

Robotic equipment

MATERIAL PROPERTIES



Materials used

MECHANICAL PROPERTIES



Protection class



Crush resistance

THERMAL PROPERTIES



Temperature / temperature range

FIRE BEHAVIOR



Fire classification

GENERAL TECHNICAL DATA



Additional information

APPROVALS AND OPERATING PERMITS



EU railway approval
EN 45545-2 : 2016



CSA approval



cULus approval



cURus approval



VDE approval



EX approval



ROBI approval

TECHNICAL INFORMATION



Halogen-free
DIN 53474



UV resistant

CONFORMITY



RoHS (EC Directive 2002/95/EC)

ROBOTIC SYSTEM PARTS

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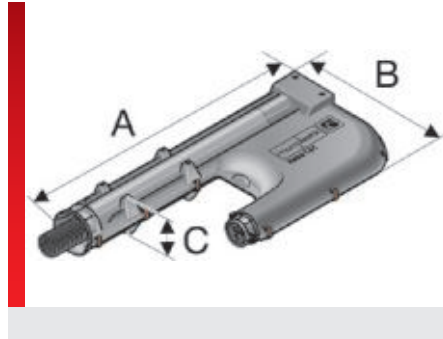




R-TecBox

R-TecBox

R-TecBox



PRODUCT INFORMATION

With their R-TecBox design, Murrplastik has succeeded in creating a new system for optimum management of energy packages from axis 3 to axis 6 of industrial robots. In this specially designed housing with the unique, integrated spring return system, the energy packet is transported safely and effectively in a low-wear manner within the smallest space.

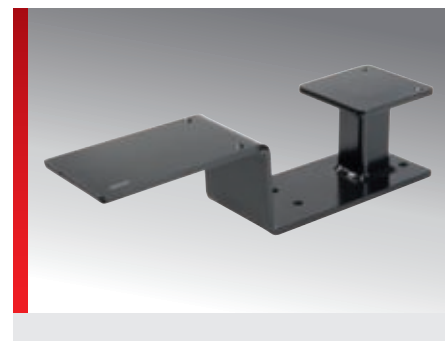
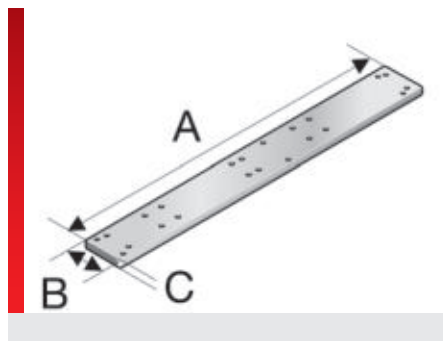
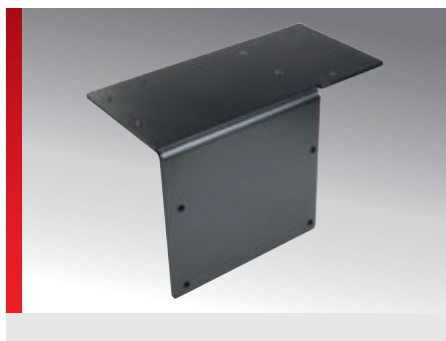
SPECIFICATIONS

- 40 – 284 °F Short periods 320 °F
- mod. polypropylene
-

Type	Part number	Color	Suitable for EW-PAE conduit type	Suitable for EWX-PAE conduit type	A inch	B inch	C inch	Stroke inch	Pack qty.
R-Tec Box-S EW 29 MP - 35N	83692693	black	M32/P29		19.96	11.22	4.33	10.63	1
R-Tec Box-S EWX 29 MP - 35N	83692695	black		M32/P29	19.96	11.22	4.33	10.63	1
R-Tec Box-S EW 36 MP - 35N	83692696	black	M40/P36		19.96	11.22	4.33	10.63	1
R-Tec Box-S EWX 36 MP - 35N	83692697	black		M40/P36	19.96	11.22	4.33	10.63	1
R-Tec Box EW 36 MP - 80N	83692650	black	M40/P36		28.74	13.50	5.43	15.75	1
R-Tec Box EWX 36 MP - 80N	83692652	black		M40/P36	28.74	13.50	5.43	15.75	1
R-Tec Box EW 48 MP - 100N	83692654	black	M50/P48		28.74	13.50	5.43	15.75	1
R-Tec Box EWX 48 MP - 100N	83692656	black		M50/P48	28.74	13.50	5.43	15.75	1
R-Tec Box EWX 48-KB MP - 100N ¹⁾	83692633	black		M50/P48	28.74	13.50	5.43	15.75	1
R-Tec Box EW 48 MP - 120N	83692664	black	M50/P48		28.74	13.50	5.43	15.75	1
R-Tec Box EWX 48 MP - 120N	83692665	black		M50/P48	28.74	13.50	5.43	15.75	1
R-Tec Box EW/EWX 56 MP - 200N	83692658	black	56 Jumbo	56 Jumbo	36.91	16.93	6.93	23.62	1
R-Tec Box EW/EWX 70 MP - 200N	83692660	black	70 Jumbo	70 Jumbo	36.91	16.93	6.93	23.62	1
R-Tec Box EW/EWX 70-KB MP - 200N ¹⁾	83692662	black	70 Jumbo	70 Jumbo	36.91	16.93	6.93	23.62	1

¹⁾ with strain relief V-ZLT-70KB

System plate for R-TecBox



PRODUCT INFORMATION

System plate for mounting a R-TecBox on axis 3. Adapted to production series of various manufacturers.

The listed system plates are examples only. Contact us for the proper size for you.

SPECIFICATIONS



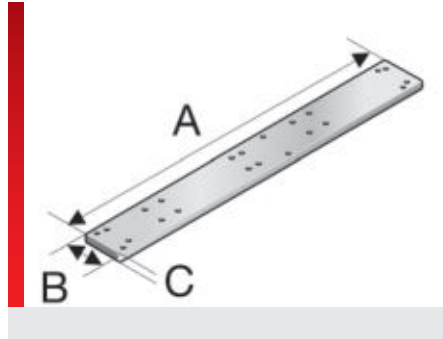
Powder coated Sheet steel



Type	Part number	Color	A inch	B inch	C inch	Pack qty.
Kuka						
A3 Kuka KR6 base plate	83692751	black	11.61	1.97	1.26	1
Kuka KR16 base plate ¹⁾	83692750	black	16.54	3.54	0.20	1
Suitable for: KR5 arc, KR6-2, KR16-2, KR16 L6-2, KR20-3, KR16-2 F, KR16-2 KS-F, KR16 L6-2 KS, KR 16-2 CR						
Kuka KR30 - KR60 base plate ¹⁾	83692757	black	18.31	4.49	0.24	1
Suitable for: KR30-3, KR30 L16-2, KR60-3, KR30-3 F, KR30-4 KS-F, KR30-4 KS, KR30-3 CR, KR30 HA, KR60-3 F, KR60-4 KS-F, KR60-4 KS, KR60 L16-2 KS, KR60 HA						
Kuka Quantec/series 2000 base plate ²⁾	83692620	black	29.92	5.12	0.31	1
Suitable for: KR90 R2700 pro, KR120 R2500 pro, KR90 R3100 extra, KR120 R2900 extra, KR150 R2700 extra, KR180 R2500 extra, KR 210 R2700 extra, KR90 R3100 extra F-HP, KR120 R2900 extra F-HP, KR150 R2700 extra F-HP, KR180 R2500 extra F-HP, KR150 R3100 prime, KR180 R2900 prime, KR210 R2700 prime, KR240 R2500 prime, KR240 R2700 prime						
ABB						
Base plate ABB IRB series 1600 ¹⁾	83692762	black	12.20	7.20	0.24	1
Base plate ABB IRB series -1.85 ³⁾	83692763	black	13.03		0.24	1
Base plate ABB series 6400 ⁴⁾	83692623	black	17.72	8.98	0.31	1
Base plate ABB series 4600 ²⁾	83692625	black	30.31	6.02	0.20	1
ABB 6600/6640/6650/6700 series base plate ²⁾	83692622	black	19.69	5.51	0.24	1
Base plate ABB IRB series 6620 ²⁾	83692627	black	19.69	5.51	0.24	1
R-Tec Box, ABB IRB 6640 base plate	82390028	black				1
Base plate ABB IRB series 7600 ⁴⁾	83692764	black			0.31	1
Fanuc						
R-Tec Box Fanuc M710 base plate ⁵⁾	82390043	black	14.23	9.53	0.24	1
Fanuc M-900 base plate ²⁾	83692755	black	13.78	5.12	0.24	1
Fanuc M-900iA350/600 base plate ²⁾	83692624	black	15.35	4.72	0.31	1

System plate for R-TecBox (Continued...)

R-TecBox



Type	Part number	Color	A inch	B inch	C inch	Pack qty.
Base plate Fanuc series 2000 iB/iA ²⁾	83692621	black	13.66	5.51	0.24	1
Motoman						
Motoman MS165 base plate ¹⁾	83692761	black	11.81	3.54	0.20	1
Motoman MH50 base plate ⁵⁾	83692628	black	25.98	4.72	0.31	1
suitable for Yaskawa: MH50-20II,						
Motoman MS165, MH165 base plate ²⁾	83692629	black	30.31	6.30	0.24	1
suitable for Yaskawa: ES165RDII, ES200RDII, MH180, MH180-120, MH225, MH280II, MS210, MS165						

¹⁾ Suitable for R-TecBox-S 29/36

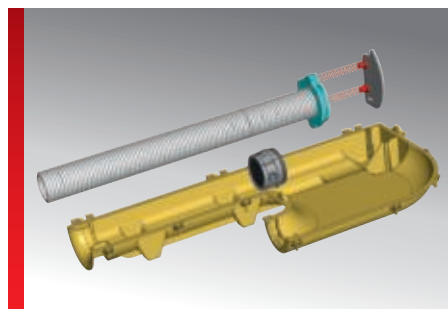
²⁾ suitable for KEG-K M40 and KEG-K M50

³⁾ Suitable for R-TecBox-S 29/36 & R-TecBox 36/48

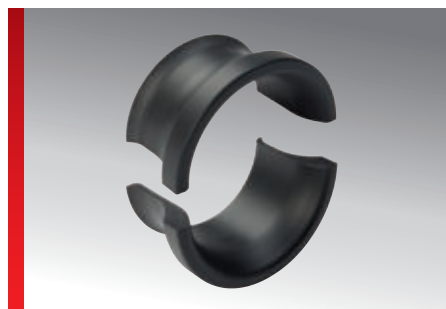
⁴⁾ Suitable for R-TecBox 56/70 and R-TecLiner 56/70

⁵⁾ Suitable for R-TecBox M40/M50

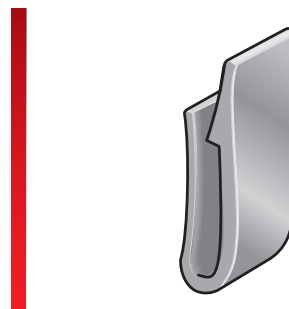
Replacement parts for R-TecBox



R-TecBox



Wear ring



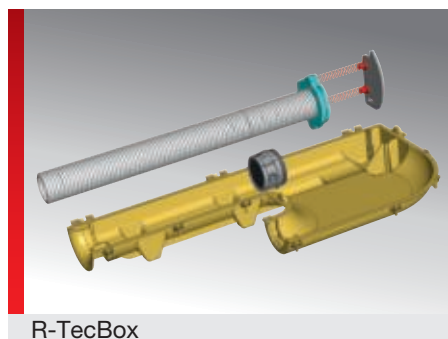
SCH Locking clip

PRODUCT INFORMATION

Replacement parts for R-TecBox

Type	Part number	Color	Pack qty.
Spring set			
Spring Set 29/36 35N ¹⁾	83692679	Silver	1
Spring Set 36/48 80N ¹⁾	83692685	Silver	1
Spring Set 36/48 100N ¹⁾	83692686	Silver	1
Spring Set 36/48 120N ¹⁾	83692687	Silver	1
Spring Set 56/70 200N ¹⁾	83692688	Silver	1
Slider set			
R-Tec Box-S EW 29 slider set ²⁾	83692671	black	1
R-Tec Box-S EWX 29 slider set ²⁾	83692673	black	1
R-Tec Box-S EW 36 slider set ²⁾	83692675	black	1
R-Tec Box-S EWX 36 slider set ²⁾	83692677	black	1
Slider set EW 36 ²⁾	83692670	black	1
Slider set EWX 36 ²⁾	83692672	black	1
Slider set EW 48 ²⁾	83692674	black	1
Slider set EWX 48 ²⁾	83692676	black	1
Slider set EW/EWX 56 ²⁾	83692678	black	1
Slider set EW/EWX 70 ²⁾	83692680	black	1
Mounting set			
Set 29/36 mounting set ³⁾	83692681	-	1
Set 36/48 mounting set ³⁾	83692682	-	1
Set 56/70 mounting set ³⁾	83692684	-	1
Thread bushing			
ELH 8s bushing	83692630	Gold	6
Suitable for R-TecBox-S 29/36 & R-TecBox 36/48			

Replacement parts for R-TecBox (Continued...)



R-TecBox



Wear ring



SCH Locking clip

Type	Part number	Color	Pack qty.
ELH 12s bushing	83692632	Gold	6
Suitable for R-TecBox 56/70 and R-TecLiner 56/70			
Wear ring for R-TecBox			
R-TecBox NW 56/70 wear ring	83692716	black	1
Locking clip for manual opening for SH system holder... as well as R-TecBox			
SCH circlip, rt	83980022	Red	10
Robotic access tools			
Robotic access tools	83980312	Red	1
for opening the locking clip at the SH system holder... as well as the R-TecBox			
Position markers for EW, EW-LS, EWT and EWX			
Position marker - 36 - green	83692636	Green	5
Position marker - 36 - yellow	83692641	Yellow	5
Position marker - 36 - red	83692646	Red	5
Position marker - set 36	83692690	Green / yellow / red	1
Position marker - 48 - green	83692637	Green	5
Position marker - 48 - yellow	83692642	Yellow	5
Position marker - 48 - red	83692647	Red	5
Position marker - set 48	83692692	Green / yellow / red	1
Position marker - 56 - green	83692638	Green	5
Position marker - 56 - yellow	83692643	Yellow	5
Position marker - 56 - red	83692648	Red	5
Position marker - set 56	83692694	Green / yellow / red	1
Position marker - 70 - green	83692639	Green	5
Position marker - 70 - yellow	83692644	Yellow	5
Position marker - 70 - red	83692649	Red	5
Position marker - set 70	83692698	Green / yellow / red	1

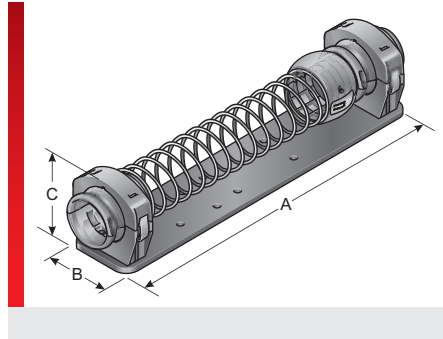
¹⁾ consisting of: 2x tension spring incl. installation hardware

²⁾ consisting of: 1x slider incl. installation hardware

³⁾ consisting of: ELH bushing, cover caps and installation hardware



Recirculation system 21/29






Recirculation system

PRODUCT INFORMATION

The recirculation system is designed to be an easy, space-saving alternative to the Murrplastik R-TecBox-S and can handle a length adjustment of 150 mm. The system is very suitable for small robots, such as FANUC M20iA or KUKA KR6/KR10.

As long as the hole pattern fits, the recirculation system can be mounted directly on the robot or attached with spacer sleeves. If the hole pattern does not match, an additional adapter plate will be necessary for the installation.

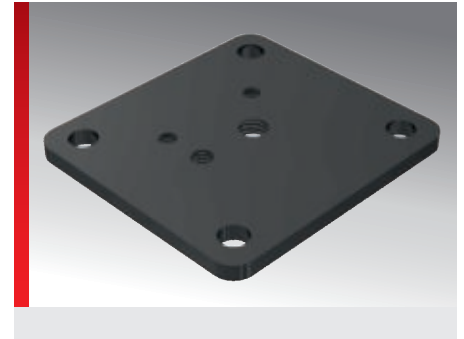
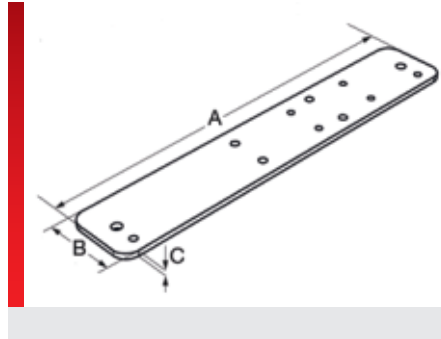
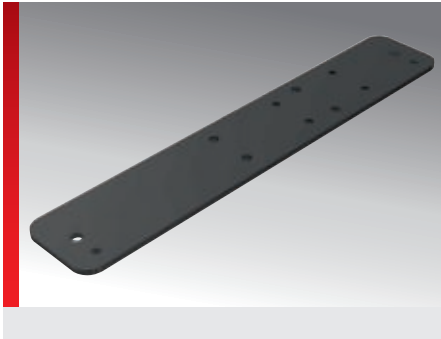
SPECIFICATIONS

-  -40 – 230 °F
-  Mod. polyamide PA 6
Base plate Aluminum
Spring Steel
-  V0



Type	Part number	Color	A inch	B inch	C inch	Pack qty.
EW 21 - 20N recirculation system	83692721	black	11.42	2.85	2.76	1
EWX 21 - 20N recirculation system	83692722	black	11.42	2.85	2.76	1
EW 29 - 20N recirculation system	83692723	black	11.42	2.85	2.76	1
EWX 29 - 20N recirculation system	83692724	black	11.42	2.85	2.76	1

Recirculation system, system plate 21/29



PRODUCT INFORMATION

System plate for holding the recirculation system. Adapted to production series of various manufacturers.
Contact us for the correct system plate for you!

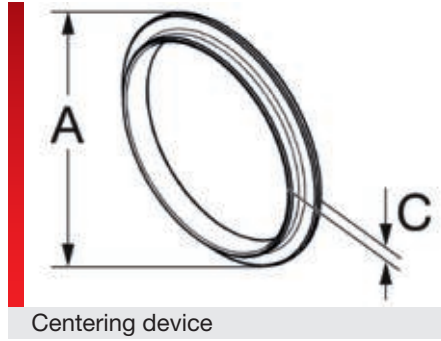
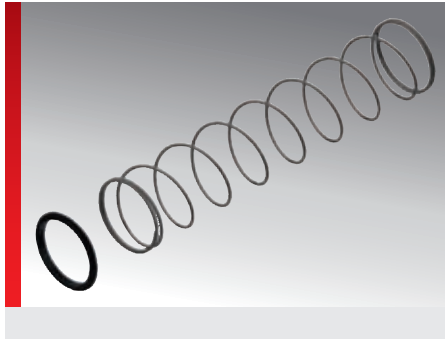
SPECIFICATIONS

Aluminum

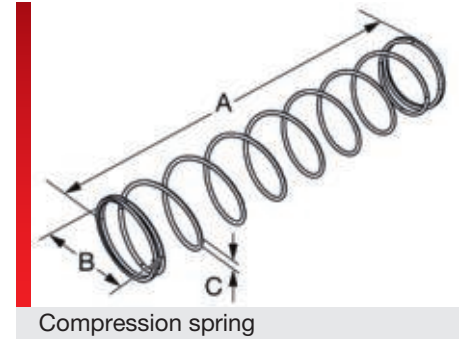
Type	Part number	Color	A inch	B inch	C inch	Pack qty.
A3 Fanuc M20iA adapter plate	83692759	Anodized black	2.56	2.36	0.16	1
Kuka KR10 R 1100 base plate ¹⁾	83692760	Anodized black	11.02	1.97	0.16	1

¹⁾ serves as mounting base plate for recirculation systems 21/29 (pre-assembled)

Recirculation system, spare parts 21/29



Centering device



Compression spring

PRODUCT INFORMATION

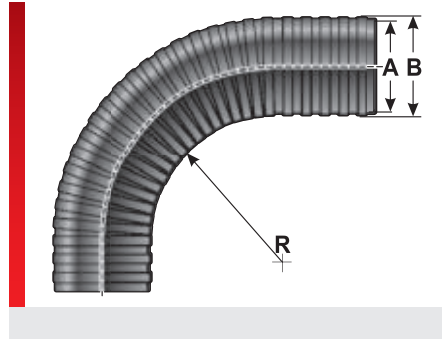
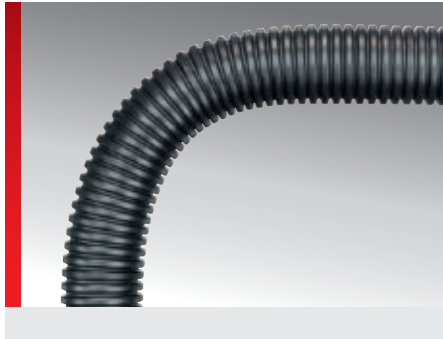
Spare parts for the M25/M32 recirculation system

Type	Part number	Color	A inch	B inch	C inch	Pack qty.
Compression spring M25/P21	83692754	Silver	6.46	1.34	0.06	1
M32/P29 compression ring	83692756	Silver	6.46	1.65	0.07	1
M25/P21 centering device	83692702	black	1.42		0.17	1
M32/P29 centering device	83692704	black	1.65		0.28	1



Cable protection conduit

EW-PAE



PRODUCT INFORMATION

The EW-PAE cable protection conduits are made of specially modified polyamide 12. The material is halogen, phosphor and cadmium-free.

The EW-PAE cable protection conduits are characterized by excellent flexibility, flexural fatigue strength and good crush resistance.

For extremely dynamic applications involving medium mechanical loads.

Applications:

- Robotics
- Handling systems
- In cable drag chains

SPECIFICATIONS

- 40 – 248 °F Short periods 302 °F
- Mod. polyamide PA 12
- HB
- In conformity with IEC EN 61386
: > 500 N



Type	Part number	Color	A Ø inch	B Ø inch	R stat. inch	R dyn. inch	Weight lbs/100ft	Pack m
Standard corrugation								
EW-PAE-06	83181650	black	0.26	0.39	0.59	1.57	1.21	164.04
EW-PAE M10/P7	83181652	black	0.33	0.45	0.79	1.77	1.41	164.04
EW-PAE-M12/P9	83181654	black	0.38	0.50	0.83	2.01	1.75	164.04
EW-PAE-M16/P11	83181656	black	0.47	0.61	1.10	2.68	2.42	164.04
EW-PAE-M20/P16	83181658	black	0.61	0.82	1.42	2.76	3.56	164.04
EW-PAE-M25/P21	83181660	black	0.86	1.11	1.93	4.29	6.05	164.04
EW-PAE-M32/P29	83181662	black	1.09	1.35	2.64	5.59	8.06	82.02
EW-PAE M40/P36	83181664	black	1.37	1.65	3.19	7.52	10.75	82.02
EW-PAE M50/P48	83181666	black	1.85	2.13	4.02	9.33	14.78	82.02
EW-PAE-56 Jumbo	83181678	black	2.20	2.65	4.33	12.20	26.88	82.02
EW-PAE-70 Jumbo	83181680	black	2.65	3.11	7.87	15.35	37.63	82.02
EW-PAE-95 Jumbo	83181682	black	3.53	4.13	10.43	19.69	53.76	32.81
EW-PAE-06 ¹⁾	83181610	Gray	0.26	0.39	0.59	1.57	1.21	164.04
EW-PAE M10/P7	83181612	Gray	0.33	0.45	0.79	1.77	1.41	164.04
EW-PAE M12/P9	83181614	Gray	0.38	0.50	0.83	2.01	1.75	164.04
EW-PAE M16/P11	83181616	Gray	0.47	0.61	1.10	2.68	2.42	164.04
EW-PAE M20/P16	83181618	Gray	0.61	0.82	1.42	2.76	3.56	164.04
EW-PAE M25/P21	83181620	Gray	0.86	1.11	1.93	4.29	6.05	164.04
EW-PAE M32/P29	83181622	Gray	1.09	1.35	2.64	5.59	8.06	82.02
EW-PAE M40/P36	83181624	Gray	1.37	1.65	3.19	7.52	10.75	82.02
EW-PAE M50/P48	83181626	Gray	1.85	2.13	4.02	9.33	14.78	82.02

EW-PAE (Continued...)

Type	Part number	Color	A Ø inch	B Ø inch	R stat. inch	R dyn. inch	Weight lbs/100ft	Pack m
EW-PAE-56 Jumbo ²⁾	83181638	Gray	2.20	2.65	4.33	12.20	23.52	82.02
EW-PAE-70 Jumbo ³⁾	83181640	Gray	2.65	3.12	7.87	15.35	37.63	82.02
EW-PAE-95 Jumbo ⁴⁾	83181642	Gray	3.53	4.17	10.43	19.69	53.76	32.81

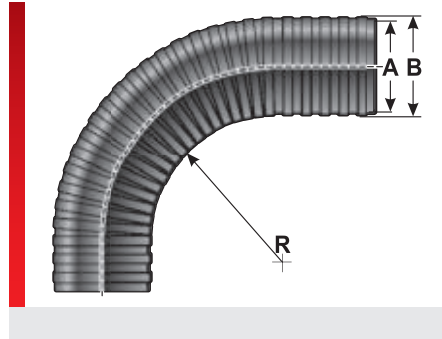
¹⁾ Min. order quantity 3500m

²⁾ Min. order quantity 125m

³⁾ Min. order quantity 75m

⁴⁾ Min. order quantity 40m

Type EWX-PAE (high corrugation)



PRODUCT INFORMATION

The EWX-PAE cable protection conduits are made of specially modified polyamide 12. The material is halogen, phosphor and cadmium-free.

With its excellent flexural fatigue strength, this product is ideal for robot technology and in the area of handling systems. For extremely dynamic applications involving medium to high mechanical loads.

The EWX-PAE cable protection conduits have a higher corrugation and feature the following advantages:

- Very good flexibility
- Excellent flexural fatigue strength
- Less wear
- Good crush resistance

SPECIFICATIONS

- 40 – 248 °F Short periods 302 °F
- Mod. polyamide PA 12
- HB
- In conformity with IEC EN 61386 : > 1200 N



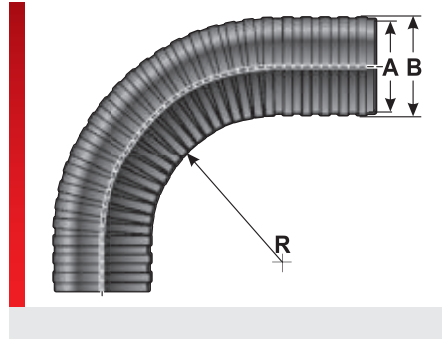
Type	Part number	Color	A Ø inch	B Ø inch	R stat. inch	R dyn. inch	Weight lbs/100ft	Pack m
High corrugation								
EWX-PAE M25/P21	83182058	black	0.72	1.11	1.93	4.09	8.74	164.04
EWX-PAE M32/P29	83182060	black	0.90	1.34	2.24	4.61	14.78	82.02
EWX-PAE M40/P36	83182062	black	1.13	1.67	2.80	5.75	18.82	82.02
EWX-PAE M50/P48	83182064	black	1.44	2.11	3.43	6.57	24.19	82.02
EWX-PAE 56 Jumbo	83182078	black	2.06	2.67	3.74	8.66	26.88	82.02
EWX-PAE 70 Jumbo	83182080	black	2.52	3.16	4.53	9.25	37.63	82.02
EWX-PAE 95 Jumbo	83182082	black	3.47	4.15	8.66	17.72	62.16	32.81
EWX-PAE M25/P21	83182018	Gray	0.72	1.11	1.93	4.09	8.74	164.04
EWX-PAE M32/P29	83182020	Gray	0.90	1.34	2.24	4.61	14.78	82.02
EWX-PAE M40/P36 ¹⁾	83182022	Gray	1.13	1.67	2.80	5.75	18.82	82.02
EWX-PAE M50/P48 ²⁾	83182024	Gray	1.44	2.11	3.43	6.57	24.19	82.02
EWX-PAE 70 Jumbo ³⁾	83182040	Gray	2.52	3.16	4.53	9.25	37.63	82.02

¹⁾ Min. order quantity 200m

²⁾ Min. order quantity 125m

³⁾ Min. order quantity 150m

Type EWX-PAE-LS (high corrugation)



PRODUCT INFORMATION

The EWX-PAE-LS cable protection conduits are made of specially modified polyamide 12. The material is halogen, phosphor and cadmium-free.

With its excellent flexural fatigue strength, this product is ideal for robot technology and in the area of handling systems. For installation of pre-assembled cables, retrofitting or repair of cables. For dynamic applications involving light to medium mechanical loads.

The EWX-PAE-LS cable protection conduits have a higher corrugation and feature the following advantages:

- Very good flexibility
- Excellent flexural fatigue strength
- Less wear
- Good crush resistance
- Subsequent installation possible

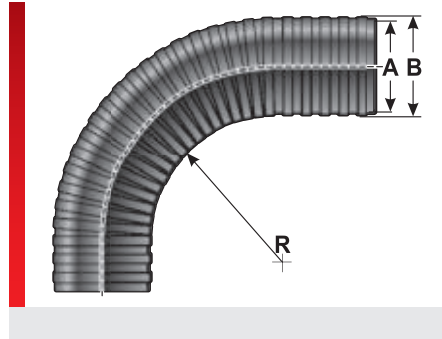
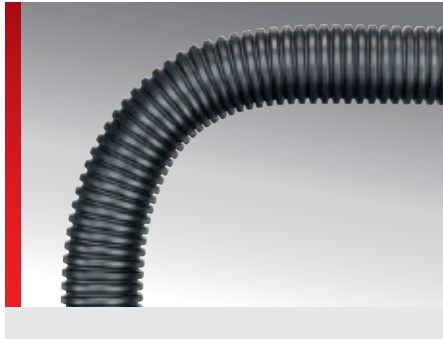
SPECIFICATIONS

	-40 – 248 °F Short periods 302 °F
	Mod. polyamide PA 12
	HB

Type	Part number	Color	A Ø inch	B Ø inch	R stat. inch	R dyn. inch	Weight lbs/100ft	Pack m
High corrugation								
EWX-PAE-LS M20/P16	83182256	black	0.52	0.83	1.42	3.03	4.03	164.04
EWX-PAE-LS M25/P21	83182258	black	0.76	1.11	1.93	4.09	7.39	164.04
EWX-PAE-LS M32/P29	83182260	black	0.91	1.36	2.24	4.61	9.41	82.02
EWX-PAE-LS M40/P36	83182262	black	1.12	1.66	2.80	5.75	12.23	82.02
EWX-PAE-LS M50/P48	83182264	black	1.44	2.11	3.43	6.57	16.13	82.02
EWX-PAE-LS 56 Jumbo ¹⁾	83182278	black	2.04	2.67	3.74	8.66	30.24	82.02
EWX-PAE-LS 70 Jumbo	83182280	black	2.53	3.16	4.53	9.25	36.96	82.02

¹⁾ Min. order quantity 100 m

Type EW-HY



PRODUCT INFORMATION

The EW-HY cable protection conduits are made of specially modified thermoplastic elastomer. The material is halogen, phosphor and cadmium-free and is also heat and hydrolysis stabilized.

The EW-HY cable protection conduits are characterized by outstanding flexibility, flexural fatigue strength and good crush resistance.

This product is ideal for use in handling systems and robot technology, because of its excellent flexural fatigue strength. For dynamic applications involving low to medium mechanical loads.

Applications:

- Robotics
- Handling systems

SPECIFICATIONS

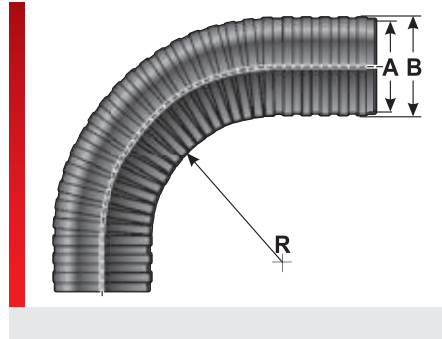
- 49 – 320 °F Short periods 356 °F
- Thermoplastic elastomer
- HB
- In conformity with IEC EN 61386 : > 500 N



Type	Part number	Color	A Ø inch	B Ø inch	R stat. inch	R dyn. inch	Weight lbs/100ft	Pack m
Standard corrugation								
EW-HY 06	83121048	black	0.25	0.39	0.71	1.57	1.61	164.04
EW-HY M12/P9	83121050	black	0.37	0.50	0.83	2.01	2.35	164.04
EW-HY M16/P11	83121052	black	0.48	0.61	1.10	2.68	2.69	164.04
EW-HY M20/P16S	83121054	black	0.66	0.81	1.50	3.74	5.11	164.04
EW-HY M25/P21	83121056	black	0.86	1.10	1.93	4.29	6.72	164.04
EW-HY M32/P29	83121058	black	1.09	1.35	2.64	5.59	12.1	82.02
EW-HY M40/P36	83121060	black	1.39	1.66	3.19	7.52	14.78	82.02
EW-HY M50/P48	83121062	black	1.86	2.10	4.02	9.33	18.82	82.02
EW-HY 70 Jumbo	83121066	black	2.61	3.13	5.51	12.99	33.6	82.02
EW-HY 95 Jumbo	83121070	black	3.54	4.13	5.91	15.75	60.48	32.81
EW-HY M12/P9 ¹⁾	83121010	Gray	0.37	0.50	0.83	2.01	1.88	164.04
EW-HY M16/P11	83121012	Gray	0.48	0.61	1.10	2.68	2.69	164.04
EW-HY M25/P21	83121016	Gray	0.86	1.10	1.93	4.29	8.74	164.04
EW-HY M32/P29	83121018	Gray	1.09	1.35	2.64	5.59	11.42	82.02
EW-HY M40/P36	83121020	Gray	1.39	1.66	3.19	7.52	14.11	82.02
EW-HY M50/P48	83121022	Gray	1.86	2.10	4.02	9.33	20.83	82.02
EW-HY 70 Jumbo	83121026	Gray	2.61	3.13	5.51	12.99	33.6	82.02
EW-HY 95 Jumbo	83121030	Gray	3.54	4.13	5.91	15.75	60.48	32.81
Narrow corrugation								
EW-HY M20/P16S	83121014	Gray	0.66	0.81	1.50	3.74	4.57	164.04

¹⁾ Min. order quantity 2100m

Type EWX-HY (high corrugation)



PRODUCT INFORMATION

The EWX-HY cable protection conduits are made of specially modified thermoplastic elastomer. The material is halogen, phosphor and cadmium-free and is also heat and hydrolysis stabilized.

The EWX-HY cable protection conduits are characterized by outstanding flexibility, flexural fatigue strength and good crush resistance.

With its excellent flexural fatigue strength, this product is ideal for use in handling systems and robot technology.

For dynamic applications involving low to medium mechanical loads.

SPECIFICATIONS

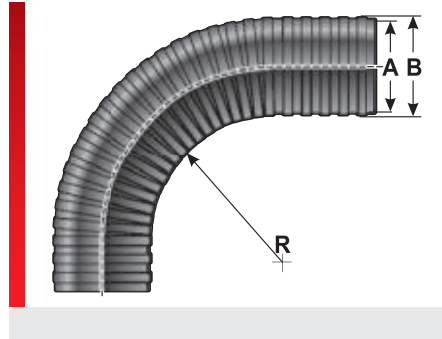
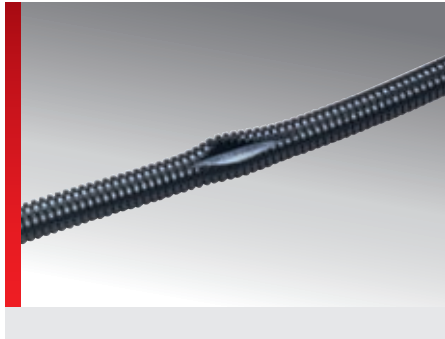
- 49 – 302 °F Short periods 356 °F
- Thermoplastic elastomer
- HB
- In conformity with IEC EN 61386 : > 900 N



Type	Part number	Color	A Ø inch	B Ø inch	R stat. inch	R dyn. inch	Weight lbs/100ft	Pack m
High corrugation								
EWX-HY M25/P21	83121258	black	0.73	1.09	1.93	4.09	8.74	164.04
EWX-HY M32/P29	83121260	black	0.91	1.35	2.24	4.61	14.78	82.02
EWX-HY M40/P36	83121262	black	1.14	1.67	2.80	5.75	18.82	82.02
EWX-HY M50/P48	83121264	black	1.45	2.11	3.43	6.57	24.19	82.02
EWX-HY 56	83121278	black	2.09	2.67	3.74	8.66	24.19	82.02
EWX-HY 70	83121280	black	2.54	3.17	5.51	12.99	42.33	82.02
EWX-HY 95 ¹⁾	83121282	black	3.58	4.15	5.91	15.75	59.81	32.81

¹⁾ Min. order quantity 40m

Type EWX-HY-LS (high corrugation)



PRODUCT INFORMATION

The EWX-HY-LS cable protection conduits are made of specially modified thermoplastic elastomer. The material is halogen, phosphor and cadmium-free.

With its excellent flexural fatigue strength, this product is ideal for robot technology and in the area of handling systems. For installation of pre-assembled cables, retrofitting or repair of cables. For dynamic applications involving light to medium mechanical loads.

The EWX-HY-LS cable protection conduits have a higher corrugation and feature the following advantages:

- Very good flexibility
- Excellent flexural fatigue strength
- Less wear
- Good crush resistance
- Subsequent installation possible

SPECIFICATIONS

- 49 – 320 °F Short periods 356 °F
- Thermoplastic elastomer
- HB

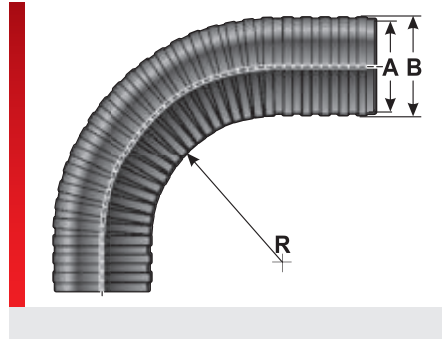
RoHS
 HF
 UV
 Robot

Type	Part number	Color	A Ø inch	B Ø inch	R stat. inch	R dyn. inch	Weight lbs/100ft	Pack m
High corrugation								
EWX-HY-LS M25/P21	83122258	black	0.78	1.11	1.93	4.09	7.39	164.04
EWX-HY-LS M32/P29	83122260	black	0.95	1.36	2.24	4.61	11.76	82.02
EWX-HY-LS M40/P36	83122262	black	1.17	1.66	2.80	5.75	14.78	82.02
EWX-HY-LS M50/P48	83122264	black	1.50	2.13	3.43	6.57	20.43	82.02
EWX-HY-LS 56 ¹⁾	83122278	black	2.05	2.68	3.74	8.66	24.19	82.02
EWX-HY-LS 70 ²⁾	83122282	black	2.52	3.15	4.53	9.25	42.33	82.02

¹⁾ Min. order quantity 100 m

²⁾ Min. order quantity 75m

Type EW-PRF



PRODUCT INFORMATION

The EW-PRF cable protection conduits are made of specially modified polyamide 12. The material is halogen, phosphor and cadmium-free.

The conduits are suitable for dynamic applications involving medium to high mechanical loads. The EW-PRF cable protection conduits are used both in robotics and the aerospace industry as well as in rail transport systems.

They feature the following advantages:

- High flexibility
- Excellent impact strength
- Excellent self-extinguishing properties
- Very low levels of smoke gas

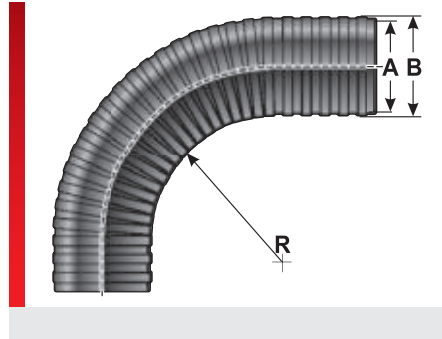
SPECIFICATIONS

- 40 – 221 °F Short periods 302 °F
- Mod. polyamide PA 12
- V2 self-extinguishing
- In conformity with IEC EN 61386
: > 1100 N



Type	Part number	Color	A Ø inch	B Ø inch	R stat. inch	R dyn. inch	Weight lbs/100ft	Pack m
Standard corrugation								
EW-PRF M10/P7	83181252	black	0.33	0.46	0.83	1.81	1.41	164.04
EW-PRF M12/P9	83181254	black	0.39	0.51	0.87	2.01	1.88	164.04
EW-PRF M16/P11	83181256	black	0.46	0.63	1.10	2.68	2.55	164.04
EW-PRF M20/P16	83181258	black	0.61	0.83	1.50	3.74	3.9	164.04
EW-PRF M25/P21	83181262	black	0.85	1.12	1.93	4.29	6.72	164.04
EW-PRF M32/P29	83181264	black	1.10	1.36	2.64	5.59	9.41	82.02
EW-PRF M40/P36	83181266	black	1.38	1.67	3.19	7.52	11.42	82.02
EW-PRF M50/P48	83181268	black	1.85	2.14	4.02	9.33	15.46	82.02
EW-PRF-70 Jumbo	83181272	black	2.69	3.15	7.87	15.35	32.25	82.02
EW-PRF-95 Jumbo ²⁾	83181274	black	3.52	4.18	10.43	19.69	54.43	32.81
EW-PRF M10/P7	83181212	Gray	0.33	0.46	0.83	1.81	1.41	164.04
EW-PRF M12/P9 ³⁾	83181214	Gray	0.39	0.51	0.87	2.01	1.88	164.04
EW-PRF M16/P11 ⁴⁾	83181216	Gray	0.46	0.63	1.10	2.68	2.55	164.04
EW-PRF M20/P16 ⁵⁾	83181218	Gray	0.61	0.83	1.50	3.74	3.9	164.04
EW-PRF M25/P21	83181222	Gray	0.85	1.12	1.93	4.29	6.72	164.04
EW-PRF M32/P29	83181224	Gray	1.10	1.36	2.64	5.59	9.41	82.02
EW-PRF M40/P36 ⁸⁾	83181226	Gray	1.38	1.67	3.19	7.52	11.42	82.02
EW-PRF M50/P48 ⁹⁾	83181228	Gray	1.85	2.14	4.02	9.33	15.46	82.02
EW-PRF-70 Jumbo ¹⁰⁾	83181232	Gray	2.69	3.15	7.87	15.35	32.25	82.02
EW-PRF-95 Jumbo ²⁾	83181234	Gray	3.52	4.18	10.43	19.69	54.43	32.81

Type EW-PRF (Continued...)



Type	Part number	Color	A Ø inch	B Ø inch	R stat. inch	R dyn. inch	Weight lbs/100ft	Pack m
Narrow corrugation								
EW-PRF M20/P16S	83181260	black	0.66	0.83	1.38	3.54	4.43	164.04
EW-PRF M25/P21S ¹⁾	83181462	black	0.91	1.11	1.73	4.09	6.72	164.04
EW-PRF M32/P29S	83181464	black	1.12	1.35	2.44	5.20	9.41	82.02
EW-PRF M20/P16S ⁶⁾	83181220	Gray	0.66	0.83	1.38	3.54	4.43	164.04
EW-PRF M25/P21S ¹⁾	83181422	Gray	0.91	1.11	1.73	4.09	6.72	164.04
EW-PRF M32/P29S ⁷⁾	83181424	Gray	1.12	1.35	2.44	5.20	9.41	82.02

¹⁾ Min. order quantity 500m

²⁾ Min. order quantity 40m

³⁾ Min. order quantity 2100m

⁴⁾ Min. order quantity 1800m

⁵⁾ Min. order quantity 900m

⁶⁾ Min. order quantity 1000m

⁷⁾ Min. order quantity 300m

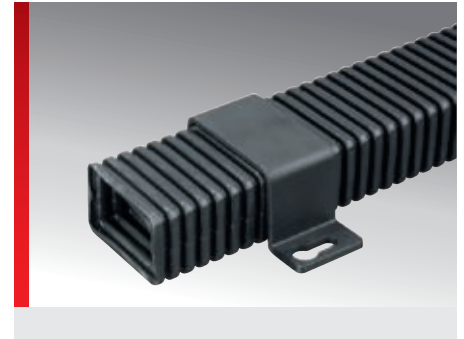
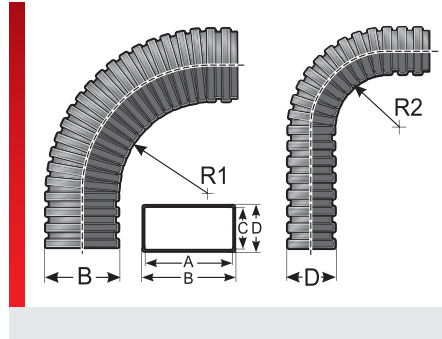
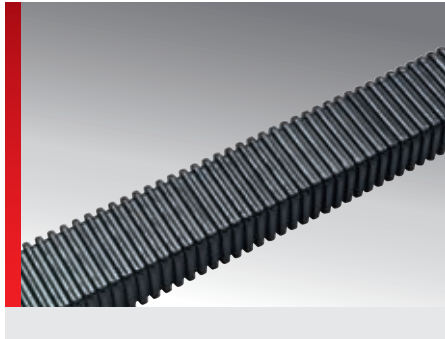
⁸⁾ Min. order quantity 200m

⁹⁾ Min. order quantity 150m

¹⁰⁾ Min. order quantity 75m

Cable protection conduit

Type EF (rectangular conduit)



PRODUCT INFORMATION

The rectangular Energoflex EF cable protection conduits are made of specially modified thermoplastic elastomer. The material is halogen, phosphor and cadmium-free. The Energoflex EW cable protection conduits are characterized by excellent flexibility and good flexural fatigue strength. With its rectangular shape, the EF conduit can be used as a cost-effective alternative to cable drag chains. For dynamic applications involving light to medium mechanical loads in mechanical and plant engineering.

Advantages of the Energoflex include:

- Little relative movement of the lines
- Low-wear interior
- Simultaneous traversing in multiple axes possible
- Higher stability compared to a conduit

System affiliation:

- Holder EF/B 26/42
- Flange connection FL-EF 26042

SPECIFICATIONS

- 49 – 320 °F Short periods 356 °F
- Thermoplastic elastomer
- HB
- In conformity with IEC EN 61386 : 1000 N

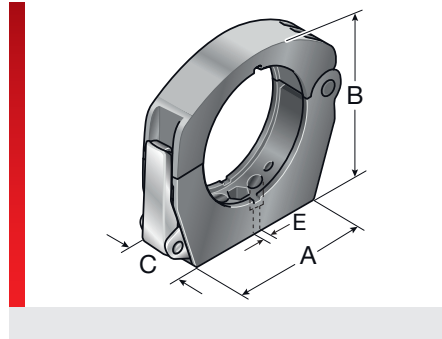


Type	Part number	Color	A inch	B inch	C inch	D inch	R1 stat./dyn. inch	R2 stat./dyn. inch	Weight lbs/100ft	Pack m
EF 26042	83361012	black	1.65	1.97	1.02	1.34	4.33 / 12.6	2.36 / 4.72	15.46	9.84



Fastening element

SH system holder



PRODUCT INFORMATION

The SH system holder is the optimally aligned main component which, especially in conjunction with MurrFlex cable protection conduits and the inlays, is able to promise excellent performance in terms of stability, operational flexibility and durability, even under high dynamic loads.

The SH 56/70 & SH 56/70-M system holder is made of a modified, impact resistant polyamide, whereas the SH 56/70-A is made of black anodized aluminum.

- Suitable for initial equipment, subsequent installs or repairs.
- Excellent system durability
- Easy assembly of the inlays and cable protection conduits; no tools required.
- Suitable for 4 different applications
- Simple and easy configuration for dynamic or rigid applications
- Cost reduction – only one system holder for every application
- Versatile mounting options

SPECIFICATIONS



-40 – 230 °F Short periods 284 °F



Type SH : Mod. polyamide
Type SH ... -M: Mod. polyamide
Type SH ... -A: Aluminum



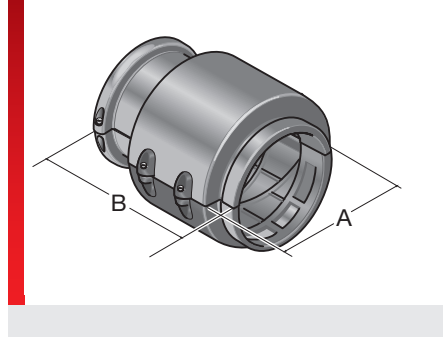
VO



Type	Part number	Color	A inch	B inch	C inch	E inch	Pack qty.
System holder without continuous fin							
SH-P / M25-M32	83691462	black	2.87	2.44	1.02	0.34	1
SH-P / M40-M50	83691460	black	4.11	3.54	1.30	0.35	1
SH 56/70	83691490	black	5.31	4.72	1.30	0.35	1
System holder with continuous fin							
SH-F / M40-M50	83691450	black	4.11	3.54	1.30	0.35	1
SH-PF / M40-M50 ¹⁾	83691470	black	4.11	3.54	1.30	0.35	1
System holder with metal closing							
SH M40/M50-M	83691501	black	4.65	3.54	1.30	0.35	1
SH 56/70-M	83691502	black	5.31	4.72	1.30	0.35	1
System holder made of aluminum							
SH M40/M50-A	83691503	Anodized black	4.11	3.54	1.18	0.35	1
SH 56/70-A	83691504	Anodized black	5.12	4.76	1.38	0.35	1
Conduit holder inlay							
ELR M40-M50	83691480	Red					1

¹⁾ Continuous fin type ELR, included loose

KEG-AK telescopic joint



with SH and ZS-70

PRODUCT INFORMATION

The expendable KEG/AK telescopic joint makes a length adjustment of approx. 30 mm possible. The conduit connection piece can be pivoted by approx. 20° in all directions and can therefore adapt to the dresspack movements.

If used in conjunction with the strain-relief systems ZS-70 or ZS-70-KB it provides optimum wear protection, even when using heavy media packages.

SPECIFICATIONS

-40 – 230 °F

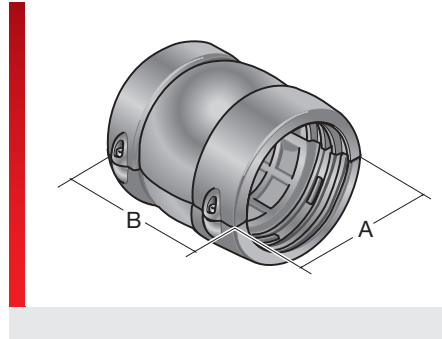
Mod. polyamide

V0

Type	Part number	Color	Suitable for Murrflex	Suitable for System holder	Version	A inch	B inch	Pack qty.
KEG/AK-70 ¹⁾	83692480	black	NW70	SH 56/70	divisible	4.13	4.72	1

¹⁾ Tightening torque 1.5Nm

KEG/K ball bearing



with SH and V-ZLT-70

PRODUCT INFORMATION

The KEG-K is used wherever cables or lines exit from the cable protection conduit. The type KEG-K ball joint, which can be installed into the SH system holder easily and quickly, is the optimum fit for cords, cables and conduit throughputs; especially because its integratable strain relief is freely configurable to the needs of the application.

The KEG-K is the ideal connection of the Murrflex cable protection conduit to the SH system holder. The cables are sealed and strain is relieved at the same time.

SPECIFICATIONS

-40 – 230 °F

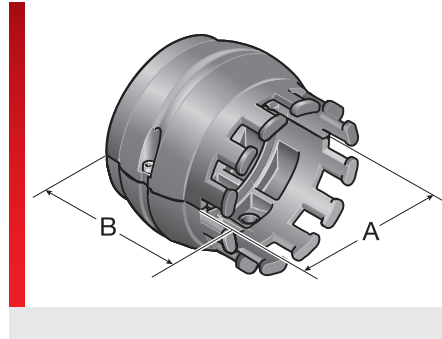
Mod. polyamide

V0

Type	Part number	Color	Suitable for Murrflex	Suitable for System holder	Version	A inch	B inch	Pack qty.
KEG/K-M25	83692458	black	M25/P21	SH-P / M25-M32	divisible	1.83	1.91	1
KEG/K-M32	83692460	black	M32/P29	SH-P / M25-M32	divisible	1.83	1.91	1
KEG/K-M40	83692462	black	M40/P36	SH-P / M40-M50	divisible	2.76	2.64	1
KEG/K-M50	83692464	black	M50/P48	SH-P / M40-M50	divisible	2.76	2.64	1
KEG/K-56 ¹⁾	83692466	black	NW56	SH 56/70	divisible	3.96	4.82	1
KEG/K-70 ¹⁾	83692468	black	NW70	SH 56/70	divisible	3.96	4.82	1

¹⁾ Tightening torque 1.5Nm

KEG/ZL ball bearing



PRODUCT INFORMATION

The KEG-ZL is used wherever cords or cables exit from the cable protection conduit with strain relief.

The detachably connected type KEG-ZL ball joint with integrated strain relief can easily and quickly be placed into the SH system holder and thus connected to the Murrflex cable protection conduits and the robot.

The cords, conduits and cables are connected to the integrated strain relief with cable ties.

SPECIFICATIONS

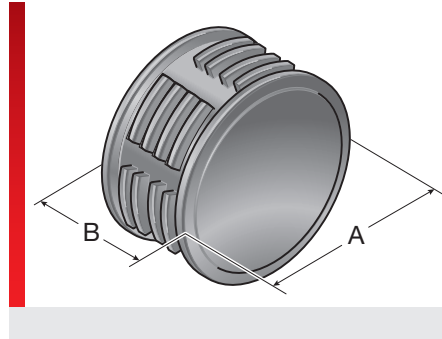
-40 – 230 °F

Mod. polyamide

V0

Type	Part number	Color	Suitable for Murrflex	Suitable for System holder	Version	A inch	B inch	Pack qty.
KEG/ZL-M25	83692258	black	M25/P21	SH-P / M25-M32	divisible	1.67	1.52	1
KEG/ZL-M32	83692260	black	M32/P29	SH-P / M25-M32	divisible	1.67	1.52	1
KEG/ZL-M40	83692262	black	M40/P36	SH-P / M40-M50	divisible	2.72	2.22	1
KEG/ZL-M50	83692264	black	M50/P48	SH-P / M40-M50	divisible	2.72	2.22	1

Strain relief cable star



ZS-70-KB

PRODUCT INFORMATION

The cable star grommet is the optimum and most cord friendly strain relief for your cables, also offering the highest degree of tear-out resistance. The elongated KB version is fastened with an additional conduit clamp to facilitate even extreme loads. Another benefit of the cable star grommet is its preventive properties against the ingress of contamination into the dresspack.

Simply drill holes of the appropriate cable diameter into the R-ZL. Or, with a minimum order of 10 pieces, we can produce your customized hole pattern, using our waterjet technology. Talk to us!

SPECIFICATIONS

- 40 – 230 °F
- Elastomer
- V0



Type	Part number	Color	Suitable for System holder	A inch	B inch	Pack qty.
Strain relief as blank for do-it-yourself assembly						
R-ZL/N1 21/29 ¹⁾	83951606	black		1.32	0.71	1
R-ZL/N1 36/48 ²⁾	83951610	black		2.17	0.71	1
V-ZLT-70 ³⁾	83692802	black		3.25	1.54	1
V-ZLT-70KB ³⁾	83692804	black		3.25	2.62	1
Strain relief system						
ZS-70 ⁴⁾	83692806	black	SH 56/70	3.97	2.38	1
ZS-70-KB ⁴⁾	83692808	black	SH 56/70	3.97	3.36	1

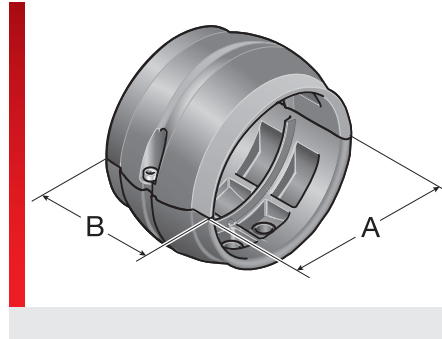
¹⁾ suitable for KEG-K M25 and KEG-K M32

²⁾ suitable for KEG-K M40 and KEG-K M50

³⁾ suitable for KEG-K 56 and KEG-K 70

⁴⁾ Tightening torque 1.5Nm

KMG/F ball bearing - SRF hose ring



PRODUCT INFORMATION

The KMG/F and SRF have been designed for robot applications and other moving handling equipment.




The SH system holder can be mounted easily and quickly in the detachably connected inlays and is the perfect fit for fixing Murrflex cable protection conduits.

The KMG-F and SRF are made of especially modified polyamide.

The special advantages of the KMG-F center ball joint and of the SRF hose ring are:

- Suitable for conversions or subsequent installation
- May be used statically fixed (KMG-F + SRF) or detachable at the axis (KMG-F)
- Long service life
- easy assembly and disassembly
- Murrflex cable protection conduits are firmly fastened and are therefore securely routed

SPECIFICATIONS

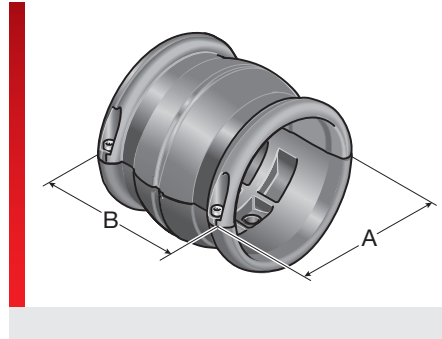
	-40 – 230 °F Short periods 284 °F
	Mod. polyamide
	V0



Type	Part number	Color	Suitable for Murrflex	Suitable for System holder	Version	A inch	B inch	Pack qty.
Center ball joint (fixed) for fastening cable protection conduits								
KMG-F-M25	83691658	black	M25/P21	SH-P / M25-M32	divisible	1.67	1.08	1
KMG-F-M32	83691660	black	M32/P29	SH-P / M25-M32	divisible	1.67	1.08	1
KMG-F-M40	83691662	black	M40/P36	SH M40-M50	divisible	2.72	1.73	1
KMG-F-M50	83691664	black	M50/P48	SH M40-M50	divisible	2.72	1.73	1
Set consists of KMG/F + SH-P M40/M50								
Set KMG-F-M40	83691663	black	M40/P36		divisible	2.72	1.73	1
Set KMG-F-M50	83691665	black	M50/P48		divisible	2.72	1.73	1
Hose ring (fixed) for fastening cable protection conduits								
SRF-M40/P36 ¹⁾	83692288	black	M40/P36	SH 56/70	divisible	3.52	1.06	1
SRF-M50/P48 ¹⁾	83692289	black	M50/P48	SH 56/70	divisible	3.52	1.06	1
SRF-56	83692290	black	NW56	SH 56/70	divisible	3.52	1.06	1
SRF-68	83692291	black	NW68	SH 56/70	divisible	3.52	1.06	1
SRF-70	83692292	black	NW70	SH 56/70	divisible	3.52	1.06	1
Set consist of SRF + SH 56/70								
Set SRF-68	83692246	black	NW68		divisible	3.52	1.06	1

¹⁾* mainly developed for use in the R-TecBox-36/48 for continuous laying of a Murrplastik corrugated conduit.

KMG/G ball bearing



PRODUCT INFORMATION

The KMG-G is mainly used for dynamic applications, as you may find in robots and other movable handling devices. The detachably connected type KMG-G center ball joint can be mounted at the SH system holder easily and quickly. The KMG-G facilitates a smooth gliding movement through the longitudinal axis whenever the cable protection conduit is mov-

ing in the longitudinal direction. This makes the KMG-G the perfect fastening system of the Murrflex cable protection conduits to the SH system holder. Therefore lines and cables can be routed and protected with absolute process protection and length adaptability, even in highly dynamic applications.

SPECIFICATIONS

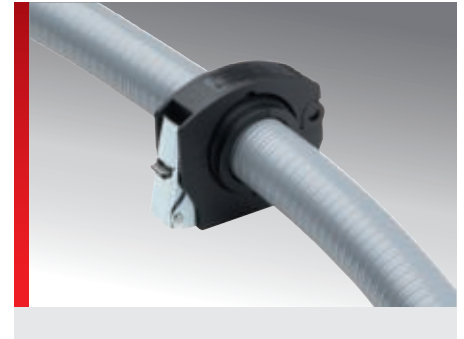
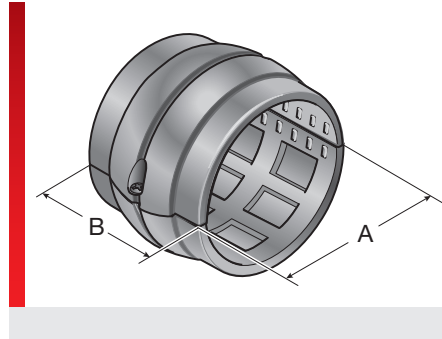
-40 – 230 °F

Mod. polyamide

V0

Type	Part number	Color	Suitable for Murrflex	Suitable for System holder	Version	A inch	B inch	Pack qty.
KMG/G-M25	83691858	black	M25/P21	SH-P / M25-M32	divisible	1.83	1.42	1
KMG/G-M32	83691860	black	M32/P29	SH-P / M25-M32	divisible	1.83	1.42	1
KMG/G-M40	83691862	black	M40/P36	SH-P / M40-M50	divisible	2.76	2.76	1
KMG/G-M50	83691864	black	M50/P48	SH-P / M40-M50	divisible	2.76	2.76	1

KMG-F H ball bearing



PRODUCT INFORMATION

The detachably connected KMG-F-H is the perfect fixation for coiled heat conduits. Our ball joint can be placed into the SH-system holder quickly and easily and is mostly used for robot applications and other smaller handling equipment.

This way your heat conduits are routed and protected for any application with absolute process safety.

SPECIFICATIONS

- 40 – 230 °F
 - Mod. polyamide
 - V0
- RoHS

HF

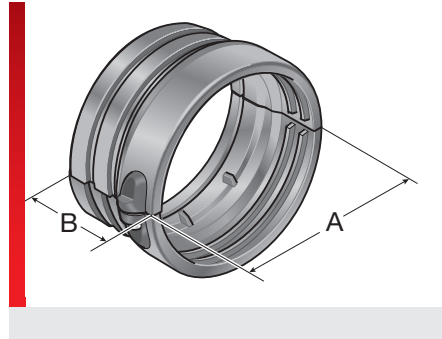
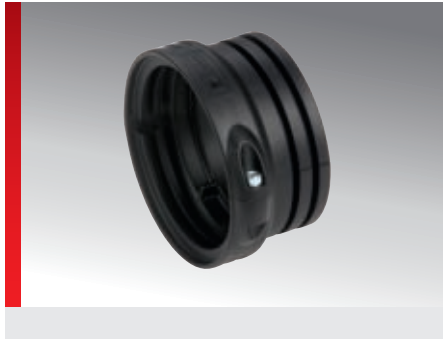
Type	Part number	Color	Suitable for System holder	Version	A inch	B inch	Pack qty.
KMG-F H45/13	83691670	black	SH-P / M40-M50	divisible	1.80	1.73	1
KMG-F H55/16	83691672	black	SH-P / M40-M50	divisible	2.18	1.73	1
KMG-F H66/25	83691674	black	SH 56/70	divisible	2.62	1.77	1
KMG-F H45/13 set ¹⁾	83691602	black		divisible			1
KMG-F H55/16 set ²⁾	83691604	black		divisible			1
KMG-F H66/25 set ³⁾	83691606	black		divisible			1

¹⁾ Set consists of KMG-F H45/13 and SH M40/M50

²⁾ Set consists of KMG-F H55/16 and SH M40/M50

³⁾ Set consists of KMG-F H 66/25 and SH 56/70

A-RS



PRODUCT INFORMATION

The A RS conduit adapter is intended for corrugated tubes from third party manufacturers that may have different diameters. They facilitate secure maneuvering at the robot arm with optimum hold.

SPECIFICATIONS

-40 – 230 °F

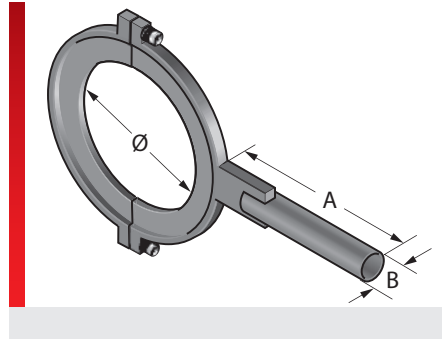
Mod. polyamide

V0

Type	Part number	Color	Version	A inch	B inch	Pack qty.
A-RS-56 sw ¹⁾	83692280	black	divisible	4.04	1.81	1
A-RS-70 sw ¹⁾	83692282	black	divisible	4.04	1.81	1

¹⁾Tightening torque 1.5Nm

Tension clamp (axis 6)



With FKE 32 and SH 56/70-M

PRODUCT INFORMATION

The R-SSR wrist support serves to provide a fixing point on axis 6. Additional fastening elements can be affixed to the wrist support as required.

SPECIFICATIONS



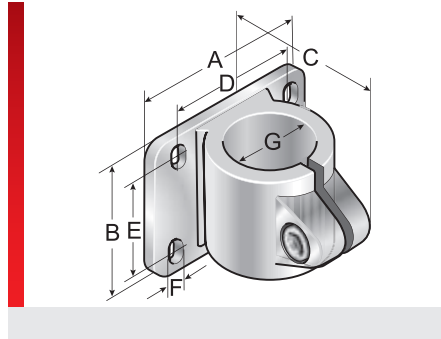
Powder coated Sheet steel



Robot connection

Type	Part number	Color	Ø inch	A inch	B inch	Pack qty.
Kuka KR6, KR 10 retaining plate, axis 6	83692753	black	1.56	2.49		1
R-SSR D 63 tension clamp with angled sheet	83952699	black	2.48	5.59		1
R-SSR 100-1 tension clamp with pipe 15°	83952626	black	3.94	11.02	1.26	1
R-SSR D 116 tension clamp with pipe, straight	83692712	black	4.57	11.02	1.26	1
R-SSR 125-1 tension clamp with pipe 15°	82952696	black	4.92	11.02	1.26	1
R-SSR 125-2 tension clamp with pipe, straight	82390044	black	4.92	11.02	1.26	1
R-SSR 140-1 tension clamp with pipe, straight	82390067	black	5.51	11.02	1.26	1
R-SSR D 160 tension clamp with pipe, straight	83952629	black	6.30	11.02	1.26	1
R-SSR 160-1 tension clamp with pipe 15°	83952628	black	6.30	11.02	1.26	1
R-SSR 172-1 tension clamp with pipe 15°	83952634	black	6.77	11.02	1.26	1
R-SSR 180-1 tension clamp with pipe 15°	82390032	black	7.09	11.02	1.26	1
R-SSR 190-1 tension clamp with pipe 15°	83952638	black	7.48	11.02	1.26	1
R-SSR 200-1 tension clamp with pipe 15°	83952642	black	7.87	11.02	1.26	1
R-SSR 220-1 tension clamp with pipe 15°	83952640	black	8.66	11.02	1.26	1
R-SSR 250-1 tension clamp with pipe 15°	83952646	black	9.84	11.02	1.26	1
R-SSR 315-1 tension clamp with pipe 15°	83692711	black	12.40	11.02	1.26	1

Pipe clamp



With FKE 32 and SH 56/70-M

PRODUCT INFORMATION

The R-FKM and R-FKE pipe clamps facilitate connecting R-SSR tension clamps with other components. Clamping on the entire pipe circumference. With hub flange for pivot bearings and base plate.

The R-FKM pipe clamps need the R-FKG base plate for fixing a system holder.

The Type R-FKE pipe clamp does not need the additional base plate; the system holder can be attached directly.

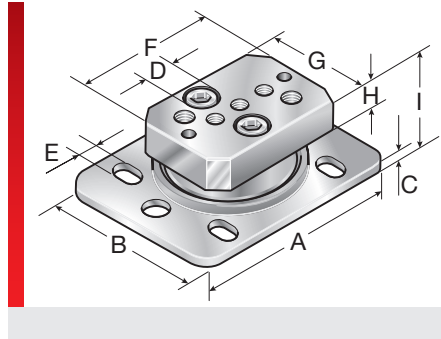
SPECIFICATIONS

Aluminum

Type	Part number	Color	A inch	B inch	C inch	D Angle °	E inch	F inch	G inch	Pack qty.
R-FKE 32	83952614	Anodized black	2.36	2.36	3.66				1.26	1
R-FKM 32 ¹⁾	83952610	Silver	4.33	3.15	3.35	3.15	2.28	0.39	1.26	1
R-FKM 40 ¹⁾	83952612	Silver	4.33	3.15	3.35	3.15	2.28	0.39	1.57	1

¹⁾Adapter plate R-FKG is needed for the installation of a system holder.

Pivot bearing



R-DLM with TRO 70

PRODUCT INFORMATION

The pivot bearing can be rotated by 360° and sits on a ball bearing.

- R-DZM pivot bearings with adapter plates for mounting type SH system holders
- R-DLM individual pivot bearing for use with TRO 70 trumpet

SPECIFICATIONS

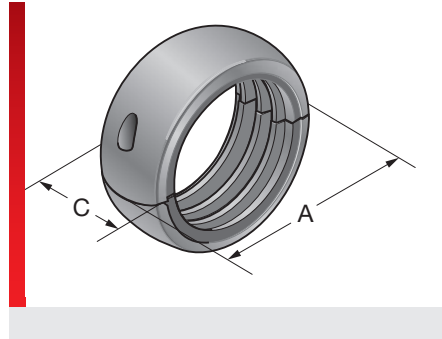


Steel
Steel, powder coated



Type	Part number	Color	Color	A inch	B inch	C inch	E inch	F inch	G inch	H inch	I inch	K Thread	Pack qty.
R-DLM	83952210	Silver		4.72	3.35	0.20	0.35					M10x1,5	1
R-DZM pivot bearing with adapter plate	83952212		Silver / Black	4.72	3.35	0.20	0.35	3.15	1.77	0.79	1.46	M10x1,5	1

Type PR/SV



PRODUCT INFORMATION

The PR/SV protectors are made of specially modified polyamide 6. The material is halogen, phosphor and cadmium-free. The protectors are used for impact protection and connecting cable protection conduits and also protect against wear. The PR/SV protectors feature the following advantages:

- Flat construction
- Simple assembly with a sliding lock and optional lock screw assembly
- High tear-out strength

SPECIFICATIONS

- 40 – 230 °F Short periods 284 °F
- UL listed material Mod. polyamide PA 6
- V0 self-extinguishing

is F S

Type	Part number	Color	Suitable for Murrflex	A inch	C inch	Pack qty.
Standard design for cable protection conduits with standard corrugation, type EW-xx / type EWT-xx						
PR/SV-EW 21	83691058	black	M25/P21	2.03	2.02	10
PR/SV-EW 29	83691060	black	M32/P29	2.28	2.01	10
PR/SV-EW 36	83691062	black	M40/P36	2.60	2.03	10
PR/SV-EW 48	83691064	black	M50/P48	3.07	1.95	10
PR/SV-EW 56	83691065	black	NW56	3.57	2.01	5
Standard design for cable protection conduits with high corrugation, type EWX-xx						
PR/SV-EW 21	83691018	Gray	M25/P21	2.03	2.02	10
PR/SV-EW 29	83691020	Gray	M32/P29	2.28	2.01	10
PR/SV-EW 36	83691022	Gray	M40/P36	2.60	2.03	10
PR/SV-EW 48	83691024	Gray	M50/P48	3.07	1.95	10
PR/SV-EW 56	83691025	Gray	NW56	3.57	2.01	5
Standard design for cable protection conduits with high corrugation, type EWX-xx						
PR/SV-EWX 21	83691258	black	M25/P21	2.03	2.04	10
PR/SV-EWX 29	83691260	black	M32/P29	2.28	2.01	10
PR/SV-EWX 36	83691262	black	M40/P36	2.60	2.03	10
PR/SV-EWX 48	83691264	black	M50/P48	3.07	1.95	10
PR/SV-EWX 56	83691265	black	NW56	3.57	2.01	5
Standard design for cable protection conduits with high corrugation, type EWX-xx						
PR/SV-EWX 21	83691218	Gray	M25/P21	2.03	2.04	10
PR/SV-EWX 29	83691220	Gray	M32/P29	2.28	2.01	10
PR/SV-EWX 36	83691222	Gray	M40/P36	2.60	2.03	10



Accessories

Type Tube/Cut (Conduit knife for cable protection conduits)



Tube-Cut/Z



Tube-Cut/D

PRODUCT INFORMATION

The Tube-Cut conduit knife allows subsequent slitting of closed cable protection conduits. It can be used by both the right and left-handed. The sliding foot is made of extremely hard-wearing Teflon-coated metal. The Tube-Cut conduit knife features the following advantages:

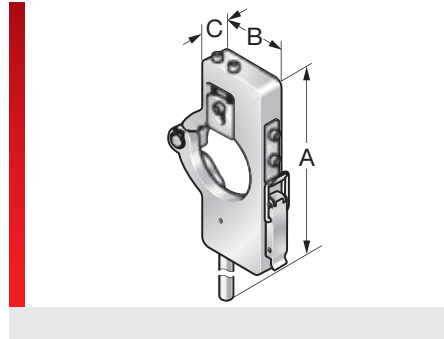
- Extremely easy handling
- Two different versions available
- Safe to use with a material hold-down device that also shields the blade
- Fast and safe blade change
- Very low weight

SPECIFICATIONS



Type	Part number	length inch	Suitable for Murrflex	Pack qty.
Tube-Cut/D	83729214	4.72	Standard corrugation M12/P09 to NW 95, High corrugation (EWX) to NW 70	1
Tube-Cut/Z	83729212	4.72	Standard corrugation M12/P09 to NW 95, High corrugation (EWX) to NW 70	1

Type m-cut



PRODUCT INFORMATION

The type m-cut corrugated pipe cutter is made of aluminum and makes length adjustments for Murrplastik cable protection conduits easy and safe. It can be used by both the right and left-handed. A sturdy double-edged blade has been installed to achieve perfectly cut edges. Furthermore, the corrugated pipe cutters feature the following advantages:

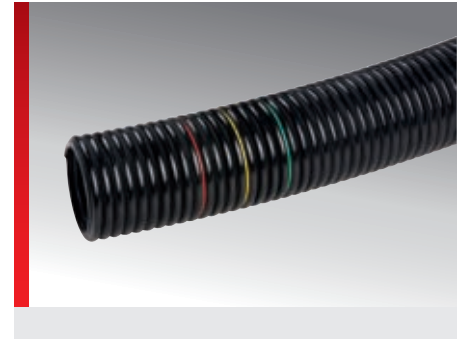
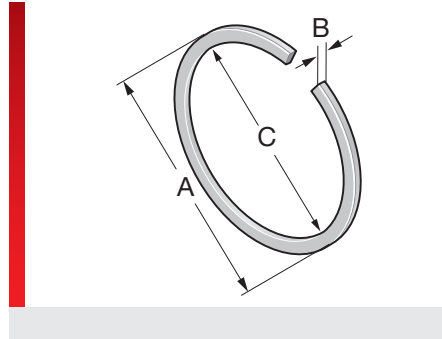
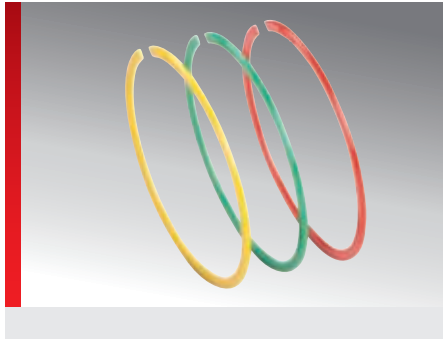
- Extremely easy handling
- Safe handling, because of its spring-loaded blade cover, which covers the blade when the cutter is not in use.
- Faster and more secure blade exchange -> blades are available as spare parts
- Low weight

SPECIFICATIONS



Type	Part number	Suitable for Murrflex	Pack qty.
m-cut M40 B	83729222	M40/P36	1
m-cut M50 B	83729224	M50/P48	1
m-cut 56 B	83729226	NW56	1
m-cut 70 B	83729228	NW70	1
m-cut 95 B	83729230	NW95	1
m-cut replacement blade	83729232		1

Position marker



PRODUCT INFORMATION

Conduit marking for any number of uses in robotics and mechanical engineering applications.

Can be installed in seconds on EW and EWX cable protection conduits.

SPECIFICATIONS

-4 – 221 °F

HB



Type	Part number	Color	A inch	B inch	Pack qty.
Position markers for EW, EW-LS, EWT and EWX					
Position marker - 36 - green	83692636	Green	1.29	0.07	5
Position marker - 36 - yellow	83692641	Yellow	1.29	0.07	5
Position marker - 36 - red	83692646	Red	1.29	0.07	5
Position marker - set 36	83692690		1.29	0.07	1
Position marker - 48 - green	83692637	Green	1.62	0.07	5
Position marker - 48 - yellow	83692642	Yellow	1.62	0.07	5
Position marker - 48 - red	83692647	Red	1.62	0.07	5
Position marker - set 48	83692692		1.62	0.07	1
Position marker - 56 - green	83692638	Green	2.33	0.07	5
Position marker - 56 - yellow	83692643	Yellow	2.33	0.07	5
Position marker - 56 - red	83692648	Red	2.33	0.07	5
Position marker - set 56	83692694		2.33	0.07	1
Position marker - 70 - green	83692639	Green	2.78	0.07	5
Position marker - 70 - yellow	83692644	Yellow	2.78	0.07	5
Position marker - 70 - red	83692649	Red	2.78	0.07	5
Position marker - set 70	83692698		2.78	0.07	1

Robot lubricant



PRODUCT INFORMATION

Optimol is a light yellow special lubricant based on polyalphaolefin for the lubrication of cables and lines in dynamic applications. Optimol facilitates the easy and low-wear shifting and sliding of cables and lines in their protective conduits.

Applications: Optimol is applied as a thin layer for the lifetime lubrication of lines. Connections as well as strain relief are to be kept free of lubricants.

Advantages:

- Good water resistance
- Good compatibility with plastics and elastomers
- Highly compatible with painted surfaces
- No wet paint impairments
- Resistant to weld splatter

SPECIFICATIONS



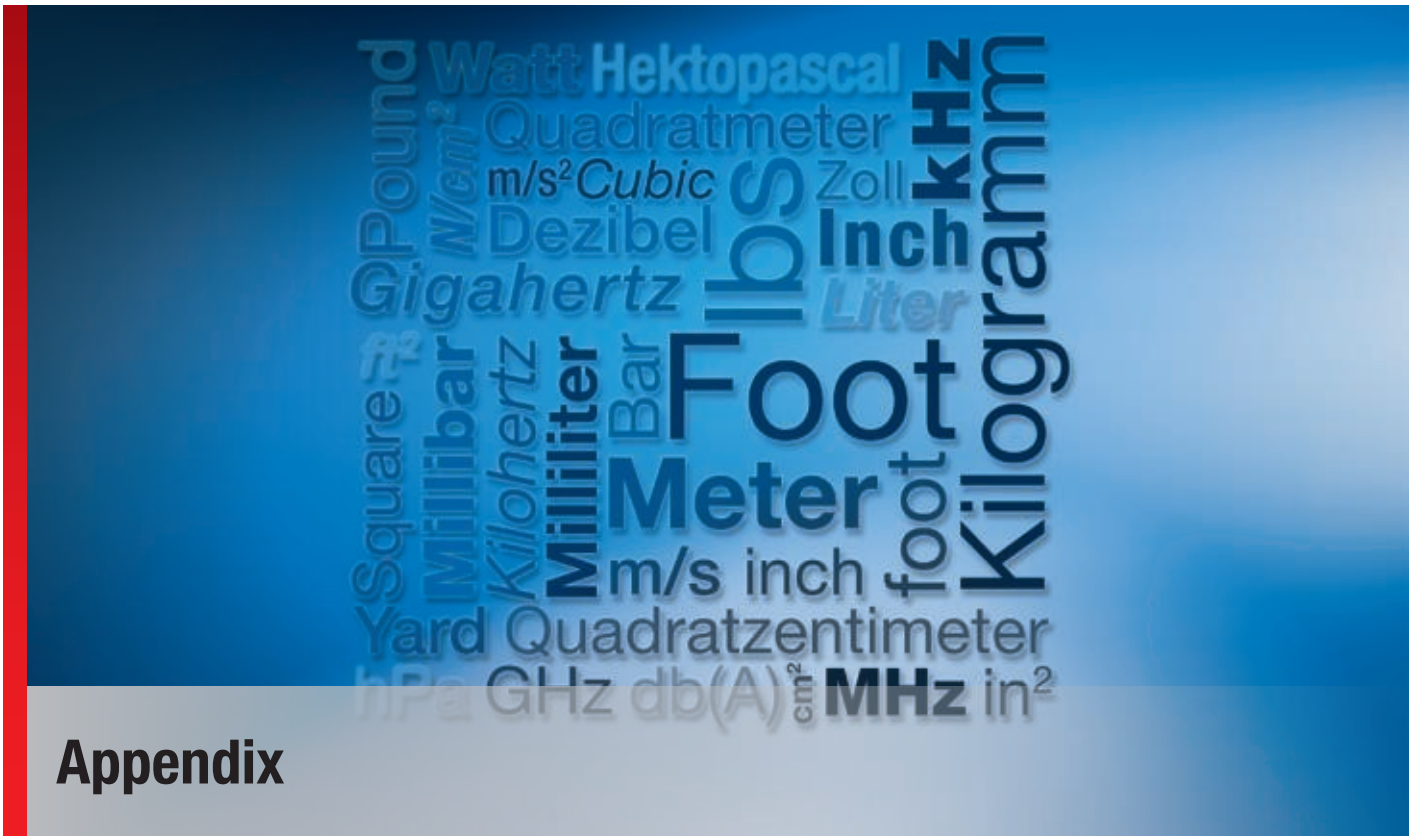
-58 – 248 °F



based on polyalphaolefin



Type	Part number	Color	Pack qty.
Optimol robot lubricant, 1kg	83980235	Light beige	1
Optimol robot lubricant, 17kg bucket	83980264	Light beige	1



Appendix



Base plates and recirculation systems for KUKA robots

KUKA ROBOT TYPE	83692760 Base plate KUKA KR10 R 1100	83692750 Base plate KUKA KR16	83692757 Base plate KUKA KR30 - KR60	83692620 Recirculation system M25/M32	R-TecBox-S M32/M40	R-TecBox M40/M50	R-TecBox 56/70
KR 3 R540 (KR AGILUS)	●			●			
KR 6 R700 five (KR AGILUS)	●			●			
KR 6 R700 sixx (KR AGILUS)	●			●			
KR 6 R700 sixx WP (KR AGILUS)	●			●			
KR 6 R900 five (KR AGILUS)	●			●			
KR 6 R900 sixx (KR AGILUS)	●			●			
KR 6 R900 sixx WP (KR AGILUS)	●			●			
KR 10 R900 sixx (KR AGILUS)	●			●			
KR 10 R900 sixx WP (KR AGILUS)	●			●			
KR 10 R1100 five (KR AGILUS)	●			●			
KR 10 R1100 sixx (KR AGILUS)	●			●			
KR 10 R1100 sixx WP (KR AGILUS)	●			●			
KR 5 arc		●			●		
KR 6-2		●			●		
KR 16-2		●			●		
KR 16 L6-2		●			●		
KR 20-3		●			●		
KR 5-2 arc HW		●			●		
KR 16 arc HW		●			●		
KR 16-2 F		●			●		
KR 16-2 KS-F		●			●		
KR 16 L6-2 KS		●			●		
KR 16-2 CR		●			●		
KR 30-3			●		●		
KR 30 L16-2			●		●		
KR 60-3			●		●		
KR 30-3 F			●		●		
KR 30-4 KS-F			●		●		
KR 30-4 KS			●		●		
KR 30-3 CR			●		●		
KR 30 HA (High Accuracy)			●		●		
KR 60-3 F			●		●		
KR 60-4 KS-F			●		●		
KR 60-4 KS			●		●		
KR 60 L16-2 KS			●		●		
KR 90 R2700 pro (KR QUANTEC pro)			●		●	●	
KR 120 R2500 pro (KR QUANTEC pro)			●		●	●	
KR 90 R3100 extra (KR QUANTEC extra)			●		●	●	
KR 120 R2900 extra (KR QUANTEC extra)			●		●	●	
KR 150 R2700 extra (KR QUANTEC extra)			●		●	●	
KR 210 R2700 extra (KR QUANTEC extra)			●		●	●	
KR 180 R2500 extra (KR QUANTEC extra)			●		●	●	
KR 90 R3100 extra F-HP (KR QUANTEC extra)			●		●	●	
KR 120 R2900 extra F-HP (KR QUANTEC extra)			●		●	●	

Base plates and recirculation systems for KUKA robots



KUKA ROBOT TYPE	83692760 Base plate KUKA KR10 R 1100	83692750 Base plate KUKA KR16	83692757 Base plate KUKA KR30 - KR60	83692620 Base plate KUKA QUANTEC/SERIE 2000	R-TecBox system M25/M32	R-TecBox-S M32/M40	R-TecBox M40/M50	R-TecBox 56/70
KR 150 R2700 extra F-HP (KR QUANTEC extra)			●		●	●		
KR 180 R2500 extra F-HP (KR QUANTEC extra)			●		●	●		
KR 150 R3100 prime (KR QUANTEC prime)			●		●	●		
KR 180 R2900 prime (KR QUANTEC prime)			●		●	●		
KR 210 R2700 prime (KR QUANTEC prime)			●		●	●		
KR 240 R2500 prime (KR QUANTEC prime)			●		●	●		
KR 240 R2700 prime (KR QUANTEC)			●		●	●		
KR 90 R3700 prime K (KR QUANTEC prime)			●		●	●		
KR 120 R3500 prime K (KR QUANTEC prime)			●		●	●		
KR 150 R3300 prime K (KR QUANTEC prime)			●		●	●		
KR 180 R3100 prime K (KR QUANTEC prime)			●		●	●		
KR 210 R2900 prime K (KR QUANTEC prime)			●		●	●		
KR 210 R2700 prime F (KR QUANTEC prime)			●		●	●		
KR 210 R3100 ultra (KR QUANTEC ultra)			●		●	●		
KR 240 R2900 ultra (KR QUANTEC ultra)			●		●	●		
KR 270 R2700 ultra (KR QUANTEC ultra)			●		●	●		
KR 300 R2500 ultra (KR QUANTEC ultra)			●		●	●		
KR 210 R3100 ultra F (KR QUANTEC ultra)			●		●	●		
KR 120 R3900 ultra K (KR QUANTEC ultra)			●		●	●		
KR 150 R3700 ultra K (KR QUANTEC ultra)			●		●	●		
KR 180 R3500 ultra K (KR QUANTEC ultra)			●		●	●		
KR 210 R3300 ultra K (KR QUANTEC ultra)			●		●	●		
KR 240 R3100 ultra K (KR QUANTEC ultra)			●		●	●		
KR 270 R2900 ultra K (KR QUANTEC ultra)			●		●	●		
KR 240 R2900 ultra F (KR QUANTEC ultra)			●		●	●		
KR 270 R2700 ultra F (KR QUANTEC ultra)			●		●	●		
KR 300 R2500 ultra F (KR QUANTEC ultra)			●		●	●		
KR 240 R3330 (KR 360 FORTEC)			●		●	●		
KR 280 R3080 (KR 360 FORTEC)			●		●	●		
KR 360 R2830 (KR 360 FORTEC)			●		●	●		
KR 340 R3330 (KR 500 FORTEC)			●		●	●		
KR 420 R3080 (KR 500 FORTEC)			●		●	●		
KR 480 R3330 MT (KR 500 FORTEC)			●		●	●		
KR 500 R2830 (KR 500 FORTEC)			●		●	●		
KR 500 R2830 MT (KR 500 FORTEC)			●		●	●		
KR 420 R3330 (KR 600 FORTEC)			●		●	●		
KR 510 R3080 (KR 600 FORTEC)			●		●	●		
KR 600 R2830 (KR 600 FORTEC)			●		●	●		
KR 120 R3200 PA (KR QUANTEC)			●		●	●		
KR 180 R3200 PA (KR QUANTEC)			●		●	●		
KR 240 R3200 PA (KR QUANTEC)			●		●	●		
KR 300-2 PA			●		●	●		
KR 470-2 PA			●		●	●		
KR 700 PA			●		●	●		

Base plates and recirculation systems for ABB robots



ABB ROBOT TYPE	83692762 Base Plate ABB IRB Serie 1600	83692763 Base plate ABB IRB 2600	83692625 Base plate ABB SERIE 4600	83692623 Base plate ABB SERIE 6400	83692627 Base plate ABB SERIE 6600	83692622 Base plate ABB SERIE 6620	Recirculation system M25/M32	R-TecBox-S M32/M40	R-TecBox M40/M50	R-TecBox 56/70
ABB IRB 1600	●						●			
ABB IRB 2600		●					●			
ABB IRB 4600			●					●	●	
ABB IRB 6400				●					●	
ABB IRB 6620					●			●	●	
ABB IRB 6650						●		●	●	
ABB IRB 6650S						●		●	●	
ABB IRB 6660						●		●	●	
ABB IRB 6700						●		●	●	

Base plates and recirculation systems for Yaskawa-Motoman robots

YASKAWA-MOTOMAN ROBOT TYPE	83692629 Base Plate Motoman MS165, MH180	83692628 Base plate Motoman MH50	Recirculation system M25/M32	R-TecBox-S M32/M40	R-TecBox M40/M50	R-TecBox 56/70
Yaskawa-Motoman ES165RDII	●			●	●	
Yaskawa-Motoman ES200RDII	●			●	●	
Yaskawa-Motoman MH50-20II		●		●		
Yaskawa-Motoman MH180-120	●			●	●	
Yaskawa-Motoman MH180	●			●	●	
Yaskawa-Motoman MH225	●			●	●	
Yaskawa-Motoman MH280II	●			●	●	
Yaskawa-Motoman MS165	●			●	●	
Yaskawa-Motoman MS210	●			●	●	



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