

HI-TECH SOLUTIONS
FOR THE TEXTILE INDUSTRY



MACH 4

Electronic **reeling** machines cone-to-hank

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FOLLOW THE THREAD
OF INNOVATION



MACH 4

Electronic **reeling** machines cone-to-hank

The all-in-one solution for every reeling need is called Mach 4, the reeling machine for the production of hanks, with 4 reels of 3 meters each, automatic hank knotting group and, above all, the latest electronic generation S.E.C. (Smart Electronic Control) for the thread guide control.

INTRODUCTION

Mach 4 reeling machine with central headstock has been technologically developed in 2002, when RITE made it the most suitable machine for the production of hanks, with 4 reels of 3 metres each (total reels length: 12 meters), automatic hank knotting group and the latest electronic generation **S.E.C. (Smart Electronic Control)** for the thread guide control.

For the first time we reached a reel **speed close to 900 rpm** (parameter upon which our Mach 4 is tested), thanks to the special modular steel frame produced according to the automatic machines technology that guarantees a very precise construction perfection (0,01 mm). Total absence of vibrations along the time, corrosion resistance, easy cleaning and safety are the main characteristics of this innovative Rite machine frame.

Mach 4 is a machine that differs from the others thanks to its higher production capacity, perfectly combining the high yarn speed together with the capacity to produce over **100 hanks at once**, always according to flexibility, precision when producing the hanks and the simple handling of the numberless operations that it can store.

The Reeling Machine has a long tradition among textile machinery, but till a few years ago it has been seen as non strategic and for this reason nobody invested on it for a considerable development research. When higher performances in terms of product quality and cost management have begun to be required (such as for the mercerizing cycle, for example) reeling machines have been technologically improved.

Perfect construction

RITE Reeling Machines frame is made of components produced by automatic machining centers able to work according to very high precision standard levels (0,01 mm) on 7 meters length.

Absence of vibrations

RITE Reeling Machines frame is assembled according to modern systems that make it stronger and more stable along time. The total absence of soldered joints leads to the total absence of tensions that would cause those permanent deformations, compromising the precision on hanks forming, which is very requested nowadays.

Corrosion resistance

RITE Reeling Machines frame is powder painted and for this reason more resistant to corrosion.

S.E.C. ELECTRONIC

RITE Reeling Machines are equipped with the new electronic system for the hanks forming called **S.E.C. (Smart Electronic Control)** that, through two linear motors, control the thread guide that allows to produce hanks of any shape, the variable crossing angle between the beginning and end of the hank forming process, width, pitch, weight and much more. Besides, the S.E.C. system can store up to 100 operations set by the worker, that can be easily recalled to change the hank shape options. Flexibility, simplicity and reliability are the main features of RITE Reeling Machines electronic thread guide.

Monitor

RITE Reeling Machines are equipped with a very reliable and easy to use monitor for the data setting and the recalling of the operations saved. The communication interface with the software is represented by the "touch screen" technology.





SAFETY AND CLEANING OPERATIONS

Supports

All RITE Reeling Machine frames lay on the ground by 8 supports that have the advantage to keep it lifted, to make it *easier to clean* all the internal part of the machine and to line it up during the installation, also in case of a not perfectly flat ground.

Opening and dosing of the hanks discharge doors

All RITE Reeling Machines are equipped with the oleo dynamic control for the opening and closing of the doors for the hanks discharge; this device allows to avoid those heavy and manual operations. By simply pressing a button, in total safe conditions, the machine door opens and closes thanks to a simple but effective oleo dynamic device.

Reel lining up

All RITE Reeling Machines are equipped with a device that lines the reel up automatically when the doors for the hanks discharge are dosed. This device allows to get the certainty that the machine is always working in optimum conditions.



OPTIONALS UPON REQUEST

Safety panels

Upon request RITE Reeling Machines can be equipped with panels that cover the reels while rotating during the hank formation. In this way the security level for the operator is higher and the annoying ventilation caused by the rotating reel is reduced. Besides, upon request there is the chance to set a suction system to avoid the deposit of the dust on the hank.

Automatic Hank Knotting Group

RITE Reeling Machines can be supplied upon request with the automatic hank knotting group. This particular device is automatically set in motion when the hank has reached the set weight, by tying it according to the saved information. The automatic hank knotting group allows to reduce considerably the specialized personnel casts and guarantees a perfect tying result, which is exactly the same for all the hanks.

Pneumatic Insertion Creel

RITE Reeling Machines can be supplied upon request with the pneumatic yarn insertion system in order to bring quickly the ply of the package from the external creel to the thread guide. With this device the total time spent for the insertion of the plies is considerably reduced and the machine efficiency increases consequently.

Yarn Tension Control

RITE Reeling Machines can be supplied upon request with the device for the automatic control for the reeling yarn tension. This device can be automatic with electronic control or simply mechanical with overfeeder. In this way the hank obtained is more controlled from a density and softness point of view, two very important aspects in the mercerizing process.



TECHNICAL DATA	
INSTALLED POWER	<ul style="list-style-type: none"> • Reel rotation: 2x3.0 kW • Thread-guide movement: 2x0,5 kW • Oil pump: 1 x 0.75Kw
DRIVE	Inverter on reel rotation motor Drive on brushless motor
MIN-MAX HANK PERIMETER	1250 ÷ 2220
HANK WIDTH	80 ÷ 400
NO. HANKS	36 ÷ 96 Without automatic knotting device 32 ÷ 72 With automatic knotting device
YARN COUNTS (NE.)	0.5 ÷ 140
MAX SPEED OF THE REEL	1370 Mt/min
CROSSING ANGLE REGULATION	Electronically controlled
CROSSING ANGLE VARIATION	Yes
WEFT STAGGER	Yes
TRAPEZOIDAL SHAPE HANK	Yes
AUTOMATIC HANKS TYING GROUP	Optional
PNEUMATIC CREEL	Optional
OVERFEEDING DEVICE	Optional
ELECTRONIC TENSION CONTROLLO	Optional
WEIGHT	3.600 Kg

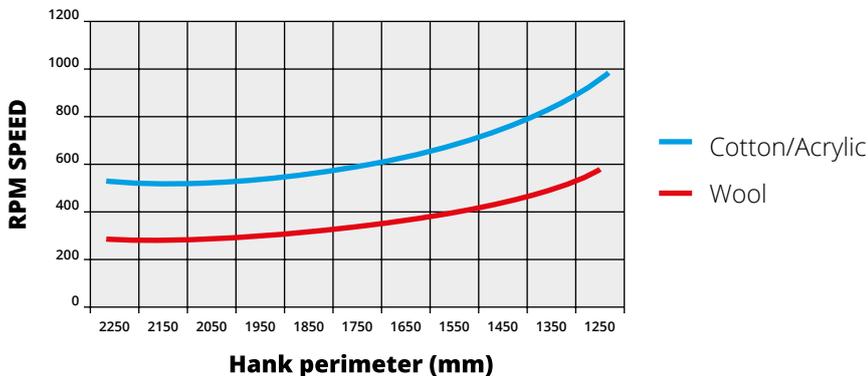
REELS REGULATION	
HANK PERIMETER	GAUGE DIMENSION
1200	139,6
1220	143,0
1250	148,0
1270	151,3
1300	156,3
1330	161,3
1350	164,6
1370	168,0
1375	168,8
1390	171,3
1400	173,0
1420	176,3
1450	181,3
1470	184,6
1500	189,6
1520	193,3
1550	198,0
1570	201,3
1600	206,3
1620	209,6
1650	214,6
1670	218,0
1700	223,0
1720	226,3
1750	231,3
1760	233,0
1770	234,6
1800	239,6
1820	243,0
1850	248,0
1855	248,8
1870	251,3
1900	256,3
1920	259,6
1950	264,6
1970	268,0
2000	273,0
2020	276,3
2050	281,3
2070	284,6
2100	289,6
2120	293,0
2150	298,0
2170	301,3
2200	306,3
2220	309,6

STANDARD SMALL

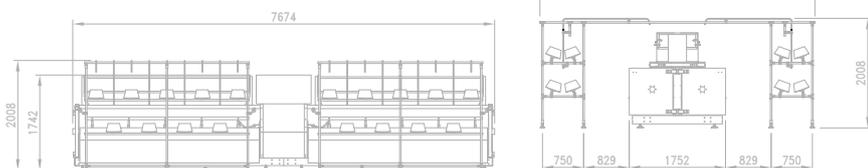
STANDARD MEDIUM

STANDARD LARGE

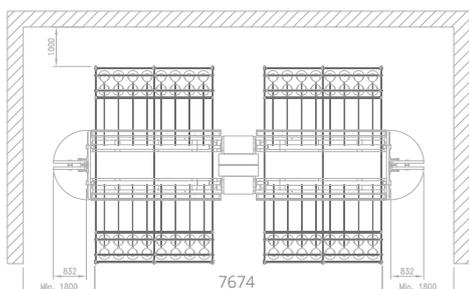
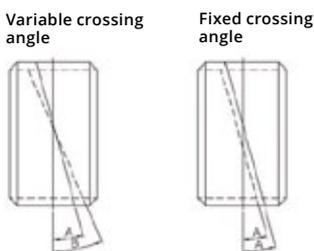
PERFORMANCE



LAYOUT



CROSSING ANGLE



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RITE PRODUCTION
HAS BEEN CERTIFIED