

# MATERIAL FLOW AND FACTORY EQUIPMENT TROLLEYS



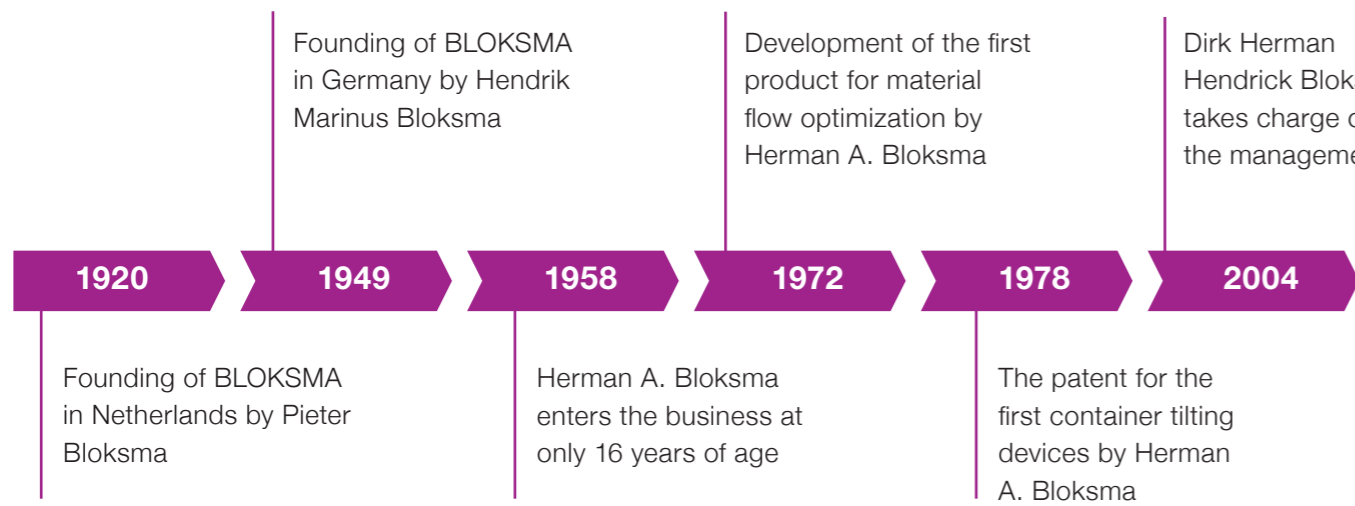
WE GET YOUR PRODUCTION ROLLING.

**BLOKSMA**

# BLOKSMA FLOWING PROCESSES FOR MORE THAN 95 YEARS

BLOKSMA-Engineering – a name that has become synonym for professional material flow and technically mature workpiece carriers.

Starting in 1920 with a mechanical production, BLOKSMA has turned into the absolute specialist for efficient production logistics.





### Well known companies trust in BLOKSMA solutions:

AEG · Allweiler · AMG · Arburg · Atlas Copco · Audi · Behr · Benzinger · Beru · Bitzer · BMW  
 Danfoss · Eaton · Eberspächer · ebmpapst · EMAG · FAG · Faurecia · Federal Mogul · Fein  
 Hansgrohe · Hatz · Heidelberg · Hella · Husky · IFA · INA · John Deere · Knipex  
 Mercedes Benz · Metabo · Miele · Nidec · Opel · Parker · Pierburg · Porsche · Promat  
 Wabco · Wago · ZF

Boge · Borg Warner · Bosch · Brose · BRP-Rotax · BSH · Caterpillar · Continental · Daimler  
 Felsomat · Festo · Ford · Gardena · Gemü · Georg Fischer · Getrag · GKN · Grob · Güdel  
 Kodak · KUKA · Liebherr · LUK · Lütze · Magna · Magna Steyr · Mahle · MAN · Mannesmann  
 Schaeffler · SEW · Stihl · thyssenkrupp · Traub · Valeo · Vibracoustic · Volkswagen · Vorwerk

# OPTIMIZE YOUR “PRODUCTIVITY FACTOR“ PFA

## What is the PFA?

The Productivity Factor establishes the relationship between the total duration of the product cycle and the duration of the actual value creation process. The factor can be optimised by reducing the activities which do not generate added value such as the material transport from one processing station to the next.

$$PFA = \frac{\text{Time overall}}{\text{Time value-creation}}$$

### Time overall

delivery, production time, internal transport, waiting/storage time, delivery

### Time value-creation

processing, assembly, machine operating times



## LET'S USE THE CONCRETE EXAMPLE OF A MANUFACTURER FOR PROFESSIONAL POWER TOOLS

BEFORE		AFTER	
Lead time / working day	1587 min	Lead time / working day	595 min
Value cration <small>estimated</small>	200 min	Value creation <small>estimated</small>	200 min
$PFA = \frac{1587 \text{ min}}{200 \text{ min}} = 7.94$		$PFA = \frac{595 \text{ min}}{200 \text{ min}} = 2.98$	
Stock	4,950,000 €	Stock	1,600,000 €

↓

SAVINGS	
Time savings through trolley usage	per working day <b>992 min</b>
Interest gained through lead time reduction from 8 to 3 working days	per working day <b>1,315 €</b>
Stock reduction	per year <b>3,170,000 €</b>
Total investment	about <b>90,000 €</b>

### Objectives

- increased efficiency
- ground-level storage without shelves and forklifts
- reduction of transit stocks by 2/3
- halving the lead times
- higher productivity per unit area
- improved ergonomics

### Solution approach: Getting “the production moving“

- modern lay-out with just-in-time principle as flow production
- removal of high shelves with a roller conveyer
- forklift-free zones
- reduction of walk and search paths as well as manual repacking and restacking
- uniform SLC containers from the supplier to the customer

# TROLLEYS

**Durable, customized, with or without additional elements – BLOKSMA trolleys are available in a vast range of designs, dimensions and load capacities.**

BLOKSMA trolleys are the basis for a modern “rolling” production without forklift trucks. With these systems nothing is neglected or left out. Everything can easily and quickly be transported as required to the designated area. Regardless of whether we are talking about transport of goods to the next work step or ergonomics at the

workplace, Kanban-planning and the related reduction of stock values or lead times - BLOKSMA trolleys are always the right choice. And at the same time they are extremely flexible: They are available either in standard dimensions and designs or individual designs that are adapted to your specific requirements for a customized solution.

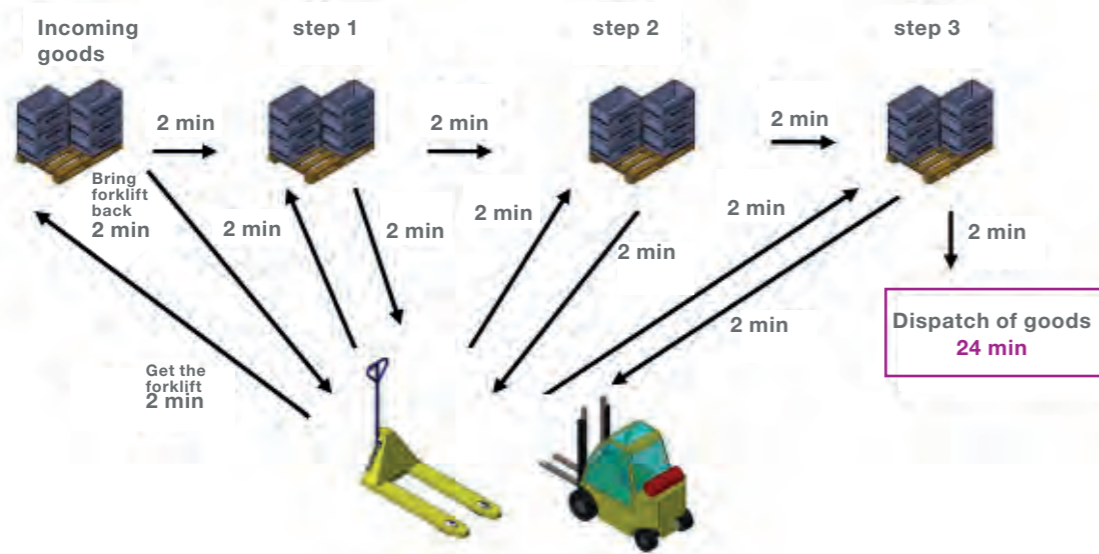


# OVERVIEW

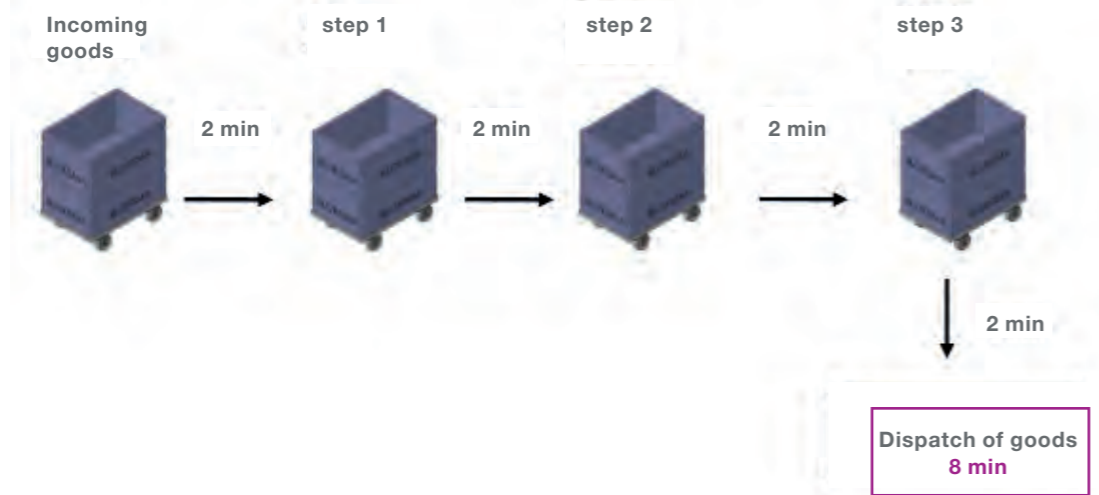
PRODUCT INFORMATION	Pages 16-21
TROLLEY BOF KLT/GLT	Pages 22-33
TROLLEY BOF CAGE PALLET/PALLETS	Pages 34-37
TROLLEY BOF INCH – US	Pages 38-43
TROLLEY BOK	Pages 44-47
TROLLEY BOZ	Pages 48-49
TROLLEY BOR	Pages 50-51
FURTHER PRODUCTS/ACCESSORIES	Pages 52-65

# TROLLEYS COMMERCIAL PERSPECTIVE

**BEFORE**  
Forklifts



**AFTER**  
trolleys



## ECONOMICS – EXAMPLE CALCULATION

Working time in minutes	Forklift	trolley	Saved minutes	= hours saved	768 h
Sum of searching and walking ways	24	8	16		
x pallet change per shift	4	96	32	x your wage hour rate	€
x shifts / day	3	288	96	x your machine hour rate	€
x days / year	240	69,120	23,040	<b>Savings</b>	<b>€</b>

**Further savings:** No investment in industrial trucks such as forklifts or pallet truck as well as their necessary maintenance and upkeep.

# TROLLEY CHECKLISTE

length			
width			
products to be carried - description and dimensions -			
desired capacity			
wheel pairing	2 swivel & 2 fixed castors <input type="checkbox"/>	4 swivel castors <input type="checkbox"/>	4 swivel & 2 fixed castors <input type="checkbox"/>
wheel diameter	mm		
wheel quality	hard plastic (PA/PP) <input type="checkbox"/>	rubber encased <input type="checkbox"/>	rubber <input type="checkbox"/>
	combi (hard plastic & rubber) <input type="checkbox"/>	other <input type="checkbox"/>	
ESD version	no <input type="checkbox"/>	yes <input type="checkbox"/>	
ESD wheel positions	one sided <input type="checkbox"/>	diagonal <input type="checkbox"/>	number ESD wheels (min. 2 wheels) <input type="checkbox"/>
brake	no <input type="checkbox"/>	yes <input type="checkbox"/>	number of wheels with brake <input type="checkbox"/>
brake position	one sided <input type="checkbox"/>	diagonal <input type="checkbox"/>	
directional locking device	no <input type="checkbox"/>	yes <input type="checkbox"/>	number of directional locking devices <input type="checkbox"/>
bearing type	sliding bearing (€) <input type="checkbox"/>	roller bearing (€€) <input type="checkbox"/>	ball bearing (€€€) <input type="checkbox"/>
drawbar/ train version	no <input type="checkbox"/>	yes castor combination is 2 fixed an 2 swivel <input type="checkbox"/>	
handle	no <input type="checkbox"/>	yes permanently attached <input type="checkbox"/>	yes detachable <input type="checkbox"/>
material	steel pre-galvanised <input type="checkbox"/>	steel galvanised (resp. hot-dip galvanised) <input type="checkbox"/>	steel powder coated RAL-colour? <input type="checkbox"/>
	aluminium natural finish <input type="checkbox"/>	aluminium anodized <input type="checkbox"/>	
	stainless steel natural finish <input type="checkbox"/>	stainless steel e-polished <input type="checkbox"/>	
	others <input type="checkbox"/>		
	oil-tight/ trolley = trip tray	no <input type="checkbox"/>	yes <input type="checkbox"/>
adapted to automation	no <input type="checkbox"/>	yes detailed description <input type="checkbox"/>	
suitable for a transport pallet	no <input type="checkbox"/>	yes detailed description <input type="checkbox"/>	
code/ chip/ TAG	no <input type="checkbox"/>	yes detailed description <input type="checkbox"/>	
washable	no <input type="checkbox"/>	yes detailed description <input type="checkbox"/>	
scaling			

# TROLLEYS EVERYTHING ABOUT WHEELS

## WHEEL QUALITY

	noise	rolling resistance	tugger trains (grip and traction)	Transport pallet / rack fitting	expenses	dirt repellent	striation
hard plastic (PA/PP)	loud	low	not recommendable	recommendable	€	good	none
Polyurethane	medium	low		recommendable	€	good	conditionally possible
Polyurethane coated	medium	medium	recommendable	recommendable	€€	very good	none
soft rubber air	very quiet	very high	recommendable	not recommended for 4 swivel castors	€€	less good	yes
solid rubber	quiet	high		not recommended for 4 swivel castors	€€€	less good	yes

Load, suitable bearings, speed, floor condition, environmental influences as well as the force to be applied all influence the maneuverability – or the handling of the trolley.

## BEARING TYPES

### Plain bearings

are simple, sturdy and largely insensitive to moisture, but they have the most unfavourable friction values and therefore lead to a relatively high starting and rolling resistance.

### Roller bearings

have a low radial bearing clearance, are sturdy and have a very low rolling resistance.

### Ball bearings

have a high load capacity, the smallest bearing clearance, the best starting and rolling qualities and are also suitable for higher speeds (as well as for tugger and milkrun trains).

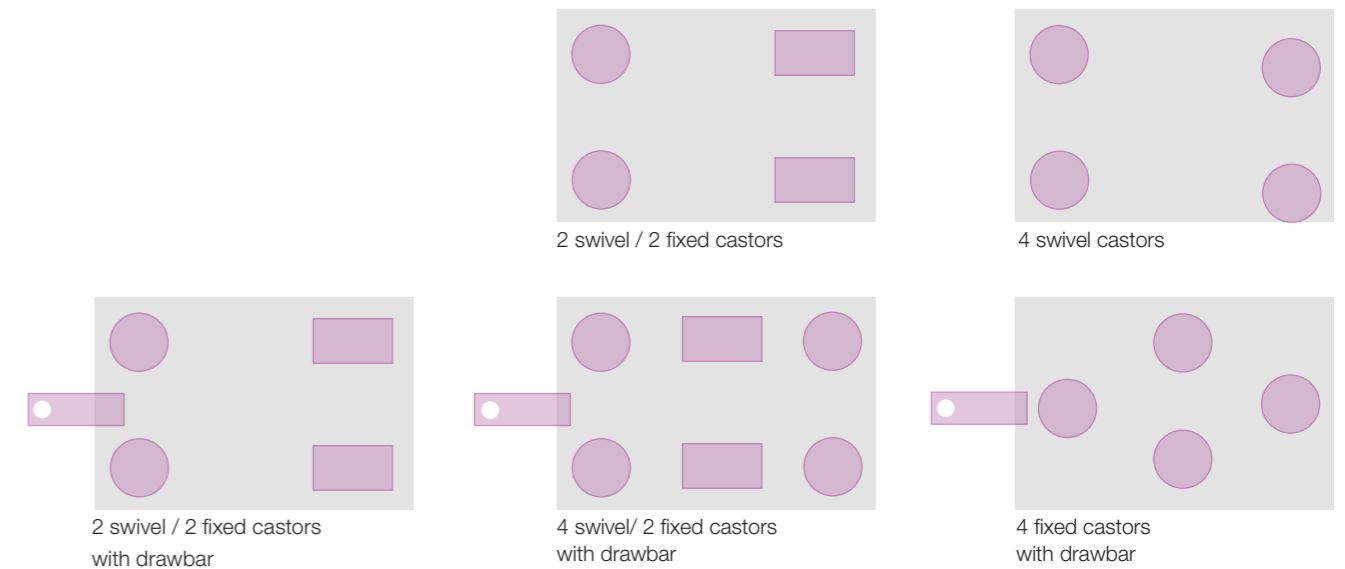
## DETERMINATION OF THE WHEELS LOAD CAPACITY

$$T = \frac{FB + Fz}{n} \times S$$

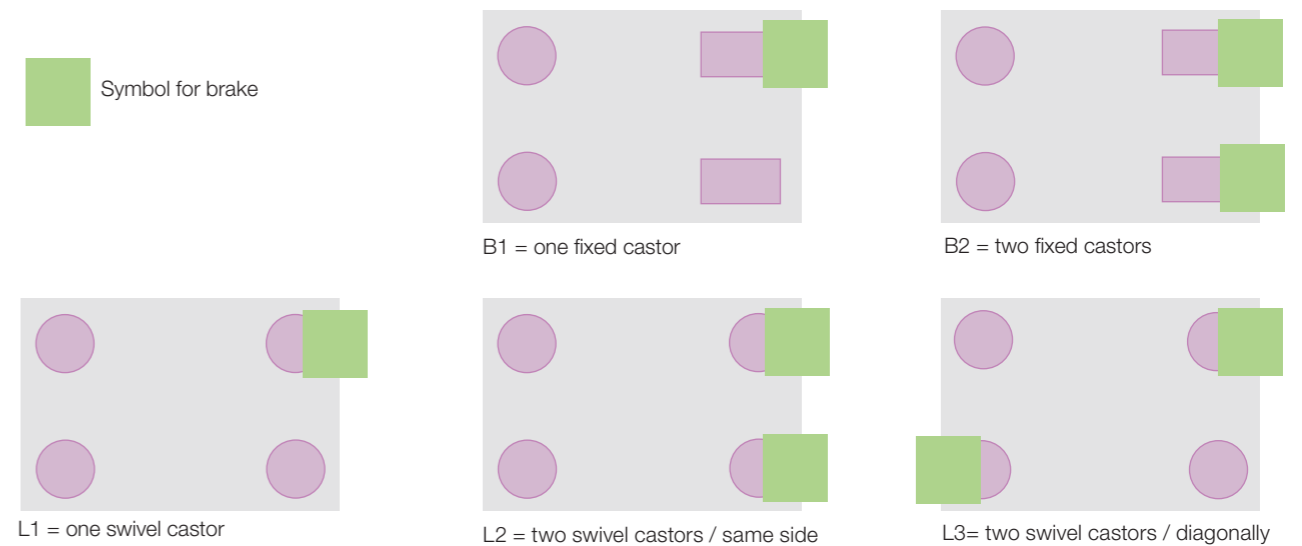
- T = required load capacity per wheel
- FB = tare weight of the ground roller
- Fz = maximum load
- n = number of carrying wheels
- S = safety factor

# TROLLEY EVERYTHING ABOUT WHEELS

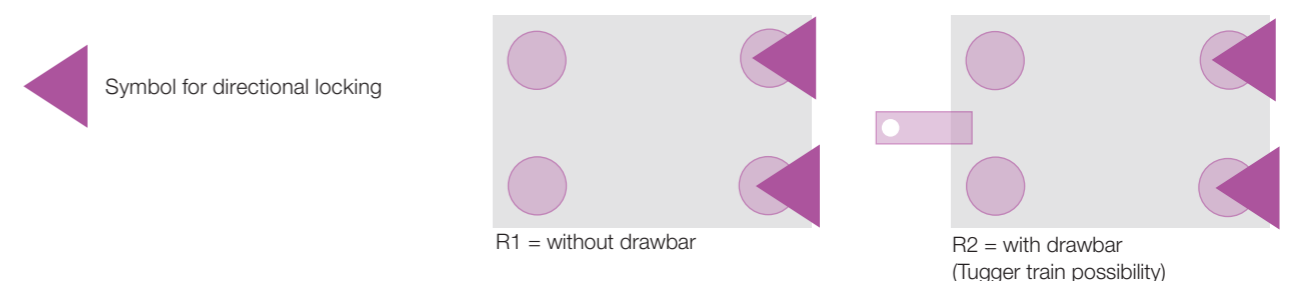
## EXPLANATION OF THE SYMBOLS – WHEEL PAIRING



## ARRANGEMENT OF BRAKES



## DIRECTIONAL LOCKING – SWIVEL CASTOR BECOMES FIXED CASTOR



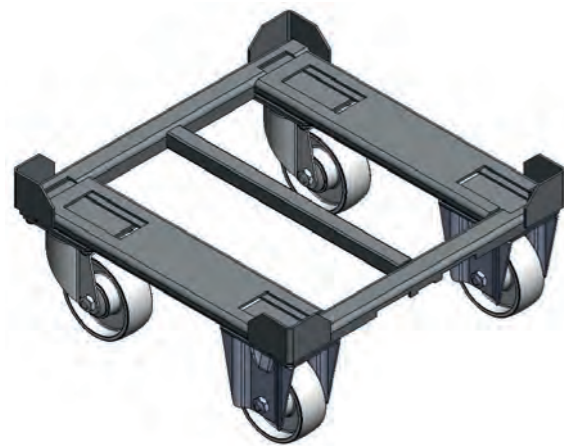




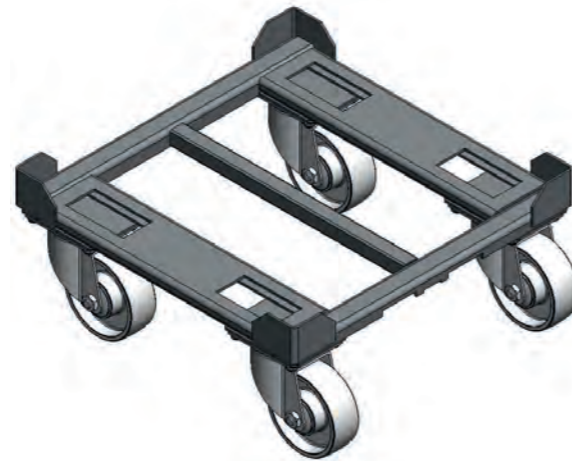
# TROLLEY BOF 400x400mm for KLT max. 160kg

**PRODUCTS TO BE CARRIED**

1 KLT 400x400mm



Item no. 138151-S0001  
trolley with 2 swivel / 2 fixed castors



Item no. 206611  
trolley with 4 swivel castors

This trolley is intended for the indoor transport of stackable boxes in the size of 400x400mm. The two swivel wheels and the two fixed wheels allow for manoeuvrability and directional stability. Even better manoeuvrability is achieved with four swivel wheels. Wheels are available in various materials. This trolley is only intended for light loads (tipping factor).

The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

This trolley is suitable for the transport pallet and thus convenient for plant to plant transportation. **For more information please turn to page 182 (Chapter Transport Logistics).**

This trolley may also be enhanced by adding several optional products. **For more information please turn to page 52 (Chapter trolley Accessories).**

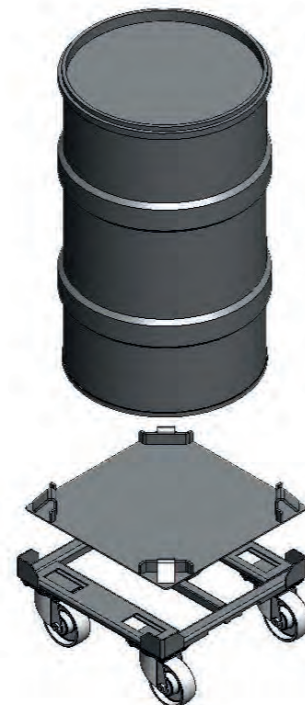
## WITHOUT DRAWBAR

Item no.	Centering of product	Wheels	Wheel design
138151-S0001	centering angle	Hard plastic	2 swivel and 2 fixed castors
138151-S0002	centering angle	ESD Hard plastic	2 swivel and 2 fixed castors
206611-S0001	centering angle	Hard plastic	4 swivel castors
All wheels Ø 100mm			

Also available with brakes on request.



Item no. 210227  
Top cover plate for the transport of barrels



## TOP COVER PLATE FOR THE TRANSPORT OF BARRELS

Item no.	Centering of product	Remark
210227	centering angle	barrel admission for Ø 380mm

Furthermore the top cover plate can be produced in various diameters as per customer request.

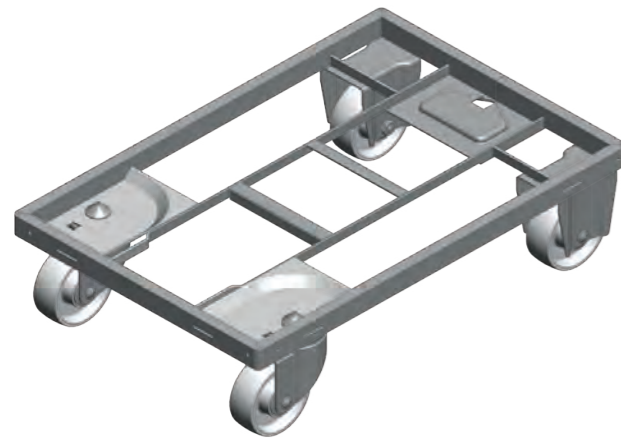
# TROLLEY BOF 600x400mm for KLT max. 250kg

**PRODUCTS TO BE CARRIED**

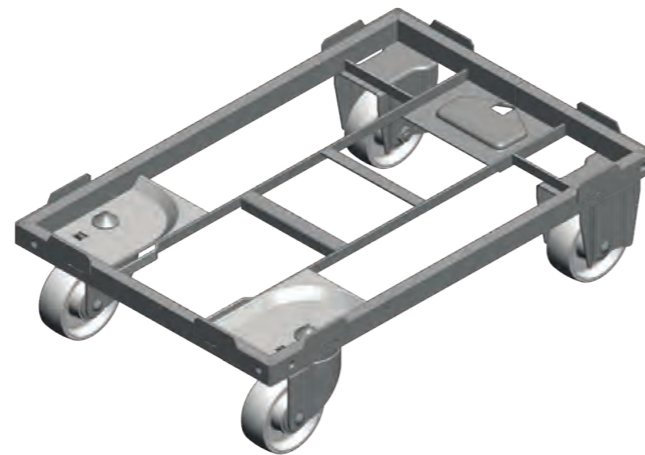
1 KLT 600x400mm or  
2 KLT 400x300mm



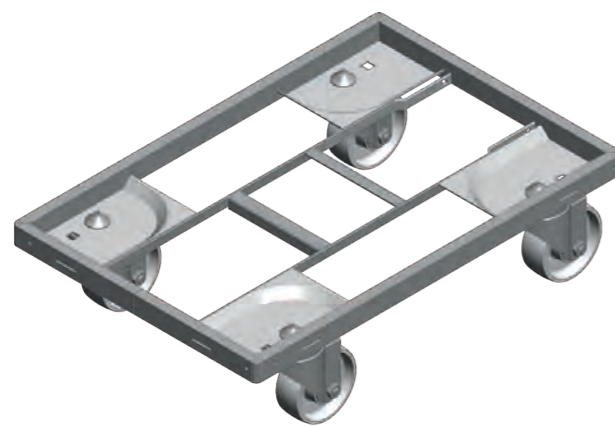
Video



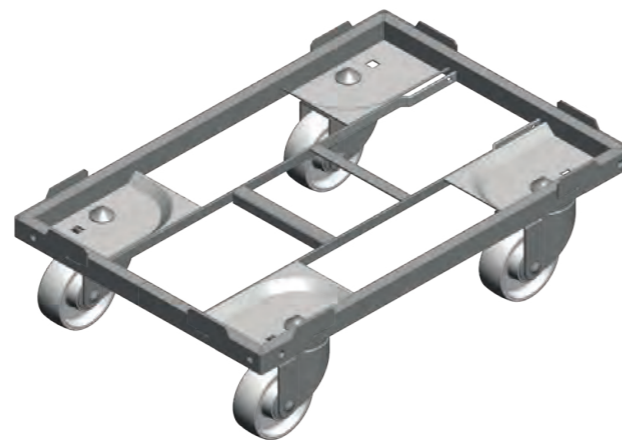
Item no. 137786-NPOO1



Item no. 137786-NPOE1



Item no. 137787-NPOO1



Item no. 137787-NPOE1

This trolley is intended for the indoor transport of stackable boxes in the size of 600x400mm. With a drawbar this trolley can be incorporated into a milkrun system (see the following page). Due to the four swivel wheels, or alternatively two swivel wheels and two fixed wheels, this trolley is extremely manoeuvrable. Wheels are available in various materials.

The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

This trolley is suitable for the transport pallet and thus convenient for plant to plant transport.  
**For more information please turn to page 182 (Chapter Transport Logistics).**

This trolley can also be enhanced by several optional products.  
**For more information please turn to page 52 (Chapter Accessories).**

## WITHOUT CORNER BRACKETS

Item no.	Centering of product	Wheels	Wheel design
137786-NPOO1	on inside edge of frame	Hard plastic	2 swivel and 2 fixed castors
137786-NEOO2	on inside edge of frame	ESD Hard plastic	2 swivel and 2 fixed castors
137786-NCOO5	on inside edge of frame	PU coated	2 swivel and 2 fixed castors
137786-NKOO4	on inside edge of frame	2x rubber/ 2x Hard plastic	2 swivel and 2 fixed castors

## WITH CORNER BRACKETS

Item no.	Centering of product	Wheels	Wheel design
137786-NPOE1	centering angle	Hard plastic	2 swivel and 2 fixed castors
137786-NEOE2	centering angle	ESD Hard plastic	2 swivel and 2 fixed castors
137786-NCOE5	centering angle	PU coated	2 swivel and 2 fixed castors
137786-NKOE4	centering angle	2x rubber/ 2x Hard plastic	2 swivel and 2 fixed castors

All wheels Ø 100mm

## WITHOUT CORNER BRACKETS

Item no.	Centering of product	Wheels	Wheel design
137787-NPOO1	on inside edge of frame	Hard plastic	4 swivel castors
137787-NEOO2	on inside edge of frame	ESD Hard plastic	4 swivel castors
137787-NCOO5	on inside edge of frame	PU coated	4 swivel castors
137787-NKOO4	on inside edge of frame	2x rubber / 2x Hard plastic	4 swivel castors

## WITH CORNER BRACKETS

Item no.	Centering of product	Wheels	Wheel design
137787-NPOE1	centering angle	Hard plastic	4 swivel castors
137787-NEOE2	centering angle	ESD Hard plastic	4 swivel castors
137787-NCOE5	left over corner angel	PU coated	4 swivel castors
137787-NKOE4	left over corner angel	2x rubber / 2x Hard plastic	4 swivel castors

All wheels Ø 100mm

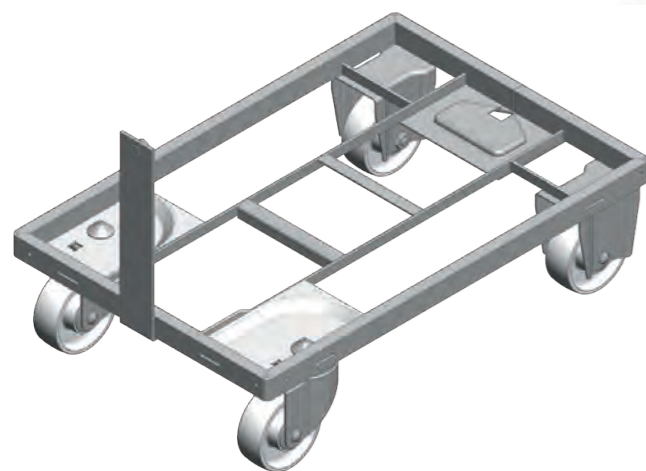
# TROLLEY BOF WITH DRAWBAR

## 600x400mm

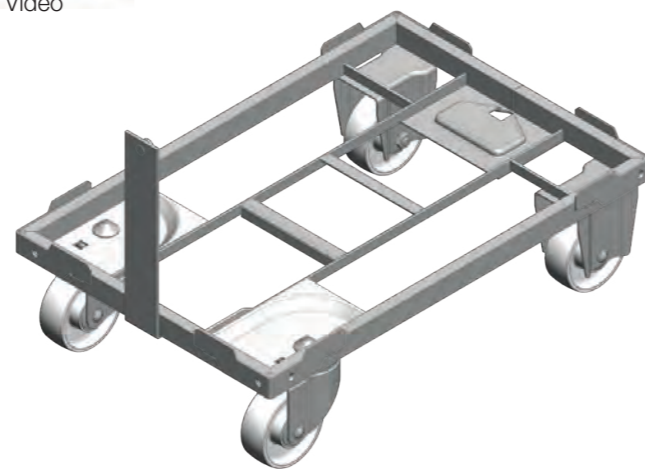
for KLT max. 250kg

**PRODUCTS TO BE CARRIED**

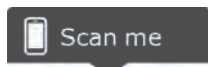
1 KLT 600x400mm or  
2 KLT 400x300mm



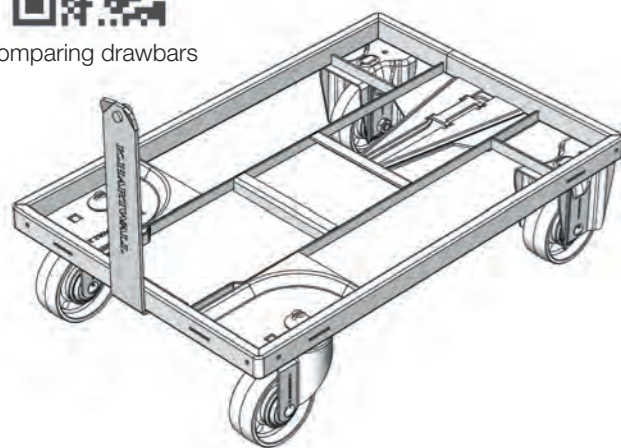
Item no. 137786-NPDO1



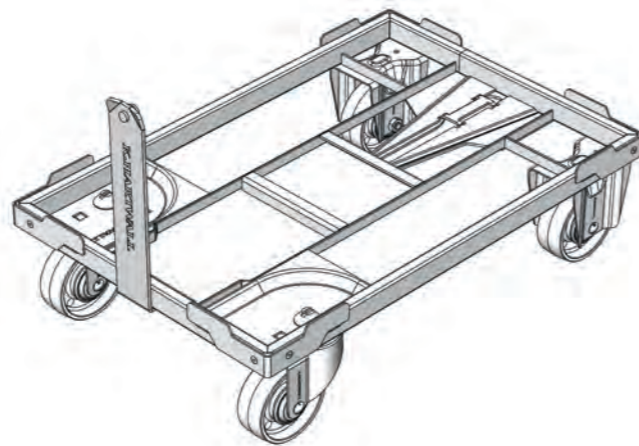
Item no. 137786-NPDE1



Comparing drawbars



Item no. 144183-SOOO1



Item no. 144183-SOOO5

This trolley is intended for the indoor transport of stackable boxes in the size of 600x400mm. With a drawbar this trolley can be incorporated into a milkrun system (Please see the following page). There is a rigid drawbar as well as a flexible drawbar. Two swivel wheels and two fixed wheels, make this trolley extremely manoeuvrable. Only with this wheel combination it is possible to build a milkrun system. Wheels are available in various materials.

The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

This trolley is suitable for the transport pallet thus convenient for plant to plant transport.  
**For more information please turn to page 82 (Chapter Transport Logistics).**

This trolley can also be enhanced by several optional products.  
**For more information please turn to page 52 (Chapter trolley Accessories).**

### WITHOUT CORNER BRACKETS • WITH RIGID DRAWBAR

Item no.	Centering of product	Wheels	Wheel design
137786-NPDO1	on inside edge of frame	Hard plastic	2 swivel and 2 fixed castors
137786-NEDO2	on inside edge of frame	ESD Hard plastic	2 swivel and 2 fixed castors
137786-NCDO5	on inside edge of frame	PU coated	2 swivel and 2 fixed castors
137786-NKDO4	on inside edge of frame	2x rubber / 2x Hard plastic	2 swivel and 2 fixed castors

### WITH CORNER ANGEL • WITH RIGID DRAWBAR

Item no.	Centering of product	Wheels	Wheel design
137786-NPDE1	centering angle	Hard plastic	2 swivel and 2 fixed castors
137786-NEDE2	centering angle	ESD Hard plastic	2 swivel and 2 fixed castors
137786-NCDE5	centering angle	PU coated	2 swivel and 2 fixed castors
137786-NKDE4	centering angle	2x rubber / 2x Hard plastic	2 swivel and 2 fixed castors

All wheels Ø 100mm

### WITHOUT CORNER BRACKETS • WITH RIGID DRAWBAR

Item no.	Centering of product	Wheels	Wheel design
144183-NPDO1	on inside edge of frame	Hard plastic	2 swivel and 2 fixed castors
144183-NEDO2	on inside edge of frame	ESD Hard plastic	2 swivel and 2 fixed castors
144183-NCDO5	on inside edge of frame	PU coated	2 swivel and 2 fixed castors
144183-NKDO4	on inside edge of frame	2x rubber / 2x Hard plastic	2 swivel and 2 fixed castors

### WITH CORNER BRACKETS • WITH RIGID DRAWBAR

Item no.	Centering of product	Wheels	Wheel design
144183-NPDE1	centering angle	Hard plastic	2 swivel and 2 fixed castors
144183-NEDE2	centering angle	ESD Hard plastic	2 swivel and 2 fixed castors
144183-NCDE5	centering angle	PU coated	2 swivel and 2 fixed castors
144183-NKDE4	centering angle	2x rubber / 2x Hard plastic	2 swivel and 2 fixed castors

All wheels Ø 100mm

Other models / dimensions on request

Other models / dimensions on request

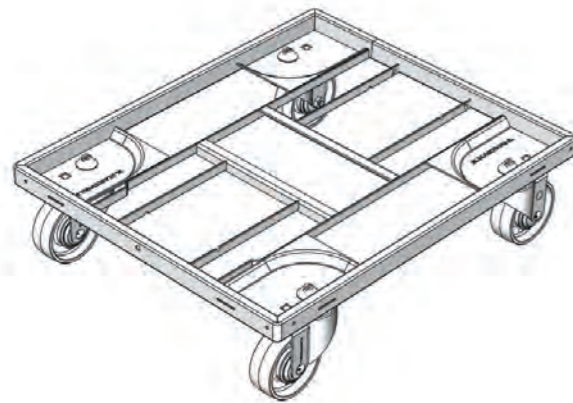
# TROLLEY BOF

## 600x500mm

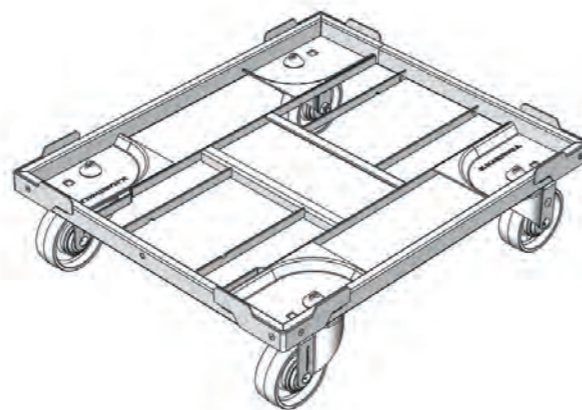
for KLT max. 250kg

**PRODUCTS TO BE CARRIED**

Containers 600x500mm



Item no. 141307-NPOO1



Item no. 141307-NPOE1 with corner brackets

Other models / dimensions on request

Subject to technical changes

This trolley is intended for the indoor transport of stackable boxes in the size of 600x500mm. Four swivel wheels allow this trolley to have extreme manoeuvrability. The wheel combination of two swivel wheels and two fixed wheels allows to attach a drawbar and therefore the building of a milkrun system. Wheels are available in various materials.

The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

This trolley is suitable for the transport pallet and thus convenient for plant to plant transport.

**For more information please turn to page 182 (Chapter Transport Logistics).**

This trolley can be enhanced by several optional products.

**For more information please turn to page 52 (Chapter trolley Accessories).**

### WITHOUT CORNER BRACKETS

Item no.	Centerin of product	Wheels	Wheel design
147678-NPOO1	on inside edge of frame	Hard plastic	2 swivel and 2 fixed castors
147678-NEOO2	on inside edge of frame	ESD Hard plastic	2 swivel and 2 fixed castors
147678-NCOO5	on inside edge of frame	PU coated	2 swivel and 2 fixed castors
147678-NKOO4	on inside edge of frame	2x rubber / 2x Hard plastic	2 swivel and 2 fixed castors

### WITH CORNER BRACKETS

Item no.	Centering of product	Wheels	Wheel design
147678-NPOE1	centering angle	Hard plastic	2 swivel and 2 fixed castors
147678-NEOE2	centering angle	ESD Hard plastic	2 swivel and 2 fixed castors
147678-NCOE5	centering angle	PU coated	2 swivel and 2 fixed castors
147678-NKOE4	centering angle	2x rubber / 2x Hard plastic	2 swivel and 2 fixed castors
			4 swivel castors

### WITHOUT BRACKETS

Item no.	Centering of product	Wheels	Wheel design
141307-NPOO1	on inside edge of frame	Hard plastic	4 swivel castors
141307-NEOO2	on inside edge of frame	ESD Hard plastic	4 swivel castors
141307-NCOO5	on inside edge of frame	PU coated	4 swivel castors
141307-NKOO4	on inside edge of frame	2x rubber / 2x Hard plastic	4 swivel castors

### WITH CORNER BRACKETS

Item no.	Centering of product	Wheels	Wheel design
141307-NPOE1	centering angle	Hard plastic	4 swivel castors
141307-NEOE2	centering angle	ESD Hard plastic	4 swivel castors
141307-NCOE5	centering angle	PU lagged	4 swivel castors
141307-NKOE4	centering angle	2x rubber / 2x Hard plastic	4 swivel castors
			4 swivel castors

Other models / dimensions on request

Subject to technical changes

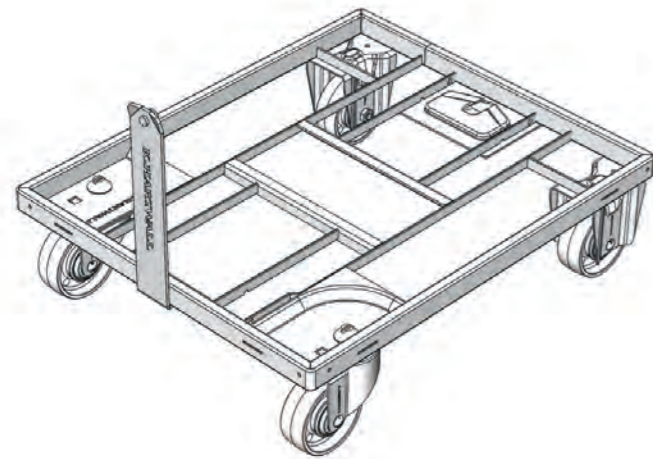
# TROLLEY BOF

## 600x500mm with drawbar

for KLT max. 250kg

**PRODUCTS TO BE CARRIED**

Containers 600x500mm



Item no. 147678-NPDO1

This trolley is intended for the indoor transport of stackable boxes in the size of 600x500mm. Four swivel wheels allow this trolley to have extreme manoeuvrability. The wheel combination of two swivel wheels and two fixed wheels makes it possible for a drawbar and allows the building of a milkrun system. Wheels are available in various materials.

The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

This trolley is suitable for the transport pallet and thus convenient for plant to plant transport.

**For more information please turn to page 182 (Chapter Transport Logistics).**

This trolley can be enhanced by several optional products.

**For more information please turn to page 52 (Chapter trolley Accessories).**

### WITHOUT BRACKETS • WITH RIGID DRAWBAR

Item no.	Centering of product	Wheels	Wheel design
<b>147678-NPDO1</b>	on inside edge of frame	Hard plastic	2 swivel and 2 fixed castors
<b>147678-NEDO2</b>	on inside edge of frame	ESD Hard plastic	2 swivel and 2 fixed castors
<b>147678-NCDO5</b>	on inside edge of frame	PU coated	2 swivel and 2 fixed castors
<b>147678-NKDO4</b>	on inside edge of frame	2x rubber / 2x Hard plastic	2 swivel and 2 fixed castors

### WITH CORNER BRACKETS • WITH RIGID DRAWBAR

<b>147678-NPDE1</b>	centering angle	Hard plastic	2 swivel and 2 fixed castors
<b>147678-NEDE2</b>	centering angle	ESD Hard plastic	2 swivel and 2 fixed castors
<b>147678-NCDE5</b>	centering angle	PU coated	2 swivel and 2 fixed castors
<b>147678-NKDE4</b>	centering angle	2x rubber / 2x Hard plastic	2 swivel and 2 fixed castors

All wheels Ø 100mm

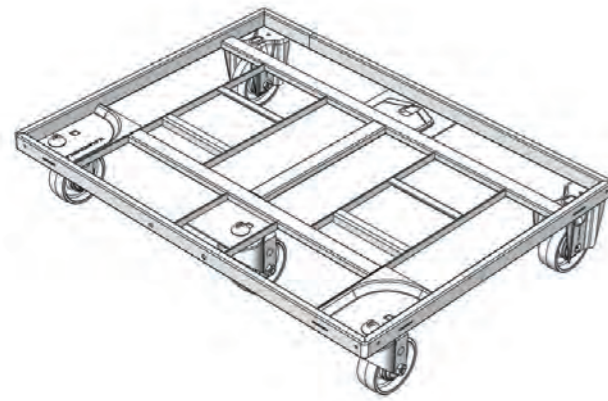
# TROLLEY BOF

## 800x600mm

for GLT/KLT max. 500kg

**PRODUCTS TO BE CARRIED**

- 1 GLT 800x600mm or
- 2 KLTs 600x400mm



Item no. 204563-NPOO1 with 3 swivel castors / 2 fixed castors

This trolley is intended for the indoor transport of stackable boxes in the size of 800x600mm or alternatively 2 KLTs 600x400mm. With a drawbar this trolley can be added to a milkrun system. You have the option of a rigid or flexible drawbar.

The wheel combination of two swivel wheels and two fixed wheels makes it possible to use a drawbar and allows the building of a milkrun system. The stackable basic trolley is a K. Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

This trolley is suitable for the transport pallet and thus convenient for plant to plant transport.

**For more information please turn to page 182 (Chapter Transport Logistics).**

This trolley can be enhanced by several optional products.

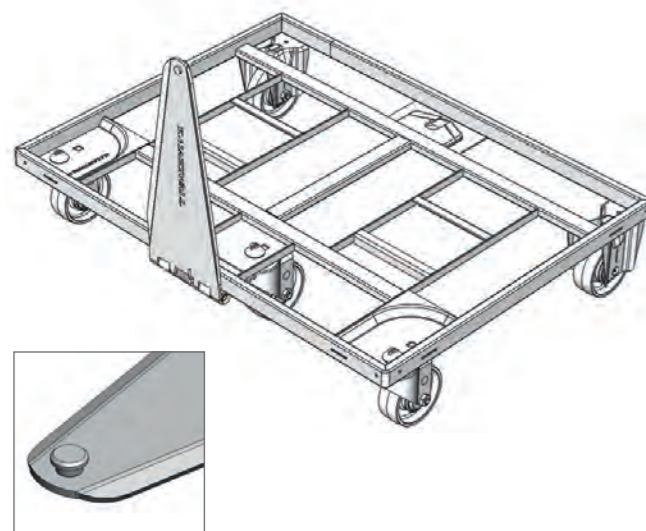
**For more information please turn to page 52 (Chapter trolley Accessories).**

### 3 SWIVEL AND 2 FIXED CASTORS

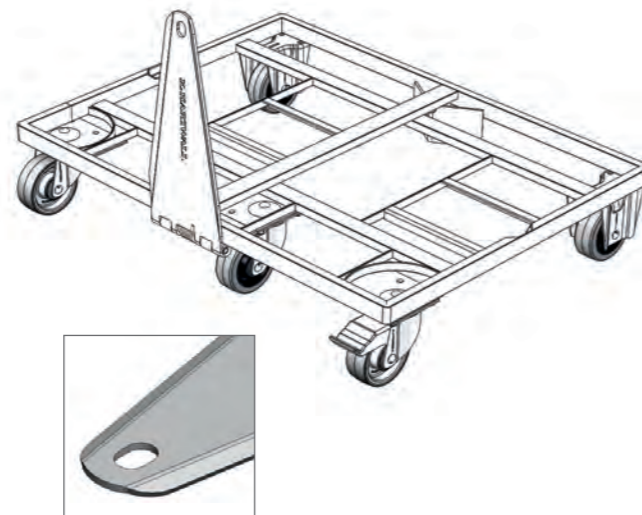
Item no.	Centering of product	Wheels	Wheel design
138158-NPOO1	on inside edge of frame	Hard plastic	3 swivel and 2 fixed castors
138158-NEOO2	on inside edge of frame	ESD Hard plastic	3 swivel and 2 fixed castors
138158-NCOO5	on inside edge of frame	PU coated	3 swivel and 2 fixed castors

### 5 SWIVEL CASTORS

204563-NPOO1	on inside edge of frame	Hard plastic	5 swivel castors
204563-NEOO2	on inside edge of frame	ESD Hard plastic	5 swivel castors
204563-NCOO5	on inside edge of frame	PU coated	5 swivel castors
All wheels Ø 100mm			



Item no. 138160-NPD01 with drawbar (drawbar with pin)  
This drawbar is compatible with trolley BOF 600x400mm.



Item no. 138160-SOOO5 with drawbar (drawbar with hole)

### WITH DRAWBAR (DRAWBAR WITH SPIKES)

This drawbar is compatible with the trolley BOF 600x400mm.

Item no.	Centering of product	Wheels	Wheel design
138160-NPDO1	on inside edge of frame	Hard plastic	3 swivel and 2 fixed castors
138160-NED02	on inside edge of frame	ESD Hard plastic	3 swivel and 2 fixed castors
138160-NCDO5	on inside edge of frame	PU coated	3 swivel and 2 fixed castors
138160-NKDO4	on inside edge of frame	3x rubber / 2x Hard plastic	3 swivel and 2 fixed castors

### WITH DRAWBAR (DRAWBAR WITH HOLE)

138160-SOOO5	on inside edge of frame	Hard plastic	3 swivel and 2 fixed castors
138160-SOOO6	on inside edge of frame	ESD Hard plastic	3 swivel and 2 fixed castors
138160-NCO14	on inside edge of frame	PU coated	3 swivel and 2 fixed castors
138160-SOOO8	on inside edge of frame	3x rubber / 2x Hard plastic	3 swivel and 2 fixed castors
All wheels Ø 100 mm			

# TROLLEY BOF

**1,200x800mm • 2 swivel/2 fixed castors**  
for cage pallets/pallets max. 1,000 kg

**PRODUCTS TO BE CARRIED**

Cage pallets or pallets 1,200x800 mm or several other containers

This trolley is intended for the transport of stackable boxes, cage pallets or pallets. It is a modular construction system, designed for transport by trucks (lengthwise as well as crosswise) with a lashing strap. There are several options for this trolley. The first is a handlebar system for a smooth and comfortable manual operation. The second option is a flat cover plate and a lashing strap for load security. The drawbar allows this trolley to be included in a milk run system. This trolley has PU wheels (brown), the Shore hardness is A95 (other wheel materials are available on request).

The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

As a standard this trolley is supplied with a foot protection and locking brake.

Item no.	insert preferred constellation here:
<b>145323</b>	_____
S: with push handle O: without push handle	↑
D: with drawbar O: without drawbar	↑
A: with plate O: without plate	↑
Z: with lashing strap O: without lashing strap	↑
E: with centering angle O: without centering angle	↑



Example: **145323-SDAZO**  
trolley 1,200x800mm, swivel/2 fixed castors with push bar, drawbar, strap and top cover plate



Other models / dimensions on request

Subject to technical changes

# TROLLEY BOF

**1,200x800mm • 4 swivel/ 2 fixed castors**  
for cage pallets/pallets max. 1,000kg

**PRODUCTS TO BE CARRIED**

Cage pallets or pallets 1,200x800 mm or several other containers

This trolley is intended for the transport of stackable boxes, cage pallets or pallets. It is a modular construction system, designed for transport by trucks (lengthwise as well as crosswise) with a lashing strap. There are several options for this trolley. The first is a handlebar system for a smooth and comfortable manual operation. The second option is a flat cover plate and a lashing strap for load security. The drawbar allows this trolley to be included in a milk run system. This trolley has PU wheels (brown), the Shore hardness is A95 (upon request other wheel materials are available).

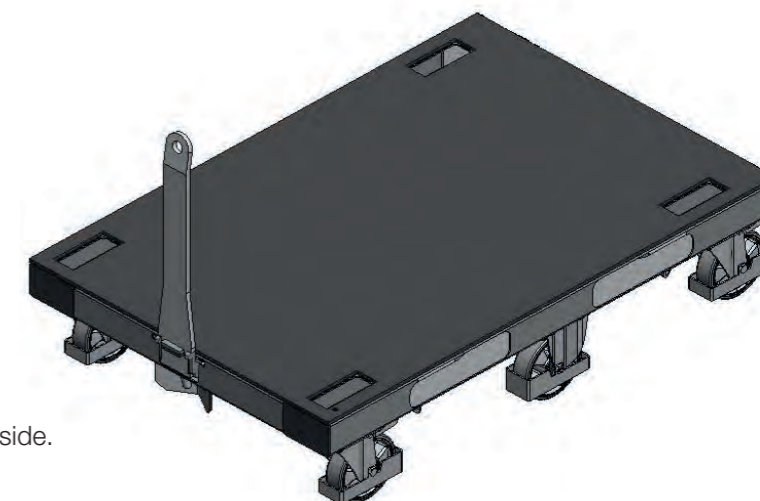
The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

As a standard this trolley is supplied with a foot protection and locking brake.

Item no.	insert preferred constellation here:
<b>200371</b>	_____
S: with push handle O: without push handle	↑
D: with drawbar O: without drawbar	↑
A: with plate O: without plate	↑
Z: with lashing strap O: without lashing strap	↑
E: with centering angle O: without centering angle	↑



Example: **200371-ODAOO**  
trolley 1,200x800mm, 4 swivel/2 fixed castors with drawbar and top cover plate



**Notice:** when ordering this constellation the drawbar and push handle will be on the same side.

Other models / dimensions on request

Subject to technical changes

# TROLLEY BOF

**1,200x1,000mm • 2 swivel/2 fixed castors**  
for cage pallets/pallets max. 1,000kg

**PRODUCTS TO BE CARRIED**

Cage pallets or pallets 1,200x1,000 mm or several other containers

This trolley is intended for transport of stackable boxes, cage pallets or pallets. It is a modular construction system, designed for transport by trucks (lengthwise as well as crosswise) with a lashing strap. There are several options for this trolley. The first is a handlebar system for a smooth and comfortable manual operation. The second option is a flat cover plate and a lashing strap for load security. The drawbar allows this trolley to be included in a milk run system. This trolley has PU wheels (brown), the Shore hardness is A95 (upon request other wheel materials are available).

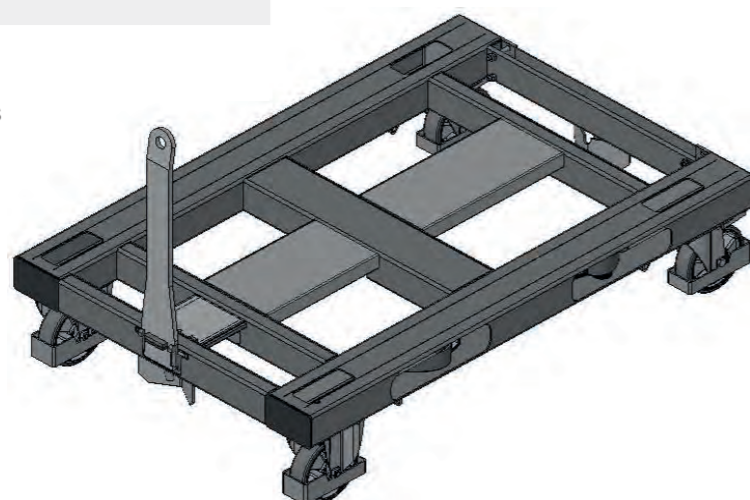
The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

As a standard this trolley is supplied with a foot protection and locking brake.

Item no.	insert preferred constellation here:
<b>145550</b>	_____
S: with push handle O: without push handle	↑
D: with drawbar O: without drawbar	↑
A: with plate O: without plate	↑
Z: with lashing strap O: without lashing strap	↑
E: with centering angle O: without centering angle	↑



Example: **145550-ODOZO**  
trolley 1,200x1,000mm, 2 swivel / 2 fixed castors with push handle and drawbar



Other models / dimensions on request

Subject to technical changes

# TROLLEY BOF

**1,200x1,000mm • 4 Swivel/2 Fixed castors**  
for Cage pallets/pallets max. 1,000kg

**PRODUCTS TO BE CARRIED**

Cage pallets or pallets 1,200x1,000 mm or several other containers

This trolley is intended for the transport of stackable boxes, cage pallets or pallets. It is a modular construction system, designed for transport by trucks (lengthwise as well as crosswise) with a lashing strap. There are several options for this trolley. The first is a handlebar system for a smooth and comfortable manual operation. The second option is a flat cover plate and a lashing strap for load security. The drawbar allows this trolley to be included in a milk run system. This trolley has PU wheels (brown), the Shore hardness is A95 (upon request other wheel materials are available).

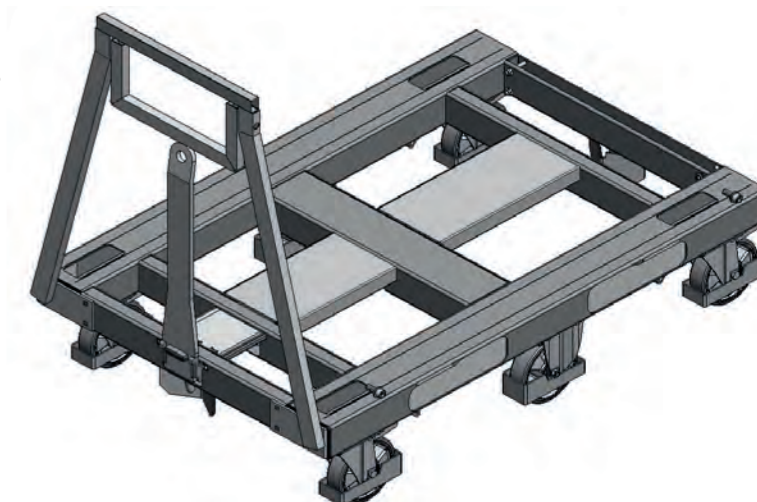
The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Custom solutions are developed and manufactured by BLOKSMA.

As a standard this trolley is supplied with a foot protection and locking brake.

Item no.	insert preferred constellation here:
<b>211394</b>	_____
S: with push handle O: without push handle	↑
D: with drawbar O: without drawbar	↑
A: with plate O: without plate	↑
Z: with lashing strap O: without lashing strap	↑
E: with centering angle O: without centering angle	↑



Example: **211394-SD000**  
trolley 1,200x1,000mm, 4 swivel / 2 fixed castors with push handle and drawbar



**Reference:** With this constellation you will find the drawbar and push handle on the same side.

Other models / dimensions on request

Subject to technical changes



# TROLLEY BOF

## 24x15 inch

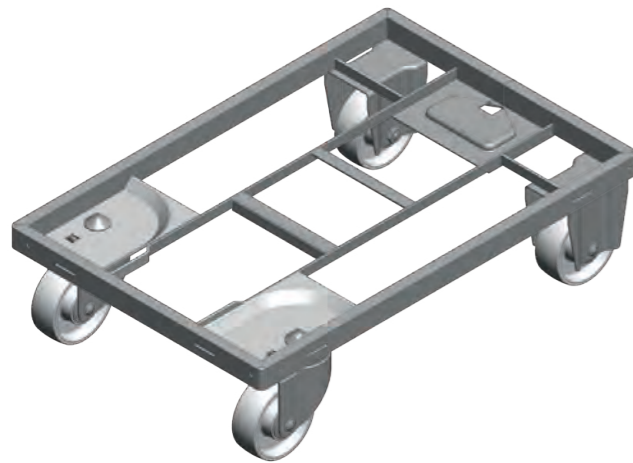
for KLT/Box max. 550lb



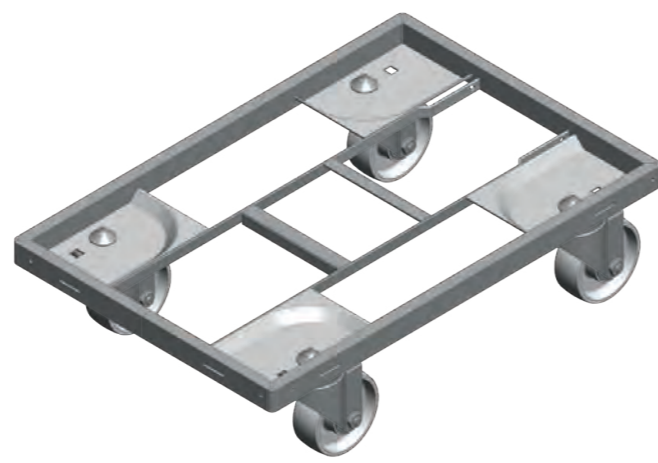
**PRODUCT TO BE CARRIED**  
1 Box 24x15 inch



Video



Item no. 146714-S0001



Item no. 146717-S0001

This trolley is intended for indoor transport of stackable boxes size 24x15 inch. A drawbar option allows this trolley to be attached to a milk run system. Two swivel wheels and two fixed wheels allow extreme manoeuvrability and directional stability. Only with this wheel combination the attachment to a milk run system is possible. Wheels are available in various materials.

The stackable basic trolley is a K. Hartwall product and corresponds to DIN ISO 9001/14001. Custom solutions are developed and manufactured by BLOKSMA.

This trolley is suitable for the transport pallet and thus convenient for the plant to plant transport. **For more information please turn to page 182 (Chapter Transport Logistics).**

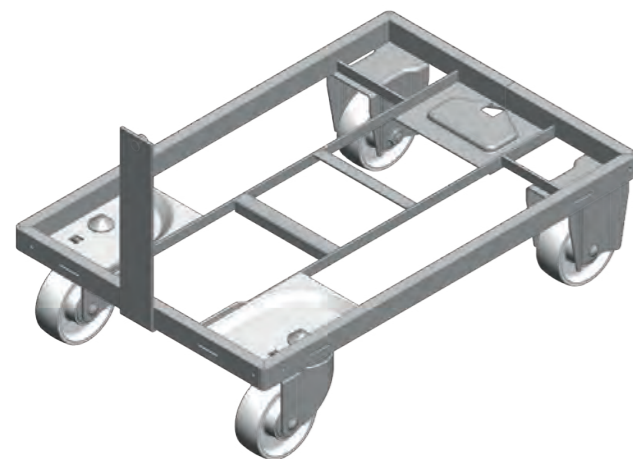
This trolley can also be enhanced by several optional products. **For more information please turn to page 52 (Chapter trolley Accessories).**

### 2 SWIVEL AND 2 FIXED CASTORS

Item no.	Centering of product	Wheels	Wheel design
146714-S0001	on inside edge of frame	Hard plastic	2 swivel and 2 fixed castors
146714-S0002	on inside edge of frame	ESD Hard plastic	2 swivel and 2 fixed castors
146714-NCO05	on inside edge of frame	PU coated	2 swivel and 2 fixed castors

### 4 SWIVEL CASTORS

146717-S0001	on inside edge of frame	Hard plastic	4 swivel castors
146717-S0002	on inside edge of frame	ESD Hard plastic	4 swivel castors
146717-NCO05	on inside edge of frame	PU coated	4 swivel castors
All wheels Ø 100m			



Item no. 146722-S0001

### 2 SWIVEL AND 2 FIXED CASTORS • WITH DRAWBAR

Item no.	Centering of product	Wheels	Wheel design
146722-S0001	on inside edge of frame	Hard plastic	2 swivel and 2 fixed castors
146722-S0002	on inside edge of frame	ESD Hard plastic	2 swivel and 2 fixed castors
146722-NCO05	on inside edge of frame	PU coated	2 swivel and 2 fixed castors
All wheels Ø 100m			

# TROLLEY BOF

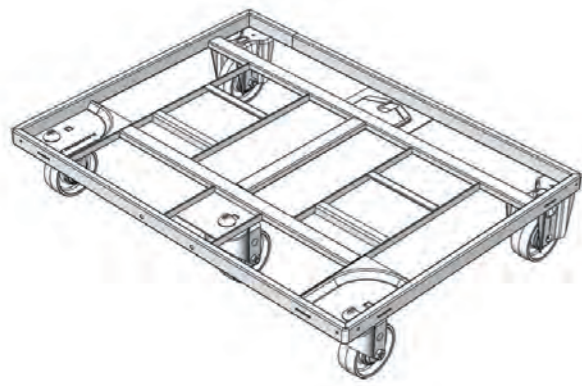
## 30x24 inch

for KLT/Box max. 1,100lb

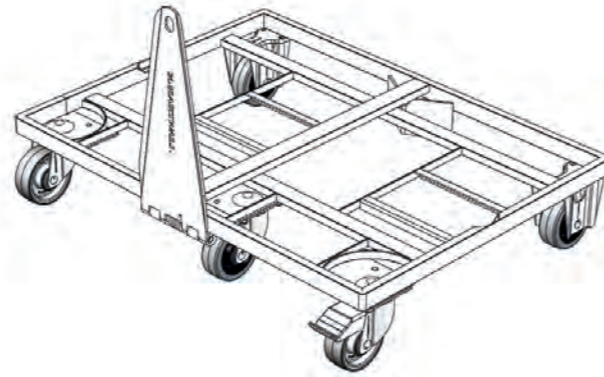


**PRODUCT TO BE CARRIED**

- 1 Box 30x24 inch
- 2 Boxes 24x15 inch



Item no. 146723



Item no. 146726 model with drawbar

This trolley is intended for indoor transport of stackable boxes size 30x24 inch or two boxes size 15x12 inch. A drawbar allows this trolley to be attached to a milkrun system. Three swivel wheels and two fixed wheels allow extreme manoeuvrability and directional stability. Only with this wheel combination the attachment to a milk run system is possible. Wheels available in various materials. The stackable basic trolley is a K Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

This trolley is suitable for the transport pallet and thus convenient for plant to plant transport. **For more information please turn to page 182 (Chapter Transport Logistics).**

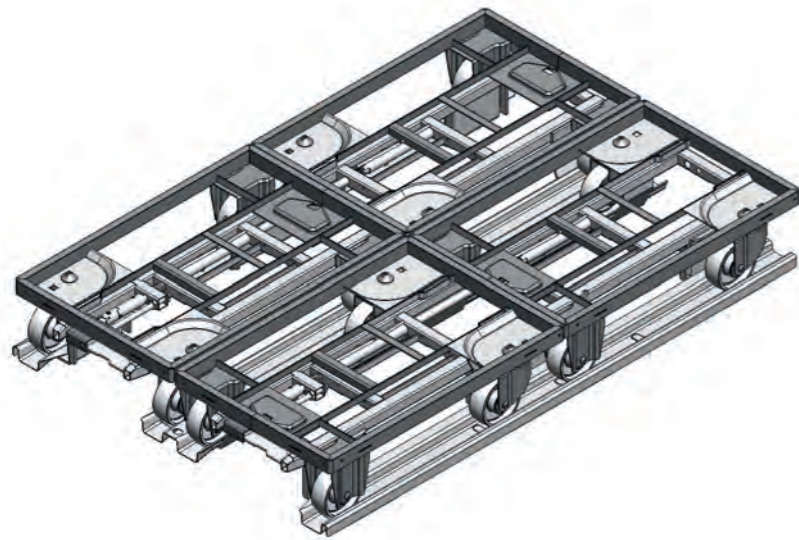
This trolley can also be enhanced by several optional products. **For more information please turn to page 52 (Chapter trolley Accessories).**

### DEVOID OF DRAWBAR

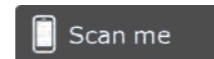
Item no.	Centering of product	Wheels	Wheel design
146723	on inside edge of frame	Hard plastic	3 swivel and 2 fixed castors
146724	on inside edge of frame	Hard plastic	4 swivel castors

### WIHT DRAWBAR

146726	on inside edge of frame	Hard plastic	2 swivel and 2 fixed castors
All wheels Ø 100mm			



Item no. 146725 transport pallet for inch-trolley



RORO-principle

### ACCESSORIES FOR TROLLEYS INCH SIZE: TRANSPORTABLE PALLET

Item no.	Product to be carried	lifting force	Remark
146725	4 trollies 24x15 inch 2 trollies 30x24 inch	2.200 lb	trolleys will be locked on the pallet

The transport pallet is suitable for plant to plant transport on wheels.

# TROLLEY BOF

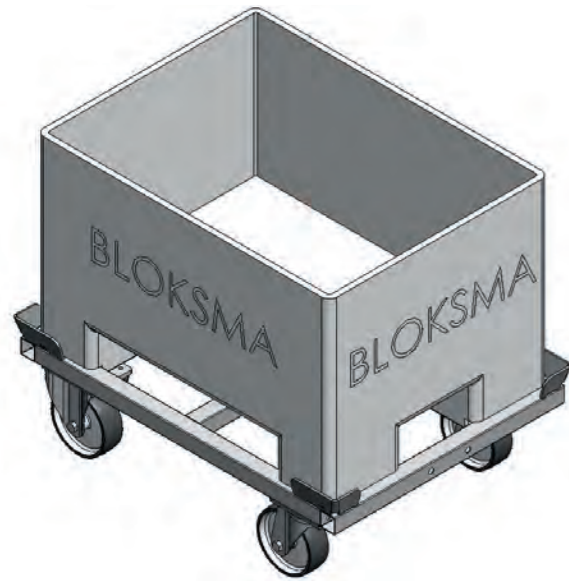
## 32x30 inch or 48x32 inch

for KLT/Box max. 1,100lb



**PRODUCTS TO BE CARRIED**

- 1 Cage pallet /GLT 32x30 inch
- 1 Cage pallet /GLT 48x32 inch



Item no. 202356



Item no. 202357

This trolley is intended for indoor transport of stackable boxes size 32x30 inch or 48x32 inch. The four wheels allow extreme manoeuvrability. wheels available in different materials

The stackable basic trolley is a K Hartwall product and corresponds to DIN ISO 9001/14004. Custom solutions are developed and manufactured by BLOKSMA.

This trolley can also be enhanced by several optional products.  
**For more information please turn to page 52 (Chapter trolley Accessories).**

### MODEL 32x30 inch (812.8x762mm)

Item no.	Centering of product	Wheels	Wheel design
202356-S0001	centering angle	Hard plastic	4 swivel castors
202356-S0002	centering angle	ESD Hard plastic	4 swivel castors
202356-NCO05	centering angle	PU coated	4 swivel castors
202356-S0004	centering angle	2x rubber / 2x Hard plastic	4 swivel castors
All wheels Ø 100mm			

### MODEL 48x32 inch (1219.2x812.9mm)

Item no.	Centering of product	Wheels	Wheel design
202357-S0001	centering angle	Hard plastic	4 swivel castors
202357-S0002	centering angle	ESD Hard plastic	4 swivel castors
202357-NCO05	centering angle	PU coated	4 swivel castors
202357-S0004	centering angle	2x rubber / 2x Hard plastic	4 swivel castors
All wheels Ø 100mm			

# TROLLEY BOK

**610x420mm**  
**620x420mm**  
**830x630mm**

for containers max. 250kg

**PRODUCTS TO BE CARRIED**

1 container 600x400mm  
 or 1 container 800x600mm

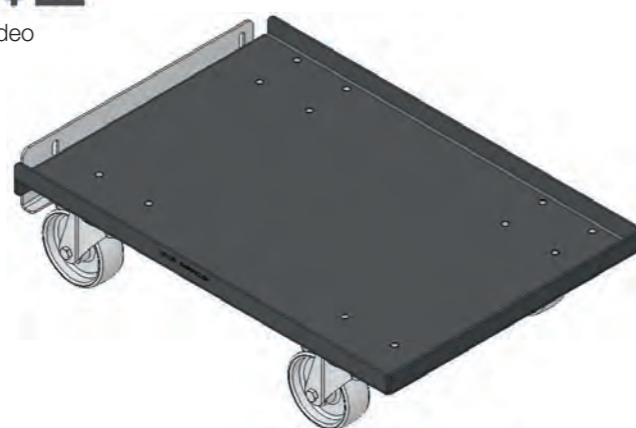
Scan me



Video



Item no. 134138



Item no. 139205 • can be opened on the side

This trolley is made for indoor transport of stackable boxes size 600x400mm and 800x600mm. Four swivel wheels allow extreme manoeuvrability. Wheels are available in various materials. This trolley is made to carry all different kind of containers such as work piece carriers, boxes and meshbaskets etc. It can also be delivered in different types of materials such as steel, stainless steel and aluminum.

This trolley can also be enhanced by several optional products.

**For more information please turn to page 52 (Chapter trolley Accessories).**

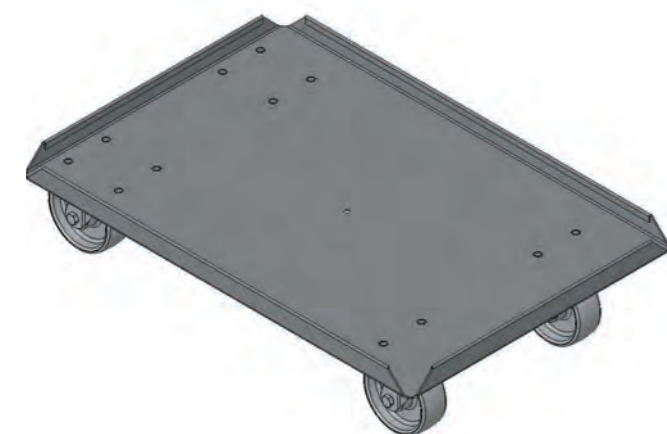
## MODEL 610x420mm

Item no.	Centering of product	Wheels	Wheel design
<b>134138-NPOO1</b>	on inside of edge	Hard plastic	4 swivel castors
<b>134138-NEOO2</b>	on inside of edge	ESD Hard plastic	4 swivel castors
<b>134138-NCOO5</b>	on inside of edge	PU coated	4 swivel castors

## MODEL 610x420mm • one side can be open.

Item no.	Centering of product	Wheels	Wheel design
<b>139205-NPOO1</b>	on inside of edge	Hard plastic	4 swivel castors
<b>139205-NEOO2</b>	on inside of edge	ESD Hard plastic	4 swivel castors
<b>139205-NCOO5</b>	on inside of edge	PU coated	4 swivel castors

All wheels Ø 100mm



Item no. 134194



Item no. 130520

## MODEL 620x420mm

Item no.	Centering of product	Wheels	Wheel design
<b>134194-NPOO1</b>	on inside of edge	Hard plastic	4 swivel castors
<b>134194-NEOO2</b>	on inside of edge	ESD Hard plastic	4 swivel castors
<b>134194-NCOO5</b>	on inside of edge	PU coated	4 swivel castors

## MODEL 830x630mm

Item no.	Centering of product	Wheels	Wheel design
<b>130520-NPOO1</b>	on inside of edge	Hard plastic	4 swivel castors
<b>130520-NEOO2</b>	on inside of edge	ESD Hard plastic	4 swivel castors
<b>130520-NCOO5</b>	on inside of edge	PU coated	4 swivel castors

All wheels Ø 100mm

Other models / dimensions on request

Subject to technical changes

Other models / dimensions on request

Subject to technical changes

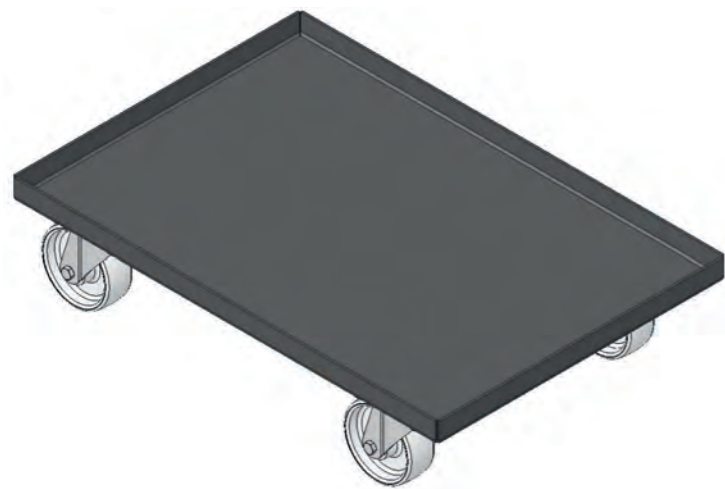
# TROLLEY BOK OILPROOF

**620x420mm**  
**845x655mm**

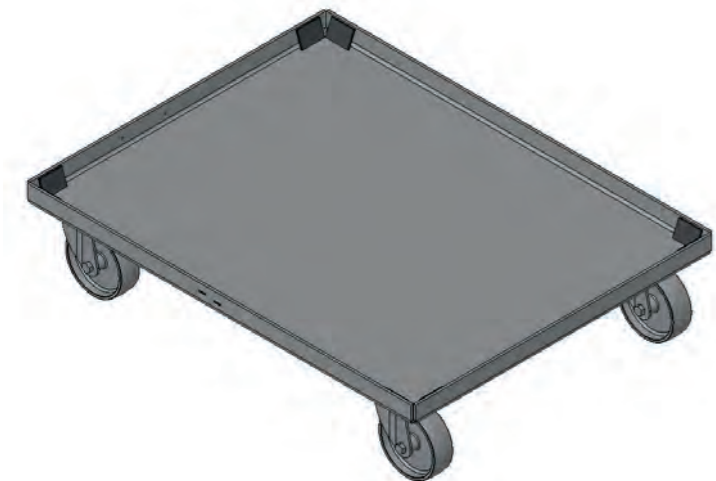
for containers max. 500kg

**PRODUCTS TO BE CARRIED**

1 container 600x400mm  
or 1 container 800x600mm



Item no. 134744



Item no. 134096

This trolley is made for indoor transport of stackable boxes size 600x400mm and 800x600mm. The four swivel wheels allow for extreme manoeuvrability. Wheels are available in various materials. This trolley is made to hold different types of containers such as work piece carriers, boxes and meshbaskets etc. It can also be delivered in assorted materials such as steel, stainless steel and aluminum.

This trolley can also be enhanced by several optional products.  
**For more information please turn to page 52 (Chapter trolley Accessories).**

## MODEL 620x420mm

Item no.	Centering of product	Wheels	Wheel design
<b>134744-NPOO1</b>	on inside edge of vat	Hard plastic	4 swivel castors
<b>134744-NEOO2</b>	on inside edge of vat	ESD Hard plastic	4 swivel castors
<b>134744-NCOO5</b>	on inside edge of vat	PU coated	4 swivel castors
All wheels Ø 100mm			

## MODEL 845x655 mm

Item no.	Centering of product	Wheels	Wheel design
<b>134096-NPOO1</b>	centering angle	Hard plastic	4 swivel castors
<b>134096-NEOO2</b>	centering angle	ESD Hard plastic	4 swivel castors
<b>134096-NCOO5</b>	centering angle	PU coated	4 swivel castors
All wheels Ø 125mm			

# TROLLEY BOZ

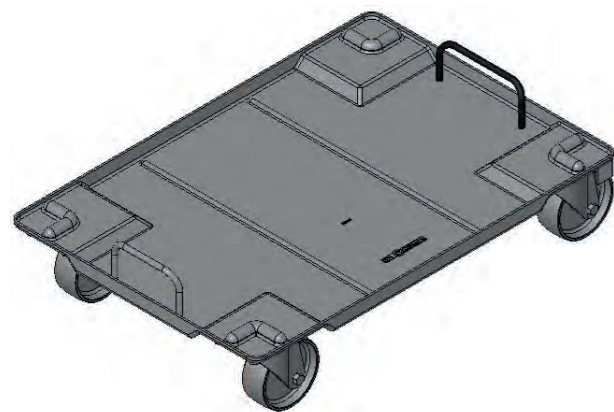
## DRAWN, OILPROOF MODEL

### 630x430mm

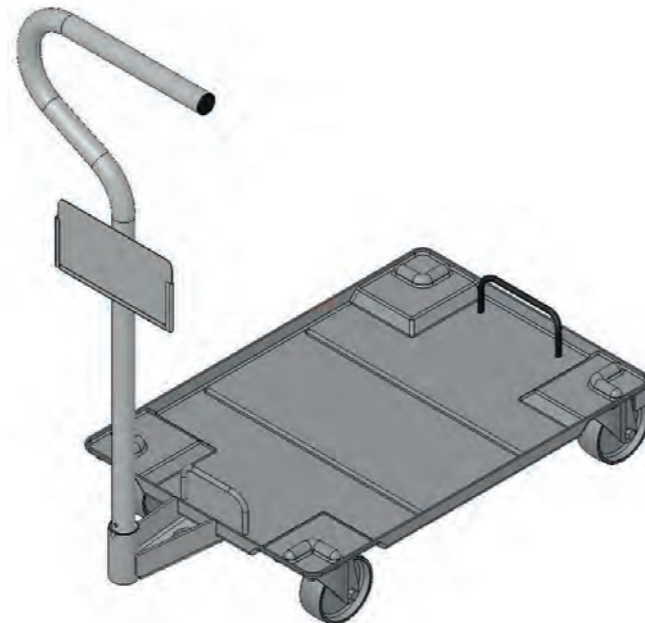
for containers max. 450kg

**PRODUCTS TO BE CARRIED**

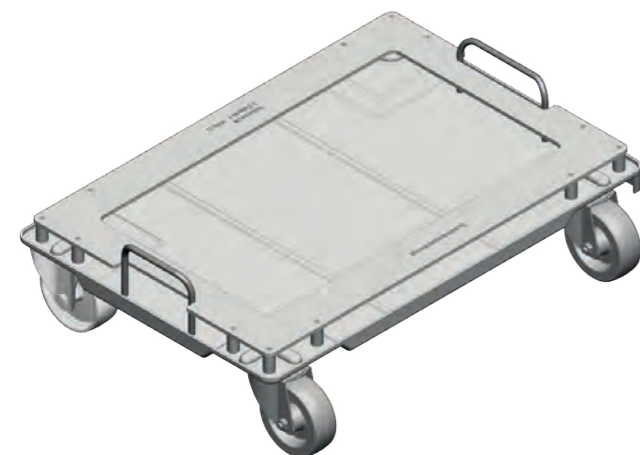
Wire Work Piece Carrier 600x400mm



Item no. 125373-X0001  
model with grip handle



Item no. 125373-X0016  
model with insertable push handle



Item no. 201020  
model with high shelf and grip handle

This trolley is intended for the indoor transport of stacks of workpieces size 600x400mm. Four swivel wheels allow for extreme manoeuvrability. Wheels are available in various materials. This trolley is oil-proof and can be used in **automatization** upon request. It can also be delivered in assorted materials such as steel, stainless steel or aluminum.

This trolley can also be enhanced by several optional products.  
**For more information please turn to page 52 (Chapter trolley Accessories).**

### LOAD CAPACITY UP TO MAX. 450kg

Item no.	Centering of product	Wheels	Wheel design
125373-X0001	handle	Hard plastic	4 swivel castors
125373-X0014	centering angle	Hard plastic	4 swivel castors
125373-X0015	handle	Hard plastic	2 Swivel / 2 Fixed castors
125373-X0017	Stapelstifte	Hard plastic	4 swivel castors
125373-X0016	handle with insertable push handle	Hard plastic	4 swivel castors
All wheels Ø 100mm			

### DESIGN WITH ELEVATED SHELF

#### 300 kg LOAD CAPACITY

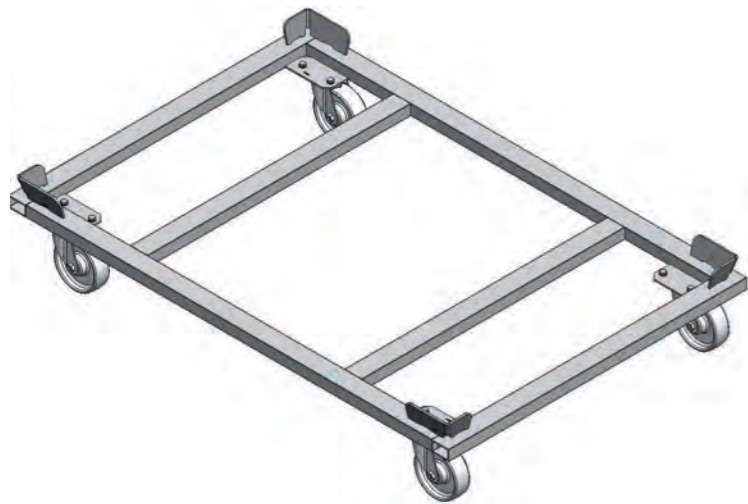
Item no.	Centering of Product	Wheels	Wheel design
201020-X0001	handle	Hard plastic	2 Swivel / 2 Fixed castors
201020-X0002	handle	Hard plastic	4 swivel castors
201020-X0003	handle with RFID chip	Hard plastic	4 swivel castors
All wheels Ø 100mm			

# TROLLEY BOR FOR HEAVY LOADS DIVERSE SIZES

for containers max. 1,000kg

**PRODUCTS TO BE CARRIED**

container 800x600mm  
or container 1,200x800mm  
or container 1,200x1,000mm



Item no. 135511



Article 135743

Other models / dimensions on request

Subject to technical changes

This trolley is intended for the indoor transport of boxes size 800x600mm, 1,200x800mm or 1,200x1000mm with heavy loads up to 1,000kg. Four swivel wheels allow for extreme manoevrability. Wheels are available in various materials. It can also be delivered in assorted materials such as steel, stainless steel and aluminium.

## FOR CONTAINERS 800x600mm

Item no.	Centering of product	trolley size buckling load	wheel diameter	wheel design
142290	entering angle and inclined tray	895x695mm 700kg	Ø 100mm	4 swivel castors(Hard plastic)

## FOR CONTAINERS 1,200x800mm

135511	centering angle	1.265x855mm 700kg	Ø 125mm	4 swivel castors (Hard plastic)
135743	centering angle and inclined tray	1.323x929mm 700kg	Ø 150mm	4 swivel castors (Hard plastic)

## FOR CONTAINERS 1,200x1,000mm

138267	centering angle	1.265x1.010mm 500kg	Ø 150mm	4 swivel castors (Hard plastic)
136448	centering angle and inclined tray	1,200x1,000mm 500kg	Ø 150mm	4 swivel castors (Hard plastic)

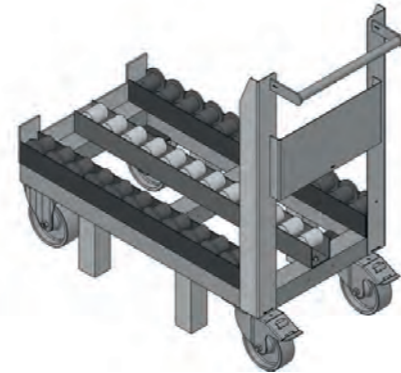
Other models / dimensions on request

Subject to technical changes

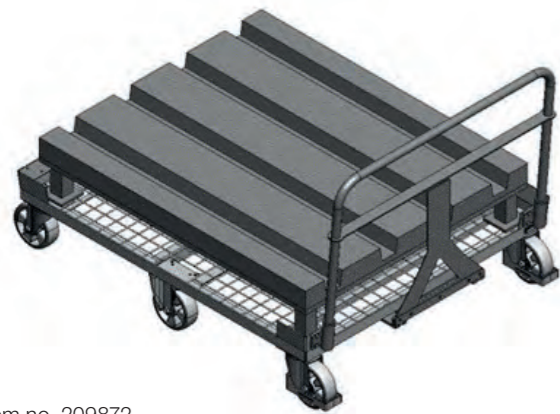
# TROLLEY BOV FURTHER VARIATIONS I



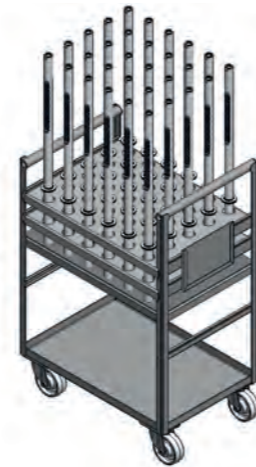
Item no. 207862



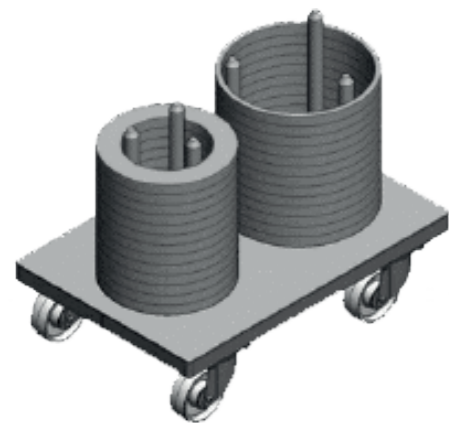
Item no. 134488



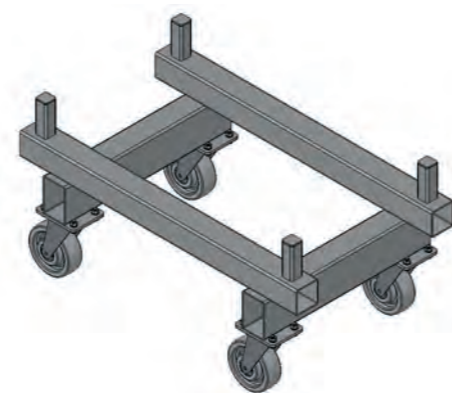
Item no. 209872



Item no. 200501



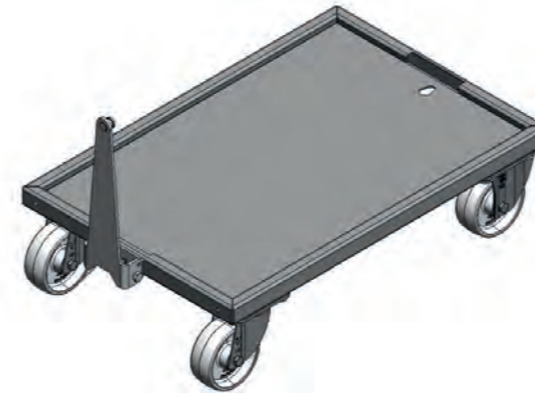
Item no. 203265



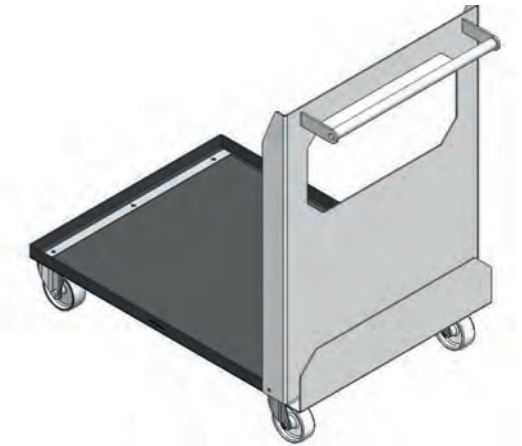
Item no. 130755

**Other models / dimensions on request**  
Subject to technical changes

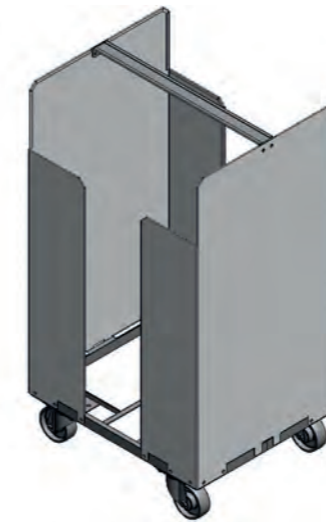
# TROLLEY BOV FURTHER VARIATIONS II



Item no. 210805



Item no. 201103



Item no. 209880



Item no. 206716 empty and loaded

Further variations are manufactured on customer request to individual specifications and dimensions.

**Other models / dimensions on request**  
Subject to technical changes



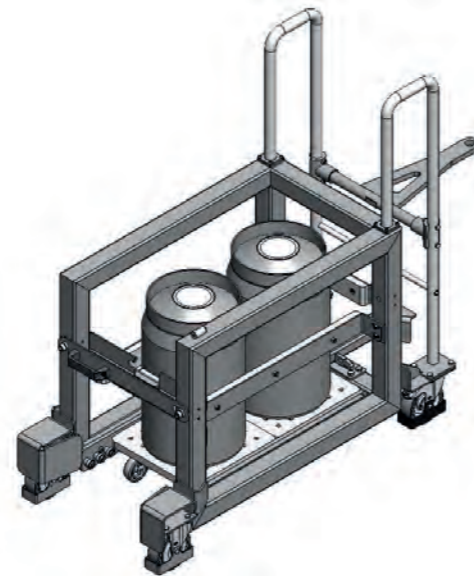
# TROLLEY BOV FURTHER VARIATIONS III



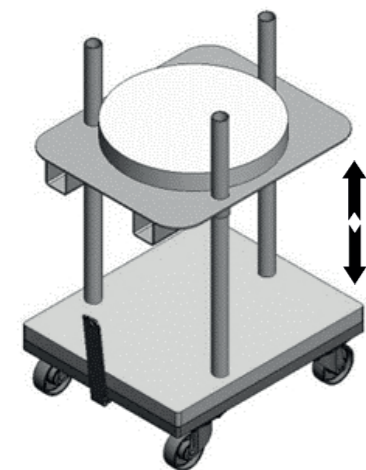
Item no. 143143



Item no. 211382

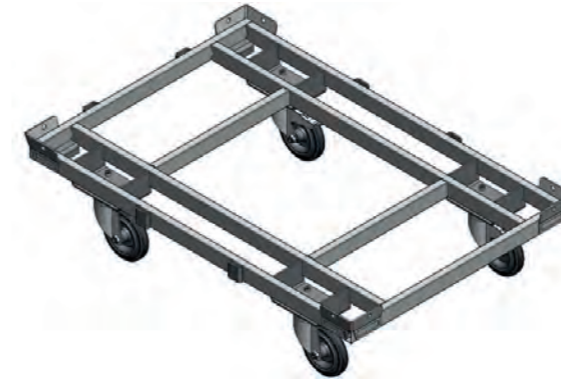


Item no. 203500

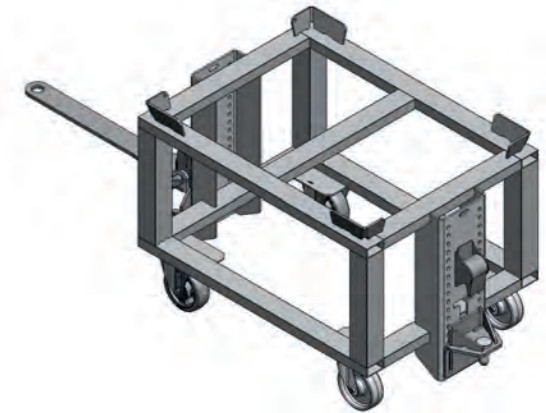


Item no. 105618

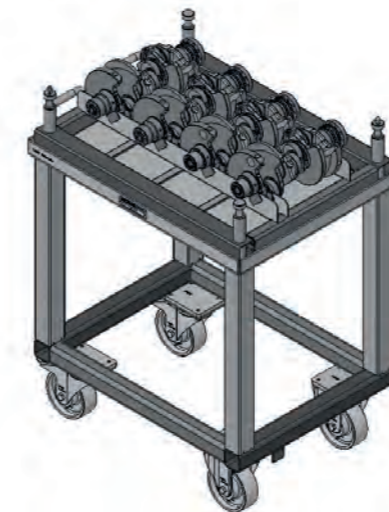
# TROLLEY BOV FURTHER VARIATIONS IV



Item no. 210053



Item no. 209110



Item no. 142805

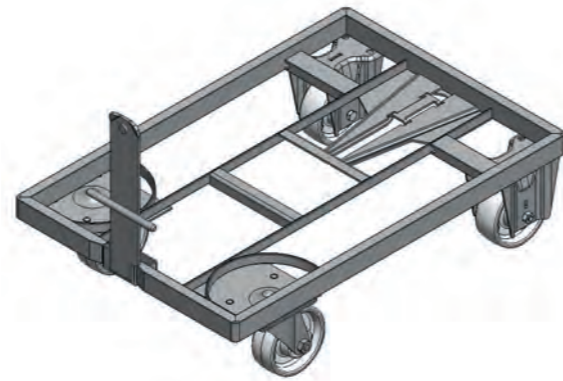
Further variations are manufactured on customer request to individual specifications and dimensions.

# TROLLEY BOV WITH DRAWBAR

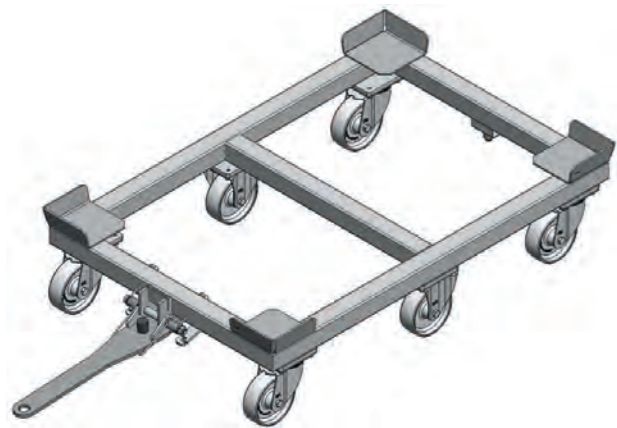
## FURTHER VARIATIONS FOR MILKRUN SYSTEMS



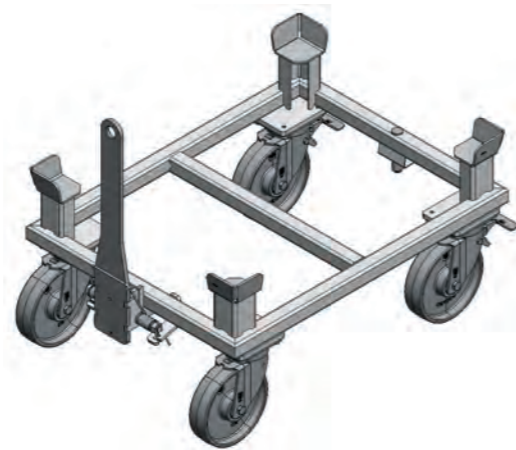
Item no. 205337-X0001



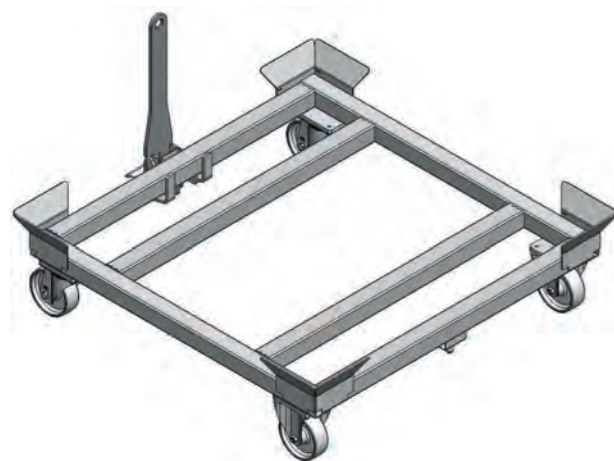
Item no. 210309-NPDE1



Item no. 201363



Item no. 201539



Item no. 207503



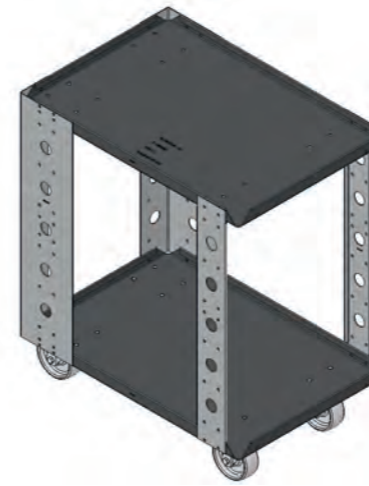
Item no. 145550-X0001 with insertable push bar

Other models / dimensions on request

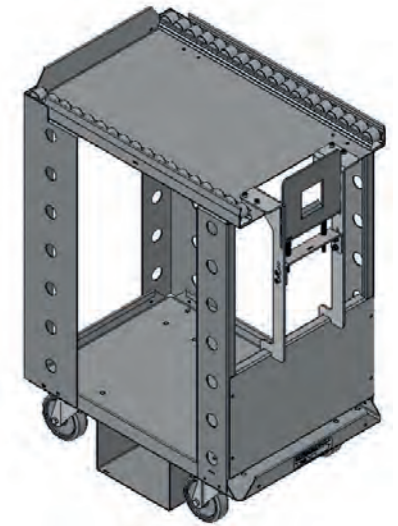
Subject to technical changes

# TROLLEY BOV WITH HIGH SHELF OPTIONS

## FURTHER VARIATIONS



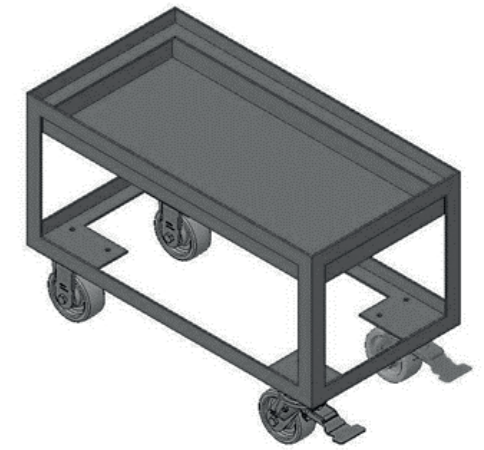
Item no. 136686



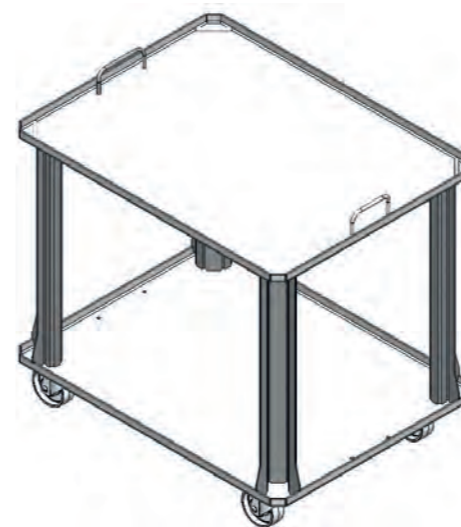
Item no. 137610



Item no. 131904



Item no. 211368



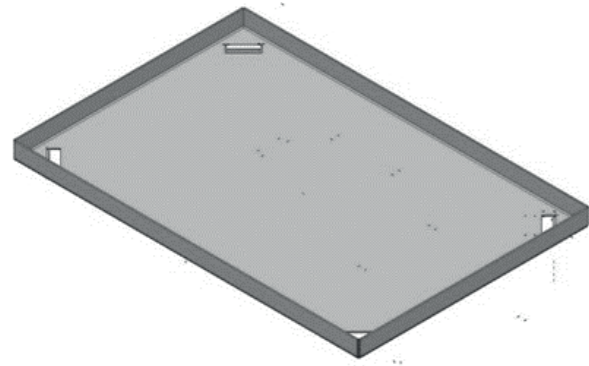
Item no. 210319

Other models / dimensions on request

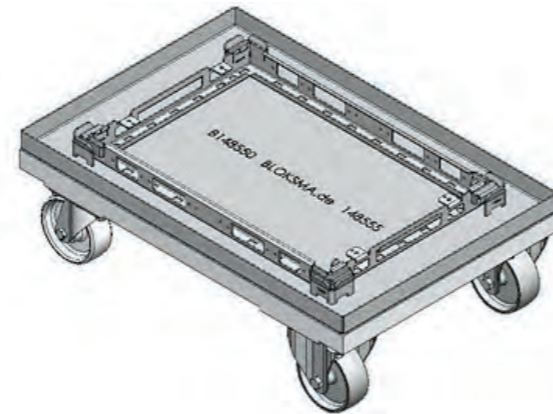
Subject to technical changes

# TROLLEY ACCESSORIES I

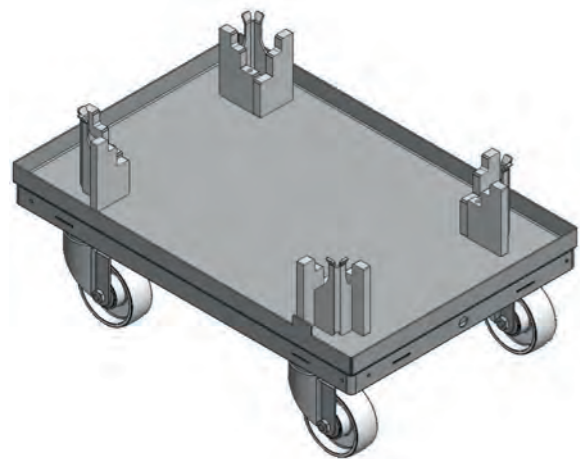
## ATTACHABLE TRAY



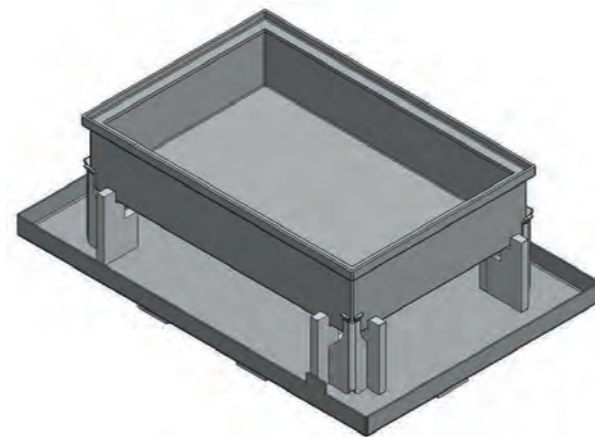
Item no. 208882



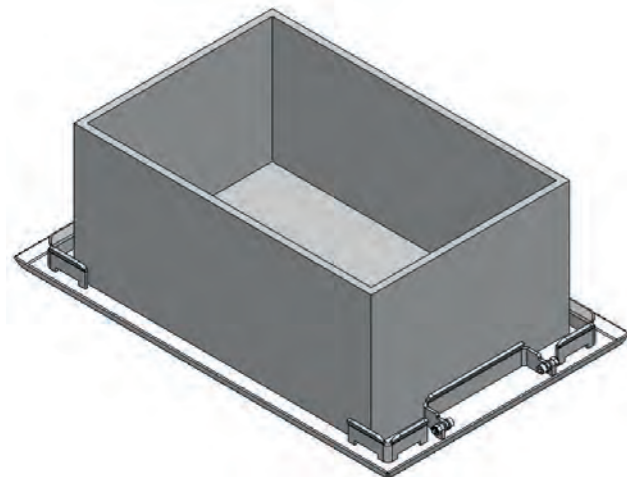
Item no. 148550



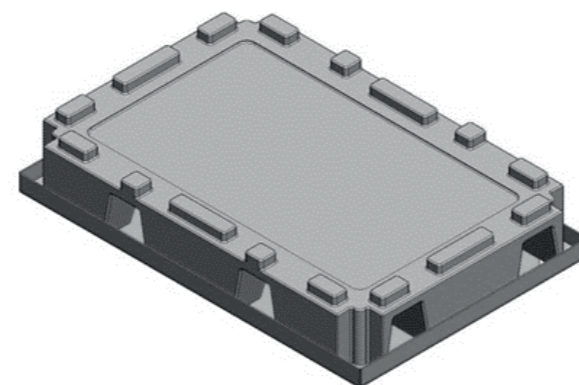
Item no. 208950



Item no. 208950



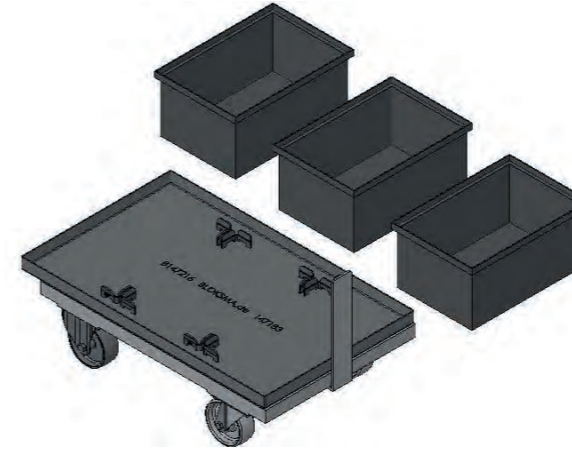
Item no. 206935



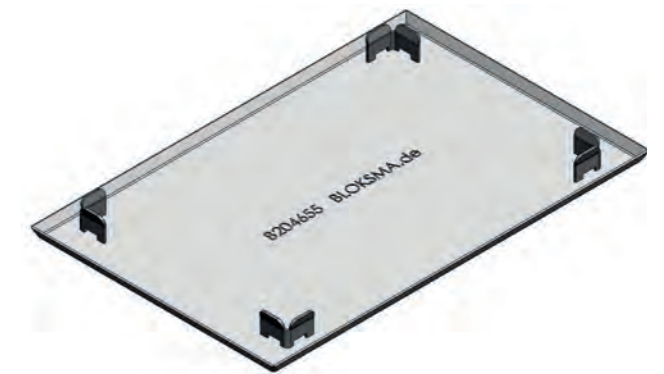
Item no. 211634

# TROLLEY ACCESSORIES II

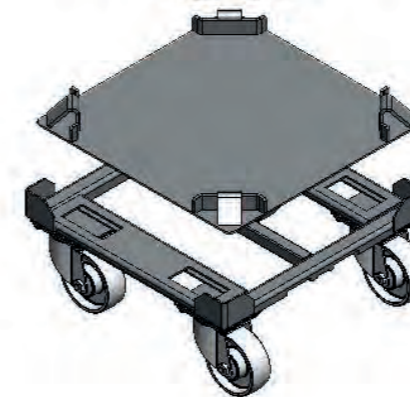
## OILPROOF ATTACHABLE AND CENTERING TUB



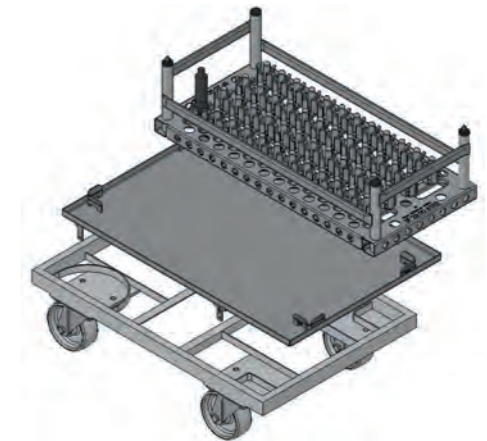
Item no. 147216 attachable tray with centering angle



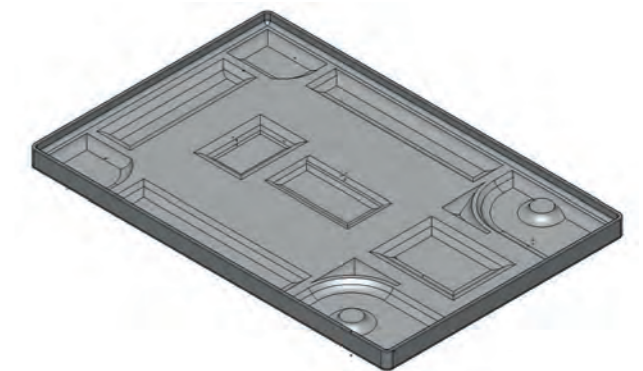
Item no. 204655 attachable tray with centering angle



Item no. 210227  
attachable top tray for barrels



Item no. 139155  
attachable tray with centering angle for work piece carrier

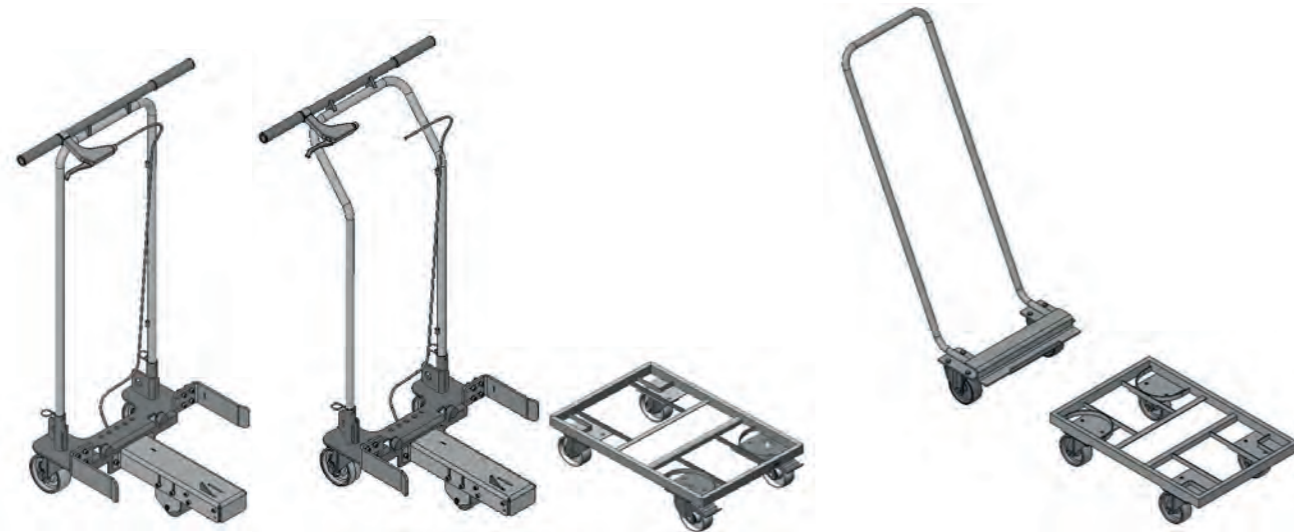


Item no. 206963 plastic tray for oil

# TROLLEY ACCESSORIES III

## PUSH HANDLE

Ergonomic aid to transport empty trolleys



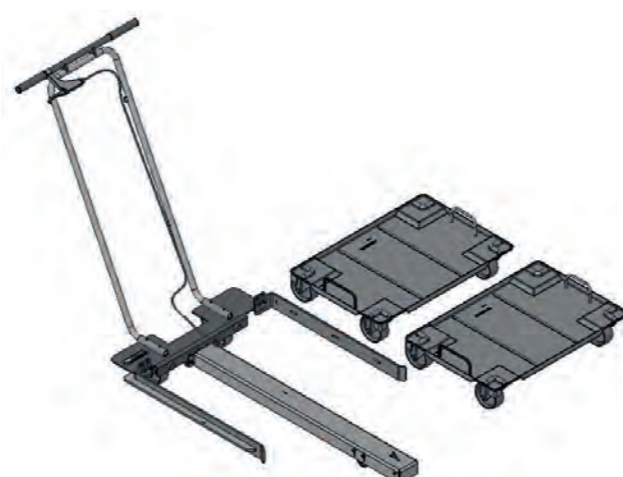
Item no. 200149 push handle for BOF and 200149 with bent handle



Item no. 139211 push handle for BOF



Item no. 139510 push handle for BOZ



Item no. 141304 push handle for BOZ

Other models / dimensions on request

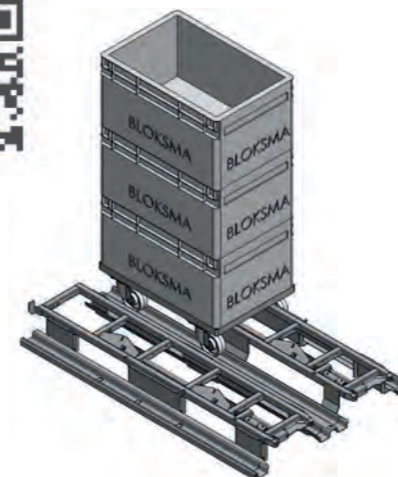
Subject to technical changes

# TROLLEY ACCESSORIES IV

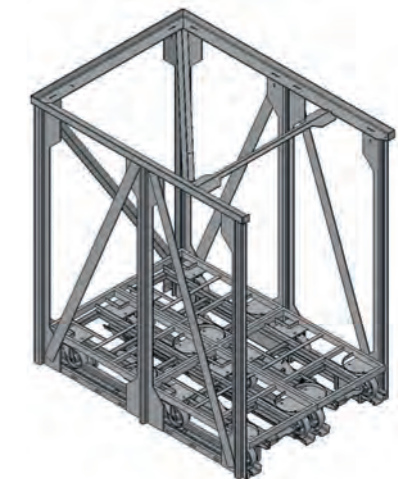
## TRANSPORT PALLET/TRANSPORT RACK

Transport pallets are intended for plan-to-plant Transport of trolleys with loaded KLTs. This eliminates the time consuming repackaging. Due to the trolleys quick and safe (un-)locking on the transport pallet, the time and resource consuming straps are no longer needed.

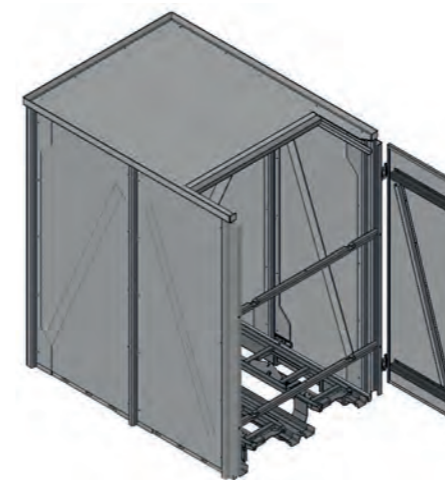
Diverse variations of trolley sizes and styles are available.  
**See also Transport Logistics TFG – Transport Rack I-III.**



Item no. 143965 for BOF 600x400mm  
 Item no. 147692 for BOF 600x500mm



Item no. 142984 for BOF 600x400mm  
 Item no. 211369 for BOF 600x500mm



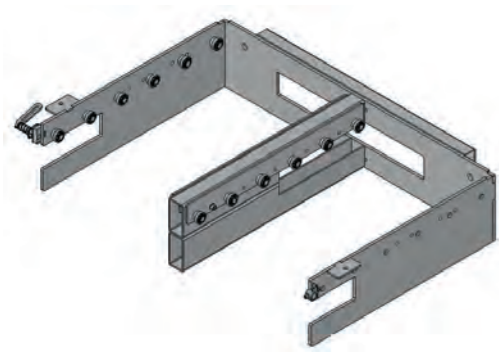
Item no. 210070 for BOF 600x400mm  
 Item no. 210381 for BOF 600x500mm

Other models / dimensions on request

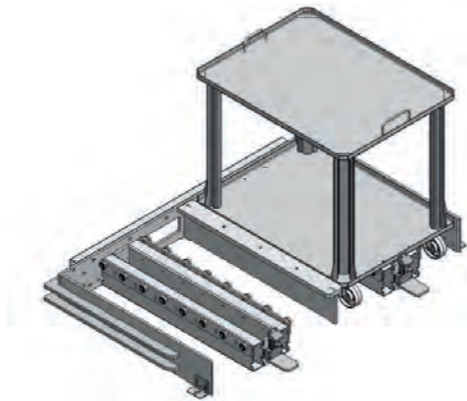
Subject to technical changes

# TROLLEY ACCESSORIES V

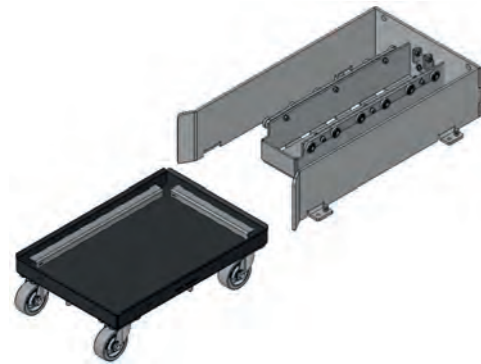
## CENTERING STATION



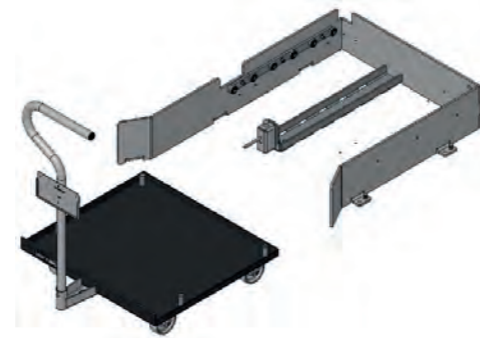
Item no. 131953



Item no. 210910

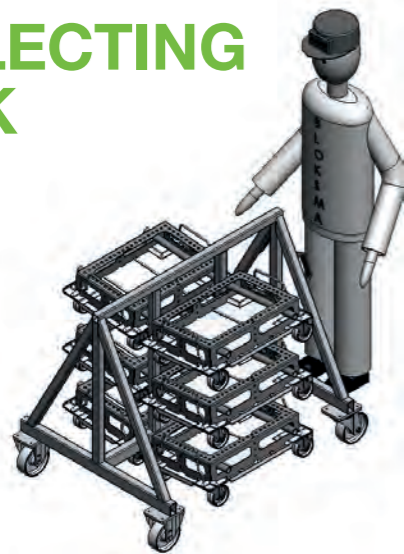


Item no. 140115



Item no. 136103

## COLLECTING RACK



Item no. 208664  
Collecting Rack designed for space saving storage of empty trolleys



Item no. 138648

Other models / dimensions on request

Subject to technical changes

# TROLLEY ACCESSORIES VI

## PUSH AND TUG AIDS

Scan me



Video



Item no. 201407 Platform tugging aid 1,000kg



Item no. 207126 Scooter 2,500kg



Item no. 206959 Electric tug for BOZ



Item no. 207880 Electric tug with adjustable clamping hook from above

Other models / dimensions on request

Subject to technical changes



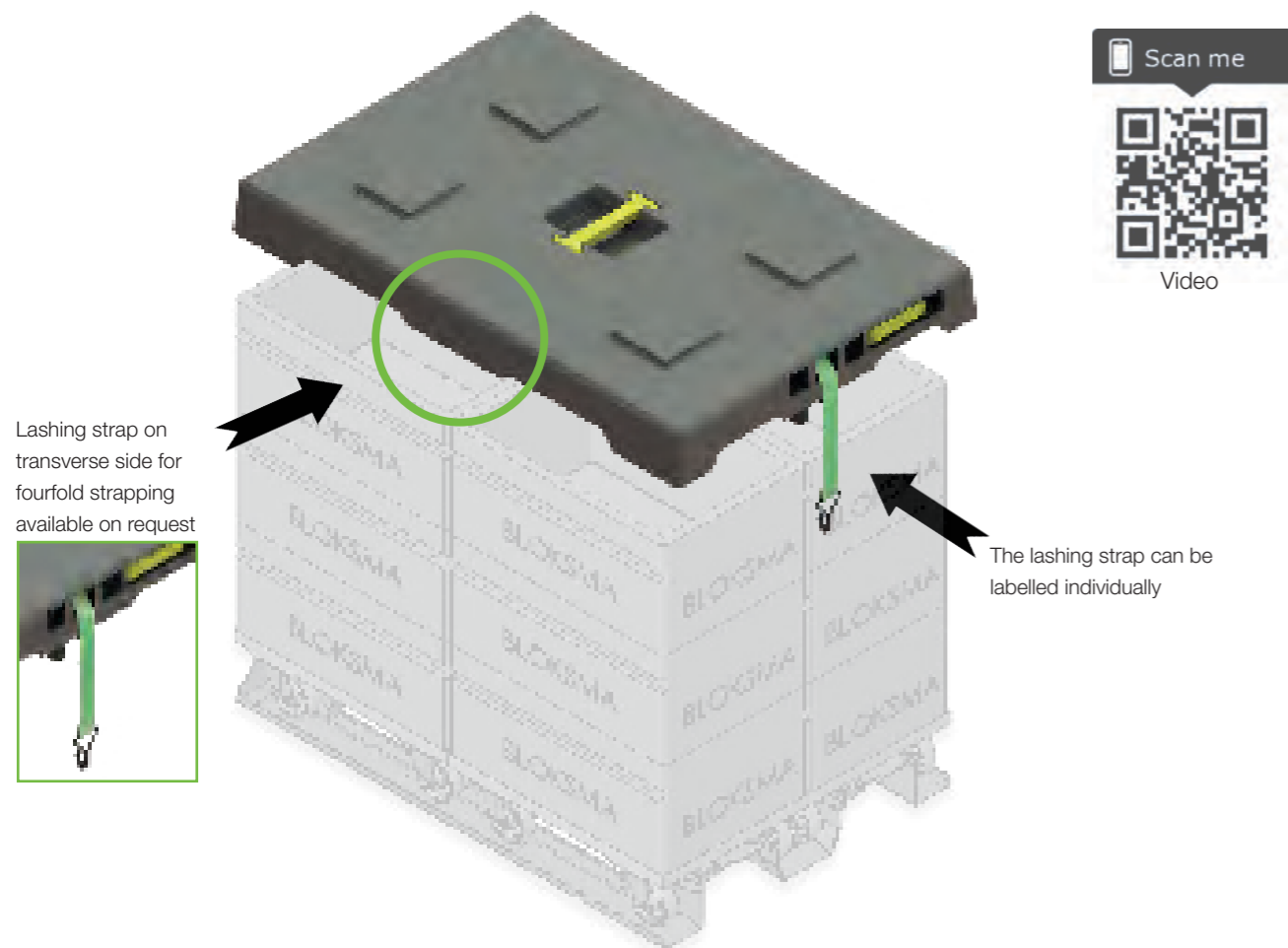
Item no. 206959 Electric tug with adjustable clamping hook from below

Scan me



Video

# VDA COVER FOR TRANSPORT PALLET PLANT TO PLANT TRANSPORT



## TRANSPORT RACK

Item no.	dimensions	Form of hook	stackable?
205017-XH000	1,200x1,000mm	form of hook B for wooden pallet	yes
202696-XH000	1,200x800mm	form of hook B for wooden pallet	yes
207805-XH000	800x600mm	form of hook B for wooden pallet	yes
205017-XT000	1,200x1,000mm	form of hook A for transportable pallet	yes
202696-XT000	1,200x800mm	form of hook A for transportable pallet	yes
207805-XT002	800x600mm	form of hook A for transportable pallet	yes

Other models / dimensions on request

# CROSS-LOCATIONAL FOCUS ON VALUE CREATION.

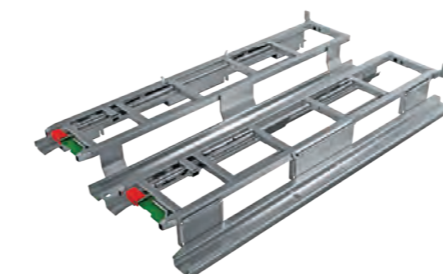


The VDA cover is a robust, injection-molded plastic cover that's combining pull-out straps with an integrated clamping mechanism. This makes it possible to have a fast securing of pallets without wasting packing materials. It is available in all standard EU pallet sizes as well as the US pallet size. The straps of the VDA cover can be personalized with your company logo. The cover is water proof, stackable (when empty) and can be equipped with a security seal making a safe loading and unloading possible.

- no waste of one-way packing material
- incomparable stability and security of the pallets
- several labour minutes saved per pallet and application
- also available in 800x600mm

### TECHNICAL DATA

Cover height:	71mm
Load capacity:	2,000 kg
Weight:	10.93kg - 2 straps 13.75kg - 4 straps
Material:	High Impact Polypropylene - Co-Polymer
Strap length:	2.5m (max. 2.75m)
Temperature resistance:	-20°C bis +40°C
Stackable height:	1,950mm (this is also the length of the straps securing the load)



Other models / dimensions on request

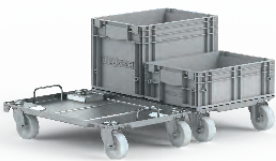


**Hook form A**  
designed for hooking and securing **transport pallets**



**Hook form B**  
designed for hooking and securing **wooden pallets**

# EVERYTHING FROM ONE SOURCE.



1 | TROLLEY



2 | LIFTER



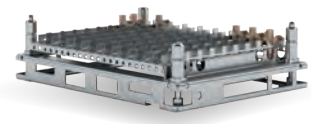
3 | SUPERMARKET  
& PARKING SLOT



5 | TRANSPORT  
LOGISTICS



6 | VISUALIZATION



7 | WORK PIECE  
CARRIER



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