

DB4 Dual Plane Digital Balancing Machine

This Machine is larger than all of the other machines - thus its capacity and component size can be much larger and heavier.

As with the other machines the DB4 is fully guarded for the protection of the operator and a door lock solenoid is employed to ensure that the door stays closed until the rotating parts are at a standstill.

The DB4 is a dual plane balancer designed for use across a wide range of applications, including cutters, grinding wheel, motor shafts balancing, with a maximum capacity of 340mm in diameter and 740mm in length. The principle features are safety and ease of operation.

To ensure ease of use, the machine is completely self-tuning and auto ranging. One button operation, and less than 5 seconds to heavy/light point indication, means that balancing is quick, simple, and is suitable for inexperienced operators. Display is calibrated in either ounces or grams, and is accurate to a limit G0.1.

The DB4 includes a self-contained control system, running a dual plane version of the well-established Coborn Balancing Studio software. This displays graphical and numerical indication of the machine setup, as well as the live balancing conditions. Belt tension is automatically controlled without operator intervention.

The DB4 is a floor standing machine whilst the rest of the DB Series are all Bench mounted (Bench not supplied in balancer packages, but can be made on request)

Technical Specifications

Tool capacity : 390mm (15.4in) diameter

880mm (35in) length

45kg (100lb) weight

Machine width : 1500mm (60in)

Machine height : 1500mm (60in)

Machine depth : 900mm (36in)

Machine weight : 300 kg (665lb)

Voltage : 3 phase 415 volts or 220 volts 50/60Hz

PB2 Dual Portable Balancing Machine



The very successful PB1 has been superseded by the updated PB2. The physical characteristics are exactly the same. The internal design has been simplified and obsolete or non conformity components removed.

This should mean repair prices can be kept to a minimum and the list price and spare part prices can be kept at the same level as the old PB1.

The latest COBORN balancing machine has been designed in-house to fill a niche in the marketplace. It is a portable, hand-held device, battery-powered, and capable of in-situ balancing. Principle uses are for gem polishing skive plates and machine tool spindles.

Easy operation

Push button operation and auto set up means balancing becomes quick and simple.

Dual display

Liquid crystal display (2 lines X 8 characters) for data display, and analogue (meter) for out of balance display.

Strobe

Built-in strobe light for identification of out of balance position. The light is mounted in the rear of the enclosure to enable the displays to be read at the same time.

Pickup

External custom-designed pickup allows sensitive balances to be obtained.

Battery powered

The unit is powered from a high powered alkaline battery pack. This enables the user to operate the equipment in any environment. A power supply / battery charger is also supplied as standard.

Standard equipment supplied

PB1 portable balancer : Pickup assembly : Magnetic base

Pickup lead : Charger : Carry case : Manual





A Range of Balancing Machines for Static and Dynamic Balancing of rotating components

Coborn's DB balancing machines are purpose designed for balancing any rotating component. There are number of packages, within varying specifications that can be tailored to your needs:

- DB1
- DB2
- DB2+
- DB2B
- DB3
- **NEW** The DB4 and the PB2

DB Series



The DB1 and DB2's are single plane static balancing machines.

The DB3 and DB4 are dynamic dual plane balancing machines.

All of the DB series have Digital amplifiers running software that is accurate to at least G 0.1

The machines are horizontal balancing machines and do not rely on a spindle assembly to hold the component, vertical balancers that rely on such spindles are subject to giving relatively inaccurate readings, since the axis accuracy of the location cannot be absolute.

Coborn are able to supply any type of mandrel that you may need, to mount your component on a DB machine.





DB Series

DB1 Single Plane Digital Balancing Machine

The first machine in the series is a single plane balancer designed for cutter and grinding wheel balancing. The principle features are safety and ease of operation.

For safety, the rotating parts of the machine are fully enclosed, and a lid lock solenoid is employed to ensure that the lid stays closed until the rotating parts are at a standstill.



For ease of operation, the machine is completely self-tuning and auto ranging. One button operation, and less than 5 seconds to heavy/light point indication, means that balancing is quick, simple, and is suitable for inexperienced operators. Display is calibrated in either grams mms, (or ounce inches), and is accurate to a limit of G0.1.

A full range of hydraulic chucks and adapters are available.

Technical Specification:

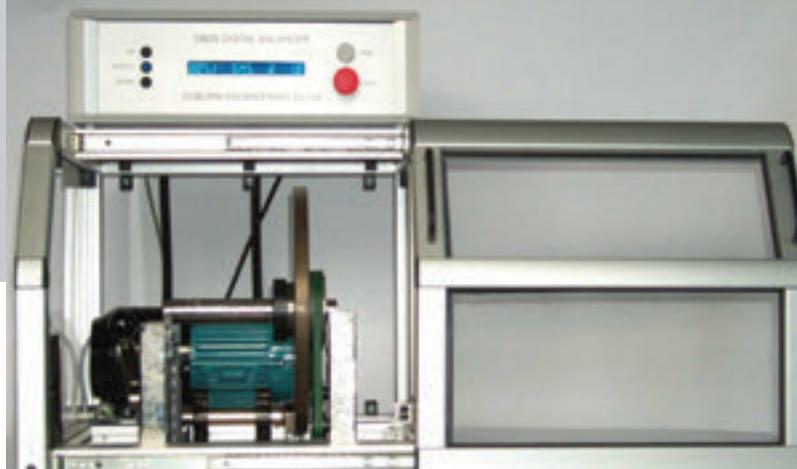
Tool capacity : 220mm (8.66in) diameter
20kg (44lb) weight
Machine width : 660mm (26in)
Machine height : 430mm (16.9in)
Machine depth : 340mm (13.4in)
Machine weight : 85 kg (187lb)
Voltage : 3 phase 415 volts or 220 volts

DB2 Single Plane Digital Balancing Machine

The DB2 is a single plane balancer designed for cutter and grinding wheel balancing, with a maximum capacity of 340mm in diameter. The principle features are safety and ease of operation. For safety, the rotating parts of the machine are fully enclosed, and a door lock solenoid is employed to ensure that the door stays closed until the rotating parts are at a standstill.

Technical Specification:

Tool capacity	380mm (15in) diameter
	20kg (44lb) weight
Machine width	590mm (23.23in)
Machine height	655mm (25.8in)
Machine depth	700mm (27.6in)
Machine weight	120 kg (260lb)
Voltage	3 phase 415 volts or 220 volts



Software

All of the DB Single plane machines come complete with the Coborn Balancing Studio software, which is based on a live link to the balancing machine, and gives graphical and numerical indication of the machine setup, as well as the live balancing conditions. Balancing parameters and results can be printed out for certification purposes, and can also be stored in a spreadsheet or database for repeat use.





DB Series

DB2+ Single Plane Digital Balancing Machine

The DB2+ is the same setup as the DB3, but with a DB2 single line, single plane amplifier.

The Left hand column is movable but the component cradle is fixed. The right hand column is movable and has a pick-up sensor. This overcomes the constraints imposed by the immovability of the DB2 columns, and allows varying sizes of component to be balanced in a single plane.

Technical Specification:

Tool capacity	390mm (15.4in) diameter 740mm [29in] long 20kg (44lb) weight
Machine width	890mm (35in)
Machine height	800mm (31.5in)
Machine depth	845mm (33.3in)
Machine weight	125 kg (275lb)
Voltage	3 phase 415 volts or 220 volts 50/60Hz

DB2B

The DB2B is the same as the DB2+, but both pillars have sensors/pickups, these are independent, but can be individually selected. So the component can be balanced to the left or right of the columns or in between, depending on mandrel set up.



As both cradles are 'floating', both columns have a cradle lock, so one can be fixed whilst the other is being used to give out-of-balance readings.

The specifications of the DB2+ and the DB2B are exactly the same.

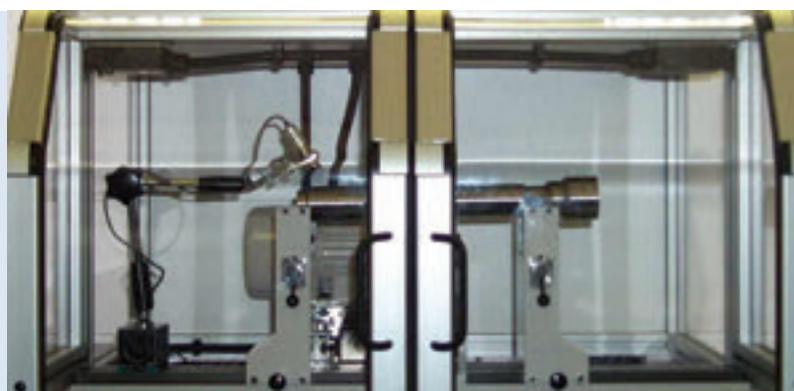
The DB2B is a 'stepping stone' to the DB3, it allows inexperienced operators to hone their balancing skills whilst using a static balancer; and can be changed into a DB3 without mechanical modification on-site as more complex balancing jobs are undertaken.

As mentioned above all Static Plane balancers can be used with the live graph software, by attaching the machine to a PC or Laptop.

DB3 Single Plane Digital Balancing Machine

The DB3 is a dual plane balancer designed for use across a wide range of applications, including cutters, grinding wheel, motor shafts balancing, with a maximum capacity of 340mm in diameter and 740mm in length. The principle features are safety and ease of operation.

For safety, the rotating parts of the machine are fully enclosed, and a door lock solenoid is employed to ensure that the door stays closed until the rotating parts are at a standstill.



To ensure ease of use, the machine is completely self-tuning and auto ranging. One button operation, and less than 5 seconds to heavy/light point indication, means that balancing is quick, simple, and is suitable for inexperienced operators. Display is calibrated in either ounces or grams, and is accurate to a limit G0.1.

The DB3 includes a self-contained control system, running a dual plane version of the well-established Coborn Balancing Studio software. This displays graphical and numerical indication of the machine setup, as well as the live balancing conditions. Belt tension is automatically controlled without operator intervention.

Balancing parameters and results can be printed out for certification purposes, and can also be stored in a spreadsheet or database for further analysis.

A full range of hydraulic mandrels and adapters are available. The full extent of the feature and facilities offered by the Coborn DB3 are too numerous to describe in this data sheet. Please contact your nearest Coborn representative for full details.

Technical Specification:

Tool capacity	390mm (15.4in) diameter 740mm [29in] long 20kg (44lb) weight
Machine width	890mm (35in)
Machine height	800mm (31.5in)
Machine depth	845mm (33.3in)
Machine weight	125 kg (275lb)
Voltage	3 phase 415 volts or 220 volts 50/60Hz

