



Braided Sleeving

Protect your Electrical Ensemble

MADE FOR REAL 

Keep It Tidy with Braided Sleeving Cable Defense

HellermannTyton braided sleeving products provide abrasion and damage protection for hoses, cable assemblies and wire bundles. Braided sleeving products are made in a variety of materials including general purpose polyester, PA66 nylon, flame retardant, fray resistant, high temperature and materials that provide electromagnetic protection.

Available in non-expandable, expandable, split wrap and hook and loop styles, HellermannTyton offers a braided sleeving option for every application. Many sleeving products are also resistant to harsh environments such as chemicals, salts, solvents, de-icing fluids and petroleum products as well as being resilient against UV light. The unique physical weave of braided sleeving makes it flexible but provides enough airflow as to not trap moisture or humidity. Expandable braided sleeving products are designed to expand beyond their nominal size to fit varying bundle sizes and shapes.

Most braided sleeving products are designed to be cut with a hot knife, which sears the edges and reduces the amount of fraying that occurs during the lifetime of the product. For applications that do not allow access to a hot knife, fray resistant versions are available that can be cut with ordinary scissors with minimal fraying. Ends are easily secured with cable ties, electrical tape or heat shrink materials.

Market Applications

Automotive, Transportation, Industrial Equipment, Electronics, Automation/
Robotics, Control Panels, Marine, Machine Tools, General Manufacturing/OEM

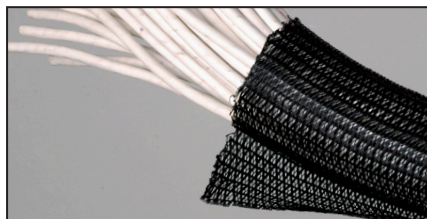
Product Applications

Hose Assemblies, Cable Bundles, Wire Harnesses,
Electrical Cables

SELECTION GUIDE

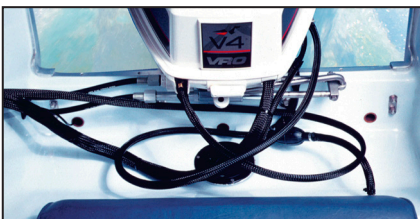
Materials Comparison	General Purpose						High Temperature Sleeving			
	Expandable Braided Sleeving Black & Orange	HLB HelaGain Expandable Sleeving Dispenser Packs	Fray Resistant Braided Sleeving	Flame Retardant Expandable Braided Sleeving	Fray Resistant + Flame Retardant Expandable Braided Sleeving	Heavy Duty Woven Sleeving	Resin Fiberglass Sleeving	Polyaramid Poly-metaphenylene Isophthalamide (PMPi) Sleeving	Aluminum Fiberglass Reflective Sleeve	Aluminum Fiberglass Reflective Wrap
Series Name	BSP	HLB	BSPSC	BSPFR	BSSCFR	BSHDWV	BSHTFG	BSNMX	BSHTTST	BSHTTSW
Color	Black or Orange	Black	Black	Black	Black	Black	Black	Green	Silver	Silver
	-94°F to 257°F	-58°F to 302°F	-94°F to 257°F	-94°F to 257°F	-94°F to 257°F	-49°F to 248°F	-94°F to 1202°F	-320°F to 662°F	-76°F to 491°F	-76°F to 491°F
	-70°C to 125°C	-50°C to 150°C	-70°C to 125°C	-70°C to 125°C	-70°C to 125°C	-45°C to 120°C	-70°C to 650°C	-196°C to 350°C	-60°C to 225°C	-60°C to 225°C
Melt Point	+250°C	+250°C	+250°C	+250°C	+250°C	+210°C	+1120°C	+350°C	+1120°C	+1120°C
Flammability Rating	UL 94 V0	UL94-V2	UL94-V0	UL 224 VW-1	UL 224 VW-1	Not Rated	UL 224 VW-1	Self-Extinguishing	Not Flammable	Not Flammable
UV Resistance	Good	Limited	Limited	Limited	Limited	Limited	Limited	Limited		
Halogen Free	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Expandable	Yes	Yes	Yes	Yes	Yes			Yes		
Other Certifications	FMVSS 302, FAR-25			FMVSS 302, FAR-25, Mil-202	Mil-202, NFPA 130					
Recommended Cutting	Hot Knife	Hot Knife	Scissors	Hot Knife	Scissors	Scissors	Scissors	Scissors	Scissors	Scissors
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Key Benefits



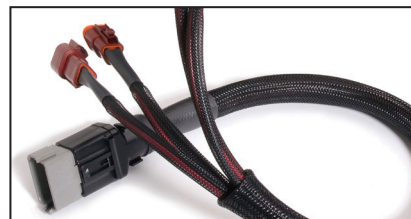
Easy Application

All braided sleeving products are designed for easy application on bundles while adjusting to fluctuations in bundle size and shape.



Superior Protection

In addition to abrasion protection, most braided sleeving products also provide protection against chemicals, salts, solvents, de-icing fluids and petroleum products. Specialty braided sleeving models also provide protection against flame, heat and/or electromagnetic interference.



Enhanced Appearance

Braided sleeving products wrap around varying bundle shapes, sizes and colors to provide an aesthetically pleasing uniform look and appearance.

Wrap Sleeving							Specialty			
Split Wrap Braided Sleeving Black & Orange	Split Wrap Braided Flame Retardant Sleeving	Split Wrap Woven Sleeving	Split Wrap Woven Flame Retardant Sleeving	Split Wrap Woven Wrap-Orange	Hook & Loop Sleeving	Hook & Loop Flame Retardant Sleeving	Polyamide PA66 Expandable Braided Sleeving-Black	Polyamide PA66 Expandable Braided Sleeving Gray	Electromagnetic Interference Sleeving-Orange	Rodent Resistant Wrap Sleeving
BSPSW	BSSWFR	BSSWV	BSSWVFR	BSPW	BSHKLP	BSHKLPR	BSPA66	HEGPA66	HEGEMIP-HY	Twist-In-RR
Black or Orange	Black	Black	Black	Orange	Black	Black	Black	Gray	Orange	White
-94°F to 257°F	-94°F to 257°F	-94°F to 257°F	-94°F to 257°F	-94°F to 302°F	-94°F to 257°F	-94°F to 257°F	-49°F to 302°F	-76°F to 302°F	-40°F to 302°F	-94°F to 257°F
-70°C to 125°C	-70°C to 125°C	-70°C to 125°C	-70°C to 125°C	-70°C to 150°C	-70°C to 125°C	-70°C to 125°C	-45°C to 150°C	-60°C to 150°C	-40°C to 150°C	-70°C to 125°C
+250°C	+230°C	+250°C	+250°C	+250°C	+250°C	+250°C	+255°C	+255°C	+225°C	+225°C
UL94-V0	UL 224 VW-1	UL94-V0	UL 224 VW-1	UL94-V0	UL94-V0	UL 224 VW-1	Not Rated	Not Rated	UL 94 V-2	Self-Extinguishing
Good	Limited	Limited	Limited	Limited	Limited	Limited	Limited	Limited		Good
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
							Yes	Yes	Yes	
	FAR-25, NFPA 130		NFPA 130		FAR-25	Mil-202		FMVSS 302		FMVSS 302
Hot Knife	Hot Knife	Hot Knife	Hot Knife	Hot Knife	Hot Knife	Hot Knife	Hot Knife	Hot Knife	Shears	Scissors
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Routing, Protection and Insulation

Braided Sleeving

Braided Sleeving - General Purpose

Expandable Braided Sleeving - Black

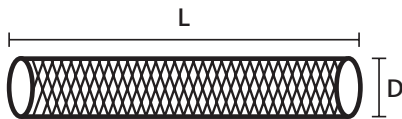
Designed to adjust and expand to irregular shapes, this general purpose sleeving is lightweight and offers a high tensile strength while still maintaining flexibility. This sleeving is an excellent choice for protecting wire and cable bundles from abrasion, chafing and heat degradation. Commonly used in electrical and industrial wire harnessing application where economy and durability are required for the protection of wires, cables, tubing, bundles and pneumatic hoses.

Features and Benefits

- Weave construction adjusts to twisting and flexing without creating wrinkles or bends.
- Durable construction offers excellent abrasion and cut-through resistance as well as inertness to most chemicals and fungus.
- Color options available to provide easy visual and safety identification of critical wiring components.
- Expands to 150% of nominal diameter for fast, easy installation.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 94 V-0, FMVSS 302, FAR 25
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium
Recommended Cutting Tools	Hot Knife



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03177	BSP180	0.125 (3.2)	0.1 (2.4)	0.3 (6.4)	Black	225.0 (68.6)
170-03000	BSP140	0.25 (6.4)	0.1 (3.2)	0.4 (11.1)	Black	200.0 (61.0)
170-03041	BSP140B	0.25 (6.4)	0.1 (3.2)	0.4 (11.1)	Black	1000.0 (304.8)
170-03225	BSP380B	0.38 (9.5)	0.2 (4.8)	0.5 (12.7)	Black	500.0 (152.4)
170-03001	BSP120	0.5 (12.7)	0.3 (6.4)	0.8 (19.1)	Black	100.0 (30.5)
170-03042	BSP120B	0.5 (12.7)	0.3 (6.4)	0.8 (19.1)	Black	500.0 (152.4)
170-03002	BSP340	0.75 (19.1)	0.5 (12.7)	1.3 (31.8)	Black	75.0 (22.9)
170-03043	BSP340B	0.75 (19.1)	0.5 (12.7)	1.3 (31.8)	Black	250.0 (76.2)
170-03003	BSP100	1 (25.4)	0.6 (15.9)	1.6 (41.3)	Black	65.0 (19.8)
170-03044	BSP100B	1 (25.4)	0.6 (15.9)	1.6 (41.3)	Black	250.0 (76.2)
170-03004	BSP1140	1.25 (31.8)	0.8 (19.1)	1.8 (44.5)	Black	50.0 (15.2)
170-03045	BSP1140B	1.25 (31.8)	0.8 (19.1)	1.8 (44.5)	Black	250.0 (76.2)
170-03005	BSP1120	1.5 (38.1)	1.0 (25.4)	2.1 (54.0)	Black	40.0 (12.2)
170-03178	BSP200B	2 (50.8)	1.5 (38.1)	3.5 (88.9)	Black	200.0 (61.0)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

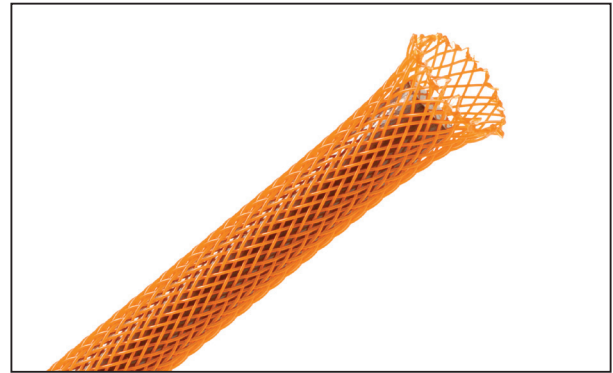
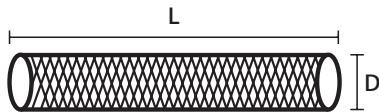
Braided Sleeving - General Purpose

Expandable Braided Sleeving - Orange

Orange PET braided sleeving is an extremely flexible, general purpose option for bundling and protecting wires and cables in abrasive type applications. Its color makes it ideal for systematic color coding of complex wiring installations. Commonly used to shield cable harnesses in battery powered vehicles, such as hybrid cars, golf carts and light trucks.

Features and Benefits

- Provides easy visual and safety identification of critical wiring components.
- Offers high tensile strength while maintaining extreme flexibility.
- Expands up to 150% of flat diameter for easy installation.
- Does not trap heat and humidity.
- Installs quickly and accommodates expansions and varying cable assembly shapes, reducing installation costs.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 94 V-0, FMVSS 302, FAR 25
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium
Recommended Cutting Tools	Hot Knife

HF ✓

RoHS ✓

PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03076	BSP143B	0.25 (6.4)	0.1 (3.2)	0.4 (11.1)	Orange, High Voltage	1000.0 (304.8)
170-03077	BSP123B	0.5 (12.7)	0.3 (6.4)	0.8 (19.1)	Orange, High Voltage	500.0 (152.4)
170-03078	BSP343B	0.75 (19.1)	0.5 (12.7)	1.3 (31.8)	Orange, High Voltage	250.0 (76.2)
170-03079	BSP103B	1 (25.4)	0.6 (15.9)	1.6 (41.3)	Orange, High Voltage	250.0 (76.2)
170-03080	BSP1143B	1.25 (31.8)	0.8 (19.1)	1.8 (44.5)	Orange, High Voltage	250.0 (76.2)
170-03081	BSP1123B	1.5 (38.1)	1.5 (38.1)	3.5 (88.9)	Orange, High Voltage	200.0 (61.0)

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Routing, Protection and Insulation

Braided Sleeving

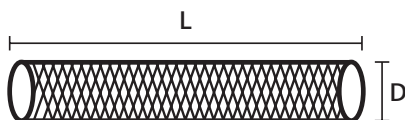
Braided Sleeving - General Purpose

Expandable Braided Sleeving - Helagaine Dispenser Packs

This convenient package holds mini spools of expandable braided sleeving. Designed to save space and provide easy access when dispensing, this unit allows for the efficient handling and management of sleeving. The perfect solution for use in field-service applications where a large spool of braided sleeving is not feasible or when only a small amount of sleeving is required for a quick-fix project.

Features and Benefits

- Expands (3:1 ratio) to allow for a wide range of bundle sizes.
- Dispenser box protects sleeving from dirt and keeps it from unraveling.



MATERIAL	Polyester (PET)
Operating Temperature	-58°F to +302°F (-50°C to +150°C)
Flammability	UL 94 V-2
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium
Recommended Cutting Tools	Hot Knife



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-80150	HLB15	1.56 (15.0)	0.2 (5.0)	0.8 (21.0)	Black	32.8 (10.0)
170-80250	HLB25	1 (25.0)	0.4 (10.0)	1.2 (30.0)	Black	32.8 (10.0)
170-80350	HLB35	1.38 (35.0)	0.7 (18.0)	2.1 (54.0)	Black	32.8 (10.0)

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Braided Sleeving - General Purpose

Fray Resistant Expandable Braided Sleeving

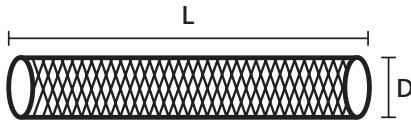
A versatile and economical general purpose sleeving that resists fraying when cut with ordinary scissors. For use in automotive, industrial and computer applications where the wires, cables and hoses being covered endure frequent handling. It is suited for situations where access to a hot knife is either impractical or impossible.

Features and Benefits

- Cuts with scissors without fraying ends enables field installations without need for hot knife.
- Expands to 150% of easy installation and reduced assembly time requirements.
- Material construction offers excellent abrasion and cut-through protection as well as inertness to common chemicals and fungus.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 94 V-0
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium
Recommended Cutting Tools	Scissors



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03123	BSPSC180	0.125 (3.2)	0.1 (3.2)	0.3 (6.4)	Black	100.0 (30.5)
170-03035	BSPSC140	0.25 (6.4)	0.2 (4.0)	0.4 (11.1)	Black	100.0 (30.5)
170-03012	BSPSC120	0.5 (12.7)	0.3 (6.4)	0.8 (19.1)	Black	100.0 (30.5)
170-03013	BSPSC340	0.75 (19.1)	0.6 (15.9)	1.0 (25.4)	Black	75.0 (22.9)
170-03014	BSPSC100	1 (25.4)	0.8 (19.1)	1.2 (30.2)	Black	50.0 (15.2)
170-03015	BSPSC1140	1.25 (31.8)	1.0 (25.4)	1.5 (38.1)	Black	50.0 (15.2)
170-03016	BSPSC1120	1.5 (38.1)	1.3 (31.8)	2.0 (50.8)	Black	50.0 (15.2)

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Routing, Protection and Insulation

Braided Sleeving

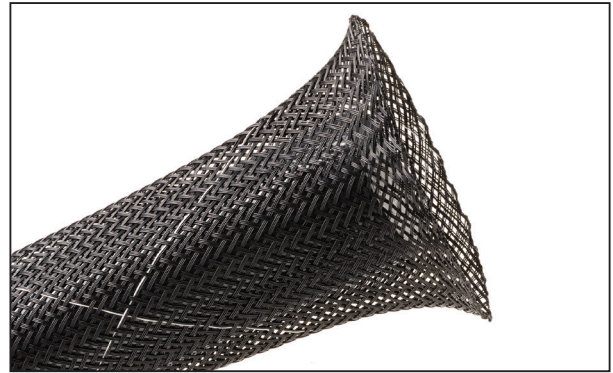
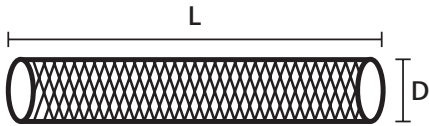
Braided Sleeving - Flame Retardant

Expandable Braided Sleeving - Treated PET

A flame retardant woven (threaded) polyester sleeving that is resistant to cuts and abrasion, and contains a combustion inhibitor allowing it to achieve a UL and CSA flame resistance rating of VW-1. Contains white tracer thread for easy identification.

Features and Benefits

- Treated polyester material contains a combustion inhibitor for use in applications where flame retardancy is required.
- Braided design allows sleeving to expand by 150% to accommodate variations in wire bundle and eases installation.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 224 VW-1, Mil-202, FAR 25, FMVSS 302
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium
Recommended Cutting Tools	Hot Knife



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03089	BSPFR180B	0.125 (3.2)	0.1 (2.4)	0.3 (6.4)	Black	1000.0 (304.8)
170-03071	BSPFR188	0.125 (3.2)	0.1 (2.4)	0.3 (6.4)	Gray	225.0 (68.6)
170-03006	BSPFR140	0.25 (6.4)	0.1 (3.2)	0.4 (11.1)	Black	200.0 (61.0)
170-03090	BSPFR140B	0.25 (6.4)	0.1 (3.2)	0.4 (11.1)	Black	1000.0 (304.8)
170-03072	BSPFR148	0.25 (6.4)	0.1 (3.2)	0.4 (11.1)	Gray	200.0 (61.0)
170-03187	BSPFR380	0.38 (9.5)	0.2 (4.8)	0.5 (12.7)	Black	500.0 (152.4)
170-03007	BSPFR120	0.5 (12.7)	0.3 (6.4)	0.8 (19.1)	Black	100.0 (30.5)
170-03091	BSPFR120B	0.5 (12.7)	0.3 (6.4)	0.8 (19.1)	Black	500.0 (152.4)
170-03073	BSPFR128	0.5 (12.7)	0.3 (6.4)	0.8 (19.1)	Gray	100.0 (30.5)
170-03008	BSPFR340	0.75 (19.1)	0.5 (12.7)	1.3 (31.8)	Black	75.0 (22.9)
170-03092	BSPFR340B	0.75 (19.1)	0.5 (12.7)	1.3 (31.8)	Black	250.0 (76.2)
170-03074	BSPFR348	0.75 (19.1)	0.5 (12.7)	1.3 (31.8)	Gray	75.0 (22.9)
170-03093	BSPFR100B	1 (25.4)	0.6 (15.9)	1.6 (41.3)	Black	250.0 (76.2)
170-03010	BSPFR1140	1.25 (31.8)	0.8 (19.1)	1.8 (44.5)	Black	50.0 (15.2)
170-03094	BSPFR1140B	1.25 (31.8)	0.8 (19.1)	1.8 (44.5)	Black	250.0 (76.2)
170-03011	BSPFR1120	1.5 (38.1)	1.0 (25.4)	2.1 (53.9)	Black	40.0 (12.2)
170-03095	BSPFR1120B	1.5 (38.1)	1.0 (25.4)	2.1 (54.0)	Black	200.0 (61.0)
170-03066	BSPFR1128	1.5 (38.1)	1.0 (25.4)	2.1 (53.9)	Gray	40.0 (12.2)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Braided Sleeving - Flame Retardant

Fray Resistant Expandable Braided Sleeving

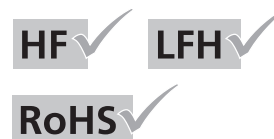
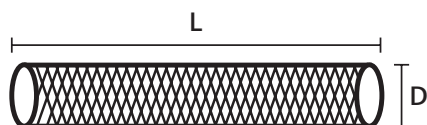
This protective sleeving is self-extinguishing and can be cut with sharp scissors instead of a hot knife for fray-resistant ends. Readily used in the automotive, audiovisual, industrial, wire, cable and computer industries where flame retardancy is required to reduce the likelihood of ignition and/or reduce the rate of flame spread. It is suited for situations where access to a hot knife is either impractical or impossible.

Features and Benefits

- Provides fuller coverage and a medium-to-high abrasion resistance.
- Expands for ease of installation in either the shop or the field.
- Increased braid density coverage provides higher level of abrasion resistance without losing flexibility.
- Contains white tracer thread for simple identification of flame retardancy.
- Treated yarns extinguish quickly and reduces potential flame spread to surrounding components.
- Cuts with ordinary scissors without fraying ends.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL VW-1, Mil-202
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium
Recommended Cutting Tools	Scissors



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03116	BSSCFR180B	0.125 (3.2)	0.1 (3.2)	0.3 (6.4)	Black	1000.0 (304.8)
170-03036	BSSCFR140	0.25 (6.4)	0.2 (4.0)	0.4 (11.1)	Black	100.0 (30.5)
170-03117	BSSCFR140B	0.25 (6.4)	0.2 (4.0)	0.4 (11.1)	Black	1000.0 (304.8)
170-03017	BSSCFR120	0.5 (12.7)	0.3 (6.4)	0.8 (19.1)	Black	100.0 (30.5)
170-03118	BSSCFR120B	0.5 (12.7)	0.3 (6.4)	0.8 (19.1)	Black	500.0 (152.4)
170-03018	BSSCFR340	0.75 (19.1)	0.6 (15.9)	1.0 (25.4)	Black	75.0 (22.9)
170-03119	BSSCFR340B	0.75 (19.1)	0.6 (15.9)	1.0 (25.4)	Black	250.0 (76.2)
170-03019	BSSCFR100	1 (25.4)	0.8 (19.1)	1.2 (30.2)	Black	50.0 (15.2)
170-03120	BSSCFR100B	1 (25.4)	0.8 (19.1)	1.2 (30.5)	Black	250.0 (76.2)
170-03020	BSSCFR1140	1.25 (31.8)	1.0 (25.4)	1.5 (38.1)	Black	50.0 (15.2)
170-03121	BSSCFR1140B	1.25 (31.8)	1.0 (25.4)	1.5 (38.1)	Black	250.0 (76.2)
170-03021	BSSCFR1120	1.5 (38.1)	1.3 (31.8)	2.0 (50.8)	Black	50.0 (15.2)
170-03122	BSSCFR1120B	1.5 (38.1)	1.3 (31.8)	2.0 (50.8)	Black	250.0 (76.2)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Routing, Protection and Insulation

Braided Sleeving

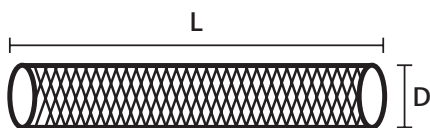
Braided Sleeving - High Temperature

Extreme High Temperature Resin Saturated Fiberglass Braided Sleeving

An extremely high-temperature resistant sleeving designed to protect wires and cables subjected to continuous temperature variations, vibration, abrasion, and mechanical stress. Perfect for engine manifolds and exhaust systems or any application where fire and extreme temperatures create a hazard to workforce and equipment.

Features and Benefits

- An exceptionally tough sleeving material which provides thermal protection up to 1,200°F.
- Sturdy construction maintains its tight structure under extreme shaking, scraping, pressure and varying temperature conditions.
- Cuts easily with ordinary scissors for easy application.
- UL VW-1 flammability rating for use in conditions requiring a very high degree of flame resistance.



MATERIAL	Glass Fiber (GF)
Operating Temperature	-94°F to +1202°F (-70°C to +650°C)
Flammability	UL VW-1
Melting Point	+2048 °F (1120 °C)
Abrasion Resistance	Very high
Recommended Cutting Tools	Scissors



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03058	BSHTFG140	0.25 (6.4)	0.1 (2.5)	0.4 (9.5)	Black	50.0 (15.2)
170-03050	BSHTFG140B	0.25 (6.4)	0.1 (2.5)	0.4 (9.5)	Black	200.0 (61.0)
170-03059	BSHTFG120	0.5 (12.7)	0.1 (2.5)	0.8 (19.1)	Black	50.0 (15.2)
170-03051	BSHTFG120B	0.5 (12.7)	0.1 (2.5)	0.8 (19.1)	Black	200.0 (61.0)
170-03060	BSHTFG340	0.75 (19.1)	0.1 (2.5)	1.1 (28.6)	Black	50.0 (15.2)
170-03052	BSHTFG340B	0.75 (19.1)	0.1 (2.5)	1.1 (28.6)	Black	200.0 (61.0)
170-03061	BSHTFG100	1 (25.4)	0.1 (2.5)	1.6 (41.3)	Black	25.0 (7.6)
170-03053	BSHTFG100B	1 (25.4)	0.1 (2.5)	1.6 (41.3)	Black	100.0 (30.5)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

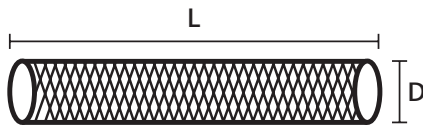
Braided Sleeving - High Temperature

High Temperature Nomex® Expandable Braided Sleeving

A densely woven aramid fiber sleeving, this soft and flexible material is self extinguishing and can withstand temperatures reaching up to 662°F. Excellent for use in extremely harsh environments including those with exposure to direct flame, high temperatures, as well as Beta, Gamma and X-Ray radiation - in particular, military and aerospace wiring and harnessing applications.

Features and Benefits

- Self extinguishing material does not melt and is unaffected by most acids, and provides excellent thermal stability against direct flame.
- Provides excellent thermal stability.
- Meets FMVSS 302 specifications for use in automotive engineering.
- Material cuts with ordinary scissors which reduces assembly time.



MATERIAL	Polyaramid Polymetaphenylene Isophthalamide (PMPI)
Operating Temperature	-320°F to +662°F (-196 °C to +350 °C)
Flammability	UL VW-1
Abrasion Resistance	Low
Recommended Cutting Tools	Scissors



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03158	BSNMX185B	0.125 (3.2)	0.1 (1.5)	0.3 (6.4)	Green	100.0 (30.5)
170-03159	BSNMX145B	0.25 (6.4)	0.1 (3.3)	0.3 (7.9)	Green	100.0 (30.5)
170-03160	BSNMX385B	0.38 (9.7)	0.3 (6.4)	0.5 (12.7)	Green	100.0 (30.5)
170-03161	BSNMX125B	0.5 (12.7)	0.3 (7.9)	0.6 (16.0)	Green	100.0 (30.5)
170-03162	BSNMX345B	0.75 (19.1)	0.6 (14.2)	1.0 (25.4)	Green	100.0 (30.5)
170-03163	BSNMX105B	1 (25.4)	0.8 (19.1)	1.1 (28.7)	Green	100.0 (30.5)
170-03164	BSNMX1145B	1.25 (31.8)	1.0 (25.4)	1.5 (38.1)	Green	100.0 (30.5)
170-03165	BSNMX1125B	1.5 (38.1)	1.3 (31.8)	1.8 (44.4)	Green	100.0 (30.5)
170-03166	BSNMX1345B	1.75 (44.4)	1.5 (38.1)	2.0 (50.8)	Green	100.0 (30.5)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Routing, Protection and Insulation

Braided Sleeving

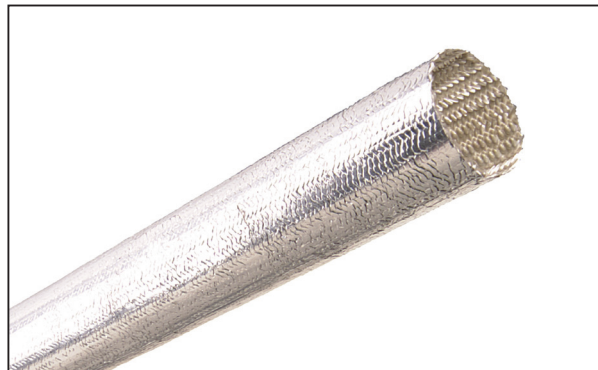
Braided Sleeving - High Temperature

High Temperature Aluminum Laminated Fiberglass - Sleeves

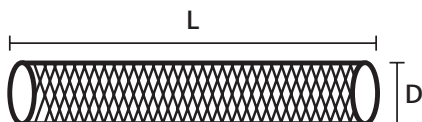
High Temperature Aluminum Laminated Fiberglass Sleeving is a tubular shaped product that combines the protection of bonded aluminum and fiberglass into a single solution that is able to reflect radiant heat away from the sensitive contents inside the tube.

Features and Benefits

- A layer of aluminum provides protection from chemicals, scraping, cuts and abrasion.
- Additional layer also provides insulation barrier for vulnerable wires and cables within high temperature environments.
- Cuts with ordinary scissors for fast, easy application.



MATERIAL	Aluminum (AL), Glass Fiber (GF)
Operating Temperature	-76°F to +491°F (-60°C to +255°C)
Melting Point	+2048 °F (1120 °C)
Recommended Cutting Tools	Scissors



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03175	BSHTTST38SR	0.38 (9.7)	0.1 (2.5)	0.4 (11.1)	Silver	100.0 (30.5)
170-03062	BSHTTST12SR	0.5 (12.7)	0.1 (2.5)	0.4 (11.1)	Silver	100.0 (30.5)
170-03063	BSHTTST34SR	0.75 (19.1)	0.1 (2.5)	0.7 (17.5)	Silver	100.0 (30.5)
170-03064	BSHTTST10SR	1 (25.4)	0.1 (2.5)	0.9 (23.8)	Silver	100.0 (30.5)
170-03065	BSHTTST134SR	1.75 (44.5)	0.1 (2.5)	1.7 (42.8)	Silver	50.0 (15.2)
170-03097	BSHTTST212SR	2.5 (63.5)	0.1 (2.5)	2.4 (60.3)	Silver	50.0 (15.2)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Braided Sleeving - High Temperature

High Temperature Aluminum Laminated Fiberglass Wraps

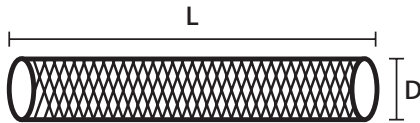
Aluminum Laminated Fiberglass Wrap sleeving combines the protection of bonded aluminum and fiberglass into a robust solution that deflects radiant heat away from sensitive wires and cables. Wrap-around design allows for fast and easy installation and maintenance. Sold in 4-foot sticks.

Features and Benefits

- A layer of aluminum provides protection from chemicals, scraping, cuts and abrasion.
- Additional layer also provides insulation barrier for vulnerable wires and cables within high temperature environments.
- Cuts with ordinary scissors for fast, easy application.



MATERIAL	Glass Fiber with Aluminium Foil (GF-AL)
Operating Temperature	-76°F to +491°F (-60°C to +255°C)
Melting Point	+2048 °F (1120 °C)



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03190	BSHTTSW14SB	0.25 (6.4)	0.1 (2.5)	0.2 (5.1)	Silver	4.0 (1.2)
170-03191	BSHTTSW38SB	0.38 (9.4)	0.1 (2.5)	0.3 (7.6)	Silver	4.0 (1.2)
170-03192	BSHTTSW12SB	0.5 (12.7)	0.1 (2.5)	0.5 (11.4)	Silver	4.0 (1.2)
170-03193	BSHTTSW58SB	0.63 (16.0)	0.1 (2.5)	0.5 (12.7)	Silver	4.0 (1.2)
170-03194	BSHTTSW34SB	0.75 (19.1)	0.1 (2.5)	0.7 (16.5)	Silver	4.0 (1.2)
170-03195	BSHTTSW15B	1 (25.4)	0.1 (2.5)	1.0 (24.1)	Silver	4.0 (1.2)
170-03196	BSHTTSW114SB	1.25 (31.8)	0.1 (2.5)	1.2 (30.5)	Silver	4.0 (1.2)
170-03197	BSHTTSW112SB	1.5 (38.1)	0.1 (2.5)	1.5 (36.8)	Silver	4.0 (1.2)
170-03198	BSHTTSW25B	2 (50.8)	0.1 (2.5)	2.0 (49.5)	Silver	4.0 (1.2)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

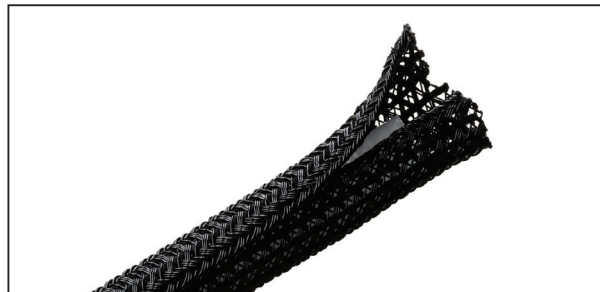
Routing, Protection and Insulation

Braided Sleeving

Braided Sleeving - Wraps

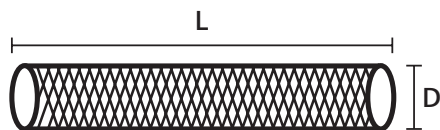
Split Wrap Braided Sleeving - Black

A bundling and protection option with a lateral split and a semi-rigid braid configuration that is the ideal solution for circumstances where ease of installation is the primary concern. The lateral split allows the sleeving to open up to adjust to the bundling requirement while the 25% edge overlap folds back over to protect the connector or splices. More flexible than spiral wraps or convoluted tubing, this product is a fast and easy option for adding protection in post-assembly or post-installation situations.



Features and Benefits

- Needs no fasteners (i.e., tape, hook and loop, etc.).
- Bends to a tight radius without distortion or splitting open.
- Allows future access without disassembly.
- Withstands cuts, abrasions and tension.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 94 V-0
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium
Recommended Cutting Tools	Hot Knife



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03124	BSPSW180B	0.125 (3.2)	0.1 (2.5)	0.1 (3.2)	Black	400.0 (121.9)
170-03037	BSPSW140	0.25 (6.4)	0.1 (2.5)	0.3 (6.4)	Black	100.0 (30.5)
170-03125	BSPSW140B	0.25 (6.4)	0.1 (2.5)	0.3 (6.4)	Black	200.0 (61.0)
170-03133	BSPSW140LB	0.25 (6.4)	0.1 (2.5)	0.3 (6.4)	Black	3000.0 (914.4)
170-03224	BSPSW380B	0.38 (9.5)	0.1 (2.5)	0.4 (9.6)	Black	150.0 (45.7)
170-03024	BSPSW120	0.5 (12.7)	0.1 (2.5)	0.5 (12.7)	Black	75.0 (22.9)
170-03126	BSPSW120B	0.5 (12.7)	0.1 (2.5)	0.5 (12.7)	Black	150.0 (45.7)
170-03134	BSPSW120LB	0.5 (12.7)	0.1 (2.5)	0.5 (12.7)	Black	1200.0 (365.8)
170-03038	BSPSW340	0.75 (19.1)	0.1 (2.5)	0.8 (19.1)	Black	50.0 (15.2)
170-03127	BSPSW340B	0.75 (19.1)	0.1 (2.5)	0.8 (19.1)	Black	100.0 (30.5)
170-03135	BSPSW340LB	0.75 (19.1)	0.1 (2.5)	0.8 (19.1)	Black	500.0 (152.4)
170-03025	BSPSW100	1 (25.4)	0.1 (2.5)	1.0 (25.4)	Black	50.0 (15.2)
170-03128	BSPSW100B	1 (25.4)	0.1 (2.5)	1.0 (25.4)	Black	100.0 (30.5)
170-03136	BSPSW100LB	1 (25.4)	0.1 (2.5)	1.0 (25.4)	Black	400.0 (121.9)
170-03026	BSPSW1140	1.25 (31.8)	0.1 (2.5)	1.3 (31.8)	Black	25.0 (7.6)
170-03129	BSPSW1140B	1.25 (31.8)	0.1 (2.5)	1.3 (31.8)	Black	75.0 (22.9)
170-03137	BSPSW1140LB	1.25 (31.8)	0.1 (2.5)	1.3 (31.8)	Black	250.0 (76.2)
170-03130	BSPSW1120B	1.5 (38.1)	0.1 (2.5)	1.5 (38.1)	Black	75.0 (22.9)
170-03138	BSPSW1120LB	1.5 (38.1)	0.1 (2.5)	1.5 (38.1)	Black	250.0 (76.2)
170-03131	BSPSW200B	2 (50.8)	0.1 (2.5)	2.0 (50.8)	Black	50.0 (15.2)
170-03139	BSPSW200LB	2 (50.8)	0.1 (2.5)	2.0 (50.8)	Black	200.0 (61.0)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

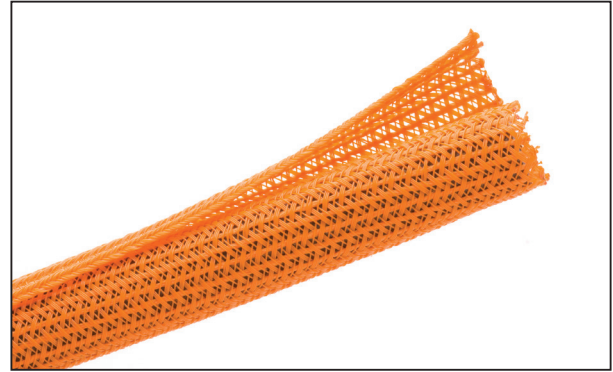
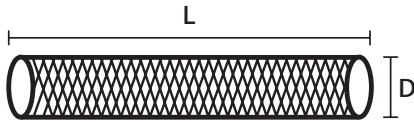
Braided Sleeving - Wraps

Braided Sleeving - Split Wrap

Used for safety identification, this bundling and protection option also offers a lateral split and a semi-rigid braid configuration that wraps around the bundle assembly without requiring fasteners, such as hook and loop, cable ties or tape.

Features and Benefits

- Split-wrap design needs no fasteners and installs quickly, saving assembly time and future accessibility without disassembly.
- Bends to a tight radius without distortion or splitting open.
- Unique construction retains shape and rigidity throughout unrolling.
- Easy-open design allows quick access and ability to apply protective sleeving post assembly or post installation situations.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 94 V-0
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium
Recommended Cutting Tools	Hot Knife



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03082	BSPSW143B	0.25 (6.4)	0.1 (2.5)	0.3 (6.4)	Orange, High Voltage	200.0 (61.0)
170-03083	BSPSW123B	0.5 (12.7)	0.1 (2.5)	0.5 (12.7)	Orange, High Voltage	150.0 (45.7)
170-03084	BSPSW343B	0.75 (19.1)	0.1 (2.5)	0.8 (19.1)	Orange, High Voltage	100.0 (30.5)
170-03085	BSPSW103B	1 (25.4)	0.1 (2.5)	1.0 (25.4)	Orange, High Voltage	100.0 (30.5)
170-03086	BSPSW1143B	1.25 (31.8)	0.1 (2.5)	1.3 (31.8)	Orange, High Voltage	75.0 (22.9)
170-03087	BSPSW1123B	1.5 (38.1)	0.1 (2.5)	1.5 (38.1)	Orange, High Voltage	75.0 (22.9)
170-03088	BSPSW203B	2 (50.8)	0.1 (2.5)	2.0 (50.8)	Orange, High Voltage	50.0 (15.2)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Routing, Protection and Insulation

Braided Sleeving

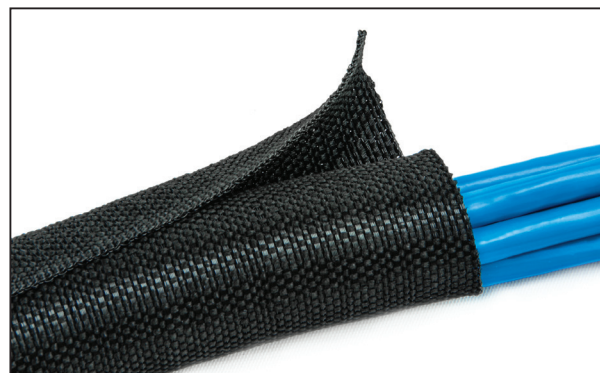
Braided Sleeving - Wraps

Split Wrap Woven Braided Sleeving

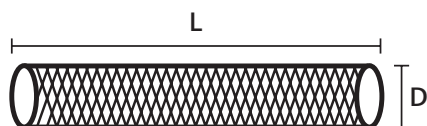
Split Wrap Woven Sleeving is a self-closing sleeving manufactured from a unique blend of monofilament and multifilament polyester fibers that resemble a tightly woven material. The wrap around design provides increased flexibility, better coverage and greater resistance from abrasion for wires, cables and assemblies. Can also be used to reduce noise in applications that involve movement, while protecting sensitive electronics and communication systems from dust and debris.

Features and Benefits

- Center-slit overlapping design allows quick and easy access to the wires and cables for future maintenance or inspection without disassembly.
- Flexible material allows it to easily wrap around a variety of component shapes and sizes, making it easier to use than slit-loom tubing or spiral-wrap materials.
- A unique weave pattern provides increased coverage and greater resistance to abrasion, dust and debris.
- Overlapping design enhances flexibility, allowing it to shift and bend without exposing wire and cables.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 94 V-0
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium
Recommended Cutting Tools	Hot Knife



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03181	BSSWV380B	0.38 (9.5)	0.1 (2.5)	0.4 (9.5)	Black	450.0 (137.2)
170-03182	BSSWV120B	0.5 (12.7)	0.1 (2.5)	0.5 (12.7)	Black	300.0 (91.4)
170-03183	BSSWV580B	0.63 (15.8)	0.1 (2.5)	0.6 (15.8)	Black	250.0 (76.2)
170-03184	BSSWV340B	0.75 (19.1)	0.1 (2.5)	0.8 (19.1)	Black	150.0 (45.7)
170-03185	BSSWV100B	1 (25.4)	0.1 (2.5)	1.0 (25.4)	Black	100.0 (30.5)
170-03186	BSSWV1120B	1.5 (38.1)	0.1 (2.5)	1.5 (38.1)	Black	50.0 (15.2)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Braided Sleeving - Flame Retardant

Split Wrap Expandable Braided Sleeving

A lateral split, semi-rigid and flame retardant braided sleeving configuration used when ease of installation and repeat access to wire bundles is required. The lateral split allows the sleeving to open and accommodate a variety of bundling requirements. The 25 percent edge overlap rolls back over connectors and splices without exposing the bundled wires. More flexible than spiral wraps or convoluted tubing, this product is a fast and easy option for adding protection in post-assembly or post-installation applications. Meets NFPA 130 rail market applications.

Features and Benefits

- Split wrap design needs no fasteners and installs quickly, saving assembly time and future accessibility without disassembly.
- Bends to a tight radius without distortion or splitting open.
- Unique construction retains shape and rigidity throughout unrolling.
- Integrated flame-inhibitor fibers extinguish quickly and reduce potential flame spread to surrounding components.
- Easy-open design allows quick access and ability to apply protective sleeving post assembly or post installation.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL VW-1
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium

HF ✓

LFH ✓

RoHS ✓

PART NO.	TYPE	Nominal Dia. in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length ft. (m)
170-03216	BSSWVFR316B	0.19 (4.8)	0.1 (2.5)	0.2 (4.8)	Black	500.0 (152.4)
170-03217	BSSWVFR380B	0.38 (9.5)	0.1 (2.5)	0.4 (9.5)	Black	250.0 (76.2)
170-03218	BSSWVFR120B	0.5 (12.7)	0.1 (2.5)	0.5 (12.7)	Black	200.0 (61.0)
170-03219	BSSWVFR340B	0.75 (19.1)	0.1 (2.5)	0.8 (19.1)	Black	150.0 (45.7)
170-03220	BSSWVFR100B	1 (25.4)	0.1 (2.5)	1.0 (25.4)	Black	100.0 (30.5)
170-03221	BSSWVFR1140B	1.25 (31.8)	0.1 (2.5)	1.3 (31.8)	Black	75.0 (22.9)
170-03222	BSSWVFR1120B	1.5 (38.1)	0.1 (2.5)	1.5 (38.1)	Black	50.0 (15.2)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Routing, Protection and Insulation

Braided Sleeving

Braided Sleeving - Flame Retardant

Split Wrap Braided Sleeving

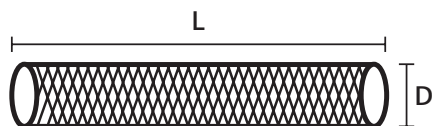
Used when flame retardancy is a primary requirement, this protection option incorporates a lateral split which allows the tube to open up to accommodate a variety of bundling requirements. The semi-rigid braid configuration simply closes around the entire installation without the need for any additional fasteners. Split wrap flame retardant braided sleeving is self-extinguishing and complies with UL VW-1 standards where cables exit a wall and need to be managed for an uncluttered, clean appearance.

Features and Benefits

- Split wrap design installs quickly, saving assembly time and future accessibility without disassembly.
- Unique construction retains shape and rigidity throughout operating temperature range.
- Easy open design allows quick assembly, future access, and ability to apply protective sleeving post assembly or post installation situations.
- Self wrapping design eliminates the need for fasteners.
- Provides a greater flexibility than spiralwrap or convoluted tubing.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 224 VW-1, FAR 25
Melting Point	+446 °F (+230 °C)
Abrasion Resistance	High
Recommended Cutting Tools	Hot Knife



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03140	BSSWFR180B	0.125 (3.2)	0.1 (2.5)	0.1 (3.2)	Black	400.0 (121.9)
170-03141	BSSWFR140B	0.25 (6.4)	0.1 (2.5)	0.3 (6.4)	Black	200.0 (61.0)
170-03142	BSSWFR120B	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)	Black	150.0 (45.7)
170-03143	BSSWFR340B	0.75 (19.1)	0.8 (19.1)	0.8 (19.1)	Black	100.0 (30.5)
170-03144	BSSWFR100B	1 (25.4)	1.0 (25.4)	1.0 (25.4)	Black	100.0 (30.5)
170-03145	BSSWFR1140B	1.25 (31.8)	0.1 (2.5)	1.3 (31.8)	Black	75.0 (22.9)
170-03146	BSSWFR1120B	1.5 (38.1)	0.1 (2.5)	1.5 (38.1)	Black	75.0 (22.9)
170-03147	BSSWFR200B	2 (50.8)	0.1 (2.5)	2.0 (50.8)	Black	50.0 (15.2)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Braided Sleeving - Wraps

Self Wrapping Woven Braided Sleeving - Orange

Split Wrap Woven Sleeving is a self-closing sleeving manufactured from a unique blend of monofilament and multifilament polyester fibers that resemble a tightly woven material. The wrap around design provides increased flexibility, better coverage and greater resistance from abrasion for wires, cables and assemblies. Can also be used to reduce noise in applications that involve movement, while protecting sensitive electronics and communication systems from dust and debris.

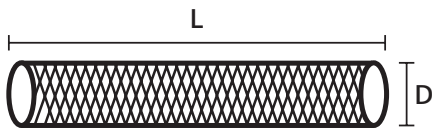
Features and Benefits

- Self-wrapping feature allows easy installation and future access to wire and cables.
- Unique blend and construction using monofilament and multifilament strands provide flexibility, high coverage and abrasion resistance.
- Extra overlapping design keeps wires contained even in tight bend conditions.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +302°F (-70°C to +150°C)
Flammability	FMVSS 302, UL 94 V-0
Melting Point	+482 °F (+250 °C)

RoHS ✓



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03231	BSPW316	0.197 (5.0)	0.1 (2.5)	0.2 (4.7)	Orange	500.0 (152.4)
170-03232	BSPW516	0.315 (8.0)	0.1 (2.5)	0.3 (8.0)	Orange	325.0 (99.1)
170-03230	BSPW380	0.394 (10.0)	0.1 (2.5)	0.4 (9.5)	Orange	150.0 (45.7)
170-03233	BSPW120	0.512 (13.0)	0.1 (2.5)	0.5 (12.7)	Orange	150.0 (45.7)
170-03234	BSPW580	0.630 (16.0)	0.1 (2.5)	0.6 (16.1)	Orange	100.0 (30.5)
170-03235	BSPW340	0.748 (19.0)	0.1 (2.5)	0.8 (19.1)	Orange	100.0 (30.5)
170-03236	BSPW10	0.984 (25.0)	0.1 (2.5)	1.0 (25.4)	Orange	100.0 (30.5)
170-03237	BSPW1140	1.181 (30.0)	0.1 (2.5)	1.3 (31.8)	Orange	50.0 (15.2)
170-03238	BSPW1120	1.496 (38.0)	0.1 (2.5)	1.5 (38.1)	Orange	50.0 (15.2)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Routing, Protection and Insulation

Braided Sleeving

Braided Sleeving - Wraps

Hook and Loop Expandable Braided Sleeving

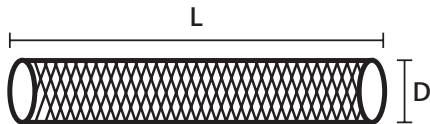
Designed for the quick and easy management of wires, this expandable sleeving has an internal hook and loop strap that is able to adhere to its outer PET braid, delivering flexibility that allows it to fit around odd-shaped connectors. Its color-matched hook and loop closure provides for an easy on and off installation, as well as instant and convenient access for harness break-outs and networks. The primary application for this sleeving is the wrapping and bunching of cables in a deployed situation or when frequent access to cables is necessary.

Features and Benefits

- Flexible construction that conforms to irregular shapes and contours.
- Hook and loop feature wraps over cable bundle allowing future access to cables.
- Easy access saves assembly time and allows for easy splicing or insertion of additional wires.
- PET yarn construction offers excellent protection against cuts and abrasions.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 94 V-0, FAR 25
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium
Recommended Cutting Tools	Hot Knife



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03148	BSHKLP120B	0.5 (12.7)	0.1 (2.5)	0.5 (12.7)	Black	100.0 (30.5)
170-03149	BSHKLP340B	0.75 (19.1)	0.1 (2.5)	0.8 (19.1)	Black	100.0 (30.5)
170-03150	BSHKLP1140B	1.25 (31.8)	0.1 (2.5)	1.3 (31.8)	Black	100.0 (30.5)
170-03151	BSHKLP200B	2 (50.8)	0.1 (2.5)	2.0 (50.8)	Black	100.0 (30.5)
170-03152	BSHKLP212B	2.5 (63.5)	0.1 (2.5)	2.5 (63.5)	Black	100.0 (30.5)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Braided Sleeving - Flame Retardant

Hook and Loop Expandable Braided Sleeving

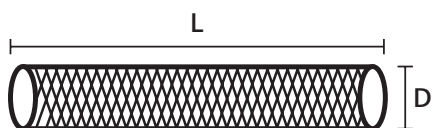
Flame retardant expandable braided sleeving with hook and loop strip for wrapping around cable assemblies. Color matched hook and loop closure provides an easy on and off installation, as well as convenient access for harness break-outs and when maintenance is necessary. Material is self-extinguishing and complies with UL VW-1 standards.

Features and Benefits

- Flexible construction that conforms to irregular shapes and contours.
- Hook and loop feature wraps over cable bundle allowing future access to cables.
- Easy access saves assembly time and allows for easy splicing or insertion of additional wires.
- Meets military specifications (Mil-202 approved.)
- Cuts easily with a benchmount hot knife.
- Resists chemicals and cleaning solvents.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 224 VW-1
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium
Recommended Cutting Tools	Hot Knife



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03153	BSHKLPFR120B	0.5 (12.7)	0.1 (2.5)	0.5 (12.7)	Black	100.0 (30.5)
170-03154	BSHKLPFR340B	0.75 (19.1)	0.1 (2.5)	0.8 (19.1)	Black	100.0 (30.5)
170-03155	BSHKLPFR1140B	1.25 (31.8)	0.1 (2.5)	1.3 (31.8)	Black	100.0 (30.5)
170-03156	BSHKLPFR200B	2 (50.8)	0.1 (2.5)	2.0 (50.8)	Black	100.0 (30.5)
170-03157	BSHKLPFR212B	2.5 (63.5)	0.1 (2.5)	2.5 (63.5)	Black	100.0 (30.5)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Routing, Protection and Insulation

Braided Sleeving

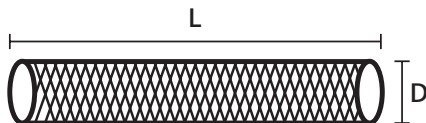
Braided Sleeving - Specialty

Polyamide 6.6 Expandable Braided Sleeving - Black

A pliable yet durable nylon sleeve that protects against cuts, abrasion and excessive wear caused by repetitive motion. Used on hoses, pipes, wiring harnesses and cables installed in cars, trucks, military vehicles, trains and industrial equipment. Protects delicate wiring in engine compartments and near exhaust systems or used to organize wires and breakouts in electrical harnesses.

Features and Benefits

- Resists fuels, salts and solvents, gasoline, and other common contaminants.
- Nylon monofilament construction weave offers a tight, 12 mil braid that provides full coverage but will not rot or retain moisture.
- Material performs well in wet applications and where abiding substrate has a smooth surface.
- Expands up to 150% of flat diameter for easy installation.



MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-49°F to +302°F (-45°C to +150°C)
Melting Point	+491 °F (+255 °C)
Abrasion Resistance	High
Recommended Cutting Tools	Hot Knife



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03209	BSPA66180	0.125 (3.2)	0.1 (2.5)	0.1 (3.1)	Black	225.0 (68.6)
170-03070	BSPA66140B	0.25 (6.4)	0.1 (3.2)	0.4 (9.5)	Black	1000.0 (304.8)
170-03027	BSPA66120	0.5 (12.7)	0.4 (9.5)	0.8 (19.1)	Black	100.0 (30.4)
170-03210	BSPA66580	0.62 (15.9)	0.1 (2.5)	0.6 (15.2)	Black	100.0 (30.5)
170-03028	BSPA66340	0.75 (19.1)	0.5 (12.7)	1.3 (31.8)	Black	75.0 (22.9)
170-03029	BSPA66100	1 (25.4)	0.6 (15.9)	1.4 (35.0)	Black	50.0 (15.2)
170-03030	BSPA661140	1.25 (31.8)	0.8 (19.1)	1.5 (38.1)	Black	50.0 (15.2)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

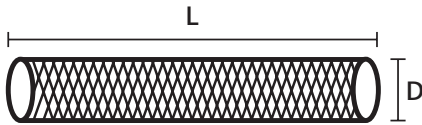
Braided Sleeving - Specialty

Expandable Braided Sleeving - Gray

A pliable yet durable nylon sleeve that protects against cuts, abrasion and excessive wear caused by repetitive motion. Used on hoses, pipes, wiring harnesses and cables installed in cars, trucks, military vehicles, trains and industrial equipment. Protects delicate wiring in engine compartments and near exhaust systems or used to organize wires and breakouts in electrical harnesses.

Features and Benefits

- Resists fuels, salts and solvents, gasoline, and other common contaminants.
- Nylon monofilament construction weave offers a tight, 12 mil braid that provides full coverage but will not rot or retain moisture.
- Material performs well in wet applications and where abiding substrate has a smooth surface.
- Expands up to 150% of flat diameter for easy installation.



MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-76°F to +302°F (-60°C to +150°C)
Flammability	UL 94 V-2, FMVSS 302
Melting Point	+491 °F (+255 °C)
Abrasion Resistance	High
Recommended Cutting Tools	Hot Knife



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-20400	HEGPA6604	0.16 (4.0)	0.1 (3.0)	0.2 (6.0)	Gray	656.0 (200.0)
170-20600	HEGPA6606	0.25 (6.0)	0.2 (4.0)	0.3 (8.0)	Gray	328.0 (100.0)
170-20800	HEGPA6608	0.31 (8.0)	0.2 (5.0)	0.4 (10.0)	Gray	328.0 (100.0)
170-21000	HEGPA6610	0.38 (10.0)	0.3 (7.0)	0.5 (12.0)	Gray	328.0 (100.0)
170-21200	HEGPA6612	0.5 (12.0)	0.3 (8.0)	0.6 (14.0)	Gray	328.0 (100.0)
170-21500	HEGPA6616	0.63 (16.0)	0.5 (12.0)	0.7 (18.0)	Gray	164.0 (50.0)
170-22000	HEGPA6620	0.75 (20.0)	0.6 (15.0)	0.9 (23.0)	Gray	164.0 (50.0)
170-22500	HEGPA6625	1 (25.0)	0.7 (18.0)	1.1 (28.0)	Gray	164.0 (50.0)
170-23000	HEGPA6630	1.25 (30.0)	1.0 (25.0)	1.3 (32.0)	Gray	164.0 (50.0)
170-25000	HEGPA6650	2 (50.0)	1.6 (40.0)	2.2 (55.0)	Gray	164.0 (50.0)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Routing, Protection and Insulation

Braided Sleeving

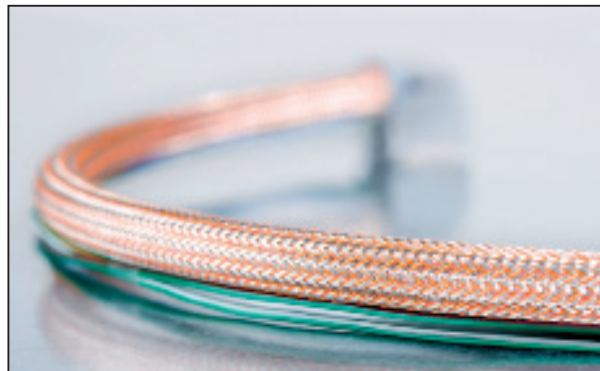
Braided Sleeving - Electromagnetic Protection

Helagaine HEGEMIP-HY

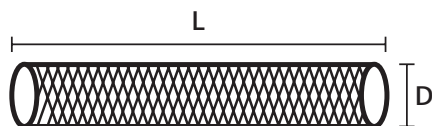
Special braided sleeving protects sensitive electronics from electromagnetic interference in hybrid and electric-powered vehicles. It won't rupture or kink, even when flexed at sharp angles. The sleeving has a 3:1 expansion ratio.

Features and Benefits

- Unique blend of polyester (protection yarns) and tinned copper (shielding yarns) offers excellent flexibility and EMI protection.
- Extremely flexible, expandable and easy to apply, making this product particularly well-suited for applications with space restrictions.
- Special copper alloy for enhanced protection against salt spray.
- Excellent flame resistance properties, including UL 94 V-2 and FMVSS 302 certifications.



MATERIAL	Polyester (PET), Tin-plated copper (SNCU)
Operating Temperature	-40°F to +302°F (-40°C to +150°C)
Flammability	UL 94 V-2, FMVSS 302



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
173-02001	HEGEMIP-HY20	0.8 (20.0)	0.7 (19.0)	1.1 (27.0)	Silver, Orange	164.0 (50.0)
173-03000	HEGEMIP-HY30	1.2 (30.0)	0.9 (25.0)	1.4 (35.0)	Silver, Orange	164.0 (50.0)
173-03501	HEGEMIP-HY35	1.4 (35.0)	1.2 (30.0)	1.6 (40.0)	Silver, Orange	164.0 (50.0)
173-04000	HEGEMIP-HY40	1.6 (40.0)	1.2 (30.0)	1.9 (50.0)	Silver, Orange	164.0 (50.0)
173-05000	HEGEMIP-HY50	1.9 (50.0)	1.6 (40.0)	2.4 (60.0)	Silver, Orange	164.0 (50.0)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

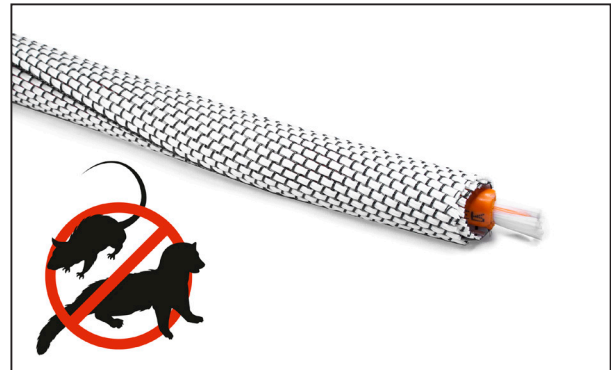
Braided Sleeving - Specialty

Twist-In Rodent-Repellent Wrap

Twist-In Rodent-Repellent Wrap is a self-closing fiberglass sleeving used to bundle cables and hoses and protect against rodents in infestation-prone areas such as automotive, railways, telecom, underground and waste treatment systems.

Features and Benefits

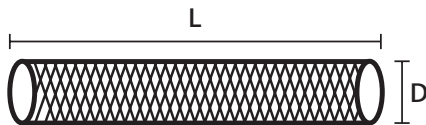
- Self-wrapping woven sleeving made of fiberglass and PET polyester protects against chewing damage.
- Provides good protection against abrasion, UV and weathering, vibration and impact.
- Quick and easy installation and removal, ideal for retrofitting.
- Lightweight material won't add significant weight to the installation.
- Resists acids, solvents and micro-organisms for extended performance in industrial environments.



MATERIAL	Polyester (PET), Glass Fiber (GF)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	FMVSS 302
Melting Point	+437 °F (+225 °C)

HF ✓

RoHS ✓



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-01161	Twist-In-RR-13	0.5 (12.7)	0.4 (10.0)	0.5 (13.0)	White, Black	164.0 (50.0)
170-01162	Twist-In-RR-19	0.75 (19.1)	0.6 (16.0)	0.8 (19.0)	White, Black	82.0 (25.0)
170-01163	Twist-In-RR-29	1.0 (25.4)	1.0 (25.0)	1.1 (29.0)	White, Black	49.2 (15.0)
170-01164	Twist-In-RR-32	1.25 (31.8)	1.1 (29.0)	1.3 (32.0)	White, Black	49.2 (15.0)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Routing, Protection and Insulation

Braided Sleeving

Braided Sleeving - General Purpose

Heavy-Duty Braided Sleeving

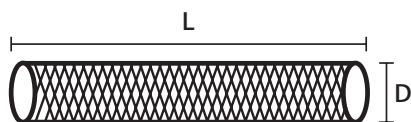
Sleeving made of a tightly woven nylon fabric, slides onto hoses, cables and components to protect them from abrasion and environmental elements, including UV damage. Also protects surrounding surfaces from damage.

Features and Benefits

- Tightly woven fabric bundles and protects cables and hoses from sunlight and abrasion damage; also deflects high pressure hose ruptures.
- Nylon material resists gasoline, salt and other chemicals.



MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-49°F to +248°F (-45°C to +120°C)



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03203	BSHDWV	1 (25.4)	0.1 (2.5)	1.0 (24.1)	Black	50.0 (15.2)
170-03204		1.5 (38.1)	0.1 (2.5)	1.5 (38.1)	Black	50.0 (15.2)
170-03205		2 (50.8)	0.1 (2.5)	2.0 (50.8)	Black	50.0 (15.2)
170-03206		2.5 (63.5)	0.1 (2.5)	2.5 (63.5)	Black	50.0 (15.2)
170-03207		3 (76.2)	0.1 (2.5)	3.0 (76.2)	Black	25.0 (7.6)

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Hot Knives, Installation Tools & Accessories

Split Wrap Installation Tool

HellermannTyton offers a wide variety of application tools to assist in the installation of braided sleeving. These application tools are available in both bench mount and handheld styles.

Features and Benefits

- HellermannTyton braided sleeving installation tools are designed to accommodate a wide variety of braided sleeving products.
- Tools are designed and built durable to withstand production environments.
- Tools are available in both benchmount and handheld for all kinds of use.



MATERIAL

Plastic (PL)

HF ✓

RoHS ✓

PART NO.	TYPE	Description	Nominal Dia. in. (mm)	Color
170-03067	BSWTOOL14	1/4 " Split Wrap Installation Tool	0.3 (6.4)	Orange
170-03032	BSWTOOL12	1/2 " Split Wrap Installation Tool	0.5 (12.7)	Orange
170-03068	BSWTOOL34	3/4 " Split Wrap Installation Tool	0.8 (19.1)	Orange
170-03033	BSWTOOL1	1 " Split Wrap Installation Tool	1.0 (25.4)	Orange
170-03034	BSWTOOL114	1-1/4 " Split Wrap Installation Tool	1.3 (31.8)	Orange

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

Hot Knives, Installation Tools & Accessories

Bench and Handheld Hot Knife Tools

HellermannTyton offers a wide variety of application tools to assist in the installation of braided sleeving. These application tools are available in both bench mount and handheld styles.

Features and Benefits

- HellermannTyton braided sleeving installation tools are designed to accommodate a wide variety of braided sleeving products.
- Tools are designed and built durable to withstand production environments.
- Tools are available in both benchmount and handheld for all kinds of use.



PART NO.	TYPE	Color
Bench Mount Hot Knife		
170-03039	BSBHK	White
Handheld Hot Knife		
170-03040	BSPHK	Black

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.



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