AUTEFA Solutions – our technologies for your success

OCTIR – long staple fibers spinning

AUTEFA Solutions Italy is a leading card manufacturer. The company combines in Biella the two biggest Italian card manufacturers, OCTIR and F.O.R. AUTEFA Solutions includes companies with a long-standing tradition. Four successful machine manufacturers form the company AUTEFA Solutions. These are AUTEFA in Friedberg, Austria-based Fehrer in Linz, and the Italian companies F.O.R. and OCTIR in Biella as well as the newly founded companies AUTEFA Solutions North America and AUTEFA Solutions Wuxi, China.

With a history of more than 100 years in card production (F.O.R. was established in 1907 and OCTIR was established in 1911) and the successful supply of more than 6000 cards all over the world, today AUTEFA Solutions is a preferred partner in supplying cards with the most advanced mechanical and electronic technologies, always fully designed and manufactured in Italy.

For long staple fibers spinning, the production program includes:

- Woollen Carding Sets to process fine and extra fine wool, cashmere and silk, for high quality weaving and knitting yarns
- Woollen Carding Sets to process standard wool and synthetic fibers for carpet and blanket yarns
- Worsted Cards to process wool, mohair, angora, cashmere, synthetic fibers and silk, for high quality weaving and knitting yarns
- Semi Worsted cards to process wool and synthetic fibers for carpets yarns

The experience and the know-how of our designers and technicians are the best reassurance for our customers who are, and we are very proud of it, the finest manufacturers of textiles all over the world.
OCTIR-Dragon Multitrave Woollen Carding Sets

The best woollen carding sets to produce the highest quality yarns.

Each single part of the woollen carding sets is produced in Italy and tested to assure the highest reliability and longevity on the heaviest working conditions. AUTEFA Solutions is the only company that still manufactures the large dimension parts, such as main and side frames, in cast iron and submits them to a long natural seasoning, to guarantee long dimensional stability and less vibration, and finally the most even yarn during time.

MAIN CHARACTERISTICS OF THE DRAGON MULTITRAVÉ WOOLLEN CARDING SET:

END PRODUCTS: woollen yarns from 0.6 Nm to over 40 Nm for
- Carpet Yarns
- Blanket Yarns
- Weaving Yarns
- Knitting Yarns

FIBERS PROCESSED (new or reclaimed, pure or blended):
- Wool
- Cashmere
- Synthetic fibers
- Other natural fibers (Camel Hair, Mohair, Alpaca, Yak, etc.)

MAIN DATA:
- Working widths (mm): 2000 mm, 2500 mm, 3000 mm, 3500 mm
- Drums Ø: 1650 mm
- Doffers Ø: 1280 mm
- Numbers of workers/strippers: from 6 to 8 per drum
- Tape Condenser: single or double
- Giant traversing creel or tandem creel
- Mechanical synchronization between the two cards (breaker and finisher), OCTIR system.

NEW FEATURES OF OCTIR DRAGON MULTITRAVÉ WOOLLEN CARDING SETS:
- Feeding cylinders Ø 108 mm instead of Ø 140 mm enable better fiber control and produces a yarn with less thin/thick places and with better CV and Uster values
- AC drives with Inverters for main drives and for eccentric column to have a fine set up of the speeds and reach the best performance of the carding set
- Control Panel with Touch Screen and management of the main parameters of the machine functions to allow the control and supervision of the carding set including operational and fault messages
- New side doors for an easy and quick access to the card parts for cleaning and maintenance
**Woollen Carding Sets**

**COMPOSITION A2C/S3T1 FOR CASHMERE YARN**

**COMPOSITION A2C/VV3TM FOR WOOL YARN**

**COMPOSITION A2C/VV2T2 FOR CARPET YARN**

**COMPOSITION A3C/VV4TM FOR WOOL AND FOR RECLAIMED FIBER YARN**
Worsted and Semi Worsted Cards

COMPOSITION CL/3S FOR WOOL TOPS

COMPOSITION CLD/4S FOR WOOL TOPS

COMPOSITION CL/CASHMERE FOR CASHMERE TOPS

COMPOSITION CSS/2P FOR SYNTHETIC FIBER TOPS
OCTIR-Dragon Multitrave Worsted and Semi Worsted Cards

The cards chosen by the world top textile manufacturers for the highest quality tops.

The OCTIR Dragon Multitrave Worsted and Semi Worsted cards guarantee high productivity with no compromise on tops quality. AUTEFA Solutions manufactures the large dimension parts, such as main and side frames, in cast iron and submits them to a long natural seasoning, to guarantee long dimensional stability and less vibration, and finally the most even tops during time.

MAIN CHARACTERISTICS OF THE DRAGON MULTITRAVE WORSTED AND SEMI WORSTED CARDS:

END PRODUCTS: Tops of
- Fiber fineness: from 14.5 to 40 microns
- Fiber length: from 40 to 220 mm

FIBERS PROCESSED
- Wool
- Cashmere
- Synthetic fibers
- Mohair
- Silk

MAIN DATA:
- Working widths: 2000 mm, 2500 mm, 3000 mm, 3500 mm
- Drums Ø: 1650 mm
- Doffers Ø: 1280 mm (worsted) / 750 mm (semi worsted)
- Delivery Speed: from 100 m/min to 400 m/min

NEW AND SPECIAL FEATURES OF OCTIR DRAGON MULTITRAVE WORSTED CARDS:
- Breast of large diameter with 6 workers / strippers
  more workers allow a more gradual process of the fibers, that results in less fiber breakages and damages.
- New design of the de-burring system with 3 burr beaters (1st on the feeding unit), bigger Morel cylinders (Ø 650 mm instead of Ø 500 mm) and with an easy removal of brush cylinders (from the top without opening the card)
  Larger Morel cylinders increase the cleaning and deburring capacity and produce more clean tops.
- New design of the system for dust suction: the new chutes are totally integrated in the covers of the main drum.
  New chutes improve the efficiency of the suction of dust and exhaust air and simplify the opening of the card covers.
- Feeding cylinders with bushes with needles
  More control and care of the fibers means less breakages and damages and longer final average fiber length in the tops.
- Double transport points on the opening cylinder
  Increase the throughput and increase the blending action
- New drives with single AC motors with inverters for main functions
  to have a fine set up of the speeds and reach the best performance of the carding set
- New Can Coiler
  easier to manage, requiring less cleaning and maintenance.
- New side doors (no more rails on the floor)
  for an easy and quick access to the card parts for cleaning and maintenance.
NEW AND SPECIAL FEATURES OF OCTIR DRAGON MULTITRAVÉ SEMI WORSTED CARDS:

- Breast of large diameter with 5 workers / strippers
  more workers allow a more gradual process of the fibers, that results in less fiber breakages and damages.

- Double delivery doffers
  they allow a better fiber removal from main drum, that is a considerable throughput increase

- New feeding unit with 6 cylinders (in the past we had only 4 cylinders) to improve the controls of long staple fibers
  More fiber control means less fiber breakages and damages and less potential lapping on feeding cylinders.

- New strippers with larger diameters
  Almost cancels the risks of fiber lapping

- New main drive system (pits are not necessary any more)
  Easy installation

- New drives with single AC motors with inverters for main functions
  to have a fine set up of the speeds and reach the best performance of the carding set

- New Can Coiler
  easier to manage and requiring less cleaning and maintenance.

- New side doors (no more rails on the floor)
  for an easy and quick access to the card parts for cleaning and maintenance.
Exclusive AUTEFA Solutions Applications:

NEW SLIVER DRAFTER WITH 4 CYLINDER PAIRS

The Sliver Drafter is composed of 4 cylinder pairs, of which the upper cylinders are covered with special rubber and lifted by pneumatic pistons, three independent motors driven by inverters and a new integrated suction system.

The Sliver Drafter allows a more gradual drafting and a higher drafting value, so tops are more uniform and the card has a higher throughput.

TAPE CONDENSER

According to the materials to be processed and the yarn to be spun, the following division systems are available:

- Endless tape (for fine count yarn)
- Eight figure tape (for coarse to medium count yarn)
- Multiple tape (for coarse to medium count yarn)

The condenser tape can be with:

- Single rubbing
- Double rubbing
**ZEROFLEX – PATENTED AND RELIABLE CYLINDERS**

To cancel any deflection in the cylinders of smaller diameter (worker and stripper cylinders), OCTIR has patented the Zeroflex cylinders. The Zeroflex cylinders are manufactured in special materials, reinforced with ends blocked in the machine frame and supported by self-aligning brackets.

**MULTITRAVE FRAME – GUARANTEES PRECISE MACHINE SETTINGS**

With hexahedral structure and hidden beams the Multitrave frame ensures a rigid support of the large working width drums. Due to the Multitrave frame the machine settings keep constant at any speed and under the highest mechanical stress.