

R-series

TFO Twister for Low Twist of large DTY / FDY Packages

Weavetech's **R-series** Filament TFO Twister with large spindles allows the economic production of Low Twist Filament Yarns for large knotless packages with longer doff times & higher yarn speeds for higher efficiency.

The large spindles allow direct feeding of DTY/FDY packages thus eliminating the whole process of re-winding & reducing the labour cost involved. This makes Weavetech's **R-series** TFO Twisters an attractive option for investors offering a long term value investment.

R-series TFO is ideal for:

- Low twist of continuous Filament yarns.
- Direct feeding of large DTY/FDY packages.
- Larger Knotless packages.
- Max. productivity & efficiency for higher ROI



Highlights

- Direct feeding of Large DTY / FDY packages of upto 250mm dia for larger knotless packages with longer yarn lengths.
- Individual Tapering for critical ribbon yarns offer uniform density packages while allowing random doffing with step-less taper on all the packages.
- Tangential Belt Drive System offers excellent power saving & ensures consistent twists over longer machine lengths while reducing annual maintenance costs.
- Sturdy Cradle with Dampening & Auto-Pressure adjustment system for precise package built.
- Versatile Cradle & Traverse Gearbox system designed to accommodate 230mm as well as 290mm Parallel Tubes for higher flexibility to meet sudden market changes.
- Individual Oil-Roller System controlled centrally for precise oil application on yarn.
- Overfeed ratio centrally adjustable offers precise control of required density.
- Complete SS & ceramic yarn path ensures delicate handling of yarn.
- 'Cell' like structure covers yarn balloon from 3 side reducing air turbulence & energy.
- Individual Foot-Brake ensures fast doffing & reduces operator fatigue thus extracting maximum labor productivity & higher efficiency.
- Oil Bath Gearbox for life-time trouble free operation with lowest maintenance.
- Electronic Drive end offers easy fast RPM & TPM setups (Optional).



Individual Tapering

System ensures uniform density throughout the package while allowing random doffing with provision for 4 BiConical angles for final package resulting in optimum package 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.



Large 8 kg Take-Up

Advance Cradle design allows high density package buildup of upto 11 kg. Thus allowing medium to heavy denier yarns to be twisted by directly feeding the FDY packages for large knotless packages.



High-Speed Gearbox (oil bath)

Continous oil-circulation & Sturdy design allows high traverse CPM for high yarn speeds. All Adjustable features are conveniently located for ease of use.

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

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

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

R-series

	R-6	R-5	R-4	
SPINDLES				
Guage	275	330	412	[mm]
Spindle Type	150PT	200PT	250PT	
Yarn Range	80 - 1800	150 - 2400	150 - 3000	[Denier]
Twist Range	30 - 1500	30 - 1000	30 - 1000	[TPM]
Spindle Speed (Process / Max)	9000 / 11000	6000 / 8000	5000 / 7000	[rpm]
Feed Package Type	Cheese	Cheese	Cheese	
Feed Package Length / Diameter	290 / 145 (max)	290 / 195 (max)	290 / 245 (max)	[mm]
Feed Package Weight (max.)	3000	5000	8000	[gms]
Feed Tensioner Type	Ball-Ceramic	Ball-Ceramic	Ball-Ceramic	
Spindle Outer Pot + Cover	(Optional)	(Optional)	(Optional)	
Balloon Limiter / AB Rings	-NA-	(Optional)	(Optional)	
Spindle Separators	Cell-Structure	Cell-Structure	Cell-Structure	
Spindle Break	Individual Foot Break	Individual Foot Break	Individual Foot Break	
TAKE-UP				
Individual Length Counter & Cutter	(optional)	(optional)	(optional)	
Take-Up Tube Dimens. (Length)	230	230	230 / 290	[mm]
Traverse GB System	Cheese / Bi-Conical	Cheese / Bi-Conical	Cheese / Bi-Conical	
Traverse Type	Individual Tapering	Individual Tapering	Individual Tapering	
Anti-Patterning System	Yes	Yes	Yes	
Edge-Breaking System	Yes	Yes	Yes	
Cradle System	Steel Cradle	Steel Cradle	Steel Cradle	
Damping System	Yes	Yes	Yes	
Auto-Pressure Adjustment	Yes	Yes	Yes	
Yarn Oiling Device	(optional)	(optional)	(optional)	
Traverse Stroke Length (max.)	195	195	195 / 255	[mm]
Max. Package Diameter / Weight	250 mm / 6000 gms	250 mm / 5000 gms	250 mm / 8000 gms	
Max. Traverse Speed	120 cycles/min	120 cycles/min	120 cycles/min	[CPM]
Max. Mechanical Speed	120 m/min	120 m/min	120 m/min	[m/min]
FRAME				
Overhead Creel	Standard	Standard	Standard	
Max. No. of Spindles	156	130	104	[nr]
Max. Machine Length	23.15	23.15	23.15	[mtrs]
Machine Width / Height / Height@TU	1000 / 1750 / 1500	1000 / 1750 / 1500	1000 / 1750 / 1500	[mm]
CONTROL SYSTEM				
Mechanical Drive End System	Standard	Standard	Standard	
VF Drive for Main Motor	(optional)	(optional)	(optional)	
Electronic Drive End System	Dual-Drive (optional)	Dual-Drive (optional)	Dual-Drive (optional)	

* Note: Product Technical Specifications May Change Without Prior Notice. It is recommended to verify the important specs before placing order.

DIMENSIONS / POWER DATA (R6 / R5 / R4)

	8	9	10	11	12	13	
Number of Sections	8	9	10	11	12	13	[nr]
Number of Spindles	96 / 80 / 64	108 / 90 / 72	120 / 100 / 80	132 / 110 / 88	144 / 120 / 96	156 / 130 / 104	[nr]
Connected Power* (Total)	15 / 20 / 20	15 / 20 / 20	15 / 20 / 25	20 / 25 / 25	20 / 25 / 30	25 / 30 / 30	[hp]
Machine Length	14.90	16.55	18.20	19.85	21.50	23.15	[mtrs]
	48' 11"	54' 4"	59' 9"	65' 2"	70' 7"	75' 9"	[ft]

* Note: Connected Power Suggested at Avg. Denier & 85% Process Speed. Connected Power may differ based on Maximum parameters.

* Note: for yarns of 2000+ denier, the Spindle RPM will have to be decreased.

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