

e-chains® | Series E4.112 | Crossbars every link (crossbars removable along the inner and outer radius)
e-tubes | Series R4.112 | Fully enclosed (lids openable along the outer radius, from one side)

Part No.	Bi	Ba	E4.112	R4.112	Part No.	Bi	Ba	E4.112	R4.112
e-chains® / e-tubes	[mm]	[mm]	[kg/m]	[kg/m]	e-chains® / e-tubes	[mm]	[mm]	[kg/m]	[kg/m]
E4. - 112.05. R.0	50	102	≈ 7.78	-	E4. - 28. R.0	287	339	≈ 8.88	-
E4. - 112.055. R.0	55	107	≈ 7.81	-	E4. R4. 30. R.0	300	352	≈ 8.97	≈ 11.42
E4. - 112.06. R.0	65	117	≈ 7.84	-	E4. - 31. R.0	312	364	≈ 9.00	-
E4. - 112.07. R.0	75	127	≈ 7.88	-	E4. - 32. R.0	325	377	≈ 9.06	-
E4. - 112.08. R.0	87	139	≈ 7.94	-	E4. - 33. R.0	337	389	≈ 9.14	-
E4. - 112.10. R.0	100	152	≈ 7.99	-	E4. R4. 35. R.0	350	402	≈ 9.27	≈ 12.07
E4. - 112.11. R.0	112	164	≈ 8.07	-	E4. - 36. R.0	362	414	≈ 9.21	-
E4. - 112.12. R.0	125	177	≈ 8.12	-	E4. - 37. R.0	375	427	≈ 9.27	-
E4. - 112.13. R.0	137	189	≈ 8.20	-	E4. - 38. R.0	387	439	≈ 9.35	-
E4. - 112.15. R.0	150	202	≈ 8.23	-	E4. R4. 40. R.0	400	452	≈ 9.52	≈ 12.71
E4. - 112.16. R.0	162	214	≈ 8.30	-	E4. - 41. R.0	412	464	≈ 9.47	-
E4. - 112.169. R.0	169	222	≈ 8.35	-	E4. - 42. R.0	425	477	≈ 9.66	-
E4. - 112.17. R.0	175	227	≈ 8.38	-	E4. - 43. R.0	437	489	≈ 9.56	-
E4. - 112.182. R.0	182	235	≈ 8.41	-	E4. - 45. R.0	450	502	≈ 9.77	-
E4. - 112.18. R.0	187	239	≈ 8.45	-	E4. - 46. R.0	462	514	≈ 9.74	-
E4. R4. 112.20. R.0	200	252	≈ 8.49	≈ 10.15	E4. - 47. R.0	475	527	≈ 9.76	-
E4. - 112.207. R.0	207	260	≈ 8.52	-	E4. - 48. R.0	487	539	≈ 9.92	-
E4. - 112.21. R.0	212	264	≈ 8.53	-	E4. R4. 50. R.0	500	552	≈ 9.88	≈ 13.99
E4. - 112.22. R.0	225	277	≈ 8.58	-	E4. - 51. R.0	512	564	≈ 9.92	-
E4. - 112.23. R.0	237	289	≈ 8.65	-	E4. - 52. R.0	525	577	≈ 10.03	-
E4. R4. 112.25. R.0	250	302	≈ 8.72	≈ 10.79	E4. - 53. R.0	537	589	≈ 10.09	-
E4. - 112.26. R.0	262	314	≈ 8.78	-	E4. - 55. R.0	550	602	≈ 10.36	-
E4. - 112.27. R.0	275	327	≈ 8.84	-	E4. - 60. R.0	600	652	≈ 10.51	-

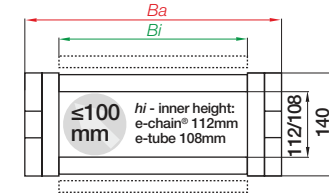
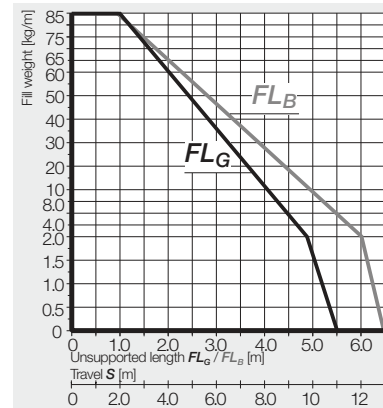
*Radius not available for e-tubes

Available bend radii

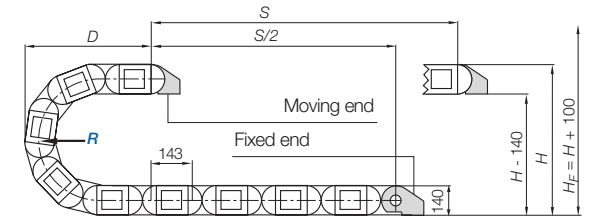
R [mm] | 200* | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 750 | 1,000 |

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

E4.112.30.300.0 = crossbars every link / R4.112.30.300.0 = fully enclosed



E4.112 Inner height [mm]	112
R4.112 Inner height [mm]	108
Pitch [mm/link]	143
Links/m	7
corresponds to [mm]	1,001
e-chain® length $L_K = S/2 + K$	

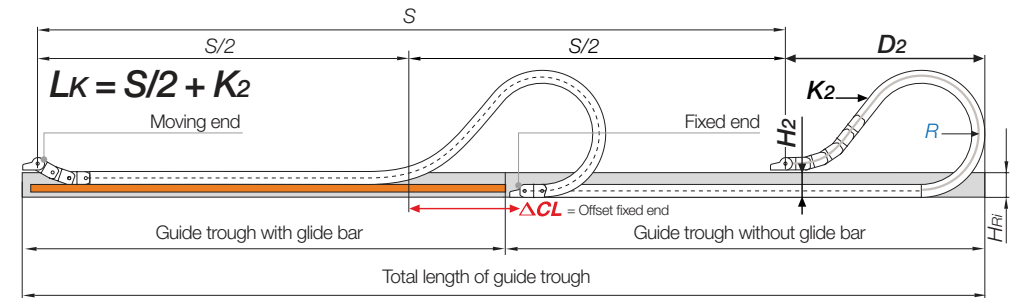


R	200*	250	300	350	400	450	500	550	600	750	1,000
H	545	645	745	845	945	1,045	1,145	1,245	1,345	1,645	2,145
D	415	465	515	565	615	665	715	765	815	965	1,215
K	915	1,075	1,230	1,390	1,545	1,700	1,860	2,015	2,175	2,645	3,430

The required clearance height: $H_f = H + 100\text{mm}$ (with 5.0kg/m fill weight)

*Radius not available for e-tubes

Gliding applications | For long travels from 14m to max. 450m



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

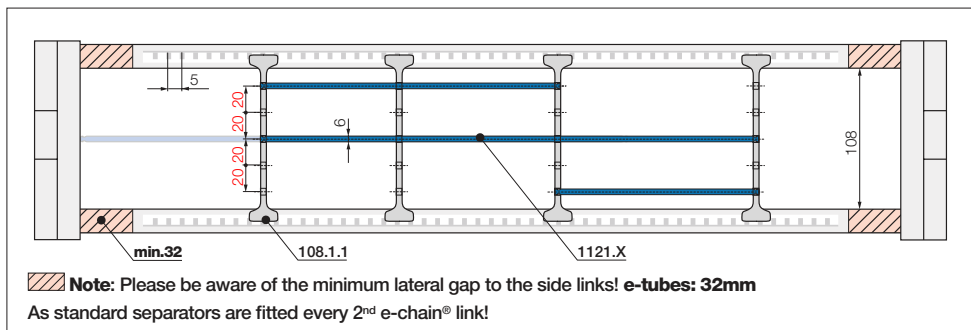
In case of travels between 11 and 14m we recommend an e-chain® with a longer unsupported length.

R	200*	250	300	350	400	450	500	550	600	750	1,000
H ₂	325	325	325	325	325	325	325	325	325	-	-
D ₂	900	1,000	1,100	1,250	1,450	1,600	1,700	1,900	2,050	-	-
K ₂	1,573	1,716	1,859	2,288	2,574	2,860	3,146	3,432	3,861	-	-
ΔCL	450	500	550	650	800	900	950	1,100	1,200	-	-

*Radius not available for e-tubes

Interior separation | Increase cable service life | Only for e-tubes

Previous generation of interior separation with other options ► www.igus.eu/R4.112



Standard separator, wide base

Standard separator with a wide base for maximum holding force in the e-chain®.

unassembled	108.1
assembled	108.1.1

Shelf, lockable

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

unassembled	1120.X
assembled	1121.X

Standard - for any application

Separator with a wide base for maximum holding force in the e-chain®.

Horizontal separation

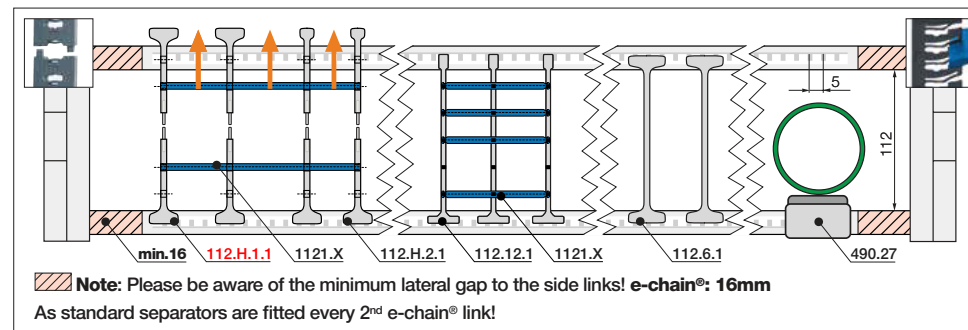
Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

Shelves Width = X (mm)	X [mm]		X [mm]		X [mm]		X [mm]	
	unassembled	assembled	unassembled	assembled	unassembled	assembled	unassembled	assembled
050	1120.050	1121.050	150	1120.150	1121.150	300	1120.300	1121.300
065	1120.065	1121.065	175	1120.175	1121.175	350	1120.350	1121.350
075	1120.075	1121.075	200	1120.200	1121.200	375	1120.375	1121.375
100	1120.100	1121.100	225	1120.225	1121.225	387	1120.387	1121.387
125	1120.125	1121.125	250	1120.250	1121.250	450	1120.450	1121.450



Compact design, custom configuration: two nested E4.112 e-chains® each around 12m long carry very heavy fill weights

Interior separation | To allow faster filling



Split separator, wide base/top*

Split separator with a wide base for maximum holding force in the e-chain®.

unassembled	112.H.1
assembled	112.H.1.1

Split separator, narrow top*

Split separator with a narrow top for maximum holding force in the e-chain®.

unassembled	112.H.2
assembled	112.H.2.1

Lean separator*

Lean separator design for fast fitting of shelves in several layers.

unassembled	112.12
assembled	112.12.1

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.

Lean separators* New

New design allows extremely fast fitting of shelves in several layers, which significantly reduces assembly time. Enables extremely fast replacement of individual cables in a very full e-chain®.

*Only for e-chains®

Lean separator design - several layers of cables fitted quickly, save up to 50%* assembly time

(*Lean separator vs. standard separator - measured on a 4m long e-chain® fitted with 12 cables in the igus® readychain® factory)



More interior separation options

Notch locking separator*, lockable

Notch locking separator offers higher crossbar opening forces with high humidity and/or large hydraulic hoses.

unassembled	112.6
assembled	112.6.1

Rollclip* for e-chains®

Rollclip minimizes abrasion of sensitive hoses. Simply clamps onto the opening crossbar.

unassembled	489.27
assembled	490.27

Notch locking separator for increased holding force

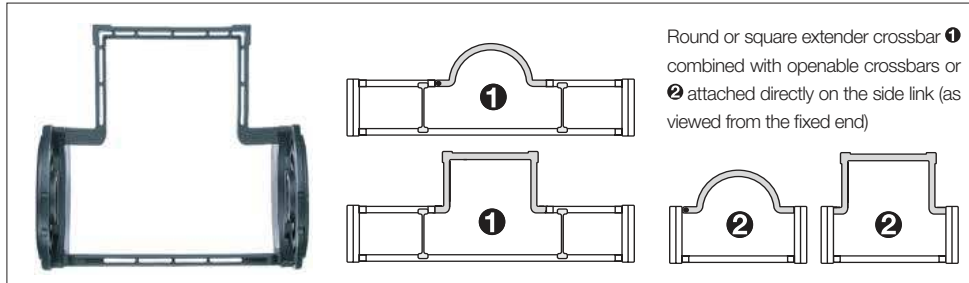
Notch locking separators* offer higher crossbar opening forces with high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.

Rollclip*

Minimises abrasion of sensitive hoses. Simply clamps onto the opening crossbar. The movable rollers compensate for relative movement between the e-chain® and hose.

*Only for e-chains®

Extender crossbar with fixed width



Round or square extender crossbar ❶ combined with openable crossbars or ❷ attached directly on the side link (as viewed from the fixed end)

Extender crossbars with fixed width | Safe guiding for large hoses

- Suitable for hoses with a maximum outer diameter of 270mm
- Variant ❶ extender crossbar with fixed width to combine with standard crossbars
- Variant ❷ extender crossbar with fixed width attached directly on the side link
- Optionally openable along the inner "Z" or outer "E" radius
- 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	❷ Fitted to side link	❶ Combine with openable crossbars
450.15RHD115	115	○ round	No	Yes
450.17RD115	115	○ round	Yes	No
450.25D150	150	□ square	Yes	No
450.30D200	200	□ square	Yes	No
450.35D250	220	□ square	Yes	No
450.40D300	270	□ square	Yes	No
450.20HD150	150	□ square	No	Yes
450.25HD200	200	□ square	No	Yes
450.30HD250	220	□ square	No	Yes

Order example: ❶ combined with openable crossbars

To receive extender crossbar RHD115 pre-fitted along the outer radius of the chain®, please add index **E**: E4.112.10/15RHDE115/10.R.0

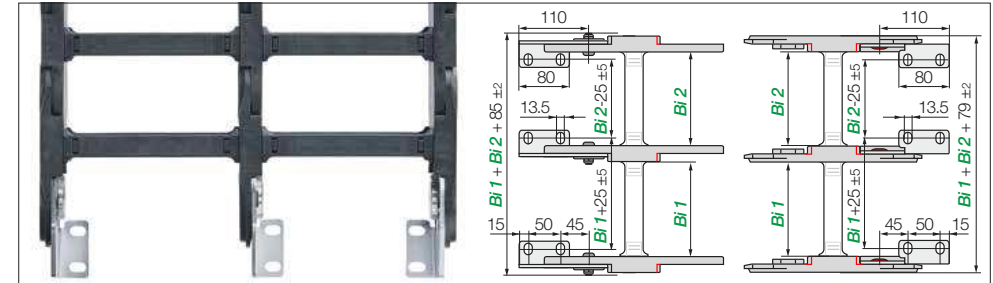
To receive extender crossbar RHD115 pre-fitted along the inner radius of the chain®, please add index **Z**: E4.112.10/15RHDZ115/10.R.0

Order example: ❷ fitted to side link

To receive extender crossbar RD115 pre-fitted along the outer radius of the chain®, please add index **E**: E4.112.17RDE115.R.0

To receive extender crossbar RD115 pre-fitted along the inner radius of the chain®, please add index **Z**: E4.112.17RDZ115.R.0

Extension links



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

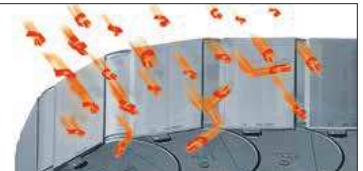
- Virtually unlimited side-by-side extension
- For extremely wide e-chains® up to 3,000mm
- Unsupported length FL_G max. can be increased when heavy fill weights are required
- e-chains® and e-tubes can be combined
- Attached with KMA or steel mounting brackets

Part No.	Part No.	Part No.
Extension link e-chain®	Extension link e-tube	Extension link as an individual part
E4.112.Bi1/Bi2/Bi3.R.0	R4.112.Bi1/Bi2/Bi3.R.0	6022.R.

Complete Part No. with the width index *Bi1/Bi2/Bi3/etc.* and the radius (*R*). Example: E4.112.10/20/10.200.0

Swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
 - No hot swarf melting or embedding into the chain
 - igus® igumid HT material
- More information ► www.igus.eu/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.eu/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 ► www.igus.eu/roller-crossbar

