

Norbar® Torque Tools, Banbury, UK

Banbury, in the centre of the United Kingdom, is where the original 'North Bar Tool Company' was founded and remains the company's primary manufacturing and stock holding location and head office.

Distributors and customers throughout Europe, Africa, Northern Asia, Canada and Latin America are serviced from this location.



Quality Standards

Norbar's quality assurance system has been certified to internationally recognised standards for nearly two decades. The Ministry of Defence standard AQAP4 was awarded in the mid 1980's followed by BS5750 Part 2 (ISO9002) in 1989 and then ISO9001 in 1995. Norbar successfully completed the transition to the latest version of the standard, ISO9000: 2000, in May 2003.

Most importantly, through continuous improvement, Norbar is dedicated to providing products and services that we are proud of.



Service Replacement

Our aim is to give the highest quality and most rapid turnaround possible on Norbar torque wrenches returned for repair. To achieve this, any Norbar wrench of up to 400 N.m and Industrial torque wrenches requiring repair will be exchanged for a brand new 'service replacement' tool at an economical price. 'Service replacements' carry the same 12 month parts and labour warranty as other new products and come complete with a calibration certificate.



Repair Service

Items not covered by the 'service replacement' policy will be repaired as required.

Every torque wrench, torque multiplier, instrument and transducer in this catalogue is manufactured by Norbar so you have the assurance that any repairs will be carried out to the highest standard using genuine components.



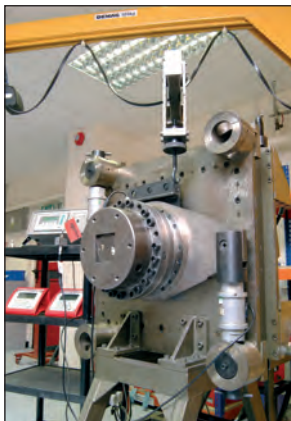
UKAS Accredited Calibration Service

UKAS is the sole accreditation body recognised by the UK Government to assess, against internationally recognised standards, laboratories that provide test and calibration services. Furthermore, through 'mutual recognition agreements' with other accreditation bodies around the World, provision of a UKAS accredited certificate is internationally recognised as demonstrating the competence, impartiality and performance capability of laboratories. For full details of UKAS, please visit their website; www.ukas.org.



Norbar was the first torque equipment manufacturer to have an in-house UKAS accredited calibration laboratory and continues to offer the most comprehensive service available. The laboratory has approval for torques between 0.005 N.m and 108,500 N.m. A UKAS accredited calibration service is available for all makes of torque wrenches, torque multipliers and torque measuring devices within this range.

Norbar's laboratory operates to BS EN ISO/IEC 17025:2005 which sets standards for the technical competence of the laboratory. This should not be confused with laboratories claiming ISO 9000: 2000 which relates only to a laboratory's quality management systems.



100,000 N.m calibration rig

- UKAS accredited laboratory for torque between 0.005 N.m and 108,500 N.m.
- UKAS accredited for the calibration of manual torque multiplying gearboxes to 6800 N.m.
- UKAS accredited for the calibration of electrical torque indicator displays. This ensures each element of the system is fully traceable and interchangeable.
- UKAS accredited for length certification of Norbar calibration beams.
- Other devices outside of the UKAS accreditation scope that can be calibrated include powered screwdrivers and pneumatic torque wrenches.

Combined Calibration and Service

Most Norbar measurement products are handled under a 'combined calibration and service' price structure. This means that, provided that the product is in serviceable condition, we guarantee to carry out all calibration, function checks and repair work to bring the equipment back to its' original functionality at a fixed price. The advantage to the customer is that you know the price before you send the goods to us and turn around times are reduced by the removal of the quotation and approval stages of the process.

Non Norbar equipment can also be calibrated but will be handled by individual quotation.



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Calibration / Repairs Department

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Norbar Torque Tools Pty Ltd, Adelaide, South Australia

Torque equipment is sold throughout the World but few companies specialise in both the sale and appropriate maintenance of these products. Increasingly, technology is creating tighter critical tolerances and an unprecedented need for sustainable accuracy in all enterprises.

At Norbar we understand this need and continue to build an enviable reputation in torque control by applying this expertise to our product maintenance, testing and support services throughout our network of state branches.



Testing and Certification Facilities

Our fully accredited NATA laboratory is recognised by industry as being the most technologically advanced in its field allowing us to certify the most comprehensive range of electronic and mechanical torque equipment in the South East Asian Region.

- Accredited under BS EN ISO/IEC 17025:2005.
- NATA audited bi-annually.
- NCS International audited annually to AS/NZS ISO 9001:2000.
- Fully enclosed and temperature controlled environment.
- Electronic and mechanical torque equipment certification range – 0.5 to 6800 N.m.
- The only NATA accredited facility for the calibration of torque multiplying gearboxes to 6800 N.m.
- Highly trained technicians.
- Able to test to the same uncertainties as our UK manufacturing plant.

Torque Control Laboratory



Reg. No. 3800

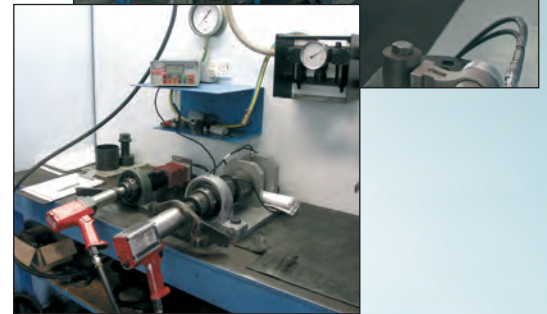


Service and Repair

To ensure the investment in your Norbar product is protected, we offer superior ongoing after sales service, maintenance, repair and calibration support from our wide network of offices.

All of our branches carry a comprehensive range of original spare parts.

- Original spare parts (25% of our complete stock holding).
- All products tested on the latest electronic equipment.
- Fully trained technicians and sales staff.
- Complete mobile service on request.
- Traceable certificate to NATA meeting the most stringent QA audits – NATA has reciprocal agreement with all the major world testing bodies ie UKAS, NIST & SINGLAS.
- Ability to provide hard and soft joint calibrations.
- Testing available to 50,000 lbf.ft (68,000 N.m) – highest torque value able to be tested in S.E. Asia.
- Properly maintained service and calibration details.
- Complete management plan available tailored to your particular quality standards.



Technical Services Available

Complete Torque Control Management Service

This service provides you with a calibration management plan to meet your particular quality standards. Simply tell us what torque equipment you own or are purchasing, specify the calibration period and Norbar will ensure the tools are kept within those specifications. You will be provided with certificates and a written report on the condition of the equipment at the time of each service.

Technical Support

At Norbar, we believe it is extremely important that the product fits the purpose for which it was designed. To ensure our customers receive the most comprehensive information regarding torque control equipment our Technical Support Manager works closely with our highly trained sales personnel to assist with specific product or system selection. The Technical Support Manager is also available for individual training or seminars on torque control.

Engineering and Design

As the manufacturer we have intimate knowledge of our products' capabilities. With 60 years experience in product design and engineering Norbar provides solutions to most torque control applications. Our In-house engineering and design service allows customers to purchase equipment with variations to standard products manufactured to their specification.

Norbar Services all Torque Wrenches, Torque Multipliers and Measurement and Calibration Equipment.

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Norbar Torque Tools Incorporated, Willoughby, Ohio, USA

Even the best torque equipment is of no use if it is not available. Our inventory is constantly expanding to reflect your desire for the latest products. We have over \$500,000 of products ready to despatch in line with your needs.

When using any torque multiplier, the design of special reactions is key to giving you good torque accuracy. Norbar has skilled machinists and welders in house that can create suitable reaction plates. The support of in-house design engineers in the USA ensures that especially complex designs can be engineered to your order.

Most other makes of hand torque wrenches can be repaired and recertified using original manufacturer's spare parts.

The huge Norbar spare parts inventory allows for fast repair of Norbar Pneutorque, Handtorque and Torque Wrench products when necessary. Naturally Norbar products sold under other brand names can also be repaired. High capacity torque test fixtures allow new certificates to be issued after repair.



Head Office and NVLAP Calibration Laboratory

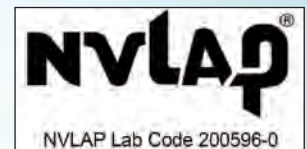
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Norbar Torque Tools Incorporated, Willoughby, Ohio, USA

This purpose built facility, just outside Cleveland Ohio, offers you comprehensive support for your Norbar products and calibration and repair support for your other torque equipment.



NVLAP Accredited Torque Calibration Laboratory

Norbar is the first torque manufacturer to be accredited by NVLAP, the accreditation department of NIST (National Institute of Standards and Technology).

This gives you

- International measurement traceability that mirrors the UKAS accredited certification produced by the factory in the UK.
- Accredited compliance with the BS EN ISO/IEC 17025:2005 calibration quality assurance standard.
- Calculation of measurement uncertainties that some other manufacturers hide.
- Our NVLAP accredited torque range for transducers is from 10 ozf.in to 5000 lbf.ft.
- Calibration of transducers to 108,500 N.m (80,000 lbf.ft) can be accommodated with UKAS accredited calibration, at the factory in England.
- NVLAP accredited for the calibration of electrical torque indicator displays. This ensures each element of the system is fully traceable and interchangeable.
- Torque Multipliers and hydraulic wrenches can be calibrated using traceable transducers and purpose built calibration fixtures.

NVLAP – National Voluntary Laboratory Accreditation Program
(for more information go to www.nist.gov and click on “laboratory accreditation”)

UKAS – United Kingdom Accreditation Service
(for more information go to www.ukas.co.uk)



Norbar Torque Tools (Shanghai) Ltd, Shanghai, China

Norbar continues to develop the concept of Company offices with repair and calibration facilities controlling the quality of service levels in key markets. The growing desire for high quality product in China means that providing high levels of customer support is essential.

The purpose built Norbar office is in the High Technology Park in the Minhang district west of Shanghai and close to Hongqiao airport. The new Metro makes the office even more accessible to the many distributors who are receiving product training at the facility.

The office also acts as a base for the wide-ranging technical sales team that support distributors throughout the 32 provinces of China.



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Norbar Torque Tools (Shanghai) Ltd, Shanghai, China

Service and Repair

The facility offers spares and service for Norbar torque wrenches, Handtorque multipliers and Pneutorque pneumatic torque wrenches. Electronics spares and service will soon be added once appropriate Government approvals can be agreed.

The repair technicians have been trained by Norbar factory technicians to ensure that product can be serviced back to Norbar standards without having to leave China. This increases the speed of response to customers.

Test equipment for torque wrenches, hand and powered multipliers are all to Norbar UK factory standards. Importantly the powered multipliers are tested on a state of the art tester that allows the tool to be calibrated for hard and soft joints.



Calibration

The torque calibration laboratory has now been accredited by the Taiwan Accreditation Foundation to ISO 17025. The laboratory is the only one operated by a foreign company to have government certification to produce calibration certificates for torque wrench testers up to 1000 N.m.

We can now offer certification to the same standards in Shanghai as in the UK factory. Once again our objective is to support customers in China with fast, well priced support for Norbar product.



Technical Support

Factory trained technical support personnel and a high level of qualifications among the technical staff mean that Norbar is able to help customers use the correct product for the job. We can advise where product requires modification to best suit the application.



Training

The office is designed to allow for comprehensive distributor training. This ensures that the best and most up to date advice is delivered to customers by their local distributor.

Norbar will also offer training on torque to customers. Details can be obtained on request.



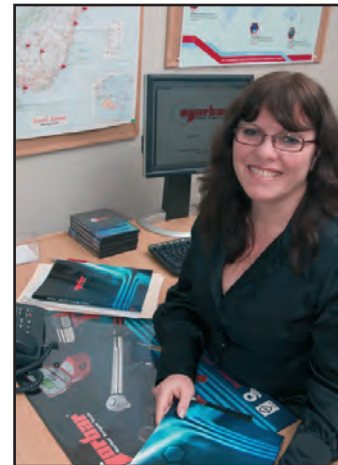


Norbar Torque Tools (NZ) Ltd, Auckland, New Zealand

Established in 2002, our New Zealand office's primary role is to back up the many users of Norbar Products in the region. Product application and technical information is provided by Representatives who travel extensively from the top of the North Island to the bottom of the South Island as well as neighbouring Pacific Islands. Working with a broad range of industries, we provide solutions to all torque and tension applications. Our Regional Manager provides training as well as technical support for Norbar distributors. The entire Norbar range is supported through our workshops in Auckland. A large range of stock is held in New Zealand with back up from our Regional Head Office in Adelaide.

Service and Repair

An experienced, factory trained technician using only original spare parts provides repair and calibration services for torque wrenches up to 1500 N.m and torque multipliers. This service can either be provided at our facilities in Penrose or can be provided at customers' locations using a fully equipped service van. When service work is beyond the scope of our New Zealand facilities, we will arrange for it to be carried out in Adelaide where Norbar operates a NATA calibration laboratory – see page 94.



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Norbar Torque Tools Pte Ltd, Singapore

In 2004 Norbar opened our office, laboratory and warehouse in Singapore with the purpose of providing outstanding levels of service to our customers in South East Asia. A broad cross section of Norbar products are stocked in Singapore for rapid delivery to customers in the region. Technical support by factory trained sales engineers is also available from this location for both Norbar distributors and end users.



Service and Repair

Our torque laboratory received the prestigious SAC-SINGLAS accreditation in April 2005. The laboratory is equipped and accredited to calibrate hand torque tools from 0.04 to 2500 N.m and mechanical and electronic torque measuring devices from 0.035 to 6800 N.m. The facilities include a calibration bench for Norbar torque measuring instruments so that independent, traceable calibration can be provided for both the instrument and transducer.

Repair services are available for Norbar torque wrenches and torque multipliers, drawing from a comprehensive stock of original spare parts. All service work is carried out by fully factory trained technicians.



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