

ARTOS Knowh

Krantz K30

Knitted fabrics finishing line



Outclass technology for highest requirements

(1) Low-tension guiding of the fabric: the entry assembly

Starting with the entry assembly the gentle fabric treatment will be realized. The elements of the entry assembly take the fabric from the batch or in plaited form. The fabric will be guided centered and with low tension towards the machine. The proven Artos Uni-Flex padder with its stabilized cylindrical rollers provides excellent impregnation results.

(2) Excellent weft straightening: the straightening unit

The Krantz K30 does also not make any compromises concerning the straightening units but pays attention to the highest available quality. Only straightening units of well-known manufacturers will be integrated in the production line. This secures that consequences. best fabric qualities will be produced.

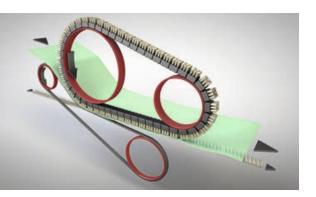
(3) Safe pinning-on: the overfeed and pinning device

The engineers of the Krantz K30 had one goal above all: absolute precision. This is most realized in the overfeed and pinning device. The pneumatically liftable and lowerable overfeed device (also known as shrinkage unit) secures the accurate and

constant deep and long pinningon of the fabric because of its bristle belt.

The ideal cooperation between the support belt and the support scray assists the precise pin-on of the fabric selvedges into the pins of the fabric transport chain And of course the shrinkage roller is exchangeable by a quick die change equipment.

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(4) Smooth fabric transport and long lifespan: the vertical Krantz chain

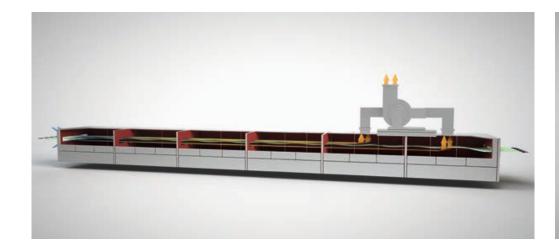
Even though the Krantz K30 contains out of many outstanding components the reliable Krantz chain is still the essential element which makes the stenter become top class and distinguish from the other stenters. The strong Krantz cast chain can drive in non-stop operation with a speed up to 120 m/min.

Because of synthetic sliding pieces at the chain links there is no need of wearing parts inside the chain rails. This means that there are no wear parts inside the chain rails. A quick change of the chain parts secures shortest down times because there are no waiting times for cooling down of the machine to be able to change the wear parts inside the chain rails. Long running periods and minimal costs are the favorable

Another advantage of this low-wear chain is the smooth movement. In combination with the individual width adjustment system a low-tension fabric transport is the result. Of course you can expect from a chain of this quality that you can choose the configuration of the pin bars individually. And optionally we will also fulfill the desire for maximal safety with a depinning guard made out of stainless steel. It will protect that the fabric will not change its position after the pin-on process.









(5) Patented air guiding: the Econ-Air air guiding system

The patented Econ-Air system fulfills the today's requirements for energy efficiency and sustainability already since many years. It utilizes the inserted thermal energy in an optimal wav.

The fresh air will get centralized in the dryer via an entry slot and will be guided in parallel flow with the fabric through the dryer. A "blue competence process" which enriches also the quality of the fabric because the rising moisture content in the dryer supports the thermal transfer to the fabric and arranges the comfortable grip of each article.

The exhaust air measuring device regulates the amount of exhaust air and secures hereby the desired moisture content in the exhaust air. Because of this process the volume of exhaust air will be reduced and makes sustainable energy saving and a reduction of production costs possible.

(6) Optimal temperature distribution: the Convey-Air nozzle

The optimal temperature distribution and the uniform and gentle temperature treatment are essential for the achievement of outstanding results of drying processes of knitted fabrics. The Krantz K30 provides with this Convey-Air nozzle system an important unique feature.

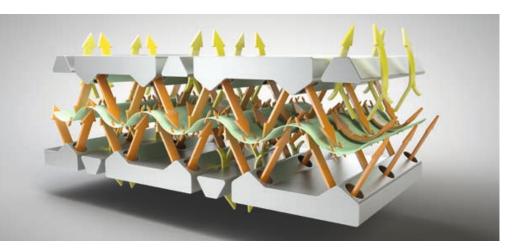
The round nozzles were especially developed to receive an optimal air distribution which guarantees constant floating of the fabric. During this process the fabric will permanently be relaxed and dried in a gentle way before the fixation process starts. The result is that the knitted fabric includes best fixation and residual shrinkage values as well as a voluminous and soft grip.



Each compartment contains one fan. The motor has a high efficiency, provides lowest The cooling zone is also equipped with high-performance Convey-Air nozzles. electric power consumption and will be operated by a frequency inverter. These are It is featured with a length of 920 mm. the basics for the involvement of the circulation fans in the recipe management.

without steps.

will be regulated so that the exhaust air will automatically contain the maximal Afterwards the needle wheel of the cutting device guides the fabric to the cutting knife. Minimal waste is guaranteed because the cutting knife is located above the possible moisture. pin bars. A high-performance suction device allows the trouble-free and uncompli-This warrants that only exhaust air with maximal moisture content will leave the dryer. cated evacuation of the cut selvedges.





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Reliable and sustainable

(7) Regulated, reproducible air distribution: the circulation fans

Optionally the upper and lower air distribution can be adjusted continuously and

(8) Consequent maximal moisture in the air circulation: the exhaust air fan

The exhaust volume of the exhaust air fan will be defined according to the length of the dryer. A frequency controlled motor regulates the exhaust air volume stepless. In combination with an exhaust air measuring device the speed of the exhaust air fan

(9) Gentle cooling system: the cooling zone

Optionally the fans can be arranged with a frequency controlled motor.

Minimal waste during cutting of the selvedges: the selvedge cutting device

A needle wheel with a frequency controlled motor takes the fabric from the needles of the base chain. Thus the working width and the initial tension of the fabric will remain.





Economic and long-lasting

) Perfect adaptation to the fabric: the individual width adjusting device

All width adjusting spindles are individually motor-driven. The settings of the individual width adjusting devices can be saved as a presetting in a recipe and can be retrieved for recurrent productions.

The spindle and spindle nut do not need any lubricants. Consequently there is no additional oil which can get in the dryer and may pollute the fabric. Furthermore many costs will be saved.

) Energy efficiency to the finest detail: the drive unit

The digital individual drive concept provides the harmonic transport of the fabric through the complete line. Energy efficient motors by Lenze or Siemens are regulated by frequency converters so that all gears drive automatically synchronous with the speed of the main drive.

Error-free production flow via library of data: the Optimatic automation system The Kraptz K30 steptor is equipped with the Optime

The Krantz K30 stenter is equipped with the Optimatic automation system. It regulates the fabric-gear, the heating system, the temperature and the individual width adjustment. Furthermore there is a trouble indication device and a recipe management.

The handling is arranged in a very comfortable way because of modern touch screen technique. Per VPN-Router it is without difficulties possible to make remote diagnosis and to support technically via Internet. Latest hardware and software elements turn the production willingness of the machine into being even more reliable. Furthermore it reduces the fault liability of each element.

Variable for the utilization of different energy sources: the heating systems

There are three different possibilities to heat the dryer: indirect by steam, indirect by oil circulation or direct by gas with areal burners. The heating radiators will be configured according to the desired steam pressure. The configuration of the oil circulation radiators corresponds to the constructive specifications. The Maxon

burners are designed especially for the Krantz K30 dryer and have an adjustment range of 1 : 40. Thereby the Maxon burner lays the ideal foundations for energy efficient production workflows.

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Partner of the Engineering Industry Sustainability Initiative

iNTERSPARE GmbH

Röntgenstraße 31 – 33 21465 Reinbek Germany Phone: +49 (0) 40 727 767 - 0 Fax: +49 (0) 40 727 767 - 10

E-Mail: info@interspare.com Web: www.interspare.com

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