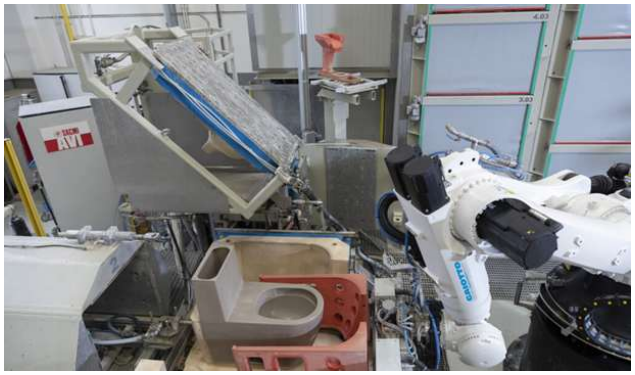
Berichte der Deutschen Keramischen Gesellschaft
cfi ceramic forum international

cfi Newsletter HOT TOPICS 5/2025

AVI-OP: SACMI's AVI Concept Now Applied to One-piece WCs



The AVI OP is the latest version of SACMI's AVI module and is specifically dedicated to high-pressure casting of one-piece WCs. Thanks to an increased rim press, provided with removable frame, the AVI OP enables the rim and water tank to be created in a single piece, making it the ideal solution to produce highly complex ceramic pieces. With this configuration ...
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New solution evolved from the AVI casting module, already renowned in the sector with 60 machines installed around the world in recent years. Quality and Control are the key features of this technology, now even more flexible thanks to the increased rim press. Ideal for manufacture of highly complex pieces.

The AVI OP is the latest version of SACMI's AVI module and is specifically dedicated to high-pressure casting of **one-piece WCs.** Thanks to an **increased rim press**, provided with removable frame, the AVI OP enables the rim and water tank to be created in a single piece, making it the ideal solution to produce highly complex ceramic pieces.

With this configuration, the rim press can be set up to allow production of both one-piece WCs as well as the WCs normally made on standard AVI machines. As a result, the new version is an extremely **flexible** solution to suit any type of production.

Automation, stability and quality of the finished piece - The AVI OP has all the key features and advantages of the standard AVI module, of which 60 have been installed in countries all over the world in recent years. As with all SACMI's latest-generation AVI machines, the AVI OP completely eliminates the use of hydraulics, replaced by a pneumatic clamping system with air cushions. This approach guarantees proportional control of clamping throughout every stage of the casting cycle, offering improved stability and quality of the final product as well as optimizing energy consumption. Highly innovative from the point of view of automation, the AVI cell reaches top levels of **quality**, **process repeatability**, **health and safety in the workplace**. With this solution every single stage of the process, from glueing to demoulding, up to car loading, is handled by a robot.

Unmatched flexibility - The new opportunity to apply the AVI "concept" to the manufacture of one-piece WCs, is an important advantage for customers who have invested in this technology; especially as the AVI OP can also be used, at the same time, to make the normal WCs usually produced on standards AVIs.

AVI-OP is designed to suit production of a wide range of complex ceramic pieces. In addition to one-piece WCs, this machine can also be used for **WCs with stick-on rim**, **rimless WCs** and **engine-hood** pieces. The latter involves manufacture of the inside functional part ("engine") in a separate mould from the aesthetically-pleasing external part ("hood") and the rim. The design makes it possible to produce WCs with highly advanced shapes and top-quality finishes to meet even the most demanding requirements. The AVI OP is also fully **compatible with the moulds used on other SACMI machines**, such as those used on the single-mould AVM or multi-mould AVE solutions, thus guaranteeing continuity and production flexibility.

Uniformity throughout every stage of the cycle, rapid mould change-over - The machine guarantees a **clamping force of 700 kN** distributed on three axes – WC sides, WC base and body, rim mould – ensuring maximum precision and stability during casting. As with the standard AVI, it is possible to tilt the machine **up to 15°** both at the front and side, during every stage of the work cycle, to improve the casting quality and guarantee uniform filling. AVI OP is designed for **rapid mould change-over**: the installation times, which vary from 60 to 90 minutes for pre-existing moulds mean machine downtime is reduced to a minimum. In addition to being flexible, the machine is extremely simple to maintain thanks to its modular design and the absence of hydraulic parts. With the AVI-OP, the standard AVI module is completed by a **special rim press** designed to make the rim and water tank, with **rim mould dimensions 100×600×660 mm** and max. possible fired piece length equal to **720 mm**; ideal for the manufacture of large-sized pieces with complex structures.

Conclusions . AVI OP is a highly specialized solution for complex WC production. The machine was conceived for one-piece WCs but is also ideal for **any type of piece** normally made on the standard AVI, such as WCs with stick-on rim, rimless WCs and "engine-hood" pieces. The solution encompasses all the benefits of the "**SACMI AVI concept**" – IN-OUT technology, proportional control of mould clamping during all stages of the workcycle etc. – making this an **even more fully complete and flexible** technology to match all market requirements.