

**MEERA**

# TPRS TWISTER

One Step Ply and Cable (S/Z) Twister



INNOVATIVE AUTHENTIC FUTURISTIC

# TPRS TWISTER

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



33%

LABOUR

50%

WASTAGE

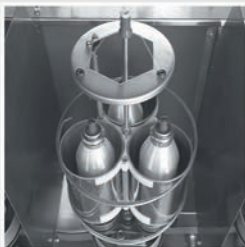
SAVE

40%

SPACE

40%

COSTING



TPRS-19



TPRS-25



TPRS-50



# What is TPRS ?

TPRS Technology pioneered by MEERA (Patent Pending) is a One Step Twine Twister / Ply and Cable Twister for making any type of Stitch Thread, Industrial Thread, Sewing Thread for any Multifilament and Cotton Yarn for Cotton Twines.

Sewing Thread manufacturing normally took 3 step can now be produced in just One Step. Thanks to large pot size package from spinning can be use directly as a supply package. TPRS Twister can produce knotless package Upto 15 Kg.

Very High on productivity TPRS Technology also offers best quality even twist throughout the length of the yarn due to one step process which gives smooth working on sewing machines.

## HIGHLIGHTS

<b>Technology</b>	Twisting Plying & Reverse Twisting.
<b>Suitable Yarn</b>	Multifilament Polyester, PP, Nylon, Cotton
<b>Application</b>	Fishnet Yarn, FIBC Thread, Carpet Yarn, Industrial Thread, Cotton Twine
<b>Count Range</b>	300 - 16000.
<b>Construction</b>	210/3, 300/2, 420/2, 300/3, 600/2, 840/2, 840/3, 1000/2, 2000/3, 3000/3.
<b>Speed</b>	UPTO-6000 RPM.
<b>Voltage</b>	220/380/440   50-60 Hz.
<b>Drive System</b>	Fully Inverter Controlled Drive.

TPRS-19, TPRS-25, TPRS-50



### TPRS-50

Denier : 3000 - 16000  
Application : Carpet Yarn , FIBC Thread  
Fishnet, Industrial Thread, Cotton Twines  
Popular : 1000/3, 2000/3, 3000/3, 4000/3

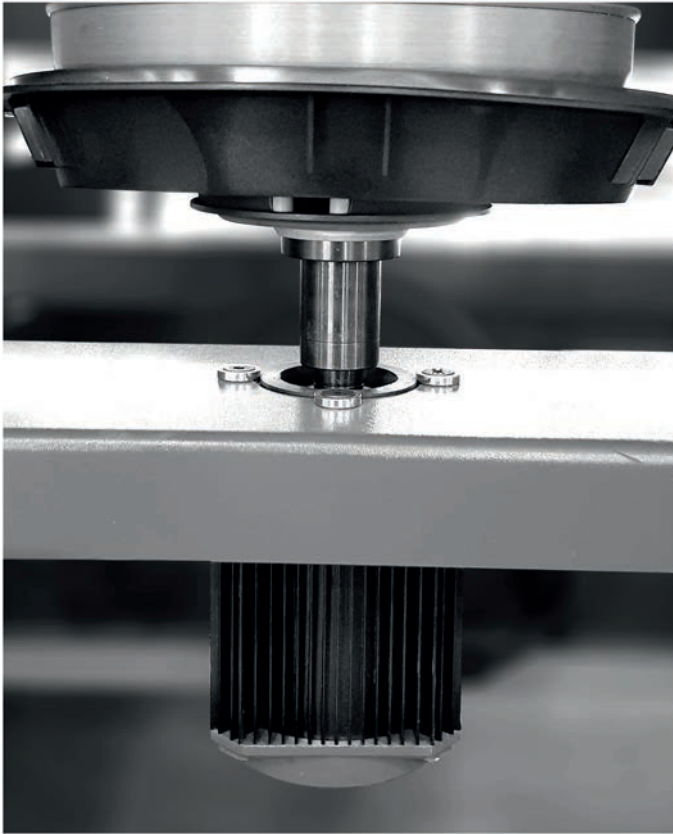
### TPRS-19

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 : Fishnet, Carpet Yarn,  
Industrial Thread, PP Closing Thread  
Popular : 840/2, 840/3, 1200/3, 1500/3

# 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 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.

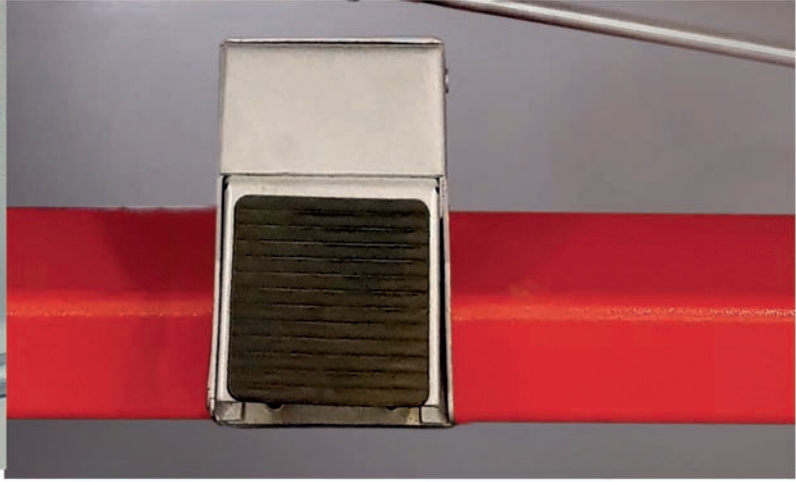
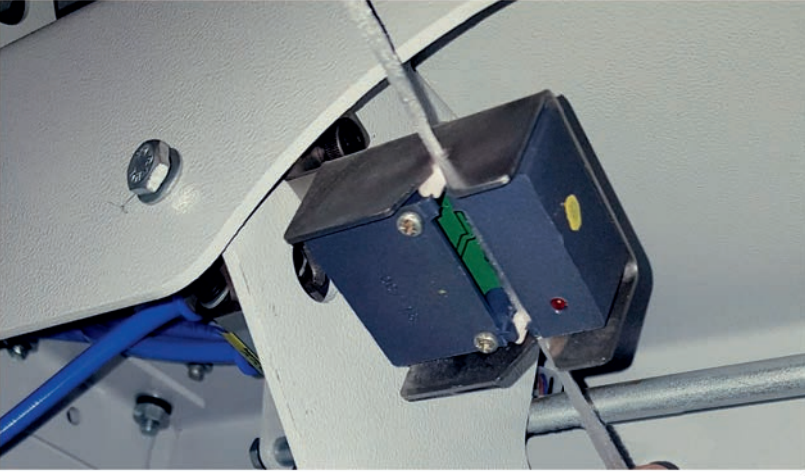


## EASY TO OPERATE BUTTONS

Easy to operate Buttons on the face of machine.

- Start button
- Stop button
- EMERGENCY STOP mushroom button
- S/Z Twist Switchover Button





## 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 stop signal with auto package lift off are activated.

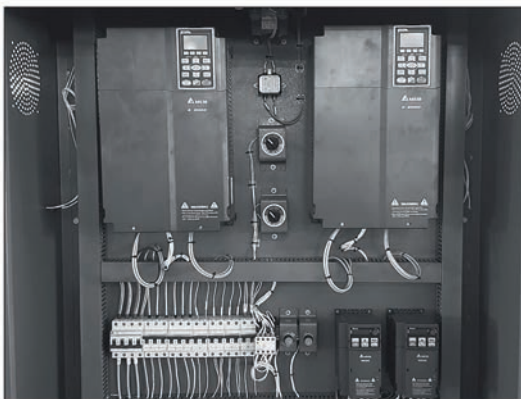
This prevents rubbing on the wound yarn surface and safeguards the original quality of the yarn

## 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. (Secondary Threading Only)

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



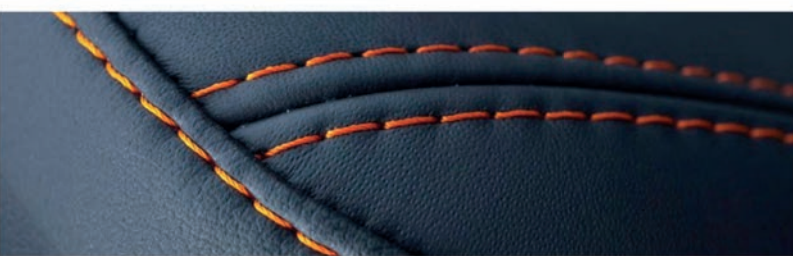
## FULLY INVERTER CONTROL DRIVE

Fully Inverter Control Drive generates yarn take-up speeds upto 6000 rpm and delivery speeds of up to 80 m/min.



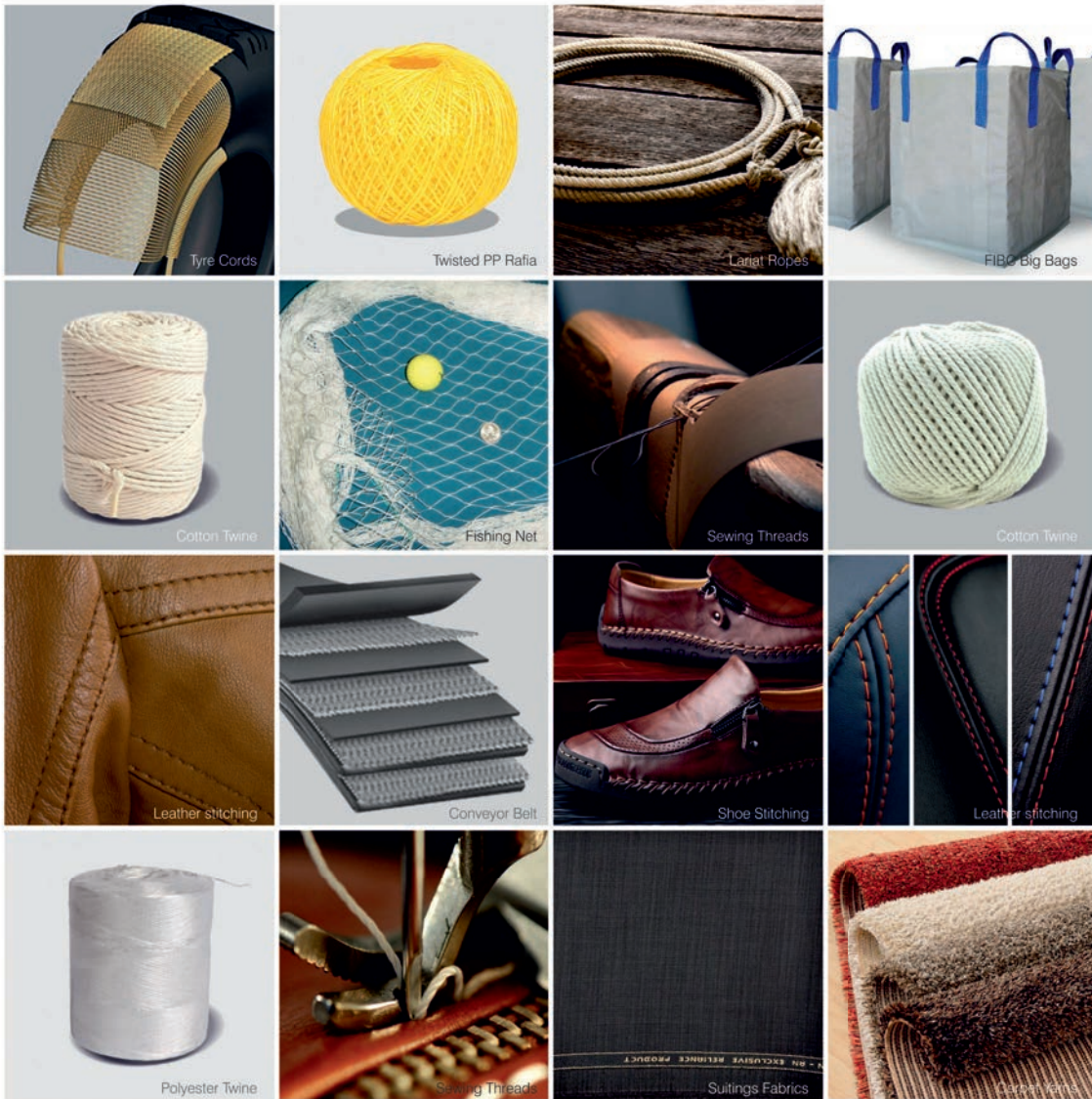
## HEAVY CRADLE DESIGN

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.





# SUITABLE APPLICATIONS FOR TPRS



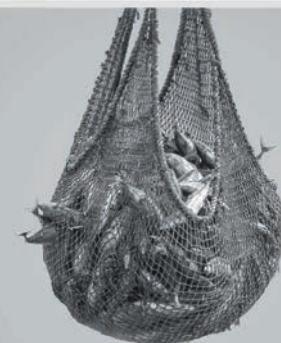
## Process Comparison of Manufacturing S/Z Yarn Old Method vS TPRS Technology Method

<b>TRADITIONAL</b>	PACKAGE FROM SPINNING ARE REWINDED SO THAT THEY CAN BE FED IN TO PRIMARY TWISTER	→	REWINDER	→	PRIMARY TWISTER	→	SECONDARY TWISTER	<b>3 STEP</b>
<b>TPRS</b>	PACKAGE FROM SPINNING ARE REWINDED AND ARE FED IN TPRS TWISTER	→	REWINDER	→	TPRS TWISTER FOR FINE DENIER			<b>2 STEP</b>
<b>TPRS</b>	PACKAGE FROM SPINNING ARE DIRECTLY FED IN TO TPRS TWISTER	→	TPRS TWISTER FOR COURSE DENIER					<b>1 STEP</b>

## Suitable For MULTI FILAMENT YARN

Polyester (PES)  
Nylon (PA)  
Polypropylene (PP)  
Recycled Polyester (PET)

## COTTON TWINE



# Technical Data.

MODEL NO	TPRS-19	TPRS-25	TPRS-50
<b>Measurement</b>			
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	2830
Spindle 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
<b>Input / Feed Package / Spindle</b>			
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	135	200
Feed Package Wt	1 Kg	1.6 Kg	4 Kg
<b>Takeup Package</b>			
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
<b>Spindle Driving</b>			
Take-Up Drive	Common	Common	Individual
Spindle Drive	Tangential	Individual	Individual

## 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	7700	9500	11300	13100	14900	18500	22100





## 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.



# MEERA

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