



**Undercut
design.**

**Strong
connection.**



E4/light

Large, light and strong



Advantages of the E4/light system:

- Large inner heights combined with low weight
- E4/light e-chains® offer optimum price and performance solutions for many applications
- Especially suitable for short travel distances, hanging and standing designs



When to use another e-chain® series:

- For easy, tool-free opening and closing - the next generation of easy-to-assemble e-chains®
 - ▶ **E4Q, page 588**
- When the e-chain® needs to be extremely quiet with very low vibration
 - ▶ **E6.1, page 848**
- When the e-chain® is to be used in cleanrooms
 - ▶ **E6.1, page 848**
- If large unsupported lengths are required for side-mounted applications
 - ▶ **E4.1, page 626**
- When longer unsupported lengths and longer travels are required
 - ▶ **E4.1, page 626**
- When the current standard up to 64mm is preferred
 - ▶ **E4.1L, page 546**

Large, light and strong - E4/light system

Weight reduction, a larger interior space and a reduced price. The characteristics of the E4/light system: thinner side links (for all series) and a thinner crossbar (for some series: 14240, 14340). E4/light e-chains® offer an optimum price/performance ratio for many applications. Especially for short travels, hanging and small standing applications. E4/light types are often first choice.

Typical industries and applications

● Machine tools ● Material handling equipment
● Stone-cutting machines ● Woodworking machines
● Vehicles ● Construction machinery
● Limited application for long travel distances ● General mechanical engineering etc.

Attachment from any side with KMA mounting brackets

Quiet operation: optional noise dampers

Chip protection: openable lids

Long service life: lateral gliding surfaces

High strength: due to undercut design

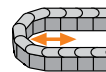
Strong: crossbars with double locking

Low-noise operation: due to integrated brake

Precise partitions: notch crossbar with visual scale



Electrically conductive ESD e-chains® - several series available from stock



Side-mounted - unsupported



High strength

E4/light | Selection table

Series	Inner height <i>hi</i> in. (mm)	Inner width <i>Bi</i> in. (mm)	Outer width <i>Ba</i> in. (mm)	Outer height <i>ha</i> in. (mm)	Bend radius <i>R</i> in. (mm)	Unsupported length ≤ ft. (m)
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e-chains® with crossbars every link
the all-rounder - also for particularly demanding applications

Please observe the guidelines for the e-chains® selection, further information ► From page 116

14040	2.20 (56)	1.97-23.62 (50-600)	2.99-24.65 (76-626)	3.31 (84)	5.31-19.69 (135-500)	13.12 (4.0)
14240	2.44 (62)	1.97-15.75 (50-400)	2.99-16.77 (76-426)	3.31 (84)	5.31-19.69 (135-500)	13.12 (4.0)
14550	2.76 (70)	1.97-23.62 (50-600)	3.03-24.69 (77-627)	3.86 (98)	5.91-23.62 (150-600)	13.78 (4.2)
15050	3.15 (80)	1.97-23.62 (50-600)	3.15-24.80 (80-630)	4.25 (108)	5.91-19.69 (150-500)	15.09 (4.6)
15250	3.39 (86)	1.97-23.62 (50-400)	3.15-16.93 (80-430)	4.25 (108)	5.91-23.62 (150-600)	15.09 (4.6)
1640	4.41 (112)	1.97-23.62 (50-600)	3.31-24.96 (84-634)	5.51 (140)	7.87-23.62 (200-600)	14.76 (4.5)



e-chains® with crossbars every 2nd link
the cost-effective, easy-to-install alternative for almost all applications

Please observe the guidelines for the e-chains® selection, further information ► From page 116

14140	2.20 (56)	1.97-23.62 (50-600)	2.99-24.65 (76-626)	3.31 (84)	5.31-19.69 (135-500)	13.12 (4.0)
14340	2.44 (62)	1.97-15.75 (50-400)	2.99-16.77 (76-426)	3.31 (84)	5.31-19.69 (135-500)	13.12 (4.0)
14650	2.76 (70)	1.97-23.62 (50-600)	3.03-24.69 (77-627)	3.86 (98)	5.91-23.62 (150-600)	13.78 (4.2)
15150	3.15 (80)	1.97-23.62 (50-600)	3.15-24.80 (80-630)	4.25 (108)	5.91-19.69 (150-500)	15.09 (4.6)
15350	3.39 (86)	1.97-23.62 (50-400)	3.15-16.93 (80-430)	4.25 (108)	5.91-23.62 (150-600)	15.09 (4.6)



e-tubes
fully enclosed,
excellent cable protection

Please observe the guidelines for the e-chains® selection, further information ► From page 116

R18840	2.20 (56)	2.95-18.19 (75-462)	3.98-19.25 (101-489)	3.31 (84)	5.91-19.69 (150-500)	13.12 (4.0)
R19050	2.76 (70)	2.95-18.19 (75-462)	4.01-19.25 (102-489)	3.86 (98)	7.87-23.62 (200-600)	13.78 (4.2)
R19850	3.15 (80)	2.95-18.19 (75-462)	4.13-19.41 (105-493)	4.25 (108)	7.87-19.69 (200-500)	15.09 (4.6)
R1608	4.25 (108)	7.87-19.69 (200-500)	9.21-17.09 (234-434)	5.51 (140)	9.84-23.62 (250-600)	14.76 (4.5)



Available from stock. Orders ship as early as today.*

*On average 90% of orders ship the same day..

E4/light | Features | Accessories



E4/light undercut design, for high stability and strength



E4/light - high strength even for side-mounted applications



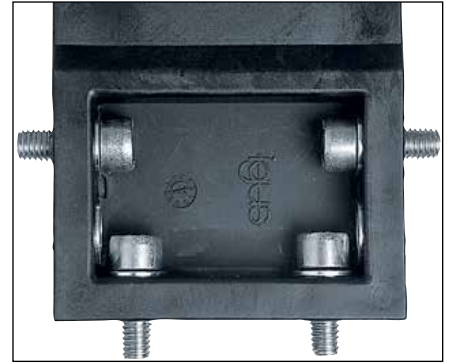
Crossbars openable on both sides



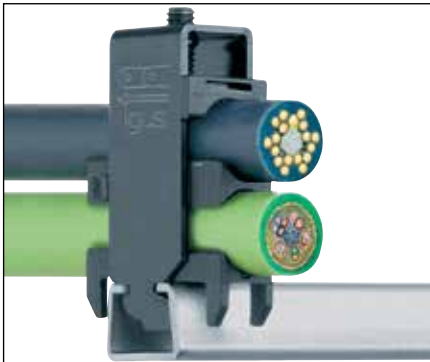
Flexible extender crossbar range - e-chain® extender for enlarging the interior, large range of widths possible



The extension link design allows virtually unlimited side-by-side extension



KMA mounting brackets with attachment options from any side



Up to 25% longer unsupported length with XXL material ► www.igus.com/E4.1



Optimized interior separation products, cables last up to 4 times longer



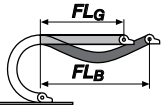
autoglide crossbars - long travels without guide troughs

Technical data



Speed gliding¹⁾ / acceleration gliding

≤ 16.4 ft/s (5 m/s) / ≤ 164 ft/s² (50 m/s²)



Speed FL_G / acceleration FL_G

≤ 64.6 ft/s (20 m/s) / ≤ 656 ft/s² (200 m/s²)

Speed FL_B / acceleration FL_B

≤ 9.84 ft. (3 m/s) / ≤ 19.69 ft/s² (6 m/s²)



Material - permitted temperature °F, igumid G

-40°F (-40°C) / +248°F (+120°C)



Flammability class, igumid G

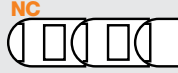
VDE 0304 IIC UL94-HB

■ FL_G = unsupported with straight upper run ■ FL_B = unsupported with permitted sag

Installation types, maximum travels

Series	 Unsupported	 Gliding ¹⁾	 Vertical hanging	 Vertical standing	 Side mounted unsupported	 Rotary	 Zig-zag	 Unsupported length lower run
14040/14140/ R18840	≤ 26.25 ft. (8.0m)	≤ 492 ft. (150m)	≤ 262 ft. (80m)	≤ 19.69 ft. (6.0m)	≤ 6.56 ft. (2.0m)	with rework	upon request	upon request
14240/14340	≤ 26.25 ft. (8.0m)	≤ 492 ft. (150m)	≤ 262 ft. (80m)	≤ 19.69 ft. (6.0m)	≤ 6.56 ft. (2.0m)	with rework	upon request	upon request
14550/14650/ R19050	≤ 27.56 ft. (8.4m)	≤ 820 ft. (250m)	≤ 295 ft. (90m)	≤ 19.69 ft. (6.0m)	≤ 6.56 ft. (2.0m)	with rework	upon request	upon request
15050/15150/ R19850	≤ 30.19 ft. (9.2m)	≤ 820 ft. (250m)	≤ 328 ft. (100m)	≤ 19.69 ft. (6.0m)	≤ 6.56 ft. (2.0m)	with rework	upon request	upon request
15250/15350	≤ 30.19 ft. (9.2m)	≤ 820 ft. (250m)	≤ 328 ft. (100m)	≤ 19.69 ft. (6.0m)	≤ 6.56 ft. (2.0m)	with rework	upon request	upon request
1640/R1608	≤ 29.53 ft. (9.0m)	≤ 1312 ft. (400m)	≤ 328 ft. (100m)	≤ 16.41 ft. (5.0m)	≤ 6.56 ft. (2.0m)	with rework	upon request	upon request

Options with order keys | Examples based on series 14040/14140/18840

 Standard	<i>Simply turn outer side link, no additional rework</i>	<i>Reverse Bend Radius (RBR) for circular movements</i>	<i>Unsupported lengths +25% possible</i>
Part No. Standard 	Part No. NC version 	Part No. RBR 	Part No. XXL material 
 14040.30.R.0 e-chains® with crossbars every link	14040.30.R.0.NC e-chains® with crossbars every link	14040.30.R1/R2.0 e-chains® with crossbars every link	14040.30.R.0.XXL e-tube, closed ¹⁾
14140.30.R.0 e-chain® with crossbars every 2 nd link	14140.30.R.0.NC e-chain® with crossbars every 2 nd link	14140.30.R1/R2.0 e-chain® with crossbars every 2 nd link	14140.30.R.0.XXL e-chain® with crossbars every 2 nd link
18840.30.R.0 e-tube, closed	18840.30.R.0.NC e-tube, closed	RBR for e-tubes - please consult igus®	18840.30.R.0.XXL e-tube, closed ¹⁾
 Ready to ship in 24 - 48hrs.*	Ready to ship in 3-5 business days*	Ready to ship in 12 business days*	Ready to ship in 12 business days*

*On average 90% of orders ship the same day.

▲ ESD version - some series available from stock - further information and the complete product range ► from page 144

Order example | Examples based on series 14040

 **Order example for complete e-chain® 9.84 ft. (3m), color black, with mounting brackets and interior separation:**

e-chain® 9.84 ft. (3m)	Please indicate e-chain® length or number of links: 9.84ft. (3m) or 33 links	14040.30.300.0
+ Mounting brackets	1 set (with odd number of links and integrated C-profiles)	140400.30.1.12.C
Interior separation	with 2 separators assembled every 2 nd link	2 x 56.1.1
Order text:	9.84 ft (3m) 14040.30.300.0 + 140400.30.1.12.C + 2 x 56.1.1	

E4/light | Options and order keys

*e-tube - no burning in
of hot chips
up to 1562°F*

*ESD - electrically
conductive
material*

Part No.
igumid HT



18840.30.R.0.HT

Complete e-tube²

18840.30HT.R.0

Lid and shelves made of HT material
(side plates of standard material)

Part No.
igumid ESD



14040.30.R.0.ESD

e-chains[®] with crossbars every link

14140.30.R.0.ESD

e-chain[®] with crossbars every 2nd link

18840.30.R.0.ESD

e-tube, closed

**Ready to ship
in 6 weeks***

**Ready to ship
in 12 business days* ⚠**

*On average 90% of orders ship the same day.

1) Side-bands made from XXL material 2) Available upon request. Delivery time upon request

Order key and color examples | Examples based on series 14040/14140/18840



Order key

e-chain[®] with crossbars every link

e-chain[®] with crossbars every 2nd link

e-tube fully enclosed

Series / Type

Inner height

Width index (depends on **Bi**)

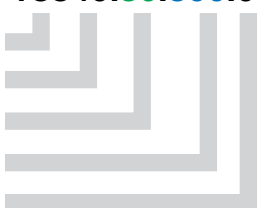
Bend radius **R**

Color index (standard black)

14040.30.300.0

14140.30.300.0

18840.30.300.0

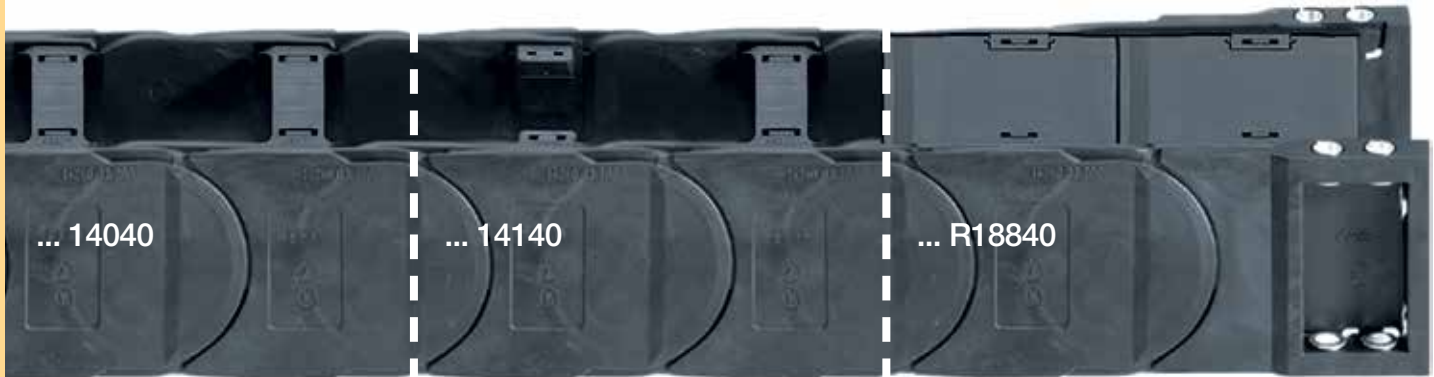
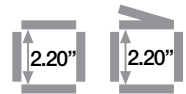


Order index for color options

Color	Order index	Color	Order index		
 Black	Standard	.0	 Orange	Special color	.2
 Silver-grey	Special color	.31	 Yellow	Special color	.4
 White	Special color	.1	 Light grey	Special color	.14
 Grey-white	Special color	.1S			

Black e-chains[®] ready to ship in 24 - 48hrs.*

Above special colors upon request.



e-chains® | Series 14040 | Crossbars every link (crossbars removable along the inner and outer radius)
e-chains® | Series 14140 | Crossbars every 2nd link (crossbars removable along the inner and outer radius)
e-tubes | Series R18840 | Fully enclosed (lids openable along the outer radius, from one side)

Part No.			Bi	Ba	14040	14140	18840
e-chains® / e-tubes			in. (mm)	in. (mm)	lbs/ft (kg/m)	lbs/ft (kg/m)	lbs/ft (kg/m)
14040. 14140.	-	05. R.0	1.97 (50)	2.99 (76)	≈ 1.79 (2.66)	≈ 1.67 (2.48)	-
14040. 14140.	-	055. R.0	2.17 (55)	3.19 (81)	≈ 1.73 (2.57)	≈ 1.68 (2.50)	-
14040. 14140.	-	06. R.0	2.56 (65)	3.58 (91)	≈ 1.66 (2.47)	≈ 1.69 (2.51)	-
14040. 14140. 18840.	07. R.0	2.95 (75)	3.98 (101)	≈ 1.85 (2.75)	≈ 1.51 (2.25)	≈ 2.15 (3.20)	-
14040. 14140.	-	08. R.0	3.43 (87)	4.45 (113)	≈ 1.91 (2.84)	≈ 1.61 (2.44)	-
14040. 14140. 18840.	10. R.0	3.94 (100)	4.96 (126)	≈ 1.97 (2.93)	≈ 1.75 (2.61)	≈ 2.35 (3.49)	-
14040. 14140.	-	11. R.0	4.41 (112)	5.47 (139)	≈ 2.06 (3.06)	≈ 1.79 (2.67)	-
14040. 14140. 18840.	12. R.0	4.92 (125)	5.94 (151)	≈ 2.10 (3.12)	≈ 1.82 (2.71)	≈ 2.59 (3.85)	-
14040. 14140.	-	13. R.0	5.39 (137)	6.46 (164)	≈ 2.19 (3.26)	≈ 1.86 (2.77)	-
14040. 14140. 18840.	15. R.0	5.91 (150)	6.93 (176)	≈ 2.23 (3.32)	≈ 1.89 (2.81)	≈ 2.88 (4.28)	-
14040. 14140.	-	16. R.0	6.38 (162)	7.44 (189)	≈ 2.30 (3.43)	≈ 1.92 (2.86)	-
14040. 14140.	-	169. R.0	6.65 (169)	7.72 (196)	≈ 2.36 (3.51)	≈ 1.95 (2.90)	-
14040. 14140. 18840.	17. R.0	6.89 (175)	7.91 (201)	≈ 2.38 (3.54)	≈ 1.96 (2.92)	≈ 3.05 (4.54)	-
14040. 14140.	-	182. R.0	7.17 (182)	8.23 (209)	≈ 2.41 (3.58)	≈ 1.98 (2.94)	-
14040. 14140.	-	18. R.0	7.36 (187)	8.43 (214)	≈ 2.45 (3.65)	≈ 2.00 (2.97)	-
14040. 14140. 18840.	20. R.0	7.87 (200)	8.90 (226)	≈ 2.47 (3.67)	≈ 2.00 (2.98)	≈ 3.26 (4.85)	-
14040. 14140.	-	207. R.0	8.15 (207)	9.21 (234)	≈ 2.51 (3.73)	≈ 2.02 (3.01)	-
14040. 14140.	-	21. R.0	8.35 (212)	9.41 (239)	≈ 2.54 (3.78)	≈ 2.04 (3.04)	-
14040. 14140.	-	22. R.0	8.86 (225)	9.88 (251)	≈ 2.59 (3.85)	≈ 2.06 (3.07)	-
14040. 14140.	-	23. R.0	9.33 (237)	10.39 (264)	≈ 2.67 (3.98)	≈ 2.11 (3.14)	-
14040. 14140. 18840.	25. R.0	9.84 (250)	10.87 (276)	≈ 2.73 (4.07)	≈ 2.14 (3.18)	≈ 3.75 (5.58)	-
14040. 14140.	-	26. R.0	10.31 (262)	11.38 (289)	≈ 2.80 (4.16)	≈ 2.16 (3.22)	-
14040. 14140. 18840.	27. R.0	10.83 (275)	11.85 (301)	≈ 2.87 (4.27)	≈ 2.20 (3.28)	≈ 3.93 (5.85)	-

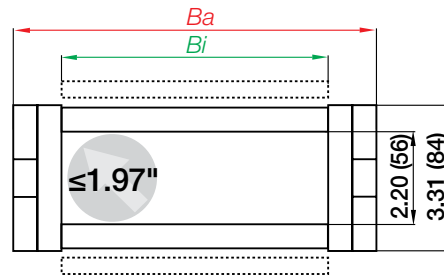
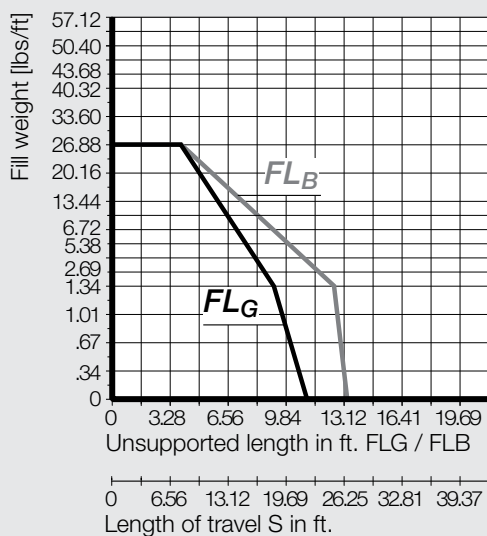
1) Lid removable, non-openable *Radius not available for e-tubes

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

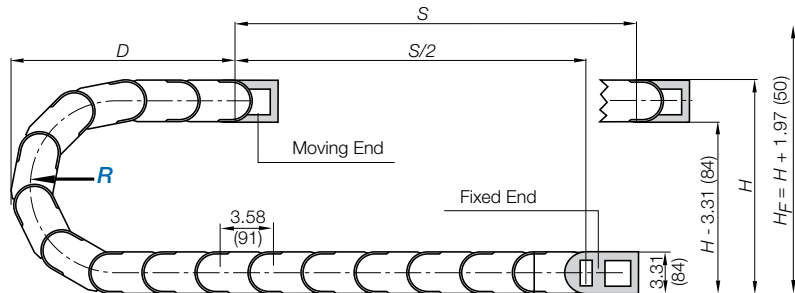
14040.30.300.0 = crossbars every link / 14140.30.300.0 = crossbars every 2nd link / 18840.30.300.0 = fully enclosed

Available bend radii

R in. (mm) | 3.94 (135)* | 5.91 (150) | 6.89 (175) | 7.87 (200) | 9.84 (250) | 11.81 (300) | 15.75 (400) | 19.69 (500) |



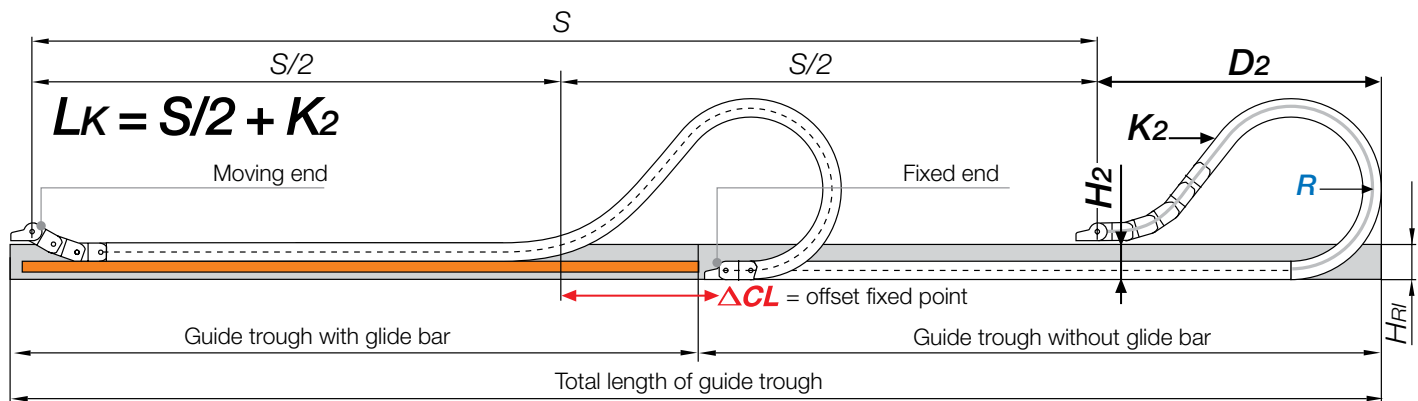
Inner height in. (mm)	2.20 (56)
Pitch per link in. (mm)	3.58 (91)
Links/ft (m)	3.35 (11)
corresponds to (mm)	1,001
e-chain® length	$L_K = S/2 + K$



R	5.31 (135)*	5.91 (150)	6.89 (175)	7.87 (200)	9.84 (250)	11.81 (300)	15.75 (400)	19.68 (500)
H^{0+25}	13.94 (354)	15.12 (384)	17.09 (434)	19.06 (484)	22.99 (584)	26.93 (684)	34.80 (884)	42.68 (1084)
D	12.36 (314)	12.95 (329)	13.94 (354)	14.92 (379)	16.89 (429)	18.86 (479)	22.80 (579)	26.73 (679)
K	24.02(610)	25.79 (655)	28.94 (735)	32.09 (815)	38.19 (970)	44.29 (1125)	56.69 (1440)	69.09 (1755)

The required clearance height: $H_F = H + 1.97$ in. (50 mm) with 1.34 lbs/ft (2.0 kg/m) fill weight.

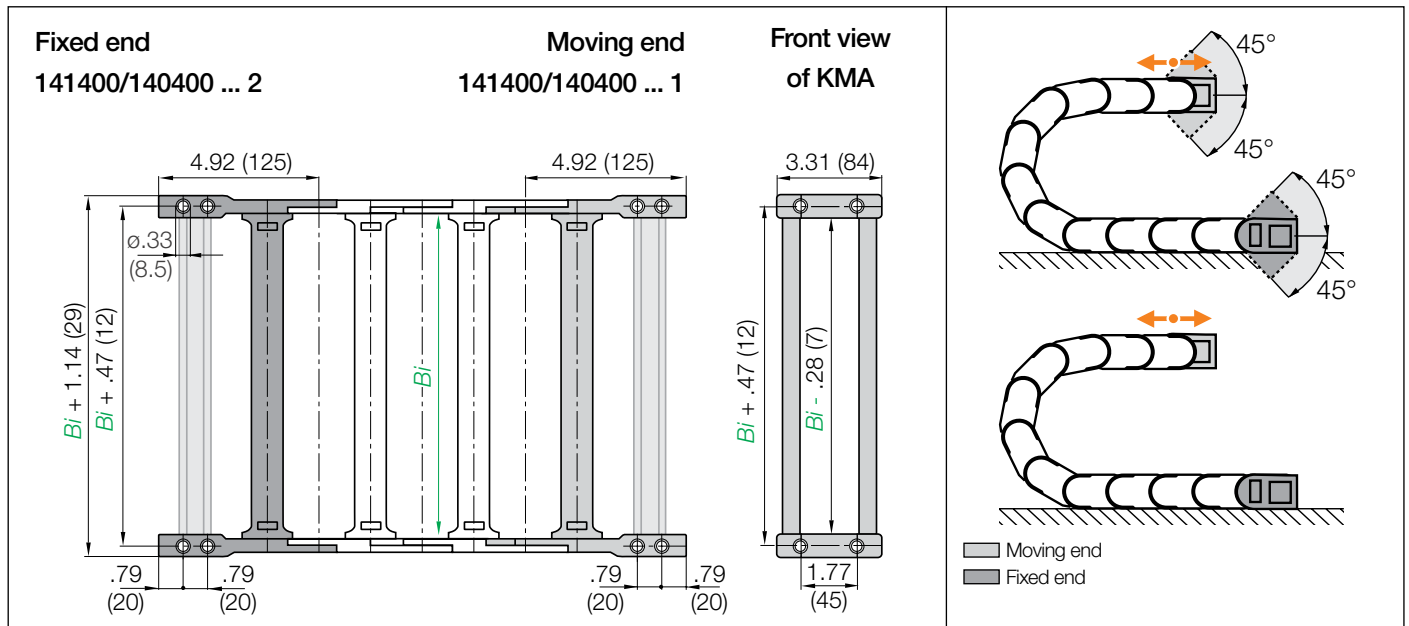
Gliding applications | For travel lengths from 39.37 ft. (12m) to max. 492 ft. (150m)



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

In case of travels between 26.25ft. (8m) and 39.37 ft. (12m) we recommend an e-chain® with a longer unsupported length.

R	5.31 (135)*	5.91 (150)	6.89 (175)	7.87 (200)	9.84 (250)	11.81 (300)	15.75 (400)	19.68 (500)
H_2	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)
D_2^{+25}	15.35 (390)	17.72 (450)	20.87 (530)	27.95 (710)	36.22 (920)	44.09 (1120)	60.24 (1530)	72.05 (1830)
K_2	28.66 (728)	32.24 (819)	39.41 (1001)	50.16 (1274)	64.49 (1638)	75.23 (1911)	100.31 (2548)	125.39 (3185)
ΔCL	4.88 (124)	6.26 (159)	8.22 (209)	14.13 (359)	20.04 (509)	25.94 (659)	37.76 (959)	45.63 (1159)



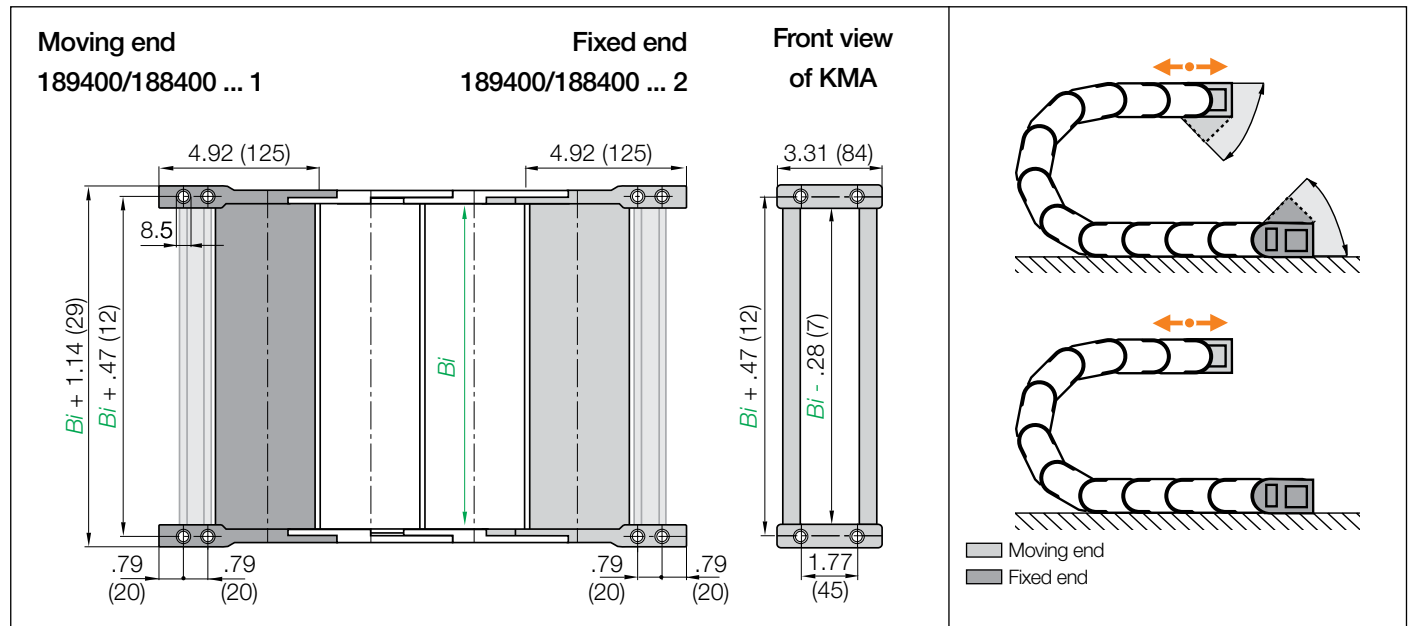
KMA pivoting
KMA locking

Recommended for unsupported and gliding applications
Recommended for vertical hanging and standing applications

Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	Bi in. (mm)
05. ▶	141400.05.12.C	140400.05.12.C	1.97 (50)
055. ▶	141400.055.12.C	140400.055.12.C	2.17 (55)
06. ▶	141400.06.12.C	140400.06.12.C	2.56 (65)
07. ▶	141400.07.12.C	140400.07.12.C	2.95 (75)
08. ▶	141400.08.12.C	140400.08.12.C	3.43 (87)
10. ▶	141400.10.12.C	140400.10.12.C	3.94 (100)
11. ▶	141400.11.12.C	140400.11.12.C	4.41 (112)
12. ▶	141400.12.12.C	140400.12.12.C	4.92 (125)
13. ▶	141400.13.12.C	140400.13.12.C	5.39 (137)
15. ▶	141400.15.12.C	140400.15.12.C	5.91 (150)
16. ▶	141400.16.12.C	140400.16.12.C	6.38 (162)
169. ▶	141400.169.12.C	140400.169.12.C	6.65 (169)
17. ▶	141400.17.12.C	140400.17.12.C	6.89 (175)
182. ▶	141400.182.12.C	140400.182.12.C	7.17 (182)
18. ▶	141400.18.12.C	140400.18.12.C	7.36 (187)
20. ▶	141400.20.12.C	140400.20.12.C	7.87 (200)
207. ▶	141400.207.12.C	140400.207.12.C	8.15 (207)
21. ▶	141400.21.12.C	140400.21.12.C	8.35 (212)
22. ▶	141400.22.12.C	140400.22.12.C	8.86 (225)
23. ▶	141400.23.12.C	140400.23.12.C	9.33 (237)
25. ▶	141400.25.12.C	140400.25.12.C	9.84 (250)
26. ▶	141400.26.12.C	140400.26.12.C	10.31 (262)
27. ▶	141400.27.12.C	140400.27.12.C	10.83 (275)

Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	Bi in. (mm)
28. ▶	141400.28.12.C	140400.28.12.C	11.30 (287)
30. ▶	141400.30.12.C	140400.30.12.C	11.81 (300)
31. ▶	141400.31.12.C	140400.31.12.C	12.28 (312)
32. ▶	141400.32.12.C	140400.32.12.C	12.79 (325)
33. ▶	141400.33.12.C	140400.33.12.C	13.27 (337)
35. ▶	141400.35.12.C	140400.35.12.C	13.78 (350)
36. ▶	141400.36.12.C	140400.36.12.C	14.25 (362)
37. ▶	141400.37.12.C	140400.37.12.C	14.76 (375)
38. ▶	141400.38.12.C	140400.38.12.C	15.24 (387)
40. ▶	141400.40.12.C	140400.40.12.C	15.75 (400)
41. ▶	141400.41.12.C	140400.41.12.C	16.22 (412)
42. ▶	141400.42.12.C	140400.42.12.C	16.73 (425)
43. ▶	141400.43.12.C	140400.43.12.C	17.20 (437)
45. ▶	141400.45.12.C	140400.45.12.C	17.72 (450)
46. ▶	141400.46.12.C	140400.46.12.C	18.19 (462)
47. ▶	141400.47.12.C	140400.47.12.C	18.70 (475)
48. ▶	141400.48.12.C	140400.48.12.C	19.17 (487)
50. ▶	141400.50.12.C	140400.50.12.C	19.69 (500)
51. ▶	141400.51.12.C	140400.51.12.C	20.16 (512)
52. ▶	141400.52.12.C	140400.52.12.C	20.67 (525)
53. ▶	141400.53.12.C	140400.53.12.C	21.14 (537)
55. ▶	141400.55.12.C	140400.55.12.C	21.65 (550)
60. ▶	141400.60.12.C	140400.60.12.C	23.62 (600)

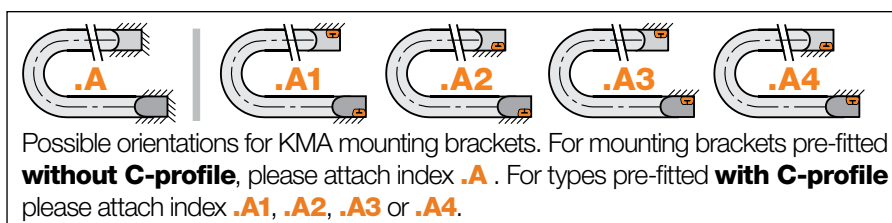
(KMA = polymer metal mounting bracket) For the C-profile option please add index .C



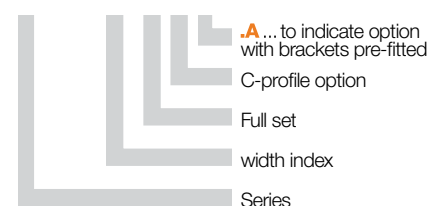
KMA pivoting | Recommended for unsupported and gliding applications
KMA locking | Recommended for vertical hanging and standing applications

Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	<i>Bi</i> in. (mm)	Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	<i>Bi</i> in. (mm)
07. ▶	189400.07.12.C	188400.07.12.C	2.95 (75)	25. ▶	189400.25.12.C	188400.25.12.C	9.84 (250)
10. ▶	189400.10.12.C	188400.10.12.C	3.94 (100)	27. ▶	189400.27.12.C	188400.27.12.C	10.83 (275)
12. ▶	189400.12.12.C	188400.12.12.C	4.92 (125)	30. ▶	189400.30.12.C	188400.30.12.C	11.81 (300)
15. ▶	189400.15.12.C	188400.15.12.C	5.91 (150)	35. ▶	189400.35.12.C	188400.35.12.C	13.78 (350)
17. ▶	189400.17.12.C	188400.17.12.C	6.89 (175)	40. ▶	189400.40.12.C	188400.40.12.C	15.75 (400)
20. ▶	189400.20.12.C	188400.20.12.C	7.87 (200)	46. ▶	189400.46.12.C	188400.46.12.C	18.19 (462)

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



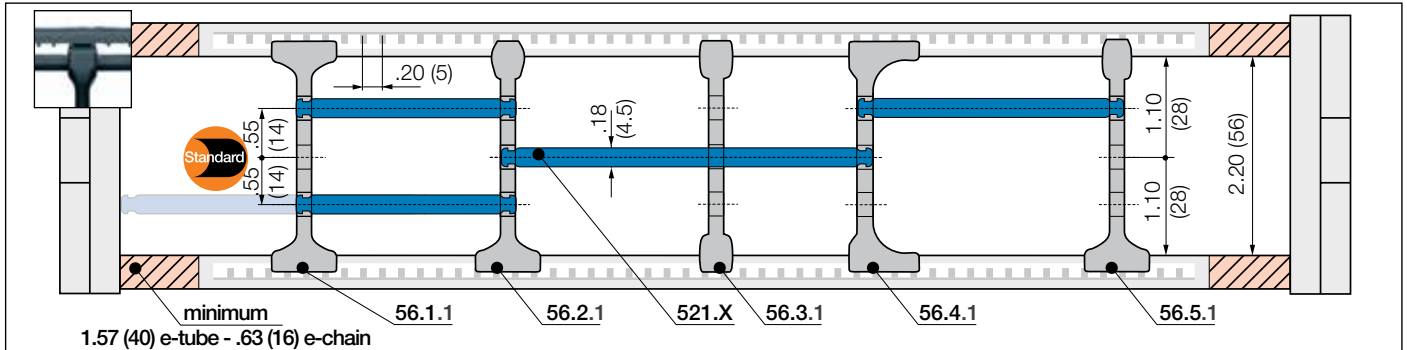
141400.30.12.C.A2 Order example



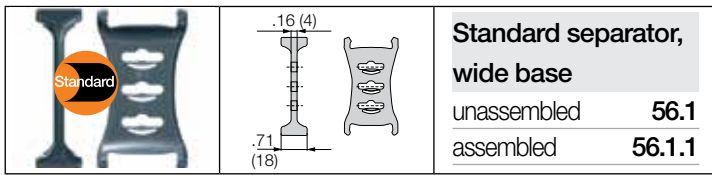
Strain relief e.g. clamps, tiewrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ▶ From page 1418

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

Previous generation of interior separation with other options ► www.igus.com/14040



Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 1.57" (40mm) | e-chain® .63" (16mm).** As standard separators are fitted every 2nd e-chain® link!

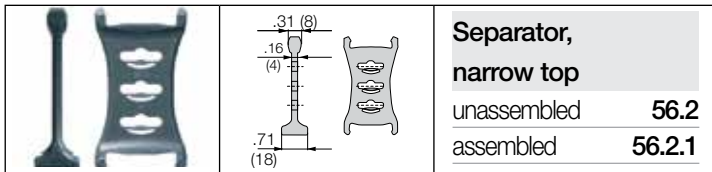


**Standard separator,
wide base**

unassembled **56.1**
assembled **56.1.1**

Standard - for any application

Separator with a wide base for maximum holding force.

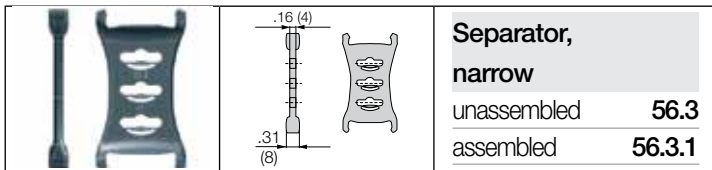


**Separator,
narrow top**

unassembled **56.2**
assembled **56.2.1**

For even faster installation

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

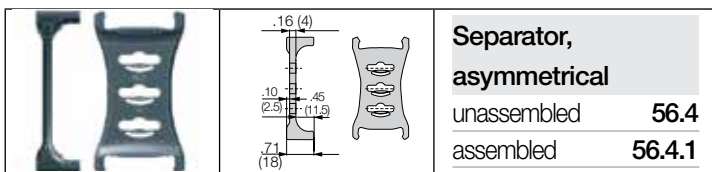


**Separator,
narrow**

unassembled **56.3**
assembled **56.3.1**

For a large number of thin cables

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

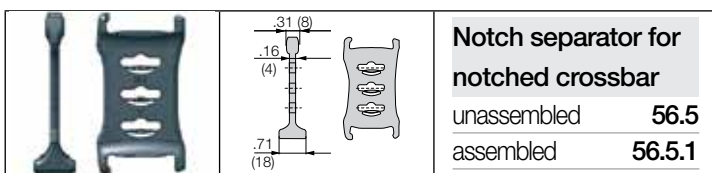


**Separator,
asymmetrical**

unassembled **56.4**
assembled **56.4.1**

For side-mounted applications

Asymmetrical separator, for defined gap distance. No additional spacers required.

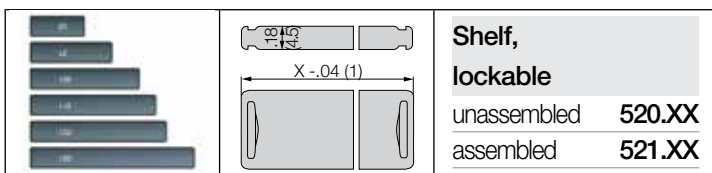


**Notch separator for
notched crossbar**

unassembled **56.5**
assembled **56.5.1**

Locks securely in preset increments

Notch separator for exact positioning. Recommended for side-mounted applications.



**Shelf,
lockable**

unassembled **520.XX**
assembled **521.XX**

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.

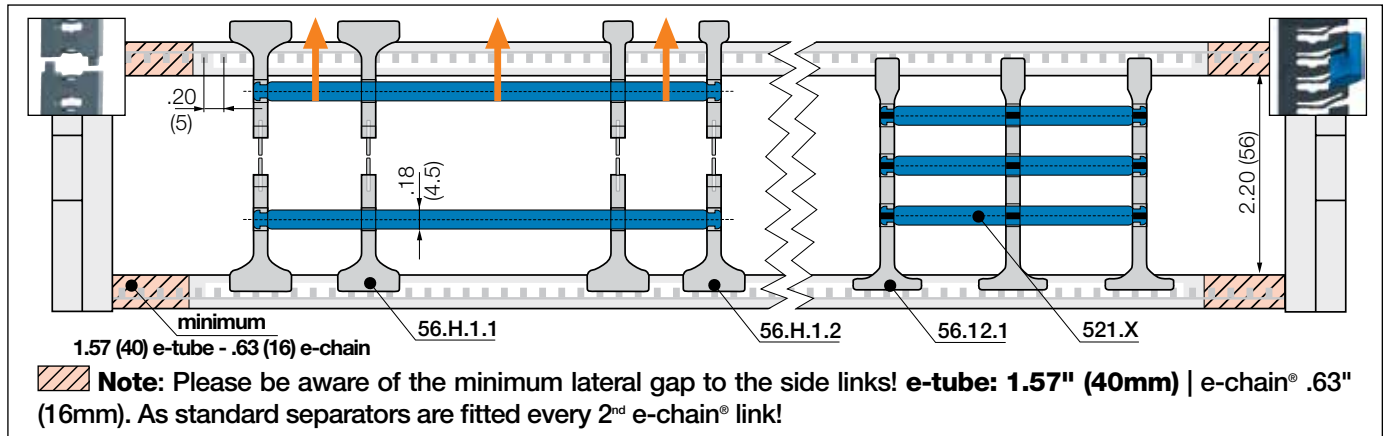
Shelves

Width = X in. (mm)



X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled
1.97 (050)	520.050	521.050	5.91 (150)	520.150	521.150	11.81 (300)	520.300	521.300
2.56 (065)	520.065	521.065	6.89 (175)	520.175	521.175	13.78 (350)	520.350	521.350
2.95 (075)	520.075	521.075	7.87 (200)	520.200	521.200	14.76 (375)	520.375	521.375
3.94 (100)	520.100	521.100	8.86 (225)	520.225	521.225	15.24 (387)	520.387	521.387
4.92 (125)	520.125	521.125	9.84 (250)	520.250	521.250	17.72 (450)	520.450	521.450

Interior separation | Option 1 | Option 2 | Only for e-tubes



		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

Option 1 | Full-width shelves Slotted separator

For a vertical subdivision. The slot allows basic vertical/horizontal shelving arrangements.

Full-width shelf

This option is for applications with many small cables with similar diameters. For full-width separation.

Lean separators¹⁾

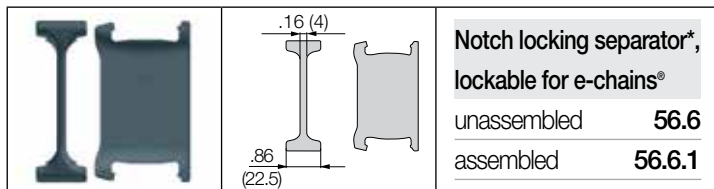
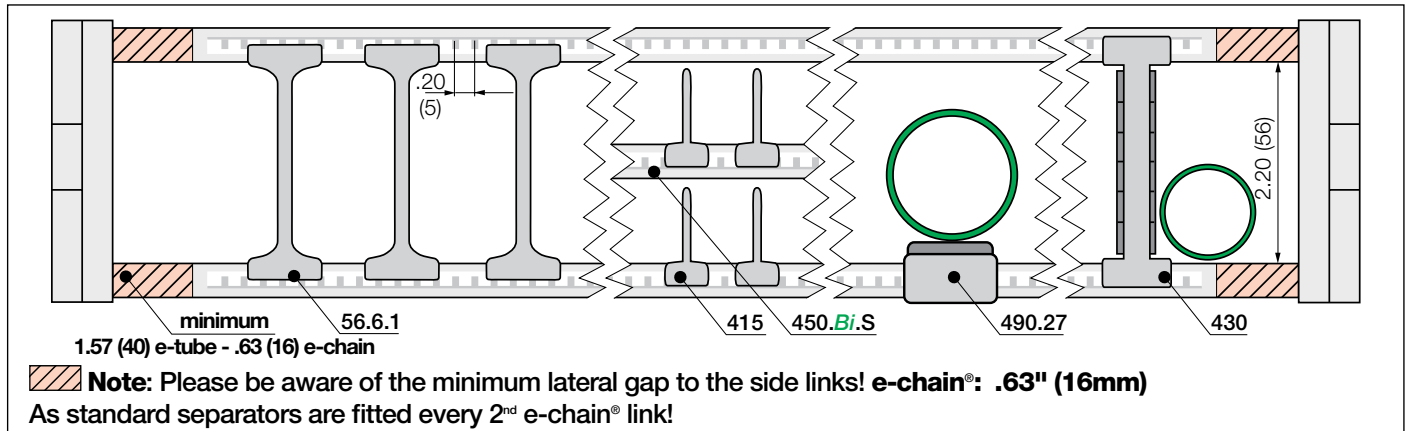
For quick fitting of shelves in several layers.

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⁾.

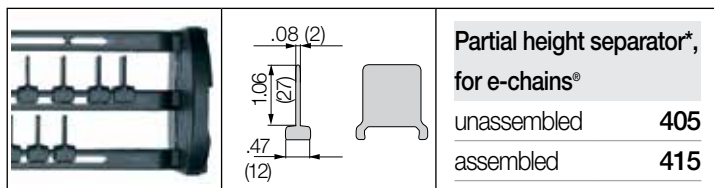
²⁾ Lean interior separation vs. standard interior separation - measured on a 4m long e-chain® fitted with 12 cables in the igus® lab





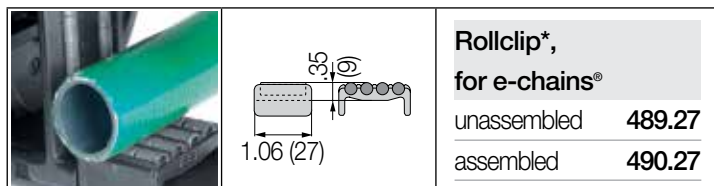
Notch locking separator* for increased holding force

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.



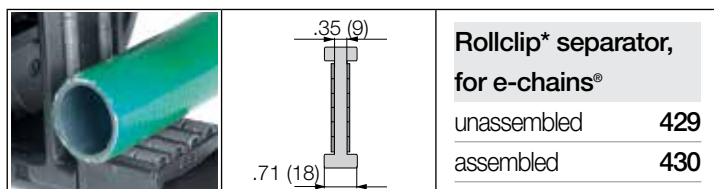
Partial height separator*

In conjunction with an additional opening crossbar, **part no. 450.Bi.S**, it provides the option to separate the upper and lower halves of the e-chain® independently of each other.



Rollclip*

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

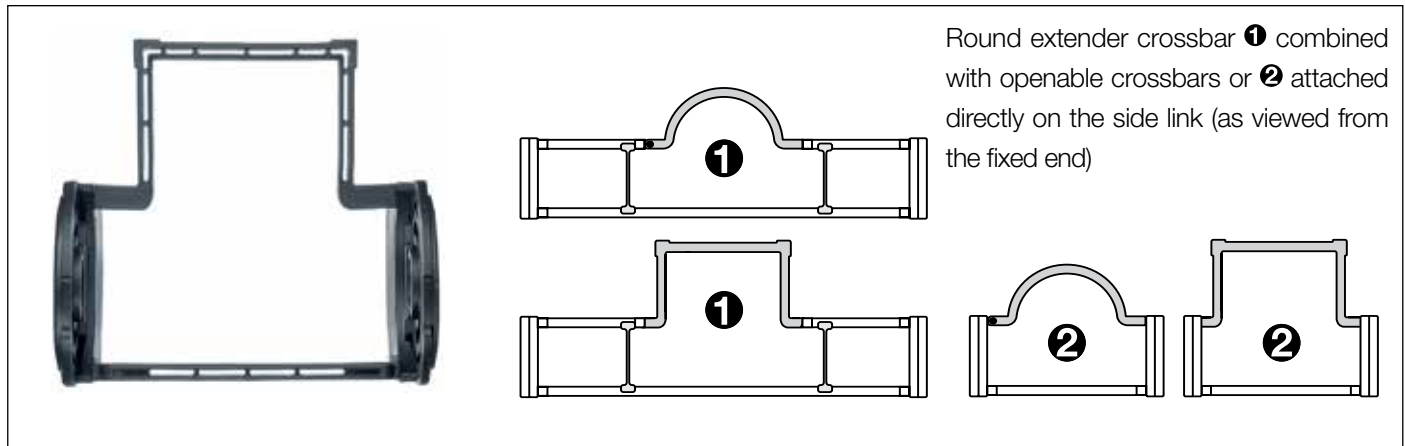


Roller separator*

The roller separator is used in a similar way to the rollclip. It is used like a separator. For rigid cables and hoses.

*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 9.65" (245mm)
- 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 Ø ≤ in. (mm)	Extender crossbar shape	② Fitted to side link	① Combine with openable crossbars
450.15RHD115	4.53 (115)	○ round	no	yes
450.17RD115	4.53 (115)	○ round	yes	no
450.25D150	5.91 (150)	□ square	yes	no
450.30D200	7.09 (180)	□ square	yes	no
450.35D250	7.68 (195)	□ square	yes	no
450.40D300	9.65 (245)	□ square	yes	no
450.20HD150	5.91 (150)	□ square	no	yes
450.25HD200	7.09 (180)	□ square	no	yes
450.30HD250	7.68 (195)	□ square	no	yes

Order example: ① combined with openable crossbars

To receive extender crossbar RHD115 pre-fitted along the outer radius of the e-chain®, please add index **E**: 14040.10/15RHDE115/10.**R.0**

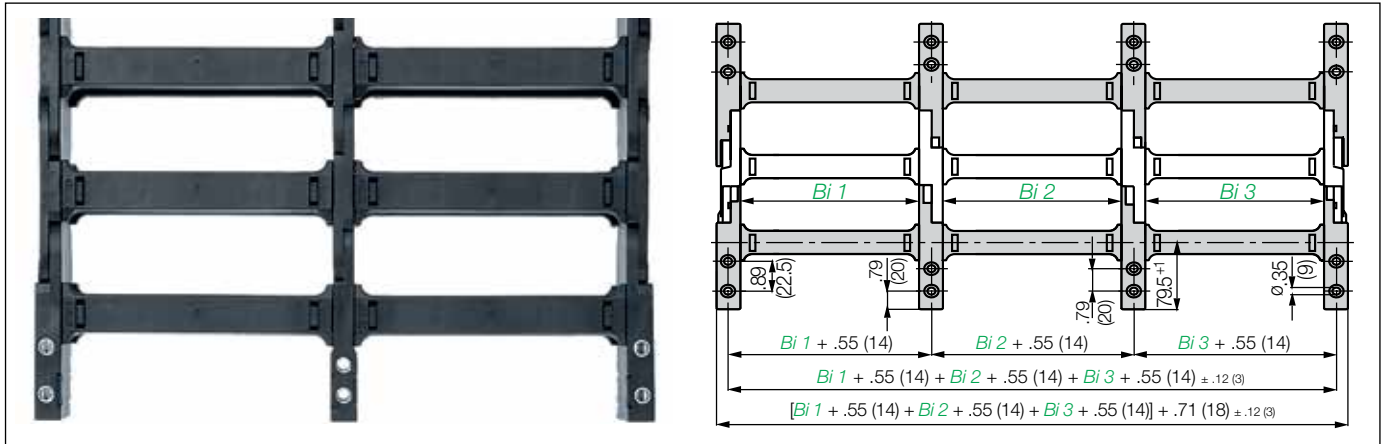
To receive extender crossbar RHD115 pre-fitted along the inner radius of the e-chain®, please add index **Z**: 14040.10/15RHDZ115/10.**R.0**

Order example: ② fitted to side link

To receive extender crossbar RD115 pre-fitted along the outer radius of the e-chain®, please add index **E**: 14040.18RDE115.**R.0**

To receive extender crossbar RD115 pre-fitted along the inner radius of the e-chain®, please add index **Z**: 14040.18RDZ115.**R.0**

Extension links



Extension links | For extremely wide e-chains® up to 9.84 ft. (3.0m)

- Virtually unlimited side-by-side extension
- For extremely wide e-chains® up to 118" (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 number	Part number	Part number
Extension link e-chain®	Extension link e-tube	Extension link as an individual part
14040. <i>Bi1/Bi2/Bi3</i> . <i>R.0</i>	R18840. <i>Bi1/Bi2/Bi3</i> . <i>R.0</i>	422. <i>R.</i>
Complete Part No.with the width index <i>Bi1/Bi2/Bi3/etc.</i> and the radius (<i>R</i>). Example: 14040.10/20/10.200.0		

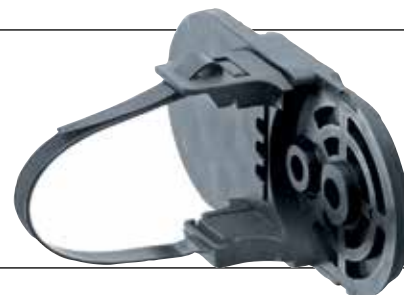


Paint spraying robot with system E4 e-chains® in ESD version. High rates of acceleration of up to 6m/s^2 and high braking rates for a robot weight of approx. one ton

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

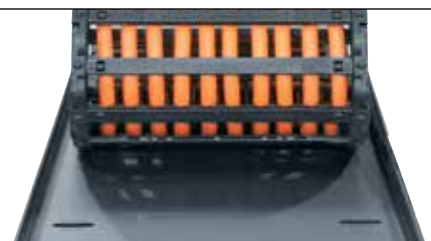
More information ► www.igus.com/14040



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

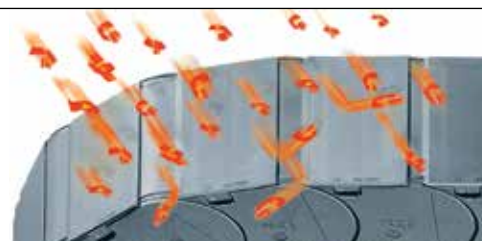
More information ► From page 1394



Hot chips up to +1562°F for e-tubes

- Lids and shelves can repel chips up to +1562°F. Special production option with the igus® material igumid HT
- No hot chips melting or embedding into the chain

More information ► www.igus.com/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.com/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-optimized bearings
- For sensitive hoses in restricted space
- Usable along the inner and/or outer radius, retrofit possible

More information ► www.igus.com/roller-crossbar



Stable due to undercut design, large inner height



e-chains® | Series 14240 | Crossbars every link (crossbars removable along the inner and outer radius)
 e-chains® | Series 14340 | Crossbars every 2nd link (crossbars removable along the inner and outer radius)

Part No.			<i>Bi</i>	<i>Ba</i>	14240	14340
e-chains®			in. (mm)	in. (mm)	lbs/ft (kg/m)	lbs/ft (kg/m)
14240.▲ 14340. 05. R.0			1.97 (50)	2.99 (76)	≈ 1.59 (2.37)	≈ 1.56 (2.32)
14240. 14340. 06. R.0			2.68 (68)	3.70 (94)	≈ 1.61 (2.40)	≈ 1.57 (2.33)
14240. 14340. 07. R.0			2.95 (75)	3.98 (101)	≈ 1.63 (2.42)	≈ 1.57 (2.34)
14240. 14340. 087. R.0			3.43 (87)	4.49 (114)	≈ 1.66 (2.47)	≈ 1.59 (2.36)
14240. 14340. 097. R.0			3.82 (97)	4.84 (123)	≈ 1.69 (2.51)	≈ 1.60 (2.38)
14240.▲ 14340. 10. R.0			3.94 (100)	4.96 (126)	≈ 1.69 (2.52)	≈ 1.61 (2.39)
14240. 14340. 11. R.0			4.25 (108)	5.28 (134)	≈ 1.71 (2.55)	≈ 1.61 (2.40)
14240. 14340. 112. R.0			4.41 (112)	5.47 (139)	≈ 1.71 (2.55)	≈ 1.62 (2.41)
14240. 14340. 12. R.0			4.92 (125)	5.94 (151)	≈ 1.76 (2.62)	≈ 1.64 (2.44)
14240. 14340. 137. R.0			5.39 (137)	6.46 (164)	≈ 1.79 (2.66)	≈ 1.65 (2.46)
14240.▲ 14340. 15. R.0			5.91 (150)	6.93 (176)	≈ 1.83 (2.72)	≈ 1.67 (2.49)
14240. 14340. 162. R.0			6.38 (162)	7.44 (189)	≈ 1.83 (2.73)	≈ 1.67 (2.49)
14240. 14340. 17. R.0			6.61 (168)	7.64 (194)	≈ 1.88 (2.79)	≈ 1.69 (2.52)
14240.▲ 14340. 18. R.0			6.89 (175)	7.91 (201)	≈ 1.90 (2.82)	≈ 1.70 (2.53)
14240. 14340. 187. R.0			7.36 (187)	8.43 (214)	≈ 1.91 (2.84)	≈ 1.71 (2.55)
14240.▲ 14340. 20. R.0			7.87 (200)	8.90 (226)	≈ 1.94 (2.89)	≈ 1.73 (2.58)

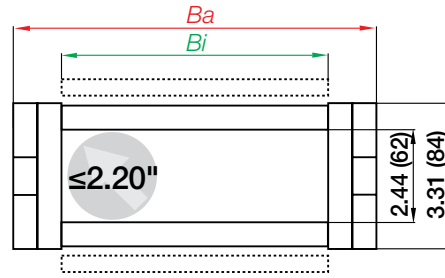
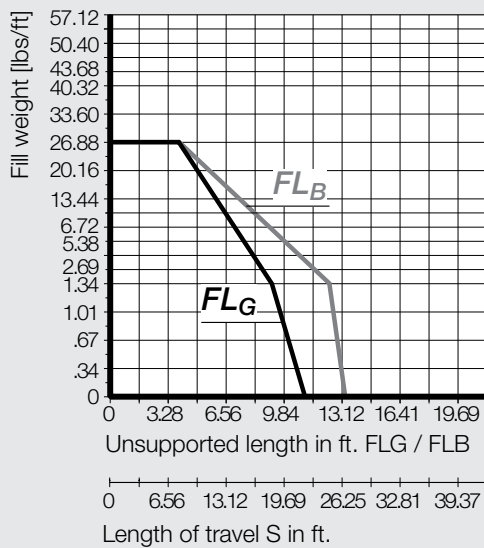
Part No.			<i>Bi</i>	<i>Ba</i>	14240	14340
e-chains®			in. (mm)	in. (mm)	lbs/ft (kg/m)	lbs/ft (kg/m)
14240. 14340. 212. R.0			8.35 (212)	9.41 (239)	≈ 1.98 (2.95)	≈ 1.75 (2.60)
14240. 14340. 23. R.0			8.86 (225)	9.88 (251)	≈ 2.02 (3.01)	≈ 1.77 (2.63)
14240. 14340. 237. R.0			9.33 (237)	10.39 (264)	≈ 2.04 (3.04)	≈ 1.78 (2.65)
14240. 14340. 25. R.0			9.84 (250)	10.87 (276)	≈ 2.08 (3.10)	≈ 1.80 (2.68)
14240. 14340. 262. R.0			10.31 (262)	11.38 (289)	≈ 2.09 (3.11)	≈ 1.81 (2.69)
14240. 14340. 28. R.0			10.83 (275)	11.85 (301)	≈ 2.14 (3.19)	≈ 1.83 (2.72)
14240. 14340. 29. R.0			11.30 (287)	12.36 (314)	≈ 2.15 (3.20)	≈ 1.83 (2.73)
14240. 14340. 30. R.0			11.81 (300)	12.83 (326)	≈ 2.22 (3.30)	≈ 1.87 (2.78)
14240. 14340. 312. R.0			12.28 (312)	13.35 (339)	≈ 2.22 (3.31)	≈ 1.88 (2.79)
14240. 14340. 325. R.0			12.79 (325)	13.82 (351)	≈ 2.26 (3.37)	≈ 1.89 (2.81)
14240. 14340. 337. R.0			13.27 (337)	14.33 (364)	≈ 2.28 (3.40)	≈ 1.90 (2.83)
14240. 14340. 350. R.0			13.78 (350)	14.80 (376)	≈ 2.39 (3.56)	≈ 1.96 (2.91)
14240. 14340. 362. R.0			14.25 (362)	15.31 (389)	≈ 2.43 (3.61)	≈ 1.97 (2.93)
14240. 14340. 375. R.0			14.76 (375)	15.79 (401)	≈ 2.45 (3.64)	≈ 1.98 (2.95)
14240. 14340. 387. R.0			15.24 (387)	16.30 (414)	≈ 2.48 (3.69)	≈ 2.00 (2.97)
14240. 14340. 400. R.0			15.75 (400)	16.77 (426)	≈ 2.51 (3.73)	≈ 2.00 (2.99)

▲ ESD version (Electro Static Discharge) available from stock. More information ► From page 144

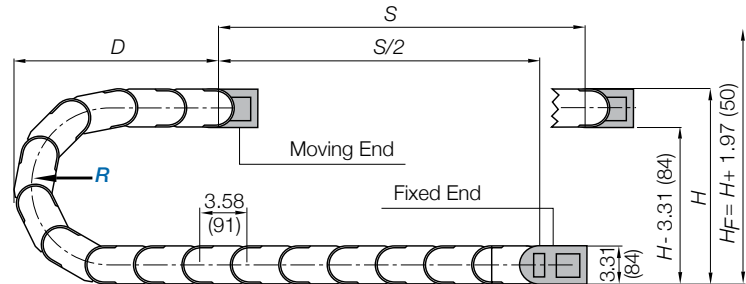
Complete Part No. with required radius (*R*). Example:14240.20.300.0 = crossbars every link / 14340.30.300.0 = crossbars every 2nd link

Available bend radii

R in. (mm) | 3.94 (135)* | 5.91 (150) | 6.89 (175) | 7.87 (200) | 9.84 (250) | 11.81 (300) | 15.75 (400) | 19.69 (500) |



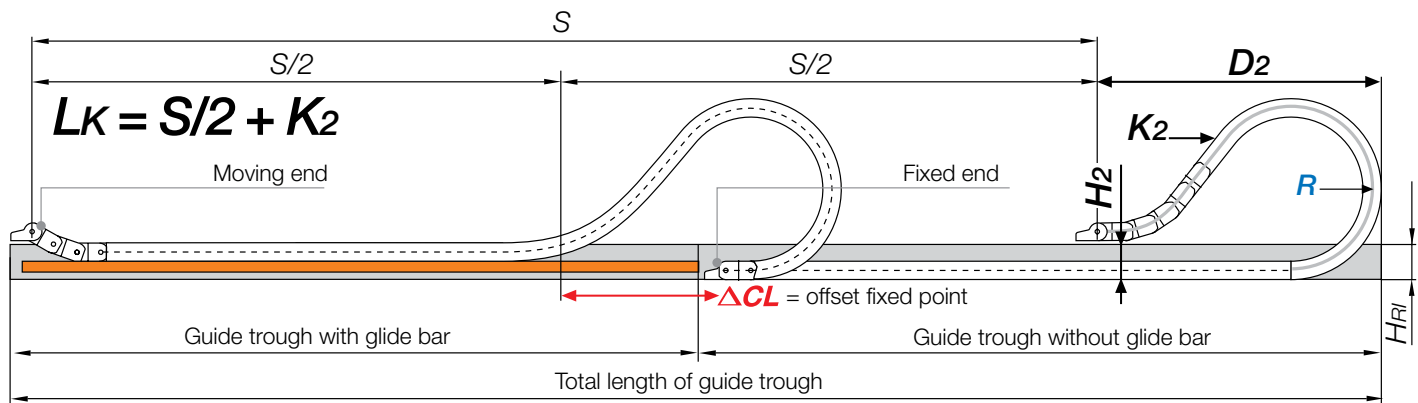
Inner height in. (mm)	2.44 (62)
Pitch per link in. (mm)	3.58 (91)
Links/ft (m)	3.35 (11)
corresponds to (mm)	1,001
e-chain® length	$L_K = \frac{S}{2} + K$



R	5.31 (135)	5.91 (150)	6.89 (175)	7.87 (200)	9.84 (250)	11.81 (300)	15.75 (400)	19.68 (500)
H_{+25}^0	13.94 (354)	15.12 (384)	17.09 (434)	19.06 (484)	22.99 (584)	26.93 (684)	34.80 (884)	42.68 (1084)
D	12.36 (314)	12.95 (329)	13.94 (354)	14.92 (379)	16.89 (429)	18.86 (479)	22.80 (579)	26.73 (679)
K	24.02 (610)	25.79 (655)	28.94 (735)	32.09 (815)	38.19 (970)	44.29 (1125)	56.69 (1440)	69.09 (1755)

The required clearance height: $H_F = H + 1.97$ in. (50 mm) with 1.34 lbs/ft (2.0 kg/m) fill weight.

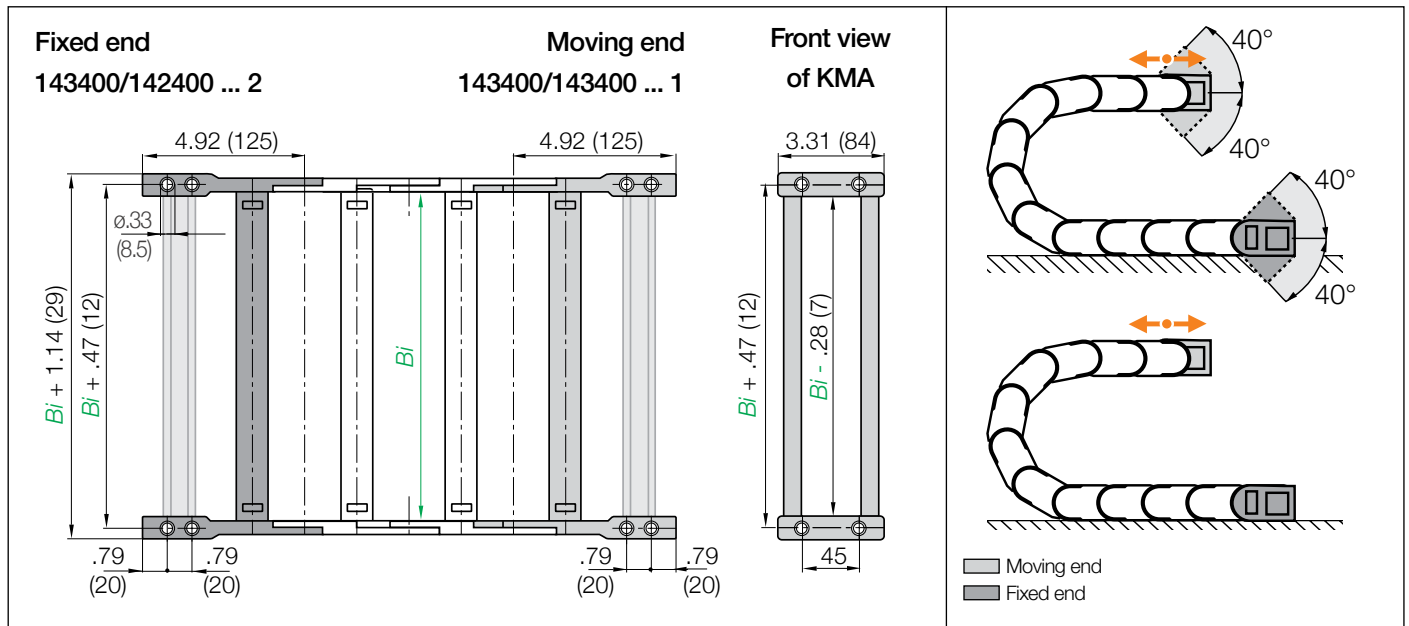
Gliding applications | For travel lengths from 39.37 ft. (12m) to max. 820 ft. (250m)



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

In case of travels between 29.53ft. (9m) and 39.37 ft. (12m) we recommend an e-chain® with a longer unsupported length.

R	5.31 (135)	5.91 (150)	6.89 (175)	7.87 (200)	9.84 (250)	11.81 (300)	15.75 (400)	19.68 (500)
H_i	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)
D_2^{+25}	15.35 (390)	17.72 (450)	20.87 (530)	27.95 (710)	36.22 (920)	44.09 (1120)	60.24 (1530)	72.83 (1850)
K_2	28.66 (728)	32.24 (819)	39.41 (1001)	50.16 (1274)	64.49 (1638)	75.23 (1911)	100.31 (2548)	125.39 (3185)
ΔCL	4.88 (124)	6.26 (159)	8.22 (209)	14.13 (359)	20.04 (509)	25.94 (659)	37.76 (959)	45.63 (1159)



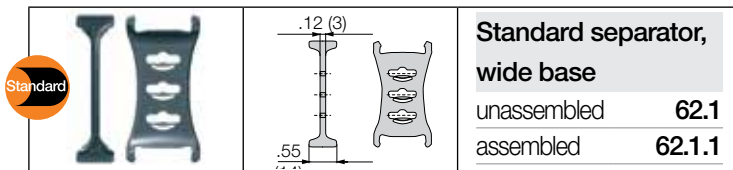
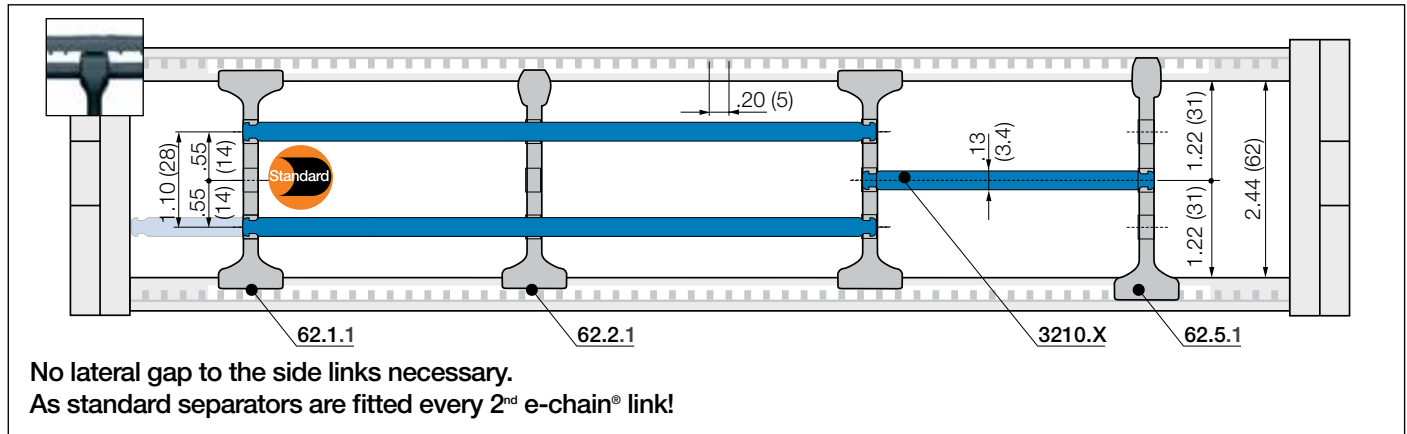
KMA pivoting
KMA locking

Recommended for unsupported and gliding applications
Recommended for vertical hanging and standing applications

Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	<i>Bi</i> in. (mm)	Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	<i>Bi</i> in. (mm)
05.	▶ 143400.05.12.C	142400.05.12.C	1.97 (50)	212.	▶ 143400.212.12.C	142400.212.12.C	8.35 (212)
06.	▶ 143400.06.12.C	142400.06.12.C	2.68 (68)	23.	▶ 143400.23.12.C	142400.23.12.C	8.86 (225)
07.	▶ 143400.07.12.C	142400.07.12.C	2.95 (75)	237.	▶ 143400.237.12.C	142400.237.12.C	9.33 (237)
087.	▶ 143400.087.12.C	142400.087.12.C	3.43 (87)	25.	▶ 143400.25.12.C	142400.25.12.C	9.84 (250)
097.	▶ 143400.097.12.C	142400.097.12.C	3.82 (97)	262.	▶ 143400.262.12.C	142400.262.12.C	10.31 (262)
10.	▶ 143400.10.12.C	142400.10.12.C	3.94 (100)	28.	▶ 143400.28.12.C	142400.28.12.C	10.83 (275)
11.	▶ 143400.11.12.C	142400.11.12.C	4.25 (108)	29.	▶ 143400.29.12.C	142400.29.12.C	11.30 (287)
112.	▶ 143400.112.12.C	142400.112.12.C	4.41 (112)	30.	▶ 143400.27.12.C	142400.27.12.C	11.81 (300)
12.	▶ 143400.12.12.C	142400.12.12.C	4.92 (125)	312.	▶ 143400.312.12.C	142400.312.12.C	12.28 (312)
137.	▶ 143400.137.12.C	142400.137.12.C	5.39 (137)	325.	▶ 143400.325.12.C	142400.325.12.C	12.79 (325)
15.	▶ 143400.15.12.C	142400.15.12.C	5.91 (150)	337.	▶ 143400.337.12.C	142400.337.12.C	13.27 (337)
162.	▶ 143400.162.12.C	142400.162.12.C	6.38 (162)	350.	▶ 143400.350.12.C	142400.350.12.C	13.78 (350)
17.	▶ 143400.17.12.C	142400.17.12.C	6.61 (168)	362.	▶ 143400.362.12.C	142400.362.12.C	14.25 (362)
18.	▶ 143400.18.12.C	142400.18.12.C	6.89 (175)	375.	▶ 143400.375.12.C	142400.375.12.C	14.76 (375)
187.	▶ 143400.187.12.C	142400.187.12.C	7.36 (187)	387.	▶ 143400.387.12.C	142400.387.12.C	15.24 (387)
20.	▶ 143400.20.12.C	142400.20.12.C	7.87 (200)	400.	▶ 143400.400.12.C	142400.400.12.C	15.75 (400)

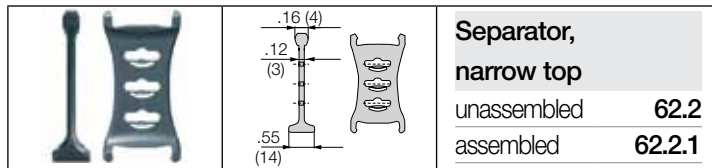
(KMA = polymer metal mounting bracket) For the C-profile option please add index .C

Interior separation | Increase cable service life



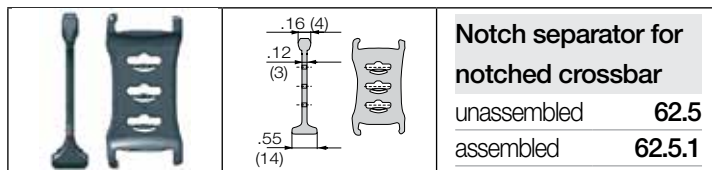
Standard - for any application

Separator with a wide base for maximum holding force.



For even faster installation

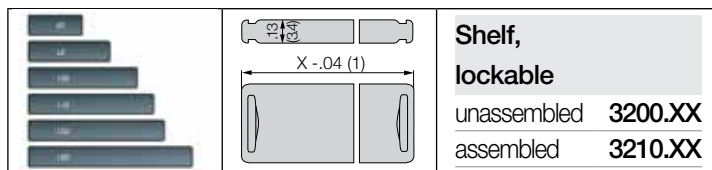
Wide on one side for high holding force, narrow on opposite side for easy cable fitting.



Locks securely in preset increments

Notch separator for exact positioning. Recommended for side-mounted applications.

(*Suitable from **Bi 75**)



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.

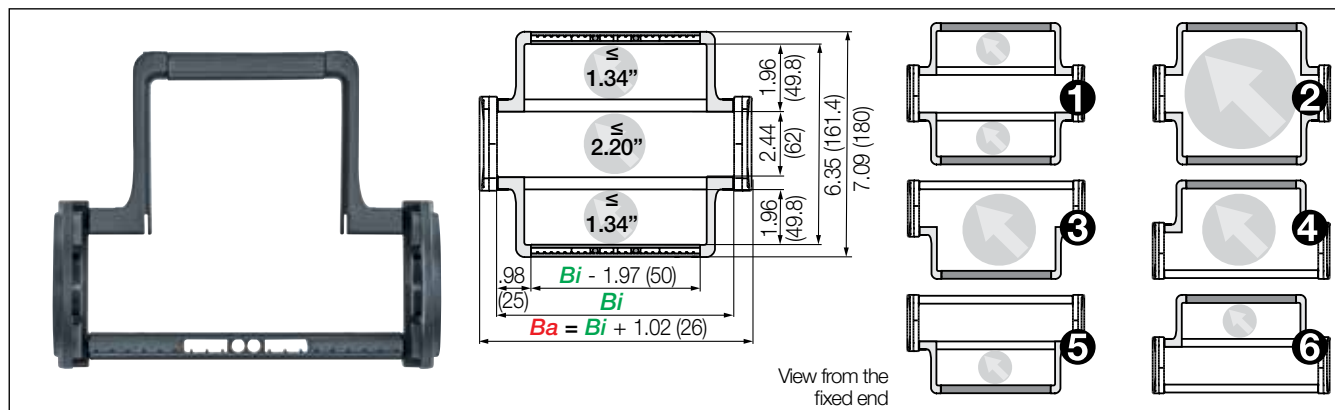
Shelves

Width = X in. (mm)



X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled
1.97 (050)	3200.050	3210.050	4.92 (125)	3200.125	3210.125	8.86 (225)	3200.225	3210.225
2.95 (075)	3200.075	3210.075	5.91 (150)	3200.150	3210.150	9.84 (250)	3200.250	3210.250
3.94 (100)	3200.100	3210.100	6.89 (175)	3200.175	3210.175			
4.53 (115)	3200.115	3210.115	7.87 (200)	3200.200	3210.200			

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 e-chain® with extender crossbar	Hose Ø ≤ in. (mm)	Part Number crossbars every link	Part Number crossbars every 2 nd link
❶ Extender crossbar and standard crossbar alternating along the inner and outer radius ¹⁾	1.34 (34)	14240.XXXHB50.R.0	–
❷ Extender crossbar on both sides along the inner and outer radius ²⁾	5.51 (140)	14240.XXXB50.R.0	14340.XXXB50.R.0 ³⁾
❸ Extender crossbar along the outer radius ³⁾	3.94 (100)	14240.XXXBE50.R.0	14340.XXXBE50.R.0 ³⁾
❹ Extender crossbar along the inner radius ²⁾	3.94 (100)	14240.XXXBZ50.R.0	14340.XXXBZ50.R.0 ³⁾
❺ Extender crossbar and standard crossbar alternating along the outer radius ³⁾	1.34 (34)	14240.XXXHBE50.R.0	–
❻ Extender crossbar and standard crossbar alternating along inner radius ¹⁾	1.34 (34)	14240.XXXHBZ50.R.0	–

1) Minimum bend radius: **R 125** 2) Minimum bend radius: **R 150** 3) Minimum bend radius: **R 063**

Bi in. [mm] Available inner widths

| 3.94 (100) | 4.92 (125) | 5.39 (137) | 5.91 (150) | 6.38 (162) | 6.89 (175) | 7.36 (187) | 7.87 (200) | 8.34 (212) | 8.85 (225) | 9.33 (237) | 9.84 (250) | 10.31 (262) | 10.83 (275) | 11.30 (287) | 11.81 (300) | 12.28 (312) | 12.80 (325) | 13.27 (337) | 13.78 (350) | 14.25 (362) | 14.76 (375) | 15.24 (387) | 15.75 (400) |

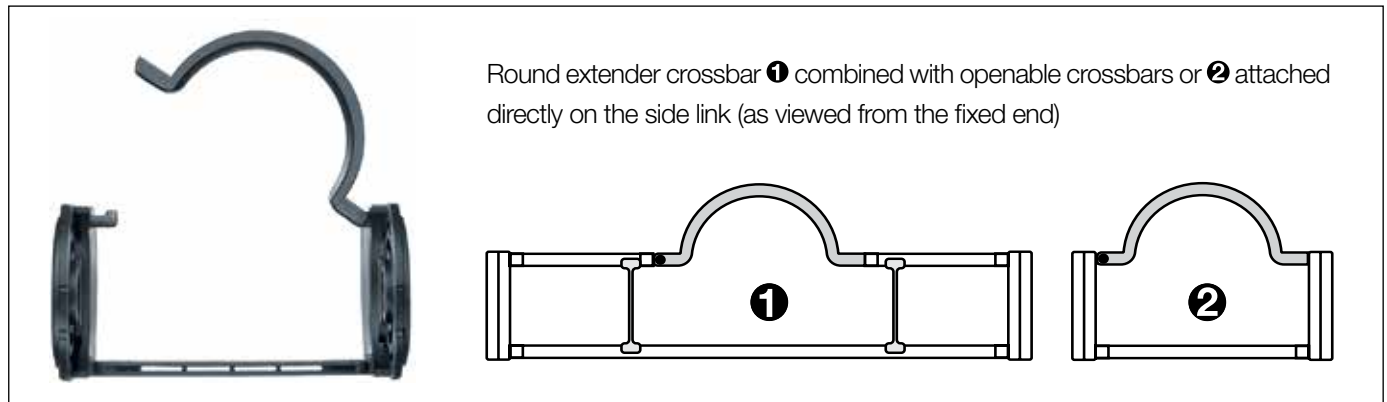
Complete Part No. with the width index **XXX** of **Bi** and the radius (**R**). Example

14240.10B50.150.0 = **Bi 100** / Extender crossbar on both sides along inner and outer radius / bend radius (**R**) **150**



The E4.1L 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 4.53" (115mm)
- 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 $\varnothing \leq$ in. (mm)	Extender crossbar shape	2 Fitted to side link	1 Combine with openable crossbars
385.15RHD115	4.53 (115)	O round	no	yes
385.18RD115	4.53 (115)	O round	yes	no

Order example: 1 combined with openable crossbars

To receive extender crossbar RHD115 pre-fitted along the outer radius of the e-chain®, please add index **E: 14240.10/15RHDE115/10.R.0**

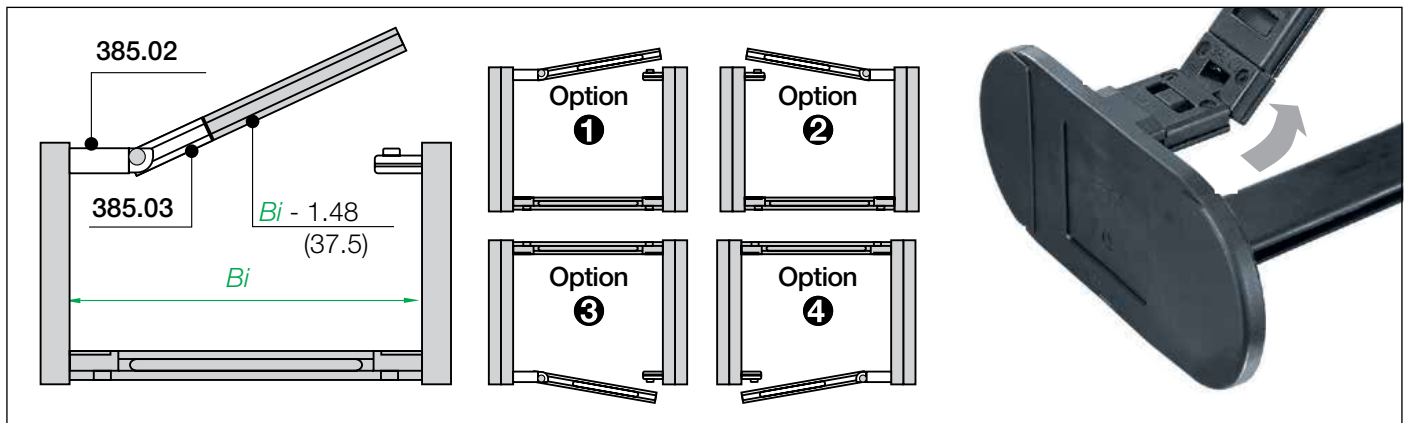
To receive extender crossbar RHD115 pre-fitted along the inner radius of the e-chain®, please add index **Z: 14240.10/15RHDZ115/10.R.0**

Order example: 2 fitted to side link

To receive extender crossbar RD115 pre-fitted along the outer radius of the e-chain®, please add index **E: 14240.18RDE115.R.0**

To receive extender crossbar RD115 pre-fitted along the inner radius of the e-chain®, please add index **Z: 14240.18RDZ115.R.0**

Hinged crossbar | Swivel clips



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): $Bi - 1.48''$ (37.5mm) Part No. 385-03 smallest inner width $Bi = 3.44''$ (87.5mm)
- Please consult igus® for assistance with this product

Part number	Part number	Part No. openable
e-chain® with hinged crossbar	swivel clip as an individual part	crossbar as an individual part
14240. 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: 14240.137.1.200.0

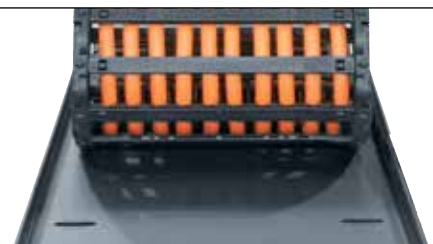


E4/light e-tubes protect cables and hoses against dirt and chips

Steel support tray for support of the lower run

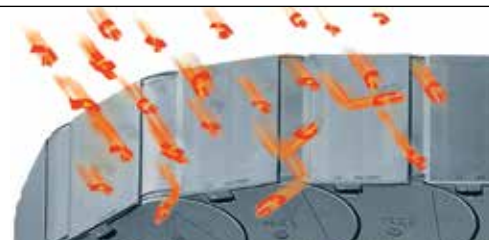
- Simple one-piece support trays for the lower run
- To your requirements and specification
- 4 options available

More information ► From page 1394

**Hot chips up to +1562°F for e-tubes**

- Lids and shelves can repel chips up to +1562°F. Special production option with the igus® material igumid HT
- No hot chips melting or embedding into the chain

More information ► www.igus.com/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.com/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-optimized bearings
- For sensitive hoses in restricted space
- Usable along the inner and/or outer radius, retrofit possible

More information ► www.igus.com/roller-crossbar



"Light" design, large inner height



e-chains® | Series 14550 | Crossbars every link (crossbars removable along the inner and outer radius)
 e-chains® | Series 14650 | Crossbars every 2nd link (crossbars removable along the inner and outer radius)
 e-tubes | Series R19050 | Fully enclosed (lids openable along the outer radius, from one side)

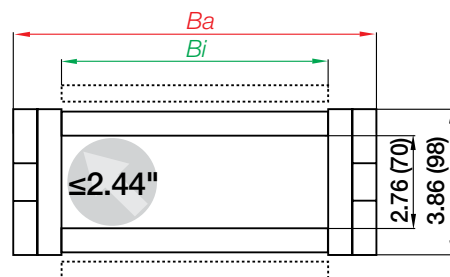
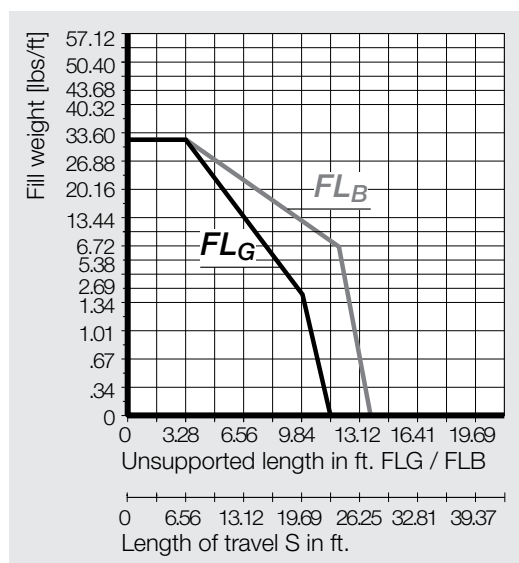
Part No.				<i>Bi</i>	<i>Ba</i>	14550	14650	19050
e-chains® / e-tubes				in. (mm)	in. (mm)	lbs/ft (kg/m)	lbs/ft (kg/m)	lbs/ft (kg/m)
14550. 14650.	–	05. <i>R.0</i>		1.97 (50)	3.03 (77)	≈ 2.41 (3.28)	≈ 2.49 (3.27)	–
14550. 14650.	–	055. <i>R.0</i>		2.17 (55)	3.23 (82)	≈ 2.24 (3.33)	≈ 2.21 (3.29)	–
14550. 14650.	–	06. <i>R.0</i>		2.56 (65)	3.62 (92)	≈ 2.26 (3.37)	≈ 2.22 (3.31)	–
14550. 14650. 19050.		07. <i>R.0</i>		2.95 (75)	4.02 (102)	≈ 2.31 (3.44)	≈ 2.25 (3.35)	≈ 2.69 (4.00)
14550. 14650.	–	08. <i>R.0</i>		3.43 (87)	4.49 (114)	≈ 2.37 (3.52)	≈ 2.27 (3.38)	–
14550. 14650. 19050.		10. <i>R.0</i>		3.94 (100)	5.00 (127)	≈ 2.43 (3.61)	≈ 2.30 (3.43)	≈ 2.91 (4.33)
14550. 14650.	–	11. <i>R.0</i>		4.41 (112)	5.47 (139)	≈ 2.51 (3.73)	≈ 2.35 (3.49)	–
14550. 14650. 19050.		12. <i>R.0</i>		4.92 (125)	5.98 (152)	≈ 2.56 (3.81)	≈ 2.37 (3.53)	≈ 3.16 (4.70)
14550. 14650.	–	13. <i>R.0</i>		5.39 (137)	6.46 (164)	≈ 2.65 (3.94)	≈ 2.42 (3.60)	–
14550. 14650. 19050.		15. <i>R.0</i>		5.91 (150)	6.97 (177)	≈ 2.67 (3.98)	≈ 2.43 (3.62)	≈ 3.39 (5.04)
14550. 14650.	–	16. <i>R.0</i>		6.38 (162)	7.44 (189)	≈ 2.75 (4.09)	≈ 2.47 (3.67)	–
14550. 14650.	–	169. <i>R.0</i>		6.65 (169)	7.76 (197)	≈ 2.81 (4.18)	≈ 2.49 (3.71)	–
14550. 14650. 19050.		17. <i>R.0</i>		6.89 (175)	7.95 (202)	≈ 2.84 (4.23)	≈ 2.51 (3.74)	≈ 3.64 (5.41)
14550. 14650.	–	182. <i>R.0</i>		7.17 (182)	8.27 (210)	≈ 2.87 (4.27)	≈ 2.53 (3.76)	–
14550. 14650.	–	18. <i>R.0</i>		7.36 (187)	8.43 (214)	≈ 2.92 (4.34)	≈ 2.55 (3.80)	–
14550. 14650. 19050.		20. <i>R.0</i>		7.87 (200)	8.94 (227)	≈ 2.95 (4.39)	≈ 2.57 (3.82)	≈ 3.79 (5.64)
14550. 14650.	–	207. <i>R.0</i>		8.15 (207)	9.25 (235)	≈ 2.98 (4.44)	≈ 2.58 (3.84)	–
14550. 14650.	–	21. <i>R.0</i>		8.35 (212)	9.41 (239)	≈ 3.00 (4.46)	≈ 2.59 (3.86)	–
14550. 14650.	–	22. <i>R.0</i>		8.86 (225)	9.92 (252)	≈ 3.04 (4.53)	≈ 2.61 (3.89)	–
14550. 14650.	–	23. <i>R.0</i>		9.33 (237)	10.39 (264)	≈ 3.12 (4.64)	≈ 2.84 (3.95)	–
14550. 14650. 19050.		25. <i>R.0</i>		9.84 (250)	10.91 (277)	≈ 3.20 (4.76)	≈ 2.69 (4.00)	≈ 4.25 (6.32)
14550. 14650.	–	26. <i>R.0</i>		10.31 (262)	11.38 (289)	≈ 3.26 (4.85)	≈ 2.72 (4.05)	–
14550. 14650. 19050.		27. <i>R.0</i>		10.83 (275)	11.89 (302)	≈ 3.33 (4.95)	≈ 2.76 (4.10)	≈ 4.47 (6.65)

*Radius not available for e-tubes

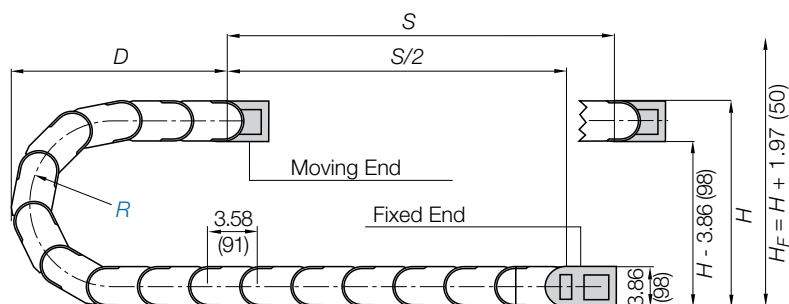
Complete Part No. with required radius (*R*). Example:14240.20.300.0 = crossbars every link / 14340.30.300.0 = crossbars every 2nd link

Available bend radii

R in. (mm) | 5.91 (150)* | 6.89 (175)* | 7.87 (200) | 9.84 (250) | 11.81 (300) | 13.78 (350) | 15.75 (400) | 17.72 (450) | 19.69 (500) | 23.62 (600) |



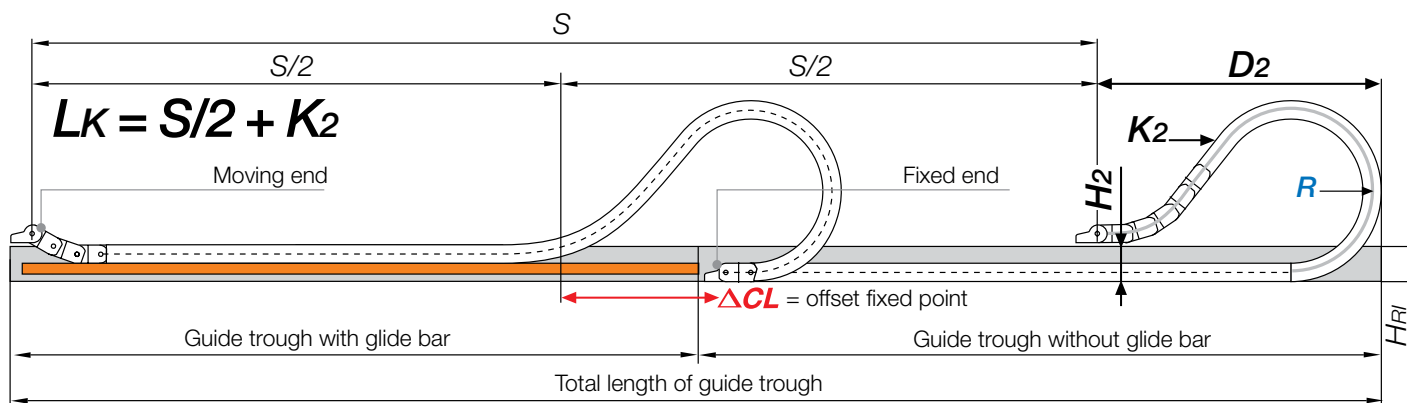
Inner height in. (mm)	2.76 (70)
Pitch per link in. (mm)	3.58 (91)
Links/ft (m)	3.35 (11)
corresponds to (mm)	1,001
e-chain® length	$L_K = \frac{S}{2} + K$



R	5.91 (150)*	6.89 (175)*	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	19.68 (500)	23.62 (600)
H	15.67 (398)	17.64 (448)	19.61 (498)	23.54 (598)	27.48 (698)	31.42 (798)	35.35 (898)	39.29 (998)	43.23 (1098)	51.10 (1298)
D	13.23 (336)	14.21 (361)	15.19 (386)	17.17 (436)	19.13 (486)	21.10 (536)	23.07 (586)	25.04 (636)	27.01 (686)	30.94 (786)
K	25.79 (655)	28.94 (735)	32.09 (815)	38.19 (970)	44.29 (1125)	50.59 (1285)	56.29 (1440)	62.99 (1600)	69.09 (1755)	81.50 (2070)

The required clearance height: $H_F = H + 1.97$ in. (50 mm) with 1.68 lbs/ft (2.5 kg/m) fill weight.

Gliding applications | For travel lengths from 39.37 ft. (12m) to max. 820 ft. (250m)



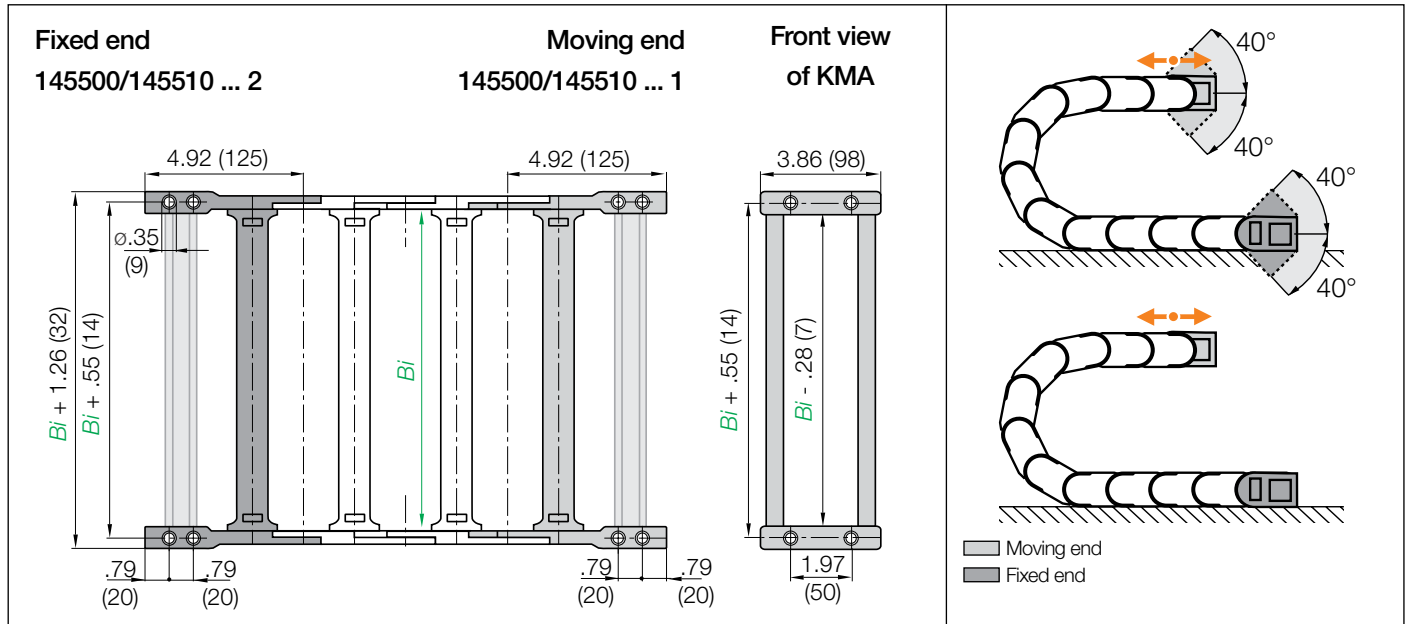
Note: We recommend the project planning of such a system to be carried out by igus®.

In case of travels between 26.25ft. (8m) and 39.37 ft. (12m) we recommend an e-chain® with a longer unsupported length.

R	5.91 (150)*	6.89 (175)*	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	19.68 (500)	23.62 (600) ²⁾
H _i	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	–
D ₂ ⁺²⁵	17.72 (450)	20.87 (530)	27.95 (710)	36.22 (920)	44.09 (1120)	52.76 (1340)	60.24 (1530)	66.73 (1695)	72.05 (1830)	–
K _i	32.24 (819)	39.41 (1001)	50.16 (1274)	64.49 (1638)	75.24 (1911)	85.98 (2184)	100.31 (2548)	111.06 (2821)	125.39 (3185)	–
ΔCL	4.88 (124)	6.26 (159)	8.22 (209)	14.13 (359)	20.04 (509)	25.94 (659)	32.64 (829)	37.76 (959)	45.63 (1159)	–

*Radius not available for e-tubes

2) R 600 not suitable for long travel applications. Please consult igus®.



KMA pivoting
KMA locking

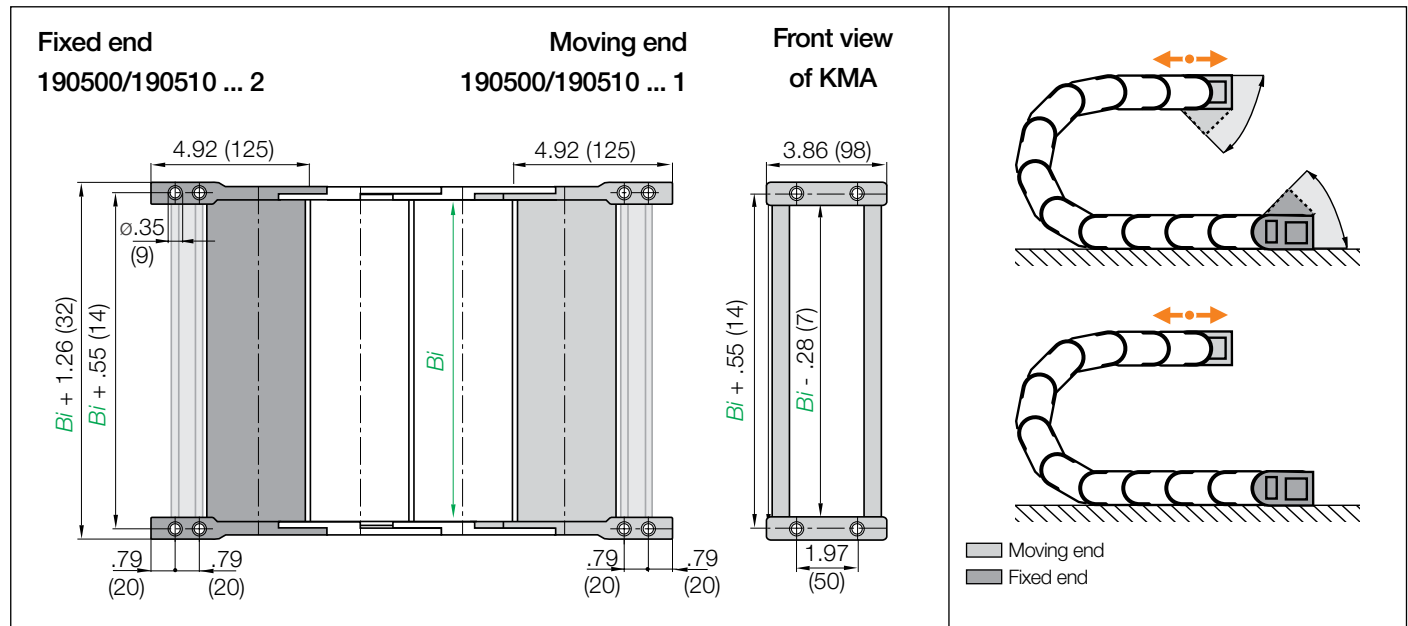
Recommended for unsupported and gliding applications
Recommended for vertical hanging and standing applications

Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	Bi in. (mm)
05.	▶ 145500.05.12.C	145510.05.12.C	1.97 (50)
055.	▶ 145500.055.12.C	145510.055.12.C	2.17 (55)
06.	▶ 145500.06.12.C	145510.06.12.C	2.56 (65)
07.	▶ 145500.07.12.C	145510.07.12.C	2.95 (75)
08.	▶ 145500.08.12.C	145510.08.12.C	3.43 (87)
10.	▶ 145500.10.12.C	145510.10.12.C	3.94 (100)
11.	▶ 145500.11.12.C	145510.11.12.C	4.41 (112)
12.	▶ 145500.12.12.C	145510.12.12.C	4.92 (125)
13.	▶ 145500.13.12.C	145510.13.12.C	5.39 (137)
15.	▶ 145500.15.12.C	145510.15.12.C	5.91 (150)
16.	▶ 145500.16.12.C	145510.16.12.C	6.38 (162)
169.	▶ 145500.169.12.C	145510.169.12.C	6.65 (169)
17.	▶ 145500.17.12.C	145510.17.12.C	6.89 (175)
182.	▶ 145500.182.12.C	145510.182.12.C	7.17 (182)
18.	▶ 145500.18.12.C	145510.18.12.C	7.36 (187)
20.	▶ 145500.20.12.C	145510.20.12.C	7.87 (200)
207.	▶ 145500.207.12.C	145510.207.12.C	8.15 (207)
21.	▶ 145500.21.12.C	145510.21.12.C	8.35 (212)
22.	▶ 145500.22.12.C	145510.22.12.C	8.86 (225)
23.	▶ 145500.23.12.C	145510.23.12.C	9.33 (237)
25.	▶ 145500.25.12.C	145510.25.12.C	9.84 (250)
26.	▶ 145500.26.12.C	145510.26.12.C	10.31 (262)
27.	▶ 145500.27.12.C	145510.27.12.C	10.83 (275)

Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	Bi in. (mm)
28.	▶ 145500.28.12.C	145510.28.12.C	11.30 (287)
30.	▶ 145500.30.12.C	145510.30.12.C	11.81 (300)
31.	▶ 145500.31.12.C	145510.31.12.C	12.28 (312)
32.	▶ 145500.32.12.C	145510.32.12.C	12.79 (325)
33.	▶ 145500.33.12.C	145510.33.12.C	13.27 (337)
35.	▶ 145500.35.12.C	145510.35.12.C	13.78 (350)
36.	▶ 145500.36.12.C	145510.36.12.C	14.25 (362)
37.	▶ 145500.37.12.C	145510.37.12.C	14.76 (375)
38.	▶ 145500.38.12.C	145510.38.12.C	15.24 (387)
40.	▶ 145500.40.12.C	145510.40.12.C	15.75 (400)
41.	▶ 145500.41.12.C	145510.41.12.C	16.22 (412)
42.	▶ 145500.42.12.C	145510.42.12.C	16.73 (425)
43.	▶ 145500.43.12.C	145510.43.12.C	17.20 (437)
45.	▶ 145500.45.12.C	145510.45.12.C	17.72 (450)
46.	▶ 145500.46.12.C	145510.46.12.C	18.19 (462)
47.	▶ 145500.47.12.C	145510.47.12.C	18.70 (475)
48.	▶ 145500.48.12.C	145510.48.12.C	19.17 (487)
50.	▶ 145500.50.12.C	145510.50.12.C	19.69 (500)
51.	▶ 145500.51.12.C	145510.51.12.C	20.16 (512)
52.	▶ 145500.52.12.C	145510.52.12.C	20.67 (525)
53.	▶ 145500.53.12.C	145510.53.12.C	21.14 (537)
55.	▶ 145500.55.12.C	145510.55.12.C	21.65 (550)
60.	▶ 145500.60.12.C	145510.60.12.C	23.62 (600)

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

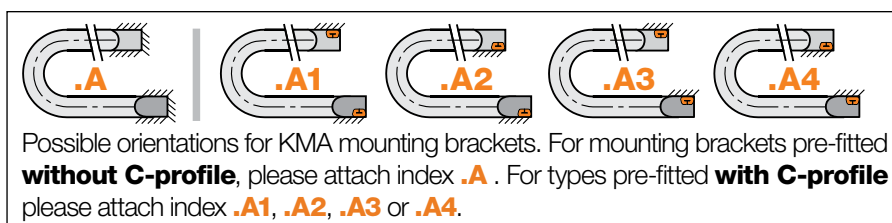
KMA mounting brackets | Attachment from any side | Pivoting | Locking



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	<i>Bi</i> in. (mm)	Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	<i>Bi</i> in. (mm)
07. ▶	190500.07.12.C	190510.07.12.C	2.95 (75)	25. ▶	190500.25.12.C	190510.25.12.C	9.84 (250)
10. ▶	190500.10.12.C	190510.10.12.C	3.94 (100)	27. ▶	190500.27.12.C	190510.27.12.C	10.83 (275)
12. ▶	190500.12.12.C	190510.12.12.C	4.92 (125)	30. ▶	190500.30.12.C	190510.30.12.C	11.81 (300)
15. ▶	190500.15.12.C	190510.15.12.C	5.91 (150)	35. ▶	190500.35.12.C	190510.35.12.C	13.78 (350)
17. ▶	190500.17.12.C	190510.17.12.C	6.89 (175)	40. ▶	190500.40.12.C	190510.40.12.C	15.75 (400)
20. ▶	190500.20.12.C	190510.20.12.C	7.87 (200)	46. ▶	190500.46.12.C	190510.46.12.C	18.19 (462)

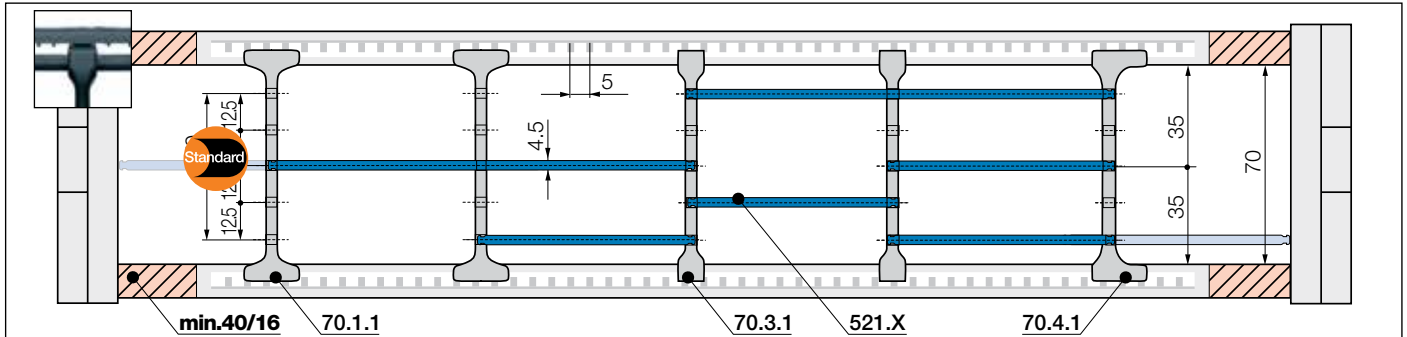
(KMA = polymer metal mounting bracket) For the C-profile option please add index .C



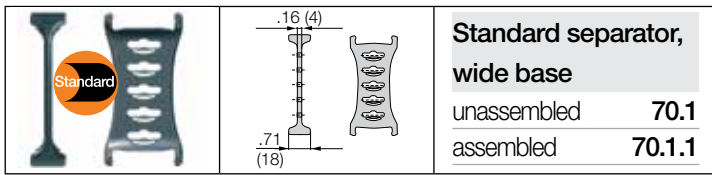
145500.30.12.C.A2 Order example
 .A ... to indicate option with brackets pre-fitted
 C-profile option
 Full set
 width index
 Series



Strain relief e.g. clamps, tiewrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ▶ From page 1418



Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 1.57" (40mm) | e-chain® .63" (16mm).** As standard separators are fitted every 2nd e-chain® link!

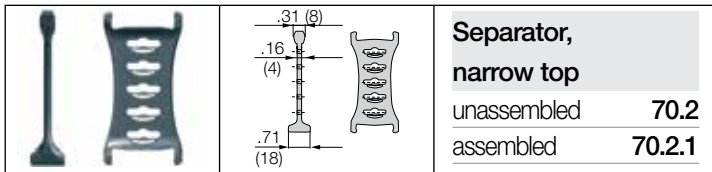


**Standard separator,
wide base**

unassembled **70.1**
assembled **70.1.1**

Standard - for any application

Separator with a wide base for maximum holding force.

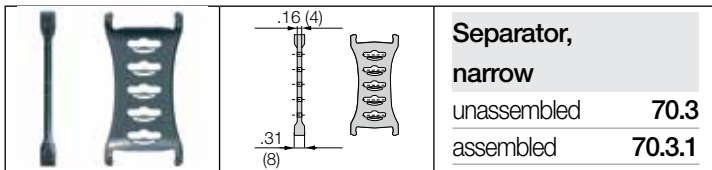


**Separator,
narrow top**

unassembled **70.2**
assembled **70.2.1**

For even faster installation

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

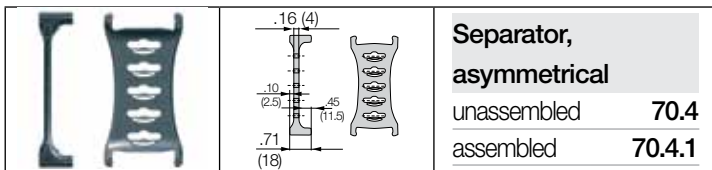


**Separator,
narrow**

unassembled **70.3**
assembled **70.3.1**

For a large number of thin cables

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

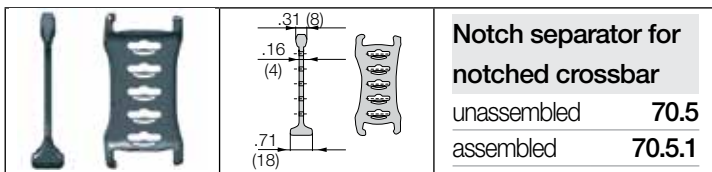


**Separator,
asymmetrical**

unassembled **70.4**
assembled **70.4.1**

For side-mounted applications

Asymmetrical separator, for defined gap distance. No additional spacers required.

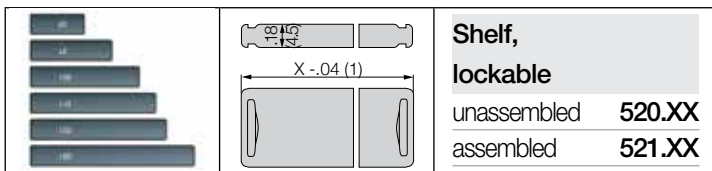


**Notch separator for
notched crossbar**

unassembled **70.5**
assembled **70.5.1**

Locks securely in preset increments

Notch separator for exact positioning. Recommended for side-mounted applications.



**Shelf,
lockable**

unassembled **520.XX**
assembled **521.XX**

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.

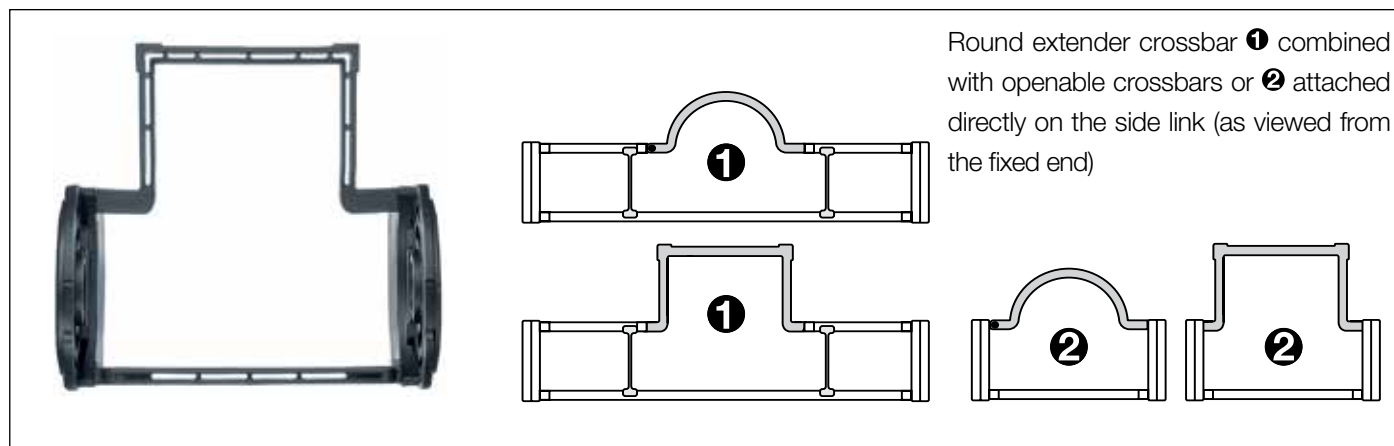
Shelves

Width = X in. (mm)



X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled
1.97 (050)	520.050	521.050	5.91 (150)	520.150	521.150	11.81 (300)	520.300	521.300
2.56 (065)	520.065	521.065	6.89 (175)	520.175	521.175	13.78 (350)	520.350	521.350
2.95 (075)	520.075	521.075	7.87 (200)	520.200	521.200	14.76 (375)	520.375	521.375
3.94 (100)	520.100	521.100	8.86 (225)	520.225	521.225	15.24 (387)	520.387	521.387
4.92 (125)	520.125	521.125	9.84 (250)	520.250	521.250	17.72 (450)	520.450	521.450

Extender crossbar with fixed width



Extender crossbars with fixed width | Safe guiding for large hoses

- Suitable for hoses with a maximum outer diameter of 9.65" (245mm)
- 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 $\varnothing \leq$ in. (mm)	Extender crossbar shape	② Fitted to side link	① Combine with openable crossbars
450.15RHD115	4.53 (115)	○ round	no	yes
450.17RD115	4.53 (115)	○ round	yes	no
450.25D150	5.91 (150)	□ square	yes	no
450.30D200	7.87 (200)	□ square	yes	no
450.35D250	8.66 (220)	□ square	yes	no
450.40D300	10.63 (270)	□ square	yes	no
450.20HD150	5.91 (150)	□ square	no	yes
450.25HD200	7.87 (200)	□ square	no	yes
450.30HD250	8.66 (220)	□ square	no	yes

Order example: ① combined with openable crossbars

To receive extender crossbar RHD115 pre-fitted along the outer radius of the e-chain®, please add index **E**: 14550.10/15RHDE115/10.**R.0**

To receive extender crossbar RHD115 pre-fitted along the inner radius of the e-chain®, please add index **Z**: 14550.10/15RHDZ115/10.**R.0**

Order example: ② fitted to side link

To receive extender crossbar RD115 pre-fitted along the outer radius of the e-chain®, please add index **E**: 14550.18RDE115.**R.0**

To receive extender crossbar RD115 pre-fitted along the inner radius of the e-chain®, please add index **Z**: 14550.18RDZ115.**R.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

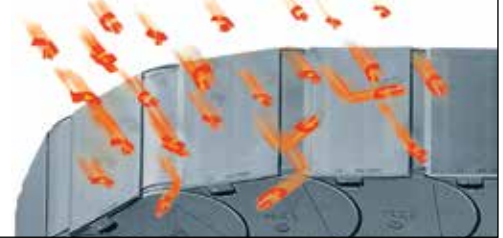
More information ► From page 1394



Hot chips up to +1562°F for e-tubes

- Lids and shelves can repel chips up to +1562°F. Special production option with the igus® material igumid HT
- No hot chips melting or embedding into the chain

More information ► www.igus.com/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.com/E4savetime

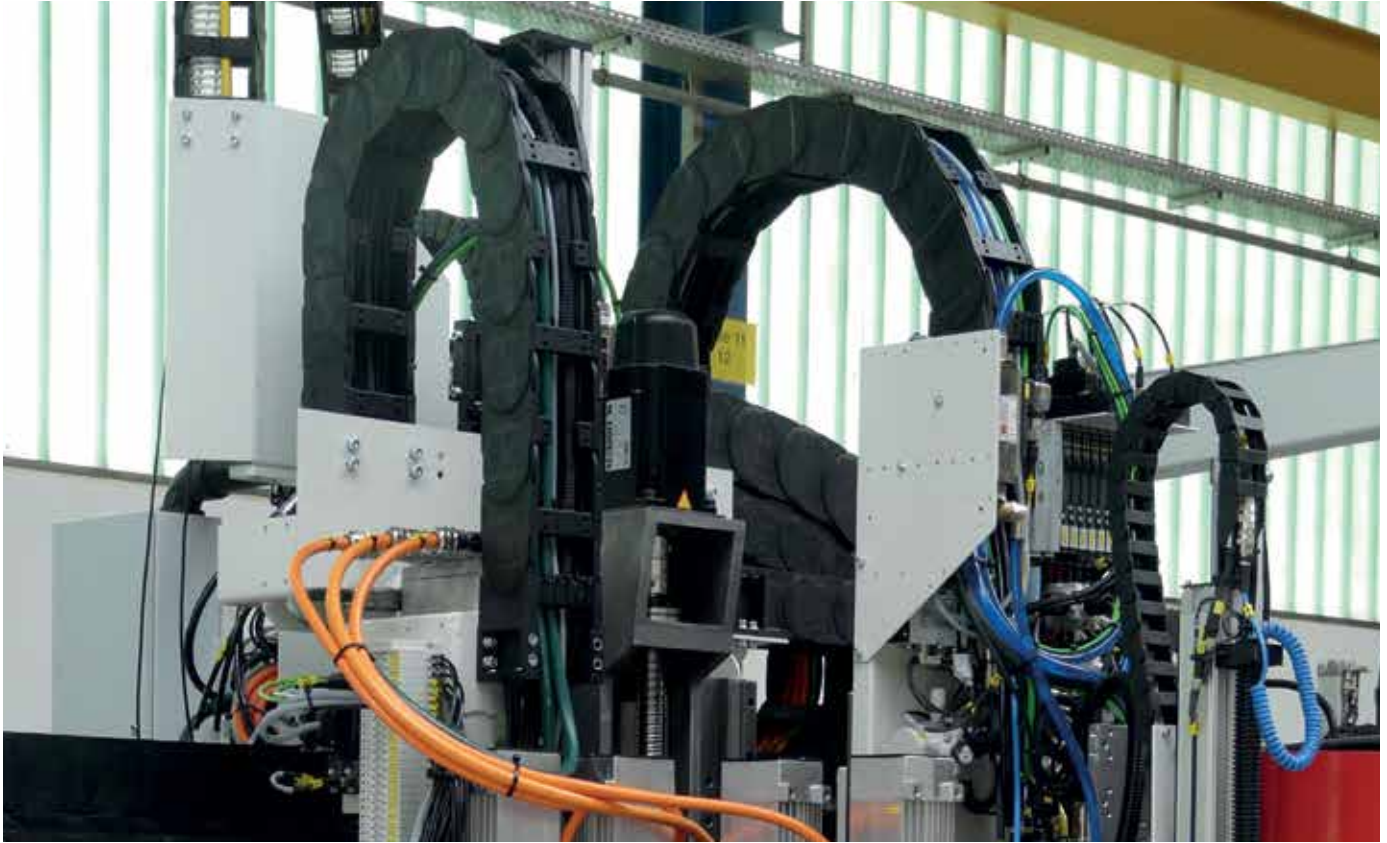


Roller crossbars - increase the service life of cables and hoses

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

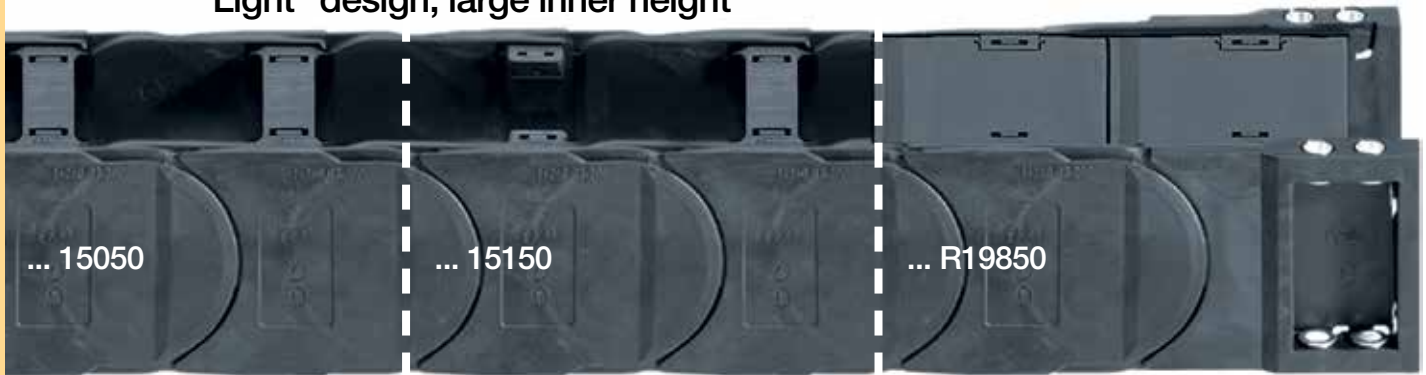
More information ► www.igus.com/roller-crossbar





Various igus® e-chains® installed vertically including light-weight E4/light e-chains®

"Light" design, large inner height



e-chains® | Series 15050 | Crossbars every link (crossbars removable along the inner and outer radius)
 e-chains® | Series 15150 | Crossbars every 2nd link (crossbars removable along the inner and outer radius)
 e-tubes | Series R19850 | Fully enclosed (lids openable along the outer radius, from one side)

Part No.			Bi	Ba	15050	15150	19850
e-chains® / e-tubes			in. (mm)	in. (mm)	lbs/ft (kg/m)	lbs/ft (kg/m)	lbs/ft (kg/m)
15050. 15150. -	05.	R.0	1.97 (50)	3.15 (80)	≈ 2.59 (3.85)	≈ 2.58 (3.84)	-
15050. 15150. -	055.	R.0	2.17 (55)	3.35 (85)	≈ 2.62 (3.90)	≈ 2.59 (3.86)	-
15050. 15150. -	06.	R.0	2.56 (65)	3.74 (95)	≈ 2.65 (3.95)	≈ 2.61 (3.88)	-
15050. 15150. 19850.	07.	R.0	2.95 (75)	4.13 (105)	≈ 2.69 (4.00)	≈ 2.63 (3.92)	≈ 3.00 (4.46)
15050. 15150. -	08.	R.0	3.43 (87)	4.61 (117)	≈ 2.72 (4.05)	≈ 2.66 (3.96)	-
15050. 15150. 19850.	10.	R.0	3.94 (100)	5.12 (130)	≈ 2.81 (4.18)	≈ 2.69 (4.00)	≈ 3.18 (4.74)
15050. 15150. -	11.	R.0	4.41 (112)	5.63 (143)	≈ 2.90 (4.31)	≈ 2.73 (4.07)	-
15050. 15150. 19850.	12.	R.0	4.92 (125)	6.10 (155)	≈ 2.94 (4.38)	≈ 2.76 (4.10)	≈ 3.43 (5.10)
15050. 15150. -	13.	R.0	5.39 (137)	6.61 (168)	≈ 3.03 (4.51)	≈ 2.80 (4.17)	-
15050. 15150. 19850.	15.	R.0	5.91 (150)	7.09 (180)	≈ 3.08 (4.58)	≈ 2.82 (4.20)	≈ 3.72 (5.53)
15050. 15150. -	16.	R.0	6.38 (162)	7.60 (193)	≈ 3.15 (4.69)	≈ 2.86 (4.26)	-
15050. 15150. -	169.	R.0	6.65 (169)	7.87 (200)	≈ 3.20 (4.77)	≈ 2.89 (4.30)	-
15050. 15150. 19850.	17.	R.0	6.89 (175)	8.07 (205)	≈ 3.23 (4.80)	≈ 2.90 (4.31)	≈ 3.95 (5.80)
15050. 15150. -	182.	R.0	7.17 (182)	8.39 (213)	≈ 3.25 (4.85)	≈ 2.91 (4.33)	-
15050. 15150. -	18.	R.0	7.36 (187)	8.58 (218)	≈ 3.30 (4.91)	≈ 2.94 (4.37)	-
15050. 15150. 19850.	20.	R.0	7.87 (200)	9.06 (230)	≈ 3.31 (4.93)	≈ 2.94 (4.38)	≈ 4.11 (6.11)
15050. 15150. -	207.	R.0	8.15 (207)	9.37 (238)	≈ 3.35 (4.99)	≈ 2.96 (4.41)	-
15050. 15150. -	21.	R.0	8.35 (212)	9.57 (243)	≈ 3.39 (5.04)	≈ 2.98 (4.43)	-
15050. 15150. -	22.	R.0	8.86 (225)	10.04 (255)	≈ 3.43 (5.10)	≈ 3.00 (4.47)	-
15050. 15150. -	23.	R.0	9.33 (237)	10.55 (268)	≈ 3.52 (5.24)	≈ 3.04 (4.53)	-
15050. 15150. 19850.	25.	R.0	9.84 (250)	11.02 (280)	≈ 3.57 (5.32)	≈ 3.08 (4.58)	≈ 4.59 (6.83)
15050. 15150. -	26.	R.0	10.31 (262)	11.54 (293)	≈ 3.64 (5.41)	≈ 3.10 (4.62)	-
15050. 15150. 19850.	27.	R.0	10.83 (275)	12.01 (305)	≈ 3.71 (5.52)	≈ 3.14 (4.68)	≈ 4.87 (7.26)

▲ ESD version (Electro Static Discharge) available from stock. More information ► From page 144

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

15050.20.300.0 = crossbars every link / 15150.30.300.0 = crossbars every 2nd link / 19850.30.300.0 = fully enclosed

Available bend radii

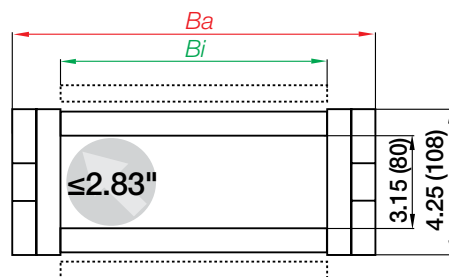
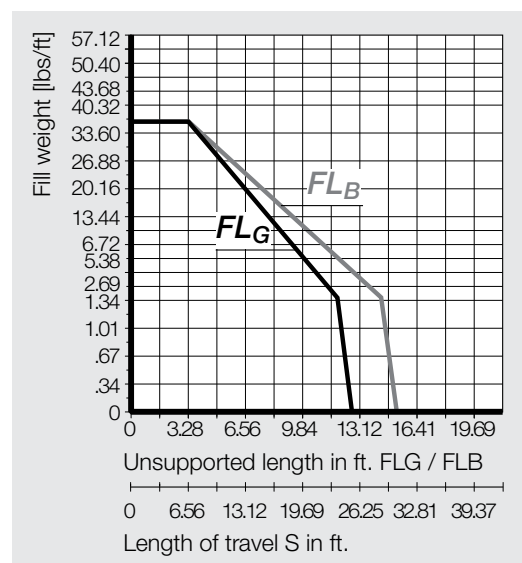
R in. (mm) | 5.91 (150)* | 7.87 (200) | 9.84 (250) | 11.81 (300) | 13.78 (350) | 15.75 (400) | 19.69 (500) | 23.62 (600) |

ESD - many sizes from stock

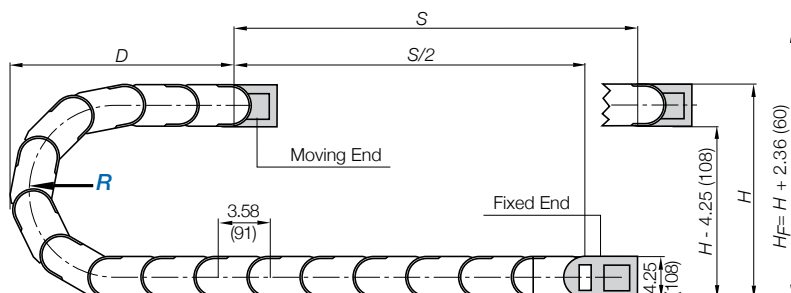
- Standardized product made from igumid ESD
- ESD material tested with over 10 million cycles for highest requirements
- Short delivery times including mounting brackets and interior separation; 24hrs, from stock

More information and the complete product range ► From page 144





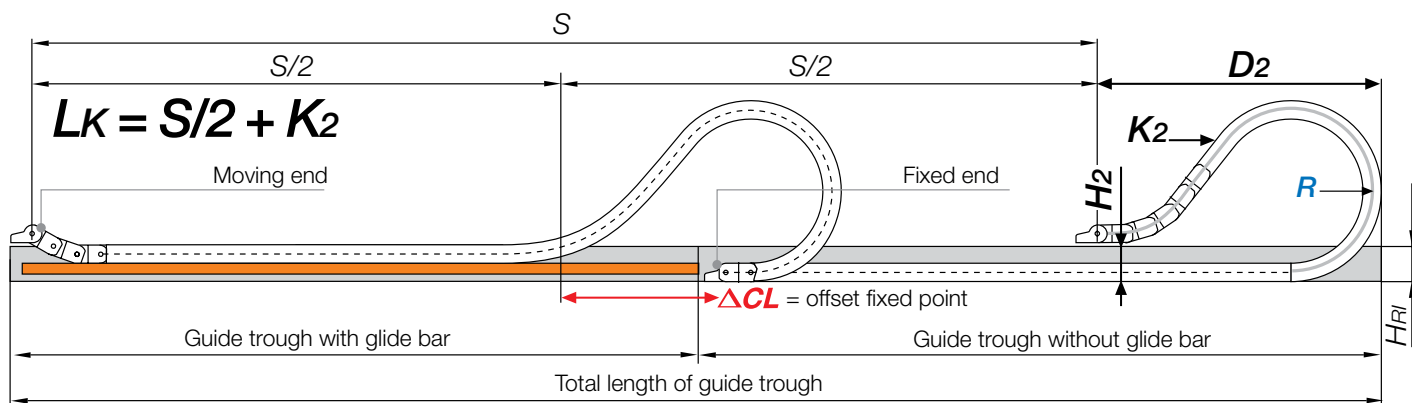
Inner height in. (mm)	3.15 (80)
Pitch per link in. (mm)	3.58 (91)
Links/ft (m)	3.35 (11)
corresponds to (mm)	1,001
e-chain® length	$L_K = \frac{S}{2} + K$



R	5.91 (150)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	19.68 (500)	23.62 (600)
H^{+25}	16.06 (408)	20.00 (508)	23.94 (608)	27.87 (708)	31.81 (808)	35.75 (908)	43.62 (1108)	51.50 (1308)
D	13.43 (341)	15.39 (391)	17.36 (441)	19.33 (491)	21.30 (541)	23.27 (591)	27.20 (691)	31.14 (791)
K	25.79 (655)	32.09 (815)	38.19 (970)	44.29 (1125)	50.59 (1285)	56.69 (1440)	69.09 (1755)	81.50 (2070)

The required clearance height: $H_F = H + 2.36$ in. (60 mm) with 2.02 lbs/ft (3.0 kg/m) fill weight.

Gliding applications | For travel lengths from 39.37 ft. (12m) to max. 820 ft. (250m)



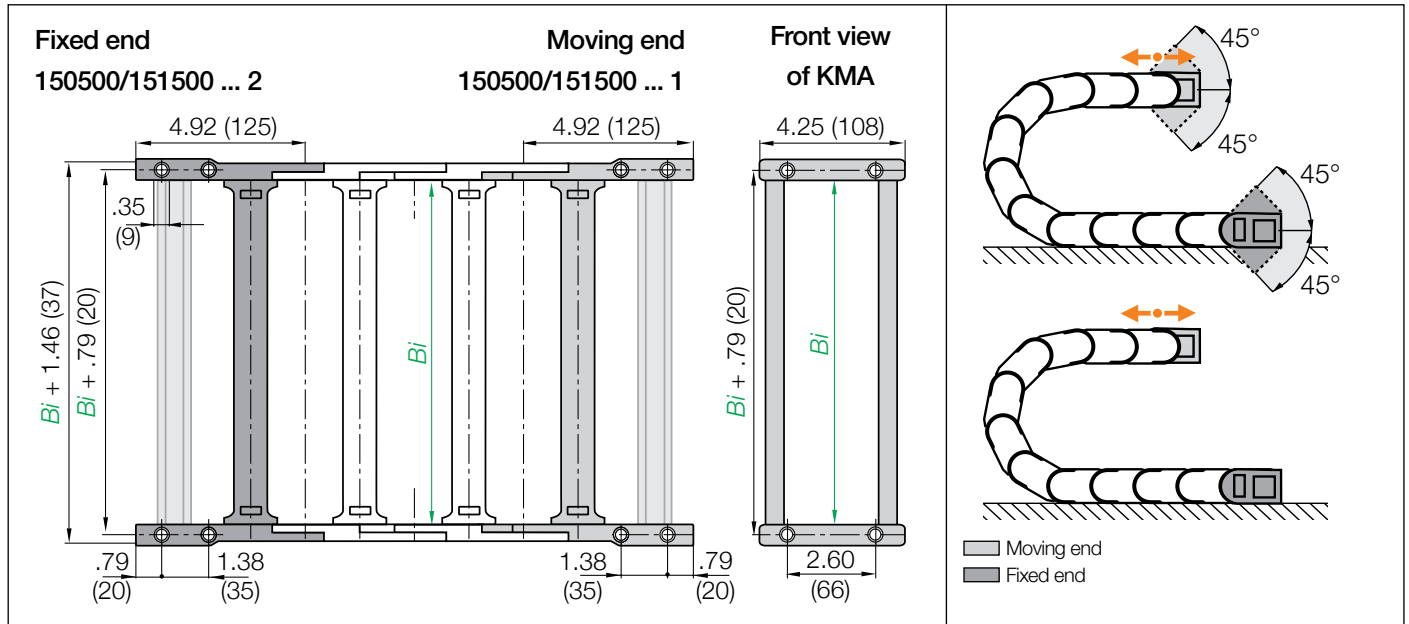
Note: We recommend the project planning of such a system to be carried out by igus®.

In case of travels between 29.53ft. (9m) and 39.37 ft. (12m) we recommend an e-chain® with a longer unsupported length.

R	5.91 (150)*	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	19.68 (500)	23.62 (600)²
H_2	9.53 (242)	9.53 (242)	9.53 (242)	9.53 (242)	9.53 (242)	9.53 (242)	9.53 (242)	-
D_2^{+25}	21.65 (550)	31.50 (800)	37.40 (950)	47.24 (1200)	61.02 (1550)	66.93 (1700)	85.63 (2175)	-
K_2	35.83 (910)	50.16 (1274)	64.49 (1638)	78.82 (2002)	96.73 (2457)	107.48 (2730)	136.14 (3458)	-
ΔCL	8.23 (209)	16.10 (409)	20.04 (509)	27.91 (709)	39.72 (1009)	43.66 (1109)	58.42 (1484)	-

*Radius not available for e-tubes

2) R 600 not suitable for long travel applications. Please consult igus®.



KMA pivoting
KMA locking

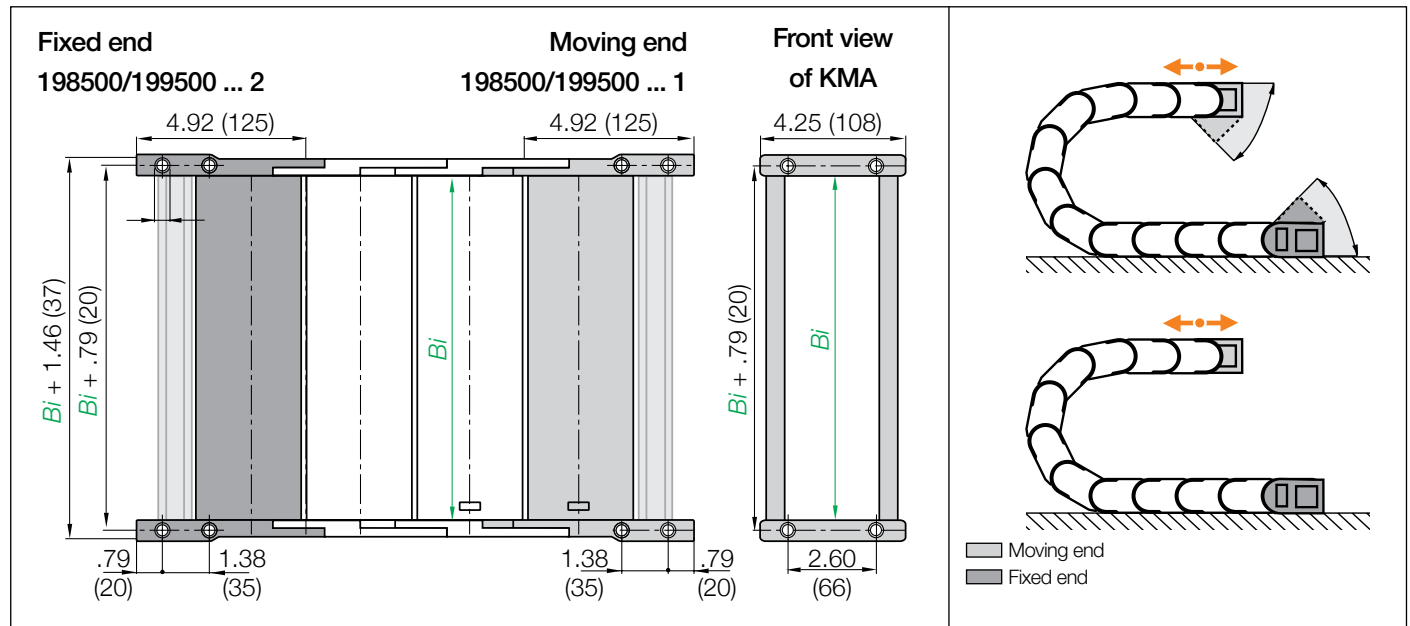
Recommended for unsupported and gliding applications
Recommended for vertical hanging and standing applications

Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	Bi in. (mm)
05.	150500.05.12.C	151500.05.12.C	1.97 (50)
055.	150500.055.12.C	151500.055.12.C	2.17 (55)
06.	150500.06.12.C	151500.06.12.C	2.56 (65)
07.	150500.07.12.C	151500.07.12.C	2.95 (75)
08.	150500.08.12.C	151500.08.12.C	3.43 (87)
10.	150500.10.12.C	151500.10.12.C	3.94 (100)
11.	150500.11.12.C	151500.11.12.C	4.41 (112)
12.	150500.12.12.C	151500.12.12.C	4.92 (125)
13.	150500.13.12.C	151500.13.12.C	5.39 (137)
15.	150500.15.12.C	151500.15.12.C	5.91 (150)
16.	150500.16.12.C	151500.16.12.C	6.38 (162)
169.	150500.169.12.C	151500.169.12.C	6.65 (169)
17.	150500.17.12.C	151500.17.12.C	6.89 (175)
182.	150500.182.12.C	151500.182.12.C	7.17 (182)
18.	150500.18.12.C	151500.18.12.C	7.36 (187)
20.	150500.20.12.C	151500.20.12.C	7.87 (200)
207.	150500.207.12.C	151500.207.12.C	8.15 (207)
21.	150500.21.12.C	151500.21.12.C	8.35 (212)
22.	150500.22.12.C	151500.22.12.C	8.86 (225)
23.	150500.23.12.C	151500.23.12.C	9.33 (237)
25.	150500.25.12.C	151500.25.12.C	9.84 (250)
26.	150500.26.12.C	151500.26.12.C	10.31 (262)
27.	150500.27.12.C	151500.27.12.C	10.83 (275)

Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	Bi in. (mm)
28.	150500.28.12.C	151500.28.12.C	11.30 (287)
30.	150500.30.12.C	151500.30.12.C	11.81 (300)
31.	150500.31.12.C	151500.31.12.C	12.28 (312)
32.	150500.32.12.C	151500.32.12.C	12.79 (325)
33.	150500.33.12.C	151500.33.12.C	13.27 (337)
35.	150500.35.12.C	151500.35.12.C	13.78 (350)
36.	150500.36.12.C	151500.36.12.C	14.25 (362)
37.	150500.37.12.C	151500.37.12.C	14.76 (375)
38.	150500.38.12.C	151500.38.12.C	15.24 (387)
40.	150500.40.12.C	151500.40.12.C	15.75 (400)
41.	150500.41.12.C	151500.41.12.C	16.22 (412)
42.	150500.42.12.C	151500.42.12.C	16.73 (425)
43.	150500.43.12.C	151500.43.12.C	17.20 (437)
45.	150500.45.12.C	151500.45.12.C	17.72 (450)
46.	150500.46.12.C	151500.46.12.C	18.19 (462)
47.	150500.47.12.C	151500.47.12.C	18.70 (475)
48.	150500.48.12.C	151500.48.12.C	19.17 (487)
50.	150500.50.12.C	151500.50.12.C	19.69 (500)
51.	150500.51.12.C	151500.51.12.C	20.16 (512)
52.	150500.52.12.C	151500.52.12.C	20.67 (525)
53.	150500.53.12.C	151500.53.12.C	21.14 (537)
55.	150500.55.12.C	151500.55.12.C	21.65 (550)
60.	150500.60.12.C	151500.60.12.C	23.62 (600)

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

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



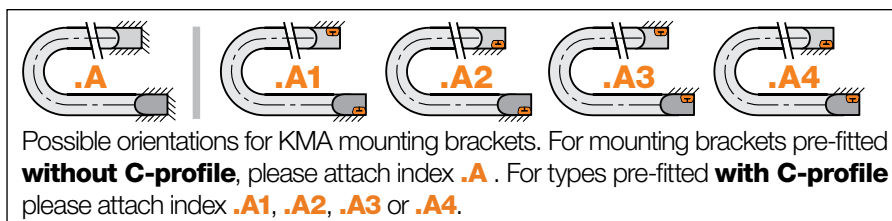
KMA pivoting KMA locking

Recommended for unsupported and gliding applications
Recommended for vertical hanging and standing applications

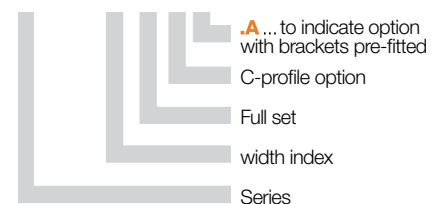
Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	<i>Bi</i> in. (mm)
07. ▶	198500.07.12.C	199500.07.12.C	2.95 (75)
10. ▶	198500.10.12.C	199500.10.12.C	3.94 (100)
12. ▶	198500.12.12.C	199500.12.12.C	4.92 (125)
15. ▶	198500.15.12.C	199500.15.12.C	5.91 (150)
17. ▶	198500.17.12.C	199500.17.12.C	6.89 (175)
20. ▶	198500.20.12.C	199500.20.12.C	7.87 (200)

Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	<i>Bi</i> in. (mm)
25. ▶	198500.25.12.C	199500.25.12.C	9.84 (250)
27. ▶	198500.27.12.C	199500.27.12.C	10.83 (275)
30. ▶	198500.30.12.C	199500.30.12.C	11.81 (300)
35. ▶	198500.35.12.C	199500.35.12.C	13.78 (350)
40. ▶	198500.40.12.C	199500.40.12.C	15.75 (400)
46. ▶	198500.46.12.C	199500.46.12.C	18.19 (462)

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



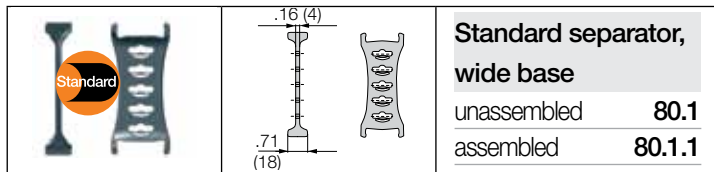
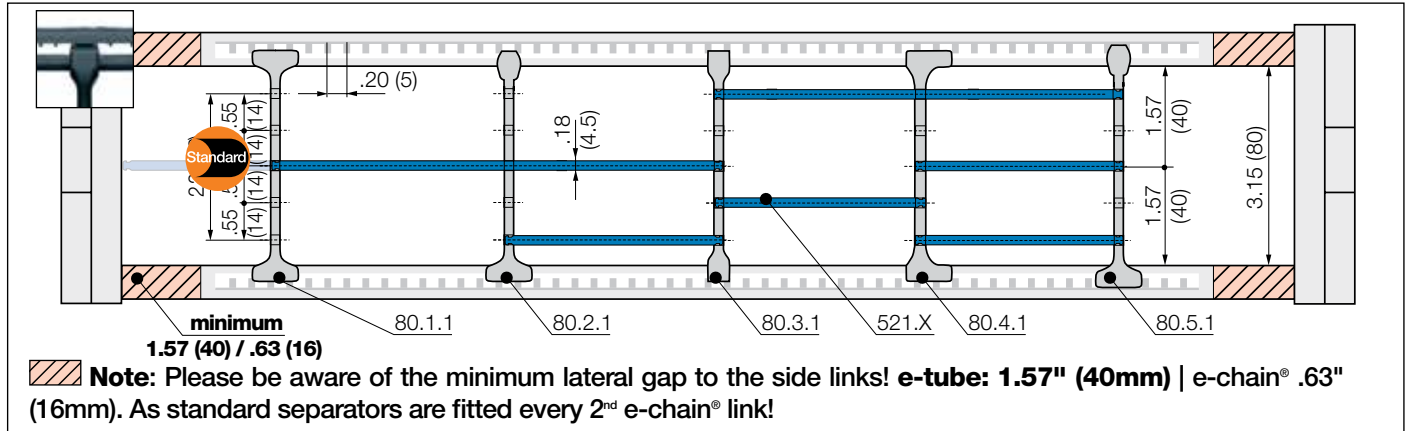
150500.30.12.C.A2 Order example



Strain relief e.g. clamps, tie-wrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ▶ From page 1418

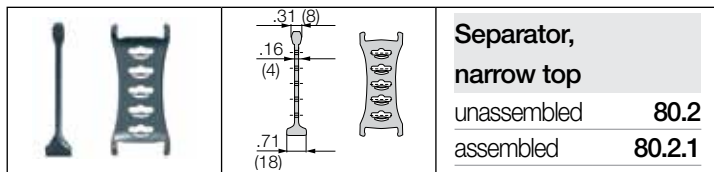
Interior separation | Increase cable service life

Previous generation of interior separation with other options ► www.igus.com/15050



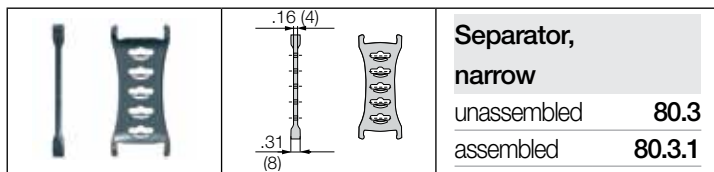
Standard - for any application

Separator with a wide base for maximum holding force.



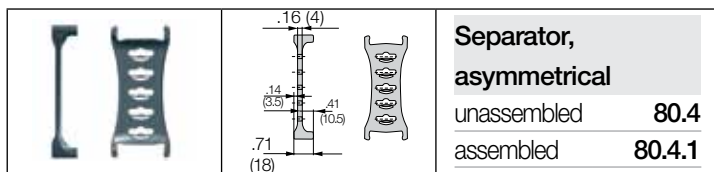
For even faster installation

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



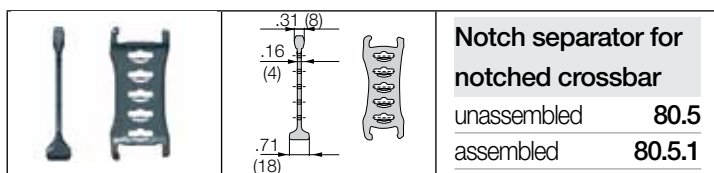
For a large number of thin cables

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



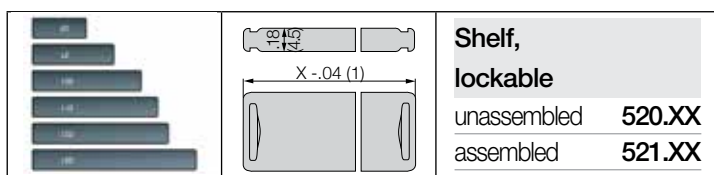
For side-mounted applications

Asymmetrical separator, for defined gap distance. No additional spacers required.



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

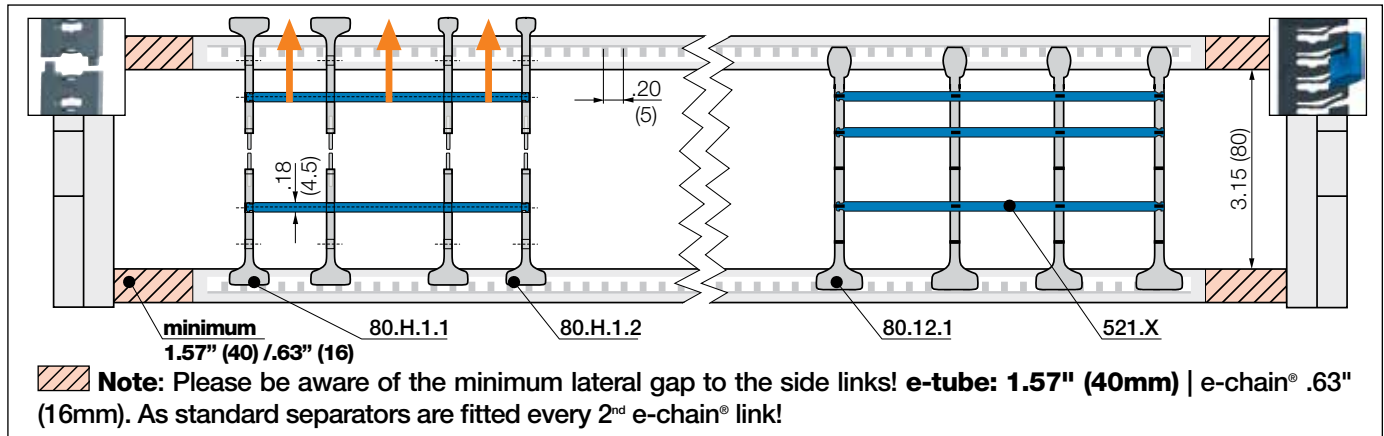
Shelves

Width = X in. (mm)



X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled
1.97 (050)	520.050	521.050	5.91 (150)	520.150	521.150	11.81 (300)	520.300	521.300
2.56 (065)	520.065	521.065	6.89 (175)	520.175	521.175	13.78 (350)	520.350	521.350
2.95 (075)	520.075	521.075	7.87 (200)	520.200	521.200	14.76 (375)	520.375	521.375
3.94 (100)	520.100	521.100	8.86 (225)	520.225	521.225	15.24 (387)	520.387	521.387
4.92 (125)	520.125	521.125	9.84 (250)	520.250	521.250	17.72 (450)	520.450	521.450

Interior separation | To allow faster filling



				Split separator, wide base/top unassembled 80.H.1 assembled 80.H.1.1
				Split separator, narrow top unassembled 80.H.2 assembled 80.H.2.1
				Lean separator¹⁾ unassembled 80.12 assembled 80.12.1

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 separators¹⁾

For quick fitting of shelves in several layers.

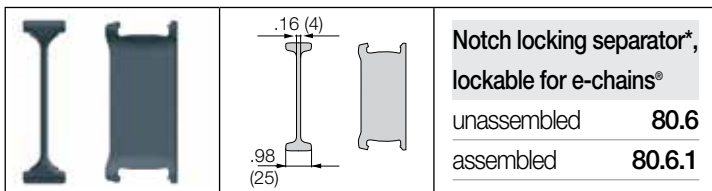
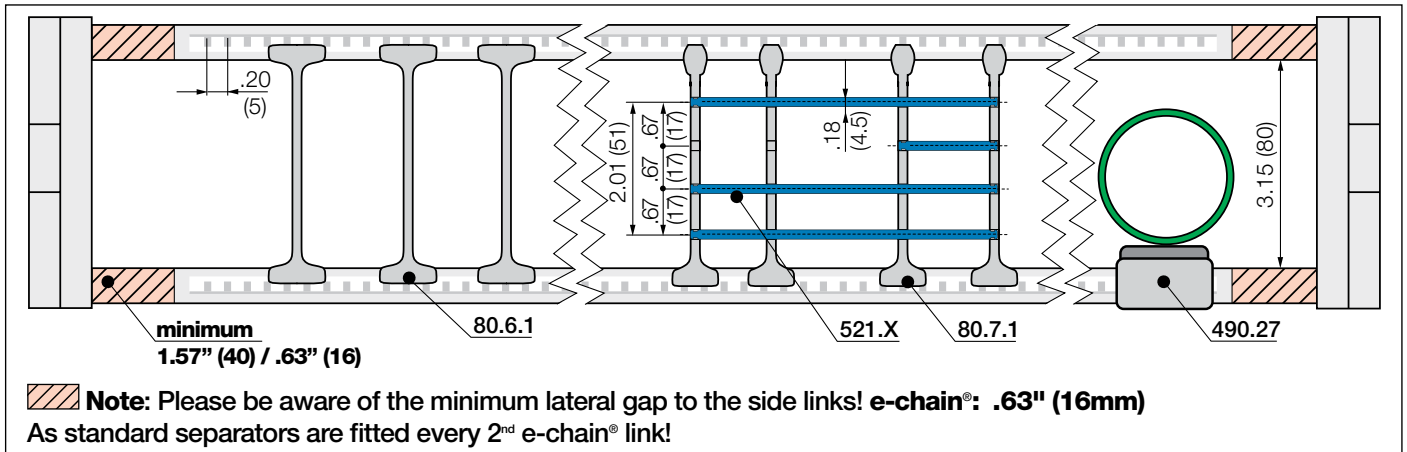
1) Note: Please combine maximum 4 lean separators with one shelf. Not suitable for side-mounted e-chains®!

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 interior separation - measured on a 4m long e-chain® fitted with 12 cables in the igus® lab

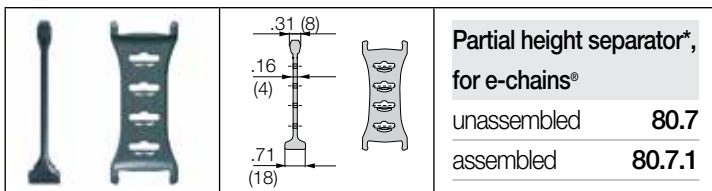


More interior separation options



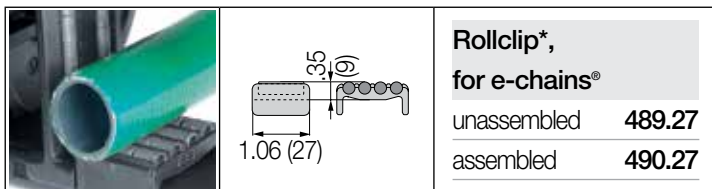
Notch locking separator* for increased holding force

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.



Partial height separator*

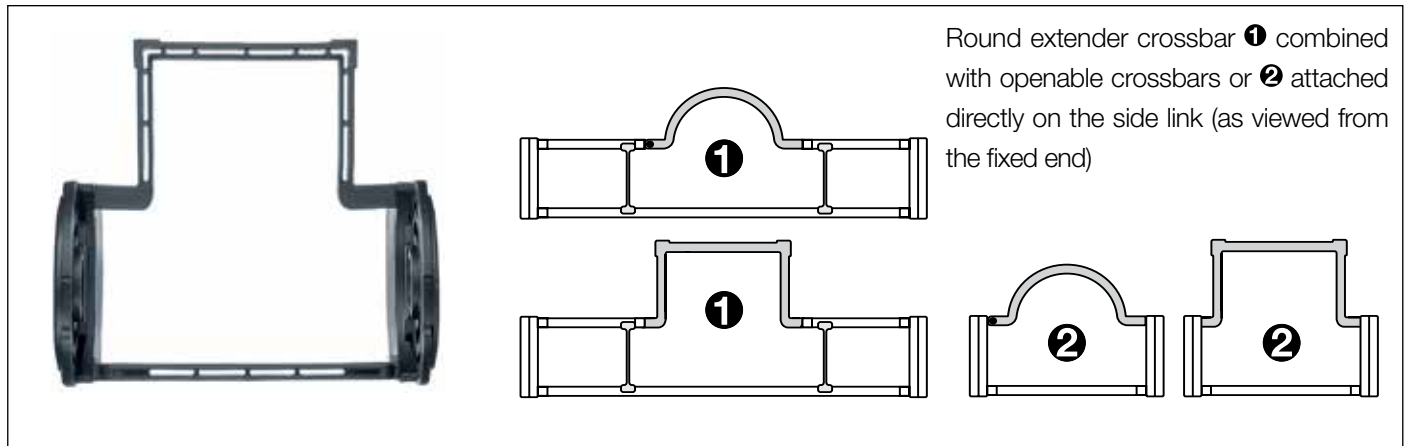
In conjunction with an additional opening crossbar, **part no. 450.Bi.S**, it provides the option to separate the upper and lower halves of the e-chain® independently of each other.



Rollclip*

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

Extender crossbar with fixed width



Extender crossbars with fixed width | Safe guiding for large hoses

- Suitable for hoses with a maximum outer diameter of 10.63" (270mm)
- 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 Ø ≤ in. (mm)	Extender crossbar shape	② Fitted to side link	① Combine with openable crossbars
450.15RHD115	4.53 (115)	○ round	no	yes
450.17RD115	4.53 (115)	○ round	yes	no
450.25D150	5.91 (150)	□ square	yes	no
450.30D200	7.87 (200)	□ square	yes	no
450.35D250	8.66 (220)	□ square	yes	no
450.40D300	10.63 (270)	□ square	yes	no
450.20HD150	5.91 (150)	□ square	no	yes
450.25HD200	7.87 (200)	□ square	no	yes
450.30HD250	8.66 (220)	□ square	no	yes

Order example: ① combined with openable crossbars

To receive extender crossbar RHD115 pre-fitted along the outer radius of the e-chain®, please add index **E**: 15050.10/15RHDE115/10.**R**.0

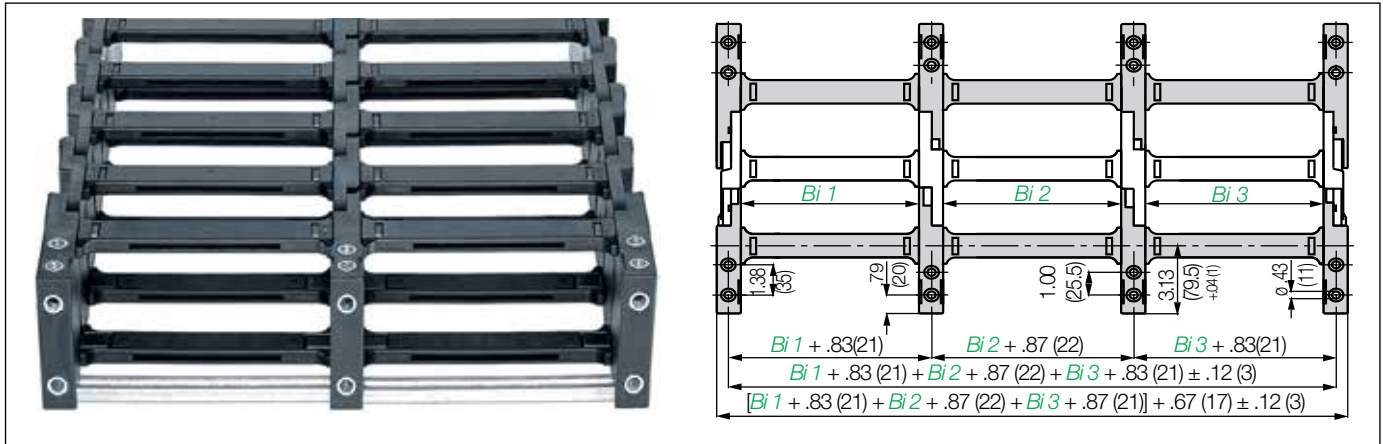
To receive extender crossbar RHD115 pre-fitted along the inner radius of the e-chain®, please add index **Z**: 15050.10/15RHDZ115/10.**R**.0

Order example: ② fitted to side link

To receive extender crossbar RD115 pre-fitted along the outer radius of the e-chain®, please add index **E**: 15050.18RDE115.**R**.0

To receive extender crossbar RD115 pre-fitted along the inner radius of the e-chain®, please add index **Z**: 15050.18RDZ115.**R**.0

Extension links



Extension links | For extremely wide e-chains® up to 9.84 ft. (3.0m)

- Virtually unlimited side-by-side extension
- For extremely wide e-chains® up to 118" (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 number	Part number	Part number
Extension link e-chain®	Extension link e-tube	Extension link as an individual part
15050. <i>Bi1/Bi2/Bi3</i> . <i>R.0</i>	R19850. <i>Bi1/Bi2/Bi3</i> . <i>R.0</i>	522. <i>R.</i>
Complete Part No.with the width index <i>Bi1/Bi2/Bi3/etc.</i> and the radius (<i>R</i>). Example: 15050.10/20/10.200.0		

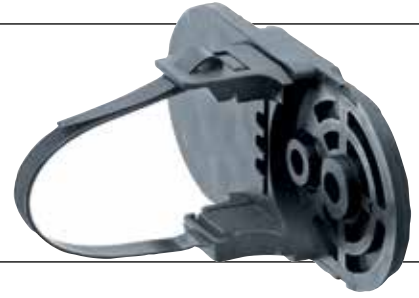


Handling unit indoor crane - long unsupported span with an igus® E4 series

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

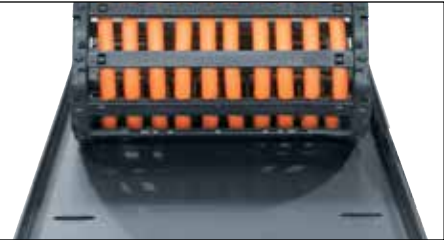
More information ► www.igus.com/15050



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

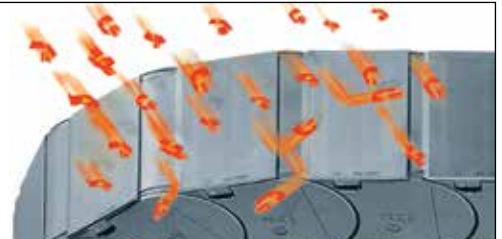
More information ► From page 1394



Hot chips up to +1562°F for e-tubes

- Lids and shelves can repel chips up to +1562°F. Special production option with the igus® material igumid HT
- No hot chips melting or embedding into the chain

More information ► www.igus.com/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.com/E4savetime



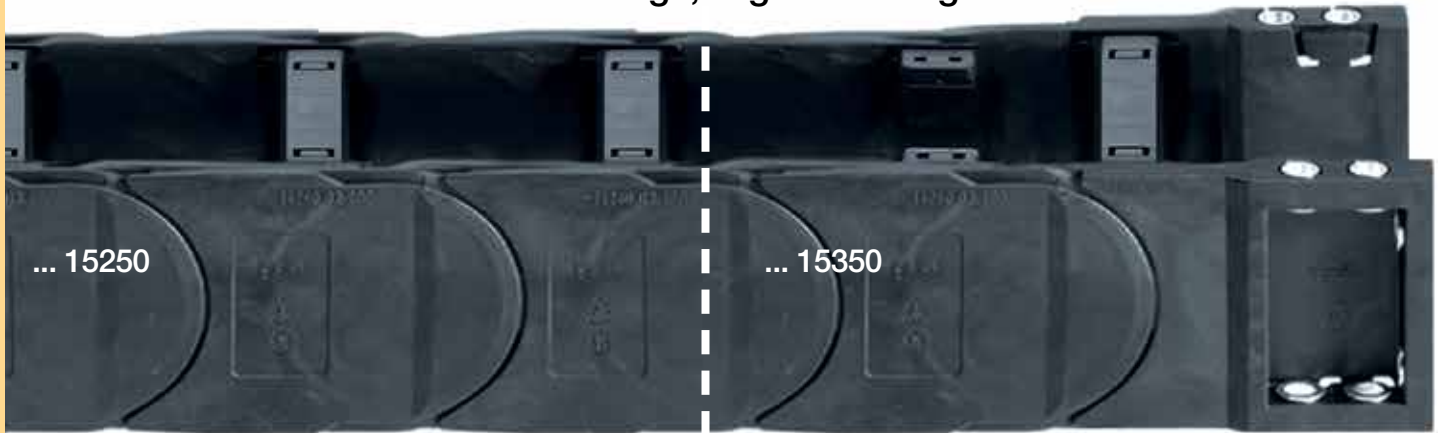
Roller crossbars - increase the service life of cables and hoses

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

More information ► www.igus.com/roller-crossbar



Stable due to undercut design, large inner height



e-chains® | Series 14240 | Crossbars every link (crossbars removable along the inner and outer radius)
 e-chains® | Series 14340 | Crossbars every 2nd link (crossbars removable along the inner and outer radius)

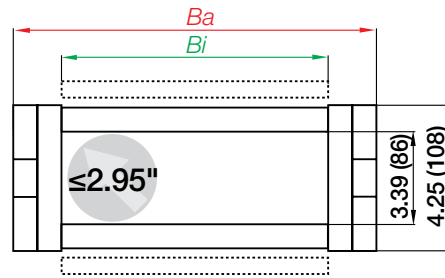
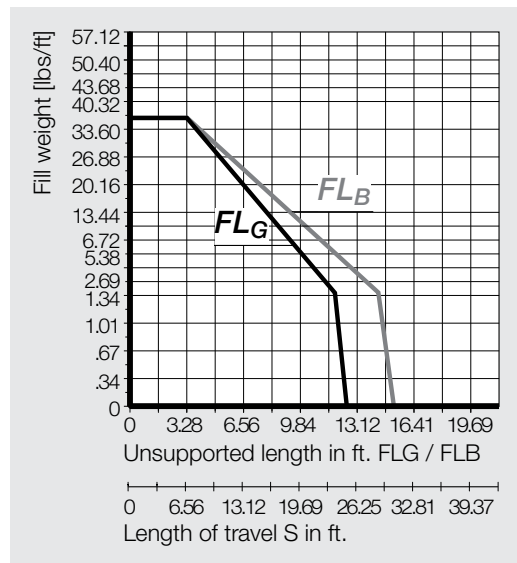
Part No.			<i>Bi</i>	<i>Ba</i>	15250	15350
e-chains®			in. (mm)	in. (mm)	lbs/ft (kg/m)	lbs/ft (kg/m)
15250.	15350.	05.	R.0	1.97 (50)	3.15 (80)	≈ 2.45 (3.64)
15250.	15350.	06.	R.0	2.68 (68)	3.86 (98)	≈ 2.50 (3.72)
15250.	15350.	07.	R.0	2.95 (75)	4.13 (105)	≈ 2.51 (3.74)
15250.	15350.	087.	R.0	3.43 (87)	4.61 (117)	≈ 2.55 (3.79)
15250.	15350.	097.	R.0	3.82 (97)	5.00 (127)	≈ 2.57 (3.83)
15250.	15350.	10.	R.0	3.94 (100)	5.12 (130)	≈ 2.59 (3.85)
15250.	15350.	11.	R.0	4.25 (108)	5.43 (138)	≈ 2.60 (3.87)
15250.	15350.	112.	R.0	4.41 (112)	5.63 (143)	≈ 2.61 (3.88)
15250.	15350.	12.	R.0	4.92 (125)	6.10 (155)	≈ 2.65 (3.95)
15250.	15350.	137.	R.0	5.39 (137)	6.57 (167)	≈ 2.67 (3.98)
15250.	15350.	15.	R.0	5.91 (150)	7.09 (180)	≈ 2.71 (4.04)
15250.	15350.	162.	R.0	6.38 (162)	7.60 (193)	≈ 2.73 (4.06)
15250.	15350.	17.	R.0	6.61 (168)	7.80 (198)	≈ 2.76 (4.11)
15250.	15350.	18.	R.0	6.89 (175)	8.07 (205)	≈ 2.77 (4.12)
15250.	15350.	187.	R.0	7.36 (187)	8.58 (218)	≈ 2.79 (4.15)
15250.	15350.	20.	R.0	7.87 (200)	9.05 (230)	≈ 2.84 (4.23)

Part No.			<i>Bi</i>	<i>Ba</i>	15250	15350
e-chains®			in. (mm)	in. (mm)	lbs/ft (kg/m)	lbs/ft (kg/m)
15250.	15350.	212.	R.0	8.35 (212)	9.56 (243)	≈ 2.86 (4.26)
15250.	15350.	23.	R.0	8.86 (225)	10.04 (255)	≈ 2.90 (4.32)
15250.	15350.	237.	R.0	9.33 (237)	10.55 (268)	≈ 2.92 (4.34)
15250.	15350.	25.	R.0	9.84 (250)	11.02 (280)	≈ 2.97 (4.42)
15250.	15350.	262.	R.0	10.31 (262)	11.54 (293)	≈ 3.00 (4.47)
15250.	15350.	28.	R.0	10.83 (275)	12.01 (305)	≈ 3.03 (4.51)
15250.	15350.	29.	R.0	11.30 (287)	12.52 (318)	≈ 3.04 (4.53)
15250.	15350.	30.	R.0	11.81 (300)	12.99 (330)	≈ 3.10 (4.61)
15250.	15350.	312.	R.0	12.28 (312)	13.50 (343)	≈ 3.11 (4.63)
15250.	15350.	325.	R.0	12.79 (325)	13.98 (355)	≈ 3.15 (4.69)
15250.	15350.	337.	R.0	13.27 (337)	14.49 (368)	≈ 3.18 (4.73)
15250.	15350.	350.	R.0	13.78 (350)	14.96 (380)	≈ 3.27 (4.87)
15250.	15350.	362.	R.0	14.25 (362)	15.47 (393)	≈ 3.31 (4.92)
15250.	15350.	375.	R.0	14.76 (375)	15.94 (405)	≈ 3.34 (4.97)
15250.	15350.	387.	R.0	15.24 (387)	16.46 (418)	≈ 3.37 (5.01)
15250.	15350.	400.	R.0	15.75 (400)	16.93 (430)	≈ 3.39 (5.05)

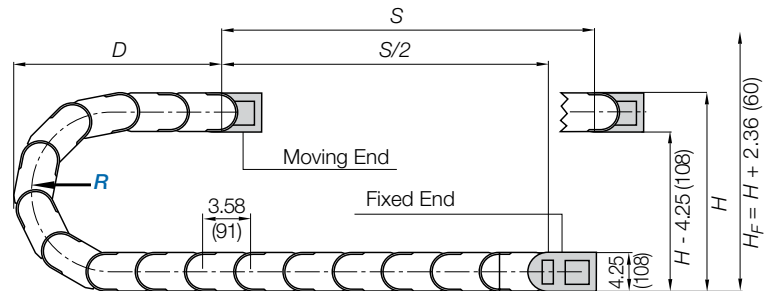
Complete Part No. with required radius (*R*). Example:15250.20.300.0 = crossbars every link / 15350.30.300.0 = crossbars every 2nd link

Available bend radii

R in. (mm) | 5.91 (150) | 7.87 (200) | 9.84 (250) | 11.81 (300) | 13.78 (350) | 15.75 (400) | 19.69 (500) | 23.62 (600) |



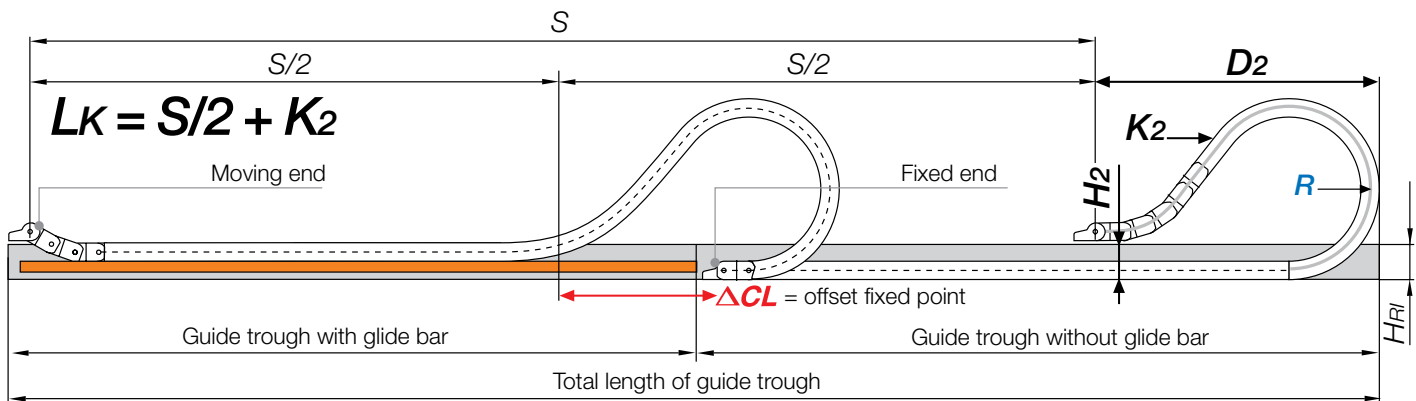
Inner height in. (mm)	3.39 (86)
Pitch per link in. (mm)	3.58 (91)
Links/ft (m)	3.35 (11)
corresponds to (mm)	1,001
e-chain® length	$L_K = \frac{S}{2} + K$



R	5.91 (150)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	19.68 (500)	23.62 (600)
H ⁺²⁵	16.06 (408)	20.00 (508)	23.94 (608)	27.87 (708)	31.81 (808)	35.75 (908)	43.62 (1108)	51.50 (1308)
D	13.43 (341)	15.39 (391)	17.36 (441)	19.33 (491)	21.30 (541)	23.27 (591)	27.20 (691)	31.14 (791)
K	25.79 (655)	32.09 (815)	38.19 (970)	44.29 (1125)	50.59 (1285)	56.69 (1440)	69.09 (1755)	81.50 (2070)

The required clearance height: $H_F = H + 2.36$ in. (60 mm) with 2.02 lbs/ft (3.0 kg/m) fill weight.

Gliding applications | For travel lengths from 39.37 ft. (12m) to max. 820 ft. (250m)

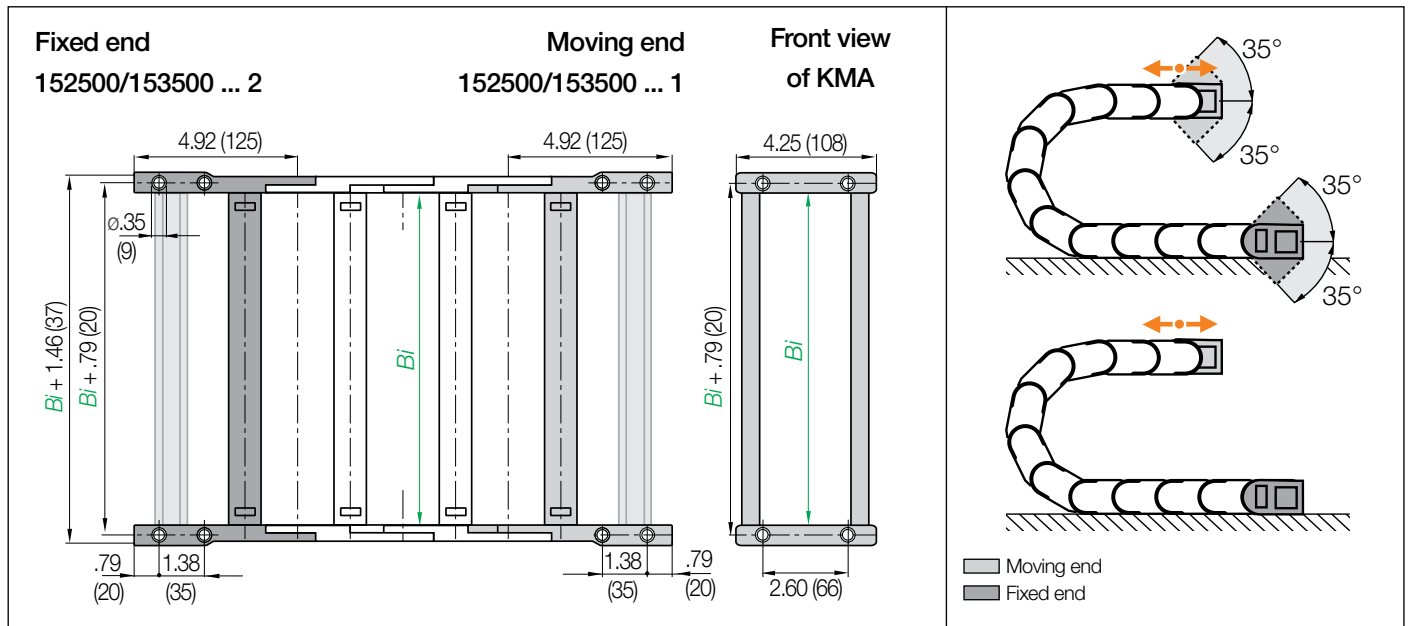


Note: We recommend the project planning of such a system to be carried out by igus®.

In case of travels between 29.53ft. (9m) and 39.37 ft. (12m) we recommend an e-chain® with a longer unsupported length.

R	5.91 (150)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	19.68 (500)	23.62 (600) ¹⁾
H ₂	9.53 (242)	9.53 (242)	9.53 (242)	9.53 (242)	9.53 (242)	9.53 (242)	9.53 (242)	*
D ₂ ⁺²⁵	21.65 (550)	31.50 (800)	37.40 (950)	47.24 (1200)	61.02 (1550)	66.93 (1700)	85.63 (2175)	*
K ₂	35.83 (910)	50.16 (1274)	64.49 (1638)	78.82 (2002)	96.73 (2457)	107.48 (2730)	136.14 (3458)	*
ΔCL	8.23 (209)	16.10 (409)	20.04 (509)	27.91 (709)	39.72 (1009)	43.66 (1109)	58.42 (1484)	*

1) R 600 not suitable for long travel applications. Please consult igus®.



KMA pivoting KMA locking

Recommended for unsupported and gliding applications
Recommended for vertical hanging and standing applications

Width Index	Part No. full set KMA pivoting	Part No. full set KMA locking	Bi in. (mm)
05.	152500.05.12.C	153500.05.12.C	1.97 (50)
06.	152500.06.12.C	153500.06.12.C	2.68 (68)
07.	152500.07.12.C	153500.07.12.C	2.95 (75)
087.	152500.087.12	153500.087.12.C	3.43 (87)
097.	152500.097.12	153500.097.12.C	3.82 (97)
10.	152500.10.12.C	153500.10.12.C	3.94 (100)
11.	152500.11.12.C	153500.11.12.C	4.25 (108)
112.	152500.112.12.C	153500.112.12.C	4.41 (112)
12.	152500.12.12.C	153500.12.12.C	4.92 (125)
137.	152500.137.12.C	153500.137.12.C	5.39 (137)
15.	152500.15.12.C	153500.15.12.C	5.91 (150)
162.	152500.162.12.C	153500.162.12.C	6.38 (162)
17.	152500.17.12.C	153500.17.12.C	6.61 (168)
18.	152500.18.12.C	153500.18.12.C	6.89 (175)
187.	152500.187.12.C	153500.187.12.C	7.36 (187)
20.	152500.20.12.C	153500.20.12.C	7.87 (200)
212.	152500.212.12.C	153500.212.12.C	8.35 (212)
23.	152500.23.12.C	153500.23.12.C	8.86 (225)
237.	152500.237.12.C	153500.237.12.C	9.33 (237)
25.	152500.25.12.C	153500.25.12.C	9.84 (250)
262.	152500.262.12.C	153500.262.12.C	10.31 (262)
28.	152500.28.12.C	153500.28.12.C	10.83 (275)
29.	152500.29.12.C	153500.29.12.C	11.30 (287)
30.	152500.30.12.C	153500.30.12.C	11.81 (300)
312.	152500.312.12.C	153500.312.12.C	12.28 (312)
325.	152500.325.12.C	153500.325.12.C	12.79 (325)
337.	152500.337.12.C	153500.337.12.C	13.27 (337)
350.	152500.350.12.C	153500.350.12.C	13.78 (350)
362.	152500.362.12.C	153500.362.12.C	14.25 (362)
375.	152500.375.12.C	153500.375.12.C	14.76 (375)
387.	152500.387.12.C	153500.387.12.C	15.24 (387)
400.	152500.400.12.C	153500.400.12.C	15.75 (400)

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



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**.

152500.20.12.C.A2 Order example

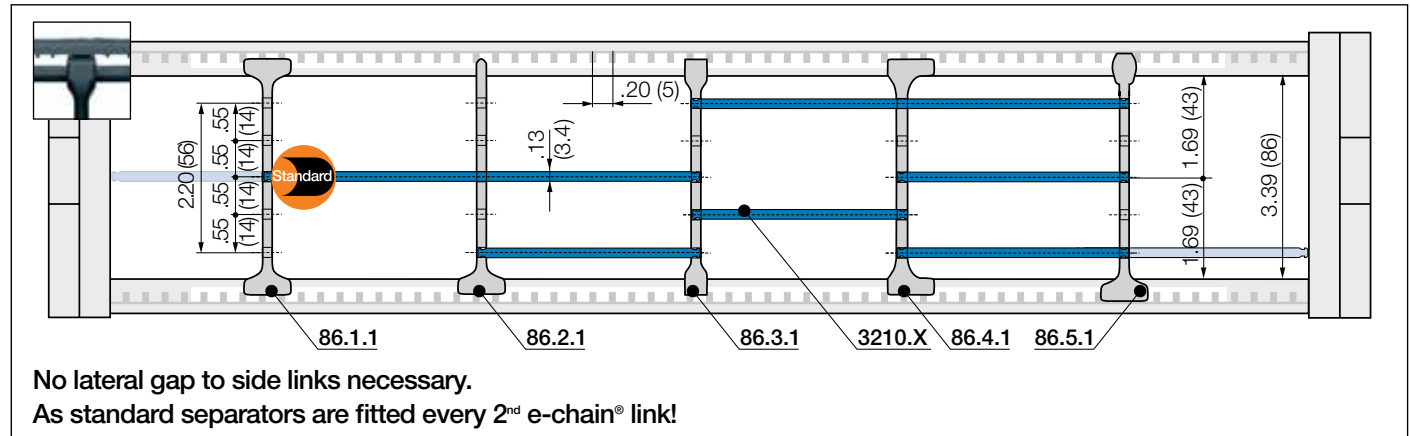
.A... to indicate option with brackets pre-fitted
C-profile option
Full set
width index
Series



Strain relief e.g. clamps, tiewrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ► From page 1418

Interior separation | Increase cable service life

Previous generation of interior separation with other options ► www.igus.com/15250



Standard			Standard separator, wide base	
			unassembled	86.1
			assembled	86.1.1

Standard - for any application

Separator with a wide base for maximum holding force.

		Separator, narrow top	
		unassembled	86.2
		assembled	86.2.1

For even faster installation

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

		Notch separator for notched crossbar	
		unassembled	86.5
		assembled	86.5.1

Locks securely in preset increments

Notch separator for exact positioning. Recommended for side-mounted applications.

(*Suitable from **Bi 75**)

		Shelf, lockable	
		unassembled	3200.XX
		assembled	3210.XX

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.

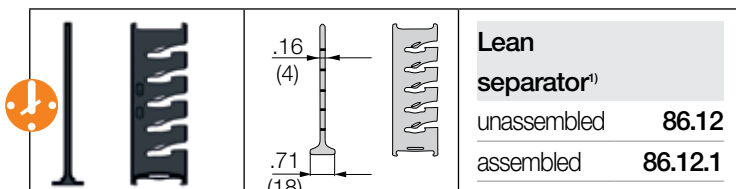
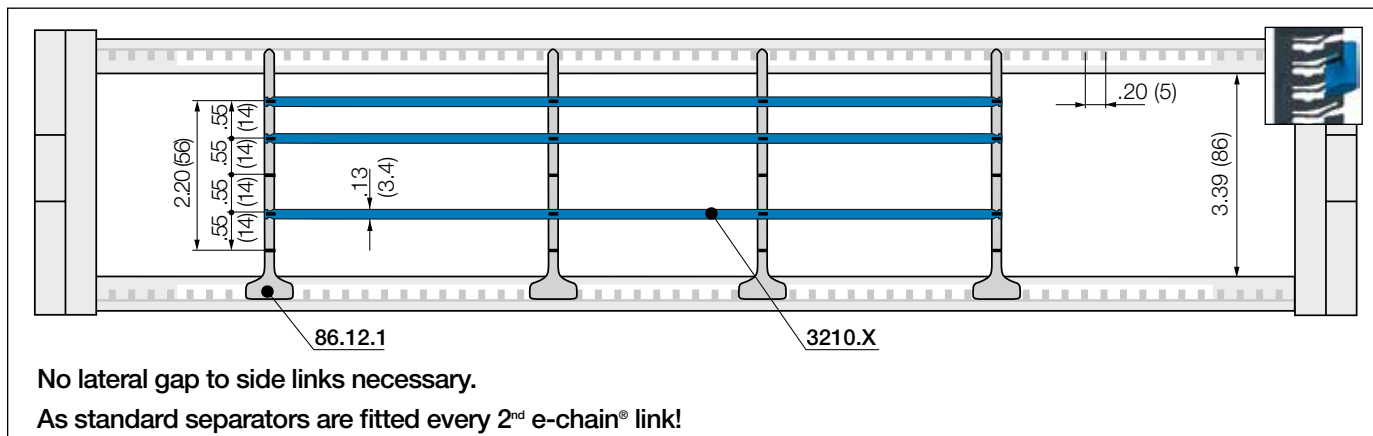
Shelves

Width = X in. (mm)



X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled
1.97 (050)	3200.050	3210.050	4.92 (125)	3200.125	3210.125	8.86 (225)	3200.225	3210.225
2.95 (075)	3200.075	3210.075	5.91 (150)	3200.150	3210.150	9.84 (250)	3200.250	3210.250
3.94 (100)	3200.100	3210.100	6.89 (175)	3200.175	3210.175			
4.53 (115)	3200.115	3210.115	7.87 (200)	3200.200	3210.200			

Interior separation | To allow faster filling

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®!

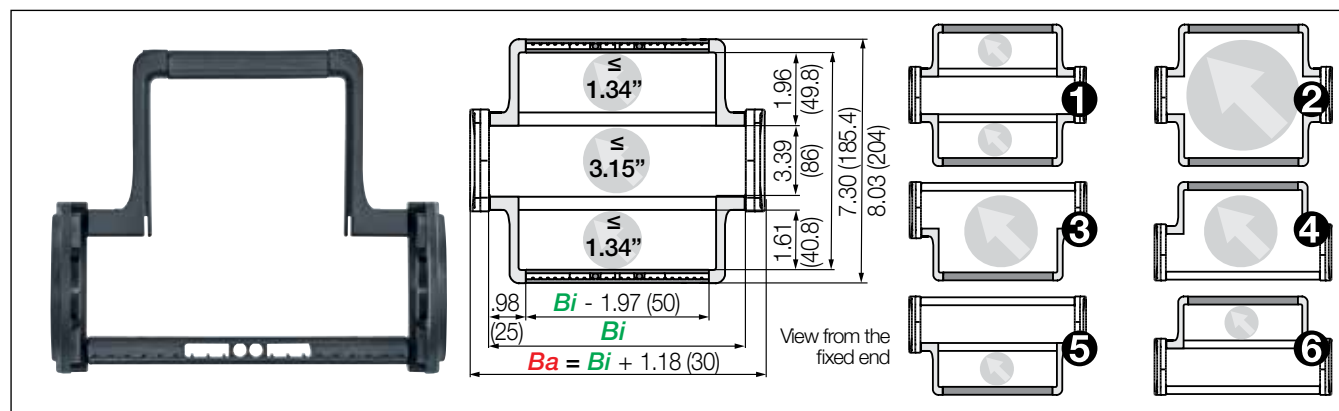
With the lean separator you can quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%²⁾.

2) Lean interior separation vs. standard interior separation - measured on a 4m long e-chain® fitted with 12 cables in the igus® lab



System E4/light e-chains® - can be filled with cables of diameters up to 3.94" (100mm)

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 e-chain® with extender crossbar	Hose Ø ≤ in. (mm)	Part No. e-chain® crossbars every link	Part No. e-chain® crossbars every 2 nd link
❶ Extender crossbar and standard crossbar alternating along the inner and outer radius ¹⁾	1.34 (34)	15250.XXXHB50.R.0	–
❷ Extender crossbar on both sides along the inner and outer radius ²⁾	5.91 (150)	15250.XXXB50.R.0	15350.XXXB50.R.0 ²⁾
❸ Extender crossbar along the outer radius ³⁾	4.72 (120)	15250.XXXBE50.R.0	15350.XXXBE50.R.0 ³⁾
❹ Extender crossbar along the inner radius ³⁾	4.72 (120)	15250.XXXBZ50.R.0	15350.XXXBZ50.R.0 ³⁾
❺ Extender crossbar and standard crossbar alternating along the outer radius ³⁾	1.34 (34)	15250.XXXHBE50.R.0	–
❻ Extender crossbar and standard crossbar alternating along inner radius ¹⁾	1.34 (34)	15250.XXXHBZ50.R.0	–

1) Minimum bend radius: **R 125** 2) Minimum bend radius: **R 150** 3) Minimum bend radius: **R 063**

Bi in. [mm] Available inner widths

| 3.94 (100) | 4.92 (125) | 5.39 (137) | 5.91 (150) | 6.38 (162) | 6.89 (175) | 7.36 (187) | 7.87 (200) | 8.34 (212) | 8.85 (225) | 9.33 (237) | 9.84 (250) | 10.31 (262) | 10.83 (275) | 11.30 (287) | 11.81 (300) | 12.28 (312) | 12.80 (325) | 13.27 (337) | 13.78 (350) | 14.25 (362) | 14.76 (375) | 15.24 (387) | 15.75 (400) |

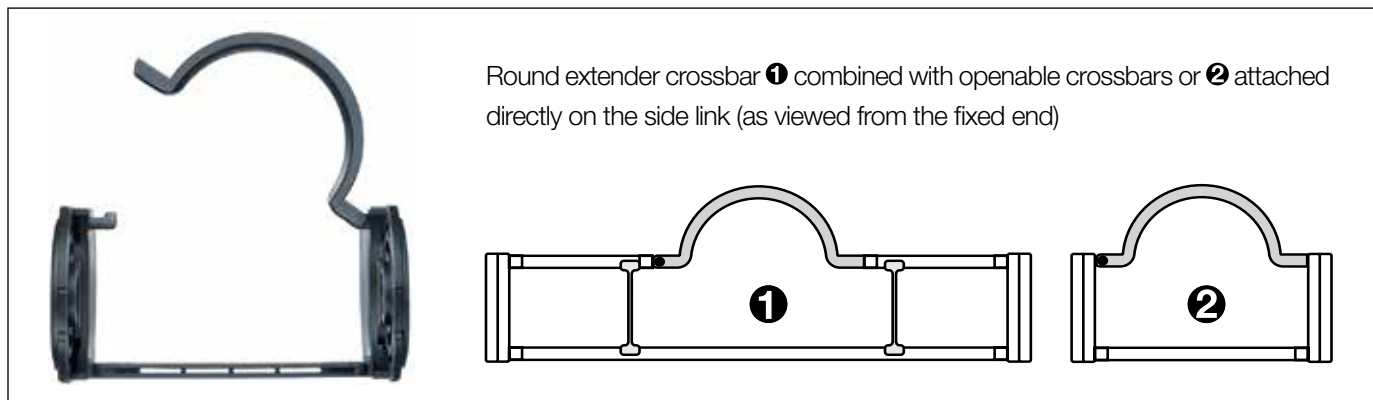
Complete Part No. with the width index **XXX** Of **Bi** and the radius (**R**). Example

15250.10B50.150.0 = **Bi 100** / Extender crossbar on both sides along inner and outer radius / bend radius (**R**) 150



The E4.1L 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

Interior separation | To allow faster filling



Extender crossbars with fixed width | Safe guiding for large hoses

- Suitable for hoses with a maximum outer diameter of 4.52" (115mm)
- Option ❶ extender crossbars with fixed width to combine with openable crossbars
- Option ❷ 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 Ø ≤ in. (mm)	Extender crossbar shape	❷ Fitted to side link	❶ Combine with openable crossbars
385.15RHD115	4.52 (115)	○ round	no	yes
385.18RD115	4.52 (115)	○ round	yes	no

Order example: ❶ combined with openable crossbars

To receive extender crossbar RHD115 pre-fitted along the outer radius of the e-chain®, please add index **E: 15250.10/15RHD****E115/10.R.0**

To receive extender crossbar RHD115 pre-fitted along the inner radius of the e-chain®, please add index **Z: 15250.10/15RHD****Z115/10.R.0**

Order example: ❷ fitted to side link

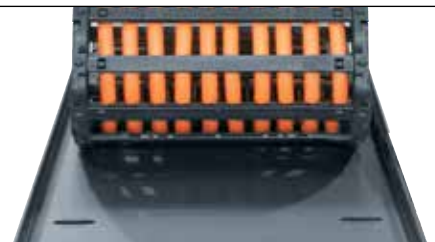
To receive extender crossbar RD115 pre-fitted along the outer radius of the e-chain®, please add index **E: 15250.18RD****E115.R.0**

To receive extender crossbar RD115 pre-fitted along the inner radius of the e-chain®, please add index **Z: 15250.18RD****Z115.R.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

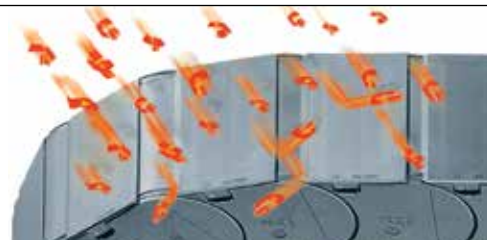
More information ► From page 1394



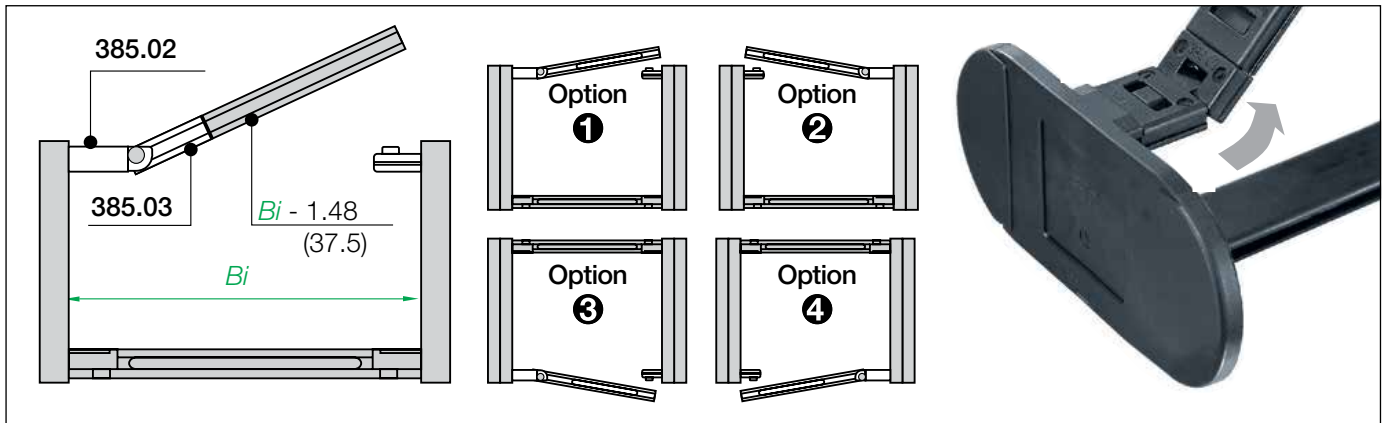
Hot chips up to +1562°F for e-tubes

- Lids and shelves can repel chips up to +1562°F. Special production option with the igus® material igumid HT
- No hot chips melting or embedding into the chain

More information ► www.igus.com/HT



e-chain® with openable extender crossbars



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): $Bi - 1.48$ (37.5mm) Part No. 385.03 smallest inner width $Bi = 3.44$ " (87.5mm)
- Please consult igus® for assistance with this product

Part number	Part number	Part No. openable
e-chain® with hinged crossbar	swivel clip as an individual part	crossbar as an individual part
15250. 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: 15250.137.1.200.0

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.com/E4savetime

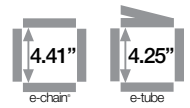


Roller crossbars - increase the service life of cables and hoses

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

More information ► www.igus.com/roller-crossbar





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

Part No.			<i>Bi</i>	<i>Ba</i>	1640	1608
e-chains® / e-tubes			in. (mm)	in. (mm)	lbs/ft (kg/m)	lbs/ft (kg/m)
1640.	-	05. R.0	1.97 (50)	3.31 (84)	≈ 3.43 (5.10)	-
1640.	-	055. R.0	2.16 (55)	3.50 (89)	≈ 3.45 (5.14)	-
1640.	-	06. R.0	2.56 (65)	3.90 (99)	≈ 3.48 (5.18)	-
1640.	-	07. R.0	2.95 (75)	4.29 (109)	≈ 3.54 (5.27)	-
1640.	-	08. R.0	3.43 (87)	4.76 (121)	≈ 3.57 (5.31)	-
1640.	-	10. R.0	3.94 (100)	5.28 (134)	≈ 3.60 (5.36)	-
1640.	-	11. R.0	4.41 (112)	5.75 (146)	≈ 3.66 (5.45)	-
1640.	-	12. R.0	4.92 (125)	6.26 (159)	≈ 3.72 (5.54)	-
1640.	-	13. R.0	5.39 (137)	6.73 (171)	≈ 3.78 (5.63)	-
1640.	-	15. R.0	5.91 (150)	7.24 (184)	≈ 3.81 (5.67)	-
1640.	-	16. R.0	6.38 (162)	7.72 (196)	≈ 3.86 (5.74)	-
1640.	-	169. R.0	6.65 (169)	8.03 (204)	≈ 3.91 (5.82)	-
1640.	-	17. R.0	6.89 (175)	8.23 (209)	≈ 3.90 (5.81)	-
1640.	-	182. R.0	7.17 (182)	8.54 (217)	≈ 3.93 (5.85)	-
1640.	-	18. R.0	7.36 (187)	8.70 (221)	≈ 3.95 (5.88)	-
1640.	1608.	20. R.0	7.87 (200)	9.21 (234)	≈ 3.96 (5.89)	≈ 5.17 (7.69)
1640.	-	207. R.0	8.15 (207)	9.53 (242)	≈ 4.00 (5.95)	-
1640.	-	21. R.0	8.35 (212)	9.69 (246)	≈ 4.00 (5.96)	-
1640.	-	22. R.0	8.86 (225)	10.20 (259)	≈ 4.04 (6.01)	-
1640.	-	23. R.0	9.33 (237)	10.67 (271)	≈ 4.09 (6.09)	-
1640.	1608.	25. R.0	9.84 (250)	11.18 (284)	≈ 4.13 (6.15)	≈ 5.64 (8.39)
1640.	-	26. R.0	10.31 (262)	11.65 (296)	≈ 4.17 (6.20)	-
1640.	-	27. R.0	10.83 (275)	12.17 (309)	≈ 4.21 (6.27)	-

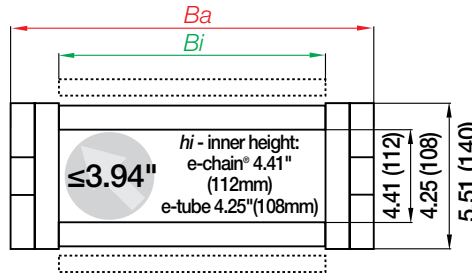
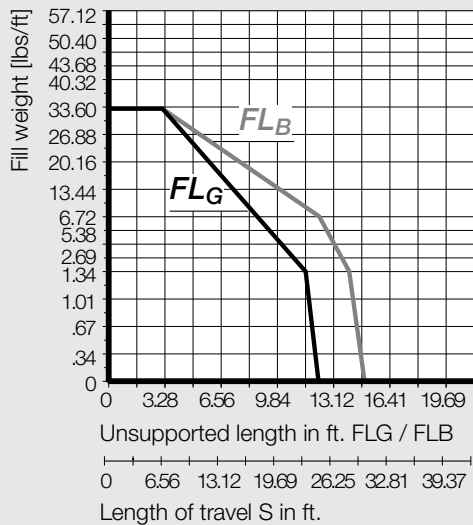
Part No.			<i>Bi</i>	<i>Ba</i>	1640	1608
e-chains® / e-tubes			in. (mm)	in. (mm)	lbs/ft (kg/m)	lbs/ft (kg/m)
1640.	-	28. R.0	11.30 (287)	12.64 (321)	≈ 4.23 (6.29)	-
1640.	1608.	30. R.0	11.81 (300)	13.15 (334)	≈ 4.26 (6.34)	≈ 6.11 (9.09)
1640.	-	31. R.0	12.28 (312)	13.62 (346)	≈ 4.31 (6.41)	-
1640.	-	32. R.0	12.79 (325)	14.13 (359)	≈ 4.35 (6.48)	-
1640.	-	33. R.0	13.27 (337)	14.61 (371)	≈ 4.43 (6.59)	-
1640.	1608.	35. R.0	13.78 (350)	15.12 (384)	≈ 4.44 (6.61)	≈ 6.58 (9.79)
1640.	-	36. R.0	14.25 (362)	15.59 (396)	≈ 4.48 (6.67)	-
1640.	-	37. R.0	14.76 (375)	16.10 (409)	≈ 4.51 (6.71)	-
1640.	-	38. R.0	15.24 (387)	16.57 (421)	≈ 4.54 (6.76)	-
1640.	1608.	40. R.0	15.75 (400)	17.09 (434)	≈ 4.63 (6.89)	≈ 7.05 (10.49)
1640.	-	41. R.0	16.22 (412)	17.56 (446)	≈ 4.70 (6.99)	-
1640.	-	42. R.0	16.73 (425)	18.07 (459)	≈ 4.76 (7.08)	-
1640.	-	43. R.0	17.20 (437)	18.54 (471)	≈ 4.79 (7.13)	-
1640.	-	45. R.0	17.72 (450)	19.06 (484)	≈ 4.82 (7.17)	-
1640.	-	46. R.0	18.19 (462)	19.53 (496)	≈ 4.82 (7.18)	-
1640.	-	47. R.0	18.70 (475)	20.04 (509)	≈ 4.85 (7.22)	-
1640.	-	48. R.0	19.17 (487)	20.51 (521)	≈ 4.89 (7.27)	-
1640.	1608.	50. R.0	19.69 (500)	21.02 (534)	≈ 4.94 (7.35)	-
1640.	-	51. R.0	20.16 (512)	21.50 (546)	≈ 4.95 (7.36)	-
1640.	-	52. R.0	20.67 (525)	22.01 (559)	≈ 4.97 (7.39)	-
1640.	-	53. R.0	21.14 (537)	22.48 (571)	≈ 5.03 (7.49)	-
1640.	-	55. R.0	21.65 (550)	22.99 (584)	≈ 5.24 (7.80)	-
1640.	-	60. R.0	23.62 (600)	24.96 (634)	≈ 5.32 (7.92)	-

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

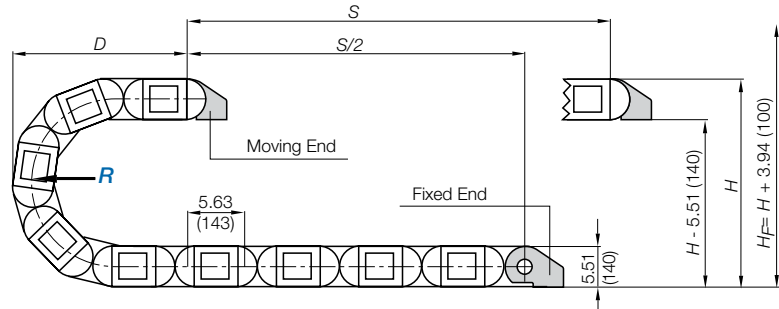
1640.20.300.0 = crossbars every link / 1608.30.300.0 = fully enclosed

Available bend radii

R in. (mm) | 7.87 (200) | 9.84 (250) | 11.81 (300) | 13.78 (350) | 15.75 (400) | 17.72 (450) | 19.69 (500) | 21.65 (550) | 23.62 (600) |



1640 Inner height in. (mm)	4.41 (112)
1608 Inner height in. (mm)	4.25 (108)
Pitch per link in. (mm)	5.63 (143)
Links/ft (m)	2.13 (7)
corresponds to (mm)	1,001
e-chain® length	$L_K = \frac{S}{2} + K$

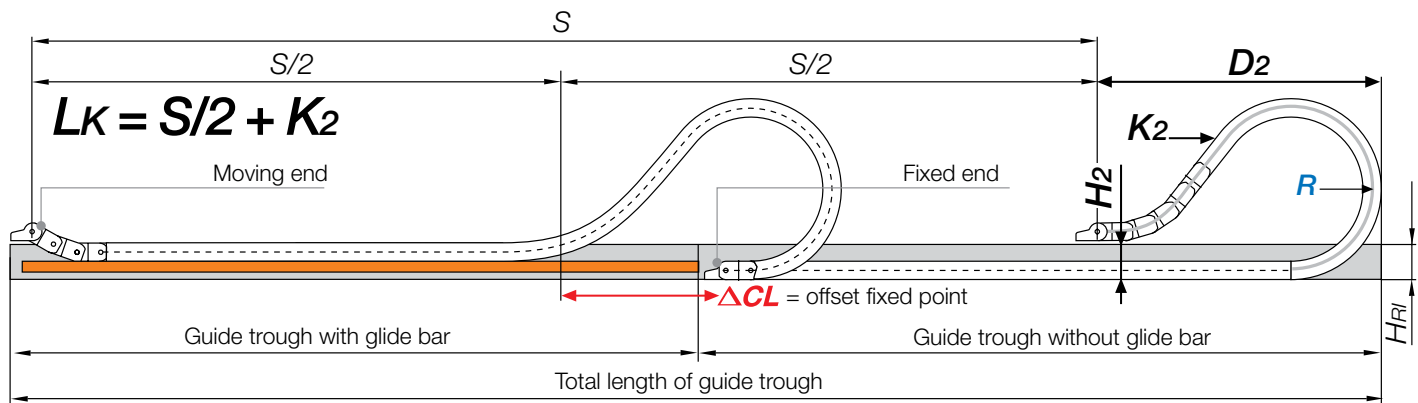


R	7.87 (200)*	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	19.69 (500)	21.65 (550)	23.62 (600)
H ⁺²⁵	21.26 (540)	25.20 (640)	29.13 (740)	33.07 (840)	37.00 (940)	40.94 (1040)	44.88 (1140)	48.82 (1240)	52.76 (1340)
D	19.93 (485)	21.06 (535)	23.03 (585)	25.00 (635)	26.97 (685)	28.94 (735)	30.91 (785)	32.87 (835)	34.84 (885)
K	36.02 (915)	42.32 (1075)	48.43 (1230)	54.72 (1390)	60.83 (1545)	66.93 (1700)	73.22 (1860)	79.33 (2015)	85.63 (2175)

The required clearance height: $H_f = H + 3.94$ in. (100 mm) with 3.36 lbs/ft (5.0 kg/m) fill weight.

*Radius not available for e-tubes

Gliding applications | For travel lengths from 45.93 ft. (14m) to max. 1312 ft. (400m)



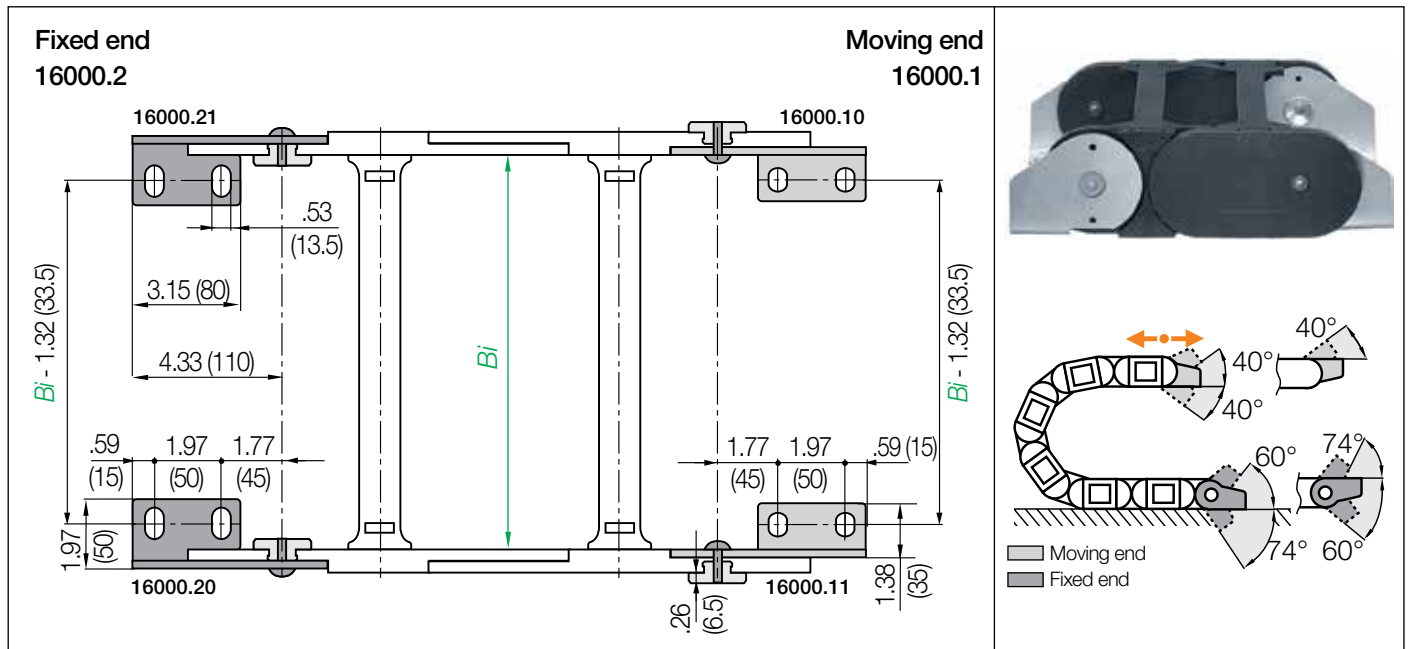
Note: We recommend the project planning of such a system to be carried out by igus®.

In case of travels between 29.53ft. (9m) and 45.93 ft. (14m) we recommend an e-chain® with a longer unsupported length.

R	7.87 (200)*	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	19.69 (500)	21.65 (550)	23.62 (600)
H ₂	12.80 (325)	12.80 (325)	12.80 (325)	12.80 (325)	12.80 (325)	12.80 (325)	12.80 (325)	12.80 (325)	12.80 (325)
D ₂ ⁺²⁵	35.43 (900)	39.37 (1000)	43.31 (1100)	49.21 (1250)	57.09 (1450)	62.99 (1600)	66.93 (1700)	74.80 (1900)	80.71 (2050)
K ₂	61.93 (1573)	67.56 (1716)	73.19 (1859)	90.08 (2288)	101.33 (2574)	112.60 (2860)	123.86 (3146)	135.12 (3432)	152.01 (3861)
ΔCL	17.72 (450)	19.69 (500)	21.65 (550)	25.59 (650)	31.50 (800)	35.43 (900)	37.40 (950)	43.31 (1100)	47.24 (1200)

*Radius not available for e-tubes

Steel mounting brackets | Pivoting

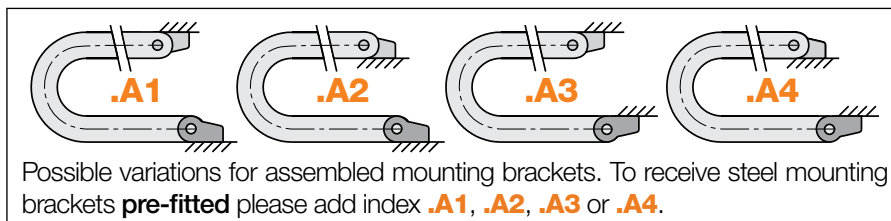
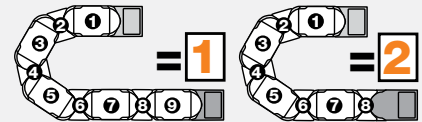


Steel pivoting | For unsupported, gliding, vertical standing and vertical hanging applications

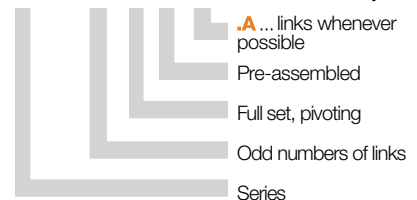
Part No. full set steel pivoting	Description
	Mounting bracket
16000. 1 .12.VS E45	Full set (both ends) ending with outer side link, screwed - standard
16000. 2 .12.VS E45	Full set (both ends) beginning with outer side link (moving end) - ending with inner side link (fixed end), screwed - standard

Stainless steel version available. Please add index **.E45** (material: AISI 304)

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  (for odd) or  (for even) depending on an even or odd number of links required.

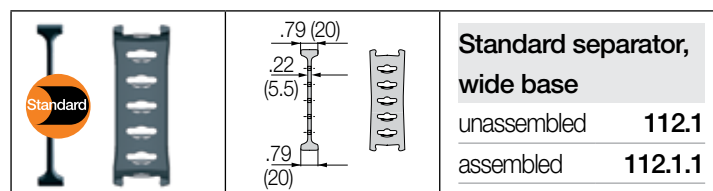
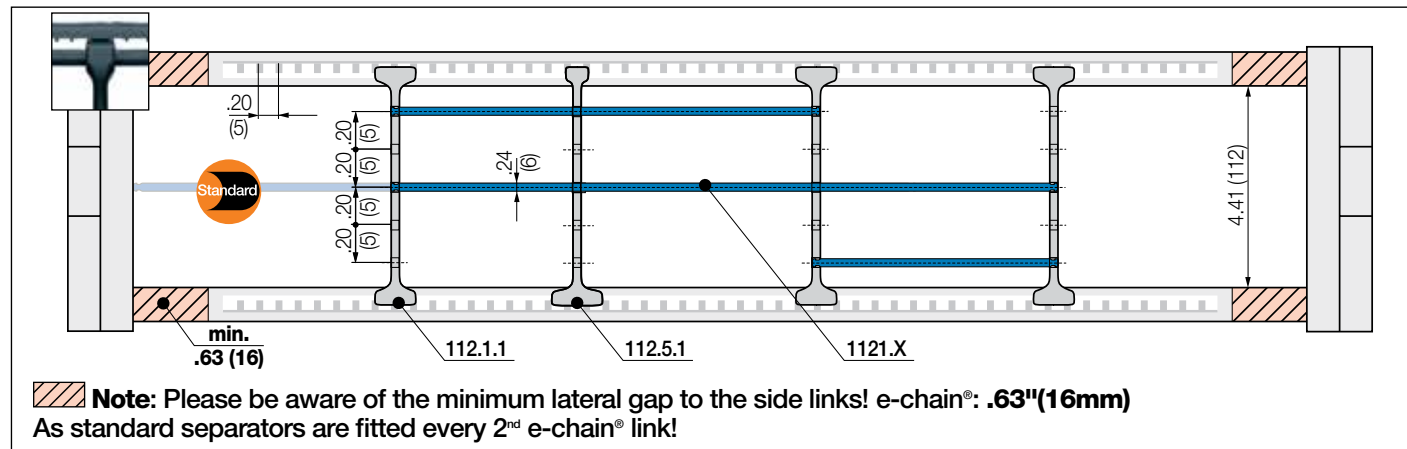


16000.1.12.VS.A2 Order example



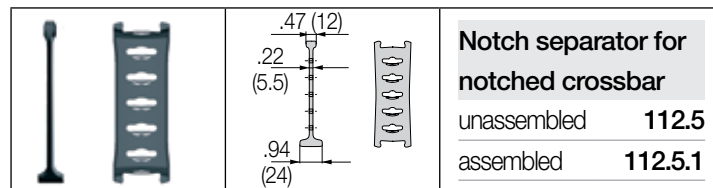
Interior separation | Increase cable service life

Previous generation of interior separation with other options ► www.igus.com/1640



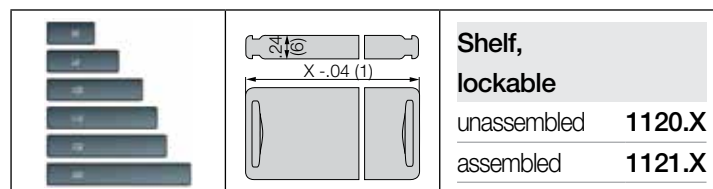
Standard - for any application

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.

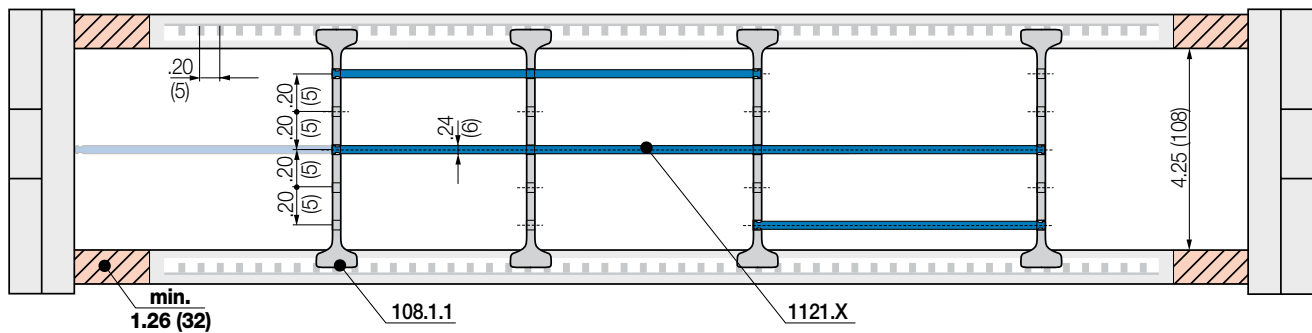
Shelves

Width = X in. (mm)

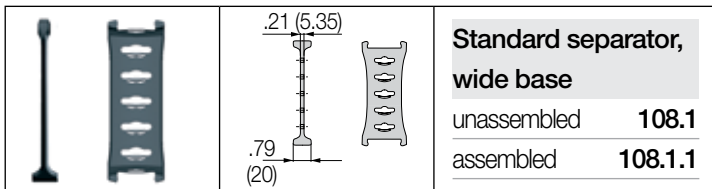


X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled
1.97 (050)	1120.050	1121.050	5.91 (150)	1120.150	1121.150	11.81 (300)	1120.300	1121.300
2.56 (065)	1120.065	1121.065	6.89 (175)	1120.175	1121.175	13.78 (350)	1120.350	1121.350
2.95 (075)	1120.075	1121.075	7.87 (200)	1120.200	1121.200	14.76 (375)	1120.375	1121.375
3.94 (100)	1120.100	1121.100	8.86 (225)	1120.225	1121.225	15.24 (387)	1120.387	1121.387
4.92 (125)	1120.125	1121.125	9.84 (250)	1120.250	1121.250	17.72 (450)	1120.450	1121.450

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

Previous interior layout program with optional elements ► www.igus.com/R1608

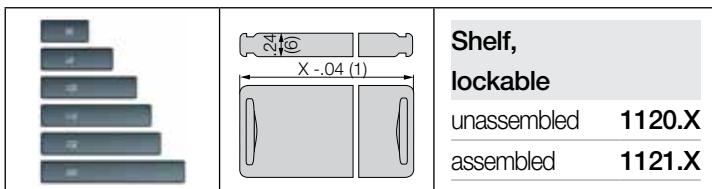
Note: Please be aware of the minimum lateral gap to the side links! e-tubes: **1.26" (32mm)**
As standard separators are fitted every 2nd e-chain® link!

**Standard separator,
wide base**

unassembled	108.1
assembled	108.1.1

Standard - for any application

Separator with a wide base for maximum holding force.

**Shelf,
lockable**

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.

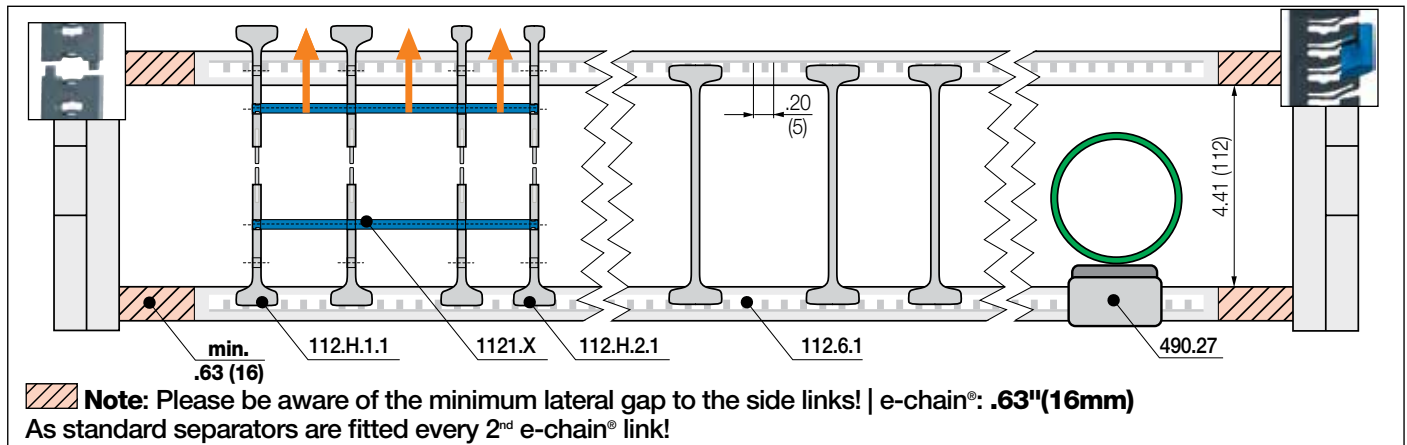
Shelves

Width = X in. (mm)



X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled	X in. (mm)	unassembled	assembled
1.97 (050)	1120.050	1121.050	5.91 (150)	1120.150	1121.150	11.81 (300)	1120.300	1121.300
2.56 (065)	1120.065	1121.065	6.89 (175)	1120.175	1121.175	13.78 (350)	1120.350	1121.350
2.95 (075)	1120.075	1121.075	7.87 (200)	1120.200	1121.200	14.76 (375)	1120.375	1121.375
3.94 (100)	1120.100	1121.100	8.86 (225)	1120.225	1121.225	15.24 (387)	1120.387	1121.387
4.92 (125)	1120.125	1121.125	9.84 (250)	1120.250	1121.250	17.72 (450)	1120.450	1121.450

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



		Split separator, wide base/top unassembled 112.H.1 assembled 112.H.1.1
		Separator, narrow top unassembled 112.H.2 assembled 112.H.2.1
		Lean separator¹⁾ 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 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 interior separation - measured on a 4m long e-chain® fitted with 12 cables in the igus® lab



More interior separation options | Only for e-chains®

		Notch locking separator*, lockable for e-chains® unassembled 112.6 assembled 112.6.1
		Rollclip*, for e-chains® unassembled 489.27 assembled 490.27

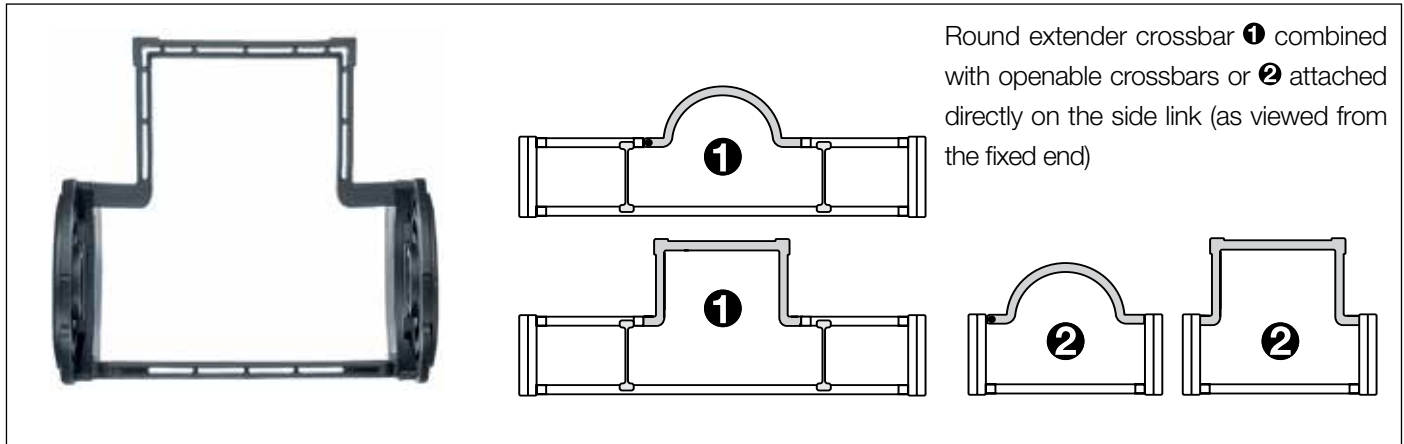
Notch locking separator* for increased holding force

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*

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

Extender crossbar with fixed width



Extender crossbars with fixed width | Safe guiding for large hoses

- Suitable for hoses with a maximum outer diameter of 10.63" (270mm)
- Option ❶ extender crossbars with fixed width to combine with openable crossbars
- Option ❷ 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 $\varnothing \leq$ in. (mm)	Extender crossbar shape	❷ Fitted to side link	❶ Combine with openable crossbars
450.15RHD115	4.53 (115)	○ round	no	yes
450.17RD115	4.53 (115)	○ round	yes	no
450.25D150	5.91 (150)	□ square	yes	no
450.30D200	7.87 (200)	□ square	yes	no
450.35D250	9.84 (250)	□ square	yes	no
450.40D300	11.8 (300)	□ square	yes	no
450.20HD150	5.91 (150)	□ square	no	yes
450.25HD200	7.87 (200)	□ square	no	yes
450.30HD250	9.84 (250)	□ square	no	yes

Order example: ❶ combined with openable crossbars

To receive extender crossbar RHD115 pre-fitted along the outer radius of the e-chain®, please add index **E: 1640.10/15RHDE115/10.R.0**

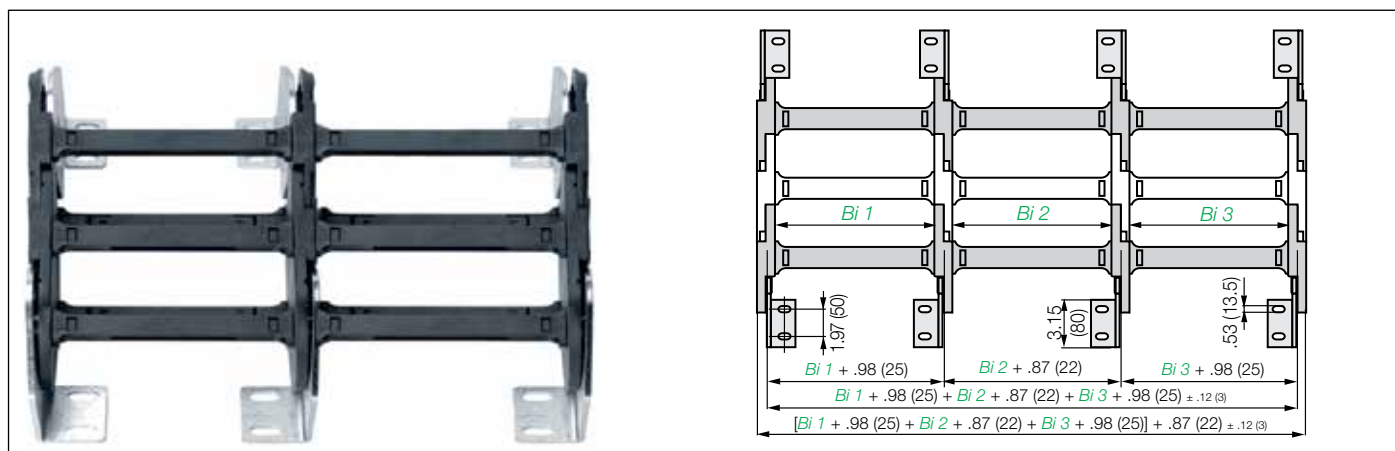
To receive extender crossbar RHD115 pre-fitted along the inner radius of the e-chain®, please add index **Z: 1640.10/15RHDZ115/10.R.0**

Order example: ❷ fitted to side link

To receive extender crossbar RD115 pre-fitted along the outer radius of the e-chain®, please add index **E: 1640.18RDE115.R.0**

To receive extender crossbar RD115 pre-fitted along the inner radius of the e-chain®, please add index **Z: 1640.18RDZ115.R.0**

Extension links



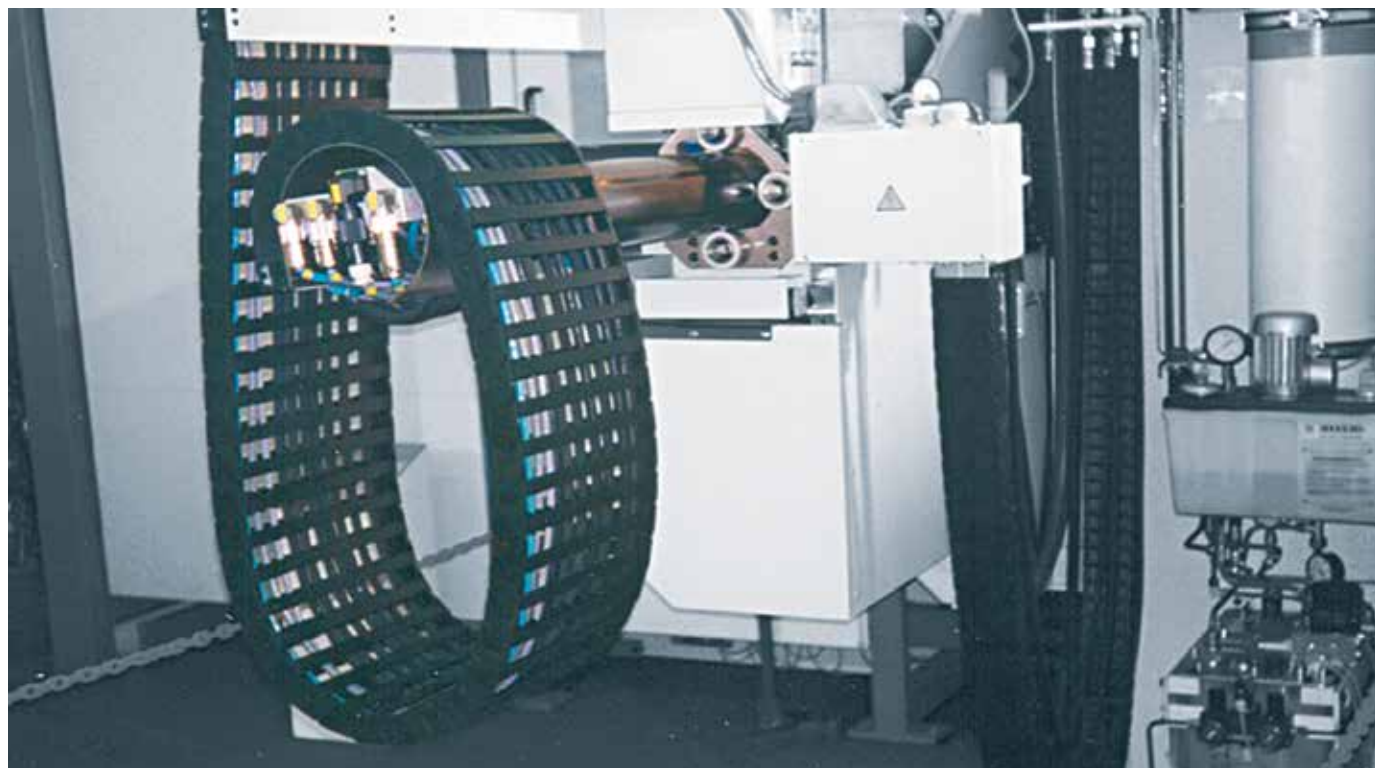
Extension links | For extremely wide e-chains® up to 9.84 ft. (3.0m)

Virtually unlimited side-by-side extension

- For extremely wide e-chains® up to 118" (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 number	Part number	Part number
Extension link e-chain®	Extension link e-tube	Extension link as an individual part
1640. <i>Bi1/Bi2/Bi3.R.0</i>	R1608. <i>Bi1/Bi2/Bi3.R.0</i>	6022. <i>R.</i>

Complete Part No. with the width index *Bi1/Bi2/Bi3/etc.* and the radius (*R*). Example: 1640.10/20/10.200.0

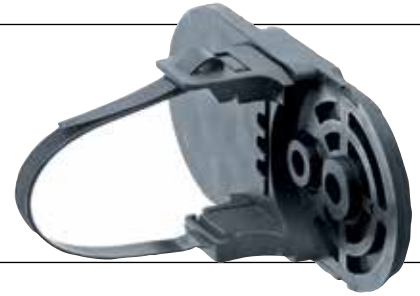


Circular movements (also with Reverse Bend Radius "*RBR*") are possible

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.com/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

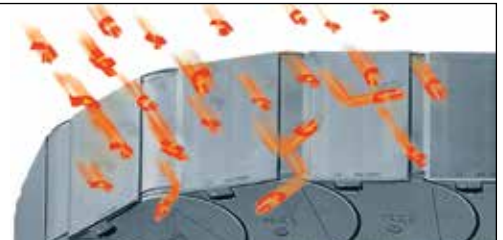
More information ► From page 1394



Hot chips up to +1562°F for e-tubes

- Lids and shelves can repel chips up to +1562°F. Special production option with the igus® material igumid HT
- No hot chips melting or embedding into the chain

More information ► www.igus.com/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.com/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-optimized bearings
- For sensitive hoses in restricted space
- Usable along the inner and/or outer radius, retrofit possible

More information ► www.igus.com/roller-crossbar





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