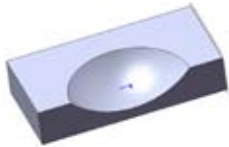


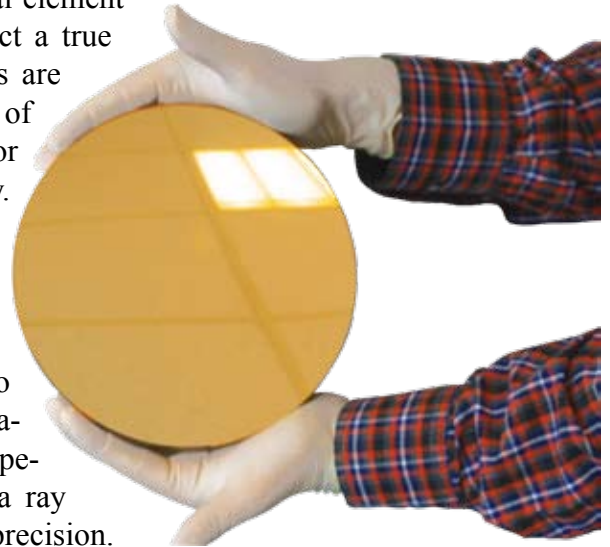
HIGH-POWER LASERS

Metal Optics for Laser Technology

Whenever you show high-gloss metal optics on a table, you'd better previously call: "Caution – don't touch the high-precision surface with your bare hands!" A hand will then rush forwards and stop in the last second, quite amazed. That was a close thing, once again! People automatically want to reach out for the specular surface. Depending on the size of the optical body the surface finish of an IMOS metal optical element may be of such precision that the deviation from the theoretical profile will merely be 0.5 microns perhaps. Approximately the size of a bacterium.



Thus, every metal optical element made by IMOS is in fact a true masterpiece. Such optics are used to focus the ray of high-power lasers and for telescopes in astronomy. Scientific measuring instruments also operate with metal optics. They allow to cool down the metallic body and thus to avoid any thermal dilatation. The resulting temperature stability ensures a ray of the highest possible precision. IMOS offers the constructing engineer great latitude in designing his mirror, even if he aims at a free form. And IMOS will also help engineering the optical system.



CHEMICAL REFLECTORS

Heat Wave



Even in the midst of the heat wave during the summer the production of special optics goes on without interruption. But it may grow even hotter. IMOS Solidchem material is processed at some 400 °C to

produce chemical-resistant reflectors. Solidchem reflectors are required in hot-water washing plants in the food industry as well as wherever heat and chemicals predominate.

MICROREFLECTORS

Customer's Requirements

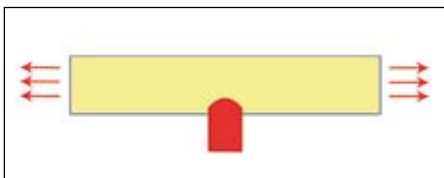
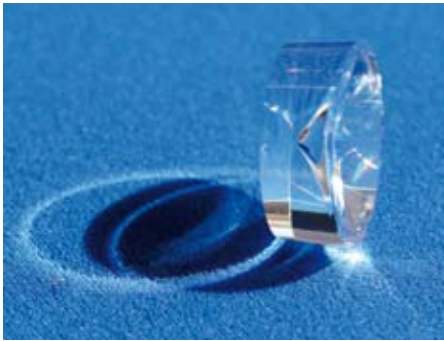
The family of microcube reflectors is continuously expanding. They are available in ever more varied sizes with a variety of fastening elements. For the requirements of mechanical engineering laser reflectors grow ever smaller. In machines you may not waste any room after all. It does not matter. For its customers IMOS manufactures any required design, even for plants in which chemicals or intense heat are omnipresent. This is how hundreds of thousands of machines reliably operate thanks to IMOS laser reflectors.



Microcube reflector

SIGNAL OPTICS

All-around Warning Light Lens



When preparing each Backstage issue we also look around in IMOS' department for research & development. It is the place where new optical systems are continuously created for IMOS' customers. This time, we liked the plastic lens on the left very much. The light of one single power LED is transformed into a gleaming circle of light. Luminous intensity is increased by a multiple. Such 360° all around warning light is visible many kilometres away.

REFLECTIVE SHEETING

Contour Tapes



Yellow, white, red IMOS F816

LIGHTING OPTICS

Reflector Lamp Lenses

Each one of IMOS lenses is given its own particular shape. LED technology is very advanced already. Well designed plastic optical elements allow to make excellent use of the energy radiated by LEDs. In the picture we look at the automated production of reflector

lamp lenses. These LED lenses produced by IMOS feature plug-in pins by means of which they are directly fastened to the printed circuit board. A large set of LED lenses will then form the reflector lamp with which streets and parking places can be illuminated.



Automatic machine producing reflector lamp lenses



When Autumn and the dim days come back you will be relieved to see that trailer trains on motorways are quite noticeable now. IMOS supplies the contour tape F816 to this end. For rigid side vehicles the required marking has to be a continuous tape. On vehicles with flexible tarpaulins the contour tape used is segmented, such segments being simply applied as a continuous tape. Contour tapes are always watertight, an acrylic upper layer ensuring the tape exceptional long durability. Have a pleasant journey!