



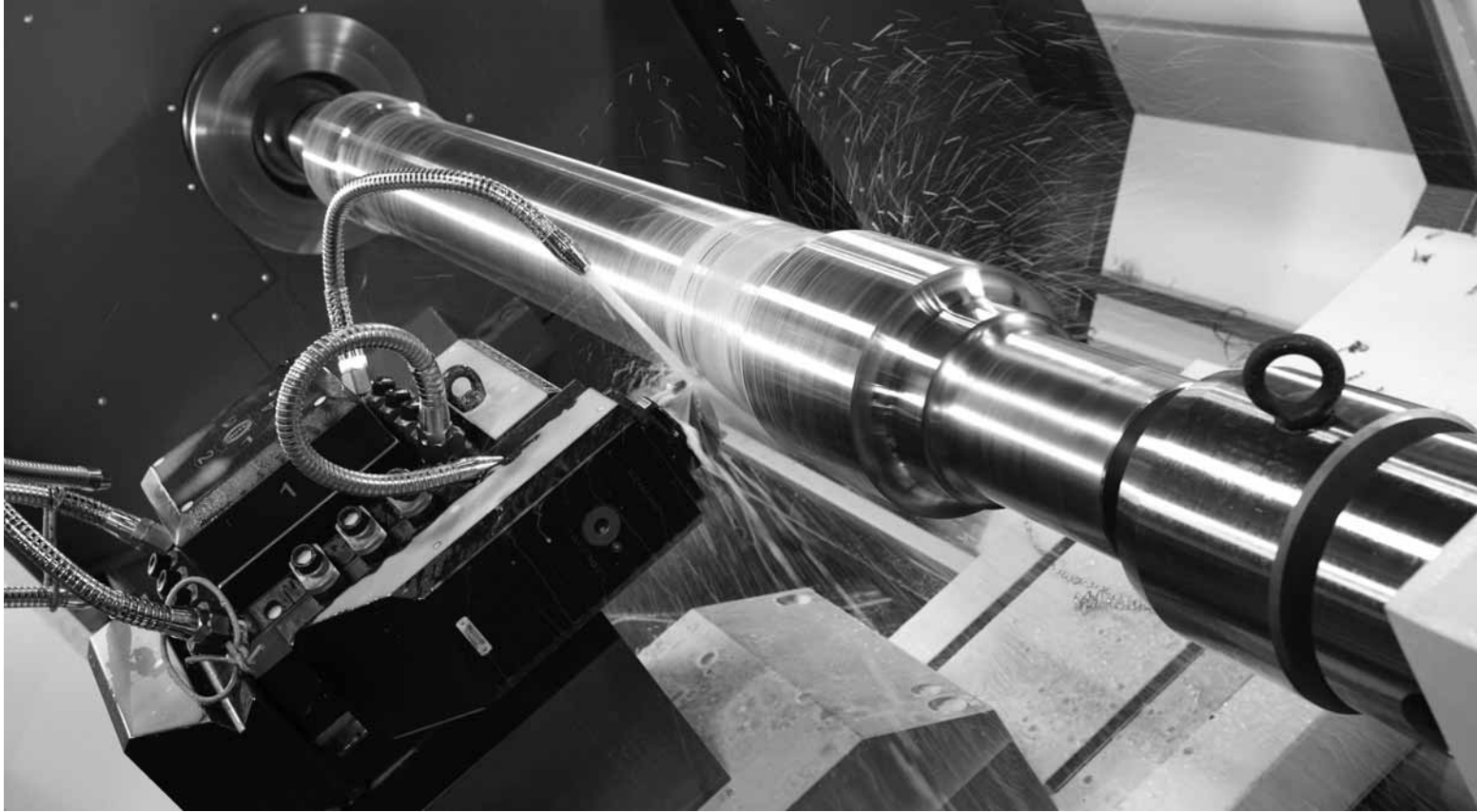
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SU, SUA, TT 75



LATHES

SLOVÁCKÉ STROJÍRNY, a.s.





**LATHES TOS FOR YOUR
PROFIT**

Universal centre lathes

SU 63H, 80H

SU 100H, 125H, 150H, 155H

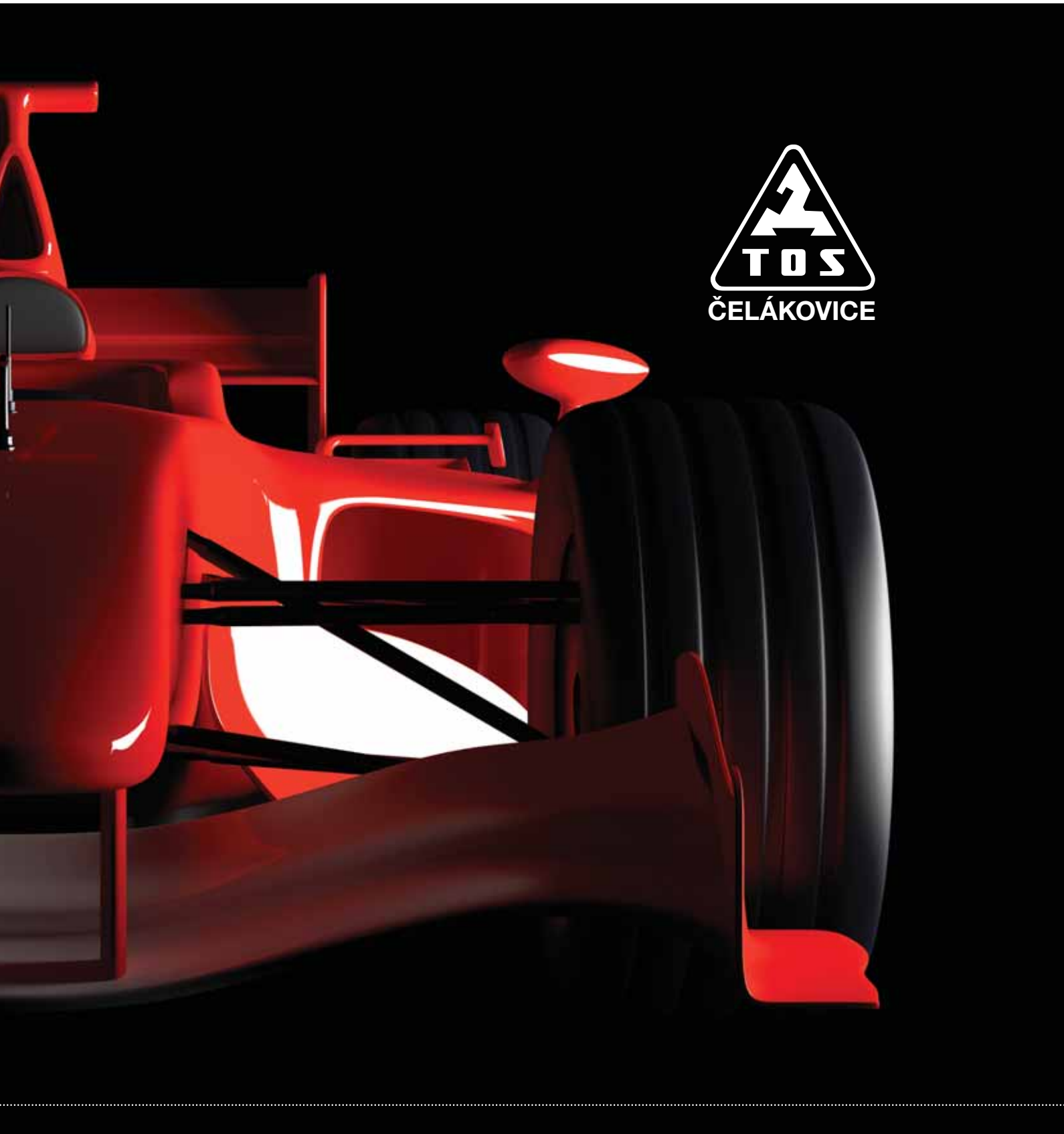
CNC Universal centre lathes

SUA 63, 80, 90 Numeric

SUA 100, 125, 150, 170 Numeric

Multifunctional lathe center

TT 75



ČELÁKOVICE

UNIVERSAL CENTRE LATHES SU 63 H, 80 H, 100H, 125H, 150H, 155H

MACHINE APPLICATION

The Universal centre lathes - series SU H are designed for rough turning and finishing operations, thread cutting and boring of shaft and flange parts. The machines allow the processing of a wide range of parts with weight of up to 8000 kg or 14000 kg (special version SU 100-150 only).

The headstock can hold flange type work-pieces for overhung clamping 1250kg (SU63,80), 1600kg (SU 100-155) and 2300kg for special execution of range (SU 100-155).

The machines are suitable for single-piece or small-run production. Their versatility is enhanced by an extensive range of special accessories and models. The concept of the machines and their structural design meets the requirements imposed on the current machining technology with high reliability and precision levels.



STANDARD ACCESSORIES

- Dead spindle centre
- Dead tailstock centre
- Square tool head
- Replaceable gears for feeds and threads
- Chip pan
- Supports for the lead screw and the feed shaft
- Cooling unit
- Lighting
- Cover against chips
- Interconnection cable
- Chuck and face plate cover with blocking
- Tool kit
- Operating manual
- Rapid traverse
- Manual tailstock travel (only SU 63,80 H)
- Machine travel of the tailstock with the power supply (only SU 100-155H)

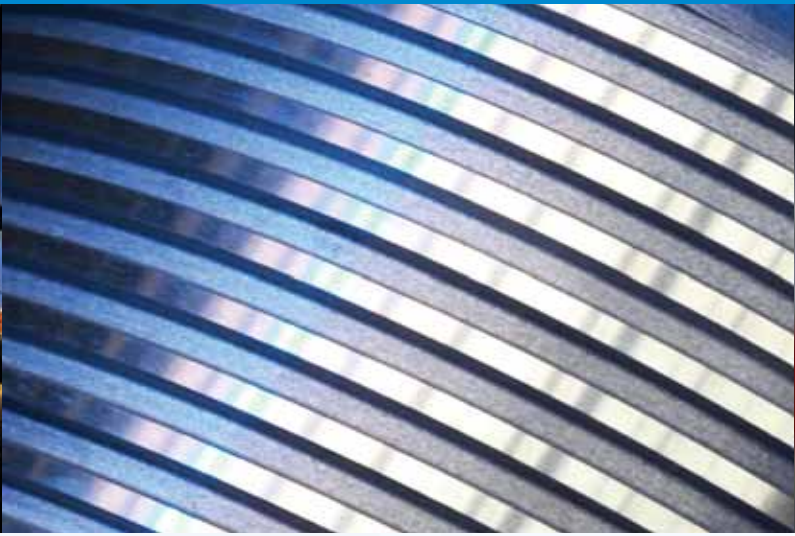
SPECIAL ACCESSORIES

- Small fixed steady with pulleys of sliding blocks
- Large fixed steady with pulleys of sliding blocks
- Traveling steady with sliding blocks
- Longitudinal stops, cross stops (only SU63, 80H)
- Rest tool holder with the fixed tool box(only SU63, 80H)
- Rest tool holder with the rotary tool box(only SU63, 80H)
- Face - plate
- Taper turning attachment
- Manual chuck Ø 630 mm with flange
- Chuck flange
- Live center MT6
- Live center metric size 100, 120 (SU100-155H)
- Tailstock barrel adapter MT6 (SU100-155H)
- Dial gauge for threads (metric or inch)
- Hand -lever feed of the tailstock barrel (SU63,80H)
- Rear cover
- Powered feed of tailstock (SU63,80H)
- Execution with rear wall
- Carrier plate
- Anchor material

OTHER MACHINE EXECUTION

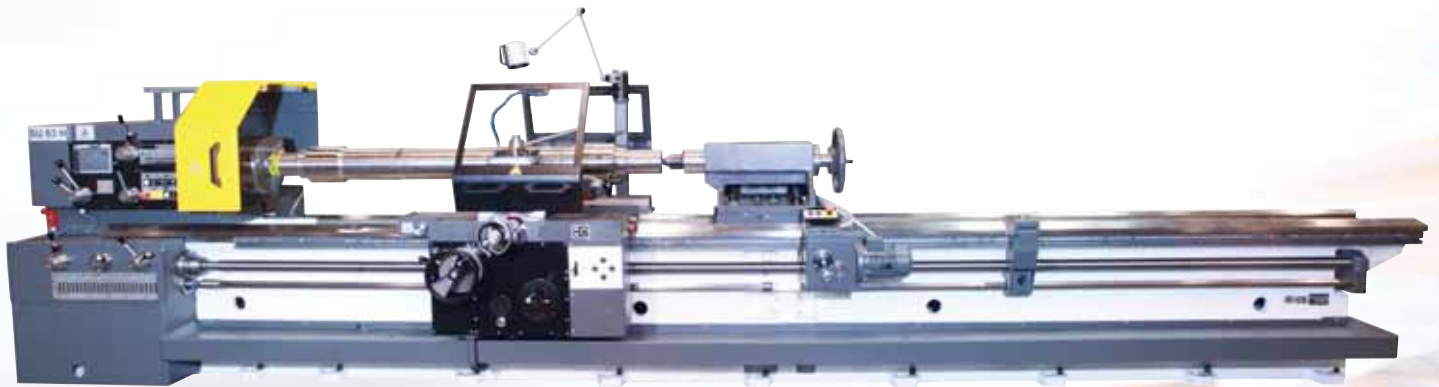
- Model with a rapid-change tool holder
- Inch execution
- Model with the spindle nose fitted with Camlock or American standard
- Extended spindle bore up to ,92, 102 mm (SU 63,80H) , 165, 208, 260mm with spindle nose 15 (SU 100-155H)
- Execution with reduced speed 3,55 – 900 rpm (SU 63,80H)
- Execution with increased speed 10 – 1 250 rpm (SU 63,80H), 12 – 1 600 rpm (SU 63H)
- Execution with increased speed 2,8-560 rpm (SU 125, 150H)
- Execution with reduced speed 1.4-280 rpm (SU 100H) a 0.9-180 rpm (SU 125H)
- Electric equipment for values other than 400V, 50 Hz
- Execution with improved climatic resistance
- Spindle brake
- Execution with guide surfaces of the saddle provided with the plastic surface finish
- DRO in two axis or in three axis
- Version with prolonged cross slides
- Other execution of tool holder
- Execution with chip conveyor
- Boring bar holder
- Execution with heavy duty tailstock (SU 125,150,155H)

H I G H P R O D U C T I V I T Y



EASY OPERATION
UNIVERSAL CENTRE LATHES

SU





SU		63H, 80H	100H, 125H, 150H, 155H
Operating range			
Swing over bed	mm	Ø 655, 840	Ø 1 050, 1 250, 1 500, 1 570
Swing over cross-slide	mm	Ø 390, 530	Ø 730, 940, 1 200, 1 260
Swing over prolonged slides with T slots	mm	Ø 320, 450	Ø 630, 840, 1 100, 1 160
Distance between centres	mm	1 250, 2 000, 2 750, 14 000	2 000, 3 000, 4 000 - 20 000
Max. work piece weight in centres/in fixed steady	kg	6 000/8 000	6 000/ 8 000(*10000/14000)
Spindle (ISO 702/III.) (American Standard,CAMLOCK)*		size 11	size 11(15*)
Bore Ø	mm	82(92,102*)	122(165,208,260*) 260mm only A2-15 !!
Speed range (rpm)	rpm	SU63H 7,1-900, SU80H 9-1 120 10-1250(22KW*)	SU100H1,8-560; SU125H2,24-450; SU150H 1,8-355
Main motor output	kW	18,5 (22*)	22 (30*)
Carriage			
Operating feed			
Longitudinal	rpm	0,049-48	0,08 - 56
Cross	rpm	0,0245-1,5	0,0245-1,5
Rapid traverse			
Longitudinal	mm/min	4 300	3 600
Cross	mm/min	2 150	1 200
Cut thread pitch			
Metric	mm	0,5 - 224	1 - 112
Whitworth	thread/1"	56 - 1/4	28 - 1/4
Module	modul	0,25 - 56	0,5 - 28
Diametral Pitch	D.P	112- 1,2	56 - 1
Circular Pitch	C.P	1/64 - 3"	1/16 - 3"
Tailstock			
Tailstock barrel	mm	Ø 130	Ø 150(Ø 220*)
Taper	mm	MK6	100 (1:20)/120*(1:20)
Tailstock barrel extension	mm	275, 335	200(350*)
Adapter		100 (MK6)	
Heavy duty tailstock *	kg	x	10000/12000/14000
Total power input	kVA	20	31 (40)
Weight	kg	5 200 - 10 300	7 200 - 22 000

* other machine execution or special accessories



CNC UNIVERSAL CENTRE LATHE SUA 63, 80, 90, 100, 125, 150, 170 Numeric

MACHINE APPLICATION

The SUA NUMERIC multi-purpose centre lathe is a numerically controlled machine designed for rough turning and finishing operations of shaft and flange parts, thread cutting, boring and turning tapers and various rotary surfaces. The machine comprises of a horizontal lathe bed with rigid design. The guide surfaces of the bed are hardened and ground. The counter surfaces on the saddle are fitted with Turcite B sliding compound.

The SUA Numeric features an automatic cycle control, which may be fitted with the control system Siemens 840D sl, Heidenhein 620 or Fanuc, Fagor. A great advantage of the machine is the automatic hydraulic shifting of three speed steps. The spindle speed in these three steps can be adjusted in a stepless manner.

The drive of the longitudinal feed – Z axis is ensured via a servo drive connected directly to a ball screw. The drive of machines with a turning length exceeding 3 500 mm (SUA 63-90), 5 000 mm (SUA 100-170) is performed using a special carriage box with backlash elimination. The feed is ensured via a rack. The drive of the cross feed – X axis is ensured via a servo drive connected directly to the ball screw.

The measuring of both feeds is performed by rotary transducers installed on the servomotors. For machines with long turning lengths the Z axis feed is measured directly using linear scales. The machine may be fitted both with manually controlled tool heads and the multi-position CNC-controlled heads manufactured by various companies. In addition to this the machine may also be equipped with an extensive range of special accessories as well as custom accessories, including chip conveyor.



STANDARD ACCESSORIES

- Dead centre 60° with a nut for the main spindle
- Dead centre 60° with a spaces for the tailstock
- Main spindle reduction sleeve
- Tool post Multifix D1 with tool holder
- Cooling system
- Chip pan
- Spot light
- Interlocked protection guard of chuck and driving plate
- Full protection guards
- Set of machine operating tools
- Operating manual (2pcs.)

SPECIAL ACCESSORIES

- Small steady rest with rollers or sliding jaws
- Large steady rest with rollers or sliding jaws
- Travelling steady rest with sliding jaws
- Universal three-jaw chuck diameter 630 mm with flange
- Chucks with independent jaws
- 60° or 90° live centre
- Hand- lever feed of tailstock barrel
- Tailstock feed- actuated by power
- Dead centre 90° with nut for main spindle
- Dead centre 90° with spaces for tailstock
- Anchor material
- Boring bar holder
- Increased power of coolant equipment with separation
- Hydraulic clamping

OTHER MACHINE VERSION

- Prolonged cross slide with T-slots
- Flat hardened guide (only SUA100-170)
- Increased spindle speed
- Machine version of the end of the spindle
Camlock, ASA
- Increased spindle bore (only SUA 100-170)
- C- Axis
- Heavy tailstock (only SUA 125-170)
- Hydraulic feed of tailstock barrel
- Automatic clamping of tailstock (only
SUA 100-170)
- Drilling tailstock

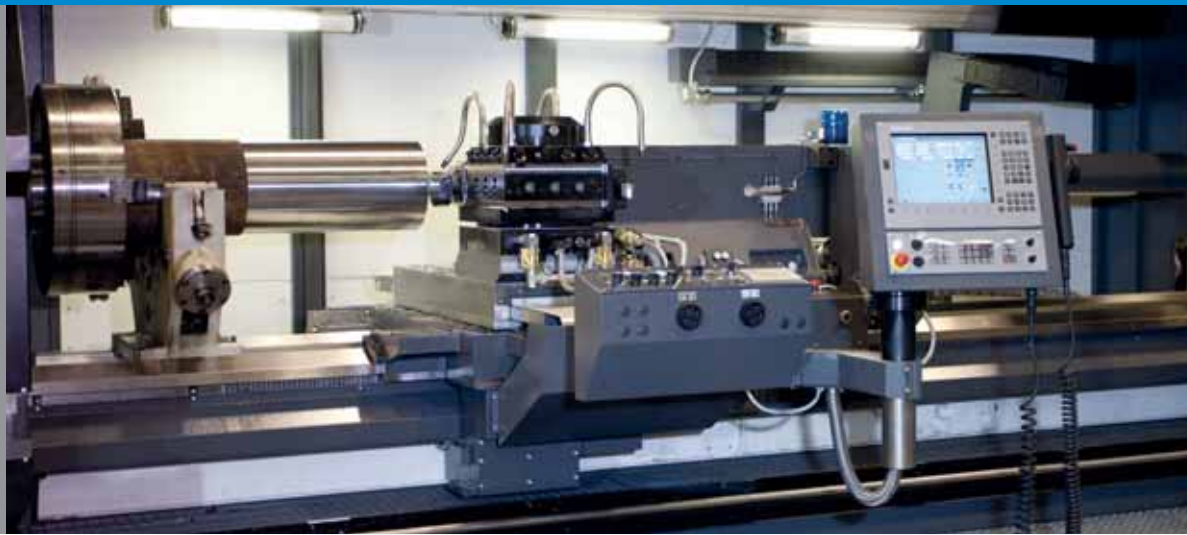
H I G H P R E C I S I O N

HIGH MATERIAL REMOVAL

HIGH RIGIDITY
CNC UNIVERSAL CENTRE LATHE

SUA





SUA		63, 80, 90 NUMERIC	100, 125, 150, 170 NUMERIC
Operating range			
Swing over bed	mm	Ø 655, 840, 900	Ø 1 050, 1 250, 1 500, 1 700
Swing over cross-slide	mm	Ø 380, 530, 600	Ø 720, 930, 1 190, 1 400
Swing over prolonged flat hardened cross slides	mm		Ø 550, 760, 1 020, 1 230
Swing over prolonged cross slides	mm	Ø 320, 450, 520	Ø 630, 840, 1 100, 1 310
Distance between centres	mm	2 000, 2 750 - 14 000	2 000, 3 000, 4 000 - 20 000
Max. work piece weight in centre/in fixed steady	kg	6 000/8 000	6 000/8 000 (* 10 000/14 000)
Spindle			
Bore	mm	102, 128	128(165,208,260*)
Speed range (rpm)	rpm	5-1 400; 5- 1 250	4 – 630 (800,1000 only size 11 *)
Main motor output	kW	30(37*)	37(51*)
Carriage			
Operating feed			
Longitudinal	rpm	1 - 1 000	1 - 1 000
Cross	rpm	1 - 1 000	1 - 1 000
Rapid traverse			
longitudinal	mm/min	5 000	5 000
cross	mm/min	5 000	5 000
Tailstock			
Tailstock barrel	mm	Ø 130, Ø 165	Ø 165 (* 220)
Taper in tailstock barrel		MK6	100 (1:20); (*120 (1:20))
Travel of tailstock barrel	mm	275, 335	350
Machine			
Total power input	kVA	57	67
Weight	kg	4 900 – 15 000	7 400 – 24 000

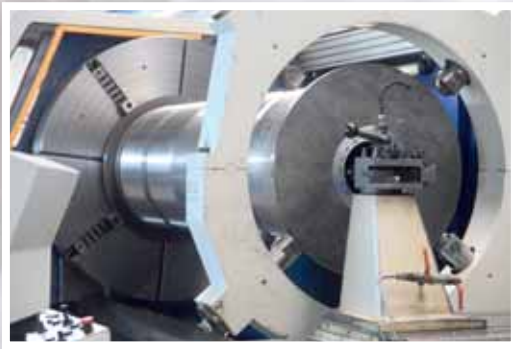
* other machine execution, special accessories



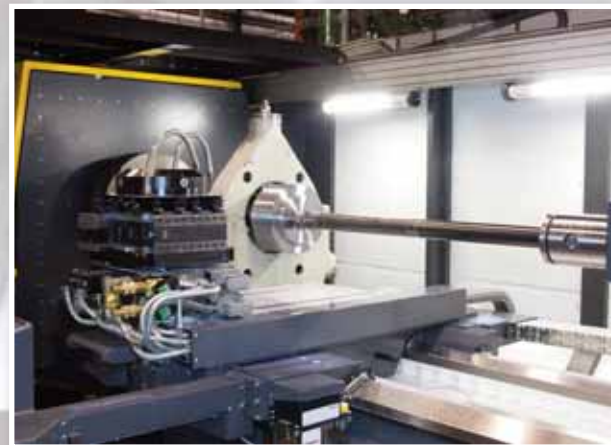
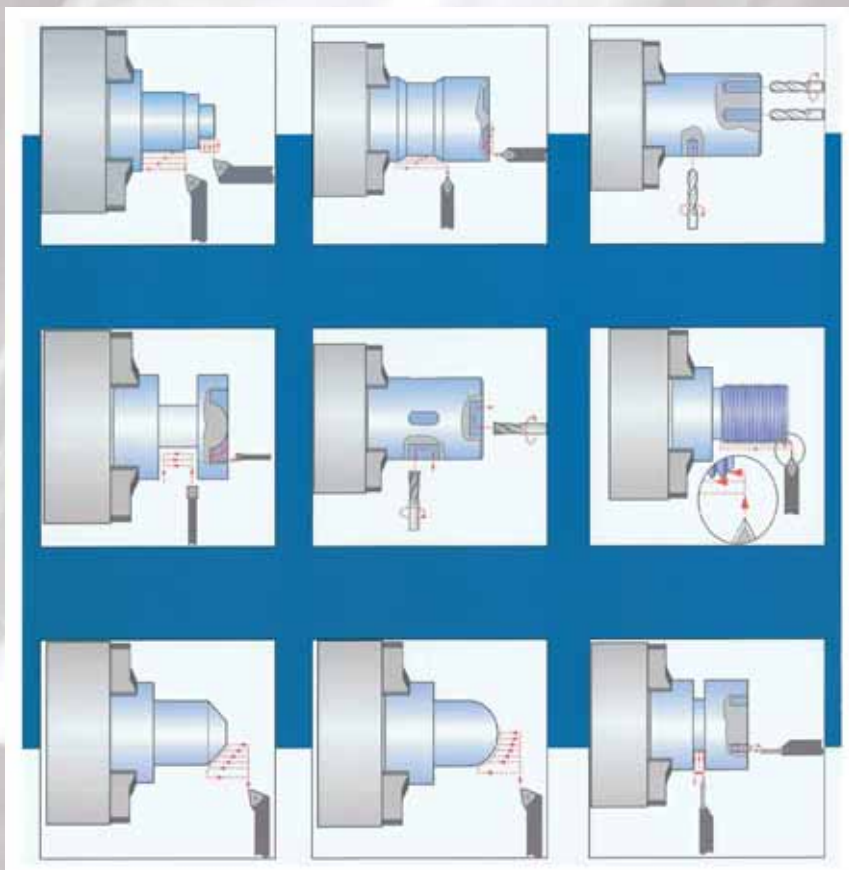
HIGH RELIABILITY

CNC UNIVERSAL CENTRE LATHE

SUA



Machining Possibilities





Turning of Cable Drum



YOUR TECHNOLOGY ON OUR MACHINE TOOLS TOS

H I G H P R E C I S I O N

TT 75

TT 75

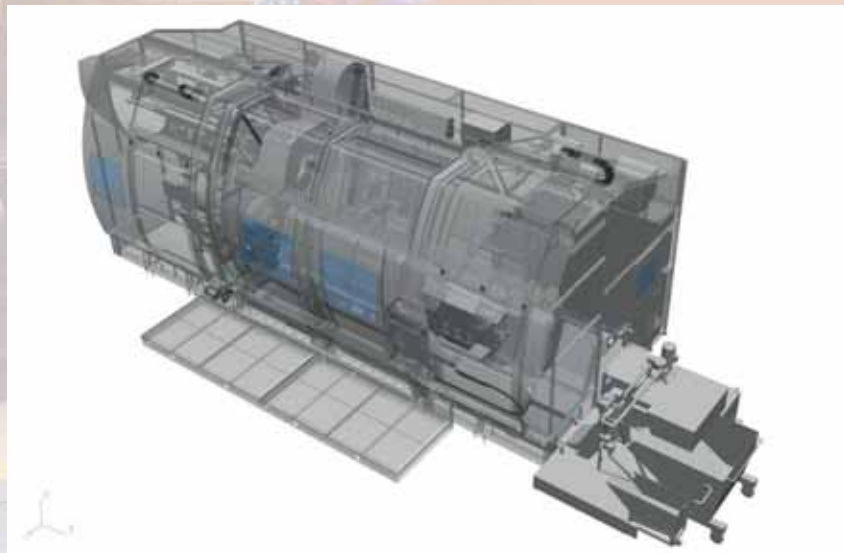
MULTIFUNCTIONAL LATHE CENTER TT75

TT75 – Multifunctional lathe centre TOS Turn is a production machine for fully automatic (semiautomatic) machining of shaft and flange parts in optimum machining time with very high precision.

The machine TT75 is characterized by the possibility of using the latest tools in the field of turning, milling and other technological operations based on the high level of support of the CNC system from the very clamping of a work piece into the machine.

The machine is suitable for mass production and also for production of work pieces which for the needs of precision have to machine without removal from the chuck. This machine with great precision of C-axis can be used for gear cutting using a dividing head or hobbing up to module 5. The highly precise C-axis also allows various forms of milling. The machine is delivered with a tailstock, which is highly suitable for eccentric work pieces, or with sub-spindle. Here the work piece is taken from the main headstock and finished from the other side on the sub-spindle. It is also possible to run both spindles, for example for producing long shafts. The machine can be equipped with automatic tool change up to a capacity of 120 tools.

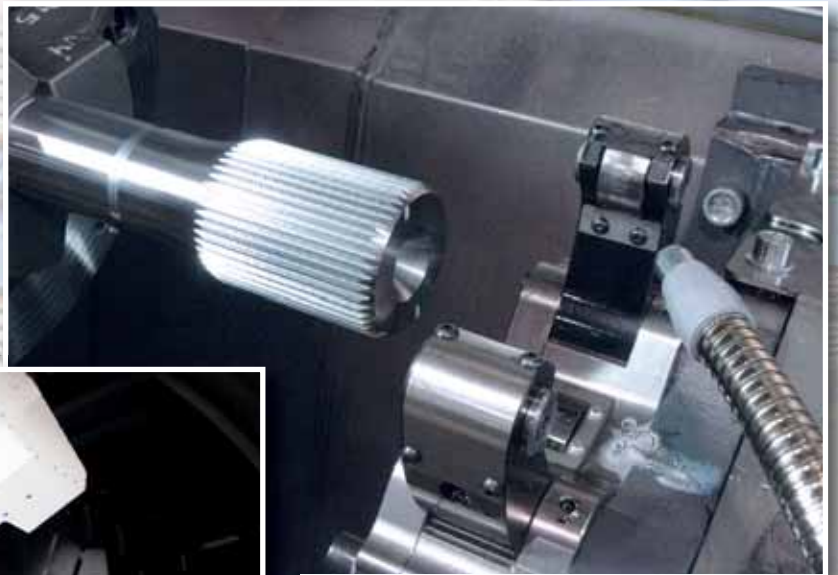
It is also possible to install a bar feeder. The machine can also be equipped with two carriages.





TT 75

Swing over bed guide covers	mm	1 000
Maximum diameter of lathing above supports in whole range	mm	750
Length variants of the machine	mm	2 000, 3 000, 4 000, 5 000, 6 000
Max. longitudinal lift of upper support Z1	mm	2 350, 3 350, 4 352 5 350, 6 350
Maximum transverse lift of upper support X1	mm	782
Maximum lift of Y1 axis	°	+120/-90
Maximum rotation speed	rpm	1 900 (2 500)
Tool clamping		CAPTO C6, C8, HSK 80
Angle of fluent displacement of axis B	°	± 102,5
Max. weight of work piece	kg	3 000 (4 500)

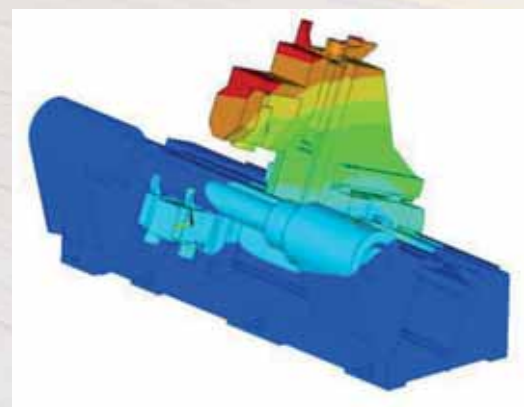
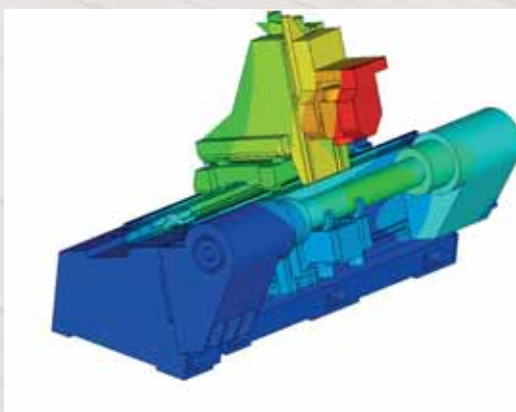


COMPLEX PARTS MACHINING

HIGH PERFORMANCE

TT 75

TT 75





Magazine Capacity up to 120Tools

In the basic version

Axes with position or position +speed link

X1 cross traverse of left upper support

Z1 longitudinal traverse of left upper support

Y1 cross traverse of left upper support

R1 longitudinal traverse of tailstock

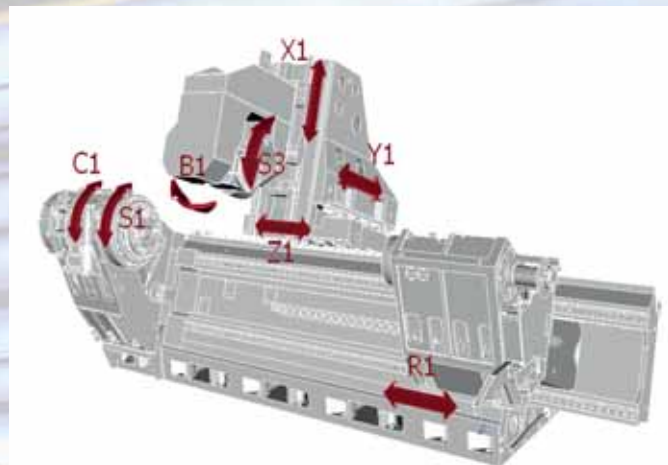
B1 angular setting of tool head

C1 exact positioning of spindle of left headstock

Axes with speed link

S1 drive of spindle of left headstock

S3 drive of spindle of tool head



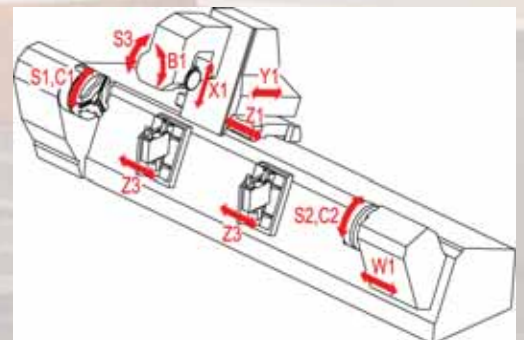
Other machine version with counter spindle and with lower support

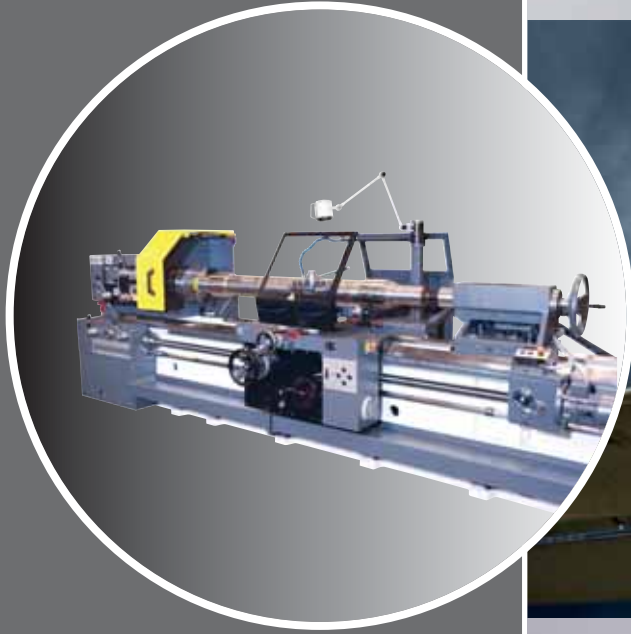
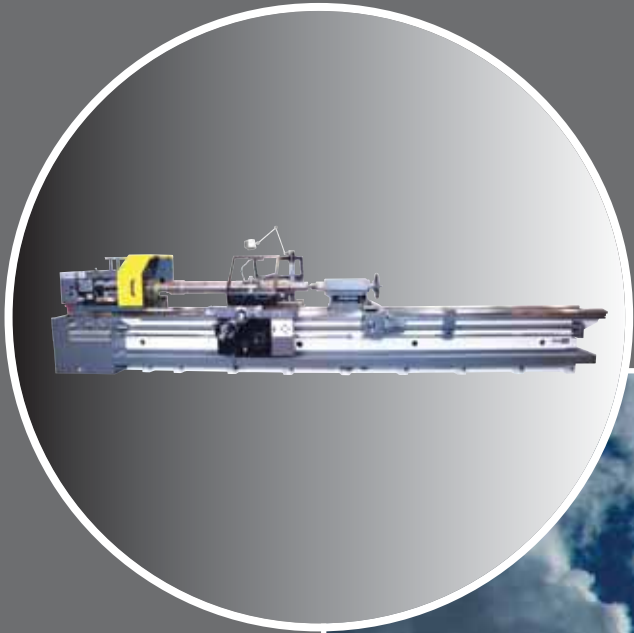
S2 counter spindle drive

C2 counter spindle exact positioning

W1 longitudinal traverse of counter spindle

Z3 Longitudinal traverse of lower support





P R E C I S I O N

O U T

S U , S U



PUT RELIABILITY

A, TT75

