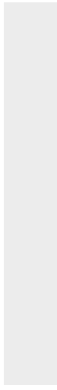




Bars removable along the inner and outer radius)
Bars removable along the inner and outer radius)
along the outer radius, from one side)

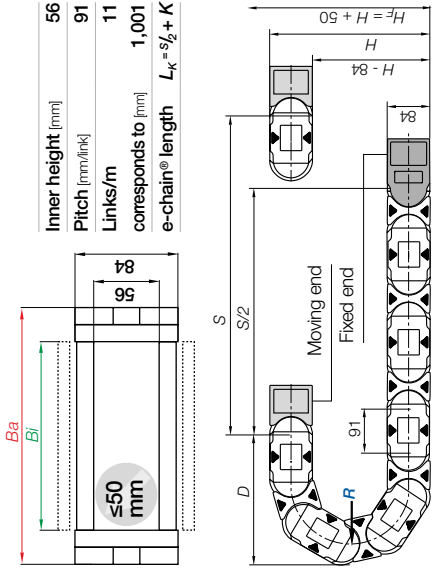
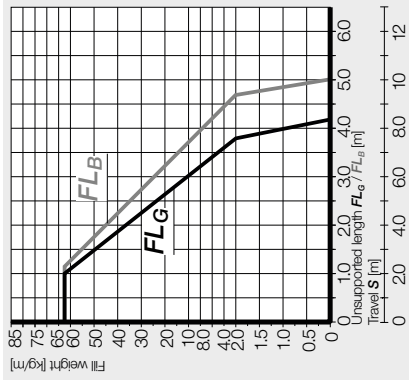
e-tubes	Bi	Ba	E4.56	H4.56	R4.56
	[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]
56.28.	R.0	287	322	≈ 5.32	≈ 4.45
1. 56.30.	R.0	300	334	≈ 5.48	≈ 4.53
56.31.	R.0	312	347	≈ 5.51	≈ 4.54
56.32.	R.0	325	359	≈ 5.62	≈ 4.60
56.33.	R.0	337	372	≈ 5.74	≈ 4.66
1. 56.35.	R.0	350	384	≈ 5.88	≈ 4.73
56.36.	R.0	362	397	≈ 5.90	≈ 4.74
56.37.	R.0	375	409	≈ 6.02	≈ 4.79
56.38.	R.0	387	422	≈ 6.06	≈ 4.82
1. 56.40.	R.0	400	434	≈ 6.01	≈ 4.79
56.41.	R.0	412	447	≈ 6.25	≈ 4.91
56.42.	R.0	425	459	≈ 6.37	≈ 4.97
56.43.	R.0	437	472	≈ 6.46	≈ 5.01
56.45.	R.0	450	484	≈ 6.65	≈ 5.11
1. 56.46.	R.0	462	497	≈ 6.70	≈ 5.14
56.47.	R.0	475	509	≈ 6.79	≈ 5.15
56.48.	R.0	487	522	≈ 6.80	≈ 5.19
56.50.	R.0	500	534	≈ 6.96	≈ 5.26
56.51.	R.0	512	547	≈ 7.01	≈ 5.29
56.52.	R.0	525	559	≈ 7.14	≈ 5.36
56.53.	R.0	537	572	≈ 7.23	≈ 5.40
56.55.	R.0	550	584	≈ 7.65	≈ 5.61
56.60.	R.0	600	634	≈ 7.38	≈ 5.48



2nd link / R4.56.30.300.0 = fully enclosed



ik/H4.56 ► www.igus.co.uk/R4.56 **igus**

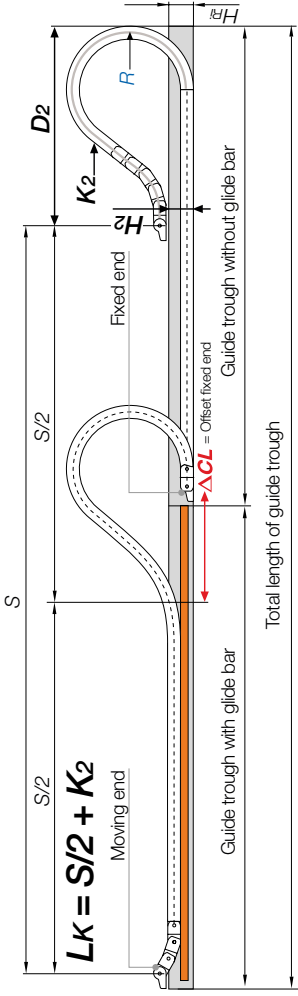


R	135*	150	175	200	240	250	300	350	400	450	500
H ₂	354	384	434	484	564	584	684	784	884	984	1084
D	314	329	354	379	419	429	479	529	579	629	679
K	610	655	735	815	940	970	1,125	1,285	1,440	1,600	1,755

The required clearance height: $H_f = H + 50\text{mm}$ (with 3.0kg/m fill weight)

*Radius not available for e-tubes

Gliding applications | For travel lengths from 12m to max. 400m



Note: We recommend the project planning of such a system to be carried out by igus®.
In case of travels between 10 and 12m we recommend an e-chain® with a longer unsupported length.

R	135*	150	175	200	240	250	300	350	400	450	500
H ₂	270	266	266	266	266	266	266	266	266	266	266
D ₂	268	450	580	710	900	980	1,180	1,440	1,530	1,700	1,850
K ₂	610	819	1,092	1,274	1,547	1,638	2,002	2,275	2,548	2,912	3,276
ΔCL	-	159	259	359	509	559	709	909	959	1,059	1,159

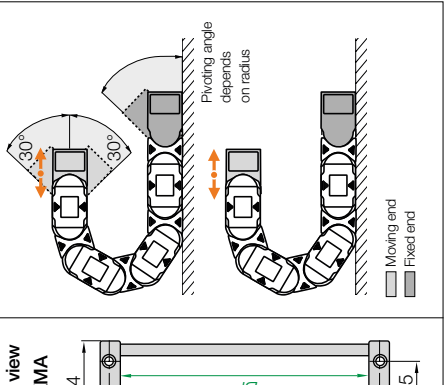
*Radius not available for e-tubes

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E-mail: lin-tech@hennlich.cz

www.hennlich.cz/lin-tech



Gliding applications and standing applications

Part No. full set	IMA pivoting	Part No. full set	KMA locking	BI [mm]	
4.560.28		12.C	E4.561.28		287
4.560.30		12.C	E4.561.30		300
4.560.31		12.C	E4.561.31		312
4.560.32		12.C	E4.561.32		325
4.560.33		12.C	E4.561.33		337
4.560.35		12.C	E4.561.35		350
4.560.36		12.C	E4.561.36		362
4.560.37		12.C	E4.561.37		375
4.560.38		12.C	E4.561.38		387
4.560.40		12.C	E4.561.40		400
4.560.41		12.C	E4.561.41		412
4.560.42		12.C	E4.561.42		425
4.560.43		12.C	E4.561.43		437
4.560.45		12.C	E4.561.45		450
4.560.46		12.C	E4.561.46		462
4.560.47		12.C	E4.561.47		475
4.560.48		12.C	E4.561.48		487
4.560.50		12.C	E4.561.50		500
4.560.51		12.C	E4.561.51		512
4.560.52		12.C	E4.561.52		525
4.560.53		12.C	E4.561.53		537
4.560.55		12.C	E4.561.55		550
4.560.60		12.C	E4.561.60		600

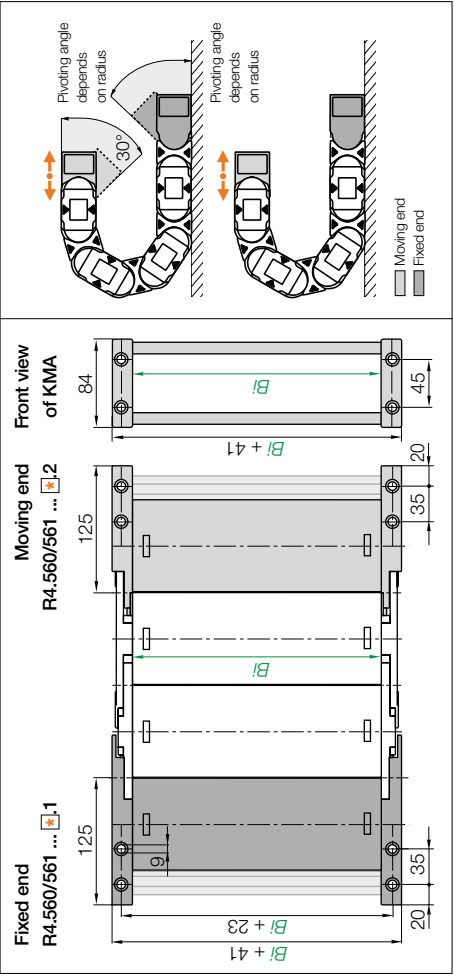
ik/H4.56 ► www.igus.co.uk/R4.56 



Strain relief e.g. clamps, tiewrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ► From page 1392



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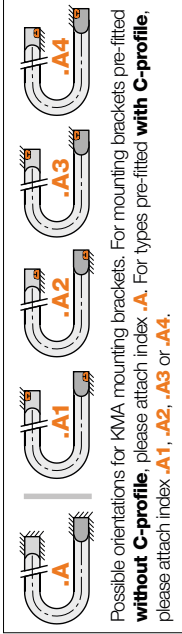


KMA pivoting	Recommended for unsupported and gliding applications
KMA locking	Recommended for vertical hanging and standing applications

<i>B_i</i>	Width index	Part No. full set	<i>B_i</i>	Width index	Part No. full set	<i>B_i</i>
[mm]		KMA pivoting	KMA locking	[mm]	KMA pivoting	KMA locking
250	07. ▲	R4.560.07 [★]12.C	R4.561.07 [★]12.C	75	25. ▲	R4.560.25 [★]12.C
275	10. ▲	R4.560.10 [★]12.C	R4.561.10 [★]12.C	100	27. ▲	R4.560.27 [★]12.C
300	12. ▲	R4.560.12 [★]12.C	R4.561.12 [★]12.C	112	30. ▲	R4.560.30 [★]12.C
350	15. ▲	R4.560.15 [★]12.C	R4.561.15 [★]12.C	150	35. ▲	R4.560.35 [★]12.C
400	17. ▲	R4.560.17 [★]12.C	R4.561.17 [★]12.C	175	40. ▲	R4.560.40 [★]12.C
462	20. ▲	R4.560.20 [★]12.C	R4.561.20 [★]12.C	200	46. ▲	R4.560.46 [★]12.C

(KMA = polymer metal mounting bracket) For the C-profile option please add index **.C**

Note:  The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index **1** (for odd) or **2** (for even) depending on an even or odd number of links required.

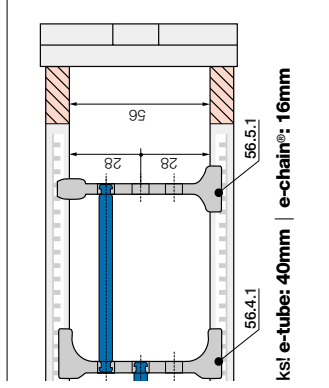


Order example

A... to indicate option with brackets pre-fitted

C-profile option

E4.560.30.12 C.A2



ard - for any application

or with a wide base for maximum holding force.

en faster installation

one side for high holding force, narrow on opposite
easy cable fitting.

all cables

or with a narrow base for a large number of small
side by side. Saves space.

File-mounted applications

etrical separator, for defined gap distance. No al spacers required.

securely in preset increments

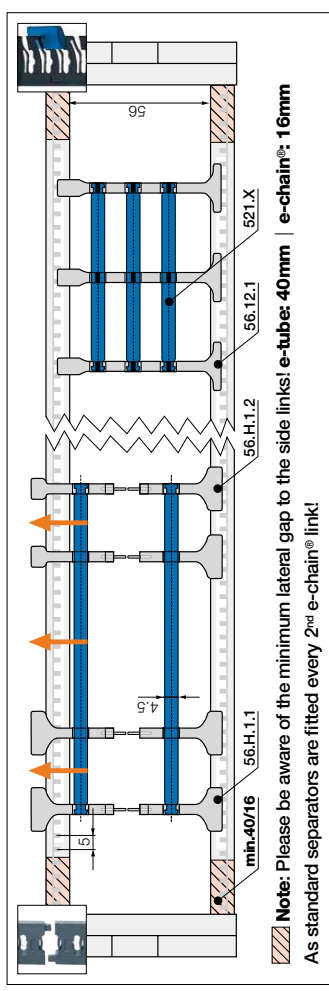
operator for exact positioning. Recommended for
united applications.

ntal separation

h shelf locks securely into separators at both ends, fixed width. Can be used as full-width or partial shelf.

	assembled	X [mm]	unassembled	assembled
	521.150	300	520.300	521.300
	521.175	350	520.350	521.350
	521.200	375	520.375	521.375
	521.225	387	520.387	521.387
	521.250	450	520.450	521.450

ik/H4.56 ► www.igus.co.uk/R4.56 



Split separators

In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.

 	Split separator, wide base/top unassembled 56.H.1 assembled 56.H.1.1
 	Split separator, narrow top unassembled 56.H.2 assembled 56.H.2.1
 	Lean separator¹⁾ unassembled 56.12 assembled 56.12.1

Lean separators¹⁾

For quick fitting of shelves in several layers.

1) Note: Please combine maximum 4 lean separators with one shelf. Not suitable for side-mounted e-chains®!

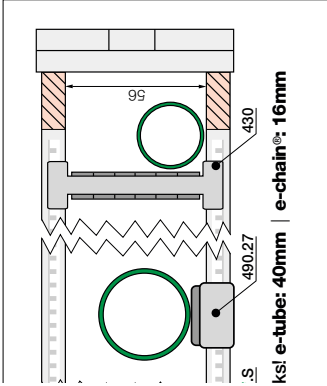


With the lean separator you can quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%²⁾.

2) Lean interior separation vs. Standard separator - measured on a 4m long e-chain® fitted with 12 cables in the iqus® readychain® factory

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667

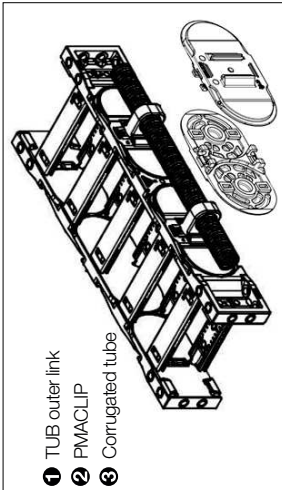


locking separator* for increased holding force
locking separators offer higher crossbar opening for high humidity and/or large hydraulic hoses. They positioned precisely and then locked in position.

il height separator*
injection with an additional opening crossbar. **part no.** .S, it provides the option to separate the upper and alves of the e-chain® independently of each other.

ip*
es abrasion of sensitive hoses. Simply clamps onto xing crossbar. The movable rollers compensate for movement between the e-chain® and hose.

separator*
er separator is used in a similar way to the rollclip. It like a separator. For rigid cables and hoses.
able for e-chains®



TUB | Safe guidance for corrugated tubes parallel to the e-chain®

- Additional, simple guidance for corrugated tubes on the outside of the e-chain®
- PMAClip support to be easily clipped on corrugated tubes with nominal widths 17, 23, 29, 36, 48mm
- Easy access to the corrugated tubes, fast replacement of the hoses
- Reduce assembly time and cost - easy to assemble, without any additional screws or tools
- The part number includes the e-chain® with TUB side sections; the PMAClip support and the hose are ordered separately

Part No. TUB	Part No. TUB	Part No. TUB	For corrugated tube nominal diameter
Outer link right*	Outer link left*	Outer link at both ends*	Ø [mm]
E4.56.XXXTUBR.0	E4.56.XXXTUBL.0	E4.56.XXXTUBR.0	17 / 23 / 29 / 36 / 48

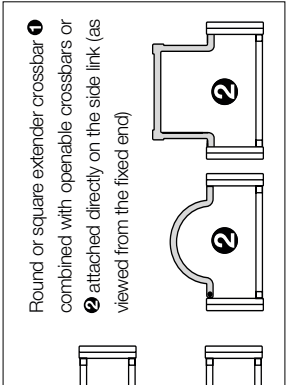
*As viewed from the fixed end
Complete Part No. with the width index **XXX** of **Bi** and the minimum bend radius **(R)**. Example:
E4.56.10TUBR.150.0 = with TUB outer sections every 2nd right hand link

Product range | PMAClip | Support, one-piece, with safety clip



PMAClip support - one-piece construction with safety clip, suitable for corrugated tubes

Part No. PMAClip	NW Ø [mm]	A mm	B mm	C mm	H mm	E mm	M mm
I-BFH-17-0	17	30.0	20.0	34.0	20.0	68.0	M6
I-BFH-23-0	23	38.5	20.0	42.0	24.0	85.0	M6
I-BFH-29-0	29	45.5	20.0	48.0	27.0	99.0	M6
I-BFH-36-0	36	55.5	20.0	56.0	31.0	119.0	M6
I-BFH-48-0	48	67.5	20.0	68.0	37.0	143.0	M6



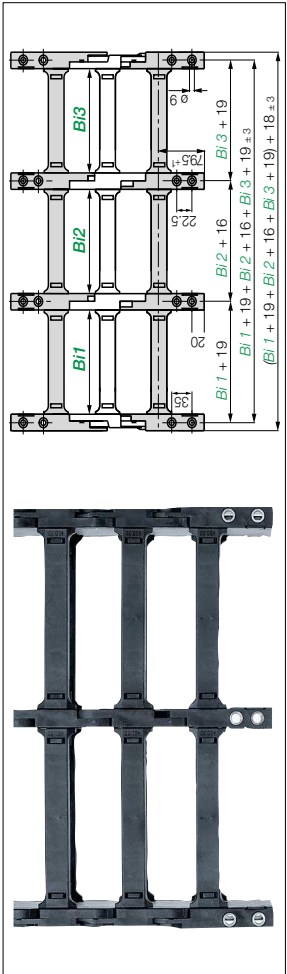
or large hoses

ssbars
nk
rough

② Fitted to side link	① Combine with operable crossbars
No	Yes
Yes	No
Yes	No
Yes	No
Yes	No
No	Yes
No	Yes
No	Yes

please add index **E**: E4.56.10/15RHD**E**115/10.**R**.0
please add index **Z**: E4.56.10/15RHD**Z**115/10.**R**.0
rain®, please add index **E**: E4.56.17RD**E**115.**R**.0
rain®, please add index **Z**: E4.56.17RD**Z**115.**R**.0

ik/H4.56 ▶ www.igus.co.uk/R4.56 



Extension links | For extremely wide e-chains® up to 3.0m

- Virtually unlimited side-by-side extension
- For extremely wide e-chains® up to 3000mm
- Unsupported length FL_g max. can be increased when heavy fill weights are required
- e-chains® and e-tubes can be combined
- Attached with KMA or steel mounting brackets

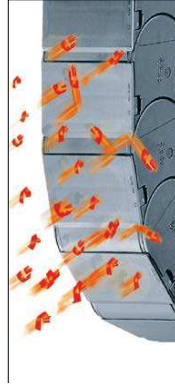
Part No.	Part No.	Part No.
Extension link e-chain®	Extension link e-tube	Extension link as an individual part
E4.56. Bi 1/ Bi 2/ Bi 3. R .0	R4.56. Bi 1/ Bi 2/ Bi 3. R .0	422. R .

Complete Part No. with the width index **Bi**1/**Bi**2/**Bi**3/*etc.* and the radius (**R**). Example: E4.56.10/20/10.200.0



With the E4.1 TUB, corrugated tubes can be reliably guided in parallel, saving space

 3D CAD, configurators, service life calculation and more ▶ www.igus.co.uk/E4.1



uses
contact

040HD-R8840HD



ID

ik/H4.56 ► www.igus.co.uk/R4.56 **igus**



E4.1 as a noise-optimised version with extension links. Unsupported application with high fill weight. Harnesses with rigid hydraulic hoses. The max. noise level can be reduced up to 9dB(A) using the optional rubber dampers

Option: E4Q - the next generation of easy-to-assemble igus® e-chains®

The latest E4Q e-chains® generation combines proven design features of the 12-year old, robust E4.1 e-chains® standard with new bionic design elements and a novel opening mechanism. This gives the E4Q an even longer service life and significantly improved ease of installation.

- Opening and closing completely without tools
- Greater strength and longer unsupported lengths
- Lighter e-chain® links due to material saving
- Optional noise dampening - new system for noise reduction

More information ► From page 580

New



igus 3D CAD, configurators, service life calculation and more ► www.igus.co.uk/E4.1