Cheonsei

GOOD DESIGN

SPEC

KAB-QC-18

ISO 9001
Certified Company



Solenoid Metering Pump

SP-B

- Simple Operation
- Precise Flow Control
- IP65 Protection Degree

천세산업 (주)





Solenoid Metering Pump

SP-B

- Precise injection and flow control by the dual control of stroke length & stroke numbers
- The operation status can be checked with status lamp (LED)
- Sealing and accuracy are improved by double check valve
- Can cope with difficult environments by robust IP65 class and casing material of chemical resistance

• Applications

· Used for injection of Boiler Chemical, Chlorine Disinfectants, Food Additives and dosing chemicals in various industrial fields including physico-chemical fields, semiconductor device, water treatment, wast water treatment fields, & etc.

• Air Vent Valve



· Prevent gas lock phenomenon support priming

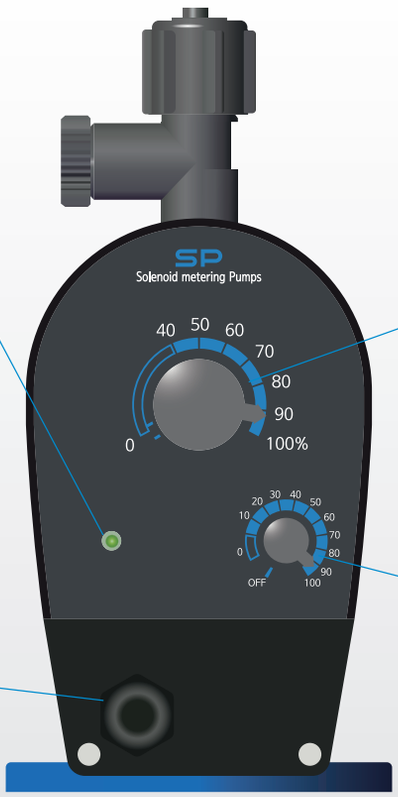
• Relief Valve (Option)



· When over pressure, valve is automatically opened and pump & piping can be protected.

· Function of Air Vent Valve is included

Control Panel - Manual



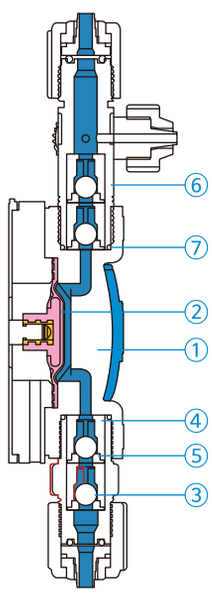
Status Lamp (LED)
- No Light (Power OFF)
- Lighted Green (Power ON & Stand by)
- Flickered Green (Operation)

Control Knob for Stroke Length

Control Knob for Stroke Number & Power ON/OFF Switch

Cable Socket for Power

Liquid End Material



		PFC	PFS	PEC	FV	FTC
① Head		PP			PVDF	
② Diaphragm		PTFE				
③ Check ball		CERAMIC	STS316	CERAMIC		
④ Ball guide		PP			PVDF	
⑤ Ball seat		FKM		EPDM	FKM(ETP)	PTFE
⑥ Joint		PP			PVDF	
⑦ O-ring		FKM		EPDM	FKM(ETP)	
Hose	Standard	Discharge: PE Suction: Transparent PVC			PTFE	
		Braided PVC				
	Boiler	Discharge: NYLON Suction: Transparent PVC				

EPDM : Ethylene propylene diene monomer rubber
PVC : Polyvinyl chloride
PTFE : Polytetrafluoroethylene
FKM(ETP) : Fluoro rubber of ETP type
FKM : Fluoro rubber
PVDF : Polyvinylidene fluoride
PPS : Polyphenylene sulfide
PE : Polyethylene
PP : Polypropylene

Model Code

❶	❷		❸a	❸b	❸c		❹	❺	❻		❼	❽	❾
SP	–	B	30	–	P	F	C	–	1	W	S	–	1	1	0

❶ Control Panel Type
B : Basic & Manual

❷ Nomainal Cpacity
30 : 30 mL/min
(In case of 30H, "H" means high pressure type)

❸ Liquid End Material
(a) Pump Head
P : PP F : PVDF
(b) Ball Seat
F : FKM E : EPDM
V : FKM(ETP) T : PTFE
(c) Check Ball
C : Ceramic S : STS316

❹ Hose Standard
1 : Ø4XØ6 2 : Ø4XØ9 (Braided PVC)
3 : Ø6XØ8 4 : Ø6XØ11 (Braided PVC)
5 : Ø5XØ8

❺ Valve Structure
W : Standard (0~70mPa·s) V : High Viscosity(70~700mPa·s)
※ In case of the valve for high viscosity, spring is installed in the valve

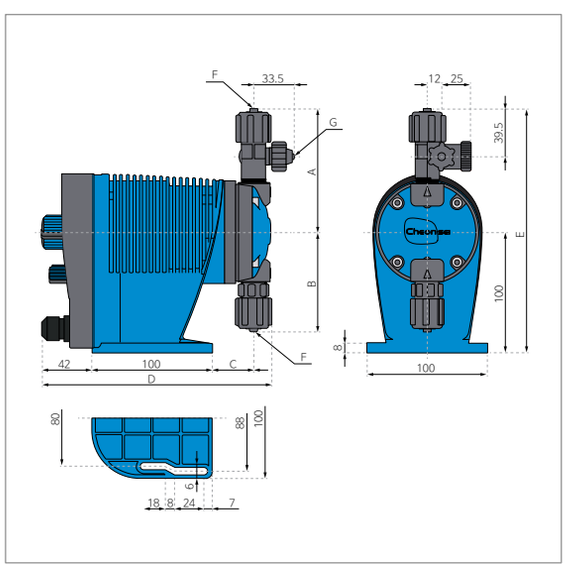
❻ General Specification
S : Standard B : Boiler F : Relief Valve G : B+F
※ In case of Boiler type, discharge hose is nylon and the body of Anti-siphon Check Valve is PPS
※ Relief Valve is not applied to SP-B200

❼ Control Specification
1 : Manual

❽ Power Supply
1 : AC 220V (198~242V)
2 : AC 240V (216~264V)
3 : AC 115V (104~127V)
※ Common data : 1Ø, 50/60Hz

❾ Power Cord
0 : 2m of power cord without Plug
1 : 2m of power cord & Plug

Dimension



	SP-B30 SP-B30H	SP-B50 SP-B50H	SP-B70 SP-B70H	SP-B100 SP-B100H	SP-B200
A	96.5	99	101	102.5	107.5
B	76.5	79	81	82.5	87.5
C	33.5	33.5	33.5	35	35
D	190.5	190.5	190.5	192	192
E	196.5	199	201	202.5	207.5
F	Ø4XØ6, Ø4XØ9		Ø6XØ8, Ø6XØ11, Ø5XØ8		
G	Ø4XØ6				

Specification

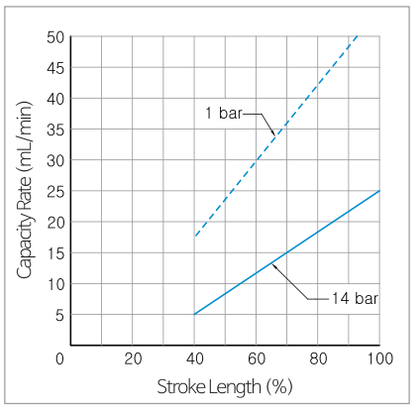
사양		SP-B30	SP-B50	SP-B70	SP-B100	SP-B200
Max. Capacity (mL/min)		25	55	70	135	240
Max. Discharge Pressure(bar)		14	8	6	3.5	2
Stroke Rate (SPM)		240				
Stroke Length (mm)		1.0 (40 ~ 100%)				
Hose	Suction·Discharge	Ø4XØ6, Ø4XØ9		Ø6XØ8, Ø6XØ11, Ø5XØ8		
	Air Vent	Ø4XØ6				
Self-priming (m)		1	1.5			2
Visocity Limit (mPa·s)	Standard	50		70		
	High Viscosity	300		700	600	400
Weight (kg)	PP Material	2.1				
	PVDF Material	2.2				
Operation temperature		Ambient Temperature 0~40℃ / Liquid Temperature 0~50℃				
Electrical Data		Average Power Consumption(W)	Rated Current(A)	Protection	Insulation Class	
		15	0.4	IP65	F	

		SP-B30H	SP-B50H	SP-B70H	SP-B100H
Max. Capacity (mL/min)		30	55	75	130
Max. Discharge Pressure(bar)		16	12	8	5
Stroke Rate (SPM)		240			
Stroke Length (mm)		1.0 (40 ~ 100%)			
Hose	Suction·Discharge	Ø4XØ6, Ø4XØ9		Ø6XØ8, Ø6XØ11, Ø5XØ8	
	Air Vent	Ø4XØ6			
Self-priming (m)		1	1.5		
Visocity Limit (mPa·s)	Standard	50		70	
	High Viscosity	300		700	600
Weight (kg)	PP Material	2.4			2.5
	PVDF Material	2.5			
Operation temperature		Ambient Temperature 0~40℃ / Liquid Temperature 0~50℃			
Electrical Data		Average Power Consumption(W)	Rated Current(A)	Protection	Insulation Class
		17	0.5	IP65	F

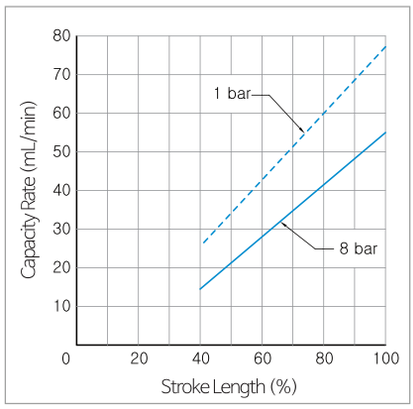
Note 1. Repeatability is within ±2%FS and noise within 70dB.
2. Setting pressure of Relief Valve is ±10% of max. discharge pressure.
3. Specifications can be changed for improvement without prior notice.

Performance Curve

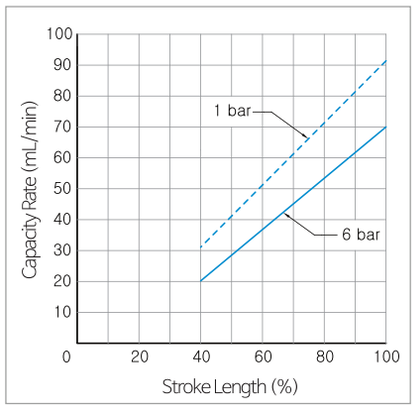
• SP-B30



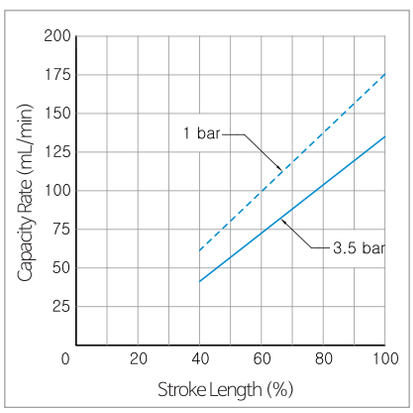
• SP-B50



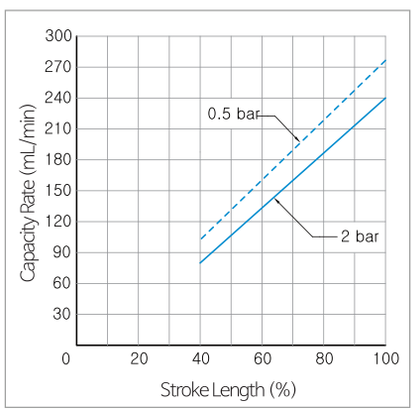
• SP-B70



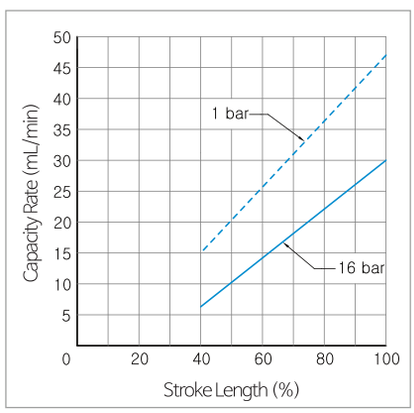
• SP-B100



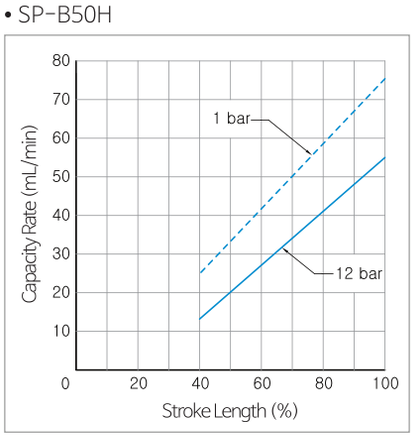
• SP-B200



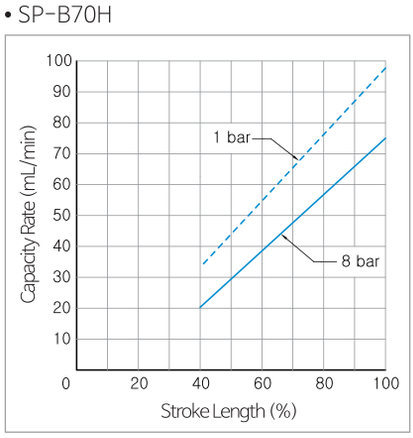
• SP-B30H



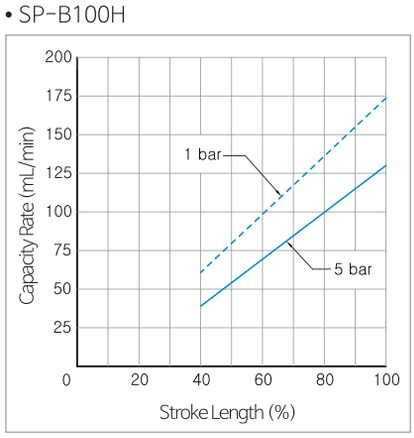
• SP-B50H



• SP-B70H



• SP-B100H



※ Condition : Clean water, Room temperature, Suction head 1m

Note 1. Performance curves can be somewhat different in accordance with condition of job site.
2. Capacity rate can be changed according to piping condition of suction & discharge.
For effective use, measure the discharge rate(make out performance curve) when trial operation after installation.

Accessories

• Anti-Siphon Check Valve

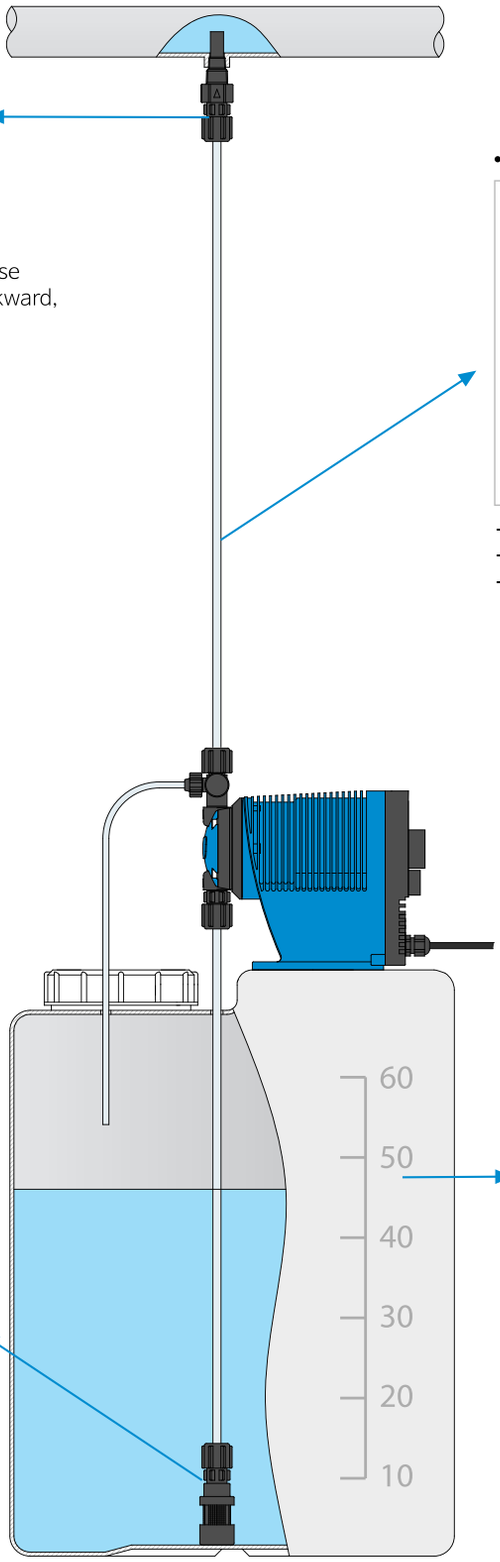


It is installed at the end of discharge hose
and prevents overfeeding, flowing backward,
& siphon phenomenon.

• Hose



- Suction Hose 1m
- Discharge Hose 2m
- Air Vent Hose 1m



• Liquid Tank (Option)



Model	Volume(L)	Diameter	Height
SPN-50L	50~65	420	580
SPN-100L	100~120	520	690
EN-200	200	590	860

• Strainer Foot Valve



It is installed at the end of suction
hose and prevents foreign
substance & flow backward



SP-B

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