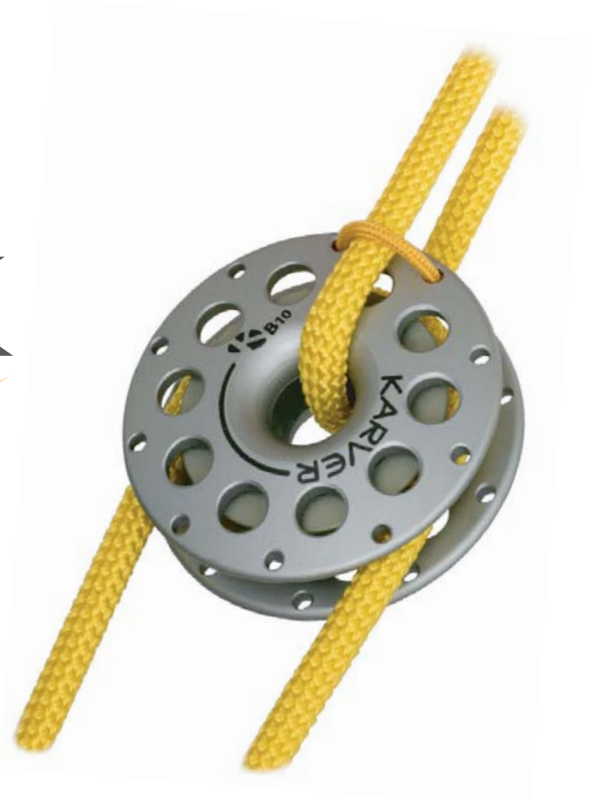


# » K-BLOCK



## 1- The Lashing



### The Lashing

#### 2 Lines / 2 Functions:

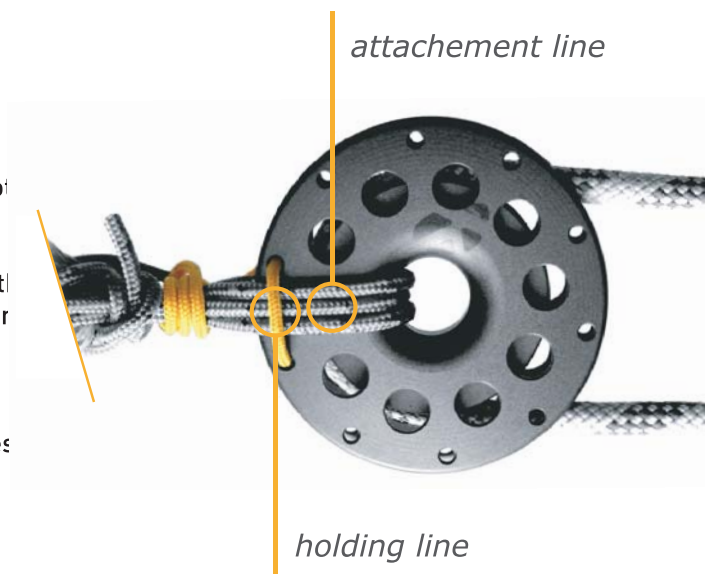
Two lines are required to attach your K-Block the Attachment Line (not included) and the Holding Line (included with your K-Block)

The Attachment Line is lashed through the center of your K-Block to the attachment point. When purchasing the Attachment Line it is important to consider breaking load, number of lashings and distance between attachment point and your K-Block (see below).

The Holding Line supplied with your K-Block is laced through the holes the block cheeks to:

- hold the Attachment Line (lashing) in place reducing friction
- contain the working line close to the sheave

**The block attachment can be done in several different ways. Below are some important points to follow.**





### 1) Choose the Attachment Line:

Using a high modulus line (such as "Dyneema) the number of loops in your lashing is 2.5 times the block working load divided by the line's breaking load.

$$\text{number of loops in your lashing} = \frac{2.5 \text{ times the block working load}}{\text{line's breaking load}}$$

**Example:**

A KB8 with a working load 600kg (1320lbs) and a 3mm (5/16") line with a breaking load of 350kg (770lbs) would be :  $\frac{2.5 \times 600}{380} = 3,9$  loops So you would need a minimum of 2 complete loops for your lashing.



### 2) The attachment lashing:

After completing the required number of loops for your lashing secure both ends of the attachment rope with a series of half hitches around the of loops of your lashing.



### 3) Secure the lashing to the block and contain the working line:

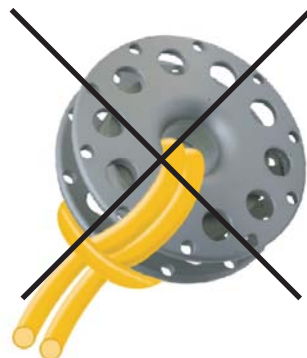
Attach the lashing to the block with the enclosed line.

Use the outer holes to attach the lashing to the block and hold the working line near the sheave

Tighten the attachment lashing.

## Check your knots!!!

DONOT use self-tightening knots like a "Larks Head" (shown), as these types of knots may damage your block under load.



## 2-Rope and Textile connections

On high performance boats most metallic shackles have been replaced by high modulus cordage and textile connections, which have widely proven their efficiency.

The benefits in weight savings, safety, flexibility, resistance to shock loads and corrosion are such that we predict that these products will also be used on production boats in the future.

Rope and textile shackles allow for a quick attachment of our blocks.

These connections, which open and close very easily without the use of tools, are the perfect alternative to lashings for blocks which require frequent relocation or removal.



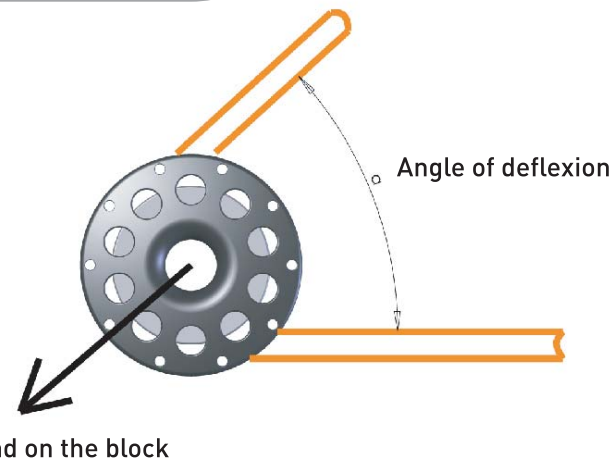
## 3-Performance, Load calculation, Maintenance

### Loss of performance:

- The friction coefficient for a self lubricating bearing block (KB-C) remains constant according to the load applied, the loss of performance is about 10%.
- The friction coefficient of a Peek rollers block will slightly increase in accordance with the load applied, (elasticity deformation of the rolls), the loss of load goes about from 3% to 5% according the intensity of the stress.

The deflexion angle also influences the load put on the block. A simple example : a block fitted with a rope with a 180° angle bears a load equal to 2 times the load of the sheet!

The table below shows the loads on a block for the various angles of a line:



Angle of deflexion	load on the block
30°	52%
45°	76%
60°	100%
75°	122%
90°	141%
105°	159%
120°	173%
135°	185%
180°	200%
165°	198%

## Characteristics of rope and textile connections:

Material	Aramid	CL Polyester	Carbon	Polyethylene	Para-Aramid	Polyester	Polyamide
Brand	PBO (Zylon)	Vectran	Carbon	Spectra, Dyneema, Certran	Arenka, Kevlar, Twaron, Superaman, Technora	Dacron, Diolen, Trevira, Tergal, Terylen	Enkalon, Nylon, Perlon
Density	1.56	1.4	1.9	0.96	1.4	1.38	1.15
meeting point	650°C	600°C	élevé	155 °C	425 °C	260 °C	215 °C
Elongation	0.025	0.033	0.015	0.04	0.02	0.11	0.18
UV resistance	weak	good	Not affected	good	bad	good	good
Elasticity resistance (MPA)	5800	2900	3700-6400	2400-3300	3600-2800	1100	850-950
Abrasion resistance	very good	very good	bad	good	good	good	very good
Modulus	2000	4800	1200-2500	1250	600-900	80-120	45
loss of performance at percentage of bending	30%	minor	30%- 100%	minor	25% - 28%	minor	minor
<b>+</b>	Almost no deformation, resistancy	Resistancy to folding and abrasion	exceptional performances, UV resistancy	resistancy to folding and UV, weak density	Resistancy to abrasion, weak elongation	Cheap, wide range	Good resistancy to bending and elongation
<b>-</b>	Very expensive, splices not well, sensitive to bending and UV	Price, sensitive to UV	Does not want to bend, price	Sometimes difficult to work with, price, elongation under load	Sensitive to bending and UV, price	Deforms easily	Gets porous when ageing




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