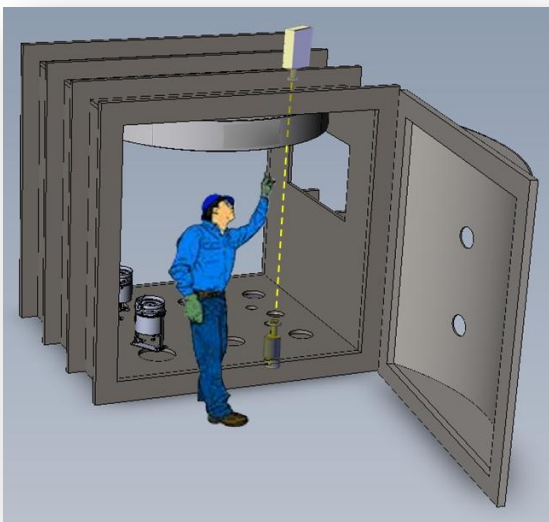


Press Release – January 2011

New Intellemetrics Optical Monitor Installed on Tecport Optics 2m Chamber

Intellemetrics recently successfully installed a new design of optical monitor onto a Tecport Optics 2m chamber used in the manufacture of high performance night vision systems. Optical designs with greater than 250 layers are being deposited in a production environment with over 500 elements being coated in each run.

The customer specification handed to Intellemetrics was extremely demanding with a single shot measurement once per revolution to be taken directly on a test piece mounted at a large radius on a calotte. A high calotte rotation speed, combined with a small test piece size, and a large radial distance resulted in there only being a 3ms window for each measurement. On top of this, the system was required to take measurements from 450nm out to 1080nm, work in a completely automated manner, and be capable of monitoring up to 70 layers on each test glass.



Tecport Optics chamber with the Intellemetrics optical monitor.

To achieve this, Intellemetrics went back to the drawing board and designed a new optical monitor system from scratch. "To achieve this sort of performance over such a long throw distance and in such a short measurement time requires a really big boost in optical power in the optical monitor system" noted Simon Hicks, Intellemetrics CEO. "But we really pulled out all the stops with this one. This customer requirement has really pushed us to redesign our complete optical system using the latest lens and coating technologies, and combine this with our fastest chopping and measurement technologies."

The hard work paid off with the system being installed and commissioned and meeting all of the customer requirements. Optical noise measurements in the field agreed with the design results and confirmed that the optical signal levels had been increased by a factor of >100. Based on the system performance, the end customer is now thinking about the possibility of even larger filmstacks.

Tam Le, Managing Director of Tecport Optics stated "This has been one of our most demanding coating chambers to date and the optical monitor has been a major element in that system. The chamber has been very highly spec'd with two high density plasma sources providing up to 76A of plasma assisted deposition, two 36" electron beam sources, two 36" diffusion pumps and a mechanical pump stack of 1000/500 CFM booster and a 400 CFM dual stage rotary vane pump that can pump 343 cubic feet from atmosphere to crossover pressure in less than 5 minutes. However, all of this would have been rejected by the customer if the optical monitor did not perform to the highest standards. But the guys at Intellemetrics came through with the goods and now we have a truly fantastic coating system and a very happy customer."

Intellemetrics is now happy to supply this solution onto other customer's chambers. For more information contact Intellemetrics at;

Tel: +44 (0) 141 889 0700
Email: sales@intellemetrics.com
Web: www.intellemetrics.com