

e-chains® | Series 1640 | Crossbars every link (crossbars removable along the inner and outer radius)
e-tubes | Series R1608 | Fully enclosed (flids openable along the outer radius, from one side)

Part No.	Bi	Ba	1640	1608
e-chains® / e-tubes	[mm]	[mm]	[kg/m]	[kg/m]
1640. - 05. R.0	50	84	≈ 5.10	-
1640. - 055.R.0	55	89	≈ 5.14	-
1640. - 06. R.0	65	99	≈ 5.18	-
1640. - 07. R.0	75	109	≈ 5.27	-
1640. - 08. R.0	87	121	≈ 5.31	-
1640. - 10. R.0	100	134	≈ 5.36	-
1640. - 11. R.0	112	146	≈ 5.45	-
1640. - 12. R.0	125	159	≈ 5.54	-
1640. - 13. R.0	137	171	≈ 5.63	-
1640. - 15. R.0	150	184	≈ 5.67	-
1640. - 16. R.0	162	196	≈ 5.74	-
1640. - 169.R.0	169	204	≈ 5.82	-
1640. - 17. R.0	175	209	≈ 5.81	-
1640. - 182.R.0	182	217	≈ 5.85	-
1640. - 18. R.0	187	221	≈ 5.88	-
1640. 1608. 20. R.0	200	234	≈ 5.89	≈ 7.69
1640. - 207.R.0	207	242	≈ 5.95	-
1640. - 21. R.0	212	246	≈ 5.96	-
1640. - 22. R.0	225	259	≈ 6.01	-
1640. - 23. R.0	237	271	≈ 6.09	-
1640. 1608. 25. R.0	250	284	≈ 6.15	≈ 8.39
1640. - 26. R.0	262	296	≈ 6.20	-
1640. - 27. R.0	275	309	≈ 6.27	-

*Radius not available for e-tubes

Available bend radii

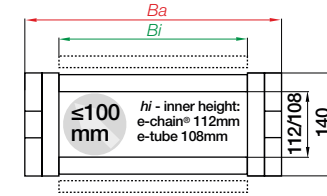
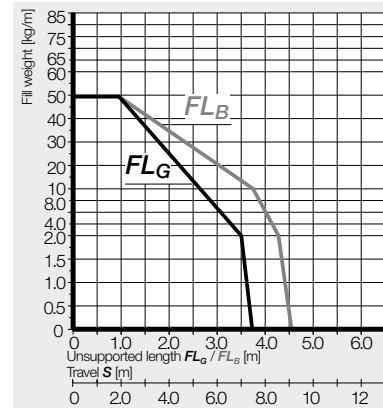
R [mm] | 200* | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |

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

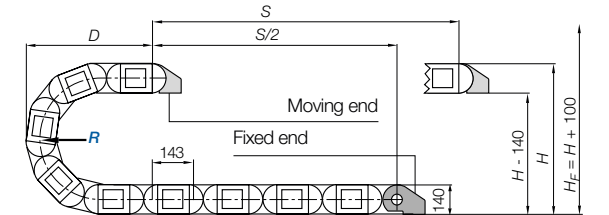
1640.30.300.0 = crossbars every link / 1608.30.300.0 = fully enclosed

Part No.	Bi	Ba	1640	1608
e-chains® / e-tubes	[mm]	[mm]	[kg/m]	[kg/m]
1640. - 28. R.0	287	321	≈ 6.29	-
1640. 1608. 30. R.0	300	334	≈ 6.34	≈ 9.09
1640. - 31. R.0	312	346	≈ 6.41	-
1640. - 32. R.0	325	359	≈ 6.48	-
1640. - 33. R.0	337	371	≈ 6.59	-
1640. 1608. 35. R.0	350	384	≈ 6.61	≈ 9.79
1640. - 36. R.0	362	396	≈ 6.67	-
1640. - 37. R.0	375	409	≈ 6.71	-
1640. - 38. R.0	387	421	≈ 6.76	-
1640. 1608. 40. R.0	400	434	≈ 6.89	≈ 10.49
1640. - 41. R.0	412	446	≈ 6.99	-
1640. - 42. R.0	425	459	≈ 7.08	-
1640. - 43. R.0	437	471	≈ 7.13	-
1640. - 45. R.0	450	484	≈ 7.17	-
1640. - 46. R.0	462	496	≈ 7.18	-
1640. - 47. R.0	475	509	≈ 7.22	-
1640. - 48. R.0	487	521	≈ 7.27	-
1640. 1608. 50. R.0	500	534	≈ 7.35	≈ 11.78
1640. - 51. R.0	512	546	≈ 7.36	-
1640. - 52. R.0	525	559	≈ 7.39	-
1640. - 53. R.0	537	571	≈ 7.49	-
1640. - 55. R.0	550	584	≈ 7.80	-
1640. - 60. R.0	600	634	≈ 7.92	-

*Radius not available for e-tubes



1640	Inner height [mm]	112
R1608	Inner height [mm]	108
	Pitch [mm/link]	143
	Links/m	8
	corresponds to [mm]	1,001
	e-chain® length	$L_K = S/2 + K$

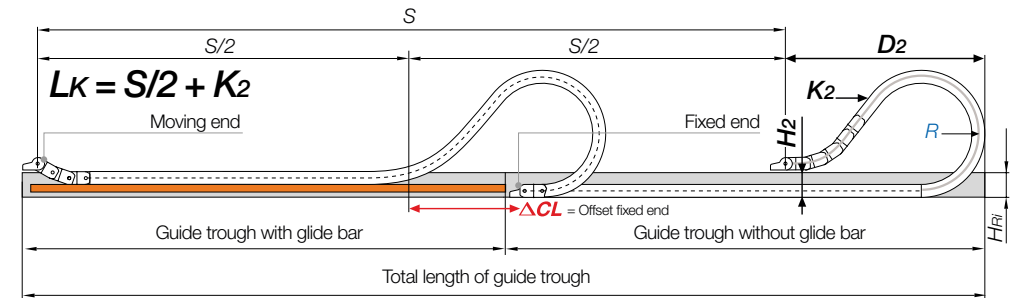


R	200*	250	300	350	400	450	500	550	600
H	540	640	740	840	940	1,040	1,140	1,240	1,340
D	485	535	585	635	685	735	785	835	885
K	915	1,075	1,230	1,390	1,545	1,700	1,860	2,015	2,175

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 travel lengths from 14m to max. 400m



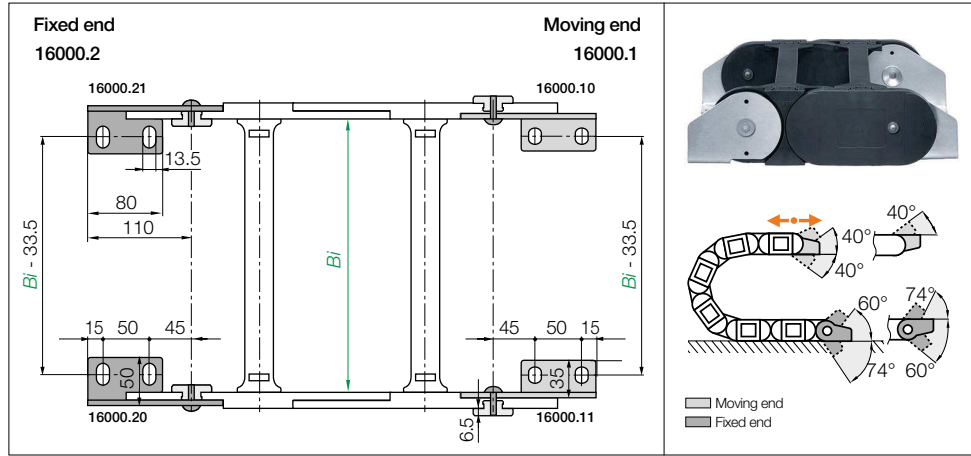
Note: We recommend the project planning of such a system to be carried out by igus®.

In case of travels between 9 and 14m we recommend an e-chain® with a longer unsupported length.

R	200*	250	300	350	400	450	500	550	600
H ₂	325	325	325	325	325	325	325	325	325
D ₂ *25	900	1,000	1,100	1,250	1,450	1,600	1,700	1,900	2,050
K ₂	1573	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

Steel mounting brackets | Pivoting

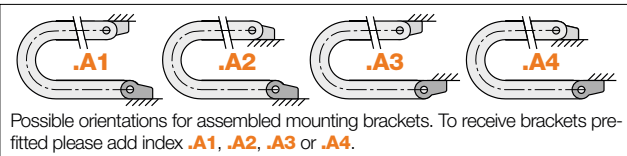
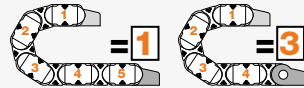


Steel pivoting | For unsupported, gliding, vertical standing and vertical hanging applications

Part No. full set	Description
steel pivoting	Mounting bracket
16000.1,12.VS E45	Full set (both ends) ending with outer side link, screwed - standard
16000.3,12.VS E45	Full set (both ends) beginning with outer side link (moving end) - ending with inner side link (fixed end), screwed - standard

Stainless steel version available. Please add the index .E45! (Material: stainless steel 1.4301)

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 3 (for even) depending on an even or odd number of links required. For the best appearance, make sure the e-chain® ends with 1 outer side links whenever possible. (with odd number of links)



Possible orientations for assembled mounting brackets. To receive brackets pre-fitted please add index .A1, .A2, .A3 or .A4.

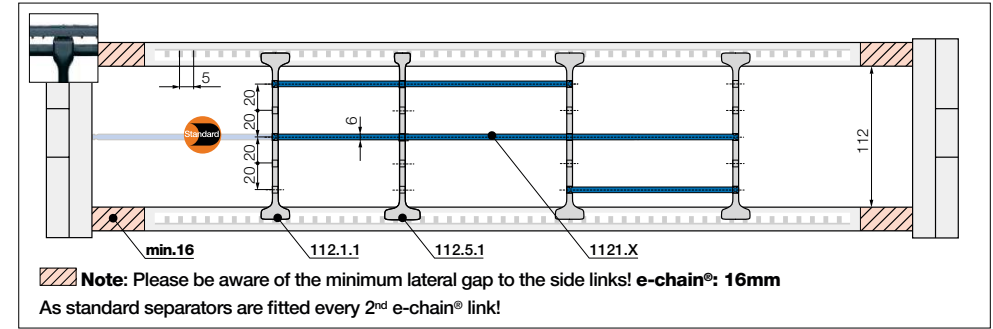
16000.1,12.VS.A2 Order example

- .A... to indicate option with brackets pre-fitted
- Pre-assembled
- Full set, pivoting
- Odd numbers of links
- Series

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

Interior separation | Increase cable service life | Only for e-chains®

Previous generation of interior separation with other options ▶ www.igus.co.uk/1640



		Standard separator, wide base unassembled 112.1 assembled 112.1.1
		Notch separator for notched crossbar unassembled 112.5 assembled 112.5.1
		Shelf, lockable unassembled 1120.X assembled 1121.X

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

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

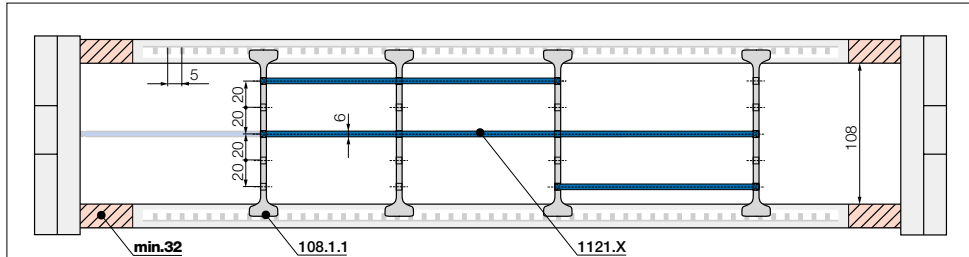
Horizontal separation
Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

Shelves
Width = X (mm)

X (mm)	unassembled	assembled	X (mm)	unassembled	assembled	X (mm)	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

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

Previous generation of interior separation with other options ► www.igus.co.uk/R1608



Note: Please be aware of the minimum lateral gap to the side links! **e-tubes: 32mm**
As standard separators are fitted every 2nd e-chain® link!

Standard separator, wide base

Standard separator with a wide base for maximum holding force.

unassembled	108.1
assembled	108.1.1

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

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.

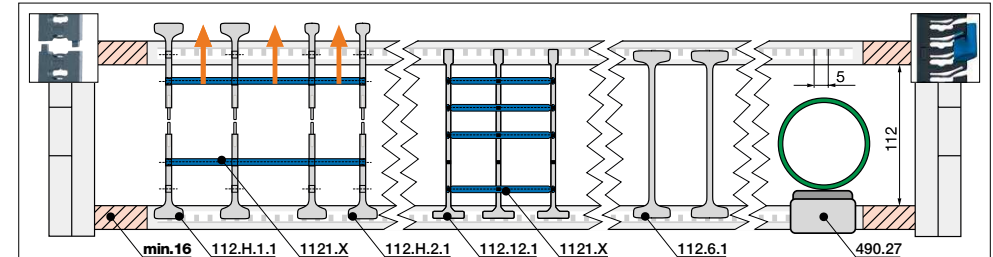
unassembled	1120.X
assembled	1121.X

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]	unassembled	assembled	X [mm]	unassembled	assembled	X [mm]	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

Interior separation | To allow faster filling | Only for e-chains®



Note: Please be aware of the minimum lateral gap to the side links! **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

Split separator, wide base/top*

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.

unassembled	112.H.1
assembled	112.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	112.H.2
assembled	112.H.2.1

Lean separator*¹⁾³⁾

For quick fitting of shelves in several layers.

unassembled	112.12
assembled	112.12.1

Lean separators*¹⁾³⁾
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®

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.

unassembled	112.6
assembled	112.6.1

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.

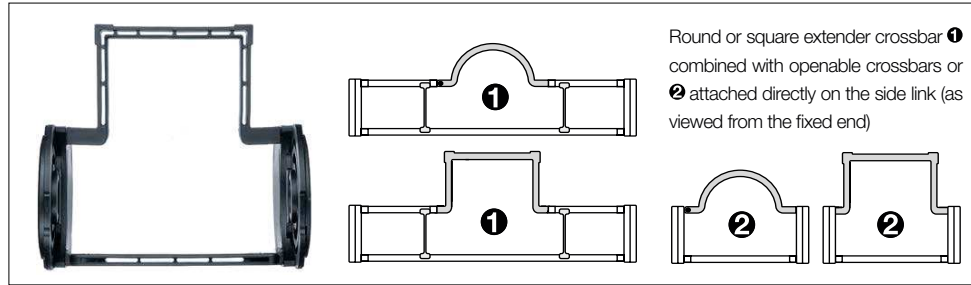
Rollclip*, for e-chains®

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 suitable for e-chains®

unassembled	489.27
assembled	490.27

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 suitable for e-chains®

Extender crossbar with fixed width



Extender crossbars with fixed width | Safe guiding for large hoses

- Suitable for hoses with a maximum outer diameter of 300mm
- 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
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	250	□ square	Yes	No
450.40D300	300	□ square	Yes	No
450.20HD150	150	□ square	No	Yes
450.25HD200	200	□ square	No	Yes
450.30HD250	250	□ square	No	Yes

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**: 1640.10/15RHD**E**115/10.**R**.0

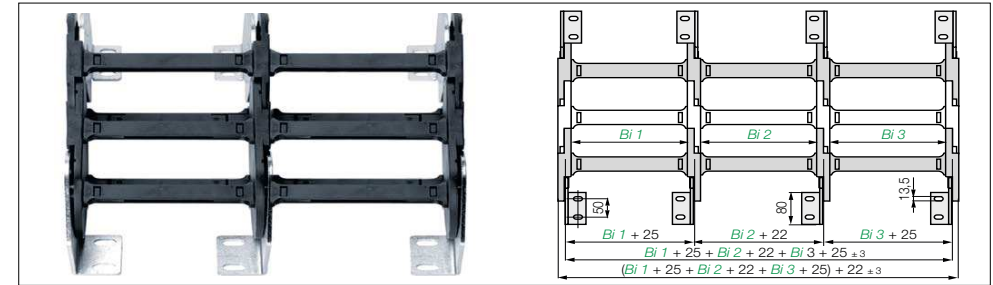
To receive extender crossbar RHD115 pre-fitted along the inner radius of the-chain®, please add index **Z**: 1640.10/15RHD**Z**115/10.**R**.0

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**: 1640.17RD**E**115.**R**.0

To receive extender crossbar RD115 pre-fitted along the inner radius of the-chain®, please add index **Z**: 1640.17RD**Z**115.**R**.0

Extension links

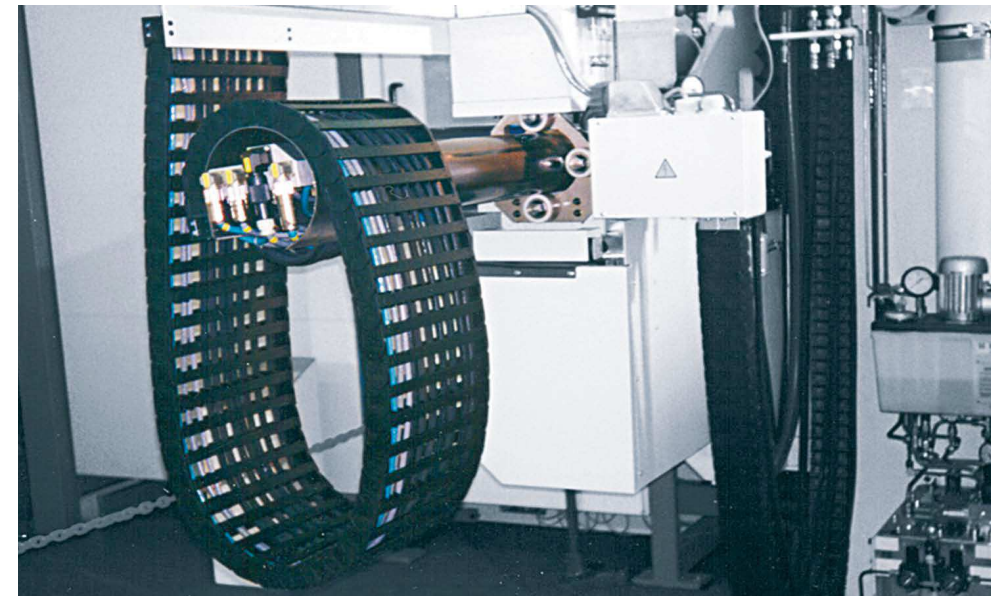


Extension links | For extremely wide e-chains® up to 3.0m

- Virtually unlimited side-by-side extension
- For extremely wide e-chains® up to 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® 1640. Bi 1/ Bi 2/ Bi 3. R .0	Part No. Extension link e-tube R1608. Bi 1/ Bi 2/ Bi 3. R .0	Part No. Extension link as an individual part 6022. R .
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Complete Part No. with the width index **Bi**1/**Bi**2/**Bi**3/*etc.* and the radius (**R**). Example: 1640.10/20/10.200.0

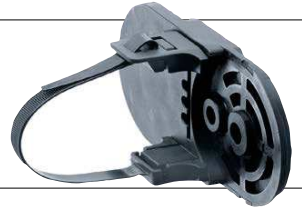


Circular movements (also with Reverse Bend Radius "**RBR**") are possible

E4 snapclip - clip-on tiwrap

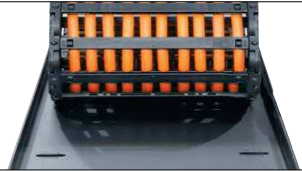
- For side-mounted applications, compatible with many E4 e-chains®
- Serves as a clip-on, lateral guide for hoses and cables on e-chains®
- The loops can be adjusted as required

More information ► www.igus.co.uk/1640

**Steel support tray for support of the lower run**

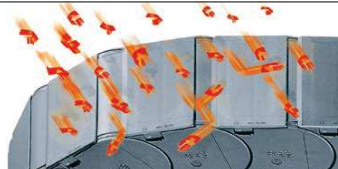
- Simple one-piece support trays for the lower run
- To your requirements and specification
- 4 options available

More information ► From page 1356

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

- Lids and shelves, on which +850°C hot swarf bounces off, as special production 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**

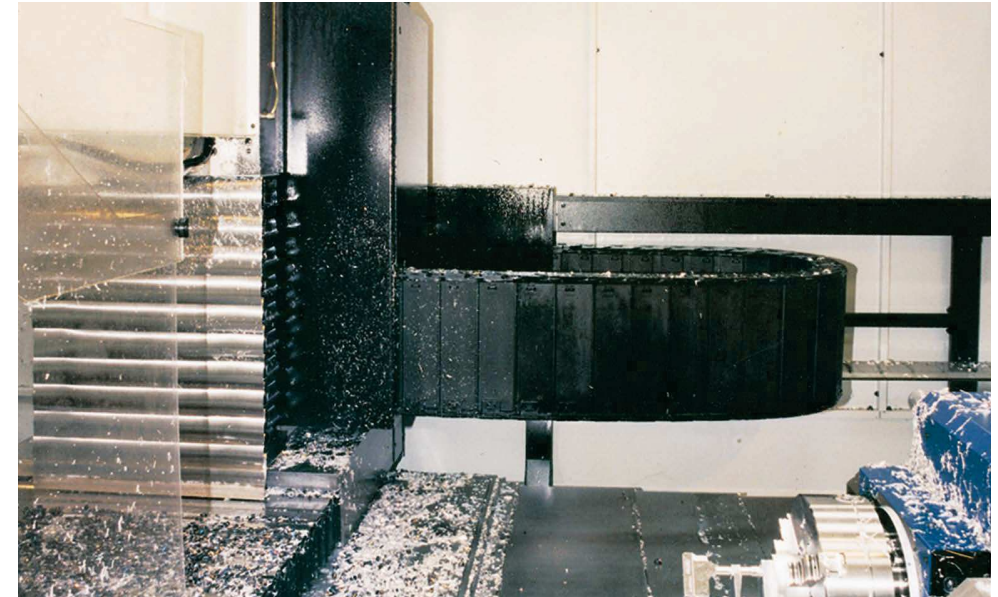
- e-chain® opener tools for easy opening and closing of e-chains®
- Simple opening and closing of e-chain® crossbars
- Also for use in hard to reach locations
- Significant assembly time reduction

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



Side-mounted E4/light e-tubes - machine tool fitted with a swarf-repellent e-tube from the E4 modular system