

New Lid Seal for TAVA Vacuum Filling Stations

Together with RAMPF Advanced Polymers, TARTLER has developed a lid seal for its TAVA vacuum filling stations. A TARTLER MDM 6 metering and mixing system was used for the initial casting.



Figure 1: The latest design of the TARTLER TAVA 200F

The project brought together two objectives: RAMPF was interested in a TAVA vacuum filling station, while TARTLER was seeking a solution to the demanding requirements that different filling materials place on the lid seal. In service, previous seals had shown signs of embrittlement, tacky surfaces, detachment and permanent deformation.

The new seal is tailored to the geometry of the TAVA. It must be flexible enough to accommodate unevenness along the drum rim and maintain a reliable seal through repeated closing and opening cycles.

Good elastic recovery and low compression set are therefore key requirements. The sealing material must also be compatible with the materials being filled, which may include epoxy resins, polyols, isocyanates and amine-containing components.

TARTLER carried out the CAD design of the seal. RAMPF designed and manufactured the casting mould using RAKU® TOOL WB-1250 or WB-1404 tooling board material. The seal is produced using RAKU® TOOL PC-3411 / PH-3911-1, a polyurea casting system also supplied by RAMPF.

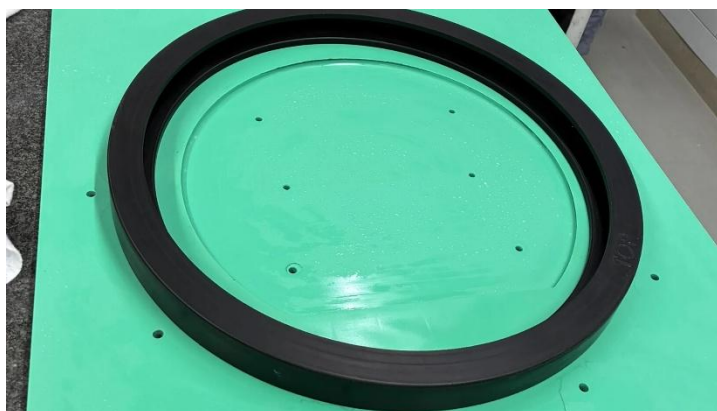


Figure 2: The cast seal after demoulding



Figure 3: TARTLER MDM 6

The initial casting took place at RAMPF using a TARTLER MDM 6. The mould was subsequently transferred to TARTLER for continued production of the seals.

All new TAVA systems are now equipped with the new seal, while existing machines are being progressively retrofitted.

This project is another example of the collaboration with RAMPF that we have valued for many years. Together, we addressed a specific challenge in our TAVA system by combining our expertise in machine engineering with RAMPF's materials expertise.

We are looking forward to developing more solutions together in the future.

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