

# HFC12 SERIES CONNECTOR



**HFC12 Series couplings** have flow comparable to many 1/2" flow couplings in a 3/8" body size. Compact and lightweight, HFC couplings replace bulky and heavy brass ball-and-sleeve couplings in a wide range of applications. An ergonomic design and a large, shrouded thumb latch pad produce a coupling that is easy to grip and simple to operate. An efficient valve design leads to high flow and low spillage.

## FEATURES

- High efficiency valve
- Ergonomic design
- Polypropylene material
- Compatible

## BENEFITS

- More flow in a compact size
- Easy to grip, simple to operate
- Chemically resistant and gamma sterilizable
- Mates with HFC35 and HFC57 couplings

## Specifications ● ● ●

### PRESSURE:

Vacuum to 60 psi, 4.2 bar

### TEMPERATURE:

32°F to 160°F (0°C to 71°C)

### MATERIALS:

- Main components and valves:** Polypropylene
- Thumb latch:** Polypropylene
- Valve spring (wetted):** 316 stainless steel
- External springs:** 316 stainless steel
- O-rings:** EPDM
- Panel mount gasket:** EPDM
- Compression nut, gripper, ferrule:** Polypropylene

### COLOR:

Gray with dark gray latch

### TUBING SIZES:

3/8" to 3/4" ID, 9.5mm to 19.0mm ID

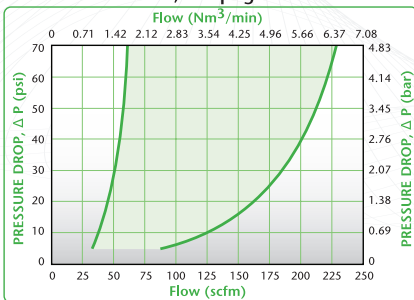
**WARNING:** Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.

For compression termination specifications: 3/8" OD or 1/2" OD, +0.010/-0.000

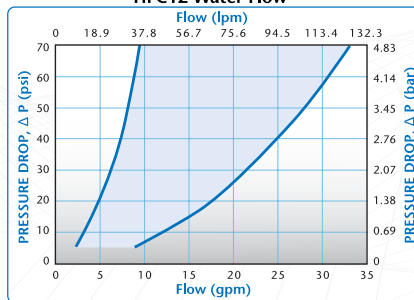
*Note: Optional o-ring and spring materials are available, please contact CPC for details.*

⚠ These graphs are intended to give you a general idea of the performance capabilities of each product line. The shaded area of each graph represents the operating range of the product family, i.e., upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.

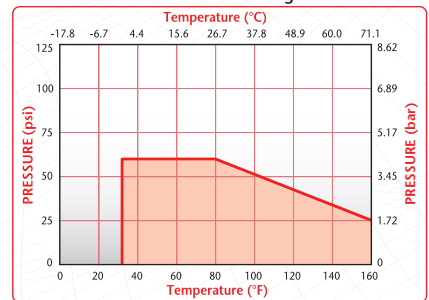
**HFC12 Air Flow, 100 psig Inlet Pressure**



**HFC12 Water Flow**



**HFC12 Pressure Range**



**NOTES:**

**Liquid Flow Rate Information for Couplings**

The chart below shows the flow rate for CPC couplings. Each coupling was tested with water at 70°F (21°C). To determine flow rates for specific coupling configurations use the formula at the right.

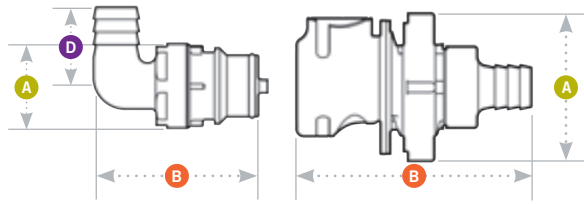
$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

- Q = Flow rate in gallons per minute
- C<sub>v</sub> = Average coefficient across various flow rates (see chart)
- ΔP = Pressure drop across coupling (psi)
- S = Specific gravity of liquid

**C<sub>v</sub> VALUES FOR HFC12 COUPLINGS**

BODIES	INSERTS	HFC 22612	HFCD 22612	HFC 22812	HFCD 22812	HFC 23612	HFCD 23612	HFC 23812	HFCD 23812	HFC 24612	HFCD 24612	HFC 24812	HFCD 24812	HFCD 221212	HFC 221212
	HFCD10612	1.27	1.27	1.62	1.51	1.14	1.14	1.46	1.36	1.80	1.58	1.70	1.65	-	-
	HFCD10812	1.28	1.34	1.62	1.51	1.15	1.24	1.46	1.36	1.81	1.54	1.72	1.56	-	-
	HFCD16612	1.07	1.00	1.17	1.14	0.96	0.90	1.05	1.03	1.33	1.26	1.30	1.24	-	-
	HFCD16812	1.25	1.23	1.61	1.52	1.13	1.11	1.45	1.37	1.79	1.60	1.68	1.56	-	-
	HFCD17612	1.07	1.00	1.17	1.14	0.96	0.90	1.05	1.03	1.33	1.26	1.30	1.24	-	-
	HFCD17812	1.25	1.23	1.61	1.52	1.13	1.11	1.45	1.37	1.79	1.60	1.68	1.56	-	-
	HFC171212	-	-	-	-	-	-	-	-	-	-	-	-	3.94	-
	HFCD171212	-	-	-	-	-	-	-	-	-	-	-	-	-	2.04

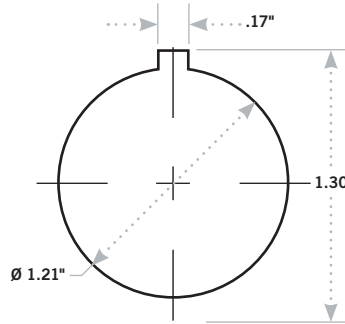
# HFC12 DIMENSIONS



- A = Height/Diameter
- B = Total Length
- D = Elbow Radial Length

## Panel Dimensions

COUPLING BODIES	PANEL OPENING	PANEL THICKNESS MAX.-MIN.
	see drawing	.25- .03



Gasket Thickness: .06"  
 Mounting Hole: 1.21" diameter  
 Coupling Spacing: 1.92" minimum

## Coupling Bodies • POLYPROPYLENE

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B
IN-LINE PIPE THREAD	3/8" NPT		HFC10612	HFCD10612	1.44	2.69
	3/8" BSPT		HFC10612BSPT	HFCD10612BSPT	1.44	2.72
	1/2" NPT		HFC10812	HFCD10812	1.44	2.88
	3/4" NPT		HFC101212	HFCD101212	1.44	3.07
BULKHEAD PANEL MOUNT HOSE BARB	3/8" ID	9.5mm ID	HFC16612	HFCD16612	1.82	2.82
	1/2" ID	12.7mm ID	HFC16812	HFCD16812	1.82	2.82
	5/8" ID	15.9mm ID	HFC161012	HFCD161012	1.82	2.94
	3/4" ID	19.0mm ID	HFC161212	HFCD161212	1.82	2.94
BULKHEAD PANEL MOUNT COMPRESSION	3/8" OD	9.5mm OD	HFC12612	HFCD12612	1.82	2.96
	1/2" OD	12.7mm OD	HFC12812	HFCD12812	1.82	3.11
IN-LINE HOSE BARB	3/8" ID	9.5mm ID	HFC17612	HFCD17612	1.44	2.79
	1/2" ID	12.7mm ID	HFC17812	HFCD17812	1.44	2.79
	5/8" ID	15.9mm ID	HFC171012	HFCD171012	1.44	2.94
	3/4" ID	19.0mm ID	HFC171212	HFCD171212	1.44	2.94
IN-LINE COMPRESSION	3/8" OD	9.5mm OD	HFC13612	HFCD13612	1.44	2.96
	1/2" OD	12.7mm OD	HFC13812	HFCD13812	1.44	3.11

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.

## Accessories

DESCRIPTION	MATERIAL	PART NO.
PANEL MOUNT GASKET REPLACEMENT: For sealing panel mount bodies listed above	EPDM	621200

Also available in NSF listed versions, please visit our website for part number information.



## Coupling Inserts • POLYPROPYLENE



### TERMINATION IN-LINE PIPE THREAD

#### TUBING/THREAD SIZE METRIC EQ.

#### STRAIGHT THRU

#### SHUTOFF

**A**

**B**

**D**

### IN-LINE HOSE BARB (non-valved shown)

### IN-LINE COMPRESSION (non-valved shown)

### ELBOW HOSE BARB (non-valved shown)

3/8" NPT			HFC24612	HFCD24612	1.16	1.77/1.89	
3/8" BSPT			HFC24612BSPT	HFCD24612BSPT	1.16	1.80/1.92	
1/2" NPT			HFC24812	HFCD24812	1.16	1.95/2.07	
3/4" NPT			HFC241212	HFCD241212	1.23	2.14/2.26	
3/8" ID	9.5mm ID		HFC22612	HFCD22612	1.00	1.97/2.09	
1/2" ID	12.7mm ID		HFC22812	HFCD22812	1.00	1.97/2.09	
5/8" ID	15.9mm ID		HFC221012	HFCD221012	1.00	2.01/2.13	
3/4" ID	19.0mm ID		HFC221212	HFCD221212	1.00	2.14/2.26	
3/8" OD	9.5mm OD		HFC20612	HFCD20612	1.00	2.14/2.26	
1/2" OD	12.7mm OD		HFC20812	HFCD20812	1.00	2.29/2.41	
3/8" ID	9.5mm ID		HFC23612	HFCD23612	1.00	1.93/2.05	.93
1/2" ID	12.7mm ID		HFC23812	HFCD23812	1.00	1.97/2.09	.93
3/4" ID	19.0mm ID		HFC231212	HFCD231212	1.00	1.95/2.07	.93

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. Couplings are pictured with valves unless otherwise noted.

## DID YOU KNOW?

**WHEN SELECTING A VALVED COUPLING FOR YOUR APPLICATION**, make sure to order a part number with a D just before the numeric portion of the part number. For example, HFC101212 does not have a shutoff valve; HFCD101212 would be the correct part number to order for a valved coupling.

To visually identify a part to determine whether or not it is valved, disconnect the coupling body and insert, and then look through the part. If you can see light all the way through, your part is non-valved. If there is anything obstructing the light, you probably have a valved part. Please contact Customer Service at 1-800-444-2474 or 651-645-0091 if you need further assistance.