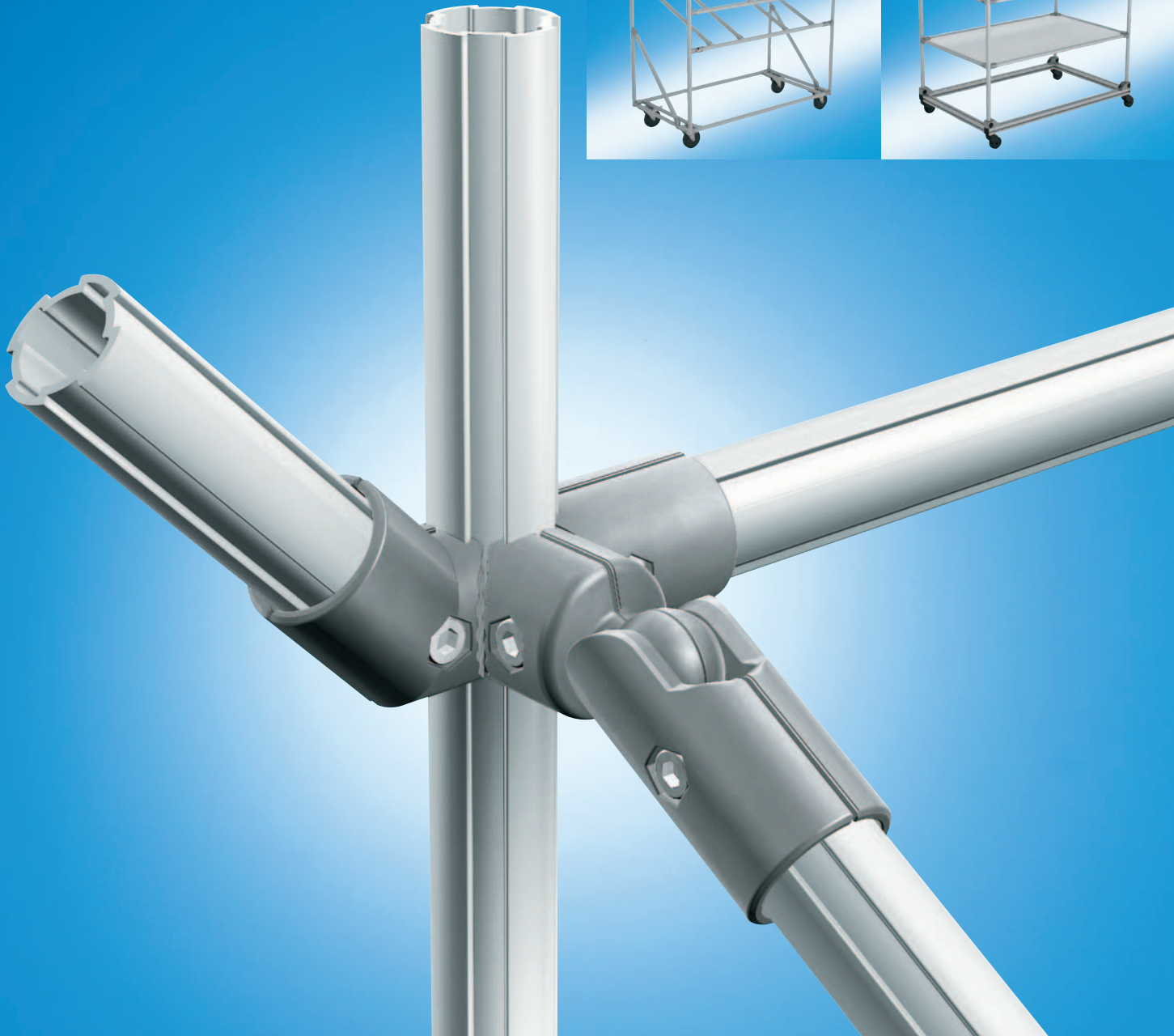


EcoShape Tubular Framing System

Version **1.0**

The Drive & Control Company

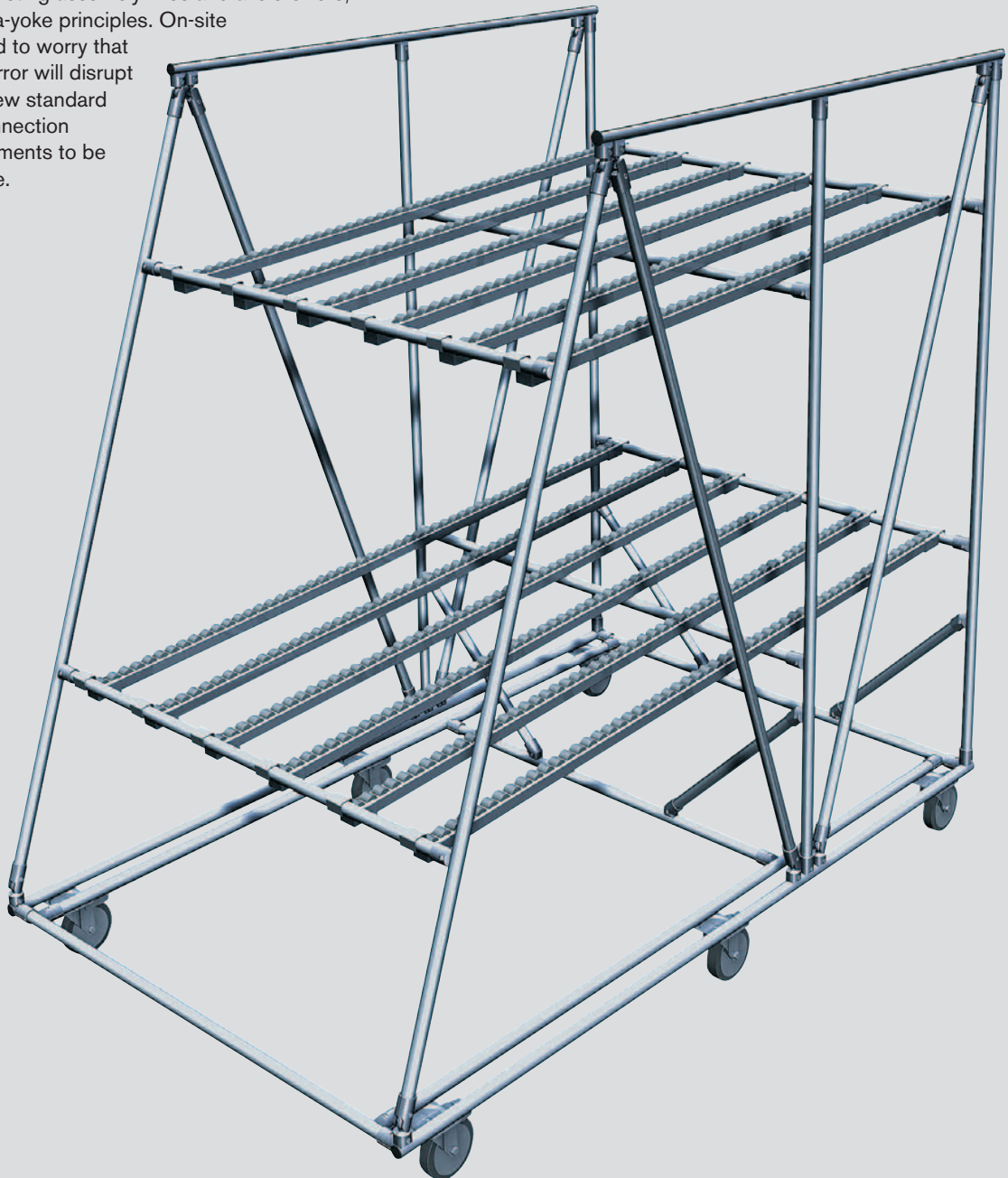


Tubular Framing System

EcoShape – The new shape of lean

Easy to plan, quick to assemble, no problem to add to: It's practical and fast.




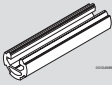
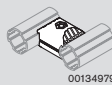

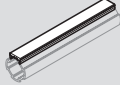

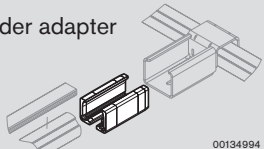
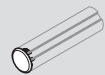

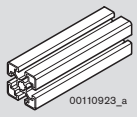
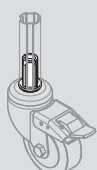
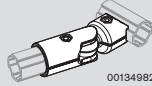
With EcoShape, you can build custom structures that require very few components. Planning is easy, too, thanks to the new *MTpro* design software and the ability to make virtually any connection with a few standard parts. As a result, it's easy to continuously improve existing assembly lines and avoid errors, using the kaizen or poka-yoke principles. On-site installers no longer need to worry that a minor measurement error will disrupt the entire schedule. A few standard elements and smart connection technology allow adjustments to be made at any time on-site.



The data specified above serve only to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.

Tubular Framing System

Fast, accurate planning with MTpro Layout Designer

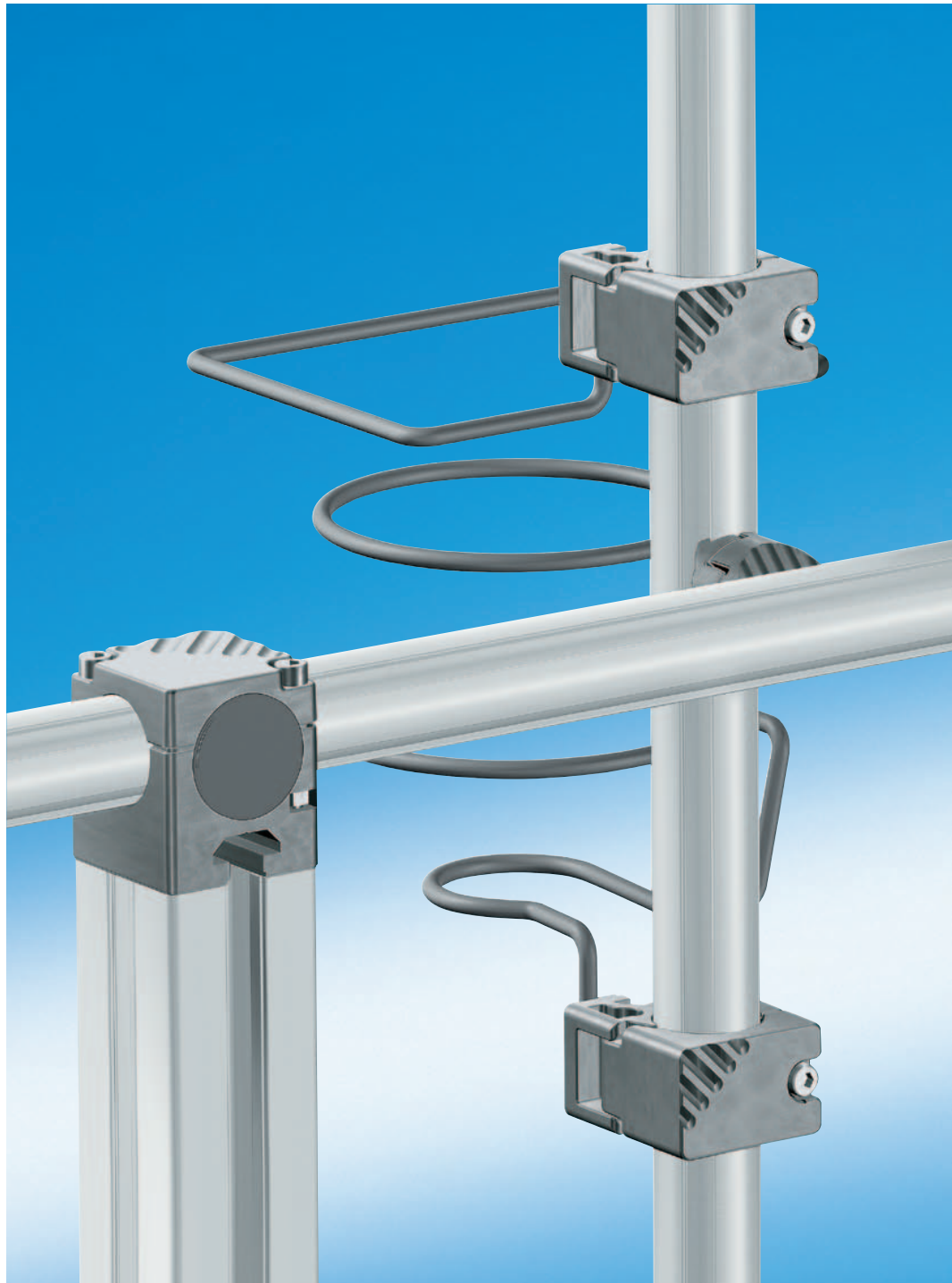
1	D28L round tube		00134985	6	90° connector		00134978	11	N10, 45 adapter		00134983
2	D28L, N10 round tube			7	Parallel connector		00134979	12	N10, 30 adapter		00134984
3	Cover profile		00134988	8	45° connector		00134980	13	XLean holder adapter		00134994
4	Cap		00134995	9	Cross connector		00134981	14	45x45L profile		00110923_a
5	D28L threaded sleeve		00134991	10	0°-90° connector		00134982				

Tubular Framing System

Just a handful of components ...

... is all you need to construct custom flow racks, material shuttles, or workstations quickly and inexpensively.

- Two types of aluminum tubular framing provide your structure with all the stability you need.
- Five connectors let you create any imaginable connection between EcoShape profiles – parallel, perpendicular, or at any desired angle.
- All of the connectors establish a positive interlocking connection between the profiles for a secure fit.
- Planning and assembly are exceptionally easy, because the connection elements easily accommodate minor tolerance differences in the length of the profiles. The result? It's no problem to cut the profiles to length directly at the work site.
- The combination with Rexroth's MGE aluminum profile system makes it possible to create solutions that meet the highest demands.
- You can also use the components from the Manual Production Systems (MPS) product range to extend the function of your EcoShape frames.

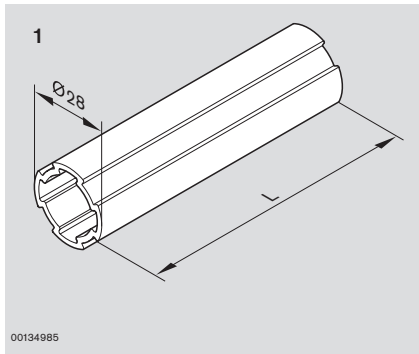


Tubular Framing System



Tubular Framing System

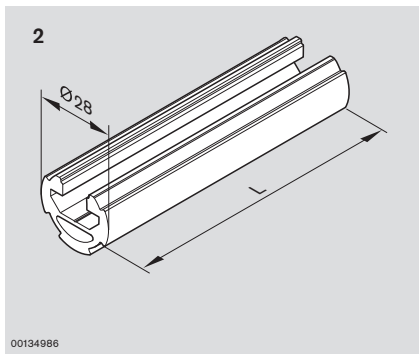
EcoShape: D28L round tube and accessories



D28L round tube

LE	No.
50	3 842 541 211
L = 5600 mm	
LE	No.
1	3 842 996 191 /...
50 mm ≤ L ≤ 5600 mm	

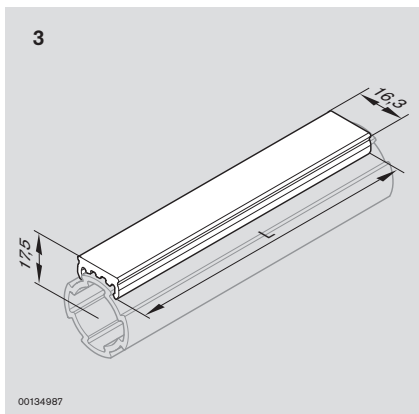
A	=	1.8 cm ²
I _x	=	1.33 cm ⁴
I _y	=	1.33 cm ⁴
W _x	=	0.95 cm ³
W _y	=	0.95 cm ³
m	=	0.48 kg/m



D28L, N10 round tube

LE	No.
20	3 842 541 213
L = 5600 mm	
LE	No.
1	3 842 996 192 /...
50 mm ≤ L ≤ 5600 mm	

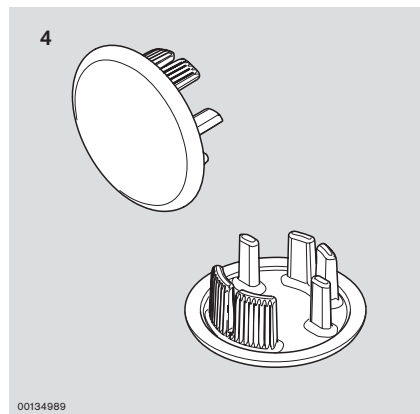
A	=	2.63 cm ²
I _x	=	1.17 cm ⁴
I _y	=	1.97 cm ⁴
W _x	=	0.84 cm ³
W _y	=	1.41 cm ³
m	=	0.71 kg/m



Slide rail

LE	No.
10	3 842 541 196
L = 2000 mm	

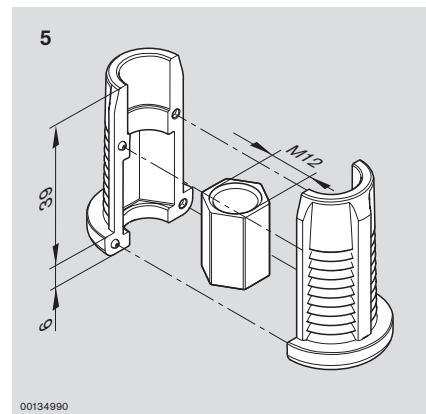
Material: PVC, gray



Cap

LE	No.
20	3 842 541 195

Material: PA 66, black



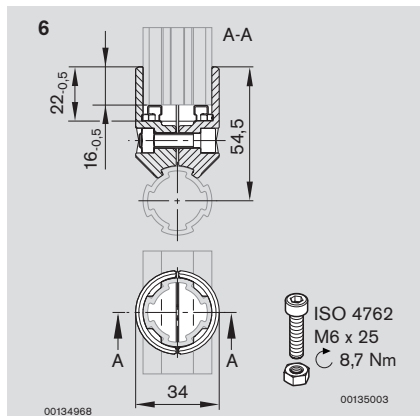
D28L threaded sleeve

LE	No.
20	3 842 541 185

Material: PA 66, black

Tubular Framing System

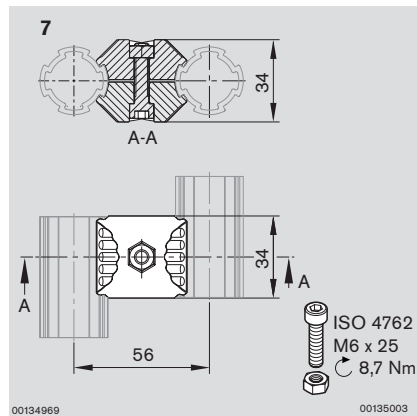
EcoShape: round tube connector



90° connector

No.	No.
20	3 842 541 173

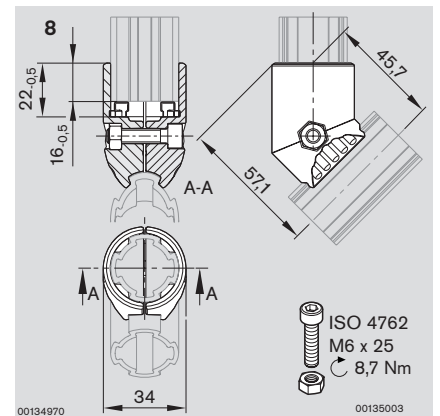
Incl. mounting material
Material: diecast zinc



Parallel connector

No.	No.
20	3 842 541 183

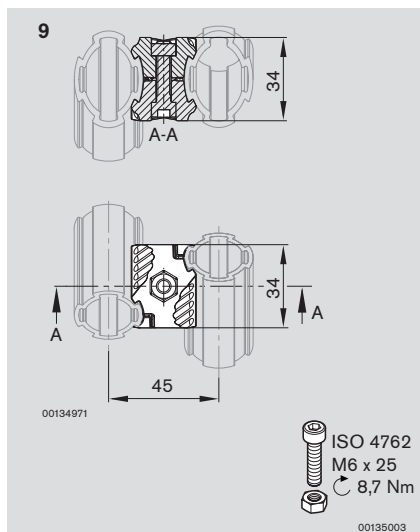
Incl. mounting material
Material: diecast zinc



45° connector

No.	No.
20	3 842 541 175

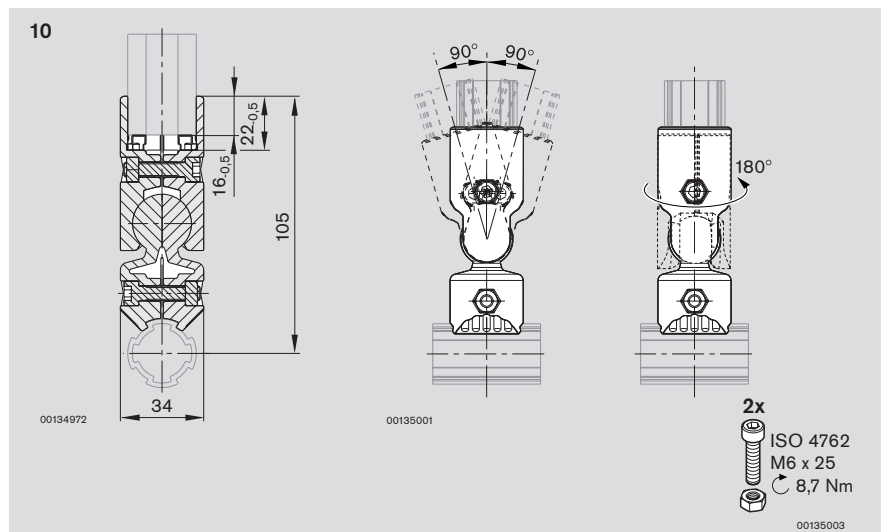
Incl. mounting material
Material: diecast zinc



Cross connector

No.	No.
20	3 842 541 181

Incl. mounting material
Material: diecast zinc



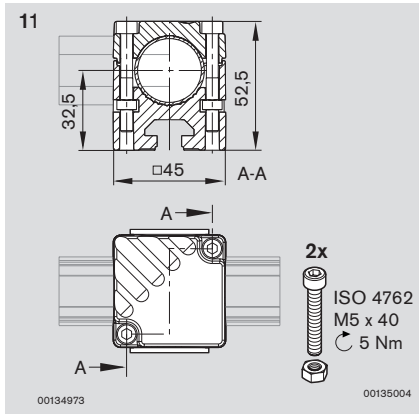
0°-90° connector

No.	No.
20	3 842 541 178

Incl. mounting material
Material: diecast zinc

Tubular Framing System

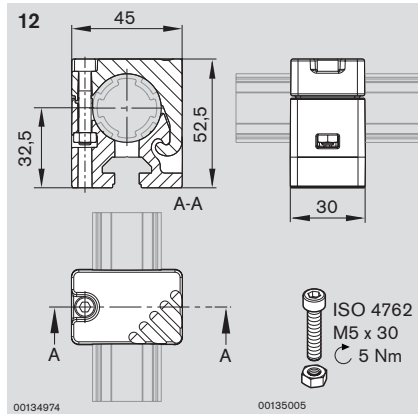
EcoShape: round tube adapter



N10, 45 adapter

	No.
20	3 842 541 187

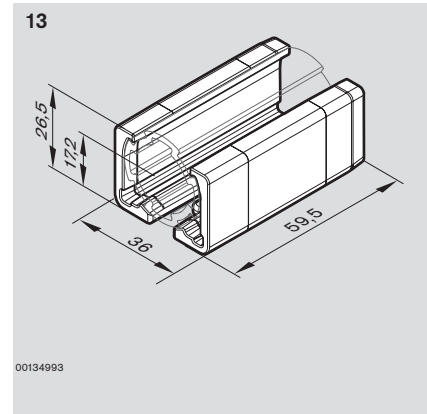
Incl. mounting material
Material: diecast aluminum



N10, 30 adapter

	No.
20	3 842 541 190

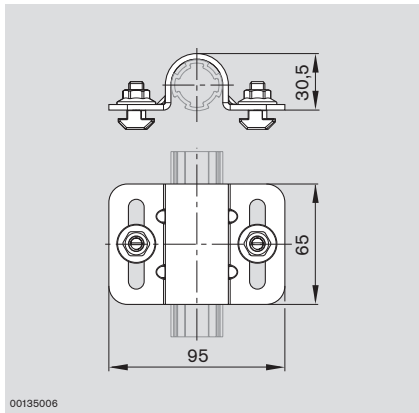
Incl. mounting material
Material: diecast zinc



XLean holder adapter

	No.
20	3 842 541 296

Material: PA 66, black



D28L/N10 tube clip

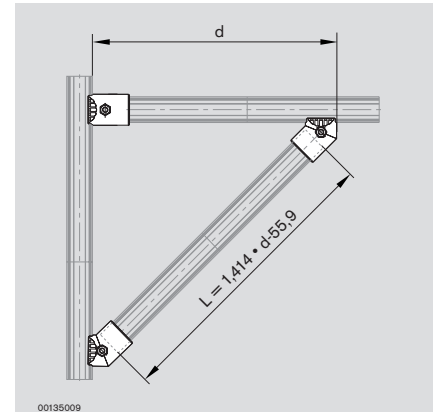
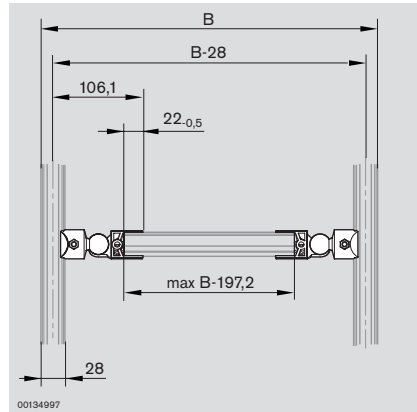
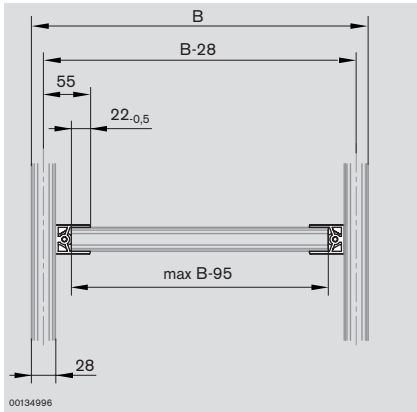
	No.
20	3 842 541 193

Incl. mounting material

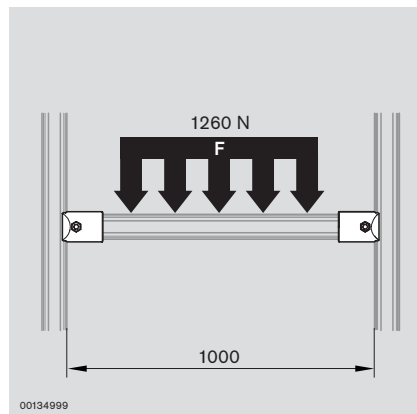
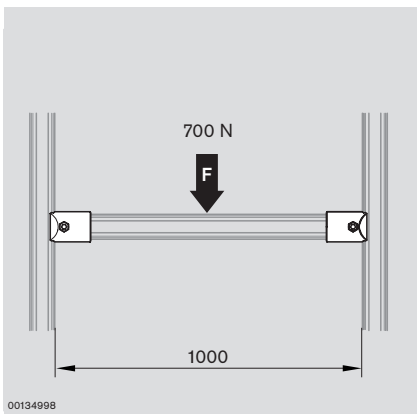
Tubular Framing System

Technical data

Length calculation



Bearing loads and surface loads



Tubular Framing System

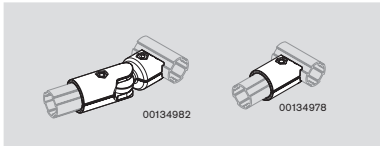
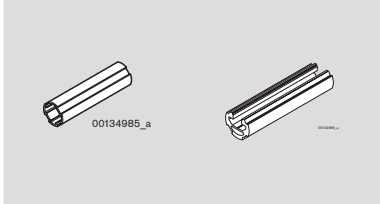
Modular product system for flow rack construction

These two pages contain a small selection of products from our Manual Production Systems (MPS) and Basic

Mechanical Elements (MGE) ranges that can be used in conjunction with our new EcoShape tubular framing system.

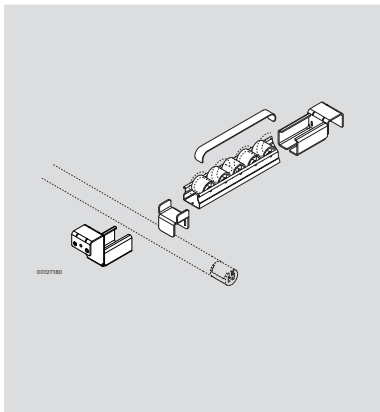
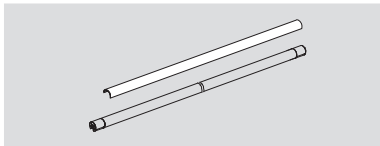
Use the info fax on the last page to order a catalog or visit us on the Internet at www.boschrexroth.com/dcl.

Tubular Framing System



Product designation	Length (mm)	Order no.	Page
D28L round tube	L = 5600	3 842 541 211	6
D28L round tube	50 ≤ L ≤ 5600	3 842 996 191/...	6
D28L, N10 round tube	L = 5600	3 842 541 213	6
D28L, N10 round tube	50 ≤ L ≤ 5600	3 842 996 192/...	6
Cover profile		3 842 541 196	6
Cap		3 842 541 195	6
D28L threaded sleeve		3 842 541 185	6
90° connector		3 842 541 173	7
Parallel connector		3 842 541 183	7
45° connector		3 842 541 175	7
Cross connector		3 842 541 181	7
0°-90° connector		3 842 541 178	7
N10, 45 adapter		3 842 541 187	8
N10, 30 adapter		3 842 541 190	8
XLean holder adapter		3 842 541 296	8

Manual Production Systems 3.0

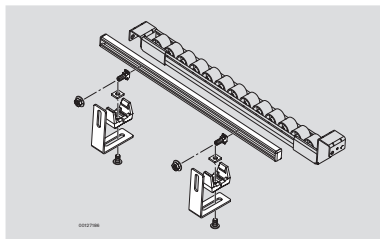
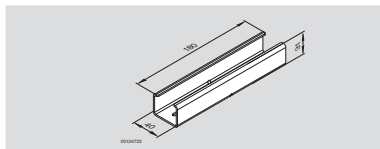
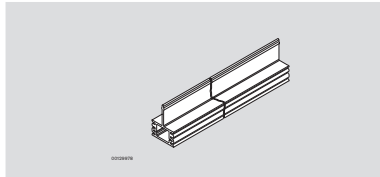


Product designation	Length (mm)	Order no.	Page
Lettering clip for tubular cross tie	L = 2000	3 842 535 136	3-45
Lettering clip for tubular cross tie	L = 102	3 842 538 093	3-45
D28 round tube	30 ≤ L ≤ 6000	3 842 993 317/...	3-40
D28 round tube	L = 6070	3 842 535 118	3-40
D28 roller section	100 ≤ L ≤ 4500	3 842 993 321/...	3-47
D28, ESD roller section	100 ≤ L ≤ 4500	3 842 993 431/...	3-47
D28 roller section	L = 4500	3 842 537 776	3-47
D28, ESD roller section	L = 4500	3 842 537 778	3-47
D28SK roller section	100 ≤ L ≤ 4500	3 842 993 322/...	3-47
D28SK, ESD roller section	100 ≤ L ≤ 4500	3 842 993 432/...	3-47
D28SK roller section	L = 4500	3 842 537 777	3-47
D28SK, ESD roller section	L = 4500	3 842 537 779	3-47
Brake		3 842 532 871	3-47
Rail holder with stop		3 842 538 372	3-47
Rail holder without stop		3 842 537 687	3-47
Mount		3 842 537 657	3-47
D28 tube clip		3 842 535 364	3-57

Tubular Framing System

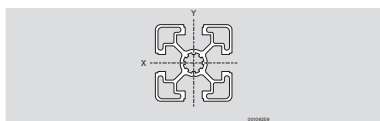
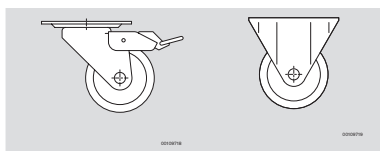
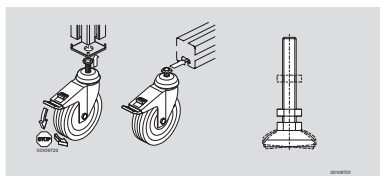


Manual Production Systems 3.0



Product designation	Length (mm)	Order no.	Page
Polymer profile	$30 \leq L \leq 3000$	3 842 993 615/...	3-42
Polymer profile, ESD	$30 \leq L \leq 3000$	3 842 993 617/...	3-42
Polymer profile	$L = 3000$	3 842 538 108	3-42
Polymer profile, ESD	$L = 3000$	3 842 538 107	3-42
Rail holder with stop		3 842 538 051	3-42
Rail holder without stop		3 842 538 050	3-42
XLean mount		3 842 538 102	3-42
M6, P60 - P 30 bracket set		3 842 537 862	2-26
Section link		3 842 536 722	3-48
Bridge		3 842 536 724	3-48
Flexible bridge		3 842 537 911	3-48
Adapter, ESD		3 842 537 022	3-49
Mounting bracket		3 842 535 125	3-49
Profile 15x22.5	$30 \leq L \leq 3000$	3 842 992 473/...	3-49
Profile 15x22.5	$L = 2000$	3 842 513 576	3-49
Cap, ESD		3 842 537 594	3-49

Basic Mechanical Elements 12.0



Product designation	Length (mm)	Order no.	Page
Caster wheel with lock		3 842 541 226	6-13
Caster wheel		3 842 541 234	6-13
Leveling foot		3 842 529 025	6-4
Leveling foot		3 842 352 061	6-4
Roller		3 842 259 790	6-18
Roller		3 842 259 792	6-18
45x45L profile		3 842 992 425/...	2-35

Tubular Framing System

MTpro planning software

MTpro is a software used for planning assembly systems that assists you from selection to configuration and ordering of the Rexroth products.

The DVD includes:

Layout Designer for planning and designing complete frames and conveyor systems without a CAD system

- Simple design using the drag & drop and snap functions without a CAD system
- Design rules to support users in the creation of complete systems
- User library to save and reuse your own modules and layouts
- Export of 3-D volume models into all common CAD systems
- Automatic order list generation of all small parts and accessories

Product information for the following product lines:

- MGE Basic Mechanical Elements
- MPS Manual Production Systems
- MIT Material and Information Flow Technology

Product configuration and calculation of order lists

Generation of CAD models with direct interfaces to all common CAD systems

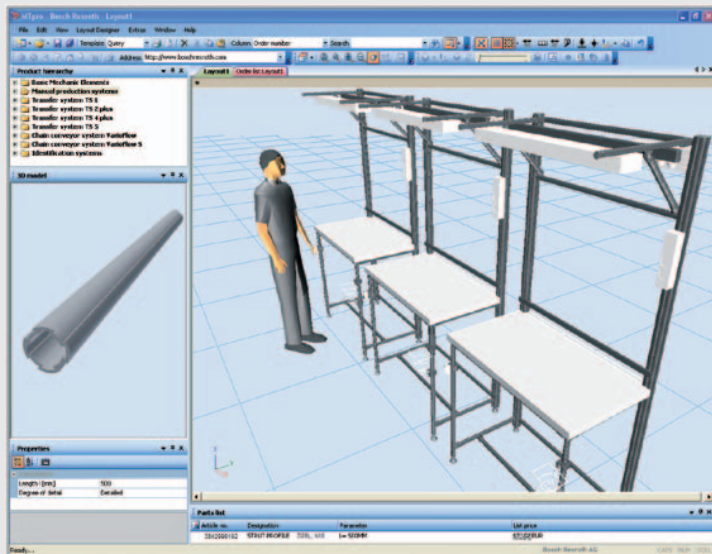
- Export of configured models into the most popular file formats
- Multifunctional drivers allow you to insert the configured CAD models with parts list information directly in your current drawing
- Edit the properties of CAD models you have already configured and inserted in your CAD drawing in supported CAD systems

- Multilingual content and graphical user interface in 5 different languages (de/en/fr/es/it)
- MTpro runs directly from DVD-ROM without installation
- Update your installation of MTpro online with the automatic update system

System requirements:

- Windows 2000, Windows XP, Windows Vista
- Adobe Reader 6.0 and newer
- 2.5 GB of hard disk space needed for installation

The DVD-ROM MTpro 2.0 can be ordered free of charge with the part number 3 842 539 057 from your local Rexroth sales partner.



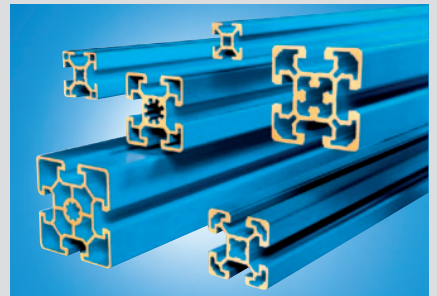
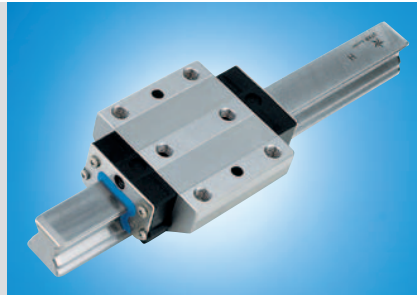
Linear Motion and Assembly Technologies

Please send me/us, without any obligation, more information about:

- Ball Rail Systems
- Roller Rail Systems
- Linear Bushings and Shafts

- Ball Screw Drives
- Linear Motion Systems

- Basic Mechanical Elements
- Manual Production Systems
- Transfer Systems



Sender

www.boschrexroth.com/dcl

Bosch Rexroth AG
Linear Motion and
Assembly Technologies
Postfach 30 02 07
70442 Stuttgart, Germany
Tel. +49 711 811-30698
Fax +49 711 811-30364
www.boschrexroth.com/dcl

Australia

Bosch Rexroth Pty. Ltd.
3 Valediction Road
Kings Park, NSW 2148, Sydney
Tel. +61 2 9831 7788
Fax +61 2 9831 5553

Great Britain

Bosch Rexroth Limited
Cromwell Road
St. Neots, Huntingdon
Cambs. PE19 2ES
Tel. +44 1480 223 298
Fax +44 1480 470 789

Canada

Bosch Rexroth Canada Corp.
3426 Mainway Drive
Burlington, Ontario L7M 1A8
Tel. +1 905 335-5511
Fax +1 905 335-4184

USA

Bosch Rexroth Corporation
816 E. Third Street
Buchanan, MI 49107
Tel. +1 800 REXROTH
+1 800 739 7684
Fax +1 269 695 5363

Singapore

Bosch Rexroth Pte. Ltd.
15D Tuas Road
638520 Singapore
Tel. +65 6861 8733
Fax +65 6861 1825

Your sales partner

Subject to technical modifications