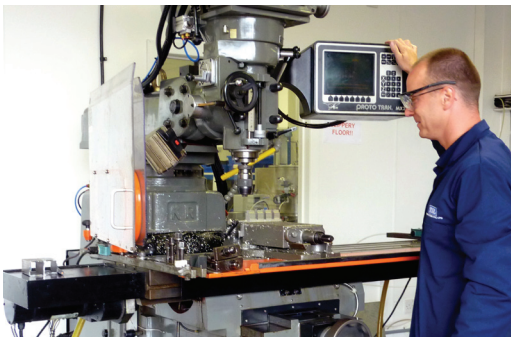
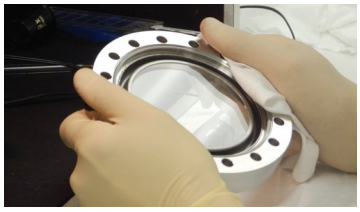
TSL NEWS
Issue 10 - October 2012 www.torrscientific.co.uk
TORR SCIENTIFIC LTD. - Specialists in UHV, Optical and X-ray Components

New precision engineering machines!



Torr Scientific has now taken delivery of an XYZ CNC/Manual Mill and an additional 50" Colchester lathe. The new equipment which has been located in the refurbished machining section of the East Sussex based facility will enhance in-house precision machining capability. Pat Brown, production engineer at Torr Scientific commented, 'This will enable us to take greater control over the handling of some of our lower volume, high value sub-components, for which customers require high attention to quality'.

ITO Coatings



Torr Scientific coats viewports and other substrates with transparent conductive coatings such as ITO (Indium Tin Oxide) to provide surface conductivity either to eliminate electrostatic charge build up, or to improve EMC / RFI screening. The coatings can be applied to standard CF, KF and ISO viewports and are often used as conducting underlayers for Phosphor RHEED screens and viewports with lead glass X-Ray protection. Please see the datasheets or send enquiries to sales@torrscientific.co.uk

17-18 October 2012
see us on stand V16
VACUUM EXPO
The UK's Premier Vacuum & Nano Technologies Event

New Staff!

Paul Westwood

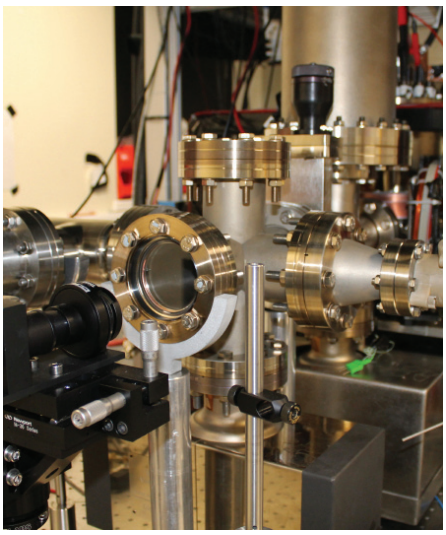
Paul has joined Torr Scientific as Accounts and Personnel Coordinator. Paul is an experienced finance officer and bookkeeper and also has a strong administrative background. Paul will assist Heather Bates with development of the TSL accounts department.

Iain Webster

Iain has joined the production team to supervise the new precision machine shop. Iain has many years experience in manufacturing of UHV components, including a strong background of TIG welding high quality hermetic seals for UHV applications.

Ultracold Atoms Application

Torr Scientific anti-reflective coated viewports are being used in the Ultracold Atoms Group in the School of Physics and Astronomy at The University of Nottingham. New technology, especially semiconductor laser development has revolutionised atomic physics during the past two decades and the Ultracold Atoms Group is now able to build apparatus that can routinely cool certain gases to ultra low temperatures very close to absolute zero (~50 nano Kelvin). At such low temperatures, the scientists at Nottingham can trap atoms with light, magnetic and/or electric fields and study their behaviour in detail. A fascinating example of a collective effect at ultracold temperatures is the phenomenon of Bose-Einstein condensation, a novel quantum state of matter. Gal Aviv a PhD candidate at Nottingham University said, "In such ultra high vacuum and cold temperatures we can investigate the fundamentals of quantum mechanics by manipulating the atoms and observing their behaviour. These new techniques bring us much closer to understanding the fundamentals of the world we live in"



The Torr Scientific viewports BBAR coated for 780nm at the Ultracold Atom Lab in Nottingham.