

CHAIN SLING SELECTION

CORRECT SELECTION, ORDER SPECIFICATION AND ASSEMBLY DETAILS

SELECTING THE CORRECT CHAIN SLING

1. Determine the mass and configuration of the load to be lifted.
2. From page 6, 9 & 10, determine the type of chain sling required according to No. 1 above.
3. Assess the typical service conditions – normal, arduous or hazardous.
4. Using the Working Load Limits on page 7 or 8, determine the size of chain required.

The Working Load Limit is the maximum load which should ever be applied to Chain, even when,

- Chain is new
- Used in ideal service conditions
- The load is uniformly applied, in direct tension, to a straight length of chain.

Dependant upon service conditions as recognised under No. 3, the foregoing may not be applicable and it will then be necessary to assess a more practical WORKING LOAD. Under no circumstances should this WORKING LOAD be greater than the WORKING LOAD LIMIT specified by the manufacturer.

- Also see page 18: The assessed WLL.

CAUTION: serious damage to a chain may occur when a force exceeding the Working Load Limit is applied to a chain or chain assembly.

5. Consult page 10 (and individual specification pages 11 to 16) to determine the matched components and accessories needed to complete the sling.
6. Determine the length of chain needed.
7. Tolerance of length of Multi-Legged Chain Slings:

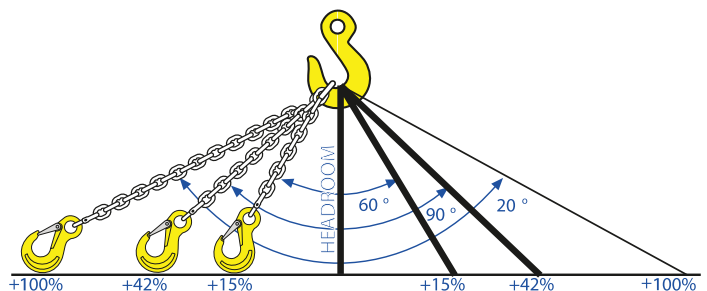
Lengths up to and including 2 meters, a maximum of 10mm in extra meter in lengths.

For lengths greater than 2 meters, allow a maximum of 5mm per extra meter in lengths.

E.g. 3m = 15mm, 4m = 20mm, 5m = 25mm and so on.
(Please refer to SABS ISO 7593 or EN818-4: 1997- Chain Slings, GR8)

CALCULATION OF SLING LENGTHS AT VARIOUS INCLUDED ANGLES

Where specific "Head Room" is required between the crane hook and the intended load, it is natural that the effective length will become greater as the angle of sling operation increases. The following scale indicates the percentage increase in length applicable at 60°, 90° and 120° operation.



For example, a 2-leg sling required to operate at 60° while maintaining Head Room of 3 meters will need each leg to be of 3,45 meters effective length.

CHAIN LENGTH vs. SLING REACH

Chain length simply refers to the actual length of chain required to form one leg of a chain sling of specified reach (effective length), whereas the reach of a chain sling is the distance between the bearing points of the upper and lower terminal fittings, also known as the "pull to pull" distance.

CHAIN CUTTING

It is often specified, when ordering chain slings, that the hook or terminal fittings lie in a given direction. To achieve this, care must be taken to ensure that each chain end link is assessed for direction or "plane" before being cut. It may sometimes be found necessary to extend the chain length by one link to achieve the desired requirement. Normally, all terminal fittings lie in the same plane.

When cutting Max-Alloy® Chain the links adjacent to the link to be cut should under no circumstances be heated as it will adversely affect the strength of these links.

CHAIN SLING SELECTION

TYPES OF STANDARD CHAIN SLINGS ARE DESIGNATED BY THE FOLLOWING SYMBOLS

FIRST SYMBOL (Basic Type)

S	Single Branch Chain Sling
D	Double Branch Chain Sling
T	Triple Branch Chain Sling
Q	Quadruple Branch Chain Sling

SECOND SYMBOL (Type of Master Link or End Link)

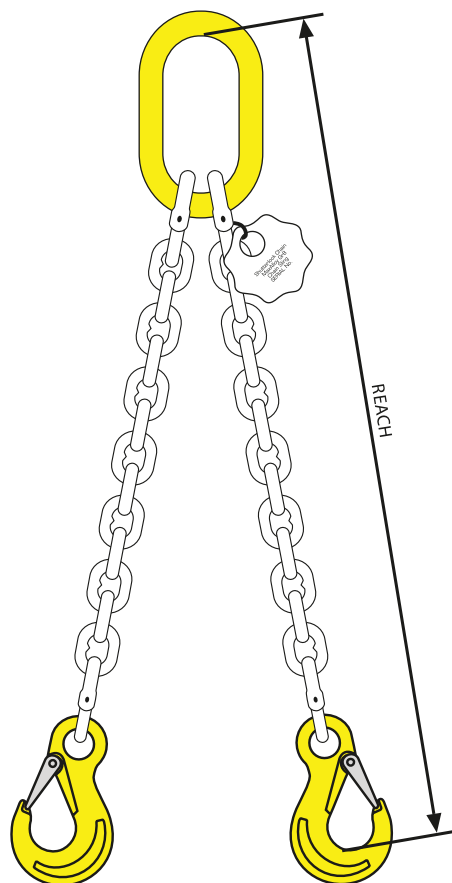
O	Oblong Master Link of standard dimensions
P	Pear Shaped Master Link (available on request- not a standard item)

THIRD SYMBOL (Type of Hook or End Link)

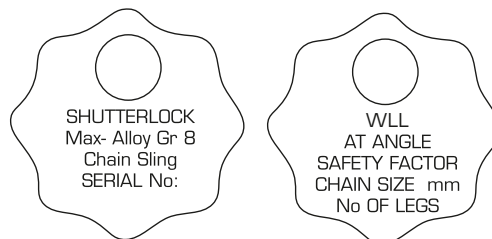
S	Safety Sling Hook (Specify when Eye or Clevis)
G	Grab Hook (Specify when Eye or Clevis)
F	Foundry Hook (Eye type only)
SL	Self-locking Hook (Specify when Eye or Clevis)
O	Oblong Master Link
M	Coupling Link

EXAMPLE TYPE DOS

Is a standard Max-Alloy® Double Branch Chain Sling (D) with standard Oblong Master Link (O) and standard Safety Sling Hook. (Eye Type)



**ALL MAX-ALLOY® Gr 8
CHAIN IS TESTED AND
REGISTERED**



All Max-Alloy® Chains are tested to at least 2.5 x the recommended Working Load Limit. Every Max-Alloy® Chain Sling is registered and the number stamped on a durable tag (as illustrated) attached to a convenient position on the Chain Sling. This is a legal requirement in terms of Regulation 18 (10) (b) under "Lifting Machines and Lifting Tackle" in the Driven Machinery Regulations 2015 of the Occupational Health and Safety Act, Act 85 of 1993. A Certificate of Conformance is issued with every new and repaired Max-Alloy® Chain Sling.