



SMC-made chillers can be used in a wide range of applications!

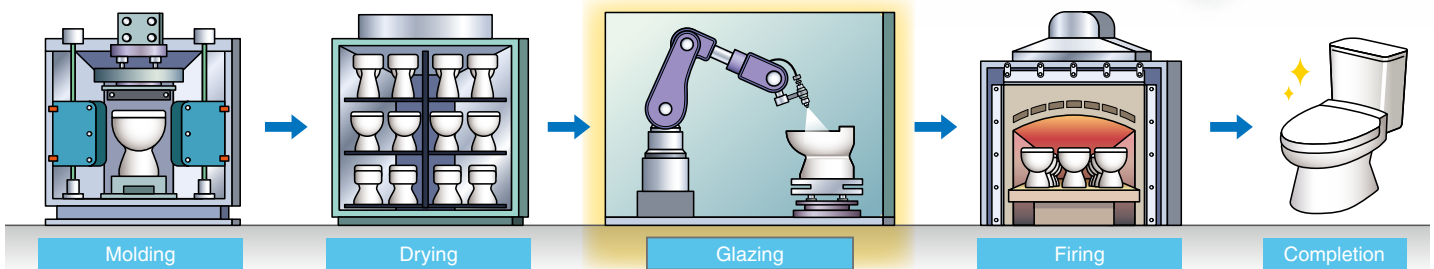
Ceramics Manufacturing



Benefits of glaze temperature control

- Reduces uneven glaze application
- Improves strength due to uniform coating thickness
- Improves glaze color stabilization
- Improves quality by improving yield

Sanitary ceramics manufacturing process



Glaze application



Painting booth

Process Pump

Transfer of glaze to painting machine

Glaze temperature control tank

Process Pump

Transfer of glaze to temperature control tank

Thermo-chiller

Control of glaze to constant temperature



Glaze vessel

What is glazing?

- It is when you apply a glaze (made of wood/straw ash and crushed earth/stones melted with water) to a ceramic's surface.
- The glaze is applied to the ceramic before firing to give it a glassy finish, while also strengthening it and improving stain resistance.
- ★ The glazing process is an indispensable process for ceramics.

* Use within the product specification range defined in the catalog, operation manual, etc. It is the customer's responsibility to determine workpiece and facility compatibility.



| Series | Temperature range setting [°C] | Temperature stability | Cooling capacity [kW] | | | | | | | | | | | | | | | |
|--|--|-----------------------|-----------------------|-------------|-------------|-------------|---|---|---|---|---|----|----|----|----|------------|------------|--|
| | | | 1.0 | 1.2 | 1.8 | 2.4 | 3 | 4 | 5 | 6 | 9 | 10 | 15 | 20 | 25 | 28 | 30 | |
| Standard type HRS Series | 0 — 5 to 40°C — 60 | ±0.1°C | | ● | ● | ● | ● | ● | ● | ● | | | | | | | | |
| Environmentally resistant type Standard type HRS-R Series | 0 — 5 to 40°C — 60 | ±0.1°C | | | ● | | ● | | ● | | | | | | | | | |
| Standard type HRS090 Series | 0 — 5 to 35°C — 60 | ±0.5°C | | | | | | | | | | ● | | | | | | |
| Standard type HRS100/150 Series | 0 — 5 to 35°C — 60 | ±1.0°C | | | | | | | | | | | ● | ● | | | | |
| Inverter type HRSH090 Series | 0 — 5 to 40°C — 60 | ±0.1°C | | | | | | | | | | ● | | | | | | |
| Inverter type HRSH Series | 0 — 5 to 35°C — 60 | ±0.1°C | | | | | | | | | | | ● | ● | ● | ● | ● | |
| Basic type HRSE Series | 0 — 10 to 30°C — 60 | ±2.0°C | | ● 1.2 kW | ● 1.6 kW | ● 2.2 kW | | | | | | | | | | | | |
| Dual channel refrigerated HRL Series | 0 — 15 to 25°C — 60 [CH1] 0 — 20 to 40°C — 60 [CH2] | CH1 ±0.1°C | | | | | | | | | | | ● | | | ● 19 kW | ● 26 kW | |
| | | CH2 ±0.5°C | ● | | | | | | | | | | | | | | | |

Maintenance Network



Providing high-quality services anywhere in the world

Quick, careful response to customers' needs is possible thanks to a solid inventory of maintenance parts and an experienced chiller support team capable of conducting repairs and replacements.

Americas

Brazil/Mexico/
U.S.A.

Europe

Austria/Czech Republic/Denmark/Finland/France/Germany/Hungary/Ireland/
Italy/Latvia/Netherlands/Norway/Poland/Russia/Slovakia/Slovenia/Spain/
Portugal/Sweden/Switzerland/Turkey/U.K.

Asia/Oceania

Australia/China/Hong Kong/India/Indonesia/Japan/
Korea/Malaysia/New Zealand/Philippines/
Singapore/Taiwan/Thailand/Vietnam

* The names of countries and regions listed in each area are alphabetically indexed

Circulating Fluid/Glaze-line Components

3-Screen Display
High-Precision Digital Pressure Switch
**ZSE20C(F)/
ISE20C(H) Series**



3-Color Display
Digital Flow Switch for Water
PF3W-Z/L Series



Direct Operated/Pilot Operated
2-Port Solenoid Valve
JSX Series



S Couplers
Stainless Steel Type
KKA Series



2-Layer Soft Fluoropolymer Tubing
TQ Series



⚠ Safety Instructions Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.

SMC Corporation

Akihabara UDX 15F,
4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101-0021, JAPAN
Phone: 03-5207-8249 Fax: 03-5298-5362
<https://www.smcworld.com>
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