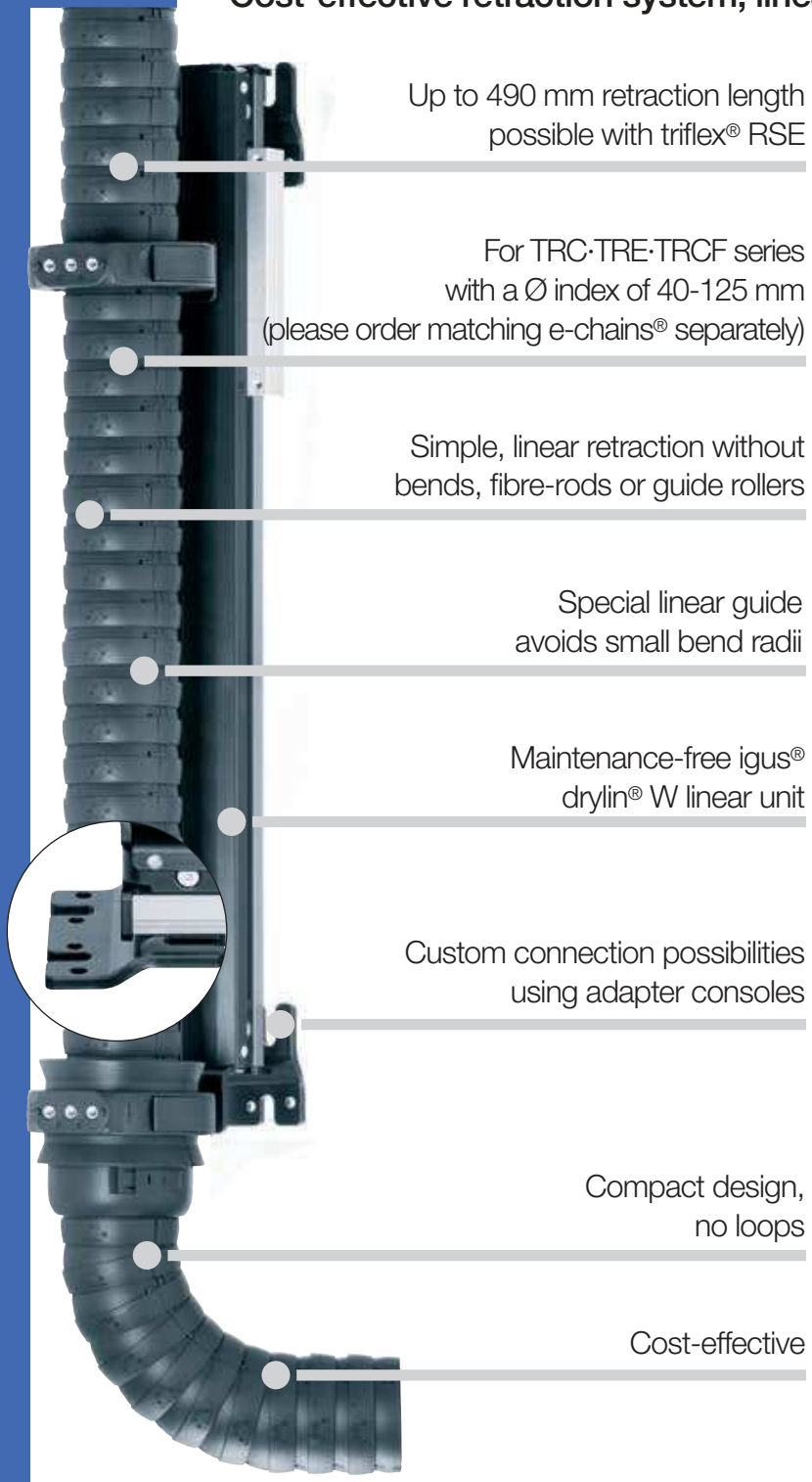
RSE linear | For series TRC·TRE·TRCF | Accessories

Cost-effective retraction system, linear New | Advantages



Cost-effective, linear retraction system - triflex® RSE linear

The more complex the automated production technology, the greater are the requirements placed on energy supply systems. It is increasingly the case that not only electric power and fluids have to be supplied to production robots; but also laser cables and supply hoses for rivets, pins and screws. As these often cannot function with small bend radii, the new triflex® RSE relies on very easy linear retraction without curves and spring rods or deflection rollers. The purpose of the triflex® RSE retraction system is to hold the e-chain® as closely as possible to the robot arm in order to prevent the e-chain® from intruding upon or blocking the robot's movements.

- | For series TRC·TRE·TRCF with a ø-index of 40-125 mm
- Linear guide avoids small bend radii
- Up to 490 mm retraction length possible
- Simple, linear retraction without bends, fibre-rods or guide rollers
- Cost-effective
- Maintenance-free igus® drylin® W linear unit

Optional accessories | RSE linear, cost-effective linear retraction system

Adapter consoles - for custom mounting options

Axis 6 clamp - for triflex® R mounting bracket

RSE linear | For TRC·TRE·TRCF | Application example

RSE - **R**(etraction) **S**(ystem) **E**(lastic)

igus® TR.RSE system on test robot

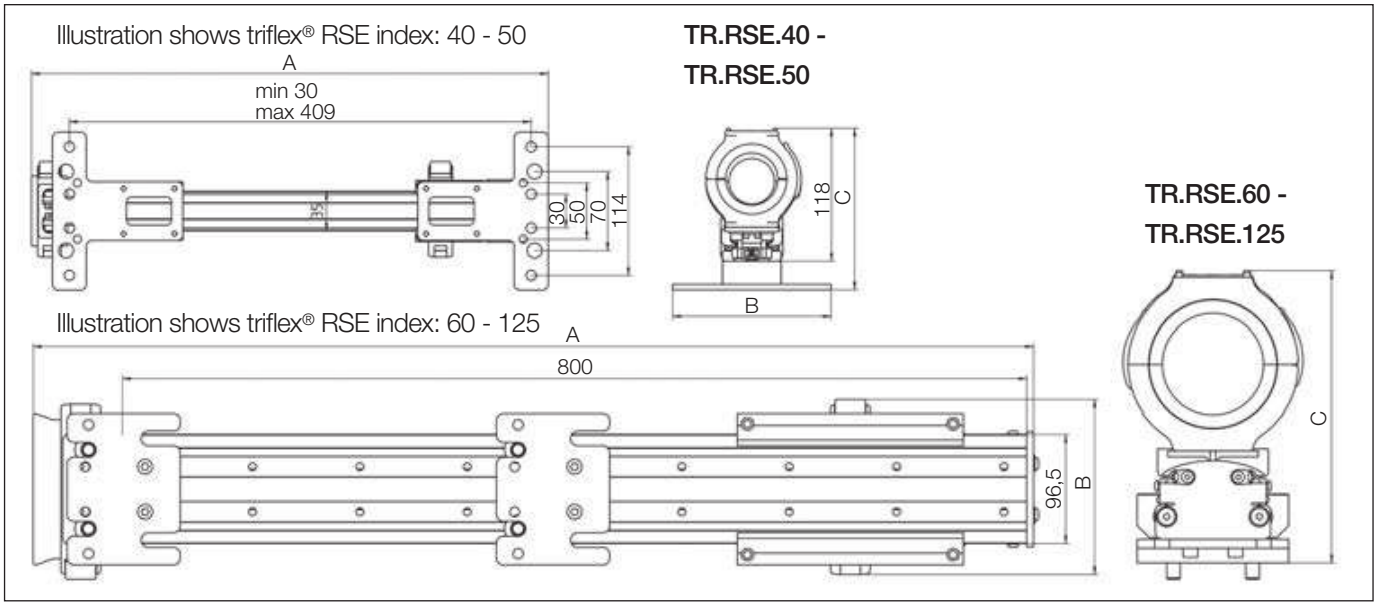
Lightweight, linear TR.RSE.40 retraction system for small robots

Linear TR.RSE retraction system for installation sizes 60-125 with attachment brackets for a wide variety of robot models

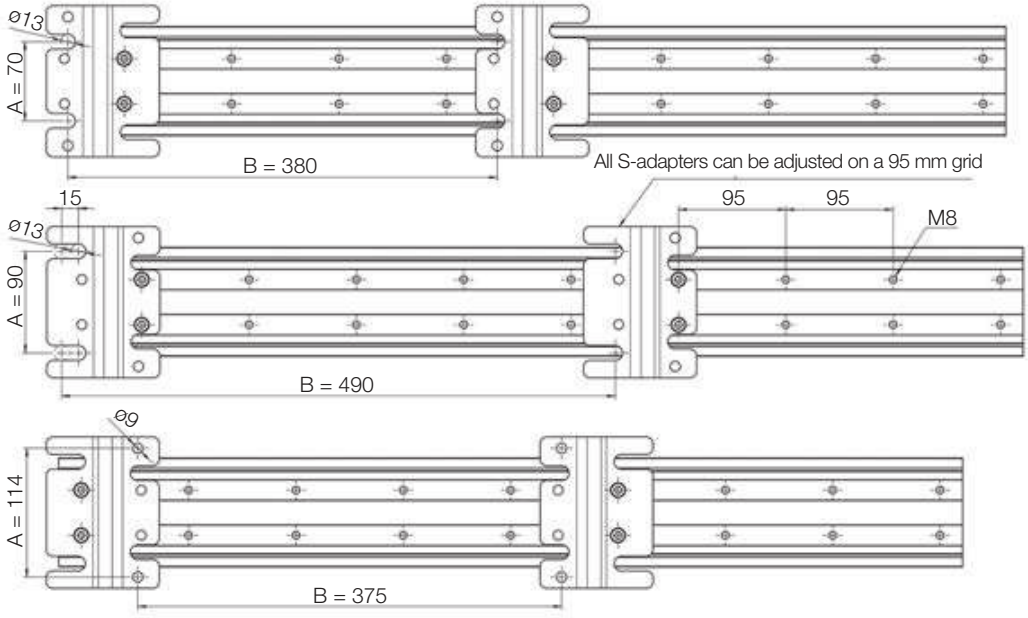
RSE linear | For series TRC·TRE·TRCF | Accessories

Technical data

Dimensions | RSE linear, cost-effective linear retraction system



Possible installation positions for TR.RS.60 - TR.RS.125 | RSE linear



Installation position01

Installation position 02

Installation position03

Installation position01

A [mm]	B [mm]	Thread size
70	190	M12
70	285	M12
70	380	M12
70	475	M12
70	570	M12
70	665	M12
70	760	M12

Installation position 02

A [mm]	B [mm]	Thread size
90	175 - 205	M12
90	270 - 300	M12
90	365 - 395	M12
90	460 - 490	M12
90	555 - 585	M12
90	650 - 680	M12
90	745 - 775	M12

Installation position 03

A [mm]	B [mm]	Thread size
114	185	M8
114	280	M8
114	375	M8
114	470	M8
114	565	M8
114	660	M8

RSE linear | For series TRC·TRE·TRCF | Accessories

Product range

Product range | RSE linear, cost-effective linear retraction system

Ø Index	Part No. RSE linear	Retraction length[1] ≤ [mm]	A [mm]	B [mm]	C [mm]	Weight* [kg]
30.	–	–	–	–	–	–
40.	**TR.RSE.40**	290	457	140	143	1.4
50.	**TR.RSE.50**	290	475	140	151	1.7
60.	**TR.RSE.60**	490	868	134	231	9.9
65.	**TR.RSE.65**	490	880	134	231	10.0
70.	**TR.RSE.70**	490	878	155	258	10.0
85.	**TR.RSE.85**	490	885	155	258	10.0
85. (*R 240*)	**TR.RSE.85**	490	885	155	258	10.0
100.	**TR.RSE.100**	490	886	170	264	10.2
125.	**TR.RSE.125**	490	876	190	280	10.5

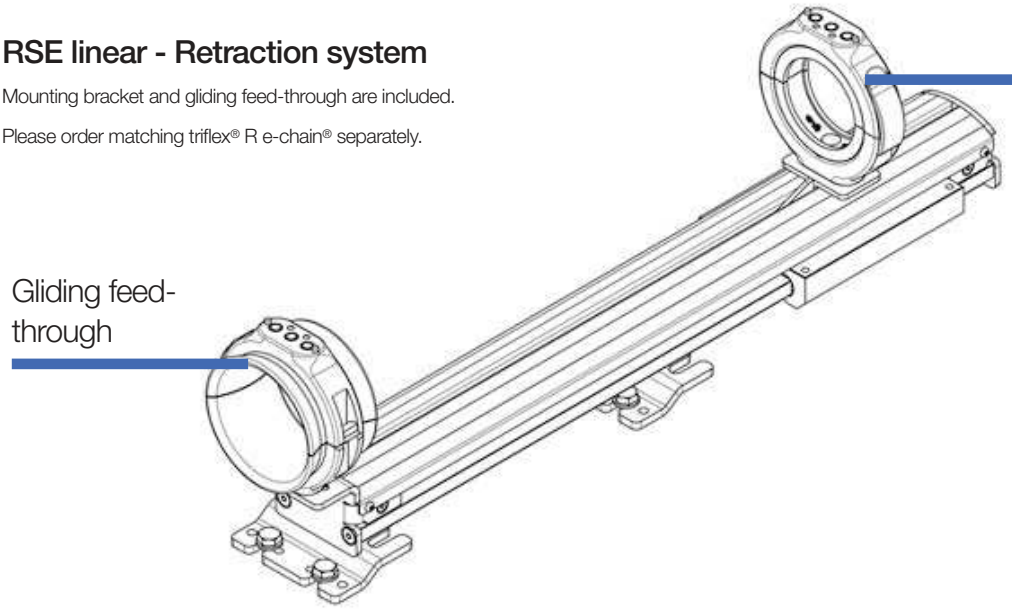
1) These are the maximum values. In normal operation a filling of no more than 70% is advised.

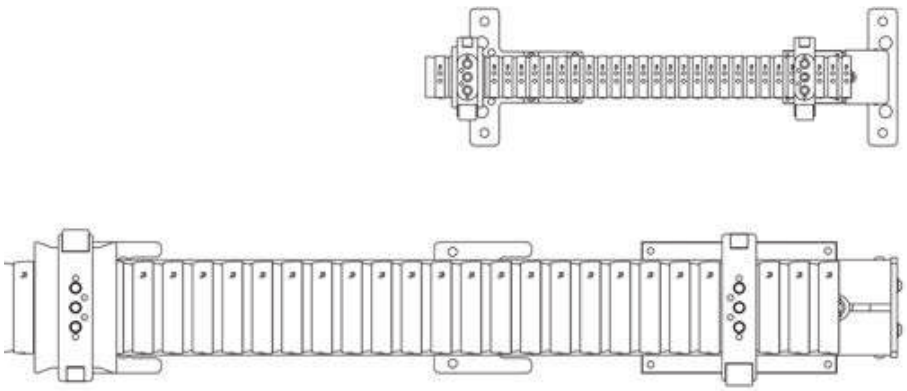
Please order matching triflex® R e-chain® separately.

RSE linear - Retraction system

Mounting bracket and gliding feed-through are included.

Please order matching triflex® R e-chain® separately.





Order key

TR.RSE.XXX

- Ø Index
- System
- e-chains® series

RSE linear | For series TRC·TRE·TRCF | Accessories

RSE retraction system and matching e-chain®

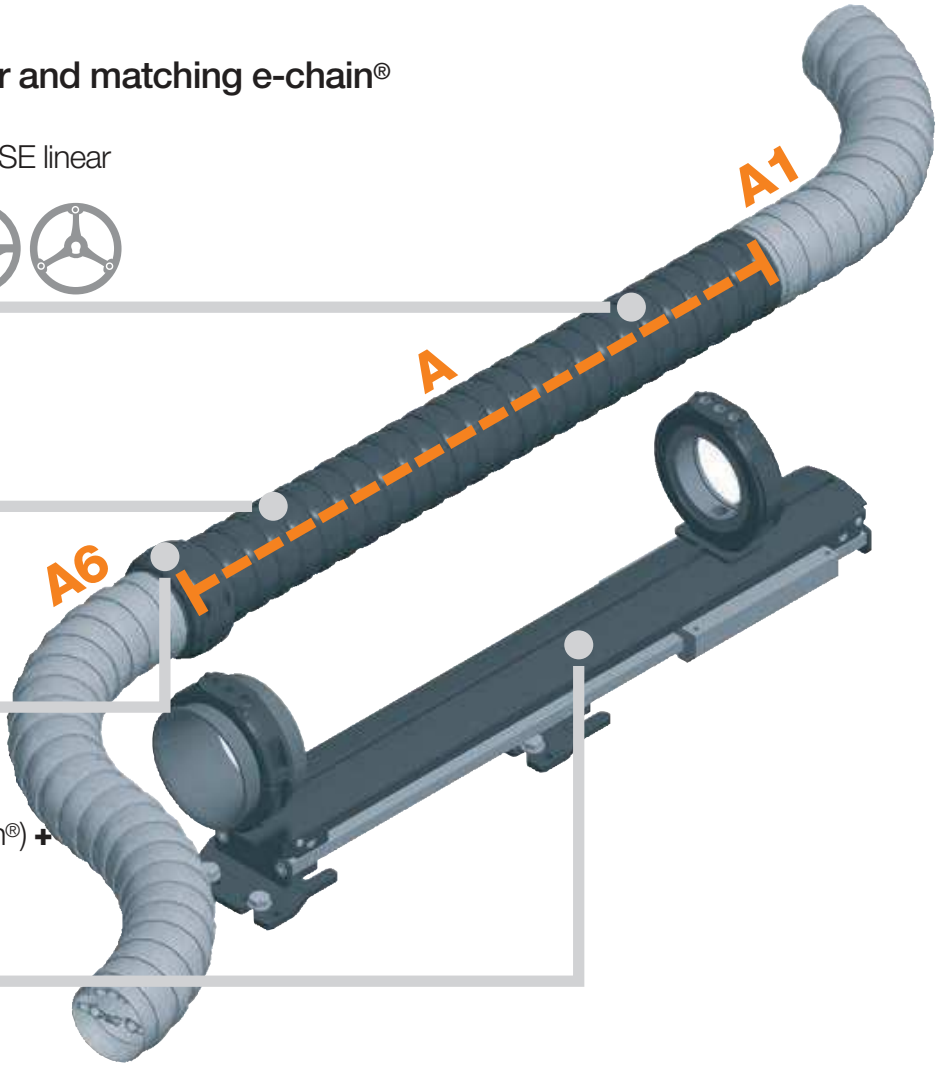
System design | RSE linear and matching e-chain®

Matching triflex® R e-chain® for RSE linear
TRC .XX.*R*.0
TRE .XX.*R*.0.B
TRCF.XX.*R*.0

Excess length in direction **A1** +
Dimension **A** +
Excess length in direction **A6** =
Total e-chain® length

Limit protector

RSE linear system (without e-chain®) +
Mounting bracket +
Gliding feed-through =
TR.RSE.XX



Sample order of a complete TR.RSE linear system, Ø index 40, and e-chain® (length: 2 m)

System	Insert Ø index **XX**	**TR.RSE.40**
+ e-chain®	Insert Ø index **XX** / Insert bend radius ***R*** / Insert standard length LLLL in metres	**2 m TRC.40.058.0**
+ Protector	Protector with quick-lock fastener	**TR.40.30**
Order text:	**TR.RSE.40. + 2 m TRC.RSE.40.058.0 + TR.40.30**	

TRC .XX.*R*.0
TRE .XX.*R*.0.B
TRCF.XX.*R*.0

- Default colour black
- ***R*** Bend radius
- Ø Index
- e-chains® series

RSE linear | For series TRC·TRE·TRCF | Accessories

RSE e-chains® and cable length calculation

Product range | Matching e-chains® and protectors for RSE linear

Ø Index	Part No. **TRC** enclosed	Part No. **TRE** "easy" design	Part No. **TRCF** with snap lock mechanism	Protector with screw fastener	Protector with quick-lock fastener
30.	–	–	–	–	–
40.	TRC.40.058.0	TRE.40.058.0.B	–	TR.40.10	TR.40.30
50.	TRC.50.080.0	TRE.50.080.0.B	–	TR.50.10	–
60.	TRC.60.087.0	TRE.60.087.0.B	–	TR.60.10	TR.60.30
65.	–	–	TRCF.65.100.0	TR.65.10	–
70.	TRC.70.110.0	TRE.70.110.0.B	–	TR.70.10	TR.70.30
85.	TRC.85.135.0	TRE.85.135.0.B	TRCF.85.135.0	TR.85.10	TR.85.30
85. (*R* 240)	–	–	TRCF.85.240.0	TR.85.240.10	–
100.	TRC.100.145.0	TRE.100.145.0.B/C[1)]	TRCF.100.145.0	TR.100.10	TR.100.30
125.	TRC.125.182.0	TRE.125.182.0.B	–	TR.125.10	–

1) Available for B- and C-versions

Please order e-chains® as piece parts and purchase a protector for each one.

Please order protectors with screw connections or quick release as limit protectors.

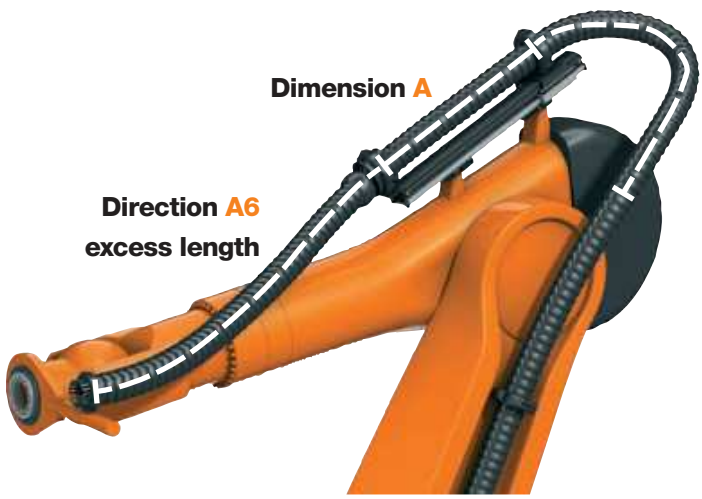
To calculate the total chain length, add the desired excess length from axis 1 and axis 6 to dimension A (lower table). Additionally, at least 1 limit protector must be ordered.

Please note that all triflex R e-chains can be lengthened and shortened individually and can be customized to meet the needs of your application.

Calculating the overall chain length | RSE e-chains®

Ø Index	Bend radius *R* [mm]	A [mm]
30.	–	–
40.	058	390
50.	080	390
60.	087	750
65.	100	750
70.	110	750
85.	135	750
85. (*R* 240)	–	750
100.	145	750
125.	–	750

Excess length in direction **A6** + Dimension **A** +
Excess length in direction **A1** = **Total chain length**



triflex® R length calculation for RSE linear