

Dispensing cell for highly accurate sealing results

- Modular design enables adaption to different production concepts
- Triaxial robot with +/- 0.1 mm accuracy
- Sonderhoff at #Fakuma

[Sonderhoff Engineering](#) presents the Smart-DM 402 dispensing cell for gasketing, glueing and potting at this years's #Fakuma. The new dispensing cell has a more compact and fully modular design. With the help of standardised modules, the dispensing cell can now be adapted to different production concepts in a more flexible way. There is also a live presentation of the Smart-DM 402 dispensing cell at the company's booth.

High user friendliness of the dispensing cell

Due to the modularity, modifications to the dispensing cell, due to changed production concepts, can be realised quickly and with less planning efforts. In case of frequently changing applications and part quantities, different modules can be attached to the cell body.

The cell has large, rectangular openings close to the lift gates at the front. Feeding the dispensing cell with parts for applying foam gaskets, glues or potting compounds is done by means of an automatic rotary indexing table with a 180° partitioning for an insertion position and a work position which changes every 1.5 seconds. As an alternative to the rotary indexing table, there is a version where the parts are directly inserted on a worktop into the cell. In this case, a lift gate is attached to the front of the cell. It is also possible to feed the parts via a transfer belt running through the cell.

Unobstructed access for maintenance and cleaning purposes is ensured by opening the maintenance door of the cell at an angle of 180° over the full height. The rinsing containers below the mixing and dosing level can be emptied in a user-friendly manner by means of a telescopic drawer.



The new Smart-DM 402 dispensing cell is a modular and flexible system with built-in safety technology (Source: Sonderhoff Engineering)

Control includes safety functions of robot and indexing table

The safety functions of the servo-controlled axes of the linear robot and the rotary indexing table are fully integrated in the programmable safety logic and can therefore quickly respond to safety events. The transmitters of the new servomotor series are now digital instead of analogue and have a better resolution which results in a higher axial stiffness and thus in better path characteristics of the axes when moving the mixing head.

Referencing the positioning axes of the linear robot of the dispensing cell is no longer required as an absolute encoder is used. The axes can immediately be operated following the start-up of the control without the need to move them to the limit switch in order to find the zero point.

High accuracy of triaxial robot

The triaxial robot of the Smart-DM 402 dispensing cell can handle industrial parts within a traversing range of up to 500 x 500 mm (width x depth) and a part height of up to 200 mm. The mixing head can be positioned above the part with a repeating accuracy of +/- 0.1 mm thus ensuring reproducible sealing, gluing or potting results.

Main Picture: MK 600, the 2- / 3- component mixing head with high-pressure water rinsing system