

# KARGOLIFT<sup>TM</sup>

## FLAT WOVEN WEBBINGS SLINGS

**KARGO LIFT** is a heavy duty non metallic sling, made of polyester. These are flat woven webbing slings with Eye-loop at the ends. These are available in different lengths and different weight lifting capacities ranging from 1 ton up to 48 tons.

The polyester webbing slings, with reinforced eyes at both sides, are manufactured as per BS 3481 Part 1 and Part 2 1983 and EN 1492 -1 and IS 15041 : 2001 norms

### IMPORTANT TERMS AND DEFINITIONS / ABBREVIATIONS

#### Flat Woven Webbing Slings

Flexible slings consisting of sewn woven components, with or without fittings for attaching loads to the hook of a crane or other lifting machines.

#### Multi Layer Slings

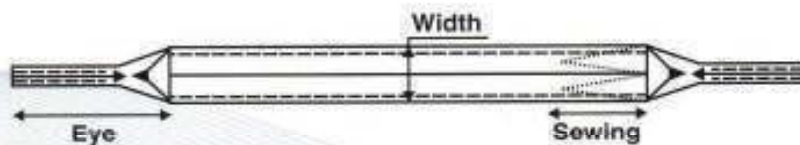
Flat woven webbing sling, the sewn webbing component or components of which consists of two or more layers of identical webbing superimposed in the lengthwise direction.

#### Multi-Leg Sling Assembly

Flat woven webbing sling assembly, consisting of two, three or four identical flat woven webbing slings attached to the master link. (See table 2)

#### Eye

Termination of a sewn webbing components, produced by turning the end of the webbing through 180° and securing it to the standing part of the webbing by a load bearing seam, so forming a terminal soft eye or attaching a terminal fittings.



#### Soft Eye

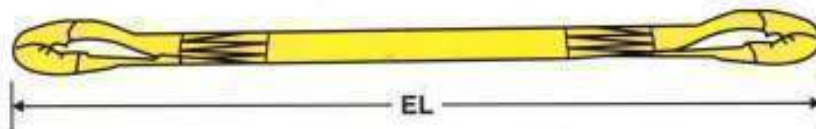
Terminal eye of a sewn webbing component so formed as to allow reeving, the attachment of removable fitting or connection to the hook of a crane or other lifting machine or lifting accessory.

#### Nominal Length

Specified length of the sling, inclusive of fitting, from bearing point to bearing point.

#### Effective Working Length (EWL)

Actual finished length of the woven webbing sling, inclusive of fittings, from bearing point to bearing point. The effective working length of a flat woven webbing sling shall not differ from the nominal length by more than 3% of the nominal length, when laid flat and measured with a steel tape or rule graduate in increments of 1mm.





## **FLAT WOVEN WEBBINGS SLINGS**

### **WORKING LOAD LIMIT (WLL)**

Maximum mass which sewn webbing component of a flat woven sling is designed to sustain in straight pull and which a sling or sling authority is designed to sustain in general lifting service. ( see table on pages 1 and 2 )

### **WEBBING THICKNESS AND SLING THICKNESS**

For single layer flat woven webbing slings, the load bearing element of the sling shall have a minimum thickness of 2 mm. For multilayer slings, the webbing used to provide each layer of the load bearing element of the sling shall have the minimum thickness of 1.2 mm .

### **STRETCH**

**The total stretch in the fibre yarn of webbing may be divided into three distinct modes.**

- 1. Elastic Stretch** : in which recovery after unloading is total and immediate.
- 2. Recoverable Stretch** : difficult to allow for because recovery towards the original length is gradual.
- 3. Non-recoverable Stretch** : even the best webbings never quite recover their original length due to changes in intermolecular geometry.

### **RAW MATERIAL CONSTRUCTION DETAIL**

- 100% industrial high tenacity Synthetic fiber multi filament yarn having excellent light fastness and heat stabilization with a tenacity not less than 60cN/tex is used to manufacture slings with relative density of 1.38 and melting point 260°C. The safe working temperature for these slings is -40°C to ±100°C. Elastic is 2.5% elongation at SWL rated capacity and recovery is 95% after 24 hrs . Its electrical resistance, in dry state , tends to infinity.
- Thermal, electrical and friction co-efficient as per the international Code DIN -BN 1492- PART 2/BS 6668 PART 2/BS 3481& PART 2 1983.
- These slings are highly resistant to mild acids, alkalis, alcohol , bleaching agents dry-cleaning solvents, halogenate hydrocarbons, ketones , crude oil, soap and detergents.

### **PROPERTIES OF OUR SLINGS**

1. It is of low weight , non corrosive, good resistance to heat, excellent electrical insulation properties and good chemical resistance as per specified standards. Working temperatures ranges - 40°C to ±100°C.
2. it does not have any fibre optic core . It will not create sparks in explosive or hazardous environments .
3. The maximum elongation permitted is only 3% at working load limit (WLL).
4. Each sling carries a tag indicating sling No ., Type ,WLL,Load Test Date and Report No.
5. It is suitable for choked lift( Choker mode ) also.

### **MAIN FEATURES OF OUR POLYESTER WEBBING SLINGS**

- High strength
- Low strength
- colour coded
- Hardwearing
- Acid Resistance
- Each lifting slings are shrink packed.
- Each sling is supplied with a unique certificate.
- Identification tag is provided on each sling as per the standard requirements
- Single ply sling are usually provided with an eye protection.
- All slings can be provided with protective sleeves as per required length.



## **FLAT WOVEN WEBBINGS SLINGS**

### **HOW TO USE**

- When using the sling with a hook , the minimum length of the sling loop must be greater than 3.5x the minimum hook width and in all case , the angle created in the loop should not exceed 20°.
- When connecting the sling to a lifting device, the part holding the sling must be straight except when the sling has width less than 75 mm in which case the curved radius must be at least 0.75x the sling width being held .
- Never knot or loop the slings together.
- When using in basket grip mode, make sure that the load does not experience seizure.
- When using the strangulation mode, position the slings to allow a natural angle of 12°.
- Never force the sling into the improper position .
- When using more than one sling to lift the load , make sure that the slings are identical.

### **SAFETY TIPS**

- Use only certified /identified slings with clear indicated safe working load.
- Do not use damaged slings.
- Please slings on the load such that the load is uniform across entire width.
- Use these slings from temperature range from - 40°C to 100°C.
- Keep load stable. If the length of the load requires several slings , use a certified equipment to make the slings parallel and see that the load is evenly distributed between the slings.
- Avoid shock loads for getting vibrations in the slings.
- Do not forcibly pull out a sling , which is jammed under load.
- Carefully observe the lifting angles for load calculations and choose the slings accordingly.

### **EXPIRATION INSPECTION**

- The slings should be tested at least once a year by a competent individual to determine if they may continue to be used .
- During the usage period , carry out regular inspection to ensure that the sling has no defect which could effect proper use. Make sure that it is correctly labeled. In case of any doubt do not continue to use the label.
- During normal use, a small amount of friction may be experienced on the webbing surface. Effects may vary and some loss of strength may be expected .
- All slings repair must be performed by the manufacturer or a competent individual.

### **INFORMATION REQUIRED WHILE PLACING ORDER FOR SLINGS**

- Webbing Width ( in mm ).
- Vertical Straight Lift Capacity ( in Tonnes).
- Effective Length ( in meters)
- Types of Eyes
- Safety Factor Ratio





## FLAT WOVEN WEBBINGS SLINGS

### ADVANTAGES OF OUR POLYESTER SLINGS OVER METALLIC SLINGS/CHAIN

- **Lasts long:** Polyester slings are made of Synthetic Polyester due to which it can be used for a longer period of time thus lowering its replacement costs, whereas since the Metallic slings are made up of Iron, it has a tendency to corrode over a shorter period of time. Also the Polyester Slings are Acid resistant unlike the Metallic Slings.

- **Much lighter:** Polyester slings are much lighter than the Metallic slings thus making them easier to handle and store. It also reduces the rigging time hence making the process of lifting material much faster as compared to the Metallic Slings.

- **Safety of the product:** Metallic slings may sometimes damage the finished product since its surface is hard and rigid. Polyester slings being very soft do not pose any such threat to the product.

- **Safety Factor:** The safety ratio of the Polyester slings is 6:1 and 7:1 as compared to the safety ratio of 5:1 of the Metallic Slings. They can therefore absorb shock loads much better than the Metallic Ropes.

- **Dependability:** Polyester slings are more dependable than the Metallic slings as they have a wider bearing surface on the load and better grip owing to the polyester material.

- **Internal damages:** Metallic slings cannot be physically checked for any internal damages and hence may prove to be fatal whereas the polyester slings can be easily checked and accidents can be avoided.

- **Codification:** Polyester slings are divided into different colours on the basis of their load taking capacity. For eg yellow colour for 3 ton, whereas there are no such colour codes to differentiate between the different load lifting capacity. In addition to the colour, the number of black lines on the slings also indicate its WLL/SWL.

- **Safety of the employees:** Since the Metallic slings are made up of rigid and hard material there are greater chance of injuries to the employees. Whereas the polyester slings are made of very soft material so there are no chances of any injury thus making them more user friendly.

- **Eliminates cost of consumables:** Employee does not require gloves for protection and grease for lubrication while using polyester slings, hence saves the costs on gloves and grease.

### CARE AND STORAGE OF SLINGS

Storage of slings in a proper way is highly important as it increases the life of the Slings if properly stored. Ensure that the following precautions are taken at the time of storage:

**COOL** : To prevent damage due to exposure to excessive temperature.

**DRY** : To prevent the growth of bacteria, which can degrade synthetic fibre.

**DARK** : To prevent the deleterious effects of prolonged exposure to sources of ultraviolet rays.






Slings should be kept in a place which is clean and free from dust, grime and foreign material. Mild soap and water can be used for cleaning purpose. Before putting the sling back in storage ensure that it has completely dried up to prevent growth of bacteria. A clean sling also allows easy inspection for possible damage.



## WEBBING SLINGS WITH FLAT / REVERSE EYE AS PER EN 1492-1 and IS 15041 : 2001

We manufacture from single to four ply slings as per European specification EN 1492-1

The shade in the webbing indicates the Safe Working Load ( SWL ) / Working Load Limit (WLL) of the slings.

| Item Code                     | Cap. | Width | Webbing<br>Shade | ( Working Load Limit in Tons )   |   |  |   |   |
|-------------------------------|------|-------|------------------|--|---|--|---|---|
|                               |      |       |                  | Straight Lift  | Choked Lift   | Basket Lift  |   |   |
|                               |      |       |                  |     |  |  |  |  |
| CODE                          | Ton  | MM    | SHADE            | M=WLLX1.0  | M=WLL X 0.8   | M=WLL X 2.0  | M=WLLX1.4   | M=WLLX1.0   |
| <b>Single Ply Flat Slings</b> |      |       |                  |    |   |  |   |   |
| KL/1P/0.5T                    | 0.5  | 25    | VIOLET           | 0.5  | 0.4   | 1.0  | 0.7   | 0.5   |
| KL/1P/1T                      | 1.0  | 50    | GREEN            | 1.0  | 0.8   | 2.0  | 1.4   | 1.0   |
| KL/1P/1.5T                    | 1.5  | 75    | YELLOW           | 1.5  | 1.2   | 3.0  | 2.1   | 1.5   |
| KL/1P/2T                      | 2.0  | 100   | GRAY             | 2.0  | 1.6   | 4.0  | 2.8   | 2.0   |
| KL/1P/2.5T                    | 2.5  | 125   | RED              | 2.5  | 2.0   | 5.0  | 3.5   | 2.5   |
| KL/1P/3T                      | 3.0  | 150   | BROWN            | 3.0  | 2.4   | 6.0  | 4.2   | 3.0   |
| KL/1P/4T                      | 4.0  | 200   | BLUE             | 4.0  | 3.2   | 8.0  | 5.6   | 4.0   |
| KL/1P/5T                      | 5.0  | 250   | ORANGE           | 5.0  | 4.0   | 10.0   | 7.0   | 5.0   |
| KL/1P/6T                      | 6.0  | 300   | ORANGE           | 6.0  | 4.8   | 12.0   | 8.4   | 6.0   |
| <b>Double Ply Flat Slings</b> |      |       |                  |    |   |  |   |   |
| KL/2P/1T                      | 1    | 25    | VIOLET           | 1.0  | 0.8   | 2.0  | 1.4   | 1.0   |
| KL/2P/2T                      | 2    | 50    | GREEN            | 2.0  | 1.6   | 4.0  | 2.8   | 2.0   |
| KL/2P/3T                      | 3    | 75    | YELLOW           | 3.0  | 2.4   | 6.0  | 4.2   | 3.0   |
| KL/2P/4T                      | 4    | 100   | GRAY             | 4.0  | 3.2   | 8.0  | 5.6   | 4.0   |
| KL/2P/5T                      | 5    | 125   | RED              | 5.0  | 4.0   | 10.0   | 7.0   | 5.0   |
| KL/2P/6T                      | 6    | 150   | BROWN            | 6.0  | 4.8   | 12.0   | 8.4   | 6.0   |
| KL/2P/8T                      | 8    | 200   | BLUE             | 8.0  | 6.4   | 16.0   | 11.2  | 8.0   |
| KL/2P/10T                     | 10   | 250   | ORANGE           | 10.0   | 8.0   | 20.0   | 14.0  | 10.0  |
| KL/2P/12T                     | 12   | 300   | ORANGE           | 12.0   | 9.6   | 24.0   | 16.8  | 12.0  |
| <b>Triple Ply Flat Slings</b> |      |       |                  |  |   |  |   |   |
| KL/3P/1.5T                    | 1.5  | 25    | VIOLET           | 1.5  | 1.2   | 3.0  | 2.1   | 1.5   |
| KL/3P/3T                      | 3.0  | 50    | GREEN            | 3.0  | 2.4   | 6.0  | 4.2   | 3.0   |
| KL/3P/4.5T                    | 4.5  | 75    | YELLOW           | 4.5  | 3.6   | 9.0  | 6.3   | 4.5   |
| KL/3P/6T                      | 6.0  | 100   | GRAY             | 6.0  | 4.8   | 12.0   | 8.4   | 6.0   |
| KL/3P/7.5T                    | 7.5  | 125   | RED              | 7.5  | 6.0   | 15.0   | 10.5  | 7.5   |
| KL/3P/9T                      | 9.0  | 150   | BROWN            | 9.0  | 7.2   | 18.0   | 12.6  | 9.0   |
| KL/3P/12T                     | 12.0 | 200   | BLUE             | 12.0   | 9.6   | 24.0   | 16.8  | 12.0  |
| KL/3P/15T                     | 15.0 | 250   | ORANGE           | 15.0   | 12.0  | 30.0   | 21.0  | 15.0  |
| KL/3P/18T                     | 18.0 | 300   | ORANGE           | 18.0   | 14.4  | 36.0   | 25.2  | 18.0  |
| <b>Four Ply Flat Slings</b>   |      |       |                  |  |   |  |   |   |
| KL/4P/2T                      | 2.0  | 25    | VIOLET           | 2.0  | 1.6   | 4.0  | 2.8   | 2.0   |
| KL/4P/4T                      | 4.0  | 50    | GREEN            | 4.0  | 3.2   | 8.0  | 5.6   | 4.0   |
| KL/4P/6T                      | 6.0  | 75    | YELLOW           | 6.0  | 4.8   | 12.0   | 8.4   | 6.0   |
| KL/4P/8T                      | 8.0  | 100   | GRAY             | 8.0  | 6.4   | 16.0   | 11.2  | 8.0   |
| KL/4P/10T                     | 10.0 | 125   | RED              | 10.0   | 8.0   | 20.0   | 14.0  | 10.0  |
| KL/4P/12T                     | 12.0 | 150   | BROWN            | 12.0   | 9.6   | 24.0   | 16.8  | 12.0  |
| KL/4P/16T                     | 16.0 | 200   | BLUE             | 16.0   | 12.8  | 32.0   | 22.4  | 16.0  |
| KL/4P/20T                     | 20.0 | 250   | ORANGE           | 20.0   | 16.0  | 40.0   | 28.0  | 20.0  |
| KL/4P/24T                     | 24.0 | 300   | ORANGE           | 24.0   | 19.2  | 48.0   | 33.6  | 24.0  |












# KARGOLIFT<sup>TM</sup>

2,4 & 8 PLY WEBBING SLINGS WITH REVERSE EYE AS PER EN 1492-1 and IS 15041 : 2001



KARGOLIFT

We manufacture Double Ply slings as per European specification EN 1492-1 and Indian specification IS 15041 : 2001  
The shade in the webbing indicates the Safe Working Load ( SWL ) / Working Load Limit ( WLL ) of the slings.

| Item Code | Cap. | Width | Webbing<br><br>Shade | WLL ( Working Load Limit in Tone )  |   |  |   |   |   |   |   |   |
|-----------|------|-------|----------------------|---|---|--|---|---|---|---|---|---|
|           |      |       |                      | Straight Lift   | Choked Lift   | Basket Lift  |   |   | Two leg sling   |   | Three & Four leg sling  |   |
|           |      |       |                      |   |   | Parallel   | $\beta = 0^\circ \text{ to } 45^\circ$  | $\beta = 45^\circ \text{ to } 60^\circ$   | $\beta = 0^\circ \text{ to } 45^\circ$  | $\beta = 45^\circ \text{ to } 60^\circ$   | $\beta = 0^\circ \text{ to } 45^\circ$  | $\beta = 45^\circ \text{ to } 60^\circ$   |
|           |      |       |                      |  |  |  |  |  |  |  |  |  |
| CODE      | TON  | MM    | SHADE                | M=WLL X 1.0   | M=WLL X 0.8   | M=WLL X 2.0  | M=WLL X 1.4   | M=WLLX1.0   | M=WLL X 1.4   | M=WLLX1.0   | M=WLL X 2.1   | M=WLL X 1.5   |
| KL/2P/1T  | 1    | 25    | VIOLET               | 1.0   | 0.8   | 2.0  | 1.4   | 1.0   | 1.4   | 1.0   | 2.1   | 1.5   |
| KL/2P/2T  | 2    | 50    | GREEN                | 2.0   | 1.6   | 4.0  | 2.8   | 2.0   | 2.8   | 2.0   | 4.2   | 3.0   |
| KL/2P/3T  | 3    | 75    | YELLOW               | 3.0   | 2.4   | 6.0  | 4.2   | 3.0   | 4.2   | 3.0   | 6.3   | 4.5   |
| KL/2P/4T  | 4    | 100   | GRAY                 | 4.0   | 3.2   | 8.0  | 5.6   | 4.0   | 5.6   | 4.0   | 8.4   | 6.0   |
| KL/2P/5T  | 5    | 125   | RED                  | 5.0   | 4.0   | 10.0   | 7.0   | 5.0   | 7.0   | 6.0   | 10.5  | 7.5   |
| KL/2P/6T  | 6    | 150   | BROWN                | 6.0   | 4.8   | 12.0   | 8.4   | 6.0   | 8.4   | 6.0   | 12.6  | 9.0   |
| KL/2P/8T  | 8    | 200   | BLUE                 | 8.0   | 6.4   | 16.0   | 11.2  | 8.0   | 11.2  | 8.0   | 16.8  | 12.0  |
| KL/2P/10T | 10   | 250   | ORANGE               | 10.0  | 8.0   | 20.0   | 14.0  | 10.0  | 14.0  | 10.0  | 21.0  | 15.0  |
| KL/2P/12T | 12   | 300   | ORANGE               | 12.0  | 9.6   | 24.0   | 16.8  | 12.0  | 16.8  | 12.0  | 25.2  | 18.0  |
| KL/4P/16T | 16   | 200   | BLUE                 | 16.0  | 12.8  | 32.0   | 22.4  | 16.0  | 22.4  | 16.0  | 33.6  | 24.0  |
| KL/4P/20T | 20   | 250   | ORANGE               | 20.0  | 16.0  | 40.0   | 28.0  | 20.0  | 28.0  | 20.0  | 42.0  | 30.0  |
| KL/4P/24T | 24   | 300   | ORANGE               | 24.0  | 19.2  | 48.0   | 33.6  | 24.0  | 33.6  | 24.0  | 50.4  | 36.0  |
| KL/4P/30T | 30   | 300   | ORANGE               | 30.0  | 24.0  | 60.0   | 42.0  | 30.0  | 42.0  | 30.0  | 63.0  | 45.0  |
| KL/8P/40T | 40   | 250   | ORANGE               | 40.0  | 32.0  | 80.0   | 56.0  | 40.0  | 56.0  | 40.0  | 84.0  | 60.0  |
| KL/8P/48T | 48   | 300   | ORANGE               | 48.0  | 38.4  | 96.0   | 67.2  | 48.0  | 67.2  | 48.0  | 100.8   | 72.0  |

M = Mode factor for symmetrical loading

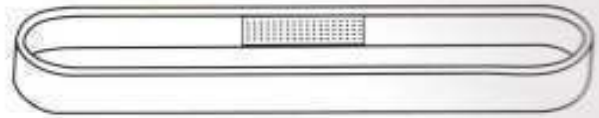


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## FLAT WOVEN WEBBINGS SLINGS

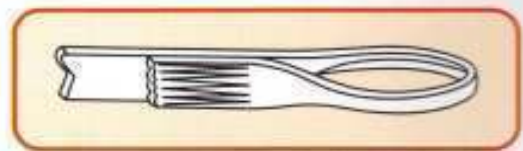
The flat webbing slings, which are manufactured from Polyester webbing are the most popular and versatile of the slings. They are available in three forms:

(A) **FLAT ENDLESS WEBBING SLINGS** : These slings consist of webbing which is either sewn to each other at end or woven endless without a seam. These are the most versatile slings as its hook and load contact point can be rotated. These are the most economical and adaptable slings which are available in single ply and multiply (up to 4 ply).



(B) **FLAT WEBBING SLINGS WITH SOFT EYE** : These type of slings have their ends terminated in Re - in forced loops which are formed into Eye. These types of slings with eyes are more popular type of slings as there are comparatively easier to understand in terms of usage. They are categorized into 2 different kinds depending upon the formation of the Eyes.

(i) **Reverse Eye** : In these type of Slings the eyes are formed by folding back 1/2 width from both sides of webbing and then sewing the material flat to the sling body.



(ii) **Folded Eye** : In these types of slings the eyes are formed by folding back 1/2 width of webbing then sewing the material flat to the sling body.



(iii) **Flat Eye** : In these types of slings the eyes are formed by simple straight fold and then sewed flat to the sling body.



(C) **FLAT WEBBING SLINGS WITH HARD EYE** : In these type of Slings the Eyes are provided with Metal Fittings for more safety and durability.



(i) **Non Reeving (Class 4)**



(ii) **Reeving (Class 5)**

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## FLAT WOVEN WEBBINGS SLINGS

These Slings are formed by two and more identical pieces of Webbing placed side by side terminated at each end of fittings common to all pieces. Hooks, master links and auxiliary links are manufactured from quenched and tempered steel alloy. It is available in a choice of two, three or four leg versions and is attached with a metal component for effective usage. These slings are directly stitched directly to the metal components. These attachments provide for the efficient handling of loads with permanent lifting points. Endless type bridle slings allow for the rotation of the fittings resulting in an infinite number of attachment and load contact point. Do not place the load carrying splice in a connection point to the load or in the lifting mechanism.

### WORKING LOAD LIMITS FOR MULTI-LEGGED SLINGS ARE BASED ON THE FOLLOWING

- Even load weight distribution on all legs.
- The legs must be of the same length, if the load is to hang level. If the load is rigged and not all the legs are sharing the load, the assembly design factor is reduced.
- All bridle legs are used at the same horizontal angle. If the condition of the lift vary from those above, the work load limit must be re-calculated.

### UNIFORM LOAD METHOD FOR :

#### ( i ) Double legged slings:

- For all angles ( $\beta$ ) between legs from  $0^\circ - 90^\circ$  ( $0^\circ - 45^\circ$  to the vertical)  
 $WLL = 1.4 \times WLL$  of a single leg made from similar slings.
- When additionally marked for angles ( $\beta$ ) between legs of  $90^\circ - 120^\circ$  ( $45^\circ - 60^\circ$  to the vertical)  
 $WLL = 1 \times WLL$  of single leg made from similar slings.



#### ( ii ) Three and four legged slings:

- For all angles ( $\beta$ ) between legs from  $0^\circ - 90^\circ$  ( $0^\circ - 45^\circ$  to the vertical)  
 $WLL = 2.1 \times WLL$  of a single leg made from similar slings.
- When additionally marked for angles ( $\beta$ ) between legs of  $90^\circ - 120^\circ$  ( $45^\circ - 60^\circ$  to the vertical)  
 $WLL = 1.5 \times WLL$  of a single leg from from similar slings.



### HEAVY DUTY WEBBING SLINGS

These slings are also known as Pipe Slings and are mainly required for lifting heavy loads and it adds interface to load of surface. They are manufactured from duplex polyester webbing slings joined together to be used with heavy duty steel terminals. The steel belt end and the head irons are designed for ease of use, quick and easy coupling and uncoupling. It is for lifting large diameter pipes and odd shaped large objects, made as per requirement.





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## FLAT WOVEN WEBBINGS SLINGS

Flat webbing slings have the tendency to get damaged, abraded and cut as tension between the sling and the load develops. To prevent any accident due to sling failure, it is of up most importance to provide sufficient padding to the edges and abrasive surfaces. This padding is made from a woven fabric or other material to provide extra protection to the sling without having any effect on its strength. The main purpose to use a Wear Protection or a Sleeve is to basically increase the life of the sling. They protect the sling from the sharp edges or rough surfaces to which they are exposed at the time of usage.

To protect the Slings from concrete and sharp surface we use the following sleeves :

### • ANTI ABRASION SLEEVE



These type of woven fabric sleeves help protect the life of the sling when exposed to wide abrasive surfaces such as concrete. The padding efficiently saves the slings from any possible damage.

### • ANTI CUTTING SLEEVES

These sleeves are specially designed to make them susceptible to cutting. These sleeves protect slings from sharp edges during rigging. It is a must for rigging loads with sharp or razor like edges such as steel coil and glass sheets lifting.



## BAG SLING

These are special type of slings used for lifting products requiring wider support / holding while lifting. These slings provide wide contact to surface area of the product for minimum slippage and even distribution of load on to sling while lifting.



### Details of Bag Slings

| Sr. No. | Width of Sling |          | Item Code ( Capacity Wise ) |             |             |             |
|---------|----------------|----------|-----------------------------|-------------|-------------|-------------|
|         | ( mm )         | ( Inch ) | 2 Ton                       | 3 Ton       | 4 Ton       | 5 Ton       |
| 1       | 200            | 8        | KL/BS/08/2T                 | KL/BS/08/3T | KL/BS/08/4T | KL/BS/08/5T |
| 2       | 250            | 10       | KL/BS/10/2T                 | KL/BS/10/3T | KL/BS/10/4T | KL/BS/10/5T |
| 3       | 300            | 12       | KL/BS/12/2T                 | KL/BS/12/3T | KL/BS/12/4T | KL/BS/12/5T |
| 4       | 350            | 14       | KL/BS/14/2T                 | KL/BS/14/3T | KL/BS/14/4T | KL/BS/14/5T |
| 5       | 400            | 16       | KL/BS/16/2T                 | KL/BS/16/3T | KL/BS/16/4T | KL/BS/16/5T |
| 6       | 500            | 20       | KL/BS/20/2T                 | KL/BS/20/3T | KL/BS/20/4T | KL/BS/20/5T |
| 7       | 800            | 32       | KL/BS/32/2T                 | KL/BS/32/3T | KL/BS/32/4T | KL/BS/32/5T |

We manufacture Bag Slings in any Length as per customers requirement.

# KARCOLIFT<sup>TM</sup>

## RATCHET LASHINGS

Ratchet lashings are used to fix the cargo while transporting, shifting or moving storage. It being more secure, reliable and much lighter in weight as compared to chains, wires and jute ropes which were traditionally used, it has become a more reliable method of securing all types of load across an entire spectrum of requirements. It also offers a significant advantage over steel banding, the latter being much heavier and more prone to damaging the finished goods, it provides a superior level of cargo control through high pre-tensioning.

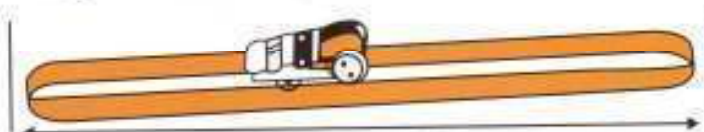
Depending upon the loading requirements, the webbing of the Lashing system is available in 25mm, 35mm, 50mm, 75mm and 100mm. There are different types of ratchet systems which are carefully designed and tested to exert the right amount of pre-tensioning of the lashing. These are manufactured as per the BS 5759 & EN-12195-2: 2000 standards.

### The ratchet lashings have certain advantages over its counter parts:

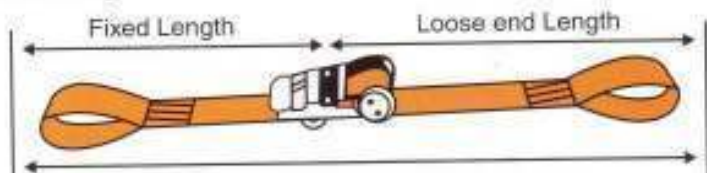
- (1) Load restraint using a tensioning device (Ratchet)
- (2) Effective and Safe control of loads while traveling
- (3) Extremely quick and efficient tie down and release of load thus saving time.
- (4) No damage to the load being tied down.
- (5) Lower weight also means lower transportation cost.
- (6) Suppleness of polyester accommodates irregularities of the load. Chain may damage the load or grip in the wrong place.

### The following specifications are required at the time of ordering the ratchet lashing system.

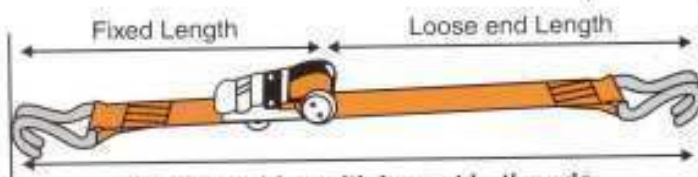
- Material outer diameter (OD)
- Effective Length (EL)
- Weight of material in tons.
- Type of end terminals.
- Total Length of material.



Endless Ratchet System



Ratchet Lashing with loop at both ends



Ratchet Lashing with loop at both ends





# KARGOLIFT<sup>TM</sup>

## CARGO LASHINGS

are manufacturers of a wide range of Cargo Lashings from 1" ( 25 mm ) to 4" ( 100 mm ) wide and lashing capacities ranging from 400 kgs to 5000 kgs as per EN-12195-2: 2000. A two part system consists of a short part and a long part with a tensioning device provided on the short part. Variety of hooks or end fittings as shown below can be provided.

**Below Systems can be provided in any length**

| ITEM CODE             | WIDTH          | PICTURE   | BREAKING STRENGTH   | LASHING CAPACITY  | WEBBING COLOUR           |
|-----------------------|----------------|---|---------------------|-------------------|--------------------------|
| / RA / 25 / JH / 1T   | 1.0"<br>25 mm  |    | 1.0 T<br>1,000 Kg   | 0.4 T<br>400 Kg   | YELLOW                   |
| / RA / 35 / JH / 3T   | 1.5"<br>35 mm  |   | 3.0 T<br>3,000 Kg   | 1.2 T<br>1,200 Kg | YELLOW                   |
| / RA / 50 / JHS / 5T  | 2.0"<br>50 mm  |  | 5.0 T<br>5000 Kg    | 1.8 T<br>1,825 Kg | YELLOW<br>BLUE<br>ORANGE |
| / RA / 50 / JH / 5T   | 2.0"<br>50 mm  |  | 5.0 T<br>5000 Kg    | 1.8 T<br>1,825 Kg | YELLOW<br>BLUE<br>ORANGE |
| / RA / 50 / TDR / 5T  | 2"<br>50 mm    |  | 5.0 T<br>5000 Kg    | 1.8 T<br>1,825 Kg | YELLOW<br>BLUE<br>ORANGE |
| / RA / 50 / SWH / 5T  | 2"<br>50 mm    |  | 5.0 T<br>5000 Kg    | 1.8 T<br>1,825 Kg | YELLOW<br>BLUE<br>ORANGE |
| / RA / 75 / JH / 10T  | 3.0"<br>75 mm  |  | 10.0 T<br>10,000 Kg | 3.7 T<br>3,750 Kg | YELLOW                   |
| / RA / 100 / CH / 6T  | 4.0"<br>100 mm |  | 6.0 T<br>6000 Kg    | 3.0 T<br>3,000 Kg | GREY                     |
| / RA / 100 / JH / 10T | 4.0"<br>100 mm |  | 10.0 T<br>10,000 Kg | 5.0 T<br>5,000 Kg | GREY                     |



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## RATCHET ENDLESS LASHING SYSTEM

### SINGLE PART SYSTEM ( WITHOUT HOOKS)

Single part system comprises of a tensioning device which is attached to the webbing. It is used for bundling purpose. This system can be provided in widths of 1" ( 25 mm ), 2" ( 50 mm ), 3" ( 75 mm ) and 4" ( 100 mm ) and to any length



| ITEM CODE        | KL / RAE / 25 / 1T | KL / RAE / 35 / 3T | KL / RAE / 50 / 5T | KL / RAE / 50 / 3.5T | KL / RAE / 50 / 1.5T | KL / RAE / 75 / 10T | KL / RAE / 100 / 6T | KL / RAE / 100 / 10T |
|------------------|--------------------|--------------------|--------------------|----------------------|----------------------|---------------------|---------------------|----------------------|
| WIDTH            | 1" / 25mm          | 1.5" / 35mm        | 2" / 50mm          | 2" / 50mm            | 2" / 50mm            | 3" / 75mm           | 4" / 100mm          | 4" / 100mm           |
| LASHING CAPACITY | 400kg              | 1,200kg            | 1,825kg            | 1,275kg              | 550kg                | 3,750kg             | 3000kg              | 5000kg               |
| WEBBING COLOUR   | RED                | YELLOW             | ORANGE             | R.BLUE               | YELLOW               | YELLOW              | GREY                | GREY                 |

## SAFETY TIPS FOR CARGO LASHING

- Take into consideration the mode of use and the nature of the load to be secured.
- The size, shape and weight of the load, together with the intended method of use, transport, environment and the nature of the load will effect the correct selection.
- For stability reasons free - standing units of load have to be secured with a minimum of one pair of web lashing for frictional lashing and two pairs of web lashing for diagonal lashing.
- Do not use different lashing equipments to lash the same load.
- Plan lifting and removal operations before starting the journey.

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## END / METAL FITTINGS



| Details of Ratchet Buckles |                          |        |          |         |
|----------------------------|--------------------------|--------|----------|---------|
| Item Code                  | Breaking Load<br>( Ton ) | Width  |          | Picture |
|                            |                          | ( mm ) | ( Inch ) | Code    |
| <b>KL/RB2510</b>           | 1 Ton                    | 25     | 1.0      | A       |
| <b>KL/RB3530</b>           | 3 Ton                    | 35     | 1.25     | B       |
| <b>KL/RB5050</b>           | 5 Ton                    | 50     | 2.0      | C       |
| <b>KL/RB7510</b>           | 10 Ton                   | 75     | 3.0      | D       |
| <b>KL/RB10010</b>          | 10 Ton                   | 100    | 4.0      | E       |



| Details of Hooks & End Fitting |                          |                 |         |                   |
|--------------------------------|--------------------------|-----------------|---------|-------------------|
| Item Code                      | Breaking Load<br>( Ton ) | Width<br>( mm ) | Picture | Product           |
|                                |                          |                 | Code    | Name              |
| <b>KL/JH2510</b>               | 1 Ton                    | 25              | JH      | Joint J - Hook    |
| <b>KL/JH3530</b>               | 3 Ton                    | 35              | JH      | Joint J - Hook    |
| <b>KL/JH5050</b>               | 5 Ton                    | 50              | JH      | Joint J - Hook    |
| <b>KL/JH7510</b>               | 10 Ton                   | 75              | JH      | Joint J - Hook    |
| <b>KL/JH10010</b>              | 10 Ton                   | 100             | JH      | Joint J - Hook    |
| <b>KL/JHS5050</b>              | 5 Ton                    | 50              | JHS     | Seperate J - Hook |
| <b>KL/DLR5050</b>              | 5 Ton                    | 50              | DLR     | Delta D - Ring    |
| <b>KL/SWH5050</b>              | 5 Ton                    | 50              | SWH     | Bull Swivel Snap  |
| <b>KL/FCH10010</b>             | 10 Ton                   | 100             | FCH     | Flat Clip Hook    |
| <b>KL/WNCH10010</b>            | 10 Ton                   | 100             | WINCH   | WNCH              |