

HFC12 SERIES



**Patented 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	Benefits
High efficiency valve	More flow in a compact size
Ergonomic design	Easy to grip, simple to operate
Polypropylene material	Chemically resistant and gamma sterilizable
Compatible	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

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

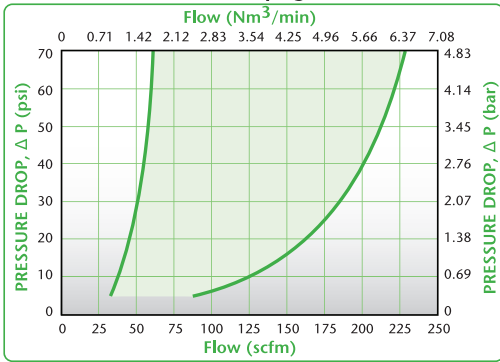
**WARNING:** Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of Colder products in their own application conditions. Use the graphs on the following page as a guide.

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

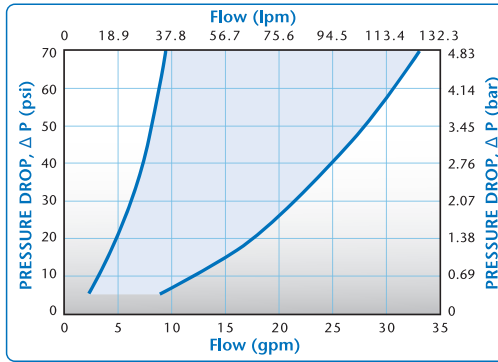
*Also available in  
NSF listed versions,  
please visit our web  
site for part number  
information*



HFC12 Air Flow, 100 psig Inlet Pressure

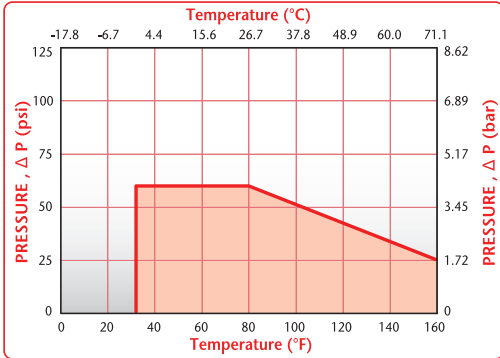


HFC12 Water Flow



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 Pressure Range



Don't forget: you can always visit [www.colder.com](http://www.colder.com) for more product information.



**DID YOU KNOW ...**  
 Colder offers over 7,000 couplings for a wide variety of applications such as low-pressure air and fluid line connections, high-purity chemical management and bioprocessing connectors. Contact us at 1-800-444-2474 or 651-645-0091 to learn how Colder can make your connections *cleaner, faster, safer and smarter!*

## Liquid Flow Rates

### Liquid Flow Rate Information for Couplings

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

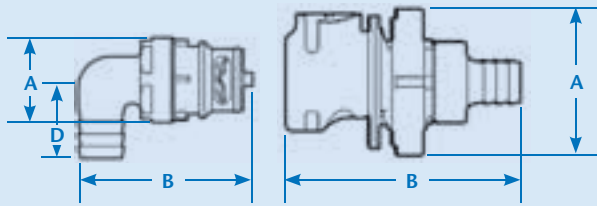
$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

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

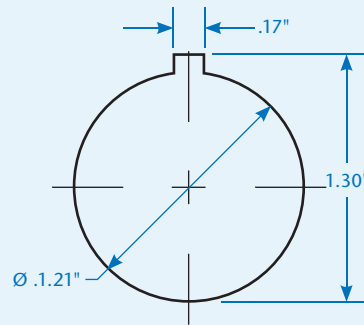
### C<sub>v</sub> Values for High Flow Couplings (HFC12)

BODIES	HFC 22612	HFCD 22612	HFC 22812	HFCD 22812	HFC 23612	HFCD 23612	HFC 23812	HFCD 23812	HFC 24612	HFCD 24612	HFC 24812	HFCD 24812	HFC 221212	HFCD 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

## Product Dimensions



A = Height/Diameter  
 B = Total Length (including valve)  
 D = Elbow Radial Length



Gasket Thickness: .06"  
 Mounting Hole: 1.21" diameter  
 Coupling Spacing: 1.62" minimum

	PANEL OPENING	MAX. PANEL THICKNESS	MIN. PANEL THICKNESS
<b>COUPLING BODIES</b>	see drawing	.25	.03

## Coupling Bodies

### POLYPROPYLENE



**TERMINATION**  
 IN-LINE  
 PIPE THREAD

**THREAD SIZE**  
 3/8" NPT  
 3/8" BSPT  
 1/2" NPT  
 3/4" NPT

**STRAIGHT THRU**  
 HFC10612  
 HFC10612BSPT  
 HFC10812  
 HFC101212

**SHUTOFF**  
 HFCD10612  
 HFCD10612BSPT  
 HFCD10812  
 HFCD101212

A	B
1.44	2.69
1.44	2.72
1.44	2.88
1.44	3.07



**TERMINATION**  
 BULKHEAD PANEL  
 MOUNT  
 HOSE BARB

**TUBING SIZE**  
 3/8" ID  
 1/2" ID  
 5/8" ID  
 3/4" ID

**METRIC EQ.**  
 9.5mm ID  
 12.7mm ID  
 15.9mm ID  
 19.0mm ID

**STRAIGHT THRU**  
 HFC16612  
 HFC16812  
 HFC161012  
 HFC161212

**SHUTOFF**  
 HFCD16612  
 HFCD16812  
 HFCD161012  
 HFCD161212

A	B
1.82	2.82
1.82	2.82
1.82	2.94
1.82	2.94



**TERMINATION**  
 BULKHEAD  
 PANEL MOUNT  
 COMPRESSION

**TUBING SIZE**  
 3/8" OD  
 1/2" OD

**METRIC EQ.**  
 9.5mm OD  
 12.7mm OD

**STRAIGHT THRU**  
 HFC12612  
 HFC12812

**SHUTOFF**  
 HFCD12612  
 HFCD12812

A	B
1.82	2.96
1.82	3.11



**TERMINATION**  
 IN-LINE  
 HOSE BARB

**TUBING SIZE**  
 3/8" ID  
 1/2" ID  
 5/8" ID  
 3/4" ID

**METRIC EQ.**  
 9.5mm ID  
 12.7mm ID  
 15.9mm ID  
 19.0mm ID

**STRAIGHT THRU**  
 HFC17612  
 HFC17812  
 HFC171012  
 HFC171212

**SHUTOFF**  
 HFCD17612  
 HFCD17812  
 HFCD171012  
 HFCD171212

A	B
1.44	2.79
1.44	2.79
1.44	2.94
1.44	2.94



**TERMINATION**  
 IN-LINE  
 COMPRESSION

**TUBING SIZE**  
 3/8" OD  
 1/2" OD

**METRIC EQ.**  
 9.5mm OD  
 12.7mm OD

**STRAIGHT THRU**  
 HFC13612  
 HFC13812

**SHUTOFF**  
 HFCD13612  
 HFCD13812

A	B
1.44	2.96
1.44	3.11

## Accessories



**PANEL MOUNT  
 GASKET  
 REPLACEMENT**

For sealing panel mount bodies listed above

**MATERIAL**  
 EPDM

**PART NO.**  
 621200

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

# POLYPROPYLENE

<b>TERMINATION</b> <i>IN-LINE</i> <i>PIPE THREAD</i>	<b>THREAD SIZE</b> 3/8" NPT 3/8" BSPT 1/2" NPT 3/4" NPT		<b>STRAIGHT THRU</b> HFC24612 HFC24612BSPT HFC24812 HFC241212	<b>SHUTOFF</b> HFCD24612 HFCD24612BSPT HFCD24812 HFCD241212	<b>A</b> 1.16 1.16 1.16 1.23	<b>B</b> 1.77/1.89 1.80/1.92 1.95/2.07 2.14/2.26	
<b>TERMINATION</b> <i>IN-LINE</i> <i>HOSE BARB</i>	<b>TUBING SIZE</b> 3/8" ID 1/2" ID 5/8" ID 3/4" ID	<b>METRIC EQ.</b> 9.5mm ID 12.7mm ID 15.9mm ID 19.0mm ID	<b>STRAIGHT THRU</b> HFC22612 HFC22812 HFC221012 HFC221212	<b>SHUTOFF</b> HFCD22612 HFCD22812 HFCD221012 HFCD221212	<b>A</b> 1.00 1.00 1.00 1.00	<b>B</b> 1.97/2.09 1.97/2.09 2.01/2.13 2.14/2.26	
<b>TERMINATION</b> <i>IN-LINE</i> <i>COMPRESSION</i>	<b>TUBING SIZE</b> 3/8" OD 1/2" OD	<b>METRIC EQ.</b> 9.5mm OD 12.7mm OD	<b>STRAIGHT THRU</b> HFC20612 HFC20812	<b>SHUTOFF</b> HFCD20612 HFCD20812	<b>A</b> 1.00 1.00	<b>B</b> 2.14/2.26 2.29/2.41	
<b>TERMINATION</b> <i>ELBOW</i> <i>HOSE BARB</i>	<b>TUBING SIZE</b> 3/8" ID 1/2" ID 3/4" ID	<b>METRIC EQ.</b> 9.5mm ID 12.7mm ID 19.0mm ID	<b>STRAIGHT THRU</b> HFC23612 HFC23812 HFC231212	<b>SHUTOFF</b> HFCD23612 HFCD23812 HFCD231212	<b>A</b> 1.00 1.00 1.00	<b>B</b> 1.93/2.05 1.97/2.09 1.95/2.07	<b>D</b> .93 .93 .93



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 shut-off 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.

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.

C  
L  
E  
A  
N  
E  
R  
F  
A  
S  
T  
E  
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S  
A  
F  
E  
R  
S  
M  
A  
R  
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R