

Cylinder Boring Machine

CB155M



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The machine and its features

Precision, fast operation and reliability are the main features of the CB155 and CB155M Cylinder Boring Machines. The two models, dimensionally and structurally alike, only differ in the table drive system manual traverse on the CB155 and power traverse on the CB155M.

The CB155 and CB155M machines, are featured by:

Structure components all in high resistance, stress relieved cast iron;

Integral slide ways

widely dimensioned and finished with a particular process which assures, even under max. load, an even and rational dispensing of the lubricating film;

Controls and main plates

are, all of them, located on one side of the machine in a position comfortable for both reading and moves. They will ever, in any case, interfere with preparation of the machine and loading/unloading of the cylinder blocks;

Top machining precision

at both the start and the end of the work day because the heat generating components are not in direct contact with the spindle head or the column;

High output transmission of rotation and feed. No low reliability belt type variators. Gearing, bearings and heat treated shafts run in oil bath;

Simple and fast preparation of machine.

A device allows to interchange the boring spindle with the cutter arbor without any waste of time. Furthermore, the boring spindles do not need change of the toolhead to cover their boring range. The assembly tool/toolholder allows presetting out of machine, except for the smallest spindle;



Angular positioning of the tool inside the cylinder can be checked and adjusted by turning the boring spindle manually;

Mechanical and electrical safety devices

against overload, wrong moves, overvoltage and voltage drops;

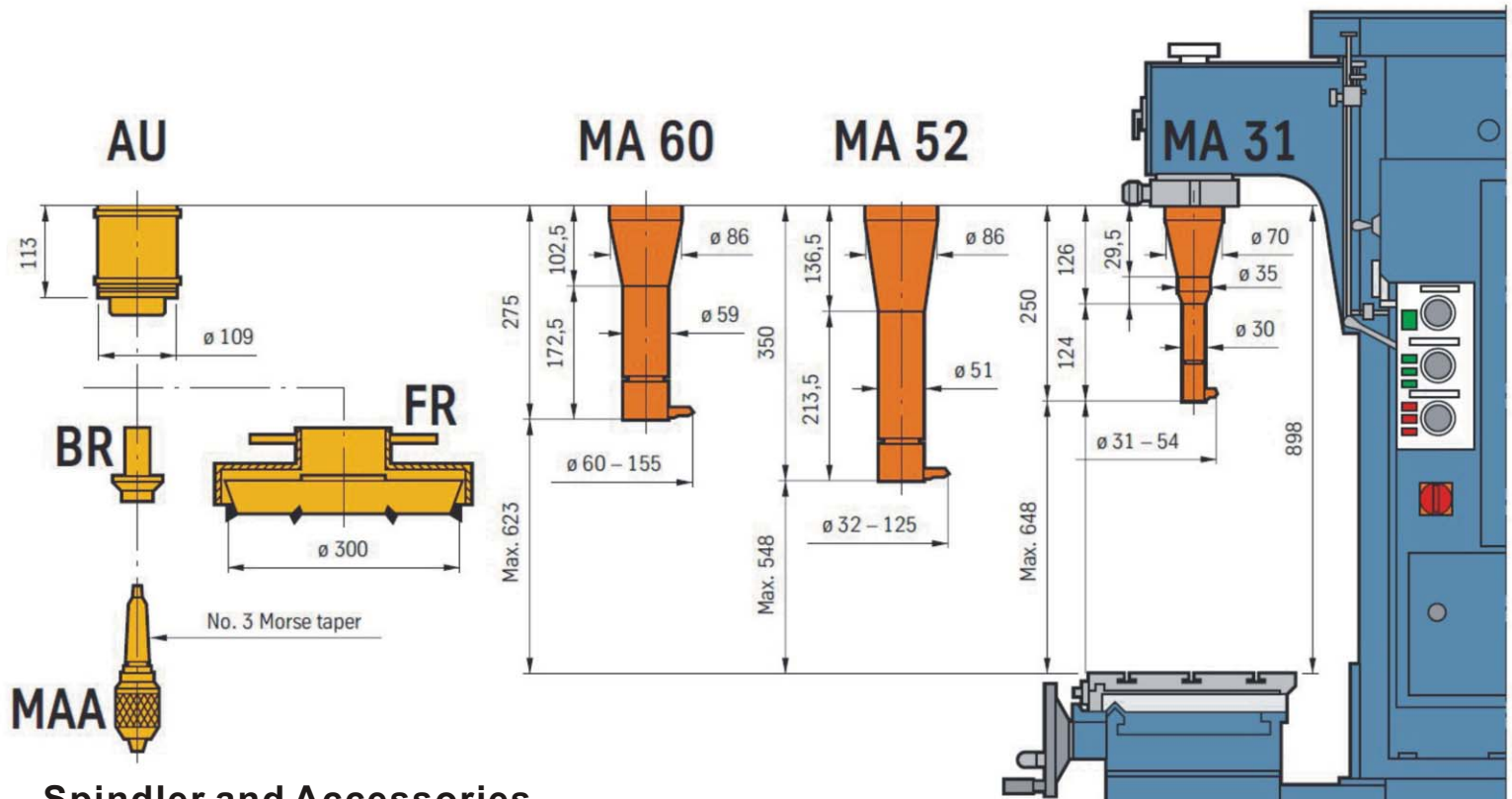
Electrical equipment

designed according to CEI standards and in full compliance with the accident prevention regulations; all controls are low voltage.



Many specific optionals such as spindles, tools, setup fixtures and squares are available on request, to boost the top flexibility and production features of this new line of boring machines, thus coping with the manifold requirements of our customers

The machine and its components



Spindler and Accessories

Type	Toolholder	BORING	
		capacity dia. Mm	brazed tip
MA31	—	31 – 42	U202265301
		1.22" - 1.65"	*
		40 – 54	U202265331
		1.57" - 2.13"	*
MA52	A00A23668	52 – 62	U202267051
		2.05" - 2.44"	
	A00A23669	60 – 92	*
		2.36" - 3.62"	
	A00A23670	90 – 125	U202267061
		3.54" - 4.92"	
MA60	A00A23669	60 – 92	U202267051
		2.36" - 3.62"	
	A00A23670	90 – 125	U202267061
		3.54" - 4.92"	
	A00A23771	123 – 155	*
		4.84" - 6.10"	

* Tools supplied as standard outfit of the relevant spindles

ACCESSORIES

AU	A00A23800	Universal adaptor for milling cutter and step-down bush
BR	A00A23902	Step-down bush with No. 3 Morse taper
FR	A00A23820A	300 mm (11.8") dia. milling cutter with 8 multiedged insert No. U003355020 for cast iron and aluminium (only for AC 650M)
MAA	A00A23903	Drill chuck, capacity dia. mm 1 – 13 (3/64" - 33/64")

The machine and its components

Centering a cylinder with the fixture equipping the boring spindle.



Drilling machine tool components with, respectively, a drill mounted in taper seat bush and in the drill chuck.



Milling an in-line block top with multiedged insert milling cutter.



Measuring device mounted on MA 31 spindle.



Measuring device, for setting tool out of machine.

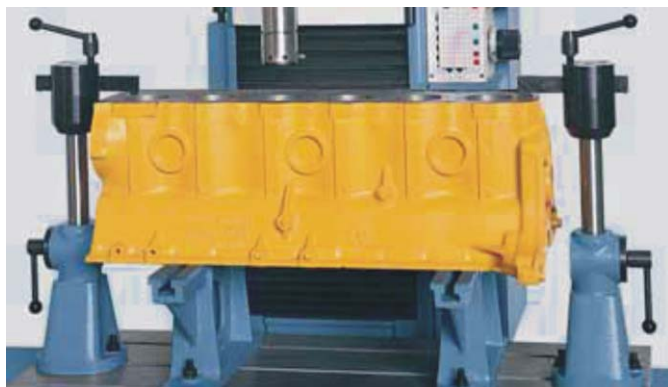


Motorcycle cylinder clamping fixture.



The machine and its components

Quick clamping fixture for in-line block mounted on parallel supports.



Fixture for boring 90° and 60° V-blocks.



CB155 standard outfit:

- *parallel support
- *Measuring device

CB155M standard outfit:

- *Universal adapter
- *milling head
- *Ms3 step down bush
- *parallel support
- *Measuring device

PCV Universal V-block fixture.
Photo shows the 45° setup square.

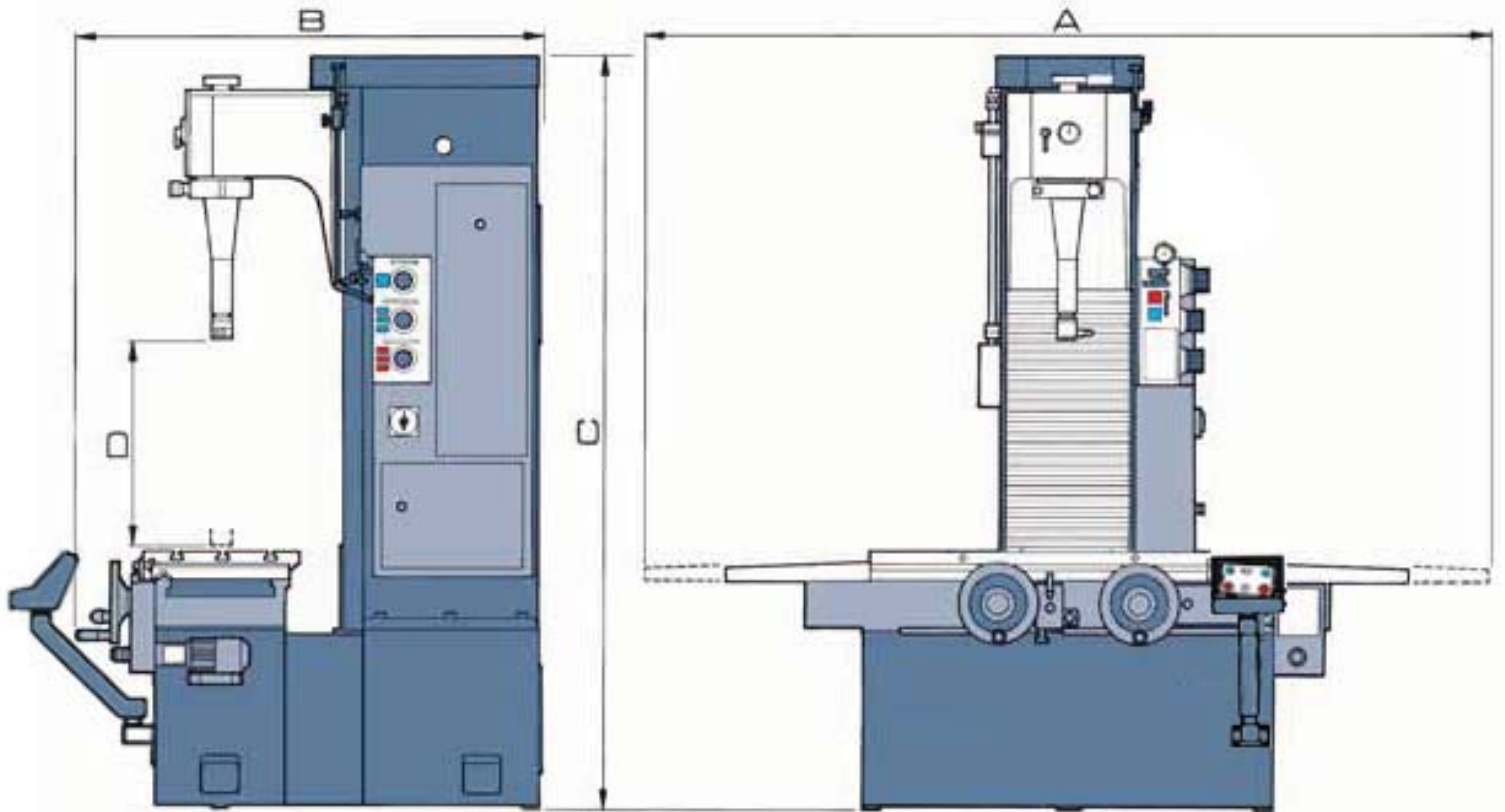


Optional component(for CB155/CB155M)

MA31 spindle with its measuring device
MA52 spindle with its measuring device
MA60 spindle
(MA53 and MA60 use same measuring device)

Quick clamping fixture inline
Universal V block fixture
90 and 60 V block fixture
Motorcycle cylinder clamp fixture

Technical data



Working capacity

Boring capacity	mm (inch)	31 - 155 (1.22" ÷ 6.10")
Max. boring depth	mm (inch)	350 (13.78")
Max. milling width	mm (inch)	298 (11.73")
Max milling area	mm (inch)	200 x 825 (7.87" x 32.48")

Geometric features

Max spindle head travel (D)	mm (inch)	530 (20.87")
Distance spindle C/L to column ways	mm (inch)	335 (13.20")
Useful table surface	mm (inch)	400 x 1000 (15.75" x 39.37")
Max table traverse	mm (inch)	880 (34.64")
Max table cross traverse	mm (inch)	100 (3.94")

Speeds

Spindle rotation speeds (6)	r.p.m.	105 ÷ 210 ÷ 280 (390 ÷ 550 ÷ 780)
Spindle head work feed speed (3), per revolution	mm (inch)	0.06 ÷ 0.12 ÷ 0.18 (0.0024" ÷ 0.0047" ÷ 0.0071")
Spindle head fast feed, up and down, per minute	mm (inch)	1200 (47.24")
Table work feed speeds (2), per minute	mm (inch)	52 ÷ 104 (2.05" ÷ 4.10")

Motor rating

Spindle head work feed and spindle rotation	kw	1.2 ÷ 0.9 (1.6 ÷ 1.2HP)
Fast spindle head traverse, up and down	kw	0.060 (0.080 HP)
Table traverse	kw	0.072 (0.094 HP)
Tool grinder	kw	0.190 (0.250 HP)

Dimensions

Length (A)	mm (inch)	2570 (101")
Width (B)	mm (inch)	1175 (46.25")
Height (C)	mm (inch)	1920 (75.59")

Weight

Approx. weight, unpacked	kg (lbs)	1240 (2731) 1250 (2753)
Approx. weight, ocean packed	kg (lbs)	1540 (3392) 1550 (3414)