

For Inert Gas and Vacuum

# PCV Pipe Cupla

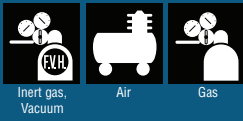
For connection to copper pipes

Working pressure

**4.5**  
4.5 MPa  
(46 kgf/cm<sup>2</sup>)

Valveless

Applicable fluids



## Clamps directly on straight copper pipes !

### Double seal construction withstands a vacuum of up to $1.3 \times 10^{-1}$ Pa.

- Clamps directly on to a straight copper pipe eliminating unnecessary welding or flaring.
- Withstands a vacuum of up to  $1.3 \times 10^{-1}$  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.



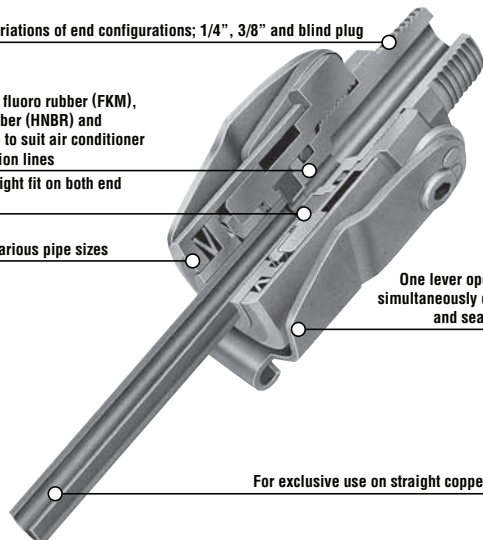
Wide variations of end configurations; 1/4", 3/8" and blind plug

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	4.5										
	kgf/cm <sup>2</sup>	46										
	bar	45										
	PSI	653										
Seal material	Seal material	Chloroprene rubber	Mark	CR (C308)	Working temperature range	-20°C to +80°C					Remarks	Standard material
	Working temperature range	Fluoro rubber	FKM (X-100)	-20°C to +180°C		Standard material						
		Hydrogenated nitrile rubber	HNBR (H708)	-20°C to +120°C		Standard material						

\* Hydrogenated nitrile rubber (HNBR) is colored in blue for easy recognition.

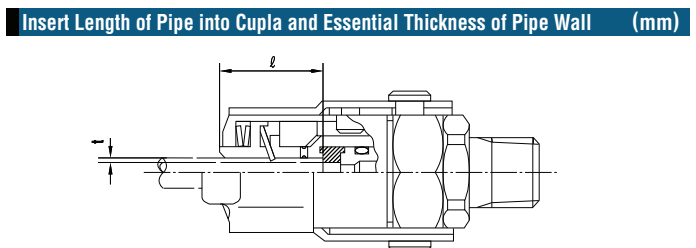
Max. Tightening Torque		Nm {kgf·cm}
Size (Thread)	1/4"	3/8"
Torque	9 {92}	12 {122}

### Flow Direction

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

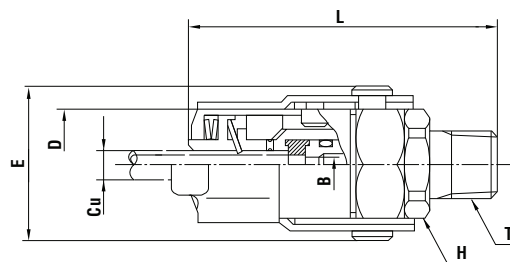
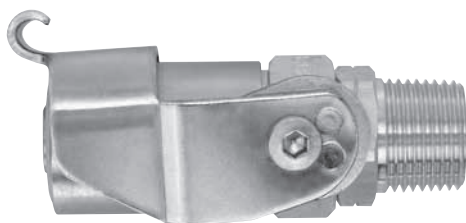
Min. Cross-Sectional Area (mm <sup>2</sup> )						
Model	PCV400	PCV470	PCV500	PCV600	PCV630	PCV800
Min. cross-sectional area	3.8	3.8	3.8	9.1	9.1	16.6
Model	PCV950	PCV1000	PCV1270-2	PCV1270-3	PCV1590-2	PCV1590-3
Min. cross-sectional area	16.6	16.6	50.3	73.9	50.3	78.5

Suitability for Vacuum		$1.3 \times 10^{-1}$ Pa { $1 \times 10^{-3}$ mmHg}
Cupla only	Operational	
	Operational	



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

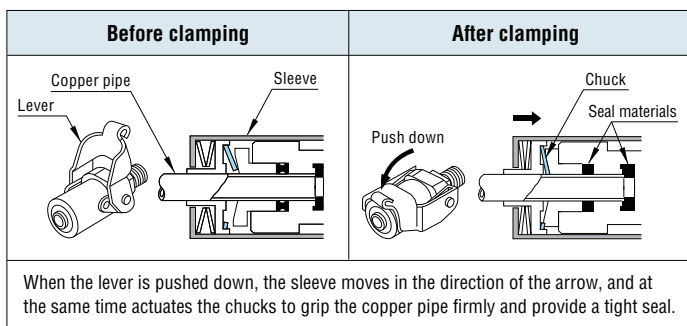
Model	Insert length of pipe into Cupla (l)	Essential thickness of pipe wall (t)
PCV400*	19	Minimum 0.8
PCV470		
PCV500*		
PCV600		
PCV630	20.5	Minimum 0.8
PCV800		
PCV950		
PCV1000*	30	Minimum 1.0
PCV1270		
PCV1590		



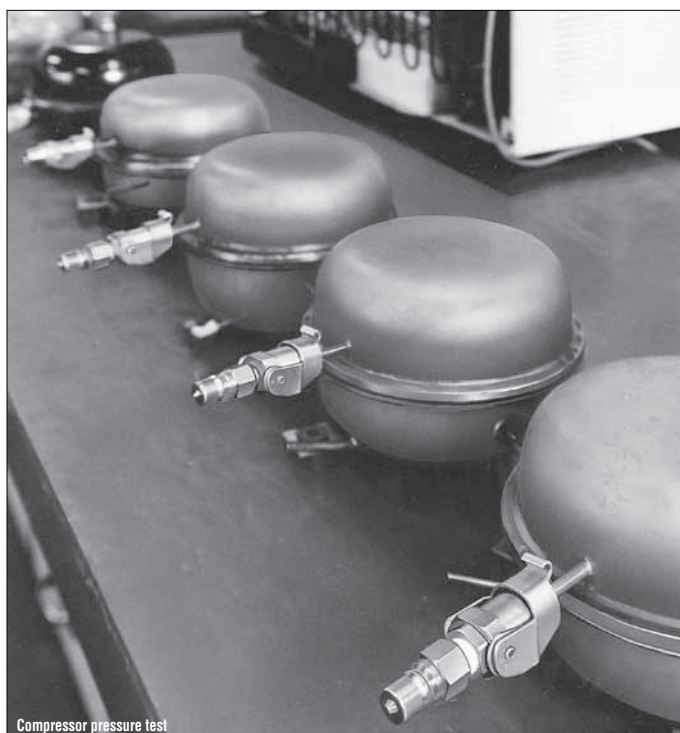
Model	Pipe OD (Cu)	Model	Size (T)	Mass (g)	Dimensions (mm)				
					L	H(WAF)	øB	øD	E
PCV400*	ø4.0	PCV400-2	R 1/4	155	(59)	Hex.17	2.2	22.2	(32.5)
		PCV400-3	R 3/8	155	(60)	Hex.19			
PCV470	ø4.76 (3/16")	PCV470-2	R 1/4	155	(60)	Hex.17	2.2	22.2	(32.5)
		PCV470-3	R 3/8	160	(61)	Hex.19			
		PCV470-0	Blind 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")	PCV1270-2	R 1/4	470	(80)	Hex.24	8.0	34.8	(45.0)
		PCV1270-3	R 3/8	465	(81)	Hex.24			
		PCV1270-0	Blind plug	475	(68)	-	-		
PCV1590	ø15.88 (5/8")	PCV1590-2	R 1/4	424	(80)	Hex.24	8.0	34.8	(45.0)
		PCV1590-3	R 3/8	435	(81)	Hex.24			
		PCV1590-0	Blind plug	445	(68)	-	-		

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

Clamping Mechanism



Application Example



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