or top deck boards are so damaged that more than one nail or screw shaft is visible.

5.5 Examples of pallet collars which cannot be exchanged



Fig. 13: Collar 1

The locating tabs are bent so that there is too much play in the seating of the frame and the security of the load cannot be guaranteed.



Fig. 14: Collar 2

The hinges are bent so that the parts of the collar can no longer be put flush together.



Fig. 15: Collar 3

The hinges have become detached from the wood. The load can no longer be secured.

5.6 Examples of Euro box pallets which cannot be exchanged



Fig. 16: Box pallet 1

The symbol for the train company or pallet organisation and/or the 'EUR' and 'EPAL' marks (in an oval) are missing or illegible.



Fig. 17: Box pallet 2

The base frame or the legs are so bent that the pallet no longer stands evenly on its four legs or can no longer be safely stacked. A board is missing or broken.



Fig. 18: Box pallet 3

The stacking frame or the corner uprights are deformed.



Fig. 19: Box pallet 4

The steel wire grille is torn so that wire ends protrude inwards or outwards (one mesh link may be missing per side).

6. Completeness of the delivery documents

Deliveries are complete if, apart from the goods, all of the required delivery documents are present:

- Delivery note
- Waybill (e.g. CMR, seaway bill, airway bill)
- Packing list
- Product-related documents

Product-related documents include works test reports, declarations of conformity and specifications. The product-related documents must be sent in advance by email (see table 3).

Delivery site	Documents to
Rottenburg-Ergenzingen plant	Qwe.rot@bitzer.de
Rottenburg-Hailfingen plant	Qwe.haifi@bitzer.de
Schkeuditz plant	Qwe.skz@bitzer.de

Table 3: Email accounts for documents

7. Labelling and marking

7.1 General

For every delivery of goods, there must be a delivery note with all relevant data:

- Delivery note number (optionally also as a bar code)
- Delivery date
- Supplier
- Delivery address
- BITZER purchase order number (optionally also as a bar code)
- BITZER item number
- Material description
- Quantity
- BITZER contact
- Number of packages
- Batch number (optionally also as a bar code)

Clearly legible delivery addresses must be attached to the items to be transported. If there are several delivery addresses, the items must not be in a single package. Unless otherwise agreed, for goods to be sent to BITZER the following delivery addresses may be used:

Delivery address	Times when incoming goods can be accepted
BITZER Kühlmaschinenbau GmbH Rottenburg-Ergenzingen plant Mercedesstrasse 24–28 72108 Rottenburg Germany Incoming goods contact: Tel.: +49 (0)7031 9324 377	7 a.m.–3.45 p.m.
BITZER Kühlmaschinenbau GmbH Rottenburg-Hailfingen plant Etwiesenstrasse 42–44 72108 Rottenburg-Hailfingen Germany Incoming goods contact: Tel.: +49 (0)7031 9324 427	7 a.m.–3.45 p.m.
BITZER Kühlmaschinenbau Schkeuditz GmbH Industriestrasse 48 04435 Schkeuditz Germany Incoming goods contact: Tel.: +49 (0)34 204 702 582	6.30 a.m.–3 p.m.

Table 4: Incoming goods

7.2 Labelling of packages

For each packaged unit and its contents, there must be an accompanying document. The following details must be included on this accompanying document:

BITZER material number, material description, quantity, batch/series number.

The number of packaged units must be shown in the delivery note. The BITZER material number will be provided to the supplier on our purchase order.

Adhesive labels used on containers and box pallets must be removable to avoid cleaning work resulting from adhesive residues on the loading aids.

7.3 Delivering batches

For goods produced in **batches**, there is an additional requirement for the delivery and for the individual loading units that there is an accompanying document showing the batch numbers concerned and the batch bar codes to ensure proper traceability.

For the delivery of batches, goods from different batches must not be packed into the same loading unit.

7.4 Handling symbols

International symbols in compliance with DIN 55402 must be attached in order to identify goods which require special handling.

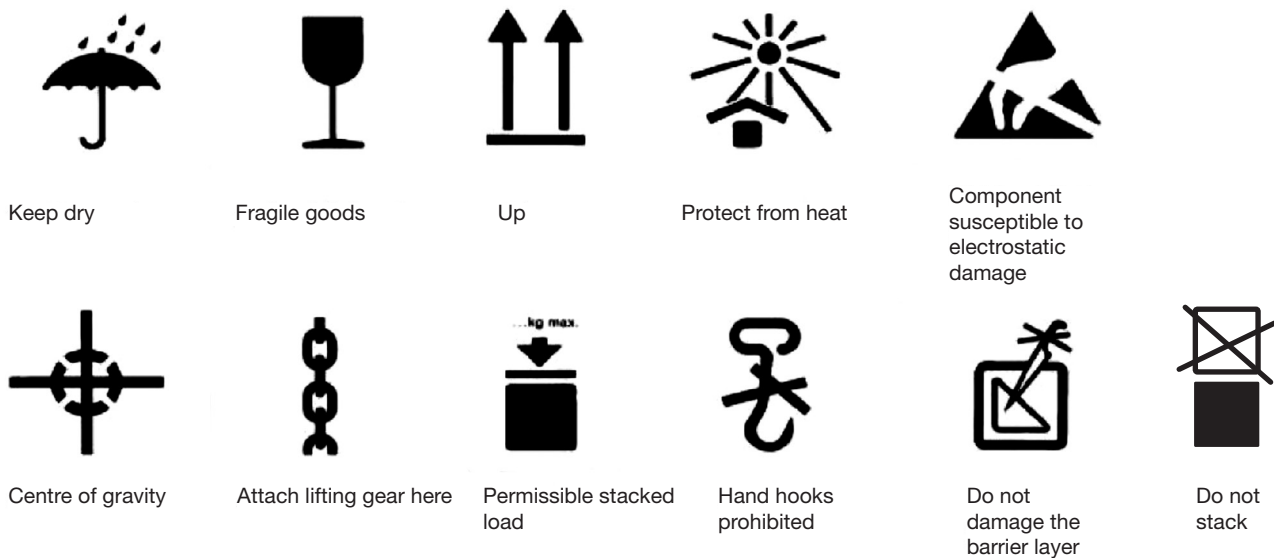


Fig. 20: Handling symbols

7.5 Hazardous material symbols

The symbols for hazardous materials can be found in the international hazardous materials code. Goods must be labelled according to the applicable code.

EU-Kennzeichnung		CLP-Verordnung						UN Rec.Tr. / ADR
Gefahrensymbol	Gefahrenbezeichnung	Kennbuchstabe	GHS-Kennzeichnung					Gefahrgutklasse
			Piktogramm	Bezeichnung	Kodierung	Signalwort	Gefahrenklasse	
	Explosionsgefährlich	E		Explodierende Bombe	GHS01	Gefahr	Instabile explosive Stoffe, Gemische und Erzeugnisse mit Explosivstoff(en), selbstzersetzliche Stoffe und Gemische, Organische Peroxide	Klasse 1 Klasse 5.2
	Hochentzündlich	F+		Flamme	GHS02	Gefahr	Entzündbar, selbsterhitzungsfähig, selbstzersetzlich, pyrophor, Organische Peroxide	Klasse 2.1 Klasse 3 Klasse 4.1 Klasse 4.2 Klasse 4.3 Klasse 5.2
	Leichtentzündlich	F						Klasse 5.1
	Brandfördernd	O		Flamme über einem Kreis	GHS03	Gefahr	Entzündend (oxidierend) wirkend	Klasse 5.1
	Keine Entsprechung			Gasflasche	GHS04	Achtung	Gase unter Druck, verdichtete, verflüssigte, tiefgekühlt verfl., gelöste Gase	Klasse 2.2
	Ätzend	C		Ätzwirkung	GHS05	Gefahr / Achtung	Auf Metalle korrosiv wirkend, hautätzend, schwere Augenschädigung	Klasse 8
	Sehr giftig	T+		Totenkopf mit gekreuzten Knochen	GHS06	Gefahr	Akute Toxizität	Klasse 6.1 Klasse 2.3
	Giftig	T						
	Reizend	Xi		Dickes Ausrufezeichensymbol	GHS07			Keine direkte Entsprechung
	Gesundheitsschädlich	Xn		Gesundheitsgefahr	GHS08	Gefahr / Achtung	div. Gesundheitsgefahren	
	Umweltgefährlich	N		Umwelt	GHS09	Gefahr / Achtung	Gewässergefährdend	Klasse 9
	Keine Entsprechung						Keine direkte Entsprechung	Klasse 6.2 Klasse 7 Hot

Fig. 21: Symbols for hazardous materials

7.6 Warehouse symbols

If no warehouse symbols are specified for a particular order, then the following warehouse labels can be used.



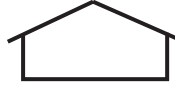
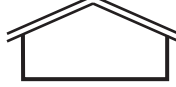

				
Outdoors	Covered hall	Closed hall	Closed, heated hall, Minimum temperature +8°C	Closed, heated, air-conditioned hall, minimum temperature: +8°C, maximum humidity: 65%

Fig. 22: Warehouse symbols

8. Packaging of hazardous goods

8.1 General

In general, hazardous goods must **not** be sent as an enclosed package with other goods. The packaging of hazardous goods must at least comply with the legal requirements of the country receiving the goods. All packaging and intermediate bulk containers (IBC) must comply with the construction and test specifications, in the version that is valid in each case, from the hazardous material regulations (ADR, RID, IMDG, IATA). The test reports for the packaging and IBC concerned must be made available to BITZER.

The material to be delivered may only be put into tested internal packages (drums, buckets, other containers). For all regulations, the specific packaging requirements, fillers and prohibitions of mixed loads must be observed.

8.2 Special requirements for packaging materials made of wood

For international trade, packaging material made of solid wood must comply with the phytosanitary rules of the IPPC treaty which is overseen by the FAO. In addition, solid-wood packaging delivered to BITZER may only have a maximum moisture content of 18–20%. The sender of the goods must ensure that the above-mentioned standards are met.

8.3 Prohibited materials

The limits for prohibited materials specified in the EU packaging directive (94/62/EU) must be observed.

9. Corrosion protection for the goods

9.1 General

For parts which require preservation, care must be taken that no residues get into the containers (use a protective film). For detailed information on the subject of preservation, please see the BITZER specifications.

9.2 VCI packaging

When using a VCI (volatile corrosion inhibitor) film, its thickness and the amount used must be chosen to be appropriate for the items to be transported and for the transport route.

Care must be taken that the packaging is clean and well sealed to permit a closed protective atmosphere and to protect from rain and water splashes/spray.

When packaging goods, care must be taken that no moist, hot or warm goods are packed and that no **filler material** such as wood, paperboard, cardboard, adhesive, paper or bubble wrap is used. For the same reason, goods should not be packaged under high humidity.

After passing customs, or after **removing some of the goods**, the packaging must again be closed cleanly and well sealed.

Damage to the corrosion protection packaging (e.g. holes or tears), which can occur during transport, loading and unloading or during general handling, must be avoided.

For **transport by sea**, the goods must also be treated with a preservative agent (see the BITZER specifications for more information).

If there are **several components** in a package, then care must be taken that there is sufficient space between them and that there is sufficient VCI material to guarantee the proper effect of the VCI protective atmosphere.

As the **effective life** of VCI materials is limited to **18–30 months**, they are not suitable for re-use.

If no reliable process can be guaranteed using standard packaging with VCI materials, then there is an option for BITZER to develop suitable packaging together with the supplier and a specialist partner for VCI packaging.

10. Empties

10.1 Returning empties

Empties must be returned on a rolling basis. Advance notice of 72 hours by phone is required for empties to be made available.

10.2 Exchanging empties

Only technically and visually flawless Euro box pallets and Euro pallets can be exchanged and charged accordingly. For further details, please see '5. Technical state of the packaging'.

11. Processing of defective packaging

The goods must be supplied undamaged in the specified type, quantity and quality. This also applies for proper packaging.

If the packaging is obviously defective when goods are delivered, BITZER reserves the right to partially or completely reject the goods, or to accept them on condition that the additional costs are charged.

The right to reject and the right to charge for the additional costs also apply for concealed defects which are only discovered later on during the process of receiving goods.

List of abbreviations

EU	European Union
DIN	German standards institute
VCI	Volatile corrosion inhibitor
IPPC	International Plant Protection Convention
FAO	Food and Agriculture Organization (UN)
UNO	United Nations Organization
ADR	European agreement concerning the international carriage of dangerous goods by road
RID	Regulation concerning the international carriage of dangerous goods by rail
IMDG	International Maritime Code for Dangerous Goods
IATA	International Air Transport Association
IBC	Intermediate bulk container
UIC	International union of railways
EPAL	European Pallet Association e.V.
CMR	Convention on the contract for the international carriage of goods by road

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