

TECHNICAL SPECIFICATIONS

WHY WEAVETECH ? ...



UniTwist - UT2	
SPINDLES	
Guage	520mm / 670mm / 830mm
Spindle Size	Motorised Spindle Dia 200mm, 230mm, 270mm, 300mm, 330mm
Yarn Range	Twisting: 300-9000dn ; Direct-Cabling: 600-12000dn
Twist Range	50TPM - 600TPM
Spindle Speed (Range)	4000 - 9000 RPM depending on Yarn & Spindle size
Feed Package Type	Cheese / Flanged Bobbin
Feed Package Weight (max.)	Ø200mm/5kgs , Ø230mm/7kgs , Ø270mm/9kgs , Ø300mm/12kgs
Feed Tensioner Type	Ball-Ceramic OR Double-Capsule
Spindle Covers	Top & Bottom cover for separating inner & outer balloon
TAKE-UP	
Overfeed Type	Capstan Type Roller System for constant Winding Tension
Take-Up Tube / Traverse Stroke Length	290 / 255
Traverse GB System	Cheese with Edge-Breaking System
Cradle System	Die-Cast Cradle with Damping & Pneumatic AutoLifting System (opt)
Max. Package Diameter / Weight	330 mm / 12000 gms
Max. Operating Speed	400 mtrs/min
DIRECT-CABLING (optional)	
Tensioner System	Creel: Capsule Type; Spindle: Magnetic Hysteresis Brake
Threading System	Pneumatic Air-Threading System for Creel Yarn
Creel Type	Hi-Lo Magazine Creel with Dual Spring for ease of use
Ply Detection	Tension Sensor detects missing ply to stop spindle & lift cradle
DRIVE SYSTEM	
Spindle Drive	Individual Motor with Start/Stop & Individual Speed Control
Take-Up Drive	Individual Motor for TakeUp CAM Gearbox with Overfeed
Traverse Drive	Individual Motor for Traverse with programmable Ratio
RPM & TPM Control	Each Position can be programmed Individually for RPM/TPM
Winding Angle	Winding Angle can be programmed with Anti-Patterning

* Note: Product Technical Specifications May Change Without Prior Notice. Verify before ordering.

DIMENSIONS / POWER DATA (UT2)									
Number of Spindles	24	32	40	48	56	64	72	80	[nr]
Power* Connected	24	32	40	48	56	64	72	80	[kW]
Machine Length	8.60	10.80	13.00	15.20	17.40	19.60	21.80	24.00	[mtrs]
Machine Width/Height	Width: 1600mm, Height: 1800 at Take-up & 3000 max.								[mm]

* Note: Connected Power Suggested at Avg. Denier & 85% Process Speed. Consumption may differ based on Maximum parameters.
* Note: Suggested Spindle RPM is for lower range deniers. ** Not Recommended, Should consult before ordering.

Yarn speed
(mtrs/min)

=

2 x Spindle RPM

TPM

Doff time
(minutes)

=

9000 x Feed Wgt in gms

Denier x Yarn Speed in mtrs/min

Max. Production
(gsm/day/spinder)

=

0.32 x Spindle RPM x Denier

TPM

Whatever your **Twisting** or **Weaving** needs be,
Weavetech has a solution.

Since 1985, **Weavetech** (formerly **Alidhra**) has been at the forefront of bringing world-class technologies within the reach of Indian Textile Industry, by encouraging an indigenous development with best-in-industry human resources & engineering infrastructure. It is the same passion that continues today ensuring Weavetech’s position within the top of the textile engineering industry having top-of-the-industry Clientele.

Regardless if your company is big or small, **Weavetech** understands that a new machine investment can make a world of difference to your business. The potential source of higher profitability, improved quality & dependable reliability will become just - **if the correct machinery is selected**. Development of **Weavetech**’s Machineries has been guided by the needs of customers to extract optimum value from their limited investments in Land, Manpower & Capital, ensuring easiest and fastest absorption of technology without straining their available resources and time.

Weavetech’s Machineries are the right step towards **getting more & getting better** value.

PRODUCT RANGE

Rapier Looms | WaterJet Looms | AirJet Looms | TFO Twisters | Thread / Doubler TFO
Carpet Cablers | Industrial TFO | Dye Package Winders | Assembly Winders

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UniTwist UT2

Universal Twister + Cabler
(for Technical / Industrial Multi-Ply Yarns)



UniTwist UT2

Universal Twister for Technical / Multi-Ply / Direct-Cabled Yarns

Weavetech's **UniTwist UT2** Universal Twister sets a new benchmark in versatile production setup of Twisted or Cabled High-Tenacity Yarns Technical / Industrial yarns. The modular frame structure enables the user to switch from Twisting to Cabling with ease. The wide range of spindles ensures optimum solution for all applications for coarse yarns. Large Feed & TakeUp packages of upto 12 Kgs ensure optimum efficiencies in downstream processes where heavy deniers are used.

UniTwist UT2 has individual spindle control which allows **each & every spindle to run with different yarns at different speeds with different twists**. This allows quick response to market demands without compromising on plant efficiency or productivity.

Weavetech's **UniTwist UT2** Universal Twister makes an attractive investment offering a long term value with its high versatile setup over the lifetime of the machine.

UniTwist UT2 is ideal for:

- Extremely small lot production upto 1 spindle.
- Upto 12 Kgs knotless packages for downstream processes
- Direct Assembling & Twisting upto 4-Ply yarns.
- Process 600-9000 denier at 50-600 TPM.
- Up to 400 mtrs/min take-up delivery speeds.
- Quick turnaround times for wide range of Twisted yarns.

QUALITY OF YARN & PACKAGE

Precision Cradles with Vibration Dampening

Introducing with **UniTwist UT2**, a Pneumatic pressure system on cradle comes standard with every position. Heavy Duty Aluminum Die-Cast Cradle provides the sturdiness required to produce sharp packages.

- + Precision Machined cradle provides accurate positioning during lifting, thus reducing step-formation during knotting or breakages.
- + Pneumatic Pressure system with Dampening ensures lowest stitches by absorbing micro-vibrations caused during operation.

PosiFEED System

With **UniTwist UT2**, a new front-loading PosiFEED system makes it more user-friendly to use. PosiFEED ensures minimal winding tension variations by eliminating any tension spikes due to the unwinding of feed packages. It also reduces winding tension to maintain strict yarn tenacity requirements. The system is important for producing a quality takeup package.

Package Build

Modern **UniTwist UT2** with programmable Traverse & TakeUp ensures unsurpassed quality of twisting takeup packages. + Fine tuning of crossing angle, Modulation & Patterning can be programmed throughout the package on Individual positions with **programmable traverse**. + Length Monitoring system ensures equal length packages with minimal variations possible with **programmable takeup**. + Upto 20% more weight can be accommodated thanks to above systems allowing much higher takeup package densities.

PRODUCTIVITY

Independent Motorized Positions

Introducing with **UniTwist Ut2** - its Individual position control per spindle for all parameters makes it possible to run different yarns at the same time. This extracts maximum utilization of available machine hours thus bringing productivity to the maximum.

- + Each position is independent of others with its own control.
- + Each position can be programmed to run at different RPM & TPM.
- + Any position under maintenance will not affect other positions.

High Speed Spindles & TakeUp

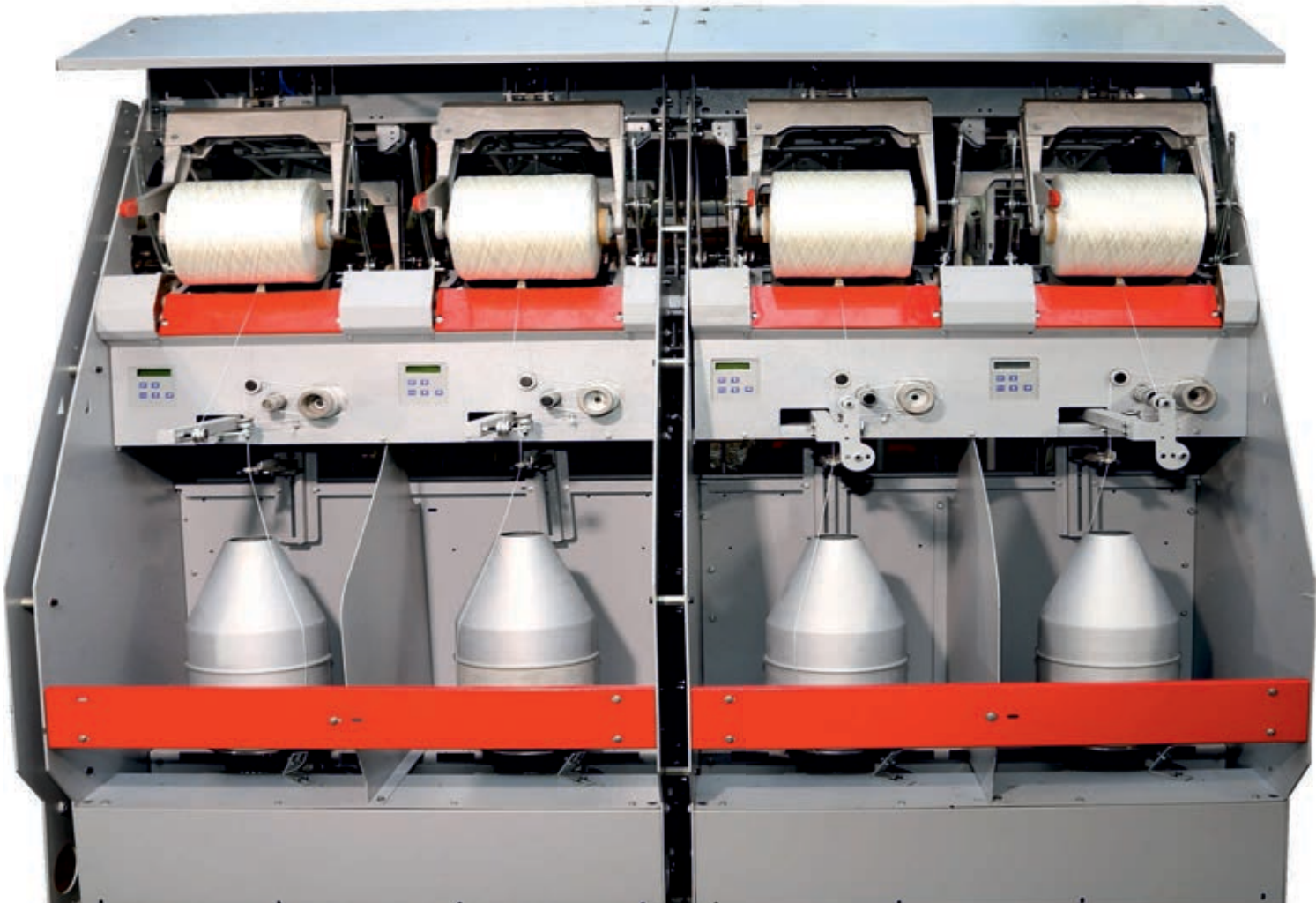
Motorized spindles of **UniTwist UT2** with speeds upto 9000 RPM & TakeUp upto 400 mtrs/min allows processing of heavy deniers at high speeds, not possible earlier with mechanical belt drive systems,

- + Spindle designed to maximize feed package weight without the increase in energy costs.
- + Precision Motors controls RPM variations within close tolerances of +/- 0.5%
- + TakeUp motors can achieve speeds of upto 400 mtrs/min.
- + Individual control system ensure optimum start/stop synchronisation..

Large Knotless Packages

Large knotless packages extract maximum productivity & efficiency for downstream processes by allowing longer run times & providing better labour efficiency

- + Spindle designed to maximize feed package weight without increase in energy costs
- + Sturdy design ensures maintenance free operations for package weight upto 12 Kgs



TECHNOLOGY & FLEXIBILITY

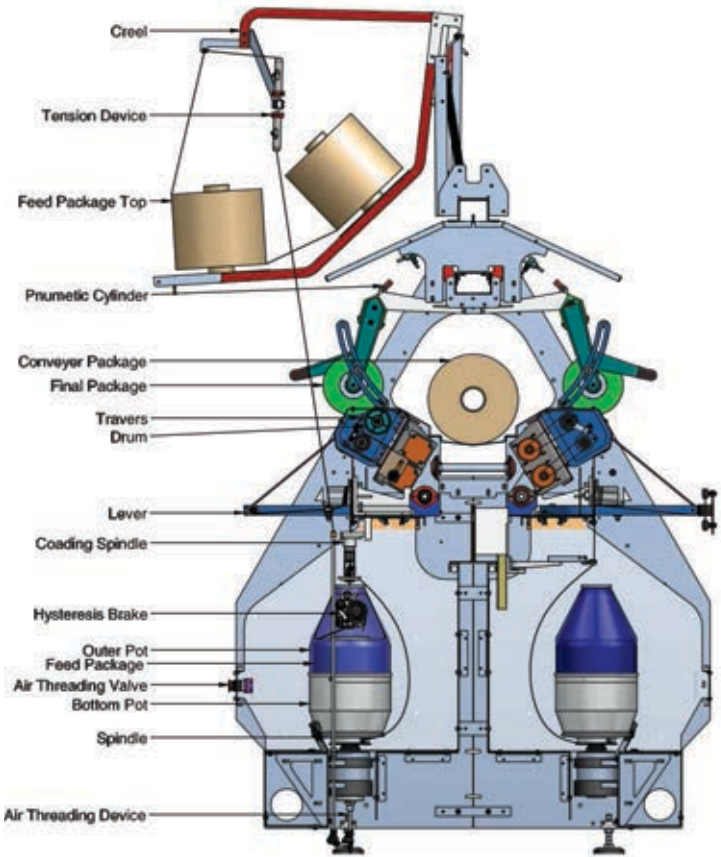
Multi-Ply Assembly Package (Optional)

UniTwist UT2, provides a device & software to allow producing ply + cable twisted packages on the same machine without any downtime.

- + Upto 4-ply can be Individually Twisted & Assembled on the same machine.
- + In case of any ply brake/missing, all ply spindles will stop automatically.
- + Programmed length can ensure production of smaller packages.
- + Same spindle is used for Primary & Secondary Twists to produce Multi-Ply Cabled packages of upto 12000 denier.

Conveyor Belt (Optional)

Minimizing labour fatigue can lead to maximizing productivity. To achieve this, **UniTwist UT2** comes with conveyor system to transport large & heavy packages from Spindle positions to the collection point at one end of the machine.



weavetech[®]
— The best is here —

Pneumatic Pressurized Cradle w/ Auto Lifting

High pressure cradles ensure dense TakeUp packages providing maximum weight in minimum volume. Mechanical spring based systems cannot assure constant pressure on the packages. **UniTwist UT2** provides pneumatic pressure systems on each cradle.

- + Constant Pressure can be applied throughout the package.
- + High Pressure ensures zero-slippage of TakeUp tubes during starting of the position.
- + During Doffing, heavy packages can be lifted with the touch of a button.

Direct-Cabling Attachment (Optional)

Versatile **UniTwist UT2** is also available with Direct-Cabling attachment to produce 2-ply Tyre Cord & similar yarns.

- + **Hysteresis Regulator** ensures consistent & even unwinding tension.
- + **Cord Regulator** ensures Even-Length Cabling of both the Feed Yarn for precise application requirements like Tyre Cords
- + **Hi-Lo Creel** provides easy loading of feed & reserve packages.

