

*Excellence,  
is hidden in the details*



**SERAPORE**  
SANITARY WARE MACHINES  
Sanitary ware production technologies

# About

SeraPore Sanitaryware Machines and Molds operates under the leadership of a team with 30 years of experience and expertise in the field. Since 1989, our team has continuously grown and evolved, playing a leading role in the production of pressure mold casting and pressure casting machines. With this knowledge and experience, we have given life to more than 1500 molds and over 35 machines.

With a unique approach that combines quality, innovation, and excellence, we support our customers at every stage of the sanitaryware production process. We offer a wide range of services from product design, machine and mold production, to machine maintenance.

Our experienced and talented team is dedicated to understanding the needs of our customers and providing the most effective solutions. That's why we constantly adopt the latest technologies and methods, striving to achieve the best result for each customer.

At SeraPore, we do our work with passion and see each project as an opportunity to provide quality, effective, and sustainable solutions for leading brands in the industry. We are committed to adding value to our customers in the sanitaryware industry and supporting their success. We aim to maintain our leadership in the sector with this mission in the coming years.

## Who do we work with?

Roca | Vitra | Serel | Kohler | Catalano Italy | Axa Italy | GSI Italy | Uno Seramik Italy | American Standart | Cercanit Poland | Suudi Ceramic | Harsa-Israel | Hatria | Univeral Russia | Ekokerama Uzbekistan | Grandart Uzbekistan | Gozo Uzbekistan | Kleopatra Misir | Lessico Egypt | Alvit | Newarc | Bocchi | UgraKeram Russia | Uno Ceramica Italy | Laufen-Poland | Hatria Italy | OttoBagno | Bien Turkey

## Our Vision:

Our vision is to be a global leader in the ceramic and sanitaryware sector, and to be the most reliable and innovative solution partner in high-pressure casting machines and molds. As an organization that constantly pursues improvement, sustainability, and excellence, our goal is to provide our customers with the highest quality products and services. Our vision is based on providing the most effective and efficient production solutions to companies engaged in sanitaryware production and sales worldwide, thus playing a significant role in their success.

## Our Mission:

Our mission is to facilitate the sanitaryware production process, increase efficiency, and support the success of our customers. At the core of this mission is the production of unique and high-performance high-pressure casting machines and molds, providing design support and consultancy tailored to the production process, and being a reliable partner in machine maintenance and repair. By focusing on customer satisfaction, we aim to deliver quality, innovation, and sustainability together.

## Experience:

- 1989-2006 Vitra High-Pressure Casting Supervisor
- 2006-2013 Sacmi Development and Commissioning Technician
- 2013-2015 Sanikey-Bocchi Production Management
- 2015-2022 Sanikey-Bocchi Plant Management
- 2022 SeraPore Ceramic and Sanitaryware Machinery and Mold Manufacturing Companies

## What is Ceramic Sanitary Ware?

Ceramic sanitary ware refers to materials made from ceramics, typically used in bathrooms and toilets. The key feature of these materials is their production process: inorganic substances like clay, kaolin, quartz, and feldspar are converted into a fluid mud, shaped in molds with water-absorbing properties, such as plaster, and then fired at 1200 °C to reduce their water absorption value below 0.75%.

With the advancement of technology, the process of shaping fluid ceramic mud in plaster molds has been replaced by pressurizing ceramic mud in molds made from resin. This innovation has significantly increased production efficiency and quality.

Under standard conditions, using plaster molds, two products can be produced from one mold in one day. However, with pressure casting molds, between 30 and 60 castings can be made from one mold in one day.

Using plaster molds under standard conditions, one work mold can produce 100 semi-finished products over its lifetime. In contrast, pressure casting with resin molds can achieve over 50,000 castings.





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## High Pressure Casting 3 Piece Wall Hang WC Machine Resin Material HPC Mold

The High Pressure Casting (HPC) Machine for Three Piece Wall Hang WC is a cutting-edge solution in the vitreous china industry. This state-of-the-art machine optimizes the production process, boosting both speed and quality. It's designed with the perfect balance of advanced technology and innovative design, offering options for 4, 6, 8, or 10 moulds to ensure flexibility in a broad production range.

Coupled with the use of Resin Material HPC Molds, this machine provides unsurpassed effectiveness and accuracy in the casting process. This duo optimizes the production of three-piece wall hanging WC units. Moreover, the machine's robust and reliable construction ensures consistent, trouble-free operations over the long term.



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## High Pressure Casting Machine Three Piece Wall Hang WC Machine Products

The Three Piece Wall Hang WC Machine meets all critical production requirements in the vitreous china industry. This state-of-the-art machine is designed for fast and high-quality wall-hanging WC production. With an adjustable mould capacity, it provides production options for 4, 6, 8, or 10 moulds.

This superior machine optimizes production processes with casting precision and quality. It facilitates the fast and efficient production of three-piece wall-hanging WCs. Manufactured with the latest technology and innovative design understanding of SeraPore, this machine provides increased efficiency and quality in vitreous production.

Designed for long-lasting performance, the Three Piece Wall Hang WC Machine boasts a robust and reliable structure. This guarantees vitreous producers consistent and impeccable results. Therefore, this machine is an ideal solution for producers aiming to reach excellence in vitreous production processes.





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## Production of sink with Plaster Molds

Plaster molds are a common method in the production of sinks in the vitreous china industry. This process primarily requires the creation of a design and a model. This model is used for the creation of the plaster mold, and plaster is poured over the model and left to harden.

During the casting process, liquid ceramic slurry is poured into the plaster mold. The plaster absorbs water from the ceramic slurry, allowing the walls of the sink to reach a certain thickness. This hardening process helps to form the shape of the sink.

The sink removed from the mold is then dried and fired. The firing process hardens the sink and makes it waterproof. In the final stage, the sink is glazed in various colors and patterns and fired again. This process creates a glossy and durable surface.

Sink production with plaster molds allows for the creation of detailed and complex designs, which is one of the reasons why this method is popular in the vitreous china industry.

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## Sink Production with Pressure Casting Machine

Sink production with a Pressure Casting Machine is a high-quality and efficient method in the vitreous china industry. This unique machine presents a perfect harmony of technology and design, enabling the production of precise and flawless sinks.

This process primarily requires the creation of a design and a model. This model is used for the creation of the mold to be used in the pressure casting machine. The mold precisely reflects the shape and details of the sink.

During the casting process, liquid ceramic slurry is poured into the mold under high pressure. This ensures full and even distribution at every point of the sink, perfectly revealing the details of the sink.

The sink removed from the mold is then dried and fired. The firing process hardens the sink and makes it waterproof. In the final stage, the sink is glazed in various colors and patterns and fired again. This process creates a glossy and durable surface.

This high-pressure casting machine offers vitreous china manufacturers the ability to produce superior quality and detailed sinks. This machine makes production processes both effective and efficient, thereby aiding customers in delivering excellent vitreous china products.





## **Open Rim WC Mold**

The Open Rim WC Mold is a vital tool in the vitreous china industry for producing original and aesthetic toilets. This special mold provides high precision and flawless detail during the casting process. As a superior quality mold, it perfectly captures the form, details, and visual appeal of a toilet.

The mold is where the liquid ceramic slurry is poured and shaped under high pressure. This process ensures full and even distribution at every point, thereby precisely revealing all details of the toilet. The toilet is then removed from the mold, dried, and fired. This guarantees both the robustness and waterproofness of the toilet.

The Open Rim WC Mold offers toilet manufacturers the ability to present incredible detail level and high quality in their products. This ensures each toilet offers the customer a unique, appealing, and high-quality product.





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## Wall Hang WC Bowl Mold with Insert

The 4-Piece WC Bowl consists of the combination of the four main parts of the toilet. These parts are typically the splash guard, main body, plumbing, and seating area. The toilet bowl formed by these parts coming together is designed and produced according to the standards of the vitreous china industry. Each piece is important for the overall functionality and durability of the product and each is specially designed. This mold enables the production of toilets with high quality and precision, so that the final products can be superior both aesthetically and functionally.





## **Open Rim WC Mother Mold**

The Plaster Rim WC Mother Mold is used in the vitreous china industry to create detailed and precise replicas of rim toilets. This plaster mold provides high precision during the casting process and ensures the perfect transfer of all details. This captures the form, details, and aesthetic appeal of the toilets in subsequent production stages.

The plaster mold is usually the first step in creating a mold. It begins with the design being transferred to plaster, and then this plaster model is used in the production of the mold where the ceramic casting will be performed. As plaster has the ability to capture details very precisely, the model created in this process forms a perfect foundation for the mold that will be used in subsequent production stages.

This process ensures the preservation of quality and detail in the production of toilets and guarantees the high quality and aesthetic appeal of vitreous china products as a result. The Plaster Rim WC Mother Mold gives vitreous china manufacturers the ability to provide precise details and superior quality in their products.



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## WB Mother Mold

A WB mother mold is the process of replicating a toilet model as a mold in its original size and form. This process is usually accomplished using plaster or similar materials. The WB mother mold is a fundamental step in the vitreous china industry for the mass production of toilets. During the production process, the details and accuracy of these mother molds have a direct impact on the quality and accuracy of the final product. With years of experience and perfected techniques, SeraPore can produce WB mother molds in every size and design. Whether it's a modern design or a classic model, SeraPore provides molds to meet the manufacturer's needs.





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## **160 cm WB HPC Mold (Female Piece)**

The 160 cm WB HPC (High Pressure Casting) Mold Female Piece enables the production of large-sized basins in the vitreous china industry. This specific mold is specially designed to perform precision casting operations under high pressure, and it has the capacity to create a broad 160 cm basin.

This HPC Mold Female Piece allows for a precise casting that adheres to the details and design of basins. This ensures that the final product always meets high-quality standards.

The 160 cm WB HPC Mold Female Piece assists vitreous china manufacturers in producing large-sized basin models. This caters to both specific design needs and serves market segments where broad basins are in demand.

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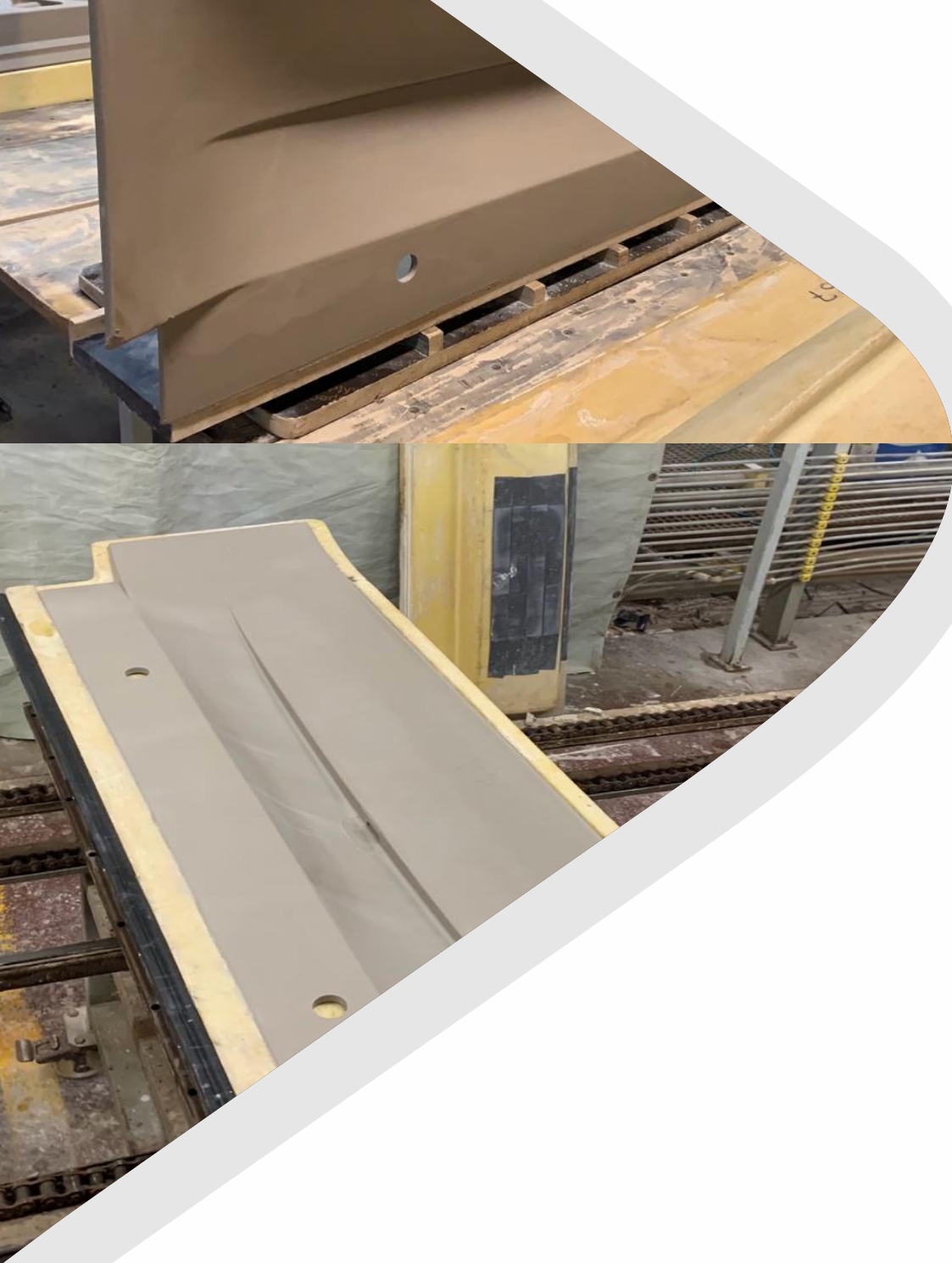
## 160 cm WB HPC Mold (Male Piece)

The 160 cm WB HPC (High Pressure Casting) Mold Male Piece is a feature that allows for high precision and quality production of wide basins. This piece enables the production of 160 cm wide basin models with high-pressure casting technology.

This specific HPC mold male piece captures the design details of the basin perfectly and transfers these details to the final cast product. This ensures that the final product meets high quality and design standards.

The 160 cm WB HPC Mold Male Piece provides vitreous china manufacturers with the capability to produce wide basin models swiftly, effectively, and with high quality. This increases the capacity to offer design variety and to serve market segments with a demand for wide basins. This mold piece allows for the expansion of the product range in the vitreous china industry, providing customers with more choices.





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## 160 cm WB Product

The 160 cm WB Product is a vitreous china product designed to provide a wide and spacious basin experience. This basin, produced with High Pressure Casting (HPC) technology, combines its broad dimensions with exceptional functionality.

This 160 cm wide basin provides users with an expansive surface area, affording ample space. This allows users to comfortably place their personal care products.

The 160 cm WB Product is designed to fit both modern and traditional bathroom designs. With its wide form and smooth surfaces, this basin adds a sophisticated touch to any bathroom decor.

This spacious basin combines outstanding functionality and elegant design, bringing together luxury and comfort in every bathroom. This product, which emphasizes a high-quality feel with every use, is a preferred choice in the vitreous china industry for large-sized basins.



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## 160cm Firing WB HPC

The 160 cm Firing WB HPC is a wide and impressive vitreous china product produced using the High Pressure Casting (HPC) technique. This spacious basin provides a broad workspace in your bathroom, offering superior user experience.

The firing process guarantees the strength, durability, and longevity of the basin. The high-quality ceramic material, resistant to heat, wear, and scratches, ensures an excellent appearance throughout the life of the basin.

The 160 cm Firing WB HPC is an ideal choice for all bathrooms requiring a wide and luxurious basin. Compatible with both modern and traditional bathroom designs, this basin adds comfort and elegance to any decor style.

This wide basin, produced with the HPC technique, stands out as a leading product in the vitreous china industry with its detailed design and high-quality material.



## High-Pressure Casting Machines Manufacturing

- 3-Piece WC machine (can be 4-6-8 and 10 molds)
- 4-Piece WC machine (can be 4-6 molds)
- 2-Piece Pedestal Basin machine (can be 6-8-10 and 12 molds)
- Vertical Piston Countertop Basin machine (can be 4-6 and 8 molds)
- Rotary Table 2 or 3-piece, 2-4 or 6 mold machine manufacturing

## Resin Mold Production for High-Pressure Casting Machines

- WC Mold suitable for 7-Piece SACMI Machines
- WC Mold suitable for 5-Piece SACMI Machines
- WC Mold suitable for 4-Piece SACMI Machines
- Basin mold from 25 cm to 160 cm
- Bidet, Cistern, Foot, Half Foot Squatting Pan and American Type Sink Mold

## Design Support

- Design support and consultancy for making newly designed products suitable for pressure casting mold production
- Design support in adapting models moving from plaster mold production to pressure casting production to pressure casting conditions
- Technical support in increasing mold life and efficiency with encryption techniques in resin mold production

## Machine Maintenance Support

- Maintenance and repair of all brands of pressure casting machines, Sacmi, Dorst, Porvair
- All Machines of Domestic Machine Manufacturers
- Glazing Robots maintenance support
- All maintenance and repairs of Gaiatto (Sacmi Glazing Robot)
- Manufacture and Maintenance of Drying Chambers and Drying Transport Cars

## Production Efficiency Improvement Studies

- Support for increasing efficiency in High-Pressure Casting Machines
- Support for increasing efficiency in Classic Casting Benches
- Efficiency improvement supports in all production lines

**SeraPore** Sanitary Ware Machines and Molds offer a comprehensive range of services in the sanitary ware sector. Our services are grouped under main headings such as High-Pressure Casting Machines manufacturing, Resin Mold production, Design Support, and Machine Maintenance Support.

Our High-Pressure Casting Machines offer a wide range of production capacity, from 3-Piece Toilets to Vertical Piston Countertop Basin machines. These machines provide solutions for different needs and production processes.

Our Resin Mold production offers a wide range of products including Toilet Molds suitable for SACMI Machines and Basin Molds from 25 cm to 160 cm. These molds are ideal for increasing the quality and production speed of sanitary ware products.

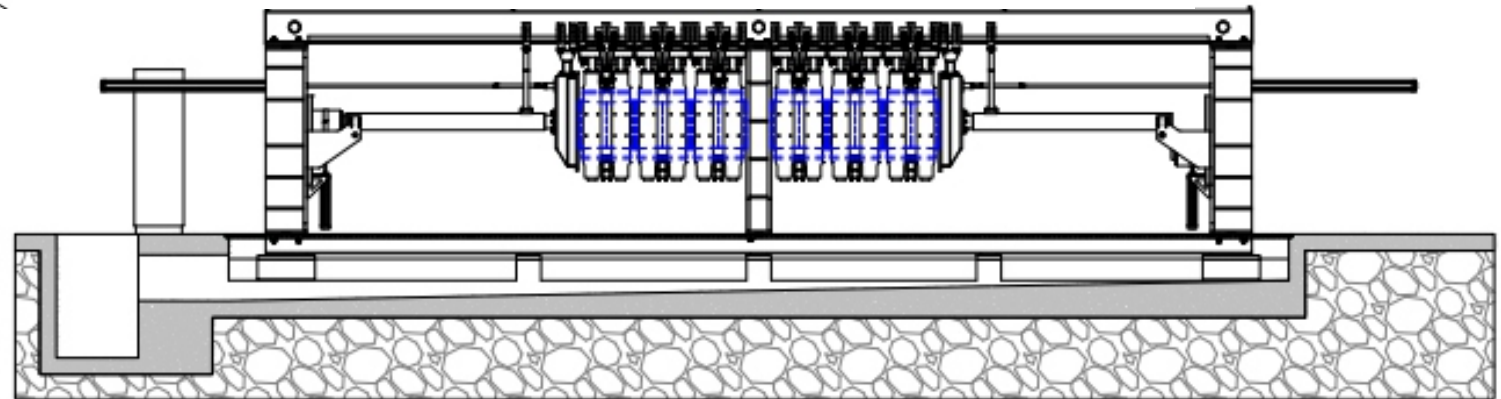
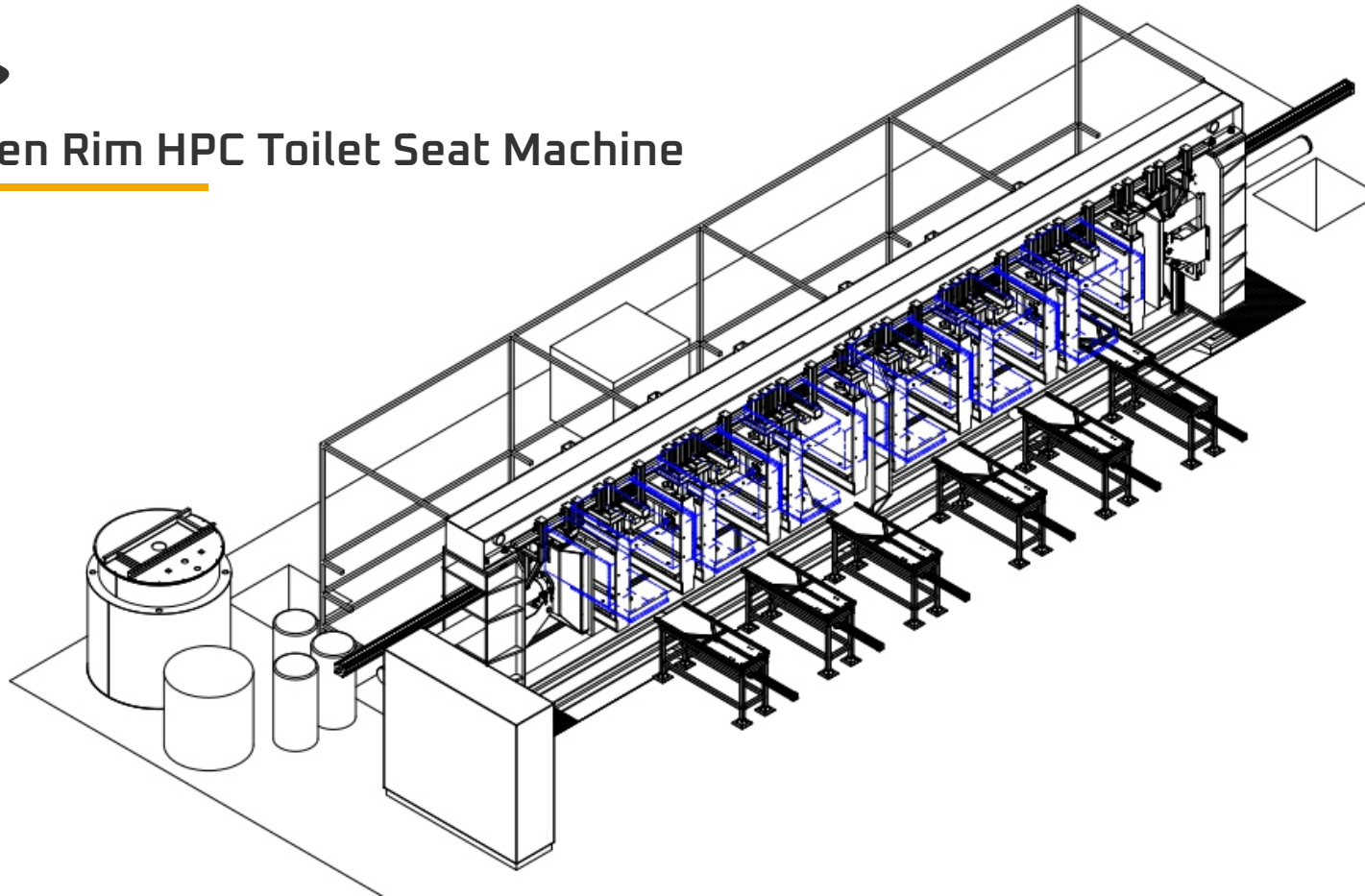
Our Design Support service helps to make new designs suitable for pressure casting molds and provides consultation during the transition process from plaster mold production to pressure casting production. Additionally, we offer technical support to increase mold life and efficiency with encryption techniques in resin mold production.

Our Machine Maintenance Support service covers the maintenance and repair of all brands of High-Pressure Casting Machines, Glazing Robots, and Drying Chambers. This service aims to maintain the excellent working condition of your machine and minimize disruptions in the production process.



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## Open Rim HPC Toilet Seat Machine





## ► MACHINE SPECIFICATIONS

Equipment	
Electricity Usage	20 Kw
7 Bar Air Pressure	30 Kw
20 Bar Air Pressure	100 Lt.
Drinkable Water Needed	4 m <sup>3</sup> / 24 hour
Drinkable Water Temperature	45°
Water Tank Capacity	1000 kg
Slip Tank Capacity	2 m <sup>3</sup>
Slip Tank Max Temperature	Max. 50 °C
Hidrolic Machine First Axis	120 Ton
Hidrolic Machine Second Axis	30 Ton
Water Pump	Varan Pump
Vacum Pump	Çap Pump
Slip Pump	Pomkar
CPU/PLC	Siemens
Piston Valve	Burkert
Check Valve	Burkert
Solenoid Valve	Pemax
Proportional Valve	SMC - Asco
Pilot Valve	Norgen
Screen	Wientec
Electrical Equipment	Omron - Schneider
Water Pipe Line	Inox 316
Air Pipe Line	Inox 316
Slip Pipe Line	Inox 316

## ► CASTING SPESIFICATION

Machine Type	Number of the Moulds	Compression	Max. Slip Bar	Max. Slip Heating	Cycle Time
3 Parts Wall Hang WC HPCM	4, 6, 8, 10	150 Ton	12 Bar	50 °C	45-55 minute
3 Parts Wall Hang WC HPCM with Insert	4, 6, 8, 10	150 / 30 Ton	12 Bar	50 °C	45-55 minute
4 Parts Open Rim WC	2, 4, ,6	150 Ton	12 Bar	50 °C	45-55 minute
5 Parts Clouse Couple Rim WC	2, 4, 6	150 Ton	12 Bar	50 °C	45-55 minute
2 Parts WB with Insert	6, 8, 10, 12	150 Ton	15 Bar	50 °C	32-45 minute
2 Part Vertical WB, Reservoir, Leg, Sink	1, 2, 4, 8	150 Ton	15 Bar	50 °C	25-45 minute



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