

Rollex dynamic storage technology













Introduction

Rollex Förderelemente GmbH & Co. KG provides solutions of efficient "Dynamic Storage" for over 30 years. The product range spreads from complete flowthrough- and pushback-racks over premounted components up to individual parts for self-assembly. Additional services as blueprinting, testing, delivery and on-site-assembly make the offer complete.

The name **Rollex** stands for quality and reliability in the field of conveying components:

- We develop economic solutions to gain distinctly sinking storage costs
- We aim at maximum utilisation of limited storage capacity and observe the requested storage concept ("First-In-First-Out" or "Last-In-First-Out")
- Our solutions result in perceptibly increasing speed at storing as well as a considerably better warehouse organisation

Appropriate to your individual demands we offer everything from layout over production, delivery, assembly to launch from one source.

We are looking forward to your challenges!

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Applications of dynamic storage

Dynamic storage

Processing goods in many fields has developed from mere static stocking to dynamic storage. The simple compartment storage has its advantage at large variety of items and small stocks — nevertheless with low variety and high amounts of goods stored on a pallet or concerning requirements, that strictly demand the FiFo-concept the dynamic storage fully plays on its strength.

The main advantages of dynamic storage

- · optimum utilisation of available space
- shorter ways of deposit and removal
- strictly keeping the requested storage concept (FiFo / LiFo)
- · better organisation of good with high turnover

Intralogistic buffer stock

The advantages of dynamic storages are increasingly adopted in the design of internal buffer stocks. Providing and discharging of goods between departments or workstations, machines, dispatch areas, etc. can be more efficient and with lower error rate.

Therefore we choose from a wide range of different roller- and minirals of various materials with different strength, properties and accessories.

Load carrier - decisive for the type of solution

The type of solution highly depends on the load carrier. Form and constitution of the contact area has major influence on the rolling performance.

Load carrier	Carton	Plastic container	Pallet	Special pallet	Lattice box
Weight	10			N. Comments	1
Up to 50 kg	Type 726	Type 726	Type 720/750	Type 720/750	Type 720/750
Up to 100 kg		Type 720/723	Type 720/750	Type 720/750	Type 720/750
Up to 500 kg			Type 720/750	Type 720/750	Type 750
Up to 1.000 kg			Type 750	Type 750	Type 750
More than 1.000 kg			Type 750	Type 750	Type 750

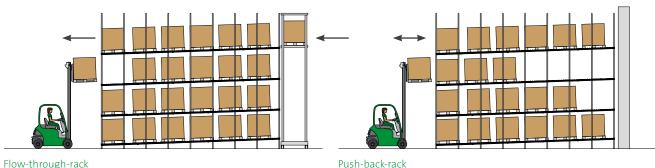


Storage concept FiFo / LiFo

FIFO (First In - First Out) Flow-Through-Rack

The charge is deposited moveable on gravity conveyor rollers and transported without any additional energy – by gravity only – to the position for removal.

- easy supervision of expire date
- no IT-control necessary, concept runs automatically
- short operation ways for commission of orders
- space-saving compared to other storage concepts
- optimum utilisation of rack space
- spatial separation between deposit and removal optimises workflow and use of space
- · permanently high filling level at removal: the charge will move up automatically after picking
- the application of a separator at removal reduces the accumulation pressure and in this way allows the safe and convenient removal of the foremost load carrier



Flow-through-rack

LIFO (Last In - First Out) - Push-Back-Rack

Push-back-racks work on the LiFo-concept. So the charge deposited at last will be removed first. Up to six pallets of 1.000 kg weight can be inserted into the aisle by a forklift. A separation and decelaration is usually not necessary which leads to appreciable cost advantage compared to flow-through-racks.

Advantages

- · optimum utilisation of space
- deposit and removal at the same site allows positioning the rack close to the building wall



Brake [conveyor] roller Type 700

Brake rollers resp. brake conveyor rollers regulate the speed on the roller conveyor; they keep the charge at a constant velocity.

This is done by a planet gear pressing centrifugal brake shoes against the tube body – actually with a brake-force proportional to the applied rotation.

The distance of the brake rollers and the appropriate type of brake roller are determined by several factors:

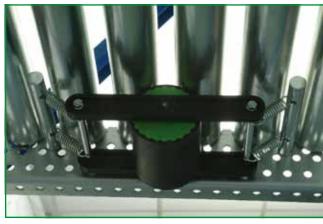
- design and functional performance of the roller conveyor
- inclination of the roller conveyor
- character of the charge (size, weight, sensitivity, material of the runners)
- inherent mechanical resistance of the brake roller
- environmental conditions like wetness, cold or heat

One brake roller is required each pallet place; by this a regulated speed can be achieved. The processing velocity should not exceed 0,3 m/sec.

With appropriate position of the brake rollers it will reach only 0,1 - 0,2 m/sec.

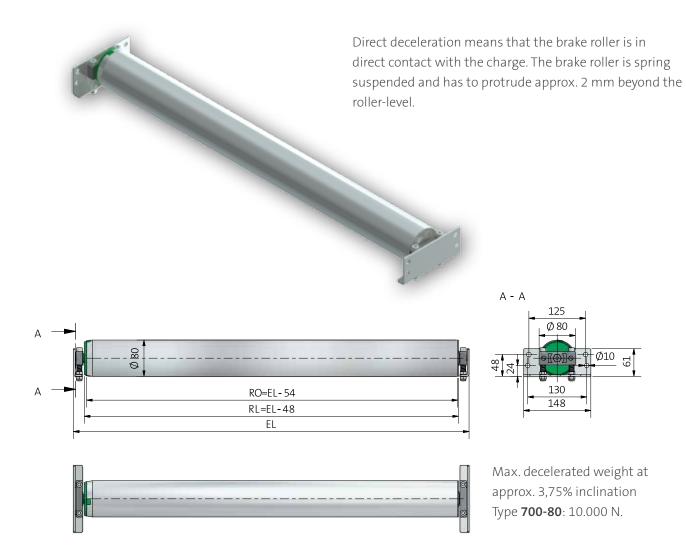


Type 700



Type 710





Mounting example



Order number

Item	Description
LB040I	brake conveyor roller Type 700-80x2 EL=872 mm incl. fixing material
LB04001	brake conveyor roller Type 700-80x2 EL=1.072 mm incl. fixing material
LB04011	brake conveyor roller Type 700-80x2 EL=1.272 mm incl. fixing material

Standard version with galvanised roller - further EL on request



Type 710 – Brake roller

The indirect deceleration is preferable in many cases, since the contact to the pallet is generated by two conveyor rollers.

Four springs ensure this contact.

To establish a better contact between brake roller, conveyor roller and pallet a friction-tape can be applied to the conveyor rollers in the range of the brake roller.

Max. decelerated weight at approx. 3,75% inclination

Type 710-86: 5.000 NType 710-120: 10.000 N



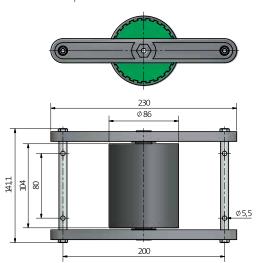


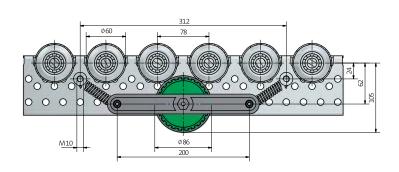
Type 710 - Brake roller

Type **710-86**

Max. decelerated weight at approx. 3,75% inclination with Type 710-86: 5.000 N. To ensure the proper function of the brake roller, weights of not less than 400 N should be decelerated.

Order example: 710-86

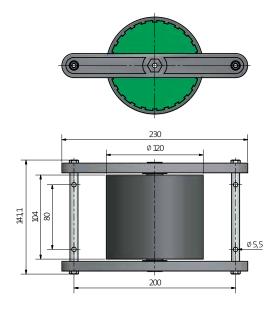


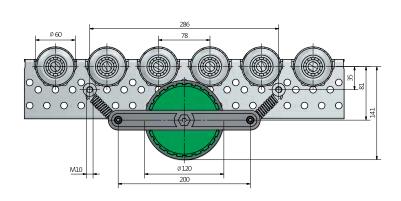


Type **710-120**

Max. decelerated weight at approx. 3,75% inclination with Type 710-120: 10.000 N. To ensure the proper function of the brake roller, weights of not less than 400 N should be decelerated.

Order example: 710-120







The pallet rail Type 720 is a universal roller rail which is frequently used for pallet transport. Roller tracks for europallets, boxes and other carriers with roller rail approved surface are simply built of this item.

Equally for intralogistic, linking workspace or lateral guide – the pallet rail Type 720 is of versatile use.

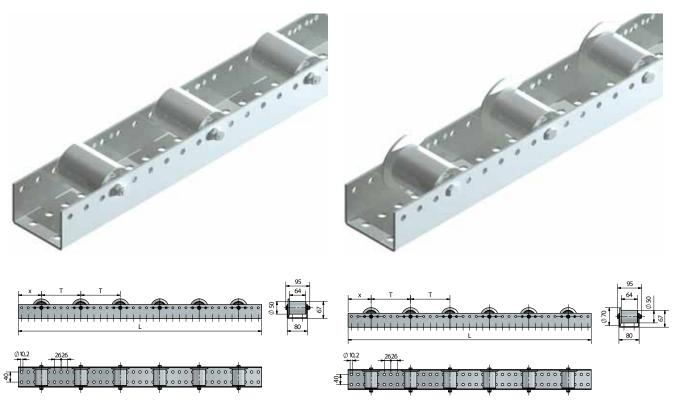
The pallet rail consists of a sendzimir galvanised U-profile, 55 mm high and 80 mm in width. The profiles are equipped with rollers \emptyset 50 mm in a pitch of 52, 78, 104, 130, 156 mm etc.

Two additional holes in the bottom serve for mounting the rail onto a frame or directly to the ground.

Wy: 4,6 cm3

ly: 17 cm4

Available up to 6.006 mm increment 26 mm, intermediate on request (surcharge).



Pallet rail Type 720 - Technical Data

Applications	Pallettransport, intralogistic, linking of workspace, lateral guide
Rail material	sendzimir galvanized U-profile
Load capacity per roller	steel roller 150 kg/pcs.
Moment of resistance – in cm³	4,6
Diameter in mm	50
Pitch in mm	52, 78, 104, 130, 156, etc.



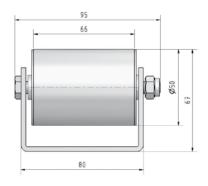
Type 720 - Accessories

720 Profile

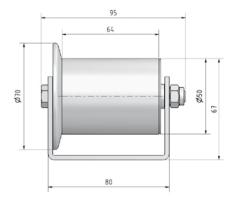
Order example: 720 Profile L = 2.444



720 - 200-50x1.5 STI



720 - 200-50x1.5 STI SK





Pitch

52, 78, 104, 130, 153 increment 26 mm

Roller type

SK – flanged roller without designation – standard

Length

Available up to 6.006 mm, increment 26 mm

Order example









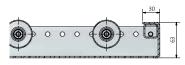




Type 720 - Accessories

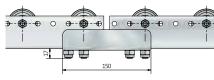
720 Roller protection





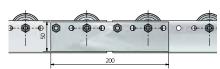
720 Connector U





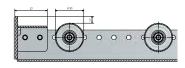
720 Connector side





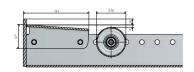
720 End stopper



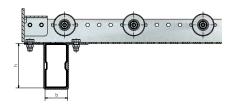


720 End stopper friction



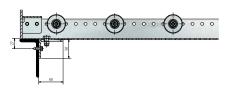


720 Fixing clip



Please give dimensions of rack beam when ordering e.g.: Fixing clip 100 x 50 for a beam with h = 100 mm and b = 50 mm (required when ordering, if req. drawing of beam)

720 Fixing angle



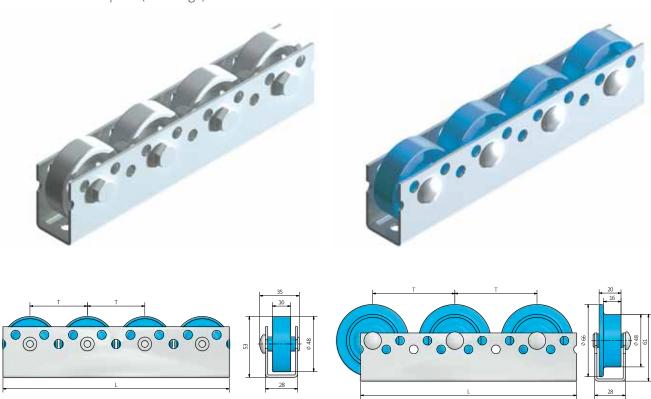


The roller rails consists of a cold-rolled, sendzimir galvanised steel profile of 2 mm thickness. The profile has laterally two distinct series of holes at different heights with a pitch of 25 mm. The diameter is 8,1 mm.

The design of the rail allows to fix the \emptyset 48 mm roller either with tubular rivets (standard) or bolts M8 in a screen width of 50 mm, 75 mm, 100 mm etc.

Several rollers can be placed side by side in one, two, three or more rails. Furthermore the rollers can be placed with offset and different roller types can be combined.

Available up to 6.000 mm Increment 25 mm – 3 mm offcut Intermediate on request (surcharge)



Roller rail Type 723 - Technical Data

Applications	carton- & plastic box transport, flow-throug-rack, commissioning store, guide, assembly maschines
Rail material	galvanised steel profile
Load capacity per roller	plastic roller 10 kg
	steel roller 20 kg
Moment of resistance – in cm³	2,2
Diameter in mm	48
Length in mm	6.000
Pitch in mm	50, 75, 100, usw.



Pitch:

50, 75, 100, 125, 150 increment 25 mm

Roller type:

A – All-side roller
K – plastic roller
SPK – flanged roller - plastic
SPS – flanged roller - steel
w. d.* – steel roller

Position hole series

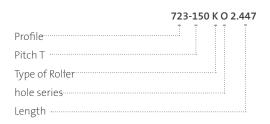
O – upper series w. d.* – lower series (Standard, except for flanged rollers)

Length

Available up to 6.000 mm Total length: x × 25 mm – 3 mm offcut

723 Profile

723 End stopper





^{*} without designation

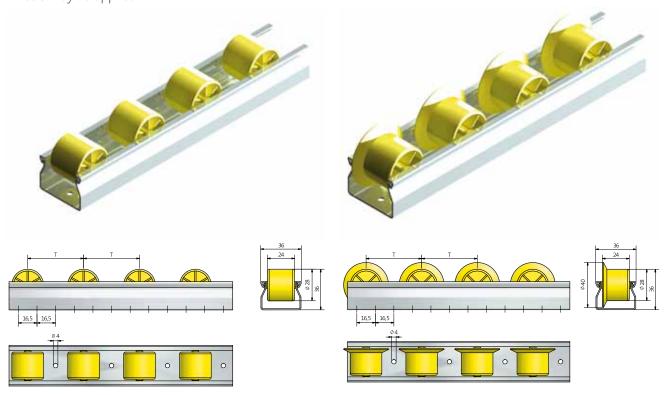


The main field for minirals is the use in flow through-rack. Also, the stable running of transport boxes and cartons allows various applications.

- guiding rails for conveyors
- rail-tracks and rail-carpets for linking workstations
- Packing and commissioning tables
- assembly aid, e. g. in wood-processing and window production

The steel shaft of the wheel warrants high load capacity and a very low frictional resistance. The wheels consists of high-quality thermoplastic resin, which is impact-resistant. The material is resistant against acids and lyes and does not absord moisture.

The torsion-resistant miniral-profile is a rolled galvanised steel-sheet and has its edges rounded in all directions. Due to application different pitches (33 mm, 50 mm, 66 mm, 83 mm, 100 mm usw.) as well as flanged or standard wheels may be applied.



Minirail Type 726 – Technical Data

Applications	rail-tracks, rail-carpets, guide, worktable, linking worktables
Rail material	Steel profile
Load capacity per wheel	plastic wheel 2 kg/St.
Moment of resistance – in cm³	0,5
Diameter in mm	28
Pitch in mm	33, 50, 66, 83, 100, usw.
temperature range (°Celsius)	-30 bis +80



Pitch:

33, 50, 66, 83, 100 increment 16,5 mm

Wheel type:

w.d*. – plastic wheels SPK – flanged wheels - plastic G – split wheels TK – deep-freeze L – conductive

Length

Available up to 4.500 mm Increment 16,5 mm

* without designation

Order example



The miniral with steel shaft for smooth material flow and noiseless transport is:

- strong and tough
- economic and reasonably-priced
- variably deployable

Wheels available for deep-freeze **1** and conductive **A** – various colours on request

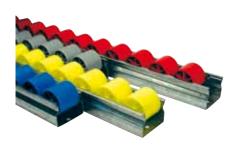
Available up to 4.500 mm increment 16,5 mm, intermediate on request

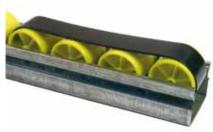
726 Profile



726 Profile - split wheel











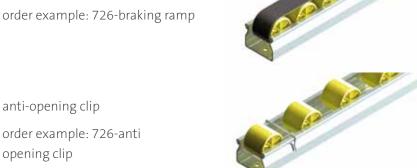
Type 726 - Accessories

plastic guide central / lateral order example: 726-plastic guide central





braking ramp



anti-opening clip

order example: 726-anti

opening clip



holding clip

order example: 726-holding clip



end stopper / anti-return buffer order example: 726-end stopper



Type 726 - Flowbox

Its entire versatility shows the miniral type 726 in combination with the Flowbox-rack system.

Due to the high flexibility resulting from the use of standard-connectors nearly any requested shape can be constructed.

Flowbox-racks are as well also used for mobile application, i.e. the deposit can take place in the store while the removal can be done at the workspace where the parts are finally required.

Give us a challenge – we gladly work out an individual quotation for you!





Type 750 – Dynamic storage

Complete flow-through and push-back racks

Rollex offers complete flow-through and push-back racks in an overall package including all related services as layout, manufacturing, delivery, on-site-assembly and putting into operation.

The application of conveyor track elements of our own production, high-quality racks from leading manufacturers and professionally working assembly teams lead to a realisation of your goals on time.

Gravity conveyor tracks in preassembled modules

For the establishment of a new dynamic store in a favourite or already existing rack we offer conveyor roller tracks as premounted components.

The roller track modules are manufactured by order and can be inserted in nearly any suitable rack including fixing material universally applicable.

Especially the amount, weight and measures of the stored goods will be considered as well as the hoisting devices and the specific environmental conditions.

Single parts for self-construction

In case you desire to construct the roller tracks yourself, we offer all items as single parts for assembly. The use of standard parts makes it possible to realise even special demands at low costs.











Type 750 - Overall packages

Rollex offers flow-through and push-back racks, including design, assembly and putting into operation. Within over 30 years handling projects in the field of dynamic storage we always challenged all technical tasks. Therefore with wealth of experience we are able to convert your individual demands into solutions at the economical optimum.















Type 750 Roller track configurations

Deposit, accumulation und removal

Designing a gravity roller track requires to consider the ability of the loading and unloading devices planned for operation - like forklift, lift truck or storage and retrieval machine – must be taken into account.

Forklifts with a tiltable mast (and tiltable forks) can deposit the load carrier onto an undivided roller track, if this ability does not exist, 2- or 3-sectional modules must be deployed. The application of 3-sectional module is predestined for unloading by lift trucks.

Removal			
Unloading device	Rack / column	Floor	
Roller track			
Forklift, tiltable			
Forklift, non-tiltable			
Storage and retrieval machine, non-tiltable			
Lift truck, non-tiltable			
Electric lift truck, non-tiltable			



Type 750 Roller tracks configurations

According to the abilities of the loading and unloading devices a combination of modules can be chosen from the following chart:

- removal moduls are customarily available with or without separation
- all three-sectional removal and deposit modules are available as two-sectional type as well

Accumulation	• • • • • • • • • • • • • • • • • • • •	Deposit
Rack/ column	Rack/ column	loading device
		Roller track
		Forklift, tiltable
		Forklift, non-tiltable
		Storage and retrieval machine, non-tiltable
		Lift truck, non-tiltable
		Electric lift truck, non-tiltable



Type 750 - Deposit modules

Undivided deposit modules

Application: FIFO-racks (Flow-through-racks), LIFO-racks (Push-back-racks), floor racks

Precondition for the deployment of an undivided deposit module is a tiltable fork of the loading device (forklift with tiltable mast etc.). Standard feature at deposit is a roller protection profile which prevents the rollers from being damaged by the fork of the device while loading. The module is equipped with 2 connectors for linking the following modules

- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions and applications e.g. wider tracks to support pallets of different width on request)
- applicable with inserted and bolted conveyor rollers
- Bent and welded components galvanised (zinc)
- Brake roller or brake conveyor roller can be applied additionally

Order number

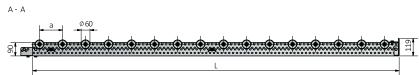
Item	Description
LMA1	undivided deposit EL=872 mm
LMA10	undivided deposit EL=1.072 mm
LMA11	undivided deposit EL=1.272 mm

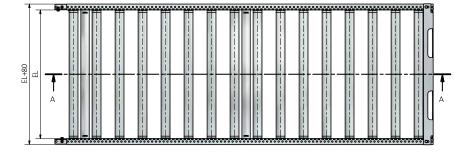
General note: Modules are delivered preassembled. Conveyor rollers are just to be inserted into the module (bolted rollers are already fixed with the module).



Type 750 – Deposit modules









Type 750 – Deposit modules

Sectional deposit modules

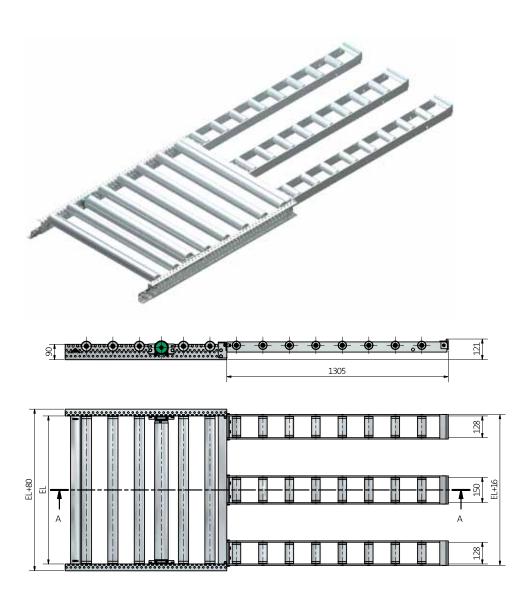
Application: FIFO-racks (Flow-through-racks), LIFO-racks (Push-back-racks), floor racks, fork of the loading device non-tiltable

- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions and applications e.g. wider tracks to support pallets of different width on request)
- applicable with inserted and bolted conveyor rollers
- Bent and welded components galvanised (zinc)
- Brake roller or brake conveyor roller can be applied additionally

Item	Description
LMA3	3-sectional deposit EL=872 mm
LMA30	3-sectional deposit EL=1.072 mm
LMA31	3-sectional deposit EL=1.272 mm
LMA2	2-sectional deposit EL=872 mm
LMA20	2-sectional deposit EL=1.072 mm
LMA21	2-sectional deposit EL=1.272 mm

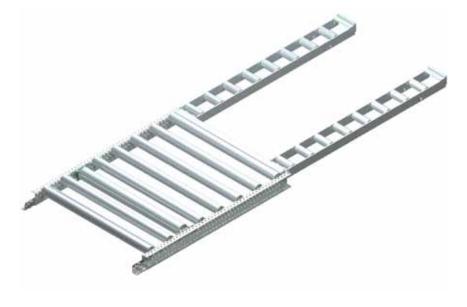


Type 750 – Deposit modules



Also available as 2-sectional deposit modules

According to the missing support for the medial runner only suitable for pallets of max. 800 kg weight.





Type 750 - Accumulation modules

Application: FIFO-racks (Flow-through-racks), LIFO-racks (Push-back-racks), floor racks, fork of the loading device non-tiltable. The module is equipped with 2 connectors for linking the following modules

- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions and applications e.g. wider tracks to support pallets of different width on request)
- applicable with inserted and bolted conveyor rollers
- Bent and welded components galvanised (zinc)
- Brake roller or brake conveyor roller can be applied additionally

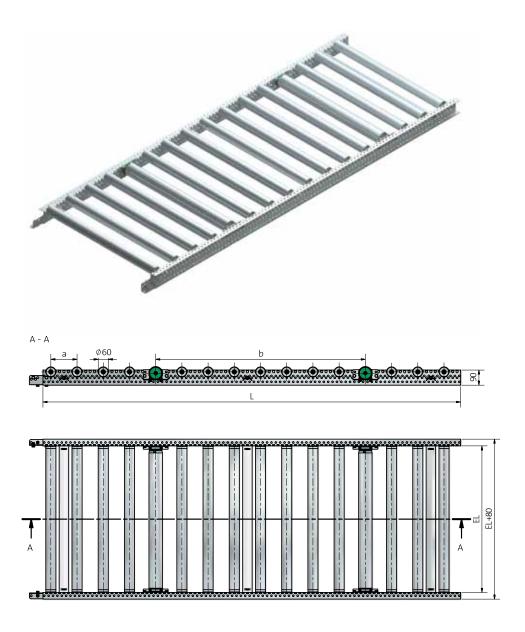
Order number

Item	Description
LM1	undivided module EL=872 mm
LM10	undivided module EL=1.072 mm
LM11	undivided module EL=1.272 mm

Please quote pitch a and brake roller distance b when ordering



Type 750 - Accumulation modules





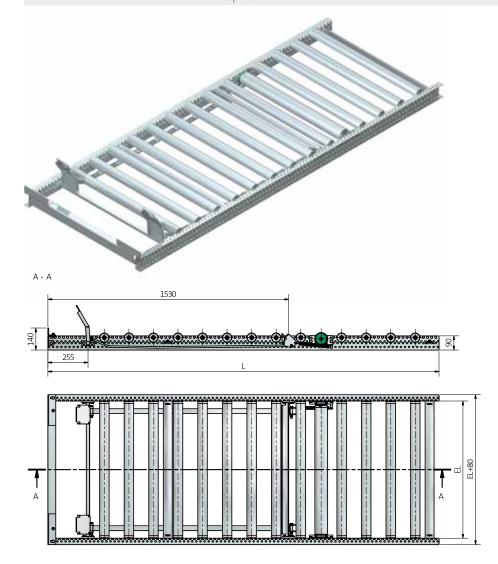
Undivided removal modules (with separation)

Application: FIFO-racks (Flow-through-racks)

Precondition for the deployment of an undivided removal module is a tiltable fork of the loading device (forklift with tiltable mast etc.).

- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions and applications e.g. wider tracks to support pallets of different width on request)
- applicable with inserted and bolted conveyor rollers
- Brake roller or brake conveyor roller can be applied additionally

Item	Description
LME1TV	undivided removal with separation EL=872 mm
LME10TV	undivided removal with separation EL=1.072 mm
LME11TV	undivided removal with separation EL=1.272 mm





Undivided removal modules (without separation)

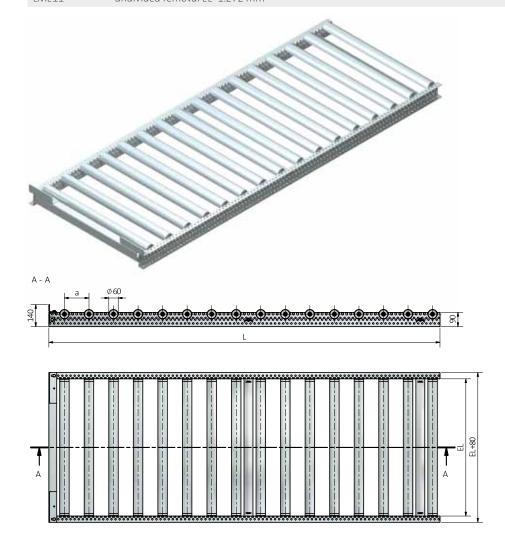
Application: LIFO-racks (Push-back-racks), floor racks without declination, Flow-through-racks for low weights.

Up to six pallets can be stored in a push-back-rack in a row. The loading device controls the operating speed in the rack (usually forklift).

Brake roller or brake conveyor roller can be applied additionally. Precondition for the deployment of an undivided deposit module is a tiltable fork of the loading device (forklift with tiltable mast etc.).

- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions und -applications e.g. wider tracks to support pallets of different width on request)
- applicable with inserted and bolted conveyor rollers
- brake roller or brake conveyor roller can be applied additionally

Item	Description
LME1	undivided removal EL=872 mm
LME10	undivided removal EL=1.072 mm
IMF11	undivided removal FI = 1 272 mm





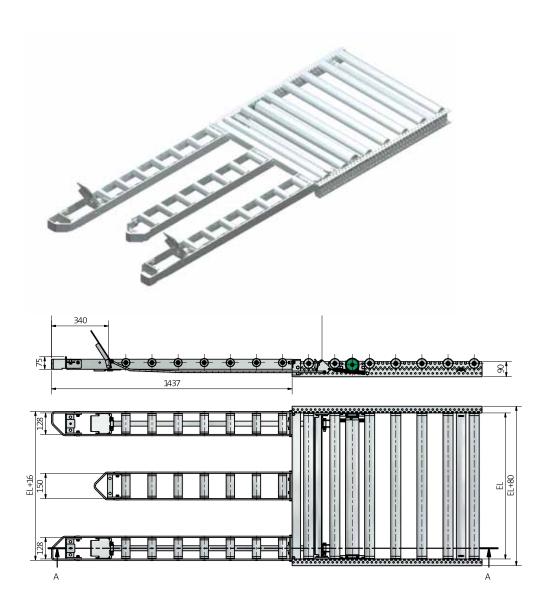
Divided removal modules for floor-racks (with separation)

The 3-sectional removal module is applied when the fork of the loading device is non-tiltable (lift truck, reach truck etc.).

- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions and applications e.g. wider tracks to support pallets of different width on request)
- applicable with inserted and bolted conveyer rollers
- Bent and welded components galvanised (zinc)
- Brake roller or brake conveyor roller can be applied additionally

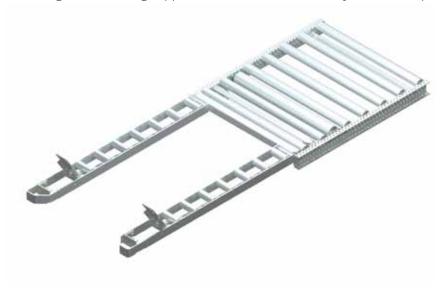
Item	Description
LME3TV	3-sectional removal with separation EL=872 mm
LME30TV	3-sectional removal with separation EL=1.072 mm
LME31TV	3-sectional removal with separation EL=1.272 mm
LME2TV	2-sectional removal with separation EL=872 mm
LME20TV	2-sectional removal with separation EL=1.072 mm
LME21TV	2-sectional removal with separation EL=1.272 mm





Also available as 2-sectional removal modules

According to the missing support for the medial runner only suitable for pallets of max. 800 kg weight.





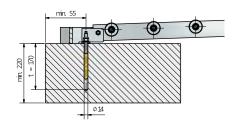
Divided removal modules for floor-racks (without separation)

The 3-sectional removal module is applied when the fork of the loading device is non-tiltable (lift truck, reach truck etc.).

- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions and applications e.g. wider tracks to support pallets of different width on request)
- applicable with inserted and bolted conveyor rollers
- Bent and welded components galvanised (zinc)
- Brake roller or brake conveyor roller can be applied additionally

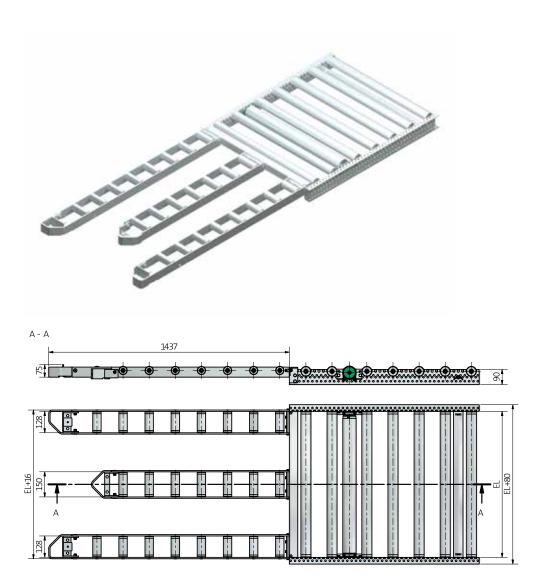
Fastening:

Floor-racks will be delivered with a shear connector M12x160 incl. cementitious cartridge for anchoring in reinforced or unreinforced standard concrete strength class minimum C 20/25 and maximum C 50/60 according to EN 206:2000 - 12 concrete. Furthermore we manufacture a sturdy frame of galvanised steel with adjustable feet to compensate minor unevenness on demand.



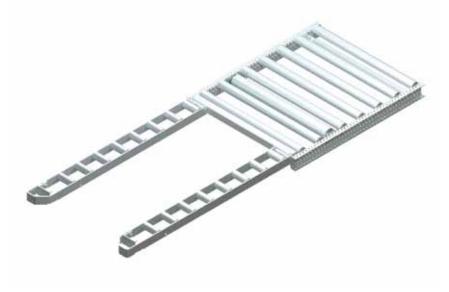
Item	Description
LME3	3-sectional removal EL=872 mm
LME30	3-sectional removal EL=1.072 mm
LME31	3-sectional removal EL=1.272 mm
LME2	2-sectional removal EL=872 mm
LME20	2-sectional removal EL=1.072 mm
LME21	2-sectional removal EL=1.272 mm





Also available as 2-sectional removal modules

According to the missing support for the medial runner only suitable for pallets of max. 800 kg weight.





Divided removal modules for storage-racks (with separation)

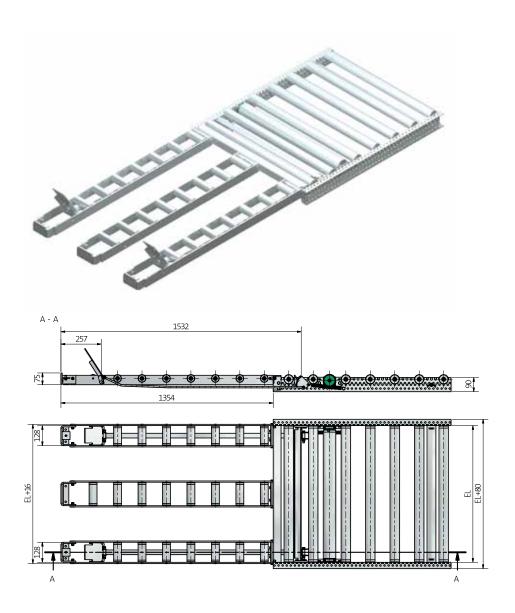
The 3-sectional removal module is applied when the fork of the loading device is non-tiltable (storage and retrieval machine, reach truck etc.).

- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions and applications e.g. wider tracks to support pallets of different width on request)
- applicable with inserted and bolted conveyor rollers
- Bent and welded components galvanised (zinc)
- Brake roller or brake conveyor roller can be applied additionally

Item	Description
LME3TV	3-sectional removal with separation EL=872 mm in-rack-mounting
LMER30TV	3-sectional removal with separation EL=1.072 mm in-rack-mounting
LMER31TV	3-sectional removal with separation EL=1.272 mm in-rack-mounting
LMER2TV	2-sectional removal with separation EL=872 mm in-rack-mounting
LMER20TV	2-sectional removal with separation EL=1.072 mm in-rack-mounting
LMER21TV	2-sectional removal with separation EL=1.272 mm in-rack-mounting

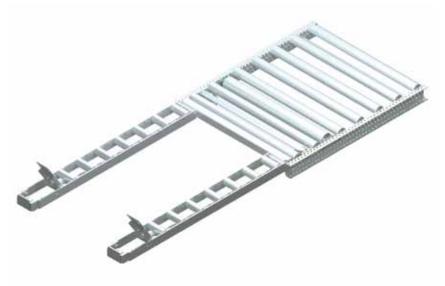


Type 750 - Removal modules



Also available as 2-sectional removal modules

According to the missing support for the medial runner only suitable for pallets of max. 800 kg weight.





Type 750 - Removal modules

Divided removal modules for storage-racks (without separation)

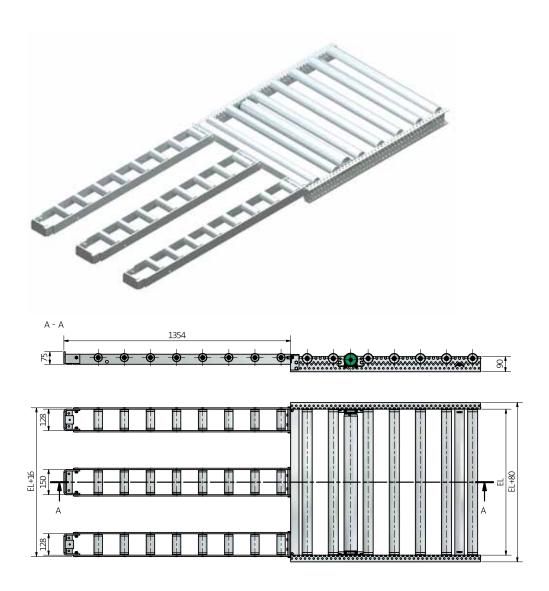
The 3-sectional removal module is applied when the fork of the loading device is non-tiltable (storage and retrieval machine, reach truck etc.).

- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions and applications e.g. wider tracks to support pallets of different width on request)
- applicable with inserted and bolted conveyor rollers
- Bent and welded components galvanised (zinc)
- Brake roller or brake conveyor roller can be applied additionally

Item	Description
LMER3	3-sectional removal EL=872 mm in-rack-mounting
LMER30	3-sectional removal EL=1.072 mm in-rack-mounting
LMER31	3-sectional removal EL=1.272 mm in-rack-mounting
LMER2	2-sectional removal EL=872 mm in-rack-mounting
LMER20	2-sectional removal EL=1.072 mm in-rack-mounting
LMER21	2-sectional removal EL=1.272 mm in-rack-mounting

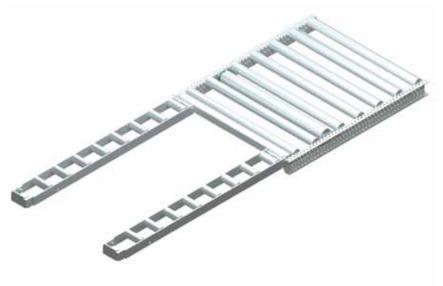


Type 750 - Removal modules



Also available as 2-sectional removal modules

According to the missing support for the medial runner only suitable for pallets of max. 800 kg weight.



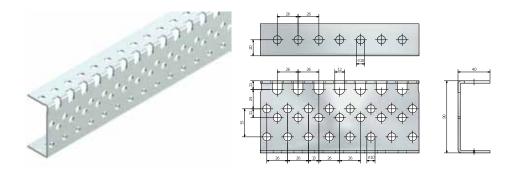


750 Profile

Galvanised standard-profile in dimensions $90 \times 40 \times 40 \times 3$ for roller tracks Type 750. The profile can be used for inserted rollers with plain shaft end \emptyset 12 mm or bolted rollers with a thread IGM 10 mm. In use with bolted rollers the profile is turned, so that the slots point downwards.

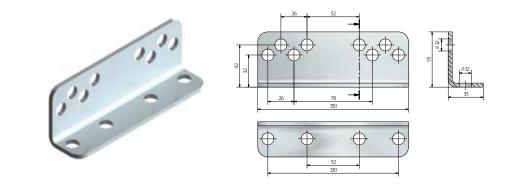
- Wx = 9,11 cm3
- 1x = 43,28 cm4

The lenght should be a multiple of 26 mm + 42 mm (e.g.: 100×26 mm + 42 mm = 2.642 mm). Intermediate length will be charged extra. The max. trading length is 7.634 mm. Order example: Type 750 Profile L=2.642



750 Connector

- for linking profiles Type 750
- galvanised (zinc)
- applicable with inserted and bolted rollers (Profile 750 turned)



ltem	Description
LB0050I	Type 750 connector incl. fixing material



750 Spacer

Spacers 750 are deployed with inserted rollers for positioning, fastening and stabilising the profiles Type 750.

- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions on request)
- if bolted rollers are applied, the spacer is dispensable, since the shafts perfom this function
- the advantage of applying roller tracks with inserted conveyor rollers combined with spacers lies in the easier assembly in a storage rack. Without rollers, those comparatively lightweighted frames can be inserted into the track and get already mounted, afterwards the conveyor rollers are placed. In this way, installation and alignment of the tracks is even safer and faster



Order number

Item	Description	
LB002I	Type 750 spacer EL=872 mm	
LB0020I	Type 750 spacer EL=1.072 mm	
LB0021I	Type 750 spacer EL=1.272 mm	

750 Roller protection profile

- suitable when the fork of the loading device (e.g. forklift) is tiltable
- protects the rollers during depositing the pallet
- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions on request)
- applicable with inserted and bolted conveyor rollers
- galvanised (zinc)



Item	Description
LB100I	Type 750 Roller protection EL=872
LB1000I	Type 750 Roller protection EL=1.072
LB10011	Type 750 Roller protection EL=1.272



750 Insert centreing

- supports the straight and centered deposit of pallets
- applicable with inserted and bolted conveyor rollers
- galvanised (zinc)

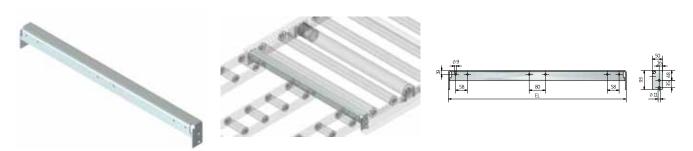


Order number

Item	Description
LB001I	Type 750 Insert centreing

750 Connection traverse

- connector for linking a 2 or 3-sectional removal
- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions on request)
- applicable with inserted and bolted conveyor rollers
- galvanised (zinc)



Item	Description
LB306I	Type 750 connection traverse EL=872
LB30601	Type 750 connection traverse EL=1.072
LB3061I	Type 750 connection traverse EL=1.272



750 End stopper

- suitable when the fork of the loading device (e.g. forklift) is tiltable
- in flow-through-racks as end stopper, in push-back-racks usable on both sides
- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions on request)
- applicable with inserted and bolted conveyor rollers
- galvanised (zinc)



Item	Description	
LB114I	Type 750 End stopper EL=872	
LB1140I	Type 750 End stopper EL=1.072	
LB1141I	Type 750 End stopper EL=1.272	



750 Separation

The separation prevents the first pallet from being hit by the next pallet. Only after removing the first pallet the following pallet will be released. Thereby a secure withdrawal of the pallets is granted.

- delivered as complete kit containing actionflaps incl. retaining plates, pull rods, locking bar incl. retaining plates and tension spring
- unsuitable for application with 2- or 3-sectional removal (see: sectional removal p. 32-36)
- available in an installation length of 872 mm, 1.072 mm and 1.272 mm (special dimensions and applications e.g. broader action-flaps on request)
- applicable with inserted and bolted conveyor rollers
- galvanised (zinc)

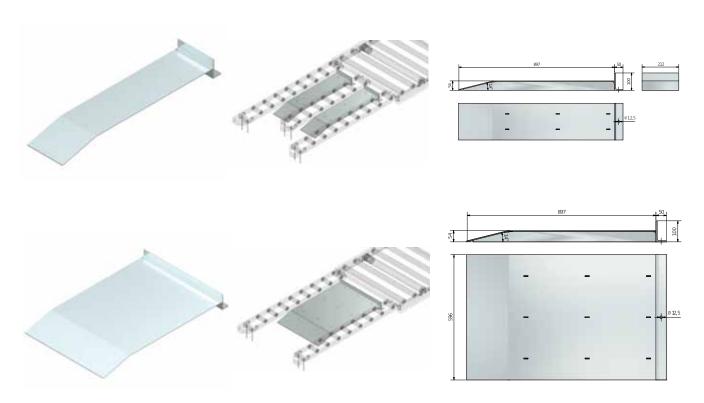


Item	Description
LB110I	Type 750 separation EL=872
LB1100I	Type 750 separation EL=1.072
LB1101I	Type 750 separation EL=1.272



750 Approach ramp

- accessory for 2- or 3-sectional removal
- available in an installation length of 212 mm and 596 mm (special dimensions on request)
- galvanised (zinc)



Item	Description
LB3601	Type750 approach ramp EL=212
LB260I	Type 750 approach ramp EL=596



Dynamic Pallet Storage Important: Please use one form for each position in your RFQ! Name Phone / Fax E-Mail Goods carrier and weight Europoolpallet (1.200x800) Euro-Box (1.200x800) Industrial Pallet (1.200x1.000) Special (LxWxH) Weight kg Min. weight kg Transverse direction Quantity Number of roller conveyors Number of pallet places per conveyor **Property** Bright steel Galvanised Other Load / Unload equipment Removal Deposit Removal Deposit Forklift tiltable Electro hand-forklift Forklift non-tiltable Rack-feeder tiltable Hand-forklift-truck Rack-feeder non-tiltable Other Other Type of storage Type of rolle conveyor Flow-rack conveyor Push-back conveyor In rack conveyor In rack with run-out on floor Floor conveyor Other **Configuration and environment** Manual Pneumatic Triple rack-Roller-protec-End-stopper Fender Insert Side gui-Floor release release tion-Profile centreing end dance support Deep-freeze High tempe-Delivery to Other down to -28° C rature >60° C **Excess length over pallet** Lengthwise mm Sideways mm For any further information or requirements e.g. RFQ incl. planning, rack, special design etc. please attach your specifications!

Please mark with a cross



Conditions of sale and delivery

§ 1 General

1. Our terms and conditions of business shall apply exclusively: These conditions of supply and payment apply for all deliveries. Any different conditions on the part of the customer only apply in so far as they are expressly recognised by us in writing. A contract is established when Rollex issues the written confirmation of order, unless otherwise agreed.

Written order confirmation of Rollex is decisive as regards the scope of delivery. Changes and additions must be made in writing. This also applies if this requirement for written form is to be waived.

Rollex retains title and copyright in samples, cost estimates, drawings and other information, both tangible and intangible, including in electronic form; such items may not be made accessible to third parties. Rollex undertakes only to make information and documents which are marked as confidential by the customer available to third parties with the agreement of the customer.

§ 2 Price and payment

The prices named in the order confirmation apply ex works in the absence of express agreement to the contrary, without packaging, free on truck or rail, without transport insurance. The valid legal rate of VAT is to be added. In the absence of agreement to the contrary, payment shall be made on account without any deduction, due on delivery. The right to withhold payment or to offset counterclaims is only available to the customer in so far as his counterclaims are undisputed or legally established.

§ 3 Time of delivery, Delay in delivery

The time and period of delivery result from the agreements between the contractual partners. Fulfilment of the agreements on the part of Rollex assume that all commercial and technical questions between the parties have been clarified and the customer has also fulfilled all his obligations, such as for example provision of the necessary official approvals or certificates and payment of a deposit if so agreed. If this is not the case, the delivery period shall be prolonged correspondingly, or alternatively by an appropriate period. This does not apply if the delay is due to the supplier. Fulfilment of the period of delivery is subject to correct and timely supply of goods by the supplier's subcontractors. Any delays which are anticipated must be communicated by Rollex as soon as possible.

The delivery period is considered fulfilled if the object of the delivery has left Rollex's factory by the end of the period. If despatch or acceptance of the object of the delivery is delayed for reasons which are due to the customer any costs accruing from the delay shall be charged to the customer, starting one month after reporting of the readiness for despatch or acceptance.

If non-fulfilment of the delivery period is due to force majeure, labour conflicts or other events outside the sphere of influence of the supplier, the period of delivery shall be prolonged accordingly. Rollex will inform the customer of the start and end of such circumstances. The customer can withdraw from the contract if the entire performance becomes impossible for Rollex before transfer of risk

The customer can also withdraw from the contract in case execution of a part of the delivery becomes impossible, and he has a justified interest in refusing the partial delivery. If this is not the case, the customer must pay the contractual price which is due for the partial delivery. The same applies if Rollex cannot supply the performance.

§ 4 Transfer of risk, acceptance

The risk is transferred to the customer when the object of delivery has left the factory, even if partial deliveries take place or Rollex has taken over other performance, e.g. despatch costs or delivery and erection. If an acceptance procedure has to be implemented, acceptance is decisive for transfer of risk. It must be carried out immediately at the acceptance date or alternatively after report by the supplier that the item is ready for acceptance. The customer may not refuse acceptance in the case of non-serious fault. Partial deliveries are permissible in so far as reasonable for the customer.

§ 5 Retention of title

Rollex retains the title to the object of delivery until all payments arising from the supply contract have been met. The customer may neither sell nor pledge the object of delivery nor offer it as security. The customer must inform the supplier immediately in case of pledge or seizure or other similar actions affecting the goods on the part of third parties.

If the customer behaves in such a way as to infringe the contract, in particular in case of delay of payment, Rollex is entitled to take back the object of delivery after issuing a warning and the customer must return the goods. Based on his retention of title, the supplier can only demand return of the goods when he has withdrawn from the contract. Application for opening of insolvency proceedings on the part of the customer entitles Rollex to withdraw from the contract and to request immediate return of the object of delivery.

§ 6 Claims resulting from defects

Rollex provides warranty for defects as to the quality of the goods or for defect of title, excluding further claims.

Defects in quality:

All parts which prove defective as a result of circumstances lying before the time of acceptance must be repaired or replaced by perfect goods at the discretion of the supplier. Any faults which are discovered must be communicated to Rollex immediately in writing.

The customer must agree on the time needed for repairs and replacement and accord Rollex such time and also opportunity; otherwise Rollex is freed from liability for any resulting consequences. Only in cases where operational safety is at stake or in order to prevent disproportionate damage, has the customer the right to repair defects himself or have them repaired by third parties and to demand compensation for the resulting costs. The supplier must be informed immediately. Any immediate costs resulting from the repair or replacement shall be borne by Rollex, in so far as the complaint proves to be justified, including costs of the replacement and despatch. Rollex shall not bear the cost for dismantling and installing the part or costs for supply of the necessary operators and auxiliary workers, including travel costs.

Within the framework of the legal regulations, the customer has the right to withdraw from the contract if Rollex allows a suitable period for repair or replacement of an item which exhibits quality defects to pass without action, taking legal exceptions into consideration. If only a slight defect is present, the customer only has the right to reduction of the contractual price. The right to reduce the contractual price is otherwise excluded.

In particular, no warranty is accepted in the following cases: unsuitable or improper use, incorrect assembly or commissioning by the customer or a third party, natural wear and tear, incorrect or careless treatment, improper maintenance or repair, use of unsuitable operating materials, unsuitable construction work, unsuitable building land, chemical, electrochemical or electrical influences in so far as they do not lie within the sphere of responsibility of Rollex. If the customer or third party carries out unsuitable repairs, Rollex shall not be responsible for any consequences which may result. The same applies for changes to the object of delivery carried out without the prior agreement of the supplier.

§ 7 Liability

In case of liability which is legally specified and which does not depend on blame or fault, in particular for liability resulting from guarantee or from product liability law, Rollex shall accept unlimited liability. In the case of other infringements of obligations, Rollex shall only be liable for deliberate intent and gross negligence. This limitation shall also apply for legal representatives, employees, staff and vicarious representatives of Rollex. In so far as any obligation is infringed which is of particular significance for fulfilment of the contractual goals (cardinal duty), Rollex shall also accept liability in cases of slight negligence. However, liability for indirect and unforeseeable damages as well as for damages consequential upon defects and loss of profit, savings which have not been achieved, damage to assets because of claims of third parties or other consequential damage, Rollex shall only be liable for infringement of a cardinal obligation in cases of intent and gross negligence.

The liability of Rollex is limited to three times the net invoiced amount of the goods or services giving rise to the claim.

§ 8 Period of limitation

All claims of the customer based on any legal grounds whatsoever, lapse regarding to statute of limitations according to the laws of the BGB. They also apply for defects in a building or for objects of delivery which are used corresponding to their general use for a building and which have caused defects in the building.

§ 9 Governing law, legal venue

All legal and contractual relationships between Rollex and the Customer shall be regulated by the governing law of the Federal Republic of Germany. The Uniform Law regarding International Sale of Goods of 17.07.1973, BGBII856-EKAG is excluded. The legal venue shall be the court responsible for the registered office of Rollex.

§ 10 Validity of Contract

If any provision of this contract should be currently invalid or incapable of implementation or should prove so in future, the validity of the remaining provisions shall not be affected.



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