

# **Packaging Handbook Suppliers**

## **供应商包装手册**

**Specification for the packaging of purchased parts**

**采购零件的包装规范**

Packing Team  
Central Technology  
01.2015

**Schaeffler ( China ) Co., Ltd.**

## Catalogue 目录

1 General 概要 .....	4
1.1 Purpose of the Handbook 手册的目的 .....	4
1.2 Area of Application 适用的范围 .....	5
1.3 Contacts 联系人 .....	5
2 Packaging specifications and requirements 包装说明和要求 .....	6
2.1 Packaging specifications 包装说明 .....	6
2.1.1 Design of packaging by the supplier: 供应商设计包装: .....	6
2.2 Packaging requirements 包装要求 .....	7
2.2.1 General packaging requirements 普通包装要求 .....	7
2.2.2 corrosion protection 防锈保护 .....	8
3 Design of packaging 设计包装 .....	10
3.1 Packaging determination and process 包装定义及流程 .....	10
3.2 Standard for expendable packaging 一次性包装标准 .....	13
3.2.1 Dimension of pallet 托盘 尺寸 .....	13
3.2.2 Design 设计方案 .....	15
3.2.3 Requirement for size and quality 尺寸以及材质要求 .....	16
3.2.4 Drawing for inner box 小纸盒设计图 .....	16
3.2.5 Masses 集合 .....	19
3.3 Standard of returnable packaging 可回收包装标准 .....	20
3.3.1 Principle of returnable packaging design 可回收包材设计原则 .....	20
3.3.2 Returnable packaging category 可回收包材分类 .....	21
3.3.3 Schaeffler KLT 舍弗勒塑料箱标准 .....	21
3.3.4 Steel standardized container 金属标准箱 .....	23
3.3.5 Standardized wooden container 木制标准箱 .....	25
4 Marking of packaging 包装标识 .....	26
4.1 Marking of individual inner box and carton 单件包装和外箱包装的标识 .....	26
4.2 Printing for Container 周转器具印刷 .....	26
5 Packaging change process 包装更改流程 .....	27
5.1 Objective and summary 目的和概要 .....	27

5.2 Process overview 过程概览 .....	27
5.3 Flowchart 流程图 .....	28
6 Appendices 附件 .....	29
6.1 Packaging data sheet for supplier 供应商包装数据表.....	29
6.2 Sample label 样品标签 .....	29

# 1 General 概要

The definitions and specifications described here are for the supply of goods to Schaeffler plants ,and on the basis of our conditions of business, are valid as additional contractual agreements supplementing our general purchasing conditions.

这里的定义和规范，描述了供应商给舍弗勒工厂供应货物的要求。在我们业务条件的基础上，将作为额外的合同协议来有效补充我们的一般采购条件。

## 1.1 Purpose of the Handbook 手册的目的

This handbook is intended to provide a practical guideline for packaging development which is simply and easily understood, and to give suppliers necessary information about the existing guidelines and specification in the area of packaging.

这本手册的目的是提供一种结构简单，易于理解和包装发展的指导方针，并给供应商对现有的准则和包装领域规范的信息。

The purpose of the specifications described here is  
在这里描述的规范的目的是，

- > to define the responsibility of supplier  
明确供应商的责任范围
- > to optimize containers and packaging design  
优化容器和包装设计
- > to standardize dimensions  
定义包装的标准尺寸
- > to agree with content per packaging unit  
同意每个单元包装的数量和内容
- > to correct and complete labeling of all packaging  
正确和完整的包装标识

intend to achieve an unhindered flow of materials between suppliers and Schaeffler and avoid unnecessary repacking work.

以实现在舍弗勒和供应商之间顺利的物料流程，防止不必要的重新包装。

## 1.2 Area of Application 适用的范围

This Packaging Handbook is valid for deliveries to Schaeffler plants in China.

这个包装手册对于交付中国的舍弗勒工厂是有效的。

The Packaging Handbook prescribes the process and requirements for the packing of production parts (including subcontracting)

该手册规定了来料产品的包装过程

## 1.3 Contacts 联系人

Plant	Packaging specialists	Telephone no.	E-mail
Plant 1	Ms. Zhao, Chunyan	+86 512 5395 7826	zhaocny@schaeffler.com
Plant 2	Ms. Wang, Danlei	+86 512 5395 8618	wangdle@schaeffler.com
Plant 3	Ms. Shen, Dan	+86 512 5395 8239	shendan@schaeffler.com
Plant 4	Mr. Zhang, Shuai	+86 512 53959218	zhangsh@schaeffler.com
Plant 5	Ms. Shen, Dan	+86 512 5395 8239	shendan@schaeffler.com
Plant Nanjing	Mr. Xu, Jie	+86 25 8106 1367	xuje1@schaeffler.com
Plant Yinchuan	Ms. Zhang, Juan	+86 951 207 2020	zhjua@schaeffler.com

## 2 Packaging specifications and requirements 包装说明和 要求

### 2.1 Packaging specifications 包装说明

#### 2.1.1 Design of packaging by the supplier: 供应商设计包装:

In this case, which generally refers to manufactured goods that are manufactured in Schaeffler plants, the packaging should be designed by the supplier in accordance with the guidelines

在这种情况下，通常对于在舍弗勒工厂进行加工的制造件，供应商应按照指导规则设计包装

##### 2.2.1 General packaging requirements 普通包装要求

##### 3.2 Standard of expendable packaging 一次性包装设计

##### 3.3 Standard of returnable packaging 周转包装设计

##### 4.1 Markings of individual inner box and cartons 单件包装和外箱包装标识

##### 4.2 Printing for Container 周转器具印刷

In general, suppliers use their own packaging 一般来说，供应商使用自己的包装。

The Packaging Technology department prepares packaging requirement for parts, and this will be presented to suppliers and packaging data sheet by Schaeffler Purchasing department or SQE.

包装技术提供一个零件的包装要求，舍弗勒采购或者供应商质量管理工程师提交给供应商包装要求和包装数据表格。

The supplier is responsible for requesting the packaging data sheet from Schaeffler Purchasing and must finish the form in time (15 working days before it is required) . And before M4 sample , the packaging agreement must be confirmed with Schaeffler company. For small quantities, the quantity of packaging requirement is calculated on the basis of annual demand.

供应商有责任从舍弗勒采购处得到必要的包装要求并且必须及时填好表格（必须 15 个工作日之前），并且在 M4 样品前与舍弗勒确定包装协议。对于供货量少的产品，包装数量的计算必须在年需求的基础上。

## 2.2 Packaging requirements 包装要求

### 2.2.1 General packaging requirements 普通包装要求

Packaging should be designed with ecological, economical, and quality criteria in mind.

包装设计必须满足环保性，经济性和质量标准

the following points must be observed to ensure that the parts are delivered with the required quality.

为了保证零件安全完好的交付，必须符合下列各点要求。

> The parts must be free of damage, corrosion, and contamination in accordance with the drawing requirements and technical delivery condition.

零件必须免于破损，生锈，和污染，保持与图纸要求和运输技术条件的一致性。

Corrugated cardboard can not be in direct contact with parts where residual contamination is critical(see drawing).

如果 (根据图纸)残留的污染会对产品产生影响，那么产品绝不能与瓦楞纸接触。

The relevant VDE and DIN standards must be observed for parts that are electrostatic ally sensitive(ESD).

对于需要防静电的产品，需要遵循 VDE,DIN 等相关标准。

> The main packaging (container, carton) and some other basic packaging (film, plastic bag, tubes, formed inserts, etc.) must ensure the protection of the parts against

主要包装（外箱，纸箱等）和其他的基本包装(塑料薄膜，塑料袋，管子，衬格等)必须能保证对零件起到对抗以下损害的保护作用

- mechanical damage (e.g. deformation, impact points, etc.)

机械性硬伤（例如变形，碰撞点等）

- corrosion.腐蚀

> Internal plastic packaging must use Eco-friendly materials, for example PE,PP,PS,ABS and so on. Non Eco-friendly materials are prohibited, for example PVC etc.

内包装（如模板、塑料袋等）要求使用环保材料，例如 PE,PP,PS,ABS 等。不允许使用非环保的材料，例如 PVC 等。

> Due to the increased risk of injury, carton cover must be closed with adhesive tape. but not with metal staples

由于存在意外伤害的风险，纸箱盖不能用金属钉闭合，应采用胶带。

> The delivery packaging must adequately secure the containers or cartons during transport and handling.

发货包装必须充分保护运输和装卸过程中的容器或纸箱。

### **2.2.2 corrosion protection 防锈保护**

Suppliers must provide suitable measures to protect purchased parts that are susceptible to corrosion.

对于易腐蚀的外购件，供应商必须提供合适的防锈保护。

The selected corrosion protection must take into consideration the standard climatic factors that prevail during transportation to and storage in the receiving plant.

在选择防锈保护措施时，运输时的气候条件和到达工厂的仓储条件必须被考虑进去。

Anti-corrosion protection of purchased parts 采购件的防锈保护

Required anti-corrosion agents and periods of effectiveness 必要的防锈剂和有效期

Purchased parts that are prone to corrosion during transport or storage must be protected by the supplier using suitable anti-corrosion agents agreed with Schaeffler .

采购件在运输过程中或储存易受腐蚀，供应商必须得到舍弗勒的同意使用适当的防锈剂对其进行保护。

The anti-corrosion methods permitted by the Schaeffler Group department Production Chemistry are as follows:

舍弗勒集团的化学部门许可的防锈方法如下：

KA 2 = anti-corrosion protection by immersion 防腐蚀浸泡保护

KA 4 = anti-corrosion protection by spraying 防腐蚀喷洒保护

KB 4 = anti-corrosion protection for mounting (parts lightly oiled) 防腐蚀装备保护（零件轻度喷油）

KC 2 = dry anti-corrosion protection 干式防锈保护

For manufactured goods (parts assembled at Schaeffler), dry anti-corrosion protection is generally used (= VCI paper) in conjunction with light anti-corrosion protection for mounting (= light oiling).



对于制成品（在舍弗勒组装的零件），一般使用干式防锈保护（=防锈纸）与轻度防锈一起保护装备（=轻度喷油）。

**Ba is a prohibited substance for Schaeffler.**

舍弗勒不允许使用含有 **Ba** 元素的防锈油。

**If anti-rust oil must be used, the type and composition of the anti-rust oil must be submitted to Schaeffler together with packaging specification. Schaeffler will determine whether the oil is allowed to be used .**

如果必须使用防锈油，供应商必须在提交给我们的包装规范中注明防锈油的型号和成分。由舍弗勒判定是否允许使用。

**In the case of parts for import, anti-corrosion protection by immersion or spraying (= oiling) is generally used for manufactured and traded goods.**

对于进口零部件，防腐蚀保护浸泡或喷洒（=防锈油防锈）通常用于制造和贸易的产品。

**The supplier is responsible for corrosion protection of products and the supplier must ensure the following anti-corrosion periods:**

产品防锈是由供应商负责，供应商必须确保以下的防腐时期：

<b>for local supplier</b>	<b>6 month</b>
国内供应商：	6 个月
<b>for oversea supplier</b>	<b>12month</b>
国外供应商：	12 个月

**Normally, this preservation should be started from production date of supplier, and the supplier tried to send the products as fast as possible to Schaeffler.**

通常情况下，防锈保护的日期应该从供应商产品生产开始，供应商要尽早将产品发给舍弗勒。

**Specific rust-proof requirements will be adjusted according to production requirements**

对于特殊的防锈保护要求，将根据生产要求来调整。

## 3 Design of packaging 设计包装

### 3.1 Packaging determination and process 包装定义及流程

In order to fulfill the packaging requirements, the packaging structure must be defined for each product. This is defined in writing as follows

为了满足包装要求，包装必须为每个产品定义。书面定义如下

The packaging data sheet is sent to the supplier by Schaeffler Purchasing and must be returned completed by the supplier within 15 working days to the Central Technology development.

舍弗勒采购把包装数据表发送给供应商，并且表格必须在 15 个工作日内由供应商交回舍弗勒中央技术部。

To ensure that inbound delivery fulfills the relevant quality requirements ,the packaging for each product must be agreed at an early stage. This agreement reached using the process depicted above and must be completed before the first volume production delivery.

为了确保运输到达时，产品符合相关的质量要求，每个产品的包装规范必须在初期阶段就被确定下来。这一规范必须延伸至产品使用过程描述上，而且必须在第一次大量供货前确定下来。

> The packaging design becomes legally binding as an agreement when it is signed by the supplier and authorized, by the plant packaging technologist and by Schaeffler Purchasing. However, approval of packaging does not release the supplier from his responsibility for the delivery of undamaged parts.

包装设计在供应商与舍弗勒包装技术及采购签字后作为一种协议具有法律约束力，但是包装的批准并不能免除供应商交付未受损零件的责任。

> Any variations for justified reasons (e.g. packaging prior to volume production for new production startups) must be agreed by the Packaging specialist.

如有正当理由的变化（例如包装设计先于新产品的批量生产）必须得到包装技术的同意。

The improved packaging does not release the supplier of his responsibility to ensure that the delivery is received by the plant with the required level of quality.

包装的改进并不能免除供应商送货过程中保证产品质量直到到达舍弗勒工厂的责任

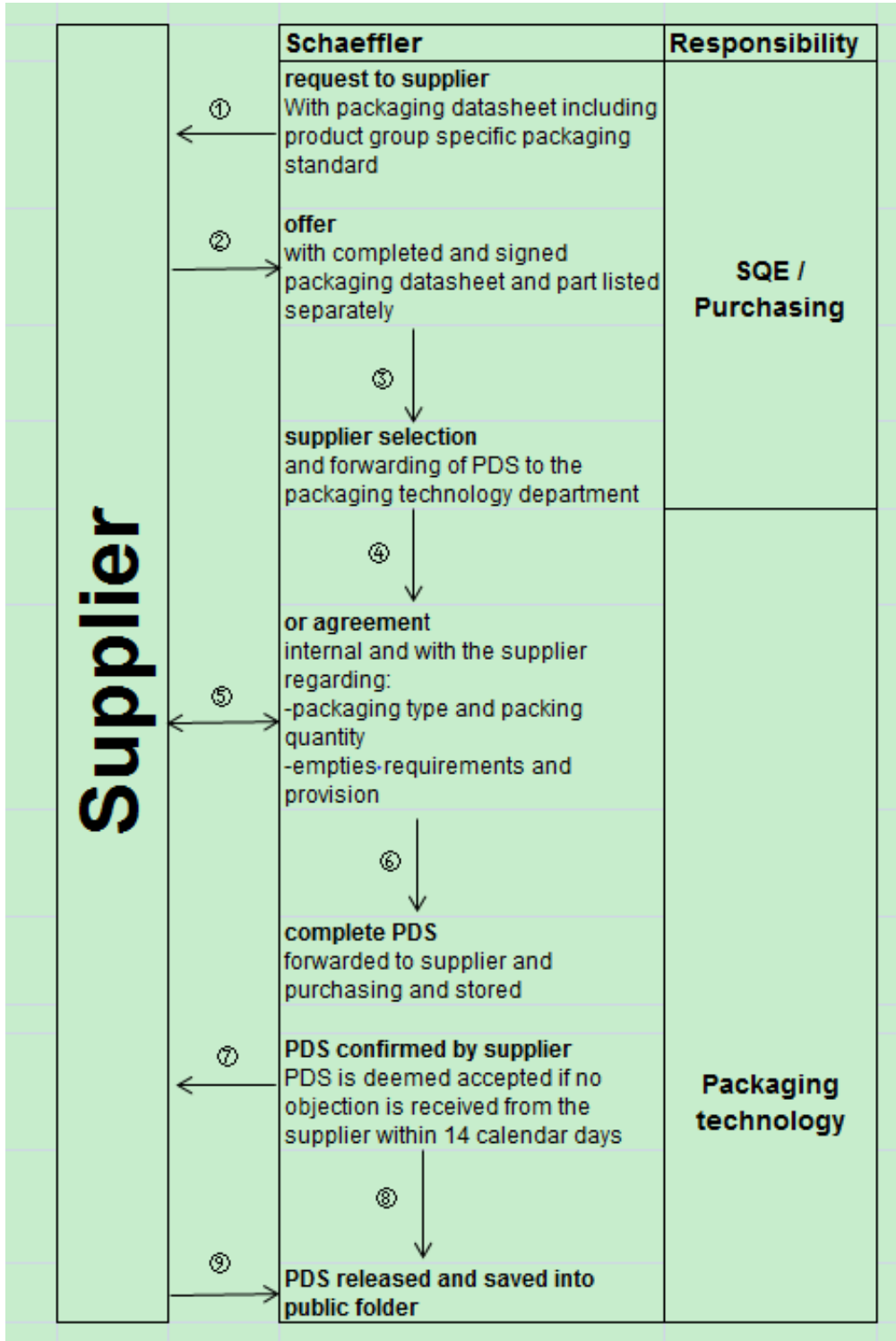
> If the packaging used by the supplier does not comply with the agreement, Schaeffler reserves the right to investigate the responsibility of suppliers.

如果供应商所使用的包装与协议不一致，舍弗勒保留追究供应商责任的权利。

supplier is responsible that parts arrive in accordance to drawing and technical conditions when load unit is handled correct and under local usual transport and storing conditions. For this the supplier has to use adequate processes and packaging.

供应商必须保证在合理装卸与当地运输储存条件下，在产品抵达舍弗勒工厂时，保持良好的性能，与图纸保持一致。因此，供应商必须使用合理的程序和包装。

Process 流程



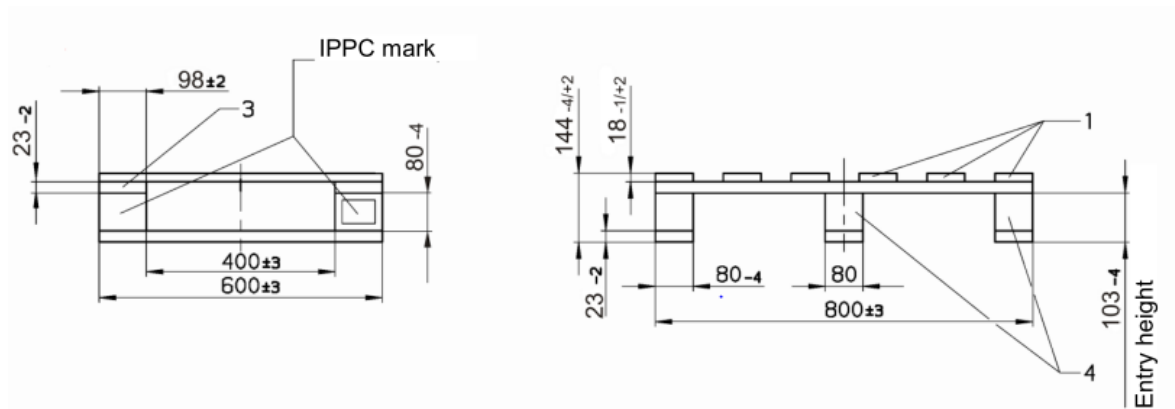
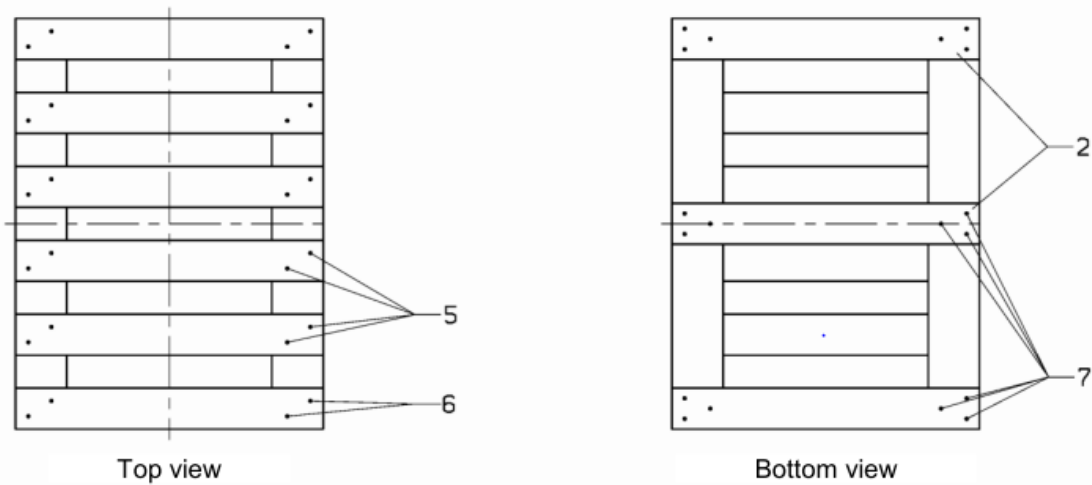
### 3.2 Standard for expendable packaging 一次性包装标准

#### 3.2.1 Dimension of pallet 托盘 尺寸

##### INA&FAG

For INA and FAG products, the external dimensions of the pallet must be 800\*600mm, 1200\*800mm or 1200x1000mm.

对于 INA 和 FAG 的产品,托盘的外部尺寸必须为 800×600mm, 1200×800mm 或者 1200x1000mm。



Example



IPPC symbol

DE	=	Country code for Germany
YY	=	Code for the region
49XXXX	=	Company registration number
HT	=	Heat treatment
DB	=	Debarked

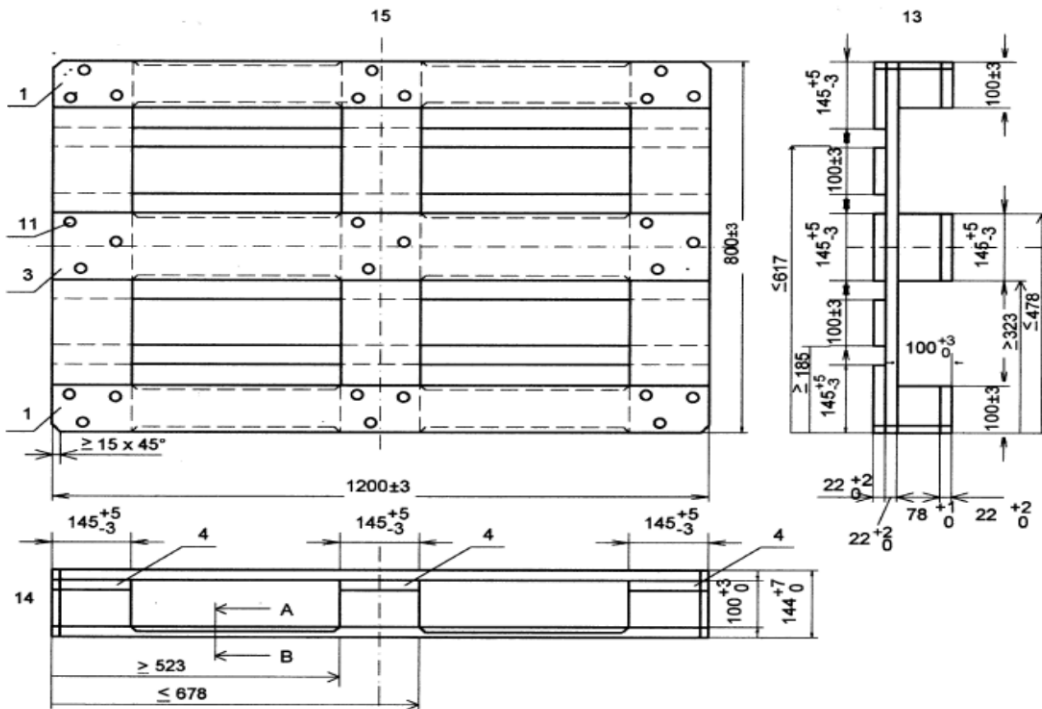
LUK

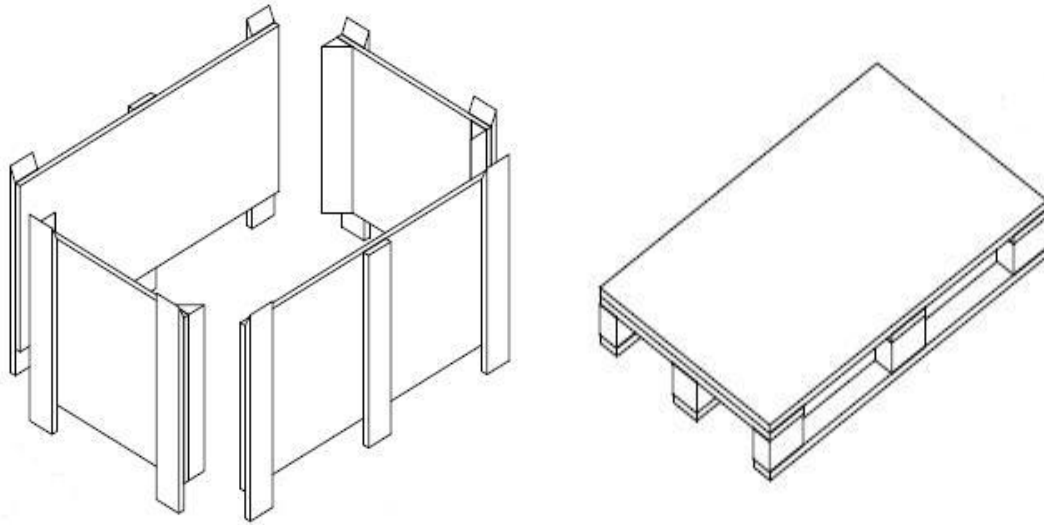
For LUK products, only pallets with size 1200\*800mm or 800\*600mm can be used.

对于 LUK 的产品，托盘尺寸只能为 1200\*800mm,800\*600m.

otherwise, wooden box with size 1200\*750\*790mm can also be used.

或者使用 1200\*750\*790mm 的木箱。





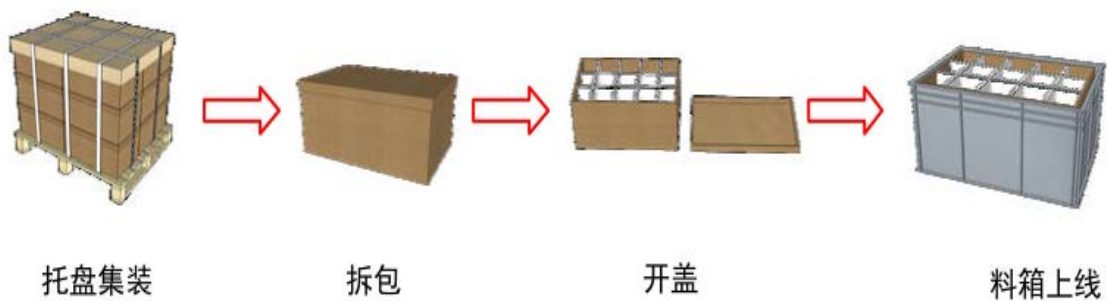
The pallet must be wooden pallet. if other material pallet will be used, it must be agreed by the packaging specialist of Schaeffler .

托盘必须为木质托盘. 如果使用其他材质托盘, 需得到舍弗勒包装技术的批准。

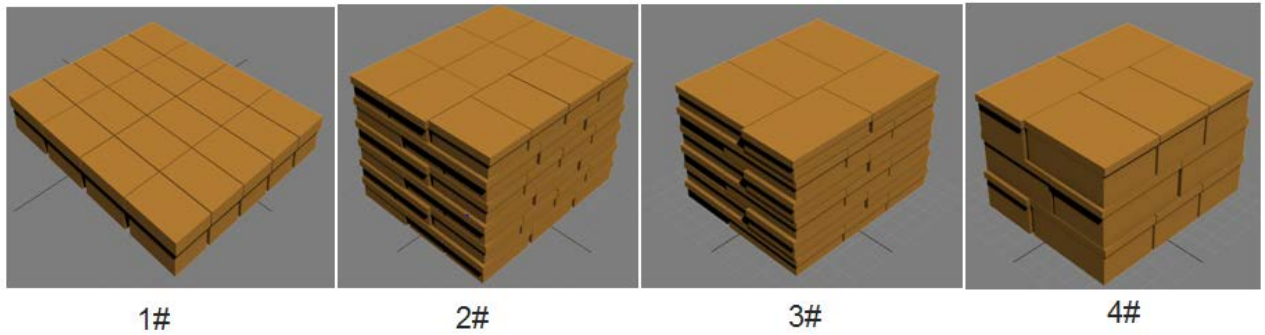
Wood packing material for all import and export goods must be heat-treated. IPPC mark must be shown on the package.

所有进出口货物的木质包装材料都应该经过热处理, 并在包装上显示 IPPC 标示。

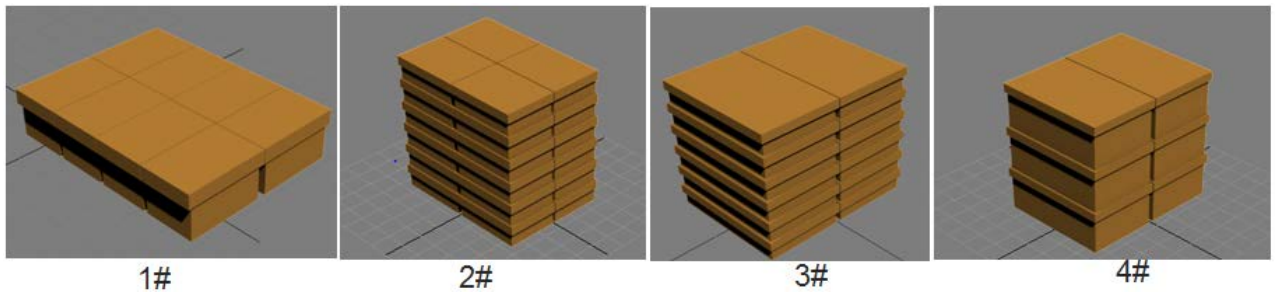
### 3.2.2 Design 设计方案



在 1200x1000 的托盘上纸箱堆码方式:



在 800x600 的托盘上纸箱堆码方式:



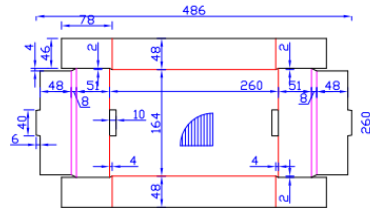
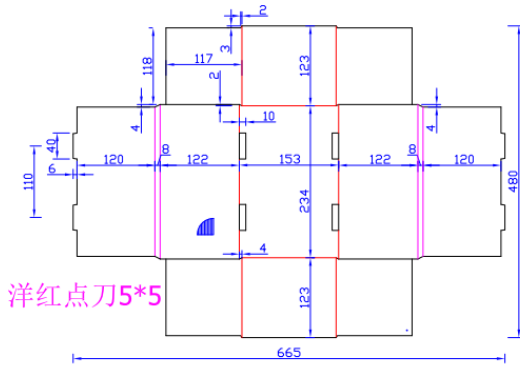
### 3.2.3 Requirement of size and quality 尺寸以及材质要求

纸箱型号	内部尺寸 (mm)	不含盖子外尺寸 (mm)	整体外尺寸 (mm)	可配套使用周转箱	楞型	耐破 (kpa)	边压 (Kn/m)
1#	228x137x120	238x157x125	262x168x129	KLT3215	C	1100	4.5
2#	330x235x105	340x255x109	364x266x115	KLT4315	C	1100	4.5
3#	515x325x105	540x350x109	550x360x115	KLT6415	C	1750	8
4#	515x325x220	540x350x225	550x360x230	KLT6429	C	1750	8

### 3.2.4 Drawing of inner box 小纸盒设计图



**1#箱**

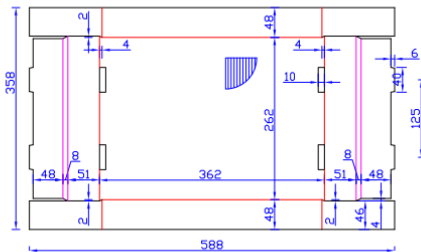
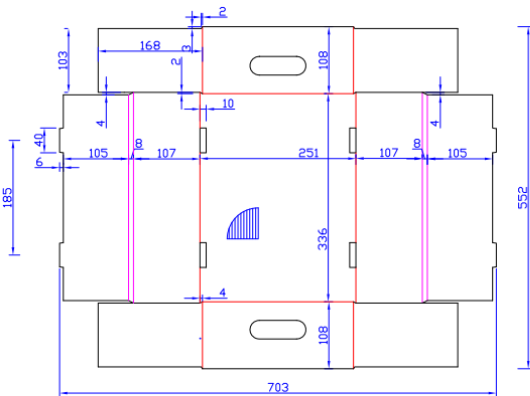


备注:  
 材质: 200B/120/200B C/F  
 工艺: 平压平模切  
 内寸: 228\*131\*120mm  
 组装外寸: 262\*168\*120  
 公差: ±5mm

整套包装材料明细表

序号	品名	材质	规格(外)	数量	备注
5					
4					
3					
2					
1					

**2#箱**



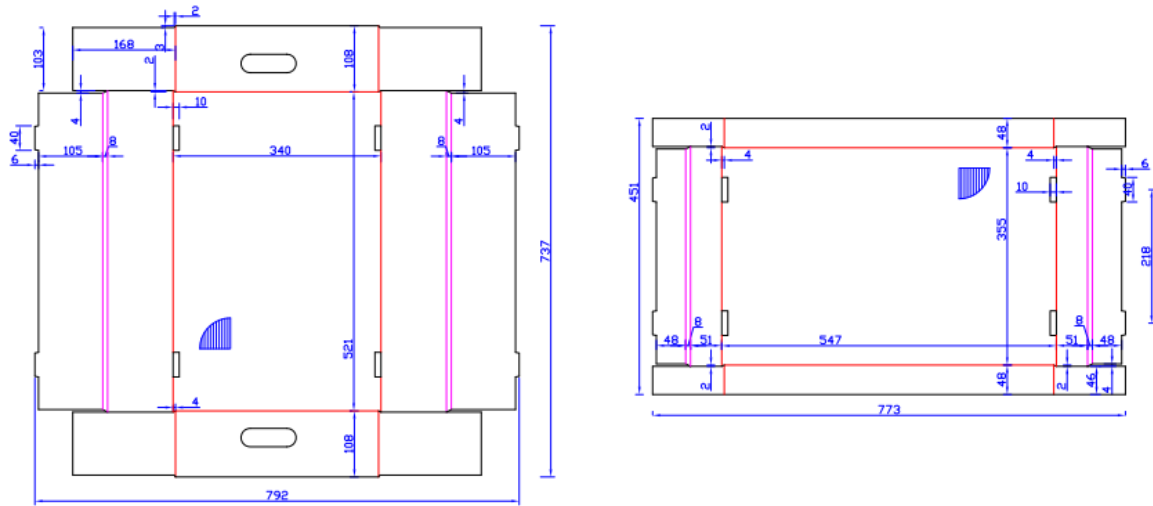
洋红点刀5\*5

- 技术说明:
- 1.材质: C/F 200B/120/200B
  - 2.工艺: 平压平模切
  - 3.内寸: 330\*235\*105  
组装外寸: 364\*266\*115
  - 4.公差: 正负5毫米

整套包装材料明细表

序号	品名	材质	规格(外)	数量	备注
5					
4					
3					
2					
1					

### 3#箱



技术说明：

1.材质：280M/180/280M C/F

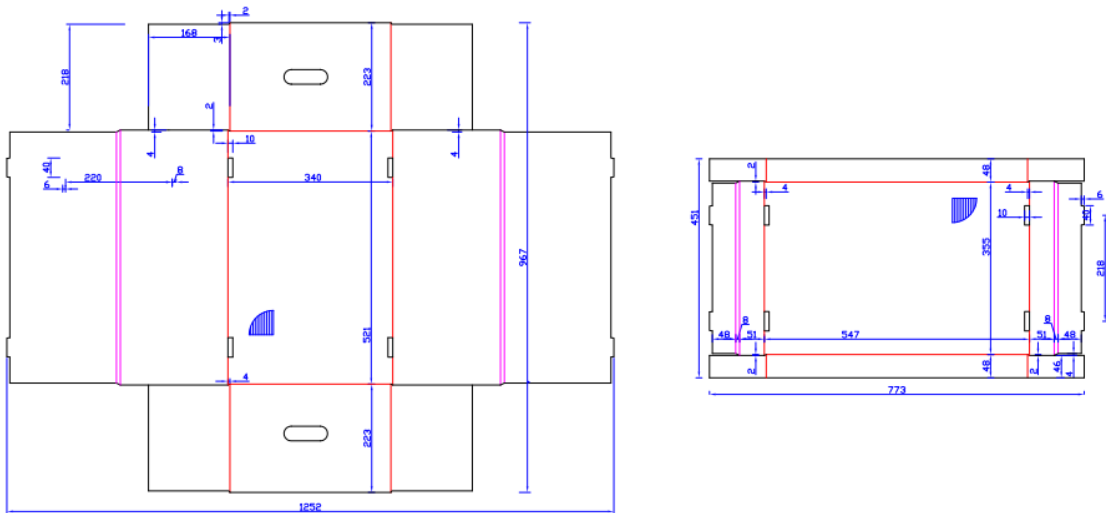
2.工艺：平压平模切+印开机

3.内寸：515\*325\*105

组装外寸：550\*360\*115

4.公差：正负5毫米

### 4#箱



技术说明：

1.材质：280M/180/280M C/F

2.工艺：平压平模切+印开机

3.内寸：515\*325\*220

  组装外寸：550\*360\*230

4.公差：正负5毫米

### 3.2.5 Masses 集合

If individual boxes are stacked on pallets , complete layers must be formed, and packed with outer carton.

如果小纸盒堆放在托盘上，必须形成完整的层，并套有外箱做保护。

The height of the whole load unit must not exceed max. 850 mm.

整个负载单元高度不得超过最大 850 毫米。

The delivery units must be loaded one plus layer stacking without deformation or other damage.

负载单位必须承受堆叠两层不变形或其他破损。

Permissible methods for securing loads are:

安全负载允许的方法是：

banding in conjunction with edge protectors 打包带和护角配合



允许使用的护角

(edge protectors that could be used)



不允许使用的护角

(edge protectors that could not be used)

pallet and cartons must be with banding 托盘纸盒必须带打包带

The usage of grid type boxes or other large transportation means such as steel containers is only permissible in exceptional cases and must be agreed by Packaging Technology .

网格型箱或其他大型运输方式，如钢铁容器，只是在特殊情况下允许的，必须经过包装技术同意。

The parts with weight < 0.1kg or volume < 8cm<sup>3</sup> must be packed with small cartons. Plastic bag must be used and sealed in the carton. The label must be pasted on each plastic bags and also outside of the carton.

对于重量小于 0.1kg 或者体积小于 8cm<sup>3</sup>的零件，必须使用小纸盒包装。小纸盒内必须采用塑料袋包装并密封，标签粘贴在每个塑料袋上，并贴在纸盒外侧。

In exceptional cases, the gross weight of the carton can be max. 15 kg.

纸箱的总重最大可承重 15 公斤。

Under normal circumstances, prohibit the mixed product on a pallet. If you must mix, must be agreed with Schaeffler company.

一般情况下，禁止在一个托盘上混装产品。如果必须混装，需得到舍弗勒公司的批准！

Where mixed consignments are sent, a pick list must be included with the following information for each part type:

凡发送混装产品，列表上对于每种零件必须包括以下信息：

- > item designation, 项目名称
- > number of cartons of the specific part type, 每种零件的箱数
- > quantity per carton. 每箱的数量

### **3.3 Standard of returnable packaging 可回收包装标准**

#### **3.3.1 Principle of returnable packaging design 可回收包材设计原则**

The basic principle is material protection, and synthetically thinking about the packaging cost, shipping to line and convenient of packaging return.

以保护零件质量为基本原则，综合考虑包装成本、直接上线及包材回收便捷性；

Choose right container type based on the business requirement, and synthetically think about the load scope.

根据业务要求选择适当的箱型，综合考虑周转器具的承重要求；

The collective packaging should be also pasted labels if there are collective packaging in the shipping packaging.

如果运输包装内还有集中包装,集中包装也需要贴标签

If supplier need to use the packaging which is not fit for this standard because of the material character, it must be agreed with Schaeffler Packaging Technology.

由于零部件自身特性，供应商需要使用与本规范不相符的包装，需要与舍弗勒包装技术团队进行确认之后才能够使用。

### 3.3.2 Returnable packaging category 可回收包材分类

Schaeffler inbound returnable packaging could be divided three categories based on the material, they are KLT, steel container and wooden container.

根据包装材质的不同，舍弗勒原材料可回收包装主要分为以下三类，即塑料周转包装，金属周转包装及木质周转包装。

### 3.3.3 Schaeffler KLT 舍弗勒塑料箱标准

The KLT has the advantages of high strength, low corrosion, good stacking each other. The standardized color of Schaeffler KLT is black, the color patch is RAL9011, the material is polypropylene (PP), the useful life is no less than 3 years.

塑料标准箱具有强度高，不易被腐蚀，包装零件后能够相互叠放等优点。舍弗勒塑料标准箱的颜色为黑色，色标是 RAL9011，材质聚丙烯（PP），正常使用在三年以上。

The standardized size list of Schaeffler KLT is as follows.



Material No. for Returnable Box Suppli

下表为舍弗勒塑料标准箱的尺寸序列。

编号 Number	外尺寸(mm) Outer size			内尺寸(mm) Inner size			自重 (kg) Net weight	承重(kg) Load capacity
	长 Long	宽 Wide	高 High	长 Long	宽 Wide	高 High		
	SYSB R-KLT3215	300	200	147	243	162		
SYSB R-KLT4329	400	300	280	346	265	242	2.6	20
SYSB R-KLT4315	400	300	147	346	265	109.5	1.29	20
SYSB R-KLT6429	600	400	280	545	364	242	2.97	20

编号 Number	外尺寸(mm) Outer size			内尺寸(mm) Inner size			自重 (kg) Net weight	承重(kg) Load capacity
	长 Long	宽 Wide	高 High	长 Long	宽 Wide	高 High		
	SYSB R-KLT6415	600	400	147.5	544	364		
MW-K-Pallet	800	600	160	-	-	-	8.6	500
MW-K-Pallet Cover	812	612	4	-	-	-	2	-
LT-M-Pallet	1200	800	160	-	-	-	18	1250
LT-M-Pallet Cover	1212	812	4	-	-	-	4.5	-

Enclosed is the returnable box list.

塑料标准箱列表请参照附件。



MW-K-Pallet



MW-K-Pallet Cover



LT-M-Pallet



LT-M-Pallet Cover

塑料周转箱每层堆叠数量以及堆叠高

	Pallet	
	800x600x160	1200x800x160

SYSB R-KLT3215	8 KLTs X 4 layers	16 KLTs X 4 layers
SYSB R-KLT4315	4 KLTs X 4 layers	8 KLTs X 4 layers
SYSB R-KLT4329	4 KLTs X 2 layers	8 KLTs X 2 layers
SYSB R-KLT6415	2 KLTs X 4 layers	4 KLTs X 4 layers
SYSB R-KLT6429	2 KLTs X 2 layers	4 KLTs X 2 layers

### 3.3.3.1 The stacking and packing method of KLT 塑料箱的堆叠及打包

#### I Stacking requirement 堆叠要求

The KLT could stack on the top of each other, in order to improve the loading rate, the shipping packaging should be stacked by two layers, and if the materials are not enough for full pallet, put empty container to in the top layer. The height of load unit is no higher than 850mm.

周转箱之间能够相互堆叠，为提高运输装载率，运输包装能够堆叠码放，当不满整托时使用空箱填平，空箱放置于整托的上层外侧，整个负载单元高度最大不超过 850mm。

#### II Packaging requirement 打包要求

There are two labels card slot each KLT, and put the label in the card slot. There is a label outside at least, and the pallet and pallet lid are compatible, and use the packaging tapes to fasten the pallet.

周转箱自带两个标签卡槽，标签放在标签卡槽中，周转箱打包时应至少留一个带标签的面朝外，周转托盘和托盘盖配套进行使用，打包时使用打包带进行固定。

### 3.3.4 Steel standardized container 金属标准箱

#### 3.3.4.1 Definition of steel standardized container 金属标准箱定义

The steel container has the advantage of high strength and good stacking, the standard container is which is fit for Schaeffler's standardized size.

用金属材料制成的铁笼或者铁箱，强度高，包装零件后箱子能够相互堆叠，满足舍弗勒标准尺寸序列的金属箱称之为金属标准箱。

#### 3.3.4.2 The steel container principle of use 铁制器具的选择原则

The steel container is mainly used for the large volume and high weight material. The net weight of steel container is high, so we need the help of handing tool to move it. In order to fit the long distance shipment, the steel container need to be designed to folding type as far as possible.

金属器具主要用于体积较大、重量较重的零件。金属标准箱本身重量较重，需要使用辅助搬运工具，为了适应长途运输，金属器具尽量设计成可折叠式。

### 3.3.4.3 The steel container list 铁制器具序列

The steel container mainly include steel cage and steel box, the steel container size list is as follows:

金属器具主要有铁笼和铁箱两种，舍弗勒的金属器具包括以下的序列。

分类 Category	编号 Number	内尺寸(mm) Inner size			自重 (kg) Net weight			承重 (kg) Load capacity	编号 Number	材质 Material
		长 Long	宽 Wide	高 High	长 Long	宽 Wide	高 High			
金属容器 Steel container	TK-4320-L01	400	300	200	370	286	150	3.18	25	钢材 Steel
	TK-4320-L02	475	320	200	450	320	180	4.755	30	钢材 Steel
金属笼 Steel cage	TK-1208	1220	824	960	1200	800	800	87	1000	钢材 Steel
金属箱 Steel box	TPB-K0806	845	645	670	800	600	600	50	600	钢材 Steel
	TPB-K1208	1240	835	650	1200	800	600	97	1000	钢材 Steel

The pictures of steel container 金属标准箱图样



TK-4320-L01



TK-4320-L02



TK-1208





TPB-K0806



TPB-K1208

### 3.3.5 Standardized wooden container 木制标准箱

#### 3.3.5.1 Definition of standardized container 木制标准箱定义

The standardized wooden container has the advantages of large strength, low weight, and it is fit for long distance shipment.

木制标准箱主要指由木材制成的箱子，木制标准箱主要有承重高，重量轻的特点，能够适应长途运输。

#### 3.3.5.2 The standardized wooden container list 木制标准箱序列

Schaeffler standardized wooden container includes two kinds of size collar container, the main character is the high holding ratio.

舍弗勒木制标准箱主要包含以下两种不同尺寸规格的纹链箱，其最主要的特点是可以折叠，而且折叠比相对较高，因此给包材的返回带来方便。

编号 Number	外尺寸(mm) Outer size			内尺寸(mm) Inner size			自重 (kg) Net weight	承重 (kg) Load capacity
	长 Long	宽 Wide	高 High	长 Long	宽 Wide	高 High		
WCP-0806	800	600	600	760	560	388	24.1	600
WCP-1208	1200	800	600	1150	750	380	45.7	1000

木质标准箱图样

The pictures of wooden container



Pallet collar



Cover



Pallet

Remark:备注:

For special case, the packaging datasheet must be coordinated with project team by packaging engineer and approved.

对于供应商的特殊包装，由包装工程师来协调项目组对供应商的包装方案表做确认批准。

## 4 Marking of packaging 包装标识

### 4.1 Marking of individual inner box and carton 单件包装和外箱包装的标识

In principle, the package without labels are not acceptable.

原则上，没有标签的任何包装都不能被接收。

The detailed requirement for label, please refer the attached document.

标签的具体要求，可以参照附件文件。



Specification for  
label (2013-7). doc

### 4.2 Printing for Container 周转器具印刷

For the general standardized container, need to be double side printed. On two short side print the packaging number and Schaeffler Logo and its Chinese name on the container. the pallet need to be printed on 4 sides only the Chinese name, and the pallet lid need to be printed on the top side Schaeffler logo and Chinese name. Schaeffler logo according to the logo specification, Chinese name uses the font SimSun, all the content should be printed in white.

对于通用型标准箱，需要双面印刷，两个短面印刷舍弗勒 Logo 和舍弗勒中文字样以及箱子在 SAP 中的 13 位物料号；托盘需要四面印刷舍弗勒中文字样；托盘盖正面印刷舍弗勒 Logo 及中文字样，舍弗勒 Logo 采用集团标准，中文字体为宋体，所有印刷内容的颜色均为白色。

## 5 Packaging change process 包装更改流程

### 5.1 Objective and summary 目的和概要

This document mainly describes the supplier packaging changed process, including the process for Schaeffler internal departments approved, as well as feedback to supplier about approved sheet, and then supplier begin to use the packaging.

此文件主要是对供应商包装更改流程的描述，包括在舍弗勒内部对包装的审批过程，以及最终传递给供应商已经批准的包装，乃至最终该包装方式应用到批量的包装方式上。

### 5.2 Process overview 过程概览

Firstly, the party issued the packaging request, and then packaging engineer check the feasibility from technical view.

首先，由提出改包装的部门填写包装更改申请，由包装工程师从技术角度分析可行性。

For package change request, after packaging engineer analyzed, and then give the application to purchasing, purchasing will send the advice to supplier.

对于包装更改需求，包装工程师分析后将需求发给采购部门通知供应商。

Purchasing informed the supplier to change the package according to our advice and send the packaging data sheet sample to supplier.

采购将包装更改建议发给供应商，并将包装数据表的样表发送给供应商填写。

Supplier received the packaging change request, give the packaging data sheet which filled with new packaging proposal to purchasing.

供应商收到包装更改要求，供应商按照新要求完成 PDS 发给采购。

When get packaging data sheet from supplier, purchasing should forward the files and Packaging change application form to packaging engineer and project team (SQE, production and logistic).

采购收到新的 PDS 连同包装更改申请一并发送给 PE 和项目组。

After packaging engineer and supplier quality engineer both approved, purchasing check the new packaging proposal price, compared with the old packaging price.

得到 PE 和项目组的批准后，采购确认价格并和原来的价格作对比。

If there is no price deviation, packaging engineer will approve the new packaging directly.

如果没有价格变动，包装工程师可以直接批准新包装

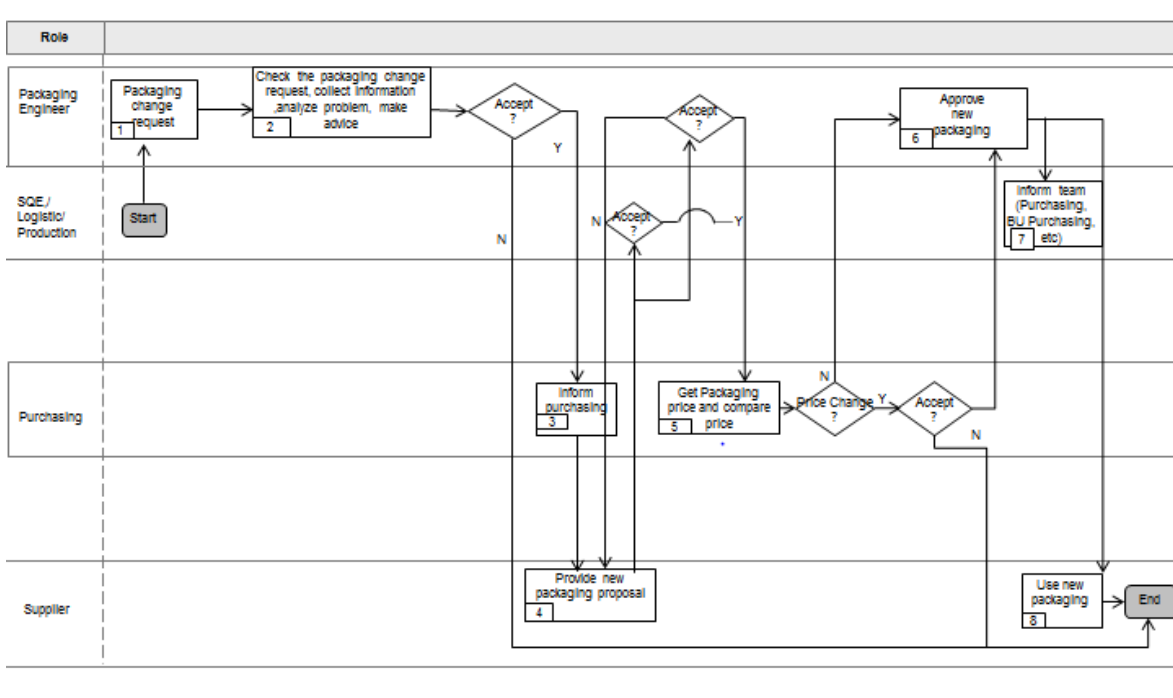
If there is price deviation, packaging engineer should get approval from Purchasing and project team before the new packaging can be used.

如果产生价格变动，包装工程师还应该得到采购和项目组的确认，才能批准新包装。

When the new package have been approved, packaging engineer should send the whole team(Purchasing, BU Purchasing ,etc) a copy of the finished packaging change application form for evidence.

当新包装批准以后，包装工程师将变更申请表发给所有人一份副本作为以后审核的证据。

### 5.3 Flowchart 流程图



## 6 Appendices 附件

### 6.1 Packaging data sheet for supplier 供应商包装数据表



Sample Packaging  
Data Sheet .xls

### 6.2 Sample label 样品标签

When in sample phase, the attached label must be used.

样品阶段每个小包装需贴附件标签，标签尺寸可根据纸盒大小改变.



Sample label.xlsx