

Why are there different types of Sheave Gauges?

In order to ensure optimal performance of sheaves and wire rope a complete range of sheave gauges should be used. We stock gauges in the following formats:



+ 2.5% API Sheave Gauges are used to determine when Maximum and Excessive Wear levels has been reached.

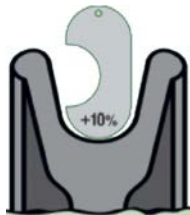
+ 5% Sheave Gauges are legacy format. They should fit snugly in new or re-machined sheaves. If correctly sized wire rope is run through the sheaves there will be a minimum of friction which should extend the life of the wire rope.

+ 6% API Sheave Gauges measures the minimum size for a new sheave.

+ 10% API Sheave Gauges measures the maximum size for a new sheave.

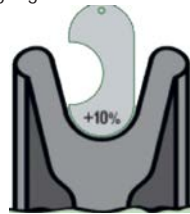
Other formats can be custom made upon request.

+10% Maximum New



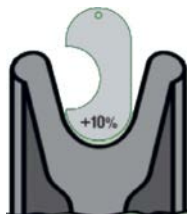
Too Loose

When there is space on the sides of a +10% gauge the sheave is too loose.



Maximum New Sheave

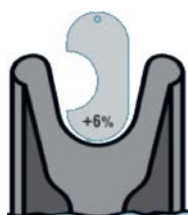
When a +10% Sheave Gauge fits without any gaps on the bottom or sides it indicates that it the maximum diameter for a new sheave.



Too Tight

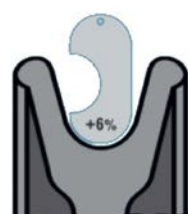
Use a +6% gauge to check whether it meets minimum new sheave tolerances.

+10% Maximum New



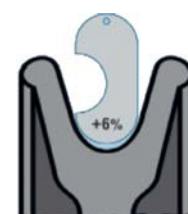
Too Loose

Test with a +10% Sheave Gauge



Minimum New Sheave

When a +6% Sheave Gauge fits without any gaps on the bottom or sides it indicates that it the minimum diameter for a new sheave.



Too Tight

Use a +2.5% Sheave gauge to test if there is excessive wear.

+10% Maximum New



Too Loose

Test with a +6% Sheave Gauge



Maximum Wear

When a +2.5% Gauge fits in a Sheave without any space on the side or bottom it has reached it's maximum wear point and should be scheduled for replacement.



Excessive Wear

A gap below a +2.5% Sheave Gauge indicates an excessively worn Sheave which should be removed from service at the next opportunity.

Using a Wire Rope Gauge



USING A NOMINAL WIRE ROPE GAUGE

Only use a wire rope gauge to determine approximate wire rope diameter.

1. Align the gauge so that the wire can be measured from the outer edge of one strand to the edge of the strand directly opposite.
2. If the wire rope does not fit in the gauge, use a larger gauge until the wire rope fits in the gauge.
3. Shine a light behind the gauge.
4. If you can see light between the gauge and the wire rope repeat with a smaller size gauge until no light shows.

Only use a wire rope gauge to determine approximate wire rope diameter.

USING A GO/NOGO WIRE ROPE GAUGE

Only use a wire rope gauge to determine approximate wire rope diameter.

1. Align the gauge so that the wire can be measured from the outer edge of one strand to the edge of the strand directly opposite.
2. If the wire rope does not fit in the gauge it is still above the nominal -3.125% threshold.
3. If the wire rope fits in the first notch it should be replaced if the cable shows rust (rouge).
4. If the wire rope reaches to the bottom of the gauge it should be replaced.

Only use a wire rope gauge to determine approximate wire rope diameter.