

TES-3000

ELECTRIC ROLL CONTROLLER



Basic parameters

TES-3000:	400V 50/60Hz
For tubes:	1/2" – 1 1/2"
Control unit weight:	4 kg
Footswitch weight:	5 kg
Dimensions:	800 x 200 x 900 mm

The **TES-3000** digital Tube Expanding System features a range of powerful and efficient servo motors. Variable Speed and Torque repeatability +/- 1% are a few of the advantages of this system. Created for the demanding customer, this system ensures uniform tube expansion over a wide range of tube diameters and materials, greater efficiency and accuracy combined with ease of use make this system simple, affordable and extremely fast.

Main TES-3000 features

- Purely digital and modular system.
- High tech servo drive and motor assure accuracy, efficiency, quality and repeatability of the results.
- Extremely easy and user friendly interface on 7" touch screen.
- Supported languages: English, Korean, German, Spanish, Portuguese, Chinese, Polish.
- USB Flash Drive available to dump expanding log files (48 MB internal storage space for log files)
- Easy software upgrade with USB flash memory
- CE compliant. In full accordance with RoHS compliance.
- Motor equipped with EnDat encoder.



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Display & user interface "head"

User friendly, extremely easy to setup interface based on 7" TFT display featuring high reliable industrial resistive touch panel; high touch accuracy. With high hardness and long lifetime.

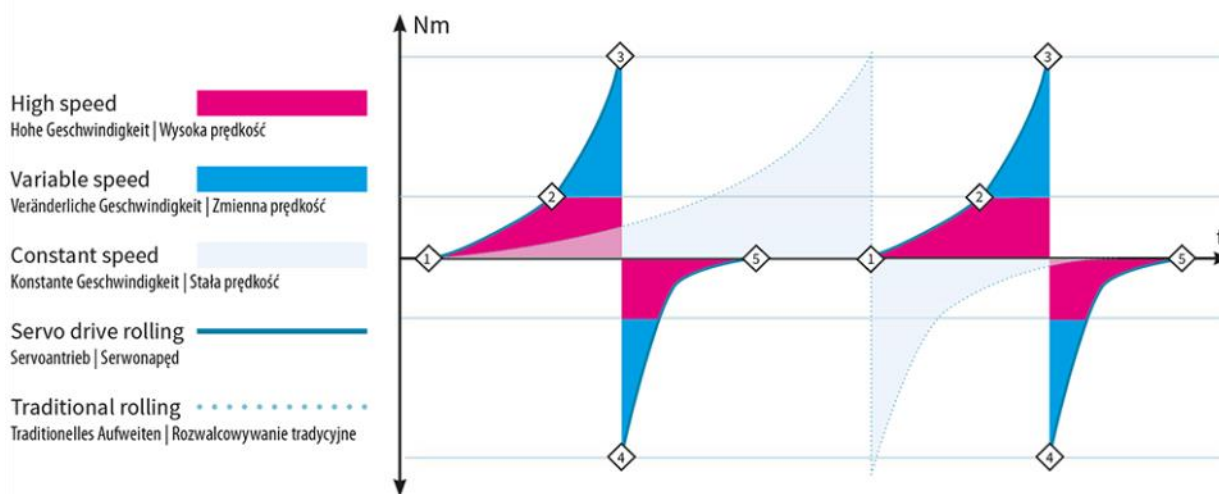
Motor "does the work"

Comfortable and save cable connectors and IP56 protection.

Servo drive "heart"

Reliable, brushless, maintenance free servo motors supplied by an OEM within the automation industry, are ideally suited to tube expanding when combined with our custom gear packages. Servo drive is controlled by a 32-bit RISC processor. Equipped EnDat encoder and thermistor motor protection.

SERVO DRIVE WORKING SCHEME | BETRIEBSSCHEMA DES SERVOANTRIEBS | SCHEMAT PRACY SERWONAPĘDU



TES-3000 software

- Central unit with user friendly interface and 7" touch screen allows configuration of different motor type with their predefined min/ max values and to set up required expanding parameters.
- Torque Wizard helps to calculate torque settings based on: wall reduction, feed angle, mandrel taper, tube diameter, tube yield (ultimate tensile strength), wall thickness (gauge, expansion length).
- 3 operating modes available: **Manual**: Single expansion, **Semi-auto**: Single expansion with autoreverse, **Auto**: Expansion with autoreverse in endless loop until operator stops.
- Configurable expanding timers: reverse rolling time, time between expanding cycles (to move expander from one to another tube), time to expand with maximum rpm in the initial expanding phase
- Other features: Expanding counter, Color status lamps, Metric and imperial units available, Translated to many languages.



Motors for TES-3000

We offer a full range of motors, you can choose a proper one that fits your needs. Each motor is equipped with one of 5 of the gear boxes. Each with protection level IP56.

DRIVE	PHASE VOLTAGE	WEIGHT	MAX RPM	TORQUE (WITH TES-3000)				
				NM		FT.LB		
				MIN	MAX	MIN	MAX	
	S3000	3/400V	5.0 Kg	3000	0.2	2.5	0.1	1.8
	S60000	3/400V	5.0 Kg	6000	0.2	2.5	0.1	1.8
	S5	3/400V	5.0 Kg	1662	2.3	8.6	1.6	6.3
	S4	3/400V	5.0 Kg	1500	2.7	9.5	1.9	7.0
	S3	3/400V	5.0 Kg	1091	3.0	13.0	2.2	9.5
	S2	3/400V	5.0 Kg	800	2.8	18.0	2.0	13.2
	S1	3/400V	5.0 Kg	600	3.0	24.0	2.2	17.7
	S1-RA	3/400V	6.5 Kg	320	2.2	45.0	1.62	33.0
	S2-RA	3/400V	6.5 Kg	425	1.7	33.0	1.25	24.0
	S3-RA	3/400V	6.5 Kg	580	1.1	24.0	0.81	17.0
	S4-RA	3/400V	6.2 Kg	797	0.9	17.0	0.66	12.0
	S5-RA	3/400V	6.2 Kg	884	0.7	16.0	0.51	11.0
	G3000	3/400V	9.5 Kg	3000	0.5	18.0	3.68	13.27
	G2000	3/400V	9.5 Kg	2000	0.8	23.0	5.9	16.96
	G1455	3/400V	9.0 Kg	1453	2.3	70.0	1.6	51.6
	G1000	3/400V	9.0 Kg	1000	3.4	102.0	2.5	75.2
	G400	3/400V	9.0 Kg	400	7.5	240.0	5.5	177.0

Motor which fits everywhere

The compact body right-angle rolling motor with pistol grip are excellent for use in tight and hard to reach places compared with standard rolling motors.

The convenient pistol grip can be positioned in 3 ways to suit the application and operator preferences. There are two buttons on the pistol grip, one for manual operation and an emergency stop button.



Telescopic Shaft



tubes close and deep to the shell. The shaft is easy to handle, accurate and stable at all speeds.

We offer an articulated telescopic shaft, it is a convenient way to improve efficiency and great option to expand most inaccessible tubes.

The telescopic shaft is useful especially to roll



Built to work with the digital rolling system TES3000 with:

- G-400 drive
- G-1000 drive
- G-1455 drive

FlexHolder

We recommend the FlexHolder arm when using the TES-3000 control unit. This combination allows you to create a mobile workstation with an above average performance.

The Flexholder is an articulated arm that supports the weight and absorbs the torque of the rolling motor using a pneumatic counterbalance, which allows the user to effortlessly move the rolling motor into position. Our standard model features a 1.5m vertical and 1.5m horizontal reach (models with increased vertical and horizontal capacity are available upon request). The column can be easily removed from the base for transportation purposes.



TES3000-APLS

Automatic Pneumatic Lubricating System.

Dedicated and integrated for the 2023 version of TES-3000 dispenses oil drops precisely into the rolls and mandrel. It eliminates the problem of the user applying the correct amount of lubrication and reduces tool wear.

