August 27, 2020

Twin-Path® vs Rope Slings

Twin-Path®	Rope Slings
One size K-Spec® core yarn to make any size sling	30+ separate rope sizes to match Slingmax® catalog
Short lead time – any size within days	Long lead time if rope size isn't inventoried
As short as 1 meter	Can only be as short as splices allow
Covermax® protects from abrasion, dirt, and UV	Mostly unjacketed – jacketing complicates splicing
Two independent paths gives redundancy in the case of a cut in one path	Single rope can experience catastrophic damage if cut
Small D/d – can use without additional hardware more often	3:1 D/d – need thimbles or wide body shackle
Check-Fast® gives objective retirement criteria	Visual subjective inspection
Repairable in over 45 locations	Rarely repairable – only jacketed rope usually
No strength loss with twisting up to 1 turn / ft & twisting is easy to see	10% strength loss at 1 turn / ft & twisting can be difficult to see especially on used ropes
Easy to store – can be rolled into small coils	Can be unwieldy to store, especially on large sizes
Negligible internal abrasion	Strength loss due to internal abrasion during normal use
No splices – strength is derived from number of wraps of K-Spec®	Strength depends on splices, can be complicated or subject to backing out / slipping

Twin-Path® vs the Competition (Part 1)

	Twin-Path® Slings with Covermax® Cover and K-Spec® Core Yarn	Polyester Roundsling	Nylon Web Sling	Polyester Web Sling	Wire Rope Sling
Key Features	Lightest and strongest slings available, repairable, Check-Fast® Inspection System, low stretch, longest lasting sling	Low cost flexible lifting sling, available with Check-Fast® Inspection System and Covermax® Cover	Low cost general purpose lifting sling	Low cost general purpose lifting sling	Low cost general purpose lifting sling
Approx. Weight to WLL ratio	1lb/ 40,000lbs	1lb/ 15,000lbs	1lb/ 15,000lbs	1lb/ 15,000lbs	1lb/ 10,000lbs
Length Tolerance	+/- 1”	Call	Call	Call	+/- diameter of rope
Elongation at WLL	<1%	3%	6-10%	3-4%	1%
Max Temp	180°F/ 82°C (Sparkeater® Sling 300°F/ 150°C)	194°F/ 90°C	194°F/ 90°C	194°F/ 90°C	400°F/ 204°C
Flexibility	Very Flexible	Very Flexible	Very Flexible	Very Flexible	Low
UV Resistance	High	Low to High	Low	Moderate	N/A
Abrasion Resistance	High	Low to High	Low	Low	Very High
Proof Tested?	Yes	No	No	No	No
Repairable?	Yes	No	No	No	No
Design Factor	5:1	5:1	5:1	5:1	5:1
D/d Ratio in eye	N/A	N/A	N/A	N/A	5:1
D/d Ratio in body	Any comparably rated fitting	1:1	N/A	N/A	25:1
Resistance to Acids	Very Good	Good	Poor	Good	Good
Resistant to Salt Water?	Yes	Yes	No	Yes	No

Twin-Path® vs the Competition (Part 2)

	Twin-Path® Slings with Covermax® Cover and K-Spec® Core Yarn	Tri-Flex® Sling (3 part)	Multi-Part Wire Rope (Gator-Laid® and Gator-Flex® Slings)	Chain Sling
Key Features	Lightest and strongest slings available, repairable, Check-Fast® Inspection System, low stretch, longest lasting sling	Flexible, more ergonomic, cost effective alternative to wire rope sling	Flexible, more ergonomic, cost effective alternative to wire rope sling, low D/d ratio	Heavy duty, repairable sling
Approx. Weight to WLL ratio	1lb/ 40,000lbs	1lb/ 7,500lbs	1lb/ 9,000lbs	1lb/ 5,000lbs
Length Tolerance	+/- 1”	+/- finished diameter of rope	+/- finished diameter of rope	+/- length of one link
Elongation at WLL	<1%	1%	1%	<1%
Max Temp	180°F/ 82°C (Sparkeater® Sling 300°F/ 150°C)	400°F/ 204°C	400°F/ 204°C	400°F/ 204°C
Flexibility	Very Flexible	Flexible	Flexible	Flexible
UV Resistance	High	N/A	N/A	N/A
Abrasion Resistance	High	Very High	Very High	Very High
Proof Tested?	Yes	No	No	Yes
Repairable?	Yes	No	No	Yes
Design Factor	5:1	5:1	5:1	4:1
D/d Ratio in eye	N/A	2:1	1:1	N/A
D/d Ratio in body	Any comparably rated fitting	5:1	5:1	6:1
Resistance to Acids	Very Good	Good	Good	Good
Resistant to Salt Water?	Yes	No	No	No