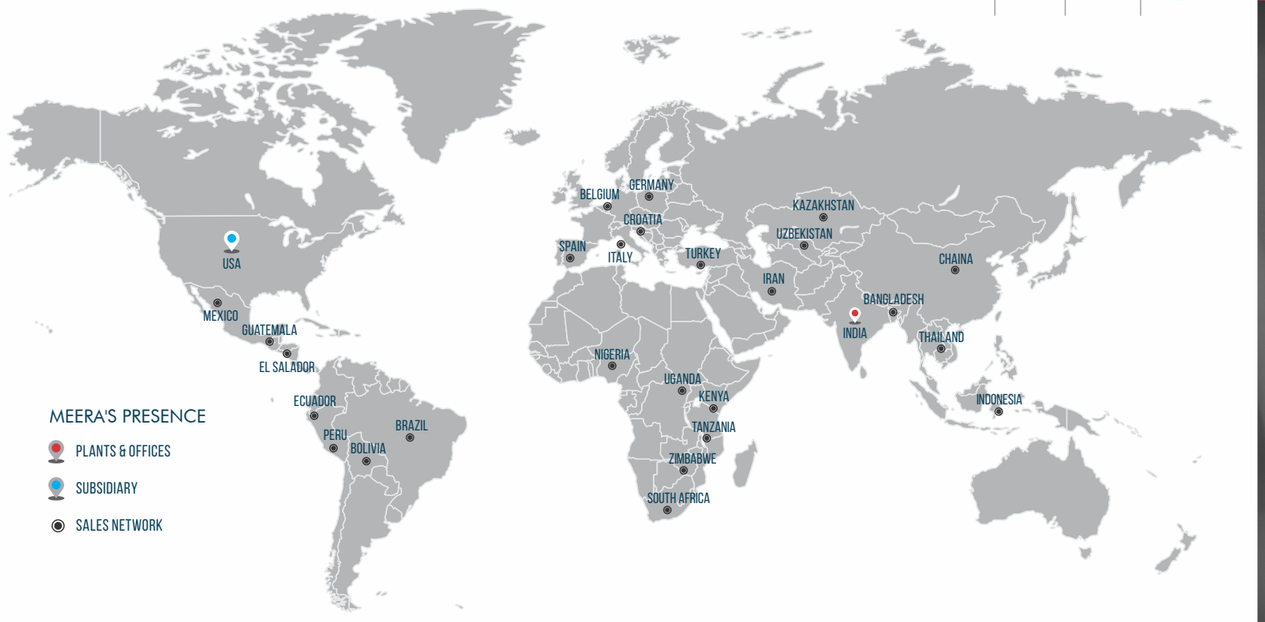
about us.

Meera Industries Limited an ISO 9001 company is a renowned name in the field of twisting, cabling and continuous heat setting machines. Having Presence in more than 26 countries, we are known for innovating new technologies and providing complete customized solutions to our customers.

We have a in house R&D center recognized by the Department of Scientific and Industrial Research (DSIR) We are also a recipient of two R&D awards continuously for 2 years in a row from Textile manufacturers Association (TMMA) for pioneering Single Step S/Z twisting technology (TPRS) and continuous Bulking and Heat Setting Machines (Meerabah) in India.

Energy conservation, Better Productivity and Ease of Use are the goals in mind when we design machines. We assure you to serve in the best possible way we can.



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MEERA

TPRS TWISTER

One Step Twine Twister

MULTI FILAMENT | COTTON | RAFFIA | PE AND HDPE

INNOVATIVE AUTHENTIC FUTURISTIC

TPRS TWISTER

World's First One Step
S/z Twisting Upto 4 Ply

FAMILY OF SPINDLES

TPRS-19

TPRS-25

TPRS-50

LABOUR	WASTAGE	SPACE	COSTING
30% SAVE	50% SAVE	40% SAVE	40% SAVE

HIGHLIGHTS

Technology	Twisting Plying & Reverse Twisting.
Suitable Yarn	Multifilament Polyester, PP, Nylon, Viscose.
Application	Embroidery Yarn, Carpet Yarn, Sewing, Stitch, Industrial Thread.
Count Range	300 - 12000.
Construction	210/3, 300/2, 420/2, 300/3, 600/2, 840/2, 840/3, 1000/2, 2000/3, 3000/3.
Speed	UPTO-7000 RPM.
Voltage	220/380/440 | 50-60 Hz.
Drive System	Fully Inverter Controlled Drive.

TPRS-19, TPRS-25, TPRS-50

FEATURES

No More Rewinding, Primary and Secondary Twisting For Making S/Z Yarn. Spinning to Twisting, Just in One Step. Individual / Tangential Drive System. Knotless Package up to 10-12 Kg. Even Twist throughout the length of the yarn due to one step process gives smooth working on sewing machines. Panel For Setting and Displaying Spindle Speed, Twist Level, Crossing Angle, Stroke Length, Yarn Speed
Etc. Outstanding Cost Performance Ratio.

TPRS-50
Denier : 3000 - 12000
Application : Carpet Yarn ,
Industrial Thread, Shoe Yarns
Popular : 1000/3, 2000/3, 3000/3, 4000/3

TPRS-19
Denier : Upto 1200
Application : Fishing Net,
Sewing Thread, Carpet Yarn
Popular : 210/3, 300/2, 420/2, 300/3, 600/2

TPRS-25
Denier : 600 - 3000
Application : Carpet Yarn ,
Industrial Thread, PP Closing Thread
Popular : 840/2, 840/3, 1200/3, 1500/3

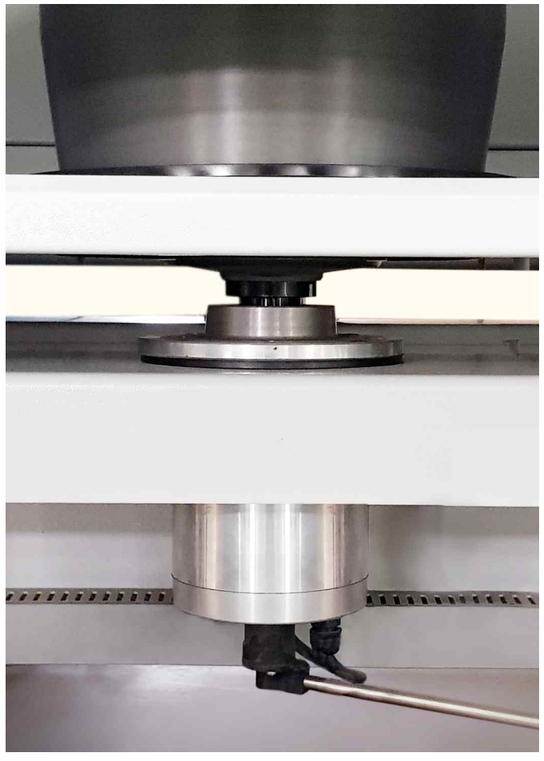
TPRS is One Step Ply and Cable Twist

TPRS (Twisting Plying and Reverse Twisting) which is also know is S/Z Twisting

Previous Twisting Method Took 2 Step For Making S/Z Twisted Yarn. Primary Twist + Secondary Twist. With TPRS technology both the twist are inserted one after another in an online One Step Process.

Rewinding is a common step in both the process, In order to simply further, Rewinding step has also been removed for course denier. Package from spinning is directly used as a feed package eliminating the need of rewinding and both the Twist (S and Z) is inserted one after another in an online One Step Process.

FEATURES



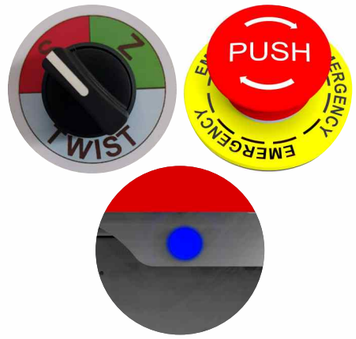
INDIVIDUAL SPINDLE DRIVE SYSTEM

- Fully Inverter Control Drive
- Individual Motor Spindle not only contributes to the saving of electricity by 40% it also ensures that all of the driven spindles run precisely synchronised.
- Individual Motor Spindle allows Automatic Spindle stop in the event of yarn break for that particular spindle.
- Further due to individual drive higher speed and Higher denier can be achieved, means high Efficiency.
- Due to Individual Spindle Drive System Any spindle can be shut down via multifunction switch adding to reduce wastage and production control.
- Grouping of spindle can also be done to run more than one quality at a time adding to R&D needs.

EASY TO OPERATE BUTTONS / PANEL

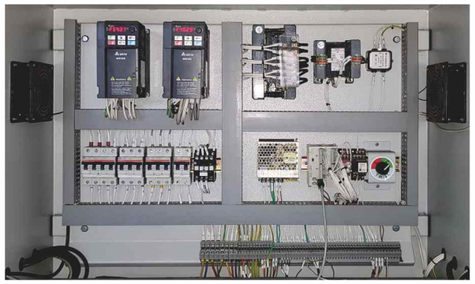
Touch panel for easy to adjust parameters like Amount of twist, spindle speed, crossing angle length and time-based shut-down, individual Length counter etc.

The production parameters entered can be stored in an Article library and called up whenever required. Advance Reporting available like, delivery speed, operating hours, Spindle wise breakage report, production, operator Efficiency etc. The computer is equipped with a usb Connection. .



EASY TO OPERATE BUTTONS

- Easy to operate Buttons on the face of machine.
- Start button
- Stop button
- EMERGENCY STOP mushroom button
- Pressure indicator For Air Threading
- S/Z Twist Switchover Button



FULLY INVERTER CONTROL DRIVE

Fully Inverter Control Drive generates yarn take-up speeds upto 8000 rpm and delivery speeds of up to 120 m/min.

OVERFEED COVERS PROVIDED FOR OPERATOR'S SAFETY

The overfeed unit and take-up package drive section are completely covered. That increases safety at work

BUNCHING FOR TRANSFER TAIL

Auto Bunching device facilitates the winding of the transfer tail. The groves on the bunching device act as a automatic length counting for transfer tail. This adds to uniform length of transfer tail. A feature needed for higher productivity in post processing of yarn. .

Drum Apron (Friction rubber ring)) is mounted on take-up drum for the stable transmission of take-up.

FOUR BAR HEAVY CRADLE DESIGN

Four Bar Heavy Cradle design allows large Knotless takeup Package upto 400 MM and 20 KG at high takeup speed. Cradle pressure is designed to decrease in proportion with regards to increase in the package diameter and weight for uniform density & compact final package.

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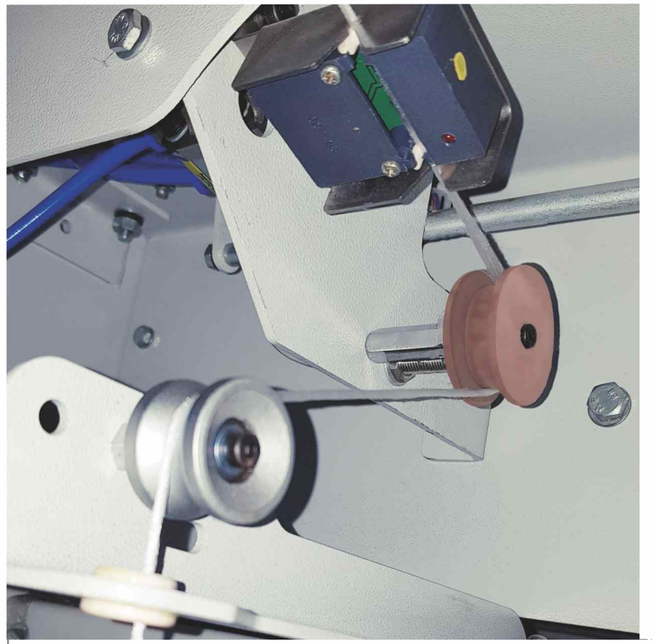
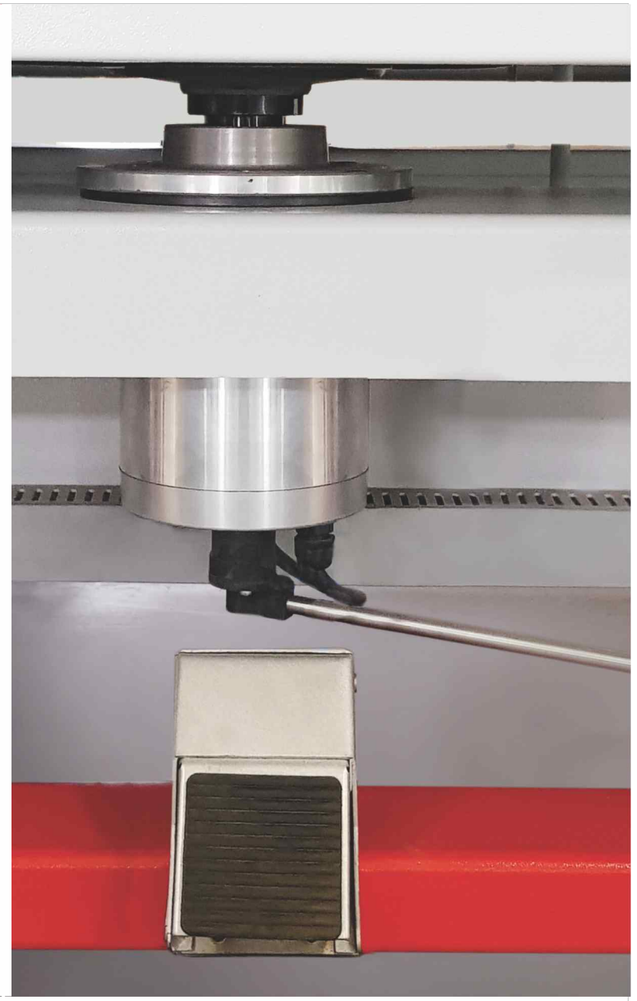




HANDLING YARN BREAKAGE

Event of yarn Breakage, Yarn Completion, are controlled by High Quality Sensors. These events are clearly indicated by a visible signal.

In case of Breakage, Ply Missing, Entanglement the remaining yarn is clamped, and ancillary functions, such as spindle stop and take-up package auto lift, are activated.

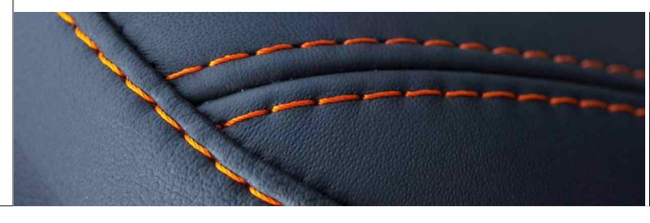
This prevents rubbing on the wound yarn surface and safeguards the original quality of the yarn

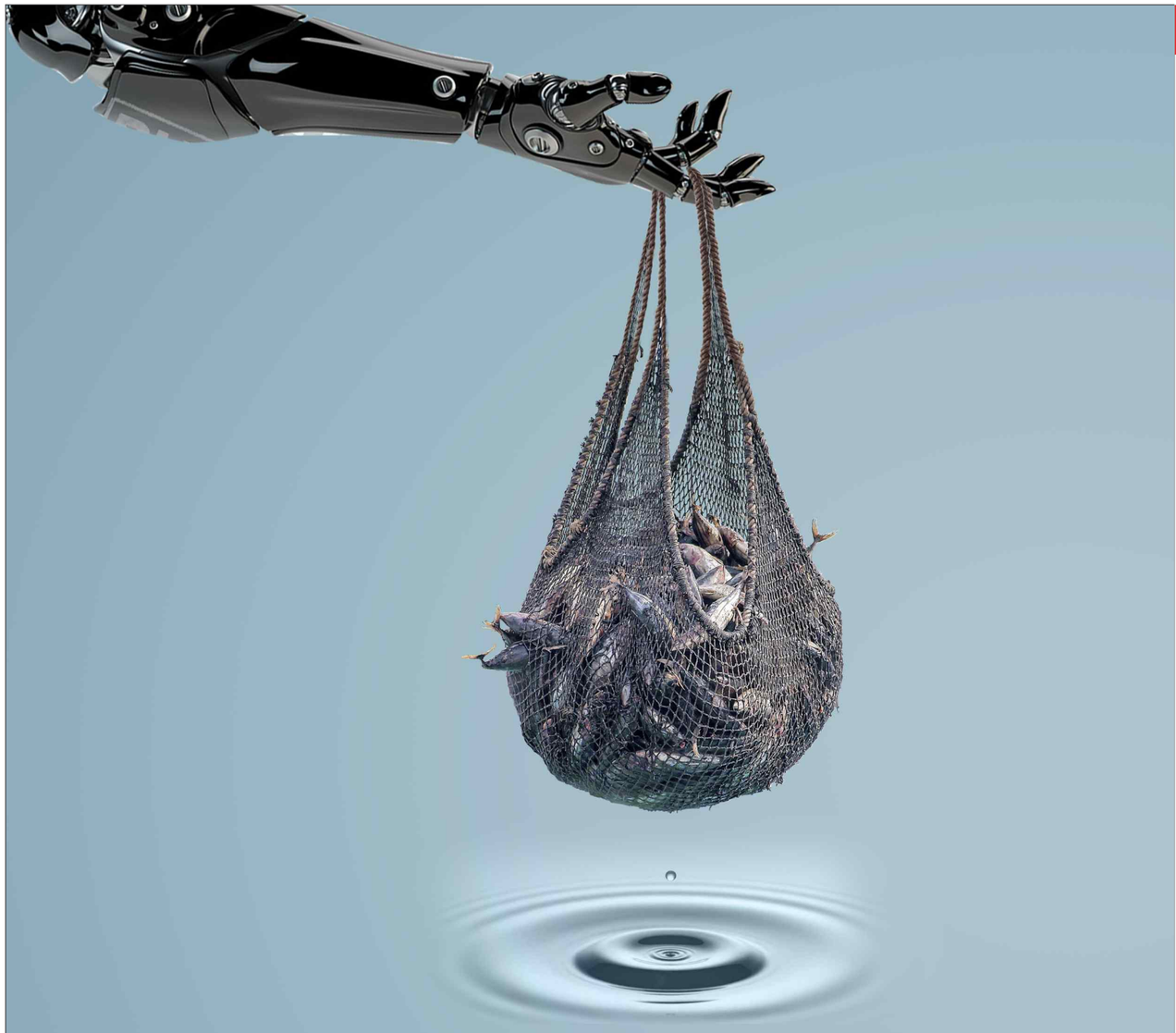
AIR THREADING SYSTEM (OPTIONAL)

Air Threading makes a significant contribution in reducing the operating time.

On initiation of the threading operation, the air pressure sucks the creel yarn through the hollow shaft of the spindle.

The Air then guides the yarn around the spindle pot and bring it up where it can be easily grasped by the operator for further threading



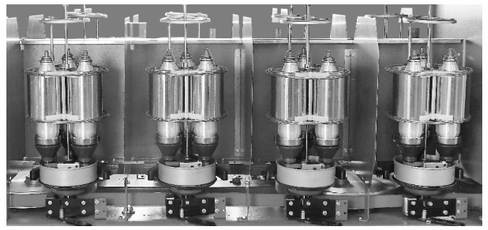


Process Comparison of Manufacturing S/Z Yarn Old Method vS TPRS Technology Method

TRADITIONAL	Package From Spinning Are Rewinded So That They Can Be Fed In To Primary Twister	⇨	Rewinder	⇨	Primary Twister	⇨	Secondary Twister	**3 STEP**
TPRS	Package From Spinning Are Rewinded And Are Fed In Tprs Twister	⇨	Rewinder	⇨	Tprs Twister For Fine Denier			**2 STEP**
TPRS	Package From Spinning Are Directly Fed In To Tprs Twister	⇨	Tprs Twister For Course Denier					**1 STEP**

Benefit : Savings on Labour, Space, Wastage, Productivity, Costing, Superior Quality Product

INDUSTRY BENEFITING FROM TPRS TECHNOLOGY:
Stitch Thread, Embroidery Thread, Carpet Yarn, Industrial Thread Like Bag closing Yarn, Fishnet Thread, Agriculture Thread, Technical Threads, High Tenacity Thread, Threads for Lifting, Rigging, Sling, Tie Down, Nets, Straps, Binders etc.



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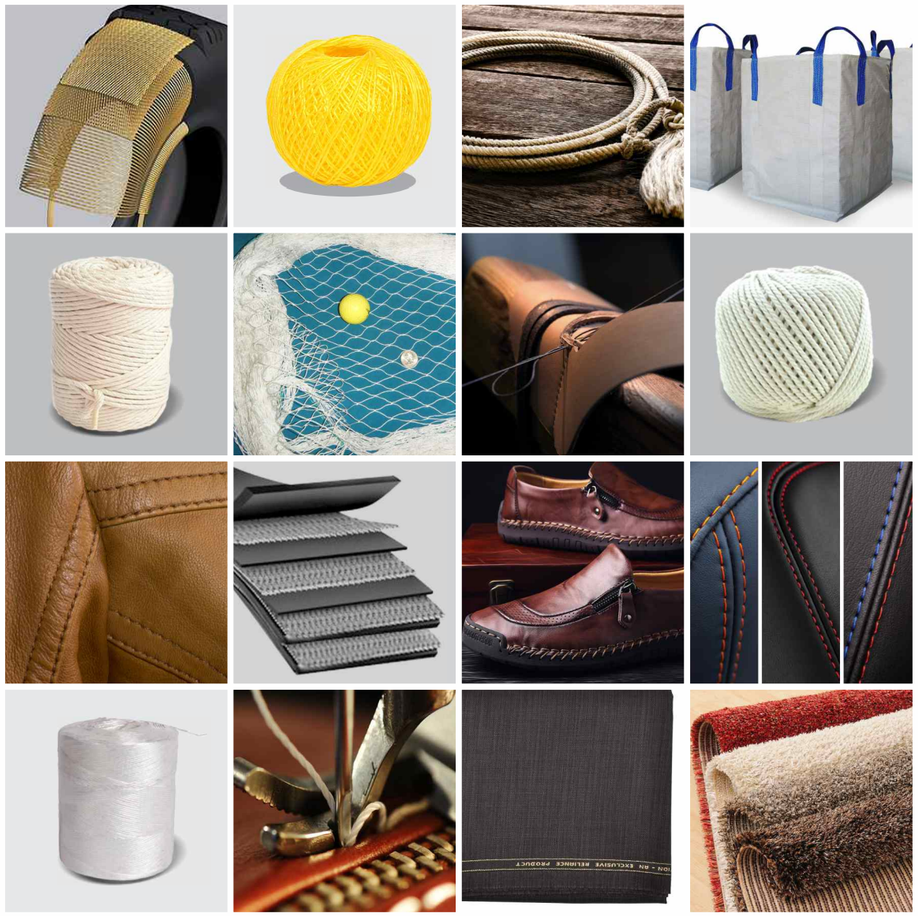
RING TWISTER APPLICATIONS

CARPET YARNS, CONVEYOR BELT, FIBC BIG BAGS, FISHING NET, LARIAT ROPES, LEATHER STITCHING, SEWING THREADS, SHOE STITCHING, SUITINGS FABRICS, TWISTED PP RAFIA, TYRE CORDS
COTTON TWINE, POLYESTER TWINE



MULTI FILAMENT YARN	MONO FILAMENT / TAPE	ADVANCE MATERIAL	STAPLE FIBRES
Polyester (PES) Nylon (PA) Polypropylene (PP) Recylced Polyester (PET)	Polyethylene (PE) High Density (HDPE) UHMPE tape (UHMPE)	Glass Fiber Carbon Aramid Dyneema Copper Metallic Yarns	Cotton Viscose Wool Natural Fibers Silk Linen Blended Yarn,

APPLICATION

Packaging Yarns, Raffia, Artificial Grass, Ropes, Packaging Braids, Mops and Floor Sweepers, Carpets, Protection, Sports, Conveyor Belt, Safety Belts, Geo Textiles, Cords, Braider Yarns, Twines, Cordages, Sewing Thread For Big Bags, Yarns for Narrow Fabrics, Technical Yarns, Cover Yarns, passementerie, fishing, Fence Wire, Slings, hoses.

Technical Data.

MODEL NO	TPRS-19	TPRS-25	TPRS-50
Measurment			
Frame	Double	Double	Single Deck Single Side
No of Positions	120	96	24
Per Section	10	8	2
No of Section	12	12	12
Section Pitch (MM)	1830	2130	2130
Gauge (MM)	360	525	900
Machine Dim (Ft) LxWxH	77.2 x 2.7 x 5.8	88.4 x 3.4 x 7.6	85.1 x 3.7 x 6.3
Machine Dim (Mtr) LxWxH	23.6 x 0.8 x 1.8	27 x 1.1 x 2.3	26 x 1.2 x 1.9
Pot Size (MM)	100	140	200
Denier Range	300-1200	600-3000	2500-12000
Speed	6000	4500	3500
Connected Load	15	48	29
Machine Length	24 Meter	27 Meter	26 Meter
Input / Feed Package / Spindle			
Twist Range (TPM)	150-1500	150-1500	150-1500
Feed Package (MM)	32x36x360	32x36x320	45x 56x290
Feed Package Type	Cops	Bottle / Cheese	Parallel Cheese
Feed Package Max Dia (MM)	100	140	200
Feed Package Wt	1 Kg	1.6 Kg	4 Kg
Takeup Package			
Takeup Package (MM)	46x57x230	46x57x290	Min ID 45 x L 290
Takeup Package Type	Paper Tube		
Takeup Package Max Dia	250 MM	300 MM	400 MM
Takeup Wt Knot Less (Gms)	1.5 Kg	2.5 Kg	12 KG
Winding Traverse	200	250	250
Ply Sensor / Cutter	Yes	Yes	Yes
Spindle Driving			
Take-Up Drive	Common	Common	Common
Traverse Drive	Tangential	Tangential	Tangential

TPRS-19

Position	Width	Height	Position	50	60	80	90	100	110	120
Length(MM)	800	1750	Length	10700	12530	16190	18020	19850	21680	23510

TPRS-25

Position	Width	Height	Position	24	32	40	48	64	72	80
Length(MM)	1010	2300	Length	7770	9900	7770	14160	18420	20550	22680

TPRS-50

Position	Width	Height	Position	8	10	12	14	16	20	24
Length(MM)	1120	1900	Length	8870	11000	13130	15260	17390	21650	25910