TORR SCIENTIFIC LTD. — SPECIALISTS IN VACUUM RELATED INSTRUMENTATION AND PRODUCTS

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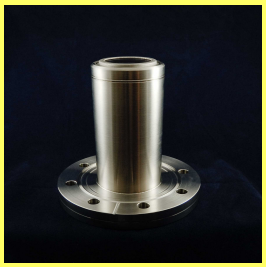
TSL NEWS

Issue Three - April 09



Several enquiries for re-entrant viewports used as vacuum system microscope or camera windows have been received by TSL this year.

Under Construction:

- A new TSL web-site is advancing well and will be uploaded soon!
- Design of a new TSL product catalogue is under-way…….
- The next edition of the TSL news-letter will feature the newly in-stalled Ebeam AR coating system.

TSL Products:

AR Coatings

UHV Viewports

X-ray sources

CVD Diamond

Phosphor Screens

Filaments

UHV Components

X-Ray Anodes Excel at TSL!

Torr Scientific is pleased to announce ex-panded capability in X-Ray anode technol-ogy. X-Ray anodes are devices which emit x-rays in response to an incoming high en-ergy electron beam. When sealed into vac-uum devices they become the heart of X-ray tubes which are used in numerous medical, industrial and scientific applications. When incorporated with a vacuum flange, they become the source of X-Rays for analytical instruments used for X-Ray spectrometry.

Over the past ten years, Torr Scientific has steadily advanced its ability to produce ever higher performance capability for both types of X-ray anodes. For basic anodes which apply sputter coated anode materials (i.e. targets) on copper heat sinks, we have per-fected thickness, adhesion and finish criteria to produce X-Ray anodes with outstanding performance and reliability. For enhanced durability, Torr Scientific offers proprietary barrier layers which are introduced between the copper heat sink and the target. Such barrier layers prevent the alloying of the target material with the copper while also further improving the adhesion of the target layer to the copper. This technology helps to prevent target cracking and efficiency loss

during extended periods of operation and can read-ily double X-Ray anode lifetimes.

Recently, Torr Scientific has introduced yet another major advance! We have developed a process that adds a single crystal diamond layer between the copper heat sink and the target material. Dia-mond's unmatched thermal conductivity enables far greater heat transfer from the target material to the copper heat sink. Torr uses advanced brazing techniques to vacuum seal the diamond to the heat sink and applies new sputter coating technology to apply thick layers of anode materials with out-standing adhesion and surface finish qualities. This advance is particularly important where the highest possible X-Ray energy and power density is de-sired. Power densities have tripled as a result!

Torr Scientific now offers these advanced tech-nologies in everything from the refurbishing and recoating of existing X-Ray anodes to the manufac-turing of complete X-Ray anode assemblies to cus-tomer specifications. Please contact us to discuss your specific application!

Simon at 10,000 feet…….

ROCKINGHORSE SKY-DIVE

Simon Mitchell & Mel Thomas of TSL com-pleted a tandem sky-dive on behalf of the Rockinghorse charity. The mission of Rocking-horse is to make life better for children in Sus-sex hospitals. The jump took place at Head-corn Aerodrome near Maidstone in Kent at the end of September. The weather was kind and a good day was had. No limbs were broken and the day raised £1400 for the charity. Many thanks to the kind sponsors. TSL will be pleased to hear from any customers or suppli-ers who would like to join staff for a 2009 fund-raising event. Ideas welcome!