

KDR – the live storage shelving system with diverse options

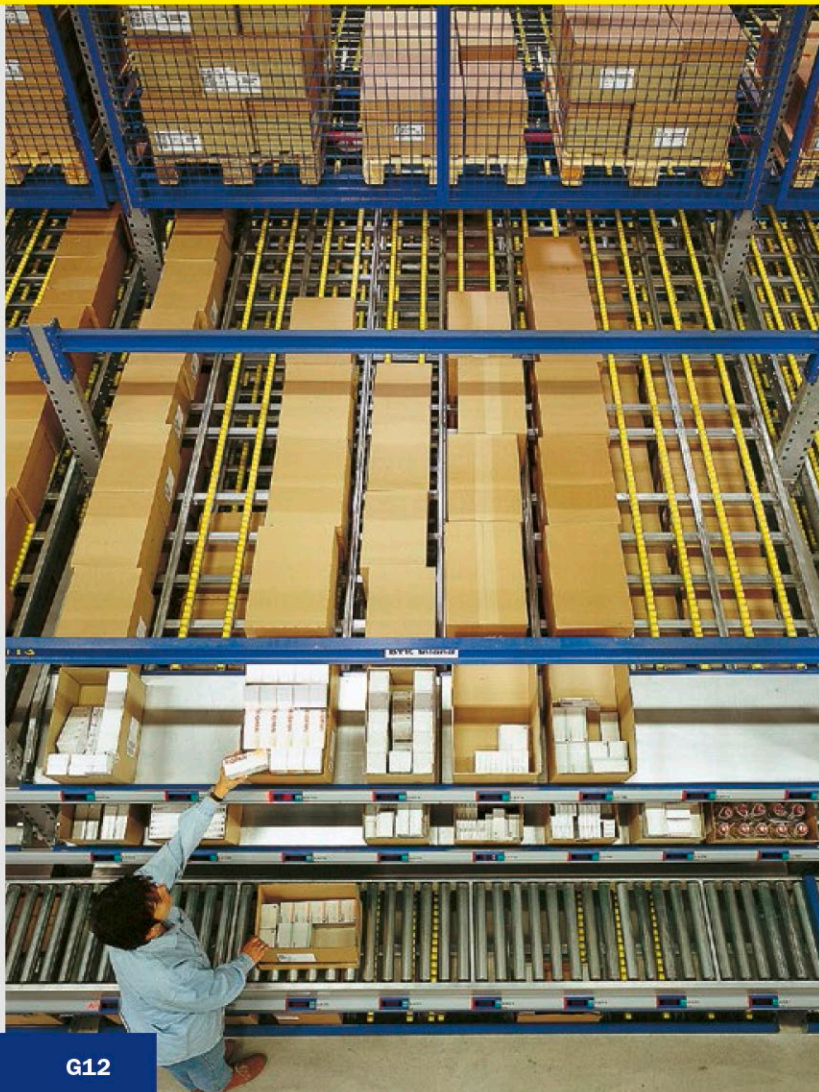
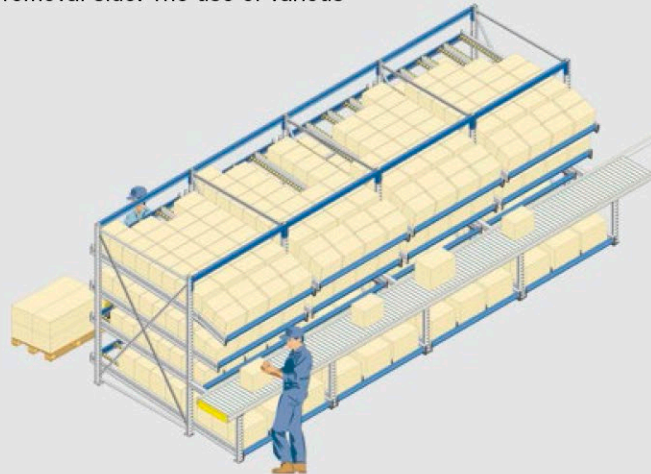
Stable and sturdy frames connected to reinforcing beams create a “rack scaffold” for fitting complete live storage shelving units. The height and angle of the flow beds can be quickly adjusted without screws using adjusting hooks in steps of 6.25 mm (post type P63/P65) or 12.5 mm (post type P73/P93) and also horizontally in 25 mm steps.

The staircase design of the flow beds with outfeed panels or enabled geometry can fulfill all ergonomic requirements.

Transverse transport conveyors can be connected cost-effectively using underlays placed on the supports.

Robust roller strips in various designs guarantee problem-free movement of the containers from the supply to the removal side. The use of various

separating strip systems enables the configuration of guides (channels) for the specific container types.



KDR system design – stationary

GENTIAN BLUE



Beams

GALVANIZED

Frame
Glide rails
Brackets
Adapter

- ▶ **High load capacity**
and high rigidity due to sturdy support,
60, 75 and 90 mm thick
- ▶ **System hole pattern**
in the support profiles with adjustment
spacing 50 : 50 mm
- ▶ **The best height and gradient
adjustment**
of the flow bed to the storage goods due
to the small hole pattern, e.g. 6.25 mm
- ▶ **Plug-in anti-lifting device**
- ▶ **Flexible and modular bold-free system**
due to adjustable rolls and partitions for
configuring channels with a spacing of 5 mm
per roll
- ▶ **Roller tracks for smooth conveying**
optionally with a load capacity of 5 kg and
12 kg
- ▶ **Can be combined**
with other SSI SCHAEFER rack systems
- ▶ **Easy connection**
to all conveyor systems
- ▶ **Vast range of accessories**

Starter and extension bay construction

The stationary design is available with either the starter or extension bay construction

Entering the supports to the floor prevents the fields from slipping and provides additional stability.

Anti-lifting
devices

Reinforcing
cross beam

Dividing rails

Roller tracks

Side profiles

Frame

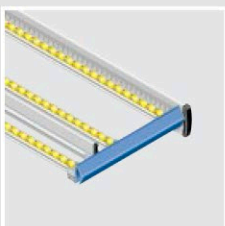
Flow bed, tilted

Flow bed,
flat/tilted

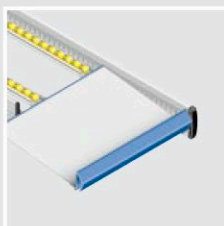
Flow bed, flat

Conveying
system supports

Label surfaces



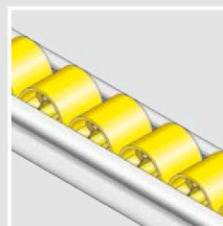
Flow bed, flat



Flow bed, flat/tilted



Flow bed, tilted



Roller track

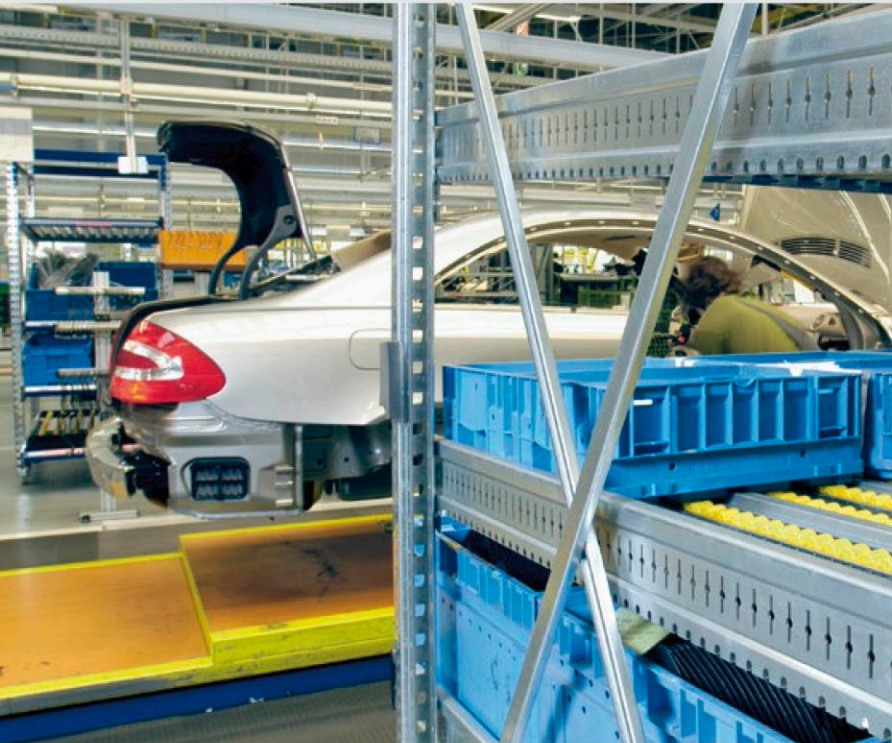


Dividing rail

Boxes /
containersModular
shelvingLongspan
rackingPallet
rackingCantilever
rackingMezzanines /
platformsOn-line shelving /
KDR shelvingSemi-automated
solutionsLogistics
systems

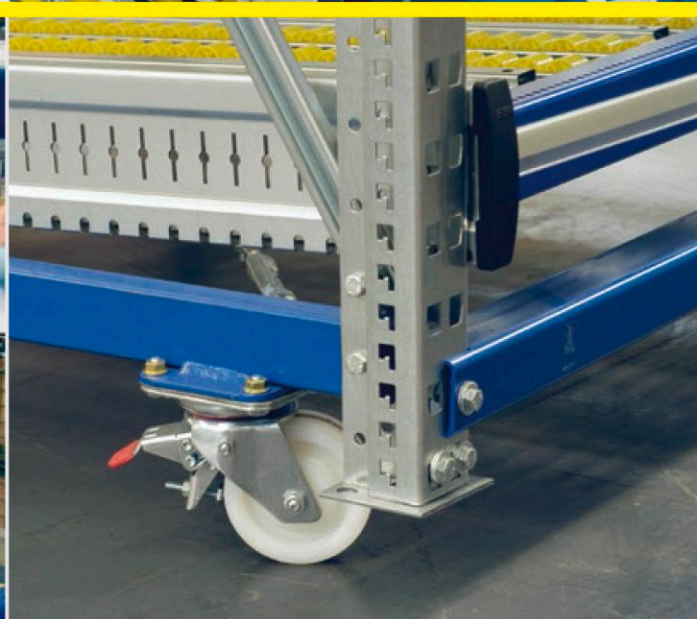
Appendix

KDR/KLT live storage works – the system for KLT containers



Further information about the KDR equipment

on request



GENTIAN BLUE

GALVANIZED



Beams
Lateral connectors
(front and rear)



Frame
Outfeed panel
Side profiles

- **High load capacity**
and high rigidity due to sturdy support, 60, 75 and 90 mm thick
- **System hole pattern**
in the support profiles with adjustment spacing 50 : 50 mm
- **The best height and gradient adjustment**
of the flow bed to the storage goods due to the small hole pattern, e.g. 6.25 mm
- **Plug-in anti-lifting device**
- **Flexible and modular bold-free system**
due to adjustable rolls and partitions for configuring channels with a spacing of 5 mm
- **Roller tracks for smooth conveying**
optionally with a load capacity of 5 kg and 12 kg
- **Can be combined**
with other SSI SCHAEFER rack systems
- **Easy connection**
to all conveyor systems
- **Vast range of accessories**

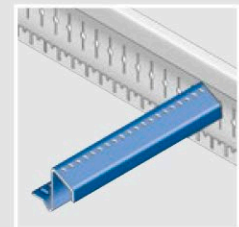
Starter bay construction

The movable units are constructed using starter bays.

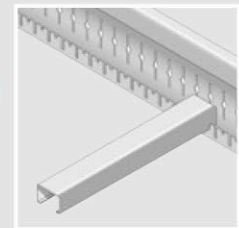
For containers with a "honeycomb base" (C-KLTs with grooves) and containers with a large stacking rim, there is a KLT model for the special requirements.



Lateral connectors, front



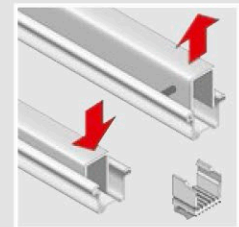
Lateral connectors, tilted



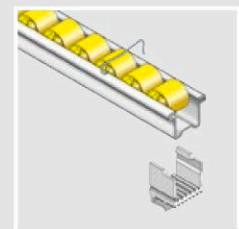
Lateral connectors, internal



Lateral connectors, rear KLT



Retractable dividing rail with docking clip



Roller track with brake clip and brake strap

Boxes / containers

Modular shelving

Longspan racking

Pallet racking

Cantilever racking

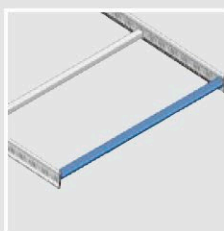
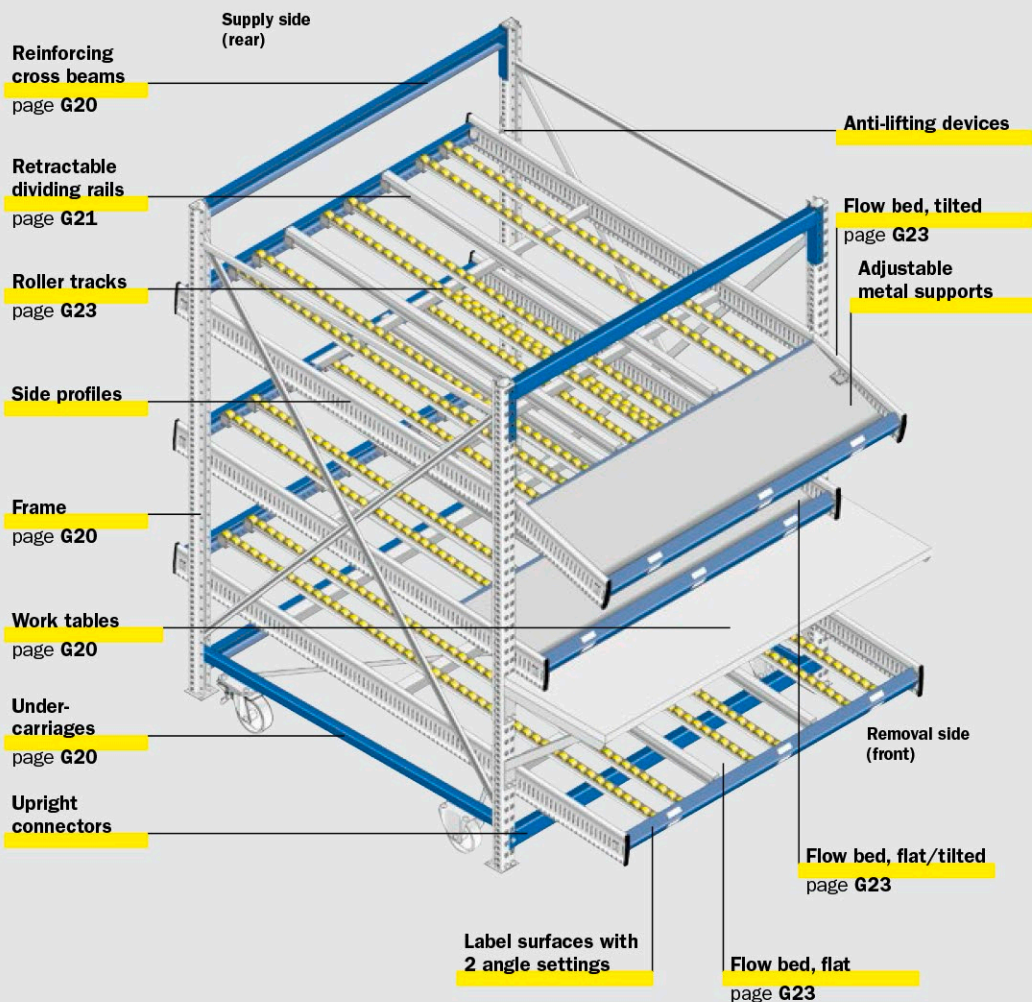
Mezzanines / platforms

On-line shelving / KLT shelving

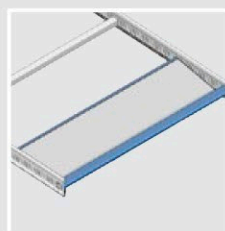
Semi-automated solutions

Logistics systems

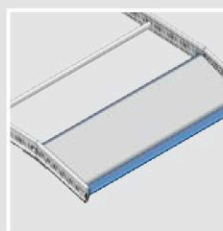
Appendix



Flow bed, flat



Flow bed, flat/tilted



Flow bed, tilted



Anti-lifting device Cover caps

KDR/KLT live storage shelving – conductive design (ESD) for protecting high-quality electronic components



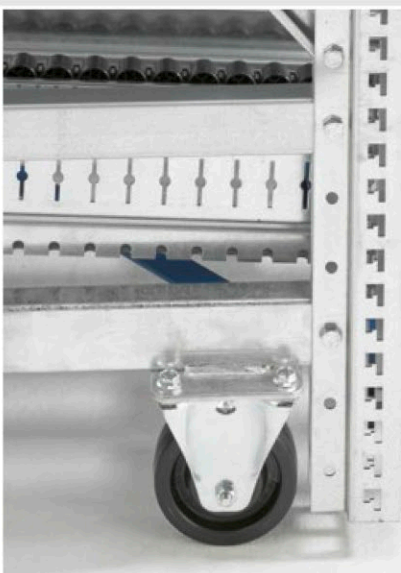
i Further information about KDR equipment with a conductive design (ESD)

on request

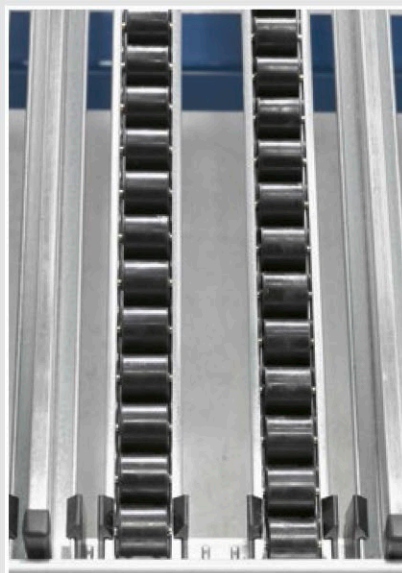
Protection against electrostatic discharge

Protection against electrostatic discharge creates special requirements for shelving equipment. According to EN 61340-5-1:2001 it is essential that all of the individual measures for handling these sensitive components are effectively coordinated with each other.

In particular, this applies to the packaging of the electronic components, the transport containers, the shelving equipment, the conduct of flooring or the Echo potential bonding and, not least, the protective clothing worn by the employees working in ESD areas.



Fixed castor, conductive



Dividing rails and conductive roller tracks



Swivel castor with stopper

GENTIAN BLUE



Beams

GALVANIZED



Frame
Lateral connector
Undercarriage traverses
Outfeed panels

- ▶ **High load capacity** and high rigidity due to sturdy support, 60, 75 and 90 mm thick
- ▶ **System hole pattern** in the support profiles with adjustment spacing 50 : 50 mm
- ▶ **The best height and gradient adjustment** of the flow bed to the storage goods due to the small hole pattern, e.g. 6.25 mm
- ▶ **Plug-in anti-lifting device**
- ▶ **Flexible and modular bold-free system** due to adjustable rolls and partitions for configuring channels with a spacing of 5 mm
- ▶ **Roller tracks for smooth conveying** with a load capacity of 12 kg
- ▶ **Highly conductive rollers** black, with steel axles
- ▶ **Can be combined** with other SSI SCHAEFER rack systems
- ▶ **Easy connection** to all conveyor systems
- ▶ **Vast range of accessories**
- ▶ **Quality tested and certified** by TÜV Rheinland



KDR/KLT system design for ESD version – with undercarriage

Boxes / containers

Modular shelving

Longspan racking

Pallet racking

Cantilever racking

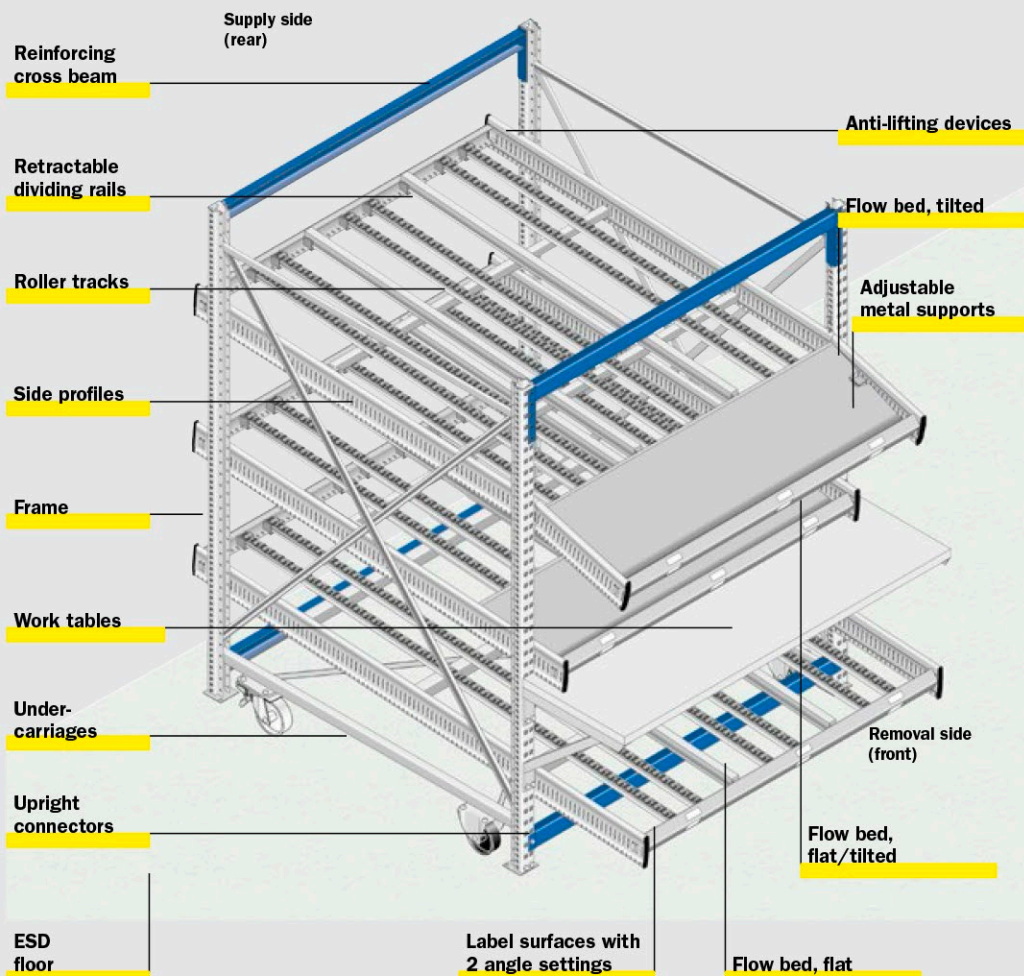
Mezzanines / platforms

On-line shelving / KLT shelving

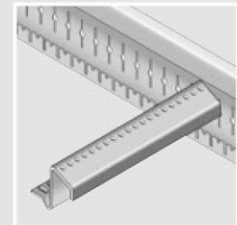
Semi-automated solutions

Logistics systems

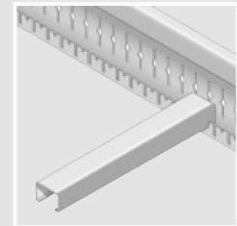
Appendix



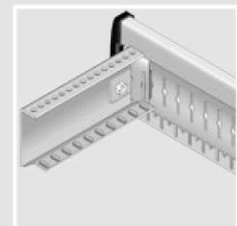
Lateral connectors, front



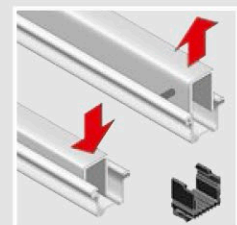
Lateral connectors, tilted



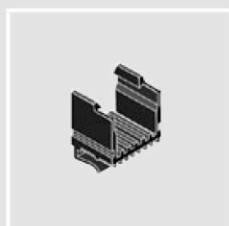
Lateral connectors, internal



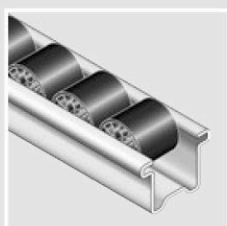
Lateral connectors, rear KLT



Retractable dividing rail with docking clip



Docking clip, conductive



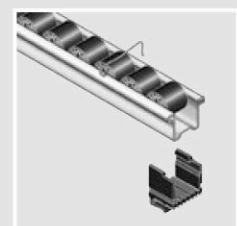
Roller track, conductive



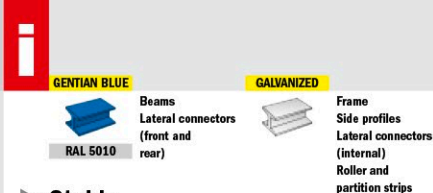
Fixed castor, conductive



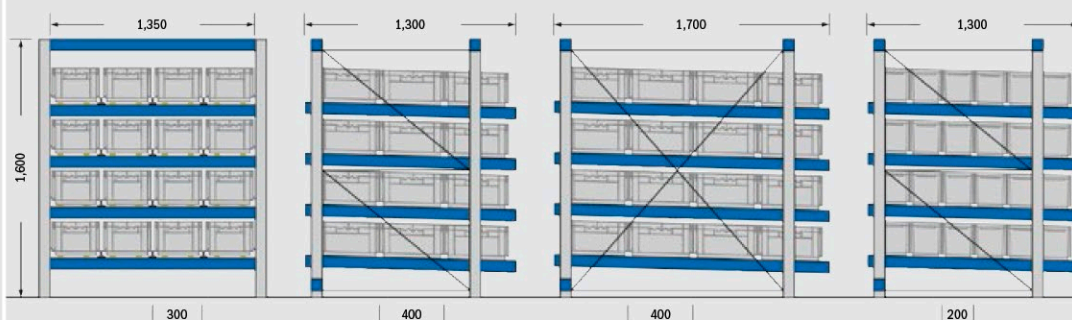
Undercarriage, conductive



Roller track with brake clip and brake strap



KDR live storage shelving with European dimensions – complete shelving units for container sizes 300 x 400 mm / 200 x 300 mm



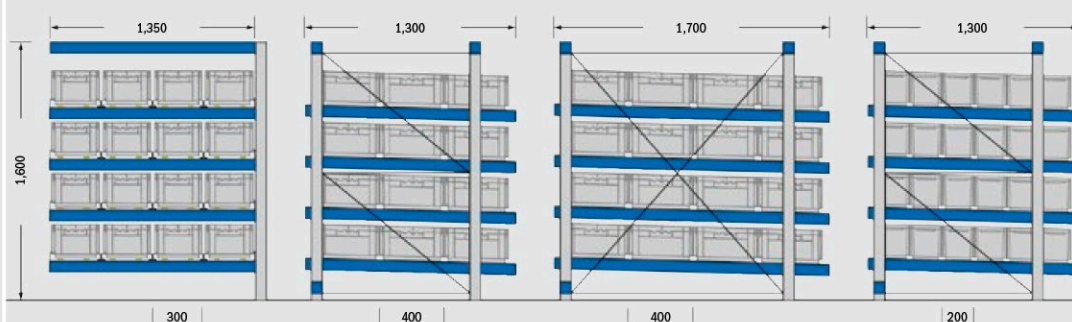
KDR complete shelving system – starter bays

Consisting of 2 frames and 3 reinforcing cross beams.

Equipment for each shelving field:
4 flat flow beds above each other;
8 roller tracks per flow bed, 28 mm divisions;
3 standard dividing rails per flow bed.

Clear field width 1,350 mm, clear channel width 310 mm,
total width 1,470 mm, height 1,600 mm

Item	Total depth (mm)	Load capacity live storage level (kg)	Flow bed version	Order no.
K-GF-1350-1300-4-BG01	1,300	180	Flat	464300
K-GF-1350-1700-4-BG01	1,700	270	Flat	464310
additional flow beds				
K-DLR-1350-1300-BG01	1,300	180	Flat	464320
K-DLR-1350-1700-BG01	1,700	270	Flat	464330



KDR complete shelving system – extension bays

Consisting of 1 frames and 3 reinforcing cross beams.

Equipment for each shelving field:
4 tilted flow beds above each other;
8 roller tracks per flow bed, 28 mm divisions;
3 standard dividing rails per flow bed.

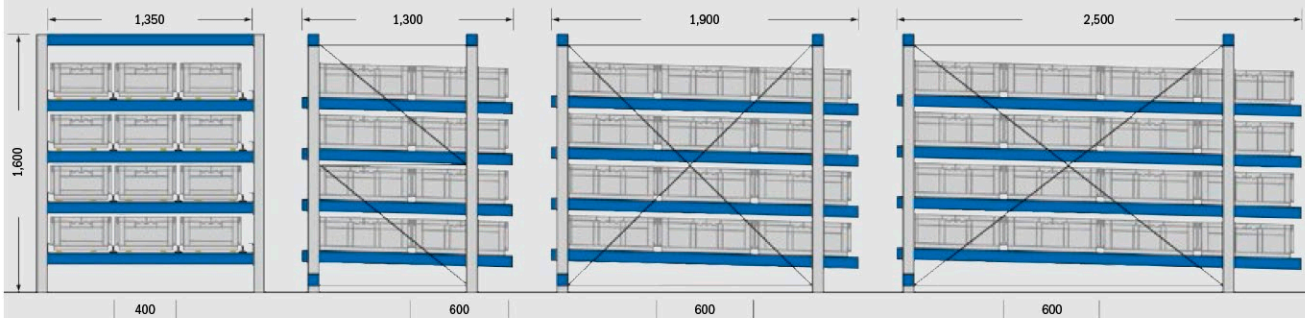
Clear field width 1,350 mm, clear channel width 310 mm,
total width 1,410 mm, height 1,600 mm

Item	Total depth (mm)	Load capacity live storage level (kg)	Flow bed version	Order no.
K-AF-1350-1300-4-BG01	1,300	180	Flat	464340
K-AF-1350-1700-4-BG01	1,700	270	Flat	464350
additional flow beds				
K-DLR-1350-1300-BG01	1,300	180	Flat	464320
K-DLR-1350-1700-BG01	1,700	270	Flat	464330

Order no. = on stock

- **Flow bed, flat**
 angle adjustable in 6.25 mm states
 depth adjustable in 25 mm steps,
 can also be used as a return level

KDR live storage shelving with European dimensions – complete shelving units for container sizes 600 x 400 mm



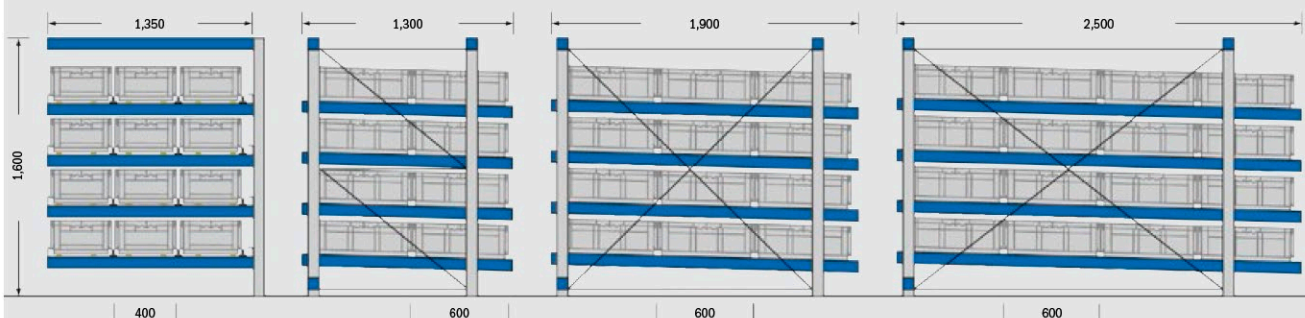
Clear field width 1,350 mm, clear channel width 410 mm,
total width 1,470 mm, height 1,600 mm

Item	Total depth (mm)	Load capacity live storage level (kg)	Flow bed version	Order no.
K-GF-1350-1300-4-BG02	1,300	180	Flat	464360
K-GF-1350-1900-4-BG02	1,900	270	Flat	464370
K-GF-1350-2500-4-BG02	2,500	360	Flat	464380
additional flow beds				
K-DLR-1350-1300-BG02	1,300	180	Flat	464390
K-DLR-1350-1900-BG02	1,900	270	Flat	464400
K-DLR-1350-2500-BG02	2,500	360	Flat	464410

KDR complete shelving system – starter bays

Consisting of 2 frames and 3 reinforcing cross beams.

Equipment for each shelving field:
 4 tilted flow beds above each other;
 6 roller tracks per flow bed, 28 mm divisions;
 3 standard dividing rails per flow bed.



Clear field width 1,350 mm, clear channel width 410 mm,
total width 1,410 mm, height 1,600 mm

Item	Total depth (mm)	Load capacity live storage level (kg)	Flow bed version	Order no.
K-AF-1350-1300-4-BG02	1,300	180	Flat	464420
K-AF-1350-1900-4-BG02	1,900	270	Flat	464430
K-AF-1350-2500-4-BG02	2,500	360	Flat	464440
additional flow beds				
K-DLR-1350-1300-BG02	1,300	180	Flat	464390
K-DLR-1350-1900-BG02	1,900	270	Flat	464400
K-DLR-1350-2500-BG02	2,500	360	Flat	464410

KDR complete shelving system – extension bays

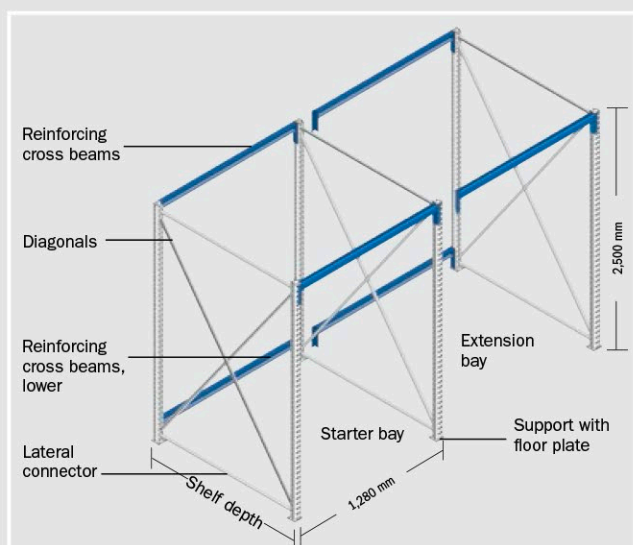
Consisting of 1 frames and 3 reinforcing cross beams.

Equipment for each shelving field:
 4 tilted flow beds above each other;
 6 roller tracks per flow bed, 28 mm divisions;
 3 standard dividing rails per flow bed.

Boxes /
containersModular
shelvingLongspan
rackingPallet
rackingCantilever
rackingMezzanines /
platformsOn-line shelving /
KDR shelvingSemi-automated
solutionsLogistics
systems

Appendix

System components

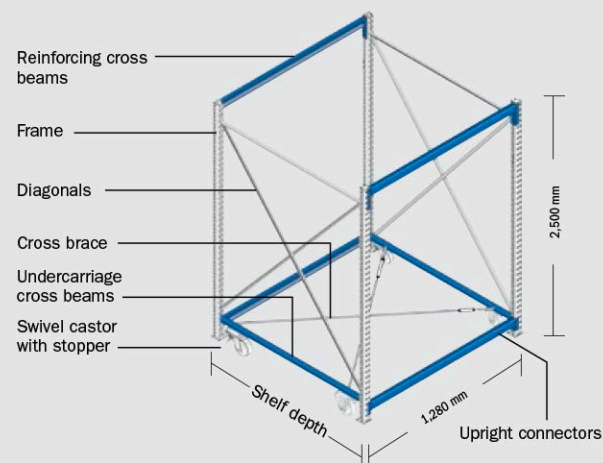
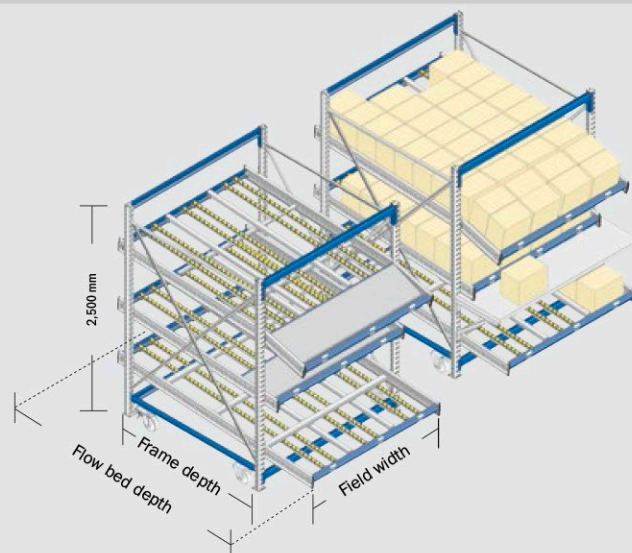
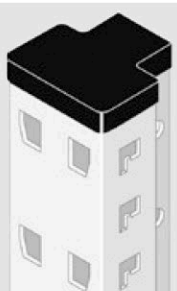


Starter and extension bays

Starter bays consisting of 2 frames and 3 horizontal beams; extension bays consisting of 1 frame and 3 horizontal beams.

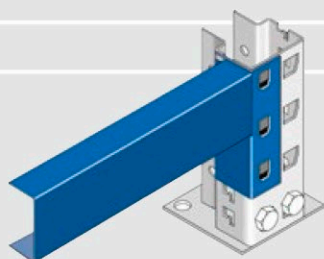
Cover caps

High-quality black plastic. Attached to the rack frames as an end piece.



Starter bay with undercarriage

Consisting of 2 frames and 2 cross beams, 2 upright connectors, 2 undercarriage cross beam, 1 cross brace, 2 fixed and 2 swivel castors with stoppers. Load capacity per rack field with undercarriage max. 1,600 kg.

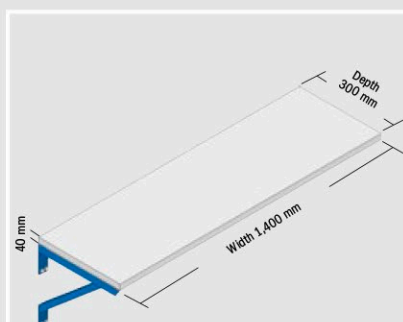


Reinforcing cross beam (U-profile) for support profiles P 63, P 65 and P 73

Reinforcing cross beams and supports form a separate unit. This separates the supporting shelving construction from the live storage levels. As a consequence, a level can be adjusted without having to first empty the entire shelving.

The cross beams only serve to reinforce the bracket construction and are not intended for storing pallets. Additional reinforcing cross beams at the rear are fitted on the rear in accordance with the static requirements.

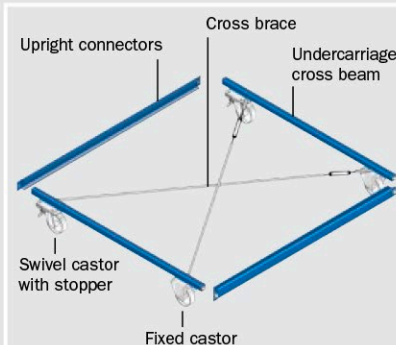
Surface finish: Gentian Blue, RAL 5010.



Work table

For pre-assembly or storage.
2 cantilever supports and 1 multiplex board, 40 mm thick.

Cantilever surface finish: Gentian Blue, RAL 5010.



Undercarriage

Enables easy relocation of starter bays.

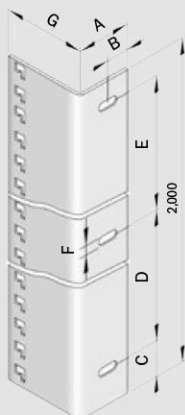
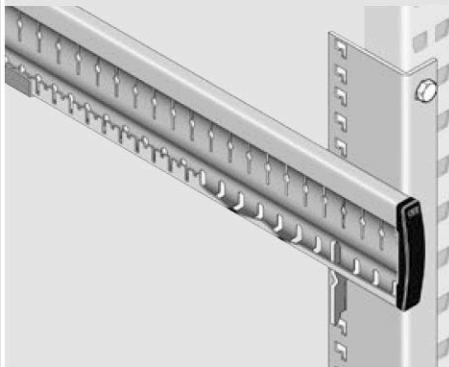
Equipped with 2 upright connectors, 2 undercarriage cross beam, 1 cross brace, 2 fixed castors and 2 swivel castors with stoppers.

Load capacity per shelving field with undercarriage: max. 1,600 kg.

Surface finish: Gentian Blue, RAL 5010.

- Can be combined with existing pallet racking systems
- Shorter paths
- Time savings
- Better ergonomics and rapid access
- Clear product range
- Goods automatically resupply
- First-in-First-out
- Separate supply and removal procedures

KDR adapter solutions for pallet racking systems, partition strips



Support adapter, left

Flow bed, flat/tilted

Flow bed, flat

Support adapter, right

Total rack frame depth

Support adapter

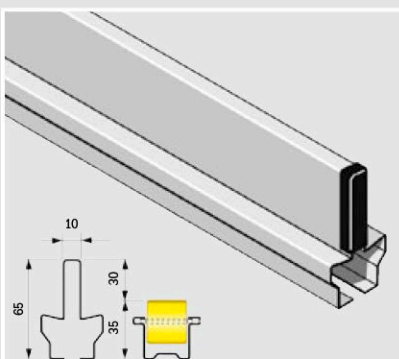
For fastening on rack supports of existing pallet racking systems – PR 350 and third-party brands. For quick and easy retrofitting with flow beds.

The profiles of the support adapters are individually adapted to the pallet racking stands.

Articles upon request.

When submitting an inquiry, please specify the following dimensions and existing rack brand/type:

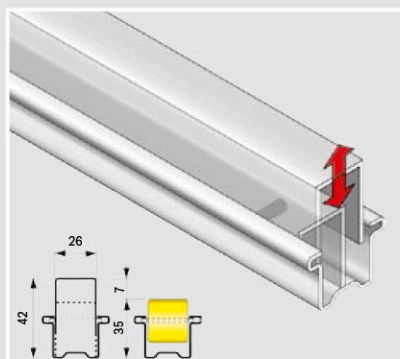
Dimensions	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)



Standard dividing rails

Made of steel, prevent two stored items running next to each other from jamming. They can be adjusted in 5.0 mm steps and are equipped with protective plugs to prevent hand injuries.

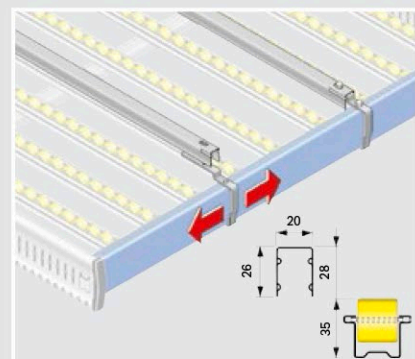
Surface, galvanized.



Recessed dividing rails

For the universal use of KLT containers.

Surface, galvanized



Multi dividing rails/clips

Multi dividing rails can be adjusted horizontally in 10 mm steps. Ideal in combination with a roller carpet for frequently changing storage items.

Surface, galvanized



Further information about the KDR equipment

on request

Boxes /
containers

Modular
shelving

Longspan
racking

Pallet
racking

Cantilever
racking

Mezzanines /
platforms

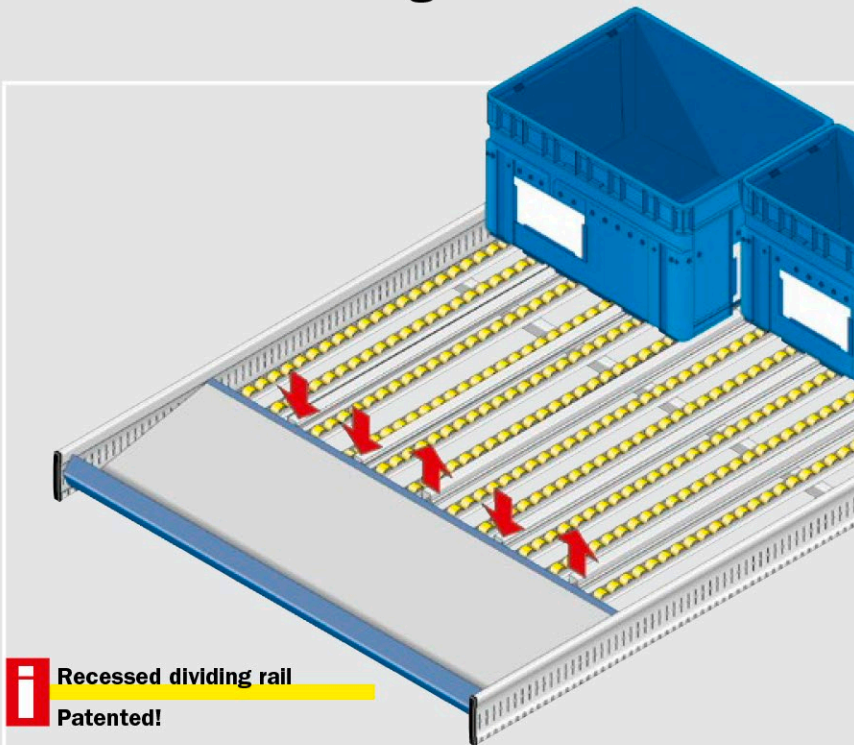
On-line shelving /
KDR shelving

Semi-automated
solutions

Logistics
systems

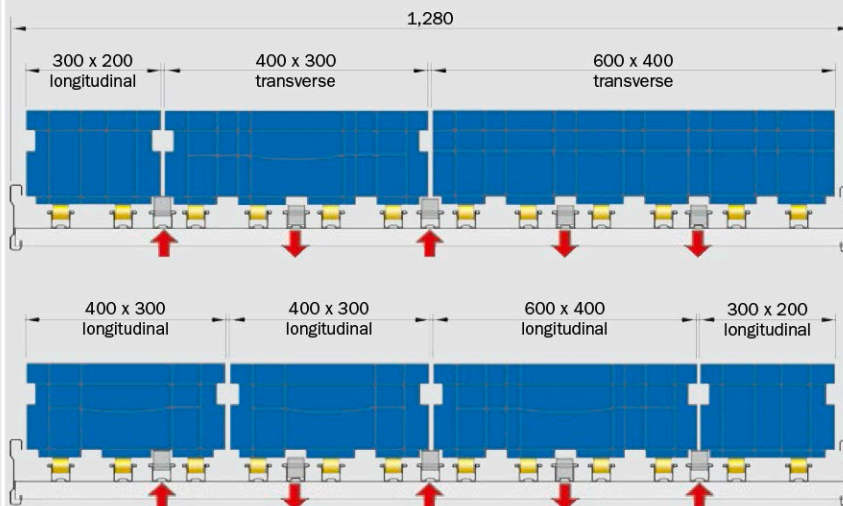
Appendix

KLT flow bed with resist dividing rail



i Recessed dividing rail
Patented!

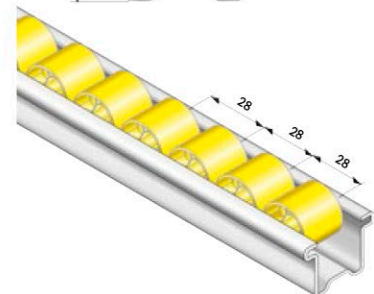
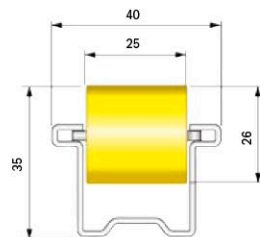
Example for clear field width of 1,280 mm



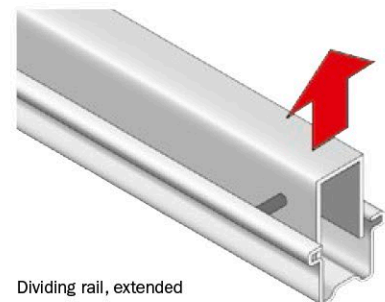
Retracting or extending the dividing rail enables containers with different dimensions to be mixed on one level



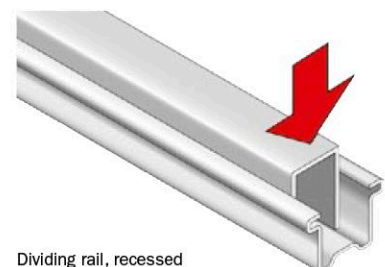
- **Always the right channel widths**
for system containers with 200/400 mm or 300/600 mm standard dimensions through the use of partition strips that can be recessed quickly and without using tools. There is no need to move the partition or roller tracks.
- **Harmonized rack dimensions**
for all KLT container sizes
- **Easy assembly and adjustment using the bold-free system**
- **Usable without conversion**
as a conventional live storage shelving
- **Harmonized system profiles**
prevent the container base from jamming
- **Gradient and height adjustment**
in 6.25 mm steps
- **Without depth restriction**
when adjusting the gripping curve
- **Flow bed with plug-in anti-lifting device**
- **Locking spreader for roller tracks**
- **Roller tracks**
optionally with steel axle, 12 kg load capacity per roller



► Recessed dividing rail



Dividing rail, extended



Dividing rail, recessed

YELLOW YELLOW BLACK ESD



Plastic axle

Steel axle

Steel axle

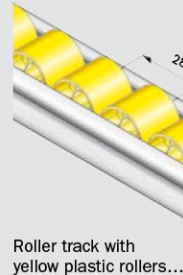
- **Rigid rail profile**
with spreading reinforcement made of galvanized sheet steel
- **Sturdy and durable rollers**
made of high quality plastic, roller spacing 28 mm
- **Honeycomb-shaped roller reinforcing**
for very good shape stability and smooth conveying
- **High load capacity**
5 kg per roller or 12 kg per roller for the version with a steel axle
- **Also usable in deep-freeze areas down to -30° C**
- **Long service life**

Roller tracks

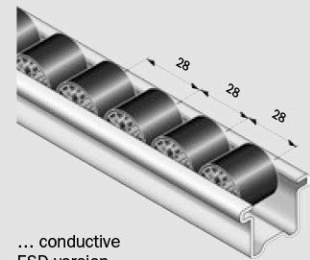
The roller load capacity is 5 kg for the version with a plastic axle and 12 kg for versions with a steel axle. The roller tracks are available in lengths from 195 to 6,495 mm in 25 mm steps.

We are happy to provide you with prices above 50 m on request.

Item	Version/ rollers with	Order no.
K-R 28 K	Plastic axle	K-R28K
K-R 28 S	Steel axle	K-R28S
K-R 28 S-ESD	Steel axle	K-R28SESD



Roller track with
yellow plastic rollers...



... conductive
ESD version

Item	Length (mm)	Order no.
K-EH-0880	780	442518
K-EH-1080	980	442538
K-EH-1280	1,180	442558
K-EH-1350	1,250	442565
K-EH-1800	1,700	442610
K-EH-2200	2,100	442650
K-EH-2700	2,600	442700

Label holder

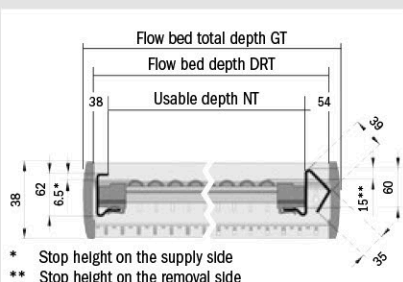
Self-adhesive plastic label holders, total height 33 mm (for label height 30 mm). Without label inserts.

Other versions available on request.

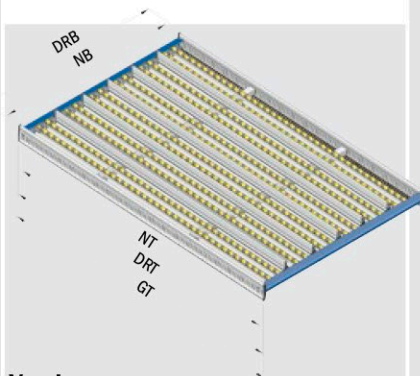


Order no. = on stock

Flow beds with roller tracks and dividing rails – configuration examples

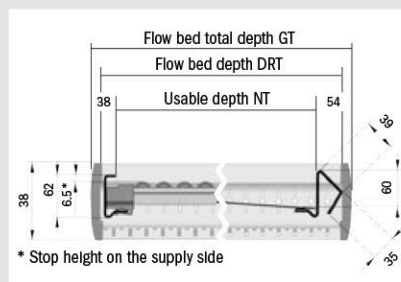


* Stop height on the supply side
** Stop height on the removal side

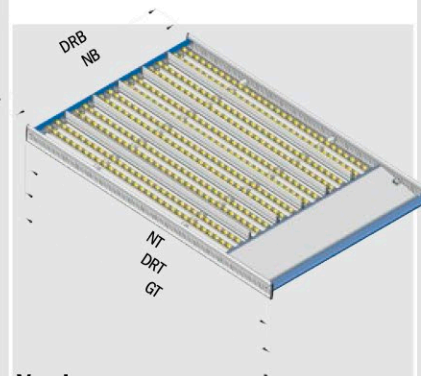


Version Flat K-D

Equipped with 12 roller and 5 recessed dividing rails, including adjustment hooks.

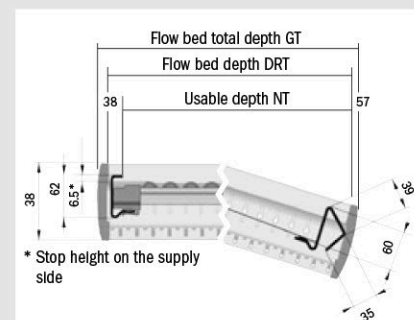


* Stop height on the supply side

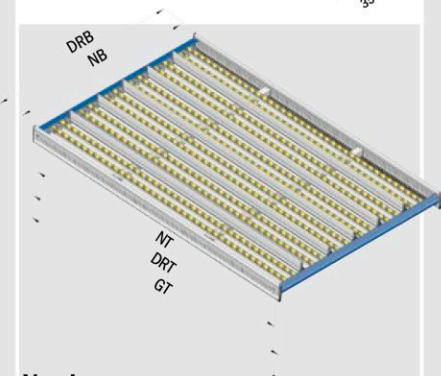


Version Flat/tilted K-DGK

Equipped with 12 roller and 5 recessed dividing rails, including adjustment hooks.



* Stop height on the supply side



Version Tilted K-DK (10° – 16°)

Equipped with 12 roller and 5 recessed dividing rails, including adjustment hooks.

Boxes /
containersModular
shelvingLongspan
rackingPallet
rackingCantilever
rackingMezzanines /
platformsOn-line shelving /
KDR shelvingSemi-automated
solutionsLogistics
systems

Appendix

Various areas of use for KDR – application examples

The advantages of live storage shelving:

- ▶ Rapid order picking by shortening the access paths, organized, clear, more compact storage, increased automation and reduction of movement paths by 85%.
- ▶ Larger storage capacity in the same area by eliminating shelving aisles.
- ▶ No out-of-date goods thanks to the first-in-first-out principle (FIFO). The stored goods always roll automatically to the removal side on roller strips that act as rails.
- ▶ Fewer order picking mistakes due to compact product overview.
- ▶ Clear separation of supply and removal procedures; order picking is never interrupted by supply activities.
- ▶ Short, ergonomic access paths.
- ▶ Easy connection to conveying and handling technology.
- ▶ Easy handling due to the use of rollers.





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containers

Modular
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Semi-automated
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Logistics
systems

Appendix