

# **SPRING/SUMMER 2026**



# INNOVATIONS FROM OUR OWN PRODUCTION

Are you looking for a high-performance machine with a wide range of functions at an affordable price?

If so, an OPTIMUM metalworking machine is the ideal choice for you!

Our products are characterised by their first-class quality and precise workmanship, helping you to achieve the best possible price-to-performance ratio.

With our extensive range of machine tools, you are sure to find the right solution for your needs.

When it comes to metalworking, put your trust in OPTIMUM. Take a look at our new main catalogue to find out more about what we can do and the wide range of products we offer.

## OUR PRODUCTION SITES

Optimum (Yangzhou) Machinery Co., Ltd. began operating in Touqiao Town, near Yangzhou in Jiangsu Province, in 2006.

The town is only about a three-hour drive from Shanghai. A total of 180 employees, including 40 technicians, work across an area of 20,000 m<sup>2</sup>, including 9,000 m<sup>2</sup> of buildings.

The Optimum machine range is now manufactured in three production plants, covering a total area of around 79,000 m<sup>2</sup>

and a building area of around 30,000 m<sup>2</sup>.

Around 230 people work in production at these plants.

We guarantee consistently high levels of precision and cost-effectiveness in production. Under the motto 'GERMAN QUALITY – MADE IN CHINA', we develop bespoke solutions for our customers and take responsibility for their quality. Our production facilities operate according to strict technical processes and quality controls in accordance with ISO 9001. We also prioritise environmental protection and sustainability, for example by using state-of-the-art filter systems in our paint booths.

Our team of experienced experts and technicians, combined with our advanced production facilities, enables us to manufacture quality products such as small and medium-sized CNC machining centres, CNC lathes, CNC milling machines, metal saws, and milling, drilling, and turning machines.



Production on the most modern OPTIMUM 5-axis CNC machines



## ALL OPTIMUM PRODUCTS ARE PRODUCED TO THE HIGHEST QUALITY STANDARDS!

OPTIMUM products are manufactured under strict quality requirements. A price comparison with equivalent and comparable products will give you the certainty that with OPTIMUM you are buying machines that stand up to any comparison in terms of ease of use, equipment, quality, technology and value for money and are the right purchase decision for you.

We only use high-quality components from leading manufacturers, such as Schneider and Siemens. We also install DC electrics, Siemens and Kostal inverters, among others. In addition, we develop our own electrical components to guarantee optimum performance and the highest quality.

Come and see for yourself the robust construction and durability that characterise our metalworking machines. Make your purchase with OPTIMUM and enjoy the benefits of first-class quality. Although there are many similar products on the market, none of them come close to OPTIMUM's high quality standard. Trust OPTIMUM innovation.



For environmental reasons, we coat our machines with water-based paint.

## DIN EN ISO 9001 – EXCELLENT QUALITY

All of our factories are certified to DIN EN ISO 9001:2015 standards. This means that all company departments and services are subject to strict quality requirements. And this means consistently high quality for you. The objective of high quality is thrilled customers. And achieving this demanding certification is ultimately driven by this approach. The key to the long-term success of our enterprise is also a relationship of trust with customers and suppliers. This explains why it is just as important to us as the sustainable quality of our products.



## OPTIdrill® DGP 12 / DGP 16 Pneumatic thread-tapping devices

### Facts that impress in terms of quality, performance and price

- ▶ For thread tapping in steel, stainless steel, aluminium and non-ferrous metals.
- ▶ It is highly productive and saves a significant amount of time compared to manual thread tapping.
- ▶ It is highly economically efficient due to its low investment and maintenance costs.
- ▶ Flexible operation, multi-angle adjustable
- ▶ Quick-release chuck
- ▶ Air springs on both sides for a stable hold
- ▶ Greater accuracy compared to manual thread tapping
- ▶ Includes swivel arm with large radius for easy positioning of the tap on the workpiece
- ▶ Includes function for swivelling the head for horizontal and vertical thread cutting.

#### Pneumatic motor



› Lightweight and flexible



Fig. DGP 12

Fig. DGP 16

#### Cutting oil spray



#### Permanent magnet

for mounting the tapping device, holding force: 1000 kg



#### Accessories

#### Art no.

Cutting oil spray	3872100
Permanent magnet	3082080

#### SCOPE OF DELIVERY DGP 12:

- ▶ Collets 6 pcs. (M3 / M4 / M5-M6 / M8 / M10 / M12)

#### SCOPE OF DELIVERY DGP 16:

- ▶ 8-piece collets (M3 / M4 / M5-6 / M8 / M10 / M12 / M 14 / M 16)

Machine data	DGP 12	DGP 16
Art no.	3081120	3081126
Tapped holes at 400 N/mm <sup>2</sup>	M3 – M12	M3 – M16
Speed max.	400 min <sup>-1</sup>	250 min <sup>-1</sup>
Torque range	0,5 - 30 Nm	0,5 - 60 Nm
Cutting direction	Vertical / Horizontal	
Drive	Pneumatic	
Boom radius	877 mm	
Angle adjustment	0 – 90°	
Air consumption	110 l/min.	
Net weight approx.	20 kg	22 kg

#### Mobile machine base

Art no. 3082000

Compatible with all OPTIMUM tapping devices



- › Possibility of fastening the tapping device on the left and right side
- › Incl. wheels with brakes for mobile use
- › Cast iron plate with 3 T-slots (16 mm)
- › Equipped with one door incl. handle and 5 drawers with ball bearings
- › Dimensions (L x W x H): 900 x 600 x 800 mm



# OPTIdrill® DG 16 / DG 24 / DG 36

## Electric tapping devices

### Facts that impress in terms of quality, performance and price

- ▶ Flexible operation, multi-angle adjustable
- ▶ Intelligent touchscreen control, fast parameter setting
- ▶ Quick-release chuck
- ▶ Air springs on both sides for a stable hold
- ▶ Swivel arm with large radius for easy positioning of the tap on the workpiece
- ▶ High-torque servo motor
- ▶ Includes function for swivelling the head for horizontal and vertical thread cutting.



› DG 36: Height adjustment with recirculating ball screw for high precision in the standard version

### SCOPE OF DELIVERY

- DG 16:**
- ▶ 8-piece collets (M3/ M4 / M5-6 / M8 / M10 / M12 / M11 / M16)
- DG 24:**
- ▶ 9-piece collets (M5-M6/ M8 / M10 / M12 / M14 / M16 / M18 / M20 / M22-M24)
- DG 36:**
- ▶ 13-piece collets (M5-M6/ M8 / M10 / M12 / M14 / M16 / M18 / M20 / M22-M24 / M27 / M30 / M33 / M36)

Machine data	DG 16	DG 24	DG 36
Art no.	3081016	3081024	3081036
Drive motor power ~ 50 Hz	0.6 kW / 230 V	1.2 kW / 230 V	1.2 kW / 230 V
Tapped holes at 400 N/mm <sup>2</sup>	M3 – M16	M5 – M24	M5 – M36
Speed max.	312 min <sup>-1</sup>	200 min <sup>-1</sup>	156 min <sup>-1</sup>
Torque range	1 - 62,4 Nm	3 - 200 Nm	5 - 320 Nm
Cutting direction	Vertical	Vertical	Vertical
Drive	electrical	electrical	electrical
Boom radius	1045 mm	1180mm	1180mm
Height adjustment	330 mm	370 mm	370 mm
Angle adjustment	90°	90°	90°
Net weight approx.	32 kg	48 kg	50 kg

### Swivelling

› Swivelling motor unit for thread tapping at any desired angle between 0° and 90°

### Touchscreen control

› Intelligent touchscreen control  
› Fast parameter setting  
› adjustable to the following languages: German, English, French, Spanish, Polish, Hungarian (additional languages can be added later)

Option	Art no.
Height adjustment of the thread cutting arm 0 - 500 mm	
Scope of delivery: Longer column, recirculating ball screw	
<b>DG16</b>	3082100
<b>DG24</b>	3082110

**Permanent magnet**  
for mounting the tapping device, holding force: 1000 kg



Accessories	Art no.
<b>Permanent magnet</b>	3082080

**Mobile machine base**  
Art no. 3082000  
Compatible with all OPTIMUM tapping devices



Fig. DG 36 with optional machine base

- › Possibility of fastening the tapping device on the left and right side
- › Incl. wheels with brakes for mobile use
- › Cast iron plate with 3 T-slots (16 mm)
- › Equipped with one door incl. handle and 5 drawers with ball bearings
- › Dimensions (L x W x H): 900 x 600 x 800 mm

## Magnetic core drilling machines from OPTIMUM

when reliability, precision and economical working are important

- ▶ Stable drilling guidance thanks to long and especially deep mounted sleeve holder
- ▶ The devices are ideal for the construction site as they are earthed and double insulated
- ▶ Internal self-lubrication function for a longer service life of the gear unit
- ▶ Soft-start is gentle on the motor and prolongs the service life
- ▶ Powerful motor with high torque and low-maintenance
- ▶ High-quality mechanical design
- ▶ Conversion from core to full drilling in just a few actions
- ▶ Automatic return to starting position
- ▶ Protection class IP42



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Information & Video



### Automatic internal lubrication

- › Coolant is fed to the tip of the drill bit
- › No dry running and overheating of the drill bit
- › Tool service lives and work results are substantially improved



### Coolant tank

- › Detachable coolant tank
- › External fastening



### Guides

- › Safe guides for stability and precision
- › Vario machines with low-wear brass guides



### Magnetic base

- › Monitoring the magnetic force
- › Wear-resistant design to extend the service life of the magnetic base and thus the maximum magnetic holding force (except DM35PF/DM38VF/DM36VT)

## DM 35



Fig. with optional drill bit

Core drilling max.		Twist drilling max.	
Drill Ø	35 mm	Drill Ø	13 mm
Drill depth	35 mm		

## DM 35V

**INFINITELY VARIABLE SPEED**

- › Low-wear brass guide



Fig. with optional drill bit

Core drilling max.		Twist drilling max.	
Drill Ø	35 mm	Drill Ø	13 mm
Drill depth	35 mm		

## DM 50



Fig. with optional drill bit

Core drilling max.		Twist drilling max.	
Drill Ø	50 mm	Drill Ø	16 mm
Drill depth	50 mm		

## DM 50V

**INFINITELY VARIABLE SPEED**

- › Low-wear brass guide



Fig. with optional drill bit

Core drilling max.		Twist drilling max.	
Drill Ø	50 mm	Drill Ø	16 mm
Drill depth	50 mm		

Machine data	DM 35	DM 50	DM 35V*	DM 50V*
Art no.	3071036	3071051	3071136	3071151
Motor power ~50 Hz	1.6 kW / 230 V	1.65 kW / 230 V	1.6 kW / 230 V	1.7 kW / 230 V
Spindle seat	Weldon 3/4"	Weldon 3/4"	Weldon 3/4"	Weldon 3/4"
Spindle sleeve stroke	145 mm	145 mm	158 mm	150 mm
Moveable head	110 mm	110 mm	-	-
Magnetic base dimensions	166 x 80 x 44 mm	166 x 80 x 44 mm	166 x 80 x 44 mm	166 x 80 x 44 mm
Magnetic attraction force	16 KN	16.5 KN	14.8 KN	15.6 KN
Speed without load	830 min <sup>-1</sup>	780 min <sup>-1</sup>	100 - 550 min <sup>-1</sup>	100 - 530 min <sup>-1</sup>
Dimensions (L x W x H) approx.	270 x 210 x 480 mm	270 x 210 x 480 mm	300 x 260 x 420 mm	297 x 244 x 405 mm
Net weight approx.	11 kg	12 kg	12 kg	13 kg

## DM 38VF

### FLAT DESIGN

- › Suitable for hard-to-reach drilling locations with low heights

#### Pluggable handle



- › Can be mounted either on the left or right side



Fig. with optional drill bit

#### Core drilling max.

Drill Ø	38 mm
Drill depth	35 mm

## DM 60V

### INFINITELY VARIABLE SPEED

- › Low-wear brass guide
- › Weldon and MT shank



Fig. with optional drill bit

#### Core drilling max.

Drill Ø	60 mm
Drill depth	50 mm
Twist drilling max.	
Drill Ø	23 mm

## DM 48VT

### RIGHT-LEFT ROTATION

- › Thread tapping device.
- › Low-wear brass guide
- › Weldon and MT shank



Fig. with optional drill bit

#### Core drilling max.

Drill Ø	36 mm
Drill depth	50 mm

#### Twist drilling max.

Drill Ø	22 mm
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#### Tapping max.

Drill Ø	M 16
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## DM 35PF

### AUTOMATIC SPINDLE SLEEVE FEED



Fig. with optional drill bit

#### Core drilling max.

Drill Ø	35 mm
Drill depth	35 mm

#### Twist drilling max.

Drill Ø	18 mm
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## DM 50PM

### PERMANENT MAGNETS

- › Independent of electricity
- › 100% safe

#### Two magnets



- › Can be individually switched
- › The machine can be moved for inspection or cleaning without losing its position on the pipe.



Fig. with optional drill bit

#### Core drilling max.

Drill Ø	50 mm
Drill depth	40 mm

#### Twist drilling max.

Drill Ø	16 mm
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## DM 98V

### INFINITELY VARIABLE SPEED

- › Low-wear brass guide
- › Weldon and MT shank



Fig. with optional drill bit

#### Core drilling max.

Drill Ø	98 mm
Drill depth	75 mm

#### Twist drilling max.

Drill Ø	28 mm
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DM 38VF	DM 60V	DM 48VT	DM 35PF	DM 50PM*	DM 98V*
3071338	3071161	3071248	3071435	3071550	3071199
1.65 kW / 230 V	1.89 kW / 230 V	1.7 kW / 230 V	1.6 kW / 230 V	1.7 kW / 230 V	2.28 kW / 230 V
Weldon 3/4"	MT2/ Weldon 3/4"	MT 2/Weldon 3/4"	Weldon 3/4"	Weldon 3/4"	MT3/ Weldon 3/4"
45 mm	180 mm	150 mm	145 mm	150 mm	190 mm
-	-	60 mm	115 mm	70 mm	80 mm
166 x 80 mm	202 x 102 x 44 mm	165 x 80 x 44 mm	166 x 80 mm	2 pieces, 240 x 40 mm	202 x 103 mm
14.5 KN	16 KN	14.5 KN	16 KN	16.5 KN	17 KN
670 min <sup>-1</sup>	310 - 550 min <sup>-1</sup> stepless	50 - 320/ 560min <sup>-1</sup>	810 min <sup>-1</sup>	20 - 320 / 600 min <sup>-1</sup> 2 pcs.	100 - 360 min <sup>-1</sup>
350 x 150 x 240 mm	330 x 230 x 490 mm	300 x 250 x 430 mm	350 x 250 x 430 mm	320 x 270 x 450 mm	330 x 240 x 650 mm
8.8 kg	18.3 kg	13 kg	14 kg	11.6 kg	18.5 kg

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.

**Core drill set**

**HSS-TiAlN 30** 3072010

- › Six HSS core drill bit Ø 12, 14, 16, 20, 22 mm
- › A TiAlN core drill Ø 18 mm in our highest quality grade with TiAlN coating for a long service life and excellent cutting properties
- › Set in plastic case, ejector pin
- › Drilling depth 30 mm



**Core drill set**

**TiAlN 30** 3072020

- › Six TiAlN core drills Ø 12 - 22 mm Hard and smooth TiAlN coating
- › TiAlN coating for a long service life and excellent cutting properties
- › Set in plastic case, ejector pin
- › Drilling depth 30 mm



	Accessories	Art. no.	DM 35 3071036	DM 50 3071051	DM 35V 3071136	DM 50V 3071151	DM 38VF 3071338	DM 60V 3071161	DM 48VT 3071248	DM 35PF 3071435	DM 50PM 3071550	DM 98V 3071198
	Adapter for drill chuck Weldon 19 mm to 1/2" x 20 ext. thread	3876020						●				●
	Drill chuck 1.5 - 13 mm Incl. chuck spanner	3876002			●	●						●
	Quick-change chuck MT 2	3072102	●	●	●	●	●	●	●	●	●	●
	Quick-change chuck MT 3	3072103	●	●	●	●	●	●	●	●	●	●
	Thread tapping chuck with 6 inserts MT2 M3 - M12	3050702	●	●	●	●	●	●	●	●	●	●
	Ejector pin	38720.1261	●	●	●	●	●	●	●	●	●	●
	Cutting oil spray	3872100	●	●	●	●	●	●	●	●	●	●

**CORE DRILL with Weldon shank**

**HSS**



For all steels up to 750N strength

Ø mm	L mm	Item No.	Ø mm	L mm	Item No.
<b>HSS</b>			<b>HSS</b>		
12	25	30732512	12	50	30735012
13	25	30732513	13	50	30735013
14	25	30732514	14	50	30735014
15	25	30732515	15	50	30735015
16	25	30732516	16	50	30735016
17	25	30732517	17	50	30735017
18	25	30732518	18	50	30735018
19	25	30732519	19	50	30735019
20	25	30732520	20	50	30735020
21	25	30732521	21	50	30735021
22	25	30732522	22	50	30735022
23	25	30732523	23	50	30735023
24	25	30732524	24	50	30735024
25	25	30732525	25	50	30735025
26	25	30732526	26	50	30735026
27	25	30732527	27	50	30735027
28	25	30732528	28	50	30735028
29	25	30732529	29	50	30735029
30	25	30732530	30	50	30735030
32	25	30732532	32	50	30735032
33	25	30732533	33	50	30735033
34	25	30732534	34	50	30735034
35	25	30732535	35	50	30735035
36	25	30732536	36	50	30735036
37	25	30732537	37	50	30735037
38	25	30732538	38	50	30735038
40	25	30732540	40	50	30735040
42	25	30732542	43	50	30735043
44	25	30732544	50	50	30735050
45	25	30732545	55	50	30735055
48	25	30732548	60	50	30735060
50	25	30732550			
55	25	30732555			
60	25	30732560			

**TiN**



For all steels up to 900N strength. Also suitable for stainless steel.

Ø mm	L mm	Item No.
<b>TiN</b>		
12	30	30733012
13	30	30733013
14	30	30733014
15	30	30733015
16	30	30733016
17	30	30733017
18	30	30733018
19	30	30733019
20	30	30733020
21	30	30733021
22	30	30733022
23	30	30733023
24	30	30733024
25	30	30733025
26	30	30733026
27	30	30733027
28	30	30733028
29	30	30733029
30	30	30733030
32	30	30733032
35	30	30733035
40	30	30733040
50	30	30733050
60	30	30733060
12	55	30735512
13	55	30735513
14	55	30735514
16	55	30735516
18	55	30735518
20	55	30735520
21	55	30735521
22	55	30735522
24	55	30735524
25	55	30735525
26	55	30735526
28	55	30735528
30	55	30735530
32	55	30735532
35	55	30735535
40	55	30735540
48	55	30735548
50	55	30735550

**TiAlN**



For all steels up to 1100N strength and for all stainless steels.

Ø mm	L mm	Item No.
<b>TiAlN</b>		
12	30	30733012B
13	30	30733013B
14	30	30733014B
15	30	30733015B
16	30	30733016B
17	30	30733017B
18	30	30733018B
19	30	30733019B
20	30	30733020B
21	30	30733021B
22	30	30733022B
24	30	30733024B
25	30	30733025B
26	30	30733026B
28	30	30733028B
30	30	30733030B
32	30	30733032B
35	30	30733035B
40	30	30733040B
50	30	30733050B
12	55	30735512B
14	55	30735514B
16	55	30735516B
18	55	30735518B
20	55	30735520B
22	55	30735522B
23	55	30735523B
25	55	30735525B
28	55	30735528B
30	55	30735530B

## OPTIdrill® DQ 14 / DQ 18 / DQ 22

### Entry level bench-top drilling machines with V-belt drive

The machines are pre-assembled.

Individual components of the machine still have to be assembled and joined together.



#### Facts that impress in terms of quality, performance and price

- ▶ Separate emergency stop push button
- ▶ Measuring scale for drilling depth
- ▶ Drill table can be tilted  $\pm 45^\circ$  and rotated  $360^\circ$
- ▶ One-piece die-cast aluminium quill lever with soft-grip handles
- ▶ Safety electrics in 24 V DC

#### DQ 18/DQ 22

- ▶ Precise workmanship; stable drilling table with two diagonal T-slots and all-around cooling water channel

#### DQ 22 (400 V)

- ▶ Clockwise/anticlockwise rotation



Fig.: DQ 14

Fig.: DQ 18

Fig.: DQ 22

#### SCOPE OF DELIVERY:

- ▶ T-slot nuts
- ▶ DQ 14: Quick-action drill chuck 1 - 15.9 mm
- ▶ DQ 18/22: Quick-action drill chuck 1 - 16 mm
- ▶ DQ 18/22: Mandrel for drill chuck MT2/B16

Machine data	DQ 14	DQ 18	DQ 22
Art no.	3191040	3191042	3191044(230V)/ 3191045 (400V)
Motor power ~50 Hz	350 W / 230 V	450 W / 230 V	550 W / 230 V or 400 V
Drilling capacity/continuous drilling capacity in steel (S235JR)	$\varnothing 13 \text{ mm} / \varnothing 12 \text{ mm}$	$\varnothing 15.9 \text{ mm} / \varnothing 14 \text{ mm}$	$\varnothing 20 \text{ mm} / \varnothing 16 \text{ mm}$
Spindle seat	fixed/B16	MT2	MT2
Throat depth / quill stroke	104 mm / 52 mm	127 mm / 65 mm	169 mm / 85 mm
Spindle speeds / steps	700 - 2500 $\text{min}^{-1} / 5$	600 - 2400 $\text{min}^{-1} / 5$	300 - 2300 $\text{min}^{-1} / 12$
Table (L x W) / T-slots	170 x 170 / 14 mm	200 x 200 / 14 mm	270 x 270 / 14 mm
Drill table rotation / tilting sideways	$360^\circ / \pm 45^\circ$	$360^\circ / \pm 45^\circ$	$360^\circ / \pm 45^\circ$
Dimensions (L x W x H) approx.	472 x 283 x 634 mm	568 x 319 x 849 mm	700 x 351 x 1006 mm
Net weight approx.	18.5 kg	28.5 kg	41.7 kg

## OPTIdrill® DQ 20V

### Bench drill with V-belt drive and mechanically infinitely adjustable speed



#### Facts that impress in terms of quality, performance and price

- ▶ User-friendly safety switch with IP 54 degree of protection
- ▶ Separate emergency stop push button
- ▶ Measuring scale for drilling depth
- ▶ Drill table can be tilted  $\pm 45^\circ$  and rotated  $360^\circ$
- ▶ One-piece die-cast aluminium quill lever with soft-grip handles
- ▶ Safety electrics in 24 V DC
- ▶ Guaranteed concentricity  $\leq 0.03 \text{ mm}$  measured in the drilling spindle
- ▶ Drill spindle with precision ball bearings
- ▶ Glare-free LED lighting integrated in the drill head
- ▶ V-belt cover with safety switch

#### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck 1-16 mm
- ▶ Mandrel for drill chuck MT2/B16
- ▶ T-slot nuts

Machine data	DQ 20V*
Art no.	3191080
Motor power ~50 Hz	0.75 kW / 230 V
Drilling performance in steel (S235JR)	$\varnothing 20 \text{ mm}$
Continuous drilling performance in steel (S235JR)	$\varnothing 16 \text{ mm}$
Spindle seat	MT2
Throat depth / quill stroke	152 mm / 80 mm
Spindle speeds	450 - 2500 $\text{min}^{-1}$
Speed	mechanically adjustable
Drill table (L x W) / T-slots	243 x 243 mm / 14 mm
Machine foot (L x W)	181 x 187 mm
Dimensions (L x W x H) approx.	580 x 400 x 960 mm
Net weight approx.	41 kg



The machines are pre-assembled. Individual components of the machine still have to be assembled and joined together.

#### Belt drive



- ▶ Best power transmission thanks to aluminium pulleys in conjunction with toothed GATES quality V-belt

#### Speed change



- ▶ The V-belt is adjusted to the required diameter using the hand lever while the drilling spindle is rotating. This changes the speed

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.

## OPTIdrill® RB 6T / RB 8S

### Lightweight radial drilling machines with large throat depth for wood, plastic, aluminium



#### Facts that impress in terms of quality, performance and price

- ▶ Separate emergency stop push button
- ▶ Guaranteed concentricity of the drill spindle  $\leq 0.03$  mm measured in the drill spindle.
- ▶ Best power transmission thanks to aluminium pulleys in conjunction with toothed GATES quality V-belt
- ▶ Drill spindle with precision ball bearings
- ▶ V-belt cover with safety switch
- ▶ Steel column for extremely smooth action and stability
- ▶ Solid and generously dimensioned baseplate with slots for T slot nuts, rear heavily ribbed
- ▶ Drilling depth stop
- ▶ OPTIMUM key type drill chuck in standard scope of delivery

#### The machines are pre-assembled.

Individual components of the machine still have to be assembled and joined together.

Machine data	RB 6T	RB 8S
Art no.	3009161	3009181
Motor power ~50 Hz	750 W / 230 V	
Drilling capacity (S235JR)	$\varnothing 16$ mm / $\varnothing 12$ mm	
Continuous drilling capacity in steel (S235JR)		
Throat depth / quill stroke	115 - 430 mm / 80 mm	
Spindle speeds / Gear stages	390 - 3000 min <sup>-1</sup> / 5 stages	
Drill table (L x W) / T-slots	225 x 230 mm / -	262 x 262 mm / 14 mm
Dimensions (L x W x H) approx.	820 x 335 x 930 mm	820 x 395 x 1640 mm
Net weight approx.	47 kg	60 kg



Fig.: RB 6T

Fig.: RB 8S

## OPTIdrill® DQ 25T / DQ 25 / DQ 32

### Inexpensive table and column drilling machines featuring a V-belt drive



#### Facts that impress in terms of quality, performance and price

- ▶ User-friendly safety switch with IP 54 degree of protection
- ▶ Separate emergency stop push button
- ▶ Precisely machined drilling table with diagonal T-slots  $\pm 45^\circ$  tiltable and 360° rotatable
- ▶ Solid, generously dimensioned baseplate with slots, rear heavily ribbed
- ▶ Guaranteed concentricity  $\leq 0.03$  mm measured in the drilling spindle
- ▶ V-belt cover with safety switch
- ▶ Measuring scale for drilling depth
- ▶ Clockwise/anticlockwise rotation



Fig.: DQ 25T

Fig.: DQ 32

#### Belt drive



- ▶ Smooth action thanks to ground multi-tooth carrier
- ▶ Best power transmission due to aluminium pulleys

#### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck 1-16 mm
- ▶ Taper mandrel for drill chuck
- ▶ T-slot nuts

Machine data	DQ 25 / DQ 25T	DQ 32
Art no.	3191047 / 3191047T	3191049
Motor power ~50 Hz	750 W / 400 V	1.1 kW / 400 V
Drilling performance in steel (S235JR)	$\varnothing 25$ mm	$\varnothing 30$ mm
Continuous drilling performance in steel (S235JR)	$\varnothing 20$ mm	$\varnothing 25$ mm
Spindle seat	MT3	MT4
Throat depth / quill stroke	181 mm / 80 mm	254 mm / 120 mm
Spindle speeds / speed levels	200 - 2440 min <sup>-1</sup> / 12	120 - 1810 min <sup>-1</sup> / 9
Drill table (L x W) / T-slots	280 x 280 / 14 mm	355 x 355 / 14 mm
Drill table rotation / tilting sideways	360° / $\pm 45^\circ$	360° / $\pm 45^\circ$
Dimensions (L x W) approx.	700 x 350	850 x 390 mm
Dimensions (H) approx.	1620 (DQ 25) 1012mm (DQ 25T)	1,660 mm
Net weight approx.	71 kg (DQ 25) 67 kg (DQ 25T)	120 kg

The machines are pre-assembled. Individual components of the machine still have to be assembled and joined together.



Twist drill set  
Art no. 3201010

- ▶ 25-piece; 1- 13 mm
- ▶ According to DIN 338 HSS-Co 5%



## OPTIdrill® B 17PRO basic / D 17Pro / D 23Pro / D 26Pro / D 33Pro Bench and column drills with V-belt drive

### Facts that impress in terms of quality, performance and price

- ▶ User-friendly safety switch with IP 54 degree of protection
- ▶ Separate emergency stop push button
- ▶ Digital depth sensor
- ▶ Precisely machined drilling table with diagonal T-slots ± 45° tiltable and 360° rotatable
- ▶ Single-piece, pressure cast aluminium sleeve lever with Softgrip handles
- ▶ Safety electrics in 24 V DC
- ▶ Guaranteed concentricity ≤ 0.02 mm measured in the drilling spindle
- ▶ Drill spindle with precision ball bearings
- ▶ Precision spindle hole
- ▶ Premium quick-action drill chuck as standard equipment
- ▶ Generously dimensioned, height adjustable protective screen with safety switch
- ▶ V-belt cover with safety switch
- ▶ Heavy duty design of entire machine

#### As of D 23 Pro

- ▶ GATES quality belts
- ▶ Clockwise/anticlockwise rotation

#### D 33Pro

- ▶ Solid, generously dimensioned baseplate with T-slots, heavily ribbed on rear



Belt drive

- › Smooth action thanks to ground multi-tooth carrier
- › Best possible force transmission thanks to aluminium pulleys in combination with GATES quality toothed belts (as of D 23Pro)

### DISPLAY (from D 17Pro)

- › Digital drilling depth and speed display integrated in housing
- › Unit convertible metric / inch



**The machines are pre-assembled.**  
Individual components of the machine still have to be assembled and joined together.



Fig.: B 17Pro basic



Fig.: D 17Pro



Fig.: D 23Pro



Fig.: D 26Pro



Fig.: D 33Pro

### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck 1-13 mm (B 17Pro basic)
- ▶ Quick-action drill chuck 1-16 mm
- ▶ Taper mandrel for drill chuck
- ▶ T-slot nuts

Machine data	B 17PRO basic	D 17Pro	D 23Pro	D 26Pro	D 33Pro
Art no.	3003161	3003010	3003020	3003030	3003040
Motor power ~50 Hz	490 W / 230V	500 W / 230 V	750 W / 400 V	750 W / 400 V	1.1 kW / 400 V
Drilling performance in steel (S235JR)	Ø 15.5 mm	Ø 16 mm	Ø 25 mm	Ø 25 mm	Ø 30 mm
Continuous drilling performance in steel (S235JR)	Ø 12 mm	Ø 12 mm	Ø 20 mm	Ø 20 mm	Ø 25 mm
Spindle seat	MT2	MT2	MT2	MT3	MT4
Throat depth / quill stroke	152 mm / 65 mm	152 mm / 65 mm	180 mm / 80 mm	210 mm / 85 mm	254 mm / 120 mm
Spindle speeds / speed levels	680 - 2700 min <sup>-1</sup> / 5	680 - 2700 min <sup>-1</sup> / 5	200 - 2440 min <sup>-1</sup> / 12	200 - 2440 min <sup>-1</sup> / 12	120 - 1810 min <sup>-1</sup> / 9
Drill table (L x W) / T- slot size	235 x 220 / 12 mm	235 x 220 / 12 mm	280 x 245 / 12 mm	330 x 290 / 14 mm	475 x 425 / 14 mm
Tilting sideways/rotating the drill table	± 45° / 360°	± 45° / 360°	± 45° / 360°	± 45° / 360°	± 45° / 360°
Dimensions (L x W x H) approx.	565 x 275 x 840 mm	585 x 305 x 840 mm	680 x 350 x 1015 mm	715 x 360 x 1640 mm	755 x 450 x 1705 mm
Net weight approx.	36.5 kg	36.5 kg	63.5 kg	90 kg	137 kg

## OPTi<sup>drill</sup>® DX 13V / DX 15V / DX 17E / DX 17V Bench drills with infinitely variable speed control

Facts that impress in terms of quality, performance and price

- ▶ Best power transmission thanks to aluminium pulleys
- ▶ Drilling spindle with precision ball bearings
- ▶ Height adjustability chuck guard with microswitch
- ▶ Dirt/water-resistant, easy-to-clean membrane keyboard
- ▶ EMC filter class C2



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Machinery and MSU tool trolley



MSM 1

Machine data

**MSU 3**  
(height 620 mm)

**MSU 4**  
(Height 800 mm)

**MSM 1**  
(Height 800 mm)

Art no.

3352990

3352991

3353000

### DX 13V



**LCD display**  
› Spindle speed

### DX 15V



**LCD display**  
› Spindle speed

### DX 17E



**LCD display**  
› Spindle speed  
› Depth display (actual)  
› Clockwise/anticlockwise rotation  
› Unit of dimension mm / inch  
› Set zero point

**SIEMENS INVERTER  
SINAMICS V20**

### DX 17V



**OPTIMUM PATENT**



**OLED display**  
A suitable speed is suggested depending on the material and tool size. These parameters are entered via the menu. Speed display/current drilling depth and thread depth/set drilling or thread depth as target value/material selection/piece counter

**SIEMENS INVERTER  
SINAMICS V20**

#### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck 1-13 mm
- ▶ Taper mandrel for drill chuck MT2/B16

Machine data	DX 13V*	DX 15V*	DX 17E*	DX 17V*
Art no.	3020150	3020155	3020168	3020170
Motor power ~50 Hz	0.85 kW / 230 V		1.0 kW / 230 V	
Drilling capacity / continuous drilling capacity in steel (S235JR)	Ø 13 mm / Ø 11 mm	Ø 15 mm / Ø 12 mm	Ø 16 mm / Ø 13 mm	
Spindle seat	MT2		MT2	
Throat depth / quill stroke	235 mm / 60 mm		235 mm / 60 mm	
Spindle speeds	100 - 3000 min <sup>-1</sup>		50 - 4000 min <sup>-1</sup>	
Drive	electronically adjustable		electronically adjustable	
Drill table (L x W) / T- slot size	-	290 x 290 mm / 10 mm	290 x 290 mm / 10 mm	
Dimensions (L x W x H) approx.	325 x 520 x 900 mm	425 x 475 x 980 mm	425 x 480 x 910 mm	
Net weight approx.	51 kg	66 kg	73 kg	

\* The machines comply with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side



## OPTIdrill® DP 26T / DP 26F / DP 33

### DP 26T bench drill and DP 26F/DP 33 column drills with V-belt drive in a modern design

#### Facts that impress in terms of quality, performance and price

- ▶ Separate emergency stop push button
- ▶ Digital depth sensor
- ▶ Machine operation with safety electrics in 24 V DC voltage
- ▶ Guaranteed concentricity  $\leq 0.02$  mm measured in the drilling spindle
- ▶ Particularly smooth running thanks to new spindle design
- ▶ Industrial motor
- ▶ LED machine lamp integrated in drilling head
- ▶ Precision spindle hole
- ▶ speed display
- ▶ Thick walled steel column for high force absorption and stability
- ▶ Solid, generously dimensioned baseplate with T-slots
- ▶ Precisely machined, stable drilling table with diagonal T-slots with all-round cooling water channel, can be tilted sideways by  $\pm 45^\circ$  and rotated  $360^\circ$
- ▶ V-belt cover with safety switch
- ▶ Heavy duty design of entire machine

#### Machines with 400 V:

- ▶ Clockwise/anticlockwise rotation



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#### V-BELT DRIVE



- › Premium Gates belts
- › The toothed V-belts enable a higher power transmission to the shaft due to their smaller wrap angle at the V-belt pulleys
- › Easy adjustment of the belt tension via excenter (toggle lever)

#### STATE-OF-THE-ART OPERATING CONCEPT



- › Easily readable, digital display for viewing the speed, depth gauge and zero point

#### SPINDLE



- › Outstandingly smooth running thanks to an innovative spindle geometry that has a vibration-damping effect



The machines are pre-assembled.  
Individual components of the machine still have to be assembled and joined together.

#### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck 1 - 16 mm
- ▶ Taper mandrel for drill chuck
- ▶ T-slot nuts
- ▶ Push-out tool
- ▶ Operating tool



Fig.: DP 26-T

Fig.: DP 33

Machine data	DP 26T	DP 26F	DP 33
Art no.	3020620T	3020625T (230V) / 3020625F (400V)	3020640
Motor power ~50 Hz		0.75 kW 230 V or 400 V	1.1 kW 400 V
Drilling capacity / continuous drilling capacity in steel (S235JR)		$\varnothing 25$ mm / $\varnothing 20$ mm	$\varnothing 30$ mm / $\varnothing 25$ mm
Spindle seat		MT3	MT4
Throat depth / quill stroke		95 mm / 209 mm	125 mm / 270 mm
Spindle speeds / speed levels		200 - 2440 min <sup>-1</sup> / 12 speeds	120 - 1810 min <sup>-1</sup> / 9 speeds
Drill table (L x W) / T- slot size		308 x 308 mm / 12 mm	387 x 387 mm / 14 mm
Tilting sideways/rotating the drill table		$\pm 45^\circ$ / $360^\circ$	$\pm 45^\circ$ / $360^\circ$
Clearance spindle - drilling table	400 mm	770 mm	775 mm
Foot work surface (L x W)		202 x 265 mm	270 x 327 mm
T-slot size / spacing / count		14 mm / 120 mm / 2	16 mm / 150 mm / 2
Clearance spindle - machine base	592 mm	1,300 mm	1,300 mm
Column diameter		$\varnothing 80$ mm	$\varnothing 92$ mm
Dimensions (L x W x H) approx.	750 x 410 x 1025 mm	750 x 410 x 1725 mm	945 x 480 x 1880 mm
Net weight approx.	107 kg	116 kg	186 kg

## OPTi drill® DP 26V / DP 33V Bench and column drills with Vario drive in a modern design

### Facts that impress in terms of quality, performance and price

- ▶ Heavy duty design of entire machine
- ▶ Separate emergency stop push button
- ▶ Digital depth sensor
- ▶ Clockwise/anticlockwise rotation
- ▶ Machine operation with safety electrics in 24 V DC voltage
- ▶ Guaranteed concentricity  $\leq 0.02$  mm measured in the drilling spindle
- ▶ Particularly smooth running thanks to new spindle design
- ▶ Industrial motor
- ▶ LED machine lamp integrated in drilling head
- ▶ Precision spindle hole
- ▶ Thick walled steel column for high force absorption and stability
- ▶ Speed display
- ▶ Solid, generously dimensioned baseplate with T-slots
- ▶ Precisely machined, stable drilling table with V-belt cover with safety switch
- ▶ Thread tapping function with automatic changeover after reaching the depth



### INVERTER DRIVE

- ▶ Stepless speed control using inverter technology
- ▶ Easily accessible
- ▶ Premium Gates belts
- ▶ To ensure that you can always set the optimum torque for machining, the belt can also be switched to the appropriate belt stage. This ensures a longer service life for the tools and reduces the load on the entire machine design
- ▶ Easy adjustment of the belt tension via excenter (toggle lever)



### The machine is pre-assembled.

- ▶ Individual components of the machine still have to be assembled and joined together.

### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck 1 - 16 mm
- ▶ Taper mandrel for drill chuck
- ▶ T-slot nuts
- ▶ Push-out tool

### SIEMENS SINAMICS V 20 FREQUENCY INVERTER

- ▶ Energy-saving features
- ▶ Advanced cooling



### STATE-OF-THE-ART OPERATING CONCEPT

- ▶ Easily readable digital display for viewing the speed, depth gauge and zero point



### SPINDLE

- ▶ Outstandingly smooth running thanks to an innovative spindle geometry that has a vibration-damping effect

Option DP 33V  
Drill table 475 x 425 mm  
Art no. 3020640001

Machine data	DP 26V-T*	DP 26V-F*	DP 33V*
Model	Bench drill	Column drilling machine	Column drilling machine
Art no.	3020675T	3020675F	3020680
Motor power ~50 Hz	0.75 kW 400 V		1.1 kW 400 V
Drilling capacity / continuous drilling capacity in steel (S235JR)	Ø 25 mm / Ø 20 mm		Ø 30 mm / Ø 25 mm
Spindle seat	MT3		MT4
Throat depth/ quill stroke	209 mm / 95 mm		270 mm / 125 mm
Spindle speeds / speed levels	60 - 3050 min <sup>-1</sup> / 12 speeds		70 - 2800 min <sup>-1</sup> / 9 speeds
Drive	electronically adjustable		electronically adjustable
Drill table (L x W) / T- slot size	308 x 308 mm / 12 mm		387 x 387 mm / 14 mm
Tilting sideways/rotating the drill table	± 45° / 360°		± 45° / 360°
Clearance spindle - drilling table	400 mm	770 mm	775 mm
Foot work surface (L x W) / T-slot size	202 x 265 mm / 14 mm		270 x 327 mm / 16 mm
Clearance spindle - machine base	592 mm	1,300 mm	1,300 mm
Column diameter	Ø 80 mm		Ø 92 mm
Dimensions (L x W x H) approx.	845 x 406 x 1025 mm	845 x 406 x 1724 mm	945 x 480 x 1880 mm
Net weight approx.	98 kg	107 kg	177 kg

\* The machines comply with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side

# OPTi drill® DP 26BV / DP 33BV

## Bench and column drills with Vario drive in a modern design

### Facts that impress in terms of quality, performance and price

- ▶ Heavy duty design of entire machine
- ▶ Separate emergency stop push button
- ▶ Digital depth sensor
- ▶ Clockwise/anticlockwise rotation
- ▶ Machine operation with safety electrics in 24 V DC voltage
- ▶ Guaranteed concentricity  $\leq 0.02$  mm measured in the drilling spindle
- ▶ Particularly smooth running thanks to new spindle design
- ▶ Industrial motor
- ▶ LED machine lamp integrated in drilling head
- ▶ Precision spindle hole
- ▶ Thick-walled steel column
- ▶ Speed display
- ▶ Solid, generously dimensioned baseplate with T-slots
- ▶ Precisely machined, stable drill table
- ▶ V-belt cover with safety switch
- ▶ Thread tapping function with automatic changeover after reaching the depth



### VARIATOR BELT DRIVE

- ▶ By varying the distance between the conical pulleys, the belt can have different diameters. This leads to a stepless adjustment of the transmission ratio and thus to a variable speed of the drilling spindle.
- ▶ **The highlight:** The user can change the distance between the conical discs using an actuator via the pushbuttons on the control panel.
- ▶ The speed changes when the spindle is rotating

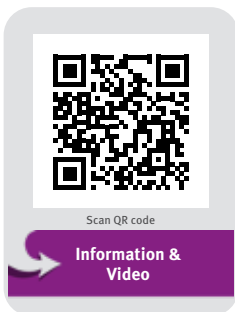


Fig.: DP 26BV-F

Fig.: DP 33BV

### The machine is pre-assembled.



Individual components of the machine still have to be assembled and joined together.

### VARIATOR

- ▶ Durable wide groove v-belt
- ▶ Extremely reliable thanks to electrically adjustable speed
- ▶ Powerful, smooth action
- ▶ Speed change only possible when spindle is running
- ▶ Permanent optimal motor efficiency



### STATE-OF-THE-ART OPERATING CONCEPT

- ▶ Easily readable digital display for viewing the speed, depth gauge and zero point
- ▶ The highlight - speed adjustment at the touch of a button

### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck 1 - 16 mm
- ▶ Taper mandrel for drill chuck
- ▶ T-slot nuts
- ▶ Push-out tool

Machine data	DP 26BV-T*	DP 26BV-F*	DP 33BV*
<b>Model</b>	<b>Bench drill</b>	<b>Column drilling machine</b>	<b>Column drilling machine</b>
Art no.	3027660T	3027660F	3027685
Motor power ~50 Hz	0.45 / 0.75 kW 400 V		0.85 / 1.5 kW 400 V
Drilling capacity / continuous drilling capacity in steel (S235JR)	Ø 25 mm / Ø 20 mm		Ø 30 mm / Ø 25 mm
Spindle seat	MT3		MT4
Throat depth/ quill stroke	209 mm / 95 mm		270 mm / 125 mm
Spindle speeds / speed levels	420 - 2100 min <sup>-1</sup> / 2 speeds		420 - 2130 min <sup>-1</sup> / 2 speeds
Drive	electronically adjustable		electronically adjustable
Drill table (L x W) / T- slot size	308 x 308 mm / 12		387 x 387 mm / 14 mm
Drill table can be tilted / rotated sideways	± 45° / 360°		± 45° / 360°
Clearance spindle - drilling table	400 mm	740 mm	775 mm
Foot work surface (L x W) / T-slot size	202 x 265 mm		270 x 327 mm
Clearance spindle - machine base	592 mm	1,300 mm	1,300 mm
Column diameter	Ø 80 mm		Ø 92 mm
Dimensions (L x W x H) approx.	748 x 406 x 1025 mm	748 x 406 x 1724 mm	945 x 480 x 1880 mm
Net weight approx.	101 kg	111 kg	177 kg

1) Explanations regarding transport surcharges (TPZ) – see reverse side. \* The machines comply with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side



## OPTIdrill® B 16H / B 24H / B 28H / B 34H

### Robust bench and column drilling machines

Facts that impress in terms of quality, performance and price

- ▶ Smooth, powerful industrial electric motor
- ▶ V-belt quick tensioning device
- ▶ Measuring scale for drilling depth

Equipment	B 16H	B 24H	B 28H	B 34H
Machine lamp		✓	✓	✓
Clockwise/anticlockwise rotation		✓ (400 V)	✓	✓
Dig. depth gauge				✓
Dig. Speed display				✓
Integr. push-out tool			✓	✓



B 16H

B 24H

B 28H

B 34H

#### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck
- ▶ T-slot nuts
- ▶ Taper mandrel for drill chuck

Machine data	B 16H	B 24H	B 28H	B 34H
Art no.	3020217	3020241 (230V) 3020243(400V)	3020283	3020333
Motor power ~50 Hz	550 W / 400 V	850 W / 230 V or 400 V	850 W / 400 V	1.5 / 2.2 kW / 400 V
Drilling performance in steel (S235JR)	Ø 13 mm	Ø 24 mm	Ø 28 mm	Ø 34 mm
Continuous drilling performance in steel (S235JR)	Ø 11 mm	Ø 20 mm	Ø 24 mm	Ø 26 mm
Spindle seat	MT2	MT2	MT3	MT4
Throat depth / quill stroke	130 mm / 65 mm	165 mm / 85 mm	200 mm / 105 mm	285 mm / 160 mm
Spindle speeds / speed levels	450 - 3500 min <sup>-1</sup> / 5	350 - 4000 min <sup>-1</sup> / 7	120 - 4000 min <sup>-1</sup> / 16	145 - 4800 min <sup>-1</sup> / 2 x 9
Drill table (L x W) / T- slot size	230 x 245 / 12 mm	280 x 300 / 14 mm	340 x 360 / 14 mm	420 x 400 / 14 mm
Dimensions (L x W x H) approx.	550 x 300 x 850 mm	665 x 435 x 1000 mm	700 x 450 x 1720 mm	920 x 585 x 1900 mm
Net weight approx.	54 kg	92 kg	142 kg	260 kg

## OPTIdrill® DH 28FS

### Column drilling machine with automatic quill feed

Facts that impress in terms of quality, performance and price

- ▶ V-belt quick tensioning device
  - ▶ V-belt cover with safety switch
  - ▶ Aluminium pulleys
  - ▶ Toothed GATES quality V-belts
  - ▶ Drilling depth stop
  - ▶ Precision machined drilling table
- ▶ with diagonal T-slots and all-around cooling water channel
  - ▶ Solid, generously dimensioned baseplate with T-slots
  - ▶ Integrated push-out tool

#### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck 1 - 16 mm
- ▶ Taper mandrel for drill chuck
- ▶ T-slot nuts

Machine data	DH 28FS
Art no.	3020284
Motor power ~50 Hz	850 W / 400 V
Drilling performance in steel (S235JR)	Ø 28 mm
Continuous drilling performance in steel (S235JR)	Ø 24 mm
Spindle seat	MT3
Throat depth / quill stroke	200 mm / 105 mm
Spindle speeds / speed levels	120 - 3000 min <sup>-1</sup> / 12
Drill table (L x W) / T- slot size	340 x 360 mm / 14 mm
spindle sleeve feed	0.02 mm/rev
Clearance spindle - drilling table	928 mm
Dimensions (L x W x H) approx.	715 x 450 x 1720 mm
Net weight approx.	146 kg



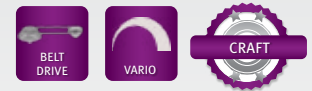
#### AUTOMATIC SPINDLE SLEEVE FEED

- ▶ The feed is automatically switched off after reaching the preset drilling depth and turned back to its original position by the spring force of the return spring.



\* The machines comply with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side

## OPTIdrill® DH 18V Robust bench drill with electronic speed control



### Facts that impress in terms of quality, performance and price

- ▶ Separate emergency stop push button
- ▶ Drilling depth stop
- ▶ Smooth action thanks to ground multi-tooth carrier
- ▶ Generously dimensioned, height adjustable protective screen with safety switch
- ▶ Dirt/water-resistant, easy-to-clean membrane keyboard
- ▶ V-belt cover with safety switch
- ▶ V-belt tensioning device

### POWERFUL BRUSHLESS DRIVE

- ▶ Particularly quiet operation
- ▶ Extremely powerful
- ▶ Approximately constant torque across the entire speed range

### MENU-CONTROLLED OPERATION

- ▶ Working modes: Drilling, thread tapping
- OLED display**
  - › Spindle speed
  - › Depth display
  - › Drilling
  - › Thread tapping
  - › Workpiece thickness selection



### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck 1 - 13 mm
- ▶ Taper mandrel for drill chuck MT2/ B16
- ▶ T-slot nuts

Machine data	DH 18V*
Art no.	3020220
Motor power ~50 Hz	1.5 kW / 230 V
Drilling performance in steel (S235JR)	Ø 18 mm
Continuous drilling performance in steel (S235JR)	Ø 16 mm
Thread tapping in steel (S235JR)	M 10
Spindle seat	MT2
Throat depth / quill stroke	130 mm / 65 mm
Spindle speeds / speed levels	100 - 6000 min <sup>-1</sup> / 5
Drive	electronically adjustable
Drill table (L x W) / T- slot size	230 x 245 mm / 12 mm
Dimensions (L x W x H) approx.	445 x 550 x 850 mm
Net weight approx.	64 kg



- › Art no. 3201010
- › 25-piece; 1- 13 mm
- › According to DIN 338 HSS-Co 5%



## OPTIdrill® B 24HV / B 28HV / B 34HV Robust bench and column drills with OPTIMUM brushless drive with electronic speed control



- ▶ Best power transmission thanks to aluminium pulleys in conjunction with toothed GATES quality V-belt
- ▶ Smooth action thanks to ground multi-tooth carrier

Equipment	B 24HV	B 28HV	B 34HV
Machine lamp	✓	✓	✓
Digital speed display	✓	✓	✓
Coolant system		✓	✓
Chip filter		✓	✓
Thread tapping function			✓
Digital depth sensor			✓
Integrated push-out tool		✓	✓

### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck
- ▶ Taper mandrel for drill chuck

Machine data	B 24HV *	B 28HV *	B 34HV *
Art no.	3020245	3020285	3020335
Motor power ~50 Hz	1.5 kW / 230 V	1.5 kW / 230 V	2.2 kW / 230 V
Drilling performance in steel (S235JR)	Ø 24 mm	Ø 28 mm	Ø 34 mm
Continuous drilling performance in steel (S235JR)	Ø 20 mm	Ø 24 mm	Ø 26 mm
Thread tapping in steel (S235JR)	-	-	M 16 x 2 mm
Spindle seat	MT2	MT3	MT4
Throat depth / quill stroke	165 mm / 85 mm	200 mm / 105 mm	285 mm / 160 mm
Spindle speeds / speed levels	100 - 5950 min <sup>-1</sup> / 4	35 - 5600 min <sup>-1</sup> / 12	40 - 5000 min <sup>-1</sup> / 9
Drill table (L x W) / T- slot size	280 x 300 mm / 14 mm	340 x 360 mm / 14 mm	420 x 400 mm / 14 mm
Dimensions (L x W x H) approx.	665 x 435 x 1000 mm	700 x 475 x 1755 mm	920 x 595 x 1930 mm
Net weight approx.	96 kg	166 kg	275 kg

### POWERFUL BRUSHLESS DRIVE

- ▶ Particularly smooth action
- ▶ Extremely powerful
- ▶ Virtually constant torque over the entire speed range



Fig.: B 34HV

\* The machines comply with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side

## OPTi drill<sup>®</sup> DH 24BV / DH 28BV / DH 40BV

### Bench and column drilling machines with stepless, mechanical belt drive



#### Facts that impress in terms of quality, performance and price

- ▶ Smooth action powerful electric motor
- ▶ Quicker speed adjustment using a lever
- ▶ Drilling spindle with precision ball bearings
- ▶ Clockwise/anticlockwise rotation
- ▶ Machine light integrated in the drill head
- ▶ V-belt cover with safety switch

Equipment	DH 24BV	DH 28BV	DH 40BV
Integrated push-out tool		✓	✓
Dig. depth gauge			✓
Primary gear			✓

#### VARIATOR BELT DRIVE



- › Durable wide groove v-belt
  - › Extremely reliable
  - › Powerful, smooth action
  - › Speed change possible during operation
  - › Permanent optimal motor efficiency
- 
- › By varying the distance between the conical pulleys, the belt can have different diameters.
  - › This leads to a stepless adjustment of the transmission ratio and thus to a variable speed of the drilling spindle.
  - › The infinitely variable V-belt drive is used to position the V-belt to the desired V-belt diameter with the hand lever while the drilling spindle is rotating. This causes the speed to change



Fig.: DH 24BV



Fig.: DH 40BV

#### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck 1 - 16 mm
- ▶ Taper mandrel for drill chuck
- ▶ T-slot nuts

Machine data	DH 24BV	DH 28BV	DH 40BV
Art no.	3020420	3020431	3020450
Motor power ~50 Hz	0.85 / 1.5 kW / 400 V	0.85 / 1.5 kW / 400 V	1.5 / 2.2 kW / 400 V
Drilling performance in steel (S235JR)	Ø 24 mm	Ø 28 mm	Ø 40 mm
Continuous drilling performance in steel (S235JR)	Ø 20 mm	Ø 24 mm	Ø 32 mm
Spindle seat	MT2	MT3	MT4
Throat depth / quill stroke	165 mm / 85 mm	200 mm / 105 mm	285 mm / 160 mm
Spindle speeds	300 - 4000 min <sup>-1</sup>	300 - 4000 min <sup>-1</sup>	150 - 2000 min <sup>-1</sup>
Spindle speeds	2 speed motor, manual	2 speed motor, manual	2 speed motor, manual
Drill table (L x W) / T- slot size	280 x 300 mm / 14 mm	340 x 360 mm / 14 mm	420 x 400 mm / 14 mm
Clearance spindle - drilling table	515 mm	860 mm	790 mm
Dimensions (L x W x H) approx.	675 x 555 x 1025 mm	755 x 550 x 1745 mm	920 x 680 x 1895 mm
Net weight approx.	115 kg	152 kg	275 kg

\* The machines comply with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side

**OPTi drill® DH 40G / DH 40GP / DH 40GPE / DH 40CT / DH 40CTP / DH 40CTPE / DH 40CTPED- Column gear drilling machines. The versatile machines for milling and drilling**



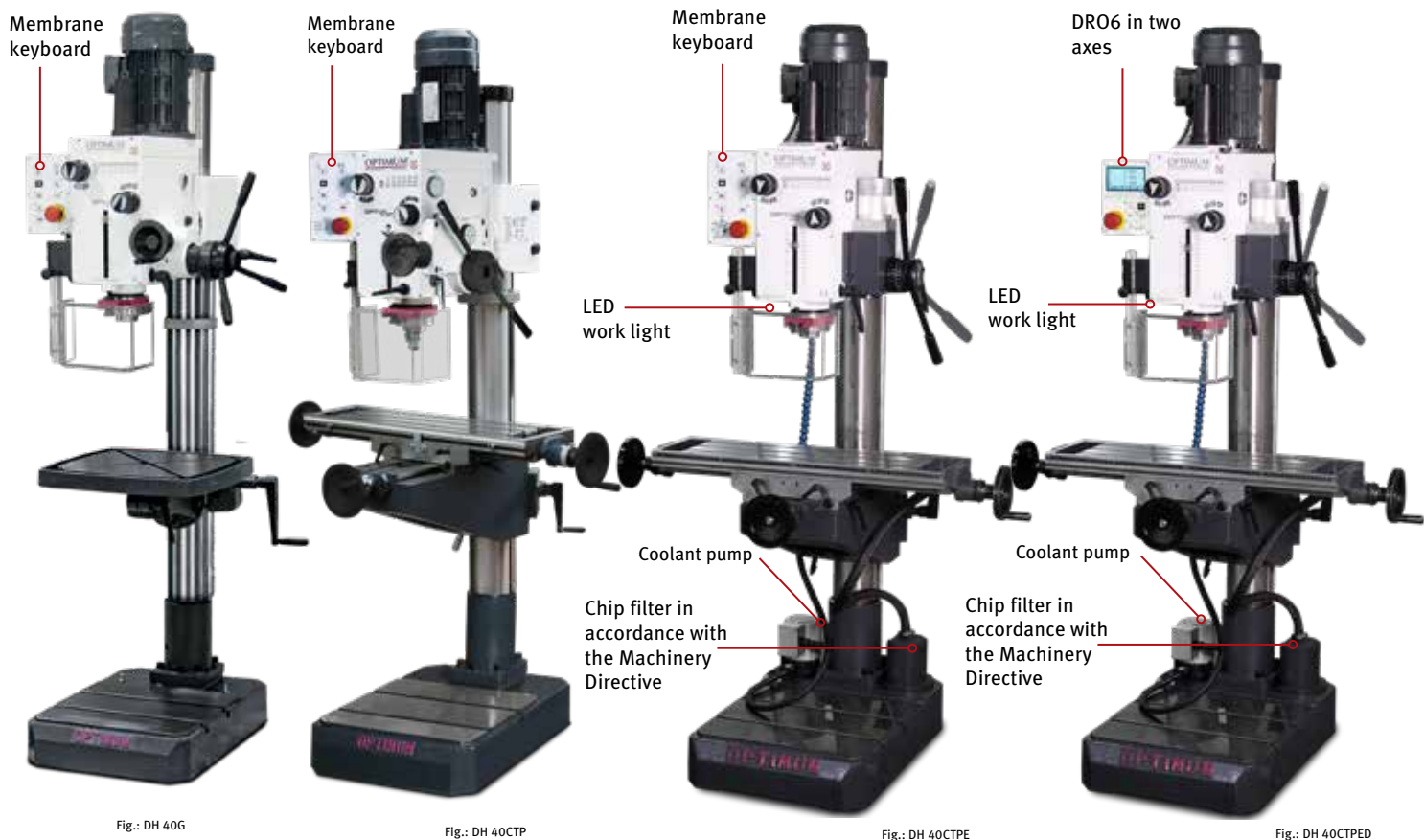
**Facts that impress in terms of quality, performance and price**

- ▶ Two-stage industrial quality electric motor
- ▶ High running smoothness due to ground gear wheels running in an oil bath
- ▶ Drilling depth stop
- ▶ Thread tapping function
- ▶ Height-adjustable gear head and drilling table
- ▶ Clockwise/anticlockwise rotation
- ▶ Sideways ± 45° tiltable gear head
- ▶ Membrane keyboard

**SCOPE OF DELIVERY:**

- ▶ Gear rim drill chuck 1-13 mm/B16
- ▶ T-slot nuts
- ▶ Adapter MT4-MT3
- ▶ Arbor MT4/B16
- ▶ Morse taper MT4/B22

Equipment	DH 40G	DH 40GP	DH 40GPE	DH 40CT	DH 40CTP	DH 40CTPE	DH 40CTPED
Spindle sleeve feed	manual	automatic	electrical	manual	automatic	electrical	electrical
Speed dependent		✓			✓		
Speed independent			✓			✓	✓
Cross table				✓	✓	✓	✓
Coolant pump and chip filter			✓			✓	✓
DRO6 in two axes							✓
LED work light			✓			✓	✓



Machine data	DH 40G	DH 40GP	DH 40GPE	DH 40CT	DH 40CTP	DH 40CTPE	DH 40CTPED
Art no.	3034356	3034361	3035357	3034349	3034352	3035353	3035355
Motor power ~50 Hz		1.1 / 1.5 kW / 400 V			1.1 / 1.5 kW / 400 V		
Drilling performance in steel (S235JR)		Ø 32 mm / Ø 28 mm			Ø 32 mm / Ø 28 mm		
Continuous drilling capacity (S235JR)		Ø 32 mm / Ø 28 mm			Ø 32 mm / Ø 28 mm		
Thread tapping in steel (S235JR)		M 16			M 16		
Spindle seat		MT4			MT4		
Throat depth / quill stroke		280 mm / 120 mm			280 mm / 120 mm		
Spindle sleeve feed		0.1 - 0.26 mm/rev	0 - 130 mm/min		0.1 - 0.26 mm/rev	0 - 130 mm/min	
	manual	automatic	electrical	manual	automatic	electrical	
Spindle speeds / Gear stages		95 - 3200 min <sup>-1</sup> / 2 x 6 speeds			95 - 3200 min <sup>-1</sup> / 2 x 6 speeds		
Drill table (L x W) / T- slot size		500 x 460 mm / 14 mm			730 x 210 mm / 14 mm		
X- / Y- / Z-axis manual traverse path		-			480 / 180 / 560 mm		
Dimensions (L x W x H) approx.		595 x 700 x 2050 mm			1060 x 745 x 2090 mm		
Net weight approx.	320 kg	335 kg	335 kg		370 kg		

\* The machines comply with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side

## OPTi drill® DH 26GT / DH 28GS / DH 28GSV / DH 32GS / DH 32GSV Bench and column drills with polyamide gearwheels



### Facts that impress in terms of quality, performance and price

- ▶ Excellent true running accuracy thanks to hardened and ground main spindle
- ▶ Drilling depth stop
- ▶ Thread tapping function
- ▶ Low-maintenance, grease-lubricated gearbox
- ▶ Gearbox with PA6 gears, smooth running
- ▶ Large speed range
- ▶ Machine lamp integrated in drilling head
- ▶ Integrated push-out tool
- ▶ Clockwise/anticlockwise rotation



Foot switch  
Art no. 3050032

Foot switch for switching between clockwise/anti-clockwise rotation and for thread tapping

Equipment	DH 26GT	DH 28GS	DH 28GSV	DH 32GS	DH 32GSV
SIEMENS SINAMIGS V 20 FREQUENCY INVERTER			✓		✓
Automatic spindle sleeve feed				✓	✓
Coolant pump/chip filter			✓	✓	✓
Digital Display			✓		✓

### DH 26GT



Fig.: with optional drill chuck, see OP 24

### DH 28GSV



Fig.: with optional drill chuck, see OP 24

### DH 32GSV

Automatic spindle sleeve feed

Coolant pump

Chip filter in line with Machinery Directive



Fig.: with optional drill chuck, see OP 24

### SCOPE OF DELIVERY:

- ▶ Taper mandrel for drill chuck

Machine data	DH 26GT	DH 28GS	DH 28GSV *	DH 32GS	DH 32GSV *
Art no.	3034220	3034230	3034235	3034240	3034245
Motor power ~50 Hz	1.1 / 1.5 kW / 400 V		1.5 kW	1.5 / 2.2 kW / 400 V	
Drilling performance in steel (S235JR)	Ø 24 mm	Ø 26 mm		Ø 30 mm	
Continuous drilling performance in steel (S235JR)	Ø 21 mm	Ø 23 mm		Ø 26 mm	
Thread tapping in steel (S235JR)	-	-	M 16 x 2 mm	M16 x 2 mm	
Spindle seat	MT3	MT3		MT4	
Throat depth / quill stroke	235 mm / 127 mm	260 mm / 127 mm		285 mm / 125 mm	
Spindle sleeve feed	-	-	-	0.05 / 0.1 mm	
Spindle speeds	75 - 2900 min <sup>-1</sup>	75 - 2900 min <sup>-1</sup>	45 - 3200 min <sup>-1</sup>	75 - 2000 min <sup>-1</sup>	40 - 3000 min <sup>-1</sup>
Gearbox stages	8 stages	8 stages	4 pcs. electronically adjustable	8 stages	4 pcs. electronically controllable
Drill table (L x W) / T- slot size	380 x 380 mm / 14 mm	376 x 394 mm / 14 mm		400 x 420 mm / 14 mm	
Dimensions (L x W x H) approx.	610 x 380 x 1430 mm	640 x 376 x 2080 mm	690 x 375 x 2080 mm	725 x 450 x 2200 mm	820 x 450 x 2230 mm
Net weight approx.	158 kg	175 kg	184 kg	312 kg	324 kg

\* The machines comply with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side

# OPTIdrill® DH 35G / DH 35V / DH 45GE / DH 45V / DH 55G / DH 55V

## Heavy-duty gearbox drilling machine with thread tapping device



### Facts that impress in terms of quality, performance and price

- ▶ Heavy, solid cast design
- ▶ Dirt/water-resistant, easy-to-clean membrane keyboard
- ▶ 24V DC Electronics
- ▶ Machine lamp
- ▶ Drilling depth stop
- ▶ Solid base plate with precise surface finish
- ▶ Coolant device, chip filter
- ▶ Thread tapping device
- ▶ Extremely stable, thick-walled cast iron column

Equipment	DH 35G	DH 35V	DH 45GE	DH 45V	DH 55G	DH 55V
<b>FREQUENCY CONVERTER</b>		✓		✓		✓
Electrically operated spindle sleeve feed	✓	✓	✓	✓	✓	✓
Oil pump			✓		✓	✓
Infinitely variable speed control		✓		✓		✓
Feed deactivation programmable		✓		✓		✓
Easily readable digital display		✓		✓		✓
Digitally adjustable drilling and thread depth		✓		✓		✓
Digital zero point adjustable		✓		✓		✓

### SCOPE OF DELIVERY:

- ▶ Quick-action drill chuck 1-16 mm
- ▶ Taper mandrel for drill chuck MT4/B16



Machine data	DH 35G	DH 35V*	DH 45GE	DH 45V*	DH 55G	DH 55V*
Art no.	3034250	3034253	3034257	3034263	3034265	3034267
Motor power ~50 Hz	1.5 / 2.2 kW / 400 V	2.2 kW / 400 V		2.2 kW / 400 V	2.2 / 2.8 kW / 400 V	2.8 kW / 400 V
Drilling performance in steel (S235JR)	Ø 35 mm		Ø 40 mm		Ø 55 mm	
Continuous drilling performance in steel (S235JR)	Ø 26 mm		Ø 35 mm		Ø 50 mm	
Thread tapping in steel (S235JR)	M 20		M 30		M 42	
Spindle seat	MT4		MT4		MT4	
Throat depth / quill stroke	285 mm / 125 mm		350 mm / 170 mm		400 mm / 190 mm	
Spindle sleeve feed	3 speeds; 0.05 - 0.15 mm/rev		3 speeds; 0.1 - 0.2 mm/rev		3 speeds; 0.1 - 0.2 mm/rev	
Spindle speeds	75 - 2000 min <sup>-1</sup>	30 - 2950 min <sup>-1</sup>	90 - 1520 min <sup>-1</sup>	30 - 2430 min <sup>-1</sup>	45 - 2000 min <sup>-1</sup>	10 - 3000 min <sup>-1</sup>
Gearbox stages	8 stages	4 pcs. electronically adjustable	8 stages	4 pcs. electronically adjustable	16 stages	4 pcs. electronically adjustable
Drill table (L x W) / T- slot size	400 x 420 mm / 14 mm		530 x 530 mm / 18 mm		600 x 600 mm / 18 mm	
Dimensions (L x W x H) approx.	860 x 475 x 2175 mm		880 x 595 x 2445 mm		850 x 1060 x 2500 mm	
Net weight approx.	355 kg		540 kg		850 kg	

\* The machines comply with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side

## OPTIdrill® RD 4E/ RD 5E Precise, solid radial drilling machines



### Facts that impress in terms of quality, performance and price

- ▶ Electrically braked motor
- ▶ Heavy, solid, premium quality casting
- ▶ Smooth action pivoting and travel axes
- ▶ Torsionally stiff boom design, capable of supporting heavy loads
- ▶ Height-adjustment of boom via powerful motorised drive and lifting spindle
- ▶ Right/left-hand rotation
- ▶ Clamping table included in the scope of delivery
- ▶ Coolant unit with coolant tank in machine base
- ▶ Column and headstock mechanically clamped



#### TOUCH

- › User-friendly membrane keypad with touch operation



#### CONTROL CABINET

- › Standards-compliant setup
- › New OPTIMUM in-house development
- › Signal transmission via network cable with diagnostic function

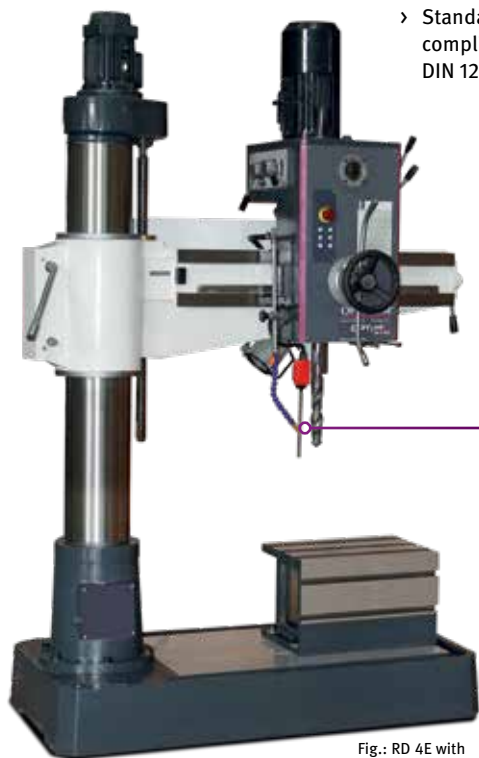


Fig.: RD 4E with optional drill

#### EXTENDABLE SHIFT ROD

- › Standards-compliant as per DIN 12717

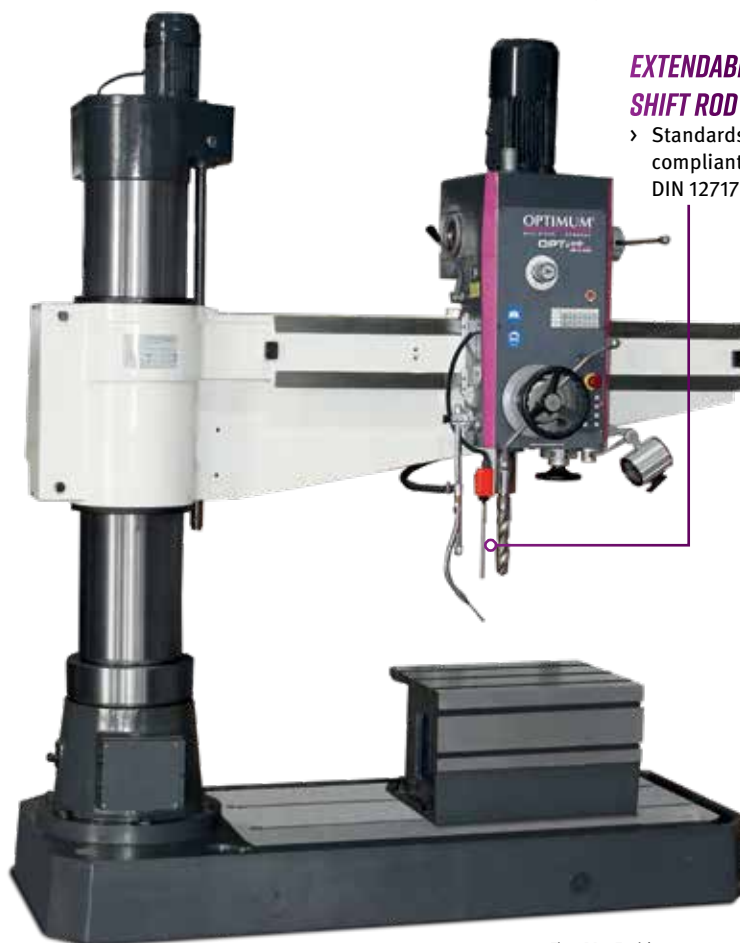


Fig.: RD 5E with optional drill

#### EXTENDABLE SHIFT ROD

- › Standards-compliant as per DIN 12717

#### SCOPE OF DELIVERY:

- ▶ Clamping table
- ▶ Morse taper MT4-MT3, MT4-MT2

Machine data	RD 4E	RD 5E
Art no.	3049340	3049350
Total connected load ~50 Hz	2.2 kW / 400 V	2.2 kW / 400 V
Drive power hoist motor	0.75 kW	0.75 kW
Drilling/continuous drilling capacity in steel (S235JR)	Ø 35 mm / Ø 32 mm	Ø 45 mm / Ø 40 mm
Spindle seat	MT 4	MT 4
Drilling head travel (horizontal)	570 mm	1,000 mm
Boom lift travel (vertical)	500 mm	680 mm
Spindle speeds / number of steps	75 - 1220 min <sup>-1</sup> / 6 speeds	40 - 1896 min <sup>-1</sup> / 12 speeds
Clamping table working surface (L x W x H)	460 x 320 x 300 mm	600 x 450 x 370 mm
Spindle to table distance	260 - 1000 mm	280 - 1210 mm
Spindle to column distance	300 - 870 mm	370 - 1370 mm
Dimensions (L x W x H) approx.	1550 x 750 x 2200 mm	2045 x 800 x 2450 mm
Net weight approx.	800 kg	2200 kg

## OPTIdrill® RD 4

### Precision, solid radial drilling machines, premium quality



#### Facts that impress in terms of quality, performance and price

- ▶ Electrically braked motor
- ▶ Operating elements with 24V DC electrics and 2-channel safety chain in accordance with DIN EN 12717
- ▶ Heavy, solid, premium quality casting
- ▶ Smooth action pivoting and travel axes
- ▶ Torsionally stiff boom design, capable of supporting heavy loads
- ▶ Height-adjustment of boom via powerful motorised drive and lifting spindle
- ▶ Drilling head gear box runs in oil sump
- ▶ Boom guideways hardened and precision ground
- ▶ Gear wheels made of chrome-nickel steel, hardened and precision ground for lower noise and smooth action
- ▶ Drilling head and column can be clamped or released separately
- ▶ Clockwise/anticlockwise rotation
- ▶ Hardened and ground clamping table with parallel T-slots
- ▶ Machine lamp
- ▶ Overload protection
- ▶ Clamping table included in the scope of delivery
- ▶ Coolant unit with coolant tank in machine base
- ▶ All axes are clamped manually



#### OPERATING ELEMENTS

> in 24 V DC electronics

#### EXTENDABLE SHIFT ROD

> Standards-compliant  
as per DIN 12717

#### SCOPE OF DELIVERY:

- ▶ Clamping table

Machine data	RD 4
Art no.	3049040
Total connected load ~50 Hz	3 kW 400 V / ~50 Hz
Spindle drive motor power	1.5 kW
Drilling/continuous drilling capacity in steel (S235JR)	Ø 32 mm / Ø 28 mm
Spindle seat	MT4
Drilling head travel (horizontal)	530 mm
Boom lift travel (vertical)	580 mm
Spindle speeds / number of steps	73 - 1247 min <sup>-1</sup> / 6 speeds
Clamping table working surface (L x W x H)	600 x 445 x 380 mm
Spindle to table distance	260 - 1060 mm
Spindle to column distance	220 - 750 mm
Dimensions (L x W x H) approx.	1260 x 700 x 2180 mm
Net weight approx.	1120 kg

1) Explanations regarding the transport surcharge (TPZDF) plus VAT can be found on the reverse side..

**Drilling machines accessories**

Article no.

**Try square 90°**

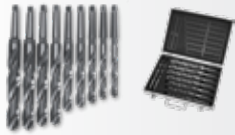
3385052



- › For clamping purposes during mechanical processing of workpieces, inspection and marking work.
- › Precision: Parallelism and perpendicularity 0.01 to 100 mm
- › Dimensions (L x W x H) approx.: 202x126x150 mm
- › Weight approx. 7 kg

**Twist drill HSS**

MT2	3051002
MT3	3051003



- › 9-piece; sizes 14.5/16/18/20/22/24/26/28/30 mm
- › Long service life
- › Good chip removal
- › Right-hand cutting

**Optimum precision quick-action drill chuck**

DKC 13 / 0-13 mm; B16 to 4800 min <sup>-1</sup>	3050632
DKC 16 / 0-16 mm; B16 to 4000 min <sup>-1</sup>	3050633



**Quick-action drill chuck with MT mount**

MT2 1 - 16 mm; up to 6000 min <sup>-1</sup>	3050571
MT2 1 - 13 mm; up to 8000 min <sup>-1</sup>	3050572
MT3 1 - 16 mm; up to 6000 min <sup>-1</sup>	3050573
MT4 1 - 16 mm; up to 6000 min <sup>-1</sup>	3050574



**Twist drill set**

25-piece; 1- 13 mm	3201010
41-piece; 6 - 10 mm (in 0.1 mm increments)	3201021



- › As per DIN 338 HSS-CO 5 %
- › Four-surface 135° cross grinding enables excellent self-centring
- › Improved tool service life thanks to alloyed components
- › High speed/feed characteristics
- › Strong core design optimises the structural strength of the bit and minimises the risk of bit breakage

**Countersink set**

3201050



- › As per standard DIN 335C
- › 6-part: 6/8/10/11.5/15/19 mm
- › Premium conical counterbores Burrs are nicely chamfered and removed without causing scratches
- › Compatible with popular battery-powered screwdrivers and drills, including upright drilling machines

**Drilling machines accessories**

Article no.

**Thread tapping chuck 7 inserts, sizes M3 - M12**

MT2	3050702
MT3	3050705
MT4	3050709

**Thread tapping chuck with 7 inserts, M8 -20**

MT2	3050720
MT3	3050706
MT4	3050710



- › The size of the square is based on the shaft diameter of the hand tap DIN376.

**HSS Countersink bit set**

3201051



- › As per standard 373
- › 6-piece: for screws M3/M4/M5/M6/M8/M10 mm
- › Sizes 6.5 x 3.2/8 x 4.3/10 x 5.3/11 x 6.4/15 x 8.54/18 x 10.5 mm
- › Fine grade for countersinking screws and nuts as per DIN 74

**Sheet metal peel drill set**

3201055



- › 3-part: 3-14 mm / 8-20 mm / 16-30.5 mm
- › With sharp tip, no pre-drilling required
- › Conically rising cutting edges and radially relief-ground circumference for peeling cut
- › Drilling without burr and chatter marks

**Thread repair assortment**

3202010



- › 5 twist drills (5.2/6.3/8.3/10.4/12.4 mm)
- › 5 taps (M5/M6/M8/M10/M12)
- › 5 pcs. inserter for threaded inserts
- › 5 pcs. tang breaker
- › 100 pcs. threaded inserts: 25 each M5x0.8/M6x1.0/ M8x1.25/M10x1.5 mm
- › 10 pcs. threaded inserts M12 x 1.75 mm
- › For repairing defective threads
- › For thread armouring of materials with low shear strength

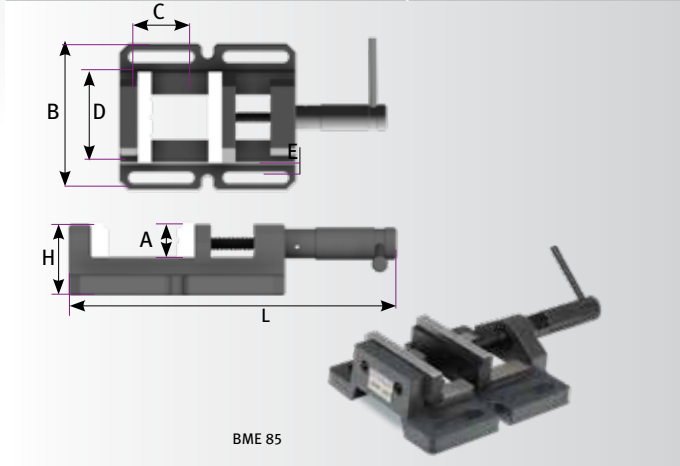
**Thread cutting device M5 - M12/B16**

3352042



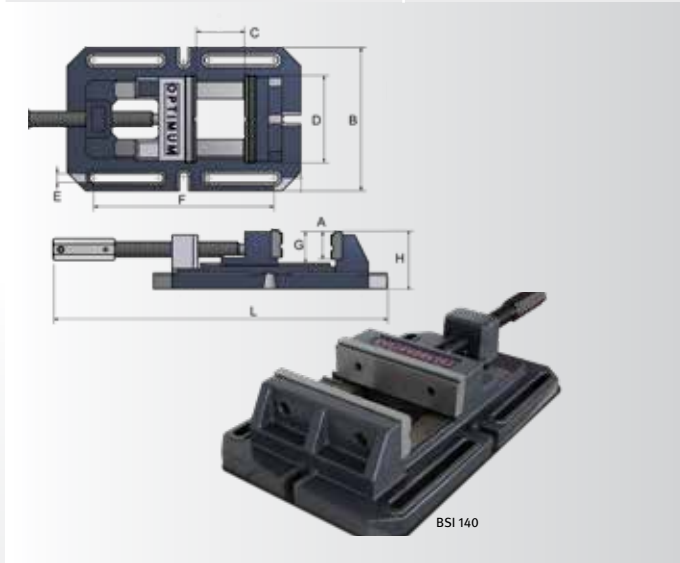
- › Quick reverse built-in, immediately effective on changing the feed direction
- › 4-stage adjustable slipping clutch
- › Two flexible collets, two open-end spanners, handle, Allen key

Machine vices BME	Article no.
› Smooth action	
› Precise jaw guidance	
› Spindle with rolled trapezoid thread	
› Many assembly options on drill table thanks to slots	
<b>BME 85</b>	3052630
<b>BME 100</b>	3052632
<b>BME 120</b>	3052634
<b>BME 150</b>	3052636



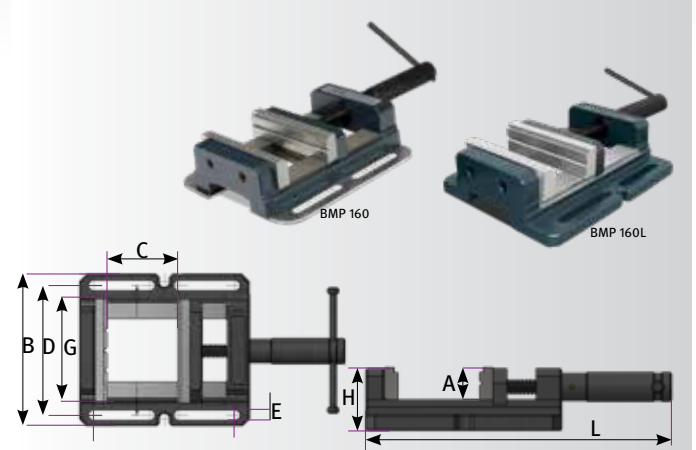
Tech. data	A	C	D	E	L	B	H	kg	
BME 85	mm	30	69	85	12	235	132	58	2.8
BME 100	mm	30	100	100	14	288	160	60	4.0
BME 120	mm	30	120	120	14	327	180	63	5.0
BME 150	mm	30	165	150	14	428	220	70	8.0

Machine vices BSI	Article no.
› Drill vices in industrial quality	
› Replaceable prism jaws	
› Long guides on moving jaw prevent pivoting	
› Precision ground prism jaws	
› Many assembly options on drill table thanks to slots	
› Premium grey cast	
› Scraped guide surfaces	
<b>BSI 100</b>	3000210
<b>BSI 140</b>	3000214
<b>BSI 200</b>	3000220



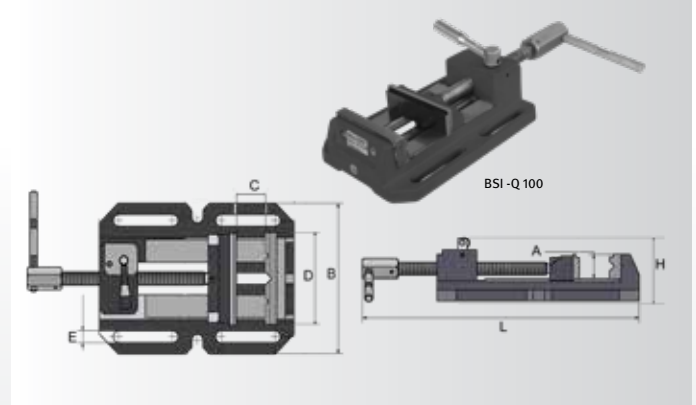
Tech. data	A	C	D	E	F	G	L	B	H	kg	
BSI 100	mm	35	110	100	12	216	40	max. 460	170	74	8.7
BSI 140	mm	45	150	140	14	290	50	max. 610	230	93	18
BSI 200	mm	58	200	200	16	406	64	max. 788	290	118	37

Machine vices BMP	Article no.
› Smooth action	
› Rugged design with prism jaws	
› Spindle with rolled trapezoid thread	
› Many assembly options on drill table thanks to slots	
<b>BMP 100</b> Cast struts for fastening	3052610
<b>BMP 130</b> Cast struts for fastening	3052613
<b>BMP 160</b> Mounting plate for fastening	3052616
<b>BMP 160L</b> Cast struts for fastening	3052617
<b>BMP 200</b> Mounting plate for fastening	3052620
<b>BMP 200L</b> Cast struts for fastening	3052621



Tech. data	A	G	C	D	E	L	B	H	kg	
BMP 100	mm	30	100	100	133	13	294	162	64	5.6
BMP 130	mm	35	130	120	163	13	334	192	69	7.4
BMP 160	mm	40	160	145	205	13	420	250	77	13
BMP 160L	mm	40	160	145	205	13	420	250	82	15
BMP 200	mm	50	200	195	245	14.5	535	290	87	21.6
BMP 200L	mm	50	200	195	245	14.5	535	320	92	23

Machine vices BSI-Q	Article no.
› Drill vices in industrial quality	
› Quick clamping thanks to quick release	
› Replaceable prism jaws	
› Long guides on moving jaw prevent pivoting	
› Precision ground prism jaws	
› Many assembly options on drill table thanks to slots	
› Premium grey cast . Scraped guide surfaces	
<b>BSI-Q 100</b>	3000230
<b>BSI-Q 140</b>	3000234
<b>BSI-Q 200</b>	3000240



Tech. data	A	C	D	E	L	B	H	kg	
BSI-Q 100	mm	30	105	100	12	max. 335	150	95	5.5
BSI-Q 140	mm	40	155	140	14	max. 415	200	100	10.7
BSI-Q 200	mm	55	220	200	16	max. 525	275	125	20.2

# THERMDRILL® Replaces rivet nuts



due to extremely stable threaded bushes made from the existing material - produced by frictional heat.

## The Thermdrill® process



thermal drilling



Thread formin



Wobble-free threaded bushing



**High quality + Time saving + Cost saving + Simple application**

- ▶ 100% wobble-free
- ▶ For steel, stainless steel, non-ferrous metal, aluminium

- ▶ For all common thread sizes
- ▶ For column drilling machine, milling machine and CNC\*

- ▶ From 1.0 mm wall thickness

Your starter set in just 3 steps

## 1. Thermal drill



Wall thickness Please note!

M = Metric

Thread	version	Max. wall thickness [mm]	Art. no.	Max. wall thickness [mm]	Art. no.
M3	short	1.5	3060103	1.5	3060143
	long	2.0	3060123	3.0	3060163
M4	short	1.5	3060104	2.0	3060164
	long	2.5	3060124	4.0	3060144
M5	short	2.0	3060105	3.0	3060165
	long	3.0	3060125	4.5	3060145
M6	short	2.0	3060106	3.0	3060166
	long	3.5	3060126	5.0	3060146
M8	short	2.5	3060108	4.0	3060168
	long	4.0	3060128	6.0	3060148
M10	short	2.5	3060110	4.0	3060170
	long	4.5	3060130	6.5	3060150
M12	short	3.0	3060112	4.5	3060172
	long	5.0	3060132	7.0	3060152

+ Further thread sizes can be found at: [www.thermdrill.com/lieferprogramm](http://www.thermdrill.com/lieferprogramm)

### Tool set

(thermal drill + thread former)



Thread	version	Max. wall thickness [mm]	Art. no.	Max. wall thickness [mm]	Art. no.
M3	short	1.5	3060503	1.5	3060563
	long	2.0	3060523	3.0	3060583
M4	short	1.5	3060504	2.0	3060564
	long	2.5	3060524	4.0	3060584
M5	short	2.0	3060505	3.0	3060565
	long	3.0	3060525	4.5	3060585
M6	short	2.0	3060506	3.0	3060566
	long	3.5	3060526	5.0	3060586
M8	short	2.5	3060508	4.0	3060568
	long	4.0	3060528	6.0	3060588
M10	short	2.5	3060510	4.0	3060570
	long	4.5	3060530	6.5	3060590
M12	short	3.0	3060512	4.5	3060572
	long	5.0	3060532	7.0	3060592

## 2. Thread former

with TiN coating and lubrication groove tolerance 6HX, shape C

Standard tool holder can be used

Thread	Art. no.
M3 × 0,5	3060201
M4 × 0,7	3060202
M5 × 0,8	3060204
M6 × 1,0	3060205
M8 × 1,25	3060207
M10 × 1,25	3060209
M12 × 1,75	3060211

### Speed + motor power

The specifications are guide values for steel. Speed adjustment required for other materials: -10% for stainless steel, + 50% for aluminium, brass, copper

Thread	thermal drilling Speed [U/min.]		Motor power		Thread formin Speed [rpm]
	min.	ideal	Wall thickness [mm]	kW	
M3	2600	3000	1.0	0.75	1350
			2.0	1.0	
M4	2300	2600	≤1.5	1.0	1000
			≤4.0	1.5	
M5	2200	2500	3.0	1.0	800
			4.5	1.5	
M6	2000	2400	4.0	1.5	650
			5.0	2.0	
M8	1600	2200	4.0	1.5	500
			6.0	2.0	
M10	1500	2000	3.0	1.5	400
			5.0	2.0	
M12	1400	1800	3.0	1.5	350
			5.0	2.0	

## 3. Basic equipment



Contains everything you need to get started

Spindle seat	Art. no.
MT2/3	3060004

**Contents:**  
Cooling chuck MT2-ER32  
Collet ER32 (Ø 6/8/10/12 mm)  
Fork and hook spanner ER32  
Taper mandrel B16-MT2, B16-MT3  
THERMDRILL® Paste 100 g  
Thread moulding oil 100 ml  
Brass and bristle brushes  
System case

ISO, SK, HSK adapters also available

Lubricant	
Protective paste	
High-performance oil	

Article	Art. no.
Thermdrill Paste 1 kg	3060090
Thread form Oil 1 litre	3060092

### Quick coupler



Article	Art. no.
Cooling chuck ER32	3060007
Adapter 'small' (M3-M12)	3050715
Adapter 'large' (M8-M20)	3050716
Change set 'small' (M3-M12)	3050702
Change set 'large'	3050706

## OPTImill® MH 15V

### Drilling and milling machine with electronically controllable drive



#### Facts that impress in terms of quality, performance and price

- ▶ Two-speed transmission ratio
- ▶ MT2 tool holder
- ▶ The drill head can be tilted by 45°, enabling milling and drilling work at any angle
- ▶ Simple and clear control panel
- ▶ With 24V low voltage
- ▶ Feed spindles can be adjusted backlash-free using adjustable spindle nuts
- ▶ Solid cross table, precisely surface-machined with T-slots
- ▶ Adjustable limit stops
- ▶ Fine feed



- › Simple and clear operating unit with
- › Speed display
- › Touch on/off switch
- › Potentiometer
- › Emergency stop button

#### SCOPE OF DELIVERY:

- ▶ Drill chuck 1-13 mm
- ▶ Taper shank
- ▶ T-slot nut
- ▶ Operating tool

Machine data	MH 15V*
Art no.	3338110
Motor power S1 ~50Hz	500 W / 230 V
Drilling capacity / continuous drilling capacity in steel (S235JR)	Ø 13 mm / Ø 11 mm
Cutter head size max.	Ø 50 mm
Throat depth / quill stroke	145 mm / 45 mm
Spindle seat	MT2
Spindle speeds	90 - 2250 min <sup>-1</sup>
Gearbox stages	2 stages, electronically adjustable
Cross table working surface (L x W) / T-slots	400 x 120 mm / 10 mm
X- / Y- / Z-axis traverse path	240 / 135 / 150 mm
Dimensions (L x W x H) approx.	510 x 490 x 630 mm
Net weight approx.	58.5 kg



## OPTImill® BF 20Vario / BF 20LVario

### Sturdy drilling/milling machines with continuously variable electronic speed control.

#### OPTImill BF 20LVario with longer cross table



#### Facts that impress in terms of quality, performance and price

- ▶ Separate emergency stop push button
- ▶ Safety electrical system 24-volt version
- ▶ EMC filter class C2
- ▶ Precise feed thanks to positioning capable scale rings on all handwheels
- ▶ Stable column with dovetail guide, adjustable on all 3 axes via wedge bars.
- ▶ Two-row angular contact ball bearings in the axes, adjustable without play
- ▶ Safety electrical system 24-volt version
- ▶ Gaiter as guide protection
- ▶ Clockwise/anticlockwise rotation

Machine data	BF 20Vario*	BF 20LVario*
Art no.	3338120	3338122
Motor power ~50 Hz	850 W / 230 V	
Drilling performance in steel (S235JR)	Ø 16 mm	
Continuous drilling performance in steel (S235JR)	Ø 12 mm	
Cutterhead/end mill size	Ø 63 / 20 mm	
Spindle seat	MT2 / M10	
Throat depth/ quill stroke	185 / 50 mm	
Spindle speeds	90 - 1480 min <sup>-1</sup> / 150 - 3000 min <sup>-1</sup>	
Working surface Table length	500 mm	700 mm
Working surface Table width	180 mm	
X axis traverse path	280 mm	480 mm
Y axis traverse path	175 mm	
Z-axis traverse path	280 mm	
Dimensions (L) approx.	745 mm	950 mm
Dimensions (W x H) approx.	565 x 935 mm	
Net weight approx.	103 kg	112 kg

**Back again**  
The original  
from OPTIMUM



Fig.: BF 20L Vario with optional milling cutter and chuck

#### Accessories

Attachment adapter (for machine beds TU2807, TU2506 and TU3008)

#### Art. no.

3356574

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side. OPTImill® is a registered trademark of Optimum Maschinen Germany GmbH exclusively for milling machines.

## OPTImill® MH 20V / MH 20VL / MH 20VLD

### Sturdy drilling and milling machines with manual quill feed

Facts that impress in terms of quality, performance and price

- ▶ Clearly-arranged control panel with user-friendly foil keyboard
- ▶ Safety electrical system 24-volt version
- ▶ Easily readable digital display for speed and drilling depth
- ▶ Motor with two-stage gear ratio
- ▶ Powerful DC motor with permanent current monitoring
- ▶ Clockwise/anticlockwise rotation
- ▶ Machine lamp
- ▶ Adjustable end stops on the X-axis
- ▶ High concentricity thanks to tapered roller bearings  $\leq 0.015$  mm measured in the spindle sleeve.
- ▶ Sturdy dovetail guide with adjustable wedge bars

**MH 20VL:**

- ▶ Greater travel in the X-axis

**MH 20VLD:**

- ▶ Digital position display DRO 5

**SCOPE OF DELIVERY:**

- ▶ Taper mandrel for drill chuck MT2/ B16
- ▶ Drawbar M10
- ▶ Operating tool

Machine data	MH 20V*	MH 20VL/MH 20VLD*
Art no.	3338131	3338132/3338133
Motor power ~50 HzS1	750 W/ 230 V	
Drilling capacity / continuous drilling capacity in steel (S235JR)	$\varnothing 16$ mm / $\varnothing 12$ mm	
Cutter head size	$\varnothing 52$ mm	
Throat depth / quill stroke	170 mm / 50 mm	
Spindle seat	MT2	
Spindle speeds	100 - 3000 min <sup>-1</sup>	
Gearbox stages	2 stages, electronically adjustable	
Cross table working surface (L x W) / T-slots	510 x 180 mm / 12 mm	700 x 180 mm / 12 mm
X axis traverse path	280mm	480 mm
Y- / Z-axis traverse path	175 mm / 210 mm	
Dimensions (L x W x H) approx.	750 x 650 x 820 mm	770 x 714 x 917 mm
Net weight approx.	94 kg	99 kg



Fig.: MH 20VL with optional chuck and cutter.

Machine base	Art. no.
MSM 1	3353000
Chip tray	3352999

## OPTImill® MH 22V / MH 22VD

### Sturdy drilling/milling machines with continuously variable electronic speed control

Facts that impress in terms of quality, performance and price

- ▶ Clearly-arranged control panel with user-friendly foil keyboard
- ▶ Safety electrical system 24-volt version
- ▶ Digital display for speed and drilling depth
- ▶ Powerful DC motor with permanent current monitoring
- ▶ Control electronics with integrated relay control
- ▶ Feed spindles can be adjusted backlash-free using adjustable spindle nuts
- ▶ Clockwise/anticlockwise rotation
- ▶ Machine lamp
- ▶ Excellent concentricity thanks to tapered roller bearings,  $\leq 0.015$  mm measured in the spindle sleeve
- ▶ Two-row angular contact ball bearings in the axes, adjustable without play
- ▶ Fine feed

**MH 22VD:**

- ▶ Digital position display DRO 5
- ▶ Quick tool change system

**BT 20 TOOL**  
can be found on page OP41  
or in the main catalogue

Machine data	MH 22V* / MH 22VD*
Art no.	3338135/3338136
Motor power ~50 Hz	950 W/ 230 V
Drilling capacity / continuous drilling capacity in steel (S235JR)	$\varnothing 20$ mm / $\varnothing 16$ mm
Spindle seat	BT 20
Throat depth / quill stroke	170 mm / 40 mm
Spindle speeds	90 - 3000 min <sup>-1</sup>
Gearbox stages	2 stages, electronically adjustable
Cross table (L x W) / T-slots	700 x 180 mm / 12 mm
Clearance spindle to cross table	360 mm
X-, Y-, Z-axis traverse path	480 mm / 175 mm / 270 mm
Dimensions (L x W x H) approx.	745 x 650 x 950 mm
Net weight approx.	120 kg



Fig.: MH 22VD with optional milling cutter

Machine base	Art. no.
MSM 1	3353000
Chip tray	3352999

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side. OPTImill® is a registered trademark of Optimum Maschinen Germany GmbH exclusively for milling machines..

## OPTImill® MH 2DV / MH 3DV

Drilling and milling machines with electronically controllable drive and digital display



### Facts that impress in terms of quality, performance and price

- ▶ Direct spindle drive, electronically adjustable
- ▶ Precision workmanship
- ▶ Powerful servo drive motor with high torque (maintenance-free)
- ▶ Solid and generously dimensioned cross table with precision surface finish with T-slots and adjustable wedge bars
- ▶ Adjustable limit stops
- ▶ Stable dovetail guide with adjustable wedge bars
- ▶ Right/left-hand rotation
- ▶ Thread tapping
- ▶ Elegant, slim, modern design

- ▶ LED machine lamp
- ▶ Fine feed
- ▶ Emergency stop button
- ▶ Drill and milling head can be tilted by ±90°
- ▶ Height-adjustable protective screen with microswitch against flying chips and parts, for maximum protection of the user



Fig.: MH 2DV



Fig.: MH 3DV

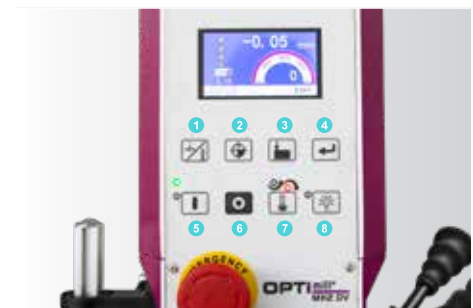
### INLINE SPINDLE DRIVE



Very quiet



▶ No more gearbox, therefore extremely smooth running



### DIGITAL DISPLAY

- 1 Operating mode selection: Thread tapping
- 2 Zero point setting (start of workpiece)
- 3 Setting the drilling and thread depth
- 4 Enter button
- 5 Push-button start
- 6 Push-button stop
- 7 Direction of rotation switch
- 8 LED machine light

Machine data	MH 2DV*	MH 3DV*
Art no.	3337126	3337130
Drive motor power ~ 50 Hz	1.5 kW / 230 V	2.2 kW / 230 V
Drilling capacity / continuous drilling capacity in steel (S235JR)	Ø 16 mm / Ø 13 mm	Ø 28 mm / Ø 25 mm
Max. milling capacity with end mill	Ø 20 mm	Ø 30 mm
Max. milling capacity with cutter head	Ø 63 mm	Ø 75 mm
Distance spindle to column	185 mm	215 mm
Spindle sleeve stroke	70 mm	100 mm
Spindle sleeve diameter	60 mm	68 mm
Spindle seat	MT2 / M10	MT3 / M12
Swiveling drill/milling head	± 90°	± 90°
Spindle speeds	200 - 3000 min <sup>-1</sup>	120 - 3000 min <sup>-1</sup>
Cross table work surface (L x W)	700 x 180 mm	750 x 210 mm
T-slot size / spacing / count	12 / 63 / 3 mm	12 / 63 / 3 mm
X- / Y- / Z-axis traverse path	480 / 175 / 280 mm	450 / 200 / 450 mm
Dimensions (L x W x H) approx.	956 x 591 x 998 mm	850 x 830 x 1350 mm
Net weight approx.	118 kg	270 kg

Machine base	Art. no.
MSM 1 (MH2DV)	3353000
Chip tray (MH2DV)	3352999
MSM 3 (MH3DV)	3353014
Vibration damper machine foot SE 55 (4 pieces required)	3352981

\* The machines comply with the DIN EN 55011 standard: MH 2DV: Class C1/MH 3DV: Class C2. Important information on operating machines with frequency converters can be found on the reverse side. OPTImill® is a registered trademark of Optimum Maschinen Germany GmbH exclusively for milling machines.

You can find more detailed information in the 2026 main catalogue or at [www.optimum-machines.com](http://www.optimum-machines.com)

## OPTImill<sup>®</sup> MB 4 / MB 4D

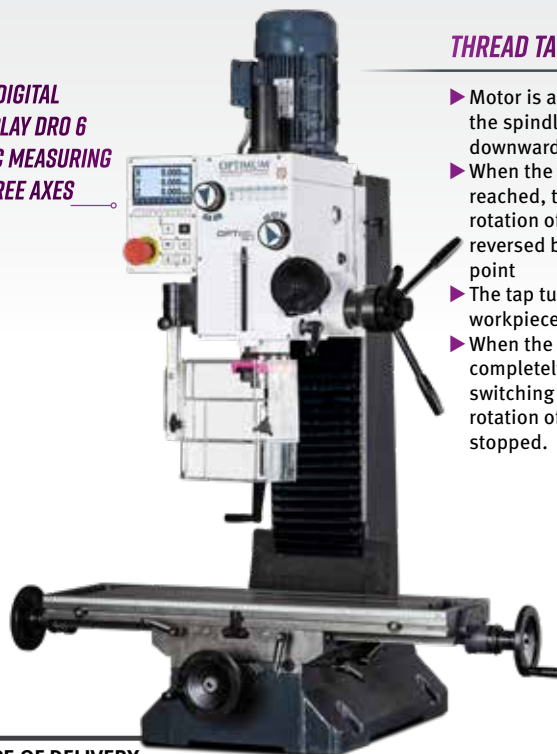
### Universal drilling and milling machine with two-stage drive motor with manual gearbox



Facts that impress in terms of quality, performance and price

- ▶ Quality industrial electric motor
- ▶ Smooth running due to ground gearwheels running in an oil bath
- ▶ Wide speed range from 95 - 3200 min<sup>-1</sup> thanks to 12 switchable speeds
- ▶ Motor protection monitoring via selection on the rear of the front panel
- ▶ Manual sleeve feed with fine feed
- ▶ Height-adjustable protective screen with microswitch
- ▶ Switch box completely new with in-house development
- ▶ Front panel with Teflon coating
- ▶ Clockwise/anticlockwise rotation
- ▶ Control panel with membrane keypad
- ▶ ± 45° tiltable gear head

**MB 4D WITH DIGITAL POSITION DISPLAY DRO 6 AND MAGNETIC MEASURING SYSTEM IN THREE AXES**



#### THREAD TAPPING MODE

- ▶ Motor is activated by moving the spindle sleeve lever downwards.
- ▶ When the set depth is reached, the direction of rotation of the spindle is reversed by the switching point
- ▶ The tap turns out of the workpiece again
- ▶ When the spindle sleeve is completely retracted to the switching point again, the rotation of the spindle is stopped.

Machine data	MB 4
Art no.	3338451
Art no. (MB 4D)	3338448
Motor power	1.1 / 1.5 kW / 400 V
Drilling performance in steel (S235JR)	Ø 32 mm
Continuous drilling performance in steel (S235JR)	Ø 28 mm
Cutter head size	Ø 63 mm
Spindle seat	MT4
Quill stroke / Throat depth	120 mm / 275 mm
Spindle speeds	95 - 3200 min <sup>-1</sup>
Gearbox stages	2 x 6 stages
Table work surface (L x W)	800 x 240 mm
T-slot size / distance	14 mm / 63 mm
X- / Y- / Z-axis traverse path	450 / 195 / 430 mm
Dimensions (L x W x H) approx.	1155 x 775 x 1420 mm
Net weight approx.	320 kg

#### SCOPE OF DELIVERY:

- ▶ Tightening rod M16
- ▶ Adapter MT4/MT3
- ▶ Mounting MT4/22 mm
- ▶ Operating tool

Machine base	Art. no.
MSM3	3353014

## OPTImill<sup>®</sup> MB 4SV / MB 4SVD

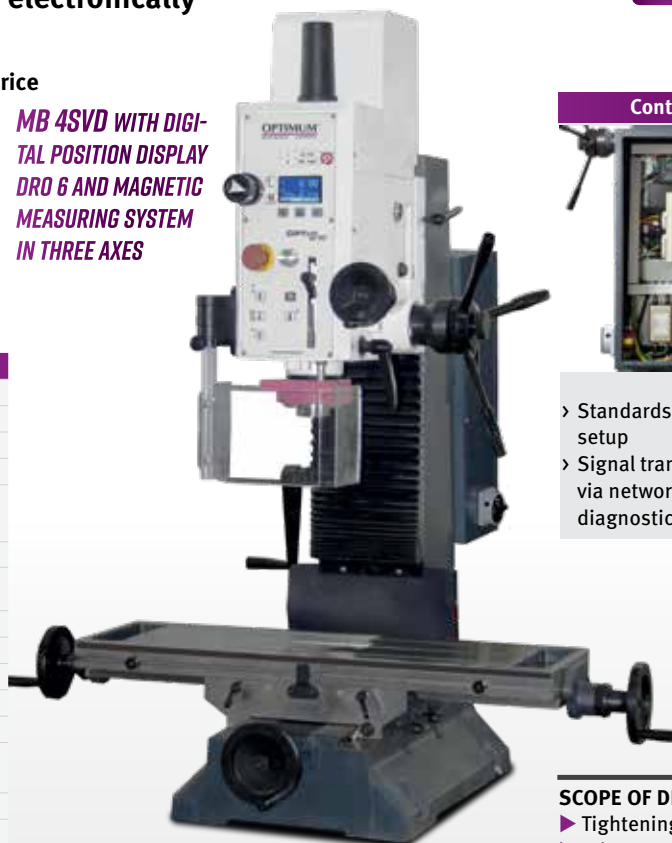
### Universal drilling and milling machine with electronically controllable drive and digital display



Facts that impress in terms of quality, performance and price

- ▶ Quality industrial electric motor
- ▶ Smooth running due to ground gearwheels running in an oil bath
- ▶ Wide speed range 60 - 3000 min<sup>-1</sup> with two gear stages
- ▶ Manual sleeve feed with fine feed
- ▶ Height-adjustable protective screen with microswitch
- ▶ Clockwise/anticlockwise rotation
- ▶ ± 45° tiltable gear head

**MB 4SVD WITH DIGITAL POSITION DISPLAY DRO 6 AND MAGNETIC MEASURING SYSTEM IN THREE AXES**



#### Control cabinet



- ▶ Standards-compliant setup
- ▶ Signal transmission via network cable with diagnostic function

Machine data	
Art no. MB 4SV*	3338458
Art no. MB 4SVD*	3338459
Motor power S1 ~50Hz	3 kW / 230 V
Drilling performance in steel (S235JR)	Ø 32 mm
Continuous drilling performance in steel (S235JR)	Ø 28 mm
Max. milling capacity with end mill	Ø 26 mm
Max. milling capacity with cutter head	Ø 63 mm
Distance spindle to column	275 mm
Spindle sleeve stroke	120 mm
Spindle seat	MT4/ M16
Swiveling drill/milling head	± 45°
Spindle speeds	60 - 3000 min <sup>-1</sup>
Gearbox stages	2 stages electronically adjustable
Cross table work surface (L x W)	800 x 240 mm
T-slot size / spacing / count	14 / 63 / 3 mm
X- / Y- / Z-axis traverse path	450 / 200 / 430 mm
Dimensions (L x W x H max.) approx.	980 x 1155 x 1360 mm
Net weight approx.	320 kg

#### SCOPE OF DELIVERY:

- ▶ Tightening rod M16
- ▶ Adapter MT4/MT3
- ▶ Mounting MT4/22 mm
- ▶ Operating tool

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side. OPTImill<sup>®</sup> is a registered trademark of Optimum Maschinen Germany GmbH exclusively for milling machines.

## OPTImill® MH 25PV / MH 25SPV - Sturdy drilling and milling machine with electronic infinitely variable drive. MH 25SPV with stepper motors and digital position display DRO 5



### SIEMENS SINAMIGS V20 INVERTER

#### Facts that impress in terms of quality, performance and price

- ▶ Inverter motor
- ▶ Control panel with membrane keypad
- ▶ Counterweight facilitates adjustment of the Z-axis
- ▶ Clockwise/anticlockwise rotation
- ▶ Particularly smooth action
- ▶ ± 45° tiltable gear head
- ▶ Quick-change clamping system

#### MH 25SPV:

- ▶ Continuously variable feed on all axes
- ▶ Rapid traverse X/Y axis for fast positioning
- ▶ Digital 3-axis position display DRO 5
- ▶ Feed cut-off at end position
- ▶ Transportable control panel
- ▶ The feed switches off when the spindle is stationary
- ▶ Limit switches for all three axes

#### MH 25PV:

- ▶ Easily readable speed display in milling head
- ▶ Prepared groove for retrofitting the magnetic tapes

Machine data	MH 25PV*	MH 25SPV*
Art no.	3338156	3338161
Drive motor / torque		1.5 kW / 230 V / 10 Nm
Cutter head size / end mill size		Ø 50 mm / Ø 25 mm
Spindle - column distance		185 mm
Spindle sleeve stroke		60 mm
Spindle seat		BT 30
Spindle speeds	200 - 4000 min <sup>-1</sup>	Speed electronically adjustable
Cross table length, table (L x W)		620 x 180 mm
T-slot size / amount / distance		12 mm / 3 / 50 mm
X-axis traverse path	manual 390 mm	automatic ~370 mm / manual 390 mm
Y-axis traverse path	manual 210 mm	automatic ~130 mm / manual 210 mm
Z-axis traverse path	manual 270 mm	automatic ~180 mm / manual 270 mm
X- / Y- / Z-axis - Torque	-	2.2 / 2.2 / 4.2 Nm
X- / Y- / Z-axis Traversing speeds	-	150 - 930 / 100 - 580 / 80 - 450 mm/min.
Dimensions (L x W x H) approx.	955 x 970 x 1025 mm	975 x 970 x 1025 mm
Net weight approx.	202 kg	220 kg

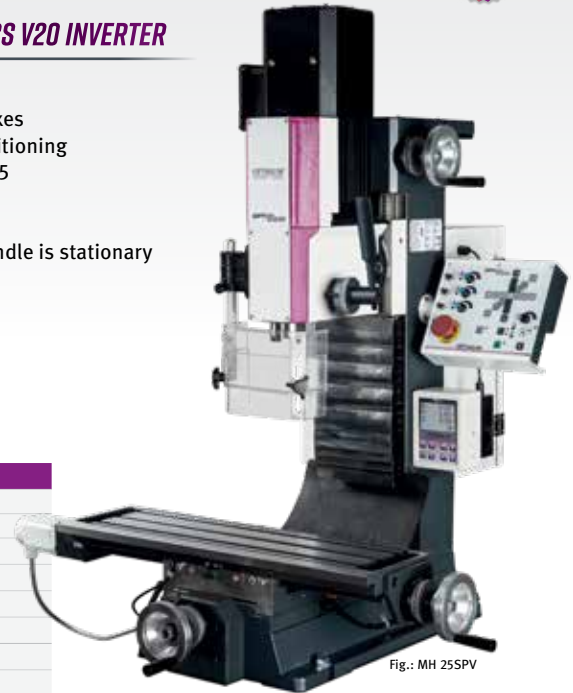


Fig.: MH 25SPV

Machine base	Art. no.
<b>MSM 2</b>	3353009
<b>BT 30 starter set</b>	3353282

**BT 30 TOOL**  
For More Information, see page OP42

## OPTImill® MB 4P / MB 4PV - Drilling and milling machines with digital position indicator and cast iron base. MB 4PV with continuously variable electronically controlled drive



### SIEMENS SINAMIGS V 20 FREQUENCY INVERTER

#### Facts that impress in terms of quality, performance and price

- ▶ Smooth running due to ground gearwheels running in an oil bath
- ▶ Clockwise/anticlockwise rotation
- ▶ Tiltable gear head ± 45°
- ▶ Drilling/Thread tapping function
- ▶ Motorised positioning of the Z-axis
- ▶ Motorised table feed of the X-axis
- ▶ Drilling depth stop
- ▶ Automatic spindle sleeve feed
- ▶ Machine lamp
- ▶ Coolant system

#### MB 4P:

- ▶ Two-stage industrial quality electric motor
- ▶ 12 switchable speeds

#### MB 4PV:

- ▶ Single-stage quality industrial electric motor
- ▶ Two infinitely variable gear stages

#### SCOPE OF DELIVERY:

- ▶ Taper mandrel for drill chuck MT3/B16
- ▶ Adapter MT4-MT3
- ▶ Machine base

Machine data	MB 4P	MB 4PV *
Art no.	3338460	3338466
Motor power ~50 Hz	1.1 / 1.5 kW / 400 V	1.5 kW / 400 V
Drilling/continuous drilling capacity in steel (S235JR)	Ø 32 mm / Ø 28 mm	Ø 24 mm / Ø 20 mm
Spindle seat	MT4	
Spindle speeds	95 - 3200 min <sup>-1</sup>	60 - 2760 min <sup>-1</sup>
Gearbox stages	2 x 6 stages	2 stages, electrically adjustable
Table work surface (L x W)	800 x 240 mm	
T-slot size / spacing / count	14 mm / 80 mm / 3	
X-axis traverse path	manual 560 mm / automatic ~480 mm	
Y- / Z-axis manual traverse path	195 mm / 350 mm	
Dimensions (L x W x H) approx.	1600 x 930 x 2110 mm	
Net weight approx.	495 kg	



\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side. OPTImill® is a registered trademark of Optimum Maschinen Germany GmbH exclusively for milling machines.

Accessories can be found on page OP40 or in the main catalogue 2026 or at [www.optimum-machines.com](http://www.optimum-machines.com).

**OPTImill® MH 35G / MH 35V / MH 50G / MH 50V**  
**Universal precision drilling/milling machines with manual gearbox.**  
**MH 35V / MH 50V with electronically controlled drive**



**Facts that impress in terms of quality, performance and price**

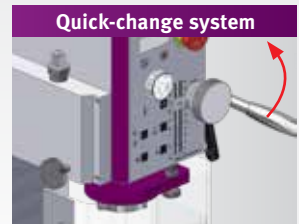
- ▶ Control panel with membrane keypad
- ▶ Easily readable digital display
- ▶ Thread tapping mode
- ▶ Clockwise/anticlockwise rotation
- ▶ Rotary pushbutton on control panel for adjusting the depth, optionally in mm or inches, with zero point
- ▶ Stainless steel lamella protective cover for the Z axis
- ▶ BT holder for very fast tool change
- ▶ Digital speed display

**Updated version**

- ▶ The machine base is reinforced and moulded into a wedge shape at the front to create additional rigidity at the rear by using more material
- ▶ Very stable Z-column connection
- ▶ The longer Y-travel allows you to work across the entire table size.

**MH 50G/MH 50V:**

- ▶ Electric Z-axis adjustment
- ▶ Larger table and therefore more traverse path in the X-axis



- Quick-change system**
- › Mechanical
  - › Easy to change by unlocking the mechanical safeguard and moving the sleeve lever upward



- Control cabinet**
- › Standards-compliant setup
  - › Completely new with in-house development from Optimum
  - › Signal transmission via network cable with diagnostic function

**DRO 5 - Digital 3-axis position display**  
Art no. 3383975



Fig.: MH 35G

Fig.: MH 50V

Machine data	MH 35G	MH 35V*	MH 50G	MH 50V*
Art no.	3338166	3338171	3338181	3338186
Motor power ~50 Hz	1.1 / 1.5 kW / 400 V	1.5 kW / 400 V	1.5 / 2.2 kW / 400 V	2.2 kW / 400 V
Drilling capacity / continuous drilling capacity in steel (S235JR)	Ø 32 mm / Ø 28 mm		Ø 38 mm / Ø 32 mm	
Cutter head size	Ø 80 mm		Ø 80 mm	
Spindle seat	BT 30		BT 40	
Spindle sleeve diameter	68 mm		80 mm	
Spindle - column distance	215 mm		285 mm	
Spindle speeds	220 - 3100 min <sup>-1</sup>	50 - 3260 min <sup>-1</sup>	225 - 3260 min <sup>-1</sup>	50 - 3260 min <sup>-1</sup>
Gearbox stages	2 x 6 stages	6 electrically adjustable levels	2 x 6 stages	6 stages, electrically adjustable
Working area table (L x W)	750 x 210 mm		1000 x 240 mm	
T-slot size / spacing / count	12 mm / 63 mm / 3		18 mm / 80 mm / 3	
X- / Y-axis manual traverse path	450 / 200 mm		650 mm / 295 mm	
Z-axis traverse path	manual 460 mm		manual 465 mm / automatic ~385 mm	
Dimensions (L x W x H) approx.	850 x 1030 x 1340 mm		1210 x 1020 x 1645 mm	
Net weight approx.	318 kg		518 kg	

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side. OPTImill® is a registered trademark of Optimum Maschinen Germany GmbH exclusively for milling machines.

## OPTImill® MT 50E

### Universal drilling/milling machine with automatic table feed in the X and Y axes

#### Facts that impress in terms of quality, performance and price

- ▶ Vibration absorbing cast design
- ▶ LED lamp
- ▶ Automatic feed of the X and Y axes with speed adjustment
- ▶ Clockwise/anticlockwise rotation
- ▶ The cross table (X-axis) can be rotated by  $\pm 45^\circ$

#### SCOPE OF DELIVERY:

- ▶ Gear rim drill chuck 3-16 mm/B18
- ▶ Drill chuck taper mandrel ISO40 / B18
- ▶ T-slot nuts
- ▶ Push-out tool
- ▶ Adapter ISO40-MT3/Adapter MT3-MT2
- ▶ Operating tool

Machine data	MT 50E
Art no.	3336010
Drive motor ~50 Hz	0.85 / 1.5 kW / 400 V
Drilling/continuous drilling capacity in steel (S235JR)	$\varnothing 30$ mm / $\varnothing 25$ mm
Spindle seat	ISO 40 DIN 2080
Spindle speeds	115 - 1750 min <sup>-1</sup>
Gear / motor stages	4-speed / 2-speed
Cross table (L x W)	1000 x 240 mm
Cross table load capacity	150 kg
T-slot size / count	14 mm / 4
X-axis traverse path	manual 580 mm / automatic ~500 mm
Y axis traverse path	manual 230 mm / automatic ~150 mm
Y-axis travel travel manual	320 mm
Dimensions (L x W x H) approx.	1360 x 1150 x 2080 mm
Net weight approx.	760 kg



#### ACCESSORIES

You can find this from page OP40 onwards or in main catalogue

## OPTImill® MT 50

### Universal precision drilling/milling machine for horizontal and vertical milling work

#### Facts that impress in terms of quality, performance and price

- ▶ Heavy, solid design made of high-quality, vibration-absorbing grey cast iron
- ▶ X-axis travels either with the handwheel or via the feed unit
- ▶ Horizontal milling position with counterholder and holder for disc milling cutter
- ▶ Spindle head support can be swivelled 90° to the left and right
- ▶ Coolant system
- ▶ Halogen machine lamp

#### OPTI CONTROL PANEL

- › Position indicator DPA31 Plus
- › Pivots to left and right side of machine

#### CROSS TABLE

- › can be swivelled 45° on both sides

#### SCOPE OF DELIVERY:

- ▶ Gear rim drill chuck 3 - 16 mm/B18
- ▶ Drill chuck taper mandrel ISO40 / B18
- ▶ ISO 40/MT3 adapter; ISO 40/MT2 adapter
- ▶ Horizontal milling spindle  $\varnothing 22$  mm/27 mm
- ▶ Vertical and horizontal tightening rod
- ▶ Serving tool, T-slot nuts, push-out tool

Machine data	MT 50
Art no.	3336005
Vertical spindle drive motor ~50 Hz	1.1 / 2.2 kW / 400 V
Horizontal spindle drive motor	1.5 kW
Drilling/continuous drilling capacity in steel (S235JR)	$\varnothing 30$ mm / $\varnothing 25$ mm
Spindle speeds	Vertical 115 - 1750 min <sup>-1</sup> Horizontal 60 - 1350 min <sup>-1</sup>
Spindle - column distance	Vertical 240 - 650 mm Horizontal 0 - 185 mm
Spindle seat	ISO 40 DIN 2080
Cross table (L x W) / T-slots	1000 x 240 mm / 14 mm
X-axis traverse path	Manual 580 mm / automatic ~500 mm
Y- / Z-axis manual traverse path	200 mm / 340 mm
Dimensions (L x W x H) approx.	1290 x 1090 x 2170 mm
Net weight approx.	820 kg

#### HORIZONTAL MILLING POSITION

- › spindle headstock must be rotated  $\pm 180^\circ$  for horizontal milling

OPTImill® is a registered trademark of Optimum Maschinen Germany GmbH exclusively for milling machines.

Accessories can be found on page OP40 or in the main catalogue 2026 or at [www.optimum-machines.com](http://www.optimum-machines.com).

## OPTImill® MT 60 - Universal milling machine for horizontal and vertical milling work. With digital 3-axis position indicator DPA31 Plus

### Facts that impress in terms of quality, performance and price

- ▶ Inclination range of the spindle head  $\pm 45^\circ$
- ▶ Spindle head carrier moves to front and rear
- ▶ Heavy, solid design made of high-quality, vibration-absorbing grey cast iron
- ▶ Counter holder for horizontal milling machines always ready to hand thanks to attachment at the rear
- ▶ Automatic quill feed (drilling)
- ▶ Clockwise/anticlockwise rotation
- ▶ X axis can be moved optionally with the hand wheel or the table feed unit
- ▶ Solid and generously dimensioned cross table, precisely surface-finished
- ▶ Coolant system



### SCOPE OF DELIVERY:

- ▶ Gear rim drill chuck  $\varnothing 3 - 16$  mm/B18
- ▶ Taper mandrel for drill chuck ISO40 / B18
- ▶ Adapter ISO40/MT3 and adapter MT3/MT2
- ▶ Arbor with counter bearing  $\varnothing 22$  mm and  $\varnothing 27$  mm
- ▶ Vertical and horizontal tightening rod
- ▶ Operating tool

Machine data	MT 60
Art no.	3336090
Total connected load ~50 Hz	5 kW 400 V
Horizontal and vertical drive motor	2.2 kW / 400 V
Drilling/continuous drilling capacity in steel (S235JR)	$\varnothing 30$ mm / $\varnothing 25$ mm
Spindle seat	ISO 40 DIN 2080
Spindle speeds	Vertical 90 - 2000 min <sup>-1</sup> Horizontal 40 - 1300 min <sup>-1</sup>
Spindle - column distance	Vertical 220 - 550 mm Horizontal 35 - 370 mm
Cross table (L x W) / T- Slot size	1270 x 280 mm / 14 mm
X-axis traverse path	manual 750 mm / automatic ~680 mm
Y- / Z-axis manual traverse path	230 mm / 360 mm
Dimensions (L x W x H) approx.	1650 x 1310 x 2160 mm
Net weight approx.	1300 kg

### HORIZONTAL MILLING POSITION

▶ The spindle head carrier must be rotated by  $\pm 180^\circ$  for horizontal milling



## OPTImill® MF 2-B / MF 4-B - Multifunctional drilling and milling machines with mechanically infinitely variable drive

### Facts that impress in terms of quality, performance and price

- ▶ Solid design using premium cast meehanite
- ▶ Motorised feed on X, Y and Z axes
- ▶ Clockwise/anti-clockwise rotation for thread cutting
- ▶ X and Y axis with adjustable 55 ° dovetail guide
- ▶ Y axis with flat guide
- ▶ Coolant system
- ▶ Mechanical spindle brake
- ▶ Central lubrication
- ▶ Digital position display DPA 31Plus

### MILLING HEAD

- ▶ Can be swivelled forwards or backwards by 45° and tilted 90° to the right or left



### SCOPE OF DELIVERY:

- ▶ Chip tray
- ▶ Operating tool

Machine data	MF 2-B	MF 4-B		
Art no.	3348330	3348340		
Drive motor ~50 Hz	2.2 kW / 400 V			
Drilling performance in steel (S235JR)	$\varnothing 24$ mm			
Continuous drilling performance in steel (S235JR)	$\varnothing 20$ mm			
Cutter head size	$\varnothing 76$ mm			
Spindle seat	ISO 40 DIN 2080			
Spindle - column distance	15 - 415 mm	0 - 420 mm		
Spindle speeds	60 - 4200 min <sup>-1</sup>			
Gearbox stages	2 stages, mechanically infinitely variable			
Table working surface (L x W) / T-slots	1246 x 230 mm / 16 mm	1370 x 254 mm / 16 mm		
<b>Traverse paths</b>	<b>manual</b>	<b>automatic</b>	<b>manual</b>	<b>automatic</b>
X axis	790 mm	~690 mm	920 mm	~820 mm
Y axis	280 mm	~280 mm	380 mm	~380 mm
Z axis	390 mm	~370 mm	400 mm	~380 mm
Dimensions (L x W x H) approx.	2000 x 1600 x 2010 mm		2400 x 2160 x 2300 mm	
Net weight approx.	1000 kg		1260 kg	

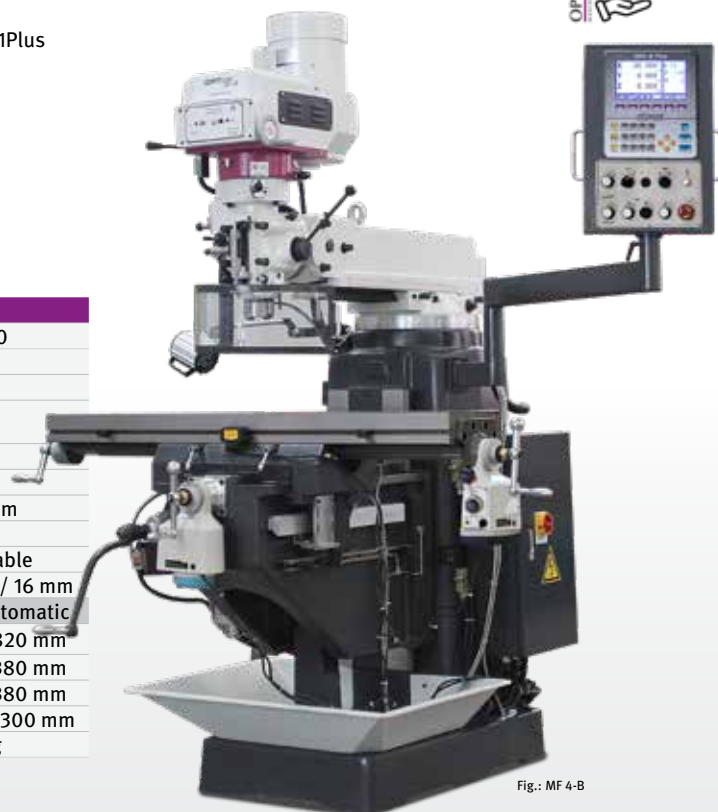


Fig.: MF 4-B

**OPTImill® MF 4V**

**Multifunctional drilling/milling machines for professional deployment.**

Equipped with electronically infinitely variable drive



**Facts that impress in terms of quality, performance and price**

- ▶ Heavy, solid design using premium cast meehanite
- ▶ Spindle head: Tilt up/down ± 45° and swivel left/right ± 90°
- ▶ Excellent concentricity thanks to tapered roller bearings, ≤ 0.01 mm measured in the spindle sleeve
- ▶ Automatic spindle sleeve feed
- ▶ Adjustable drilling depth stop with millimetre scale, can be read off on front
- ▶ Clockwise/anti-clockwise rotation for thread cutting
- ▶ X and Z axis with adjustable dovetail guide
- ▶ Coolant system
- ▶ Height-adjustable protective screen with microswitch, against flying chips and parts
- ▶ Solid and generously dimensioned cross table with precision surface finish and T-slots
- ▶ Motorised feed of the X-axis, infinitely variable speed control, rapid traverse
- ▶ Digital position display DPA32
- ▶ Y axis with flat guide
- ▶ Motorised table height adjustment (Z axis)

**MADE IN EU  
FREQUENCY CONVERTER,**



Fig.: with optional vice and Y-axis feed



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**SCOPE OF DELIVERY:**

- ▶ Chip tray
- ▶ Operating tool

Machine data	MF 4V*
Art no.	3336050
Total connected load~50 Hz	4.5 kW / 400 V
Drive motor	3 kW
Drilling/continuous drilling capacity in steel (S235JR)	Ø 32 mm / Ø 28 mm
Spindle seat	ISO 40 DIN 2080
Spindle - column distance	200 - 680 mm
Automatic spindle sleeve feed	3 stages: 0.038 / 0.076 / 0.152 mm/rev
Spindle speeds	9 - 6750 min <sup>-1</sup>
Gearbox stages	8 stages, electronically adjustable
Cross table (L x W) / T-slots	1370 x 254 mm / 16 mm
Cross table load capacity	275 kg
X-axis traverse path	manual 900 mm / automatic ~800 mm
Y-axis - cross table traverse path	manual 320 mm
Y-axis - milling head traverse path	manual 480 mm
Z-axis - traverse path	manual 400 mm / automatic ~365 mm
Dimensions (L x W x H) approx.	1500 x 1450 x 2200 mm
Net weight approx.	1150 kg



Information can be found on page OP47



**ACCESSORIES**

You can find this from page OP40 onwards or in main catalogue



\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.

## OPTi mill® MT 100 / MT 130S / MT 200 / MT 230S Multifunctional drilling and milling machine. Versatile and easy retooling.



### Facts that impress in terms of quality, performance and price

- ▶ Rugged machine construction
- ▶ Heavy, solid design using premium cast meehanite
- ▶ Smooth running due to ground gearwheels running in an oil bath
- ▶ Rugged adjustable flat bed guide on the Y and Z axis
- ▶ Central lubrication
- ▶ The milling head has two axes of rotation, allowing it to be swivelled and rotated at any spatial angle
- ▶ Generously dimensioned, decoupled hand wheels with scales
- ▶ LED machine lamp
- ▶ Coolant system
- ▶ Digital position indicator swivelling to the left and right of the machine
- ▶ Easy operation of the switching elements
- ▶ Vertical and horizontal milling position

- ▶ Solid and generously dimensioned cross table with precision surface finish with re-adjustable wedge bars and adjustable stops
- ▶ Height-adjustable protective screen with microswitch

#### MT 100 / MT 200:

- ▶ Feed motor with fixed speeds
- ▶ X and Y axis table feed
- ▶ Z axis with electrical table height adjustment

#### MT 130S / MT 230S:

- ▶ Table feed in the X, Y and Z axes
- ▶ Feed system controllable by servomotor in fixed steps



Fig. MT 100



Fig. MT 130S

Machine data	MT 100	MT 130S*
Art no.	3336110	3344110
Total connected load~50 Hz	3.36 kW / 400 V	6 kW / 400 V
Drive motor ~50 Hz	2.2 KW	3 kW
Cutter head size	Ø 85 mm	Ø 100 mm
End mill size	Ø 20 mm	Ø 20 mm
Spindle seat	ISO 40 DIN 2080	ISO 40 DIN 2080
Clearance spindle to cross table	90 - 520 mm	100 - 500 mm
Spindle speeds / Gear stages	45 - 1600 min <sup>-1</sup> / 11 speeds	45 - 1660 min <sup>-1</sup> / 11 speeds
Spindle - column distance	60 - 500 mm	150 - 550 mm
Cross table (L x W) / Load capacity	1120 x 260 mm / 350 kg	1270 x 300 mm / 250 kg
T-slot size / spacing / count	14 mm / 63 mm / 3	14 mm / 80 mm / 3
X-axis traverse path	manual 600 mm / automatic ~480 mm	manual 720 mm / automatic ~650 mm
Y-axis traverse path	manual 270 mm / automatic ~215 mm	manual 300 mm / automatic ~220 mm
Z-axis traverse path	manual 380 mm / automatic ~340 mm	manual 400 mm / automatic ~320 mm
Dimensions (L x W x H) approx.	1540 x 1355 x 1650 mm	1760 x 1550 x 1700 mm
Net weight approx.	1300 kg	1450 kg

#### SCOPE OF DELIVERY:

- ▶ Horizontal milling spindle with counter bearing, disc cutter holder
- ▶ Milling arbour Ø 27 mm (MT 100) Ø 32 mm (MT 130S)
- ▶ Operating tool

\*\* OPTi mill® is a registered trademark of Optimum Maschinen Germany GmbH exclusively for milling machines

## HORIZONTAL MILLING POSITION

› With arrester and collet for disc milling cutter



› MT 200/MT 230S



› MT 100/MT 130S

## MILLING HEAD

- › The milling head has two axes of rotation, allowing it to be swivelled and rotated at any spatial angle
- › A specific angle can be set by rotating the rear and front part of the milling head



## OPTiCONTROL PANEL

- ▶ Position indicator DPA31 Plus
- ▶ Swivelling



Fig. MT 200



Fig. MT 230S

Machine data	MT 200	MT 230S*
Art no.	3336120	3344125
Total connected load~50 Hz	9.2 kW / 400 V	12 kW 400 V
Drive motor ~50 Hz	4 kW	Vertical 4 kW / Horizontal 5.5 kW
Cutter head size	Ø 100 mm	Ø 160 mm
End mill size	Ø 20 mm	Ø 25 mm
Spindle seat	ISO 50 DIN 2080	ISO 50 DIN 2080
Clearance spindle to cross table	250 - 670 mm	185 - 585 mm
Spindle speeds / Gear stages	Vertical 60 - 1750 min <sup>-1</sup> / 12 speeds	Vertical 60 - 1750 min <sup>-1</sup> / 12 speeds
	Horizontal 58 - 1800 min <sup>-1</sup> / 12 speeds	Horizontal 60 - 1800 min <sup>-1</sup> / 12 speeds
Spindle - column distance	250 - 750 mm	260 - 940 mm
Cross table (L x W) / T-slots	1650 x 360 mm / 14 mm	1600 x 360 mm / 18 mm
X-axis traverse path	manual 1290 mm / automatic ~1210 mm	manual 1300 mm / automatic ~1220 mm
Y axis traverse path	manual 280 mm / automatic ~200 mm	manual 300 mm / automatic ~220 mm
Z-axis traverse path	manual 400 mm / automatic ~320 mm	manual 400 mm / automatic ~320 mm
Dimensions (L x W x H) approx.	2160 x 2160 x 2100 mm	2550 x 2160 x 2005 mm
Net weight approx.	2700 kg	2800 kg

### SCOPE OF DELIVERY:

- ▶ Horizontal milling spindle with counter bearing, disc cutter holder Ø 27 mm / Ø 32 mm (MT 230S) Disc cutter holder Ø 32 mm / Ø 27 mm (MT 200)
- ▶ Adapter ISO 50
- ▶ Drawbar horizontal and vertical M24

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side. OPTImill® is a registered trademark of Optimum Maschinen Germany GmbH exclusively for milling machines.

Accessories can be found on page OP40 or in the main catalogue 2026 or at [www.optimum-machines.com](http://www.optimum-machines.com).

## OPTi mill® MX 2 / MX 3 / MX 4 Precision milling machine with infinitely variable spindle speed



### Facts that impress in terms of quality, performance and price

- ▶ Versatile range of applications
- ▶ Robust machine design
- ▶ All guides hardened
- ▶ Automatic centralised lubrication
- ▶ Electronic handwheels with large diameter and scale
- ▶ Simple operation of the switching elements for changing the speed
- ▶ Extremely quiet operation due to gearbox running in an oil bath
- ▶ Automatic table feed in the XY and Z axes
- ▶ Ball screw and servo direct drives in all axes
- ▶ Coolant system
- ▶ Large vertical console and worktable
- ▶ Vertical and horizontal spindle
- ▶ Automatic feed with electric limit switches in all axes
- ▶ LED work light



Optional table housing



Fig. MX 3



### New: Touch-controlled operation

- ▶ Easy control of user input via the innovative Optimum input system
- ▶ The Optimum electronics have an integrated diagnostic function.
- ▶ Automatic operation with programmable stops and support for positions and drilling patterns
- ▶ Integrated technology computer for efficient control.

table housing	Art. no.
MX 2	3343021
MX 3	3343031
MX 4	3343041

### SCOPE OF DELIVERY:

- ▶ Reducing sleeve MT1 / MT2 / MT3
- ▶ Operating tool
- ▶ Horizontal milling spindle  $\varnothing$  16 mm / 22 mm / 27 mm / 32 mm

Machine data	MX 2	MX 3	MX 4
Art no.	3343020	3343030	3343040
Total connected load~50 Hz	9 kW / 400 V	9 kW / 400 V	11 kW / 400 V
Drive motor	3.7 kW	3.7 kW	5.5 kW
Spindle seat	ISO 40 DIN 2080	ISO 40 DIN 2080	ISO 40 DIN 2080
Spindle speeds / steps	40 - 2000 min <sup>-1</sup> / 2 steps	40 - 2000 min <sup>-1</sup> / 2 steps	40 - 2000 min <sup>-1</sup> / 2 steps
Horizontal cross table (L x W)	750 x 320 mm	800 x 400 mm	850 x 450 mm
T-slot size / distance / number	14 mm / 63 mm / 5	14 mm / 63 mm / 6	14 mm / 63 mm / 7
Vertical cross table (L x W)	890 x 225 mm	1020 x 225 mm	1190 x 250 mm
T-slot size / distance / number	14 mm / 63 mm / 3	14 mm / 63 mm / 3	14 mm / 63 mm / 3
Load capacity, horizontal cross table	160 kg	200 kg	300 kg
X-axis traverse path (cross table)	405 mm	500 mm	600 mm
Y-axis traverse path (milling head)	305 mm	400 mm	450 mm
Z-axis traverse path (cross table)	400 mm	400 mm	450 mm
Feed drive speed	10 - 1000 min <sup>-1</sup>	10 - 1000 min <sup>-1</sup>	10 - 1000 min <sup>-1</sup>
Dimensions (L x W x H) approx.	1900 x 1650 x 1882 mm	1950 x 1700 x 1882 mm	2200 x 1900 x 2000 mm
Net weight approx.	1500 kg	1550 kg	1800 kg
Housing accessory Art. no.	3343021	3343031	3343041

\*\* OPTi mill® is a registered trademark of Optimum Maschinen Germany GmbH exclusively for milling machines

## OPTImill® MZ 4S

### Precision milling machine with digital 3-axis position display DPA

Facts that impress in terms of quality, performance and price

- ▶ Versatile range of applications
- ▶ Excellent damping characteristics and stability of machine mobile chassis
- ▶ All guides hardened, precision ground, and adjustable using wedge bars
- ▶ Automatic feed in X-, Y- and Z-axis infinitely variable via an electronic joystick on the control panel
- ▶ Ball screw in all axes
- ▶ Solid cross table, generously dimensioned with precision surface finish
- ▶ Easy operation of the switching elements
- ▶ Swivelling, clearly arranged control panel
- ▶ Machine lamp
- ▶ Coolant system
- ▶ Smooth action
- ▶ Automatic centralised lubrication
- ▶ Clutch for X- and Y-axis. When the handwheel is turned, the feed motor is disconnected via a clutch, allowing the axis to be adjusted effortlessly and without resistance.



#### Workspace enclosure



- › Supplied pre-assembled on the machine
- › Protection against chips and splash water
- › Folds away to allow optimal access to the workspace

#### Control cabinet



- › With components from **SIEMENS**



Machine data	MZ 4S*	
Art no.	3346245	
Total connected load~50 Hz	5.4 kW / 400 V	
Drive motor	3.75 kW	
Spindle seat	ISO 40 DIN 2080	
Drilling performance in steel (S235JR)	Ø 32 mm	
Continuous drilling performance in steel (S235JR)	Ø 28 mm	
Spindle speeds / steps	30 - 2250 min <sup>-1</sup> / 18 steps	
Optional Vario conversion	48 - 3045 min <sup>-1</sup>	
Spindle speeds / steps	2 x 6 gearbox stages	
Horizontal cross table (L x W)	900 x 500 mm	
Vertical cross table (L x W)	1200 x 250 mm	
T-slot size / distance	14 mm / 63 mm	
Load capacity, horizontal cross table	360 kg	
X-axis traverse path (cross table)	600 mm	~310 mm
Y-axis traverse path (milling head)	480 mm	~440 mm
Z-axis traverse path (cross table)	390 mm	~345 mm
Drive speed feed/rapid traverse	50 - 450 min <sup>-1</sup> / 780 min <sup>-1</sup>	
Dimensions (L x W x H) approx.	1610 x 1825 x 1885 mm	
Net weight approx.	1890 kg	

#### SCOPE OF DELIVERY:

- ▶ Adapter ISO40/MT3
- ▶ MT1 and MT2 mounting
- ▶ Operating tool
- ▶ Horizontal milling spindle Ø 27 mm



Table (L x W) approx.: 375 x 660 mm  
Load capacity: 150 kg  
Weight approx: 140 kg

**OPTIONAL**  
**VARIO DRIVE**  
**MADE IN EU**

Machine base	Art. no.
Compressed air Tool changer	3346225
Angled table	3346221

Machine base	Art. no.
Vario conversion MZ 4S	3491120

\* Important information on operating machines with frequency converters can be found on the reverse side. OPTImill® is a registered trademark of Optimum Maschinen Germany GmbH exclusively for milling machines.

**Precision machine vices FMS**

Article no.

- › Robust design for milling, drilling and grinding
- › Vice body made of premium cast material
- › Guide surfaces hardened and ground
- › Hardened and ground clamping jaws, replaceable
- › With turntable, 360° rotatable

<b>FMS 100</b>	Spanning width 62 mm	3354100
<b>FMS 125</b>	Spanning width 85 mm	3354125
<b>FMS 150</b>	Spanning width 114 mm	3354150
<b>FMS 200</b>	Spanning width 150 mm	3354200



**Precision machine vices FMSN**

Article no.

- › Vice body made of premium cast material
- › Guide surfaces hardened and ground
- › Hardened and ground clamping jaws, replaceable
- › Protected spindle
- › Clamping outward by repositioning the clamping jaws
- › With turntable, 360° rotatable

<b>FMSN 100</b>	Spanning width 100 mm	3354110
<b>FMSN 125</b>	Spanning width 108 mm	3354120
<b>FMSN 150</b>	Spanning width 146 mm	3354130



**Modular machine vice VMQ**

Article no.

- › Robust design for milling, drilling and grinding
- › Vice body made of premium cast material
- › Guide surfaces hardened and ground
- › Hardened and ground clamping jaws

<b>VMQ 50</b>	Spanning width 66 mm	3354179
<b>VMQ 80</b>	Spanning width 77 mm	3354180
<b>VMQ 100</b>	Spanning width 130 mm	3354181
<b>VMQ 125</b>	Spanning width 135 mm	3354182
<b>VMQ 150</b>	Spanning width 150 mm	3354183

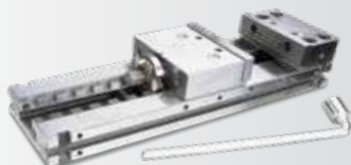


**Modular machine vice MVSP**

Article no.

- › Modular machine vices with high accuracy and repeatability
- › For series and individual part machining on CNC milling machines and machining centres

<b>MVSP 150 x 200</b>	Spanning width 205 mm	3530104
<b>MVSP 150 x 300</b>	Spanning width 305 mm	3530108



**Precision machine vices HMS**

Article no.

- › Robust design for milling, drilling and grinding
- › Vice body made of premium cast material
- › Booster - system, requires little force, high pressure build-up during clamping
- › Protected spindle
- › Large clamping range due to lock bolts with various hole spacings
- › With turntable, 360° rotatable

<b>HMS 100</b>	Spanning width - pressure max. 170 mm 24.5 kN	3355100
<b>HMS 125</b>	Spanning width - pressure max. 224 mm 39.2 kN	3355127
<b>HMS 150</b>	Spanning width - pressure max. 300 mm 44.1 kN	3355150
<b>HMS 200</b>	Spanning width - pressure max. 300 mm 73.6 kN	3355200



**Three-axis vice DAS 100**

Article no.

- › Premium cast material
- › Guide surfaces hardened and ground
- › Hardened and ground clamping jaws, replaceable
- › With turntable, 360° rotatable
- › Horizontal swivelling movement up to 90°
- › Vertical swivelling movement up to ± 45° via threaded spindle
- › Easy-to-read scales for all three axes

<b>DAS 100</b>	Spanning width 115 mm	3355500
<b>Prism jaw</b>		3355502



**Three-axis vices MV3**

Article no.

- › Horizontal swivelling movement up to 90°
- › Vertical swivelling movement up to ± 45°
- › Hardened and ground clamping jaws, replaceable
- › With turntable, 360° rotatable

<b>MV3-75</b>	Spanning width 82 mm	3354175
<b>MV3-125</b>	Spanning width 97 mm	3354178



Fig.: MV3-75

**Two-axis vice ZAS 50**

Article no.

- › Hardened and ground clamping jaws, replaceable
- › With turntable, 360° rotatable
- › Tiltable up to -90°
- › Net weight approx. 3.4 kg

<b>ZAS 50</b>	Spanning width 46 mm	3354170
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BT 20 accessory	Article no.
<b>BT 20 starter set</b>	3353281
<b>Comprises:</b>	
› 1 piece cutter head holder Ø 16 mm	
› 2 pieces of Weldon holder Ø 6 mm	
› 2 pieces of Weldon holder Ø 8 mm	
› 1 pieces of Weldon holder Ø 10 mm	
› 1 pieces of Weldon holder Ø 12 mm	
› 1 pc. tool holder BT20/B16	
› 11 pieces of tightening bolts	
› 1 piece quick-action drill chuck 1 - 13 mm	
› 1 piece facing and copying cutterhead	
› 2 pcs collet chuck ER 25	
› 1 piece collet spanner ER 25	
› 12-part collet set ER 25	

Cutter head holder	3352728
	
› Ø 16 mm seat	


Weldon holder	
Ø 6 mm	3352732
Ø 8 mm	3352734
Ø 10 mm	3352736
Ø 12 mm	3352738
	

Tool holder	3352727
	
› BT 20/B16	


Collet chuck spanner	
ER 16	3352742
	
ER 25	3352745
	

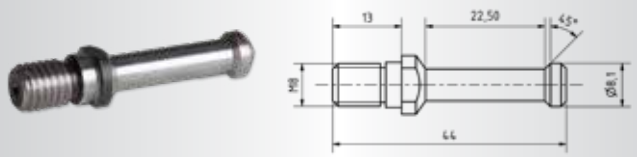
BT 20 accessory	Article no.
<b>Optimum precision quick-action drill chuck</b>	
DKC 13 / 0-13 mm; B16 bis 4800 min <sup>-1</sup>	3050632
DKC 16 / 0-16 mm; B16 up to 4000 min <sup>-1</sup>	3050633




Copy and planer cutter head	3350202
	
<ul style="list-style-type: none"> <li>› Universally deployable for machining all steels and NF metals</li> <li>› For facing and copying</li> <li>› Made of special steel - highly quenched and hardened</li> <li>› Excellent planarity and true running accuracy</li> <li>› Hexagon socket spanner included</li> <li>› Outer diameter 52 mm</li> <li>› ISO: RD X 1003 D52/R5</li> </ul>	

Assembly and tool adjustment aid	3352731
	
<ul style="list-style-type: none"> <li>› For easy and precise adjustment of tools</li> <li>› Vertical and horizontal collet for tools with a steep-angle taper</li> </ul>	

Collet chuck	
ER 16	3352741
ER 25	3352744
	


Pull stud Optimum	3352726
› Optimum custom build (no standard BT 20 bolts)	
	

Collet set	
ER 16, 12-part Ø 1-10 mm	3440282
ER 25, 15-part Ø 1-16 mm	3441109
	

BT 30 accessory	Article no.
<b>BT 30 starter set</b>	3353282
<b>Comprises:</b>	
› 1 piece cutter head holder Ø 22 mm	
› 1 piece drill chuck 1.5 - 16mm	
› 2 piece Weldon 6 mm	
› 1 piece Weldon 8 mm	
› 1 piece Weldon 10 mm	
› 1 piece Weldon 12 mm	
› 1 piece Weldon 16 mm	
› 2 piece Weldon 20 mm	
› 1 piece BT 30-MT 2 adapter	
› 3 pieces collet chuck holder ER 32	
› 1 piece collet spanner ER 32	
› 18-part collet set ER 32	
› 1 piece height adjustment device	
› 1 piece assembly and tool setting aid	
› 14 pcs. pull studs	
› 1 piece cone wiper	

Cutter head holder	3353306
	› Ø 22 mm seat

Drill chuck	3536303
	› Clamping range 1.5 - 16 mm

Weldon holder	
Ø 6 mm	3353310
Ø 8 mm	3353311
Ø 10 mm	3353312
Ø 12 mm	3353313
Ø 16 mm	3353314
Ø 20 mm	3353315
	


Adapter	
Ø BT 30-MK 2	3353305
Ø BT 30-MK 3	3536316
	


Taper squeegee	3353301
	



BT 30 accessory	Article no.
<b>Collet chuck holder ER 32</b>	3353304
	

Drill chuck adapter BT 30 - B16	3353308
	

Collet chuck spanner ER 32	3353307
	

Height adjustment device	3536290
	› Analogue version › The reference point in the Z-axis can be quickly and easily determined, and the tools can be set to zero (e.g. when milling or drilling), without damaging the workpiece. › Housing height 50 mm

Assembly and tool adjustment aid	3536203
	› For easy and precise adjustment of tools › Vertical and horizontal collet for tools with a steep-angle taper

Pull stud	
<b>BT 30</b>	3353302
	
<b>DIN 2080 M12/M12</b>	3536177
	

Collet set ER 32	3441122
	
› 18-part › 3 - 20 mm › Aluminium box	

Accessories BT 40	Article no.
<b>Starter set BT 40</b>	3353284
Comprises:	
› 1 piece cutter head holder Ø 27 mm	
› 1 piece drill chuck 1 - 13mm	
› 2 piece Weldon 6 mm	
› 1 piece Weldon 8 mm	
› 1 piece Weldon 10 mm	
› 1 piece Weldon 12 mm	
› 1 piece Weldon 16 mm	
› 2 piece Weldon 20 mm	
› 1 piece BT 40-MT3 adapter	
› 3 pieces collet chuck holder ER 32	
› 1 piece collet spanner ER 32	
› 18-part collet set ER 32	
› 1 piece height adjustment device	
› 1 piece assembly and tool setting aid	
› 14 pcs. pull studs	
› 1 piece cone wiper	

Cutter head holder	3353336
	› Ø 27 mm seat


Drill chuck	3536333
	› Clamping range 1.5 - 16 mm


Drill chuck	
Ø 6 mm	3353340
Ø 8 mm	3353341
Ø 10 mm	3353342
Ø 12 mm	3353343
Ø 16 mm	3353344
Ø 20 mm	3353345




Drill chuck	3353335
	› BT 40 on MT3

Holder BT 40/M16 - B16	3353338
	


Accessories BT 40	Article no.
<b>Collet chuck holder ER 32</b>	3353334
	


Collet chuck spanner ER 32	3353307
	

Height adjustment device	3536290
	<ul style="list-style-type: none"> <li>› Analogue version</li> <li>› For fast and easy determination of the reference point on the Z axis and/or for adjusting tools "to zero" (e.g., for milling or drilling) without damaging the workpiece</li> <li>› Housing height 50 mm</li> </ul>

Assembly and tool adjustment aid	3536204
	<ul style="list-style-type: none"> <li>› For easy and precise adjustment of tools</li> <li>› Vertical and horizontal collet for tools with a steep-angle taper</li> </ul>

Taper squeegee	3353331
	

Pull stud	
<b>BT 40</b>	3353332
	

DIN 2080 M16/M16	3536179
	

Collet set ER 32	3441122
	<ul style="list-style-type: none"> <li>› 18-part</li> <li>› 3 - 20 mm</li> <li>› Aluminium box</li> </ul>

**Accessories** Article no.

**KMS 2 coolant hose** 3356660



- > Two flexible and stable coolant hoses made of individual plastic elements
- > Magnetic base holding force up to 50 kg
- > Length of the coolant hoses 335 mm each
- > Hose connection 6 mm
- > Hoses 1/4"

**MMC1 coolant mist lubricator** 3356663



- > Foot size (L x W x H): 62 x 50 x 55 mm
- > Magnetic base adhesive force 75 kg
- > Length of the coolant hose 500 mm
- > Screw connection for external compressed air supply

**Universal coolant device** 3351999



- > Connection 230V / 1 Ph
- > Delivery height max. 2.5 m
- > Delivery rate 8 litres/min
- > Tank capacity 11 litres
- > Container size LxWxH: 370 x 245 x 170 mm
- > Complete with container, flexible tube, hose, switch/plug combination
- > Magnetic base fastener for coolant hose

**Prism WP 30** 3352195



- > High-precision design
- > Adjustable from 0° - 60° and from 0° - -30°
- > Hardened and ground carbon steel
- > Precision squareness 0.005 mm
- > Angle tolerance 0.01°
- > Dimensions (L x W x H) approx.: 75 x 25 x 32 mm

**Parallel shim set (3 mm)** 3354001



- > For precision work for parallel holding of workpieces
- > Precision ground to an accuracy of 0.01 mm
- > Length 150 mm, thickness 3 mm
- > 20 pieces: 2 pieces each 8/13/16/19/22/25/31/35/38/41mm

**Parallel shim set (8.5 mm)** 3536191



- > For precision work for parallel holding of workpieces
- > Precision ground to an accuracy of 0.01 mm
- > Length 150 mm, thickness 8.5 mm
- > 18 pieces: 2 pieces each 14/16/20/24/30/32/36/40/44 mm

**Accessories** Article no.

**Workpiece support**

<b>WPS-1</b>	3354261
<b>WPS-2</b>	3354262
<b>WPS-3</b>	3354263
<b>WPS-4</b>	3354264



	Min. height (A)	height max. (B)	ØC	ØD	max. load	Weight approx.
	mm				KN	kg
WPS-1	40	50	30	40	50	0.3
WPS-2	65	90	28	38	50	0.4
WPS-3	90	140	40	50	50	1.1
WPS-4	140	230	45	55	50	2.3

**Levelling platen**

<b>SE 1</b>	3381012
<b>SE 2</b>	3381016
<b>SE 3</b>	3381018



- > Machines and appliances can be installed without anchoring and aligned using height adjustment
- > non-slip rubberised



A threaded rod is required for the following models: MF2-B / MF4-B / MF2V/ MF4V / MT60 / MT100 / MT 200 / MT 230S

**Machine foot vibration damper**

<b>SE 55</b>	3352981
> Levelling screw M12 x 1 x 150 mm, maximum load: 600 kg	
<b>SE 85</b>	3352982
> Levelling screw M16 x 150 mm, maximum load: 1500 kg	



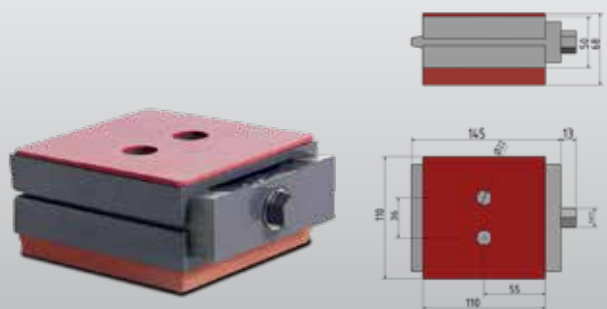
MADE IN GERMANY

- > Effective vibration and structure-borne sound insulation
- > Fast and technically simple levelling
- > Eliminates floor unevenness up to 5°
- > Precision levelling by means of a fine adjusting screw

**Precision machine shoe SEU1** 3352985

- > Patented double spindle bearing
- > With slip-protection plate at top
- > Maximum load 60 kN
- > Adjustment range +5 / -4 mm
- > High-precision, jerk-free levelling even of heavy machines
- > Weight approx. 3.7 kg

MADE IN GERMANY



**Milling machine accessories** Article no.

**Copy and face milling cutter**

- > Universal use, for machining all steel and non-ferrous metals
- > For facing and copying
- > Made of special steel - highly quenched and hardened
- > Excellent planarity and true running accuracy
- > Milling body with asymmetrical division for extremely smooth action and uniform cutting
- > Body and clamping shank form a unit for a short projection length and stable clamping
- > No additional end mill mandrel used
- > Special geometry for high-speed milling
- > Economical because, in case of a blunt cutting edge, the plate can simply be rotated further (can be used up to twelve times)
- > Indexable inserts  $\varnothing$  10 mm
- > Includes five indexable inserts RDET 1003 MOSN 8026
- > Hexagon socket spanner included



Tool holder shank BT 20	3350202
Pull stud BT 20	3352726



Tool holder shank BT 30	3350203
Pull stud BT 30	3536302



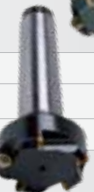
Tool holder shank BT 40	3350204
Pull stud BT 40	3536332



Mounting shank ISO 30/DIN 2080	3350215
Mounting shank ISO 40/DIN 2080	3350216



Mounting shank MT2/M10	3350212
Mounting shank MT3/M12	3350213
Mounting shank MT4/M16	3350214



**TC Indexable inserts RDHT 1003 MOSN8026** 3350220



- > 5 pcs.
- > Positive cutting geometry
- > PVD coated
- > For machining steel up to 900 N/mm<sup>2</sup>, stainless steel, aluminium, non-ferrous metal, cast iron

**Indexable insert milling cutter (without inserts)**

50mm- F90-APKT16-D50Z5S22	3544255
80mm- F90-APKT16-D80Z7S27	3544256



**PREMIUM MILLING TOOL FROM YG-1**

Art no.	DC	Plates	LF	DCON	CBDP	DCSFMS
3544255	50	5 pcs.	40	22	20	45
3544256	80	7 pcs.	50	27	20	50

**Indexable insert ( 10 pcs.)**

AGPT160408-AL (Aluminium)	3544260
APKT160408PDTR (Universal)	3544261



Fig.: AGPT160408-AL



Fig.: APKT160408PDTR

**Milling machine accessories** Article no.

**Precision boring head set**

ISO 40 - M16/BT 40	3352128
ISO 50 - M24/BT 50	3352129



- > 8 pcs. boring bars: BJ2008-32L/BJ2010-40L/BJ2014-53L/BJ2016-68L/BJ2020-83L/BJ2025-96L/BJ2030-115L/BJ20-L20-100L
- > Adjustment range 8 - 280 mm
- > Including boring bars, studs, circle extension, tools, case
- > Without indexable inserts

**Indexable insert set (10 pcs.)**



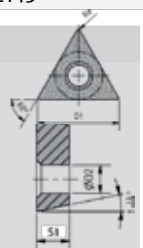
**for steel**

for boring bar no. 1-2	3352136
for boring bar no. 3+4	3352137
for boring bar no. 5-8	3352138

**For aluminium**

for boring bar no. 1-4	3352141
for boring bar no. 5+6	3352142
for boring bar no. 7+8	3352143

Art. no.	ISO	D1	D2	S1	right
3352136	TBGT110304L	11	3.4	3.18	0.4
3352141	TBGT110304L	11	3.4	3.18	0.4
3352137	TBGT090204L	9.6	2.8	2.38	0.4
3352142	TBGT090204L	9.6	2.8	2.38	0.4
3352138	TBGT060104L	6.2	2.2	1.59	0.4
3352143	TBGT060104L	6.2	2.2	1.59	0.4



**Boring head set**

Spindle seat MT3	3352124
Spindle seat MT4	3352125



- > For external and vertical machining
- > Adjustment range 10 - 220 mm
- > Scope of delivery: Boring head, 9 pcs. Boring bars with soldered HSS plate, Allen key

Milling machine accessories	Article no.
<b>Collet chuck set</b>	
<b>MT2/ER 25 - M10</b>	3352052
<ul style="list-style-type: none"> <li>&gt; Collet chuck</li> <li>&gt; 15 collets; sizes Ø 1.5 - Ø 16 mm/DIN ISO 15488</li> <li>&gt; Hook wrench Aluminium case</li> </ul>	
<b>MT2/ER 32 - M10</b>	3352053
<ul style="list-style-type: none"> <li>&gt; Collet chuck</li> <li>&gt; 18 collets; sizes Ø 2 - Ø 20 mm/DIN ISO 15488</li> <li>&gt; Hook wrench Aluminium case</li> </ul>	
<b>MT3/ER 32 - M12</b>	3352093
<ul style="list-style-type: none"> <li>&gt; Collet chuck</li> <li>&gt; 18 collets; sizes Ø 2 - Ø 20 mm/DIN ISO 15488</li> <li>&gt; Hook wrench Aluminium case</li> </ul>	
<b>MT4/ER 32 - M16</b>	3352094
<ul style="list-style-type: none"> <li>&gt; Collet chuck</li> <li>&gt; 18 Collets; sizes Ø 2 - Ø 20 mm/DIN ISO 15488</li> <li>&gt; Hook wrench Aluminium case</li> </ul>	
<b>ISO 30/ER32 - M12/BT 30</b>	3352054
<ul style="list-style-type: none"> <li>&gt; Collet chuck</li> <li>&gt; 18 collets, sizes Ø 2 - Ø 20 mm/DIN ISO 15488</li> <li>&gt; Pull stud M12/M12 and pull stud BT 30</li> <li>&gt; Hook wrench Aluminium case</li> </ul>	
<b>ISO 40/ER32 - M16/BT40</b>	3352056
<ul style="list-style-type: none"> <li>&gt; Collet chuck</li> <li>&gt; 18 collets, sizes Ø 2 - Ø 20 mm/DIN ISO 15488</li> <li>&gt; Pull stud M16/M16 and pull stud BT 40</li> <li>&gt; Hook wrench Aluminium case</li> </ul>	
<b>ISO 50/ER32 - M24/BT50</b>	3352065
<ul style="list-style-type: none"> <li>&gt; Collet chuck</li> <li>&gt; 18 collets, sizes Ø 2 - Ø 20 mm/DIN ISO 15488</li> <li>&gt; Hook wrench Aluminium case</li> </ul>	



<b>Collet chuck ISO 30/ER25</b>	3352046
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Milling machine accessories	Article no.
<b>Collet set</b>	
<b>ER 16</b>	3440282
<ul style="list-style-type: none"> <li>&gt; 12 collets; sizes Ø 1 - Ø 10 mm</li> </ul>	
<b>ER 25</b>	3441109
<ul style="list-style-type: none"> <li>&gt; 15 collets, sizes Ø 1 - Ø 16 mm/DIN ISO 15488</li> </ul>	
<b>ER 32</b>	3441122
<ul style="list-style-type: none"> <li>&gt; 18 collets, sizes Ø 3 - Ø 20 mm/DIN ISO 15488</li> </ul>	



Collet set	
<b>MT2 direct clamping / M 10</b>	3351980
<ul style="list-style-type: none"> <li>&gt; 5-part; sizes Ø4 / Ø6 / Ø8 / Ø10 / Ø12 mm</li> </ul>	
<b>MT2 direct clamping / M 12</b>	3352014
<ul style="list-style-type: none"> <li>&gt; 6-part; sizes Ø4 / Ø6 / Ø8 / Ø10 / Ø12 / Ø16 mm</li> </ul>	



SPW assortment of clamping tools, 58 pieces	
<ul style="list-style-type: none"> <li>&gt; Practical wall bracket (SPW 8 only)</li> <li>&gt; Metric thread</li> <li>&gt; 24 pcs. pull studs</li> <li>&gt; 6 pcs. T-slot nuts</li> <li>&gt; 6 pcs. nuts</li> <li>&gt; 4 pcs. extension nuts</li> <li>&gt; 6 pcs. step blocks</li> <li>&gt; 12 pcs. step blocks</li> </ul>	
<b>Size 8</b>	3352075
<ul style="list-style-type: none"> <li>&gt; T-slot nuts 10 mm; tightening thread M 8</li> </ul>	
<b>Size 10</b>	3352076
<ul style="list-style-type: none"> <li>&gt; T-slot nuts 12 mm; tightening thread M 10</li> </ul>	
<b>Size 12</b>	3352077
<ul style="list-style-type: none"> <li>&gt; T-nuts 14 mm; tightening thread M12</li> </ul>	
<b>Size 14</b>	3352078
<ul style="list-style-type: none"> <li>&gt; T-slot nuts 16 mm; tightening thread M 14</li> </ul>	
<b>Size 16</b>	3352079
<ul style="list-style-type: none"> <li>&gt; T-nuts 18 mm; tightening thread M16</li> </ul>	



<b>Edge sensor</b>	3351171
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## MSU 3 / MSU 4 - Universal machine and tool trolley

### Facts that impress in terms of quality, performance and price

- ▶ All three ball bearing mounted drawers can be operated with full extension and are equipped with a stop at the end to prevent accidental opening when shunting or transporting
- ▶ Stable design
- ▶ Lockable with cylinder lock
- ▶ Interior drawer height 100 mm / 100 mm / 200 mm



MSU 3



MSU 4



Application example MSU 3

Model	MSU 3	MSU 4
Art no.	3352990	3352991
Load capacity	max. 500 kg	max. 500 kg
Load bearing capacity per drawer	max. 45 kg	max. 45 kg
Dimensions (L x W x H) approx.	640 x 650 x 630 mm	640 x 650 x 810 mm
Net weight approx.	47 kg	55.5 kg

### Universal milling table feed V 99S

- › Emergency stop shutdown, no restart
- › Continuous speed control and rapid traverse \*
- › Clockwise/anticlockwise rotation
- › Overload protection and limit stop switch
- › For self-assembly

<b>Milling table feed V 99S</b>	3352021
› Horizontal assembly	
› Motor: 90 W 230 V ~50 Hz	
<b>MH 35V assembly kit for the X-axis</b>	3352035
<b>MH 50V assembly kit for the X-axis</b>	3352036

<b>Milling table feed V 250S</b>	3352030
› Vertical assembly	
› Motor: 130 W 230 V ~50 Hz	
<b>Milling table feed V 250</b>	3352025
› Motor: 130 W 110 V ~50 Hz	
› For the Y axis of MF 2V / MF 4V	
› Includes assembly kit	



\*only possible if the feed is integrated into the emergency stop circuit.

Try square 90°	3385052
› For clamping in case of mechanical processing of workpieces, checking and scribing work	
› Precision: Parallelism and perpendicularity 0.01 to 100 mm	
› Lateral reinforcing ribs	
› Dimensions approx. L x W x H: 202 x 126 x 150 mm. Weight approx. 7 kg	



Universal compressed air tool clamping system	
› Including tool clamp, cover cap, maintenance unit, key type, drawbar, control cabinet, operating element	
› High negative pressure achievable	
› Short change times through single-handed operation	
› Low weight thanks to optimised structure	
› Safe locking through toggle lever principle	
› Precise guiding thanks to optimised geometry	
› Low air consumption	
for MF 2V and MF 4V exclusive installation	3352394
<b>Factory assembly clamping system</b>	9000490
for MZ 4S, including mounting adapter and installation costs	3346225



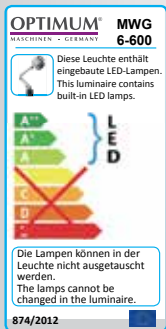
Note: Customisation work may be required for orders without factory assembly.

**Machine lamps** Article no.

**LED machine and workshop lamp**

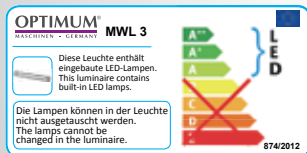
<b>MWG 6-600</b>	3351052
<b>MWG 6-720</b>	3351053

- › Electrical connection 6 x 2 Watt LED / 230 V ~50 Hz
- › Luminous intensity 1020 Lm; colour temperature 5700 K ±5%
- › Degree of protection IP65, protection class I (operation with PE connection)
- › Low external temperature, lubricant and coolant do not burn in
- › Beam angle 60° (reflector)
- › Mounting by means of bracket on base, rotatable 310°
- › LED service life > 60000 hours



**LED machine and workshop light MWL 4**

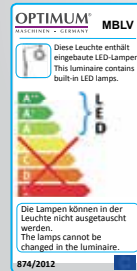
- › Art. no. 3351033 (230 V)
- › Art. no. 3351043 (DC24V)
- › Power 112W
- › Length 1120 mm
- › Colour temperature 5700 K ±5%
- › Robust and powerful machine light with safety glass
- › Beam angle 120° (reflector)
- › LED service life > 60,000 hours
- › Vibration-resistant at 10 to 55 Hz (amplitude 0.35 mm), shock-resistant up to 50 g
- › Degree of protection IP65, protection class I (operation with PE connection)
- › Maximum permissible ambient temperature Tmax. 50° C
- › Mounting by means of bracket, swivelling angle ± 45°
- › A safety transformer in accordance with EN 61558-2-6 is required for DC24V lamps and is not included in the scope of delivery.



**Milling machine accessories** Article no.

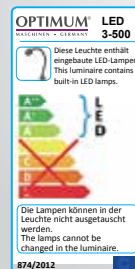
**LED magnifying lamp MBLV** 3351090

- › Electrical connection 14 W / 230 V ~50 Hz
- › Large magnifying glass: 125 mm diameter
- › Luminous intensity dimmable 10 - 100 %
- › Joint easily adjustable and lockable thanks to clamp screw
- › Pleasant, glare-free light intensity (lumen) 2200 Lm
- › Joint arm length 830 mm
- › IP20 degree of protection
- › Magnifying lamp with 1.5x optical magnification



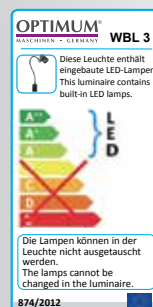
**Machine lamp LED 3- 500** 3351010

- › Electrical connection 3 x 1 W LED / 230 V ~50 Hz
- › Colour temperature 5700 K ±5%
- › Made of oil-resistant and impact proof plastic
- › No impairment of the service life through vibration or knocks
- › Optimum mobility of the articulated arm
- › IP degree of protection IP64 (dust and splash-water protected)
- › Lifetime 60 000 operating hours
- › Low exterior temperature; lubricants and coolants do not burn on



**LED workbench lamp WBL 3** 3351062

- › Electrical connection 3 x 1 Watt LED / 230 V ~50 Hz
- › Luminosity 480 Lm
- › Colour temperature 5700 K ±5%
- › Articulated arm with sleeve for best possible mobility
- › Excellent positional stability
- › Swivel head
- › Impact-proof, easy-to-clean plastic housing
- › Arm length 520 mm
- › IP Degree of protection: IP20
- › Integrated transformer; magnetic base, mounting bracket



## OPTIturn® TU 1503V

### Mini lathe with electronically adjustable speed. Ideal for the modeller

#### Facts that impress in terms of quality, performance and price

- ▶ Direct current motor
- ▶ Ribbed grey cast prism bed, induction hardened and scraped
- ▶ Hardened and ground z-axis guideway
- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.015$  mm
- ▶ Concentricity on the lathe chuck max.  $\leq 0.05$  mm
- ▶ Lead screw for thread cutting or automatic longitudinal turning
- ▶ Longitudinal, cross and top slide
- ▶ Automatic longitudinal/lead screw drive
- ▶ Large thread cutting range thanks to interchangeable gear set
- ▶ EMC filter class C1

**OPTIMUM**  
the original



Machine data	TU 1503V*
Art no.	3420260
Drive motor ~50 Hz	450 W / 230 V
Centre height/width	75 mm / 265 mm
Turning diameter	150 mm
Spindle speeds	120 - 3000 min <sup>-1</sup>
Speed stages	2 stages, electronically adjustable
Spindle taper	MT 1
Spindle bore	Ø 11 mm
Top slide travel	40 mm
Cross slide travel	55 mm
Tailstock cone	MT 1 shortened
Tailstock quill stroke	30 mm
Longitudinal feeds	0.05 - 0.1 mm/rev (2 pitches)
Thread pitch - Metric	0.5 - 1.5 mm/rev (8 pitches)
Dimensions (L x W x H) approx.	570 x 340 x 300 mm
Net weight approx.	23 kg



#### SCOPE OF DELIVERY:

- ▶ Three-jaw lathe chuck Ø 80 mm, centre clamping
- ▶ Non-rotating centring tip MT 1
- ▶ Double tool holder 8 mm
- ▶ Splash guard
- ▶ Chip tray
- ▶ Change gear set
- ▶ Operating tool

## OPTIturn® TU 2004V

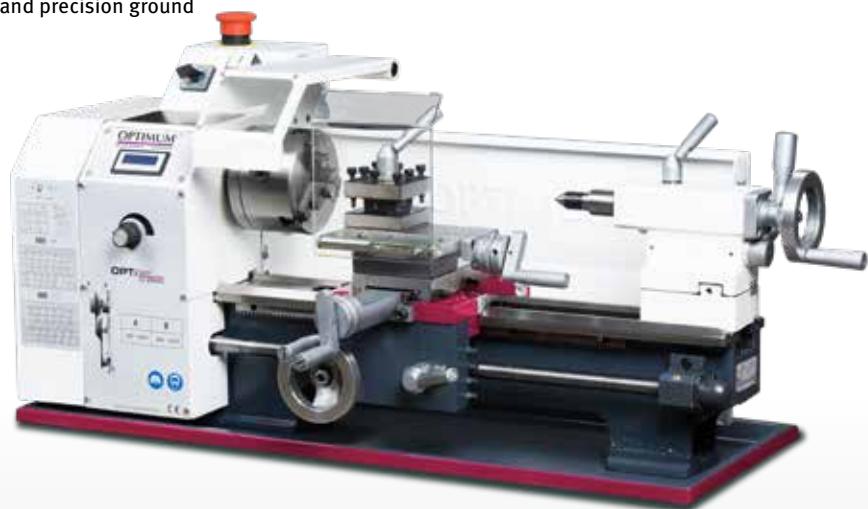
### Lathe with digital speed display and electronically adjustable speed

#### Facts that impress in terms of quality, performance and price

- ▶ Ribbed cast steel prism bed heavily ribbed, induction hardened and precision ground
- ▶ Hardened spindle nose (DIN 6350)
- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.009$  mm
- ▶ Emergency stop button
- ▶ Thrust bearings
- ▶ Automatic longitudinal/lead screw drive
- ▶ Right/left rotation switchable in the control panel
- ▶ Gearbox with interchangeable gearwheels
- ▶ EMC filter class C1

Machine data	TU 2004V*
Art no.	3420310
Drive motor ~50 Hz	600 W / 230 V
Centre height/width	100 mm / 300 mm
Turning diameter <sup>2</sup>	200 mm
Swing Ø above cross slide	110 mm
Spindle speeds	150 - 2500 min <sup>-1</sup>
Speed stages	2 stages, electrically adjustable
Spindle taper	MT3
Spindle bore	Ø 21 mm
Traverse path top/cross slide	55 mm / 75 mm
Tailstock cone	MT2
Tailstock quill stroke	65 mm
Longitudinal feed within the range	0.1/0.2 mm/rev (2 pitches)
Thread pitch - Metric	0.25 - 3 mm/rev (14 pitches)
Dimensions (L x W x H) approx.	830 x 425 x 360 mm
Net weight approx.	65 kg

**OPTIMUM**  
the original



#### SCOPE OF DELIVERY:

- ▶ Three-jaw lathe chuck Ø 100 mm, centre clamping
- ▶ Two non-rotating centring tip MT2 and MT3
- ▶ Quadruple tool holder 10 mm
- ▶ Splash guard
- ▶ Chip tray
- ▶ Change gear set
- ▶ Operating tool



**MAIN CATALOGUE**  
Simply scan the QR code and browse!

Further information can be found in the main catalogue or at [www.optimum-machines.com](http://www.optimum-machines.com)

\*The machine complies with the DIN EN 55011 standard: Class C1. Important information on operating machines with frequency converters can be found on the reverse side. For information on the machines, see overleaf

## OPTi turn® TU 2304 / TU 2304V

### Lathes for DIY.

#### TU 2304V with electronic speed control

##### Facts that impress in terms of quality, performance and price

- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.009$  mm
- ▶ Concentricity on the lathe chuck  $\leq 0.05$  mm
- ▶ Hardened and ground z-axis guideway
- ▶ Lead screw for thread cutting or automatic longitudinal turning
- ▶ Machine bed made of grey cast iron, heavily ribbed, induction-hardened and precision-ground
- ▶ Clockwise/anticlockwise rotation
- ▶ Emergency stop button
- ▶ Thrust bearings
- ▶ Roll-milled trapezoidal spindles
- ▶ Main spindle bearing of tolerance class P5
- ▶ Hardened spindle nose

##### TU 2304V:

- ▶ Speed change easily adjustable via potentiometer
- ▶ Digital speed display
- ▶ EMC filter class C1

Machine data	TU 2304	TU 2304V
Art no.	3420320	3420325
Drive motor ~50 Hz	750 W / 230 V	
Centre height/width	115 mm / 450 mm	
Swing $\varnothing$ above machine bed <sup>2</sup>	230 mm	
Spindle seat	Cylindrical $\varnothing$ 72 mm	
Spindle speeds	125 - 2000 min <sup>-1</sup>	150 - 2200 min <sup>-1</sup>
Speed stages	6 stages	2 stages, electronically adjustable
Spindle taper	MT3	
Spindle bore	$\varnothing$ 20 mm	
Traverse path top/cross slide	75 mm / 120 mm	
Thread pitch - Metric	0.4 - 3.5 mm/rev (14 pitches)	
Dimensions (L x W x H) approx.	1090 x 585 x 480 mm	
Net weight approx.	111 kg	114 kg

The original



Fig.: TU 2304V with optional machine base

##### SCOPE OF DELIVERY:

- ▶ Three-jaw lathe chuck  $\varnothing$  100 mm, centre clamping
- ▶ Two non-rotating centring tip MT2 and MT3
- ▶ Quadruple tool holder 12 mm
- ▶ Splashboard / chip tray
- ▶ Change gear set
- ▶ Operating tool

Machine base  
MST1  
Art no. 3440409

## OPTi turn® TU 2406 / TU 2406V

### Lathes for DIY

#### TU 2406V with electronic speed control

##### Facts that impress in terms of quality, performance and price

- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.009$  mm
- ▶ Concentricity on the lathe chuck  $\leq 0.05$  mm
- ▶ Hardened and ground z-axis guideway
- ▶ Lead screw for thread cutting or automatic longitudinal turning
- ▶ Clockwise/anticlockwise rotation
- ▶ Emergency stop button
- ▶ Thrust bearings
- ▶ Roll-milled trapezoidal spindles
- ▶ Two tapered roller bearings in P5 quality
- ▶ Main spindle bearing of tolerance class P5
- ▶ Hardened spindle nose

##### TU 2406V:

- ▶ Speed change easily adjustable via potentiometer
- ▶ Digital speed display
- ▶ EMC filter class C1

230 V  
or  
400 V

Machine data	TU 2406	TU 2406V*
Art. no.	3420350 (230 V) 3420353 (400 V)	3420355
Drive motor ~50 Hz	750 W 230 V or 400 V	1.1 kW / 230 V
Centre height/width	125 mm / 550 mm	
Swing $\varnothing$ above machine bed <sup>2</sup>	250 mm	
Spindle seat	Cylindrical $\varnothing$ 52 mm	
Spindle speeds	125 - 2000 min <sup>-1</sup>	150 - 2500 min <sup>-1</sup>
Speed stages	6 stages	2 stages, electronically adjustable
Spindle taper	MT3	
Spindle bore	$\varnothing$ 21 mm	
Traverse path top/cross slide	75 mm / 120 mm	
Thread pitch - Metric	0.4 - 3.5 mm/rev (14 pitches)	
Dimensions (L x W x H) approx.	1250 x 581 x 485 mm	
Net weight approx.	125 kg	127 kg

The original



Fig.: TU 2406V with optional machine base

##### SCOPE OF DELIVERY:

- ▶ Three-jaw lathe chuck  $\varnothing$  125 mm, centre clamping
- ▶ Two non-rotating centring tip MT2 and MT3
- ▶ Quadruple tool holder 14 mm
- ▶ Splashboard / chip tray
- ▶ Change gear set
- ▶ Operating tool

Machine base  
MST1  
Art no. 3440409

\*The machine complies with the DIN EN 55011 standard: Class C1. Important information on operating machines with frequency converters can be found on the reverse side. 2) For information about the machines, please refer to the reverse side.

## OPTi turn® TU 2506/TU 2506VB Lead screw lathes for the demanding user. TU 2506VB with electronically adjustable speed

### Facts that impress in terms of quality, performance and price

- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.009$  mm
- ▶ Concentricity on the lathe chuck  $\leq 0.04$  mm
- ▶ Lead screw for thread cutting or automatic longitudinal turning
- ▶ Machine bed made of grey cast iron, heavily ribbed, induction-hardened and precision-ground
- ▶ Clockwise/anticlockwise rotation
- ▶ Emergency stop button
- ▶ Thrust bearings
- ▶ Roll-milled trapezoidal spindles
- ▶ Tapered roller bearings in P5 quality

#### TU 2506 VB:

- ▶ Speed control easily adjustable via potentiometer
- ▶ Digital speed display

230 V  
or  
400 V

Machine data	TU 2506	TU 2506VB*
Art. no.	3425001 (230 V) 3425003 (400 V)	3425010
Drive motor ~50 Hz	750 W 230 V or 400 V	1.1 kW / 230 V
Centre height/width	125 mm / 550 mm	
Swing $\varnothing$ above machine bed <sup>2</sup>	246 mm	
Spindle seat	Short taper	
Spindle speeds	125 - 2000 min <sup>-1</sup>	150 - 2500 min <sup>-1</sup>
Speed stages	6 stages	2 stages, electrically adjustable
Spindle taper	MT4	
Spindle bore	$\varnothing$ 26 mm	
Traverse path top/cross slide	70 mm / 110 mm	
Thread pitch - Metric	0.2 - 4 mm/rev (21 pitches)	
Dimensions (L x W x H) approx.	1250 x 585 x 475 mm	1250 x 650 x 420 mm
Net weight approx.	138 kg	132 kg



#### SCOPE OF DELIVERY:

- ▶ Three-jaw lathe chuck  $\varnothing$  125 mm, centric clamping
- ▶ Two non-rotating centring tip MT2 and MT4
- ▶ Quadruple tool holder 12 mm
- ▶ HSS turning tool
- ▶ Splash guard / Chip tray
- ▶ Change gear set
- ▶ Operating tool

Fig. TU 2506VB with optional machine base and SE 1

Machine base  
MST1  
Art no. 3440409

## OPTi turn® TU 2807 / TU 2807VB Lathes for the demanding user. TU 2807VB with electronically adjustable speed

### Facts that impress in terms of quality, performance and price

- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.009$  mm
- ▶ Concentricity on the lathe chuck  $\leq 0.04$  mm
- ▶ Lead screw for thread cutting or automatic longitudinal turning
- ▶ Machine bed made of grey cast iron, heavily ribbed, induction-hardened and precision-ground
- ▶ Clockwise/anticlockwise rotation
- ▶ Emergency stop button
- ▶ Thrust bearings
- ▶ Roll-milled trapezoidal spindles
- ▶ Tapered roller bearings in P5 quality

#### TU 2807VB:

- ▶ Speed control easily adjustable via potentiometer
- ▶ Digital speed display

Machine data	TU 2807	TU 2807VB*
Art. no.	3427003	3427010
Drive motor ~50 Hz	850 W / 400 V	1.1 kW / 230 V
Centre height/width	140 mm / 700 mm	
Swing $\varnothing$ above machine bed <sup>2</sup>	266 mm	
Spindle seat	Short taper	
Spindle speeds	150 - 2000 min <sup>-1</sup>	150 - 2500 min <sup>-1</sup>
Speed stages	6 stages	2 stages, electrically adjustable
Spindle taper	MT4	
Spindle bore	$\varnothing$ 26 mm	
Traverse path top/cross slide	60 mm / 160 mm	
Thread pitch - Metric	0.2 - 3.5 mm/rev (18 pitches)	
Dimensions (L x W x H) approx.	1370 x 640 x 535 mm	1370 x 660 x 440 mm
Net weight approx.	196 kg	188 kg



#### SCOPE OF DELIVERY:

- ▶ Three-jaw lathe chuck  $\varnothing$  125 mm, centric clamping
- ▶ Two non-rotating centring tip MT2 and MT4
- ▶ Quadruple tool holder 12 mm
- ▶ HSS turning tool
- ▶ Splash guard / Chip tray
- ▶ Change gear set
- ▶ Operating tool

Fig. TU 2807VB with optional machine base and SE 1

Machine base  
MST1  
Art no. 3440409

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side. 2) For information about the machines, please refer to the reverse side.

# OPTi turn<sup>®</sup> TU 3008 / TU 3008G / TU 3008VB

## Lead and feed screw lathes with longitudinal and cross feed. TU 3008VB with electronically adjustable speed



### Facts that impress in terms of quality, performance and price

- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.015$  mm
- ▶ Concentricity on the lathe chuck  $\leq 0.04$  mm
- ▶ Automatic longitudinal/cross feeds
- ▶ Machine bed made of grey cast iron, heavily ribbed, induction-hardened and precision-ground
- ▶ Clockwise/anticlockwise rotation
- ▶ Emergency stop button
- ▶ Feed and lead screw cover

#### TU 3008

- ▶ Driven by V-belt

#### TU 3008G

- ▶ Gear drive

#### TU 3008VB:

- ▶ High-precision steel lathe chuck for higher speeds included in the scope of delivery
- ▶ Speed control easily adjustable via potentiometer
- ▶ Digital speed display
- ▶ EMC filter class C1

**OPTIMUM**  
the original



Machine base  
MST1  
Art no. 3440409

#### SCOPE OF DELIVERY:

- ▶ Three-jaw lathe chuck  $\varnothing 160$  mm, centre clamping
- ▶ Non-rotating centring tips MT3 and MT5
- ▶ Quadruple tool holder 25 mm
- ▶ Splash guard
- ▶ Chip tray
- ▶ Change gear set
- ▶ Operating tool

Fig. TU 3008VB with optional machine base and SE 1



Machine data	TU 3008	TU 3008G	TU 3008VB*
Art no.	3427200	3427210	3427206
Drive motor ~50 Hz	1.1 kW / 400 V	1.1 kW / 400 V	1.1 kW / 230 V
Centreheight/-width	158 mm / 800 mm	158 / 720 mm	158 mm / 800 mm
Swing $\varnothing$ above machine bed <sup>(2)</sup>	310 mm		
Spindle seat	Camlock DIN ISO 702- 2 No. 4		
Spindle speeds	150 - 2000 min <sup>-1</sup>	165 - 2400 min <sup>-1</sup>	75 - 2500 min <sup>-1</sup>
Speed stages	6 stages	6 stages	4 stages, electronically adjustable
Spindle taper	MT5		
Spindle bore	$\varnothing 38$ mm		
Traverse path top/cross slide	65 mm / 150 mm		
Thread pitch - Metric	0.2 - 3.5 mm/rev (18 pitches)		
Dimensions (L x W x H) approx.	1525 x 705 x 575 mm		
Net weight approx.	226 kg	261 kg	243 kg

Accessories	Article no.
DRO 5 Digital 3-axis position display	3383975
Factory assembly - Three-axis magnetic tapes	9000420
Factory assembly - Speed sensor	9000421
Assembly kit (Holder for the X, Z and Z0 axis/screw set)	3383985
DRO display holder	3383976

\*The machine complies with the DIN EN 55011 standard: Class C1. Important information on operating machines with frequency converters can be found on the reverse side. 2) For information about the machines, please refer to the reverse side.

**OPTIturn® TM 3110 / TM 3110VB**

**Lead and feed screw lathes convince with their simple handling.  
TM 3110VB with electronically adjustable speed**



**Facts that impress in terms of quality, performance and price**

- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.015$  mm
- ▶ Concentricity on the lathe chuck  $\leq 0.04$  mm
- ▶ Automatic longitudinal/cross feeds
- ▶ Machine bed made of grey cast iron, heavily ribbed, induction-hardened and precision-ground
- ▶ Emergency stop button
- ▶ Hardened spindle nose
- ▶ Hardened and ground z-axis guideway

- ▶ Lead screw for thread cutting or automatic longitudinal turning
- ▶ Lead screw and feed rod borne on two sintered bearings

**TU 3008VB:**

- ▶ Speed control easily adjustable via potentiometer
- ▶ Digital speed display



Machine base  
MST1  
Art no. 3440409

Fig. TM 3110VB with optional machine base and SE 1

Machine data	TM 3110	TM 3110VB*
Art no.	3403010	3403016
Drive motor ~50 Hz	1.1 kW / 400 V	1.5 kW / 230 V
Centre height/width	155 mm / 1000 mm	155 mm / 1000 mm
Swing Ø above machine bed <sup>2)</sup>	323 mm	310 mm
Spindle seat	Camlock DIN ISO 702- 2 No. 4	Camlock DIN ISO 702- 2 No. 4
Spindle speeds	65 - 2000 min <sup>-1</sup>	50 - 2500 min <sup>-1</sup>
Speed stages	9 stages	3 stages, electronically adjustable
Spindle taper	MT5	MT5
Spindle bore	Ø 38 mm	Ø 38 mm
Traverse path top/cross slide	90 mm / 168 mm	90 mm / 168 mm
Longitudinal feed within the range	0.02 - 0.4 mm/rev (24 feeds)	0.02 - 0.4 mm/rev (24 feeds)
Thread pitch - Metric	0.4 - 10 mm/rev (29 pitches)	0.4 - 10 mm/rev (29 pitches)
Dimensions (L x W x H) approx.	1749 x 740 x 566 mm	1632 x 770 x 540 mm
Net weight approx.	360 kg	360 kg

**SCOPE OF DELIVERY:**

- ▶ Three-jaw lathe chuck Ø 160 mm CamLock No. 4
- ▶ Change gear set
- ▶ Two non-rotating centring tips MT3
- ▶ Adapter MT5-MT3
- ▶ Quadruple tool holder 16 mm
- ▶ Machine initially filled with premium grade oil
- ▶ Operating tool

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side. 2) For information about the machines, please refer to the reverse side.

Accessories can be found on page OP66 or in the main catalogue 2026 or at [www.optimum-machines.com](http://www.optimum-machines.com).

# OPTi turn® TM 3310 / TM 3310D / TM 3310V

## Lead and feed screw lathes



### Facts that impress in terms of quality, performance and price

- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.015$  mm
- ▶ Machine base with rugged steel design
- ▶ Hardened and ground z-axis guideway
- ▶ DC 24 Volt electrical system
- ▶ Clockwise/anticlockwise rotation
- ▶ Switch rod on the bed slide for selection of longitudinal or cross feed
- ▶ Safety hand wheels with release function acc. to EN23125 in the X and Z axis
- ▶ Switch with lifecycle calculation, approved in line with EN ISO 13849
- ▶ Two-channel safety electronics
- ▶ Hardened main spindle borne on adjustable, precision taper roller bearings

- ▶ Motor circuit switch
- ▶ Main motor electrically braked

#### TM 3310D:

- ▶ Digital position display DPA 31Plus

#### TM 3310V:

- ▶ Inverter drive with integrated EMC filter
- ▶ Low-noise motor operation thanks to high pulse frequency
- ▶ Fast current limitation (FCL) for trouble-free operation in case of sudden load peaks
- ▶ Digital position indicator DPA 32 with cutting constant VSC



Fig. TM 3310V

Machine data	TM 3310 / TM 3310D	TM 3310V*
Art no.	3403020/3403025	3403027
Drive motor ~50 Hz	1.5 kW / 400 V	
Centre height/width	165 mm / 1000 mm	
Swing Ø above cross slide	216 mm	
Swing Ø above machine bed <sup>2)</sup>	330 mm	
Spindle seat	Camlock DIN ISO 702- 2 No. 4	
Spindle speeds / steps	65 - 2000 min <sup>-1</sup> / 9 speeds	10 - 2800 min <sup>-1</sup> 6 speeds electr. adjustable
Spindle taper	MT5	
Spindle bore	Ø 38 mm	
Traverse path top/cross slide	90 mm / 168 mm	
Longitudinal feed within the range	0.02 - 0.4 mm/rev (24 feeds)	
Thread pitch - Metric	0.4 - 10 mm/rev (29 pitches)	
Dimensions (L x W x H) approx.	1760 x 745 x 1320 (DPA 1590) mm	
Net weight approx.	470 kg	

Steady rests	Art no.
Travelling Ø 10 - Ø 70 mm	3441469
Fixed Ø 10 - Ø 70 mm	3441470

#### SCOPE OF DELIVERY:

- ▶ Three-jaw lathe chuck Ø 160 mm Camlock No. 4
- ▶ LED machine lamp
- ▶ Adapter MT5-MT3
- ▶ Non-rotating centring tip MT3
- ▶ Quadruple tool holder 16 mm
- ▶ Machine base
- ▶ Change gear set
- ▶ Machine initially filled with premium grade oil
- ▶ Operating tool

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.  
2) For information about the machines, please refer to the reverse side.

## OPTi turn<sup>®</sup> TM 3610 / TM 3610D / TM 3610V Lead and feed screw lathes



### Facts that impress in terms of quality, performance and price

- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.015$  mm
- ▶ Hardened and ground z-axis guideway
- ▶ DC 24 Volt electrical system
- ▶ All pitch gears made of steel, hardened and ground, shafts on needle bearings, all components lubricated in an oil bath
- ▶ Safety hand wheels with release function in the X and Z axis
- ▶ LED machine lamp in chip guard
- ▶ Motor electrically braked
- ▶ Includes quick-change tool holder SWH 3-E and tool holder
- ▶ With safety device to prevent simultaneous operation of thread cutting and pitch mechanism
- ▶ Switch with lifecycle calculation, approved in line with EN ISO 13849
- ▶ Feed and lead screw cover
- ▶ Inductive position measuring system on the Z-axis
- ▶ Magnetic tape system on the X and Z0 axes
- ▶ Simple operation of the feed thanks to the new apron design

#### TM 3610D:

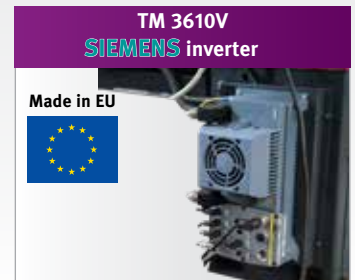
- ▶ Digital position display DPA 31Plus

#### TM 3610V:

- ▶ Digital position indicator DPA 32 with cutting constant VSC



Fig. TM 3610V



#### SINAMICS G120D

- > Safety Integrated
- > Regenerative power supply, low mains feedback
- > Energy savings of up to 20 %
- > No brake resistors required
- > You can find more detailed information in the main catalogue or at [www.optimum-machines.com](http://www.optimum-machines.com)



- > Optimum in-house development
- > Signal transmission via network cable with diagnostic function
- > 2-channel safety device



- > No change gear train; it is only equipped with a pair of gears with 35 teeth and 70 teeth, which can be changed each other.

Machine data	TM 3610 / TM 3610D	TM 3610V*
Art no.	3403030 / 3403035	3403038
Drive motor ~50 Hz	2.2 kW / 400 V	3 kW / 400 V
Centre height/width	180 mm / 1000 mm	
Swing $\varnothing$ above cross slide	225 mm	
Swing $\varnothing$ above machine bed <sup>2)</sup>	360 mm	
Spindle seat	DIN ISO 702-2 No. 5- Camlock	
Spindle speeds / Gear stages	70 - 2000 min <sup>-1</sup> / 8 speeds	40 - 3000 min <sup>-1</sup> / 4 stages electr. adjustable
Spindle taper	MT 6	
Spindle bore, bar passage diameter	52 mm	
Traverse path top/cross slide	100 mm / 170 mm	
Cross feed within	0.052 - 1.392 mm/rev (32 feeds)	
Thread pitch - Metric	0.2 - 14 mm/rev (45 pitches)	
Dimensions (L x W x H) approx.	1964 x 869 x 1475 mm	
Net weight approx.	608 kg	

#### SCOPE OF DELIVERY:

- ▶ Three-jaw lathe chuck  $\varnothing$  200 mm Camlock No. 5
- ▶ Fixed steady rest  $\varnothing$  7 -  $\varnothing$  102 mm
- ▶ Travelling steady rest  $\varnothing$  10 -  $\varnothing$  60 mm
- ▶ LED machine lamp
- ▶ Adapter MT 6-MT 4
- ▶ Non-rotating centring tip MT4
- ▶ Quick change tool holder SWH 3-E
- ▶ Tool holder 20 x 100 type D for square chisels 18 mm
- ▶ Machine initially filled with premium grade oil
- ▶ Operating tool

\*The machine complies with the DIN EN 55011 standard: Class C3. Important information on operating machines with frequency converters can be found on the reverse side.  
2) For information about the machines, please refer to the reverse side.

## OPTIturn<sup>®</sup> TM 4010 / TM 4010D / TM 4010V

### Lead and feed screw lathes which impress with their stable design and digital position display



#### Facts that impress in terms of quality, performance and price

- ▶ Guaranteed concentricity of the spindle nose ≤ 0.015 mm
- ▶ Hardened and ground z-axis guideway
- ▶ DC 24 Volt electrical system
- ▶ All pitch gears made of steel, hardened and ground, shafts on needle bearings, all components lubricated in an oil bath
- ▶ Safety hand wheels with release function in the X and Z axis
- ▶ Includes quick-change tool holder SWH 3-E and tool holder
- ▶ LED machine lamp in chip guard
- ▶ Motor electrically braked
- ▶ With safety device to prevent simultaneous operation of thread cutting and pitch mechanism
- ▶ Switch with lifecycle calculation, approved in line with EN ISO 13849
- ▶ Feed and lead screw cover

#### TM 4010D:

- ▶ Digital position display DPA 31Plus

#### TM 4010V:

- ▶ Digital position indicator DPA 32 with cutting constant VSC

#### TM 4010V SIEMENS inverter

Made in EU



#### SINAMICS G120D

- › Safety Integrated
- › Regenerative power supply, low mains feedback
- › Energy savings of up to 20 %
- › No brake resistors required
- › You can find more detailed information in the main catalogue or at [www.optimum-machines.com](http://www.optimum-machines.com)

#### CONTROL CABINET



- › Optimum in-house development
- › Signal transmission via network cable with diagnostic function
- › 2-channel safety device

#### CHANGE GEAR WHEELS



- › No change gear train; it is only equipped with a pair of gears with 35 teeth and 70 teeth, which can be changed each other.



Fig. TM 4010V

Machine data	TM 4010 / TM 4010D	TM 4010V*
Art no.	3403041/ 3403046	3403050
Drive motor ~50 Hz	2.2 kW / 400 V	4 kW / 400 V
Centre height/width	200 mm / 1000 mm	
Swing Ø above cross slide	250 mm	
Swing Ø above machine bed <sup>2)</sup>	400 mm	
Spindle seat	DIN ISO 702-2 No. 5- Camlock	
Spindle speeds / number of steps	70 - 2000 min <sup>-1</sup> / 8 speeds	40 - 3000 min <sup>-1</sup> / 4 stages electr. adjustable
Spindle taper	MT 6	
Spindle bore, bar passage diameter	52 mm	
Traverse path top/cross slide	98 mm / 185 mm	
Cross feed within	0.052 - 1.392 mm/rev (32 feeds)	
Thread pitch - Metric	0.2- 14 mm/rev (45 pitches)	
Dimensions (L x W x H) approx.	1964 x 869 x 1495 mm	
Net weight approx.	755 kg	

\*The machine complies with the DIN EN 55011 standard: Class C3. Important information on operating machines with frequency converters can be found on the reverse side.  
2) For information about the machines, please refer to the reverse side.

#### SCOPE OF DELIVERY:

- ▶ Three-jaw lathe chuck Ø 200 mm Camlock No. 5
- ▶ Fixed steady rest Ø 7 - Ø 102 mm
- ▶ Travelling steady rest Ø 10 - Ø 60 mm
- ▶ LED machine lamp
- ▶ Adapter MT 6-MT 4
- ▶ Non-rotating centring tip MT4
- ▶ Quick change tool holder SWH 3-E
- ▶ Tool holder 20 x 100 type D for square chisels 18 mm
- ▶ Machine initially filled with premium grade oil
- ▶ Operating tool

## OPTi turn® TZ 4 / TZ 4V

### Precision lead and feed screw lathe with digital position display. TZ 4V with SIEMENS Inverter Vario drive

#### Facts that impress in terms of quality, performance and price

- ▶ Hardened and ground z-axis guideway
- ▶ Partly clad with travelling, generously dimensioned chip guard
- ▶ Travelling swarf guard with integrated position display, coolant hose and additional control panel
- ▶ Plane and top slide spindle hardened and scraped, adjustable via split spindle nut
- ▶ Granular feed and tapping range
- ▶ LED machine lamp
- ▶ Energy chain for material-friendly cable and hose guiding
- ▶ Control cabinet with 24-V DC power supply
- ▶ Switch with lifecycle calculation, approved in line with EN ISO 13849
- ▶ Decoupled hand wheels approved in line with EN 23125
- ▶ Right/left switch tested according to EN 23125

- ▶ Safety hand wheels with release function in the X and Z axis
- ▶ Reduction of the main spindle braking time thanks to energy recuperation
- ▶ All contactors und relays by **SIEMENS** or Schneider
- ▶ Chip tray pulls out to front
- ▶ Coolant system
- ▶ Quick change tool holder SWH 5-B
- ▶ Digital speed display in the headstock housing
- ▶ Tool holder 25 x 120 type D for square chisels 20 mm

#### TZ 4V:

- ▶ Reduction of the main spindle braking time thanks to energy recuperation
- ▶ Two speeds
- ▶ Digital position indicator DPA 32 with cutting constant VSC



#### TZ 4V SIEMENS inverter

Made in EU



#### SINAMICS G120D

- › Safety Integrated
- › Regenerative power supply, low mains feedback
- › Energy savings of up to 20 %
- › No brake resistors required
- › You can find more detailed information in the main catalogue or at [www.optimum-machines.com](http://www.optimum-machines.com)

#### TOUCH PANEL



#### Centralised control

- › For switching lighting and coolant
- › switching for two-stage motor (on TZ 4 only)
- › Membrane keypad, easily cleanable

#### BED GEOMETRY



- › Flat angle
- › Higher force absorption



Fig.: TZ 4V with optional lathe chuck Art. No: 3450210)



Scan QR code

Information & Video

Machine data	TZ 4	TZ 4V*
Art no.	3432242	3432247
Drive motor ~50 Hz	3 kW / 4.5 kW / 400 V	5.5 kW / 400 V
Centre height/width	200 mm / 800 mm	
Swing Ø above cross slide	245 mm	
Swing Ø above machine bed <sup>2)</sup>	400 mm	
Spindle seat	DIN ISO 7021 no. 5 form A2	
Spindle speeds	45 - 1800 min <sup>-1</sup> / 16 stages	50 - 3000 min <sup>-1</sup> / 2 stages electronically controlled
Spindle taper	MT6	
Spindle bore	Ø 52 mm	
Traverse path top/cross slide	112 mm / 212 mm	
Longitudinal feed within the range	0.026 - 1.84 mm/rev (48 feeds)	
Thread pitch - Metric	0.2 - 14 mm/rev (26 pitches)	
Dimensions (L x W x H) approx.	1960 x 1060 x 1690 mm	
Net weight approx.	1250 kg	

Accessories	Art no.
BISON Three-jaw lathe chuck Ø 200 mm No. 5 Cast iron	3450210
Chuck flange Ø 200 mm no. 5 (for lathe chuck 3450210)	3450212
Change gear set for inch	3444160
BISON collet chuck 16C - Ø 160 mm	3450245
BISON lathe chuck flange Ø 160 mm (collet chuck 3450245)	3450246
DPA universal holder	3384028

#### SCOPE OF DELIVERY:

- ▶ Fixed steady rest Ø 10 - Ø 130 mm
- ▶ Travelling steady rest Ø 10 - Ø 100 mm
- ▶ Quick change tool holder 5-B
- ▶ Tool holder 25 x 120 type D square chisels 20 mm
- ▶ Adapter MT6-MT3
- ▶ Non-rotating centring tip MT3
- ▶ Non-rotating, but temperature resistant centring tip MT3
- ▶ Machine initially filled with premium grade oil
- ▶ Operating tool

\*The machine complies with the DIN EN 55011 standard: Class C3. Important information on operating machines with frequency converters can be found on the reverse side.  
2) For information about the machines, please refer to the reverse side.

**OPTi turn<sup>®</sup> TH 4210 / TH 4210D / TH 4215D / TH 4210V**  
Fully equipped lead and feed screw lathes with sophisticated technology. TH 4210V with Siemens Inverter Vario drive



**Facts that impress in terms of quality, performance and price**

- ▶ Hardened and ground z-axis guideway
- ▶ Precision slide
- ▶ Handwheels with adjustable fine scaling 0.04 / 0.02 mm
- ▶ All guides adjustable using wedge bars
- ▶ 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
- ▶ Clockwise/anti-clockwise rotation switchable on bed slide, switchable via switching spindle
- ▶ Central lubrication in bed slide
- ▶ Emergency stop device with foot pedal
- ▶ Safety hand wheels with release function acc. to EN23125 in the X and Z axis
- ▶ 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

**TH 4210D / TH 4215D:**

- ▶ Digital position display DPA 31Plus

**TH 4210V:**

- ▶ Digital position indicator DPA 32 with cutting constant VSC
- ▶ Two speeds
- ▶ Speed monitoring in line with Machinery Directive
- ▶ Quick-change tool holder 5-B
- ▶ Tool holder 25 x 120 type D square chisels 20 mm
- ▶ Other lengths on request

**TH 4210V**  
**SIEMENS inverter**  
Made in EU



**SINAMICS G120D**

- ▶ Safety Integrated
- ▶ Regenerative power supply, low mains feedback
- ▶ Energy savings of up to 20 %
- ▶ No brake resistors required
- ▶ You can find more detailed information in the main catalogue or at [www.optimum-machines.com](http://www.optimum-machines.com)



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

Machine data	TH 4210 / TH 4210 D	TH 4215D	TH 4210V *
Art no.	3462050/ 3462055	3462070	3462060
Drive motor ~50 Hz	3 kW / 4.5 kW / 400 V		5.5 kW / 400 V
Centre height	210 mm	210 mm	210 mm
Centre width	1,000 mm	1,500 mm	1,000 mm
Swing Ø above machine bed <sup>2)</sup>	420 mm		
Spindle seat	Camlock DIN ISO 702- 2 No. 6		
Spindle speeds	45 - 1800 min <sup>-1</sup>		30 - 3000 min <sup>-1</sup>
stages	16 stages		2 stages, electronically adjustable
Spindle taper	MT6		
Spindle bore	Ø 52 mm		
Traverse path top/cross slide	140 mm / 230 mm		
Longitudinal feed within the range	0.05 - 1.7 mm/rev (17 feeds)		
Thread pitch - Metric	0.2 - 14 mm/rev (39 pitches)		
Dimensions (L) approx.	1940 mm	2440 mm	2031 mm
Dimensions (W x H) approx.	915 x 1375 (DPA 1600) mm		915 x 1415 (DPA 1600) mm
Net weight approx.	1160 kg	1340 kg	1160 kg

\*The machine complies with the DIN EN 55011 standard: Class C3; Important information on operating machines with frequency converters can be found on the reverse side.  
2) For information about the machines, please refer to the reverse side.

**ACCESSORIES**  
**DO NOT FORGET THE LATHE CHUCK**  
You can find this from page OP70 onwards or in main catalogue

**SCOPE OF DELIVERY:**

- ▶ Fixed steady rest Ø 10 - Ø 130 mm
- ▶ Travelling steady rest Ø 10 - Ø 100 mm
- ▶ Adapter MT6-MT4
- ▶ Non-rotating, but temperature resistant centring tip MT4
- ▶ Non-rotating centring tip MT4
- ▶ Position stop with fine adjustment
- ▶ Change gear set
- ▶ Operating tool
- ▶ Machine initially filled with premium grade oil

**TH 4210 / TH 4210D / TH 4215D**

- ▶ Quadruple tool holder 20 mm

**TH 4210V**

- ▶ Quick-change tool holder 5-B
- ▶ Tool holder 25 x 120 type D square chisels 20 mm

**OPTi turn<sup>®</sup> TH 4610D / TH 4615D / TH 4620D / TH 4615V**

**Precision lead and feed screw lathes** that are unmatched

in terms of precision and ease of use. TH 4615V with Siemens Inverter Vario drive



**Facts that impress in terms of quality, performance and price**

- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.015$  mm
- ▶ Hardened and ground z-axis guideway
- ▶ All guides adjustable using wedge bars
- ▶ Shafts, gears and main spindle run in oil bath
- ▶ Top slide adjustment range  $\pm 90^\circ$
- ▶ Quick-change feed gearbox in closed design, gears and shafts hardened and ground, running in an oil bath in precision bearings.
- ▶ Right/left switch tested according to EN 23125
- ▶ Switch with lifecycle calculation, approved in line with EN ISO 13849
- ▶ Mechanical longitudinal feed switch-off of bed slide with four configurable eccentrics
- ▶ Lead screw cover
- ▶ Safety hand wheels with release function acc. to EN23125 in the X and Z axis
- ▶ Scale on thread gauge adjustable
- ▶ Central lubrication in bed slide
- ▶ Coolant system with separate coolant tank

- ▶ Large chip guard with integrated LED machine lamp

**from TH 4615D:**

- ▶ Lines routed in energy chain
- ▶ Digital position display DPA 31Plus

**TH 4615V:**

- ▶ Speed monitoring in line with Machinery Directive
- ▶ Digital position indicator DPA 32 with cutting constant VSC
- ▶ Other lengths on request

**TH4620D**

- ▶ With electronic rapid traverse
- ▶ Without camshaft deactivation for the feed
- ▶ Digital position display DPA 31Plus



Fig.: TH 4610D with optional lathe chuck

**TH 4615V**  
**SIEMENS inverter**

Made in EU



**SINAMICS G120D**

- ▶ Safety Integrated
- ▶ Regenerative power supply, low mains feedback
- ▶ Energy savings of up to 20 %
- ▶ No brake resistors required
- ▶ You can find more detailed information in the main catalogue or at [www.optimum-machines.com](http://www.optimum-machines.com)

Machine data	TH 4610D	TH 4615D	TH 4620D	TH 4615V*
Art no.	3462110	3462120	3462130	3462125
Drive motor ~50 Hz	5.5 kW / 400 V			7.5 kW / 400 V
Centre height	230 mm			230 mm
Centre width	1060 mm	1560 mm	2060 mm	1560 mm
Swing $\varnothing$ above machine bed <sup>2)</sup>	460 mm			460 mm
Spindle seat	Camlock DIN ISO 702- 2 No. 6			Camlock DIN ISO 702- 2 No. 8
Spindle speeds	25 - 2000 min <sup>-1</sup>			30 - 2000 min <sup>-1</sup>
stages	12 stages			2 stages, electrically adjustable
Spindle taper	MT6			MT7
Spindle bore	$\varnothing$ 58 mm			$\varnothing$ 80 mm
Traverse path top/cross slide	125 mm / 285 mm			
Longitudinal feed within the range	0.031 - 1.7 mm/rev (42 feeds)			
Thread pitch - Metric	0.1 - 14 mm/rev (41 pitches)			
Dimensions (L) approx.	2215 mm	2765 mm	3265 mm	2765 mm
Dimensions (W x H) approx.	1065 x 1550 mm			
Net weight approx.	1645 kg	1810 kg	1965 kg	2020 kg

\*The machine complies with the DIN EN 55011 standard: Class C3. Important information on operating machines with frequency converters can be found on the reverse side.  
2) For information about the machines, please refer to the reverse side.

**ACCESSORIES**

**DO NOT FORGET THE LATHE CHUCK**

You can find this from page OP70 onwards or in main catalogue



**SCOPE OF DELIVERY:**

- ▶ Fixed steady rest  $\varnothing$  25 -  $\varnothing$  178 mm
  - ▶ Travelling steady rest  $\varnothing$  19 - 114 mm
  - ▶ Quick change tool holder 5-B
  - ▶ Tool holder 25 x 120 type D
  - ▶ Non-rotating, but temperature resistant centring tip MT4
  - ▶ Non-rotating centring tip MT4
  - ▶ Change gear set
  - ▶ Thread gauge
  - ▶ Gear wheels for threading gauge (metric)
  - ▶ Machine initially filled with premium grade oil
  - ▶ Operating tool
- TH 4610D / TH 4615D / TH 4620D**
- ▶ Adapter MT6-MT4
- TH 4615V**
- ▶ Adapter MT7-MT4

**OPTi turn<sup>®</sup> TH 5615D / TH 5620D / TH 5630D / TH 5620V**  
**Heavy-duty lead and feed screw lathes. High precision and efficient**  
TH 5620V with Siemens Inverter Vario drive



**Facts that impress in terms of quality, performance and price**

- ▶ Hardened and ground z-axis guideway
- ▶ All guides adjustable using wedge bars
- ▶ Gears and shafts running in oil bath
- ▶ Top slide adjustment range ± 90°
- ▶ Main spindle runs in oil bath
- ▶ Gearwheels smooth action, hardened, ground and borne on 2 re-adjustable precision taper rollers
- ▶ Closed design of the quick shift feed gear
- ▶ Gears and shafts hardened and scraped running in oil bath on precision bearings
- ▶ Two-channel safety electronics
- ▶ Switch with lifecycle calculation, approved in line with EN ISO 13849
- ▶ Right/left rotation on the bed slide can be switched via a switch spindle.
- ▶ Central lubrication in bed slide
- ▶ Emergency stop device with foot pedal
- ▶ Safety hand wheels with release function acc. to EN23125 in the X and Z axis
- ▶ Coolant system with separate coolant tank
- ▶ LED machine lamp in chip guard

- ▶ Electrical system with **SIEMENS** and Schneider components
- ▶ Energy chain for material-friendly cable and hose guiding
- ▶ Scale on thread gauge adjustable

**TH 5620V:**

- ▶ Digital position indicator DPA 32 with cutting constant VSC
- ▶ Speed monitoring in line with Machinery Directive
- ▶ With electronic rapid traverse
- ▶ Other lengths on request

**TH 5620D / TH 5630D**

- ▶ With electronic rapid traverse
- ▶ Without camshaft deactivation for the feed
- ▶ Digital position display DPA 31Plus



**TH 5620V**  
**SIEMENS**  
**SINAMIGS G120**  
**FREQUENCY CONVERTER**



Made in EU

**Control cabinet**



- > 24 Volt DC power supply
- > All contactors und relays by **SIEMENS** or Schneider



Fig.: TH 5615D with optional lathe chuck

**ACCESSORIES**

**DO NOT FORGET THE LATHE CHUCK**

You can find this from page OP70 onwards or in main catalogue



**SCOPE OF DELIVERY:**

- ▶ Fixed steady rest Ø 19 - Ø 165 mm
  - ▶ Travelling steady rest Ø 16 - Ø 95 mm
  - ▶ LED machine lamp
  - ▶ Quick change tool holder 7-C
  - ▶ Tool holder 32 x 150 type D for square chisels 25 mm
  - ▶ Non-rotating, but temperature resistant centring tip MT5
  - ▶ Gear wheels for threading gauge (metric)
  - ▶ Thread gauge
  - ▶ Change gear set
  - ▶ Machine initially filled with premium grade oil
  - ▶ Operating tool
- TH 5615D / TH 5620D / TH 5630D**
- ▶ Adapter MT7-MT5
- TH 5620V**
- ▶ Adapter Ø 113 mm-MT5

Machine data	TH 5615D	TH 5620D	TH 5630D	TH 5620V*
Art no.	3462160	3462170	3462180	3462175
Drive motor ~50 Hz	7.5 kW / 400 V			
Centre height	280 mm			
Centre width	1,420 mm	1,910 mm	2,910 mm	1,910 mm
Swing Ø above machine bed <sup>2)</sup>	560 mm			
Spindle seat	Camlock DIN ISO 702- 2 No. 8			
Spindle speeds	25 - 1600 min <sup>-1</sup>		25 - 1600 min <sup>-1</sup>	
stages	12 stages		2 stages; electrically adjustable	
Spindle taper	MT 7		Ø 113 mm (taper 1:20)	
Spindle bore	Ø 80 mm		Ø 105 mm	
Traverse path top/cross slide	130 mm / 316 mm			
Longitudinal feed within the range	0.059 - 1.646 mm/rev (35 feeds)			
Thread pitch - Metric	0.2 - 14 mm/rev (47 feeds)			
Dimensions (L) approx.	2,950 mm	3,450 mm	4,450 mm	3,450 mm
Dimensions (W x H) approx.	1150 x 1650 mm			
Net weight approx.	2300 kg	2560 kg	3000 kg	2560 kg

\*The machine complies with the DIN EN 55011 standard: Class C3. Important information on operating machines with frequency converters can be found on the reverse side.  
2) For information about the machines, please refer to the reverse side.

## OPTIturn® TX 4414 / TX 5216 / TX 6222

Precision lead and feed screw lathes that meet the highest requirements in terms of technical equipment and precision.



### Facts that impress in terms of quality, performance and price

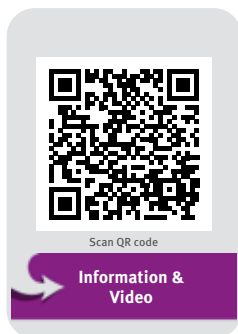
- ▶ One-piece steel machine base
- ▶ High degrees of rigidity of the spindle bar housing thanks to heavily ribbed 25GG cast material
- ▶ All gear wheels of the feed gear made of steel, hardened
- ▶ shafts on needle bearings, all components lubricated in oil bath
- ▶ Hardened and ground spindle guarantees high degrees of accuracy and durability
- ▶ The powerful machining performance means that a high level of chip removal during roughing work is no problem
- ▶ Easy to service thanks to removable rear panel
- ▶ 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
- ▶ Hand wheels decoupled and approved in line with EN 23125
- ▶ Two-channel safety electronics
- ▶ No change gears required
- ▶ Switch with lifecycle calculation, approved in line with EN ISO 13849
- ▶ With safety device to prevent simultaneous operation of thread cutting and pitch mechanism
- ▶ Hardened and ground bed guides
- ▶ Electronically braked motor
- ▶ Electronic feed shut-off of Z axis
- ▶ Electrical position shut-off with quadruple positioning stop
- ▶ Three-jaw lathe chuck included as standard
- ▶ Digital position display DPA 32

from TX 5216:

- ▶ Rapid traverse



Fig.: TX 5216



Machine data	TX 4414	TX 5216	TX 6222
Art no.	3432422	3432442	3432462
Drive motor	5.5 kW / 400 V	5.5 kW / 400 V	7.5 kW / 400 V
Centre height	220 mm	260 mm	310 mm
Centre width	1,400 mm	1,600 mm	2,225 mm
Camlock spindle mount	Camlock DIN ISO 702- 2 No. 6	Camlock DIN ISO 702- 2 No. 8	Camlock DIN ISO 702- 2 No. 8
Swing Ø above machine bed <sup>2)</sup>	440 mm	520 mm	620 mm
Spindle speeds	40 - 2200 min <sup>-1</sup>	30 - 1500 min <sup>-1</sup>	40 - 1650 min <sup>-1</sup>
Speed stages	12 stages	12 stages	12 stages
Spindle taper	MT6	MT 7	Ø 113 mm (taper 1:20)
Spindle bore	Ø 52 mm	Ø 80 mm	Ø 105 mm
Traverse path top/cross slide	153 mm / 290 mm	170 mm / 350 mm	170 mm / 350 mm
Longitudinal feed within the range	0.05 - 0.752 mm/rev (44)	0.05 - 1.5 mm/rev (55)	0.05 - 1.5 mm/rev (55)
Cross feed within	0.025 - 0.376 mm/rev (44)	0.025 - 0.75 mm/rev (55)	0.025 - 0.75 mm/rev (55)
Metric pitch	0.5 - 7.5 mm/rev (44)	0.5 - 15 mm/rev (55)	0.5 - 15 mm/rev (55)
Dimensions (L x W x H) approx.	2410 x 1085 x 1825 mm	3016 x 1270 x 2217 mm	3550 x 1200 x 1830 mm
Net weight approx.	1630 kg	2470 kg	2800 kg

### SCOPE OF DELIVERY:

- ▶ Operating tool
- ▶ Machine initially filled with premium grade oil

#### TX 4414

- ▶ Three-jaw lathe chuck Ø 200 mm Camlock No. 6
- ▶ Non-rotating centring tip MT3/ MT5
- ▶ SWH 5-B

#### TX 5216 / TX 6222:

- ▶ Three-jaw lathe chuck Ø 315 mm Camlock No. 8
- ▶ Two non-rotating centring tips MT5 (short/long)
- ▶ SWH 7-C
- ▶ Tool holder for square chisels 32 x 130 type D
- ▶ Adapter MT 7-MT5 (TX 5216)
- ▶ Adapter Ø 113 mm- MT5 (TX 6222)

1) Explanations regarding the transport surcharge(TPZ/TPZDF) plus VAT, see reverse side. 2) For information about the machines, please refer to the reverse side.

## OPTi turn<sup>®</sup> TX 4814V / TX 5216V / TX 6222V

### Precision lead and feed screw lathes with Siemens inverter

### Vario drive that fulfil the highest requirements



#### 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
- ▶ All gear wheels of the feed gear made of steel, hardened
- ▶ shafts on needle bearings, all components lubricated in oil bath
- ▶ 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
- ▶ Easy to service thanks to removable rear panel
- ▶ 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
- ▶ Hand wheels decoupled and approved in line with EN 23125
- ▶ Two-channel safety electronics
- ▶ No change gears required
- ▶ Switch with lifecycle calculation, approved in line with EN ISO 13849
- ▶ With safety device to prevent simultaneous operation of thread cutting and pitch mechanism
- ▶ Hardened and ground bed guides
- ▶ Electronically braked motor
- ▶ Electronic feed shut-off of Z axis
- ▶ Electrical position shut-off with quadruple positioning stop
- ▶ Three-jaw lathe chuck included as standard
- ▶ Digital position indicator DPA 32 with cutting constant VSC

from TX 5216V:

- ▶ Rapid traverse

#### SIEMENS inverter

Made in EU

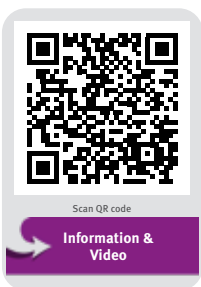


#### SINAMICS G120D

- › Safety Integrated
- › Regenerative power supply, low mains feedback
- › Energy savings of up to 20 %
- › No brake resistors required
- › You can find more detailed information in the main catalogue or at [www.optimum-machines.com](http://www.optimum-machines.com)



Fig.: TX 4814V



Machine data	TX 4814V	TX 5216V*	TX 6222V*
Art no.	3432425	3432447	3432467
Drive motor ~50 Hz	5.5 kW / 400 V	7.5 kW / 400 V	11 kW / 400 V
Centre height	240 mm	260 mm	310 mm
Centre width	1,380 mm	1,600 mm	2,225 mm
Camlock spindle mount	Camlock DIN ISO 702- 2 No. 8	Camlock DIN ISO 702- 2 No. 8	Camlock DIN ISO 702- 2 No. 8
Swing Ø above machine bed <sup>2)</sup>	440 mm	520 mm	620 mm
Spindle speeds	20 - 2500 min <sup>-1</sup>	12 - 1800 min <sup>-1</sup>	14 - 1800 min <sup>-1</sup>
Speed stages	2 x 3 stages	2 x 3 stages	2 x 3 stages
Spindle taper	MT7	MT 7	Ø 113 mm (taper 1:20)
Spindle bore	Ø 80 mm	Ø 80 mm	Ø 105 mm
Traverse path top/cross slide	153 mm / 290 mm	170 mm / 350 mm	170 mm / 350 mm
Longitudinal feed within the range	0.05 - 0.75 mm/rev (44)	0.05 - 1.5 mm/rev (55)	0.05 - 1.5 mm/rev (55)
Cross feed within	0.025 - 0.376 mm/rev (44)	0.025 - 0.75 mm/rev (55)	0.025 - 0.75 mm/rev (55)
Metric pitch	0.5 - 7.5 mm/rev (44)	0.5 - 15 mm/rev (55)	0.5 - 15 mm/rev (55)
Dimensions (L x W x H) approx.	2526 x 1,050 x 1,860 mm	3016 x 1270 x 2217 mm	3550 x 1200 x 1830 mm
Net weight approx.	1700 kg	2470 kg	2800 kg

#### SCOPE OF DELIVERY:

- ▶ Operating tool
  - ▶ Machine initially filled with premium grade oil
- TX 4814V :**
- ▶ Three-jaw chuck Ø200mm No.8
  - ▶ Non-rotating centring tip MT3/ MT6
  - ▶ SWH 5-B
- TX 5216V / TX 6222V:**
- ▶ Three-jaw chuck Ø315 mm No.8
  - ▶ Two non-rotating centring tips MT5 (short/long)
  - ▶ SWH 7-C
  - ▶ Tool holder for square chisels 32 x 130 type D
  - ▶ Adapter MT 7-MT5 (TX 5216V)
  - ▶ Adapter Ø 113 mm-MT5 (TX 6222V)

\*The machine complies with the DIN EN 55011 standard: Class C3. Important information on operating machines with frequency converters can be found on the reverse side.

<sup>2)</sup> For information about the machines, please refer to the reverse side.

**OPTi turn® TH 6620D / TH 6630D / TH 8020D / TH 8030D**  
**Lead and feed screw lathes. High flexibility, precision and cost-effectiveness**



**Facts that impress in terms of quality, performance and price**

- ▶ Guaranteed concentricity of the spindle nose  $\leq 0.015$  mm
- ▶ Hardened and ground z-axis guideway
- ▶ All guides adjustable using wedge bars
- ▶ Top slide adjustment range  $\pm 90^\circ$
- ▶ 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 scaling 0.04 / 0.02 mm
- ▶ Safety limit switch with positively opening contacts
- ▶ Two-channel safety electronics
- ▶ Switch with lifecycle calculation, approved in line with EN ISO 13849
- ▶ Central lubrication in bed slide
- ▶ Coolant system with separate coolant tank
- ▶ EMERGENCY-STOP push button, motor circuit breaker, lockable main switch
- ▶ Tailstock crank for position change
- ▶ Tailstock sleeve with two adjustable transmission ratios 1/4 or 1/1 rev
- ▶ LED machine lamp
- ▶ Electrical motor brake with fast emergency stop - in normal operations, fast stop without post-run
- ▶ Energy chain for material-friendly cable and hose guiding
- ▶ Digital position indicator DPA 32 with cutting constant VSC

**Control cabinet**

- ▶ 24 Volt DC power supply
- ▶ All contactors und relays by **SIEMENS** or **Schneider**

**Cross and longitudinal feed**

- ▶ Fast feed - pushbutton and selector lever for activating and deactivating rapid traverse 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



flexCAT 378 EOT-PRO

Art no. 7003380



**RECOMMENDED AS A CHIP VACUUM CLEANER:**



Fig.: TH 8030D

**ACCESSORIES**

**DO NOT FORGET THE LATHE CHUCK**

You can find this from page OP70 onwards or in main catalogue



Machine data	TH 6620D	TH 6630D	TH 8020D	TH 8030D
Art no.	3462210	3462220	3462230	3462240
Drive motor ~50 Hz	9 kW / 400 V		11 kW / 400 V	
Centre height	330 mm		400 mm	
Centre width	2,050 mm	3,050 mm	2,050 mm	3,050 mm
Swing $\varnothing$ above machine bed <sup>2)</sup>	660 mm		800 mm	
Spindle seat	Camlock DIN ISO 702- 2 No. 8			
Spindle speeds	25 - 1600 min <sup>-1</sup>			
Speed stages	16 stages			
Spindle taper	$\varnothing$ 113 mm (taper 1:20)			
Spindle bore	$\varnothing$ 105 mm			
Traverse path top/cross slide	230 mm / 368 mm			
Longitudinal feed within the range	0.044 - 1.48 mm/rev (25 feeds)			
Thread pitch - Metric	0.45 - 120 mm/rev (54 pitches)			
Dimensions (L) approx.	3650 mm	4650 mm	4287 mm	5287 mm
Dimensions (W x H) approx.	1500 x 1785 mm		1525 x 1925 mm	
Net weight approx.	3345 kg	3730 kg	3455 kg	3820 kg

**SCOPE OF DELIVERY:**

- ▶ Fixed steady rest  $\varnothing$  20 -  $\varnothing$  185 mm
- ▶ Travelling steady rest  $\varnothing$  20 -  $\varnothing$  125 mm
- ▶ LED machine lamp
- ▶ Adapter  $\varnothing$  113 mm-MT5
- ▶ Non-rotating, but temperature resistant centring tip MT5
- ▶ Non-rotating centring tip MT5
- ▶ Quick change tool holder 9-D
- ▶ Tool holder 41 x 180 type D for square chisels 32 mm
- ▶ Change gear set
- ▶ Quality oil enclosed
- ▶ Operating tool

<sup>2)</sup> For information about the machines, please refer to the reverse side.

## OPTIMUM Three-jaw lathe chuck

Lathe chuck	Article no.
-------------	-------------

### OPTIMUM Three-jaw lathe chuck, centric clamping

#### Cast iron lathe chuck

- › Cylindrical centring mount as per DIN 6350
- › Concentricity  $\leq 0.05$  mm
- › Chuck flange required

Ø 80 mm	3440287
Soft block jaw set 1-piece - 3 pieces	3442902
Ø 100 mm	3442710
Soft block jaw set 1-piece - 3 pieces	3442904
Ø 125 mm	3442712
Soft block jaw set 1-piece - 3 pieces	3442906
Ø 160 mm	3442716
Soft block jaw set 1-piece - 3 pieces	3442907



#### Scope of delivery

- › Single-piece hard jaws for outside-inside clamping
- › Chuck key



**i** Chuck flange can be found on page OP66 or in the main catalogue

## OPTIMUM Camlock three-jaw lathe chuck

Lathe chuck	Article no.
-------------	-------------

### OPTIMUM Three-jaw lathe chuck, Camlock, centric clamping

#### Cast iron lathe chuck

- › Camlock direct mount DIN 55029

Ø 160 mm Camlock DIN ISO 702-2 No. 4	3442761
Soft block jaw set 1-piece - 3 pieces	3442907
Ø 200 mm Camlock DIN ISO 702-2 No. 4	3442762
Soft block jaw set 1-piece - 3 pieces	3442910
Ø 200 mm Camlock DIN ISO 702-2 No. 5	3442764
Soft block jaw set 1-piece - 3 pieces	3442910
Ø 200 mm Camlock DIN ISO 702-2 No. 6	3442763
Soft block jaw set 1-piece - 3 pieces	3442910
Ø 250 mm Camlock DIN ISO 702-2 No. 6	3442765
Soft block jaw set 1-piece - 3 pieces	3442912
Ø 315 mm Camlock DIN ISO 702-2 No. 8	3442768
Soft block jaw set 1-piece - 3 pieces	3442916



#### Scope of delivery

- › Single-piece hard jaws for outside-inside clamping
- › Chuck key



## OPTIMUM Four-jaw lathe chuck

### OPTIMUM Four-jaw lathe chuck, centric clamping

#### Cast iron lathe chuck

- › Cylindrical centring mount as per DIN 6350
- › Concentricity  $\leq 0.05$  mm
- › Chuck flange required

Ø 80 mm	3442808
Soft block jaw set 1-piece - 4 pieces	3442920
Ø 100 mm	3442810
Soft block jaw set 1-piece - 4 pieces	3442922
Ø 125 mm	3442812
Soft block jaw set 1-piece - 4 pieces	3442924
Ø 160 mm	3442816
Soft block jaw set 1-piece - 4 pieces	3442926

### OPTIMUM Four-jaw lathe chuck, single clamping

Ø 80 mm	3440286
Ø 100 mm	3442872
Ø 125 mm	3442874



#### Scope of delivery

- › Chuck key
- Lathe chuck centric clamping:**
- › Hard jaws, single-part, turn-able, as outside-inside clamping
- Lathe chuck single clamping:**
- › Set of hard reversible jaws

## OPTIMUM Camlock four-jaw lathe chuck

### OPTIMUM Four-jaw lathe chuck, Camlock, centric clamping

#### Cast iron lathe chuck

- › Camlock direct mount DIN 55029

Ø 160 mm Camlock DIN ISO 702-2 No. 4	3442840
Soft block jaw set 1-piece - 4 pieces	3442926
Ø 200 mm Camlock DIN ISO 702-2 No. 4	3442843
Soft block jaw set 1-piece - 4 pieces	3442927
Ø 200 mm Camlock DIN ISO 702-2 No. 5	3442845
Soft block jaw set 1-piece - 4 pieces	3442927
Ø 200 mm Camlock DIN ISO 702-2 No. 6	3442846
Soft block jaw set 1-piece - 4 pieces	3442928
Ø 250 mm Camlock DIN ISO 702-2 No. 6	3442852
Soft block jaw set 1-piece - 4 pieces	3442935
Ø 315 mm Camlock DIN ISO 702-2 No. 8	3442856
Soft block jaw set 1-piece - 4 pieces	3442938

### OPTIMUM Four-jaw lathe chuck, Camlock, single clamping

Ø 200 mm Camlock DIN ISO 702-2 No. 4	3442879
Ø 200 mm Camlock DIN ISO 702-2 No. 5	3442880
Ø 250 mm Camlock DIN ISO 702-2 No. 6	3442884
Ø 315 mm Camlock DIN ISO 702-2 No. 8	3442888
Ø 400 mm Camlock DIN ISO 702-2 No. 8	3442890



#### SCOPE OF DELIVERY:

- › Chuck key
- Lathe chuck centric clamping:**
- › Hard jaws, single-part, turn-able, as outside-inside clamping
- Lathe chuck single clamping:**
- › Set of hard reversible jaws



Technical data and dimensions can be found in the  
 MAIN CATALOGUE  
 or at [optimum-machines.com](http://optimum-machines.com)



## Three-jaw lathe chuck

Lathe chuck	Article no.
-------------	-------------

### BISON Three-jaw lathe chuck, centric clamping

#### Lathe chuck body made from high-quality cast iron

- › All work surfaces induction hardened and ground
- › Uniform clamping forces
- › High true running accuracy (better than DIN 6386)

Ø 125 mm DIN 6350	3450230
Block jaw set, soft	3450410
Ø 160 mm DIN 6350	3450232
Block jaw set, soft	3450412



#### Scope of delivery

- › Single-piece hard jaws for outside-inside clamping
- › Chuck key



### BISON Three-jaw lathe chuck, centric clamping

#### › Lathe chuck body made from high-quality steel

Ø 250 mm Camlock DIN ISO 702-2 No. 6	3450530
Block jaw set, soft	3450426



## Camlock three-jaw lathe chuck

Lathe chuck	Article no.
-------------	-------------

### BISON Three-jaw lathe chuck, Camlock, centric clamping

#### Lathe chuck body made from high-quality cast iron

- › All work surfaces induction hardened and ground
- › Camlock direct mount DIN 55029
- › High true running accuracy (better than DIN 6386)

Ø 160 mm Camlock DIN ISO 702-2 No. 4	3450305
Block jaw set, soft	3450412
Ø 200 mm Camlock DIN ISO 702-2 No. 4	3450310
Block jaw set, soft	3450414
Ø 200 mm Camlock DIN ISO 702-2 No. 5	3450315
Block jaw set, soft	3450414
Ø 200 mm Camlock DIN ISO 702-2 No. 6	3450320
Block jaw set, soft	3450414
Ø 200 mm DIN 6350 A2-5	3450210
Block jaw set, soft	3450414
Ø 250 mm Camlock DIN ISO 702-2 No. 5	3450325
Block jaw set, soft	3450416
Ø 250 mm Camlock DIN ISO 702-2 No. 6	3450330
Block jaw set, soft	3450416
Ø 250 mm Camlock DIN ISO 702-2 No. 8	3450331
Block jaw set, soft	3450416
Ø 315 mm Camlock DIN ISO 702-2 No. 8	3450335
Block jaw set, soft	3450418



## Four-jaw lathe chuck

### BISON Four-jaw lathe chuck, centric clamping

#### Lathe chuck body made from high-quality cast iron

- › All work surfaces induction hardened and ground
- › Uniform clamping forces
- › High true running accuracy (better than DIN 6386)

Ø 125 mm DIN 6350	3450234
Block jaw set, soft	3450420
Ø 160 mm DIN 6350	3450236
Block jaw set, soft	3450422

### BISON chuck flange

Ø 125 mm for three and four-jaw lathe chucks Ø 125 mm	3450240
Ø 160 mm for three and four-jaw lathe chucks Ø 160 mm	3450246
Ø 200 mm for three and four-jaw lathe chucks Ø 200 mm	3450212
Ø 250 mm for three and four-jaw lathe chucks Ø 250 mm	3450218



#### SCOPE OF DELIVERY:

- › Single-piece hard jaws for outside-inside clamping
- › Chuck key



## Camlock four-jaw lathe chuck

### BISON Four-jaw lathe chuck, Camlock, centric clamping

#### Lathe chuck body made from high-quality cast iron

Ø 160 mm Camlock DIN ISO 702-2 No. 4	3450355
Block jaw set, soft	3450422
Ø 200 mm Camlock DIN ISO 702-2 No. 4	3450360
Block jaw set, soft	3450424
Ø 200 mm Camlock DIN ISO 702-2 No. 5	3450365
Block jaw set, soft	3450424
Ø 200 mm Camlock DIN ISO 702-2 No. 6	3450370
Block jaw set, soft	3450424
Ø 250 mm DIN 6350 A2-5	3450216
Block jaw set, soft	3450426
Ø 250 mm Camlock DIN ISO 702-2 No. 5	3450375
Block jaw set, soft	3450426
Ø 250 mm Camlock DIN ISO 702-2 No. 6	3450380
Block jaw set, soft	3450426
Ø 250 mm Camlock DIN ISO 702-2 No. 8	3450381
Block jaw set, soft	3450426
Ø 315 mm Camlock DIN ISO 702-2 No. 8	3450385
Block jaw set, soft	3450428
Ø 400 mm Camlock DIN ISO 702-2 No. 8	3450390
Block jaw set, soft	3450430

### BISON Four-jaw lathe chuck, Camlock, centric clamping

#### Lathe chuck body made from high-quality steel

Ø 250 mm Camlock DIN ISO 702-2 No. 6	3450580
Block jaw set, soft	3450426
Ø 250 mm DIN 6350 A2-5	3450217
Block jaw set, soft	3450426

Other lathe chuck sizes and designs on request

Technical data and dimensions can be found in the

➔ MAIN CATALOGUE

or at [optimum-machines.com](http://optimum-machines.com)



<b>Quick-change tool holder set</b>	Article no.
<b>SWH AA</b>	3384311
› Tool holder head AA › 3 units tool holder 12 x 50 type D for square chisels › 1 unit tool holder 12 x 50 type H for round chisels	
<b>Spare tool holder 12 x 50 Type D - square</b>	3384312
<b>Spare tool holder 12 x 50 type H - round chisels</b>	3384320
<b>SWH 1 - A</b>	3384301
› Tool holder head A › 3 units tool holder 20 x 90 type D for square chisels › 1 unit tool holder 20 x 85 type H for round chisels	
<b>Spare steel holder 20 x 90 type D - Square</b>	3384302
<b>Spare tool holder 20 x 85 type H - round chisels</b>	3384321
<b>SWH 3 - E</b>	3384303
› Tool holder head E › 3 units tool holder 20 x 100 type D for square chisels › 1 unit tool holder 30 x 100 type H for round chisels	
<b>Spare steel holder 20 x 100 type D - Square</b>	3384304
<b>Spare tool holder 30 x 100 type H - round chisels</b>	3384322
<b>SWH 5 - B</b>	3384305
› Tool holder head B › 3 units tool holder 25 x 120 type D for square chisels › 1 unit tool holder 32 x 130 type H for round chisels	
<b>Spare steel holder 25 x 120 type D - Square</b>	3384306
<b>Spare tool holder 32 x 130 type H - round chisels</b>	3384324
<b>SWH 7 - C</b>	3384307
› Tool holder head C › 3 units tool holder 32 x 150 type D for square chisels › 1 unit tool holder 40 x 160 type H for round chisels	
<b>Spare steel holder 32 x 150 type D - Square</b>	3384308
<b>Spare tool holder 40 x 160 type H - round chisels</b>	3384326
<b>SWH 9 - D</b>	3384309
› Tool holder head D › 3 units tool holder 40 x 180 type D for square chisels › 1 unit tool holder 63 x 180 type H for round chisels	
<b>Spare steel holder 40 x 180 type D - Square</b>	3384332
<b>Spare tool holder 63 x 180 type H - round chisels</b>	3384333
<b>Factory assembly and adjustment SWH</b>	9000400
› Only with orders for new machines	

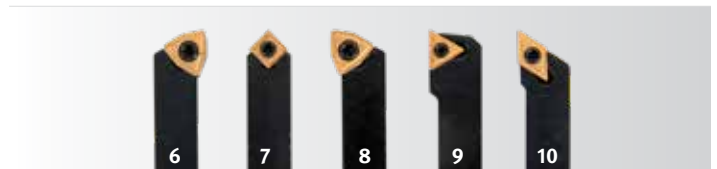


<b>Turning tool</b>	Article no.
<b>Lathe tool set, TC 8 mm</b>	3441662
› 5-part · With carbide indexable inserts › TIN-coated · Aluminium box	



<b>Replacement carbide insert (5 pieces each)</b>			
1/3	Indexable insert: WCMT050308	80°	3441759
2	Indexable insert: SCMT060204	90°	3441761
4	Indexable insert: TCMT090204	60°	3441760
5	Indexable insert: DCMT070204	55°	3441758

<b>Carbide lathe tool set 10 mm</b>	3441664
› 5-part · With carbide indexable inserts › TIN-coated · Aluminium box	



<b>Carbide replacement inserts (5 pieces each)</b>			
6/8	Indexable insert: WCMT050308	80°	3441759
7	Indexable insert: SCMT060204	90°	3441761
9	Indexable insert: TCMT090204	60°	3441760
10	Indexable insert: DCMT070204	55°	3441758

<b>Carbide lathe tool set 12 mm</b>	3441666
› 5-part · With carbide indexable inserts › TIN-coated · Aluminium box	



<b>Carbide replacement inserts (5 pieces each)</b>			
11/13	Indexable insert: WCMT050308	80°	3441759
12	Indexable insert: SCMT09T304	90°	3441763
14	Indexable insert: TCMT110204	60°	3441762
15	Indexable insert: SDCMT070204	55°	3441758



<b>Carbide lathe tool set 12 mm</b>	3441212
› 5-part · With carbide indexable inserts › TIN-coated · Aluminium box	



<b>Carbide replacement inserts (5 pieces each)</b>			
16	Indexable insert: SCMT09T304	S/90°	3441280
17	Indexable insert: CCMT09T04	C/80°	3441282
18-20	Indexable insert: DCMT11T304	C/55°	3441281

Single turning tool 12 mm SSSC L1212J09 / SCLC L1212J09 see page OP69

Turning tool	Article no.
<b>Lathe tool set, TC 16 mm</b>	<b>3441668</b>

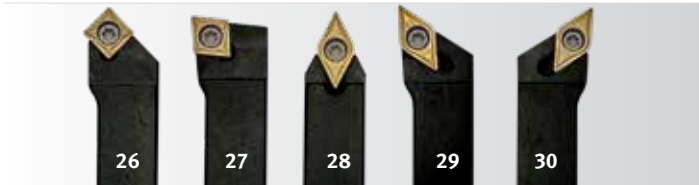
- > 5-part · With carbide indexable inserts
- > TIN-coated · Aluminium box



Carbide replacement inserts (5 pieces each)		
21/22	Indexable insert: WNMG060408	3441753
23	Indexable insert: SNMG090304	3441755
24	Indexable insert: KNUX160405R	3441754
25	Indexable insert: DNMG110408	3441750

Carbide lathe tool set 16 mm	3441216
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- > 5-part · With carbide indexable inserts
- > TIN-coated



Carbide replacement inserts (5 pieces each)		
26	Indexable insert: SCMT09T304	3441280
27	Indexable insert: CCMT09T304	3441282
28-30	Indexable insert: DCMT11T304	3441281

Carbide lathe tool set 16 mm	3441610
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- > 5-part · With carbide indexable inserts
- > TIN-coated · Aluminium box



Carbide replacement inserts (5 pieces each)		
31/33	Indexable insert: VNMG 160408	3441701
32/34	Indexable insert: RNMM1003MO	3441702
35	Indexable insert: 16ER AG60	3441703

Carbide lathe tool set 20 mm	3441670
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- > 5-part · With carbide indexable inserts
- > TIN-coated · Aluminium box



Carbide replacement inserts (5 pieces each)		
36/37	Indexable insert: WNMG080408	3441752
38	Indexable insert: SNMG120408	3441756
39	Indexable insert: KNUX160405R	3441754
40	Indexable insert: DNMG110408	3441750

Turning tool	Article no.
<b>Carbide lathe tool set 20 mm</b>	<b>3441617</b>

- > 5-part · With carbide indexable inserts
- > TIN-coated · Aluminium box



Carbide replacement inserts (5 pieces each)		
41	Indexable insert: 16ER AG60	3441703
42/43	Indexable insert: RNMM1003MO	3441702
44/45	Indexable insert: VNMG160408	3441701

Carbide lathe tool set 25 mm	3441623
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- > 5-part · With carbide indexable inserts
- > TIN-coated · Aluminium box



Carbide replacement inserts (5 pieces each)		
46/50	Indexable insert: VNMG 160408	3441701
47	Indexable insert: 16ER AG60	3441703
48	Indexable insert: RNMG1204MO	3441705
49	Indexable insert: RNMG1605MO	3441704

Lathe tool set, TC 25 mm	3441672
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- > 5-part · With carbide indexable inserts
- > TIN-coated · Aluminium box



Carbide replacement inserts (5 pieces each)		
51/53	Indexable insert: WNMG080408	3441752
52	Indexable insert: SNMG150608	3441757
54	Indexable insert: KNUX160405R	3441754
55	Indexable insert: DNMG150408	3441751

Carbide lathe tool set 32 mm	3441674
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- > 5-part · With carbide indexable inserts
- > TIN-coated · Aluminium box



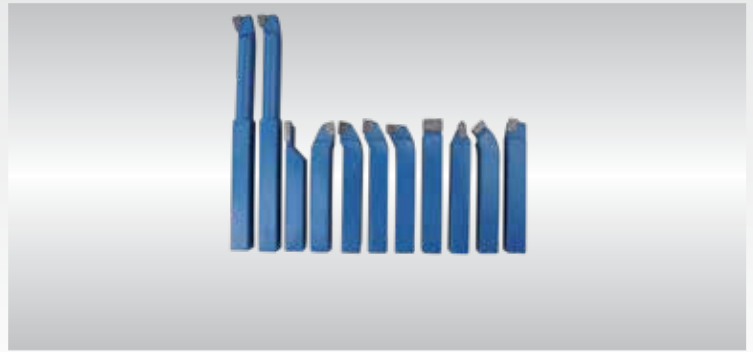
Carbide replacement inserts (5 pieces each)		
56/58	Indexable insert: WNMG080408	3441752
57	Indexable insert: SNMG150608	3441757
59	Indexable insert: KNUX160405R	3441754
60	Indexable insert: DNMG150408	3441751

**Lathe tool set**

Article no.

- › 11-part
- › With soldered-on carbide plates
- › Aluminium box

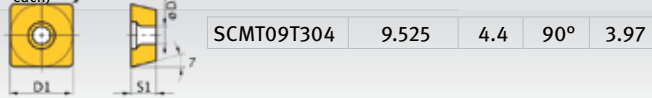
8 mm	3441601
10 mm	3441602
12 mm	3441603
16 mm	3441604



**Turning chisel 12 mm**

Article no.

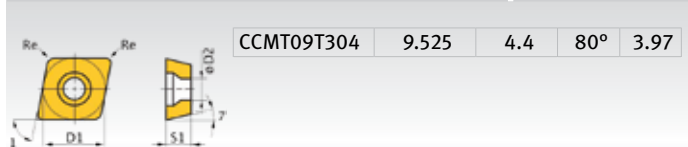
SSSC L1212J09	3441225
Carbide indexable replacement inserts (5 pieces each)	3441280



**Turning chisel 12 mm**

Article no.

SCLC L1212J09	3441226
Carbide indexable replacement inserts (5 pieces each)	3441282



**Inside lathe tool set 10 mm**

**Inside turning tool set**

Article no.

10 mm	3441640
› 3-part	
› With TC reversible plates, TIN-coated	
› Aluminium box	



**Carbide indexable replacement inserts (5 pieces each)**



Article no.	ISO	
3441164	CCMT060204	C/80°
3441163	TCMT110204	T/60°
3441166	DCMT070204	D/55°

**Inside lathe tool set 12 mm**

**Inside turning tool set**

Article no.

12 mm	3441641
› 3-part	
› With carbide indexable inserts, TIN-coated	
› Aluminium box	

**Inside thread turning tool set  
8 - 20 mm**

**Inside thread turning tool**

Article no. € plus VAT

8 - 20 mm	3441650	172.00
› 5-part (8/10/12/16/20 mm)		
› With carbide indexable inserts		
› TiN coated		
› Aluminium box		



**Carbide indexable replacement inserts (5 pieces each)**

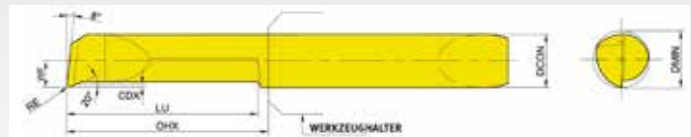


Article no.	ISO	
3441725	08IR A60	60° IR
3441726	11IR A60	60° IR
3441727	16IR A60	60° IR

**PREMIUM TURNING TOOLS FROM YG-1** 

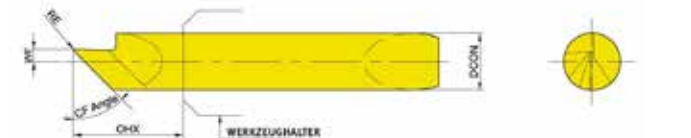
Optimised for small-diameter applications, offering high precision and productivity, as well as maximum toughness and wear resistance. Specialised technology, such as submicron carbide substrates, meets the requirements of high-precision machining.

Right-hand boring tool	Article no.
NCBP4R-27.10-005-YG812	3544010
NCBP4R-32.20-005-YG812	3544011
NCBP6R-62.20-020-YG812	3544012
NCBP6R-62.30-020-YG812	3544013



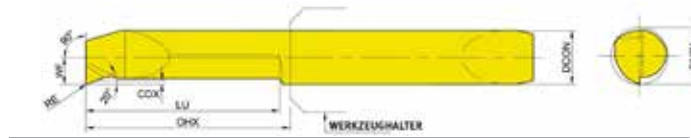
Art no.	DCON	DMIN	LU	RE	CDX	WF	OHX	OAL
3544010	4	2.7	10	0.05	0.2	1.2	13	28
3544011	4	3.2	20	0.05	0.2	1.45	23	38
3544012	6	6.2	20	0.20	0.5	2.95	25.5	48
3544013	6	6.2	30	2.0	0.5	2.95	35.5	58

Turning tool for chamfering 45° right	Article no.
NCCH6R-10.03-45-YG812	3544110



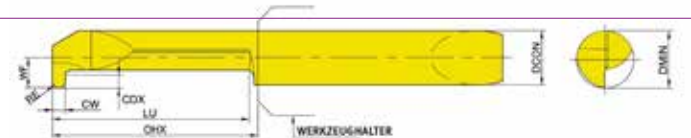
Art no.	DCON	DMIN	RE	CDX	WF	OHX	OAL
3544110	6	1.0	0.2	3.5	1.1	15.5	38

Inside boring bar 90° right	Article no.
NCBF4R-22.13-010-YG812	3544030
NCBF4R-32.20-015-YG812	3544031
NCBF6R-62.15-020-YG812	3544032
NCBF6R-62.30-020-YG812	3544033



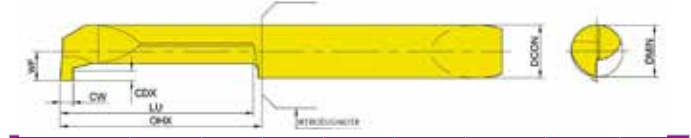
Art no.	DCON	DMIN	LU	RE	CDX	WF	OHX	OAL
3544030	4	2.2	13	0.10	0.2	0.95	18	33
3544031	4	3.2	20	0.15	0.2	1.45	23	38
3544032	6	3.2	15	0.20	0.5	2.95	20.5	43
3544033	6	6.2	30	0.20	0.5	2.95	35.5	58

Grooving insert, right radius	Article no.
NCGR4R-42.15-10x08-YG812	3544050
NCGR4R-42.15-15x08-YG812	3544051
NCGR6R-62.25-15x18-YG812	3544052
NCGR6R-62.25-20x18-YG812	3544053



Art no.	DCON	DMIN	LU	RE	CW	CDX	WF	OHX	OAL
3544050	4	4.2	15	0.5	1.0	0.8	1.95	18	33
3544051	4	4.2	15	0.75	1.5	1	1.95	18	33
3544052	6	6.2	25	0.75	1.5	1.8	2.95	30.5	53
3544053	6	6.2	25	1	2.0	1.8	2.95	30.5	53

Grooving insert, right radius	Article no.
NCGS4R-42.10-100x08-YG812	3544070
NCGS6R-62.10-150x18-YG812	3544071
NCGS6R-62.25-150x18-YG812	3544072
NCGS6R-62.15-200x18-YG812	3544073



Art no.	DCON	DMIN	LU	CW	CDX	WF	OHX	OAL
3544070	4	4.2	10	1.00	0.8	1.95	13	38
3544071	6	6.2	10	1.50	1.8	2.95	15.5	38
3544072	6	6.2	25	1.50	1.8	2.95	30.5	53
3544073	6	6.2	15	2.00	1.8	2.95	20.5	43

Boring bar holder - 4 mm holder	Article no.
16mm (NCHI-16.4)	3544150
20mm (NCHI-20.4)	3544151
25mm (NCHI-25.4)	3544152
Boring bar holder - 6 mm holder	Article no.
16mm (NCHI-16.6)	3544155
20mm (NCHI-20.6)	3544156
25mm (NCHI-25.6)	3544157



**Accessories** Article no.

**Workplace mats for dry and damp areas**

<b>1840 x 640 mm</b>	6800000
<b>1840 x 940 mm</b>	6800005
<b>3040 x 640 mm</b>	6800001
<b>3040 x 940 mm</b>	6800006

- > Fire retardant
- > Made of polyurethane on polyether basis
- > Top and bottom surface: studded
- > Thickness 14 mm
- > Colour anthracite
- > Temperature resistance -35°C to +95°C
- > Fire classification B1 as per DIN 4102
- > 5-year warranty\*



**Collet set**

<b>ER 16</b>	3440282
> 12-piece; clamping range Ø 1-10 mm	
<b>ER 25</b>	3441109
> 15-piece; clamping range Ø 1-16 mm	
<b>ER 32</b>	3441122
> 18-piece; clamping range Ø 3-20 mm	



**Collet set type 5C** 3441509

- > Standard 385 E
- > 17-part
- > Clamping range 3-25 mm



**Collet chuck for collets type 5C/385E**

<b>5C - Camlock no. 4</b>	3441554
> Length = 71 mm/inlet bore-Ø=126 mm	
<b>5C - Camlock no. 5</b>	3441555
> Length = 107.4 mm/inlet bore-Ø=126 mm	
<b>5C - Camlock no. 6</b>	3441556
> Length = 160 mm/inlet bore-Ø=182 mm	
<b>5C - Camlock no. 8</b>	3441558
> Length = 163 mm/inlet bore-Ø=225 mm	
> as per DIN 6341	
> With spindle mount according to DIN ISO 702-2	
> Concentricity ≤ 0.02 mm	
> For collet set 5C Art. No. 3441509	



**Accessories** Article no.

**Chuck flange Camlock DIN ISO 702-2**

<b>Ø 160 mm No. 4</b>	3441512
> for four-jaw lathe chuck Ø 160 mm	
> for lathe chuck assembly	



<b>Ø 200 mm No. 4</b>	3441513
> for four-jaw lathe chuck Ø 200 mm	

<b>Ø 200 mm No. 5</b>	3441514
> for four-jaw lathe chuck Ø 200 mm	

<b>Ø 200 mm No. 6</b>	3444012
> for four-jaw lathe chuck Ø 200 mm	

<b>Ø 250 mm No. 6</b>	3444013
> for four-jaw lathe chuck Ø 250 mm	

<b>Ø 315 mm No. 8</b>	3444041
> for three- and four-jaw lathe chucks Ø 315 mm	

<b>Ø 200 mm No. 6</b>	3444012
> for four-jaw lathe chuck Ø 200 mm	

<b>Ø 250 mm No. 6</b>	3444013
> for four-jaw lathe chuck Ø 250 mm	

<b>Ø 315 mm No. 8</b>	3444041
> for three- and four-jaw lathe chucks Ø 315 mm	

<b>Ø 200 mm No. 6</b>	3444012
> for four-jaw lathe chuck Ø 200 mm	

<b>Ø 250 mm No. 6</b>	3444013
> for four-jaw lathe chuck Ø 250 mm	

**Chuck flange for lathe chuck assembly**

<b>Ø 100 mm</b>	3440312
> cylindrical for TU 2004V	

<b>Ø 125 mm</b>	3440313
> cylindrical for TU 2304	

<b>Ø 125 mm</b>	3440511
> cylindrical for TU 2406	

<b>Ø 125 mm</b>	3441312
> Short taper for TU 2506 / TU 2807	

<b>Ø 160 mm</b>	3441413
> Short taper for TU 2807	

<b>Ø 160 mm</b>	3441413
> Short taper for TU 2807	



**Live centres with interchangeable centring tips**

<b>MT 2</b>	3440732
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<b>MT 3</b>	3440733
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<b>MT 4</b>	3440734
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- > With 7 replaceable tips
- > Body made of hardened and ground tool steel
- > Precision needle roller bearing for high concentricity



**Clamping disc**

<b>Ø 170 mm for TU 2004V/TU 2304</b>	3440295
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<b>Ø 240 mm for TU 2406</b>	3440552
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<b>Ø 240 mm for TU 2506</b>	3441352
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<b>Ø 265 mm for TU 2807</b>	3441452
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<b>Ø 300 mm Camlock No. 4</b>	3442976
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<b>Ø 320 mm A 2-5</b>	3442979
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<b>Ø 330 mm Camlock No. 5</b>	3442978
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<b>Ø 350 mm Camlock No. 6</b>	3442980
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<b>Ø 480 mm Camlock No. 8</b>	3442982
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**Accessories** Article no.

**Co-rotating centring tip**

NSK ball roller bearings and INA needle bearings

<b>MT2</b>	3451002
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- > Maximum speed 7000 min<sup>-1</sup>
- Maximum radial load 2000 N

<b>MT3</b>	3451003
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- > Maximum speed 5000 min<sup>-1</sup>
- Maximum radial load 4000 N

<b>MT4</b>	3451004
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- > Maximum speed 3800 min<sup>-1</sup>
- Maximum radial load 8000 N

<b>MT5</b> (2-row SKF angular contact bearings)	3451005
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- > Maximum speed 3000 min<sup>-1</sup>
- Maximum radial load 20000 N



- > Max. concentricity deviation 0.005 mm

**Collet chuck**

<b>ER 16 Ø 22 mm</b>	3440281
----------------------	---------

- > cylindrical for TU 1503V

<b>ER 25 Ø 40 mm</b>	3440305
----------------------	---------

- > Cylindrical for TU 2004V / TU 2304

<b>ER 25 Ø 52 mm</b>	3440505
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- > cylindrical for TU 2406

<b>ER 32 Ø 52 mm</b>	3440506
----------------------	---------

- > cylindrical for TU 2406

<b>ER 25 Ø 52 mm</b>	3441305
----------------------	---------

- > Short taper for TU 2506 / TU 2807

<b>ER 32 Ø 52 mm</b>	3441306
----------------------	---------

- > Short taper for TU 2506 / TU 2807



**Co-rotating centring tip**

<b>MT 1</b>	3440701
-------------	---------

- > Maximum speed 5000 min<sup>-1</sup> Maximum radial load 320 N

<b>MT2</b>	3440702
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- > Maximum speed 5000 min<sup>-1</sup> Maximum radial load 400 N

<b>MT3</b>	3440703
------------	---------

- > Maximum speed 4500 min<sup>-1</sup> Maximum radial load 800 N

<b>MT4</b>	3440704
------------	---------

- > Maximum speed 3500 min<sup>-1</sup> Maximum radial load 1250 N

<b>MT5</b>	3440705
------------	---------

- > Maximum speed 3000 min<sup>-1</sup> Maximum radial load 1500 N

<b>MT6</b>	3440706
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- > Maximum speed 2500 min<sup>-1</sup> Maximum radial load 1800 N

- > Max. concentricity deviation 0.006 mm



**Lathe accessories** Article no.

**Centring drill set** 3203010

- > As per DIN 333 shape A
- > 10-part: 0.75/1/1.5/1.6/2/2.5/3/3.15/4/5 mm
- > Right-hand cutting conical bevel grinded 120°
- > Countersink angle 60°
- > Top quality HSS for tensile strength up to approx. 750 N/mm<sup>2</sup>
- > Powerful shank, also well suited for predrilling and expansion drilling with a twist drill bit
- > Plastic cassette



**HSS twist drill**

<b>MT2</b>	3051002
<b>MT3</b>	3051003

- > 9-piece; sizes 14.5/16/18/20/22/24/26/28/30 mm
- > Long service life
- > Good chip removal
- > Right-hand cutting



**Chuck flange Ø 160 mm** 3450246



- > for BISON collet chuck 16C Ø 160 mm (article no: 3450245)

**Collet chuck 16C** 3450245

- > Ø 160 mm
- > Manually operated chuck for distortion-free clamping of workpieces
- > Steel chuck body
- > BISON chuck flange Article no: 3450246 required



Shown with collet chuck - not included in the scope of delivery

**Accessories** Article no.

**Levelling platen**

<b>SE 1</b>	3381012
<b>SE 2</b>	3381016
<b>SE 3</b>	3381018

- > Machines and appliances can be installed without anchoring and aligned using height adjustment
- > non-slip rubberised



Load	SE 1	SE 2	SE 3
Milling machines	340 kg	460 kg	1600 kg
Saws/general machinery	570 kg	1460 kg	3500 kg
Thread	M 12	M 16	M 20
Foot Ø/foot height	120/32	160/35	185/39

**Machine foot vibration damper**

<b>SE 55</b>	3352981
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- > Levelling screw M12 x 1 x 150 mm, maximum load: 600 kg

<b>SE 85</b>	3352982
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- > Levelling screw M16 x 150 mm, maximum load: 1500 kg
- > Effective vibration and structure-borne sound insulation and noise reduction
- > Eliminates floor unevenness up to 5°
- > Precision levelling by means of a fine or adjusting screw



**Precision machine shoe SEU1**

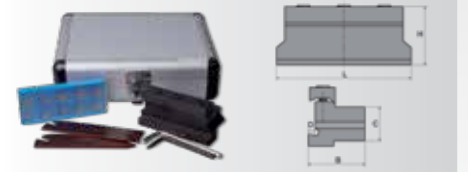
3352985

- > With vibration and structure-borne sound insulation
- > With slip-protection plate at top
- > Maximum load 60 kN
- > Suitable for M 16 threaded rod
- > Vibration-insulation plate for particularly loads. Good structure-borne noise insulation
- > Adjustment range +5 / -4 mm
- > Very precise and smooth levelling of even heavy loads
- > Weight approx. 3.7 kg



**Accessories** Article no.

**Clamping block set**



**Clamping block set 16-05** 3440653

Lathes: TU 3008 / TM 3309 / TM 3610

- > 1 pc. clamping block SLTBN 16-05
- > 1 pc. parting-off turning tool SLIH 26-2
- > 1 pc. parting-off turning tool SLIH 26-3
- > 5 pcs. cutting plates GTN2 (cutting width 2.2 mm)
- > 5 pcs. cutting plates GTN3 (cutting width 3.1 mm)
- > Aluminium box

L x W x H	88 x 38 x 42 mm
C	16 mm
D	4 mm

**Clamping block set 20-05** 3440654

Lathes: TM 4010 / TH 4210 / TH 46 / TH 56

- > 1 pc. clamping block SLTBN 20-05
- > 1 pc. parting-off turning tool SLIH 26-3
- > 1 pc. parting-off turning tool SLIH 26-4
- > 5 pcs. cutting plates GTN2 (cutting width 3.1 mm)
- > 5 pcs. cutting plates GTN3 (cutting width 4.1 mm)
- > Aluminium box

L x W x H	88 x 38 x 42 mm
C	20 mm
D	5 mm

**Clamping block set 25-05** 3440655

For the lathes: TH 66 / TH 80

- > 1 pc. clamping block SLTBN 25-05
- > 1 pc. parting-off turning tool SLIH 26-3
- > 1 pc. parting-off turning tool SLIH 26-4
- > 5 pcs. cutting plates GTN2 (cutting width 3.1 mm)
- > 5 pcs. cutting plates GTN3 (cutting width 4.1 mm)
- > Aluminium box

L x W x H	100 x 42 x 43.5 mm
C	25 mm
D	5 mm

**Replacement cutting insert set**

for cutting boards <b>GTN 2</b>	3440663
for cutting boards <b>GTN 3</b>	3440664
for cutting boards <b>GTN 4</b>	3440665



- > 10 pcs.

**Hollow spindle stop**

<b>HSP 38</b> Spindle Ø 35-42 mm	3444410
<b>HSP 52</b> Spindle Ø 48-56 mm	3444415
<b>HSP 80</b> Spindle Ø 76-84 mm	3444420
<b>HSP 105</b> Spindle Ø 101-109 mm	3444425

- > Optimum auxiliary tool suits virtually any lathe
- > Worthwhile even for smallest batches
- > Expensive tooling time can be reduced to a minimum
- > Can be easily and quickly attached at any point of the hollow spindle





## OPTi grind® GT 22

### Manual surface grinder with digital position indicator DPA 31Plus

#### Facts that impress in terms of quality, performance and price

- ▶ Premium spindle with precision taper roller bearings
- ▶ Hardened and ground bed guides
- ▶ Integrated grinding wheel dressing device
- ▶ Machine base made of sturdy, torsion-resistant cast iron
- ▶ Backlash-free V-flat guide on the Z axis and flat guides on the X and Y axes
- ▶ Manual oil pump
- ▶ Trapezoidal threaded spindle on the Y axis
- ▶ Robust DPA 31Plus measuring system, dirt and water resistant
- ▶ LED lamp
- ▶ Substantial energy savings thanks to IE3 motor
- ▶ Two-channel safety electrics
- ▶ Manual centralised lubrication system
- ▶ Coolant unit with external coolant tank
- ▶ Safety electrics in 24 V DC



Machine data	GT 22
Art no.	3111020
Grinding wheel drive motor~50 Hz	1.5 kW / 400 V
Surface grinding table (L x W)	200 x 450 mm
Workpiece size (L x W x H)	450 x 200 x 350 mm
Grinding table load capacity incl. permanent magnet	128 kg
Grinding spindle true running accuracy	0.005 mm
Minimum Infeed in the Y-axis	0.005 mm
Spacing spindle centre - grinding table	450 mm
Size of grinding wheel	Ø 200 x 20mm , shaft Ø 31.75 mm
X-/Z-axis manual traverse path	500 mm / 240 mm
Dimensions (L x W x H) approx.	1970 x 1300 x 1700 mm
Net weight approx.	900 kg

#### SCOPE OF DELIVERY:

- ▶ Grinding disc grain 46
- ▶ Digital position display
- ▶ Balancing stand
- ▶ Degaussing unit
- ▶ Grinding wheel and clamping chuck
- ▶ Wheel dresser
- ▶ Dresser for grinding wheel (with diamond tip)
- ▶ Wheel balancing mandrel
- ▶ Base plate for dresser
- ▶ Operating tool in toolbox
- ▶ Levelling feet

## OPTi grind® GT 25 - Surface grinding machine with hydraulics and digital position indicator DPA 31Plus

#### Facts that impress in terms of quality, performance and price

- ▶ Premium spindle with precision taper roller bearings
- ▶ Hardened and ground bed guides
- ▶ Integrated grinding wheel dressing device
- ▶ Machine base made of sturdy, torsion-resistant cast iron
- ▶ Backlash-free V-flat guide on the Z axis and flat guides on the X and Y axes
- ▶ Trapezoidal threaded spindle on the Y axis
- ▶ External hydraulic power unit with heat exchanger for constant oil temperature
- ▶ Time-controlled centralised lubrication system
- ▶ Substantial energy savings thanks to IE3 motor
- ▶ Hydraulic and continuously adjustable longitudinal feed
- ▶ Motorised vertical height adjustment via spindle
- ▶ Grinding table with splash protection enclosure
- ▶ Two-channel safety electrics
- ▶ Coolant unit with external coolant tank
- ▶ Safety electrics in 24 V DC



#### TOUCH SCREEN AND ELECTRIC HANDWHEEL

- > for entering work data and displaying information
  - > Hand wheel for moving the Y axis
- New: Software update see page 75

Machine data	GT 25
Art no.	3111025
Total connected load~50 Hz	3.7 kW / 400 V
Grinding wheel drive motor	2.2 kW
Surface grinding table (L x W)	254 x 508 mm
Workpiece size (L x W x H)	508 x 254 x 350 mm
Grinding table load capacity incl. electromagnetic clamping plate	180 kg
Grinding spindle true running accuracy	0.005 mm
Minimum Infeed in the Y-axis	0.005 mm
Spacing spindle centre - grinding table	450 mm
Size of grinding wheel	Ø 200 x 20mm , shaft Ø 31.75 mm
Pendulum path X-axis/traverse path	560 mm / 275 mm
Z-axis	
Dimensions (L x W x H) approx.	2250 x 2150 x 1675 mm
Net weight approx.	1900 kg



#### SCOPE OF DELIVERY:

- ▶ Grinding disc grain 46
- ▶ Digital position display
- ▶ Balancing stand
- ▶ Degaussing unit
- ▶ Grinding wheel and clamping chuck
- ▶ Wheel dresser
- ▶ Dresser for grinding wheel (with diamond tip)
- ▶ Wheel balancing mandrel
- ▶ Base plate for dresser
- ▶ Operating tool in toolbox
- ▶ Levelling feet

**OPTIgrind® GT 30**

**Solid surface grinding machine with hydraulics and digital position display DPA 31Plus**



**Facts that impress in terms of quality, performance and price**

- ▶ Premium spindle with precision taper roller bearings
- ▶ Hardened and ground bed guides
- ▶ Machine base made of sturdy, torsion-resistant cast iron
- ▶ Guideways for longitudinal, transverse and vertical movements are designed as V and flat tracks, free of play and self-centring.
- ▶ All flat guides are finely honed and thus guarantee highest precision of all manual movements
- ▶ Substantial energy savings thanks to IE3 motor
- ▶ Robust DPA 31Plus measuring system, dirt and water resistant
- ▶ Hydraulic and continuously adjustable longitudinal feed
- ▶ Grinding table with splash protection enclosure
- ▶ Motorised vertical height adjustment via spindle
- ▶ Two-channel safety electrics
- ▶ Coolant unit with external coolant tank
- ▶ Safety electrics in 24 V DC
- ▶ Time-controlled centralised lubrication system



Fig.: GT 40



**Touch screen and electric handwheel**




- › for entering work data and displaying information
- › Hand wheel for moving the Y axis
- › The control system has been updated to avoid calculator operations.
- › The workpiece height [ H ], the grinding height [ h ] and the resulting removal thickness [ d ] also appear in the input window.
- › The subsequent infeed for coarse and fine grinding is determined automatically based on the number entered.

**SCOPE OF DELIVERY:**

- ▶ Grinding disc grain 46
- ▶ Digital position display
- ▶ Balancing stand
- ▶ Degaussing unit
- ▶ Grinding wheel and clamping chuck
- ▶ Wheel dresser
- ▶ Dresser for grinding wheel (with diamond tip)
- ▶ Wheel balancing mandrel
- ▶ Base plate for dresser
- ▶ Operating tool
- ▶ Levelling feet


Machine data	GT 30	GT 40
Art no.	3111030	3111040
Total connected load~50 Hz	7.5 kW / 400 V	
Grinding wheel drive motor	4 kW	
Hydraulic motor	2.2 kW	
Surface grinding table (L x W)	305 x 635 mm	406 x 813 mm
Workpiece size (L x W x H)	635 x 305 x 405 mm	813 x 406 x 405 mm
Grinding table load capacity including electromagnetic clamping plate	270 kg	500 kg
Spacing spindle centre +/- grinding table	580 mm	
Size of grinding wheel	350 x 40 x shaft Ø 127 mm	
Pendulum path X-axis/traverse path Z-axis	765 mm / 340 mm	830 mm / 420 mm
Dimensions (L x W x H) approx.	2800 x 2205 x 1900 mm	3600 x 2400 x 1900 mm
Net weight approx.	3000 kg	3600 kg


**Hydraulic power unit**




› External hydraulic unit with heat exchanger for constant oil temperature


**Accessories for surface grinding machines**

Corundum grinding wheel	Article no.
Dimensions approx: 200 x 20 x 31.75 mm	
<b>46 grain</b> 	3112040
<b>60 grain</b>	3112042
<b>80 grain</b>	3112044

Corundum grinding wheel	Article no.
Dimensions approx: 350 x 40 x 127 mm	
<b>46 grain</b> 	3112050
<b>60 grain</b>	3112052
<b>80 grain</b>	3112054

Grinding dust extraction	Article no.
for grinding work without coolant	
<b>GT 22 / GT 25</b>	3112015
<b>GT 30 / GT 40</b>	3112016

Grinding wheel adapter	Article no.
For fast grinding wheel change	
<b>GT 22 / GT 25</b> 	3112010
<b>GT 30 / GT 40</b>	3112011

Diamond dresser	3112025
3/8 x 2" x 1.00 carat 	

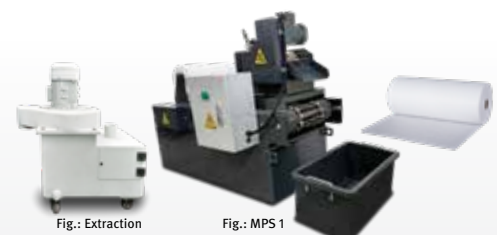


Fig.: Extraction

Fig.: MPS 1

MPS 1	3112000
Magnetic separator and paper belt filter	
Power: 25 litres per minute, tank: 120 litres	
Dimensions approx: 1290 x 460 x 580 mm	
Spare filter paper	3112001
Width 400 mm, length 100 metres	

## OPTi grind® GT 40

### Solid surface grinding machine with hydraulics and digital position display DPA 31Plus



#### Argumente, die in Qualität, Leistung und Preis überzeugen

- ▶ Premium spindle with precision taper roller bearings
- ▶ Hardened and ground bed guides
- ▶ Machine base made of sturdy, torsion-resistant cast iron
- ▶ Guideways for longitudinal, transverse and vertical movements are designed as V and flat tracks, free of play and self-centring.
- ▶ All flat guides are finely honed and thus guarantee highest precision of all manual movements
- ▶ Substantial energy savings thanks to IE3 motor
- ▶ Robust DPA 31Plus measuring system, dirt and water resistant
- ▶ Hydraulic and continuously adjustable longitudinal feed
- ▶ Grinding table with splash protection enclosure
- ▶ Motorised vertical height adjustment via spindle
- ▶ Two-channel safety electrics
- ▶ Coolant unit with external coolant tank
- ▶ Safety electrics in 24 V DC
- ▶ Time-controlled centralised lubrication system



Machine data	GT 40
Art no.	3111030
Total connected load~50 Hz	7.5 kW / 400 V
Grinding wheel drive motor	4 kW
Hydraulic motor	2.2 kW
Surface grinding table (L x W)	406 x 813 mm
Workpiece size (L x W x H)	813 x 406 x 405 mm
Grinding table load capacity including electromagnetic clamping plate	500 kg
Spacing spindle centre /- grinding table	580 mm
Size of grinding wheel	350 x 40 x shaft Ø 127 mm
Pendulum path X-axis/traverse path Z-axis	830 mm / 420 mm
Dimensions (L x W x H) approx.	3600 x 2400 x 1900 mm
Net weight approx.	3600 kg

#### Touch screen and electric handwheel



- › for entering work data and displaying information
- › Hand wheel for moving the Y axis

#### Touch Display

- › Clear, easy and self-explanatory to use
- › available in the languages: - German, Polish, English, Chinese, Dutch, French
- › The control system has been updated to avoid calculator operations.
- › The workpiece height [ H ], the grinding height [ h ] and the resulting removal thickness [ d ] also appear in the input window.
- › The subsequent infeed for coarse and fine grinding is determined automatically based on the number entered.

#### Dressing unit



- › The grinding wheel can be sharpened with a dressing unit directly on the machine

#### Hydraulic power unit



- › External hydraulic unit with heat exchanger for constant oil temperature

#### SCOPE OF DELIVERY:

- ▶ Grinding disc grain 46
- ▶ Digital position display
- ▶ Balancing stand
- ▶ Degaussing unit
- ▶ Grinding wheel and clamping chuck
- ▶ Wheel dresser
- ▶ Dresser for grinding wheel (with diamond tip)
- ▶ Wheel balancing mandrel
- ▶ Base plate for dresser
- ▶ Operating tool
- ▶ Levelling feet

## OPTIgrind<sup>®</sup> GC 1305

### High-precision cylindrical grinding machine with automatic infeed and digital position indicator DPA 31Plus

#### Facts that impress in terms of quality, performance and price

- ▶ Heavy, single-piece, wide, machine bed with heavy ribs.
- ▶ Guideways induction-hardened and ground
- ▶ Solid headstock with high-precision main spindle mounted on tapered roller bearings impresses with outstanding stability under load
- ▶ Smooth running at maximum spindle speed
- ▶ All gearwheels are large, hardened and ground
- ▶ Joystick control for X and Z feed directly on the support
- ▶ Manually operated 4-speed countershaft gearbox, high-quality frequency control technology
- ▶ Rapid traverse for X and Z axes enables fast positioning of the support and reduces non-productive times
- ▶ Adjustable overload clutch in the apron case protects the feed mechanism from damage and failure
- ▶ The table can be tilted for conical grinding processes - the scale enables precise adjustment to the desired position
- ▶ The longitudinal guide of the table and the cross guide of the wheelhead are each equipped with V and flat guides
- ▶ Swivelling spindle shaft (up to 180°) for inner grinding work.



#### SIEMENS Inverter Sinamics V20



#### Operating panel



- › Clearly arranged and ergonomically positioned electronic control element

#### Hydraulic tailstock



- › The hydraulic tailstock is characterised by maximum precision and rigidity.
- › The foot pedal enables movement

#### Electromagnetic clamping plate



#### Table



- › For conical external or internal grinding, the table can be rotated by +3° / -9°.

Machine data	GC 1305
Art no.	3121040
Electrical connection power	4 kW
Centre height	135 mm
Max. traverse path of the worktable	640 mm
Grinding length	500 mm
Grinding diameter without steady rest	8 - 200 mm
Grinding diameter with steady rest	8 - 60 mm
Inner grinding diameter without steady rest	25 - 100 mm
Inner grinding diameter with steady rest	35 - 100 mm
Inner grinding depth	125 mm
Workpiece weight between the tips	max. 50 kg
Swivelling range of the worktable Right / Left	+3° / -9°
Stepless table feed in the longitudinal axis	0.1 - 4 m/min
Traveling distance per revolution of the handwheel	1 mm
Travelling distance per handwheel graduation mark	0.005 mm
Speeds of the working spindle	25 - 380 min <sup>-1</sup>
Swivel range of the workpiece headstock	0 - 45°
Spindle taper	MT 4
Tailstock taper	MT 4
Quill travel	25 mm
Dimensions (L x W x H)	2250 x 1600 x 1500 mm
Weight	2200 kg

#### Accessories

- Grinding wheel dresser, radii**
- Grinding wheel dresser, straight**
- Magnetic and dirt filter**

#### Article no.

- 3122010
- 3122015
- 3122030

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.  
2) For information about the machines, please refer to the reverse side.

## DPA 31Plus / DPA 32 Universally applicable digital position indicators with speed display

- ▶ User-friendly membrane keyboard, splash water protected, sealed and dazzle free
- ▶ Switchable for milling machine and lathe
- ▶ Greater operation accuracy
- ▶ Clear reduction of manufacturing times
- ▶ Reduction of error quota
- ▶ Sensor supplied for acquiring spindle speeds
- ▶ Three measuring inputs can be evaluated with seven correction memory stores each for tools
- ▶ Dimensions (L x W x H) approx.: 230 x 80 x 260 mm
- ▶ Weight approx: 2 kg

▶ With cutting constant VSC



Accessories	Article no.
DPA 31Plus	3384029
DPA 32	3384033

Accessories	Article no.
1 metres extension cable	3384040
Active magnetic sensor	3384035
Universal holder for TX/TZ lathes	3384028

## DRO 5 - Digital 3-axis position indicator

- ▶ Art no. 3383975
- ▶ For milling machines (X, Y, Z) and for lathes (X, Z, Z0)
- ▶ For measuring positions
- ▶ Speed display
- ▶ Three incremental inputs
- ▶ Four-line LCD display
- ▶ User-friendly menu navigation
- ▶ Rugged aluminium housing
- ▶ Programming from the front
- ▶ Dimensions (L x W x H) approx.: 98 x 65 x 134 mm

▶ Including 3 magnetic sensors

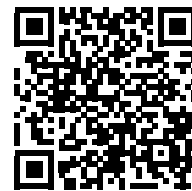


### SCOPE OF DELIVERY:

- ▶ Speed sensor cable length 5 metres
- ▶ 3 pieces magnetic sensors without magnetic tapes
- ▶ Power supply cable length 6 metres
- ▶ Magnetic plate

Accessories	Article no.
Factory assembly - Three-axis magnetic tapes	9000420
Factory assembly - Speed sensor	9000421
Assembly kit TU 3008 (bracket for the X, Z and Z0 axis/ screw set)	3383985
Assembly kit MH 22V	3383990
DRO display holder	3383976

A large selection of measuring bars and magnetic tapes can be found in the main catalogue or at [www.optimum-machines.com](http://www.optimum-machines.com)



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MAIN CATALOGUE  
Simply scan the QR code and browse!

## MSM measuring bars

Total length 50 mm to total length 650 mm



## Measuring bars MSS31

Total length 51 mm to total length 3048 mm



## Magnetic tapes

- ▶ For mounting on machines where there is not enough space for measuring bars.



Magnetic tape	Article no.
Length 1100 mm	3383978
Length 2000 mm	3383979
per metre	3383980

## OPTI<sup>saw</sup>® SQ-V10

The hand-held metal band saw can be mounted on the optionally available work table with vice or used freehand

- ▶ Powerful 1.1 kW motor
- ▶ Ideally suited for sawing solid steel materials with low tensile strength, preferably for sawing off pipes, steel sections, aluminium and non-ferrous metals
- ▶ Also suitable for cutting wood, plastics and other thin non-ferrous metals
- ▶ Strong bridge construction with aluminium frame



Work table	
Art no.	3184212



> Vice included

### SCOPE OF DELIVERY:

- ▶ Transport case
- ▶ Bi-metal saw band

Machine data	SQ-V10*	Bi-metal Saw band 10 - 14 tpi
Art no.	3184210	Art no. 3357548
Motor power ~50 Hz	1.1 kW / 230 V	
Saw band speed	42 - 144 m/min	
Saw band dimensions	1140 x 13 x 0.65 mm	
Dimensions (L x W x H) approx.	465 x 280 x 165 mm	
Net weight approx.	6.6 kg	

Cutting areas			
with optional work table			
	Ø 115 mm	105 mm	100 x 115 mm
	Ø 45 mm	40 mm	30 x 45 mm
without optional worktable			
	Ø 127 mm	127 mm	127 x 127 mm
	Ø 40 mm	40 mm	40 x 120 mm

## OPTI<sup>saw</sup>® SQ-V13

Transportable mitre bandsaw with excellent cutting precision, extremely low-noise

- ▶ Adjustable material stop for batch work
- ▶ Pushbutton on lever arm for saw band run, switches the saw band run on and off
- ▶ Base plate with anti-slip feet
- ▶ Saw arm can be swivelled from 0° to +60°



### SCOPE OF DELIVERY:

- ▶ Material stop
- ▶ Bi-metal saw band

Machine data	SQ-V13*	Bi-metal saw band 6 - 10 tpi
Art no.	3194013	Art no. 3351546
Motor power ~50 Hz	750 W / 230 V	
Infinitely variable saw band speed	30 - 80 m/min	
Saw band dimensions	1440 x 12.5 x 0.6 mm	
Cutting angle	0° - 60°	
Length open / closed - vice	795 mm / 670 mm	
Width without / with material stop	382 mm / 613 mm	
Height lower / upper end position	640 mm / 420 mm	
Net weight approx.	23.3 kg	

Machine data	Bi-metal saw band 10 - 14 tpi
Art no.	3351547



Machine base frame MUG1	
Art no.	3351490

Cutting areas <sup>1)</sup>			
	Ø 125 mm	125 mm	125 x 125 mm
	Ø 85 mm	85 mm	85 x 85 mm
	Ø 50 mm	50 mm	50 x 50 mm

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side. The cutting range was determined on the basis of the saw arm weight with aluminium. It can vary when using different materials and may be smaller (not cutting capacity).

## OPTi<sup>saw</sup>® SP 13V / SP 15V / SP 17V

### Transportable mitre bandsaw with excellent cutting precision, extremely low-noise



- ▶ Equipped as a factory standard with bi-metal saw blade
- ▶ Adjustable material stop for batch work
- ▶ Pushbutton on lever arm for saw band run, switches the saw band run on and off
- ▶ Base plate with anti-slip feet
- ▶ Low vibration and wear thanks to special gearbox with two hardened steel gears

- ▶ Vario drive motor with low speed and carbon brushes for up to 10x longer service life
- ▶ Saw arm can be swivelled from 0° to +60° to enable angled saw cuts



Fig.: SP 13V



Fig.: SP 17V

#### SCOPE OF DELIVERY:

- ▶ Material stop
- ▶ Bi-metal saw band

#### Saw band guide



- › Ball bearing saw band guide for excellent band running and thus for optimal cutting.

#### Vario drive



- › Saw band speed continuously adjustable from 30 to 80 m/min.

#### Cutting areas<sup>1)</sup>

SP 13V	0°	Ø 125 mm	125 mm	125 x 125 mm
SP 15V		Ø 150 mm	140 mm	140 x 140 mm
SP 17V		Ø 170 mm	140 mm	166 x 166 mm
SP 13V	45°	Ø 85 mm	85 mm	85 x 85 mm
SP 15V		Ø 100 mm	100 mm	100 x 100 mm
SP 17V		Ø 130 mm	130 mm	130 x 130 mm
SP 13V	60°	Ø 45 mm	45 mm	45 x 50 mm
SP 15V		Ø 70 mm	65 mm	65 x 65 mm
SP 17V		Ø 75 mm	75 mm	75 x 75 mm

The cutting area was determined for aluminium. It can vary when using different materials and may be smaller (not cutting capacity).

- › 6 tpi 10°
- › 6 - 10 tpi 0°
- › 10 - 14 tpi 0°

Art no. 3650021

Machine data	SP 13V*	SP 15V	SP 17V
Art no.	3300075	3300080	3300085
Motor power ~50 Hz	1 kW / 230 V	1.5 kW / 230 V	1.65 kW / 230 V
Infinitely variable saw band speed	30 - 80 m/min	30 - 80 m/min	30 - 80 m/min
Saw band dimensions	1440 x 13 x 0.65 mm	1735 x 13 x 0.9 mm	2030 x 20 x 0.90 mm
Cutting angle	0° - 60°	0° - 60°	0° - 60°
Dimensions (L x W x H) approx.	720 x 300 x 420 mm	930 x 480 x 450 mm	1040 x 480 x 470 mm
Net weight approx.	19.5 kg	30 kg	36 kg

Machine base	Article no.
Art no.	3351495



Substructure prepared for the KME1 coolant system  
Weight: 49 kg

## OPTI<sup>saw</sup>® S 100G

Light and handy metal-cutting band saw.

Ideal for universal use on construction sites, assembly or in the workshop



### Facts that impress in terms of quality, performance and price

- ▶ Quick clamping vice for fast workpiece clamping
- ▶ Swivelable saw bow from 0° to 45° to allow angled saw cuts
- ▶ Automatic lowering of the saw bow via three-stage adjustable saw bow lowering pressure
- ▶ Microswitch for automatic limit position cut-off
- ▶ Large, convenient handle and light weight allow for trouble-free transport to the construction site
- ▶ Chip collection container
- ▶ Ball bearing saw band guide for excellent band running and thus for optimal cutting.



▶ Ball-bearing borne  
3-point saw band guide

### SAW BAND SET: Art no. 3351100

- > 2 pcs. saw band 6 tpi 10°
- > 1 pc. saw band 10 - 14 tpi 0°

### SCOPE OF DELIVERY:

- ▶ Material stop
- ▶ Bi-metal saw band
- ▶ Operating tool

Machine data	S 100G
Art no.	3184230
Motor power ~50 Hz	370 W / 230 V
Saw band speed	45 m/min
Saw band dimensions	1470 x 13 x 0.65 mm
Cutting angle	0° to 45°
Dimensions (L x W x H) approx.	950 x 300 x 680 mm
Net weight approx.	23 kg

Machine base frame MUG1	Article no.
Art no.	3351490

Cutting areas			
0°	Ø 100 mm	100 mm	100 x 150 mm
45°	Ø 65 mm	60 mm	60 x 100 mm

The cutting range was determined on the basis of the saw arm weight with aluminium. It can vary when using different materials and may be smaller (not cutting capacity).

## OPTI<sup>saw</sup>® SD 200G / SD 200V

Gear-driven metal band saws with swivelling saw arm

### Facts that impress in terms of quality, performance and price

- ▶ Low-noise running action
- ▶ Rugged cast design
- ▶ Saw bow lowering via hydraulic cylinder continuously adjustable by throttle valve
- ▶ Easily legible scale for adjusting the angle
- ▶ Saw band tensioning at front, adjustable via handwheel
- ▶ Rugged machine mobile base with large wheels and practical transport bar allows trouble-free relocation of the machine
- ▶ Adjustable material stop for batch work
- ▶ Easy-to-clean coolant parts
- ▶ Polished workpiece mounting surface

### SCOPE OF DELIVERY:

- ▶ Material stop
- ▶ Bi-metal saw band
- ▶ Machine base

Machine data	SD 200G	SD 200V
Art no.	3300200	3300205
Motor power ~50 Hz	550 W / 750 W / 400 V	750 W / 230 V
Lifting the saw bow	manual	
Feed	continuously variable	
Saw band speed	44 / 88 m/min	26 - 80 m/min
Saw band dimensions	2360 x 19 x 0.9 mm	2360 x 19 x 0.9 mm
Cutting angle	0° to 45°	
Dimensions (L x W x H) approx.	1295 x 535 x 790 - 1200 mm	1382 x 473 x 790 - 1200 mm
Net weight approx.	130 kg	

TOUCH PANEL



### SAW BAND SET: 1 saw band each Art no. 335750

- > 6 - 10 tpi 0°
- > 5 - 8 tpi 0°
- > 10 - 14 tpi 0°

Cutting areas			
0°	Ø 180 mm	180 mm	180 x 240 mm
45°	Ø 110 mm	150 mm	110 x 170 mm

The cutting range was determined on the basis of the saw arm weight with aluminium. It can vary when using different materials and may be smaller (not cutting capacity).

\*The machine complies with the DIN EN 55011 standard: Class C3. Important information on operating machines with frequency converters can be found on the reverse side.

## OPTI<sup>saw</sup>® S 275P - Metal band saw with swivelling saw arm

Facts that impress in terms of quality, performance and price

- ▶ Low-noise running action
- ▶ Rugged cast design
- ▶ Excellent cutting precision thanks to vibration-free action
- ▶ Saw bow lowering via hydraulic cylinder, continuously adjustable by throttle valve
- ▶ Microswitch for automatic limit position cut-off
- ▶ Coolant system
- ▶ Adjustable material stop for batch work
- ▶ Easily legible scale for adjusting the angle
- ▶ Overload protection
- ▶ Carbide guide and roller guide
- ▶ Replaceable wear plate
- ▶ Two switchable speeds
- ▶ Robust machine base with door and shelf

SAW BAND SET:  
1 saw band each  
Art no. 3357504

- > 5-8 tpi 0°
- > 5-8 tpi 6°
- > 6-10 tpi 0°

### SCOPE OF DELIVERY:

- ▶ Material stop
- ▶ Bi-metal saw band
- ▶ Machine base

Machine data	S 275P
Art no.	3305275
Saw motor power ~50 Hz	1.1 kW / 400 V
Saw band speed	45 / 90 m/min
Saw band dimensions	2480 x 27 x 0.9 mm
Cutting angle	0° to 60°
Dimensions (L x W x H) approx.	1363 x 685 x 1.2.169.00 mm
Net weight approx.	185 kg



### Control box



- > Service-friendly electrics
- > Interchangeable relays
- > Control box built to the latest standards



- > Interchangeable vice plates

### Cutting areas

0°	Ø 225 mm	190 mm	150 x 245 mm
45°	Ø 145 mm	150 mm	190 x 150 mm
60°	Ø 90 mm	90 mm	120 x 90 mm

The cutting range was determined on the basis of the saw arm weight with aluminium. It can vary when using different materials and may be smaller (not cutting capacity).

## OPTI<sup>saw</sup>® S 275PV

### Metal band saws with swivelling saw arm, infinitely adjustable saw band speeds

Facts that impress in terms of quality, performance and price

- ▶ Rugged cast design
- ▶ Precise, infinitely adjustable lowering via hydraulic cylinder
- ▶ Automatic saw switch-off after completing the cut
- ▶ Control panel with clear keypad for easy operation
- ▶ Ball bearing mounted saw band guide rollers, durable, precise and adjustable
- ▶ Easy and accurate adjustment of the saw band tension by pressure gauge
- ▶ Coolant system
- ▶ Overload protection
- ▶ Speed change during operation is possible
- ▶ Infinitely adjustable saw band speed 20 - 90 m/min.

SAW BAND SET:  
1 saw band each  
Art no. 3357504

- > 5-8 tpi 0°
- > 5-8 tpi 6°
- > 6-10 tpi 0°

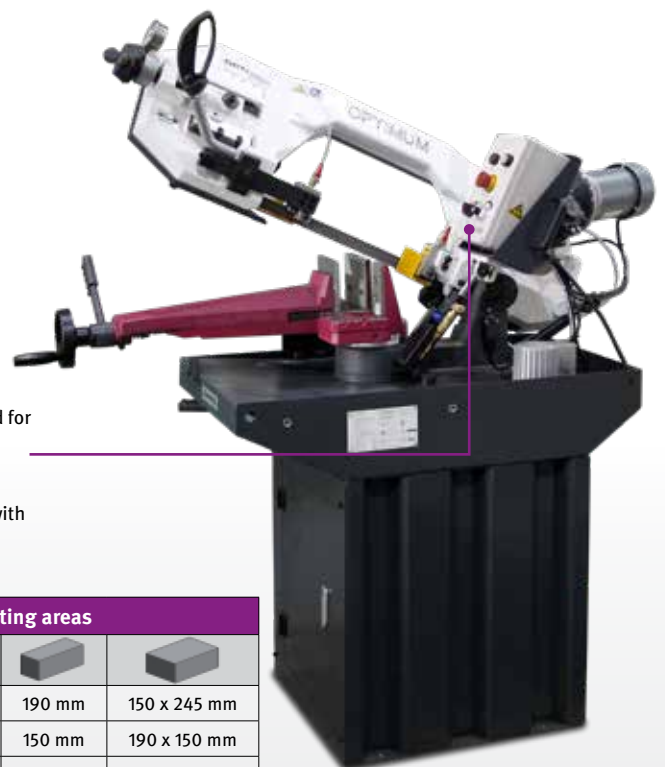
### SCOPE OF DELIVERY:

- ▶ Material stop
- ▶ Bi-metal saw band
- ▶ Machine base

Machine data	S 275PV*
Art no.	3305280
Saw motor power ~50 Hz	1.5 kW / 230 V
Saw band speed	20 - 90 m/min
Saw band dimensions	2480 x 27 x 0.9 mm
Cutting angle	0° to 60°
Dimensions (L x W x H) approx.	1400 x 685 x 1235 mm
Net weight approx.	185 kg

### Operating panel

- > Clearly arranged keypad for easy operation
- > Emergency stop button
- > Coolant pump switch
- > Speed selector switch with potentiometer



**New**



### Cutting areas

0°	Ø 225 mm	190 mm	150 x 245 mm
45°	Ø 145 mm	150 mm	190 x 150 mm
60°	Ø 90 mm	90 mm	120 x 90 mm

The cutting range was determined on the basis of the saw arm weight with aluminium. It can vary when using different materials and may be smaller (not cutting capacity).

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.

## OPTI<sup>saw</sup>® SD 285E

### Metal band saw with swivelling saw arm

Facts that impress in terms of quality, performance and price

- ▶ Low-noise running action
- ▶ Rugged cast design
- ▶ Excellent cutting precision thanks to vibration-free action
- ▶ Saw bow lowering via hydraulic cylinder, continuously adjustable by throttle valve
- ▶ Microswitch for automatic limit position cut-off
- ▶ Coolant system
- ▶ Equipped as a factory standard with bi-metal saw blade
- ▶ Adjustable material stop for batch work
- ▶ Rugged machine mobile base
- ▶ Ball-bearing borne saw band guide
- ▶ Easily legible scale for adjusting the angle
- ▶ Overload protection



#### The machine is pre-assembled.



Individual components of the machine still have to be assembled and joined together.

#### Saw band tension



- › Easy and accurate adjustment of the saw band tension by pressure gauge

#### Quick clamping vice



#### Robust quick-clamping vice

- › Grooves for common angle settings

#### Saw band guide



#### Saw band guide

- › Ball bearing mounted; for excellent band tracking and thus for optimum cutting

#### SCOPE OF DELIVERY:

- ▶ Material stop
- ▶ Bi-metal saw band
- ▶ Machine base
- ▶ Coolant pump

Machine data	SD 285E
Art no.	3300287
Saw motor power ~50 Hz	1.1 kW / 400 V
Feed	continuously variable
Saw band speed	45 / 90 m/min
Saw band dimensions	2480 x 27 x 0.9 mm
Cutting angle	-45° to 60°
Length	1,450 mm
Width, without material stop	550 mm
Height, bottom limit position	1580 mm
Net weight approx.	245 kg

HSS bi-metal saw band		
Teeth per inch	Angle	Article no.
5/8 tpi	0°	3357535
5-7 tpi	6°	3357536
6/10 tpi	0°	3357537
10-14 tpi	0°	3357538

Cutting areas			
0°	Ø 223 mm	180 mm	110 x 245 mm
45°	Ø 145 mm	145 mm	170 x 145 mm
60°	Ø 85 mm	85 mm	105 x 85 mm
45°	Ø 120 mm	120 mm	130 x 120 mm

The cutting range was determined on the basis of the saw arm weight with aluminium. It can vary when using different materials and may be smaller (not cutting capacity).

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.

**OPTi<sup>saw</sup>® S 300DG/SD 300V**  
**Metal band saws with swivelling saw arm**  
**SD 300V with inverter Vario drive**



**Facts that impress in terms of quality, performance and price**

- ▶ Heavy cast design
- ▶ High motor output even at low speeds
- ▶ Precise, infinitely adjustable lowering via hydraulic cylinder
- ▶ Pressing the "Manual saw band run" button on the hand lever activates and deactivates the saw band run.
- ▶ Easy and accurate adjustment of the saw band tension by pressure gauge
- ▶ Quick-clamping vice adjustable via handwheel
- ▶ Coolant unit 100W
- ▶ Microswitch for automatic limit position cut-off

**SD 300V**

- ▶ 2-channel safety chain with quick stop in case of emergency stop
- ▶ EMC class C2

**The machine is pre-assembled.**

Individual components of the machine still have to be assembled and joined together.



**SD 300V**  
Frequency converter  
made in EU

Fig.: SD 300V

**SCOPE OF DELIVERY:**

- ▶ Material stop
- ▶ Bi-metal saw band
- ▶ Machine base

**Carbide guide**



**Saw band tension**



- > Easy and accurate adjustment of the saw band tension by pressure gauge

**Pushbutton**



- > Pressing the "Manual saw band run" button on the hand lever activates and deactivates the saw band run.

**SAW BAND SET:**  
**1 saw band each**  
**Art no. 3357700**

- > 5-8 tpi 0°
- > 5-7 tpi 10°
- > 6-10 tpi 0°

Machine data	S 300DG	SD 300V*
Art no.	3290290	3290310
Saw motor power ~50 Hz	1.5 kW / 400 V	
Coolant pump motor	100 W	
Feed	hydraulic via lowering cylinder	
Saw band speed	35/70 m/min.	15 - 90 m/min.
Saw band dimensions	2750 x 27 x 0.9 mm	
Cutting angle	45° to -60°	
Dimensions (L x W x H) approx.	1680 x 700 x 1600 mm	
Net weight approx.	335 kg	

Cutting areas			
0°	Ø 255 mm	190 mm	190 x 310 mm
45°	Ø 215 mm	190 mm	190 x 200 mm
45°	Ø 220 mm	190 mm	135 x 190 mm
60°	Ø 135 mm	135 mm	135 x 135 mm

The cutting range was determined on the basis of the saw arm weight with aluminium. It can vary when using different materials and may be smaller (not cutting capacity).

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.

**OPTI<sup>saw</sup>® SD 310 / SD 310V**

**Metal band saw with turntable and swivelling saw bow**

**SD 310V with frequency converter, infinitely variable saw band speed.**



**Facts that impress in terms of quality, performance and price**

- ▶ Heavy cast design
- ▶ High motor output even at low speeds
- ▶ Precise, infinitely adjustable lowering via hydraulic cylinder
- ▶ Rugged machine mobile base
- ▶ Coolant system
- ▶ Easy and accurate adjustment of the saw band tension by pressure gauge
- ▶ 2-channel safety chain with quick stop in case of emergency stop

**The machine is pre-assembled.**



Individual components of the machine still have to be assembled and joined together.



**SD 310V**  
Frequency converter  
made in EU

**Turntable**



- › The kerf is also swivelled
- › Easy to read angle scale

**Saw band tension**



- › Easy and accurate adjustment of the saw band tension by pressure gauge

**SAW BAND SET:**  
**1 saw band each**  
**Art no. 3357700**

- › 5-8 tpi 0°
- › 5-7 tpi 10°
- › 6-10 tpi 0°

**SCOPE OF DELIVERY:**

- ▶ Material stop
- ▶ Bi-metal saw band
- ▶ Machine base

**New**

Machine data	SD 310	SD 310V*
Art no.	3290345	3290340
Saw motor power ~50 Hz	1.5 kW / 400 V	
Coolant pump motor	100 W	
Feed	hydraulic via lowering cylinder	
Saw band speed	35/ 70 m/min	15 - 100 m/min
Saw band dimensions	2750 x 27 x 0.9 mm	
Cutting angle	45° to -60°	
Dimensions (L x W x H) approx.	1850 x 1330 x 2000 mm	
Net weight approx.	380 kg	

**Cutting areas**

0°	Ø 255 mm	255 mm	200 x 270 mm
45°	Ø 190 mm	160 mm	160 x 160 mm
45°	Ø 190 mm	140 mm	140 x 210 mm
60°	Ø 110 mm	110 mm	110 x 210 mm

The cutting range was determined on the basis of the saw arm weight with aluminium. It can vary when using different materials and may be smaller (not cutting capacity).

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.

**OPTI<sup>saw</sup>® S 350DG / SD 351AV**  
**Double mitre metal band saws**  
**SD 351AV Semi-automatic with inverter Vario drive**



**Facts that impress in terms of quality, performance and price**

- ▶ Heavy-duty industrial design
- ▶ Manual or semi-automatic operation
- ▶ Mitre adjustment up to -60° by swivelling the entire saw arm
- ▶ Combinable and individually adjustable carbide and ball bearing guides on the saw band
- ▶ Easy and accurate adjustment of the saw band tension by pressure gauge
- ▶ Simple setting of the lowering speed in the control panel
- ▶ Roller support adjustable for long and heavy workpieces
- ▶ 2-channel safety chain with quick stop in case of emergency stop
- ▶ Coolant system
- ▶ EMC class C2

**VICE**

- ▶ Generously dimensioned
- ▶ hydraulic
- ▶ Self-closing
- ▶ Adjustable for large cross-sections
- ▶ Grooves for common angle settings



**FUNCTIONALITY OF SEMI-AUTOMATIC OPERATION**

- › Vice closes and motor is activated
- › Lowering the saw arm for cutting
- › Stopping the motor and returning the saw arm to its starting position

**Kostal Frequency converter**



Fig.: SD 350DG

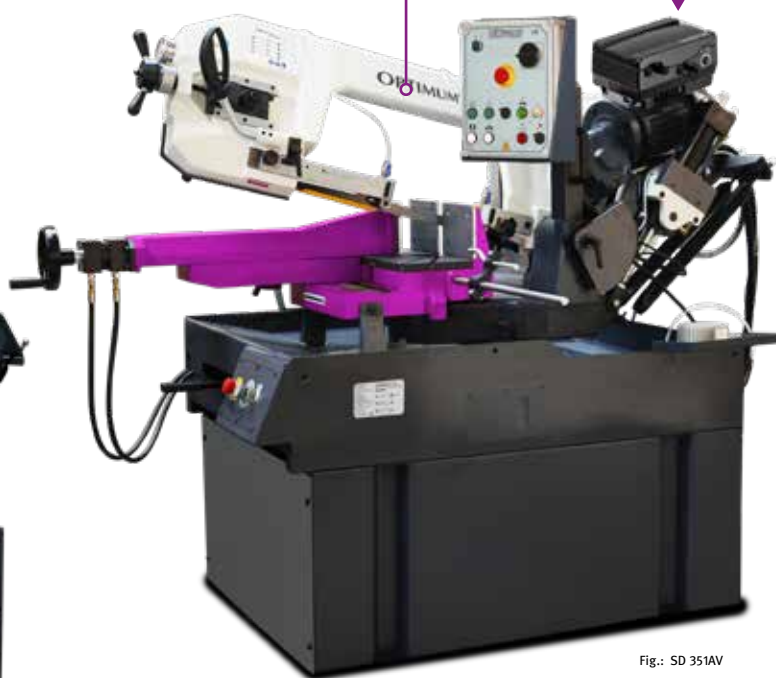


Fig.: SD 351AV

**SCOPE OF DELIVERY:**

- ▶ Material stop
- ▶ Bi-metal saw band
- ▶ Machine base

**SAW BAND SET:**  
**1 saw band each**  
**Art no. 3357501**

- › 4-6 tpi 6°
- › 5-8 tpi 0°
- › 6-10 tpi 0°

Machine data	S 350DG	SD 351AV*
Art no.	3290350	3290361
Saw motor power ~50 Hz	2.2 kW / 400 V	3 kW / 400 V
Lifting the saw bow:		
› Manual operation	hydraulic via lowering cylinder	Hydraulic via pushbutton automatic
› Semi-automatic operation	-	continuous variable
Feed	-	
Saw band speed	36 / 72 m/min	15 - 100 m/min
Saw band dimensions	2925 x 27 x 0.9 mm	2925 x 27 x 0.9 mm
Cutting angle	-45° to 60°	-45° to 60°
Dimensions (L x W x H) approx.	1750 x 1075 x 1420 mm	1935 x 1425 x 1626 mm
Net weight approx.	550 kg	600 kg

Cutting areas			
0°	Ø 270 mm	230 mm	230 x 350 mm
45°	Ø 230 mm	200 mm	210 x 220 mm
60°	Ø 140 mm	140 mm	140 x 220 mm
45°	Ø 230 mm	170 mm	140 x 200 mm

The cutting range was determined on the basis of the saw arm weight with aluminium. It can vary when using different materials and may be smaller (not cutting capacity).

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.

**OPTI<sub>saw</sub>® SD 500 / SD 500AV**

**Double mitre metal band saws**

**SD 500AV Semi-automatic with inverter Vario drive**

**Facts that impress in terms of quality, performance and price**

- ▶ Heavy-duty industrial design
- ▶ Low-noise running action
- ▶ Manual or semi-automatic operation
- ▶ Infinitely adjustable saw band speed from 0-80 m/min.
- ▶ Excellent cutting precision thanks to vibration-free action
- ▶ Mitre adjustment -45° up to 60° by swivelling the entire saw bow
- ▶ Microswitch for automatic limit position cut-off
- ▶ Coolant pump
- ▶ Ball bearing borne saw band guide with carbide shims for optimal cutting results
- ▶ Easy adjustment of the lowering speed via feed control valve in control panel



**FUNCTIONALITY OF SEMI-AUTOMATIC OPERATION**

- › Vice closes and motor is activated
- › Lowering the saw arm for cutting
- › Stopping the motor and returning the saw arm to its starting position



Fig.: SD 500



Fig.: SD 500AV

**SCOPE OF DELIVERY:**

- ▶ Material stop
- ▶ Bi-metal saw band
- ▶ Machine base

**HSS BI-METAL SAW BAND**

<b>Saw band</b>	<b>Article no.</b>
Art no.	3357590

5-8 tpi 0°
------------

**HSS BI-METAL SAW BAND**

<b>Saw band</b>	<b>Article no.</b>
Art no.	3357591

6-10 tpi 0°
-------------

Machine data	SD 500	SD 500AV*
Art no.	3292380	3292386
Saw motor power ~50 Hz	2.2 kW / 400 V	3 kW / 400 V
Lifting the saw bow:		
› Manual operation	hydraulic via lowering cylinder	Hydraulic via pushbutton automatic
› Semi-automatic operation	-	automatic
Feed	-	continuously variable
Saw band speed	40/ 80 m/min	20 - 80 m/min
Saw band dimensions	3770 x 34 x 1.1 mm	3770 x 34 x 1.1 mm
Cutting angle	-45° to -60°	-45° to -60°
Dimensions (L x W x H) approx.	2122 x 1046 x 1497	2129 x 1046 x 1687 mm
Net weight approx.	552 kg	645 kg

Cutting areas			
0°	Ø 355 mm	300 mm	300 x 490 mm
45°	Ø 290 mm	250 mm	250 x 250 mm
45°	Ø 350 mm	290 mm	290 x 340 mm
60°	Ø 230 mm	180 mm	180 x 220 mm

The cutting range was determined on the basis of the saw arm weight with aluminium. It can vary when using different materials and may be smaller (not cutting capacity).

SD 500AV: Please note that the MSR material stand is only suitable for limited use.

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.

## OPTISAW® CS 275 / CS 315

### Manual metal circular saws for steel, iron, light metals, solid material and profiles



- ▶ Swivelling range of 90° on both sides
- ▶ Easily readable angle scale supports precise work
- ▶ Mitre adjustment within seconds
- ▶ Protected vice spindle
- ▶ Solid machine base with drill holes on both sides for attaching the MSR material stand
- ▶ Long handle supports sawing without applying excessive force, includes integrated pushbutton (on/off)
- ▶ Automatic coolant pump switch-on during sawing
- ▶ Functional protection device, closed design, mobile
- ▶ Fast opening mechanism for optimal safety during cutting
- ▶ Solid machine base
- ▶ Protected vice spindle
- ▶ Machine base sizes:
  - CS 275 - 460 x 515 x 775 mm
  - CS 315 - 546 x 620 x 801 mm
- ▶ The saw is delivered without a circular saw blade (saw blade division freely selectable)



		Cutting areas		
CS 275	0°	Ø 60 mm	60 mm	60 x 100 mm
CS 315		Ø 85 mm	85 mm	70 x 130 mm
CS 275	45°	Ø 60 mm	60 mm	60 x 70 mm
CS 315		Ø 85 mm	85 mm	70 x 90 mm

- › Centre clamping
- › 4-fold guided with individually adjustable clamping jaws. Cut always occurs in optimal position relative to workpiece

Material supports	Article no.
MSR 4	3357610
MSR 4H	3357001
MSR 7	3357611
MSR 7H	3357002
MSR 10	3357613
MSR 10H	3357003

Metal-cutting circular saw blade CS 275			
mm/per tooth	Teeth	Blade width	Article no.
4 mm/t	220 Z	2.5 mm	3357444
6 mm/t	140 Z	2.5 mm	3357446
8 mm/t	110 Z	2.5 mm	3357448

Metal-cutting circular saw blade CS 315			
mm/t	Teeth	Blade width	Article no.
4 mm/t	240 Z	2.5 mm	3357454
6 mm/t	150 Z	2.5 mm	3357456
8 mm/t	120 Z	2.5 mm	3357458

#### SCOPE OF DELIVERY:

- ▶ Coolant system
- ▶ Machine base

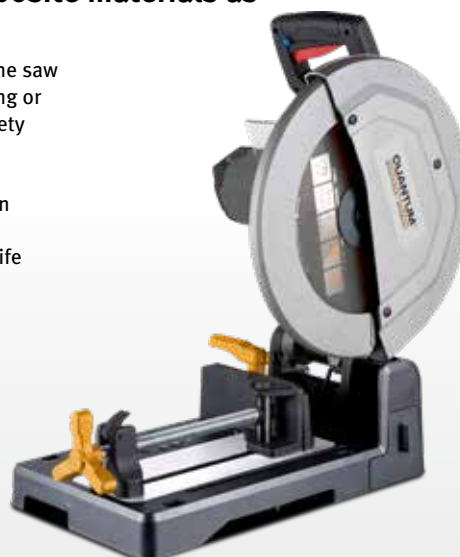
Machine data	CS 275	CS 315
Art no.	3302275	3302300
Saw motor power ~50 Hz	1.4 / 2.0 kW / 400 V	0.75 / 1.5 kW / 400 V
Cutting angle	± 90°	± 90°
Saw band speed	41 / 82 m/min	19 / 38 m/min
Saw blade diameter	Ø 275 mm; Inside Ø 40 mm	Ø 315 mm; Inside Ø 40 mm
Vice clamping width	110 mm	135 mm
Dimensions (L x W x H) approx.	460 x 830 x 1700 mm	560 x 902 x 1765 mm
Net weight approx.	175 kg	235 kg

## quantum CS 355

### Metal cutting saw for sawing pipes and profiles made of steel, non-ferrous metals, plastics and composite materials as well as stainless steel

- ▶ Safe operation: The spark guard completely encloses the saw blade when it is lifted to prevent injuries from splintering or splashing parts during cutting and to increase your safety
- ▶ Powerful pull through
- ▶ Fatigue-free working
- ▶ Improved handle design with horizontal handle position
- ▶ Suitable for mobile use
- ▶ High running smoothness, cutting quality and service life
- ▶ Quick clamping system

Technical data	quantum CS 355
Art no.	3186011
Motor power ~50 Hz	2.2 kW / 230 V
Idle speed	1500 min <sup>-1</sup>
Saw blade dimensions	Ø355 mm x 25.4 mm
Dimensions (L x W x H) approx.	665 x 365 x 645 mm
Net weight approx.	25.4 kg



**QUANTUM®**  
MASCHINEN - GERMANY



**New**



- › Sawdust collection container (up to 80%)



- › Quick-clamping vice with quick-adjustment mechanism for greater convenience

Accessories	Article no.
Saw band 72 teeth	3357355

## LMS - Manual cutting and length measuring systems for mounting on the material stand <sup>(1)</sup>

- ▶ Modular system
- ▶ Without magnetic tape



Extension rail	Art. no.
LMS 1M	3383841
LMS 2M	3383842

Extension rail	Art. no.
works only in conjunction with DRO1	
LMS 1M: Length 1300 mm	3383843
LMS 2M: Length 2300 mm	3383844
Enlargement when using the stop plate in conjunction with circular saws <b>New</b>	3383846



Fig.: Magnification

1) When attaching the LMS length measuring system to the LMS material stand, the customer may have to drill holes

## DRO 1 Digital position indicator for LMS-1M / 2M

- ▶ Art no. 3383845
- ▶ Radius/diameter mode
- ▶ Parameter memory
- ▶ Inch/metric adaptation
- ▶ Multifunctional LCD display
- ▶ Mounting kit included
- ▶ Adjustable angular measurement
- ▶ Absolute / Incremental
- ▶ 8-digit LCD display
- ▶ Coordinate conversion



Magnetic tape	Art. no.
Length 1.3 m for LMS-1M	3383876
Length 2.6 m for LMS-2M	3383877
Yard goods (price per metre)	3383878

## Length measuring systems for mounting on material stands MSR<sup>2</sup>

- ▶ Magnetic measuring system with magnetic strip
- ▶ For recurring measuring tasks with high precision 0.05 mm
- ▶ In case of longer breaks, the measuring system switches off and keeps the last stored dimension

- ▶ Automatic display switch-on
- ▶ Measurement accuracy:  $\pm(0.025 + 0.02 \times \text{measuring length [m]})$



2) When attaching the LMS length measuring system to the MSR material stand, the customer may need to drill holes

Magnetic tape	Art. no.
LMS 10 (1 metre)	3383851
LMS 20 (2 metre)	3383852
LMS 30 (3 metre)	3383853
LMS 40 (4 metre)	3383854

## MSR - Height-adjustable, universal material stands as manual aids for supporting and moving workpieces on metal saws

- ▶ Problem-free and efficient material transport for feeding and removing workpieces
- ▶ Sturdy frame design with strong special profile
- ▶ Steel bearing rollers, ball-bearing borne on both sides
- ▶ Roller support, continuously adjustable
- ▶ Safe workpiece support due to solid steel rollers with high load-bearing capacity
- ▶ Infinitely extensible
- ▶ Extension options for LMS length measuring systems



Fig.: MSR 4



Fig.: MSR 10

Fig.: User example: OPTIsaw S 275N, material stand MSR 4, measuring system LMS 1, digit. position display DRO 1; table extension MSR 1, connecting plates

Height variably adjustable up to 950 mm

Height variably adjustable up to 1,050 mm

! As this is a universal track, it may be necessary to make adjustments to the connection plate depending on the type of machine.

Technical data	MSR 4 / MSR 4H	MSR 7 / MSR 7H	MSR 10 / MSR 10H
Art no.	3357610/3357001	3357611/3357002	3357613/3357003
Idler roller Ø/width	60 mm / 360 mm	60 mm / 360 mm	60 mm / 360 mm
Static table load	500 kg	700 kg	700 kg
Dimensions (L x W) approx.	1000 x 440 mm	2000 x 440 mm	3000 x 440 mm
Height dimension approx.	650 - 950 mm	650 - 950 mm	650 - 950 mm
Height dimension H version approx.	660 - 1050 mm	660 - 1050 mm	660 - 1050 mm
Net weight approx.	29 kg / 30.2 kg	44.7 kg / 46.1 kg	65.8 kg / 68 kg

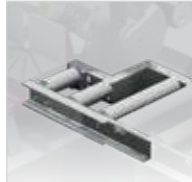
### Universal connection plate



Art no. 3357005

- › Additionally attachable
- › Including attachments on the right and left
- › Slotted holes
- › Customisation required

### Table extension MSR 1



Art no. 3357006

- › For roller conveyors MSR
- › Removable rollers
- › Additionally attachable
- › Can be fitted in both directions

### PVC roller set



Art no. 3357609

- › For roller conveyors MSR
- › 3 rollers in a practical wall bracket
- › Non-slip PVC
- › To avoid scratches
- › Simply slot the rollers into the holder provided

## ACCESSORIES

LMS length measuring systems

## PD 3 - Arbor press

## PD 5 - Knee lever hand press

- ▶ Adjustable offset
- ▶ Hardened and ground spindle
- ▶ Long spindle guide
- ▶ High force at the end of the stroke

- ▶ Quick changeover thanks to simple and safe adjustment of the working height
- ▶ Ground press tables allow reproducible positioning of your tools

**New**

Model No.	PD 3	PD 5	PD 8 / 12
Art no.	3359030	3359050	3359080
Pressure max.	3 kN	5 kN	8 kN / 12 kN
Press frame - press plunger distance	80 mm	65 mm	150 mm
Bore spindle sleeve	Ø10 mm	Ø10 mm	Ø 25 mm
Stroke of the spindle sleeve	30 mm	40 mm	60 mm
Traverse path of the head	50 - 170 mm	65 - 180 mm	90 - 410 mm
Table size	110 x 100 mm	110 x 80 mm	260 x 300 mm
T-slots	16 mm	16 mm	14 mm
Dimensions (L x W x H) approx.	180 x 110 x 300 mm	190 x 115 x 470 mm	460 x 300 x 940 mm
Weight	10 kg	13 kg	134 kg



Fig.: PD 3



Fig.: PD 5



Fig.: PD 8/12



> With automatic locking

> Pressing up to 12 kN is possible by moving the link rod

## DDP 10 / DDP 20 / DDP 30 / DDP 50

### Precision arbour presses with rugged and solid design

#### Facts that impress in terms of quality, performance and price

- ▶ For pressing in and out of bearings, mandrels, bushings, spindles, pins
- ▶ Stable design
- ▶ Premium grey cast body
- ▶ Variably adjustable lever
- ▶ Baseplate adjustable in four positions
- ▶ For fastening on a workbench

Machine data	DDP 10	DDP 20	DDP 30	DDP 50
Art no.	3359011	3359012	3359013	3359015
Workpiece height	123 mm	195 mm	310 mm	459 mm
Spindle - column distance	95 mm	120 mm	150 mm	226 mm
Plunger size (L x W x H)	25 x 25 x 240 mm	32 x 32 x 345 mm	38 x 38 x 455 mm	50 x 50 x 647 mm
Mounting hole	Ø10 mm	Ø13 mm	Ø13 mm	Ø16 mm
Dimensions (L x W x H) approx.	270 x 180 x 410 mm	430 x 235 x 680 mm	455 x 260 x 850 mm	650 x 350 x 785 mm
Net weight approx.	14 kg	34 kg	55 kg	70 kg



Fig.: DDP 20



## OPTIgrind® GQ-D13

### The handy drill bit grinder

for regrinding twist drills from Ø 3 mm to Ø 13 mm

- ▶ Simple operation of double-edged twist drills
- ▶ Drill grinding without prior knowledge - clean, fast and good
- ▶ Positively-driven sharpening action, thus easy to operate
- ▶ Diamond grinding stone with long service life for the perfect grind

Machine data	GQ-D13
Art no.	3140020
Motor power ~50 Hz	80 W / 230 V
Infinitely variable speed	4200 min <sup>-1</sup>
Grinding disc	Ø 78 mm
Grinding capacity of drill bits	Ø 3 mm to Ø 13 mm
Dimensions (L x W x H) approx.	220 x 200 x 160 mm
Net weight approx.	2.5 kg

#### Replacement grinding wheel

Crystalline cubic boron nitride  
Art no. 3140021



**QUANTUM®**  
MASCHINEN - GERMANY



#### SCOPE OF DELIVERY:

- ▶ Diamond grinding wheel
- ▶ Collet chuck holder



## OPTI grind® GH 10T / GH 15T

### The handy drill bit grinding device ideal for grinding twist drills

- ▶ Simple operation for precise grinding of double-edged twist drills
- ▶ Drill bit grinding without prior experience - clean, fast and precise
- ▶ Easy to transport



Fig.: GH 10T



Fig.: GH 15T

Machine data	GH 10T	GH 15T
Art no.	3100110	3100115
Motor power ~50 Hz	180 W / 230 V	450 W / 230 V
Tip sharpening angle	90° - 135°	90° - 145°
Grinding capacity of drill bits	Ø 2 mm to Ø 13 mm	Ø 3 mm to Ø 30 mm
Dimensions (L x W x H) approx.	310 x 180 x 190 mm	450 x 240 x 270 mm
Net weight approx.	9.5 kg	33 kg



#### SCOPE OF DELIVERY GH 15T:

- ▶ 6 pcs. collets ER 20 sizes Ø 3 to Ø 8 mm
- ▶ 22 pcs. collets ER 40 sizes Ø 8 to Ø 30 mm
- ▶ CBN grinding disc 108x21x20 mm

#### SCOPE OF DELIVERY GH 10T:

- ▶ 11 pcs. collets ER 20 sizes Ø 2 to Ø 13 mm

## OPTI grind® GH 20T

### Versatile grinding machine for burins and tools

#### Facts that impress in terms of quality, performance and price

- ▶ High precision thanks to robust machine body and vibration-free driven precision grinding spindle
- ▶ Indexing head with 24 latching positions
- ▶ Adjustable dressing device
- ▶ Many pivoting and adjustment options usable for creating graters (cylindrical, centric, tapered)

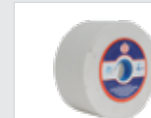


Supplied without CEKON plug

Machine data	GH 20T
Art no.	3100125
Motor power ~50 Hz	370 W / 400 V
Tool holder fine adjustment	18 mm
Longitudinal fine adjustment	6 mm
Adjustable vertical / rear angle	0° - 40°
Adjustable horizontal angle / cone	0° - 180°
Clamping range	Ø 1 - 12 mm
Clamping jaw type	385E (5C), DIN 6341
Dimensions (L x W x H) approx.	350 x 450 x 340 mm
Net weight approx.	45 kg



#### Scope of delivery



- > Cup grinding wheel 100 x 50 x Ø 20 mm
- > Corundum
- > Diamond (mounted on the machine as delivered)



- > Device for regrinding end mills up to Ø 12 mm



- > Device for regrinding twist drills up to Ø 12 mm



- > Operating tool



- > Collets DIN 6341 Type 385E (5C) Ø37.5 mm L = 89 mm
- > Sizes Ø 4- 12 mm



- > Device for regrinding lathe chisels up to 21 x 21 mm

#### Replacement grinding wheel

- | Replacement grinding wheel      | Article no. |
|---------------------------------|-------------|
| ① Aluminium oxide grain size 80 | 3100128     |
| ② Diamond grain size 150        | 3100129     |

Field of application: High-speed steel (HSS)

Field of application: Carbide (TC)

## OPTi grind® TS 305 Disc grinder for machining metal surfaces



### Facts that impress in terms of quality, performance and price

- ▶ Sturdy and stable machine body
- ▶ Balanced aluminium grinding wheel for smooth action
- ▶ Standard angle stop swivels up to ± 60°
- ▶ Factory standard extraction duct with two diameters for attaching an extraction unit
- ▶ Grinding table can be tilted ± 45°
- ▶ Delivered with grinding sheet bonded onto grinding wheel



### SCOPE OF DELIVERY:

- ▶ Adjustable angle stop
- ▶ Grinding sheet
- ▶ Velcro disc

Machine data	TS 305
Art no.	3310305
Motor power ~50 Hz	900 W / 230 V
Sanding disc	Ø 305 mm
Speed	1420 min <sup>-1</sup>
Table support	155 x 440 mm
Dimensions (L x W x H) approx.	440 x 445 x 365 mm
Net weight approx.	30 kg

Accessories	Art. no.
<b>Hook and loop fastener pad</b>	3357801
▶ Velcro support for grinding disc. Good grinding wheel adhesion, easy replacement	



Grinding discs - Velcro fastener	
Grain size	Art. no.
K 40	3357854
K 60	3357856
K 80	3357858
K 100	3357860
K 120	3357862
K 150	3357865
K 180	3357866
K 240	3357867

## OPTi grind® GB 305D - Disc grinding machine for machining surfaces, edges and curves



### Facts that impress in terms of quality, performance and price

- ▶ Heavy, durable industrial design with maintenance-free motor
- ▶ Long service life and quiet action thanks to balanced rotor with quality ball bearings
- ▶ Balanced aluminium grinding wheel for smooth action
- ▶ Sturdy and stable machine body
- ▶ Powerful motor
- ▶ Delivered with grinding sheet
- ▶ Tray for safety glasses



Machine data	GB 305D
Art no.	3101675
Motor power ~50 Hz	1.1 kW / 400 V
Grinding disc size	Ø 305 mm
Table support	440 x 210 mm
Grinding attachment swivel range	0 - 45°
Dimensions (L x W x H) approx.	560 x 440 x 380 mm
Net weight approx.	25 kg

Grinding sheet	Article no.
Grain size 40	3357854
Grain size 60	3357856
Grain size 80	3357858
Grain size 100	3357860

Grinding sheet	Article no.
Grain size 120	3357862
Grain size 150	3357865
Grain size 180	3357866
Grain size 240	3357867

### ACCESSORIES

Machine bases can be found on page OP97

1) Packaging unit 5 pieces



## OPTi grind® GB 250B

### Effective brush deburrer for the trade and for small batches

- ▶ Heavy, durable industrial design with maintenance-free motor
- ▶ Long service life and quiet action thanks to balanced rotor with quality ball bearings
- ▶ For deburring pipes, sections and flat workpieces made of metal
- ▶ Tray for safety glasses
- ▶ Safe and clean working with the optional GU 1 machine base with cyclone dust extraction
- ▶ Round brush wire thickness 0.35 mm in standard scope of delivery



Machine data	GB 250B
Art no.	3101670
Motor power ~50 Hz	1.3 / 1.8 kW / 400 V
Dimensions of the round brush	Ø 250 x 40 x Ø 24 mm
Circumferential speed of the round brush	37.3 m/s at 2850 min. <sup>-1</sup>
Dimensions approx:	415 x 467 x 356 mm
Net weight approx.	36 kg

### ACCESSORIES

Machine bases can be found on page OP97

Round brush	Article no.
› Ø 250 x 42-47 mm with adapter 25 mm	
Wire thickness 0.2 mm	3107451
Wire thickness 0.3 mm	3107452

Round brush	Article no.
› Steel wire	
› Ø 250 x 32-37 mm with adapter 25 mm	
Wire thickness 0.2 mm	3098070

## OPTi grind® GB 100S/ GB 120SD

### Belt sanders

- ▶ Heavy-duty, durable industrial design with maintenance-free motor
- ▶ Two-stage motor
- ▶ Simple belt adjustment
- ▶ Stable work supports
- ▶ Long service life and quiet action thanks to balanced rotor with quality ball bearings
- ▶ Tray for safety glasses
- ▶ One sanding belt included as standard

The machine GB 120SD is pre-assembled  
Individual components of the machine still have to be assembled and joined together.



▶ Support surface 90° can be swivelled upwards



GB 100S



GB 120SD with substructure.  
Substructure compatible with GU2 extraction unit

Machine data	GB 100S	GB 120SD
Art no.	3101660	3321200
Motor power ~50 Hz	1.3 / 1.8 kW / 400 V	2.2 / 1.5 kW / 400 V
Sanding belt width - length	100 x 1190 mm	120 x 1500 mm
Usable contact surface for grinding at top	345 x 100 mm	360 x 130 mm
Peripheral speed of the sanding belt at 2850 min. <sup>-1</sup>	19.4 m/s	29.8 m/s
Dimensions approx:	740 x 476 x 356 mm	918 x 594 x 1092 mm
Net weight approx.	47 kg	77.5 kg

Grinding belt	GB 100S	GB 120SD
	Article no.	Article no.
Grain size 40	3357637	3357691
Grain size 60	3357638	3357692
Grain size 80	3357639	3357693
Grain size 120	3357640	3357694
Grain size 180	-	3357695
Grain size 240	-	3357696

## OPTi<sup>grind</sup>® GU 15 / GU 18 / GU 20 / GU 25 / GU 30

### Bench grinders by OPTIMUM

A quality product for trades and industry

#### Facts that impress in terms of quality, performance and price

- ▶ Heavy, durable industrial design with maintenance-free motor for continuous use
- ▶ Housing made of strand cast aluminium
- ▶ Long service life and quiet action thanks to balanced rotor with quality ball bearings
- ▶ Spark guard on each grinding wheel reduces sparks and is made of shatter-proof material
- ▶ Sturdy adjustable workpiece support
- ▶ Vibration-damping rubber feet
- ▶ Coarse and fine grinding wheel (K36/K60) included in standard scope of delivery
- ▶ GU 25 and GU 30 with base plate

### ACCESSORIES

Machine bases can be found on page OP97

#### SCOPE OF DELIVERY:

- ▶ Coarse grinding disc K36
- ▶ Fine grinding disc K80



230 V  
or  
400 V

Fig.: GU 30



EMERGENCY STOP  
FACILITY  
on page OP97

**VARIO DRIVE**  
on page OP92



Machine data	GU 15	GU 18	GU 20	GU 25	GU 30
Art no.	3101505	3101510	3101515 (230 V) / 3101520 (400 V)	3101525	3101530
Motor power ~50 Hz	450 W / 230 V	450 W / 230 V	600 W / 230 V or 400 V	1.5 kW / 400 V	2.2 kW / 400 V
Grinding wheels	Ø 150 x 20 mm	Ø 175 x 25 mm	Ø 200 x 30 mm	Ø 250 x 40 mm	Ø 300 x 50 mm
Shaft diameter	Ø 16 mm	Ø 32 mm	Ø 32 mm	Ø 32 mm	Ø 25 mm
Extraction duct nominal width	Ø 34 mm	Ø 34 mm	Ø 34 mm	Ø 34 mm	Ø 35 / Ø 50 mm
Speed	2850 min <sup>-1</sup>	2850 min <sup>-1</sup>	2850 min <sup>-1</sup>	2850 min <sup>-1</sup>	1450 min <sup>-1</sup>
Dimensions (L x W x H) approx.	389 x 205 x 265 mm	389 x 235 x 280 mm	495 x 260 x 330 mm	471 x 320 x 365 mm	678 x 416 x 520 mm
Net weight approx.	11 kg	14 kg	19 kg	33 kg	65 kg

## OPTi<sup>grind</sup>® GZ 40D

### PREMIUM Industrial - Grinding machine, extremely robust and stable

#### Facts that impress in terms of quality, performance and price

- ▶ Suitable for continuous and intensive use in industry
- ▶ Heavy industrial grinding machine absorbs the vibrations, which are low anyway, thanks to its high deadweight
- ▶ Also suitable for strong thrust force on the grinding wheels
- ▶ Maintenance-free, durable, induction motor with smooth action
- ▶ Stable, displaceable workpiece support
- ▶ Cast iron housing
- ▶ Spark guard



Fig.: Showing optional grinding discs and GU4-H machine base



**VARIO DRIVE**  
on page OP92



**DO NOT FORGET:**  
Grinding discs not included in the scope of delivery. These can be found on page OP93

Machine data	GZ40D
Art no.	3091025
Motor power ~50 Hz	4.4 kW / 400 V
Grinding wheel dimensions	Ø 400 x 50 mm bore Ø 40 mm
Rotational speeds	1400 min <sup>-1</sup>
Extraction duct nominal width	Ø 90 mm
Dimensions (L x W x H) approx.	980 x 600 x 660 mm
Net weight approx.	168 kg

#### Machine bases

GU 5-H with cyclone extraction unit	3107124
GU 4-H	3107123
Suction pipes for GU 5-H	3107116

Information about the bases can be found on page OP97

**OPTi<sup>grind</sup>® GZ 20D-DD / GZ 25D-DD / GZ 30D-DD**  
**PREMIUM Grinding machines. GZ - DD Models with machine base and integrated extraction system**



**Facts that impress in terms of quality, performance and price**

- ▶ Heavy industrial grinding machine absorbs the already low vibrations thanks to its high dead weight.
- ▶ Suitable for very high thrust forces on the grinding discs
- ▶ Maintenance-free, durable, induction motor with smooth action
- ▶ Grinding wheel locking flanges turned on both sides
- ▶ Cast iron housing
- ▶ Sturdy, adjustable workpiece support



GZ 30D



**GZ-DD models:**

- ▶ Sturdy base with water tray
- ▶ Integrated extraction system with aluminium fan and self-cleaning impellers
- ▶ Dust bag made from self-extinguishing fabric

**DO NOT FORGET:**  
Grinding discs not included in the scope of delivery. These can be found on page OP93

**VARIO DRIVE**  
see main catalogue



**ACCESSORIES**

**GZ-D models:** without base Machine bases without suction for the GZ 20D, GZ 25D and GZ 30D grinding machines can be found in the accessories



Electronic brake 3091099

- › Controlled braking
- › Including factory assembly



Machine data	GZ 20D / GZ 20DD	GZ 25D / GZ 25DD	GZ 30D / GZ 30DD
Art no.	3091010/3091040	3091015/3091045	3091020/3091050
Motor power ~50 Hz	750 W / 400 V	1.1 kW / 400 V	1.8 kW / 400 V
Grinding wheel dimensions	Ø 200 x 25 mm Bore Ø 20 mm	Ø 250 x 30 mm Bore Ø 25 mm	Ø 300 x 35 mm Bore Ø 30 mm
Rotational speeds	2800 min <sup>-1</sup>	1400 min <sup>-1</sup>	1400 min <sup>-1</sup>
Dimensions (L x W x H) approx. (GZ-D)	550 x 290 x 360 mm	670 x 340 x 410 mm	810 x 420 x 560 mm
Dimensions (L x W x H) approx. (GZ- DD)	800 x 710 x 1300 mm	800 x 710 x 1300 mm	810 x 1200 x 1300 mm
Net weight approx. GZ-D / GZ-DD	25 kg / 63.7 kg	44.8 kg / 91 kg	64.5 kg / 124 kg

Grinding accessories	Article no.
<b>Machine bases for GZ grinding machines</b>	
<b>GZ 20C/GZ 20D</b>	3091120
<b>GZ 25C/GZ 25D</b>	3091122
<b>GZ 30D</b>	3091124
› Sturdy	
› Small footprint	



Grinding accessories	Article no.
<b>Round brush</b>	
› High tensile steel wire	
› Made in EU	
for <b>GZ 20D/DD; GZ 20C/CD</b>	
200x25x20mm - 0.35mm	3098081
200x25x20mm - 0.50mm	3098082
for <b>GZ 25D/DD; GZ 25C/CD</b>	
250x30x25mm - 0.30mm	3098086
250x30x25mm - 0.50mm	3098087
<b>Round brush with 25 mm adapter</b>	
for <b>GZ 40C</b>	
350x50-55x25mm - 0.2mm	3098092
350x55-60x25mm - 0.35mm	3098093
<b>Round brush steel wire</b>	3098070
› for the grinder: GB 250B, GU25B and GZ25C	
› Ø 250 x 32-37 mm with adapter 25 mm	
<b>Grinding wheel dresser</b>	3101821
› Diamond	



Grinding accessories	Article no.
<b>Grinding disc</b>	
› Normal corundum grinding wheel	
› Hardness M - grey <b>Made in Italy</b>	
for <b>GZ 20 K 36</b>	3098121
for <b>GZ 20 K 60</b>	3098123
for <b>GZ 20 K 80</b>	3098125
for <b>GZ 25 K 36</b>	3098131
for <b>GZ 25 K 60</b>	3098133
for <b>GZ 25 K 80</b>	3098135
for <b>GZ 30 K 36</b>	3098141
for <b>GZ 30 K 60</b>	3098143
for <b>GZ 30 K 80</b>	3098145
for <b>GZ 40D K 36</b>	3098150
for <b>GZ 40D K 60</b>	3098152
for <b>GZ 40D K 80</b>	3098154



Polishing disc GZ 40P	
Hard 350 x 30 mm	3107341
Soft 350 x 30 mm	3107340

## OPTI<sup>grind</sup>® GU 20S / GU 25S / GU 30S Universal grinding machines with grinding attachment

### Facts that impress in terms of quality, performance and price

- ▶ Rugged and sturdy universal grinding machines with grinding belt and grinding wheel for a variety of materials
- ▶ Heavy, durable industrial design with maintenance-free motor for continuous use
- ▶ Housing made of strand cast aluminium
- ▶ Large, heavy fastening flanges ensure excellent disc true running accuracy
- ▶ Grinding attachment with graphite support prevents friction and heat
- ▶ Stop allows for fast and convenient initial grinding of the workpieces
- ▶ Belt run adjustment without tools - adjustable using a single star knob
- ▶ GU 25S and GU 30S with base plate

### SCOPE OF DELIVERY:

- ▶ Grinding disc and sanding belt aluminium oxide K 80

230 V  
or  
400 V



Fig.: GU 30S

**GRINDING ATTACHMENT**  
▶ can be adjusted in a swivelling range of 0°-90° via the flange



**VARIO DRIVE**  
on page OP98



Machine data	GU 20S	GU 25S	GU 30S
Art no.	3101570 (230 V) / 3101575 (400 V)	3101580	3101585
Motor power ~50 Hz	600 W / 230 V or 400 V	1.5 kW / 400 V	2.2 kW / 400 V
Grinding wheel size	Ø 200 x 30 mm	Ø 250 x 40 mm	Ø 300 x 50 mm
Shaft mounting	Ø 32 mm	Ø 32 mm	Ø 25 mm
Extraction port	Ø 32 mm	Ø 32 mm	Ø 35 / Ø 50 mm
Grinding belt (L x W)	75 x 762 mm	75 x 1016 mm	100 x 1190 mm
Dimensions (L x W x H) approx.	501 x 261 x 459 mm	514 x 319 x 596 mm	767 x 420 x 527 mm
Net weight approx.	20.7 kg	34 kg	64.5 kg



### ACCESSORIES

Machine bases can be found on page OP97

## OPTI<sup>grind</sup>® GZ 40C PREMIUM combined grinding machine - a powerful industrial grinder with multi-purpose brush and grinding wheel

### Facts that impress in terms of quality, performance and price

- ▶ Suitable for continuous and intensive use in industry
- ▶ The heavy machine absorbs the already low vibrations due to its high dead weight.
- ▶ Constant speed even under load
- ▶ Also suitable for strong thrust force on the grinding wheel and brush
- ▶ Maintenance-free, durable, induction motor with smooth action
- ▶ Cast iron housing
- ▶ Swivelling brush protection housing with extraction ducts
- ▶ Stable, displaceable workpiece support
- ▶ Swivelling brush protection housing with extraction ducts



Fig.: with optional grinding disc and brush and GU4-H machine base

**DO NOT FORGET:**  
Grinding wheel and brush not included These can be found on page OP93

### Machine bases

<b>GU 5-H</b> with cyclone extraction unit	3107124
<b>GU 4-H</b>	3107123
<b>Suction pipes for GU 5-H</b>	3107116

Information about the bases can be found on page OP97

**VARIO DRIVE**  
on page OP98



Machine data	GZ 40C
Art no.	3091079
Motor power ~50 Hz	4.4 kW / 400 V
Grinding wheel dimensions	Ø 400 x 50 mm bore Ø 40 mm
Brush dimensions	Ø 350 x 35 mm bore Ø 25 mm
Rotational speeds	1400 min <sup>-1</sup>
Dimensions (L x W x H) approx.	1200 x 660 x 580 mm
Net weight approx.	144 kg



## OPTIgrind® GU 15B / GU 18B / GU 20B / GU 25B Combined grinding machines by Optimum

### Facts that impress in terms of quality, performance and price

- ▶ Durable design with maintenance-free motor for continuous use
- ▶ Housing made of strand cast aluminium
- ▶ Large, heavy fastening flanges ensure excellent disc true running accuracy
- ▶ Multi-purpose brush in swivelling brush housing
- ▶ Grinding attachment with graphite support; prevents friction and heat
- ▶ Stop allows for fast and convenient initial grinding of the workpieces

### ACCESSORIES

Machine bases can be found on page OP97

**VARIO DRIVE**  
on page OP95



Fig.: GU 20B

### SCOPE OF DELIVERY:

- ▶ Grinding wheel - normal corundum coarse 36 grain
- ▶ Multi-purpose wire brush, wire thickness 0.3 mm

230 V  
or  
400 V



**EMERGENCY STOP FACILITY**  
on page OP97

Machine data	GU 15B	GU 18B	GU 20B	GU 25B
Art no.	3101600	3101605	3101610 (230 V) / 3101615 (400 V)	3101620
Motor power ~50 Hz	450 W / 230 V	450 W / 230 V	600 W / 230 V oder 400 V	1.5 kW
Grinding wheels	Ø 150 x 20 mm Ø 16 mm	Ø 175 x 25 mm Ø 32 mm	Ø 200 x 30 mm Ø 32 mm	Ø 250 x 40 mm Ø 32 mm
Multi-purpose wire brush	Ø 150 x 20 mm Ø 16 mm	Ø 175 x 20 mm Ø 32 mm	Ø 200 x 20 mm Ø 32 mm	Ø 250 x 30 mm Ø 32 mm
Rotational speeds	2.850 min <sup>-1</sup>	2850 min <sup>-1</sup>	2850 min <sup>-1</sup>	2850 min <sup>-1</sup>
Dimensions (L x W x H) approx.	428 x 305 x 230 mm	428 x 305 x 244 mm	517 x 345 x 282 mm	526 x 380 x 319 mm
Net weight approx.	10.7 kg	12.3 kg	18.5 kg	32.5 kg

## OPTIgrind® GZ 20C / GZ 20CD / GZ 25C / GZ 25CD PREMIUM Combined grinding machines

### Facts that impress in terms of quality, performance and price

- ▶ Heavy industrial combined grinding machine absorbs the already low vibrations thanks to its high dead weight.
- ▶ Also suitable for very high thrust forces on the grinding disc and brush
- ▶ Maintenance-free, durable induction motor
- ▶ Cast iron housing
- ▶ Sturdy, adjustable workpiece support



Fig.: GZ 20CD with optional grinding disc and brush

### GZ-C models:

- ▶ without machine base

### ACCESSORIES

Machine bases without extraction for the GZ 20C and GZ 25C machines can be found on page OP93



Fig.: GZ 20C with optional grinding disc and brush

### GZ-CD models:

- ▶ Sturdy base with water tray
- ▶ Integrated extraction system with aluminium fan and self-cleaning impellers
- ▶ Dust bag made from self-extinguishing fabric

**DO NOT FORGET:**  
Grinding wheel and brush not included These can be found on page OP93

**VARIO DRIVE**  
see main catalogue

Machine data	GZ 20C / GZ 20CD	GZ 25C / GZ 25CD	Electronic brake	3091099
Art no.	3091070/3091080	3091075/3091085	> Controlled braking	
Motor power ~50 Hz	750 W / 400 V	1.1 kW / 400 V	> Including factory assembly	
Grinding wheel dimensions	Ø 200 x 25 mm , bore Ø 20 mm	Ø 250 x 30 mm , bore Ø 25 mm		
Round brush dimensions	Ø 200 x 25 mm , bore Ø 20 mm	Ø 250 x 25 mm , bore Ø 25 mm		
Rotational speeds	2800 min <sup>-1</sup>	1400 min <sup>-1</sup>		
Dimensions (L x W x H) approx. GZ- C	650 x 300 x 360 mm	850 x 340 x 410 mm		
Dimensions (L x W x H) approx. GZ- CD	900 x 710 x 1300 mm	850 x 1200 x 1300 mm		
Net weight approx. GZ- C / GZ-CD	26.5 kg / 65 kg	47.9 kg / 87 kg		



## OPTI polish GU 20P / GU 25P / GU 35P Polishing machines for surface finishing on metallic workpieces



### Facts that impress in terms of quality, performance and price

- ▶ Heavy, durable industrial design with maintenance-free motor
- ▶ Housing made of strand cast aluminium
- ▶ Long service life and quiet action thanks to balanced rotor with quality ball bearings
- ▶ Two wide polishing discs included in standard scope of delivery

### GU 20P/GU 25P:

- ▶ Vibration-damping rubber feet (without extraction hood - can be ordered optionally)

### GU 35P:

- ▶ Vibration-damping rubber feet, base plate, housing, suction bonnet



Fig.: GU 35P

### SCOPE OF DELIVERY:

- ▶ Hard and soft polishing disc



EMERGENCY STOP FACILITY on page OP97



Fig.: GU 20P

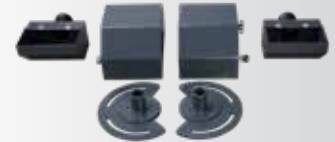
### VARIO DRIVE on page OP96

Fig.: Machine base with view window (not available)

Machine bases can be found on page OP97

Extraction hood set	Article no.
for GU 20P	3107060
for GU 25P	3107061

> 2-part (left and right)



230 V or 400 V

Machine data	GU 20P	GU 25P	GU 35P
Art no.	3101540 (230 V)/3101545 (400 V)	3101550	3101560
Motor power ~50 Hz	600 W 230 V or 400 V	1.5 kW / 400 V	2.2 kW / 400 V
Polishing disc size	Ø 200 x 20 mm	Ø 250 x 25 mm	Ø 350 x 40 mm
Shaft mounting	Ø 16 mm	Ø 20 mm	Ø 35 mm
Speed	2850 min <sup>-1</sup>	2850 min <sup>-1</sup>	1450 min <sup>-1</sup>
Dimensions (L x W x H) approx.	545 x 200 x 262 mm	555 x 250 x 296 mm	916 x 335 x 393 mm
Net weight approx.	10.6 kg	17.4 kg	64.1 kg

## OPTI grind GZ 40P PREMIUM Polishing machine - a powerful industrial machine



### Facts that impress in terms of quality, performance and price

- ▶ Suitable for continuous and intensive use in industry
- ▶ The heavy polishing machines absorbs the already low vibrations due to its high dead weight.
- ▶ Maintenance-free, durable, induction motor with smooth action
- ▶ Cast iron housing
- ▶ Swivelling protective housing with suction nozzle for connecting a suction device



Fig: with optional polishing discs and GU4-H machine base

### ARE YOU INTERESTED?

GET IN TOUCH WITH US!

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### VARIO DRIVE on page OP96



Machine data	GZ 40P
Art no.	3091130
Motor power ~50 Hz	4.4 kW
Grinding wheel dimensions	350 x 35 mm
Shaft mounting	Ø 25 mm
Rotational speeds	1400 min <sup>-1</sup>
Extraction duct nominal width	Ø 90 mm
Dimensions (L x W x H) approx.	1390 x 530 x 580 mm
Net weight approx.	110 kg

**DO NOT FORGET:**  
Polishing discs not included. *These can be found on page OP93*

### Machine bases

GU 5-H with cyclone extraction unit	3107124
GU 4-H	3107123
Suction pipes for GU 5-H	3107116

Information about the bases can be found on page OP97





### Machine bases without extraction

Designation	GU 3	GU 4	GU 4-H	Wall holder	Emergency stop facility
Art. no.	3107118	3107119	3107123	3107050	3107070
					
Dimensions	320 x 270 x 825 mm	500 x 420 x 770 mm	500 x 420 x 770 mm	332 x 300 x 230 mm	for 400 V machines only
Weight	14.5 kg	30 kg	empty 33 kg / filled 139 kg	5 kg	The emergency stop device requires a substructure
GU 15 / GU 18	●			●	
GU 20 up to GU 25	●			●	●
GU 20S / GU 25S	●			●	●
GU 15B up to GU 25B	●			●	
GU 20P / GU 25P	●			●	
GU 30		●		●	●
GU 30S / GU 35P		●			●
GB 250B		●			
GB 100S		●	●		
GZ 40D / GZ 40C / GZ 40P			●		

With machine base and assembly see below

### Machine bases with cyclone extraction unit

When the external device is switched on, the extraction unit automatically starts up after a delay of 2- 3 seconds. There is no need to additionally switch the extraction system on or off: The residual dust is extracted after switching off the machine in line with the Hazardous Materials Ordinance. The extraction system is specially designed for small particles and dust. Larger parts such as scraps of fabric or lumps of stuck-on dust should not get into the extraction system.

Designation	GU 1	GU 2	GU 5	GU 5-H
Art. no. (230 V)	3107110	-	-	-
Art. no. (400 V)	3107109	3107115	3107114	3107124
				
	Noise-insulated Without drilled holes - must be drilled individually 1.3 kW 230 V or 400 V	4 kW 400 V ~ 50 Hz dual-tube suction connection 60 x 300-1000 mm flexibel	4 kW 400 V ~ 50 Hz for dual-tube suction connection	The machine base must be filled with concrete at the customer's site. 4 kW 400 V ~50 Hz for dual-tube suction connection
Motor power				
Y-adapter	Ø 50 mm each			
External 230V continuous supply		●	●	●
Dimensions	550 x 340 x 890 mm	525 x 440 x 815 mm	525 x 440 x 815 mm	525 x 440 x 815 mm
Weight	42 kg	60 kg	50 kg	empty 53 kg
GU 15 up to GU 25	●			
GU 20S / GU 25S	●			
GU 15B up to GU 25B	●			
GU 20P / GU 25P	●			
GU 30 / GU 30S / GU 30P			●	
GZ 40D / GZ 40C / GZ 40P				●
GBS 75		●		
GB 100S		●	●*	●*
GBS 150		●		
GB 250B	●		●	
GB 305D	●		●	

Accessories	Art. no.
<b>Suction pipes</b> 2 pieces › Variable length 300 - 1000 mm	3107116
<b>Suction pipes</b> 2 pieces › for GU 1	3107111
<b>* Mounting plate</b> Mandatory when mounting the GB 100S on the GU 5 / GU 5H machine base	3107125

Accessories	Art. no.
<b>Emergency stop device</b> for bench grinder Including assembly and machine base <b>with machine base GU 1</b>	3107071
<b>with machine base GU 3</b>	3107072
<b>with machine base GU 4</b>	3107073
<b>with machine base GU 5</b>	3107074

(Braking power reduced for GU 30/GU 30S / 400 V)

**Vario drive with SIEMENS Sinamics V20 inverter enables the speed of the grinder to be controlled**

Without grinder- must be ordered separately along with your order.

**Machine base & machine = Vario**



**Machine bases with integrated Vario drive, without suction unit**

**Machine bases with integrated Vario drive with cyclone extraction**



**GU 3**

- ▶ Coolant tray
- ▶ Dimensions (L x W x H): 320 x 270 x 820 mm

Note: The extraction unit requires a zero conductor in the 400 V version

Fig. GU 3 machine base with optional Plexiglas cover



**GU 4**

- ▶ Coolant tray
- ▶ Dimensions (L x W x H): 500 x 420 x 770 mm



**GU 4-H**

- ▶ Coolant tray
- ▶ Dimensions (L x W x H): 500 x 420 x 770 mm

Note: The GU 4-H machine base must be filled with concrete at the customer's site.



**GU 1**

- ▶ Lamp holder for LED 3-500
- ▶ Dimensions (L x W x H): 477 (550) x 340 x 805 (890) mm



**GU 5**

- ▶ Coolant tray
- ▶ Dimensions (L x W x H): 500 x 744 x 770 mm



**GU 5-H**

- ▶ Coolant tray
- ▶ Dimensions (L x W x H): 500 x 744 x 770 mm

Note: The GU 5-H machine base must be filled with concrete at the customer's site.

Vario drive* SIEMENS Inverter	GU 1 / GU 3 up to 1.5 kW	GU 4 / GU 5 up to 2.2 kW	GU 4-H / GU 5-H up to 4.4 kW
Art no.	3491530 / 3491531	3491550 / 3491552	3491571 / 3491573
Adjustable circumferential speeds	37 m/s to 6 m/s	34 m/s to 6 m/s	34 m/s to 6 m/s
Combined grinders	GU 20B / GU 25B	-	GZ 40C
Universal grinders	GU 20S / GU 25S	GU 30S	-
Bench grinders	GU 20 / GU 25	GU 30	GZ 40D
Grinding/Polishing machine	GU 20P / GU 25P	GU 35P	GZ 40P

\*The machine complies with the DIN EN 55011 standard: Class C2. Important information on operating machines with frequency converters can be found on the reverse side.

# CNC MACHINES FROM THE SPECIALIST



## OPTImill® FU 6 PREMIUM CNC milling machine. 5-axis simultaneous machining centre for maximum productivity

- ▶ Telescopic guideway cover
- ▶ Precision-ground, preloaded high-performance ball screws for high rapid traverse speeds
- ▶ Spindle borne on P5 precision bearings and permanently lubricated
- ▶ High-torque servo drives on all five axes
- ▶ Precision linear guides
- ▶ Heidenhain glass scales for higher accuracy
- ▶ High rapid traverse speed of up to 24 m/min. in X, Y and Z axis
- ▶ A / C axis with torque motor for maximum speed and lifetime accuracy
- ▶ Tool changer, double arm grab with 60 tool slots
- ▶ Coolant device with chip flushing system and cleaning gun
- ▶ Automatic centralised lubrication
- ▶ Water circuit cooling unit for the main spindle and main spindle motor and for the A and C axes
- ▶ Chip conveyor, belt type ensures efficient chip discharge
- ▶ Collision Avoidance - Software for collision avoidance



SIEMENS control  
SINUMERIK ONE

PREMIUM  
line



Machine data	FU 6
Total connected load ~50 Hz	70 KVA
Drive motor / torque S1 operation	25 kW / 105 Nm
Drive motor / torque S6-30 % Operation	40 kW / 261 Nm
Spindle seat	HSK 63
Repeatability / positioning accuracy	± 0.004 mm/ ± 0.01 mm
Tool changer Double-arm gripper	60 tool stations
Max. tool weight	8 kg
Time-tool change	3 seconds

Machine data	FU 6
X-, Y-, Z-axis traverse paths	790 / 750 / 600 mm
X-, Y-, Z-axis rapid traverse	24 m/min.
X-, Y-, Z-axis torque	22 Nm / 22 Nm / 27 Nm
Speeds <sup>1)</sup> Inline spindle	15000 min <sup>-1</sup>
Spindle to table distance	120 - 750 mm
Table diameter / T-slot size	600 x 500 mm / 18 mm
Dimensions (L x W x H) approx.	2880 x 4290 x 3480 mm
Net weight approx.	14500 kg

## OPTIeducation FROM THE CLASSROOM VIA THE MACHINE DOOR TO THE REAL MACHINE

The simulation walls offer an innovative and effective solution for training students in machine operation and programming. Thanks to collision monitoring, they prevent costs caused by collisions and enable programmes to be tested before they are used on the real machine.



- ▶ 24-inch touchscreen
- ▶ 55-inch touchscreen monitor
- ▶ MCP 398 from Siemens
- ▶ Drawer for keyboard
- ▶ Powerful computer

- ▶ Simulation walls offer the possibility to simulate different scenarios and applications. It allows students to make mistakes without risk and to learn from them. This promotes a deeper understanding of machine operation and programming.
- ▶ Simulation walls promote interactive and hands-on learning methods that increase student engagement and make the learning process more effective.
- ▶ By using simulation walls and digital twins, the students remain at the cutting edge of technology and are better prepared for the demands of the labour market.

# OPTImill<sup>®</sup> F 3 Pro

SIEMENS Control - SINUMERIK 808D Advanced



## Universal milling machines with servo drives

- ▶ Linear guides on all axes
- ▶ Ball screws on all axes
- ▶ Servo drives on all axes (X, Y and Z axes)
- ▶ Tool change at the touch of a button (electropneumatic tool clamping device)
- ▶ Coolant system
- ▶ Central lubrication
- ▶ Signal lamp
- ▶ Solid, high-precision milling table, generously dimensioned and with a precision-finished surface
- ▶ Swivelling control panel
- ▶ The portable, electronic handwheel with jog button and emergency stop toggle switch makes it much easier to run in programmes
- ▶ SINUMERIK 808D on PC<sup>®</sup> software package included
- ▶ Additional package SIEMENS material defects liability and free on-site service OSS see main catalogue

Machine data	F 3Pro
Article no.	3500416
Total connected load ~50 Hz	4.5 KVA / 400 V
Drive motor / torque S1	1.5 kW / 9.5 Nm
Cutter head size	Ø 50 mm
Spindle seat	ISO 30 / BT 30 x 45°
Repeatability	± 0.01 mm
Positioning accuracy	± 0.02 mm
X-, Y-, Z-axis traverse paths	420 / 280 / 190 mm
X-, Y-, Z-axis feed	15 / 15 / 10 m/min.
X-, Y-, Z-axis torque	3.5 Nm / 3.5 Nm / 6 Nm
Speeds <sup>1)</sup>	6000 min <sup>-1</sup>
Table (L x B)	460 x 200 mm
Dimensions (L x W x H) approx.	1410 x 1522 x 2237 mm
Net weight approx.	905 kg

<sup>1)</sup> Please note that the maximum spindle speed must be reduced by approximately 20% during continuous operation.

# OPTImill<sup>®</sup> F 80 / F 105

SIEMENS Control - SINUMERIK 808D Advanced



Fig. F 105

## The compact solution for small batch production in medium-sized companies

- ▶ Main spindle motor from **SIEMENS**
- ▶ **SIEMENS** servo drives on all axes (closed control circuit)
- ▶ Machine with cast stand design for good stiffness values
- ▶ All linear guides with stainless steel covers
- ▶ Automatic centralised lubrication
- ▶ Portable, electronic handwheel with enabling switch and emergency-stop pushbutton,
- ▶ Electro-pneumatic tool clamping device
- ▶ Access doors very generously designed to minimise cleaning and maintenance time
- ▶ LED machine light for complete illumination of the workspace
- ▶ Additional package SIEMENS material defects liability and free on-site service OSS see main catalogue

Machine data	F 80	F 105
Article no.	3501081	3501100
Total connected load ~50 Hz	12 KVA / 400 V	15 KVA / 400 V
Drive motor / torque S1	3.7 kW / 24 Nm	7.5 kW / 48 Nm
Drive motor / torque S6-30 %	5.5 kW / 36 Nm	11 kW / 70 Nm
Spindle seat	BT 40	
Repeatability / positioning accuracy	± 0.01 mm	± 0.008 mm
Tool changer Carousel type	12 tool stations	
Tool change time according to VDI 2852	7 seconds	
X-, Y-, Z-axis traverse paths	450/260/450mm	550/305/460mm
X-, Y-, Z-axis rapid traverse	20 m/min.	15 m/min.
X-, Y-, Z-axis torque	6 / 6 / 11 Nm	8 / 8 / 11 Nm
Speeds <sup>1)</sup>	50 - 10000 min <sup>-1</sup>	10 - 10000 min <sup>-1</sup>
Table (L x B)	800 x 260 mm	800 x 320 mm
Net weight approx.	2300 kg	2800 kg

# OPTi mill® F 150E

SIEMENS Control - SINUMERIK 808D Advanced



## The compact solution for small batch production in medium-sized companies

- ▶ Main spindle motor from **SIEMENS**
- ▶ **SIEMENS** servo drives on all axes (closed control circuit)
- ▶ Carousel tool changer with 16 tool slots
- ▶ All linear guides with stainless steel covers
- ▶ Automatic centralised lubrication
- ▶ Portable, electronic handwheel with enabling switch and emergency-stop pushbutton,
- ▶ Chip conveyor in belt design
- ▶ Chip trolley
- ▶ Coolant unit with 190 litre coolant tank
- ▶ Tools are changed automatically or at the touch of a button
- ▶ Access doors very generously designed to reduce cleaning and maintenance times to a minimum
- ▶ Six levelling feet
- ▶ LED machine light for complete illumination
- ▶ Additional package SIEMENS material defects liability and free on-site service OSS see main catalogue

Machine data	F 150E
Article no.	3501150
Total connected load ~50 Hz	15 kW / 400 V
Drive motor / torque S1	7.5 kW / 48 Nm
Drive motor / torque S6-30 %	11.25 kW / 72 Nm
Spindle seat	BT 40
Repeatability / Positioning accuracy	± 0.008 mm/± 0.008 mm
Servo tool changer	16 tool stations
X-, Y-, Z-axis traverse path	750 / 500 / 500 mm
X-, Y-, Z-axis torque	9.55 / 9.55 / 16.7 Nm
Speeds <sup>1)</sup> Inline spindle	10000 min <sup>-1</sup>
Table (L x W) / T- Slot size	900 x 500 mm / 18 mm
Dimensions (L x W x H) approx.	3400 x 2100 x 2400 mm
Net weight approx.	4500 kg

# OPTi mill® F 200HSC

SIEMENS Control - SINUMERIK 828D

**PREMIUM**  
line



## PREMIUM Excellent precision, solid design, effectiveness and efficiency

- ▶ Heavily ribbed, torsion-free machine base
- ▶ Profile rail with roller recirculation for high rapid traverse speeds
- ▶ High-torque servo drives in all three axes
- ▶ Telescopic guideway cover on all three axes
- ▶ Automatic lubrication
- ▶ Solid, precise milling table with five T-slots
- ▶ Portable, electronic handwheel with enabling switch
- ▶ Coolant device with chip flushing system and cleaning gun
- ▶ Coolant through spindle with 20 bars
- ▶ Chip conveyor in belt design
- ▶ RJ45 plug connection and 230 V power connection
- ▶ Closed switch cabinet with integrated heat exchanger
- ▶ Machine light in the work area
- ▶ Additional package SIEMENS material defects liability and free on-site service OSS see main catalogue

Machine data	F 200HSC
Article no.	3511420
Drive motor / torque S1	10.5 kW / 50 Nm / 400 V
Drive motor / torque S6-30 %	26.4 kW / 125 Nm
Spindle seat	SK 40 / DIN 69871
Repeatability / Positioning accuracy	± 0.005 mm/± 0.005 mm
Servo tool changer	21 tool stations
Tool change time Double-arm gripper	2.5 seconds
X-, Y-, Z-axis drive motor S1	5.34 / 5.34 / 6.68 kW
X-, Y-, Z-axis torque	16 / 16 / 20 Nm
Inline spindle speeds	12000 min <sup>-1</sup>
Table (L x W) / T- Slot size	1000 x 500 mm / 18 mm
Dimensions (L x W x H) approx.	2400 x 2355 x 2860 mm
Net weight approx.	5500 kg

<sup>1)</sup> Please note that the maximum spindle speed must be reduced by approximately 20% during continuous operation.

# OPTi turn® L 28HS

SIEMENS Control - SINUMERIK 808D Advanced



## CNC-controlled flat bed lathe with linear guide

- ▶ Feed motors from **SIEMENS**
- ▶ Braced machine bed made from grey cast-iron
- ▶ Complex spindle bearing
- ▶ Central lubrication
- ▶ Incremental encoder for spindle positioning
- ▶ Clockwise/anticlockwise rotation
- ▶ Reference switch
- ▶ Maintenance-friendly protective housing
- ▶ Rear access flap for maintenance
- ▶ Safety switch on the front sliding door
- ▶ Linear guide
- ▶ Turning turret is located behind the turning centre (left turning tool)
- ▶ Additional package SIEMENS material defects liability and free on-site service OSS see main catalogue

Machine data	L 28HS
Article no.	3504220
Total connected load ~50 Hz	3.75 KVA / 400 V
Drive motor S1 operation	2.2 kW
Torque drive motor/on spindle	14 Nm / 28 Nm
Spindle seat	DIN 6350 A2-3
Spindle bore	Ø 30 mm
Centre height/width	169 mm / 430 mm
Swing Ø above cross slide	200 mm
Swing Ø above machine bed	300 mm
Spindle speeds <sup>1)</sup>	40 - 4000 min <sup>-1</sup>
Number of tool positions	6 tools
Repeatability / positioning accuracy	± 0.01 mm
X- / Z-axis traverse paths	145 / 465 mm
Dimensions (L x W x H) approx.	1655 x 1590 x 1955 mm
Net weight approx.	832 kg

# OPTi turn® S 400HSC

SIEMENS Control - SINUMERIK 828D Advanced

**PREMIUM**  
line



## PREMIUM CNC slant bed lathe for high speed, performance and precision

- ▶ Servomotors from **SIEMENS** in all axes
- ▶ All servomotors with integrated encoder
- ▶ Renishaw tool measuring arm for tool measuring
- ▶ Main spindle designed as motorised spindle
- ▶ Slant bed design 45°
- ▶ Hydraulic three-jaw lathe chuck Ø 170 mm with soft jaws
- ▶ Hardened and precision-ground ball screws for high rapid traverse speeds in all axes
- ▶ High hydraulic clamping force
- ▶ Heavy-duty machining without vibration, for realising machining automation and high efficiency in extreme cases
- ▶ Dimensionally stable linear guides
- ▶ Device for manual tool measurement
- ▶ Heat exchanger
- ▶ Portable, electronic handwheel with enabling switch
- ▶ Work light
- ▶ EMC (electromagnetic compatibility)
- ▶ Additional package SIEMENS material defects liability and free on-site service OSS see main catalogue

Machine data	S 400HSC
Article no.	3515175
Total connected load ~50 Hz	25 KVA / 400 V
Drive motor / torque S1	11.6 kW / 65 Nm
Drive motor / torque S6-30 %	14.4 kW / 81 Nm
Spindle seat	A2-5
Spindle bore <sup>1)</sup>	Ø 56 mm
Max. turning Ø / Turning length	220 mm / 320 mm
Swing Ø above cross slide	300 mm
Swing Ø above machine bed	500 mm
Spindle speeds <sup>2)</sup>	6000 min <sup>-1</sup>
Number of tool positions	12 tools
Repeatability/positioning accuracy	± 0.004 / ± 0.004 mm
X- / Z-axis traverse paths	180 / 350 mm
Dimensions (L x W x H) approx.	2000 x 2250 x 1550 mm
Net weight approx.	2600 kg

<sup>1)</sup> Please note that the maximum spindle speed must be reduced by approximately 20% during continuous operation. <sup>2)</sup> depending on the lining fitted

# OPTi turn<sup>®</sup> L 44

SIEMENS Control - SINUMERIK 828D basic

**PREMIUM**  
line



## PREMIUM CNC lathe with the advantages: Speed, performance and precision

- ▶ Spindle and servo motors from **SIEMENS**
- ▶ Fully cladded with safety device
- ▶ Integrated coolant system with 90 litre coolant tank
- ▶ Automatic centralised lubrication
- ▶ With spindle speed up to 3000 min<sup>-1</sup> as standard
- ▶ Swivelling control unit
- ▶ Electronic handwheels for the X- and Z-axes
- ▶ RJ45 plug connection, USB connection and 230 V power connection
- ▶ Tailstock cover
- ▶ 6 pieces levelling feet
- ▶ Hydraulic three-jaw lathe chuck Ø 150 mm
- ▶ Hard and soft block jaws
- ▶ Heat exchanger
- ▶ EMC Electromagnetic compatibility
- ▶ Operating tool
- ▶ Additional package SIEMENS material defects liability and free on-site service OSS see main catalogue

Machine data	L 44
Article no.	3514330
Total connected load ~50 Hz	23 KVA / 400 V
Drive motor / torque S1	7 kW / 33 Nm
Drive motor / torque S6-30 %	16 kW / 80 Nm
Spindle seat	DIN ISO 702-1 No. 5
Spindle bore <sup>1)</sup>	Ø 52 mm
Centre height/width	223 mm / 850 mm
Chuck passage	Ø 40 mm
Spindle speed <sup>2)</sup> , 2 stages	10 - 3000 min <sup>-1</sup>
Hydraulic type tool turret	VDI 30
Number of tool positions	8 tools
X- / Z-axis traverse paths	250 mm / 760 mm
X- / Z-axis torque	6 Nm / 8.5 Nm
Dimensions (L x W x H) approx.	2530 x 1595 x 1795 mm
Net weight approx.	2600 kg

<sup>2)</sup> depending on the lining fitted

# OPTi turn<sup>®</sup> S 600M

SIEMENS Control 828D with PPU 270

**PREMIUM**  
line



## PREMIUM CNC slant bed lathe with C-axis, for high speed and precision

- ▶ Servomotors from **SIEMENS** in all axes
- ▶ All servomotors with integrated encoder
- ▶ Renishaw measuring arm for manual tool measurement
- ▶ Slant bed design 45° for particularly large machining diameter
- ▶ Hydraulic 3-jaw lathe chuck Ø 200 mm
- ▶ Hardened and precision ground ball screws for high rapid traverse speeds in all axes
- ▶ Ball screw with improved accuracy, rigidity and heat resistance.
- ▶ The motor is located on the side of the machine and prevents heat transfer and vibrations caused by the motor.
- ▶ Sauter tool changer
- ▶ Dimensionally stable linear guides ensure a long service thanks to maximum static and dynamic stiffness
- ▶ Tailstock with hydraulic quill
- ▶ Heat exchanger
- ▶ Chip conveyor in belt design

Machine data	S 600M
Article no.	3515185
Total connected load ~50 Hz	40 KVA / 400 V
Drive motor / torque S1	11 kW / 70 Nm
Drive motor / torque S6-30 %	22 kW / 140 Nm
Spindle seat	DIN ISO 702-1 No. 6
Spindle bore <sup>1)</sup>	Ø 65 mm
Turning diameter / turning length	320 mm / 475 mm
Swing Ø above cross slide	400 mm
Swing Ø above machine bed	570 mm
Spindle speed <sup>2)</sup> , 2 stages	30 - 4000 min <sup>-1</sup>
Hydraulic type tool turret	VDI 40
Number of tool positions	12 tools
Repeatability / positioning accuracy	± 0.002 mm / ± 0.004 mm
Dimensions (L x W x H) approx.	4570 x 1845 x 1955 mm
Net weight approx.	4200 kg



# QUALITY WORK NEEDS QUALITY MACHINES



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Art. no. 3403046

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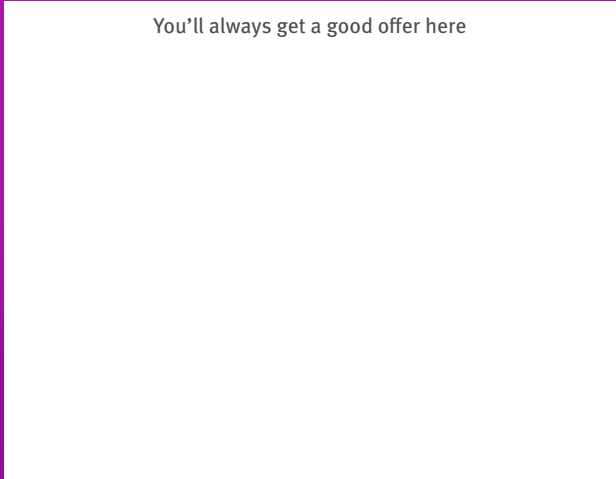


**OPTIMUM Maschinen Germany GmbH**  
Dr.-Robert-Pfleger-Str. 26 | D-96103 Hallstadt (Germany)  
www.optimum-machines.com

**Stürmer Maschinen GmbH**  
Dr.-Robert-Pfleger-Str. 26 | D-96103 Hallstadt (Germany)  
Phone +49 (0) 9 51 - 96 555 - 0  
info@stuermer-maschinen.de | www.stuermer-maschinen.de

**Aircraft Kompressorenbau GmbH**  
Gewerbstraße Ost 6 | A-4921 Hohenzell (Austria)  
Phone +43 (0) 77 52 - 7 09 29 - 0 | www.aircraft.at

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