

动柱式
加工中心
MOBILE COLUMN
MACHINING CENTER

B166

C.B.Ferrari

ITALIAN EXCELLENCE SINCE 1966



公司简介 THE COMPANY

传统与创新

伴随着自1966年起的不断突破、创新以及坚持对性能与精度的不懈追求，C.B.Ferrari 在广泛的加工应用领域内皆游刃有余，获得了市场的肯定与信任，这奠定了其在世界上高精度五轴加工中心生产商的中的领导地位。

意大利是欧洲第二大机床生产国，也是世界第五大机床生产国。目前C.B.Ferrari在意大利运营两家工厂，共有170余名积极的高技术员工，在生产高精度机床上具备丰富的经验与优秀的传统，同时自主生产包含电主轴和旋转工作台在内的绝大多数机床部件，这一切使得C.B.Ferrari能保证产品优异的质量和可靠性。

C.B.Ferrari在世界范围内安装超过4500台机床，并就近提供及时的销售和售后服务。C.B.Ferrari确保客户能够获得极高水平的技术支持，并享受业内顶尖水准的机床性能与精度。

TRADITION AND INNOVATION

Since 1966 constant innovation, performance based approach and market recognized and consolidated superior accuracy, achieved in a wide variety of manufacturing applications, have led C.B.Ferrari to a world leading position in high precision 5-Axes CNC machining centers solutions.

Currently C.B.Ferrari operates with two manufacturing facilities in Italy, the second major machine manufacturing country in Europe and the fifth in the World. 170 skilled and highly motivated employees, enjoying the homeland long-standing tradition in precision mechanics, design and manufacture all machines in house including electro-spindles and rotary tables, ensuring extraordinary quality and reliability over the time.

With more than 4500 machines successfully installed worldwide, supported by a complete and prompt sales and service network, C.B.Ferrari ensures its customers the ultimate manufacturing support, achieving state-of-the-art results in terms of accuracy and performances.

服务内容 SERVICES



C.B.Ferrari 提供广泛的技术服务，包括：

- 全球范围的销售和服务网络
- 专有主轴、分度头的制造与维修
- 顶尖的专有CAM软件和仿真模拟软件
- 交钥匙解决方案
- 机床操作示范及加工效率优化
- 精度和重复定位精度测试
- 定制自动化解决方案
- 旧机床翻新
- 全面的技术培训



C.B.Ferrari offers comprehensive consulting, including:

- *Worldwide Sales and Service Network*
- *Proprietary Spindles and Dividing Heads Manufacturing and Repair*
- **Proprietary CAM and Simulation Software products**
- *Turnkey Projects*
- *Machine Demonstration and Time Studies*
- *Accuracy and Repeatability Tests*
- *Customized Automation Solutions*
- *Used machines Overhauls*
- *Training programs*

B



B166

B166 是带移动立柱的高速立式加工中心，具有三个直线运动轴，特别适用于精密零件、电极以及模具的加工。

有多种电主轴可供选择，能够满足最先进的加工技术在速度、扭矩和功率方面的需求。

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The B166 is a vertical high-speed mobile column machining center, having three linear axes moving the tool, particularly suitable for the machining of electrodes, precision components and molds.

For B166, a wide range of electrospindles are available to meet the demands of the most advanced machining technologies for spindle speed, torque and power.



产品优势 **ADVANTAGES**

采用水平工作台的紧凑结构

动柱式结构大大减少了机器的占地面积，水平工作台有效提升了载荷。

刚性铸铁结构

稳定的工艺贯穿整个铸造过程，保持机床的长久的精度保持。

高精度

紧凑的设计加上绝对光栅尺，使得B156在精度和重复定位精度上跻身世界顶尖行列。

纤细的主轴鼻端

与同类产品相比，纤细的主轴鼻端减小了干涉区域大大减少了对刀柄长度的需求，提高了加工刚性。

COMPACT HORIZONTAL TABLE LAY-OUT

The mobile column structure lends the machine to a reduced floor space need as well as an optimal accessibility, while the horizontal table present high loading capabilities.

STIFF CAST-IRON STRUCTURE

The manufacturing process, together with the stabilization treatment provides the machine with precision and over time stability

HIGH PRECISION

Thanks to the compact axis travels and the absolute linear scales the machine is recognized between the market leaders for accuracy and repeatability in its class.

SLIM NOSE ELECTROSPINDLES

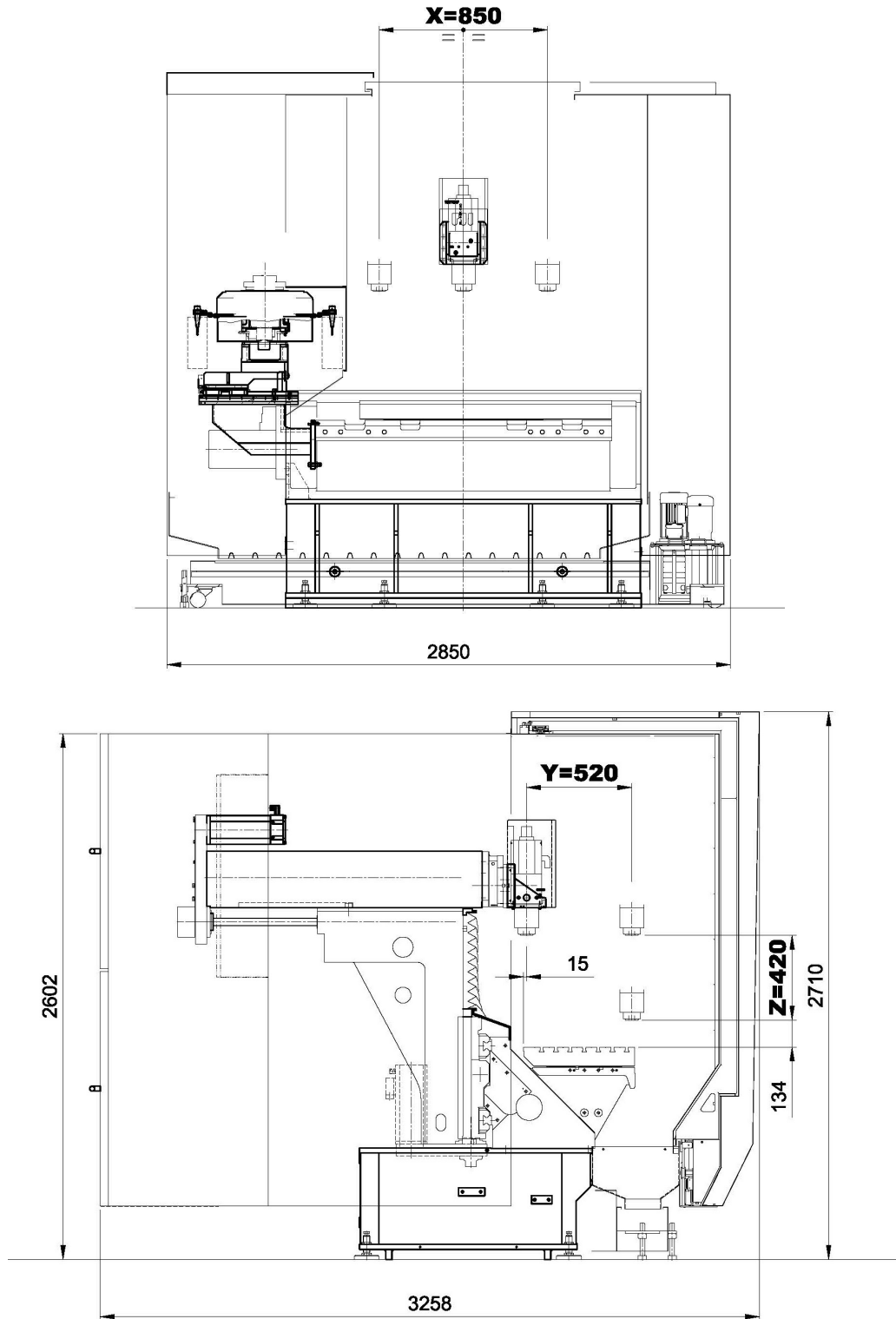
They allow the use of tools and tool holders with a significantly shorter length compared to our competitors, ensuring perfect machining accessibility even in reduced operating spaces.

产品参数 FEATURES

	B166
行程 · SLIDE TRAVELS	
X轴 Longitudinal (mm)	850
Y轴 Cross (mm)	520
Z轴 Vertical (mm)	420
测量系统 · MEASURING SYSTEM	
绝对光栅尺 Absolute optical linear scales	Heidenhain
绝对编码器 Absolute encoders	
轴 · AXES	
XYZ 进给速度 Feed rates XYZ (m/min)	40-30-30
轴推力/扭矩100% ÷ 最大轴推力/扭矩 Axes thrust/torque at 100% ÷ Axes thrust/torque (Nm)	7000 ÷ 14000 (XY) 11000 ÷ 22000 (Z)
工作台 · TABLE	
固定工作台尺寸 Fixed table dimension (mm)	1500x550x100 H
尺寸与重量 · DIMENSIONS AND WEIGHTS	
有防护尺寸 Measures for passage (m)	2,40 x 2,70 H
无防护尺寸 (m) Passage with disassembled guarding (m)	1,75 x 2,70 H
净重 Net weight (kg)	6500
可移动刀库 · MOVABLE ROTABLE MAGAZINE	
ISO V30/HSK E40 - n° 30	ISO V40/HSK A63 - n° 30



刀库
TOOLS MAGAZINE



机床布局
B166

MACHINE
 LAYOUT

电主轴 *ELECTROSPINDLES*

C.B.Ferrari 所有机床配备自主设计并制造的电主轴,可以为其用户提供以下卓越的优势:

- 库存有充足的备用电主轴
- 响应时间短且主轴易于更换
- 低廉的维修费用
- 减少机床停机时间

陶瓷球轴承

集成同步电机

温度控制功能

液体冷却系统

刀具轴向热变形自动补偿

C.B.Ferrari design and manufactures in house all the electrospindles its machines are equipped with, offering remarkable advantages to its customers:

- *Spare spindles always available*
- *Easy replacement with minimum intervention time*
- *Low repair cost*
- *Reduced machine downtime*

Ceramic ball bearings

Integrated synchronous motor

Temperature controlled operation

Liquid cooling system

Automatic compensation of thermal expansion along the tool axis

The tilting of the head can be mechanical or torque (optional)

40.000 RPM	HSK E40	10/14 Kw	5/7 Nm	Type 051555
28.000 RPM	HSK E40	25,5/32,5 Kw	18/23 Nm	Type 051553
24.000 RPM	ISO V40	30 Kw	42/59 Nm	Type 050486
24.000 RPM	IHSK A63	30 Kw	42/59 Nm	Type 050488
20.000 RPM	ISO V40	28 Kw	63/83 Nm	Type 051556
20.000 RPM	HSK A63	28 Kw	63/83 Nm	Type 051557
16.000 RPM	ISO V40	33 Kw	105/140 Nm	Type 050477
16.000 RPM	HSK A63	33 Kw	105/140 Nm	Type 050478
16.000 RPM	HSK A63	52 Kw	150/240 Nm	Type 051577
9.000 RPM	ISO V40	31/42 Kw	130/175 Nm	Type 050498
9.000 RPM	HSK A63	31/42 Kw	130/175 Nm	Type 050499

数控系统选项 *AVAILABLE CONTROLS*



SIEMENS 840D SL



HEIDENHAIN TNC 640

绝对测量系统 *ABSOLUTE MEASURING SYSTEM*



所有机床均配备海德汉绝对光栅尺
*All machines are equipped with Heidenhain
absolute linear scales.*

附件 ACCESSORIES

机床可安装以下标准配件：

- 适用于钢件加工的排屑器
- 用于铝合金钛合金加工的排屑器
- 废气过滤器
- 75bar主轴中心出水
- 刀具气冷系统
- 刀具油气冷却系统
- 2D或3D接触式测头
- 接触式对刀仪
- 激光对刀仪
- 旋转视窗
- 根据要求可安装其他配件

The machine can be equipped with the following STANDARD accessories:

- Chips conveyor for Steel
- Chips conveyor for Aluminium/Titanium
- Exhaust filter
- Through spindle coolant system 75 bar
- Tool blower air system (standard)
- Tool blower air/oil system
- 2D or 3D Touch probe
- Touch tool setting device
- Laser tool setting device
- Spin window on door (rotoclear)
- Other options available on request



2D-3D 工件测量系统
2D-3D control piece group



激光对刀仪
Laser tools setting device



接触式对刀仪
Contact tools setting device



中心出水冷却单元 - 75 BAR
500升水箱 - 鼓式过滤器
THROUGH SPINDLE COOLANT GROUP - 75 BAR
500 lts tank - Drum filter

应用一览

APPLICATION SECTORS



模具制造
医用医疗
汽车行业
精密机械

*MOULDS AND DIES
MEDICAL
AUTOMOTIVE
PRECISION MACHINERY*



C.B.Ferrari

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