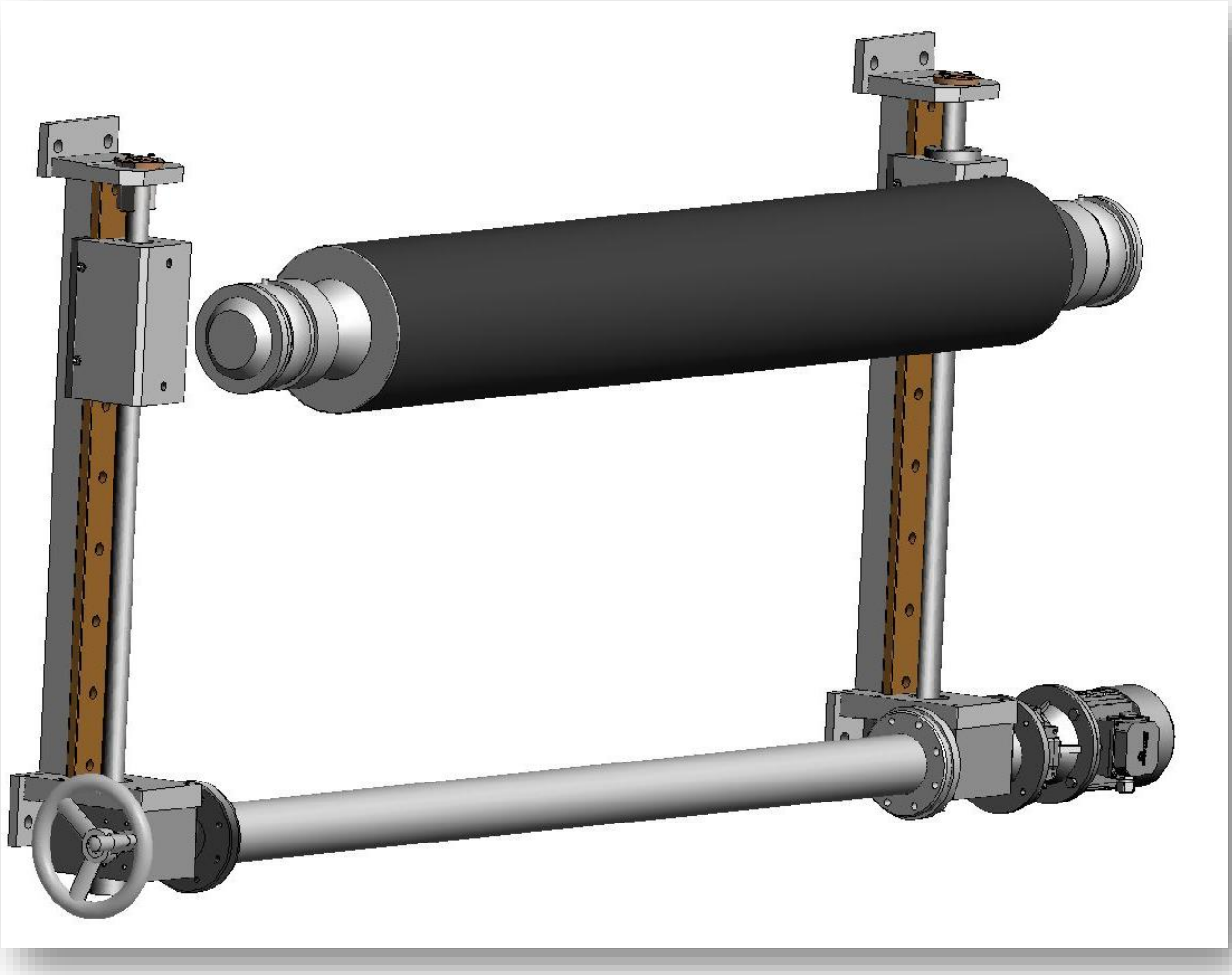
Polimek

FELT AND WIRE STRETCHER



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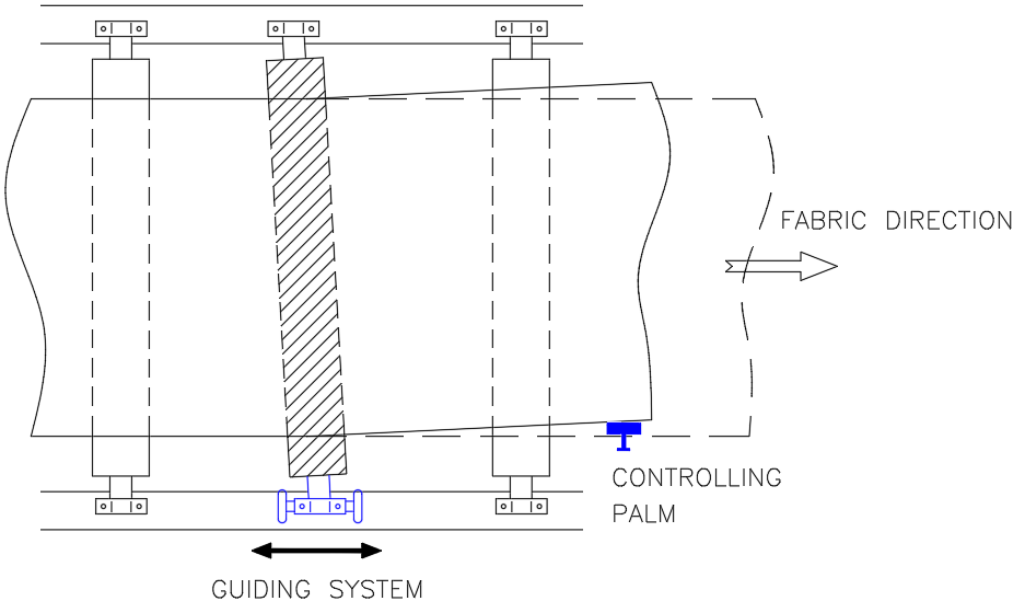
General information about fabric handling during operation

A set of wide tapes called felt or wire, depending on the part of the machine, is required to transfer the sheet of paper in the process of a paper machine.

These tapes, called fabrics, are moving around a series of rotating rolls and during weeks of operation they become longer due to their fibre relaxing. To keep the fabrics straight and with a correct tension, the paper machine is equipped with guiding and stretching system.

Short introduction on a guiding system

The guiding system is a special device that moves one side of a particular roll in order to keep the felt or wire straight along the machine direction.



The guiding system is driven by a palm always in contact with one edge of the fabric. The palm feels if the fabric is moving away from the correct position and gives a signal to the guiding system to adjust the roll position and straighten up the fabric.

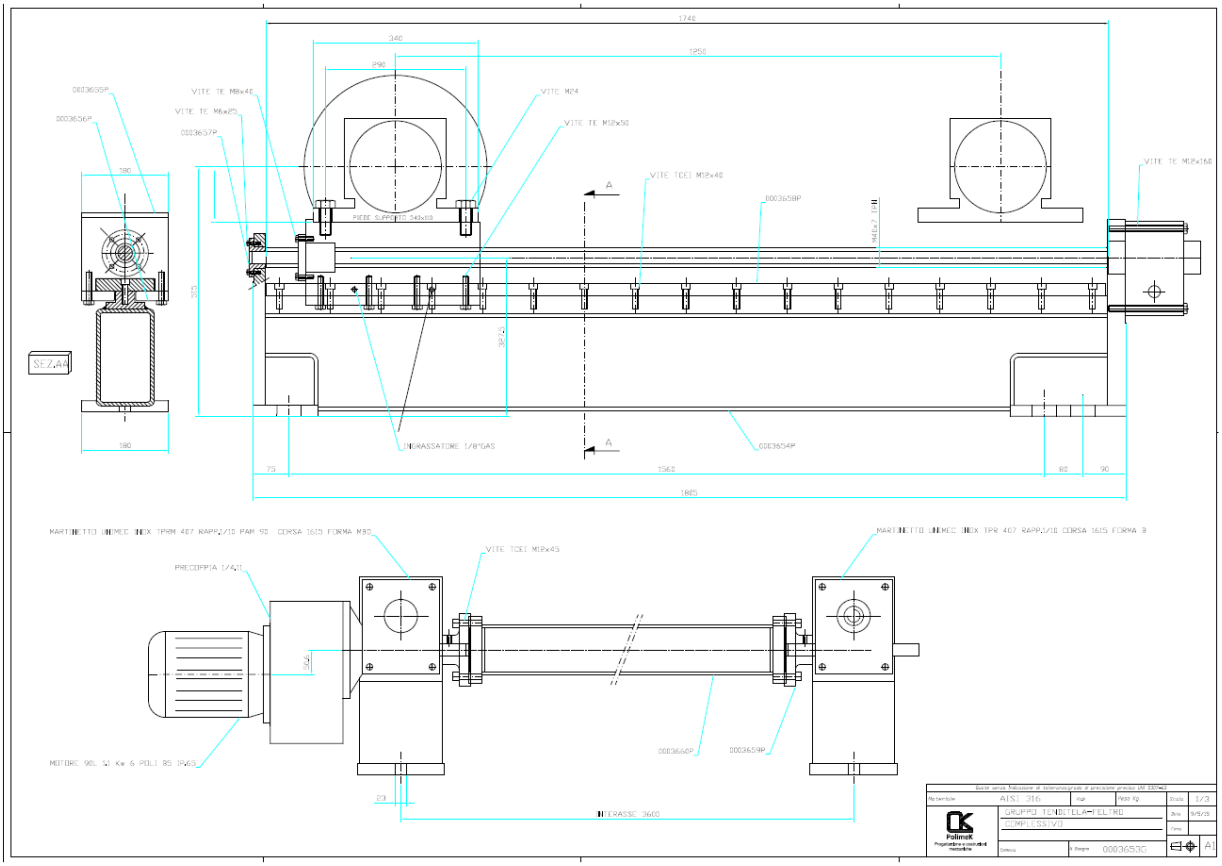
Felt and wire stretcher general information

After some weeks of regular operation, the fabric has relaxed its fibres becoming little bit longer than the original length and loosen the tension set during the installation.

In order to maintain constant fabric tension one of the rolls is equipped with a special device that moves the roll according to the progressive elongation of the fabric.

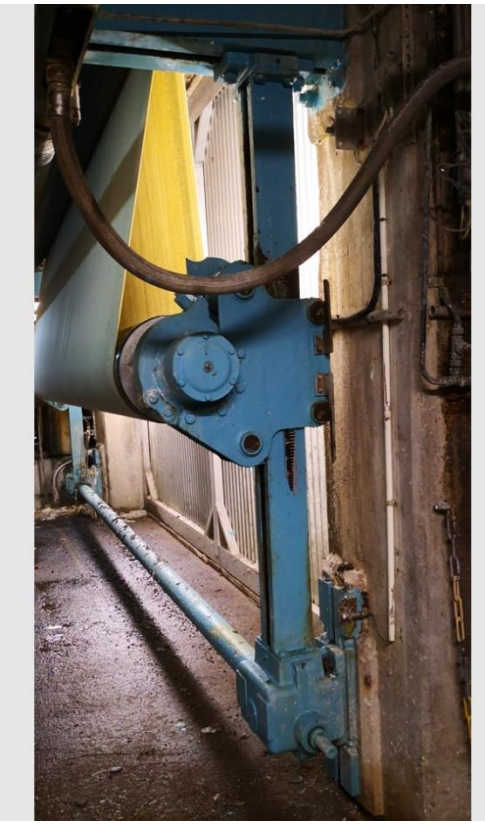
There are 3 main types of felt stretcher

- Linear guide stretcher acting by a pneumatic motor
- Linear guide stretcher acting by two pneumatic cylinders
- Linear guide stretcher acting by a gear motor



The scope of supply of the felt stretcher is to provide a system that maintains the tension of the fabric pulling down a roll under the press section.

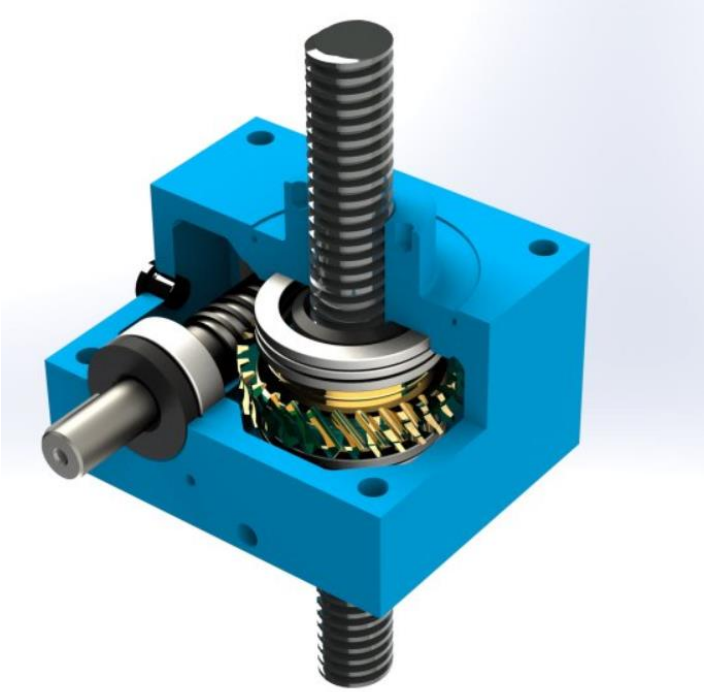
The new equipment will replace a similar item that today in poor conditions and install it at the same place.



A stainless steel plate will be fixed on the vertical concrete column by chemical anchors. On this plate the new stretcher will be installed.

The vertical movement of the roll, that pull down the felt and generate the tension, is guaranteed by two screws jack actuators, one placed on front side and one on drive side.

The rotation of a stainless steel worm allows the vertical movement of the roll support.



Example of a screw jack

A proximity switch prevents an extra stroke movement of the roll.

To control the correct tension a load cell will be placed under the roll support. The signal of this cell will be handled by a digital display amplifier that the paper mill will integrate in the machine DCS.

The warm is protected by a PE elastic protection. The purpose of the elastic protection is to cover the threaded spindle by following its own movement during the stroke.