



i **Polymer**

international polymer solutions

BECO
manufacturing 

TECOM

Proud manufacturer of high purity fluid handling products

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iPolymer

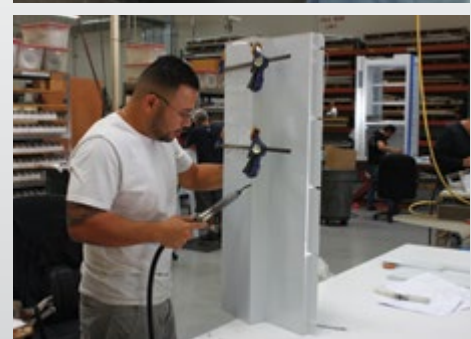
international polymer solutions

Welcome to iPolymer, a merger of two proud Southern California brand names providing more than 50 years of quality products and services. TEQCOM Industries and BECO Manufacturing have combined forces as iPolymer, the premier provider of High Purity Fluid Handling products serving a broad spectrum of industries including Semiconductor, Life Sciences, Gas Analytics and Water Purification Systems.

iPolymer's team of dedicated engineers, technicians and sales agents strive to provide unsurpassed customer satisfaction. Our skilled craftsmen are experts in a wide variety of plastic machining and fabrication techniques utilizing state-of-the-art CNC Machining, Routing and Plastic Welding equipment. Engineering Support includes Solidworks 3D modeling, MasterCAM, In-house laboratory testing and FEA analysis.

Our extensive product offering consists of standard catalog items and custom fabricated solutions all designed with your high purity fluid handling needs in mind! Plastics used in our manufacturing process include PTFE, PFA, PVDF, PEEK, CPVC, Polypropylene and other specialized polymers to fit your specific requirements.

Come and explore how iPolymer can help you find your next solution!





PNEUMATIC VALVES

- iPolymer's comprehensive line of pneumatic valves boasts a proven track record of reliable operation in high purity or aggressive chemistry applications at an unparalleled value.
- Featuring a wide range of configurations, materials and sizes, the iPolymer pneumatic valve family includes:
 - Teflon® Pneumatic Valve (*TP*)
 - DI Water Valve (*DI*)
 - Chemical Resistant Valve (*CR*)
 - Drain Valve (*DV*)
 - High Pressure Valve (*HPV*)
 - Miniature Pneumatic Valve (*MTV*)

SOLENOID VALVES

- iPolymer's Miniature Solenoid and Sub-Miniature Solenoid Valves provide precision performance for either gases or liquids under extreme conditions.
- Media is isolated from the valve actuation components by a PTFE diaphragm for contamination free operation.
- Offered in 2-Way and 3-Way configurations with multiple seat sealing methods, end connections, and various AC & DC voltages, the iPolymer Solenoid Valve family is ideal for your high purity or aggressive chemistry applications.



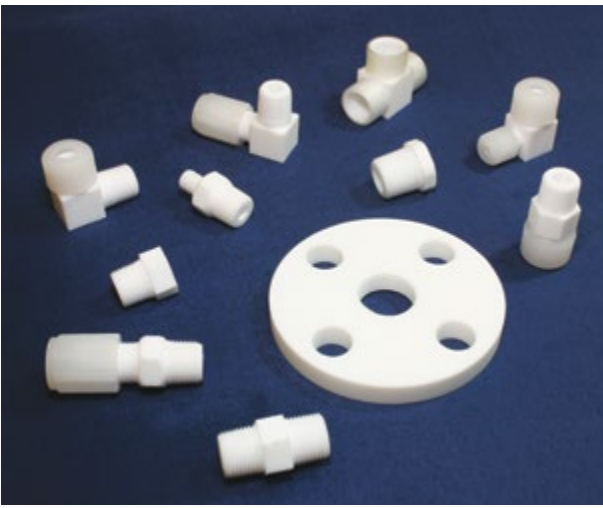
MANUAL VALVES

- iPolymer's manual valves feature all PTFE wetted surfaces ideally suited for aggressive chemistry and ultra-pure water applications.
- Most manual valve designs accommodate partial open positions for metered flow and hard stops to clearly identify actuation end points.
- Quarter Turn and Multi-turn versions are available. Manual valve sizes range from ¼" to 1" and include the following product lines:
 - Ball Valve (*BV*)
 - Metering Valve (*MV*)
 - Stopcock (*SC*)
 - Precision Plug Valve (*PPV*)

SPECIALTY PRODUCTS

- In addition to our extensive valve offerings, iPolymer provides a wide variety of high purity fluid handling accessories including:
 - Pressure Regulator (*PRG*)
 - Aspirator (*A & L*)
 - Pressure Relief Valve (*PRV*)
 - Dilution Drain Valve (*DDV*)
 - Check Valve (*CV & CK*)
 - Air Cylinder (*AC*)
- All of our products are designed and built to exacting standards using state-of-the-art materials, CNC controlled manufacturing equipment and CAD design software.





PTFE FITTINGS

- iPolymer offers an extensive line of PTFE Fittings including Flare, Compression, NPT, Flange, Barbed and more!
- All of our fittings are machined from 100% virgin PTFE.
- iPolymer's PTFE Flare fittings feature Fit-Line Global™ PVDF Flare Nuts that can be used in conjunction with Fit-Line Global's TruFASTEN™ torque wrenches.
- In addition to our standard Fitting line, iPolymer can custom manufacture fittings to your exact sizing and configuration requirements with an exceptionally quick turn-around time.

SPRAY GUNS

- iPolymer's extensive line of PTFE Spray Guns include DI Water and Chemistry Dispense, Recirculating, Nitrogen, and Eye Wash configurations.
- Our PTFE Spray Gun family delivers a long life span in harsh acidic or corrosive environments.
- iPolymer Spray Guns are offered individually or with a variety of hose and fitting options.
- Custom spray nozzles are available for unique applications.



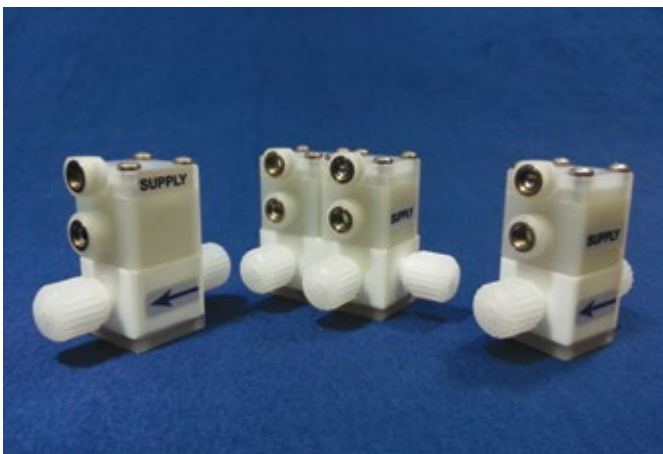
HIGH-PURITY TANKS

- Machined and fabricated from Polypropylene, PVDF, Halar or PFA and built to customer specifications, iPolymer can manufacture custom tanks in a wide variety of shapes and sizes for any application.
- Tank options include media heating, dual containment, weir containment for even recirculation, sensing, flow control devices, and many more.
- We also offer chemical delivery systems, mixing and cleaning systems, pumping stations, and other custom plastic assemblies used in semiconductor manufacturing.

CUSTOM FABRICATION CABINETS

- iPolymer offers plastic fabrication, integration and testing capabilities for the Semiconductor, Life Science and Industrial markets.
- We specialize in Hot Air Welding, Solvent Bonding, Fusion Welding and Heat Bending.
- Material selection includes PFA, Halar, PVDF, Fire-Rated FM4910 CPVC, Polypropylene, PVC and many others.
- Contract Manufacturing (CM) or Turn-Key Design, we are here to help take your project from prototype to production!



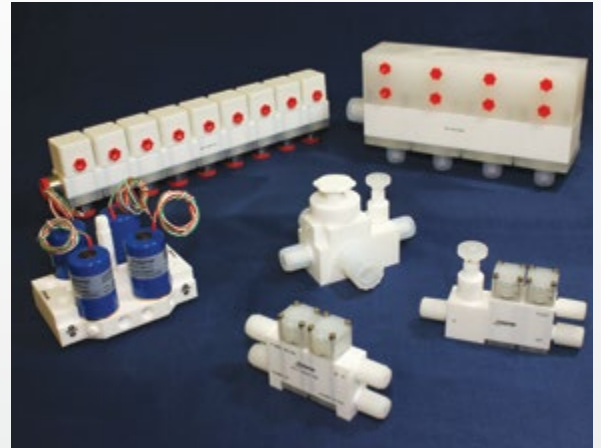


MICRO PNEUMATIC DIAPHRAGM VALVE (MPD)

- The MPD valve features an extremely compact design perfect for tight spaces and applications where footprint savings are critical.
- All PTFE wetted flow path with minimal internal surface area to reduce media entrapment.
- Offered in 2-Way Normally Closed, 2-Way Normally Opened and 3-Way configurations with Flare, Compression and FNPT end connections.
- Maximum Inlet Pressure: 80 PSIG, Ambient Temperature Range: 32°F - 212°F (0°C - 100°C)

MANIFOLDS

- Based on iPolymer's most reliable product lines, our integrated Manifolds combine components in a modular, multi-function, and fully tested package that provides an overall lower cost of ownership.
- Typical iPolymer Manifold solutions provide a 50% size reduction versus conventional plumbed assemblies in addition to a reduction of leak points and pressure drops.
- iPolymer Manifolds are available in a wide range of sizes, materials, actuations and configurations.



DUAL VALVE SUCK BACK (DVSB)

- The DVSB combines a Normally Closed Pneumatic Diaphragm valve and an Adjustable Suck Back valve in a compact package that creates a slight vacuum downstream when actuation pressure is removed to eliminate dripping after the dispense cycle.
- With an all PTFE wetted flow path, the DVSB is ideal for photoresist, acid, solvent and other high purity dispensing applications where precision and repeatability are critical.
- Suck Back Range from 0 to .30 CC (at 75° F and 1.0 SG)
- Media Viscosity Range 0.80 to 3500 cps (at 75° F)

POWERBOOST HIT & HOLD™ POWER MANAGEMENT

- The iPolymer Power Management IC is a BOOST and HOLD module that drives 24V DC solenoids faster and more efficiently.
- It BOOSTS the power delivered to the solenoid for the first 150ms to ensure proper valve actuation, then drops to 1/4th power to HOLD the valve actuated minimizing power consumption and heat generation.
- Unlike other "hit-and-hold" drivers, the Power Management IC uses current-drive technology to prevent failures as the solenoid temperature rises.





manufacturer of high-purity fluid handling products

iPolymer is located in Irvine, California, just 20 minutes south of the Orange County/Santa Ana Airport (SNA).

For application support, please send us your product and fabrication requirements via email (info@ipolymer.com) or give us a call!

The iPolymer team is ready to help you find your next solution!



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