Optatec 2016 Preview

In this issue, we would like to give you an exclusive preview of what we will show on our booths D40 and E40 Hall 3.0 at Optatec 2016 in Frankfurt.

At Optatec 2016 OptoTech will present a cross section of our comprehensive product range. Among others we show machines and technologies from the fields of grinding and polishing technology, centering, cementing, measuring and coating technology. Being the technological world market leader, OptoTech will of course have several world premieres on display.

Processing Machinery

SP 80 NC
For high speed mass production polishing from 50° up to 120° aperture and up to diameter 80 mm, OptoTech developed the new SP-Line with ideal kinematics for these difficult geometries. Due to its simple but efficient NC-controller, the SP 80 NC is a low cost but also very flexible machine.

PPM 80 NC
OptoTech just introduced its new PPM 80 NC at Optifab last year. Working with ball pin technology, this low cost machine was especially developed for polishing high aperture optics with an angle of 85°-180°. Data input of all processing parameters, such as spindle speed, setting angle, cycle time, working pressure etc. via user-friendly touch screen. The PPM is an ideal machine for polishing dome shaped products.

SM 30 CNC TC
Our new generator SM 30 CNC TC for grinding spherical and aspherical micro optics will celebrate its world premiere at Optatec. The universal working range, easy handling combined with the most modern grinding technology via standard cup wheel grinding tools or OptoTech KombiTools for pre- and fine grinding offer a machine with an unmatched price-performance ratio.

ZM 50 CNC-TC
The ZM 50 CNC-TC is a simultaneously working edge processing machine in highest precision. A new high quality software module “Opto Edge” allows even the production of complex edge geometries of spherical and aspherical lenses up to diameter 80 mm. Moreover the ZM 50 is equipped with a new clamping technology for higher stock removal rates and elimination of unwanted centering bell marks.
HM 500 NC
The HM 500 NC is a NC controlled universal polishing machine in conventional technology. Due to the simple NC controller it is possible to save parameters as well as the program kinematics. Spheres, plano surfaces, axicons and cylinders as single surfaces or multiple blocks - The HM 500 NC is a true high-end tool for the production of high class optics in small series and special optics. The 4-axis NC-concept enables completely new applications in the classic optical production.

MCG 150 CNC - 5-Axis Technology
With the MCG 150 CNC, we will show an optical processing center with grinding technology for all optical materials in highest precision and flexibility. Whatever you want to produce, whether aspheres, spheres, edging, prisms, cylinders. 3D-optics or drilling holes, the MCG 150 CNC is the perfect machine for these tasks. Multiple CNC axes and an innovative tool concept grant the requested flexibility.

MCP 150 CNC 6-Axis
Also new at Optatec will be the compact optical polishing centre MCP 150 CNC 6-Axis. The MCP 150 CNC offers all the technologies that have yet only been known from our big polishing centers. And this on a space saving and competitive priced platform. Whether you want to polish spheres or aspheres, the MCP 150 CNC equipped with the flexible OptoTech Multitool concept is the ideal polishing machine even for difficult polishing tasks (e.g. Freeform surfaces, a-cylinders, aspheres and spheres)

OCD 400 CNC
The brand new OCD 400 CNC is a core drilling and template grinding machine, specialized for raw part production out of glass blocks or glass plates. A CNC-controlled core drilling process allows high precision core drilling for hard and brittle materials like glass, quartz, ceramics and similar materials. With a maximum raw part size of 250 x 200 x 100 mm (WxDxH), the OCD is also particularly suited for serial production in the area of micro optics.
**OWI 150 XT inverse**
The world premiere OWI 150 XT inverse is a high-end workshop Interferometer in inverse arrangement for interferometrical form measuring of spherical and aspherical optical components via CGH or ring stitching mode. High precision kinematics and a working range up to Ø 150 mm make this measuring machine an indispensable tool for the production of high-end optics. The OWI 150 XT inverse uses a high-class interferometer module S 100 HR. Many options available to customize the interferometer to individual measuring tasks.

**MSI 50**
One more novelty will be the MSI 50, a multifunctional Stitching Interferometer especially designed for testing high aperture spheres in the area of micro optics. Due to the inverse design with a high resolution swivel axis, the interferometer module can be positioned perpendicular to the substrate surface to measure the complete surface of the workpiece up to 180° aperture. Moreover the MSI 50 is equipped with a direct-driven rotation axis to rotate high aperture surfaces in the optical path.

**MSI 300**
Like its „small brother“ MSI 50, the multifunctional Stitching Interferometer MSI 300 was especially designed for testing high aperture spheres and flat radii up to diameter 300 mm as well as plano surfaces up to diameter 300 mm (Option). Since the working principle of the MSI 300 is the same as the MSI 50, it also offers the same flexibility and highest quality measuring results of a stitching interferometer that is „100% made in Germany“.

**OWI 100 ECO**
The OWI 100 Eco is a high precision and low cost workshop interferometer for spherical and plano optics. One feature of this interferometer is the convenient positioning of the substrate surface via Z-Axis driven by servo motor and ball screw spindle with infinitely variable table speed that is adjustable by joystick. The OWI 100 Eco is a perfect low cost solution for testing optics up to diameter 100 mm, offering an accuracy of λ/20.
OWI 50 HP
The OWI 50 HP is a compact 2” Fizeau workshop interferometer for non-contact measuring of spherical components in the area of micro optics. A measuring range of up to diameter 50 mm in combination with an accuracy of λ/20, a high-class evaluation software and compact dimensions ideally suited for workshop usage grant reliable, accurate and documentable measuring results for micro optics.

DS 100
The new compact digital spherometer unit DS 100 is the ideal workshop tool for mechanical measurement of radius of curvature. Its touch-panel PC allows easy usage and reliable documentation with our radii measuring software „Sphero Calc“ with documentation. The DS 100 is able to measure convex, concave, grinded and polished surfaces as well as polishing tools.

AZP 200 HP
Our new AZP 200 HP is an optimal multifunctional cementing unit for many areas of optical production. Due to various mountings and options, the AZP 200 HP can be perfectly adapted to all special cementing tasks. Fields of application are cementing of spherical and plano optics on runners, cementing of achromates and testing of centration errors of achromates or single lenses. Easy to use analysis software available as an option.

Coating
OAC-60F
The brand new OAC-60F is a vacuum coating system for high quality coatings incl. thermal shift free layers on optical components. With a calotte diameter of 570 mm it is a perfect solution for small production volumes. We offer a wide range of coating processes over the full spectral range from UV, VIS to IR. Typical applications are: Anti-reflective coatings, edge filters, band pass filters, beam splitters, high reflective mirrors and many more.

Now that we have your attention!
Please visit our booths D 40 and E 40 in Hall 3.0 at the Optatec 2016 and see for yourself. The OptoTech Team is looking forward to see you in Frankfurt!

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