

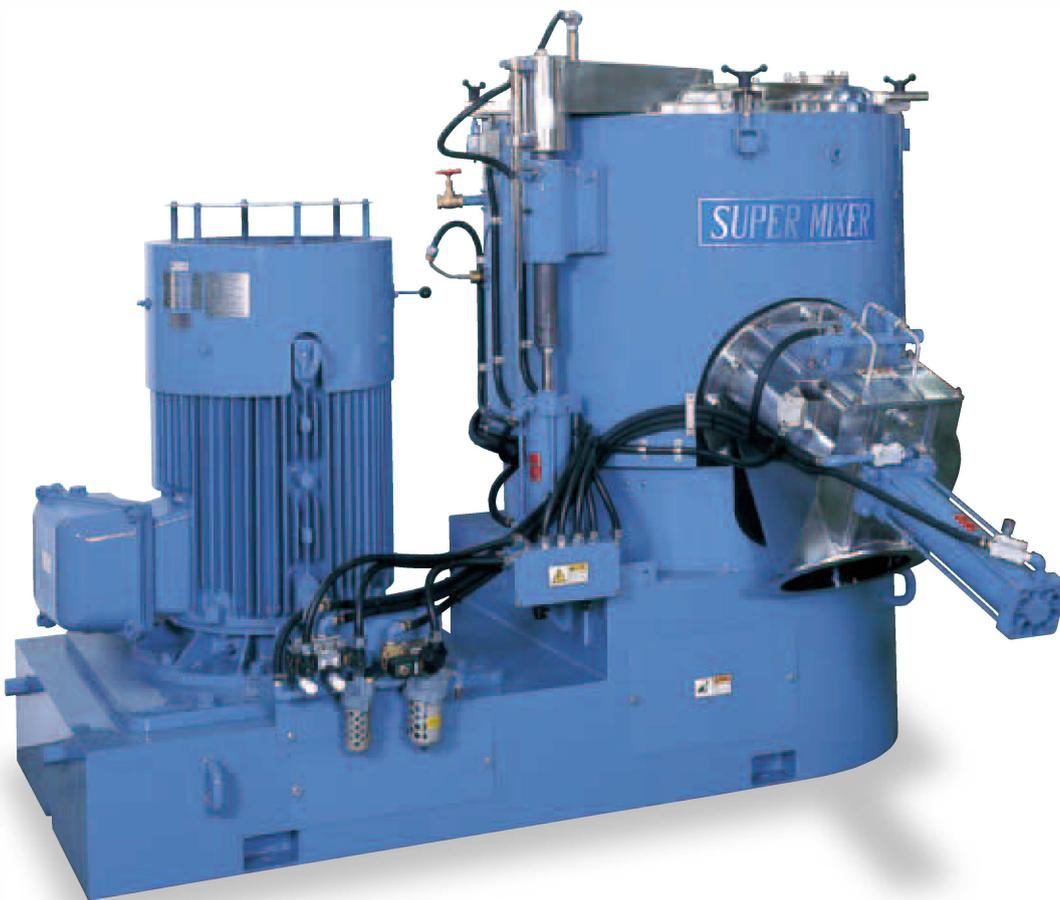


High Speed Fluidizing Mixer

SM series

SUPERMIXER

To meet the needs of various powder mixing
(Food, Pharmaceutical, Cosmetics, Plastic, Battery,
Construction materials, Metal, etc.)



SUPERMIXER

SUPERMIXER, High Speed Fluidizing Mixer, Full of Kawata's Original Ideas for Uncompromising Quality.

High-speed rotation with agitating blades originally designed according to material or intended use allows almost ideal flow action, producing the desired effect in mixing, dispersion, pelletizing, granulation, drying, coating, surface treatment, etc.

Features

 **Fast and stable process** Uniform mixing in a short time

 **High versatility**
Various processes (mixing, dispersion, pelletizing, granulation, drying, coating, surface treatment, etc.) suitable for each material

 **Wide range of models**
Selection of sizes depending on your purpose and desired throughput

 **Detailed customization**
Extensive options (abrasive resistance, decompression, chopper, compliance with GMP, heating / cooling unit, etc.)

 **Easy cleaning**
Structure with high maintainability



SUPERMIXER, High Speed Fluidizing Mixer

Mixing Image

In the early stage of mixing, material is churned up to the upper part of the tank by the lower blade. Then, as the mixing action proceeds, the material moves up and down within the tank by transverse rotation and in synergy with the guide plate and upper blade. This is the principle of "uniform mixing in a short time".

Non-operating



Initial mixing



High-speed mixing

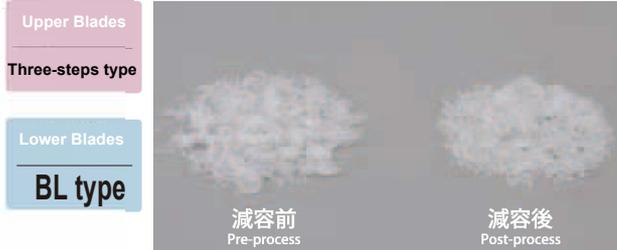


SMV(G)-1000

Processed Samples by SUPERMIXER

Plastic

Ex. Volume reduction of trimming loss of drawn film



Ceramics

Ex. Mixing, dispersion and granulation of alumina



Metal

Ex. Coating surface treatment material on metal powder



Glass for LCD

Ex. Uniform drying of glass for LCD



Toner

Ex. Uniform dispersion of silica



Pigment

Ex. Adhesion of dry color to plastic pellets



Cosmetics

Ex. Mixing and dispersion of oily eyeliner material

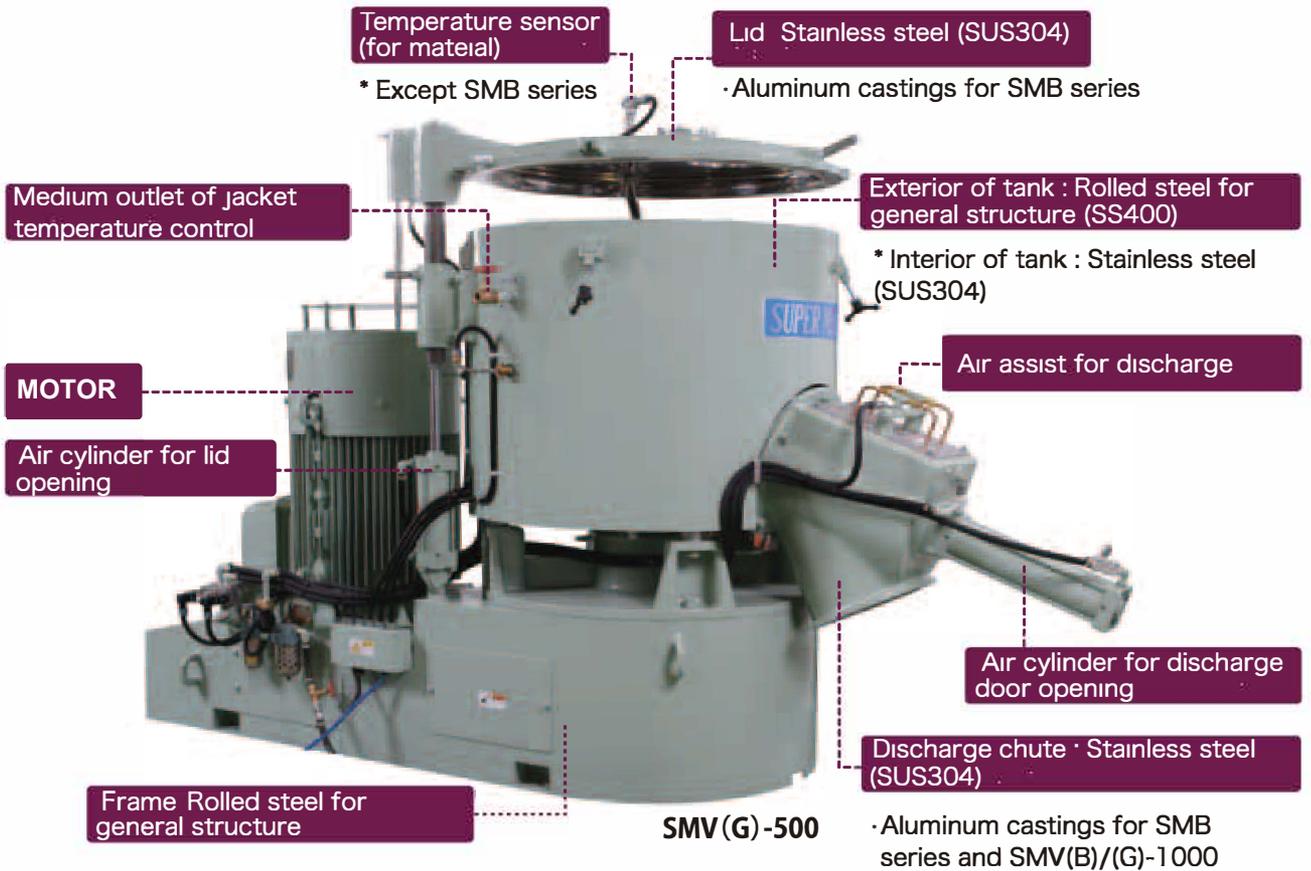


Wood flour

Ex. Mixing, dispersion and granulation of resin pellets and wood flour



Full Standard Specifications



Extensive Options

	Standard Specifications	Optional Specifications
Tank	 <p>Jacket structure</p> <ul style="list-style-type: none"> · Maximum working pressure : 0.29MPa (3kg/cm²) 	 <p>Jacket-less</p>
		 <p>Stainless</p>
	 <p>Chopper</p>	 <p>Thermal cleaning mechanism (mounted on the tank side)</p>

Standard Specifications

Optional Specifications

LID



Stainless

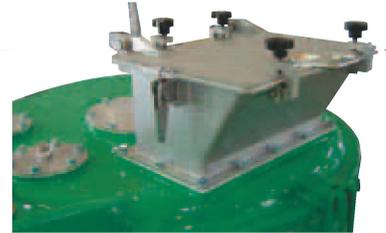
- * Aluminum castings for SMB series
- Opening : Elevated by air cylinder and slid side ways manually
- SM-20, 100 and 200 : manual opening



Flip-up lid



One-touch clamp



Manual chute

Discharge chute



- Stainless
- Aluminum castings for SMB series and SMV(B)/(G)-1000
- Air purge for door cleaning



Butterfly TYPE



Hinged type



Metal touch discharge door (with bellows)

Control Panel

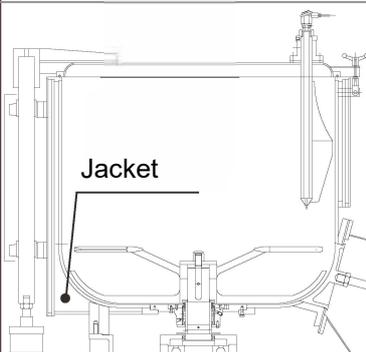


Free-standing type

Touch panel type



Jacket temperature control



Cooling unit



Heating unit (water medium)



Heating unit (oil medium)

● Food



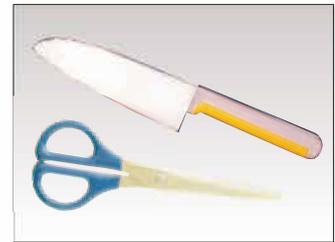
● Plastic



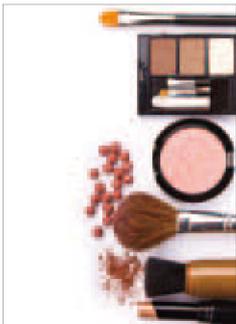
● Pharmaceuticals



● Ceramic



● Cosmetics



● Metal



KAWATA's ideal mixing technology meets the diverse needs of a wide range of field.

● Glass for LCD



● Batteries



● Pigment



● Color Toner



● Construction materials



Customized agitating blades are the key to SUPERMIXER

Upper Blades

S type

General-purpose type with good performance in mixing and dispersion



SI type

Suitable for light-weight or low-fluidity material



Role: To provide various processes to churned-up material

V type

Suitable for liquid or strong-viscosity material



Three-steps type

Large cutting force suitable for granulation



Lower Blades

Role: To churn up material

E-TYPE



D-TYPE



BL-STANDARD TYPE



B-TYPE



A-TYPE



Small

Force bounce

Force

Large

Blades for cooling

For cooling

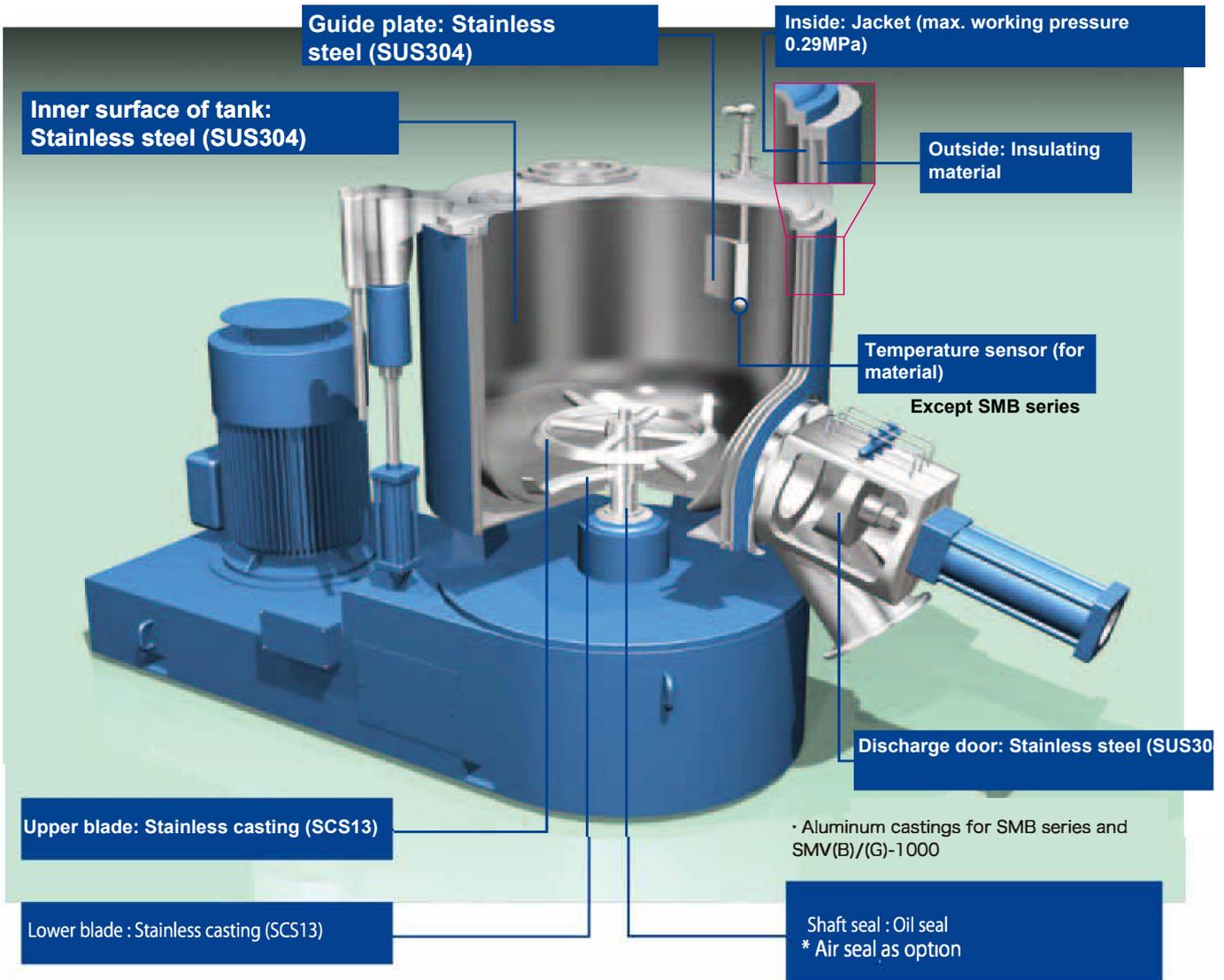


For granulating



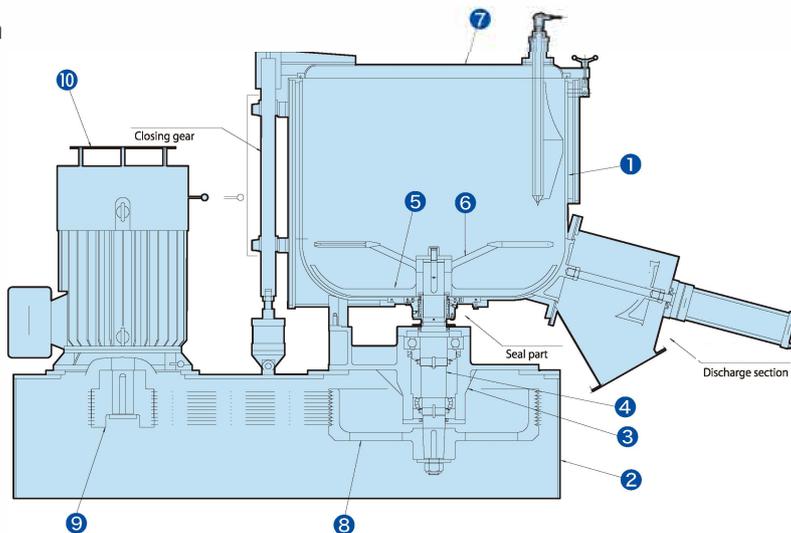
High-speed flow mixer, a super mixer that filled Kawata's original ideas

SUPERMIXER, High Speed Fluidizing Mixer,



Cross Section

<SMB-1000>



- ① Tank
- ② Frame
- ③ Tank receiver
- ④ Main shaft
- ⑤ Lower blade
- ⑥ Upper blade
- ⑦ Lid
- ⑧ V pulley (main shaft)
- ⑨ V pulley (motor)
- ⑩ Motor

Variety of Models

SMP-2

Compact and desktop type



SMV-10Ba/20Ba

Broad use for tests and production



SMV-10Ba

SMV-20Ba

SMB-2000

Large capacity and blending type



SMV-200

For Pharmaceuticals

Clean specifications compliant with GMP



SMC-200

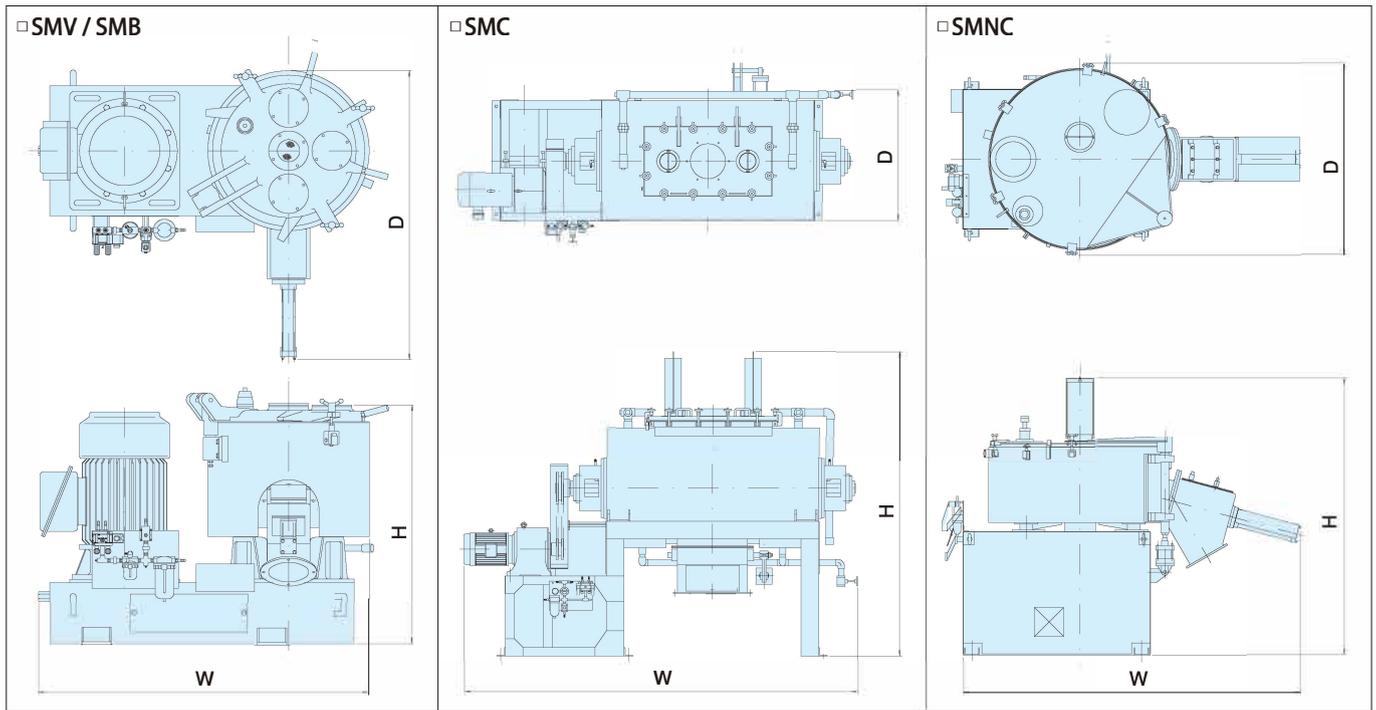
Cooling mixer used in combination with a gelation-type mixer Designed with emphasis on cooling effect



SMNC-200

Cooling mixer used in combination with a gelation-type mixer Specifically designed for easy cleaning Capable of granulating and aging material, not sufficient with SMC model





Specifications

Type	Model	Tank Size (L)	Charged Volume (L)	Power Consumption (kVA)	Motor (kW)	Air Consumed (L/h at VN)	Cooling Water (L/min)	Jacket CAP (L)	Dimensions WxDxH (mm)	Weight (kg)
Piccolo type	SMP-2	1.8	0.4~1.4	0.3	200W Inverter	—	—	1.2	255x354x450	14
Variable type	SMV-10Ba	10	6~7	5.2	3.7 4P Inverter	—	—	3	850x634x1,042	200
	SMV-20Ba	20	12~14	7.4	5.5 4P Inverter	—	—	5	850x634x1,092	250
Inverter type	SMV(B)-100	100	60~70	10	5.5 6P Inverter	100	—	20	1,415x1,250x1,093	880
	SMV(B)-200	200	120~140	20	11 6P Inverter	160	—	49	1,655x1,490x1,406	1,060
	SMV(B)-300	300	180~210	40	22 6P Inverter	350	—	73	2,054x1,790x1,613	1,500
	SMV(B)-500	500	300~350	70	37 6P Inverter	350	—	79	2,343x1,953x1,866	2,400
	SMV(B)-1000	1000	600~700	140	75 6P Inverter	600	—	153	2,760x2,420x2,275	4,500
	SMV(G)-100	100	60~70	40	22 4P Inverter	100	—	20	1,415x1,250x1,093	1,100
	SMV(G)-200	200	120~140	70	37 4P Inverter	160	—	49	1,655x1,490x1,406	1,300
	SMV(G)-300	300	180~210	100	55 4P Inverter	350	—	73	2,054x1,790x1,613	2,200
	SMV(G)-500	500	300~350	140	75 4P Inverter	350	—	79	2,343x1,953x1,866	3,200
SMV(G)-1000	1000	600~700	300	170 4P Inverter	600	—	153	2,760x2,420x2,275	5,700	
Blending type	SMB-100	100	60~70	10	5.5 6P	80	—	20	1,415x1,250x1,093	880
	SMB-200	200	120~140	20	11 6P	160	—	49	1,655x1,490x1,406	1,060
	SMB-300	300	180~210	40	22 6P	350	—	73	2,054x1,790x1,613	1,500
	SMB-500	500	300~350	70	37 6P	350	—	79	2,343x1,953x1,866	2,400
	SMB-1000	1,000	600~700	140	75 6P	600	—	153	2,760x2,420x2,275	4,500
Cooling type	SMC-100	210	60~70	5	3.7 1/15 4P	24	21	59	2,210x740x2,046	800
	SMC-200	410	120~140	10	5.5 1/15 4P	50	25	94	2,579x835x2,292	1,300
	SMC-300	620	180~210	13	7.5 1/15 4P	50	60	117	2,948x985x2,382	2,450
	SMC-500	1,200	300~350	19	11 1/15 4P	360	83	190	3,360x1,120x2,564	3,450
	SMC-1000	2,200	600~700	37	22 1/20 4P	360	200	310	4,520x2,235x2,580	5,800
Cooling NC type	SMNC-100	210	60~70	13	7.5 4P	160	20~30	29	2,050x1,024x1,840	800
	SMNC-200	410	120~140	19	11 4P	160	30~40	62	2,385x1,224x2,049	1,250
	SMNC-300	620	180~210	25	15 4P	160	40~50	77	2,495x1,324x2,275	2,000
	SMNC-500	1,050	300~350	37	22 4P	160	60~80	107	3,020x1,562x2,400	2,170
	SMNC-1000	3,000	600~700	70	45 4P	600	250~	190	3,250x3,050x2,450	4,000

* The above are approximate outer dimensions when Teflon is used for standard (L-type) axial seal. * Used air pressure is 0.4 - 0.6 MPa

We perform various verification tasks depending on your needs.

Sanda Plant in Japan



Supermixer for test



Powder Test Center in Japan

We support tests such as powder transportation, weighing, and mixing.



*These specifications are subject to change without notice.
*Please read the instruction manual carefully before use.

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Total Systems Engineer

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