



Take-ups

Showmark Standard and Custom Solutions

Showmark manufactures a variety of take-ups for materials ranging from fine wire and filament to systems for heavier cables and tubing. Each take-up unit produces spools or coils with neat and even rows of material that unwind without snags or tangles. Tension can be controlled from less than an ounce to 20 pounds or more. They can be configured to wind with a constant linear speed, rpm of the spool, or tension. Systems can be simple with all mechanical adjustments, or fully programmable with servo control and computer-based recipe management.

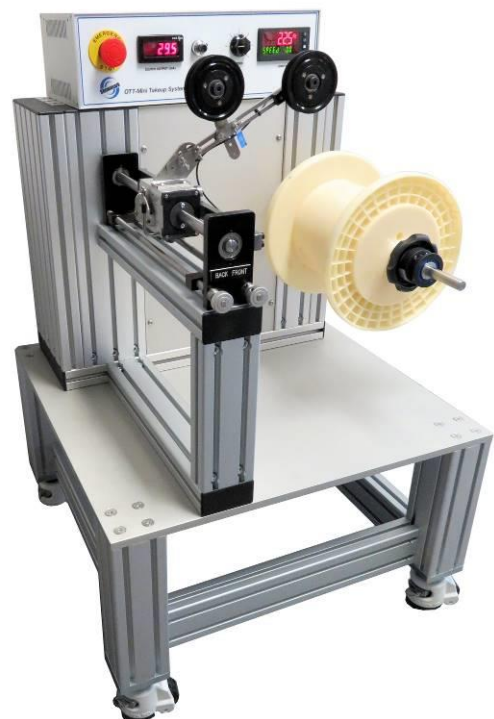


OTT-Mini

The OTT (Over-The-Top) family of take-up units feature a traversing wire guide that steers the material back and forth onto the rotating spool to produce neatly wound reels that unwind without snags or tangles. They automatically maintain winding pitch even as the speed changes. An OTT can be equipped with an electronic clutch to produce a desired tension. Clutch systems automatically synchronize with the feed rate of the material and keep steady tension – even if the material flow stops. Three standard sizes – Mini, Medium, and Max - are offered for spool diameters up to 40 inches weighing up to 300 pounds. The traverse stroke can be sized to accommodate almost any width of spool. The Mini and Medium sizes are also available in modular stackable versions for multi-wire winding applications.



OTT-Medium



OTT-Mini
Shown with
Optional Cart

Base OTT Specifications

	Available Shaft Sizes	Max Spool Weight	Max Spool Size (inches)		Overall Dimensions (inches)			Power Input
			O.D.	Width	Width	Depth	Height	
OTT – Mini	10, 15, 20mm	40lbs.	20	Any	22	Varies	24	120-240VAC
OTT – Med	10, 15, 20mm	100lbs.	30	Any	25	Varies	41	120-240VAC
OTT – Max	20, 30mm	300lbs.	40	Any	34	Varies	45	120-240VAC

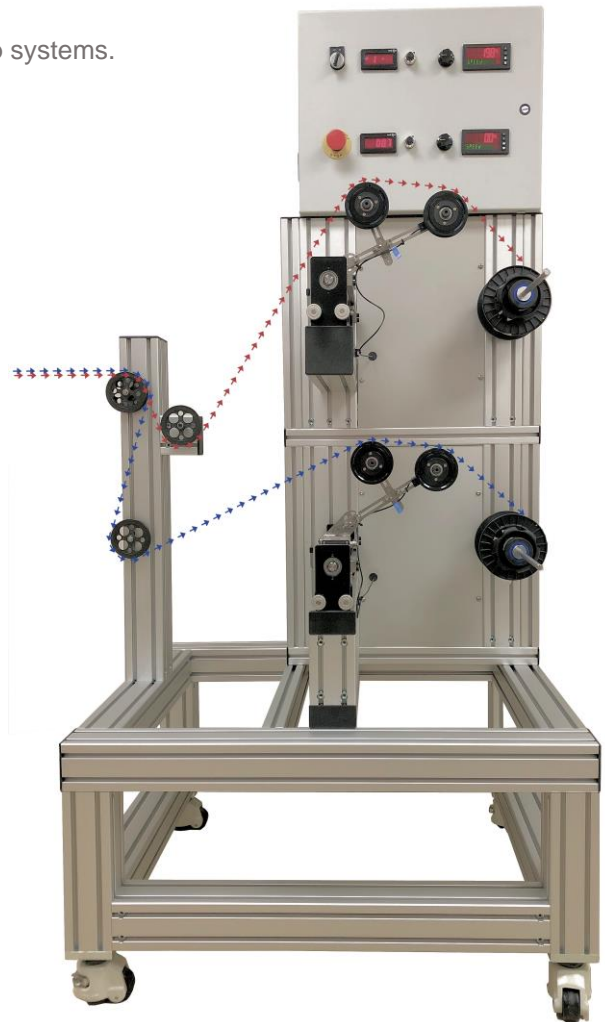
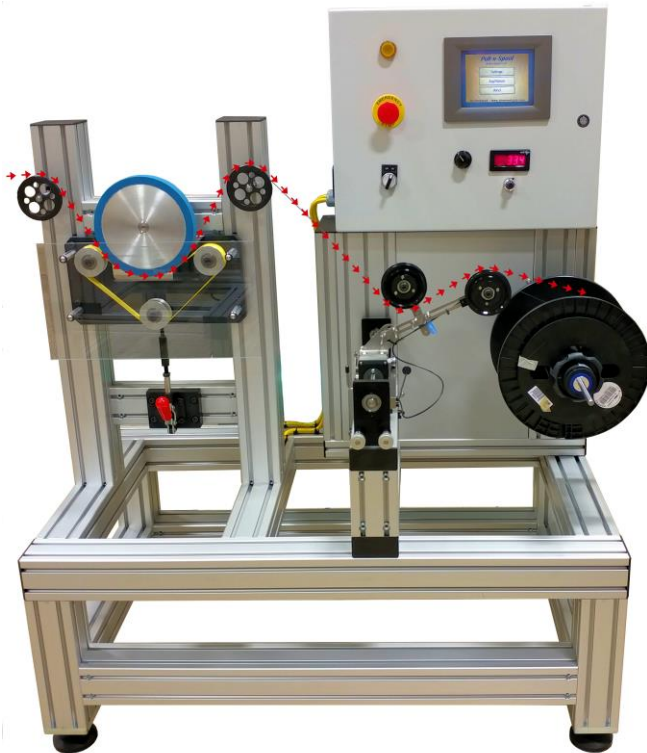
Options include: Electronic tension control, length tracking, linear speed readout, wire break detection

Special OTT-Mini based Take-up Systems

The OTT-Mini is an integral part of these special purpose take-up systems.

2-Axis Takeup System

The stackable design of the OTT-Mini makes it ideal for multi-wire winding applications. Each OTT section can operate as a complete single axis take-up providing independent controls for speed, tension, and spool dimensions. This results in excellent wind quality regardless of variations in wire-to-wire line speeds and tension. Each section can include closed-loop tension control, length counters, and tachometers.



Pull-N-Spool System w/optional Diameter Control

A servomotor driven belt capstan is paired with an OTT-Mini to pull material at a precise speed before winding neatly onto a spool. The pull speed can be constant, or it can vary based on feedback from a laser micrometer. Pull-N-Spool systems are used for coating applications or to accurately control the final diameter of material exiting an extruder or optical fiber draw tower.

Moving Take-up Unit (MTU)

The spool on a Moving Take-up Unit (MTU) is carried by a traversing system as it rotates. As a result, the material travels in a straight line onto the spool. This design minimizes stress and twisting and is ideal for delicate flat wire or strip materials. The system also potentially produces a neater wind. Showmark offers the MTU-Mini, Medium, and Max for spools up to 30 inches in diameter, 15 inches wide and weighing up to 300 pounds. The systems shown includes a length counter/controller and an electronic slip clutch system for tension control. The Mini and Medium versions are also available with the CE-Mark option.



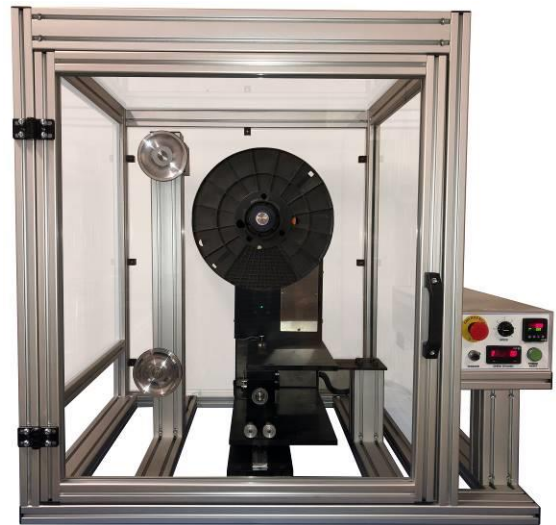
MTU-Mini



MTU-Medium



MTU-Max



CE-Marked MTU-Medium

MTU Specifications

	Available Shaft Sizes	Max Spool Weight	Max Spool Size (inches)		Overall Dimensions (inches)			Power Input
			O.D.	Width	Width	Depth	Height	
MTU – Mini	10, 15mm	20lbs.	10	10	23	20	24	120-240VAC
MTU – Med	10, 15, 20mm	40lbs.	16	10	34	20	33	120-240VAC
MTU – Max	20, 30mm	300lbs.	30	15	45	53	39	120-240VAC

Multi-Axis Take-up Systems

Showmark manufactures multi-axis payoff and take-up systems for extruding, annealing, cleaning, and winding applications. They work with a variety of materials such as conventional wire, jacketed wire, optical fiber, tubing and 3D Printing Filament.

Systems can be custom built and dedicated to an application or configured using our Modular OTT or MTS Take-up Systems.

Multi-axis systems typically include the following features:

- Different sized spools and materials can be run on each axis.
- Independent tension control for each axis using an electronic slip clutch or servo motor closed-loop to a tension sensor.
- Each axis has independent length tracking. If desired, a target length can be set for each axis. The axis will stop automatically when the length is reached.
- A separate speed or tension can be set for each axis. Systems can maintain constant RPM's, constant linear speed, or constant tension.

6-Axis take-up system for wire annealing application - All parameters for each axis are independently controlled.



2-Axis Modular Takeup System (MTS) with Payoffs – The MTS system can be configured with up to four stacked winding modules. The payoff and take-up sections of this 2-axis system can be separated as far as required to insert an annealing furnace, cleaning system, or other process.

