



E2 R100

e-tubes for cost-effective protection against dirt and swarf



Advantages of the E2 R100 series:

- High level of protection against swarf (including hot swarf)
- Lids openable along the inner or outer radius, from both sides
- Robust and sealed
- Space-efficient with optimised ratio of inner to outer dimensions
- Light, easy to install and cost-effective
- Recommended for short travels and unsupported applications



When to use another e-tube:

- When larger interior heights are required ► R2.1 e-tubes, page 442
- When even higher strength is required ► R4.1L e-tubes, page 538
- When no swarf protection is required ► Series E2/000, page 374
- For extremely swarf-resistant e-tubes ► RX system, page 516
- When a particularly quiet operation is required using a smaller pitch
► E2 R e-tubes, page 492

E2 R100 e-tubes | Introduction | Advantages

Attachment from any side:
with KMA mounting
brackets

Swarf protection:
smooth, swarf-
resistant exterior

Long service life:
lateral gliding
surfaces

Fast assembly:
lids openable
along the inner
or outer radius,
from both sides

Space-saving:
optimised ratio of inner
to outer dimensions

Strong:
double stop-dog
system for long
unsupported lengths

Protected:
covered pin/bore
connection


Protection against dirt and swarf, cost- effective - E2 R100 e-tubes


Cost-effective, for applications with low and medium speeds. E2 R100 e-tubes work in hot swarf areas, in areas of dirt and dust generated by woodworking, steel-mills, pulp and paper, textile, agriculture, coal-fired plants and many other hostile environments.


- High level of protection against swarf (including hot swarf)
- Robust and sealed
- Space-efficient with optimised ratio of inner to outer dimensions
- Modular interior separation
- Universal KMA mounting brackets with attachment options from any side

Typical industries and applications

- Machine tools ● Wood processing machines
- General mechanical engineering ● In all areas with dirt and swarf

 e-tubes with igumid HT material for hot swarf up to +850°C available upon request

 Electrically conductive ESD e-tubes upon request

 UL94-V0 classification upon request

 **iF product design award**
2000 series R117/R118
2000

E2 R100 e-tubes | Selection table

Series	Inner height <i>hi</i> [mm]	Inner width <i>B</i> [mm]	Outer width <i>Ba</i> [mm]	Outer height <i>ha</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length \leq [m]	Page
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E2 R100 e-tubes -
lids openable along the inner radius,
from both sides

R117	21	20 - 100	32 - 112	28	063 - 180	1.20	472
R157	40	40 - 200	56 - 216	50	100 - 250	2.25	478
R167	50	50 - 250	68 - 268	64	100 - 300	2.50	486

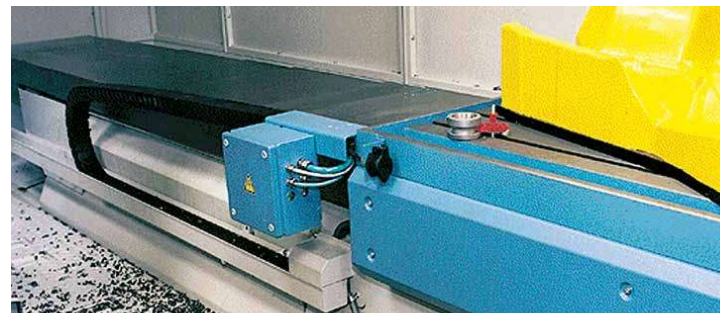


E2 e-tubes R100 -
lids openable along the
outer radius, from both sides

R118	21	25 - 80	37 - 92	28	063 - 180	1.20	472
R158	40	40 - 200	56 - 216	50	100 - 250	2.25	478
R168	50	50 - 200	68 - 218	64	100 - 300	2.50	486

 Available from stock. Ready to ship in 48 - 72hrs.*






*Average time before the ordered goods are dispatched.



igus® e-tubes provide safe protection for cables and can easily be opened

E2 R100 e-tubes | Technical data | Overview





Technical data

	Speed gliding ¹⁾ / acceleration gliding ¹⁾	upon request
	Speed FL_G / acceleration FL_G	≤ 10 [m/s] / ≤ 100 [m/s ²]
	Speed FL_B / acceleration FL_B	≤ 3 [m/s] / ≤ 6 [m/s ²]
	Material - permitted temperature °C, igumid G	-40°C / +120°C
	Flammability class, igumid G	VDE 0304 IIC UL94-HB

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








¹⁾ Gliding applications for long travels are available upon request, please consult igus®.

Installation types, maximum travels

Series	 Unsupported	 Vertical hanging	 Vertical standing	 Side mounted unsupported
R117 / R118	$\leq 2,5m$	$\leq 20m$	$\leq 2,0m$	$\leq 0,7m$
R157 / R158	$\leq 4,5m$	$\leq 40m$	$\leq 3,0m$	$\leq 1,0m$
R167 / R168	$\leq 5,0m$	$\leq 50m$	$\leq 3,0m$	$\leq 1,0m$


E2 R100 e-tubes | Options and order keys

Options with order keys | Examples based on series R167

 Standard	NC version - (No Camber) without pretension	e-tube - no burning-in of hot swarf up to 850°C	ESD - electrically conductive material
Part No. Standard	Part No. NC version	Part No. igumid HT	Part No. igumid ESD
			
 168.100.R.0+	168.100.R.0.+NC	168.100.R.0.+HT	168.100.R.0.+ESD
 Ready to ship in 48 - 72hrs.*	Ready to ship in 5 business days*	Ready to ship in 6 weeks*	Ready to ship in 12 business days*

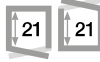
*Average time before the ordered goods are dispatched.

Order example | Order key and colour examples | Examples based on series R168

 Order example for complete e-tube (1.0m), colour black, with mounting brackets and interior separation:		
e-tube (1.0m)	Please indicate e-tube length or number of links: 1.0m or 17 links	168.100.100.0.+
+ Mounting brackets	KMA - 1 set	1680.100.12
Interior separation	with 2 separators assembled every 2 nd link	2 x 1686.01
Order text:	1m 168.100.100.0.+ + 1680.100.12 + 2 x 1686.01	

Order key	Order index for colour options
e-tube openable along the outer radius	Black Standard .0
e-tube openable along the inner radius	Orange Special colour .2
Series / Type	Silver-grey Special colour .31
Width index (depends on B)	Yellow Special colour .4
Bend radius R	White Special colour .1
Colour index (standard black)	Light grey Special colour .14
	Grey-white Special colour .1S
	Black e-chains® ready to ship in 48 - 72hrs.*
	Above special colours upon request.

E2 R100 e-tubes | R117·R118 | Product range
Swarf protection, even against hot swarf, cost-effective



e-tubes | Series R117 | Lids openable along the inner radius, from both sides
e-tubes | Series R118 | Lids openable along the outer radius, from both sides

Part No. e-tubes openable along the inner radius	Part No. e-tubes openable along the outer radius	Bi [mm]	Ba [mm]	R Available bend radii [mm]	R117 [kg/m]	R118 [kg/m]
117.020.R.0	-	20	32	063 075 100 110 125 145 180	≈ 0,43	≈ 0,43
117.025.R.0	118.025.R.0	25	37	063 075 100 110 125 145 180	≈ 0,46	≈ 0,46
117.038.R.0	-	38	50	063 075 100 110 125 145 180	≈ 0,56	≈ 0,56
117.048.R.0	118.048.R.0	48	60	063 075 100 110 125 145 180	≈ 0,66	≈ 0,66
117.063.R.0	-	63	75	063 075 100 110 125 145 180	≈ 0,76	≈ 0,76
117.080.R.0	118.080.R.0	80	92	063 075 100 110 125 145 180	≈ 0,89	≈ 0,89
117.100.R.0	-	100	112	063 075 100 110 125 145 180	≈ 1,06	≈ 1,06

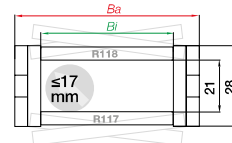
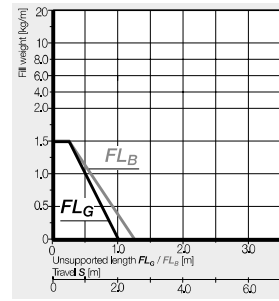
Complete Part No. with required radius (R). Example: 118.080.100.0

Hot swarf up to +850°C for e-tubes

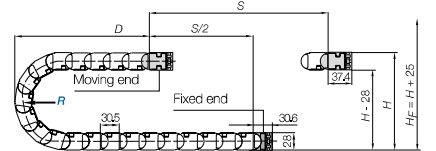
- e-tubes can repel swarf up to +850°C, Special production option with the igus® material igamid HT
 - No hot swarf melting or embedding into the chain
- More information ► www.igus.eu/HT



E2 R100 e-tubes | R117·R118 | Installation dimensions
Unsupported applications | Short travels



Inner height [mm]	21
Pitch [mm/link]	30.5
Links/m	33
corresponds to [mm]	1,006.5
e-tube length $L_k = S/2 + K$	



R	063	075	100	110	125	145	180
H	154	178	228	248	278	318	388
D	123	135	160	170	185	205	240
K	260	300	380	410	455	520	630

The required clearance height: $H_F = H + 25\text{mm}$ (with 1.0kg/m fill weight)



i If a gliding application is required for a long travel, please consult igus®.