HOLO/OR: Diffractive optical design and manufacture; PERFOTEC: Receive a visit from young Australian growers; WHAT’S BEEN ON: RMIT/SECO; WHAT’S BEEN ON; WHAT’S IN MY INBOX? Robots!

Holo/Or is a leading company in the field of diffractive optical design and manufacture. Employing highly skilled personnel Holo-Or has the full capability to develop and manufacture diffractive optical elements in their clean room facilities in Israel.

Proven solutions for high power lasers include:
Top-Hat beam shapers, used in many industrial micro-machining and materials processing applications,

- The ring generator transforms any input beam (SM or MM) into a single ring or to several concentric rings.

Beam splitters/samplers for multi-spot power monitoring applications:

- A beam shaping element transforms any input beam into the desired shape with desired intensity distribution:
- The Top-Hat/Stable Top-Hat element reshapes a Single Mode (SM) TEM00 input beam laser into a flat-top intensity distribution of any shape.
- The Diffuser element reshapes a Multimode (MM) input beam laser into a flat-top intensity distribution of any shape.

A beam splitting element is used for splitting a single laser beam into several beams, each with the characteristics of the original beam (except for power and angle of propagation)

- A 1D Beam Splitter converts an input laser beam into an array of beamlets over a line.
- A 2D Beam Splitter converts an input laser beam into a 2D matrix of beamlets (X and Y axes).
- The Custom Beam Splitter converts an input laser beam into a matrix of beamlets arranged in a custom shape, such as a hexagon, cross, circle, triangle, and many others.
- The Binary Phase Grating is a special 1D Damman grating. The modulation depth is adapted to the customer requirements.
- The Diffractive Beam Sampler allows the high power beam (zero order) to propagate undisturbed along the optical axis and produces two side beams of low energy.

Holo/Or offer a range of services and capabilities including Tailored shaping of spots, Diffusers and homogenizers, Lanslet Arrays, Symmetric and Asymmetric etc. For your special needs contact Raymax in Sydney as we are Holo/Or’s distributor.
During October a group of young Australian vegetable growers travelled to Europe to learn about technologies, methods and practices used by growers in the European vegetable industry as well as providing them with an opportunity to connect with their international colleagues. Partly funded by Horticulture Australia that levies growers and invests back into the industry, the trip is an annual event where “the main mission is to give to participants the opportunity to learn about technologies, methods and practices used by growers in the European vegetable industry. It will provide a point of comparison for participants while simultaneously promoting the role that young growers play in Australian horticulture and connecting them with their international colleagues,” advised Sam Clayfield the Assistant National Marketing Manager for AUSVEG.

Scheduled into their trip was a visit to the PerfoTec factory at Woerden in the Netherlands where they were shown how the technology is developed. A presentation by PerfoTec personnel emphasised the important role the laser system achieves in improving modified atmosphere packaging of fresh fruit and vegetables and the subsequent impact on reducing food waste. Reducing food waste has recently been targeted by the commonwealth government as Australians throw away so much it is estimated to be a $20 billion loss to the economy every year!

The PerfoTec system that measure the respiration rate of fresh produce and sets the size and number of holes to be made into the packing film by the laser as the goods travel along the packing line. This highly automated process has been adopted across Europe and the more growers understand the value to them of extending the shelf-life and freshness of produce, the sooner it will become widely adopted in Australia.

If you would like to visit the PerfoTec factory or an installation site where packing vegetables, fruit or flowers can be seen in progress, contact Raymax to arrange a visit.