

# MATERIAL FLOW AND FACTORY EQUIPMENT CATALOGUE 6.1

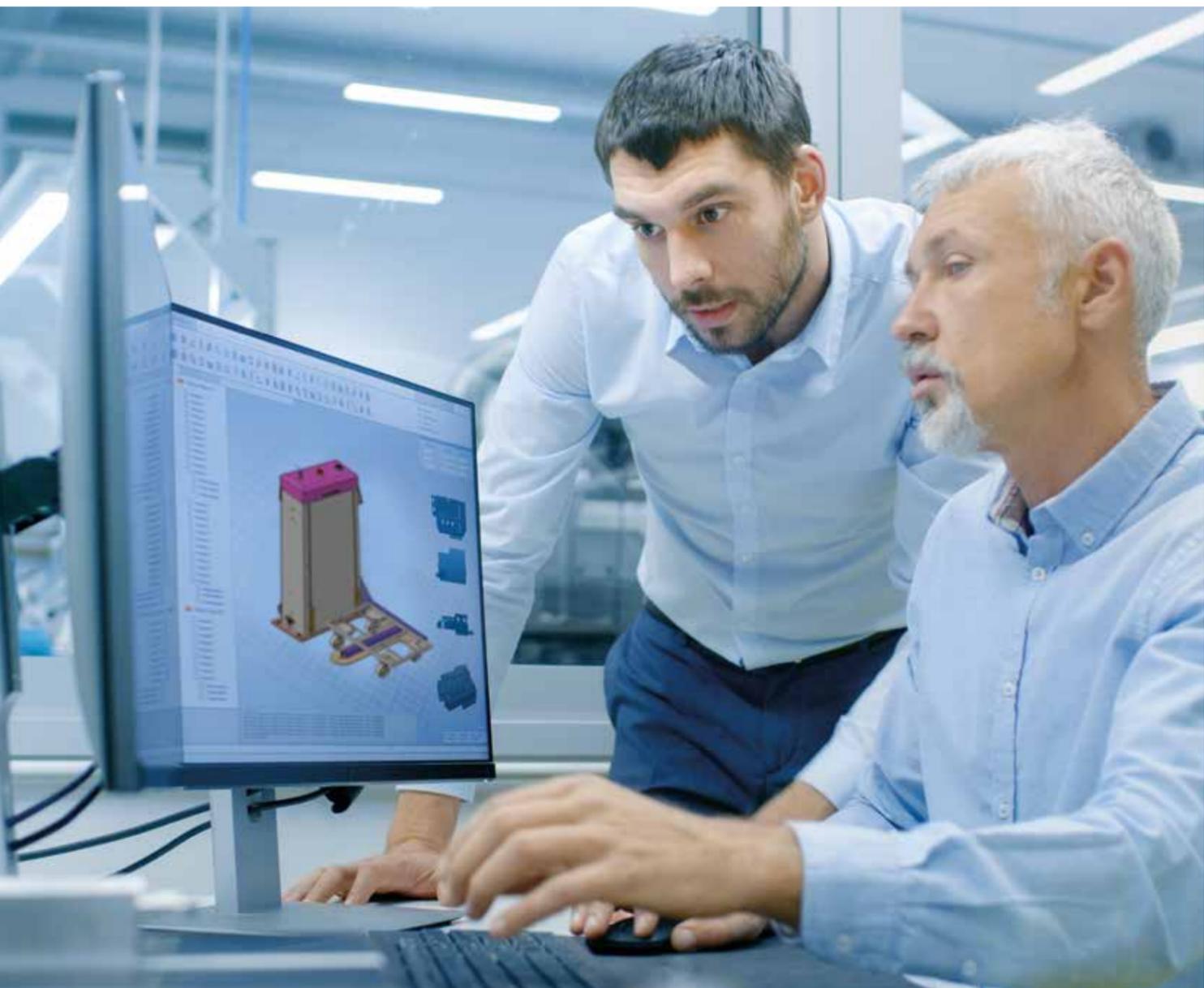


ALL FROM ONE SOURCE.

**BL**  **KSMA**

# FOR PERFECT MATERIAL FLOW: **BLOKSMA-ENGINEERING.**

Due to the wide range of BLOKSMA products, BLOKSMA is the leading full range provider in the area of inhouse logistics in Germany. Today BLOKSMA advises firms regardless of size, branch and production in all questions surrounding material flow and cargo treatment. We optimize existing plants and production processes and also help to minimize the ever more important 'hidden costs'.



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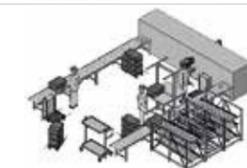
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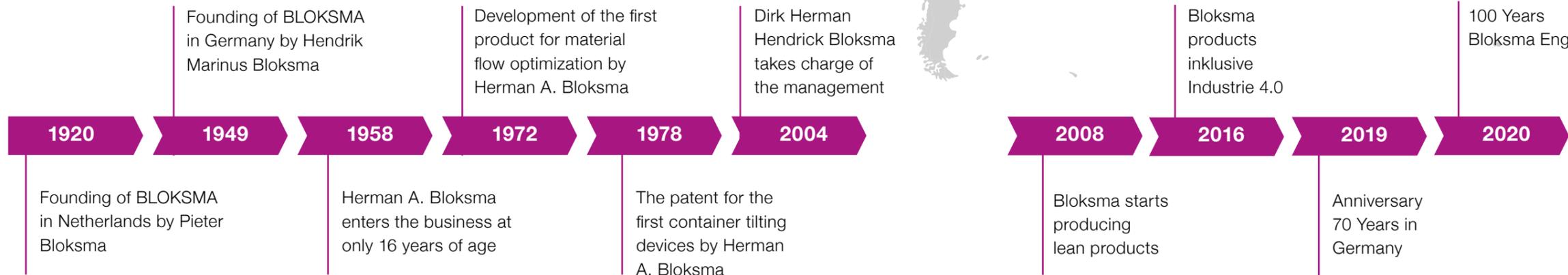


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# BLOKSMA FLOWING PROCESSES FOR MORE THAN 100 YEARS

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:**

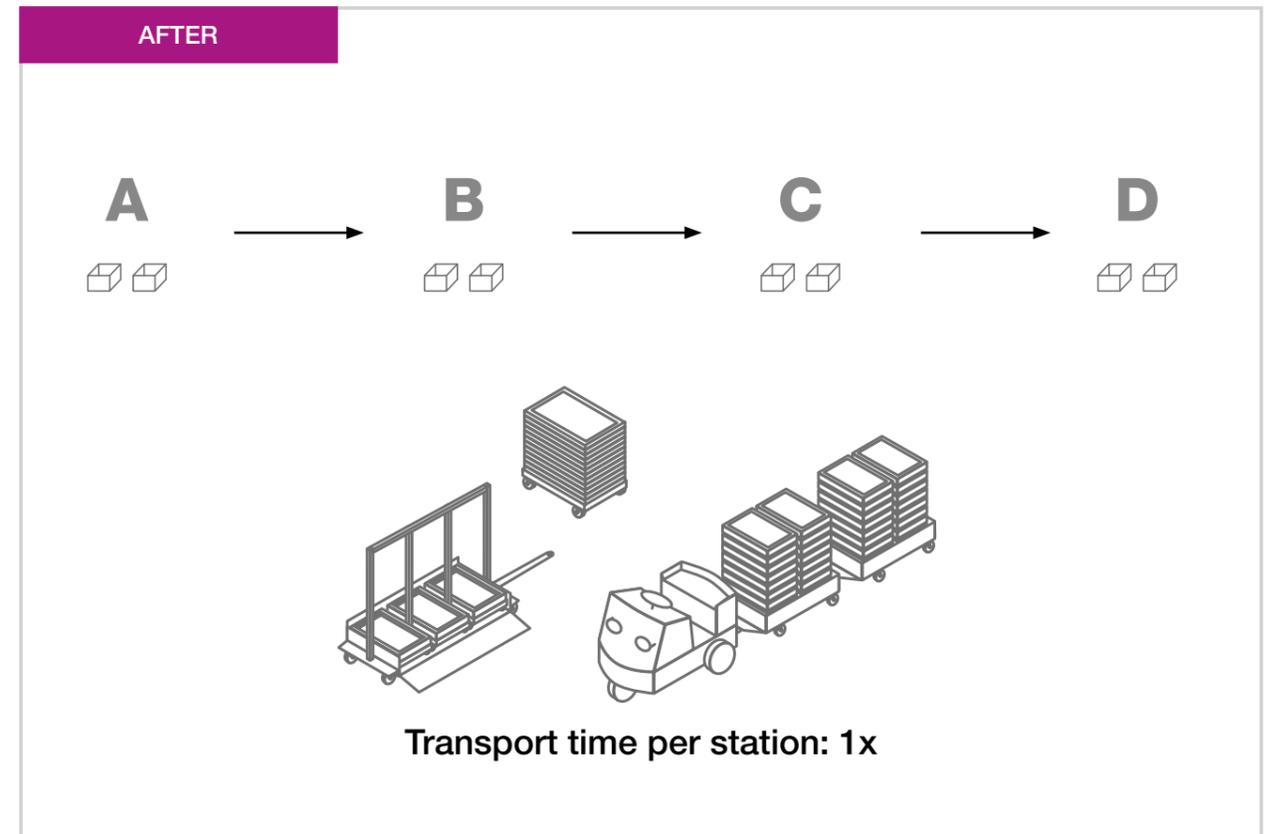
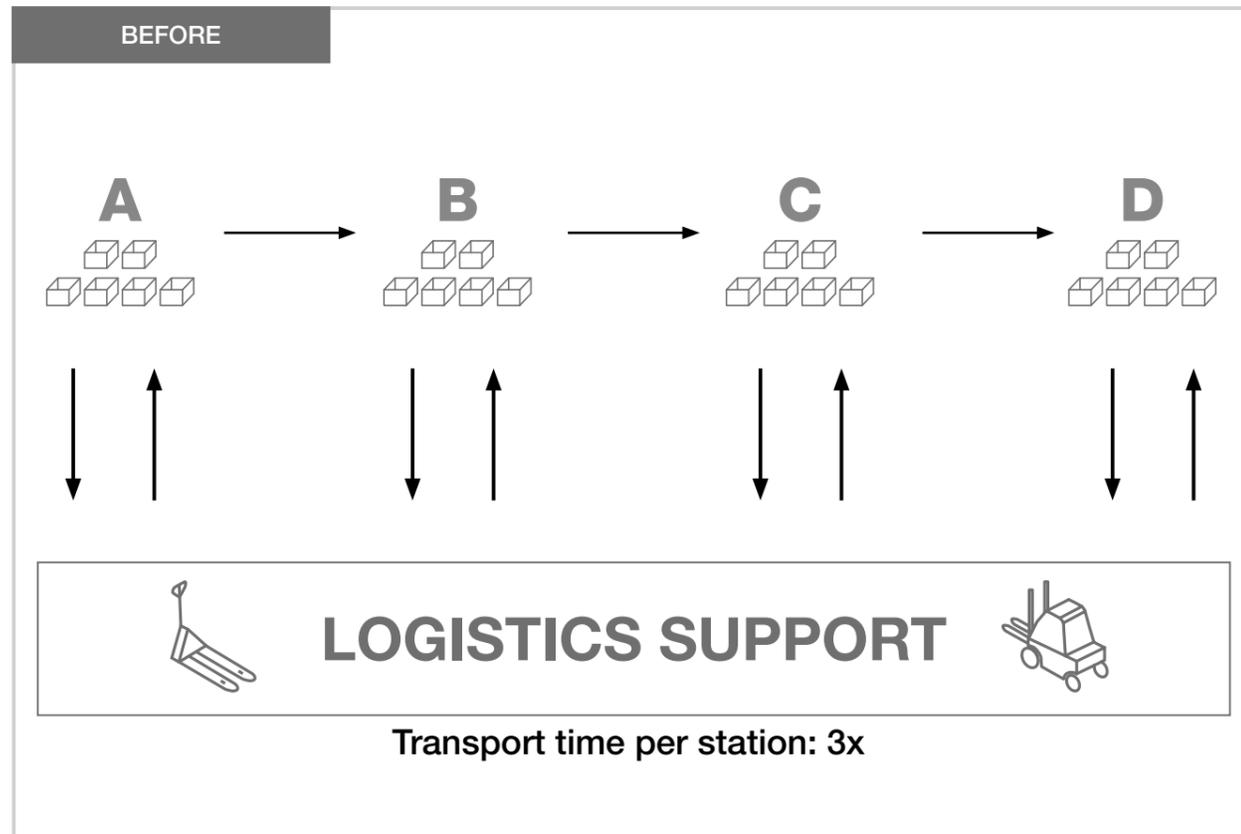
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# ECONOMIC VIEW OF MATERIAL LOGISTICS

**The optimisation of the value-creating processing stations is just one side of lean production.**

In lean production the material flow plays a decisive role. The transport time from the warehouse via interim storage to the repacking stations is unproductive and therefore expensive. An optimised material flow, on the other hand, results in high levels of time and material stock reduction.



**Fictional example of time saving calculation**

Time requirement before (3 ways) <b>2 x 4 x 3 = 24 min</b>	Time required after (1 ways) <b>2 x 4 x 1 = 8 min</b>	<b>Savings per load</b> 24 - 8 = <b>16 min</b>
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With 4 loads per shift in a 3-shift operation, you can achieve annual savings a year (240 working days):  
16 min x 4 x 3 x 240 = 46080 min = **768 hours**

Transport time one way: 2 min · Value creation stations: 4

# 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 creation <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 conveyor
- 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

**WE GET  
YOUR PRODUCTION  
ROLLING**

**TROLLEYS**



# 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.



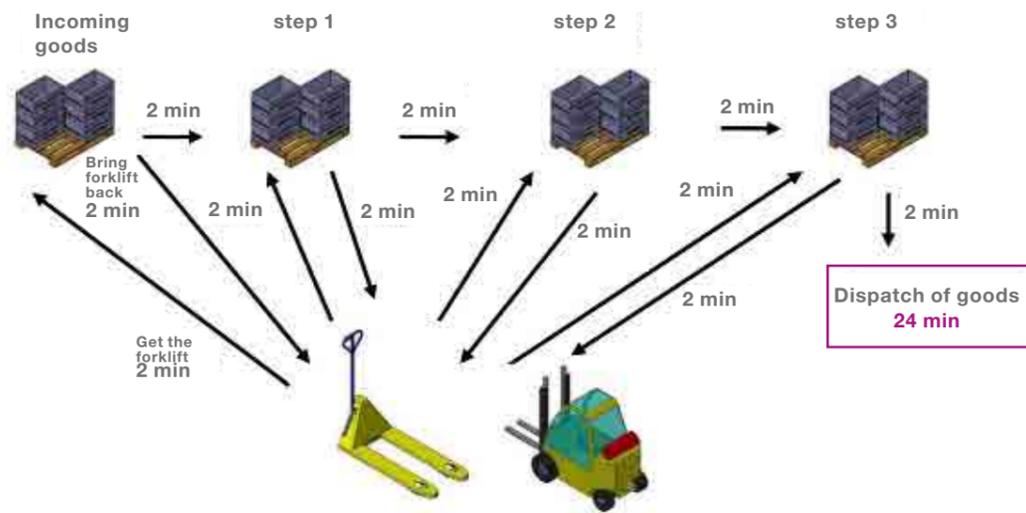
# OVERVIEW

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TROLLEY BOF CAGE PALLET/PALLETS	Pages 34-37
TROLLEY BOF INCH – US	Pages 38-43
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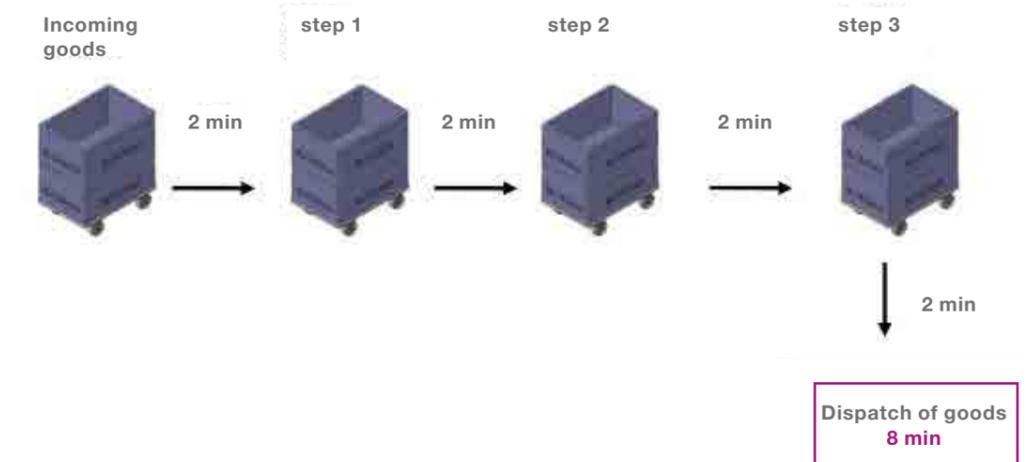
# TROLLEYS COMMERCIAL PERSPECTIVE



**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.

# TROLLEYS CHECKLIST

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).

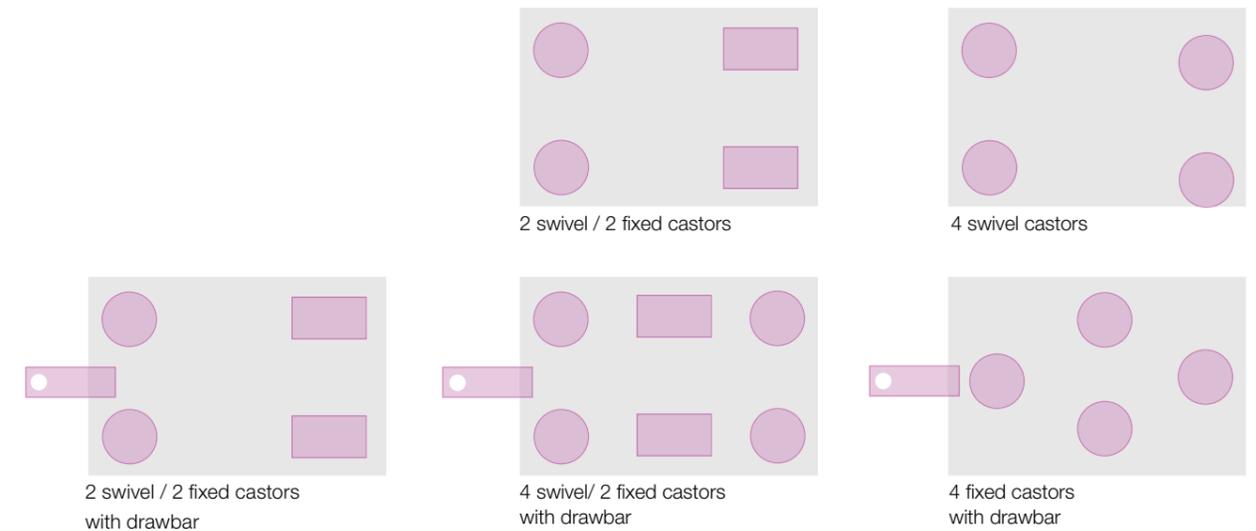
## DETERMINATION OF THE WHEELS LOAD CAPACITY

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

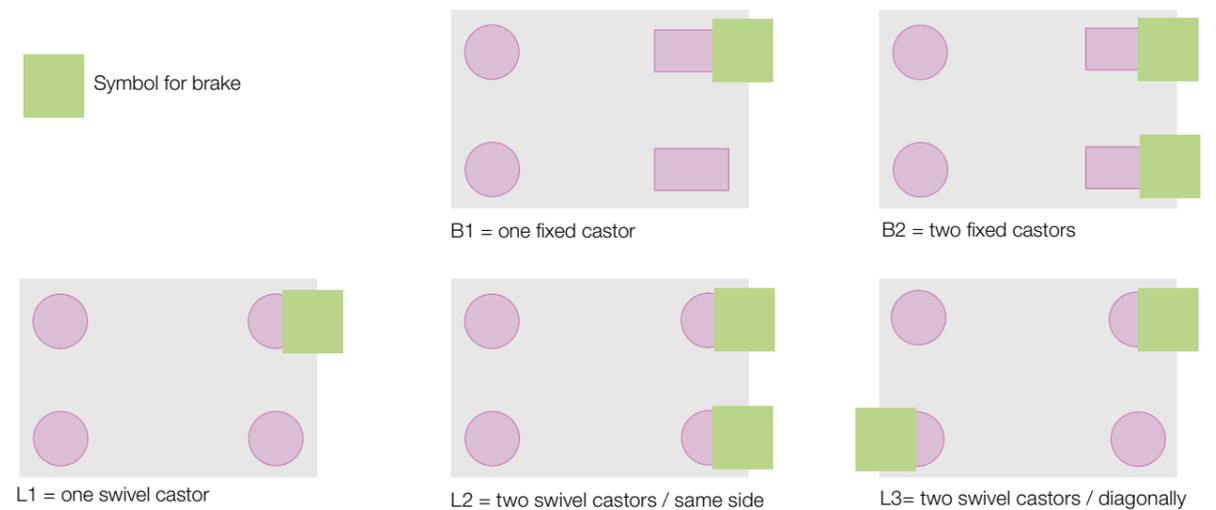
- T = required load capacity per wheel
- FB = tare weight of the ground roller
- Fz = maximum load
- n = number of carrying wheels
- S = safety factor

# TROLLEYS EVERYTHING ABOUT WHEELS

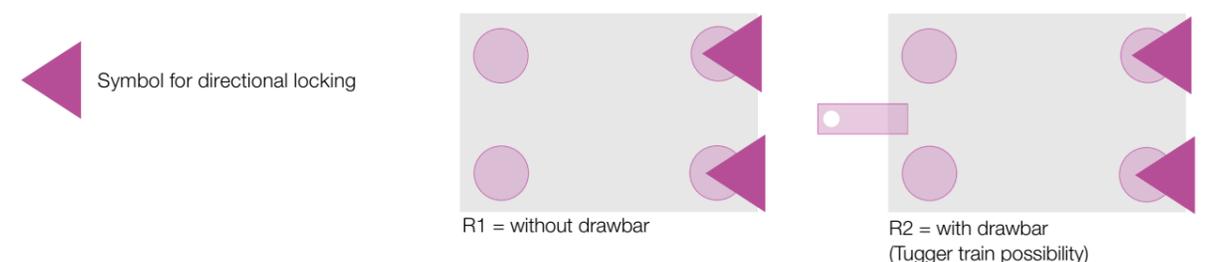
## EXPLANATION OF THE SYMBOLS – WHEEL PAIRING



## ARRANGEMENT OF BRAKES



## DIRECTIONAL LOCKING – SWIVEL CASTOR BECOMES FIXED CASTOR

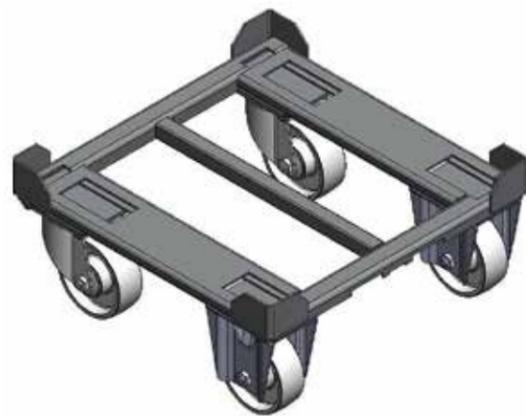




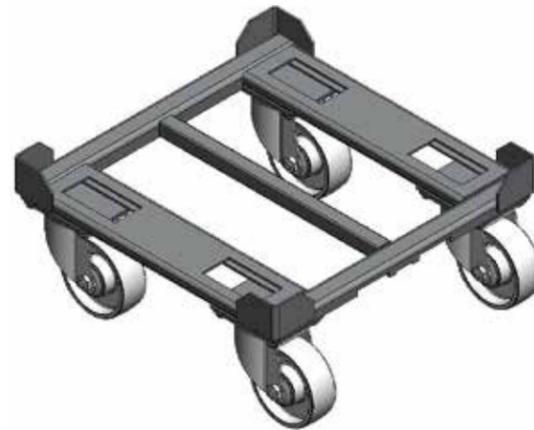
# TROLLEY BOF 400x400mm for KLT max. 160kg

**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

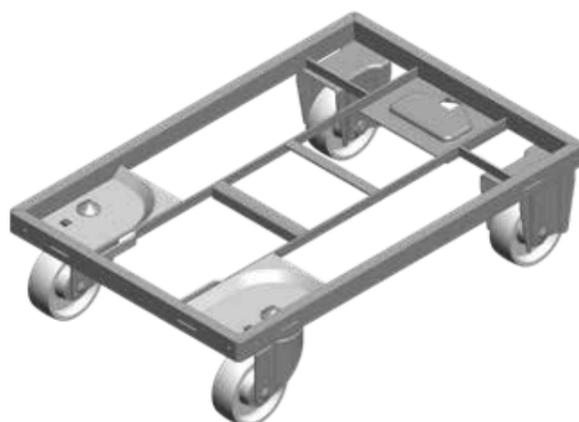
for KLT max. 250kg

**PRODUCTS TO BE CARRIED**

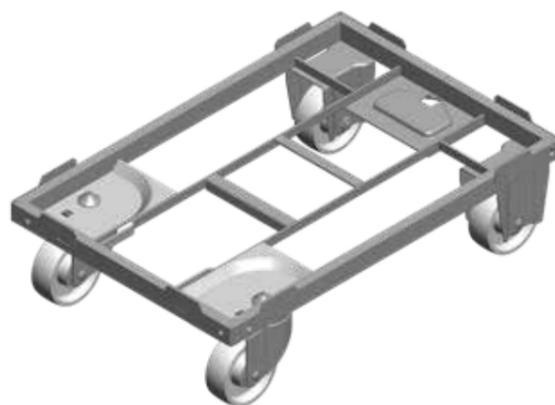
- 1 KLT 600x400mm or
- 2 KLTs 400x300mm



Video



Item no. 137786-NPOO1  
without corner brackets



Item no. 137786-NPOE1  
with corner brackets

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).**

### 2 SWIVEL / 2 FIXED CASTORS • 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

### 2 SWIVEL / 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			

### 4 SWIVEL CASTORS • WITHOUT CORNER BRACKETS

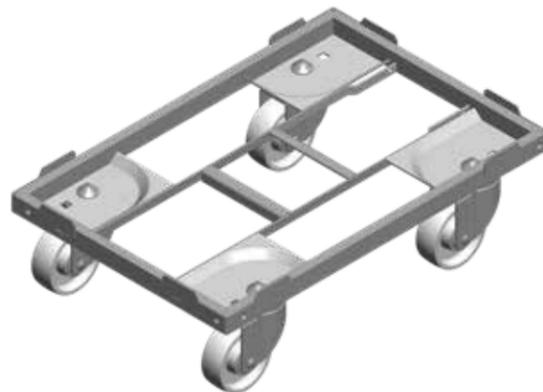
Item no.	Centering of product	Wheels	Wheel design
137787-NPOO1	on inside edge of frame	Hard plastic	4 swivel castors
137787-NEOO2	on inside edge of frame	ESD Hard plastic	4 swivel castors
137787-NCOO5	on inside edge of frame	PU coated	4 swivel castors
137787-NKOO4	on inside edge of frame	2x rubber /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

### 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			



Item no. 137787-NPOO1  
without corner brackets



Item no. 137787-NPOE1  
with corner brackets

# TROLLEY BOF WITH DRAWBAR

## 600x400mm

for KLT max. 250kg

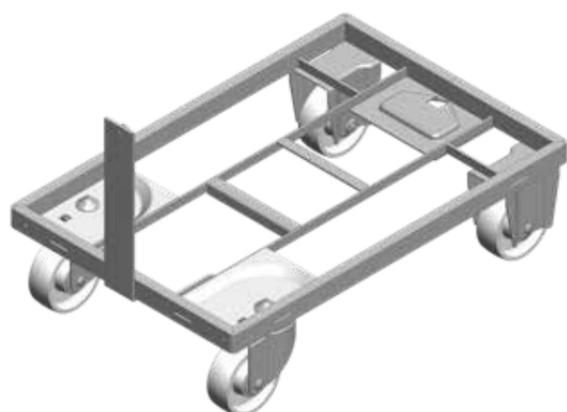
**PRODUCTS TO BE CARRIED**

- 1 KLT 600x400mm or
- 2 KLT 400x300mm

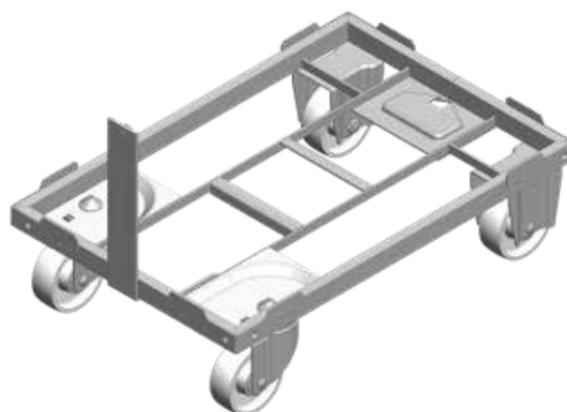


Video

### WITH RIGID DRAWBAR



Item no. 137786-NPDO1  
without corner brackets

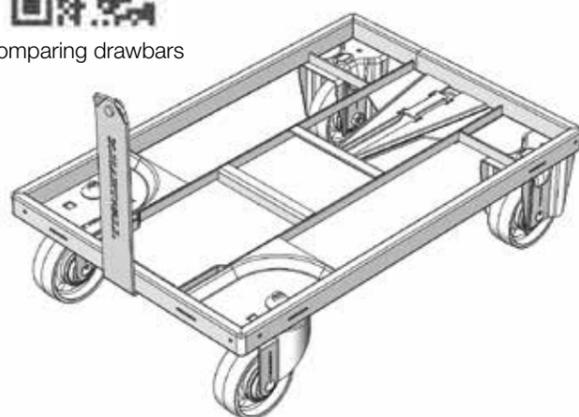


Item no. 137786-NPDE1  
with corner brackets

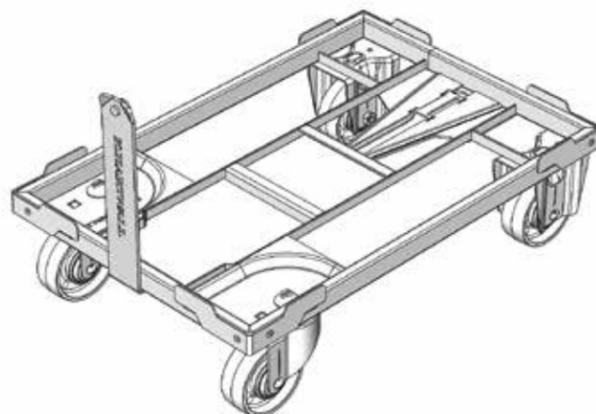


Comparing drawbars

### WITH FLEXIBLE DRAWBAR



Item no. 144183-SOOO1  
without corner brackets



Item no. 144183-SOOO5  
with corner brackets

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 182 (Chapter Transport Logistics).**

This trolley can also be enhanced by several optional products.  
**For more information please turn to page 58–65 (Chapter Trolley Accessories).**

### 2 SWIVEL / 2 FIXED CASTORS • 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

### 2 SWIVEL / 2 FIXED CASTORS • WITH CORNER ANGEL • WITH RIGID DRAWBAR

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

### 2 SWIVEL / 2 FIXED CASTORS • WITHOUT CORNER BRACKETS • WITH FLEXIBLE 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

### 2 SWIVEL / 2 FIXED CASTORS • WITH CORNER BRACKETS • WITH FLEXIBLE DRAWBAR

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

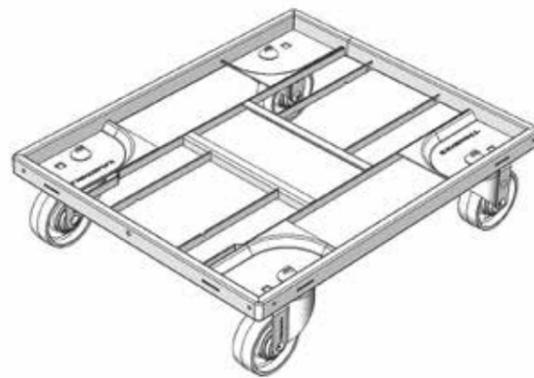
# TROLLEY BOF

## 600x500mm

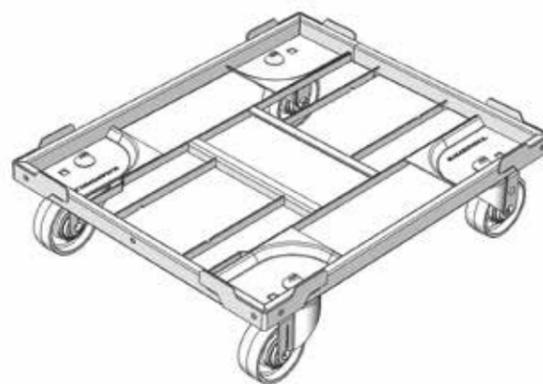
for KLT max. 250kg

**PRODUCTS TO BE CARRIED**

Containers 600x500mm



Item no. 141307-NPOO1



Item no. 141307-NPOE1 with corner brackets

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 52–65 (Chapter Trolley Accessories).**

### 2 SWIVEL / 2 FIXED CASTORS • WITHOUT CORNER BRACKETS

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

### 2 SWIVEL / 2 FIXED CASTORS • WITH CORNER BRACKETS

<b>147678-NPOE1</b>	centering angle	Hard plastic	2 swivel and 2 fixed castors
<b>147678-NEOE2</b>	centering angle	ESD Hard plastic	2 swivel and 2 fixed castors
<b>147678-NCOE5</b>	centering angle	PU coated	2 swivel and 2 fixed castors
<b>147678-NKOE4</b>	centering angle	2x rubber / 2x Hard plastic	2 swivel and 2 fixed castors
			4 swivel castors

### 4 SWIVEL CASTORS • WITHOUT BRACKETS

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

### 4 SWIVEL CASTORS • WITH CORNER BRACKETS

<b>141307-NPOE1</b>	centering angle	Hard plastic	4 swivel castors
<b>141307-NEOE2</b>	centering angle	ESD Hard plastic	4 swivel castors
<b>141307-NCOE5</b>	centering angle	PU lagged	4 swivel castors
<b>141307-NKOE4</b>	centering angle	2x rubber / 2x Hard plastic	4 swivel castors
			4 swivel castors

Other models / dimensions on request

Subject to technical changes

Other models / dimensions on request

Subject to technical changes

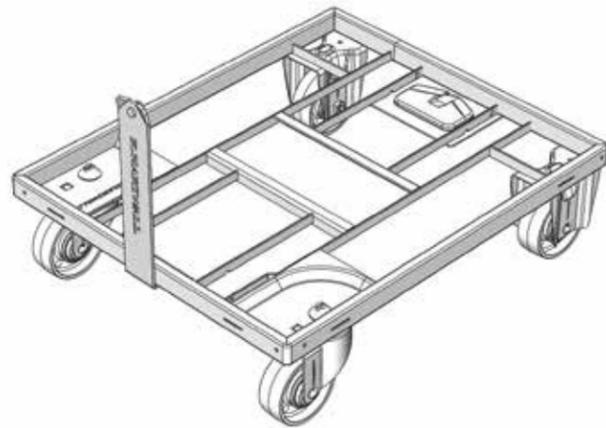
# TROLLEY BOF

## 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 52–56 (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

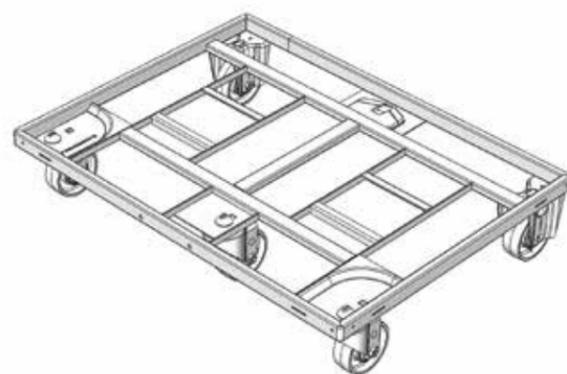
# TROLLEY BOF

## 800x600mm

for GLT/KLT max. 500kg

**PRODUCTS TO BE CARRIED**

- 1 GLT 800x600mm or
- 2 KLTs 600x400mm



Item no. 204563-NPO01 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 52–63 (Chapter Trolley Accessories).**

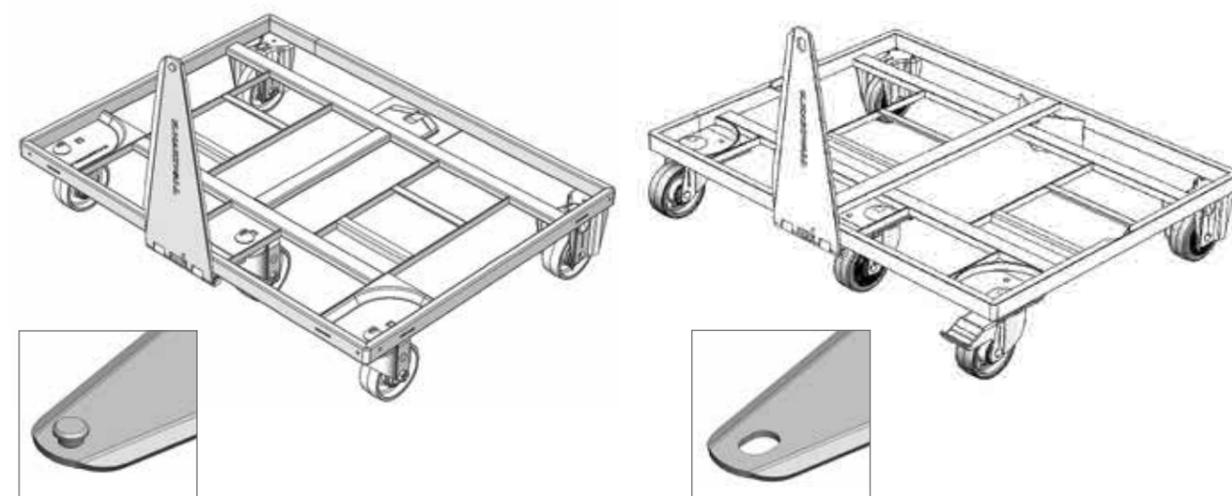
### 3 SWIVEL AND 2 FIXED CASTORS

Item no.	Centering of product	Wheels	Wheel design
138158-NPO01	on inside edge of frame	Hard plastic	3 swivel and 2 fixed castors
138158-NEO02	on inside edge of frame	ESD Hard plastic	3 swivel and 2 fixed castors
138158-NCO05	on inside edge of frame	PU coated	3 swivel and 2 fixed castors

### 5 SWIVEL CASTORS

204563-NPO01	on inside edge of frame	Hard plastic	5 swivel castors
204563-NEO02	on inside edge of frame	ESD Hard plastic	5 swivel castors
204563-NCO05	on inside edge of frame	PU coated	5 swivel castors
All wheels Ø 100mm			

retrofitable with corner brackets



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

Special design:  
Item no. 138160-S0005 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-NPD01	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

### SPECIAL DESIGN • WITH DRAWBAR (DRAWBAR WITH HOLE)

138160-S0005	on inside edge of frame	Hard plastic	3 swivel and 2 fixed castors
138160-S0006	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-S0008	on inside edge of frame	3x rubber / 2x Hard plastic	3 swivel and 2 fixed castors

retrofitable with corner brackets

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).

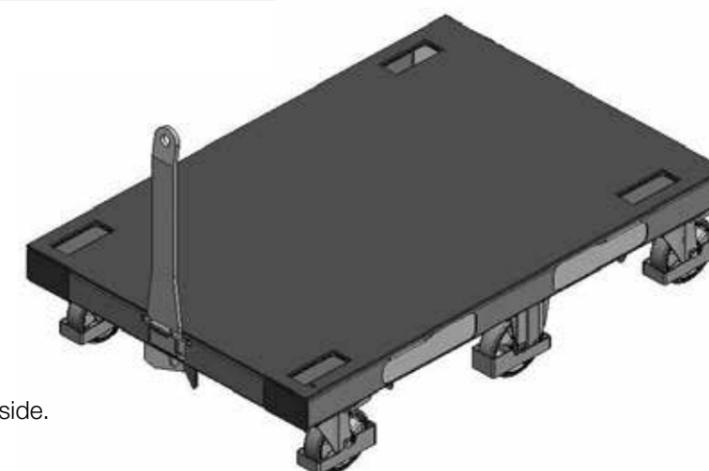
The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

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).

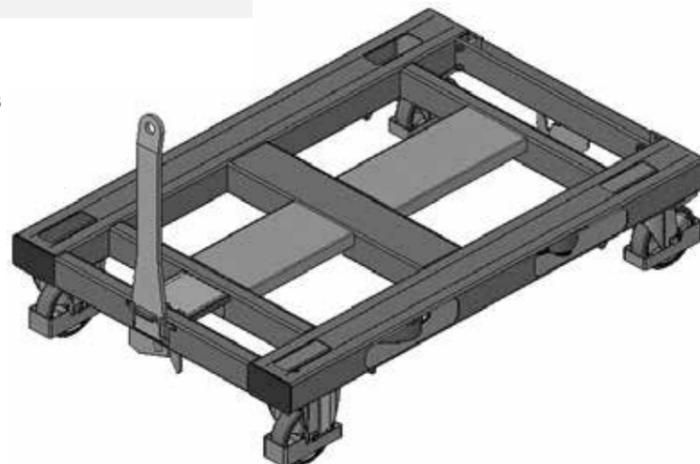
The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Customized solutions are developed and manufactured by BLOKSMA.

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).

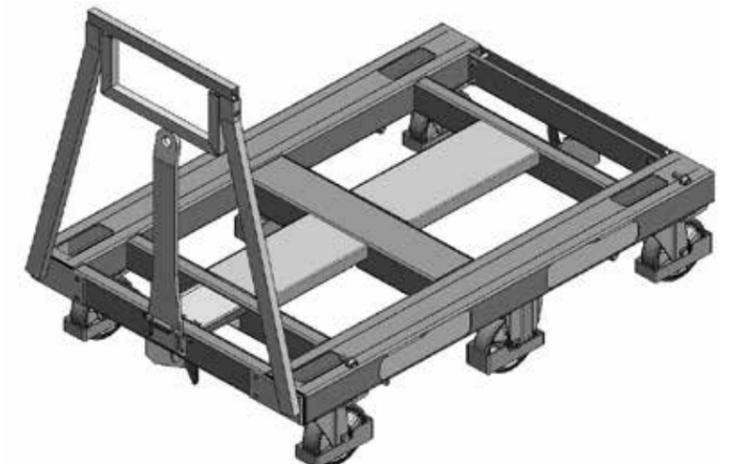
The stackable basic trolley is a K.Hartwall product and corresponds to DIN ISO 9001/14001. Custom solutions are developed and manufactured by BLOKSMA.

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

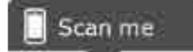
# TROLLEY BOF 24x15 inch

for KLT/Box max. 550lb

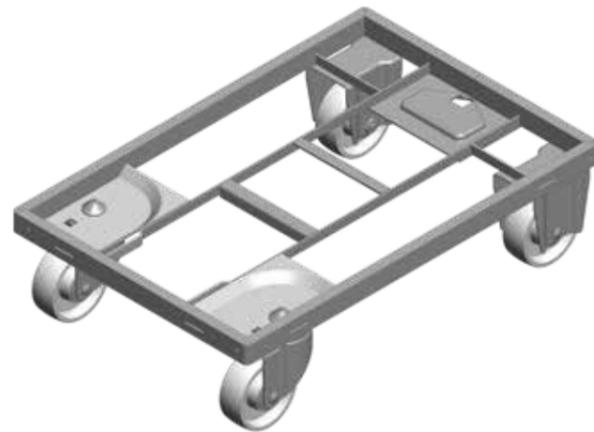


**PRODUCT TO BE CARRIED**

1 Box 24x15 inch



Video



Item no. 146714-NPOO1



Item no. 146717-NPOO1

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
<b>146714-NPOO1</b>	on inside edge of frame	Hard plastic	2 swivel and 2 fixed castors
<b>146714-NEOO2</b>	on inside edge of frame	ESD Hard plastic	2 swivel and 2 fixed castors
<b>146714-NCOO5</b>	on inside edge of frame	PU coated	2 swivel and 2 fixed castors
<b>146714-NKOO4</b>	on inside edge of frame	2x hard plastic / 2x rubber	2 swivel and 2 fixed castors

## 4 SWIVEL CASTORS

<b>146717-NPOO1</b>	on inside edge of frame	Hard plastic	4 swivel castors
<b>146717-NEOO2</b>	on inside edge of frame	ESD Hard plastic	4 swivel castors
<b>146717-NCOO5</b>	on inside edge of frame	PU coated	4 swivel castors

retrofitable with corner brackets

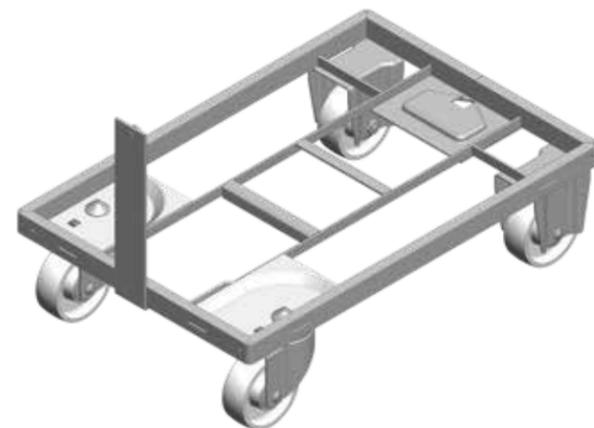
All wheels Ø 100mm

## 2 SWIVEL AND 2 FIXED CASTORS • WITH DRAWBAR

Item no.	Centering of product	Wheels	Wheel design
<b>146722-NPOO1</b>	on inside edge of frame	Hard plastic	2 swivel and 2 fixed castors
<b>146722-NPOO2</b>	on inside edge of frame	ESD Hard plastic	2 swivel and 2 fixed castors
<b>146722-NCOO5</b>	on inside edge of frame	PU coated	2 swivel and 2 fixed castors
<b>146722-NKOO4</b>	on inside edge of frame	2x hard plastic / 2x rubber	2 swivel and 2 fixed castors

retrofitable with corner brackets

All wheels Ø 100mm



Item no. 146722-NPOO1

# TROLLEY BOF

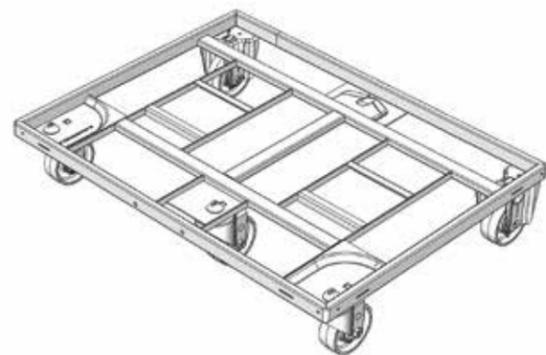
## 30x24 inch

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).**

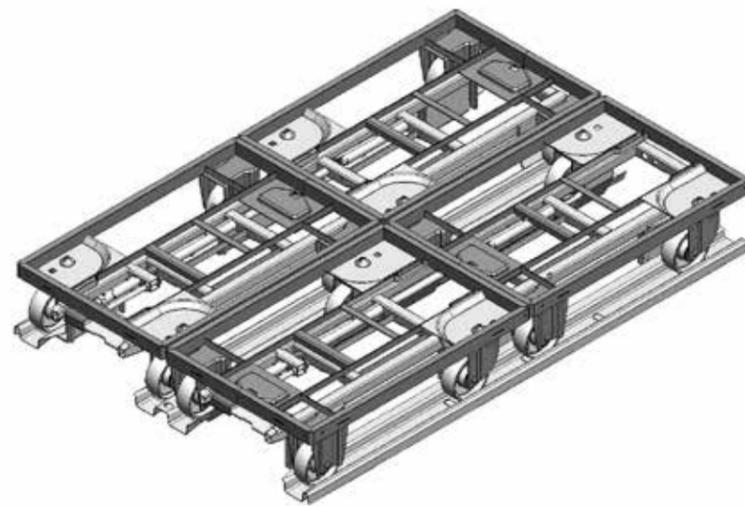
This trolley can also be enhanced by several optional products. **For more information please turn to page 52 (Chapter Trolley Accessories).**

### DEVOID OF DRAWBAR

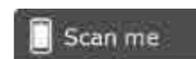
Item no.	Centering of product	Wheels	Wheel design
146723	on inside edge of frame	Hard plastic	3 swivel and 2 fixed castors
146724	on inside edge of frame	Hard plastic	4 swivel castors

### WIHT DRAWBAR

146726	on inside edge of frame	Hard plastic	2 swivel and 2 fixed castors
retrofitable with corner brackets		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

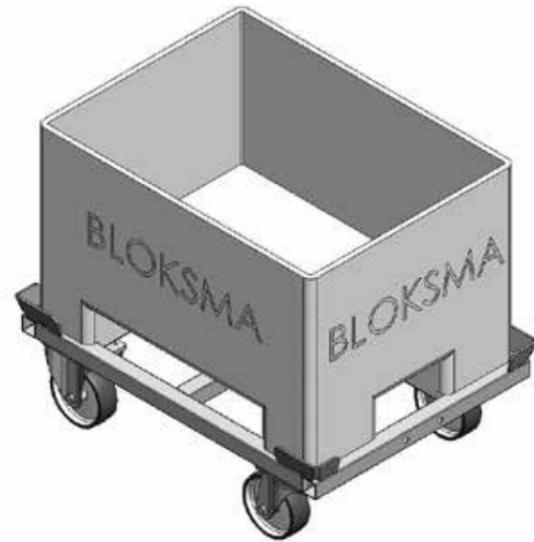
## 32x30 inch or 48x32 inch

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
<b>202356-NPOE1</b>	centering angle	Hard plastic	4 swivel castors
<b>202356-NEOE2</b>	centering angle	ESD Hard plastic	4 swivel castors
<b>202356-NCOE5</b>	centering angle	PU coated	4 swivel castors
<b>202356-NKOE4</b>	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
<b>202357-NPOE1</b>	centering angle	Hard plastic	4 swivel castors
<b>202357-NEOE2</b>	centering angle	ESD Hard plastic	4 swivel castors
<b>202357-NCOE5</b>	centering angle	PU coated	4 swivel castors
<b>202357-NKOE4</b>	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**

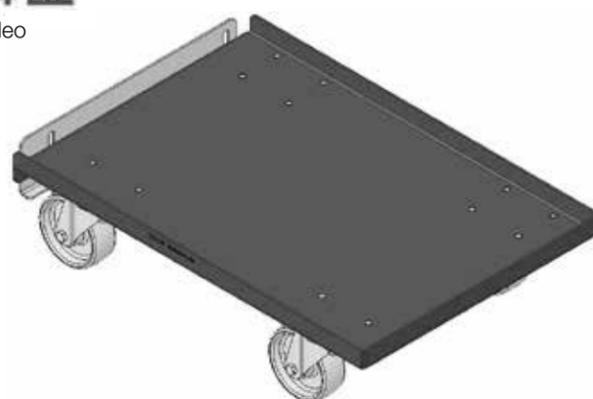
1 container 600x400mm  
 or 1 container 800x600mm



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).**

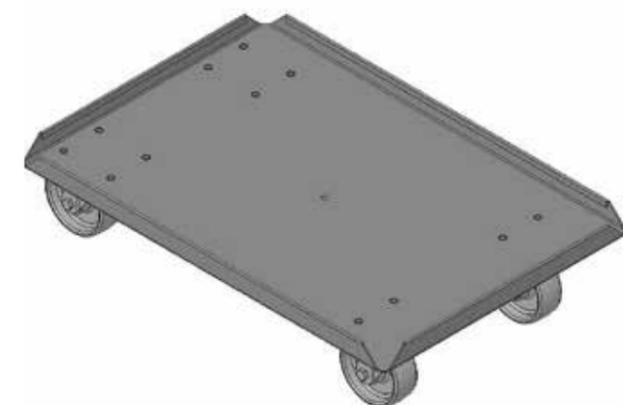
## MODEL 610x420mm

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

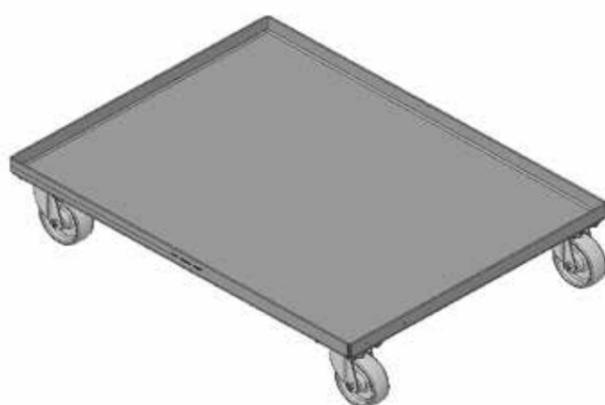
## MODEL 610x420mm • one side can be open.

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

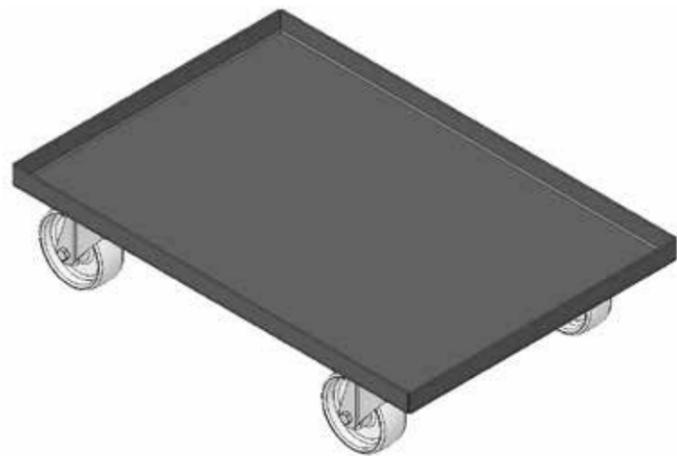
# TROLLEY BOK OILPROOF

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

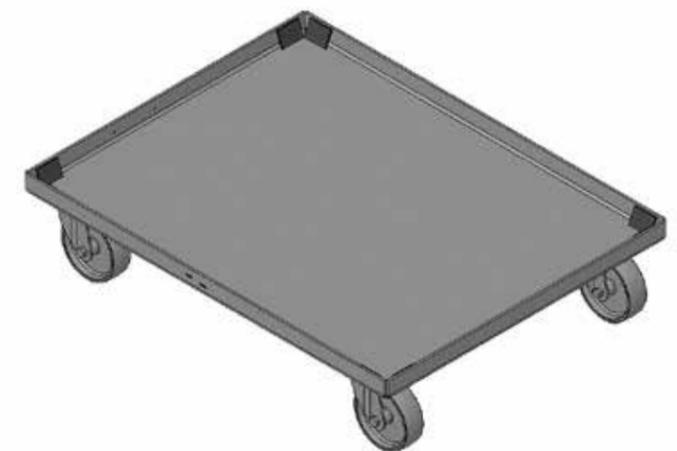
for containers max. 500kg

**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

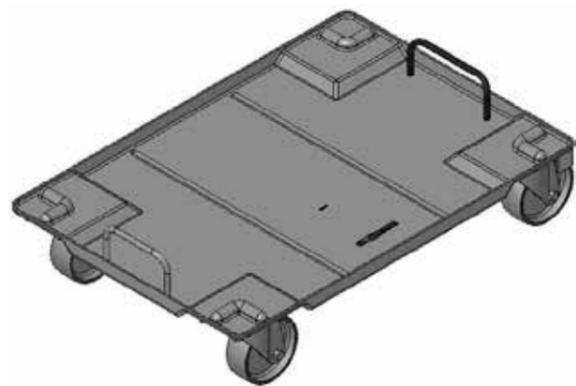
## DRAWN, OILPROOF MODEL

### 630x430mm

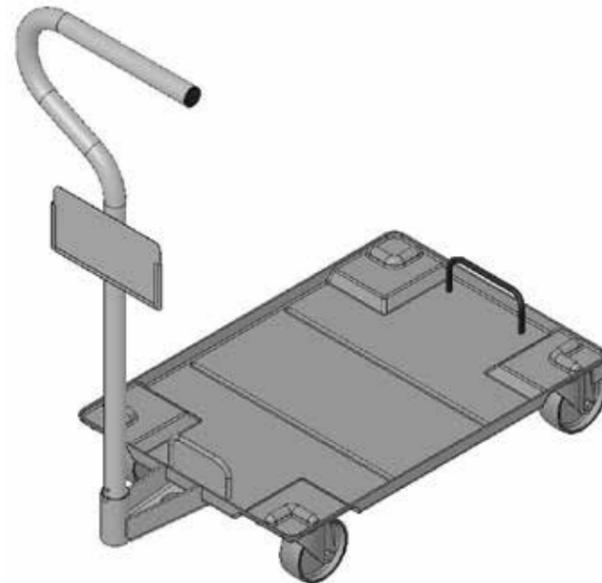
for containers max. 450kg

**PRODUCTS TO BE CARRIED**

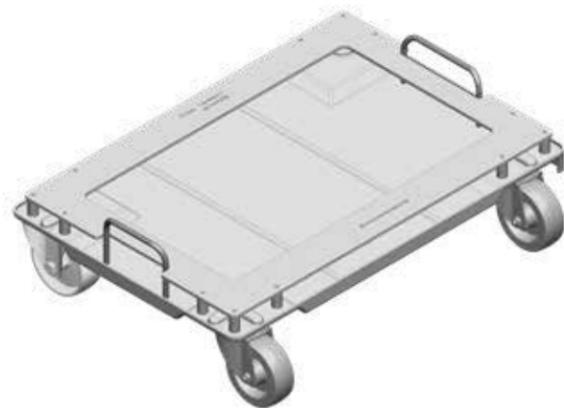
Wire Work Piece Carrier 600x400mm



Item no. 125373-X0001  
model with Anti-twist protection (switch flag)  
and different grip handles for correct stacking



Item no. 125373-X0016  
model with insertable push handle



Item no. 201020  
model with elevated shelf, grip handle  
and Anti-twist protection (switch flag)

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, because it has anti-twist protection. 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	Stacking pins	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

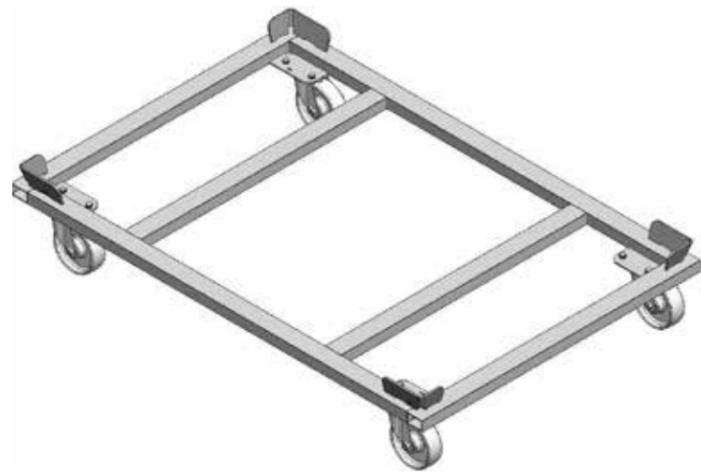
Item no.	Centering of Product	Wheels	Wheel design
201020-X0001	handle	Hard plastic	2 Swivel / 2 Fixed castors
201020-X0002	handle	Hard plastic	4 swivel castors
201020-X0003	handle with RFID chip	Hard plastic	4 swivel castors
All wheels Ø 100mm			

# 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

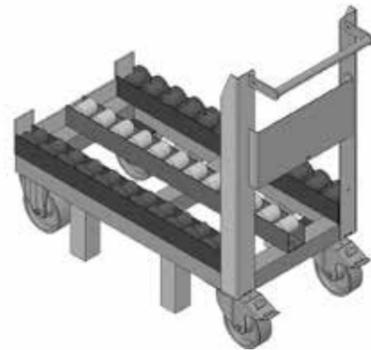
Subject to technical changes

# TROLLEY BOV FURTHER VARIATIONS I

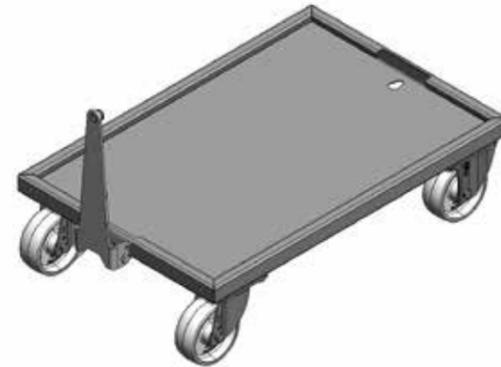
# TROLLEY BOV FURTHER VARIATIONS II



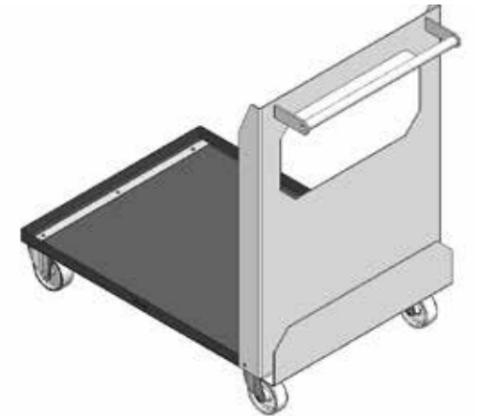
Item no. 207862



Item no. 134488



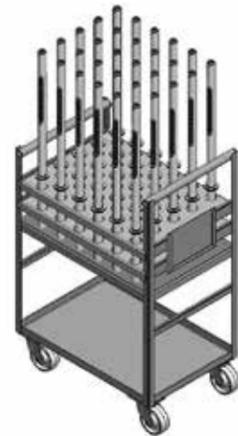
Item no. 210805



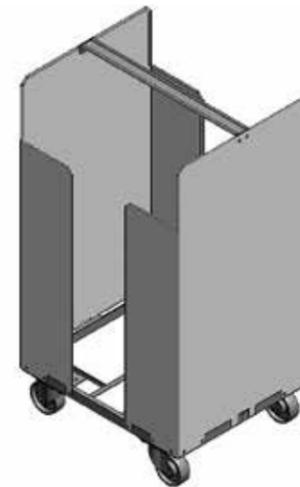
Item no. 201103



Item no. 209872



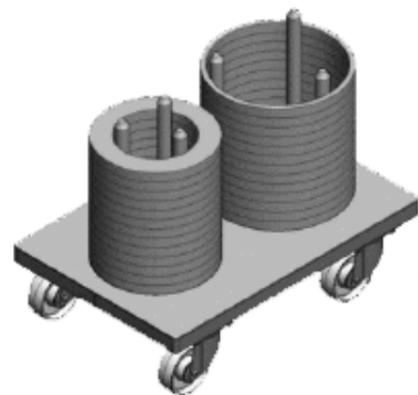
Item no. 200501



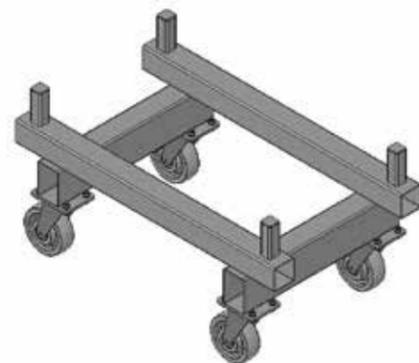
Item no. 209880



Item no. 206716 empty and loaded



Item no. 203265



Item no. 130755

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



website gallery

Other models / dimensions on request

Subject to technical changes

Other models / dimensions on request

Subject to technical changes

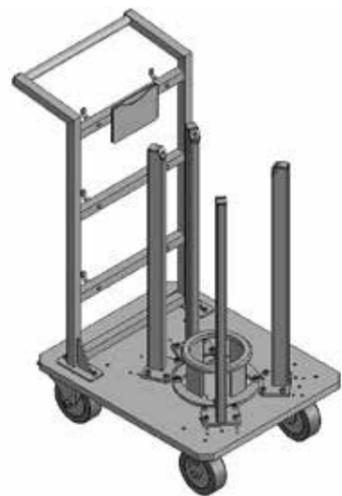
# TROLLEY BOV FURTHER VARIATIONS III



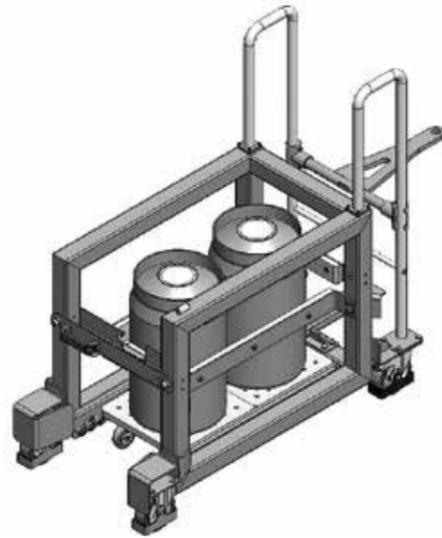
Item no. 143143



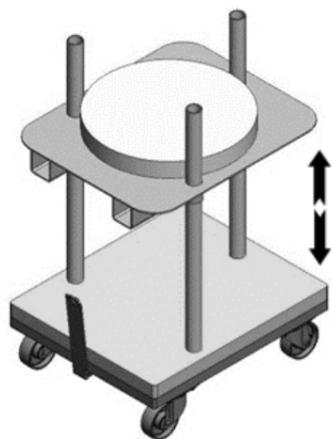
Item no. 207864



Item no. 211382



Item no. 203500



Item no. 105618



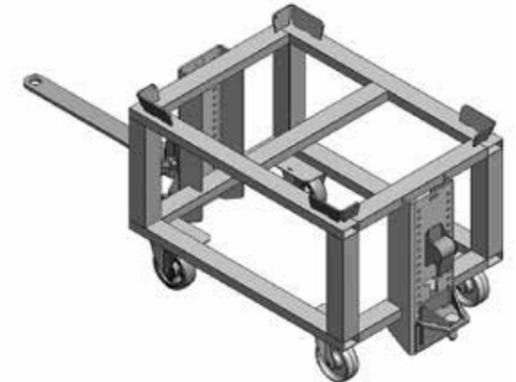
Other models / dimensions on request

Subject to technical changes

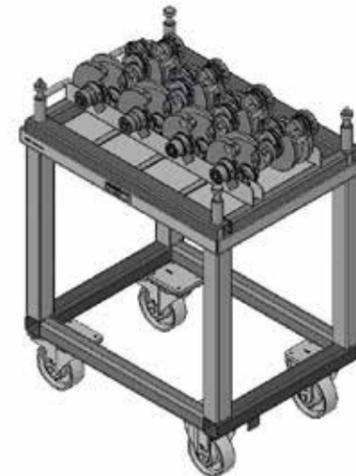
# TROLLEY BOV FURTHER VARIATIONS IV



Item no. 210053



Item no. 209110



Item no. 142805



Other models / dimensions on request

Subject to technical changes

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



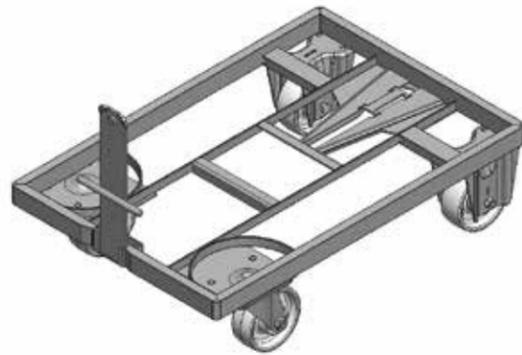
website gallery

# TROLLEY BOV WITH DRAWBAR

## FURTHER VARIATIONS FOR MILKRUN SYSTEMS



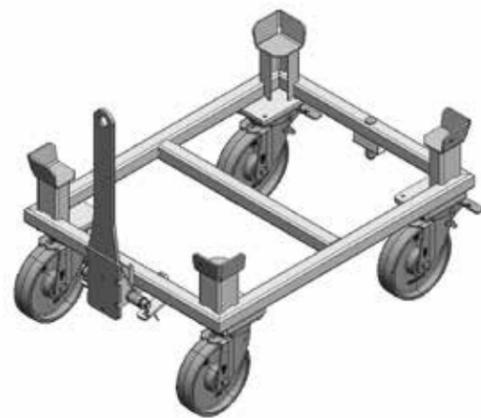
Item no. 205337-SDA00



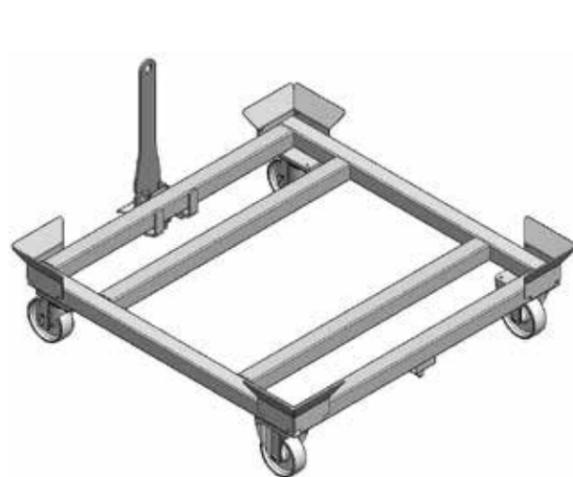
Item no. 210309-NPDE1



Item no. 201363



Item no. 201539



Item no. 207503



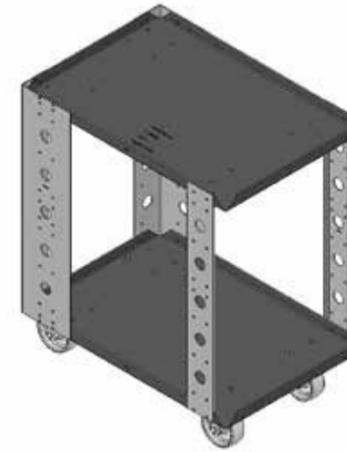
Item no. 140550-SDAZO

Other models / dimensions on request

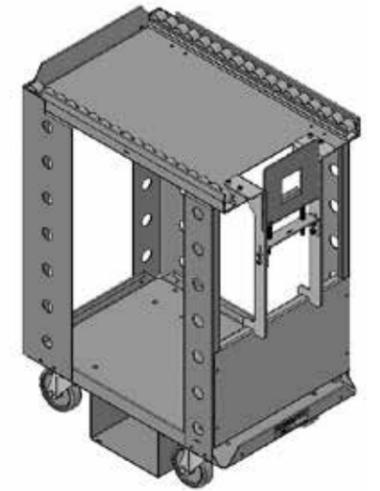
Subject to technical changes

# TROLLEY BOV WITH HIGH SHELF OPTIONS

## FURTHER VARIATIONS



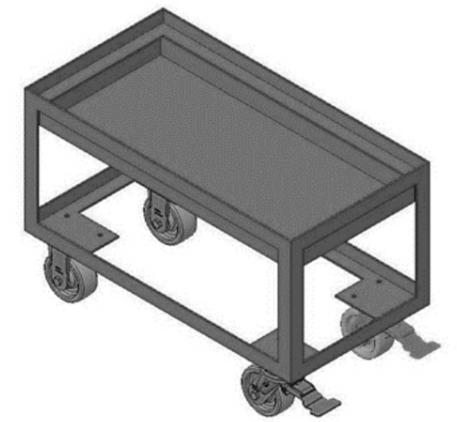
Item no. 136686



Item no. 137610



Item no. 131904



Item no. 211368



Item no. 210319

Other models / dimensions on request

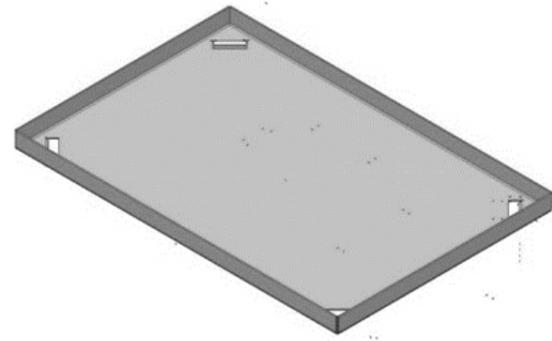
Subject to technical changes



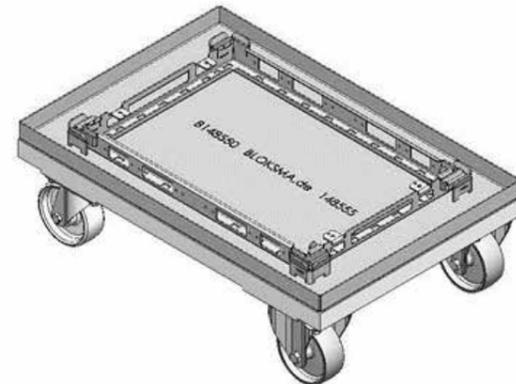
website gallery

# TROLLEY ACCESSORIES I

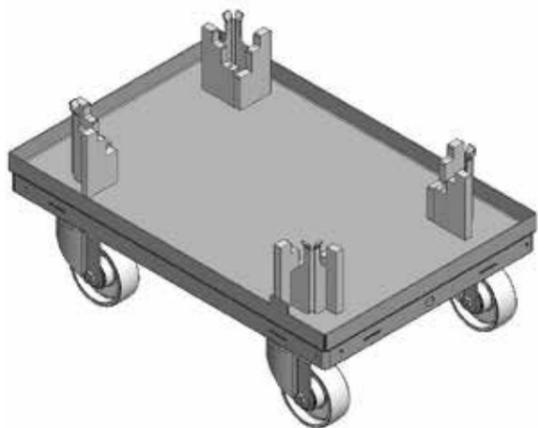
## ATTACHABLE TRAY



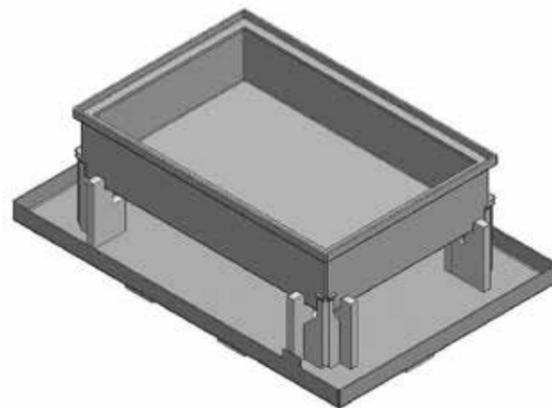
Item no. 208882



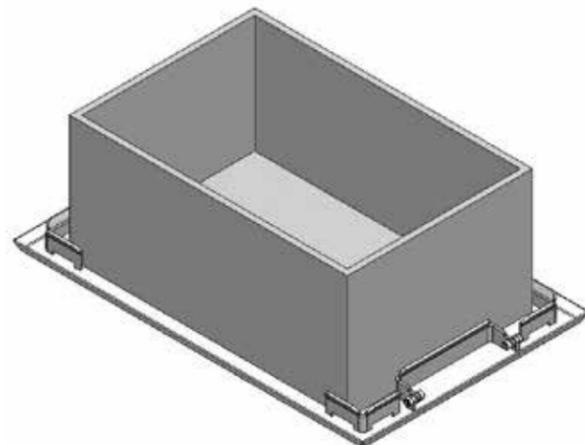
Item no. 148550



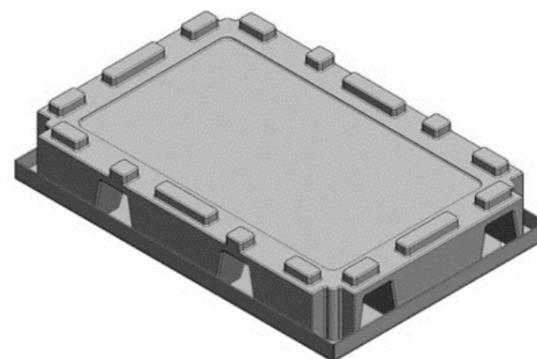
Item no. 208950



Item no. 208950



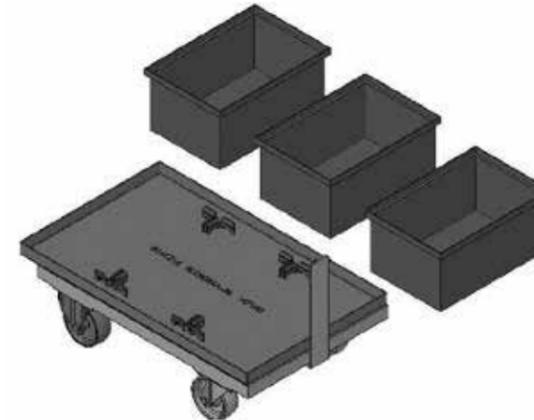
Item no. 206935



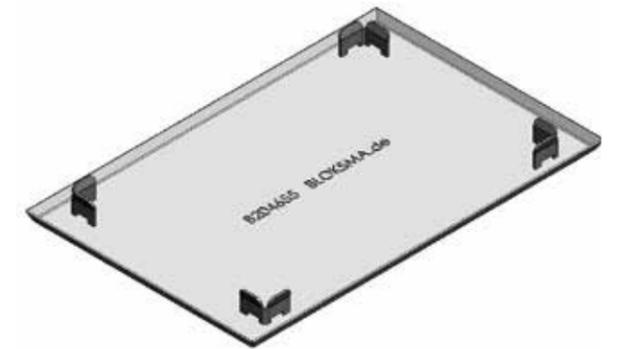
Item no. 211634

# TROLLEY ACCESSORIES II

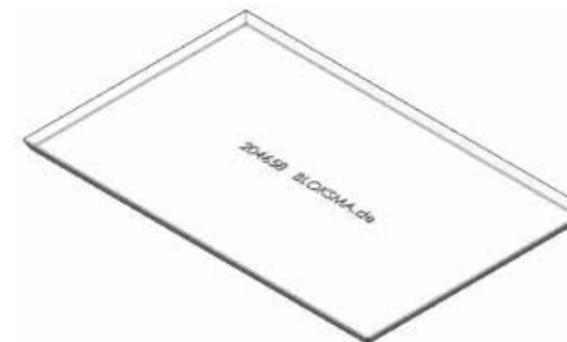
## OILPROOF ATTACHABLE AND CENTERING TUB



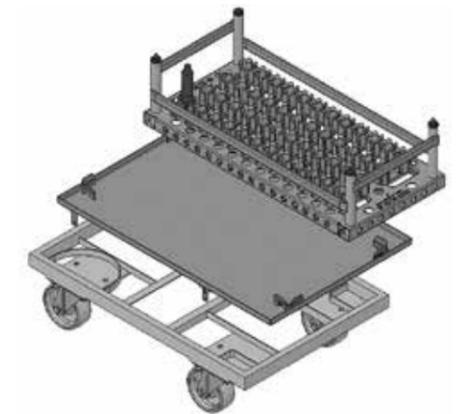
Item no. 147216 attachable tray with centering angle



Item no. 204655 attachable tray with centering angle  
CW: 470 x 310 mm



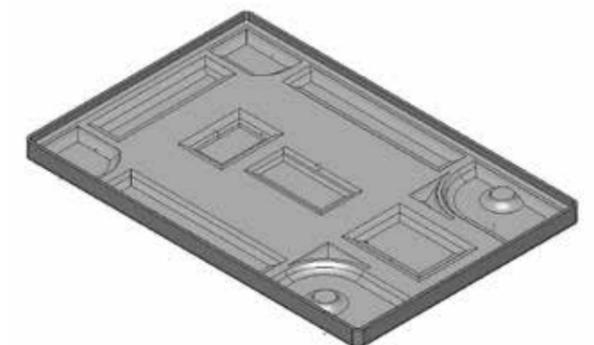
Item no. 204658 tray without centering angle



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



Item no. 210227  
attachable top tray for barrels

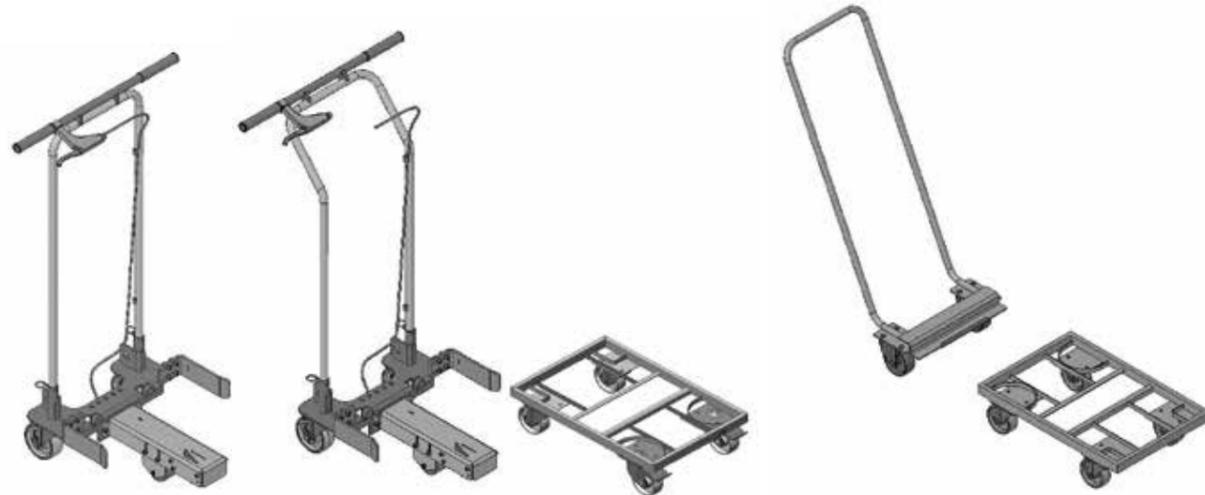


Item no. 206963 plastic tray for oil

# TROLLEY ACCESSORIES III

## PUSH HANDLE

Ergonomic aid to transport empty trolleys

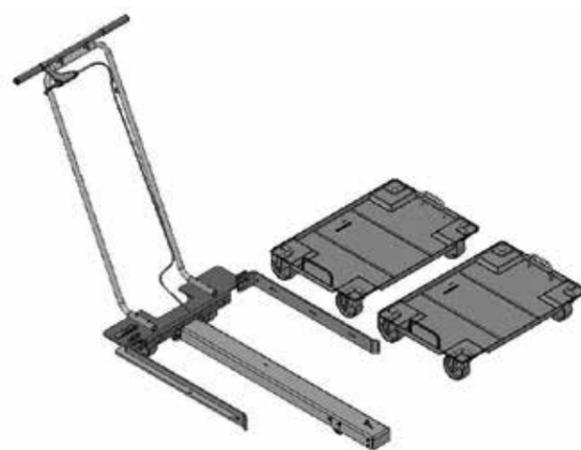


Item no. 200149 push handle for BOF and 200149 with bent handle

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

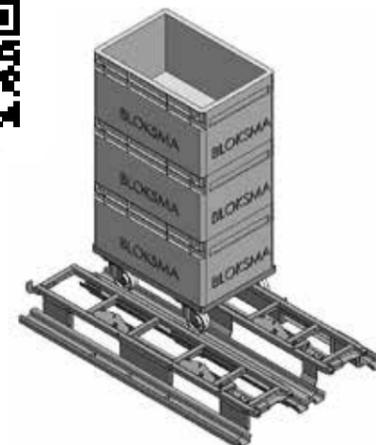
# TROLLEY ACCESSORIES IV

## TRANSPORT PALLET/TRANSPORT RACK

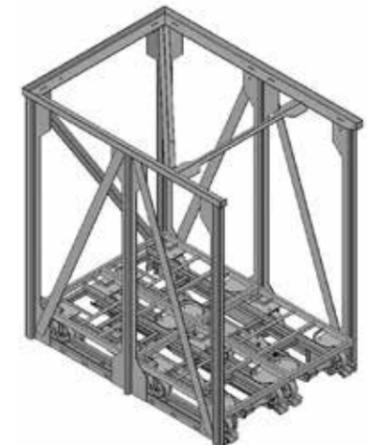
Transport pallets are intended for plan-to-plant Transport of trolleys with loaded KLTs. This eliminates the time consuming repackaging. Due to the trolleys quick and safe (un-)locking on the transport pallet, the time and resource consuming straps are no longer needed.

Diverse variations of trolley sizes and styles are available.

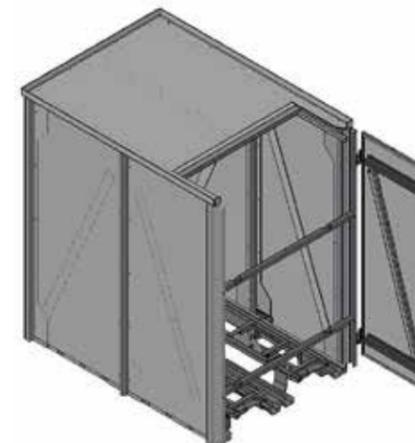
See also page 216 Transport Logistics TFG – Transport Rack I-III.



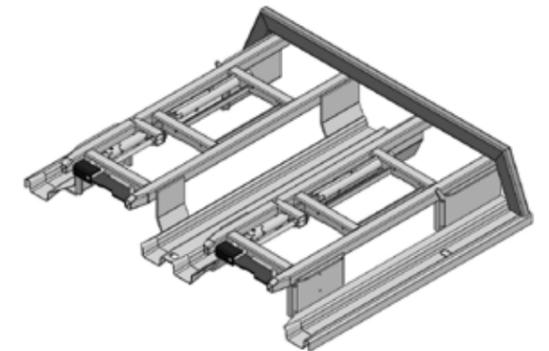
Item no. 143965 for BOF 600x400mm  
Item no. 147692 for BOF 600x500mm



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



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



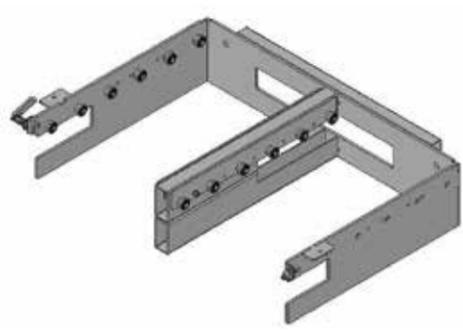
Item no. 144315 for 2 BOF 600x400mm

Other models / dimensions on request

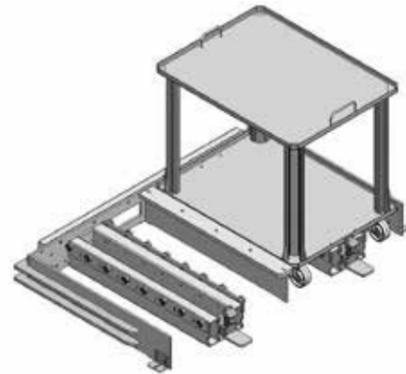
Subject to technical changes

# TROLLEY ACCESSORIES V

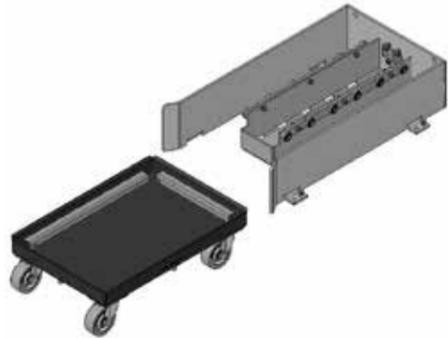
## CENTERING STATION



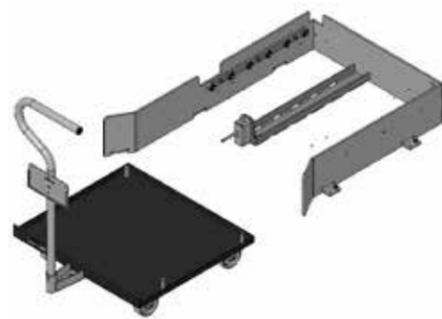
Item no. 131953



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



Video



Item no. 201407 Platform tugger 1,000 kg  
Item no. 206114 Platform tugger 2,000 kg



Item no. 207126 Scooter 2,500kg



Item no. 206959 Electric tug for BOZ



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



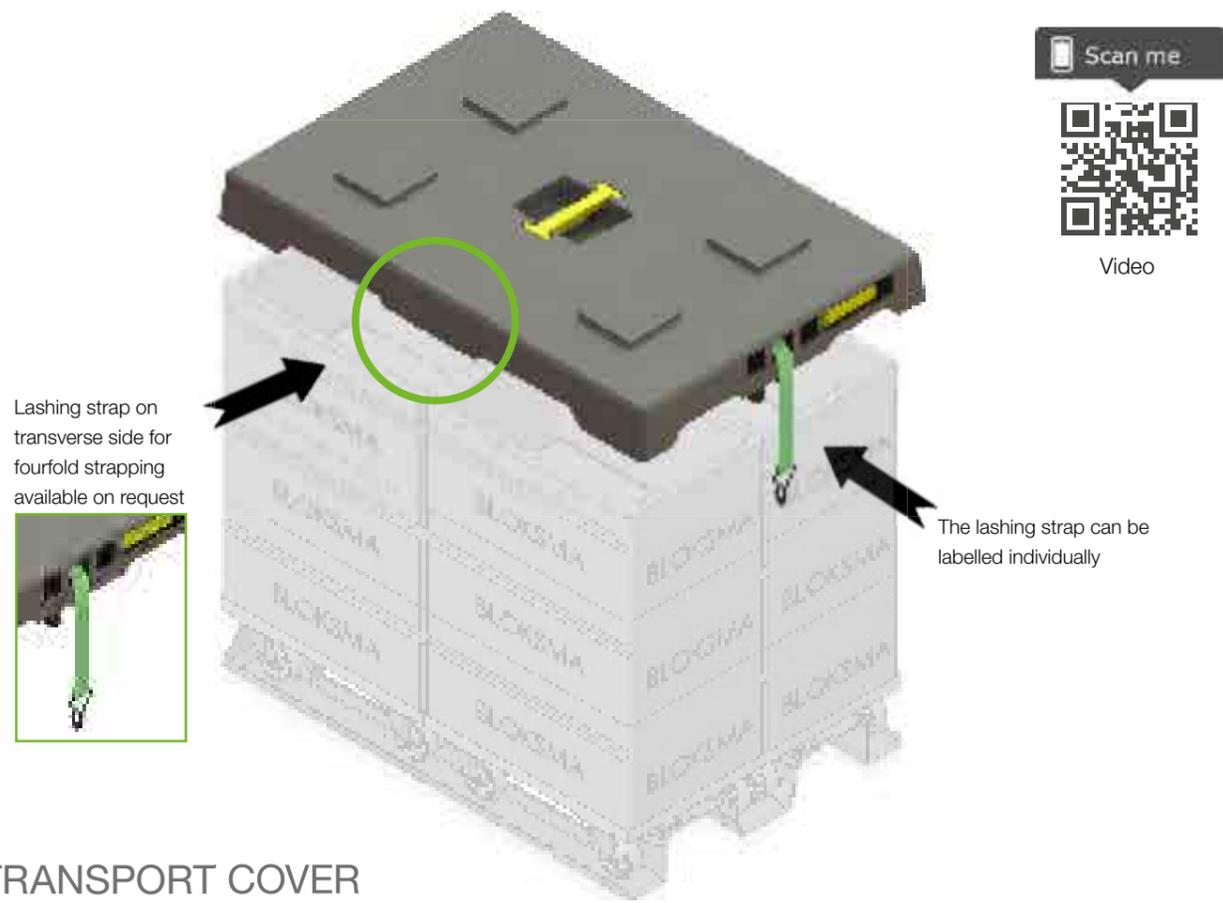
Item no. 206959 Electric tug with adjustable clamping hook from below



Video

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

# VDA COVER FOR TRANSPORT PALLET PLANT TO PLANT TRANSPORT



## TRANSPORT COVER

Item no.	dimensions	Form of hook	stackable?
205017-XH000	1,200x1,000mm	form of hook B for wooden pallet	yes
214716-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
214716-XT000	1,200x800mm	form of hook A for transportable pallet	yes
207805-XT002	800x600mm	form of hook A for transportable pallet	yes
21210-XB000	600x400mm	form of hook A for trolley BOF	no

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**

**LIFTERS**

**ERGONOMICS  
AT THE WORK STATION  
IS PAYING OFF**



# LIFTERS

**Pressing a button instead of using muscle strength: lifters provide ergonomic workstations. BLOKSMA as the premium manufacturer offers pneumatic and electric lifters.**

**More than 2,200 models of lifters have been produced already as the individual requirements of our customers were fulfilled over the years.**

BLOKSMA lifters are fundamentally effective. They move loads comfortably on working height, thus protect the workers' health and reduce access times, downtime and handling costs. Individual production, modular design and matchless flexibility make our lifters adjustable to any requirement. You have the choice: stationary, semi-mobile or mobile, highly flexible, single or twin lifters?

Pneumatic or electric? Front or side loading? Rotatable when loaded or unloaded? With sensory height adjustment or manual control? Whatever you choose: with BLOKSMA lifters ergonomics and profitability are guaranteed.

2

2

# OVERVIEW

PRODUCT INFORMATION	Pages 70–83
ELEKTRIC LIFTERS	Pages 84–105
<ul style="list-style-type: none"> <li>FURTHER VARIATIONS</li> <li>TECHNICAL DATA SHEETS</li> </ul>	
PNEUMATIC LIFTERS	Pages 106–127
<ul style="list-style-type: none"> <li>FURTHER VARIATIONS</li> <li>TECHNICAL DATA SHEETS</li> </ul>	
HYDRAULIC LIFTERS	Pages 128–133
ACCESSORIES	Pages 134–135



# LIFTERS CHECKLIST



**quantity**

**load**

**product to be carried** trolley yes  no  pallet/wire cage yes  no

if yes: item no./ brand  please send a drawing/photo

if no: appearance of the product  please send a drawing/photo

size trolley length  mm width  mm

size pallet/wire cage length  mm width  mm

wheel track in the direction of entry  mm

under clearance  mm

ground clearance  mm

wheel diameter  mm

wheel width  mm

wheel pairing  2 swivel & 2 fixed wheels  4 swivel wheels  5 swivel wheels  3 swivel & 2 fixed wheels  4 swivel & 2 fixed wheels

brake no  yes  how many?  where?

direction lock no  yes  how many?  where?

quality of the trolley  completely flat  trolley has a push handle  (for ex. at the bottom)  drawbar/ pins  others  of the trolley)  angle for RFID-chip or similar

If your trolley has one of these specialties, kindly send us a drawing or a photo.

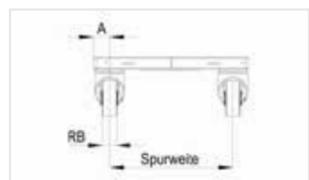
others

**working height GOK (upper edge of the forks)** 720 mm  920 mm  define the height you need

**power** electric: 230 V/50 Hz  110 V/50 Hz  battery-operated  others

pneumatic: 4 bar  6 bar  others

hydraulic: for more than 700 kg



## loading types

front loading   left side loading  

right side loading   tandem/ twin  

geminii   drive through  

special requirements (rotating into work station) please describe

**position of the trolley** lengthwise  crosswise

**model** stationary  semi-mobile  mobile

**operating elements** hand lever on unit (standard for pneumatic)  push button (optional for pneumatic)

panel (standard for electric, optional for pneumatic)  touch screen panel (optional for electric, not possible for pneumatic)

foot switch (optional for both electric and pneumatic)

**additional functions** sensoric height adjustment \*  tilting function

for closed box one-piece  a.) manual

for "open" wire basket one-piece  b.) electric \*

trolley load control \*  emptying the box

protection wall  bumper/ interruption bar \*

housing incl. security door etc.

\* These additional functions are not available for pneumatic lifters as two energy sources would be needed (pneumatic lifters only up/down, electric with automatic height adjustment)

**ESD-ability** no  yes

**country of use** please fill in the country code

please describe special requirements such as power plug etc.

**colour pneumatic** complete body RAL 9010 (white) powder coated forks galvanized

other colours

**colour electric** body RAL 9010 (white) powder coated, hood RAL 4006 (purple) forks galvanized

other colours

You can find more information about these technical terms on the following pages.

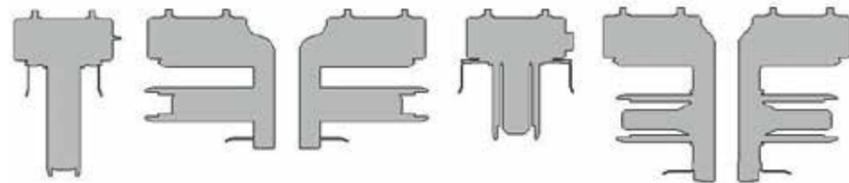
# LIFTERS SHADOW MAPS

6-piece-set

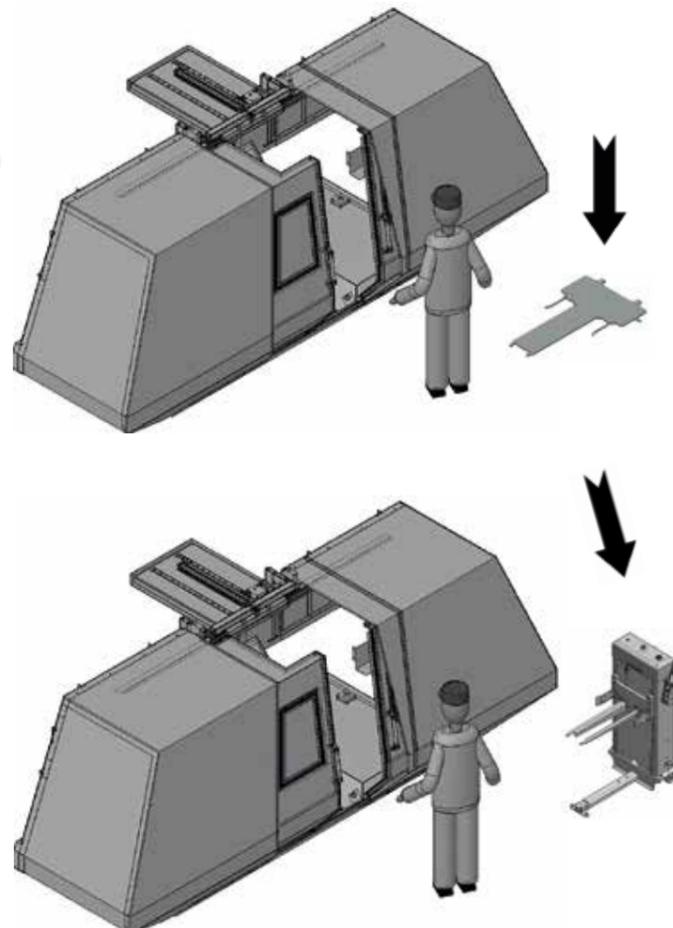
## SUPPORT FROM THE START

From the beginning BLOKSMA supports you in the planning process and helps creating your work stations thus making sure that you choose the correct lifter. The 6-piece-set of shadow maps makes it very easy to determine the space required so that the lifters can be planned into your production area.

Simply order your 6-piece-set of shadow maps and you have the best decision-making tool.



Put the shadow map on the intended spot at the workstation. Roll the trolley to the planned position. You will quickly notice if the trolley can be pushed onto the forks easily and if the worker can move the parts without any problem. Try different alternatives and study the position of the operating elements and the energy source.



Check the positioning of the lifter, let your employees share the decision and order your optimum lifter from BLOKSMA.

# LIFTERS MOBILITY

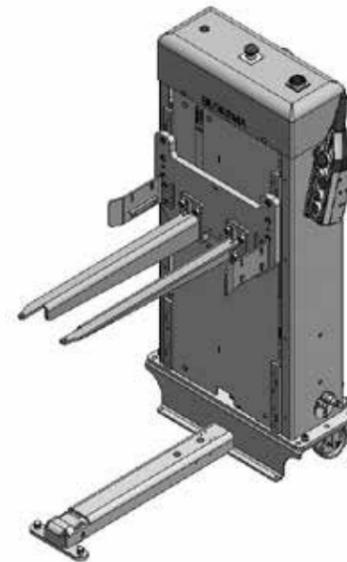
mobile • semi-mobile • stationary

## WE DISTINGUISH THE FOLLOWING TYPES:

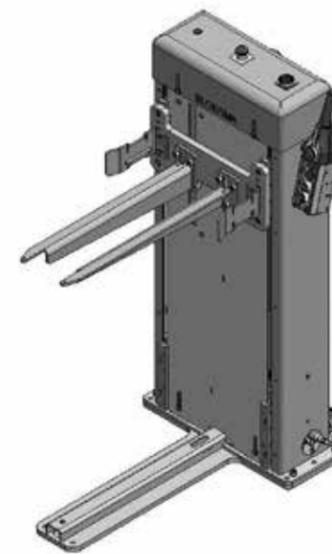
- mobile
- semi-mobile
- stationary

Your decision will determine the design and model.

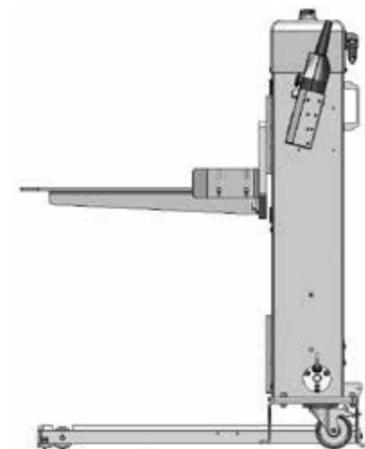
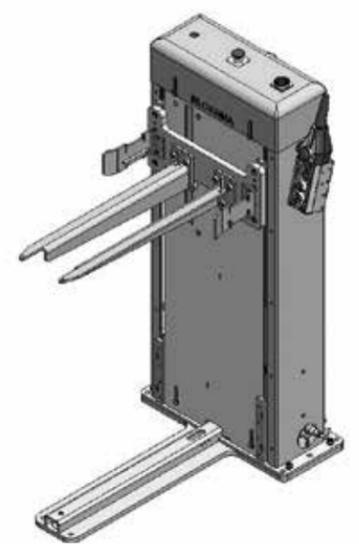
mobile model



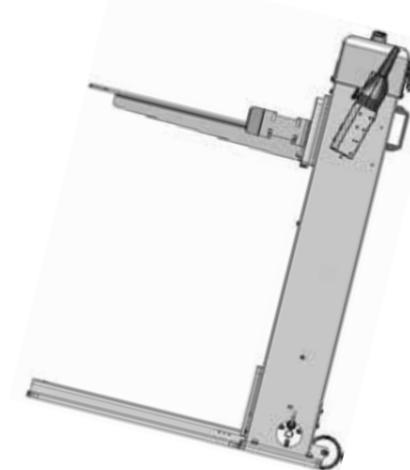
semi-mobile model



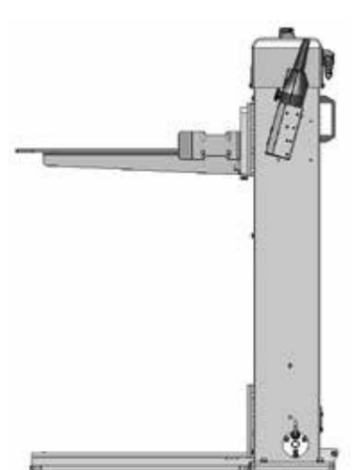
stationary model



always stands on wheels



tilt backwards for transport functions like a hand cart



without wheels

# LIFTERS

## LOADING DIRECTION

Definition lengthwise / crosswise loading

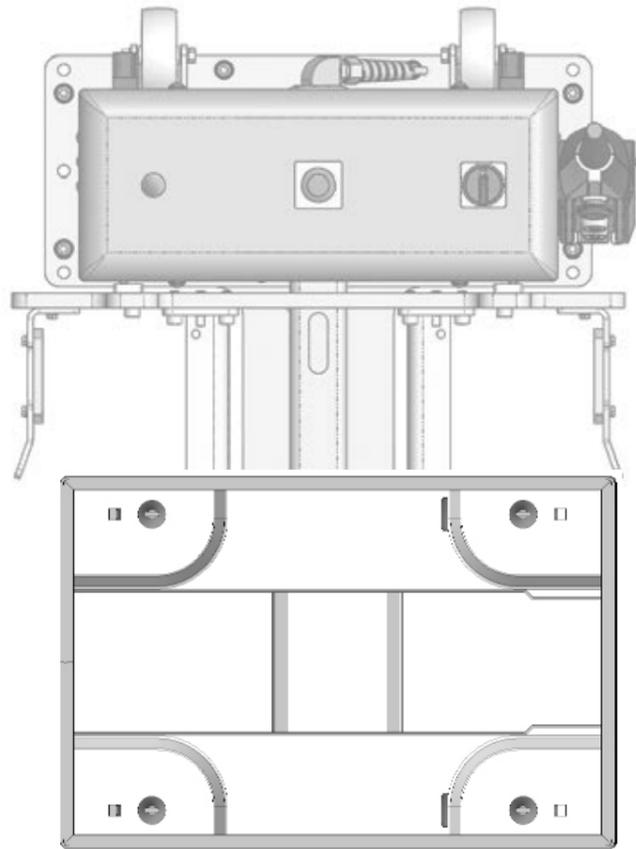
2

**LOADING CROSSWISE**

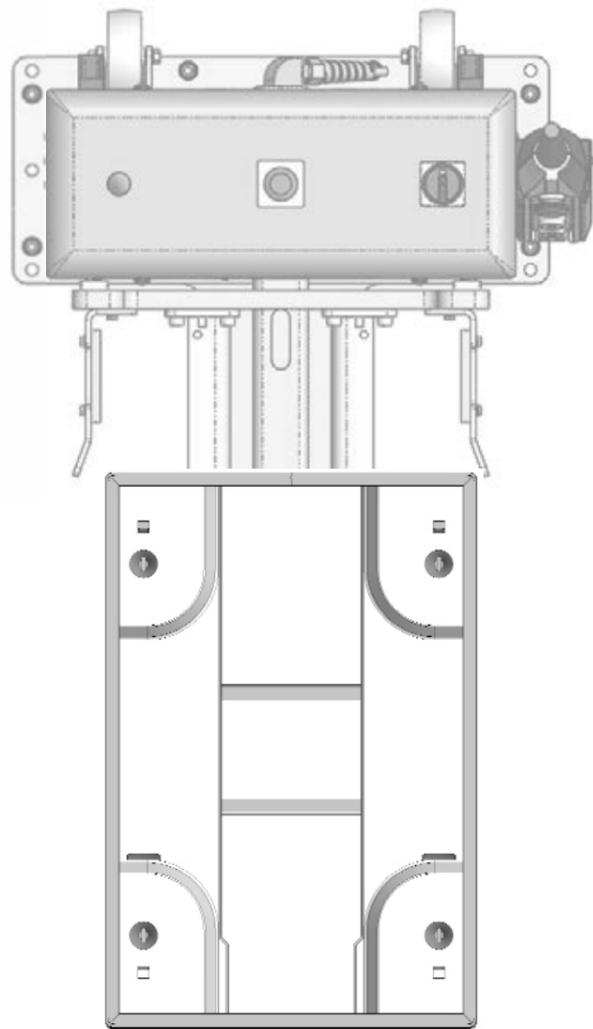
If you push the trolley on the forks of the lifter with the long side first, the loading direction is **CROSSWISE**.

**LOADING LENGTHWISE**

If you push the trolley on the forks of the lifter with the short side first, the loading direction is **LENGTHWISE**.



Example: Front loading **crosswise**

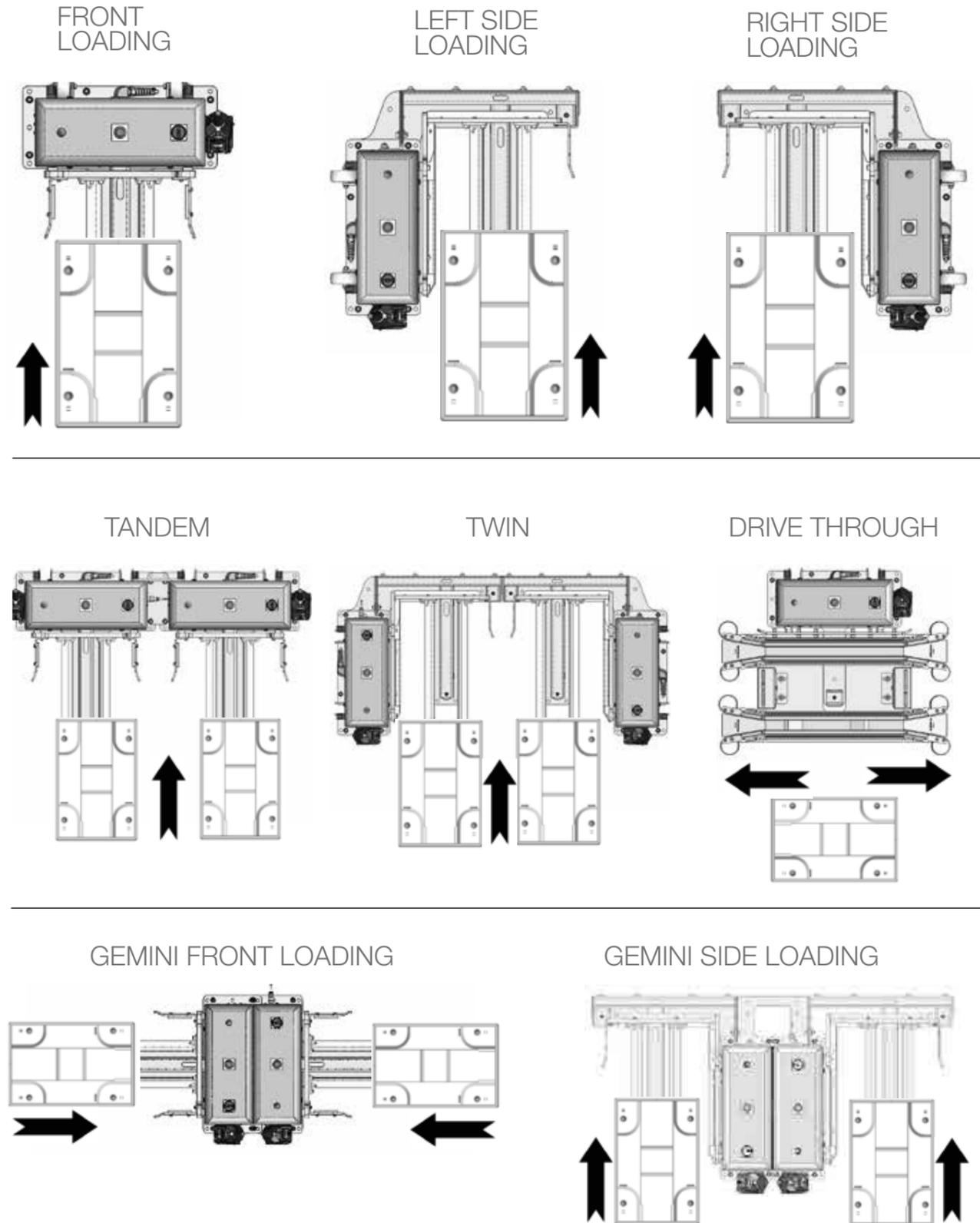


Example: Front loading **lengthwise**

# LIFTERS

## LOADING TYPE

(All loading types shown are possible both as lengthwise or crosswise loading (see page 74))



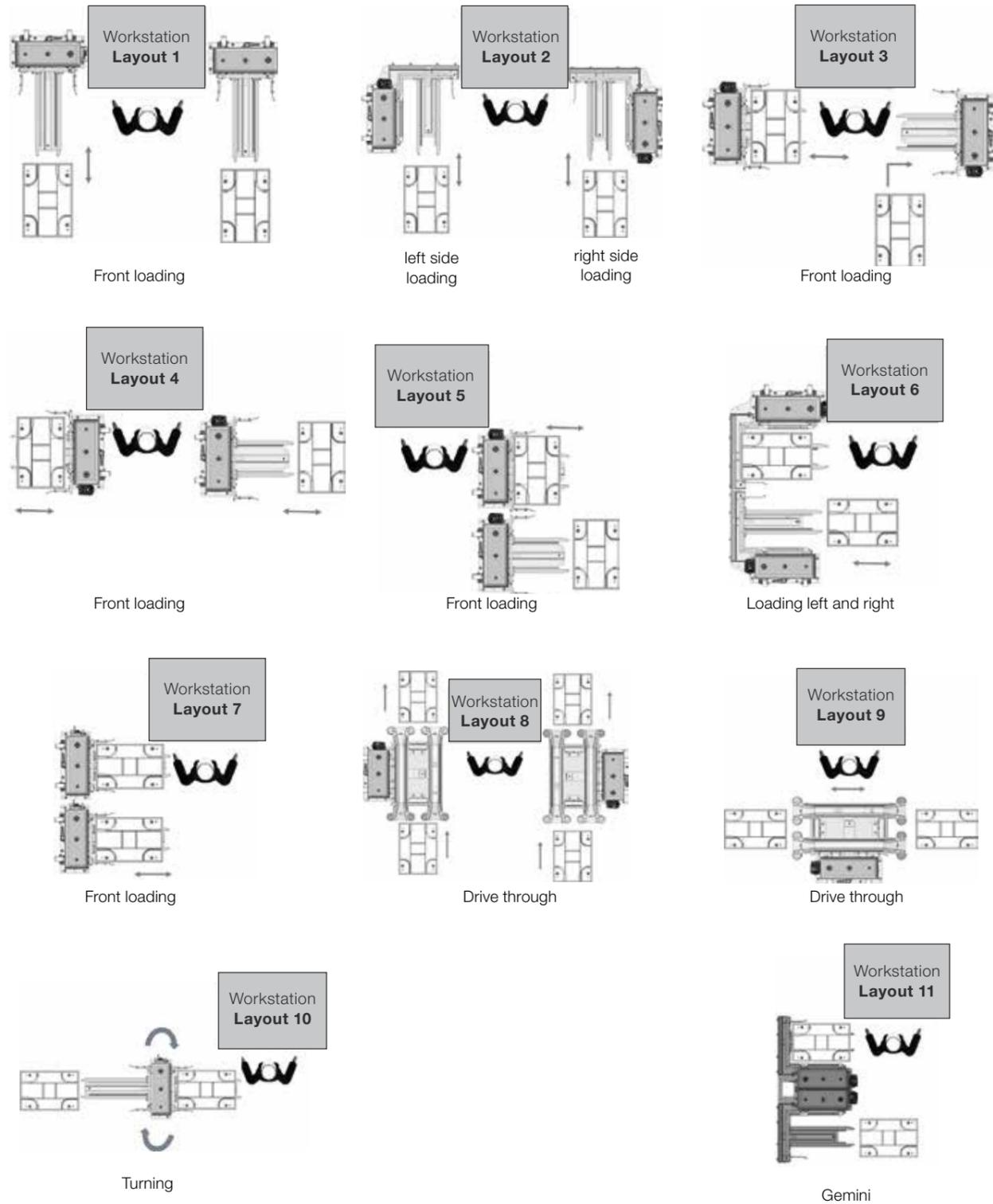
2

# LIFTERS

## INSTALLATION POSSIBILITIES

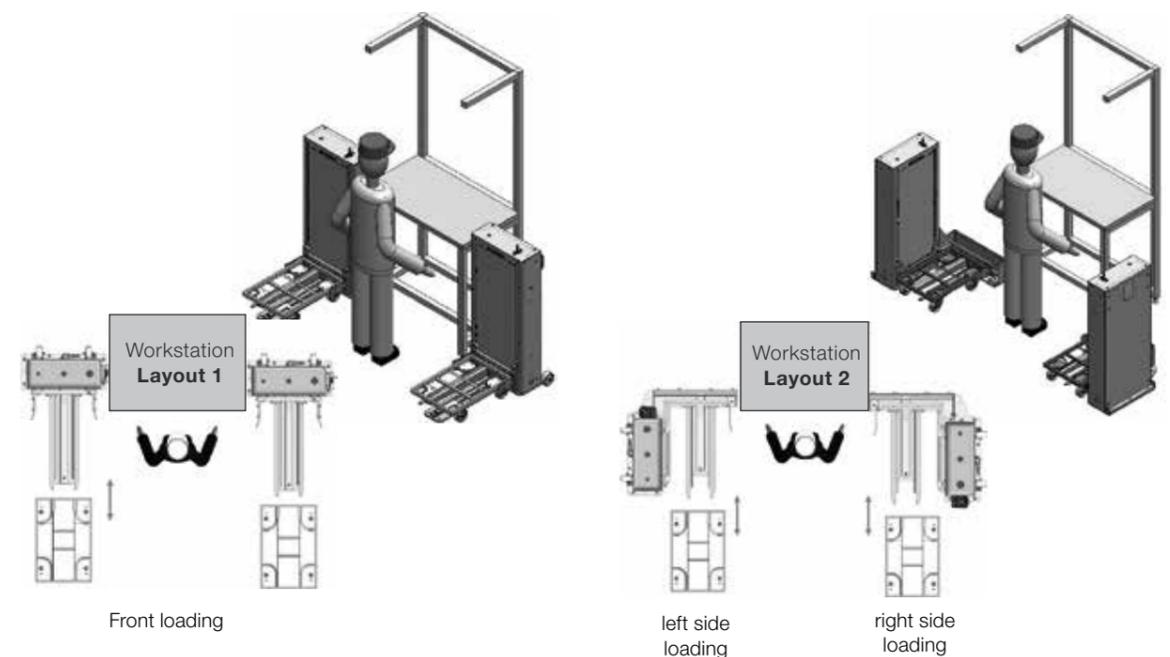
### Workstation layout

2



Workstation layout	1	2	3	4	5	6	7	8	9	10	11
Front loading lifter	●		●	●	●		●	●	●	●	●
Side loading lifter		●				●					
stationary	●	●	●	●	●	●	●	●	●	●	●
semi-mobile	●	●	●	●	●	●	●	●	●		
mobile	●		●	●	●	●	●	●	●		
tandem lifter						●	●				●
rear taking				●	●						
to pass through is possible								●	●		
to swivel in work area										●	●
exchange by system provider	●	●		●	●			●	●	●	●

2



# LIFTERS CONTROL ELEMENTS

Make your choice

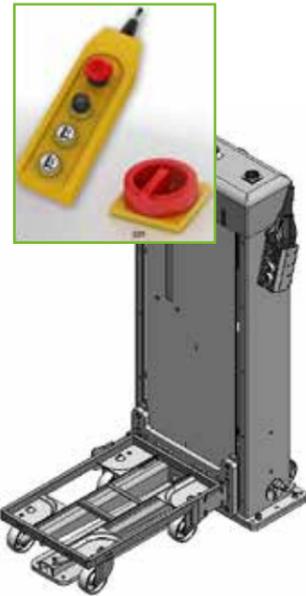
2



hand lever on the machine  
(exclusive for pneumatic devices)



sensoric height adjustment (automatic)



portable control panel



portable touch panel\*  
(exclusive for electric devices)



foot switch



buttons on the lifter

\* This option is not available with pneumatic lifters as 2 energy sources would have to be installed.

# LIFTERS THE SENSOR TECHNOLOGY

## SENSORIC HEIGHT ADJUSTMENT

Lifting devices with sensoric height adjustment as a standard dispose of a point sensor reaching items withing 300 mm. It recognizes one-piece closed containers. Other sensors are available on request.



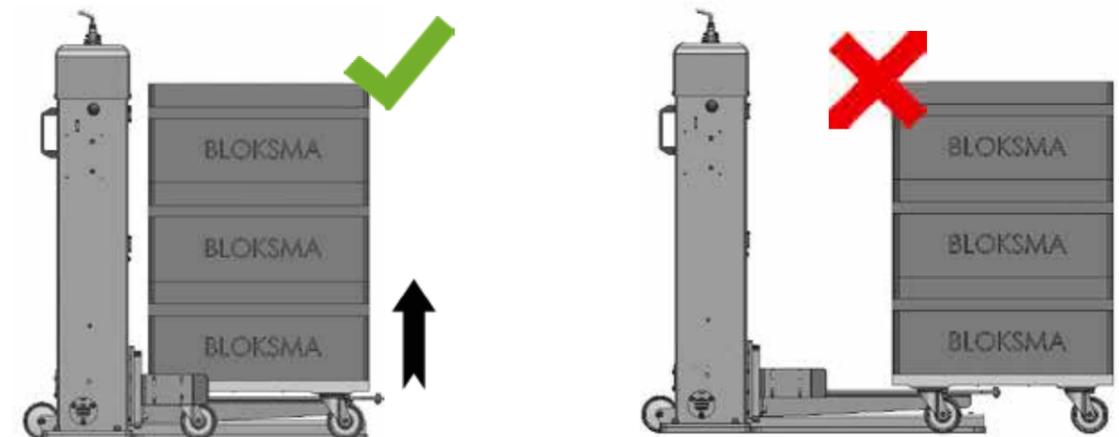
Warning: For several containers (next to each other and / or behind each other) attention must be paid to the range and position of the sensor. Under certain circumstances two sensors may be necessary. In addition the order of removal or loading is to be considered.

Not useful – because the content (level) of the container for the sensor is not recognizable.

2

## TROLLEY-DELAY CONTROL

Safety precaution – if the trolley is not fully pushed onto the load receiver, lifting is not possible



The trolley is completely pushed onto the forks therefore lifting is possible.

The trolley is not completely pushed onto the forks therefor lifting is impossible.

# LIFTERS TYPES OF POWER

# LIFTERS TILTING POSSIBILITIES FRONT LOADING

2



## ELECTRIC

- Sensoric height adjustment and further accessories are possible
- Different speeds are available



## PNEUMATIC

- Lower price than Electric
- Suggested when simple moving up and down is asked for



## BATTERY

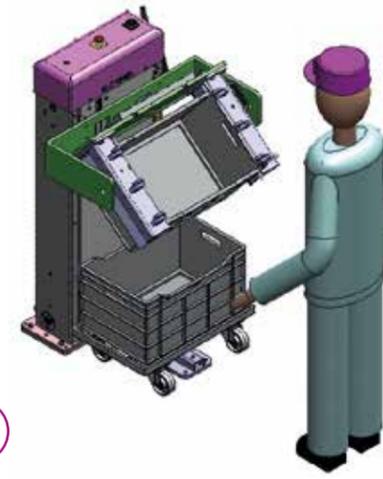
- More mobility, not possible in pneumatic - electricity is needed
- Electric and pneumatic cables can be tripping hazards
- Ideal for the serving of shelves, higher level of freedom



## HYDRAULIC

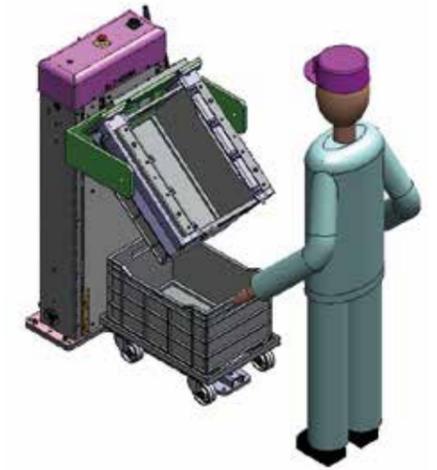
- Ideal for lifting heavy loads
- Mostly used for lifting of containers with large-size products

2



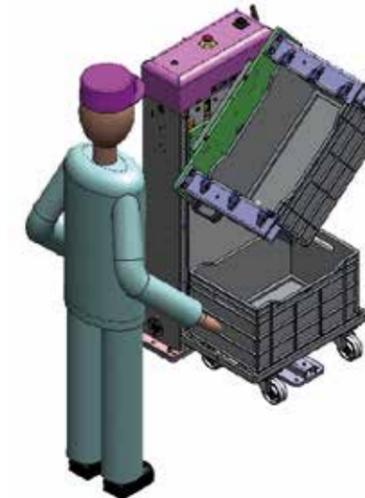
V1

front loading crosswise, tilting to the front



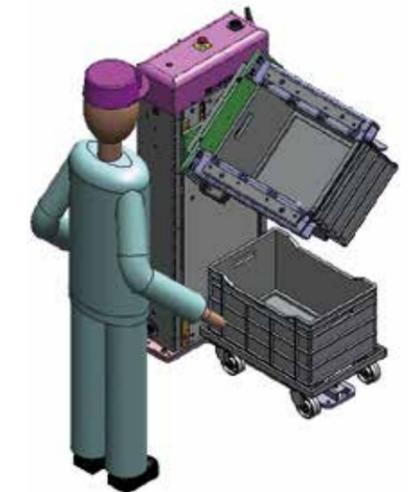
V2

front loading lengthwise, tilting to the front



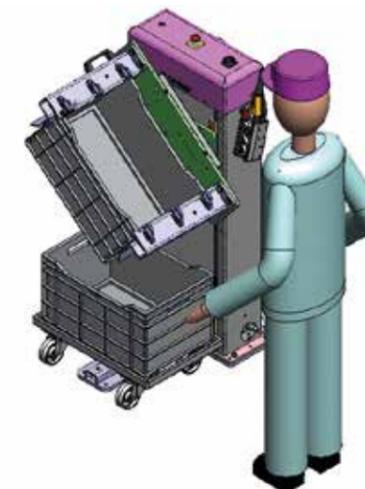
V3

front loading crosswise, tilting to the left side



V4

front loading lengthwise, tilting to the left side



V5

front loading crosswise, tilting to the right side



V6

front loading lengthwise, tilting to the right side

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

# LIFTERS TILTING POSSIBILITIES RIGHT SIDE LOADING

# LIFTERS TILTING POSSIBILITIES LEFT SIDE LOADING

2

2

V7



Right side loading, lengthwise, tilting to the front

V8



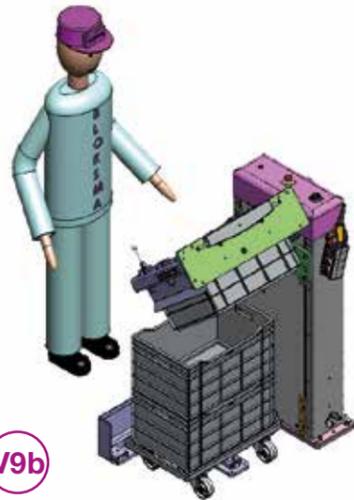
Right side loading, crosswise, tilting to the front

V9a



Right side loading, crosswise, tilting to the right

V9b



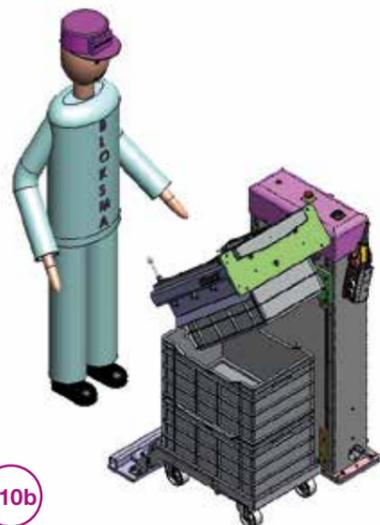
Right side loading, crosswise, tilting to the left

V10a



Right side loading, lengthwise, tilting to the right

V10b



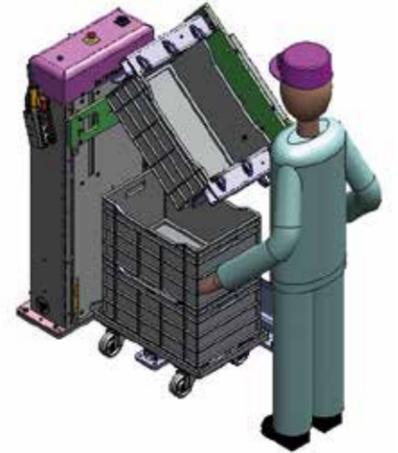
Right side loading, lengthwise, tilting to the left

V11



Left side loading, lengthwise, tilting to the front

V12



Left side loading, crosswise, tilting to the front

V13a



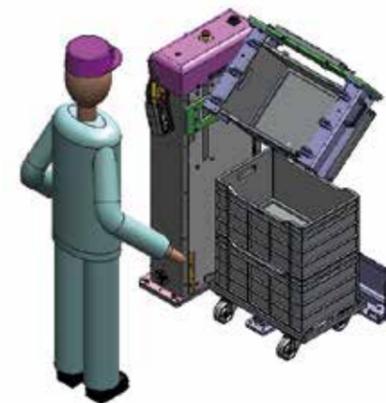
Left side loading, lengthwise, tilting to the left

V13b



Left side loading, lengthwise, tilting to the right

V14a



Left side loading, crosswise, tilting to the left

V14b



Left side loading, crosswise, tilting to the right

# LIFTERS FRONT LOADING

trolley is pushed onto the forks lengthwise

HES-F / HET-F / HEM-F

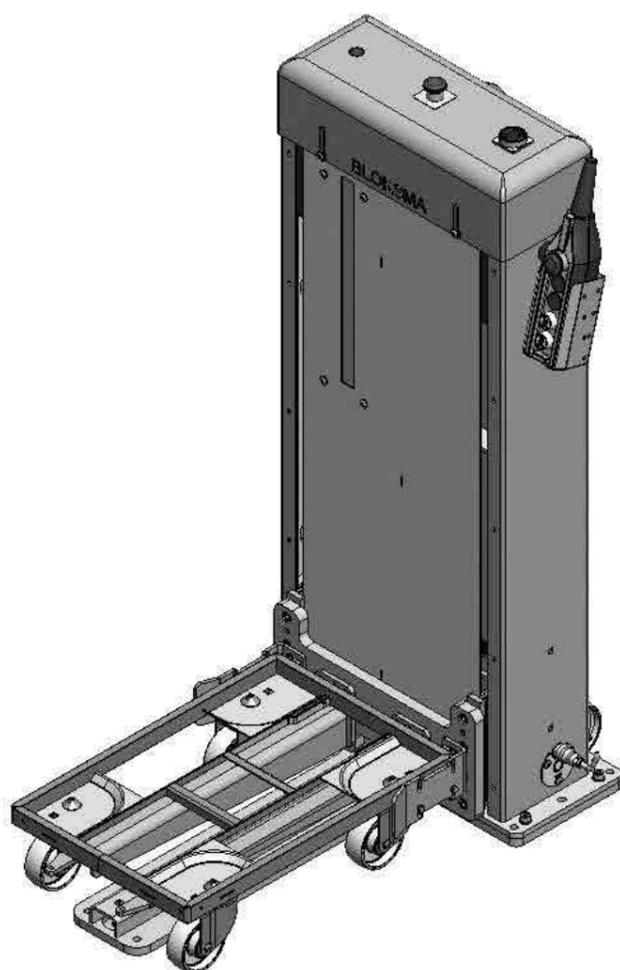


2

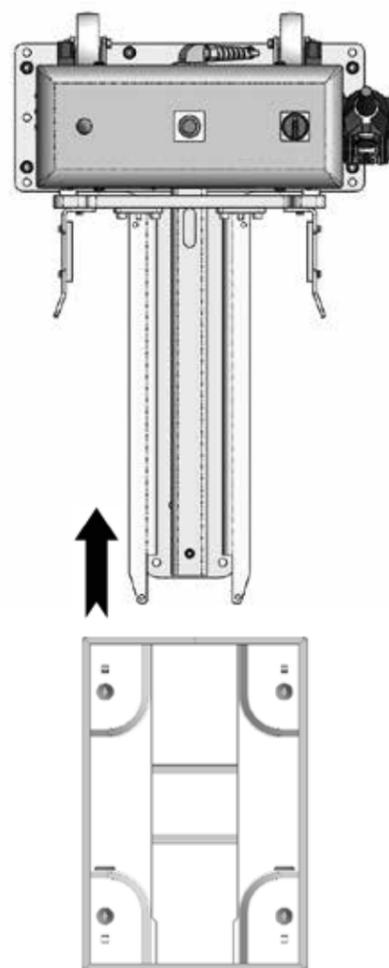
- OPTIONAL**
- Sensoric height adjustment
  - trolley load control
  - Protection walls , bumper etc.
  - Stationary lifters available



additional functions



picture: semi-mobile lifter



Loading direction lengthwise

This lifter is designed to lift and lower fully loaded trolleys for ergonomic working at assembly work stations or machines. The lifter is front loading and the trolley is pushed onto the forks lengthwise. The load capacity is 200kg, 300kg or 500kg and the lifter has a working height of 715mm, resp. 935mm. It is manufactured as mobile, semi-mobile or stationary.

The connection wattage is 230V/50HZ with 16A security. The average lifting speed is 31mm/s (upon request 47mm/s and other speeds are possible). The energy requirement per model lies between 0.25kW and 1.1kW.

The lifter is suitable for BLOKSMA trolleys BOF + BOZ.

**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.

**For more information please turn to page 78 (chapter Control Elements).**

2

## FOR TROLLEY BOF/BOZ LENGTHWISE 600x400mm

semi-mobile	semi-mobile sensor system	mobile	mobile sensor system	lifting capacity	lift height on level (GOK)
141029	144142	142570	203251	200 kg	715 mm
141030	144764	142571	200683		935 mm
141031	144143	142572	207597	300 kg	715 mm
141032	143782	207992	142573		935 mm
141035	210920	142576	210968	500 kg	715 mm
141036	210921	142577	210969		935 mm

## FOR TROLLEY BOF LENGTHWISE 800x600mm

semi-mobile	semi-mobile sensor system	mobile	mobile sensor system	lifting capacity	lift height on level (GOK)
141037	210922	142578	210970	200 kg	715 mm
141038	210923	142579	210971		935 mm
141039	210924	142580	210972	300 kg	715 mm
141040	210925	142581	210973		935 mm
141043	210926	142584	210974	500 kg	715 mm
141044	210927	142585	210975		935 mm



Please Note: Lifters used in the US may have different connection values (110V) and different article numbers. Please fill out the check list provided and let us know your desired connection voltage.

# LIFTERS FRONT LOADING

trolley is pushed onto the forks crosswise

HES-F / HET-F / HEM-F

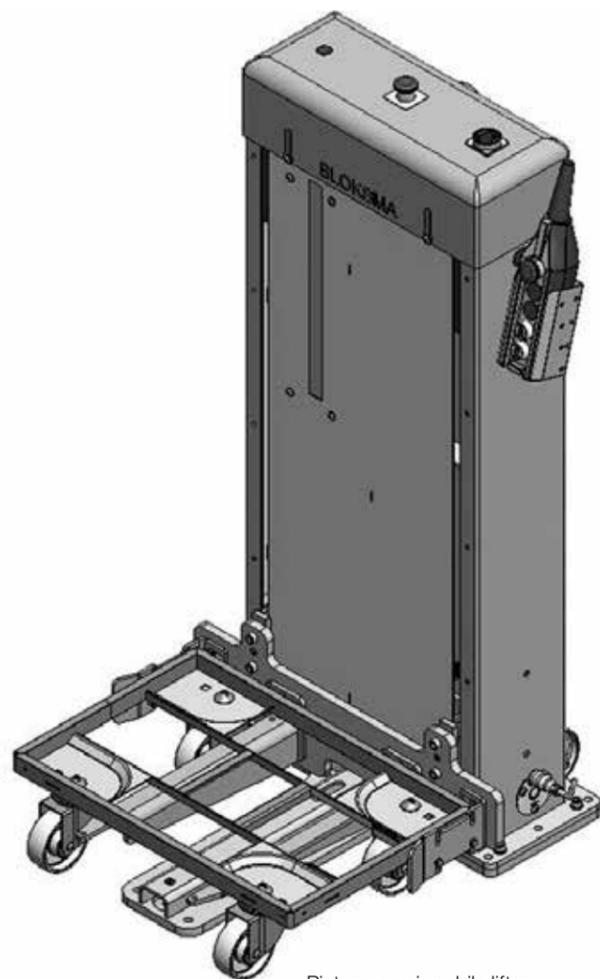


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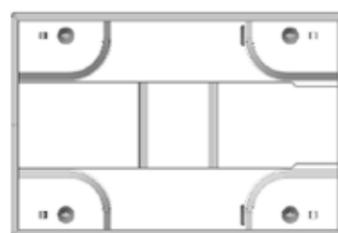
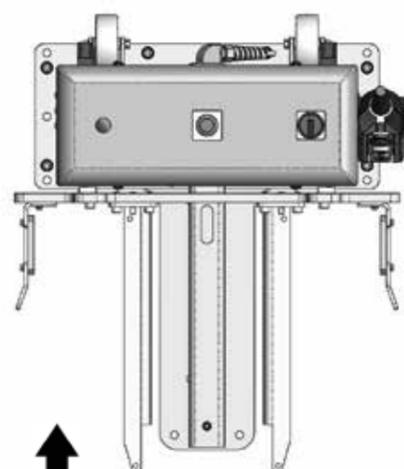
- OPTIONAL**
- Sensoric height adjustment
  - trolley load control
  - Protection walls , bumper etc.
  - Stationary lifters available



Additional functions



Picture: semi-mobile lifter



Loading crosswise

This lifter is designed to lift and lower fully loaded trolleys for ergonomic working at assembly work stations or machines. This is a frontloading lifter and the trolley is pushed onto the forks crosswise. The load capacity is 200, 300 or 500kg and the lifter has a working height of 715 resp. 935mm. It is manufactured as mobile, semi-mobile or stationary.

The connection wattage is 230V/50HZ with 16A security. The average lifting speed is 31mm/s (upon request 47mm/s and other speeds are possible). The energy requirement per model lies between 0.25kW and 1.1kW.

The lifter is suitable for BLOKSMA trolleys BOF + BOZ.

**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.

**For more information please turn to page 78 (chapter Control Elements).**

2

## FOR TROLLEY BOF/BOZ CROSSWISE 600x400mm

semi-mobile	semi-mobile sensor system	mobile	mobile sensor system	lifting capacity	lift height on level (GOK)
141045	144395	142555	210976	200 kg	715 mm
141046	210928	142554	206194		935 mm
141047	144146	142556	210977	300 kg	715 mm
141048	144148	142557	210978		935 mm
141051	210929	142560	210979	500 kg	715 mm
141052	210930	142561	210980		935 mm

## FOR TROLLEY BOF CROSSWISE 800x600mm

semi-mobile	semi-mobile sensor system	mobile	mobile sensor system	lifting capacity	lift height on level (GOK)
141053	210931	142562	210981	200 kg	715 mm
141054	205269	142563	210982		935 mm
141055	210932	142564	210983	300 kg	715 mm
141056	207804	142565	210984		935 mm
141059	210933	142568	210985	500 kg	715 mm
141060	210934	142569	210986		935 mm



Please Note: Lifters used in the US may have different connection values (110V) and different article numbers. Please fill out the check list provided and let us know your desired connection voltage.

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

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

# LIFTERS FRONT LOADING

Heavy loads/Pallet sizes

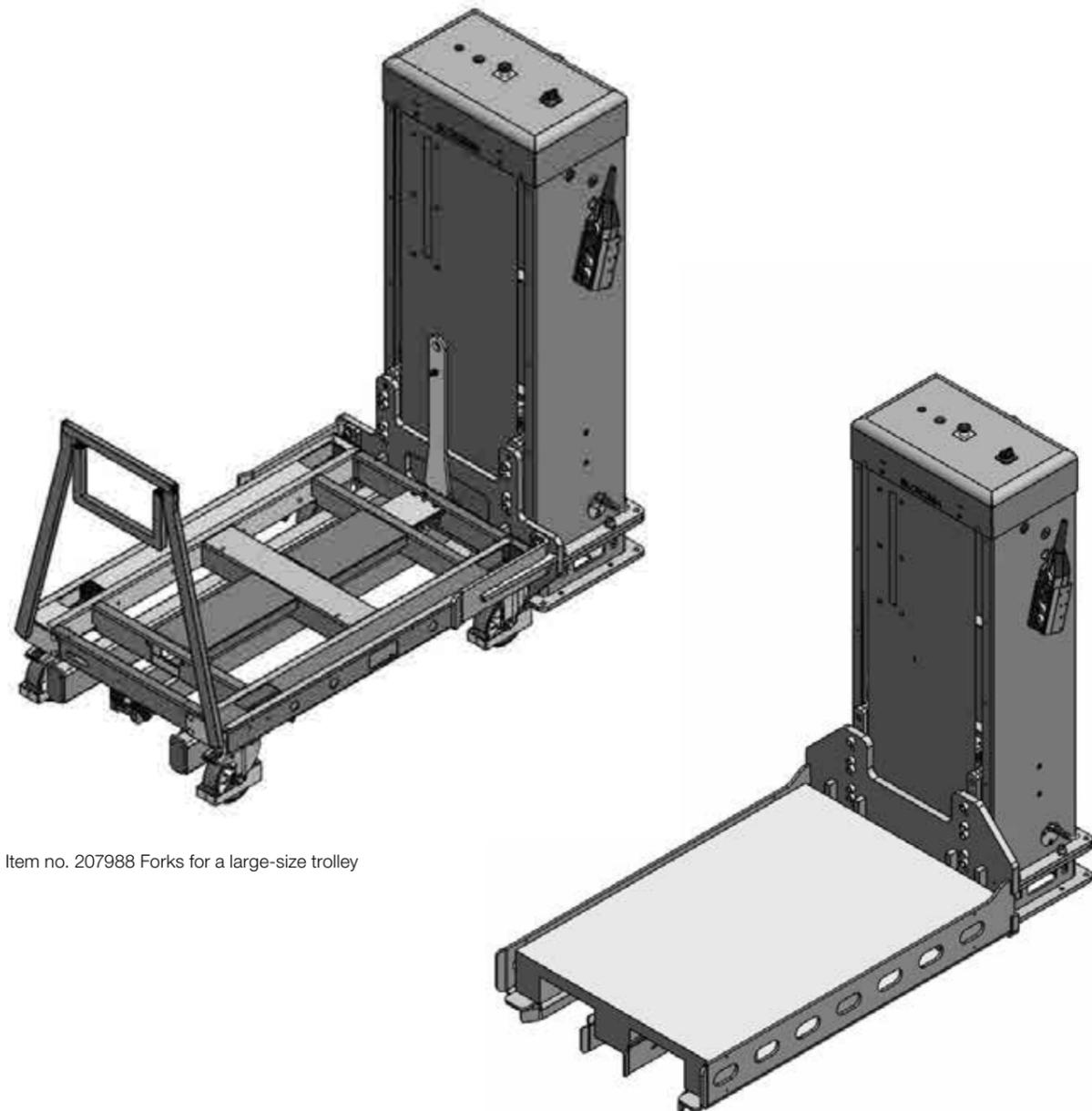
HES-F



2

**OPTIONAL**

- Sensoric height adjustment (available on request)



Item no. 207988 Forks for a large-size trolley

Item no. 218000 Forks for a pallet / cage pallet  
Loaded onto the forks by a forklift (or other industrial trucks)

This lifter is designed to move up and down fully loaded trolleys or pallets. This lifter in the picture is a frontloading model and the trolley is pushed onto the forks manually or by a forklift. The load capacity is 600kg–1000kg and has a working height GOK of 935mm. Lifters for heavy loads are stationary and must be dowelled to the floor.

The connection wattage is 230V/50HZ with 16A security. The average lift is 31mm/s (upon request 47mm/s and other speeds are possible). The energy requirement per model lies between 0.25kW and 1.1kW.

The standard control element is an external operation panel.

**For more information please turn to page 78 (chapter Control Elements).**

2

## FOR BLOKSMA TROLLEY

stationary	size of trolley	lifting capacity	lift height on level (GOK)
<b>217999</b>	1,200x800mm	400 kg	920 mm
<b>207988</b>	1,200x800mm	1,000 kg	920 mm

## LOADING BY LIFT TRUCK OR FORKLIFT

stationary	size of pallet	lifting capacity	lift height on level (GOK)
<b>210936</b>	1,200x800mm	300 kg	920 mm
<b>218000</b>	1,200x800mm	1,000 kg	920 mm



Please Note: Lifters used in the US may have different connection values (110V) and different article numbers. Please fill out the check list provided and let us know your desired connection voltage.

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

# LIFTERS RIGHT SIDE LOADING

trolley is pushed onto the forks lengthwise

HES-R / HET-R / HEM-R



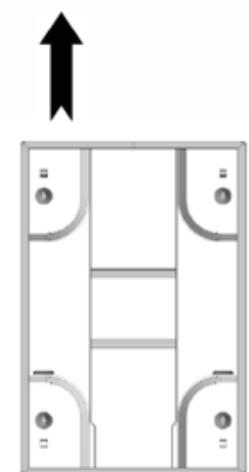
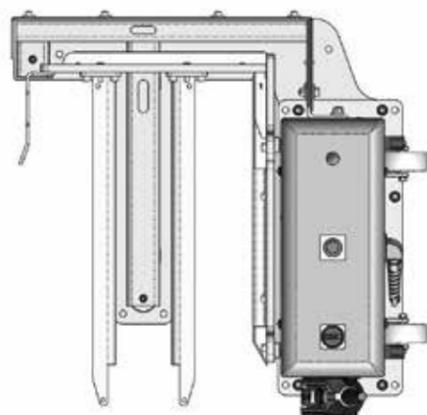
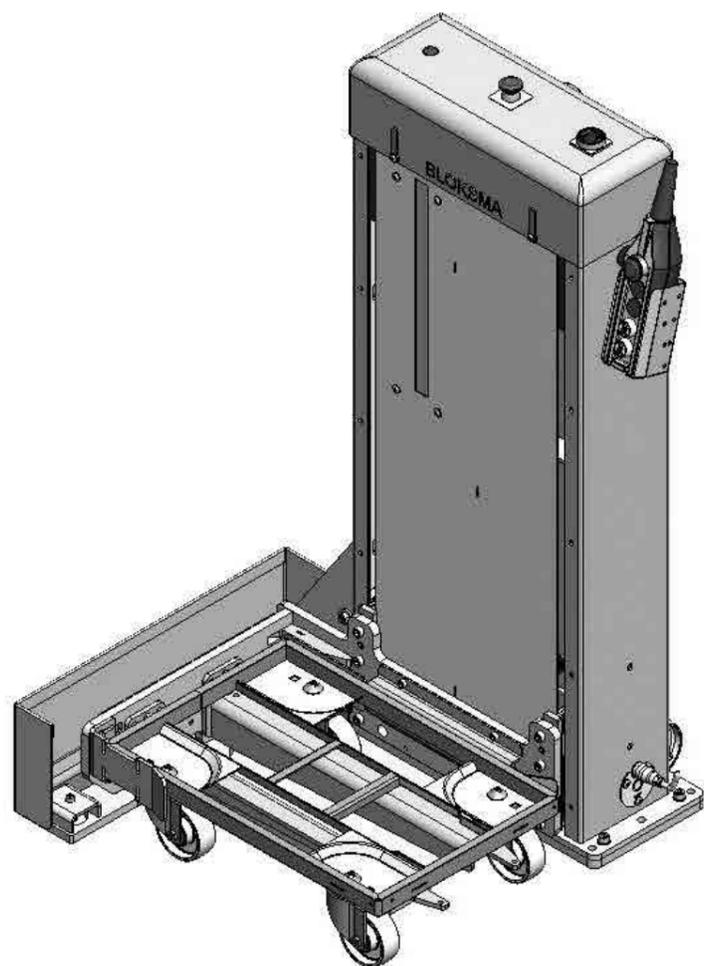
2

**OPTIONAL**

- Sensoric height adjustment
- trolley load control
- Stationary lifters available



Additional functions



Loading direction lengthwise

This lifter is designed to lift and lower fully loaded trolleys for ergonomic working at assembly work stations and machines. This lifter is right side loading and the trolley is pushed onto the forks lengthwise. The load capacity is 200 kg, 300 kg or 500 kg and the lifter has a working height of 715 mm or 935mm. It is manufactured as mobile, semi-mobile or stationary.

The connection wattage is 230V/50HZ with 16A security. The average lift is 31mm/s (upon request 47mm/s and other speeds are possible). The energy requirement per model lies between 0.25kW and 1.1kW.

The lifter is suitable for BLOKSMA trolleys BOF and BOZ and is pushed onto the forks lengthwise.

**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.

**For more information please turn to page 78 (chapter Control Elements).**

2

## FOR TROLLEY BOF/BOZ LENGTHWISE 600x400mm

semi-mobile	semi-mobile sensor system	mobile	mobile sensor system	lifting capacity	lift height on level (GOK)
141061	144149	142540	204646	200 kg	715 mm
141062	144766	142541	210987		935 mm
141063	144151	142542	203880	300 kg	715 mm
141064	143784	142543	208192		935 mm
202747	210937	on request	on request	500 kg	715 mm
202748	210938	on request	on request		935 mm

## FOR TROLLEY BOF LENGTHWISE 800x600mm

semi-mobile	semi-mobile sensor system	mobile	mobile sensor system	lifting capacity	lift height on level (GOK)
141067	210939	142544	210988	200 kg	715 mm
141068	210940	142545	210989		935 mm
141069	210941	142546	210990	300 kg	715 mm
141070	208512	142547	210991		935 mm
202753	210942	on request	on request	500 kg	715 mm
202754	210943	on request	on request		935 mm

Picture: semi-mobile lifter



Please Note: Lifters used in the US may have different connection values (110V) and different article numbers. Please fill out the check list provided and let us know your desired connection voltage.

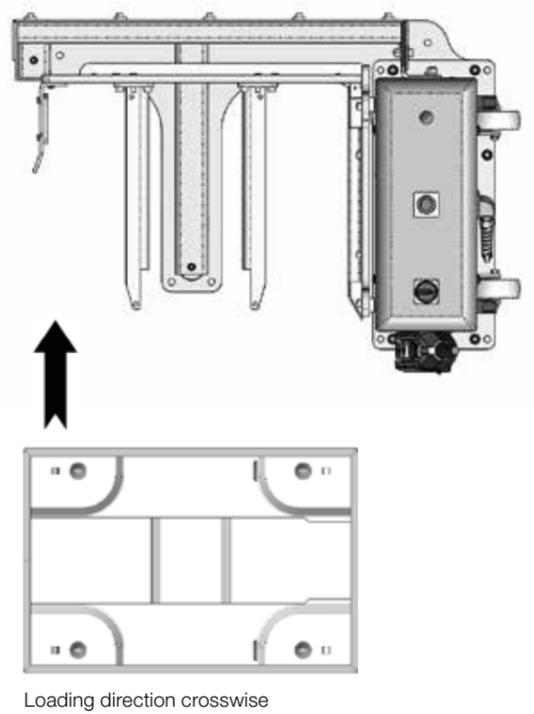
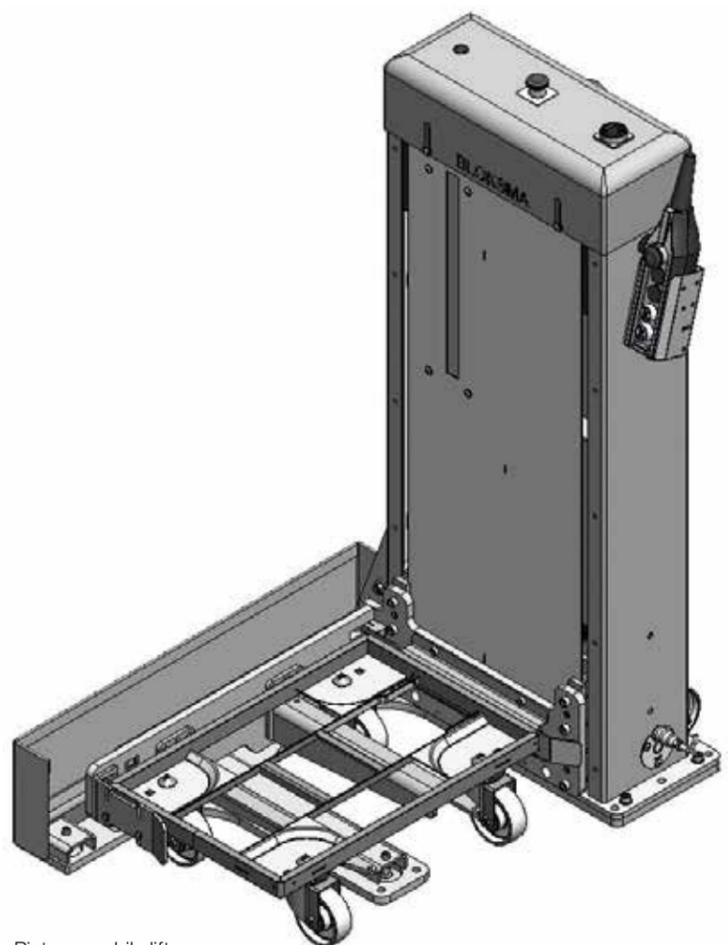
# LIFTERS RIGHT SIDE LOADING

trolley is pushed onto the forks crosswise

HES-R / HET-R / HEM-R



- OPTIONAL**
- Sensoric height adjustment
  - trolley load control
  - Stationary lifters available



Picture: mobile lifter

This lifter is designed to lift and lower fully loaded trolleys for ergonomic working at assembly work stations and machines. This lifter is intended for right side loading and the trolley is pushed onto the forks crosswise. The load capacity is 200kg, 300kg or 500kg and the lifter has a working height of 715 mm or 935mm. It is manufactured as mobile, semi-mobile or stationary.

The connection wattage is 230V/50HZ with 16A security. The average lift is 31mm/s (upon request 47mm/s and other speeds are possible). The energy requirement per model lies between 0.25kW and 1.1kW.

The lifter is suitable for BLOKSMA trolleys BOF + BOZ pushed crosswise onto the forks.  
**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.  
**For more information please turn to page 78 (chapter Control Elements).**

## FOR TROLLEY BOF/BOZ CROSSWISE 600x400mm

semi-mobile	semi-mobile sensor system	mobile	mobile sensor system	lifting capacity	lift height on level (GOK)
141073	144152	142532	210992	200 kg	715 mm
141074	145005	142533	210993		935 mm
141075	144154	142534	210994	300 kg	715 mm
141076	145006	142535	210995		935 mm
202760	210944	on request	on request	500 kg	715 mm
202761	210945	on request	on request		935 mm

## FOR TROLLEY BOF CROSSWISE 800x600mm

semi-mobile	semi-mobile sensor system	mobile	mobile sensor system	lifting capacity	lift height on level (GOK)
141079	210946	142536	210996	200 kg	715 mm
141080	210947	142537	210997		935 mm
141081	210948	on request	on request	300 kg	715 mm
141082	210949	on request	on request		935 mm
202766	210950	on request	on request	500 kg	715 mm
202767	210951	on request	on request		935 mm



Please Note: Lifters used in the US may have different connection values (110V) and different article numbers. Please fill out the check list provided and let us know your desired connection voltage.

# LIFTERS

## LEFT SIDE LOADING

trolley is pushed onto the forks lengthwise

HES-L / HET-L / HEM-L

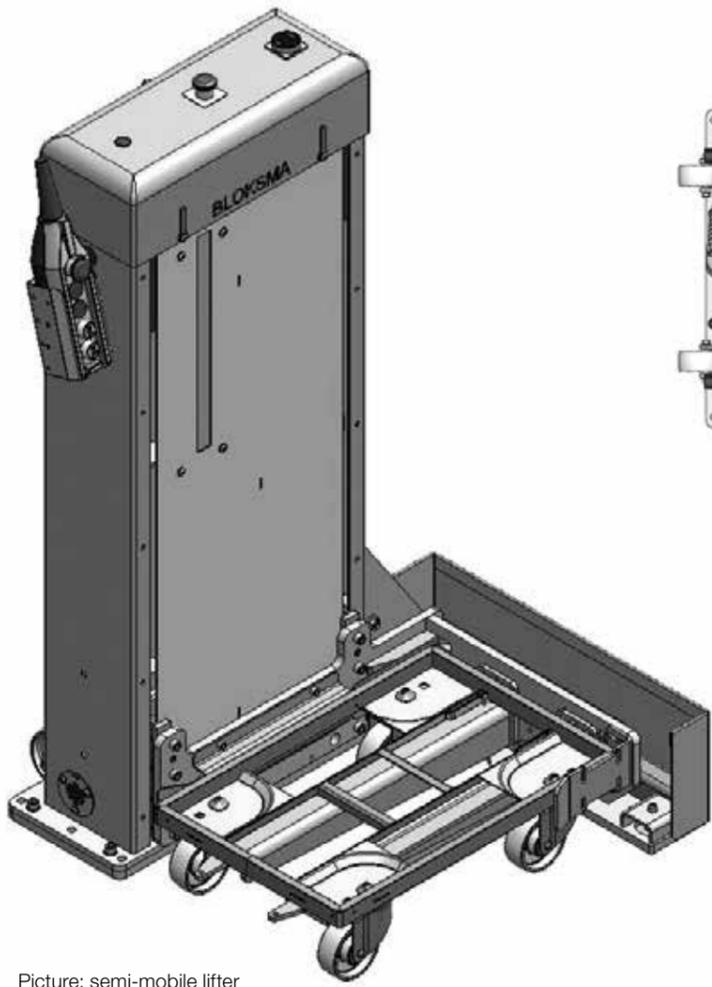


2

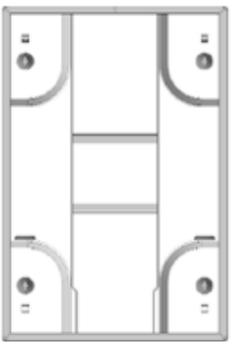
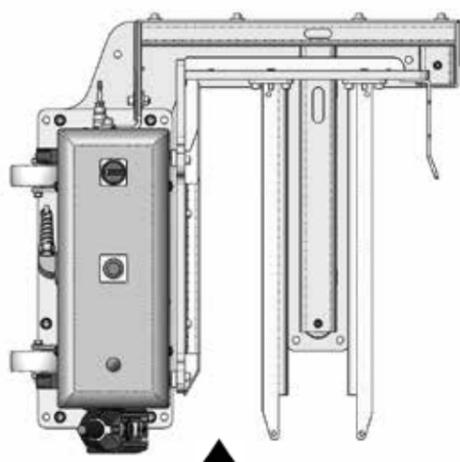
- OPTIONAL**
- Sensoric height adjustment
  - trolley load control
  - Stationary lifters available



Additional functions



Picture: semi-mobile lifter



Loading direction lengthwise

This lifter is designed to lift and lower fully loaded trolleys for ergonomic working at assembly work stations and machines. This lifter is intended for left side loading and the trolley is pushed onto the forks lengthwise. The load capacity is 200kg, 300kg or 500kg and the lifter has a working height of 715 mm or 935mm. It is manufactured as mobile, semi-mobile or stationary.

The connection wattage is 230V/50HZ with 16A security. The average lift is 31mm/s (upon request 47mm/s and other speeds are possible). The energy requirement per model lies between 0.25kW and 1.1kW.

The lifter is suitable for BLOKSMA trolleys BOF + BOZ pushed crosswise onto the forks.  
**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.  
**For more information please turn to page 78 (chapter Control Elements).**

2

### FOR TROLLEY BOF/BOZ LENGTHWISE 600x400mm

semi-mobile	semi-mobile sensor system	mobile	mobile sensor system	lifting capacity	lift height on level (GOK)
141085	144136	142524	204647	200 kg	715 mm
141086	144765	142525	210998		935 mm
141087	144137	142526	207596	300 kg	715 mm
141088	143783	on request	208191		935 mm
202772	210952	on request	on request	500 kg	715 mm
202773	210953	on request	on request		935 mm

### FOR TROLLEY BOF LENGTHWISE 800x600mm

semi-mobile	semi-mobile sensor system	mobile	mobile sensor system	lifting capacity	lift height on level (GOK)
141091	210954	142528	210999	200 kg	715 mm
141092	210955	142529	211000		935 mm
141093	210956	142530	211001	300 kg	715 mm
141094	210957	142531	211002		935 mm
202778	210958	on request	on request	500 kg	715 mm
202779	210959	on request	on request		935 mm



Please Note: Lifters used in the US may have different connection values (110V) and different article numbers. Please fill out the check list provided and let us know your desired connection voltage.

# LIFTERS LEFT SIDE LOADING

trolley is pushed onto the forks crosswise

HES-L / HET-L / HEM-L



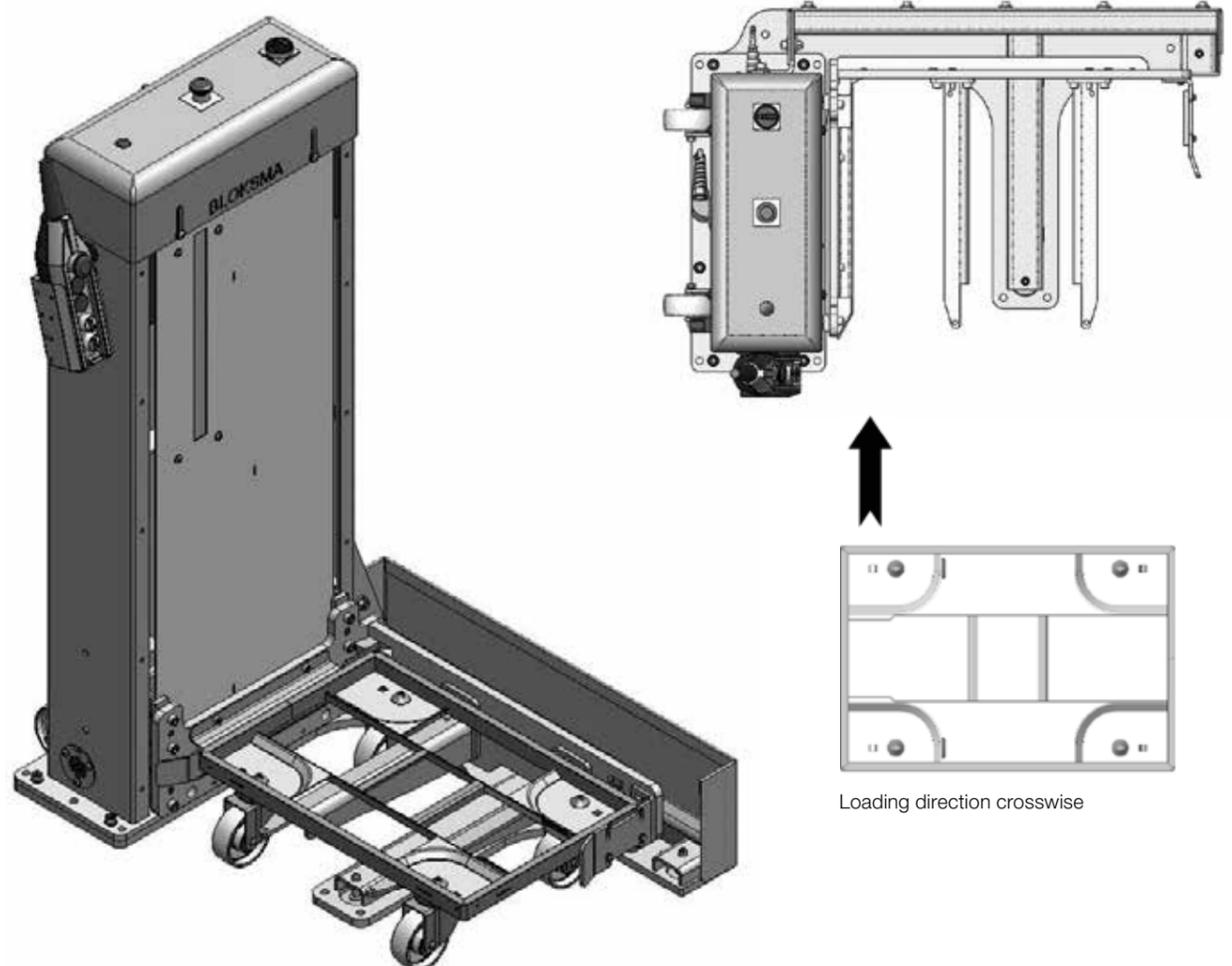
2

2

- OPTIONAL**
- Sensoric height adjustment
  - trolley load control
  - Stationary lifters available



Additional functions



Picture: semi-mobile lifter

This lifter is designed to lift and lower fully loaded trolleys for ergonomic working at assembly work stations and machines. This lifter is intended for left side loading and the trolley is pushed onto the forks crosswise. The load weight is 200 kg, 300 kg or 500 kg and the lifter has a working height of 715 mm or 935mm. It is produced as mobile, semi-mobile or stationary.

The connection wattage is 230V/50HZ with 16A security. The average lifting speed is 31mm/s (upon request 47mm/s and other speeds are possible). The energy requirement per model lies between 0.25kW and 1.1kW.

The lifter is suitable for BLOKSMA trolleys BOF + BOZ pushed crosswise onto the forks.  
**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.  
**For more information please turn to page 78 (chapter Control Elements).**

## FOR TROLLEY BOF/BOZ CROSSWISE 600x400mm

partly mobile	semi-mobile sensor system	mobile	mobile sensorik	lifting capacity	lift height on level (GOK)
141097	144139	142516	211003	200 kg	715 mm
141098	144140	142517	211004		935 mm
141099	144141	142518	211005	300 kg	715 mm
141100	144942	142519	211006		935 mm
202784	210960	on request	on request	500 kg	715 mm
202785	210961	on request	on request		935 mm

## FOR TROLLEY BOF CROSSWISE 800x600mm

semi-mobile	semi-mobile sensor system	mobile	mobile sensor system	lifting capacity	lift height on level (GOK)
141103	210962	142520	211007	200 kg	715 mm
141104	210963	142521	211008		935 mm
141105	210964	on request	on request	300 kg	715 mm
141106	210965	on request	on request		935 mm
202790	210966	on request	on request	500 kg	715 mm
202791	210967	on request	on request		935 mm



Please Note: Lifters used in the US may have different connection values (110V) and different article numbers. Please fill out the check list provided and let us know your desired connection voltage.

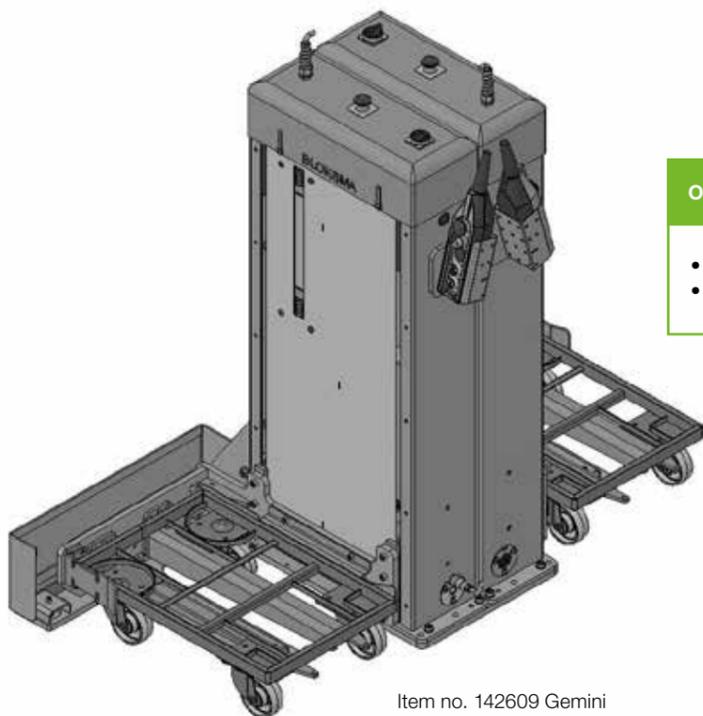
# LIFTERS GEMINI AND TANDEM

HES-G / HES-T



2

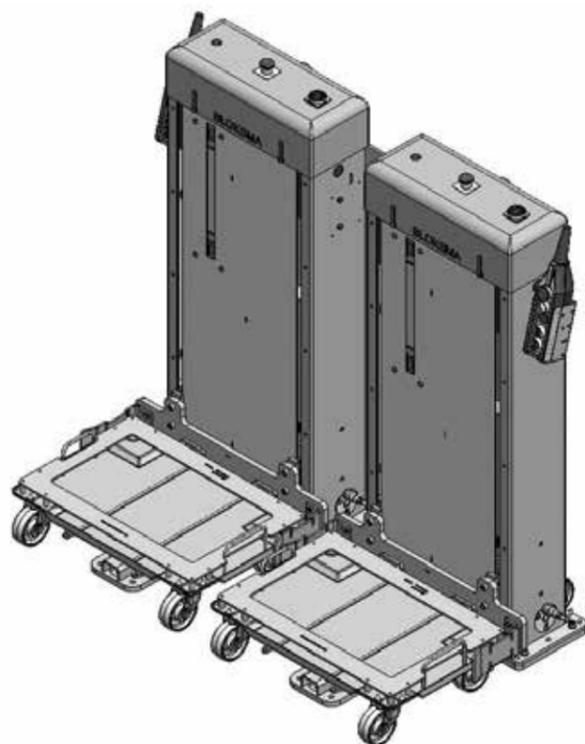
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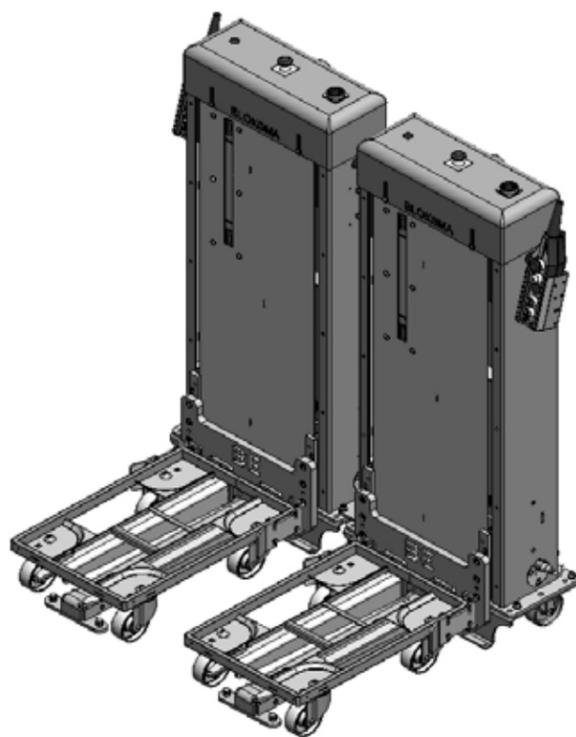
Item no. 142609 Gemini

**OPTIONAL**

- Sensoric height adjustment
- trolley load control



Item no. 201171 Tandem  
trolley is pushed onto the forks crosswise



Item no. 206789 Tandem  
trolley is pushed onto the forks lengthwise

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

This lifter is designed to lift and lower fully loaded trolleys for ergonomic working at assembly work stations or machines. The weight capacity is 200 kg–300 kg per side and has a working height of 935mm. This lifter must be stationary.

The connection wattage is 230V/50HZ with 16A security. The average lifting speed is 31mm/s (upon request 47mm/s and other speeds are possible). The energy requirement per model lies between 0.25kW and 1.1kW.

The lifter is suitable for BLOKSMA trolleys BOF + BOZ.

**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.

**For more information please turn to page 78 (chapter Control Elements).**

## GEMINI

stationary sensor system	size of trolley	direction of load capacity	lifting capacity	lift height on level (GOK)
<b>142609</b>	600x400mm 630x430mm	lengthwise	200 kg on each side	935mm
<b>145147</b>	600x400mm 630x430mm	lengthwise	300 kg on each side	935mm

## TANDEM STATIONARY

stationary sensor system	size of trolley	direction of load capacity	lifting capacity	lift height on level (GOK)
<b>201171</b>	600x400mm 630x430mm	crosswise	200 kg on each side	935mm
<b>142553</b>	600x400mm 630x430mm	lengthwise	300 kg on each side	935mm

Scan me

Video

## TANDEM MOBIL

mobile sensor system	size of trolley	direction of load capacity	lifting capacity	lift height on level (GOK)
<b>206789</b>	600x400mm 630x430mm	lengthwise	200 kg on each side	935mm



Please Note: Lifters used in the US may have different connection values (110V) and different article numbers. Please fill out the check list provided and let us know your desired connection voltage.

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

# ELECTRIC LIFTERS FURTHER VARIATIONS I

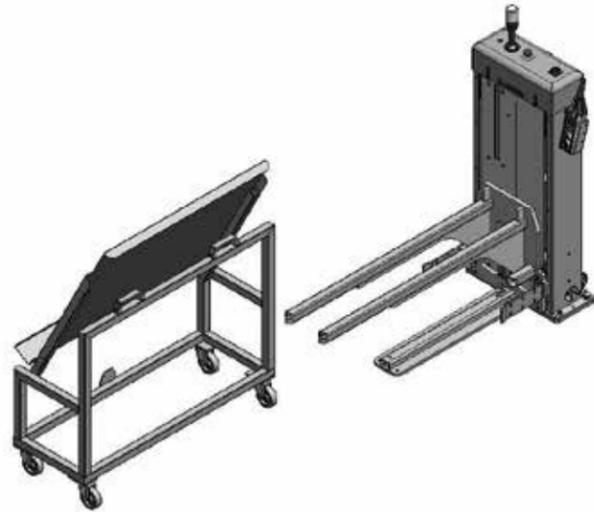


# ELECTRIC LIFTERS FURTHER VARIATIONS II

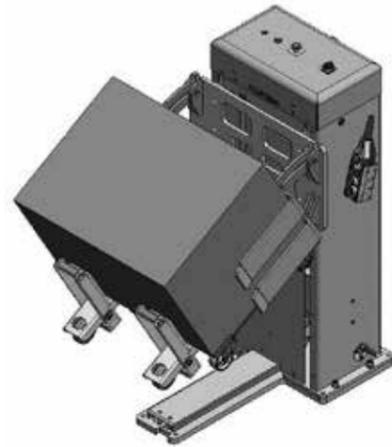


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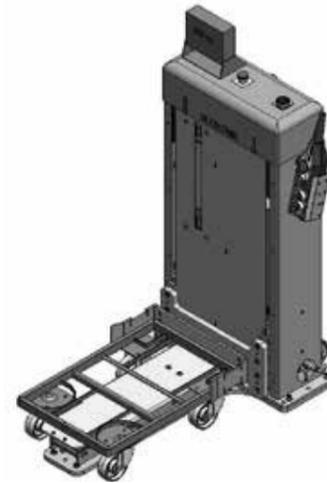
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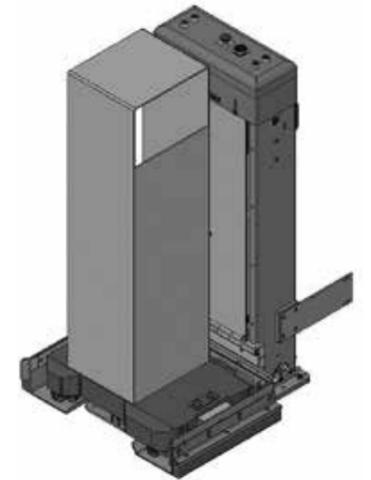
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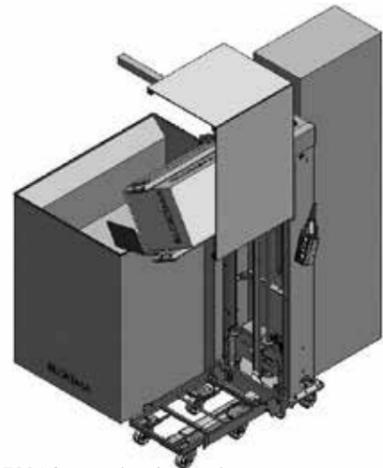
Item no. 205410



Item no. 208915 with scales



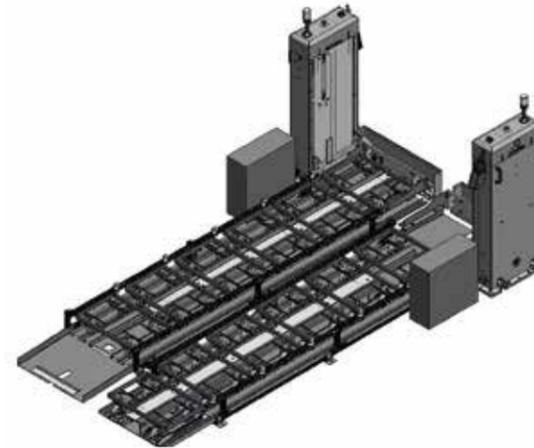
Item no. 211311 with mounting device



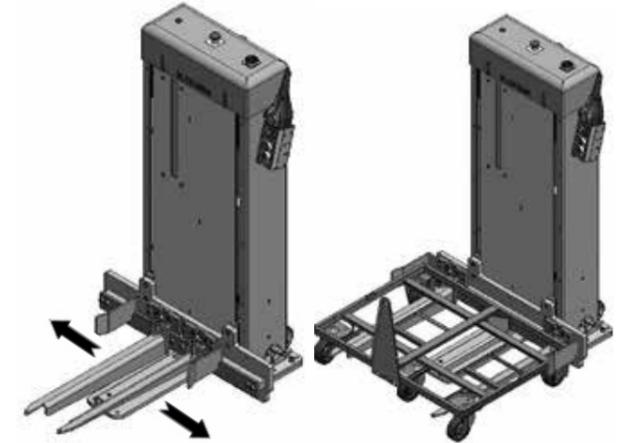
Item no. 207224 for pouring / emptying



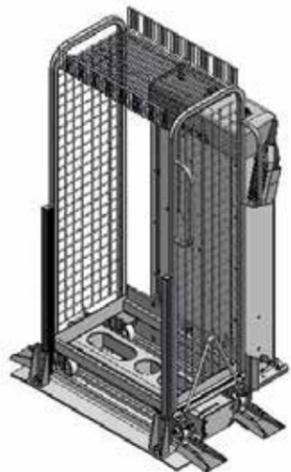
Item no. 209812



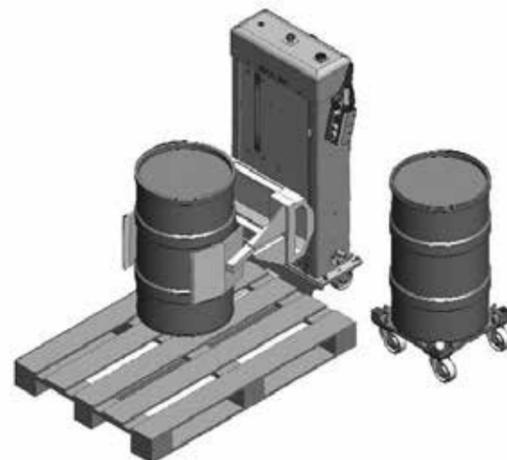
Item no. 211060 with automated refill rails



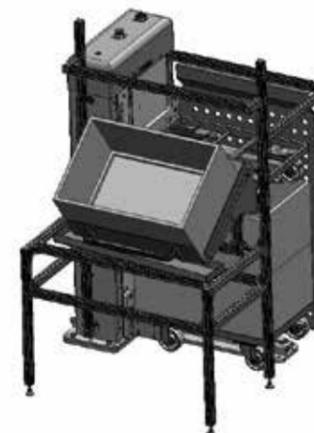
Item no. 210530A with adjustable forks



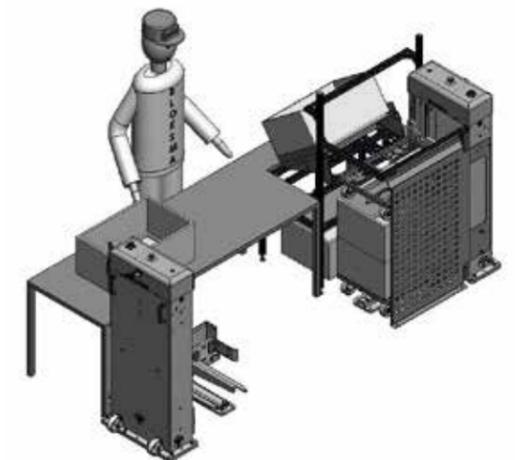
Item no. 147596



Item no. 207109 with gripper for barrels



Item no. 203255 with tiltable mounting table



Exemplary workstation layout

# ELECTRIC LIFTERS FURTHER VARIATIONS III

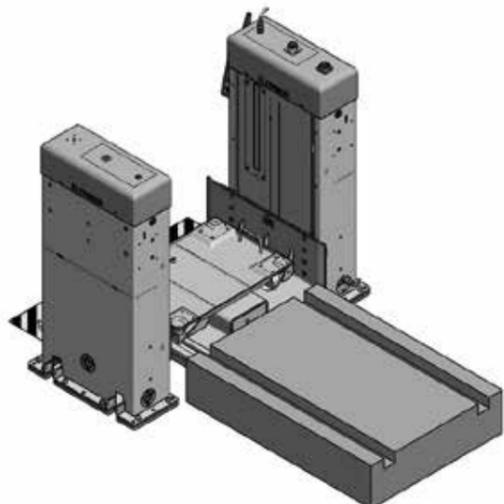


# DATASHEET LIFTERS FRONT LOADING

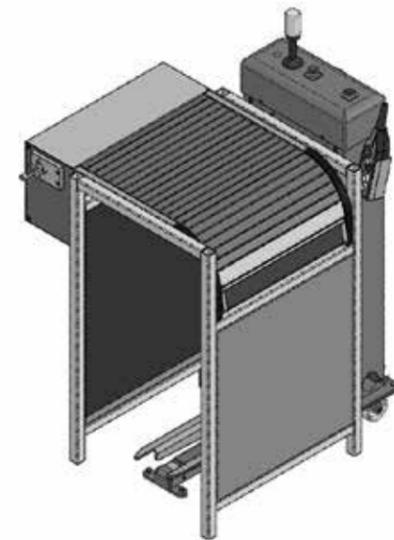
## Connection possibilities

2

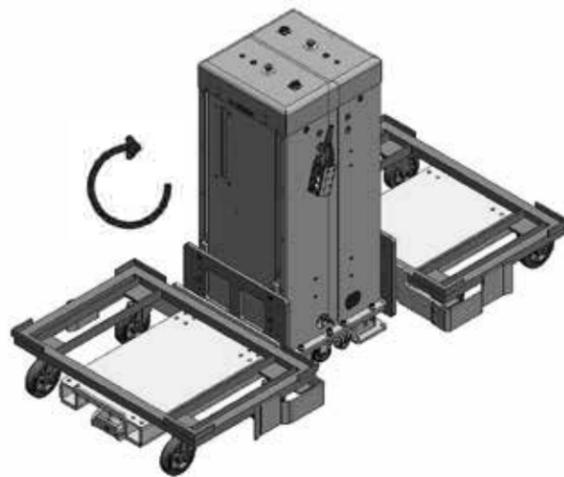
2



Item no. 200799 lifting on a different level



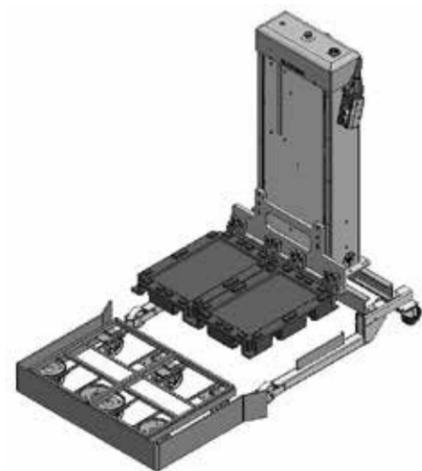
Item no. 210732 with access protection



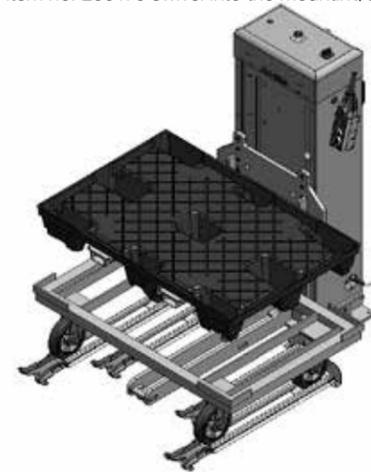
Item no. 209170 rotatable Gemini



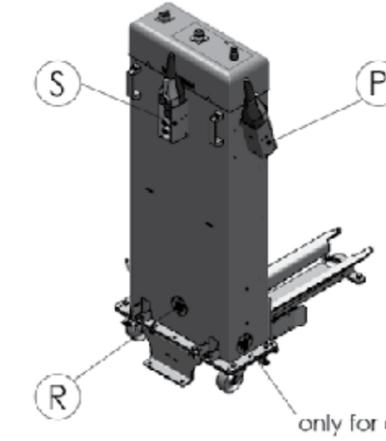
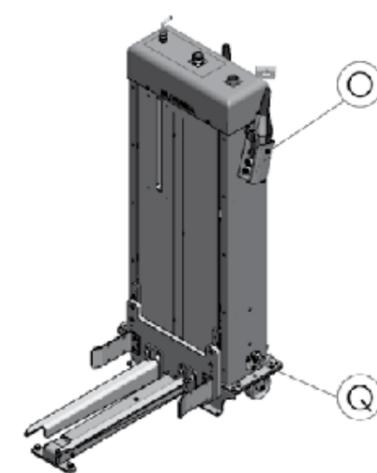
Item no. 209170 swivel into the mounting area



Item no. 211490 Rollover



Item no. 217997A lift pallet off of trolley



operating panel position

electrical connection 230

	Q	R
O	X	X
P	X	X
S	X	X

### STANDARD

- Lifting unit, front cover
- Powder-coated RAL9010
- Hood RAL 4006
- Lifting device galvanized
- Operation panel position ,O'
- Electric connection ,Q'
- Electric cable 2.5m
- Operation panel cable 3.5m

#### Options for panel positions

- O: top right side
- P: top left side
- S: top middle back

#### Electric connection 230V/50Hz

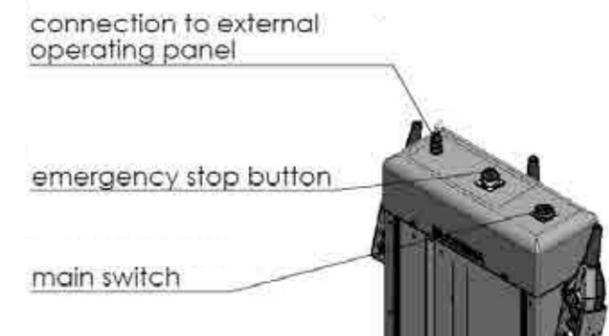
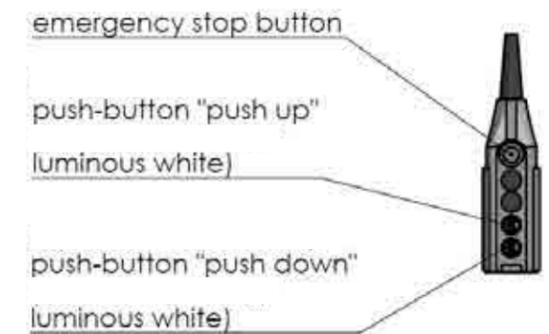
- Q: bottom right side
- R: bottom middle back

#### Main switch on top of the lifter right

#### Emergency Stop push button

- top middle
- and on the external panel

#### external operating panel



# DATA SHEET LIFTERS RIGHT SIDE LOADING

Connection possibilities

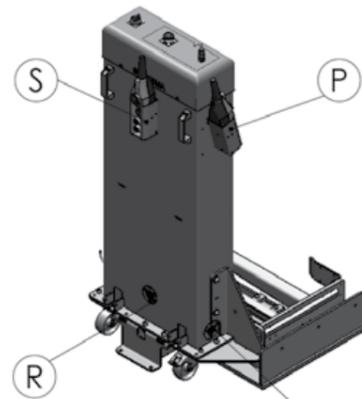
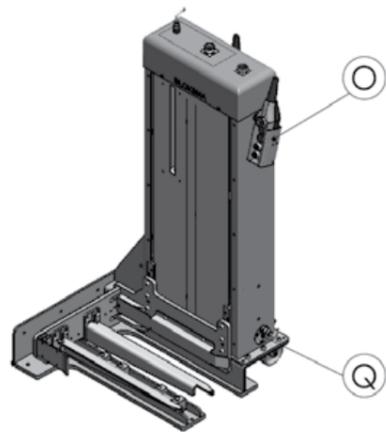


# DATA SHEET LIFTERS LEFT SIDE LOADING

Connection possibilities



2



operating panel position

electrical connection 230

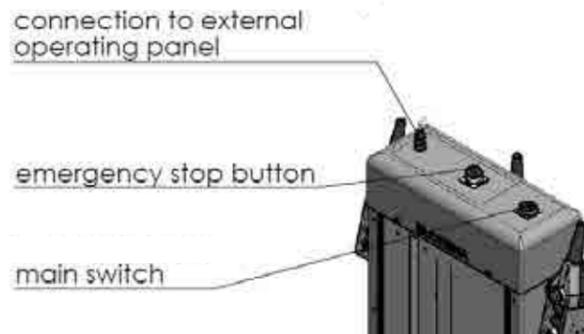
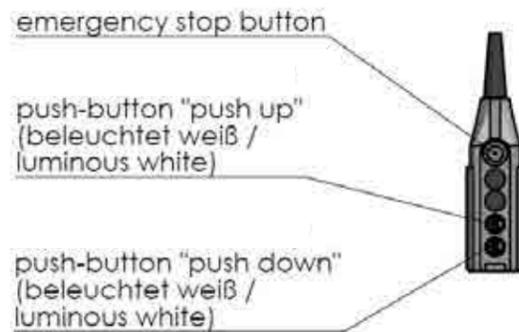
	Q	R
O	X	X
P	X	X
S	X	X

only for cooling motor

**STANDARD**

- Lifting unit, front cover
- Powder-coated RAL9010
- Hood RAL 4006
- Lifting device galvanized
- Operation panel position ,O'
- Electric connection ,Q'
- Electric cable 2.5m
- Operation panel cable 3.5m

external operating panel



**Options for panel positions**

- O: top right side
- P: top left side
- S: top middle back

Electric connection 230V/50Hz

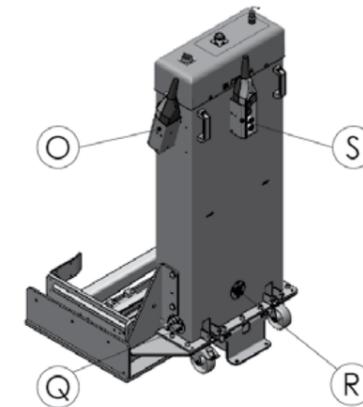
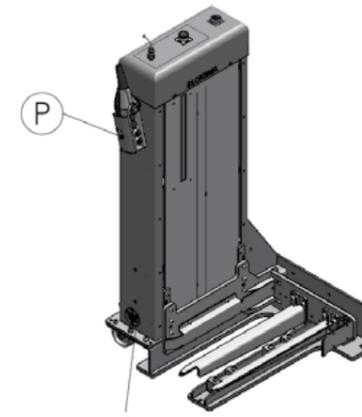
- Q: bottom right side
- R: bottom middle back

**Main switch on top of the lifter right**

**Emergency Stop push button**

top middle  
and on the external panel

2



operating panel position

electrical connection 230

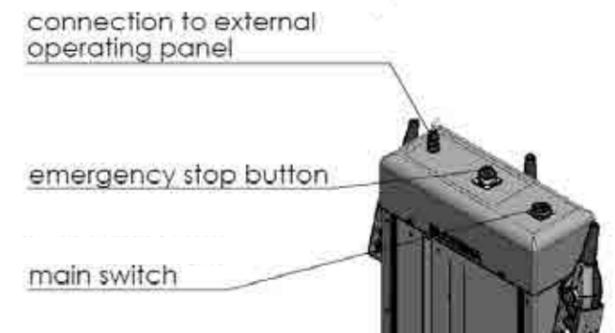
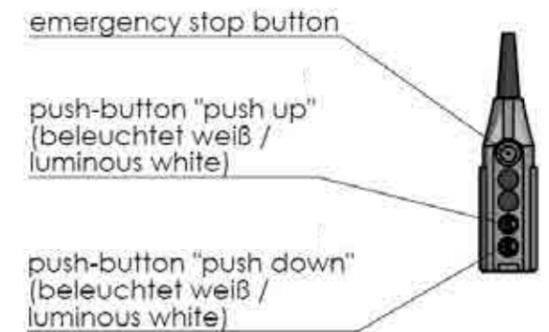
	Q	R
O	X	X
P	X	X
S	X	X

only for cooling motor

**STANDARD**

- Lifting unit, front cover
- Powder-coated RAL9010
- Hood RAL 4006
- Lifting device galvanized
- Operation panel position ,O'
- Electric connection ,Q'
- Electric cable 2.5m
- Operation panel cable 3.5m

external operating panel



**Options for panel positions**

- O: top right side
- P: top left side
- S: top middle back

Electric connection 230V/50Hz

- Q: bottom right side
- R: bottom middle back

**Main switch on top of the lifter right**

**Emergency Stop push button**

top middle  
and on the external panel

# LIFTERS FRONT LOADING

trolley is pushed onto the forks lengthwise

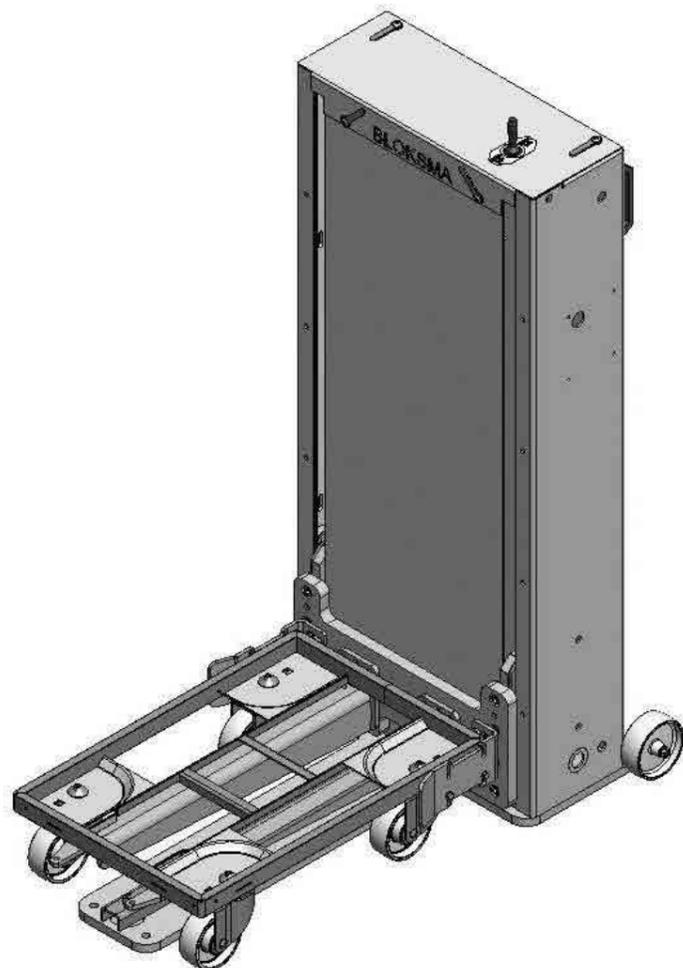
HPS-F / HPT-F / HPM-F



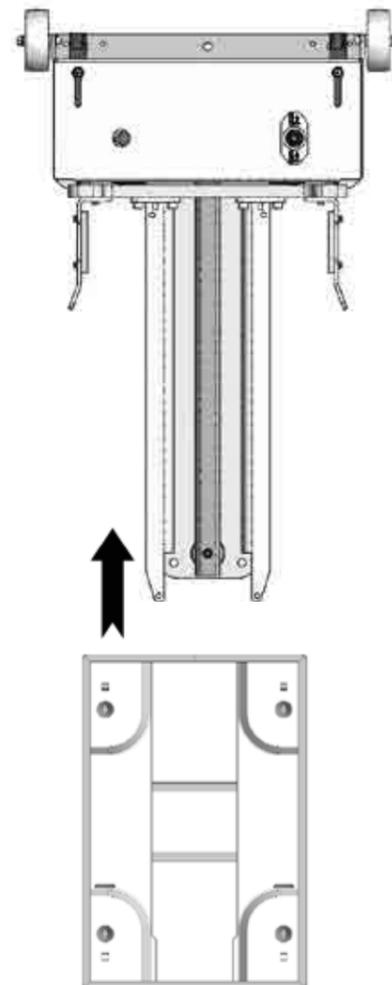
2

**OPTIONAL**

- Stationary device available



Picture: semi-mobile lifter



loading direction lengthwise

This lifter is designed to lift and lower fully loaded trolleys for working at assembly work stations or machines. The pictured lifter is a front loading device and the trolley is pushed onto the forks lengthwise. The lifter can lift loads of 200 kg, 300 kg and 500 kg and has a working height of 715mm or 935mm. It is manufactured as mobile, semi-mobile or stationary.

The air pressure is 6 bar.

The lifter is suitable for lengthwise pushed BLOKSMA trolleys BOF + BOZ.

**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.

**For more information please turn to page 78 (chapter Control Elements).**

2

## FOR TROLLEY BOF/BOZ LENGTHWISE 600x400mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
135031	137051	200 kg	715 mm
137100	134489		935 mm
137101	137053	300 kg	715 mm
137102	137054		935 mm
137105	137057	500 kg	715 mm
137106	137058		935 mm

## FOR TROLLEY BOF/BOK LENGTHWISE 800x600mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
137107	137059	200 kg	715 mm
137108	137060		935 mm
137109	137061	300 kg	715 mm
137110	137062		935 mm
137113	137065	500 kg	715 mm
137114	137066		935 mm

# LIFTERS FRONT LOADING

trolley is pushed onto the forks crosswise

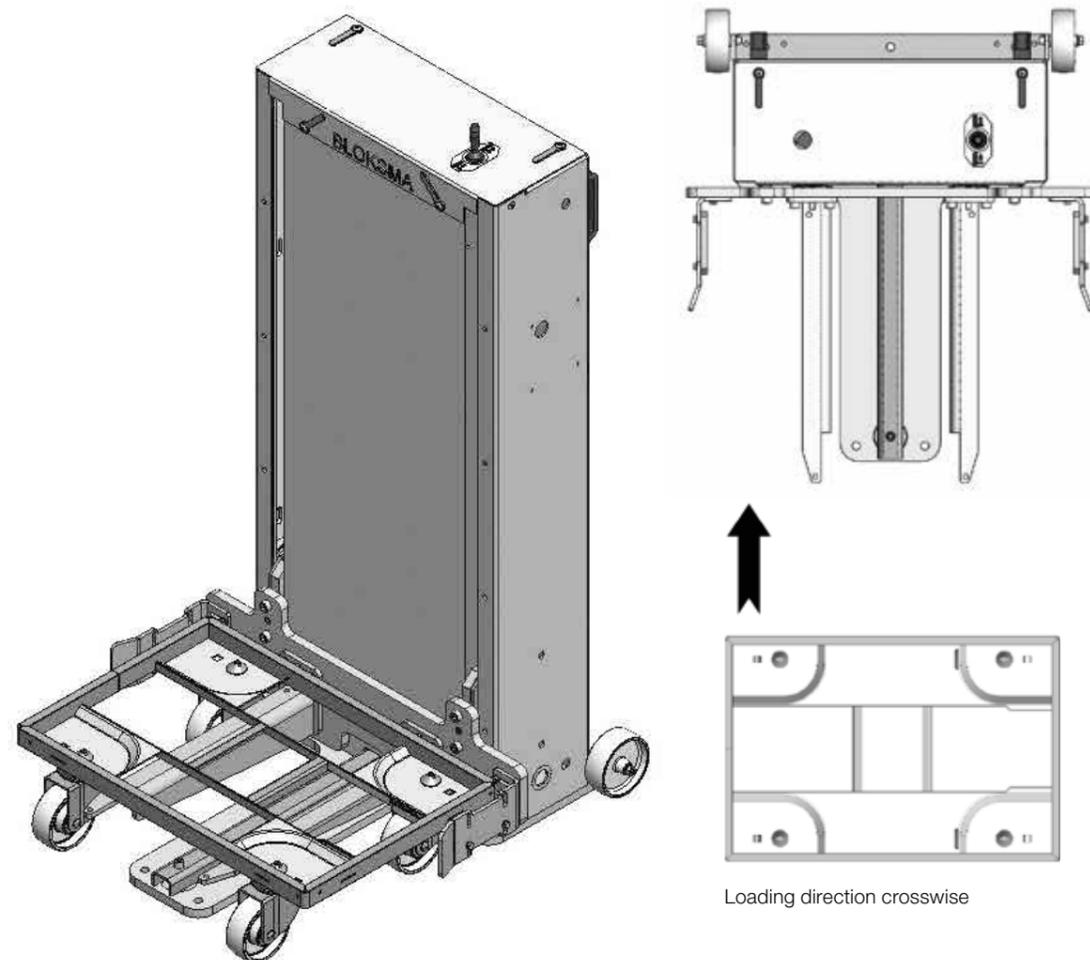
HPS-F / HPT-F / HPM-F



2

**OPTIONAL**

- Stationary device available



Picture: semi-mobile device

This lifter is designed to lift and lower fully loaded trolleys for working at assembly work stations or machines. The pictured lifter is a front loading device and the trolley is pushed onto the forks crosswise. The lifter can lift loads of 200 kg, 300 kg and 500 kg and has a working height of 715mm or 935mm. It is manufactured as mobile, semi-mobile or stationary.

The air pressure is 6 bar.

The lifter is suitable for crosswise pushed BLOKSMA trolleys BOF + BOZ.

**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.

**For more information please turn to page 78 (chapter Control Elements).**

2

## FOR TROLLEY BOF/BOZ CROSSWISE 600x400mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
132977	208955	200 kg	715 mm
207580	137076		935 mm
137125	137077	300 kg	715 mm
142211	137078		935 mm
137129	137081	500 kg	715 mm
137130	137082		935 mm

## FOR TROLLEY BOF/BOK CROSSWISE 800x600mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
137131	137083	200 kg	715 mm
137132	137084		935 mm
137133	137085	300 kg	715 mm
207114	137086		935 mm
137137	137089	500 kg	715 mm
137138	137090		935 mm

**LIFTERS**  
**FRONT LOADING**

Heavy loads/pallet size

HPS-F

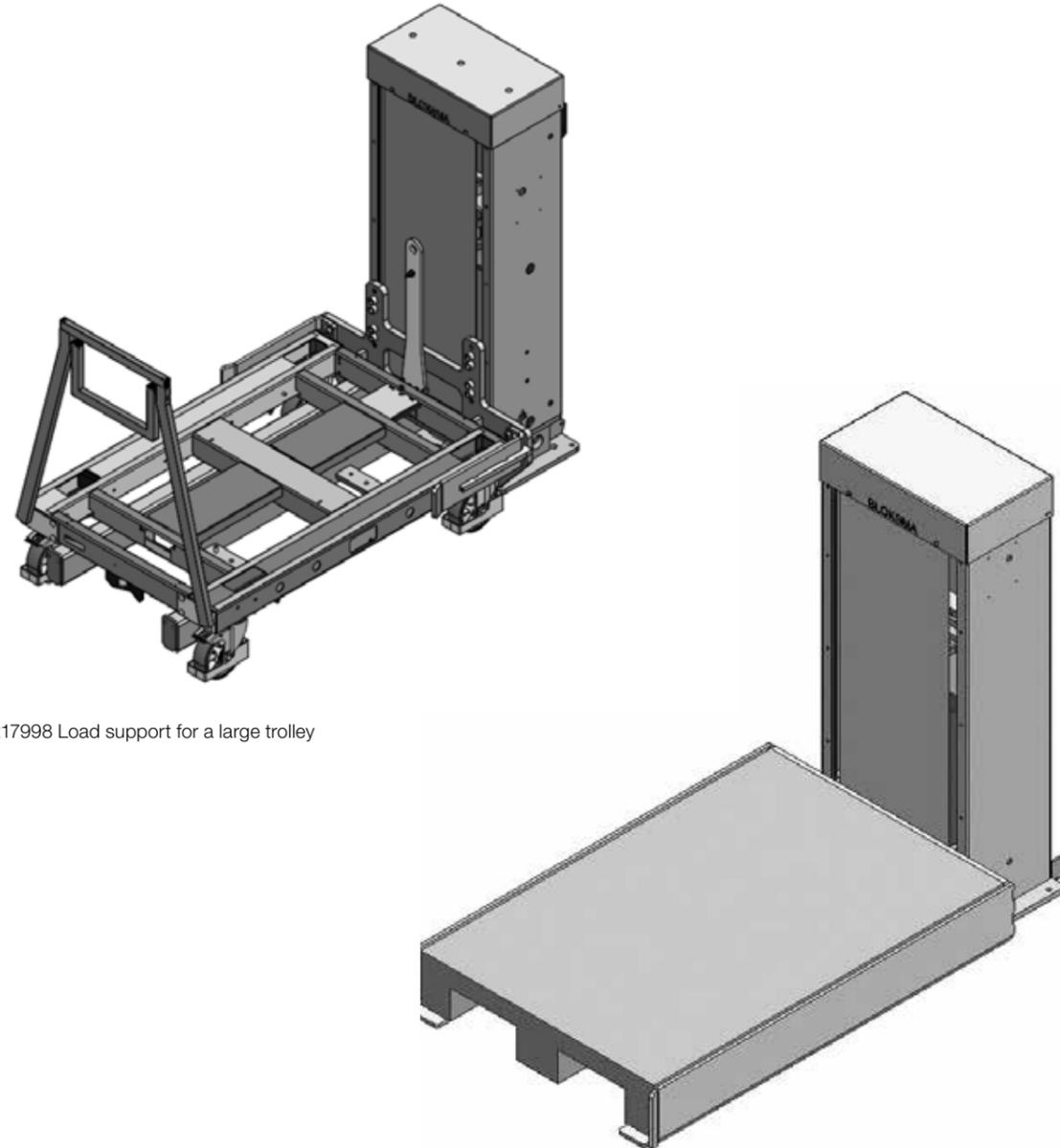


This lifter is designed to lift and lower fully loaded trolleys or pallets for working at assembly work stations or machines. The pictured lifter is a front loading device and the trolley is pushed onto the forks lengthwise. It can also be loaded by a forklift or industrial truck. The lifter can move loads of 600kg up to 1000kg. All heavy-load-lifters must be stationary and dowelled to the floor. The standard control element is a hand lever located on top of the device.

The air pressure is 6 bar.

The standard control element is an external operating panel.

**For more information please turn to page 78 (chapter Control Elements).**



Item no. 217998 Load support for a large trolley

Forks/frame suitable for a pallet/cage pallet loaded by forklift or other industrial trucks

**FOR BLOKSMA TROLLEYS**

stationary	size of trolley	lifting capacity	lift height on level (GOK)
<b>217988</b>	1,200x800 mm	400 kg	890 mm

**FOR INDUSTRIAL TRUCKS / FORKLIFTS**

stationary	size of pallet	lifting capacity	lift height on level (GOK)
<b>21149A</b>	1,200x800 mm	400 kg	890 mm

# LIFTERS

## RIGHT SIDE LOADING

trolley is pushed onto the forks lengthwise

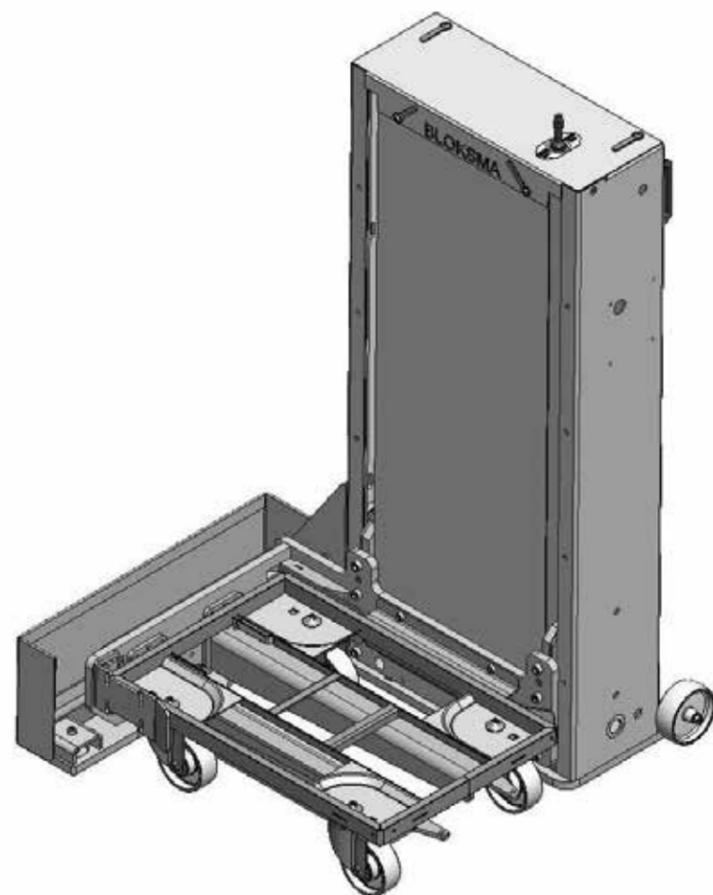
HPS-R / HPT-R / HPM-R



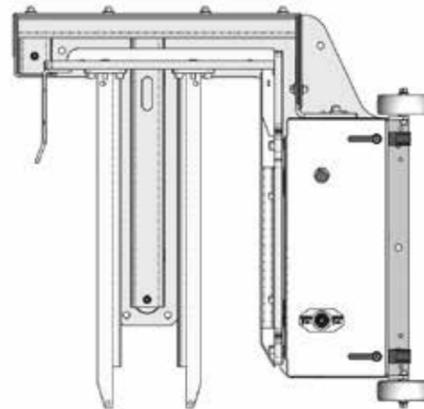
2

**OPTIONAL**

- Stationary device available



picture: semi-mobile lifter



loading lengthwise

This lifter is designed to lift and lower fully loaded trolleys for working at assembly work stations or machines. The pictured lifter is a right side loading device and the trolley is pushed onto the forks lengthwise. The lifter can lift loads of 200 kg, 300 kg and 500 kg and has a working height of 715mm or 935mm. It is manufactured as mobile, semi-mobile or stationary.

The air pressure is 6 bar.

The lifter is suitable for lengthwise pushed BLOKSMA trolleys BOF + BOZ.

**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.

**For more information please turn to page 78 (chapter Control Elements).**

2

### FOR TROLLEY BOF/BOZ LENGTHWISE 600x400mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
133466	137172	200 kg	715 mm
134642	137173		935 mm
137198	137174	300 kg	715 mm
137199	137175		935 mm
202699	on request	500 kg	715 mm
202700	on request		935 mm

### FOR TROLLEY BOF/BOZ LENGTHWISE 800x600mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
137204	137180	200 kg	715 mm
137205	137181		935 mm
137206	137182	300 kg	715 mm
137207	137183		935 mm
202705	on request	500 kg	715 mm
202706	on request		935 mm

# LIFTERS

## RIGHT SIDE LOADING

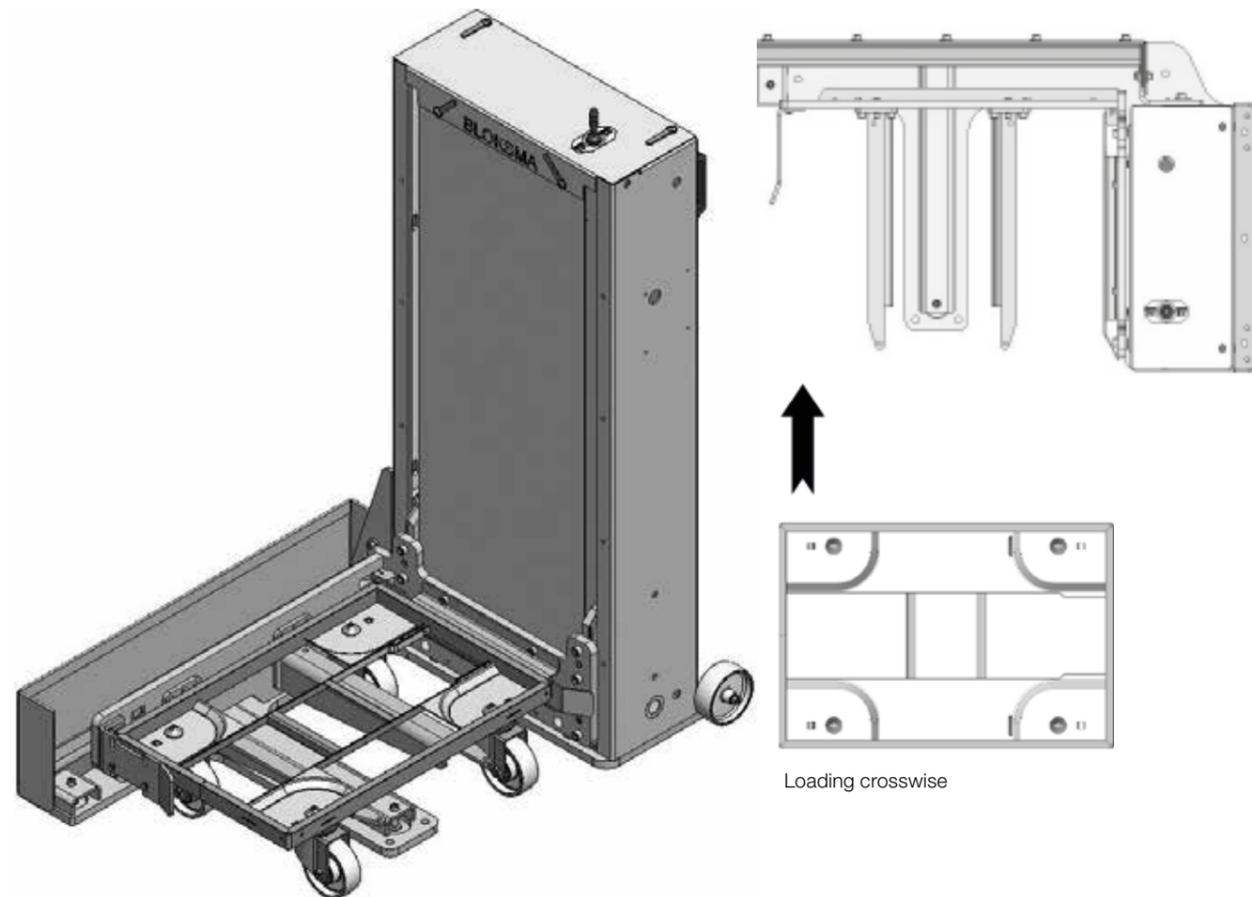
trolley is pushed onto the forks crosswise

HPS-R / HPT-R / HPM-R



2

- OPTIONAL**
- Stationary devices available



picture: semi-mobile lifter

This lifter is designed to lift and lower fully loaded trolleys for working at assembly work stations or machines. The pictured lifter is a right side loading device and the trolley is pushed onto the forks crosswise. The load capacity is 200kg, 300kg and 500kg and has a working height of 715mm or 935mm. It is manufactured as mobile, semi-mobile or stationary.

The air pressure is 6 bar.

The lifter is suitable for crosswise pushed BLOKSMA trolleys BOF + BOZ.

**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.

**For more information please turn to page 78 (chapter Control Elements).**

2

### FOR TROLLEY BOF/BOZ CROSSWISE 600x400mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
137709	139523	200 kg	715 mm
139635	139524		935 mm
139636	139525	300 kg	715 mm
139637	139526		935 mm
202711	on request	500 kg	715 mm
202712	on request		935 mm

### FOR TROLLEY BOF/BOK CROSSWISE 800x600 mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
139640	139529	200 kg	715 mm
139641	139530		935 mm
139642	on request	300 kg	715 mm
139643	on request		935 mm
202717	on request	500 kg	715 mm
202718	on request		935 mm

# LIFTERS

## LEFT SIDE LOADING

trolley is pushed onto the forks lengthwise

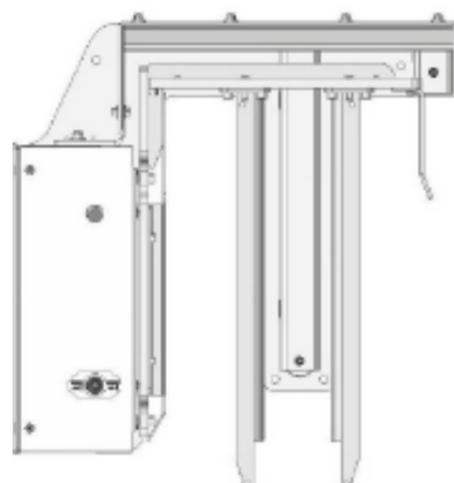
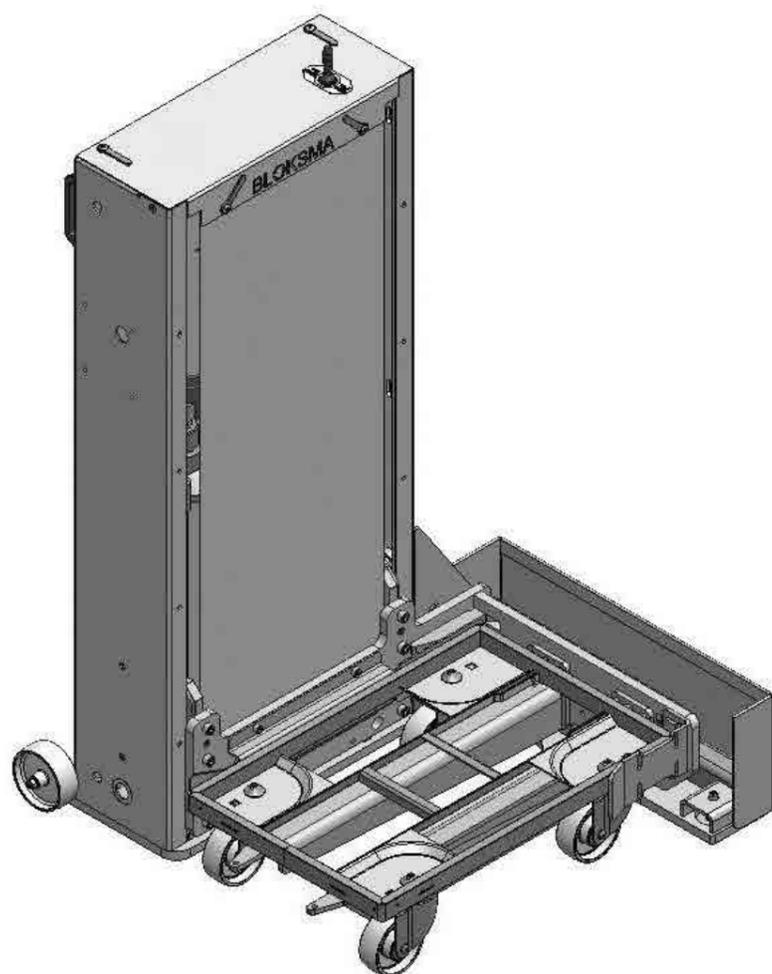
HPS-L / HPT-L / HPM-L



2

**OPTIONAL**

- Stationary devices available



loading lengthwise

picture: semi-mobile device

This lifter is designed to lift and lower fully loaded trolleys for working at assembly work stations or machines. The pictured lifter is left side loading in which the trolley is pushed onto the forks lengthwise. The load capacity is 200 kg, 300 kg and 500 kg and has a working height of 715 mm or 935mm. It is manufactured as mobile, semi-mobile or stationary.

The air pressure is 6 bar.

The lifter is suitable for lengthwise pushed BLOKSMA trolleys BOF + BOZ.

**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.

**For more information please turn to page 78 (chapter Control Elements).**

2

### FOR TROLLEY BOF/BOZ LENGTHWISE 600x400mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
133465	137244	200 kg	715 mm
137269	137245		935 mm
137270	137246	300 kg	715 mm
137271	137247		935 mm
202723	on request	500 kg	715 mm
202724	on request		935 mm

### FOR TROLLEY BOF/BOK LENGTHWISE 800x600mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
137228	137252	200 kg	715 mm
137277	137253		935 mm
137278	137254	300 kg	715 mm
137279	137255		935 mm
202729	on request	500 kg	715 mm
202730	on request		935 mm

# LIFTERS

## LEFT SIDE LOADING

trolley is pushed onto the forks crosswise

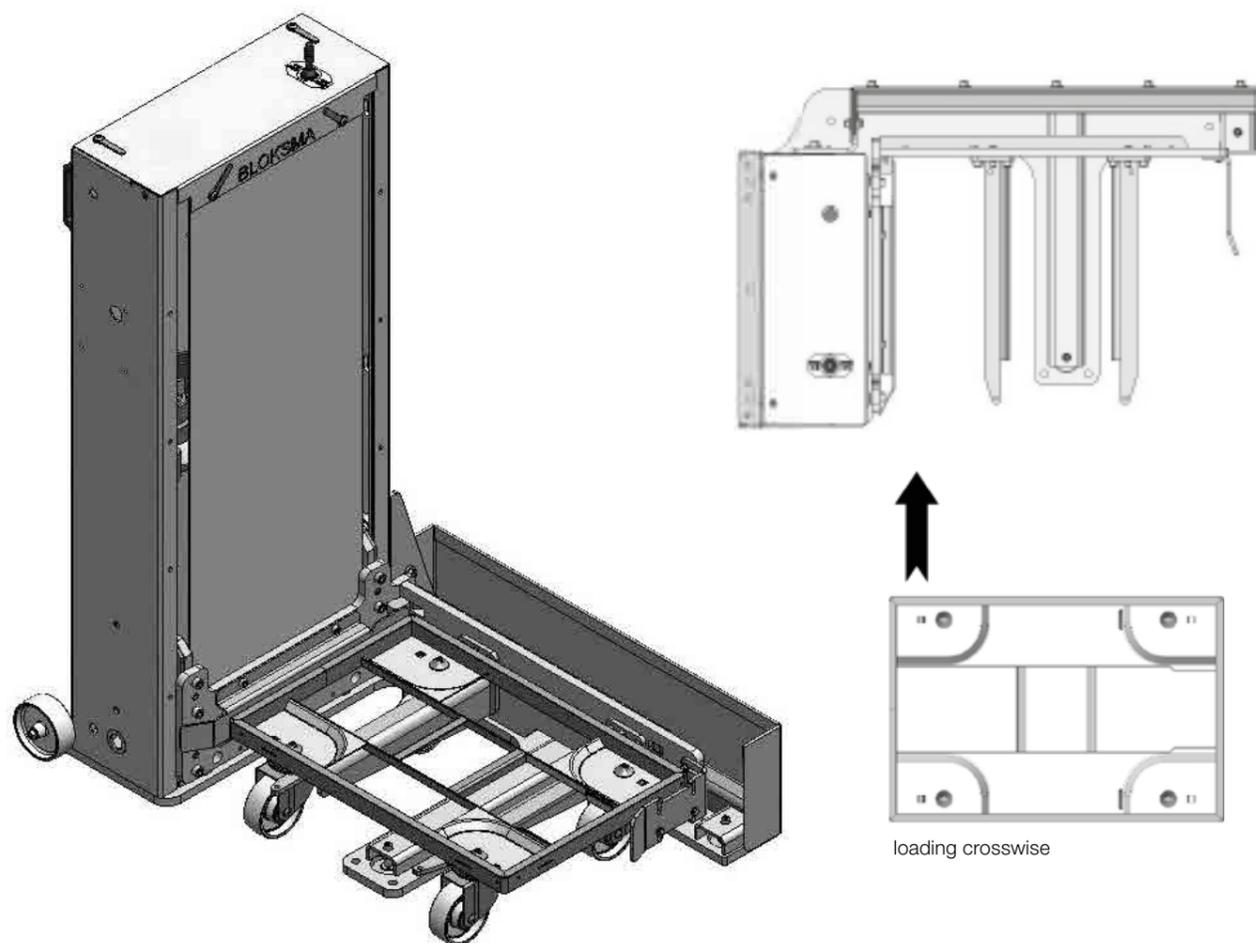
HPS-L / HPT-L / HPM-L



2

**OPTIONAL**

- Stationary devices available



picture: semi-mobile device

This lifter is designed to lift and lower fully loaded trolleys for working at assembly work stations or machines. The pictured lifter is a left side loading device and the trolleys is pushed onto the forks crosswise. The load capacity is 200kg, 300kg and 500kg and has a working height of 715mm or 935mm. It is manufactured as mobile, semi-mobile or stationary.

The air pressure is 6 bar.

The lifter is suitable for crosswise pushed BLOKSMA trolleys BOF + BOZ.

**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.

**For more information please turn to page 78 (chapter Control Elements).**

2

### FOR TROLLEY BOF/BOZ CROSSWISE 600x400mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
137708	139547	200 kg	715 mm
139624	139548		935 mm
139625	139549	300 kg	715 mm
139626	139550		935 mm
202735	on request	500 kg	715 mm
202736	on request		935 mm

### FOR TROLLEY BOF/BOK CROSSWISE 800x600mm

semi-mobile	mobile	lifting capacity	lift height on level (GOK)
139629	139553	200 kg	715 mm
139630	139554		935 mm
139631	on request	300 kg	715 mm
139632	on request		935 mm
202741	on request	500 kg	715 mm
202742	on request		935 mm

**LIFTERS**

**GEMINI, TWIN AND TANDEM**

trolley is pushed onto the forks lengthwise

HPS-G / HPS-T



This lifter is designed to lift and lower fully loaded trolleys for working at assembly work stations or machines. The lifter can lift loads of 200kg to 300kg per side and has a working height (GOK) of 715mm or 935mm. It is manufactured only as a stationary unit.

The air pressure is 6 bar.

The lifter is suitable for BLOKSMA trolleys BOF + BOZ.

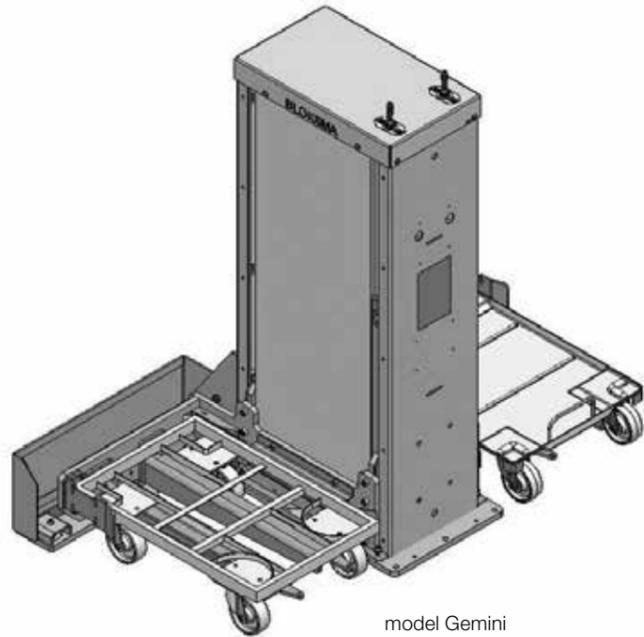
**For more information please turn to page 12 (chapter Trolleys).**

The standard control element is an external operating panel.

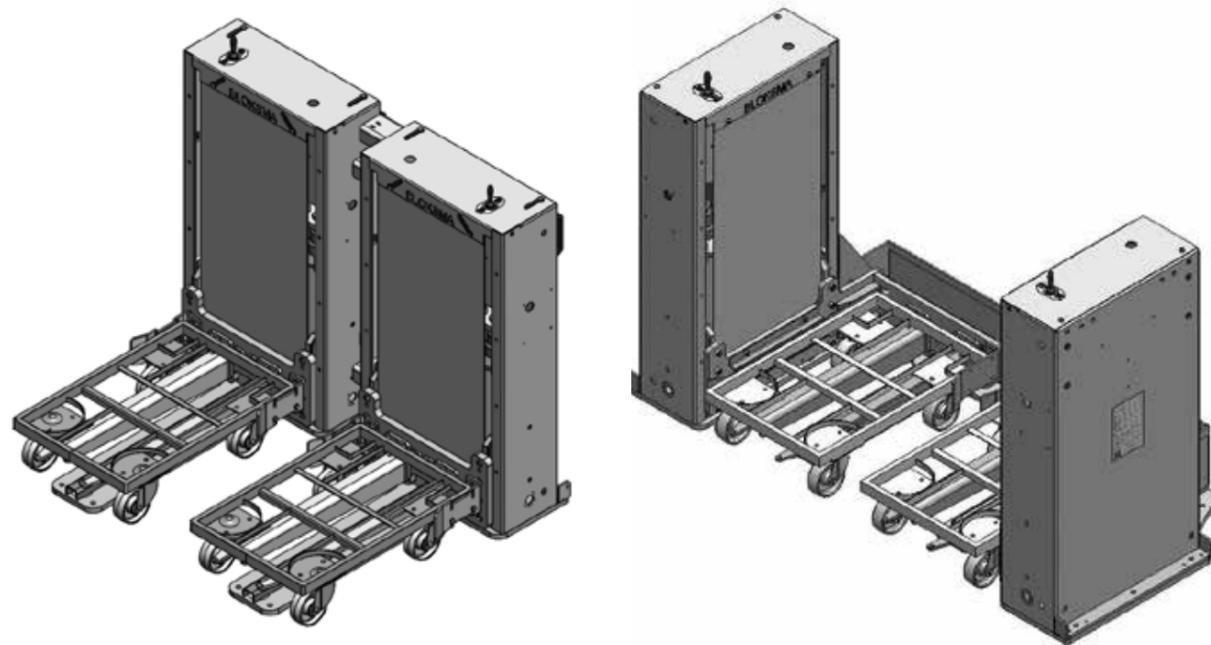
**For more information please turn to page 78 (chapter Control Elements).**

2

2



model Gemini



model Tandem

model Twin

**GEMINI**

stationary	size of trolley	lifting capacity	lift height on level (GOK)
141869	600x400 mm 630x430mm	200 kg each side	715 mm
142605	600x400 mm 630x430mm	200 kg each side	935 mm
145542	600x400 mm 630x430 mm	300 kg each side	715 mm
145540	600x400 mm 630x430 mm	300 kg each side	935 mm

**TANDEM**

stationary	size of trolley	lifting capacity	lift height on level (GOK)
205625	600x400 mm 630x430 mm	300 kg each side	715 mm
146225	600x400 mm 630x430 mm	200 kg each side	935 mm

**TWIN**

stationary	size of trolley	lifting capacity	lift height on level (GOK)
145319	600x400mm 630x430mm	400 kg each side	715 mm
137292	600x400mm 630x430mm	200 kg each side	715 mm

# PNEUMATIC LIFTERS FURTHER VARIATIONS I

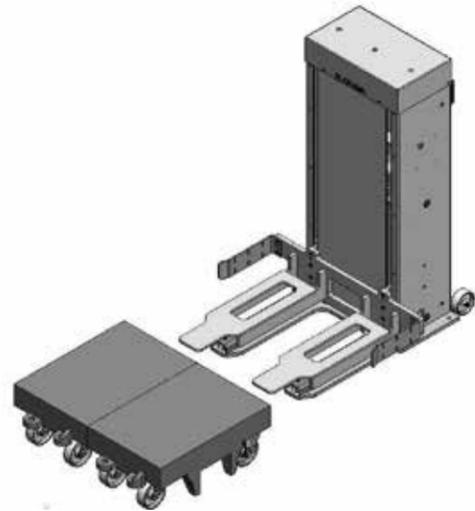


# PNEUMATIC LIFTERS FURTHER VARIATIONS II

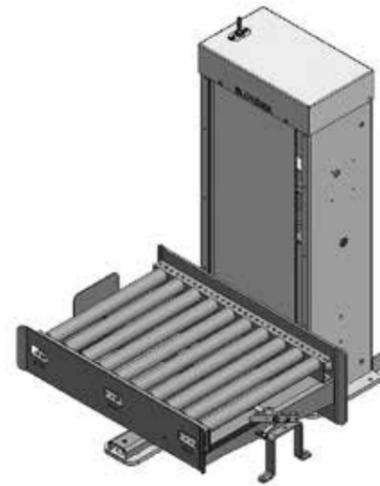


2

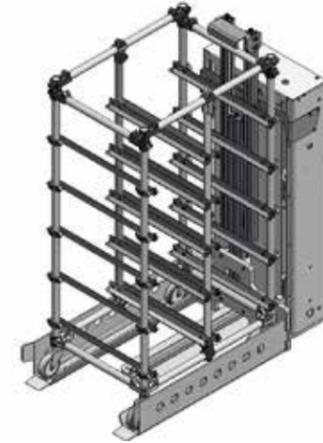
2



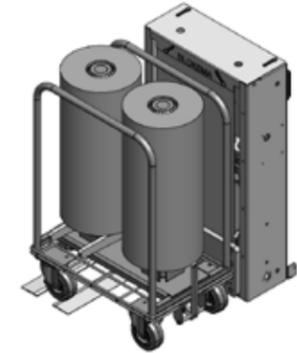
Item no. 210594 for two trolleys



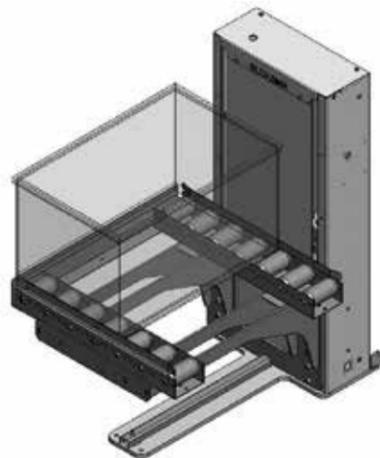
Item no. 147551 with roller conveyor



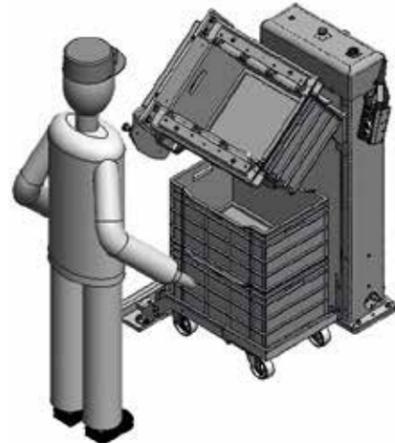
Item no. 204977 for shelf trolleys



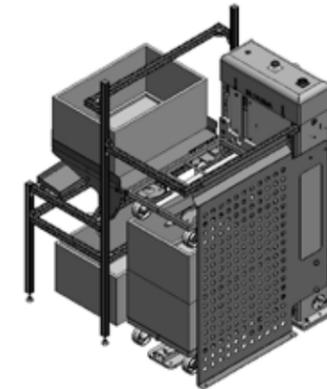
Item no. 202793 for lifting of trolley



Item no. 200450 with roller conveyor



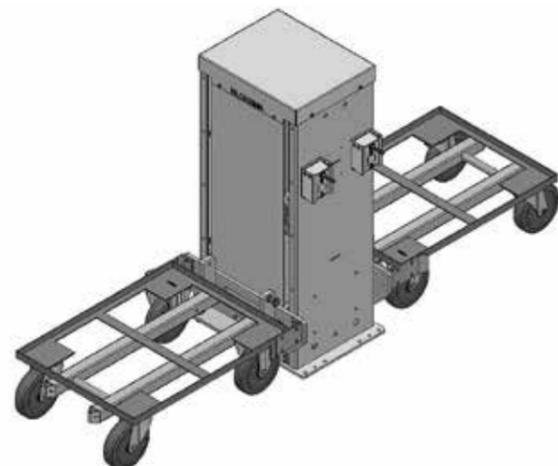
Item no. 147549 with tilting option



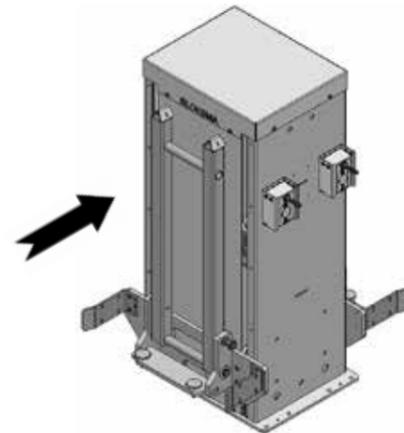
Item no. 203225



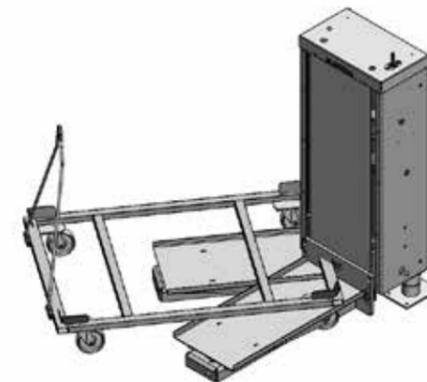
Item no. 145547



Item no. 201571 Gemini with folding forks



folding forks



Item no. 136159

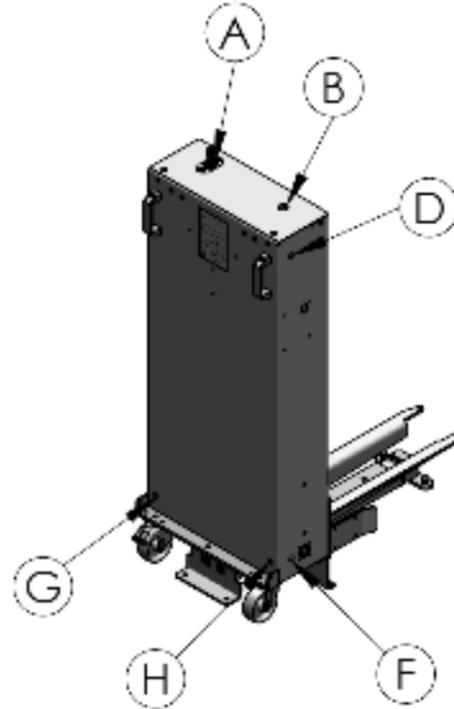
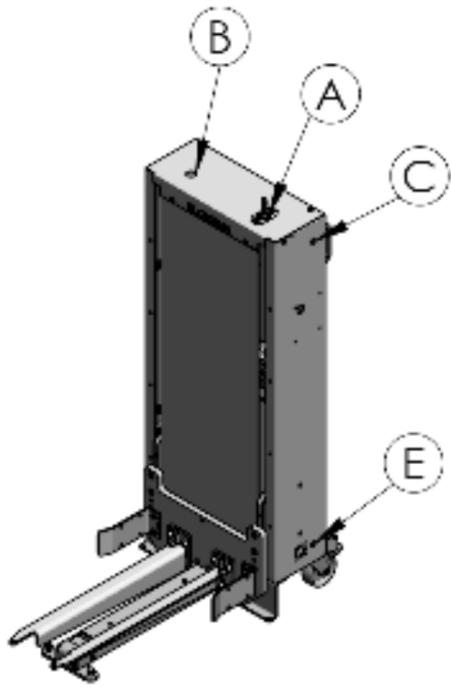


# DATA SHEET LIFTERS FRONT LOADING

Connection possibilities



2



**STANDARD**

lifting unit, front cover color RAL9010  
Lifting device galvanized  
hand lever position A  
air connection positions E  
pneumatics 6 bar

**possible hand lever positions**

- A: top right
- B: top left
- C: top right side
- D: top left side

**possible air connections**

- A: top right
- B: top left
- C: top right side
- D: top left side
- E: bottom right side
- F: bottom left side
- G: bottom right back
- H: bottom left back

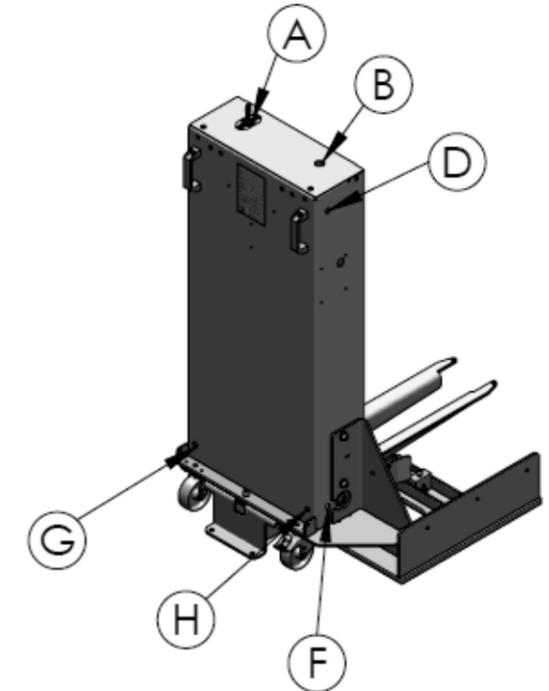
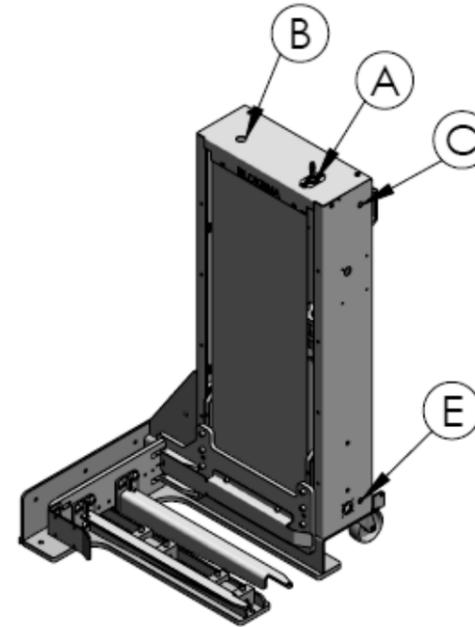
possible position hand lever	possible position air connection							
	A	B	C	D	E	F	G	H
A	/	X	X	X	X	X	X	X
B	X	/	X	X	X	X	X	X
C	X	X	/	X	X	X	X	X
D	X	X	X	/	X	X	X	X

# DATA SHEET LIFTERS RIGHT SIDE LOADING

Connection possibilities



2



**STANDARD**

lifting unit, front cover color RAL9010  
Lifting device galvanized  
hand lever position A  
air connection positions E  
pneumatics 6 bar

**possible hand lever positions**

- A: top right
- B: top left
- C: top right side
- D: top left side

**possible air connections**

- A: top right
- B: top left
- C: top right side
- D: top left side
- E: bottom right side
- F: bottom left side
- G: bottom right back
- H: bottom left back

possible position hand lever	possible position air connection							
	A	B	C	D	E	F	G	H
A	/	X	X	X	X	X	X	X
B	X	/	X	X	X	X	X	X
C	X	X	/	X	X	X	X	X
D	X	X	X	/	X	X	X	X



# HYDRAULIC LIFTERS FRONT LOADING

Lifting column – lifting and turning

HHS-F



This lifter is intended to lift and turn a pallet through electrohydraulic power. It is loaded with a commercial truck (forklifter, industrial and pallet truck) and is made for heavy loads from 700 - 1.500 kg. This lifter is made for containers size 1,200 x 800 mm or 1,200 x 1,000 mm. The tilting angle to both sides is up to 40 degrees.

The connected value is 230V resp. 400V.

All devices carry the CE certificate and corresponds to Standard EN-1570-1.

## LIFTING COLUMN TO LIFT

Item no.	description	size	lifting capacity
275008	lift on 900mm (13 sec.) for container 1,200x800mm	1,245x850x70mm	1,000kg
275009	lift on 900mm (13 sec.) for container 1,200x1,000mm	1,245x1,040x10mm	1,000kg

## LIFTING COLUMN TO LIFT AND TO TILT

Item no.	description	size	lifting capacity
275010	lift on 900mm (13 sec.) for container 1,200x800mm	1,245x850x70mm	1,000kg



Item no. 275008 Lifting column – only lifting



Item no. 275010 Lifting column – lifting and turning

# HYDRAULIC LIFTERS FRONT LOADING

U-shape or table-shape design

HHU-F OR HHT-F



This lifter is intended to lift pallets, cage boxes and other containers size 1,200 x 800 mm through electrohydraulic power. It is loaded with a standard commercial truck (forklifter, industrial and pallet truck). It is perfectly suitable for heavy loads of 700-2,000 kg. This lifter has an extremely low construction height of 80 to 100mm.

The connected value is 230V resp. 400V.

The device carries the CE certificate and corresponds to Standard EN-1570-1.

## U-SHAPE CONSTRUCTION

Item no.	description	size	lifting capacity
275011	lift on 720mm (13 sec.) for container 1,200x800mm	1,450x900x80mm	600kg
275012	lift on 970mm (19 sec.) for container 1,200x800mm	1,450x900x80mm	600kg
275013	lift on 820mm (13 sec.) for container 1,200x800mm	1,350x1,080x80mm	1,000kg
275014	lift on 820mm (24 sec.) for container 1,200x800mm	1,350x1,180x100mm	2,000kg

## TABLE-SHAPE CONSTRUCTION

Item no.	description	size	lifting capacity
275015	lift on 720mm (13 sec.) for container 1,200x800mm	1,500x900x50mm	600kg
275016	lift on 970mm (13 sec.) for container 1,200x800mm	1,500x900x50mm	600kg
275017	lift on 820mm (13 sec.) for container 1,200x800mm	1,350x800x80mm	1,000kg
275018	lift on 820mm (24 sec.) for container 1,200x1000mm	1,350x1000x100mm	2,000kg
275621	lift on 820mm (24 sec.) for container 1,200x800mm	1,350x1,000x100mm	2,000kg

## OPTION: DRIVE-ON RAMP

275619	ramp	ramp 800mm wide	
275620	ramp	ramp 1,000mm wide	



Item no. 275011 U-shape construction



Item no. 275015 Table-shape construction

Other models / dimensions on request  
Subject to technical changes

Other models / dimensions on request  
Subject to technical changes

# HYDRAULIC LIFTERS FRONT LOADING

Lifting and tilting of trolleys or pallets

HHN-B OR HHN-P



## LIFTING AND TILTING OF TROLLEYS

This lifter is intended to lift and lower trolleys through electrohydraulic power. The trolley is pushed onto the lifters' forks and perfectly suitable heavy loads of 700 – 1,200 kg. The lifter is designed for trolleys size 1,200 x 800 mm. The tilting angle is up to 40 degrees. The connected value is 230V resp. 400V.

This device is CE certified and corresponds to Standard EN-1570-1.

Item no.	description	size	lifting capacity
275000	lift to 550mm (15 sec.) for trolley 1,200x800mm crosswise suspended	1,300x550x220mm	750kg
275001	lift to 550mm (15 sec.) for trolley 1,200x800mm crosswise suspended	1,020x770x220mm	1,200kg

## LIFTING AND TILTING OF PALLETS

This lifter is intended to lift pallets, cage boxes and other containers size 1,200 x 800 mm through electrohydraulic power. It is loaded with a standard commercial truck (forklift, industrial or pallet truck). It is perfectly suitable for heavy loads of 700-2,000 kg. This lifter has an extremely low construction height of 80 to 100mm.

The connected value is 230V resp. 400V.

The device is CE certified and corresponds to Standard EN-1570-1.

## TABLE-SHAPE

Item no.	description	size	lifting capacity
275000	lift on 550mm (15 sec.)	1,300x550x220mm	750kg
275001	lift on 550mm (15 sec.)	1,020x770x220mm	1,200kg
275004	lift on 550mm (16 sec.)	1,000x1,300x380mm	1,500kg

## U-SHAPE

275005	lift on 820mm (16 sec.)	1,380x1,310x6mm inside dimension 1,200x850mm	1,500kg
275006	lift on 820mm (16 sec.)	1,380x1,510x6mm inside dimension 1,200x1,200x1,050mm	1,500kg
275007	lift on 820mm (16 sec.)	1,380x1,730x6mm inside dimension 1,200x1,270mm	1,500kg



Item no. 275001 Lifting and tilting of pallets



Item no. 275004 Lifting and tilting of wire cages

Other models / dimensions on request  
Subject to technical changes

Other models / dimensions on request  
Subject to technical changes



## SUPERMARKETS

# DEMAND-ORIENTED SUPPLY FOR A FLOWING PRODUCTION



# SUPERMARKETS

**Demand-oriented supply for a flowing production.**

**BLOKSMA supermarkets are designed for the need-oriented provision of goods – clearly arranged and in the right quantity. What are you looking for?**

You can purchase your daily needs at the supermarket, right? Although in modern companies this term is used to describe areas in which all required material for production is provided and supplied. On the basis of the First-in-First-out-principle and Kanban-planning the supermarkets by BLOKSMA fulfill a multitude of the most diverse requirements. Primarily, they ensure

in the smallest of spaces quick access to goods which are stored on trolleys and intended for immediate consumption. Here again we are your partner for everyday as well as special solutions. All our supermarket components have a modular structure and are tailormade exactly to your requirements – with helpful additional elements and comfortable details.

3

3

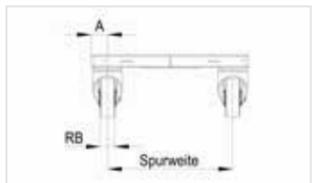
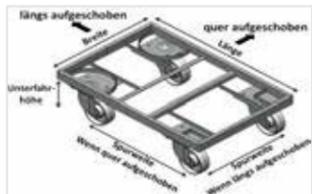


# OVERVIEW

PRODUCT INFORMATION	Pages 140-143
SUPERMARKET STRUCTURE ALUMINIUM SW 41mm	Pages 144-145
SINGLE COMPONENTS ALUMINIUM G3 SW 41mm	Pages 146-149
SUPERMARKET STRUCTURE G3 SW 52mm	Pages 150-151
SINGLE COMPONENTS ALUMINIUM G3 SW 52mm	Pages 152-155
FURTHER VARIATIONS	
• STEEL SW 42mm/52mm	Pages 156-157
• STAINLESS STEEL SW 42mm/52mm	
LABELING FOR SUPERMARKETS	Pages 158-165
ACCESSORIES	Pages 166-169

# SUPERMARKET CHECKLIST

<b>generation</b>	G3 (aluminium) <input type="checkbox"/>	G2 (steel) <input type="checkbox"/>
<b>track width</b>	41 mm (G3 aluminium) <input type="checkbox"/>	42 mm (G2 steel) <input type="checkbox"/>
	52 mm (G3 aluminium) <input type="checkbox"/>	95 mm (G2 steel) <input type="checkbox"/>
	special measurement (please fill in) <input type="text"/> mm	special measurement (please fill in) <input type="text"/> mm
<b>number of trolleys next to each other</b>	<input type="text"/>	
<b>number of trolleys one after another</b>	<input type="text"/>	
<b>trolley attributes</b>	manufacturer <input type="text"/>	item number/ type description <input type="text"/>
	length <input type="text"/> mm	width <input type="text"/> mm
	track width <input type="text"/> mm	
	wheel diameter <input type="text"/> mm	wheel width <input type="text"/> mm
		protrusion (ÜS) <input type="text"/> mm
	wheel combination	2 swivel & 2 fixed wheels <input type="checkbox"/> 4 swivel wheels <input type="checkbox"/> 4 swivel & 2 fixed wheels <input type="checkbox"/>
	brake	no <input type="checkbox"/> yes <input type="checkbox"/> how many? <input type="text"/> position? <input type="text"/>
	directional lock	no <input type="checkbox"/> yes <input type="checkbox"/> how many? <input type="text"/> position? <input type="text"/>
	Should your trolley have any other specifications such as a top tray, please send us a technical drawing and photo.	
	<b>entry direction</b>	lengthwise <input type="checkbox"/>
<b>supermarket function</b>	go through <input type="checkbox"/>	one sided in & out <input type="checkbox"/>
<b>infeed elements entry</b>	plastic black <input type="checkbox"/>	plastic yellow <input type="checkbox"/>
	plastic red <input type="checkbox"/>	plastic other colour <input type="checkbox"/>
	steel-galvanized <input type="checkbox"/>	others <input type="text"/>
<b>infeed elements exit</b>	plastic black <input type="checkbox"/>	plastic yellow <input type="checkbox"/>
	plastic red <input type="checkbox"/>	plastic other colour <input type="checkbox"/>
	steel-galvanized <input type="checkbox"/>	others <input type="text"/>

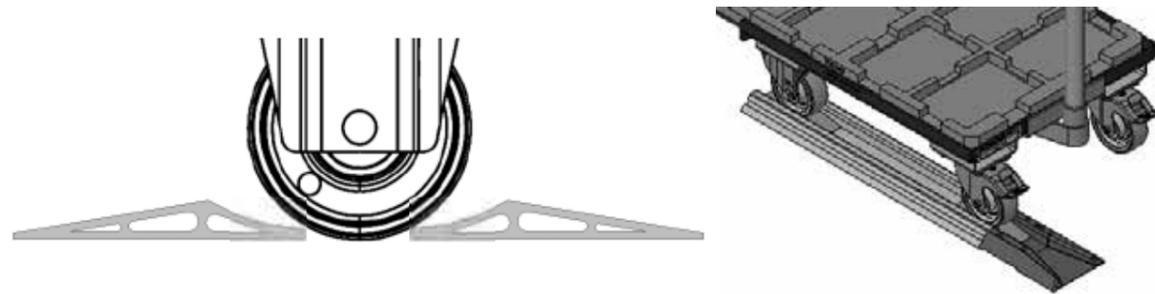


<b>stopping function – brake</b>	none <input type="checkbox"/>	entry side (front) <input type="checkbox"/>	exit side (back) <input type="checkbox"/>
	brush brake <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	mechanic stopper foot switch <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	electric stopper push button €€€ <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	return stop <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	"extra strong" return stop <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>labeling</b>	none <input type="checkbox"/>		<input type="checkbox"/>
	bothsided <input type="checkbox"/>	in the middle <input type="checkbox"/>	<input type="checkbox"/>
<b>sort of labeling</b>	H = hanging <input type="checkbox"/>	B = standing <input type="checkbox"/>	<input type="checkbox"/>
	K = by a chain <input type="checkbox"/>	P = standing on aluminium profile <input type="checkbox"/>	<input type="checkbox"/>
	rotatable <input type="checkbox"/>		
<b>labeling size</b>	A5 <input type="checkbox"/>	A4 <input type="checkbox"/>	A3 <input type="checkbox"/>
	labeling - colour placard frame	blue <input type="checkbox"/> green <input type="checkbox"/> black <input type="checkbox"/> other colours <input type="text"/>	yellow <input type="checkbox"/> red <input type="checkbox"/> white <input type="checkbox"/>
	labeling - height vertical module	1,500 mm <input type="checkbox"/> 2,400 mm <input type="checkbox"/>	2,100 mm <input type="checkbox"/> other height <input type="text"/> mm
		measurement A (distance from wheel to vertical module) <input type="text"/> mm	
<b>options</b>	dowelling to the floor <input type="checkbox"/>	mounting by BLOKSMA <input type="checkbox"/>	

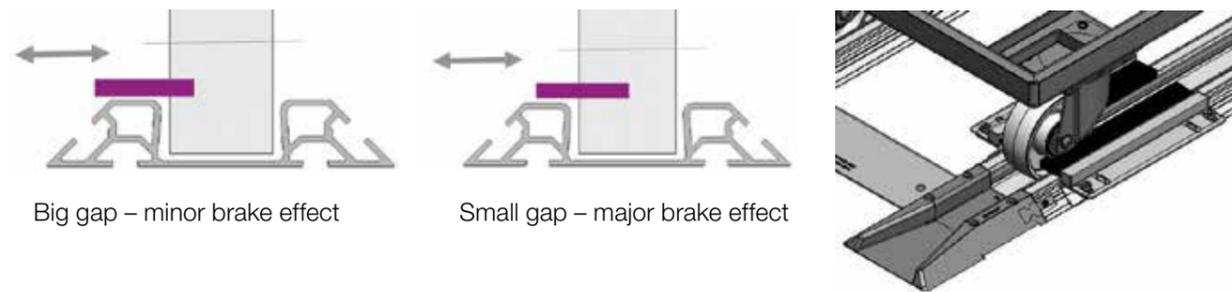


# SUPERMARKT DIVERSE BRAKING SYSTEMS

## A – RETURN STOP



## B – BRUSH BRAKE

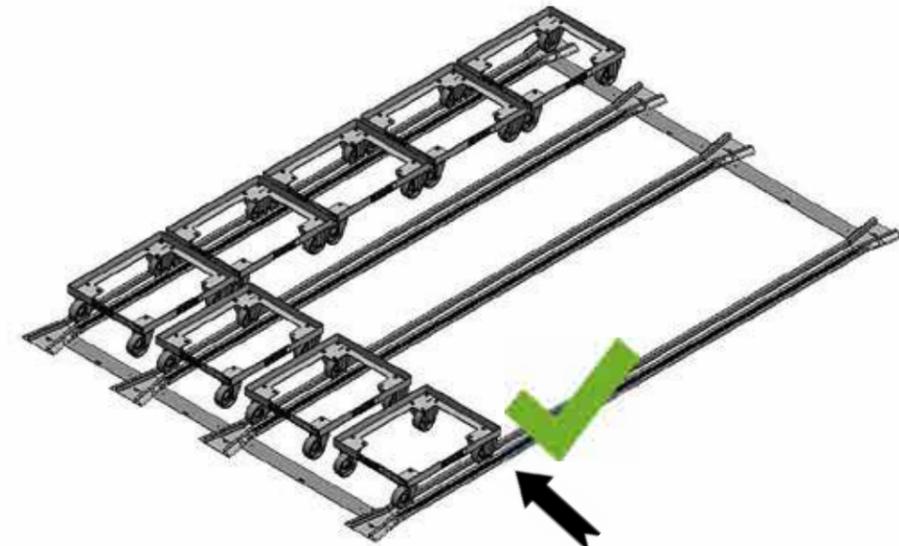


## C – MECHANICAL OR ELECTRICAL LOCKED STOPPER

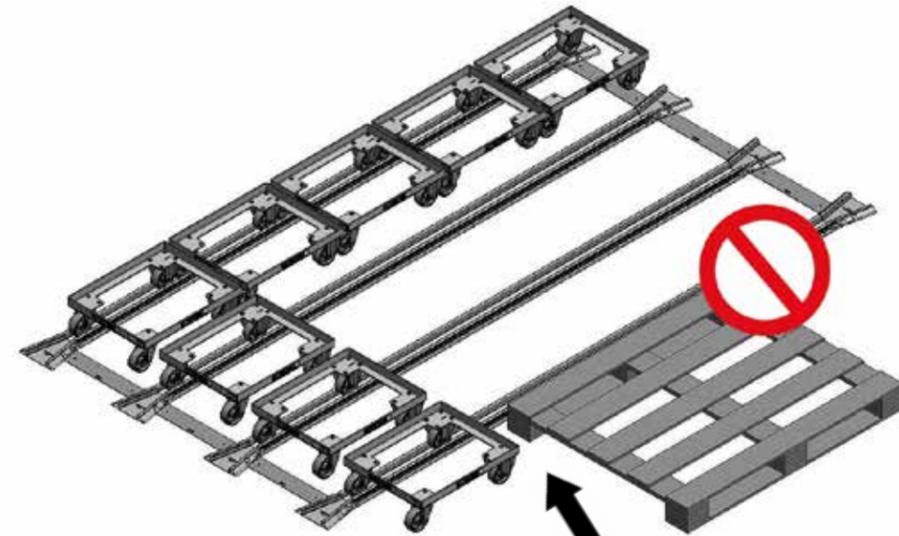


# SUPERMARKT ASSEMBLY INSTRUCTION

FIND THE CORRECT DIMENSIONS OF THE REQUIRED SURFACE



The end closure section serves as a lateral limitation of the supermarket.



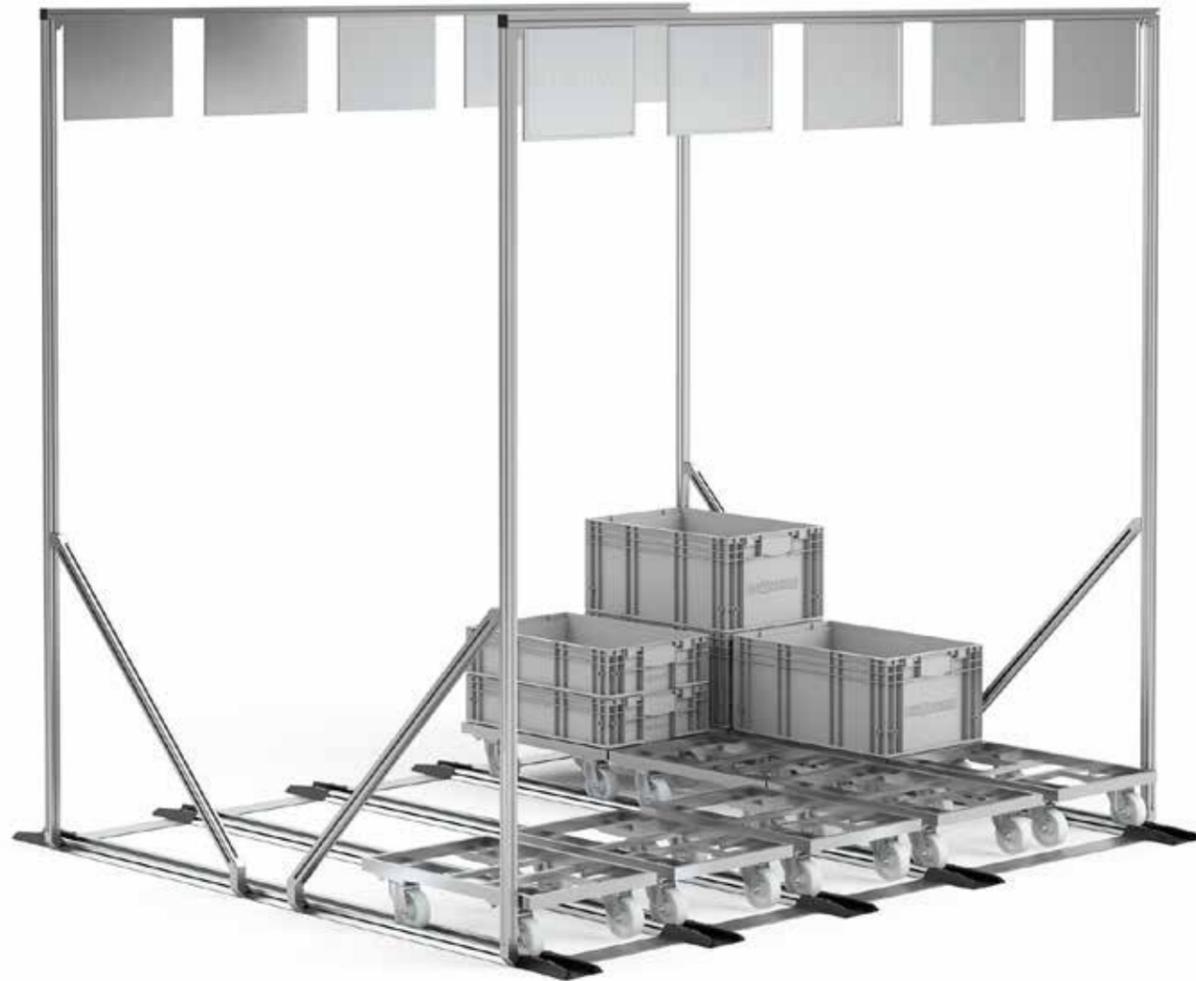
The end closure section is missing. So there is a risk that „obstacles“ are placed inside the supermarkets' space.

# SUPERMARKET G3 ALUMINIUM SINGLE COMPONENTS SW 41

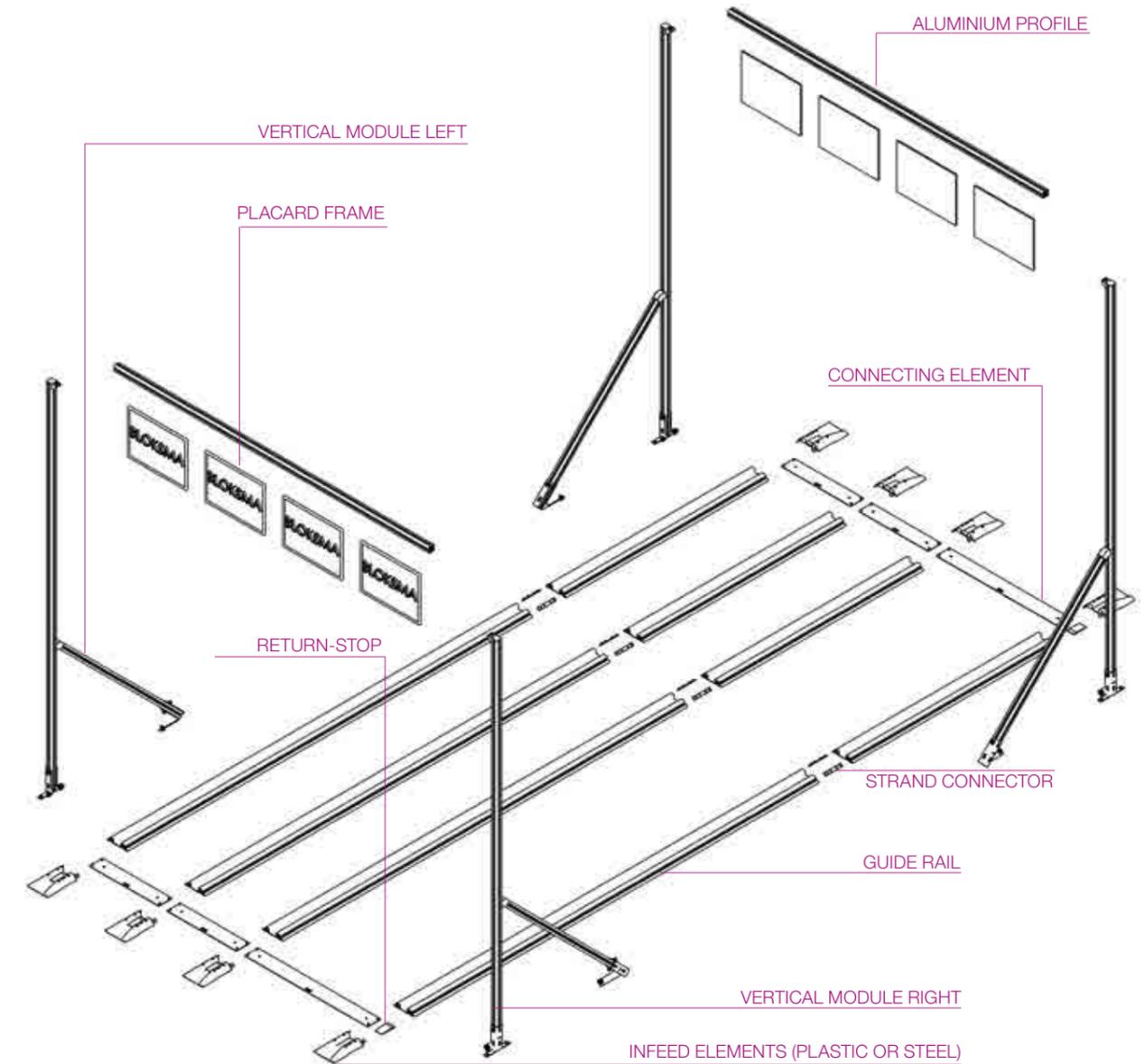


One-sided wheel guidance – single line system

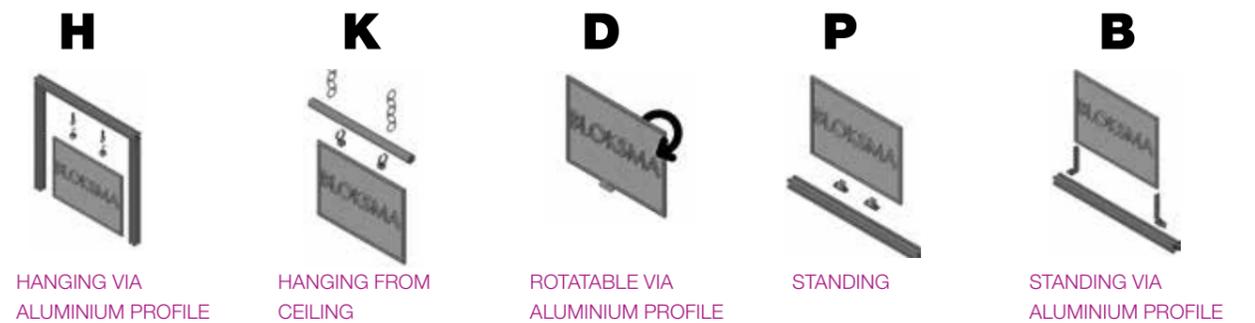
The rail width (SW) 41mm is suitable for trolleys with a **maximum wheel width of 40mm.**



# SUPERMARKET G3 ALUMINIUM SINGLE COMPONENTS SW 41



## LABELING POSSIBILITIES



# SUPERMARKET G3 ALUMINIUM SINGLE COMPONENTS SW 41



## Infeed elements and guidance rails

The supermarket organises the material provision according to the FIFO principle. Due to the modular structure each supermarket is adjusted to your individual requirements resp. spatial conditions. The track width /SW) 41 mm is suitable for trolleys with a **maximum wheel width of 40 mm**.

Construct your own supermarket with our single components or use the checklist in the catalogue for guidance. You can also use our online inquiry form or contact us directly with questions or concerns. We are happy to help you with the design.

### INFEED ELEMENTS SW 41mm

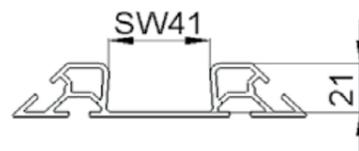
Item no.	description	paint
138124-9005	Infeed element (plastic)	black RAL 9005
138124-1021	Infeed element (plastic)	yellow RAL 1021
138124-2009	Infeed element (plastic)	orange RAL 2009
138124-5002	Infeed element (plastic)	ultramarine RAL 5002
138124-6016	Infeed element (plastic)	turquoise green RAL 6016
138124-3001	Infeed element (plastic)	red RAL 3001
further colors on request		
210667	Infeed element (steel)	electrogalvanized (very robust)



### GUIDANCE RAILS SW 41mm

Example: **138318-0800A** anodised aluminium rail with a length of 800mm

Item no.	length	processing
138318-xxxxx	-----	---
Please enter the desired length of the profile here		A = galvanized E = yellow (alike RAL 1021)
132917-xxxx	cover profile for guidance rails 8er groove (max. 2,000mm)	Plastic



Other models / dimensions on request  
Subject to technical changes

# SUPERMARKET G3 ALUMINIUM SINGLE COMPONENTS SW 41

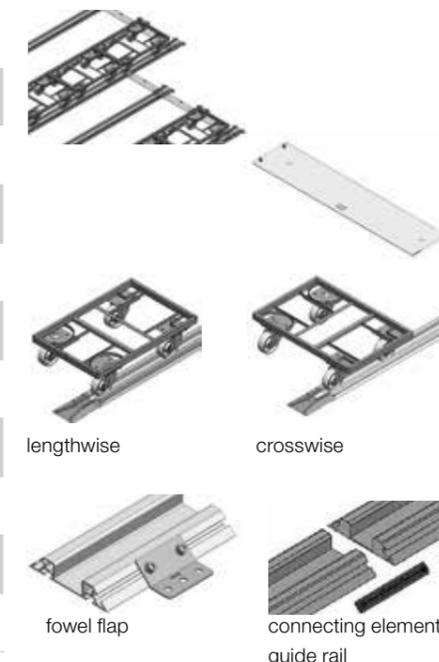


## Connection elements and stoppers

The rail width (SW) 41mm is suitable for trolleys with a **maximum wheel width of 40 mm**.

### CONNECTING ELEMENT

Item no.	description	designed to	model
211451-xxxx	BG-connector with variable rail length		
201500-0396	BG-connector lengthwise interposed	trolley 600x400mm model BOF	
201500-0714	BG-connector lengthwise interposed	trolley 600x400mm model BOF	
201500-0596	BG-connector crosswise interposed	trolley 600x400mm model BOF	
201500-0996	BG-connector crosswise interposed	trolley 600x400mm model BOF	
201500-0796	BG-connector crosswise interposed	trolley 800x600mm model BOF	
201500-1514	BG-connector crosswise interposed	trolley 800x600mm model BOF	
201500-0460	BG-connector lengthwise interposed	trolley 630x430mm model BOZ	
201500-0785	BG-connector lengthwise interposed	trolley 630x430mm model BOZ	
208278	BG-shackles		
138759	connecting element guide rail		



### STOPPER

Item no.	description	designed to	model
141427-0040A	non-return device 10mm	check rail SW 41	
144417-0040A	non-return device 6mm	check rail SW 41	
142073	end stop - rail	check rail SW 41	
139621	brush brake - retrofit	aluminium check rail	
202219-LI	ZB-stopper left	aluminium check rail	
202219-RE	ZB-stopper right	aluminium check rail	

Other models / dimensions on request  
Subject to technical changes

# SUPERMARKET G3 ALUMINIUM SINGLE COMPONENTS SW 41

## Labeling and vertical modules

The rail width (SW) 41mm is suitable for trolleys with a **maximum wheel width of 40mm.**



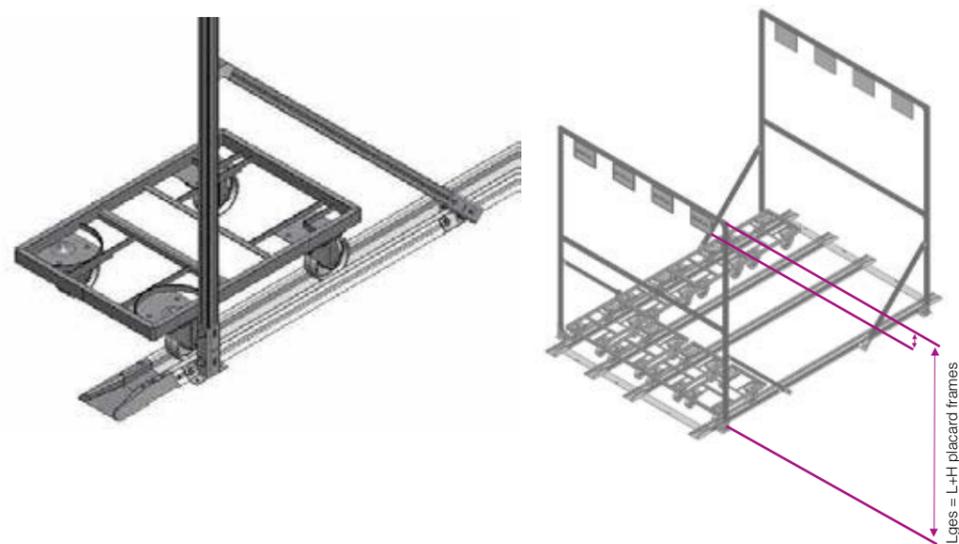
### VERTICAL MODULE

Example: **202216-L2100** BG-vertical module left, height 2,100mm

Item no.	length/height	description	dimension A	model
202216-L_	_____	BG vertical module left for trolley 600x400 mm model BOF	measure A 41mm	
202216-R_	_____	BG vertical module right for trolley 600x400 mm model BOF	measure A 41mm	
202247-L_	_____	BG vertical module left for trolley 630x430 mm model BOZ	measure A 52,5mm	
202247-R_	_____	BG vertical module right for trolley 630x430 mm model BOZ	measure A 52,5mm	

Please enter the desired height of the aluminium profile here

Please contact us if the measurement A of your trolley is not listed, so that we can design and calculate the accurate vertical module for your supermarket.



Please take into account the height of the placard frame when calculating the option ,hanging connection'. The total height. **Lges** = desired passage height + height of the placard frame

Other models / dimensions on request  
Subject to technical changes

# SUPERMARKET G3 ALUMINIUM SINGLE COMPONENTS SW 41

## Connection elements and stoppers

The rail width (SW) 41mm is suitable for trolleys with a **maximum wheel width of 40mm.**



### PROFILE HOLDER

Item no.	description	designed to	model
202237-V	BG-profile holder in front	trolley BOF 600x400mm	
202237-L	BG-profile holder left	trolley BOF 600x400mm	
202237-R	BG-profile holder right	trolley BOF 600x400mm	
202236-V	BG-profile holder in front	trolley BOZ 630x430mm	
202236-L	BG-profile holder left	trolley BOZ 630x430mm	
202236-R	BG-profile holder right	trolley BOZ 630x430mm	
209702-V	BG-profile holder movable	diverse trolleys	
202217	BG-profile holder round pipe	trolley BOF 600x400mm	
202979-L	stabiliser left	trolley BOF 600x400mm	
202979-R	stabiliser right	trolley BOF 600x400mm	

### ALUMINIUM PROFILE

Item no.	length	processing	description	model
132401	_____	A	aluminium profile 30x30mm labeling from ceiling or with vertical modules possible	
132404	_____	A	aluminium profile Ø 28mm labeling from ceiling	
142419	_____	A	aluminium profile round Ecoshape labeling from ceiling with vertical modules possible	

please insert preferred rail height

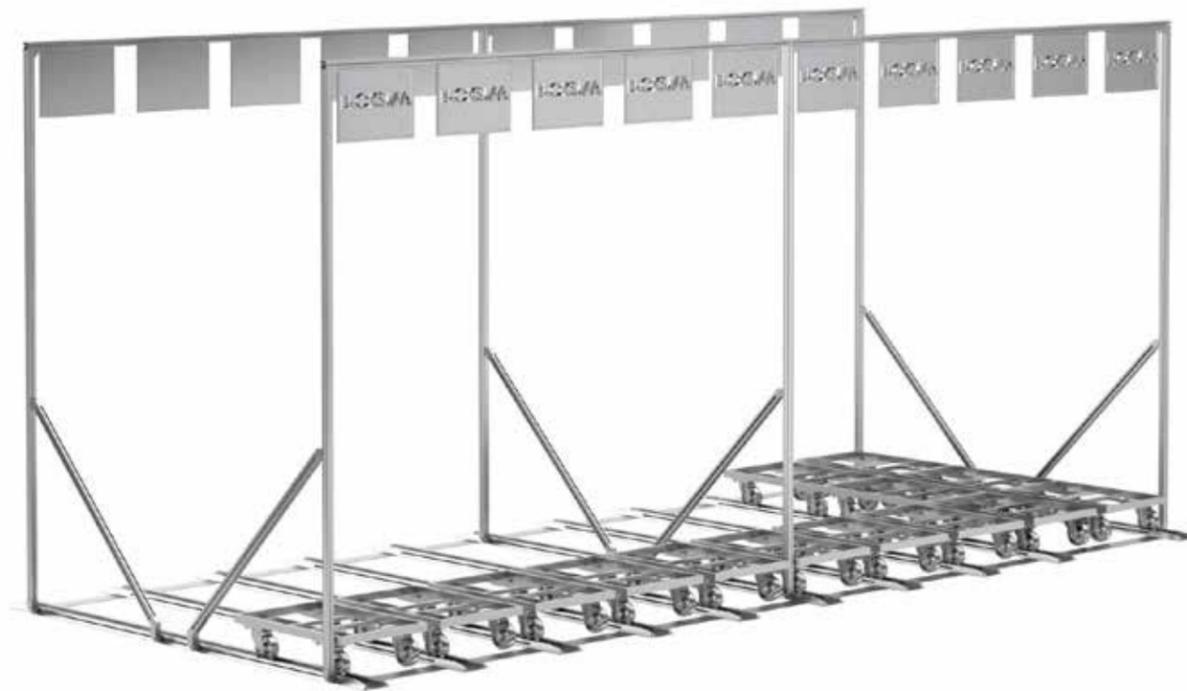
A = anodized

Other models / dimensions on request  
Subject to technical changes

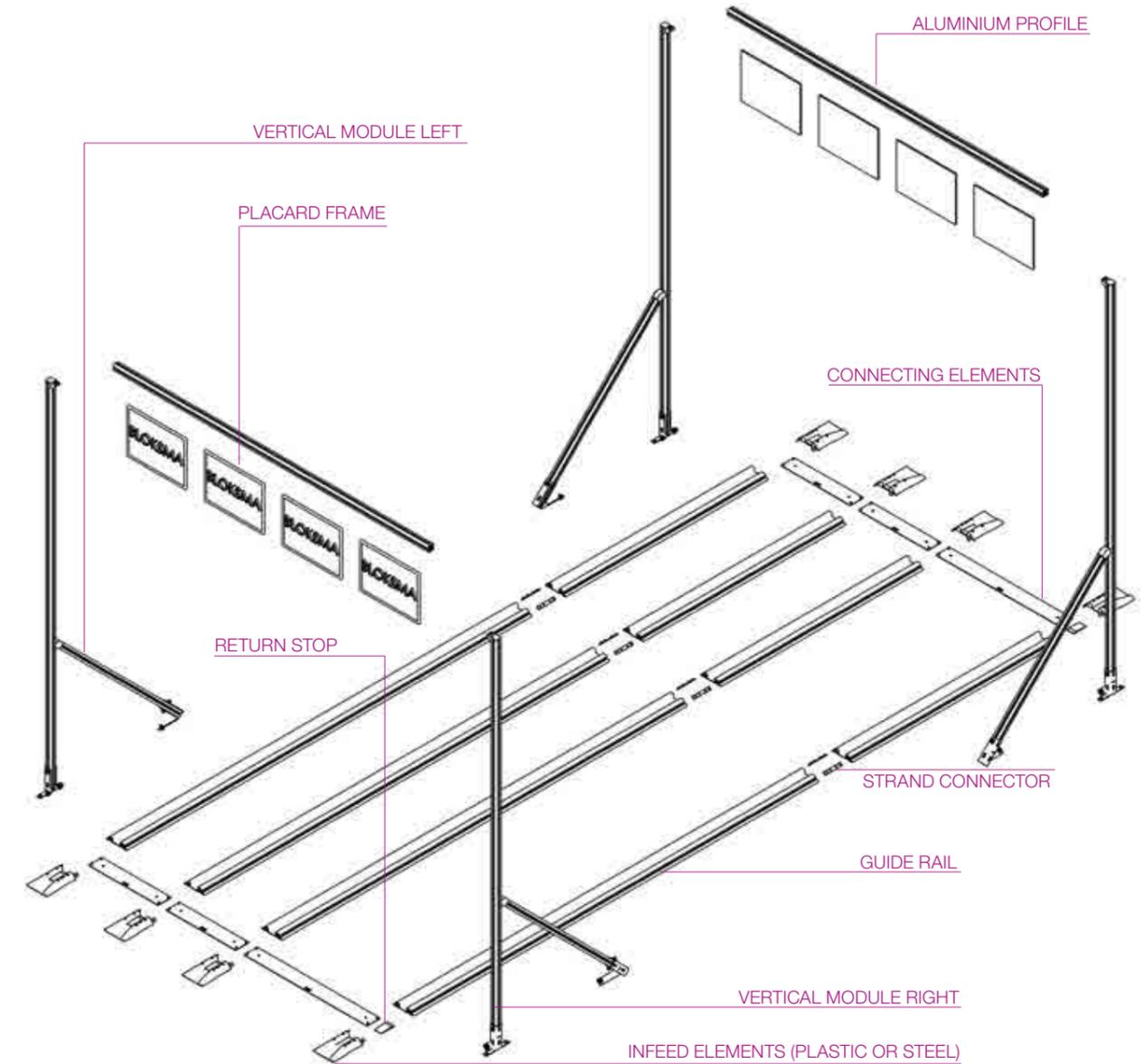
# SUPERMARKT G3 ALUMINIUM SINGLE COMPONENTS SW 52

Connection elements and stoppers

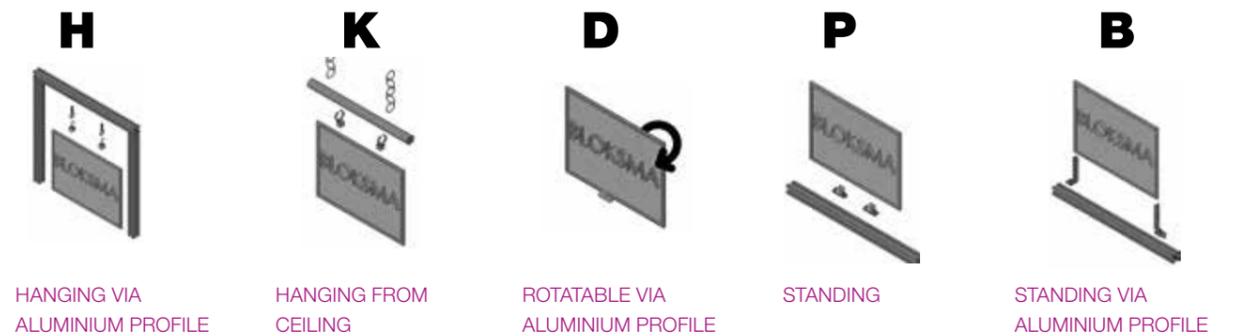
The rail width (SW) is suitable for trolleys with a **maximum wheel width of 50mm.**



# SUPERMARKT G3 ALUMINIUM SINGLE COMPONENTS SW 52



## LABELING POSSIBILITIES



Other models / dimensions on request  
Subject to technical changes

Other models / dimensions on request  
Subject to technical changes

# SUPERMARKET G3 ALUMINIUM SINGLE COMPONENTS SW 52



## Infeed elements and guide rails

The supermarket organises the material provision according to the FIFO principle. Due to the modular structure each supermarket is adjusted to your individual requirements resp. spatial conditions. The track width /SW) 52 mm is suitable for trolleys with a **maximum wheel width of 50 mm**.

Construct your own supermarket with our single components or use our checklist in the catalogue. You can also use our online inquiry form or contact us directly with questions or concerns. We are happy to take over the design for you.

### INFEED ELEMENTS SW 52mm

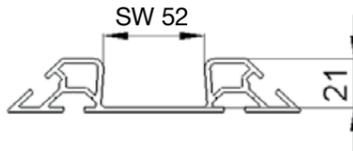
Item no.	description	paint
148618-9005	infeed element plastic	black RAL 9005
148618-1021	infeed element plastic	yellow RAL 1021
148618-2009	infeed element plastic	orange RAL 2009
148618-5002	infeed element plastic	ultramarine RAL 5002
148618-6016	infeed element plastic	turquoise green RAL 6016
148618-3001	infeed element plastic	red RAL 3001
further colors on demand		
211365	infeed element steel	galv. verzinkt (sehr robust)



### GUIDE RAILS SW 52mm

Example: **148448-0800A** anodised Aluminium rail with a length of 800 mm

Item no.	length	processing
148448-xxxxx	-----	---
please insert preferred rail length		A = anodized E = yellow (similarly RAL 1021)
132917-xxxx	cover profile for check rail 8er Nut (max. 2000mm)	plastic



Other models / dimensions on request  
Subject to technical changes

# SUPERMARKET G3 ALUMINIUM SINGLE COMPONENTS SW 52



## Connecting elements and stoppers

The rail width (SW) 52mm is suitable for trolleys with a **maximal wheel width of 50mm**.

### CONNECTING ELEMENT

Item no.	description	designed to	model
201500-xxxxx	BG-connector lengthwise interposed	depending on the track spacing to the outer edge of the trolley	
201500-xxxxx	BG-connector crosswise interposed	depending on the track spacing to the outer edge of the trolley	
211451-xxxxx	BG-connector with variable rail length		
		inserted lengthwise                  inserted crosswise	
208278	BG-dowel flap		dowel flap
138759	connecting element check rail		connecting element for guide rail

### STOPPER

Item no.	description	designed to	model
141427-0050A	non-return 10mm	check rail SW 52	non-return device
144417-0050A	non-return 6mm	check rail SW 52	
200400	end stop - rail	check rail SW 52	endstop
139621	brush brake - retrofit	aluminium check rail	brush brake
202219-LI	ZB-stopper left	aluminium check rail	Stopper
202219-RE	ZB-stopper right	aluminium check rail	

Other models / dimensions on request  
Subject to technical changes

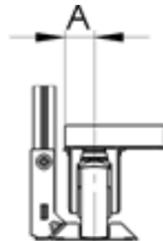
# SUPERMARKET G3 ALUMINIUM SINGLE COMPONENTS SW 52

## Labeling and vertical modules

The rail width (SW) 52mm is suitable for trolleys with a **maximal wheel width up to 50mm.**

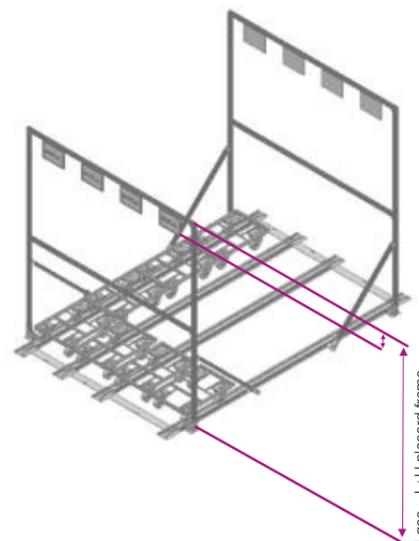
### VERTICAL MODULE

Example: **202255-L2100** BG-vertical module left with a height of 2.100mm

Item no.	length	description	dimension A	model
202255-L	_____	BG-vertical module left	dimension A 60mm	
202255-R	_____	BG-vertical module	dimension A 60mm	

Please enter the desired height of the alu-profile here

Please contact us if the measurement A of your trolley is not listed, so that we can design and calculate the accurate vertical module for your supermarket.



Please take into account the height of the placard frame when calculating the option 'hanging connection'. The total height  $L_{ges}$  = desired passage height + height of the placard frame

Other models / dimensions on request  
Subject to technical changes



# SUPERMARKET G3 ALUMINIUM SINGLE COMPONENTS SW 52

## Profile holders and aluminium profiles

The rail width (SW) 52mm is suitable for trolleys with a **maximal wheel width of 50mm.**

### PROFILE HOLDER

Item no.	description	designed to	model
202256-V	BG-profile holder in front	designed for trolley with a maximum wheel width up to 50mm	
202256-L	BG-profile holder left	designed for trolley with a maximum wheel width up to 50mm	
202256-R	BG-profile holder right	designed for trolley with a maximum wheel width up to 50mm	
209702-V	BG-profile holder movable	diverse trolley	
202217	BG-profile holder round pipe	designed for trolley with a maximum wheel width up to 50mm	
202979-L	stabiliser left	designed for trolley with a maximum wheel width up to 50mm	
202979-R	stabiliser right	designed for trolley with a maximum wheel width up to 50mm	

### ALUMINIUM PROFILE

Item no.	length	processing	description	model
132401	_____	A	aluminium profile 30x30 mm labeling from ceiling or with vertical modules possible	
132404	_____	A	aluminium profile Ø 28mm labeling from ceiling	
142419	_____	A	aluminium profile round Ecos-hape labeling from ceiling with vertical modules possible	

Please fill in the requested length of the rail. A = anodized

Other models / dimensions on request  
Subject to technical changes



# SUPERMARKET G2/G6 STEEL/ STAINLESS STEEL

**AVAILABLE IN SW 42 / SW 52**

Single & double track, one-sided wheel guidance

**OUR BLOKSMA SUPERMARKET IS ALSO AVAILABLE IN STEEL**

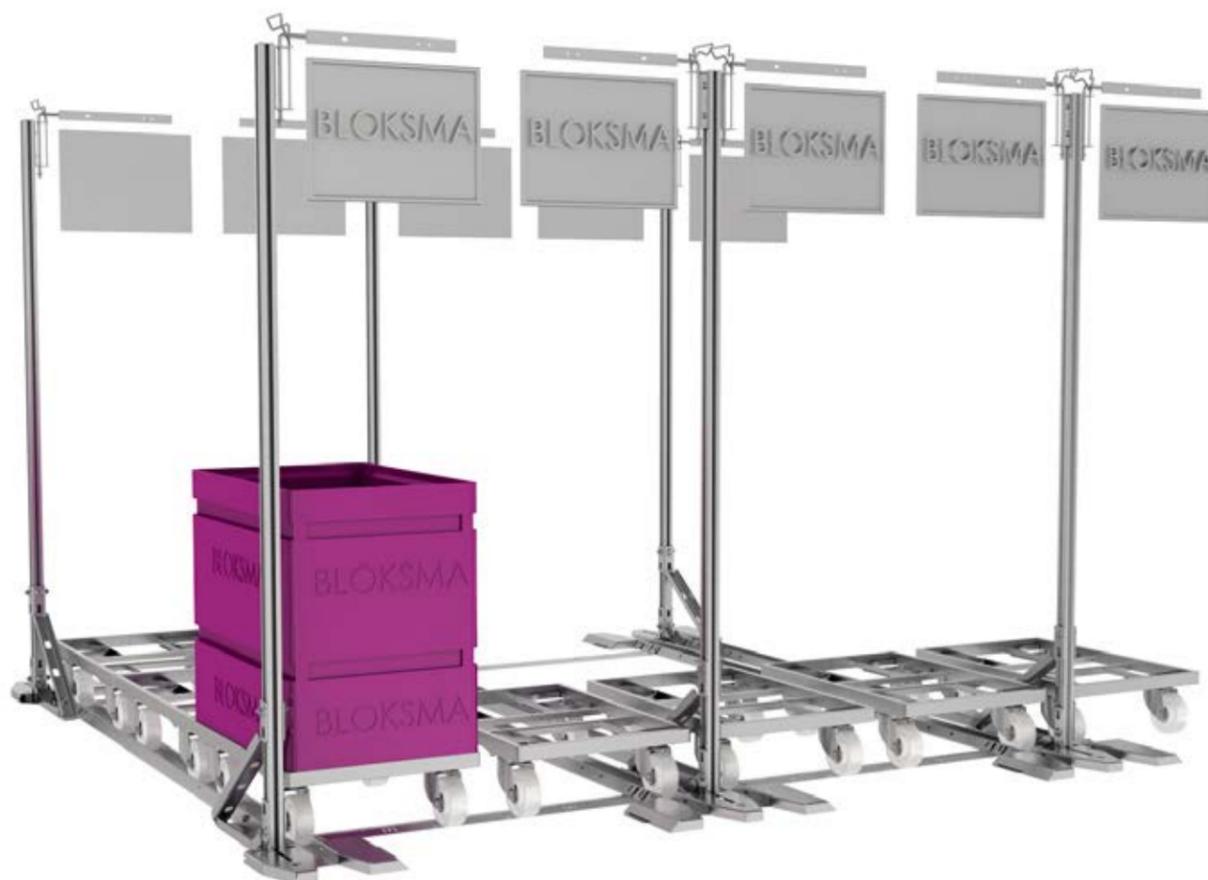
You can either send in your enquiry with the checklist in the catalogue, use the online-request-form or contact us directly. We are happy to do the design for you.



The rail width (SW) 42mm is suitable for trolleys with a **maximal wheel width of 40mm.**



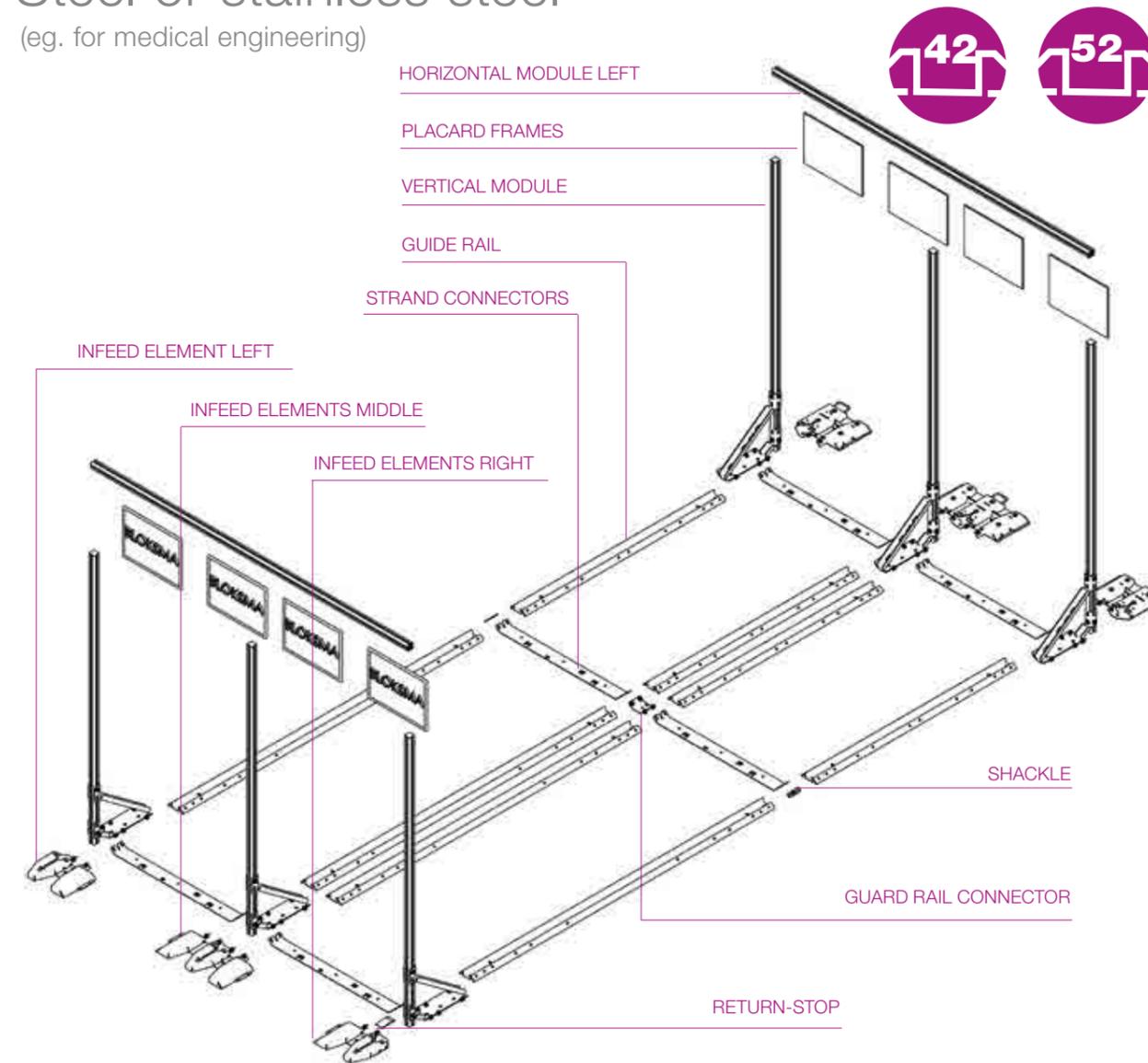
The rail width (SW) 52mm is suitable for trolleys with a **maximal wheel width of 50mm.**



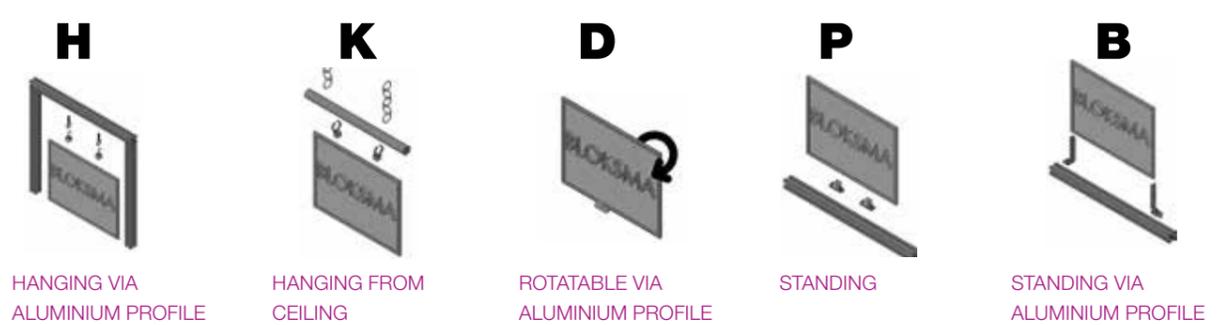
# SUPERMARKET G2/G6 STEEL SINGLE COMPONENTS SW 42 / SW 52

Steel or stainless steel

(eg. for medical engineering)



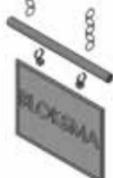
## LABELING POSSIBILITIES



# SUPERMARKET ACCESSORIES I PLACARD FRAMES

Components for labeling

Example: **201030-A504** placard frame standing, size A5 in blue

Item no.	DIN Ax	paint	description	model
201031	A ___	___	BG-Placard frame <b>complete</b> with foil and closing clip	
201034	A ___	___	BG-Placard frame <b>B standing</b> incl. fixing material	
201032	A ___	___	BG-Placard frame <b>H hanging via aluminium profile</b> incl. fixing material	
201033	A ___	___	BG-Placard frame <b>K hanging from ceiling</b> incl. fixing material	
201030	A ___	___	BG-Placard frame <b>P standing via aluminium profile</b> incl. fixing material	
201546	A ___	___	BG-Placard frame <b>D rotatable</b> incl. fixing material	
	DIN A3 DIN A4 DIN A5	01 = yellow 02 = red 03 = white 04 = blue 05 = green 06 = black		

Other models / dimensions on request  
Subject to technical changes

# SUPERMARKET ACCESSORIES II SINGLE COMPONENTS

Components for labeling

Example: **201524-A504** single placard frame size A5 in blue  
**201525-A5** foil for placard frame size A5

Item no.	DIN Ax	paint	description	model
201524	A ___	___	placard frame separately	
201525	A ___	transparent	foil for placard frame	
147711	size standardized	transparent	closing clip for placard frame	
	DIN A3 DIN A4 DIN A5	01 = yellow 02 = red 03 = white 04 = blue 05 = green 06 = black		

Other models / dimensions on request  
Subject to technical changes

# SUPERMARKET ACCESSORIES III

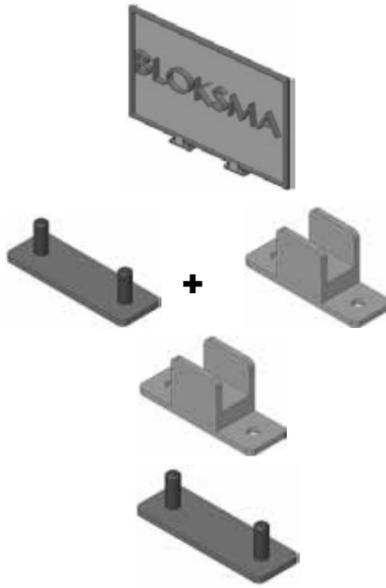
## SINGLE COMPONENTS

Components for mounting

Item no.	description	model
----------	-------------	-------

### FIXING FOR PLACARD FRAME P

STANDING

202355	BG-holder consisting of holder and mounting contents: 2 pieces	
140196	holder for placard frame - standing - contents: 1 piece	
141332	BG-mounting plate contents: 1 piece	

### FIXING FOR PLACARD FRAME B

STANDING VIA ALUMINIUM PROFILE

142113	BG-holder for placard frame standing contents: 2 pieces inclusive mounting material	
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# SUPERMARKET ACCESSORIES IV

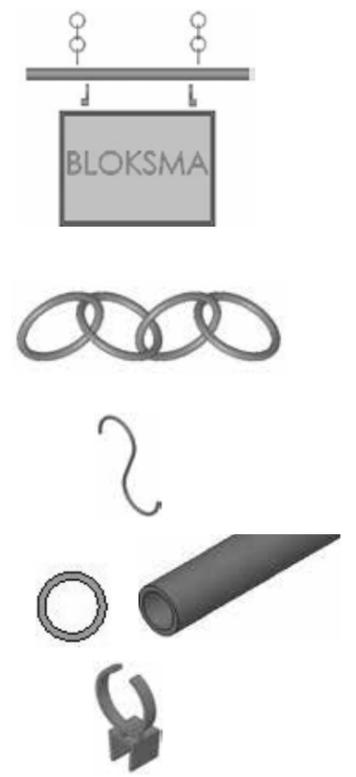
## SINGLE COMPONENTS

Components for mounting

Item no.	description	model
----------	-------------	-------

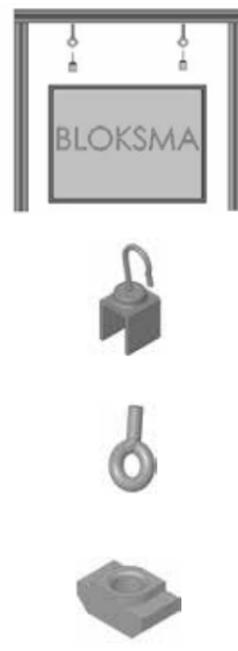
### FIXING FOR PLACARD FRAME K

HANGING FROM CEILING

142405	link chain 30m	
142404	locking hook for link chain contents: 10 pieces	
142406	mounting tube Ø 28 mm L = 2.420mm	
142403	holder for placard frame at mounting tube contents: 10 pieces	

### FIXING FOR PLACARD FRAME H

HANGING VIA ALUMINIUM PROFILE

138768	suspension hook – rotatable	
140863	eyelet M6x15 – closed	
133427	nut M6 8 mm groove	

# SUPERMARKET ACCESSORIES V

## SINGLE COMPONENTS

Components for mounting

Item no.	description	model
140870	suspension eye closed - rotatable	
142415	placard frame holder magnetic	
142416	placard frame holder vertically rotatable	
142503	holder for placard frame at mounting tube	
142418	placard frame holder vertically adhesive on wall	

Other models / dimensions on request  
Subject to technical changes

# SUPERMARKET ACCESSORIES VI

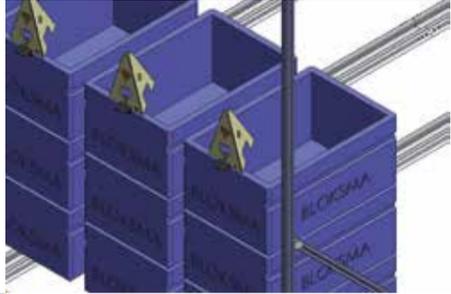
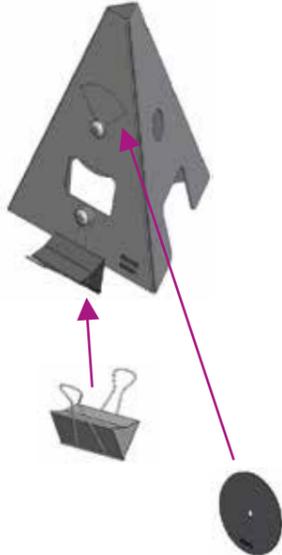
## FURTHER COMPONENTS

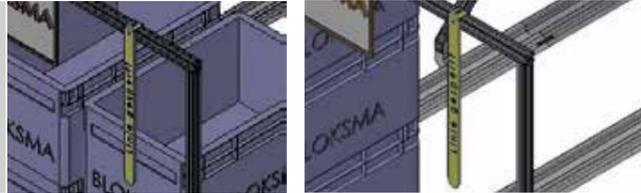
Item no.	description	model
133176	angle connector 90 degrees for 30x30mm profile	
132399	angle connector 90 degrees for 40x40mm profile	
134473	angle connector 90 degrees for 30x30mm profile	
138146	angle connector 45 degrees for 30x30mm profile	
210838	angle connector 45 degrees for 40x40mm profile	
202411	collar nut M5	
135649	collar nut M6	
135997	collar nut M8	
202830	hammer screw M5x16	
135650	hammer screw M6x16	
135996	hammer screw M8x20	
132401-xxxxA	aluminium profile 30x30mm	
132402-xxxxA	aluminium profile 40x40mm	
139727	profile connector 8 mm groove for Alu-profile 30x30 mm	
133427	nut	
132407	cap Alu-profile	
132917-xxxx	plastic cover profile for check rail 8mm groove (max. 2000mm - please fill in the required length)	

Other models / dimensions on request  
Subject to technical changes

# SUPERMARKET ACCESSORIES VII SINGLE COMPONENTS

Track marking in the supermarket

Item no.	description	model
		
202632-X001	pintle	
202632-X002	pintle turning platform	
202632-X003	pintle with clip	
202632-X004	pintle with retaining clip & turning platform	
202874	BG-retaining clip	
202875	BG-turning platform	

202359	Rail Barrier Fix	
202360	Rail Barrier Tape	
202796	Rail Barrier Chain	

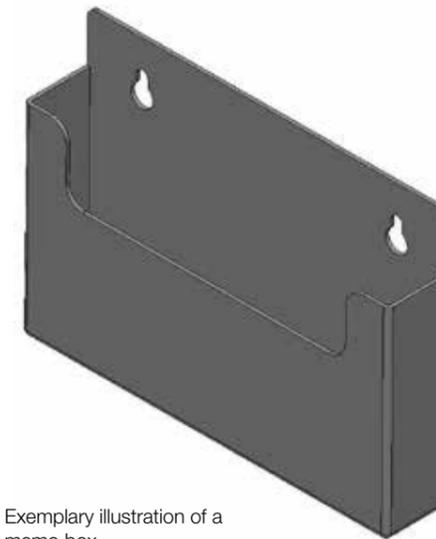
Examples

Barrier Tape

Barrier Chain

# SUPERMARKET ACCESSORIES VIII SINGLE COMPONENTS

Collection box/Mailbox



Exemplary illustration of a memo box

Item no.	description
200503-16x11	memo box 165x115mm to collect KANBAN cards or other order documents
200503-25x23	memo box 250x230mm to collect KANBAN cards or other documents

# SUPERMARKET WITH AUTOMATED REFILL OPTION

# FIFO SUPERMARKETS – THE NEXT LEVEL

SUPERMARKETS SUPPORT THE STORAGE OF TROLLEY AFTER FIRST IN FIRST OUT PRINCIPLE. THIS PRINCIPLE WAS FURTHER DEVELOPED BY BLOKSMA AND EQUIPPED WITH COMPLEMENTARY INTELLIGENCE.

3



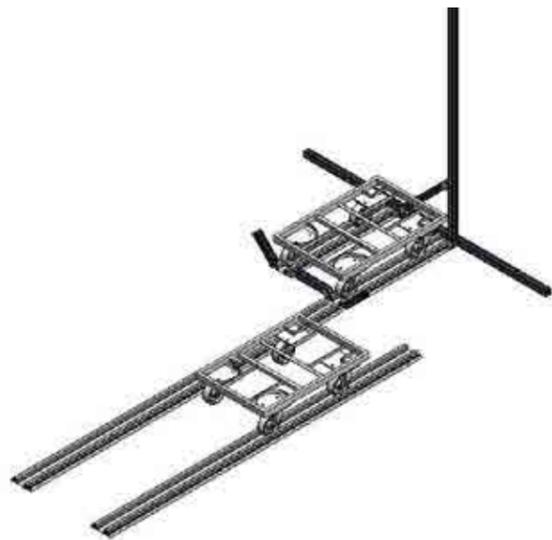
Item no. 210545 Automated refill device



Supermarket with automated refill devices



Supermarket with automated refill devices



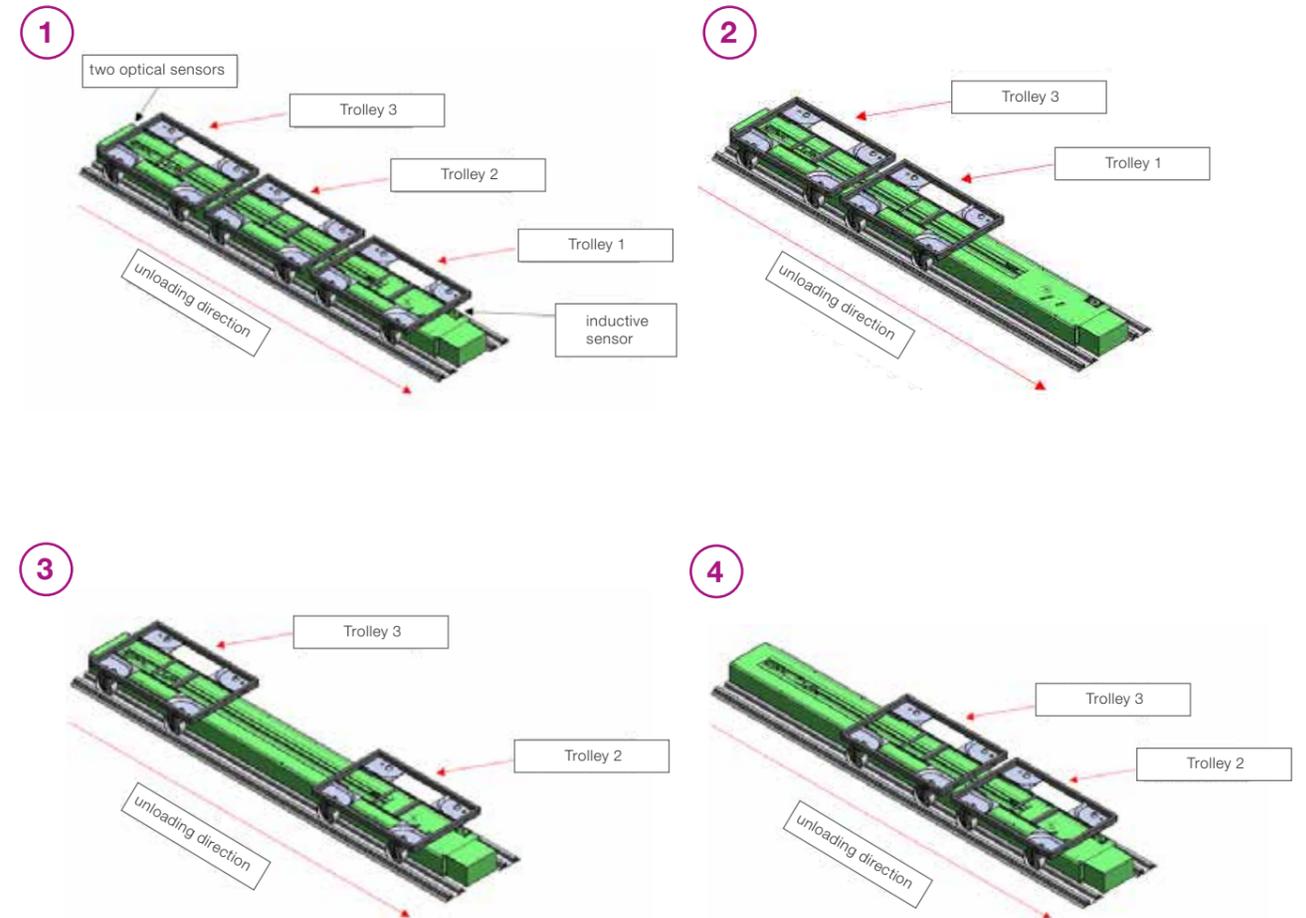
Slide mechanism - change of rail



Long and narrow supermarkets tracks are problematic for workers, because they have great difficulty removing the front trolleys. Thanks to the automatic refill function thought of by BLOKSMA, this problem is resolved. With this function it is guaranteed that the trolley entered first will always be ready at the end of the rail track for first removal. The sensors of the automatic refill supermarket will recognize which position the trolley is in. Should the front sensor not be occupied then automatically a trolley will be moved forward from the back. The automatic supermarket will move a trolley from back to front after each removal. The length of the supermarket with automatic refill function can be manufactured per customer requirements.

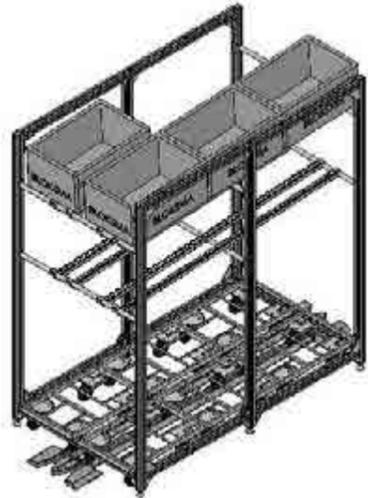
**Further models/dimension available upon request.**

3

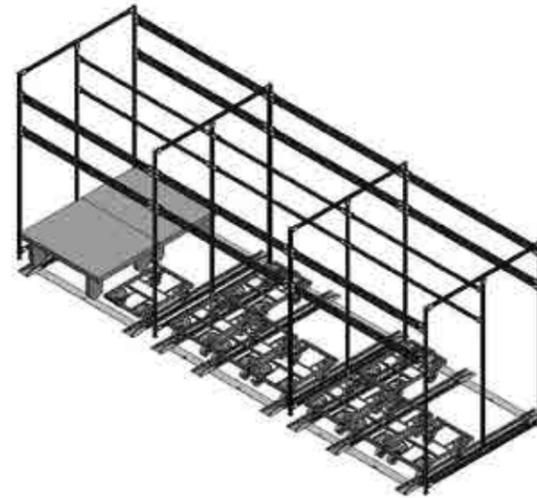


# SUPERMARKET TOP-STRUCTURE • HOUSING

# SUPERMARKET FURTHER ACCESSORIES



Top structure with conveyor belt on shelf



Top structure with conveyor belt on shelf



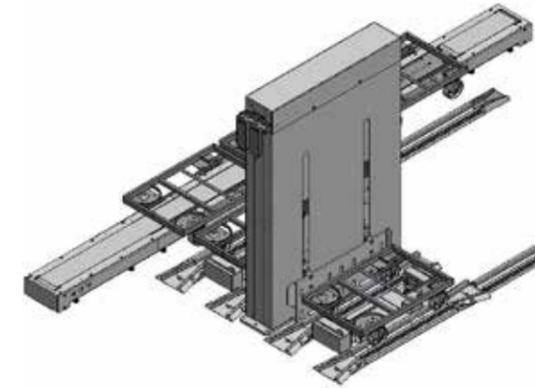
with housing



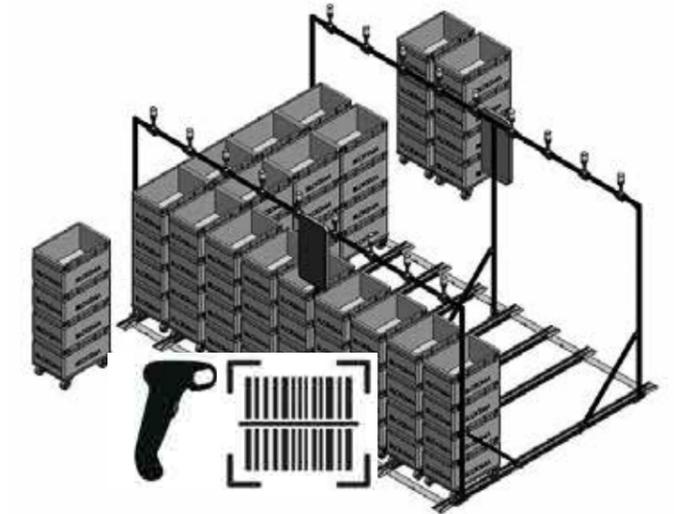
Top structure with labeling



Top structure with conveyor belt on shelf



Item no. 202361 lifter integrated in supermarket



Supermarket guard

- Prevents wrong positioning of trolleys
- Errors have visual and/or audible signals
- Constructed for error prevention and time saving
- Modern technical support for your perfect material flow
- Suitable for any number of tracks and applications

For more comprehensive product information please contact your local sales person - we will be at your disposal with our support!!  
[www.bloksma.de/en/contact](http://www.bloksma.de/en/contact)



### OUR SERVICE FOR YOU

- BLOKSMA will gladly advise you and design the supermarket according to your application
- If desired, we set up your supermarket on site
- Contact us: 07181 98556-0 or by mail [mail@bloksma.de](mailto:mail@bloksma.de)

## TROLLEY PARKING

EVERYTHING IN PLACE,  
SO NOTHING  
ROLLS AWAY



# PARKING LOT

Everything in place, so nothing rolls away.

## Parking Lot (with stacks of KLT or GLT)

- Secure against unintentional rolling away
- Secure the right parking position
- Provide optimal visual overview
- Integral element 5S



# OVERVIEW

COMPLETE-SET „HIGH – HIGH”	page 174
COMPLETE-SET „FLAT – FLAT”	page 175
COMPLETE-SET „HIGH -FLAT”	page 176
COMPLETE-SET „HIGH-HIGH” LARGE WHEELS	page 177
SINGLE COMPONENTS	page 178-181

4

4

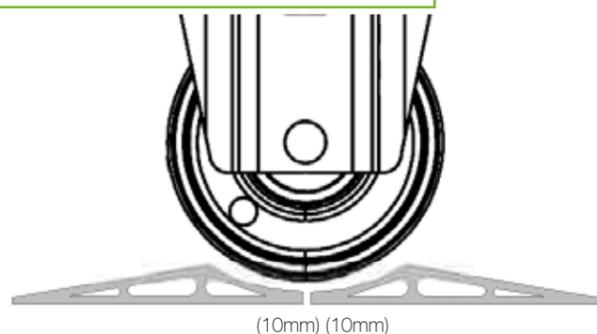
# PARKING LOT 10mm COMPLETE-SET

## Version „high-high“

Securing the trolley at the workstation against unintentional movement. The parking lots are designed modularly. Therefore it is possible to purchase single elements as well. All parts are provided with adhesive tape.

**FOR WHEEL DIAMETER:**

- up to 100mm



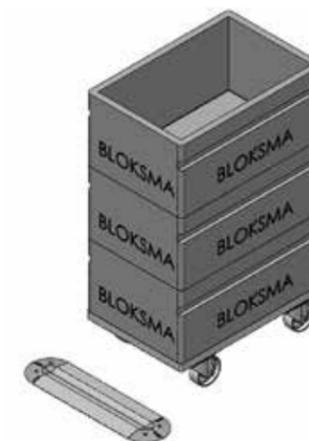
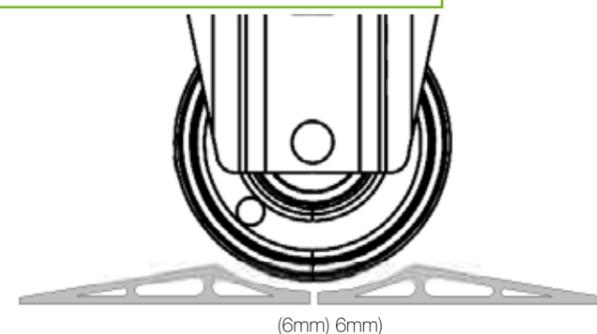
# PARKING LOT 6mm COMPLETE SET

## Version „flat-flat“

Securing the trolley at the workstation against unintentional movement. The parking lots are designed modularly. Therefore it is possible to purchase single elements as well.

**FOR WHEEL DIAMETER:**

- up to 100mm



Example: **200441-0400A** Parking lot set „high-high“ with a length of 400mm (anodized)

Item no.	length	processing	model
200441-xxxxx	_____	—	

Please fill in the required length of the rail in mm  
 A = anodized  
 B = pasted with warning tape (black and yellow)

Example: **200443-0400A** Parking lot set „flat-flat“ with a length of 400mm (anodized)

Item no.	length	processing	model
200443-xxxxx	_____	—	

Please fill in the required length of the rail in mm  
 A = anodized  
 B = pasted with warning tape (black and yellow)

### THIS PARKING LOT SET CONSISTS OF

Item no.	length	processing	description and quantity	model
138729-H-H	size standardized	plastic	1x end piece set parking lot (contents per set: 4 pieces)	

200448-xxxxx	_____	—	1x Alu parking lot guide rails 10mm high (contents per set: 2 pieces)	
	Please fill in the required length of the rail in mm	A = anodized B = pasted with warning tape (black and yellow)		

### THIS PARKING LOT SET CONSISTS OF

Item no.	length	processing	description and quantity	model
138729-N-N	size standardized	plastic	1x end piece set parking lot (contents per set: 4 pieces)	

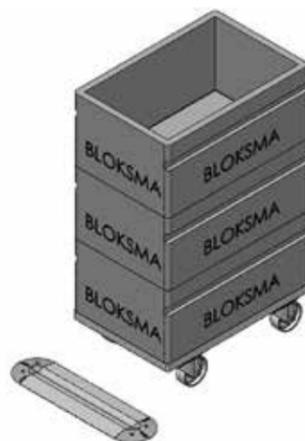
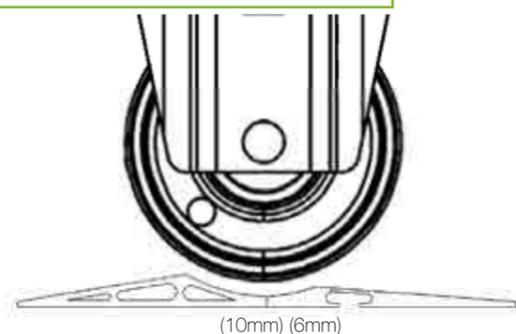
200449-xxxxx	_____	—	1x Alu parking lot guide rails 6 mm low (contents per set: 2 pieces)	
	Please fill in the required length of the rail in mm	A = anodized B = pasted with warning tape (black and yellow)		

# PARKING LOT 10MM-6MM COMPLETE-SET

Version „high-flat“

Securing the trolley at the workstation against unintentional movement. The parking lots are designed modularly. Therefore it is possible to purchase single elements as well.

**FOR WHEEL DIAMETER:**  
• up to 100mm

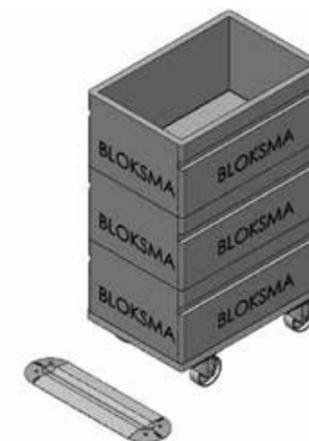
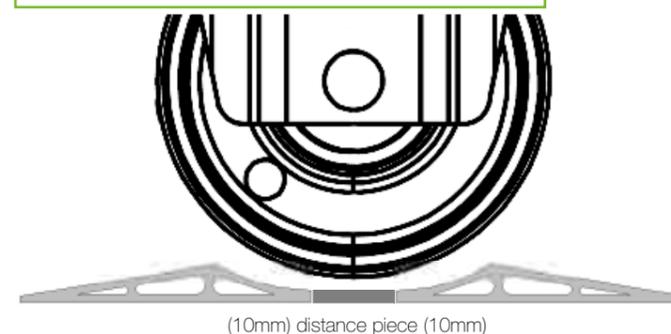


# PARKING LOT 10MM COMPLETE-SET

Version „high-high“ large wheels

Securing the trolley at the workstation against unintentional movement. The parking lots are designed modularly. Therefore it is possible to purchase single elements as well.

**FOR WHEEL DIAMETER:**  
• 101 mm or larger



Example: **200442-0400A** Parking lot set „high-flat“ with a length of 400mm (anodized)

Item no.	length	processing	model
200442-xxxx	_____	—	

Please fill in the required length of the rail in mm. A = anodized B = pasted with warning tape (black and yellow)

## THIS PARKING LOT SET CONSISTS OF

Item no.	length	processing	description and quantity	model
138729-H-N	size standardized	plastic	1x end piece set parking lot (contents per set: 4 pieces)	
141427-xxxx	_____	—	1x Alu parking lot guide rails 10mm high (contents per set: 1 piece)	
144417-xxxx	_____	—	1x Alu parking lot guide rails 6mm low (contents per set: 1 piece)	

Please fill in the required length of the rail in mm. A = anodized B = taped with warning tape (black and yellow)

Example: **210840-0400A** Parking lot set „high-high“ with a length of 400mm and distance piece, (anodized)

Item no.	length	processing	addition	model
210840-xxxx	_____	—	with distance piece (20mm) for wheel Ø 101-150mm	
210841-xxxx	_____	—	with distance piece (30mm) for wheel Ø 150-180mm	
210842-xxxx	_____	—	with distance piece (40mm) for wheel Ø more than 180mm	

Please fill in the required length of the rail in mm. A = anodized B = pasted with warning tape (black and yellow)

## THIS PARKING LOT SET CONSISTS OF

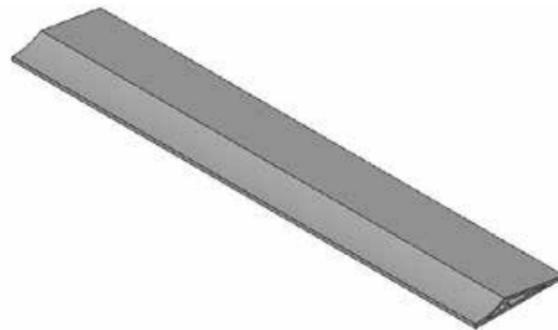
Item no.	length	processing	description and quantity	model
138729-H-H	size standardized	plastic	1x end piece set parking lot (contents: 4 pieces)	
200448-xxxx	_____	—	1x Alu parking lot guide rails 10mm high (contents: 2 pieces)	
<b>+ Spacers depending on wheel diameter (see page 180)</b>				

Please fill in the required length of the rail in mm. A = anodized B = pasted with warning tape (black and yellow)

# PARKING LOT SINGLE COMPONENTS

## Rails

Securing the trolley at the workstation against unintentional movement. The parking lots are designed modularly. Therefore it is possible to purchase single elements as well.



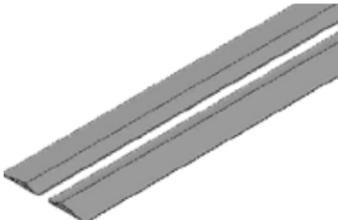
### INDIVIDUAL RAILS

Example: **141427-0400A** aluminium parking lot rail - high with a length of 400mm, (adonized)

Item no.	length	processing	description	model
141427-xxxxx	_____	—	Alu parking lot guide rails 10mm high (contents per set: 1 piece)	
144417-xxxxx	_____	—	Alu parking lot guide rails 6mm high (contents per set: 1 piece)	
Please fill in the required height of the rail in mm		A = anodized B = taped with warning tape (black and yellow)		

### RAILS IN SET OF TWO

Example: **200448-0400A** two aluminium parking lot rails - high with a length of 400mm, (adonized)

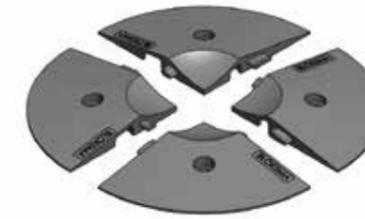
Item no.	length	processing	description	model
200448-xxxxx	_____	—	Alu-parking slot rail 10mm high (contains 2 rails)	
200449-xxxxx	_____	—	Alu-parking slot rail 6mm low (contains 2 rails)	
please insert preferred rail height		A = anodized B = taped with warning tape (black and yellow)		

Other models / dimensions on request  
Subject to technical changes

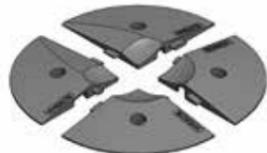
# PARKING LOT SINGLE COMPONENTS

## End pieces

Securing the trolley at the workstation against unintentional movement. The parking lots are designed modularly. Therefore it is possible to purchase single elements as well.



### END PIECES

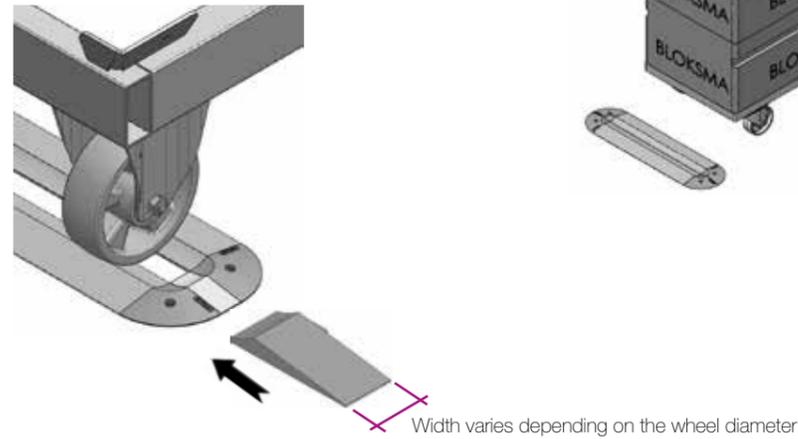
Item no.	description	model
138729-H-H	end piece parking lot contents per set: 4 pieces (screw/dowel) for height of rail 10mm/10mm	
138729-N-N	end piece parking lot contents per set: 4 pieces (screw/dowel) for height of rail 6mm/6mm	
138729-H-N	end piece parking lot contents per set: 4 pieces (screw/dowel) for rail height 10mm/6mm	
201532-20	screw + dowel (contents per set: 20 pieces)	

Other models / dimensions on request  
Subject to technical changes

# PARKING LOT SINGLE COMPONENTS

## Distance Piece

Securing the trolley at the workstation against unintentional movement. The parking lots are designed modularly. Therefore it is possible to purchase single elements as well.



### DISTANCE PIECES

Item no.	addition	model
200448-0020A	with distance piece (20mm) for wheel Ø 101-150mm	
200448-0030A	with distance piece (30mm) for wheel Ø 150-180mm	
200448-0040A	with distance piece (40mm) for wheel Ø more than 180mm	

Other models / dimensions on request  
Subject to technical changes

# PARKING LOT SINGLE COMPONENTS

## Floor markings

marking tapes, to give the parking lots individual colors

### FLOOR MARKING TAPE

Item no.	paint	description	model
201674-xx	---	floor making tapes width 50mm - length 50mm	
	Please select the desired colour and fill in the number of the colour.	01 = yellow 02 = red 03 = white 04 = dark blue 05 = green 06 = black 07 = orange 08 = light blue 09 = black-yellow warning tape 10 = blue-white warning tape	
290095	colourless	cleaner for parking lot	

Other models / dimensions on request  
Subject to technical changes

## TRANSPORT LOGISTICS

IT IS LOGISTICS,  
WHEN EVERYTHING  
FLOWS



# TRANSPORT LOGISTICS

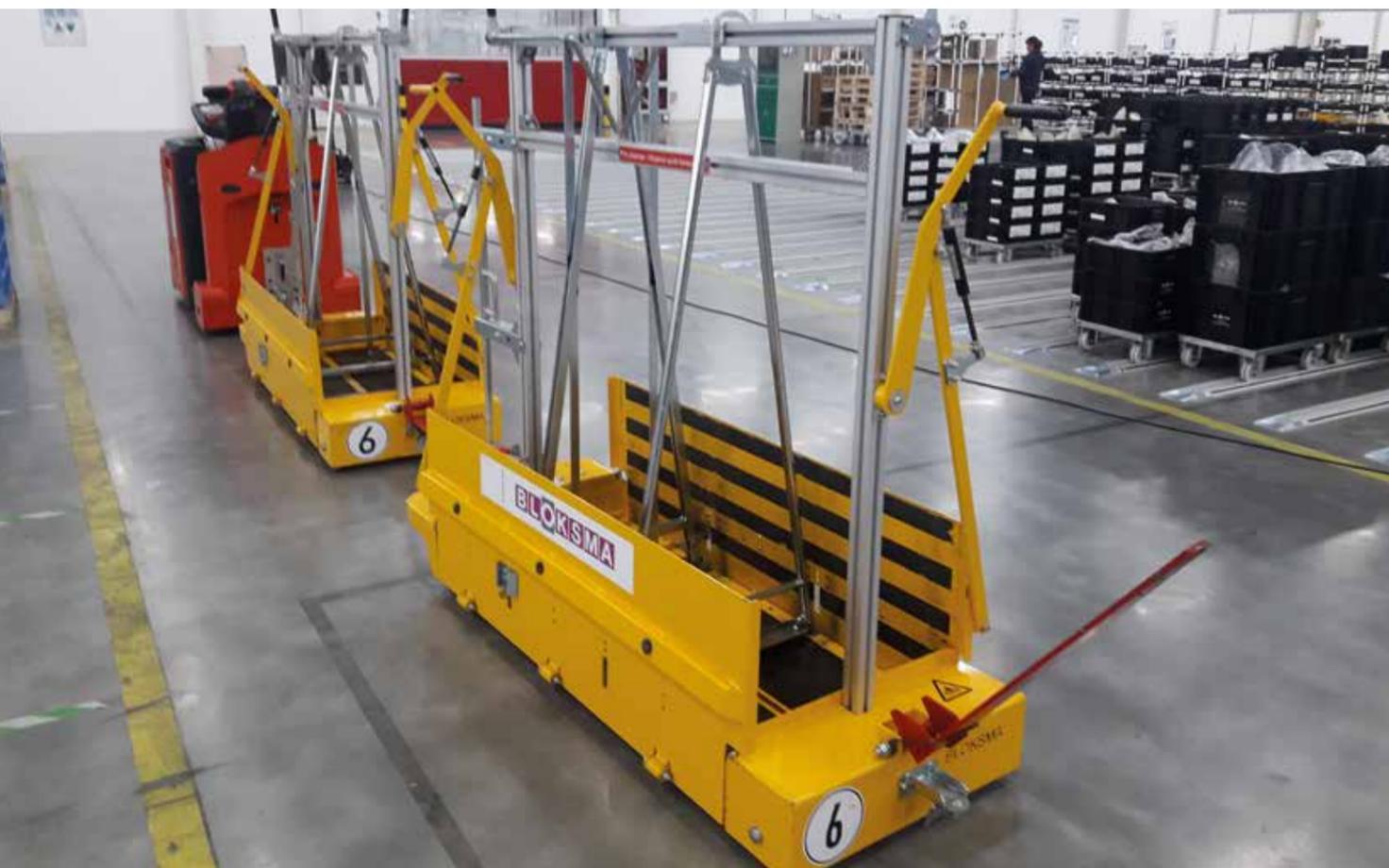
**It is logistics, when everything flows.**

**BLOKSMA logistics systems guarantee a smooth work flow from delivery to delivery – in order to create perfect conditions for your lean production.**

From your supplier to your customer, to keep your material in flow, BLOKSMA transport pallets and taxi-carts will play a major role. Based on standardized components we offer safe logistics solutions for the storage and transport of carriers. BLOKSMA logistics systems are available in many different designs and with accessories for all kinds of requirements. After all each company is unique. Milkrun systems however ensure

maximum efficiency everywhere. BLOKSMA taxi carts and portal wagons provide just as much material as currently needed in assembly and production or efficiently replace what is depleted. Everything is tailored and adapted to your individual work flow processes.

5

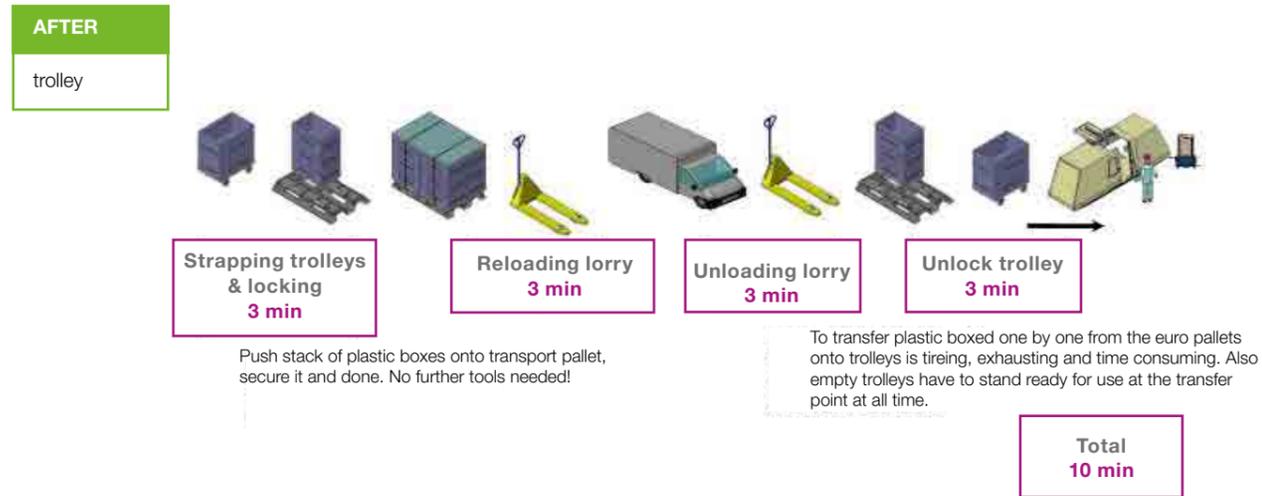
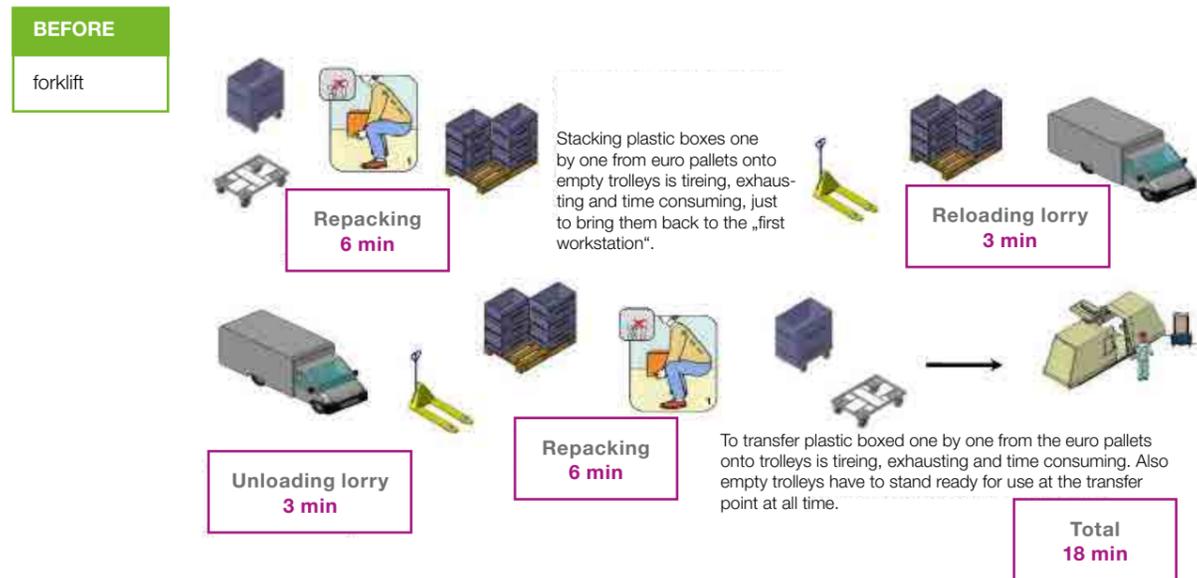


# OVERVIEW

PRODUCT INFORMATION	page 186-191
TRANSPORT PALLET & RACK FOR BOF	page 192-195
VDA COVER FOR TRANSPORT PALLET	page 196-197
E-FRAME SYSTEM	page 198-199
MILKRUN TAXI CART	page 200-205
MILKRUN GANTRY CART	page 206-207
MILKRUN PLATFORM CART	page 208-209
MILKRUN SHELF WAGON	page 210-211
TRANSPORT CABINET	page 212
MATERIAL COLLECTION BOXES	page 213
CONTAINER SUPPLY	page 214
TRANSPORT WAGON	page 215
FURTHER VARIATIONS	page 216-221
ACCESSORIES	page 222-223

5

# TRANSPORT LOGISTICS ECONOMIC CONSIDERATION



## PROFITABILITY - SAMPLE CALCULATION

working time in minutes	pallet truck	trolley	saved minutes	= saved hours	384 h
sum of searching and walking ways	18	10	8		
x change of pallets per shift	4	72	32	x your wage hour rate	€
x shifts per day	3	216	96	x your machine hour rate	€
x days per year	240	51.840	23.040	<b>savings</b>	<b>€</b>

# TRANSPORT LOGISTICS CHECKLIST



**way of transport**

taxi cart  
 double sided – trolley entered by ramp  
 portal wagon  
 double sided - trolley stays on its own wheels during trip (4 swivel castors needed)  
 shelve cart  
 several small containers on many levels number of levels  
 platform cart  
 for large containers, loaded by industrial trucks

**container to be transported**

trolley 600x400mm wire cage/ pallet 1,200x800mm  
 trolley 800x600mm  
 pallet 1,200x1.000mm  
 trolley 1,200x800mm  
 KLTs size 400x300mm  
 other sizes  
 KLTs size 600x400mm

please note additional information here

**trolley**

brand  
 type/ name  
 appearance of trolley please send technical drawing/ photo  
 length mm  
 width mm  
 height mm  
 2 swivel & 2 fixed wheels  
 4 swivel wheels  
 other wheel combination please describe  
 wheel distance/ track width mm  
 wheel width mm  
 drawbar  no  yes

**desired weight of load** kg

**height of load** mm

**load direction**

one-way/ length  
 one-way crosswise  
 both-ways length  
 both-ways crosswise

**steering system**

trailing  
 by steering rod  
 2 swivel & 2 fixed wheels  
 4 swivel wheels

**number of cells (taxi-/ portal cart)**

1 cell  
 2 cells  
 3 cells  
 4 cells

**industrial truck**

brand  
 please send technical drawing  
 type/ description

**trailer coupling**

drawbar  
 no  
 coupling  
 no  
 yes  
 yes

more details in case of order

**description of the route \***

floor conditions  
 (gradient/ slope/ ramp)

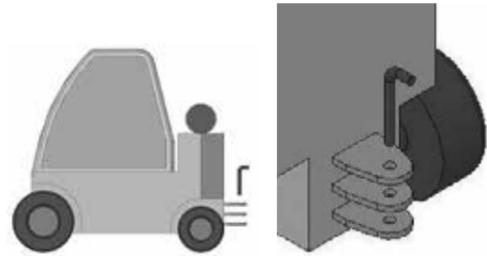
required quantity

\* Please note: BLOKSMA carts are only suitable for indoor use. For now BLOKSMA does not offer any products to be used outside.

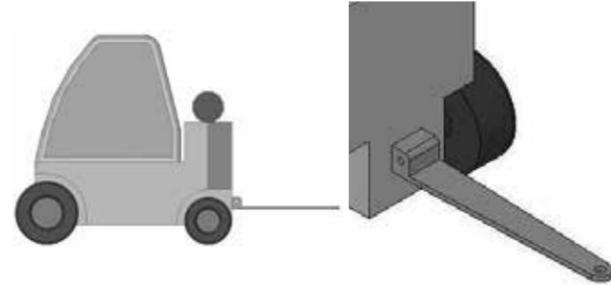
If you have any questions regarding particular parameters, please contact our office or the salesperson in your area.

# TRANSPORT LOGISTICS COUPLING SYSTEMS

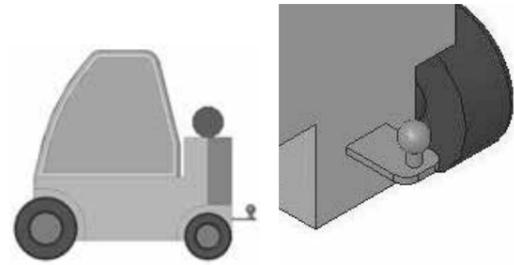
## COUPLING SYSTEMS AT THE TRACTOR (TOWING UNIT)



perforated plate and bolt



drawbar/ foldable drawbar

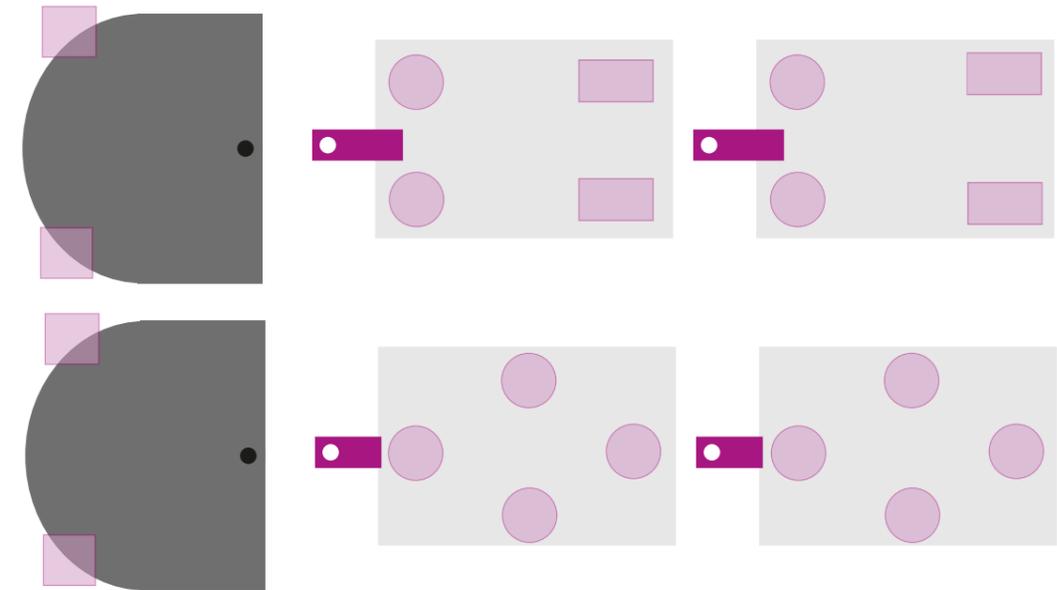


drawbar with coupling bolt

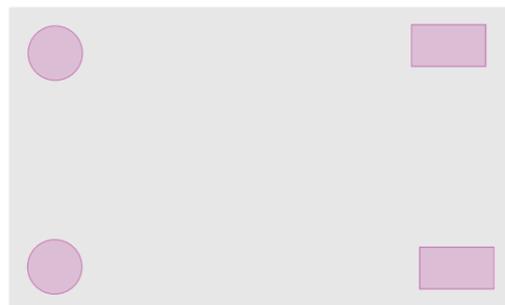
# TRANSPORT LOGISTICS DRAWBAR POSITION I

## DRAWBAR IN FRONT

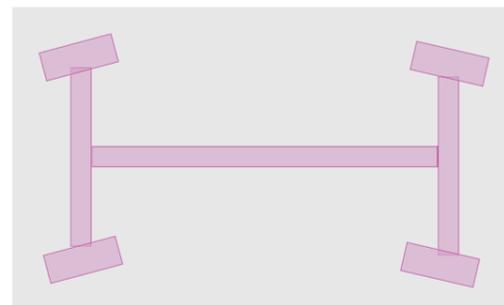
Mainly for trolleys sizes 600x400mm and 800x600mm



## DEFINITION TRAILING SYSTEM VERSUS AXLE-PIVOT STEERING SYSTEM



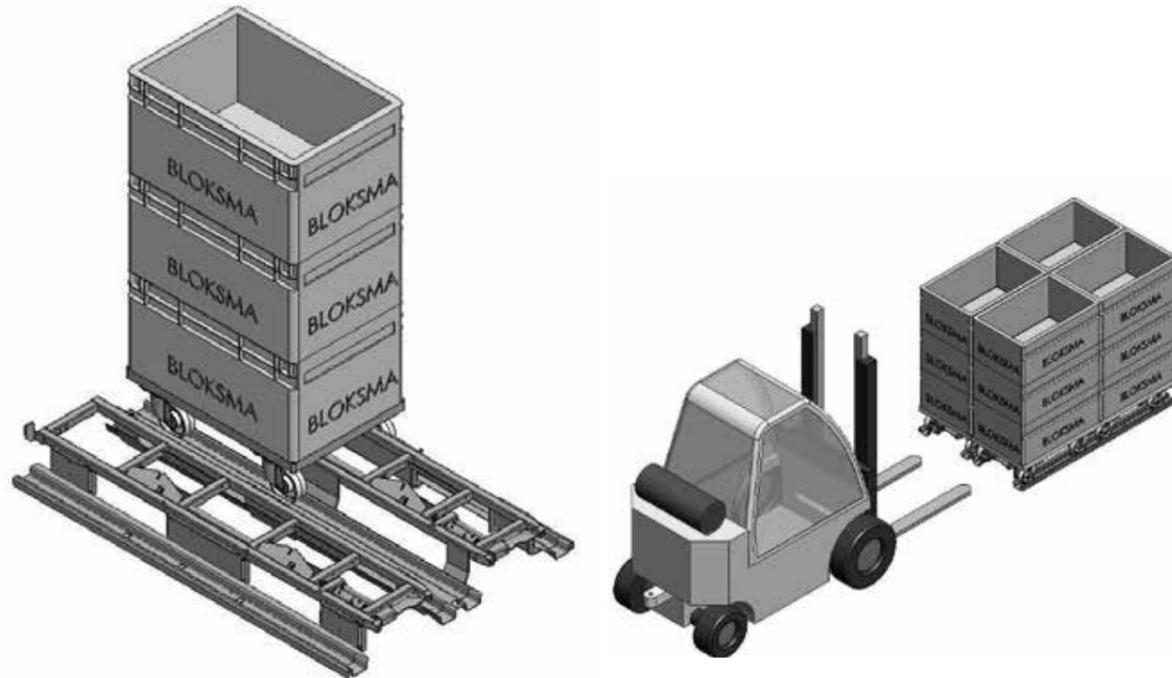
trailing system  
consists of 2 swivel/ 2 fixed wheels



axle-pivot steering system  
consists of 4 swivel wheels



# TRANSPORT PALLET & RACK FOR BOF TFG (OPEN) PLANT TO PLANT TRANSPORT



Item no. 143965 / 147692

Transport is carried out by forklift trucks.

The transport pallet is suitable for fast and secure indoor/outdoor transport of boxes or products. The trolley stacks are pushed into the rack and the load is secured with a transportation lock. The transport is done by industrial trucks such as forklift trucks, pallet trucks, electrical pallet trucks or similar. Some of these racks are even stackable. It is an open construction system where various customizations are available such as housing, color etc.

Suitable for trolley BOF.

For more information please turn to page 22 (Chapter Trolleys)

### PRODUCTS TO BE CARRIED

4 trolleys BOF 600x400mm  
or 2 trolleys BOF 800x600mm  
  
and 4 trolleys BOF 600x500mm or  
2 trolleys of size 1,000x600mm

### PRODUCTS TO BE CARRIED



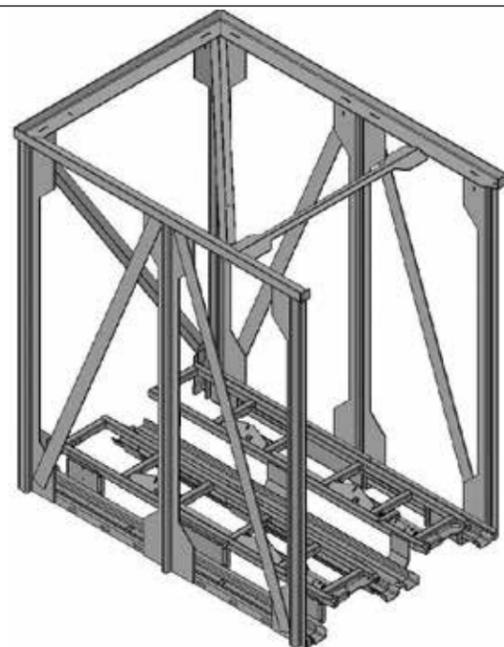
Scan me



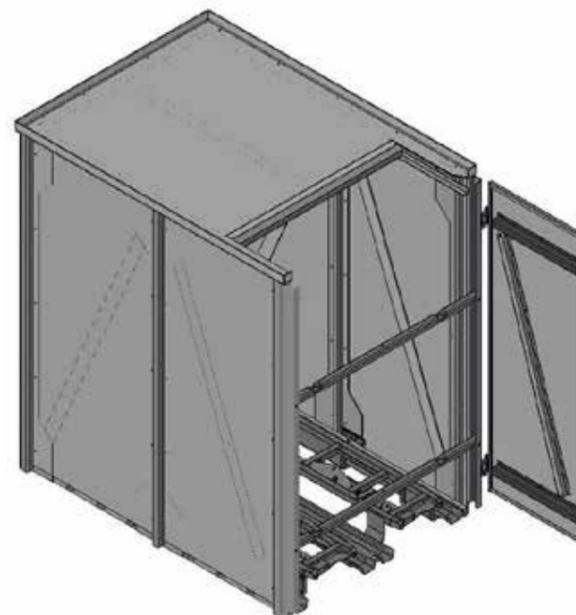
Video

## TRANSPORT PALLET

Item no.	Products to be carried	dimensions	stackable?
143965	4 trolleys BOF 600x400mm or 2 trolleys BOF 800x600mm	L = 1,200mm W = 800mm	yes
147692	4 trolleys BOF 600x500mm or 2 trolleys BOF 1.000x600mm	L = 1,200mm W = 1,000mm	yes
144315	2 trolleys BOF 600x400mm or 1 trolley BOF 800x600m	L = 800mm W = 600mm	no



Item no. 142984 / 142456



Item no. 210381 / 210070 / 210381

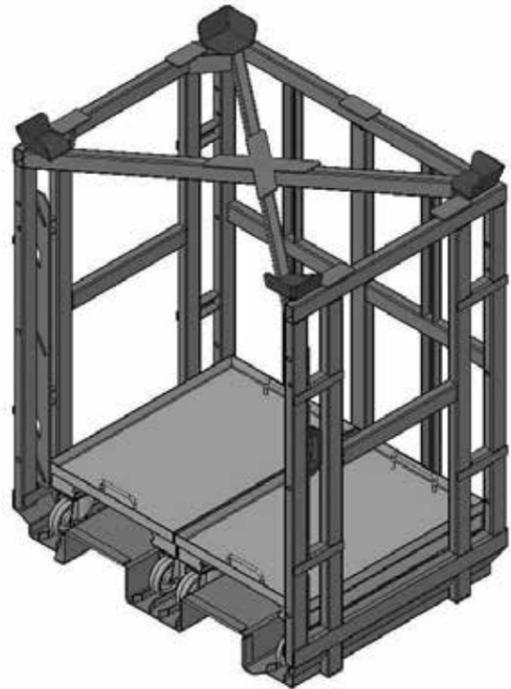
## TRANSPORT RACK

Item no.	Products to be carried	dimensions	stackable
142984	4 trolleys BOF 600x400mm or 2 trolleys BOF 800x600mm	L = 1,200mm W = 800mm	yes
142456	4 trolleys BOF 600x500mm or 2 trolleys BOF 600x1.000mm	L = 1,200mm W = 800mm	yes

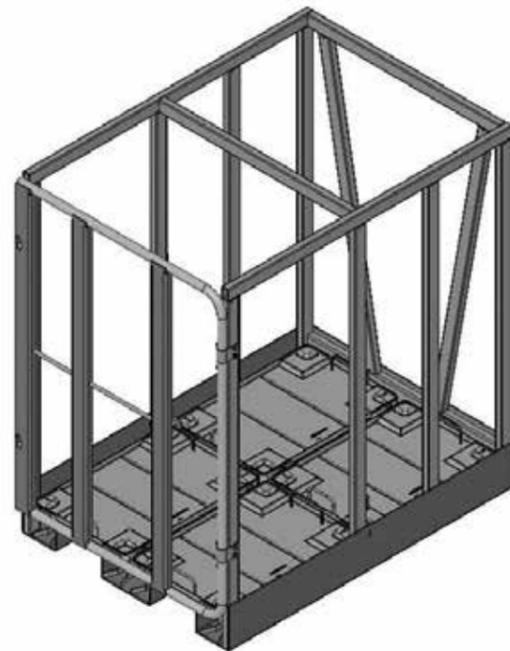
## TRANSPORT CABINET

210070	4 trolleys BOF 600x400mm or 2 trolleys BOF 800x600mm	L = 1,345mm W = 965mm	no
210381	4 trolleys BOF 600x500mm or 2 trolleys BOF 600x1.000mm	L = 1,365mm W = 1,165mm	no

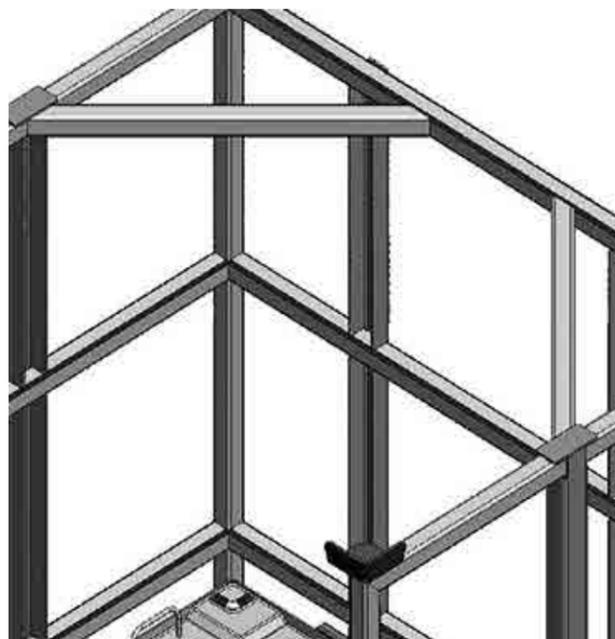
# TRANSPORT RACK FOR BOZ TFG (OPEN) PLANT TO PLANT TRANSPORT



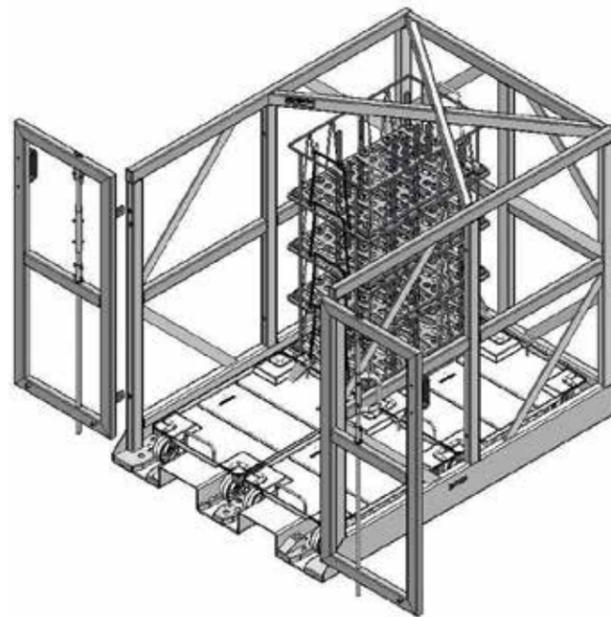
Item no. 144616



Item no. 142730



Item no. 201537



Item no. 205680

The transport pallet is suitable for fast and secure indoor/outdoor transport of boxes or products. The trolley stacks are pushed into the rack and the load is secured with a transportation lock. The transport is done by industrial trucks such as forklift trucks, pallet trucks, electrical pallet trucks or similar. Some of these racks are even stackable. It is an open construction system where various customizations are available such as housing, color etc.

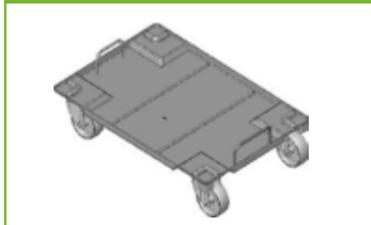
Suitable for trolleys BOZ.

For more information please turn to page 48 (Chapter Trolleys).

**PRODUCTS TO BE CARRIED**

4 trolleys BOZ 630x430mm

**PRODUCTS TO BE CARRIED**



Scan me



Video

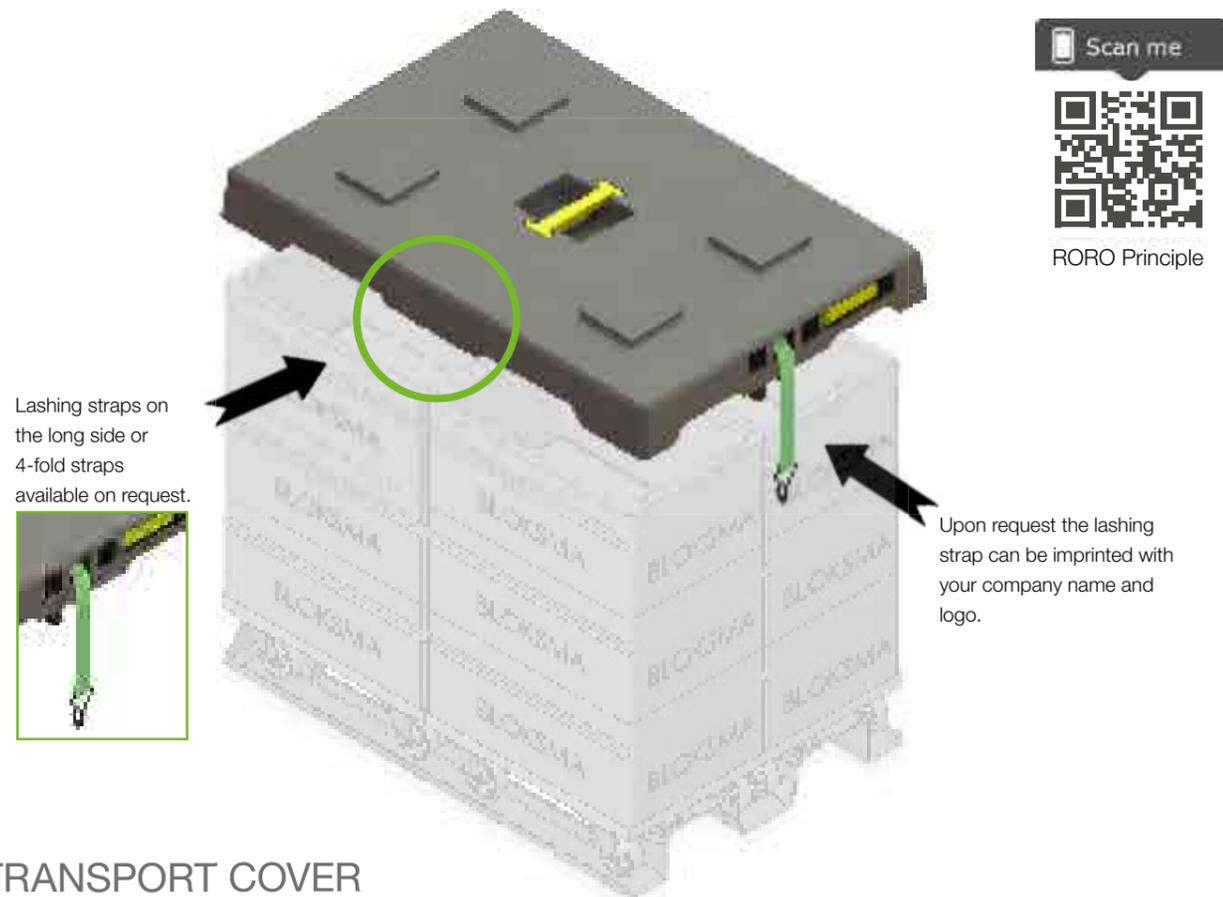
## TRANSPORT RACK

Item no.	Products to be carried	dimensions	stackable
144616	2 trolleys BOZ 630x430mm	L = 1,365mm W = 964mm	yes
142730	4 trolleys BOZ 630x430mm	L = 1,395mm W = 1,045mm	yes
201537	4 trolleys BOZ 630x430mm	L = 1,420mm W = 1,083mm	yes
205680	4 trolleys BOZ 630x430mm	L = 1,286mm W = 965mm	yes / to a limited extend

Other models / dimensions on request  
Subject to technical changes

Other models / dimensions on request  
Subject to technical changes

# VDA TRANSPORT PALLET COVER PLANT TO PLANT TRANSPORTATION



## TRANSPORT COVER

Item no.	dimensions	hook shape	stackable?
205017-XH000	1,200x1,000mm	hook shape B for wooden pallet	yes
2147166-XH000	1,200x800mm	hook shape B for wooden pallet	yes
207805-XH000	800x600mm	hook shape B for wooden pallet	yes
205017-XT000	1,200x1.000mm	hook shape A for transportable pallet	yes
214716-XT000	1,200x800mm	hook shape A for transportable pallet	yes
207805-XT002	800x600mm	hook shape A for transportable pallet	yes
212210	600x400mm	hook shape A for trolleys BOF	no

Other models / dimensions on request  
Subject to technical changes

# THE FOCUS IS SET ON VALUE CREATION ACROSS ALL YOUR LOCATIONS



This cover is a solid, injection- moulded plastic part including a pull-out strap with an integrated clamping mechanism. This method creates the possibility for the fast securing of pallets without wasting packing materials. It is suitable for all standard EU pallet sizes alongside the US pallets. The VDA cover can be equipped with straps personalized with your company logo. It is water proof, stackable (when empty) and can have 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 minutes of labour time saved per pallet and application
- also available in 800x600mm

### TECHNICAL DATA

cover height:	71mm
load capacity:	2,000 kg
Gewicht:	10,93 kg - 2 straps 13,75 kg - 4 straps
material:	high impact Polypropylene - Co-Polymer
strap length:	2,5m (max. 2,75m)
temperature resistance:	-20°C until +40°C
stackable height:	1,950mm (also same length as the straps that secure the load)



**Hook form A**  
designed for using with a **transport pallet**

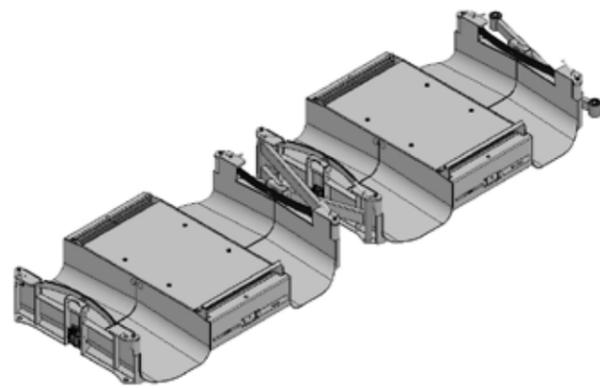


**Hook form B**  
designed for using with a **wooden pallet**

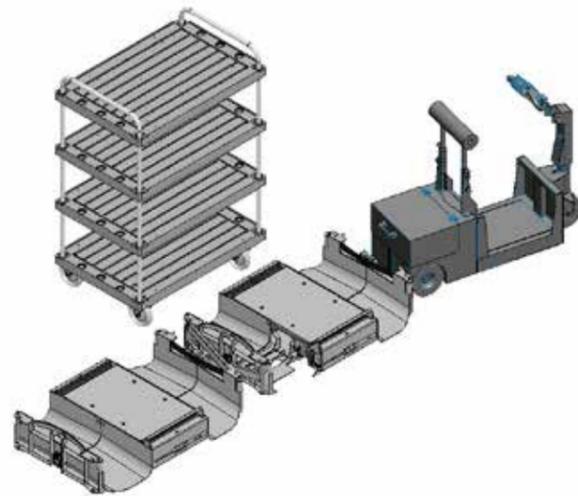
Other models / dimensions on request  
Subject to technical changes

# MILKRUN-LIFT-LINER TRT III

In-house transport



Item no. 280010 Liftliner)



Item no. 280010 Exemplary train formation

# TRAIN FOR THE PERFECT LOGISTIC FLOW

As one of the most innovative and compact milkrun solutions in the field of cyclical route supply, the Liftliner is the train for the perfect logistics. It makes the use of forklift trucks in the production area superfluous. It is a 100% electric solution (with 24V or 48 V) – singletrack – designed for Iso and Euro Trolleys of size 800x600 mm; 800 x 1,200 mm and 1,000 x 1,200 mm (see below).

Compatible with almost all brands of tractors and AGV tractors. The ingenious, innovative scissor connection with an angle of rotation of up to 90° allows you to drive in very narrow and winding aisles. Turning over a width of 4,500 mm with 3 pairs is possible. Loading and unloading from both sides enables containers to be exchanged quickly.



Video



Item no. 217565-4EB01 Elefantboard



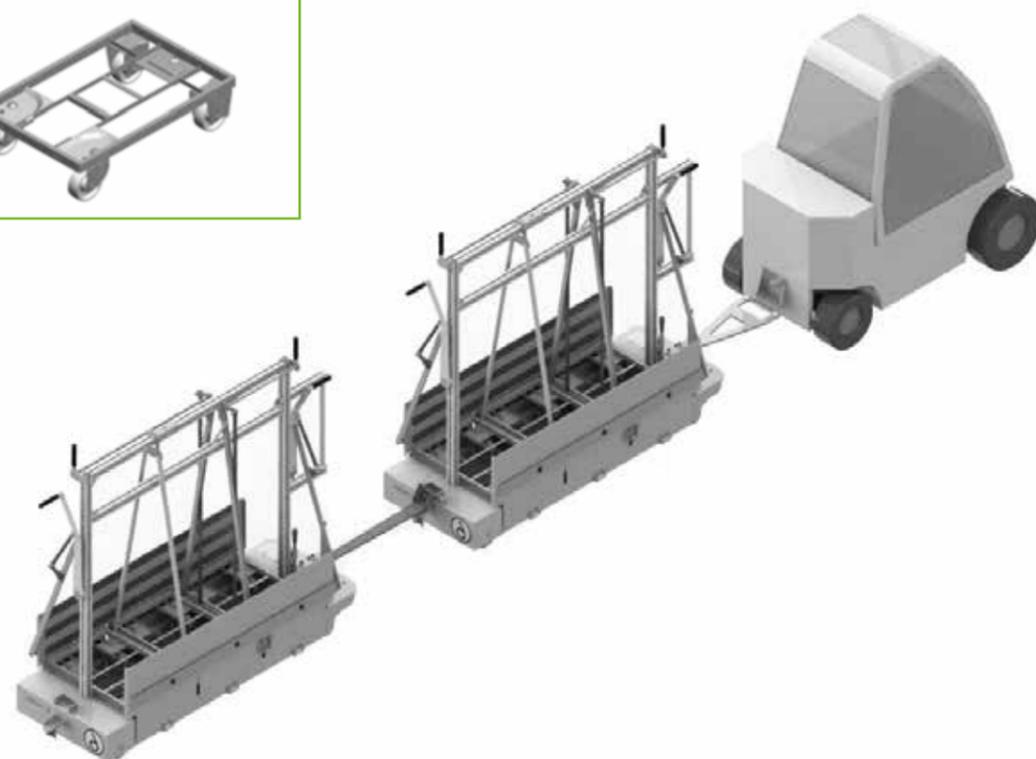
Item no. 217565-4EB01 Elefantboard

## ELEFANTBOARD

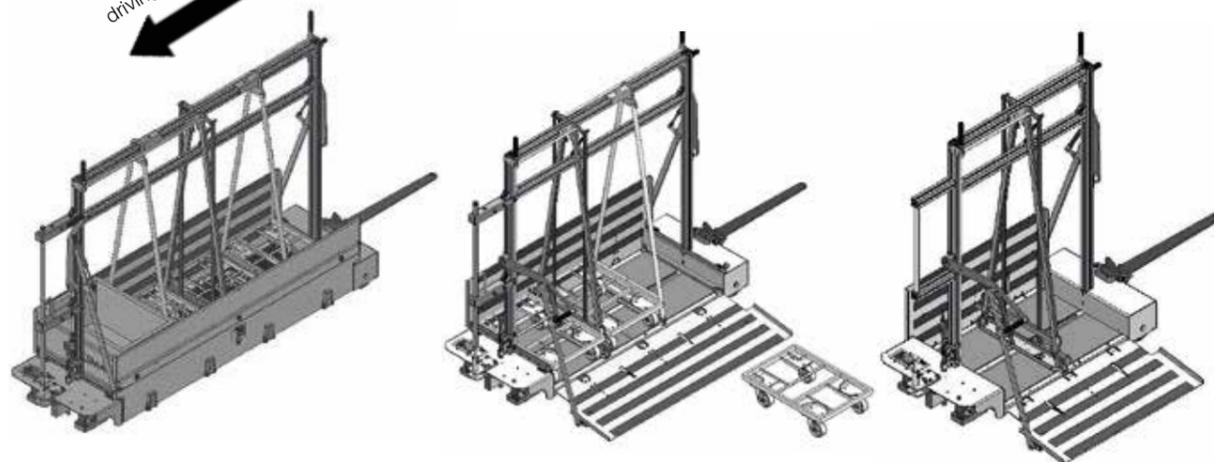
Item no.	products to be carried	wheels	lifting capacity
217565-4EB01	Containers/ cartons 1.200x800mm	4x swivel castors (PA)	1.000kg
217565-3EB01	Containers/ cartons 1.200x800mm	4x swivel castors (PA)	1.000kg
218237-4EB01	Containers/ cartons 1.200x1.000mm	4x swivel castors (PA)	1.000kg
2018237-3EB01	Cage pallets/pallets 1.200x1.000mm	4x swivel castors (PA)	1.000kg

# MILKRUN TAXI CART BOF TRT I INTERNAL TRANSPORT

PRODUCTS TO BE CARRIED



driving direction



Item no. 138632-4Zell

Item no. 138632-3Zell

Item no. 138632-2Zell

Other models / dimensions on request  
Subject to technical changes

This taxi cart is intended for fast and secure inside transportation of trolleys with stacked boxes. Made for easy handling by unlocking the ramp, moving trolleys onto or off the taxi cart and locking the ramp again. The taxi cart can then continue on its route. It is all about the smooth opening and closing of the ramps. Various steering systems are available and the drawbars are adapted individually to the tug. Loading is possible from one or both sides. Max. load capacity is 750 kg.

Suitable for trolleys BOF.

For more information please turn to page 22 (Chapter Trolleys)

MAX. LOAD CAPACITY

750kg

PRODUCTS TO BE CARRIED



Scan me



Video

Item no.	products to be carried	wheels	steering
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## TAXI CART WITH 3 SEGMENTS

<b>138632-3Zell</b>	3 trolleys 600x400mm or 1 trolley 800x400mm and 2 trolleys 600x400mm loading and unloading from both sides	Ø 160mm Polyurethan	run-down
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## TAXI CART WITH 4 SEGMENTS

<b>138632-4Zell</b>	4 trolleys 600x400mm or 2 trolleys 800x600mm loading and unloading from both sides	Ø 160mm Polyurethan	run-down
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## TAXI CART WITH 2 SEGMENTS

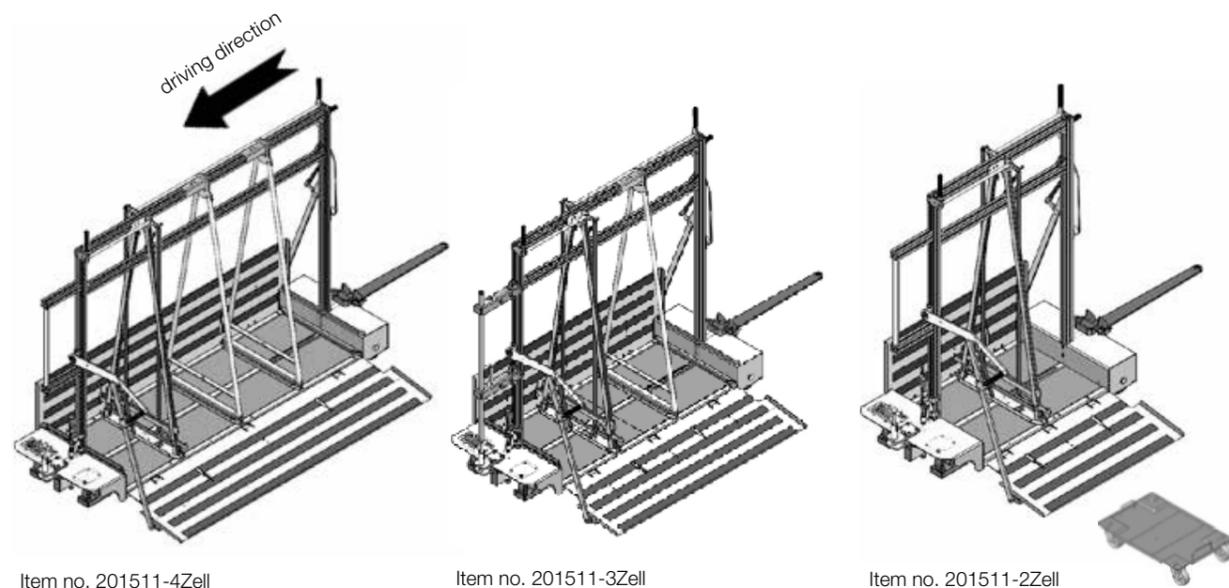
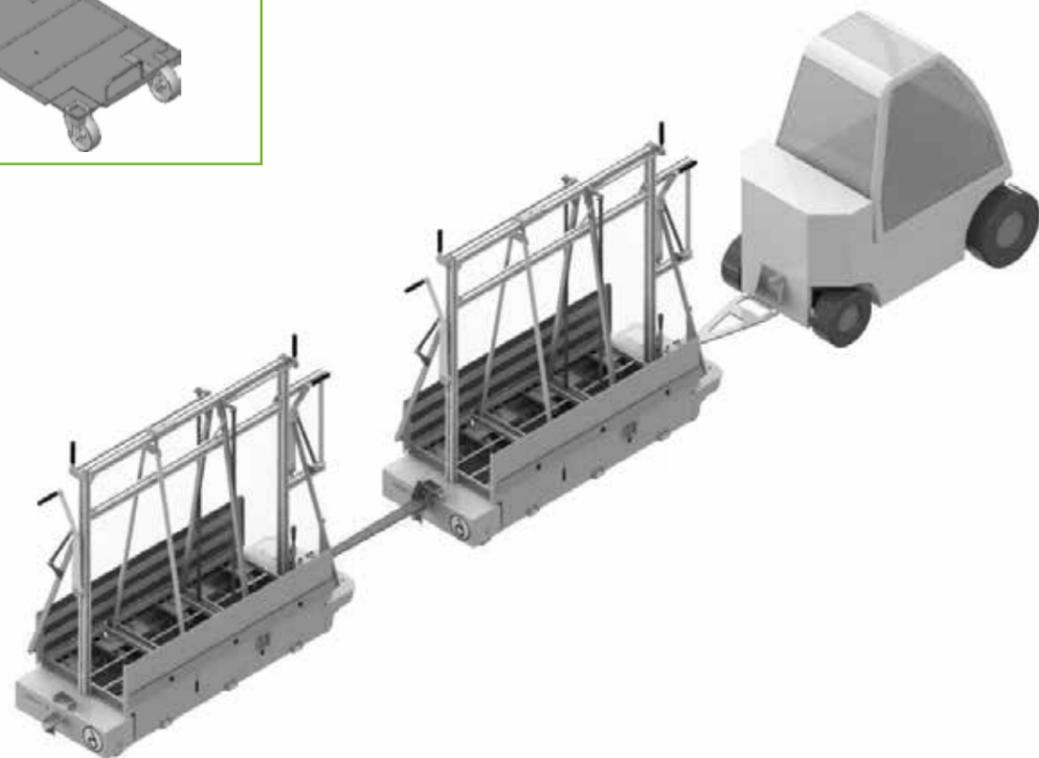
<b>138632-2Zell</b>	2 trolleys 600x400mm loading and unloading from both sides	Ø 160mm Polyurethan	run-down
---------------------	--	---------------------	----------

Other models / dimensions on request  
Subject to technical changes

# MILKRUN TAXI CART BOZ

## TRT II

### INTERNAL TRANSPORT



This taxi cart is intended for fast and secure inside transportation of trolleys with stacked boxes. Made for easy handling by unlocking the ramp, moving trolleys onto or off the taxi cart and locking the ramp again. The taxi cart can then continue on it's route. It is all about the smooth opening and closing of the ramps. Various steering systems are available and the drawbars are adapted individually to the tug. Loading is possible from one or both sides. Max. load capacity is 750 kg.

Suitable for trolleys BOZ.

For more information about the trolleys to be carried please see page 48 (Chapter Trolleys).

MAX. LOAD CAPACITY

750kg



Item no.	products to be carried	wheels	steering
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#### TAXI CART WITH 3 SEGMENTS

201511-3Zell	3 trolleys 630x430mm	Ø 160mm Polyurethan	run-down
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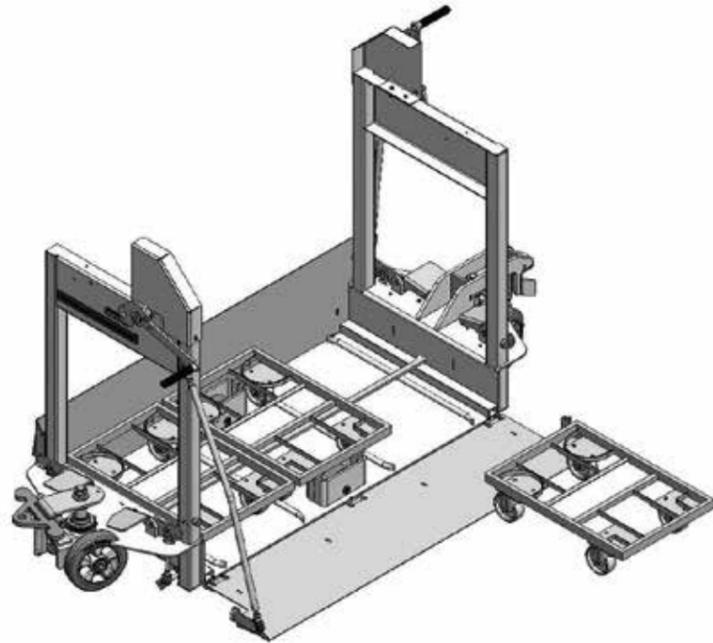
#### TAXI CART WITH 4 SEGMENTS

201511-4Zell	4 trolleys 630x430mm	Ø 160mm Polyurethan	run-down
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#### TAXI CART WITH 2 SEGMENTS

201511-2Zell	2 trolleys 630x430mm	Ø 160mm Polyurethan	run-down
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# MILKRUN TAXI CART TRT III AND IV INDOOR TRANSPORT



Item no. 133287

This taxi cart is intended for fast and secure inside transportation of trolleys with stacked boxes. Made for easy handling by unlocking the ramp, moving trolleys onto or off the taxi cart and locking the ramp again. The taxi cart can then continue on it's route. It is all about the smooth opening and closing of the ramps. Various steering systems are available and the drawbars are adapted individually to the tug. Loading is possible from one or both sides. Max. load capacity is 750 kg.

Suitable for trolleys BOF

For more information about the trolleys to be carried please see page 22 (Chapter Trolleys).

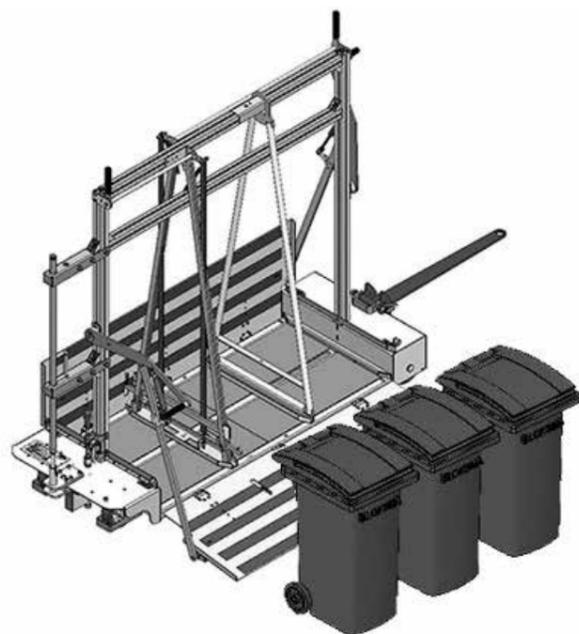
MAX. LOAD CAPACITY
750 kg

## TAXI CART WITH AXLE-PIVOT STEERING

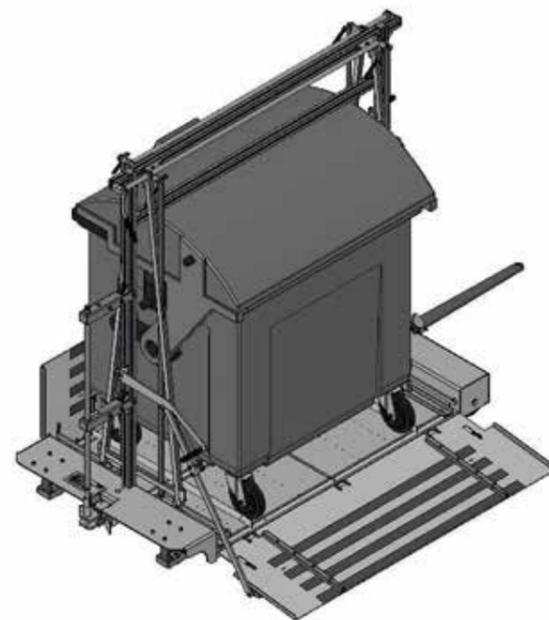
Item no.	products to be carried	wheels	steering
133287	3 trolleys 600x400mm model BOF (section trolley) loading and removal from both sides	Ø 200mm Polyurethan	axle journal controlled

## TAXI CART FOR GARBAGE CONTAINERS

Item no.	products to be carried	wheels	steering
145690	3 small rubbish bins	Ø 200mm Polyurethan	run-down
145691	1 big rubbish container	Ø 200mm Polyurethan	run-down



Item no. 145690



Item no. 145691



Video

# MILKRUN GANTRY CART

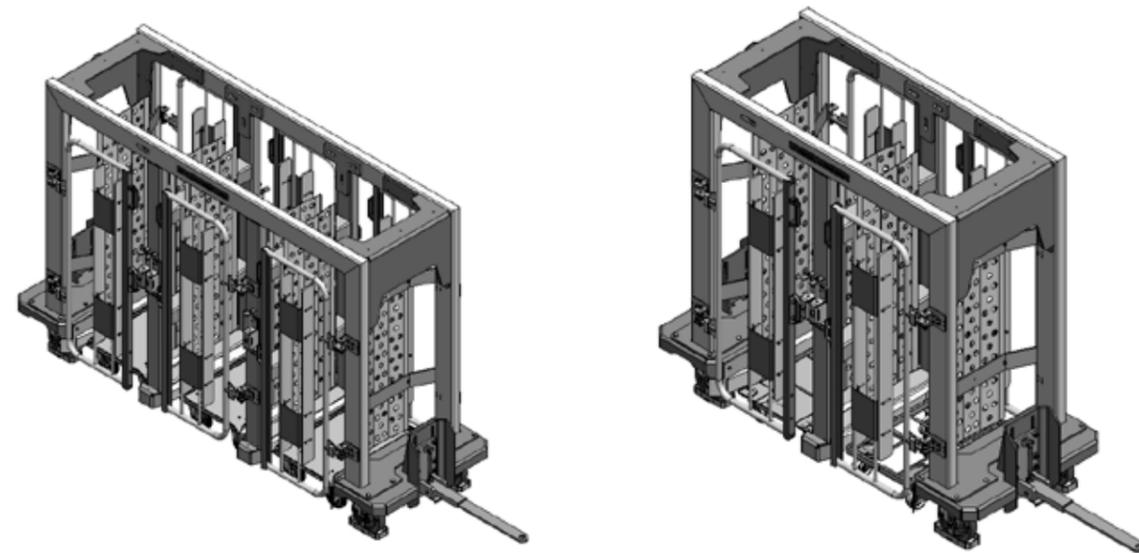
## TRP I

### INDOOR TRANSPORT

This gantry cart is intended for fast and secure inside transportation of trolleys with stacked boxes. You open the doors and push the trolleys into the gantry cart resp. pull them out. The doors are locked and the gantry cart can continue on it's route. This gantry cart is a trailing system. The drawbars are adapted to the tug. The gantry cart is available with various options (housing, colours etc.) and is suitable only for indoor transport. Max. load capacity is 500kg.

Suitable for trolleys BOF/BOZ

For more information about the trolley to be carried please see page 22-48 (Chapter Trolleys).



Item no. 206570-3ZL01

Item no. 206570-2ZL01

**MAX. LOAD/ TUGGING CAPACITY**

500 kg



Video

### GANTRY CART FOR TROLLEY BOF/BOZ

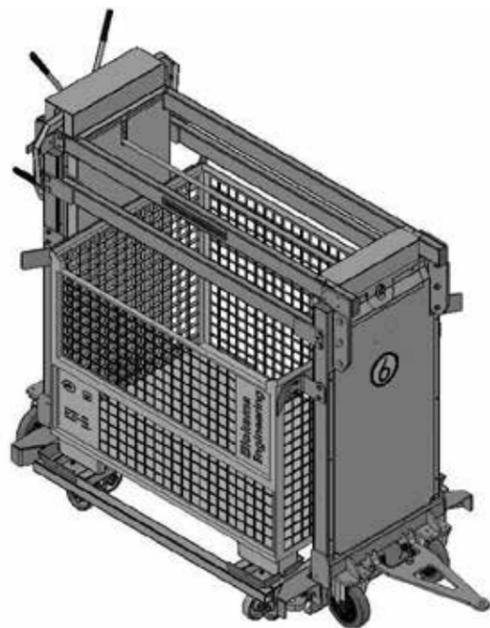
Item no.	products to be carried	wheels	wheel design
<b>206570-2ZL01</b>	2 trolleys BOF/BOZ 600x400mm BOF 630x430mm BOZ	Ø 200mm Polyurethan	4 Swivel castors
<b>206570-3ZL01</b>	3 trolleys BOF/BOZ 600x400mm BOF 630x430mm BOZ	Ø 200mm Polyurethan	4 Swivel castors

Note: trolleys must have 4 steering wheels.

### GANTRY CART FOR TROLLEY BOR 1.265x865mm

Item no.	products to be carried	wheels	wheel design
<b>138270</b>	1 trolley BOR 1,265x865mm	Ø 200mm Polyurethan	2 Swivel and 2 fixed castors

Note: trolleys must have 4 steering wheels.



Item no. 138270

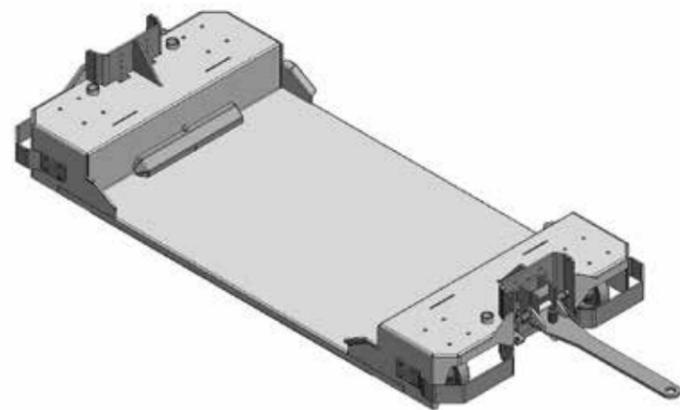
# MILKRUN PLATFORM CART

## TRP II

### INDOOR TRANSPORT

The platform cart is suitable for fast and secure inside transportation of containers. The containers are placed onto resp. taken off the deposit area by means of a forklift, forklift truck or other industrial truck. The platform cart is a trailing system. The drawbar is adapted to the tractor in use and several customisations are available (eg housing, colors etc.) The platform cart is suitable for indoor transport only. The maximum load is 500kg.

MAX. LOAD
500kg



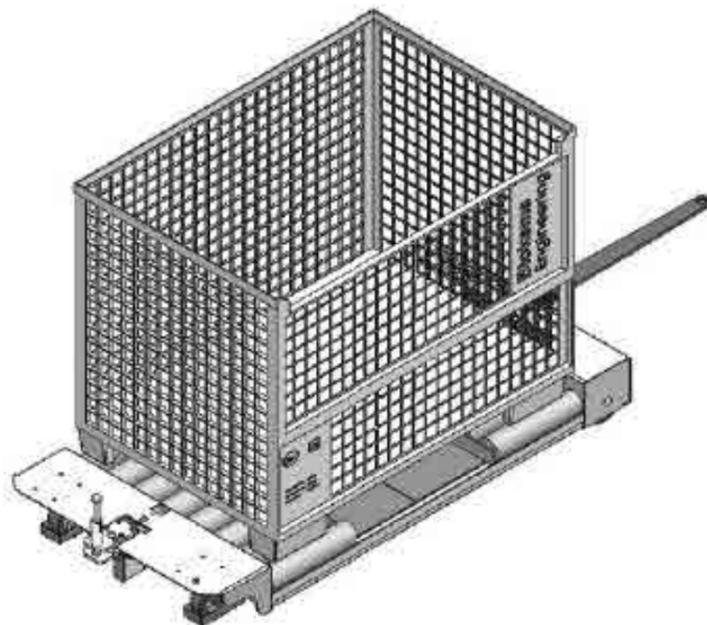
Item no. 209728

#### PLANE STORAGE AREA

Item no.	products to be carried	wheels	wheel design
<b>209728</b>	Cage pallet or pallet size 1,200x800mm	Ø 200mm Polyurethan	2 Swivel and 2 Fixed castors
<b>136995</b>	VDA-pallet size 1,200x1,000mm	Ø 200mm Polyurethan	2 Swivel and 2 Fixed castors

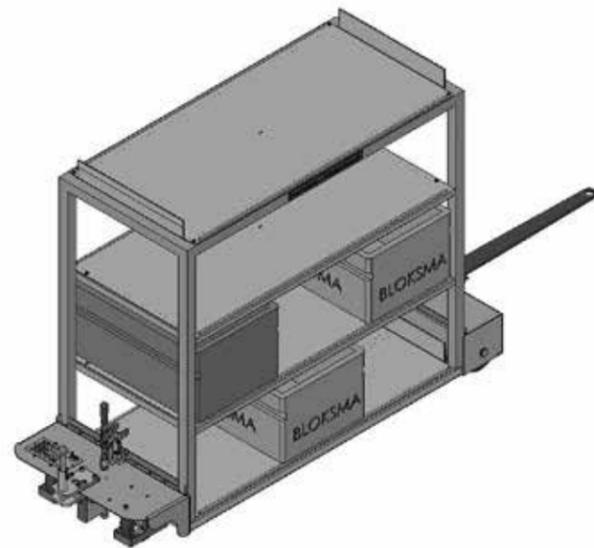
#### WITH CONVEYOR ROLLS

<b>201855-0800</b>	Cage pallet or pallet size 1,200x800mm	Ø 200 mm Polyurethan	2 Swivel and 2 Fixed castors
<b>201855-1000</b>	VDA-pallet size 1,200x1,000mm	Ø 200 mm Polyurethan	2 Swivel and 2 Fixed castors

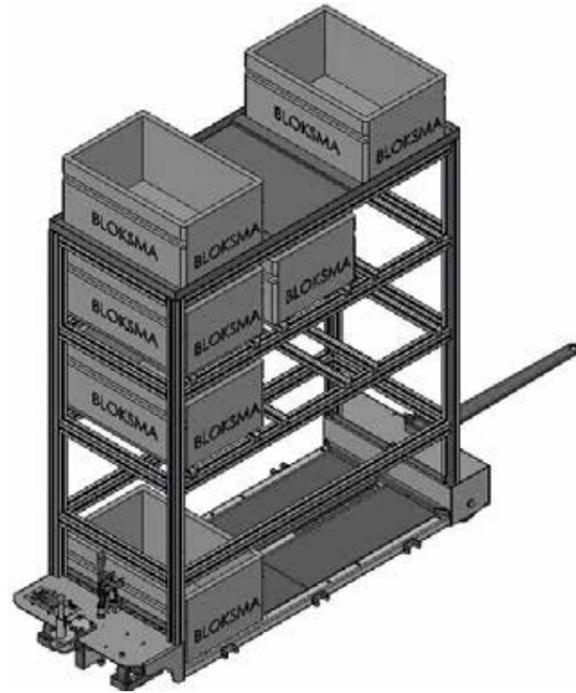


Item no. 201855

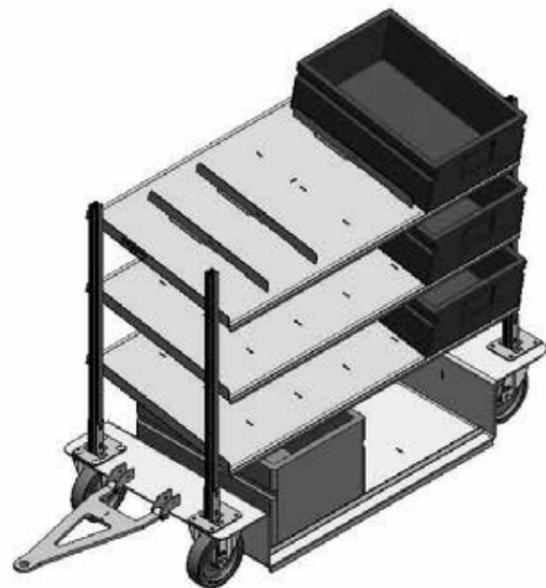
# MILKRUN SHELF CART TRR INDOOR TRANSPORT



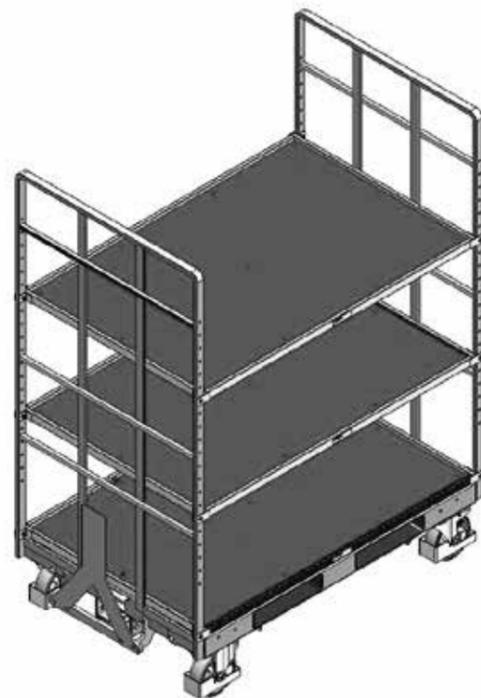
Item no. 143102



Item no. 202673



Item no. 136240



Item no. 202674

This shelf cart is made for safe and secure indoor transportation of boxes and containers. So single and pre-assembled containers can be transported to the individual workstations. The steering system is a trailing steering system and the drawbar can be adapted to the tug in use. Also various customizations are available regarding housing, color etc.

The maximum load capacity / tugging capacity is 600kg.

MAX. LOAD CAPACITY/ TUGGING CAPACITY
600kg

Item no.	products to be carried	wheels	wheel design
<b>143102</b>	3 levels up to 12 KLTs 600x400mm	Ø 125mm Polyurethan	2 Swivel and 2 Fixed castors
<b>202673</b>	5 levels up to 15 KLTs 600x400mm	Ø 125mm Polyurethan	2 Swivel and 2 Fixed castors
<b>136240</b>	4 levels / partially inclined delivery up to 11 KLTs 600x400mm	Ø 200mm Polyurethan	2 Swivel and 2 Fixed castors
<b>202674-3EB</b>	3 levels up to 16 KLTs 600x400mm or 800x600mm	Ø 150mm Polyurethan	2 Swivel and 2 Fixed castors
<b>202674-4EB</b>	4 levels up to 16 KLTs 600x400mm or 800x600mm	Ø 150mm Polyurethan	2 Swivel and 2 Fixed castors

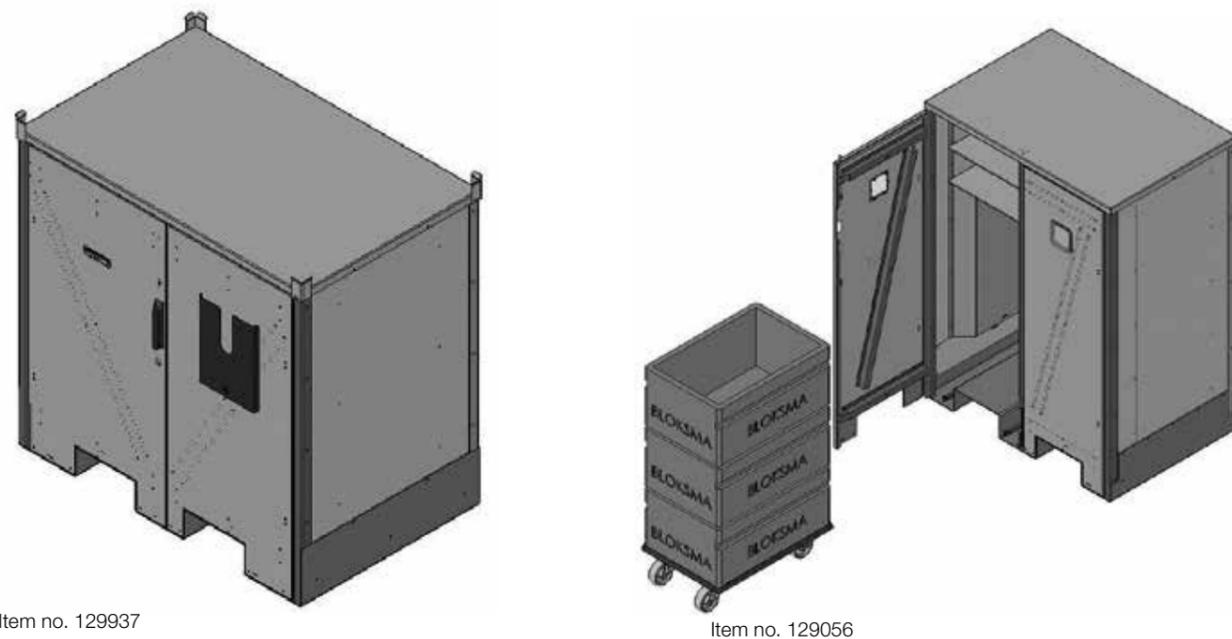
# TRANSPORT CABINETS

## TFS

### INDOOR AND OUTDOOR TRANSPORT

The transport cabinets are made for quick and secure indoor and outdoor transports of containers and products. The trolley stacks are pushed into the cabinet and the doors are locked. The transport is done by industrial trucks such as forklifts, forklift trucks etc. If required, the cabinets can be stacked one on top of each other. The cabinets are closed systems.

Item no.	products to be carried	dimensions	stackable
129937	2 trolley stacks by size 680x510mm	L = 1,175mm W = 750mm	yes
124853	2 trolley stacks by size 630x430mm BOZ	L = 1,010mm W = 690mm	yes
129056	2 trolley stacks by size 630x430mm and 1 stacking for 2 KLT 600x400mm	L = 1,010mm W = 690mm	yes
210070	4 trolley stacks by size 600x400mm and 2 trolley stacks by size 800x600mm	L = 1,213mm W = 961mm	yes



Item no. 129937

Item no. 129056

Other models / dimensions on request  
Subject to technical changes

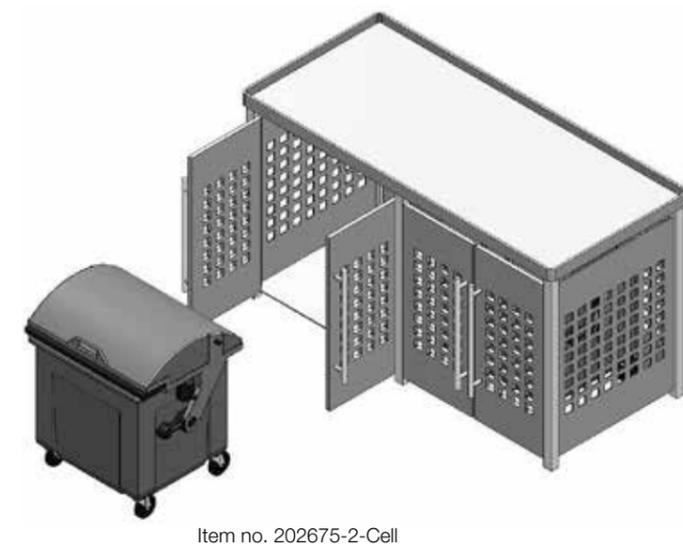
# MATERIAL COLLECTIVE BOXES

## WSB

### ACCOMODATION OF GARBAGE CANS

The material collective box is made as an example for storing common waste containers or garbage cans. Upon request the collective box can be equipped with a lock. Two, three or four waste containers can be placed inside the collective box which is available in various designs (housing, colours, etc.).

Item no.	products to be carried	remark
202675-2Zell	2 big rubbish bins	with storage area at the top
202675-3Zell	3 small rubbish bins	with storage area at the top
202675-4Zell	4 small rubbish bins	with storage area at the top
202676-3Zell	3 small rubbish bins	with round covering cap
202676-4Zell	4 small rubbish bins	with round covering cap

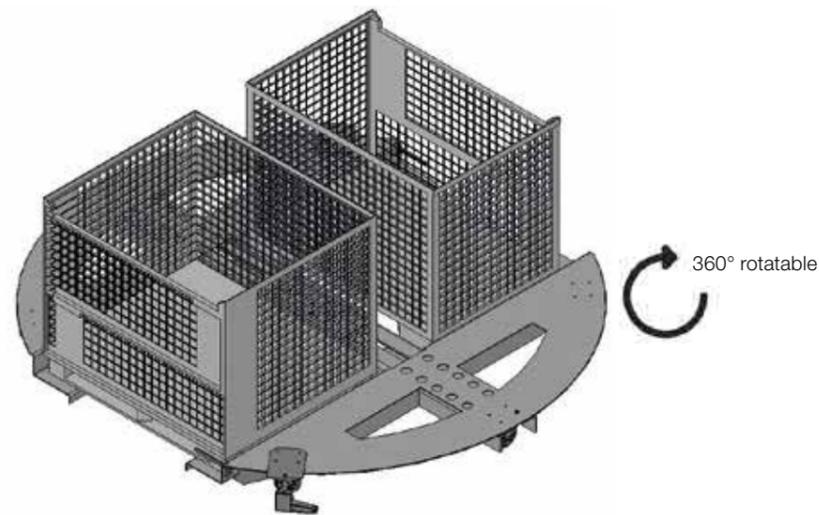


Item no. 202675-2-Cell

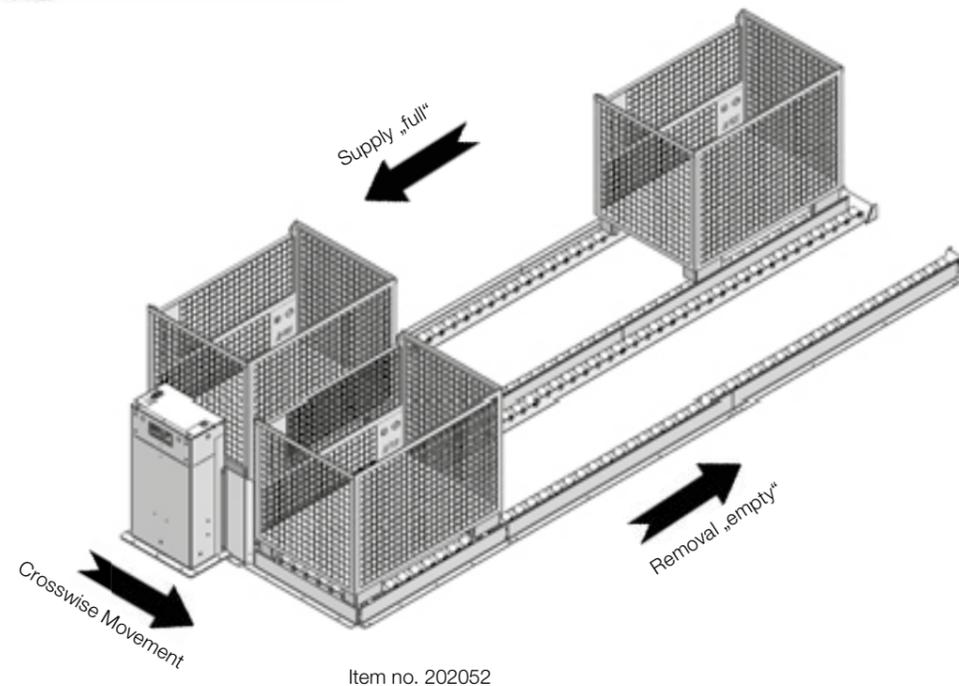
Other models / dimensions on request  
Subject to technical changes

# PROVIDING OF CONTAINERS TRB AT THE WORKSTATION

Item no.	products to be carried	remark
143444	Cage pallet or pallet by size 1,200x800mm	turning device with roller track
202052	Cage pallet or pallet by size 1,200x800mm	transfer station with roller track



Item no. 143444

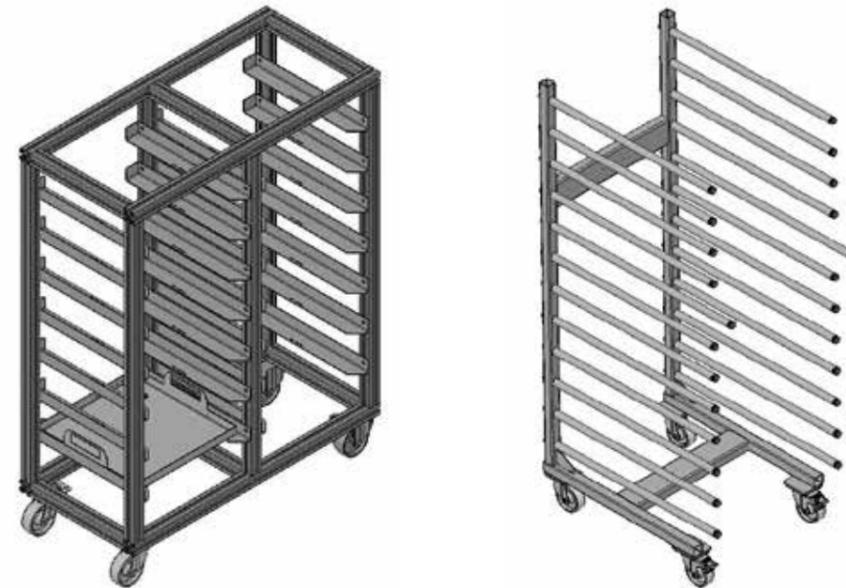


Item no. 202052

Other models / dimensions on request  
Subject to technical changes

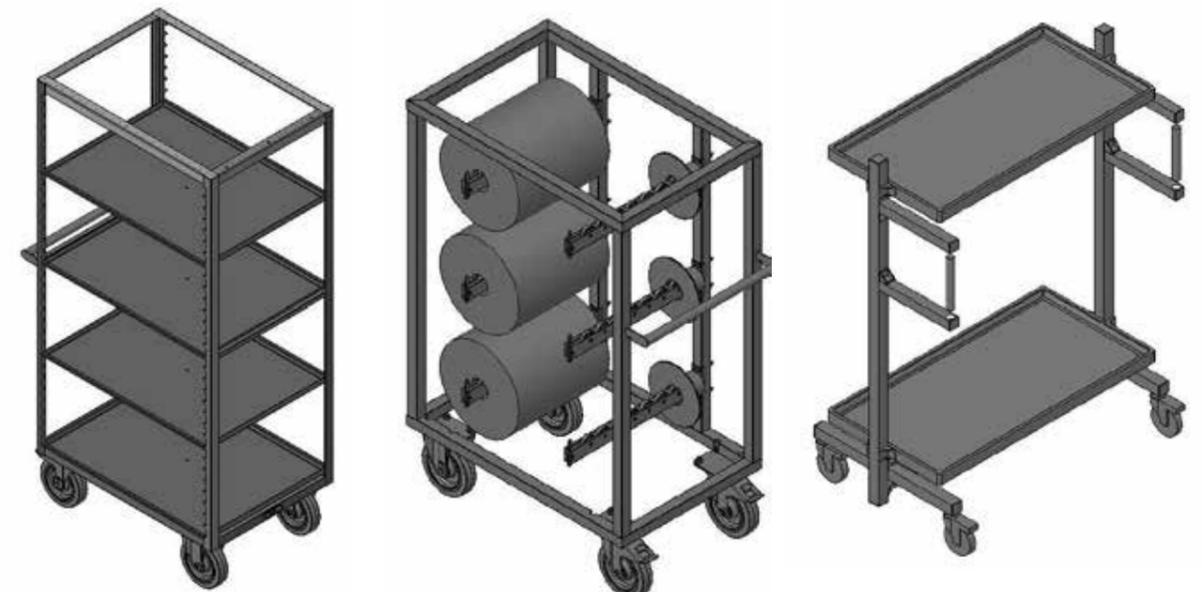
# TRANSPORT CART TRW INTERNAL TRANSPORT

This transport cart is intended for fast and secure indoor transportation of boxes and products. The boxes or products are placed onto and removed manually. The transport is also done mostly manually. Various customization are available (housing, colors etc.).



Item no. 130052

Item no. 138869



Item no. 142824

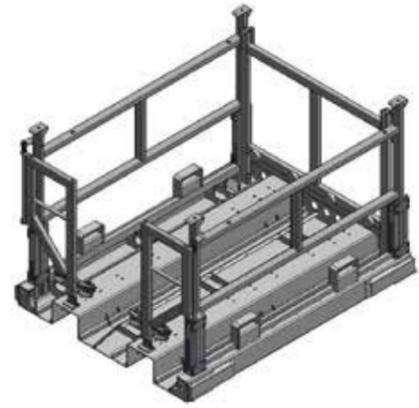
Item no. 142823

Item no. 139663

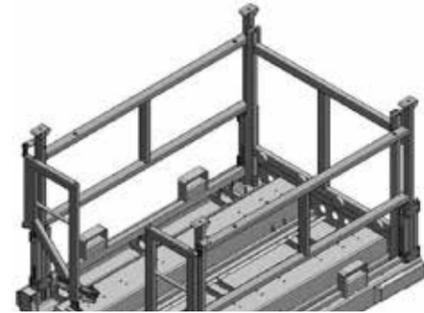
Other models / dimensions on request  
Subject to technical changes

# TRANSPORT LOGISTICS TFG FURTHER VARIATIONS I

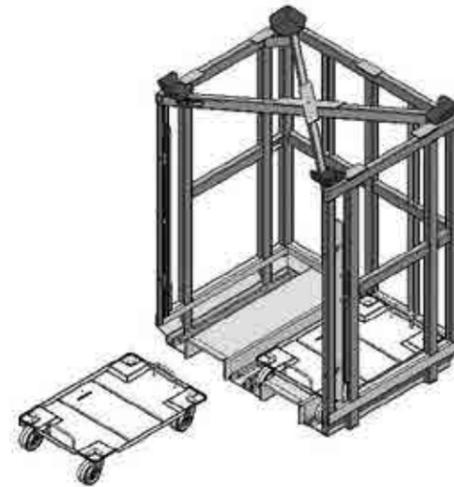
# TRANSPORT LOGISTICS TFG FURTHER VARIATIONS II



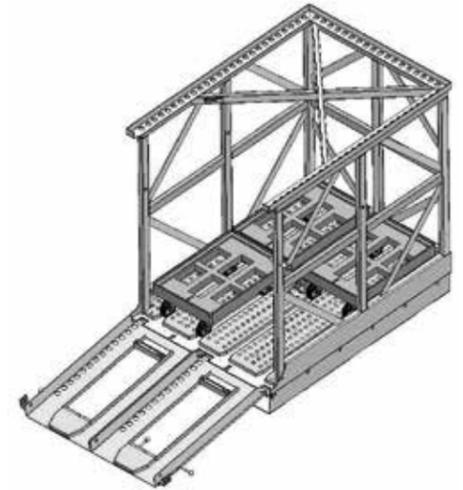
Item no. 207504



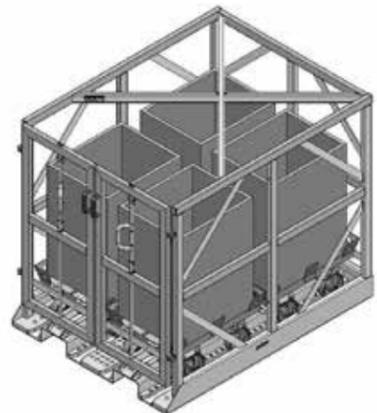
Item no. 207504 Folded transport rack



Item no. 207108



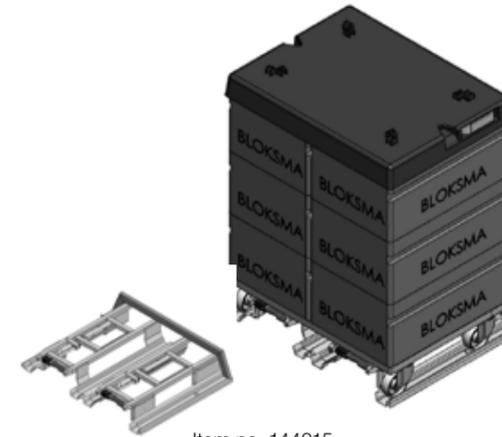
Item no. 210751



Item no. 206902



Item no. 209860



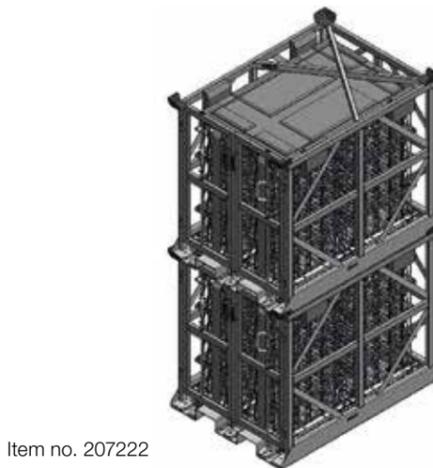
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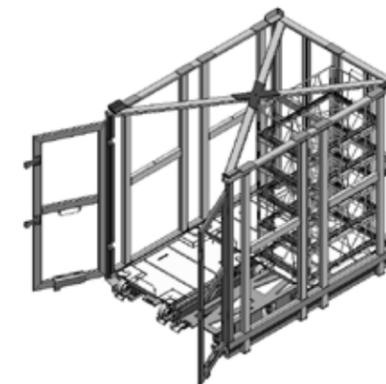
Item no. 144315



Item no. 201938



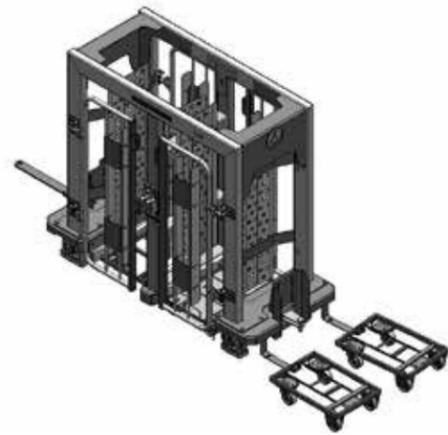
Item no. 207222



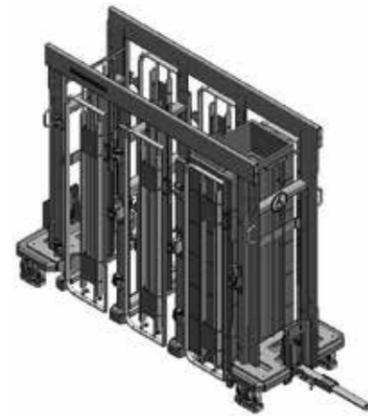
Item no. 217520



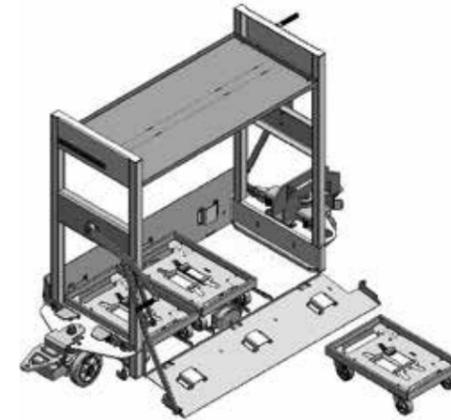
# TRANSPORT LOGISTICS TRP FURTHER VARIATIONS I



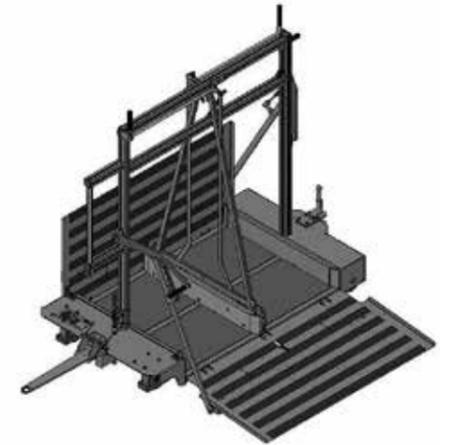
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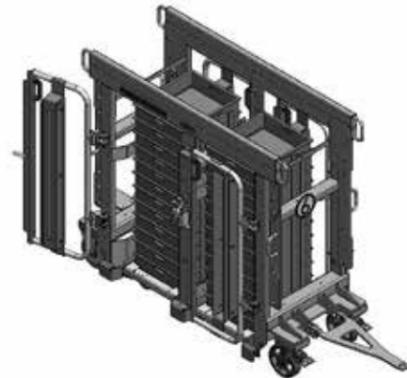
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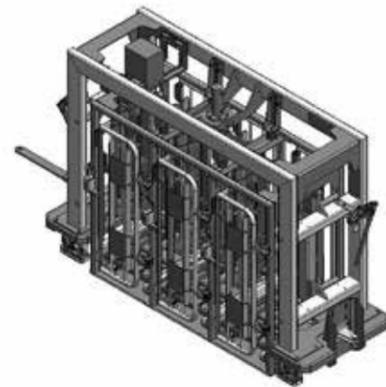
Item no. 206520



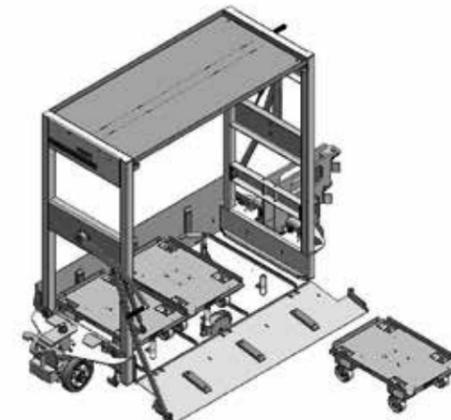
Item no. 144111



Item no. 201358-2Zel



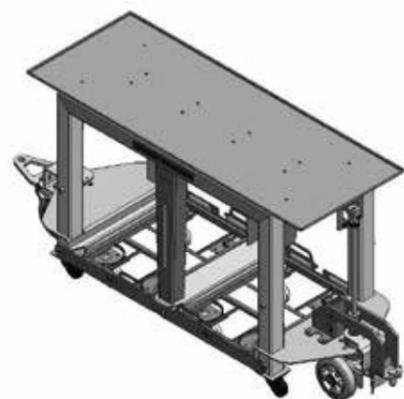
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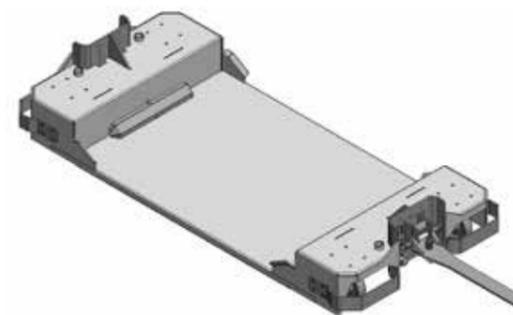
Item no. 205930



Item no. 207661



Item no. 206870



Item no. 209728

Other models / dimensions on request  
Subject to technical changes

Other models / dimensions on request  
Subject to technical changes

5

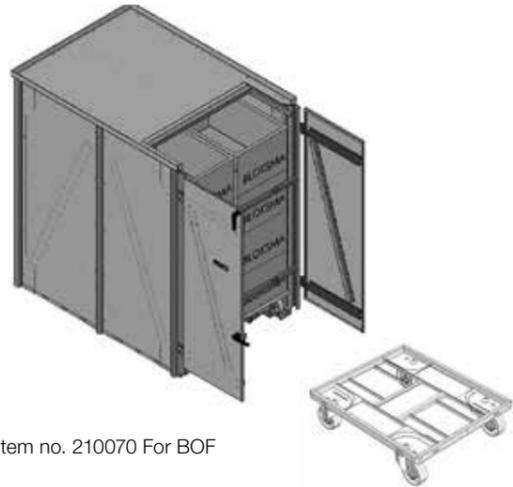
5

# TRANSPORT LOGISTICS

## TFS FURTHER VARIATIONS I



Item no. 210070



Item no. 210070 For BOF

# TRANSPORT LOGISTICS

## TRW FURTHER VARIATIONS



Item no. 144339



Item no. 142983



Item no. 204275



Item no. 127322

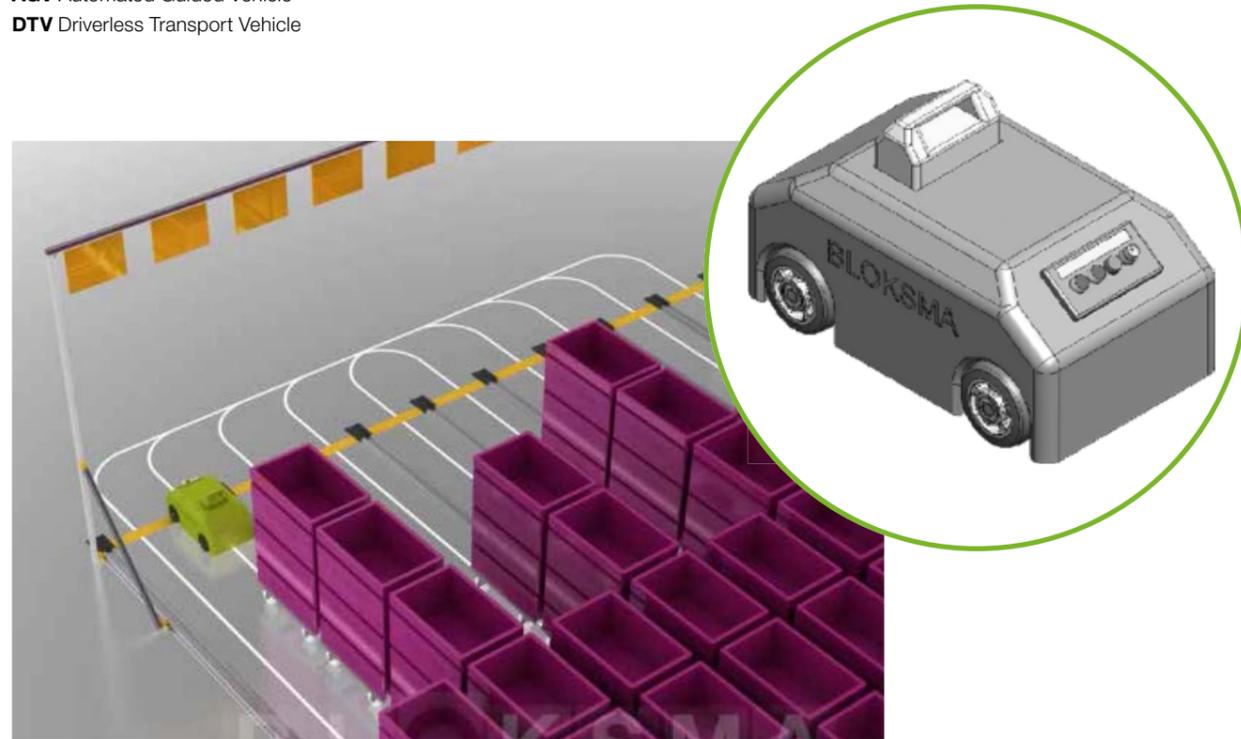
5

5

# TRANSPORT LOGISTICS

## MLA (Mobile Logistics Assistant)

**AGV** Automated Guided Vehicle  
**DTV** Driverless Transport Vehicle



Example: MLA in the supermarket

# TRANSPORT LOGISTICS

## PUSH AND PULL ASSISTANT



Item no. 201407 Platform Tugger 1,000kg  
 Item no. 206114 Platform Tugger 2,000kg



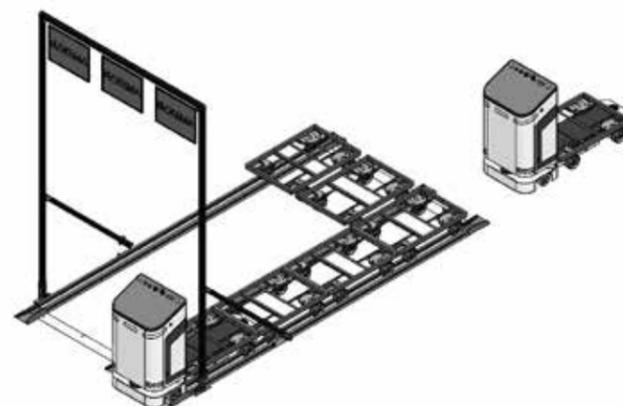
Item no. 207126 Scooter 2,500kg



Item no.210512 Electric tug for BOZ

# TRANSPORT LOGISTICS

## AGV



Item no. 208388 Active Shuttle



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



Article 206959 Electric tug with adjustable clamping hook from below



## VISUALIZATION

# ORDER AND CLEANLINESS AT THE WORK PLACE



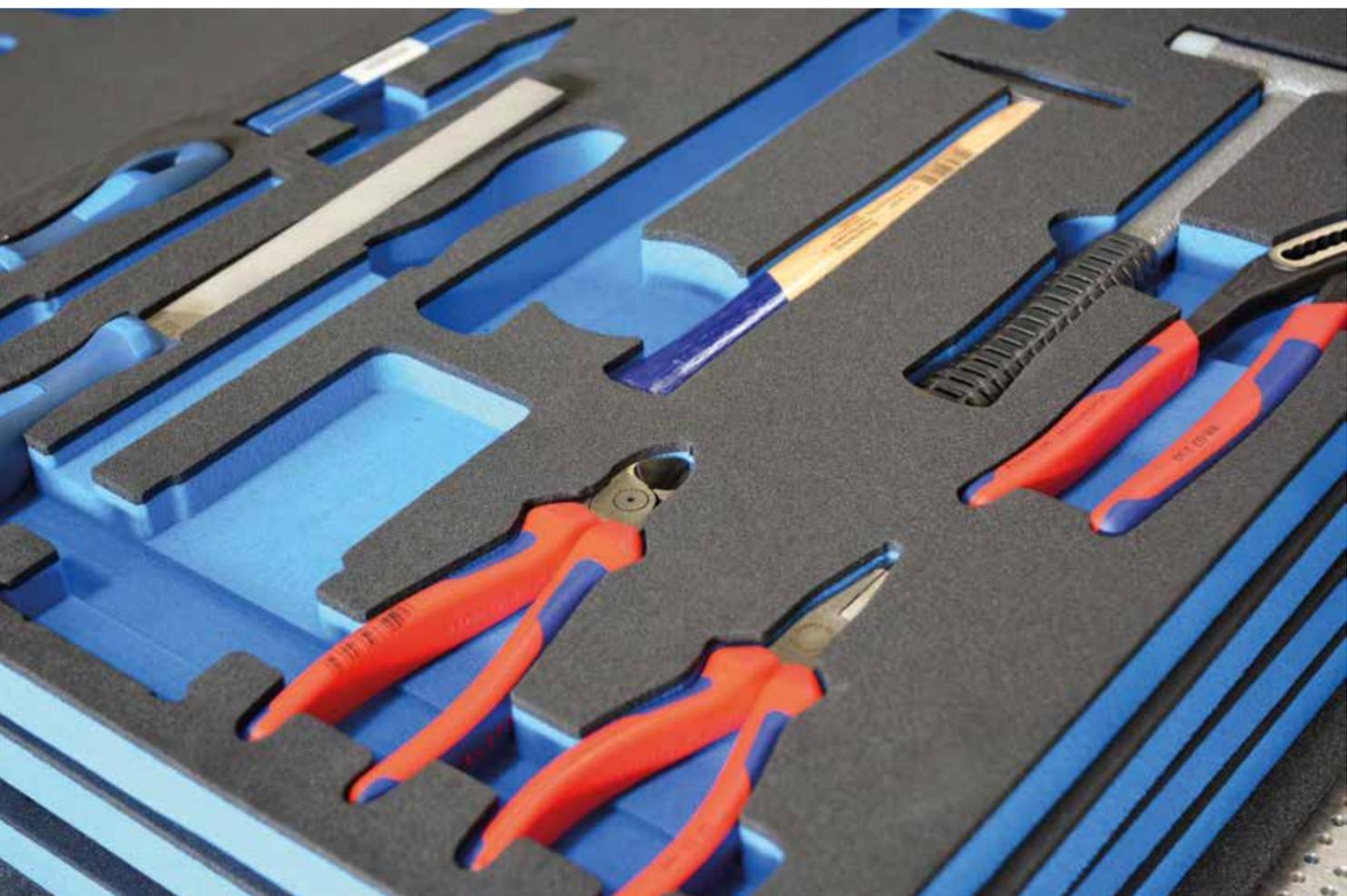
# VISUALIZATION

## Visualization solutions for products, logistics and administration

From information signs to floor markings and value chain magnets for shop floor management all the way to shadowboards for more order at the work place - with BLOKSMA you get it all from one source.

# OVERVIEW

SHADOWBOARDS	page 228-229
WAREHOUSE LOGISTICS	page 230-239
SHOP FLOOR MANAGEMENT	page 240-244
SIGNS	page 245-256
FLOOR MARKINGS	page 257-261



## VISUALIZATION – AT THE WORK STATION SHADOWBOARDS I

Shadowboards ensure the fast and easy access to tools, instruments and other components. Shadowboards minimize search times and the loss of tools or other components is greatly reduced. Through foam inserts high quality measuring instruments, tools or other objects are optimally protected and safely stored. This is the ideal tool for building sets in the mounting departments.



Item no.	size	paint
25000	—	—

Please select here the number for the desired thickness of the shadowboard.

Please select the number for the desired colour combination.

- 1 = 30mm
- 2 = 60mm
- 3 = 90mm
- 4 = 110mm

- 1 = blue - black
- 2 = red - black
- 3 = yellow - black
- 4 = green - black
- 5 = black - black

Other models / dimensions on request  
Subject to technical changes

## VISUALIZATION – AT THE WORK STATION SHADOWBOARDS II

Shadowboards ensure the fast and easy access to tools, instruments and other components. Shadowboards minimize search times and the loss of tools or other components is greatly reduced. Through foam inserts high quality measuring instruments, tools or other objects are optimally protected and safely stored.



Item no. 25010 Scanner Cabinet

Item no.	marking	description
250100	portable scanner bag (ca. 600x600mm)	Mobile scanner unit for capturing your tools including software and camera.
250101	Scanner Cabinet with photo equipment (800x800x2,000mm)	Professional scanning unit with photo accessories for detecting your tools. The aluminium housing minimises shadows and significantly improves the result.
250102	CNC milling machine	For milling the shadowboards

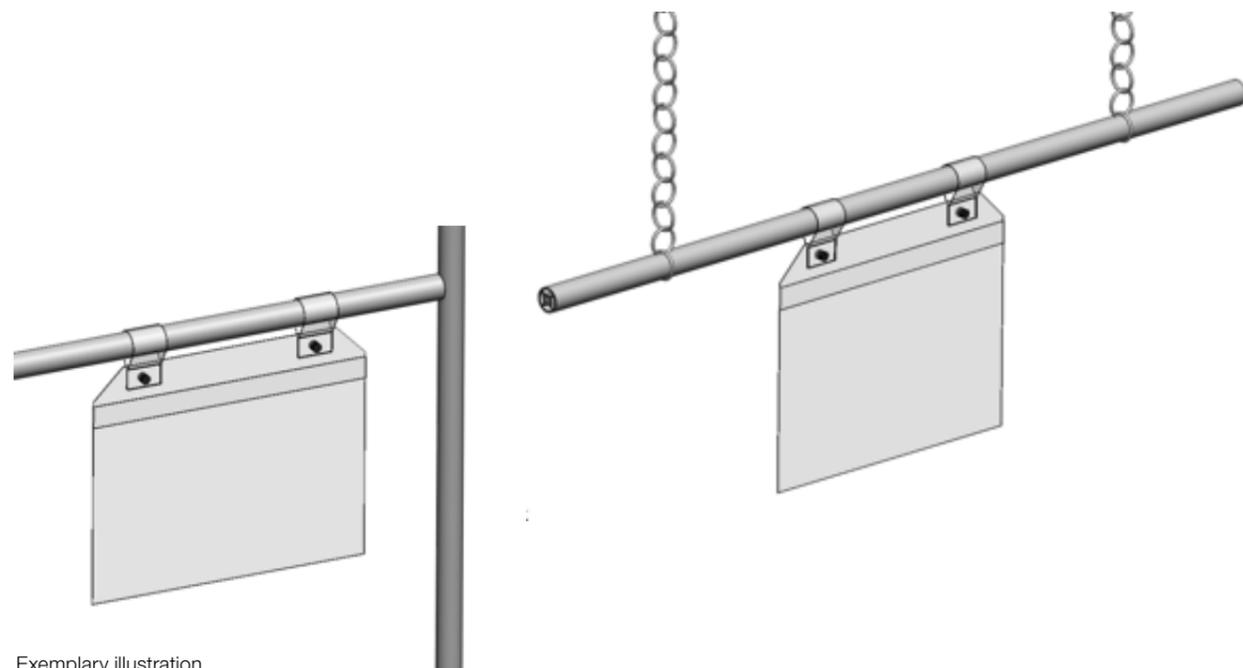
Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – WAREHOUSE LOGISTICS

## IDENTIFICATION POCKETS I

with magnetic loops

The identification pocket is especially made for the attachment of accompanying documents on pipe systems. Both tabs simply have to be placed around the tube and - click! The magnets connect with each other. The transparent identification bag with loops is suitable for all pipe connection systems with a maximal diameter of 40mm. The PVC film is weather resistant, tear-resistant and wipeable.



Exemplary illustration

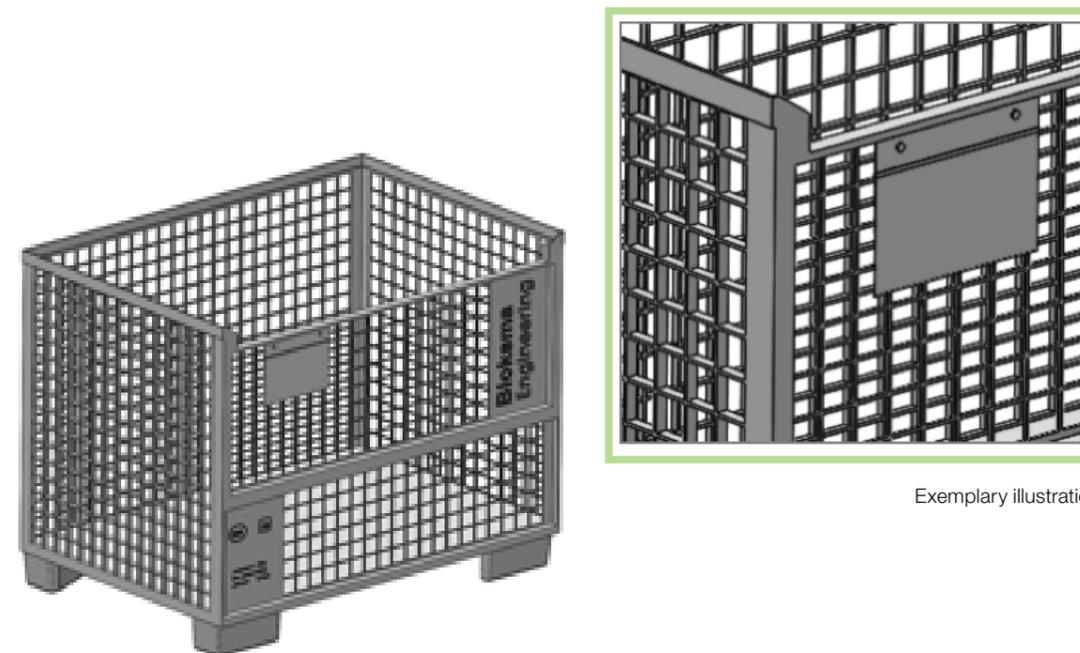
# VISUALIZATION – WAREHOUSE LOGISTICS

## IDENTIFICATION POCKETS II

with magnetic points

The identification bag is ideal for the flexible attachment of order documents, data sheets, KANBAN cards etc.

It has extra strong magnets so they adhere perfectly to all ferrous surfaces. The PVC foil is weather-resistant, tear-resistant and wipeable.



Exemplary illustration

Item no.	size	paint	description	model
290000-A4-Q	A4	transparent	Vision bag landscape format long side open	
290001-A4-H	A4	transparent	Vision bag upright format narrow side open	
290002-A5-Q	A5	transparent	Vision bag landscape format long side open	

Other models / dimensions on request  
Subject to technical changes

Item no.	size	paint	description	model
290003-A4-H	A4	transparent	Vision bag upright format narrow side open 4 magnet points	
290004-A5-Q	A5	transparent	Vision bag landscape format long side open 2 magnet points	
290005-A6-Q	A6	transparent	Vision bag landscape format long side open 2 magnet points	

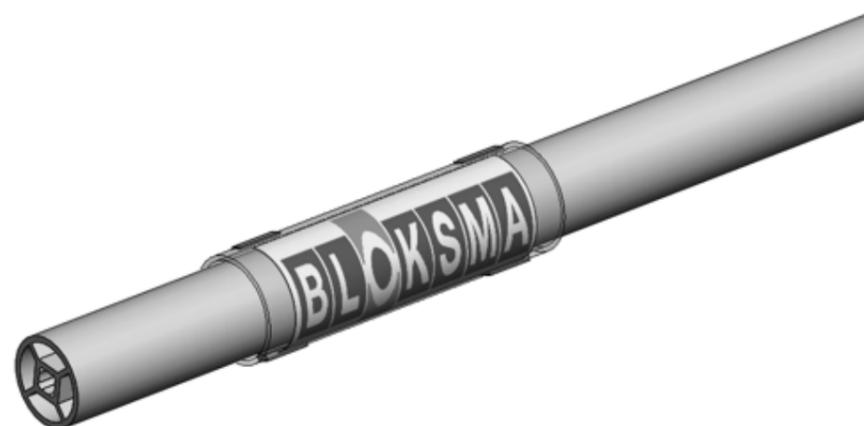
Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – WAREHOUSE LOGISTICS LABELING POUCHES III

## magnetic mini-labeling pouches

The mini-identification pocket is designed for flexible attachment of identifications, markings or labels on rounded (e.g. iron pipe) and flat surfaces (e.g. metal shelves). It consists of four rectangular magnets with a high adhesion point for a firm hold on all ferrous surfaces. The plastic is especially soft and flexible.

Annotation: The paper sheets are tailored to the mini pockets.



Exemplary illustration

Item no.	size	paint	description	model
290006-11-05	external measurements: 110x58mm internal measurements: 108x30mm	transparent	for 105x27mm vision bag landscape format narrow side open	

### PAPER SHEETS FOR LABELLING POUCHES

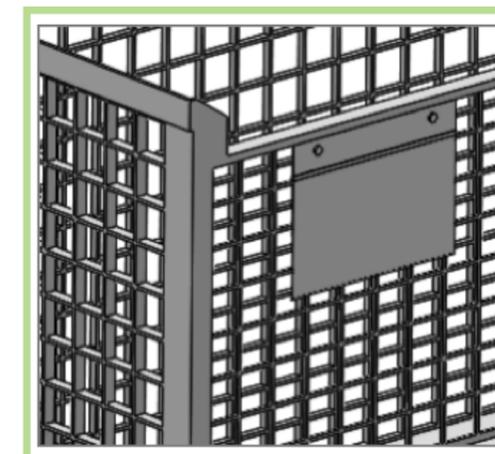
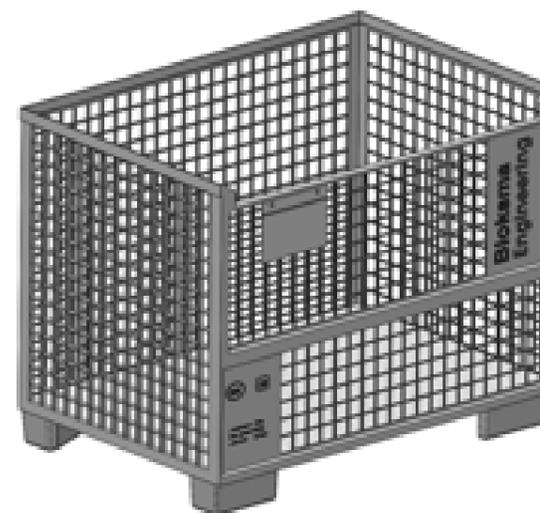
290007-21-29	210x297mm	white	10 stripes (210x27mm) per sheet unit 3 sheets
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Other models / dimensions on request  
Subject to technical changes

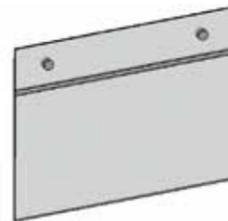
# VISUALIZATION – WAREHOUSE LOGISTICS LABELING POUCHES IV

## with magnetic strips

The identification pocket is designed for flexible attachment of order documents, data sheets and KANBAN cards etc. and has extra strong magnets so that it adheres perfectly to all ferrous surfaces. The PVC-foil is weather-resistant, tear-resistant and wipeable.



Exemplary illustration

Item no.	size	paint	description	model
290091	A __	__ __	vision bag landscape format with a magnetic strip	
290092	A __	__ __	vision bag upright format with a magnetic strip	
290093	A __	__ __	vision bag landscape format with two magnetic strips	
290094	A __	__ __	vision bag upright format with two magnetic strips	
	DIN A4 DIN A5	yellow red white blue green black	= 01 = 02 = 03 = 04 = 05 = 06	

Exemplary illustration

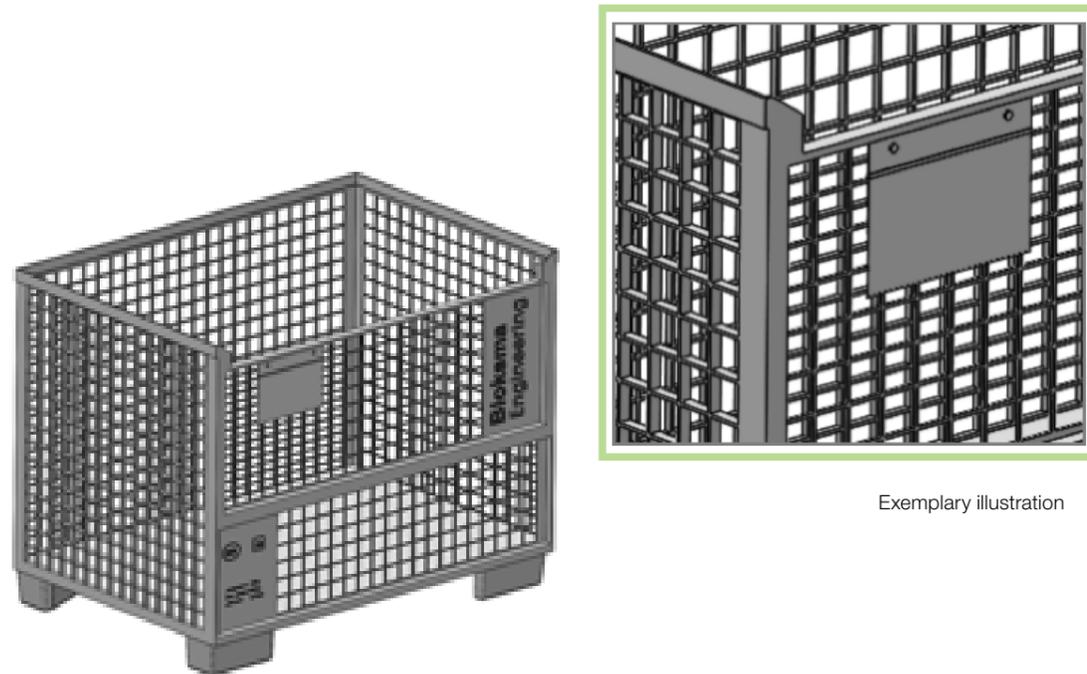
Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – WAREHOUSE LOGISTICS

## LABEL POUCHES V

self-adhesive

The identification pocket is designed for flexible attachment of order documents, data sheets and KANBAN cards etc. and has extra strong magnets so that it adheres perfectly to all ferrous surfaces. The PVC foil is weather-resistant, tear-resistant and wipeable.

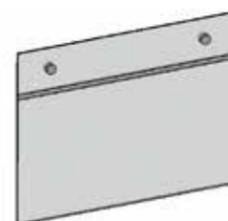


Exemplary illustration

Item no.	size	paint	description	model
290095	A ___	___	vision bag landscape format with an adhesive strip	
290096	A ___	___	vision bag upright format with an adhesive strip	
290097	A ___	___	vision bag landscape format with two adhesive strips	
290098	A ___	___	vision bag upright format with two adhesive strips	

DIN A4	yellow = 01
DIN A5	red = 02
	white = 03
	blue = 04
	green = 05
	black = 06



Exemplary illustration

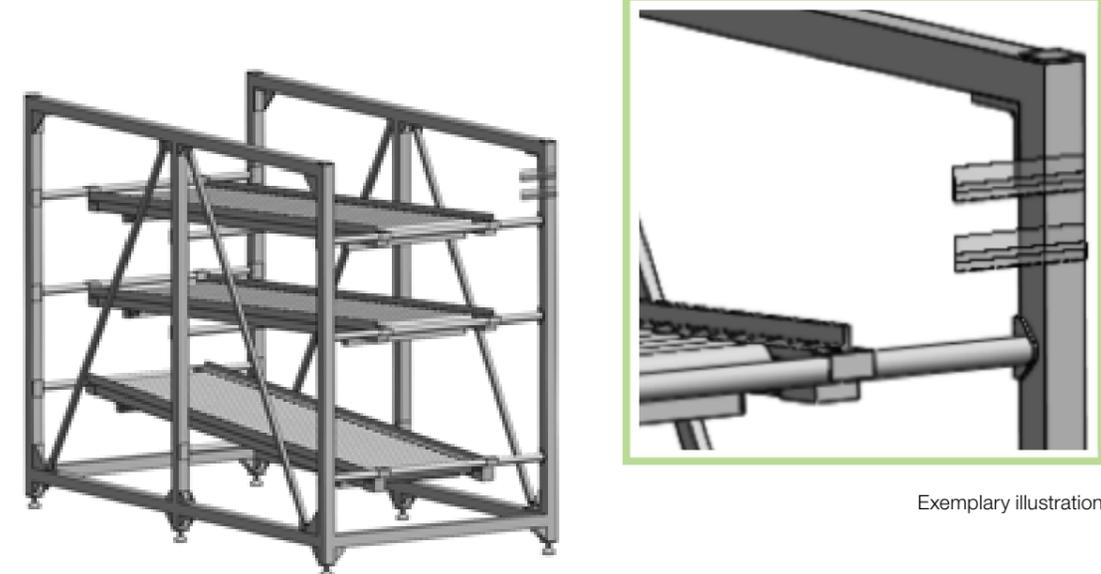
Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – WAREHOUSE LOGISTICS

## CLAMPING RAILS

magnetic

The clamping rail is made of flexible plastic to hold all kinds of form strips and information papers. This is especially useful for quickly changing labels and markings so that information and material flow are optimized. A backside magnet tape adheres to all ferrous surfaces.



Exemplary illustration

Item no.	size	color	model
290008-07-03	74x35mm	transparent	
290009-08-03	85x35mm	transparent	
290010-10-03	105x35mm	transparent	
290011-14-03	148x35mm	transparent	
290012-21-03	210x35mm	transparent	
290013-29-03	297x35mm	transparent	



Exemplary illustration

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – WAREHOUSE LOGISTICS

## MAGNETIC FOIL I

whiteboard surface

You can write with a water-soluble pen on this special magnetic foil with whiteboard-surface and later wash off and clear it again. The back side is magnetic and offers excellent adhesion to ferrous surfaces. It can be used either for labeling in warehouse logistics or in shop floor management but also for visualization of processes etc.

The standard length of a roll is 10m.



# VISUALIZATION – WAREHOUSE LOGISTICS

## MAGNETIC FOIL II

magnetic

The magnetic foil is suitable for organization and visualization solutions in production, logistics and administration. It can be cut to the right length with a scissors and it adheres to ferrous surfaces.

The length of a standard roll is 10 m.



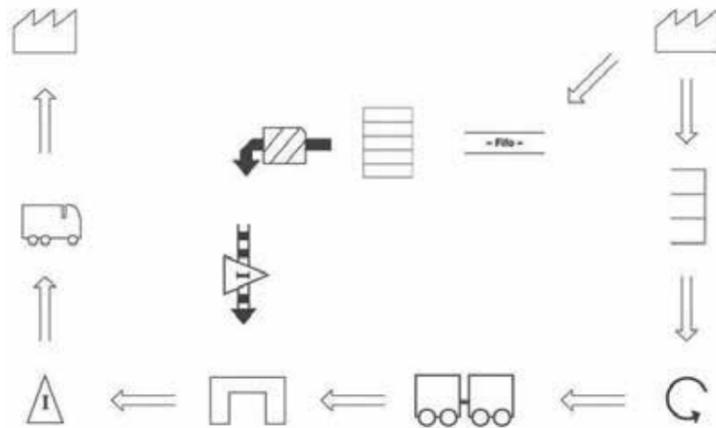
Item no.	width in mm	color	thickness	description
<b>290014-xx-03</b>	— —	white (03)	1mm	one roll magnetic foil with Whiteboard surface (10m)
	10 15 20 25 30 40 50			

Item no.	width in mm	paint	thickness	description
<b>290015-xx-03</b>	— —	—	0,9mm	One roll magnetic foil (10m)
	10 15 20 25 30 40 50	yellow = 01 red = 02 white = 03 blue = 04 green = 05 black = 06		



# VISUALIZATION SHOP FLOOR MANAGEMENT VALUE STREAM MAGNETIC CARDS I

The magnetic cards are used to visualize the value stream analysis and thus to optimize process control in production and service. Material and information flows are depicted very clearly. Non value added chains or inefficient processes are easily identified and can be eliminated if necessary. The magnets also simplify the adjustment of the presented illustration.

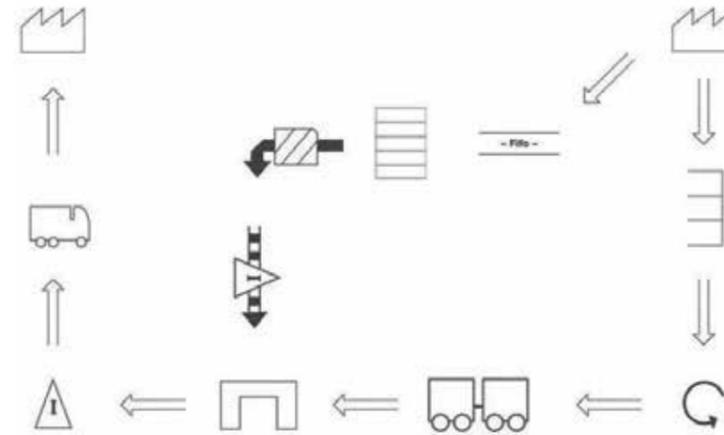


Item no.	size	meaning	unit	model
290072-01	Infobox A7 crosswise for free marking		10 pieces	
290072-28	DIN A7 crosswise	Clock	5 pieces	
290072-02	DIN A7 crosswise	customers/suppliers of a process	5 pieces	
290072-03	DIN A7 crosswise	transport with truck	5 pieces	
290072-04	DIN A7 crosswise	movement of products	5 pieces	
290072-05	DIN A7 crosswise	transport with plane	5 pieces	
290072-06	DIN A7 crosswise	transport with ship	5 pieces	
290072-07	red arrow 15mm height 60 mm width		5 pieces	

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION SHOP FLOOR MANAGEMENT VALUE STREAM MAGNETIC CARDS II

The magnetic cards are used to visualize the value stream analysis and thus to optimize process control in production and service. Material and information flows are depicted very clearly. Non value added chains or inefficient processes are easily identified and can be eliminated if necessary. The magnets also simplify the adjustment of the presented illustration.

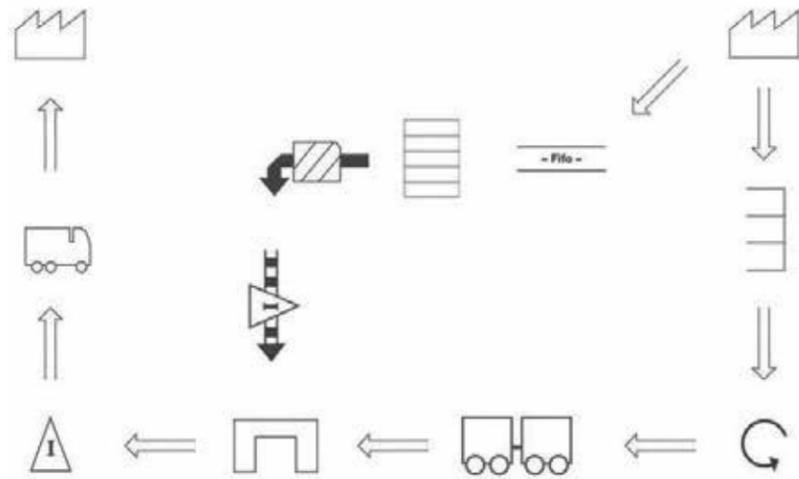


Item no.	size	meaning	unit	model
290072-08	DIN A7 crosswise	input	5 pieces	
290072-09	DIN A7 crosswise	output	5 pieces	
290072-29	DIN A7 crosswise	adjustment	5 pieces	
290072-10	DIN A7 crosswise	abstraction	5 pieces	
290072-11	DIN A7 crosswise	Kanban item, information container	5 pieces	
290072-12	DIN A7 crosswise	Kanban-storage, Supermarket	5 pieces	
290072-13	DIN A7 crosswise	buffer storage temporary storage	5 pieces	
290072-14	DIN A7 crosswise	Location / stock for intermediate and end products	5 pieces	

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION SHOP FLOOR MANAGEMENT VALUE STREAM MAGNETIC CARDS III

The magnetic cards are used to visualize the value stream analysis and thus to optimize process control in production and service. Material and information flows are depicted very clearly. Non value added chains or inefficient processes are easily identified and can be eliminated if necessary. The magnets also simplify the adjustment of the presented illustration.

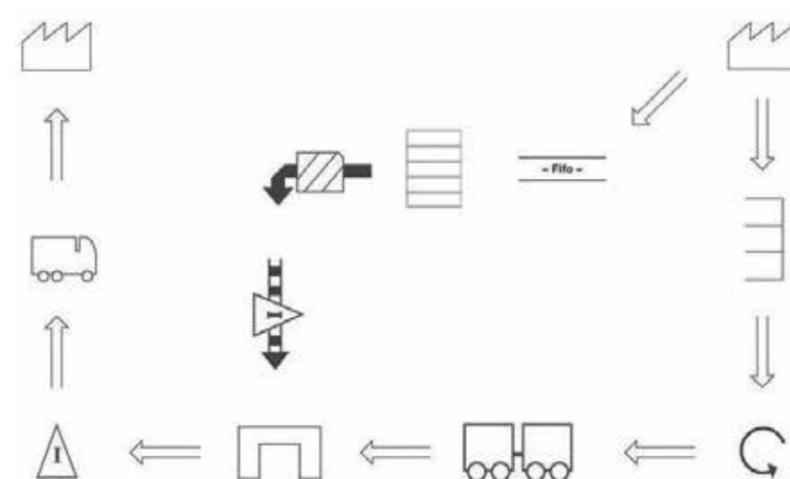


Item no.	size	meaning	unit	model
290072-15	DIN A7 crosswise	Visual inspection of process steps	5 pieces	
290072-16	DIN A7 crosswise	working station	5 pieces	
290072-17	DIN A7 crosswise	Internal transport, Transport by Milkrun	5 pieces	
290072-18	DIN A7 crosswise	Push arrow, material feed	10 pieces	
290072-19	DIN A7 crosswise	Process box, Collection of collected data	10 pieces	
290072-20	DIN A6 lengthwise	Data box, Data of the process analysis	5 pieces	
290072-21	DIN A7 crosswise	FIFO line with limited recording capacity	5 pieces	

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION SHOP FLOOR MANAGEMENT VALUE STREAM MAGNETIC CARDS IV

The magnetic cards are used to visualize the value stream analysis and thus to optimize process control in production and service. Material and information flows are depicted very clearly. Non value added chains or inefficient processes are easily identified and can be eliminated if necessary. The magnets also simplify the adjustment of the presented illustration.



Item no.	size	meaning	unit	model
290072-22	DIN A7 lengthwise	Kaizen lightning, denotes potential for improvement	5 pieces	
290072-23	125x55 mm	red lightning	5 pieces	
290072-24	DIN A7 crosswise	Production Kanban	5 pieces	
290072-25	DIN A7 crosswise	Kanban lot, kanban that arrive in lot quantities	5 pieces	
290072-26	DIN A7 crosswise	Withdrawal kanban, gives instruction for partial withdrawal	5 pieces	
290072-27	DIN A7 crosswise	Signal Kanban, signaleses reorder point	5 pieces	
290072-30	DIN A7 crosswise	worker	5 pieces	

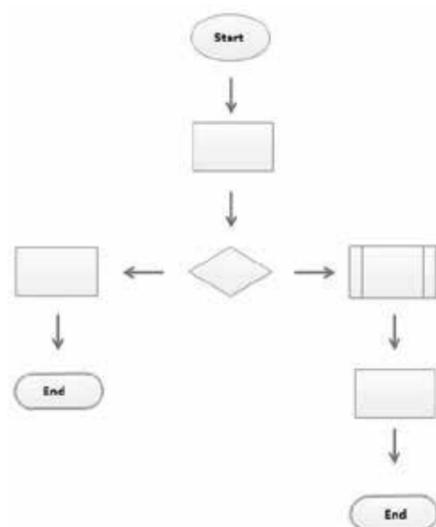
Other models / dimensions on request  
Subject to technical changes

6

6

# VISUALIZATION SHOP FLOOR MANAGEMENT FLOW CHART MAGNETIC CARDS

The magnetic cards can be used as a problem-solving device to the graphic sequence of a process. With the help of these cards movements of people, material and money are optimally illustrated. This is part of DIN ISO 9001. The magnets also simplify the adjustment of the presented illustration.



Item no.	size	meaning	units	model
290073-01	DIN A8 crosswise	start	10 pieces	
290073-02	DIN A8 crosswise	process	10 pieces	
290073-03	DIN A8 crosswise	decision / branching	10 pieces	
290073-04	DIN A8 crosswise	document	10 pieces	
290073-05	DIN A8 crosswise	sub-process	10 pieces	
290073-06	DIN A8 crosswise	data	10 pieces	
290073-07	DIN A8 crosswise	start / finish	10 pieces	

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION - SIGNS PROHIBITION SIGNS I

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable - suitable for wall mounting

Item no.	diameter	material	meaning	model
290017-xxx-x	_____	—	General prohibition sign	
290018-xxx-x	_____	—	No fire / open light, no smoking	
290019-xxx-x	_____	—	For pedestrians forbidden	
290020-xxx-x	_____	—	For forklift trucks prohibited	
290021-xxx-x	_____	—	touching forbidden	
	100 = Ø 100mm 200 = Ø 200mm	F = foil K = plastic		

Other models / dimensions on request  
Subject to technical changes

## VISUALIZATION – SIGNS PROHIBITION SIGNS II

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable – suitable for wall mounting

Item no.	diameter	material	meaning	model
290022-xxx-x	----	—	No heavy loads	
290023-xxx-x	----	—	No pushing	
290024-xxx-x	----	—	Sitting forbidden	
290025-xxx-x	----	—	No climbing up	
290026-xxx-x	----	—	Parking or storage prohibited	
	100 = Ø 100mm 200 = Ø 200mm	F = foil K = plastic		

Other models / dimensions on request  
Subject to technical changes

## VISUALIZATION – SIGNS PROHIBITION SIGNS III

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable – suitable for wall mounting

Item no.	diameter	material	meaning	model
290027-xxx-x	----	—	No one may enter the area	
290028-xxx-x	----	—	No switching	
290029-xxx-x	----	—	No unauthorised access	
290030-xxx-x	----	—	Do not touch, housing is under power	
	100 = Ø 100mm 200 = Ø 200mm	F = foil K = plastic		

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – SIGNS MANDATORY SIGNS I

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable - suitable for wall mounting

Item no.	diameter	material	meaning	model
290031-xxx-x	_____	—	Follow the instructions for use	
290032-xxx-x	_____	—	Use hearing protection	
290033-xxx-x	_____	—	Use eye protection	
290034-xxx-x	_____	—	Pull the main plug	
290035-xxx-x	_____	—	Use foot protection	
	100 = Ø 100mm 200 = Ø 200mm	F = foil K = plastic		

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – SIGNS MANDATORY SIGNS II

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable - suitable for wall mounting

Item no.	diameter	material	meaning	model
290036-xxx-x	_____	—	Use hand protection	
290037-xxx-x	_____	—	Wash your hands	
290038-xxx-x	_____	—	Use face protection	
290039-xxx-x	_____	—	Use head protection	
290040-xxx-x	_____	—	Use safety vest	
	100 = Ø 100mm 200 = Ø 200mm	F = foil K = plastic		

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – SIGNS

## MANDATORY SIGNS III

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable – suitable for wall mounting

Item no.	diameter	material	meaning	model
290041-xxx-x	_____	—	Unlock before maintenance or repair	
290042-xxx-x	_____	—	Use pedestrian walkway	
290043-xxx-x	_____	—	Locking	
290044-xxx-x	_____	—	Honk	
	100 = Ø 100mm 200 = Ø 200mm	F = foil K = plastic		

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – SIGNS

## WARNING SIGNS I

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable – suitable for wall mounting

Item no.	Schenkellänge	material	meaning	model
290045-xxx-x	_____	—	general warning sign	
290046-xxx-x	_____	—	Warning of obstacles on the ground	
290047-xxx-x	_____	—	Low temperature/cold warning	
290048-xxx-x	_____	—	Warning of slipping hazard	
290049-xxx-x	_____	—	Warning of electrical voltage	
	100 = leg length 100 mm 200 = leg length 200 mm	F = foil K = plastic		

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – SIGNS

## WARNING SIGNS II

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable – suitable for wall mounting

Item no.	leg length	material	meaning	model
290050-xxx-x	----	—	Warning of industrial trucks	
290051-xxx-x	----	—	Warning danger of crushing	
290052-xxx-x	----	—	Warning of pointy objects	
290053-xxx-x	----	—	Warning of hand injury	
290054-xxx-x	----	—	Warning of danger from charging batteries	
	100 = leg length 100mm 200 = leg length 200mm	F = foil K = plastic		

# VISUALIZATION – SIGNS

## RESCUE SIGNS I

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable – suitable for wall mounting

Item no.	leg length	material	meaning	model
290055-xxx-x	----	—	Additional symbol Arrow right	
290056-xxx-x	----	—	Additional symbol arrow right down	
290057-xxx-x	----	—	Escape route/emergency exit left	
290058-xxx-x	----	—	Escape route/emergency exit right	
	150 = leg length 150mm 200 = leg length 200mm	F = foil K = plastic		

# VISUALIZATION – SIGNS RESCUE SIGNS II

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable – suitable for wall mounting

Item no.	side length	material	meaning	model
290059-xxx-x	----	—	First aid	
290060-xxx-x	----	—	Emergency telephone	
290061-xxx-x	----	—	Collection point	
290062-xxx-x	----	—	Automated external defibrillator (AED)	
150 = side length 150mm 200 = side length 200mm		F = foil K = plastic		

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – SIGNS RESCUE SIGNS III

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable – suitable for wall mounting

Item no.	size	material	meaning	model
290063-3015x	300x150mm	—	Emergency exit with additional symbol on right side	
290064-3015x	300x150mm	—	Emergency exit with additional symbol bottom right	
290065-3015x	300x150mm	—	Emergency exit with additional sign left	
290066-3015x	300x150mm	—	Escape route/emergency exit with additional symbol top-left	
300x150mm		F = foil K = plastic		

Other models / dimensions on request  
Subject to technical changes

6

6

# VISUALIZATION – SIGNS FIRE PROTECTION SIGNS

Available as:

- foil: self-adhesive
- plastic: self-adhesive or screwable – suitable for wall mounting

Item no.	side length	material	meaning	model
290067-xxx-x	_____	—	Arrow Direction right	
290068-xxx-x	_____	—	Arrow Direction right-down	
290069-xxx-x	_____	—	Fire extinguishers	
290070-xxx-x	_____	—	Fire alarm telephone	
290071-xxx-x	_____	—	Fire detectors	
100 = side length 100mm 200 = side length 200mm		F = foil K = plastic		

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – FLOOR MARKINGS I IDENTIFICATION SYMBOLS I self-adhesive



The identification symbols are suitable for marking storage areas, parking spaces and transport routes. They are perfect for optimizing orientation in production and warehouse areas. The labels are self-adhesive.

Item no.	description	width	color	model
290074-xxxxx	Marking symbol T-piece	___	___	
290075-xxxxx	Marking symbol L-angle	___	___	
290076-xxxxx	Cross	___	___	
290077-xx	Footprint 280mm long	one size	___	
290078-xxxxx	Dot	___	___	
290079-xxxxx	Arrow	___	___	
		50mm = 050 75mm = 075 210mm = 210	yellow = 01 red = 02 white = 03 blue = 04 green = 05 black = 06	

Other models / dimensions on request  
Subject to technical changes

# VISUALIZATION – FLOOR MARKINGS IDENTIFICATION SYMBOLES II

self-adhesive

The identification symbols are suitable for marking storage areas, parking spaces and transport routes. They are perfect for optimizing the orientation in production and warehouse areas. The labels are self-adhesive.



Item no.	description	width	color	model
290080-xx	Lengthwise markings 250mm long	50mm	— —	
290081-xx	Lengthwise markings 350mm long	75mm	— —	
290082-xx	Lengthwise markings 500mm long	210mm	— —	

yellow = 01  
red = 02  
white = 03  
blue = 04  
green = 05  
black = 06

# VISUALIZATION – FLOOR MARKINGS IDENTIFICATION STRAPS

self-adhesive

The identification symbols are suitable for marking storage areas, parking spaces and transport routes. They are perfect for optimizing orientation in production and warehouse areas. The labels are self-adhesive.

Item no.	width in mm	color	description	model
201674 - xx	50mm	—	one role (50m long)	
	role width 75mm and 100mm on request	yellow = 01 red = 02 white = 03 blue = 04 green = 05 black = 06 orange = 07 light blue = 08 black/yellow = 09 blue/white = 10		



## WORKPIECE CARRIERS

QUALITY FOR  
AUTOMATISED  
PRODUCTIONS



# WORKPIECE CARRIERS

**Customized quality for automatised productions.**

**From small and light to large and heavy – BLOKSMA offers customized workpiece carrier systems for automatised manufacturing. In more than 2,500 individual designs and dimensions!**

Workpiece carriers have become indispensable in automatised productions. Due to the constantly decreasing component size carrying parts around is no longer manageable by human hands. Therefore workpiece carriers are used to hold those workpieces and carry them safely to their destination. The geometry of the workpieces determine the construction type of the workpiece carrier systems. Workpiece carriers by BLOKSMA are therefore individually manufactured

according to their functions and tasks. Highest possible precision is already ensured during your systems development phase by using rapid-prototyping technology. In all points we are oriented exactly towards your needs. Depending on the requirements of your components to be transported you are able to choose between different materials - obviously with your measurements and fixed or variably extraction.

## OVERVIEW

PRODUCT INFORMATION	pages 266-267
UNIVERSAL WORKPIECE CARRIERS	pages 268-271
ACCESSORIES	pages 272-273
SHEET METAL CONSTRUCTION	pages 274-275
WIRE / SHEET METAL CONSTRUCTION	pages 276-277
TUBULAR FRAME CONSTRUCTION	pages 278-279



# WORKPIECE CARRIERS CHECKLIST



<b>workpiece carriers size</b>	length			mm				
	width			mm				
	height			mm				
<b>workpiece carrier (WPC) handling</b>	manual	<input type="checkbox"/>	automated robot	<input type="checkbox"/>	automated linear axis	<input type="checkbox"/>		
	please describe additional functions here							
<b>component description</b>								
<b>component appearance</b>	please include drawing/ file or photo							
<b>weight</b>	per component		kg	max. weight of the WPC		kg		
	<b>component</b>	unmixed 1 sort of component	<input type="checkbox"/>	mixed different components	<input type="checkbox"/>			
<b>component appearance</b>	wavelike	<input type="checkbox"/>	disk shaped	<input type="checkbox"/>	geometrically not defined	<input type="checkbox"/>		
	<b>deposit of component</b>	horizontal	<input type="checkbox"/>	upright	<input type="checkbox"/>	hanging	<input type="checkbox"/>	
<b>component handling</b>	outer geometry	<input type="checkbox"/>	inside geometry	<input type="checkbox"/>	Please include the handling in your drawing and send them to us.			
<b>net accuracy space between component and outer geometry</b>	measurements		mm	raw parts/ finished parts		mm		
	<b>need for protection</b>	no	<input type="checkbox"/>	yes –	<input type="checkbox"/>	at which points is it not allowed to grip and deposit the WPC? Please send a drawing with the corresponding marks.		
<b>stackable</b>	no	<input type="checkbox"/>	yes – empty carriers	<input type="checkbox"/>	yes – automatic stacking	<input type="checkbox"/>	yes – automatic with temporary storage	<input type="checkbox"/>
	<b>number of WPC stacked</b>		piece(s)	max. height of stacks (including container such as trolley or pallet)		m		
<b>max. deviation of stack</b>	X-axis		mm					
	Y-axis		mm					
	Z-axis		mm					
<b>distance of components</b>	X-axis		mm					
	Y-axis		mm					
<b>deposit of workpiece</b>	fix € (not exchangeable)	<input type="checkbox"/>	flexible €€ (inlet exchangeable)	<input type="checkbox"/>	flexibel €€€ (adjustable deposit)	<input type="checkbox"/>		

<b>raw material/ surface</b>	steel galvanized	<input type="checkbox"/>	steel galvanized afterwards	<input type="checkbox"/>	steel powder coated RAL	<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"/>				
<b>rotation lock (Poka Yoke)</b>	workpiece carrier – no	<input type="checkbox"/>	component – yes	<input type="checkbox"/>	workpiece carrier – yes	<input type="checkbox"/>
	<b>workpiece carrier transport</b>	on trolley	<input type="checkbox"/>	on wooden pallet	<input type="checkbox"/>	using KLT as inlet
<b>labeling/ nameplate</b>	no	<input type="checkbox"/>	yes – quantity	<input type="checkbox"/>	piece(s)	
	chip/RFID	<input type="checkbox"/>	please describe			
<b>washable</b>	submerged	<input type="checkbox"/>	pivoted (put in angle)	<input type="checkbox"/>	rotated 360°	<input type="checkbox"/>
<b>wash quality</b>	no	<input type="checkbox"/>	yes –	<input type="checkbox"/>	Please describe in detail	

Please note: The subject of workpiece carrier is very complex. Please contact our inhouse sales department or the sales representative in your area.

# UNIVERSAL WORKPIECE CARRIER I

## WIRE / WIRE SHEET METAL COMBINATION

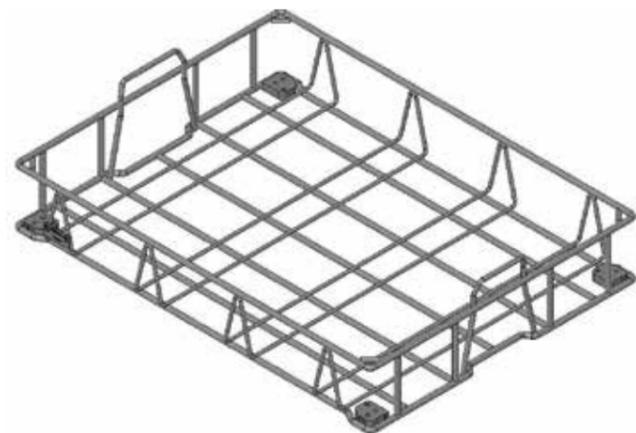
### 600x400mm

Scan me

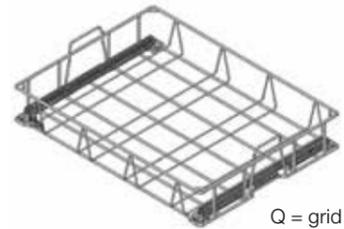


Video

This workpiece carrier is perfectly suitable for the automatised productions. Its parts positioning is very precise. The carrier is made for multiple wash cycles and the deposit elements (metal/plastic) are adapted to the product to be carried. The workpiece carrier can be made of steel, stainless steel, aluminium or of a combination of these materials.



L = grid strips lengthwise



Q = grid strips crosswise



B = grid strips on both sides

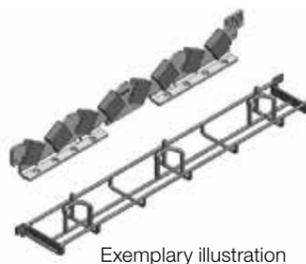
Article 202864-O \_ \_ \_ \_ without grid strips

### WORKPIECE CARRIER – BASKET

Item no.	Position of the grid strips	stacking height in mm	grid spacing
202864 -	—	—	—
	L = Grid bars lengthwise Q = Grid bars crosswise B = Grid bars on both sides O = without	Please enter stacking height here.	A = 12.50mm B = 25.00mm

### DEPOSIT RAIL

xxxxxx	600x400mm	Recording profiles are <b>custom-made</b> . Depending on length (lengthwise or crosswise in WPC), part diameter, Materials etc.
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Exemplary illustration

Other models / dimensions on request  
Subject to technical changes

# UNIVERSAL WORKPIECE CARRIER II

## WIRE / WIRE SHEET METAL COMBINATION

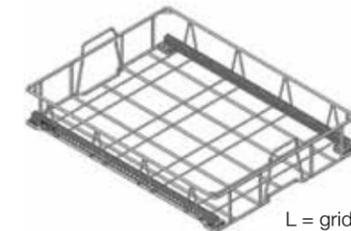
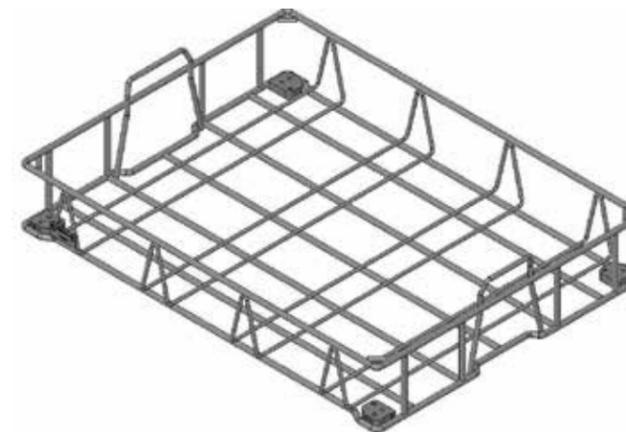
### 800x600mm

Scan me

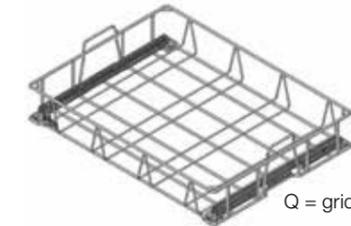


Video

This workpiece carrier is perfectly suitable for the automatised productions. Its parts positioning is very precise. The carrier is made for multiple wash cycles and the deposit elements (metal/plastic) are adapted to the product to be carried. The workpiece carrier can be made of steel, stainless steel, aluminium or of a combination of these materials.



L = grid strips lengthwise



Q = grid strips crosswise



B = grid strips on both sides

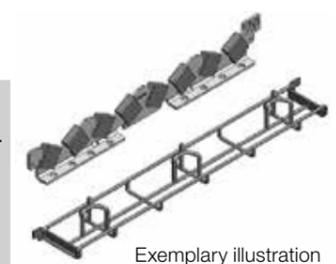
Article 202871-O \_ \_ \_ \_ without grid strips

### WORKPIECE CARRIER – BASKET

Item no.	Position of the grid strips	stacking height in mm	grid spacing
202871 -	—	—	—
	L = lengthwise, long side Q = crosswise, short side B = both sides O = without	Please enter stacking height here	A = 12.50mm B = 25.00mm

### DEPOSIT RAIL

xxxxxx	800x600mm	Recording profiles are <b>custom-made</b> . Depending on length (lengthwise or crosswise in WPC), part diameter, Materials etc.
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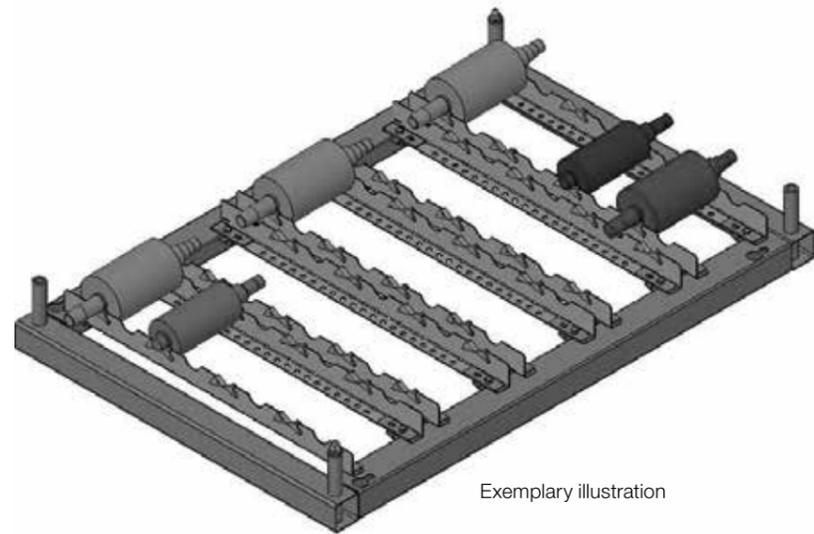


Exemplary illustration

Other models / dimensions on request  
Subject to technical changes

## UNIVERSAL WORKPIECE CARRIER III TUBULAR FRAME CONSTRUCTION 800x600mm

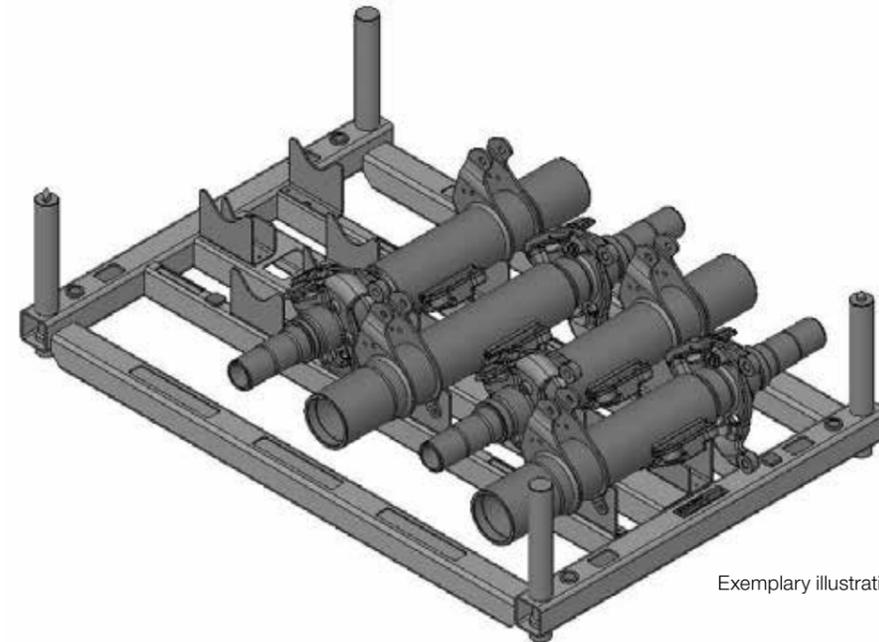
This workpiece carrier is perfectly suitable for the automatised productions. Its parts positioning is very precise. The carrier is made for multiple wash cycles and the deposit elements (metal/plastic) are adapted to the product to be carried. The workpiece carrier can be made of steel, stainless steel, aluminium or of a combination of these materials.



Exemplary illustration

## UNIVERSAL WORKPIECE CARRIER IV TUBULAR FRAME CONSTRUCTION 1,200x800mm

This workpiece carrier is perfectly suitable for the automatised productions. Its parts positioning is very precise. The carrier is made for multiple wash cycles and the deposit elements (metal/plastic) are adapted to the product to be carried. The workpiece carrier can be made of steel, stainless steel, aluminium or of a combination of these materials.

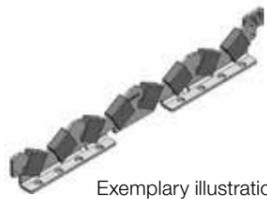


Exemplary illustration

### WORKPIECE CARRIER FRAME

Item no.	WPC size	Centering of the product	model
202872-xxx-S	800x600xSH	Terminal strip in the X- and Y-axis	

### DEPOSIT RAIL

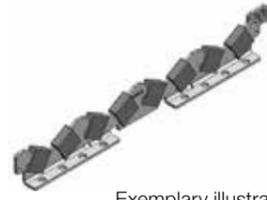
xxxxxx		Recording profiles are <b>custom-made</b> . Depending on length (lengthwise or crosswise in WPC), part diameter, Materials etc.	 Exemplary illustration
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Other models / dimensions on request  
Subject to technical changes

### WORKPIECE CARRIER FRAME

Item no.	WPC size	Centering of the product	model
202873-xxx-S	1,200x800xSH	Terminal strip in the X- and Y-axis	

### DEPOSIT RAIL

xxxxxx		Recording profiles are <b>custom-made</b> . Depending on length (lengthwise or crosswise in WPC), part diameter, Materials etc.	 Exemplary illustration
--------	--	---	---

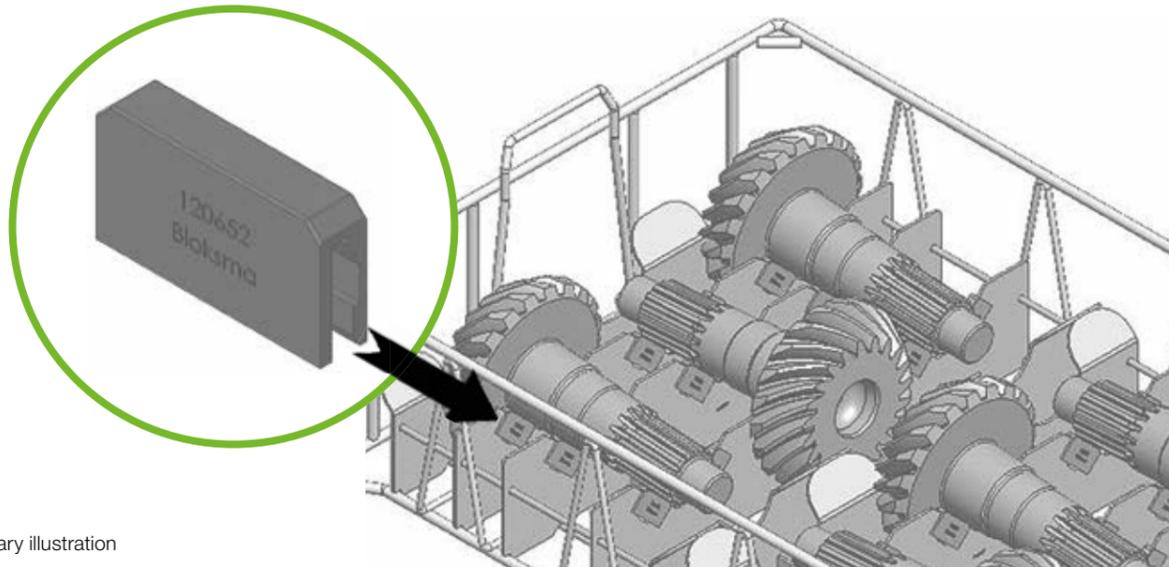
Other models / dimensions on request  
Subject to technical changes

# ACCESSORIES WORKPIECE CARRIER I

## DEPOSIT ELEMENTS

### DEPOSIT CLIPS

This workpiece carrier is perfectly suitable for the automatised productions. Its parts positioning is very precise. The carrier is made for multiple wash cycles and the deposit elements (metal/plastic) are adapted to the product to be carried. The workpiece carrier can be made of steel, stainless steel, aluminium or of a combination of these materials.



Exemplary illustration

### DEPOSIT CLIPS PLASTIC

Item no.	dimensions	comment	model
----------	------------	---------	-------

124608	51x21x10mm	material PA for sheet thickness 2mm sky blue	
120652	10x26x48mm	material PA for sheet thickness 3mm sky blue	
119390	10x26x48mm	material PA for sheet thickness 4mm sky blue	
122432	10x41x64mm	Step clip for sheet thickness 3mm sky blue	

### DEPOSIT CLIPS HARDENED STEEL

126024	3x6x48,5mm	support clip made of hardened steel	
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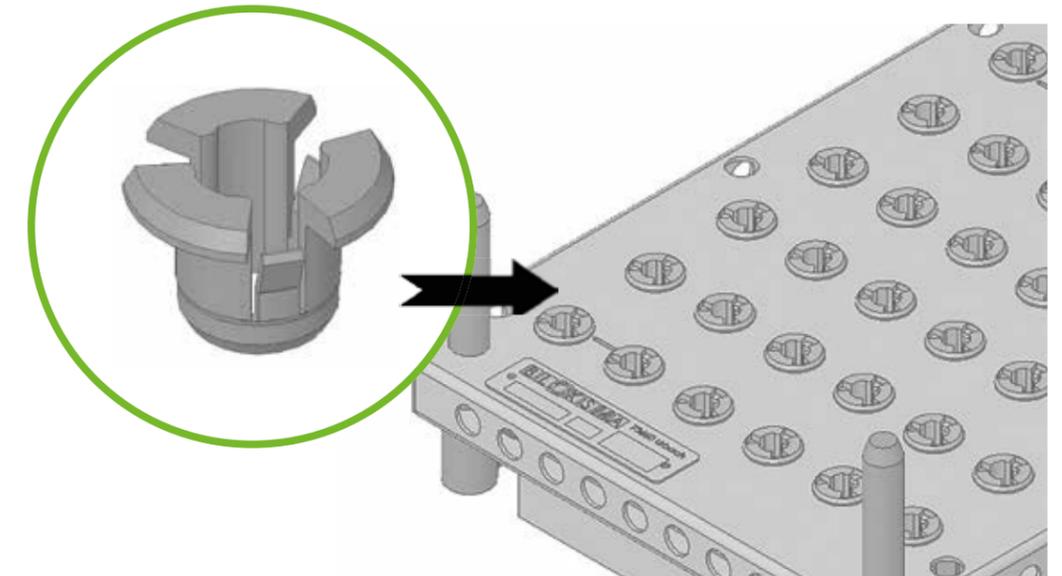
Other models / dimensions on request  
Subject to technical changes

# ACCESSORIES WORKPIECE CARRIER II

## DEPOSIT ELEMENTS

### DEPOSIT SLEEVES

This workpiece carrier is perfectly suitable for the automatised productions. Its parts positioning is very precise. The carrier is made for multiple wash cycles and the deposit elements (metal/plastic) are adapted to the product to be carried. The workpiece carrier can be made of steel, stainless steel, aluminium or of a combination of these materials.



Exemplary illustration

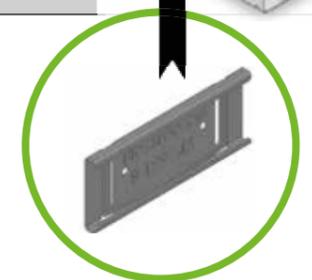
### DEPOSIT SLEEVE

Item no.	dimensions	comment	model
----------	------------	---------	-------

142433	Ø 26/16x18mm	for components with diameter 26mm	
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### LABEL HOLDER

129143	50x20x3,4mm	BG label holder	
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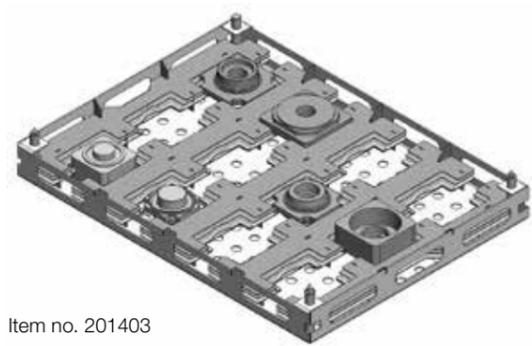


Other models / dimensions on request  
Subject to technical changes

# SHEET METAL CONSTRUCTION WTB I FOR LIGHT, SMALL AND HIGH PRECISION COMPONENTS WORKPIECE CARRIER

This workpiece carrier is perfectly suitable for the automatised production of high-precision and delicate components. The deposit elements (metal/plastic) are adapted to the product to be carried. The workpiece carrier can be made of steel, stainless steel, aluminium or of a combination of these materials.

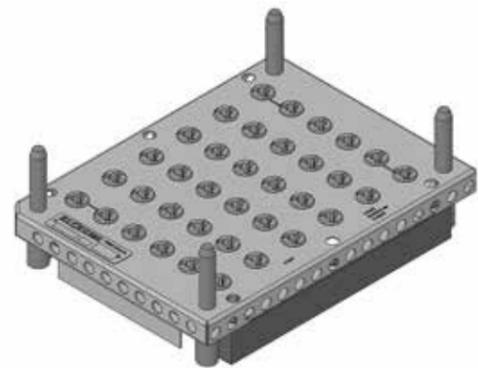
Workpiece carriers are produced individually and based on the geometric form of the components to be carried. In the last 40 years BLOKSMA has developed more than 2,400 different types of workpiece carriers.



Item no. 201403



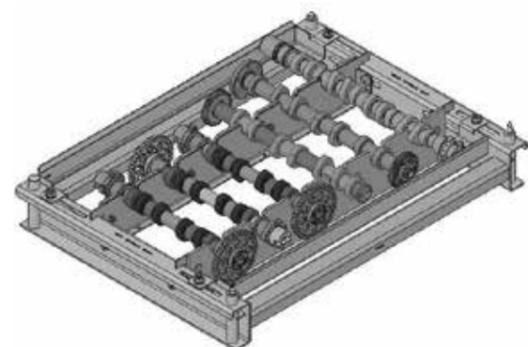
Item no. 201465



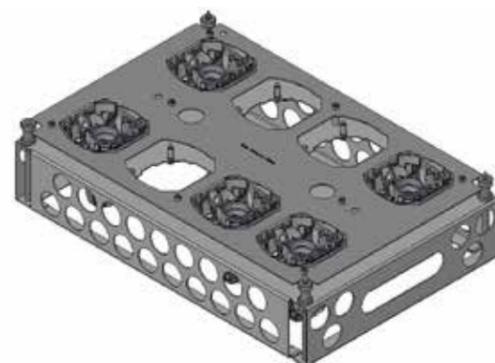
Item no. 146684



Item no. 147667



Item no. 139374



Item no. 137432

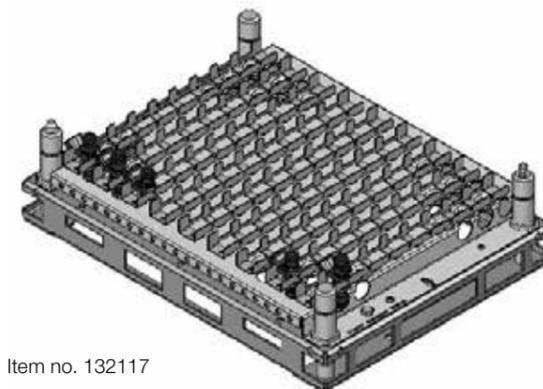
# SHEET METAL CONSTRUCTION WTB II FOR LIGHT, SMALL AND HIGH PRECISION COMPONENTS WORKPIECE CARRIER



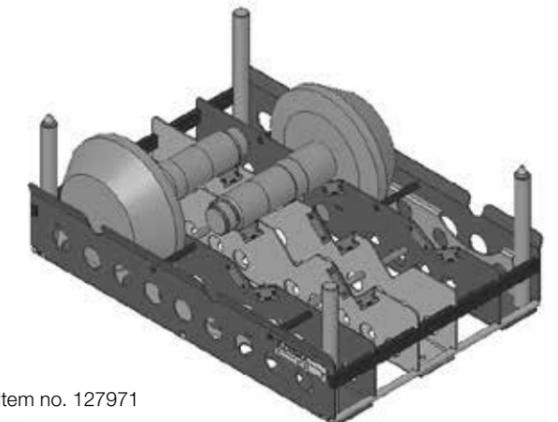
Item no. 131031



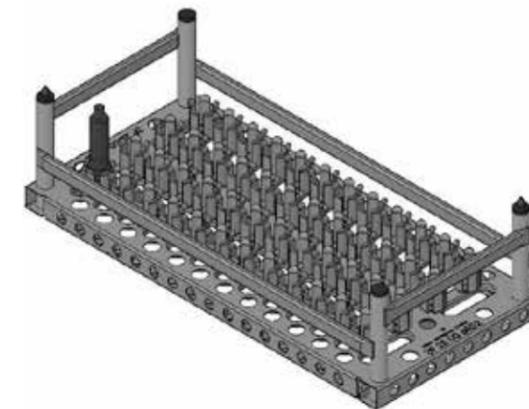
Item no. 124392



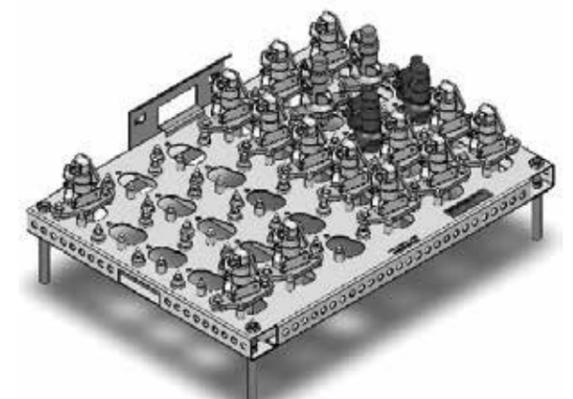
Item no. 132117



Item no. 127971



Item no. 138207



Item no. 130365

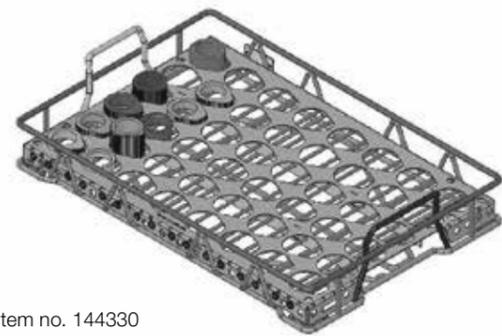
**Other models / dimensions on request**  
Subject to technical changes

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

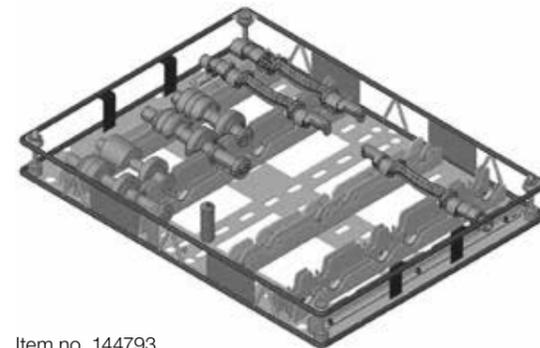
# WIRE CONSTRUCTION WTD I FOR LIGHT AND MEDIUM-WEIGHT COMPONENTS WORKPIECE CARRIER

This workpiece carrier is perfectly suitable for the automatised production of high-precision and delicate components. The deposit elements (metal/plastic) are adapted to the product to be carried. The workpiece carrier can be made of steel, stainless steel, aluminium or of a combination of these materials.

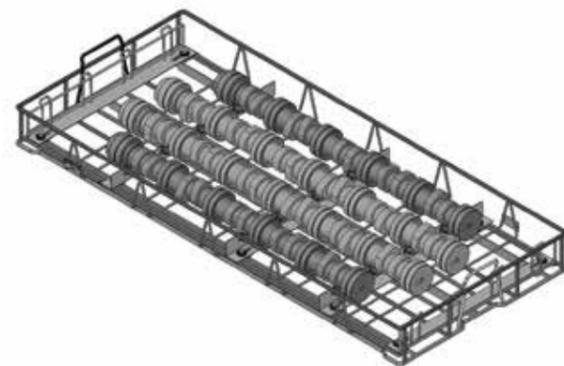
Workpiece carriers are produced unindividually and based on the geometric form of the components to be carried. In the last 40 years BLOKSMA has developed more than 2,400 different types of workpiece carriers.



Item no. 144330



Item no. 144793



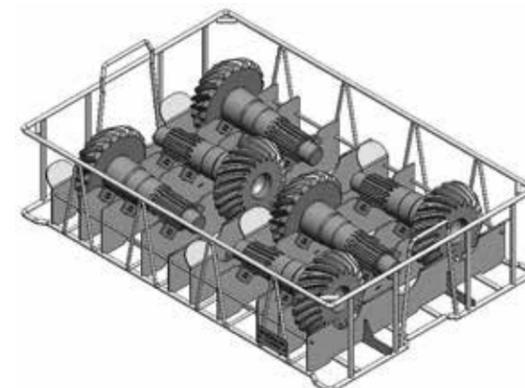
Item no. 142176



Item no. 136304

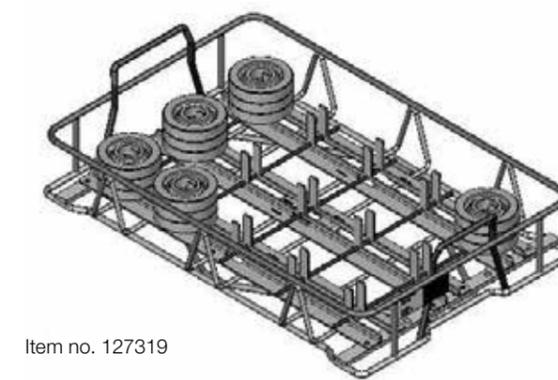


Item no. 133106

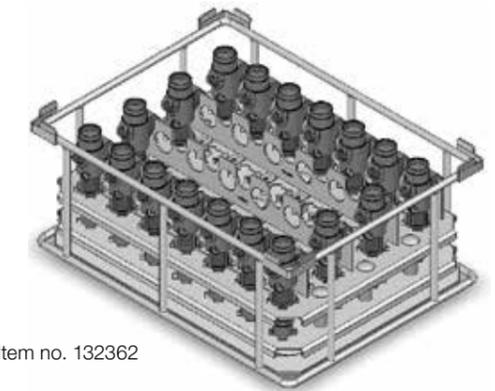


Item no. 147983

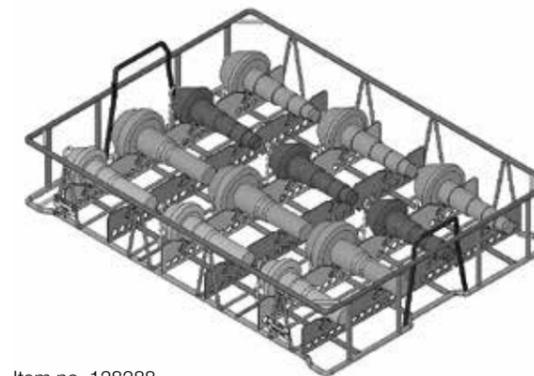
# WIRE-SHEET METAL CONTRUCTION WTD II FOR LIGHT AND MEDIUM-WEIGHT COMPONENTS WORKPIECE CARRIER



Item no. 127319



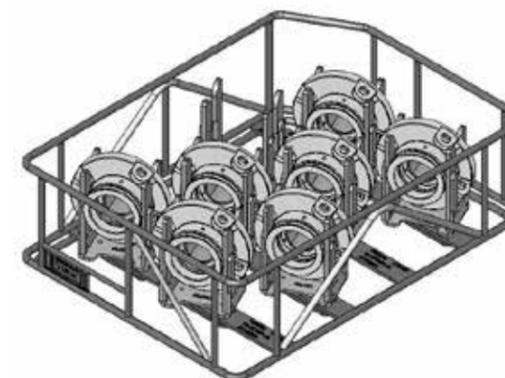
Item no. 132362



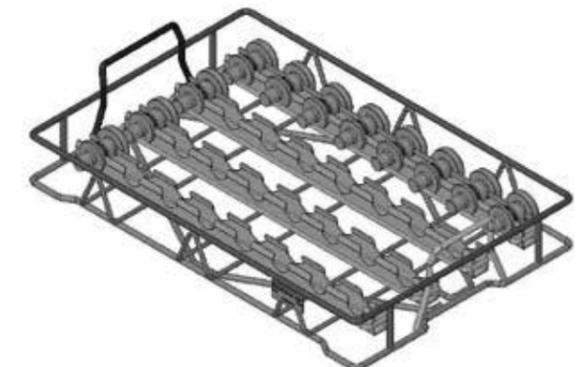
Item no. 128288



Item no. 124520



Item no. 133555

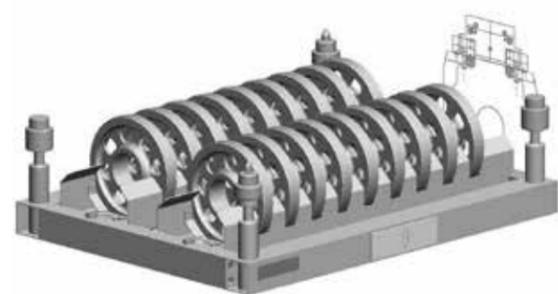


Item no. 131661

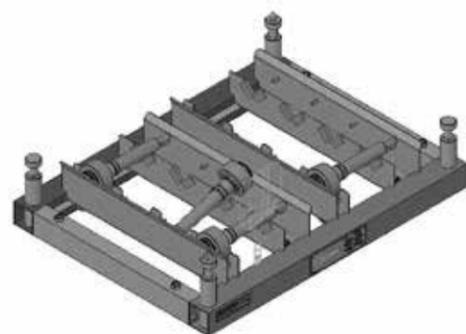
# TUBULAR FRAME CONSTRUCTION WTR I FOR HEAVY AND BIG COMPONENTS WORKPIECE CARRIER

This workpiece carrier is perfectly suitable for the automatised production of high-precision and delicate components. The deposit elements (metal/plastic) are adapted to the product to be carried. The workpiece carrier can be made of steel, stainless steel, aluminium or of a combination of these materials.

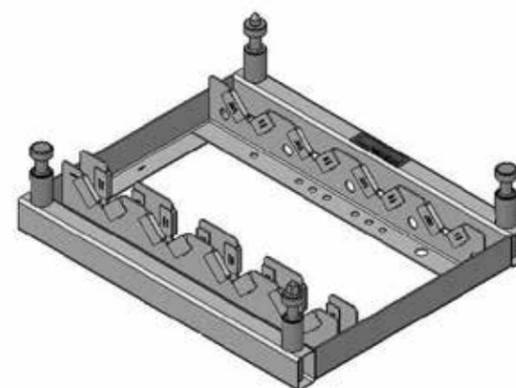
Workpiece carriers are produced individually and based on the geometric form of the components to be carried. In the last 40 years BLOKSMA has developed more than 2,400 different types of workpiece carriers.



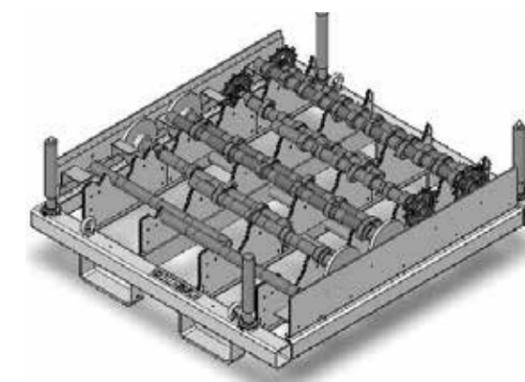
Item no. 133881



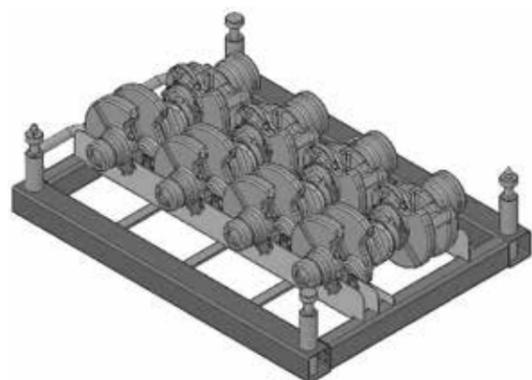
Item no. 131703



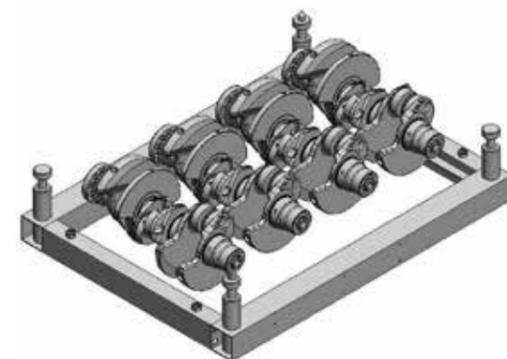
Item no. 131751



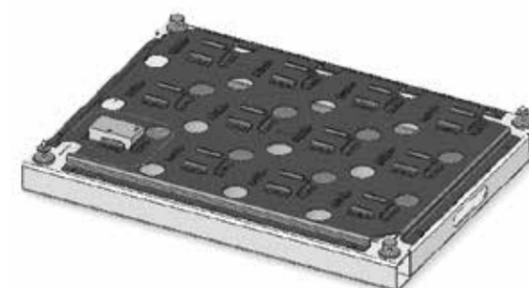
Item no. 132719



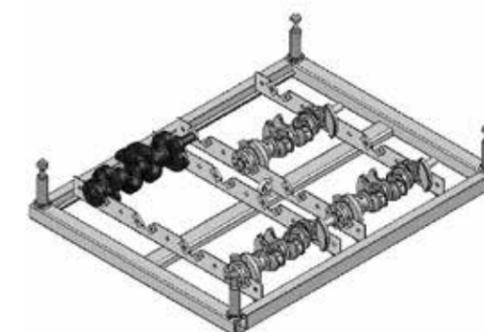
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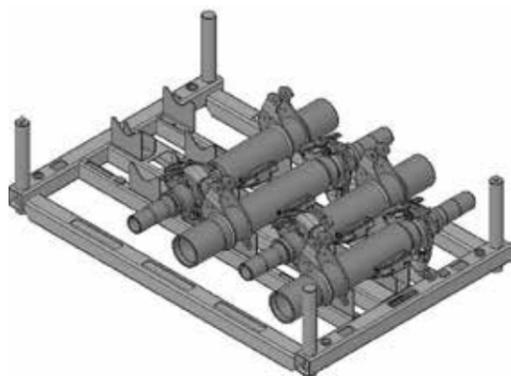
Item no. 141595



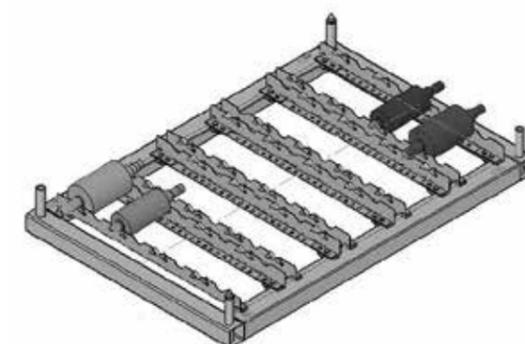
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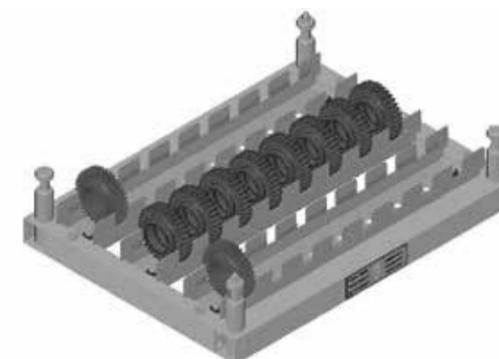
Item no. 133904



Item no. 128285



Item no. 131587



Item no. 139824



Scan for more

## COMPLETE SYSTEMS

**EVERYTHING  
FROM  
ONE SOURCE**



# COMPLETE SYSTEMS

KSY KLT

**KLT 600x400mm**

The products are perfectly coordinated so that problems with interfaces or compatibility are excluded.



Product	Item no.	Reference to	model
<b>Trolley</b>	137787 137786	see chapter Trolleys	
<b>Top tray for Trolley</b>	204787	see chapter Trolleys	
<b>Handle</b>	139211	see chapter Trolleys	
<b>Transport pallet</b>	143965	see chapter Transport Logistics	
<b>Lifters front loading</b>	135031	see chapter Lifters	
<b>Lifters side loading right</b>	133466	see chapter Lifters	
<b>Lifters side loading left</b>	133465	see chapter Lifters	
<b>Transport rack</b>	142984	see chapter Transport Logistics	
<b>Taxi cart</b>	138632	see chapter Transport Logistics	
<b>Portal wagon</b>	138056-3Zell	see chapter Transport Logistics	
<b>Supermarket</b>		see chapter Supermarket	
<b>Trolley parking</b>		see chapter Supermarket	

Other models / dimensions on request  
Subject to technical changes

Other models / dimensions on request  
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# COMPLETE SYSTEMS

## KSY GLT

### GLT 800x600mm

The products are perfectly coordinated so that problems with interfaces or compatibility are excluded.



Product	Item no.	reference to	model
Trolley	138158	see chapter Trolleys	
Transport pallet	143965	see chapter Transport Logistics	
Lifters front loading	137014	see chapter Lifters	
Lifters side loading right	140622	see chapter Lifters	
Lifters side loading left	137230	see chapter Lifters	
Transport rack	142984	see chapter Transport Logistics	
Taxi cart	138632	see chapter Transport Logistics	
Portal wagon	139571	see chapter Transport Logistics	
Supermarket		see chapter Supermarkets	
Trolley parking		see chapter Supermarkets	

# COMPLETE SYSTEMS

## KSY GIBO

### GIBO 1,200x800mm

The products are perfectly coordinated so that problems with interfaces or compatibility are excluded.



Product	Item no.	reference to	model
Trolley	145323	see chapter Trolleys	
Lifters front loading	137147	see chapter Lifters	
Platform taxi cart	133191	see chapter Transport Logistics	
Portal wagon	138270	see chapter Transport Logistics	
Supermarket		see chapter Supermarkets	
Trolley parking		see chapter Supermarkets	

## MORE PRODUCTS

**PERFECT ADDITION,  
AS UNIQUE  
AS YOUR BUSINESS**

## WORK STATION

APS

### ASSEMBLY, CONTROL, PACKAGING

The workstations are designed individually on customers request. So each one is a unique solution. They are available for standing or sitting work and can be equipped with a height-adjustable table. Electric and pneumatic power supply is possible. The workstations have integrated material provision resp. roller conveyors. Various options can also be included eg illumination, grab containers, information boards, footrests etc.



Item no. 139438



Item no. 211638

## MATERIAL PROVISION SHELVES

MBR

### FOR SUPERMARKETS OR PRODUCTION LINES

The shelf systems are manufactured on customers request and each one is unique. They are available stationary or with wheels. They are easy to adjust - so they can be adapted whenever need arises. The provision shelves are suitable for light and heavy loads and conveyor belts are also available for them. Grab containers can be positioned and moved very quickly.

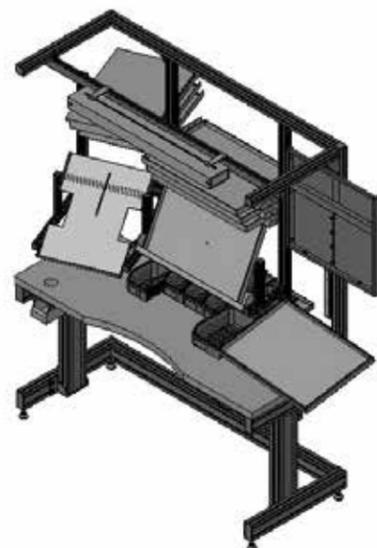
There is a wide range of accessories such as labeling, brakes, bridges etc.



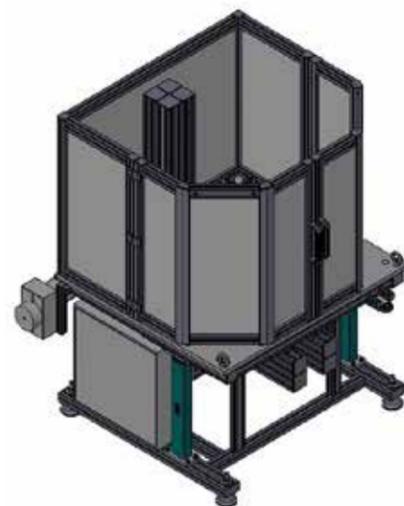
Item no. 138813



Item no. 138059



Item no. 138925



Item no. 138339



Item no. 140556

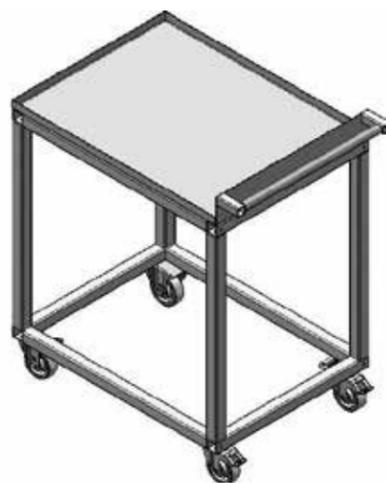
# MATERIAL CART

## MWA

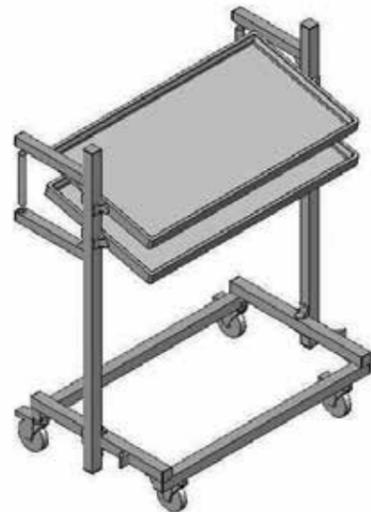
### ASSEMBLY, CONTROL, PACKAGING

The material cart is manufactured upon customers request so each one is unique. It is very flexible and can easily be adjusted at any time. The material cart is suitable for light and heavy loads and the different levels can be adjusted individually. Suspension devices for grab containers as well as traverses for long and limp goods are part of the material cart. On request it can be produced in an ESD-version.

There is a wide range of accessories such as labeling, brakes, bridges etc.



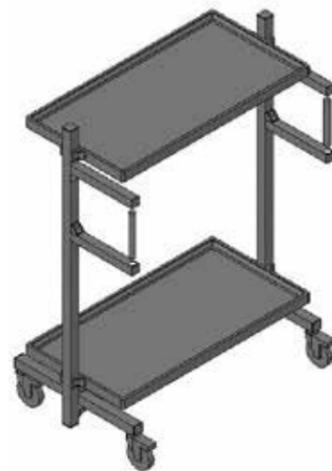
Item no. 211639



Item no. 137803



Item no. 139410



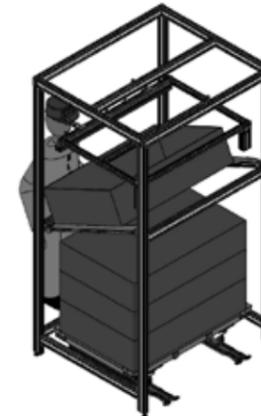
Item no. 211641

# MATERIAL PROVISION KARAKURI

## KBK

### SIMPLE MOVEMENT: EFFICIENT PROCESSES WITH KARAKURI LOW COST ANIMATION

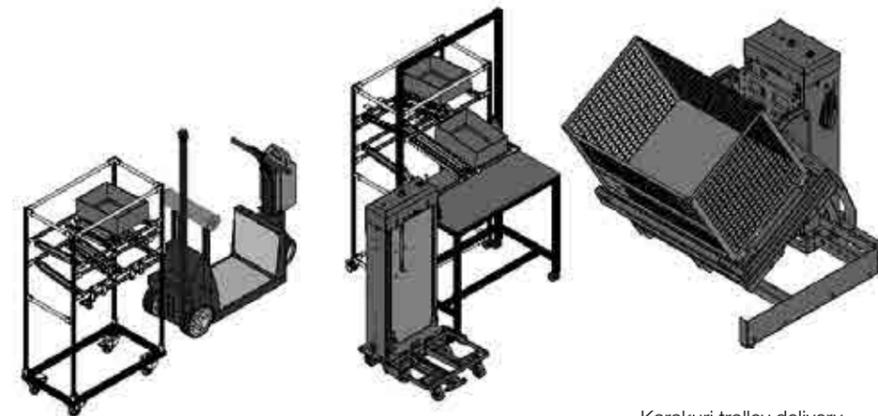
Karakuri/LCA is a central component of the lean philosophy and describes the simple but intelligent automation of processes based on physical principles - without drives, sensors, electricity or compressed air. Discover the potential of low-cost automation!



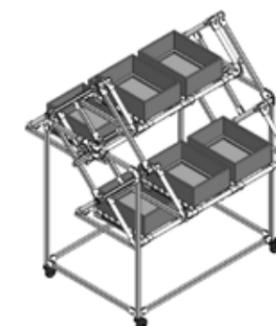
Item no. 218094 Box lifter



Item no. 214834 mobile flow rack



Karakuri trolley delivery



Item no. 214800 Karakuri-Paternoster



Video

# LEAN LOGISTICS 4.0

## Modern electronics create competitive advantages

**“Industry 4.0“ is a wide-spread subject in production and logistics. These areas are more and more digitalized and interconnected.**

That is why BLOKSMA has been involved already for some time with the implementation of modern electric elements in existing production and delivery programs. Thus we create possibilities for the automatic recognition of parts, data transfer, warehouse administration, progress control in production and much more. In cooperation with highly qualified network

partners we develop unique solutions for maximum value creation with very little resource input – we want you to be ahead of your competitors now and in many years to come.

Feel free to contact us!

# OUR PRODUCTS YOUR INDUSTRY



# LEAN 4.0





**BLOKSMA** – WE MAKE YOUR PRODUCTION FLOW.



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