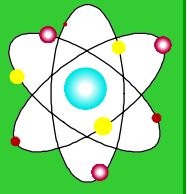


HiTech

A HiTECH HOLOGRAPHICS SUITE FOR THE OPTIC TECHNIUM



HiTech



HiTech were asked to provide a cleanroom type environment for the production of holographic products at The OpTic Technium's Centre for Modern Optics in North Wales. The cleanroom suite was to consist of five laser laboratories; three dark rooms; a metrology area; a chemical store and a complementary area and initial appearances were that this should be a fairly standard cleanroom concept. We were wrong. The problem is that the lasers that produce the holograms are so sensitive that the slightest vibration would completely destroy the work being undertaken and that includes vibration caused by air movement through the rooms. The issue of general

structural vibration was a simple matter of isolating the lasers from the structure and this was achieved by floating the laser tables on a self-levelling air cushion; however, the problem of air movement induced vibration was much more difficult since cleanrooms require a reasonably high air movement according to the level of classification required.

HiTech's engineers came up with a unique solution to the problem and we are able to maintain an ISO Class 7 environment in the laser laboratories with no air movement at all, thus removing the danger of air induced vibration on the lasers and it was this solution that proved HiTech to be the most innovative cleanroom construction company working with the optics industry.

As well as the construction of the cleanroom suite the project included the provision of laboratory furniture; hot and cold water supplies; a dedicated laser cooling water system; compressed air; de-ionised water; nitrogen and specialist lighting. After commissioning and validation of the cleanroom suite we were involved with the commissioning of the lasers and helped set the facility to work.

The OpTic Technium is a project that was part funded by The Welsh Development Agency with the aim of providing a centre for optical excellence in Europe. The centre



was officially opened on 24th February 2005 by Mr Davies, the Minister for Wales, and during the opening speech it was said that "The Centre for Modern Optics is the finest facility of its type in Europe". HiTech Controlled Environments are proud to be associated with the project and continue to provide support and technical assistance whenever necessary. HiTECH - CONTROLLED ENVIRONMENTS AT



SCOTTISH
SOCIETY
for
CONTAMINATION
CONTROL

