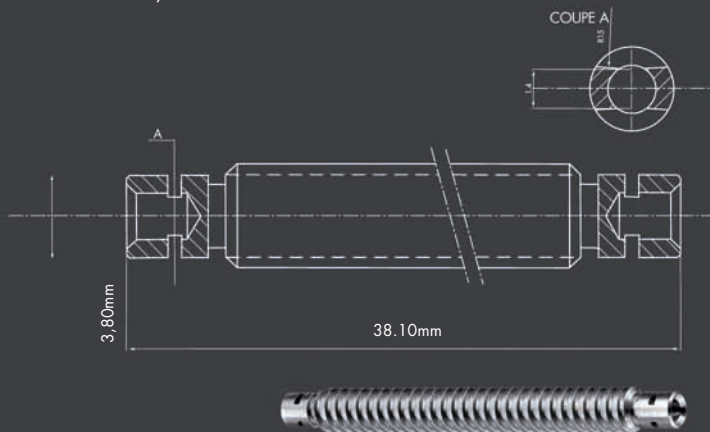




escomatic **NM 64X**

1.2 PCS/MIN

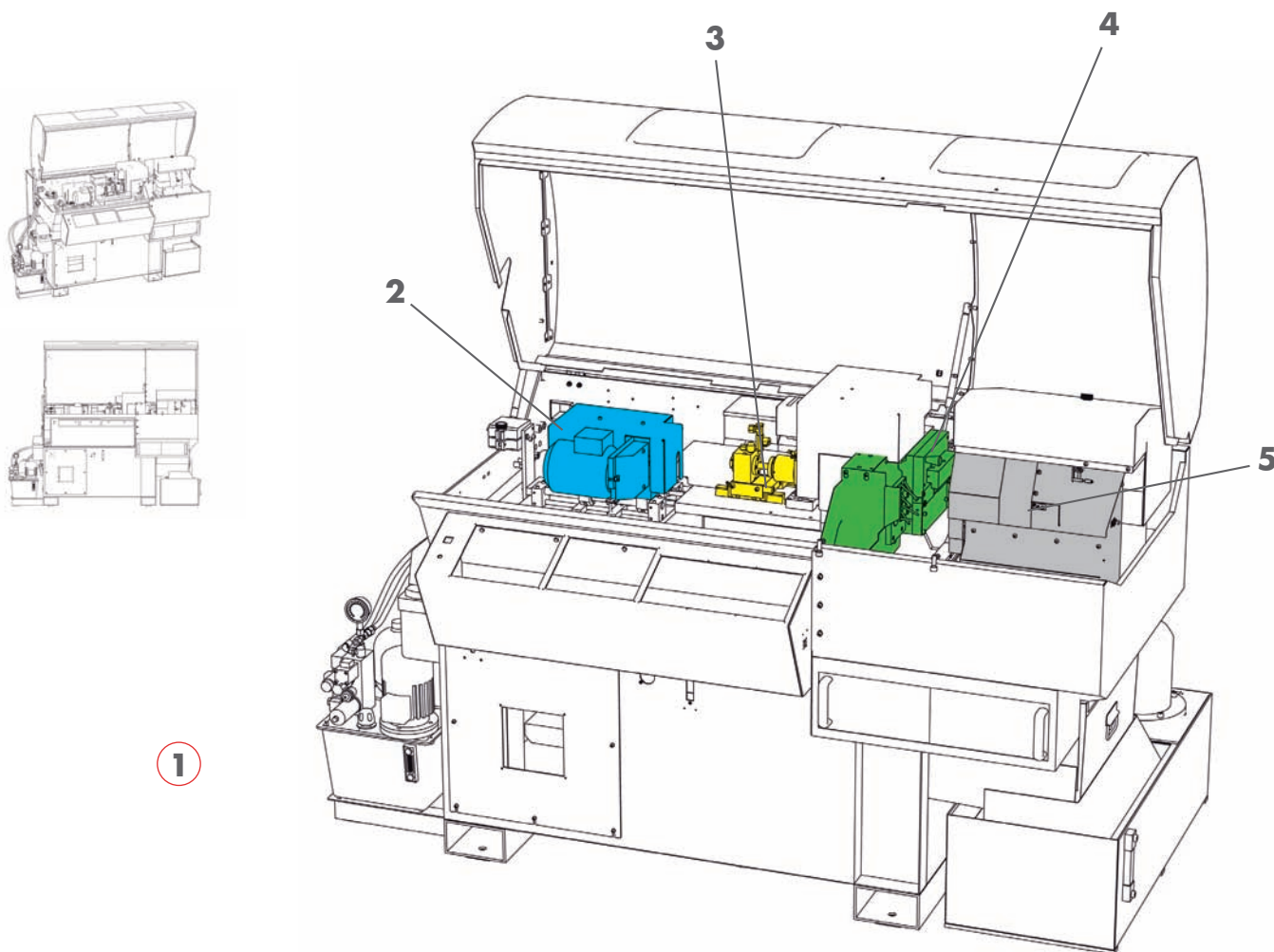


THE REFERENCE

escomatic CONCEPT

escomatic.ch

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.



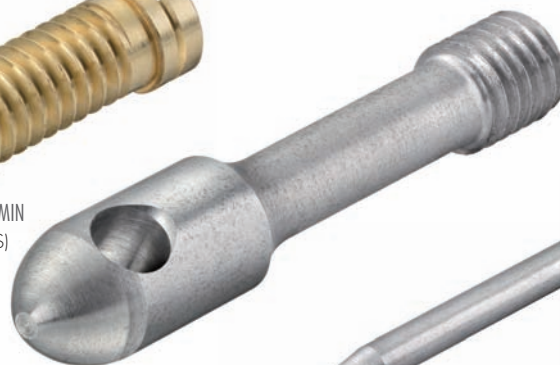
5.5 PCS/MIN
(CuNi18Zn19Pb1)



4 PCS/MIN
(303/1.4305)



3 PCS/MIN
(BRASS)



4.6 PCS/MIN
(303/1.4305)



3.3 PCS/MIN
(420/1.4034)



3 PCS/MIN
(BRASS)

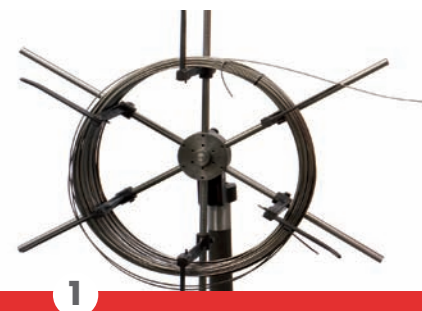


5 PCS/MIN
(BRASS)



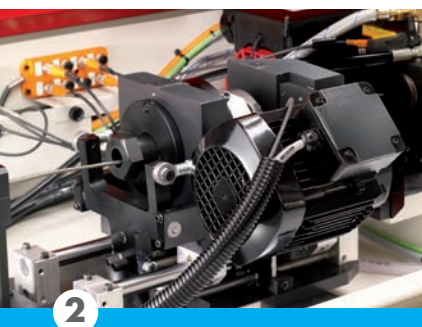
escomatic NM 64X:

PERFORMANCE THROUGH SIMPLICITY



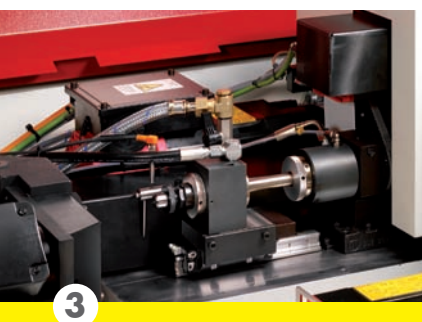
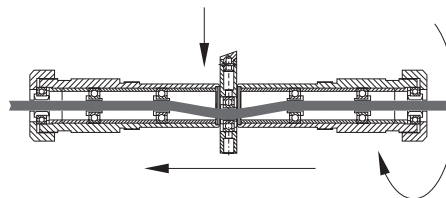
MATERIAL FEED

The material is supplied into the machine from coil. A coil, depending on the type of material, usually has 30 to 80 kg and is unrolled from a reel independent of the machine. The material is pulled across the machine by the material feed system. The machine could be equipped with a bar loader replacing the straightening unit as well as the reel and its support.



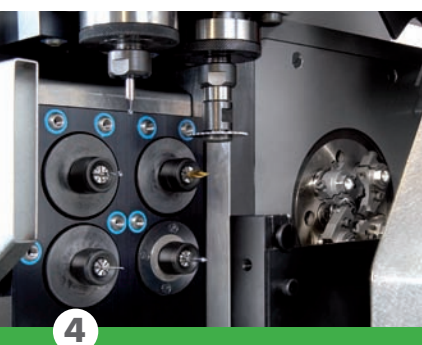
MATERIAL STRAIGHTENING

The material is fed into the machine from coil which becomes "bar stock" after the rotating straightening process. In the process the material is straightened during the recoil of the rotor of the straightening unit. It produces a bar with a straightness quality equivalent to standard bar stock.



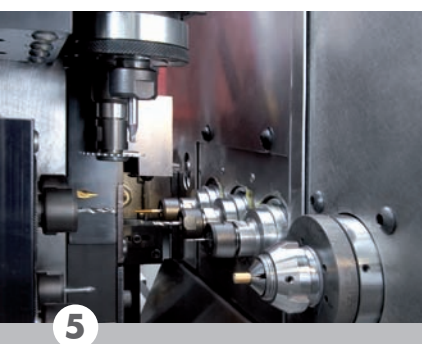
MATERIAL FEEDING

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 F8) is mounted on a tube-system closest to the material guide bush.



TURNING & BACK MACHINING

The material is feed through a guide bush to the tool head, 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 12'000 min-1. For cutting off the counter collet holds the machined part for perfect flatness and a pickle free end. For secondary operations the part held by the counter collet can be machined on the back machining unit with up to four stationary or powered axial and two cross working tool positions.

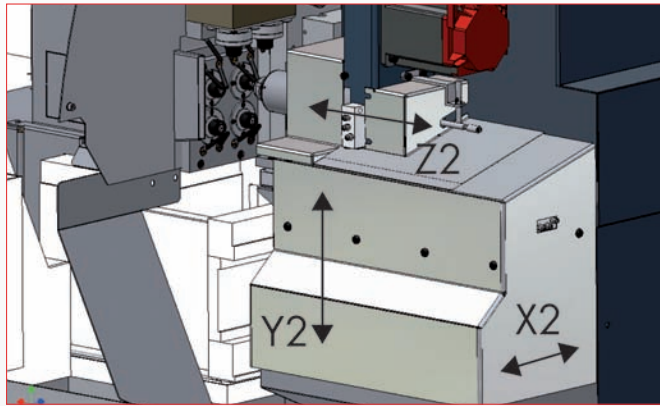


COUNTER COLLET & FRONT MACHINING

The front machining unit (DUF) holds three axial spindles and optional a cross milling/drilling unit as well as the counter spindle with C-axis. The unit is moved by the X2-, Z2- and Y-Axis. Drilling Tapping, threading or milling operations can be performed on the part while still in the guide bush before it is clamped by the counter collet and cut-off. Due to the configuration of the machine parallel operations may be performed between turning and front machining in the tool head and back machining in the counter spindle. Cycle times are improved.

escomatic NM 64X:

PERFORMANCE THROUGH SIMPLICITY



Back end machining unit (DUA) with Y-axis

The machines of the NM64X series are available in different versions:

- as NM640 equipped with a counter collet for the turning of simple parts
- as NM641 equipped with a counter collet and a hydraulic cross slide (X2)
- as NM643F with a front machining unit with three spindles and counter collet and as an option with a spindle for cross drilling or milling operations
- as NM644D equipped with a counter spindle (10000 min⁻¹), Y-axis and a back machining unit with four positions for fixed axial tools; options: powered axial tools, C-axis or a two-spindle cross drilling or milling unit
- as NM647 equipped with a counter spindle (10000 min⁻¹), Y-axis, a three-spindle front machining unit and a back machining unit with four positions for fixed axial tools; options: powered axial tools, C-axis, two-spindle cross drilling and milling unit or one spindle for cross drilling/milling operations on the front machining unit
- Material diameter up to 6.50 mm from coil or bar
- Rotating toolhead with 12 000 RPM
- 4 independent cutting tools
- No cut-off burr
- Short and fast change over as well as flexibility with set-up
- Production of parts with tighter tolerances is made possible by using an adjustable guide bush which can be used also as a collet during cut-off
- Higher economy due to less waste of material ends, labour-saving material handling and smaller floor occupation because of the use of coil material
- Higher performance due to the proximity of the cutting tools to the work piece and a continuous material feed of stock
- Safe 24 hours production
- High ergonomic handling and simple ISO programming

TECHNICAL DATA

Turning:

Max. material diameter	6.50	mm
Work piece length standard	60	mm
Max. work piece length (option)	150	mm
Max. number of cutting tools	4	
Max. toolhead speed	12 000	min ⁻¹

Front machining unit (DUF):

Number of powered tools axial	3	
Max. drilling diameter	6	mm
Max. tapping capacity	M4	
Max. drilling speed	12 000	min ⁻¹
Number of powered tools lateral (option)	1	
Max. drilling/milling speed	4 000	min ⁻¹

Back machining unit (DUA):

Max. speed of counter spindle	10 000	min ⁻¹
Number of fixed tools axial	4	
Max. drilling diameter	6	mm
Max. tapping capacity	M4	
Number of powered tools axial (option)	4	
Number of powered tools lateral (option)	2	
Max. drilling speed	16 000	min ⁻¹
Max. drilling diameter	5	mm
Max. tapping capacity	M3	

C-Axis (option):

Resolution/Increment	0.001	°
----------------------	-------	---

Numerical control:

CNC control FANUC 18i or Oi:

Serie 640, 641 & Serie 643F	21i-TC	
Serie 644D & Serie 647	18i-TB	
Max. number of controlled axes	6 (2x3)	
Number of spindles	2	
Measuring system resolution	0.001	mm
Rapid feed	25	m/min

Technical features:

Coolant / cutting fluid	Huile	
Tank capacity	120	Litre
Flow rate of the pump	28	l/min
Max. system pressure	8	bar
Chips container capacity	90	Litre
Installed power	8	kVA
Compressed air consumption	11	m ³ /h
Compressed air pressure	5	bar

Dimensions

Length x Width x Height	2340 x 1700 x 1550	mm
L x W x H with coil reel	3360 x 1700 x 1550	mm
Net weight	1550	kg
Gross weight	1800	kg

Modifications reserved

Representation:

