



MSF 3

Storage Feeder: Yarn control with contactless sensors

The MSF 3 Storage Feeder has a stationary winding body and a yarn winding transport system. It has been designed for the feeding of yarn at constant and variable feed rates to knitting and hosiery machines.

MSF 3 is available as Standard- or CAN Version and with 57V AC or 3x 42 V AC power supply. A yarn winding transport system within the stationary winding body ensures the continuous movement and separation of the yarn windings over the winding body, to provide a continuously wound perfect yarn store. The newly developed, patented magnetic tensioner ensures a constant yarn tension at the outlet, with step less tension adjustment. The unit is driven by a powerful brushless DC motor with microprocessor control. The new developed sensor system monitors and calculates the average yarn consumption rate and adjusts the motor speed accordingly.

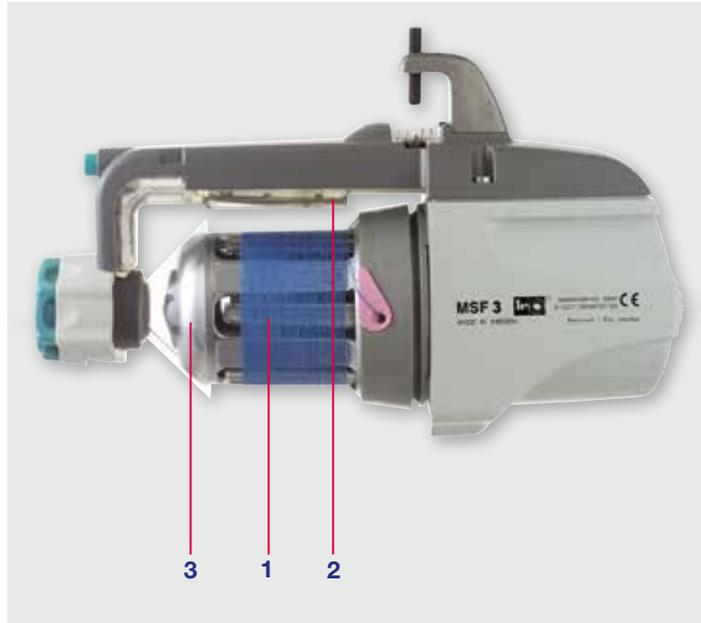
Advantages

- Higher machine efficiency, fewer fabric faults
- Patented, adjustable magnetic tensioner at the outlet guarantees constant yarn tension resulting in a uniform fabric knit structure and quality
- Yarn monitoring and control with contactless sensors on the winding reel
- 1 mm yarn separation prevents snagging from adjacent yarn windings during unwinding
- Adjustable stop motion time of the knitting machine. Additional mechanical stop motion not necessary
- Stationary winding body prevents any extra yarn windings
- Magnetic tensioner is quick to remove for easy cleaning
- LMS - integrated yarn length measuring system includes LFA and basic yarn cost calculation
- Lower operating costs due to lower power consumption

MSF 3: Components

1 Winding body

Effective yarn separation makes it possible to process all types of yarn. The stationary winding body prevents extra yarn windings.



LMS (Option - in connection with MSF 3 CAN)

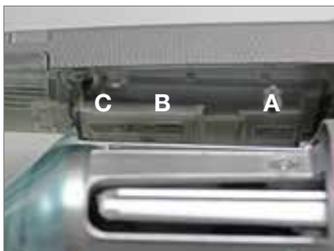
The Length Measuring System calculates:

- Yarn consumption
- Basic yarn cost calculation
- Visualisation of groups



2 Sensors

The sensors control the yarn inlet (A), the feed rate (B) on the winding body and the yarn speed (C). The unit operates continuously without starting and stopping. The sensors are the contactless type to prevent voltage peaks..



3 Magnet tensioner

The magnetic yarn tensioner guarantees constant yarn tension. Constant, uniform tensioning force.



Brush tensioner (option)

For special yarns the brush tensioner guarantees constant yarn tension. Constant, uniform tensioning force.



Spring Tensioner(option)

At customer's request the magnetic tensioner can also be delivered in a spring loaded version.



Technical Data

Power supply:	57 V DC or 3x 42 V AC
Current:	0.44 A (depending on application)
Max. power:	85 VA (at 1100 m/min. and 100 cN inlet tension)
Average power:	25 VA (57 V DC) or 21 VA (3x 42 V AC), depending on application
Yarn tension:	1,5 cN - 15 cN, depending on the processed yarn
Yarn gauge range:	17 - 500 dtex
Max. yarn feed rate:	1,100 m/min.
Weight:	1.9 kg

Applications	
■ Circular knitting machines	■ Flat knitting machines
■ Hosiery knitting machines	■ Warp knitting machines
■ Stocking knitting machines	■ Seamless knitting machines

ADVANCED KNITTING TECHNOLOGY

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