

TECHNICAL DETAILS

AXES STROKES

X	mm	400
Y	mm	240
Z	mm	450
B-axis (swivel axis)	°	-113 to +20
C-axis (rotary axis)	°	360 (endless)

FEED RATE / RAPID TRAVERSE RATE

Linear axes	m/min	40
Swivel axis B	°/min	12,500
Rotary axis C	°/min	150,000

ACCELERATION

Linear axes	m/s²	10
Swivel axis B	°/s²	7,000
Rotary axis C	°/s²	15,000

POSITIONING ACCURACY VDI/DGQ 3441

Standard linear axes	P/Ps in mm	0.003/0.001
High precision linear axes	P/Ps in mm	0.0015/0.001
perpendicularity	µm/100mm	1.5
Resolution capacity	µm	0.1

CNC-CONTROL

Heidenhain	TNC7
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WORKING SPINDLE

Speed range	rpm	500 - 100,000
Power S1/S6-40%	kW	2.5/3.5 bis 16.6/21
Torque S1/S6-40%	Nm	0.5/0.7 bis 15/19.4
Tool holder	HSK	25 / 32 / 40

TOOL CHANGER

Number of tool pockets	60 to 150	
Tool diameter	mm	40

WORKPIECE HANDLING OPTION

Storage capacity	20 to 75
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GENERAL

Machine weight	kg	3,500
Space requirement	m²	2.2 x 1.9
Mains voltage	V AC	3 x 400
Nominal frequency	Hz	50 - 60
Nominal power (depending on the equipment)	kW	17 - 30
Air pressure	bar	6

PRIMA CON CONSULTING AND SERVICE

Comprehensive and competent – right from the start

PRIMA CON Consulting

Starting from the first sales talk, we will assist you in selecting the most suitable machine configuration for your product and advise you in detail about:

- ✓ Programming
- ✓ CAD/CAM
- ✓ Milling technology
- ✓ Tools
- ✓ Clamping technique
- ✓ Lubrication and Cooling unit

PRIMA CON Application Consulting & Training

Our specialists will gladly answer any question regarding milling or programming and support your production competently with modern CAD / CAM technology and our know-how.

In addition, we also provide training on the operation and maintenance of our machines.

PRIMA CON Spare parts service

Replacement part supply with availability of 95%. If you order before 2 pm, the parts will be shipped the same day.

PRIMA CON After Sales Service

When you have decided on a PRIMA CON machine, we will take over the delivery and commissioning. As long as the machine is used in your production we provide service and assist you in a quick and uncomplicated way.

We provide remote maintenance by data transfer and update your software to the latest version on a regular basis.

We guarantee you:

- ✓ Service coordination within 24 hours
- ✓ and On-site service within 48 hours



PRIMA CON P40 CC – Compact Cell

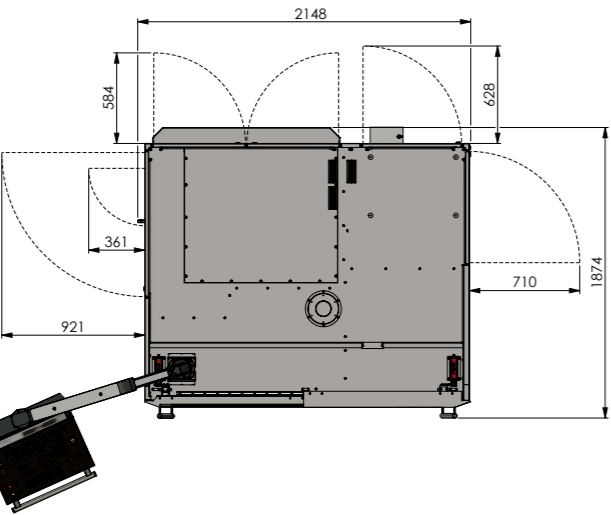
5-axis-milling to perfection  
high-precision and fully automatic

simply more precise

INSTALLATION PLAN



FRONT VIEW



TOP VIEW

PRIMA CON Service-Hotline

Our specialists will assist you quickly in finding solutions and fixing errors before they become a problem. Please contact us:

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# EFFICIENCY REDEFINED

## PRIMA CON P40 CC

The **PRIMA CON P40 CC** is an optimised high-precision milling machine, which is already designed in its basic version for **5-axis machining**. This allows a particularly economical and dynamic complete processing of a wide variety of workpieces in one clamping. But even though 5D-simultaneously processing won't be used for everything, the 5-axis system constitutes an inestimable value. This is because the workpieces can be machined in the most favourable position for milling.

The equipment with a clever **energy efficiency kit** and the integrated **full automation** optimise process sequences and therefore **save** a considerable amount of **time and money**.

Thanks to the **multi-machining concept**, the machine can also be used for **coordinate grinding** and **guilloching** in addition to **HSC-milling**. The ergonomic layout and modern design round off the overall construction.

## ERGONOMIC OPERATING CONCEPT

- High-tech machine control Heidenhain TNC7
- Clearly arranged and user friendly
- Controls all automatic operation



## TOOL CHANGER WITH DOUBLE ARM GRIPPER

- Tool changing magazine includes as standard 60 / 100 / 150 positions
- Reduction of idle-times (tool and workpiece changer are set up parallel to production time)

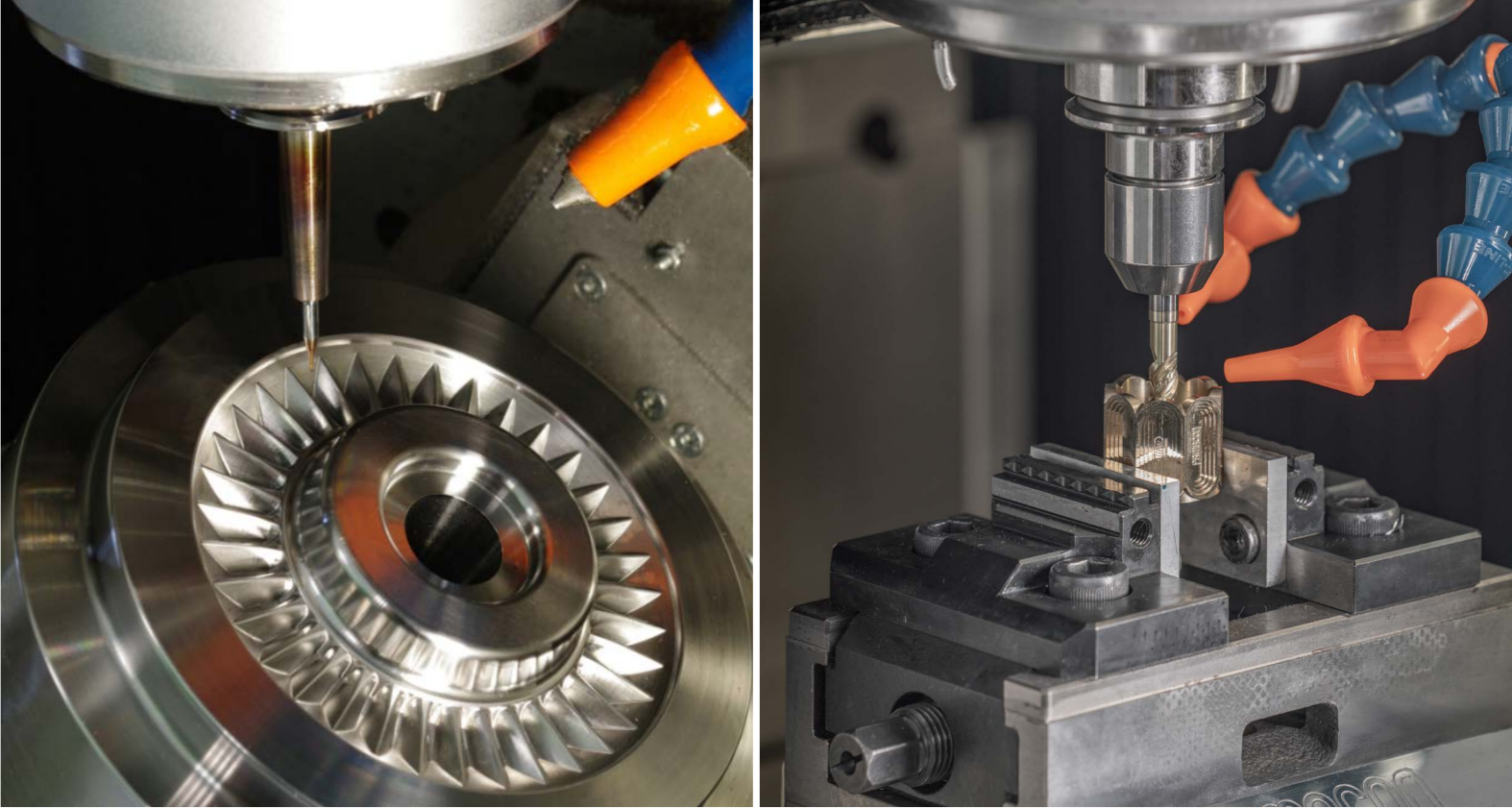
## PALLET CHANGER / 6-AXIS ROBOT

- Integrated automation
- High degree of automation in a small space
- Direct handling of workpieces
- Automatic workpiece changer integrated with 25 / 50 / 75 positions

## NEU 50 % MORE CAPACITY IN THE TOOL CHANGER AND PALLET CHANGER

## NEU THE PERFECT SPINDLE SOLUTION FOR EVERY APPLICATION

- Air bearing high-frequency milling spindle – „THE ELEGANT“
  - for ultra-precision and maximum surface quality
  - rotation speed up to 80,000 r.p.m.
- Air-oil lubricated spindle – „THE ALL-ROUNDER“
  - rotation speed up to 42,000 r.p.m.
- Air-oil lubricated spindle – „THE POWERFUL“
  - for high cutting performance
  - rotation speed up to 24,000 r.p.m.



## BASIS FOR BEST PERFORMANCE

Particularly high stiffness and low vibration – the basis for the outstanding dynamics and precision of the PRIMA CON P40 CC – are decisively achieved by two constructive measures: On the one hand, the developers put great emphasis on keeping the moving masses extremely small. On the other hand, machine beds and lifting stands are constructed in steel-concrete composite construction. Thus, the stiffness of steel could be combined with the damping properties of concrete.

A solid foundation for the further set-up: The machine bed carries the longitudinal slide with the rotary axes, the driving stand the vertical slide with the milling.

- High-dynamics concept – innovative axes arrangement for minimal balancing movements in the linear axes and exceptional acceleration also in the rotation and swivel axis thanks to modern torque technology
- Machine bed and motors water-cooled – for maximum precision without temperature drift
- Hydraulic compensation of vertical weight

## ADVANTAGES OF THE P40 CC

### NEU ENERGY EFFICIENCY KIT

- Automated complete shutdown of the machine
- 0.2 kW standby power / 1.9 kW at standstill / 3.5 kW in reference mode
- State-of-the-art smart meter functions

### NEU MULTI-MACHINING

- HSC-cutting
- Coordinate grinding
- Guilloché

- NEU Lowest surface load 750 kg/m²; loadable according to customer requirements (for highly dynamic applications)

- ✓ Customised solutions possible due to modular 5-axis machine concept (As option also available with 3 axes)

- ✓ Low maintenance, thus high machine availability and low maintenance costs

- ✓ Economical processing of any machinable material

- ✓ Reliability and longevity in 24 hours continuous operation

- ✓ User-friendly handling with ergonomically designed machine control elements

- ✓ Equipped with the latest high-tech components

- ✓ Processing of dusty materials without refitting or upgrading the machine

- ✓ Optimised temperature management system with 0.1 Kelvin hysteresis

- ✓ Reliable chip removal thanks to optimised tub flushing (even with high chip volume)

- ✓ Minimum quantity cooling lubrication system, full jet lubrication, cold air nozzle, chip conveyor, IKZ up to 80 bar

- ✓ Conventional clamping systems (System 3R, EROWA) and open interface for customised solutions

- ✓ Long-lasting micro-precision

- ✓ Zero point stability – cooling of all heat-emitting elements (milling spindle, motors, axes, control cabinet); active cooling of the cooling lubricants

- ✓ Tailstock for 5-axis simultaneous machining

- ✓ High precision set according to VDI / DGQ 3441 P/PS in mm 0,0015 / 0,001

- ✓ Low installation dimension of less than 4 m² including automation

- ✓ 3D touch probe for workpiece measurement in the machine

- ✓ Laser tool measurement (dirt-insensitive); more precise measuring results through smaller focus point

- ✓ High contour accuracy of the finished workpiece when machining at high speed



- ✓ Watch and jewellery industry
- ✓ Tool and mould making
- ✓ Fluid mechanics
- ✓ Dental and medical technology
- ✓ Optics
- ✓ Micro and precision engineering



- ✓ Hard machining
- ✓ Fibrous composite materials
- ✓ Ceramics



- ✓ Guilloché
- ✓ High-gloss surfaces