

Draw Texturing Machine



Advanced Technology False-Twisting

ATF-15

tmt TMT MACHINERY, INC.

6th Fl., Osaka Green Bldg., 2-6-26, Kitahama, Chuo-ku, Osaka 541-0041, JAPAN
Phone:+81-(0)6-6204-8370 Facsimile:+81-(0)6-6204-8371 URL:<http://www.tmt-mc.jp>

Global Marketing & Customer Support Network

TMT MACHINERY, INC. SHANGHAI OFFICE

Rm. 1812, Shanghai International
Trade Center, 2200, Yan-An Road (West),
Shanghai, 200335, CHINA
Phone:+86-(0)21-6219-6936
Facsimile:+86-(0)21-6219-6934

MURATA MACHINERY (SHANGHAI) CO., LTD.

150 Xin Gao Rd., Qingpu Industrial Zone,
Shanghai, 201700, CHINA
Phone:+86-(0)21-6921-2300
Facsimile:+86-(0)21-6921-2311

MURATA MACHINERY TAIWAN CO., LTD.

10th Floor, China Building, 38, Sec.2,
Nanking East Road, Taipei, TAIWAN
Phone:+886-(0)2-2523-9105
Facsimile:+886-(0)2-2523-9107

TEK KOREA CO., LTD. GUMI BRANCH

442-2, Songjung-Dong, Gumi,
Kyungsangbuk-Do, 730090, KOREA
Phone:+82-(0)54-453-5753, 5754
Facsimile:+82-(0)54-453-5755

KIWOONG SUNGUP CO., LTD. TAEGU OFFICE

Bumu Tower Bldg.1001, 45-4,
Bumu-Dong, Suseong-Gu, Taegu,
706721, KOREA
Phone:+82-(0)53-745-0217
Facsimile:+82-(0)53-745-0219

INDITECH INTERNATIONAL

F-302, Remi Bizcourt, Opp.
Supreme Industries, Off Veera Desai Rd.,
Andheri(W), Mumbai 400053, INDIA
Phone:+91-(0)22-2673-6246/47/48
Facsimile:+91-(0)22-673-2016

MURATA MACHINERY EUROPE GMBH

Hanns-Martin-Schleyer-Strasse 3,
D-47877, Willich, GERMANY
Phone:+49-(0)2154-914-0
Facsimile:+49-(0)2154-914-188

TEXMAC EUROPE S.P.A

Via Amicizia, 8 int. 13, 20025
Legnano(Mi), ITALY
Phone:+39-0331-542-600
Facsimile:+39-0331-546-259

MURATA MACHINERY, LTD. TURKEY LIAISON OFFICE

Barbaros Bulvarı, Eser Apt. 48/11
Balmumcu 80700, Istanbul, TURKEY
Phone:+90-(0)212-288-9123
Facsimile:+90-(0)212-288-9147

TEXMAC INC.

3001 Stafford Drive (28208) P.O.
Box 668128 Charlotte, N.C.
282668128, U.S.A.
Phone:+1-704-393-6585
Facsimile:+1-704-392-1621

MURATA MACHINERY USA, INC. TEXTILE MACHINERY DIV.

2120 I-85 South, P.O.Box 667609,
Charlotte, N.C. 282667609, U.S.A.
Phone:+1-704-394-8331
Facsimile:+1-704-392-6541

MURATA DO BRASIL INDUSTRIA E COMERCIO LTDA.

Estrada de Santa Izabel, 3383-KM 38,5,
Itaquaquecetuba-SP-CEP 08599000,
BRASIL
Phone:+55-(0)11-4648-6222
Facsimile:+55-(0)11-4648-6737

Due to continuous product improvement, specifications are subject to change without notice.

CAT. NO. TMT-21DT02 03-11-01

tmt

TMT MACHINERY, INC.

TMT Machinery Presents

Advanced Technology False-Twisting

ATF-15

The TMT's ATF-15 is a high-speed draw-texturing machine that meets the high-speed pressing demands of regular and highly functional yarns. The ATF-15 is equipped with V-shape yarn paths and equipped with IAD (Individual Automatic Doffer). The V-shape yarn paths with a high temperature short heater speeds up regular yarn texturing as well as fine denier and micro filament texturing. You can choose the false-twisting system on your demands, the Nip System or the Friction System. This is possible only by TMT Machinery that unified the capabilities of three major Japanese synthetic textile machinery supplier, Toray Engineering, Murata Machinery, and Teijin Seiki. The ATF-15 is the crystallization of expertise cultivated over many years of achievement by these companies.



The Advantages of ATF-15

A Selectable the NIP twister or the FRICTION twister for your demands

You can select the NIP twister or FRICTION twister for the false-twisting system on your demands.



B Advanced quality assurance control system for producing even higher quality yarn

For NIP twister, Tension Control System (TCS) can be equipped, and for FRICTION twister, the Tension Monitoring System (TMS) can be equipped for quality assurance system.

These systems simultaneously check the yarn for defects, allowing data useful for quality control to be obtained. This results in a great improvement of package quality such as;

- 1) Uniform winding density and diameter
- 2) Reduction in broken filament and tight spot yarn
- 3) Improved dyeability.

Tension sensor	Measurement range : 5 to 150g Calibration : one-touch method Spindle alarm display lamp attached
Display	Tension alarm displayed for each doff, Waveform display, Grading function, Production efficiency display

C IAD offers excellent stability in high-speed texturing

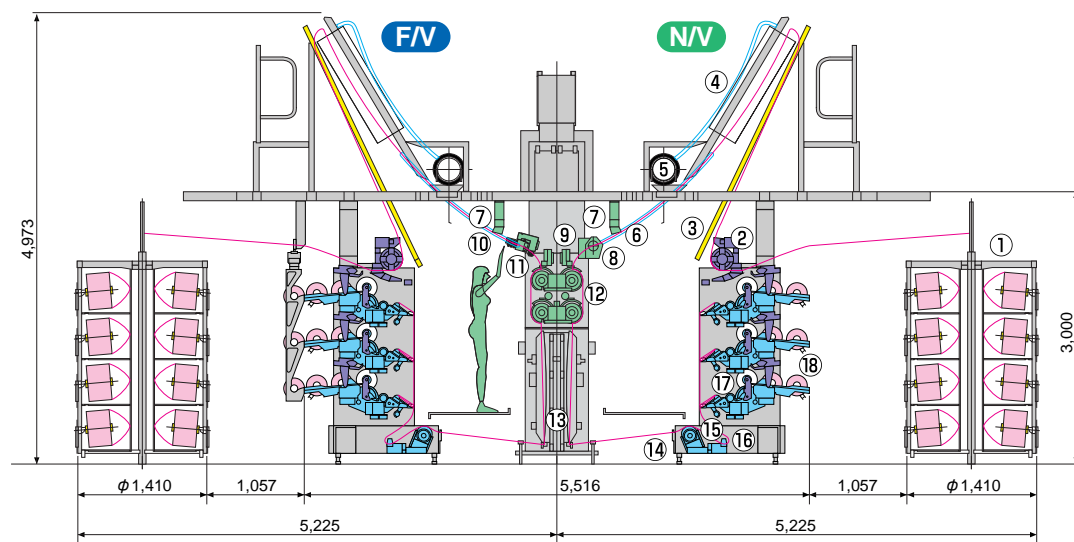
The ATF-15 is equipped with IAD (Individual Automatic Doffer) which can save energy and manpower as well as improve quality and productivity by increasing regularity in metered yarn length and full package ratio.



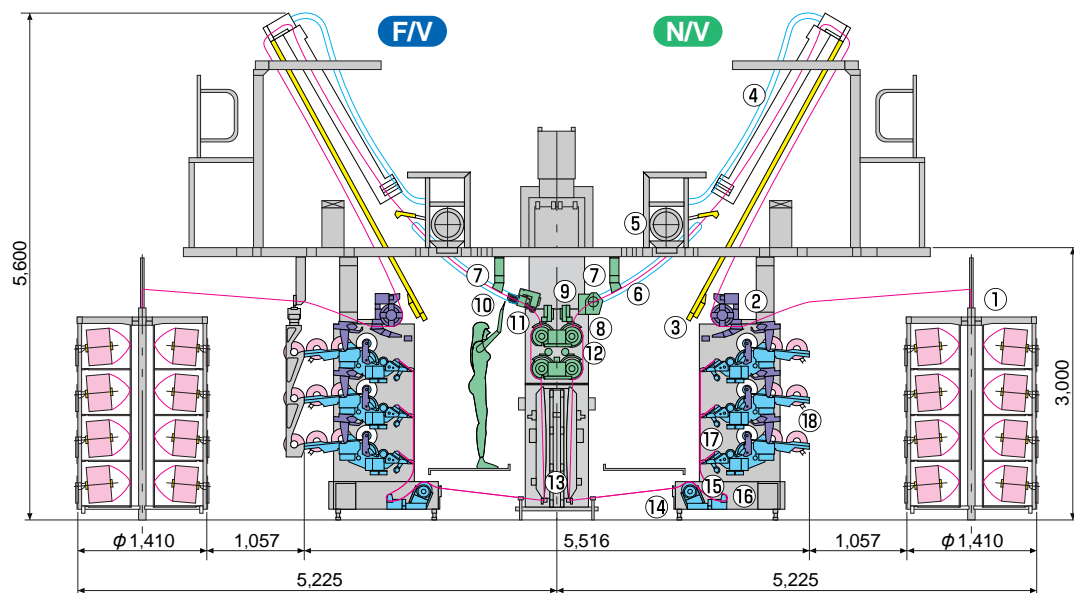
TMT's Advanced Technology
False-Twisting

ATF-15

F/V & N/V (V-1.32)



F/V & N/V (V-2.0)



- | | | |
|---------------------|-----------------------------------|--------------------------|
| ① Supply yarn creel | ⑦ Pre-twister guide | ⑬ Secondary heater |
| ② Yarn cutter | ⑧ NIP twister | ⑭ Third feed roller |
| ③ First feed roller | ⑨ Tension Control System (TCS) | ⑮ Yarn feeler |
| ④ Primary heater | ⑩ Friction twister | ⑯ Oiling roller |
| ⑤ Fume exhaust duct | ⑪ Tension Monitoring System (TMS) | ⑰ Take-up winder |
| ⑥ Cooling plate | ⑫ Second feed roller | ⑱ Individual auto doffer |

Optional Attachments

1. Supply Yarn Creel

Suitable for rotary, stationary and cassette-type creels. Separator plates between each level prevent yarn tangle. Pegs for pirn winding can be attached.

2. TCS for NIP Twister (Tension Control System)

T2 tension can be maintained at a specific level with a unique feedback mechanism. This substantially reduces variations between spindles and time-based fluctuations, achieving high quality yarn processing.

3. TMS for FRICTION Twister (Tension Monitoring System)

For Friction twister, online tension monitors can check & monitor T2 tension continuously in all spindles, and classify quality grade package, count yarn breakage and integrate with machine data, etc. This gives you effective data for package quality control and machine maintenance.

4. Interlace Nozzle

An interlace nozzle can be attached for non sizing yarn, mixed yarn, etc. A pre-interlace nozzle (between FR01 & FR0) or a post-interlace nozzle (between FR02 & H2) can be installed.

5. FR2A

FR2A can be installed above the secondary heater for interlace and doubling processes.

6. SZ Simultaneous Texturing

This is a draw-texturing twister for production of false-twist textured SZ-doubled yarn. It is used for producing high bulkiness, non-torque yarn at high speed.

7. Double Command (Individual settings for R and L sides)

Separate processing conditions can be set for the right and left sides of the machine. This makes it ideal for small-lot, multiple-type production, as two kinds of yarn can be processed simultaneously.

8. Data Supply System

The data supply system feeds machine operating data and TCS or TMS data to the factory host computer.

9. Auto Threading-up Device

Automates yarn threading to the primary heater. Depending on yarn type, shifter guide ascent speed can be adjusted. It also opens and closes the primary heater doors.

Main Specifications

Model	ATF-15	
Number of spindles	Max. 240 spindles (in multiples of 24 spindles)	
Twister	Twisting system	NIP system / FRICTION system
	Twisting direction	All S, all Z / alternate S & Z
Primary heater <Type N/V, F/V - 1.32m>	Composition	2 spindles per block, non-contact type
	Heating system	Thermal radiation heating system (electrical sauce)
	Length of heater	1,320mm
	Temperature range	200°C to 550°C
Primary heater <Type F/V, N/V - 2.0m>	Composition	12 spindles per block, direct-contact type
	Heating system	Sealed vapor phase heating system
	Length of contact yarn section	2,000mm
	Temperature range	160°C to 250°C (Standard) 100°C to 220°C (Low-temperature option)
Secondary heater	Composition	24 spindles per block, non-contact tube-type
	Heating system	Sealed vapor phase heating system
	Length of heater	1,400mm / 1,200mm
	Temperature range	150°C to 230°C (Standard) 100°C to 220°C (Low-temperature option)
Cooling plate	V-channel air suction plate	
Feed rollers	FR1 / FR2 / FR3	Apron belt or rubber roller
Winder	Package shape	Taper-end cheese
	Taper angle	6° / 9° / 15°
	Package size	Diameter 270mm x Width 250mm
		Ribbon breaker (MPCS), package edge controller, vibration damper, contact pressure reducer
Drive end	Individual shaft inverter drive	
Doffer	IAD (Individual Automatic doffer)	
Mechanical speed	Maximum 1,500m/min	

Electrical Power Requirements

	216 spindles	240 spindles
Feed roller motor	7.5 KW x 6	7.5 KW x 6
Winding roller motor	11.0 KW x 2	11.0 KW x 2
Traverse motor	7.5 KW x 2	7.5 KW x 2
Twister motor	30.0 KW x 2	30.0 KW x 2
Primary heater	1.1 KW x 108	1.1 KW x 120
Secondary heater	3.2 KW x 9	3.2 KW x 10
Fume extraction blower motor	7.5 KW x 1	7.5 KW x 1
Yarn suction blower motor	11.0 KW x 2	11.0 KW x 2
AD drive motor	0.2 KW x 2	0.2 KW x 2
Others	2.8 KW x 1	2.8 KW x 1
Total	322.3 KW	338.7 KW

(Note 1) The above data shows the case of type N/V-1.32, single command.

(Note 2) Voltage fluctuation is to be within ±7%
Maximum variation should be less than ±1 Hz at 50/60 Hz.

Floor Plan

