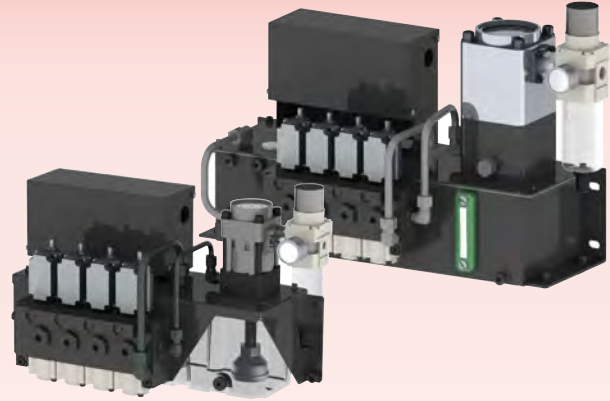


Hydraulic Unit

Model CP□M-U / CP□N-UR

Model CQ□M-U / CQ□N-UR



Converts Factory Compressed Air into Hydraulic Pressure.

Compact Hydraulic Unit Composed of Pump, Non-Leak Valve, Pressure Relief Valve, Pressure Switch and Oil Tank

● Applicable Clamp Models

GBB GBE GBC GBF GBM GBR

● Energy Saving

The pump drives (consumes the air pressure) only during pressurization. After the pressurization, air pressure and hydraulic pressure reach equilibrium and the pump stops. Air consumption is zero after the pressurization is completed.

● Maintains Hydraulic Pressure with Non-Leak Valve

Non-leak valve (BA valve) maintains hydraulic pressure even when air supply is stopped preventing the mold from falling.

● Maintains Set Pressure with Pressure Relief Valve ※ Only when selecting the pressure relief valve.

The set pressure: 25MPa is maintained by the pressure relief valve (BR valve) even when hydraulic pressure rises during IMM operation.

● Pressure Supply when Hydraulic Pressure Decreases

The pump drives and supplies pressure when the hydraulic pressure in the circuit decreases because of the temperature reduction etc. This ensures a constant clamping force.

● A Wide Range of Variations

Select a tank from 5 ℓ and 10 ℓ and a pump from four variations for the most suitable hydraulic unit according to the clamp system.

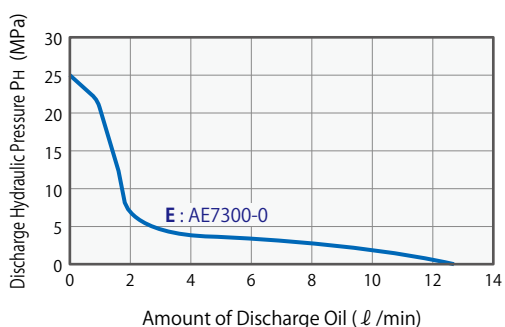
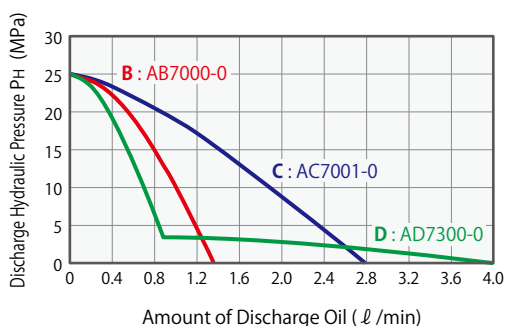
Specifications

Model No.	CPBM000	CPBN000	CPDM000	CPDN000	CPCM000	CPCN000	CPEM000	CPEN000	CQCM000	CQCN000	CQEM000	CQEN000		
Working Hydraulic Pressure	MPa 25													
Withstanding Pressure	MPa 37													
Tank Capacity	ℓ 5 ℓ (Actual Amount for Use 3.7 ℓ : H.L.5 ℓ -L.L.1.3 ℓ)									10 ℓ (Actual Amount for Use 7 ℓ : H.L.10 ℓ -L.L.3 ℓ)				
Operating Temperature	°C 0 ~ 70													
Use Frequency	Less than 20 Cycles / Day Pressure Rising Time : Less than 2.5 min. / Cycle													
Main Components	Pump	Model No.	AB7000-0		AD7300-0		AC7001-0		AE7300-0		AC7001-0		AE7300-0	
		Set Discharge Pressure	MPa 25 22.5		25 22.5		25 22.5		25 22.5		25 22.5		25 22.5	
		Discharge Oil under No Load	ℓ / min 1.36 1.32		4.00 3.74		2.79 2.70		12.7 12.5		2.79 2.70		12.7 12.5	
		Set Air Pressure	MPa 0.45 0.41		0.45 0.41		0.47 0.43		0.47 0.43		0.47 0.43		0.47 0.43	
	Air Consumption	m ³ (normal)/min max. 0.4		max. 0.4		max. 1.0		max. 1.0		max. 1.0		max. 1.0		
	Suction	Model No.	JF1030		JF1030		JF1030		JF1040		JF1030		JF1040	
	Filter	Filtration Degree	174 μm (100 Mesh)											
	Non-Leak Valve	Model No.	BA5011-0	BA5R11-0	BA5011-0	BA5R11-0	BA5011-0	BA5R11-0	BA5011-0	BA5R11-0	BA5001-0	BA5R01-0	BA5001-0	BA5R01-0
	Pressure Switch (For Clamp)	Model No.	JBA2700-0G											
		Operation Mode/Set Pressure	MPa INC. 17.6											
Pressure Relief Valve	Model No.	-	BR5N11-0	-	BR5N11-0	-	BR5N11-0	-	BR5N11-0	-	BR5N11-0	-	BR5N11-0	
	Set Pressure	MPa -	25 ⁺² / ₀	-	25 ⁺² / ₀	-	25 ⁺² / ₀	-	25 ⁺² / ₀	-	25 ⁺² / ₀	-	25 ⁺² / ₀	

Notes

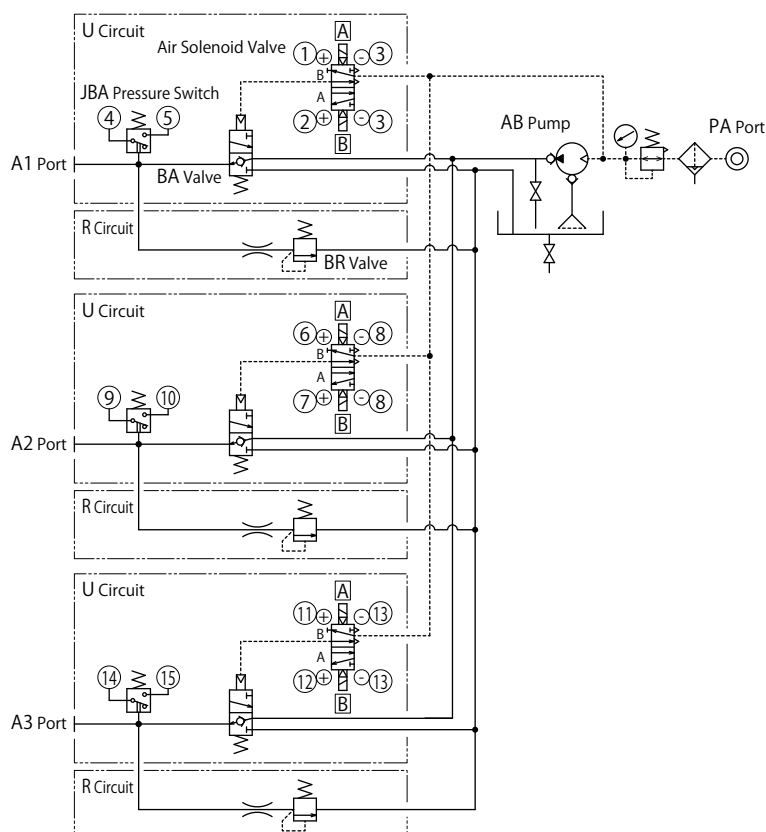
1. If hydraulic viscosity is higher than specified, action time will be longer. Please use equivalent hydraulic oil to ISO-VG-32.
2. If using it at low temperature, action time will be longer because the viscosity of hydraulic oil becomes higher.
3. When setting a pressure gauge to a hydraulic circuit, install a damper or use an oil-filled (glycerin) pressure gauge in order to prevent damage caused by pressure surging.
4. Provide enough space at the top of the unit taking into consideration the maintenance of the pump.

Pump Performance Curve

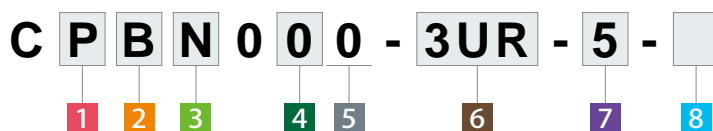


Circuit Symbol

This shows the circuit symbol of CPBN0□0-3UR-5.



● Model No. Indication



1 Unit

- P : For Small/Medium Clamp (5 ℓ Tank)
- Q : For Large Clamp (10 ℓ Tank)

Note:

1. For Large Clamp Unit (10 ℓ Tank), only **2** Pump Model C: AC pump and E: AE pump can be installed.

2 Pump Model

- B : AB Pump
- D : AD Pump
- C : AC Pump
- E : AE Pump

Note:

1. For B: AB Pump and D: AD Pump can be selected only when selecting **1** Unit P: For Small/Medium Clamp (5 ℓ Tank).

3 Pressure Code

- M : Working Pressure 25MPa, Pressure Switch Set Pressure INC. 17.6MPa
- N : Working Pressure 25MPa, Pressure Switch Set Pressure INC. 17.6MPa with Pressure Relief Valve

4 Fluid Code

- 0 : General Hydraulic Oil
- G : Water•Glycol (Iron Tank)
- S : Silicon Oil
- F : Fatty Acid Ester

8 Option

- Blank : Standard
- C : +Common
- D : Digital Pressure Sensor
- E : Without Filter Regulator
- F : Manual-Drain Filter Regulator
- G : With Primary Pressure Gauge
- H : With Piping Block on the Left
- J : With Air Regulator
- KO : With Pressure Gauge for Each Circuit (Without Primary Pressure Gauge)
- K1 : With Color Displayed Pressure Gauge for Each Circuit (Without Primary Pressure Gauge)
- KG0 : With Pressure Gauge for Each Circuit (With Primary Pressure Gauge)
- KG1 : With Color Displayed Pressure Gauge for Each Circuit (With Primary Pressure Gauge)
- L : With Pressure Switch Light
- N : Piping Port NPT Thread, Pressure Gauge in both PSI/MPa ^{※1}
- P : Pressure Gauge in both PSI/MPa
- Q0 : With Oil Level Switch (ON when Oil Level Drops)
- Q1 : With Oil Level Switch (OFF when Oil Level Drops)
- T : Iron Tank (CP□□: only 5 ℓ tank can be selected.) ^{※2}

5 Design No.

- 0 : Revision Number

6 Circuit Symbol (Indicate with the number of circuits and circuit symbol.)

- U : For Clamp Double Solenoid
- R : With Pressure Relief Valve

Note:

1. For R: Pressure Relief Valve **3** Pressure Code is "N".

7 Voltage Code

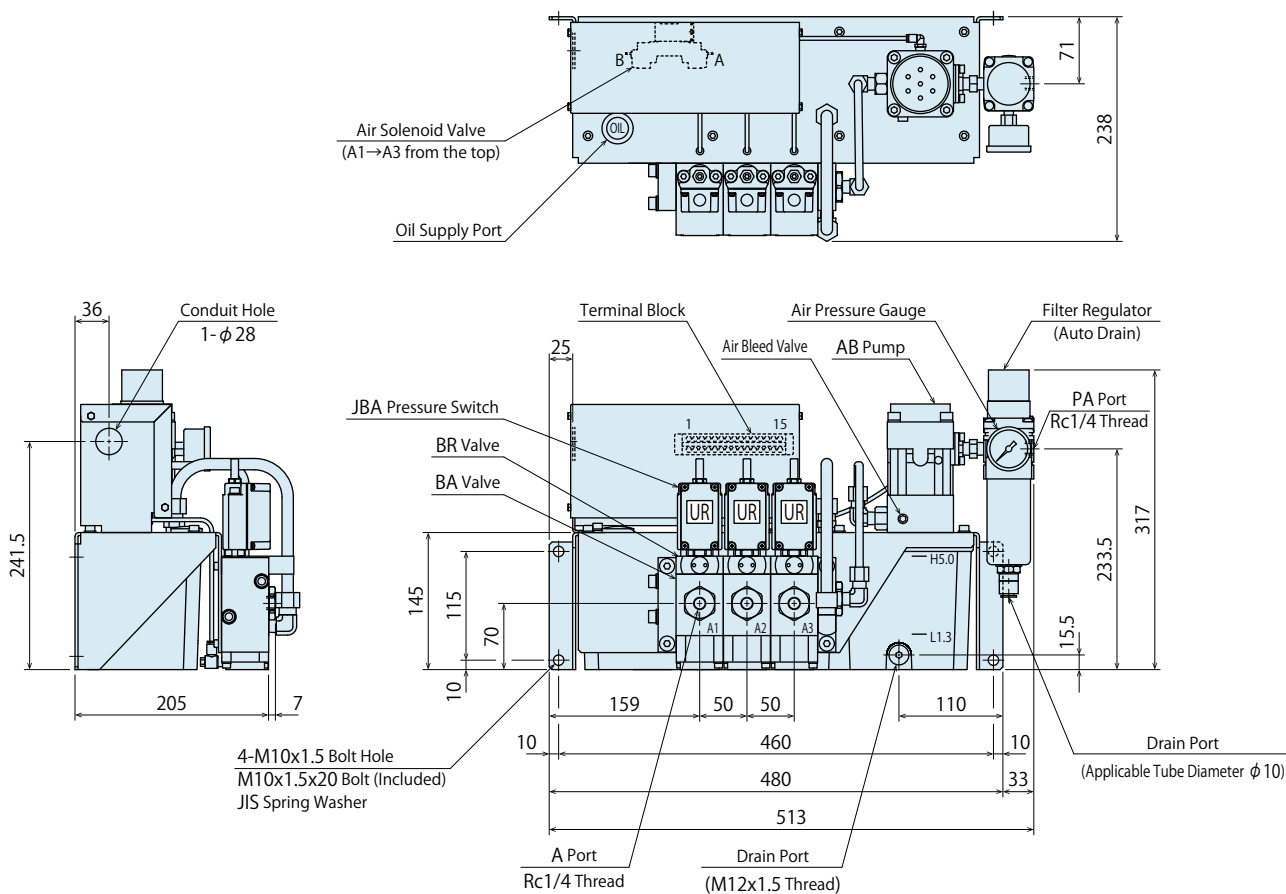
- 1 : AC100V (50/60Hz)
- 2 : AC200V (50/60Hz)
- 3 : AC110V (50/60Hz)
- 4 : AC220V (50/60Hz)
- 5 : DC24V

Notes

- ※1. When selecting **8** Option N: Piping Port NPT Thread, dimensions in the specification sheet and other documents are in inches.
- ※2. Iron Tank is the standard option for CQ□□:10 ℓ Tank.
 1. Please contact us for specifications and external dimensions for these options.
 2. The external dimensions for five circuits and six circuits are different. Please contact us for detail.

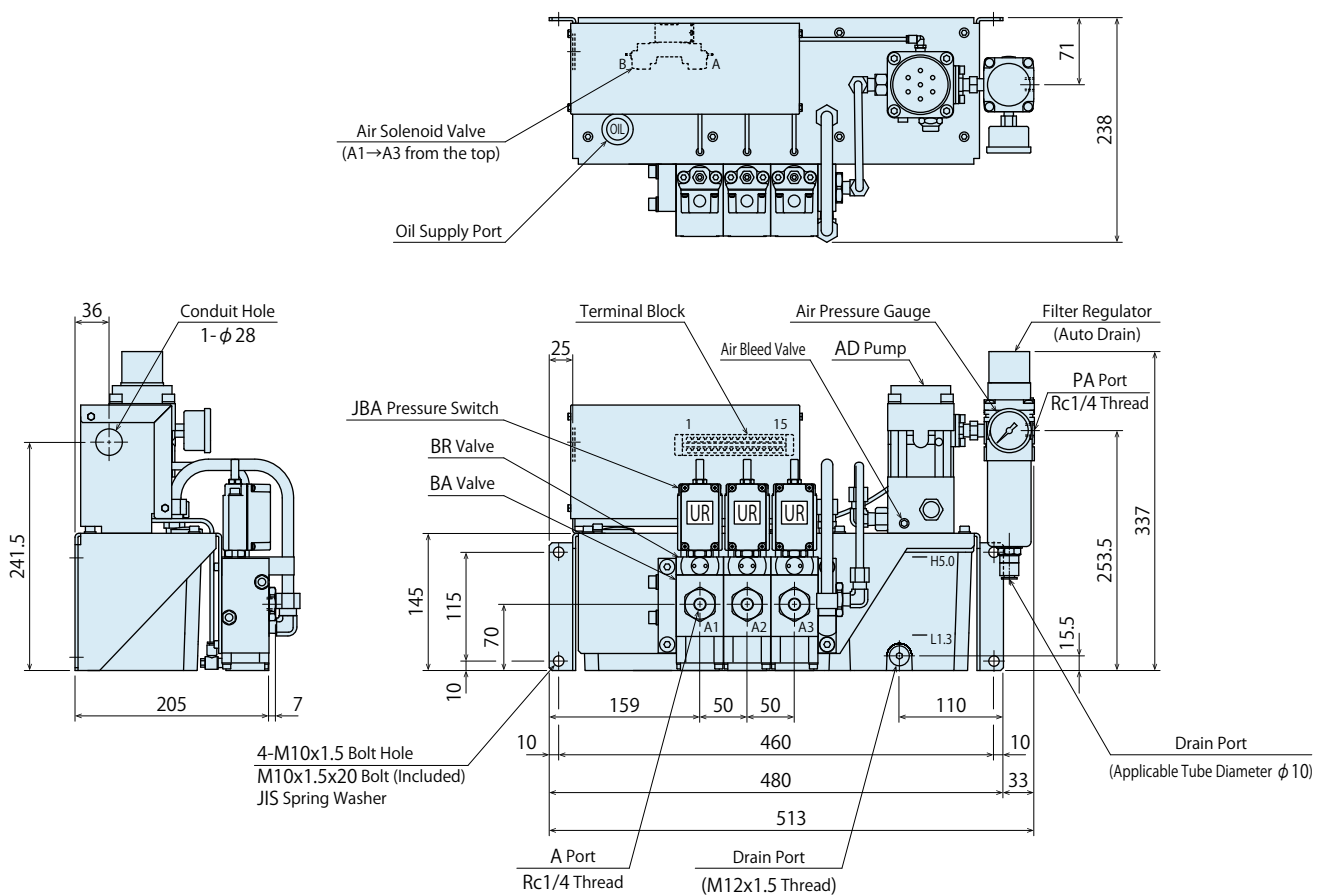
External Dimensions : CPB

※ This drawing shows CPBN000-3UR standard model.
Please contact us for external dimensions for options.



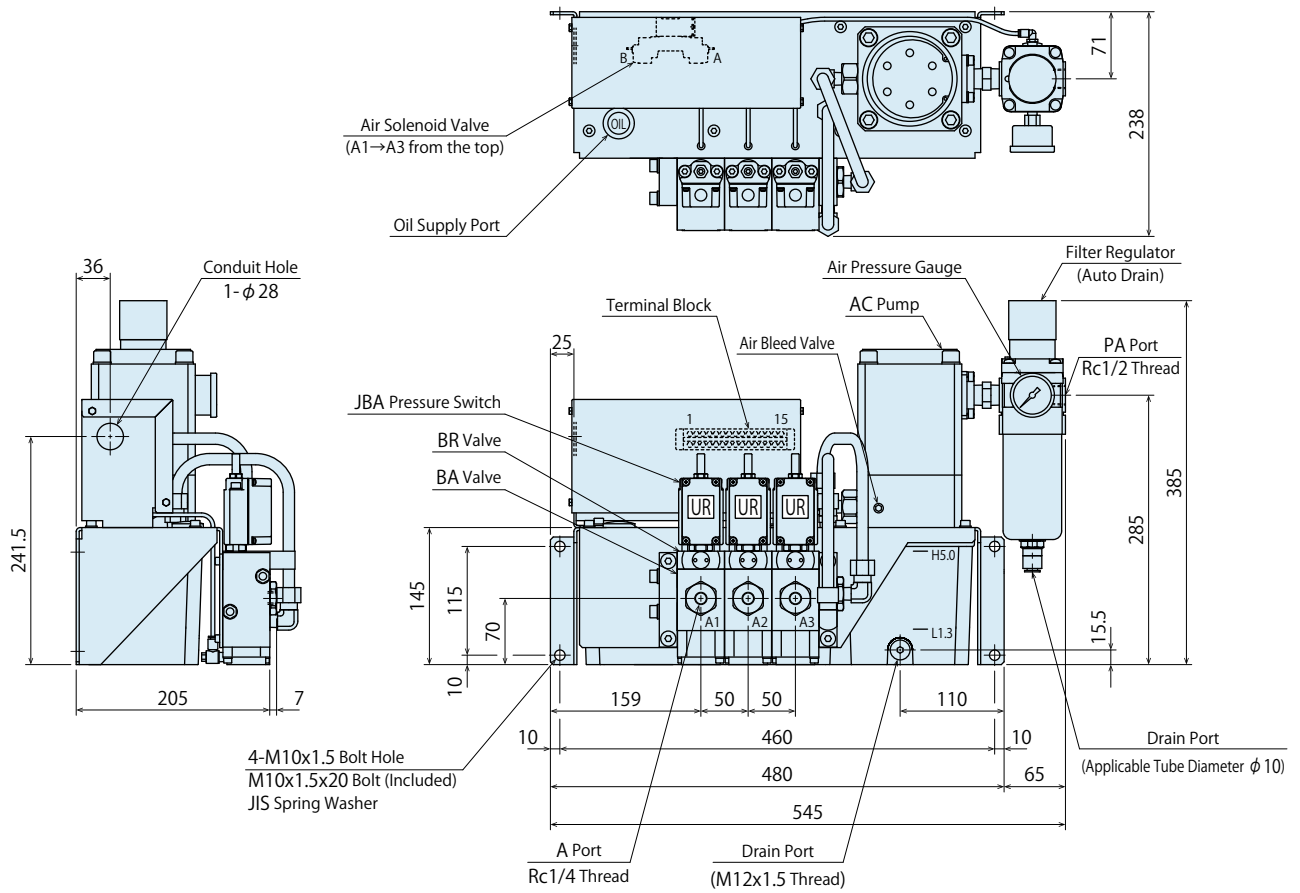
External Dimensions : CPD

※ This drawing shows CPDN000-3UR standard model.
Please contact us for external dimensions for options.



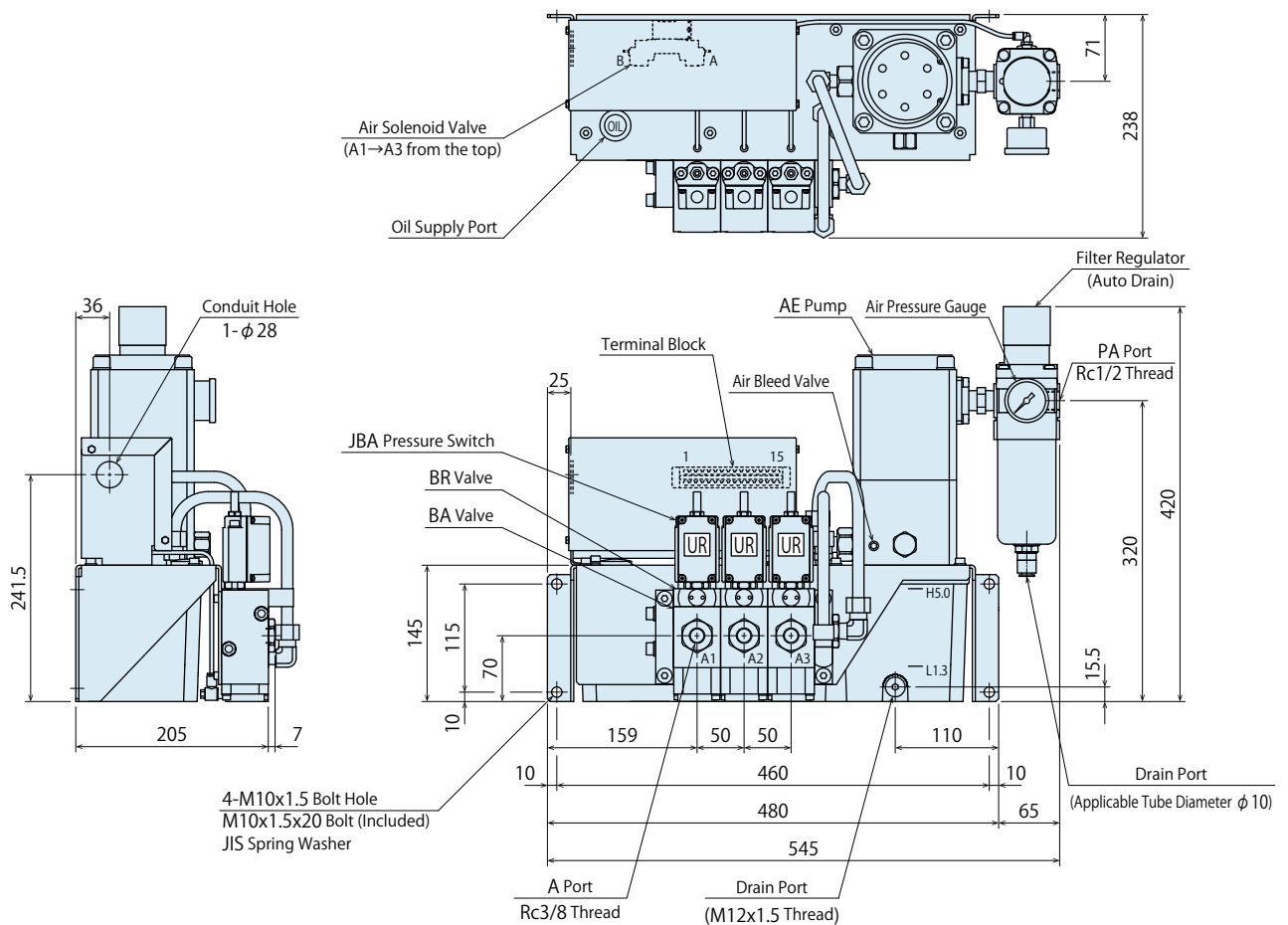
External Dimensions : CPC

※ This drawing shows CPCN000-3UR standard model.
Please contact us for external dimensions for options.



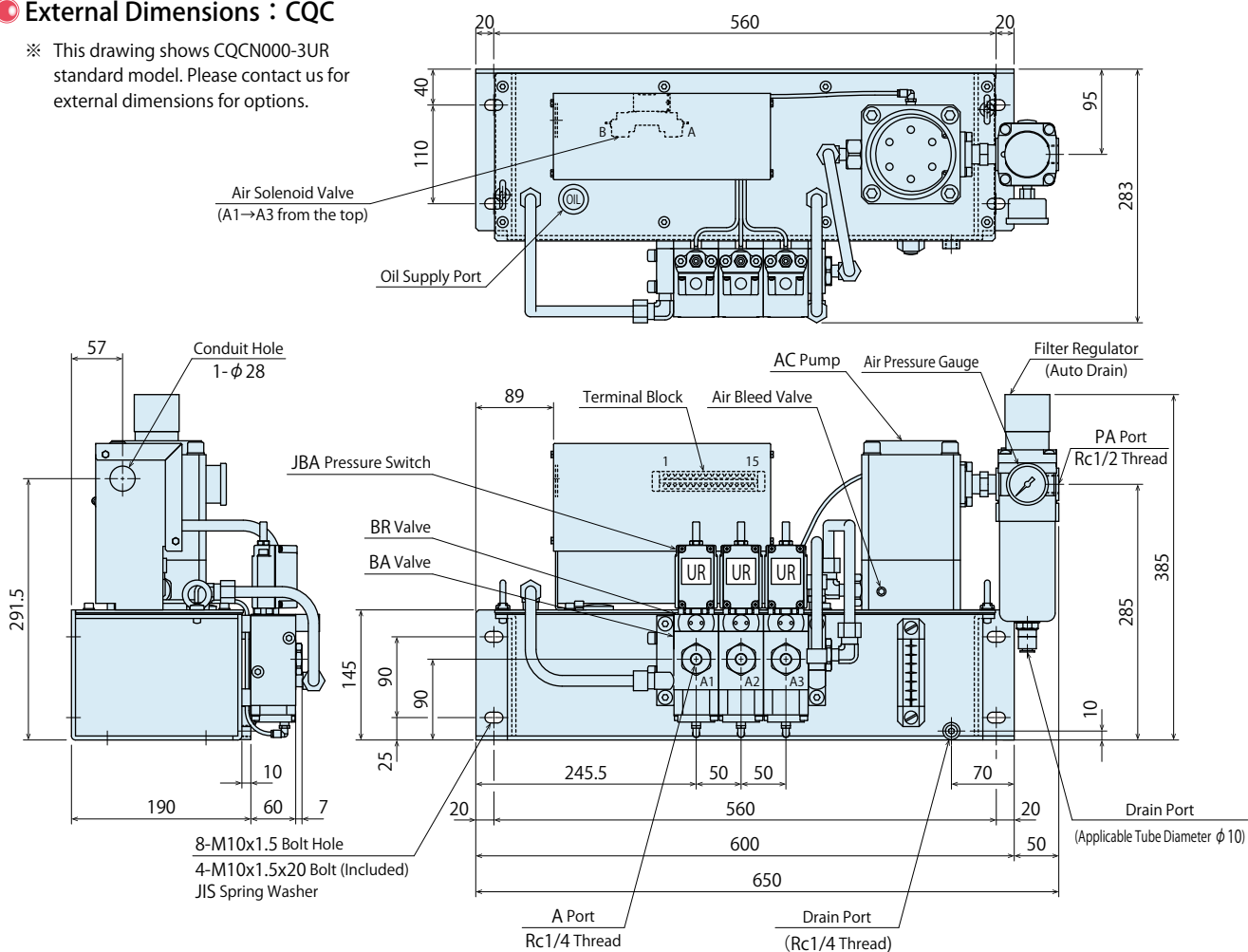
External Dimensions : CPE

※ This drawing shows CPEN000-3UR standard model.
Please contact us for external dimensions for options.



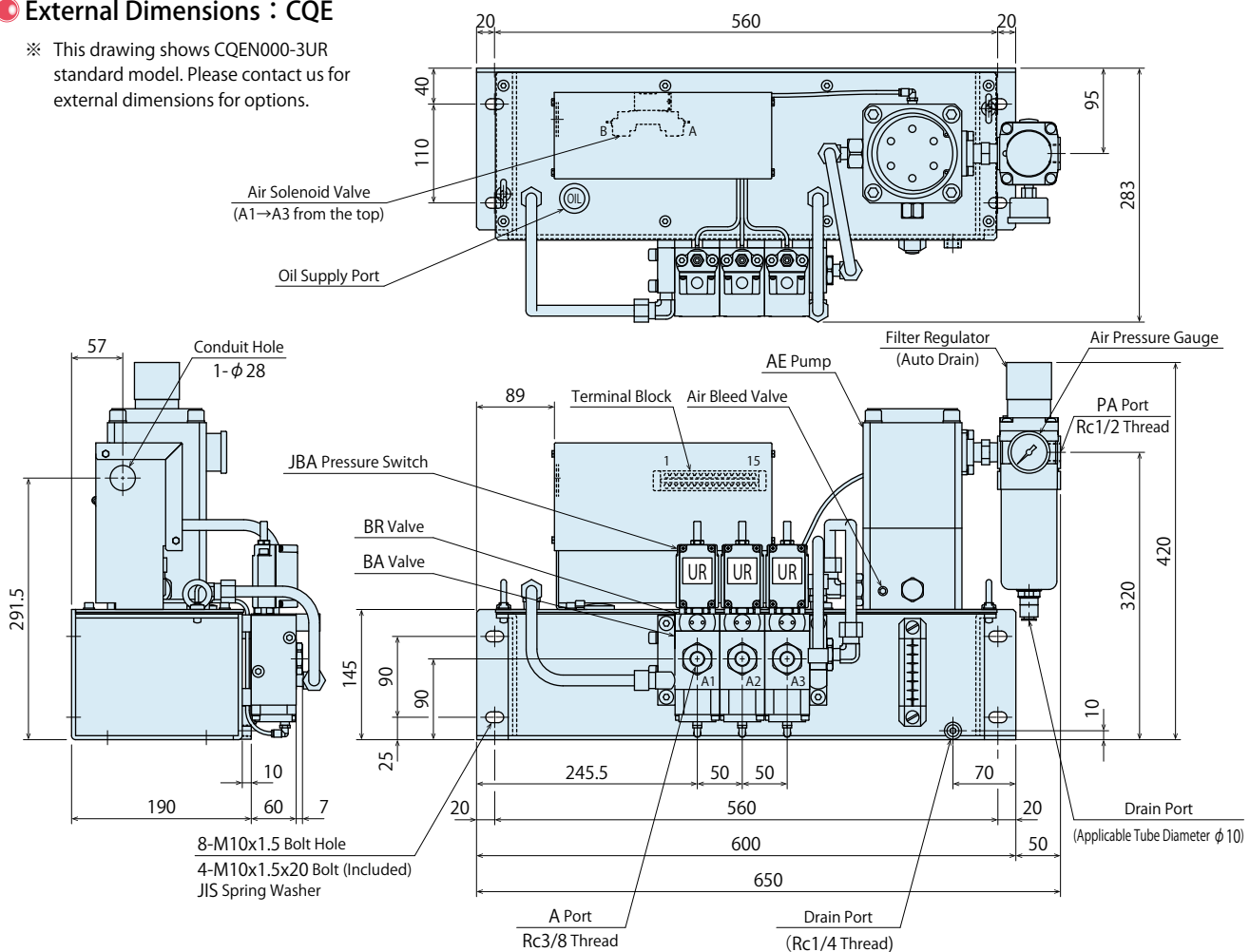
External Dimensions : CQC

※ This drawing shows CQCN000-3UR standard model. Please contact us for external dimensions for options.



External Dimensions : CQE

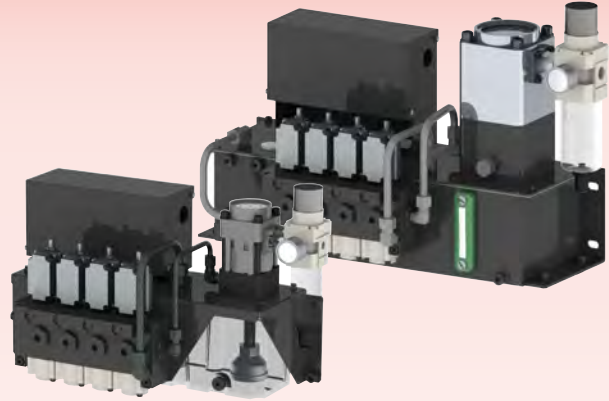
※ This drawing shows CQEN000-3UR standard model. Please contact us for external dimensions for options.



Hydraulic Unit

Model CP□K-PP / CP□L-PPR

Model CQ□K-PP / CQ□L-PPR



Converts Factory Compressed Air into Hydraulic Pressure.

Compact Hydraulic Unit Composed of Pump, Non-Leak Valve, Pressure Relief Valve, Pressure Switch and Oil Tank

● Applicable Clamp Models

GWA

GLA

● Energy Saving

The pump drives (consumes the air pressure) only during pressurization. After the pressurization, air pressure and hydraulic pressure reach equilibrium and the pump stops. Air consumption is zero after the pressurization is completed.

● Maintains Hydraulic Pressure with Non-Leak Valve

Non-leak valve (BA valve) maintains hydraulic pressure even when air supply is stopped preventing the mold from falling.

● Maintains Set Pressure with Pressure Relief Valve ※ Only when selecting the pressure relief valve.

The set pressure: 14MPa is maintained by the pressure relief valve (BR valve) even when hydraulic pressure rises during IMM operation.

● Pressure Supply when Hydraulic Pressure Decreases

The pump drives and supplies pressure when the hydraulic pressure in the circuit decreases because of the temperature reduction etc. This ensures a constant clamping force.

● A Wide Range of Variations

Select a tank from 5 ℓ and 10 ℓ and a pump from four variations for the most suitable hydraulic unit according to the clamp system.

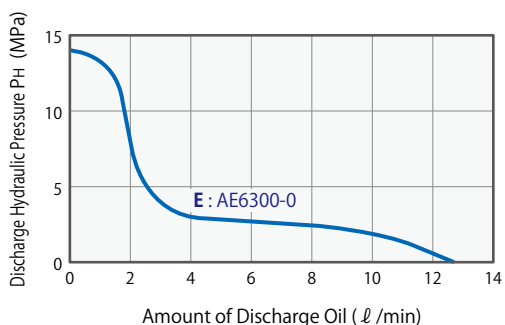
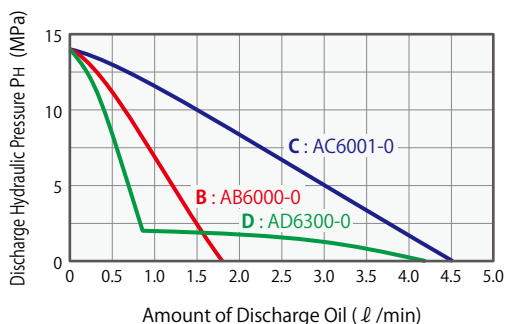
Specifications

Model No.	CPBK000	CPBL000	CPDK000	CPDL000	CPCK000	CPCL000	CPEK000	CPEL000	CQCK000	CQCL000	CQEK000	CQEL000		
Working Hydraulic Pressure	MPa 14													
Withstanding Pressure	MPa 21													
Tank Capacity	ℓ 5 ℓ (Actual Amount for Use 3.7 ℓ : H.L.5 ℓ -L.L.1.3 ℓ)									10 ℓ (Actual Amount for Use 7 ℓ : H.L.10 ℓ -L.L.3 ℓ)				
Operating Temperature	°C 0 ~ 70													
Use Frequency	Less than 20 Cycles / Day Pressure Rising Time : Less than 2.5 min. / Cycle													
Main Components	Pump	Model No.	AB6000-0		AD6300-0		AC6001-0		AE6300-0		AC6001-0		AE6300-0	
		Set Discharge Pressure	MPa 14 12.7		14 12.7		14 12.7		14 12.7		14 12.7		14 12.7	
		Discharge Oil under No Load	ℓ /min 1.80 1.76		4.20 3.95		4.52 4.47		12.7 12.5		4.52 4.47		12.7 12.5	
		Set Air Pressure	MPa 0.41 0.37		0.41 0.37		0.43 0.41		0.43 0.41		0.43 0.41		0.43 0.41	
		Air Consumption	m ³ (normal)/min max. 0.4		max. 0.4		max. 1.0		max. 1.0		max. 1.0		max. 1.0	
	Suction	Model No.	JF1030		JF1030		JF1030		JF1040		JF1030		JF1040	
	Filter	Filtration Degree	174 μm (100 Mesh)											
	Non-Leak Valve	Model No.	BA5011-0	BA5011-0	BA5011-0	BA5011-0	BA5011-0	BA5011-0	BA5011-0	BA5011-0	BA5001-0	BA5001-0	BA5001-0	
	Pressure Switch (For Clamp)	Model No.	JBA2700-0G											
		Operation Mode/Set Pressure	MPa INC. 9.8											
Pressure Relief Valve	Model No.	-	BR5L11-0	-	BR5L11-0	-	BR5L11-0	-	BR5L11-0	-	BR5L11-0	-	BR5L11-0	
	Set Pressure	MPa	-	14 ^{+1.7} ₀	-	14 ^{+1.7} ₀	-	14 ^{+1.7} ₀	-	14 ^{+1.7} ₀	-	14 ^{+1.7} ₀	-	14 ^{+1.7} ₀

Notes

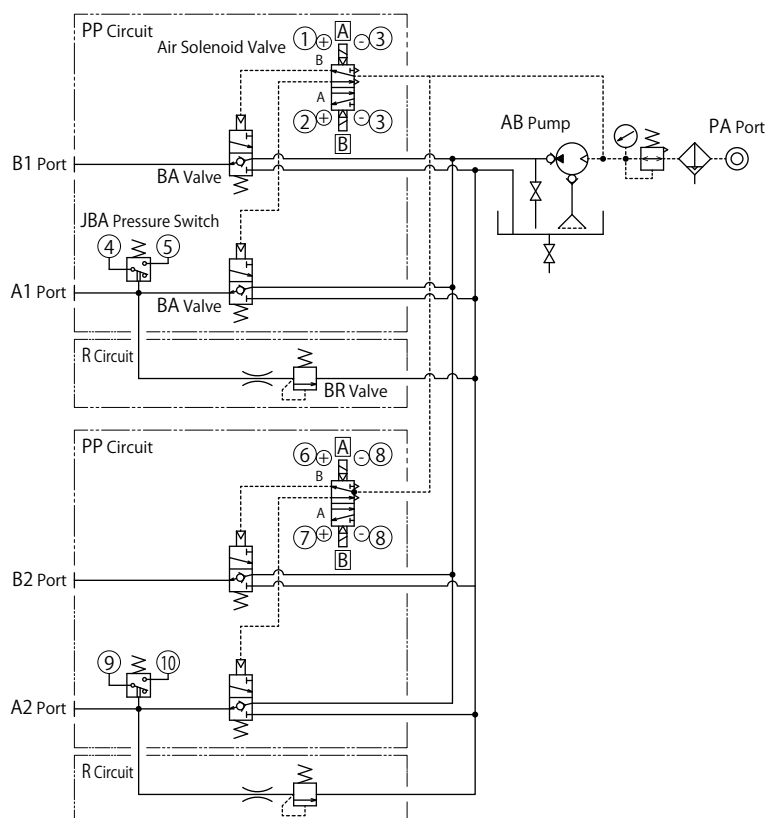
1. If hydraulic viscosity is higher than specified, action time will be longer. Please use equivalent hydraulic oil to ISO-VG-32.
2. If using it at low temperature, action time will be longer because the viscosity of hydraulic oil becomes higher.
3. When setting a pressure gauge to a hydraulic circuit, install a damper or use an oil-filled (glycerin) pressure gauge in order to prevent damage caused by pressure surging.
4. Provide enough space at the top of the unit taking into consideration the maintenance of the pump.

Pump Performance Curve

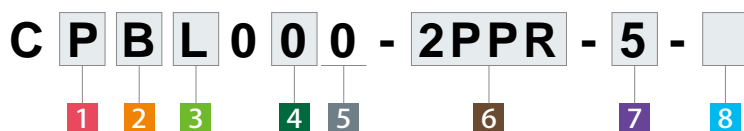


Circuit Symbol

This shows the circuit symbol of CPBL0□0-2PPR-5.



● Model No. Indication



1 Unit

- P** : For Small/Medium Clamps (5 ℓ Tank)
- Q** : For Large Clamps (10 ℓ Tank)

Note:

1. For Large Clamp Unit (10 ℓ Tank), only **2** Pump Model C: AC pump and E: AE pump can be installed.

2 Pump Model

- B** : AB Pump
- D** : AD Pump
- C** : AC Pump
- E** : AE Pump

Note:

1. B: AB Pump and D: AD Pump can be selected only when selecting **1** Unit P: For Small/Medium Clamp (5 ℓ Tank).

3 Pressure Code

- K** : Working Pressure 14MPa, Pressure Switch Set Pressure INC. 9.8MPa
- L** : Working Pressure 14MPa, Pressure Switch Set Pressure INC. 9.8MPa with Pressure Relief Valve

4 Fluid Code

- 0** : General Hydraulic Oil
- G** : Water•Glycol (Iron Tank)
- S** : Silicon Oil
- F** : Fatty Acid Ester

8 Option

- Blank** : Standard
- C** : +Common
- D** : Digital Pressure Sensor
- E** : Without Filter Regulator
- F** : Manual-Drain Filter Regulator
- G** : With Primary Pressure Gauge
- H** : With Piping Block on the Left
- J** : With Air Regulator
- K0** : With Pressure Gauge for Each Circuit (Without Primary Pressure Gauge)
- K1** : With Color Displayed Pressure Gauge for Each Circuit (Without Primary Pressure Gauge)
- KG0** : With Pressure Gauge for Each Circuit (With Primary Pressure Gauge)
- KG1** : With Color Displayed Pressure Gauge for Each Circuit (With Primary Pressure Gauge)
- L** : With Pressure Switch Light
- N** : Piping Port NPT Thread, Pressure Gauge in both PSI/MPa ^{※1}
- P** : Pressure Gauge in both PSI/MPa
- Q0** : With Oil Level Switch (ON when Oil Level Drops)
- Q1** : With Oil Level Switch (OFF when Oil Level Drops)
- T** : Iron Tank (CP□□: only 5 ℓ tank can be selected.) ^{※2}

5 Design No.

- 0** : Revision Number

6 Circuit Symbol (Indicate with the number of circuits and circuit symbol.)

- P** : For Clamp Double Solenoid
- R** : With Pressure Relief Valve

Note:

1. For R: Pressure Relief Valve **3** Pressure Code is "L".

7 Voltage Code

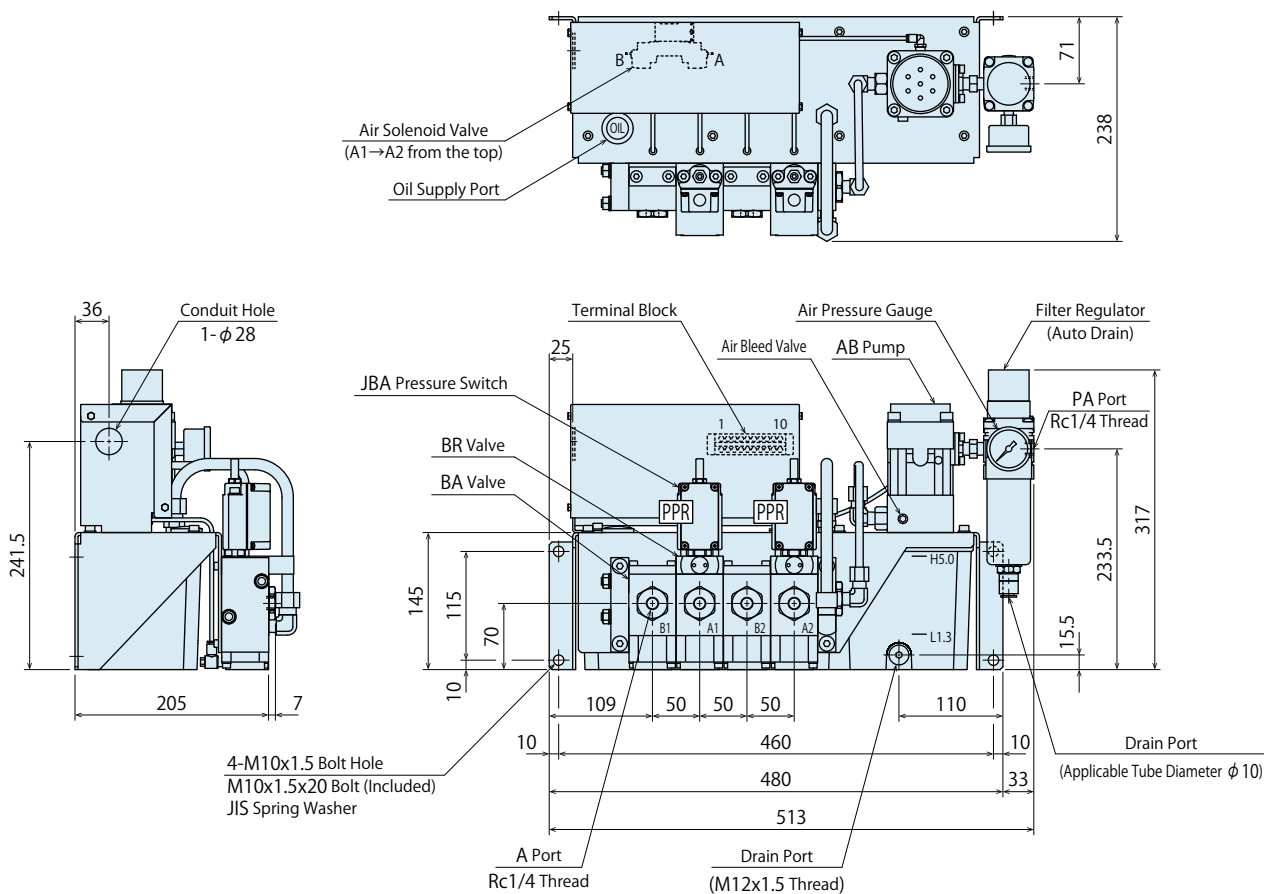
- 1** : AC100V (50/60Hz)
- 2** : AC200V (50/60Hz)
- 3** : AC110V (50/60Hz)
- 4** : AC220V (50/60Hz)
- 5** : DC24V

Notes

- ※1. When selecting **8** Option N: Piping Port NPT Thread, dimensions in the specification sheet and other documents are in inches.
- ※2. Iron Tank is the standard option for CQ□□:10 ℓ Tank.
 1. Please contact us for specifications and external dimensions for these options.
 2. The external dimensions for five circuits and six circuits are different. Please contact us for detail.

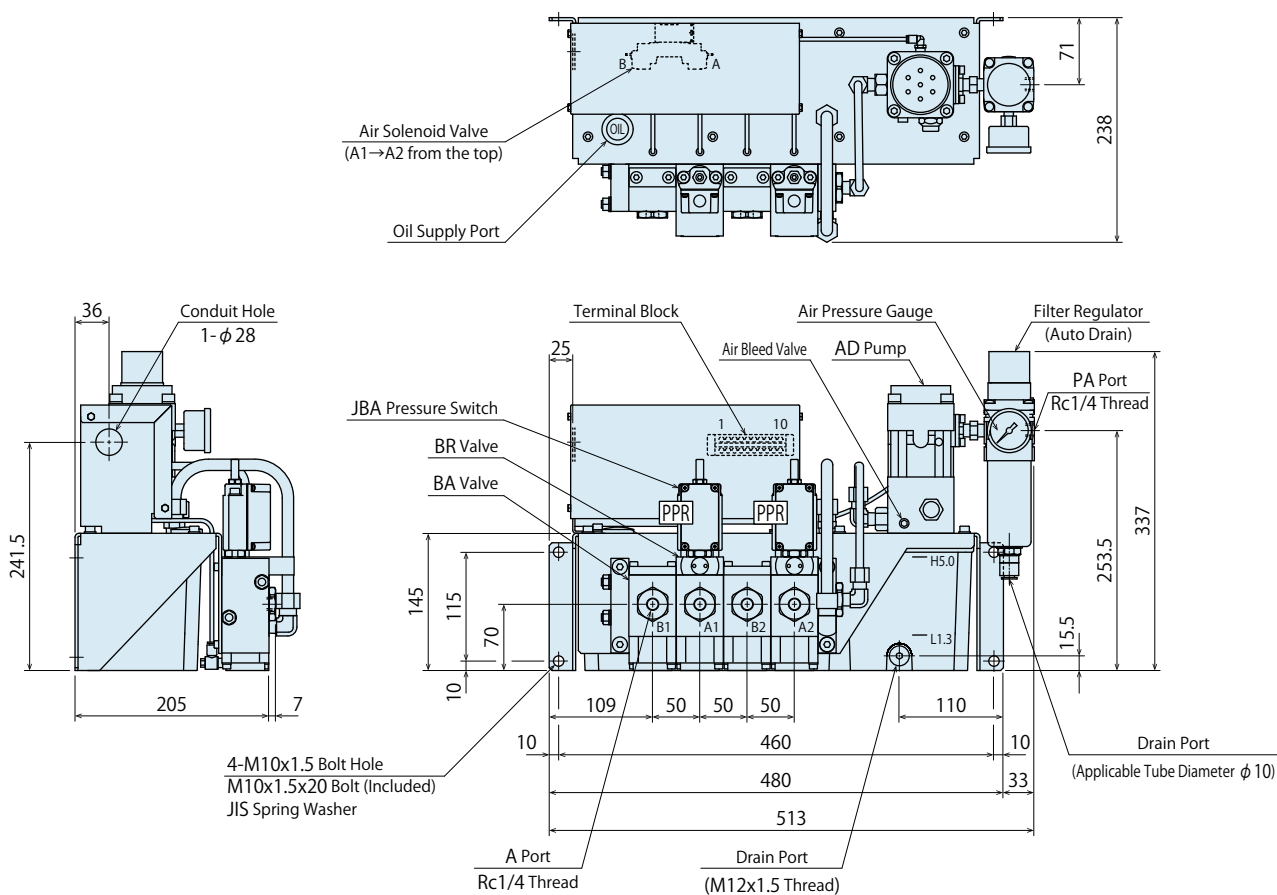
External Dimensions : CPB

※ This drawing shows CPBL000-2PPR standard model.
Please contact us for external dimensions for options.



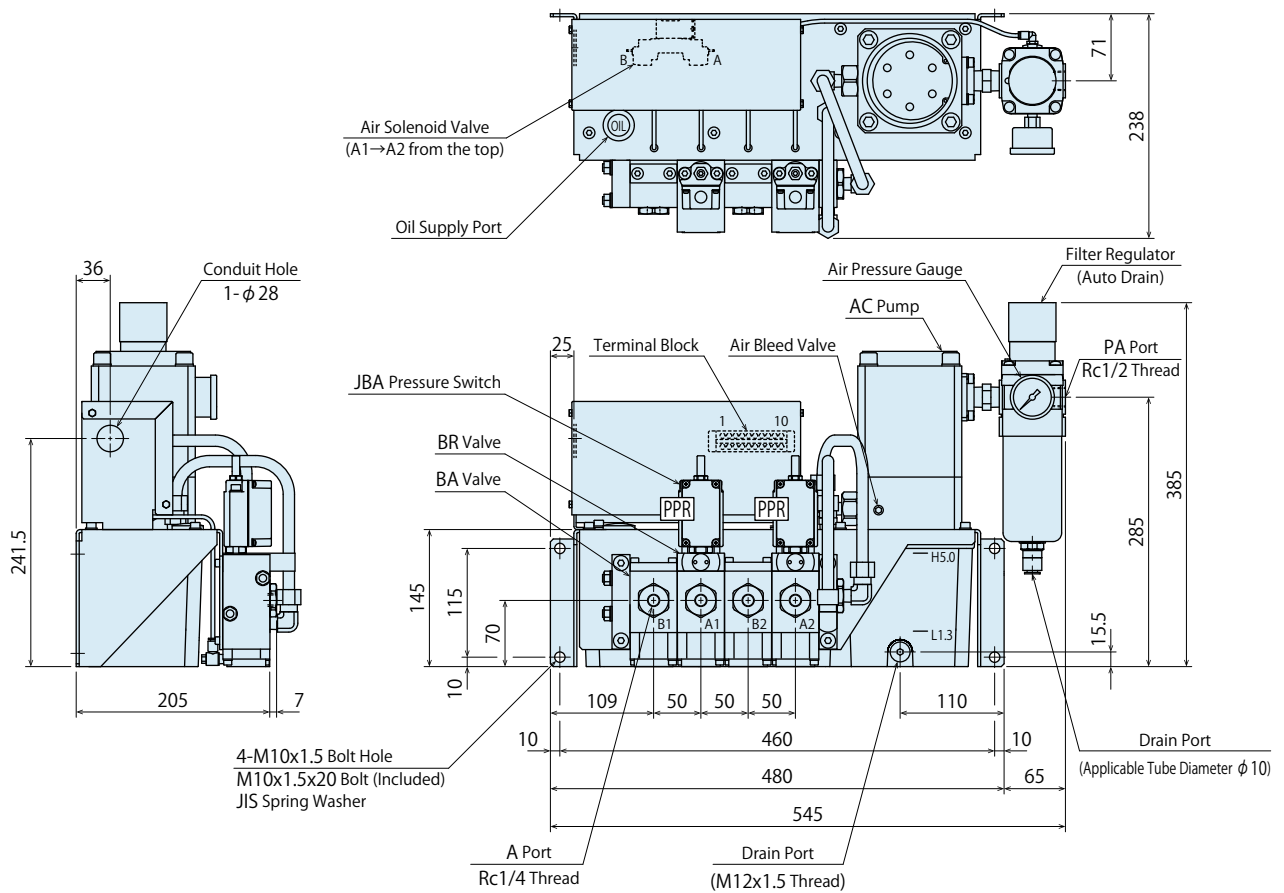
External Dimensions : CPD

※ This drawing shows CPDL000-2PPR standard model.
Please contact us for external dimensions for options.



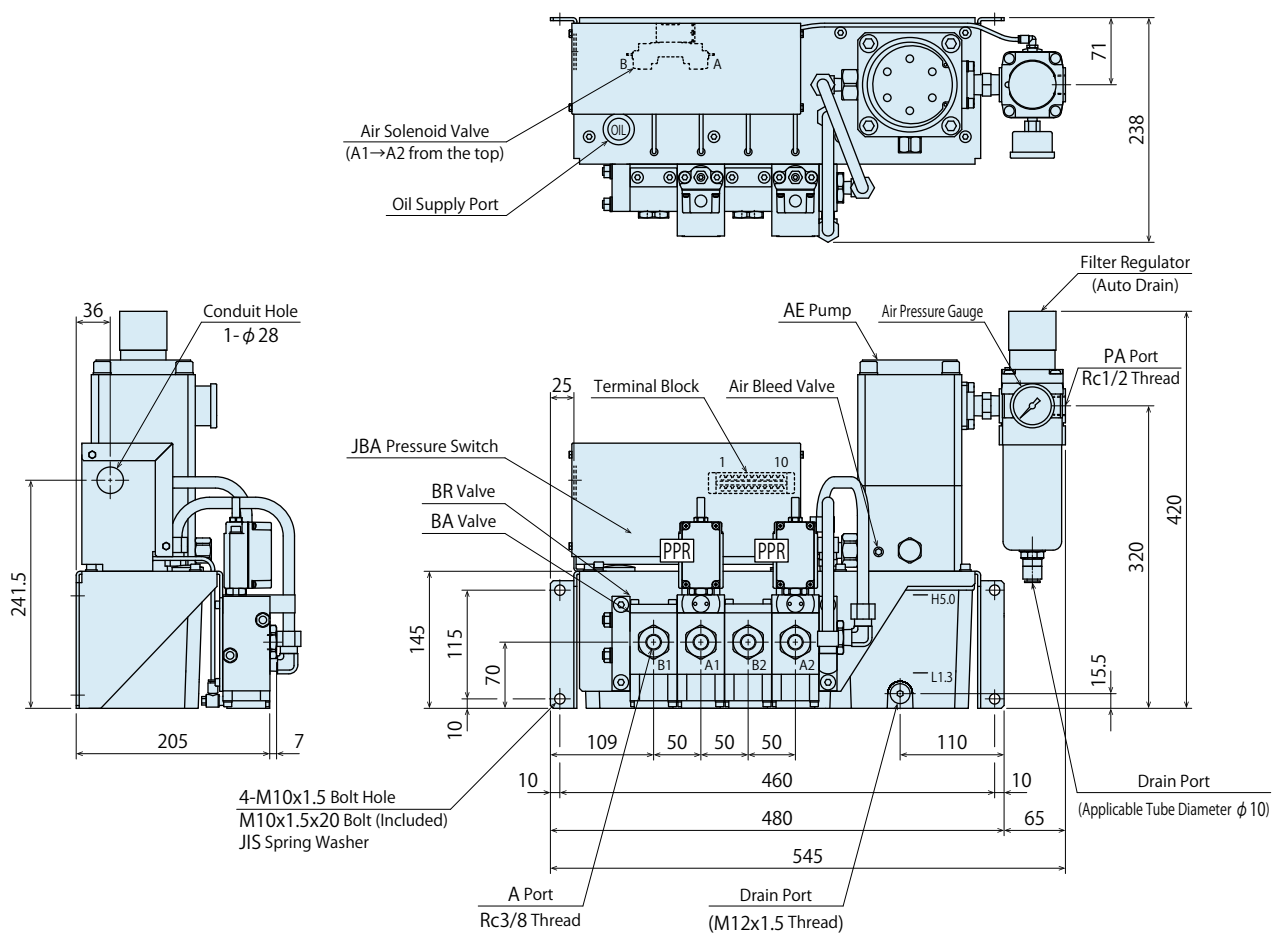
External Dimensions : CPC

※ This drawing shows CPCL000-2PPR standard model.
Please contact us for external dimensions for options.



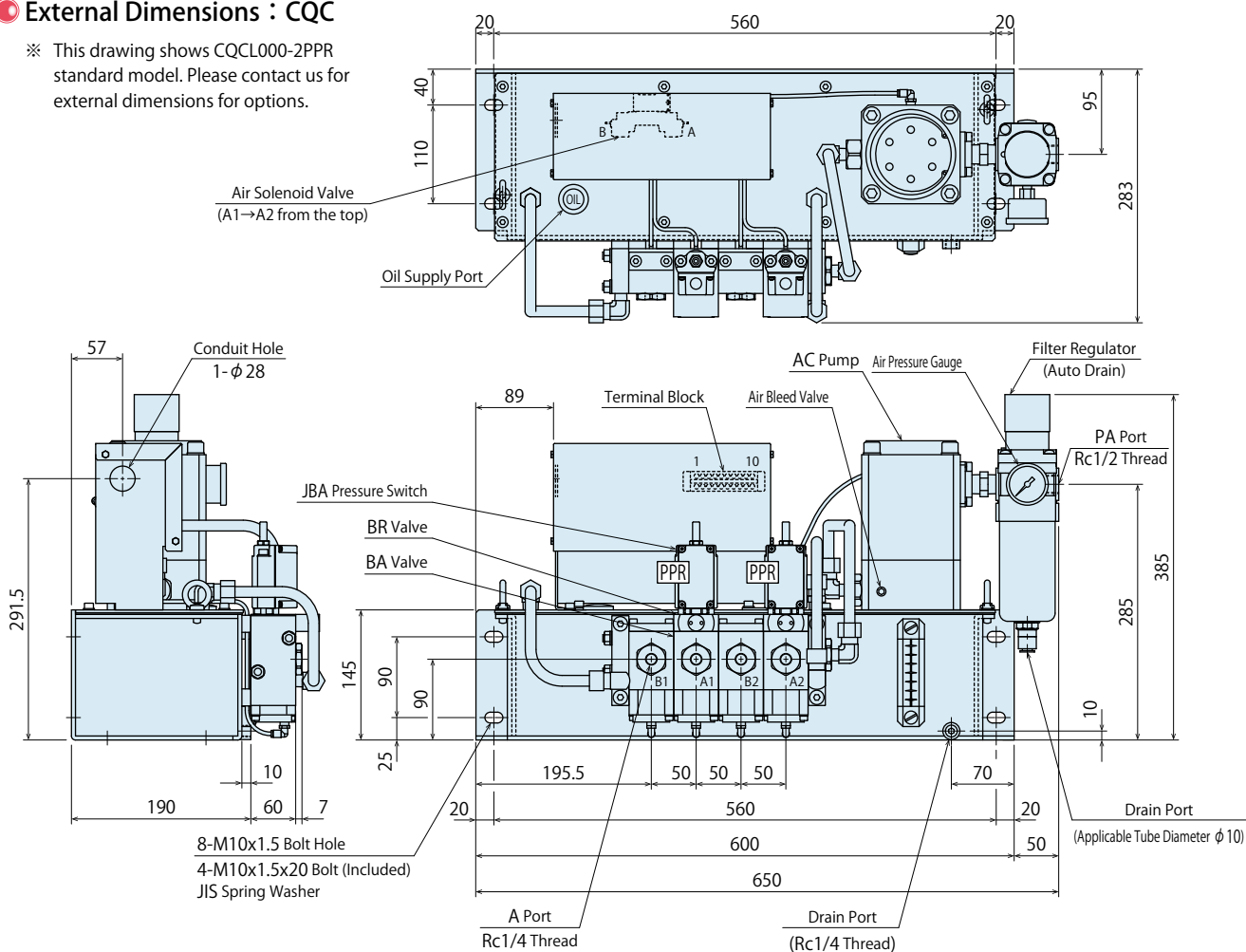
External Dimensions : CPE

※ This drawing shows CPEL000-2PPR standard model.
Please contact us for external dimensions for options.



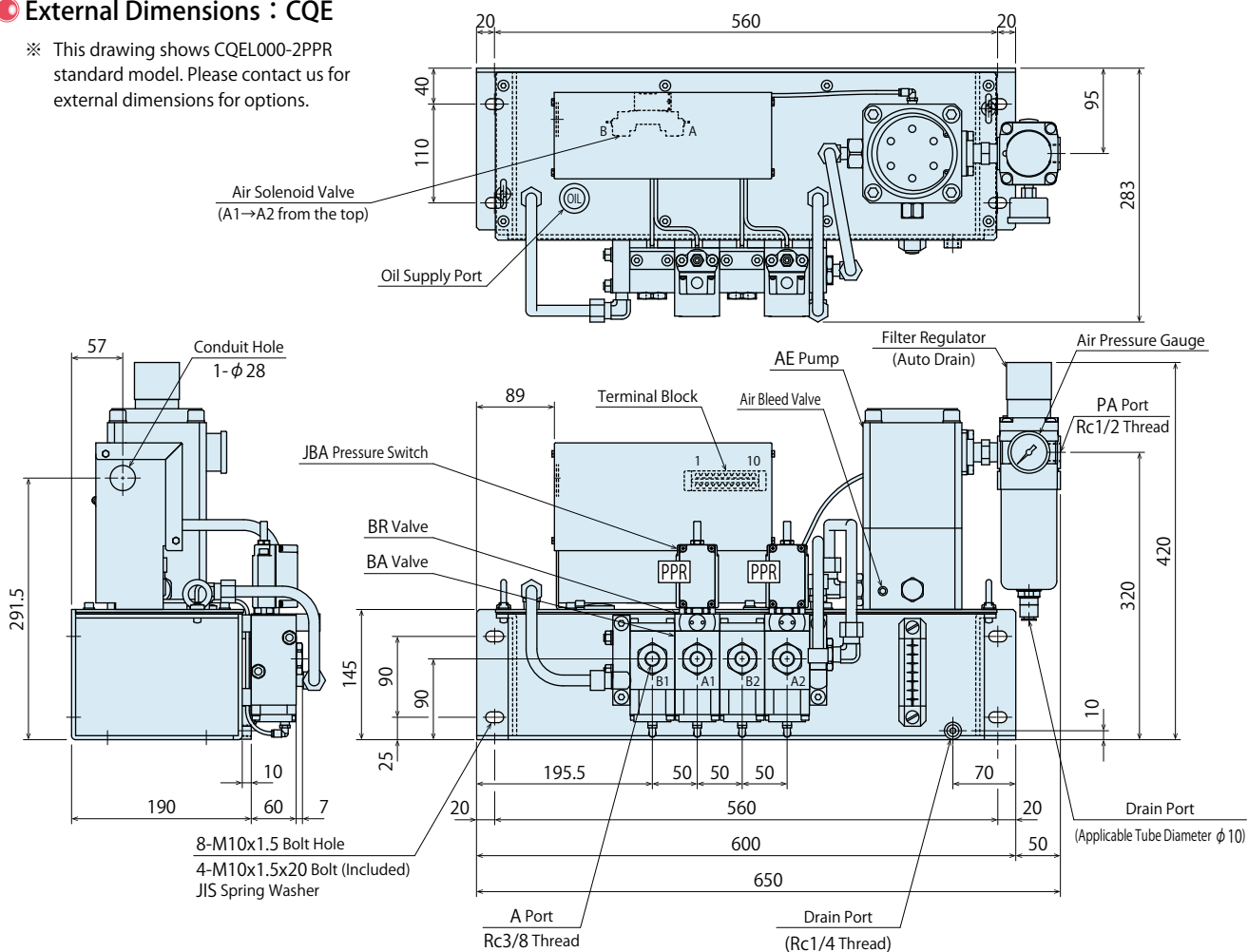
External Dimensions : CQC

※ This drawing shows CQCL000-2PPR standard model. Please contact us for external dimensions for options.

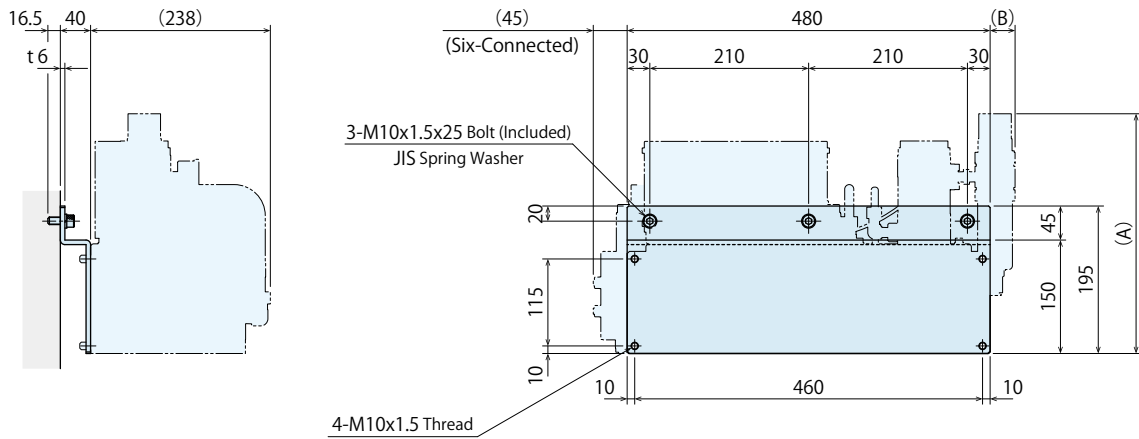


External Dimensions : CQE

※ This drawing shows CQEL000-2PPR standard model. Please contact us for external dimensions for options.



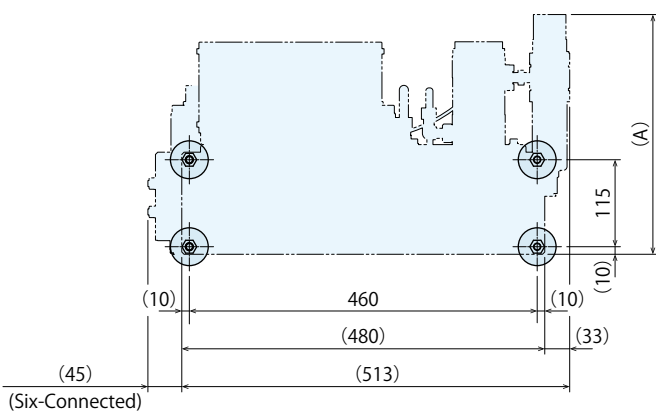
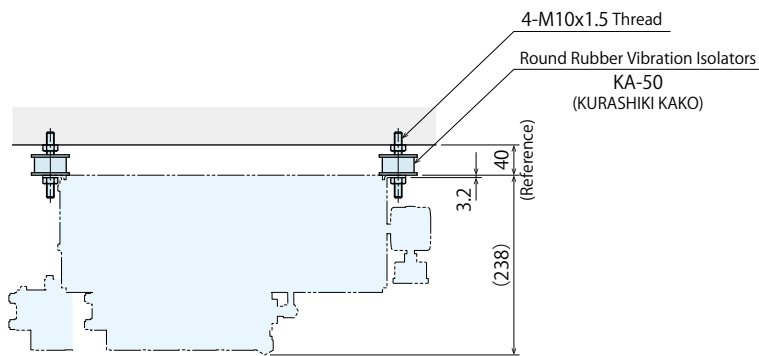
● External Dimensions : CPSH000 (Wall Mounted)



(mm)

Hydraulic Unit Model No.	Dimension A	Dimension B
CPB	317	33
CPD	337	33
CPC	385	65
CPE	420	65

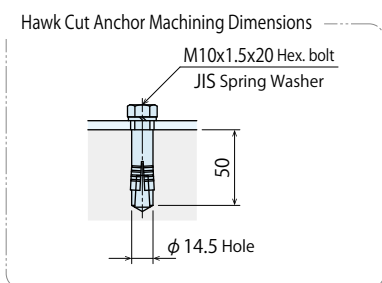
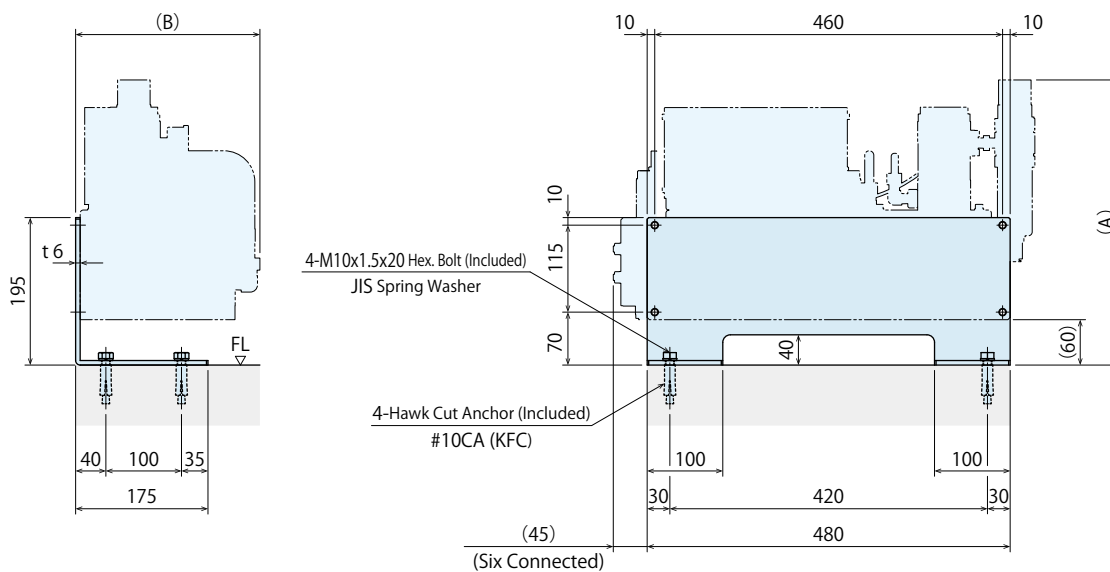
● External Dimensions : CPSR000 (Anti-Vibration Rubber)



(mm)

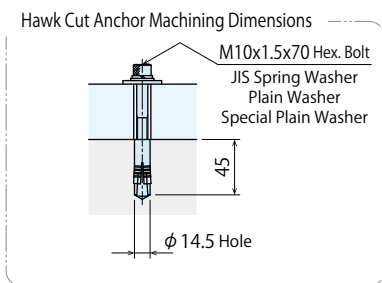
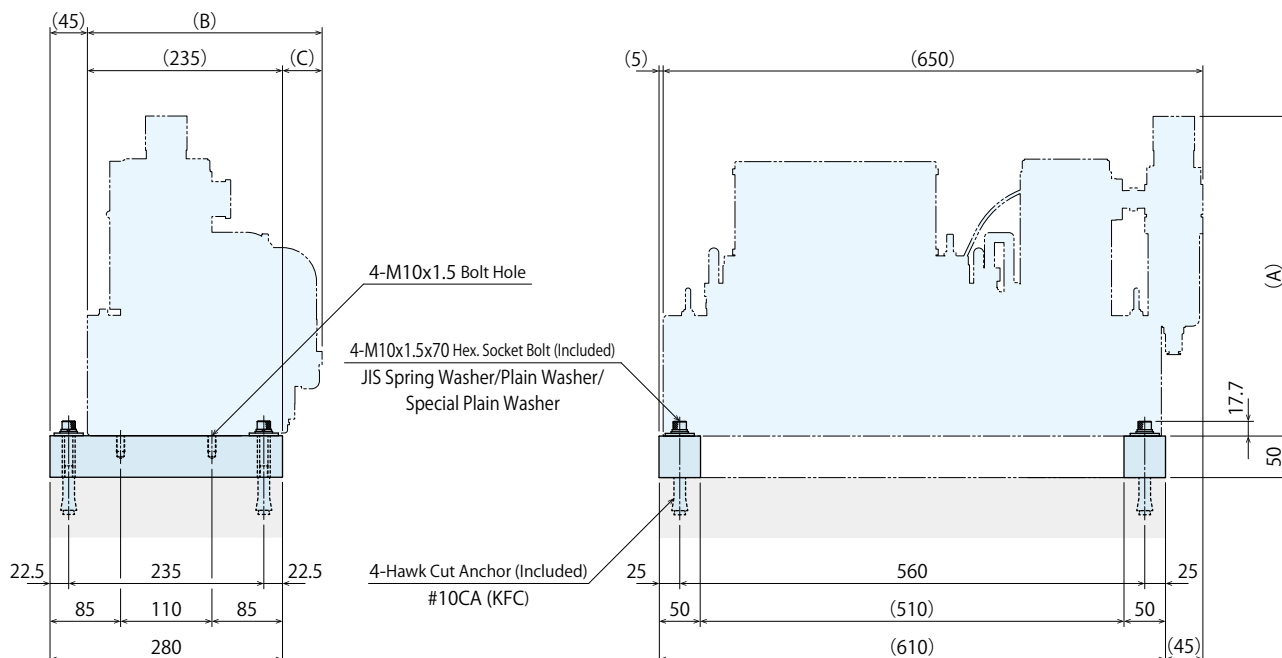
Hydraulic Unit Model No.	Dimension A
CPB	317
CPD	337
CPC	385
CPE	420

● External Dimensions : CPSV000 (Floor Mounted)



Hydraulic Unit Model No.	Dimension A	Dimension B
CPB	317	238
CPD	337	238
CPC	385	238
CPE	420	238

● External Dimensions : CQSV000 (Floor Mounted)



Hydraulic Unit Model No.	Dimension A	Dimension B	Dimension C
CQC	385	283	48
CQE	420	283	48

Sales Offices

Sales Offices across the World

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Overseas Sales	KOSMEK LTD. 1-5, 2-chome, Murotani, Nishi-ku, Kobe-city, Hyogo, Japan 651-2241 〒651-2241 兵庫県神戸市西区室谷2丁目1番5号	
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KOSMEK (CHINA) LTD. 考世美(上海)貿易有限公司	21/F, Orient International Technology Building, No.58, Xiangchen Rd, Pudong Shanghai 200122., P.R.China 中国上海市浦东新区向城路58号东方国际科技大厦21F室 200122	
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Taiwan (Taiwan Exclusive Distributor)	TEL. +886-2-82261860	FAX. +886-2-82261890
Full Life Trading Co., Ltd. 盈生貿易有限公司	16F-4, No.2, Jian Ba Rd., Zhonghe District, New Taipei City Taiwan 23511 台湾新北市中和區建八路2號 16F-4 (遠東世紀廣場)	
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Sales Offices in Japan

Head Office	TEL.078-991-5115	FAX.078-991-8787
Osaka Sales Office	〒651-2241 兵庫県神戸市西区室谷2丁目1番5号	
Overseas Sales		
Tokyo Sales Office	TEL.048-652-8839	FAX.048-652-8828
	〒331-0815 埼玉県さいたま市北区大成町4丁目81番地	
Nagoya Sales Office	TEL.0566-74-8778	FAX.0566-74-8808
	〒446-0076 愛知県安城市美園町2丁目10番地1	
Fukuoka Sales Office	TEL.092-433-0424	FAX.092-433-0426
	〒812-0006 福岡県福岡市博多区上牟田1丁目8-10-101	