



Orlando Ricardo Santos
www.osp-lda.com

CATALOG GENERAL

FELTS FOR WIRE TENSIONERS

The ORLANDO RICARDO SANTOS supplies all the type of felts for all type of wire tensors.

The felts supplied for the ORLANDO RICARDO SANTOS, are manufactured in Portugal and exported to all the Europe and South America.

We make felts in accordance with the dimensions request for the customer, without increase costs.



We make round felts, squared, rectangular, of all the dimensions. It verifies our prices.

We have the best relation quality / price. Our process of manufacture and the materials are chosen carefully.

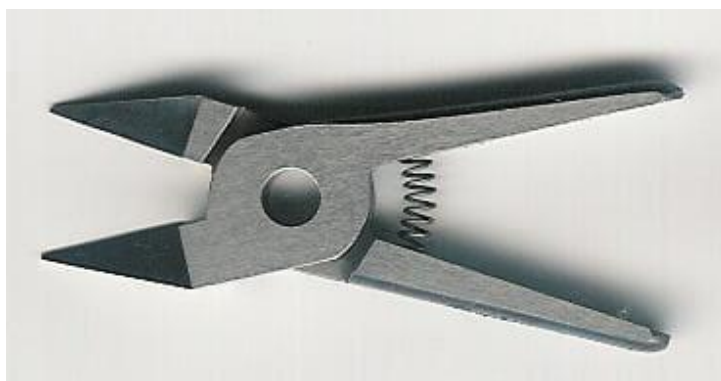


BLADES AND SCISSORS

The ORLANDO RICARDO SANTOS also has now in its roll of products for all marks of winding machines, blades and scissors for wire cut.

Our blades and scissors are produced in Portugal, with steel of the best quality and exported to all Europe and South America.

We make blades and scissors in accordance with the dimensions request for the customer.



We only make the part of the blades as complete scissor, with all the dimensions.
Check our prices.



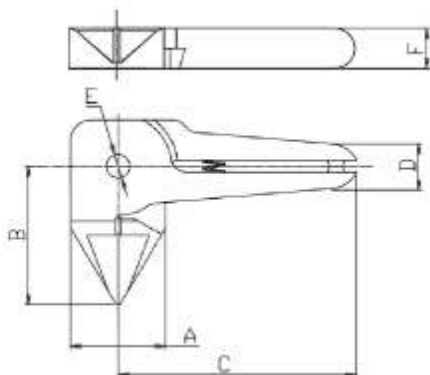
SERIE JWL-A and JWH-A

Nipper Cutters

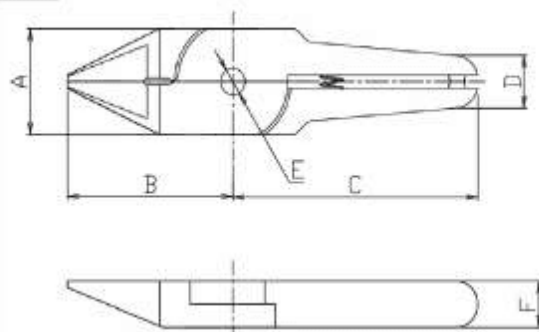
Nipper Cutters are used in automatic coil Winding machines for the cutting of copper wire.

The cutter's blades are made of tungsten carbide material with excellent wear resistance and a lifespan of up to 1 million cuts.

JWL-A



JWH-A



MODEL	A	B	C	D	E	F
JWH-A / JWH-B	16	27	40	8.8	ø 4	7
JWH-X / JWH-B	16	27	40	8.8	ø 4	7
JWL-A / JWR-B	16	24	40	8.8	ø 4	7

SERIE GP-3 and GS-3

Pneumatic Actuators for Nipper Cutters

Pneumatic actuators for Nipper Cutters are used in automatic coil Winding machines for cutting of copper wires.

The cylinder is made of pressurized aluminium alloy, with the surface hardened. High quality ring-seals and grease are used, with a lifespan of up to 2 million activations.



CYLINDER MODEL	CUTTER MODEL	COMPRESSED AIR	MAX. DIAMETER
GP-3/ GS-3	JWH-A / JHW-B / JWX-A	4-5 Kg/cm ²	0.8
GP-3A/ GS-3A	JWX-B / JHL-A / JWR-A	4-5 Kg/cm ²	0.8
GP-3L	JWX-B / JHL-A / JWR-A	4-5 Kg/cm ²	0.8

MANDRELS FOR ANY TYPE WINDING AND SOLDERING MACHINES

A ORLANDO RICARDO SANTOS with its partners, manufactures any type of mandrels for winding and soldering machines.

The mandrels provided by ORLANDO RICARDO SANTOS, are manufactured in Portugal and exported to all over Europe, Africa and South America.

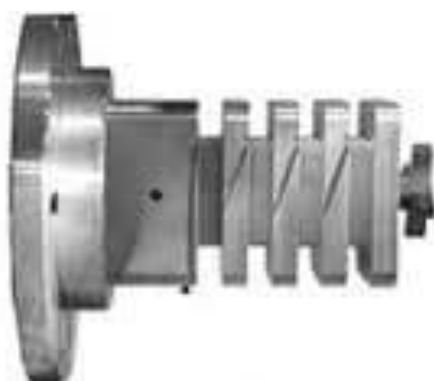
We make mandrels according to the size or samples requested by the client.



We make round, square, rectangular mandrels with all dimensions.

Check our prices.

We have the best price / quality ratio. Our manufacturing process and the raw materials are chosen carefully.



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



MODEL	TENSION RANGE	WIRE DIAMETER	WEIGHT	DIMENSIONS (mm)
TS3S	2 – 11 grs	0.02 – 0.04 mm	350 grs	190-155-65
TCSS-X	7 – 30 grs	0.03 – 0.06 mm	360 grs	190-155-65
TCSS-W	6 – 50 grs	0.03 – 0.08 mm	360 grs	190-155-65
TCSS	9 – 50 grs	0.04 – 0.08 mm	380 grs	190-155-65
TCS-E	20 – 130 grs	0.06 – 0.13 mm	380 grs	190-155-65
TCS	40 – 200 grs	0.08 – 0.16 mm	400 grs	190-155-65
TCM	90 – 500 grs	0.16 – 0.25 mm	400 grs	190-155-65

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 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.

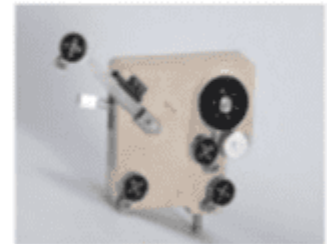
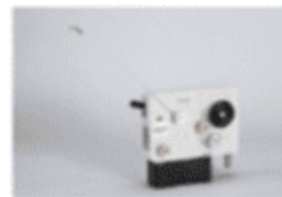
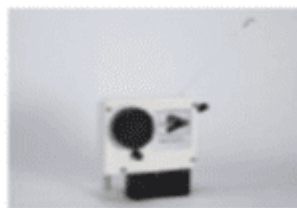
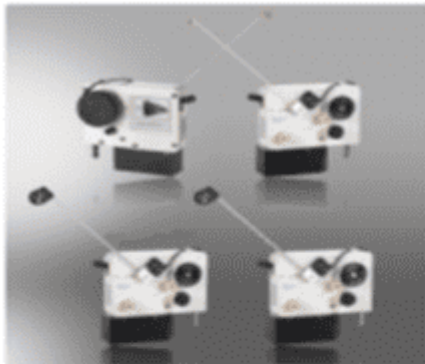
Mounting of wire break detection switch also been re-designed to improve its lifespan.



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

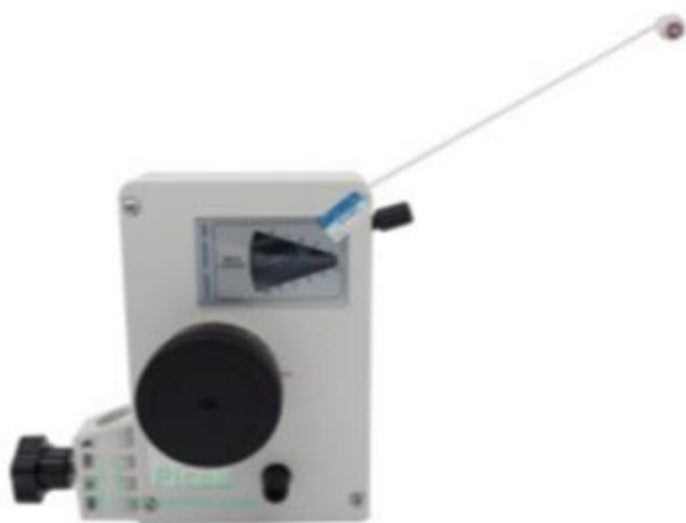


TYPE	MODEL	TENSION RANGE	WIRE SIZE
MTD – MODEL Horizontal	ELG MTD 130	5 – 130 Grs	0.025 – 0.12 mm
	ELG MTD 400	14 – 400 Grs	0.06 – 0.25 mm
	ELG MTD 800	30 – 800 Grs	0.08 – 0.40 mm
	ELG MTD 1500	300 – 1500 Grs	0.35 – 0.80 mm
	ELG MTD 2500	500 – 2500 Grs	0.40 – 1.00 mm

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

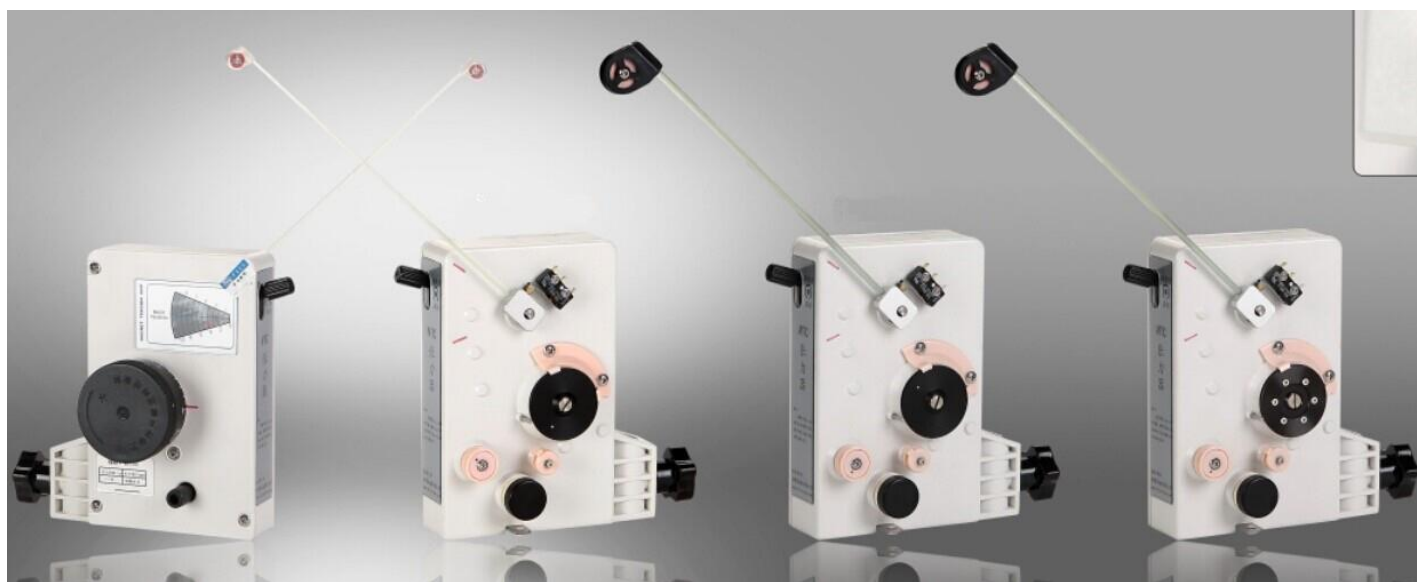
Magnetic Tensioner



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	WEIGHTH
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:

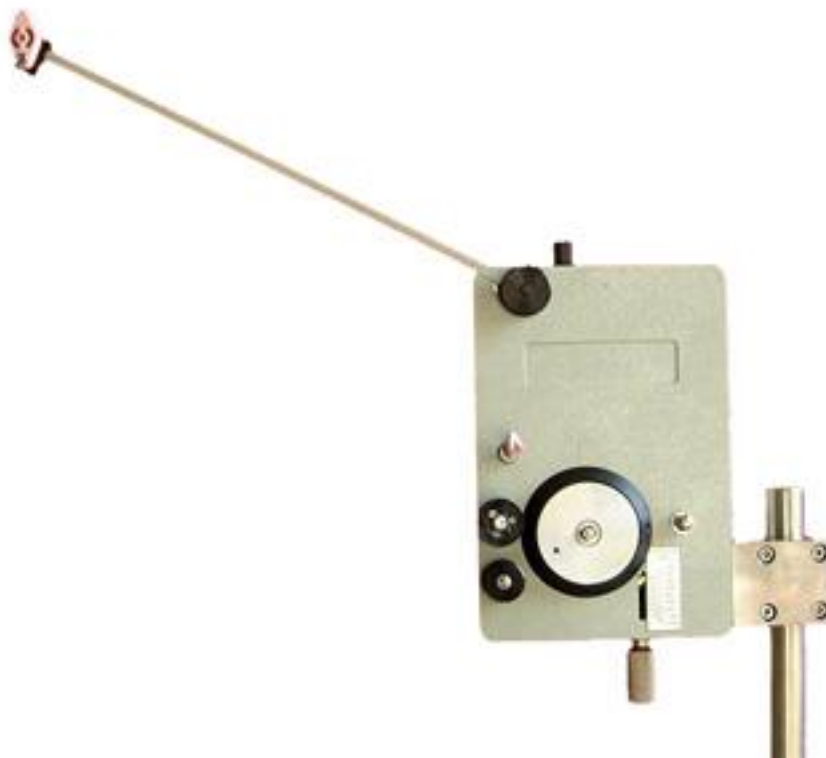
- Wire range: 0.045 - 0.13mm diameter

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

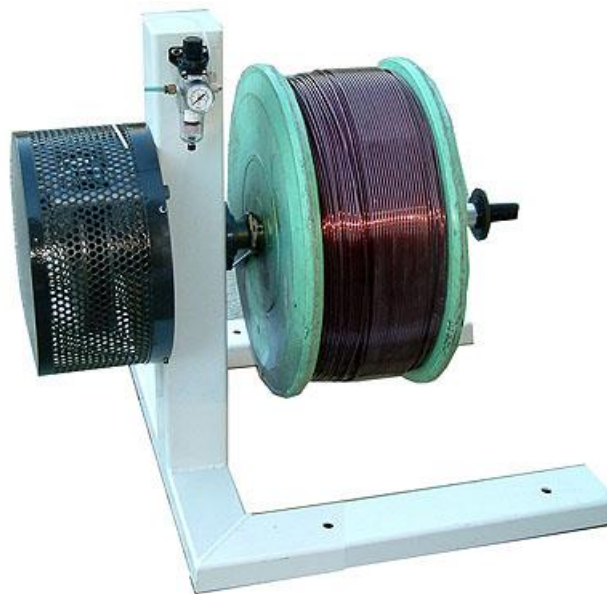
SERIE HDF 700

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.

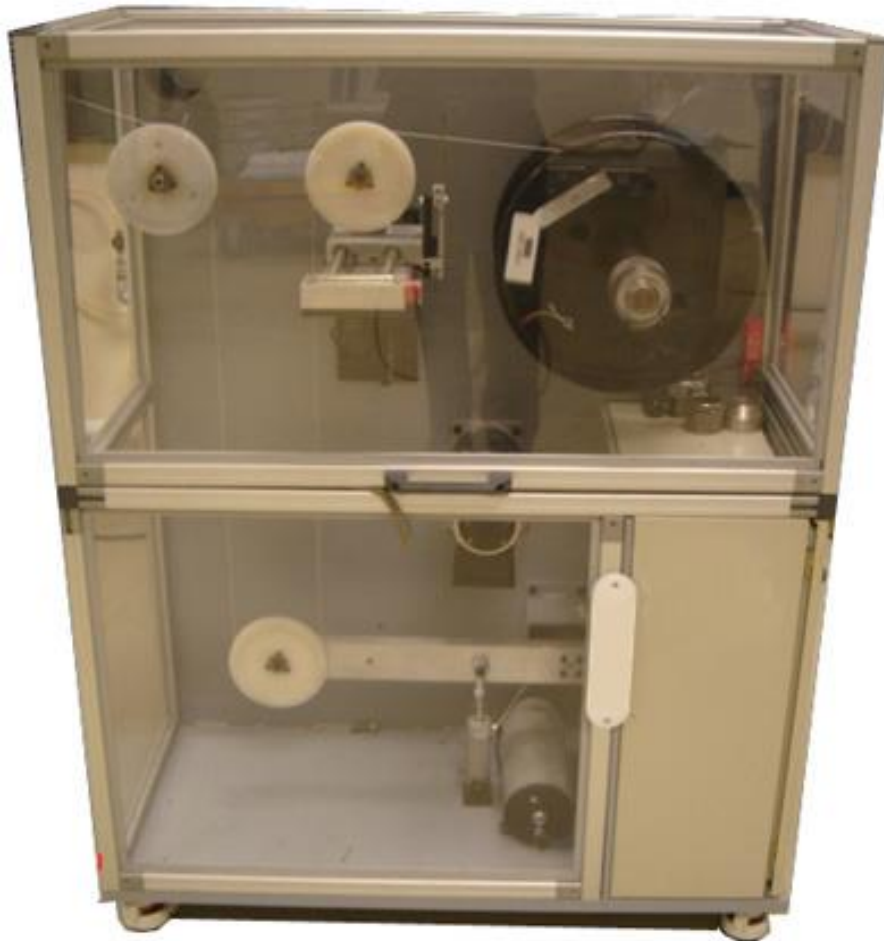
OPTIONS:

- 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

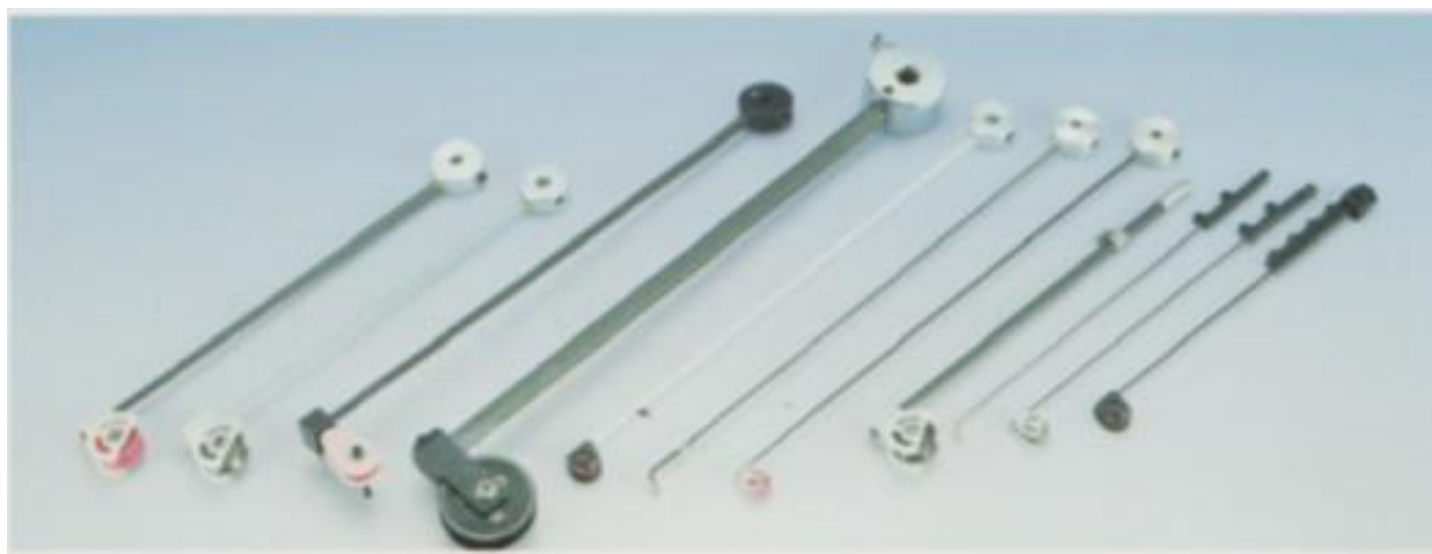


DESCRIPTION:

- 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

FINE CERAMIC EYELET GUIDES

The ORLANDO RICARDO SANTOS have now in our products list Fine Ceramic Eyelet Guides for all the marks and models of winding machines.

Our products are made of fine ceramic (Alumina AL₂O₃). Are excellent for heat and wear resistance. Surfaces polished to mirror finish, minimal friction co-efficiency.



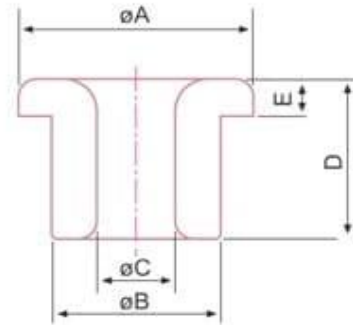
Eyelet guides normally used in guiding wire direction in coil winding machines, can also be used in wire and fiber production.

For this kind of products, we commercialize minimum amounts of 200 pieces. Different quantities can be combined between customer and ORLANDO RICARDO SANTOS.

ORLANDO RICARDO SANTOS represents TROPHY in some countries from Europe and South America. Check our prices.

Ceramic Eyelet Guides Data Sheet

Part Name	Dimensions in mm				
	A	B	C	D	E
CY-001	4.5	2.8	1.0	3.0	1.0
CY-002	5.0	3.5	2.4	3.6	1.0
CY-003	6.8	4.7	2.6	3.3	1.3
CY-004	10.0	7.2	4.8	8.8	1.7
CY-005	10.0	7.0	4.8	8.8	1.7
CY-006	11.0	8.0	3.7	9.2	3.0
CY-007	7.8	5.2	3.0	5.5	1.5
CY-008	9.2	7.0	4.5	8.0	2.0
CY-009	6.0	4.2	2.6	3.2	1.2
CY-010	10.2	6.2	4.2	10.0	2.0
CY-011	9.7	7.0	4.0	9.0	2.0
CY-012	6.0	3.8	2.0	3.6	1.0
CY-013	7.0	3.8	2.0	4.0	1.5
CY-014	7.7	6.0	3.4	6.0	2.0
CY-015	6.0	4.5	2.0	5.0	1.5
CY-016	12.0	10.0	7.0	8.3	2.0
CY-017	12.0	9.	5.5	8.5	1.5
CY-018	5.5	4.0	1.8	4.3	1.3
CY-019	6.0	4.4	2.0	5.0	1.5
CY-020	6.2	3.7	1.7	5.0	1.0
CY-021	13.0	9.0	4.3	7.0	2.0
CY-022	10.0	6.8	4.2	10.0	2.0
CY-023	14.0	10.0	6.5	9.8	3.0
CY-024	15.3	11.8	7.5	10.0	3.0
CY-025	12.0	10.0	7.1	6.0	2.0
CY-026	6.5	4.9	3.3	6.5	1.5
CY-027	7.8	6.0	3.4	4.8	1.8
CY-028	4.2	3.0	2.0	5.0	1.0
CY-029	4.2	3.0	1.0	4.0	1.0
CY-030	5.9	4.0	2.0	8.0	1.2
CY-031	7.8	6.0	3.5	8.0	1.6
CY-032	17.7	12.8	7.0	18.7	3.0
CY-033	14.0	10.4	6.6	18.0	2.5
CY-034	11.7	9.5	5.5	8.2	2.4
CY-035	12.0	9.6	6.2	10.5	2.1
CY-090	8.0	5.4	2.5	5.5	1.5



Trophy (Singapore) Pte Ltd

Blk 3006, Ubi Road 1, #03-362, S'pore 408700. Tel: 65-6842 4356 Fax: 65-6842 4357
Email: sales@ruby-nozzles.com

FINE CERAMIC CAGE PULLEYS

One more new product sale for ORLANDO RICARDO SANTOS. Now in our products list, Fine ceramic Cage Pulleys for all the marks and models of winding machines

Our products are made of fine ceramic (Alumina AL₂O₃). Are excellent for heat and wear resistance.

Your characteristics: - All surfaces polished to mirror finish

- Precision bearing mounted.
- Lightweight.
- Easy threading.
- Low torque.
- Positive caging.
- Prevent straying or jumping of wire.



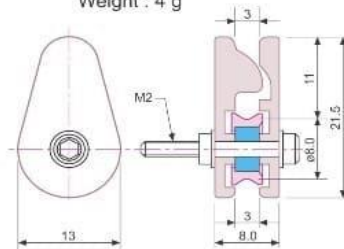
Cage pulleys normally used in guiding wire direction in coil winding machines, can also be used in wire and fiber production.

For this kind of products, we commercialize minimum amounts of 200 pieces. Different quantities can be combined between customer and ORLANDO RICARDO SANTOS.

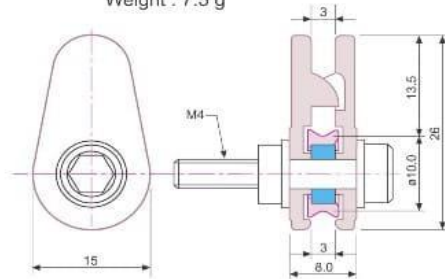
ORLANDO RICARDO SANTOS represents TROPHY in some countries from Europe and South America. Check our prices.

Cage Pulley

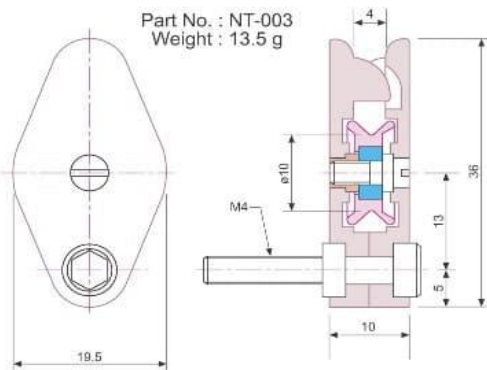
Part No. : NT-001
Weight : 4 g



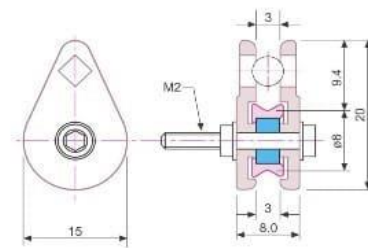
Part No. : NT-002
Weight : 7.5 g



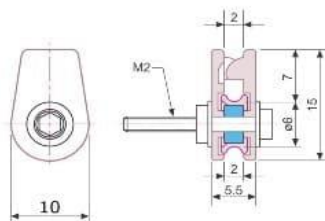
Part No. : NT-003
Weight : 13.5 g



Part No. : NT-004
Weight : 4 g



Part No. : NT-005
Weight : 2 g



Trophy (Singapore) Pte Ltd

Blk 3006, Ubi Road 1, #03-362, S'pore 408700, Tel: 65-6842 4356 Fax: 65-6842 4357
Email: sales@ruby-nozzles.com

FINE CERAMIC PULLEYS FOR WINDING MACHINES

The ORLANDO RICARDO SANTOS have now in our products list Fine Ceramic Eyelet Guides for all the marks and models of winding machines.

Our products are made of fine ceramic (Alumina AL₂O₃). Are excellent for heat and wear resistance.

Your characteristics: - All surfaces polished to mirror finish

- Precision bearing mounted.
- Lightweight.
- Easy threading.
- Low starting torque.
- Precision Nylon flange.
- Mirror finished ceramic groove.



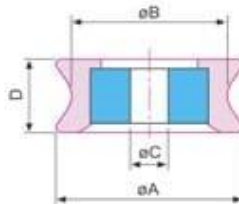
Ceramic pulleys normally used in guiding wire direction in coil winding machines, can also be used in wire and fiber production.

For this kind of products, we commercialize minimum amounts of 200 pieces. Different quantities can be combined between customer and ORLANDO RICARDO SANTOS.

ORLANDO RICARDO SANTOS represents TROPHY in some countries from Europe and South America. Check our prices.

Ceramic Pulleys Data Sheet

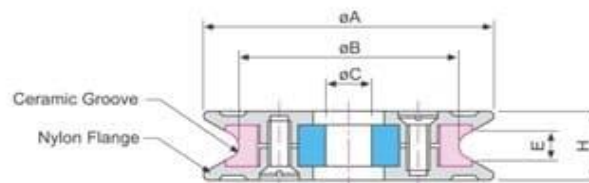
Dimensions Data of Miniature Ceramic Pulleys



Dimensions in mm

Size Part No.	A	B	C	D
NT001-2	10.0	8.0	2.0	4.0
NT002-2	11.5	10.0	4.0	4.0
NT003-2	14.0	10.0	3.0	6.0
NT004-2	10.0	8.0	2.0	4.0
NT005-2	7.8	6.0	2.0	3.2
NT006-2	10.6	7.3	2.0	3.5

Dimensions Data of Wire Pulleys



Dimensions in mm

Size Part No.	A	B	C	E	H
DL-1001	20.0	15.0	3.0	2.0	5.0
DL-1002	29.0	20.0	4.0	3.0	6.5
DL-1003	30.0	15.0	3.0	2.0	10.0
DL-1004	40.0	20.0	4.0	3.0	15.0
DL-1005	45.0	30.0	5.0	4.0	10.0



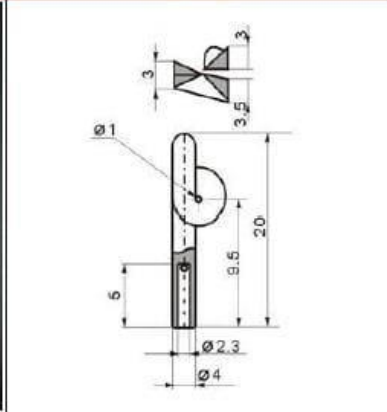
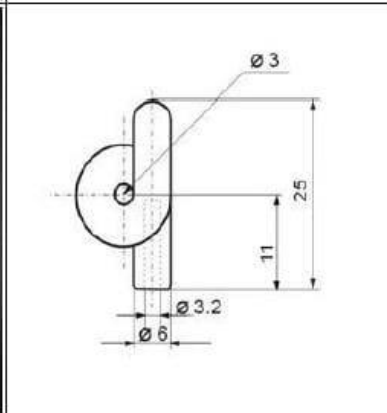
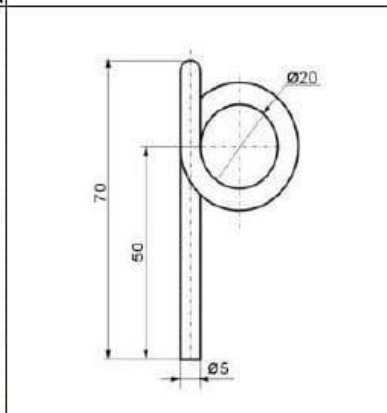
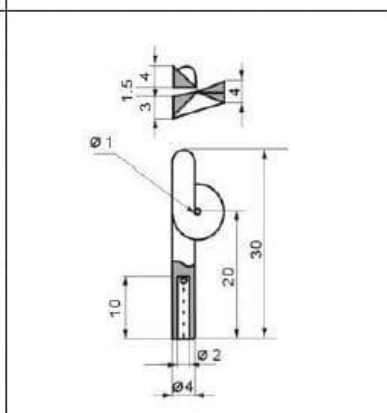
Trophy (Singapore) Pte Ltd

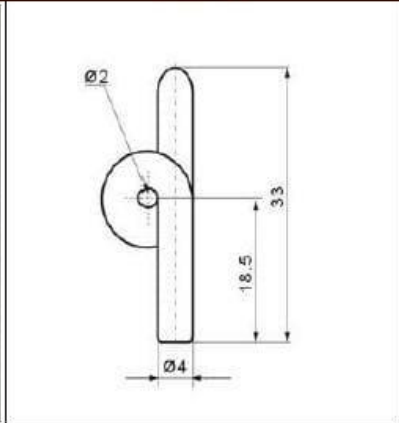
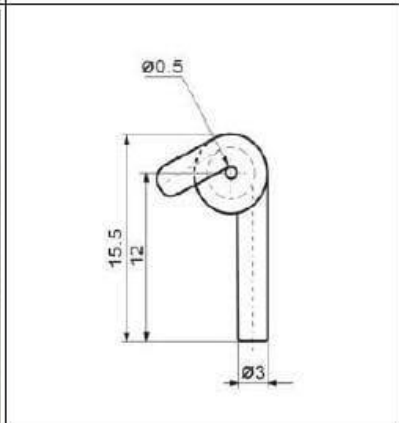
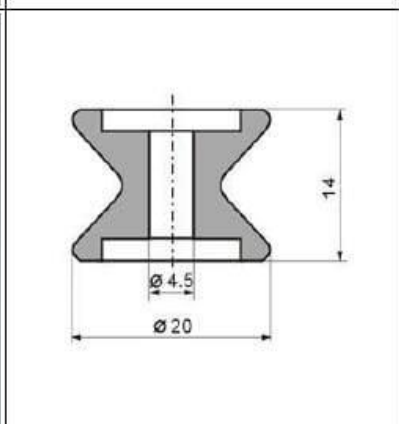
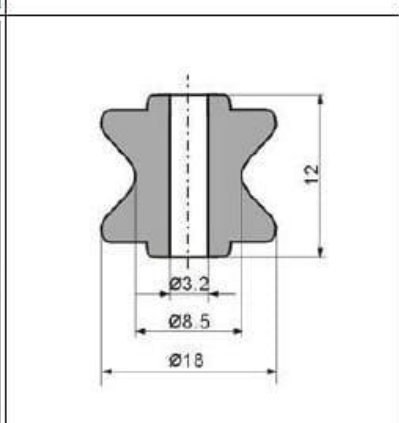
Blk 3006, Ubi Road 1, #03-362, S'pore 408700. Tel: 65-6842 4356 Fax: 65-6842 4357
Email: sales@ruby-nozzles.com

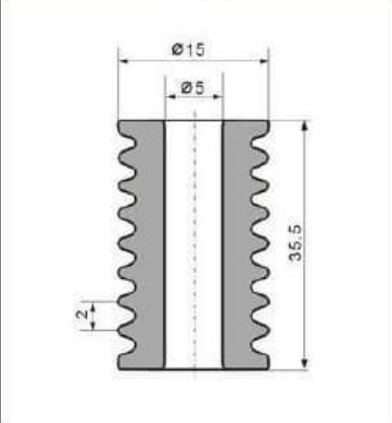
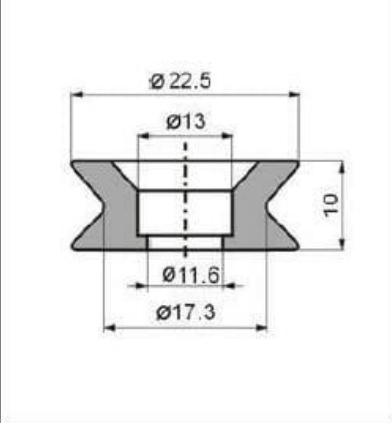
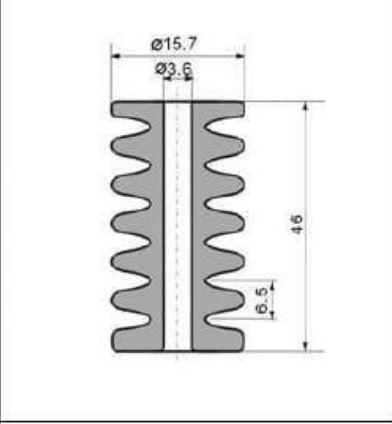
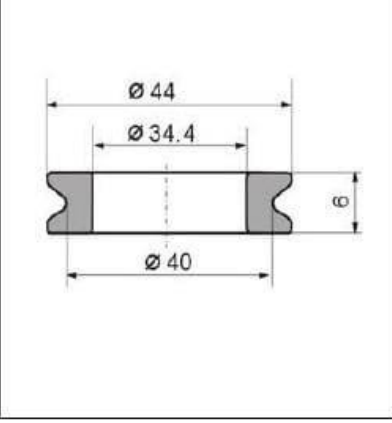
CERAMIC PIGTAILS AND ROLLERS FOR ALL KIND OF WINDING MACHINES

The ORLANDO RICARDO SANTOS have now in our products list PigTails and Rollers with different diameters. Our products are made of fine ceramic (Alumina AL₂O₃).
Are excellent for heat and wear resistance.



PN	Picture	2D Dwg.	Material
P-1447			99.5% Al ₂ O ₃
P-1529			99.5% Al ₂ O ₃
P-1661			99.5% Al ₂ O ₃
P-1777			99.5% Al ₂ O ₃

PN	Picture	2D Dwg.	Material
P-1914			99.5% Al ₂ O ₃
P-1916			99.5% Al ₂ O ₃
R-1436			99.5% Al ₂ O ₃
R-1481			99.5% Al ₂ O ₃

PN	Picture	2D Dwg.	Material
R-1510			99.5% Al ₂ O ₃
R-1520			99.5% Al ₂ O ₃
R-1729			99.5% Al ₂ O ₃
R-1917			99.5% Al ₂ O ₃

SOLDER POTS AND SOLDERING MACHINES

The ORLANDO RICARDO SANTOS commercializes Solder Pots of all type, for electronic industry and others. All pots with temperature regulation.

REECO WP-30B

Solder Pot



Convenient temperature setting - electronic controller.
Durable construction, robust design - stainless steel solder bath, sheet steel housing.
Exceptionally low price for a device of this class is a decisive advantage.

Characteristics	
Temperature max.	150 – 500 °C
Dimensions	36 mm diameter
Supply Voltage	220 Vac 50/60 Hz

REECO WP-50B

Solder Pot



Convenient temperature setting - electronic controller.
Durable construction, robust design - stainless steel solder bath, sheet steel housing.
Bathtub covered with titanium compounds.
Exceptionally low price for a device of this class is a decisive advantage.

Characteristics	
Temperature	430 °C máx.
Load weight	Up to 500 grs
Dimensions	50 mm diameter
Power	160 W
Supply Voltage	220 Vac 50/60 Hz

REECO WP-600B

Solder Pot



Control and precise temperature stabilization - electronic controller, thermostat to stabilize the temperature.

Durable construction, robust design.

Designed for lead - free soldering.

Characteristics	
Temperature	450 °C máx.
Load weight	5.5 Kgs
Dimensions	98 mm x 121 mm x 58 mm
Power	600 W
Supply Voltage	220 Vac 50/60 Hz

HT-M2 PLUS

Soldering Machine



Wave soldering pot, to use lead-free solder, a recent design, intended for intensive use in industry.

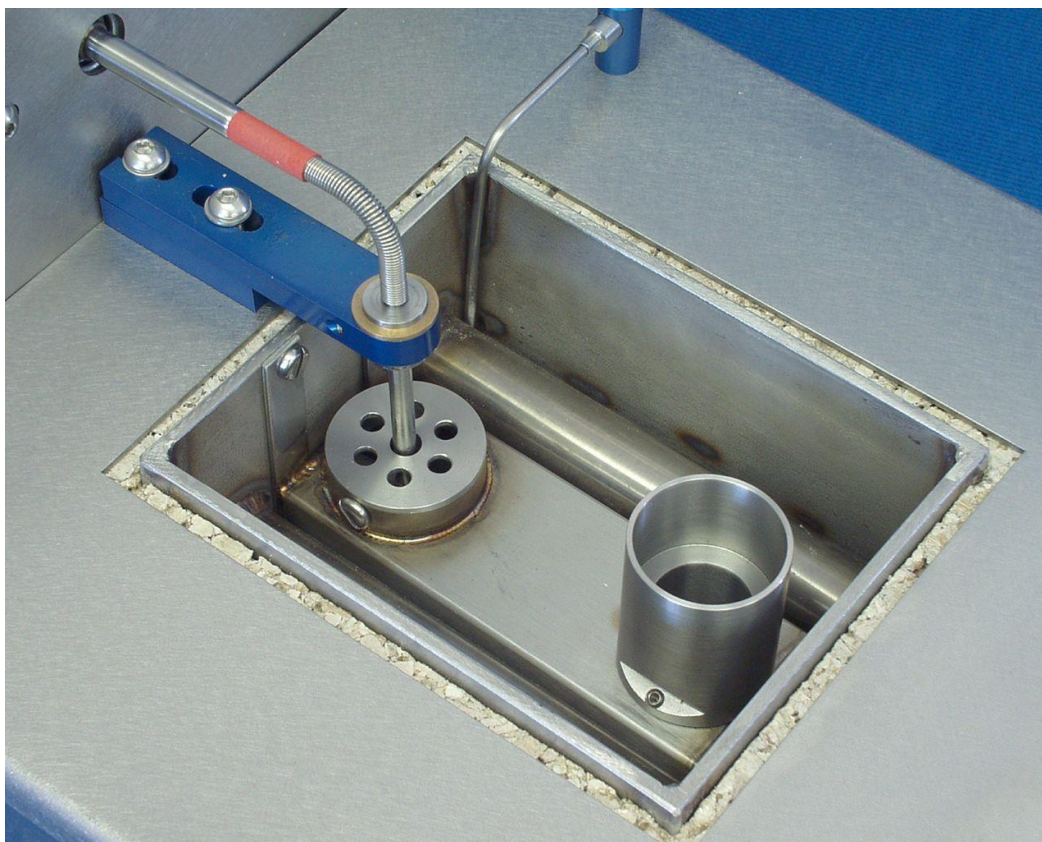
Digital temperature controller probe type K and a maximum temperature of 550 ° C.

Warmed by two resistors of 100 W each, controlled by digital controller. The pump is actuated by a foot pedal, low voltage.

The nozzles are built in welding and titanium solder wave is regulated via the pump speed.

The nozzles are welding snap, which makes them very easy to replace and a quick change.

Various types of nozzles for all types of coils.



Characteristics	
Temperature	550 °C máx.
Capacity	6 Kgs the Sn
Dimensions Ext.	510 mm x 290 mm x 280 mm
Dimensions Int.	110 mm x 200 mm x 80 mm
Controller	Digital
Weight	15 Kgs
Power	720 W
Sully Voltage	220 - 240 Vac 50/60 Hz

SEMI-AUTOMATIC INDEXING UNIT

Soldering Machine



AUTOMATIC SOLDERING AND FINISHING UNIT

Soldering Machine

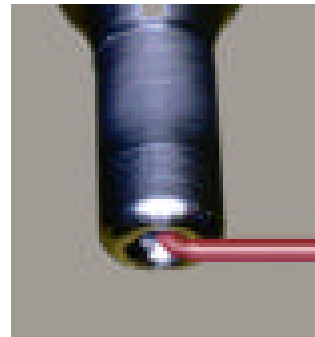


WIRE GUIDES FOR WINDING MACHINES

Orlando Ricardo Santos, sale **Wire Guide nozzles** to fit coil winding machines from all the major manufacturers,

Including Tanaka, Marsilli, Meteor, Prosys, Siemens, Bachi, Sipro, Wey Hwang, Sarcem, Necoa, Nittoku, ATS, etc. There are hundreds of sizes in the range including custom sizes, usually at no extra cost. See a sample of the sizes in the accompanying sheet.

The wire guide nozzles produced by us provide the best quality/price ratio because of careful choice of material and manufacturing process.



We commercialize nozzles to address all winding situations. The range includes cutter, threaded, multicut, bifilar and bent nozzles.

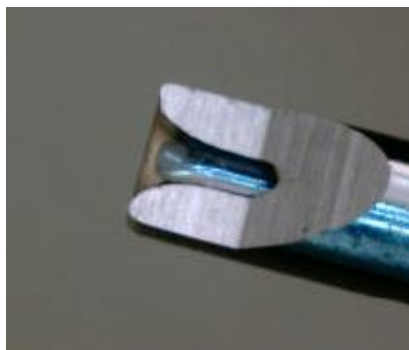
Gentle on the flow of Wire

Wire Guide Tube design considerations

The wire guide nozzles from Sci-bore receive meticulous attention to detail. The nozzles are made from high carbon bearing steel tempered to 62-64 HRC for the best combination of resistance to rust, resistance to wear, and resistance to shattering. These results **in minimum down time** during coil winding.

Our wire guide nozzles are made for **high quality** production of sensors, coils and transformers.

Our nozzles excel with a **mirror finish** where it matters - where the wire is fed in and where the wire flows out, with a smooth bore in between.



The detailed attention goes further. Examine the **shape** of the curves at the ends. The tip is designed to offer smooth passage of the wire, even for wire exits at over 90 degrees without losing control (that can occur by over-extending the nose outlet diameter). At the other end, the wire entry is through a carefully engineered shape that offers a graduated rate of change in the curvature for the smoothest passage to the bore, yet offering a wide entrance for a blind feed. These factors help **minimize chances of wire stripping**.



Standard and Custom solutions for the wire guide Industry.

We are the expertise to provide the winding community with wire guide tubes (nozzles), of all sizes and shapes. These include cutter, multisteped, threaded, bent and other shapes.

These and other tube types available. Please call, fax or email for details.

Our recommended wire size to bore size is as follows:

Wire size ID (bore size) min

0.01mm to 0.4mm Wire size X 2 = bore

0.45mm to 0.80mm Wire size X 1.5= bore

0.85mm to 1.40mm Wire size + .5 = bore

Cutter and Threaded Nozzles

Wide range of shapes, cutter and threaded nozzles are also available.



Part Number	O.D.	CD	Bore	OL	CL
1300-030-050000	1.3		0.3	5	
1310-040-350100	1.3	1	0.4	35	10
1300-050-050000	1.3		0.5	5	
1300-070-320000	1.3		0.7	32	
1508-035-350080	1.5	0.8	0.3	35	8
1600-060-347000	1.6	0.6		34.7	
1600-070-110000	1.6	0.7		11	
1600-080-110000	1.6	0.8		11	
2000-030-050000	2	0.3		5	
2010-030-050025	2	1	0.3	5	2.5
2008-030-100070	2	0.8	0.3	10	7
2000-030-120000	2	0.3		12	
2006-030-140020	2	0.6	0.3	14	2
2007-030-140020	2	0.7	0.3	14	2
2012-030-250100	2	1.2	0.3	25	10
2000-030-290000	2	0.3		29	
2000-030-350000	2	0.3		35	
2007-030-350042	2	0.7	0.3	35	4.2
2008-030-350050	2	0.8	0.3	35	5
2008-030-350060	2	0.8	0.3	35	6
2008-030-350080	2	0.8	0.3	35	8
2012-030-350100	2	1.2	0.3	35	10
2009-030-500060	2	0.9	0.3	50	6
2000-035-050000	2		0.3	5	
2015-035-119065	2	1.5	0.3	11.9	6.5
2008-035-200118	2	0.8	0.3	20	11.8
2012-035-250100	2	1.2	0.3	25	10
2008-035-350080	2	0.8	0.3	35	8
2008-035-350100	2	0.8	0.3	35	10
2012-035-350100	2	1.2	0.3	35	10
2008-035-440080	2	0.8	0.3	44	8
2010-040-140020	2	1	0.4	14	2
2010-040-140050	2	1	0.4	14	5
2010-040-260060	2	1	0.4	26	6
2000-040-290000	2		0.4	29	
2008-040-300077	2	0.8	0.4	30	7.7
2008-040-350050	2	0.8	0.4	35	5
2008-040-350080	2	0.8	0.4	35	8
2008-040-350100	2	0.8	0.4	35	10
2010-040-350050	2	1	0.4	35	5
2010-040-350060	2	1	0.4	35	6
2010-040-350100	2	1	0.4	35	10
2014-040-350100	2	1.4	0.4	35	10
2012-040-380090	2	1.2	0.4	8	9
2000-050-050000	2		0.5	5	
2000-050-250000	2		0.5	25	
2000-050-300000	2		0.5	30	
2008-050-300050	2	0.8	0.5	30	5
2008-050-300077	2	0.8	0.5	30	7.7
2010-050-300095	2	1	0.5	30	9.5
2000-050-350000	2		0.5	35	
2008-050-350050	2	0.8	0.5	35	5
2012-050-350080	2	1.2	0.5	35	8
2012-050-350100	2	1.2	0.5	35	10
2000-050-380000	2		0.5	38	
2000-050-400000	2		0.5	40	
2012-050-442083	2	1.2	0.5	44.2	8.3
2000-050-500000	2		0.5	50	
2012-050-500100	2	1.2	0.5	50	10
2012-050-350065	2	1.2	0.5	35	6.5
2000-060-050000	2		0.6	5	
2015-060-102050	2	1.5	0.6	10.2	5
2012-060-140050	2	1.2	0.6	14	5
2014-060-140050	2	1.4	0.6	14	5
2000-060-250000	2		0.6	25	
2014-060-254080	2	1.4	0.6	25.4	8

Part Number	O.D.	CD	Bore	OL	CL
2000-060-286000	2		0.6	28.6	
2000-060-300000	2		0.6	30	
2010-060-320080	2	1	0.6	32	8
2000-060-350000	2		0.6	35	
2010-060-350100	2	1	0.6	35	10
2012-060-350050	2	1.2	0.6	35	5
2012-060-350100	2	1.2	0.6	35	10
2014-060-350100	2	1.4	0.6	35	10
2016-060-350100	2	1.6	0.6	35	10
2000-060-380000	2		0.6	38	
2000-060-480000	2		0.6	48	
2010-060-480080	2	1	0.6	48	8
2012-060-480100	2	1.2	0.6	48	10
2000-060-500000	2		0.6	50	
2016-060-500120	2	1.6	0.6	50	12
2016-060-500220	2	1.6	0.6	50	22
2000-080-050000	2		0.8	5	
2015-080-119064	2	1.5	0.8	11.9	6.4
2015-080-120100	2	1.5	0.8	12	10
2015-080-126350	2	1.5	0.8	12.6	35
2012-080-140050	2	1.2	0.8	14	5
2014-080-140050	2	1.4	0.8	14	5
2000-080-300000	2		0.8	30	
2000-080-350000	2		0.8	35	
2012-080-350050	2	1.2	0.8	35	5
2014-080-350050	2	1.4	0.8	35	5
2014-080-350100	2	1.4	0.8	35	10
2015-080-350100	2	1.5	0.8	35	10
2016-080-350100	2	1.6	0.8	35	10
2000-080-450000	2		0.8	45	
2000-080-480000	2		0.8	48	
2016-080-480120	2	1.6	0.8	48	12
2000-080-500000	2		0.8	50	
2000-100-050000	2		1.0	5	
2000-100-100000	2		1.0	10	
2000-100-300000	2		1.0	30	
2000-100-350000	2		1.0	35	
2016-100-350064	2	1.6	1.0	35	6.4
2000-100-500000	2		1.0	50	
2000-120-060000	2		1.2	6	
2000-120-350000	2		1.2	35	
2000-120-600000	2		1.2	60	
2314-080-400090	2.3	1.4	0.8	40	9
2400-120-320000	2.4		1.2	32	
2400-130-300000	2.4		1.3	30	
2500-060-350000	2.5		0.6	35	
2515-080-300080	2.5	1.5	0.8	30	8
2500-080-500000	2.5		0.8	50	
2500-100-175000	2.5		1.0	17.5	
2518-100-350100	2.5	1.8	1.0	35	10
2500-100-450000	2.5		1.0	45	
2500-120-350000	2.5		1.2	35	
2500-120-450000	2.5		1.2	45	
2500-120-480000	2.5		1.2	48	
2500-150-350000	2.5		1.5	35	
2500-150-480000	2.5		1.5	48	
3007-030-090050	3	0.7	0.3	9	5
3010-030-120070	3	1	0.3	12	7
3007-030-220060	3	0.7	0.3	22	6
3010-030-220060	3	1	0.3	22	6
3010-030-220100	3	1	0.3	22	10
3018-030-220100	3	1.8	0.3	22	10
3010-030-250100	3	1	0.3	25	10

Part Number	O.D.	CD	Bore	OL	CL
3015-030-250100	3	1.5	0.3	25	10
3015-030-250150	3	1.5	0.3	25	15
3008-030-300055	3	0.8	0.3	30	5.5
3008-030-300070	3	0.8	0.3	30	7
3008-030-300150	3	0.8	0.3	30	15
3010-030-300080	3	1	0.3	30	8
3010-030-300100	3	1	0.3	30	10
3010-030-300150	3	1	0.3	30	15
3010-030-300160	3	1	0.3	30	16
3012-030-300100	3	1.2	0.3	30	10
3010-030-350100	3	1	0.3	35	10
3012-030-350180	3	1.2	0.3	35	18
3015-030-350130	3	1.5	0.3	35	13
3016-030-350100	3	1.6	0.3	35	10
3015-030-400100	3	1.5	0.3	40	10
3007-030-450080	3	0.7	0.3	45	8
3008-030-450100	3	0.8	0.3	45	10
3010-030-450050	3	1	0.3	45	5
3010-030-450100	3	1	0.3	45	10
3012-030-450100	3	1.2	0.3	45	10
3014-030-450120	3	1.4	0.3	45	12
3014-030-450160	3	1.4	0.3	45	16
3015-030-450100	3	1.5	0.3	45	10
3010-030-550100	3	1	0.3	55	10
3000-030-600000	3		0.3	60	
3010-035-220100	3	1	0.3	22	10
3010-035-250100	3	1	0.3	25	10
3010-035-450085	3	1	0.3	45	8.5
3012-035-450120	3	1.2	0.3	45	12
3012-035-450122	3	1.2	0.3	45	12.2
3016-040-210150	3	1.6	0.4	21	15
3012-040-220100	3	1.2	0.4	22	10
3015-040-220100	3	1.5	0.4	22	10
3010-040-250100	3	1	0.4	25	10
3012-040-250100	3	1.2	0.4	25	10
3000-040-300000	3		0.4	30	
3010-040-300070	3	1	0.4	30	7
3010-040-300100	3	1	0.4	30	10
3010-040-300125	3	1	0.4	30	12.5
3010-040-300130	3	1	0.4	30	13
3012-040-300100	3	1.2	0.4	30	10
3015-040-300100	3	1.5	0.4	30	10
3020-040-300140	3	2	0.4	30	14
3012-040-350100	3	1.2	0.4	35	10
3000-040-450000	3		0.4	45	
3010-040-450050	3	1	0.4	45	5
3010-040-450060	3	1	0.4	45	6
3010-040-450120	3	1	0.4	45	12
3010-040-450150	3	1	0.4	45	15
3012-040-450100	3	1.2	0.4	45	10
3014-040-450120	3	1.4	0.4	45	12
3014-040-450170	3	1.4	0.4	45	17
3015-040-450150	3	1.5	0.4	45	15
3015-040-450170	3	1.5	0.4	45	17
3016-040-450120	3	1.6	0.4	45	12
3016-040-450150	3	1.6	0.4	45	15
3000-050-120000	3		0.5	12	
3000-050-220000	3		0.5	22	
3012-050-250100	3	1.2	0.5	25	10
3010-050-300070	3	1	0.5	30	7
3010-050-300100	3	1	0.5	30	10
3010-050-300120	3	1	0.5	30	12
3012-050-300100	3	1.2	0.5	30	10
3014-050-300080	3	1.4	0.5	30	8
3012-050-350001	3	1.2	0.5	35	0.1
3012-050-350100	3	1.2	0.5	35	10

Part Number	O.D.	CD	Bore	OL	CL
3013-050-350100	3	1.3	0.5	35	10
3016-050-350100	3	1.6	0.5	35	10
3014-050-400100	3	1.4	0.5	40	10
3015-050-400100	3	1.5	0.5	40	10
3015-050-400120	3	1.5	0.5	40	12
3016-050-400090	3	1.6	0.5	40	9
3016-050-400100	3	1.6	0.5	40	10
3010-050-450060	3	1	0.5	45	6
3012-050-450100	3	1.2	0.5	45	10
3012-050-450150	3	1.2	0.5	45	15
3012-050-450170	3	1.2	0.5	45	17
3012-050-450200	3	1.2	0.5	45	20
3013-050-450120	3	1.3	0.5	45	12
3015-050-450070	3	1.5	0.5	45	7
3015-050-450150	3	1.5	0.5	45	15
3015-050-450170	3	1.5	0.5	45	17
3015-050-450180	3	1.5	0.5	45	18
3016-050-450150	3	1.6	0.5	45	15
3012-050-500100	3	1.2	0.5	50	10
3013-050-510120	3	1.3	0.5	51	12
3013-050-550120	3	1.3	0.5	55	12
3000-060-125000	3		0.6	12.5	
3015-060-150090	3	1.5	0.6	15	9
3015-060-180030	3	1.5	0.6	18	3
3015-060-210150	3	1.5	0.6	21	15
3014-060-220080	3	1.4	0.6	22	8
3015-060-220100	3	1.5	0.6	22	10
3000-060-225000	3		0.6	22.5	
3014-060-250100	3	1.4	0.6	25	10
3015-060-250100	3	1.5	0.6	25	10
3015-060-250150	3	1.5	0.6	25	15
3015-060-250155	3	1.5	0.6	25	15.5
3016-060-250100	3	1.6	0.6	25	10
3016-060-250150	3	1.6	0.6	25	15
3010-060-300070	3	1	0.6	30	7
3010-060-300080	3	1	0.6	30	8
3012-060-300070	3	1.2	0.6	30	7
3012-060-300080	3	1.2	0.6	30	8
3012-060-300100	3	1.2	0.6	30	10
3014-060-300060	3	1.4	0.6	30	6
3014-060-300100	3	1.4	0.6	30	10
3015-060-300080	3	1.5	0.6	30	8
3015-060-300140	3	1.5	0.6	30	14
3016-060-300100	3	1.6	0.6	30	10
3012-060-350100	3	1.2	0.6	35	10
3014-060-350100	3	1.4	0.6	35	10
3015-060-350250	3	1.5	0.6	35	25
3016-060-350100	3	1.6	0.6	35	10
3000-060-400000	3		0.6	40	
3014-060-400100	3	1.4	0.6	40	10
3015-060-400100	3	1.5	0.6	40	10
3015-060-400150	3	1.5	0.6	40	15
3015-060-400170	3	1.5	0.6	40	17
3016-060-400090	3	1.6	0.6	40	9
3016-060-400100	3	1.6	0.6	40	10
3019-060-400280	3	1.9	0.6	40	28
3020-060-400080	3	2	0.6	40	8
3020-060-400120	3	2	0.6	40	12
3000-060-450000	3		0.6	45	
3010-060-450060	3	1	0.6	45	6
3012-060-450060	3	1.2	0.6	45	6
3012-060-450100	3	1.2	0.6	45	10
3012-060-450150	3	1.2	0.6	45	15

Part Number	O.D.	CD	Bore	OL	CL
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3013-060-450120	3	1.3	0.6	45	12
3014-060-450120	3	1.4	0.6	45	12
3015-060-450050	3	1.5	0.6	45	5
3015-060-450150	3	1.5	0.6	45	15
3015-060-450170	3	1.5	0.6	45	17
3016-060-450100	3	1.6	0.6	45	10
3016-060-450120	3	1.6	0.6	45	12
3016-060-450150	3	1.6	0.6	45	15
3018-060-450150	3	1.8	0.6	45	15
3020-060-450080	3	2	0.6	45	8
3020-060-450110	3	2	0.6	45	11
3020-060-450150	3	2	0.6	45	15
3015-060-500150	3	1.5	0.6	50	15
3014-060-550120	3	1.4	0.6	55	12
3015-060-550050	3	1.5	0.6	55	5
3015-060-550080	3	1.5	0.6	55	8
3018-060-550120	3	1.8	0.6	55	12
3019-060-550120	3	1.9	0.6	55	12
3012-060-570240	3	1.2	0.6	57	24
3012-060-570260	3	1.2	0.6	57	26
3015-060-570240	3	1.5	0.6	57	24
3015-060-570260	3	1.5	0.6	57	26
3015-060-600150	3	1.5	0.6	60	15
3020-080-280120	3	2	0.8	28	12
3014-080-300060	3	1.4	0.8	30	6
3015-080-350250	3	1.5	0.8	35	25
3015-080-400080	3	1.5	0.8	40	8
3015-080-400160	3	1.5	0.8	40	16
3014-080-450100	3	1.4	0.8	45	10
3020-080-450150	3	2	0.8	45	15
3025-080-450150	3	2.5	0.8	45	15
3015-080-480100	3	1.5	0.8	48	10
3020-080-140090	3	2	0.8	14	9
3020-080-165070	3	2	0.8	16.5	7
3020-080-175080	3	2	0.8	17.5	8
3000-080-180000	3		0.8	18	
3015-080-180030	3	1.5	0.8	18	3
3016-080-200100	3	1.6	0.8	20	10
3020-080-210150	3	2	0.8	21	15
3016-080-250100	3	1.6	0.8	25	10
3016-080-250200	3	1.6	0.8	25	20
3020-080-250100	3	2	0.8	25	10
3020-080-285140	3	2	0.8	28.5	14
3000-080-300000	3		0.8	30	
3014-080-300080	3	1.4	0.8	30	8
3015-080-300080	3	1.5	0.8	30	8
3015-080-300100	3	1.5	0.8	30	10
3016-080-300100	3	1.6	0.8	30	10
3020-080-300120	3	2	0.8	30	12
3020-080-300160	3	2	0.8	30	16
3020-080-330130	3	2	0.8	33	13
3000-080-350000	3		0.8	35	
3012-080-350100	3	1.2	0.8	35	10
3020-080-350060	3	2	0.8	35	6
3020-080-350064	3	2	0.8	35	6.4
3020-080-350100	3	2	0.8	35	10
3020-080-350115	3	2	0.8	35	11.5
3000-080-383000	3		0.8	38.3	
3016-080-400100	3	1.6	0.8	40	10
3018-080-400150	3	1.8	0.8	40	15
3019-080-400100	3	1.9	0.8	40	10
3020-080-400100	3	2	0.8	40	10
3020-080-400120	3	2	0.8	40	12
3000-080-450000	3		0.8	45	
3016-080-450120	3	1.6	0.8	45	12
3016-080-450200	3	1.6	0.8	45	20

Part Number	O.D.	CD	Bore	OL	CL
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3020-080-450080	3	2	0.8	45	8
3020-080-450100	3	2	0.8	45	10
3020-080-450120	3	2	0.8	45	12
3020-080-450130	3	2	0.8	45	13
3020-080-450150	3	2	0.8	45	15
3020-080-450160	3	2	0.8	45	16
3020-080-450165	3	2	0.8	45	16.5
3020-080-450167	3	2	0.8	45	16.7
3020-080-450170	3	2	0.8	45	17
3020-080-450180	3	2	0.8	45	18
3020-080-450210	3	2	0.8	45	21
3025-080-450150	3	2.5	0.8	45	15
3020-080-500115	3	2	0.8	50	11.5
3025-080-500250	3	2.5	0.8	50	25
3020-080-510120	3	2	0.8	51	12
3020-080-681237	3	2	0.8	68.1	23.7
3000-100-350000	3		1.0	35	
3000-100-250000	3		1.0	25	
3016-100-250080	3	1.6	1.0	25	8
3019-100-250100	3	1.9	1.0	25	10
3020-100-250080	3	2	1.0	25	8
3020-100-285100	3	2	1.0	28.5	10
3000-100-300000	3		1.0	30	
3016-100-300100	3	1.6	1.0	30	10
3020-100-300100	3	2	1.0	30	10
3025-100-300165	3	2.5	1.0	30	16.5
3019-100-320100	3	1.9	1.0	32	10
3020-100-330130	3	2	1.0	33	13
3000-100-350000	3		1.0	35	
3015-100-350100	3	1.5	1.0	35	10
3015-100-350125	3	1.5	1.0	35	12.5
3019-100-350130	3	1.9	1.0	35	13
3020-100-350100	3	2	1.0	35	10
3020-100-350125	3	2	1.0	35	12.5
3000-100-400000	3		1.0	40	
3015-100-400080	3	1.5	1.0	40	8
3020-100-400080	3	2	1.0	40	8
3020-100-400100	3	2	1.0	40	10
3020-100-400170	3	2	1.0	40	17
3020-100-410070	3	2	1.0	41	7
3000-100-450000	3		1.0	45	
3016-100-450120	3	1.6	1.0	45	12
3020-100-450100	3	2	1.0	45	10
3020-100-450120	3	2	1.0	45	12
3020-100-450150	3	2	1.0	45	15
3020-100-450160	3	2	1.0	45	6
3020-100-450170	3	2	1.0	45	17
3020-100-450184	3	2	1.0	45	18.4
3020-100-450200	3	2	1.0	45	20
3000-100-500000	3		1.0	50	
3020-100-500115	3	2	1.0	50	11.5
3020-100-500120	3	2	1.0	50	12
3000-100-600000	3		1.0	60	
3020-100-600080	3	2	1.0	60	8
3020-100-600180	3	2	1.0	60	18
3000-120-140000	3		1.2	14	
3000-120-300000	3		1.2	30	
3025-120-300165	3	2.5	1.2	30	16.5
3000-120-350000	3		1.2	35	
3020-120-350080	3	2	1.2	35	8
3000-120-400000	3		1.2	40	
3020-120-450150	3	2	1.2	45	15
3025-120-450125	3	2.5	1.2	45	12.5

Part Number	O.D.	CD	Bore	OL	CL
3025-120-450160	3	2.5	1.2	45	16
3025-120-450162	3	2.5	1.2	45	16.2
3000-120-500000	3		1.2	50	
3000-120-600000	3		1.2	60	
3000-130-300000	3		1.3	30	
3020-130-300100	3	2	1.3	30	10
3025-130-300130	3	2.5	1.3	30	13
3000-130-350000	3		1.3	35	
3020-130-350100	3	2	1.3	35	10
3000-130-400000	3		1.3	40	
3020-130-400100	3	2	1.3	40	10
3000-130-450000	3		1.3	45	
3020-130-450100	3	2	1.3	45	10
3020-130-450150	3	2	1.3	45	15
3000-130-500000	3		1.3	50	
3000-140-450000	3		1.4	45	
3000-150-210000	3		1.5	21	
3000-150-250000	3		1.5	25	
3000-150-350000	3		1.5	35	
3000-150-400000	3		1.5	40	
3000-150-450000	3		1.5	45	
3025-150-450150	3	2.5	1.5	45	15
3000-150-600000	3		1.5	60	
3000-160-350000	3		1.6	35	
3000-160-450000	3		1.6	45	
3000-160-480000	3		1.6	48	
3000-165-304000	3		1.6	30.4	
3000-170-445000	3		1.7	44.5	
3000-200-480000	3		2.0	48	
3400-100-349000	3.4		1.0	34.9	
3500-080-350000	3.5		0.8	35	
3526-080-350000	3.5	2.6	0.8	35	
3500-080-520000	3.5		0.8	52	
3524-120-480100	3.5	2.4	1.2	48	10
3530-150-250140	3.5	3	1.5	25	14
3500-200-480000	3.5		2.0	48	
4000-080-120000	4		0.8	12	
4000-080-190000	4		0.8	19	
4020-080-250100	4	2	0.8	25	10
4020-080-300150	4	2	0.8	30	15
4018-080-350100	4	1.8	0.8	35	10
4018-080-380100	4	1.8	0.8	38	10
4020-080-430145	4	2	0.8	43	14.5
4018-080-450150	4	1.8	0.8	45	15
4020-080-500150	4	2	0.8	50	15
4000-080-600000	4		0.8	60	
4000-100-120000	4		1.0	12	
4000-100-320000	4		1.0	32	
4020-100-400150	4	2	1.0	40	15
4000-100-510000	4		1.0	51	
4000-100-600000	4		1.0	60	
4000-120-340000	4		1.2	34	
4000-150-250000	4		1.5	25	
4000-150-350000	4		1.5	35	
4000-150-400000	4		1.5	40	
4000-150-500000	4		1.5	50	
4000-150-600000	4		1.5	60	
4000-150-190000	4		1.5	19	
4000-200-350000	4		2.0	35	
4030-200-350100	4	3	2.0	35	10
4030-200-450300	4	3	2.0	45	30
4740-200-350140	4.7	4	2.0	35	14
5010-040-600150	5	1	0.4	60	15
5015-060-600200	5	1.5	0.6	60	20
5018-060-600150	5	1.8	0.6	60	15
5020-060-600175	5	2	0.6	60	17.5

Part Number	O.D.	CD	Bore	OL	CL
5020-100-450170	5	2	1.0	45	17
5025-100-500150	5	2.5	1.0	50	15
5025-100-500250	5	2.5	1.0	50	25
5030-100-500150	5	3	1.0	50	15
5020-100-553225	5	2	1.0	55.3	22.5
5020-100-600200	5	2	1.0	60	20
5020-100-720180	5	2	1.0	72	18
5040-110-390086	5	4	1.1	39	8.6
5025-110-500190	5	2.5	1.1	50	19
5028-150-142107	5	2.8	1.5	14.2	10.7
5025-150-500160	5	2.5	1.5	50	16
5025-150-500170	5	2.5	1.5	50	17
5030-150-500100	5	3	1.5	50	10
5030-150-550220	5	3	1.5	55	22
5000-150-571000	5		1.5	57.1	
5030-150-600200	5	3	1.5	60	20
5030-150-600225	5	3	1.5	60	22.5
5000-200-300000	5		2.0	30	
5040-200-300140	5	4	2.0	30	14
5040-200-300150	5	4	2.0	30	15
5000-200-350000	5		2.0	35	
5000-200-400000	5		2.0	40	
5040-200-450100	5	4	2.0	45	10
5040-200-450200	5	4	2.0	45	20
5040-200-500100	5	4	2.0	50	10
5040-200-500250	5	4	2.0	50	25
5030-200-600220	5	3	2.0	60	22
5000-270-500000	5		2.7	50	
5040-270-390086	5	4	2.7	39	8.6
6030-120-330200	6	3	1.2	33	20
6027-150-400110	6	2.7	1.5	40	11
6000-200-600000	6		2.0	60	
6030-220-375065	6	3	2.2	37.5	6.5
6035-150-400100	6	3.5	1.5	40	10
6035-150-400120	6	3.5	1.5	40	12
6040-200-330200	6	4	2.0	33	20
7000-270-430000	7		2.7	43	
10034-050-550250	10	3.4	0.5	55	25
10015-060-550280	10	1.5	0.6	55	28
10017-060-550280	10	1.7	0.6	55	28
10040-150-550190	10	4	1.5	55	19
10060-150-550280	10	6	1.5	55	28
10060-160-550285	10	6	1.6	55	28.5
10050-230-550300	10	5	2.3	55	30
10050-340-550295	10	5	3.4	55	29.5

The following pages show the “M” types that are non-conventional shapes to customer or Sci-bore drawings. These include cutter, multi-cut, threaded, stator and rotor winding nozzles. The Dimensions refer to the key dimensions but are only representative .

Part Number	O.D.	CD	Bore	OL	CL
M1300-000-320000CT3	1.3			32	
M1318-050-320000CD	1.3	1.8	0.5	32	
M1813-050-100046R	1.8	1.3	0.5	10	4.6
M2000-030-292000CT	2		0.3	29.2	
M2000-030-292000SQ	2		0.3	29.2	
M2000-050-300000C3	2		0.5	30	
M2006-030-350030DC	2	0.6	0.3	35	3
M2009-050-300050G1	2	0.9	0.5	30	5
M2009-050-300050G2	2	0.9	0.5	30	5
M2009-050-300050G3	2	0.9	0.5	30	5
M2012-030-167120BR	2	1.2	0.3	16.7	12
M2014-050-350100CT4	2	1.4	0.5	35	10
M2109-050-038022Y	2.1	0.9	0.5	3.8	2.2
M2316-030-082066B	2.3	1.6	0.3	8.2	6.6
M2620-060-200025RC	2.6	2	0.6	20	2.5
M2800-120-699000B	2.8		1.2	69.9	
M3000-035-293000CT	3		0.3	29.3	
M3000-055-207000GO	3		0.6	20.7	
M3000-060-210000					
M3000-080-180000H	3		0.8	18	
M3000-100-685000IC	3		1.0	68.5	
M3000-120-400000I	3		1.2	40	
M3000-120-685000IC	3		1.2	68.5	
M3000-140-450000L	3		1.4	45	
M3005-030-114839GF	3	0.5	0.3	11.4	83.9
M3006-030-340028DC	3	0.6	0.3	34	2.8
M3009-035-300090DC	3	0.9	0.3	30	9
M3010-030-210120G	3	1	0.3	21	12
M3010-030-450100H	3	1	0.3	45	10
M3010-040-220080IV	3	1	0.4	22	8
M3010-040-300100IV	3	1	0.4	30	10
M3010-040-550055DC	3	1	0.4	55	5.5
M3010-040-550055DC2	3	1	0.4	55	5.5
M3010-040-550100DC	3	1	0.4	55	10
M3010-040-550115DC	3	1	0.4	55	11.5
M3010-050-300100IV	3	1	0.5	30	10
M3010-050-320290TH5	3	1	0.5	32	29
M3010-050-325295TH5	3	1	0.5	32.5	29.5
M3011-035-220120G	3	1.1	0.3	22	12
M3012-030-450185DC	3	1.2	0.3	45	18.5
M3012-050-300100DC	3	1.2	0.5	30	10
M3012-050-450080DC	3	1.2	0.5	45	8
M3012-055-450185DC	3	1.2	0.6	45	18.5
M3012-070-420190G1	3	1.2	0.7	42	19
M3012-080-450080DC	3	1.2	0.8	45	8
M3013-030-300150CI	3	1.3	0.3	30	15
M3013-060-400100DC	3	1.3	0.6	40	10
M3014-060-450120C1	3	1.4	0.6	45	12
M3014-080-550120IV	3	1.4	0.8	55	12
M3015-000-250080T3	3	1.5		25	8
M3015-050-350270TH5	3	1.5	0.5	35	27
M3015-050-450150H	3	1.5	0.5	45	15
M3015-050-883230C1	3	1.5	0.5	88.3	23
M3015-060-120070T	3	1.5	0.6	12	7
M3015-060-400100DC	3	1.5	0.6	40	10
M3015-060-550060Sq	3	1.5	0.6	55	6
M3015-060-550080C1	3	1.5	0.6	55	8

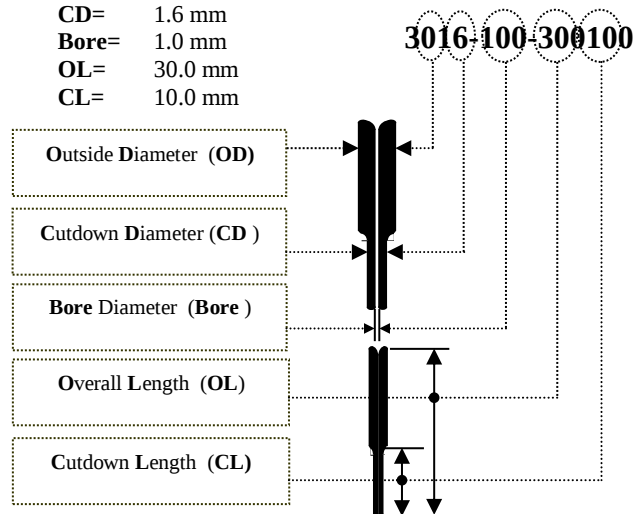
Part Number	O.D.	CD	Bore	OL	CL
M3015-060-550090IV	3	1.5	0.6	55	9
M3016-060-300190GS	3	1.6	0.6	30	19
M3016-060-400100H	3	1.6	0.6	40	10
M3016-060-880230C1	3	1.6	0.6	88	23
M3016-070-300190GS	3	1.6	0.7	30	19
M3016-070-880230C1	3	1.6	0.7	88	23
M3016-070-880270(G)	3	1.6	0.7	88	27
M3016-070-880270BC1	3	1.6	0.7	88	27
M3016-070-880270BV1	3	1.6	0.7	88	27
M3016-070-880270C1	3	1.6	0.7	88	27
M3016-080-550120IV	3	1.6	0.8	55	12
M3018-060-450250H	3	1.8	0.6	45	25
M3018-070-500250H	3	1.8	0.7	50	25
M3018-080-450180IV	3	1.8	0.8	45	18
M3018-080-550120IV	3	1.8	0.8	55	12
M3018-080-681237CT	3	1.8	0.8	68.1	23.7
M3020-030-300150C4	3	2	0.3	30	15
M3020-050-300070G1	3	2	0.5	30	7
M3020-050-300080C1	3	2	0.5	30	8
M3020-050-400070G	3	2	0.5	40	7
M3020-060-350150C1	3	2	0.6	35	15
M3020-060-350150CTP	3	2	0.6	35	15
M3020-070-180014TP	3	2	0.7	18	1.4
M3020-070-180017TP	3	2	0.7	18	1.7
M3020-080-175080A	3	2	0.8	17.5	8
M3020-080-175080A2	3	2	0.8	17.5	8
M3020-080-200070RT	3	2	0.8	20	7
M3020-080-410070G	3	2	0.8	41	7
M3020-080-450150H	3	2	0.8	45	15
M3020-080-450167G	3	2	0.8	45	16.7
M3020-080-450170G	3	2	0.8	45	17
M3020-080-681237CT	3	2	0.8	68.1	23.7
M3020-100-180014TP	3	2	1.0	18	1.4
M3020-100-300270TH5	3	2	1.0	30	27
M3020-100-400080G	3	2	1.0	40	8
M3020-100-410070G	3	2	1.0	41	7
M3020-100-450120CT	3	2	1.0	45	12
M3020-100-450120H	3	2	1.0	45	12
M3022-060-880230C1	3	2.2	0.6	88	23
M3022-080-880230C1	3	2.2	0.8	88	23
M3024-080-410070C1	3	2.4	0.8	41	7
M3024-100-410070C1	3	2.4	1.0	41	7
M3028-055-202132GO	3	2.8	0.6	20.2	13.2
M3400-090-349116GD	3.4		0.9	34.9	11.6
M3400-110-320000G	3.4		1.1	32	
M4000-120-210000T	4		1.2	21	
M4000-200-350290TH5	4		2.0	35	29
M4020-080-487160B	4	2	0.8	48.7	16
M4024-080-400200M	4	2.4	0.8	40	20
M4027-130-400110N	4	2.7	1.3	40	11
M4032-110-450250G	4	3.2	1.1	45	25
M4620-100-360110DC	4.6	2	1.0	36	11
M4732-110-450250G	4.7	3.2	1.1	45	25
M5000-160-240090THG	5		1.6	24	9
M5000-200-240090THG	5		2.0	24	9
M5009-060-116061G	5	0.9	0.6	11.6	6.1
M5016-100-104049G	5	1.6	1.0	10.4	4.9
M5020-050-500200M	5	2	0.5	50	20
M5020-100-215125T8	5	2	1.0	21.5	12.5
M5020-100-225090TH	5	2	1.0	22.5	9
M5020-100-300165TH4	5	2	1.0	30	16.5
M5023-160-375110OC	5	2.3	1.6	37.5	11
M5025-100-500200M	5	2.5	1.0	50	20
M5025-150-142035GO	5	2.5	1.5	14.2	3.5

Part Number	O.D.	CD	Bore	OL	CL
M5030-100-125077TM4	5	3	1.0	12.5	7.7
M5030-110-318196TM5	5	3	1.1	31.8	19.6
M5030-110-400195A1	5	3	1.1	40	19.5
M5030-150-500200M	5	3	1.5	50	20
M5032-110-3002004TH	5	3.2	1.1	30	20
M5032-120-3002004TH	5	3.2	1.2	30	20
M5032-150-3002004TH	5	3.2	1.5	30	20
M5034-110-167010TH5	5	3.4	1.1	16.7	1
M5040-000-400200C3	5	4		40	20
M5040-110-300200M5TH	5	4	1.1	30	20
M5040-110-300270FL	5	4	1.1	30	27
M5040-130-390086D	5	4	1.3	39	8.6
M5040-200-390086D	5	4	2.0	39	8.6
M5040-250-390086D	5	4	2.5	39	8.6
M5040-275-390086D	5	4	2.8	39	8.6
M5525-120-350200BF3	5.5	2.5	1.2	35	20
M6000-200-080000H	6		2.0	8	
M6000-400-770000S4	6		4.0	77	
M6015-060-400150DC	6	1.5	0.6	40	15
M6020-080-225090TH	6	2	0.8	22.5	9
M6020-100-215125T8	6	2	1.0	21.5	12.5
M6020-100-225090TH	6	2	1.0	22.5	9
M6020-100-230110TH4	6	2	1.0	3	11
M6020-100-400100D1	6	2	1.0	40	10
M6028-200-381254G	6	2.8	2.0	38.1	25.4
M6030-100-398195DC	6	3	1.0	39.8	19.5
M6030-110-318196TM5	6	3	1.1	31.8	19.6
M6030-120-400195DC	6	3	1.2	40	19.5
M6030-160-350040DC	6	3	1.6	35	4
M6030-160-350200G	6	3	1.6	35	20
M6038-200-330203TP	6	3.8	2.0	33	20.3
M6040-220-400100N	6	4	2.2	40	10
M6040-220-400110N	6	4	2.2	40	11
M6050-180-211105TH	6	5	1.8	21.1	10.5
M6050-180-211105THG	6	5	1.8	21.1	10.5
M6030-220-375650	6	3	2.2	37.5	65
M6030-220-375065OC	6	3	2.2	37.5	6.5
M6622-160-174567OC	6.6	2.2	1.6	17.4	56.7
M6623-160-366101OC	6.6	2.3	1.6	36.6	10.1
M6623-160-366101OCS	6.6	2.3	1.6	36.6	10.1
M6623-160-366101OS	6.6	2.3	1.6	36.6	10.1
M6623-160-375110O2	6.6	2.3	1.6	37.5	11
M6623-160-375110OC	6.6	2.3	1.6	37.5	11
M6624-180-174567OC	6.6	2.4	1.8	17.4	56.7
M6626-200-174567OC	6.6	2.6	2.0	17.4	56.7
M6630-160-375110OC	6.6	3	1.6	37.5	11
M6640-300-175905OC	6.6	4	3.0	17.5	90.5
M6645-300-175905OC	6.6	4.5	3.0	17.5	90.5
M8016-050-455090DC	8	1.6	0.5	45.5	9
M8060-235-455195GL	8	6	2.3	45.5	19.5
M10012-040-135060M5	10	1.2	0.4	13.5	6
M10017-060-135060M5	10	1.7	0.6	13.5	6
M10032-165-550100DC	10	3.2	1.6	55	10

Reference system for standard nozzles:

Example

OD= 3.0 mm
CD= 1.6 mm
Bore= 1.0 mm
OL= 30.0 mm
CL= 10.0 mm



WINDING MACHINES

The ORLANDO RICARDO SANTOS along with its trading partners, now has in its list of products new winding machines, rebuilt and rebuilt any kind of winding machine. We have new machines for any type of coil.

We stock all types of winding machines, as well as to reconstruct wire skeinners and all types of accessories for the same.

Manual machines, automatic, multi-spindle, toroid, for any size or coil transformer.

It also has application tape machines and tape drives to apply for winding machines.

WINDING MACHINES - NEW

The ORLANDO RICARDO SANTOS have all kinds of new reel machines. A built by us and other represented by us. Our machines have controllers developed by us so that it is easy programming of any type of coil.

We build our machines in France, England, Japan and Germany.



SERIE WINDING TECHNOLOGY

LV-HV Coilwinder



WT 300	
Max. OD Coil	300 mm
Winding Width	350 mm
Spindle Speed	9000 rpm
Wire Size	0.01 mm - 5.0 mm
Weight	150 Kg



WT 500	
Max. OD Coil	500 mm
Winding Width	850 mm
Spindle Speed	3000 rpm
Wire Size	0.10 mm - 12.0 mm
Weight	500 Kg



WT 1200	
Max. OD Coil	800 mm
Winding Width	1150 mm
Spindle Speed	570 rpm
Wire Size	0.10 mm - 15.0 mm
Weight	1500 Kg

SERIE TANAC AX

Table Top Coilwinders



TANAC AX3	
Max. OD Coil	150 mm max.
Winding Width	150 mm max.
Wire Size	0.018 mm a 2.0 mm
Spindle Motor	Indução 200 V – 400 W
Spindle Speed	10000 rpm / 4000 rpm / 1400 rpm
Transverse Motor	DC Servo Spindle Motor 35 W
Tranverse Speed	80 mm/seg max.
Tranverse Pitch	0.001 mm a 9.999 mm
Tranverse Stroke	10 mm max.
Internal Memory	999 pages
Safety Guard	Rigth to Left for open
External Interface	RS232
Display	LCD 4 lines – 40 caracteres
Power Requirement	100 a 240 Vac / 50-60 Hz
Power	600 W
Dimensions	450 mm x 300 mm x 400 mm
Weight	36 Kg

TANAC AX2

Max. OD Coil	230 mm max.
Winding Width	150 mm max.
Wire Size	0.018 mm a 2.0 mm
Spindle Motor	Indução 200 V – 400 W
Spindle Speed	10000 rpm / 4000 rpm / 1400 rpm
Transverse Motor	DC Servo Spindle Motor 35 W
Tranverse Speed	80 mm/seg max.
Tranverse Pitch	0.001 mm a 9.999 mm
Tranverse Stroke	300 mm max.
Internal Memory	999 pages
Safety Guard	Down to up for open
External Interface	RS232
Display	LCD 4 lines – 40 caracteres
Power Requirement	100 a 240 Vac / 50-60 Hz
Power	600 W
Dimensions	860 mm x 420 mm x 510 mm
Weight	85 Kg



SERIE ELG

Winding Machines



ELG 100

Winding Width	108 mm max.
Wire Size	0.01 mm a 1.20 mm
Internal Memory	999 pages
Spindle Motor	DC brussless 400 W
Transverse Unit	Stepper Hybrid
Max. OD Coil	200 mm max.
Spindle Speed	6000 rpm
Power Requirement	220 V – 50 Hz
Dimensions	510 mm x 490 mm x 450 mm
Weight	30 Kg



ELG 300

Winding Width	140 mm max.
Wire Size	0.01 mm a 2.0 mm
Internal Memory	999 pages
Spindle Motor	Spindle Motor AC 1 Kw
Transverse Unit	Stepper Hybrid
Max. OD Coil	200 mm max.
Spindle Speed	2000 rpm
Power Requirement	220 V – 50 Hz
Dimensions	900 mm x 590 mm x 650 mm
Weight	80 Kg



SERIE ELGBTE

Winding Machines



	ELG 100	ELG 600
Max. OD Coil	80 mm – 400 mm	80 mm – 800 mm
Coil Weight	100 Kg	300 Kg
Round Wire	0.20 mm – 3 mm	0.20 mm – 3 mm
Flat Wire	1 x 9 mm	1 x 9 mm
Winding Width	500 mm	800 mm
Spindle Speed	450 rpm	450 rpm
Power Requirement	380-415 V / 50-60 Hz	380-415 V / 50-60 Hz
Dimensions	1400mmx2000mmx1300mm	2550mmx2180mmx1980mm
Weight	500 Kg	1000 Kg



SERIE ELGBTS

Winding Machines



ELG 1500



ELG 2500

	ELG 1000	ELG 1500	ELG 2500	ELG 3000	ELG 3500
Coil Weight	1000 Kg	2000 Kg	3000 Kg	5000 Kg	10000 Kg
Winding Width	1500 mm	1600 mm	2500 mm	3000 mm	3500 mm
Winding Diameter	600 mm	600 mm	900 mm	1200 mm	1200 mm
Spindle Speed	0-150 rpm	0-100 rpm	0-60 rpm	0-30 rpm	0-15 rpm



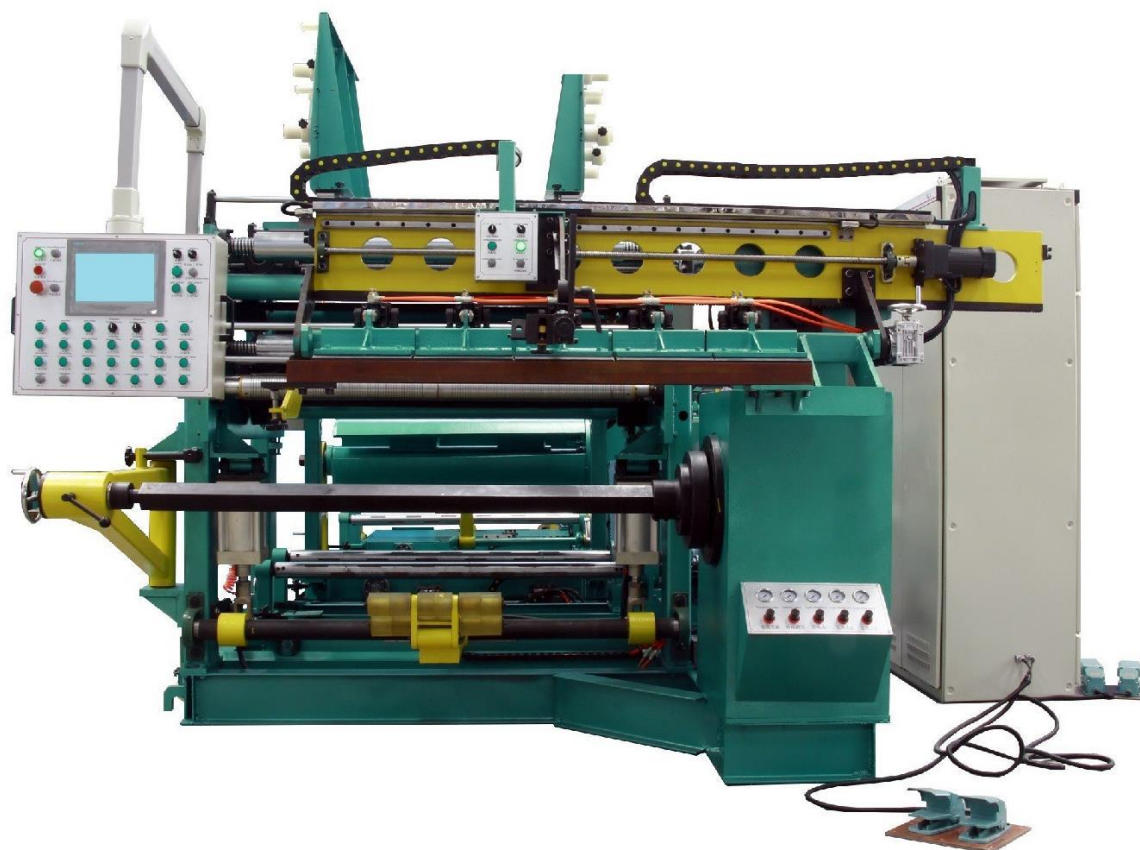
ELG 3000



ELG 3500

SERIE ELGBX3000

Film Foil Machine



ELGBX 3000	
Winding Width Max.	600 mm
Max. OD Coil	700 mm
Coil Weight Max.	1500 Kg
Max. Width	650 mm
Diameter	Φ 74 mm – φ 400 mm
Rotation Speed	0 – 30 rpm
Torque	10000 Nm
Conductor	Cu or AL
Max. Foil Width	500 mm
CU Foil Thickness	0.5 mm – 2.5 mm
Al Foil Thickness	0.2 mm – 2.5 mm
Tension	5000 Nm
Number of Conductor Foils	1 or 2
Dimensions	3800 mm x 2500 mm x 2000 mm
Weight	4000 Kg
Power Requirement	3x380-415 V / 50-60 Hz

SERIE SP

Toroidal Core Machine



Production	mm	Inch/AWG
Single Wire Size	0.05 – 1.00	44 - 19
Bifilar Wire Size	2 x 0.8	2 x 20
Finished Core O.D.	5.0 – 70.0	0.2 – 2.76
Finishe Core I.D.	From 1.5	From 0.06
Finishe Core Heigth	Up to 25	Up to 1.0
Tape Size	4 - 10	0.157 – 0.394



COMBINATIONS
0 Interchangeable Heads
2 Slider Heads SP10 – Mini / SP20 - Mini
3 Belts Head SP60 / SP100 / SP200V Mini
1 Tranverse Speed de Speed Head Tape SP200/B Mini
3 Rollers Table SP111-Mini / SP111V-Mini

Production	mm	Inch/AWG
Single Wire Size	0.05 – 2.50	44 - 11
Bifilar Wire Size	2 x 1.8	2 x 13
Finished Core O.D.	10.0 – 300.0	0.5 – 10
Finishe Core I.D.	From 5	From 0.2
Finishe Core Heigth	Up to 150	Up to 5.9
Tape Size	4 - 30	0.157 – 0.18

COMBINATIONS
0 Interchangeable Heads
2 Slider Heads SP20 / SP30
3 Gear Rack Heads SP2 / SP3 / SP4
4 Taping Heads SP2B/SP3B/SP4B/SP300B
2 Roller Table SP111-VS / SP332



WINDING MACHINES - REBUILT

The ORLANDO RICARDO SANTOS have in your warehouse and its trading partners, stock rebuilt machines to all kinds of winding industry.

Rebuild any kind of winding machine, CNC controllers have developed for us. Repair and paint the entire machine frame and put all the electrics and new electronics. We have manual and automatic machines.







WINDING MACHINES - USED

The ORLANDO RICARDO SANTOS have in your warehouse and its trading partners, stock machines to sell or rebuild for all types of winding industry. Winding machines, soldering and all kinds of accessories. We guarantee in our used machines.

We have manual and automatic machines.



