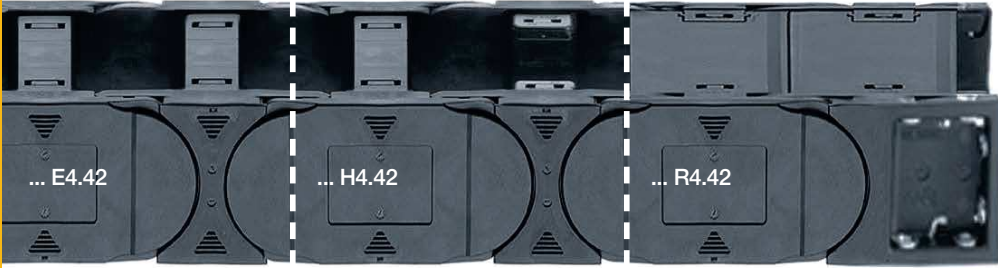
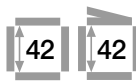


Strong due to undercut design, medium inner height



e-chains® Series E4.42 Crossbars every link (crossbars removable along the inner and outer radius)
 e-chains® Series H4.42 Crossbars every 2nd link (crossbars removable along the inner and outer radius)
 e-tubes Series R4.42 Fully enclosed (lids openable along the outer radius, from one side)

Part No.	Bi	Ba	E4.42	H4.42	R4.42	Part No.	Bi	Ba	E4.42	H4.42	R4.42
e-chains® / e-tubes	[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]	e-chains® / e-tubes	[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]
E4.▲ H4. R4.1)42.05. R.0	50	76	≈ 2.10	≈ 2.05	≈ 2.74	E4. H4. - 42.212.R.0	212	239	≈ 2.94	≈ 2.46	-
E4.▲ H4. R4.1)42.06. R.0	68	94	≈ 2.21	≈ 2.10	-	E4. H4. - 42.23. R.0	225	251	≈ 3.02	≈ 2.51	-
E4.▲ H4. R4. 42.07. R.0	75	101	≈ 2.24	≈ 2.12	≈ 3.05	E4. H4. - 42.237.R.0	237	264	≈ 3.05	≈ 2.52	-
E4.▲ H4. R4. 42.087.R.0	87	114	≈ 2.30	≈ 2.15	≈ 3.20	E4. H4. R4. 42.25. R.0	250	276	≈ 3.16	≈ 2.58	≈ 5.44
E4. H4. - 42.097.R.0	97	123	≈ 2.35	≈ 2.17	-	E4. H4. - 42.262.R.0	262	289	≈ 3.23	≈ 2.61	-
E4.▲ H4. R4. 42.10. R.0	100	126	≈ 2.37	≈ 2.18	≈ 3.34	E4. H4. - 42.28. R.0	275	301	≈ 3.29	≈ 2.64	-
E4. H4. R4. 42.11. R.0	108	134	≈ 2.42	≈ 2.20	≈ 3.39	E4. H4. - 42.29. R.0	287	314	≈ 3.32	≈ 2.65	-
E4. H4. - 42.112.R.0	112	139	≈ 2.43	≈ 2.21	-	E4. H4. R4. 42.30. R.0	300	326	≈ 3.42	≈ 2.71	≈ 6.09
E4. H4. R4. 42.12. R.0	125	151	≈ 2.52	≈ 2.26	≈ 3.58	E4. H4. - 42.312.R.0	312	339	≈ 3.44	≈ 2.72	-
E4. H4. - 42.137.R.0	137	164	≈ 2.57	≈ 2.28	-	E4. H4. - 42.325.R.0	325	351	≈ 3.53	≈ 2.76	-
E4.▲ H4. R4. 42.15. R.0	150	176	≈ 2.64	≈ 2.32	≈ 3.87	E4. H4. - 42.337.R.0	337	364	≈ 3.58	≈ 2.79	-
E4. H4. - 42.162.R.0	162	189	≈ 2.66	≈ 2.33	-	E4. H4. - 42.350.R.0	350	376	≈ 3.77	≈ 2.88	-
E4. H4. R4. 42.17. R.0	168	194	≈ 2.73	≈ 2.36	≈ 4.10	E4. H4. - 42.362.R.0	362	389	≈ 3.85	≈ 2.92	-
E4.▲ H4. - 42.18. R.0	175	201	≈ 2.75	≈ 2.37	-	E4. H4. - 42.375.R.0	375	402	≈ 3.91	≈ 2.95	-
E4. H4. - 42.187.R.0	187	214	≈ 2.79	≈ 2.39	-	E4. H4. - 42.387.R.0	387	414	≈ 3.97	≈ 2.98	-
E4.▲ H4. R4. 42.20. R.0	200	226	≈ 2.90	≈ 2.44	≈ 4.44	E4. H4. - 42.400.R.0	400	426	≈ 4.02	≈ 3.01	-

▲ ESD version (Electro Static Discharge) available from stock. More information ▶ From page 142

© All widths of the E4.42 with crossbars every link are available from stock as RBR version (Reverse Bend Radius) 100/500 and 160/450. More information ▶ From page 130

1) Lid removable, non-operable *Radius not available for e-tubes

Available bend radii

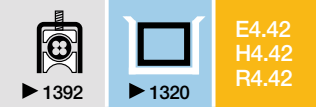
R [mm] | 075* | 100* | 115* | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350 |

Complete Part No. with required radius (R). Example:

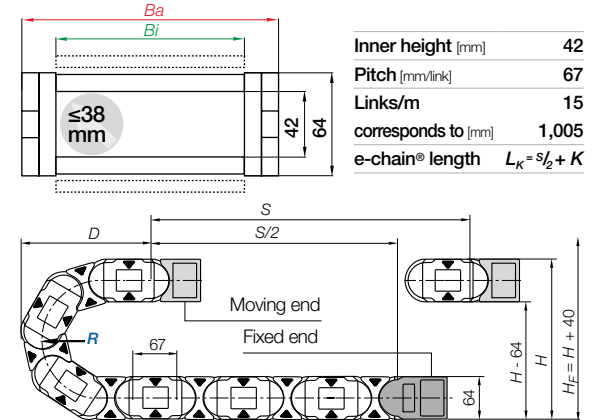
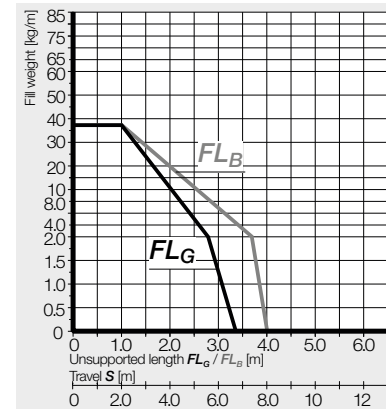
E4.42.30.300.0 = crossbars every link / H4.42.30.300.0 = crossbars every 2nd link / R4.42.30.300.0 = fully enclosed

ESD - many sizes from stock

- Standardised product made from igumid ESD
 - ESD material tested for over 10 million cycles for the toughest requirements
 - Short delivery times including mounting brackets and interior separation; 24hrs, from stock
- More information and the complete product range ▶ From page 142



Unsupported applications | Short travels



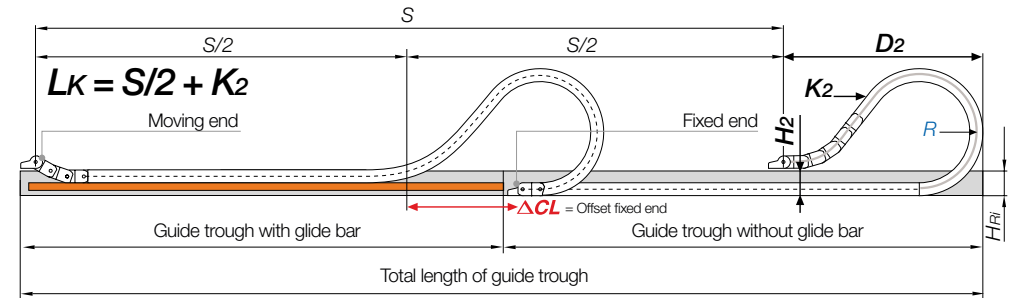
Inner height [mm]	42
Pitch [mm/link]	67
Links/m	15
corresponds to [mm]	1,005
e-chain® length $L_K = S/2 + K$	

R	075*	100*	115*	125	150	160	175	200	250	300	350
H ₂₅	214	264	294	314	364	384	414	464	564	664	764
D	208	233	248	258	283	293	308	333	383	433	483
K	370	450	500	530	610	640	685	765	920	1,080	1,235

The required clearance height: $H_F = H + 40\text{mm}$ (with 3.0kg/m fill weight)

*Radius not available for e-tubes

Gliding applications | For travel lengths from 12m to max. 300m



Note: We recommend the project planning of such a system to be carried out by igus®.

In case of travels between 8 and 12m we recommend an e-chain® with a longer unsupported length.

R	075*	100*	115*	125	150	160	175	200	250	300	350
H ₂	150	186	186	186	186	186	186	186	186	186	186
D ₂₊₂₅	174	390	435	475	570	623	670	780	1,030	1,150	1,500
K ₂	370	603	737	804	938	1,072	1,139	1,340	1,675	1,943	2,412
ΔACL	-	170	200	230	300	380	380	460	660	730	1,030

*Radius not available for e-tubes

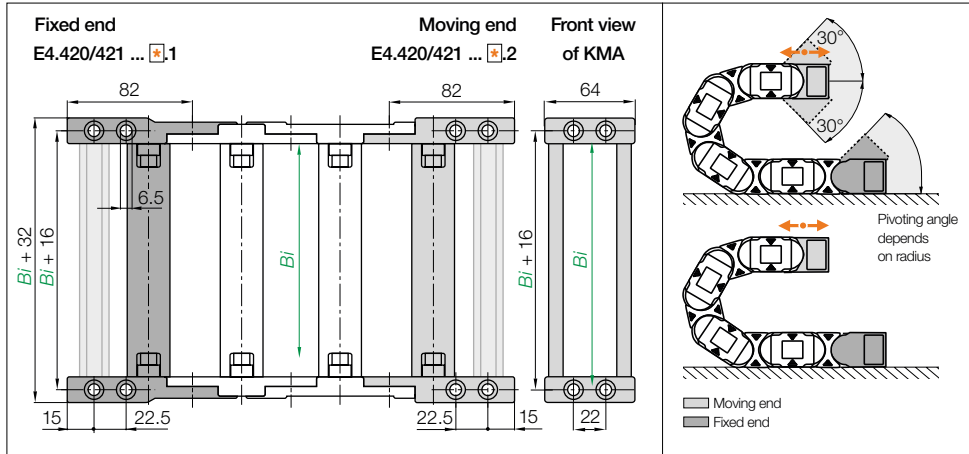
Rotating energy supply systems with Reverse Bend Radius (RBR) - some radii available from stock

- Maximum rotation angle in minimal installation space
 - Minimal friction forces and maximum service life
- More information and the complete product range ▶ From page 130



E4.1 | e-chains® E4.42·H4.42 | Accessories

KMA mounting brackets | Attachment from any side | Pivoting | Locking



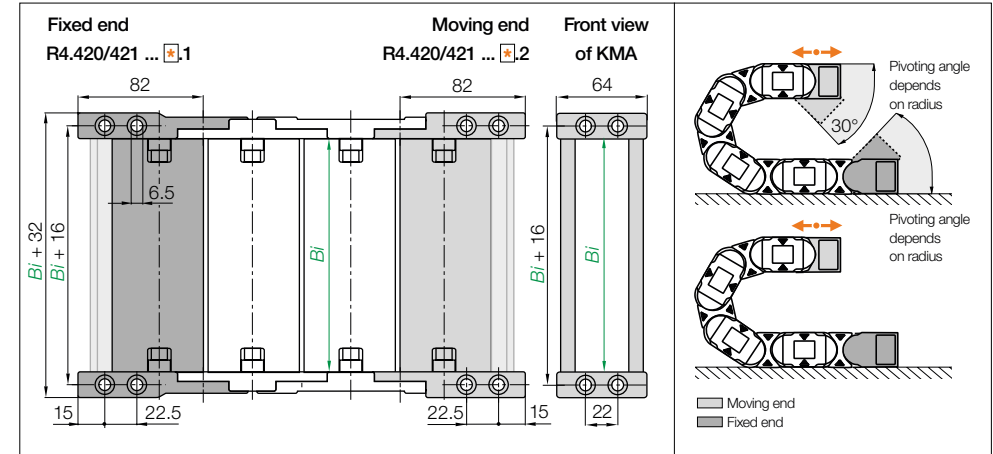
KMA pivoting | Recommended for unsupported and gliding applications
KMA locking | Recommended for vertical hanging and standing applications

Width index	Part No. full set KMA pivoting	Part No. full set KMA locking	Bi [mm]	Width index	Part No. full set KMA pivoting	Part No. full set KMA locking	Bi [mm]
05.	E4.420.05	E4.421.05	50	212.	E4.420.212	E4.421.212	212
06.	E4.420.06	E4.421.06	68	23.	E4.420.23	E4.421.23	225
07.	E4.420.07	E4.421.07	75	237.	E4.420.237	E4.421.237	237
087.	E4.420.087	E4.421.087	87	25.	E4.420.25	E4.421.25	250
09.	E4.420.097	E4.421.097	97	262.	E4.420.262	E4.421.262	262
10.	E4.420.10	E4.421.10	100	28.	E4.420.28	E4.421.28	275
11.	E4.420.11	E4.421.11	108	29.	E4.420.29	E4.421.29	287
112.	E4.420.112	E4.421.112	112	30.	E4.420.30	E4.421.30	300
12.	E4.420.12	E4.421.12	125	312.	E4.420.312	E4.421.312	312
137.	E4.420.137	E4.421.137	137	325.	E4.420.325	E4.421.325	325
15.	E4.420.15	E4.421.15	150	337.	E4.420.337	E4.421.337	337
162.	E4.420.162	E4.421.162	162	350.	E4.420.350	E4.421.350	350
17.	E4.420.17	E4.421.17	168	362.	E4.420.362	E4.421.362	362
18.	E4.420.18	E4.421.18	175	375.	E4.420.375	E4.421.375	375
187.	E4.420.187	E4.421.187	187	387.	E4.420.387	E4.421.387	387
20.	E4.420.20	E4.421.20	200	400.	E4.420.400	E4.421.400	400

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

E4.1 | e-tubes R4.42 | Accessories

KMA mounting brackets | Attachment from any side | Pivoting | Locking

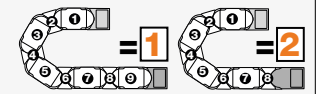


KMA pivoting | Recommended for unsupported and gliding applications
KMA locking | Recommended for vertical hanging and standing applications

Width index	Part No. full set KMA pivoting	Part No. full set KMA locking	Bi [mm]	Width index	Part No. full set KMA pivoting	Part No. full set KMA locking	Bi [mm]
05.	R4.420.05	R4.421.05	50	12.	R4.420.12	R4.421.12	125
06.	R4.420.06	R4.421.06	68	15.	R4.420.15	R4.421.15	150
07.	R4.420.07	R4.421.07	75	17.	R4.420.17	R4.421.17	168
087.	R4.420.087	R4.421.087	087	20.	R4.420.20	R4.421.20	200
10.	R4.420.10	R4.421.10	100	25.	R4.420.25	R4.421.25	250
11.	R4.420.11	R4.421.11	108	30.	R4.420.30	R4.421.30	300

(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.



Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without C-profile**, please attach index .A. For types pre-fitted **with C-profile**, please attach index .A1, .A2, .A3 or .A4.

E4.420.30.2.12.C.A2 Order example

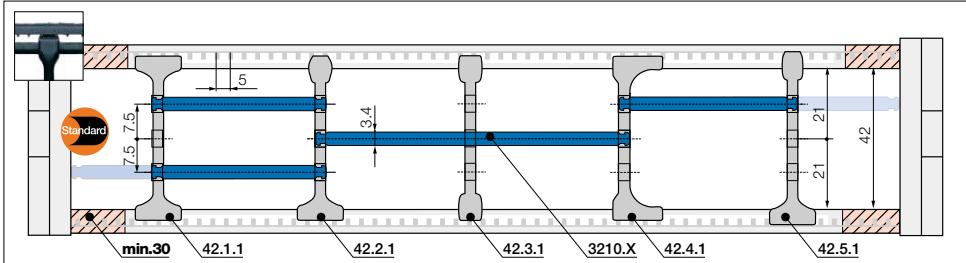
- .A... to indicate option with brackets pre-fitted
- C-profile option
- Full set
- Even numbers of links
- Width index
- Series



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

Interior separation | Increase cable service life

Previous generation of interior separation with other options ► www.igus.co.uk/E4.42



Note: Please be aware of the minimum lateral gap to the side links! **e-tubes: 30mm**
As standard separators are fitted every 2nd e-chain® link!

		Standard separator, wide base
		unassembled 42.1 assembled 42.1.1

Standard - for any application
Separator with a wide base for maximum holding force.

		Separator, narrow top
		unassembled 42.2 assembled 42.2.1

For even faster installation
Wide on one side for high holding force, narrow on opposite side for easy cable fitting.

		Separator, narrow
		unassembled 42.3 assembled 42.3.1

For small cables
Separator with a narrow base for a large number of small cables side by side. Saves space.

		Separator, asymmetrical
		unassembled 42.4 assembled 42.4.1

For side-mounted applications
Asymmetrical separator, for defined gap distance. No additional spacers required.

		Notch separator for notched crossbar
		unassembled 42.5 assembled 42.5.1

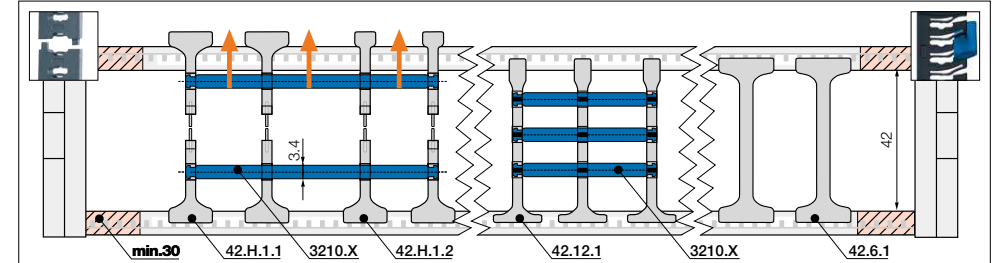
Locks securely in preset increments
Notch separator for exact positioning. Recommended for side-mounted applications.

		Shelf, lockable
		unassembled 3200.X assembled 3210.X

Horizontal separation
Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

Shelves Width = X [mm]	X [mm]		X [mm]		X [mm]			
	unassembled	assembled	unassembled	assembled	unassembled	assembled		
050	3200.050	3210.050	125	3200.125	3210.125	225	3200.225	3210.225
075	3200.075	3210.075	150	3200.150	3210.150	250	3200.250	3210.250
100	3200.100	3210.100	175	3200.175	3210.175			
115	3200.115	3210.115	200	3200.200	3210.200			

Interior separation | To allow faster filling



Note: Please be aware of the minimum lateral gap to the side links! **e-tubes: 30mm**
As standard separators are fitted every 2nd e-chain® link!

		Split separator, wide base/top
		unassembled 42.H.1 assembled 42.H.1.1

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, narrow top
		unassembled 42.H.2 assembled 42.H.2.1

		Lean separator ¹⁾
		unassembled 42.12 assembled 42.12.1

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 igus® readychain® factory

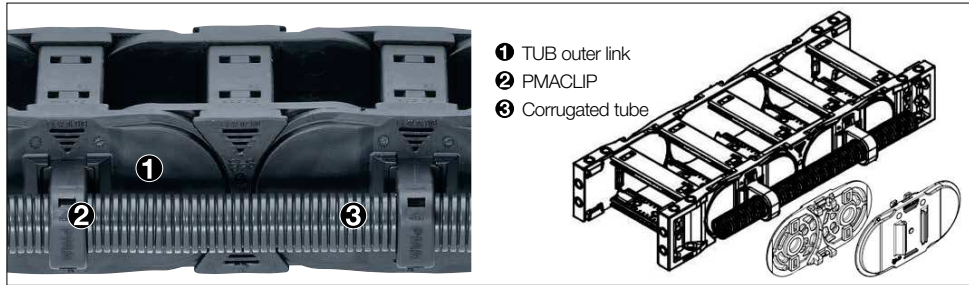


More interior separation options | Only for e-chains®

		Notch locking separator, lockable for e-chains®
		unassembled 42.6 assembled 42.6.1

Notch locking separator* for increased holding force
Notch locking separators offer higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.
^{*}Only suitable for e-chains®

TUB



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 07, 10, 12, 17mm
- 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

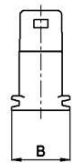
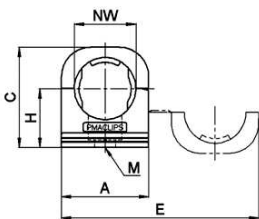
Part No. TUB	Part No. TUB	Part No. TUB	For corrugated tube nominal diameter
Outer link right*	Outer link left*	Outer link at both ends*	Ø [mm]
E4.42.XXXTUBR.R.0	E4.42.XXXTUBL.R.0	E4.42.XXXTUB.R.0	07 / 10 / 12 / 17

*As viewed from the fixed end

Complete Part No. with the width index **XXX** of **Bi** and the minimum bend radius (**R**). Example:

E4.42.10TUBR.150.0 = with TUB outer sections every 2nd right hand link

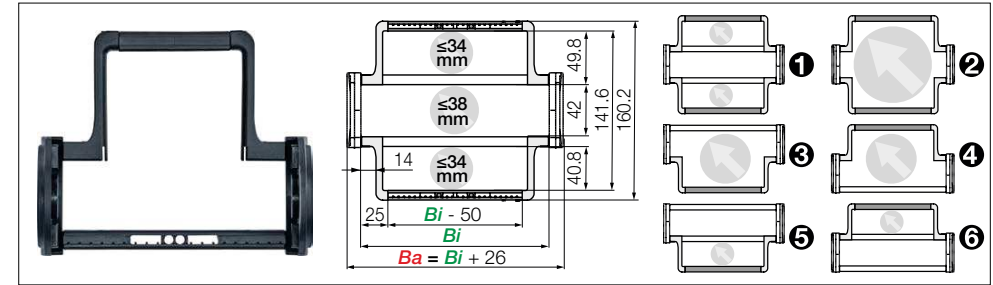
Product range | PMACLIP | Support, one-piece, with safety clip



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

Part No.	NW	A	B	C	H	E	M
PMACLIP	Ø [mm]	mm	mm	mm	mm	mm	mm
I-BFH-07-0	07	17.0	20.0	21.5	13.5	40.5	M4
I-BFH-10-0	10	20.5	20.0	24.5	15.5	47.5	M5
I-BFH-12-0	12	24.0	20.0	27.0	16.5	54.5	M5
I-BFH-17-0	17	30.0	20.0	34.0	20.0	68.0	M6

e-chain® with openable extender crossbars



Extender crossbars with flexible width | Safe guiding for large hoses

- For guiding and protecting large hoses
- With mounting for noise dampers
- Cable-friendly design, high crossbar holding force
- The openable extender crossbars can be fitted in different ways and combinations
- Optionally openable along the inner or outer radius

Versions	Hose	Part No.	Part No.
e-chain® with extender crossbar	Ø ≤ [mm]	crossbars every link	crossbars every 2 nd link
1 Extender crossbar and standard crossbar alternating along the inner and outer radius ¹⁾	34	E4.42.XXXHB50.R.0	-
2 Extender crossbar on both sides along the inner and outer radius ²⁾	130	E4.42.XXXB50.R.0	H4.42.XXXB50.R.0 ²⁾
3 Extender crossbar along the outer radius ³⁾	85	E4.42.XXXBE50.R.0	H4.42.XXXBE50.R.0 ²⁾
4 Extender crossbar along the inner radius ²⁾	85	E4.42.XXXBZ50.R.0	H4.42.XXXBZ50.R.0 ²⁾
5 Extender crossbar and standard crossbar alternating along the outer radius ³⁾	34	E4.42.XXXHBE50.R.0	-
6 Extender crossbar and standard crossbar alternating along inner radius ¹⁾	34	E4.42.XXXHBZ50.R.0	-

1) Minimum bend radius: **R 125** 2) Minimum bend radius: **R 150** 3) Minimum bend radius: **R 075**

Bi [mm] Available inner widths

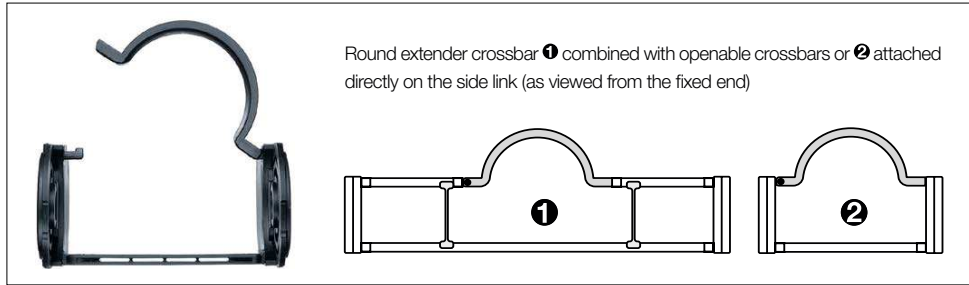
| 100 | 125 | 137 | 150 | 162 | 175 | 187 | 200 | 212 | 225 | 237 | 250 |
| 262 | 275 | 287 | 300 | 312 | 325 | 337 | 350 | 362 | 375 | 387 | 400 |

Part number with the width index **XXX** of the **Bi** and the radius (**R**) supplement e.g. E4.42.10B50.150.0 = **Bi 100** / e-chain® with crossbars every link / extender crossbars from both sides along the inner and outer radius / bend radius (**R**) 150



The E4.1 can be fitted with openable extender crossbars, which increase the size of the interior of the e-chain®. Crossbars can be fitted in various ways: from one or both sides, alternating with standard crossbars and or any combination

Extender crossbar with fixed width



Extender crossbars with fixed width | Safe guiding for large hoses

- Suitable for hoses with a maximum outer diameter of 105mm
- Option ① extender crossbars with fixed width to combine with openable crossbars
- Option ② extender crossbars with fixed width attached directly on the side link
- Optionally openable along the inner "Z" or the outer radius "E"
- Gliding with crossbars assembled along the outer radius and a special guide trough

Part No. extender crossbar with fixed width, as individual parts	Hose $\varnothing \leq$ [mm]	Extender crossbar shape	② Fitted to side link	① Combine with openable crossbars
385.15RHD115	105	○ round	No	Yes
385.18RD115	105	○ round	Yes	No

Order example: ① combined with openable crossbars

To receive extender crossbar RHD115 pre-fitted along the outer radius of the-chain®, please add index **E**: E4.42.10/15RHDE115/10.R.0

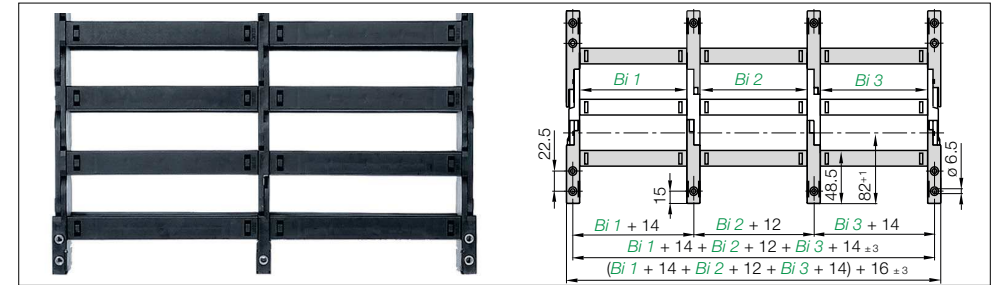
To receive extender crossbar RHD115 pre-fitted along the inner radius of the-chain®, please add index **Z**: E4.42.10/15RHDZ115/10.R.0

Order example: ② fitted to side link

To receive extender crossbar RD115 pre-fitted along the outer radius of the-chain®, please add index **E**: E4.42.18RDE115.R.0

To receive extender crossbar RD115 pre-fitted along the inner radius of the-chain®, please add index **Z**: E4.42.18RDZ115.R.0

Extension links | Hinged crossbars | Swivel clip

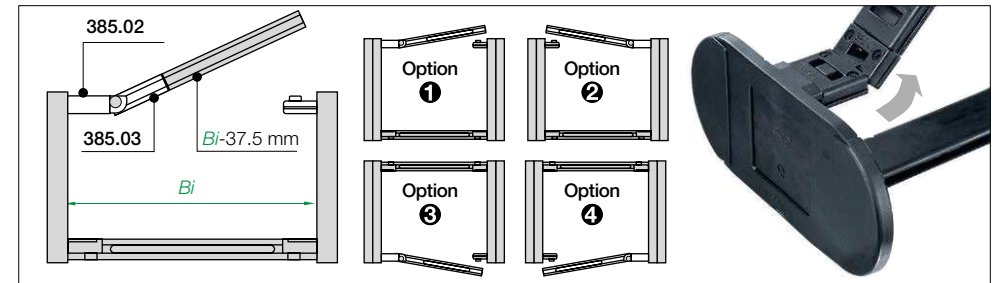


Extension links | For extremely wide e-chains® up to 3.0m

- 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. Extension link e-chain®	Part No. Extension link e-tube	Part No. Extension link as an individual part
E4.42.Bi1/Bi2/Bi3.R.0	R4.42.Bi1/Bi2/Bi3.R.0	384.R.

Complete Part No. with the width index *Bi1/Bi2/Bi3/etc.* and the radius (R). Example: E4.42.10/20/10.200.0



Hinged crossbars | Swivel clip | Openable crossbar remains attached to the e-chain®

- When opening crossbars must remain attached to the e-chain®
- Hinged crossbars consist of a swivel clip and a shortened crossbar
- Openable crossbar (shortened): $Bi-37.5$ mm (smallest inner width $Bi = 87.5$)
- Please consult igus® for assistance with this product

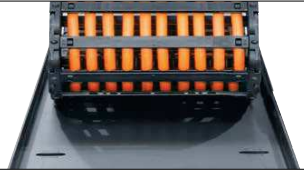
Part No. e-chain® with hinged crossbar	Part No. swivel clip as an individual part	Part No. openable crossbar as an individual part
E4.42.Bi.Z.R.0	385.02	385.03

Complete Part No. with the width index *Bi*, the index **Z** for the required option and the radius (R). Example: E4.42.137.1.200.0

Steel support tray for support of the lower run

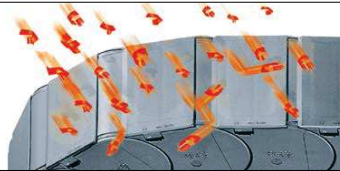
- Simple one-piece support trays for the lower run
- To your requirements and specification
- 4 options available

More information ► From page 1356

**Hot swarf up to +850°C for e-tubes**

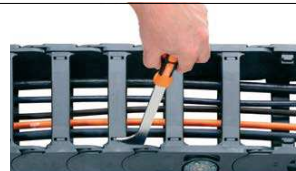
- Lids and shelves can repel swarf up to +850°C. Special production option with the igus® material igumid HT
- No hot swarf melting or embedding into the chain

More information ► www.igus.co.uk/HT

**Reduce assembly time - E4 e-chain® opener**

- e-chain® opener tools for easy opening and closing of e-chains®
- Simple opening and closing of e-chain® crossbars
- Also for use in hard to reach locations
- Significant assembly time reduction

More information ► www.igus.co.uk/E4savetime

**Roller crossbars - increase the service life of cables and hoses**

- Significantly reduce jacket abrasion of very stiff cables and hoses with rolling contact surfaces equipped with tribo-optimised bearings
- For sensitive hoses in restricted space
- Usable along the inner and/or outer radius, retrofit possible

More information ► upon request

**CFU strain relief with innovative honeycomb design**

- Fast filling, openable from both sides for assembly in seconds
- Flexible honeycomb design for increased holding force
- Tribologically optimised honeycomb design for the best hold
- Universal use, compact, space-saving design

More information ► Page 1422



igus® e-chains® can even withstand the difficult conditions in stone processing facilities. The task of this e-chain® is to supply the tool carriage with energy (up to 100 A), signals, compressed air and water. It can travel up to 12m and achieves speeds of up to 32m/min.

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

