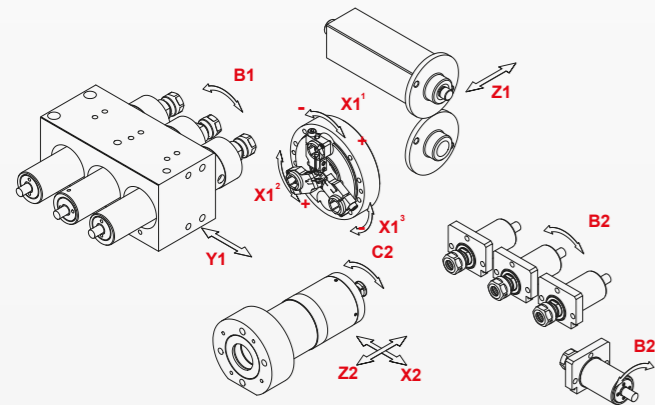


escomatic D6 ULTRA

3 TURNING TOOLS FOR MORE PRODUCTIVITY AND FLEXIBILITY

The escomatic D6 CNC ULTRA has been designed to Evolve with the production. The tool head, which rotates at 12'000 rpm⁻¹, has 3 turning tools that can be controlled separately as needed to expand the possibilities and simplify the process. It is possible to machine the front and back of the workpiece simultaneously. The DUF front machining unit consists of three axial spindles designed for drilling and tapping in the guide bush. The counter spindle with C-axis and the DUF unit are each mounted on a table equipped with separate CNC axes with a translation speed of 40 m/minute. After cutting off the workpiece, 3 axial spindles and 1 cross spindle can perform secondary machining at a speed of 18'000 min⁻¹ (DUAL) to enable high-performance secondary operations. All this is controlled by a easy to use machine-specific Pegasus/Beckhoff CNC control for more flexibility and ease of use.

Kinematics



Technical specifications

- Maximize the number of operations in one machine
- Material diameter 0.3 - 4mm
- Simple turned parts with front and back operations
- Machining from coils with real work 24-hour continuous lights out operations
- High volume part series and pilot series

Features

- Unrivaled productivity of the escomatic principle supported by CNC control
- Choice of escomatic cutting tools or inserts from all tool makers
- Use of escomatic type guide bushes or commercially available guide bushes.
- The maximum speed of the tool head is 12'000 rpm
- Very fast cycle times and reduced machining time with improved accuracy.
- Best price/performance ratio to produce parts with small diameters
- Improved parts quality, both in meeting tolerances and in surface finish
- Savings in floor space and manpower due to compact design.
- Low electrical consumption
- Higher quality and accuracy of parts
- High accessibility of all adjustable elements

TECHNICAL DATA

Turning

Maximum part diameter	4	mm
Standard workpiece length	80	mm
Number of cutting tools	3	
Max. tool head speed	12'000	min ⁻¹
D2 tooling can be used		
Material feed rate (Z1)	8	m/min

Straightening

D2 Straightening unit		
Maximum straightening length	80	mm
Rotation speed of straightening unit	602 - 3'400	min ⁻¹

Counter collet unit

Over gripping counter collet	yes	
C-axis	10'000	min ⁻¹

Front machining unit

Axial powered spindles	3	
Radial powered spindle (option)	1	
Maximum drilling speed	18'000	min ⁻¹
Drilling diameter	3	mm
Drilling length	20	mm
Maximum tapping/threading speed	6'000	min ⁻¹
Tapping/threading diameter	M2	

Back machining unit

Axial powered spindles	3	
Maximum drilling speed	18'000	min ⁻¹
Drilling diameter	3.5	mm
Drilling length	20	mm
Tapping/threading diameter	M3	
1 radial powered spindles	1	
Maximum speed	18'000	min ⁻¹
Drilling diameter	3.5	mm

Technical features

Coolant/cutting fluid	oil	
Tank capacity	100	l
Flow rate of the pump	30	l/min
Max. system pressure	10	bar
Chips container capacity	40	l
Installed Power	4	kVA
Compressed air consumption	7	m ³ /h
Compressed air pressure	5	bar

Dimensions & weight

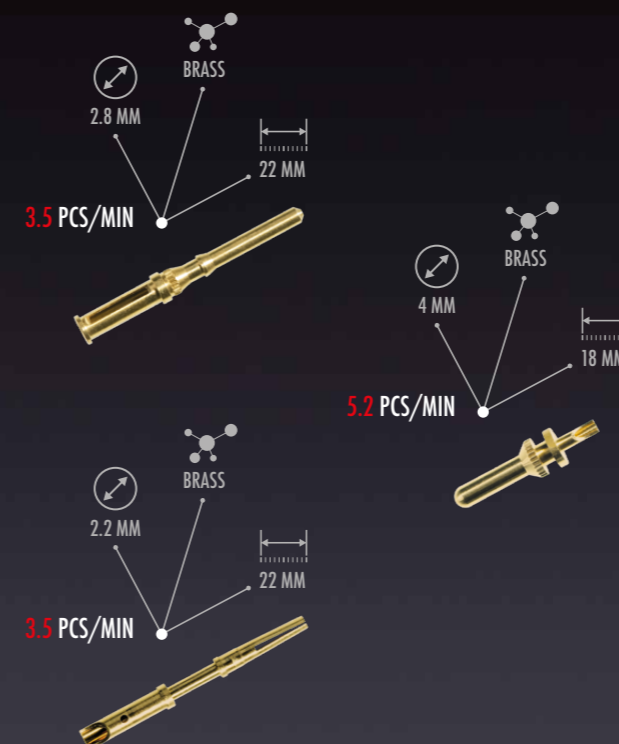
Length x Width x Height	2'150 x 1'050 x 1'580	mm
L x W x H with coil reel	2'750 x 1'050 x 1'580	mm
Net weight	1'150	kg
Gross weight	1'250	kg

Modifications reserved



escomatic

D6 ULTRA



ULTRA
PRODUCTIVITY

EVOLUTION
AND FLEXIBILITY

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FRONT MACHINING UNIT (DUF)

The counter collet of the D3 was replaced by a front machining system mounted on a motorized cross table with 2 axes. The system consists of 2 drilling spindles, 1 tapping spindle and 1 counter collet with programmable feed.

WORKPIECE PICK-UP SYSTEM

For the pick-up of the finished turned parts a counter collet unit or optionally a counter spindle with C-axis (10'000 min⁻¹) is available. This unit is mounted on its own two axis CNC cross slide with a translation speed of 40 m/minute.



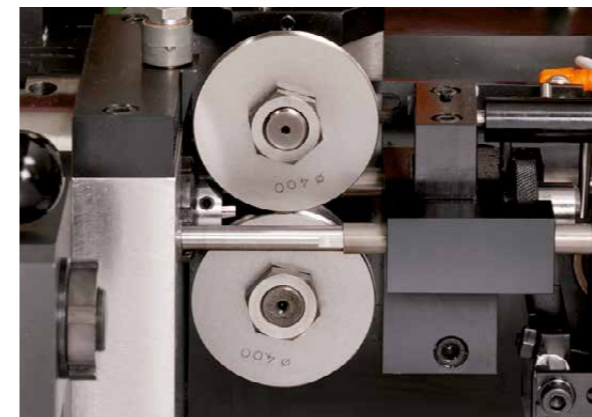
BACK MACHINING UNIT (DUAL OPTION)

On the rear side, for counter-operation, a DUAL with 1 axial spindle and 1 cross spindle can be supplied as an option. In addition, a vertical spindle can be used for milling.



MATERIAL FEEDING

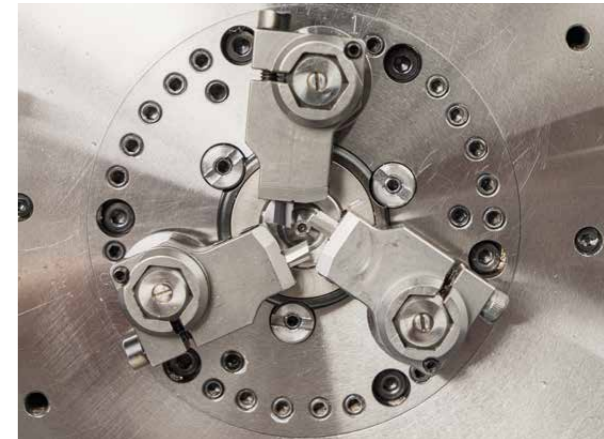
The material is clamped between a set of grooved rollers and their rotation controls the feeding. The clamping pressure is adjustable and the grooves have the shape of the wire. With this principle and the closeness of the guide bush, very small wire can be machined without bending or whipping (down to 0.30 mm).



TURNING

While the material is held by a guide bush, the turning and chip removal is performed by the unique escomatic principle. This consists in having the cutting tools rotating around the material with a speed up to 12'000 rpm. When cutting off, the counter collet holds the machined part for a perfect flatness and a cut-off tip free end.

The new tool head 3 is extended reliability. The tools can be controlled individually. Different types of guide bushes can be mounted, the tool holders remain identical for the all-D machine series.



MATERIAL FEED

The material is supplied into the machine from coil. A coil, depending on the type of material, usually has 30 to 50 kg and is unrolled from a reel supported by the machine. The material is pulled across the machine by the material feed system. It saves you a lot of money, time, and space compared to bar work.



MATERIAL STRAIGHTENING

The material is fed into the machine from a coil which becomes bar stock after the straightening process. It produces a bar with a straightness quality equivalent to standard bar stock.