Wheel balancing machine with 15" TFT flat screen

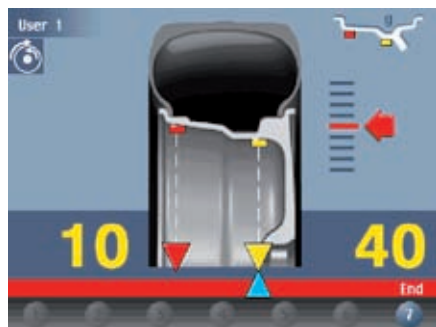CEMB 1946

User 1

10
Fine   Static
1 2 3 4 5 6
Split

CEMB C73

IC Intelligent correction
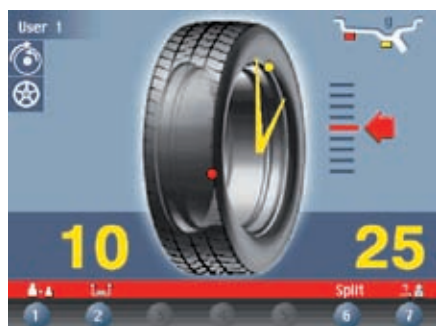
CEMB C73 L
BALANCING MACHINES

C73 L
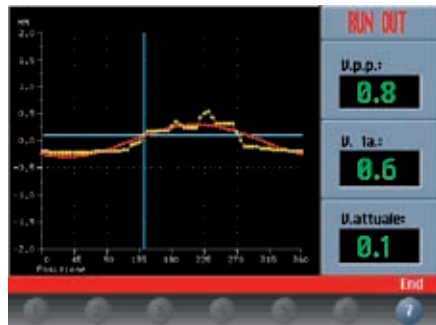
Eccentricity measuring system (1st Harmonic and Peak to Peak) through Sonar (Option).

ALU-S function with "intelligent" gauge (automatic input of diameter and distance). Axial weight position indication for wheel in ALU-S.

SPLIT program to divide counterweights between spokes of alloy rims.

RPR function (Rear Planes Residual). It allows the simultaneous visualization of unbalance values: at the set correction planes, at the real correction planes (clip-on weight on rim edges).

General features

For car, light commercial vehicle and motorcycle wheels. Large wheel guard (42"), space-saving enabling the positionning of the machine rear side against the wall.

15" TFT flat screen. 3D graphics with CEMB graphical processor.

A balancing accuracy of 0,5 grams.

Automatic input of the rim diameter and distance rim/machine by simply pulling out the gauge, without pressing any button.

Personalised display, language and machine functions. Automatic wheel spin when the guard is lowered.

Unbalance tolerance threshold (adjustable).

Self diagnosis and self-calibration.

Clock on video.

Daily and total spin counter.

Pedal stationary brake to ease locking and unlocking wheels on adaptors as well as for counterweights fitting.

Automatic braking and automatic wheel positioning on outer side.

Optimisation program to compensate the tyre unbalance with the rim unbalance.

Four-operator program, to enable four different operators to memorize dimensions of four different vehicles at the same time. Possibility of writing names of operators on the screen.

"Automatic" minimisation of static unbalance

It indicates the optimal value of weights to apply, by using an "intelligent" averaging system to minimise residual static unbalance unavoidable by using the standard weights on the market, available in 5 g ranges.
The static unbalance is the major cause to most car vibration. Thanks to static minimisation, balance quality appreciably improves with no effort and no loss of time for operator.

Initial unbalance	Default	Possible approximations		
Inside 23 g - Outside 18 g Angle 50°	Inside 25 g - Outside 20 g Static residual 4 g	Inside 25 g - Outside 15 g Static residual 3 g	Inside 20 g - Outside 20 g Static residual 1 g	Inside 20 g - Outside 15 g Static residual 6 g
	By conventional wheel balancer	Select with CEMB minimization		

Ease of use

The correction planes set inside the wheel, can be found with distance gauge after the measure spin. A handy pincer allows the counterweight application in the exact correct position.

LA optional automatic wheel width measure using the SONAR system (CEMB patent), with no operator manual intervention.

EMS optional no contact measurement system of wheel radial eccentricity through SONAR during balancing cycle (CEMB patent). Eccentricity measure in tenth of millimeters of 1st Harmonic and Peak to Peak.

SPLIT program

For alloy rims with spokes (vectorial component balancing), to recalculate the unbalance and to correct it in a hidden position behind the two nearest spokes.
The new CEMB software further simplifies the use because it is not longer necessary to input the number of spokes.

Opzionale: WBL80

The WBL80 reduces the operator time and fatigue. It guarantees an accurate centring of the wheel. Thanks to the "soft" lift system allowing small adjustments in height. For a better centering, we advise to use the adaptors with centering studs.
More information on the specific catalogue.

IC®

CEMB
BALANCING MACHINES

From the industrial field experience CEMB

IC - Intelligent Correction®

From an extensive experience over 50 years in the automotive industrial sector, and particularly, in the automated production lines for mounting and balancing OEM wheels, we are now able to supply this innovative high-tech software on our garage wheel balancers.

Both car manufactures and international norms indicate that vibration generated by wheels depends on their mass and unbalance mode: static or dynamic couple. There fore the balancing tolerance cannot be considered as a fixed value suitable for any wheel but must be carefully calculated for each wheel, the IC - Intelligent Correction® derives from these considerations.

The software IC - Intelligent Correction®, contrary to similar programs used so far, after having evaluated the necessary tolerances (divided between static and dynamic) researches the most convenient correction method to balance the wheel within the correct tolerance. The software, through complex elaboration, automatically calculated the unbalance values and positions in order to bring the wheel into tolerance minimizing time and material.

Specifically, the analysis is executed in three levels.

The result suggested is always the most convenient.

1) It verifies possibility to use one single counterweight on one single balancing plane (**SINGLE PLANE**).
2) It verifies possibility to use one single adhesive counterweight in a particular position on inner side of wheel (**BEST AXIAL**).
3) It calculates the position and minimum weight value of the weights necessary to balance the wheel within tolerance (**MASS REDUCTION**).

The software IC-Intelligent
Correction® enables:

- To minimize number.
  of counterweights to apply.
- To minimize quantity.
  of weight applicable.
- To minimize operator work.
- To maximize money saving.
- To maximize rapidity.
  of balancing operations.
- To maximize money return.

C73 L SE

with pneumatic locking
(CEMB patent)

CEMB's long experience in developing and manufacturing pneumatic locking machines since 1978, guarantees unbeatable features of the new device fitted on the C73 L SE.

Reduced mounting efforts and maximum operator's safety. The wheel locks onto the machine shaft by a pedal placed in a functional and easy position.

Considerable time saving: the standard device, with 60 mm thrust, drastically reduces the manual work in mounting the wheel.

Extreme simplicity of use: every kind of wheel with central hole can be locked by just one sleeve without using threaded nuts, wrenches or unnecessary devices external to the machine.

Improved accuracy in centering the wheel: thanks to the strong locking force of the device.

Various options available for pneumatic locking (stud adaptors, large cones and sleeves, etc.).

Possibility to easily mount wheels without center hole, using UH20/2 adaptor.
Quick installation and strong locking by nuts.
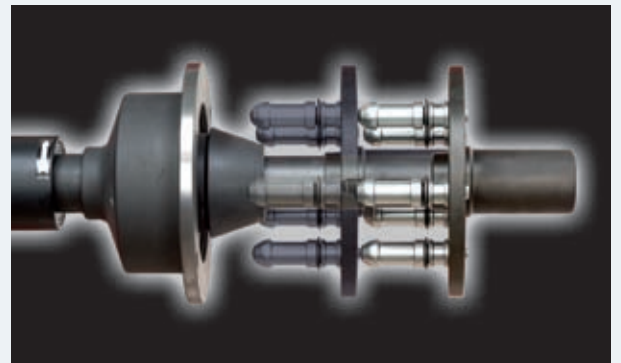
Standard power supply	115-230 V 50/60 Hz
Max absorbed power	1,1 Kw
Spindle shaft	Ø 40 mm
Balancing speed	180 rpm
Balancing accuracy	± 0,5 g
Cycle time for average wheel	6 seconds
Diameter setting range	10" ÷ 30" or 265 ÷ 765 mm
Rim width setting range	1,5" ÷ 20" or 40 ÷ 510 mm
Max. outside wheel diameter	1060 mm with lowered wheel guard
Max. wheel weight	75 Kg
Gross weight C73 L (with cone adaptor, pliers and wheel guard)	161 Kg
Gross weight C73 L SE (with cone adaptor, pliers and wheel guard)	176 Kg
Packing dimensions	152x105x183 h cm

1308   1280

1996   1451   1241

Our principal customers:

► Accessories (Ø 40 mm shaft)

standard
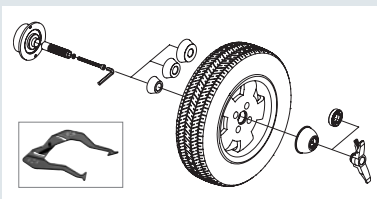
▶ **UC20/2 cone adaptor** with **GP** quick lockring for wheels with central hole Ø from 43 to 110 mm.

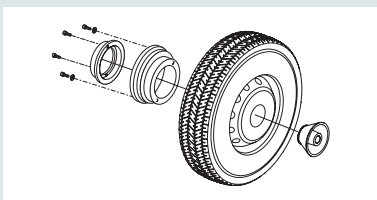▶ **Gauge** for wheel width measurement, only for machines without LA option.
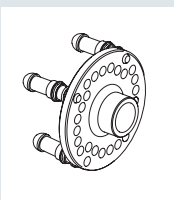
for SE2 pneumatic locking
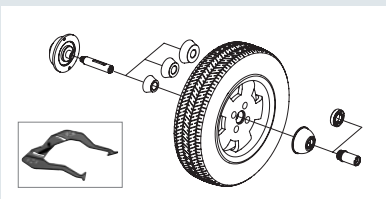
UC20-SE2 cone adaptor for wheels with central hole Ø from 43 to 110 mm.

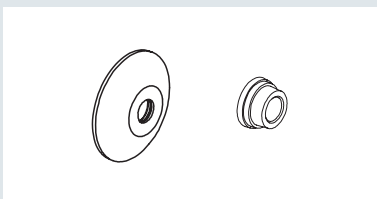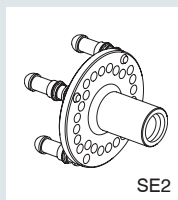**Gauge** for wheel width measurement, only for machines without LA option.

options to be used with the cone adaptor (Ø 40 mm shaft)
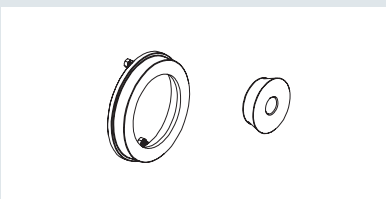

SE2

▶ **VL/2 cone kit** necessary to lock light truck wheels with central hole Ø from 97 to 180 mm.

Adaptors with centering studs:
- Serie SR: SR4, SR5, SR5/2 and SR USA.
- Serie SR-SE2 for pneumatic locking.
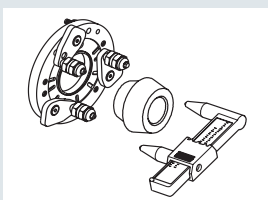

▶ **RL hollow sleeve** Ø 206 mm, for alloy rims.

▶ **MT stepped cone** for German car rims (Ø 56,5 - 57 - 66,5 - 72,5 mm)

WD spacer for car wheels with deep off-set and for off-road wheels
J cone for off-road vehicle with hole Ø 101 to 119 mm.
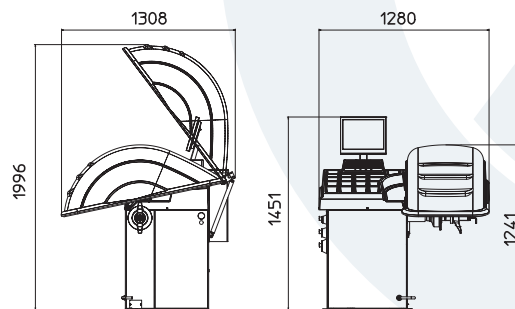
other options (Ø 40 mm shaft)

▶ **UH20/2** for wheels with 3-4-5 holes, with/without central hole on a Ø from 95 to 210 mm. The additional cone (CEMB patent), in the majority of cases, allows to center the wheel from inside on the central hub seat, thus improving balancing accuracy respect to the traditional adaptors on the market.
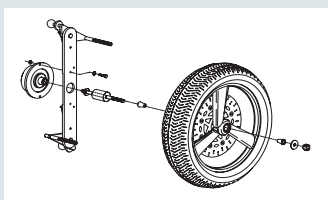
RMC20 MOT/2 universal adaptor for standard and flanged or side hung motorcycle wheels (BMW - Aprilia - Honda - Ducati - etc.) and scooter wheels.

Pincer-hammer for counterweights.

CEMB
B A L A N C I N G   M A C H I N E S

CSQ   ISO 9001:2000 Nr.9115.CEM7

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