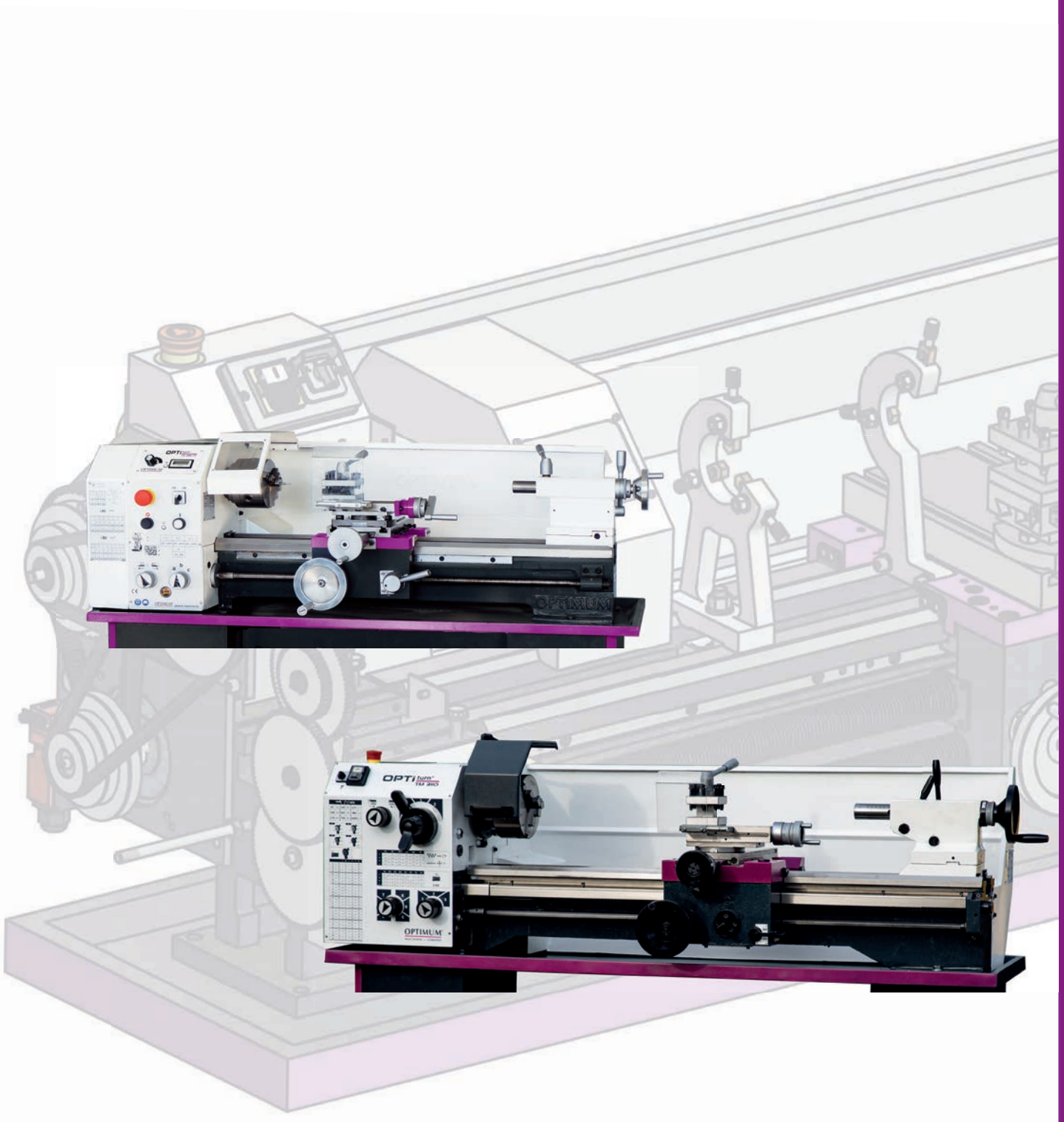
BENCH LATHES



Visit our exhibition in Hallstadt/Bamberg

LATHES



OPTIturn® TU 1503V

OPTIMUM
the original

DIY

BELT

VARIO

The small-scale lathe with electronically controllable speed

Facts that impress in terms of quality, performance and price

- Direct current motor
- Low-voltage electronics
- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.15 mm
- Running accuracy at the lathe chuck ≤ 0.05 mm
- Lead screw for thread cutting or automatic longitudinal turning
- Longitudinal, cross and top slide
- Automatic longitudinal/lead screw drive
- Clockwise/Anti-clockwise rotation switchable via control panel
- All guides adjustable without play using V-ledges
- Sturdy metal handwheels with adjustable fine scaling 0.04 / 0.01 mm
- Ribbed grey cast prism bed, induction hardened and scraped
- Fast and easy speed change through V-belt
- Safety switch in cover
- Emergency stop button
- Chuck protection with microswitch
- Three-jaw lathe chuck included in standard scope of delivery
- Large thread cutting area thanks to interchangeable gear set included in standard scope of delivery
- EMC filter class C1



Model	TU 1503V *
Article no.	3420260
Power	
Electrical connection	230 V / 1 Ph ~50 Hz
Drive motor S6-60% operation	450 W
Spindle	
Spindle taper	MT 1
Spindle bore	Ø 11 mm
Spindle seat	Cylindrical Ø 22 mm
Dual tool holder chuck height	12 mm
Work areas	
Centre height	75 mm
Centre width	265 mm
Swing Ø above machine bed**	150 mm
Swing Ø above cross slide	70 mm
Bed width	70 mm
Speed range	120 - 3 000 rpm
Number of speeds	Electronic speed control
Traverse paths	
Top slide travel	40 mm
Cross slide travel	55 mm
Bed slide travel	270 mm
Feed and pitch	
Longitudinal feed within the range	0.05 - 0.1 mm/rev (2 feeds)
Metric pitch	0.5 - 1.5 mm/rev (8 pitches)
Tailstock	
Tailstock seat	MT 1 short
Tailstock - quill stroke	30 mm
Dimensions L x W x H	570 x 340 x 300 mm
Net weight	23 kg

Scope of delivery
› Three-jaw lathe chuck Ø 80 mm, centre clamping
› Non-revolving centre tip MT1
› Dual tool holder
› Splashguard
› Chip tray
› Interchangeable gear set
› Operating tool

Lathe chuck	Article no.
Three-jaw lathe chuck, Ø 80 mm, individually clamping	3440287
Four-jaw lathe chuck, Ø 80 mm, individually clamping	3440286
Four-jaw lathe chuck, Ø 80 mm, centre clamping	3442808

Information on lathe chuck from page 218

Accessories	Article no.
Lathe tool set 8 mm, 5-part	3441662
Lathe tool set 8 mm, 11-part	3441601
Follower rest passage max. Ø 45 mm	3440210
Steady rest passage max. Ø 40 mm	3440211
Revolving tailstock centre MT 1	3440700
Collet chuck ER 16, Ø 22 mm, cylindrical	3440281
Collet set ER 16, 1 - 10 mm	3440282

More accessories and **information** on accessories from page 214

* The lathe comply with (frequency converter) the DIN EN 55011 standard: Class C1 - Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

DIY

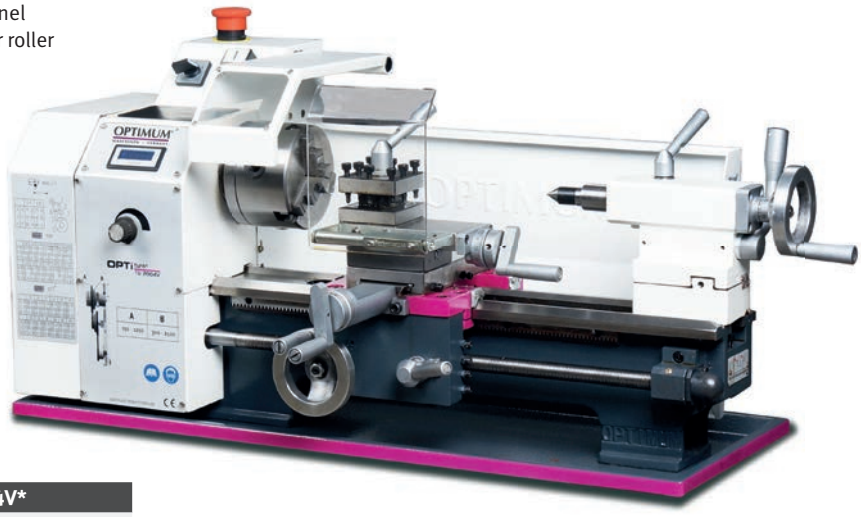
BELT

VARIO

Modelbuilding lathe with electronic speed control and digital speed display

Facts that impress in terms of quality, performance and price

- Precision workmanship
- Ribbed cast steel prism bed heavily ribbed, induction hardened and precision ground
- Hardened and ground z-axis guideway
- Hardened spindle nose (DIN 6350)
- Guaranteed true running accuracy of spindle nose better than 0.009 mm
- Automatic longitudinal/lead screw drive
- Roll-milled trapezoidal thread on lead screw
- Thrust bearings
- Lead screw borne on two sintered bearings
- Longitudinal, cross and top slides
- Clockwise/Anti-clockwise rotation switchable via control panel
- Hardened main spindle borne on adjustable precision taper roller bearings
- Tapered roller bearings in P5 quality
- Cylindrical centring mount
- Hardened spindle nose with Ø 21 mm spindle bore
- Adjustable tailstock for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.02 mm; fast, easy adjustment without tools thanks to clamping lever
- Gearbox with interchangeable gearwheels
- Emergency stop button
- Quadruple tool holder, rotating
- Lathe chuck true running accuracy better than 0.04 mm
- Chuck protection with microswitch
- Three-jaw lathe chuck included in standard scope of delivery
- Interchangeable gear set as standard enables large thread cutting area
- EMC filter class C1



Model	TU 2004V*
Article no.	3420310
Power	
Electrical connection	230 V / 1 Ph ~50 Hz
Drive motor	600 W
Spindle	
Spindle taper	MT 3
Spindle bore	Ø 21 mm
Spindle seat	cylindrical Ø 72 mm
Three-jaw lathe chuck passage	Ø 20 mm
Quadruple tool holder mounting height	10 mm
Work areas	
Centre height	100 mm
Centre width	300 mm
Swing Ø above machine bed**	200 mm
Swing Ø above cross slide	110 mm
Bed width	100 mm
Speed range	150 - 2 500 rpm
Number of speeds	2 stages, Electronic speed control
Traverse paths	
Top slide travel	55 mm
Cross slide travel	75 mm
Bed slide travel	300 mm
Feed and pitches	
Longitudinal feed within the range	0.1 / 0.2 mm/rev (2 feeds)
Pitch - metric in range	0.25 - 3 mm/rev (14 pitches)
Pitch - inch in range	44 - 8 turns/inch (12 pitches)
Tailstock	
Tailstock seat	MT 2
Tailstock - quill stroke	65 mm
Dimensions L x H x W	830 x 425 x 360 mm
Net weight	65 kg

Scope of delivery
› Three-jaw lathe chuck, Ø 100 mm, centre clamping
› Two non-running centres MT2 and MT 3
› Quadruple tool holder
› Splashguard
› Chip tray
› Interchangeable gear set
› Operating tool

Lathe chuck	Art. no.
Four-jaw lathe chuck, Ø 100 mm, centric (chuck flange 3440312 is required)	3442810
Four-jaw lathe chuck,Ø 100 mm, individually (Chuck flange 3440312 required)	3442872
Lathe chuck flange, Ø 100 mm (for lathe chuck 3442810/3442872)	3440312
Clamping disk Ø 170 mm	3440295

Information on lathe chuck from page 218

Accessories	Art. no.
Quick change tool holder SWH-AA	3384311
SWH-AA factory assembly	9000401
Spare tool holder 12 x 50 type D **for square chisels**	3384312
Spare tool holder 12 x 50 type H **for round chisels**	3384320
Lathe tool set 10 mm, 11-part	3441602
Lathe tool set 10 mm, 5-part	3441664
Follower rest passage max. Ø 40 mm	3440230
Steady rest passage max. Ø 50 mm	3440231
Collet chuck ER 25 Ø 72 mm	3440305

More accessories and **information** on accessories from page 214

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C1 Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

Lathes for DIY.

TU 2304V with electronic speed control

Facts that impress in terms of quality, performance and price

- Precision workmanship
- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.009 mm
- Running accuracy at the lathe chuck ≤ 0.05 mm
- Lead screw for thread cutting or automatic longitudinal turning
- Clockwise/Anti-clockwise rotation switchable via control panel
- Roll-milled trapezoidal spindles
- Thrust bearings
- Precision slide
- Lead screw borne on two sintered bearings
- All guides adjustable using wedge bars
- Handwheels with adjustable fine scaling 0.04 / 0.01 mm
- Tailstock adjustable ± 5 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.02 mm
- Fast, easy adjustment of tailstock without tools thanks to clamping lever
- Emergency stop button
- Quadruple tool holder
- Chuck protection
- Three-jaw lathe chuck included in standard scope of delivery
- Interchangeable gear set for thread cutting in standard scope of delivery
- Comprehensive accessories
- Lasting value

TU 2304V

- High-torque motor with constant torque curve to a great extent
- Speed change easily adjustable via potentiometer
- Digital speed display
- EMC filter class C1

Machine bed



› Grey cast iron prism bed heavily ribbed, aged for at least six months, induction hardened and precision ground

TU 2304V with digital speed display



› Electronically adjustable 2-step spindle speed 150 - 2 200 rpm



Accessories
Machine base MST1
Art. no. 3440409

Levelling platen SE 1
(6 units are required)
Art. no. 3381012

Fig. similar: TU 2304V with optional machine base

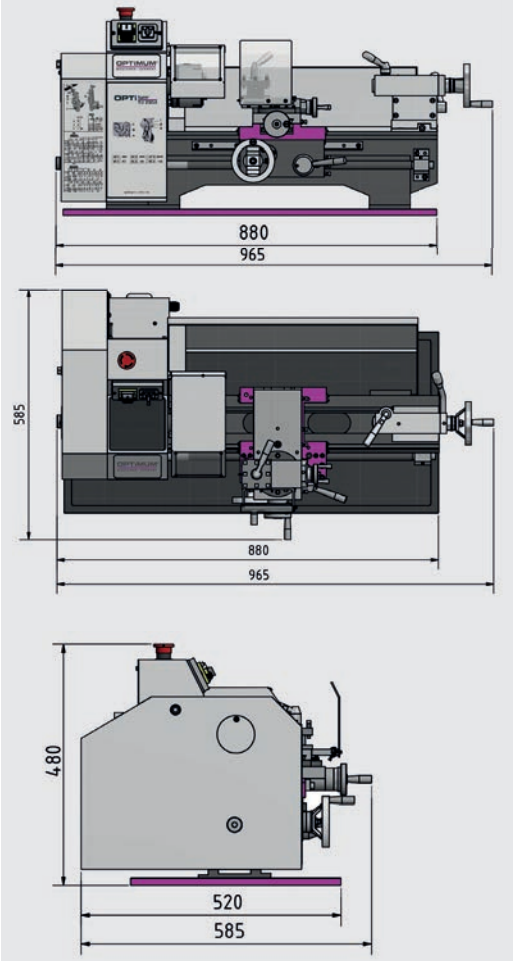




Technical specifications, accessories and dimensions

Model	TU 2304	TU 2304V*
Article no.	3420320	3420325
Power		
Electrical connection	230 V / 1 Ph ~50 Hz	
Drive motor	750 W	
Spindle		
Spindle taper	MT 3	
Spindle seat	cylindrical Ø 72 mm	
Spindle bore, bar passage diameter	Ø 20 mm	
Quadruple tool holder mounting height	12 mm	
Work area		
Centre height	115 mm	
Centre width	450 mm	
Swing Ø above machine bed**	230 mm	
Swing Ø above cross slide	128 mm	
Bed width	133 mm	
Speed range		
Spindle speed	125 - 2 000 rpm	150 - 2 200 rpm
Number of speeds	6 stages	2 stages, Electr. controlled
Traverse paths		
Top slide travel	75 mm	
Cross slide travel	120 mm	
Bed slide travel	360 mm	
Pitches		
Pitch - metric in range	0.4 - 3.5 mm/rev (14 pitches)	
Pitch - inch in range	44 - 8 turns/inch (14 pitches)	
Tailstock		
Tailstock seat	MT 2	
Tailstock - quill stroke	70 mm	
Dimensions and weight		
Length x width x height	965 x 585 x 510 mm	
Net weight	111 kg	114 kg

Dimensions



Lathe chucks and accessories	Art no.
Three-jaw lathe chuck, Ø 125 mm, centre clamping (Chuck flange 3440313 required)	3442712
Four-jaw lathe chuck, Ø 125 mm, centre clamping (Chuck flange 3440313 required)	3442812
Four-jaw lathe chuck, Ø 125 mm, individual clamping (Chuck flange 3440313 required)	3442874
Chuck flange for lathe chuck Ø 125 mm	3440313

Information on lathe chuck from page 218

Accessories	Art no.
Quick change tool holder SWH 1-A	3384301
SWH 1-A factory assembly	9000401
Spare tool holder 20 x 90 type D **for square chisels**	3384302
Spare tool holder 20 x 85 type H **for round chisels**	3384321
Lathe tool set 10 mm, 11-part	3441602
Lathe tool set 12 mm, 11-part	3441603
Lathe tool set 12 mm, 5-part "Made in Germany"	3441212
Steady rest passage max. Ø 55 mm	3440361
Follow steady passage max. Ø 34 mm	3440360
Revolving tailstock centre MT 2	3440702
Clamping disk Ø 170 mm	3440295

More accessories and **information** on accessories from page 214

Scope of delivery

- Three-jaw lathe chuck, Ø 100 mm, centric
- Non-running centres MT2 and MT 3
- Quadruple tool holder
- Splashguard
- Chip tray
- Interchangeable gear set
- Operating tool

Accessories	Art no.
	
Digital position display DRO 5 incl. 3 magnetic sensors	3383975
Magnetic strip length 1 100 mm	3383978
Factory assembly	9000420

Information see page 231

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C1 Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

Lathes for DIY.

TU 2406V with electronic speed control

Facts that impress in terms of quality, performance and price

- Precision workmanship
- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.009 mm
- Running accuracy at the lathe chuck ≤ 0.05 mm
- Lead screw for thread cutting or automatic longitudinal turning
- Clockwise/Anti-clockwise rotation switchable via control panel
- Roll-milled trapezoidal spindles
- Thrust bearings
- Precision slide
- Two tapered roller bearings in P5 quality
- Lead screw borne on two sintered bearings
- All guides adjustable using wedge bars
- Handwheels with adjustable fine scaling 0.04 / 0.01 mm
- Tailstock adjustable ± 5 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.02 mm
- Fast, easy adjustment of the tailstock without tools thanks to clamping lever
- Emergency stop button
- Quadruple tool holder
- Interchangeable gears in standard scope of delivery
- Three-jaw lathe chuck included in standard scope of delivery
- Comprehensive accessories
- Lasting value

TU 2406V

- High-torque motor with constant torque curve to a great extent
- Speed change easily adjustable via potentiometer
- Digital speed display
- EMC filter class C1

Machine bed



› induction hardened and ground

TU 2406V with digital speed display



› Electronically adjustable 2-step spindle speed 150 - 2 500 rpm

Accessories

Machine base MST1
Art. no. 3440409

Levelling platen SE 1
(6 units are required)
Art. no. 3381012

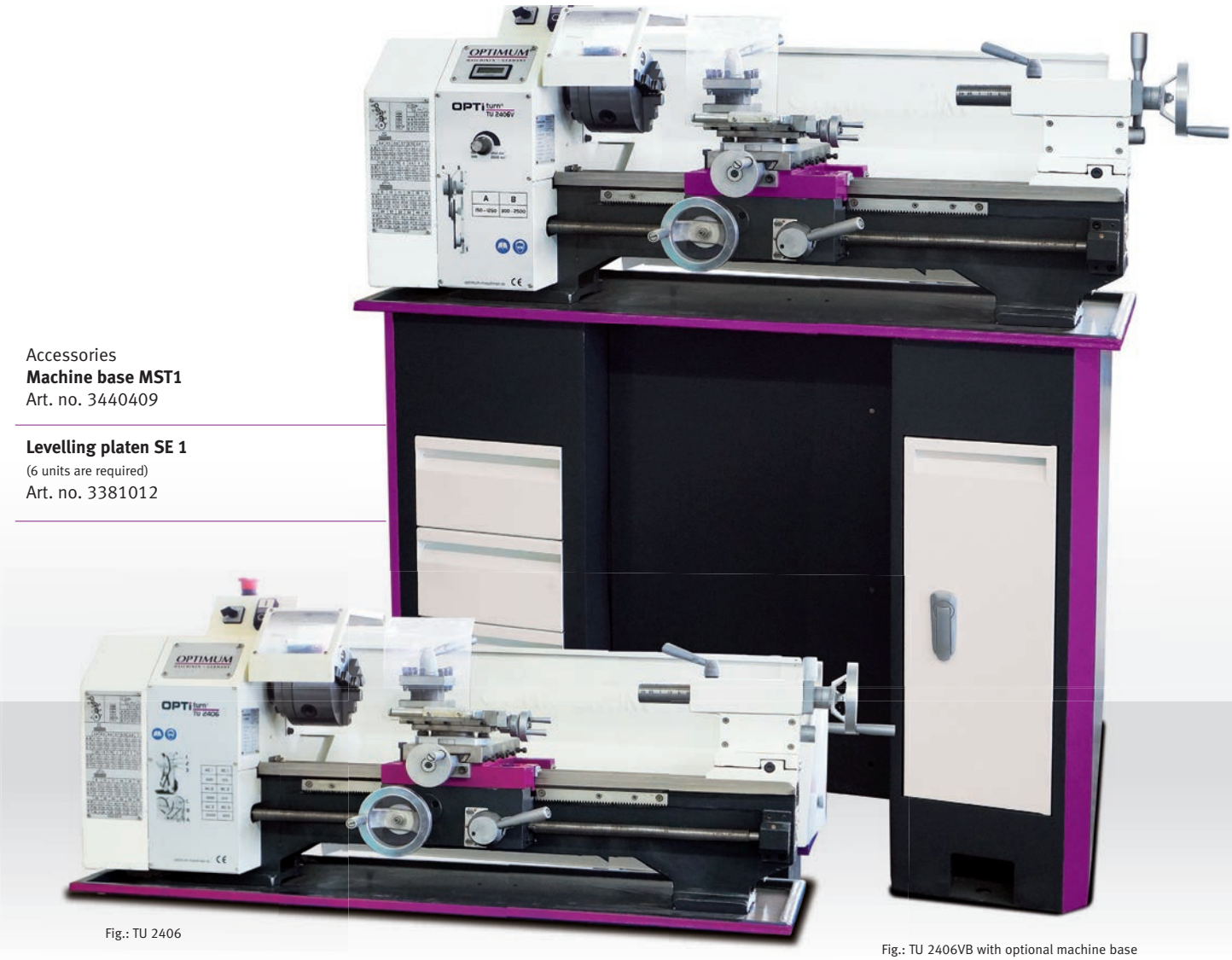


Fig.: TU 2406

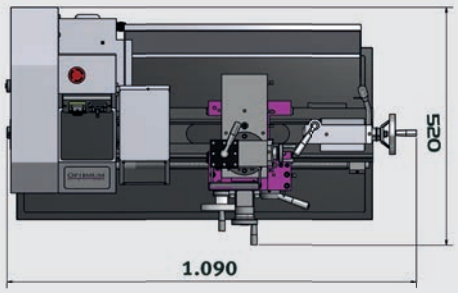
Fig.: TU 2406VB with optional machine base

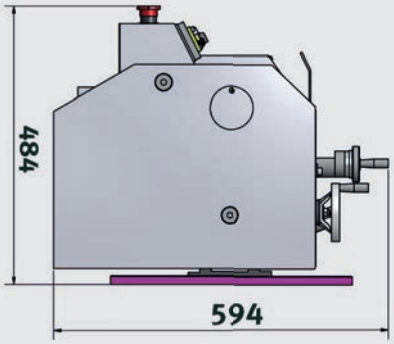
Technical specifications, accessories and dimensions

BELT VARIO

Model	TU 2406	TU 2406V*
Article no. (230V)	3420350	3420355
Article no. (400V)	3420353	-
Power		
Electrical connection	230 V / 1 Ph ~50 Hz 400 V / 3 Ph ~50 Hz	230 V / 1 Ph ~50 Hz
Drive motor	750 W	1.1 kW
Spindle		
Spindle taper	MT 3	
Spindle seat	cylindrical Ø 52 mm	
Spindle bore, bar passage diameter	Ø 21 mm	
Quadruple tool holder mounting height	12 mm	
Work area		
Centre height	125 mm	
Centre width	550 mm	
Swing Ø above machine bed**	250 mm	
Swing Ø above cross slide	148 mm	
Bed width	133 mm	
Speed range		
Spindle speed	125 - 2 000 rpm	150 - 2 500 rpm
Number of speeds	6 stages	2-speed, electronic speed control
Traverse paths		
Top slide travel	75 mm	
Cross slide travel	120 mm	
Bed slide travel	550 mm	
Pitches		
Pitch - metric in range	0.4 - 3.5 mm/rev (14 pitches)	
Pitch - inch in range	44 - 10 turns/inch (12 pitches)	
Tailstock		
Tailstock seat	MT 2	
Tailstock - quill stroke	70 mm	
Dimensions and weight		
Length x width x height	1 090 x 594 x 484 mm	
Net weight	127 kg	125 kg

Dimensions





Lathe chucks and accessories	Art no.
Four-jaw lathe chuck, Ø 125 mm, centre clamping (Chuck flange 3440511 required)	3442812
Four-jaw lathe chuck, Ø 125 mm, individual clamping (Chuck flange 3440511 required)	3442874
Lathe chuck flange for lathe chuck Ø 125 mm (Lathe chuck 3442812/3442874)	3440511
Clamping disk Ø 240 mm	3440552

Information on lathe chuck from page 218

Accessories	Art no.
Quick change tool holder SWH 1-A	3384301
SWH 1-A factory assembly	9000401
Spare tool holder 20 x 90 type D **for square chisels**	3384302
Spare tool holder 20 x 85 type H **for round chisels**	3384321
Lathe tool set 10 mm, 11-part	3441602
Lathe tool set 12 mm, 11-part	3441603
Lathe tool set 12 mm, 5-part	3441666
Lathe tool set 12 mm, 5-part "Made in Germany"	3441212
Steady rest passage max. Ø 50 mm	3441315
Follower rest passage max. Ø 34 mm	3441310
Collet chuck ER 32, short taper	3440506

More accessories and **information** on accessories from page 214

Scope of delivery

- Three-jaw lathe chuck Ø 125 mm, centre clamping
- Two fixed centres MT2 and MT 3
- Quadruple tool holder
- Splashguard
- Chip tray
- Interchangeable gear set
- Operating tool

Accessories	Art no.
	
Digital position display DRO 5 incl. 3 magnetic sensors	3383975
Magnetic strip length 1 100 mm	3383978
Factory assembly	9000420

Information see page 231

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C1 Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

NEW

CRAFTSMEN

Lead screw lathes with feed gear for demanding users.

TU 2506VB with continuously variable speed control

Facts that impress in terms of quality, performance and price

- Precision workmanship
- Powerful motor, low-maintenance motor
- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.009 mm
- Running accuracy at the lathe chuck ≤ 0.04 mm
- Lead screw for thread cutting or automatic longitudinal turning
- Lead screw borne on two sintered bearings
- All guides adjustable using wedge bars
- Clockwise/Anti-clockwise rotation switchable via control panel
- Roll-milled trapezoidal spindles
- Thrust bearings
- Tapered roller bearings in P5 quality
- Hardened main spindle borne on adjustable, precision taper roller bearings
- Hardened spindle nose with Ø 26 mm spindle bore
- Handwheels on slides with adjustable fine scaling 0.04 / 0.01 mm
- Top slide displaceable on cross slide
- Chip guard on top slide
- Ribbed grey cast steel prism bed heavily ribbed, induction hardened and precision ground
- Tailstock adjustable ± 5 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.02 mm
- Fast, easy adjustment of the tailstock without tools thanks to clamping lever
- Emergency stop button
- Quadruple tool holder
- Three-jaw lathe chuck included in standard scope of delivery
- Interchangeable gears in standard scope of delivery for thread cutting
- Fully equipped; the user can immediately start productive work after commissioning

TU 2506VB

- Easily adjustable speed change via potentiometer
- Digital speed display

Accessories

Machine base MST1

Art. no. 3440409

Levelling platen SE 1

(6 units are required)

Art. no. 3381012



Fig.: TU 2506VB with optional base MST 1

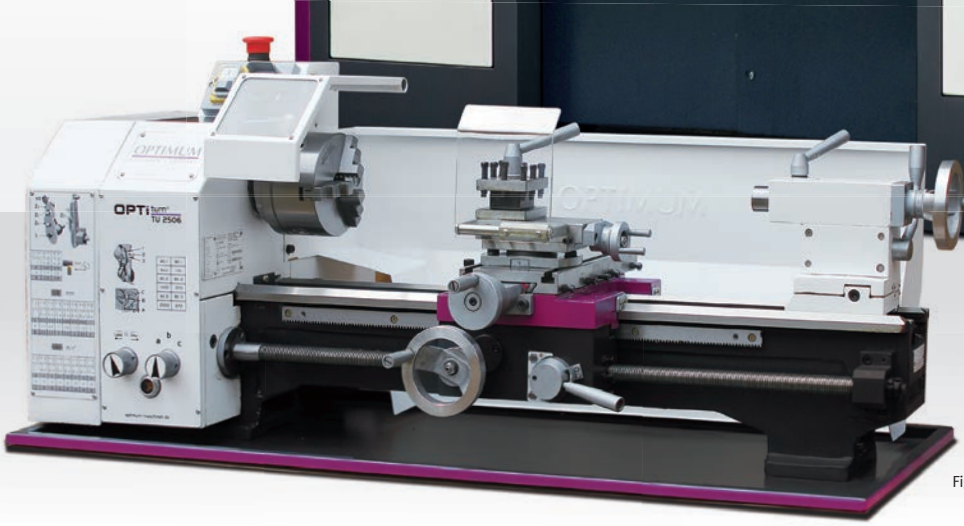


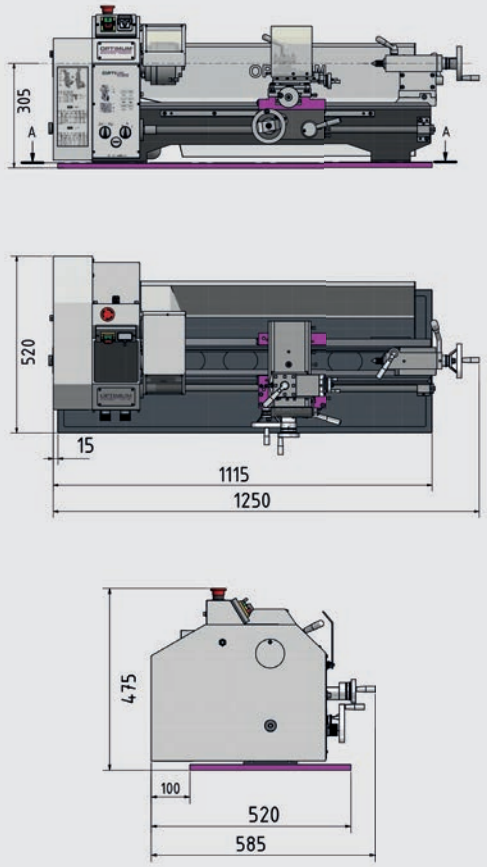
Fig.: TU 2506

Technical specifications, accessories and dimensions

BELT VARIO

Modell	TU 2506	TU 2506VB**
Artikel-Nr. (230 V)	3425001	3425010
Artikel-Nr. (400 V)	3425003	-
Power		
Electrical connection	230 V / 1 Ph ~50 Hz 400 V / 3 Ph ~50 Hz	230 V / 1 Ph ~50 Hz
Drive motor	750 W	1,1 kW
Spindle		
Spindle taper	MT 4	
Spindle seat	Short taper	
Spindle bore, bar passage diameter	Ø 26 mm	
Quadruple tool holder mounting height	12 mm	
Work area		
Centre height	125 mm	
Centre width	550 mm	
Swing Ø above machine bed**	246 mm	
Swing Ø above cross slide	149 mm	
Bed width	134 mm	
Speed range		
Spindle speed	125 - 2 000 rpm	150 - 2 500 rpm
Number of speeds	6 stages	2 stages, electr. controlled
Traverse paths		
Top slide travel	70 mm	
Cross slide travel	110 mm	
Cross slide travel	550 mm	
Feeds and pitches		
Longitudinal feed within the range	0.07 - 0.4 mm/rev (6 feeds)	
Pitch - metric in range	0.2 - 4 mm/rev (21 pitches)	
Pitch - inch in range	56 - 8 turns/inch (21 pitches)	
Tailstock		
Tailstock seat	MT2	
Tailstock quill diameter/travel	30 mm / 65 mm	
Dimensions and weight		
Length x width x height (mm)	1.250 x 585 x 475	1.250 x 650 x 420
Net weight	138 kg	132 kg

Dimensions



Lathe chucks and accessories	Art no.
Four-jaw lathe chuck, Ø 125 mm, individual clamping (Lathe chuck flange 3441312 is required) max. speed 3 000 rpm	3442874
Four-jaw lathe chuck, Ø 125 mm, centre clamping (Lathe chuck flange 3441312 is required) max. speed 2 750 rpm	3442812
Lathe chuck flange for lathe chuck Ø 125 mm (Lathe chuck 3442874/3442812)	3441312
Face clamping disk Ø 240 mm	3441352

Information on lathe chuck from page 218

Scope of delivery

- Three-jaw lathe chuck Ø 125 mm, centre clamping
- Two fixed centres MT2 and MT 4
- Quadruple tool holder
- HSS lathe tools
- Splashguard
- Chip tray
- Interchangeable gear set
- Operating tool

Accessories	Art no.
Quick change tool holder SWH 1-A	3384301
SWH 1-A factory assembly	9000401
Spare tool holder 20 x 90 type D **for square chisels**	3384302
Spare tool holder 20 x 85 type H **for round chisels**	3384321
Lathe tool set 10 mm, 11-part	3441602
Lathe tool set 12 mm, 11-part	3441603
Lathe tool set 12 mm, 5-part "Made in Germany"	3441212
Steady rest max. passage Ø 50 mm	3441315
Follower rest max. passage Ø 34 mm	3441310
Collet set ER 32, 3 - 20 mm	3441122
Collet chuck ER 32, short taper	3441306

More accessories and **information** on accessories from page 214

Accessories	Art no.
	
Digital position display DRO 5 incl. 3 magnetic sensors	3383975
Magnetic strip length 1 100 mm	3383978
Factory assembly	9000420

Information see page 231

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C2 - Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

Lead screw lathes with feed gear for demanding users.

TU 2807V with continuously variable speed control

Facts that impress in terms of quality, performance and price

- Precision workmanship
- Powerful motor, low-maintenance motor
- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.009 mm
- Running accuracy at the lathe chuck ≤ 0.04 mm
- Lead screw for thread cutting or automatic longitudinal turning
- Lead screw borne on two sintered bearings
- All guides adjustable using wedge bars
- Clockwise/Anti-clockwise rotation switchable via control panel
- Roll-milled trapezoidal spindles
- Thrust bearings
- Tapered roller bearings in P5 quality
- Hardened main spindle borne on adjustable, precision taper roller bearings
- Hardened spindle nose with Ø 26 mm spindle bore
- Handwheels on slides with adjustable fine scaling 0.04 / 0.01 mm
- Top slide displaceable on cross slide
- Chip guard on top slide
- Ribbed grey cast steel prism bed heavily ribbed, induction hardened and precision ground
- Tailstock adjustable ± 5 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.02 mm
- Fast, easy adjustment of the tailstock without tools thanks to clamping lever
- Emergency stop button
- Quadruple tool holder
- Three-jaw lathe chuck included in standard scope of delivery
- Interchangeable gears in standard scope of delivery for thread cutting
- Fully equipped; the user can immediately start productive work after commissioning

TU 2807VB

- Easily adjustable speed change via potentiometer
- Digital speed display

Accessories

Machine base MST1
Art. no. 3440409

Levelling platen SE 1
(6 units needed)
Art. no. 3381012



Fig.: TU 2807VB with optional base MST 1

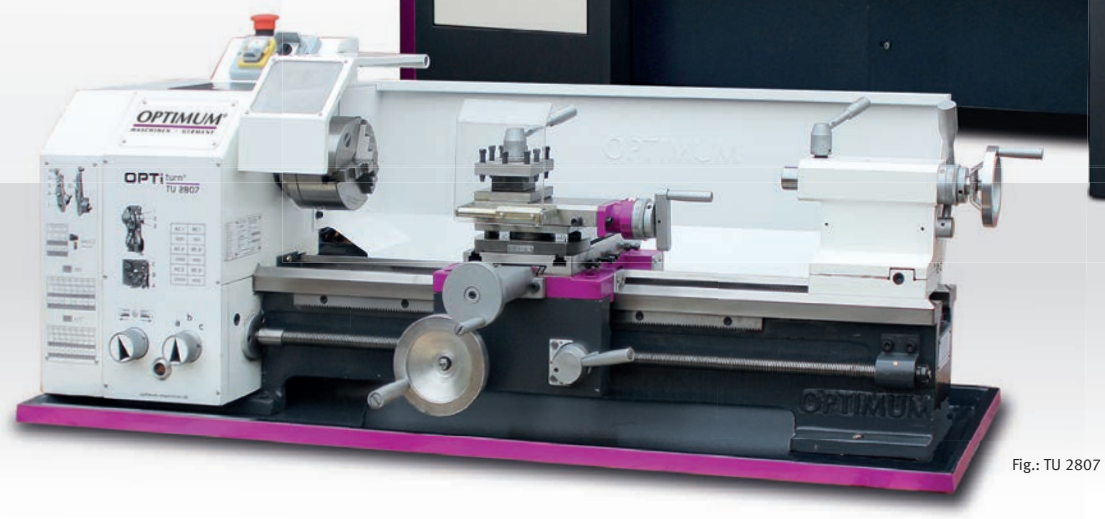


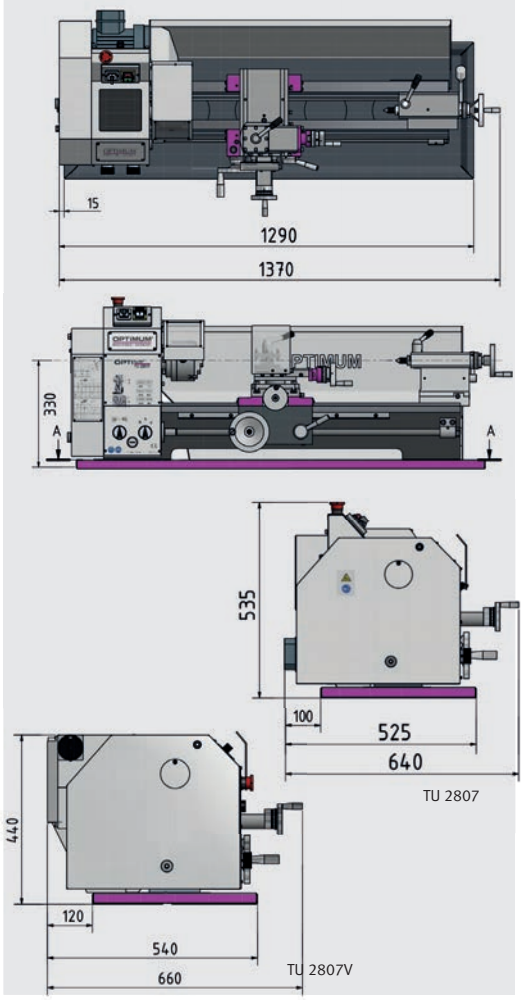
Fig.: TU 2807

Technical specifications, accessories and dimensions

BELT VARIO

Model	TU 2807	TU 2807VB*
Article no. (230V)	3427001	3427010
Article no. (400V)	3427003	-
Power		
Electrical connection	230 V or 400V	230 V / 1 Ph ~50 Hz
Drive motor	850 W	1.5 kW
Spindle		
Spindle taper	MT 4	
Spindle seat	Short taper	
Spindle bore, bar passage diameter	Ø 26 mm	
Quadruple tool holder height max.	12 mm	
Work area		
Centre height	140 mm	
Centre width	700 mm	
Swing Ø above machine bed**	266 mm	
Swing Ø above cross slide	170 mm	
Bed width	180 mm	
Speed range		
Spindle speed	150 - 2 000 rpm	150 - 2 500 rpm
Number of speeds	6 stages	2 stages, electr. controlled
Traverse paths		
Top slide travel	60 mm	
Cross slide travel	160 mm	
Bed slide travel	580 mm	
Feeds and pitches		
Longitudinal feed within the range	0.07 - 0.4 mm/rev (6 feeds)	
Pitch - metric in range	0.2 - 3.5 mm/rev (18 pitches)	
Pitch - inch in range	56 - 8 turns/inch (21 pitches)	
Tailstock		
Tailstock seat	MT 2	
Tailstock quill diameter/travel	30 mm /85 mm	
Dimensions and weight		
Length x width x height	1 370 x 640 x 535 mm	1 370 x 660 x 440 mm
Net weight	196 kg	187 kg

Dimensions



Lathe chucks and accessories	Art no.
Four-jaw lathe chuck, Ø 125 mm, individual clamping (Lathe chuck flange 3441312 is required) speed 3 000 rpm	3442874
Four-jaw lathe chuck, Ø 125 mm, centre clamping (Lathe chuck flange 3441312 is required) speed 2 750 rpm	3442812
Lathe chuck flange for lathe chuck Ø 125 mm (3442874/3442812)	3441312
Three-jaw lathe chuck, Ø 160 mm, centre clamping (Lathe chuck flange 3441413 is required) speed 3 000 rpm	3442716
Four-jaw lathe chuck, Ø 160 mm, centre clamping (Lathe chuck flange 3441413 is required) speed 2 150 rpm	3442816
Lathe chuck flange for lathe chuck Ø 160 mm (3442716/3442816)	3441413

Information on lathe chuck from page 218

Accessories	Art no.
Quick change tool holder SWH 1-A	3384301
SWH 1-A factory assembly	9000401
Spare tool holder 20 x 90 type D **for square chisels**	3384302
Spare tool holder 20 x 85 type H **for round chisels**	3384321
Lathe tool set 10 mm, 11-part	3441602
Lathe tool set 12 mm, 11-part	3441603
Lathe tool set 12 mm, 5-part "Made in Germany"	3441212
Steady rest max. passage Ø 55 mm	3441415
Follower rest max. passage Ø 56 mm	3441410
Collet set ER 32, 3 - 20 mm	3441122
Collet chuck ER 25, cylindrical	3441305
Collet chuck ER 32, short taper	3441306

More accessories and **information** on accessories from page 214

Scope of delivery

- Three-jaw lathe chuck Ø 125 mm, centre clamping
- Two fixed centres MT2 and MT 4
- Quadruple tool holder
- HSS lathe tools
- Splashguard
- Chip tray
- Interchangeable gear set
- Operating tool

Accessories	Art no.
	
Digital position display DRO 5 incl. 3 magnetic sensors	3383975
Magnetic strip length 1 100 mm	3383978
Factory assembly	9000420

Information see page 231

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C2 - Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

NEW

CRAFTSMEN

Feed and lead screw lathes with longitudinal and cross feed.

TU 3008G with gearbox.

TU 3008VB with continuously variable speed control

Facts that impress in terms of quality, performance and price

- Precision workmanship
- Hardened and ground z-axis guideway
- Free moving feed gear with rounded gear wheels running in an oil bath
- Guaranteed true running accuracy of spindle nose ≤ 0.009 mm
- Running accuracy at the lathe chuck ≤ 0.04 mm
- Lead screw for thread cutting or automatic longitudinal turning
- Automatic longitudinal/cross feeds
- Lead screw and feed rod borne on two sintered bearings
- Feed and lead screw cover
- All guides adjustable using wedge bars
- Clockwise/Anti-clockwise rotation switchable via control panel
- Tapered roller bearings in P5 quality
- Hardened main spindle borne on adjustable precision taper roller bearings
- Hardened spindle nose with large Ø 38 mm spindle bore
- Handwheels on slides with adjustable fine scaling 0.04 / 0.01 mm
- Ribbed grey cast steel prism bed heavily ribbed, induction hardened and precision ground
- Tailstock adjustable ± 5 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.02 mm
- Fast, easy adjustment of the tailstock without tools thanks to clamping lever
- Quadruple tool holder
- Emergency stop button
- Three-jaw lathe chuck included in standard scope of delivery
- Interchangeable gears in standard scope of delivery for thread cutting

TU 3008

- Driven by V-belt

TU 3008G

- Gear drive

TU 3008VB

- High-precision steel chuck for higher speeds
- Digital speed display

Prepared for a measuring system



› Prepared for measuring system installation on the X, Z and Z0 axis



Accessories

Machine base MST1

Art. no. 3440409

Levelling platen SE 1

(6 units are required)

Art. no. 3381012

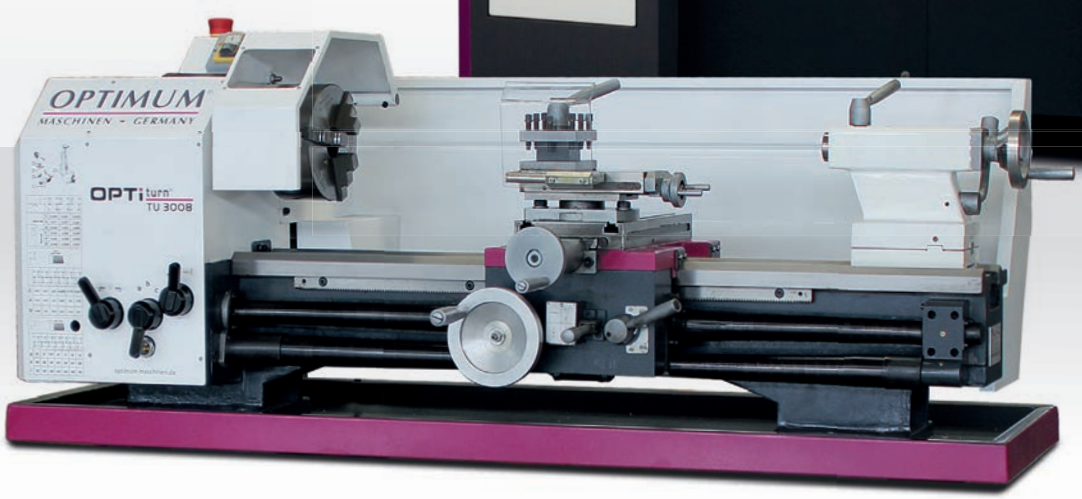
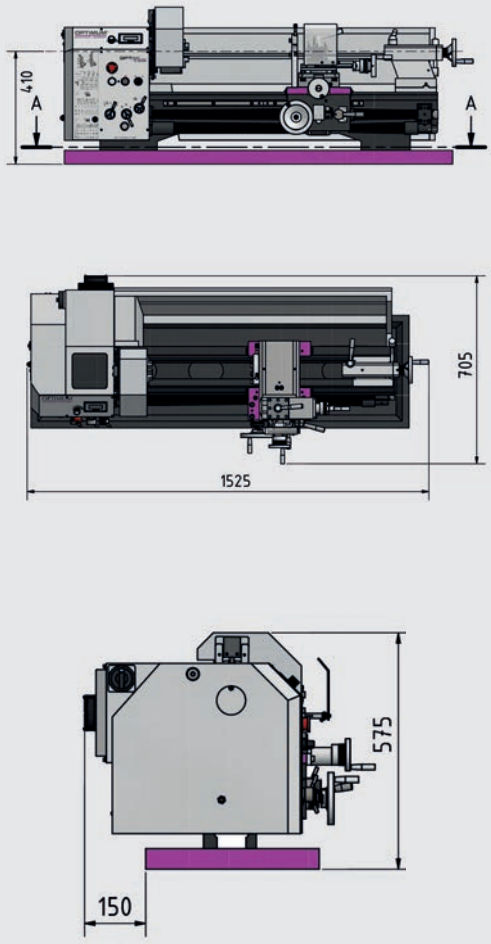


Fig.: TU 3008VB with optional machine base MST 1

Technical specifications, accessories and dimensions

Model	TU 3008	TU 3008G	TU 3008VB*
Article no.	3427200	3427210	3427206
Power			
Electrical connection	400 V / 3 Ph ~50 Hz		230 V / 1 Ph
Drive motor	1.1 kW		1,5 kW
Spindle			
Spindle taper	MT 5		
Spindle seat	Camlock DIN ISO 702- 2 No. 4		
Spindle bore, bar passage diameter	Ø 38 mm		
Quadruple tool holder mounting height	25 mm		
Work area			
Centre height	158 mm		
Centre width	800 mm	720 mm	800 mm
Swing Ø above machine bed**	310 mm		
Swing Ø above cross slide	190 mm		
Bed width	180 mm		
Speed range			
Spindle speed /stages TU 3008	150 - 2 000 rpm / 6 speeds		
Spindle speed /stages TU 3008G	165 - 2 400 rpm / 6 speeds		
Spindle speed /stages TU 3008VB	75 - 2 500 rpm / 4 speeds, electr. adjustable		
Traverse paths			
Top slide travel	65 mm		
Cross slide travel	150 mm		
Bed slide travel	600 mm		
Feeds and pitches			
Longitudinal feed within the range	0.085 - 0.832 mm/rev (9 feed rates)		
Cross feed within	0.01 - 0.1 mm/rev (9 feed rates)		
Pitch - metric in range	0.2 - 3.5 mm/rev (18 pitches)		
Pitch - inch in range	56 - 8 turns/inch (21 pitches)		
Tailstock			
Tailstock seat	MT 3		
Tailstock quill diameter/travel	Ø 38 mm / 70 mm		
Dimensions and weight			
Length x width x height	1 525 x 705 x 575 mm		
Net weight	226 kg	261 kg	243 kg

Dimensions



Lathe chuck ,Ø 160 mm No. 4	Art no.
OPTIMUM Four-jaw lathe chuck, centric clamping Speed: 2 150 rpm	3442840
BISON Four-jaw lathe chuck, centric clamping Speed: 3 600 rpm	3450355

Information on lathe chuck from page 218

Scope of delivery

- Three-jaw lathe chuck Ø 160 mm, centre clamping
- Revolving tailstock centre MT 3 and MT 5
- Quadruple tool holder 25 mm
- Splashguard
- Chip tray
- Interchangeable gear set
- Operating tool

Accessories	Art no.
Quick change tool holder SWH 1-A	3384301
SWH 1-A factory assembly	9000401
Spare tool holder 20 x 90 type D **for square chisels**	3384302
Spare tool holder 20 x 85 type H **for round chisels**	3384321
Lathe tool set 16 mm, 11-part	3441604
Lathe tool set 16 mm, 5-part	3441668
Lathe tool set 16 mm, 5-part	3441610
Lathe tool set 16 mm, 5-part “Made in Germany“	3441216
Follower rest passage Ø 6 - 55 mm	3441460
Steady rest passage Ø 6 - 60 mm	3441461
Micro position stop	3441475
Collet set 3 - 25 mm, 5C, 17-part	3441509
Collet chuck 5C - Camlock no. 4	3441554

More accessories and **information** on accessories from page 214

Accessories	Art no.
 **Digital position display DRO 5** i… magnetic sensors	…3975
Magnetic strip length 1 100 mm	3383978
Assembly kit (holders for the X / Y and Z0 axis/set of screws)	3383985
Factory assembly	9000420

Information see page 231

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C2 - Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

CRAFTSMEN

Feed and lead screw lathe that convinces through **easy handling** with continuously variable speed control.

Facts that impress in terms of quality, performance and price

- Precision workmanship
- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Running accuracy at the lathe chuck ≤ 0.04 mm
- Lead screw for thread cutting or automatic longitudinal turning
- Lead screw and feed rod borne on two sintered bearings
- All guides adjustable using wedge bars
- Free moving feed gear with rounded gear wheels running in an oil bath
- Switch rod on the bed slide for selection of longitudinal or cross feed
- Hardened main spindle borne on adjustable, precision taper roller bearings
- Hardened spindle nose
- Handwheels on slides with adjustable fine scaling 0.04 / 0.01 mm
- Ribbed grey cast steel prism bed heavily ribbed, induction hardened and precision ground
- Tailstock adjustable ± 5 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.02 mm
- Fast, easy adjustment of the tailstock without tools thanks to clamping lever
- Quadruple tool holder
- Emergency stop button
- Three-jaw lathe chuck included in standard scope of delivery
- Interchangeable gears in standard scope of delivery for thread cutting

Spindle seat



› The spindle is designed as Camlock DIN ISO 702- 2 no.4 seat

Longitudinal/cross feeds



› Automatic longitudinal/cross feeds
› Switch rod enables longitudinal or cross feed. The engagement lever activates the feed with the feed rod



Accessories
Machine base MST1
Art. no. 3440409

Levelling platen SE 1
(6 units are required)
Art. no. 3381012

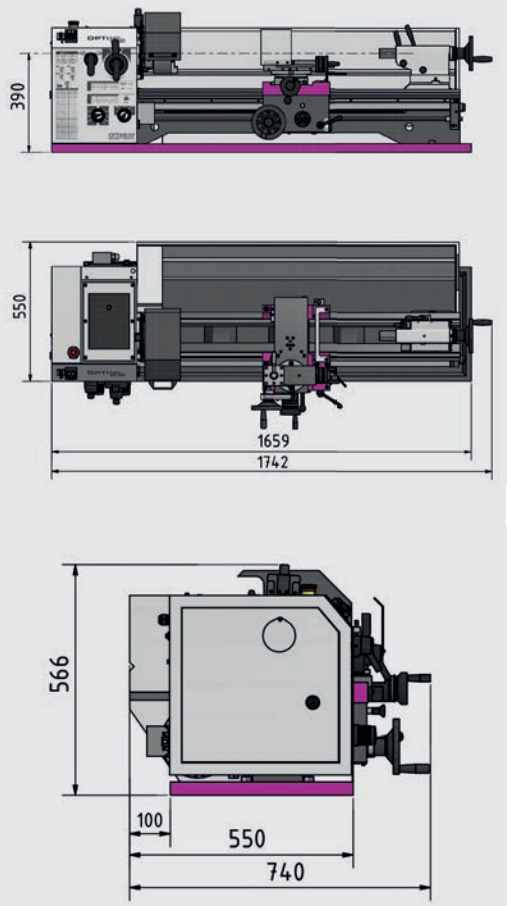
Fig.: TH 3110 - Shown with an optional machine base MST 1

GEAR

Technical specifications, accessories and dimensions

Model	TM 3110
Article no.	3403010
Power	
Electrical connection	400 V / 3 Ph ~50 Hz
Spindle	
Drive motor	1.1 kW
Spindle taper	MT 5
Spindle seat	Camlock DIN ISO 702- 2 No. 4
Spindle bore, bar passage diameter	Ø 38 mm
Quadruple tool holder mounting height	16 mm
Work areas	
Centre height	155 mm
Centre width	1 000 mm
Swing Ø above machine bed*	323 mm
Swing Ø above cross slide	216 mm
Bed width	190 mm
Speed range	
Spindle speeds	65 - 2 000 rpm
Number of speeds	9 stages
Traverse paths	
Top slide travel	90 mm
Cross slide travel	168 mm
Bed slide travel	850 mm
Feed and pitches	
Longitudinal feed within the range	0.02 - 0.4 mm/rev (24 feeds)
Cross feed within	0.01 - 0.2 mm/rev (32 feeds)
Pitch - metric in range	0.4 - 10 mm/rev (29 pitches)
Pitch - inch in range	56 - 4 turns/inch (34 pitches)
Tailstock	
Tailstock seat	MT 3
Sleeve diameter / travel	Ø 38 mm / 100 mm
Dimensions and weight	
Length x width x height	1 749 x 740 x 566 mm
Net weight	360 kg

Dimensions



Lathe chuck ,Ø 160 mm No. 4	Art no.
OPTIMUM Four-jaw lathe chuck, centric clamping Speed: 2 150 rpm	3442840
BISON Four-jaw lathe chuck, centric clamping Speed: 3 600 rpm	3450355

Information on lathe chuck from page 218

Scope of delivery

- › Three-jaw lathe chuck, Ø 160 mm , No. 4
- › Reduction sleeve MT 5 - MT 3
- › Two fixed centres MT 3
- › Quadruple tool holder
- › Interchangeable gear set
- › Machine initially filled with premium grade oil
- › Operating tool

Accessories	Art no.
Quick change tool holder SWH 3-E	3384303
SWH 3-E factory assembly	9000400
Lathe tool set 16 mm, 11-part	3441604
Lathe tool set 16 mm, 5-part	3441668
Lathe tool set 16 mm, 5-part "Made in Germany"	3441216
Lathe tool set 16 mm, 5-part	3441610
Follower rest passage Ø 10 - Ø 70 mm	3441465
NEW **Steady rest** passage Ø 10 - Ø 70 mm	3441466
Micro position stop	3441475

More accessories and **information** on accessories from page 214

Accessories | Art no.



Digital position display DRO 5 incl. 3 magnetic sensors	3383975
Magnetic strip length 1 100 mm	3383978
Factory assembly	9000420

Information see page 231

* Important general information on the operation of our machines see page 325

OPTI turn® TM 3110VB

NEW

CRAFTSMEN

Feed and lead screw lathe that convinces through **easy handling**.

Facts that impress in terms of quality, performance and price

- Precision workmanship
- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Running accuracy at the lathe chuck ≤ 0.04 mm
- Lead screw for thread cutting or automatic longitudinal turning
- Lead screw and feed rod borne on two sintered bearings
- All guides adjustable using wedge bars
- Free moving feed gear with rounded gear wheels running in an oil bath
- Switch rod on the bed slide for selection of longitudinal or cross feed
- Hardened main spindle borne on adjustable, precision taper roller bearings
- Hardened spindle nose
- Handwheels on slides with adjustable fine scaling 0.04 / 0.01 mm
- Ribbed grey cast steel prism bed heavily ribbed, induction hardened and precision ground
- Tailstock adjustable ± 5 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.02 mm
- Fast, easy adjustment of the tailstock without tools thanks to clamping lever
- Quadruple tool holder
- Emergency stop button
- Three-jaw lathe chuck included in standard scope of delivery
- Interchangeable gears in standard scope of delivery for thread cutting
- Easily adjustable speed change via potentiometer
- Digital speed display

Spindle seat



› The spindle is designed as Camlock DIN ISO 702- 2 no.4 seat

Longitudinal/cross feeds



› Automatic longitudinal/cross feeds
› Switch rod enables longitudinal or cross feed. The engagement lever activates the feed with the feed rod



Accessories
Machine base MST1
Art. no. 3440409

Levelling platen SE 1
(6 units are required)
Art. no. 3381012

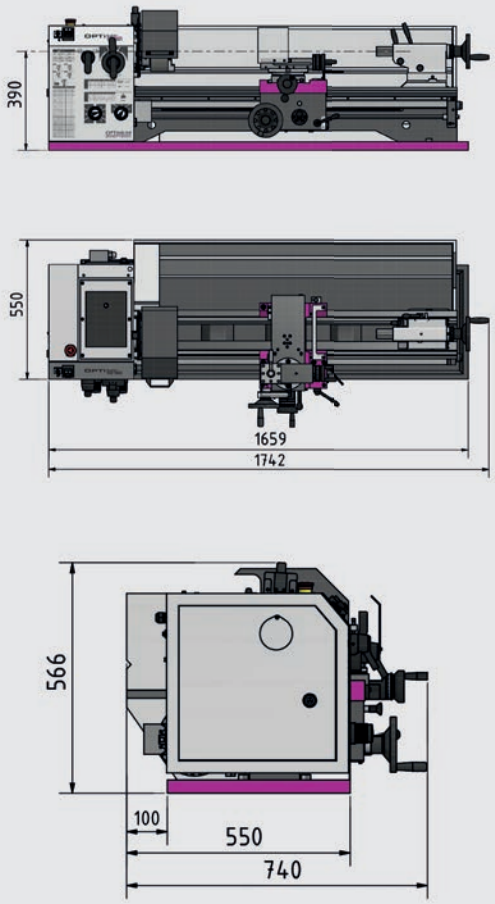
Fig.: TH 3110 - Shown with an optional machine base MST 1

GEAR

Technical specifications, accessories and dimensions

Model	TM 3110VB
Article no.	3403016
Power	
Electrical connection	230 V / 1 Ph ~50 Hz
Spindle	
Drive motor	1,5 kW
Spindle taper	MT 5
Spindle seat	Camlock DIN ISO 702- 2 No. 4
Spindle bore, bar passage diameter	Ø 38 mm
Quadruple tool holder mounting height	16 mm
Work areas	
Centre height	155 mm
Centre width	1 000 mm
Swing Ø above machine bed*	310 mm
Swing Ø above cross slide	216 mm
Bed width	190 mm
Speed range	
Spindle speeds	50 - 2 500 rpm
Number of speeds	3 speeds, electr. adjustable
Traverse paths	
Top slide travel	90 mm
Cross slide travel	168 mm
Bed slide travel	850 mm
Feed and pitches	
Longitudinal feed within the range	0.02 - 0.4 mm/rev (24 feeds)
Cross feed within	0.01 - 0.2 mm/rev (32 feeds)
Pitch - metric in range	0.4 - 10 mm/rev (29 pitches)
Pitch - inch in range	56 - 4 turns/inch (34 pitches)
Tailstock	
Tailstock seat	MT 3
Sleeve diameter / travel	Ø 38 mm / 100 mm
Dimensions and weight	
Length x width x height	1 632 x 770 x 540 mm
Net weight	360 kg

Dimensions



Lathe chuck ,Ø 160 mm No. 4	Art no.
OPTIMUM Four-jaw lathe chuck, centric clamping Speed: 2 150 rpm	3442840
BISON Four-jaw lathe chuck, centric clamping Speed: 3 600 rpm	3450355

Information on lathe chuck from page <?>

Scope of delivery

- Three-jaw lathe chuck, Ø 160 mm , No. 4
- Reduction sleeve MT 5 - MT 3
- Two fixed centres MT 3
- Quadruple tool holder
- Interchangeable gear set
- Machine initially filled with premium grade oil
- Operating tool

Accessories	Art no.
Quick change tool holder SWH 3-E	3384303
SWH 3-E factory assembly	9000400
Lathe tool set 16 mm, 11-part	3441604
Lathe tool set 16 mm, 5-part	3441668
Lathe tool set 16 mm, 5-part "Made in Germany"	3441216
Lathe tool set 16 mm, 5-part	3441610
Follower rest passage Ø 10 - Ø 70 mm	3441465
Steady rest passage Ø 10 - Ø 70 mm	3441466
Micro position stop	3441475
Clamping disk Ø 300 mm Camlock DIN ISO 702-2 No. 4	3442976

More accessories and **information** on accessories from page <?>

Accessories	Art no.
Digital position display DRO 5 incl. 3 magnetic sensors	3383975
Magnetic strip length 1 100 mm	3383978
Factory assembly	9000420

Information see page <?>

* Important general information on the operation of our machines see page 325



TWO-PART WITH STEEL BASE

Visit our exhibition in Hallstadt/Bamberg

SIEMENS SINAMICS G 120D Frequency inverter

Information on the Vario lathe TH 4010V

SINAMICS G120D
Brief overview of benefits

Highlights at a glance
Advanced safety function (STO, SLS)
STO - safe torque off as per EN 61800- 5
SLS - Safely limited speed as per EN 61800- 5

- Regenerative power supply, low mains feedback
- Energy savings up to 20 %
- No brake resistors required
- Fast and easy diagnostic capability through LEDs
- Standardised plug connections throughout
- Rugged and flat design (IP65)
- EMC class C3 as per EN 61800- 3
- Safety Integrated without encoder!
- More direct switch-over
- Faster braking
- Resilient to high overload



Siemens SAFETY INTEGRATED

DIN
Machines as per standard EN 61800

- A comprehensive safety package that helps to protect both persons and machines. And in an extremely efficient and economic way thanks to complete integration of the safety functions in the control and drive technology.. In addition, it ensures safe and practical operation of your machine under all required operating conditions. . The safety functions meet the requirements of DIN EN 61508 for use up to and including SIL (Safety Integrity Level) 2 and categories 3 and PL (Performance Level) d as per DIN EN ISO 13849.

The feature scope includes, for example:

- Functions for safe monitoring of speed and standstill
- Direct connection of all safety-related signals and their internal logical links

LATHES



CRAFTSMEN

Fully equipped lead screw and feed rod lathes.

TH 3309D / TH 3309V with DPA 21 digital position display,
TH 3309V with infinitely variable speed control

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Precision slide
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Spindle seat, Camlock DIN ISO 702- 2 no. 4
- Lead screw cover
- All guides adjustable using V-ledges
- Clockwise/anti-clockwise rotation switchable on bed slide
- Two-channel safety electronics
- DC 24-Volt electric system with two-channel safety circuit as per EN 23125
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Gearwheels smooth action, hardened and scraped
- Main spindle runs in oil bath
- Top slide adjustment range ± 90°
- LED machine lamp integrated in chip guard
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Hand wheels decoupled and approved in line with EN 23125
- Safety hand wheels with release function in the X and Z axis
- Prism bed heavily ribbed, induction hardened and precision ground
- Tailstock adjustable ± 10 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.02 mm
- Fast, easy adjustment without tools thanks to clamping lever
- Machine base with tool compartment on right-hand side (left side with 3 covers (no compartments)
- Pull-out chip drawer with guide rails
- Lockable main switch
- Quadruple tool holder
- Emergency stop device with foot pedal
- Chuck protection approved in line with EN 23125
- Interchangeable gears in standard scope of delivery

TH 3309V
SIEMENS inverter



SINAMICS G110M

› Premium quality
› Highest energy efficiency
› Speed change easily adjustable via potentiometer

TH 3309D / TH 3309V
Dig. Position display DPA 21

› User-friendly membrane keyboard
› Clear reduction of manufacturing times
› Greater operation accuracy
› Reduction of error quota



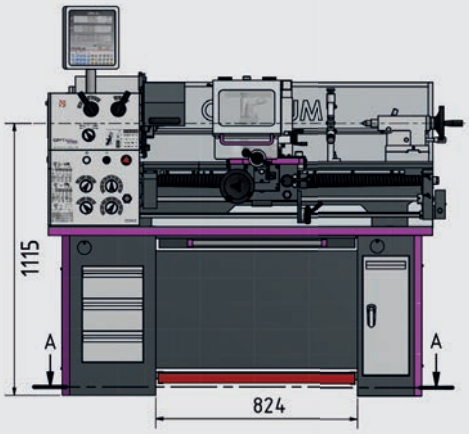
Fig.: TH 3309D - Shown with optional lathe chuck

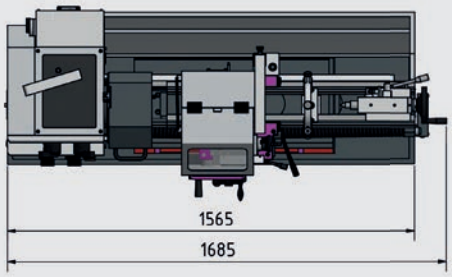
Technical specifications, accessories and dimensions

GEAR DRO VARIO

Model	TH 3309	TH 3309 D	TH 3309V*
Article no.	3402030	3402040	3402046
Power			
Electrical connection	400 V / 3 Ph ~50 Hz		
Drive motor	1.5 kW		
Spindle			
Spindle taper	MT 5		
Spindle seat	Camlock DIN ISO 702- 2 No. 4		
Spindle bore, bar passage diameter	Ø 38 mm		
Quadruple tool holder mounting height	16 mm		
Work area			
Centre height	165 mm		
Centre width	830 mm		
Swing Ø above machine bed**	330 mm		
Swing Ø above cross slide	208 mm		
Bed width	181 mm		
Speed range			
Spindle speed	70 - 2 000 rpm		15 - 2 500 rpm
Number of speeds	16 stages		8 stages, electr. adjustable
Traverse paths			
Top slide travel	98 mm		
Cross slide travel	164 mm		
Bed slide travel	695 mm		
Feeds and pitches			
Longitudinal feed within the range	0.052 - 1.392 mm/rev (32 feeds)		
Cross feed within	0.014 - 0.38 mm/rev (32 feeds)		
Pitch - metric in range	0.4 - 7 mm (26 pitches)		
Pitch - inch in range	56 - 4 turns/inch (34 pitches)		
Tailstock			
Tailstock seat	MT 3		
Tailstock sleeve diameter/travel	Ø 32 mm / 110 mm		
Dimensions and weight			
Length x width x height	1 685 x 745 x 1 320 (DPA 1 590) mm		
Net weight	510 kg	512 kg	510 kg

Dimensions





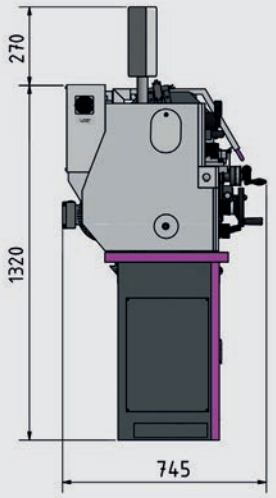


Fig.: TH 3309D

Lathe chuck no. 4	Art no.
OPTIMUM Three-jaw lathe chuck, Ø 200 mm, centric	3442762
OPTIMUM Four-jaw lathe chuck, Ø 200 mm, centric	3442843
OPTIMUM Four-jaw lathe chuck, Ø 200 mm, individually	3442879
BISON Three-jaw lathe chuck, Ø 160 mm, centric	3450305
BISON Three-jaw lathe chuck, Ø 200 mm, centric	3450310
BISON Four-jaw lathe chuck, Ø 160 mm, centric	3450355
BISON Four-jaw lathe chuck, Ø 200 mm ,centric	3450360

Information on lathe chuck from page 218

Don't forget the lathe chuck!

Accessories	Art no.
Vibration-damper machine foot SE 55 (8 units required)	3352981
Quick change tool holder SWH 3-E	3384303
SWH 3-E factory assembly	9000400
Lathe tool set 16 mm, 11-part	3441604
Lathe tool set 16 mm, 5-part	3441668
Lathe tool set 16 mm, 5-part "Made in Germany"	3441216
Lathe tool set 16 mm, 5-part	3441610

More accessories and **information** on accessories from page 214

Scope of delivery

- Steady rest passage Ø 6 - Ø 50 mm
- Follower rest passage Ø 8 - Ø 30 mm
- LED machine lamp
- Reduction sleeve MT 5 - MT 3
- Two fixed centres MT 3
- Quadruple tool holder
- Interchangeable gear set
- Machine base
- Machine initially filled with premium grade oil
- Operating tool

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C3 - Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

CRAFTSMEN

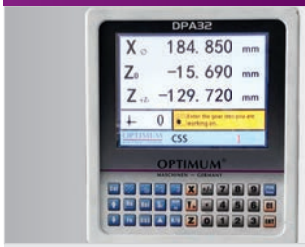
The feed and lead screw lathes impress with their rugged design and simple handling

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Precision slide
- DC 24 Volt electrical system
- Motor circuit switch
- Main motor electrically braked
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Free moving feed gear with rounded gear wheels running in an oil bath
- Hardened main spindle borne on adjustable, precision taper roller bearings
- Clockwise/anti-clockwise rotation switchable on bed slide
- Two-channel safety electronics
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Safety hand wheels with release function acc. to EN23125 in the X and Z axis
- Switch rod on the bed slide for selection of longitudinal or cross feed
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Machine base with rugged steel design
- Quadruple tool holder
- Emergency stop button right and left on machine base

TM 3310V:
- Cutting constant

TM 3310V
Digital position display DPA 32



- User-friendly membrane keyboard, splash water protected, dazzle free and easy to clean

› CSS function
› LED display
› Higher working accuracy
› Significant reduction of production times
› Error rate is reduced
› X-, Y- /Z0-, Z-axis each with 8-digit display
› Included sensor for recording the spindle speeds
› Three evaluable measuring inputs with seven correction memories each for tools

TM 3310D
Digital position display DPA 31



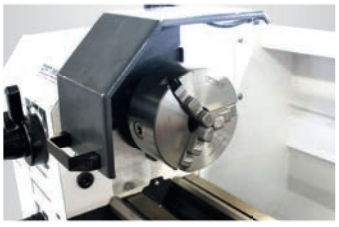




LED MACHINE LAMP
› Dazzle-free, integrated into chip guard



USER-FRIENDLY MEMBRANE KEY-BOARD
› Lockable main switch
› Control on
› Direct run spindle
› EMERGENCY-STOP push button



SPINDLE SEAT
› The spindle is designed as Camlock DIN ISO 702- 2 no.4 seat

LATHE CHUCK
› Three-jaw lathe chuck Ø160 mm Camlock No. 4 in standard scope of delivery



CHIP TRAY
› Pull-out chip drawer with guide rails

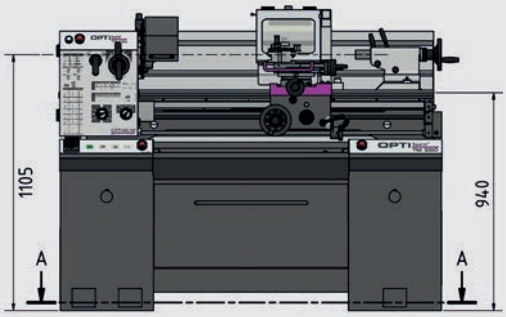
Technical specifications, accessories and dimensions

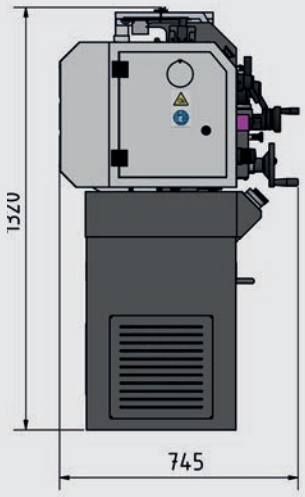
new
TM 3310V

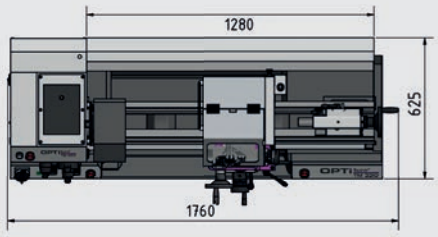
GEAR DPA

Model	TM 3310	TM 3310V
Article no.	3403020	3403027
Model	**TM 3310D**	
Article no.	3403025	
Power		
Electrical connection	400 V / 3 Ph ~50 Hz	
Spindle		
Drive motor	1.5 kW	
Spindle taper	MT 5	
Spindle seat	Camlock DIN ISO 702- 2 No. 4	
Spindle bore, bar passage diameter	Ø 38 mm	
Quadruple tool holder mounting height	max. 16 mm	
Work areas		
Centre height	165 mm	
Centre width	1 000 mm	
Swing Ø above machine bed*	330 mm	
Swing Ø above cross slide	216 mm	
Speed range		
Spindle speeds	65 - 2 000 rpm	14 - 2.800 rpm
Number of speeds	9 stages	6 gear stages
Traverse paths		
Top slide travel	90 mm	
Cross slide travel	168 mm	
Bed slide travel	850 mm	
Feed and pitches		
Longitudinal feed within the range	0.02 - 0.4 mm/rev (24 feeds)	
Cross feed within	0.01 - 0.2 mm/rev (32 feeds)	
Pitch - metric in range	0.4 - 10 mm/rev (29 pitches)	
Pitch - inch in range	56 - 4 turns/inch (27 pitches)	
Tailstock		
Tailstock seat	MT 3	
Sleeve diameter / travel	Ø 38 mm / 100 mm	
Dimensions and weight		
Length x width x height	1 760 x 745 x 1 320 (DPA 1 590) mm	
Net weight	469 kg/471 kg	

Dimensions







Lathe chuck	Art no.
OPTIMUM three-jaw lathe chuck, Ø 200 mm no. 4, centric	3442762
OPTIMUM Four-jaw lathe chuck, Ø 200 mm no. 4, individually	3442879
BISON three-jaw lathe chuck, Ø 200 mm no. 4, centric	3450310
BISON Four-jaw lathe chuck, Ø 200 mm Nr. 4, centric	3450360

Information on lathe chuck from page 218

Accessories	Art no.
Follower rest passage Ø 10 - Ø 70 mm	3441469
Steady rest passage Ø 10 - Ø 70 mm	3441470
Vibration-damper machine foot SE 55 (6 units required)	3352981
Micro position stop	3441475
Quick change tool holder SWH 3-E	3384303
SWH 3-E factory assembly	9000400
Lathe tool set 16 mm, 11-part	3441604
Lathe tool set 16 mm, 5-part	3441668
Lathe tool set 16 mm, 5-part "Made in Germany"	3441216
Lathe tool set 16 mm, 5-part	3441610

More accessories and **information** on accessories from page 214

* Important general information on the operation of our machines see page 325

Our recommendation

cleancraft
flexCAT 378 EOT-PRO
Article no. 7003380



Scope of delivery

- Three-jaw lathe chuck, Ø 160 mm , No. 4
- LED machine lamp
- Reduction sleeve MT 5 - MT 3
- Non-revolving centre tip MT 3
- Quadruple tool holder
- Interchangeable gear set
- Machine base
- Machine initially filled with premium grade oil
- Operating tool

CRAFTSMEN

Fully equipped lathes for mechanics.
TH 3610D with DPA 21 digital position display

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Precision slide
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Spindle seat, Camlock DIN ISO 702- 2 no. 5
- Lead screw cover
- All guides adjustable using V-ledges
- Clockwise/anti-clockwise rotation switchable on bed slide
- Two-channel safety electronics
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Gearwheels smooth action, hardened and scraped
- Main spindle runs in oil bath
- Fast, easy adjustment without tools thanks to clamping lever
- Gears and shafts hardened and scraped, running in oil bath on precision bearings
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Hand wheels decoupled and approved in line with EN 23125
- Safety hand wheels with release function in the X and Z axis
- Prism bed heavily ribbed, induction hardened and precision ground
- Tailstock adjustable ± 10 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.025 mm
- Machine base with tool compartments on both sides
- Pull-out chip drawer with guide rails
- Motor circuit breaker, lockable main switch
- Quadruple tool holder
- Emergency stop device with foot pedal
- LED machine lamp integrated in chip guard

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

TH 3610D
Dig. Position display DPA 21

› User-friendly membrane keyboard
› Clear reduction of manufacturing times
› Greater operation accuracy
› Reduction of error quota
› Glass scales



Fig.: TH 3610D - Shown with optional lathe chuck

GEAR DRO

Technical specifications, accessories and dimensions

Model	TH 3610	TH 3610D
Article no.	3402050	3402060
Power		
Electrical connection	400 V / 3 Ph ~50 Hz	
Drive motor	1.5 kW	
Spindle		
Spindle taper	MT 6	
Spindle seat	Camlock DIN ISO 702- 2 No. 5	
Spindle bore, bar passage diameter	Ø 52 mm	
Quadruple tool holder mounting height	max. 16 mm	
Work area		
Centre height	180 mm	
Centre width	980 mm	
Swing Ø above machine bed*	356 mm	
Swing Ø above cross slide	225 mm	
Bed width	187 mm	
Speed range		
Spindle speed	70 - 2 000 rpm	
Number of speeds	8 stages	
Traverse paths		
Top slide travel	100 mm	
Cross slide travel	170 mm	
Bed slide travel	840 mm	
Feeds and pitches		
Longitudinal feed within the range	0.052 - 1.392 mm/rev (32 feeds)	
Cross feed within	0.014 - 0.38 mm/rev (32 feeds)	
Pitch - metric in range	0.4 - 7 mm/rev (26 pitches)	
Pitch - inch in range	56 - 4 turns/inch (34 pitches)	
Tailstock		
Tailstock seat	MT 3	
Tailstock sleeve diameter / travel	Ø 42 mm / 120 mm	
Dimensions and weight		
Length x width x height	1 930 x 725 x 1 350 / 1 620 mm	
Net weight	570 kg	572 kg

Dimensions

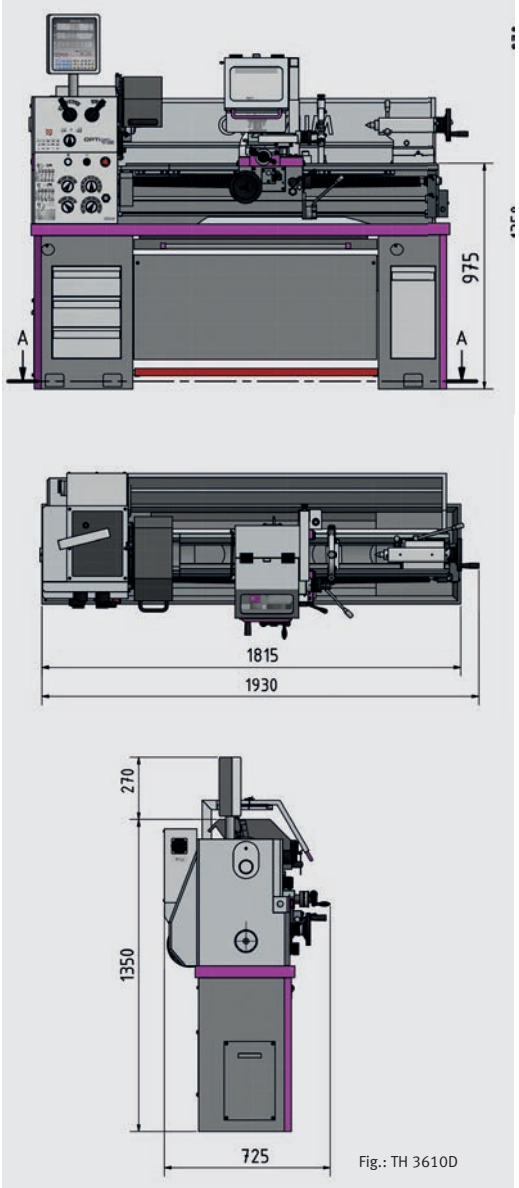


Fig.: TH 3610D

Lathe chuck	Art no.
OPTIMUM Four-jaw lathe chuc Ø 200 mm no. 5, centric	3442845
OPTIMUM Four-jaw lathe chuck, Ø 200 mm no. 5, individually	3442880
BISON Three-jaw lathe chuck, Ø 200 mm no. 5, centric	3450315
BISON Four-jaw lathe chuck, Ø 200 mm no. 5, centric	3450365

Information on lathe chuck from page 218

Accessories	Art no.
Quick change tool holder SWH 3-E	3384303
SWH 3-E factory assembly	9000400
Spare tool holder 20 x 100 type D **for square chisels**	3384304
Spare tool holder 30 x 100 type H **for round chisels**	3384322
Lathe tool set 16 mm, 11-part	3441604
Lathe tool set 16 mm, 5-part	3441668
Lathe tool set 16 mm, 5-part extension kit	3441610
Collet chuck holder 5C	3441555
Vibration-damper machine foot SE 55 (6 units required)	3352981
Position stop with fine adjustment	3441523

More accessories and **information** on accessories from page 214

Don't forget the lathe chuck!

Scope of delivery

- Steady rest passage Ø 10 - Ø 70 mm
- Follower rest passage Ø 10 - Ø 60 mm
- LED machine lamp
- Reduction sleeve MT 6 - MT 3
- Non-revolving centre tip MT 3
- Non-revolving, but temperature resistant centre MT 3
- Quadruple tool holder
- Interchangeable gear set
- Machine base
- Machine initially filled with premium grade oil
- Operating tool

* Important general information on the operation of our machines see page 325

CRAFTSMEN

Fully equipped lathes for mechanics. Impressive precision and performance TH 4010D with DPA 21 digital position display, TH 4010V additionally with SIEMENS inverter Vario drive

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Precision slide
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Spindle seat, Camlock DIN ISO 702- 2 no. 5
- DC 24 Volt electrical system
- All guides adjustable using V-ledges
- Clockwise/anti-clockwise rotation switchable on bed slide
- Two-channel safety electronics
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Gearwheels smooth action, hardened and scraped
- Main spindle runs in oil bath
- Fast, easy adjustment without tools thanks to clamping lever
- Gears and shafts hardened and scraped, running in oil bath on precision bearings
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Safety hand wheels with release function acc. to EN 23125 in the X and Z axis
- Top slide adjustment range ± 90°
- Tailstock adjustable ± 10 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.025 mm
- Grey cast iron prism bed heavily ribbed, induction hardened and precision ground
- Pull-out chip drawer with guide rails
- Lockable main switch
- Emergency stop device with foot pedal
- Machine base with 3 covers (no compartments)
- Coolant system
- LED machine lamp in chip guard

TH 4010 / TH 4010D:

- Motor circuit switch

TH 4010V:

- Rev counter
- Speed monitoring in line with Machinery Directive
- Two speeds
- Quick change tool holder 3-E
- Tool holder 20 x 100 type D for square chisels

TH 4010V
SIEMENS inverter



SINAMICS G120D

› For more information see page 188
› Safety Integrated

TH 4010D / TH 4010V
Dig. Position display DPA 21

› User-friendly membrane keyboard
› Clear reduction of manufacturing times
› Greater operation accuracy
› Reduction of error quota



Fig.: TH 4010D - Shown with optional lathe chuck

Technical specifications, accessories and dimensions

GEAR DRO VARIO

Model	TH 4010		
Article no.	3402070		
Model	**TH 4010D**		**TH 4010V***
Article no.	3402080		3402085
Power			
Electrical connection	400 V / 3 Ph ~50 Hz		
Drive motor	1.5 / 2.4 kW		4 kW
Spindle			
Spindle taper	MT 6		
Spindle seat	Camlock DIN ISO 702- 2 No. 5		
Spindle bore, bar passage diameter	Ø 52 mm		
Quadruple tool holder mounting height	20 mm		
Technical data			
Centre height	205 mm		
Centre width	1 000 mm		
Swing Ø above machine bed*	410 mm		
Swing Ø above cross slide	255 mm		
Bed width	206 mm		
Speed range			
Spindle speed	45 - 1 800 rpm		30 - 3 000 rpm
stages	16 stages		2 stages, Electr. regulable
Traverse paths			
Top slide travel	100 mm		
Cross slide travel	195 mm		
Bedslide travel	750 mm		
Feeds and pitches			
Longitudinal feed within the range	0.043 - 0.653 mm/rev (48 feeds)		
Cross feed within	0.015 - 0.206 mm/rev (48 feeds)		
Pitch - metric in range	0.4 - 7 mm/rev (42 pitches)		
Pitch - inch in range	70 - 4 turns/inch (42 pitches)		
Tailstock			
Tailstock seat	MT 3		
Tailstock sleeve diameter/travel	Ø 45 mm / 130 mm		
Dimensions and weight			
Length x width x height	1 920 x 740 x 1 222 (DPA 1 555) mm		
Net weight	735 kg	737 kg	780 kg

Dimensions

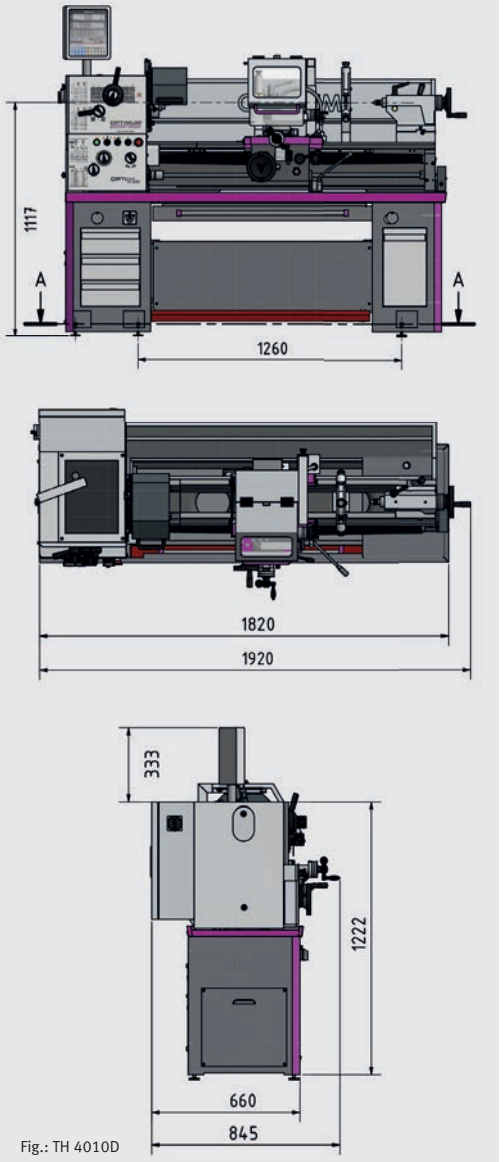


Fig.: TH 4010D

Don't forget the lathe chuck!

Lathe chuck ,Ø 200 mm No. 5	Art no.
OPTIMUM Four-jaw lathe chuck centric, speed 3 000 rpm	3442845
OPTIMUM Four-jaw lathe chuck individually, speed 2 100 rpm	3442880
BISON Three-jaw lathe chuck centric, speed 3 000 rpm	3450315
BISON Four-jaw lathe chuck centric, speed 3 000 rpm	3450365

Information on lathe chuck from page 218

Accessories	Art no.
Quick change tool holder SWH 3-E	3384303
SWH 3-E factory assembly	9000400
Spare tool holder 20 x 100 type D **for square chisels**	3384304
Spare tool holder 30 x 100 type H **for round chisels**	3384322
Lathe tool set HM 20 mm, 5-part	3441670
Lathe tool set HM 20 mm, 5-part, extension kit	3441617
Levelling platen SE 2(6 units required)	3381016

More accessories and **information** on accessories from page 214

Scope of delivery

- › Steady rest passage Ø 10 - Ø 100 mm
- › Follower rest passage Ø 10 - Ø 80 mm
- › LED machine lamp
- › Reduction sleeve MT 6 - MT 3
- › Non-revolving centre tip MT 3
- › Non-revolving, but temperature resistant centre MT 3
- › Change gear kit
- › Machine initially filled with premium grade oil
- › Operating tool

TH 4010 / TH 4010D

- › Quadruple tool holder 16 mm

TH 4010V

- › Quick change tool holder 3-E
- › Tool holder 20 x 100 type D for square chisels

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C3 - Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

CRAFTSMEN

Feed and lead screw lathes that impress with their rugged design and simple handling.

TM 4010D with DPA 21 digital position display

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Spindle seat, Camlock DIN ISO 702- 2 no. 5
- Motor circuit switch
- Main motor electrically braked
- Clockwise/anti-clockwise rotation switchable on bed slide
- Two-channel safety electronics
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Perfectly concentric main spindle guarantees high load capacity thanks to use of precision taper roller bearings
- With safety device to prevent simultaneous operation of thread cutting and pitch mechanism
- Safety hand wheels with release function in the X and Z axis
- All pitch gears made of steel, hardened and ground, shafts on needle bearings, all components lubricated in an oil bath
- Coolant pump with coolant tank and fill level display Tank removable for easy cleaning
- LED machine lamp in machine housing
- Machine base with rugged steel design
- Emergency stop button right and left
- Lockable main switch
- Three-jaw lathe chuck included in standard scope of delivery

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

Membrane keyboard



› User-friendly membrane keyboard with the functions: Machine on, coolant pump, light and direct run

TM 4010D with DPA 21 digital position display

› User-friendly membrane keyboard
› Clear reduction of manufacturing times
› Greater operation accuracy
› Reduction of error quota
› Glass scales

YouTube
Follow this for the video presentation of our OPTIMUM lathe TM 4010D

Chip drawer



› Fold-up type
› Easy chip cleaning from front



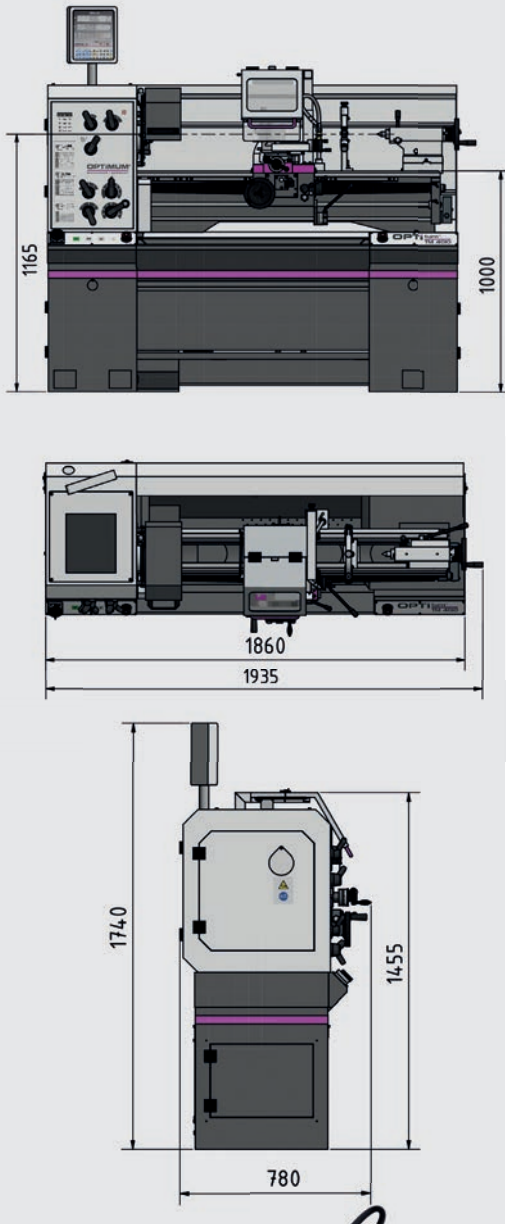
Fig.: TM 4010D

Technical specifications, accessories and dimensions

GEAR DRO

Model	TM 4010	TM 4010D
Article no.	3403040	3403045
Power		
Electrical connection	400 V / 3 Ph ~50 Hz	
Total rated value	3 kW	
Coolant pump motor	100 Watts	
Spindle		
Drive motor	2.2 kW	
Spindle taper	MT 6	
Spindle seat	Camlock DIN ISO 702- 2 No. 5	
Spindle bore, bar passage diameter	Ø 53 mm	
Quick change tool holder	SWH 3-E	
Work areas		
Centre height	200 mm	
Centre width	1 000 mm	
Swing Ø above machine bed*	400 mm	
Swing Ø above cross slide (1)	250 mm	
Bed width	203 mm	
Speed range		
Spindle speeds	70 - 2 000 rpm	
Number of speeds	8 stages	
Traverse paths		
Top slide travel	98 mm	
Cross slide travel	185 mm	
Bed slide travel	850 mm	
Feed and pitches		
Longitudinal feed within the range	0.014 - 0.38 mm/rev (26 feeds)	
Cross feed within	0.052 - 1.392 mm/rev (32 feeds)	
Pitch - metric in range	0.4 - 7 mm/rev (32 pitches)	
Pitch - inch in range	56 - 4 turns/inch (31 pitches)	
Tailstock		
Tailstock seat	MT 4	
Sleeve diameter / travel	Ø 50 mm / 110 mm	
Dimensions and weight		
Length x width x height	1 935 x 780 x 1 740 mm	
Net weight	765 kg	767 kg

Dimensions



Lathe chuck ,Ø 200 mm No. 5	Art no.
OPTIMUM Four-jaw lathe chuck centric Speed 3 000 rpm	3442845
OPTIMUM Four-jaw lathe chuck, individually Speed 2 100 rpm	3442880
BISON Three-jaw lathe chuck, centric Speed 3 000 rpm	3450315
BISON Four-jaw lathe chuck, centric Speed 3 000 rpm	3450365

Information on lathe chuck from page 218

Our recommendation

cleancraft
flexCAT 378 EOT-PRO
Article no. 7003380



Accessories	Article no.
Spare tool holder 20 x 100 type D for **square chisels**	3384304
Spare tool holder 30 x 100 type H for **round chisels**	3384322
Lathe tool set 16 mm, 11-part	3441604
Lathe tool set 16 mm, 5-part	3441668
Lathe tool set 16 mm, 5-part "Made in Germany"	3441216
Lathe tool set 16 mm, 5-part	3441610
Clamping disc Ø 320 mm No. 5	3442979
NEW **Micro position stop**	3441475
Vibration-damper machine foot SE 55 (6 units required)	3352981

More accessories and **information** on accessories from page 214

Scope of delivery

- Three-jaw lathe chuck, Ø 200 mm , No. 5
- Steady rest Ø 7 - Ø 102 mm
- Follow steady restØ 10 - Ø 60 mm
- LED machine lamp
- Reduction sleeve MT 6 / MT 4
- Non-revolving centre tip MT 4
- Quick change tool holder 3-E
- Tool holder 20 x 100 type D for square chisels 18 mm
- Initial machine filling with quality oil
- Operating tool

*Important general information on the operation of our machines see page 325 - (1) Please note that operators are required to make conversions in the event of installing third-party chucks or face plates to reach the stated, technically possible rotating diameter.

WITH STEEL/CAST IRON CHASSIS

Visit our exhibition in Hallstadt/Bamberg

SIEMENS SINAMICS G 120D Frequency inverter

Information on the Vario lathes
TH 4210V / TH 4615V / TH 5620V / TX 5216V / TZ4V



DIN
Machines as per standard EN 61800

SINAMICS G120D
Brief overview of benefits

Highlights at a glance
Advanced safety function (STO, SLS)
STO - safe torque off as per EN 61800- 5
SLS - Safely limited speed as per EN 61800- 5

- Regenerative power supply, low mains feedback
- Energy savings up to 20 %
- No brake resistors required
- Fast and easy diagnostic capability through LEDs
- Standardised plug connections throughout
- Rugged and flat design (IP65)
- EMC class C3 as per EN 61800- 3
- Safety Integrated without encoder!
- More direct switch-over
- Faster braking
- Resilient to high overload

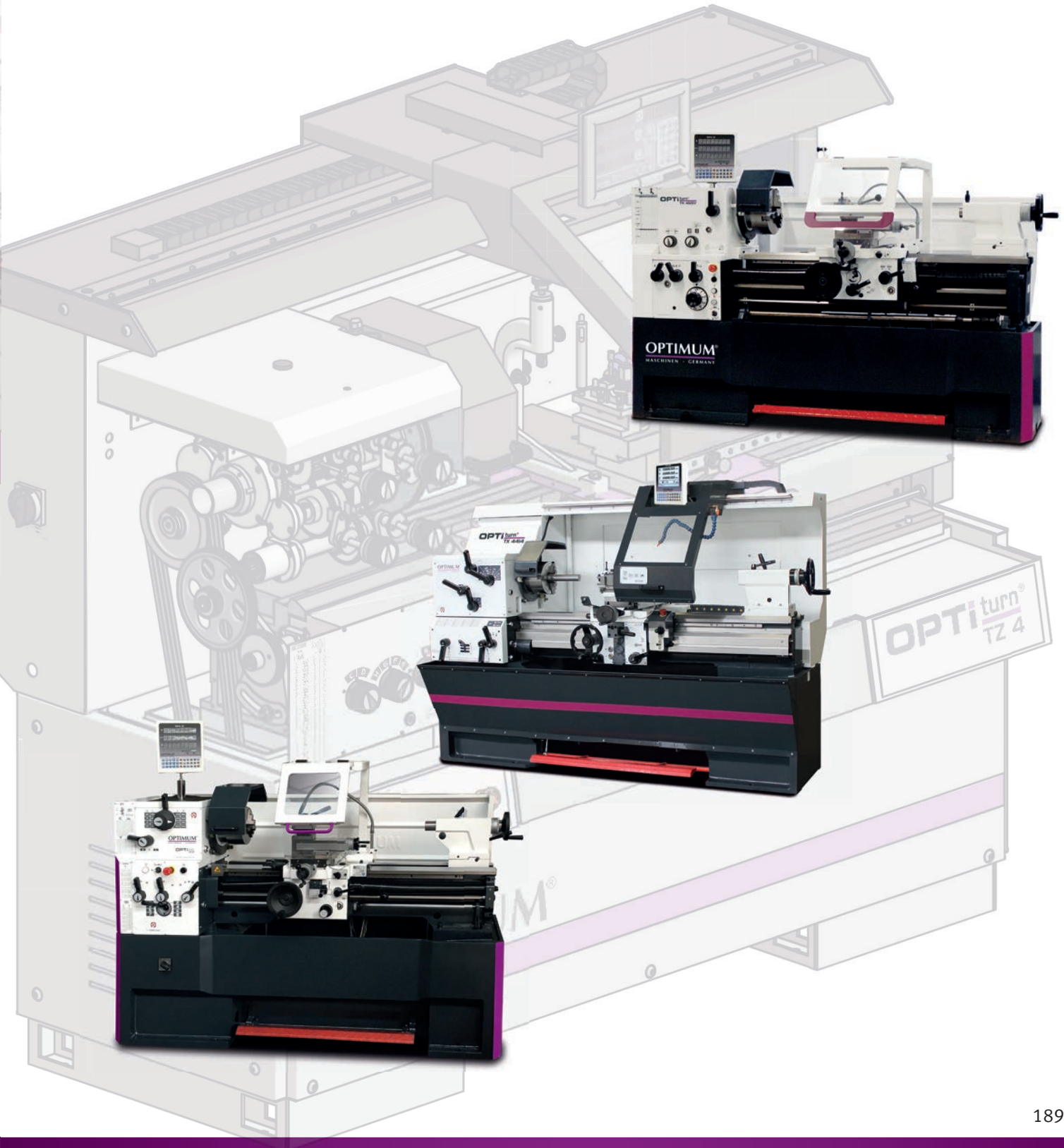
Siemens SAFETY INTEGRATED

- A comprehensive safety package that helps to protect both persons and machines. And in an extremely efficient and economic way thanks to complete integration of the safety functions in the control and drive technology.. In addition, it ensures safe and practical operation of your machine under all required operating conditions. . The safety functions meet the requirements of DIN EN 61508 for use up to and including SIL (Safety Integrity Level) 2 and categories 3 and PL (Performance Level) d as per DIN EN ISO 13849.

The feature scope includes, for example:

- Functions for safe monitoring of speed and standstill
- Direct connection of all safety-related signals and their internal logical links

LATHES



INDUSTRY

Precision feed and lead screw lathes with digital position display DPA 32
and quick change tool holder

Facts that impress in terms of quality, performance and price

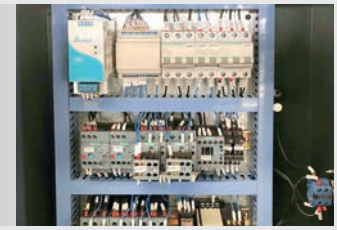
- Hardened and ground z-axis guideway
- Motor circuit switch
- Control cabinet with 24-V DC power supply
- Partly clad with travelling, generously dimensioned chip guard
- Travelling swarf guard with integrated position display, coolant hose and additional control panel
- Two-channel safety electronics
- Plane und top slide spindle hardened and scraped, adjustable via split spindle nut
- Feed and lead screw cover
- Granular feed and tapping range
- Energy chain for material-friendly cable and hose guiding
- The default gear wheels for metric thread pitches and modular threads are already mounted in the machine. Interchangeable gears available as option for imperial and D.P threads
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Decoupled hand wheels approved in line with EN 23125
- Safety hand wheels with release function in the X and Z axis
- Chip tray pulls out to front
- Coolant system
- Quick change tool holder SWH 5-B
- Tool holder 25 x 120 type D for square chisels 20 mm
- LED machine light for complete elimination of the workspace

YouTube
Follow this for the video presentation of our OPTIMUM lathe TZ 4



Fig.: TZ 4 - Shown with optional lathe chuck

Arguments,...



› Control cabinet
› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider



DIG. POSITION INDICATOR DPA 32
› CSS function
› LED display
› User-friendly membrane keypad,
› splash-proof, closed and glare-free
› Higher working accuracy
› Significant reduction of production times
› Error rate is reduced
› X-, Y- /Z0-, Z-axis with 8-digit display each
› › Three evaluable measuring inputs with seven correction memories each for tools



TOUCHPANEL
› **Centralised control**
› For switching lighting and coolant
› Foil keypad, easily cleanable



BETT GEOMETRIE
› Flacher Winkel
› Höhere Kraftaufnahme

Technical specifications, accessories and dimensions

Model	TZ 4
Article no.	3432240
Power	
Electrical connection	400 V / 3 Ph ~50 Hz
Total rated value	6 kW
Coolant pump motor	125 Watts
Spindle	
Drive motor	3 kW/4.5 kW
Spindle taper	MT 6
Spindle seat	DIN ISO 702-1 no. 5 form A2
Spindle bore, bar passage diameter	Ø 52 mm
Quick change tool holder	SWH 5-B
Work area	
Centre height	200 mm
Centre width	800 mm
Swing Ø above machine bed*	400 mm
Swing Ø above cross slide	245 mm
Bed width	260 mm
Speed range	
Spindle speed	45 - 1 800 rpm
Number of speeds	16 stages
Traverse paths	
Top slide travel	112 mm
Cross slide travel	212 mm
Bed slide travel	800 mm
Feeds and pitches	
Longitudinal feed within the range	0.026 - 1.84 mm/rev (48 feeds)
Cross feed within	0.013 - 0.93 mm/rev (48 feeds)
Pitch - metric in range	0.2 - 14 mm/rev (26 pitches)
Pitch - inch in range (Interchangeable gear set accessory art. no. 3444160)	80 - 1 turns/inch (42 pitches)
Modular thread in range	0.1 - 7 mm x π (44 threads)
Diametral pitch in range (Interchangeable gear set accessory art. no. 3444160)	200 - 3 turns/ π (33 pitches)
Tailstock	
Tailstock seat	MT 3
Sleeve diameter / travel	Ø 50 mm / 110 mm
Dimensions and weight	
Length x width x height	1 960 x 1 060 x 1 690 mm
Net weight	1 250 kg

Lathe chuck	Article no.
BISON four-jaw lathe chuck Ø 250 mm no. 5 cast centric clamping (chuck flange 3450218 required)	3450216
Chuck flange for lathe chuck Ø 250 mm no. 5 (for lathe chuck 3450216)	3450218
BISON Three-jaw lathe chuck Ø 200 mm no. 5 cast centric clamping (chuck flange 3450212 required)	3450210
Chuck flange for lathe chuck Ø 200 mm no. 5 (lathe chuck 3450210)	3450212

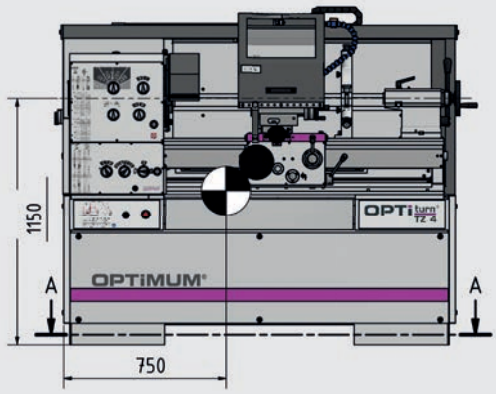
Information on lathe chuck from page 218

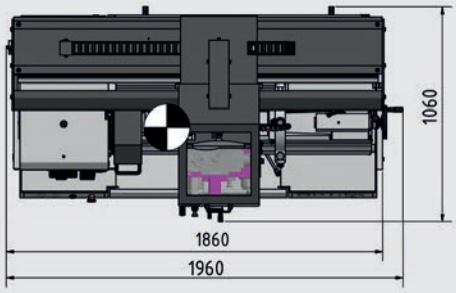
Accessories	Article no.
Clamping disc Ø 320 mm no. 5	3442979
BISON chuck flange for lathe chuck Ø 160 mm (Szf 3450245)	3450246
BISON Collet chuck 16C - Ø 160 mm (requires chuck flange 3450246)	3450245
Lathe tool set HM 20 mm, 5-part (see page 226)	3441617
Interchangeable gear set for imperial and D.P thread	3444160
Levelling platen SE 1 (8 units required)	3381012

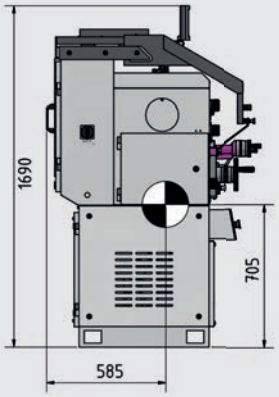
More accessories and **information** on accessories from page 214

* Important general information on the operation of our machines see page 325

Dimensions







Don't forget the lathe chuck!

Scope of delivery

- Steady rest passage Ø 10 - Ø 130 mm
- Follower rest passage Ø 10 - Ø 100 mm
- Reduction sleeve MT 6 - MT 3
- Non-revolving centre tip MT 3
- Non-revolving, but temperature resistant centre MT 3
- Quick change tool holder 5-B
- Tool holder 25 x 120 type D for square chisels 20 mm
- Machine initially filled with premium grade oil
- Operating tool

Precision feed and lead screw lathe with electronically controlled drive and digital position display DPA 32

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Motor circuit switch
- Control cabinet with 24-V DC power supply
- Partly clad with travelling, generously dimensioned chip guard
- Travelling swarf guard with integrated position display, coolant hose and additional control panel
- Two-channel safety electronics
- Safety hand wheels with release function in the X and Z axis
- Plane und top slide spindle hardened and scraped, adjustable via split spindle nut
- Feed and lead screw cover
- Granular feed and tapping range
- Energy chain for material-friendly cable and hose guiding
- The default gear wheels for metric thread pitches and modular threads are already mounted in the machine. Interchangeable gears available as option for imperial and D.P threads
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Decoupled hand wheels approved in line with EN 23125
- Reduction of the main spindle braking time thanks to energy recuperation
- Chip tray pulls out to front
- Coolant system
- Quick change tool holder SWH 5-B
- Tool holder 25 x 120 type D for square chisels 20 mm
- LED machine light for complete elimination of the workspace



Fig.: TZ 4 - Shown with optional lathe chuck

Arguments,...



SIEMENS INVERTER SINAMICS
› **G**120D
› For more information see page 188



DIG. POSITION INDICATOR DPA 32
› CSS function
› LED display
› User-friendly membrane keypad,
› splash-proof, closed and glare-free
› Higher working accuracy
› Significant reduction of production times
› Error rate is reduced
› X-, Y- /Z0-, Z-axis with 8-digit display each
› › Three evaluable measuring inputs with seven correction memories each for tools



TOUCHPANEL
› **Centralised control**
› For switching lighting and coolant
› Foil keypad, easily cleanable

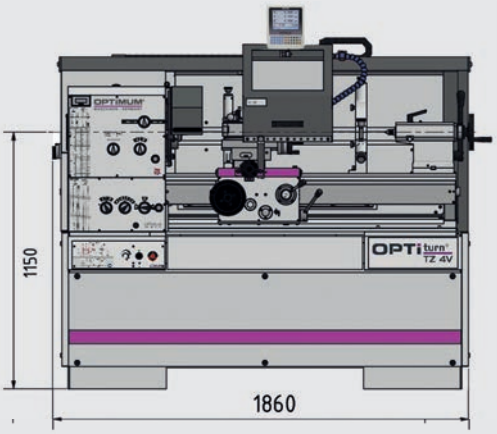


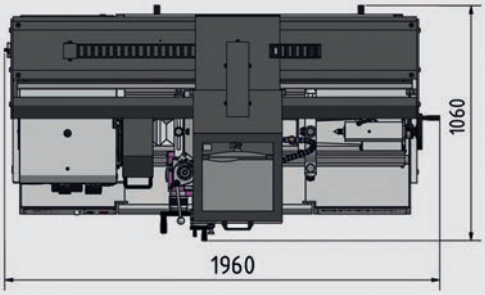
BETT GEOMETRIE
› Flacher Winkel
› Höhere Kraftaufnahme

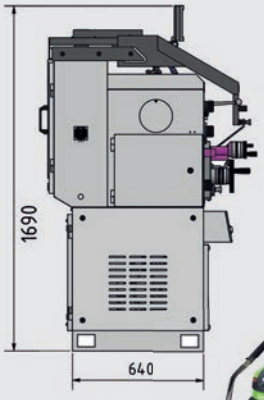
Technical specifications, accessories and dimensions

Model	TZ 4V*
Article no.	3432245
Power	
Electrical connection	400 V / 3 Ph ~50 Hz
Total rated value	6 kW
Coolant pump motor	125 Watts
Spindle	
Drive motor	5.5 kW
Spindle taper	MT 6
Spindle seat	DIN ISO 702-1 no. 5 form A2
Spindle bore, bar passage diameter	Ø 52 mm
Quick change tool holder	SWH 5-B
Work area	
Centre height	200 mm
Centre width	800 mm
Swing Ø above machine bed**	400 mm
Swing Ø above cross slide	245 mm
Bed width	260 mm
Speed range	
Spindle speed	50 - 3 000 rpm
Number of speeds	2 speed, electrically controlled
Traverse paths	
Top slide travel	112 mm
Cross slide travel	212 mm
Bed slide travel	800 mm
Feeds and pitches	
Longitudinal feed within the range	0.0263 - 1.8416 mm/rev (48 feeds)
Cross feed within	0.0133 - 0.9321 mm/rev (48 feeds)
Pitch - metric in range	0.2 - 14 mm/rev (26 pitches)
Pitch - inch in range (Interchangeable gear set accessory art. no. 3444160)	80 - 1 turns/inch (42 pitches)
Modular thread in range	0.1 - 7 mm x π (44 threads)
Diametral pitch in range (Interchangeable gear set accessory art. no. 3444160)	200 - 3 turns/ π (33 pitches)
Tailstock	
Tailstock seat	MT 3
Sleeve diameter / travel	Ø 50 mm / 110 mm
Dimensions and weight	
Length x width x height	1 960 x 1 060 x 1 690 mm
Net weight	1 250 kg

Dimensions







Lathe chuck	Article no.
BISON four-jaw lathe chuck Ø 250 mm no. 5, steel centric clamping (chuck flange 3450218 required)	3450217
Chuck flange for lathe chuck Ø 250 mm no. 5 (for lathe chuck 3450218)	3450218
BISON Three-jaw lathe chuck Ø 200 mm no. 5 cast centric clamping (chuck flange 3450212 required)	3450210
Chuck flange for lathe chuck Ø 200 mm no. 5 (lathe chuck 3450210)	3450212

Information on lathe chuck from page 218

Accessories	Article no.
Clamping disc Ø 320 mm No. 5	3442979
BISON chuck flange for lathe chuck Ø 160 mm (Szf 3450245)	3450246
BISON Collet chuck 16C - Ø 160 mm (requires chuck flange 3450246)	3450245
Lathe tool set HM 20 mm, 5-part (see page 226)	3441617
Interchangeable gear set for imperial and D.P thread	3444160
Levelling platen SE 1 (8 units required)	3381012

More accessories and **information** on accessories from page 214

Our recommendation

cleancraft
flexCAT 378 EOT-PRO
Article no. 7003380



Don't forget the lathe chuck!

Scope of delivery

- Steady rest passage Ø 10 - Ø 130 mm
- Follower rest passage Ø 10 - Ø 100 mm
- Reduction sleeve MT 6 - MT 3
- Non-revolving centre tip MT 3
- Non-revolving, but temperature resistant centre MT 3
- Quick change tool holder 5-B
- Tool holder 25 x 120 type D for square chisels 20 mm
- Machine initially filled with premium grade oil
- Operating tool

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C3 - Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

INDUSTRY

Precision feed and lead screw lathes, mature technology, fully equipped, easy to operate.

TH 4210D / TH 4215D with DPA 21 digital position display

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Spindle seat, Camlock DIN ISO 702- 2 no. 6
- Lead screw cover
- Precisely machined slide
- All guides adjustable using wedge bars
- Clockwise/anti-clockwise rotation switchable on bed slide, switchable via switching spindle
- Two-channel safety electronics
- Central lubrication in bed slide
- Top slide adjustment range ± 90°
- Main spindle runs in oil bath
- Gearwheels smooth action, hardened and scraped borne on 2 re-adjustable precision taper rollers
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- All metric pitches in range from 0.2 to 14 mm/rev and all inch pitches in range of 72 - 2 turns per inch configurable on control panel without replacing the interchangeable gear wheels thanks to gear shift
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Safety hand wheels with release function acc. to EN23125 in the X and Z axis
- Tailstock adjustable ± 10 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.025 mm
- Fast, easy adjustment of the tailstock without tools thanks to clamping lever
- Grey cast iron prism bed heavily ribbed, induction hardened and precision ground
- LED machine lamp in chip guard
- Coolant system featuring separate coolant tank, fill level display and oil trap; easy and complete draining and cleaning as per DIN
- Chassis and machine bed single-piece cast meehanite
- Emergency stop device with foot pedal
- Quadruple tool holder

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

TH 4210D / TH 4215D
Dig. Position display DPA 21

› User-friendly membrane keyboard
› Clear reduction of manufacturing times
› Sensor supplied for acquiring spindle speeds

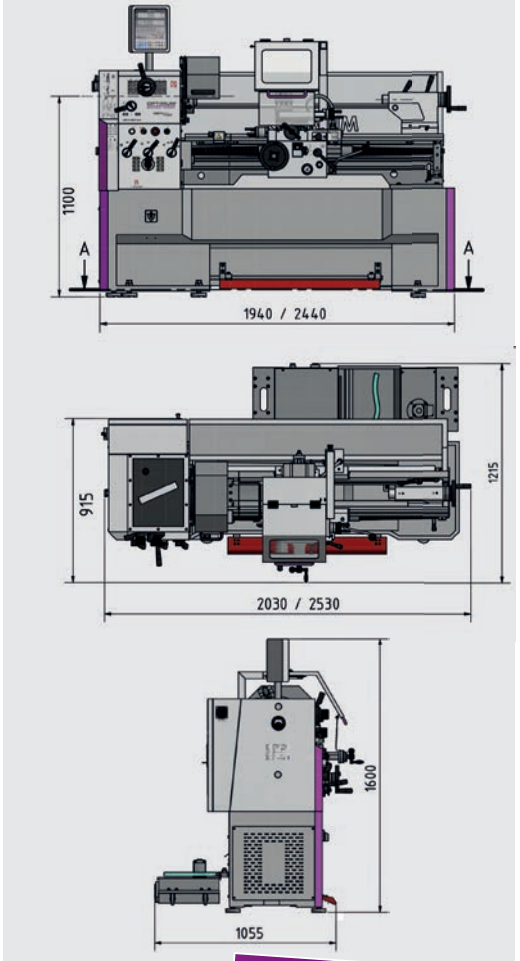


Fig.: TH 4210D - Shown with optional lathe chuck

Technical specifications, accessories and dimensions

Model	TH 4210	
Article no.	3462050	
Model	**TH 4210D**	**TH 4215D**
Article no.	3462055	3462070
Power		
Electrical connection	400 V / 3 Ph ~50 Hz	
Total rated value	4.6 kW	
Coolant pump motor	100 W	
Spindle		
Drive motor	3 kW/4.5 kW	
Spindle taper	MT 6	
Spindle seat	Camlock DIN ISO 702- 2 No. 6	
Spindle bore, bar passage diameter	Ø 52 mm	
Quick change tool holder height	20 mm	
Work area		
Centre height	210 mm	
Centre width	1 000 mm	1 500 mm
Swing Ø above machine bed*	420 mm	
Swing Ø above cross slide	250 mm	
Bed width	250 mm	
Swing Ø without bed bridge	590 mm	
Turning length in bed bridge	260 mm	
Speed range		
Spindle speed	45 - 1 800 rpm	
Number of speeds	16 stages	
Traverse paths		
Top slide travel	140 mm	
Cross slide travel	230 mm	
Bed slide travel	780 mm	1 280 mm
Feeds and pitches		
Longitudinal feed within the range	0.05 - 1.7 mm/rev (17 feeds)	
Cross feed within	0.025 - 0.85 mm/rev (17 feeds)	
Pitch - metric in range	0.2 - 14 mm/rev (39 pitches)	
Pitch - inch in range	72 - 2 turns/inch (45 pitches)	
Modular thread in range	0.3 - 3.5 mm x π (18 threads)	
Diametral pitch in range	44 - 8 turns/π (21 pitches)	
Tailstock		
Tailstock seat	MT 4	
Tailstock sleeve diameter / travel	Ø 50 mm / 120 mm	
Dimensions and weight		
Length	1 940 mm	2 440 mm
Width x height	915 x 1 375 (DPA 1 600) mm	
Net weight	1 160 kg	1 340 kg

Dimensions



Don't forget the lathe chuck!

Scope of delivery

- Steady rest passage Ø 10 - Ø 130 mm
- Follower rest passage Ø 10 - Ø 100 mm
- LED machine lamp
- Reduction sleeve MT 6 - MT 4
- Non-revolving centre tip MT 4
- Non-revolving, but temperature resistant centre MT 4
- Quadruple tool holder max. 20 mm
- Interchangeable gear set
- Gear wheels for threading gauge (metric)
- Machine initially filled with premium grade oil
- Operating tool

Lathe chuck	Art no.
OPTIMUM lathe chucks, cast iron, Ø 250 mm no. 6	
Three-jaw lathe chuck centric	3442765
Four-jaw lathe chuck, centric	3442852
Four-jaw lathe chuck, individually	3442884
BISON lathe chucks Ø 250 mm no. 6	
Three-jaw lathe chuck ,cast, centric	3450330
Four-jaw lathe chuck, cast, centric	3450380
Three-jaw lathe chuck, steel, centric	3450530
Four-jaw lathe chuck, steel, centric	3450580

Information on lathe chuck from page 218

Accessories	Art no.
Quick change tool holder SWH 5-B	3384305
SWH 5-B factory assembly	9000400
Spare tool holder 25 x 120 type D **for square chisels**	3384306
Spare tool holder 32 x 130 type H **for round chisels**	3384324
Lathe tool set HM 20 mm, 5-part	3441670
Lathe tool set HM 20 mm, 5-part	3441617
Vibration-damper machine foot SE 85 (6 pcs. required)	3352982
Universal collet chuck device 5C	3441507

More accessories and **information** on accessories from page 214

* Important general information on the operation of our machines see page 325

Precision feed and lead screw spindle lathes, mature technology, fully equipped, easy to operate. Featuring Siemens inverter Vario drive

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Spindle seat, Camlock DIN ISO 702- 2 no. 6
- Speed monitoring in line with Machinery Directive
- Lead screw cover
- Precisely machined slide
- All guides adjustable using wedge bars
- Clockwise/anti-clockwise rotation switchable on bed slide, switchable via switching spindle
- Two-channel safety electronics
- Central lubrication in bed slide
- Top slide adjustment range ± 90°
- Main spindle runs in oil bath
- Gearwheels smooth action, hardened and scraped borne on 2 re-adjustable precision taper rollers
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- All metric pitches in range from 0.2 to 14 mm/rev and all inch pitches in range of 72 - 2 turns per inch configurable on control panel without replacing the interchangeable gear wheels thanks to gear shift
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Safety hand wheels with release function acc. to EN23125 in the X and Z axis
- Tailstock adjustable ± 10 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.025 mm
- Fast, easy adjustment of the tailstock without tools thanks to clamping lever
- Coolant system featuring separate coolant tank, fill level display and oil trap; easy and complete draining and cleaning as per DIN
- LED machine lamp in chip guard
- Chassis and machine bed single-piece cast meehanite
- Grey cast iron prism bed heavily ribbed, induction hardened and precision ground
- Emergency stop device with foot pedal
- Quick change tool holder 5-B included in standard scope of delivery
- Tool holder 25 x 120 type D for square chisels 20 mm included in standard scope of delivery

SIEMENS inverter

Made in EU



› **SINAMICS G120D**

For more information see page 188

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

Digital position display DPA 21

› User-friendly membrane keyboard, splash water protected, sealed and dazzle free
› Rev counter

Information see page 232

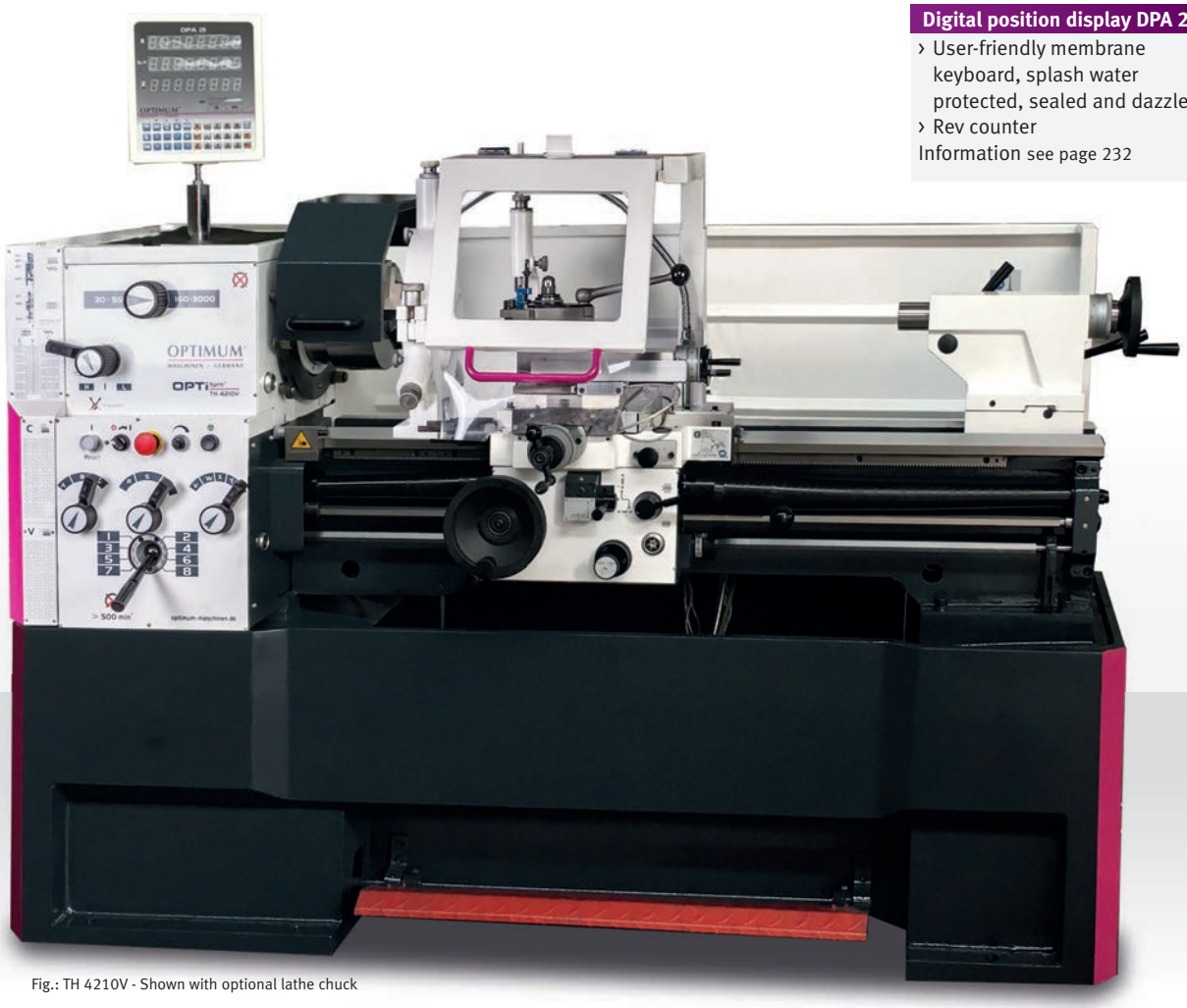
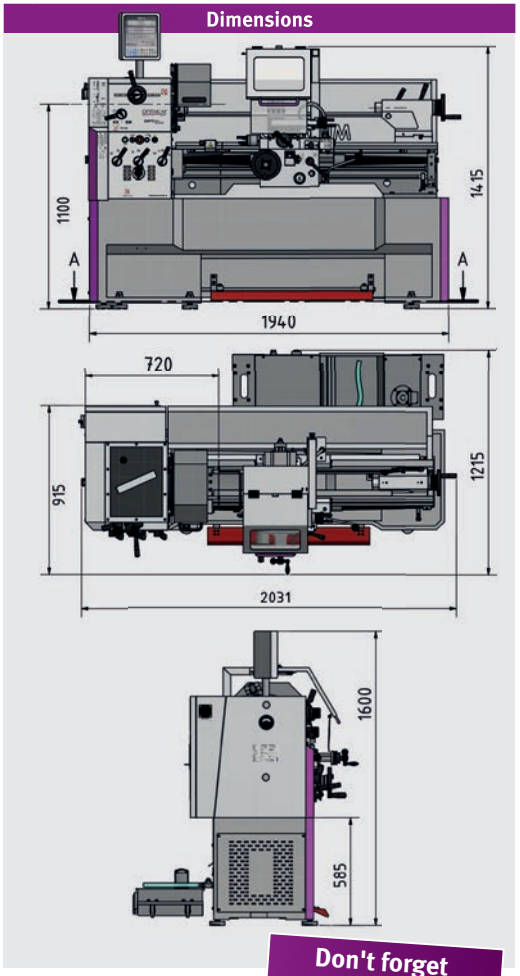


Fig.: TH 4210V - Shown with optional lathe chuck

Technical specifications, accessories and dimensions

Model	TH 4210V*
Article no.	3462060
Power	
Electrical connection	400 V / 3 Ph ~50 Hz
Total rated value	5.6 kW
Coolant pump motor	100 W
Spindle	
Drive motor	5.5 kW
Spindle taper	MT 6
Spindle seat	Camlock DIN ISO 702- 2 No. 6
Spindle bore, bar passage diameter	Ø 52 mm
Quick change tool holder	SWH 5-B
Quick change tool holder height	25 mm
Work area	
Centre height	210 mm
Centre width	1 000 mm
Swing Ø above machine bed**	420 mm
Swing Ø above cross slide	250 mm
Bed width	250 mm
Swing Ø without bed bridge	590 mm
Turning length in bed bridge	260 mm
Speed range	
Spindle speed	30 - 3 000 rpm
Number of speeds	2 stages, Electronically controlled
Traverse paths	
Top slide travel	140 mm
Cross slide travel	230 mm
Bed slide travel	780 mm
Feeds and pitches	
Longitudinal feed within the range	0.05 - 1.7 mm/rev (17 feeds)
Cross feed within	0.025 - 0.85 mm/rev (17 feeds)
Pitch - metric in range	0.2 - 14 mm/rev (39 pitches)
Pitch - inch in range	72 - 2 turns/inch (45 pitches)
Modular thread in range	0.3 - 3.5 mm x π (18 threads)
Diametral pitch in range	44 - 8 turns/π (21 pitches)
Tailstock	
Tailstock seat	MT 4
Tailstock sleeve diameter / travel	Ø 50 mm / 120 mm
Dimensions and weight	
Length x width x height	2 031 x 915 (coolant tank 1 215) x 1 415 (DPA 1 600) mm
Net weight	1 162 kg

Dimensions



Don't forget the lathe chuck!

Scope of delivery

- Steady rest passage Ø 10 - Ø 130 mm
- Follower rest passage Ø 10 - Ø 100 mm
- LED machine lamp
- Reduction sleeve MT 6 - MT 4
- Non-revolving centre tip MT 4
- Quick change tool holder 5-B
- Tool holder 25 x 120 type D for square chisels 20 mm
- Interchangeable gear set
- Machine initially filled with premium grade oil
- Operating tool

Accessories	Art no.
Quick change tool holder SWH 5-B	3384305
SWH 5-B factory assembly	9000400
Spare tool holder 25 x 120 type D **for square chisels**	3384306
Spare tool holder 32 x 130 type H **for round chisels**	3384324
Lathe tool set HM 25 mm, 5-part	3441672
Lathe tool set HM 25 mm, 5-part, extension kit	3441623
Lathe tool set HM 20 mm, 5-part	3441670
Lathe tool set HM 20 mm, 5-part, extension kit	3441617
Vibration-damper machine foot SE 85 (6 pieces required)	3352982
Clamping block set 20-05	3440654

More accessories and **information** on accessories from page 214

Lathe chuck	Art no.
OPTIMUM lathe chuck Ø 250 mm No. 6	
Three-jaw lathe chuck, centric max. speed 2 400 rpm	3442765
Four-jaw lathe chuck, centric max. speed 2 400 rpm	3442852
Four-jaw lathe chuck, individually max. speed 1 600 rpm	3442884
BISON lathe chuck Ø 250 mm No. 6	
Three-jaw lathe chuck, centric max. speed 2 500 rpm	3450330
Four-jaw lathe chuck, centric max. speed 2 500 rpm	3450380
Three-jaw lathe chuck, steel	3450530
Four-jaw lathe chuck, steel	3450580

Information on lathe chuck from page 218

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C3 - Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

NEW

INDUSTRY

Lead screw and feed rod lathe that meets the highest requirements in technical equipment and precision. With digital position display NEWALL DP 700

Facts that impress in terms of quality, performance and price

- Machine bed made of heavily ribbed cast material
- One-piece steel machine base
- High degrees of rigidity of the spindle bar housing thanks to heavily ribbed 25GG cast material
- Precision slide
- shafts on needle bearings, all components lubricated in oil bath
- Hardened and ground bed guides
- All electronic controls centrally accessible
- All feed gearwheels made of steel, hardened and ground
- Hand wheels decoupled and approved in line with EN 23125
- Two-channel safety electronics
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Coolant system featuring separate coolant tank, fill level display and oil trap; easy and complete draining and cleaning as per DIN
- Complete feed and lead screw cover
- Working area completely illuminated
- Easy to service thanks to removable rear panel
- Hardened and ground spindle guarantees high degrees of accuracy and durability
- The powerful machining performance means that a high level of chip removal during roughing work is no problem
- Energy chain for material-friendly cable and hose guiding
- Lockable chip guard moves with the bed slide with integrated position indicator and coolant hose, manually adjustable
- No interchangeable gears required
- With safety device to prevent simultaneous operation of thread cutting and pitch mechanism
- Electronically braked motor
- Electronic feed shut-off of Z axis
- Electrical position shut-off with quadruple positioning stop
- Three-jaw lathe chuck included in standard scope of delivery
- Quick change tool holder SWH 5-B included in standard scope of delivery

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

Touch panel



Centralised control
› Machine lamp
› Coolant
› Feed bar drive

Digital position display DP700
› Intuitive and user-friendly user interface
› Durable foil keyboard

Information see page 234



Fig.: TX 4414

GEAR DRO

Technical specifications, accessories and dimensions

Model	TX 4414
Article no.	3432420
Power	
Electrical connection	400 V / 3 Ph ~50 Hz
Total rated value	6.1 kW
Coolant pump motor	100 W
Spindle	
Drive motor	5.5 kW
Spindle taper	MT 6
Spindle seat	Camlock DIN ISO 702- 2 No. 6
Spindle bore, bar passage diameter	Ø 52 mm
Quick change tool holder	SWH 5-B
Work area	
Centre height	220 mm
Centre width	1 280 mm
Swing Ø above machine bed*	440 mm
Swing Ø above cross slide	250 mm
Bed width	300 mm
Speed range	
Spindle speed	40 - 2 200 rpm
Number of speeds	12 stages
Traverse paths	
Top slide travel	153 mm
Cross slide travel	290 mm
Bed slide travel	950 mm
Feeds and pitches	
Longitudinal feed within the range	0.05 - 0.752 mm/rev (44 feeds)
Cross feed within	0.025 - 0.376 mm/rev (44 feeds)
Metric pitch	0.5 - 7.5 mm/rev (44 pitches)
Pitch - inch in range	60 - 4 turns/inch (44 pitches)
Modular thread in range	0.25 - 3.75 mm x π (44 pitches)
Diametral pitch in range	120 - 8 turns/ π (44 threads)
Tailstock	
Tailstock seat	MT 4
Tailstock quill diameter/travel	Ø 58 mm/ 180 mm
Dimensions and weight	
Length x width x height	2 410 x 1 085 x 1 825 mm
Net weight	1 630 kg

Lathe chuck Ø 200 mm Camlock No. 6	Art no.
OPTIMUM Four-jaw lathe chuck, centric	3442846
BISON Four-jaw lathe chuck, centric	3450370

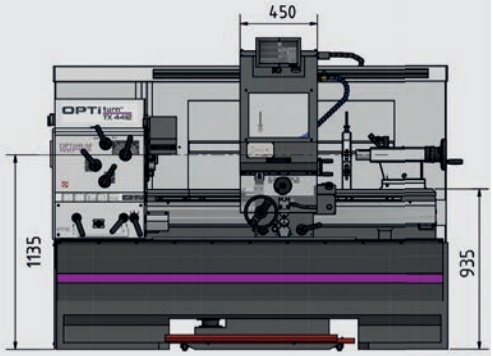
Information on lathe chuck from page 218

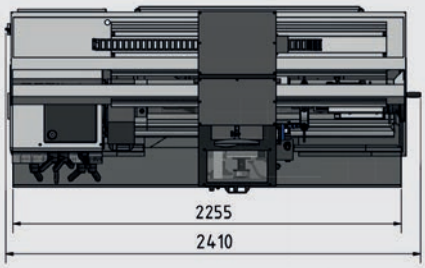
Accessories	Art no.
Follower rest passage Ø 10 - Ø 170 mm	3438015
Steady rest passage Ø 15 - Ø 165 mm	3438017
Clamping disc Ø 350 mm Camlock DIN ISO 702-2 No. 6	3442980
Revolving tailstock centre MT 4	3440704
BISON Revolving tailstock centre MT 4	3451004
Vibration-damper machine foot SE 85 (6 units required)	3352982

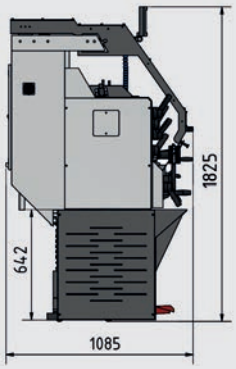
More accessories and **information** on accessories from page 214

* Important general information on the operation of our machines see page 325

Dimensions







Our recommendation

cleancraft
flexCAT 378 EOT-PRO
Article no. 7003380





Fig.:
Steady rest



Fig.:
Follow steady rest

Scope of delivery

- Three-jaw lathe chuck, Ø 200 mm No. 6
- Two non-travelling centres MT 3 and MT 5
- Reduction sleeve MT 6 - MT 5
- Quick change tool holder SWH 5-B
- Machine initially filled with premium grade oil
- Operating tool

INDUSTRY

Precision feed and lead screw lathes – unique in terms of precision and operation. With DPA 21 digital position display and quick change tool holder.

Facts that impress in terms of quality, performance and price

- Hardened and ground Z axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Shafts, gears and main spindle run in oil bath
- Lead screw cover
- Precisely machined slide
- All guides adjustable using wedge bars
- Mechanical longitudinal feed switch-off of bed slide with four configurable eccentrics
- Clockwise/anti-clockwise rotation switchable on bed slide, switchable via switching spindle
- Two-channel safety electronics
- Central lubrication in bed slide
- Top slide adjustment range ± 90°
- Gearwheels smooth action, hardened and scraped borne on 2 re-adjustable precision taper rollers
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Generously dimensioned chip guard with integrated LED machine lamp
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Safety hand wheels with release function acc. to EN23125 in the X and Z axis
- Quick-switching feed gear with closed design, gears and shafts hardened and scraped, running in oil bath on precision bearings
- Scale on thread gauge adjustable
- Tailstock adjustable ± 10 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.025 mm
- Fast, easy adjustment of the tailstock without tools thanks to clamping lever
- Lines routed in energy chain
- Grey cast iron prism bed heavily ribbed, induction hardened and precision ground
- Coolant system featuring separate coolant tank, fill level display and oil trap; easy and complete draining and cleaning as per DIN
- Emergency stop device with foot pedal
- Quick change tool holder 5-B included in standard scope of delivery
- Tool holder 25 x 120 type D for square chisels 20 mm included in standard scope of delivery

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

as of TH 4615: Energy chain

› for gentle cable and hose routing

Dig. Position display DPA 21

› User-friendly membrane keyboard
› Clear reduction of manufacturing times
› Reduction of error quota

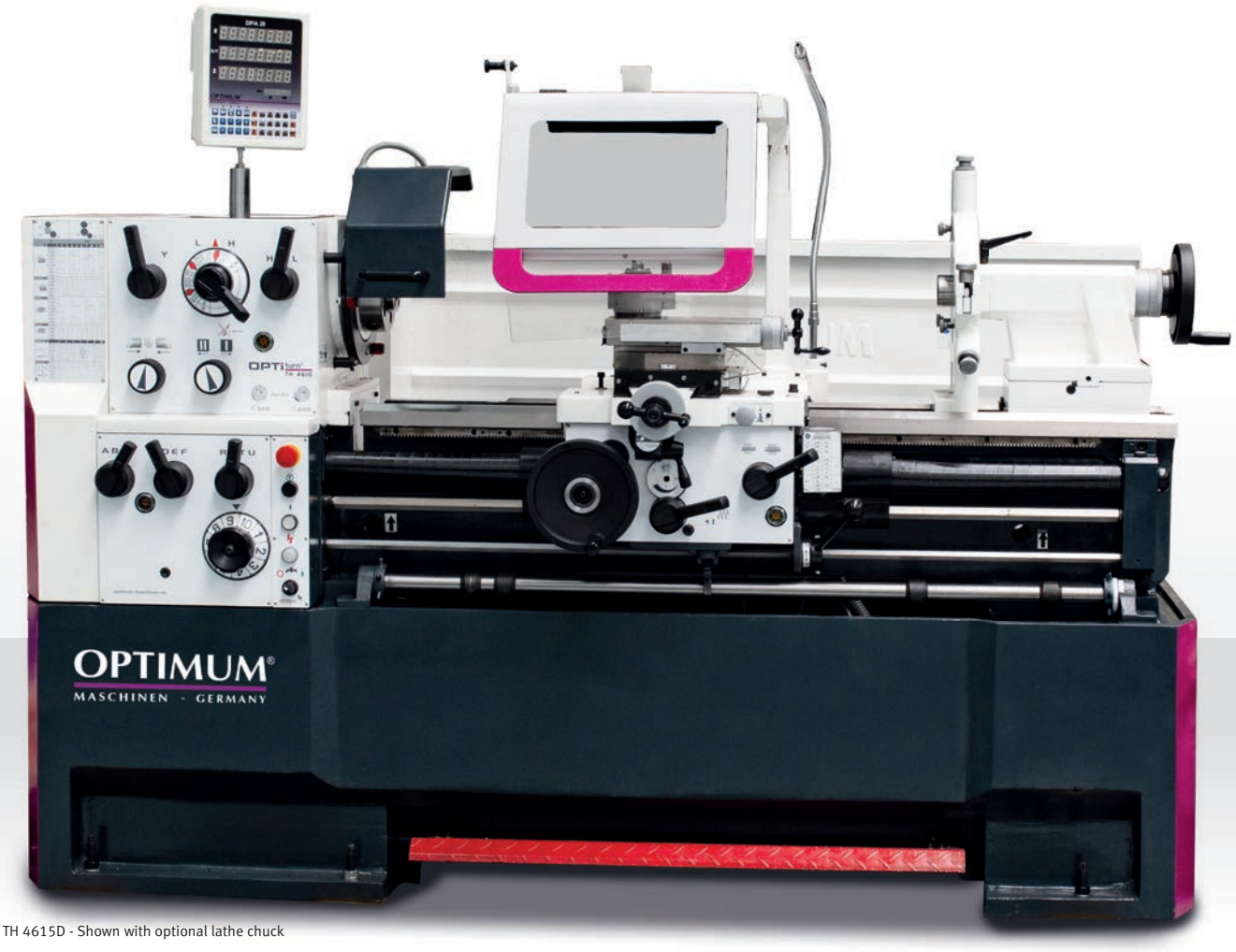


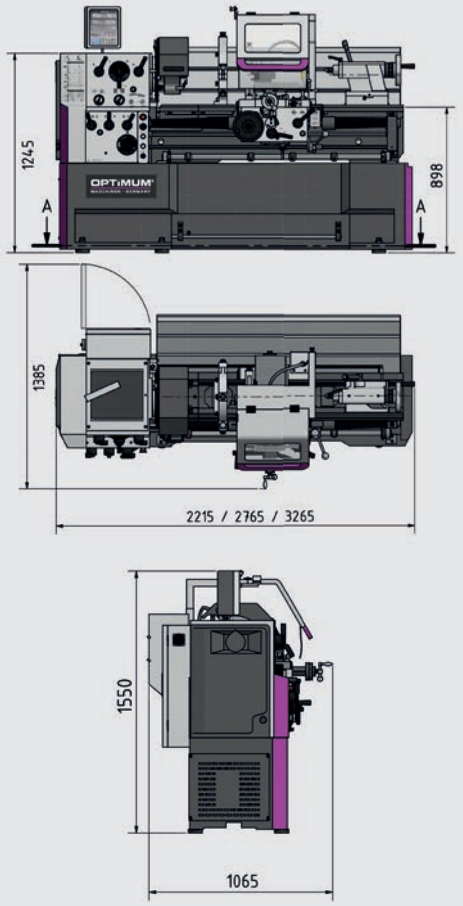
Fig.: TH 4615D - Shown with optional lathe chuck

Technical specifications, accessories and dimensions

GEAR DRO

Model	TH 4610D	TH 4615D	TH 4620D
Article no.	3462110	3462120	3462130
Power			
Electrical connection	400 V / 3 Ph ~50 Hz		
Total rated value	5.8 kW		
Coolant pump motor	125 Watts		
Spindle			
Drive motor	5.5 kW		
Spindle taper	MT 6		
Spindle seat	Camlock DIN ISO 702- 2 No. 6		
Spindle bore, bar passage diameter	Ø 58 mm		
Quick change tool holder	SWH 5-B		
Work area			
Centre height	230 mm		
Centre width	1 060 mm	1 560 mm	2 060 mm
Swing Ø above machine bed*	460 mm		
Swing Ø above cross slide	270 mm		
Bed width	300 mm		
Swing Ø without bed bridge	690 mm		
Turning length in bed bridge	240 mm		
Speed range			
Spindle speed	25 - 2 000 rpm		
Number of speeds	12 stages		
Traverse paths			
Top slide travel	125 mm		
Cross slide travel	285 mm		
Bed slide travel	755 mm	1 305 mm	1 805 mm
Feeds and pitches			
Longitudinal feed within the range	0.031 - 1.7 mm/rev (42 feeds)		
Cross feed within	0.014 - 0.784 mm/rev (42 feeds)		
Pitch - metric in range	0.1 - 14 mm/rev (41 pitches)		
Pitch - inch in range	112 - 2 turns/inch (41 pitches)		
Modular thread in range	0.1 - 7 mm x π (34 threads)		
Diametral pitch in range	112 - 4 turns/π (50 pitches)		
Tailstock			
Tailstock seat	MT 4		
Sleeve diameter / travel	Ø 60 mm / 130 mm		
Dimensions and weight			
Length	2 215 mm	2 765 mm	3 265 mm
Width x height	1 065 x 1 550 mm		
Net weight	1 645 kg	1 810 kg	1 965 kg

Dimensions



Don't forget the lathe chuck!

Scope of delivery

- Steady rest passage Ø 25 - Ø 178 mm
- Follower rest passage Ø 19 - Ø 114 mm
- LED machine lamp
- Reduction sleeve MT 6 / MT 4
- Non-revolving centre tip MT 4
- Non-revolving, but temperature resistant centre MT 4
- Quick change tool holder 5-B
- Tool holder 25 x 120 type D for square chisels 20 mm
- Thread gauge
- Interchangeable gear set
- Gear wheels for threading gauge (metric)
- Machine initially filled with premium grade oil
- Operating tool

Accessories	Art no.
Spare tool holder 25 x 120 type D **for square chisels**	3384306
Spare tool holder 32 x 130 type H **for round chisels**	3384324
Lathe tool set HM 20 mm, 5-part	3441670
Lathe tool set HM 20 mm, 5-part, Extension kit	3441617
Clamping disc Ø 350 mm No. 6	3442980
Universal collet chuck device 5C	3441507
Collet set 3 - 25 mm, 5C, 17-part	3441509
Levelling platen SE 3 (6 units required)	3381018
Collet chuck 5C - Camlock no. 6	3441556
Position stop with fine adjustment	3444022

More accessories and **information** on accessories from page 214

Lathe chuck	Art no.
OPTIMUM lathe chuck Ø 250 mm no. 6	
Three-jaw lathe chuck, centric	3442765
Four-jaw lathe chuck, centric	3442852
BISON lathe chuck Ø 250 mm no. 6	
Three-jaw lathe chuck, centric	3450330
Four-jaw lathe chuck, centric	3450380

Information on lathe chuck from page 218

* Important general information on the operation of our machines see page 325

INDUSTRY

Precision feed and lead screw lathe – unique in terms of precision and operation with Siemens inverter Vario drive

Facts that impress in terms of quality, performance and price

- Hardened and ground Z axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Shafts, gears and main spindle run in oil bath
- Lead screw cover
- Precisely machined slide
- All guides adjustable using wedge bars
- Mechanical longitudinal feed switch-off of bed slide with four configurable eccentrics
- Clockwise/anti-clockwise rotation switchable on bed slide, switchable via switching spindle
- Two-channel safety electronics
- Central lubrication in bed slide
- Top slide adjustment range ± 90°
- Gearwheels smooth action, hardened and scraped borne on 2 re-adjustable precision taper rollers
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Generously dimensioned chip guard with integrated LED machine lamp
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Safety hand wheels with release function acc. to EN23125 in the X and Z axis
- Quick-switching feed gear with closed design, gears and shafts hardened and scraped, running in oil bath on precision bearings
- Scale on thread gauge adjustable
- Tailstock adjustable ± 10 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.025 mm
- Fast, easy adjustment of the tailstock without tools thanks to clamping lever
- Lines routed in energy chain
- Grey cast iron prism bed heavily ribbed, induction hardened and precision ground
- Coolant system featuring separate coolant tank, fill level display and oil trap; easy and complete draining and cleaning as per DIN
- Emergency stop device with foot pedal
- Quick change tool holder 5-B included in standard scope of delivery
- Tool holder 25 x 120 type D for square chisels 20 mm included in standard scope of delivery

Siemens inverter

Made in EU



SINAMICS G120D

› More information: see page 188

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

Dig. Position display DPA 21

› User-friendly membrane keyboard
› Clear reduction of manufacturing times
› Reduction of error quota



Fig.: TH 4615V - Shown with optional lathe chuck

GEAR DRO VARIO

Technical specifications, accessories and dimensions

Model	TH 4615V*
Article no.	3462125
Power	
Electrical connection	400 V / 3 Ph ~50 Hz
Total rated value	8.5 kW
Coolant pump motor	125 Watts
Spindle	
Drive motor	7.5 kW
Spindle taper	MT 7
Spindle seat	Camlock DIN ISO 702- 2 No. 8
Spindle bore, bar passage diameter	Ø 80 mm
Quick change tool holder	SWH 5-B
Work area	
Centre height	230 mm
Centre width	1 560 mm
Swing Ø above machine bed**	460 mm
Swing Ø above cross slide	270 mm
Bed width	300 mm
Swing Ø without bed bridge	690 mm
Turning length in bed bridge	240 mm
Speed range	
Spindle speed	30 - 2 000 rpm
Number of speeds	2 gears, electronically controlled
Traverse paths	
Top slide travel	125 mm
Cross slide travel	285 mm
Bedslide travel	1 305 mm
Feeds and pitches	
Longitudinal feed within the range	0.031 - 1.7 mm/rev (42 feeds)
Cross feed within	0.014 - 0.784 mm/rev (42 feeds)
Pitch - metric in range	0.1 - 14 mm/rev (41 pitches)
Pitch - inch in range	112 - 2 turns/inch (41 pitches)
Modular thread in range	0.1 - 7 mm x π (34 threads)
Diametral pitch in range	112 - 4 turns/π (50 pitches)
Tailstock	
Tailstock seat	MT 4
Sleeve diameter / travel	Ø 60 mm / 130 mm
Dimensions and weight	
Length x width x height	2 765 x 1 065 x 1 550 mm
Net weight	2 020 kg

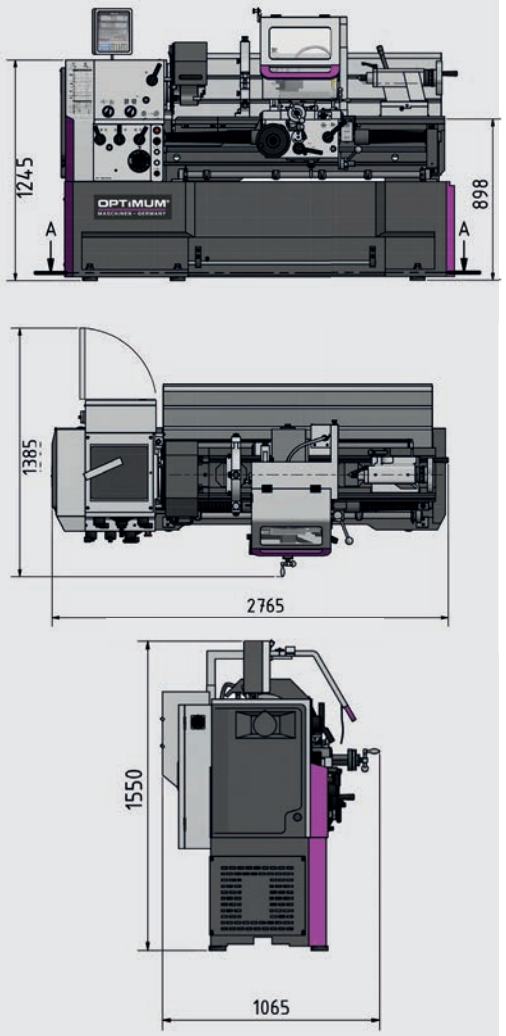
Lathe chuck	Article no.
OPTIMUM lathe chuck Ø 315 mm no. 8	
Three-jaw lathe chuck, centric, max. 1 800 rpm	3442768
Four-jaw lathe chuck, centric, max. 1 800 rpm	3442856
Four-jaw lathe chuck, individually, max. 1 800 rpm	3442888
BISON lathe chuck Ø 315 mm no. 8	
Three-jaw lathe chuck, centric, max. 2 000 rpm	3450335
Four-jaw lathe chuck, centric, max. 2 000 rpm	3450385

Information on lathe chuck from page 218

Accessories	Article no.
Clamping disc Ø 480 mm No. 8	3442982
Revolving tailstock centre MT 5	3440705
BISON Revolving tailstock centre MT 5	3451005
Position stop with fine adjustment	3444022

More accessories and **information** on accessories from page 214

Dimensions



Our recommendation

cleancraft
flexCAT 378 EOT-PRO
Article no. 7003380



Don't forget the lathe chuck!

Scope of delivery

- Steady rest passage Ø 25 - Ø 178 mm
- Follow steady rest passageway Ø 19 - Ø 114 mm
- LED machine lamp
- Reduction sleeve MT 7 / MT 4
- Non-revolving centre tip MT 4
- Non-revolving, but temperature resistant centre MT 4
- Quick change tool holder 5-B
- Tool holder 25 x 120 type D for square chisels 20 mm
- Thread gauge
- Interchangeable gear set
- Machine initially filled with premium grade oil
- Operating tool

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C3 - Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

Precision feed and lead screw lathes that comply with strictest requirements in terms of technical equipment and precision

Facts that impress in terms of quality, performance and price

- Machine bed and chassis made of heavily ribbed cast material
- One-piece steel machine base
- High degrees of rigidity of the spindle bar housing thanks to heavily ribbed 25GG cast material
- Precision slide
- shafts on needle bearings, all components lubricated in oil bath
- Hardened and ground bed guides
- All electronic controls centrally accessible
- All feed gearwheels made of steel, hardened and ground
- Hand wheels decoupled and approved in line with EN 23125
- Two-channel safety electronics
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Complete feed and lead screw cover
- Working area completely illuminated
- Hardened and ground spindle guarantees high degrees of accuracy and durability
- The powerful machining performance means that a high level of chip removal during roughing work is no problem
- Lockable chip guard moves with the bed slide with integrated position indicator and coolant hose, manually adjustable
- No interchangeable gears required
- With safety device to prevent simultaneous operation of thread cutting and pitch mechanism
- Electronically braked motor
- Electronic feed shut-off of Z axis
- Electrical position shut-off with quadruple positioning stop
- Coolant system featuring separate coolant tank, fill level display and oil trap; easy and complete draining and cleaning as per DIN
- Three-jaw lathe chuck included in standard scope of delivery
- Tool holder 32 x 130 type D for square chisels 25 mm
- Quick change tool holder SWH 7-C

- **Digital position display DP700**
  (More information see page 234)

TX 5216:
- Large spindle bore Ø 80 mm

TX 6222:
- Large spindle bore Ø 105 mm

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

Back panel



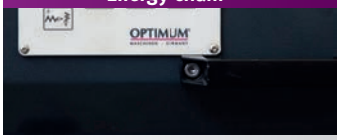
› Easy to service thanks to removable rear panel

Touch panel



Centralised control
› Pitch deactivation using button
› Feed bar drive
› Rapid motion X and Y axis
› Machine lamp
› Coolant

Energy chain



› for routing that is easy on the cable and hose material

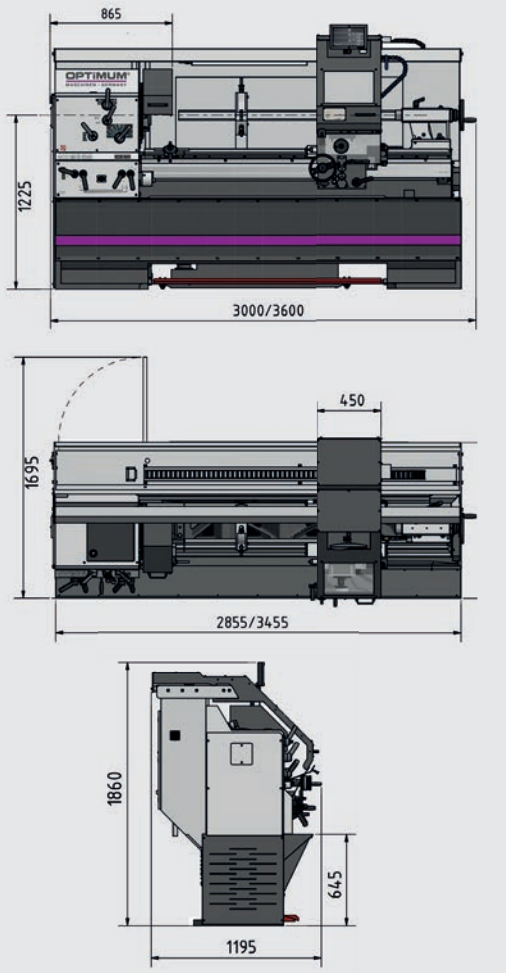


Fig. TX 5216

Technical specifications, accessories and dimensions

Model	TX 5216	TX 6222
Article no.	3432440	3432460
Power		
Electrical connection	400 V / 3 Ph ~50 Hz	
Total rated value	6.1 kW	8.5 kW
Coolant pump motor	100 W	
Spindle		
Drive motor	5.5 kW	7.5 kW
Spindle taper	MT 7	Ø 113 mm (Taper 1:20)
Spindle seat	Camlock DIN ISO 702- 2 No. 8	
Spindle bore, bar passage diameter	Ø 80 mm	Ø 105 mm
Quick change tool holder	SWH 7-C	
Work area		
Centre height	260 mm	310 mm
Centre width	1 600 mm	2 225 mm
Swing Ø above machine bed*	520 mm	620 mm
Swing Ø above cross slide	324 mm	424 mm
Bed width	350 mm	
Speed range		
Spindle speed	30 - 1 500 rpm	40 - 1 650 rpm
Number of speeds	12 stages	
Traverse paths		
Top slide travel	170 mm	
Cross slide travel	350 mm	
Bed slide travel	1.400 mm	2.000 mm
Feeds and pitches		
Longitudinal feed within the range	0.05 - 1.5 mm/rev (55 feeds)	
Cross feed within	0.025 - 0.75 mm/rev (55 feeds)	
Metric pitch	0.5 - 15 mm/rev (55 pitches)	
Pitch - inch in range	60 - 2 turns/inch (55 pitches)	
Modular thread in range	0.25 - 7.5 mm x π (55 pitches)	
Diametral pitch in range	120 - 4 turns/ π (55 pitches)	
Tailstock		
Tailstock seat	MT 5	
Tailstock sleeve diameter / travel	Ø 72 mm/ 180 mm	
Dimensions and weight		
Length x width x height (mm)	3 016x1 270x2 217	3 550x1 200x1 830
Net weight	2 470 kg	2 800 kg

Dimensions



Follow this for the video presentation of our OPTIMUM lathe TX 5216

Accessories	Art no.
TX 5216	
Follower rest passage Ø 15 - Ø 125 mm	3438020
Steady rest passage Ø 10 - Ø 185 mm	3438023
Steady rest passage Ø 160 - Ø 285 mm	3438024
Lathe tool set HM 20 mm	3441670
Lathe tool set HM 20 mm	3441617
TX 6222	
Follower rest passageway Ø 15 - Ø 125 mm	3438030
Steady rest passage Ø 10 - Ø 185 mm	3438033
Steady rest passage Ø 160 - Ø 285 mm	3438034
Lathe tool set HM 25 mm, extension kit	3441672
Lathe tool set HM 25 mm	3441623
Accessories	Art no.
Clamping disc Ø 480 mm No. 8	3442982
BISON Revolving tailstock centre MT 5	3451005
Vibration-damper machine foot SE 85 (6 units required)	3352982
More accessories and **information** on accessories from page 214	



Fig.:
Steady rest



Fig.:
Follow steady rest

Scope of delivery

- › Three-jaw lathe chuck, Ø 315 mm No. 8
- › Non-revolving centre tip MT 5 long
- › Non-revolving centre tip MT 5 short
- › Quick change tool holder SWH 7-C
- › Tool holder for square chisels 32 x 130 type D for 25 mm square chisels
- › Machine initially filled with premium grade oil
- › Operating tool

TX 5216:

- › Reduction sleeve MT 7 - MT 5

TX 6222:

- › Reduction sleeve Ø 113 mm / MT 5

* Important general information on the operation of our machines see page 325

Precision feed and lead screw lathe with electronically controlled drive and digital position display NEWALL DP 700

Facts that impress in terms of quality, performance and price

- Machine bed and chassis made of heavily ribbed cast material
- One-piece steel machine base
- High degrees of rigidity of the spindle bar housing thanks to heavily ribbed 25GG cast material
- Precision slide
- shafts on needle bearings, all components lubricated in oil bath
- Hardened and ground bed guides
- All electronic controls centrally accessible
- All feed gearwheels made of steel, hardened and ground
- Hand wheels decoupled and approved in line with EN 23125
- Two-channel safety electronics
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Complete feed and lead screw cover
- Working area completely illuminated
- Easy to service thanks to removable rear panel
- Hardened and ground spindle guarantees high degrees of accuracy and durability
- The powerful machining performance means that a high level of chip removal during roughing work is no problem
- Energy chain for material-friendly cable and hose guiding
- Lockable chip guard moves with the bed slide with integrated position indicator and coolant hose, manually adjustable
- No interchangeable gears required
- With safety device to prevent simultaneous operation of thread cutting and pitch mechanism
- Electronic feed shut-off of Z axis
- Coolant system featuring separate coolant tank, fill level display and oil trap; easy and complete draining and cleaning as per DIN
- Electrical position shut-off with quadruple positioning stop
- Three-jaw lathe chuck included in standard scope of delivery
- Quick change tool holder SWH 7-C
- Tool holder 32 x 130 type D for square chisels 25 mm

Siemens inverter



› **SINAMICS G120D**
› For more information see page 188

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

Touch panel



Centralised control
› Pitch deactivation using button
› Feed bar drive
› Rapid motion X and Y axis
› Machine lamp
› Coolant

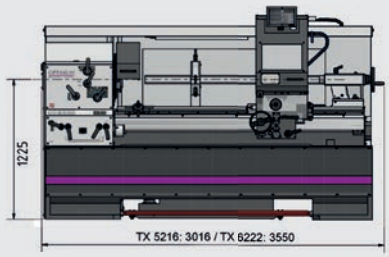


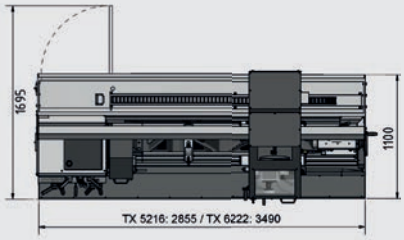
Technical specifications, accessories and dimensions

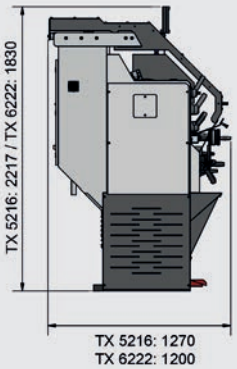
GEAR DRO

Model	TX 5216V*	TX 6222V*
Article no.	3432445	3432460
Power		
Electrical connection	400 V / 3 Ph ~50 Hz	
Total rated value	6 kW	12 kW
Coolant pump motor	100 W	
Spindle		
Drive motor	5.5 kW	11 kW
Spindle taper	MT 7	Ø 113 mm (Taper 1:20)
Spindle seat	Camlock DIN ISO 702- 2 No. 8	
Spindle bore, bar passage diameter	Ø 105 mm	
Quick change tool holder	SWH 7-C	
Work area		
Centre height	260 mm	310 mm
Centre width	1 600 mm	2 225 mm
Swing Ø above machine bed**	520 mm	620 mm
Swing Ø above cross slide	324 mm	424 mm
Bed width	350 mm	
Speed range		
Spindle speed	12 - 1 800 rpm	14 - 1 800 rpm
Number of speeds	2 x 3 stages	
Traverse paths		
Top slide travel	170 mm	
Cross slide travel	350 mm	
Bed slide travel	1.400 mm	2.000 mm
Feeds and pitches		
Longitudinal feed within the range	0.05 - 1.5 mm/rev (55 feeds)	
Cross feed within	0.025 - 0.75 mm/rev (55 feeds)	
Metric pitch	0.5 - 15 mm/rev (55 pitches)	
Pitch - inch in range	60 - 2 turns/inch (55 pitches)	
Modular thread in range	0.25 - 7.5 mm x π (55 pitches)	
Diametral pitch in range	120 - 4 turns/ π (55 threads)	
Tailstock		
Tailstock seat	MT 5	
Tailstock sleeve diameter / travel	Ø 72 mm/ 180 mm	
Dimensions and weight		
Length x width x height (mm)	3 016 x1 195 x 1 860	3 550 x1 200 x 1 830
Net weight	2 470 kg	2 800 kg

Dimensions







YouTube
Follow this for the video presentation of our OPTIMUM lathe TX 5216



Fig.:
Steady rest



Fig.:
Follow steady rest

Accessories	Art no.
TX 5216	
Follower rest passage Ø 15 - Ø 125 mm	3438020
Steady rest passage Ø 10 - Ø 185 mm	3438023
Steady rest passage Ø 160 - Ø 285 mm	3438024
Lathe tool set HM 20 mm	3441670
Lathe tool set HM 20 mm, extension kit	3441617
Accessories	Art no.
Clamping disc Ø 480 mm no. 8	3442982
Revolving tailstock centre MT 5	3440705
BISON Revolving tailstock centre MT 5	3451005
Vibration damper machine foot SE 85 (6 units required)	3352982

More accessories and **information** on accessories from page 214

Scope of delivery

- Three-jaw lathe chuck, Ø 315 mm No. 8
- Reduction sleeve MT 7 / MT 5 (TX 5216V)
- Reducing sleeve Ø 113 mm/MT5 (TX 6222V)
- Non-revolving centre tip MT 5 long
- Non-revolving centre tip MT 5 short
- Quick change tool holder SWH 7-C
- Tool holder for square chisels 32 x 130 type D for 25 mm square chisels
- Machine initially filled with premium grade oil
- Operating tool

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C3 - Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

INDUSTRY

Heavy lead screw and feed rod lathes, characterised by excellent flexibility, precision and economy. With DPA 21 digital position display and quick change tool holder.

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Spindle seat, Camlock DIN ISO 702- 2 no. 8
- Lead screw cover
- Precisely machined slide
- All guides adjustable using wedge bars
- Clockwise/anti-clockwise rotation switchable on bed slide, switchable via switching spindle
- Two-channel safety electronics
- Central lubrication in bed slide
- Top slide adjustment range ± 90°
- Main spindle runs in oil bath
- Gears and shafts running in oil bath
- Gearwheels smooth action, hardened, ground and borne on 2 re-adjustable precision taper rollers
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Safety hand wheels with release function acc. to EN23125 in the X and Z axis
- Gears and shafts hardened and scraped, running in oil bath on precision bearings
- Clearly-arranged selector lever for switching the feed speeds
- Closed design of the quick shift feed gear
- EMERGENCY-STOP push button, motor circuit breaker, lockable main switch
- Emergency stop device with foot pedal
- Tailstock adjustable ± 10 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.025 mm. Fast, easy adjustment without tools thanks to clamping lever
- Energy chain for material-friendly cable and hose guiding
- Grey cast iron prism bed heavily ribbed, induction hardened and precision ground
- Coolant system featuring separate coolant tank, fill level display and oil trap; easy and complete draining and cleaning as per DIN
- LED machine lamp in chip guard
- Scale on thread gauge adjustable

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

Quick change tool holder



› SWH 7-C
› 1 tool holder 32 x 150 type D
› Play-free and repetition-accurate clamping of the change holder

Dig. Position display DPA 21

› User-friendly membrane keyboard
› Clear reduction of manufacturing times
› Reduction of error quota

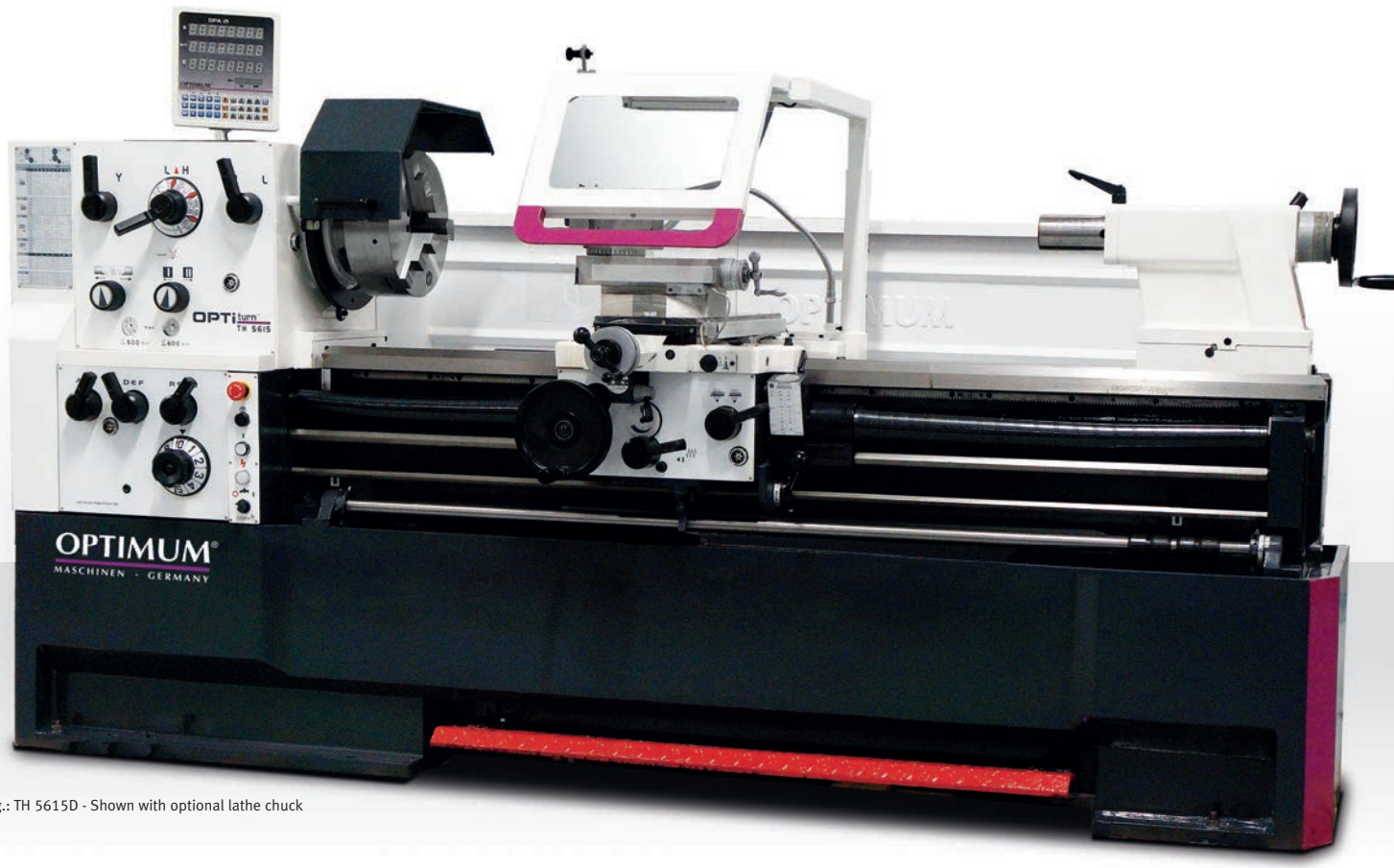


Fig.: TH 5615D - Shown with optional lathe chuck

GEAR DRO

Technical specifications, accessories and dimensions

Model	TH 5615D	TH 5620D	TH 5630D
Article no.	3462160	3462170	3462180
Power			
Electrical connection	400 V / 3 Ph ~50 Hz		
Total rated value	8.5 kW		
Coolant pump motor	125 Watts		
Spindle			
Drive motor	7.5 kW		
Spindle taper	MT 7		
Spindle seat	Camlock DIN ISO 702- 2 No. 8		
Spindle bore, bar passage diameter	Ø 80 mm		
Quick change tool holder height	SWH 7-C		
Work area			
Centre height	280 mm		
Centre width	1 420 mm	1 910 mm	2 910 mm
Swing Ø above machine bed*	560 mm		
Swing Ø above cross slide	355 mm		
Bed width	350 mm		
Swing Ø without bed bridge	790 mm		
Turning length in bed bridge	170 mm		
Speed range			
Spindle speed	25 - 1 600 rpm		
Number of speeds	12 stages		
Traverse paths			
Top slide travel	130 mm		
Cross slide travel	316 mm		
Bed slide travel	1.210 mm	1.710 mm	2.710 mm
Feeds and pitches			
Longitudinal feed within the range	0.059 - 1.646 mm/rev (35 feeds)		
Cross feed within	0.020 - 0.573 mm/rev (35 feeds)		
Pitch - metric in range	0.2 - 14 mm/rev (47 pitches)		
Pitch - inch in range	112 - 2 turns/inch (60 pitches)		
Modular thread in range	0.1 - 7 mm x π(34 threads)		
Diametral pitch in range	112 - 4 turns/ π (50 pitches)		
Tailstock			
Tailstock seat	MT 5		
Sleeve diameter / travel	Ø 75 mm / 180 mm		
Dimensions and weight			
Length	2 950 mm	3 450 mm	4 450 mm
Width x height	1 150 x 1 650 mm		
Net weight	2 300 kg	2 560 kg	3 000 kg

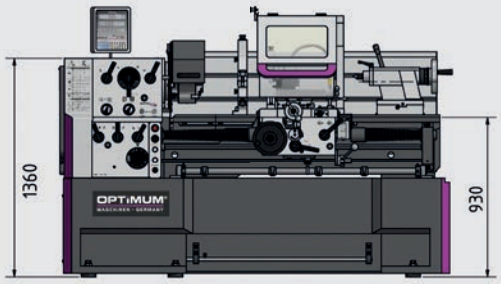
Lathe chuck Ø 315 mm No. 8	Art no.
OPTIMUM Three-jaw lathe chuck, centric, max. 1 800 rpm	3442768
OPTIMUM Four-jaw lathe chuck, centric, max. 1 800 rpm	3442856
OPTIMUM Four-jaw lathe chuck, individually, max. 1 200 rpm	3442888
BISON Three-jaw lathe chuck, centric, max. 2 000 rpm	3450335
BISON Four-jaw lathe chuck, centric, max. 2 000 rpm	3450385

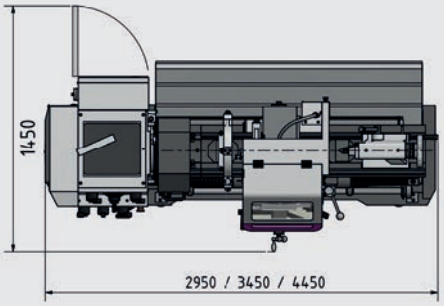
Information on lathe chuck from page 218

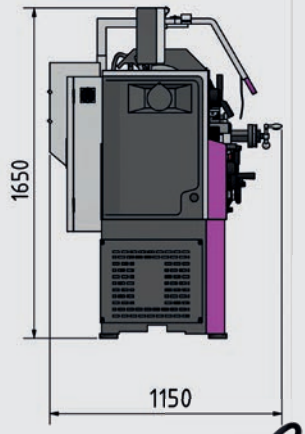
Accessories	Art no.
Clamping disc Ø 480 mm No. 8	3442982
Revolving tailstock centre MT 5	3440705
BISON Revolving tailstock centre MT 5	3451005
Spare tool holder 40 x 160 type H **for round chisels**	3384326
Spare tool holder 32 x 150 Type D **for square chisels**	3384308
Lathe tool set HM 32 mm, 5-part (see page 227)	3441674
Vibration damper machine foot SE 85 (6 units required TH5615/5620) (8 units required TH5630)	3352982
Position stop with fine adjustment	3444023

* Important general information on the operation of our machines see page 325

Dimensions







Our recommendation

cleancraft
flexCAT 378 EOT-PRO
Article no. 7003380



Don't forget the lathe chuck!

Scope of delivery

- Steady rest passage Ø 19 - Ø 165 mm
- Follower rest passage Ø 16 - Ø 95 mm
- LED machine lamp
- Reduction sleeve MT 7 / MT 5
- Non-revolving centre tip MT 5
- Non-revolving, but temperature resistant centre MT 5
- Quick change tool holder 7-C
- Tool holder 32 x 150 type D for square chisels 25 mm
- Thread gauge
- Gear wheels for threading gauge (metric)
- Interchangeable gear set
- Machine initially filled with premium grade oil
- Operating tool

OPTIturn® TH 5620V

Heavy lead screw and feed rod lathe, characterised by excellent flexibility, precision and economy. Featuring Siemens inverter Vario drive

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Spindle seat, Camlock DIN ISO 702- 2 no. 8
- Two speeds
- Spindle bore / bar passage Ø 105 mm
- Siemens Sinamics frequency inverter / Safety Integrated
- Lead screw cover
- Precisely machined slide
- All guides adjustable using wedge bars
- Clockwise/anti-clockwise rotation switchable on bed slide, switchable via switching spindle
- Two-channel safety electronics
- Central lubrication in bed slide
- Top slide adjustment range ± 90°
- Gearwheels smooth action, hardened, ground and borne on 2 re-adjustable precision taper rollers
- Gears and shafts hardened and scraped, running in oil bath on precision bearings
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Safety hand wheels with release function acc. to EN23125 in the X and Z axis
- Clearly-arranged selector lever for switching the feed speeds
- Closed design of the quick shift feed gear
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- EMERGENCY-STOP push button, motor circuit breaker, lockable main switch
- Emergency stop device with foot pedal
- Tailstock adjustable ± 10 mm for taper turning
- Tailstock quill and handwheel with adjustable fine scaling 0.025 mm. Fast, easy adjustment without tools thanks to clamping lever
- Grey cast iron prism bed heavily ribbed, induction hardened and precision ground
- Coolant system featuring separate coolant tank, fill level display and oil trap; easy and complete draining and cleaning as per DIN
- LED machine lamp in chip guard
- Energy chain for material-friendly cable and hose guiding
- Scale on thread gauge adjustable
- Quick change tool holder SWH 7-C
- Tool holder 32 x 150 type D for square chisels 25 mm

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

Siemens inverter



SINAMICS G120D

› For more information see page 188

Dig. Position display DPA 21

› User-friendly membrane keyboard
› Clear reduction of manufacturing times
› Reduction of error quota

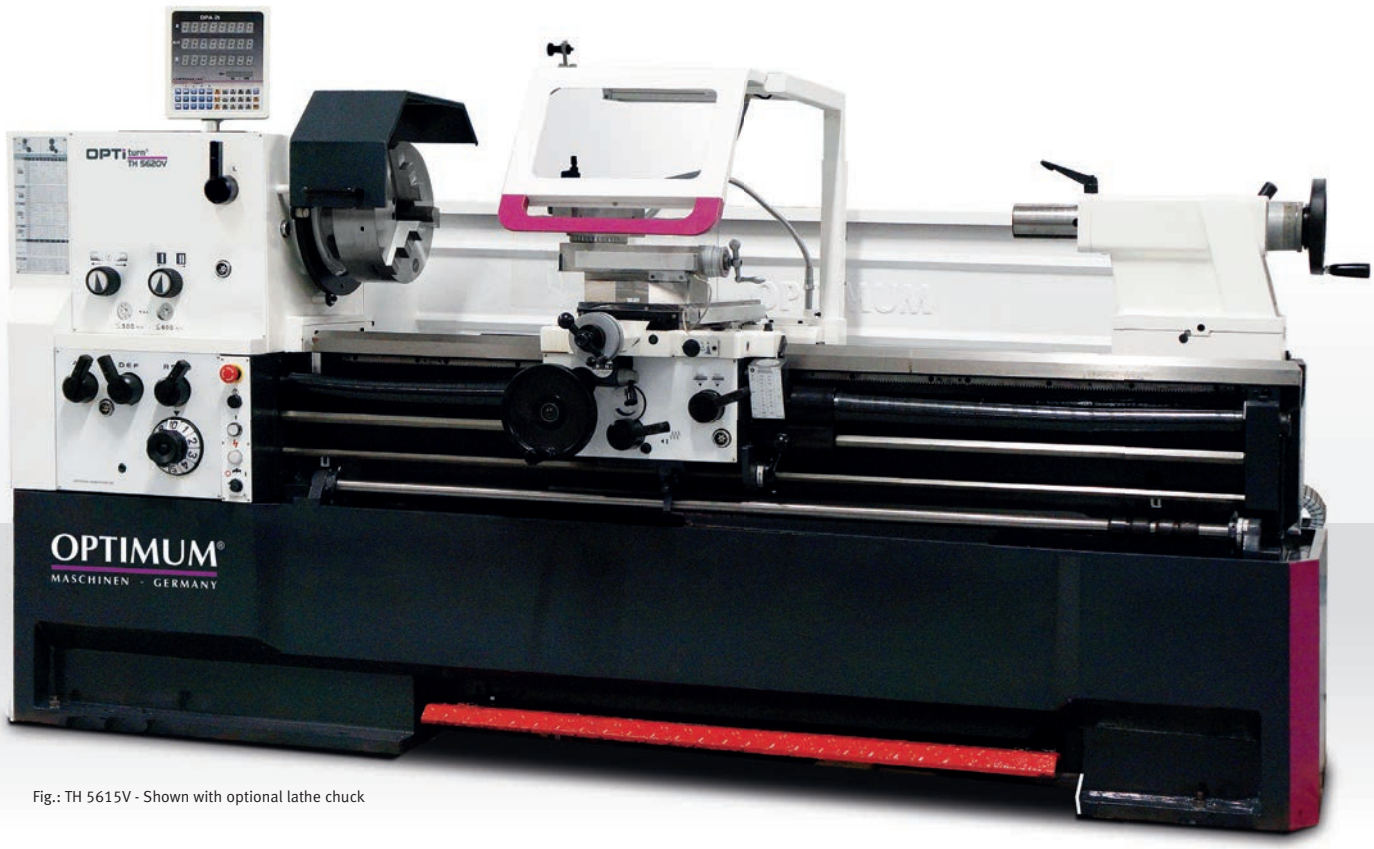


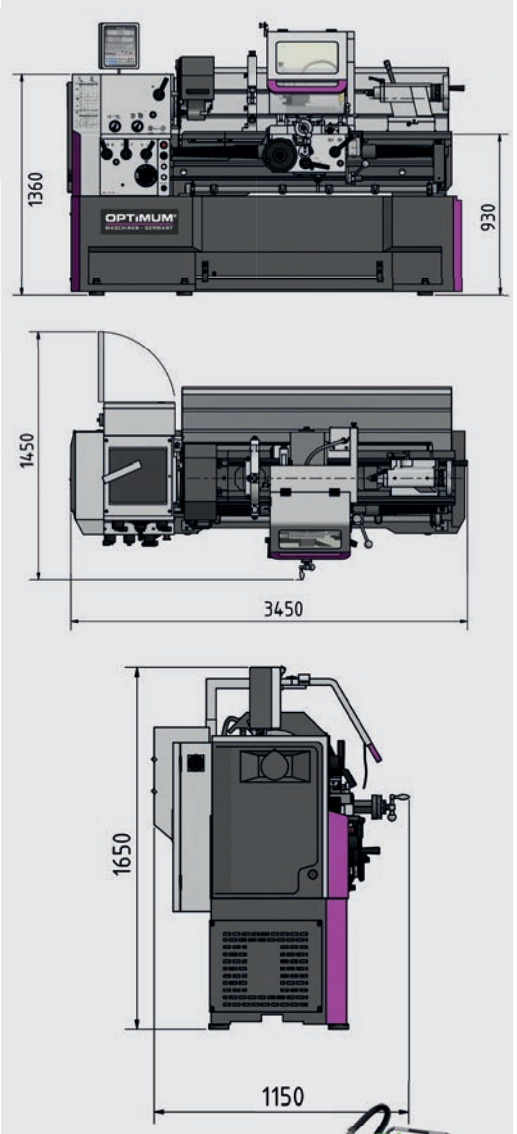
Fig.: TH 5615V - Shown with optional lathe chuck

Technical specifications, accessories and dimensions

GEAR DRO VARIO

Model	TH 5620V*
Article no.	3462175
Power	
Electrical connection	400 V / 3 Ph ~50 Hz
Total rated value	8.5 kW
Coolant pump motor	125 Watts
Spindle	
Drive motor	7.5 kW
Spindle taper	Ø 113 mm (Taper 1:20)
Spindle seat	Camlock DIN ISO 702- 2 No. 8
Spindle bore, bar passage diameter	Ø 105 mm
Quick change tool holder	SWH 7-C
Work area	
Centre height	280 mm
Centre width	1 910 mm
Swing Ø above machine bed**	560 mm
Swing Ø above cross slide	355 mm
Bed width	350 mm
Swing Ø without bed bridge	790 mm
Turning length in bed bridge	170 mm
Speed range	
Spindle speed	25 - 1 600 rpm
Number of speeds	2 speeds; electronically controlled
Traverse paths	
Top slide travel	130 mm
Cross slide travel	316 mm
Bed slide travel	1.710 mm
Feeds and pitches	
Longitudinal feed within the range	0.031 - 1.7 mm/rev (42 feeds)
Cross feed within	0.014 - 0.784 mm/rev (42 feeds)
Pitch - metric in range	0.1 - 14 mm/rev (47 pitches)
Pitch - inch in range	112 - 2 turns/inch (60 pitches)
Modular thread in range	0.1 - 7 mm x π (34 threads)
Diametral pitch in range	112 - 4 turns/ π (50 pitches)
Tailstock	
Tailstock seat	MT 5
Sleeve diameter / travel	Ø 75 mm / 180 mm
Dimensions and weight	
Length x width x height	3 450 x 1 150 x 1 650 mm
Net weight	2 560 kg

Dimensions



Lathe chuck Ø 315 mm No. 8	Article no.
OPTIMUM lathe chucks	
OPTIMUM Three-jaw lathe chuck, centric, max. 1 800 rpm	3442768
OPTIMUM Four-jaw lathe chuck, centric, max. 1 800 rpm	3442856
OPTIMUM Four-jaw lathe chuck, individually, max. 1 200 rpm	3442888
BISON lathe chucks	
BISON Three-jaw lathe chuck, centric, max. 2 000 rpm	3450335
BISON Four-jaw lathe chuck, centric, max. 2 000 rpm	3450385

Information on lathe chuck from page 218

Accessories	Article no.
Clamping disc Ø 480 mm No. 8	3442982
Revolving tailstock centre MT 5	3440705
BISON Revolving tailstock centre MT 5	3451005
Spare tool holder 40 x 160 type H **for round chisels**	3384326
Spare tool holder 32 x 150 Type D **for square chisels**	3384308
Lathe tool set HM 32 mm, 5-part (see page 227)	3441674
Position stop with fine adjustment	3444023

Our recommendation

cleancraft
flexCAT 378 EOT-PRO
Article no. 7003380



Don't forget the lathe chuck!

Scope of delivery

- Steady rest passage Ø 19 - Ø 165 mm
- Follower rest passage Ø 16 - Ø 95 mm
- LED machine lamp
- Reduction sleeve Ø 113 mm / MT 5
- Non-revolving centre tip MT 5
- Non-revolving, but temperature resistant centre MT 5
- Quick change tool holder 7-C
- Tool holder 32 x 150 type D for square chisels 25 mm
- Thread gauge
- Gear wheels for threading gauge (metric)
- Interchangeable gear set
- Machine initially filled with premium grade oil
- Operating tool

* Note: The machines comply with (frequency converter) the DIN EN 55011 standard: class C3 - Important information on operation of machines with frequency converters as well as **general information on the operation of our machines see page 325

Lead screw and feed rod lathes, characterised by excellent flexibility, precision and economy. With DPA 21 digital position display and quick change tool holder.

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Spindle seat, Camlock DIN ISO 702- 2 no. 8
- Lead screw cover
- Precisely machined slide
- All guides adjustable using wedge bars
- Clockwise/anti-clockwise rotation switchable on bed slide, switchable via switching spindle
- Two-channel safety electronics
- Central lubrication in bed slide
- Top slide adjustment range ± 90°
- Gearwheels smooth action, hardened, ground and borne on 2 re-adjustable precision taper rollers
- Clearly-arranged selector lever for switching the feed speeds
- Closed design of the quick shift feed gear
- Gears and shafts hardened and scraped, running in oil bath on precision bearings
- Hand wheels decoupled and approved in line with EN 23125
- Safety hand wheels with release function in the X axis
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Safety limit switch with positively opening contacts
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- EMERGENCY-STOP push button, motor circuit breaker, lockable main switch
- Tailstock adjustable ± 10 mm for taper turning
- Tailstock sleeve and hand wheel with adjustable fine scaling
- Tailstock crank for position change
- Tailstock sleeve with two adjustable transmission ratios 1/4 or 1/1 rev
- LED machine lamp
- Energy chain for material-friendly cable and hose guiding
- Emergency stop device with foot pedal
- Coolant system featuring separate coolant tank, fill level display and oil trap; easy and complete draining and cleaning as per DIN
- Electrical motor brake with fast emergency stop – in normal operations, fast stop without post-run
- Quick change tool holder SWH 9-D
- Tool holder 41 x 180 type D for square chisels 32 mm

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

Flat and longitudinal feed



› Fast feed - pushbutton and selector lever for activating and deactivating rapid motion in transverse and longitudinal directions for an even more rational work approach. Does not switch off the entire machine when running into the limit switch

Dig. Position display DPA 21

› User-friendly membrane keyboard
› Clear reduction of manufacturing times
› Reduction of error quota



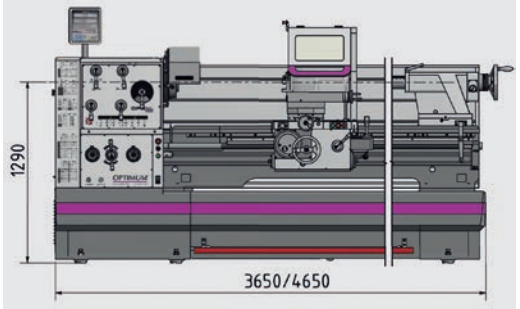
Fig.: TH 6630D

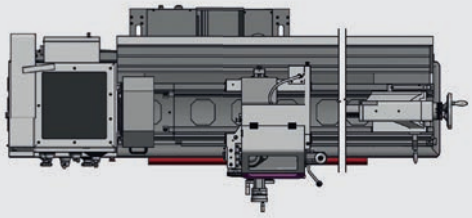
Technical specifications, accessories and dimensions

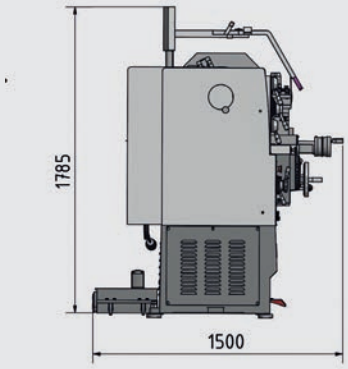
GEAR DRO

Model	TH 6620D	TH 6630D
Article no.	3462210	3462220
Power		
Electrical connection	400 V / 3 Ph ~50 Hz	
Total rated value	10 kW	
Coolant pump motor	150 W	
Spindle		
Drive motor	9 kW	
Spindle taper	Ø 113 mm (Taper 1:20)	
Spindle seat	Camlock DIN ISO 702- 2 No. 8	
Spindle bore, bar passage diameter	Ø 105 mm	
Quick change tool holder	SWH 9-D	
Work area		
Centre height	330 mm	
Centre width	2 050 mm	3 050 mm
Swing Ø above machine bed*	660 mm	
Swing Ø above cross slide	440 mm	
Bed width	400 mm	
Swing Ø without bed bridge	900 mm	
Turning length in bed bridge	250 mm	
Load bearing capacity	1.4 t/m	
Speed range		
Spindle speed	25 - 1 600 rpm	
Number of speeds	16 stages	
Traverse paths		
Top slide travel	230 mm	
Cross slide travel	368 mm	
Bed slide travel	1 965 mm	2 900 mm
Feeds and pitches		
Feed motor output	550 W	
Rapid traverse	3.8 m /min. max. 5 min. (30 min. break)	
Longitudinal feed within the range	0.044 - 1.48 mm/rev (25 feeds)	
Cross feed within	0.022 - 0.74 mm/rev (25 feeds)	
Pitch - metric in range	0.45 - 120 mm/rev (54 pitches)	
Pitch - inch in range	80 - 7/16 turns/inch (60 pitches)	
Modular thread in range	0.25 - 60 mm x π (46 threads)	
Diametral pitch in range	160 - 7/8 turns/ π (42 pitches)	
Tailstock		
Tailstock seat	MT 5	
Tailstock quill diameter/travel	90 mm / 235 mm	
Dimensions and weight		
Length	3 650 mm	4 650 mm
Width x height	1 500 x 1 785 mm	
Net weight	3 345 kg	3 730 kg

Dimensions







Our recommendation

cleancraft
flexCAT 378 EOT-PRO
Article no. 7003380



Don't forget the lathe chuck!

Lathe chuck Ø 315 mm No. 8	Art no.
OPTIMUM Three-jaw lathe chuck, centric, max. 1 800 rpm	3442768
OPTIMUM Four-jaw lathe chuck, centric, max. 1 800 rpm	3442856
OPTIMUM Four-jaw lathe chuck, individually, max. 1 200 rpm	3442888
BISON Three-jaw lathe chuck, centric, max. 2 000 rpm	3450335
BISON Four-jaw lathe chuck, centric, max. 2 000 rpm	3450385

Accessories	Art no.
Revolving tailstock centre MT 5	3440705
BISON Revolving tailstock centre MT 5 (2-row SKF angular contact bearings)	3451005
Lathe tool set HM 25 mm	3441672
Lathe tool set HM 25 mm, extension	3441623
Vibration damper machine foot SE 85 6 units (TH 6620) / 8 units (TH 6630) are required	3352982

More accessories and **information** on accessories from page 214

Scope of delivery

- Steady rest passage Ø 20 - Ø 190 mm
- Follower rest passage Ø 20 - Ø 130 mm
- LED machine lamp
- Reduction sleeve Ø 113 mm / MT 5
- Non-revolving centre tip MT 5
- Non-revolving, but temperature resistant centre MT 5
- Travelling centre MT 5
- Quick change tool holder 9-D
- Tool holder 41 x 180 type D for square chisels 32 mm
- Interchangeable gear set
- Quality oil included
- Operating tool

* Important general information on the operation of our machines see page 325

Lead screw and feed rod lathes, characterised by excellent flexibility, precision and economy. With DPA 21 digital position display and quick change tool holder.

Facts that impress in terms of quality, performance and price

- Hardened and ground z-axis guideway
- Guaranteed true running accuracy of spindle nose ≤ 0.015 mm
- Spindle seat, Camlock DIN ISO 702- 2 no. 8
- Lead screw cover
- Precisely machined slide
- All guides adjustable using wedge bars
- Clockwise/anti-clockwise rotation switchable on bed slide, switchable via switching spindle
- Two-channel safety electronics
- Top slide adjustment range ± 90°
- Gearwheels smooth action, hardened, ground and borne on 2 re-adjustable precision taper rollers
- Clearly-arranged selector lever for switching the feed speeds
- Closed design of the quick shift feed gear
- Gears and shafts hardened and scraped, running in oil bath on precision bearings
- Hand wheels decoupled and approved in line with EN 23125
- Safety hand wheels with release function in the X axis
- Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- Safety limit switch with positively opening contacts
- Switch with lifecycle calculation, approved in line with EN ISO 13849
- Central lubrication in bed slide
- EMERGENCY-STOP push button, motor circuit breaker, lockable main switch
- Tailstock adjustable ± 10 mm for taper turning
- Tailstock sleeve and hand wheel with adjustable fine scaling
- Tailstock crank for position change
- Tailstock sleeve with two adjustable transmission ratios 1/4 or 1/1 rev
- LED machine lamp
- Energy chain for material-friendly cable and hose guiding
- Emergency stop device with foot pedal
- Coolant system featuring separate coolant tank, fill level display and oil trap; easy and complete draining and cleaning as per DIN
- Electrical motor brake with fast emergency stop – in normal operations, fast stop without post-run
- Electrical system with Siemens and Schneider components
- Quick change tool holder SWH 9-D
- Tool holder 41 x 180 type D for square chisels 32 mm

Control cabinet



› 24 Volt DC power supply
› All contactors and relays by SIEMENS or Schneider

Flat and longitudinal feed



› Fast feed - pushbutton and selector lever for activating and deactivating rapid motion in transverse and longitudinal directions for an even more rational work approach. Does not switch off the entire machine when running into the limit switch

Dig. Position display DPA 21

› User-friendly membrane keyboard
› Clear reduction of manufacturing times
› Reduction of error quota



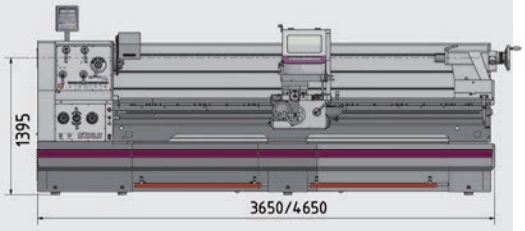
Fig.: TH 8030D

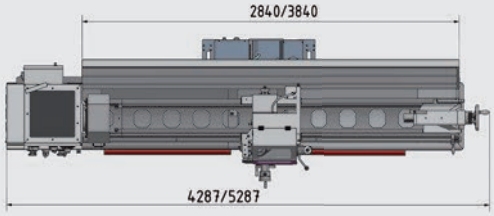
GEAR DRO

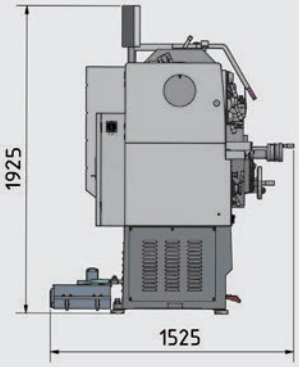
Technical specifications, accessories and dimensions

Model	TH 8020D	TH 8030D
Article no.	3462230	3462240
Power		
Electrical connection	400 V / 3 Ph ~50 Hz	
Total rated value	12 kW	
Coolant pump motor	150 W	
Spindle		
Drive motor	11 kW	
Spindle taper	Ø 113 mm (Taper 1:20)	
Spindle seat	Camlock DIN ISO 702- 2 No. 8	
Spindle bore, bar passage diameter	Ø 105 mm	
Quick change tool holder	SWH 9-D	
Work area		
Centre height	400 mm	
Centre width	2 050 mm	3 050 mm
Swing Ø above machine bed*	800 mm	
Swing Ø above cross slide	570 mm	
Bed width	400 mm	
Swing Ø without bed bridge	1 035 mm	
Turning length in bed bridge	250 mm	
Load bearing capacity	1.4 t/m	
Speed range		
Spindle speed	25 - 1 600 rpm	
Number of speeds	16 stages	
Traverse paths		
Top slide travel	230 mm	
Cross slide travel	368 mm	
Bed slide travel	1 965 mm	2 900 mm
Feeds and pitches		
Feed motor output	550 W	
Rapid traverse	3.8 m /min. max. 5 min. (30 min. break)	
Longitudinal feed within the range	0.044 - 1.48 mm/rev (25 feeds)	
Cross feed within	0.022 - 0.74 mm/rev (25 feeds)	
Pitch - metric in range	0.45 - 120 mm/rev (54 pitches)	
Pitch - inch in range	80 - 7/16 turns/inch (60 pitches)	
Modular thread in range	0.25 - 60 mm x π (46 threads)	
Diametral pitch in range	160 - 7/8 turns/ π (42 pitches)	
Tailstock		
Tailstock seat	MT 5	
Tailstock quill diameter/travel	90 mm / 235 mm	
Dimensions and weight		
Length	4 287 mm	5 287 mm
Width x height	1 525 x 1 925 mm	
Net weight	3 455 kg	3 820 kg

Dimensions







Our recommendation

cleancraft
flexCAT 378 EOT-PRO
Article no. 7003380



Don't forget the lathe chuck!

Lathe chuck Ø 315 mm No. 8	Art no.
OPTIMUM Three-jaw lathe chuck, centric, max. 1 800 rpm	3442768
OPTIMUM Four-jaw lathe chuck, centric, max. 1 800 rpm	3442856
OPTIMUM Four-jaw lathe chuck, individually, max. 1 200 rpm	3442888
BISON Three-jaw lathe chuck, centric, max. 2 000 rpm	3450335
BISON Four-jaw lathe chuck, centric, max. 2 000 rpm	3450385

Accessories	Art no.
Revolving tailstock centre MT 5	3440705
BISON Revolving tailstock centre MT 5 (2-row SKF angular contact bearings)	3451005
Lathe tool set HM 25 mm	3441672
Lathe tool set HM 25 mm, extension	3441623
Vibration damper machine foot SE 85 (8 units are required)	3352982

More accessories and **information** on accessories from page 214

Scope of delivery

- Steady rest passage Ø 20 - Ø 185 mm
- Follower rest passage Ø 20 - Ø 125 mm
- LED machine lamp
- Reduction sleeve Ø 113 mm / MT 5
- Non-revolving centre tip MT 5
- Non-revolving, but temperature resistant centre MT 5
- Travelling centre MT 5
- Quick change tool holder 9-D
- Tool holder 41 x 180 type D for square chisels 32 mm
- Interchangeable gear set
- Quality oil included
- Operating tool

* Important general information on the operation of our machines see page 325