

WOODTURNING LATHES



D R E C H S E L Z E N T R U M E R Z G E B I R G E

capable – knowledgeable – friendly – steinert®

Steinert woodturning lathes are based on the generations of experience embodied in the business that is **DRECHSELZENTRUM ERZGEBIRGE -** steinert[®].

This specialist family business, driven by a passion for woodturning, has been manufacturing lathes since 1990. The company's ability to address the specific application needs of specialist users, as well as those of the enthusiastic hobbyist, has earned it world-wide respect and admiration.

The company has been able to draw on the many specialist trades represented in the Erzgebirge, steinert's[®] home region in Germany, to create lathes that reflect their passion for woodturning and commitment to quality. A process of continuous development and product refinement ensures that these lathes continue to meet the most stringent demands of the woodturning community. From the bench-mounted steinert[®] piccolo, to the mighty steinert[®] maximo and the legendary VB36 Master Bowlturner, steinert lathes are defined by their quality of materials, high production standards and outstanding reliability. Solid cast iron components, special bearing configurations and the generous proportions of these designs ensure smooth, quiet, long-term operation of these lathes. These traditional qualities of mechanical excellence are matched by drive and control components sourced from the premier specialist providers in industry today. Allied to the comprehensive accessories range, these lathes can meet any challenge.

In addition, steinert[®] produces specialist solutions such as left-hand lathes, model-maker's lathes, oval turning equipment, modified automatic lathes and even a foot-powered replica of a traditional wood-framed lathe.

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*See footnote on following page







Cross-slide with saddle and toolrest

steinert[®] - piccolo

steinert® 'piccolo' range benchtop lathes feature cast iron construction similar to that of the professional series steinert® lathes. They are differentiated only by having a smaller capacity than the floor-mounted lathes. However, that does not limit their use. Professionals use them both as workshop machines and for mobile demonstrations. The enthusiast user benefits from professional quality and a wide range of accessories and configuration options. This machine is up to any woodturning and model-making task asked of it.

The 'Superprofi' variant is the first lathe in its class designed for use with the 'Eureka'* style of cup chuck. With this lathe, the 'Eureka' chuck can be loaded directly on the lathe without the spindle or bearings suffering from the 'hammering' used to mount the timber in the chuck. The 'Superprofi' shares the 180 mm spindle height and double row bearings at the inboard side of the headstock with the other machines in the 'piccolo' range. The 'vario' version features the ability to move the headstock along to the end of the bed, simplifying deep hollowing on the lathe. The on/off switch is mounted in a mobile control box. A rotatable headstock may optionally be specified for the 'vario' model.











Machine with demountable wooden stand

Technical data:

Spindle height over bed: 150 mm (diameter max. 300 mm) or 180 mm (diameter max. 360 mm) optionally 350 mm (1000 mm with bed extension) Capacity between centres: 0.55 kW or optionally 0.75 kW, 400 V, 50 Hz; in each case with six Motor: pulley steps or optionally electronically variable speed with three step pulleys. Mains supply 230VAC, 50 Hz 545/800/1145/1620/2300/3400 rpm or infinitely variable Spindle speed: from 50 to 3400 rpm Spindle: M33 x 3.5mm DIN 800 (Register 34 x 9 mm), #2 MT bore. Tailstock: 2 MT bore, quill movement 100 mm, with 60 mm handwheel. Toolrest: 160 mm (standard), 25 mm dia. post: other lengths optional Dimensions LxWxH: 1000 x 200 x 320 mm Weight: 58 kg (standard version) Basic configuration: live centre, 15 mm drive centre, knockout bar, operating manual

A range of complementary options and accessories is available. Technical specifications subject to change without notice.



*The 'Eureka' chuck is a unique type of cup chuck traditionally used in the Erzgebirge for all forms of faceplate turning. It comprises a cup chuck incorporating multiple concentric indenter rings. The chuck is loaded by hammering the (end grain) timber onto the chuck so that the indenters penetrate the billet. These chucks offer a tenacious hold despite their apparent simplicity.





Technical data:

Height over bed:	250 mm (turning diameter max. 500 mm, or 750 mm with optional outboard turning attachment and headstock rotated)	
Capacity between centres:	1000 mm	
Spindle:	M33 x 3.5mm DIN800 (register 34 x 9 mm), internal bore 2 MT. generously dimensioned hollow spindle (bored 12 mm) with maintenance-free bearings (double-row angular contact ball bearings at the inboard side and deep-grooved ball bearing outboard.)	
Tailstock:	Bore 2 MT, quill stroke 120 mm	
Motor:	1.5 kW, 400 VAC, 50 Hz, 3-Ph motor with 5 speed transmission or optionally with electronic variable speed inverter driving though three step transmission with 230 V, 50 Hz power supply	
Power transmission:	6-rib poly-V-belt for standard machine; or 8-rib belt with variable speed version	
Spindle speed:	370/800/1400/2000/2800 rpm or infinitely variable speed from 100-750 / 280-2100 / 420-3150 rpm with electronic variable speed	
control:	the braking ramps can be set to give slow or fast acceleration and deceleration to suit the work	
Toolrest:	length 275 mm, toolpost 30 mm dia. Other toolrests available	
Dimensions LxWxH:	1950 x 600 x 1200 mm (without outboard turning attachment)	
Weight:	230 kg (Standard machine); 250 kg with outboard turning attachment	
The bench top version of the alpha-optimo 200 differs from the standard machine as follows: teight over bed: 200 mm (turning diameter max. 400 mm)		

Tailstock: Dimensions LxWxH: Weight:

optimo

oha-optimo 200 ditters trom the standard machine 200mm (turning diameter max. 400mm) 800mm Internal throat 2 MT, quill stroke 100mm 1610 x 450 x 450mm 135 kg

A range of accessories can be supplied for all versions.

Technical specifications are subject to change without notice.

Woodturning lathes of the 'steinert® alpha-optimo' series, are especially robust machines with castiron lathe bed, headstock, tailstock and toolrest. The thicknesses of the castings – especially the headstock - are unrivalled in this class of lathes. The heavy under-frame with the broad-based stand ensures the stability of the lathe and freedom from vibration.

The motor is attached to the cast-iron headstock on a pivoted platform. The drive from the motor is transmitted through a high-performance poly-Vbelt to the five-step pulley on the headstock spindle. With the variable speed version, the power is transmitted through a three-step pulley using a wide, eight-groove poly-V-belt. The widely-spaced bearings and the double-row angular contact ball bearings at the inboard end of the spindle guarantee the smooth running of the spindle and vibration-free operation, even when in continuous use. Since the spindle is exposed and unshrouded between the bearing housings it is possible to brake the spindle with the left hand after the motor has been turned off. The adjustable inverter regulates the spindle deceleration in machines with electronic speed control. The exposed spindle permits the workpiece to be turned manually for examination and adjustment. The headstock can be rotated through 180° and can be fixed at 90° and 180° as well as in the straight ahead (0°) position. The spindle height over the bed is 250 mm and the distance between centres 1000 mm. The outboard turning attachment can be mounted at the front face of the left hand support pedestal. Using this option a turning diameter of up to 750 mm can be obtained when the headstock is turned by 90°. The mounting for the outboard turning attachment can be retrofitted.

The modular design of the lathe allows it to be supplied in bench mounting form too. In this case, however, the capacity between centres is reduced to 800 mm and the height over bed to 200 mm.







Technical data:	steinert [®] beta	steinert® gamma	
Spindle height over bed:	250 mm (turning diameter max. 500 mm)	250 or 300 mm (turning diameter max. 500 mm or 600 mm)	
	(Using an outboard turning attachment and by turning diameter is achievable.)	rotating the headstock an increased	
Distance between centres:	1075 mm	1100; 1350; 1600 or 2800 mm	
Spindle:	M33 x 3.5 DIN800 (register 34 x 9 mm), internal bore 2 MT Robustly dimensioned hollow spindle (bore 12 mm) with maintenance-free triple bearing and additional back bearing (this covers the rear of the hollow spindle, but can be removed in order to access the spindle bore, e.g. for use with a vacuum		
Tailstock [.]	Internal horo 2 MT quill strake 120 mm		
Motor:	1.5 kW, 400 V, 50 Hz; five-step pulley or optionally with infinitely variable inverter drive with three step pulley: mains supply 230 VAC, 50 Hz		
Power transmission:	6-groove poly-V-belt with standard machine alternatively 8-groove belt with electronic control		
Spindle speed:	350/800/1400/2400/3200 rpm or variable 70-3600 rpm with infinitely variable speed control: the braking ramps can be set to give slow or fast acceleration and deceleration		
Toolrest:	275 mm long, stem dia. 30 mm, other toolrests optional	Length 425 mm, stem dia. 40 mm, other toolrests optional	
Dimensions LxWxH:	1950 x 600 x 1200 mm	1950 (220, 2450, 3650) x 600 x 1200 (1250) mm	
Weight:	300 kg (without outboard turning attachment)	300 (400, 450 600) kg (without outside turning device)	

A range of accessories can be supplied for all versions.

Technical specifications are subject to change without notice.

*The 'Eureka' chuck is a unique type of cup chuck traditionally used in the Erzgebirge for all forms of faceplate turning. It comprises a cup chuck incorporating multiple concentric indenter rings. The chuck is loaded by hammering the (end grain) timber onto the chuck so that the indenters penetrate the billet. These chucks offer a tenacious hold despite their apparent simplicity.



steinert® beta and steinert® gamma woodturning lathes are particularly robust machines with massive cast-iron beds and superstructures of high-quality cast iron. The stands are fabricated from 5 mm thick sheet steel and are widely spaced. The motor is attached to the cast-iron headstock body on a pivoted motor mount. The drive from the motor is transmitted through a high-performance poly-V-belt to the five-step pulley on the headstock spindle. The widely-spaced bearings and the double-row angular contact ball bearings at the inboard end of the spindle assure the smooth running of the spindle and vibration-free operation, even when in continuous use. The additional back bearing makes it possible to mount the workpiece in a 'Eureka'* chuck whilst the chuck is mounted on the spindle, without damaging the spindle bearings. The robust adjustable back bearing is specifically designed to absorb the impact of the hammer blows. Since the spindle is exposed and unshrouded between the bearing housings it is possible to brake the spindle with the left hand after the motor has been turned off. The adjustable inverter regulates the spindle deceleration in machines with electronic speed control. The exposed spindle permits the workpiece to be turned manually for examination and adjustment.

The 'steinert[®] beta' and 'steinert[®] gamma' models differ from each other in size and the design of the lathe bed. The 'gamma' is equipped with a considerably wider and heavier diagonally ribbed lathe bed. The 'gamma' has a height over bed of 250 or, optionally, 300 mm. The distance between centres for the 'gamma' standard version is 1100 mm: alternative configurations offer 1350 mm, 1600 mm or 2800 mm. An outboard turning attachment can be mounted on the front side of the left machine stand. With this option, greater turning diameters can be achieved when the headstock is turned through 90°. The outboard turning attachment can be retrofitted. The 'gamma' is equipped with a very heavy toolrest support (banjo) and has a toolrest stem diameter of 40 mm.







Vacuum chucking solution with vacuum pump





steinert[®] maximo woodturning lathe drechselzentrum erzgebirge

This objective in building this lathe was to achieve maximum stability, precision and safety in all aspects of manual woodturning. The turning of large, imbalanced work pieces generates large out-of-balance forces. Effectively controlling these forces is best achieved with a heavy cast-iron machine, of substantial dimensions throughout. With the 'steinert[®] maximo' the design engineers have created a new benchmark which couples a powerful drive with modern electronics.

1. The centre-piece of the machine is a heavy, diagonally-ribbed cast-iron lathe bed. This 220 mm wide lathe bed provides the solid foundation of the lathe. The bed stands on massive cast-iron legs giving excellent stability. The height of the top face of the lathe bed is only 800 mm from the floor, and thus the centre of gravity of the machine is very low. The spindle centre height over the bed of the standard version is 335 mm. A higher spindle height over bed can be provided upon request. The distance between centres is 1500 mm. Optionally, 3850 mm or 6200 mm centre versions are available. The total weight of the basic machine is 540 kg. The weight with outboard bed and outboard turning attachment is 660 kg.

2. A heavy cast-iron headstock, movable along the full lathe bed and rotatable through 360°, has a bearing spacing of 330 mm. In its basic position two centring plates provide optimal alignment. When the headstock is turned through 90° three clamping screws provide additional security.

3. The precision triple bearing spindle with accurate angular contact bearings takes care of smooth, uncompromised running even with the heaviest of workpieces. The spindle has a diameter of 54 mm and is stabilized by a sleeve which is located between the inner races of the bearings. This special construction enhances the bending strength of the shaft considerably. The spindle is drilled through 18 mm diameter.

4. A back-bearing makes the use of 'Eureka'* chucks possible and gives additional axial stability. The back-bearing covers the rear opening of the spindle, but it can easily be removed to connect a vacuum chuck system, for example.

5. The mounting of chucking systems on the spindle utilises a 125 mm diameter bayonet flange. This practically eliminates the possibility of loosening of the chuck during reverse turning or braking. The spindle is equipped with an MT3 morse taper.

5. An extra clamp on the workpiece side of the cast-iron tailstock provides the highest stability even for heavy work pieces. The tailstock quill is clamped directly at the mouth of the tailstock and is therefore absolutely concentric and backlash-free.

7. A heavy cast-iron toolrest is supplied. The toolrest stem has a diameter of 40 mm.

8. In order to fully use the height over bed, an additional bedway, which is mounted in front of the lathe bed, is available as an option. In this way the maximum possible diameter is not reduced by the base of the tool rest and the clamping lever during spindle turning. In addition, the toolrest is supported in a manner which is impossible to achieve with conventional arrangements because of the required overhang of the toolrest.

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9. When the headstock is rotated by 90°, the use of the optional outboard turning attachment gives a capacity of more than 2000 mm diameter



10. As a standard, the woodturning lathe is equipped with a 2.2 kW motor. More powerful motors are available upon request. The power is transmitted to the spindle shaft by a 3-stage belt transmission. A 28mm 12-groove poly-V-belt transmits the drive to the spindle

11. The spindle speed can be controlled infinitely variably in the ranges from 70 to 540 / 240 to 2100 and 620 to 4650 rpm by the inverter which is located in the left pedestal, free from dust. Three brake and three acceleration times can be selected to suit the weight of the workpiece.

12. A mobile control panel with on- and off- keys and the speed potentiometer, equipped with a powerful magnet, can be attached anywhere on the machine anywhere. Forward and reverse rotation can be selected using a switch located on the left machine pedestal.

13. A 24-position index device is available as an option. When the belt cover is open, an interlock inhibits drive so that the lathe cannot be started by mistake whilst the index device is engaged.



14. The basic configuration of the machine includes a spindle thread adaptor to enable your existing chucks and other components to be used without any problems.

maximo

15. Workholding chucks can be obtained as accessories and mounted directly on the bayonet flange. Such chucks can be equipped with accessory mounting jaws to accommodate workholding jaws from different suppliers.



16. A wide range of faceplates, drive and live centres is available, to suit requirements. Various steady rests, an attachment for small workpieces, oval turning and other devices round off the range of accessories.





Technical data:

Height over bed:	335 mm (turning diameter max. 670 mm or up to 2000 mm with outboard turning attachment and headstock rotated), 400 mm optional
Capacity between	'
centres:	1500 mm, optional 3850 or 6200 mm
Spindle:	Bayonet-flange 125 mm dia., inner bore MT3
	Robustly dimensioned double-walled hollow spindle (bored 18 mm) with precision angular contact ball bearings and additional back bearing
Tailstock:	bore MT3, quill stroke 160 mm, large hand wheel, measuring scale on quill optional
Motor:	2.2 kW, 400 V, 50 Hz (higher power motors optional); infinitely variable electronic speed control through three step pulleys (mains supply 400 V, 50 Hz, 3 Ph.); control via mobile panel; reversible drive.
Power transmission:	12 groove Poly-V-belt (28 mm width)
Spindle speed:	70-540 / 240-2100 / 620-4650 rpm with infinitely variable speed control: braking ramps are switchable in two steps so that the deceleration and acceleration of the motor can be altered depending on the workpiece diameter
Toolrest:	Length 425 mm, stem 40 mm diameter; other toolrests optional
Dimensions LxWxH:	2550 x 670 x 1250 mm (standard machine without outboard turning attachment)
Weight:	540 kg (standard machine), 660 kg with additional bedway and outboard turning attachment

Further information can be found at www.steinert.eu/maximo

A range of accessories can be supplied for all versions. Technical specifications are subject to change without notice.



Manufactured by **WEMA**



VB36 Master Bowlturner Lathe DRECHSELZENTRUM ERZGEBIRGE

The 'VB36 Master Bowlturner Lathe' has deservedly reached cult status in recent years. The unrestricted access to the workpiece makes this lathe an ideal tool for the production of big bowls and other vessels. Hydrodynamic bearings provide incredibly smooth running. The weight of 265 kg stabilises even heaviest of workpieces. Optionally, the machine can be extended with a lathe bed and tailstock and can thus also be used as a conventional woodturning lathe. The basic machine is offered in two heights ('H' and 'L'). The VB36, originally developed in the UK, is produced to the most exacting quality standards by our partner, WEMA, in Olbernhau.



Accessories for VB36

Lathe bed VB36

Originally conceived as a bowl turning lathe, the machine can also be equipped with a choice of two optional lathe beds. These make it possible to mount large workpieces between centres and also enables drilling from the tailstock.

Long lathe bed with tailstock

With the long lathe bed the bowl turning lathe can be configured as a conventional woodturning lathe with a movable tailstock. The whole lathe bed can be assembled and disassembled in a few minutes. The tailstock quill has a quill travel of 150 mm and is bored through and provided with a measuring scale. Height over bed: 330 mm, Distance between centres: 790 mm



Short lathe bed with tailstock

Shorter version of the lathe bed with tailstock. This bed can be folded out of the way with a few movements and without any tools, so that free and unhindered access to the workpiece is maintained. The quill is bored through and has a quill travel of 100 mm. Height over bed: 345 mm, distance between centres: 610 mm



Chuck technology VB36

Chucks and other workholding devices are directly attached to the bayonet flange of the VB36. This way the workpieces are positioned very close to the spindle bearing of the machine. This avoids vibrations during operation. The risk of unintentional release of workpieces is eliminated by the provision of security screws in the bayonet flange.

Faceplates for the VB36

Faceplates for the bayonet are available in diameters of 75, 140, 200, 250 and 320 mm. The 140 mm faceplate is supplied as standard with the machine. A screw chuck insert or a pin chuck insert can be attached to the 75 mm faceplate.



Spindle Thread Adapter

Chucks and faceplates with conventional spindle threads can be attached to the VB36 with adapters. A wide selection of internationally common spindle threads is available. Non-standard configurations can be manufactured on request.



Toolrests VB36

A multitude of practical tool rests complements the range of accessories for the VB36. In addition to the standard rests in different lengths, deep hollowing rests in various configurations are <u>also available. The</u> stem diameter is 40 mm.

Standard toolrests

There are four standard toolrests of lengths 130, 200, 300 und 400 mm. The 300 mm toolrest is part of the standard configuration of the VB36.



Deep hollowing toolrest

When turning hollow forms the, often considerable, overhang of the tool over the toolrest causes significant loading through the tool handle. The deep hollowing toolrest can be positioned such that it protrudes into the hollow form. A horizontal support rod outside the workpiece serves as hand rest making for safer working. The top edge of the deep hollowing toolrest is bored to take a forked rest or a fulcrum pin.



Extra deep hollowing toolrest

The extra deep hollowing toolrest for very deep vessels is manufactured from heavy-section steel and attached to a cast-iron bracket which enables its position within the workpiece to be adjusted. Outside the workpiece the handle of the woodturning tool is carried on an external hand rest. There are two versions of the extra deep hollowing toolrest: 500 mm and 1000 mm working depths.



Bennison Adapter

The Bennison adapter makes a smooth adjustment of the toolrest possible. It is mounted on the 60 mm dia. toolpost column of the tool rest beam and accommodates the 40 mm dia. toolrest stem. The Bennison adapter is locked in the desired position with a hand lever and wedge mechanism. It is supplied as part of the basic configuration of the VB36.



Free-standing toolrest stand

The free-standing tool rest stand is designed to be used when workpieces exceeding 915 mm dia. are to be turned on the VB36 – this being the maximum diameter that can be swung over the toolrest beam. It is suitable for use with all VB36 toolrests. The stand is available in heights 'L' and 'H' to match the basic machine height.

Technical data: Height of spindle above floor:	'H' Model 1170 mm	'L' Model 1092 mm		
	(turning diameter max. 2340 mm)	(turning diameter max. 2185 mm)		
Centre height over above tool rest beam:	457 mm (turning diameter max. 915 mm)			
Centre height over long lathe bed:	330 mm (turning diameter max. 660 mm)			
Centre height over short lathe bed:	345 mm (turning diameter max. 690 mm)			
Distance between centres				
(with optional beds):	/90 mm (long lathe bed) and/or 610 mm (short lathe bed)			
Spinale:	nollow spinale 2 ou mm (bore 12 mm), bayoner fia	nge for chuck for safe forwara/ reverse rotation		
	Adapter for M33 x 3.5 mm and other common spindle thread types available as accessory. Inner cone bored 3 MI;			
	SUU mm long with hydrodynamic bedrings for perfe	city smooth operation. 48-position indexing and 200 mm		
Teilata alu	Bara MT2 swill bered through swill strake 100 mm	/150		
Idlistock:	bore MIS, quill bored through, quill stroke TOU mm/	I SO MM		
Matar	(short/long latte bed); measuring scale on quill.	220.1/4 C 50 H-		
	2.2 kw (Shp), 400 v, 30 Hz, with mains connection	250 VAC, 50 HZ,		
Power transmission:	Poly-V-bolt			
Spindle speeds	POly-V-Delits			
opinale speeds.	250-2600 rpm) Acceleration and deceleration spee	d adjustable		
Toolrest [.]	Length 300 mm. Stem 40 mm diameter other toolres	its optional		
Tool rest beam:	Supports the toolrest. Can be moved into the desired	position and is locked with a wedge mechanism		
	Accommodates turning of workpieces up to 915 mm	diameter and up to 660 mm long. For larger turning diameters		
	a free-standing tool rest support is available as an o	ption		
	C 11			
Mobile switch:	Mounted on high strength magnets to permit easy po	ositioning anywhere on the lathe. Incorporates 'Start', 'Stop',		
	'Forward', 'Reverse' controls			
	System Diagnostic Check reports errors			
Dimensions LxWxH:				
Basic machine:	526 x 500 x 1325 mm	526 x 500 x 1245 mm		
With long lathe bed:	1650 x 640 x 1325 mm	1650 x 640 x 1245 mm		
Weight:	265 kg (Standard machine), 304 kg (with short bed)			
	385 kg (with long bed)			
Basic contiguration:	300 mm Toolrest, 140 dia. taceplate, Bennison Ada	oter,		
	operating tools, 0.25 litre special spindle lubricant, a	operating manual		
Warranty:	10 years on all mechanical parts, excluding consumables			
	2 years on motor and electronics			
A range of accessories can be delivered for all machine types.				
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