

KEMPION

ISO9001



PLUNGER *Metering Pumps*

For Precise Injection **KP**



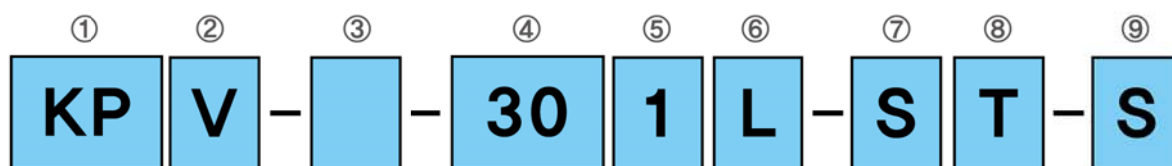
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KP Series KEMPION Plunger Type Metering Pumps

- High pressure injection up to 225 bar
- Adjustment precise injection in range of 10~3,000mL/min
- Fine control in high pressure by utilizing double check valve
- Minimized leakage by self aligning design, hard & grinded surface of plunger
- Closed construction for treatment of small leakage
- Excellent durability due to robust design

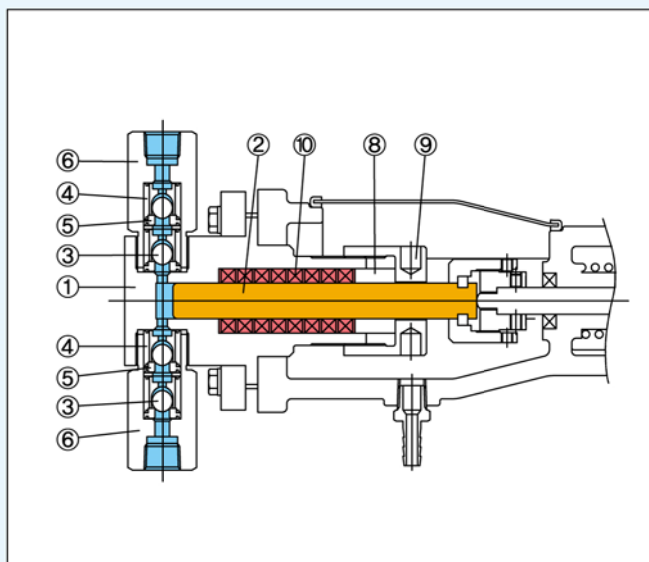
■ Model Code



- ① Series name KP (Plunger Type)
- ② Drive box type V : Vertical (Motor direct joint) H : Horizontal (Motor indirect joint)
- ③ Option No Mark : No option A : BLDC M/C UNIT B : SERVO UNIT
- ④ Plunger diameter 30 : Plunger Dia. 30mm
- ⑤ Stroke speed 1 : 58(48)SPM 2 : 116(96)SPM ※ () is 50Hz
- ⑥ Drive box size L : 0.2kW Class M : 0.4kW Class
- ⑦ Liquid end material S : Standard X : Special
- ⑧ Connection T : Thread F : Flange X : Special
- ⑨ Power supply S : 3 Phase 60Hz 220/380V A : 3 Phase 60Hz 440V X : Special

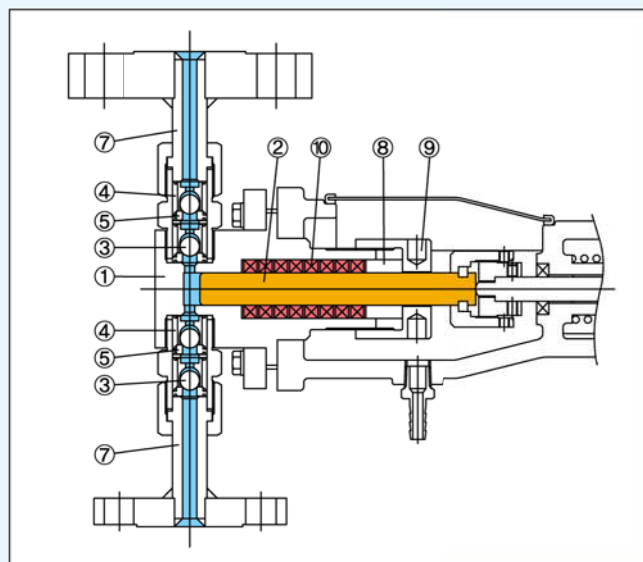
■ Standard Liquid End Material

● Thread Type



NO.	Parts Name	Materials
①	Head	SS316
②	Plunger	SS316+HCr
③	Check Ball	SS316
④	Ball Guide	SS316
⑤	Ball Seat	SS316

● Flange Type



NO.	Parts Name	Materials
⑥	Joint (Thread)	SS316
⑦	Joint (Flange)	SS316
⑧	Gland Ring	SS316
⑨	Gland Nut	SS316
⑩	Gland Packing	PTFE + ARAMID

■ Liquid End Material

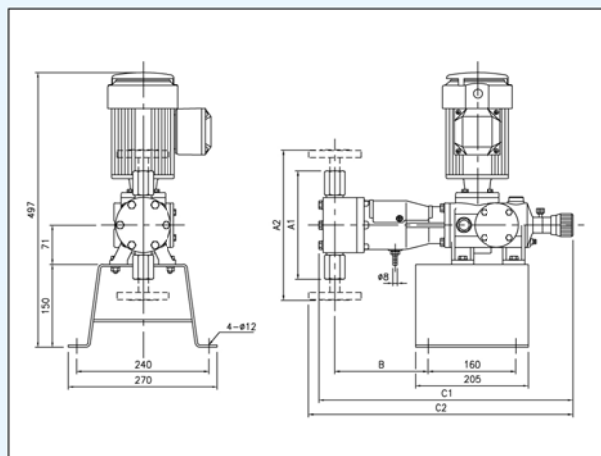
Spec. Model	Max. capacity (mL/min)		Max. discharge pressure (bar)	Stroke frequency (SPM)		Stroke length (mm)	Plunger Diameter (mm)	Connection		Motor (kW)	Weight (kg) Vert. (Hori.)								
	50Hz	60Hz		50Hz	60Hz			Thread	Flange										
KP-061L	10.5	13	160	48	58	10	6	Rc1/4	63K15A	0.2	18/23								
KP-062L	21	26	160	96	116		12				Rc3/8	40K15A	19/24						
KP-121L	45	55	160	48	58									22	20K15A	21/26			
KP-122L	90	110	160	96	116												30	Rc1/2	20K15A
KP-161L	83	100	160	48	58			Rc1/2	20K15A										
KP-162L	170	205	100	96	116						Rc1/2	20K15A							
KP-221L	162	195	104	48	58									Rc1/2	20K15A				
KP-222L	332	400	52	96	116		Rc1/2						20K15A				21/26		
KP-301L	290	350	56	48	58			Rc1/2	20K15A							21/26			
KP-302L	614	740	28	96	116						Rc1/2	20K15A						21/26	
KP-061M	16.5	20	200	48	58	15				6				Rc1/4	-				0.4
KP-062M	33	40	200	96	116		12			Rc3/8			63K15A						
KP-121M	70	85	225	48	58			22	40K15A										
KP-122M	140	170	225	96	116						30	Rc1/2					20K15A		
KP-161M	133	160	160	48	58									40	20K15A	47/50			
KP-162M	266	320	160	96	116					50			Rc3/4					20K20A	
KP-221M	253	305	160	48	58			Rc3/4	20K20A										
KP-222M	510	615	85	96	116		Rc3/4				20K20A	20K20A							
KP-301M	448	540	90	48	58									Rc3/4	20K20A				
KP-302M	930	1120	45	96	116					Rc3/4			20K20A				20K20A		
KP-401M	845	1020	50	48	58			Rc3/4	20K20A							20K20A			
KP-402M	1700	2050	25	96	116		Rc3/4				20K20A							20K20A	
KP-501M	1310	1575	32	48	58									Rc3/4	20K20A				
KP-502M	2710	3260	16	96	116					Rc3/4		20K20A	20K20A						

- Note)** 1. Maximum capacity is the value when Maximum discharge pressure is applied (with pure water at room temperature).
2. The effective flow control range is 10~100% stroke length. The metering accuracy is within $\pm 1\%$ FS. The linearity is within $\pm 2\%$ FS.
3. Explosion proof motor or other special requirement of the motor (except voltage, frequency) can only be met with horizontal type.
4. The standard joint flange indicates the discharge side. In case of the suction side is fixed KS20K flange.
5. The limit of liquid temperature is 0~100°C and ambient temperature limit is 0~40°C
6. The weight is based on the thread type including standard motor.
7. Self-priming capacity is 1m for $\varnothing 6$, 2m for $\varnothing 12$ ~ $\varnothing 22$, 3m for $\varnothing 30$ ~ $\varnothing 50$ of the plunger diameters.
8. The limit of viscosity is 500cP for 6~12 and 1000cP for 16~50 of the plunger diameters.
9. Do not use this pump to transfer liquids constraining slurry.
10. The Munsell No. of painting is 0.6PB 4.8/10.6 except motor. (The color of the motor is manufacturer standard.)
11. The specifications on this catalogue may be revised for improvement without prior notice.

Dimension

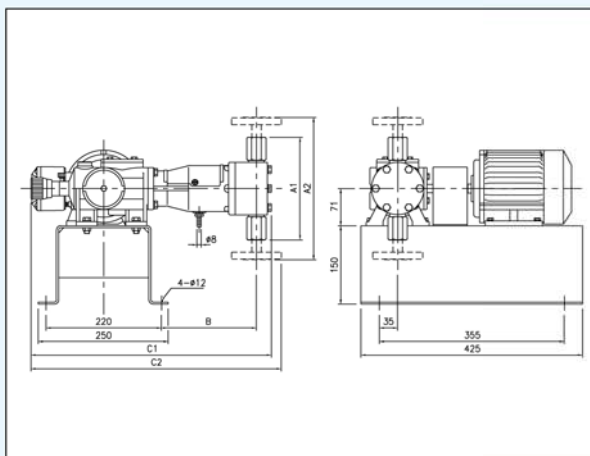
[Unit:mm]

● KPV-061L~302L



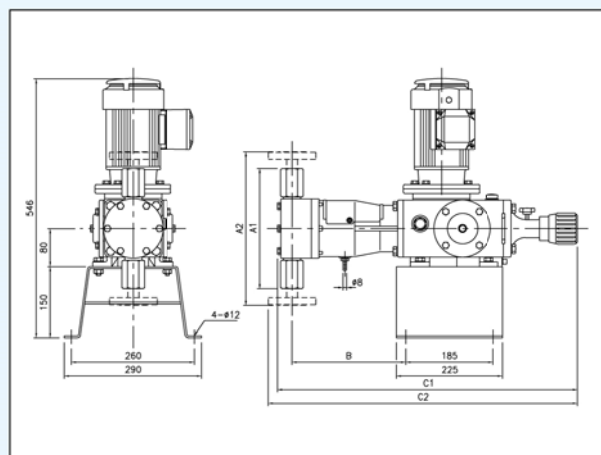
Model	Size	A1	A2	B	C1	C2
KPV-061L,062L		128	222	162	440	485
KPV-121L,122L		128	222	165	442	488
KPV-161L,162L		152	234	172	452	495
KPV-221L,222L		158	240	173	453	493
KPV-301L,302L		196	272	169	460	479

● KPH-061L~302L



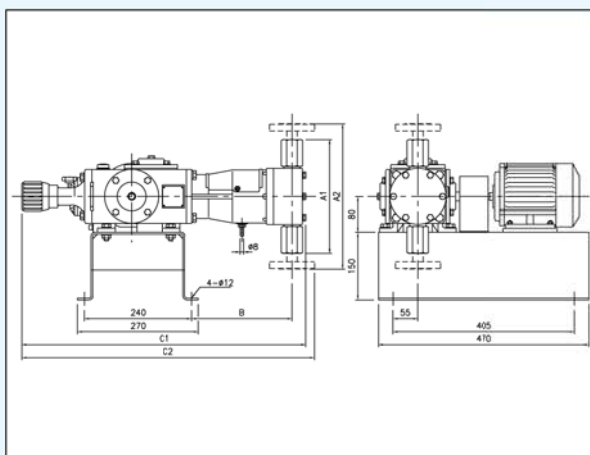
Model	Size	A1	A2	B	C1	C2
KPH-061L,062L		128	222	177	440	485
KPH-121L,122L		128	222	179	442	488
KPH-161L,162L		152	234	186	452	495
KPH-221L,222L		158	240	187	453	493
KPH-301L,302L		196	272	183	460	479

● KPV-061M~502M



Model	Size	A1	A2	B	C1	C2
KPV-061M,062M		128	-	232	609	-
KPV-121M,122M		128	-	234	611	-
KPV-161M,162M		152	234	241	621	664
KPV-221M,222M		158	240	242	622	665
KPV-301M,302M		196	272	238	629	658
KPV-401M,402M		221	297	238	629	648
KPV-501M,502M		253	323	239	632	652

● KPH-061M~502M

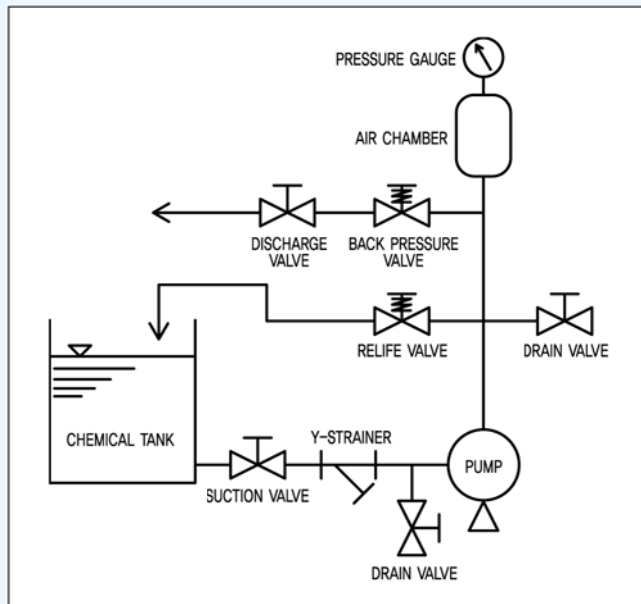


Model	Size	A1	A2	B	C1	C2
KPH-061M,062M		128	-	216	609	-
KPH-121M,122M		128	-	218	611	-
KPH-161M,162M		152	234	225	621	664
KPH-221M,222M		158	240	226	622	665
KPH-301M,302M		196	272	222	629	658
KPH-401M,402M		221	297	222	629	648
KPH-501M,502M		253	323	223	632	652

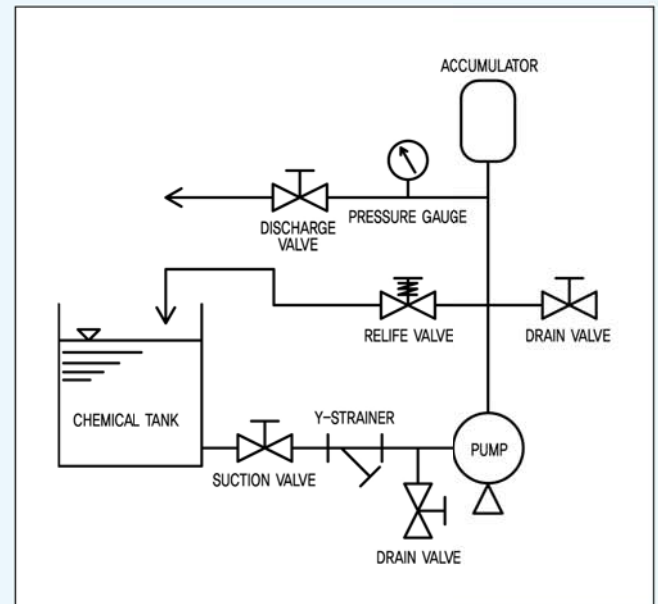
※ The above specifications and design could be changed for improvement without prior notice.

■ Standard Piping Diagram

● Low Pressure



● High Pressure



■ Precautions for installation and Piping

Cheonsei Plunger Metering Pumps are reciprocating metering pumps utilizing the eccentric cam and return spring. It is natural that pulsation should occur in the suction and discharge piping. Precaution in pump installation and piping in order to dampen the pulsation is required, in contrast to those of general centrifugal pump.

1. Countermeasure for Damping of Pulsation (Inertial resistance)

- (1) Install pulsation damping device (air chamber).
- (2) Reduce the total discharge piping length.
- Enlarge diameter of the discharge piping.

2. Countermeasure for Prevention of Overfeeding

- (1) Install air chamber.
- (2) Install back pressure valve.

■ When placing Order

In order to provide the most suitable pump. Please provide the following information.

1. Specification of Liquid

- (1) Liquid name (2) Ingredients (3) Concentration (4) Temperature (5) Viscosity

2. Conditions of Installation

- (1) Process of use (2) Required discharge volume (3) Suction side piping (4) Discharge side piping
- (5) Power source (6) Ambient temperature (7) Installing location & Mounting method (8) Operating condition

3. Other

- Desired delivery date and place
- Any other requirements