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WIRE TENSIONERS

ORLANDO RICARDO SANTOS now commercializes all type of Wire Tensors, for all types of coils. Tensioners for all the marks and models of winding machines.

The wire Tensioner is one of the vital parts in the coil winding process. It is used to ensure the consistency of the wire tension during the winding, this guarantees a good quality of the bobbins with the quality of the isolation of the wire between the turns.

By using a tensioner, wire tension can be adjusted and pre-set to the required value according to the application so as to achieve appropriate winding condition, and to ensure the conformity of each coil's technical parameters.

SERIE TC / TD

Mechanical Tensioner

TC series operates by using the principle of mechanical friction to generate tension on the pulley, This main pulley is integrated with a braking system & the back tension mechanism, to create a stable & consistent tension.

TC tensioners come with wire breakage detection switch.

SERIE TC

Mechanical Tensioner



SERIE TD

Mechanical Tensioner



MODEL	TENSION RANGE	WIRE SIZE	WEIGHT	DIMENSIONS (mm)
TCL	200 – 2000 grs	0.20 – 0.60 mm	1700 grs	250-160-95
TCLL	1000 – 5000 grs	0.50 – 1.20 mm	1900 grs	250-160-95
TC3L	2000 – 10000 grs	0.70 – 2.00 mm	3700 grs	300-230-120

SERIE NMTC / MTC

Magnetic Wire Tensioner

By using the magnetic field of permanent magnet, tension is generated to the damp Wheel. The non-contact mechanism design provides stable, consistent and precise tension to the wire.

Excellent for both high and normal speed winding.

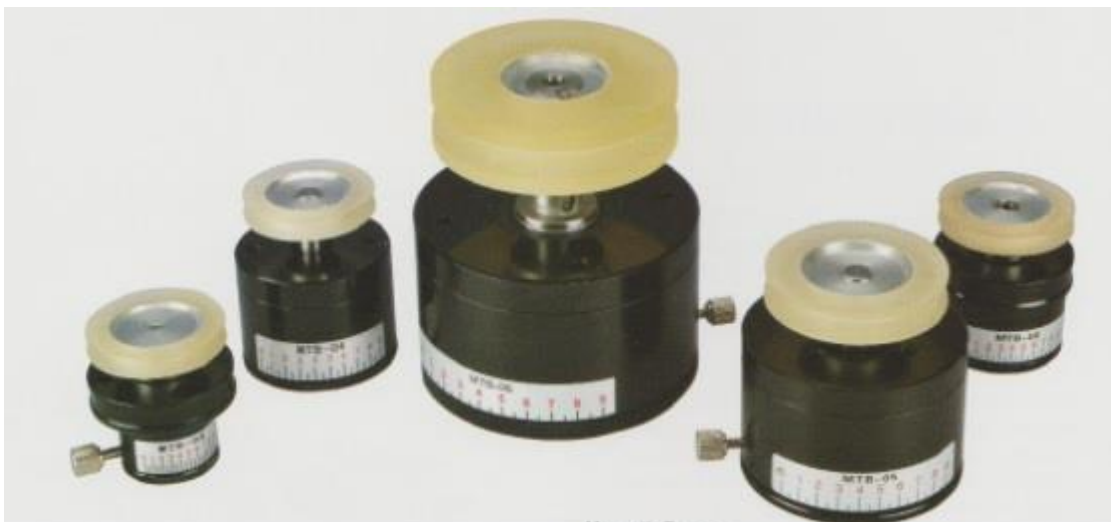
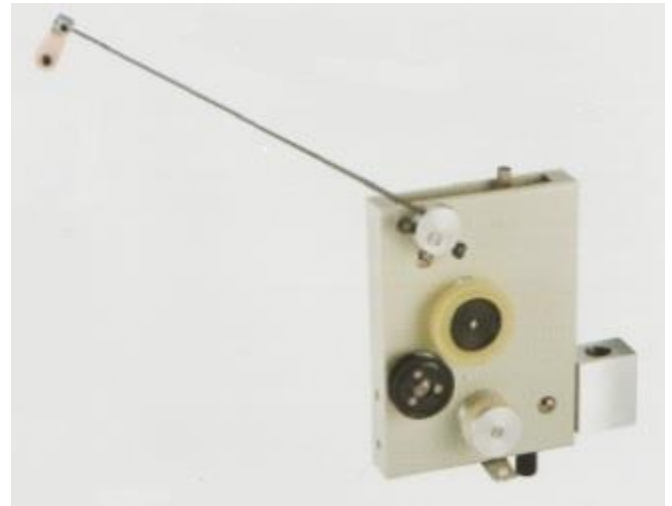


MODEL	TENSION RANGE	WIRE SIZE
NMTC-004-S120	4 – 120 grs	0.03 – 0.14 mm
NMTC-014-M400	14 – 400 grs	0.06 – 0.25 mm
NMTC-030-L800	30 – 800 grs	0.08 – 0.40 mm

SERIE MTB

Magnetic Wire Tensioner

The Magnetic wire tensioner from the serie MTB



MODEL	TENSION RANGE	WIRE DIAMETER
MTB-02A	10 – 50 grs	0.04 – 0.08 mm
MTB-03A	40 – 150 grs	0.09 – 0.15 mm
MTB-04A	160 – 1200 grs	0.16 – 0.50 mm
MTB-05A	200 – 2000 grs	0.40 – 1.00 mm
MTB-06	800 – 3600 grs	1.00 – 3.00 mm
MTB-08	3600 – 6500 grs	3.00 – 6.00 mm

SERIE NMA / MTA

Magnetic Wire Tensioner

Magnetic Tensioner uses permanent magnet, control of the tension level determined by the gap between the magnet and the tension wheel. The non-contact mechanism design provides stable, consistence and precision tension to the wire. MTA series come with a tension release mechanism, to assist in special operation such as wire hooking and etc.

All MTA series complete with back tension adjustment and wire breakage detection switch.

Excellence for both high and normal speed winding.



MODEL	TENSION RANGE	WIRE DIAMETER	WEIGHT	DIMENSIONS(mm)
NMA004-S120	4 – 120 grs	0.03 – 0.14 mm	660 grs	150-150-80
NMA014-M400	14 – 400 grs	0.06 – 0.25 mm	780 grs	150-150-80
NMA030-L800	30 – 800 grs	0.08 – 0.40 mm	820grs	150-150-80
MTAD-800	100 – 800 grs	0.14 – 0.40 mm	970 grs	170-170-80
MTA 1200	200 – 1200 grs	0.25 – 0.50 mm	970 grs	170-170-80
MTA 2000	300 – 2000 grs	0.30 – 0.70 mm	2100 grs	250-180-80

SERIE NMTE/MTE

Magnetic Tensioner

Upgraded version of MTC series, features a built-in photoelectric sensor for wire breakage detection and a LED indicator for wire breakage indication.

Improved and upgrade design in main tension wheel and wire guide roller, eliminated wire jumpers and jams to ensure smooth Winding.

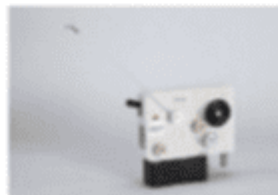
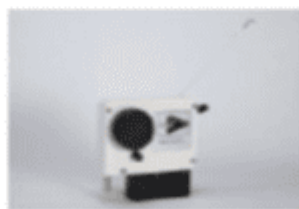
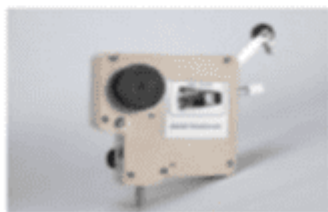
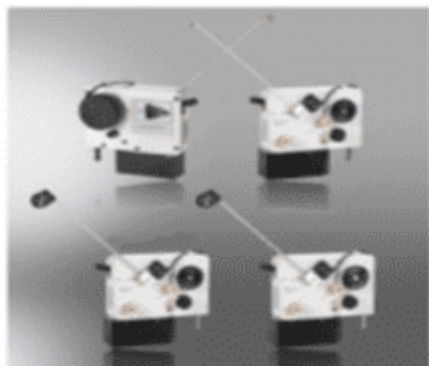
Mounting of wire break detection switch also been re-designed to improve its lifespan.



MODEL	TENSION RANGE	WIRE SIZE	WEIGHT	DIMENSIONS (mm)
NMTE004-S120-C	4 – 120 grs	0.03 – 0.14 mm	470 grs	145-150-75
NMTE004-S120-B	4 – 120 grs	0.03 – 0.14 mm	480 grs	145-150-75
NMTE014-M400-C	14 – 400 grs	0.06 – 0.25 mm	490grs	145-150-75
NMTE014-M400-B	14 – 400 grs	0.06 – 0.25 mm	490 grs	145-150-75
NMTE030-L800-C	30 – 800 grs	0.08 – 0.40 mm	510 grs	145-150-75
NMTE030-L800-B	30 – 800 grs	0.08 – 0.40 mm	530 grs	145-150-75

SERIE ELGMT-D-AX

Magnetic Tensioner Special

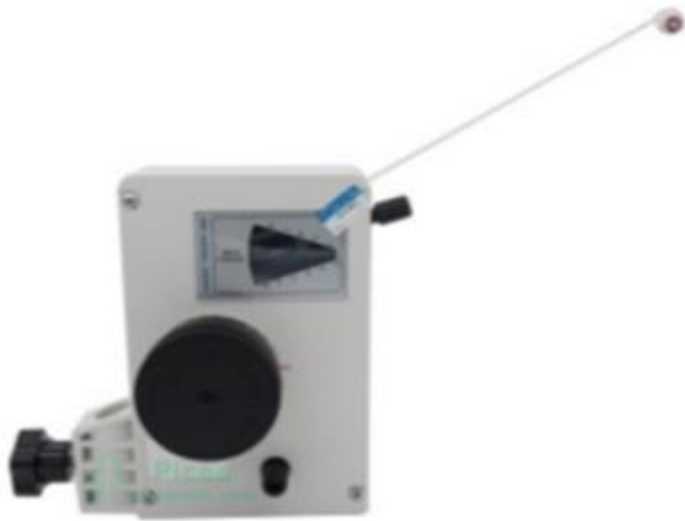


TYPE	MODEL	TENSION RANGE	WIRE SIZE
MTD – MODEL Horizontal	ELG MTD 130	5 – 130 Grs	0.025 – 0.12 mm
	ELG MTD 400	14 – 400 Grs	0.06 – 0.25 mm
	ELG MTD 800	30 – 800 Grs	0.08 – 0.40 mm
	ELG MTD 1500	300 – 1500 Grs	0.35 – 0.80 mm
	ELG MTD 2500	500 – 2500 Grs	0.40 – 1.00 mm

TYPE	MODEL	TENSION RANGE	WIRE SIZE
MTAX – Horizontal With Cylinder	ELG MTAX 130	5 – 130 Grs	0.025 – 0.12 mm
	ELG MTAX 400	14 – 400 Grs	0.06 – 0.25 mm
	ELG MTAX 800	30 – 800 Grs	0.08 – 0.40 mm
	ELG MTAX 1500	300 – 1500 Grs	0.35 – 0.80 mm
	ELG MTAX 2500	500 – 2500 Grs	0.40 – 1.00 mm

SERIE ELGV-H

Magnetic Tensioner



V Series



H Series



MODEL	TENSION RANGE	WIRE SIZE
ELGV-H130	5 – 130 grs	0.025 – 0.12 mm
ELGV-H400	14 – 400 grs	0.060 – 0.25 mm
ELGV-H800	30 – 800 grs	0.080 – 0.40 mm

SERIE MET B, D, F

Electronic Tensioner

MET series of Wire Tension Device is newly developed by Trophy.

Tension is generated electronically and integrated with a non-contact breaking system. With the state of the art design and the non-contact breaking system, the tensioning mechanism of MET series, which is the most critical portion of the tension unit, run without any mechanical contact; the only friction comes from the connecting bearing, which is minimum.

This combination provide smooth, stable and consistence tension, even in high speed winding.

The non-contact designs also minimized wear and tear of the critical components as to cut down maintenance cost.

All MET tension unit comes with “Auto Tension Fine Tuning System”. By sensing the movement of the tension arm, the control system will fine tune the tension automatically to the pre-set value. Control system are packed within the body, MET series is solid and compact in design. It operates with DC24V electric power.

MET series comes with wire jump prevention and wire breakage detection.

SERIE MET-B

Electronic Tensioner



MODEL	TENSION RANGE	WIRE SIZE	FUNCTIONS	DIMENSIONS (mm)
MET-B500	50 – 500 grs	0.07 – 0.30 mm	Pré-Set 4 tensions	250-200-92
MET-B1000	100 – 1000 grs	0.10 – 0.45 mm	Pré-Set 4 tensions	250-200-92
MET-B2000	200 – 2000 grs	0.20 – 0.65 mm	Pré-Set 4 tensions	250-220-95
MET-B3000	300 – 3000 grs	0.20 – 0.80 mm	Pré-Set 4 tensions	260-220-95

SERIE MET-D

Electronic Tensioner



MODEL	TENSION RANGE	WIRE SIZE	WEIGHT
MET-D600	15 – 600 grs	0.05 – 0.35 mm	2.2 Kg
MET-D1000	15 – 1000 grs	0.05 – 0.45 mm	2.3 Kg

SERIE MET-F

Electronic Tensioner



MODEL	TENSION RANGE	WIRE SIZE	FUNCTIONS	DIMENSIONS (mm)
MET-F500	50 – 500 grs	0.07 – 0.30 mm	Pré-Set 2 tensions	250-200-92
MET-F1000	100 – 1000 grs	0.10 – 0.45 mm	Pré-Set 2 tensions	250-200-92
MET-F2000	200 – 2000 grs	0.15 – 0.65 mm	Pré-Set 2 tensions	250-200-92
MET-F3000	300 – 3000 grs	0.20 – 0.80 mm	Pré-Set 2 tensions	260-220-95

SERIE ELGST

Electronic Tensioner with Encoder and Servo Motor



Control 1 Tension

MODEL	TENSION	WIRE SIZE	TENSION ROD	SPRING	SPEED MÁX.
ELGSTA30	5 – 30 grs	0.027 – 0.07 mm	TR-19#	TD-a	6.5 – 12 M/S
ELGSTA110	14 – 110 grs	0.050 – 0.15 mm	TR-19#	TD-b	6.5 – 12 M/S
ELGSTA350	100 – 350 grs	0.080 – 0.25 mm	TR-20#	TD-c	6.5 – 12 M/S
ELGSTC50	4 – 50 grs	0.020 – 0.08 mm	TR-19#	TD-a	10 – 22 M/S
ELGSTC150	10 – 150 grs	0.050 – 0.15 mm	TR-19#	TD-b	10 – 22 M/S
ELGSTC400	80 – 400 grs	0.080 – 0.30 mm	TR-20#	TD-c	10 – 22 M/S

Control 2 Tensions

MODEL	TENSION	WIRE SIZE	TENSION ROD	SPRING	SPEED MÁX.
ELGSTB30	5 – 30 grs	0.027 – 0.07 mm	TR-19#	TD-a	6.5 – 12 M/S
ELGSTB110	14 – 110 grs	0.050 – 0.15 mm	TR-19#	TD-b	6.5 – 12 M/S
ELGSTB350	100 – 350 grs	0.080 – 0.25 mm	TR-20#	TD-c	6.5 – 12 M/S
ELGSTD50	4 – 50 grs	0.020 – 0.08 mm	TR-19#	TD-a	10 – 22 M/S
ELGSTD150	10 – 150 grs	0.050 – 0.15 mm	TR-19#	TD-b	10 – 22 M/S
ELGSTD400	80 – 400 grs	0.080 – 0.30 mm	TR-20#	TD-c	10 – 22 M/S

SERIE LD

Magnetic Wire Tensioner

The LD wire tensioner is a precision unit with a graduated scale to give high performance coupled with ease of use. With two separate settings for basic tension and back tension, the response of the tensioner can be fine tuned.

A high precision feed-back mechanism, combined with low inertia moving parts ensure winding consistency. Diamond lapped ceramic wire guides reduce the possibility of damage to the wire enamel.



OPTIONS:

- Base and stand unit for table mounting

DESCRIPTION:

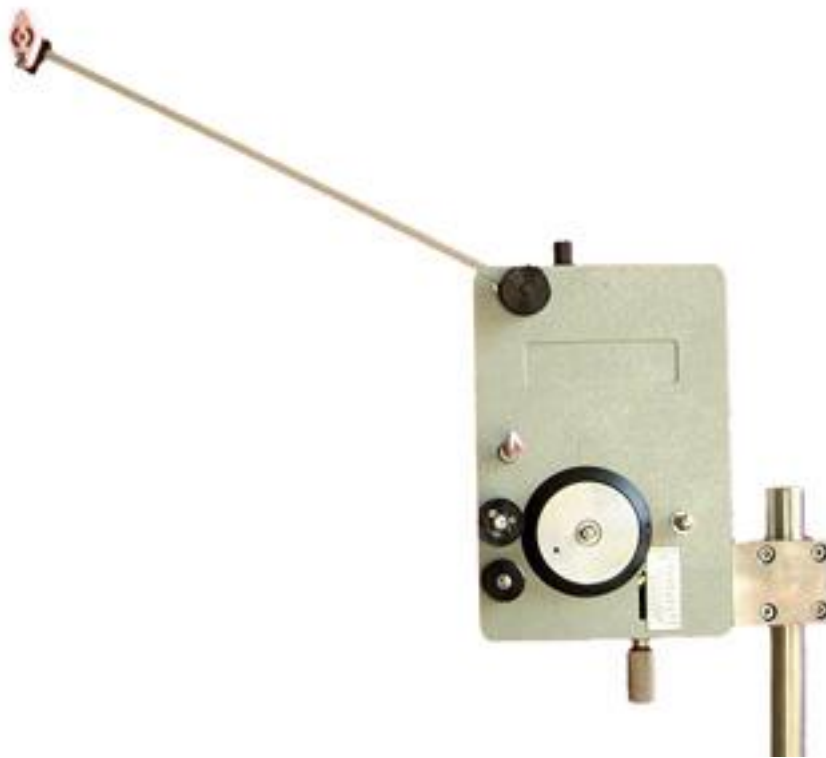
- Wire range: 0.045 - 0.13mm diameter

SERIE MD

Magnetic Wire Tensioner

The MD wire tensioner is a precision unit with a graduated scale to give high performance coupled with ease of use. With two separate settings for basic tension and back tension, the response of the tensioner can be fine tuned.

A high precision feed-back mechanism, combined with low inertia moving parts ensure winding consistency. Diamond lapped ceramic wire guides reduce the possibility of damage to the wire enamel.



OPTIONS:

- Base and stand unit for table mounting

DESCRIPTION:

- Wire range: 0.11 - 0.45 mm diameter

SERIE HD

Magnetic Wire Tensioner

The HD tensioner is built from robust mechanical parts to handle the tension required when winding larger wire sizes. The unit uses a brake system controlled by the dancer arm, when machine stops or if the wire snaps, the dancer arm springs up and actuates the brake clamp.

The strength of the brake clamp can be adjusted.



OPTIONS:

- Base and stand unit
- Funnel wire guide

DESCRIPTION:

- Wire range: 0.25 - 3.00 mm diameter

SERIE TD

Electronic Tensioner

The TD digital tension meter (mount-on type) is designed to be mounted on winding machines. It accurately measures and displays the real time tension of the travelling wire.

It has the advantages of: Compact in size, simple installation, precise measurement, direct and clear display of real-time tension measurement, independent operation for single spindle and multi-spindle machines.

SERIE TD-J1000

Electronic Tensioner



MODEL	WIRE TENSION	FUNCTION
TD-J1000	1 – 999 grs	Real Tension of display

SERIE TD-B500

Electronic Tensioner



MODEL	WIRE TENSION	FUNCTION
TD-B500	1 – 500 grs	Real Tension of display

SERIE TD-EX1000

Electronic Tensioner



MODEL	WIRE TENSION	FUNCTION
TD-EX1000	1 – 999 grs	Real Tension of display

SERIE TD-F(B)1000

Electronic Tensioner



MODEL	WIRE TENSION	FUNCTION
TD-F(B)1000	1 – 999 grs	Real Tension of display

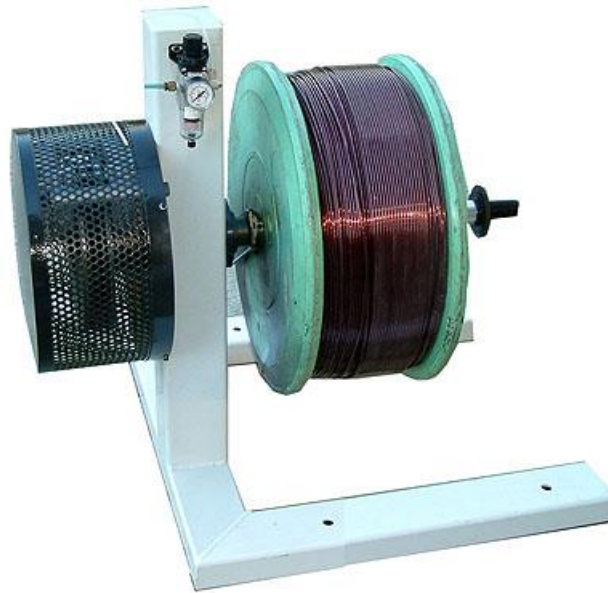
SERIE HDF 700

Pneumatic Wire Tensioner

The frame of the HDF 700 tensioner is built from strong steel tubular section, and can be firmly secured to the floor. The wire supply spool is mounted horizontally onto the main arm of the HDF 700 tensioner.

The tension is supplied to the spool via a pneumatic disk brake mounted on the tensioner frame & tension is regulated by an adjustable air regulator. The maximum tension can be increased by the addition of extra brake units

An air shut off valve is also supplied with the tensioner which allows the operator to turn off the air pressure to the tensioner. This will switch off the tension on the wire, allowing the operator to easily pull a length of wire from the tensioner.



DESCRIPTION:

- Maximum spool flange: 710mm
- Maximum spool width: 250mm
- Maximum spool weight: 200Kg
- Maximum tension: 105Nm at 6 bar.

OPTIONS:

- Automatic air pressure regulator (reduces tension as the wire on the spool decreases)
- Units to hold 2, 4, 6 or 8 spool tensioners

SERIE HDF 700A

Pneumatic Wire Tensioner

The frame of the HDF 700A tensioner is adjustable through 90 degrees. Wire spools can be positioned in a horizontal or vertical axis. The horizontal position is useful if winding a rectangular wire on edge.



DESCRIPTION:

- Maximum spool flange: 710mm
- Maximum spool width: 250mm
- Maximum spool weight: 200Kg
- Maximum tension: 105Nm at 6 bar.

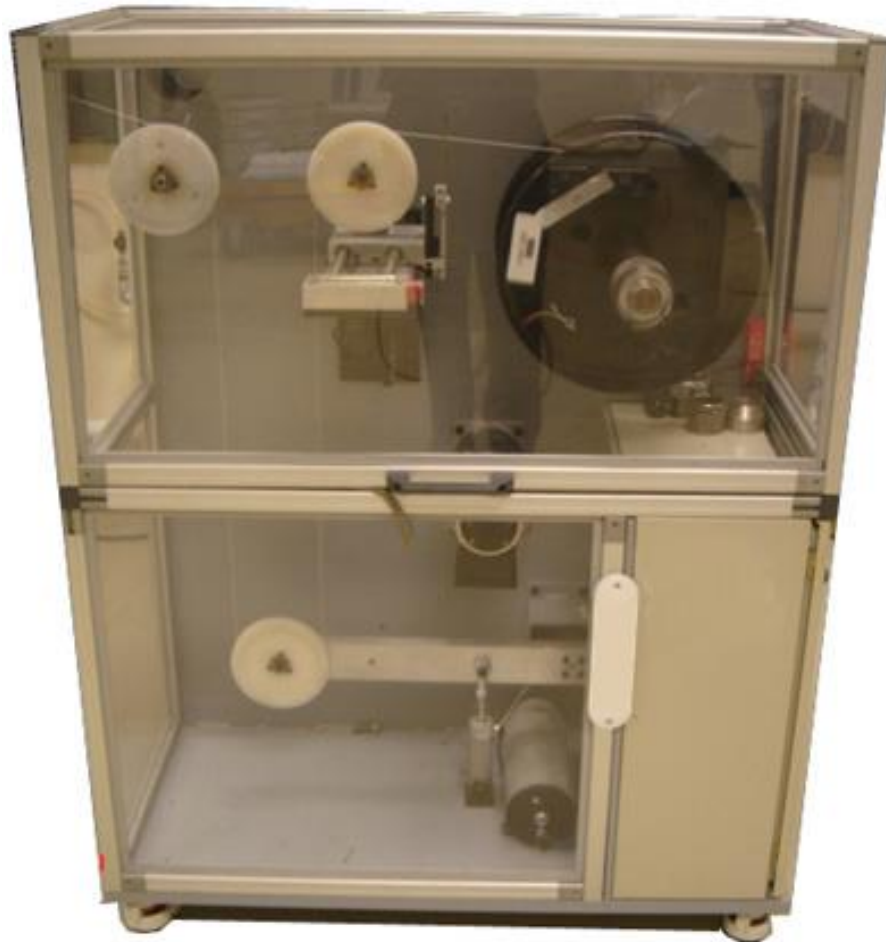
OPTIONS:

- Automatic air pressure regulator (reduces tension as the wire on the spool decreases)

SERIE HDF M

Pneumatic Wire Tensioner

Where tension control is critical to the winding process we can offer systems which give more consistent and accurate tension control

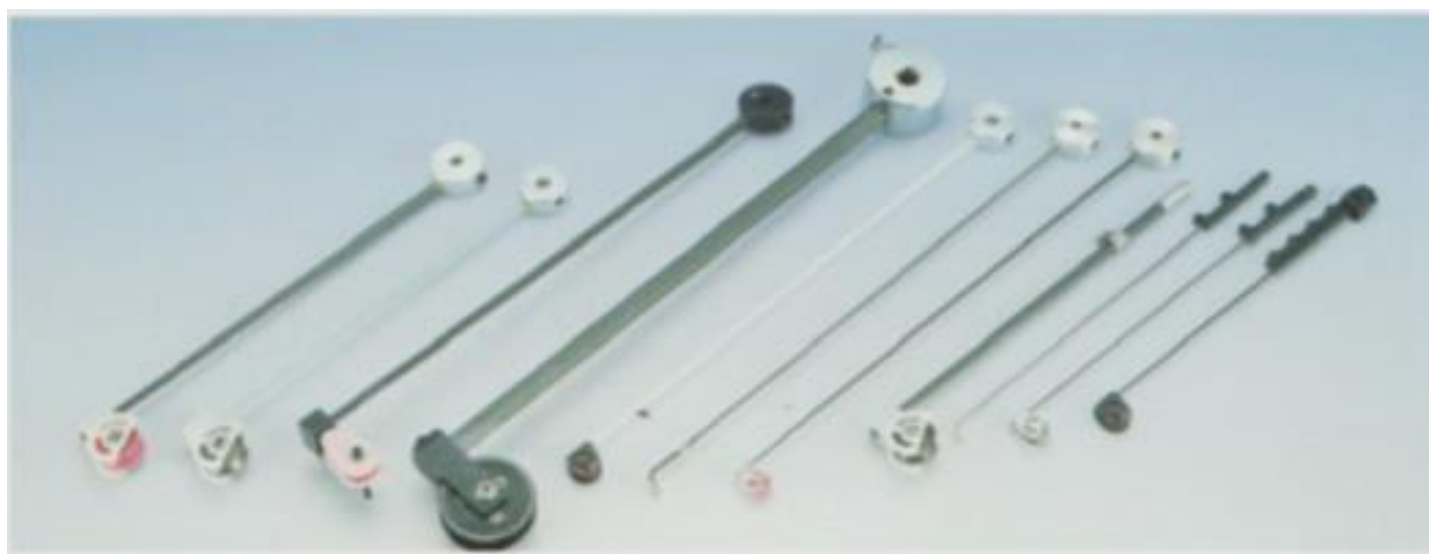


DESCRIPTION:

- Electro magnetic brake systems
- Motor driven tension systems with the facility to rewind wire back onto the feed spool.
- Facility to layer the wire back onto the feed spool
- Dancer arm units to take up any slack in the wire during winding
- Closed loop feedback systems for accurate & consistent tension control
- Tension displays and alarm systems to warn if tension is outside set limits

ACCESSORIES

Tension Rails



ACCESSORIES

Barrel Coiler



Barrel coiler is to accomplished because pressure gram of force organic glass strikes for one time merely, reasons precise equipment and advanced polishing handicraft, main be used to enclose to enamel insulated wire, to start to transparent, beautiful, protecting enamel insulated wire and effect cover.

DIAMETER	150	180	180	200	220	250	300	300	320	320	320	320	340	360	360	360	400	400	400	450	500
HIGHT	250	250	300	300	300	350	300	400	400	450	500	600	800	450	500	600	500	600	750	750	800
THICKNESS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	5