

LOGISTICS MANUAL

for the sites Monchengladbach, Aachen, Witten and Ravensburg



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1.2	01.01.2012	Editorial revision	Ulrich
1.3	02.01.2013	Editorial revision	Ulrich
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Table 1-1: History of the Logistics Manual

1 Aims

The logistics manual is intended to serve the suppliers as an overview of the requirements at particular sites of the SMS group Business Area (hereinafter referred to as "SMS group") with respect to the logistics services provided by the suppliers.

The aim of the logistics manual is to ensure the smooth flow of materials and information between the SMS group and its suppliers so that the further sequence of processes in the value-added chain is not disrupted. Furthermore, the logistics manual should help to drive a continuous improvement in the quality and delivery performance as well as in the cooperation with the suppliers.



Figure 1-1: Steps to achieving customer satisfaction

2 Scope

The logistics manual is valid for the sites Mönchengladbach, Aachen, Witten and Ravensburg.

3 Supplier responsibility

The supplier is responsible for meeting our logistic requirements and has to ensure that these are also met by his subsuppliers. The supplier must therefore ensure that the subsuppliers are able to provide the quality of logistics required.

4 General information

4.1 Explanation of terms

4.1.1 Packing aids

Packing aids are the components of the packaging which guarantee and protect the full effectiveness of the packaging. Table 2-1 shows the packing aids commonly used.

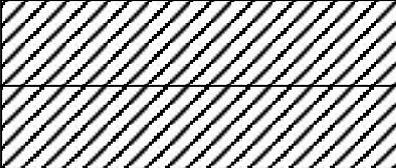
Packing aids	Examples	Remark
Package padding/filler material	Air cushions, packaging foam, polystyrene	
Strapping material	Plastic, metal and adhesive tapes	
Plastic	Stretch film	Casing for small load carriers
Wood	Squared timber	Arrangement of wedges, shafts

Table 2-1: Packing aids

4.1.2 Goods to be packed

The goods are the product to be packed and protected from impairment, and thus from a depreciation in value.

Examples:

- General cargo
- Bulk material
- Liquids
- Gas

4.1.3 Packaging means

Packaging means are containers made from various materials. They are the main component of the packaging and are used for encasing or holding together the packaged good, in order that it can be shipped, stored or sold (see table 3-2).

Containers	Materials
Box/crate	Wood
Box	Plastic
Tank/container	Cardboard box

Table 2-2: Packaging containers and materials

4.1.4 Packaging

The packaging is the totality of all the packing aids and packaging means together. It is the purposeful affixation of a detachable encasing around a product.

4.1.5 Load carriers

Load carriers such as pallets and containers are used for holding together goods for transportation and storage.

4.1.6 Packaging unit

A packaging unit is the totality of all packaged goods, load carriers and packaging combined to form one unit.

4.1.7 Summary of terms

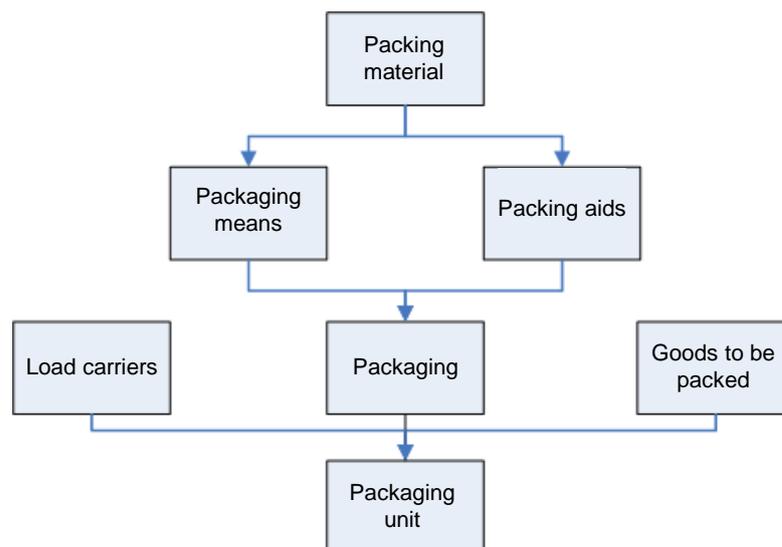


Figure 4-1: Overview of terms

5 Our logistic requirements

5.1 Delivery service

5.1.1 Delivered quantities and adherence to delivery dates

The supplier shall be fundamentally obliged to adhere to the delivery date agreed with the SMS group. Furthermore, the SMS group shall accept deliveries which are delivered a maximum of 14 working days before the scheduled delivery date. The SMS group reserves the right to refuse acceptance of deliveries which are delivered more than 14 days before the scheduled delivery date or to return the goods to the suppliers. All costs incurred shall be borne by the supplier.

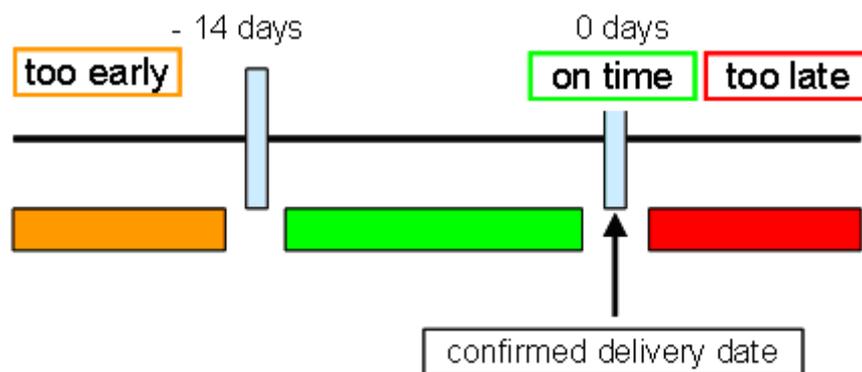


Figure 5-1: Definition of "adherence to deadlines" at the SMS group

Moreover, the goods supplied must correspond exactly with the quantity of goods ordered in accordance with the purchase order. Part shipments may only be made with the prior approval of the Purchasing department at the SMS group.

5.2 Preservation

All products which could be impaired through interaction with their environment should be protected in a suitable manner. The planned mode of preservation (if required) is to be taken from the manufacturing specification SN 200 Part 7 provided to the supplier. If the supplier does not have this specification it is his/her responsibility to request or obtain one.

To prevent creepage corrosion, only surfaces which are completely dry should be preserved. At the same time ensure that the surfaces to be preserved are free from grease, oil, dust and rust films.

5.3 Packaging

The packaging must be chosen such that it fulfils its function of protecting and transporting the packaged goods, thereby ensuring easy handling and preservation of quality.

- Protective function: The goods must be protected by suitable packaging against damage, contamination, theft or environmental influences which could adversely affect the quality of the goods.
- Transport function: The goods must be packaged in such a way that the rationalized movement and storage of the goods is possible either manually or by a lift truck or crane. Consequently, when moving the goods by hand or by lift truck, the hollow space between the pallet feet should not be obstructed by packing aids. Furthermore, it must be ensured that the goods cannot slip or get lost during transport.

In addition to factors such as logistics and quality assurance of the goods, economic and ecological factors must always be taken into consideration when choosing the packaging.

5.3.1 Requirements to be met by the packaging

To ensure the packaging is able to perform the above functions, it must satisfy the following requirements:

- Environmentally-compatible, recyclable materials must be used for all types of packaging.
- Reusable packaging should be chosen over single-use packaging.
- The packaging must protect the packaged product from external influences such as damage, theft, contamination and weather conditions.
- The packaging must protect the packaged goods against corrosion.
- The goods must be packaged according to type or prevented from being mixed with other goods during transportation.
- The goods must be packaged on a per-consignment basis (if necessary per purchase order item)
- The properties of the packaged goods must be marked (comp. 4.4.2)

- The packaged goods must be delivered in suitable packaging
- The packaging should allow an uninterrupted transport chain from the supplier to the SMS group.
- The packaging must be suitable for smooth handling and be able to withstand multiple loading and unloading.
- The packaging should, wherever possible, be stackable.

5.3.2 Types of packaging

- Single-use packaging: Single-use packaging: Single-use packaging is only suitable for a single application/transport route and should be disposed of afterwards. The use of single-use packaging must be examined with regard to its cost efficiency.
- Multi-use packaging: Multi-use packaging is suitable for repeated use without impairing the protective, storage and transport function of the transported goods. Due to its longer service life, it should be given preference over single-use packaging wherever possible.

5.3.3 Standardised load carriers

The packaged goods and packaging must always be delivered on standardised load carriers (see table 3-1). This facilitates and rationalizes the movement of goods and the transportation within the business premises of the SMS group. The use of non-standard load carriers is only allowed after consultation with the SMS group or as a result from an individual and written agreement.

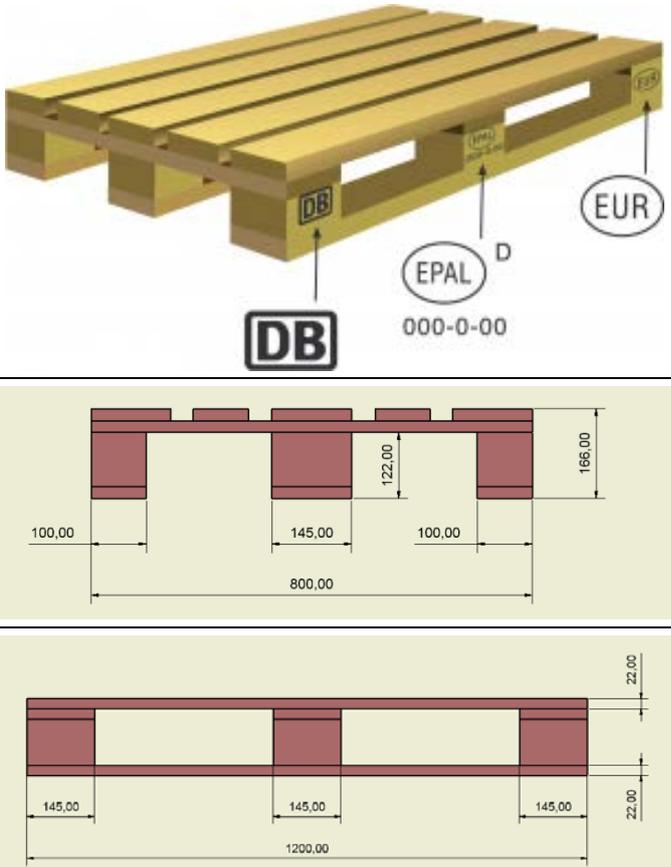
Standardised load carriers	Example
<p>DIN Euro pallet / Euro pool pallet Manufactured according to goods standard UIC-435-2; integrated into DIN 15146-2 Dimensions 1,200 x 800 x 144 mm Dead weight 25 kg Load-bearing capacity 1.5 t Identifier = fire symbol</p>	
<p>DIN Euro box pallet Manufactured according to goods standard UIC-435-2; integrated into DIN 15146-2 Dimensions 1,200 x 800 x 970 mm Dead weight 85 kg Load-bearing capacity 1500 kg Loading capacity 0.75 m³</p>	
<p>Pallet collar An alternative to box pallets. The collars can be folded (4-6 hinges) and can be stacked as required. Dimensions 1200 x 800 x 200 mm Dimensions 1200 x 800 x 400 mm Dimensions 600 x 800 x 200 mm</p>	

Table 3-1: Overview of standardised load carriers

5.3.4 Condition of the load carriers

Before shipping the goods the supplier must always check that the load carrier is in proper condition, has not been damaged and can be safely exchanged, in order to avoid disruptions during the course of further transportation and safeguard the exchangeability of the load carriers. Defective, inadmissible or damaged load carriers shall not be exchanged by the SMS group. Repacking work which is necessary because of defective, inadmissible or damaged load carriers shall be carried out at the supplier's expense.

The following conditions are not permitted in the case of pallets or pallet collars:

- A board is missing.
- A board is laterally or diagonally broken
- A block is missing or has disintegrated or broken away to such an extent that more than one nail or screw shaft is visible.
- More than two bottom-edge or top-edge boards have broken apart to such an extent that more than one nail or screw shaft is visible.

The following delivery condition is not permitted in the case of box pallets:

- The front panel flaps cannot be moved or are so deformed that they can no longer be opened or closed.
- The base frame or feet are hidden to such an extent that the box no longer stands on four feet or can no longer be safely stacked.
- A board in the floor is missing or broken.
- The steel lattice is so torn that the wire ends protrude inside or outside.

The delivery condition of pallets and boxes is based on the exchanging criteria of the pallet association Gütergemeinschaft Paletten e.V.

(Read more at <http://www.gpal.de>).

5.4 Labelling of goods

Before a packaged product and packaging unit is made available for shipping it must be labelled accordingly. This ensures the packaged product and packaging unit can be clearly identified. Mistakes and mix-ups are thereby avoided.

5.4.1 Packaging unit

The labelling of the packaging unit represents an important exchange of information between the SMS group and the supplier regarding the goods supplied. To ensure a smooth goods acceptance process, the packaging unit labelling must contain the following components:

- Address of supplier / consignor
- Address of consignee
- Order number
- Purchase order number
- Weight

The labelling of the goods must be selected in such a way that it is clearly legible on the outside at all times. To this end the labelling of the goods must be affixed to the front and side of the packaging (see Fig. 5.2). Furthermore, the labelling must be selected such that its legibility is not impaired during transportation or other environmental influences.

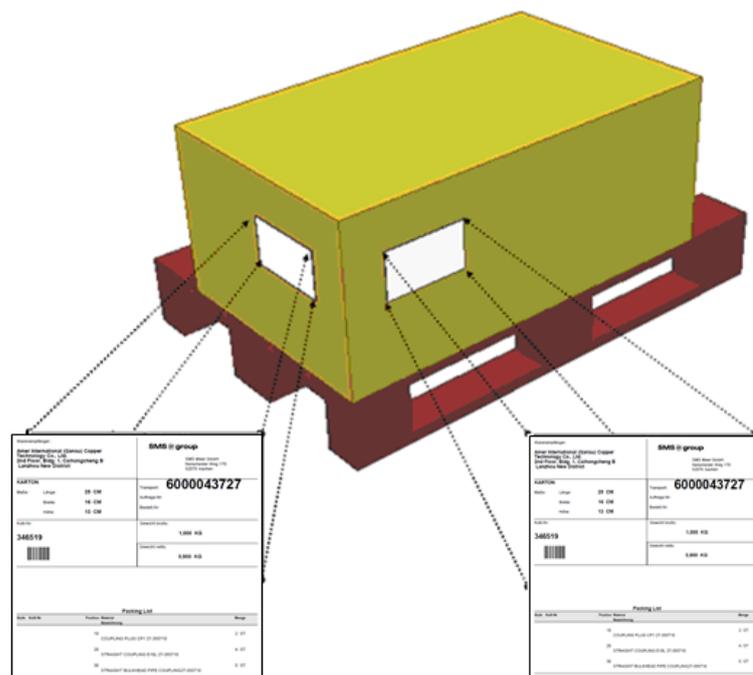


Figure 5-2: Identification of the packaging

5.4.2 Identification of the handling properties

If the package needs to be handled in a particular way, the packaging must be sufficiently marked according to the handling properties (e.g. fragile, top-heavy) to ensure it is handled appropriately. Figure 5-3 shows the markings which should be used.

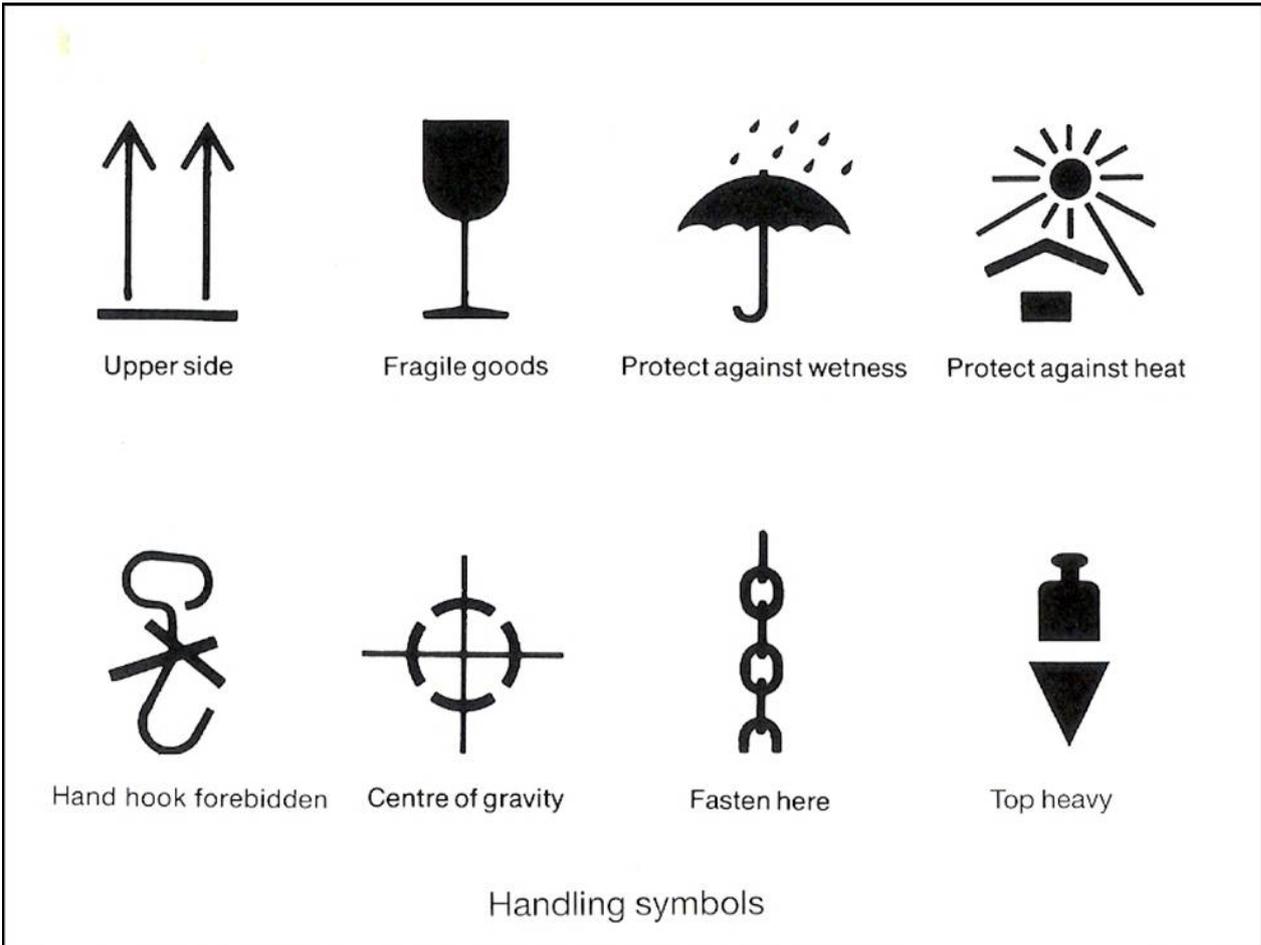


Figure 5-3: Symbols for handling

5.4.3 Storage class identification

The approved storage classes (see Fig. 5-4) must also be marked. The most sensitive product packaged is used as a basis for determining the storage classes. If none is specified by the SMS group, the supplier of the goods must specify the respective storage class. The selected storage class shall also be documented in plain text in an appropriate place in the accompanying documents of the goods (e.g. delivery note or packing list).

No.	Symbols	Meaning
1		open-air storage
2		open-air roofed storage
3		indoor storage
4		indoor heated storage, min. temp.: +8 °C
5		indoor heated, air cond. storage, min. temp.: +8 °C, max. humidity: 65 %

Figure 5-4 :Storage classes

5.4.4 Goods to be packed

The supplier must ensure that each individual product to be packaged is provided with a separate goods tag (see Figure 5-5). The following information is an essential part of the identification marking of goods to be packed.

- Order number
- Drawing number
- Purchase order number
- Designation
- Item number
- Quantity
- Final consignee

Order Number/ Auftragsnummer 120-4500000	Drawing Number/ Zeichnungsnummer 0222-12.222
Designation/ Bezeichnung Führung	
Purchase Order Number/ Bestellnr. 3RR-355123335	Quantity/ Stückzahl 12,00 pieces/ Stk.
Item Number/ Positionsnummer 15	
Customer/ Kunde Mustermann GmbH	

Figure 5-5: Example of goods label / marking

5.4.5 Special requirements for long materials

Supplies of long materials are governed by supplementary regulations:

- Long material must be secured using metal straps only
- The long material must be delivered on a per production order basis (order-related labelling)
- Long material must be secured in every direction to prevent it sliding
- Long material must be identified by a tag which is attached by wire or glue

5.5 Transport

The goods must be transported in closed vehicles or under tarpaulin. The following points regarding shipment from the supplier to the SMS group must also be observed:

- The haulier / carrier must be given the correct accompanying documentation for shipment of the goods
 - The supplier shall undertake to ensure that the goods prepared for shipment are properly stored until they are collected by the carrier/freight forwarder
- Protection from the weather
 - Protection against corrosion
 - Protection against damage
 - Protection against contamination

5.5.1 Delivery and incoming goods

The goods shall be delivered to the delivery address in Incoming Goods indicated on the purchase order (see section 5.5.2).

The unloading of the delivery at other places on the works premises is only allowed after consultation with the staff in the Incoming Goods department. The road traffic regulations apply throughout the works premises.

5.5.2 Delivery address and delivery times

SMS group GmbH

Landgrafenstrasse 59

41069 Moenchengladbach

Germany

Delivery times: Monday to Friday, 7.00 a.m. until 2.00 p.m.

SMS group GmbH

Ring Rolling Product Unit

Stockumer Strasse 28

58453 Witten

Delivery times: Monday to Friday, 7.00 a.m. until 2.00 p.m.

SMS group GmbH

Schumag & Copper Product Unit

Nerscheider Weg 170

52076 Aachen

Delivery times: Monday to Friday, 7.00 a.m. until 2.00 p.m.

SMS group GmbH

Zuppinger Strasse 5

88213 Ravensburg

Delivery times: Monday to Friday 7.00 a.m. until 11.30 a.m. and 1.00 p.m. until 2.30 p.m.

5.5.3 Transport of hazardous goods

The applicable versions of the obligations governing hazardous goods - as stipulated in the Carriage of Hazardous Goods Act and the regulations pertaining to it - must be observed and fulfilled accordingly.

Furthermore, all laws and statutory specifications concerning hazardous goods in the applicable version must be adhered to.

Notification of the shipment of hazardous goods must be given to the delivery address in writing together with the safety data sheets (German and English) no later than 4 weeks prior to delivery.

5.5.4 Oversize loads

Corresponding precautionary measures must be taken for the shipment of oversize loads. An overview of abnormal loads is given in Fig. 5-6.

Notification of the shipment of oversize loads must be given no later than 4 weeks prior to delivery.

5.5.5 Heavy goods

Corresponding precautionary measures must be taken for the shipment of heavy goods. An overview of abnormal loads is given in Fig. 5-6.

Notification of the shipment of heavy goods must be given no later than 6 weeks prior to delivery.

Max. length (cm)	Max. width (cm)	Max. height (cm)	Max. payload (to)	Shipment category
1360	250	250	24	Standard shipment
1600	300	300	24	Oversize goods shipment with long-term permit
> 1600 – 1800	> 300 – 320	> 300 – 350	30	Oversize goods shipment subject to individual permit
> 1800	> 320	> 350	> 30 – 50	Oversize goods shipment subject to individual permit
1360	250	250	> 24 – 50	Heavy goods shipment subject to individual permit
1360	250	250	> 50 – 90	Heavy goods shipment subject to individual permit
> 1800	> 320	> 350	> 50 – 90	Oversize and heavy goods shipment subject to individual permit
> 1800	> 400	> 450	> 50 – 90	Oversize and heavy goods shipment subject to individual permit
> 1800	> 400	> 450	> 100	Extreme heavy goods shipment subject to individual permit

Figure 5-6: Special load shipment

5.6 Documents accompanying the goods

Sample delivery note

Delivery adress:

Delivery note	80128601
Date	2007-09-20
Your Purchase Order	2 DM-4501287336
Order date	2007-02-27
Our order	177599 / 2007-03-30
Customer number	202642
Person in charge	
Project name	

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Bedingungen:
 Lieferbedingungen: EXW LINZ, verpackt
 Versandbedingungen: per ABHOLUNG
 Gewichte (Brutto/Netto) - Volumen - Markierung
 Bruttogewicht 272 KG
 Nettogewicht 272 KG



Pos./ Item	Materialbezeichnung/ Material designation	Menge/ Quantity	Gewicht/ Weight
	Your Item No. 010 Order No. 9404798-0900-008		
10	30291154 HYDRAULIC CYLINDER TYPE: 3563.2 SZ 5036 - 200 D Fabr. Nr.: 235891-235892/2007 Customer Article No.: 0161004-12.012	2 ST	18 KG
	Ihre Pos.Nr.: 0040 Auftrags-Nr.: 9404798-0900-057		
40	30294784 HYDRAULIKZYLINDER TYPE: 3563.2 FL 1005656 - 70 D Fabr. Nr.: 235897-235898/2007 Kundenartikelnummer 0160008-23.011A	2 ST	230 KG
	Ihre Pos.Nr.: 0070 Auftrags-Nr.: 9404798-0900-067		
70	30274764 HYDRAULIKZYLINDER TYPE: 3563.2 SZ 5036 - 75 D Fabr. Nr.: 235901/2007 Kundenartikelnummer 0160008-30.011	1 ST	7 KG

Supplier information

Supplier information

Figure 5-8: Sample delivery note

5.6.2 Packing list

If a delivery consists of several packaging units, one packing list for each unit must be attached to the delivery note and include the following information:

- Packaging unit number
- SMS group drawing / parts number
- Supplier's drawing / parts number where appropriate
- Brief description of individual parts
- Net and gross weight per packaging unit
- Quantity

On request, SMS group will provide the supplier with a digital version of the blank packing list form. (see Fig. 5-9)

PACKING LIST

Delivery Note No. :

Contract-No. **Dated**

Seite: von: of Ausstellungdatum:

Page Date:

Kennwort:

Codeword:

Klient / Client:

Packstück Nr. Package No.	Art. Kind (O)	verwogenes Gewicht (kg) Weighed out KG		vermessene Maße (cm) Rated measurements (cm)			Kubage (m3) Volume (m3)	Lagerklasse Storage class (+)	Klient / Client:
		Netto/Net	Brutto/Gross	Länge/Length	Breite/Width	Höhe/Height			
SMS-Best.(P.O.) & Pos.No.		PSP-Element	ITEM						Inhaltsbezeichnung/Contents Description of Goods
				Zeichnung-Nr. Drawing No.					
				Material -No :					
				Menge Quant.					

**(O) Verpackungsart
/ Kind of Package:**

00 unstacked 06 carton
01 case 07 drum
02 crate 08 container
03 sledge 09 hobcock
04 bundle 10 cask
05 pallet

(+) Lagerklasse / Storage class:

1) open air storage
2) open air roofed storage
3) indoor storage
4) indoor headed storage
5) air conditioned storage
6) special storage area for dangerous cargo

Lieferant/Supplier : **Subsupplier:**

Figure 5-9: Example of a packing list

5.6.3 Consignment note

The consignment note must contain the following information:

- Address of consignee
- Consignor / delivery address
- Incoterms
- Number of packaging units which are part of the delivery
- Total weight of the delivery
- Handover/dispatch date of the delivery

5.6.4 Customs documentation

The customs documentation must be attached to goods delivered from non-EU countries. The supplier is responsible for drawing up all the documents required for customs clearance and for handing over these documents to the haulage company.

6 Communication

The implementation of an optimal logistics chain is only possible with the aid of effective communication between the supplier and the SMS group. Successful cooperation is built on adhering to the rules and agreements drawn up as well as on the immediate and unrequested communication of information which concerns such cooperation.

6.1 Information disclosure requirements

- Binding notice of the readiness for shipment must be sent to the KEP service, the shipping agent or the the SMS group Logistics department in writing at least 2 working days before delivery in accordance with the order specification and the agreed delivery terms.
- The period for notice must be increased for large or hazardous goods transports requiring transport approval (see point 5.5.3, 5.5.4 and 5.5.5).
- The origin of the goods must be clearly stipulated with the aid of a supplier's declaration or certificate of origin.

6.2 Voluntary disclosure of information requirements

The supplier must immediately advise the SMS group of any apparent delivery bottleneck that could affect the delivery date or quantities. The bottleneck deadlines shown in Table 4-1 must be observed under all circumstances.

Type	Time to delivery date	Response time
Short-term	< 10 days	Within 24 hours
Medium-term	> 10 days < 3 months	Within 3 banking days
Long-term	> 3 months	Within 1 week

Table 4-1: Bottleneck deadlines

7 Costs

In the event that the supplier is responsible for non-compliance with any of the requirements listed in this logistics manual, the SMS group reserves the right to charge the costs incurred to the supplier.



MEETING your **EXPECTATIONS**

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