

Solutions for Perfection from Marin Industrietechnik

# Mobile Filling Tension Adjustment Device FTA-D



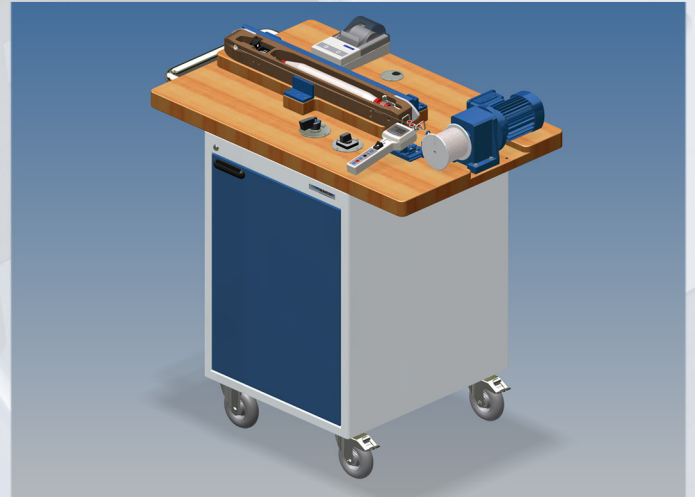
**MARIN**  
Industrietechnik

## Mobile Filling Tension Adjustment Device

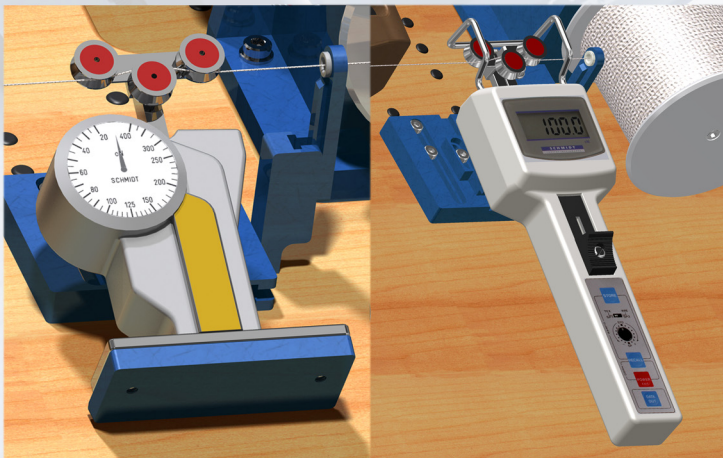
This mobile Filling Tension Adjustment Device from Marin Industrietechnik is especially constructed for heavy weight weaving departments like at the manufacturing of paper machine clothing, technical textiles and corrugator belts, simply at every production where are weaving with shuttles. The integrated cable drum and hose reel with automatic wind up system facilitates an easy handling of the device. It convinced by its properly thought-out design.

*Time-saving combined with greatest possible advantage*

The filling tension constitutes one of the most important parameter at the PMC-Weaving. With this mobile FTA-Device the filling tension is exactly adjustable and it ensures a reproducible high quality base fabric weaving. Equipped with high-tech tension meter a precise adjustment is ensured.

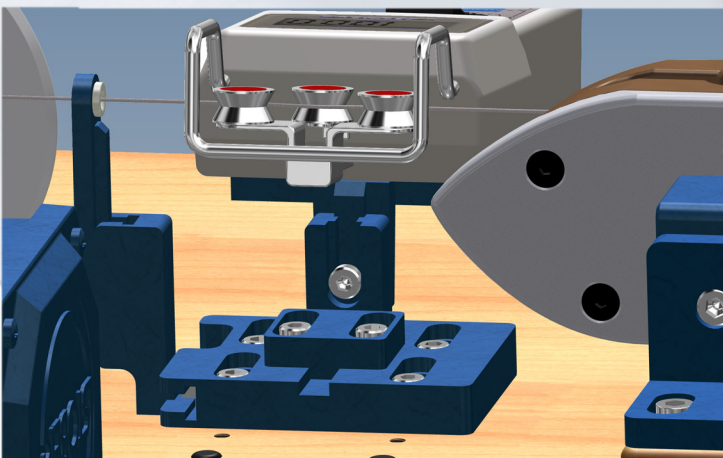


## Analog and digital Tension Meter

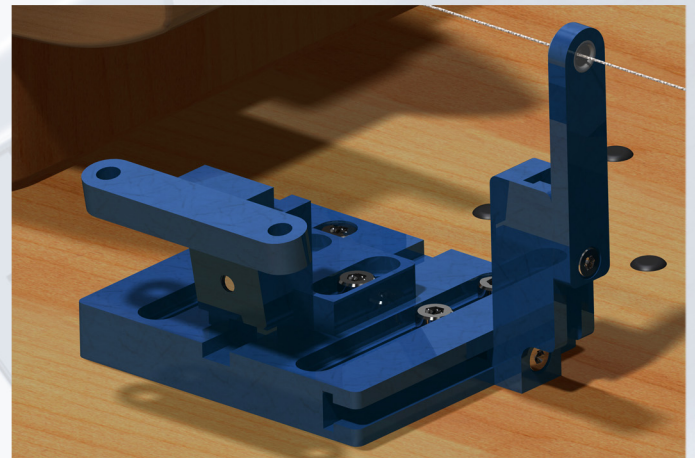


The Tension Meter with data memory and interface enables an optimal tension adjustment and facilitates statistical analyses.

Precise T-Slot Nuts and guide rails ensure a exactly positioning of the tension meter and the yarn guide eyelet.

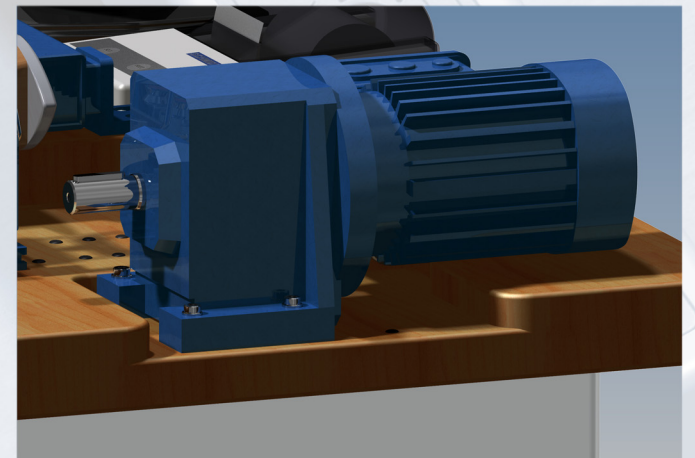


## More than only a mounting angle



The Tension meter support is constructed specially to enable an exact position adjustment of the gauge rollers to the filling yarn at different shuttle variations. Furthermore the position of the ceramic guide eyelet is also exactly adjustable to the filling yarn.

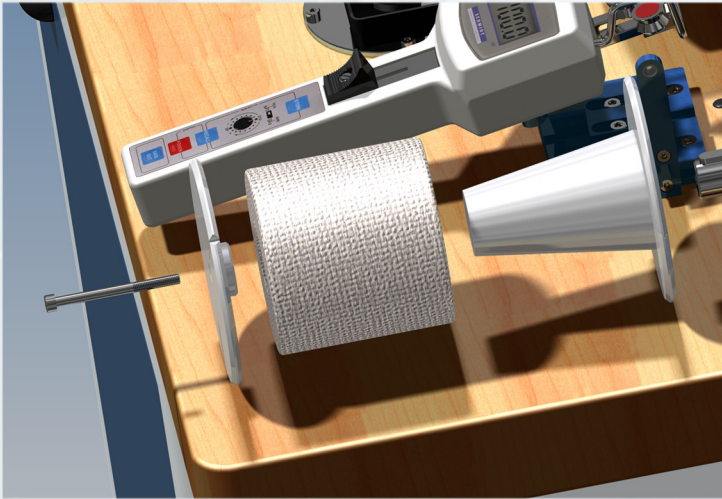
## Helical Geared Motor



The MGS Helical Geared Motor ensures a long life practicality with a constant rotation and two options of positioning.

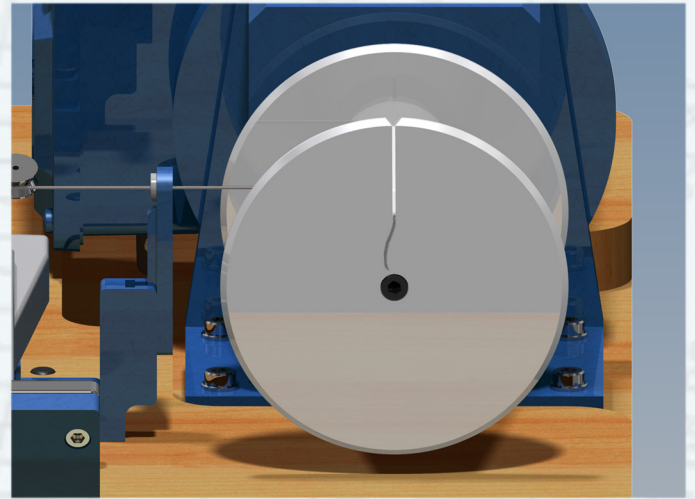


## Passion for Perfection in every detail



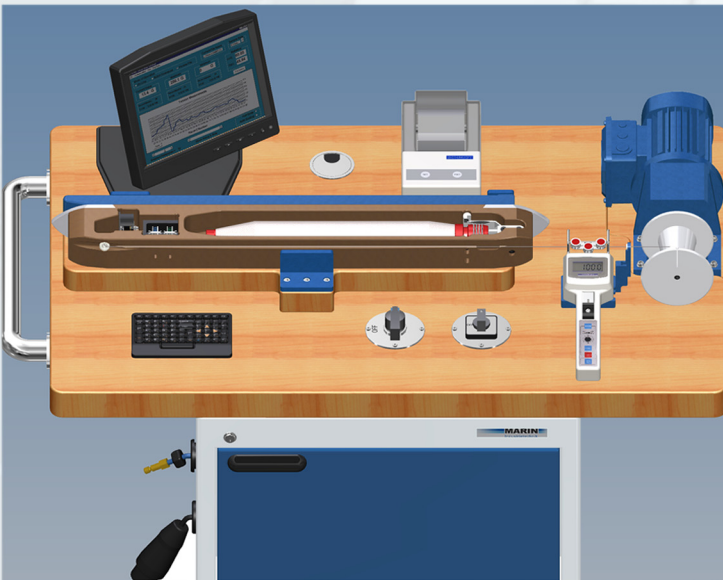
The conical shape of the wind up spool makes it easy to remove filling yarn.

## Details ensure safety

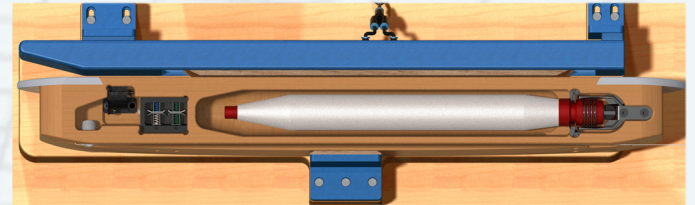


Equipped with a slot for yarn clamping.

## According the needs of a modern production



## Shuttle locking system



The special shuttle locking system enables a tight fixing of a wide range of different shuttles.

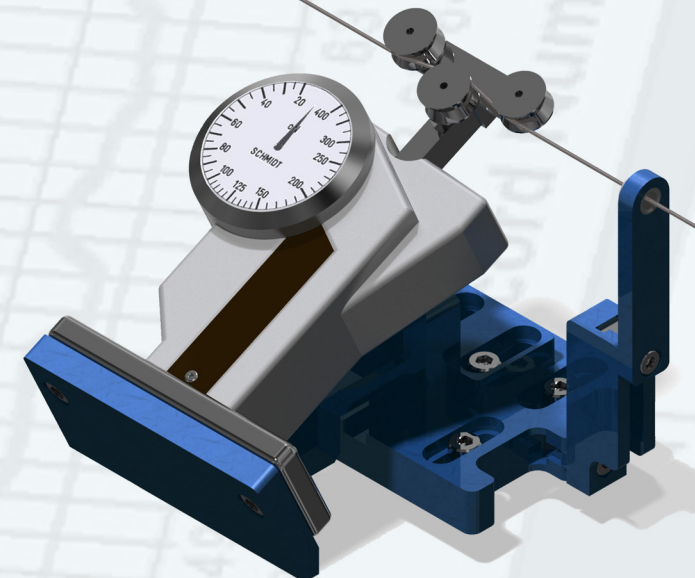
## Power & Air pressure switcher Integrated switcher in view of vision



## Analog tension meter (FTA-Device 1)

Stationary mechanical tension meter for measuring tensions of fibres, threads, wires, ribbons etc. The analog display shows changing and fluctuating tensions fast and enables an optimal process adjustment.

- Ball-bearing mounted, V-grooved guide rollers.
- Each instrument is individually calibrated for highest accuracy.
- Readable 41 mm Ø scale.
- Tension meter with rugged aluminum housing
- Certificate of Compliance with the order 2.1 according EN 10204 is included

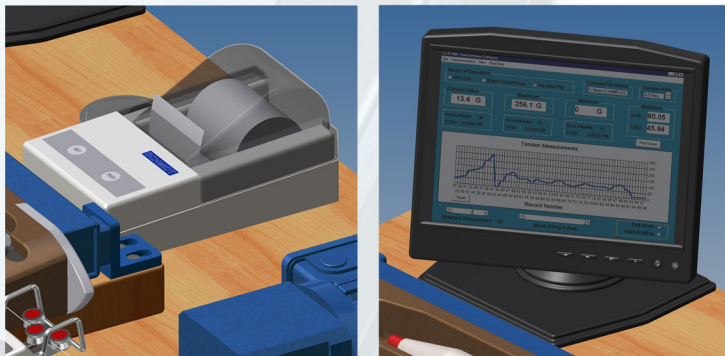




## Digital tension meter (Version FTA-D2 & 3)

Electronic tension meter for applications at the textile and wire industry. Special convenient for users acquiring additional process data to save them for example for a QM-system ISO9000ff. This digital tension meter offers features as data memory, statistical analysis, interface for data printer and PC connection.

- Material thickness compensator
- Filament guide and roller shifting mechanism ensure easy acquisition of the running material
- Ball-bearing mounted, V-grooved guide rollers
- Tension meter with rugged aluminum housing
- Memory for up to 100 tension values plus MIN, MAX, PEAK
- Automatic calculation of average and standard deviation
- All these data values can be recalled in the display
- 2 Memory modes: continuous storage & on-demand storage
- Analog and serial interfaces
- Material selector switch for textile and wire applications
- The display shows averaged values calculated during the update interval  $t_1$  e. g. every second 1 x
- DIP switch for adjustments by operator e. g. display update
- Zero adjustment feature permits use of the tension meter in various measuring positions
- Battery operated (AC adapter for continuous operation incl.)
- Certificate of Compliance with the order 2.1 according EN 10204 is included



## Data printer (Version FTA-D2 & 3)

All stored data can be downloaded over the serial interface to the printer. The printout is ideal for ISO 9000ff quality reports.

## Flat screen monitor 10.4" (Version FTA-D3)

Computer system with flat screen monitor and Tension view software for real time tension display, graphical X-Y chart (reading no. -tension value), long time recording using operator set time span and sampling time, analyzing and printing of all stored data ( graphs and numeric reports).

## Mini PC-Keyboard (Version FTA-D3)



Wireless solution for easy handling.

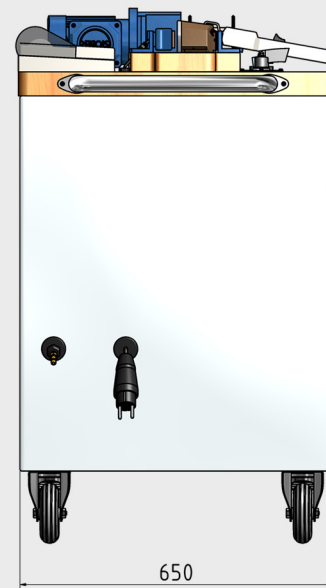
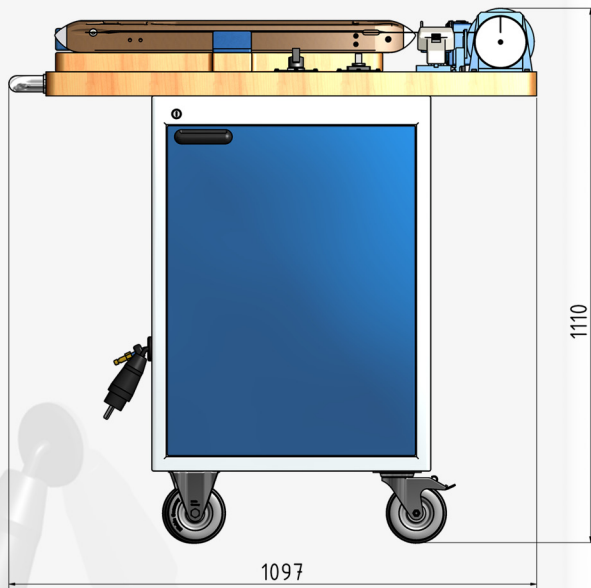
## Connection cables (Version FTA-D3 & 2)



Different connection cables needed for additional equipment use.

## Technical Data

| Mobile Filling Tension Adjustment Device (FTA D3 / FTA-D2 & FTA-D1) |                           |  |               |
|---|---------------------------|--|---------------|
| General   |                           | Adjustable Shuttle Locking System            |               |
| Power Supply  | 230V 50/60Hz              | Locking pressure (adjustable)                | 1,0 - 2,0 bar |
| Air Pressure Supply   | max. 12 bar               | Full leather braking system                  | Type AD       |
| Control Units   |                           | Cabinet                                      |               |
| Power switch On/Off   | 230V 50/60Hz              | Lockable swivel castor                       | 2             |
| Festo hand lever valve  | Type VHER                 | Fix castor                                   | 2             |
| Festo pressure regulator with pressure gauge                        | Type LR 1/8               |  |               |
| Cable Drum with automatic Wind-Up System                            |                           | MGS C Helical Geared Motor                   |               |
| Cable length unwound plug side                                      | 14 m                      | Power supply                                 | 230V 50/60Hz  |
| 4 x Internal sockets at the mobile cabinet                          | 230V 50/60Hz              | Model Type                                   | MGS C         |
| Cable type H05VV  | F 3 G 1,5 mm <sup>2</sup> | Solid shaft with key Ø 20 x 40 P             | s2 = M6       |
| Ingress Protection Rating   | IP20                      | Output gear speed (50Hz)                     | 217 rpm       |
| Max. capacity   | 1800 W                    | Motor performance                            | 0,12 kW       |
| Hose reel with automatic Wind-Up System                             |                           | FTA-Device Dimension & Weight                |               |
| Hose length   | 9 m                       | Width overall:                               | 1097 mm       |
| Hose Diameter   | 6,5 x 10,0 mm             | Height overall (without monitor):            | 1107 mm       |
| Air Pressure Supply max.  | 12 bar                    | Depth overall:                               | 655 mm        |
|   |                           | Total Weight (FTA-D3):                       | approx. 95 kg |
| <b>Filling Tension Adjustment Device 3 (FTA-D3)</b>                 |                           |  |               |
| Tension Meter   |                           | Accessories                                  |               |
| Tension meter digital   | 50 - 1000 cN              | Data printer                                 | 230V 50/60Hz  |
| Hard coated aluminum guide rollers Vmax.                            | 2000 m/min                | Desktop PC                                   | 230V 50/60Hz  |
| Battery operated + AC Adapter 230V                                  | 4 x 1,5V AA               | Flat screen monitor                          | 230V 50/60Hz  |
| Interface for data printer and PC connection                        |                           | Mini PC-Keyboard                             |               |
| Tension view software   |                           | Connecting cables                            |               |
| <b>Filling Tension Adjustment Device 2 (FTA-D2)</b>                 |                           |  |               |
| Tension Meter   |                           | Accessories                                  |               |
| Tension meter digital   | 50 - 1000 cN              | Data printer                                 | 230V 50/60Hz  |
| Hard coated aluminum guide rollers Vmax.                            | 2000 m/min                | Interface for data printer and PC connection |               |
| Battery operated + AC Adapter 230V                                  | 4 x 1,5V AA               | Connecting cables                            |               |
| <b>Filling Tension Adjustment Device 1 (FTA-D1)</b>                 |                           |  |               |
| Tension Meter   |                           | Accessories                                  |               |
| Tension meter analog  | 20- 400 cN                | Hard coated aluminum guide rollers Vmax.     | 2000 m/min    |



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