



THINK PARTS THINK TORNOS



DECO e

New gateway into the 'world of DECO'.

NEW GATEWAY INTO THE 'WORLD OF DECO'

The DECO 'e' line draws from the experience gained by Tornos with sales of over 6000 DECO 'a' line machines to offer a cost-efficient alternative solution for the production of parts that do not require an end unit.

The main strengths of the new line :

1. **Machining performance**
2. **Productivity**
3. **Part and markets**
4. **Return on investment**

Your benefits

The 'e' line completes the range of Tornos machining solutions for the production of straightforward to complex parts with optimum value for money and optimum productivity.

The range of products is complete for bar machining capacities from 1 to 32 mm in diameter.

The customer is therefore equipped with a solution perfectly suited to the complexity of the parts manufactured.

The single programming software (TB-DECO) for the entire DECO range of products ('a' and 'e') and identical kinematics on different products ensure standardized production means for the DECO 'a' customers.



MACHINING PERFORMANCE

Reliability has been proven over many years on the entire DECO line of products. This enables the end user to **benefit from Tornos' thousands of hours of expertise.**

Machining performance

Motorisations of the main spindles, counter spindles and of the different rotary tools provides efficient operation in terms of power, available torque and quality of finish product all under the optimum cutting conditions. The available tool systems are designed to be modular and adaptable on various machine tools with the kinematics being interchangeable with the DECO 'a' line.

By virtue of the international success enjoyed by the DECO turning machines, Tornos has developed and offers a large variety of units, tool holders and peripheral equipment for the production of multiple specific machining operations including :

- external and internal thread-whirling (applications in the MEDTEC sector).
- polygonal machining of flats.
- tangential milling (threads for dental posts).
- cutting/milling for gear hobbing.
- high pressure deep drilling at 340 and 120 bars.
- swaging different shapes.
- high-speed milling with HF 80,000 rpm spindle for machining complex shapes and Torx.



PRODUCTIVITY

Productivity

The kinematics in the DECO turning machines was designed to enable optimum productivity while ensuring ease and flexibility of use. In the 'e' line, the three tool systems that are 100% independent allow for 3 tools to simultaneously engage the material. This means that the main operations produced on the guide bush and those done in counter operation are carried out simultaneously and therefore in hidden time.

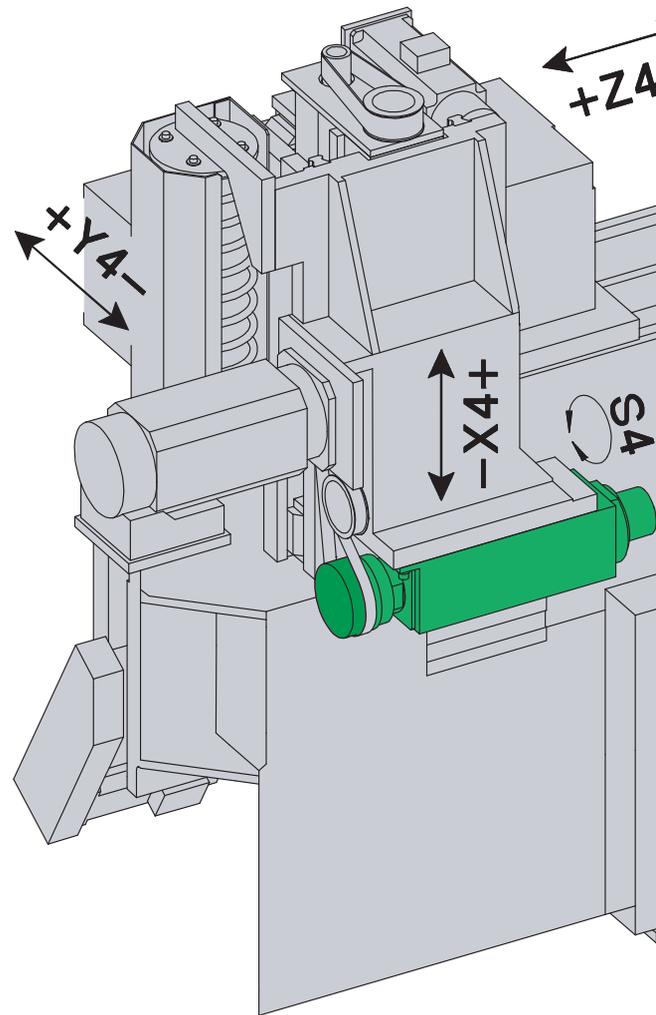
The use of 2 tools simultaneously at the guide bush enables efficient operations to be carried out including :

- rough/finishing when turning.
- simultaneous transversal drilling/milling.
- simultaneous turning and polygon operation.
- different simultaneous machining with work-piece support.

The 7 or 8 linear axes kinematics (plus axes C1 and C2) of the numerical control are simultaneously interpolable thanks to the PNC control concept and the different programming possibilities offered by the TB-DECO software.

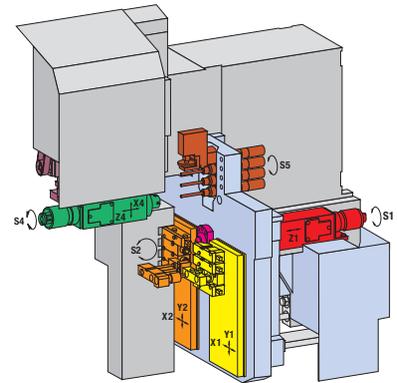
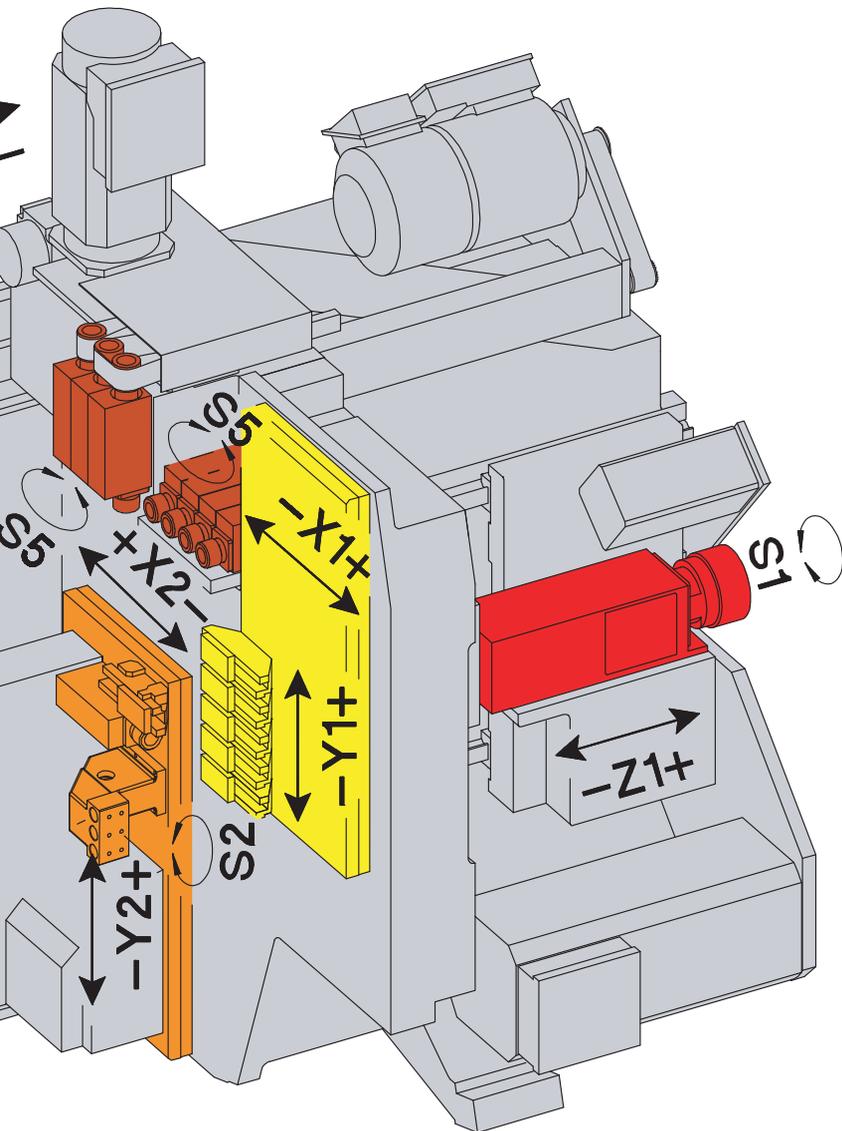
Parts and markets

Whether in the electronics, automotive or medical-dental microtechnical sector and for all general subcontracting applications the e-line range is a solution that combines feasibility, productivity and flexibility of use.

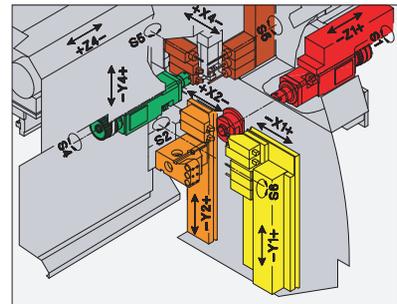


DECO 20/26e

RETURN ON INVESTMENT



DECO 7/10e



DECO 13e

Return on investment

On the DECO 'e' line, Tornos offers a kinematic concept in the 7/10, 13, 20 and 26 capacities for machining bars of a diameter between 1 and 32 mm.

The notion of a package with different options means the majority of requirements within the market can be met with the highly-competitive products whilst keeping the option of completing this equipment with additional options.

Aware of the pressure on the price of production parts, the DECO 'e' product line from Tornos is the perfect **productivity – feasibility – investment** compromise for the production of medium-complexity to complex parts.

TECHNICAL INFORMATION

You'll win every price war with these models

TECHNICAL INFORMATION	DECO 10e	DECO 13e	DECO 20e	DECO 26e
Main Spindle (Axis Z1) (+C1 optional)				
Max. Bar Capacity Ø mm	10	16	25,4	32
Max. Tool Length per Guide Bush Type mm	60	180	200	240
Programmable Spindle Speed max. min ⁻¹	16.000	10.000	10.000	8.000
Spindle Positioning Degree	0,1	0,1	0,1	0,1
Max. Spindle Performance kW	1,1 (3,7)	2,2 (3,7)	3,7 (5,5)	5,5 (7,5)
Guide Bushing (X1/Y1) (X2/Y2)				
Number of Tools on the Guide Bush	4+4	5+6	5+6	5+6
Tool Cross Section mm	8 x 8	12 x 12	16 x 16	16 x 16
Motorization max. min ⁻¹	12.000 (S2)	8.000 (S6)	8.000 (S2)	8.000 (S2)
Counter Spindle and Counter Processing (X4/Z4) (+C4 optional)				
Max. Diameter Clamping Range Ø mm	10	16	25,4	32
Programmable Spindle Speed max. min ⁻¹	12.000	10.000	10.000	6.000
Max. Number of Counter Operations	4	6	7	7
Number of Fixed or Rotating Spindles	4	6	7	7

MACHINE EQUIPMENT PACKAGE	DECO 10e	DECO 13e	DECO 20e	DECO 26e
Number of Axes	7	8	8	8
Synchronized Revolving Guide Bush	1	1	1	1
Drilling/Turning Stations	4	3	3	3
Collet Holder for Drill/Turning Stations	-	3	3	3
Turning Tool Holder	5	5	6	6
Motorization of Driven Tools	S2	S6	S2	S2
Transverse Drill Spindle	2	1	2	2
Transverse Milling and Slotting Spindles	1	-	-	-
Fine adjustment for Counter Spindle Collet	1	1	-	-
Tool Holder for Longitudinal Counter Operation	4	3	3	3
Collet Holder for Longitudinal Counter Operation	-	3	-	-
Collet Adjustment	F13	F20	F30	F37
Container for Components	1	1	1	1
Interface for swarf conveyor	-	-	1	1

Additional options are available upon request

EXAMPLES OF WORKPIECES PRODUCED ON DECO 'E'

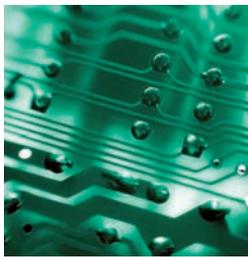
Automotive



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Electronics



Watchmaking & Micromechanics



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