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CATALOGUE

Customization Expertise

Tailored solutions to specific client Adaptation of efficient production Align with the unique and long-term goals.

Innovation and R&D

Staying current with industry advancements R&D for continuous improvement Cutting-edge solutions

Comprehensive Support and Service

Ongoing support beyond installation Maintenance, operator training, troubleshooting, and spare parts Smooth operations, minimizes downtime, and reduces long-term operational costs.

Global Reach and Supply Chain

International Presence Efficient Supply Chain Local Expertise Reduced Lead Times

BEIJING SUNLETS TECHNOLOGY CO., LTD. 北京森兰特科技有限公司 WWW.SUNLETS.NET





About Beijing Sunlets Technology Co.,Ltd.

SUNLETS Technology can offer you a one-stop solution and the most economical and effective sanitary ceramics manufacturer, from pre-factory evaluation to production process optimization; from factory site selection and layout design to raw material processing and ceramic production. Providing complete projects as part of production solutions.

As a group supported by technical force, Sunlets already has a research center named "Tangshan Sanitary Ceramics Industrial Automation Engineering Technology Research Center" which owns 200+ patents, including utility model patents, invention patents and appearance patents.

All of the world's major centers for the sanitary ceramics sector are home to our customers. For more than 16 years, we have maintained our position as the market leader in high pressure casting technology and industrial automation technology via constant innovation. serving a variety of leading sanitary ware brands worldwide.





BEIJING SUNLETS TECHNOLOGY

One-Stop Turnkey Production Solution Provider

Continuous service world Top sanitary ware factories, and the only equipment supplier that wholly-owned an plant with annual output of 1 million pieces of ceramic sanitary ware, Sunlets Technology can keep its hardware equipment, production know how and management experience always at the forefront of the industry.



Glaze, Slip Material Technique Supports

Casting Technique Know-how Supports

Highly Customized Equipment, Machinery dsign & production

Training - Skilled workers & Engineers

RAW MATERIALS

EQUIPMENTS AND FACILITIES

Raw Material Processing

Ball Mill Series - Glaze, Slip preparation.



This line of ball mills is wet-intermittent superfinegrinding equipment appropriate for the mixing and superfine-grinding of ceramics and other raw materials. The material-slurry with particles larger than 100 mesh that was discharged from the ball mill might be used in the ceramic casting process.

Ball Mill Series - Glaze, Slip preparation.



It is widely used on the second floor operation of Ball Mill, where parallel conveyor belts can be placed.

Conveyor/Parallel Conveyor

The unit is auxiliary equipment for bigger ball mills, composed of belt type and chain-plate type, with the primary purpose of constant-feeding and constant-proportionfeeding, compact structure, simple installation and operation, and safe operation.



Flat-blade Agitator



This equipment is mostly useful for agitating clay slurry in the ceramic industry. By rotating the blade-paddle, two objectives might be accomplished. One objective is to prevent the

Propeller Agitator

The unit is especially useful for agitating clay-slurry and glaze-slurry during the raw material preparation process in the ceramic industry. The materialslurry stored in the slurry-pool would be kept at an even density due to the rotation of the vane. It could also be used to mix different ceramic bases with water and move them around to make an even slurry.



High Speed Dispersier



Both high speed dispersier and low-speed agitator are higheffective equipment for the breakup, agitating, dissolving of the different liquid. The unit is special equipment wideapplicable to coat, printing-ink, plastic, adhesive staff-material, papermaking ing, rubber, lacquermixed, and dissolvent.

Magnetic Separator/Iron Remover

The unit is mainly used to dislodge the iron-element contained in the clayslurry and glaze-slurry so as to attain the aim of medium purification.



Vibrating Sieve

The machine has compact structure, small volume, low energy consumption and high efficiency, suitable for ceramic industry, chemical industry, paper making, medicine, electronic and food industries it could be served under wet or dry process as different technique requirement and could provide excellent filtering capacity.



Double Piston Pump



Double piston pump are used for slip conveying, filter pressing etc. which is with the feature of high pressure, low energy comsumption, high output and long life, so it is widely use.

Pneumatic Diaphragm Pump

As a new type of conveying-dump, pneumatic diaphragm pump is adopted with compressed-air-power. The unit is mainly applicable to the suction, discharge and the delivery of clay-slurry or glaze-slurry in the ceramic industry.





Automatic High Pressure Casting & Bonding Station for WC Bowls and Bidets

This station can be used to produce smart toilets, wall-mounted toilets, and close-coupled toilets. One-to-one matching bonding of the rim, the bowl and the outer shell, Green bodies store nearby before bonding, avoid transportation deformation

Reduce reliance on skilled workers

Robot handling, casting, bonding and other operations improve bonding accuracy and ensure stable bonding quality.

WALL-HUNG WC / BIDETS /SMART TOILETS

The production process involves robot handling, adhesive slurry application, adhesive bonding, and other operations, resulting in improved bonding accuracy and smoother operations. One worker is responsible for one or two designated workstations, making it easier to control the quality of the entire green body preparation and bonding process.





Each model of the rim, bowl, and outer shell can be independently controled , allowing adjustments based on the specific conditions of each set and product. The robot applies the slurry according to the production rhythm, preventing issues such as slurry hardening and deterioration.

Automatic High Pressure Casting & Bonding Assemble Line for WC Bowls and Bidets



Our company independently developed High-pressure casting equipment for sanitarywares, which is the world's first intelligent toilet high-pressure production line. It has three advantages over the traditional intelligent toilet production line: 70% savings in workers, 70% savings in occupied area, and 70% savings in energy consumption.

Power: 145KW Application of mould 10 sets Daily output 500-600 pcs

Avoiding the problem of mixed and chaotic pairing in centralized adhesive bonding during multivariety production.

Eliminating the need for long-distance transportation and avoiding issues such as deformation caused by vibrations during transportation.



Automatic High Pressure Casting Plants for Closecoupled WC Pan

Sunlets Technology' s expertise is demonstrated by its ability to provide customers with a comprehensive set of entire manufacturing solutions based on the full factory' s environment and the characteristics of the local sanitary industry, instead of just the visible advanced hardware, customized equipment, and facilities stacked in the factory building

Highly customized according to customer needs;

Perform hollow and solid casting;

Suitable for the production of close-coupled toilets and smart toilets;

High production efficiency, energy saving, and compact design saves space.

Programable and is easy to operate;

Adjust parameters based on slip performance and casting;

Each molds works independently.

Molds of different products mixed casting.



Our wc pans high pressure casting machines installed and working in different sanitaryware ceramics factories.

Water Closet High Pressure Casting Plant



This equipment is capable of producing standard toilet seat products using a 4-cavity mold.

Accommodates 12 sets molds and has a production capacity of 12 pieces per cycle.

WC pan moulds: 12 sets (the number of machines can be adjusted according to production changes).

The circle adopts horizontal independent injection with pressure. It can simultaneously produce 12 different varieties.

Uses resin moulding, moulds do not require drying treatment, and continuous production is possible. The daily total casting volume is 500 pieces.

Covers an area of 35mx6mx4m.

It has fully automated casting, demolding, and conveying processes,

Reducing the labour intensity of workers. Workers only need to process the products on the conveyor line. With low skill requirements, new workers can be trained for 10 days before taking up the post.

The total installed capacity of the equipment is 55 KW, with a running rate of 10%.

Uses PLC and touch screen control, making equipment operation simple and easy to learn and allowing remote technique supports.

Designed with a simple parameter modification platform, allowing timely adjustments based on changes in slurry performance. The mould pressure system is divided into 12 independent groups, so when one machine has a malfunction, it will not affect the normal operation of other machines.

One-Piece Water-Closet High pressure casting Plants

Casts open or close rim one-piect, solid and hollow casting.



It can simultaneously produce 10 different varieties. Resin molding is used for the molds, require no drying enabling continuous production.

The daily total output volume is 500 pieces. $45x 12 \times 7$ (L x W x H meter). The process of casting, demolding, and conveying is fully automated, reducing the labor intensity of workers.

Workers only need to process the products on the conveyor line.

PLC and touch screen control , making the equipment operation simple, easy to learn, and allowing remote program adjustment.

There is a convenient parameter modification platform designed to adjust parameters promptly according to changes in the slip' s performance.

The mold pressure system is divided into 10 independent groups, so the malfunction of one machine will not affect the normal operation of other machines.

Cistern/Water Tank High pressure casting Plants

Casts Cisters, Large size toilet outter shells or simillar shape designed

Produce 10 product variations simultaneously. Resin molding eliminates drying, allowing continuous

production.

Automated injection, demolding, and conveyance reduce labor.

Workers only process products at the conveyor line's conclusion.

PLC with touch screen control for easy operation and remote software debugging.

Slurry performance-based parameter modification platform.

The mold pressure system has ten distinct groups to prevent one machine from affecting others.



High pressure Machines with Slit Mold for washbasins, pedestals,tanks, shower trays

Washbasins, pedestals, tanks, shower trays, sinks, rims, vsquatting pans.

It makes basins, squatting pans and other products. Resin molding eliminates drying, allowing continuous production.

Labor-saving automated casting procedure. Moving items to the processing line requires simply a demoulding plate.

PLC with touch screen control for easy operation and remote software support.

Slip performance-based parameter modification platform.













Spagless and Rotating Casting ma-

Can cast all sanitaryware products.

The machine automates lifting, flipping, and demolding, enhancing efficiency and minimizing manpower.

6-9 times casting cycles daily are possible. (Depending on manufacturing and drying conditions.) Drainage demolding separates the green body from the mold without cracking. This cuts talcum powder use, dust pollution, and workplace safety.

With the spagless system, molds swiftly release water and enable for the next casting, allowing continuous manufacturing.

Spagless prevents mold drying, lowering the site temperature and improving the environment. Its enhanced process flow and easy operating controls make ceramic molding a promising trend.





Spagless Casting machine

Basins, squatting pans, toilet tank lids, and other smaller parts. The matching spagless system swiftly removes mold moisture, enabling the next casting and ongoing production.

6-9 times casting cycles daily are possible. (Depending on manufacturing and drying conditions.)

Exhaust demolding removes the green body from the molds without cracking. This cuts talcum powder use, dust pollution, and workplace safety.

Spagless molds reduce on-site temperatures and improve the environment by not requiring nighttime drying.



Chain Hoist Casting Bench

This equipment is primarily utilized in WC Pan production.

Two casting methods: manual or automatic

Lifting by chain hoist and taking over the water closet body with an air cylinder significantly minimizes the amount of labor required by workers.





Traditional Casting Bench

• This equipment is primarily utilized in lavatories, sinks, and urinals.

- There are two ways to cast: manually or automatically.
- Reduce the labor intensity of workers, conserve space, and have cheap equipment costs.





DRYING

EQUIPMENTS AND FACILITIES

Drying Chamber/ Drying Line

Drying Chamber, Quick Drying, Slow Drying, Auto Drying Line

This equipment is useful for drying molds and green body in the mold workshop. An automatic controller carefully controls the drying chamber's temperature and humidity, creating a dependable and effective curve. This expedites green body or mold drying while retaining quality.

The completely automated machine uses advanced PLC & touch screen technology for outstanding vision, simple operation, and convenient temperature and humidity control. The space saving equipment boosts productivity.

If needed, this drying chamber can be designed as continuous drying mode without interruption.





Hot Air Generator

Suitable for the drying of green body & molds in the casting workshop. Customized according to drying requirements of specific workshops and drying rooms. The equipment realizes automatic control, occupies a small area, improves work efficiency, and is highly customized to meet the drying needs.



DRY-BODY

INSPECTION LINES

Dry-body Sanitaryware Inspection Line

This equipment is primarily utilized in WC Pan production.

Two casting methods: manual or automatic

Lifting by chain hoist and taking over the water closet body with an air cylinder significantly minimizes the amount of labor required by workers.





Dry-body Inspection Booth

Inspect all sanitarywares dry body parts.

Customized according to customer needs.



GLAZING

EQUIPMENTS AND FACILITIES



Glazing Booth

The shower-dedust glazing booth, which has glaze recycling and an integrated structure of stainless steel or plastic plate, is utilized specifically for the base-glazing of sanitary ceramics.

Circular Glazing Line

This line is an automatic cycle line, and it can complete the body' s dust removal, cleaning, spraying, glazing, and labeling, among other multi-processes, in order to assure product quality uniformity. Low power use and low noiselevels can make the glazing effect much better, reduce the amount of work that workers have to do, and significantly increase work productivity.



Robot glazing station

The robot glazing station' s robot double working position changes the traditional method of glazing in direct contact with the glaze Improves the working environment, Reduces worker labor intensity, increases glaze application efficiency, and lowers labor costs. Uniform glazing thickness, good quality, and consistency.



FIRING

EQUIPMENTS AND FACILITIES

Shuttle & Tunnel Kiln





Continuous sanitary ware tunnel kilns have high output, steady product quality, and reduced energy usage than intermittent kilns. Self-suction and swirl flame tunnel kilns differ in combustion process. The kiln's operating temperature classifies them as high- or medium-temperature. Tunnel kiln roofs can be flat or vaulted. The kiln's lining can be lightweight or heavyweight refractory bricks, and its exterior can be steel frame or red brick.





Туре	Firing Temperature	Firing Cycle	Fuel	Annual out- put
Tunnel Kiln	1150-1280°C	12-18 hr	Natual gas/coal gas	600-800K
Shuttle Kiln	1260-1380°C	14-24hr	Natual gas/coal gas	100-300K

A shuttle kiln includes a kiln, an automatic loading and unloading system, an automatic operation system, a kiln vehicle loading and unloading platform, and a completely automatic control system. It uses pulse-proportion combustion. The top computer, OMRON series PLC, industrial control computer, and touch screen monitor the kiln's operation in real time. Multiple firing curves can be configured to meet customer product needs, and "one-key switch" curve change and "one-key start" equipment operation are fully accomplished. The system is straightforward to use and runs smoothly, dependably, and precisely.

FIRED SANITARYWARE

CERAMICS INSPECTION LINE

Fired Sanitaryware Inspection Line

Ceramics sanitaryware Inspection line for sanitaryware consisting of cosmetic testing, performance testing, packing and moving, and other assembly line procedures. For product conveyance, the primary line is driven by a roller and a belt, and it is equipped with an appearance inspection table, a water leakage inspection machine, a flushing water testing machine, a water fitting assembly device, a packaging box device, etc (installed according to customer requirements).



Appearance Visual Inspection

Compact, rotating operation surface for most ceramic product appearance assessment. Customizable per customer.



Water Leakage Inspection Machine

Vacuum, negative pressure test ceramic sealing, fully automatic detection, LCD display, alarm function; parameters can be customized. Suitable for water and air leakage testing of various toilets and water tanks.



MOLD DEVELOPMENT & MANUFACTURING

Molding Equipment

Plaster Automatic Feeding, Weighing and Mixing Equipment

This machine is mainly composed of duster, stock bin, screw feeder, dust removal pipeline, automatic weighing platform, etc.

The main technical parameters

- 1, Application: Storage, weighing and mixing of gypsum powder on site in plastic shop
- 2, Production capacity: 4-20 tons/day
- 3, Duster machine: 6000 m3/hr
- 4, Vbration motor: 1.1 kw5, screw feeder: 0.75 kw
- 6. Automatic control



Gypsum Mixer

Technical performance and parameters of the mixer

1. Scope of application: Vacuum mixing of gypsum powder on site in the modeling workshop

- 2. Production capacity: 0.5-2 tons/time
- 3. Speed: 0-1450 r.p.m
- 4. Power: 45kw
- 5. Material: SS304/SS316



Mold Development and Manufacturing

Uniform microporous structure: prevents bonding during demoulding and makes the product's surface more uniform. Products can be used at least 15,000 times, but many can be used over 30,000 times. A zone-based stripping technique can considerably improve partial demoulding. A reusable iron frame makes the mold safer.Quick-plug joint connection method speeds mold replacement in the dehydration pipe. Water doesn't react with mold, making mold care easy.



Spagless Mold Development and Manufacturing

Spagless mold with a uniformly distributed interior drainage pipe systemMold fabricated with partition zone control technology to ensure uniform hardness and thickness of the

green body' s various components.

Durability: minimum of 100 uses possible

Pipes utilizes a quick connection-peg connection method to expedite mold replacement.



Industrial Environmental Protection Equipment

Bag Filter

After the dusty gas reaches the dust collector, the abrupt expansion of the airflow cross-section and the airflow distribution plate cause coarse particles in the airflow to settle in the ash hopper. Brownian diffusion and sieving deposit fine particles on the filter media in the dust-filtering chamber.

When the resistance reaches a particular value, the electromagnetic pulse valve automatically opens, allowing pressurized air to rapidly expand inside the upper box and shake the filter bags. Reverse airflow cleaning removes dust from the filter bags and deposits it in the ash hopper.



Sewage Treatment Station

This environmentally important sewage treatment plant treats domestic and industrial wastewater to fulfill discharge criteria. Modern technology has three steps and should be used based on sewage condition and destination after treatment. Three sand filtration processes separate sewage from water after coagulation and sedimentation. Dehydrated sludge is recycled, and workshop water is utilized for cleaning.



Desulfurization and Denitrification Equipment

The tower that we make is mostly utilized for desulfurization and denitrification of tunnel kiln exhaust. The product is composed primarily of FRP. Following the spraying of a suspension + urea liquid wet denitrification + wet desulfurization process, the nitrogen oxides and sulfur dioxide in exhaust gas were neutralized in order to meet emission regulations andlower the emission concentration.





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