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# Robertsons

lifting ^ rigging ^ height safety

## Twin-Path Slings®

The world's safest,  
lightweight lifting slings



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lifting ^ rigging ^ height safety

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## Twin-Path® Sling Benefits

### For lifts from 5 to 600 tonnes

Twin-Path® Slings have been an important rigging solution for heavy lifting applications across a number of industries for over 20 years. And now under licence with Slingmax®, our Twin-Path® Slings are manufactured to order in Australia, supplied within short lead times.

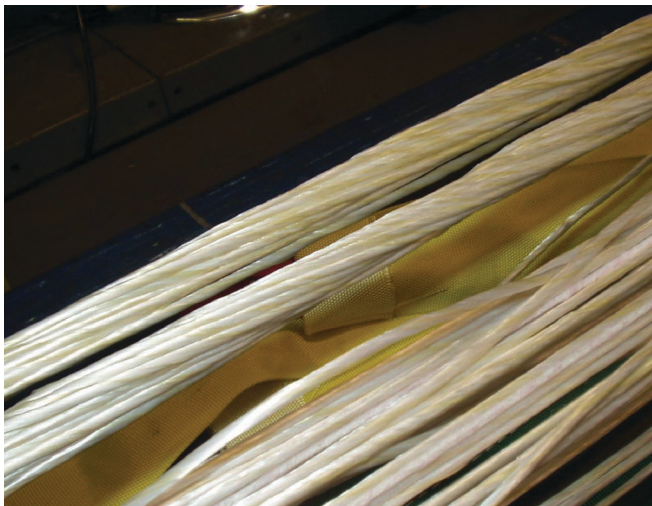
Not only do the slings have the precision, strength and flexibility to successfully perform lifts from 5 tonnes to an incredible 600 tonnes – they are a fraction of the weight of wire rope slings.

The lightweight nature of the slings, coupled with several important safety features ensures lifts are performed quicker, safer and much easier than traditional wire slings.



### K-Spec® Core Fibre Technology

Unlike other fibre slings, Twin-Path® Slings are constructed from a unique proprietary blend of K-Spec® high-performance fibres, which will not stretch under load – enabling the accurate planning of a heavy lift. Less time and manpower is spent on rigging for most construction and maintenance schedules and a range of engineered protective pads and covers protect the slings from wear and tear.



Twin Path® Slings contain K-Spec® high performance, no stretch fibres.



Twin Path® Slings have been used around the world since 1987.



Cornermax® Sleeves provide cut protection for a variety of edges.



The unique slings are capable of safely lifting up to 600 tonnes.

## Twin-Path® Sling Benefits

### Handling Features

- > **Weight Advantage:** 80% lighter than wire rope and chain slings and 50% lighter than polyester slings.
- > **Control of Slings:** Rigging becomes quick and more manageable due to the low weight.
- > **Storage retrieval and salvage:** Easily rolled up and shelved after use. Transportable and can easily be tossed in the back of a car or van.
- > **Marine Applications:** The slings do not absorb moisture and are naturally buoyant, making them ideal for all off-shore and salvage work.

### Cost Efficiencies

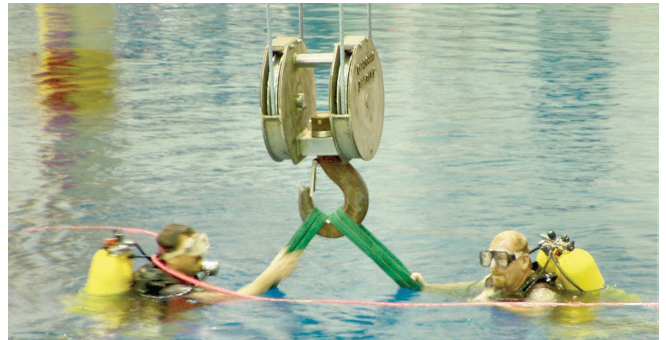
- > **Wear Resistant Covermax® Outer Cover:** The fabric is four times more abrasion resistant than common nylon or polyester, increasing the sling life.
- > **Repairable:** Twin-Path® Slings can be repaired by the manufacturer if the internal core fibres are not already cut or damaged. All slings are re-tested after repairs are completed.
- > **Reduced Rigging Times:** Rigging can be reduced by as much as 80% with less exposure to possible accidents.
- > **Low Maintenance:** Twin-Path® Slings do not require lubrication or annealing like wire rope.

### Safety Features

- > **Twin-Path® Sling Design:** Constructed using two independent paths each capable of carrying the rated working load limit.
- > **Low Stretch:** Less than 1% elongation at working load limit.
- > **Chemical Environments:** Can be safely used in chemical environments.
- > **Check-Fast® Early Warning Indicator (EWI):** The Check-Fast® system provides for a pass/fail inspection of the internal load bearing core yarn.
- > **Optic Fibres:** The optional optic fibre system can alert you to heat exposure, cutting and chemical damage of the core fibre, simply by shining a flashlight into one end of the optic fibre.



Twin Path® Slings are 80% lighter than wire rope slings.



The slings are ideal for marine applications.



Twin Path® Slings can be cost effectively repaired, if the core fibres are not already cut or damaged.

# Safety Features Explained

## Check-Fast® Inspection

The Check-Fast® system provides for a pass/fail inspection of the internal load bearing core yarn. Damage to the core yarn from fibre on fibre abrasion, fatigue, and severe overload can be detected. If the sling is mistakenly loaded beyond rated capacity, the early warning indicator (EWI), which is the internal load bearing core yarn, will disappear before the sling fails.



If the early warning indicators (EWI) is missing, the sling may be unfit for use.

## Rifled Cover® Technology

A major breakthrough for improved break strength is the spinning or helical winding of the core yarn within Twin-Path® Slings.

This process increases the slings breaking strength by 18% without the need for any additional core yarn.

### Optional Fibre Optic Cable



The simple fibre optic test indicates whether a sling has sustained heat or chemical damage.

The optional fibre optic cable provides another simple and effective method of inspection. A light shone through one end of the fibre optic cable will travel throughout the body of the sling and reflect out the other end. A light that does not pass through the sling may indicate heat or chemical damage.

## Two Independent Cores

Twin-Path® provides unique, patented backup protection. There are actually two independent cores of K-Spec® fibre in the one sling. If a single path is damaged in use, the second path will perform as a backup and maintain control until the load is lowered. The Twin-Path® helps reduce the potential for catastrophic material mishandling.

Another early warning system is built into Twin-Path® slings through the use of two independent, color-coded covers. If the outer cover is cut, the patented red inner cover is instantly visible, providing a visual alert to remove the sling from service. As long as the inner core yarns are not damaged, Twin-Path® slings can be repaired with bulked nylon patches, proof tested and re-certified.



Twin-Path® Slings consist of two independent cores.

## Superior Patented Design Features

Armor Wear Pads resist abrasion to prevent sling damage.

Covermax® outer cover, is 4 times more abrasion resistant than polyester outer cover.

Safety Red inner sleeve acts as an early warning device when the outer sleeve is cut or worn.

Armor Wear Pads are removable or sewn directly over sling.

Optional optic fibre allows for an internal integrity check of the core yarn.

K-Spec® high performance fibres have less than 1% elongation at rated capacity.

Twin-Path® design, contains 2 individual paths of core yarn.

## Twin-Path® Sling Protection

### Cornermax® Pads and Sleeves

Most synthetic sling accidents are caused by cutting. There are many kinds of protective sleeves and pads available, but only two synthetic protectors provide adequate cut protection:

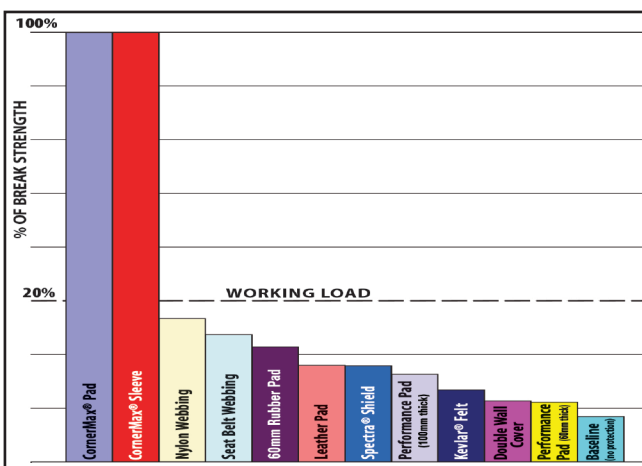
CornerMax® Pads and CornerMax® Sleeves have been engineered and tested to provide 4464 kg of protection per centimetre of sling width.

CornerMax® pads are designed for 90° straight edges, whereas CornerMax® sleeves are for other edges.

### Sling Protection

CornerMax® sleeves may look like traditional protection sleeves, but are made of a high tech fibre that is specially woven to provide cut protection for a variety of edges and surfaces.

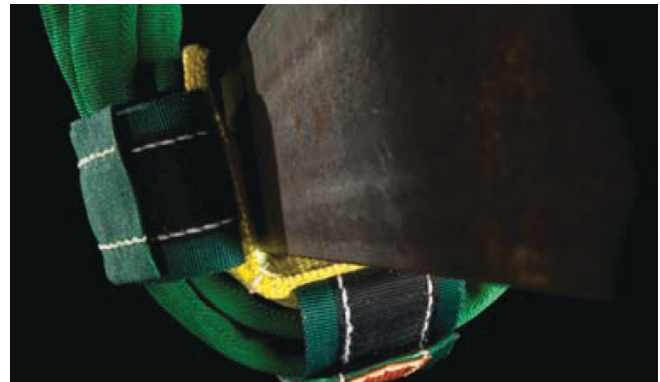
The chart below shows the results of testing slings protected by 12 different synthetic materials that are often used for sling protection. In our tests, ten of the most commonly used materials do not allow a sling to reach its working load before the sling is cut and fails. The CornerMax® pad and sleeve allow the synthetic sling to meet its working load with no damage to the sling or the protection.



### Other Forms of Sling Protection

For synthetic slings, the most critical decision is whether cut protection is needed. In some circumstances no cut protection, or simplified softeners only, are required.

At Robertsons we have a full line of engineered softeners that are excellent for abrasion protection or for protecting a load surface.



Cornermax® Pads create a “tunnel” of cut protection – a no-touch zone. Therefore, the edge does not come in contact with the pad or sling. Note that the sides of the pads must be completely supported in order to create and maintain the “tunnel”.



CornerMax® sleeves are made of a high tech fibre that is specially woven to provide cut protection for a variety of edges and surfaces.



## Twin-Path® Accessories

### Equaliser Block

The Equalizer Block is used to maintain tension on all legs of the sling during a lift. Rather than adjusting slings and hooks prior to completing a lift, the Equalizer Block will automatically adjust itself when pressure is put on the device from the sling. This was designed specifically for Twin-Path® slings.

Part No. 1	Capacity (5:1 DF)	Inside Width (mm)	Suggested Sling for 90° Basket	Block Weight (kg)
SEB10	10 US ton	70mm	TPXCF1000	20kg
SEB25	25 US ton	100mm	TPXCF2500	36kg
SEB50	50 US ton	150mm	TPXCF5000	100kg
SEB75	75 US ton	150mm	TPXCF7500	122kg
SEB125M	125 metric ton	200mm	TPXCF15000	290kg



The equaliser block automatically adjusts itself when under pressure.

### G-Link Connectors

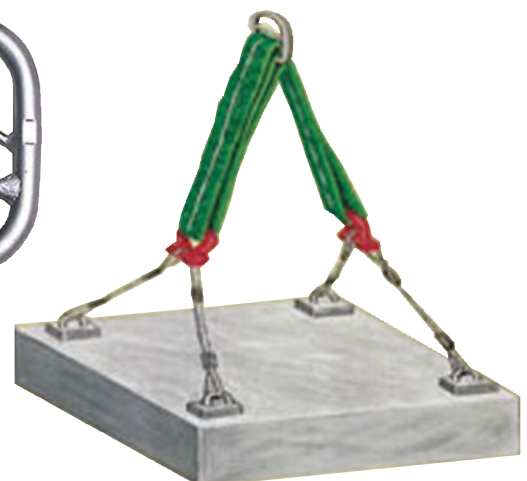
G-Link Connectors are used to lengthen or shorten a Twin-Path® Sling to it's desired length. This enables the sling to be used for a number of different applications.



Two G-Link Connectors are used to lengthen or shorten a sling.

### Twin-Path® Adjustable Bridles

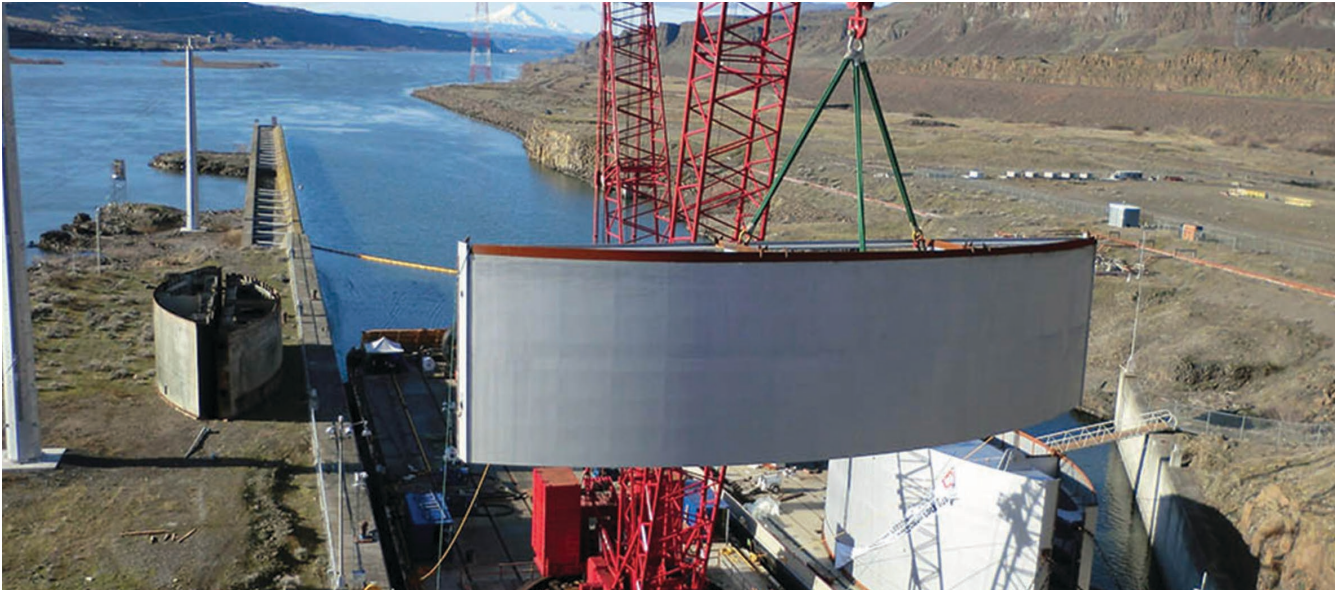
Twin-Path® Adjustable Bridles are a very useful rigging tool. They replace standard two or four leg bridles, with the additional value of self-adjustment to awkward loads. One leg has twice the capacity of the other leg. As tension is applied, Twin-Path® Adjustable Bridles self-adjust over the centre of gravity to find the lifting point for level, load handling.






Twin-Path® adjustable bridles self adjust over the centre of gravity.

## Twin-Path® Slings - Working Load Limits

Note: Slings up to 600 tonne are available on request within a short lead time.



Manufactured under licence in Australia.

Twin-Path® Sling WLL TONNES	Vertical WLL TONNE	Choker WLL TONNE	Vertical Basket WLL TONNE	Basket Hitches WLL TONNE			Approximate Weight kgs	Nominal Body Width mm's
				60°	90°	120°		
5	5	4	10	8	7	5	0.5	76
10	10	8	20	17	14	10	1.0	76
15	15	12	30	26	21	15	1.7	101
20	20	16	40	34	28	20	2.2	101
25	25	20	50	43	35	25	2.8	127
30	30	24	60	52	42	30	3.4	127
35	35	28	70	60	49	35	4.0	152
40	40	32	80	69	56	40	4.5	152
45	45	36	90	73	63	45	5.0	152
50	50	40	100	86	70	50	5.7	203
55	55	44	110	95	77	55	6.3	203
60	60	48	120	104	84	60	6.8	203
65	65	52	130	112	91	65	7.4	203
70	70	56	140	121	99	70	8.0	203
75	75	60	150	130	106	75	8.5	254
80	80	64	160	138	113	80	9.0	254
85	85	68	170	147	120	85	9.6	254
90	90	72	180	156	127	90	10.2	254
95	95	76	190	164	134	95	10.8	254
100	100	80	200	173	141	100	11.3	254
110	110	88	220	190	155	110	12.5	254
120	120	96	240	207	169	120	13.6	305
130	130	104	260	225	183	130	14.8	305
140	140	112	280	242	197	140	16.0	305
150	150	120	300	259	211	150	25.0	305
160	160	128	320	277	225	160	27.3	355
170	170	136	340	294	240	170	29.0	355
180	180	144	360	311	254	180	31.0	355
190	190	152	380	329	268	190	32.4	355
200	200	160	400	346	282	200	34.0	355

Up to 600 tonne - Please contact your local branch for details.

\* Dimensions can vary according to the hardware or bearing points the slings are used with. Minimum is "tapered" width; Maximum is the flat tubing width. Test certificates supplied with all slings.

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