



OPEL / Vauxhall Packaging Manual 1738

Revision January 2018
Version 1.4



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How You Get on Our Homepage

With the internet we have a medium available that guarantees permanent actuality. For that reason our manual can only be obtained via internet. To navigate on our O/V-supplier homepage, you only need an access authorization.

The address is registered on: <https://gmsupplypower.covisint.com>

In order to be able to use our internet edition of OV1738, you should pursue the following steps:

Open the above mentioned “WEBSITE”	
User ID and password exist already	If you login for the <u>first</u> time
1. https://gmsupplypower.covisint.com 2. Enter User ID and Password 3. Click on the button ‘Document Library’ 4. Choose the folder ‘Supply Chain’ <i>Alternative 1</i> 5. Folder: GM Containers & Packaging 6. Folder: Opel/Vauxhall Container & Packaging 7. Folder: GM 1738 GME Packaging Manual Now you have access to the latest update of our Domestic O/V Packaging Manual 1738 in English language.	1. https://gmsupplypower.covisint.com 2. On the now opened page you will find the Covisint/SupplyPower Help Button. Visit the page for more detailed information about the ‘Enrollment’ and how to contact Covisint if you have any questions or concerns.

It is vitally important to always have the latest edition of the manual. Please check regularly that you have always the current version of the manuals and bulletins.

If you have any questions, please do not hesitate to contact us:

Kind regards

Your team
Opel / Vauxhall Supply Chain Containers and PWT Containers

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Preface

The manual is divided in 6 chapters:

- Chapter 1: General Information and Guiding Principles
- Chapter 2: Application of VDA small part containers
- Chapter 3: Application of standard containers/pallets
- Chapter 4: Application of special packaging
- Chapter 5: Domestic One-way-/Substitute Packaging Specification
- Chapter 6: Intercontinental Supply Chain Packaging Requirements
- Chapter 7: Definition of New Parts

This manual will give an overview on those standard containers/pallets and all VDA small part containers being applied in all European OV plants independent of different car models. The manual also gives additional information on the Material Handling System for incoming material that is operated at Opel/Vauxhall.

Opel/Vauxhall and CHEP Automotive started a container pool on August 16th, 1993 for small part containers in order to provide all Opel/Vauxhall suppliers an optimised equipment service. On the basis of previous experience, Opel/Vauxhall has also decided to start a container pool for GLT standard containers/pallets. Since January 1st, 1996 CHEP Automotive is responsible for the controlling and distribution for most of the standard containers/pallets. Since August 2004, CHEP has taken over responsibility for accounts management of special packaging.

We consider the participation in this container pool as a necessary prerequisite for co-operation with our suppliers.

All existing manuals of the named equipment will lose their validity with the introduction of the new manual. If there are any changes in the specification and in the handling of the equipment you will be informed by us.

If you have any questions, please contact:

Supply Chain
Containers and PWT Containers
(SC – C)

Phone: +49 (0) 6142-7-75360
Fax: +49 (0) 6142-7-73056



1. General Information and Guiding Principles

1.1 General Information and Packaging Guidelines

This part of the manual represents an extract of the universally valid OV 1700 which are bases of every supplier's contract which Opel / Vauxhall concludes with a supplier.

PACKAGING REQUIREMENTS

Supplier accepts:

- a) *to observe the valid instructions which are determined in the document "OPEL /Vauxhall Packaging Manual 1738"*

<https://gmsupplypower.covisint.com>

- *File: Supply Chain à GM Container and Packaging à Opel/Vauxhall Container and packaging à GM 1738 GME Packaging Manual*

- b) *to support active the packaging development process and test packaging methods / materials for serial deliveries of parts / modules.*
- c) *to provide and deliver 5 sample parts free of charge & free latest 26 weeks prior to SMVBns (Start Manufacturing Validation Built non-saleable) to develop and validate special containers, special racks or special inserts as required. In case that the parts design or dimensions will change the Opel/Vauxhall Packaging team must be informed by the supplier immediately and provide additionally 5 new sample parts. In case of a part change without notification of the Opel/Vauxhall packaging team, the part supplier will be held responsible for all logistic and modification costs.*
- d) *that Opel/Vauxhall reserves the right to change the once specified container or the packaging method during the development process, as well as during the lifetime of the part. Container usage can vary between different plants, without any price change. The rule is to apply one uniform container size for one part number. However, it must be possible to demand different container types for one part number, but with a maximum total of two and one per plant.*
- e) *to use Opel/Vauxhall Automobile standard returnable packaging VDA-Small Part Containers (KLT) and Opel/Vauxhall-Standard-Containers (GLT). The Supplier has to confirm to any of these standard packaging and unit load set by Opel/Vauxhall. That includes any revisions made by Opel/Vauxhall during serial production. Unit load will be set equivalent to 1 – 4 hrs production time at Opel/Vauxhall. For reasons of lean production the smallest possible Container has to be assigned, see OPEL /Vauxhall Packaging Manual 1738.*
- f) *to make no charge for additional protective non-returnable material (e.g. plastic covers for racks, stripes, foam, foil, VCI-paper and cardboard protective material), handling, packaging operation, labelling costs, storage, transportation of goods, delivering of parts to various plants in special racks/different container types or re-assignment of all kind of containers (have to be part of quotation).*
- g) *finished goods and/or packaging material should be protected from outside elements, so that negative quality results will be hindered.*



Corrosion protection has to be provided for all parts and components that have the potential to corrode for a minimum of 120 calendar days from the time of shipment.

- h) to clean the packaging in case that clean swept standard containers and special packaging are not sufficient to ensure the quality of the parts. These costs have to be part of the offer. KLT are delivered cleaned after defined washing standard. If additional cleaning should be necessary, supplier has to take responsibility for that and has to coordinate directly with the service provider.
- i) to properly mark each single load carrier and additionally the packaging unit (load unit) with a label/tag according to Opel/Vauxhall instructions.
- j) to properly pack, identify and ship goods in accordance with the requirements of Opel/Vauxhall and involved carriers, in a manner to secure lowest transportation costs.
- k) to route shipments in accordance with instructions from Opel/Vauxhall Traffic Departments.
- l) to promptly forward the original bill of lading or other shipping receipt for each shipment in accordance with Opel/Vauxhall instructions. Seller will include on bills of lading or other shipping receipts correct classification identification of the goods shipped in accordance with Opel/Vauxhall instructions and carriers requirements. The marks on each package and identification of the goods on packing slips, bills of lading and invoices shall be sufficient to enable Opel/Vauxhall to easily identify goods purchased.
- m) that the handling of empty standard containers (KLT/GLT) and empty special packaging will be done by a third party provider and agrees to enter into a contract and to follow the regulations of the third party provider on behalf of Opel/Vauxhall (for KLT a Full service contract and for GLT/Specials a Managed service contract has to be signed) in accordance with the following packaging management rules:
 - to use standard containers at most for 5 calendar-days and special packaging at most for 2 calendar-days at Opel/Vauxhall expense
 - that Opel/Vauxhall will not provide Opel/Vauxhall owned containers to lower tier Suppliers or any other internal usage at the Supplier
 - to be responsible to manage your packaging account provided by the container pool service provider contracted by Opel/Vauxhall for all GLT/KLT and Specials, (this includes e.g. regular movement and invoice checks, to do outgoing movement records via EDI or Web Portal within 48 h, to do a proof of receipt for Empty Shipments directly in Pool Providers Web Portal, to use the Web Portal for any claims within Packaging Management...)
 - to make a container inventory minimal once a year via internet portal. This inventory has to be made in time and will be initiated by Opel/Vauxhall and/or the pooling service provider. Arising costs for losses or hire will be issued to the responsible Remit / Invoice supplier. KLTs will be invoiced by the pooling service provider and Opel/Vauxhall owned packaging by Opel/Vauxhall
 - to order for at most 1-2 deliveries of standard containers at the pooling service provider per week to guarantee optimal logistic costs
- n) To support the packaging assignment process and send the filled in O/V 1738i Packaging Data Form to all packaging engineers of the Opel/Vauxhall receiving plants
- o) to act on the rules in the OPEL /Vauxhall Packaging Manual 1738 and the valid international packaging guidelines when using one-way or overseas packaging.



- p) to make no charge for any repackaging necessary to deliver material in containers to comply with Opel/Vauxhall specifications. It is prohibited to use Opel/Vauxhall supplied containers to store/build part inventory. (See OPEL /Vauxhall Packaging Manual 1738 chapter 1.2).

Specially for seat suppliers according to Process:

- q) to be responsible for the design, prototype, validation, tooling, procurement of production packaging, maintenance, repair and replacement associated with the packaging. These seat packaging costs have to included in the piece price.

Specially for large glass part suppliers according:

- r) to be responsible for the packaging design. Investment for glass packaging will be done by Opel/Vauxhall. Therefore the costs have not to be included in the piece price.

O/V Aftersales

- s) to use expendable packaging for shipping parts from Tier 1 Location to Opel/Vauxhall Location. Expendable Packaging has to be provided by Supplier and has to be included in the Request for Quotation separately. Opel/Vauxhall owned special packaging for series production is not permitted to use for Aftersales deliveries. In exceptional cases an authorization can be requested by department Supply Chain – Containerization.

Pre-production packaging

For pre-production packaging requirements, please refer to the O/V1700 Document

Information to avoid unnecessary costs

The service provider / supplier guarantees to use only the provided shipping containers for shipping purpose to the related Opel /Vauxhall Plants.

When the containers arrive or go out, the Opel/Vauxhall reviews the condition of them. If the containers are damaged, wrong inserted or irregularly loaded when they arrive at the plant, then we have the right to charge the supplier with **repair and packaging costs**.

Scrap of containers owned by Opel/Vauxhall are only allowed, if Opel/Vauxhall container planning department has agreed. For crediting of the container account you have to inform SC Containerization office about the quantities.

The supplier is allowed to take **own containers or returnable containers**, but only with agreement of the **Supply Chain Central Containerization**. This applies particular for copied V-container. Opel /Vauxhall take over no responsibility for imported container in circulation. In this context we want to refer to the CHEP contract.

Please avoid deliveries in cartons or bags **without pallet**, because this has to be handled manually and results in additional efforts. These additional costs can be charged to you.



1.2 Rules for the Use of Empty Containers

The containers are only allowed to be used for the transport of the parts between the supplier, who delivers directly to the OPEL /Vauxhall plants, and OPEL /Vauxhall.

They should **not** be used for:

- The inner production circulation
- The intermediate storage of half-finished parts
- Stockpiling
- Providing of sub-suppliers (T2)

Fundamentally the empty containers are delivered to the production location, which is agreed upon with OPEL / Vauxhall-purchase. Relevant for the delivery location is the registered DUNS-Number in MGO (Material Administration System).

Advice for deliveries to OSV (Opel Special Vehicles GmbH), Aftersales

- Deliveries in **OPEL / Vauxhall-Equipment (GLT)** to, OSV (Opel Special Vehicles GmbH) and Aftersales are only permitted with former authorization by department Supply Chain – Supply Operations Europe – Containerization. That requires participation on CHEP system.
- **Special inserts and racks** are owned by OPEL / Vauxhall and Powertrain. Usage by OSV and Aftersales is not permitted. In exceptional cases an authorization can be requested by department Supply Chain – Supply Operations Europe – Containerization. In current series carlines. Release will only be given when we have a surplus in packaging. With run out of series carlines, release for using can be directly done by and Aftersales. OSV is not permitted to use OPEL / Vauxhall-owned special packaging.

Deliveries in supplier owned special packaging and one-way packaging have to be agreed by areas OSV (Opel Special Vehicles GmbH) and Aftersales and is to be included in the Request for Quotation separately.

- Deliveries in **CHEP-Equipment (KLT, pallets + lids, IcoQube)** are permitted with former authorization by areas OSV (Opel Special Vehicles GmbH) and Aftersales.



Furthermore you have to observe the following rules for KLT and GLT:

- Only full containers may be delivered.
- Additional empty containers must not be delivered. If supplier does so, he will be held responsible for all involved costs.
- If the quantity per container on the shipping schedule or pickup sheet does not correspond to the real container quantity, the corresponding receiving plant has to be contacted.
- It is not allowed to use a larger/smaller alternative packaging, other than that container shown in the shipping schedule.
- The rule is to apply one uniform container size for one part number. However, it must be possible to demand different container types for one part number, but with a maximum total of two and one per plant.
- The co-ordination of assignment and loading has to be done with the receiving plant and have to conform to the Lean-Production-Concept of Opel/Vauxhall.
- All containers including pallets and lids have to be noted exactly, for every single container-type on every delivery note.

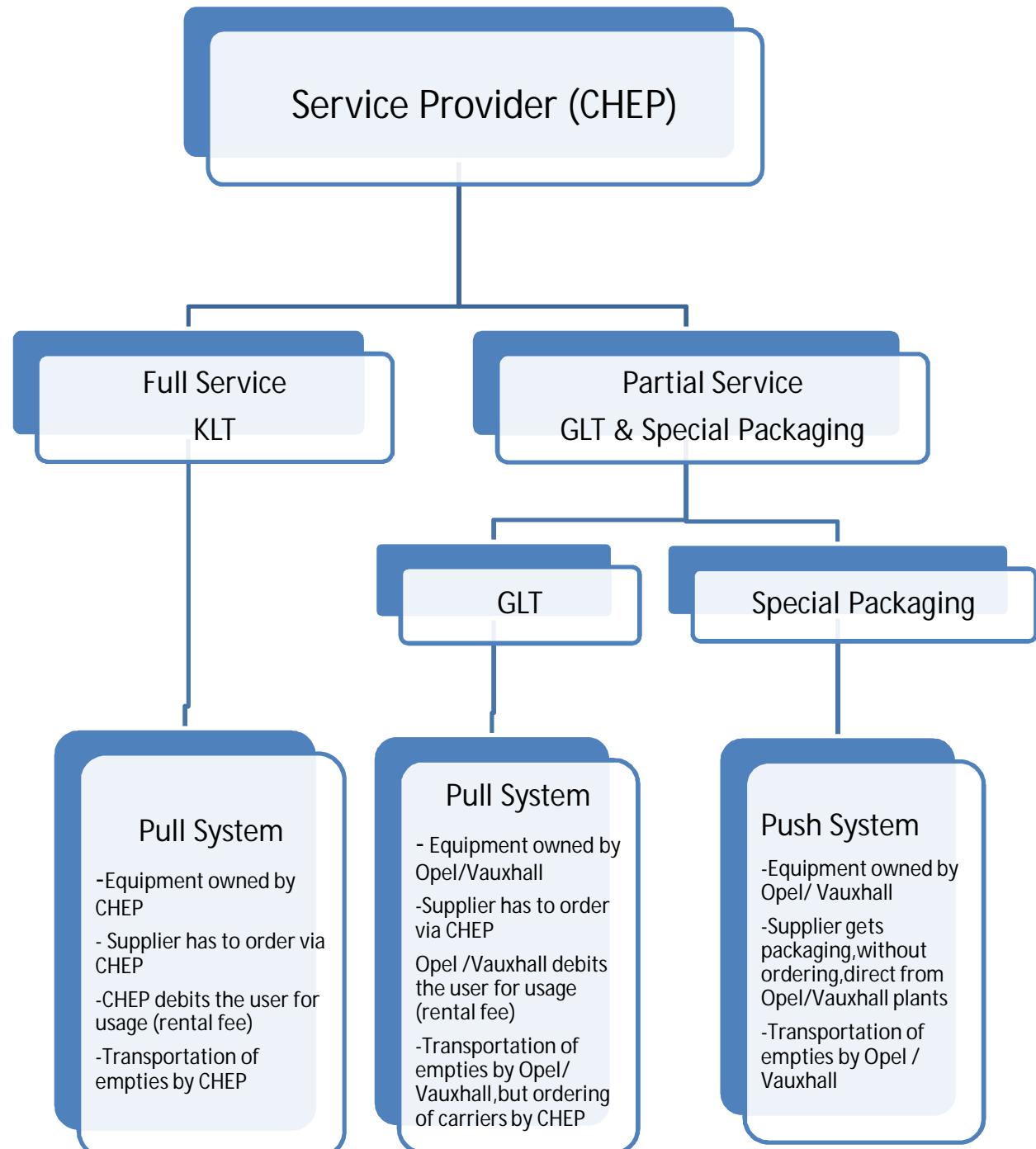
The following rules apply to the use of KLT:

- The shipping of KLT must be done with the CHEP owned equipment (pallets, lids). The used equipment (pallets) has to be noted exactly on every delivery note, in order to avoid confusion with Opel/Vauxhall equipment (pallets).
- The maximum weight is: 18 kg



1.3 Container Management by Service Provider CHEP Automotive

Following an overview about the several responsibilities in OPEL / Vauxhall packaging management process.





1.3.1 Participation in the Opel/Vauxhall packaging pool

There are three different ways to participate in the Opel/Vauxhall packaging pool. These are the Full Service System (KLT), the GLT-system and the special packaging system.

In order to become a part of the Opel/Vauxhall packaging pool, this manual is a binding contract for using Opel/Vauxhall owned packaging. For KLT services there must be a signed contract by supplier and our service provider. The packaging assignment is performed by the Opel/Vauxhall plants. This means that when a supplier gets new KLT packaging assigned out of another service area he must immediately contact the service provider to sign the Full-Service-Contract.

The “Full Service Contract” (KLT) will be entered by the service provider CHEP and the supplier. The contract and all terms and conditions for this contract will be provided by CHEP.

The contract for OV owned will be entered between Opel/Vauxhall and the supplier, whereas Opel/Vauxhall is the owner and lessor of the transport equipment. The equipment will be provided to the supplier for the purpose of the delivery of parts to Opel/Vauxhall plants. CHEP has been authorized by Opel/Vauxhall to manage the entire logistics operations with respect to such lease on the basis of the “Terms of Hire”, as amended from time to time. A copy of the current Terms of Hire is attached hereto. Additionally, the following conditions apply for OV owned Packaging

1. OV shall deliver the Transport Equipment to the supplier on the basis of the Terms of Hire and CHEP shall allow supplier to participate in the Opel/Vauxhall packaging pool.
2. The quantity of the transport equipment, which is leased from time to time, is determined in accordance with section 2 of the Terms of Hire.
3. The rent owed by the supplier and the loss fee, which in some cases may need to be paid, are set out in section 3 of the Terms of Hire. The currently binding price list of Opel/Vauxhall will apply and may be unilaterally modified in accordance with section 9 of the Terms of Hire. The Supplier may request the current price list from Opel/Vauxhall Container Management at any time (container-invoicing@de.opel.com).
4. The service will be billed directly through Opel/Vauxhall in accordance with the relevant provisions of the Terms of Hire, clause 3 in particular.
5. The Supplier expressly confirms that the quantity of Transport Equipment shown in the Opel/Vauxhall invoice **will be deemed acknowledged** pursuant to section 3 of the Terms of Hire, **if it does not object thereto within 21 days after receiving the invoice**. Moreover, the Supplier confirms that it has read the warranty and liability provisions in section 7 of the Terms of Hire.
6. The contractual relationship between the Supplier and Opel/Vauxhall about the OV owned packaging systems shall be governed by the laws of the Federal Republic of Germany. Exclusive jurisdiction and venue for all disputes, which arise from or are connected with this, shall lie with the competent courts in Frankfurt am Main.
7. This contractual relationship does not affect any lease contracts between CHEP acting in its own name and account and the supplier on the rental of CHEP owned transport equipment.



1.3.2 Internet portal and contact addresses

For participating in the Opel/Vauxhall packaging pool every supplier has to sign relevant contracts with the Opel/Vauxhall authorized service provider. Thereby we have 2 variants depending on which service the supplier takes: full-service (Full-Service-Contract) or part service (Third-Party-Contract). Participation results from the packaging assignment by Opel/Vauxhall plants. That means when supplier gets new packaging assigned out of another service area, he has to contact immediately with service provider to sign the relevant contract. The contracts are standard contracts and will not be individually accommodated!

Service provider allocates an internet portal where all accounting transactions have to be processed. An alternative can be the possibility of electronically data exchange per EDI (based on VDA-recommendation 5007, Odette Container Management). That has to be agreed in exceptional cases with the service provider.

In difference to the KLT and GLT container, the special packaging has not to be ordered over CHEP. Suppliers and Opel/Vauxhall plants have only to report the outgoing movements to CHEP and to check the account balances. If problems happen with the empties delivery of special packaging, the relevant OPEL / Vauxhall plants have to be contacted.

Via the expansion of the packaging management with the special packaging we achieve that the container flow will be more transparent and effective Opel/Vauxhall and the service provider can order a container inventory for the KLT, GLT and special packaging. This happens in rule 1 time per year: KLT/GLT once in plant shutdown, special packaging once at turn of the year. The results have to be reported immediately after the count via internet portal to the service provider. To ensure an optimal transaction please be informed in your well known portals GMSupplypower (Bulletins) and CHEP Portfolio about detailed information.

If you have further questions to OPEL / Vauxhall do not hesitate to contact:

Supply Chain Containers and PWT Containers
(SC – C)

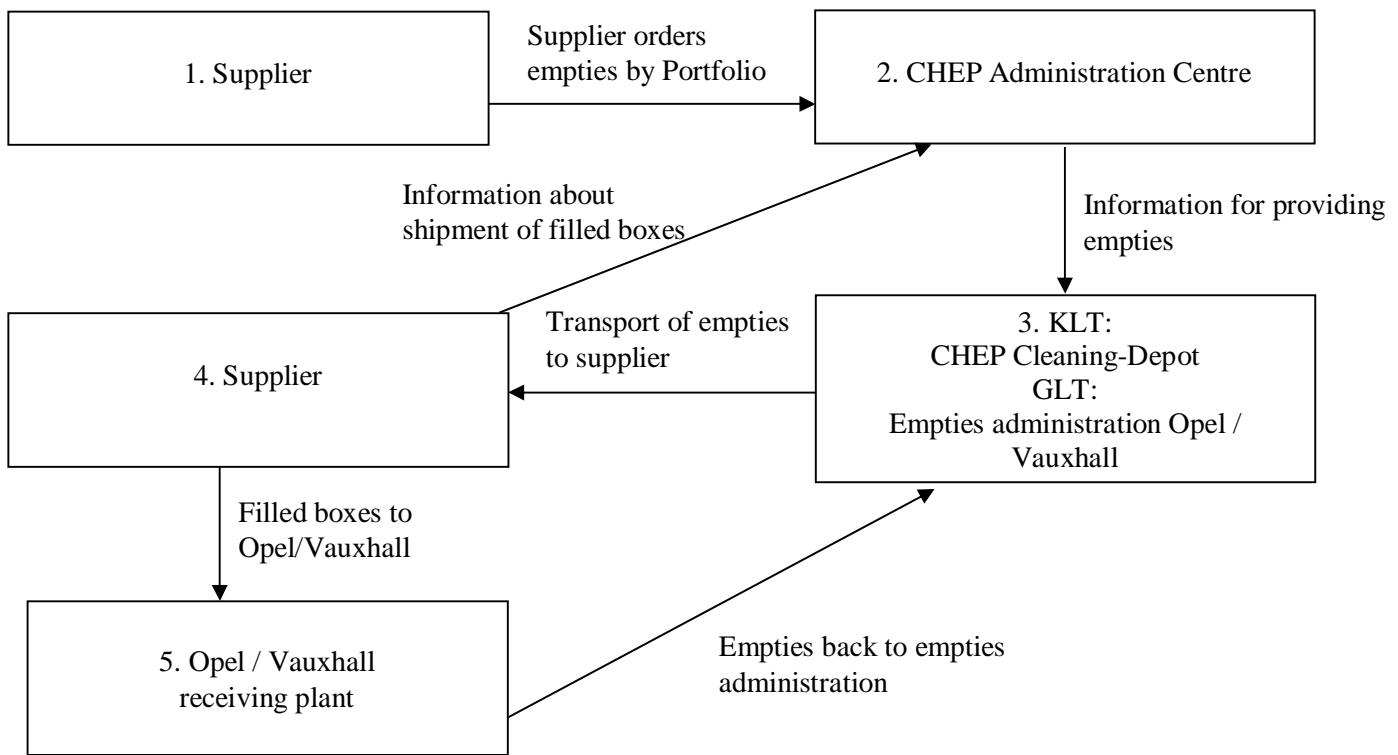
Email: container-invoicing@de.opel.com

If you have further questions to CHEP do not hesitate to contact:

CHEP Customerservice
Phone: +49 (0) 221 93571 700
Fax: +49 (0) 221 93571 651
E-mail: customerservice_ac@chep.com



Process for GLT and KLT:



The order via fax is only allowed in exceptional cases.



1.4 Empty Container Request via CHEP Automotive

The containers managed by CHEP must be requested from CHEP.

In order to eliminate misunderstandings, the process structure is outlined below. You can find detailed information in the manual for standard containers/pallets of CHEP.

1. Suppliers order the required equipment from CHEP with the **CHEP Portfolio** (in Internet on homepage <http://www.portfolioplus.chep.com>). An order should be issued at least **10 calendar days** before the required shipment.
2. **Only KLT:** Within 10 calendar days, CHEP guarantees the supply of the required number of containers.
3. **Only KLT:** Upon receipt of the equipment, a fee is debited to the receivers account.
4. **Only KLT:** Upon shipment of the equipment to a valid receiving plant, the fee is automatically credited back and transferred to the next receiver.
5. For the following days, the supplier receives the containers without any charges:
KLT: 5 calendar days; GLT: 5 calendar days; IcoQube: 15 calendar days
OV reserves the right to reduce the days without any charges. Supplier has to secure that he uses up to 2 rent-free days for balancing interferences in delivery process and to avoid deliveries in one-way-packaging.
6. **Only KLT:** From the date of shipping the receiving plant will be debited with the daily rental charge.
7. Supplier is obliged to inform CHEP with Portfolio or EDI within 48 h about container shipments (incoming and outgoing), so that CHEP can keep the correct stock account.



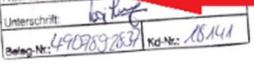
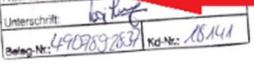
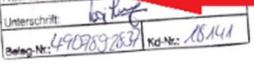
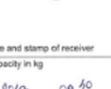
1.4.1 Correction / Deviation

We expect every supplier to do a receipt control of OV owned assets for empty return deliveries to see if there are any deviations between the theoretically booked assets (CMR = Issue Note) which are inserted to your CHEP Account and the physically received assets, to detect any deviation and claim for this within 48 hours after the deviation is detected.

In case of deviation within the container type, quantity or date of receiving send a qualified POD direct to the sender plant. They will correct your CHEP account accordingly.

A qualified POD contains:

- The deviation (corrected container type, quantity, date)
- The countersign of the driver to confirm the deviation.
- Customer signature, stamp and date of receipt
-

ISSUE NOTE  GME Issue Note																				
Page 1/1																				
General Motors Europe Sender XGEP/1000 Ellesmere Port North Road Industrial Estate L65 1AL Ellesmere Port United Kingdom Tel.: 01513502794	CMR - International B/L - Lettre de voulure																			
Sales Order: 301 Delivery Number: 381 Shipment Number: 78																				
Receiver Customer's name & address	Carrier																			
Place of Goods Delivery City Country	Successive carrier																			
Place of Goods takeover City Country	Carrier remarks																			
Annexed documents																				
Item Number	Number of packages	Method of packing	Goods description	Gross weight in kg	Load Meter															
10	 EA	EA	OP00M010-Bearing A Front	gelt	4.800															
20	 EA	EA	OP00M020-Bearing A Front	blau	10.900															
State discrepancies in material & quantity																				
<table border="1"> <tr> <td>Sending station</td> <td>Datum:</td> <td>Differenzen nem O</td> </tr> <tr> <td>04.04.2013</td> <td>10.04.2013</td> <td>0</td> </tr> <tr> <td>FachMeister</td> <td>KFZ-PAT</td> <td>NACHLIEFERART</td> </tr> <tr> <td>Unterschrift:</td> <td></td> <td></td> </tr> <tr> <td>Betrag Nr.:</td> <td>49089283</td> <td>Kd-Nr.: 18141</td> </tr> </table>  Driver's signature, stamp and license plate number next to the discrepancy						Sending station	Datum:	Differenzen nem O	04.04.2013	10.04.2013	0	FachMeister	KFZ-PAT	NACHLIEFERART	Unterschrift:			Betrag Nr.:	49089283	Kd-Nr.: 18141
Sending station	Datum:	Differenzen nem O																		
04.04.2013	10.04.2013	0																		
FachMeister	KFZ-PAT	NACHLIEFERART																		
Unterschrift:																				
Betrag Nr.:	49089283	Kd-Nr.: 18141																		
Customer's signature, stamp and date of receipt																				
Sender's instructions	Behältermanagement																			
Printed in: Ellesmere Port	Printed on: 08.04.2013	Goods received 03. Mai 2013																		
Signature and stamp of sender 	Signature and stamp of carrier WARENEINGANG 	Signature and stamp of receiver Load capacity in kg  15.04.2013 09:40																		
Vehicle																				
Trailer																				

In case of not received deliveries, please directly contact our Logistic Service provider GEFCO, in order to clarify if the delivery will be late or really got lost and forward the answer to the OV sender plant for potential correction of your account.



1.5 Procedure Description for not usable Opel /Vauxhall Packaging

If you receive non-useable containers, you have to inform the responsible empties administration of the shipping plant. The responsible shipping plant can be found on the advice note. Following information are mandatory for empties administration:

- Pictures of the damaged Opel/ Vauxhall packaging
- Information about delivery (OBVA-no./delivery-no. etc.)

Please get in contact with the plant to organize the pick-up. As soon as the plant confirmed to pick up the containers, you can report this movement into the CHEP System to decrease your account. For the other reference please enter the delivery note number that is finally used for shipping.

Return of damaged containers:

Reference à 1damage
 Other Reference à delivery note number

Return of empties (not needed container)

Reference à 1return
 Other Reference à delivery note number

Reference (1):
Enter „1return“
for
Usable Packaging

Reference (2):
Your
Delivery Note Number

**Enter „1damaged“
for
Damaged Packaging**

Costs because of not agreed decisions will not be paid by Opel /Vauxhall



1.6 Repair card

If you receive defect Opel/ Vauxhall packaging, which are not usable and the remedy is not possible on site, the „Procedure Description for not usable Opel/Vauxhall packaging “has to be followed.

Please observe the following procedure if empties administration orders a repair:

1. Reporting and coordination of the pickup with shipping plant.
 2. Preparing the defect containers for separate pickup. A repair card has to be filled in, which has to be fixed to every single Opel/Vauxhall packaging.

Correct filling in of the repair card:

Every head data fields have to be filled in and the damage has to be marked in field NOK. For reasons of clarification and that the packaging will not be re-circulated in packaging pool, the card has to be printed on red paper.

NOK RACK OR CONTAINER

Repair Card - This rack/container can only be used after the necessary repair is done! This repair card has to be removed after repair is done!

Tarjeta para reparación - Por favor, no retornar este contenedor al circuito antes de terminar la reparación! Esta tarjeta solo puede ser quitada por el Taller después de haber efectuado la reparación!

Reparaturkarte - Dieses Gestell/Container darf erst nach ausgeführter Reparatur zum Einsatz kommen! Diese Karte muss nach ausgeführter Reparatur entfernt werden!

Date: Who informs: Please mark the correct box and the damaged place!

Fecha: Área que informa: Por favor, indicar la casilla y la zona afectada!

Datum: Wer informiert: Bitte den beschädigten Bereich markieren!

	Basis rack Estructura Gestell	Installalition Elementos Einlage	NOK
Frame	Deformed		
Marco	Deformado		
Rahmen	Deformiert		
Column	Parts missing		
Columna	Faltante		
Steher	Fehlteil		
Bolt/Pin	Parts demolished		
Cerrojo	Roto		
Riegel	Teil zerstört		
Feet			
Pata			
Fuß			
Part support			
Soporte piezas puntos fijos			
Trägerteil			
Safety elements			
Elementos de seguridad			
Sicherheitsteile			
Wall			
Pared			
Wand			

Part support fixing point
Soporte piezas puntos fijos
Traegerteil
Wall
Pared
Wand
Feet
Pata
Fuss
Frame
Marco
Rahmen
Column
Columna
Steher
Bolt / Pin
Cerrojo / Pasador
Riegel

Damage
Identifikation

Marcar zona
afectada

Beschädigter
Bereich



1.7 Additional Supplier Owned Packaging

Additional Special-Package ordered from supplier for internal loop based on O/V technical specifications:

Yes, there is the option to order origin O/V-Containers at O/V dedicated supplier at own cost.

1. Request Package-Supplier information from O/V central Containerization (your contact partner of special-container development) and inform about the purchased volume.
2. It is mandatory that the Package does not differ to any O/V technical-specifications and must be visualized/labeled in the same way. In terms of owners-labeling, please ensure you identify the asset as yours on the labeling.

Process regarding packaging administration:

1. the amount of additional Purchased Qty's will **not** be added (booked) to your Package-account (CHEP Portfolio+)
2. you are not allowed to include your purchased volumes in any of the yearly inventory counting requested by O/V
3. In case you do not have enough O/V owned package available you have 2 options:
 - a. You follow the standard One Way Package (OWP)-Procedure and deliver in substitute Package without feeding O/V loop with additional ordered package
 - i. Any delivery in OWP is not allowed to be declared in CHEP System
 - b. You deliver in your additional purchased Packaging
 - i. You cannot expect to receive origin supplier purchased package back from O/V
 - ii. These deliveries must be declared in CHEP System in the same way you do it with O/V origin Package, with the consequence to run into negative stock balance. This documents the fact by system that O/V owes that respective amount of package to you
 - iii. Further deliveries cannot be supported from you with additional purchased Package and OWP is used:
 1. You follow the standard One Way Package (OWP)-Procedure as stated under 5.17 with provision of Proof of Ownership documentation
 2. Any delivery in OWP is not allowed to be declared in CHEP System
 3. Qty of additional purchased Package to be entered on OWP-Form (Reason for One Way Packaging Rev.1.1 – Field 20)
 4. Proof of Ownership for additional purchased package to be attached to the OWP-Form



1.8 Input of Packaging data in EDI

Within our materials logistics system MGO the packaging data is always 8-digit.

In case of DELJIT SH delivery call offs it is necessary to create a Despatch Advice (DESADV). In case of Pick-Up-Sheet (DELJIT PUS) delivery call offs it is not.

When creating a Despatch Advice (DESADV) you have to consider, that important master data, transferred per delivery forecast (DELFOR), has to be send back always in 8-digit format.

If the packaging definition does not consist of 8-digits, please add leading zeros in your dispatches.

Examples:

- **KLT:** 0KLT3215, 0KLT4315
if segregated: KLT6429S
- **GLT:** 0000V154, 0000V196
- **Special-Inserts:** 00EWPS16, 0A00A504
- **Racks:** 0A009604, 0S009851

1.9 Requests to Material Packaging

Material may not be exposed to the influence of weather conditions.

Delicate parts have to be protected within the containers by additional protective packaging.

The receiving plant of Opel/Vauxhall must agree with protective packaging (see packaging data sheet).

The use of PVC-Material (shrink wrap) is prohibited!

Shipping units must be safely fixed on the pallets with four polypropylene straps. If the unit is stable and two straps are enough for the safety it has to be agreed with each receiving plant. This deviation has to be confirmed in the packaging data sheet section "other packaging material". Steel straps may only be used in exceptional cases and require previous approval. Shrink wrap or wire packing will not be accepted.

Each load carrier delivery unit has to be marked with the Global Transport Label (GTL) O/V 1724. It has to be completely filled in and fixed onto the corresponding place. Please find special information on our GM-supplier homepage:

<https://gmsupplypower.covisint.com>

- Delivery without damage (no reduction in quality)
- rational load units
- optimal use of containers
- Protection during the transport
- Granting of unloading of the trailer with fork lift trucks without problems
- Ability of stacking
- Keeping of the relevant basic dimensions
- Guarantee of an optimal part take-off



- Use of recyclable material
- Avoidance of one-way-packaging material

Objects such as letters, string, covering etc., which cross the exterior outline of the load unit; must be removed before delivery. For loss of quality as a result of defective, wet or soiled packaging, the supplier has to answer for the consequences.

Opel/Vauxhall reserves the right to refuse loading or part loading if the prerequisites for safe unloading and storage are not fulfilled, e.g. unlocked containers, aid packaging exceeding the container rim, usage of damaged containers, etc.

1.10 Labelling of Containers/ Pallet Units

1.10.1 GTL Label Templates used at OV

- **Single Label** template for individual containers with or without parent Master or Mixed Load Label (former GM1724-A)
- **Master Label** template for a pallet load of homogeneous loading units with consistently identical material numbers (former GM1724-B)
- **Mixed Label** template for a pallet load of mixed container with different material numbers per container (former GM1724-C)

Detail Label description can be found in the OV1724 Label Guideline published in Supply Power!

The following illustrations show sample examples of the different label types. The Examples are not drawn to scale.



Sample Single Label DIN A5



Sample Label SLC1 KLT



SUPPLIER NAME MADE IN XX	OPEL PLANT NAME CODE: A1A2A3A4	PLANT DOCK: 72258 A1A KANBAN NUMBER: K234
LICENSE PLATE (A)	UN 123456789 A2B4C6D8E	PRODUCTION DATE: 01AUG2017 CONTAINER TYPE: BLMIA34S GROSS WEIGHT: 2 KG
PART NUMBER: 12345678	QUANTITY: 10	DeliveryNote or PUS or Invoice Number: EI3456789 Supplier Data (optional) 01DEC2017

Sample Label SLC2 Insert

FROM: SUPPLIER NAME FROM ADDRESS LINE 1 FROM ADDRESS LINE 2 FROM ADDRESS LINE 3 EMAIL/PHONE CONTACT ASSEMBLED/MADE IN XX	TO: OPEL PLANT NAME TO ADDRESS LINE 1 TO ADDRESS LINE 2 TO ADDRESS LINE 3 PLANT DOCK: 72258 A1A	Master Label
	MATERIAL HANDLING CODE: A1A2A3A4	KANBAN NUMBER: K234
PART NUMBER: 12345678	GROSS WEIGHT: 99 KG TOTAL QTY: 10000 #PACKS: 10 QTY/PACK: 1000	
LICENSE PLATE (A) UN 123456789 A2B4C6D8E	DeliveryNote or PUS or Invoice Number: EI3456789 Supplier Data (optional)	

Sample Master Label

FROM: SUPPLIER NAME FROM ADDRESS LINE 1 FROM ADDRESS LINE 2 FROM ADDRESS LINE 3 EMAIL/PHONE CONTACT ASSEMBLED/MADE IN XX	TO: OPEL PLANT NAME TO ADDRESS LINE 1 TO ADDRESS LINE 2 TO ADDRESS LINE 3 PLANT DOCK: 72258 A1A	Mixed Load	
PART NUMBER: 12345678 TOTAL QTY: 1000 #PACKS: 5	PART NUMBER: 01234567 TOTAL QTY: 500 #PACKS: 5	PART NUMBER: 10234567 TOTAL QTY: 1500 #PACKS: 5	PART NUMBER: 12345688 TOTAL QTY: 1250 #PACKS: 5
GIP PER PACK: 200	GIP PER PACK: 100	GIP PER PACK: 300	GIP PER PACK: 250
PART NUMBER: 11234567 TOTAL QTY: 750 #PACKS: 5	PART NUMBER: 12345670 TOTAL QTY: 625 #PACKS: 5	PART NUMBER: 12345665 TOTAL QTY: 1050 #PACKS: 5	PART NUMBER: 12345699 TOTAL QTY: 1000 #PACKS: 5
GIP PER PACK: 150	GIP PER PACK: 125	GIP PER PACK: 210	GIP PER PACK: 200
LICENSE PLATE (A) UN 123456789 A2B4C6D8E	GROSS WEIGHT: 99 KG DeliveryNote or PUS or Invoice Number: EI3456789 Supplier Data (optional)		

Sample Mixed Load Label

1.10.2 Which Label should when be used?

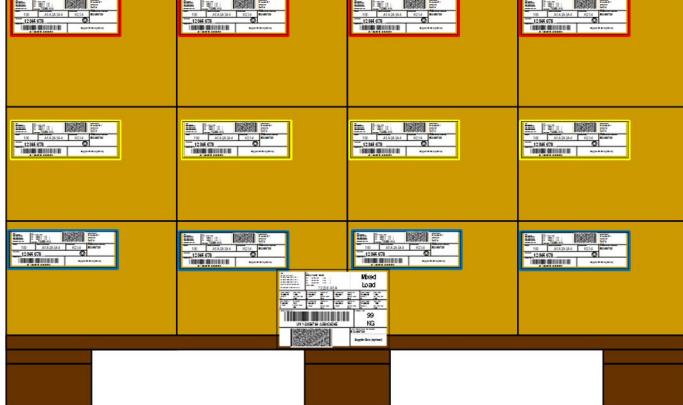
- Label format DIN A5 landscape should be used as standard label for all packaging types (returnable and non-returnable) if the packaging size is suitable, as well as for all Palette unites as Master/ Mixed Load Label
 - Label DIN A5 should be also used for KLT as long these can be inserted into the label frame without having to be folded.
 - If DIN A5 is not usable, small load carriers must be labelled with SLC1 labels
 - Only if also the SLC 1 is too high, the SLC 2 Label applies
 - Any Label is designed as an insert label (if a suitable label frame/holder is available) or as a self-adhesive label (only allowed for cardboard boxes).
- Depending on the type, observe the following specifications:
- Insert label = min. 120 g/m²



- Adhesive label = min. 80 g/m²
- Paper = white, machine-finished, moisture-resistant
- Adhesive = permanent adhesive, moisture-resistant, easy to remove
- For use with returnable containers, the label have to be attached with adhesive dots only, the use of adhesive labels for returnable packaging is prohibited
- For shipments from outside Europe to OV, labels of size B5 might be used, if both partners agree.
- In principle, the labelling rules (number of labels, positioning, attachment and type of label) must be agreed bilaterally between the business partners by using 1738i form.
- For trouble-free machine reading, the labels must however be attached horizontally on the packaging.
- Before applying the labels, all old (and thus invalid) labels must be removed from the packaging.

Label Size	Description	Examples		
Single Label DIN A5		KTP Boxes	Special Racks	V-Container
SLC 1		KLT as 6429, 4329	Bulk Boxes	V-Boxes 400/500 series
SLC 2		Special Inserts	Small Special Inserts	Special Trays
Master Label DIN A5		Packaging Unit with multiple boxes with same Part Number		



Mixed Load Label DIN A5		Packaging Unit with multiple boxes with different Part Numbers
		

Right Label by container type

Segregated Delivery

When the description of the packaging type is supplemented with an "S" at the end, it is prohibited to build up mixed pallets with this part number. The delivery has to take place segregated with Master Label per packaging unit.

Some examples:

KLT3215S S=SEGREGATED
V401S S=SEGREGATED

KLT6429S S=SEGREGATED
A00A355S S=SEGREGATED

1.10.3 The Correct Placement of the Goods Label



Figure 1

A modern VDA KLT small load container pool can only be operated if all parties concerned comply with the rules. An important provision of the VDA working group "Container Standardisation" is that VDA KLTs may not be pasted over. Practice shows however that **not all users** comply with this requirement!

The currently dissatisfying situation:

The label pocket developed years ago provides only insufficient guarantee for securing goods labels that are printed on too thin paper. To avoid problems with the identification of the transported goods, users of the small load container pools use labels which are either self-adhesive or are glued to the VDA KLT.

This causes the following problems:

Figure 1 shows a VDA KLT as currently labelled which nobody would want to use in this condition. All users, which attach such type of "identification", cause:

- Loss of quality through:
 - difficulties in obtaining a correct identification
 - prevention of automatic scanning
- Complications for recycling
- Additional expenditures (costs) through:
 - sorting
 - cleaning/removal
 - disposal
- Unattractive appearance

This leads to the following consequences:

As the majority of pool users suffer due to a few users some individual car manufacturers now feel forced to charge a fine.

The solution for the correct placement of the goods labels:

Figures 2, 3 and 4 show options as to how the goods labels can be placed correctly. The goods labels must be inserted into the label pockets attached to the VDA KLT. Adhesive labels are not permitted.

In addition, the fixing within the label pocket can be improved by using up to two stickers. Figure 3 shows one example of application. The stickers are applied correctly, so that all information on the goods label is visible. Make sure that when using the stickers **ALL** information remains visible. That stickers cling to the container and are easy to remove in washing depots is on supplier own authority.

Figure 4 shows how you can fix the label and the Kanban card can be placed.

Through the correct placement of the goods label you avoid additional costs for your company!



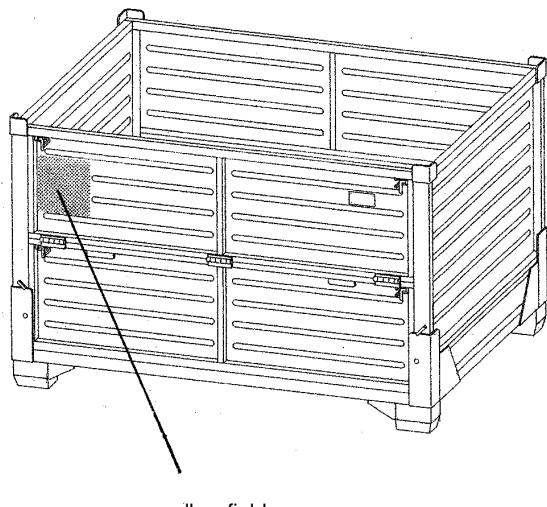
Sticking labels etc. or writing on the KLT is forbidden. Suppliers who infringe against this, may be surcharged for the cleaning by CHEP / by OV with PRR's.

1.10.4 Labelling of Standard Containers (GLT) and Racks

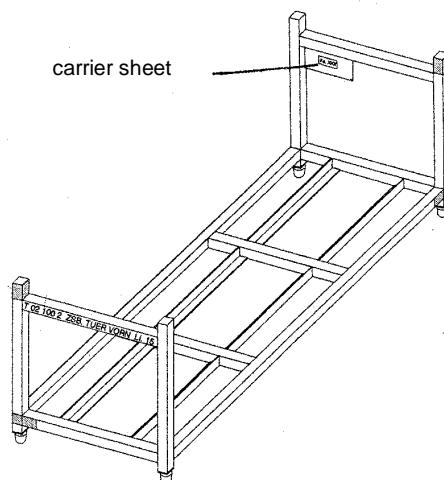
The label has to be completely filled in and secured to its corresponding place (yellow field or label plate).

**The secured labels must be removable without residue.
For fixing it is allowed to use removable fixing stickers.
The use of adhesive labels may result in excess cleaning charges
being levied by Opel/Vauxhall.**

V-Container



Racks

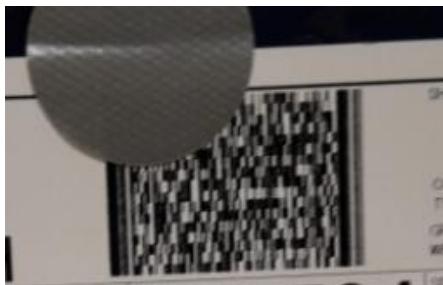




1.10.5 Examples for NOK Labels and Barcodes

Preserves the integrity of 1D and 2D Barcodes for full readability on receipt at OPEL!

Do not block the codes with internal labels, bands or fixing stickers!



Do not use stamps or pens on top of the codes!



Do not use plastic bags to cover or do not fold labels to assure scanning of Barcodes accurately!





Staying against possible printing failures!





2. VDA-Small Part Containers (KLT)

2.1 Application of VDA-Small Part Containers (KLT)

2.1.1 Introduction

By the introduction of the uniform small part container (KLT-Container) in all European OPEL / Vauxhall Plants, important criteria have been determined for the future:

- One container from supplier to point of use
- Elimination of one-way packaging
- No re-packing at point of use

To make sure that these changes are maintained, the co-operation and support of all suppliers is required.

This booklet contains all necessary detailed information for dispatch and handling of these containers. Only if all instructions are followed, it will then be possible to guarantee a smooth shipping circulation of KLT-Types.

The modular KLT-System has been developed by the automotive industry and their suppliers and it is described in the VDA-Recommendation 4500.

Opel/Vauxhall has introduced four KLT-Types in the plants. This means, an important contribution will be made to container standardisation and also protection of the environment by reducing the one-way packaging within the automotive industry and the suppliers.

Supply to our plants in any other packaging than the one prescribed are reflected in the supplier rating and cause debiting with repacking cost.

The container version is determined by VDA-Recommendation 4500. This recommendation was designed by:

Verband der Automobilindustrie e. V. (VDA)
Behrenstr. 35
10117 Berlin

Tel.: +49 30 897842-0
Fax: +49 30 897842-600
E-Mail: info@vda.de
Internet: www.vda.de



2.1.2 Transport-Container R-KLT 3215, 4315, 4329, 6415, 6429

OV has now changed the delivery area-wide to R-KLT instead of C-KLT. For that reason you are only able to order R-KLT via CHEP Portfolio. If new containers have to be bought, interested suppliers can change from C-System to R-System.

Definition: **R¹-KLT² 6³ 4⁴ 29⁵**

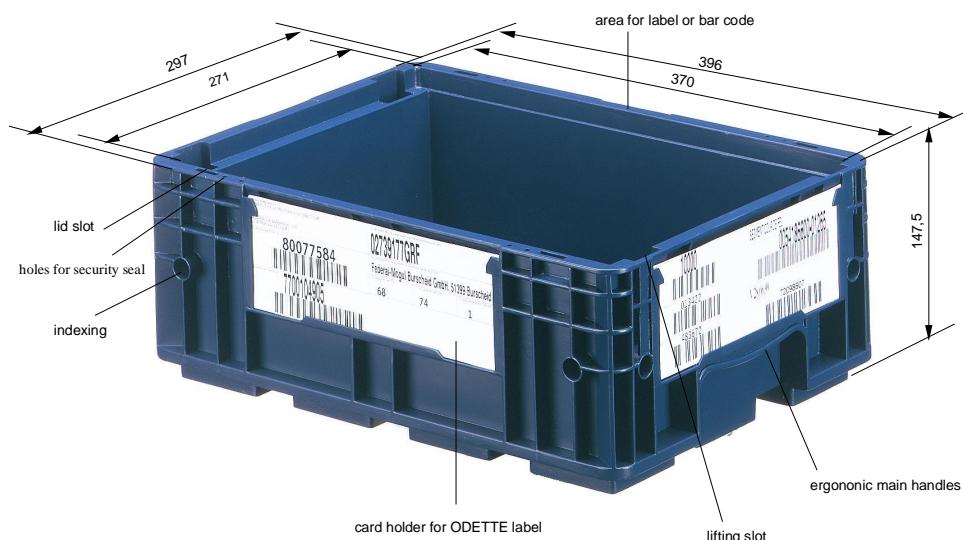
- 1 Re-design Container
- 2 Small Parts Container (KLT)
- 3 Length: 600 mm
- 4 Breadth: 400 mm
- 5 Height: 280 mm

Technical data:

	R-KLT 3215	R-KLT 4315	R-KLT 4329	R-KLT 6415	R-KLT 6429
Nominal dimensions (mm)	300 x 200 x 147,5	400 x 300 x 147,5	400 x 300 x 280	600 x 400 x 147	600 x 400 x 280
External dimensions (mm)	297 x 198 x 147,5	396 x 297 x 147,5	396 x 297 x 280	594 x 396 x 147,5	594 x 396 x 280
Internal dimensions (mm)	243 x 162 x 129,5	346 x 265 x 109,5	346 x 265 x 242	544 x 364 x 109,5	544 x 364 x 242
Net volume (l)	5,3	10,1	22,3	22	48,0
weight	0,56 kg	1,29 kg	1,88 kg	2,1 kg	3,0 kg
Stacking capacity	400 kg	600 kg	600 kg	600 kg	600 kg

The positive base to mouth interlock is for all models 15,0 mm. All containers are made of polypropylene and the colour is sapphire blue. They are usable for a temperature range of -20°C until +60°C. Moreover they have a max. load of 20,00 kg.

R-KLT 4315





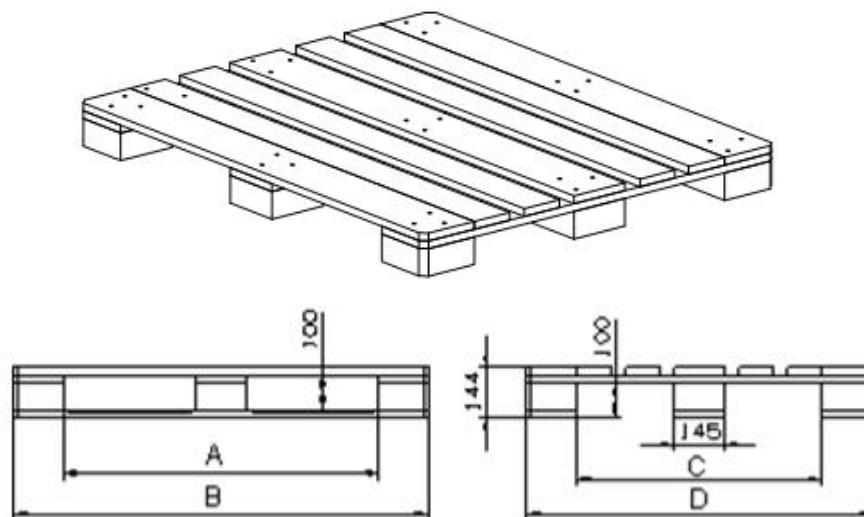
2.2 Pallets and Plastic Covers

2.2.1 CHEP060/061/062/063

Technical data:

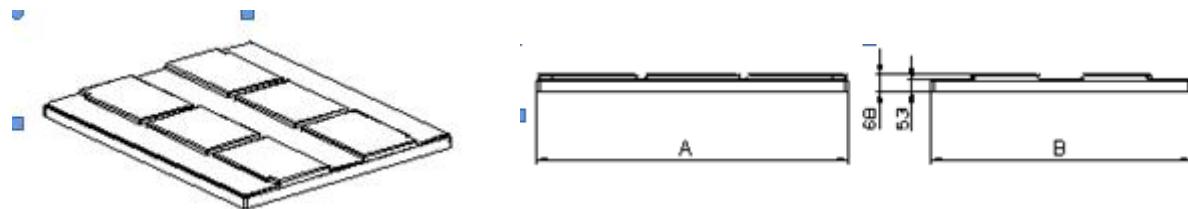
Pallet	Dimensions (mm)				Tare (kg)	Capacity (kg)
	A	B	C	D		
CHEP060	910	1200	710	1000	25 kg	1000 kg
CHEP062	310	600	710	1000	12,8 kg	1000 kg

CHEP060



Cover	Dimensions (mm)		Tare (kg)	Using as intermediate layer
	A	B		
CHEP061	1205	1007	9 kg	with pallet CHEP060
CHEP063	609	1006	5 kg	with pallet CHEP062

CHEP061





2.2.2 Protective Covering during Transit

1. Complete Loading with Pallet

1.1 Pallet CHEP062

The upper KLT-layer is covered by lid CHEP063, which should be secured for transportation by means of polypropylene strapping.

1.2 Pallet CHEP060

The upper KLT-layer is covered by lid CHEP061, which should be secured for transportation by means of polypropylene strapping.

In case of highly delicate parts in danger of soiling, the upper layer of crates must be covered on the whole surface by packing paper (of minor quality) must agree to this additional packaging in advance.

2. Single Shipment without Pallet

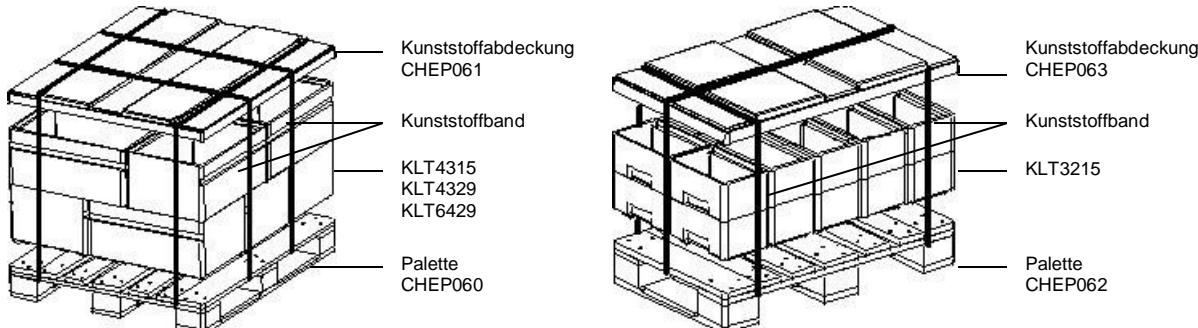
Cover is made by means of corrugated paper (quality VDW 2.2) sized to fit to the interior dimensions of the KLT-type. **Every package** (including cover) has to be fixed by polypropylene strapping.

The cover should not be fixed by adhesive tape. The use of adhesive tape may result in excess cleaning charges being levied by Opel/Vauxhall.



2.3 Delivery Units

2.3.1 Delivery Unit Full Container KLT3215, 4315, 4329, 6415, 6429



Instructions for Completion:

1. Unit loads should comprise full layers only.
2. It is not allowed to include empty KLTs to fill up one layer.
3. If this cannot be achieved on the pallet CHEP060, the pallet CHEP062 should be used.
4. If full layers cannot be achieved on the pallet CHEP062, unit loads of mixed components should be considered.
5. Unit loads have to be stacked according to bunch piling.
6. Maximum stacking height:

KLT3215	6 layers
KLT4315	6 layers
KLT4329	3 layers
KLT6415	6 layers
KLT6429	3 layers
7. Maximum stacking weight:

Pallet CHEP060	1000 kg
Pallet CHEP062	1000 kg
8. The complete packaging unit must be fixed with polypropylene strapping (4 straps).
STEEL STRAPPING use is strictly forbidden!

2.3.2 Delivery Unit Empties KLT3215, 4315, 4329, 6415, 6429

Unit Loads from CHEP will compromise:

KLT3215	6 layers of 10 crates	Total 60 crates
KLT4315	6 layers of 10 crates	Total 60 crates
KLT4329	3 layers of 10 crates	Total 30 crates
KLT6415	6 layers of 5 crates	Total 30 crates
KLT6429	3 layers of 5 crates	Total 15 crates

Instructions for Completion:

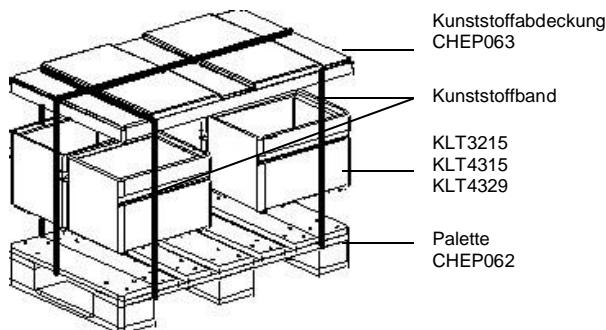
1. Empty KLTs must be returned with the opening downwards.
2. Each unit load must be filled with KLTs of only one type.
3. Every layer has to be filled in completely.
4. Shipping unit must be safely fixed on the pallet with two polypropylene straps.



2.3.3 Delivery Unit for Small Quantities KLT3215, 4315, 4329, 6415, 6429

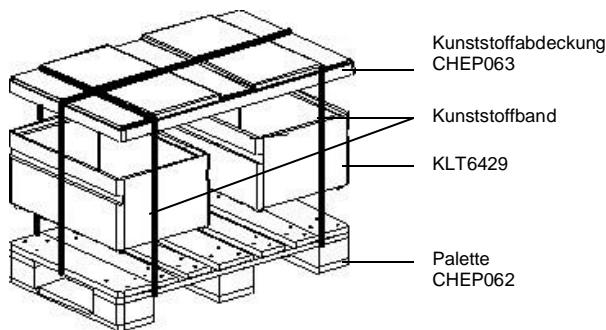
General Instructions for Completion:

1. If possible, there should be mixed loading per unloading area.
2. KLT on the pallet must be stacked flush with the outer edge (free space between the KLT will be accepted).
3. The complete delivery unit must be fixed with polypropylene strapping (4 straps).
4. **STEEL STRAPPING use is strictly forbidden!**



Additional Instructions for Completion for KLT3215, 4315, 4329:

1. Up to three pieces of KLT3215, 4315, 4329 must be delivered without pallet.
2. Four or more KLT3215, 4315, 4329 crates must be delivered as shown in the drawing.
3. **Different heights per layer are not allowed.**
4. Marking and consistence of pallet unit.



Additional Instructions for Completion for KLT6429/6415:

1. One KLT6429/6415 must be separately delivered without pallet or cover.
2. Two and four KLT6429/6415 has to be delivered as shown in drawing.
3. In case of three or more KLTs the pallet CHEP060 has to be used.
4. Maximum stacking height for smallest quantities: 2 layers.



3. Application of Standard Containers (GLT)

The standard containers can only be used by the supplier, if he has signed a service contract with our service supplier and they are assigned by the responsible Opel/Vauxhall receiving plant.

3.1 Overview Transport - Standard Hire Container

Chep Product Code	Container Name	Tare Weight (kg)	Outer/Inside Dimension in mm			Height collapsible (mm)	Load Unit GLT / LU	Stacking Factor	Max Revenue Load (kg)	Max. Burden (kg)
			Length	Width	Height					
00301	V-195	26,0	1000/ 910	600/ 510	340/ 197	-	7	10	1000	12000
00302	V-154	53,0	1000/ 910	600/ 510	572/ 420	305,0	8	7	1000	6000
00303	V-149	76,0	1200/ 1100	1000/ 910	612/ 440	260,0	12	7	1500	12000
00304	V-196	90,0	1200/ 1100	1000/ 900	751/ 590	320,0	10	7	1500	12000
00308	V-203	139,0	1600/ 1510	1200/ 1110	1005/ 830	370,0	8	5	1000	5000
00326	V-210	79,0	1400/ 1310	800/ 710	670/ 500	280,0	10	7	1000	5000
00327	V-211	80,0	1500/ 1410	800/ 710	670/ 500	280,0	10	7	1000	5000
00328	V-212	89,0	1800/ 1710	800/ 710	670/ 500	280,0	11	7	1000	5000
00332	OV121010	55,0	1200/ 1120	1000/ 920	975/ 826	380,0	8	6	500	2800
00334	V-606	39,0	1200/ 1140	1000/ 940	990/ 805	210,0	14	6	250	1500

If GLT is loaded with max. Revenue load, you need to adapt the Stacking factor to the max. Load.

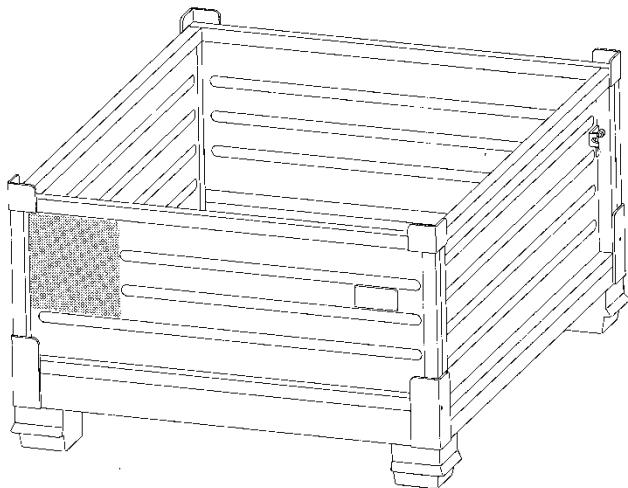


3.2 Transportation Container V149

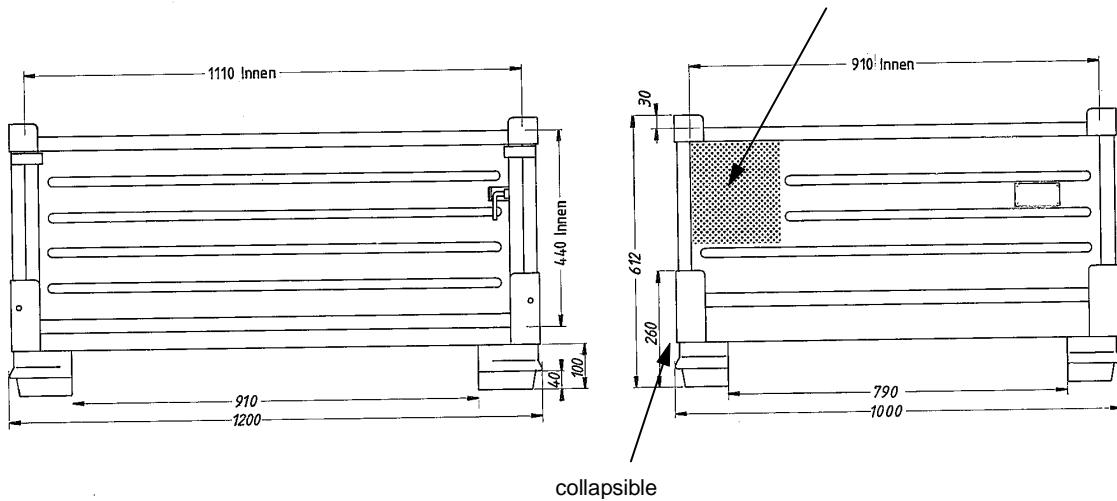
To order at CHEP

Technical data:

Tare:	76 kg
Capacity:	1500 kg
Volume:	444 l
Can be piled:	7-times
Drawing No.:	V149



Yellow field for label





3.3 Foam Container V400/401/402/403 - V500/501/502/503/504

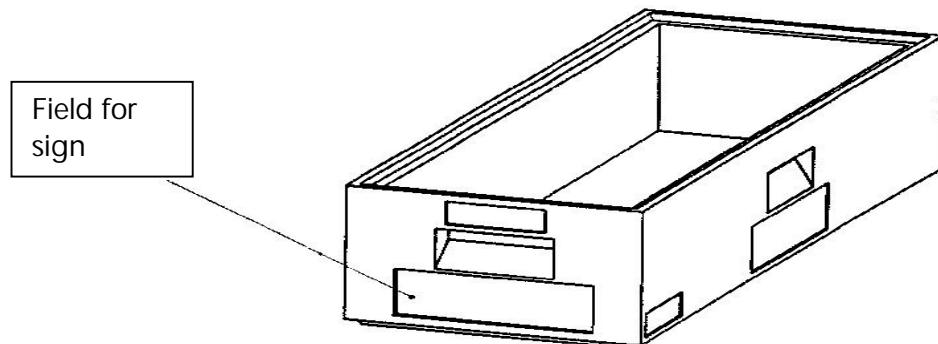
To order at CHEP

Technical data:

Material quality: PP

Type	Dimension L (mm)	Sign	Tare (kg)	Volume (l)	Capacity (kg)
V400	800	V-400	0,93	30	20
V401	1000	V-401	1,15	38	20
V402	1200	V-402	1,35	46	20
V403	1400	V-403	2,35	54	20

Type	Dimension (mm)	Sign	Tare (kg)	Volume (l)	Capacity (kg)
V500	800	V-500	1,00	30	20
V501	1000	V-501	1,30	38	20
V502	1200	V-502	1,50	46	20
V503	1400	V-503	1,80	54	20
V504	1700	V-504	2,00	66	20





4. Specific Part Packaging

4.1 Application of Special Packaging

4.1.1 General Packaging Specification for the Use of Special Packaging

This packaging specification should contain universal principles in dealing with special inserts, special packaging of Opel/Vauxhall. It is absolutely necessary, that the principles are kept so that your delivered quality arrives our plant without any loss. Opel/Vauxhall reserves the right to turn away the packaging, which does not agree with this principles.

Shipping unit

A complete shipping unit consists of:

1. Opel /Vauxhall dual use pallet / lid
2. Special inserts, deep-drawing film; special KLT (yellow) etc.

To 1. All Opel/Vauxhall dual use pallets are described in this manual. Which pallets you have to take for your delivery, you find on your pick-up-sheets. Which Pallets have to be used for your delivery is to be agreed with the relevant packaging planer of the respective Opel/Vauxhall receiving plant. If you see, that in the next days you will have a shortage of pallets, please report this by return to your responsible empties coordinator.

Exceptions to the shipping unit arrangement are only allowed in close agreement with the plant logistic. If no lids or pallets are available, you have to come to an agreement with the plant logistic, so you can use alternative lids and pallets.

Special inserts have to be used with covers! At non-observance supplier will be charged with the costs of the damaged container.



**DELIVERY IS
NOT OK**



**DELIVERY IS
OK**



Allowance of the packaging units

The allowance of a packaging unit complies to the type of pallet used. The height of the packaging unit must be adapted to the height of the trailers.

Standard-Trailer ➔ 1,20 m

Mega -Trailer ➔ 1,00 m or 1,50 m

All packaging units must be coordinated with the receiving plant.

The packaging is not allowed to stick out beyond the pallet.

To bind the packaging unit

Every packaging unit has to be protected quadruplicate with plastic tapes, twice in every direction.

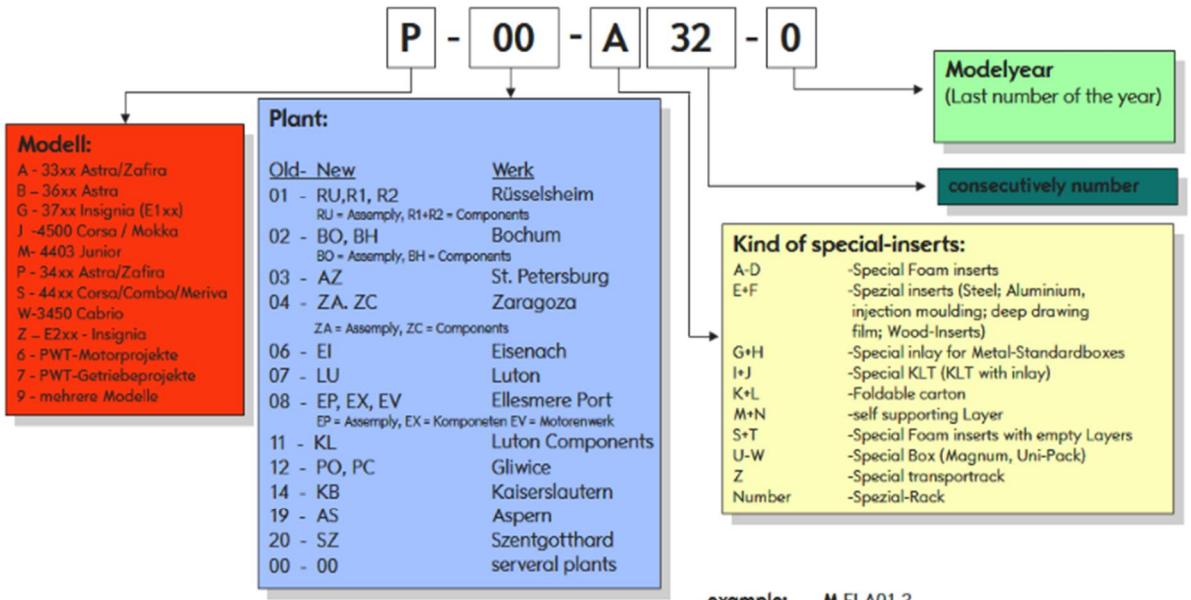
Handling of special inserts

With the use of special inserts you have to keep to the following principles:

- Ø Special inserts are only allowed to be used for the part numbers, for which they were developed.
- Ø Special inserts, owned by Opel/Vauxhall, are not allowed to be used for the batch production of parts.
- Ø Soiled special inserts have to be cleaned before use. Only with this procedure can the prevention of parts damage be instilled during the transport. Parts which are useless because of the soiled container, will be handled as supplier waste. The responsibility for the cleaning is on the supplier's site.
- Ø The empties are not allowed to be abandoned to the effects of the weather when stored.
- Ø Defect special inserts must be removed from circulation and must be reported to the department SC Containerization for scrapping. No special inserts are allowed to be scrapped.
- Ø There is no fundamental claim for using the special packaging as a part of your production. They are only transport containers and should be used in the last part of operation.



Identification of special-inserts



example: M EI A01 3

→ Model year 2013
 → Special Foam inserts
 → Plant
 → Model Junior 4403



4.2 Pallets and Covers for Vendor Parts

Following you find a selection of the most assigned pallets by GME.

4.2.1 Pallet: V010-015/017-020/023/027/033/043-047/049

Technical data:

Made of wooden:

Pallet	Dimensions (mm)				Tare (kg)	Capacity (kg)
	A	B	C	D		
V010	580	800	360	600	10	500
V011	780	1000	360	600	15	500
V012	980	1200	760	1000	30	1000*
V013	980	1200	560	800	25	1000
V014	1180	1400	760	1000	33	1000
V015	1180	1400	760	1150	35	1000
V017	1480	1700	760	1000	37	1000
V018	980	1200	980	1200	33	1000
V019	980	1200	1360	1600	55	1000
V020	1700	2000	760	1000	43	1000
V021	930	1150	710	950	40	1500
V022	1980	2200	960	1200	45	1500
V023	1400	1700	980	1200	60	1000
V027	1180	1400	860	1200	50	1000
V028	980	1200	560	800	25	1000
V033	1500	1800	560	800	35	1000
V035	1580	1800	980	1200	80	1500
V043	2280	2500	760	1000	47	1000
V044	2590	2810	960	1200	55	1000
V045	1880	2100	960	1200	48	1000
V046	2980	3200	960	1200	70	1000
V047	2430	2650	760	1000	50	1000
V049	1480	1700	560	800	38	1000

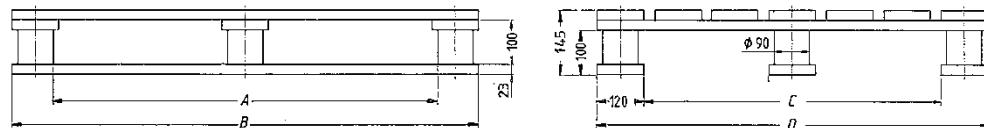
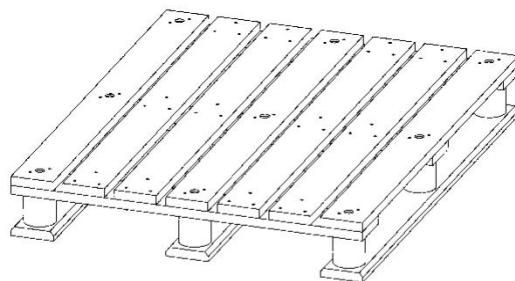
*Transport and storage of cylinderblocks and –heads



4.2.2 Pallet: V021/028/032/034/035/037/048/050

Made of wooden / steel:

Pallet	Dimensions (mm)				Tare (kg)	Capacity (kg)
	A	B	C	D		
V021	930	1150	710	950	40	1500
V028	980	1200	560	800	25	1000
V032	1180	1400	960	1200	62	1500
V034	1180	1400	960	1200	62	1500
V035	1580	1800	980	1200	80	1500
V037	980	1200	760	1000	55	1500
V048	980	1200	760	1000	30	1000
V050	760	1000	460	600	40	1500





4.2.2.1 Design and Repair of wooden Pallets

1. Our Standard Pallet is a wooden pallet. Please consider the following hints:

We have already implemented a new pallet concept in 2014. In the transitional phase we will use two different pallet standards:

Current design / Future design. Please see the chart on the following page. The description name of the pallets doesn't change. Both designs have got the same description name (f. e. V011/V012)

2. Repair of returnable wooden pallets

Defective returnable wooden pallets, Design OLD and Design NEW will be repaired by an O/V service provider.

Therefore we would like to remind that it is prohibited to dispose any returnable wooden pallets which are owned by Opel Automotive GmbH / Vauxhall GmbH

In case you have damaged/defective returnable pallets in stock, please consider the same process like defective container.



NEW DESIGN OPEL/VAUXHALL RETURNABLE PALLETS - ONLY FOR SPECIALS

	OLD Design	NEW Design
View Pallet		
Pallet base	<ul style="list-style-type: none"> - round - with blue plastic ring 	<ul style="list-style-type: none"> - square cut - painted orange - branded Opel symbol
Imprint type & details	Print on crossbeam 	Print on base, front

Remark: Both palettes variants, old and new, have the same name and will still remain in circulation!

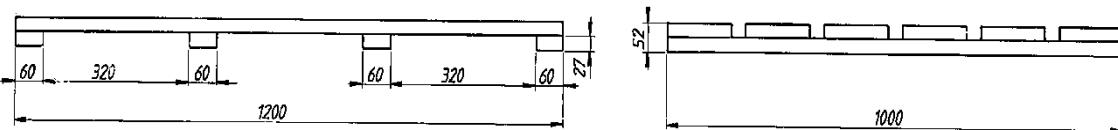
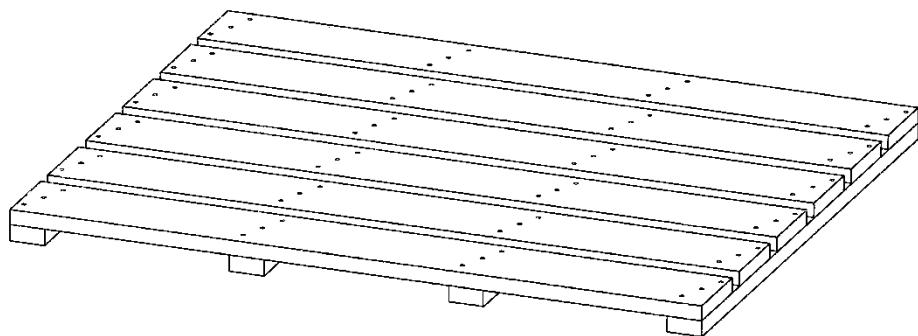


4.2.3 Intermediate Bottom/Cover V036/039

Technical data:

Usage: Together with pallet V012/013 as intermediate bottom or cover in stack

Pallet	Dimensions (mm)			Tare (kg)	Capacity (kg)
	A	B	C		
V036	1200	800	52	14	-
V039	1200	1000	52	18	-





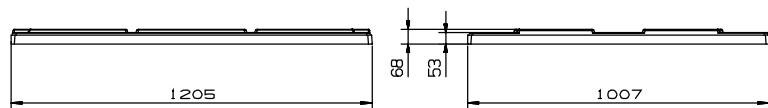
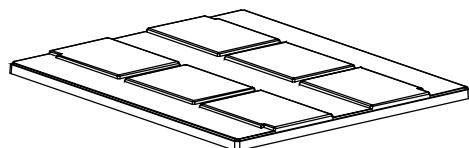
4.2.4 Cover for Special KLTs (yellow)

A 1210-4

Technical data:

Plastic cover 1000 x 1200 mm

Tare: 9 kg

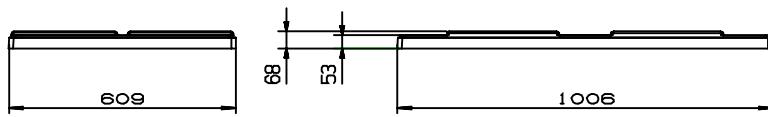
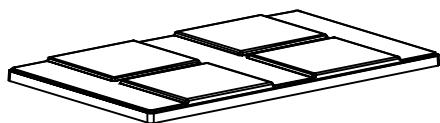


A 1006-1

Technical data:

Plastic cover 1000 x 600 mm

Tare: 5 kg





4.2.5 Cover V054/055/056/057/058/059/060/061/062/063/064/070

Technical data:

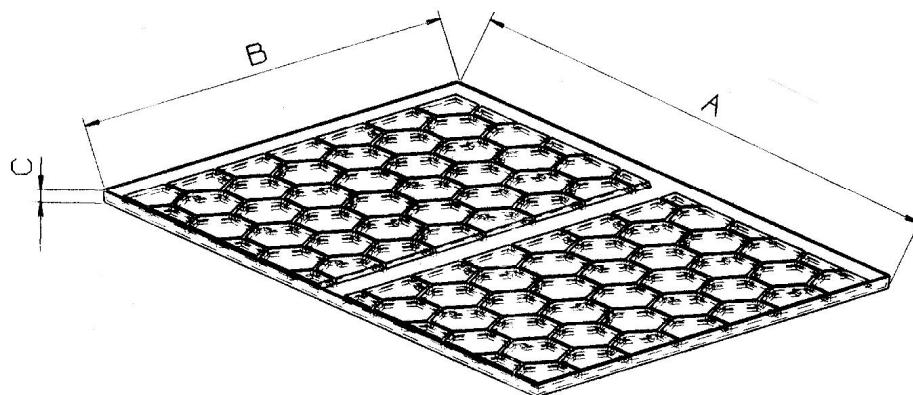
Usage: As cover in stock

Made of plastic:

Type	Dimensions (mm)			Tare (kg)	Material
	A	B	C		
V054	1020	620	30	4,5	PC 4,0 black
V055	600	500	30	3,5	Abs 4,0 black
V056	1220	1020	30	5,5	PC 4,0 black
V057	1220	820	30	5	PC 4,0 black
V058	1220	1220	30	6	PC 4,0 black
V059	1420	1220	30	7,5	PC 4,0 black
V060	1720	1220	30	10,5	PC 5,0 black
V061	1420	1020	30	6	PC 4,0 black
V062	1620	1220	30	9,5	PC 5,0 black
V063*	820	620	30	4	PC 4,0 black
V064	1820	820	30	9	PC 6,0 grey
V070	820	620	30	4	PC 4,0 grey

*special valve cover for UTZ plastic pallet 800 x 600 mm (not usable with V-010)

PC = polycarbonate



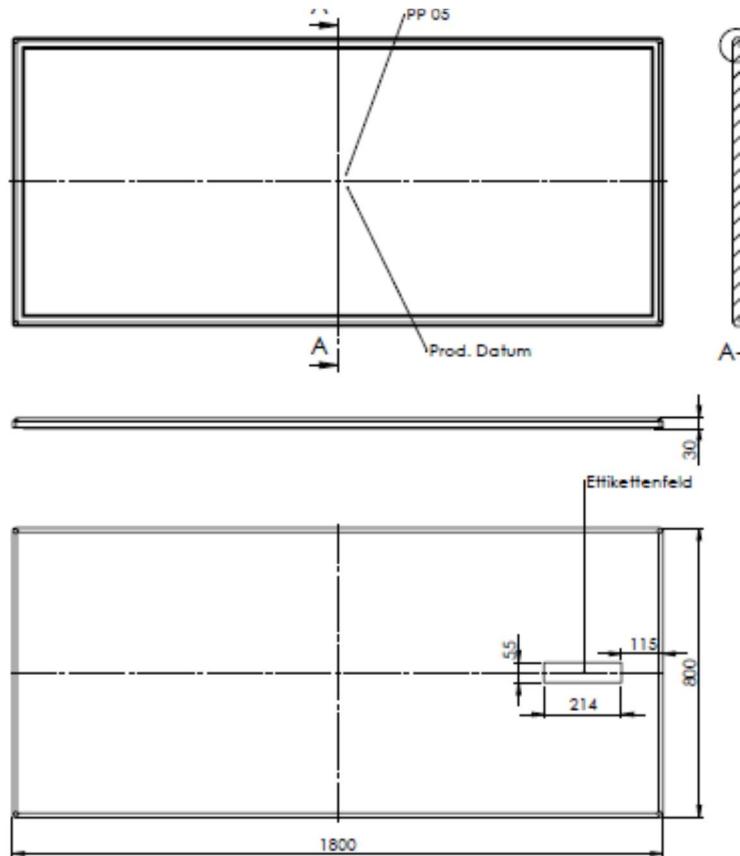


4.2.6 Cover V080/V081 – A00Z109 / A00Z119 / A00Z129

EPP 80gr/l

Type	Dimension (mm)			Tare (kg)	Material
	A	B	C		
V080	1800	600	30	2,7	EPP schwarz
V081	1800	800	30	3,4	EPP schwarz

Type	Dimension (mm)			Tare (kg)	Material
	A	B	C		
A00Z109	2100	600	30	3,2	EPP schwarz
A00Z119	1700	800	30	3,0	EPP schwarz
A00Z129	2000	600	30	3,0	EPP schwarz

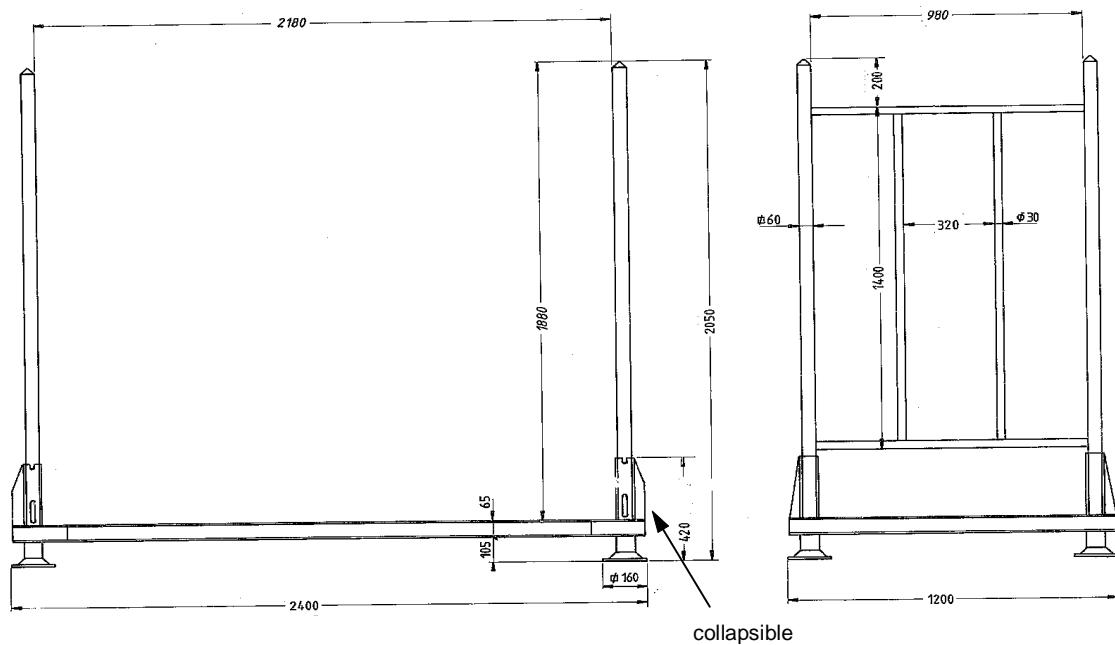
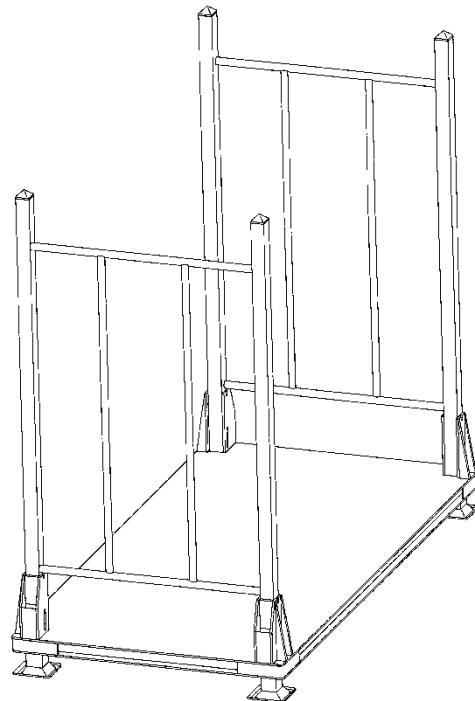




4.3 Tyres and Wheel Loading Appliance

4.3.1 Rack for Tyre V100

Technical data:





4.3.2 Example Pack Specification

Pack specification (This rule can be made in all current sizes)				
Shipped from plant: Versand von Werk:	all	Special insert no: Spezialeinsatz-Nr.:	EWPS 13	Part-No: Teile-Nr.:
		Part-Name: Teile-Name:		
Model Modell:	all		Type: Typ:	All

Picture: Bild der Einheit:	Piece/Insert Teile/Verpackung: 9 pce
	Piece/unit Teile/Versandeinheit 45 pce
	Inserts/Unit: Einsätze/Palette: 6 Layer / Unit
	Pallet-type: Palettentyp: BP-1
	Cover-type: Deckeltyp: TP-1
	Weight/pce (Part): Teilegewicht: - kg
	Weight/Pallet: Gewicht/Palette: 25 kg
	Weight/Cover: Gewicht/Deckel: 15 kg
	Weight/Unit: Gesamtgewicht: - kg
	Length: Länge: 1208 mm
	Width: Breite: 1118 mm
	Binding: Verschnüren: 4 x
	Height: Höhe: - mm
	Stackability: Stapelfähigkeit: 4 / 2

Picture: Bild der Verpackung:	
	Comment: shipment only allowed if the unit are is bounded.
Change: Änderung:	Date: Datum:
	Established by: Erstellt von:
	Approved: Genehmigt:
	Date: Datum:
	Reason: Grund:



4.3.3 Packaging Code for VDA*-Standard Pallet (Wheels)

European Wheel Packaging System

Following code is reflected in MGO call off Pick-up Sheet (PUS)

Example:

00 **EWPS** 16

Booking transaction to be performed in CHEP Portfolio+ separately for each EWPS-component!

Example: 1 unit load of 00EWPS16 consists of:

1 x 0EWPS2BP - EWPS PALETTE 15-20 Zoll
1 x 0EWPS2TP - EWPS LID 15-20 Zoll
6 x 00EWPS16 - EWPS 16LAYER EWPS

Description MGO/SAP	J	Wheels per layer	No. of layers	Length	Width	max. Height	Content
00EWPS14 - EWPS <u>14Layer</u>	4/5/6	8	5	1200	1100	1200	40
00EWPS15 - EWPS <u>15 Layer</u>	5/6	8	5	1360	1160	1300	40
00EWPS16 - EWPS <u>16Layer</u>	5/6	6	5	1360	1160	1300	30
00EWPS16 - EWPS <u>16Layer</u>	7	6	4	1360	1160	1200	24
00EWPS17 - EWPS <u>17Layer</u>	6	5	5	1360	1160	1300	25
00EWPS17 - EWPS <u>17Layer</u>	7/8	5	4	1360	1160	1300	20
00EWPS18 - EWPS <u>18Layer</u>	7/8	5	4	1360	1145	1300	20
00EWPS19 - EWPS <u>19Layer</u>	7/8	4	4	1360	1145	1300	16
00EWPS20 - EWPS <u>20Layer</u>	7/8	4	4	1360	1145	1300	16

Description MGO/SAP	Length	Width	max. Height
0EWPS1BP - EWPS PALETTE 13-14 Zoll	1200	1000	170
0EWPS1TP - EWPS LID 13-14 Zoll	1200	1000	70
0EWPS2BP - EWPS PALETTE 15-20 Zoll	1350	1155	170
0EWPS2TP - EWPS LID 15-20 Zoll	1350	1155	70

* Verband Deutscher Automobilhersteller



5. Domestic One-way – Specification for Deliveries in Standard- and Substitute Packaging

5.1 Introduction

The purpose of this packaging and shipping guide is to inform you about the Material Handling System for incoming material that is operated at Opel/Vauxhall and to assist you in developing and establishing the most effective and economical packaging, in order to meet the requirements of the Opel/Vauxhall Handling System.

Since you, the supplier, are generally responsible for the development and procurement of packaging, we recommend that **persons who are responsible for packaging and shipping in your company, become thoroughly familiar with the contents of this guide**. They should make their packaging proposals consistent with the method outlined in the following pages.

An expendable shipping system is comprised of contained components having a life expectancy of only one trip from supplier to customer. This includes both expendable containers and returnable containers with expendable dunnage. For returnable systems, the supplier is responsible for designing back up expendable packaging to be utilized to ship production parts in the event returnable containers are not available. Back up expendable packaging must be designed with dimensions equal to the returnable container dimensions, and have the same standard pack quantity and part orientation as the returnable container.

In general we have 2 different versions of one-way-packaging at Opel/Vauxhall

- 1. One-way-packaging as defined series packaging for deliveries from remote countries:**

If direct deliveries to Opel/Vauxhall plants take place from remote countries and oversea container is used, the packaging units have to be customised according O/V 1738. That means in these cases marginal differences compared with the dimensions of the Opel/Vauxhall standard container are permitted. It is necessary to use the ISO dimension system. For parts cannot be packed in the defined packaging, new packaging has to be developed according oversea container standards.

- 2. Deliveries from remote countries without using sea container and one-way-packaging as substitute for returnable packaging:**

Following you find general guidelines for one-way-packaging. That means all specifications for each component of the packaging, for the building of the delivery unit, for one-way-series packaging as well as for substitute packaging have to be obtained. All dimensions are constructed on the metric dimensioning system and are oriented on the transport system used in Europe.

Returnable packaging as well as one-way-packaging has to be defined before first delivery by every Opel/Vauxhall receiving plant with a packaging data sheet (O/V 1738i). Your contact partners are the people in department container assignment.



5.2 General: One-way packaging

If the empty container administration cannot provide suppliers with empty containers, there is still the possibility of using one-way packaging. Costs may be charged to Opel/Vauxhall if reasons are valid.

Please make sure that the responsible Opel /Vauxhall follow up person and the empty packaging area confirm to you by standard form sheet any delayed or not realised deliveries of empty equipment and send the form sheet with the bill for substitute packaging to Opel /Vauxhall. If the supplier decides to deliver in one-way packaging on his own, Opel/Vauxhall will not pay any bills or any increased costs.

For the approval of bills for one-way packaging, it is absolutely necessary that suppliers give detailed information about the substitute packaging used.

Requested information:

- Dimensions of used pallets
- Dimensions of used one-way packaging (Carton)
- Type and quality of used carton
- Delivery note number (Delivery note) for one-way packaging

MATERIALS:

- All solid wood materials and assemblies must be ISPM-15 certified and visibly stamped (on a minimum of two sides for wood assemblies), no exceptions.
- All packaging materials need to be 100% recyclable to reduce costs for final disposal.
- Minimize different materials used within the pack (corrugate paper, plastic, foam and wood).
- Do not glue foam or wood to corrugated material. Using adhesive on two different materials is strictly prohibited.

Heavy Metals Concentration: The supplier has to confirm for each delivery in oneway packaging which is not returned that the sum of concentration levels of lead (Pb), cadmium (Cd), mercury (Hg) and hexavalent chromium (Cr VI) in packaging or packaging components **does not exceed 100 mg/kg** according to EU directive 94/62/EC. This confirmation has to be made on each delivery note.

The form sheet "Reason for One-way packaging" is used for substitute packaging for KLT, GLT and special packaging.

With the implementation of container pools for KLT/GLT/special packaging, Opel/Vauxhall will optimise the availability of equipment for its suppliers, and will reduce the use of one-way packaging in order to eliminate repacking and the harmful effect to the environment.

In order to avoid any disruption in the cubic calculations of the transport or the numerical requirements of the schedule - any One-way or substitute packaging used must be:

- ü **robust enough to withstand the journey without collapsing when stacked**



- Ü **of the same size as the assigned container**
- Ü **contain the same number of pieces as the planned container**
- Ü **secured to a pallet for fork lift loading where applicable**
- Ü **has to meet the valid guidelines and laws of the EC (European Community) and all European countries. In this connection the ISPM15 has to be pointed out.**

Import Requirements for Wood Packaging Material (including dunnage)

All wood packaging material (including dunnage) that is imported for General Motors MUST comply with the guidelines ISPM 15 (International Standards for Phytosanitary Measures- Guidelines for Regulating Wood Packaging Material in International Trade).

Proof of this treatment will need to be marked accordingly on the outside of the packaging material. Please visit our international web site: <http://www.ippc.int>

More information about the guideline ISPM 15 you can see on the following Website:
http://www.maff.go.jp/pps/j/konpozai/pdf/ispm15_2009_en_2014-06-16.pdf

Costs arising due to repacking will be charged to the responsible party. For GLT substitute packaging, you have to take a separate pallet for each carton.

5.3 Packaging Requirements and Conditions for Incoming Material

1. Material, which is to be delivered in disposable packaging for mechanical handling, must be loaded so that it is accessible from the delivery vehicle by a fork-lift.
2. Material must be protected from exposure to adverse weather conditions during transit.
3. Material must be delivered in the disposable packaging standard sizes, as explained on the summary sheet. The packaging must be capable of being stacked safely in our storage areas up to a height of 4 meters and the pallet of carrying a load of 1200 kg within a pile.
4. Maximum weight per unit is 300 kg .Exceptions has to be clarified directly with the receiving plant.
5. Delivery of loose material is not acceptable.
6. Opel/Vauxhall reserves the right to refuse loads or partial loads if they do not meet the requirements for safe unloading and storage.
7. If Opel/Vauxhall cannot accept your packaging, Opel/Vauxhall reserves the right to make packaging revisions at any time during the lifetime of the part.
8. Dynamic and warehouse stacking guidelines must be stencilled on each pallet on a minimum of two sides.



5.4 Information for Packaging Development

General Remarks

We expect you as a responsible and experienced supplier to design each package according to OV specifications.

The dimensions per unit are 1200 x 1000 mm and 1000 x 600 mm. These dimensions are mandatory.

The maximum height of a packaging unit must not exceed 1000 mm including pallet.

Exceptions are possible when the length of the part requires different pallet sizes.

Parts that have a delicate design or surface, must be protected in their packaging by adequate means and, if necessary, they must be completely separated.

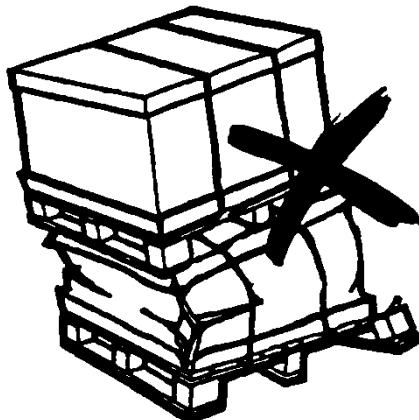
Special Packaging used for Separation or Protection

- Wooden boxes and crates
- Plastic bags / sheets / banding
- Styrofoam inserts
- Bundle

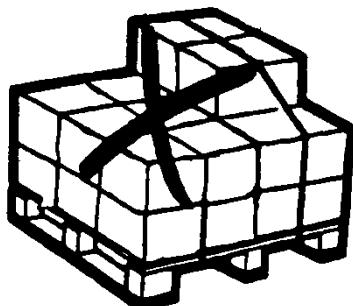
If all other methods prove to be inapplicable or uneconomic, direct material may be delivered in a bundle. However, this can only be done on the condition that parts cannot be damaged during transit.

An agreement about packaging type and form has to be reached in advance with the contact partners for container assignment in the respective receiving plant.

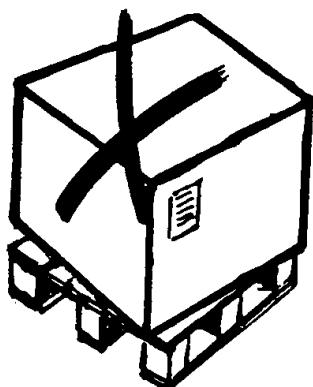
5.5 Samples of Inadequate Packaging / Delivery Conditions



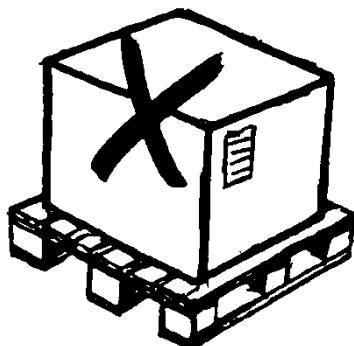
1. Units that cannot be stacked are totally unacceptable. Reasons for inadequate packaging in this case may be
 - Insufficient reinforcement
 - Quality of cardboard box NOK



2. A "pyramid" of cardboard boxes on a pallet is not acceptable. It cannot be stacked with other units.



3. Cardboard box is not square to the pallet base. The box is insufficiently secured and the unit cannot be stored automatically.



4. A small cardboard box on a big pallet causes difficulties, because it cannot be stacked with other units without risking accidents.



5.6 Pallet Construction

The packaging of standard parts into units normally results in high gross weight. Therefore, it requires a strong pallet base to give adequate and safe support throughout the entire transportation, handling, and storage cycle.

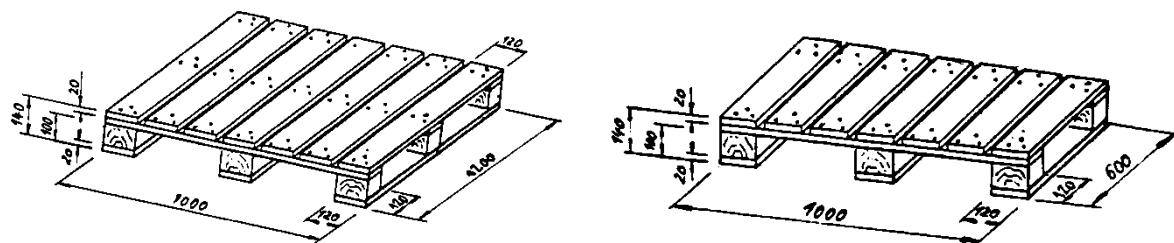
Therefore, suppliers must use the pallet as required by Opel/Vauxhall

This rule is not valid in the case, where physical dimensions of the part logically dictate an alternative pallet size.

One-way Pallet

1. 1200 x 1000 x 140 mm
2. 1000 x 600 x 140 mm

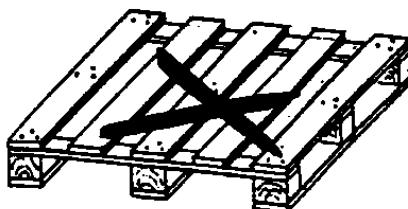
For storage in existing systems and for optimum use of freight capacity during transportation, the following pallet has to be used:



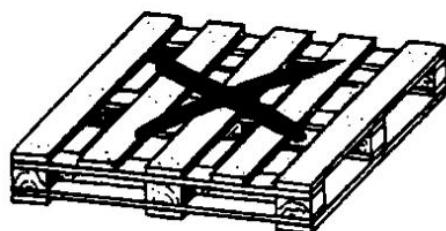
Pallet:	1200 x 1000 x 140 mm	1000 x 600 x 140 mm
Load capacity of fork:	300 kg	300 kg
in pile:	1200 kg	1200 kg
Wood:	Ground-/ cross-/ cover panels made of softwood without bark, quality according to DIN 15 147	
Fixing:	<ul style="list-style-type: none"> • Ground panels from below with nail-screws 5 x 90 mm • Cross- and cover panels over spacer blocks from above with nail-screws 5 x 90 mm • Cover panels between spacer blocks with nail-screws 4 x 35 mm • Every connection point has to be fastened with 3 nail-screws 	



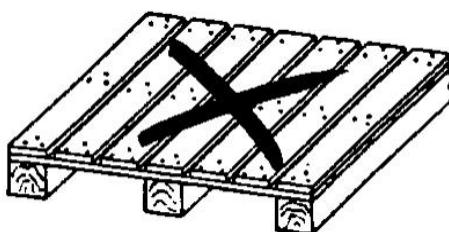
Examples for Unacceptable Pallet-Types



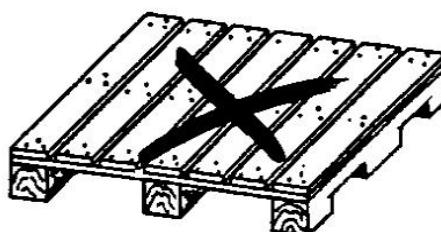
1. Less than 7 panels on upper side of pallet



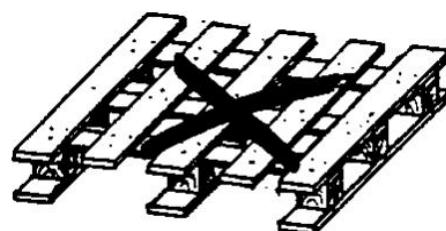
2. Additional panels on bottom of short side, i.e. 1000 mm width



3. Access for fork-lift only on two sides



4. Access for fork-lift too small on two sides



5. Panels on bottom and top of the pallet project from the spacer blocks



5.7 Cardboard Boxes

Cardboard boxes must be a module of the pallet size shown in the following table and must not be bigger than the pallet itself. The carton has to be a torso carton. The lid must be detachable and the carton has to be strongly connected with the pallet.

Only use specified cardboard box sizes.

The base of the cardboard must ensure that the parts cannot fall off.

Quality of Cardboard Boxes

Corrugated cardboard quality according to DIN 55 468 Part 1 / July 1987 is required.

Due to the diversity of packaging possibilities, we have selected the following 3 qualities:

Quality	1.40	Y
Quality	2.40	X
Quality	2.92	X

Dimensions of V-Container Substitutes

Type	One-way packaging Europe			One-way packaging Overseas		
	Outer Dimensions (mm)			Outer Dimensions (mm)		
Type	Lenght	Width	Height	Lenght	Width	Height
V 149	1200	1000	600	1140	980	560
V 154	980	570	570	980	570	570
V 195	980	570	370	980	570	370
V 196	1200	1000	750	1140	980	750
V 203	1600	1200	990	1490	1140	1125
V 210	1400	800	670	1400	750	600
V 211	1500	800	620	1500	750	600
V 212	1800	800	670	1800	750	600

5.8 Corrugated board basic forms



Single Face Corrugated

Single face consists of one layer of corrugated medium bonded to a single layer of line board. It is the product as produced at single facer and is flexible in one of its two dimensions.



Single Wall Corrugated
(also known as Double Faced)

Single wall corrugated has the second facing glued to the other side of the fluted medium. The result is a rigid structure.



Double Wall Corrugated

Double wall needs an additional single facer in its manufacture and adds another fluted medium and another sheet of line board for greater strength. It, therefore, has three facings with two fluted corrugating medium sheets between them.



Triple Wall Corrugated

Triple wall board adds still another layer of medium and line board offering exceptional strength for packaging very large or heavy products.



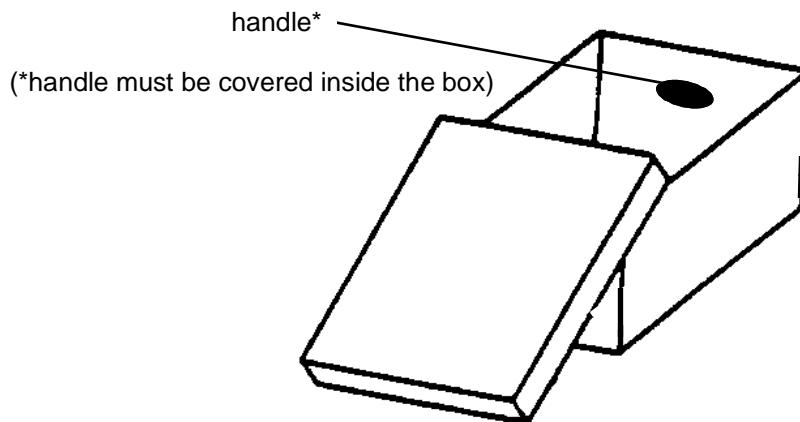
Design and Dimensions of KLT Substitutes

The overall outer dimensions of the cardboard boxes are shown in the following table:

Replacement for:	Length (mm)	Width (mm)	Height (mm)	Complete Unit* incl. Pallet (mm)
KLT 3215	270*	168.8*	132*	980
KLT 4315	340*	268.5*	132*	980
KLT 4329	340*	268.5*	268*	980
KLT 6415	540*	338.5*	132*	980
KLT 6429	540*	338.5*	268*	980

* without lid

A draft of the detachable lid box design is shown below:



Remarks

- Penta-chlorine-phenol must not be used for the production and processing of corrugated cardboard
- PCB-content (= polychlorinated-bi-phenyl) in corrugated cardboard must not exceed 10 ppm
- You are not allowed to use PVC-labels and/or PVC-based auxiliary packaging of any kind'
- Acrylic cardboard and hot-melt glue are not permitted
- Usage of cellular plastics has to be agreed by GME-receiving plant
- The gross weight of packaging must not exceed 15 kg.

On the following pages, there are examples for types and final dimensions available. It is necessary for adequate production of the required detachable lid box.



5.9 Types of corrugated container

Following examples show allowed and not permitted carton types.

Allowed versions:

FTHS - Full Telescope Half Slotted Box

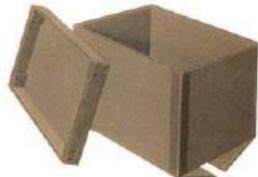


OK

Two-piece box, both sections of slotted style. Full depth cover.

The two thickness of fiberboard at the sides and ends of this full telescope container afford maximum protection to its contents and give the box superior stacking strength.

HSC - Half Slotted Box with Cover



OK

The half slotted corrugated box with cover differs from a partial telescope in that its cover is less than two-thirds of the depth of the body section.

HSC - (1 Layer with a Common Lid)



OK

Several half -slotted containers can be shipped under a common lid.



Not permitted version:

Following versions are not in accordance with the OV guidelines, since no detachable lid was used. Knives would be needed for opening of the carton, which is not permitted. Furthermore the flaps have to be removed when placing at production line. That could lead to accidents and damages at the parts and means additional handling what has to be avoided.

RSC - Regular Slotted Container



NOK

All of the flaps of a regular slotted container are the same length and the lengthwise(normally outer) flaps meet at the center of the box.

OSC - Overlap Slotted Container



NOK

This style of slotted corrugated box is similar to the regular slotted box, except that the outer flaps overlap a specified amount but not less than 1 inch.
The inner flaps do not meet.

CSSC - Center Special Slotted Container



NOK

A center special slotted box is similar to a regular slotted box, except that it is stronger at the top and bottom due to the double thickness of corrugated board in these areas. The inner flaps, meeting as they do, provide a level rest for the contents of the box.



5.10 Not permitted Container closures

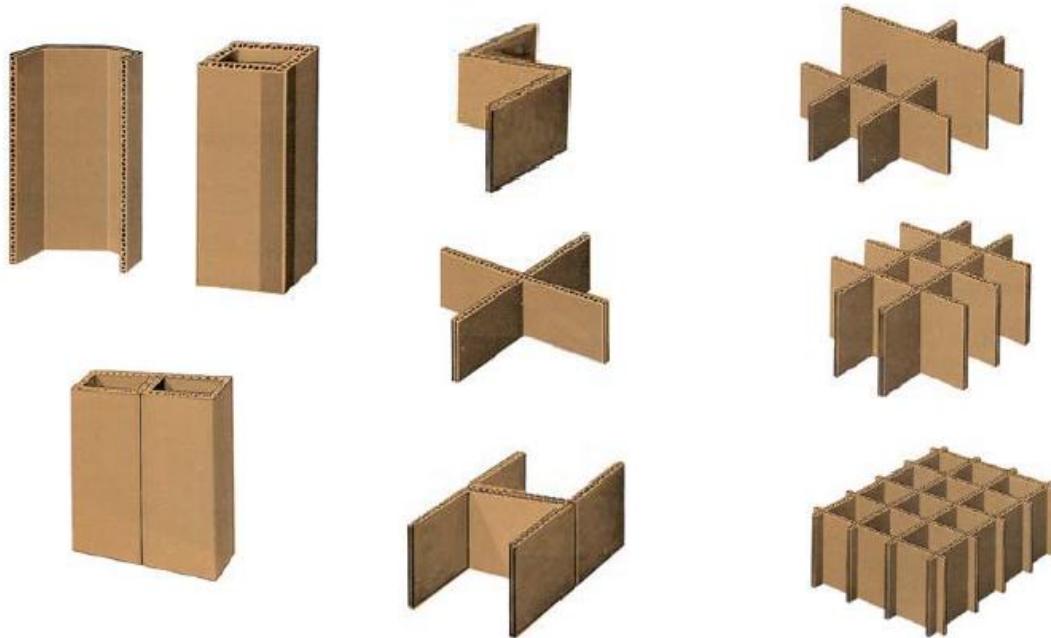
Since cartons have to be equipped with a detachable lid, following presented versions are not permitted. This applies for smallest packaging and for cartons in pallet dimension.



NOK

5.11 Partitions or dividers made from cardboard

Partitions or dividers provide a separate cell for each article in a box and are used principally with fragile items, and to reinforce cardboard structure.





5.12 Wooden Boxes

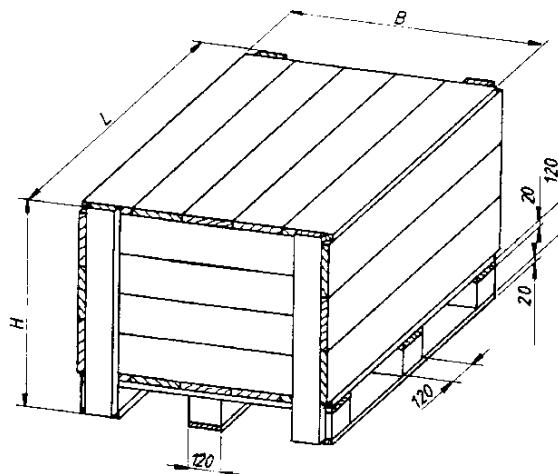
Can only be used in exceptional cases in prior agreement with the relevant Opel/Vauxhall Receiving plant. The use of cartons is preferred.

This chapter concerns crates made of solid wood, their design, dimensions and grade (according to DIN 55 499 T1).

1. Field of Application

The standard is valid for crates made of solid wood. The form and stability must allow the attainment of minimum storage height. The boxes can also be used for bigger volumes for certain goods (e.g., supporting material).

2. Design



In case of replacements for V149, V196, and V203, the skid panels have to be attached to the 1200 mm side; in case of replacements for V154 and V195, they are to be placed on the 600 mm side.

The cover has interior boards.

3. Dimensions

Replacement for:	Length L (mm)	Width B (mm)	Height H (mm)
V149	1200	1000	540
V154	1000	600	540
V195	1000	600	340
V196	1200	1000	740
V203	1600	1200	940



4. Material

The boxes should be made of softwood or wood with similar qualities (depends on selection of manufacturer). For reinforcements, hard wood is also possible; e.g. beech, oak, etc. (depends on selection of manufacturer). All boards should be 20 mm thick.

5. Construction

The wood used may not have

- knots
- fissures
- resin galls
- faults due to fungus
- devastation

Crates must be manufactured from grade 3 wood. The quality of the wood must guarantee the security of nail connections. Percentage of humidity has to be 12 - 22 %, according to DIN 52 183-12.

6. Comments on Construction

a) Box parts

All panels and boards must be lined. The durability of nail connections must be guaranteed. The surface of the box parts can be rough.

Panel width of the box must be min. 60 mm.

If panels are connected by moist-solid glue, the width of the thus connected panels has to be considered.

b) Nails

The nails must be hammered in vertically to the panel or ledge surface. They must be driven in so deep, that they do not project from the panel surface when the wood dries overnight.

For fastening the boards to the box, the lengths of the nails must be chosen in such a way, that at least 6 mm of the nails remain for riveting into the wood. The nail ends must be hemmed (riveted) in such a way, that they do not project from the surface.

Nails, which cannot be riveted, must be three times the thickness of the panel.



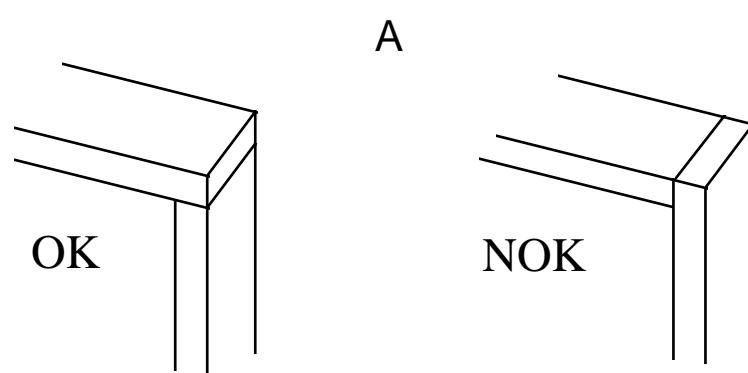
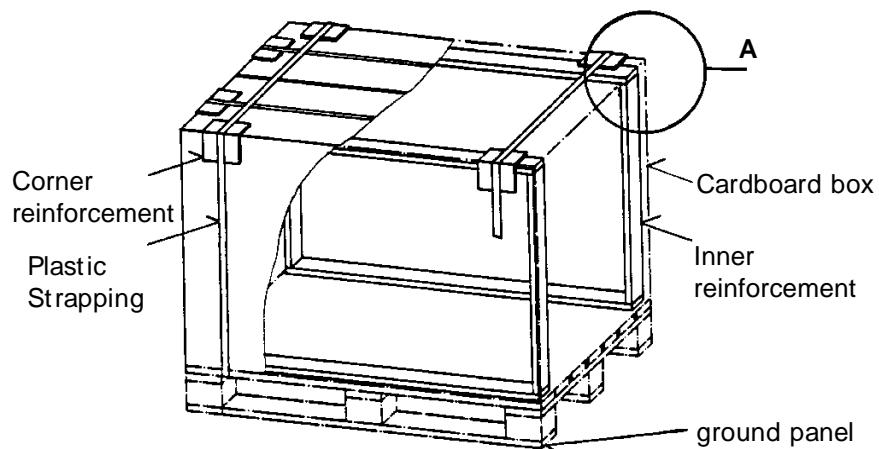
5.13 Reinforcement

Reinforcement must fit exactly inside the cartons with no space left in-between.

The reinforcement must be adequately fixed to the cardboard by adhesive tape or staples in order to avoid any movement during transit.

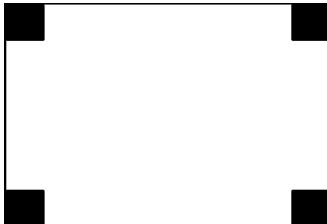
Construction

- If inside reinforcements are needed, they must be consistent with the following drawing.
- All reinforcements must follow the same direction as the ground panels.
- Reinforcement frames must only be fitted **inside** the carton.
- **Cardboard box and pallet must form a unit. The cardboard box has to be attached to the pallet.**





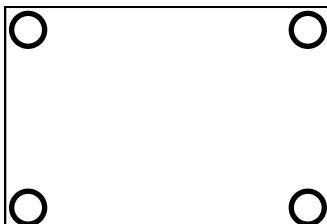
Types of Reinforcement Acceptable in Special Cases by Mutual Agreement



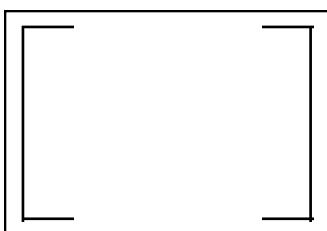
square wooden post



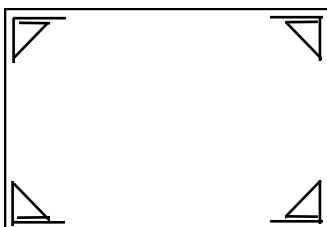
triangular wooden post



pressboard tubes



corrugated cardboard



corrugated triangular cardboard reinforcement



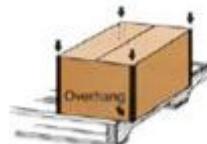
5.14 Compression strength of the package



Cause

In loading filled corrugated boxes on a pallet it is important to realize that two-thirds of the stacking strength of the box is concentrated near its corners. The greatest reason for a box failing on a pallet is the violation of this concept.

Pallet Overhang



PERCENT LOSS TOP TO BOTTOM COMPRESSION STRENGTH

Up to 32%

Misalignment



Up to 30%

Interlocked Pattern



Up to 50%

Long Term Storage



Up to 50%

High Humidity
(90% RH)



Up to 60%

5.15 Strapping

All unit loads must be banded securely.

Units that are not secured, secured inadequately or improperly with plastic straps, are unstable and can neither be stacked nor integrated safely during transit.

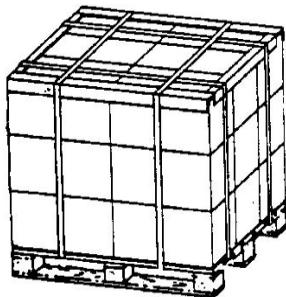
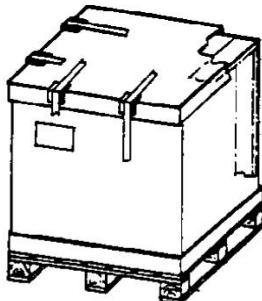
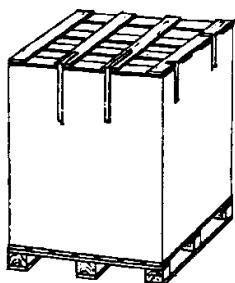
Units consisting of several cardboard boxes must be banded in two directions with two bands per side.

Use wooden cover and corner reinforcements, where appropriate, to give security and to keep the straps from cutting into the cardboard boxes.

Use of shrink foil, instead of straps, is not accepted without permission.
Steel straps and banding are not allowed.



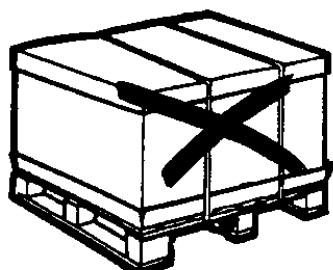
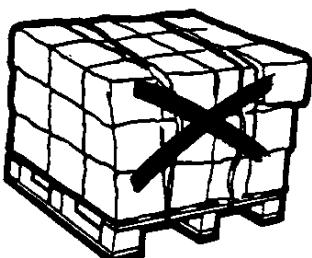
Acceptable Strapping Method



1. Use of wooden cover to ensure safe multiple stacking of units

The size of the wooden cover has to correspond with the pallet size.
2. Use of plastic or compressed cardboard corner reinforcements to protect cardboard corners
 - Plastic angle pieces preferred but PVC is not allowed
 - Corrugated cardboard is unsuitable for corner reinforcement
3. Use of compressed cardboard corner reinforcement to secure units

Unacceptable Strapping Method



1. Units that are not secured or secured inadequately, are unstable and cannot be stacked safely during transit or in storage.
2. Use corner reinforcements, where necessary, to ensure safety and to keep the straps from cutting into the cardboard.

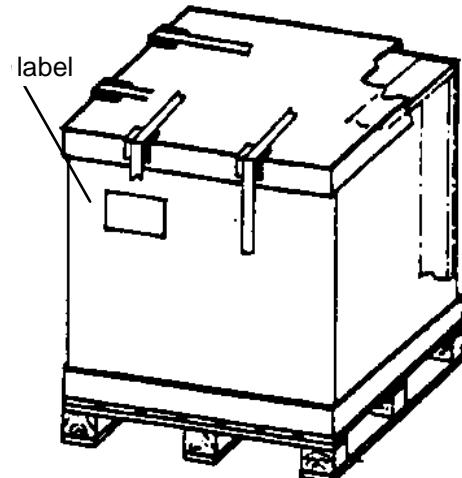
Units must be banded in two directions.



5.16 Labelling

The supplier has to put the Global Transport Label (GTL) O/V 1724 on each unit.

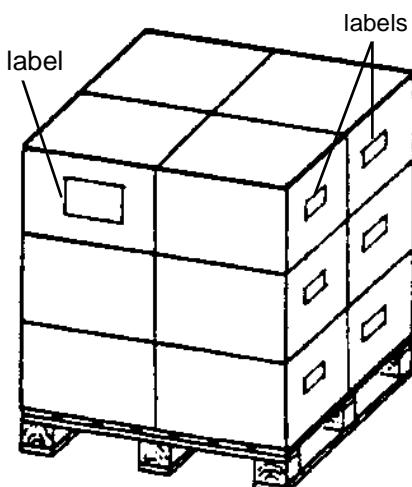
Labelling of Various Packaging Units



1. Unit consisting of **only one** cardboard box

A label has to be attached to the 1000 mm side, upper third left-hand side.

The label has to be designed according current Opel/Vauxhall-recommendation.



2. Unit consisting of **more than one** box per pallet (only permissible if part numbers vary)

A label has to be attached to the 1000 mm side, upper third left-hand side. In addition, each box must carry an additional label.

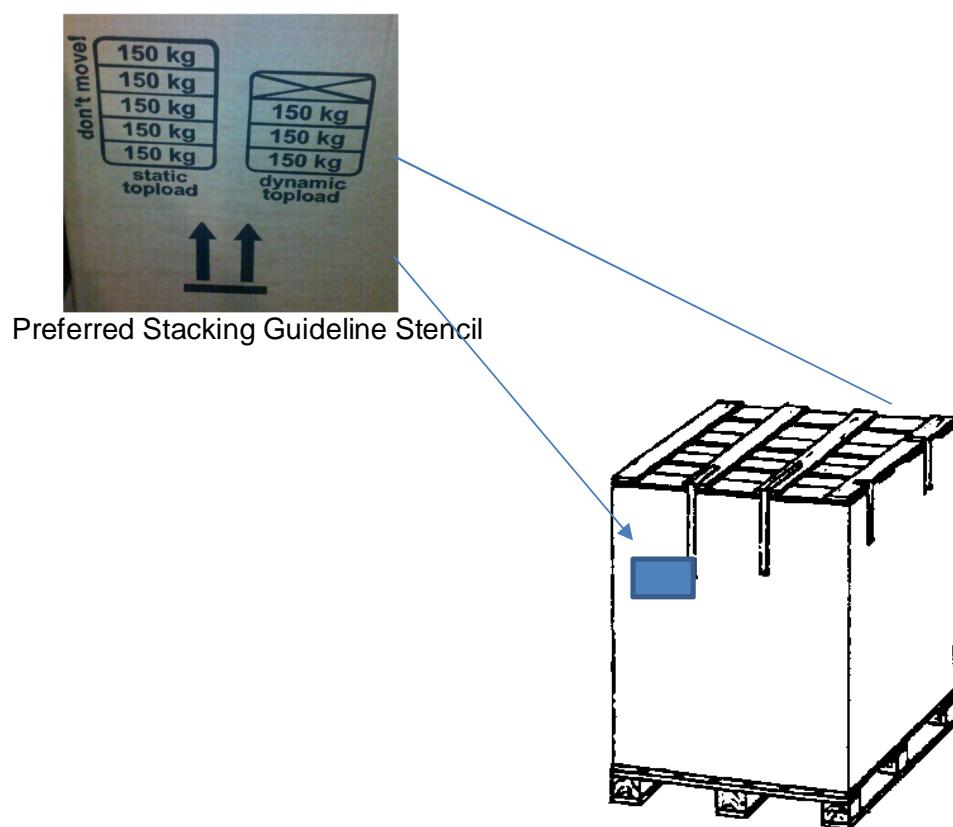
The label has to be designed according current Opel/Vauxhall.



STACKABILITY OF SUBSTITUTE PACKAGING (Stenciling)

Example of preferred stenciling:

- Lists the loaded weight of each pallet carton
- Graphically shows the certified stacking guidelines for transit and warehousing
- Stencil is located on the opposite long sides of the pallet carton
- Stencil is 150 - 200mm high and easy to understand





Information about the Encoding of Various Packaging Types

Besides the standard system for cardboard boxes (KLT + GLT substitutes), Opel/Vauxhall purposes may require different kinds of one-way packaging. The encoding of the various packaging types follow the rules listed:

1. KLT Substitutes

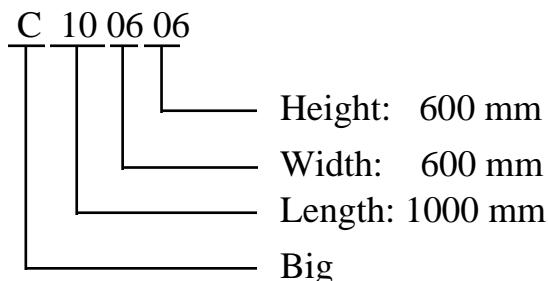
KLT3215	====>	0OWP3215
KLT4315	====>	0OWP4315
KLT4329	====>	0OWP4329
KLT6415	====>	0OWP6415
KLT6429	====>	0OWP6429

2. GLT Substitutes

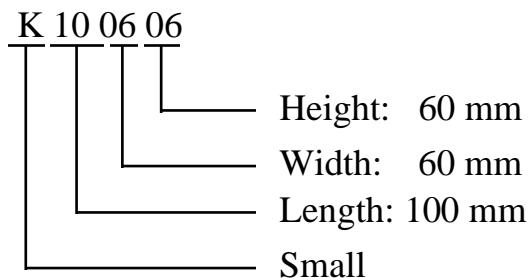
Examples:

V195	====>	00OWP195
V149	====>	00OWP149
V203	====>	00OWP203

3. Big One-way Packaging



4. Small One-way Packaging



The above-mentioned encodings are examples that will be quoted in the delivery note with information about loading volume per packaging unit. Possible additions have to be clarified with the respective receiving plant.



5.17 Procedure Description for the Application of One-Way-Packaging as Substitute Packaging

If there are any problems with the availability of Opel/Vauxhall empty equipment (e.g. no containers available, delayed container deliveries), there is still the necessity of using one-way packaging! Please act according following process.

Supplier

- First supplier has to contact the responsible Opel/Vauxhall Follow Up contact for his delivery part and asks for authorization to deliver in one-way packaging by Email and Phone
- Fills in form "**Reason for One-way packaging**" spaces (1) – (18) and sends via Email to Follow Up contact. For each PUS document and packaging type has to be filled in a separate form.

Follow Up contact (1st signature)

- Follow Up contact verifies provided information on form sheet
- Checks the necessity of shipment in one-way packaging
- Signs form spaces (19) and (20); certifies the necessity of the shipment
- Sends completed form to supplier and Opel/Vauxhall Plant Coordinator

Supplier

- With the signed form by follow-up contact supplier is authorised to send his parts in one-way packaging to Opel/Vauxhall plants. Confirmation to pay for the Alternate package is not given from O/V by first signature!

OPEL/ Vauxhall Plant Coordinator (GLT, specials) / CHEP Automotive (KLT) (2nd signature)

- Verifies information of empties inventory and supply -> responsibility of container shortage is not with OV, if suppliers Container account reflects a stock of 2days + QTY of OWP or if his account shows negative figure.
- Specifies reason for shortage (for GLT/specials done by O/V; Service Provide will proof your request for KLT within 24 hours)
- Fills in spaces (21) – (25) on form and certifies with signature in spaces (26) and (27) - indicating the responsibility for shortage of containers
- Sends completed form "Reason for OWP" to supplier and Repacking Area

Supplier

- Supplier issues invoice for reimbursement of one-way packaging costs
- Sends invoice to Opel/Vauxhall/accounts payable

Accounts Payable & Invoice checker

- Checking of invoice
- Reimbursement of costs



For reimbursement of one-way packaging costs from Opel/Vauxhall, it is absolutely necessary to send the invoice with the following documents

- Correct and completed form “**Reason for one-way packaging**”
- **Detailed list of all relevant deliveries** (quantity of cartons, delivery date, delivery or Pick-up-Sheet no.)
- If required by Opel/Vauxhall: **PUS documents or delivery notes**
- For price verification a **detailed outline of all additional costs** (e. g. carton, pallet) is mandatory.
For Specials please use the **Technical and Cost Approval Sheet (TAC-Sheet)**
Document is available on <https://gmsupplypower.covisint.com>
File: Supply Chain à GM Container and Packaging à Opel/Vauxhall Container and packaging
- Invoice must state on the front page “One way Packaging Costs” in **BIG LETTERS**

Deliveries in one-way-packaging due to late delivery (have to be issued in a separate invoice for passing on the charges):

- Pick-up documents as **SAN, VA, CHEP order document**

Please consider that the invoice has to be received at Opel Automotive GmbH or other Opel/Vauxhall organisations as soon as possible, but no later than three month after delivery. Afterwards we cannot approve your invoice anymore and the claim for reimbursement lapses. If the document “Reason for one-way-packaging” is not completed yet or any other document is missing, issue your invoice without these documents and attach a note “document will be forwarded later”.

If actions taken on behalf of the supplier are apart from the procedures stated herein, then all shipping costs will be the responsibility of the supplier.

Supplier has to secure that he uses up to 2 rent-free days for balancing interferences in delivery process and to avoid deliveries in one-way-packaging.



Below you can see the plant, which is responsible for the reimbursement for the delivery plant:

Receiving Plant		Processing invoices	
AS	Opel Austria GmbH	AS	Opel Austria GmbH
EI	Opel Automobile GmbH, <i>Eisenach</i>	EI	Opel Automobile GmbH, <i>Eisenach</i>
EP, EX	GM - Ellesmere Port	EP	GM - Ellesmere Port
IA, IC	Vauxhall Motors LTD Luton	IA	Vauxhall Motors LTD Luton
KA, KS	Opel Automobile GmbH, <i>Kaiserslautern</i>	RU	Opel Automobile GmbH, <i>Rüsselsheim</i>
KB	Opel Automobile GmbH, <i>Kaiserslautern</i>	RU	Opel Automobile GmbH, <i>Rüsselsheim</i>
PO, PC	Opel Manuf Poland SPA z.o.o	PO	OPEL Manuf Poland SPA z.o.o
RP	Opel Automobile GmbH, <i>Rüsselsheim</i>	RU	Opel Automobile GmbH, <i>Rüsselsheim</i>
RU	Opel Automobile GmbH, <i>Rüsselsheim</i>	RU	Opel Automobile GmbH, <i>Rüsselsheim</i>
SZ	Opel Szentgotthard Autoipari KFZ	SZ	Opel Szentgotthard Autoipari KFZ
ZA, ZC	Opel Espana SLU	ZA	Opel Espana SLU

For the shipping address of the invoice please see our homepage GM SupplyPower
<https://gmsupplypower.covisint.com> under Purchasing - Business Processes and
 Procedures/Current Business/Europe/EFSSC, Disbursements.

One-way-packaging because of missing CHEP equipment (KLTs, CHEP pallets and covers) has to be invoiced directly to CHEP Automotive:

CHEP Germany GmbH
 Automotive Container Pool
 Siegburger Str. 229 b
 D-50679 Köln

With following form “Reason for one-way-packaging”, the one-way packaging costs and shipment necessity can be assessed. The structure of the form is based on the previous version and updated to be in coherence with new internal revision guidelines. The form is designed to recognise the necessity of the shipment in one-way-packaging.



Reason for ONE-Way Packaging (OWP) V.1.2



(1) Following information has to be completed by Supplier

(2) Company: _____

(3) DUNS-No: _____

(4) GLID-No: _____

(6) Contact: _____

(7) Telephone: _____ (8) Fax: _____

(9) Email: _____

(10) CHEP order no.: _____

(11) Name - Follow Up: _____ (12) Telephone: _____

(13) Follow up plant: _____ (14) Fax: _____

(15) Part numbers: _____

**Aspern AS; Eisenach EI; Ellesmere Port EP, EV, EX
 IBC Luton IA, IC; Kaiserslautern KA, KB, KS; Gliwice PC, PO; Rüsselsheim RT, RP, RU
 Szentgotthard SZ; Zaragoza ZA, ZC; Tychy BP**

(16) Type of required original packaging: _____ (17) Needed substitute quantity: _____

(18) weekly pick up frequency (full) _____

(19) PUS-No., quantity, pick-up-date: _____

(20) quantity of additional purchased Package by supplier, based on attached proof of ownership: _____

below this line only to be filled by Opel / Vauxhall !

Above mentioned information verified and confirmed by O/V Follow Up Department:

(21) Date: _____ Signature: _____
Name in capital letters: _____

(22) To be completed by O/V Plant Coordinator (GLT/specials) / CHEP Automotive (KLT):

(23) For GLT : cancelled/ decreased order by CHEP? yes no

(24) CHEP stock (day before shipment) _____

(25) Supplier Outbound next two days (all O/V plants) _____

(26) covered 2 days? yes no (27) Responsible for the shortage of containers:
(30) Reason for OWP (no. see point 28):
reason not included in point 30: _____

O/V	Haulier	Chep	Supplier

(29) Date: _____ Signature: _____
Name in capital letters: _____

(30) Reason for applying OWP:

CHEP Dispo	(1) problems with manual order (2) orders not placed in time
Haulier:	(3) Late delivery (4) strike (5) has not picked up (6) no capacity
Empties GM (GLT, specials) / CHEP (KLT):	(7) not enough original packaging in circuit (8) damaged containers (9) sent wrong/damaged packaging to supplier
GM:	(10) not informed about plant closure/holiday (11) not send out right ordered quantity
Supplier:	(12) emergency order (13) banking activities (14) Pre PB V
	(15) Banking activities (16) GLT+KLT: not ordered (17) not timely ordered (18) no CHEP contract available (19) bankruptcy
	(20) minus stock ; (21) enough containers on stock

(31) Remark: Please note

(32) This release has to be ordered for each PUS number & packaging type.

(33) Costs incurred shall be invoiced the latest within 3 months after delivery. The invoices must provide a full cost analysis. Supporting documents detailing the purchasing costs for the one way packaging must be enclosed in order to process and pay the invoices.

(34) Seller shall grant to Buyer the right to audit and inspect at Seller's premises all documents directly or indirectly related to the business of the parties and grant access to his records and books to verify the correctness of the charges invoiced and their compliance with the contractual agreements. Seller shall comply with these obligations at all times during regular business hours. Seller shall guarantee that his subcontractors shall grant for "time and material" type contracts to Buyer the same right to audit their records and books at their premises.

(35) After final signature: Document has to be sent to above mentioned supplier.



No.	Explanation	
1	Instruction for completion (no entry) by Supplier	
2	Company	Name of supplier
3	DUNS-No	Ship-From-DUNS (6/9 digits)
4	GLID-No	CHEP account no.
5	CHEP code	CHEP supplier identification no.
6	Contact	Name of supplier contact
7	Telephone	Telephone no. of supplier contact
8	Fax	Fax no. of supplier contact
9	Email	Email of supplier contact
10	CHEP order no.	Order no. by CHEP for e.g. 100 x V-154
11	Name - Follow Up	Name of Opel/Vauxhall Follow Up contact
12	Telephone	Telephone no. of Follow Up contact
13	Follow Up plant	Fill in plant name, where the parts will be installed
14	Fax	Fax no. of Follow Up contact
15	Part numbers	Give part numbers needed. Also the necessity of shipment will be verified.
16	Type of required packaging	Container type for example V-149
17	Needed total quantity	Total quantity of packaging
18	PUS-No., quantity, pick-up-date/CW	Information of delivery as PUS-No. e. g. AA0123456, quantity of packaging per PUS and pick-up-date of delivery
19	Instruction for checking and confirmation (no entry) by Follow Up Contact	
20	Date and signature	State date of verification; signature (= certification for sending in one-way packaging)
21	Instruction for completion (no entry) by Opel/Vauxhall Plant Coordinator / CHEP Automotive Verify container inventory, correctness and the necessity of the order from the supplier for sending in one-way packaging.	
22	Required quantity / Type	Supplier requested container quantity / Container type
23	Delivery date/CW	Planned empties delivery date or period at the supplier ATTENTION: From that date onwards you can send max. one week in one-way packaging. Supplier has to secure that he uses up to 2 rent-free days for balancing interferences in delivery process and to avoid deliveries in one-way-packaging.
24	Responsible for the shortage of containers	Responsible party to be marked with an „X“. (Responsible party to be billed for the costs).
25	Reason for OWP	Reason chosen from select list point 28
26	Instruction for confirmation (no entry) by Opel/Vauxhall Plant Coordinator / CHEP Automotive	
27	Date and signature	State date of verification; signature (= certification)
28	Reason for applying OWP	Select list for reasons

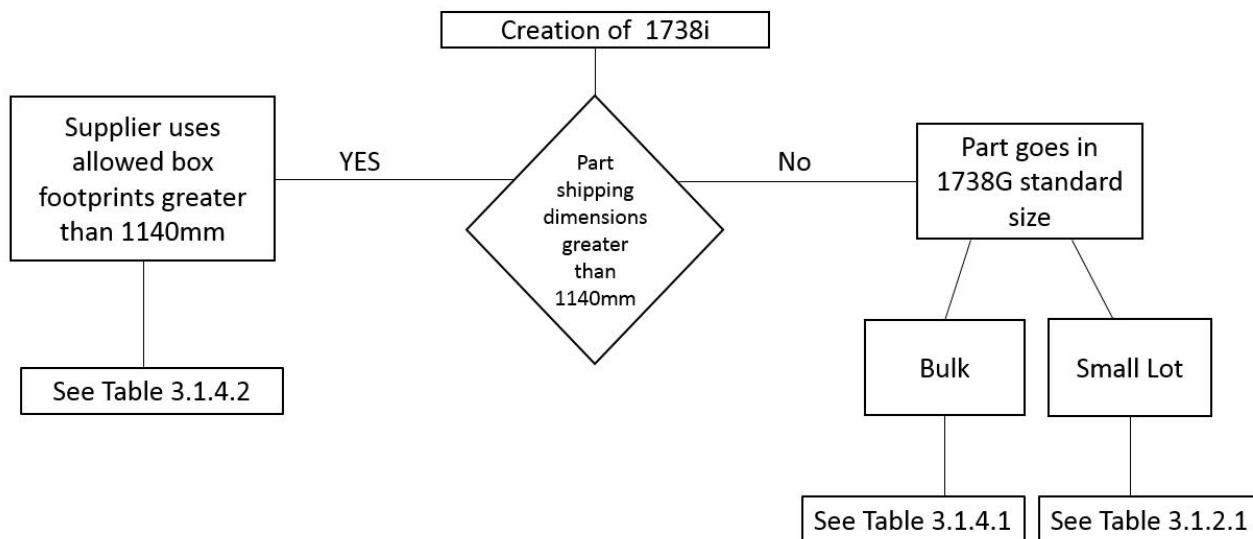


<i>Instructions to proceed</i>	
29	
30	<p>This release has to be ordered for each PUS number & packaging type.</p> <p>Supplier has to order a new release for each PUS number and packaging type in time by follow-up contact and Opel/Vauxhall Plant Coordinator / CHEP Automotive.</p> <p>In case of project start and with prior approval by follow-up contact, several deliveries can be combined on one form.</p>
31	<p>Costs incurred...</p> <p>Costs incurred shall be invoiced within 3 months after delivery at Opel/Vauxhall, afterwards the claim for reimbursement lapses. The invoices must provide a full cost analysis of the used packaging: description, dimensions etc. The supporting documents detailing the purchasing costs for the one-way packaging must be enclosed in order to process and pay the invoices.</p>
32	<p>Seller shall...</p> <p>Opel/Vauxhall reserves the right at any time to inspect at seller's premises all inventory and bookkeeping records regarding their mutually related business.</p>
33	<p>After final signature: Document has to be sent to the above mentioned supplier.</p> <p>Guarantee: That the completed formula with all signatures will be sent to the supplier; so that the supplier can complete billing for reimbursement.</p>



6. O/V 1738G Intercontinental Supply Chain Packaging Requirements for Production Parts

QUICK REFERENCE: MANDATORY MINIMUM REQUIREMENTS



PACKAGING PERFORMANCE:

- The Supplier has the overall responsibility for the packaging design, performance and the quality of the part through the supply chain for a minimum of 120 calendar days from the time of shipment.
- Part Quality is protected – parts and packaging are received in the same quality condition in which they were manufactured, regardless of incoterms.
- Corrosion protection is provided for all parts and components that have the potential to corrode for a minimum of 120 calendar days from the time of shipment.
- All material must be palletized to permit handling with industrial fork trucks.
- Packs must be able to support a minimum stack height of 2.2 meters (86 inches) under dynamic loading with consideration for environmental conditions up to 60° Celsius (140° Fahrenheit) and 90% Relative Humidity.
- Packaging must support maximum sea container utilization (either standard or high cube). Unit pack (or pallet pack) dimensions should maintain an 1140 x 980 mm footprint, and a height limit of 1100 mm for standard, or 1250mm for high cube sea containers.
- Dynamic and warehouse stacking guidelines must be stenciled on each pallet carton, or through the use of a label for a small-lot unit load, on a minimum of two sides ([reference Figure 6.7](#)).
- Packaging needs to be easy to unload and breakdown for recycling, to reduce labor.
- All packaging plans are to be communicated using the [O/V 1738i Form](#) and submitted to the O/V Receiving location at a minimum of 52 weeks prior to start of production (SORP).

PALLET:

- O/V's required pallet style is an ISPM-15 certified and stamped wood 9-Block Full Perimeter design, with dimensions (1140mm x 980mm x 127mm). Deviations from this style of pallet require written O/V Approval. Certified stamp must be on a minimum of two sides.

PRIMARY CARTON:



- All box styles are required to be Half-Slotted Containers ([HSC](#)) with a removable lid. For all manually handled cartons, the preferred lid is a single layer or “gang-lid.” DO NOT tape or secure lids to the boxes.
- Regular Slotted Containers ([RSC](#)) are strictly prohibited, except for fasteners and standard parts that utilize the North American Industry AIAG standard fastener carton that have perforated top flaps for “rip-away” lid removal.

MATERIALS:

- All solid wood materials and assemblies must be ISPM-15 certified and visibly stamped (on a minimum of two sides for wood assemblies), no exceptions.
- All packaging materials need to be 100% recyclable to reduce costs for final disposal.
- Minimize different materials used within the pack (corrugate paper, plastic, foam and wood).
- Do not glue foam or wood to corrugated material. Using adhesive on two different materials is strictly prohibited.

6.1. General Information and Guiding Principles

6.1.1 Purpose

The purpose of this document is to explain the contractual requirements and best practices for suppliers to create and maintain a robust intercontinental packaging plan to support O/V production schedules.

6.1.2 Contractual Requirements

From the O/V 1700 Global – Global Supply Chain Requirements:

Section 1 General Information:

- These supply chain requirements are part of the terms and conditions of a supplier's purchase order with O/V for all O/V facilities around the globe unless otherwise agreed to in writing
- Any exceptions to any of the terms and / or requirements contained in this document must be approved, in writing, by Opel / Vauxhall.

Section 6.1 Intercontinental Packaging Overview (identifies Supplier's Responsibility)

- All intercontinental shipment of production parts / components must use expendable packaging.
- Part Quality is protected – parts and packaging are received in the same quality condition in which they were manufactured
- Suppliers must collaborate with O/V to promote packaging methods to ensure production parts arrive at the assembly center in the same quality condition in which they were manufactured.
- This O/V 1738G Intercontinental Packaging Requirement for Production Parts supersedes all regional packaging specifications for intercontinental shipment of production parts and components.
- Refer to the Attached Links:
 - Ø Global 1738G Intercontinental Packaging Requirements for Production Parts
 - Ø Form [O/V 1738i](#).



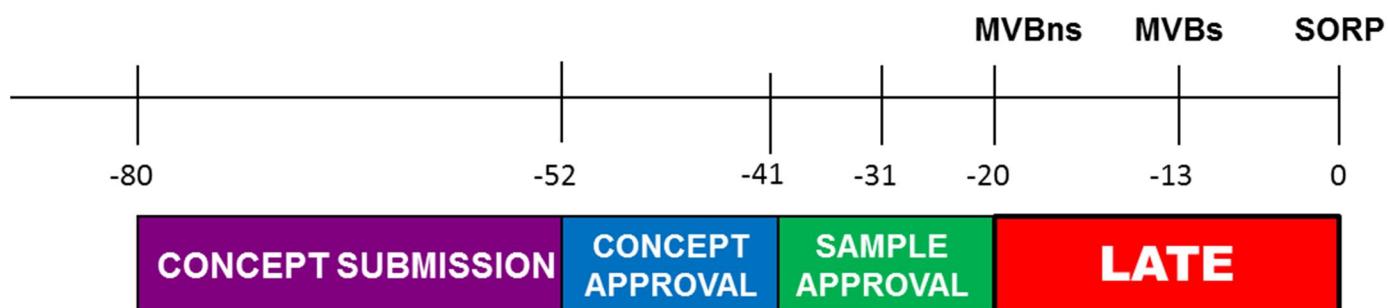
6.2 GENERAL REQUIREMENTS

6.2.1 Supplier's Responsibilities

- Suppliers will provide and use expendable packaging for intercontinental shipments of production parts / components.
- Suppliers are required to work with the OV Receiving Location's Packaging Planner to optimize carton size, density, and dunnage (if required) to minimize logistics costs and repacking activities into returnable containers at the destination OV Receiving Location. Suppliers are required to submit an initial packaging plan proposal, form [OV1738i](#), to the OV Receiving Location's Packaging Planner for approval.
- If repacking activities are required at the OV Receiving Location, the supplier must develop and communicate the written repacking instructions to the OV Receiving Location's Packaging Planner for repacking production parts into OV-supplied containers. This will be done once OV Receiving Location's Packaging Planner, the assembly location, and Supplier has agreed to container type and quantity.
- If repacking activities are required at the OV Receiving Location, the Supplier shall provide parts to OV at no cost, to support development and validation of returnable containers. This includes parts developed for Manufacturing Validation Build events, as well as sufficient early PPAP-approved parts to fill two containers/racks/pallets for the shipping validation test.
- Once packaging approval is attained with the OV Receiving Location's Packaging Planner, suppliers are required to adhere to the agreed upon packaging plan.

6.2.1.1 Administrative Responsibilities

- The supplier has the overall responsibility to ensure the part and packaging is received in the same quality condition in which they were manufactured, for a minimum of 120 calendar days from the time of shipment.
- It is expected that the Supplier understands the nature of the part and its potential to rust in a high humid and large temperature swings in the environment for a prolonged period of time (minimum of 120 calendar days), and provide the appropriate level of corrosion protection for all parts, components and assemblies.
- Suppliers are required to utilize the O/V 1738G Requirements for all intercontinental shipments of production parts and components. Failure to comply may result in Problem Reporting Resolution (PR/R) notices being issued.
- Suppliers are required to submit an initial packaging plan proposal, on the [O/V 1738i Packaging Approval and Data Form](#) by e-mail to the O/V Approver for approval. This must be submitted between weeks -80 to week -52 from the Start of Regular Production (SORP).



Global Vehicle Development Timing of Expendable Packaging Plan Submission



- The supplier must designate a single-point packaging contact for problem resolution. The individual's name, telephone number and email address should be documented on the Form 1738i Packaging Approval and Data Form.
- Once packaging approval is attained from the O/V Approver, the Supplier is required to adhere to the agreed upon packaging plan.
- Any deviation in container type must be pre-approved by the O/V Approver. Failure to do so will result in the issuance of a Problem Reporting Resolution (PR/R).
- O/V Business Units may require different locations and quantities of identification labels. The Supplier is expected to work with each O/V facility to a reasonable extent, understanding that if multiple facilities use the same part / pack, that a global approval is required.

6.2.1.2 Packaging Costs

- All expendable packaging related costs for the part, component or assembly, must be identified and integrated into the commodity piece price and submitted with the O/V Global Purchasing quote package. Your O/V Global Purchasing Buyer will negotiate the packaging cost during the contract establishment phase.
- Price increases will not be granted for increased costs to correct defective and/or non-conforming packaging including Supplier-provided dunnage, containers, securement, pallets, etc.
- Price increases will not be granted to Suppliers who fail to comply with the Global O/V 1738 Packaging Requirements.

6.2.1.3 Material

- It is the Supplier's responsibility to ensure that all wood packaging material (from the pallet to wood dunnage) is ISPM-15 compliant. ISPM-15 affects all wood packaging material (pallets, crates, dunnage, etc.) requiring that they be debarked and then heat treated or fumigated with methyl bromide and stamped or branded with a mark of compliance. Please visit web site: www.ippc.com.
- Suppliers that fail to comply with this requirement are liable for any and all costs and fines incurred by Opel Vauxhall.
- Wood assemblies (like pallets or crates) require a minimum of two whole visible stamps on opposite sides of the assembly.
- Prior to being assembled, packaging materials need to be stored indoors and protected against the elements (rain, snow, and fog, excessive UV exposure, etc.) in order to maintain the materials quality and durability.
- Ingredients Disclosure- Seller will promptly furnish to Buyer in such form and detail as Buyer may direct, a list of all ingredients and materials incorporated in all packaging.

6.2.1.4 Design and Development

- The Supplier shall maintain responsibility for the design, procurement and implementation of any expendable packaging required for shipping parts to O/V Receiving Locations.
- The Supplier is required to work with the O/V Approver to optimize carton size, density, and dunnage (if required) to minimize logistics costs and repacking activities.
- Expendable containers must be validated by the Supplier prior to the first shipment to the O/V receiving location, with documentation that proves validation tests have been successfully completed (reference test protocol: ASTM D4169). These tests include shock and vibration tests to assure part / component quality, as well as a compression test validating the pack's stacking strength. Conditioning is optional, however the safety factor must be greater than 3.5. The safety factor is an index



used to identify the minimum stacking strength a pack requires based on its own loaded weight.

EXAMPLE: For a loaded pallet pack that weighs 300kg, the pallet pack must be designed and capable to withstand a minimum weight of $3.5 \times 300\text{kg} = 1,050\text{kg}$ stacked on top of it.

6.2.1.5 Labeling and Logistics

- Suppliers must pack, label and ship in compliance with the requirements of common carriers and follow all applicable dangerous goods (hazardous materials) transportation requirements from organizations like IMDG and IATA, including UN Hazard Communication Standards.
- Federal Motor Vehicle Safety Standards (FMVSS) or On-Board Diagnostics (OBD) designated parts may require special packaging and approval.
- The Supplier must label containers in accordance with the O/V 1724 Label Standard available in O/V Supply Power.
- The Supplier must properly pack and load expendable containers to ensure production part quality is not compromised and to comply with any other shipping instructions from the O/V Approver.

6.2.1.6 Continuous Improvement

- O/V strives for continuous improvement from a packaging and supply chain perspective. Requests for changes of approved packaging may be made by the Supplier, to all of the receiving O/V Business Unit Contacts / Approvers and to the appropriate O/V Buyer.
- All packaging changes need to be communicated using the O/V1738i Packaging Approval and Data Form through the Packaging Approval Process (See Exhibit 3) and packaging cost changes are submitted only to the appropriate O/V Buyer.
- Suppliers are encouraged to provide continuous improvement opportunities regarding packaging and to use the Supplier suggestion process (located in O/V Supply Power) to get credit for continuous improvement.

6.2.2 O/V Receiving Location or Business Units Responsibilities

- The O/V Approver is responsible to review the packaging plan proposal from the submitted 1738i Form to understand its dimensions, density, weight, part presentation and compliance to the O/V 1738G and provide feedback or approve.
- Upon approval of the packaging plan, the O/V Approver will coordinate the implementation of the pack into their facilities' manufacturing process.
- The O/V Approver should work with their facilities group for final disposition of the expendable packs to make sure it is compliant with local practices and best practices.
- O/V Approver must work with the Supplier to optimize carton size, density, and dunnage (if required) to minimize repacking activities into returnable containers at the destination O/V Receiving Location.
- Final expendable packaging approval will be made after successful production shipments have been made during the Validation Build Events.



6.3 CHOOSING THE RIGHT CONTAINER

Throughout the O/V1700 and O/V1738G Requirements, it is documented that the Supplier is responsible to work with O/V Receiving locations and Buyers to provide a robust intercontinental packaging. Failing to meet with any of these documented requirements will result in an issuance of a Problem Reporting and Resolution (PR/R) for cost recovery due to part damage, or waste in processing the non-conforming packaging and material through the supply chain. That makes the Supplier liable for a PR/R for every incident or unit load of non-conforming packaging.

The following section provides details and best practices to help the Supplier develop a robust expendable packaging design that will be able to survive an intercontinental supply chain and O/V's manufacturing processes.

Definitions:

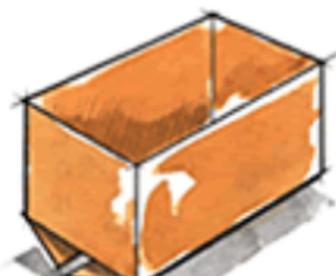
- **Primary Packaging:** The smallest modular carton or box used to contain a common quantity of parts; also considered to be the order quantity or the smallest common denominator.
- **Secondary Packaging (or Unit Load):** A palletized load of smaller modular cartons or primary packs
 - Ø Primary packs and Secondary packs are the same thing when a bulk modular pack (or pallet carton) is used, or the Primary Pack is greater than 15kg
 - Ø O/V's standard Secondary Pack or unit load dimensions are 1140 x 980 x 1100mm for standard or 1250mm for high cube sea containers.
- **Footprint:** The length and width dimension of a container, carton or pallet. Represents the area of floor space of a single pack.

6.3.1 Design and Development: Primary Carton

General

- The Supplier shall maintain responsibility for the design, procurement and implementation of any expendable packaging required for shipping parts to GM Receiving Locations per these O/V1738G Requirements.
- All box styles are required to be Half-Slotted Containers ([HSC](#)) with a removable lid. The preferred lid is a single layer or "gang-lid," tray design, roughly (1140 x 980 x 102mm).

Half Slotted Container



HSC

Regular Slotted Container

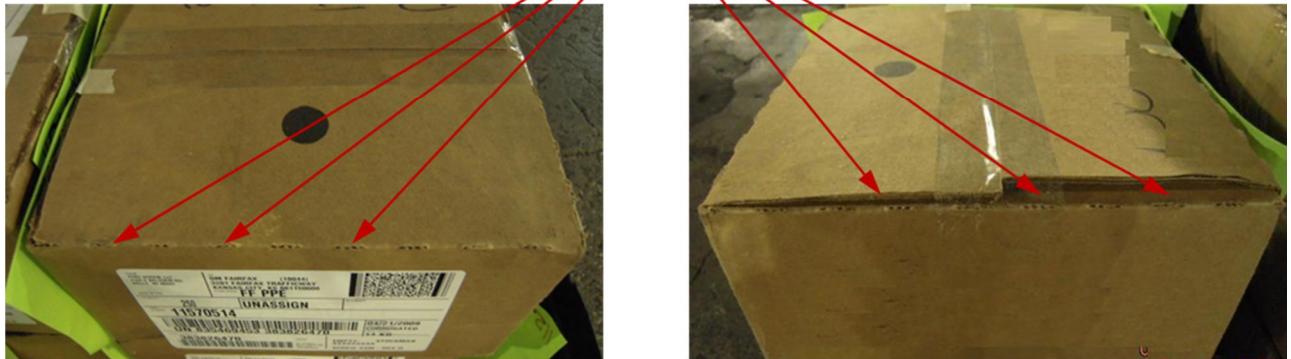


HSC vs RSC Style Boxes



- Regular Slotted Containers ([RSC](#)) are strictly prohibited (exception: NA Industry AIAG standard fastener cartons that have perforated top flaps for “rip-away” lid removal).

Perforation for “rip-away” removal . . .



Example of Perforated “Rip-Away” Top Flaps on an RSC Carton

- As a general guideline, standard packs should hold enough material to support 2-4 hour's production for both small-lot and bulk cartons.
- All material must be palletized to permit handling with industrial fork trucks
- Cartons must be modular to the O/V standard intercontinental pallet size of 1140mm x 980mm +0, -6.33mm (44.9"x 38.6" +0,-1/4") shipping footprint and reflect edge allowance.
- For parts and components that are larger than the 1140 x 980mm footprint, the pallet design should reflect the 9-Block full perimeter pallet style, and the Width dimension of the pallet and cartons need to be divisible too the width of a sea container or 2280mm.

6.3.2 Small Lot

- The target weight of a manually handled carton (or small-lot carton), including parts, must not exceed 15 kilograms (33 pounds) unless directed and approved by the O/V receiving location.
- When determining carton size and construction, only use the O/V approved intercontinental expendable packaging sizes (Table 3.1.2.1). These expendable containers are MANDATORY. O/V will not accept sizes other than those listed in the tables below.

O/V’s Standard Small Lot Carton Sizes



CARTON NUMBER	EXTERIOR DIMENSIONS						MULLEN GRADE (lbs)	FLUTE	APPROXIMATE TARE WEIGHT		MIN PERFORMANCE REQUIREMENTS			
			LAYERS PER PALLET						COMPRESSIVE STRENGTH (BCT)	BURST STRENGTH (BS)	MAX WEIGHT LIMIT			
	L (mm)	W (mm)	3	4	5	6			(kg)	(lbs)	(kg)	(kPa)	(kg)	(lbs)
20C	285	185	320	240	190	160	275#	C	0.28	0.62	158	1896	15	33
10C	365	285	320	240	190	160	275#	C	0.45	0.98	315	1896	15	33
9C	370	320	320	240	190	160	275#	C	0.50	1.09	350	1896	15	33
6C	560	320	320	240	190	160	275#	C	0.63	1.38	525	2413	15	33
5C	560	370	320	240	190	160	275#	C	0.71	1.55	630	3447	15	33
4C	560	480	320	240	190	160	400#	CA	1.02	2.23	788	3447	15	33
3C	1120	320	320	240	190	160	400#	CA	1.16	2.54	1050	3447	15	33
STD LID	1140	980	102				200#	C	1.41	3.12				

Shaded box sizes require hand-holds

- Designs should fit the most parts into the smallest possible footprint without impacting part quality.
- For optimum stacking performance a layer lid or “gang lid” is preferred (Figure 3.1.2.3a) however in some cases individual carton lids are required to maintain part quality from debris in the manufacturing environment (Figure 3.1.2.3b).



Figure 3.1.2.3a: Recommended Layer or Gang Lid



Figure 3.1.2.3b: Individual Carton Lids

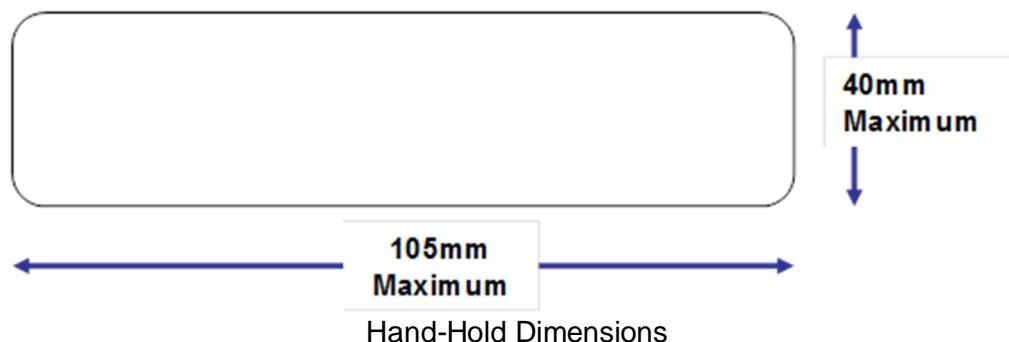


6.3.3 Hand Holds



Example of Carton without Hand-Holds

- Cartons that meet the following requirements do not require hand-holds:
 - Ø **Length of carton is less than:** 762mm or 30 inches
 - Ø **Width of carton is less than:** 406mm or 16 inches
 - Ø **Height of carton is less than:** 305mm or 12 inches
 - Ø **Weight of carton is less than:** 15 kg or 26.4 pounds
- Based on the rules stated above, assuming that the weight of the cartons is 15 kg, then for the O/V Standard sizes, the shaded carton numbers require hand-holds.
- For cartons requiring hand-holds, they should not exceed 105mm (4") length and 40mm (1.5") height, **and are located on the short side of the container.**





6.3.3.1 The following is an example of the O/V preferred expendable carton hand-hold design:



Two Views of a Perforated Hand-hold

- Hand-holds reduce the compression strength of any box, therefore if hand holds are used, other design features need to be used in order to maintain the minimum performance requirements listed in Table 3.2.1. Some design accommodations to improve compression strength include, but are not limited to, increase the strength of box material, box construction, or internal dunnage to promote stacking strength to name just a few.

6.3.4 Bulk

- Bulk containers (modular bulk boxes, pallet cartons, etc.) are used when manually handled cartons cannot accommodate part size or weight restrictions, see the Bulk section, and Table 3.1.4.1 for more details.

O/V's Standard Bulk Carton Sizes

CARTON NUMBER	EXTERIOR DIMENSIONS			MULLEN GRADE (lbs)	FLUTE	APPROXIMATE TARE WEIGHT		MIN PERFORMANCE REQUIREMENTS		
	L (mm)	W (mm)	H (mm)			(kg)	(lbs)	COMPRESSION STRENGTH (BCT) (kg)	BURST STRENGTH (BS) (kPa)	WEIGHT LIMIT (kg) (lbs)
560B1	980	560	970	1100#	CAA	6.8	15.0	2100	1200	300 660
560B2	980	560	600	1100#	CAA	4.8	10.5	4200	1200	300 660
560B3	980	560	420	1100#	CAA	3.8	8.4	6300	1200	300 660
980B1	1140	980	970	1100#	CAA	10.5	23.1	2100	1200	300 660
980B2	1140	980	600	1100#	CAA	6.9	15.2	4200	1200	300 660
980B3	1140	980	420	1100#	CAA	5.8	12.7	6300	1200	300 660
980LID	1140	980	102	350#	BC	1.6	3.5			

- Carton height dimensions **DO NOT** include pallet height or weight
- Standard Cartons are all meant to be used with O/V's standard 9-Block Full Perimeter Pallet
- HSC = Half Slotted Carton with individual or layer lid



O/V's Oversized Bulk Cartons

Global Approved Deviation Sizes	L (mm)	W (mm)	H (mm)	Mullen Grade	Flute
1140B3	1140	1140	420	1100#	CAA
1140B2	1140	1140	600	1100#	CAA
1140B1	1140	1140	970	1100#	CAA
1320B3	1320	1140	420	1100#	CAA
1320B2	1320	1140	600	1100#	CAA
1320B1	1320	1140	970	1100#	CAA
1490B3	1490	1140	420	1100#	CAA
1490B2	1490	1140	600	1100#	CAA
1490B1	1490	1140	970	1100#	CAA
1700B3	1700	1140	420	1100#	CAA
1700B2	1700	1140	600	1100#	CAA
1700B1	1700	1140	970	1100#	CAA
1980B3	1980	1140	420	1100#	CAA
1980B2	1980	1140	600	1100#	CAA
1980B1	1980	1140	970	1100#	CAA
2280B3	2280	1140	420	1100#	CAA
2280B2	2280	1140	600	1100#	CAA
2280B1	2280	1140	970	1100#	CAA

- All pallet cartons over 830mm (33 inches) high (including pallet height) must have a scored side access panel / opening. Although normally on the longer side of the container, the location and size of the drop side is determined by part orientation and operator ergonomics.



Die cut access panel.

Bulk Carton with Access Panel



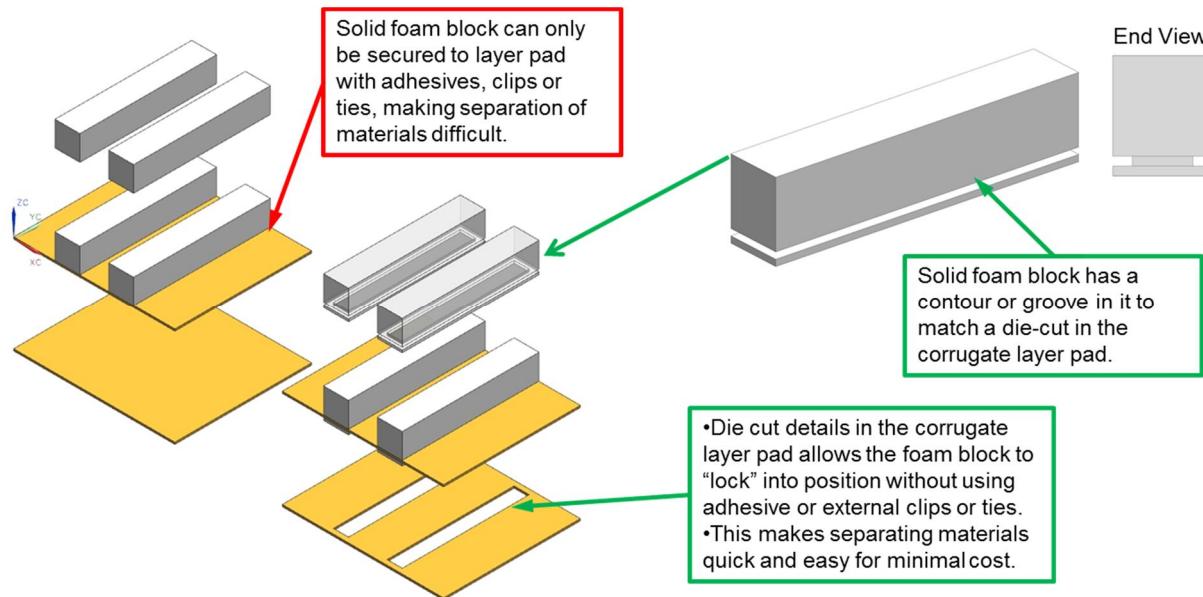
- Scored panels or details reduce the compression strength of any box, therefore if a scored access panel is used, then other design features need to be developed in order to maintain the minimum performance and stacking requirements. Some design accommodations to improve compression strength include, increase the strength of box material, box construction, or internal dunnage / stacking posts to enhance stacking strength of the carton design.



Example of Corrugate Corner Posts to be used with Bulk Cartons with Access Panels to Maintain Stacking Strength

6.3.5 Design and Development: Internal Packaging

- Ensure parts are contained and protected to sustain their quality through the intercontinental supply chain for a minimum of 120 calendar days from the time of shipment which utilizes different modes of transportation including truck, sea and rail freight.
- Corrosion protection is provided for all parts and components that have the potential to corrode for a minimum of 120 calendar days from the time of shipment.
- Packaging design should maximize the cubic density in the carton, but does not sacrifice the quality and protection of the part.
- Minimize the different types of materials used for box and dunnage (i.e.: paper corrugate, poly bags, plastic foam, wood corner posts, etc.)
- Minimize the quantity of internal dunnage (minimize elements of the design to efficiently package and protect the part)
- Do not glue foam or wood to corrugated material. The use of adhesive between two different types of material (i.e.: plastic foam to paper corrugate) is strictly prohibited. Use an integrated dunnage design can help eliminate the need to use adhesive between different materials, reference



- Die Cut Foam Design Allows the Foam Block to “Lock” into the Die Cut Layer Pad without Using Adhesives
- Parts must be easy to access without the use of a mechanical tool or device. Avoid individually wrapping parts in sealed bags or wraps.
- Partitions and layer pads that need to be removed from the carton need to be designed as a single piece to be handled by the Operator to reduce labor and waste. Provide hand-holds on the dunnage assembly to help with handling.
- All packaging materials are required to be 100% Recyclable to reduce costs for final disposal.
- Parts must be oriented to minimize unpacking effort and the packaging must allow unpacking without injury to the operator or damage to the parts
- Packaging needs to be easy to unload and breakdown in order to reduce labor

6.3.6 Carton Closure

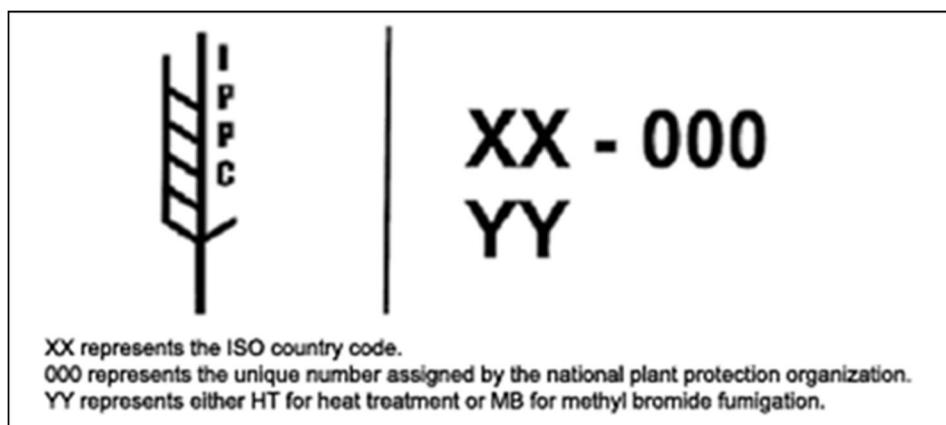
- Containers must be adequately sealed to ensure they do not open during shipping or handling.
- Lids for HSC cartons and boxes are tray styles. Deeper trays have more surface contact than shallow trays, therefore are more likely to stay in place. For most layer lids please use a 102mm or 4 inch deep tray style lid.
- Do not tape lids to their boxes. This taping requires a mechanical tool or knife to cut and open; therefore it is counterproductive to using an HSC style box.
- Packaging materials containing asphalt, such as asphalt sealing tapes, must not be used. Environmentally, paper type (repulpable) is preferred over plastic film when sealing performance is not compromised.



6.4 INTERCONTINENTAL STANDARD PALLET

6.4.1 O/V Standard Footprint: 1140 x 980 x 127mm

- Import Requirements for Wood Packaging Material (Including Dunnage):
- All wood packaging material (including dunnage) that is imported/exported for Opel / Vauxhall MUST comply with the ISPM -15 (International Standards for Phytosanitary Measures- Guidelines for Regulating Wood Packaging Material in International Trade).
- It is the supplier's responsibility to conform to the requirements. Proof of this treatment and use of a certified treatment supplier must will need to be marked accordingly on the outside of the wood packaging material on a minimum of two, opposite sides of the pallet- NO EXCEPTIONS. Please visit web site: www.ippc.int for detailed guidelines.
- Suppliers that do not comply with this requirement are liable for any and all costs and fines incurred by Opel / Vauxhall. These costs include, but are not limited to, additional costs to clear the material for import (such as fines, fumigation costs, re-inspections costs, etc.) and costs that may be needed to cover production requirements during any delay to get material cleared through customs (such as expediting costs for additional material to maintain production).



Certified ISPM-15 Stamp

Pallets may bear the correct markings, but due to improper storage, treatment will be negated.
Improper storage can be defined as:

- Length of time stored allows for pallet degradation and decomposition
- Manner of storage allows pallet to come into contact with moisture negating the treatment requirements for ISPM 15

Common business & housekeeping practices to assist in the compliance with the standard:

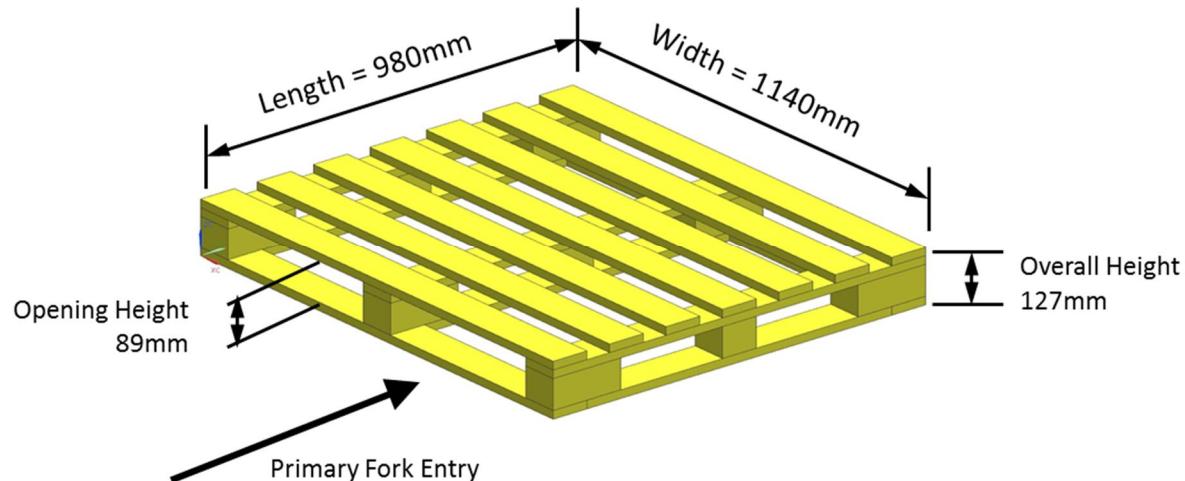
- Ensure the ISPM-15 stamp is applied and is visible for inspection, preferably on two sides of the packaging
- Store your solid wood products in a stable environment, off the ground & away from moisture
- Visible wood bark shall not exceed 3 cm in width on any piece of solid wood integrated within the packaging
- Use trusted solid wood suppliers with proven track records following the ISPM-15 standard

****** Suppliers who do not strictly adhere to the ISPM guidelines and material is rejected by customs will receive a Problem Report and Resolution (PR/R) for EVERY offense ******



- Alternate dimensions are not accepted without written approval for the deviation.
- This footprint is in alignment with VDA (4525) and AIAG (RC-12) standards
- For a four-way entry pallet, openings are required on all four sides of the pallet.

6.4.1.1 Solid Wood 9 – Block Full Perimeter (Primary Design)



Example of a 9 Block Full Perimeter Pallet

6.4.1.2 Pallet dimensions are stated as follows:

(Pallet length) x (Pallet width) x (Pallet height)

- **Pallet length:** Direction of the longest blocks used in the base of the pallet; can also be considered the depth of the pallet, because it is the dimension of the pallet that is perpendicular to the width of the logistics equipment
- **Pallet width:** the length of the deck boards which should be divisible to the width of the primary logistics equipment used for transportation.
- **Pallet height:** the vertical distance from the floor to the top of the deck.
- Thus, an 1140mm x 980mm x 127mm pallet has 1140mm deck boards, and the top of the deck is 127 mm above the floor. This will orient the pallet in the sea container with the primary opening of 89mm for the fork trucks to handle the pallet.

6.4.1.3 This is the Primary style of wooden pallet for the following reasons:

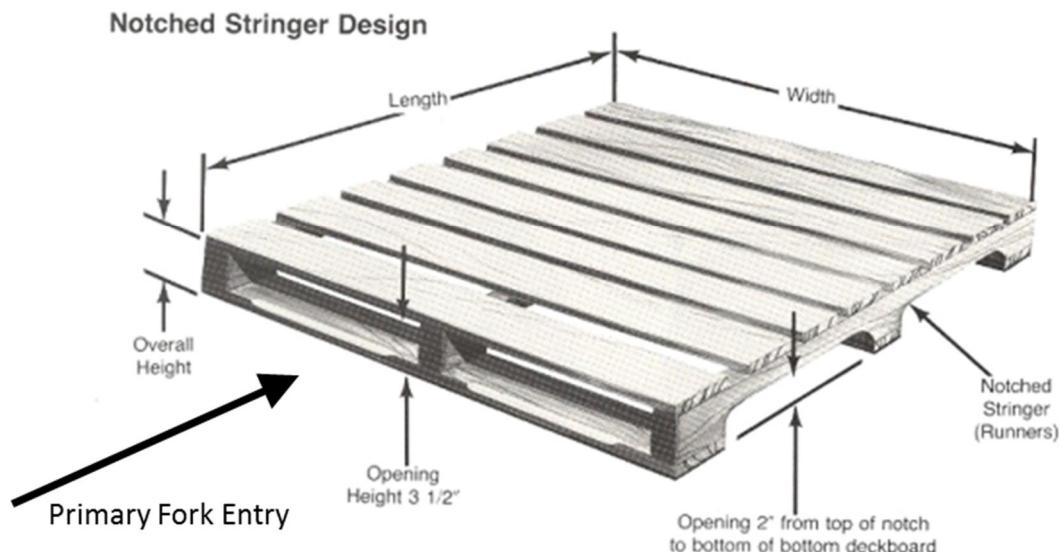
- Allows four-way fork entry
- Provides the most surface area of bottom deckboards to transfer the weight of the pallet when stacking
- The blocks are reinforced with bottom deckboards in both the Length and Width dimension, making them more robust to be handled by industrial fork trucks
- This style pallet has been consistently the most reliable to survive Intercontinental supply chains and the O/V manufacturing process.



6.4.1.4 The primary opening is required to be 89mm or 3.5 inches.

6.4.2 Stringer Style

Four-Way Entry Pallets Stringer Design



String Style Wooden Pallet (1140 x 980 x 127mm)

Stringer style pallet details:

- Pallet length: the length of the stringer.
- Pallet width: the length of the deck boards which should be divisible to the width of the primary logistics equipment used for transportation
- Pallet height: the vertical distance from the floor to the top of the deck.
- Thus, an 1140mm x 980mm x 127mm pallet has 980mm stringers, 1140mm deck board, and the top of the deck is 127 mm above the floor. This will orient the pallet in the sea container with the primary opening (not the notched stringers) for the fork trucks to handle the pallet.

6.4.3 Alternate Materials and Styles

- Alternate pallet style, designs and materials require written approval from the O/V Approver prior to shipment.
- For pallet load weighing less than 220 Kilograms (500 pounds), corrugated or fiberboard pallets are acceptable – but still require a written deviation.
- Structural members of the pallet should be compatible with the carton by supporting the edge and corners.
- A solid corrugated bottom and top deck is required for corrugated or composite materials.
- Plastic Pallets are also allowed if they comply with the following design requirements:
 - Are made from polyethylene or polypropylene materials that are 100% recyclable
 - Do not have “cone shaped” legs or details.
 - Plastic pallets need to have simulated deck boards that optimize the surface area to transfer the pallet loads weight when stacking, and ensures robust stacking performance



6.5 STACKING PERFORMANCE REQUIREMENTS

- Pallet cartons must have sufficient stacking strength to cube out an ISO sea container, to a minimum of 2.2m or 2.5m based on sea container (standard or high cube) under dynamic weight loading, and a minimum of four unit loads high in warehouse conditions.
- Expendable unit loads should be certified to maintain stacking strength for up to 120 calendar days from the time of shipment. Design the unit load to perform under environmental conditions up to 60°C (140°F) and 90% Relative Humidity, or a minimum safety factor greater than 3.5 (multiplier of the weight the pack is expected to support during transit and warehouse activities).
- Expendable containers must be validated by the Supplier prior to the first shipment to the O/V receiving location, with documentation that proves validation tests have been successfully completed (reference test protocol: ASTM D4169). These tests include shock and vibration tests to assure part / component quality, as well as a compression test validating the pack's stacking strength. Conditioning is optional; however the safety factor must be greater than 3.5. The safety factor is an index used to identify the minimum stacking strength a pack requires based on its own loaded weight.
- EXAMPLE: For a loaded pallet pack that weighs 300kg, the pallet pack must be designed and capable to withstand a minimum weight of $3.5 \times 300\text{kg} = 1,050\text{kg}$ stacked on top of it.
- When stacking posts are used, it is important that the following requirements are met:
- Stacking posts are physically held in place and not "glued" to the box
- The location of the stacking posts are completely supported by wood details of the pallet (i.e. wood blocks and deck boards completely support the area under the stacking post)
- Whenever possible, corrugated stacking posts are used before wood posts
- All solid wood posts are ISPM-15 certified and stamped
- Alternate materials that improve stacking strength in place of stacking posts:



6.5.1 Over-packs pallet-carton:



Example of an Over-pack Kit

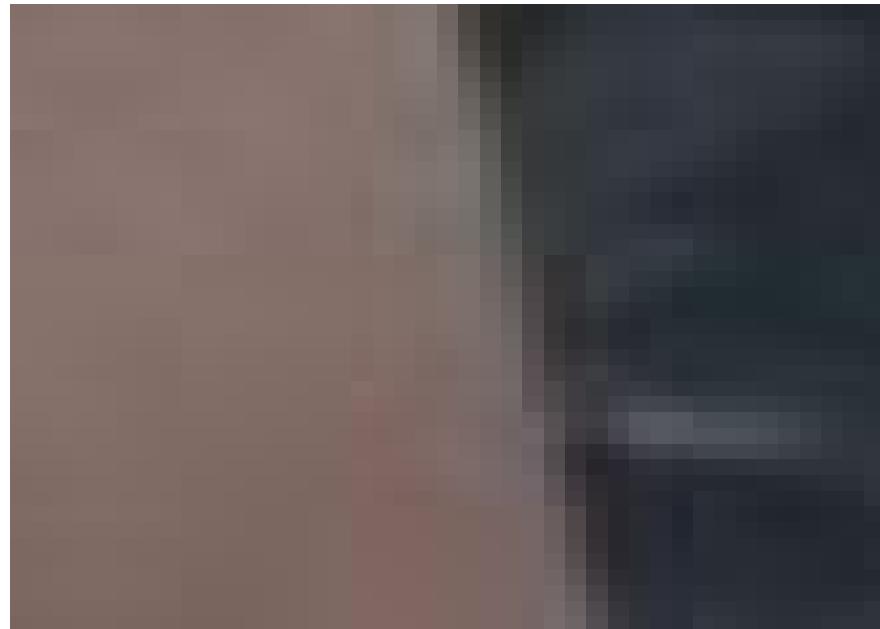


6.5.2 Fiber board edge protectors



Example of Edge Protectors

6.5.3 Paper corrugate build-up blocks or post details

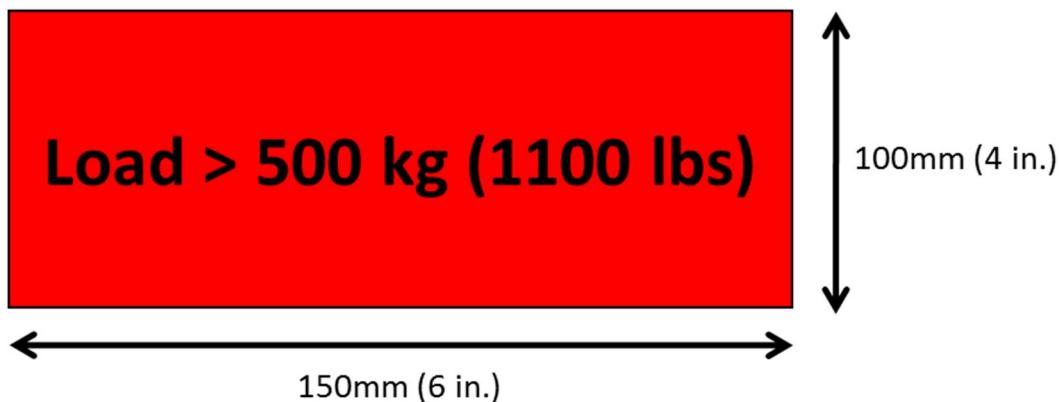


Paper Fiber Cylinders or Tubes for Corner Support



6.6 LABELING

- The following general guidelines must be followed when placing labels on all containers.
- Every container must be labeled in accordance with O/V 1724.
- Each container requires two labels on opposite sides of the container
- The location of the labels must be on the side of the container that is proportionate to the width of the sea container (factor of the 1140mm dimension).
- Labels must be adhesive and secured to the container to prevent peeling during transportation and storage.
- All information on the labels must remain visible and readable.
- Label height must be reduced to fit the side of the carton when the carton's height is less than 150 mm.
- Suppliers must pack, label and ship in compliance with the requirements of common carriers and follow all applicable dangerous goods (hazardous materials) transportation requirements from organizations like IMDG and IATA, including UN Hazard Communication Standards.
- All containers and multi-wall tubes must have a box maker's certificate visible on the assembled container, and displaying edge crush, bursting or puncture test
- Federal Motor Vehicle Safety Standards (FMVSS) or On-Board Diagnostics (OBD) designated parts may require special packaging and approval.
- The Supplier must properly pack and load expendable containers to ensure production part quality is not compromised and to comply with any other shipping instructions from the O/V Approver.
- Any unit load weighing over 500 kilograms (1100 pounds) requires an identification labels on two opposite sides of the unit load, a minimum of 150mm x 100 mm (6" x 4") in size, and "Red" in color. Figure 3.3.1 is a sample label.



Example of Heavy Unit Load Label (minimum size)

- Dynamic and warehouse stacking guidelines must be stenciled on each pallet carton on a minimum of two sides.
- Example of preferred stenciling:
- Lists the loaded weight of each pallet carton
- Graphically shows the certified stacking guidelines for transit and warehousing
- Stencil is located on the opposite long sides of the pallet carton
- Stencil is 150 - 200mm high and easy to understand



Preferred Stacking Guideline Stencil

- For small-lot unit loads – this type of stencil should be on a label, and posted to the unit load on both long sides of the pallet pack

6.7 LOADING CARTONS TO A PALLET

- Cartons are not to extend over the edge of the pallet.



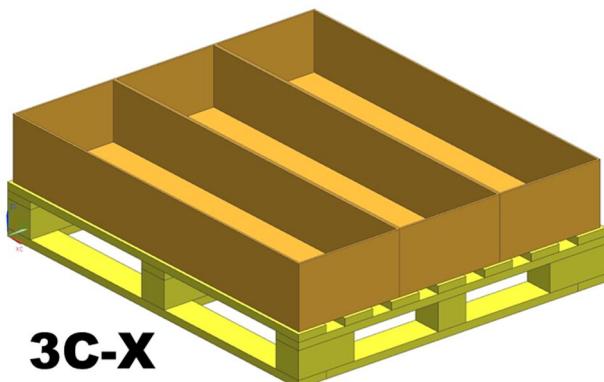
UNACCEPTABLE – Cartons Are NOT to Extend Over the Edge of the Pallet

- By utilizing the O/V Intercontinental expendable cartons and modular pallet, mixed unit loads of different carton sizes and / or part numbers is permitted if properly labeled.
- Properly load the modular pallet to create a level unit load with proper alignment of the cartons. Use of additional packaging and/or empty box (to level the unit load) is permitted. Empty boxes must be labeled (recommend 102 mm or 4" fonts) as "EMPTY" for inventory control.
- Do not allow the cartons to overhang the pallet.
- Boxes should come within 20 mm of the perimeter of the pallet, for all dimensions, in order to integrate the box and pallet for safe and robust stacking strength and optimum performance

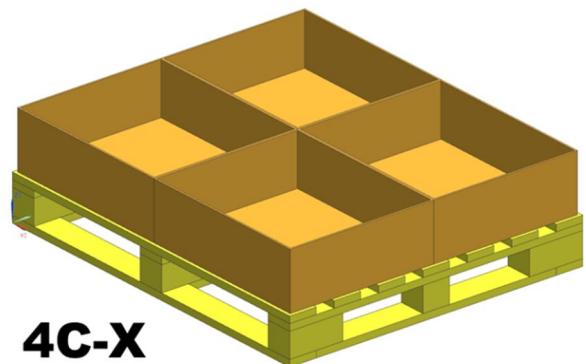


- Modular unit load height must not exceed 1100 mm (43.3 inches) including pallet for standard height sea containers, to enable stacking. Use of extended height (high-cube) sea container and expendable packaging deviations must be approved in writing by the O/V Approver, and appropriate Logistics coordinator.
- The following graphics provide a visual aid for proper loading and orientation of O/V's Standard Small Lot cartons relative to the standard O/V 980STD (1140mm x 980mm) intercontinental pallet (refer to Exhibit 3 at the end of this document for this graphic on single page).
- NOTE** the "X" in the carton code for each of the sketches, represents the height of the carton based on how many layers will fit on a pallet for the standard 1140 x 980 x 1100mm unit load

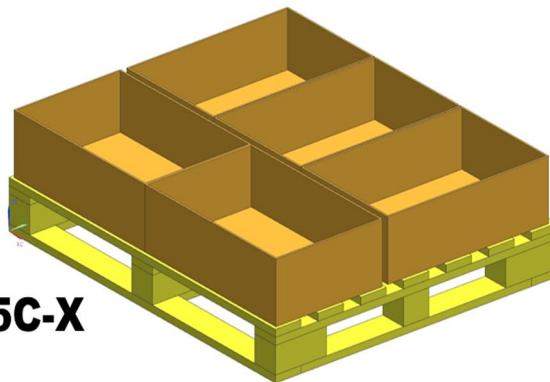
Loading O/V Standard Small Lot Cartons to the Standard Pallet



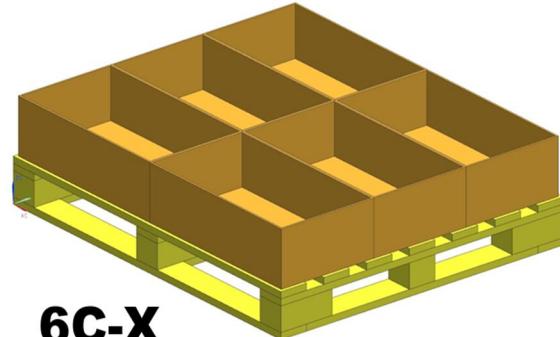
3C-X



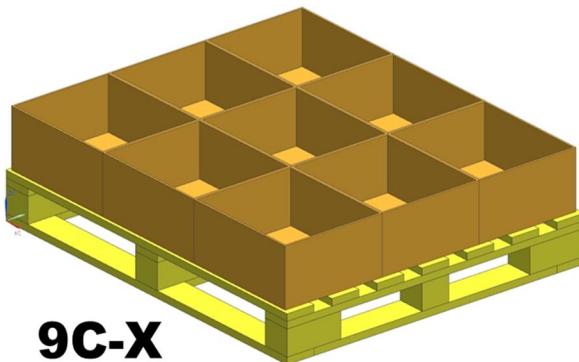
4C-X



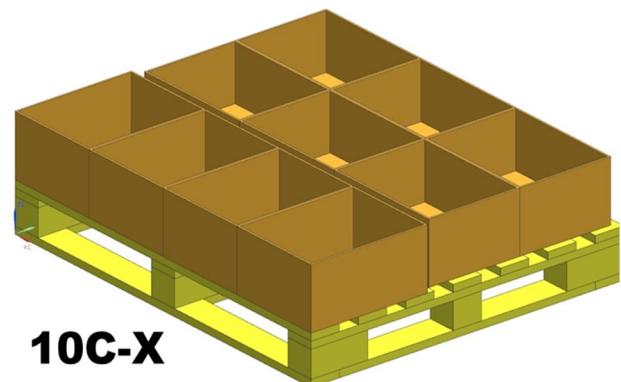
5C-X



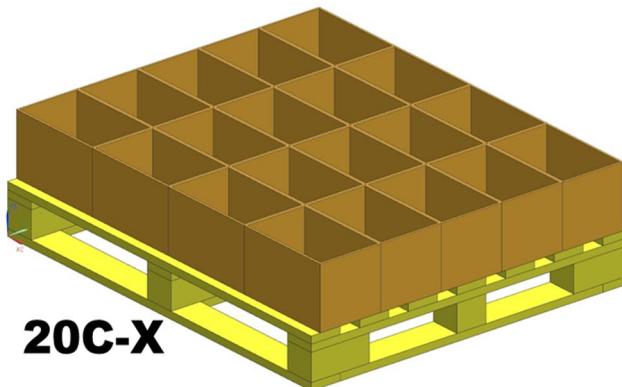
6C-X



9C-X



10C-X



6.7.1 Securement of Cartons to the Pallet

- All expendable containers shipped on pallets must be adequately secured to the pallets. Multiple containers must be properly stacked on and secured to pallets. Plastic strapping and/or plastic stretch wrap have been the acceptable method of securing cartons to a pallet. The assembly plants are working to recycle all packaging materials, including strapping and stretch wrap.
- The following methods are to be used for securing cartons to a pallet:
- Plastic (Non-metallic) Strapping - A minimum of two bands lengthwise and two bands widthwise must be used. Polyester strapping is recommended due to its strength and recovery properties. Polyester strapping is recommended to be translucent green and polypropylene strapping is recommended to be translucent clear. Non-metallic strapping must be joined with a "friction seal". Metal banding or buckles are prohibited unless approved by the O/V Approver (high weight loads are not considered safe without the use of metal buckles).
- Direct delivered parts / components to the plant in the approved expendable container.
- Parts / components that are not repacked into returnable containers at the O/V Receiving Location.
- Any other form of securement is prohibited for O/V.
- Stretch film - Stretch film must be linear low-density polyethylene (LLDPE) and clear in color to maximize recycling potential. Polyvinyl chloride (PVC) film is not to be used.
- Unitizing Adhesives - Use of a high shear/low tensile strength, quick release liquid unitizing adhesives is the best environmental option. Use of this special adhesive requires no strapping or stretch film to be collected, processed or recycled. Recycling of the carton is unaffected. Unitizing adhesives require proper employee training and performance monitoring by the Supplier. The benefits of using this method are:
 - Wrap time eliminated
 - Equipment/floor space savings
 - Load integrity, appearance
 - Inspect/repack ease
 - Unit load increased. Nothing stretches/moves. Possibility for corrugated reduction



6.8 BEST PRACTICES AND EXAMPLES TO AVOID

- This O/V 1738G document provides details and methods for the Supplier to develop a robust intercontinental packaging plan for production parts. The following specifications should be followed to promote a pack that will maximize the cube utilization in an ISO Sea container, as well as fit into O/V's manufacturing processes.
- The following points are considered the minimum requirements for expendable packaging performance and following these Best Practices and guidelines will help expedite the approval process and ensure compliance with O/V's best practices.

6.8.1 Best Practices for Vehicle Assembly Parts, Components and Assemblies

- The Supplier has the overall responsibility for the packaging design, performance and the quality of the part through the supply chain for a minimum of 120 calendar days from the time of shipment.
- Part quality is protected; parts and packaging are received in the same quality condition in which they were manufactured, regardless of incoterms.
- Corrosion protection is provided for all parts and components that have the potential to corrode for a minimum of 120 calendar days from the time of shipment.
- All material must be palletized to permit handling with industrial fork trucks.
- Packs must be able to support a minimum stack height of 2.2 meters (86 inches) under dynamic loading with consideration for environmental conditions up to 60° Celsius (140° Fahrenheit) and 90% Relative Humidity.
- Dynamic and warehouse stacking guidelines must be stenciled on a minimum of two of the long sides of each pallet carton.
- **O/V's required pallet style is a solid wood 9-Block Full Perimeter, with dimensions (1140mm x 980mm x 127mm). Certified stamp must be visible on a minimum of two sides. Deviations from this style and dimension pallet require O/V written approval prior to shipment.**
- Unit load (or pallet pack) dimensions should maintain an 1140 x 980 mm footprint and a height of 1100mm for standard or 1250mm for high cube sea containers.
- **Packaging must support max sea container utilization (either standard or high cube).**
- **Eliminate the need for repacking by minimizing internal dunnage, and making the pack easy to unload.**
- **Parts must be easy to access without the use of a mechanical tool or device. Avoid individually wrapping parts in sealed bags.**
- **Packaging design should maximize the cubic density of the primary carton, but does not sacrifice the quality and protection of the part.**
- **Minimize different materials used within the pack (corrugate paper, plastic, wood, etc.)**
- **Do not glue foam or wood to corrugate material. Using adhesive on two different materials is strictly prohibited.**
- **All expendable packs must be easy to unload and breakdown to reduce labor for recycling.**
- **All packaging materials need to be 100% recyclable to reduce costs for final disposition.**



6.8.2 Best Practices for O/V Powertrain Parts, Components and Assemblies

- Rubber or plastic seals and O-rings must be protected against part deformation or set. Some materials may require barrier protection for humidity control and contaminating environments.
- Precision and delicate parts may require additional shock and vibration protection.
- Openings may require caps, sealant or compatible preservatives applied to critical surfaces.
- Springs, bushings, rings and other parts that have a tendency for tangling may require separation ease unloading.
- Gaskets must have facial orientation and should be bundled to facilitate handling and maintain shape (protection from deformation or set).

6.8.3 Communicating Packaging Plans

- All packaging plans are to be communicated using the [O/V 1738i Form](#) and are required to be submitted to the O/V Receiving Location(s) a minimum of 52 weeks prior to the start of production. Links to this form are included throughout this document as well as a blank version and completed sample form have been included in the appendix of this document (refer to Exhibits #1 and #2).

6.8.4 Examples to Avoid

- Minimize the use of wood crates and outer packs that require disassembly and mechanical tools to open.



UNACCEPTABLE Wood Crating

DO: Integrate recyclable materials and features within the pack discussed in Section 5: Stacking Performance Requirements

- Maximize the density within primary cartons; reduce the amount of "air" or "space" within a pack by either filling it with more parts in a different orientation or by using a smaller carton.



UNACCEPTABLE – Partially Filled Carton

DO: Either pack more parts into the same size carton – or – pick a smaller carton.

- Pyramid packs are unacceptable; ensure level palletized unit loads for shipments.



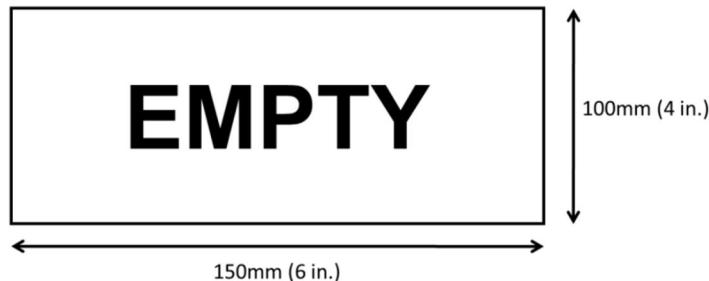
UNACCEPTABLE Pyramid Pallet Packs

- Use additional packaging material to level a unit load. For example, empty boxes properly labeled (see Figure 8.4.4b) to help O/V control inventory and part counts, can be used to level out partial pallet loads.





UNACCEPTABLE Pyramid Pack next to **ACCEPTABLE** Level Pack



Example of an EMPTY Box Label Used to Create a Level Unit Load

- In the event returnable containers are not available to support production schedules, a back-up expendable pack should be used. The Supplier must design, develop, validate and procure the back-up expendable pack to meet the following requirements:
- The pack must meet the same requirements listed throughout this document
- The Supplier holds the same responsibilities listed earlier in this document, including documenting the back-up expendable pack via the 1738i Form
- Pack dimensions must be less than or equal to the returnable container
- It must have the same standard pack, part orientation and part access as the returnable container

6.9 CUSTOMER CARE AND AFTERSALES (SERVICE PARTS)

For packaging standards and guidelines for service parts, please refer to the latest document from this link:

[Packaging Standards and Guidelines](#)

6.10 CKD AND IPC OPERATIONS

O/V Locations receiving material from CKD or IPC Business Units are bound by that supplier agreement, and should consult that document for packaging specifications and requirements.



6.11 EXHIBIT 1: BLANK O/V 1738i FORM

Opel / Vauxhall Packaging Data & Approval Form / Part 1



Supplier Information (Shipping):			
Company Name:		DUNS #:	
Company Address:		City:	Country Code:
Pkg Contact Name:		Tel #:	
Email Address:		Fax #:	

SELECT REGION

Section 1: Program & Part Information

A. Customer Region	Opel / Vauxhall			G.	Program(Code):
B. Plant(s) City, State, Country	1.	2.	3.		
C. MCR of Plant(s)	4.	5.	6.		
D. Part Description (Name)	1.	2.	3.	4.	5.
E. Part Weight (kg) : each				I. Number of Parts / Vehicle:	
F. Part Dimensions L x W x H (mm)				J. Packaging Cost / Part:	
G. Part Number(s)				K. Corrosion Protection Requir	

Please Check Container Weight

Section 2: Packaging Information

1. Primary Packaging			2. Secondary Packaging (Unit Load if mult. Primary)		
A. Density (Quantity of parts)					
B. Packaging Strategy					
C. Carton Code					
D. Carton Type (design)					
E. Material Type					
F. Securement / Closure Type					
G. Total Loaded Weight (kg - full)					
H. Box Dimensions L x W x H (mm)	0	0	0		
I. Dunnage & Description					
J. Labels (Quantity / Location)					
K. Label regarding O/V 1724 specification ?					
L. Compliant to O/V 1738G Specification's					
M. Stack Description	Cartons/Layer:	Layers/Pallet:		Transit (Dynamic) Stack:	Warehouse (Static) Stack:
N. Pallet Dimensions L x W x H (mm)					

Seite 1

Section 3: Shipping & Logistics (For Logistics Planning)

A. Transportation Mode (predominant)	Schedule Pack:	Unit Load Utilization of Transit Mode:
B. 2* Unit Loads per Transit Mode	0	---
C. Hazard Class		Not Compliant Target > 85%

Section 4: Visual References (Pictures)

4-1. Part Only	4-2. Part + Dunnage + Primary box	4-3. Primary + Secondary Unit Load

A. Additional Details:



Opel / Vauxhall Packaging Data & Approval Form / Part 2
detailed packaging cost break down sheet

Section 5: Packaging - Outside

	Technical Details	Material	Costs per Unit	Costs per Part
A.				
B.				
C.				
D.				
E.				
F.				
G.				
H.				
			Σ	-

Section 6: Packaging - Inside / Dunnage

Description	Material	Dimension LxWxH (mm)	Quantity per Box	Costs per Piece	Costs per Unit	Costs per Part
A.						
B.						
C.						
D.						
E.						

Section 7: Packaging - Handling

Handling - Description of all steps	Time per Part (Sec.)	Time per Box (Sec.)	Costs per Hour	Costs per Unit	Costs per Part
A.					
B.					
C.					
D.					
D.					
E.					
			Σ	-	

Section 8: Total Costs

Total Costs	Costs per Pack Unit	Part
	€	-

A. Miscellaneous /
Comments:

Section 9: Approval Information / only for Part 1

Dept / Tier-1:	Name / Signature	Date	Dept / Function	Name / Signature	Date
OIV Pkg:					
OIV Mfg:					
OIV Env:					



7. Definition of New Parts

7.1 Container Assignment

The packaging conditions are agreed between the suppliers and Opel/Vauxhall and they are a part of the order.

Container assignment will continue to be an Opel/Vauxhall responsibility. The exact co-ordination about assignment and pack size has to be done with the OV receiving plant.

The rule is to apply one uniform container size for one part number. However, it must be possible to demand different container types for one part number, but with a maximum total of two and one per plant.

The determination of the packaging is laid down on the **packaging form sheet O/V 1738i** (to be found on OPEL Supply Power).

This form sheet will be binding when the supplier has signed it and the Opel/Vauxhall has made the release. **If the laid down packaging is not adhered to, then Opel/Vauxhall can charge the supplier with handling and repacking costs.**

Well grounded divergences (example alternative packaging at production start or extraordinary situations) have to be timely co-ordinated with the responsible department by Opel/Vauxhall. In this case you have to note "one-way-packaging" on the delivery note/PUS.

When a new determination or changing of parts happened, the packaging form sheet has to be completely filled in and sent to the packaging planning department of the relevant receiving plant.

Contract with the purchasing department:

Additional material for protecting your parts such as intermediate layers, film, VCI paper, coverings etc. have to be calculated in your part price, just as strapping of the load units.

Later claims cannot be considered.



8. Version Control

Version Number	Date Updated	Revision Author	Summary of Major Changes Made
1.0-1.3 1.4	18.10.2017		Label section updated to a new OV1724 Contract CHEP maintained
1.4.2 1.4.5	10.11.2017		Correction Correction KLT and GLT days
1.2 1.4 5.17	20.11.2017		IcoQube added IcoQube 15 calendar days added Wording
1.1 p)	14.12.2017		Wording



9. ATTACHEMATE

9.1 GENERAL TERMS AND CONDITIONS OF HIRE (Opel Automobile GmbH - Opel / Vauxhall Group)

Automotive Parts Container Service for non-owned transport equipment of CHEP DEUTSCHLAND GMBH

The following General Terms and Conditions of Hire ("Terms of Hire") apply to lease agreements between group companies of Opel / Vauxhall Group in Europe (hereinafter referred to as "OV"), represented by and through CHEP DEUTSCHLAND GMBH (hereinafter referred to as "CHEP"), and the lease client (hereinafter referred to as "Lessee") leasing certain means for transporting and storing automotive parts. These Terms of Hire replace and supersede previous leasing terms and conditions agreed among the parties with respect to Transport Equipment. Additionally, the MANAGED SERVICE MANUAL GME, which is accessible through CHEP's internet portal "CHEP PORTFOLIO+PLUS" applies.

1. General

- (A) The term "Transport Equipment" in these Terms of Hire covers large containers as well as any accessories and other containers/packaging for the movement, transport or storage of automotive parts or any components thereof, to the extent that OV directly or through CHEP has provided such Transport Equipment to the Lessee.
- (B) A lease will be deemed agreed between the parties with respect to each item of Transport Equipment, which OV supplies to the Lessee and irrespective of whether a rent price is charged. Even if the Transport Equipment is supplied free of charge, the receiving supplier will be deemed a Lessee within the meaning of these Terms of Hire.
- (C) The Lessee expressly consents and recognizes that these Terms of Hire apply with regards to any transport product, which is delivered to it by OV or another OV lessee or of which it or its authorized agents (see section 2. (C) below) otherwise gain possession.

2. Leasing the Transport Equipment

- (A) The lease agreement shall commence for each individual transport product with its receipt by the Lessee, and the lease will end on the day which the Lessee enters as the exit day – return to OV/CHEP or transfer to a third party pursuant to paragraph (B) below – into the CHEP Portfolio Plus application; such updating of the Lessee's account to occur within 48 hours.
- (B) The Lessee is entitled to lease, return, exchange any Transport Equipment for Transport Equipment of the same nature or to transfer Transport Equipment to third parties, subject always to compliance with these Terms of Hire or any specific authorization issued by OV/CHEP. The Transport Equipment may not be transferred to a third party, unless such party has entered into a written lease contract with OV. Furthermore, the Lessee is obligated to notify CHEP of such transfer without undue delay as provided for in the MANAGED SERVICE MANUAL GME and to provide to CHEP all relevant details and any such additional information as requested about the transfer. Any such transfer will cause the relevant quantity of Transport Equipment to be booked to the recipient's lease account from the date of the transfer, while the Lessee's lease account will be released accordingly.
The Lessee shall bear the sole risk of loss related to any Transport Equipment, which are not returned to the OV plant, to an unloading station authorized by OV/CHEP, or to another OV lessee with the express consent of OV/CHEP.
OV/CHEP is entitled to take possession of any Transport Equipment which had been transferred by the Lessee to a third party in breach of the provisions of this leasing contract.
- (C) The Lessee is entitled to surrender possession of the Transport Equipment temporarily to a carrier, a warehouse keeper or another third party, who acts in a similar manner on its behalf. The transfer to another OV lessee or a subcontractor is subject to para. (B) above.
- (D) The Lessee is at no time entitled to exchange Transport Equipment, which are not owned by OV, for labeled OV Transport Equipment. The only exception here is the European Packaging Wheel System ("EWPS System").
- (E) OV, or CHEP in the name of OV, has the right from time to time to conduct inspections of the leased Transport Equipment in order to ensure that the inspection procedures, which are recommended by CHEP in the MANAGED SERVICE MANUAL GME, are being duly executed. To this end, CHEP has the right to demand access to the Lessee's operational premises (only to those operational premises in which the contract-relevant documentation is stored) and to examine the Transport Equipment and the records related thereto which are required under the inspection procedures. The Lessee is obligated to grant employees or authorized personnel of OV/CHEP access to such premises provided that the visit is duly announced in advance. The Lessee shall furnish to OV/CHEP, upon its request, copies of the inspection records related to the Transport Equipment. The Lessee shall assist OV/CHEP in gaining access to and information about any third parties to whom it had provided the Transport Equipment, to the extent that this is required. The Lessee will not be obligated to provide OV/CHEP with information related to a sub-supplier, if it considers such information confidential.
The Lessee shall, to the extent necessary, also support OV/CHEP in obtaining the relevant information from, and access to, its agents.



3. Invoicing, Payment Terms

(A) OV shall invoice the Lessee *per diem* rents on the basis of the price list appended to the lease agreement plus the value added tax (VAT) as prescribed by law and (if applicable) any loss fees incurred (see section 6). The *per diem* rent will be calculated on the basis of the number of Transport Equipment, which were leased to the Lessee, less the quantity of Transport Equipment, which the Lessee returned to OV/CHEP prior to the invoice date or with respect to which no more *per diem* rent would apply according to sections 2 (B) or 6 (A). The Lessee will receive rent-free days, the exact number of which will be defined in the applicable OV packaging handbook. All calculations of rents will be based on the entries in the relevant lease account in the CHEP PORTFOLIO+PLUS System

(B) The invoice amount determined pursuant to paragraph (B) above .will be balanced monthly and offset against OV's payables towards the Lessee resulting from its parts deliveries to OV plants.

(C) The quantity of Transport Equipment as stipulated in the invoice for each day of the invoice period will become a binding determination of the leased quantity of Transport Equipment as between the parties for the days stated in the invoice and for all other purposes, unless:

- (i) the Lessee, within 21 days after receiving the OV invoice,- lodges a written objection with OV/CHEP regarding the quantities of Transport Equipment which are stated in the invoice, or
- (ii) the invoice contains a calculation mistake, which can be ascertained from the invoice itself and was caused by OV/CHEP, or
- (iii) the Lessee mistakenly received credits for Transport Equipment, which it had returned to OV in quantities exceeding that which the Lessee had leased.

If OV/CHEP receives notice following the invoice date that Transport Equipment had been forwarded or returned prior to the invoice date, this will not affect the accuracy and validity of the invoice, but will be taken into account through a credit or debit note in the subsequent invoice.

(D) OV and the Lessee may at any time agree to the provision of additional services, including the consideration owed to OV in exchange for such services.

(E) If, for whatever reason, the Lessee is late in making any payments, then it will be obligated to pay interest on any overdue amounts from the due date until the day of the payment, whereby the statutory default interest as prescribed in § 288 (2) BGB will be deemed to be owed.

4. Use and repair of the Transport Equipment

(A) OV shall dispatch the Transport Equipment in a usable condition.

(B) The Lessee agrees to comply with the written instructions from OV/CHEP with respect to the rent and the use of the Transport Equipment, which OV/CHEP will modify from time to time to accord with the ongoing development, and shall monitor the movements of the Transport Equipment in accordance with the reasonable instructions from OV/CHEP as updated from time to time. The Lessee agrees to return the Transport Equipment to OV free and clear of any contamination caused by hazardous substances. Furthermore, the Lessee must not to mark the Transport Equipment with any type of self-adhesive labels. OV reserves the right to bill the Lessee for any cleaning costs, if the Lessee - in contravention of this provision - returns the Transport Equipment either with self-adhesive labels or contaminated in some other manner.

(C) The Lessee is obligated to review immediately upon receipt and regardless of their origin, whether the Transport Equipment are free and clear of any defects and are suitable for the intended purpose. If the Transport Equipment received contain defects and if the defects can be identified upon reasonable inspection made, then the Lessee shall notify OV thereof by email within 48 hours after taking receipt of the defective Transport Equipment, in case of hidden defects immediately after detection, and shall also proceed according to the procedures set forth in the OV packaging handbook.

(D) If a leased transport product is so severely damaged that it is unusable or can no longer be used in a safe manner, then the Lessee must contact OV for the purpose of securing a repair. If the damage is the result of normal wear and tear or of an act of a third party, then OV/CHEP shall at no charge provide the Lessee with a conforming (non-defective) transport product of the same type; otherwise, the Lessee will be obligated under section 6 (A) to compensate OV for the replacement of such Transport Equipment.

5. Ownership

(A) Neither the Lessee nor any other third party have the right to purchase or sell the Transport Equipment or to exercise any other form of dominion over them which is inconsistent with the unconditional ownership of OV.

(B) Neither the Lessee nor his agents or contractors may directly or indirectly modify, render unidentifiable or remove the color, logo or markings, which indicate ownership, or any other distinguishing features.

(C) To the extent the Transport Equipment are not colored or marked, then they will nevertheless always and under all circumstances remain the sole property of OV (the only exception is the "European Packaging Wheel System" used for the shipment of wheels).



6. Loss of Transport Equipment

(A) Loss of a transport product within the meaning of this clause 6 means its disappearance, severe damage as described in sec. 4 (D), destruction or transfer to a third party in breach of these Terms of Hire. Lost products shall nevertheless be deemed a part of the transport product quantities which were leased to the Lessee, until the Lessee has notified the loss to CHEP and has paid OV the loss fee, which equals the current replacement cost as communicated by OV. Thereafter, no further *per diem* rents will be due for the Transport Equipment in question

(B) Despite the payment of a loss fee, any lost Transport Equipment will remain the property of OV. If the Lessee retrieves or otherwise reacquires the Transport Equipment, for which it paid the loss fee, then it will be obligated to inform CHEP thereof without undue delay. If the reacquired Transport Equipment can be used or repaired, then it will be treated as if it had been leased to the Lessee during the entire period and OV shall grant the Lessee a credit for the loss fee paid, less the value of the *per diem* rents for the period of time between the payment date of the loss fee and the day on which the retrieved transport product was credited back to the Lessee's lease account. The total amount of any such *per diem* rents subsequently booked in the aforementioned manner will be capped by the amount of the loss fee paid.

(C) The Lessee is obligated to perform regular inventory counts, at least once each year. In this respect, all Transport Equipment in the Lessee's possession and supplied by OV must be recorded and the results compared and reconciled with the CHEP account (see MANAGED SERVICE MANUAL GME). This account reconciliation should be signed by the Lessee and approved by CHEP within eight weeks following the commencement of the inventory taking.

7. Warranty and liability

(A) OV/CHEP shall in no event be liable for any personal injury, property damage or pecuniary losses, which the Lessee incurs during the lease term and which are caused directly or indirectly by a defect of the Transport Equipment, if the Lessee could have discovered the defect upon conducting a reasonable inspection prior to use and did not identify the defect because it neglected to discharge its obligation to inspect the Transport Equipment pursuant to section 4 (C) above. The Lessee remains however entitled to prove that the damage would also have occurred if a proper inspection had timely been conducted in which event paragraph (B) below shall govern.

(B) With respect to damage, which does not fall under subsection (A), OV/CHEP will be liable for any property damage or pecuniary losses, which were caused directly or indirectly by a defect in the leased Transport Equipment, - with no limitation if OV/CHEP is responsible for the defect due to grossly negligent or intentional acts or omissions or - limited to the foreseeable, typical damage if OV/CHEP is responsible for the defect due to a slightly negligent breach of a substantial contractual obligation (core obligation); for the rest, all liability of OV/CHEP is excluded. OV/CHEP remain always fully liable for personal injury caused by its default.

Any product liability claims of the Lessee against the manufacturer of the Transport Equipment remain unaffected by the preceding provisions.

(C) The Lessee agrees to indemnify OV/CHEP against all claims and costs, which are enforced against OV/CHEP in connection with a defect in the Transport Equipment, if the Lessee could have discovered it upon conducting a reasonable inspection prior to use but failed to notify CHEP as required by Section 4 (C) or if, during the lease term, the Lessee or a third party, to whom the Lessee had delivered the Transport Equipment, uses the Transport Equipment in a manner not consistent with their purpose or if the defect is caused by the use, the handling, the storage or the transport of Transport Equipment by the Lessee or its agents or contractors.

8. Termination

(A) OV has the right at any time to send written notice of termination to the Lessee subject to a 90-days notice period. The Lessee is thereupon obligated to return to OV upon the lapse of the termination notice period all Transport Equipment, and any such additional Transport Equipment, which belong to OV and are under its custody or under its control.

(B) If the Lessee returns less Transport Equipment than OV had supplied to it then the Lessee shall without undue delay pay to OV the loss fee for the missing Transport Equipment in accordance with section 6 (A) above. Despite the payment of the loss fee, the Lessee will still remain responsible for returning those Transport Equipment which it had not returned and section 6 (B) will apply regarding the adjustment of the loss fee in the case of a return of any such Transport Equipment at a later time.

(C) OV also has the right to terminate this Agreement with immediate effect, - if insolvency proceedings are commenced against the Lessee or the commencement of insolvency proceedings is rejected for lack of sufficient funds or- if the Lessee enters into liquidation or - if the Lessee commits a material breach of contract such as if it exercises dominion over the Transport Equipment or intentionally damages such material or - if it does not timely correct or mend a non material breach of contract or commits a breach repeatedly despite a written reminder. In the event of such a termination for good cause the Lessee will be obligated to return, without undue delay, the leased Transport Equipment to OV. It will also be obligated to continue paying the agreed consideration until the date on which the return is made. Section 6 (A) will apply to those leased Transport Equipment, which the Lessee has not returned within ten days after receiving the notice of termination.

(D) OV/CHEP has the right to enter upon the operational premises or in vehicles of the Lessee and it's authorized personnel and representatives, if there is reason to believe that Transport Equipment are located at such premises or in



such vehicles. OV/CHEP also has the right to retrieve such Transport Equipment from that location upon effectiveness of its notice of termination.

(E) The Lessee terminates the lease agreement by returning to OV all Transport Equipment, which it has leased. It must pay the consideration, which is owed under the agreement until the day on which the Transport Equipment are returned (including that day). Section 6 (A) applies to the leased transport products, which the Lessee has not returned.

9. Miscellaneous

(A) OV reserves the right from time to time to modify these Terms of Hire as well as the price list. OV shall endeavor, however, not to make such modifications more frequently than once every 12 months. The modified Terms of Hire and any modified price list will enter into effect on the date which is indicated thereon, not earlier however before the lapse of a period of at least 14 days since the date of the modification notice. Should the Lessee wish to reject the modified Terms of Hire or the modified price list, then it will have the right in accordance with section 8 (E) to terminate the lease agreement no later than until the lapse of further 2 weeks from the date of effectiveness of the contemplated change. In the event of a later termination, the contract shall be subject to the modified conditions until the termination date.

(B) The Lessee recognizes OV's right to store any personal data of the Lessee's employees for the purpose of operation of the automotive parts container service and to forward such data in the ordinary course of business to affiliated companies, CHEP and other service providers, provided that such storage and forwarding would contribute to a non-disruptive operation of the pool system.

(C) If a provision under these Terms of Hire is or becomes invalid, then the parties agree to replace the invalid provision with a provision which most closely reflects the content of the invalid provision. In the event that these Terms of Hire contain a temporal provision, which is either too short or too long and is thereby considered invalid, such a provision should be replaced by a legally valid temporal provision which most closely reflects the invalid temporal provision. The same shall apply in the event of an unintentional gap in the provisions of this agreement.

(D) The lease agreement is governed by German law. Exclusive jurisdiction and venue shall lie with the competent courts of Frankfurt am Main. OV has the right, however, to institute legal action against the Lessee even before a court, which has jurisdiction over the Lessee in accordance with the general rules of civil procedure. This also applies to legal proceedings involving cheques, promissory notes and other commercial papers.

(E) The term CHEP includes CHEP and the companies affiliated with CHEP.