

Price Index



10 Widths
11 Bending Radii



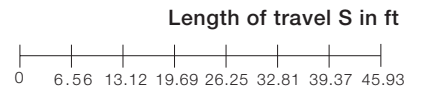
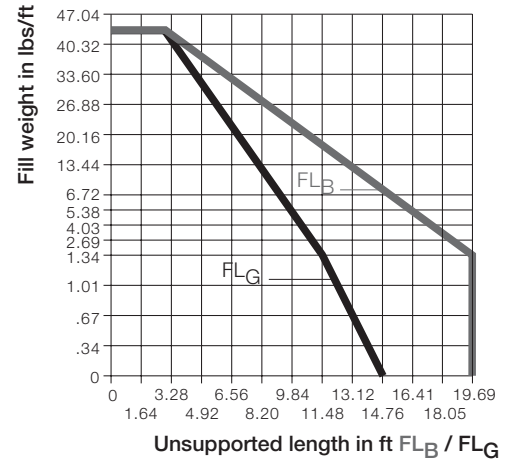
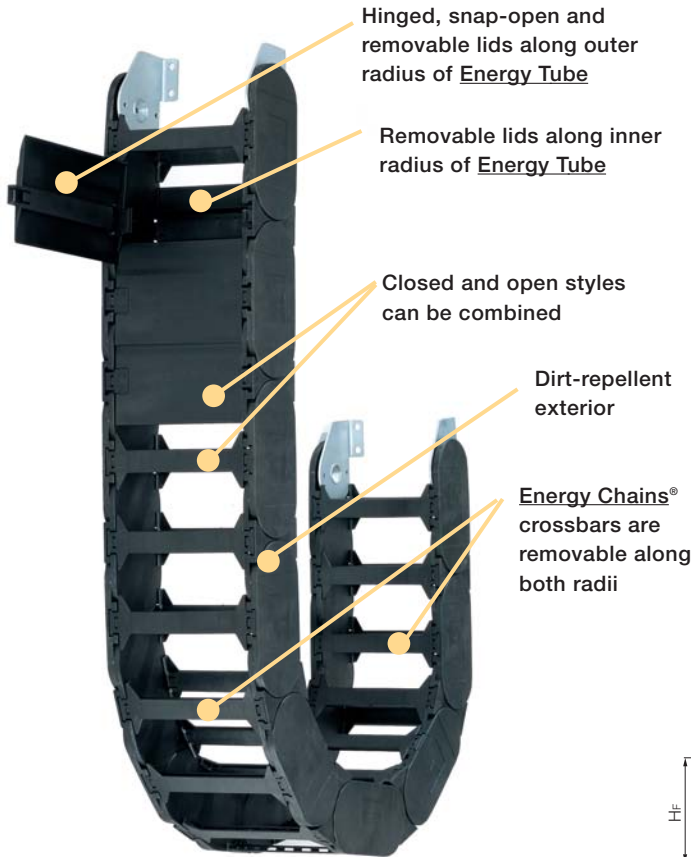
Low-noise design



Steel mounting brackets

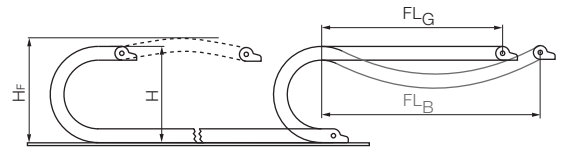


Wide range of interior separation



Unsupported length

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



Product range

Inner Widths (Bi) inches (mm):	7.87 - 23.62 (200 - 600)
Bending Radii (R) inches (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), 29.53 (750), 39.37 (1000)
Pitch:	5.63 (143 mm/link) = 2.13 links/ft (7 links/m)

Unsupported Energy Chains® ► **Design, Chapter 1**, feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

If the unsupported length is exceeded, the Energy Chain®/Tube must glide on itself. This requires a guide trough ► **Design, Chapter 1**



When to use the Series 600/601/R608:

- If quiet operation is required
- If very high speeds and/or accelerations are required
- Long travels
- High fill weights



When not to use the Series 600/601/R608:

- If a simpler low-cost solution is required
► Series 1640, Chapter 6
- If more inner height is required
► Series 640, Chapter 6

- Accessories for
► Guide Troughs, Chapter 9
- Further information
► Design, Chapter 1

Click Here for Specs & CAD Files

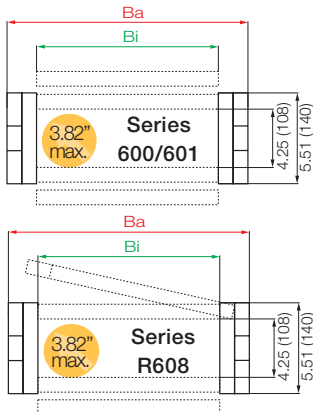
Other Installation Methods:

Vertical, hanging	= max 394 ft (120 m)
Vertical, standing, unsupported*	= max 19.69 ft (6 m)
Side-mounted, unsupported	= max 19.69 ft (6 m)
Rotary	= requires further calculation

*With support, this distance can be greater. Call igus for details.

- Long travel Max: 1476 ft. (450 m)

Series 600/601/R608 "E4/100"



Part No.	Bi	Ba ⁺⁺
600/ 601/ 608-20	7.87 (200)	9.92 (252)
600/ 601/ 608-25	9.84 (250)	11.89 (302)
600/ 601/ 608-30	11.81 (300)	13.86 (352)
600/ 601-32	12.60 (320)	14.65 (372)
600/ 601/ 608-35	13.78 (350)	15.83 (402)
600/ 601/ 608-40	15.75 (400)	17.80 (452)
600/ 601-45	17.72 (450)	19.76 (502)
600/ 601-50	19.69 (500)	21.73 (552)
600/ 601-55	21.65 (550)	23.70 (602)
600/ 601-60	23.62 (600)	25.67 (652)

Bending Radii
for ALL Widths
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)
29.53 (750)
39.37 (1000)

** Not available for R608

Supplement part number with required radius
For example, 600-20-200-0

For crossbar selection please visit www.igus.com and use the "E-Chain Helper"

Price Index



Series 600, Energy Chain (with crossbars every link)

Select Energy Chains® with crossbars every link when using rigid hydraulic hoses or if an application is particularly demanding.



Standard Price Index



Series 601, Energy Chain (with crossbars every other link)

This design is the **standard** Energy Chain® for this size range. For almost all applications, the Series 601 offers the easiest assembly and best stability for the price.



Price Index

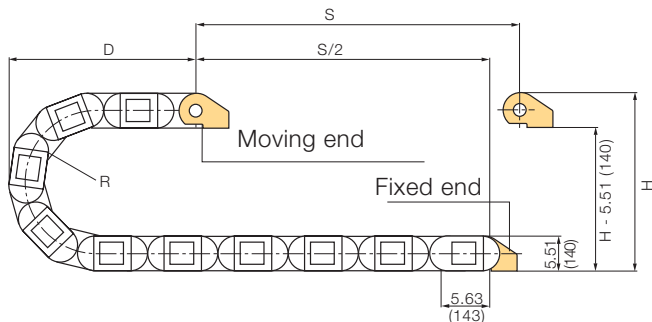


Series R608, Energy Tube (fully enclosed)

Energy Tubes offer excellent cable and hose protection against dirt, debris and other contaminants, as well as hot chips. This design offers cable and hose accessibility along both radii. Lids along the entire inner radius are completely removable. Lids along the entire outer radius are single-sided, snap-open, with a hinge on the other side to keep them attached to the chain, or completely removable.



Installation dimensions



- Pitch: = 5.63 (143 mm) per link
- Links per ft (m): = 2.13 (7)
- Total travel: = S
- Chain length: = $\frac{S}{2} + K$

R	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)
H _{4,25} ⁰	21.46 (545)	25.39 (645)	29.41 (747)	33.27 (845)
D	16.34 (415)	18.31 (465)	20.27 (515)	22.24 (565)
K	36.22 (920)	42.52 (1080)	48.82 (1240)	55.12 (1400)

R	15.75 (400)	17.72 (450)	19.69 (500)	21.65 (550)
H _{4,25} ⁰	37.20 (945)	41.14 (1045)	45.08 (1145)	49.02 (1245)
D	24.21 (615)	26.18 (665)	28.15 (715)	30.12 (765)
K	61.42 (1560)	67.72 (1720)	73.62 (1870)	79.53 (2020)

R	23.62 (600)	29.53 (750)	39.37 (1000)
H _{4,25} ⁰	52.95 (1345)	64.76 (1645)	84.45 (2145)
D	32.09 (815)	37.99 (965)	47.83 (1215)
K	85.63 (2175)	104.72 (2660)	135.24 (3435)

*The required clearance height is HF = H + 3.94 (100) with 3.36 (5 kg/m) fill weight. Please consult igus if space is particularly restricted.

PDF: www.igus.com/echainpdf.asp
Specs/CAD/RFQ: www.igus.com/echain.asp
RoHS info: www.igus.com/RoHS.asp



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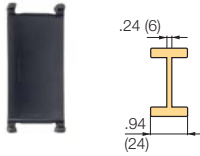
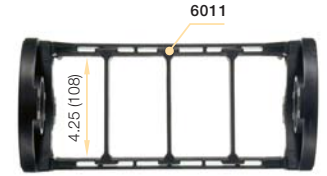


Interior Separation

Option 1: separators

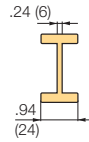
Separators can be placed at any point along the chain's cross-section. The **standard separator (part No. 6001)**, offers safe stability due to its broad "foot" design, even when used with large diameter cables or hoses.

All separators are adjustable, but may be fixed in place with spacers (chains only). Spacers are most often necessary with side-mounted applications.



Separator

Unassembled	Part No. 6001
Assembled	Part No. 6011



Locking Separator

Unassembled	Part No. 6008
Assembled	Part No. 6018



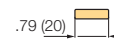
Spacer (Chain Only)

Unassembled	Part No. 6005-10
Assembled	Part No. 6015-10



Spacer (Chain Only)

Unassembled	Part No. 6005-15
Assembled	Part No. 6015-15



Spacer (Chain Only)

Unassembled	Part No. 6005-20
Assembled	Part No. 6015-20



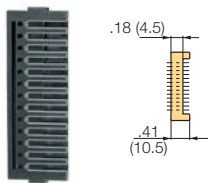
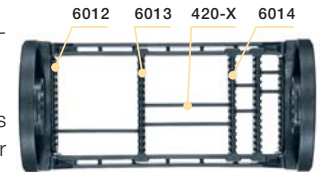
Note:

The available inner height is decreased by .08 (2 mm) per spacer, (for example, if one spacer is placed on each side of a separator, the overall inner height is reduced by .16 (4 mm)). In order to avoid this, place the spacers on the **outside** of the opening crossbar.

Option 2: shelves

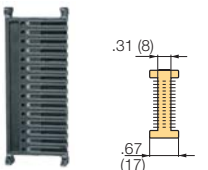
Energy Chains® and Energy Tubes can be subdivided both vertically and horizontally using the various interior separation elements.

Side plates, separators and shelves form the basic pattern of a shelf system. Shelves of various widths can be arranged at 15 different heights at .28 (7mm) increments ► **Design, Chapter 1** for layout recommendations.



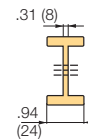
Side Plate

Unassembled	Part No. 6002
Assembled	Part No. 6012



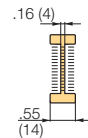
Vertical Separator

Unassembled	Part No. 6003
Assembled	Part No. 6013



Slotted Separators

Unassembled	Part No. 6004
Assembled	Part No. 6014



Slotted Separators, Open

Unassembled	Part No. 6005
Assembled	Part No. 6015



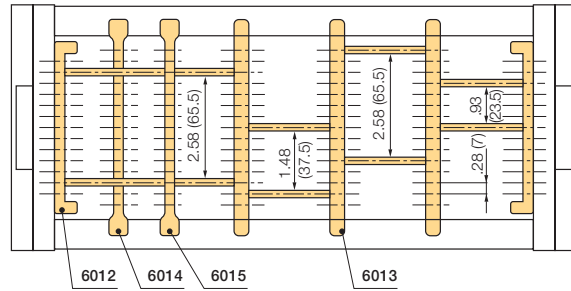
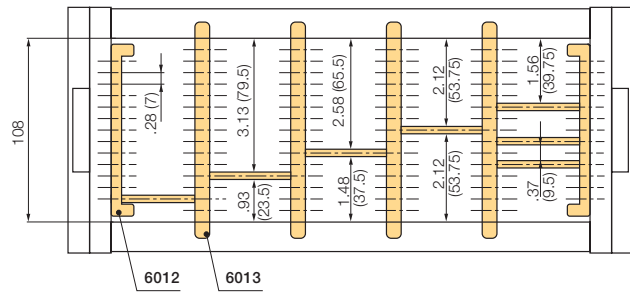
Series 600/601/R608 "E4/100"



600
601
R608

Interior Separation

Option 2: shelves (Continued)

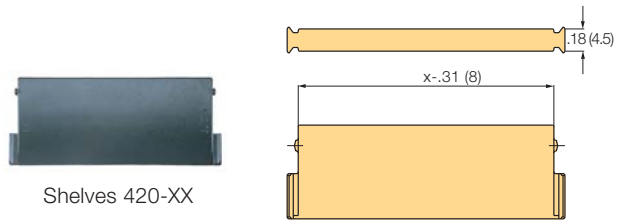


Slotted separators (Part No. 6004) are used for complex subdivisions. However, they cannot be retrofitted into an existing interior separation system without removing the shelves first.

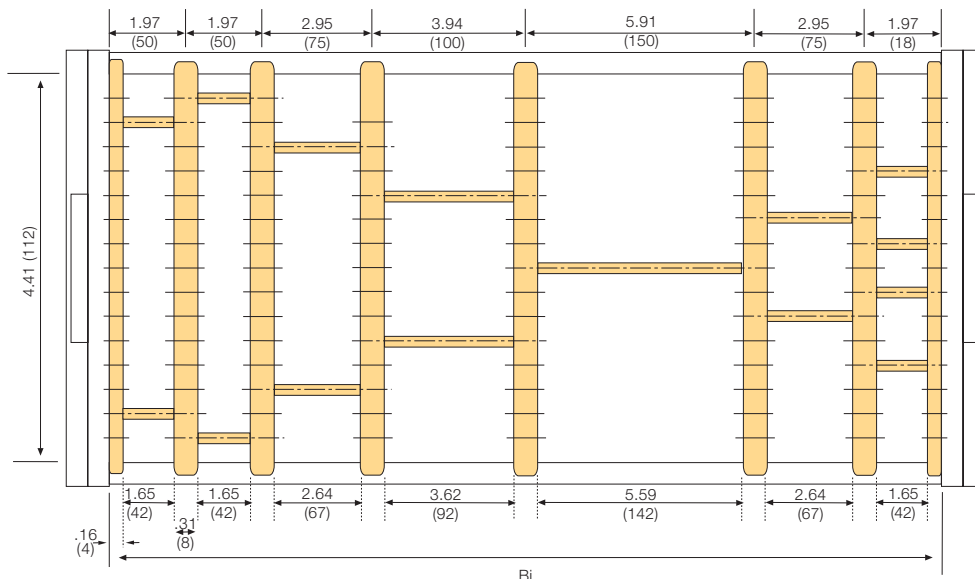


The **open, slotted separator (Part No. 6005)** can be retrofitted into an existing interior separation system without removing the existing shelves, as long as these shelves fit into any of the 11 middle slots.

Width X in. (mm)	Usable Width in. (mm)	Part No. Unassembled	Part No. Assembled
.71 (18)	.39 (10)	420-18	421-18
.91 (23)	.59 (15)	420-23	421-23
.98 (25)	.67 (17)	420-25	421-25
1.10 (28)	.79 (20)	420-28	421-28
1.30 (33)	.98 (25)	420-33	421-33
1.69 (43)	1.38 (35)	420-43	421-43
1.97 (50)	1.65 (42)	420-50	421-50
2.44 (62)	2.12 (54)	420-62	421-62
2.95 (75)	2.64 (67)	420-75	421-75
3.94 (100)	3.62 (92)	420-100	421-100
4.92 (125)	4.61 (117)	420-125	421-125
5.91 (150)	5.59 (142)	420-150	421-150
6.89 (175)	6.57 (167)	420-175	421-175
7.36 (187)	7.04 (179)	420-187	421-187
7.87 (200)	7.56 (192)	420-200	421-200

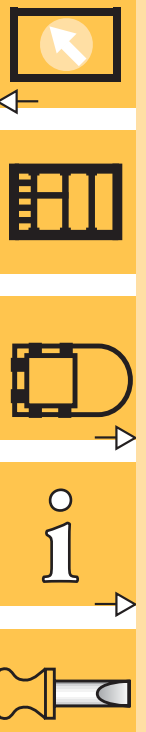


Shelves 420-XX



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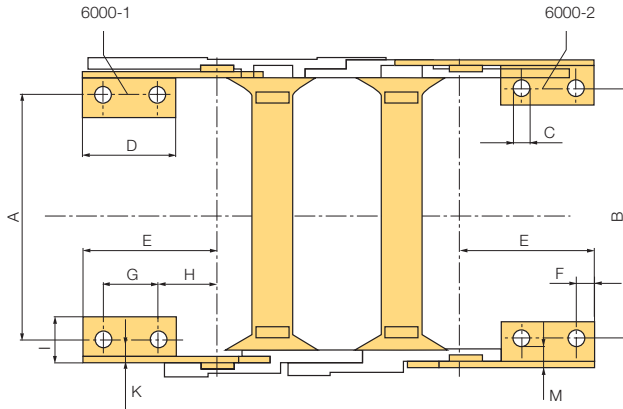
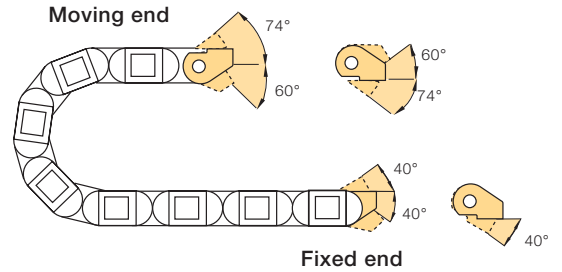
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Specs/CAD/RFQ: www.igus.com/echain.asp
RoHS info: www.igus.com/RoHS.asp



Mounting Brackets

Option 1: steel

- One part for all chain widths
- Electrically conductive



6000-12 = Full set, 4 parts, 2 parts pin facing out, 2 parts pin facing in
 6000-1 = Mounting brackets 1 part each left/right, pin facing out
 6000-2 = Mounting brackets 1 part each left/right, pin facing in

Strain relief package
 ► Strain Relief, Chapter 10

Part No.	A = B	C	D	E	F	G	H	I	K	M
6000-1	Bi - 1.18 (30)	.53 (13.5)	3.15 (80)	4.33 (110)	.59 (15)	1.97 (50)	1.77 (45)	1.97 (50)	.71 (37)	1.20 (30.5)
6000-2	Bi - 1.18 (30)	.53 (13.5)	3.15 (80)	4.33 (110)	.59 (15)	1.97 (50)	1.77 (45)	1.38 (35)	.87 (22)	.60 (15.3)

The mounting brackets 6000-12 fit all Series 600, 601, R608. Depending on the chain length, the carrier will end with outer or inner side links. For the best appearance, make sure the chain ends with outer side links whenever possible. (An odd number of links will always end with outer side links, thereby requiring 2 sets of 6000-1.)

Part No. 6000-1 Mounting bracket set, pin facing out
 Part No. 6000-2 Mounting bracket set, pin facing in



igus® Energy Chain System®

Telephone 1-800-521-2747
 Fax 1-401-438-7270

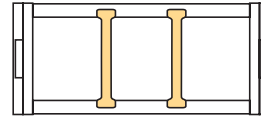
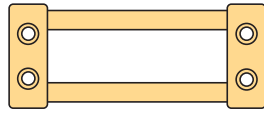
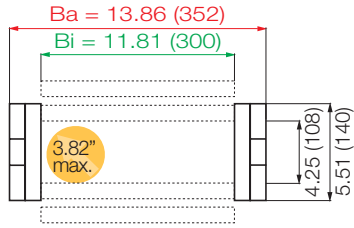
Internet: <http://www.igus.com>
 email: sales@igus.com
 QuickSpec: <http://www.igus.com/qs/echain.asp>

Order Example and Technical Data: Series 600/601/R608 "E4/100"



600
601
R608

Order example



1. Chain selection:

600-30-300-0

- Color black
- Radius
- Width
- Chain type

2. Mounting brackets:

6000-12

- Full set
- Steel

3. Interior Separation:

2 separators, assembled every other link (Part No. 6011). Alternative interior separation configuration according to design layout possible.

For 6.56 ft (2 m) chain, color black with pivoting mounting brackets and integrated profile rails:
6.56 ft (2 m) 600-30-300-0 and 6000-12 and 2 Part No. 6011, assembled every other link

14 links — 2.13 links/ft (7 links/m)

Technical Data

Chain/Tube Width	Weight Per Link lbs (kg)			Weight lbs/ft (kg/m)		
	600	601	R608	600	601	R608
-20	2.756 (1.250)			5.88 (8.75)	5.37 (7.99)	
-25	2.870 (1.302)			6.12 (9.11)	5.49 (8.17)	
-30	2.977 (1.350)			6.35 (9.45)	5.60 (8.34)	
-32	3.021 (1.370)			6.44 (9.59)	5.65 (8.41)	
-35	3.069 (1.392)			6.55 (9.74)	5.70 (8.48)	
-40	3.210 (1.456)			6.85 (10.19)	5.85 (8.71)	
-45	3.250 (1.474)			6.94 (10.32)	5.89 (8.77)	
-50	3.347 (1.518)			7.14 (10.63)	6.00 (8.93)	
-55	3.457 (1.568)			7.38 (10.98)	6.12 (9.10)	
-60	3.612 (1.638)			7.71 (11.47)	6.28 (9.35)	

Material	igumid G
Permitted temperature	-40°/266°F (-40/+130°C)
Gliding speed (maximum)	16.4 ft/s (5 m/s)
Unsupported V (maximum)	32.8 ft/s (10 m/s)
Flammability class	VDE 0304 IIC UL94 HB

● Weight data tolerance:
+/- 5%

● Details of material properties
▶ Design, Chapter 1

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Guide Troughs

Guide troughs are used with applications where the upper run of the Energy Chain® glides on the lower run. If using igus® steel guide troughs, the following components are required:

- Full travel length of guide trough
Part No. 97-30
- 1/2 travel length glide bars
Part No. 93-01
- Installation sets as end connectors
Part No. 97-50-XX

-XX indicates the length of the profile rails on which the guide trough is mounted. The values and part numbers are specified in the table below. The standard length of the trough components and glide bars is 6.56 ft (2 m). The overall length of the guide trough directly correlates to the length of travel.

Example:
Length of travel 164 ft (50 m)
Center-mounted

Required guide troughs:
164 ft (50 m) guide trough, 82 ft. (25 m) glide bar
= 25 sections of 6.56 ft (2 m) guide trough

Part No. 97-30
= 13 sections of 6.56 ft (2 m) glide bar

Part No. 93-01
Required number of installation set:
= Number of guide trough components + 1
= 25 + 1 = 26

Part No. of the installation sets **97-50-XXX**
Example:
97-50-400 for 15.75 (400 mm) long profile rail



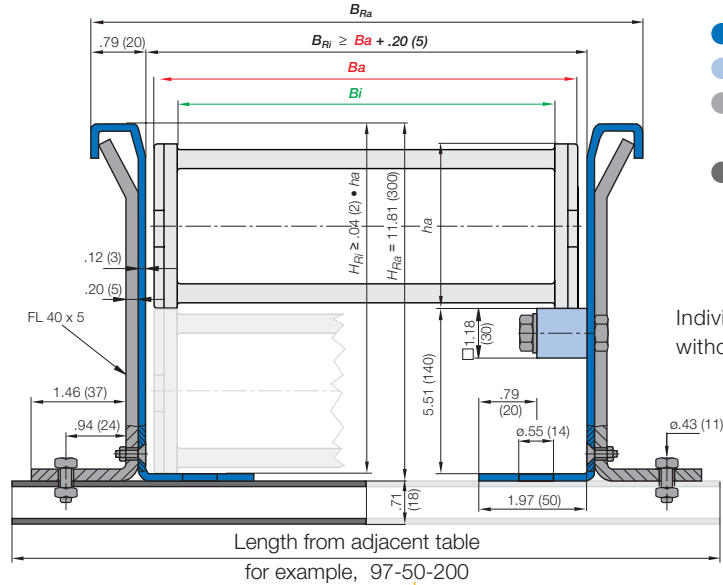
Left: Guide trough with glide bars
Right: Guide troughs without glide bars



Installation sets as section connectors

Width of Crossbar
600-05-200-0

	B_{RI}	Installation Part No.
-20	10.12 (257)	97-50-375
-25	12.09 (307)	97-50-425
-30	14.06 (357)	97-50-475
-32	14.84 (377)	97-50-500
-35	16.02 (407)	97-50-525
-40	17.99 (457)	97-50-575
-45	19.96 (507)	97-50-625
-50	21.93 (557)	97-50-675
-55	23.90 (607)	97-50-725
-60	25.87 (657)	97-50-775



- Guide trough
- Glide bars
- Installation set "Basic"
- C-profile rail

Individual attachment without profile rail

Standard length profile rail

* Specialized guide trough available upon request

