

STR-series

For High Bulk Stretch Yarn Twisting, Heat-Setting & Stabilizing.

Weavetech's **STR-series** Filament TFOs with Heat-Set are designed for continuous Twisting / Heat-Setting (Stabilizing) of Polyamide & Polyester Stretch Yarns wound on very soft cheese packages for Direct-Dyeing.

The range of shrinkage inside the heater, depending on yarn properties is controlled by slippage-free positive overfeeding system with aprons.

Weavetech's **STR-series** eliminates need for separate twisting & Heat-Setting, saving operating costs & time.

STR-series TFO with Heat-Set is ideal for:

- Processing shrinkage ratio of 15% to 55%.
- Increasing Yarn Softness & Bulkiness (stretch effect).
- Twisting, Setting & Stabilizing Yarn Elasticity.
- Increasing Final Denier for further use.



Highlights

- **Twisting, Shrinking, Setting & Stabilizing in single-process** for high-efficiency production compared to traditional labour-intensive & capital-intensive methods.
- Energy-Efficient technology with extremely low working & operating costs.
- High operating speeds of up to 250 m/min allows better operating profitability.
- Aluminum Cradle with low-center of gravity design provides optimum Dampening & Auto-Pressure adjustment system for precise package built at high speeds.
- Positive Overfeed at entry & exit of heater ensures slippage-free feeding of yarn into the heater, thus allowing consistent results from position-to-position.
- Energy-Efficient Electric Heater System with 2-Zone Sensing ensures temperature consistency while allowing easy on-site maintenance.
- High-Speed Individual CAM traverse gearbox allows higher CPMs for larger crossing angles to create soft-packages directly for dyeing.
- Abrasion free yarn path ensures optimum yarn handling while maintaining Yarn tenacity for consistent results from position to position.
- Advance PLC control allows RPM, TPM, Shrinkage & Heater control from one screen.
- PC-Link connectivity enables remote support for troubleshooting & maintenance.



Individual CAM Traverse

High Speed Traverse allows yarn speeds of up to 250 m/min. Polished CAM paths allow smooth operation with minimum maintenance. CAM profile ensures package excellent built-quality.



Individual Foot Break

Each spindle position is given an operator friendly Foot-Break to enable faster threading / doffing of large packages by allowing operator to keep both his hands free while maintaining safety.



Direct Soft-Package

Advance Cradle design with low Center-of-Gravity provides package stability at high speeds while constant-pressure design ensures even & consistent pressure throughout the package.



Electronic Drive & PC interface

High-Advanced PLC allows setup of RPM, TPM, Heater Temperature & Shrinkage Ratio on touch-screen. Memory card allows you store parameter sets. Internet access for remote support is standard.

$$\text{Yarn Speed (mtrs/min)} = \frac{2 \times \text{Spindle RPM}}{\text{TPM}}$$

$$\text{Doff Time (minutes)} = \frac{9000 \times \text{Feed Wgt in gms}}{\text{Denier} \times \text{Yarn Speed in mtrs/min}}$$

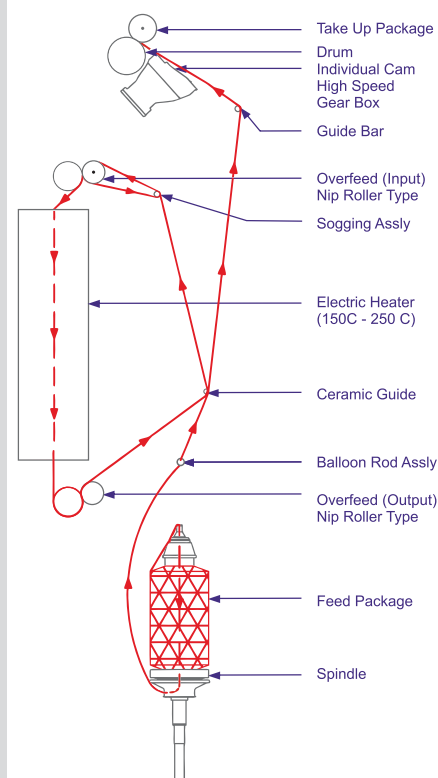
$$\text{Max. Production (gms/day/spindle)} = \frac{0.32 \times \text{Spindle RPM} \times \text{Denier}}{\text{TPM}}$$

STR-series

	STR-280	STR-340	
SPINDLES			
Guage	281	337	[mm]
Yarn Type	High Bulk / High Crimp Yarns		
Spindle Type	150PT	200PT	
Yarn Range	50/2 - 400/2	110/2 - 400/2	[Denier]
Twist Range	50-800	50-800	[TPM]
Spindle Speed (Process / Max)	7000-8000 / 9000	6000-7000 / 8000	[rpm]
Feed Package Type	Bobbin of Stretch Yarn	Bobbin of Stretch Yarn	
Feed Package Length /Dia	290 / 140 (max)	290 / 190 (max)	[mm]
Feed Pacakage Weight (max.)	2500 gms	5000 gms	[gms]
Feed Tensioner Type	Ball-Ceramic	Ball-Ceramic	
Spindle Break	Individual Foot-Break per Spindle		
HEATER & OVERFEED			
First & Second Overfeed Type	Apron-Roller Type with Hinge for easy engage & disengage		[mm]
Heater Length & Type	600mm , Electric Induction Type with Centralized Control		
Temperature Range	150°C to 250°C Centrally MicroProcessor Controlled		
Installed Power per Heater	0.75 hp		
TAKE-UP			
Take-Up Tube / Traverse Length	230mm Tube / 200mm Stroke		[mm]
Traverse GB System	Cheese, Individual CAM with Edge-Breaking & Anti-Patterning		
Cradle System	Sturdy Cradle with Damping & Auto-Pressure adjustment		
Max. Weight on Take-Up	2500 gms or upto 225mm diameter		
Max. Mechanical Speed	Traverse Speed: 250 CPM ; Yarn Speed: 250 mtrs/min		
CONTROL SYSTEM			
Spindle RPM	RPM - Electronically Settable Centralized with AC Motor		
Twists (TPM)	TPM - Electronically Settable Centralized with AC Motor		
Overfeed Ratios	Electronically Settable Centralized with AC Motor		
OPTIONS			
+ Overhead Creel	+ Anti-Balloon Rings	+ Yarn Sensor / Detector	
+ 2 or 6 Stroke Traverse Cam	+ Spindle Package Container	+ Online UPS Battery Backup	
* Note: Technical Specifications May Change Without Prior Notice. It is recommended to verify the important specs before placing order.			

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Yarn Path



DIMENSIONS / POWER DATA (STR-230 / STR-340)

Number of Sections	8	9	10	11	12	13	[nr]
Number of Spindles	96 / 80	108 / 90	120 / 100	132 / 110	144 / 120	156 / 130	[nr]
Connected Power* (Spindle)	12.5	12.5	15	15	20	20	[hp]
Connected Power* (Take-Up)	2	2	4	4	4	4	[hp]
Connected Power* (Overfeed)	2	2	2	2	2	2	[hp]
Connected Power* (Heater)	6	6.75	7.5	8.25	9	9.75	[hp]
Connected Power* (Total)	22.5	23.25	28.5	29.25	35	35.75	[hp]
Machine Length	15.30	17.02	18.74	20.46	22.18	23.90	[mtrs]
Machine Width / Height @ TU)	900mm / 1950mm at Take-Up						[mtrs]

Contact

Manufactured by:

WEAVETECH ENGINEERS

Survey 122/1, Vaghdhara Village Road,
U.T of DNH, Silvassa - 396191 (INDIA).
Ph : (0260) 2664444;
eM : wte@alidhra.com

For Sales & Service Contact:

ALIDHRA WEAVETECH PVT. LTD.

Plot 195, Rd 3-F, New Estate,
Udyognagar Udhna, Surat, GJ - 394210
Ph : (0261) 3070707; 3070700; Wb : www.alidhra.com
eM : sales@alidhra.com; info@alidhra.com;

Surat Ph : (0) 98792-03019 ; eM : sales@alidhra.com
Mumbai Ph : (0) 93223-12703 ; eM : mumbai@alidhra.com
Delhi Ph : (0) 99907-12131 ; eM : delhi@alidhra.com
Bangalore Ph : (0) 94481-90092 ; eM :blr@alidhra.com
Coimbatore Ph : (0) 95975-84555 ; eM : cmb@alidhra.com