

KEMPION



ISO 9001
Certified Company

Solenoid Metering Pumps

For Chemical Dosing by Electronic Control

SP-B Basic & Manual



www.solpump.co.kr

Effective Solution SOLENOID METERING PUMPS



■ Features

- 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
- Easy & Safe Air Vent Valve



Prevent Gas Lock
Phenomenon
Support priming

- Relief Valve (Option)

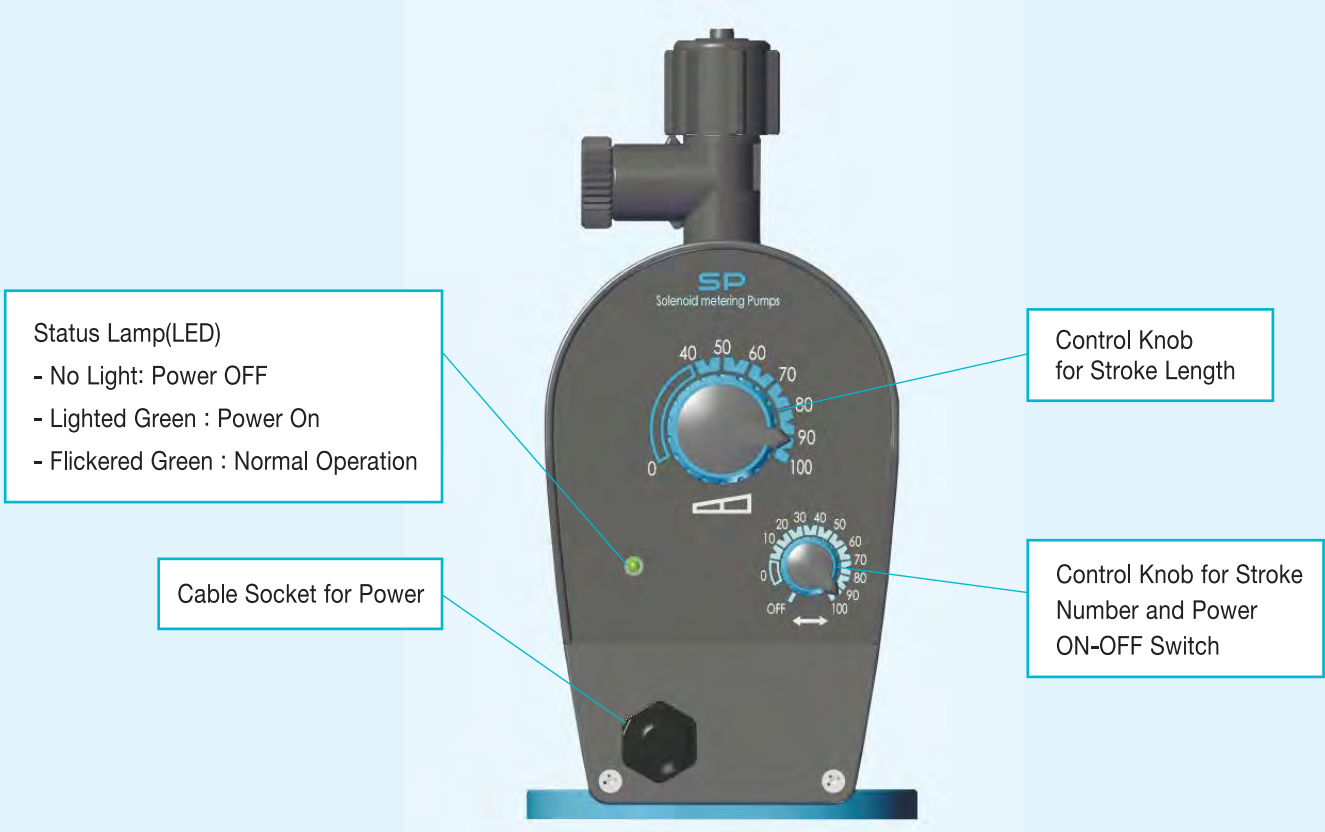


When over pressure, valve is automatically opened and pump & piping can be protected. Function of Air Vent Valve is included.

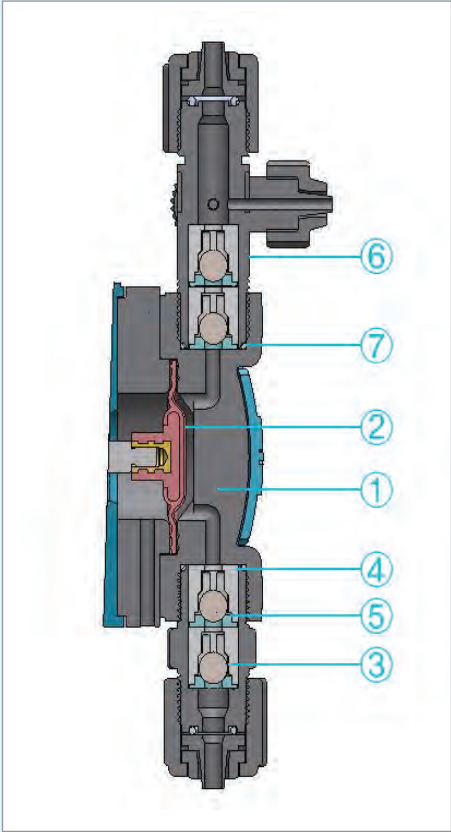
■ Applications

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

■ Control Panel



■ Liquid End Material



Type		PFC	PFS	PEC	FVC	FTC
Part Name						
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
 - FKM(ETP) : Fluoro rubber of ETP type
 - PP : Polypropylene
 - PTFE : Polytetrafluoroethylene
 - PVDF : Polyvinylidene fluoride
- FKM : Fluoro rubber
 - PE : Polyethylene
 - PPS : Polyphenylene sulfide
 - PVC : Polyvinyl chloride

■ Model Code

SP	-	B	30	-	P	F	C	-	1	W	S	-	1	1	0
①		②	③		④-A	④-B	④-C		⑤	⑥	⑦		⑧	⑨	⑩

- ① Series Name SP Series
- ② Control Panel Type B: Basic & Manual
- ③ Nominal Capacity 30: 30mL/min (In case of 30H, "H" means High Pressure Type)
- ④ 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
- ⑤ Hose Standard 1: $\varnothing 4 \times \varnothing 6$ 2: $\varnothing 4 \times \varnothing 9$ (Braided PVC) 3: $\varnothing 6 \times \varnothing 8$ 4: $\varnothing 6 \times \varnothing 11$ (Braided PVC) 5: $\varnothing 5 \times \varnothing 8$
- ⑥ 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.
- ⑦ General Specification S: Standard B: Boiler F: Relief Valve G:Boiler + Relief Valve
 ※ In case of Boiler type, discharge hose is nylon and the body of Anti-siphon Check Valve is PPS.
 ※ In case of SP-200, Relief Valve can not be used.
- ⑧ Control Specification 1: Manual
- ⑨ Power Supply 1: AC220V (198~242V) 2: AC240V (216~264V) 3: AC115V (104~127V) ※ Common data:1 Phase 50/60Hz
- ⑩ Power Cord 0: 2m of power cord without Plug 1: 2m of power cord & Plug

■ Specifications (l)

Model		SP-B30	SP-B50	SP-B70	SP-B100	SP-B200
Spec.						
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	Ø4×Ø6, Ø4×Ø9		Ø6×Ø8, Ø6×Ø11, Ø5×Ø8		
	Air Vent	Ø4×Ø6				
Self-priming (m)		1		1.5		2
Viscosity 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 Class	Insulation Class
		15	0.4 / 0.7 (115V)		IP65	F

Note1) Repeatability is $\pm 2\%$ F,S.(Full Scale) and noise is within 70dB.

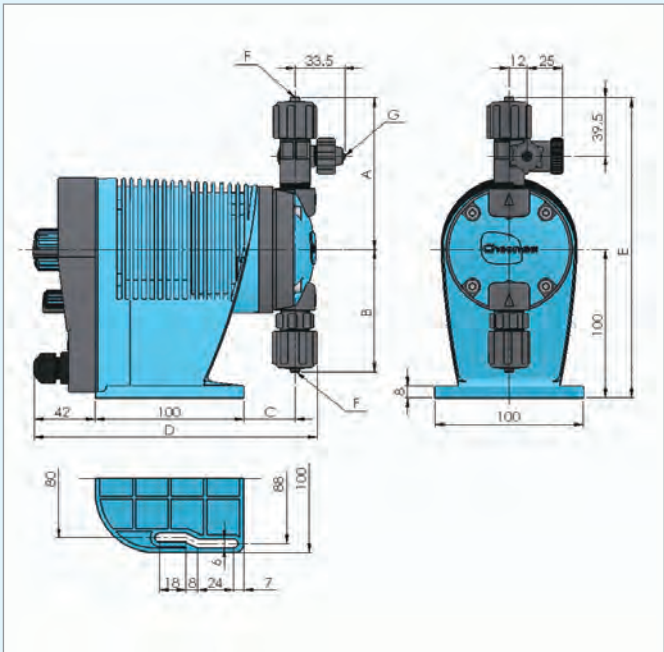
Note2) Setting pressure of Relief Valve is $\pm 10\%$ of max. discharge pressure.

Note3) Specifications can be changed for improvement without prior notice.

■ Specifications (II)

Model		SP-B30H	SP-B50H	SP-B70H	SP-B100H
Spec.					
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	Ø4×Ø6, Ø4×Ø9		Ø6×Ø8, Ø6×Ø11, Ø5×Ø8	
	Air Vent	Ø4×Ø6			
Self-priming (m)		1	1.5		
Viscosity Limit (mPa・s)	Standard	50		70	
	High Viscosity	300		700	600
Weight (kg)	PP Material	2.4			2.5
	PVDF Material	2.5			2.6
Operation Temperature		Ambient Temperature 0~40℃		Liquid Temperature 0~50℃	
Electrical Data		Average Power Consumption (W)	Rated Current (A)	Protection Class	Insulation Class
		17	0.5 / 0.8 (115V)	IP65	F

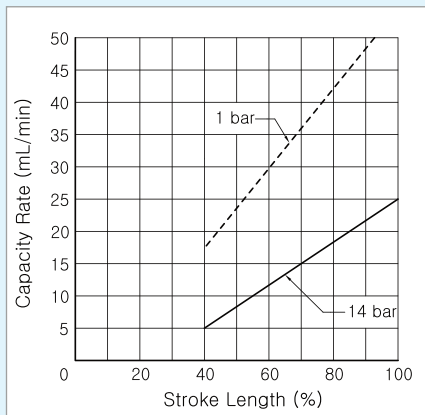
- Dimension



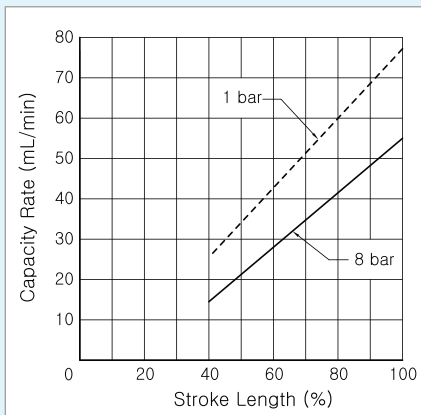
Model	SP-B30 SP-B30H	SP-B50 SP-B50H	SP-B70 SP-B70H	SP-B100 SP-B100H	SP-B200
Dimension					
A	96,5	99	101	102,5	107,5
B	76,5	79	81	82,5	87,5
C	33,5	33,5	33,5	35	35
D	190,5	190,5	190,5	192	192
E	196,5	199	201	202,5	207,5
F	Ø4×Ø6, Ø4×Ø9		Ø6×Ø8, Ø6×Ø11, Ø5×Ø8		
G	Ø4×Ø6				

■ Performance Curve

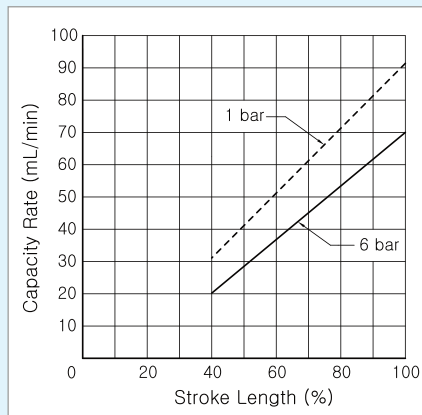
● SP-B30



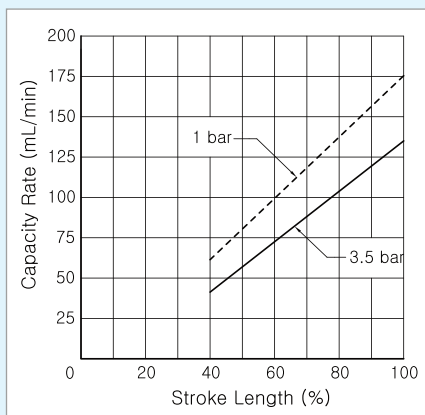
● SP-B50



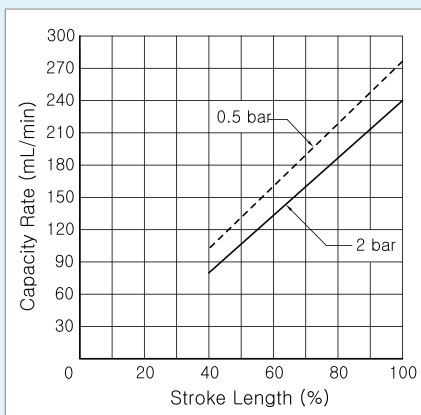
● SP-B70



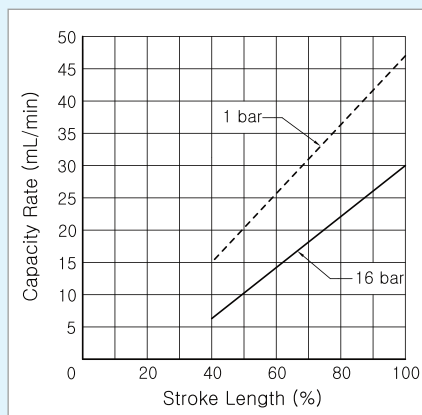
● SP-B100



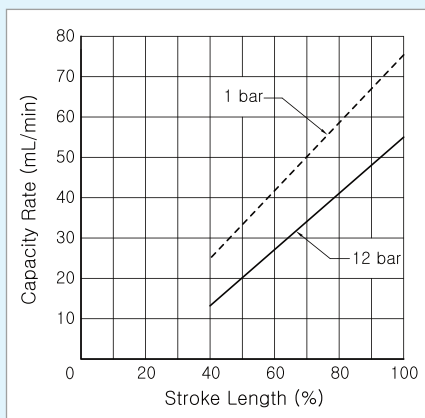
● SP-B200



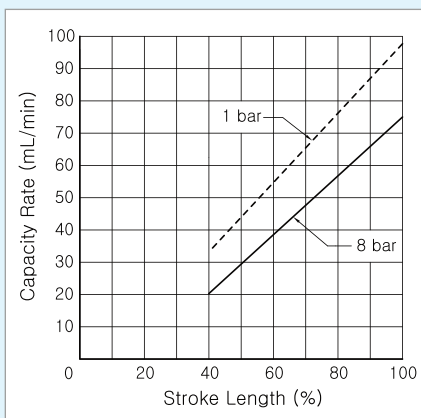
● SP-B30H



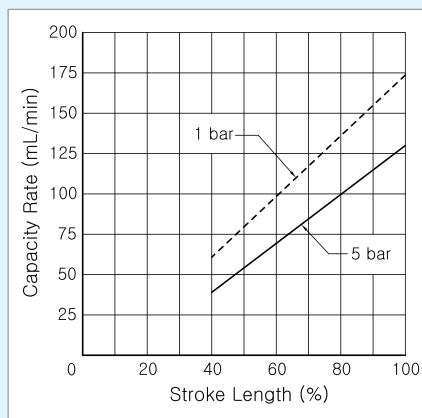
● SP-B50H



● SP-B70H



● SP-B100H



Note) Performance curves can be somewhat different accordance with application of job site.

■ Accessories

● Anti-siphon Check Valve



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

● Level Switch (Option)



When liquid level in tank is low, it generates alarm signal.

● Strainer Foot Valve



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

● Hose

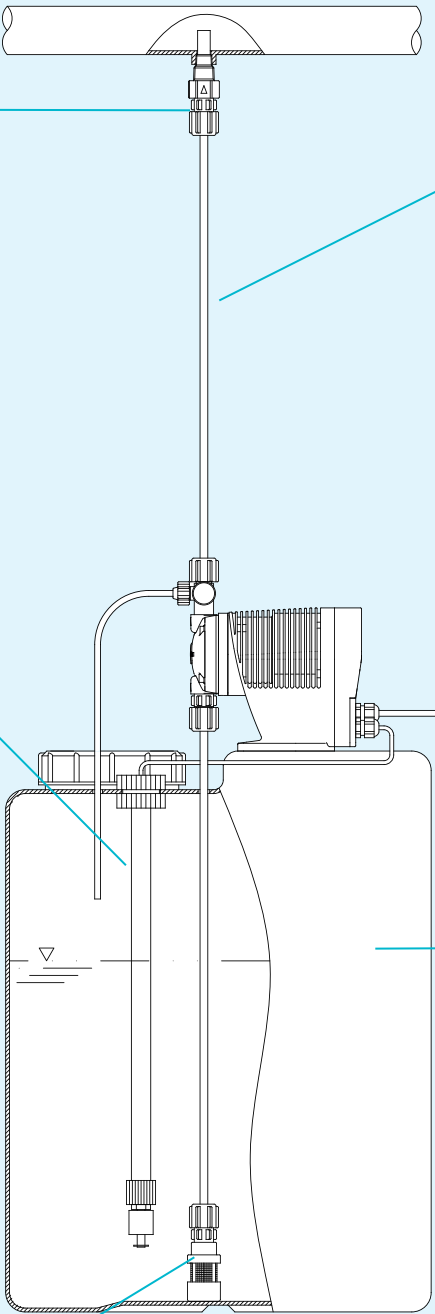


Suction Hose 1m,
Discharge Hose 2m,
Air Vent Hose 1m

● 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





Solenoid **SP** Metering Pumps