

For Inert Gas and Vacuum

PCV Pipe Cupla

For connection to copper pipes

Working pressure



4.5 MPa
(46 kgf/cm²)

Valveless

Applicable fluids



Inert gas,
Vacuum

Air

Gas

Clamps directly on straight copper pipes !
Double seal construction withstands a vacuum of up to 1.3×10^{-1} Pa.

- Clamps direct on to a straight copper pipe eliminating unnecessary welding or flaring.
- Withstands a vacuum of up to 1.3×10^{-1} Pa (when connected) making it possible to be used in leak testing, evacuation and refrigerant gas charge.
- Select from three standard types of seal materials to be used with fluids for air conditioner and refrigerator production lines. Many models to suit various pipe sizes.
- One lever operation simultaneously clamps and seals pipe. Double seal construction for tight fit on end and outside surface of pipe ensures excellent sealing and vacuum resistance.



Wide variations of end configurations; 1/4", 3/8" and blind plug

Standard seal materials fluoro-rubber (FKM), hydrogenated nitrile rubber (HNBR) and chloroprene rubber (CR) to suit air conditioner and refrigerator production lines

Double seal design for tight fit on both end and outside of pipe

Many models to cover various pipe sizes

One lever operation simultaneously clamps and seals pipe



For exclusive use on straight copper pipes

Specifications

Model	PCV400	PCV470	PCV500	PCV600	PCV630	PCV800	PCV950	PCV1000	PCV1270	PCV1590
Copper pipe OD	ø4.0	ø4.76 (3/16")	ø5.0	ø6.0	ø6.35 (1/4")	ø8.0 (5/16")	ø9.52 (3/8")	ø10.0	ø12.7 (1/2")	ø15.88 (5/8")
Body material	Brass									
Working pressure MPa (kgf/cm ²)	4.5 (46)									
Pressure resistance MPa (kgf/cm ²)	5.0 (51)									
Seal material Working temperature range	Seal material	Mark		Working temperature range		Remarks				
	Chloroprene rubber	CR (C308)		-20°C~+80°C		Standard material				
	Fluoro rubber	FKM (X-100)		-20°C~+180°C		Standard material				
	Hydrogenated nitrile rubber	HNBR (H708)		-20°C~+120°C		Standard material				

Max. Tightening Torque

N·m (kgf·cm)

Size	1/4"	3/8"
Torque	9 [92]	12 [122]

Flow Direction

Fluid may flow in either direction from plug or from socket side when coupled.



Interchangeability

If the pipe size is the same, connection to the pipe is possible even if the end configurations are different.

Min. Cross-Sectional Area

(mm²)

Model	PCV400	PCV470	PCV500	PCV600	PCV630	PCV800
Min. cross-sectional area	3.8	3.8	3.8	9.1	9.1	16.6
Model	PCV950	PCV1000	PCV1270-2	PCV1270-3	PCV1590-2	PCV1590-3
Min. cross-sectional area	16.6	16.6	50.3	73.9	50.3	78.5

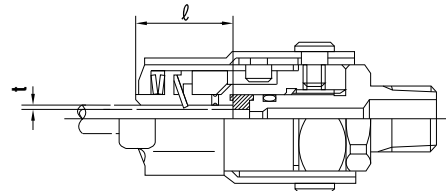
Suitability for Vacuum

1.3×10^{-1} Pa (1×10^{-3} mmHg)

Only when connected to a pipe

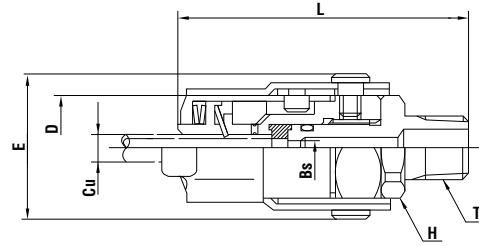
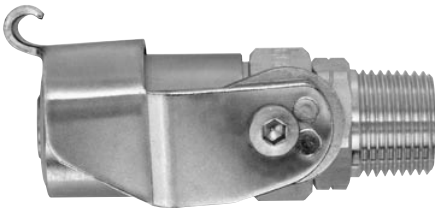
Operational

Insert Length of Pipe into Coupling and Essential Thickness of Pipe Wall (mm)



Items with asterisk (*) are made-to-order products.

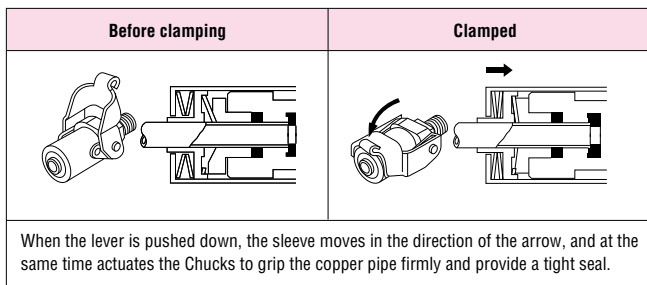
Model	Insert length of pipe into coupling (l)	Essential thickness of pipe wall (t)
PCV400*	19	Minimum 0.8
PCV470		
PCV500*		
PCV600	20.5	
PCV630		
PCV800		
PCV950	30	Minimum 1.0
PCV1000*		
PCV1270		
PCV1590		



Model	Pipe OD (Cu)	Model	Size (T)	Mass (g)	Dimensions (mm)				
					L	H(WAF)	øBs	øD	E
PCV400*	ø4.0	PCV400-2	R 1/4	155	(59)	Hex.17	2.2	22.2	(32.5)
		PCV400-3	R 3/8	155	(60)	Hex.19			
PCV470	ø4.76 (3/16")	PCV470-2	R 1/4	155	(60)	Hex.17	2.2	22.2	(32.5)
		PCV470-3	R 3/8	160	(61)	Hex.19			
		PCV470-0	Blind plug	160	(47)	-	-		
PCV500*	ø5.0	PCV500-2	R 1/4	155	(59)	Hex.17	2.2	22.2	(32.5)
		PCV500-3	R 3/8	155	(60)	Hex.19			
PCV600	ø6.0	PCV600-2	R 1/4	150	(60)	Hex.17	3.4	22.2	(32.5)
		PCV600-3	R 3/8	155	(61)	Hex.19			
		PCV600-0	Blind plug	155	(47)	-	-		
PCV630	ø6.35 (1/4")	PCV630-2	R 1/4	145	(60)	Hex.17	3.4	22.2	(32.5)
		PCV630-3	R 3/8	150	(61)	Hex.19			
		PCV630-0	Blind plug	150	(47)	-	-		
PCV800	ø8.0 (5/16")	PCV800-2	R 1/4	175	(62)	Hex.17	4.6	24.8	(35.5)
		PCV800-3	R 3/8	180	(63)	Hex.19			
		PCV800-0	Blind plug	185	(50)	-	-		
PCV950	ø9.52 (3/8")	PCV950-2	R 1/4	175	(62)	Hex.17	4.6	24.8	(35.5)
		PCV950-3	R 3/8	180	(63)	Hex.19			
		PCV950-0	Blind plug	180	(50)	-	-		
PCV1000*	ø10.0	PCV1000-2	R 1/4	155	(62)	Hex.17	4.6	24.8	(35.5)
		PCV1000-3	R 3/8	155	(63)	Hex.19			
PCV1270	ø12.7 (1/2")	PCV1270-3	R 3/8	465	(81)	Hex.24	9.7	34.8	(45.0)
		PCV1270-2	R 1/4	470	(80)	Hex.24			
		PCV1270-0	Blind plug	475	(68)	-	-		
PCV1590	ø15.88 (5/8")	PCV1590-3	R 3/8	435	(81)	Hex.24	10.0	34.8	(45.0)
		PCV1590-2	R 1/4	424	(80)	Hex.24			
		PCV1590-0	Blind plug	445	(68)	-	-		

* For mass with a plug, add (brass body) 2P-V : 39g, 3P-V : 67g, (stainless steel body) 2P-V : 34g, or 3P-V : 59g * Available on request

Clamping Mechanism



Application Example



Compressor pressure test

Before use, please be sure to read "Safety Guide" described at the end of this book and "Instruction Sheet" that comes with the products.