

Price index



Side-mounted -
unsupported



ESD classification:
Electrically conductive ESD/ATEX
version upon request



High torsional
rigidity



Opening E-Chains®: Remove crossbars and clips - Insert screwdriver into the slot, push down, release by lever action



Remove lids/bottoms (E-Tubes) - Insert screwdriver into the slot, release by lever action



When to use the Series 3838/3938/R7838:

- When high torsional or shearing forces are expected
- For side-mounted applications involving large unsupported lengths
- For long-term operation in very moist environments
- Also available as Rol E-Chain®



When not to use it:

- If a quieter version is required
- Series E4.42, page 7.48

- 1 High side-mount stability due to undercut
- 2 High torsional rigidity
- 3 Closed and open styles can be combined
- 4 Hinged snap-open removable lids along outer radius of E-Tube
- 5 Removable lids along inner radius
- 6 Crossbars on E-Chains® are removable along both radii
- 7 Lateral glide surfaces for side-mounted operation
- 8 Wide, rounded plastic crossbars - cable friendly
- 9 KMA mounting brackets with attachment points on all sides
- 10 Locking or pivoting mounting brackets available
- 11 E-Chain® also available with reverse bending radii



Rol E-Chain® Series
3838R/7838R available
upon request



Order example complete E-Chain®

Please indicate chain-lengths or number of links **Example:** 4 m or 60 links

4 m 3838.30.300.0



E-Chain®

with 2 separators 382 assembled every 2nd link



Interior separation

1 set 38380.30.12C



Mounting bracket

7.236



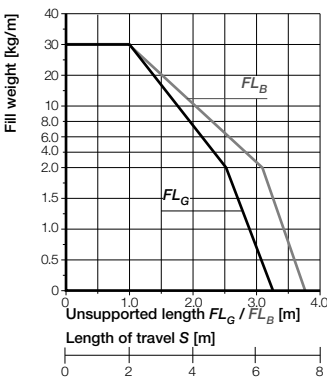
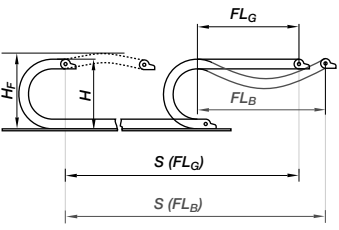
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

Unsupported length

FL_G = with straight upper run

FL_B = with permitted sag

Further information ► Design, page 1.12



- S = Length of travel
 - R = Bending radius
 - H = Nominal clearance height
 - H_F = Required clearance height
 - H_{Ri} = Trough inner height
 - D = Overlength E-Chain" radius in final position
 - $K = \pi \cdot R + \text{"safety"}$
 - D_2 = Over length - long travels, gliding
 - K_2 = "Further add-on
 - H_2 = "Mounting height
- *if the mounting bracket location is set lower

Other installation methods

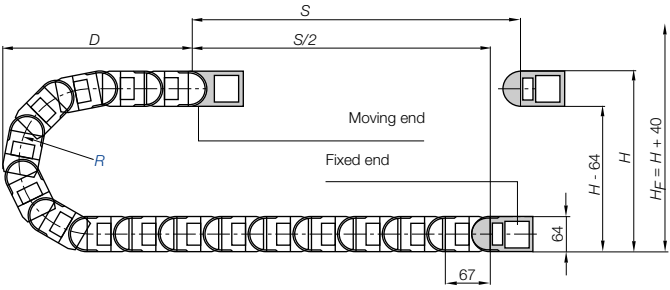
- Vertical, hanging ≤ 100 m
- Vertical, standing ≤ 6 m
- Side mounted, un supp. $\leq 2,5$ m
- Rotary requires further calculation
- Unsupported length of upper run = upon request



Short travels - unsupported

Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F . Please consult igus® if space is particularly restricted.

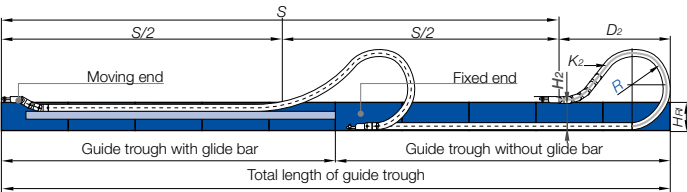
The required clearance height:
 $H_F = H + 40$ mm
(with 2,0 kg/m fill weight)



Pitch = 67 mm/link Links/m = 15 (1005 mm) Chain length = $S/2 + K$

R	075	100	115	125	150	170	200	215	250	300	350
$H_{-0.25}$	215	265	295	315	365	405	465	495	565	665	765
D	174	199	214	224	249	269	299	314	349	399	449
K	370	450	500	530	610	670	765	810	920	1080	1235
H ₂	215	265	186	186	186	186	186	186	186	186	186
D_2^{+25}	174	199	435	475	570	690	780	865	1010	1150	1500
K ₂	370	450	737	804	1005	1139	1340	1407	1675	1943	2412

Long travel lengths from 10 m to max. 280 m Chain length = $S/2 + K_2$



In case of travels between 4 and 10 m we recommend a longer unsupported length.



Gliding, long travel applications (max. 280 m)

In this case the E-Chain® upper run will be introduced in a guide trough on the lower run. We recommend to realize the engineering of such a plant by our technicians.

Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	max. 10 [m/s] / max. 50 [m/s²]
Material - permitted temperature °C	igumid G / -40° up to +120° C
Flammability class, igumid G	VDE 0304 IIC UL94 HB

Technical Data



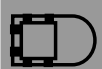
Details of material properties
► page 1.38

For support of the lower run - **Support Tray tool kit** available ► page 9.70

42

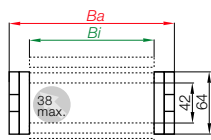
System E4/4
Inner height: 42 mm

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222



► page 7.223

7.237

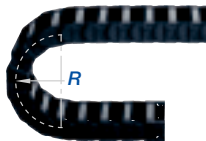


Part No. structure

3838. 400. 300. 0



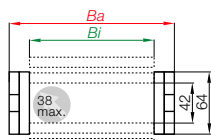
Series 3838 - E-Chain® with crossbars every link



- Crossbars every link
- For rigid hydraulic hoses
- For applications particularly demanding
- Can be opened from two sides

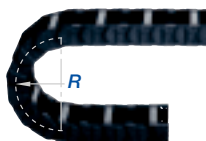


Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222



Part No. structure

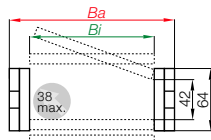
3938. 400. 300. 0


 Series 3938 - E-Chain® with crossbars every 2nd link


- Crossbars every 2nd link = Standard
- For nearly every situation
- Can be opened from two sides
- Easy assembly
- Stable
- Attractive price



igus® GmbH
51147 Cologne

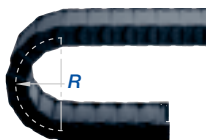


Part No. structure

7838. 25. 300. 0



Series R7838 - Fully enclosed E-Tube



- Fully enclosed
- Excellent cable protection against dirt
- Protection against hot chips (up to 900°C)
- 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.



Rol instead of gliding: Rol E-Chain®

Special solution for long travels. 75% less drive power (gliding application) with igus® Rol E-Chain®.

Series 3838R - Order example - 3838R.30.250.0

Further information: www.igus.de/en/role
or phone: +49-0 22 03-96 49-800



Internet: www.igus.eu
E-mail: info@igus.de

7.238

3D-CAD files, pdf-downloads ► www.igus.de/en/3838 · www.igus.de/en/3938 · www.igus.de/en/r7838

Part No.		Bi [mm]	Ba [mm]	3838 [kg/m]	3938 [kg/m]	R7838 [kg/m]
3838/3938/7838.05.	☐ .0*	50	77	≈ 2,06	≈ 1,98	≈ 2,25
3838/3938.06.	☐ .0	68	95	≈ 2,09	≈ 1,99	–
3838/3938/7838.07.	☐ .0	75	102	≈ 2,12	≈ 2,01	≈ 2,38
3838/3938.087.	☐ .0	87	115	≈ 2,18	≈ 2,04	–
3838/3938/7838.10.	☐ .0	100	127	≈ 2,25	≈ 2,08	≈ 2,60
3838/3938/7838.11.	☐ .0	108	135	≈ 2,30	≈ 2,10	≈ 2,65
3838/3938.112.	☐ .0	112	140	≈ 2,30	≈ 2,10	–
3838/3938/7838.12.	☐ .0	125	152	≈ 2,40	≈ 2,15	≈ 2,81
3838/3938.137.	☐ .0	137	165	≈ 2,44	≈ 2,17	–
3838/3938/7838.15.	☐ .0	150	177	≈ 2,53	≈ 2,21	≈ 3,07
3838/3938.162.	☐ .0	162	190	≈ 2,55	≈ 2,22	–
3838/3938/7838.17.	☐ .0	168	195	≈ 2,62	≈ 2,26	≈ 3,24
3838/3938.18.	☐ .0	175	202	≈ 2,62	≈ 2,26	–
3838/3938.187.	☐ .0	187	215	≈ 2,69	≈ 2,30	–
3838/3938/7838.20.	☐ .0	200	227	≈ 2,77	≈ 2,33	≈ 3,53
3838/3938.212.	☐ .0	212	240	≈ 2,84	≈ 2,37	–
3838/3938.23.	☐ .0	225	252	≈ 2,92	≈ 2,41	–
3838/3938.237.	☐ .0	237	265	≈ 2,96	≈ 2,43	–
3838/3938/7838.25.	☐ .0	250	277	≈ 3,05	≈ 2,47	≈ 4,33
3838/3938.262.	☐ .0	262	290	≈ 3,06	≈ 2,48	–
3838/3938.28.	☐ .0	275	302	≈ 3,17	≈ 2,53	–
3838/3938.29.	☐ .0	287	315	≈ 3,19	≈ 2,54	–
3838/3938/7838.30.	☐ .0	300	327	≈ 3,32	≈ 2,61	≈ 4,89
3838/3938.312.	☐ .0	312	340	≈ 3,34	≈ 2,62	–
3838/3938.325.	☐ .0	325	352	≈ 3,41	≈ 2,66	–
3838/3938.337.	☐ .0	337	365	≈ 3,46	≈ 2,68	–
3838/3938.350.	☐ .0	350	377	≈ 3,68	≈ 2,79	–
3838/3938.362.	☐ .0	362	390	≈ 3,74	≈ 2,82	–
3838/3938.375.	☐ .0	375	402	≈ 3,79	≈ 2,84	–
3838/3938.387.	☐ .0	387	415	≈ 3,85	≈ 2,87	–
3838/3938.400.	☐ .0	400	427	≈ 3,90	≈ 2,90	–

Available bending radii

R [mm] ☐075** ☐100** ☐115** ☐125 ☐150 ☐170 ☐200 ☐215 ☐250 ☐300 ☐350

Supplement Part No. with required radius. Example: 3838.400.☐300.0

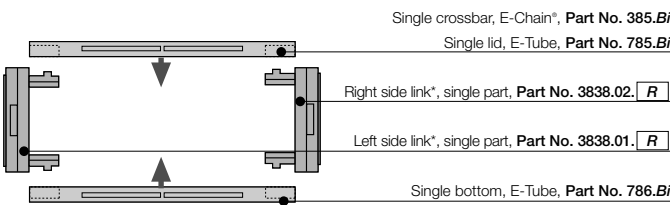
0 = standard color, other colors ► page 1.39 · Pitch = 67 mm/link · Links/m = 15

*Removable lid only, no hinged option · **not available for R7838

Hot Chips
up to 850°C

E-Tubes that repel hot chips, up to 850°C. Some applications, depending on amount and size of the chips, can burn or melt the surface. That is no longer the case with the igus® "igumid HT" material. Order example: Full E-Tube made of HT: **7838.30.150.0.HT** Lids made of HT: **7838.30.HTE.150.0**

*for long travels upon request
Further Information:
www.igus.de/en/HT
Delivery time
up to 4 weeks!



Part No. E-Chain® -
links, single parts

*View from the fixed point
of the E-Chain®/E-Tube

3D-CAD files, pdf-downloads ► www.igus.de/en/3838 · www.igus.de/en/3938 · www.igus.de/en/r7838



Vertical separators are used if a vertical subdivision is required. In the standard configuration, a separator is mounted at every second link. **Note:** Observe a lateral spacing of at least 25 mm (E-Tube)!

Standard



Vertical separator
381



Vertical separator
with a narrow base
3881



Vertical separator
381T



Spacer
381.XX



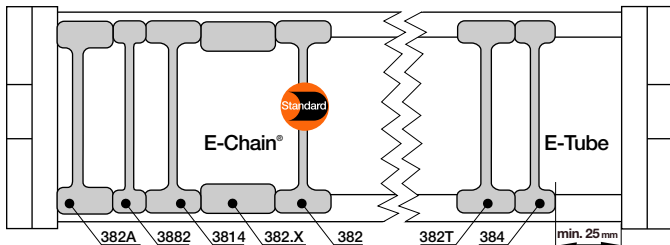
Locking separator
3804



Locking separator
383



Asymmetric
separator 381A



Vertical separator for E-Chains*

unassembled	381
assembled	382

Vertical separator* for E-Chains*

unassembled	3881
assembled	3882

Vertical separator for E-Tubes

unassembled	381T
assembled	382T

Spacer* for E-Chains*

unassembled	381.XX
assembled	382.XX

Locking separator for E-Chains*

unassembled	3804
assembled	3814

Locking separator for E-Tubes

unassembled	383
assembled	384

Asymmetric separator for E-Chains*

unassembled	381A
assembled	382A

*For side-mounted applications

Option 1: Vertical separators and spacers

● **Standard separator 381 for E-Chains®** offers safe stability due to its broad foot design, also when used with thick cables or hoses.

● **Vertical separator 3881 with a narrow foot (7 mm) for E-Chains®** with applications where a large number of small cables need to be individually separated.

● The **vertical separator 381T for E-Tubes** clamps to the fixed radius and remains free along the other radius to facilitate lid removal. If installing these yourself, please ensure that they are identically aligned.

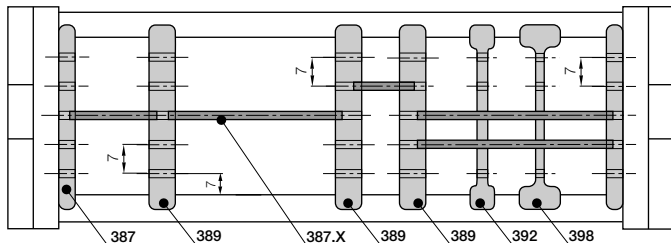
● Separators (e.g. "side mounted") for E-Chains® can be fixed in their position with **spacers 381.XX**. The available inner height will be reduced by 2 mm, per spacer and side. To avoid this, the parts can be assembled on outside of the crossbar (not for long travels) **XX = width of the spacer** (available 10, 15 and 20)

Additionally:

● **Locking separator 3804 for E-Chains®** - with increased retention force for applications exposed to very high humidity or extreme loads. The extra retention force is achieved by asymmetric claws for the crossbar. Ensure proper alignment.

● **Locking separator 383 for E-Chains®** - with increased retention force for applications exposed to very high humidity or extreme loads. The extra retention force is achieved by asymmetric claws for the crossbar. Ensure proper alignment.

● **Asymmetric separator 381A for E-Chains®** (not for E-Tubes) with an 14-mm base, for combinations between spacers of different widths and vertical separators in side-mounted



For use with many cables of differing diameters. E-Chains® and E-Tubes can be subdivided both vertically and horizontally. The shelves can be arranged eleva-tor-shifted with different bottoms

Option 2: Shelves

● Side plates 386, middle plates 388 and shelves 386.X form the basic pattern of a shelf system. Shelves of various widths can be arranged at 5 different heights (in 7 mm increments).

● Slotted separators 391 are used for very fine subdivisions. However, they cannot be retrofitted into an existing separation system without dismantling the interior separators first.

● The unilateral open slotted separator 397 can be retrofitted into an existing interior separation system without a need for dismantling the interior separators. During an installation of open slotted separators, the top and bottom notches cannot be occupied by shelves.



Side plate for E-Chains®/E-Tubes		
unassembled	386	
assembled	387	



Middle plate for E-Chains®/E-Tubes		
unassembled	388	
assembled	389	



Slotted separator for E-Chains®/E-Tubes		
unassembled	391	
assembled	392	



Open slotted separator for E-Chains®/E-Tubes		
unassembled	397	
assembled	398	

Width X [mm]	Part No. unassembled	Part No. assembled
018	386.18	387.18
023	386.23	387.23
025	386.25	387.25
028	386.28	387.28
033	386.33	387.33
043	386.43	387.43
050	386.50	387.50
054	386.54	387.54
062	386.62	387.62

Width X [mm]	Part No. unassembled	Part No. assembled
075	386.75	387.75
087	386.87	387.87
100	386.100	387.100
108	386.108	387.108
125	386.125	387.125
150	386.150	387.150
175	386.175	387.175
200	386.200	387.200
208	386.208	387.208



Side plate
386



Middle plate
388



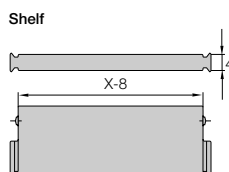
Slotted
separator
391



Open slotted
separator
397



Shelf 386.X



Shelf

System E4/4
Inner height: 42 mm

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222



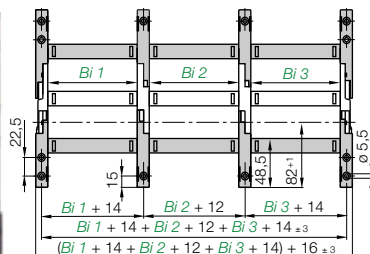
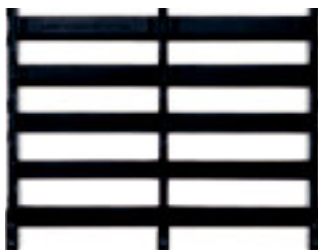
► page 7.223



Part No. structure
3838.10 /20 /10. 200 .0
3838.Bi1/Bi2/Bi3. R .0

Extension links - for extremely wide E-Chains® up to 3,0 m

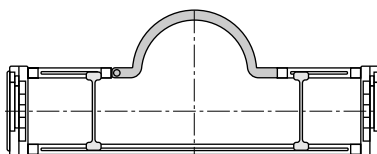
- For applications in which particularly high fill weights necessitate extremely wide E-Chains® (up to 3000 mm)
- The extension link design allows virtually limitless side-by-side attachment of chains
- The unsupported length of a chain can be increased when additional loads are required
- Extension links can be used with E-Chains®, E-Tubes or as a combination of both
- They are suitable for unsupported and gliding applications in a guide trough
- E-Chains® with extension links are attached with KMA or steel mounting brackets



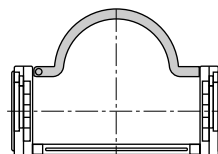
Consult igus® for your extender crossbar applications. We are happy to assist you with your design layout

Extender crossbars - careful guide of hoses applications

- Suitable for hoses with a maximum outer diameter of 115 mm
- Gliding operation with crossbars assembled along the outer radius and a special guide trough
- Gliding operation not guaranteed with crossbars assembled along the inner radius
- The extender crossbar can either be attached to the side links directly or can be used in combination with two stranded snap-open crossbars



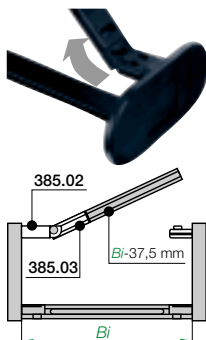
385.15RHD115 round extender crossbar combined with snap-open crossbars



385.18RD115 round strap assembled directly on the side section

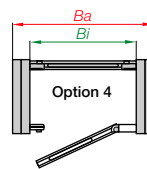
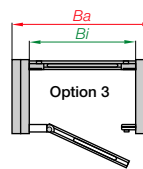
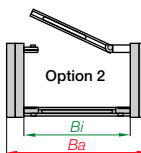
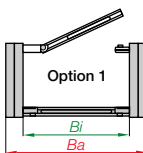
Part No.	Max Ø [mm] hose	Form	Installation side link	Combination with snap-open crossb.
385.15.RHD115	115	○	–	+
385.18.RD115	115	○	+	–

○ = round + = yes / – = no

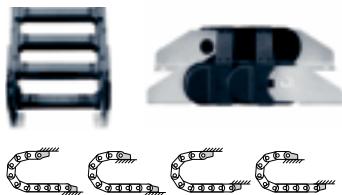


Hinged crossbars

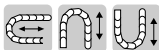
- Typically E-Chain® crossbars are completely removable. In cases where the snap-open crossbars have to remain at the open link of the E-Chain®, a hinged design has been developed
- Length: 37,5 mm **Part No. 385.02** / snap-open crossbar (shortened): Bi-37,5 mm **Part No. 385.03**
- Please consult igus® for design assistance



3D-CAD files, pdf-downloads ► www.igus.de/en/3838 · www.igus.de/en/3938 · www.igus.de/en/r7838



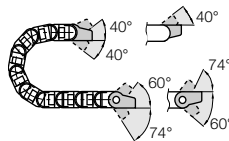
Possible installation conditions -
Further installation angles ► installation sketch



Option steel - pivoting

- For pivoting connections
- One part (two-piece) for all chain widths
- Electrically conductive

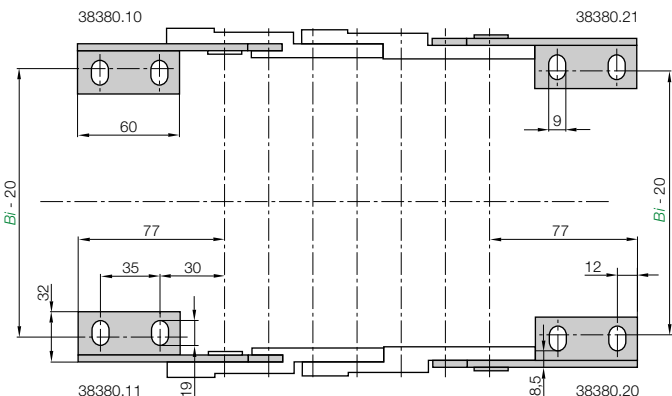
Moving end
38380.1



Fixed end
38380.2

Moving end
38380.1

Fixed end
38380.2



For E-Chain*	Part No. full set	Bi [mm]	For E-Chain*	Part No. full set	Bi [mm]
3838-3938-7838.05 ►	38380.12	50	3838-3938.23 ►	38380.12	225
3838-3938.06 ►	38380.12	68	3838-3938.237 ►	38380.12	237
3838-3938-7838.07 ►	38380.12	75	3838-3938-7838.25 ►	38380.12	250
3838-3938.087 ►	38380.12	87	3838-3938.262 ►	38380.12	262
3838-3938-7838.10 ►	38380.12	100	3838-3938.28 ►	38380.12	275
3838-3938-7838.11 ►	38380.12	108	3838-3938.29 ►	38380.12	287
3838-3938.112 ►	38380.12	112	3838-3938-7838.30 ►	38380.12	300
3838-3938-7838.12 ►	38380.12	125	3838-3938.312 ►	38380.12	312
3838-3938.137 ►	38380.12	137	3838-3938.325 ►	38380.12	325
3838-3938-7838.15 ►	38380.12	150	3838-3938.337 ►	38380.12	337
3838-3938.162 ►	38380.12	162	3838-3938.350 ►	38380.12	350
3838-3938-7838.17 ►	38380.12	168	3838-3938.362 ►	38380.12	362
3838-3938.18 ►	38380.12	175	3838-3938.375 ►	38380.12	375
3838-3938.187 ►	38380.12	187	3838-3938.387 ►	38380.12	387
3838-3938-7838.20 ►	38380.12	200	3838-3938.400 ►	38380.12	400
3838-3938.212 ►	38380.12	212			

38380.12 Full set, 4 parts

2 with pin / 2 with bore

Single-part order:

38380.1 Mounting bracket

moving end, 1 part left / right

38380.2 Mounting bracket

fixed end, 1 part left / right

Other strain relief elements

► chapter 10

Phone+49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

igus® GmbH
51147 Cologne

Internet: www.igus.de
E-mail: info@igus.de

7.244

3D-CAD files, pdf-downloads ► www.igus.de/en/3838 · www.igus.de/en/3938 · www.igus.de/en/r7838

Ba = Outer width E-Chains® / E-Tube Bi = Inner width E-Chains® / E-Tube ha = Outer height E-Chains® / E-Tube H_{Ri} = Inner trough height H_{Ra} = Outer trough height B_{Ri} = Inner trough width ► depends on dim. Ba B_{Ra} = Outer trough width n_{Mon} = Number of installation sets (left/right) n_{Ri} = Number of troughs sets (left/right)

$$H_{Ri} \geq 2 \cdot ha$$

$$B_{Ri} \geq Ba + 4$$

● = Guide trough set

● = Glide bar

● = Installation set "Basic" ● = C-profile

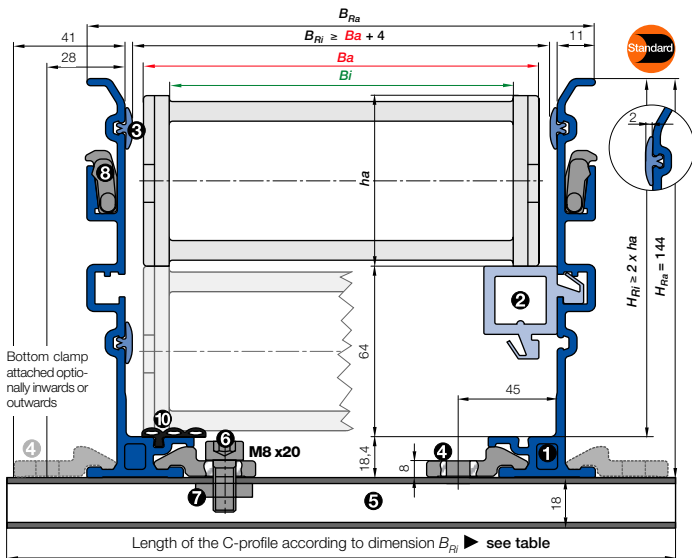
Installation set "Basic" with C-profile

Bottom Clamp attached optionally inwards or outwards

3838.05.300.0 ► Order example

B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.05 81	–	960.40.200
.06 99	–	960.40.225
.07 106	–	960.40.225
.087 119	960.40.175	960.40.250
.10 131	960.40.200	960.40.250
.11 139	960.40.200	960.40.275
.112 144	960.40.200	960.40.275
.12 156	960.40.225	960.40.275
.137 169	960.40.225	960.40.300
.15 181	960.40.250	960.40.300
.162 194	960.40.250	960.40.325
.17 199	960.40.250	960.40.325
.18 206	960.40.275	960.40.325
.187 219	960.40.275	960.40.350
.20 231	960.40.300	960.40.350
.212 244	960.40.300	960.40.375
.23 256	960.40.325	960.40.375
.237 269	960.40.325	960.40.400
.25 281	960.40.350	960.40.400
.262 294	960.40.350	960.40.425
.28 306	960.40.375	960.40.425
.29 319	960.40.375	960.40.450
.30 331	960.40.400	960.40.450
.312 344	960.40.400	960.40.475
.325 356	960.40.425	960.40.475
.337 369	960.40.425	960.40.500
.350 381	960.40.450	960.40.500
.362 394	960.40.450	960.40.525
.375 406	960.40.475	960.40.525
.387 419	960.40.475	960.40.550
.400 431	960.40.500	960.40.550

Insert for the installation set "Heavy-Duty": **973.50.XXX** instead of (960.40.XXX) on the right column "attached outwards"



● **Components, trough "Basic":** ① Trough side parts, aluminum, 2 m ② Glide bar, plastic, 2 m ③ Glide strips, plastic, 2 m (without glide strips on request) ⑩ Optional: Silencer profile, rubber ● **Components, installation set "Basic":** ④ Bottom clamp, aluminum ⑤ C-profile, steel galvanized ⑥ Screw M8 x20 ⑦ Sliding nut M8 ⑧ Interface connector, plastic



Order example: Length of travel 30 m - Center mounted for Series 3838.20.300.0 with $B_{Ri} = 231$

Guide trough set (set of 2 trough side parts, incl. glide strips) **without** glide bar**Order text: 16 m guide trough without glide bar (8 x 2 m sections)** Part No. **973.30.SL**Guide trough set (set of 2 trough side parts, incl. glide strips) **with** glide bar**Order text: 16 m guide trough with glide bar (8 x 2 m sections)** Part No. **973.31.SL**

Installation set "Basic" complete (guide trough-sets + 1)

Order text: 17 installation sets "Basic" Part No. **960.40.300**

Module for the fixed end

Order text: 1 set Part No. **973.81**

Option: For an additional noise dampening with silencer profile, please add Index A - Example:

Part No. **973.30.SLA**

Principle sketch: Number of installation sets to be installed = Number of trough sections + 1



A quick fix for mounting the stationary end of an E-Chain®

With this module for the fixed end, fast and easy mounting onto the Aluminum "SuperTrough" is now possible without any drilling. Fast mounting of the E-Chain® by clamping onto the aluminum trough

● Quick relocation of the stationary end ● No drilling necessary ► page 9.16

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

igus® GmbH
51147 Cologne

Internet: www.igus.eu
E-mail: info@igus.de

7.246

Details about Alu "SuperTrough" and further guidance possibilities ► chapter 9, Guide Troughs