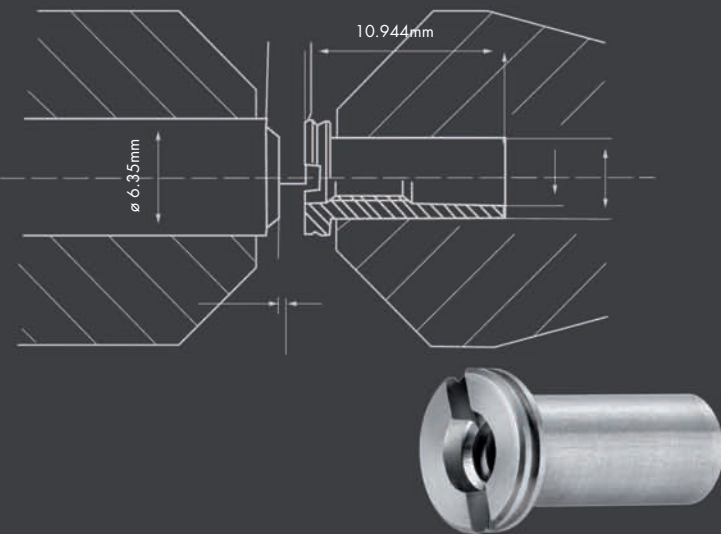




escomatic **EC 08**

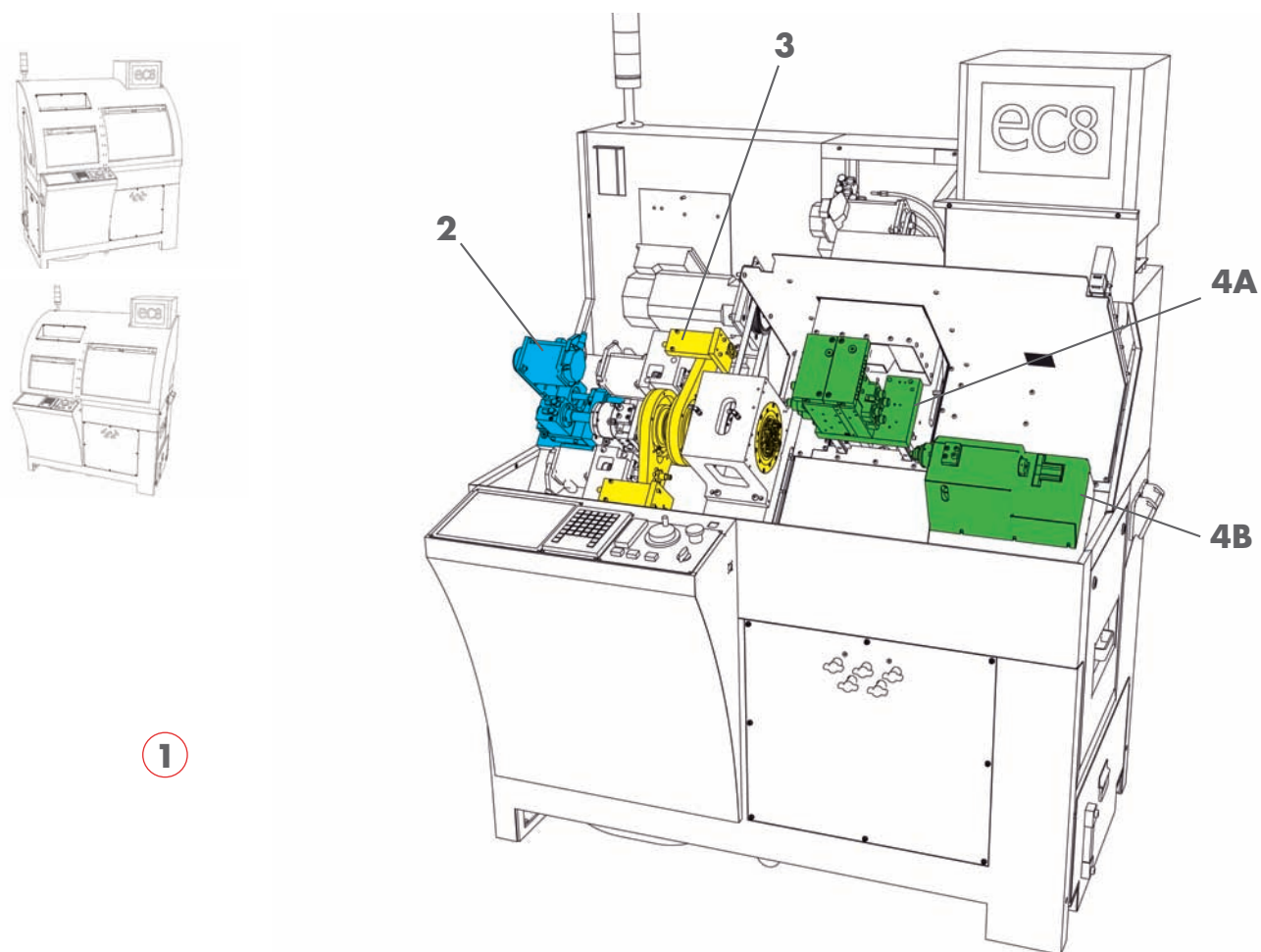
2.5PCS/MIN



THE FLEXIBLE



Unlike conventional lathes, escomatic lathes are based on a unique concept. The material, which is coil stock or bar, does not rotate. The cutting tools mounted onto the spinning tool head rotate around the material. This concept equally qualified for the manufacturing of small, medium and large lot size parts, contributes to the extremely high performance and cost savings achieved with escomatic machines.



Examples:

Scale in millimetre.



14 PCS/MIN
(BRASS)



2.5 PCS/MIN
(303/1.4305)



15 PCS/MIN
(BRASS)



17 PCS/MIN
(NICKEL SILVER)



2 PCS/MIN
(303/1.4305)



12 PCS/MIN
(BRASS)



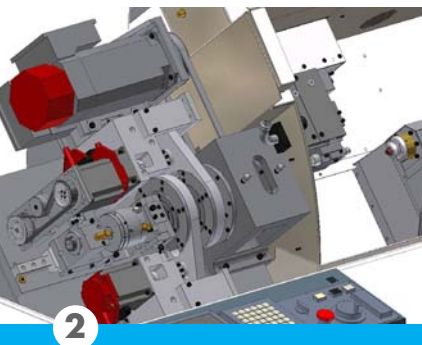
8 PCS/MIN
(9SMnPb36/1.0737)





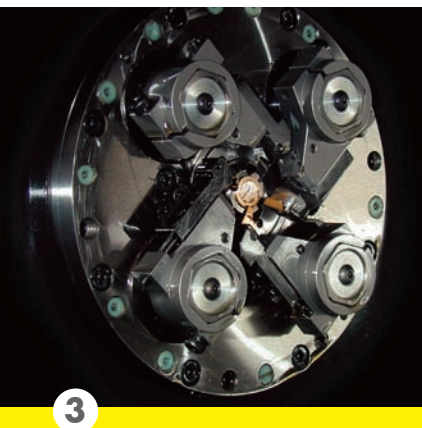
MATERIAL FEED

The material is supplied into the machine from coil or from bar. If coil is used a standalone straightening unit is required. A coil, depending on the type of material, usually has 30 to 80 kg and is unrolled from a reel independent from the machine. For bar material a commercially available bar feeder can be used. The material is pulled across the machine by the material feed system.



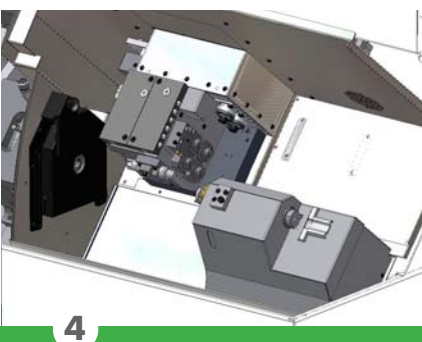
MATERIAL FEEDING

The material is feed and moved in the machine by the CNC controlled Z1-axis and the attached feed collet. The feed collet (type Schäublin F12) is mounted on a tube-system closest to the material guide bush.



TURNING

The material is feed through a guide bush to the four turning tools on the tool head, which are controlled by axes X1 and Y1. Two turning tools could be used simultaneously at any time. The turning and chip removal is performed by the unique escomatic principle. This consists of having the four cutting tools rotating around the material with speeds up to 10'000 min⁻¹. For a pickle free cutting off the counter collet spindle holds the machined part and is moving it to the central machining unit after the cut off for back machining.



(A) CENTRAL MACHINING UNIT

The central machining unit is equipped with eight axial positions for a combination of steady and powered tools as well as insert holders for turning and four lateral positions for powered tools. The unit is based on two axes (X2 and Y2) and drilling, tapping, threading, milling or turning operations can be performed.

(B) COUNTER COLLET SPINDLE

The counter spindle with C-axis and counter collet (type Schaublin W12) rotates with speeds up to 12'000 min⁻¹. For the transfer of the work piece from the tool head to the counter collet spindle the central machining unit is moved out of the work area by the Y2 axis and the counter collet spindle is moved into the hand over position and after the hand over back into working position with 40 m/min. For the ejection of the work pieces a swivelling chute is at disposition.

escomatic EC 08:

FLEXIBILITY AND PRECISION WITHOUT COMPROMISE



The **escomatic EC 08** is the logic and innovative evolution of the well proven D6 series with CNC technology. The automatic turning centre manufactures cost effective small as well as large batch sizes with diameters up to 8.0mm. Equipped with a tool head with four cutting tools, two capable of working simultaneously, and up to 12 tooling positions for secondary operations, the turning-centre works with commercially available inserts as well as Esco special cutting tools.

The versatile and flexible automatic turning centre from ESCO is equipped with a rotating tool head with (10'000min-1) and four independent cutting tools. Up to 2 work pieces are machined simultaneously: turning, front and back machining. High flexibility for different kind of applications and work pieces due to the central finishing unit and a counter spindle with C-axis. Material feeding from coil with straightening unit or bar loader.

Application Profile:

- highest possible numbers of operations in one machine
- fast cycle times
- highest possible flexibility in the application of the machine
- diameter range up to 8mm
- for parts with medium and high complexity
- simple in use and set up by using ISO programming and standard tools and inserts
- works from bar and/or coil

Features:

- CNC control FANUC 18i (2 canals, 6 axes / 3 spindles)
- 2 parts machined at the same time
- Good accessibility for tool changes
- Two turning tools in the tool head working simultaneously
- C-axis with 10'000 RPM and powered tools with up to 16'000 RPM
- Standard commercial tooling and equipment
- Pre adjustment of all tools possible

TECHNICAL DATA

Turning:

Maximum part diameter	8	mm
Standard workpiece length	100	mm
Number of cutting tools (simultaneous)	4 (2)	
Max. tool head speed	10 000	min-1

Front Machinig Unit (DUF):

Number of powered tools (axial)	4	
Max. Speed	16 000	min-1
Max. drilling diameter	7	mm
Max. tapping diameter	M6	
Number of powered tools (lateral)	2	
Max. Speed	16 000	min-1
Max. drilling diameter	6	mm
Max. tapping diameter	M5	

Counter spindle:

a court	10 000	min-1
Max travel of the Z2 axis	350	mm

Back Machinig Unit (DUA):

Number of fixed tools (axial)	4	
Powered tools optional	16 000	min-1
Max. drilling diameter	7	mm
Max. tapping diameter	M6	
Number of powered tools (lateral)	2	
Max. Speed	16 000	min-1
Max. drilling diameter	6	mm
Max. tapping diameter	M5	

Numerical Control:

FANUC 16iB		
Number of controlled axes	6	
Number of spindles	3	
Measuring system resolution	0.001	mm
Rapid feed	25	m/min
Rapid feed Z2 axis	40	m/min

Technical features:

Coolant / cutting fluid	Oil	
Tank capacity	135	liter
Flow rate of the pump	60	l/min
Max. system pressure	10	bar
Chips container capacity	45	liter
Installed Power	13	kVA
Compressed air consumption	11	m³/h
Compressed air pressure	5	bar

Dimensions & weight:

Length x Width x Hight	1550 x 1100 x 2100	mm
L x W x H with straightening unit and coil reel	4190 x 1100 x 2100	mm
Net weight	1650	kg
Gross weight	1900	kg

Modifications reserved

Representation: