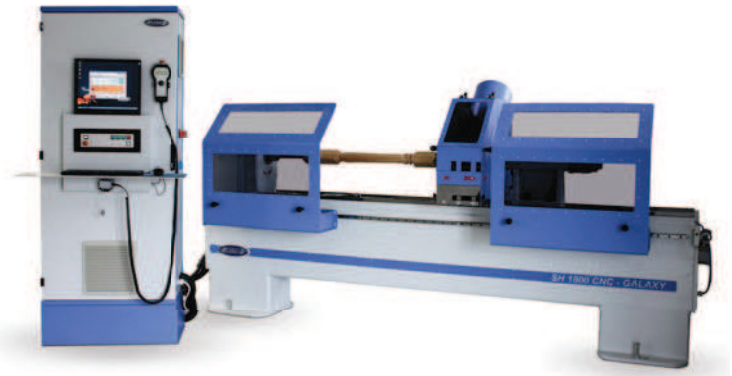
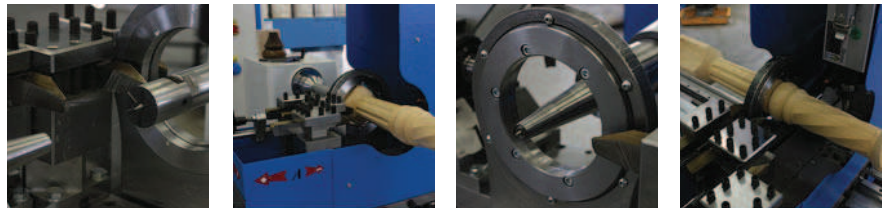


# GALAXY



Universal CNC Lathe



*CNC Machining Centres*



## Universal CNC Lathes...

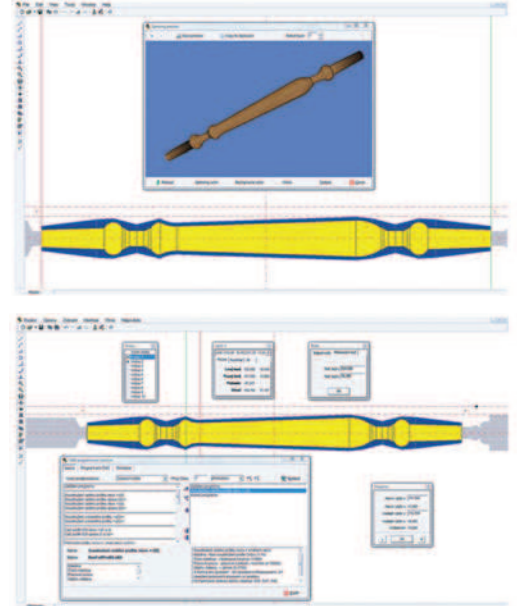
Universal centre lathes of the GALAXY model line are designed based on the need for a productive and efficient machine for continuous machining. Possibility to turn a large range of dimensions and lengths, high dynamics, a wide range of accessories and a quick machine preparation for a change of the product profile or of type of production meet the most challenging criteria of the current market.

### Simple and intuitive CAD/CAM software LatheCAM

For the creation of NC programmes, LatheCAM graphic software is used, which contains all the functions for convenient and quick drawing of the required profiles, management of libraries with different products, postprocessor for creation of NC programmes, 3D render etc.

Desired profile in LatheCAM is put together from pre-defined objects, which can be changed parametrically into different dimensions. This allows the created profiles to be not just geometrically accurate, but also focused on the artistic design of the product.

LatheCAM is equipped with graphical representation depicted during the machining directly on screen. This allows the operator to identify possible collisions in advance. 3D render and product appear on the screen in photorealistic quality. This view can be saved in classic formats, printed out, copied etc.

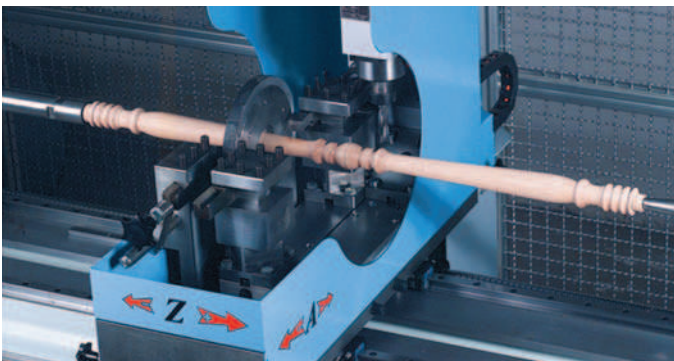


### Supporting stay

A universal supporting stay (up to the diameter of 140mm), which is anchored in a longitudinal support, can be used for machining of long parts at one cut and also for parts with the preservation of end square profiles at both ends of the product. A pre-cutting tool fluently sets the machined diameter prior to the loading of the work piece into the stay. Thus a product enters the stay previously machined to an accurate diameter and therefore highly stiff fastening of the material is guaranteed. Copying cutting tools placed at cross supports then make the required form.

### A tailstock from grey cast iron

A massive casting of the tailstock body is accurately seated in the guiding area of the bed. A tailstock sleeve is fitted with a turning point with ending, which prevents the material from splitting. The machine is by default fitted with an electric control of a tailstock sleeve that enables continuous setting of pressure with factor clutch.



### Effective control system

A modern fully digital CNC886 control system provides control of the whole machine. Apart from standard functions, such as interpolation of straight lines, circular arch interpolation and the control over all PLC functions of the machine, the system integrates all necessary functions for high-speed machining, such as automatic speed adjustment to the path geometry and to the dynamic characteristics of the machine. NC programmes can be transmitted via RS232 or via a network. The control system interprets a standard ISO code. LCD colour display makes possible easy and clear orientation in particular menus of the control system.

### Stable construction

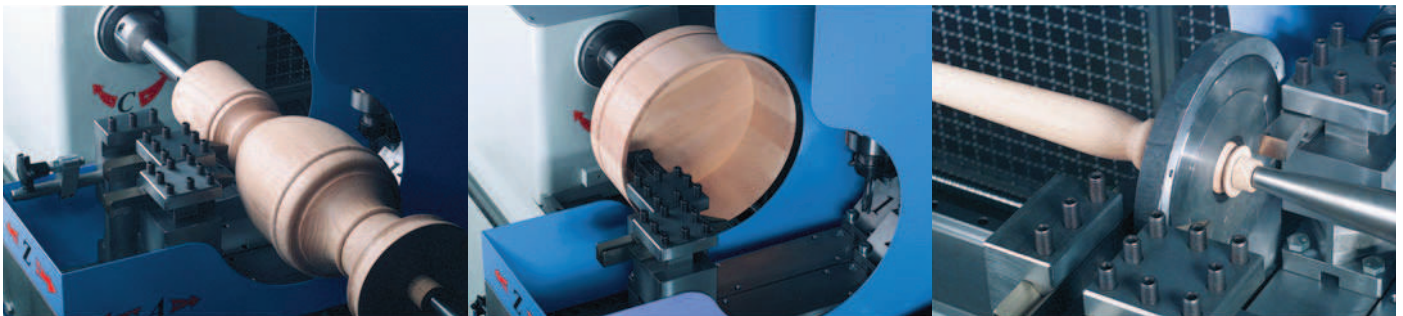
A rugged steel bed with a headstock and a tailstock made of grey cast iron guarantee high stiffness of the entire set. A precise rolling guideway and ball screws on all the axes are the guarantee for high accuracy and long working life of the machine. A spindle is placed in two ball bearings with an oblique contact, which are fitted with permanent grease filler. The front end of the spindle ends with MORSE 3 conic hollow for driving lathe centres and with an outer cylindrical area with a groove for spring, on which special jigs, such as self-centring chuck, machining face plates, etc. can be fastened. A frequency converter fluently regulates spindle turns.



### Machining in variety

The machine can be fitted with up to 4 work tools. A large removal of material at 1 bite is possible in case of simultaneous machining with two copying knives. The tool of the first support does the rough stage and the tool of the second support does the finishing part. Machining in this manner can be performed in both directions by changing the function of individual supports. While machining large diameters, where these two

stages would not be enough, it is possible to divide the machining into several stages. Easy division into individual stages is also fully supported by LatheCAM software. The same technique can be used for frontal turning of plates, turning of shaped holes etc. With a tenoning knife, mounting pins can be turned with the lathe anywhere on the product.



### Machining of short parts

Effective machining of short parts is possible if the cross support is fitted with a stay and a cutting-off tool. After mounting the semi-finished product, a profile of the first part is machined, which is cut off and consequently the machine continues in the machining of another part in the set number of cycles. A tenoning tool can machine assembly pins.

### Alignment forks

Alignment forks for fast and accurate establishment of the work piece between the points of the machine are controlled pneumatically and their movement can be integrated directly into the programme. This solution reduces the exchange time of the work piece to a minimum and significantly increases productivity.



### Milling of decorated spirals

The machine in modification with controlled spindle and cross supports fitted with two efficient milling spindles allows machining and consequent milling at one work piece mounting. This modification enables profile

milling with a front or a side of the tool and thus it is possible to mill decorated helixes, threads, grooves, profile spirals, multi-edge forms, to bore hollows, etc.

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# SAHOS GALAXY

Parameter	Unit	SH 1800 CNC	SH 1800 CNC-S
Maximum turning length	mm	1800	1800
Maximum diameter over bed	mm	540	540
Maximum turning diameter	mm	270	270
Maximum turning diameter with stay	mm	140	140
Travel of cross-slide	mm	260	260
Spindle electric motor	kW	5,5	5,5
Spindle speed RPM	rpm	0 – 3750	0 – 3750
Number of controlled axes	Pcs	3	4
Maximum feed speed Z/X/A	m/min	30/20/20	30/20/20
Taper in spindle	MORSE	3	3
Total power input	kW	12	14
Exhausting capacity/Diameter of dust outlets	m <sup>3</sup> /hr, mm	4000/250	4000/250
Number of spindles for milling	Pcs	–	2
Spindle speed RPM of spindles for milling	m/min	–	1000 – 18000
Power of spindles for milling	kW	–	2,2
Clamping of milling tools	–	–	ER25
Range of diameters of clamps	mm	–	1 – 16
Machine dimensions – L x W x H – working	mm	4300 x 1900 x 2100	4300 x 1900 x 2100
Machine dimensions – L x W x H – shipping	mm	3500 x 1550 x 1900	3500 x 1550 x 1900
Weight Netto	kg	1600	1650
Weight Brutto	kg	1700	1750