Reduce your stocks with an efficient material supply system

A well-structured and clearly organized material supply system generates transparency to help you reduce your stocks.

Rexroth's flow rack systems offer users in commerce, trades and industry a wide range of important benefits:

- Various conveyor tracks employing various conveyor media are able to transport all containers and weight classes safely and reliably.
- Simple conversion, attachment and expansion options future-proof your system.
- Ingenious details such as color-coded rollers for long-range inventory visualization (Kanban).
- The application of the FiFo principle reliably ensures that materials are used in the prescribed sequence.

XLean is the favorably priced alternative. The Lean system gives you the benefits of high flexibility and numerous combination options – colored rollers to code your stock or to help distinguish between good and reject parts.
Slide rails are available as the conveyor medium for certain applications, such as when you have a steeper gradient.

For heavy loads or for moving blister packs or cardboard boxes, EcoFlow is your best choice.

The easiest way to order is to freely configure your flow rack system with your required dimensions and equipment. If you need even more flexibility, you can custom assemble your flow rack system from rack modules and individual components. All parts are designed to combine, so you can use the MT*pro* Layout Designer to put together your system any way you like.

The flow rack system and components are available as an ESD-conductive design suitable for use in electrostatic protected area (EPAs).

Flow rack systems

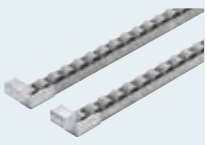
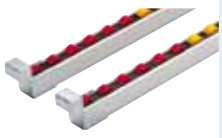
When designing your flow rack system, it is essential to know which materials will be supplied in what quantity and in which containers. The number of parts and containers, their type, their dimensions and their weight all need to be taken into account.

The load capacity of the flow racks depends on the selected parameters, the setup, the frame dimensions, and the shelves used and conveyor tracks used. The maximum load is 2000 kg.

Detailed information on permissible loads is available in the “Technical data” chapter and in MT*pro*.

The selected conveyor media and lateral guides determine how well your containers travel through the system. The available conveyor media are known as XLean, Lean and EcoFlow.

Besides the traditional form of material supply using material shelves, you can also combine rack components with workstations. The advantage of tracks over material shelves is that containers are supplied to users in a defined and

XLean	Lean	EcoFlow
		
		
Cost-effective solution	Colored rollers for inventory visualization (Kanban)	Heavy loads, for blister packs and cardboard boxes

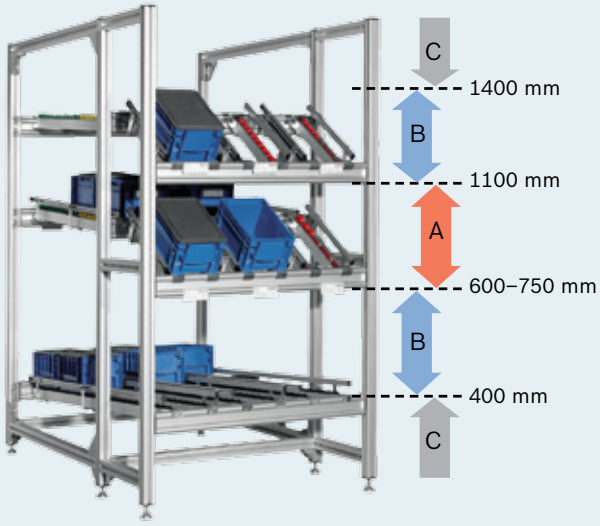
precise manner. The containers cannot slip or get swapped because the tracks are adjusted to the particular container being transported.

The conveyor tracks can likewise be custom assembled from individual components or ordered as a complete unit.

The tracks should be horizontally and vertically spaced to leave a sufficient grab area. We recommend leaving 200 mm both above the container height and between the tracks.

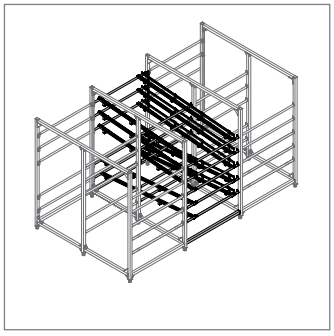
Ergonomics

The container weight, the type of activity involved and the overall strain placed on the worker during a shift are the key factors in ergonomically designing a flow rack system. During configuration you need to consider the different body sizes of your workers so that as many of them as possible can use the system effectively. You can use the national average as a guide.



Recommended working heights:
A: higher container weight, B: lower container weight
C: occasional handling

MT*pro* **For flow rack system design and planning, we recommend MT*pro*! See pages 12 and 13 for more information.**



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◀ **The flow racks can stand alone or be set up in combination with one another. Combining flow racks allows you to save both space and money.**

ESD

◀ **All flow rack systems are ESD-conductive and suitable for use in ESD-sensitive areas. All the connection elements are designed such that the anodized coating on the aluminum profiles is pierced to ensure ESD conductivity throughout the system without the need for risky additional wiring.**

XLean flow rack

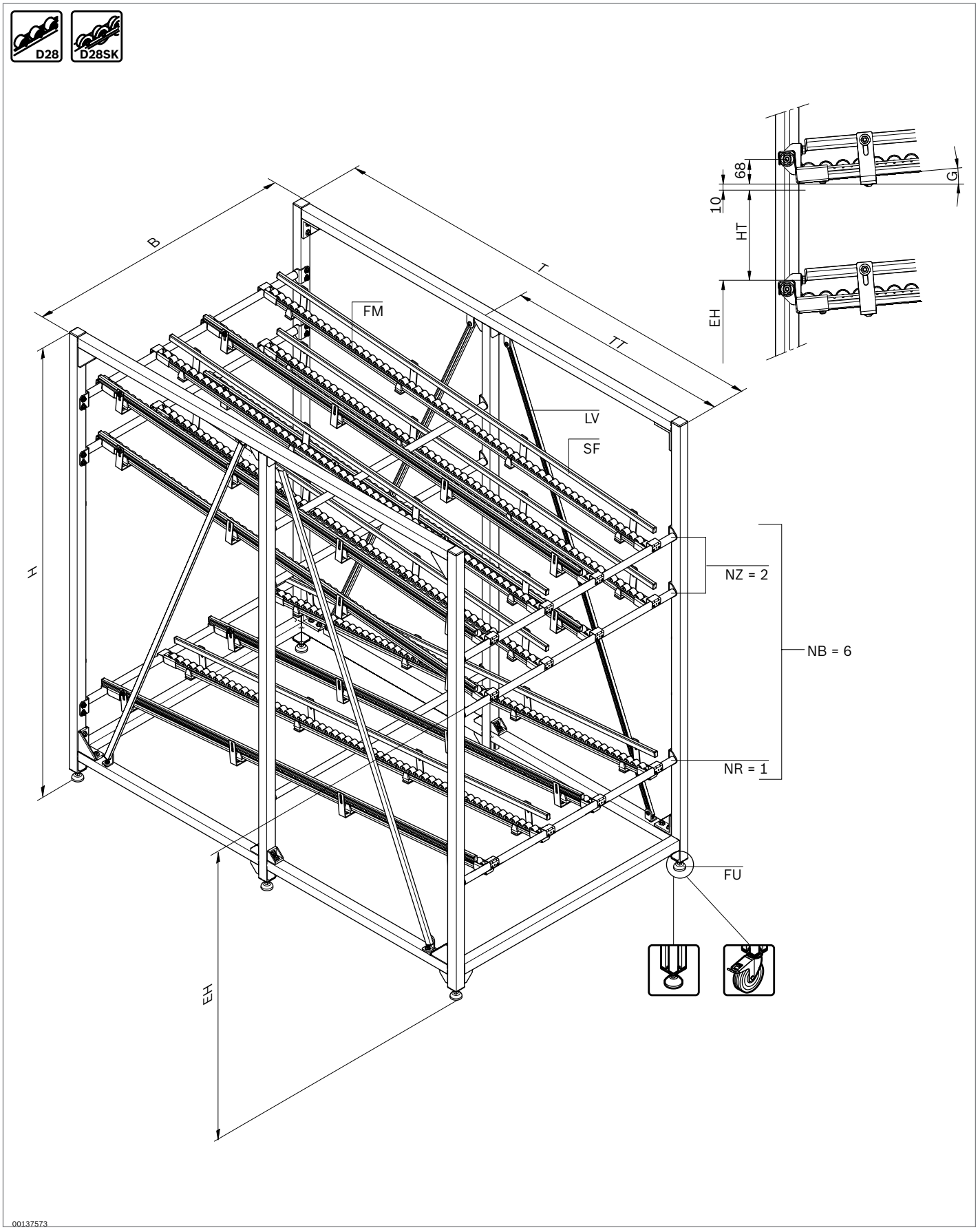
00127214

- Material supply in the supermarket or directly at the workstation
- Cost-effective solution with conveyor tracks consisting of steel profiles and plastic rollers
- Available as ESD-conductive version
- Version: fully assembled or as a kit for self-assembly
- Allows for the addition of any desired modules, including cross ties and conveyor tracks as well as individual components

For workstation design and planning, we recommend MT*pro*! See pages 12 and 13 for more information.

See also technical data (page 201 ff.)

XLean flow rack		**3 842 998 249**
Type	Number of side elements	0, 1, 2
ESD	Conductivity	Yes, no
FU	Foot type	Leveling foot, castor
A	Version	Disassembled, assembled
LV	Load version (maximum load)	400 kg, 2000 kg
B	Flow rack system width	400 ... 1500 mm
H	Flow rack system height	600 ... 2000 mm
T	Flow rack system depth	400 ... 6000 mm
EH	Removal height of the lower supply level	263 ... 1800 mm
HT	Transportation height (clearance for container removal)	80 ... 1200 mm
NZ	Number of supply levels	1 ... 8
NR	Number of return levels	0 ... 7
G	Gradient	0 ... 10% (recommended: 6%)
NB	Number of conveyor tracks	0 ... 64
FM	Conveyor medium	Rollers with d = 28 mm with/without roller flange
SF	Lateral guide	With, without
PT	Cross tie type	Tubular cross tie, tubular cross tie with bracket, double tubular cross tie


D28
D28SK
B
T
TT
H
FM
LV
SF
NZ = 2
NB = 6
NR = 1
FU
EH
68
10
HT
G
EH
00137573

Lean flow rack

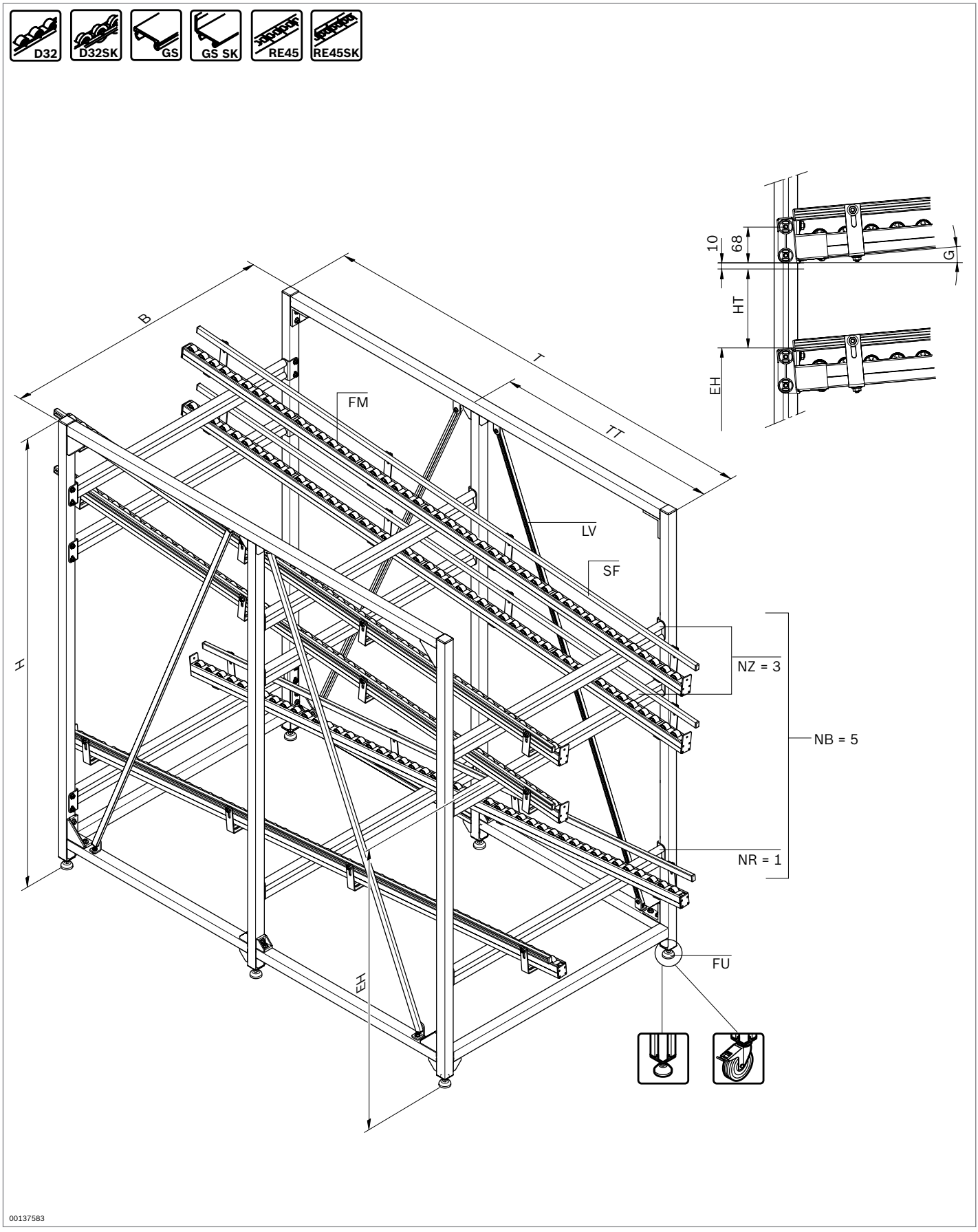
00120898

- Material supply in the supermarket or directly at the workstation
- Selection of various conveyor media allows for maximum flexibility and diverse combination options: rollers, roller elements and slide rails
- Colored rollers provide visual indicators to identify inventories or good/reject parts
- Available as ESD-conductive version
- Version: fully assembled or as a kit
- Allows for the addition of any desired modules, including cross ties and conveyor tracks as well as individual components

For workstation design and planning, we recommend MT*pro*! See pages 12 and 13 for more information.

See also technical data (page 201 ff.)

Lean flow rack		**3 842 998 332**
Type	Number of side elements	0, 1, 2
ESD	Conductivity	Yes, no
FU	Foot type	Leveling foot, castor
A	Version	Disassembled, assembled
LV	Load version (maximum load)	400 kg, 2000 kg
B	Flow rack system width	400 ... 1500 mm
H	Flow rack system height	600 ... 2000 mm
T	Flow rack system depth	400 ... 6000 mm
TT	Division of flow rack depth (max. distance between cross ties)	1000, 1500
G	Gradient	0 ... 10% (recommended: 6%)
PT	Cross tie type	Tubular cross tie, tubular cross tie with bracket, profile cross tie, double tubular cross tie
UV	Front conveyor track projection	0, 50 ... 1000 mm
UH	Rear conveyor track projection	0, 50 ... 1000 mm
EH	Removal height of the lower supply level	263 ... 1800 mm
HT	Transportation height (clearance for container removal)	100 ... 1200 mm
NZ	Number of supply levels	1 ... 8
NR	Number of return levels	0 ... 7
NB	Number of conveyor tracks	0 ... 64
FM	Conveyor medium	Rollers with d = 32 mm with/without roller flange, various spacing, slide rails with/without border, roller elements with/without border
F	Roller color	Black, red, yellow, green
SF	Lateral guide	With, without


D32
D32SK
GS
GS SK
RE45
RE45SK
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68
G
HT
EH
B
T
TT
FM
LV
SF
H
NZ = 3
NB = 5
NR = 1
FU
EH
00137583

EcoFlow flow rack

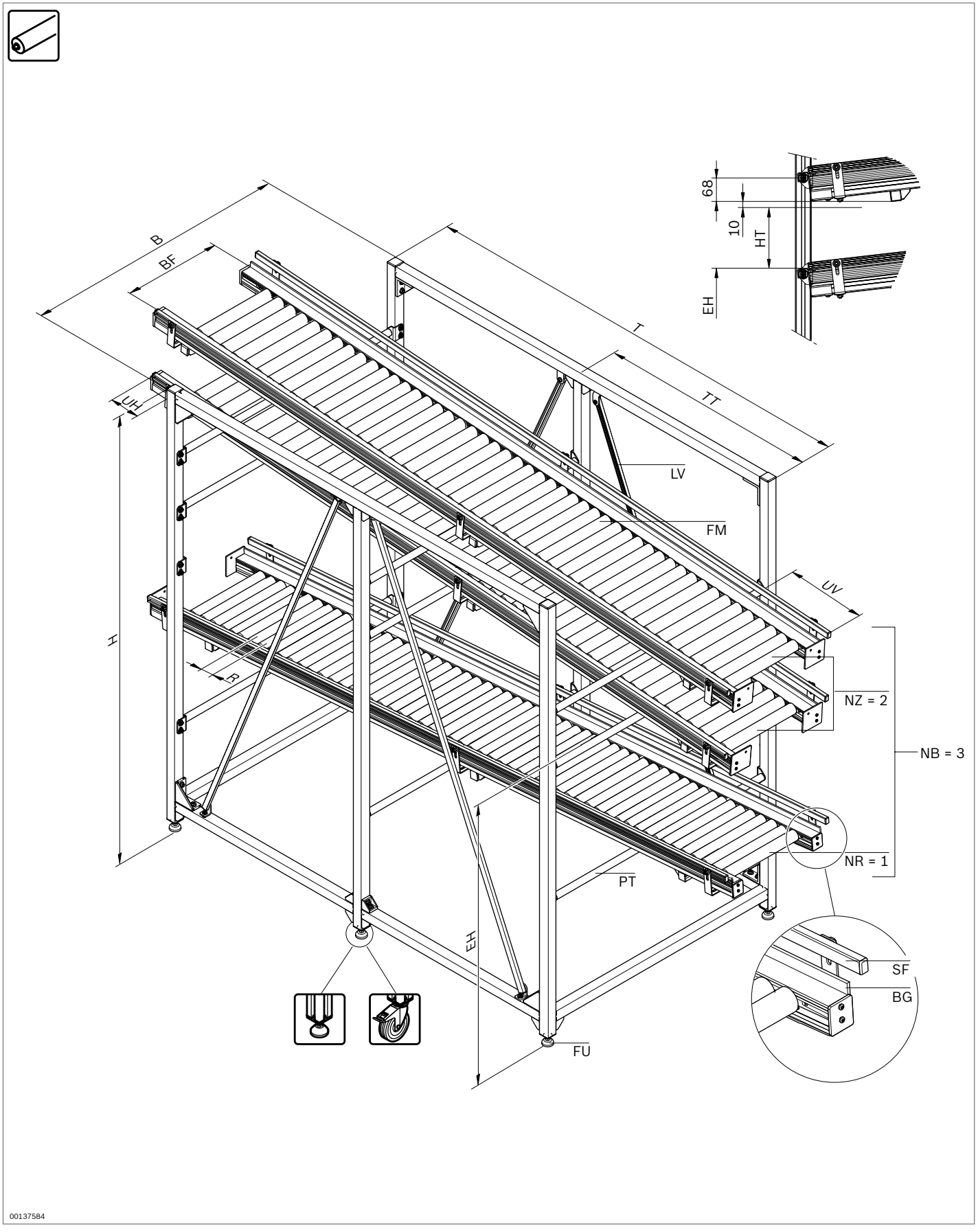
00127572

- Material supply in the supermarket or directly at the workstation
- For heavy loads
- Full-width rollers for the transport and supply of blister packs or cardboard boxes
- Available as ESD-conductive version
- Version: fully assembled or as a kit for self-assembly
- Allows for the addition of any desired modules, including cross ties and conveyor tracks as well as individual components

For workstation design and planning, we recommend MT*pro*! See pages 12 and 13 for more information.

See also technical data (page 201 ff.)

EcoFlow flow rack		**3 842 998 322**
Type	Number of side elements	0, 1, 2
ESD	Conductivity	Yes, no
FU	Foot type	Leveling foot, castor
A	Version	Disassembled, assembled
B	Flow rack system width	400 ... 1000 mm
H	Flow rack system height	600 ... 2000 mm
T	Flow rack system depth	400 ... 6000 mm
TT	Division of flow rack depth (max. distance between cross ties)	1000, 1500
G	Gradient	0 ... 10% (recommended: 6%)
PT	Cross tie type	Tubular cross tie, tubular cross tie with bracket, profile cross tie, double tubular cross tie
UV	Front conveyor track projection	0, 50 ... 1000 mm
UH	Rear conveyor track projection	0, 50 ... 1000 mm
EH	Removal height of the lower supply level	263 ... 1800 mm
HT	Transportation height (clearance for container removal)	100 ... 1200 mm
NZ	Number of supply levels	1 ... 8
NR	Number of return levels	0 ... 7
NB	Number of conveyor tracks	0 ... 20
FM	Conveyor medium	Rollers in plastic, steel, stainless steel
SF	Lateral guide	With, without
R	Roller distance	50, 100 mm
BG	Slide rail border	Inside, outside
BF	Conveyor track width	200 ... 892 mm


68
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EH
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LV
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UV
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NZ = 2
NB = 3
NR = 1
PT
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SF
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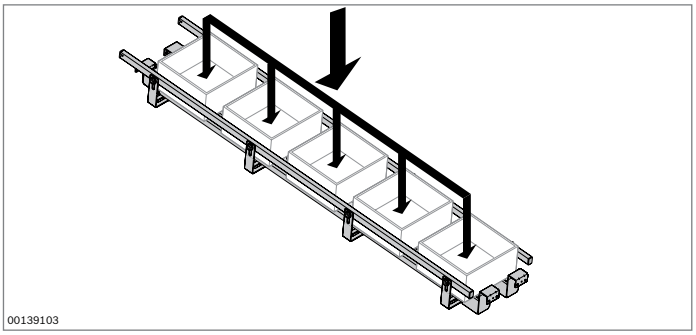
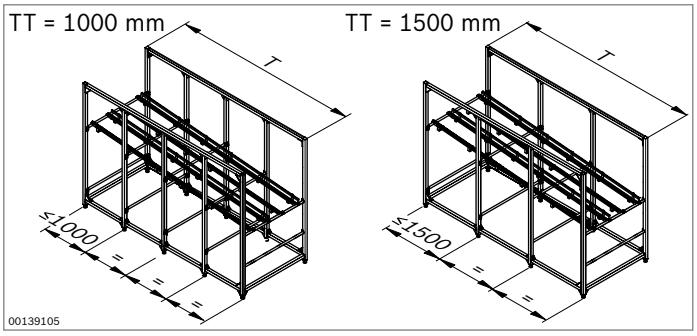
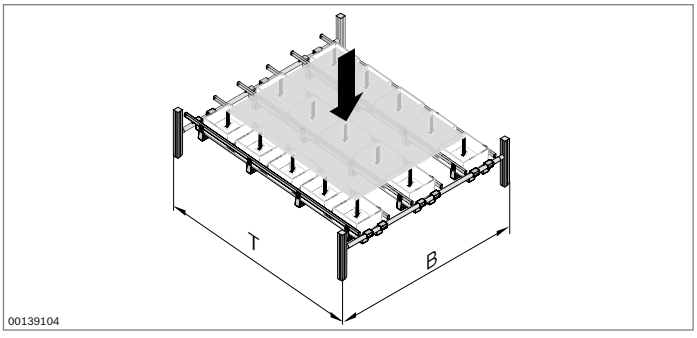
00137584

Flow rack systems







XLean, Lean, EcoFlow flow rack systems

Max. load per track

$$F_\Sigma = F_R + F_B + F_T$$

F_Σ is a distributed load and may not occur as a point load.
F_R = Weight of roller tracks
F_B = Weight of containers
F_T = Weight of stored parts

	TT = 1000 mm $F_{\Sigma\,max}$ [1]	TT = 1500 mm $F_{\Sigma\,max}$ [1]
XLean	650 N/1000 mm	450 N/1000 mm
Lean	1300 N/1000 mm	900 N/1000 mm
EcoFlow	2100 N/1000 mm	1400 N/1000 mm

[1] Max. permissible load $F_{\Sigma\,max}$ per 1000 mm of conveyor track

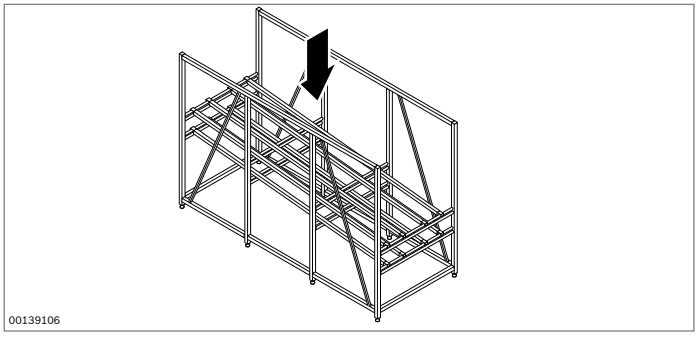
Max. load per shelf

$$F_\Sigma = F_R + F_B + F_T$$

F_Σ is a distributed load and may not occur as a point load.
F_R = Weight of roller tracks
F_B = Weight of containers
F_T = Weight of stored parts

TT = 1000 mm	TT = 1500 mm	B ≤ 1000 mm			1000 < B ≤ 1500 mm		
		PT = RT PT = RTW	PT = DRT	PT = ST	PT = RT PT = RTW	PT = DRT	PT = ST
T (mm)	**T** (mm)	$F_{\Sigma\,max}$ [1]	$F_{\Sigma\,max}$ [1]	$F_{\Sigma\,max}$ [1]	$F_{\Sigma\,max}$ [1]	$F_{\Sigma\,max}$ [1]	$F_{\Sigma\,max}$ [1]
T ≤ 1000	T ≤ 1500	2000 N	12000 N	6000 N	1000 N	6000 N	3000 N
1000 < T ≤ 2000	1500 < T ≤ 3000	3000 N	18000 N	9000 N	1500 N	9000 N	4500 N
2000 < T ≤ 3000	3000 < T ≤ 4500	4000 N	20000 N[2]	12000 N	2000 N	12000 N	6000 N
3000 < T ≤ 4000	4500 < T ≤ 6000	5000 N	20000 N[2]	15000 N	2500 N	15000 N	7500 N
4000 < T ≤ 5000	–	6000 N	20000 N[2]	18000 N	3000 N	18000 N	9000 N
5000 < T ≤ 6000	–	7000 N	20000 N[2]	20000 N[2]	3500 N	20000 N[2]	10500 N

[1] Max. permissible load $F_{\Sigma\,max}$ per shelf
[2] Limited to F_Σ = 20000 N per flow rack



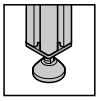
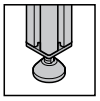
Max. load per flow rack

$$F_{\Sigma} = F_R + F_B + F_T$$

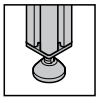
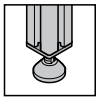
F_{Σ} is a distributed load and may not occur as a point load.
F_R = Weight of roller tracks
F_B = Weight of containers
F_T = Weight of stored parts

3 842 998 249 (see page 90)
3 842 998 332 (see page 92)
3 842 998 322 (see page 94)

Max. permissible load per flow rack

Standard load version (LV = 1)		**Two side elements (Type 2)**		**One side element (Type 1)**	
					
TT = 1000	**TT = 1500**	**FU = LR**	**FU = GF**	**FU = LR**	**FU = GF**
T (mm)	**T** (mm)	$F_{\Sigma max}$ [1]	$F_{\Sigma max}$ [1]	$F_{\Sigma max}$ [1]	$F_{\Sigma max}$ [1]
T ≤ 1000	T ≤ 1500	3600 N	4000 N	1800 N	2000 N
1000 < T ≤ 2000	1500 < T ≤ 3000	4000 N	4000 N	2000 N	2000 N
2000 < T ≤ 3000	3000 < T ≤ 4500	4000 N	4000 N	2000 N	2000 N
3000 < T ≤ 4000	4500 < T ≤ 6000	4000 N	4000 N	2000 N	2000 N
4000 < T ≤ 5000	–	4000 N	4000 N	2000 N	2000 N
5000 < T ≤ 6000	–	4000 N	4000 N	2000 N	2000 N

[1] Max. permissible load $F_{\Sigma max}$ per flow rack; standard load version (LV = 1)

Reinforced load version (LV = 2)		**Two side elements (Type 2)**		**One side element (Type 1)**	
					
TT = 1000	**TT = 1500**	**FU = LR**	**FU = GF**	**FU = LR**	**FU = GF**
T (mm)	**T** (mm)	$F_{\Sigma max}$ [2)]	$F_{\Sigma max}$ [2)]	$F_{\Sigma max}$ [2)]	$F_{\Sigma max}$ [2)]
T ≤ 1000	T ≤ 1500	3600 N	20000 N	1800 N	10000 N
1000 < T ≤ 2000	1500 < T ≤ 3000	4000 N	20000 N	2000 N	10000 N
2000 < T ≤ 3000	3000 < T ≤ 4500	4000 N	20000 N	2000 N	10000 N
3000 < T ≤ 4000	4500 < T ≤ 6000	4800 N	20000 N	2400 N	10000 N
4000 < T ≤ 5000	–	5600 N	20000 N	2800 N	10000 N
5000 < T ≤ 6000	–	6400 N	20000 N	3200 N	10000 N

[2] Max. permissible load $F_{\Sigma max}$ per flow rack; reinforced load version (LV = 2)