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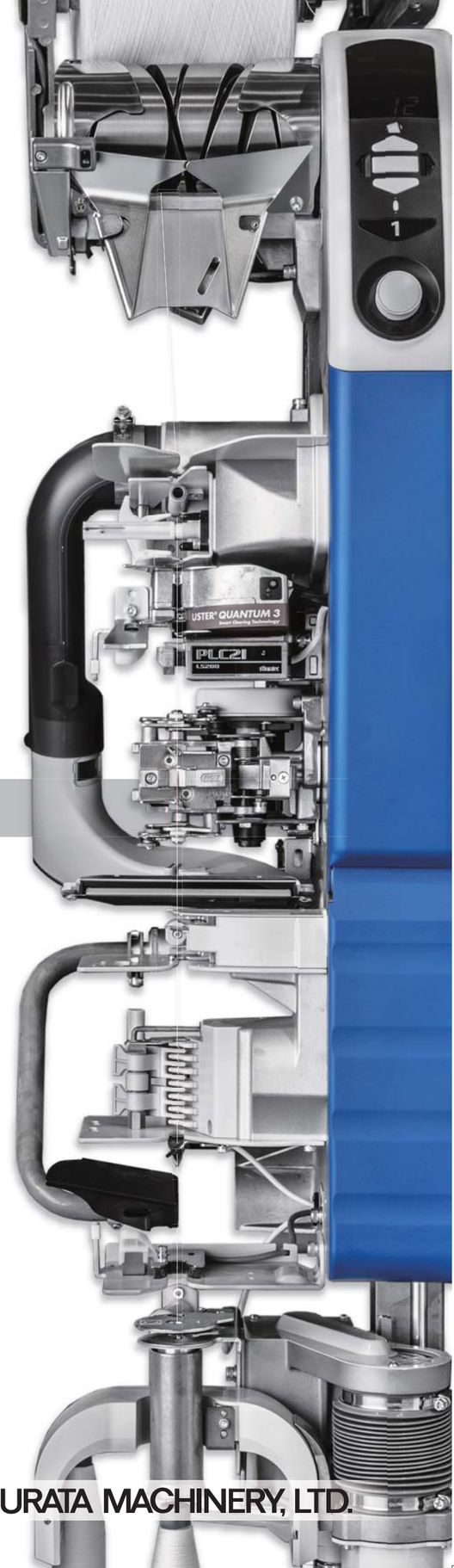
CAT. NO.21P8V2 21-05-2 (C-TU)

muratec

PROCESS CONER II QPRO EX

Automatic Winder



Jun. 2021

MURATA MACHINERY, LTD.

Maximize your Benefit

QPRO

MADE IN JAPAN

High Quality

- Great value
- Perfect package
- Top quality

High Productivity

- High profit
- High speed

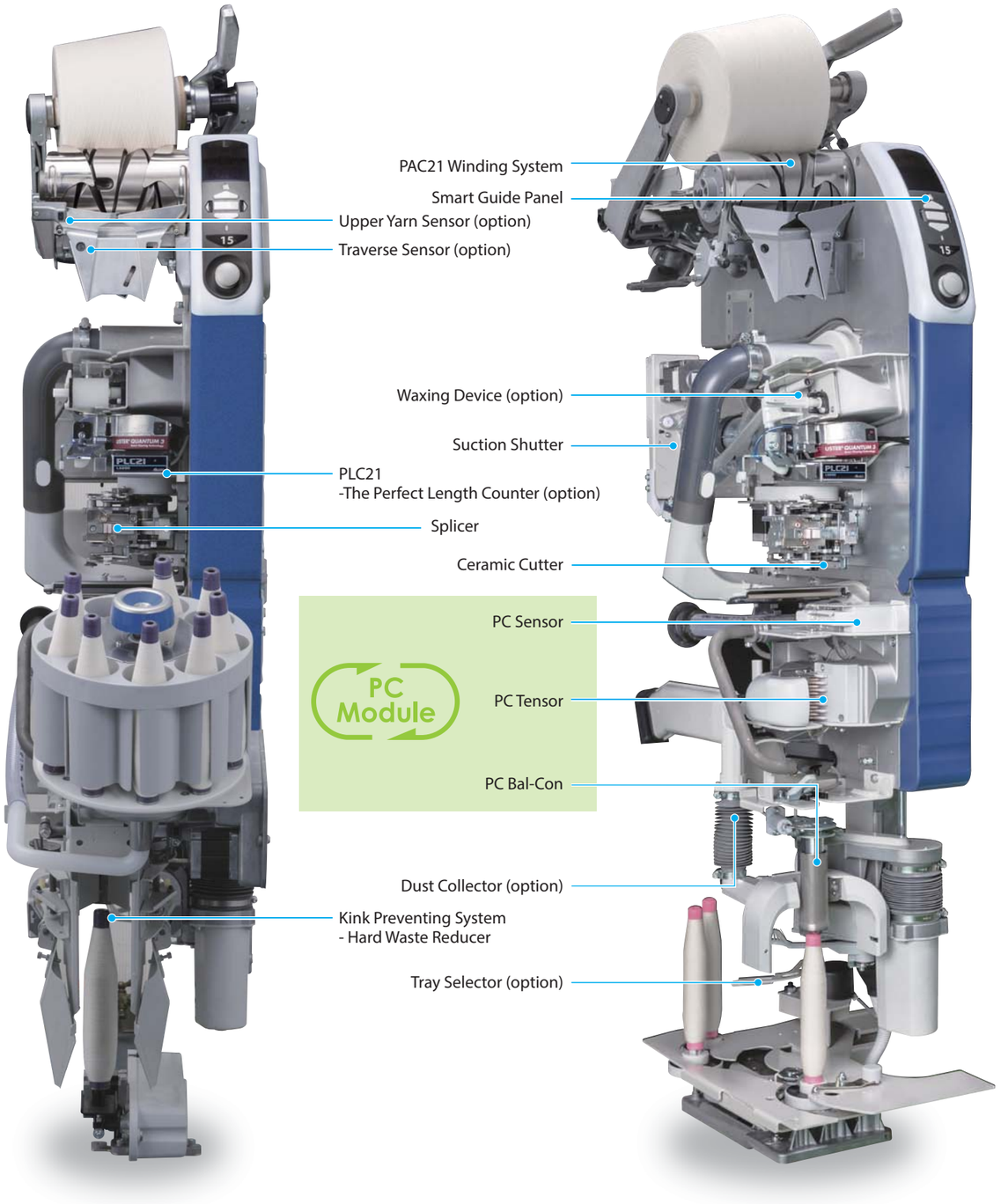
Energy Reduction

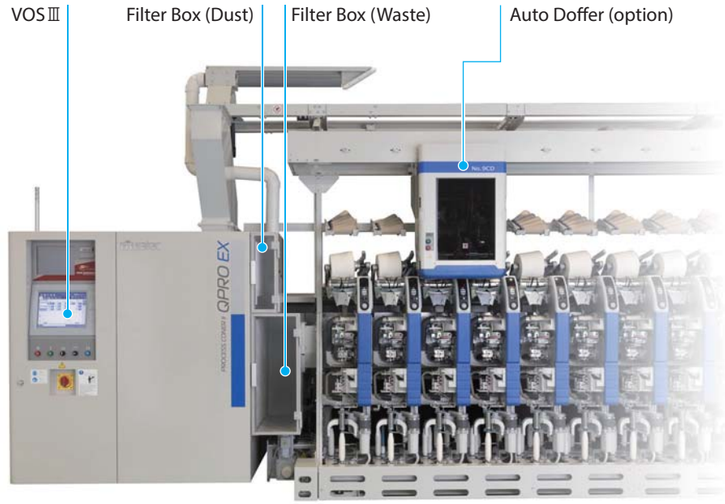
- Less power consumption
- Laborsaving

Easy Operation

- Easy maintenance
- Ergonomic design

QPRO EX Overview





Straight Magazine

VCF

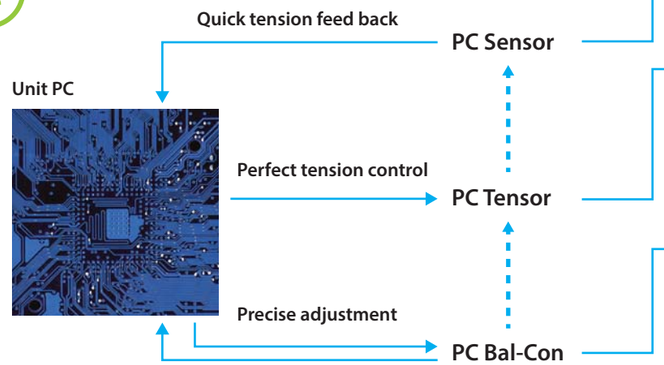
Bobbin-tray

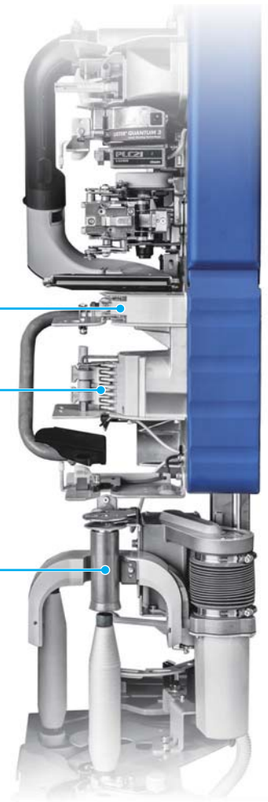
Link Coner

Perfect Tension

- Realizes stable winding from start to end of the winding process by giving instantaneous feedback of yarn tension from the bobbin to package by PC Module.
- In order to realize even greater stability in unwinding, activates the bobbin automatic centering function. This allows for yarn unwinding at higher speeds to improve productivity.
- Devices including the drum motor, splicer, and suction mouth are independently driven to optimize the splicing cycle.

PC Module



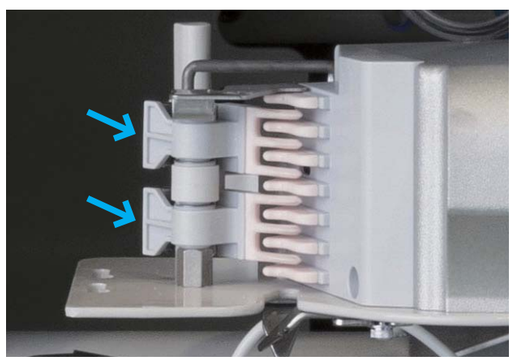


PC Sensor

In addition to the feedback function of yarn tension, PC sensor prevents package rejection caused by tensor error, which may occur due to tension deviation or component damage in yarn path.

PC Tensor

Pressurized tension is delicately controlled by two gate tensors located one above the other.
Even sudden fluctuation in yarn tension can be handled accurately, enabling high-speed winding.

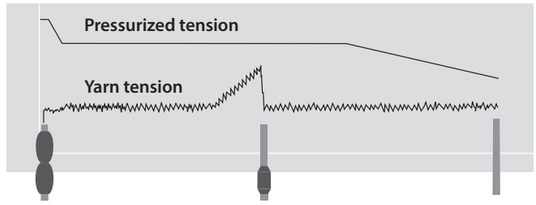


Tension feed back

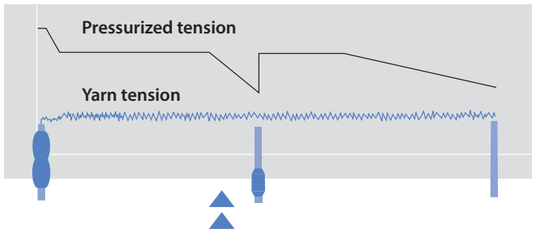
Feedback is performed so that a uniform tension for winding by any bobbin can be maintained. Regardless of the shape of a bobbin, high quality winding is realized.

PC Module

● Without Tension Feed-back (Conventional machine)



● With Tension Feed-back

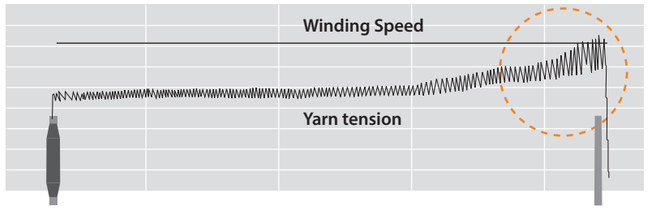


Realizes stable winding tension

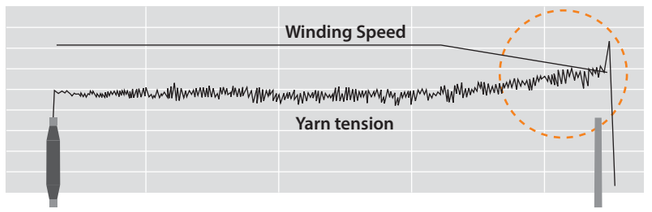
Through tension feedback from the PC sensor and PC Bal-Con, unstable yarn tension from start to end of the winding process are controlled, realizing stable high-speed unwinding.

Ne 30 - 1500 m/min

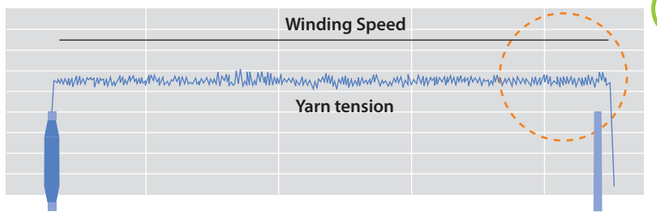
● Without Tension Feed-back ● Without Bal-Con



● With Tension Feed-back ● Without Bal-Con



● With Tension Feed-back ● With Bal-Con



PC Module

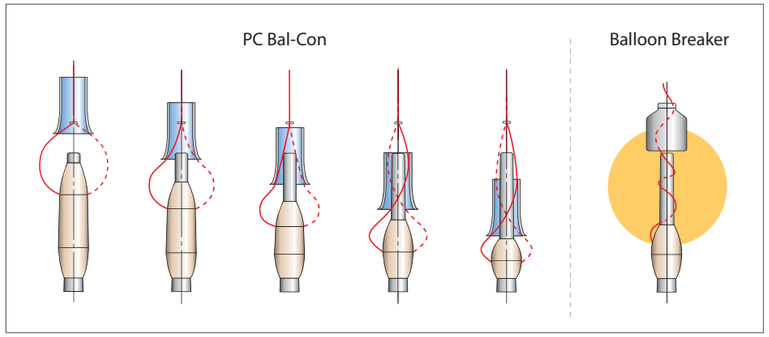
Perfect Ballooning

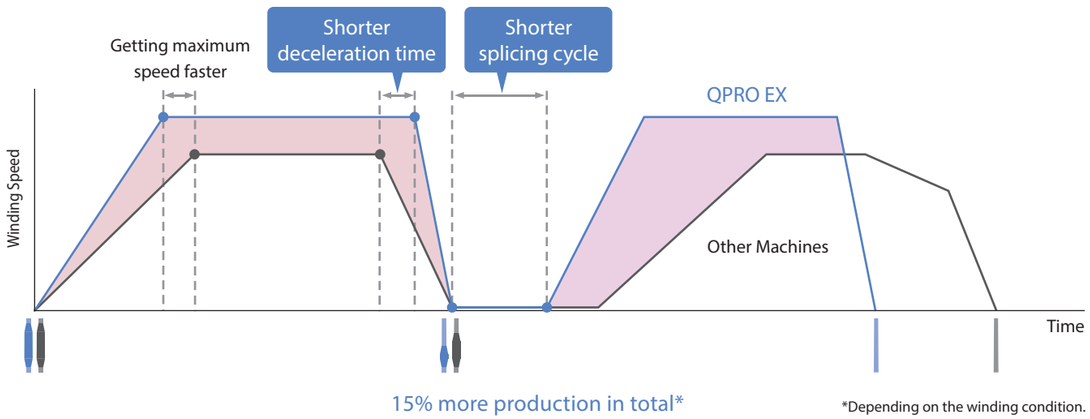
PC Bal-Con

PC Bal-Con continuously moves along the bobbin, creating a ballooning in order to maintain a uniform winding tension from start to end of the winding process.
Combination of PC Sensor and PC Tensor further enhances the stability and boosts high speed winding.
Precise & controlled movement of PC Bal-Con by the motor driven slide screw ensures its accuracy.

Advantages of PC Bal-Con

1. High-speed winding
2. High productivity
3. Sloughing suppression
4. Hairiness reduction
5. Reduced hairiness generation
6. Reduced nep generation





15% more production in total*

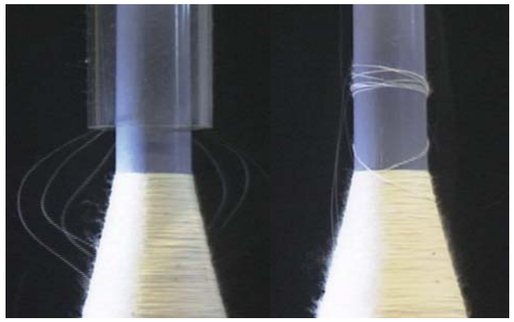
*Depending on the winding condition.

Auto Bobbin-Centering Function

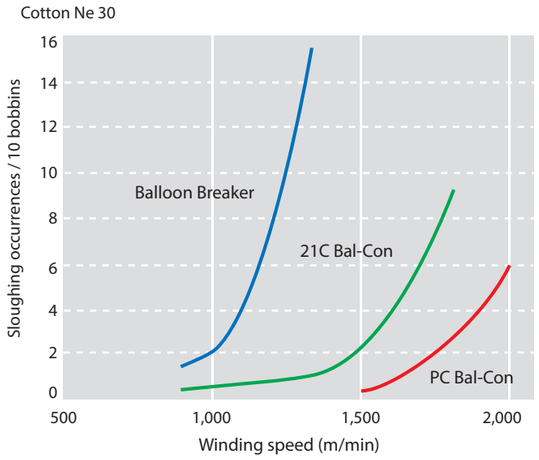
The bobbin is continuously held in the ideal position by the sensor sensing the bobbin position. The bobbin can be maintained at the center of the Bal-Con by the sensor. Bal-Con with smaller diameters can be used, and this allows for high-speed unwinding.

Sloughing suppression

When unwinding the supply bobbin, the Bal-Con minimizes the contact between the yarn being unwound and the yarn layer on the bobbin. This results in a remarkable suppression during high-speed winding of undesired tension in the package, stitched package, etc.

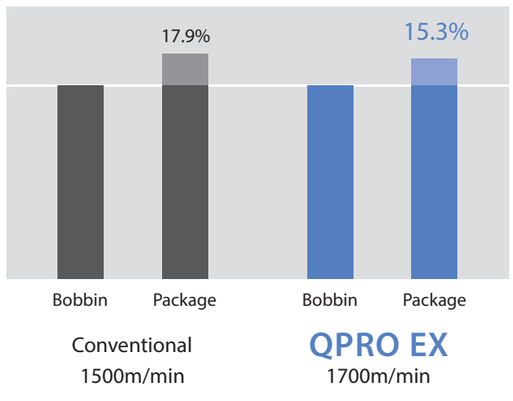


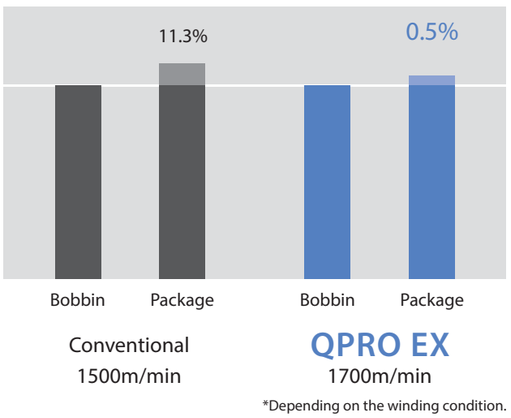
PC Bal-Con Balloon Breaker



Suppression of fluff and hairiness generation

The chase surface does not generate hairiness as a result of non contact with unwound yarn, and hairiness is reduced in all sections, from the top to the bottom of bobbin.





*Depending on the winding condition.

Perfect Package

PLC21-The Perfect Length Counter (option)

PLC21-The Perfect Length Counter is a non-contact photoelectric type and precisely detects the length of yarn to be wound without making contact with yarn. Based on the detected data, the VOS (Visual On demand System) controls the winding length of a package to rewind at a uniform speed so that a precise fixed length winding (±0.3%*) can be realized (*This depends on the winding condition).

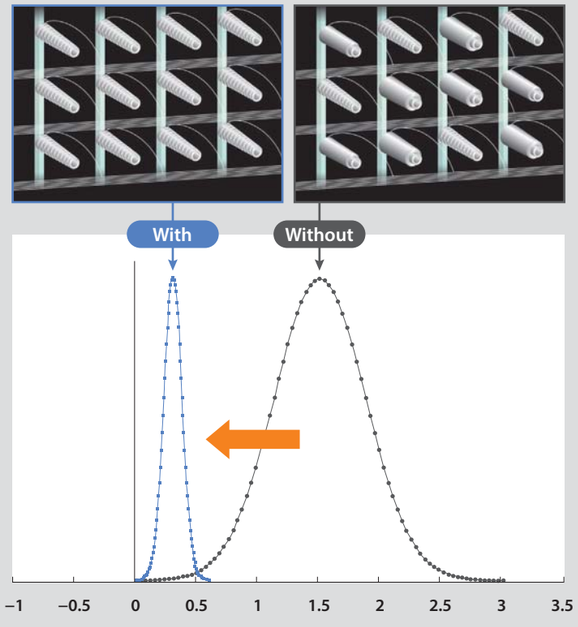
PLC21 minimizes yarn length variation between the packages.

- Precise fixed length winding(±0.3%) can be achieved.
- Residual yarn on warping can be reduced by approximately 2.5%.
- Workload reduction in weight adjustment during packaging.
- Power saving by reducing the winding time (yarn length).
- Rewinding of Remnant cone is reduced.

Weight adjustment during packaging

The workload of the package weight adjustment can be significantly reduced, especially when handling yarns for knitting (waxed) with weight variation.

Weaving



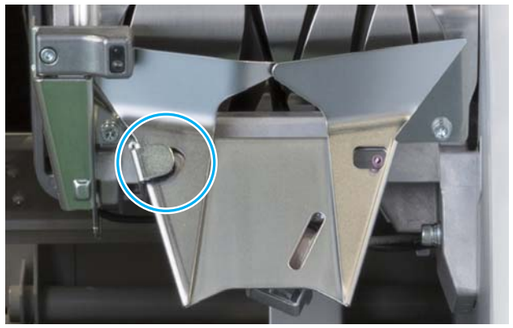
With PLC : ±0.3%

Without PLC : ±1~1.5%

* The above data is for your reference.

Traverse Sensor (option)

Yarn traverse is always checked and a unit is stopped if any irregular traverse occurs to avoid yarn lapping or defective packages.
Recommended for fine count yarns requiring strict control of yarn over, chemical synthetic fibers, and wool yarns.



Suction Mouth

Suction mouth features its economical design which is realized by computer analysis of air flow. Yarn end is precisely suctioned out even by lower suction pressure. In addition, the pulse control achieves a precise distance to package.

Kink Preventing System - Hard Waste Reducer

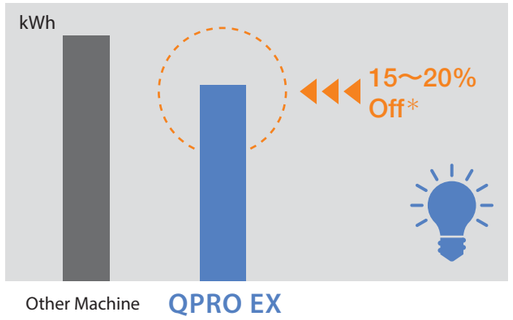
Improvement in the shape of the brush increases stability further. Kink generation is prevented and package quality is improved.

Think ECO

Machine base design that minimizes pressure loss of the blower. In addition, each device of the unit is modularized and independently driven to suppress electrical power consumption. Outstanding energy reduction performance even with high-speed operation.

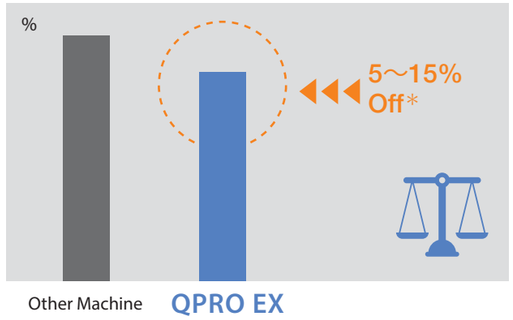
UKG

UKG : Unit per KG/ Power required for production of 1kg-package

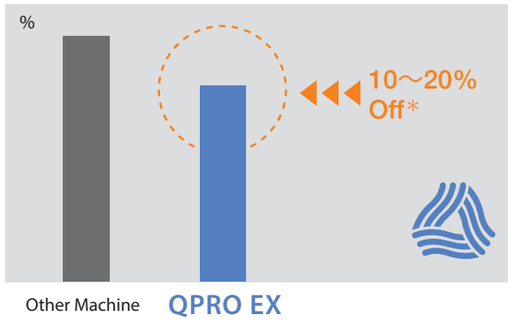


Package weight variation

Without PLC, with single air piping



Wastage of yarn



*Depending on the winding condition.

*Above performance of QPRO EX is based on standard specification.

Drum Motor

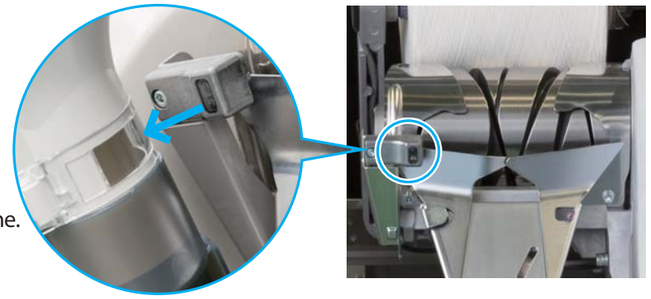
Power consumption is minimized by mounting a high-efficiency drum motor. This offers significant energy reduction even during high-speed operation.

Suction Shutter

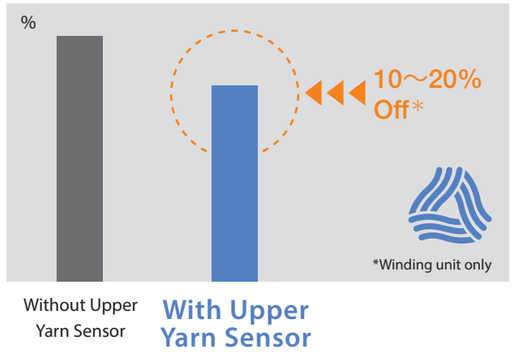
Minimizes pressure loss, eliminates unnecessary air suction, and prevents waste yarn generation by independent drive of the shutter.

Upper Yarn Sensor (option)

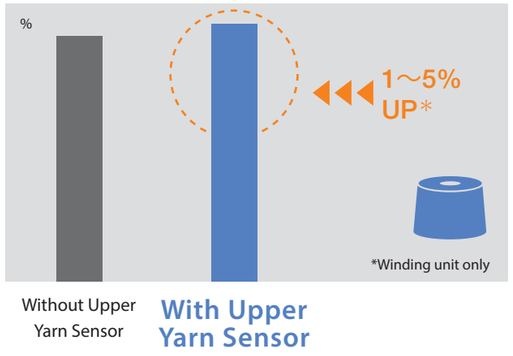
By quickly detecting the yarn from package, hard waste can be substantially reduced. The splicing cycle time is also shortened, contributing to increase the production volume.



Wastage of yarn

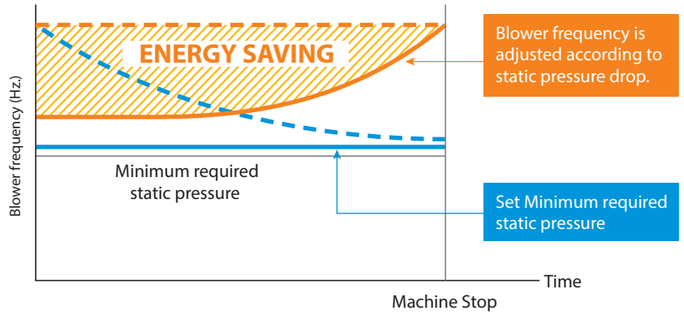


Production volume



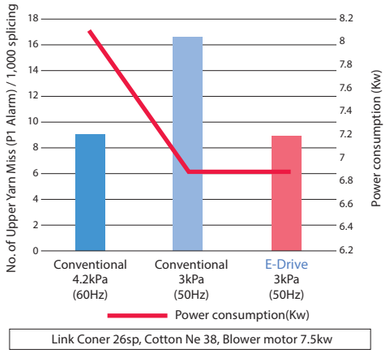
Blower

By setting a necessary static pressure value, blower Hz fluctuates so that the static pressure value is maintained. This realizes a higher energy reduction effect compared to the conventional frequency setting.



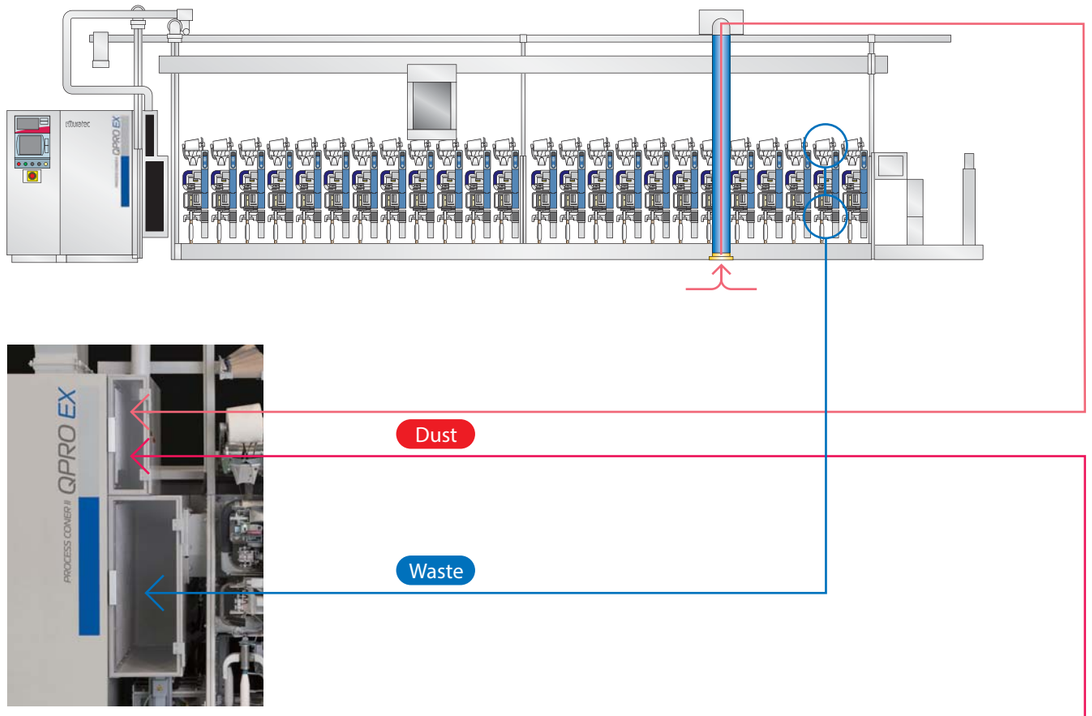
E-Drive

When finding the yarn end, the package is rotated at high speeds and the yarn end is easily found.
Even if the static pressure of the blower is decreased, failure of the upper yarn end finding does not increase, contributing to energy saving.



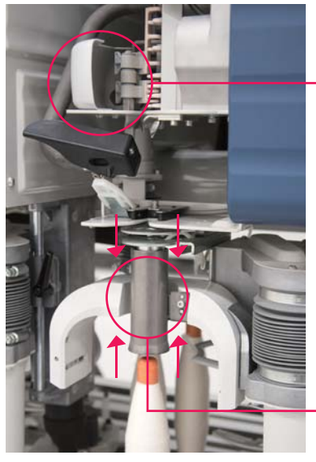
Think clean

Separate Chamber

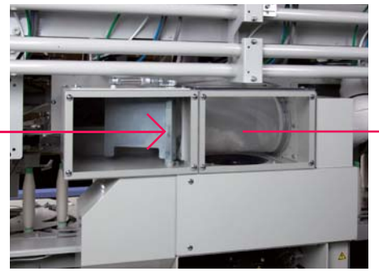


Dust Collector (option)

Making the dust collection nozzle close to the dust source reduces waste yarn and dust generation to reliably collect dust.



Dust and waste yarn are separately collected by the dust collector (option).



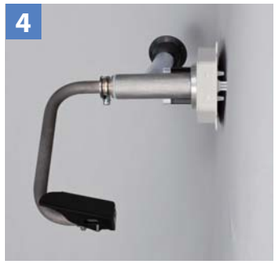
Dust free

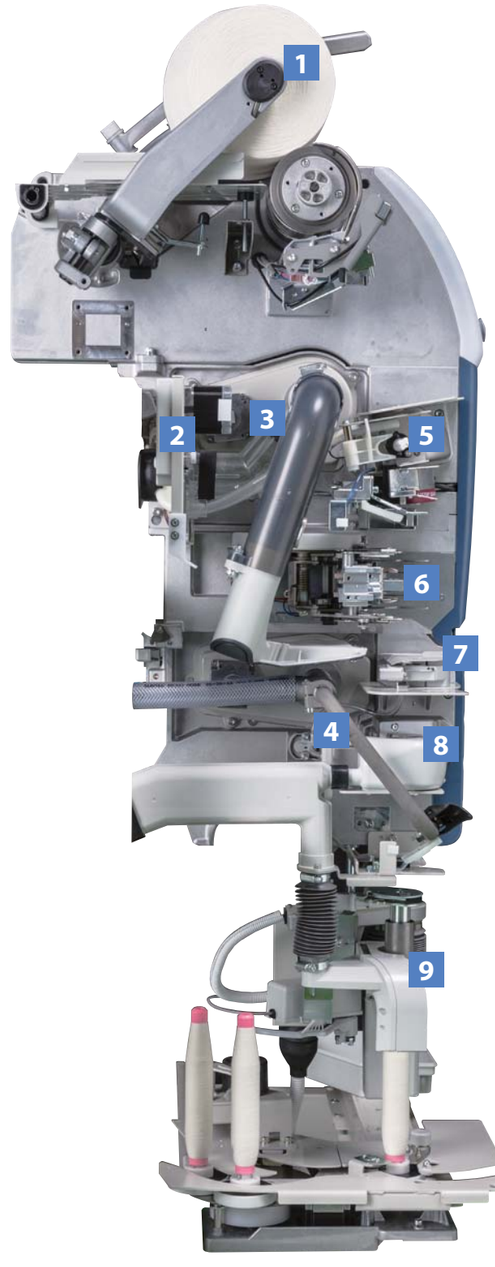
By the dust-proof device independent structure, cotton fly is prevented from entering inside the machine. This allows an extension of maintenance cycle compared to before and a reduction in maintenance time.


1 Bearing Center


2 Suction Shutter


3 Suction Mouth

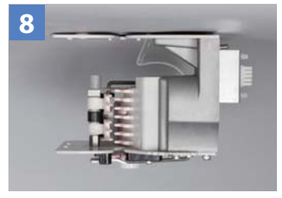

4 Joint pipe




5 Waxing Device


6 Splicer


7 PC Sensor


8 PC Tensor


9 PC Bal-Con

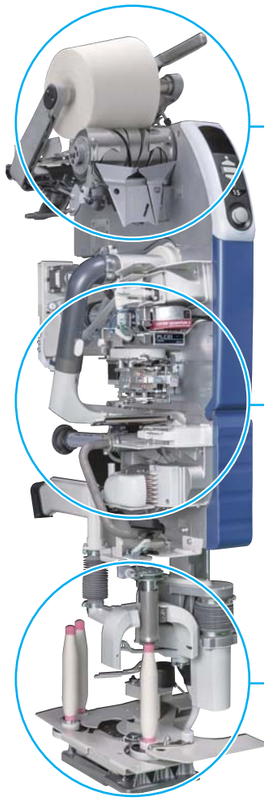
Think Operation

Completely independent structure of each device facilitates detachment and attachment for maintenance, and reduces maintenance time.

Smart Guide Panel

The smart guide panel built in each unit is an LED display and remarkably improves visibility. This lights blue to indicate a full bobbin. When the LED lights red, this indicates a maintenance call and informs of trouble spots (upper, middle, and lower sections) in the machine base.

Full package signal



Operator alarm (package)

Yarn end finding error

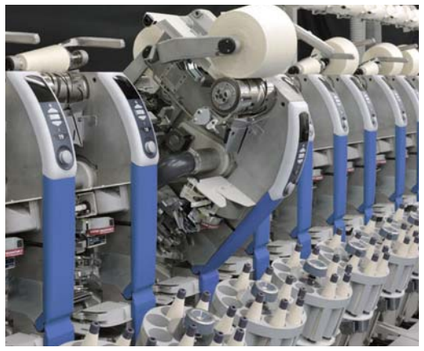
Unit alarm

Operator alarm (bobbin)

Bobbin feed failure

Simple Design

Allows maintenance for each unit by inclining only the upper half frame of the machine forward. Maintenance convenience is improved to shorten maintenance time.
In addition, as machine design pursues maintainability, maintenance can be performed without removing the air pipe, etc.

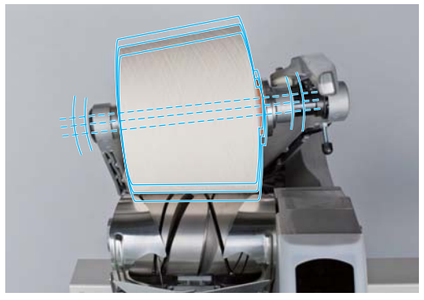


Unit Checker

A wide range of winding functions including Input /Output signals and inching motions can be checked with three-digit display on each unit. No special device for conformation is required.

Vibration Sensor

This sensor detects abnormal vibrations and gives alarm and stops the winding unit.



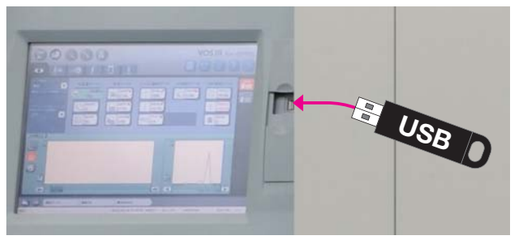
Ceramic Cutter

Has a life approximately ten times longer than steel cutters, and needs no periodic lubrication.

Smart & Easy

VOS Ⅲ Visual On-demand System

- Smooth operability with 15" touch panel.
- Memory lot number is up to 200 in 30 groups.
- Data can be easily downloaded by use of a USB memory.



Machine setting

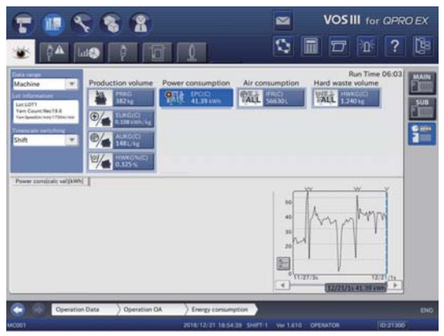
Operational condition

Real-time alarm check

Displays the current situation of alarm indicating the location and causes with picture.

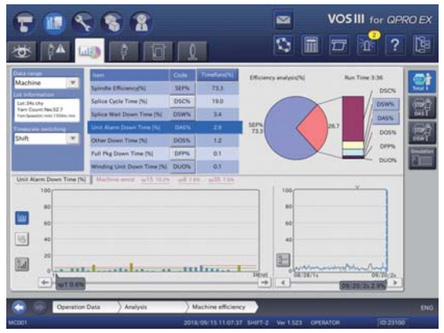
Running cost management

Measurement of waste yarn amount is not required.



Analysis of machine efficiency

Check cause of unit alarm simply and quickly.



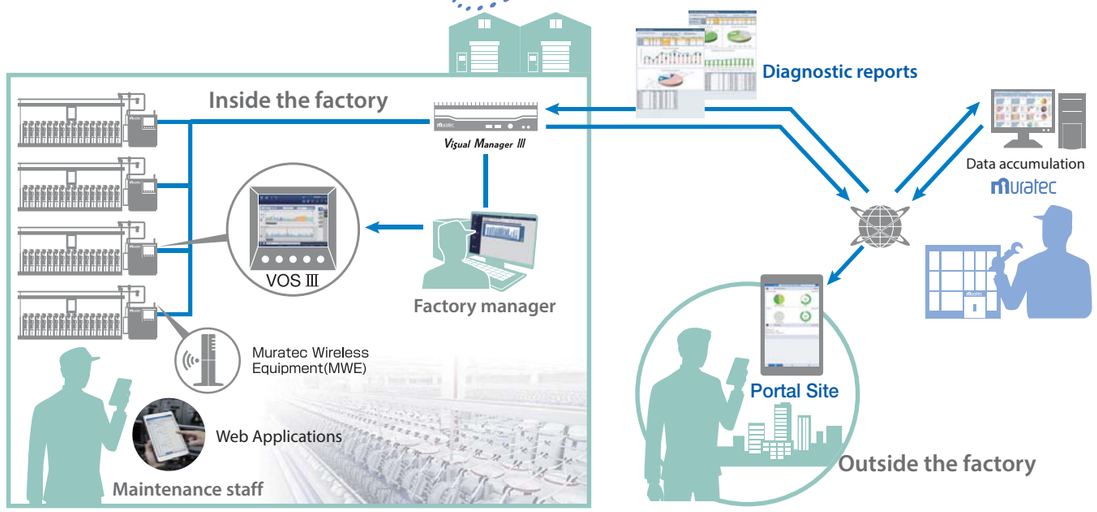
① **Analysis of machine efficiency**

Machine efficiency, ratio of unit stoppage time, ratio of alarm stoppage time

② **Analysis of causes of unit alarm stoppages**

Ratio of causes of unit alarm stoppage

Muratec Smart Support MSS (option)



Visual Manager Ⅲ (option)

Visual Manager Ⅲ is a total management system that enables overall management of production, quality and maintenance of automatic winders. Simplification of production management, quality management, and maintenance management, which have conventionally been performed on a machine basis, will be realized by performing them on a plant or lot basis.

Machine management

The system helps to improve the maintenance, machine efficiency and product quality.

Maintenance

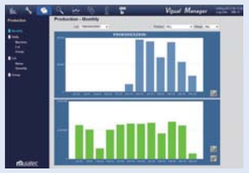
The system analyzes the operation data and suggests the maintenance activity.

Quality

Product quality is automatically improved by better maintenance.

Production

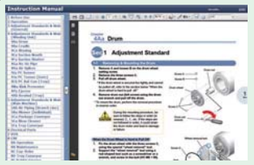
Graphical report of production data is available for each machine, each lot and each group.



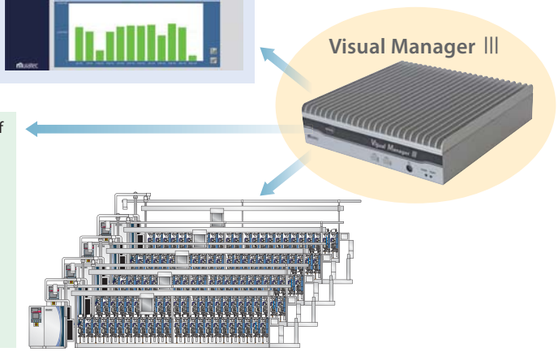
Document management

Instruction manuals and parts catalogues of particular machine are available.

Parts catalog



Instruction manual

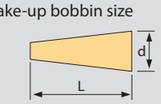
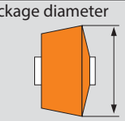


Futher Usability

AD-Automatic Doffer (option)

The Automatic Doffer achieves a top traveling speed of 52m/min. The packages doffed in a 10-second cycle are automatically loaded into either the conveyor or the shelf installed at the rear of the machine. Also equips the auto-adjustable-chucker that allows handling different types of winding bobbins(cone and cheese) by one machine. AD automatically judges to perform only package doffing operation in lot change.

Specifications

Doffing Time	10 seconds
Traveling speed of AD carriage	Maximum 52m/min
Amount of take-up tube stock	3°30′ : 7pieces 3°51′ : 5pieces 4°20′ : 6pieces 5°57′ : 5pieces
Take-up bobbin size 	Standard specifications: Minimum diameter (d): ø47mm Maximum diameter (d): ø83mm Maximum length (L) : 182mm
Package diameter 	Maximum : ø320mm Minimum : ø140mm

Package Shutter (option)

New package shutter performs two-stage transfer to absorb impact when a wound package is transferred to the conveyor.



Waxing Device (option)

Stable and uniform waxing is made possible by a rotary-driven positive motor. When wax isn't required, the motor stops and saves energy. Available for both S twist and Z twist directions. Can use wax with max. 45mm in length up to 3mm in thickness, and is equipped with a wax remaining alarm.

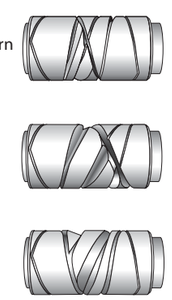
PAC21 Winding System

Muratec's Multi-grooved Drum has a control system that switches the drum groove to the diameter at which patterning(ribbon) occurs and produce the quality package to facilitates the unwinding.

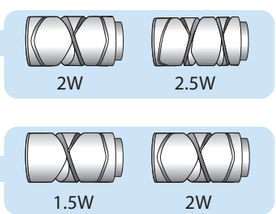
Suitable for middle-fine count yarn
Type A

Suitable for Coarse-middle count yarn
Type B (option)

Type D (option)



Drum interchange unnecessary regardless of yarn type or yarn count.

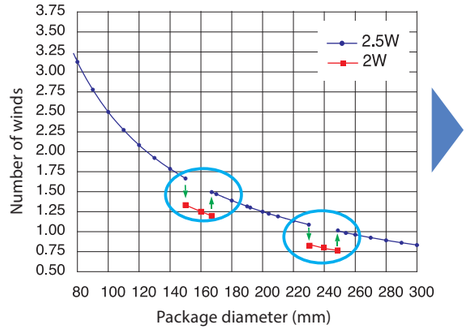


For winding of finer count yarn than Ne60, we recommend Type D.

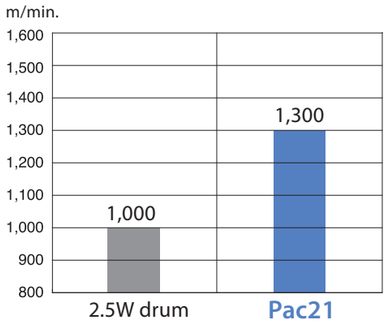
Jumping mechanism

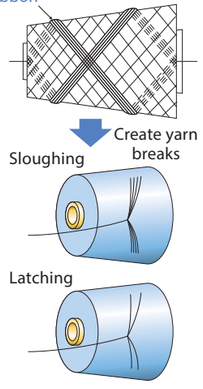
PAC21, the drum wind controller is used to form a package suitable for high-speed unwinding.
This is achieved by switching the number of winds before and after this particular package diameter (excluding Type-B).

Winding on 2.5W base Carded Cotton Ne40



Stable and high-speed unwinding



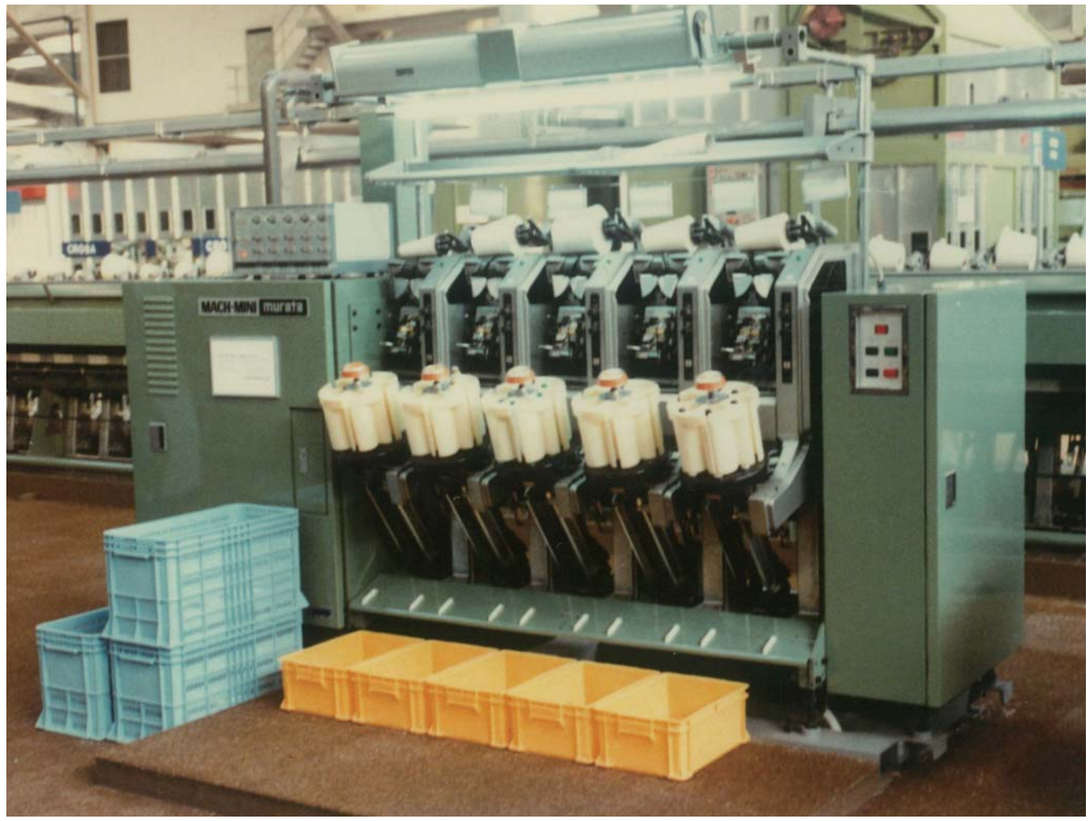


Rough standard of available yarn count

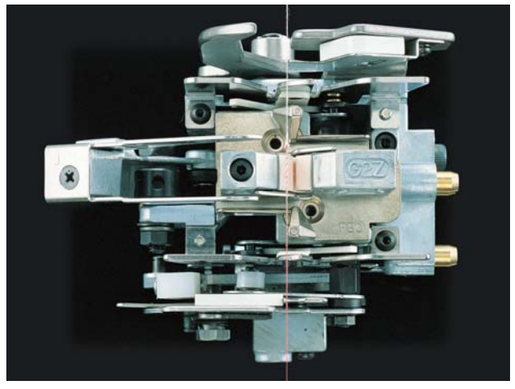
Drum		Yarn Count (Ne) 0 5 10 20 25 40 50 60 80 140	Winding Shape: Regular Package: Cone	Regular Package: Parallel	Dye Package: Parallel	Dye Package: Cone
Pac-A	2.5W		○	×	×	×
	2W		○	○	※	※
Pac-B	2W		3°30′～4°20′	○	※	※
	1.5W		3°30′～4°20′	○	※	※
Pac-D	2.5W		4°20′～5°57′	×	×	×
2W			※	○	○	※

○ : Available ※ : Condition Apply × : No Applicable

Splicing Technology

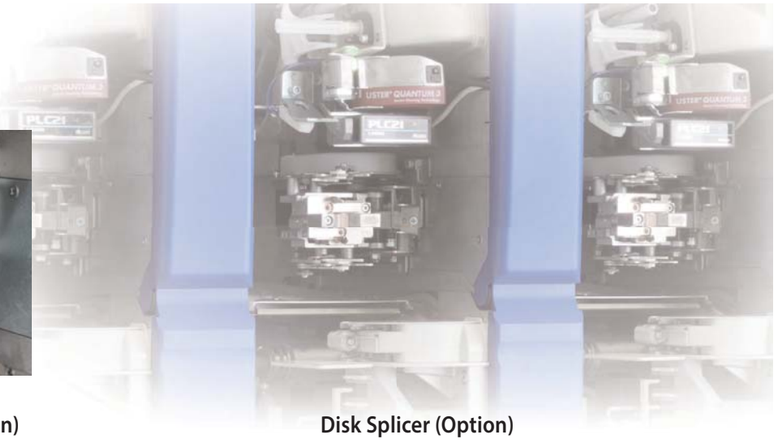


Exhibited the automatic winder, No.7 MACH CONER (with Mach Splicer) at ITMA'79 in Hanover, Germany.



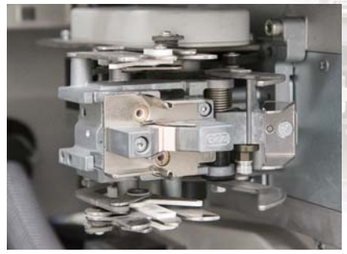
In 1979 , Muratec was the first company in the world to develop "Splicer Technology", rewriting the history of the textile industry until that point in time. "Yarn with no joining points" made it possible to improve final textile product quality. Splicing minimized troubles caused by joints in spinning and post-spinning processes. Enabled high speed leading to significant improvements in textile productivity. Since its development, the Splicer continues to contribute significantly to the production of textile products. It is widely used for more than 40 years as worldwide standard technology for joining spun yarns.

Splicer Line-Up



Air Splicer

Cotton,Cotton blended, Synthetics etc.

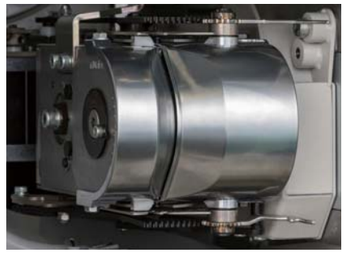


S.A.S. (Stretch Air Splicer) (Option)

CSY (Core Spandex Yarn) with Cotton, Synthetic cover

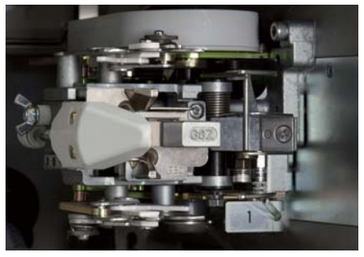
Disk Splicer (Option)

CSY (Core Spandex Yarn) with Cotton



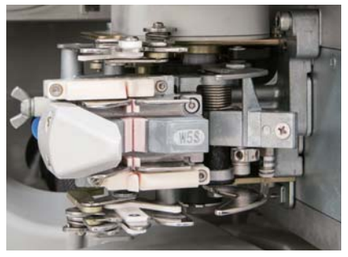
Water/Air Hybrid Splicer (Option)

Cotton Coarse count, CSY (Core Spandex Yarn) with Cotton cover, Ramie or Linen blend etc.



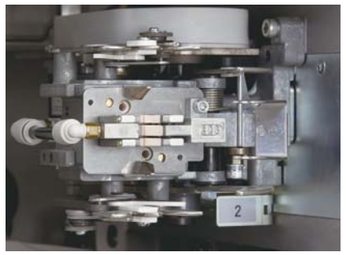
Water Splicer with Beater (Option)

Cotton 100% 2ply



Air Splicer with 3 tier nozzle (Option)

Worsted, Worsted blend, Wool, Synthetic (figber length:50mm≦) etc.



Hot Splicer (Option)

Worsted, Worsted blend

Match your needs

Straight Magazine



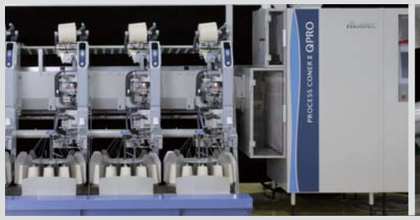
Link Coner

Bobbin-tray



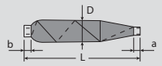
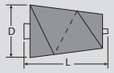
VCF

Cone to Cone


Rewind Magazine

Main specifications

Yarn	Magazine, Cone to Cone, Rewind Magazine	Cotton, staple fiber, worsted, woolen, synthetic, and blends
	Link Coner, Bobbin-tray, VCF	Cotton, staple fiber, worsted, synthetic, and blends
Yarn Count	Ne3 to Ne142 (Nm5 to Nm240)	
Supply bobbin size 	Magazine	a: Min. 15mm b: Min. 10mm D: Max. ø50mm (9can) ø75mm (6can) L: Max. 260mm (360mm)
	Link Coner	a: Min. 15mm b: Min. 10mm D: Max. ø57mm L: Max. 260mm Number of back winds: 3 to 5
	Bobbin-tray, VCF	a: Min. 15mm b: Min. 10mm D: Max. ø57mm L: Max. 260mm
Supply package size 	Cone to Cone	D: Max. ø240mm L: Max. 182mm
	Rewind Magazine	D: Max. ø110mm L: Max. 182mm
Winding shape	0°~5°57′	
Winding traverse	148mm (5 3/4″), 153mm (6″)	
Maximum package diameter	ø320mm/6″ cone	
Machine orientation	Left-hand or Right-hand	
Number of spindles	Magazine	10-spindle system: Max. 60 12-spindle system: Max. 80 (12x5 + 10x2), 84, 96
	Link Coner	8-60spindle (Every 2 spindle excluding 14sp)
	Bobbin-tray, VCF	10-spindle system: Max. 60 12-spindle system: Max. 72
	Cone to Cone	10-spindle system: Max. 60 12-spindle system: Max. 72
	Rewind Magazine	6-spindle system (double pitch): Max. 36
Yarn supply magazine	Magazine	9-can magazine (6-can magazine)
	Rewind Magazine	12-can magazine
Amount of supply bobbin stock	Link Coner, Bobbin-tray, VCF	2 bobbins per spindle
Amount of supply package stock	Cone to Cone (Model-II)	1 package per spindle
Yarn joining method: Mach Splicer	Cassette type splicer	
Tensor	PC Tensor	
Blower	Magazine, Bobbin-tray, VCF, Cone to Cone	Individual blower: 15kW (option), 11kW, 7.5kW
	Link Coner	Individual blower: 11kW, 7.5kW
	Rewind Magazine	Individual blower: 7.5kW
Winding speed	Maximum 2,200m/ min *Depending on the yarn type, supply bobbin and machine specification	
Drum drive	DC Brushless motor direct drive	
Monitoring device	VOSIII (Visual On-demand System)	
Yarn detector	Lower yarn sensor	
Drum	Steel drum	
Yarn clearer	Capacity or Optical yarn clearer depending upon your request	

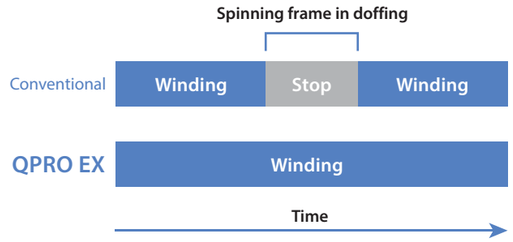
Match your needs

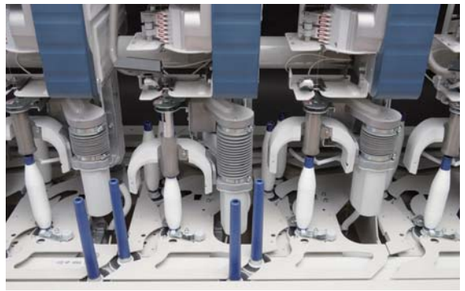
CBF (Continuous Bobbin Feeder)

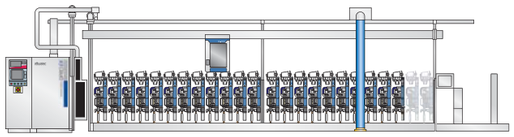
First time in history of automation in winding, Muratec developed the bobbin transport system technology in 1983. This industry-changing innovation has enhanced the spinning-winding concept and has been adapted for material handling systems in a variety of ways.
Various transport systems such as the bobbin tray type and the link corner type have been put into practical use to promote automation at textile plants.

Plus Run System

By efficiently supplying full bobbins and buffering empty bobbins, the unit continues winding even while the spinning frame is doffing.
This maximizes the capacity of the winder. Well-balanced operation with the spinning frame is achieved using lesser number of drums on the winder.

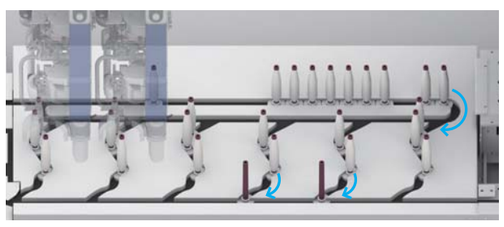






S-Feed Control

By circulating only the necessary quantity of full bobbins, the bobbin flow is optimized.



Mixed Yarn Detector (option)

Prevents intermixing of different bobbins by identifying and segregating them by their colors.
This can also prevent mixing of different yarns caused by manual errors.

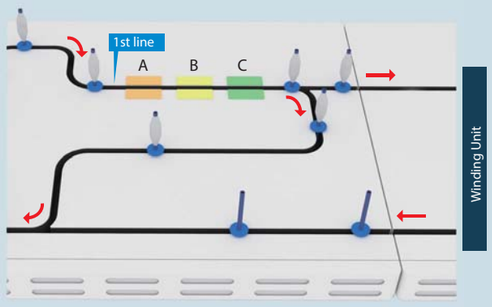
Side Suction (option)

Thanks to side suction device, success ratio of picking up yarn end is improved even with bad shape bobbins.

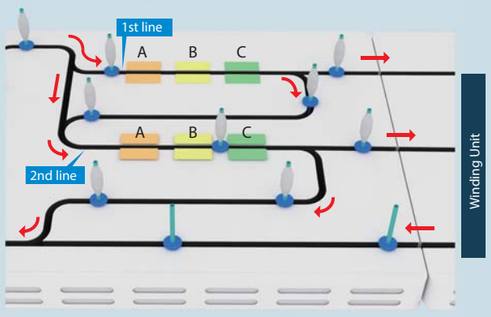
The combination of side suction devices are as follows.

	1st line	2nd line
1 Kind (2 cop robos)	Without	Without
	Without	With
1 Kind (1 cop robo)	Without	
	With	
2 Kinds	Without	Without
	With	Without
	With	With

CBF 1 Kind (1 cop robo)



CBF 1 Kind (2 cop robos)



A station
Mixed yarn detector (option)
Bottom bunch cutter (option)
*Bottom bunch spec only

B station
Searcher
Side suction (option)

C station
Cop robo

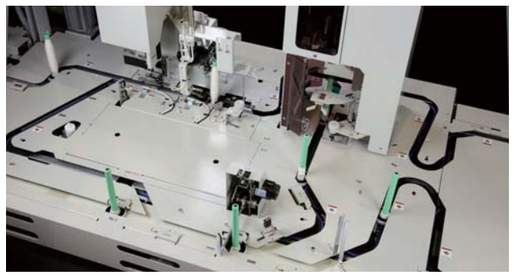
Match your needs

Link Coner

The spinning frame and automatic winder are directly connected via the tray-to-tray linking system conveyor. When the bobbins are doffed at the spinning frame, they are placed onto the tray and do not need to be replaced. This means that the bobbins are supplied to the winding unit without any special handling.

Easy operation/maintenance

Muratec pursued a simple compact design for easy machine operation and maintenance. In addition, since each spindle is independently driven, this machine can be maintained on a per spindle basis without stopping other spindles.



Small footprint

Compared to installing a spinning frame and a winder separately, space to sort bobbins and store empty bobbins is not necessary, so floor space can be saved by 10% or more. A small footprint also leads to savings in air conditioning. In addition, since the production line of spinning and rewinding can be configured as a straight line, various types of work can be efficiently performed.

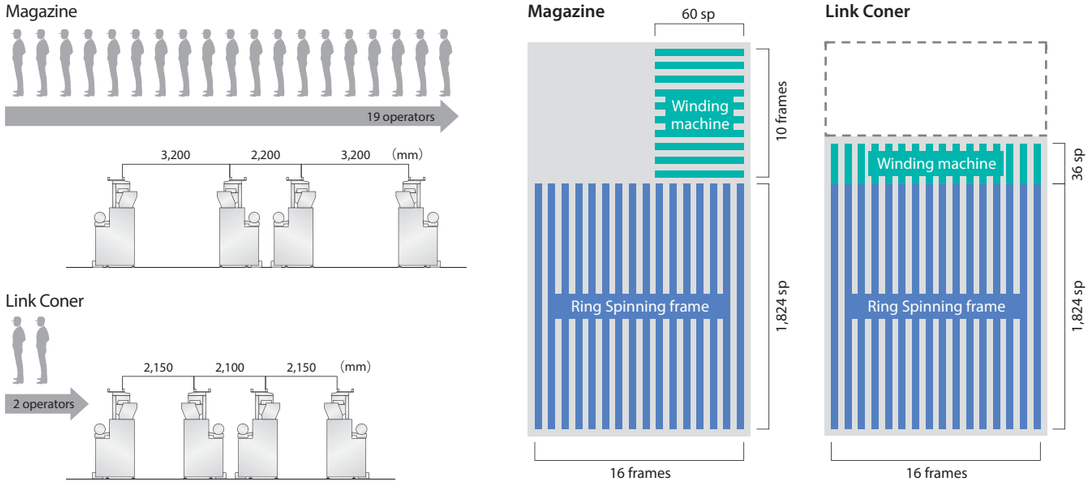
Reduction in total cost

The bobbins rewound by the winder are automatically sent to the spinning frame, minimizing risks such as damage and loss, and also leads to significant savings in plastic tubes. In addition, auxiliary devices and facilities such as bobbin boxes and carts can be drastically reduced.

Labor saving

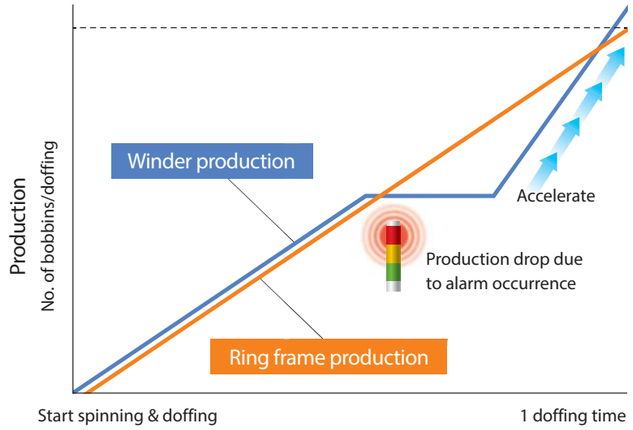
No manpower is required in the transportation between spinning and winding process, which contributes to labor saving.

Floor Space & Manpower comparison　Simulation by Muratec in case of 29,184sp of Ring Spinning frame

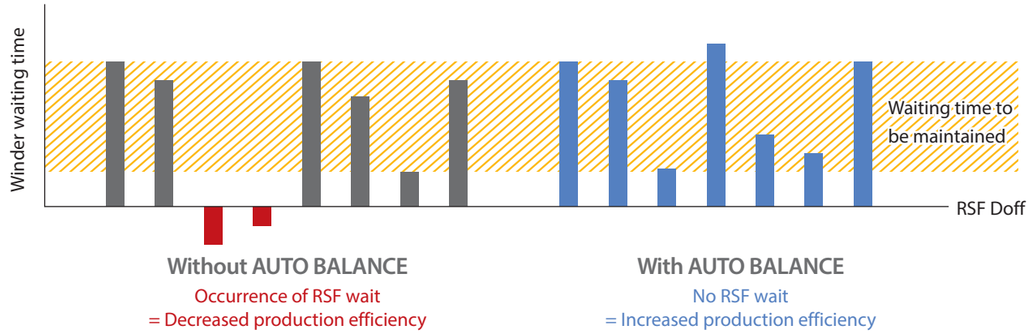


Auto Balance (option)

Observes winding progress regularly until the next doffing of spinning frame. If winding progress is delayed due to unexpected troubles, the winding speed is automatically adjusted to recover the delay. Thanks to this function, the production can always be maintained.
A similar automatic adjustment function can be used in Bobbin-tray, VCF, and Straight Magazine by setting the target shift production volume.



Winder waiting time comparison



Additional Magazine (option)

Rewinding solution on Link Coner for B-grade and bad shape bobbin.

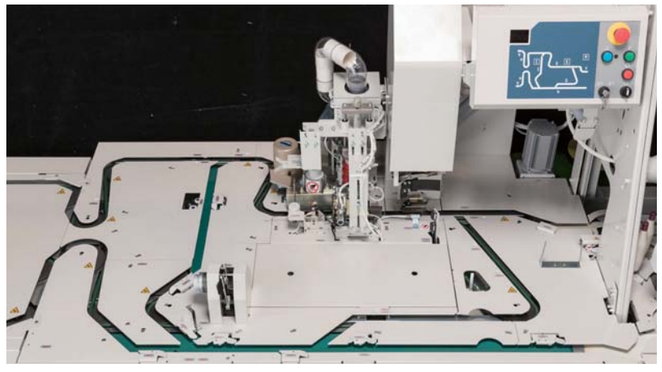
Applicable models: Link Coner, Bobbin-tray
(1 kind yarn supply)

Match your needs

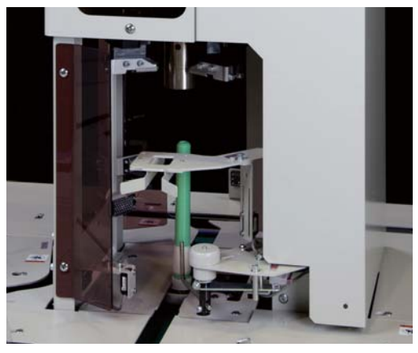
CBF for Link Coner

Suitable CBF is selectable from 3 types according to factory conditions.

Standard

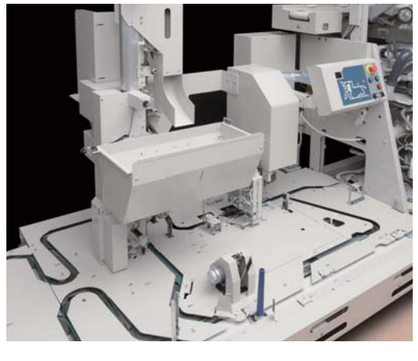


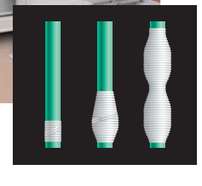
With Bobbin Stripper



A device that automatically removes the minimum residual yarn on bobbins before sending the empty bobbins to RSF.

With Bobbin Exchanger



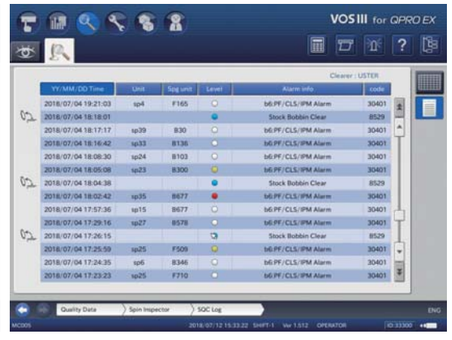


A device that replaces residual yarn bobbins (whose yarn volume is less than the arbitrarily set yarn volume) with empty bobbins.

Spin Inspector (option)

Identify the bad spindle no.of RSF

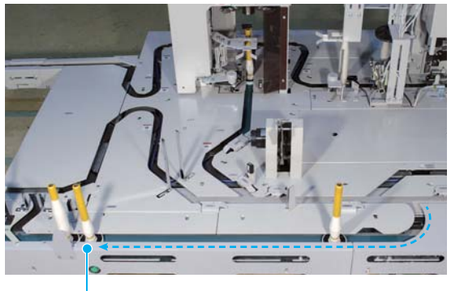
Identify the spindle no.of RSF



Quality control screen
Ex.) Spindle No. B263: CV alarm occurred 3 times

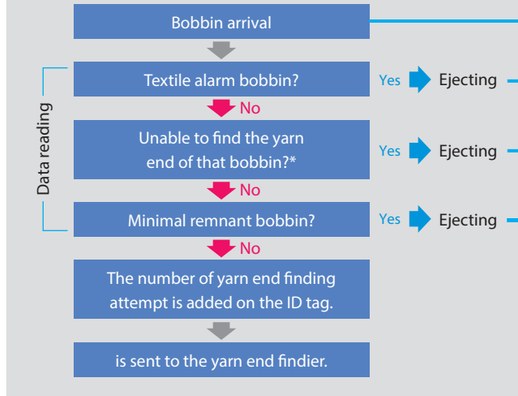
Ejecting bad shape & textile alarm bobbins with sorting function

Bobbin Stripper



Textile alarm bobbin

Bobbin Exchanger



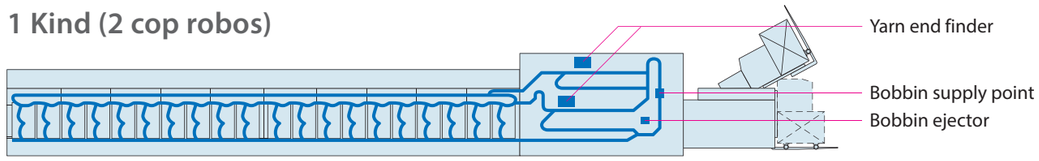
*Bobbins which exceed the set number of attempts

Match your needs

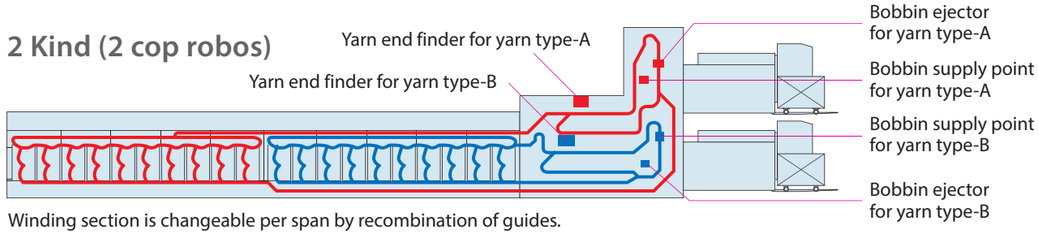
Bobbin-tray

Double feeding system enables the machine to work two kinds of yarn simultaneously which allows the machine with maximum flexibility with high efficiency. Two types of trays will be used for dividing the bobbins into two separate units by section with the mechanical system.

1 Kind (2 cop robos)



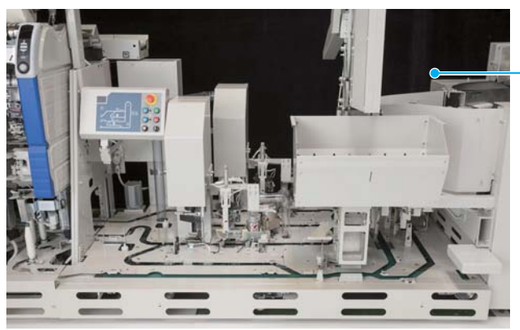
2 Kind (2 cop robos)

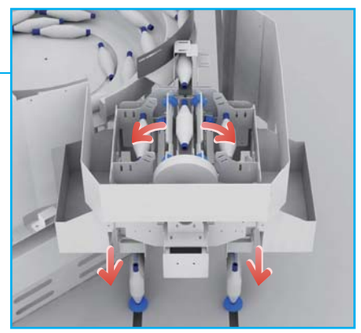


Winding section is changeable per span by recombination of guides.

Dual Chute System (option)

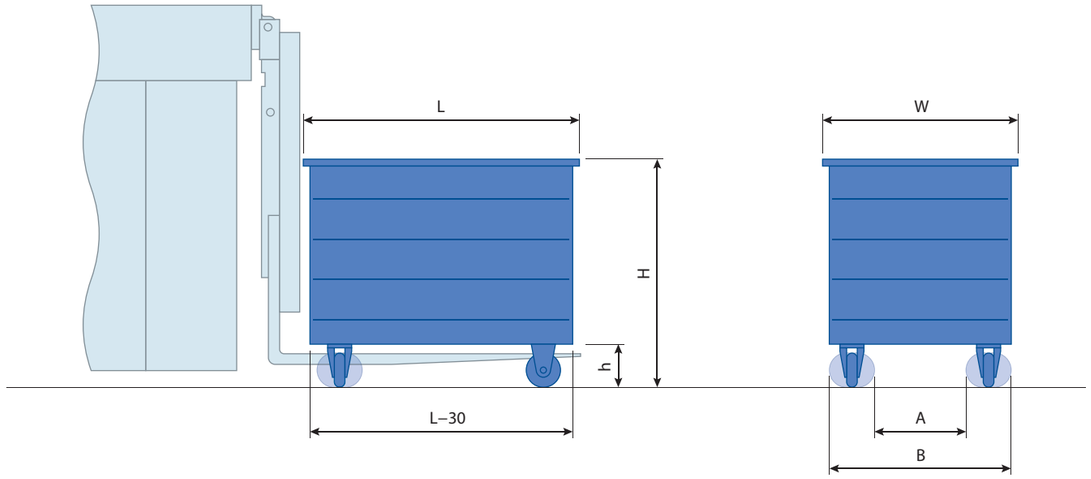
The number of supplied bobbins increases to 50 or more per minute. This allows for coarse yarn count on the 72-spindle machine.





Length : Max. 230mm Diameter : Max. Φ47

Recommended size of doffing box



Bobbin	L	W	H	h	A	B
500 pcs	800	680	1000	130～200		Max. 570
1000 pcs	1000	900	1000	130～200	500～675	

Bobbin φ45 × L250

Parts Feeder EX

This helps in removing entaglement of yarns by sucking yarn ends into suction inlet and cutting by vertical cutter before the bobbins are supplied from the conveyor to parts feeder.
This is mainly suitable for manually doffed bobbins and in case of 100% Polyester yarns.

Match your needs

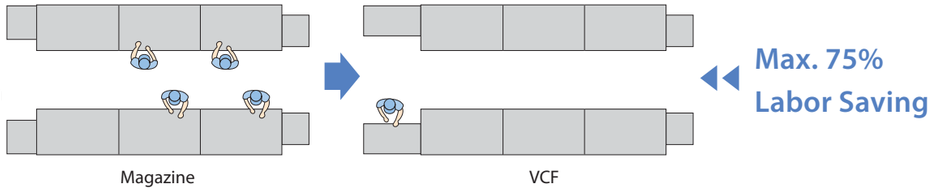
VCF

Two kinds yarn supply

Just one machine can wind two different yarn kind / count bobbin.

Labor saving

Saves max. 75% labor in comparison to magazine type.



Max. 75% Labor Saving

Bunch remover

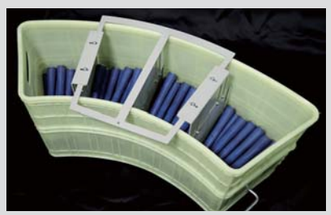
Sucks out the bunch of each bobbin with suction air.

Empty Bobbin Collection System

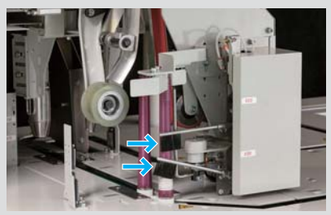
Standard type

Sorting Type (2types, option)

Ejects empty bobbins keeping same direction to help easy operation.



Sorting image (Fan Box Type)



Residual yarn checker (Double Brush Type)

VCF Advance

Larger supply bobbin box

	Standard	Advance
No. of reserve bobbins	270pcs	540pcs

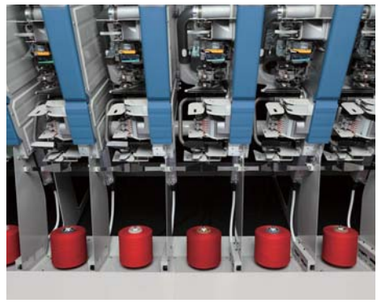
*The number of reserve bobbins depends on the bobbin length.

Automatic replacement of empty bobbin box (option)

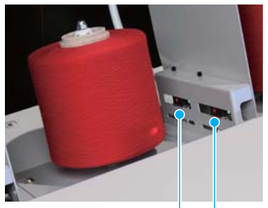
An additional spare box for empty bobbins is provided.
If the one box became full, it is automatically changed to the spare box.

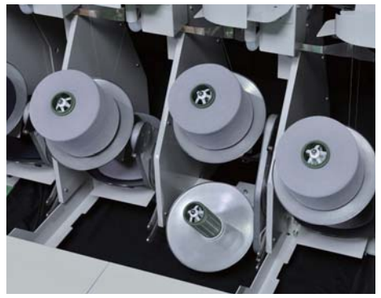
Match your needs

Cone to Cone

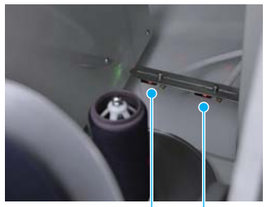


Model- Ⅰ





Model- Ⅱ



Outer layer sensor

At the package outer layer section where yarn breakage can easily occur, low-speed winding is performed, and upon detection of the sensor, the winding speed is increased to efficiently reduce yarn breakage. (set diameter: 100 – 200mm).

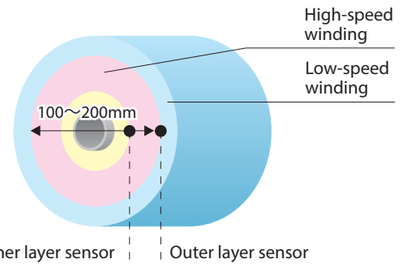
Inner layer sensor

Deceleration function

Upon detection of an inner layer, winding stops automatically (Model Ⅰ) or the winding speed is decreased (Model Ⅰ & Ⅱ).

Inner layer removal function

After winding is complete, the inner layer is removed by sucking with the suction mouth (Model Ⅱ).



Rewind Magazine

Optinal device list

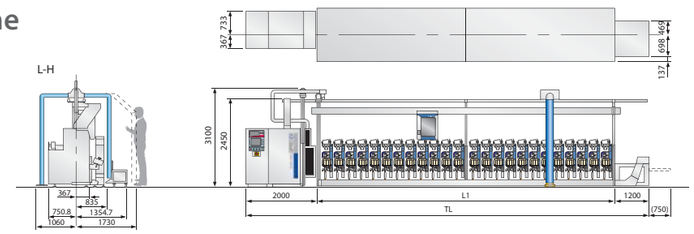
Accessory equipment　Optional equipment

			Straight Magazine	Link Coner	Bobbin-tray	VCF	VCF Advance	Cone to Cone Model-Ⅰ	Cone to Cone Model-Ⅱ	Rewind Magazine
UNIT	High efficiency drum motor		■	■	■	■	■	■	■	■
	Pac21 winding system		■	■	■	■	■	■	■	■
	Ceramic cutter		■	■	■	■	■	■	■	■
	Kink Preventing system (Hard waste reducer)		■	■	■	■	■	■	■	■
	Sloughing catcher		■	■	■	■	■	■	■	■
	Suction shutter		■	■	■	■	■	■	■	■
	Vibration sensor		■	■	■	■	■	■	■	■
	PC module	PC Tensor	■	■	■	■	■	■	■	■
		PC Bal-Con	■	■	■	■	■			
		PC Sensor	■	■	■	■	■	□	□	□
	Auto Bobbin-Centering Function		■	■	■	■	■			
	Splicer	S.A.S. (Stretch Air Splicer)	□	□	□	□	□	□	□	□
		Disk Splicer	□	□	□	□	□	□	□	□
		Water/Air Hybrid splicer	□	□	□	□	□	□	□	□
		Water splicer with beater	□	□	□	□	□	□	□	□
		Air splicer with 3-tier nozzle	□	□	□	□	□	□	□	□
		Hot splicer	□	□	□	□	□	□	□	□
	Waxing device		□	□	□	□	□	□	□	□
	Upper yarn sensor		□	□	□	□	□	□	□	□
	PLC21 (Perfect Length Counter 21)		□	□	□	□	□	□	□	□
	Dust collector		□	□	□	□	□			
	Traverse sensor		□	□	□	□	□	□	□	□
	V-gate tensor		□	□	□	□	□	□	□	□
	Inner layer sensor		□	□	□	□	□	□	■	
	Outer layer sensor							□	□	
MC	Blower with Static pressure control(individual blower)		■	■	■	■	■	■	■	■
	Blow cleaner		■	□	■	■	■	■	■	■
	Package conveyor		□	■	■	■	■	□	□	□
	Package shutter		□	□	■	■	■	□	□	□
	Plus Run system			■	■	■	■			
	S-Feed control			■	■	■	■			
	AD (Automatic doffer)		□	■	■	■	■	□	□	□
	Empty bobbin sorting table (Only with Line conveyor)		■							
	Mule bobbin conveyor		□							
	Split conveyor		□							
	Wide line conveyor		□							
CBF	CBF for Link Coner	Bobbin stripper		□						
		Bobbin exchanger (Ejector + Chuter)		□						
		Bobbin chuter		□						
	2 cop robos with 1 kind yarn supply			□	■	□	□			
	2 cop robos with 2 kind yarn supply				□	■	■			
	Dual chute system (Length : Max.230mm Dia.: Max. ø47)				□					
	Square box type with sorting function					□	□			
	Fan box type with sorting function					□	□			
	Residual Yarn Checker (Double Brush Type)						■ *			
	Larger supply bobbin box						■			
	Automatic replacement of empty bobbin box						□			
	Bunch remover					■	■			
	Beater			□	□	■	■			
	Bottom searcher				□	□	□			
	Rotary cutter				□	■	■			
	Mixed yarn detector		□	□	□	□	□			
	Side suction			□	□	□	□			
Others	Auto balance		□	□	□	□	□			
	Additional Magazine			□	□	□	□			
	Spin inspector			□						
	Underground linking system			□						
	Tray selector				□	□	□			

* Fan box type is equipped with residual yarn checker as standard spec

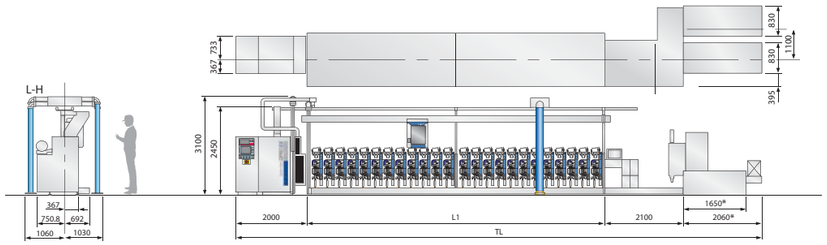
Dimensions of Machine

Straight Magazine



	10SP	12SP	20SP	24SP	30SP	36SP	40SP	48SP	50SP	60SP (5-span)	60SP (6-span)	72SP	80SP	84SP	96SP
TL	6470	7110	9740	11020	13010	14930	16280	18840	19550	22750	22820	26660	29290	30570	34480
L1	3270	3910	6540	7820	9810	11730	13080	15640	16350	19550	19620	23460	26090	27370	31280

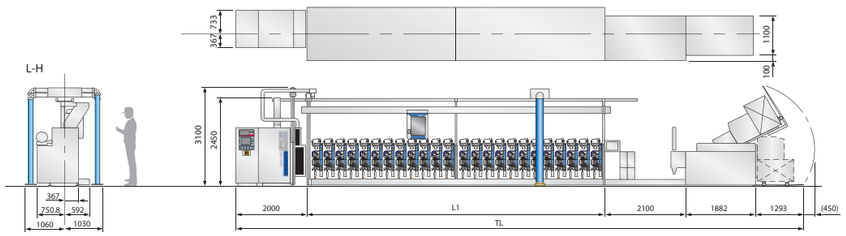
VCF
VCF Advance



	20SP	24SP	30SP	36SP	40SP	48SP	50SP	60SP (5-span)	60SP (6-span)	72SP
TL*	12700	13980	15970	17890	19240	21800	22510	25710	25780	29620
L1	6540	7820	9810	11730	13080	15640	16350	19550	19620	23460

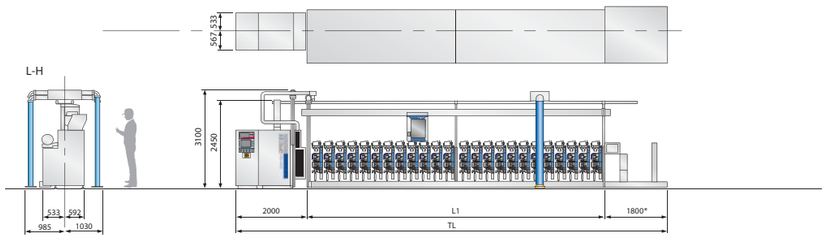
*VCF ADVANCE : +500

Bobbin-tray



	20SP	24SP	30SP	36SP	40SP	48SP	50SP	60SP (5-span)	60SP (6-span)	72SP
TL	13815	15095	17085	19005	20355	22915	23625	26825	26895	30735
L1	6540	7820	9810	11730	13080	15640	16350	19550	19620	23460

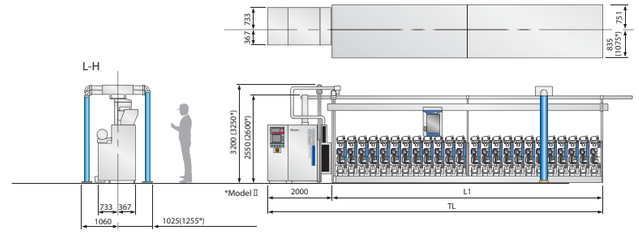
Link Coner



	18SP	20SP	22SP	24SP	26SP	28SP	30SP	32SP	34SP	36SP	38SP	40SP	48SP	60SP
TL	9700	10340	10980	11620	12330	12970	13610	14250	14890	15530	16240	16880	19440	23350
L1	5900	6540	7180	7820	8530	9170	9810	10450	11090	11730	12440	13080	15640	19550

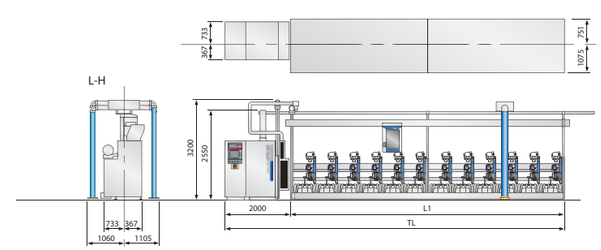
* With 2 cop robos : +300mm in a total length

Cone to Cone



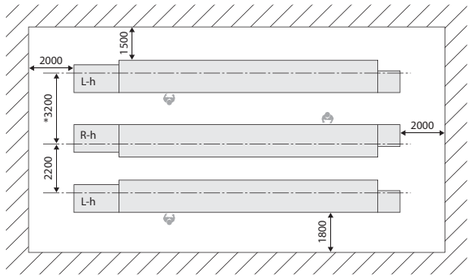
	10SP	12SP	20SP	24SP	30SP	36SP	40SP	48SP	50SP	60SP (5-span)	60SP (6-span)	72SP
TL	5270	5910	8540	9820	11810	13730	15080	17640	18350	21550	21620	25460
L1	3270	3910	6540	7820	9810	11730	13080	15640	16350	19550	19620	23460

Rewind Magazine type



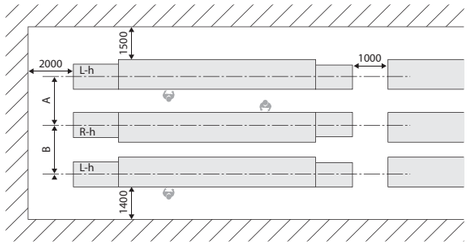
	6SP	12SP	20SP	24SP	30SP	36SP
TL	5910	9280	13730	17640	21550	25460
L1	3910	7820	11730	15640	19550	23460

Straight Magazine / Cone to Cone Rewind Magazine



* With front suction type of blow cleaner (option) : 3500

Link Coner

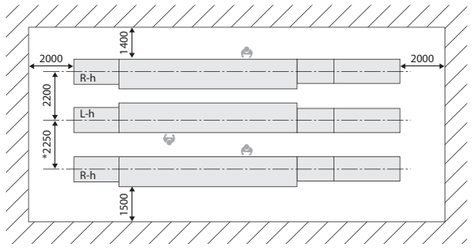


		A	B
Dust Collector	Without	2150	2000
	With	2150	2200

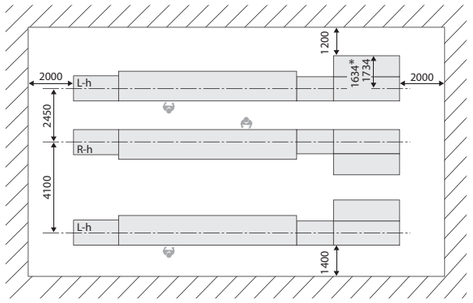
With package shutter (option) : B=2200

VCF, Bobbin-tray

1 kind



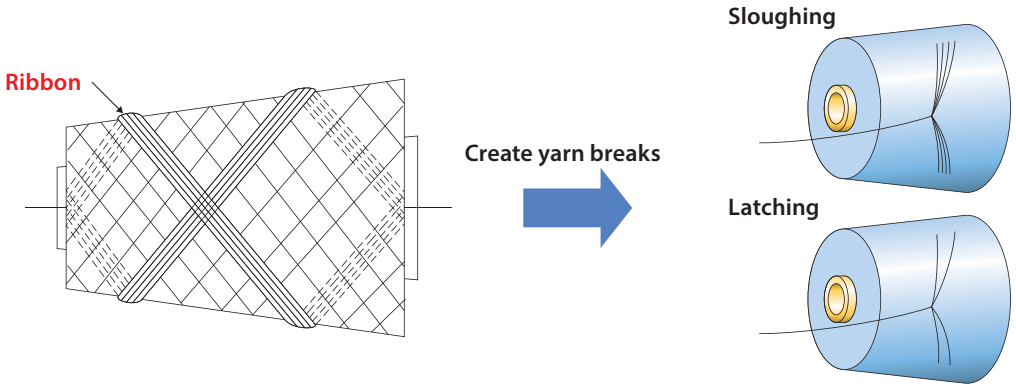
2 kinds



* VCF

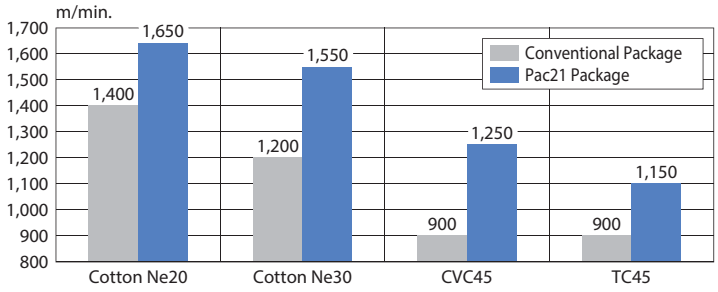
Dear Valued yarn buyers

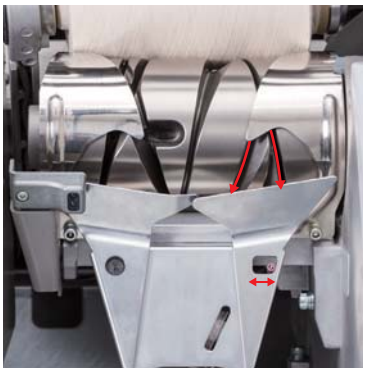
Don't you have problems of many yarn breaks like following picutres?
These problems are coming from 'Ribbons' on the package.



Pac21 winding system

In order to solve these problems, Muratec has developed a control system that switches the drum groove to the diameter at which patterning(ribbon) occurs and produce the quality package to facilitates the unwinding.

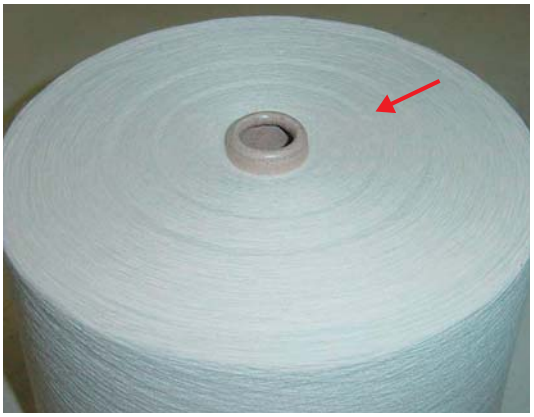




Note : 1) This data is just for your reference.
2) This is unwinding data which is wound from package dia. 260mm to empty with 5' 57 tube.

Quality Ring

If the package is wound by Pac21 Winding system, the surface of package shows small steps as per the following picture which is namely "Quality Ring" because No. of winding has been contoured at patterning point. It is one of the certification of good quality package which is suitable for high speed unwinding as shown above.

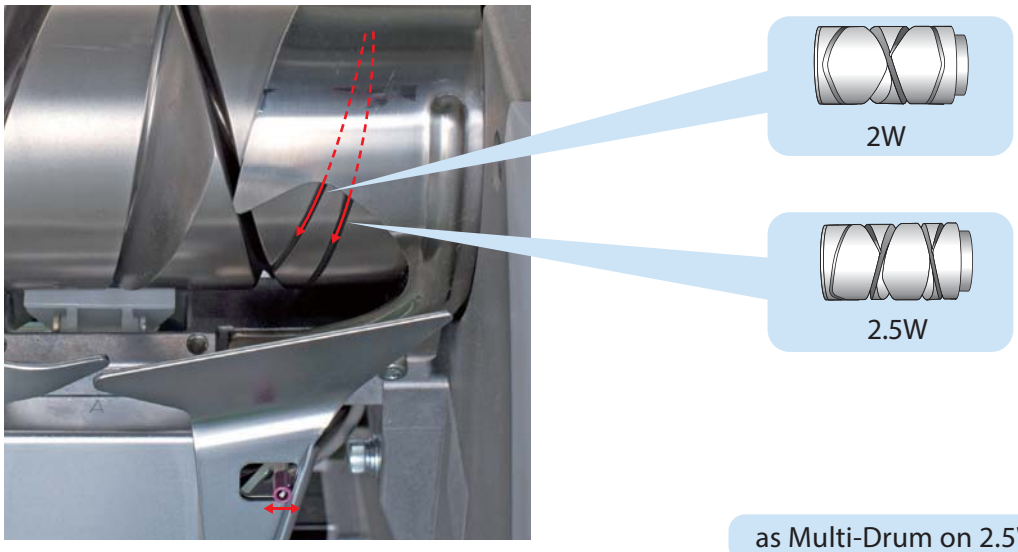


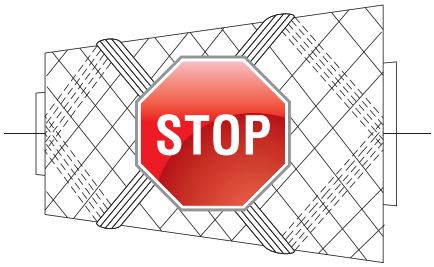
Please check unwinding performance between your normal package and the one with Quality ring.

Mechanical explanation

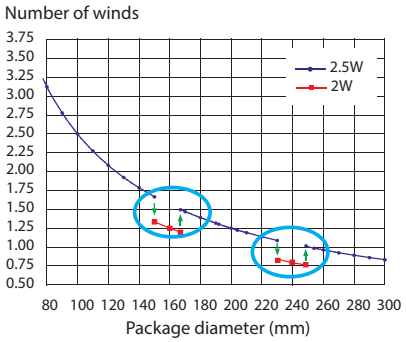
Muratec's Multi-grooved drum has 3 functions by switching the guide position.

1) as 2 wind drum for coarse count.
2) as 2.5 wind drum for middle & fine count.
3) as Multi-drum for higher-speed unwinding performance.





as Multi-Drum on 2.5W base



* Very less chance to have yarn breaks due to sloughing & latching thanks to Multi-Drum.

Rough standard of available yarn count

Drum		Yarn Count (Ne) 0 5 10 20 25 40 50 60 80 140	Winding Shape			
			Regular Package		Dye Package	
			Cone	Parallel	Parallel	Cone
Pac-A	2.5W		○	×	×	×
	2W		○	○	※	※
Pac-B	2W		3°30′～4°20′	○	※	※
	1.5W		3°30′～4°20′	○	※	※
Pac-D	2.5W		4°20′～5°57′	×	×	×
2W			※	○	○	※

○: Available ※: Condition Apply ×: No Applicable