

**item**

**MB Building Kit System  
New Products 04/2001**



## MB Building Kit System

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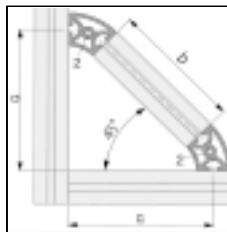
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**Profiles 6 R**  
Closed,  
Radiused  
Outside Surface

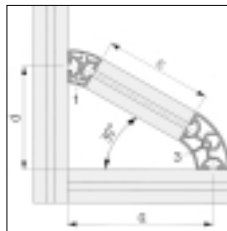


Profiles 6 R are ideal for constructing angled protective hoods, racks, tables or other fixtures from Line 6 Profiles.

Profiles 6 R also offer a simple means of fitting bracing struts in profile constructions. The length of the strut is calculated as follows based on the 6 R Profiles used:



Connection at 45°	
Profile 2	Profile 6 R30/60-45°
b	$(a - 45) \cdot \sqrt{2}$



Connection at 30°	
Profile 1	Profile 6 R30/60-30°
Profile 3	Profile 6 R30/60-60°
c	$2(a - 45) / \sqrt{3}$
d	$(a - 45) / \sqrt{3} + 45$



**Profile 6 R30/60-30°**

A = 3.27 cm<sup>2</sup>    I<sub>x</sub> = 1.95 cm<sup>4</sup>    I<sub>y</sub> = 2.77 cm<sup>4</sup>  
m = 0.88 kg/m    W<sub>x</sub> = 1.16 cm<sup>3</sup>    W<sub>y</sub> = 1.57 cm<sup>3</sup>

Cut-off max. 6000 mm, natural

0.0.459.54



**Profile 6 R30/60-45°**

A = 4.52 cm<sup>2</sup>    I<sub>x</sub> = 5.81 cm<sup>4</sup>    I<sub>y</sub> = 4.15 cm<sup>4</sup>  
m = 1.22 kg/m    W<sub>x</sub> = 2.42 cm<sup>3</sup>    W<sub>y</sub> = 2.31 cm<sup>3</sup>

Cut-off max. 6000 mm, natural

0.0.459.57



**Profile 6 R30/60-60°**

A = 5.28 cm<sup>2</sup>    I<sub>x</sub> = 10.01 cm<sup>4</sup>    I<sub>y</sub> = 6.34 cm<sup>4</sup>  
m = 1.43 kg/m    W<sub>x</sub> = 3.48 cm<sup>3</sup>    W<sub>y</sub> = 2.86 cm<sup>3</sup>

Cut-off max. 6000 mm, natural

0.0.459.35



**Profile 6 R30/60-90°**

A = 8.06 cm<sup>2</sup>    I = 22.94 cm<sup>4</sup>  
m = 2.17 kg/m    W = 7.57 cm<sup>3</sup>

Cut-off max. 6000 mm, natural

0.0.459.38

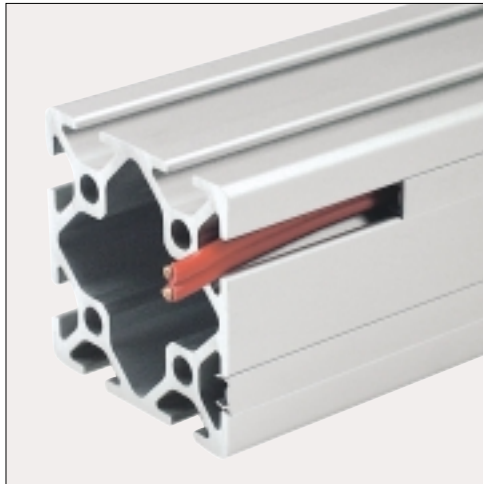
**Caps 6**  
Radiused  
Outside Surface



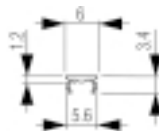
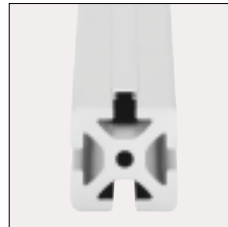
PA-GF, black

Cap 6 R30/60-30° α = 30° 1 pce.	m = 2.0 g	0.0.459.39
Cap 6 R30/60-45° α = 45° 1 pce.	m = 3.0 g	0.0.459.40
Cap 6 R30/60-60° α = 60° 1 pce.	m = 4.0 g	0.0.459.41
Cap 6 R30/60-90° α = 90° 1 pce.	m = 6.0 g	0.0.459.42

**Cover Profile Al**

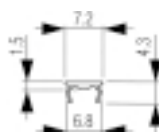


Aluminium Cover Profiles cover the profile groove to ensure easy cleaning and prevent dust entering.



Cover Profile 5 Al  
Al, anodized  
m = 20 g/m

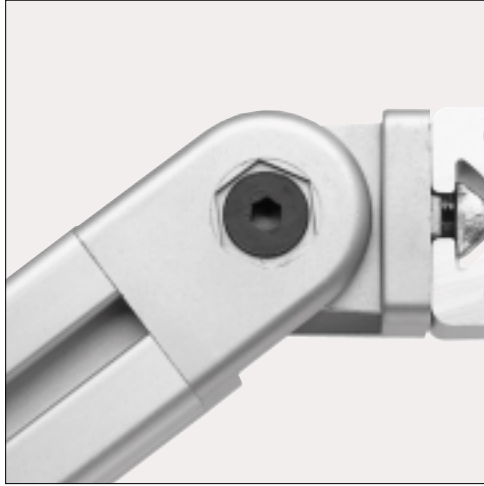
10 pce., length 2000 mm, natural	0.0.437.44
10 pce., length 2000 mm, black	0.0.464.33



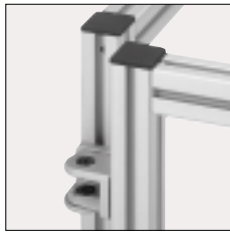
Cover Profile 6 Al  
Al, anodized  
m = 30 g/m

10 pce., length 2000 mm, natural	0.0.439.71
----------------------------------	------------

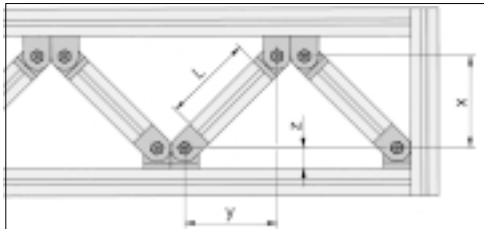
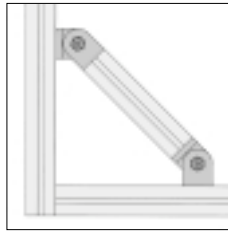
### Hinges 5, heavy-duty



For connecting profiles at various angles up to 180° and for use as heavy-duty hinges (adjustment range ± 90°). When used in conjunction with the spacer rings, they can be used as freely movable hinges. If the spacer rings are removed, they can be used as rigid angle elements, e.g. bracing, and can also be pinned.

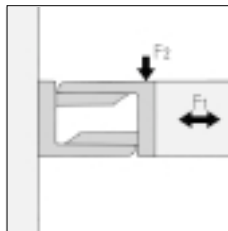


The Hinges with Clamp Lever can be locked in position or released. Particularly suitable for adjustable holders, swivel-type booms for Parts Containers and other similar equipment.

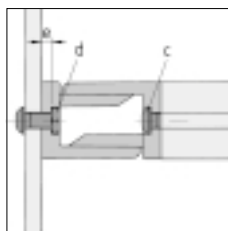
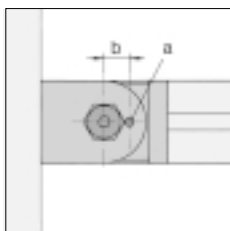


Calculation of the strut length L:

$$L = \sqrt{x^2 + y^2} - 2z$$

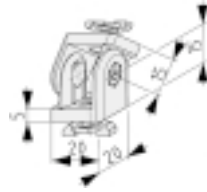


Hinge function			
rigid connection		movable connection	
F1	F2	F1	F2
500 N	200 N	200 N	100 N



Dowel		Hex. Socket Head Cap Screw	Nut	
a	b	c	d	e
DIN 6325 2m6x20	7 mm	DIN 912 M5	DIN 557 M5	3.3 mm

**Hinges 5,  
heavy-duty**



**Hinge 5 20x20, heavy-duty**  
 2 hinge halves, GD-Zn, RAL9006 white aluminium  
 2 fixing elements, PA-GF, black  
 2 thread bushes M4, St, bright zinc-plated, black  
 2 spacer rings, St, stainless  
 2 hexagon screws, St, black  
 m = 39 g  
 1 pce.

0.0.464.39



**Hinge 5 20x20, heavy-duty with Clamp Lever**  
 2 hinge halves, GD-Zn, RAL9006 white aluminium  
 2 fixing elements, PA-GF, black  
 2 thread bushes M4, St, bright zinc-plated, black  
 Bush liner, St, bright zinc-plated, black  
 Spacer collar, St, black  
 Clamp lever M4x20, black  
 Max. holding torque = 5 Nm  
 m = 81 g  
 1 pce.

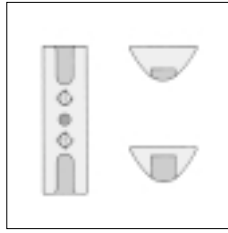
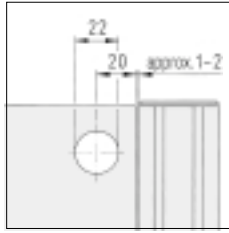
0.0.464.43

**Locking  
Systems 5 and 6**



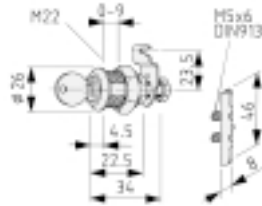
As well as the latching function, Locking Systems also provide security against unauthorised entry via swing or sliding doors constructed from inherently stable panel elements.  
 The Locking Systems 5 and 6 are available for right-hand and left-hand application (the figure shows right-handed application).





The panel elements will need to be machined ( $\varnothing$  22 mm) for Locking Systems 5 and 6.

Nab, with two different mounting positions for sliding and swing doors.



#### Locking System 5, Cylinder Lock

Key, locking bar, nab  
Cylinder lock (all keys identical)  
m = 91 g

1 set, right-hand application

0.0.391.16

1 set, left-hand application

0.0.464.50



#### Locking System 5, Double-Beard Lock

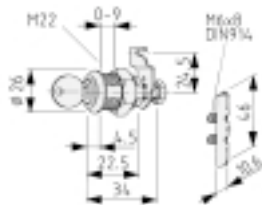
Double-beard insert  
Key, locking bar, nab  
m = 120 g

1 set, right-hand application

0.0.391.17

1 set, left-hand application

0.0.464.51



#### Locking System 6, Cylinder Lock

Key, locking bar, nab  
Cylinder lock (all keys identical)  
m = 89 g

1 set, right-hand application

0.0.459.21

1 set, left-hand application

0.0.459.22



#### Locking System 6, Double-Beard Lock

Double-beard insert  
Key, locking bar, nab  
m = 118 g

1 set, right-hand application

0.0.459.23

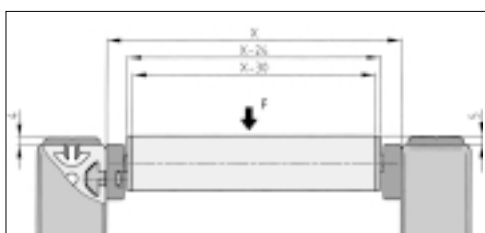
1 set, left-hand application

0.0.459.24

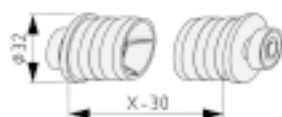
**Conveyor Roller TR32**



Multifunctional Conveyor Roller ideal for interlinking manual working stations where slim diameter rollers are an advantage. The ball bearing Conveyor Rollers TR32 are simply pushed on and engage in the Bearing Blocks which are screw fitted in the groove of Profiles 8. The distance between the rollers can be selected as a function of the load. A Conveyor Roller TR32 of any required length can be customized using a Bearing Set and a Tube D32. (Please note load specifications in the table below).



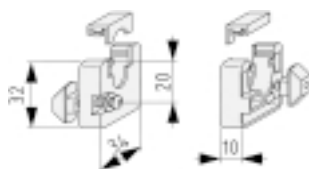
	F	X <sub>min.</sub>	X <sub>max.</sub>
Tube D32 Al	100 N	50 mm	600 mm
Tube D32 KU	50 N	50 mm	400 mm



**Conveyor Roller TR32, Bearing Set**

PA, black  
ball-bearing support, sealed  
2 bearing flanges  
m = 16 g  
1 set

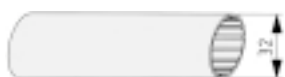
0.0.472.08



**Conveyor Roller TR32, Bearing Block Set 8**

2 bearing blocks, PA, black  
2 bearing clamps, PA, black  
2 Button-Head Screws T4x18, black  
2 T-Slot Nut 8 PA, black  
2 washers DIN 433-4,3, St  
m = 18 g  
1 set

0.0.472.04

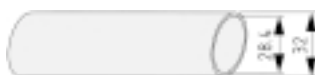


**Tube D32 Al**

Al, anodized  
I = 1.50 cm<sup>4</sup>  
W = 0.94 cm<sup>3</sup>  
m = 0.34 kg/m

Cut-off max. 3000 mm, natural

0.0.472.22



**Tube D32 KU**

PVC, black  
Temperature range 0 - 60°C

I = 2.00 cm<sup>4</sup>  
W = 1.22 cm<sup>3</sup>  
m = 0.27 kg/m

Cut-off max. 3000 mm

0.0.472.25

## Lifting Columns 8 200x170



The Lifting Columns 8 200x170 are designed for constructing variable height workbenches, and is also suitable for many different applications where height adjustment is required in the factory or office. High capacity roller guides in conjunction with rack and pinion drive permit rigid constructions using only a central telescopic column, which have the capacity to withstand considerable bending moments from any direction.

All parts of the drive including the power supply are integrated into the column and protected against dust ingress.

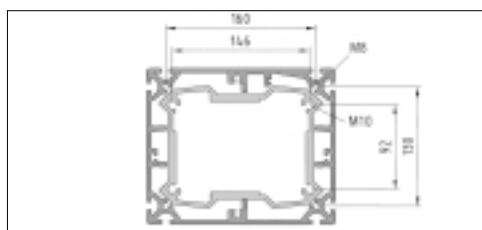


The "electronic" and "synchro/memory" versions are controlled by means of a Hand Held Control, which can be stored in a special drawer for easy access. In addition to the motor-driven columns, there is a manual version available (with cranked handle).



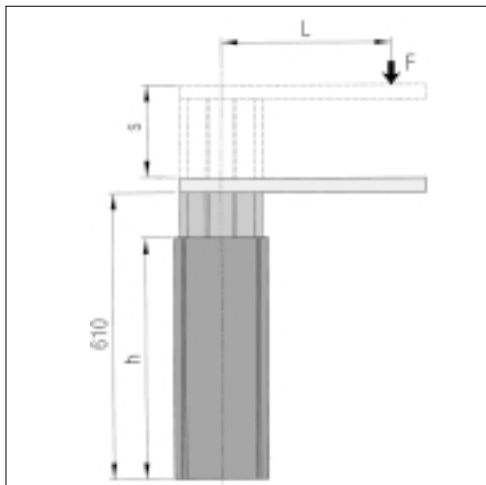
The "electronic"- and "synchro/memory"-columns feature a soft-start /-stop function.

The "synchro/memory" version has an integrated electronic control for parallel operation of several Lifting Columns and a memory function. Up to 9 positions can be stored and retrieved by the user. The Hand Held Switch of this type includes an LED-display which shows the current height of the column.



Line 8 profiles grooves on all sides of the outer profile enable easy integration of the Lifting Column into any project using elements of the item MB System.

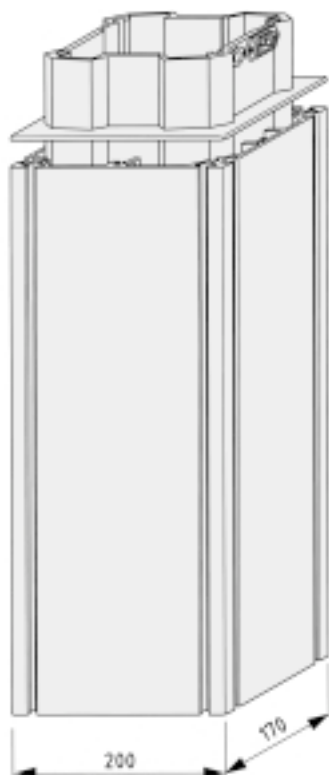
**Lifting Columns  
8 200x170**



Lifting column	basis h	stroke s	bending moment $F \times L$
1000N manuell	515 mm	200 mm	220 Nm
1000N electronic	585 mm	490 mm	220 Nm
2000N electronic	585 mm	490 mm	220 Nm
1000N synchro/memory	585 mm	490 mm	220 Nm



Voltage: 230V- 50/60 Hz  
 (Version 120V- on request)  
 Operating temperature range: -20°C to 60°C  
 Maximum lifting force: 1000N / 2000N  
 Lifting speed: 50 mm/s / 30 mm/s  
 Continuous duty: 15% at rated load  
 Protection: IP 30  
 Conformity: CE



**Lifting Column 8 200x170, 1000N, manual**

Column, Al, natural anodized  
 Cap, PA, black  
 Handle, St

m = 14 kg

1 pce.

0.0.471.01

**Lifting Column 8 200x170, 1000N, electronic**

Column, Al, natural anodized  
 Cap, PA, black  
 Hand Held Control, ABS, black  
 Power cord, 2 m

m = 21 kg

1 pce.

0.0.471.07

**Lifting Column 8 200x170, 2000N, electronic**

Column, Al, natural anodized  
 Cap, PA, black  
 Hand Held Control, ABS, black  
 Power cord, 2 m

m = 21 kg

1 pce.

0.0.471.05

**Lifting Column 8 200x170, 1000N, synchro/memory**

Column, Al, natural anodized  
 Cap, PA, black  
 Power cord, 2 m  
 Link cable, 6 m

m = 21 kg

1 pce.

0.0.471.04

**Hand Held Control synchro/memory**

ABS, black  
 m = 150 g

1 pce.

0.0.471.06

**Drawer for Hand Held Control**

ABS, black  
 m = 100 g

1 pce.

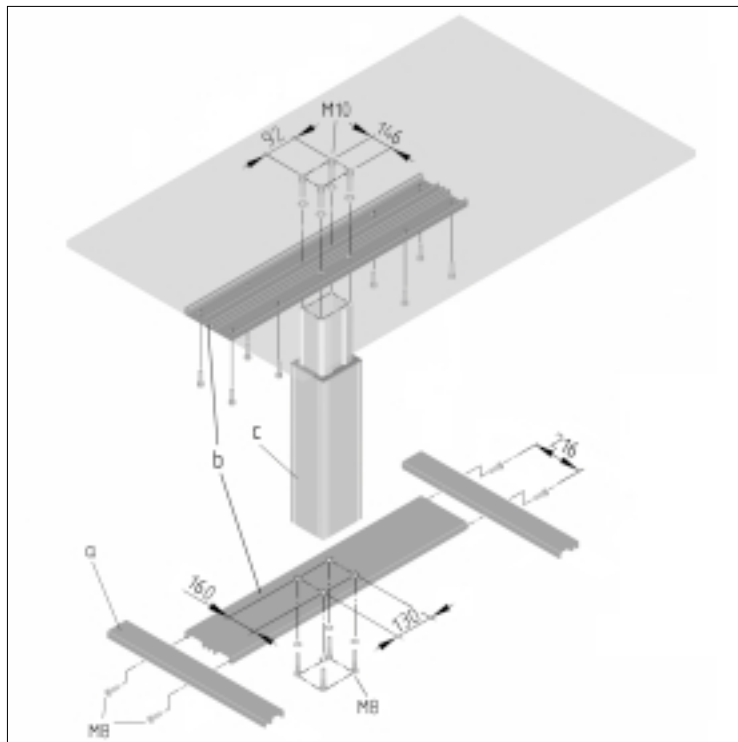
0.0.471.11

## Lifting Column Connection Profiles

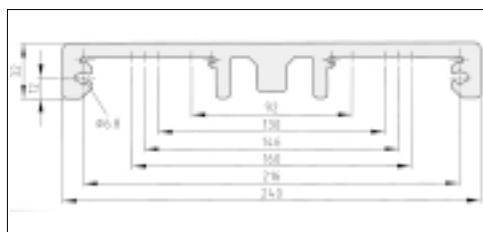


Lifting Column Connection Profiles 240x32 and 100x32 are designed for ensuring stable connections to Lifting Column 8 270x170. They can be used to create both base constructions and table top support structures. The Lifting Column Connection Profiles prevent access to the functional elements located inside the Lifting Columns and support the applied lifting forces.

The screw channels already prepared in the lifting column profiles are used to secure these elements to the Lifting Column. Each Lifting Column Connection Profile 240x32 is screwed into the end face of the Lifting Column using four M10 screws (inner profile) or four M8 screws (outer profile)

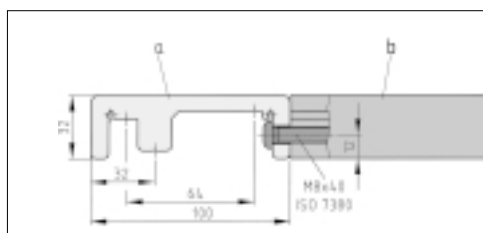


- a: Lifting Column Connection Profile 100x32
- b: Lifting Column Connection Profile 240x32
- c: Lifting Column 8 200x170



The marking grooves on the underside of Lifting Column Connection Profile 240x32 ensure easy location of the through hole for screw connection with Lifting Column 8 200x170.

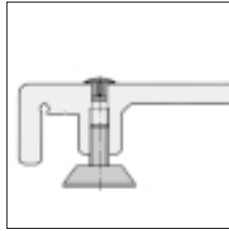
To screw fit Connection Profiles 100x32, M8 threads must be drilled into the end faces of the  $\varnothing 6.8$  mm screw channels of Connection Profiles 240x32.



Lifting Column Connection Profiles 100x32 (a) are used with Lifting Column Connection Profiles 240x32 (b) to form a rigid stable base.

Connection Profiles 100x32 require two holes machined for screw fitting to Connection Profiles 240x32.

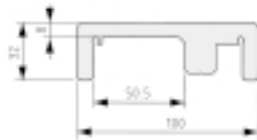
**Lifting Column-Connection Profiles**



The solid rib of the Lifting Column Connection Profiles is designed for securing adjustable feet. Example showing use of Knuckle Foot D30 M8x29 AT an Cap 8 D7 on Connection Profile 100x32.



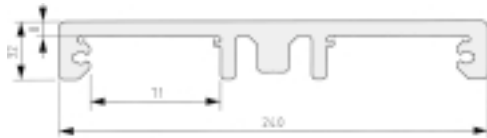
The Caps are fitted in the Lifting Column Connection Profiles using Self-Tapping Screws St 4.2x16.



**Lifting Column Connection Profile 100x32**  
 $A = 16.20 \text{ cm}^2$   $I_x = 13.31 \text{ cm}^4$   $I_y = 186.31 \text{ cm}^4$   
 $m = 4.37 \text{ kg/m}$   $W_x = 6.44 \text{ cm}^3$   $W_y = 30.87 \text{ cm}^3$

Cut-off max. 6000 mm, natural

**0.0.473.30**



**Lifting Column Connection Profile 240x32**  
 $A = 32.94 \text{ cm}^2$   $I_x = 25.85 \text{ cm}^4$   $I_y = 1746.20 \text{ cm}^4$   
 $m = 8.89 \text{ kg/m}$   $W_x = 11.96 \text{ cm}^3$   $W_y = 145.51 \text{ cm}^3$

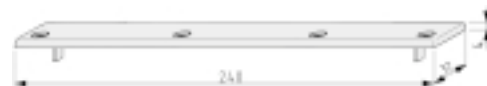
Cut-off max. 6000 mm, natural

**0.0.473.32**



**Cap 100x32**  
 PA-GF, black  
 $m = 12 \text{ g}$   
 1 pce.

**0.0.471.17**



**Cap 240x32**  
 PA-GF, black  
 $m = 30 \text{ g}$   
 1 pce.

**0.0.471.18**

## Alphabetic Register

<b>C</b>	Caps 6 (for profile end face)	6
	Caps for Column Connection Profile	14
	Conveyor Roller TR32	10
	Cover Profile AI (for profile groove)	6
<b>D</b>	Drawer for Hand Held Control (for Lifting Column)	11
<b>H</b>	Hand Held Control (for Lifting Column)	11
	Hinge 5, heavy duty	7
<b>L</b>	Lifting Column 8 200x170	10
	Lifting Column Connection Profiles	13
	Locking Systems 5 and 6	8
<b>P</b>	Profiles 6 R	5
<b>T</b>	Tubes D32	10

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The following documents are currently available:

- > MB Building Kit System, Comprehensive Catalogue MB5
- > MB Quick & Easy CD ROM Version 4.0 international

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