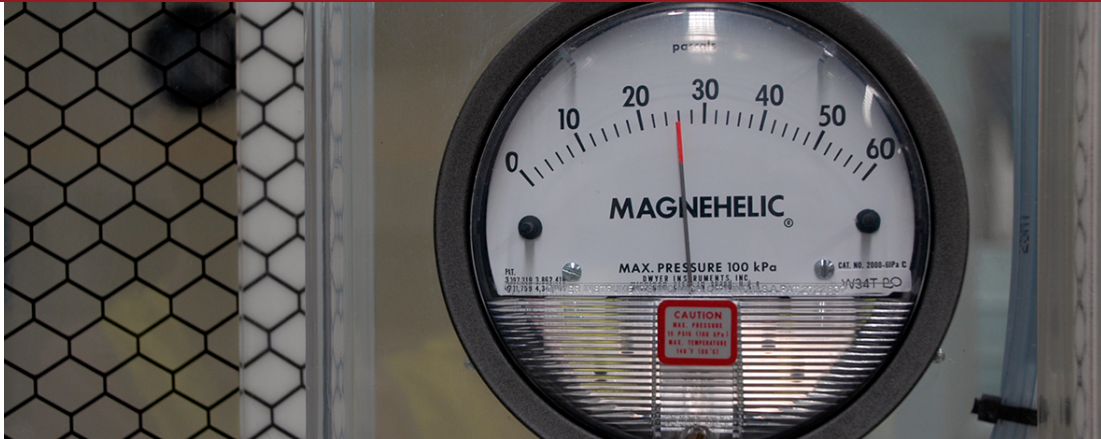


Clean Room



Project Detail

An international market leader in the design and manufacture of complex Life Safety environmental monitoring solutions approached Hosico to lead a project to rationalise its supply chain – specifically the outsourcing of the manufacture and supply of critical laser-based optical sub-assemblies for its globally distributed products.

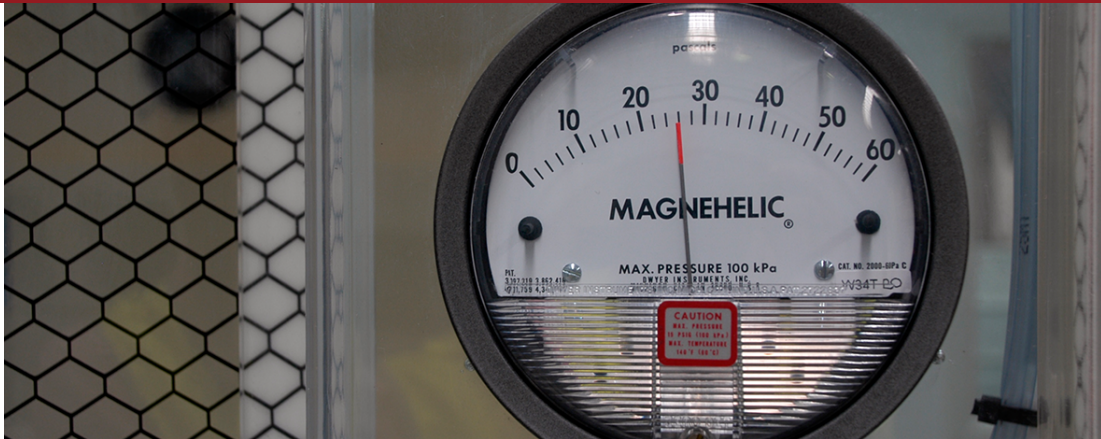
Solution

In order to achieve the necessary clean environment for assembly, Hosico installed a completely enclosed Clean Room assembly line. The positive-pressure Clean Room was certified, and operated, to ISO Class 7 (Class 10,000/M5.5 equivalent).

Some of the engineering challenges that Hosico was able to overcome in the design and manufacturing delivery process were:

- strict requirements in relation to cleanliness of assembled optical surfaces;
- a need for precise alignment and calibration of optical components, including laser;
- laser power calibration requirements;
- requirement for shipment volume of any of the three product variants within two days.

Clean Room



The solution methodology used in this environment was:

- installation and commissioning of an ISO Class 7 Clean Room facility;
- design and build of precision alignment jigs and fixtures for optics assembly;
- development and implementation of laser handling and safety procedures;
- collaboration with the client to design and implement a laser power calibration jig;
- implementation of procedures and capability for the assembly of electrostatic-sensitive electronics;
- Hosico procured major components on behalf of the customer in line with forecast.

Outcome

Hosico's certified manufacturing and large-run capability provides an effective outsourced manufacturing model, annually shipping over 40,000 complex products of three variants direct to customers, and on time. In addition, Hosico is a trusted design partner, contributing to the ongoing development and design of this, and the next generation product suites, including ongoing cost reduction.