Desktop robot for dispensing

Sx series

SHOTMASTER™ **500 Sx-SS**
SHOTMASTER™ **400 Sx-SS**
SHOTMASTER™ **300 Sx-SS**
SHOT mini™ **200 Sx-SS**
SHOT mini™ **100 Sx-SS**

A Fusion of "Core" Dispensing Technologies MUSASHI's motion units

≪Ultimate cost-effective performance≫

Newly Developed

CE
RoHS

Synchro Speed™

◆ 800 mm/s, highest level of operation speed in this class.

◆ ±0.01 mm repetitive positioning accuracy.

◆ Newly developed Synchro Speed™ function. PAT.P

The line width can be maintained at constant even when moving through a corner.
Maximum reduction in cycle time for the highest production efficiency.

Fully enhanced operability
New type teaching pendant

- Equipped with **interactive user-friendly interface**
- **Stopwatch function**
- **Dispensing condition switching function**
- **Data transfer function between robots**
- Available in **Japanese, English, and Chinese**

Multifunctional machine
Substantial hardware configuration

- **External input/output:26/26**
- **USB port**
  High-speed communication
- **"START"** button, **"STOP"** button, **"RETURN TO ORIGIN"** button, **"DISPENSE"** button equipped as standard
- **Z-axis brake function**

Optional
Nozzle adjuster

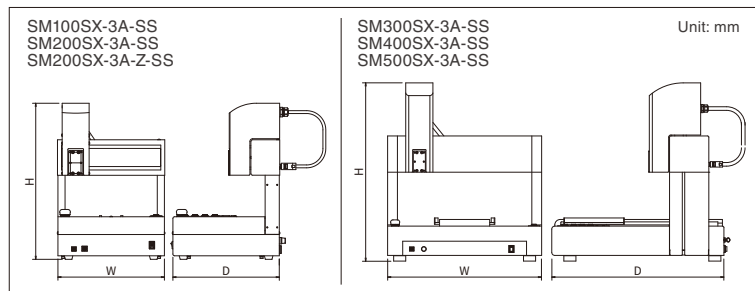**Automated nozzle position offset adjustment after syringe replacement.**

Specifications

Item name		SHOTmini100Sx	SHOTmini 200Sx			SHOTMASTER 300Sx		SHOTMASTER 400Sx		SHOTMASTER 500Sx	
Model		SM100SX-3A-SS	SM200SX-3A-SS	SM200SX-3A-Z-SS	SM200SX-4A-SS	SM300SX-3A-SS	SM300SX-4A-SS	SM400SX-3A-SS	SM400SX-4A-SS	SM500SX-3A-SS	SM500SX-4A-SS
Number of axes controlled		3-axis	3-axis		4-axis	3-axis	4-axis	3-axis	4-axis	3-axis	4-axis
Travel ranges	X, Y axes	100mm	200mm			300mm		400mm		500mm	
	Z-axis	50mm				80mm					
	W-axis	–	–	–	±360°	–	±360°	–	±360°	–	±360°
Setting range of PTP operation speed (*2)	X, Y axes	1 to 800mm/s									
	Z-axis	1 to 350mm/s	1 to 250mm/s			1 to 400mm/s					
	W-axis	–	–	–	1 to 900°/s	–	1 to 900°/s	–	1 to 900°/s	–	1 to 900°/s
Setting range of interpolation operation speed (*2)	X, Y axes	0.1 to 800mm/s									
	Z-axis	0.1 to 350mm/s	0.1 to 250mm/s			0.1 to 400mm/s					
	W-axis	–	–	–	0.1 to 900°/s	–	0.1 to 900°/s	–	0.1 to 900°/s	–	0.1 to 900°/s
Repetitive positioning accuracy (*3)	X, Y axes	±0.01mm									
	Z-axis	±0.01mm									
	W-axis	–	–	–	±0.01°	–	±0.01°	–	±0.01°	–	±0.01°
Transportable weight (*4)	Y-axis	8kg				15kg					
	Z-axis	2kg	3.5kg		2.5kg	7kg	6kg	7kg	6kg	7kg	6kg
Rated power supply and frequency		AC100-240V 50/60Hz									
Power consumption		100W			120W	200W	220W	200W	220W	200W	220W
External dimensions (*6) (excluding protrusions)	W	202mm	300mm			510mm		610mm		710mm	
	D	290mm	300mm			570mm		670mm		770mm	
	H	440mm	455mm		555mm	590mm	690mm	590mm	690mm	590mm	690mm
Weight		11kg	13.3kg		14.5kg	15.5kg	37kg	40kg	55kg	58kg	66kg	69kg

Common specifications

Control method (*1)		PTP control and interpolation control
Interpolation		3-D line, 3-D circular arc/circle, 3-D elliptic arc/circle, spline
Number of input/output signal points	General-purpose input	26 points
	General-purpose output	26 points
Program entry method		Teaching pendant, PC
Language		Japanese, English, Chinese
Program capacity (*5)		40000 steps (999 channels)
Program storage system	Internal	Internal memory
	External	Backup on PC with dispensing pattern editing software
Program editing software		MuCADV（optional）

External dimensions

SM100SX-3A-SS
SM200SX-3A-SS
SM200SX-3A-Z-SS

SM300SX-3A-SS
SM400SX-3A-SS
SM500SX-3A-SS

Unit: mm

*1 PTP control: This is control for each specified axis to move to the end coordinates at each speed.
  Interpolation control: This is control for each specified axis to move to the end coordinates at the total interpolated speed.
*2 These values vary depending on the operations, the weight and gravity center of the loaded object, or other factors.
*3 This valve is measured by the method prescribed by Musashi (measuring method in conformity with JIS).
*4 When options are not mounted. The value varies with setting speed, setting acceleration/deceleration time, and operations.
*5 Main routine: 1 to 99 CH, Sub routine:100 to 999 CH.
*6 W and D are the dimensions of the lower section of the case.

NEW

SHOTmini™ 100Sx SHOTmini™ 200Sx SHOTMASTER™ 300Sx SHOTMASTER™ 400Sx SHOTMASTER™ 500Sx

○ Raised specifications are also available as standard lineup.

4-axis specification robot

· Compatible with SHOTmini 200Sx and SHOTMASTER 300/400/500Sx.

Dispense head
Rotation specifications

Work rotation
specifications(custom)

Dispensing pattern editing software MuCADᵀᴹV

No.1 dispensing know-how included!

· Intuitive drawing program

· Easy editing for beginners

· Supports program transfer from standard type (such as Ω/DS series)