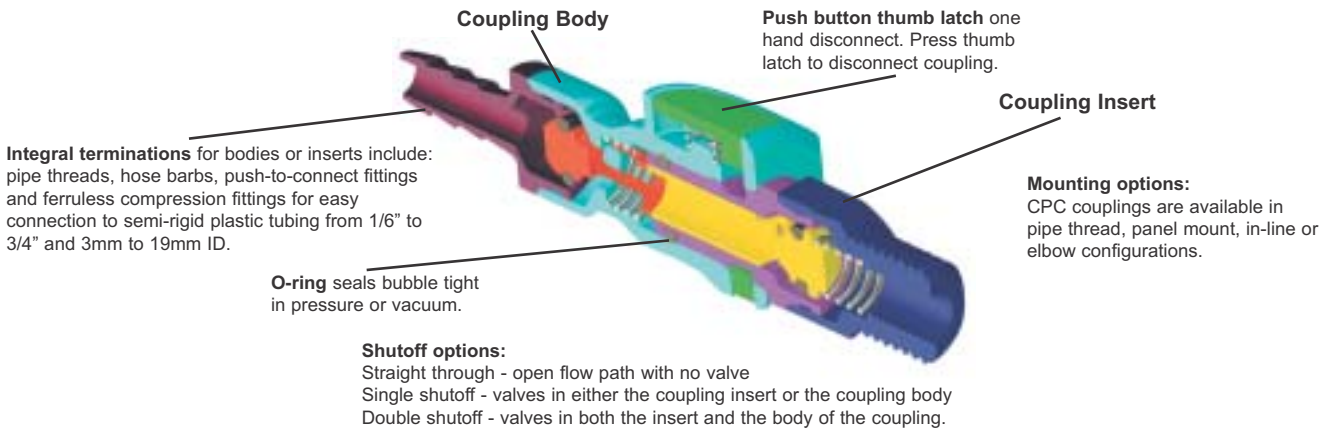




CPC quick disconnect couplings for plastic tubing provide numerous benefits: easy automatic latching, an “audible” click when engaged, reliable and convenient one-hand disconnect. They provide flexibility in a variety of materials, mounting options and terminations. CPC couplings can fit the most difficult tubing applications for reusable or disposable use.



**Integral terminations** for bodies or inserts include: pipe threads, hose barbs, push-to-connect fittings and ferrules compression fittings for easy connection to semi-rigid plastic tubing from 1/6" to 3/4" and 3mm to 19mm ID.

**Mounting options:** CPC couplings are available in pipe thread, panel mount, in-line or elbow configurations.

## Guide for Selecting a CPC Quick Disconnect Coupling

Low pressure (under 250 psi) applications for fluid power and fluid handling involve a great variety of media, pressure and temperatures. Use the following criteria checklist to simplify your selection process.

### 1. Media

The corrosiveness and viscosity of the fluid going through the coupling needs to be considered. Also be aware of any media the coupling may be exposed to externally.

### 2. Pressure

Consider the maximum pressure your coupling will need to withstand during operation. Couplings rated at 250 psi handle most low pressure applications. Make sure your application will never exceed the maximum coupling rating.

### 3. Temperature

To choose the most appropriate material, know your minimum and maximum temperature range. Standard temperature tolerances range from -40°F to 200 °F, depending on coupling material.

### 4. Flow

Determine flow requirements for your application such as GPM and pressure drop. Also consider the effects of shutoff options and your tubing connection on the coupling flow.

### 5. Mounting Options

Determine how the coupling is configured into your application. Common configurations include pipe thread, panel mount, in-line or elbow.

### 6. Shutoff Options

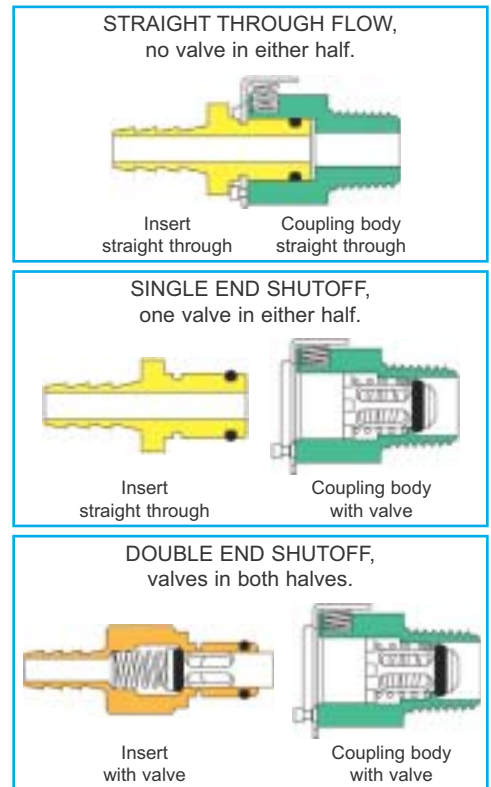
Shutoffs are convenient when a user needs to disconnect tubing and stop the flow of the media through the coupling. CPC couplings can provide shutoffs in either the insert or the body half or both.

### 7. Tubing Connections

Before selecting a coupling, consider the variety of available terminations. CPC couplings are made for 1/16" to 3/4" ID tubing. Hose barb, ferrules polytube fittings, and push-to-connect are the most common termination options. Threaded and panel mount options are also available.

### 8. Installation and Serviceability

Consider these three important elements when specifying a coupling into your design. Ease of installation, replacement and service are all improved by specifying CPC couplings.



## Finding The Best Material For The Job

**Acetal:** Acetal thermoplastic (Polyoxymethylene) is strong, lightweight, and economical and used for a wide variety of chemical and mechanical components.

**Polypropylene:** Polypropylene thermoplastic has excellent chemical resistance and withstands sterilisation. It is commonly used in water filtration and bioprocessing applications.

**Polysulfone (PSO):** Polysulfone thermoplastic has excellent strength, good chemical resistance, withstands repeated sterilisation, and withstands higher temperatures than other thermoplastics.

**Polycarbonate (PC):** Polycarbonate thermoplastic is resistant to chemicals, withstands sterilisation, and is transparent. It is commonly used in medical devices.

**Chrome-Plated Brass:** A rugged metallic material with an attractive appearance, excellent for higher pressure and temperature. It is commonly used in instrumentation, air and vacuum line applications.

**Stainless Steel:** A superior grade of steel with excellent chemical resistance and durability. Applications include instrumentation, pharmaceutical, semiconductor and speciality chemical.

**Aluminium:** A light weight and durable material that has good chemical resistance. Applications include automotive fluid recovery, marine and RV fluids, and cooling lines.



Sterilisation & Disinfectant Methods

Sterilisation processes vary substantially depending on equipment and specific process. Therefore, we present this sterilisation method chart as a basic guide only. Since so many factors affect the sterilisation capability of a material or device, it is the customer's responsibility to test CPC products under their own sterilisation conditions.

Table with columns: MATERIAL, Disinfectants (Formalin, Isopropyl Alcohol, Ethyl Alcohol), Ethylene Oxide, Autoclave, E-Beam Irradiation, Gamma Irradiation, Dry Heat. Rows include METALS (302 / 316 Stainless Steel, 6061 Aluminium, Chrome Plated Brass-CDA 360) and POLYMERS (ABS, Acetal, HDPE, LDPE, Nylon, Polycarbonate, Polypropylene, Polysulfone).

STERILISATION METHODS

Disinfectants 70°F (20°C), Formalin, ethyl, alcohol, etc. Sterilise coupled or uncoupled.
Ethylene Oxide, ETO 4 hours, 100% Eto @ 110°F (43°C), up to 5 repetitions, coupled or uncoupled.
Autoclave 250°F (121°C), 30 min. max., up to 10 repetitions. Sterilise uncoupled only.
Electron Beam Maximum cumulative exposure of 50 kilograys. Sterilise coupled or uncoupled.
Gamma Maximum cumulative exposure of 50 kilograys. Sterilise coupled or uncoupled.
Dry Heat 250°F (121°C), 12 hour, no pressure. Sterilise uncoupled only.

NOTE: Testing conducted at room temperature except where noted.

Legend for sterilisation methods: Blue box = Yes, recommended material; Pink box = No, not recommended; White box = Not applicable.

Chemical Compatibility

Chemicals can affect the strength, surface appearance, colour, dimensions or weight of plastics. Therefore, we present this chemical resistance chart as a basic guide only. Because many factors affect the chemical resistance of a given material, it is the customer's responsibility to test CPC products under their own application conditions.

Large table with columns: MATERIAL, Acetic Acid, Acetone, Air, Ammonia, Anhydrous, Benzene, Carbon Dioxide, Chlorine Water, Ethanol (Ethyl Alcohol), Ethylene Glycol, Gasoline, Unleaded, Hydrochloric Acid, Hydrofluoric Acid, Isopropyl Alcohol, Methyl Ethyl Ketone (MEK), Methanol (Methyl Alcohol), Oxygen, Ozone, Sodium Hypochlorite, Steam, Sulfuric Acid, Air Free, Toluene, Trichloroethylene, Water, Fresh. Rows include METALS (Chrome-Plated Brass, Stainless Steel (316), Aluminium) and POLYMERS (Acetal, Polycarbonate, Polypropylene, Polysulfone, Peek).

NOTE: All ratings are based on concentration level at 100% and temperature at 21°C.

Legend for chemical compatibility: A Excellent, no apparent effect; B Good, little or no effect; C Fair, some effect, not long term; D Not recommended, severe effect; N/A Not applicable.



1/8" FLOW, MC SERIES

MC Series couplings offer 1/8" flow along with the durability and attractiveness of chrome-plated brass. They provide excellent service at higher pressures.



MC SERIES FEATURES

- Pipe thread, panel mount, in line and elbow configurations
- Available in NSF C-2 listed versions
- Single side, double side shutoff or straight through flow
- Stainless steel valves and Viton seals for high temperature applications available

APPLICATIONS

- Air lines
- Beverage supply lines
- Instrumentation
- Water lines
- Heating / cooling baths (high temperature version)

COUPLING BODIES 1/8" FLOW

	PART NO.	CONNECTION	TUBING SIZE	METRIC EQ.	LENGTH	
<b>PIPE THREAD</b>						
		<b>Male Thread - Valved</b>				
	MCD 10-02	1/8" NPT			1.00"	
	MCD 10-04	1/4" NPT			1.10"	
	MCD 10-020	1/8" BSPT			1.00"	
	MCD 10-040	1/4" BSPT			1.00"	
		<b>Male Thread - Un-Valved</b>				
	MC 10-02	1/8" NPT			1.00"	
	MC 10-04	1/4" NPT			1.10"	
		<b>Male Thread - Un-Valved</b>				
MC 10-020	1/8" BSPT			1.00"		
MC 10-040	1/4" BSPT			1.00"		
<b>PANEL MOUNT</b>						
		<b>Ferruleless Polytube Fitting, PTF - Valved</b>				
	MCD 12-025		5/32"OD .10"ID	4 x 2.5 mm	1.67"	
MCD 12-04		1/4"OD .170"ID	6 x 4.3 mm	1.77"		
		<b>Ferruleless Polytube Fitting, PTF - Un-Valved</b>				
	MC 12-025		5/32"OD .10"ID	4 x 2.5 mm	1.67"	
MC 12-04		1/4"OD .170"ID	6 x 4.3 mm	1.77"		
		<b>Hose Barb - Valved</b>				
	MCD 16-02		1/8"ID	3.2 mm ID	1.67"	
	MCD 16-03		3/16"ID	4.8 mm ID	1.89"	
MCD 16-04		1/4"ID	6.4 mm ID	1.89"		
		<b>Hose Barb - Un-Valved</b>				
	MC 16-02		1/8"ID	3.2 mm ID	1.67"	
	MC 16-03		3/16"ID	4.8 mm ID	1.89"	
MC 16-04		1/4"ID	6.4 mm ID	1.89"		
	MCD 15-02	<b>Male Thread - Valved</b>			1.20"	
		1/8" NPT				
	MC 15-02	<b>Male Thread - Un-Valved</b>			1.20"	
		1/8" NPT				
	MCD 18-1032	<b>Female Thread - Valved</b>			1.22"	
		10-32 UNF				
	MC 18-1032	<b>Female Thread - Un-Valved</b>			1.22"	
		10-32 UNF				
<b>IN LINE</b>						
		<b>Ferruleless Polytube Fitting, PTF - Valved</b>				
	MCD 13-04		1/4"OD .170"ID	6 x 4.3 mm	1.77"	
	MC 13-04	<b>Ferruleless Polytube Fitting, PTF - Un-Valved</b>			1.77"	
		1/4"OD .170"ID		6 x 4.3 mm		
		<b>Hose Barb - Valved</b>				
	MCD 17-02		1/8"ID	3.2 mm ID	1.67"	
	MCD 17-03		3/16"ID	4.8 mm ID	1.89"	
MCD 17-04		1/4"ID	6.4 mm ID	1.89"		
		<b>Hose Barb - Un-Valved</b>				
	MC 17-02		1/8"ID	3.2 mm ID	1.67"	
	MC 17-03		3/16"ID	4.8 mm ID	1.89"	
MC 17-04		1/4"ID	6.4 mm ID	1.89"		
	STAINLESS STEEL VERSION FOR HIGH TEMPERATURE AVAILABLE KEYED COLOUR-CODED VERSION AVAILABLE					