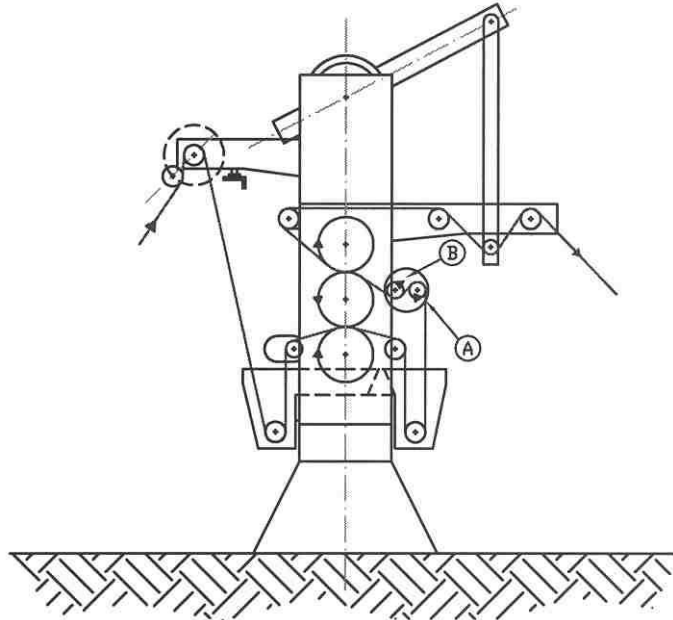


## **REAR TWIN SCROLL ROLLS** **with INVERTER**



**Purpose:** applied to a differentiated Foulard, it completely prevents the fabric from eventual piling up between the 1<sup>st</sup> and the 2<sup>nd</sup> nip due to fabric elongation; it improves the fabric widening at the entrance of the 2<sup>nd</sup> nip; it assures a more efficient and safe use of the differentiated Foulard allowing to work with both nips and any kind of fabrics.

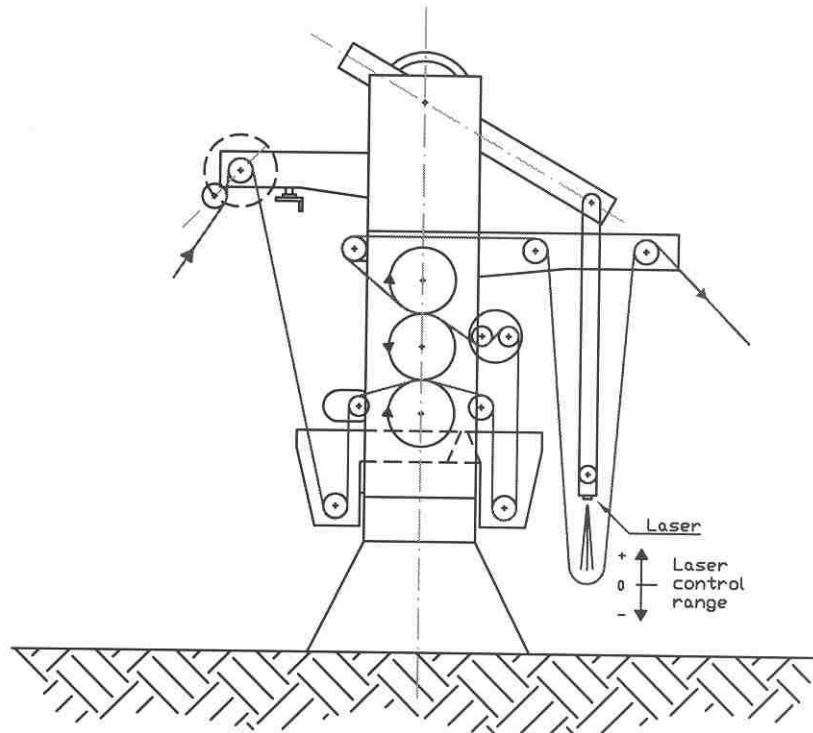
**Description:** the system consists of two ebonite-coated widener rolls with double spiral thread manufactured by Beta, driven by variable speed geared motors with Inverters.

**Scroll roll A** rotates in the same direction of fabric motion and has the task to keep the fabric in tension between the two nips, thus preventing the fabric itself from piling up out of the 1<sup>st</sup> nip. For each kind of fabrics, the piling up problem is completely eliminated and therefore its related risks disappear too. Further, this scroll roll helps also in the action of spreading and widening the fabric at the entrance of the 2<sup>nd</sup> nip.

**Scroll roll B** rotates against the fabric motion and has only the traditional and primary task of widening the fabric and its selvages before being squeezed in the 2<sup>nd</sup> nip.

In order to optimize the behavior of the system with each kind of fabrics, the Inverters of both scroll rolls have a double possibility of speed regulation: Manual (speed is adjusted directly by operator) and Automatic (scroll rolls speed is synchronized with the Foulard's speed plus or minus a percentage of manual correction by operator).

## **SYNCHRONIZATION by LASER**



***Purpose:*** it allows to work with absolutely zero tension in the fabric at the outlet of the Foulard so giving great benefits in treating elastic fabrics.

***Description:*** the Laser emitter/receiver is placed inside the lower bar of the dancing roll so that the Laser beam looks downwards and the sensor is protected by eventual impacts or splashes of water.

Fabric runs below the dancing roll without touching it. The fabric forms a loop which is controlled in real time by the Laser sensor: speed deviations are immediately adjusted by the control system which works keeping the fabric loop at constant amplitude.

As no physical contact exists between fabric and dancing roll, this Laser system assures that the fabric tension at the Foulard exit is exactly zero for any kind of fabrics and any working speed.

In order to comply with all needs, it is possible to work with different loop lengths simply changing the fixing point of the dancing roll (where the Laser is applied): in this way, the loop center point is shifted in height, as well as the control range of the Laser.

All old and new differentiated Foulards can be provided with this device.