



Price Index



10 Widths
6 Bending Radii



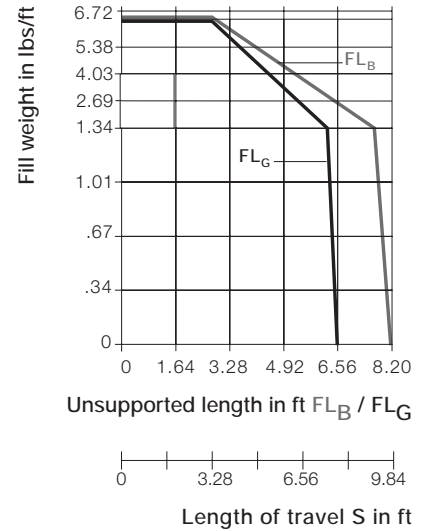
Interior separation possible



2 options for mounting brackets

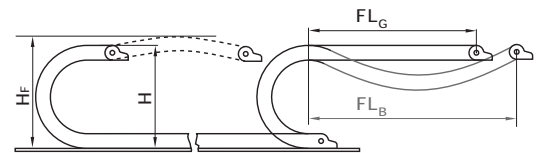


Quickflange available upon request

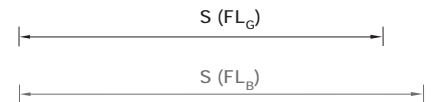


Unsupported length

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



Inner Widths (Bi) inches (mm):	1.97 (50), 2.95 (75), 3.94 (100), 4.53 (115), 4.92 (125), 5.91 (150), 6.89 (175), 7.87 (200), 8.86 (225), 9.84 (250)
Bending Radii (R) inches (mm):	3.94 (100), 4.92 (125), 5.91 (150), 6.89 (175), 7.87 (200), 8.86 (225), 9.84 (250), 11.81 (300)
Pitch:	2.31 (58.8 mm)/link = 5.18 links/ft (17 links/m) 39.3 (999.6 mm)



[Click Here for Specs & CAD Files](#)



When to use the Series R167/R168:

- If hinged, snap-open accessibility along inner or outer radius is required
- If low-cost, lightweight Energy Tube for many types of applications is required
- If flush mounting option is required
- If chip-repellent features are required



When not to use the Series R167/R168:

- If hinged, snap-open accessibility along both radii is required
 - ▶ System E4/100, Series R780, **Chapter 6**
- If particularly quiet operation is required
 - ▶ Series R, Series R68, **Chapter 5**

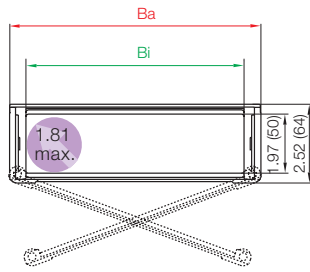
Series R167/R168 "E2 Tubes"



R167
R168

Series R167 Energy Tube

(hinged, snap-open along both sides of the inner radius)



Part No.	Bi	Ba
167-050	1.97 (050)	2.68 (068)
167-075	2.95 (075)	3.66 (093)
167-100	3.94 (100)	4.65 (118)
167-115	4.53(115)	5.24 (133)
167-125	4.92 (125)	5.63 (143)
167-150	5.91 (150)	6.61 (168)
167-175	6.89 (175)	7.60 (193)
167-200	7.87 (200)	8.58 (218)
167-225	8.86 (225)	9.57 (243)
167-250	9.84 (250)	10.55 (268)

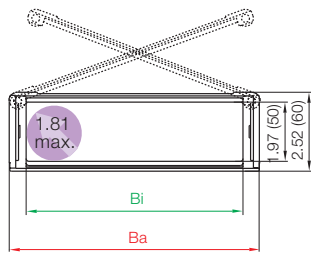
Bending Radii
for ALL Widths

- 3.94 (100)
- 4.92 (125)
- 5.91 (150)
- 6.89 (175)
- 7.87 (200)
- 8.86 (225)
- 9.84 (250)
- 11.81 (300)

Supplement part number with required radius
for example, 167-100-100-0

Series R168 Energy Tube

(hinged, snap-open along both sides of the outer radius)



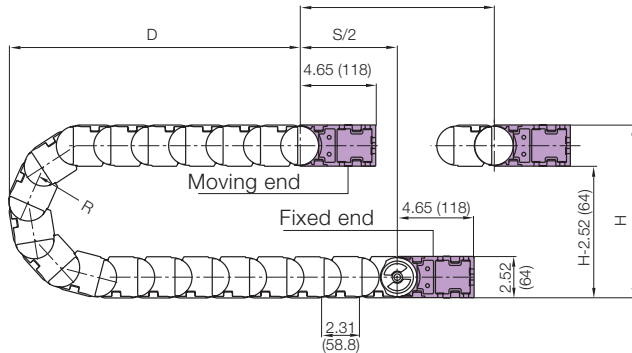
Part No.	Bi	Ba
168-050	1.97 (050)	2.68 (068)
168-075	2.95 (075)	3.66 (093)
168-100	3.94 (100)	4.65 (118)
168-115	4.53(115)	5.24 (133)
168-125	4.92 (125)	5.63 (143)
168-150	5.91 (150)	6.61 (168)
168-175	6.89 (175)	7.60 (193)
168-200	7.87 (200)	8.58 (218)
168-225	8.86 (225)	9.57 (243)
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Bending Radii
for ALL Widths

- 3.94 (100)
- 4.92 (125)
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- 7.87 (200)
- 8.86 (225)
- 9.84 (250)
- 11.81 (300)

Supplement part number with required radius
for example, 168-100-100-0

Installation Dimensions



R	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)
H*	10.39 (264)	12.36 (314)	14.33 (364)	16.30 (414)
D	7.09 (180)	8.07 (205)	9.05 (230)	10.04 (255)
K	17.32 (440)	20.08 (510)	23.23 (590)	26.38 (670)

R	7.87 (200)	8.86 (225)	9.84 (250)	11.81 (300)
H*	18.27 (464)	20.24 (514)	22.20 (564)	26.14 (664)
D	11.02 (280)	12.01 (305)	12.99 (330)	14.96 (380)
K	29.53 (750)	32.68 (830)	35.83 (910)	41.73 (1060)

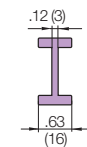
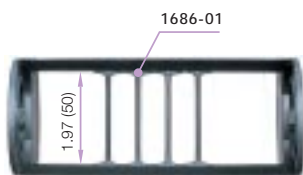
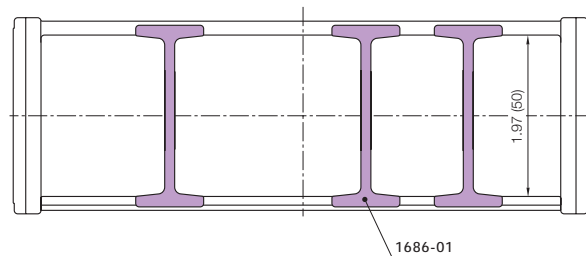
*The required clearance height is HF = H + 1.57 (40 mm) with 1.34 lbs/ft (2 kg/m) fill weight. Please consult igus® if space is particularly restricted.

Pitch: = 2.31 (58.8 mm) per link
 Links per ft (m): = 5.18 (17)
 Tube length: = $\frac{S}{2} + K$

Interior Separation

Option 1: vertical separators

Vertical separators are used to divide the interior of the Energy Tube. They most commonly perform the tasks of distributing the carrier's fill weight evenly and keeping dissimilar cables/hoses apart. Separators are removable and adjustable for a variety of chamber widths.



Separators

Unassembled Part No. 1685-01
 Assembled Part No. 1686-01

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



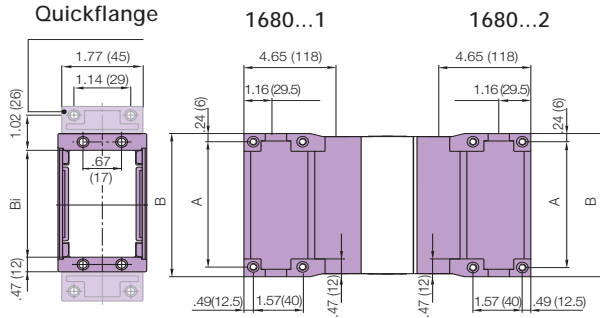
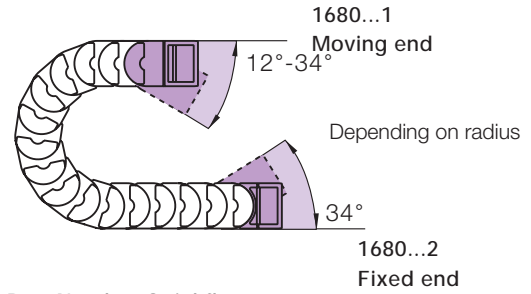
upon request



Mounting Brackets

Option 1: pivoting

- Pivoting
- Universal use
- Corrosion-resistant
- Locked connection to Energy Tube
- Long travels with lowered mounting height



Part Number Quickflange

- Unassembled
- 16800-QF



- 1680...12 = Full set, each part with pin/bore
- 1680...1 = Mounting bracket with bore
- 1680...2 = Mounting bracket with pin

Tube Type	Part Number Full Set	Part Number Quickflange	Dimension A		Dimension B	
			in.	(mm)	in.	(mm)
167/168-050	1680-050-12	1680-050-12QF	2.44	(62)	2.91	(74)
167/168-075	1680-075-12	1680-075-12QF	3.43	(87)	3.90	(99)
167/168-100	1680-100-12	1680-100-12QF	4.41	(112)	4.88	(124)
167/168-115	1680-115-12	1680-115-12QF	5.00	(127)	5.47	(139)
167/168-125	1680-125-12	1680-125-12QF	5.39	(137)	5.87	(149)
167/168-150	1680-150-12	1680-150-12QF	6.38	(162)	6.85	(174)
167/168-175	1680-175-12	1680-175-12QF	7.36	(187)	7.83	(199)
167/168-200	1680-200-12	1680-200-12QF	8.35	(212)	8.82	(224)
167/168-225	1680-225-12	1680-225-12QF	9.33	(237)	9.80	(249)
167/168-250	1680-250-12	1680-250-12QF	10.31	(262)	10.79	(274)

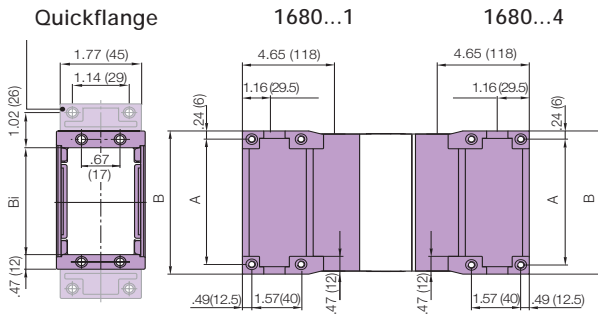
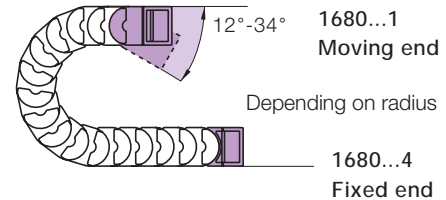
The following parts are required for attachment of the mounting brackets:

- Socket head cap bolt M5* DIN 912-8.8
8 pieces/set
- Washer 5.3 DIN 125-ST
8 pieces/set
- Hexagon nut M5 DIN 934-8
8 pieces/set

* The length of the socket head cap bolt is dependent on the thickness of the attachment base.

Option 2: locking (fixed end only)

- Vertical hanging/standing, unsupported
- Universal use
- Extreme accelerations and extreme speeds



Part Number Quickflange

- Unassembled
- 16800-QF



- 1680...14 = Full set, each part with pin/bore
- 1680...1 = Mounting bracket with bore
- 1680...4 = Mounting bracket with pin

Tube Type	Part Number Full Set	Part Number Quickflange	Dimension A		Dimension B	
			in.	(mm)	in.	(mm)
167/168-050	1680-050-14	1680-050-14QF	2.44	(62)	2.91	(74)
167/168-075	1680-075-14	1680-075-14QF	3.43	(87)	3.90	(99)
167/168-100	1680-100-14	1680-100-14QF	4.41	(112)	4.88	(124)
167/168-115	1680-115-14	1680-115-14QF	5.00	(127)	5.47	(139)
167/168-125	1680-125-14	1680-125-14QF	5.39	(137)	5.87	(149)
167/168-150	1680-150-14	1680-150-14QF	6.38	(162)	6.85	(174)
167/168-175	1680-175-14	1680-175-14QF	7.36	(187)	7.83	(199)
167/168-200	1680-200-14	1680-200-14QF	8.35	(212)	8.82	(224)
167/168-225	1680-225-14	1680-225-14QF	9.33	(237)	9.80	(249)
167/168-250	1680-250-14	1680-250-14QF	10.31	(262)	10.79	(274)

The following parts are required for attachment of the mounting brackets:

- Socket head cap bolt M5* DIN 912-8.8
8 pieces/set
- Washer 5.3 DIN 125-ST
8 pieces/set
- Hexagon nut M5 DIN 934-8
8 pieces/set

* The length of the socket head cap bolt is dependent on the thickness of the attachment base.

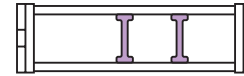
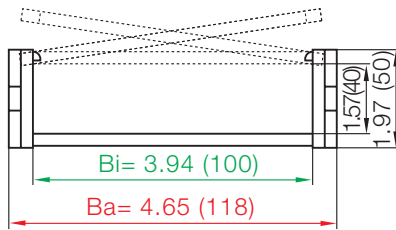
Order Example and Technical Data: Series R167/R168 "E2 Tubes"



R167
R168

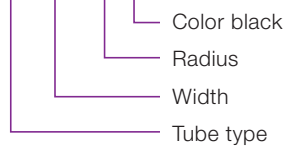
Order example

167-100...



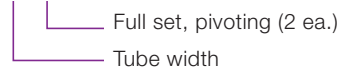
1. Tube selection:

167-100-100-0



2. Mounting brackets:

1680-100-12



3. Interior separation:

2 vertical separators unassembled (Part no. 1685-01), or assembled every other link (Part no. 1686-01).

For 16.4 ft (5 m) tube, color black, with pivoting mounting brackets:

16.4 ft (5 m) 167-100-100-0 and 1680-100-12



4. Other technical data on guide troughs available on request



Technical data

Tube Type	Weight Per Link		Weight	
	(oz.)	(g)	(lbs/ft)	(kg/m)
167/168-050	3.26	(≈ 93)	1.06	(≈ 1.580)
167/168-075	3.78	(≈ 108)	1.24	(≈ 1.840)
167/168-100	4.31	(≈ 123)	1.40	(≈ 2.090)
167/168-115	4.62	(≈ 132)	1.51	(≈ 2.240)
167/168-125	4.83	(≈ 138)	1.58	(≈ 2.350)
167/168-150	5.36	(≈ 153)	1.75	(≈ 2.600)
167/168-175	5.88	(≈ 168)	1.92	(≈ 2.860)
167/168-200	6.41	(≈ 183)	2.09	(≈ 3.110)
167/168-225	6.93	(≈ 198)	2.26	(≈ 3.370)
167/168-250	7.46	(≈ 213)	2.43	(≈ 3.620)

Material	igumid G
Permitted temperature	-40°/+266°F (-40°/+130°C)
Gliding speed max.	4.92ft/s (1.5 m/s)
Unsupported V max.	32.8 ft/s (10 m/s)
Flammability class	VDE 0304 IIC UL94 1H

● Details of material properties

► Design, Chapter 1

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



upon request