

# **SPINDLE** MOULDERS

MADE IN GERMANY



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### **f**0**a**

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MADE IN GERMAN'









# **FOREWORD**



REINHOLD BECK,
MANAGING DIRECTOR
(RIGHT IN THE PICTURE)
ALEXANDER BECK,
OPERATIONS MANAGER
(LEFT IN THE PICTURE)

#### THE FAMILY COMPANY WITH EXPERIENCE

HO|KU|BE|MA Maschinenbau GmbH is a family-owned company that develops and distributes reliable and innovative machines for PANHANS. As a competent specialist company, we offer a comprehensive range of services in the development and manufacture of machines and systems for wood, plastic and metal processing companies. Our traditional company combines many years of knowledge from professional activity with the most modern requirements of today and develops innovative solutions.

Equipped with the most modern machines, we guarantee the conscientious and high quality of our products. Decades of experience and expertise flow into every job. Our quality standards are extremely high in order to achieve the best possible product for you. In compliance with the test criteria, the solid German machine construction is produced in accordance with the regulations. As a successful medium-sized company, we manufacture high-quality machines

with precision "Made in Germany" at our Sigmaringen site in Baden-Württemberg.

With our machines, we not only want to satisfy you as a customer, but also to make you enjoy working with products from HO|KU|BE|MA. For us, service means that you as a customer are satisfied and can get the information you need in different ways at any time. Sometimes the service by phone, mail or WhatsApp is not enough. In this case we are also happy to offer you our on-site service. A trained and competent service technician will assist you in your workshop. The on-site service also includes maintenance and repair work on the machines, if required. If required, the on-site service also includes maintenance and repair work on the machines.

The longevity of your PANHANS machine is close to our hearts. We see ourselves not only as a service provider and supplier, but much more as the specialist partner at your side.

REINHOLD BECK

Reinhold Jed

MANAGING DIRECTOR

**ALEXANDER BECK**OPERATIONS MANAGER



# **SPINDLE** MOULDERS

### **MACHINE OVERVIEW**

Precise work at the highest level is required for the production of a wide variety of parts. Components have to be manufactured with an exact fit and later brought together. This precision work requires not only specific tools, but also a reliable machine with a pleasant and advantageous operating concept. A spindle moulder from PANHANS has such a well thought-out operating concept for precise work. In addition to effective, economical and safe working, the tilting spindle moulder also provide a special customer benefit: The storage of various tools and programs.





SPINDLE MOULDER

245|10

**EQUIPMENT DETAILS** FROM PAGE 06

**OPTIONS + EXTENSIONS** FROM PAGE 07



SPINDLE MOULDER

245|20

**EQUIPMENT DETAILS** FROM PAGE 14

**OPTIONS + EXTENSIONS** FROM PAGE 15





SPINDLE MOULDER

245|100

**EQUIPMENT DETAILS** FROM PAGE 24

**OPTIONS + EXTENSIONS** FROM PAGE 25



SPINDLE MOULDER

245|200

**EQUIPMENT DETAILS** FROM PAGE 34

**OPTIONS + EXTENSIONS** FROM PAGE 35



SPINDLE MOULDER

245|300

**EQUIPMENT DETAILS** FROM PAGE 44

**OPTIONS + EXTENSIONS** FROM PAGE 45



# **245**|10







**VOLTAGE** 400 V / 50 H

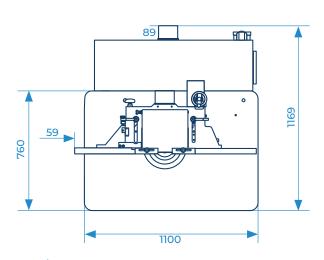
SPACE REQUIREMENT approx. 1200 x 1400 mm

Solid basis and highest quality level: The tilting spindle moulder 245|10 consciously abstains from electronic controls and functional elements.

### **TECHNICAL SPECIFICATIONS**

Table height  Milling spindle with quick clamping nut  Clamping height	0x760 mm			
Milling spindle with quick clamping nut Clamping height				
quick clamping nut Clamping height	870 mm			
	30 mm			
	140 mm			
Height adjustment	140 mm			
Spindle tilt range -5/+45.				
Speed 3000 / 4500 / 6000 / 9000 rp				
Milling protection and GAM pressure device	има V 1629			
Ring fence	1639 Tapoa			
Suction nozzles 2	xø 120 mm			
Net weight app	rox. 800 kg			
Drive belt tensioning device				
Optional milling spindle with different diameter				
Counterclockwise and clockwise rotation				
Finely planed cast iron table				
Operation via handwheel at the bottom of the machine stand				
Milling fence 215 total adjustment via handwheel incl. multiplex fence plates				
Mechanical motor brake				
Digital position and speed indicators				

ART. NO.: 4523





Height and tilt adjustment via handwheels

### HIGHLIGHT FOCUS ON QUALITY

Manual adjustment wheels and analogue displays have been combined with high-quality materials, careful manufacturing and maximum functionality.



#### **FUNCTIONS**

- 1 MILLING SPINDLE
  Table spindle moulder with one-sided tiltable fixed spindle. Tilt range
  -5° to +45.5°.
- 2 MILLING FENCE
  Equipped with milling fence type
  215, with multiplex fence plates, total adjustment via handwheel and
  individual jaw adjustment via star
  grip and scale.
- GREY CAST IRON TABLE
  Finely planed cast iron table for optimum machining and durability.
- 4 MAIN SWITCH
  Lockable main switch for more safety when working. Also equipped with an electric motor brake and a machine socket.
- 5 CONTROL
  Operation via handwheel, clearly
  visible at the bottom of the machine
  body.
- 6 ENGINE POWER
  With an engine power of 5.5 kW, 4 speeds are available in the standard version by shifting the drive belt.
- 7 GAUGES
  Indication and adjustment for height and swivel adjustment is carried out via the analogue dial gauges and handwheels.



# **EQUIPMENT DETAILS + OPTIONS:** 245|10

#### **ADJUSTMENT WHEELS OPERATION**

The analogue dial indicators show the current values. The height and swivel adjustments are carried out manually via adjustment wheels.



#### **4 SPEEDS**

The four speeds 3000 / 4500 / 6000 / 9000 rpm are indicated by an electric speed indicator and changed over by a quick belt tensioning device.



### OPTION:

#### **MILLING FENCE 216**

The total adjustment can be made via the handwheel and the LCD indicator. The individual jaw adjustments including cast fence plates are made via star knob and scale.

ART. NO.: 4274



#### OPTION:

### HYDRAULIC SWIVEL-AWAY DEVICE

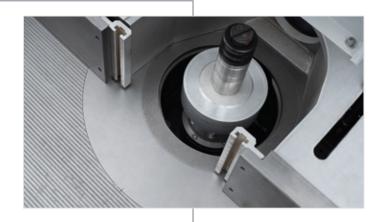
The hydraulic swivel-away device ensures comfortable and safe lifting and swivelling of the milling fence. The fence can be lifted off and swivelled backwards quickly and effortlessly during curved milling work.



#### **TURNTABLE**

This allows the milling fence to be rotated  $360^{\circ}$  on the machine table (only for table top  $1100 \times 760$  mm).

ART. NO.: 4466



#### OPTION:

# EXTENDABLE FRAME SUPPORT, FOR TABLE TOP 1100 X 760 MM

Total length approx. 1375 mm, pull-out depth approx. 892 mm from the milling spindle centre, guided in separate bearing blocks at the side of the machine table, smooth-running, with emergency stop button.

ART. NO.: 4232



### OPTION:

### TABLE TOP EXTENSION ON BOTH SIDES

For table top 1100 x 760 mm, total length 2300 mm, consisting of 2 pieces of finely planed cast iron table tops as extension each on the left and right side of the standard machine table, with smooth-running frame support approx. 870 mm extendable to the front, with emergency stop button.

ART. NO.: 4630



#### OPTION:

#### **KICKBACK GUARD 1648**

For safe insertion milling of long and short parts, infinitely adjustable from 0–1500 mm, for spindle moulders with table top extension.





## **EQUIPMENT DETAILS + OPTIONS:** 245 | 10

#### OPTION:

# TABLE SLIDE PLATE, FOR TABLE TOP 1100 X 760 MM

The patented slide plate top with grid structure does not change the total depth when the table slide is placed on the max. table openings. The distance from the front edge to the spindle remains the same, for easy operation. The table slide plate is infinitely adjustable in depth. A high fitting accuracy without interfering edges is guaranteed.

ART. NO: 4467



#### OPTION:

# 1 SET OF SAFETY RULERS FOR MILLING FENCES

As a continuous guide between the two fence plates consisting of 2 pieces of ruler 260 x 6 mm, 3 pieces of ruler 260 x 3 mm, 1 moulding board of multiplex 260 x 150 x 12 mm, including sliding blocks and Allen key.

ART. NO.: 2093



### OPTION:

#### **CENTREX**

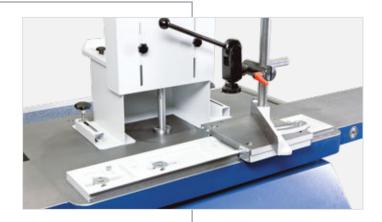
Milling protection and pressure device for secure fixing of workpieces during manual milling operations; the special shape of the pressure shoe ensures precise workpiece guidance during all milling operations, fixed to the milling fence, can be folded up, instead of standard milling protection and pressure device GAMMA V 1629.



#### OPTION:

### **TENONING AND SLOTTING DEVICE 1376**

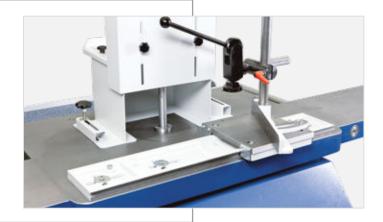
Mounted on the machine table for light tenoning and slotting work with eccentric clamp and adjustable mitre fence. Sliding length 710 mm, height above table approx. 56 mm. When working with the tenoning and slotting device 1376, the protective cover type 1641 must be used.



#### **PROTECTIVE COVER 1641**

For tenoning and slotting attachment with suction nozzle Ø 120 mm for tool diameters from 250 to 350 mm.

ART. NO.: 2235



#### OPTION:

#### **POWER FEEDER PV 84**

4 rollers 120 x 60 mm, 8 speeds: 2/4 /5.6/6.7/11/13/16.5/33 m/min, two directions of rotation, stand with extension arm 1050 mm, can be used individually horizontally and vertically, incl. mounting, cable and plug.



#### OPTION:

### **POWER FEEDER VARIOMATIC 4 N**

4 rollers, infinitely variable feed speed from 2–18 m/min. Two directions of rotation, quick turning from horizontal to vertical use; easy swivelling away and positioning with memory-lock system; with comfort stand, numerical height display, extension arm 1050 mm long, incl. mounting, cable and plug.

ART. NO.: 4638



#### OPTION:

#### **RIGID CONSOLE**

For mounting a feed unit approx. 195 x 180 mm laterally on the left side of the table top; mandatory when using routing fence 204, 302, 320 and integral fence plates 650 + 650 mm, with table top 1100 x 760 mm.





### **OPTIONS + EXTENSIONS:** 245|10

#### **TECHNICAL EXTENSION**



#### DRIVE MOTOR

ART. NO. 4271 Motor with 7.5 kW (10 HP) instead of 5.5 kW

### **ACCESSORIES** TABLE SYSTEMS



#### TABLE TOP EXTENSION ON BOTH SIDES

For table top 1340 x 800 mm, total length
2500 mm, consisting of 2 pieces of fine planed
cast iron table tops as extension, each on the left
and right side of the standard machine table



#### LARGE TABLE TOP, SIZE 1340 X 800 MM, WITH TURN-TABLE

ART. NO. 4423

And frame support 1340 mm, extendable up to approx. 970 mm instead of standard table top 1100 x 760 mm, option: table top extension Art. No. 4215, table slide plate not possible



# LARGE TABLE TOP, SIZE 1340 X 800 MM, WITHOUT TURNTABLE

ART. NO. 44231

With frame support 1340 mm extendable up to approx. 970 mm instead of standard table top 1100 x 760 mm, option: table top extension Art. No. 4215

### **ACCESSORIES** MILLING FENCES



#### **MILLING FENCE 216**

ART. NO. 4274 Made of die-cast aluminium with flat-milled cast iron stop plates with aluminium splinter tongues, length 500 mm; to attach optional safety rulers and a moulding board. Total adjustment via handwheel and LED display, adjustment of fence plate left via star grip and scale, +5 to -25 mm, max. tool diameter 250 mm, instead of standard milling fence 215



#### MANUAL-HYDRAULIC SWIVEL-AWAY DEVICE

ART. NO. 4349

For comfortable and safe lifting and swivelling of the fence into a neutral position without exerting force. Recommendation: additional console for power feeder Art. No. 4561

### SPECIAL ACCESSORIES



#### MACHINE ACCESS CONTROL

ART. NO. -4655

User database and machine access control TM-100, key system for individual machine accesses with a total of 5 key tags, 1 of which is an administrator key for full access; a reliable and secure solution for machine activation

#### **RECOMMENDED SPECIAL ACCESSORIES:**

**SAFETY TECHNOLOGY |** ON PAGE 50

**MACHINE ACCESS CONTROL** | ON PAGE 51

#### **ACCESSORIES** SERVICES



#### **ASSEMBLY OF A FEED UNIT**

ART. NO. 4028 Delivery by the customer to us by a carriage paid delivery



#### INSTRUCTION BY FACTORY TECHNICIAN

Or training at the Sigmaringen factory for the machine ordered, plus travel expenses if the instruction takes place at the customer's site



#### **WARRANTY PLUS+12**

ART. NO. 4254 12 months extended warranty (following the legal warranty period of 12 months), not on wear parts—warranty 1 year on parts



4175

#### **MAINTENANCE AND INSPECTION**

Annual maintenance and inspection on site according to maintenance plan, spare parts are charged separately, plus travel expenses



# MACHINES AND ACCESSORIES TO TRY OUT, EXPERIENCE, FALL IN LOVE ...

Our showroom in Sigmaringen in southern Germany is a year-round product presentation and is used for trying out machines and our SI-TEC safety products. Test\* our professional woodworking and plastics processing machines before you buy. We will also be happy to advise you personally on site.

# \*Please note that for safety reasons the exhibits may only be used by the visitor with his own material and tools during the machine test.

#### **WE OFFER YOU:**

- Machine demonstration by experts
- Qualified advice from specialist personnel
- Professional instruction for your personal protection
- Explanation of functions and accessories
- Trying out all products



# **245**|20









SPACE REQUIREMENT

The table of the tilting spindle moulder 245|20 is made of thick-walled, highly ribbed and torsion-resistant grey cast iron.

#### **TECHNICAL SPECIFICATIONS**

Table size		1100 x 760 mm
Table height		870 mm
Milling spindle quick clampin		30 mm
Clamping heig	ht	140 mm
Height adjustr	nent	125 mm
Spindle tilt ran	ge	-5/+45.5°
Speed		3000 / 4500 / 6000 / 9000 rpm
Milling protect pressure device		GAMMA V 1629
Ring fence		1639 Tapoa
Suction nozzle	S	2xø 120 mm
Net weight		approx. 800 kg
		eight and tilt adjustment

with zeroing of height and incremental offset mode

Digital position and speed indicators

Drive belt tensioning device

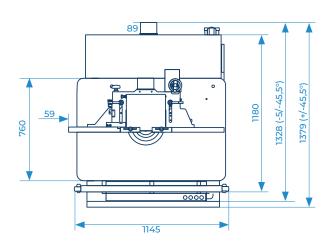
Counterclockwise and clockwise rotation

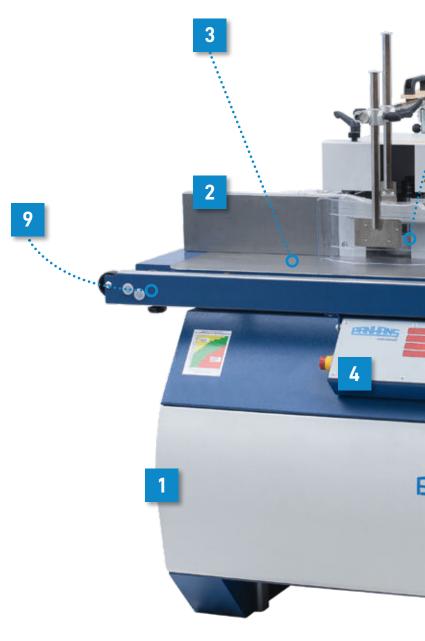
Optional milling spindle with different diameter

Control panel at the bottom of the rigid frame support

Mechanical motor brake

Milling fence type 216 with total adjustment via handwheel and LCD indicator incl. cast fence plates and aluminium splitter tongues





# HIGHLIGHT MODERN STEEL CONSTRUCTION

The modern and robust steel construction of the machine stand ensures perfect and safe working.



#### **FUNCTIONS**

- MACHINE CONSTRUCTION
  Solid machine construction "Made in Germany" for a long service life and robust operation.
- 2 MILLING FENCE
  216 milling fence with total adjustment via handwheel and LCD indicator incl. cast fence plates and aluminium splitter tongues.
- GREY CAST IRON TABLE
  The table is made of thick-walled,
  highly ribbed and torsion-resistant
  grey cast iron.
- CONTROL
  Electronic position and speed display.
  Electrical height and tilt adjustment of the milling spindle via positioning control as well as push-buttons for conventional or climb milling.
- MILLING SPINDLE

  Table moulder with one-sided tiltable fixed Ø 30 mm milling spindle.

  Tilt range -5° to +45.5°.
- 6 SAFETY
  Various functions ensure greater
  safety during work, such as a lockable main switch and electric motor
  brake.
- 7 QUICK BELT TENSIONER
  Four speeds of 3000 / 4500 / 6000 /
  9000 rpm make it possible to work
  with maximum precision and at the
  highest quality level.
- 8 OPTION: HYDRAULIC SWIVEL-AWAY DEVICE

The swivel-away device ensures that the fence can be lifted off the table and swivelled to the rear quickly and without effort during curved milling operations.

ART. NO.: 4349

9 OPTION: EXTENDABLE FRAME SUPPORT
Guided in separate bearing blocks
on the side of the machine table
and smooth-running. Including
emergency stop button and additional support for control panel.

ART. NO:: 4232



## **EQUIPMENT DETAILS + OPTIONS:** 245 | 20

#### **POSITION CONTROL**

The positions for the height and tilt adjustment as well as for the zeroing of the height and offset are visualised by two digital display windows. Exact values can be entered via keyboard. Additional push buttons for positioning, spindle start and stop as well as the direction of rotation switch are located next to the input keys on the control panel.



# MILLING SPINDLE WITH QUICK-CLAMPING NUT

The 30 mm milling spindle has a quick-action clamping nut for fast tool change and for process optimisation in your workflow.



### OPTION:

SPINDLE TILT RANGE +/- 45.5°

Instead of +45.5° to -5°, you can optionally extend the tilt range of the milling spindle to +45.5° to -45.5° for a wider range of applications (Illustration with table slide plate).

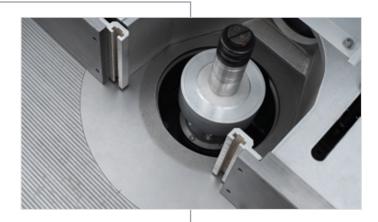
ART. NO.: 4541



### OPTION:

#### **TURNTABLE**

The turntable is used to rotate the fence type 216 on the machine table by 360°.



#### **CONTROL PANEL ON TOP**

Ergonomic and user-friendly, operating elements always at eye level, mounted on the right side behind the table top, instead of the control panel below.

ART. NO.: 4632



#### OPTION:

# 1 SET OF SAFETY RULERS FOR MILLING FENCES

As a continuous guide between the two fence plates consisting of 2 pieces of ruler 260 x 6 mm, 3 pieces of ruler 260 x 3 mm, 1 moulding board of multiplex 260 x 150 x 12 mm, including sliding blocks and Allen key.

ART. NO.: 2093



#### OPTION:

#### **POWER FEEDER PV 84**

4 rollers 120 x 60 mm, 8 speeds: 2/4 /5.6/6.7/11/13/16.5/33 m/min, two directions of rotation, stand with extension arm 1050 mm, can be used individually horizontally and vertically, incl. mounting, cable and plug.

ART. NO.: 4029



#### OPTION:

#### **POWER FEEDER VARIOMATIC 4 N**

4 rollers, infinitely variable feed speed from 2–18 m/min. Two directions of rotation, quick turning from horizontal to vertical use; easy swivelling away and positioning with memory-lock system; with comfort stand, numerical height display, extension arm 1050 mm long, incl. mounting, cable and plug.





# **EQUIPMENT DETAILS + OPTIONS:** 245 20

#### OPTION:

#### **KICKBACK GUARD 1648**

For safe insertion milling of long and short parts, infinitely adjustable from 0–1500 mm, for milling machines with table top extension.

ART. NO.: 2002



#### OPTION:

ZEROMASTER CALIBRATION DEVICE For exact zero point height setting from the cutter to the table top.

ART. NO.: 2205

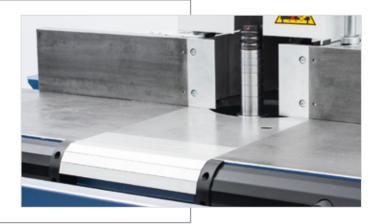


### OPTION:

# TABLE SLIDE PLATE, FOR TABLE TOP 1100 X 760 MM

The patented slide plate top with grid structure does not change the total depth when the table slide is placed on the max. table openings. The distance from the front edge to the spindle remains the same, for easy operation. The table slide plate is infinitely adjustable in depth. A high fitting accuracy without interfering edges is guaranteed.

ART. NO.: 4467



### OPTION:

# EXTENDABLE FRAME SUPPORT, FOR TABLE TOP 1100 X 760 MM

Total length approx. 1375 mm, pullout depth approx. 892 mm from the milling spindle centre, guided in separate bearing blocks at the side of the machine table, smooth-running with emergency stop button.



#### TABLE TOP EXTENSION ON BOTH SIDES

For table top 1100 x 760 mm, Total length 2300 mm, consisting of 2 pieces of finely planed cast iron table tops as extension each on the left and right of the standard machine table, with smooth-running frame support approx. 892 mm, extendable to the front. Emergency stop button included.

ART. NO.: 4465



#### OPTION:

#### **TABLE EXTENSION ONE-SIDED RIGHT**

For table top 1340 x 800 mm: Finely planed cast iron table top as extension on the right side of the standard machine table, thus total length = 1950 mm, with smooth-running frame support approx. 970 mm, extendable to the front. Emergency stop button included.

ART. NO.: 4217



### OPTION:

# MANUAL MILLING ARBOR QUICK CHANGE SYSTEM HSK-80

Instead of fixed standard milling spindle, the optional HSK system serves as interface for different clamping spigot diameters, with 30 mm milling arbor and quick-action clamping nut. Unique system as it ensures higher concentricity and enables easy exchange of the milling arbor. Other arbors with different diameters are available on request. Optionally with spanner nut instead of quick clamping nut. ART.NO: 4635



#### OPTION:

#### MILLING ARBOR HSK 80 Ø 40 MM

Exchangeable, dynamically balanced for optimum concentricity, clamping height 160 mm, with cutter arbor rings and cutter quick-clamping device via Allen key with anti-rotation device, instead of standard milling spindle 30 mm, available in different diameters e.g. 40 mm (Note: other milling arbor diameters on request).





## **EQUIPMENT DETAILS + OPTIONS:** 245 | 20

#### OPTION:

# INTEGRAL FENCE PLATES INFEED/OUTFEED 500 + 500 MM

With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates. Further lengths on page 50.

ART. NO.: 4170



#### OPTION:

#### **MOVABLE CONSOLE**

Mounted on the left side of the machine column with joint for swivelling away the feed attachment, mandatory for roller table No. 4491.1 as well as milling fence types 204, 302, 320 and integral fence plates 650+650 mm.





### OPTION:

#### **RIGID CONSOLE**

For mounting a feed unit approx. 195 x 180 mm laterally on the left side of the table top; mandatory when using milling fence types 204, 302, 320 and integral fence plates 650 + 650 mm with table top 1100 x 760 mm.

ART. NO.: 4664



### OPTION:

#### **MILLING FENCE 204**

Made of die-cast aluminium, with aluminium splitter tongues, to attach optional safety rulers and moulding board. Total adjustment via handwheel and LCD indicator to 0.1mm, adjustment range approx. 140 mm, partial fence adjustment via handwheel and LCD indicator to 0.1mm, adjustment range approx. +10 to -22 mm with comfort clamping on the machine table.



# MILLING AND PROTECTION DEVICE CENTREX 1624

Ensures for secure fixing of workpieces during manual milling operations; the special shape of the pressure shoe ensures precise workpiece guidance during all milling operations and is infinitely adjustable horizontally and vertically. With good view of the workpiece. Suitable for all milling fences.

ART. NO.: 2220

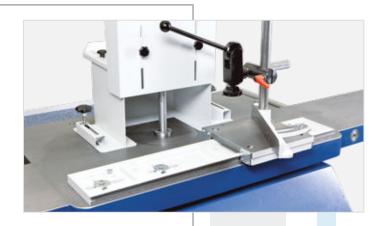


#### OPTION:

#### **TENONING AND SLOTTING DEVICE 1376**

Mounted on the machine table for light tenoning and slotting work with eccentric clamp and adjustable mitre fence. Sliding range 710 mm, height above table approx. 56 mm. When working with the tenoning and slotting device 1376, the protective cover type 1641 must be used.

ART. NO.: 4547



### OPTION:

### **PROTECTIVE COVER 1641**

Addition for the tenoning and slotting device, with suction nozzle Ø 120 mm for tool diameters from 250 to 350 mm.

ART. NO.: 2235



#### OPTION:

# CROSS-CUT FENCE LAS-M AND EXTENSION FOR LAS-M

With its length of 1750 mm, the crosscut fence LAS-M offers an ideal addition to the roller table Art. No. 4491.1. As a further option, the cross-cut fence LAS-M can be extended up to 2750 mm.

ART. NO.: 4417, 4418





# **EQUIPMENT DETAILS + OPTIONS:** 245 | 20

#### OPTION:

#### **ROLLER TABLE**

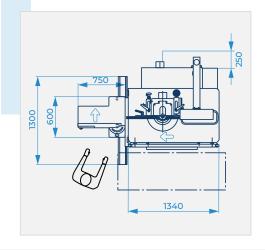
With stop fixture, eccentric clamp, clamping table can be pushed in up to the milling spindle incl. protective bonnet 1641, suction nozzle ø 120 mm, with graduated

height adjustment, upper position as roller table, lower position as table extension left.



ART. NO.: 4491.1







### **OPTIONS + EXTENSIONS:** 245 20

#### **TECHNICAL FXTFNSION**



TILT RANGE OF THE MILLING SPINDLE +/- 45.5°

ART. NO.

Instead of +45.5° to -5°



#### **DRIVE MOTOR**

Motor with 7.5 kW (10 HP) instead of 5.5 kW

#### **ACCESSORIES** TABLE SYSTEMS



#### TABLE TOP EXTENSION ON BOTH SIDES

For table top 1340 x 800 mm, total length 2500 mm, consisting of 2 pieces of fine planed cast iron table tops as extension, each on the left and right side of the standard machine table, with smooth-running frame support approx. 970 mm extendable to the front and with emergency stop button



#### LARGE TABLE TOP, SIZE 1340 X 800 MM, WITHOUT **TURNTABLE**

With frame support 1340 mm extendable up to approx. 970 mm instead of standard table top 1100 x 760 mm, option: table top extension Art. No. 4215



#### LARGE TABLE TOP, SIZE 1340 X 800 MM, WITH TURN-**TABLE**

ART. NO.

And frame support 1340 mm, extendable up to approx. 970 mm instead of standard table top 1100 x 760 mm, option: table top extension Art. No. 4215, table slide plate not possible

#### **ACCESSORIES MILLING FENCE**



#### **INTEGRAL FENCE PLATES** INFEED/OUTFEED 650/500 MM

ART. NO. 4169

With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates



#### MANUAL-HYDRAULIC SWIVEL-AWAY DEVICE

ART. NO. 4349

For comfortable and safe lifting and swivelling of the fence into a neutral position without exerting force. Recommendation: additional console for power feeder Art. No. 4663



### **INTEGRAL FENCE PLATES** INFEED/OUTFEED 650/650 MM

ART.NO. With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates

### **ACCESSORIES** ROLLER TABLE AND SLOTTING DEVICE



#### **CROSS-CUT FENCE LAS-M**

ART. NO.

Right-hand version for system tools to process workpieces in pairs, effective length = 1750 mm, slide system with multiple stop and 3 adjustment rings for cross-cut positioning with splitter tongue



#### **TENONING AND SLOTTING DEVICE 1376**

ART. NO. 4547

Mounted on the machine table for light tenoning and slotting work, with eccentric clamp and adjustable mitre fence. Sliding length 710 mm, height above table approx. 56 mm



#### **EXTENSION FOR CROSS-CUT FENCE LAS-M**

Total length 1000 mm, effective length 1750 to 2750 mm



#### **PROTECTIVE COVER 1641**

Addition for the tenoning and slotting device, with suction nozzle Ø 120 mm for tool diameters from 250 to 350 mm

#### SPECIAL ACCESSORIES



#### MACHINE ACCESS CONTROL

ART. NO.

User database and machine access control TM-100, key system for individual machine accesses with a total of 5 key tags, 1 of which is an administrator key for full access; a reliable and secure solution for machine activation

#### RECOMMENDED SPECIAL ACCESSORIES:

**SAFETY TECHNOLOGY |** ON PAGE 50

**MACHINE ACCCESS CONTROL** | ON PAGE 51

#### **ACCESSORIES** SFRVICES



#### **ASSEMBLY OF A FEED UNIT**

Delivery by the customer to us by a carriage paid delivery



#### **WARRANTY PLUS+12**

ART NO

12 months extended warranty (following the legal warranty period of 12 months), not on wear parts-warranty 1 year on parts



#### **INSTRUCTION BY FACTORY TECHNICIAN**

ART. NO.

Or training at the Sigmaringen factory for the machine ordered, plus travel expenses if the instruction takes place at the customer's site



#### **MAINTENANCE AND INSPECTION**

ART. NO. 4175

Annual maintenance and inspection on site according to maintenance plan, spare parts are charged separately, plus travel expenses



# **245**|100







400 V / 50 H

SPACE REQUIREMENT approx. 1500 x 1400 mm

The proven features and equipment characteristics of well-known PANHANS spindle moulders have been have been paired with new functions and components.

### **TECHNICAL SPECIFICATIONS**

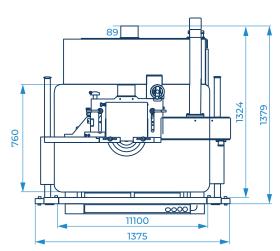
TECHNICAL	SPECIFIC	ATIONS
Table size		1100 x 760 mm
Table height		870 mm
Clamping heig	ht	140 mm
Height adjustr	ment	125 mm
Spindle tilt rar	nge	-5/+45.5°
Tool and program mem	nory	with 3 tools and 20 programs per tool
Speed		3000/4500/6000/9000rpm
Control system Capacitive 7" t		scratch and shock resistant
Milling protect		GAMMA V 1629
Ring fence		1639 Tapoa
Milling spindle clamping nut	with quick	30 mm
Suction nozzle	es	2 x ø 120 mm
Net weight		approx. 800 kg
2-axis position	ing control fo	r height and tilt adjustment
Digital position	n and speed i	ndicators
Counterclocky	vise and clock	wise rotation
Fine-planed gr	rey cast iron ta	able with rigid frame support

(drawing see page 12)

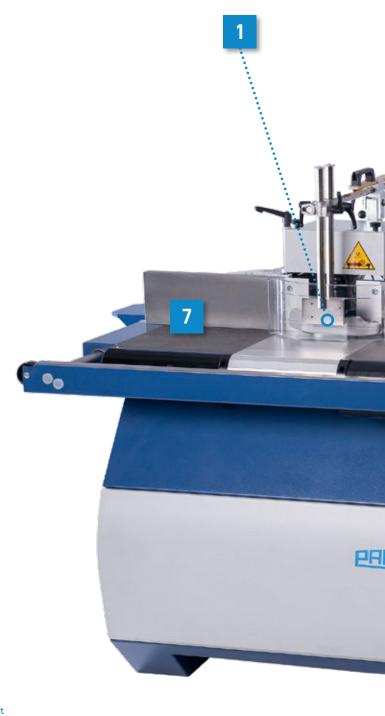
Mechanical motor brake

Control panel can be attached on top or bottom

Milling fence 301, manually operated via handwheel, readable on touchscreen



Drawing with frame support Art. No. 4232.



#### HIGHLIGHT

# FROM NOW ON IT'S DIGITAL: WITH TOUCHSCREEN CONTROL AND TOOL PROGRAM MEMORY

7" capacitive touchscreen with language switch in DE, EN and FR (other languages on request) as well as a tool database for storing up to 3 tools (20 programs are possible per tool).



#### **FUNCTIONS**

- 1 MILLING SPINDLE
  Table spindle moulder with double-sided tiltable fixed spindle. Tilt range -5° to +45.5°.
- Total adjustment manually via handwheel on the right side, position is
  visualised on touchscreen +/- 0.1mm;
  partial fence adjustment (chip removal) +5mm to -25mm via a star knob
  screw on the left side, position readable on vernier scale; milling fence
  made of die-cast aluminium with
  two 500 mm long face-milled cast
  iron fence plates with aluminium
  splinter tongues.
- WORK SCREEN
  The touchscreen unit shows tools and programs, as well as height, angle, speed and milling fence information.
- 7" TOUCHSCREEN CONTROL
  The capacitive touchscreen (scratch and shock resistant) can also be controlled with gloves. With menu languages in German, English and French (other languages on request). In addition, it contains a tool memory for up to 3 tools and 20 programs per tool.
- USB INTERFACE
  USB interface for data backups and updates as well as tool, program and user import.
- SAFETY
  Various functions ensure greater
  safety during work, such as a lockable main switch, warning messages
  in the event of incorrect operation
  and an operating hours counter.
- 7 PARTIAL FENCE ADJUSTMENT
  The partial fence adjustment
  with chip removal from +5 mm to
  -25 mm is carried out via a star knob
  screw on the left side.
- OPTION: EXTENDABLE FRAME SUPPORT
  Guided in separate bearing blocks
  at the side of the machine table,
  smooth-running. With emergency
  stop button and additional holder for
  control panel.



## **EQUIPMENT DETAILS + OPTIONS:** 245|100

#### **CONTROL PANEL**

For more freedom in machining, the control panel can be attached either on top or on the bottom.



#### **FENCE 301**

Total adjustment manually via handwheel on the right side, position is visualised on touchscreen +/- 0.1mm, adjustment range approx. 140 mm. Partial fence adjustment (chip removal) +5 mm to -25 mm via a star knob screw on the left side, position readable on vernier scale.



### OPTION:

#### **FENCE 302**

Total fence and partial fence adjustment (chip removal) is done manually via 2 handwheels. Adjustment range of the total fence approx. 140 mm (left side), partial fence adjustment approx. +10 mm/-22 mm (right side). The positions of the total and partial fence are readable via touchscreen +/- 0.1 mm. (Figure with optional integral fence plates)

ART. NO.: 4624



#### OPTION:

#### **FENCE 311**

The total fence adjustment is motorised, the partial fence adjustment (chip removal) via a star knob on the left side. Dimension display for total stop via touchscreen and for partial fence via vernier.



#### **FENCE 320**

The total and partial (chip removal) fence adjustment of the type 320 with is fully electronically controlled. The target positions are entered via the via the 10-key keyboard on the touch-screen whilst the adjustment is fully motorised. (Figure with optional integral fence plates)

ART. NO.: 4623



#### OPTION:

#### ZEROMASTER

Zeromaster is the PANHANS calibration device which ensures short set-up times for tool calibration.

ART. NO.: 2205



### OPTION:

# MILLING AND PROTECTION DEVICE CENTREX 1624

Ensures for secure fixing of workpieces during manual milling operations; the special shape of the pressure shoe ensures precise workpiece guidance during all milling operations and is infinitely adjustable horizontally and vertically. With good view of the workpiece. Suitable for all milling fences.

ART. NO.: 2220



#### OPTION:

# MANUAL MILLING ARBOR QUICK CHANGE SYSTEM HSK-80

Instead of fixed standard milling spindle, the optional HSK system serves as interface for different clamping spigot diameters, with 30 mm milling arbor and quick-action clamping nut. Unique system as it ensures higher concentricity and enables easy exchange of the milling arbor. Other arbors with different diameters are available on request. Optionally with spanner nut instead of quick clamping nut. ART.NO: 4635





## **EQUIPMENT DETAILS + OPTIONS:** 245 | 100

#### OPTION:

#### **COLLET ARBOR**

Optional collet arbor with nut and hook spanner (without collet) for the HSK 80 quick-change system. Dynamically balanced for optimum concentricity for holding shaft tools, depending on the shaft diameter, the necessary collets are required.

ART. NO.: 4560



#### OPTION:

# COMFORT SWIVEL-AWAY DEVICE FOR MILLING FENCES

Electromotive lifting and lowering, the fence can be rotated 360° around the guide column and also swivelled away to the front.

ART. NO.: 4627



### OPTION:

# 1 SET OF SAFETY RULERS FOR MILLING FENCES

As a continuous guide between the two fence plates consisting of 2 pieces of ruler 260 x 6 mm, 3 pieces of ruler 260 x 3 mm, 1 moulding board of multiplex 260 x 150 x 12 mm, including sliding blocks and Allen key.

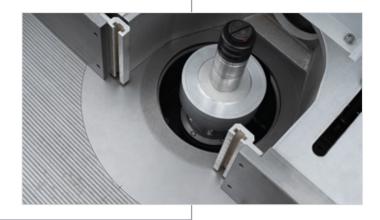
ART. NO.: 2093



### OPTION:

#### **TURNTABLE**

This allows the milling fence to be rotated 360° on the machine table (only for table top 1100x760 mm).



# INTEGRAL FENCE PLATES INFEED/OUTFEED 650/500 MM

With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates.

ART. NO.: 4169



#### OPTION:

# INTEGRAL FENCE PLATES INFEED/OUTFEED 650/650 MM

With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates.

ART. NO.: 4171



### OPTION:

# INTEGRAL FENCE PLATES INFEED/OUTFEED 500/500 MM

With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates.

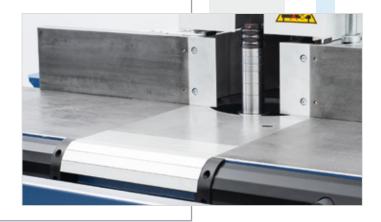
ART. NO.: 4170



#### OPTION:

# TABLE SLIDE PLATE, FOR TABLE TOP 1100 X 760 MM

The patented slide plate top with grid structure does not change the total depth when the table slide is placed on the max. table openings. The distance from the front edge to the spindle remains the same, for easy operation. The table slide plate is infinitely adjustable in depth. A high fitting accuracy without interfering edges is guaranteed.





## **EQUIPMENT DETAILS + OPTIONS:** 245 | 100

#### OPTION:

#### **POWER FEEDER PV 84**

4 rollers 120 x 60 mm, 8 speeds: 2/4 /5.6/6.7/11/13/16.5/33 m/min, two directions of rotation, stand with extension arm 1050 mm, can be used individually horizontally and vertically, incl. mounting, cable and plug.



#### OPTION:

#### **POWER FEEDER VARIOMATIC 4 N**

4 rollers, infinitely variable feed speed from 2–18 m/min. Two directions of rotation, quick turning from horizontal to vertical use; easy swivelling away and positioning with memory-lock system; with comfort stand, numerical height display, extension arm 1050 mm long, incl. mounting, cable and plug.

ART. NO.: 4638



### OPTION:

#### **MOVABLE CONSOLE**

Mounted on the left side of the machine column with joint for swivelling away the feed attachment, mandatory for roller table No. 4491.1 as well as milling fence types 204, 302, 320 and integral fence plates 650+650 mm.

ART. NO.: 4663



#### OPTION:

#### **RIGID CONSOLE**

For mounting a feed unit approx. 195x180 mm laterally on the left side of the table top; mandatory when using milling fence types 204, 302, 320 and integral fence plates 650+650 mm with table top 1100x760 mm.



#### **TENONING AND SLOTTING DEVICE 1376**

Mounted on the machine table for light tenoning and slotting work with eccentric clamp and adjustable mitre fence. Sliding range 710 mm, height above table approx. 56 mm. When working with the tenoning and slotting device 1376, the protective cover type 1641 must be used.

ART. NO.: 4547



#### OPTION:

# CROSS-CUT FENCE LAS-M AND EXTENSION FOR LAS-M

With its length of 1750 mm, the crosscut fence LAS-M offers an ideal addition to the roller table No. 4491.1. As a further option, the cross-cut fence LAS-M can be extended up to 2750 mm.

ART. NO.: 4417, 4418



### OPTION:

#### **ROLLER TABLE**

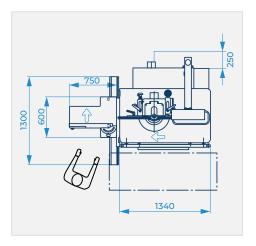
With stop fixture, eccentric clamp, clamping table can be pushed in up to the milling spindle incl. protective bonnet 1641, suction nozzle Ø 120 mm, with graduated

height adjustment, upper position as roller table, lower position as table ex-





Watch user video: https://youtu.be/TUurWuNXC80









# **OPTIONS + EXTENSIONS:** 245 | 100

#### **TECHNICAL EXTENSION**



4541

TILT RANGE OF THE MILLING SPINDLE +/- 45.5° Instead of +45.5° to -5°



#### **DRIVE MOTOR**

ART. NO.

Motor with 7.5 kW (10 HP) instead of 5.5 kW

### **ACCESSORIES MILLING FENCES**



ART. NO. 4625

#### **MILLING FENCE 311**

Total adjustment automatically, adjustment range approx. 140 mm, target positions are entered via keyboard, positions are visualised on touch-screen +/- 0.1 m. Partial fence adjustment (chip removal) +5 mm to -25 mm via star grip screw on the left side, position can be read via vernier scale; manual clamping on the machine table via clamping lever screws; milling fence made of diecast aluminium with 2 flat milled, 500 mm long cast iron fence plates with aluminium splinter tongues; maximum tool diameter is 250 mm



#### **MILLING FENCE 320**

ART. NO. 4623 Electronic adjustment of total fence and partial fence automatically (2 motors). Adjustment range of total fence is 140 mm; adjustment range of partial fence is +10 mm to -22 mm; positioning via keyboard on touchscreen; both positions are visualised on touchscreen +/- 0.1 mm; clamping of total and partial fence on the machine table is motorised; fence made of die-cast aluminium with 2 flat-milled, 500 mm long cast fence plates and aluminium splitter tongues; maximum tool diameter is 250 mm; Note: Turntable is not available in combination with fence type 320. Recommendation: large table top 1340 x 800 mm No. 4423.1



#### **MILLING FENCE 302**

Total and partial fence adjustment (chip removal) are carried out manually via 2 handwheels, both positions are visualised on touchscreen +/- 0.1 mm; total fence adjustment range approx. 140 mm via handwheel on the left side; partial fence adjustment (chip removal) approx. +10 mm/-22 mm via handwheel on the right side; clamping/fixing on the machine table is done manually via quick clamping levers; milling fence made of die-cast aluminium with 2 plane-milled, 500 mm long cast iron fence plates and aluminium splinter tongues; maximum tool diameter is 250 mm; Note: Turntable is not available in combination with the milling fence 302. Recommendation: large table top 1340×800 mm No. 4423.1

#### **ACCESSORIES** MILLING SPINDLES AND ARBORS



#### MILLING SPINDLE Ø 50 MM

Not interchangeable, dynamically balanced for optimum concentricity, clamping height 160 mm with cutter arbor rings and cutter quick-clamping device via Allen key with anti-rotation lock, instead of standard 30 mm spindle (Note: others on request)

#### **ACCESSORIES** TABLE SYSTEMS



# EXTENDABLE FRAME SUPPORT, FOR TABLE TOP 1100 X 760 MM

ART. NO. 4232

Total length approx. 1375 mm, pull-out depth approx. 892 mm from the milling spindle centre, guided in separate bearing blocks at the side of the machine table, smooth-running with emergency stop button



#### TABLE TOP EXTENSION ON BOTH SIDES

For table top 1100 x 760 mm, Total length 2300 mm, consisting of 2 pieces of finely planed cast iron table tops as extension each on the left and right of the standard machine table, with smooth-running frame support approx. 892 mm, extendable to the front. Emergency stop button included



#### TABLE TOP EXTENSION ON BOTH SIDES

For table top 1340 x 800 mm, Total length 2500 mm, consisting of 2 pieces of finely planed cast iron table tops as extension each on the left and right of the standard machine table, with smooth-running frame support approx. 970 mm, extendable to the front. Emergency stop button included



#### **TABLE EXTENSION ONE-SIDED RIGHT**

ART. NO.

For table top  $1340 \times 800$  mm: Finely planed cast iron table top as extension on the right side of the standard machine table, thus total length = 1950 mm, with smooth-running frame support approx. 970 mm, extendable to the front. Emergency stop button included



#### LARGE TABLE TOP, SIZE 1340 X 800 MM, WITH TURN-TABLE

ART. NO. 4423

And frame support 1340 mm, extendable up to approx. 970 mm instead of standard table top 1100 x 760 mm, option: table top extension Art. No. 4215, table slide plate not possible



# LARGE TABLE TOP, SIZE 1340 X 800 MM, WITHOUT TURNTABLE

ART. NO. 4423.1

With frame support 1340 mm extendable up to approx. 970 mm instead of standard table top 1100 x 760 mm, option: table top extension Art. No. 4215



#### KICKBACK GUARD 1648

For safe insertion milling of long and short parts, infinitely adjustable from 0–1500 mm, for milling machines with table top extension

### **SPECIAL ACCESSORIES**



#### MACHINE ACCESS CONTROL

User database and Machine Access Control TM-300 with personalised RFID based keys, full version for authorised and instructed personnel, including master key for parameter settings and staff instructions and 5 user tags for different machine operators

#### **RECOMMENDED SPECIAL ACCESSORIES:**

**SAFETY TECHNOLOGY |** ON PAGE 50

**MACHINE ACCESS CONTROL** | ON PAGE 51

#### **ACCESSORIES SFRVICES**



### ASSEMBLY OF A FEED UNIT

Delivery by the customer to us by a carriage paid delivery



#### INSTRUCTION BY FACTORY TECHNICIAN

Or training at the Sigmaringen factory for the machine ordered, plus travel expenses if the instruction takes place at the customer's site



#### **WARRANTY PLUS+12**

ART. NO.

12 months extended warranty (following the legal warranty period of 12 months), not on wear parts—warranty 1 year on parts



#### **MAINTENANCE AND INSPECTION**

Annual maintenance and inspection on site according to maintenance plan, spare parts are charged separately, plus travel expenses



# **245**|200







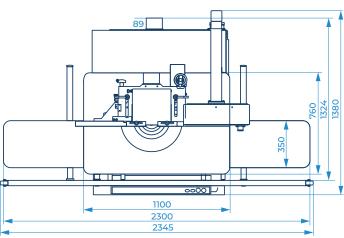
**VOLTAGE** 400 V / 50 H

**SPACE REQUIREMENT** approx. 1500 x 1400 mm

The 245|200 series milling machines enable more effective, more economical and, above all, safer working. All the functional elements required for working are optimally placed, safely accessible and ergonomically arranged.

### **TECHNICAL SPECIFICATIONS**

Table size		1100 x 760 mm	
Table height		905 mm	
Clamping height		140 mm	
Height adjustment		125 mm	
Spindle tilt rar	ige	+/- 45.5°	
Tool and program mem	nory	5 tools, 20 programs per tool	
Variable speed	regulation	1500-10000 rpm	
Control system		scratch and shock resistant	
Milling protect device	tion and pressure	GAMMA V 1629	
Ring fence		1639 Tapoa	
Milling spindle with quick cla		30 mm	
Suction nozzle	es	2 x ø 120 mm	
Net weight		approx. 880 kg	
2-axis positioning control for height and tilt adjustment			
Digital position and speed indicators			
Counterclockwise and clockwise rotation			
Finely planed (Drawing see p	cast iron table with rigoage 12)	gid frame support	
Electronic, we	ar-free motor brake		
Milling fence 3 touchscreen	01, manual via handv	wheel, visualised on	





#### **HIGHLIGHT**

#### **COMPONENTS CAN BE SWIVELLED AWAY**

When machining very large workpieces, it is possible to swivel all the unnecessary elements behind the machine until only the milling spindle protrudes from the table.



#### **FUNCTIONS**

- MILLING SPINDLE

  Fixed and double-sided swivelling of +/- 45.5° with quick-release nut.
- 7" TOUCHSCREEN CONTROL
  The capacitive touchscreen (scratch and shock resistant) can also be controlled with gloves. With menu languages in German, English and French (other languages on request). In addition, it contains a tool memory for up to 5 tools and 20 programs per tool. Height and tilt adjustment with digital position and speed indicators, as well as zeroing of height and tool-offset.
- PARTIAL FENCE ADJUSTMENT
  The partial fence adjustment
  with chip removal from +5 mm to
  -25 mm is carried out via a star grip
  screw on the left side.
- 4 SPEED REGULATION
  Electronic, infinitely variable speed regulation from 1500–10000 rpm (11 kW frequency inverter).
- OPTION: TABLE EXTENSION

  Table extension on both sides with extendable frame support.

  ART. NO.: 4465
- 6 OPTION: TABLE SLIDE PLATE
  The table slide plate allows the table opening to be adjusted quickly and steplessly without tools.

  ART. NO.: 4467



## **EQUIPMENT DETAILS:** 245|200

#### **CONTROL SYSTEM**

The touchscreen controller enables convenient communication between man and machine. By touching the smooth monitor surface, program sequences and command inputs can be controlled directly. Particular emphasis is placed on intuitive and simple operation. For optimal readability, the displays are designed with high brightness and contrast.



#### OPTION:

#### **EXTENDABLE FRAME SUPPORT**

Total length approx. 1375 mm, pullout depth approx. 892 mm from the milling spindle centre, guided in separate bearing blocks at the side of the machine table, smooth-running with emergency stop button.

ART. NO.: 4232



### OPTION:

#### **RIGID CONSOLE FOR FEEDER**

The rigid console is used for mounting a feed unit and is required for versions with the roller table. The removable brackets are made of high-strength metal alloy.

ART. NO.: 4664



#### OPTION:

#### **MOVABLE CONSOLE**

For completely free working on the milling table, the feed unit can be swivelled away with this option. This optimises the workflow, as the feed unit does not have to be dismantled when working with a ring fence for curved millings.



#### ZEROMASTER CALIBRATING DEVICE

For exact zero-point height adjustment from the milling tool to the table top.

ART. NO.: 2205

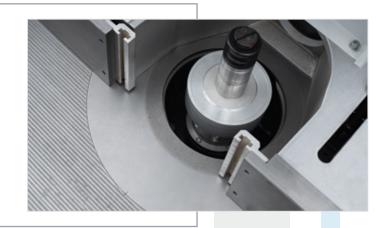


#### OPTION:

#### **TURNTABLE**

This allows the milling fence to be rotated 360° on the machine table (only for table top 1100x760 mm).

ART. NO.: 4658

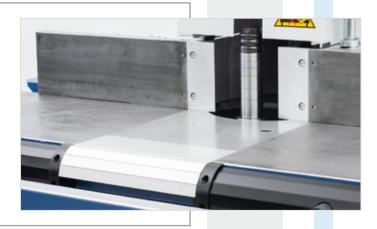


#### OPTION:

## TABLE SLIDE PLATE, FOR TABLE TOP 1100 X 760 MM

The patented slide plate top with grid structure does not change the total depth when the table slide is placed on the max. table openings. The distance from the front edge to the spindle remains the same, for easy operation. The table slide plate is infinitely adjustable in depth. A high fitting accuracy without interfering edges is guaranteed.

ART. NO.: 4467



#### OPTION:

#### TABLE TOP EXTENSION ON BOTH SIDES

For table top 1100 x 760 mm, Total length 2300 mm, consisting of 2 pieces of finely planed cast iron table tops as extension each on the left and right of the standard machine table, with smooth-running frame support approx. 892 mm, extendable to the front. Emergency stop button included.





## **EQUIPMENT DETAILS:** 245|200

#### OPTION:

#### **TABLE EXTENSION ONE-SIDED RIGHT**

For table top 1340 x 800 mm: Finely planed cast iron table top as extension on the right side of the standard machine table, thus total length = 1950 mm, with smooth-running frame support approx. 970 mm, extendable to the front. Emergency stop button included.

ART. NO.: 4217



#### OPTION:

#### **KICKBACK GUARD 1648**

For safe insertion milling of long and short parts, infinitely adjustable from 0–1500 mm, for milling machines with table top extension.

ART. NO.: 2002



#### OPTION:

## COMFORT SWIVEL-AWAY DEVICE FOR MILLING FENCES

Electromotive lifting and lowering, the fence can be rotated 360° around the guide column and also swivelled away to the front.

ART. NO.: 4627



#### OPTION:

## 1 SET OF SAFETY RULERS FOR MILLING FENCES

As a continuous guide between the two fence plates consisting of 2 pieces of ruler 260 x 6 mm, 3 pieces of ruler 260 x 3 mm, 1 moulding board of multiplex 260 x 150 x 12 mm, including sliding blocks and Allen key.



## INTEGRAL FENCE PLATES INFEED/OUTFEED 500/500 MM

With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates.

ART. NO.: 4170



#### OPTION:

## INTEGRAL FENCE PLATES INFEED/OUTFEED 650/500 MM

With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates.

ART. NO.: 4169

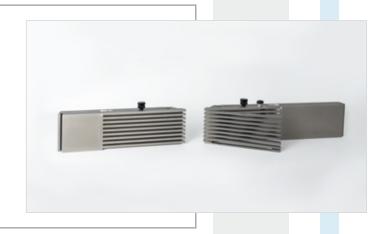


#### OPTION:

## INTEGRAL FENCE PLATES INFEED/OUTFEED 650/650 MM

With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates.

ART. NO.: 4171



#### OPTION:

#### **CENTREX**

Milling protection and pressure device for secure fixing of workpieces during manual milling operations; the special shape of the pressure shoe ensures precise workpiece guidance during all milling operations, fixed to the milling fence, can be folded up, instead of standard milling protection and pressure device GAMMA V 1629.





## **EQUIPMENT DETAILS:** 245|200

#### OPTION:

## AUTOMATIC HSK-63-F TOOL CHANGE SYSTEM

Electromechanical clamping system for convenient tool change. The tool change is operated by a switch. Including 1 piece quick-change milling arbor HSK-63-F with Ø 30 mm. Clamping length 140 mm with milling arbor rings and quick-action clamping nut.

ART. NO.: 4661



#### OPTION:

## MANUAL MILLING ARBOR QUICK CHANGE SYSTEM HSK-80

Instead of fixed standard milling spindle, the optional HSK system serves as interface for different clamping spigot diameters, with 30 mm milling arbor and quick-action clamping nut. Unique system as it ensures higher concentricity and enables easy exchange of the milling arbor. Other arbors with different diameters are available on request. Optionally with spanner nut instead of quick clamping nut. ART.NO: 4635



#### OPTION:

#### **POWER FEEDER PV 84**

4 rollers 120 x 60 mm, 8 speeds: 2/4/5.6/6.7/11/13/16.5/33 m/min, two directions of rotation, stand with extension arm 1050 mm, can be used individually horizontally and vertically, incl. mounting, cable and plug.



#### OPTION:

#### **POWER FEEDER VARIOMATIC 4 N**

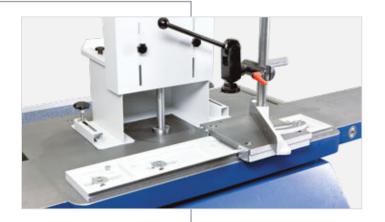
4 rollers, infinitely variable feed speed from 2–18 m/min. Two directions of rotation, quick turning from horizontal to vertical use; easy swivelling away and positioning with memory-lock system; with comfort stand, numerical height display, extension arm 1050 mm long, incl. mounting, cable and plug.



#### **TENONING AND SLOTTING DEVICE 1376**

Mounted on the machine table for light tenoning and slotting work with eccentric clamp and adjustable mitre fence. Sliding range 710 mm, height above table approx. 56 mm. When working with the tenoning and slotting device 1376, the protective cover type 1641 must be used.

ART. NO.: 4547



#### OPTION:

## CROSS-CUT FENCE LAS-M AND EXTENSION FOR LAS-M

With its length of 1750 mm, the crosscut fence LAS-M offers an ideal addition to the roller table No. 4491.1. As a further option, the cross-cut fence LAS-M can be extended up to 2750 mm.

ART. NO.: 4417, 4418



#### OPTION:

#### **ROLLER TABLE**

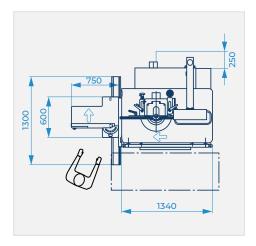
With stop fixture, eccentric clamp, clamping table can be pushed in up to the milling spindle incl. protective bonnet 1641, suction nozzle Ø 120 mm,

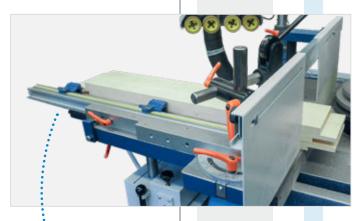
with graduated height adjustment, upper position as roller table, lower position as table extension left.





Watch user video:









### **OPTIONS + EXTENSIONS:** 245 200

#### **TECHNICAL EXTENSION**



VARIABLE SPEED REGULATION 1500-12000 RPM

ART. NO.

7.5 kW motor with 11 kW frequency inverter incl. oil lubrication of the milling spindle bearings

#### **ACCESSORIES TABLE SYSTEMS**



## EXTENDABLE FRAME SUPPORT, FOR TABLE TOP 1100 X 760 MM

ART. NO.

Total length approx. 1375 mm, pull-out depth approx. 892 mm from the milling spindle centre, guided in separate bearing blocks at the side of the machine table, smooth-running with emergency stop button



#### TABLE TOP EXTENSION ON BOTH SIDES

ART. NO. 4215 For table top 1340 x 800 mm, total length 2500 mm, consisting of 2 pieces of fine planed cast iron table tops as extension, each on the left and right side of the standard machine table. Emergency stop button included



#### LARGE TABLE TOP, SIZE 1340 X 800 MM, WITH TURN-TABLE

ART. NO

And frame support 1340 mm, extendable up to approx. 970 mm instead of standard table top 1100 x 760 mm, option: table top extension Art. No. 4215, table slide plate not possible



## LARGE TABLE TOP, SIZE 1340 X 800 MM, WITHOUT TURNTABLE

ART. NO. 4423.1

With frame support  $1340 \, \text{mm}$  extendable up to approx.  $970 \, \text{mm}$  instead of standard table top  $1100 \, \text{x} \, 760 \, \text{mm}$ , option: table top extension Art. No.  $4215 \,$ 

#### **ACCESSORIES** MILLING SPINDLES AND ARBORS



#### **QUICK-CHANGE SYSTEM HSK-80**

With spindle lock and milling arbor 30 mm instead of milling spindle 30 mm (higher concentricity and no sticking in the spindle as with MK 5 system or steep taper); Note: other arbors on request



#### **ACCESSORIES MILLING FENCES**



#### **MILLING FENCE 311**

ART. NO. 4625 Total adjustment automatically, adjustment range approx. 140 mm, target positions are entered via keyboard, positions are visualised on touchscreen +/- 0.1 m. Partial fence adjustment (chip removal) +5 mm to -25 mm via star grip screw on the left side, position can be read via vernier scale; manual clamping on the machine table via clamping lever screws; milling fence made of die-cast aluminium with 2 flat milled, 500 mm long cast iron fence plates with aluminium splinter tongues; maximum tool diameter is 250 mm



#### **MILLING FENCE 302**

Total and partial fence adjustment (chip removal) are carried out manually via 2 handwheels, both positions are visualised on touchscreen +/- 0.1 mm; total fence adjustment range approx. 140 mm via handwheel on the left side; partial fence adjustment (chip removal) approx. +10 mm/-22 mm via handwheel on the right side; clamping/fixing on the machine table is done manually via quick clamping levers; milling fence made of die-cast aluminium with 2 plane-milled, 500 mm long cast iron fence plates and aluminium splinter tongues; maximum tool diameter is 250 mm; Note: Turntable is not available in combination with the milling fence 302. Recommendation: large table top 1340 x 800 mm No. 4423.1



#### **MILLING FENCE 320**

ART. NO.

Electronic adjustment of total fence and partial fence automatically (2 motors). Adjustment range of total fence is 140 mm; adjustment range of partial fence is +10 mm to -22 mm; positioning via keyboard on touchscreen; both positions are visualised on touchscreen +/- 0.1 mm; clamping of total and partial fence on the machine table is motorised; fence made of die-cast aluminium with 2 flat-milled, 500 mm long cast fence plates and aluminium splitter tongues; maximum tool diameter is 250 mm; Note: Turntable is not available in combination with fence type 320. Recommendation: large table top 1340 x 800 mm No. 4423.1

#### SPECIAL ACCESSORIES



#### MACHINE ACCESS CONTROL

User database and Machine Access Control TM-300 with personalised RFID based keys, full version for authorised and instructed personnel, including master key for parameter settings and staff instructions and 5 user tags for machine operators

#### **RECOMMENDED SPECIAL ACCESSORIES:**

**SAFETY TECHNOLOGY** | ON PAGE 50

**MACHINE ACCESS CONTROL** | ON PAGE 51

#### **ACCESSORIES** SFRVICES



#### INSTRUCTION BY FACTORY TECHNICIAN

ART. NO. 4172 Or training at the Sigmaringen factory for the machine ordered, plus travel expenses if the instruction takes place at the customer's site



#### **WARRANTY PLUS+12**

NO. 16

12 months extended warranty (following the legal warranty period of 12 months), not on wear parts—warranty 1 year on parts



#### **MAINTENANCE AND INSPECTION**

ART. NO. 4175 Annual maintenance and inspection on site according to maintenance plan, spare parts are charged separately, plus travel expenses



#### **ASSEMBLY OF A FEED UNIT**

ART. NO. 4028 Delivery by the customer to us by a carriage paid delivery



# **245**|300



Watch user video: https://youtu.be/0ge-N1friCl







**VOLTAGE** 400 V / 50 Hz

SPACE REQUIREMENT With table extension option approx. 2400 x 1400 mm

Our tilting spindle moulder 245|300 in full equipment is the absolute all-rounder for small and large joineries.

#### **TECHNICAL SPECIFICATIONS**

Table size		1100 x 760 mm
Table height		905 mm
Clamping heig	jht	140 mm
Height adjustr	nent	125 mm
Spindle tilt range		+/- 45.5°
Tool and program memory		500 tools, 100 programs per tool
Variable speed regulation		1500-10000 rpm
Control system: Capacitive 7" touchscreen		scratch and shock resistant
Milling protection and pressure device		GAMMA V 1629
Ring fence		1639 Tapoa
Milling spindle with quick clamping nut		30 mm
Suction nozzles		2xø 120 mm
Net weight		approx. 1050 kg

4-axis positioning control for height and tilt adjustment, milling fences: total fence on right and partial fence on left side

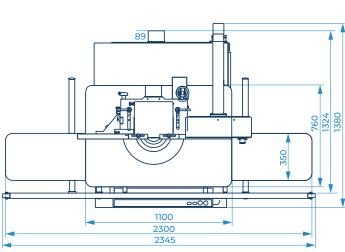
Digital position and speed indicators

Counterclockwise and clockwise rotation

Finely planed cast iron table with rigid frame support

Control panel can be used either up or down

Milling fence 320 fully electronically controlled total and partial fence adjustment





#### **HIGHLIGHT**

#### THE PERFECT ONE WITH TOUCHSCREEN CONTROL

7" capacitive touchscreen with language switch in DE, EN, FR and NL (further languages on request) as well as a tool memory for up to 500 tools (100 programs are possible per tool).



#### **FUNCTIONS**

- MILLING SPINDLE
  Fixed and double-sided swivelling of
  +/- 45.5° with quick-release nut.
- 2 GREY CAST IRON TABLE
  Finely planed and with rigid frame support.
- 7"TOUCHSCREEN CONTROL
  The capacitive touchscreen (scratch and shock resistant) can also be controlled with gloves. The touch control can also be mounted on the rigid (or optionally extendable) frame support. For height and tilt adjustment, milling fences: total fence on right and partial fence on left side.
- SPEED REGULATION
  Electronic, infinitely variable speed regulation from 1500–10000 rpm (11 kW frequency inverter).
- OPTION: TABLE EXTENSION ON BOTH SIDES

The table extension is double-sided and has a total length of 2300 mm, with extendable frame support to the front.

ART. NO.: 4465

OPTION: COMFORT SWIVEL-AWAY DE-VICE

By swivelling the milling fence away, you achieve an absolutely flat working surface.

ART. NO.: 4627

7 INTEGRAL FENCE SYSTEM

Made of swivelling guide rods integrated in the fence plates for a gap-free guide surface of all milling operations; precise and stepless adjustment to tool diameter and height, usable instead of the standard cast iron fence plates.



## **EQUIPMENT DETAILS + OPTIONS:** 245|300

#### **CONVENIENT OPERATION**

The control panel can be individually adapted to the mode of operation. By simply attaching it to the frame support, the operating panel can be used either at the top or at the bottom.



#### OPTION:

SWIVEL-AWAY DEVICE FOR MILLING FENCES
The swivel-away device enables the milling fence to be raised and swivelled away into a neutral position by means of an electric motor. This makes working on the machine more comfortable and safer.

ART. NO.: 4627



#### OPTION:

AUTOMATIC HSK-63-F TOOL CHANGE SYSTEM

Electromechanical clamping system for convenient tool change. The tool change is operated by a switch. Including 1 piece quick-change milling arbor HSK-63-F with Ø 30 mm Clamping length 140 mm with milling arbor rings and quick-action clamping nut.



#### OPTION:

## INTEGRAL FENCE PLATES INFEED/OUTFEED 500/500 MM

With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates. Other lengths on request.



#### **TENONING AND SLOTTING DEVICE 1376**

Mounted on the machine table for light tenoning and slotting work with eccentric clamp and adjustable mitre fence. Sliding range 710 mm, height above table approx. 56 mm. When working with the tenoning and slotting device 1376, the protective cover type 1641 must be used.

ART. NO.: 4547



#### OPTION:

#### **POWER FEEDER PV 84**

4 rollers 120 x 60 mm, 8 speeds: 2/4/5.6/6.7/11/13/16.5/33 m/min, two directions of rotation, stand with extension arm 1050 mm, can be used individually horizontally and vertically, incl. mounting, cable and plug.



#### OPTION:

#### TABLE EXTENSION ONE-SIDED RIGHT

For table top 1340 x 800 mm: Finely planed cast iron table top as extension on the right side of the standard machine table, thus total length = 1950 mm, with smooth-running frame support approx. 970 mm, extendable to the front. Emergency stop button included.



#### OPTION:

ART. NO.: 4217

#### **KICKBACK GUARD 1648**

For safe insertion milling of long and short parts, infinitely adjustable from 0–1500 mm, for milling machines with table top extension.





## **EQUIPMENT DETAILS + OPTIONS:** 245|300

#### OPTION:

#### **ROLLER TABLE**

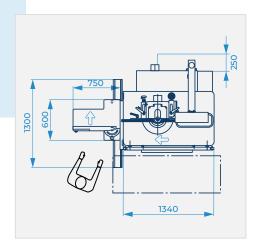
With stop fixture, eccentric clamp, clamping table can be pushed in up to the milling spindle incl. protective bonnet 1641, suction nozzle Ø 120 mm, with graduated

height adjustment, upper position as roller table, lower position as table extension left.



ART. NO.: 4491.1

Watch user video: https://youtu.be/TUurWuNXC8Q





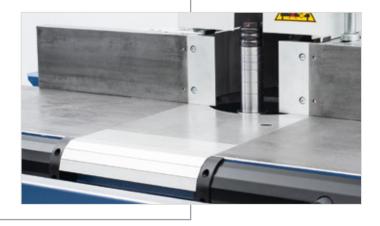


#### OPTION:

## TABLE SLIDE PLATE, FOR TABLE TOP 1100X760 MM

The patented slide plate top with grid structure does not change the total depth when the table slide is placed on the max. table openings. The distance from the front edge to the spindle remains the same, for easy operation. The table slide plate is infinitely adjustable in depth. A high fitting accuracy without interfering edges is guaranteed.

ART. NO.: 4467



#### OPTION:

#### TABLE TOP EXTENSION ON BOTH SIDES

For table top 1100 x 760 mm, Total length 2300 mm, consisting of 2 pieces of finely planed cast iron table tops as extension each on the left and right of the standard machine table, with smooth-running frame support approx. 892 mm, extendable to the front. Emergency stop button included.





## 1 SET OF SAFETY RULERS FOR MILLING

As a continuous guide between the two fence plates consisting of 2 pieces of ruler 260 x 6 mm, 3 pieces of ruler 260 x 3 mm, 1 moulding board of multiplex 260 x 150 x 12 mm, including sliding blocks and Allen key.

ART. NO.: 2093



## **OPTIONS + EXTENSIONS:** 245|300

#### **TECHNICAL EXTENSION**



VARIABLE SPEED REGULATION 1500–12000 RPM 7.5kW motor with 11kW frequency inverter

ART. NO. 4862

#### **ACCESSORIES** TABLE SYSTEMS



#### **TABLE TOP EXTENSION ON BOTH SIDES**

For table top 1340 x 800 mm, total length 2500 mm, consisting of 2 pieces of fine planed cast iron table tops as extension, each on the left and right side of the standard machine table. Emergency stop button included



## LARGE TABLE TOP, SIZE 1340 X 800 MM, WITH TURN-

ART. NO. 4423

And frame support 1340 mm, extendable up to approx. 970 mm instead of standard table top 1100 x 760 mm, option: table top extension Art. No. 4215, table slide plate not possible



## LARGE TABLE TOP, SIZE 1340 X 800 MM, WITHOUT

ART. NO. 4423.1

With frame support 1340 mm extendable up to approx. 970 mm instead of standard table top 1100 x 760 mm, option: table top extension Art. No. 4215

#### **ACCESSORIES MILLING FENCES**



## INTEGRAL FENCE PLATES INFEED/OUTFEED 650/500 MM

ART. NO. 4169

With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates



## INTEGRAL FENCE PLATES INFEED/OUTFEED 650/650 MM

ART. NO.

With swivelling guide rods integrated in the fence plates for an uninterrupted guide surface of all milling operations; the exact adjustment to tool diameter and height is achieved by a stepless adjustment, instead of standard cast iron fence plates



### **OPTIONS + EXTENSIONS:** 245|300

#### **ACCESSORIES MILLING FENCES**



#### **CENTREX**

ART. NO. 2220 Milling protection and pressure device for secure fixing of workpieces during manual milling operations; the special shape of the pressure shoe ensures precise workpiece guidance during all milling operations, fixed to the milling fence, can be folded up, instead of standard milling protection and pressure device GAMMA V 1629

#### **ACCESSORIES MILLING SPINDLES AND ARBORS**



#### **QUICK-CHANGE SYSTEM HSK-80**

With spindle lock and milling arbor 30 mm instead of milling spindle 30 mm (higher concentricity and no sticking in the spindle as with MK 5 system or steep taper); Note: other arbors on request



#### **AUTOMATIC HSK-63-F TOOL CHANGE SYSTEM**

Tool interface suitable for HSK-63-F, compatible with CNC machining centres instead of standard milling spindle, incl. 1 piece quick-change milling arbor HSK-63-F with Ø 30 mm, clamping length = 140 mm, with milling arbor rings and cutter quick-clamping device via Allen key and rotation lock; electromechanical clamping system for convenient tool change; actuated via switch, clamping/releasing (no compressed air required). Important: Before ordering, please be sure to check the compatibility of the HSK clamping system!



## AUTOMATIC QUICK-CHANGE SYSTEM HSK-85-P0-WERLOCK

ART. NO. 4662

Tool interface suitable for HSK-85-PowerLock compatible to "Weinig" instead of 30 mm standard milling spindle, incl. 1 piece quick-change milling arbor HSK-. 85-PowerLock with Ø 30 mm; clamping length = 140 mm, with cutter arbor rings and cutter quick-change clamping device via Allen key and rotation lock; electromechanical clamping system, for convenient tool change; actuated via switch, clamping/releasing (no com-pressed air required). Important: Please check the compatibility of the HSK clamping system before ordering

#### **ACCESSORIES** ROLLER TABLE AND SLOTTING DEVICE



#### **ROLLER TABLE**

With stop fixture, eccentric clamp, clamping table can be pushed in up to the milling spindle incl. protective bonnet 1641, suction nozzle Ø 120 mm, with graduated height adjustment, upper position as roller table, lower position as table extension left. Important: With this option the machine must be equipped with the large table top No. 4423 and if necessary, additionally with table top extension right No. 4217



ART. NO.

4417

#### **CROSS-CUT FENCE LAS-M**

Right-hand version for system tools to process workpieces in pairs, effective length = 1750 mm, slide system with multiple stop and 3 adjustment rings for cross-cut positioning with splitter tongue



#### **EXTENSION FOR CROSS-CUT FENCE LAS-M**

Total length 1000 mm, effective length 1750 to 2750 mm

#### **ACCESSORIES** ROLLER TABLE AND SLOTTING DEVICE



#### **ZTENONING AND SLOTTING DEVICE 1376**

Mounted on the machine table for light teno-ARI.NO. 4547 ning and slotting work, with eccentric clamp and adjustable mitre fence. Sliding length 710 mm, height above table approx. 56 mm

#### **ACCESSORIES** POWER FEEDER



#### **POWER FEEDER VARIOMATIC 4 N**

4 rollers, infinitely variable feed speed from 2-18 m/min. Two directions of rotation, quick turning from horizontal to vertical use; easy swivelling away and positioning with memory-lock system; with comfort stand, numerical height display, extension arm 1050 mm long, incl. mounting, cable and plug



#### **MOVABLE CONSOLE**

Mounted on the left side of the machine column with joint for swivelling away the feed attachment, mandatory for roller table No. 4491.1 as well as milling fence types 204, 302, 320 and integral fence plates 650 + 650 mm



#### **RIGID CONSOLE**

For mounting a feed unit approx. 195 x 180 mm laterally on the left side of the table top; mandatory when using routing fence 204, 302, 320 and integral fence plates 650 + 650 mm, with table top 1100 x 760 mm





#### **MACHINE ACCESS CONTROL**

User database and Machine Access Control ART.NO.
TM-300 with personalised RFID based keys, full version for authorised and instructed personnel, including master key for parameter settings and staff instructions and 5 user tags for machine operators

#### RECOMMENDED SPECIAL ACCESSORIES:

**SAFETY TECHNOLOGY |** ON PAGE 50

**MACHINE ACCESS CONTROL** | ON PAGE 51

#### **ACCESSORIES** SFRVICES



#### **ASSEMBLY OF A FEED UNIT**

Delivery by the customer to us by a carriage ART. NO. 4028 paid delivery



#### **INSTRUCTION BY FACTORY TECHNICIAN**

Or training at the Sigmaringen factory for the machine ordered, plus travel expenses if the instruction takes place at the customer's site



#### WARRANTY PLUS+12

ART. NO.

12 months extended warranty (following the legal warranty period of 12 months), not on wear parts-warranty 1 year on parts



#### **MAINTENANCE AND INSPECTION**

Annual maintenance and inspection on site ART. NO. according to maintenance plan, spare parts are charged separately, plus travel expenses





Future-oriented work provides for occupational safety on machines, health at work and safety for staff. The profitability of a company depends on healthy

employees who can work effectively, safely and optimally. Various accessories from SI-TEC optimise work processes and workplaces in the long term.



#### SAFETY RULERS AND MILLING BOARD SET

1 set = 5 safety rulers consisting of:

- 3 rulers 260 x 3 mm
- 2 rulers 260 x 6 mm
- 1 wooden grooved milling board
- 10 turnable brass sliding blocks with screws
- 4 steel sliding blocks with screws
- 1 Allen key

1 set of safety rulers for milling fences Art. No.: 2093



#### **KICKBACK GUARD 1648**

For safe insertion milling of long and short parts, infinitely adjustable from 0–1500 mm, for milling machines with table top extension. Delivery includes the mechanical components for mounting on existing table top extensions.

Recommended accessories: Clamping drawer type 212, Art. No.: 3053

Kick-back protection 1648 Art. No.: 2002

#### **INTEGRAL FENCE SYSTEM 211**

Attachable to an existing milling fence, the system ensures safe and dimensionally accurate work on tilting spindle moulders. The integral fence system provides an uninterrupted guide surface for all milling work on the tool. The exact adjustment to the tool diameter and height is achieved by a stepless adjustment.

Both halves 500 mm long Art. No.: 4170

Left half 500 mm long outfeed Right half 650 mm long infeed Art. No.: 4169

Both halves 650 mm long Art. No.: 4171

1 set of adapters for mounting integral fence plates on fence 204 Art. No.: 2128



## ELECTRONIC KEY SYSTEM FOR MACHINE ACCESS

The electronic key system is a simple and cost-effective solution for reliable and secure machine access control, which was previously realised with a key switch or password. There are 3 variants, offering the right system for every application. 5 tags (RFID keys) are supplied with each unit of the TM (1xred and 4xblue).





#### **TECHNICAL SPECIFICATIONS TM-100 DND TM-300**

Mounting	Panel mounting or surface-
	mounted housing (aluminium)
Dimensions	72 x 48 x 82.5 mm (W x H x D)
Panel cut-out	67 x 46 mm (W x H)
Installation depth	75.5 mm
	(without connector plug)
Dimensions of surface-	
mounted housing	107 x 56 x 110 mm (W x H x D)

#### TM-100 5 AUTHORISATION LEVELS

- TM-100 tags optionally pre-configured with authorisation level 1–5
- 1 digital output (PNP, active high) for administrator access (e.g. as a key switch alternative)
- 4 digital outputs (PNP, active high) for additional machine functions

#### TM-300 UNLIMITED NUMBER OF TAGS

- Unlimited number of tags (TM-100 tags can also be taught)
- Database and network connection via Modbus/TCP
- 1 digital output (PNP, active high) for administrator access (e.g. as key switch alternative)
- 4 digital outputs (PNP, active high) for other machine functions (available as an option)
- Modbus/TCP for parameterisation and connection to the network
- Additional serial RS232 interface for error analysis
- Panel-mounted housing (optional surface-mounted housing)

#### SPECIAL ACCESSORIES FOR MORE SAFETY

For a fast and safe workflow, the extensive tool database enables the storage of all types of milling cutters.

Tool database, for 10 tools 20 programs per tool Art. No.: 4614

Tool database, for 20 tools Per tool 20 programs Art. No.: 4615

Tool database, for 500 tools Per tool 100 programs Art. No.: 4616

#### Personalised user key

(blue) for user database TM-300 and TM-100, VP = 10 pieces Art. No.: 4670

#### Master key

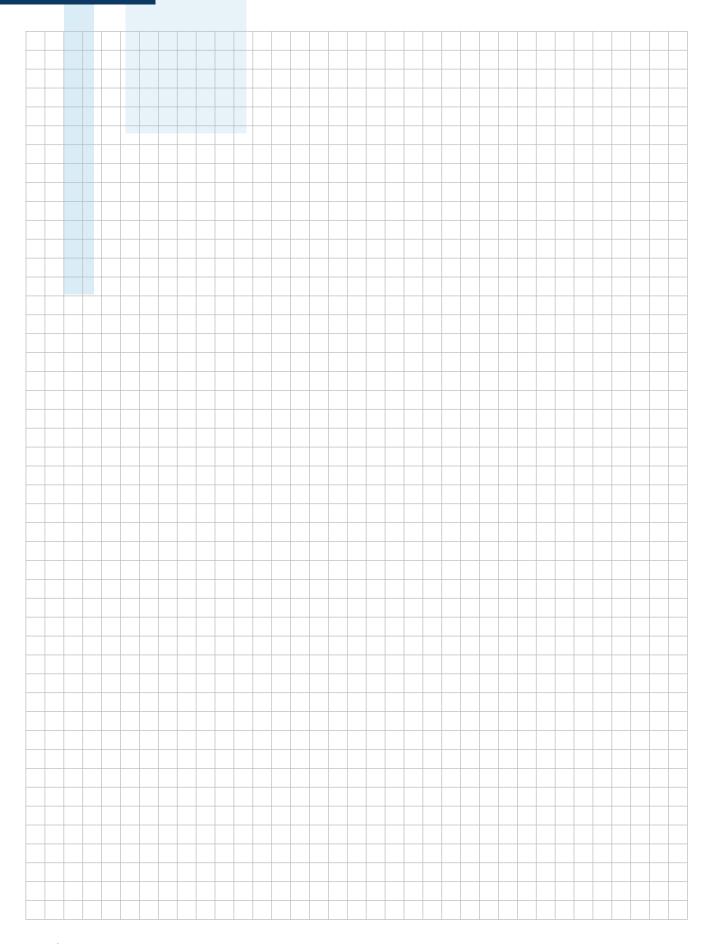
(red) for user database TM-300 and TM-100, 1 piece

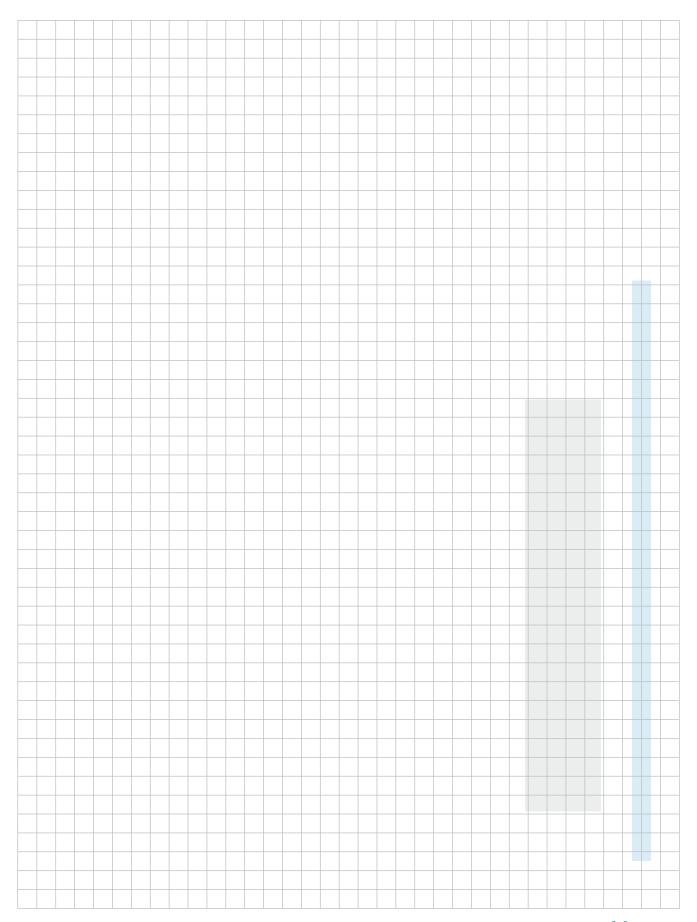
External reader including software For tags TM-300 and TM-100, 1 piece

Art. No.: **4672** 



## NOTES







## PRODUCT OVERVIEW

## **SLIDING TABLE SAWS**



## TILTING SPINDLE MOULDERS















## PLANERS AND THICKNESSERS



## **BANDSAWS**

400-900



436|100



800 R-900 R

**3V** 





## **DRILLING MACHINES**

116|10



SIITEC

#### SICHERHEITSTECHNIK

- Push stick
- Push handle
- Push block
- APA bandsaw guideBandsaw table insert
- Rubber cork bandages

You can find safety technology products in our online shop:

#### www.hokubema.com

- Safety rulers and moulding board in set
- Magnetic planer knife quick setters
- and much more ...



## SERVICE CONCEPT

#### **QUALITY IN EVERY RESPECT**

Deeply rooted in our company philosophy is the honest attitude towards customers and business partners, which at the same time forms the basis for a trusting cooperation. In the production of our machines, we always strive to keep the consumption of resources and energy as low as possible and thus make a meaningful contribution to environmental protection. In addition, we are constantly developing our wood processing machines to keep efficiency high and energy consumption low.

In order to guarantee the longevity of a PANHANS machine as well as customer satisfaction, we offer comprehensive service and a wide range of additional services before the purchase and after the investment. Among other things, our service philosophy includes detailed advice and, if required, a machine demonstration in our showroom. In the

showroom, you receive professional instruction, an explanation of the functions and can test all products extensively.

After the purchase, our versatile online shop and our extensive website provide a free service. Tools, accessories and consumables can be ordered easily in the online shop and our website serves as an information platform. Which maintenance and servicing work is required for which machines?

The table on www.panhans.de gives you an overview and helps to optimise the performance of your PANHANS machines.

PANHANS woodworking machines are sustainably designed and solidly built in Germany.



#### **CUSTOMER SATISFACTION**

High-quality machines combined with extensive service for long-lasting reliability.





#### **ENVIRONMENTAL AWARENESS**

Innovative machine development for high efficiency despite low energy consumption.





#### **ADVICE**

Qualified and dedicated advice from expert staff from purchase to beyond the scope.





#### **SERVICES**

Extensive and versatile range of services tailored to the needs of the customer.



# HOKUBEMA Maschinenbau GmbH













Scan QR code and go directly to the **spindle moulders** 





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MADE IN GERMANY







