



# Wear Protection

## for extended service life of fiber ropes and slings

Cortland's high performance ropes are manufactured using some of the most cut and abrasion resistant fibers available in the world today. Many users benefit from the ability to inspect a non-jacketed rope, such as Plasma®. However, when extra defense from heat, the elements, cutting, abrasion, or ingress of dirt, mud or particulates is needed, added wear protection can provide the solution. Cortland offers several wear protection options as a sacrificial layer of protection, increasing the service life of a rope or sling and ensuring a safe and successful operation.

Each application has its own characteristic requirements. To address the various issues, Cortland offers several different wear protection options which range in protective quality, weight, and cost. Contact your local Cortland technical sales representative or distributor for the proper wear protection for your specific application.

Wear gear protection types:

- SX
- Cortland Cage
- Asgard
- DXC
- XT
- PNW tubular
- PNW with hook-and-clasp securement

### SX

**SX wear protection** is designed to offer the highest cut and abrasion resistance protection to your rope. Manufactured with HMPE (High Modulus Polyethylene), the SX wear protection is a braided tubular structure offering 100% protection to the rope. The HMPE fiber is lightweight, floats and has excellent cut resistance. SX wear protection does not absorb water and can be splice-terminated into Cortland braided ropes.



#### Key benefits of SX wear protection:

- Superior wet & dry protection
- Lightweight
- Flexible
- Cut resistant
- HMPE fiber
- Low coefficient of friction
- UV resistant
- Easy to handle

Rope Size (diameter)		Part Number	
inches	mm	In Eye	Over Splice
1/4–3/8	6–9 mm	—	SX10
1/2–5/8	12–16 mm	SX10	SX14
3/4–7/8	18–22 mm	SX14	SX16
1–1-1/16	24–26 mm	SX16	SX18
1-1/8–1-1/4	28–30 mm	SX18	SX21
1-5/16–1-1/2	32–36 mm	SX21	SX32
1-5/8	40 mm	SX21	SX42
1-3/4–2-1/8	44–52 mm	SX32	SX42

Rope Size (diameter)		Part Number	
inches	mm	In Eye	Over Splice
2-1/4–2-3/4	56–68 mm	SX32	SX52
3	72 mm	SX42	SX64
3-1/8–3-1/2	76–84 mm	SX52	SX64
3-5/8–4	88–96 mm	SX64	SX72
4-1/8–4-1/4	100–104 mm	SX72	SX72

# wear protection options

## Cortland Cage

The **Cortland Cage** solution combines the lightweight, abrasion resistant, and non-water-absorbing properties of HMPE fiber in a braided cover sleeve. Cortland Cage can be secured in place by splice-termination or heavy duty whipping. The open braid pattern allows inspection of Plasma® 12x12 and reduces the total weight of the wear protection. Cortland Cage offers excellent cut and abrasion resistance of all braided wear protection. In addition a proprietary polyurethane coating provides added protection in challenging marine environments.



### Key benefits of Cortland Cage:

- Extra protection against cutting and abrasion
- Open braid pattern allows inspection of rope
- Proprietary polyurethane coating
- Lightweight and floats

Rope Size (diameter)		Part Number	
inches	mm	In Eye	Over Splice
3/4–1-1/2	18–36 mm	SCAGE18	—
1–1-3/4	24–44 mm	SCAGE26	—

Rope Size (diameter)		Part Number	
inches	mm	In Eye	Over Splice
1-1/2–2-3/4	36–68 mm	SCAGE34	—
2-1/4–3-1/2	56–84 mm	SCAGE48	—

## Asgard

**Asgard wear protection** is typically used for protection of lifting or mooring ropes and provides outstanding durability and resistance towards harsh operating conditions. The design features a strong, lightweight construction which is easy to install and retrofit on existing items. Asgard wear protection is designed according to a given diameter of the item to be protected and is provided in lengths according to client specifications.



Asgard wear protection is made from HMPE (High Modulus Polyethylene) and PNW (polyester and/or nylon) fibers in a woven, laminated and PU-coated construction and built in a layered design. The fibers utilized are the toughest of the traditional synthetic fibers. HMPE, for example, is used in personal armor products and PNW is used by the military for belts and webbing. Asgard wear protection can be delivered in a flat construction for protection of webbing, or in a circular construction, for use on mooring ropes for instance.

Asgard wear protection can be custom fabricated to other dimensions and configurations per customer requirements.

### Key benefits of Asgard:

- Available with hook-and-clasp, or lace-on closures
- Custom fabricated to fit rope diameter and length requirements

Rope Size (diameter)		Part Number		
inches	mm	In Eye	Over Splice	Over Grommet
1/4–3/8	6–9 mm	AS-1.0	AS-1.0	AS-1.5
1/2–5/8	12–16 mm	AS-1.0	AS-1.5	AS-2.0
3/4–7/8	18–22 mm	AS-1.0	AS-1.5	AS-2.5
1	24 mm	AS-1.5	AS-2.0	AS-3.0
1-1/4	30 mm	AS-2.0	AS-2.0	AS-3.5
1-5/16–1-1/2	32–36 mm	AS-2.0	AS-2.5	AS-4.0

Rope Size (diameter)		Part Number		
inches	mm	In Eye	Over Splice	Over Grommet
1-5/8–1-3/4	40–44 mm	AS-2.5	AS-3.0	AS-4.5
1-3/4–6	44–152 mm	AS-2.5	AS-3.5	AS-5.0
7	177 mm	AS-2.5	AS-3.5	AS-6.0
8	203 mm	AS-3.0	AS-4.5	AS-7.0
9–10	228–254 mm	AS-3.5	AS-5.0	AS-9.0
11–13	279–330 mm	AS-5.0	AS-7.0	—

## DXC

The **DXC wear protection** is a tightly braided tubular polyester sleeve with proprietary marine polyurethane coating for use in extreme applications. Excellent choice for placement in the eye or body of sling; DXC sleeves can be fabricated to be free-floating or fixed in place. The DXC sleeve covers rope sling sizes from 1/4" (6 mm) diameter through 4-1/4" (104 mm) diameter. Other sizes and colors available upon request.



Rope Size (diameter)		Part Number	
inches	mm	In Eye	Over Splice
1/4–3/8	6–9 mm	—	DXC10
1/2–5/8	12–16 mm	DXC10	DXC14
3/4–7/8	18–22 mm	DXC14	DXC16
1–1-1/16	24–26 mm	DXC16	DXC18
1-1/8–1-1/4	28–30 mm	DXC18	DXC21
1-5/16–1-1/2	32–36 mm	DXC21	DXC32
1-5/8	40 mm	DXC21	DXC42
1-3/4–2-1/8	44–52 mm	DXC32	DXC42
2-1/4–2-3/4	56–68 mm	DXC32	DXC52
3	72 mm	DXC42	DXC64
3-1/8–3-1/2	76–84 mm	DXC52	DXC64
3-5/8–4	88–96 mm	DXC64	DXC72
4-1/8–4-1/4	100–104 mm	DXC72	DXC72

## XT

**XT wear protection** is a tightly braided tubular polyester wear protection sleeve with proprietary heavy marine polyurethane coating for use in extreme applications. XT sleeves can be fabricated to be free-floating, or fixed in place. It is an excellent choice for eye terminations or selected area body placement, braid-spliced or seized in place. This wear protection option is not as flexible as SX or PNW.



Rope Size (diameter)		Part Number	
inches	mm	In Eye	Over Splice
1/4–3/8	6–9 mm	—	XT10
1/2–5/8	12–16 mm	XT14	XT14
3/4–7/8	18–22 mm	XT14	XT16
1–1-1/16	24–26 mm	XT16	XT18
1-1/8–1-1/4	28–30 mm	XT18	XT21
1-5/16–1-1/2	32–36 mm	XT21	XT32
1-5/8	40 mm	XT21	XT42
1-3/4–2-1/8	44–52 mm	XT32	XT42
2-1/4–2-3/4	56–68 mm	XT32	XT52
3	72 mm	XT42	XT64
3-1/8–3-1/2	76–84 mm	XT52	XT64
3-5/8–4	88–96 mm	XT64	XT72
4-1/8–4-1/4	100–104 mm	XT72	XT72

# wear protection options

## PNW tubular

PNW is a woven fiber material and is the most commonly used protection for abrasion. This wear protection is a permanent installation. PNW wear protection can be customized to meet the needs of any application. Standard colors are black or orange.

Rope Size (diameter)		Part Number		
inches	mm	In Eye	Over Splice	Over Grommet
1/4–3/8	6–9 mm	51650	51623	51623
1/2–5/8	12–16 mm	51623	51570	51570
3/4–7/8	18–22 mm	51231	51232	51232
1–1-1/16	24–26 mm	51232	51234	51234
1-1/8–1-1/4	28–30 mm	51233	51477	51477
1-5/16–1-1/2	32–36 mm	51446	51235	51235
1-5/8	40 mm	51234	51236	51236
1-3/4–2-1/8	44–52 mm	51477	51237	51237
2-1/4–2-3/4	56–68 mm	51236	51692	51692
3	72 mm	50403	—	—
3-1/8–3-1/2	76–84 mm	51692	—	—
3-5/8–4	88–96 mm	—	—	—
4-1/8–4-1/4	100–104 mm	—	—	—



## PNW with hook-and-clasp securement

PNW is a woven fiber material and is the most commonly used protection for abrasion. PNW protection can be customized to meet the needs of any application. This is a removable or replaceable wear protection and is available in black or orange.

Rope Size (diameter)		Part Number		
inches	mm	In Eye	Over Splice	Over Grommet
1/4–3/8	6–9 mm	custom	52157	52158
1/2–5/8	12–16 mm	52157	52158	52159
3/4–7/8	18–22 mm	52158	52155	52160
1–1-1/16	24–26 mm	52155	52160	52162
1-1/8–1-1/4	28–30 mm	52160	52161	52162
1-5/16–1-1/2	32–36 mm	52160	52161	52117
1-5/8	40 mm	52161	52117	51920
1-3/4–2-1/8	44–52 mm	52162	51919	51921
2-1/4–2-3/4	56–68 mm	51919	51921	51922
3	72 mm	51920	52202	custom
3-1/8–3-1/2	76–84 mm	SL-6.5	51922	custom
3-5/8–4	88–96 mm	51922	custom	custom
4-1/8–4-1/4	100–104 mm	custom	custom	custom



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