

# Selection Guide for OMEGA® Quick Disconnects & Fittings

OMEGA's couplings and fittings are widely used in industrial plants, machine shops, labs, and in the home in many consumer products. Their unique design and ease of operation add value to any plastic tubing connection.

Over 800 OMEGA® couplings and fittings make tubing connections easier. Local assistance in specifying couplings or fluid connections is available from our worldwide distributor network.



## Custom designed couplings and fittings for OEM's.

Thousands of unique coupling and fitting application solutions have come from OMEGA's engineering staff. They're ready to work with you and your OEM designers to meet your special requirements.

Our assortment of quick disconnects gives you many choices. Shown here: the Subminiature, Chrome-Plated Brass, MC; Delrin Acetal, FT-PLC; 1/4" Extra Flow Coupling and 3/8" High Flow Coupling.

## Thermoplastic Quick Disconnect Couplings



**Delrin Acetal Coupling, 1/8" Flow FT-PMC, see page L-99**

1/8" flow Delrin acetal couplings with general chemical resistance for all-around use. Ideal for pneumatic, liquid, gas and vacuum applications.



**Delrin Acetal Coupling, 1/4" Flow FT-PLC, see page L-101**

1/4" flow Delrin acetal couplings with general chemical resistance for all-around use. Ideal for pneumatic, liquid, gas and vacuum applications.



**Polypropylene Coupling, FT-PMC-12 & FT-PLC-12, see page L-103**

1/8" and 1/4" flow, polypropylene material for increased chemical resistance. An economical replacement for stainless steel couplings. Ideal for chemical handling, laboratories, instrumentation, and caustic environments.

**New High Flow Thermoplastic Quick Disconnect Couplings...**



**High Flow Coupling, FT-HFC-12, see page L-105**  
 OMEGA's high capacity polypropylene coupling for 3/8", 1/2" and 3/4" tubing. 3/8" flow path minimizes pressure drop with high viscosity fluids or chemicals.



**New Polysulfone High Flow Coupling, FT-HFC-35, see page L-107**

Higher temperature and pressure quick disconnect with 3/8" flow path for minimal pressure drop. Hose barb ends for 3/8", 1/2" and 3/4" tubing.



**Streamline Coupling, 1/8" Flow FT-PMC, 1/4" Flow FT-PLC, see pages L-99 & L-101**

New streamlined design makes this in-line coupling more affordable for tight budget OEM applications. Ergonomic enhancements make it easier to disconnect.



**Subminiature Coupling, FT-SMC, see page L-109**

The small twist lock coupling with a leak-free O-Ring seal. For 1/16" and 1/8" ID tubing.

# Chrome-Plated Brass Couplings

## Chrome-Plated Brass Coupling, 1/8" Flow FT-MC, see page L-111

1/8" flow brass couplings are durable and attractive. Rated to 250 psi for higher pressure applications: air supply lines, cooling lines, beverage dispensing and instrumentation.



OMEGA® standard chrome-plated brass couplings have Delrin acetal valves and Buna-N seals. Other valve and O-Ring materials are available.



## Chrome-Plated Brass Coupling, 1/4" Flow FT-LC, see page L-113

1/4" flow brass couplings are a larger flow quick coupling. Rated to 250 psi for higher pressure applications: air supply lines, cooling lines, beverage dispensing and instrumentation.



## Keyed & Color-Coded Chrome-Plated Brass, see page L-116

Three unique mechanically keyed and color-coded quick disconnect configurations prevent interchange of fluid lines.

# Specialty Couplings



**Multitube Couplings, see page L-117**

Quickly connect up to ten tubing lines with a single connector. Connections for both 1/16" and 1/8" tubing.



**Multiple Mount Couplings, see page L-119**

Connect 3 to 5 tubing lines at once with standard quick couplings. Delrin acetal or chrome-plated brass couplings.



**Shutoff Valves, see page L-122**

Easy-to-use in-line shutoff valve controls flow. Available for 1/8" to 3/8" ID tubing.

# Fittings & Accessories

**Soft Tubing Fittings, see page L-123**

Easy-to-use, clamp-free fittings won't damage tubing. Made for flexible vinyl tubing in 1/4", 3/8" and 1/2" ID sizes.



L-96

L  
FLOW

# OMEGA® Quick Disconnect Couplings For Small Plastic Tubing

**OMEGA® Couplings** add the convenience of quick disconnect coupling with easy operation. Press the thumb latch and the coupling halves separate. Connection is just as easy: simply push the two halves together. An audible “click” along with a positive feel assures you of a reliable leak-free connection.

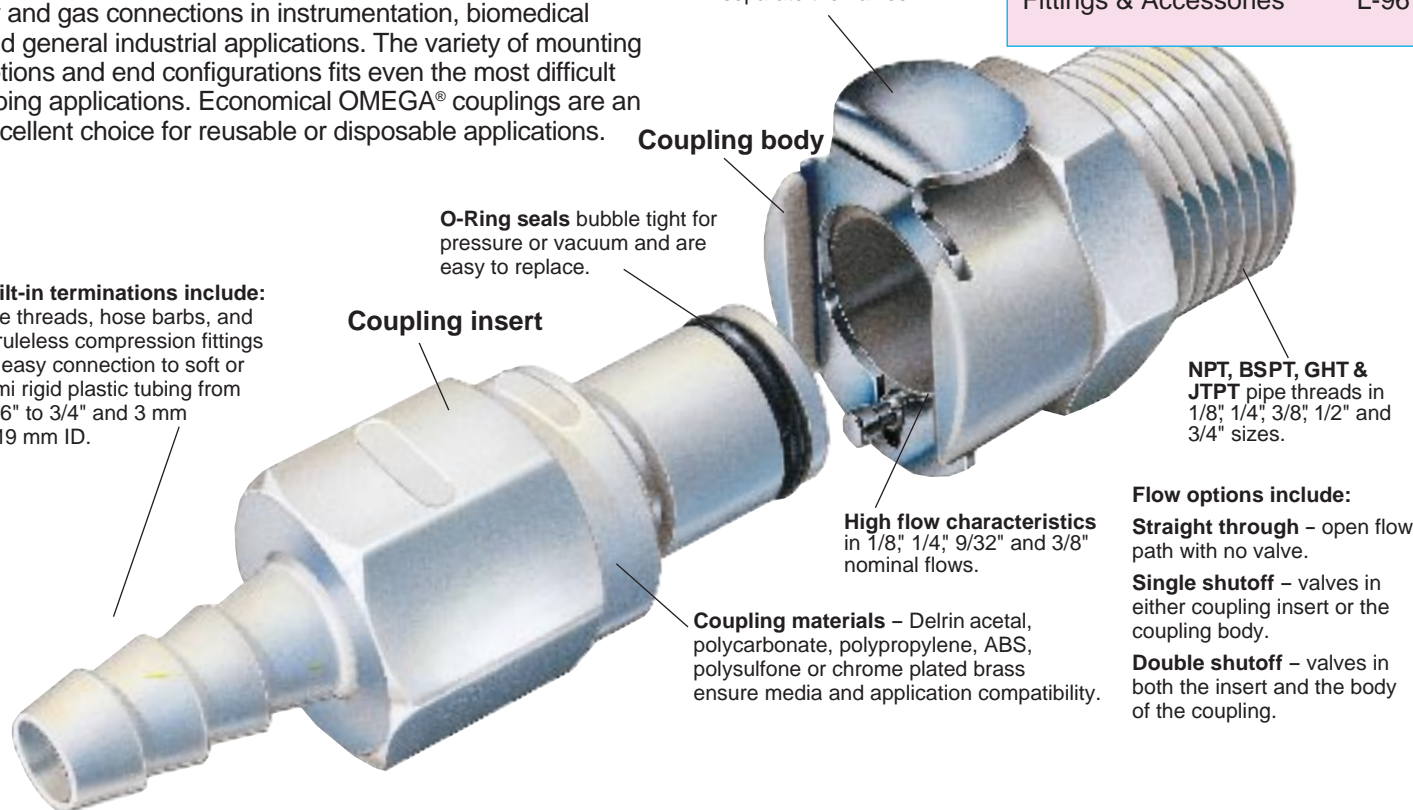
**Proven reliable**, OMEGA® couplings are used for liquid, air and gas connections in instrumentation, biomedical and general industrial applications. The variety of mounting options and end configurations fits even the most difficult tubing applications. Economical OMEGA® couplings are an excellent choice for reusable or disposable applications.

**Built-in terminations include:** pipe threads, hose barbs, and ferruleless compression fittings for easy connection to soft or semi rigid plastic tubing from 1/16" to 3/4" and 3 mm to 19 mm ID.

**Automatic latching**  
To connect coupling—slide insert into body, feel the latch engage, hear the click. It's secure.  
**One-hand disconnect**—press thumb latch and separate the halves.

**OMEGA Engineering** is the leader in small tubing connections. Our worldwide sales and distributor network provides service and technical support to meet customer needs. Find the connection you need on these pages or call us at 1-800-TC-OMEGA®.

Coupling Basics	L-97
How to Select	L-126
Thermoplastic Couplings	L-93
Chrome-Plated Brass	L-95
Specialty Couplings	L-96
Fittings & Accessories	L-96



## Coupling Materials

### DELTRIN ACETAL THERMOPLASTIC

A general purpose thermoplastic material that is lightweight, non-corrosive, strong and economical.

**Applications:** Air, oil, water, or gas supply and drainage lines, beverage or food handling.

### POLYPROPYLENE THERMOPLASTIC

Chemically resistant; replaces heavy brass or stainless steel couplings. Gamma sterilizable.

**Applications:** Chemicals, photo processing, laboratory work, caustic fluid and gas transfer, medical disposables.

### POLYSULFONE THERMOPLASTIC

Superior strength and good chemical resistance, ideal for strong oxidants, hot/cold liquids. Withstands repeated sterilization.

**Applications:** Bleach, chemicals, hot water, gas transfer, potable water systems, medical uses requiring autoclaving.

### CHROME-PLATED BRASS

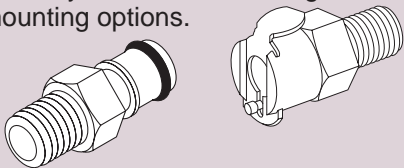
Durable and attractive, chrome-plated brass quick couplings are excellent for higher pressures and temperatures.

**Applications:** Pneumatic air supply, instrumentation, cooling and high temperature lines.

# Shutoff Valves & Flow Characteristics

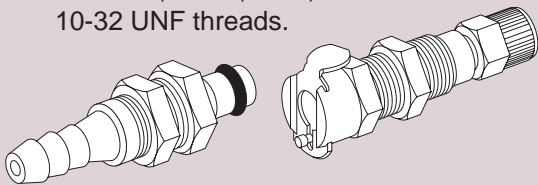
## Mounting Configurations

Quick couplings and connectors add versatility and convenience to any fluid handling system. OMEGA® couplings are economical and easy to install. They quickly pay for themselves in labor and maintenance cost savings. OMEGA's leak free couplings include a variety of built-in end fitting and mounting options.



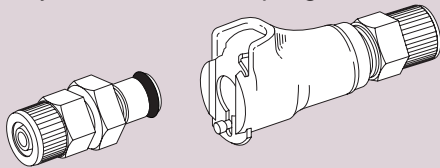
### RIGID MOUNT

Pipe threads are standard for body and insert halves of most plastic and brass couplings. Sizes include 1/8" to 3/4" NPT, BSPT, GHT, JTPT and 10-32 UNF threads.



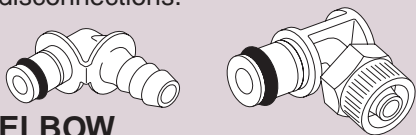
### PANEL MOUNT

Easy to mount in panels up to 1/2" thick. Available for both insert and body halves of the coupling.



### IN LINE

Convenient configuration for tube splicing. Built-in thumb latch shroud protects against accidental disconnections.



### ELBOW

OMEGA's 90° elbows are available for inserts with both hose barbs and ferruleless fitting connections.

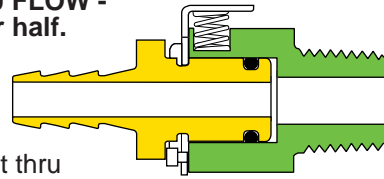
**Interchangeable Bodies & Inserts**  
Delrin and chrome-plated brass coupling halves are interchangeable. Polypropylene coupling halves cannot be interchanged with other materials.

## Valving Options

Valves stop flow automatically when the coupling is disconnected. Shutoff valves are available in both the body and insert half of the coupling.

### STRAIGHT THRU FLOW - no valve in either half.

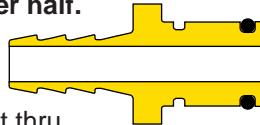
Insert, straight thru



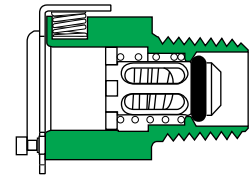
Coupling body, straight thru

### SINGLE END SHUTOFF - one valve in either half.

Insert, straight thru

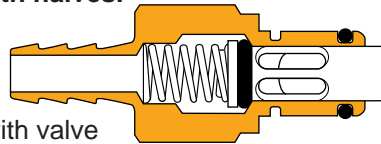


Coupling body, with valve

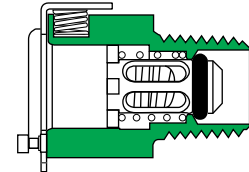


### DOUBLE END SHUTOFF - valves in both halves.

Insert, with valve

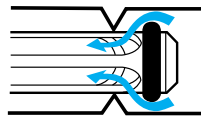


Coupling body, with valve

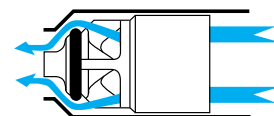


## High Flow Valves

OMEGA® couplings provide the highest flowrate with the smallest pressure drop of any comparable coupling on the market. Two different OMEGA® valve designs fit most applications:



FT-MC/PMC & FT-LC/PLC Series valves

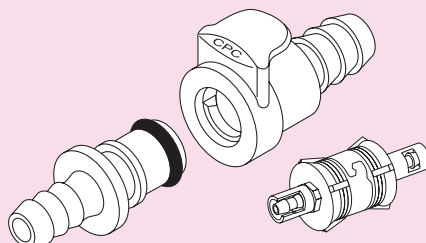
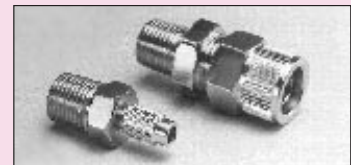


High Flow coupling, FT-HFC Series valves

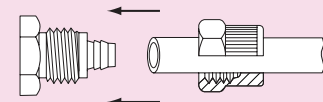
## Tubing Connections

### HOSE BARBS

Ideal for PVC, polyurethane and other rubber and plastic tubing. Available for 1/16" to 3/4" and 3 mm to 19 mm ID tubing sizes.



1/16" hose barb has patented shroud to protect the barb from side load damage and prevent tube kinks. U.S. Patent #4703957.



### FERRULELESS, PTF

OMEGA's unique ferruleless design ensures leak-free connections to semi-rigid tubing such as polyethylene or nylon. Available for 5/32", 1/4" and 3/8" OD tubing (and metric equivalents).

L  
FLOW

# Over 100,000 Products Available Online at [omega.com](http://omega.com)

## TEMPERATURE

- ☑ Thermocouple, RTD & Thermistor Probes, Connectors, Panels & Assemblies
- ☑ Calibrators & Ice Point References
- ☑ Recorders, Controllers & Process Monitors
- ☑ Infrared Pyrometers

## PRESSURE, STRAIN AND FORCE

- ☑ Transducers & Strain Gages
- ☑ Displacement Transducers
- ☑ Instrumentation & Accessories

## FLOW/LEVEL

- ☑ Rotameters, Gas Mass Flowmeters & Flow Computers
- ☑ Air Velocity Indicators
- ☑ Turbine/Paddlewheel Systems

## pH/CONDUCTIVITY

- ☑ pH Electrodes, Testers & Accessories
- ☑ Benchtop/Laboratory Meters
- ☑ Controllers, Calibrators, Simulators & Pumps
- ☑ Industrial pH & Conductivity Equipment

## DATA ACQUISITION

- ☑ Data Acquisition & Engineering Software
- ☑ Communications-Based Acquisition Systems
- ☑ Plug-in Cards for Apple, IBM & Compatibles
- ☑ Recorders, Printers & Plotters

## HEATERS

- ☑ Heating Cable, Cartridge & Strip Heaters
- ☑ Immersion & Band Heaters
- ☑ Flexible Heaters

## ENVIRONMENTAL

### MONITORING AND CONTROL

- ☑ Metering & Control Instrumentation
- ☑ Pumps & Tubing
- ☑ Air, Soil & Water Monitors
- ☑ Industrial Water & Wastewater Treatment

[www.omega.com](http://www.omega.com)

ONE OMEGA DRIVE, STAMFORD, CT 06907 USA

TEL: 1-888-TC-OMEGA

(1-888-826-6342)



#### UNITED STATES

[www.omega.com](http://www.omega.com)  
1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)  
Laval(Quebec)  
1-800-TC-OMEGA

#### GERMANY

[www.omega.de](http://www.omega.de)  
Deckenpfronn, Germany  
0800-8266342

#### UNITED KINGDOM

[www.omega.co.uk](http://www.omega.co.uk)  
Manchester, England  
0800-488-488

#### FRANCE

[www.omega.fr](http://www.omega.fr)  
Guyancourt, France  
088-466-342

#### CZECH REPUBLIC

[www.omegaeng.cz](http://www.omegaeng.cz)  
Karviná, Czech Republic  
596-311-899

#### BENELUX

[www.omega.nl](http://www.omega.nl)  
Amstelveen, NL  
0800-099-33-44



## More than 100,000 Products Available!

### • Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples Thermowells and Head and Well Assemblies, Transmitters, Wire

### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

### • Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters