

CNC milling machine

OPTImill F 210HSC

OPTIMUM[®]
MASCHINEN - GERMANY

High precision, solid construction, effectiveness and economy

Article Number ▼

3511222

Availability ▼

In stock
Immediate delivery

Brand ▼

Optimum

Catalog Path ▼

Metalworking machines » CNC milling machines »
OPTImill F 210HSC

Order ▼

Minimum 1 pc(s).



Shipment Informations ▼

Packaging Metrics		Weights		Delivery	
Length	n/a	Gross	4,510 kg	Delivery	Special transportation
Width	n/a	Net	4,250 kg	Content	1 pc(s).
Height	n/a				

Description ▼

- Siemens Sinumerik control 828D with 15.6 inch touch display
- Difficult execution
- High productivity
- High reliability
- Profile rail with roller circulation for high rapid traverse speeds and high load capacities
- Machine lamp in the workroom
- Automatic lubrication
- High-torque servo drives in all three axes
- Strongly ribbed, torsion-free machine base
- Massive, exact milling table with four T-slots, large dimensions and precision ground
- Portable, electronic handwheel
- Chip conveyor in belt design ensures efficient chip removal
- RJ45 connector, USB port and power connector 230V
- Coolant system with 370 liters coolant tank and chip flushing system
- Closed control cabinet with integrated heat exchanger ensures optimum temperature and prevents the ingress of dirt particles
- Telescopic guideway cover on all three axes
- Including two years SIEMENS warranty

SINUMERIK 828D - The powerhouse in the compact class of CNC controls

First choice for every machining technology

- Even at the highest processing speeds, the intelligent motion guides Advanced Surface (standard) and Top Surface (optional item no. : 3584012) ensure optimum workpiece surfaces
- Easy transfer of the CAD data into the programming on the CNC by DXF-Reader (optional article no. : 3584014).
- 3D simulation on the PC for better control and optimization of the manufacturing process

Included

- Safety Integrated
- Remaining material detection and processing
- ShopMill machining step programming
- Manage network drive
- 3-D simulation
- Simultaneous recording
- PPU 290 with system software SW 28x

Control with control panel with PPU 290

- 15.6" color display
- 16: 9 format
- Capacitive display with multi-touch controller
- Intuitive multi-touch operation
- Softkey selection via touch function
- Proximity sensor / distance sensor for smart display control
- Die-cast magnesium panel front with scratch-resistant glass front
- No battery (permanent data caching by NV-RAM technology)
- No fan
- No hard disk
- Operation with work gloves possible
- Front interfaces: USB 2.0, RJ45 Ethernet, IP65 also with open protective flap

Functional safety also protects against high costs

- Avoidance of direct consequential costs of personal injury
- Avoidance of indirect consequential costs of injuries
- Increased productivity through increased machine availability: fewer unplanned downtime and smoother production
- Longer service life of the systems
- Improving global competitiveness by increasing the exportability of machinery

Room amenities

spindle

- Belt drive or inline spindle: mount ISO 40 / DIN 69871
- Electronic spindle: mounting HSK A-63
- Spindle speeds: 10,000 rpm, 12,000 rpm or 14,000 rpm

linear guide

- High rapid traverse speed 30,000 rpm in all three axes

milling table

- Solid, exact and large dimensions
- Clamping surface 900 x 520 mm
- Precise surface finish

cast body

- Quality cast in ribbed version

machine feet

- Six pieces
- Optimal alignment of the machine

cleaning gun

- Easy cleaning of the working space

Ball screws

- Accuracy class C3
- For high accuracy and repeat accuracy
- Direct coupled servo ball screw drive

Spänespülsystem

- Powerful chip flushing system for cleaning work space and workpiece

Tool changing system

- Double arm gripper with 30 tool places
- Max. Tool length 300 mm

Oil separator / oil skimmers

- Separation of non-emulsified foreign oils by skimming
- Separation of the solids by settling in the collecting container

linear guide

- Profile rails with roller circulation guide

Central lubrication system

- Prevents wear, repair costs and unnecessary downtime considerably

chip conveyor

- tape version
- For efficient chip removal

Coolant System

- Three coolant pumps each with 560 W
- Tank capacity 370 liters
- Delivery rate 155 l/min

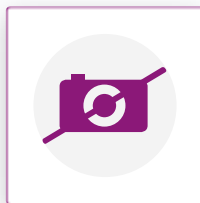
Technical Data

Dimensions and weights			
Length (product) approx.	3838 mm	Width/depth (product) approx.	2280 mm
Height (product) approx.	2260 mm	Net weight approx.	6250 kg
Drilling/milling output			
Max. size milling head	63 mm	Max. size shaft milling cutter	32 mm

Fast motion speed			
Fast motion speed X axis	30000 mm/min	Fast motion speed Y axis	30000 mm/min
Fast motion speed Z axis	30000 mm/min		
Electric Data			
Supply voltage	400 V	Phase(s)	3 Ph
Current type	AC		
Milling table horizontal			
Horizontal milling table length	900 mm	Horizontal milling table width	520 mm
Min. clearance vertical spindle - horizontal milling table	100 mm	Max. clearance vertical spindle - horizontal milling table	600 mm
Horizontal milling table T-groove size	16 mm	Horizontal milling table T-groove number	5
Horizontal milling table T-groove spacing	80 mm	Horizontal milling table max. load bearing capacity	450 kg
Precision			
Repetition accuracy	± 0.005 mm	Positioning accuracy	± 0.005 mm
Cooling lubricant system			
Number of coolant pumps	3 St	Coolant pump(s) drive power	0,56 kW
Cooling lubricant system tank capacity	370 l	Cooling lubricant system flow rate	155 l/min
Pneumatic connection			
Pneumatic connection operating pressure	5 – 7 bar		
Travel			
Travel X axis automatic	800 mm	Travel Y axis automatic	500 mm
Travel Z axis automatic	500 mm		
Vertical spindle			
Vertical spindle spindle chuck	ISO 40 / DIN 69871	Vertical spindle speed range	10000 min ⁻¹
Explanation vertical spindle speed range	Please note that the maximum spindle speed in continuous operation must be reduced by approx. 20	Vertical spindle drive motor output continuous operation S1	9 kW
Vertical spindle drive motor output S6-30 % operation	21,2 kW	Vertical spindle torque drive motor continuous operation S1	57 Nm
Vertical spindle torque drive motor S6-30 % operation	135 Nm		
Feed force			
Feed force X-axis	4,1 kN	Feed force Y-axis	4,1 kN
Feed force Z-axis	5,9 kN		
Feed motor torque			
Feed motor torque X axis continuous operation S1	11 Nm	Feed motor torque Y axis continuous operation S1	11 Nm
Feed motor torque Z axis continuous operation S1	16 Nm		
Turret			
Tool changer design	Double arm gripper	Number of tool slots	30 Tools
Max. tool diameter adjacent slots free	125 mm	Max. tool diameter	75 mm
Max. tool length	300 mm	Max. tool weight	8 kg
Tool change time tool to tool (T to T)	2 s		
Electrical connections			
Total rated value	31 kVA		

Control			
Control type	Sinumeric 828D	System software	SW 28x
CNC memory	8 MB	Set change time	1 ms
Look Ahead	150	Number of tools	512

Options Equipment ▼



Fourth and fifth axle complete kit

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Article Number ▼

3511290250

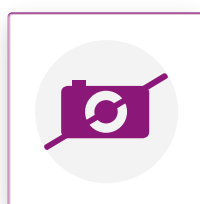
Availability ▼

No stock available
Delivery time on request
Next availability
Unknown

Order ▼

Minimum 1 pc(s).

Price Informations ▼



Tool workpiece measurement

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Touching probe for tool measurement
Renishaw OTS

Article Number ▼

3582011

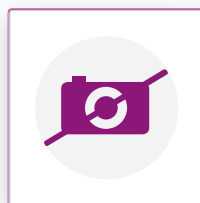
Availability ▼

No stock available
Delivery time on request
Next availability
Unknown

Order ▼

Minimum 1 pc(s).

Price Informations ▼



Air conditioning

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for OPTImill F 210HSC / F 310HSC / F 410
HSC

Article Number ▼

3511290402

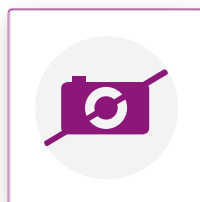
Availability ▼

No stock available
Delivery time on request
Next availability
Unknown

Order ▼

Minimum 1 pc(s).

Price Informations ▼



Tool workpiece measurement

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Touch probe with optical signal transmission
Renishaw OMP40

Article Number ▼

3582010

Availability ▼

No stock available
Delivery time on request
Next availability
Unknown

Order ▼

Minimum 1 pc(s).

Price Informations ▼



Tool workpiece measurement
Renishaw OTS probe and Renishaw OMP40-2 probe

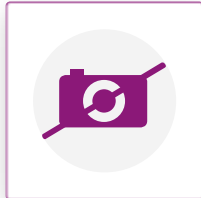
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Article Number ▼
3582012

Availability ▼
No stock available
Delivery time on request
Next availability
Unknown

Order ▼
Minimum 1 pc(s).

Price Informations ▼



spindle
Kessler Built in

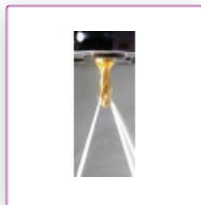
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Article Number ▼
3511290014

Availability ▼
Blocked article

Order ▼
Minimum 1 pc(s).

Price Informations ▼



Internal spindle cooling
CTS aggregate integrated, 20 bar

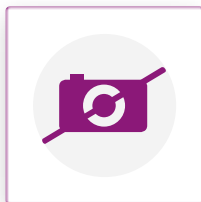
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Article Number ▼
3511290100

Availability ▼
In stock
Immediate delivery

Order ▼
Minimum 1 pc(s).

Price Informations ▼



Inline spindle
12000 min¹

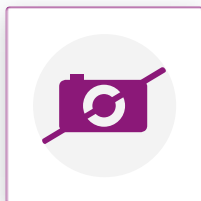
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Article Number ▼
3511290002

Availability ▼
In stock
Immediate delivery

Order ▼
Minimum 1 pc(s).

Price Informations ▼



Fourth axis

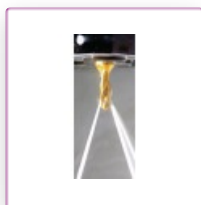
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Article Number ▼
3511290201

Availability ▼
In stock
Immediate delivery

Order ▼
Minimum 1 pc(s).

Price Informations ▼



Internal spindle cooling
CTS external unit, 20 bar

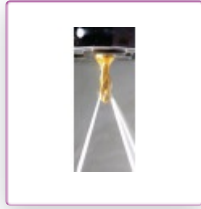
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Article Number ▼
3511290102

Availability ▼
No stock available
Delivery time on request
Next availability
Unknown

Order ▼
Minimum 1 pc(s).

Price Informations ▼



Internal spindle cooling CTS external unit, 70 bar

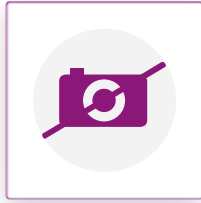
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Article Number ▼
3511290104

Availability ▼
In stock
Immediate delivery

Order ▼
Minimum 1 pc(s).

Price Informations ▼



Fourth and fifth axis

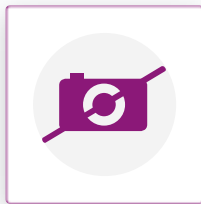
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Article Number ▼
3511290202

Availability ▼
No stock available
Delivery time on request
Next availability
Unknown

Order ▼
Minimum 1 pc(s).

Price Informations ▼



Power Transformer

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Article Number ▼
3511290502

Availability ▼
No stock available
Delivery time on request
Next availability
Unknown

Order ▼
Minimum 1 pc(s).

Price Informations ▼



Fourth axis complete set

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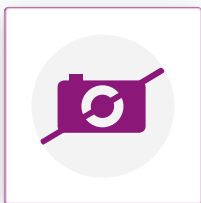
Article Number ▼
3511290210

Availability ▼
No stock available
Delivery time on request
Next availability
Unknown

Order ▼
Minimum 1 pc(s).

Price Informations ▼

Accessories ▼



Starter kit SK40 / DIN 69871

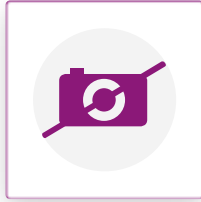
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Article Number ▼
3536109

Availability ▼
No stock available
Delivery time on request
Next availability
Unknown

Order ▼
Minimum 1 pc(s).

Price Informations ▼



Starter kit HSK A-63

Article Number ▼ 3536110
Availability ▼ No stock available
Delivery time on request
Next availability
Unknown
Order ▼ Minimum 1 pc(s).

Price Informations ▼

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Measuring and tool setting probe BLUM TC 52IR and ZX-Speed IR infrared transmission

Touching tool measuring system with infrared transmission

Article Number ▼ 3582108
Availability ▼ No stock available
Delivery time on request
Next availability
Unknown
Order ▼ Minimum 1 pc(s).

Price Informations ▼

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Workpiece probe BLUM TC 52IR infrared transmission

Universal probe for shortest measuring time

Article Number ▼ 3582102
Availability ▼ No stock available
Delivery time on request
Next availability
Unknown
Order ▼ Minimum 1 pc(s).

Price Informations ▼

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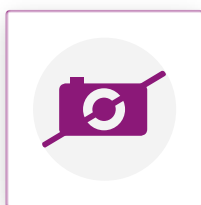
Tool setting probe BLUM ZX-Speed IR infrared transmission

Touching tool measuring system with infrared transmission

Article Number ▼ 3582104
Availability ▼ No stock available
Delivery time on request
Next availability
Unknown
Order ▼ Minimum 1 pc(s).

Price Informations ▼

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Software DXF reader for SIEMENS SINUMERIK control systems

Article Number ▼ 3584014
Availability ▼ In stock
Immediate delivery
Order ▼ Minimum 1 pc(s).

Price Informations ▼

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Software

Top surface for SIEMENS SINUMERIK control

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Article Number ▼

3584012

Availability ▼

No stock available
Delivery time on request
Next availability
Unknown

Order ▼

Minimum 1 pc(s).

Price Informations ▼

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