



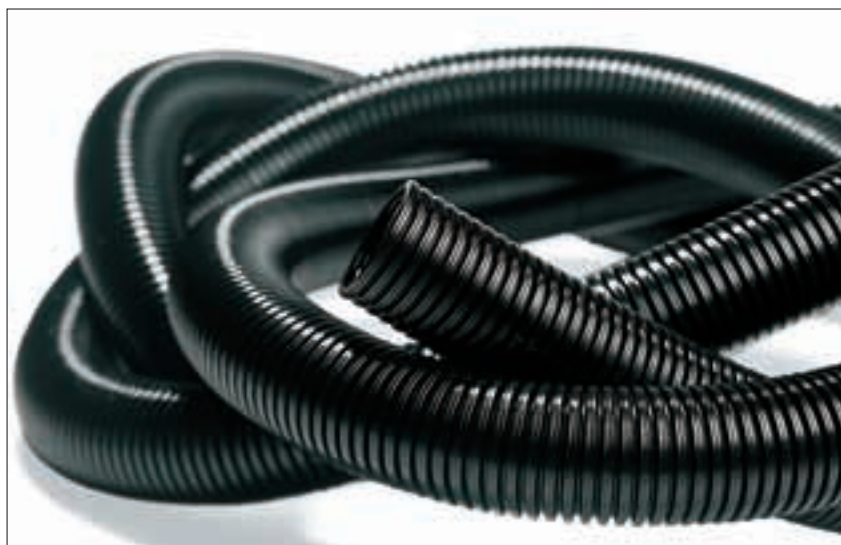
FCT Convoluted Tubing

Features and Benefits

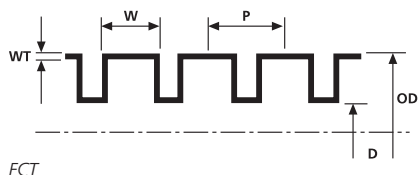
FCT convoluted tubing is manufactured from PA6 and offers superior protection from oils, fuels and solvents. FCT is light and flexible, but provides excellent crush and abrasion resistance.

Application

FCT convoluted tubing is typically used to route and protect wiring in control panels, cabinets, machines, cars and commercial vehicles.



FCT convoluted tubing.



Material Data

Material	Polyamide 6 (PA6)
Colour	Black (BK)
Operating Temperature	-40 °C to +120 °C, Intermittent +150 °C
Flammability	UL94 HB



Technical Table

Article-No.	Type	Outside Ø (OD)	Inside Ø	Wall (WT)
169-00091	FCT7	9.9	6.9	0.45
169-00090	FCT7S	9.9	6.9	0.45
169-00034	FCT10	14.0	10.5	0.45
169-00031	FCT10S	14.0	10.5	0.45
169-00044	FCT11	15.5	11.5	0.45
169-00043	FCT11S	15.5	11.5	0.45
169-00056	FCT13	17.3	12.1	0.45
169-00053	FCT13S	17.3	12.1	0.45
169-00066	FCT16	20.7	16.5	0.45
169-00065	FCT16S	20.7	16.5	0.45
169-00074	FCT19	23.5	19.5	0.45
169-00071	FCT19S	23.5	19.5	0.45
169-44230	FCT23	27.7	23.5	0.55
169-00079	FCT23S	27.7	23.5	0.55

All dimensions in mm. Subject to technical changes.

Other materials available on request.



CTC Convolved Tubing Clamp

Features and Benefits

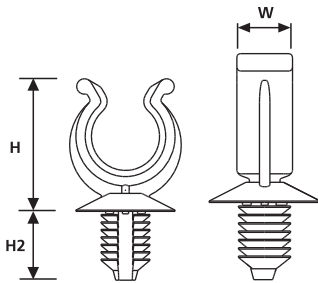
CTC clamps are used to fix FCT convoluted tubing up to size 16. The clamps have five hole mounts suitable for a large range of hole sizes. The tubing is clicked into the CTC clamps and is held firmly. The rib on the inside of the clamp prevents the tubing from slipping.

Application

CTC clamps are used for example in the automobile, harness making, electrical industry and wherever corrugated tubing has to be quickly and firmly fixed.



CTC Convolved Tubing Clamp for a large range of hole sizes and plate thickness.



CTC10FT6LG

Material Data

Material	Polyamide 6.6 High Impact Modified, Heat Stabilised (PA66HIRHS)
Colour	Black (BK)
Operating Temperature	-40 °C to +105 °C
Flammability	UL94 HB



Technical Table

Article-No.	Type	Width (W)	Height (H)	Height (H2)	Nominal Ø	Disc Ø	Fixing Hole Ø (FH)	Panel Thickness min.	Panel Thickness max.
151-14313	CTC7.5FT6LG	8.0	18.6	11.1	7.5	16.0	6.5-7.0	0.75	6.0
155-31602	CTC7.5FT9	8.0	19.9	12.2	7.5	23.0	8.7-9.0	3.0	5.0
151-14311	CTC10FT6	8.0	21.4	7.5	10.0	16.0	6.5-7.0	0.75	3.0
151-00018	CTC10FT6LG	8.0	21.4	11.1	10.0	16.0	6.5-7.0	0.75	6.0
155-17801	CTC10FT9	8.0	22.7	12.2	10.0	23.0	8.7-9.0	3.0	5.0
151-14312	CTC13FT6	8.0	25.2	7.5	13.0	16.0	6.5-7.0	0.75	3.0
151-00019	CTC13FT6LG	8.0	25.2	11.1	13.0	16.0	6.5-7.0	0.75	6.0

All dimensions in mm. Subject to technical changes.

There are many clamps with other base shapes available, for example for weld studs. Contact us!



Flexiguard NS Protective Hoses

Features and Benefits

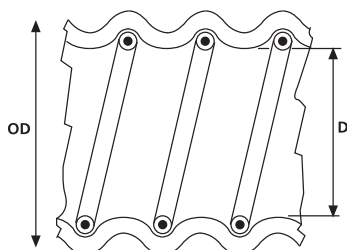
Flexiguard is a highly flexible protective hose made of a high-grade PVC and a plastic coated spring steel wire. It offers good mechanical protection and fulfils IP 68. Due to its very low bending radius, Flexiguard can be used under very difficult conditions.

Application

Flexiguard protective hoses are used in switching cabinets and plant construction as protection for cables. It can also be used to protect wiring around cabinet doors that need to be opened and closed regularly.



Flexiguard NS with UH fitting.



Flexiguard

Material Data

Material	Flexible Polyvinyl Chloride, cadmium free (PVC)
Colour	Grey (GY)
Operating Temperature	-20 °C to +70 °C, Intermittent +80 °C
Protection Class	IP68
Flammability	UL94 HB



Technical Table

Article-No.	Type	Ø D	Outside Ø (OD)	Bending Radius	Reel Length (m)
Flexiguard					
167-00209	NS09	10	14	14	10
167-00211	NS11	13	17	17	10
167-00213	NS13	15	19	19	10
167-00216	NS16	16	21	21	10
167-00221	NS21	21	27	27	10
167-00229	NS29	30	36	36	10
167-00236	NS36	38	45	45	10
167-00248	NS48	48	56	56	10

All dimensions in mm. Subject to technical changes.



Flexiguard Plus Protective Hoses

Features and Benefits

The highly flexible Flexiguard Plus protective hoses are made of a high-grade polyurethane and a PUR-coated spring steel wire.

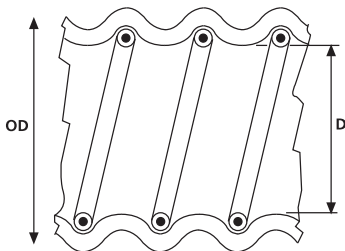
The tubing offers superior protection against chemicals, oils, UV and ozone. Flexiguard Plus has excellent abrasion resistance and tensile strength and is also halogen-free.

Application

Flexiguard Plus is resistant to chemicals and oils and used in machine building in very demanding environments.



Flexiguard Plus with UH fitting.



Flexiguard Plus

Material Data

Material	Polyurethane (PUR)
Colour	Blue (BU)
Operating Temperature	-40 °C to +90 °C, Intermittent +125 °C
Protection Class	IP68
Flammability	UL94 V2



Technical Table

Article-No.	Type	Ø D	Outside Ø (OD)	Bending Radius	Reel Length (m)
Flexiguard Plus					
167-00309	FG09	11	14	14	10
167-00311	FG11	13	17	17	10
167-00313	FG13	15	19	19	10
167-00316	FG16	17	21	21	10
167-00321	FG21	22	27	27	10
167-00329	FG29	31	36	36	10
167-00336	FG36	39	45	45	10
167-00348	FG48	49	56	52	10

All dimensions in mm. Subject to technical changes.



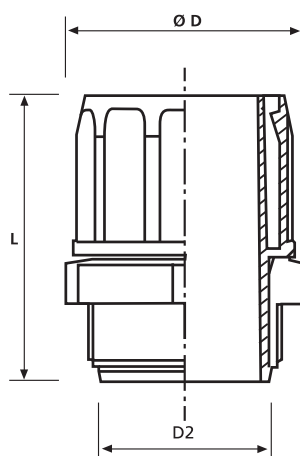
NV and TV Fittings

Features and Benefits

The fittings for Flexiguard and Helaguard protective hoses are available with PG threads (NV) and metric threads (TV). The fittings are easily fastened to the hoses. The fitting has a long, conical shaped inner socket allowing cables to be protected against liquids and meets IP54. The pins on the inside of the fittings provide a firm hold and prevent slippage of the hose. Due to the reinforced outer walls and the use of modified polypropylene, the NV and TV fittings are especially robust.

Application

The fittings are used with the Flexiguard and Helaguard hoses wherever protection against dust or fluids is required.



NV and TV fittings

Material Data

Material	Polypropylene (PP)
Colour	Grey (GY)
Operating Temperature	-35 °C to +80 °C
Protection Class	IP54
Flammability	UL94 V2



Technical Table

Article-No.	Type	For Hose Outer Ø D	Inner Diameter D2 Inner Ø D2	Thread Size (metric)	Length (L)	Ø D
Connecting Screw Fittings						
167-00530	TV09/M16	14	8.8	16 x 1.5	42.0	22.0
167-00531	TV11/M20	17	11.1	20 x 1.5	45.5	26.4
167-00533	TV16/M25	21	14.8	25 x 1.5	49.8	33.0
167-00534	TV21/M32	27	19.4	32 x 1.5	52.0	39.6
167-00535	TV29/M40	36	27.9	40 x 1.5	55.0	50.6
167-00536	TV36/M50	45	35.6	50 x 1.5	58.0	60.5
167-00537	TV48/M63	56	45.9	63 x 1.5	60.5	71.5

All dimensions in mm. Subject to technical changes.

Technical Table

Article-No.	Type	For Hose Outer Ø D	Inner Ø D2	Thread Size (PG)	Length (L)	Ø D
Connecting Screw Fittings						
167-00510	NV09	14	8.8	PG9	42.0	22.0
167-00511	NV11	17	11.1	PG11	45.5	26.4
167-00512	NV13,5	19	13.0	PG13	47.5	29.7
167-00513	NV16	21	14.8	PG16	49.8	33.0
167-00514	NV21	27	19.4	PG21	52.0	39.6
167-00515	NV29	36	27.9	PG29	55.0	50.6
167-00516	NV36	45	35.6	PG36	58.0	60.5
167-00517	NV48	56	45.9	PG48	60.5	71.5

All dimensions in mm. Subject to technical changes.



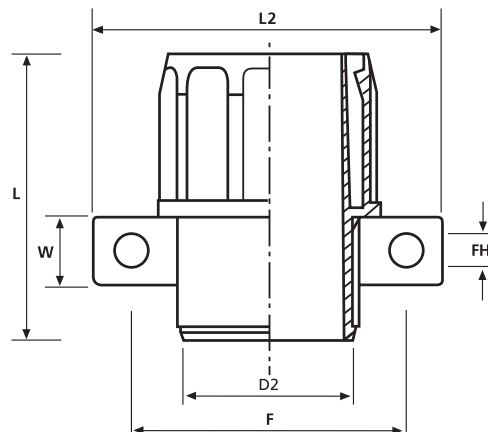
UH Fittings with Bracket

Features and Benefits

The UH conduit fittings hold and protect the conduit and provide a bracket to fix the fitting firmly. The fittings are easily fastened to the hoses. The pins on the inside of the fittings hold the hoses securely. The long inner conical socket provides added protection against fluids, fulfilling IP54 rating according to DIN EN 60529. The UH fittings are made of modified polypropylene and are very robust.

Application

The fittings are used to fix Flexiguard and Helaguard hoses securely and to protect against dust or liquids.



UH fitting with bracket.

Material Data

Material	Polypropylene (PP)
Colour	Grey (GY)
Operating Temperature	-35 °C to +80 °C
Protection Class	IP54
Flammability	UL94 V2



Technical Table

Article-No.	Type	For Hose Outer Ø D	Inner Diameter D2 Inner Ø D2	Length (L)	Length (L2)	Width (W)	Fixing Hole Ø (FH)	Fixing Hole Centres (F)
Connecting Mounts								
167-00520	UH09	14	8.8	42.0	40.0	10.0	5.7	29.0
167-00521	UH11	17	11.1	45.5	50.0	12.0	5.7	37.0
167-00522	UH13.5	19	13.0	47.5	50.0	12.0	5.7	37.0
167-00523	UH16	21	14.8	49.8	50.0	12.0	5.7	37.0
167-00524	UH21	27	19.4	52.0	57.0	12.5	5.7	43.0
167-00525	UH29	36	27.9	55.0	67.0	13.0	6.7	53.0
167-00526	UH36	45	35.6	58.0	80.0	14.0	6.7	65.0
167-00527	UH48	56	45.9	60.5	93.0	16.5	6.7	76.0

All dimensions in mm. Subject to technical changes.