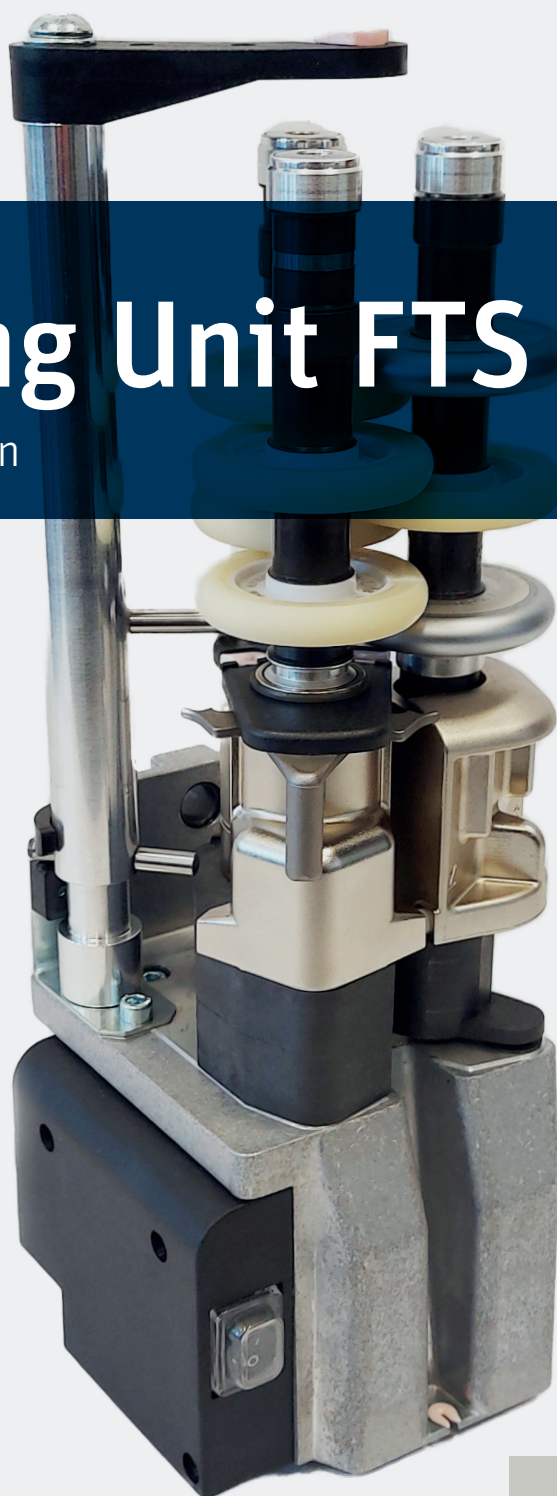


# Texturing Unit FTS

Technical information



Leading in Precision,  
Productivity and Quality

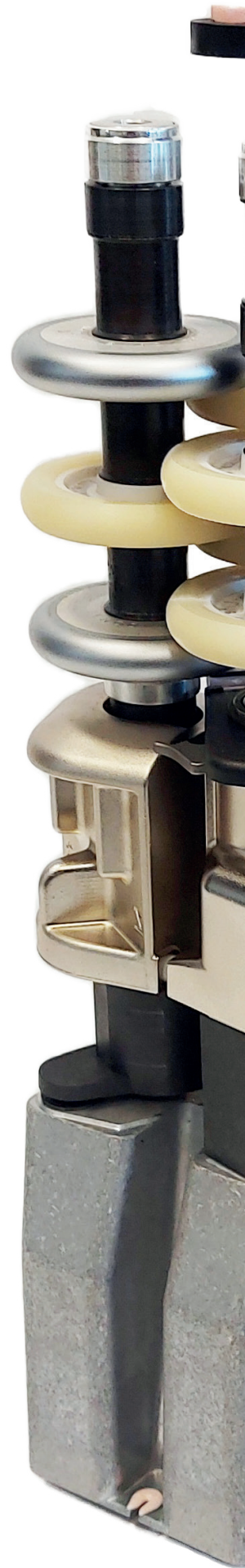
# OUTSTANDING

## ADVANTAGES

# Texturing Units FTS

Open/close system

Low vibration at high  
yarn take-off speeds





Simple and fast changeover  
of S/Z yarn twist directions

Highest process speeds

# Texturing Unit FTS525M Open/Close

## Expertise

The Temco FTS525M is a motor-driven single unit. Due to its pivoting open/close mechanism and the integrated threading device, even critical yarns can be threaded safely and quickly even at the highest process speeds. Yarn tension peaks are significantly lower when threading as opposed to a fixed center unit, resulting in significantly reduced numbers of yarn breaks during threading.

Another significant advantage of this unit series is the simple and fast changeover of S/Z yarn twist directions. Dismantling of the discs and their spacers is not necessary for this changeover. Unit head and motor are in line and connected by means of a coupling without intermediate drive. The bearing shaft diameters of 14.45 mm are highly rigid.

Together with additional damping, this guarantees low vibrations even at high yarn take-off speeds. The careful design ensures an exact fit of the integrated, high-speed bearings and friction discs, which is a prerequisite for high yarn evenness on the machine.

The texturing discs are attached to the LAG bearing shaft via a slide fit and are secured with a spring cap with a defined pressure force. This construction, together with the open design of the units, enables a rapid disc change.

The cover of the toothed belts prevents contamination and ensures a long belt-life.



Texturing unit open



## Open/close System

The design of the open/close unit in particular increases texturing machine efficiencies. The possibility to open the unit significantly reduces adverse effects on yarn tension during threading and the possibility of resulting yarn breaks are minimised, even for low count microfilament yarns.

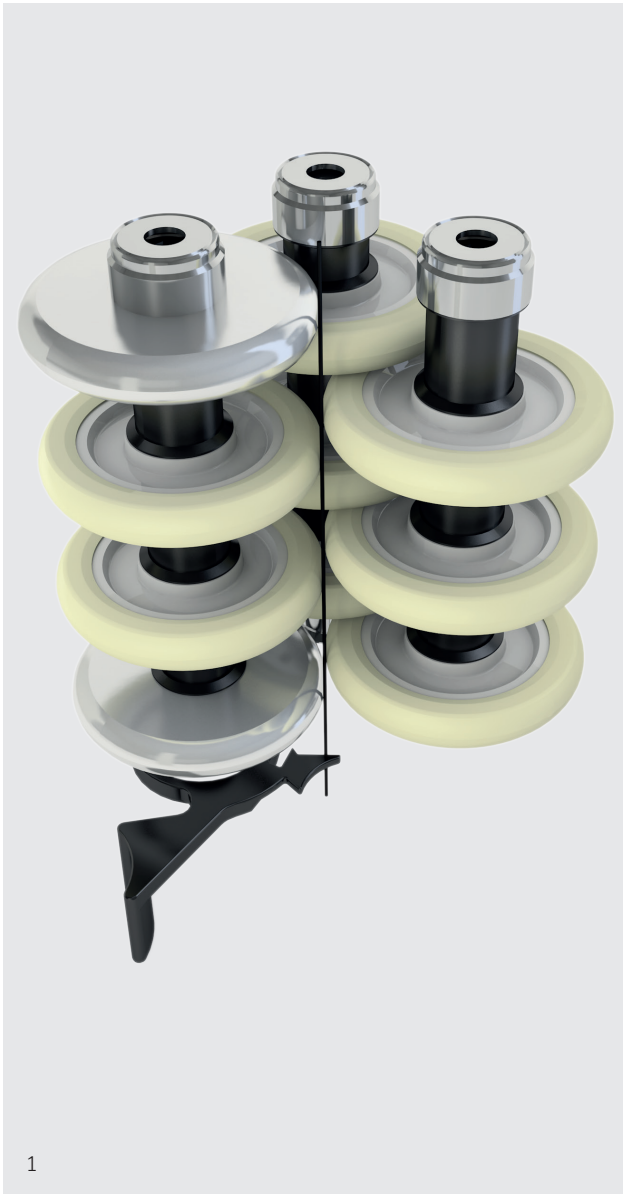
Threading process at the open/close unit  
Using the incorporated threading mechanism, the yarn is threaded into the centre of the unit without excessive tension.

As highlighted in the comparison, yarn tension peaks are significantly lower when closing the unit compared to a fix centre unit.

For microfilament yarns in particular, this gentle method of threading results in significantly lower yarn breaks at positional start-up and consequently a marked reduction in time to thread the entire machine. Moreover, during the process, there is no threading gate, which restricts handling or vision of the yarn path in the open/close unit.



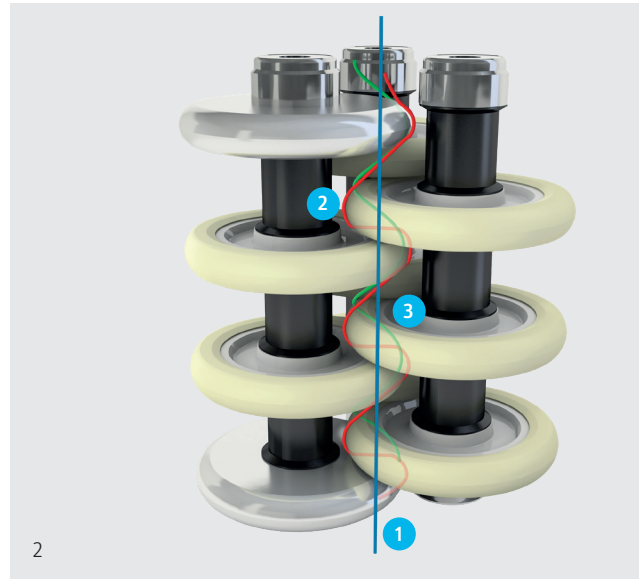
Texturing unit closed



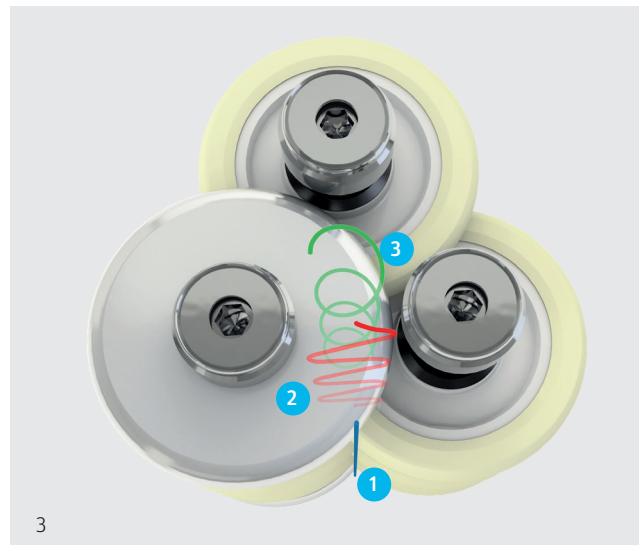
Threading process at an open/close unit

- 1 The yarn is positioned for the threading process
- 2 Using threading tines of a gate system, the yarn must be pressed across the area where the disc overlap is highest. Here, the tension peaks are at their highest, leading to a possibility of yarn breaks:

a) The yarn is in a vertical position to the disc profile and is not influenced by force components from the rotating disc but is transported inwardly.



Threading process at a fix center unit, side view



Threading process at a fix center unit, top view

- b) The yarn is unstable within the threading area between 1 and 2 due to conflict in yarn transport directions between the left hand and right hand disc stacks.
- 3 The yarn is stable in the texturing unit center.

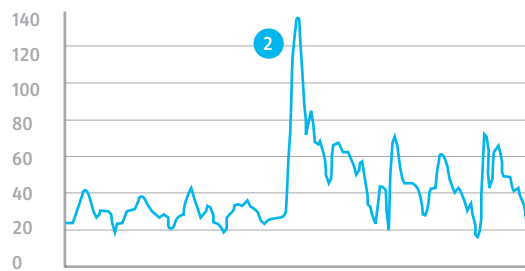
# Technical Characteristics

## Specifications

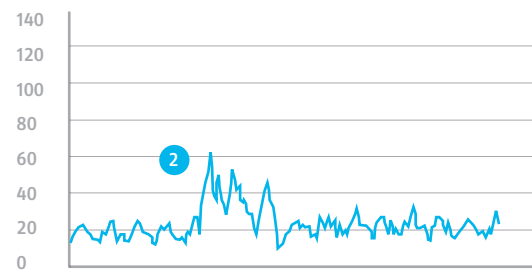
- Disc diameter 52 up to 53.5 mm
- Disc thickness 9 mm
- Max. disc combination 1-8-1
- Shaft diameter 14.45 mm
- Minimum pitch 110 mm
- Yarn entry and exit guides: snap-in
- Axial distance 37 mm
- Diabolo spacers
- Fitting caps with defined pressure force
- Drive (to the motor): coupling

## Comparison fix center unit with open/close unit

Yarn tension variation with fix center unit in cN

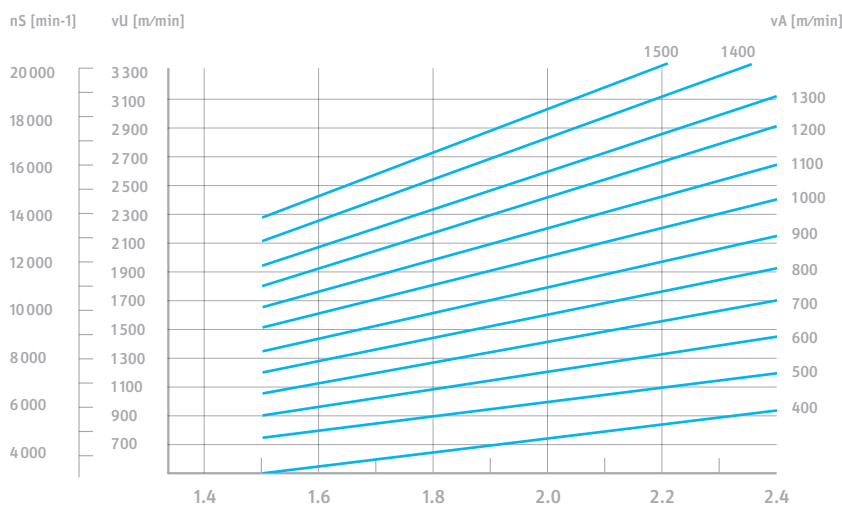


Yarn tension variation with open/close unit in cN



## Yarn running speeds compared to the disc circumferential speeds

Yarn tension variation with fix center unit in D/Y



Yarn running speeds  $v_A$  [m/min] and disc speeds  $n_S$  [min<sup>-1</sup>] in dependence on D/Y:

Friction discs 52 mm diameter  
 $v_U$  = Disc circumferential speeds [m/min]

$v_A$  = Thread delivery speeds [m/min]  
 $n_S$  = Disc speeds [min<sup>-1</sup>]



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