

UNIVERSAL BALANCING



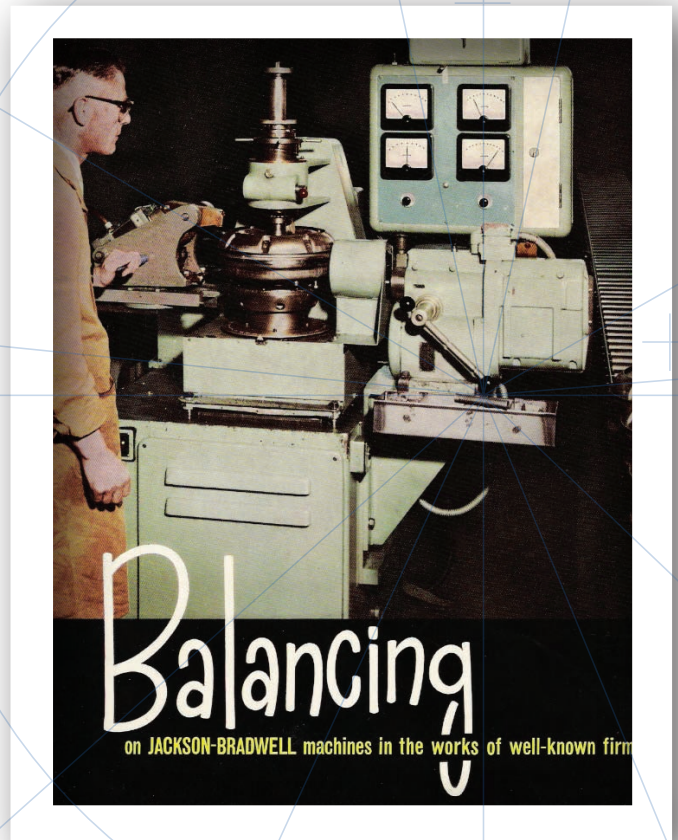
Manual and automated balancing machines

About the company

Universal Balancing provides industry with a full range of balancing equipment and services throughout the world. Our full range of machines, which have been continually developed over 50 years, include manual horizontal and vertical rotating and non-rotating, to fully automated turnkey solutions. All machines have a track record of balancing millions of components per year.

With our headquarters in Bristol, UK and offices and agents in the US, Europe and the rest of the world, we can provide up-to-date balancing solutions.

Deemed to be the most innovative provider of balancing equipment, many of the world's best automotive manufacturers now purchase our equipment.



Jackson Bradwell

1950s manual vertical balancing machine.



Universal Balancing's

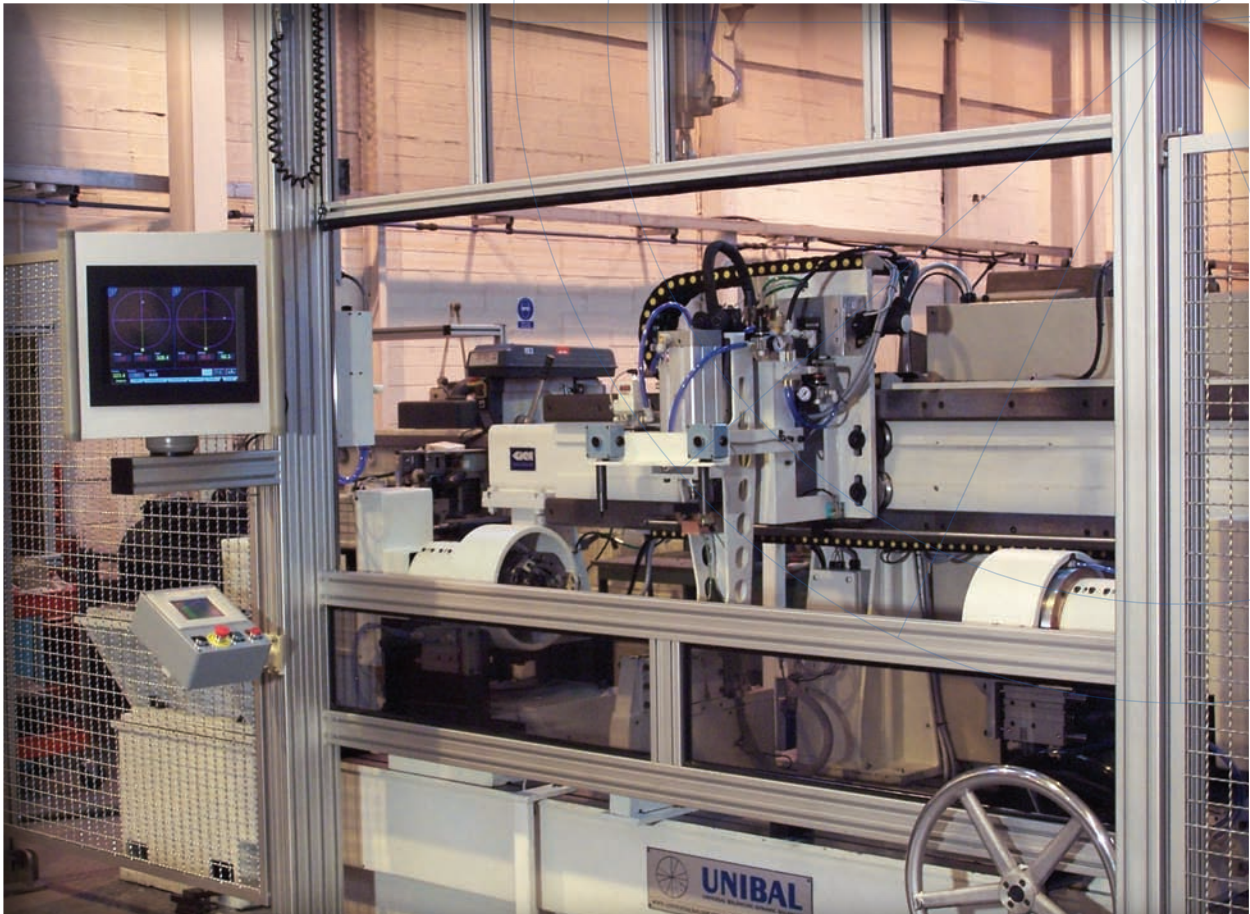
21st century automated vertical balancing machine



Upgrading balancing machines

There are significant savings to be made by upgrading existing equipment rather than buying new. We are one of only a few companies able to seriously offer upgrades on virtually any manufacture of balance machine to a world leading standard.

Obsolete equipment can be refurbished and updated with the latest technology and accuracy to operate as a new machine. We can even upgrade manual machines to fully automatics at less than the cost of a new one.



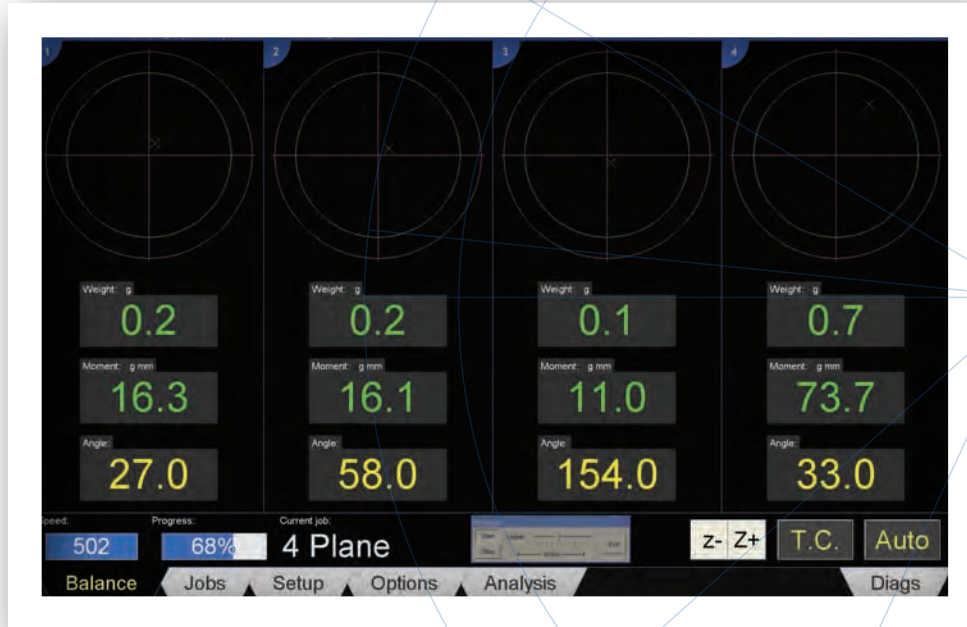
A refurbished and upgraded

2-plane propshaft balancer. This 36-year old machine is now equal in accuracy, operation and performance of a current model.



UNI-44 measuring system

Utilising the latest touchscreen Microsoft Windows based operation, the UNI-44 is a high specification 4-channel computer based measuring system, which is ideal for single and multi-plane balancing.



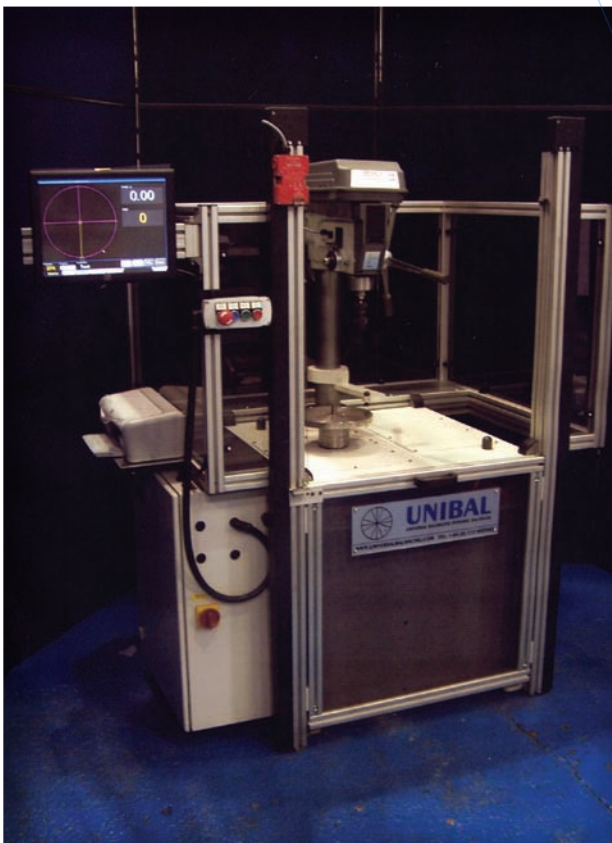
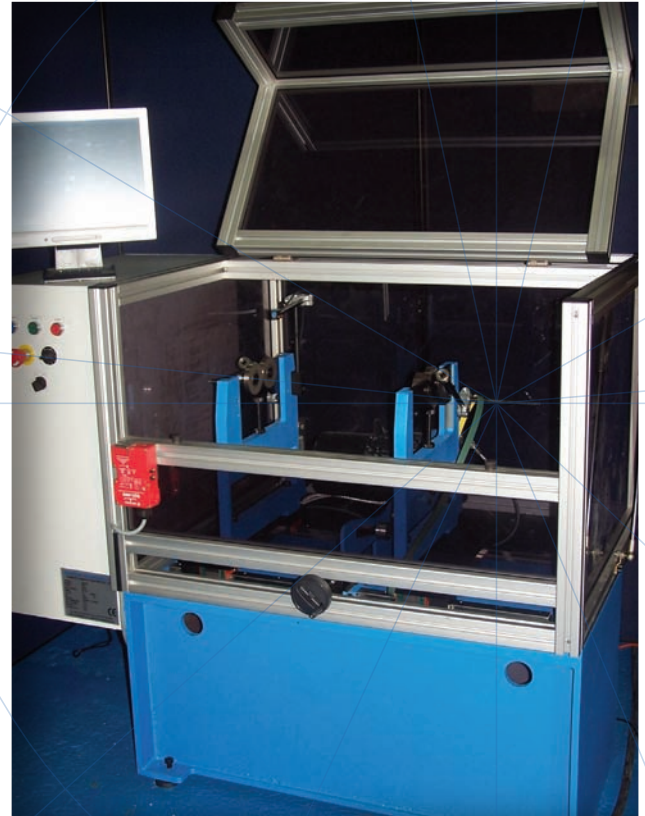
UNI-25 measuring system

An accurate single board digital measuring system, the UNI-25 was designed for applications requiring accuracy without extras, making it an extremely cost effective solution.



A H50D-BM manual horizontal balance machine

with belt drive and UNI-44
Windows-based measuring system.



A V50S-MD manual vertical balance machine

with axial drill press with UNI-44
Windows-based measuring
system.





A NR100-M non-rotating balance machine

with UNI-44 Windows-
based measuring system.

After sales

After sales service and support is extremely important with all balancing equipment issues. Immediate solutions can be achieved by telephone, email, web, remote diagnostics and attendance on site by one of our experienced global service engineers.



Contract balancing

We offer a cost effective contract balancing service for those who have a reduced need ie 1-off prototype/low volume work, or customers who simply prefer the advantages of sub-contracting. With dynamic balancing capacity from a few grams to 2000kg, most industrial and automotive parts can be balanced and turned around very quickly.



Leader in balancing technology and supplier of a complete range of manual and automated balancing machines

Universal Balancing Douglas Road Industrial Park Douglas Road Kingswood Bristol United Kingdom BS15 8PD
Tel: +44 (0) 117 9077403 Fax: +44 (0) 117 9077402 International Sales: +44 (0) 117 9474263
US Sales: +1 734 878 1592 web: www.universalbalancing.com email: info@universalbalancing.com



Manual and automated balancing machines

Balance quality grade G	$w = 1] 2]$ mm/s	Rotor types - general examples
G 40	40	<ul style="list-style-type: none"> - Car wheels, wheel rims, wheel sets, drive shafts - Crankshaft-drives of elastically mounted fast four-cycle engines (gasoline or diesel) with six or more cylinders⁴⁾ - Crankshaft-drives for engines of cars, trucks and locomotives
G 16	16	<ul style="list-style-type: none"> - Drive Shafts (propeller shafts, cardan shafts with special requirements) - Parts of crushing machinery - Parts of agricultural machinery - Individual components of engines (gasoline or diesel) for cars, trucks and locomotives - Crankshaft-drives of engines with six or more cylinders under special requirements
G 6,3	6,3	<ul style="list-style-type: none"> - Parts of process plant machines - Marine main turbine gears (merchant service) - Centrifugal drums - Fans - Assembled aircraft gas turbine rotors - Fly wheels - Pump impellers - Machine-tool and general machinery parts - Normal electrical armatures - Individual components of engines under special requirements
G 2,5	2,5	<ul style="list-style-type: none"> - Gas and steam turbines, including marine turbines (merchant service) - Rigid turbo-generator rotors - Rotors - Turbo-compressors - Machine-tool drives - Medium and large electrical armatures with special requirements - Small electrical armatures - Turbine-driven pumps
G 1	1	<ul style="list-style-type: none"> - Tape recorder and phonographs (gramophone) drives - Grinding-machine drives - Small electrical armatures with special requirements
G 0,4	0,4	<ul style="list-style-type: none"> - Spindles, disks and armatures of precision grinders - Gyroscopes

1] $w = 2\pi n / 60 - N / 0$, if n is measured in revolutions per minute and w in radians per second. To simplify: tolerance = component Weight [kg] x quality grade x 9549 / operational speed [RPM]

2] In general, for rigid rotors with two correction planes, one-half of the recommended residual unbalance is to be taken for each plane

