

# Thermoplastic Valves and Piping Systems



Thermoplastic Valves & Actuators - Industrial & Environmental Piping Systems  
High Purity Piping Systems - Wet Process Solutions - Welding Equipment

Another  
Corrosion  
Problem  
Solved.™



[www.asahi-america.com](http://www.asahi-america.com)



Asahi/America pioneered the market for thermoplastic valves in the United States and Latin America, during a time when there was no viable alternative to metal for piping systems. Asahi/America began by promoting valves from a company known as Asahi Organic Chemical Industry Co., Ltd. (AOC) and piping through AGRU GmbH in Austria. Through distributor and end user education and acceptance, the use of thermoplastics has grown. Asahi/America now manufactures and distributes thermoplastic products including valves, actuators, single and double wall piping systems and specialty components throughout the US and Latin America.

Asahi/America has partnered with the world's leading plastics companies to provide you the best thermoplastic fluid flow solutions available on the market today.



ASAHI ORGANIC CHEMICALS INDUSTRY CO.,LTD.



Worldwide Competence  
in Plastics

**emtechnik**  
*simply better*



**POLYTETRA**

## Plastics, Purity, Performance, Problem Solved.

Asahi/America is a diversified ISO9001:2008 certified manufacturer and supplier of corrosion resistant fluid flow products. Headquartered in Malden, Massachusetts, where we operate a 100,000 square foot manufacturing and warehouse facility, Asahi/America supports all of our products with a comprehensive selection of in-depth technical documents and product catalogs. To access any of Asahi/America's technical documentation, testing information, or product catalogs, visit the company's web site at [www.asahi-america.com](http://www.asahi-america.com) or contact Customer Service at 1-800-343-3618.

What makes Asahi/America special is our ability to provide solutions for corrosive or high purity fluid handling systems individualized to meet virtually any customer's need. The Asahi/America technical staff is able to provide superior knowledge of products, applications and installations. Asahi/America is poised to support your next project with the assistance of our large distribution network.

## Interested in purchasing any of Asahi/America's products?

Asahi/America sells its products through the industry's largest distributor network with stocking locations nationally and throughout Latin America. If you wish to locate your local Asahi/America distributor, contact our Customer Service department at 1-800-343-3618 or visit our web site at [www.asahi-america.com](http://www.asahi-america.com) and select the "where to buy" link.





## Plastics - Valves & Actuators

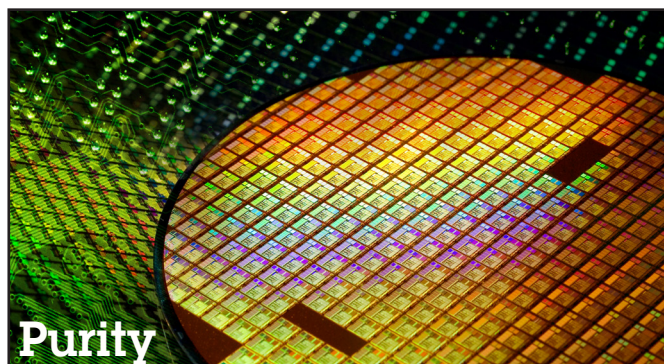
Asahi/America's valve and actuation products have been used in the field for over four decades.

We feature a full complement of thermoplastic valves including ball, butterfly, diaphragm, globe, gate and ball check. In addition, both pneumatic and electric actuators are available to be factory mounted to our valves in our shop or purchased separately for field mounting.

## Purity - High Purity & Wet Process Solutions

Asahi/America is the complete one-source solution for your high purity and wet process needs.

We feature Purad® (PVDF), PolyPure® (PPn) and PP-Pure® (pigmented PP) pipe, valves and fittings, Dymatrix™ specialty valves, and EM Technik™ fittings and tubes. We also offer Polytetra heat exchangers and heaters, a full fleet of welding equipment and feature extensive cleanroom fabrication capabilities.



## Performance - Environments & Industrial Piping

Asahi/America offers a full selection of industrial and environmental piping systems. We have five unique double containment systems including Pro-Lock® PVC and CPVC systems, Fluid-Lok® HDPE system, Poly-Flo® PP and HDPE, Chem Prolok® PE system and the versatile Duo-Pro® line. In addition, we provide a wide array of industrial single wall piping systems including Air-Pro® for compressed air, Chem Proline® PE, Ultra Proline® Halar® system, Proline® polypropylene piping systems and Super Proline® chemical grade PVDF system.

## Problem Solved

Our valves, actuators and piping systems have been solving corrosion problems in the world's leading industrial, municipal and entertainment installations for more than four decades. From the harshest chemicals, to the toughest weather conditions, our family of fluid flow solutions provides extended life cycle and dependable performance to a wide range of applications..

- Chemical Processing
- Petrochemical
- Mining
- Pulp and Paper
- Plating
- Pharmaceutical
- Food
- Semiconductor Processing
- Municipal & Industrial Water
- Wastewater Treatment
- Aquariums
- Landfill Recovery
- Ultra Pure Water
- Theme Parks
- Cruise Ship Construction
- Solar Panel Manufacturing
- Ethanol Production
- Railroad Yard Switching Systems



## Type-21/21a Ball Valve

### Specifications

**Sizes:** 1/2" - 6"

**Models:** PVC and CPVC:

Socket, Threaded and Flanged (ANSI)  
PP and PVDF:

IPS and Metric (DIN) Socket, Threaded, Butt and Flanged (ANSI)

**Bodies:** PVC, CPVC, PP and PVDF

**Seats:** PTFE backed with EPDM or FKM

**Seals:** EPDM, FKM or AFLAS®



### NSF-61 Approved

(1/2" - 4" PVC/EPDM/FKM)

## Type-23 Multiport® Ball Valve

### Specifications

**Sizes:** 1/2" - 6"

**Models:** Socket, Threaded and Flanged (ANSI)

**Bodies:** PVC, CPVC, PP, PVDF

**Seats:** PTFE backed with EPDM or FKM

**Seals:** EPDM, FKM or AFLAS®



### NSF-61 Approved

(1/2" - 4" PVC/EPDM/FKM)

## Omni® Ball Valve

### Specifications

**Sizes:** 3/8" - 2"

**Models:** Socket and Threaded

**Bodies:** PVC, CPVC

**Seats:** PTFE backed with EPDM

**Seals:** EPDM



### NSF-61 Approved

(3/8" - 3" PVC/EPDM)

## Electromni® Ball Valve

### Specifications

**Sizes:** 3/8" - 2"

**Models:** Socket and Threaded

**Voltages:** 120/220 VAC

12/24 VAC/VDC

**Enclosure:** NEMA 4X

**Valves:** Omni

Type-21 Ball Valve

Type-23 Multiport



## Labcock® Ball Valve

### Specifications

**Size:** 1/4"

**Bodies:** PVC

**Seats:** EPDM

**Seals:** EPDM

**Models:** Male thread x Male thread,

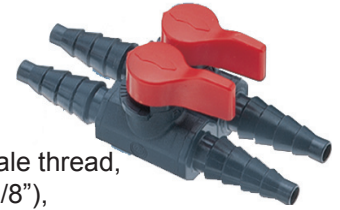
Male Thread x Hose (ID 3/8"),

Male Thread x Female Thread,

Male Thread x Hose, Hose x Hose,

Female Thread x Female Thread,

Male Thread Elbow (OD .63") 90°



### NSF-61 Approved

(1/4" PVC/EPDM)

## Type-14 Diaphragm Valve

### Specifications

**Sizes:** 1/2" - 2" - True Union

1/2" - 10" - Flanged

**Body:** PVC, CPVC, PP and PVDF

**Bonnet:** PVC, PP, PPG and PVDF

**End Connectors:** PVC, CPVC, IPS Socket or

Threaded PP, PVDF, IPS

& Metric (DIN) Socket,

Threaded, Butt, Flanged

**Diaphragms:** EPDM, 3-Layer PTFE, Nitrile & FKM



## Globe Valve

### Specifications

**Sizes:** 1/2" - 4"

**Bodies:** PVC and PP

**Models:** Flanged ANSI 1/2" - 4"

Socket or Threaded 1/2" - 2"

**Seals:** EPDM or FKM



## Gate Valve

### Specifications

**Sizes:** 1-1/2" - 14"

**Body:** HI-PVC

**Models:** Flanged (ANSI)

**Types/Sizes:** (non-rising stem)

1-1/2" - 8"

**Seals:** EPDM, FKM (optional)

### NSF-61 Approved

(1-1/2" - 14" PVC/PP/EPDM/FKM)



## Type-57 Butterfly Valve

### Specifications

**Sizes:** Lever 1-1/2" - 8"

**Gear:** 8" - 14"

**Models:** Wafer Style

**Operators:** Lever and Gear

**Bodies:** PVC, PP and PVDF

**Discs:** PVC, CPVC, PP & PVDF

**Seats and Seals:** EPDM, FKM or Nitrile

**Stems:** 403 and 316 SS, Titanium, Hastelloy®



### NSF-61 Approved

(1-1/2" - 14" PVC/PP/EPDM)

## Type-57IL Butterfly Valve

### Specifications

**Sizes:** Lever 3" - 8"

Gear 8" - 12"

**Models:** Lug Style

**Operators:** Lever and Gear

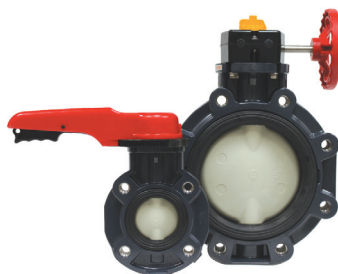
**Bodies:** PVC

**Discs:** PVC, CPVC, PP & PVDF

**Seats and Seals:** EPDM, FKM or Nitrile

**Stems:** 316 SS, Titanium, Hastelloy®

**Lugs:** 304 SS or 316 SS



## Type-57LIS Butterfly Valve

### Specifications

**Sizes:** 3" - 8"

**Models:** Wafer or Lug Style

**Operators:** Lever and Gear

**Bodies:** PVC

**Discs:** PVC, CPVC, PP & PVDF

**Seats and Seals:** EPDM, FKM or Nitrile

**Stems:** 316 SS, Titanium, Hastelloy®

**Lugs:** 316 SS



## Type-75 Butterfly Valve

### Specifications

**Sizes:** 18" - 24"

**Models:** Wafer Style/Machined Lug Style

**Operators:** Gear

**Bodies:** PP and PVDF

**Discs:** PP and PVDF

**Seats and Seals:** EPDM, FKM or Nitrile

**Stems:** 403 SS, 316 SS, Titanium, Hastelloy®

**Lugs:** 304 SS or 316 SS



## Ball Check Valve

### Specifications

**Sizes:** True Union: 1/2" - 2"

Single Union: 3" - 4"

**Models:** Socket, Threaded, Flanged (ANSI), Butt

**Bodies:** PVC, CPVC, PP and PVDF

**Seats:** EPDM, FKM, PTFE

**Seals:** EPDM, FKM, PTFE

**Options:** Foot Valve Screen/SS Springs



### NSF-61 Approved

(1/2" - 2" PVC/EPDM/FKM)

## Swing Check Valve

### Specifications

**Sizes:** 3/4" - 8"

**Models:** Flanged (ANSI)

**Bodies:** HI PVC, PP and PVDF

**Seats:** EPDM, FKM, PTFE

**Options:** Lever & Weight/SS Spring



## Wafer Check Valve

### Specifications

**Sizes:** 10" and 12"

**Bodies:** PVC

**Seats:** EPDM, FKM

**Options:** SWP-8 (SS) Spring  
E-CTFE  
Coated



## Constant Flow Valve

### Specifications

**Sizes:** 1/2", 3/4", 1", 2", 3" and 4"

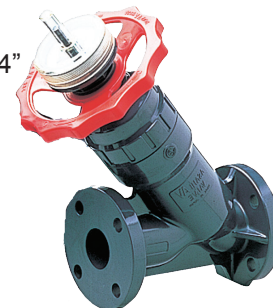
**Body:** PVC

**Bonnet:** PVC

**Models:** Flanged ANSI

**Seals:** EPDM

**Springs:** 304 Stainless Steel with E-CTFE Coating

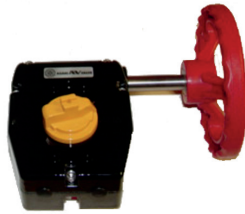


# Thermoplastic Valves Options

Options available for Asahi/America Ball, Butterfly, Diaphragm & Gate Valves

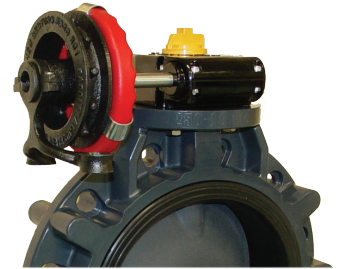
## Plasgear™ - Plastic Gear

Constructed of composite plastic with black urethane coating, Plasgear will not corrode or rust as a result of exposure to harsh chemicals. Plasgear is standard on all Asahi/America 1-1/2" - 14" Type-57 Butterfly Valves, or can be supplied without the valve.



## Chain Operator

Installed on the round handwheel of a valve in overhead, out-of-reach locations. The valve is operated by pulling on the chain.



## Ball Valve Options

**Operating Nuts** -Available in 2" square nut or "T" nut configurations.

Used for remote operation of a valve by a wrench.



**Locking Handle** -To prevent unauthorized operation, the valve handle can be padlocked in the open or closed position.



## Globe Control Valve

**Specifications**

**Sizes:** 1/2" - 4"

**Materials:** PVC, PP, PVDF & PTFE

**Model:** Flanged (ANSI)

**Stem Seal:** PTFE bellows

**Valve Seal:** FKM, EPDM, PTFE encapsulated FKM

**Flow Curves:** Linear or equal percentage

**Rangeability:** 1:50 for 1/2"-3", 1:30 for 4"



## Sediment Strainer

**Specifications**

**Sizes:** 1/2" - 4"

**Models:** Socket, Threaded, Flanged (ANSI)

**Body:** PVC

**Screens:** Standard 20 mesh PVC. (Optional 30 and 40 PVC, 20, 40 and 60 Stainless Steel)

**Seals:** EPDM, FKM

**NSF-61 Approved**

(1/2" - 4" PVC/EPDM/FKM)



## AV Gasket

**Specifications**

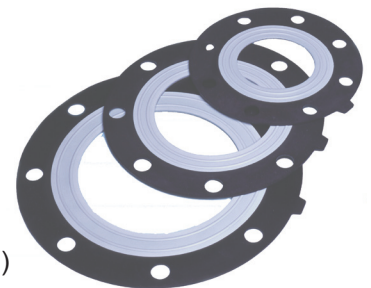
**Materials/Sizes:**

EPDM: 1/2" - 12"

PTFE-bonded EPDM: 1/2"-12"

PVDF-bonded EPDM: 1/2" - 10"

(except 1-1/4" and 2-1/2")



## Series 94 Electric Actuator

### Specifications

**Torque:** 150, 300 in/lbs.  
**Voltage:** 230/115/12/24 VAC  
 12/24 VDC

**Action:** Quarter-turn

**Indicator:** Visual indication of valve position.

Limit switch contacts for light indication.

Declutchable manual override.



NEMA 4X enclosure. 5 second cycle time.

**UL-508 LISTED**

## Series 92 Electric Actuator

### Specifications

**Torque:** 400, 700, 1100, 2000 in/lbs.

**Voltages:** 230/115/24/12 VAC,  
 24/12 VDC

**Action:** Quarter-turn

**Indicator:** Visual beacon indication of valve position.

Limit switch contacts for light indication. Declutchable manual override.



NEMA 4X/7 enclosure. 10 second cycle time (400 & 700)  
 25 second cycle time (1100 & 2000)

**UL-508 LISTED**

**ATEX Directive 94/9EC**

## Series 10 Electric Actuator

### Specifications

**Torque:** 1320-10, 440 in/lbs.

**Voltages:** 120 VAC 1Ph 50/60Hz,

**Options:** Positioner, Transmitter, Two-wire control, Voltages: 230/1, 380/3, 460/3. 24 VDC, ATEX Enclosure, NEMA 7 Enclosure, Local Remote Station



## Series 79 Pneumatic Actuator

### Specifications

**Size:** 1/2" - 24"

**Torque:** 50 in/lbs. to 44611 in/lbs.

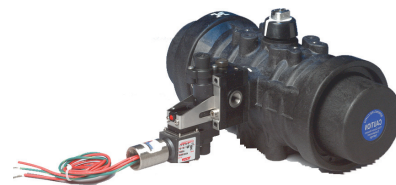
**Models:** Air-to-Air, Air-to-Spring

**Bodies:** Glass filled polyamide, aluminum, 316 SS

**Construction:** Double piston, double rack/pinion

**Indicator:** Visual position indicator

**Options:** Positioners, Solenoids, Limit Switches, De-clutchable Gearbox Manual Overrides, Travel Stops



## Type-14 Pneumatic

### Specifications

**Sizes:** 1/2" - 2"

**Models:** Air-to-Air, Air-to-Spring

**Indication:** Top visual indication of valve position

**Travel Stops:** Adjustable stops prevent over tightening of diaphragm

**Bodies:** PVC, CPVC, PP & PVDF

**Bonnet:** PPG



## Local/Remote Station

Used in conjunction with Series 92 or Series 94 Electric Actuators. Permits actuator operation.

"Local" or "Remote"  
 NEMA 4X enclosure  
 Open/Close selector  
 Switch and Indicator lights  
 120 VAC.



## Dymatrix™ Specialty Valves

### Multiport Valves

Size: 1/8" - 1"

Models: Manual, Pneumatic

Options: Electric Solenoid, Feedback Switches

Connections: Flare, S-300, NPT Compression, Triclamp and others



### Diaphragm Valves

Size: 1/4" - 1"

Models: Manual, Pneumatic

Connections: Flare, S-300, NPT, Custom



### Falconics™ Flow Controller

Size: 1/4" - 1/2"

Models: Electric

Connections: Flare, S-300



### Needle Valves

Size: 1/4" - 1/2"

Models: Manual, Pneumatic

Connections: Flare, S-300



### Pressure Regulators

Size: 1/4" - 1"

Models: Manual, Pneumatic

Connections: Flare, S-300



### Pinch Valves

Size: 1/4" - 1"

Models: Manual, Pneumatic, Electric

Connections: Flare, S-300



## EM Technik™ Fittings & Valves

### Compression Fittings

Series 1C

Size: 1/4" - 3/4"

PFA in stock



### Ball Valves

Series 6

Size: 1/8" - 1/2"

PP, PPn, PVDF, PFA  
up to 13 port valves  
available



### Inline Gas Filters

Series 7

Size: 1/4" - 1/2"

5 micron - 100 micron



# The Wet Process People™



## Purad® (Ultra High Purity PVDF)

### Supply Range

#### Pipe and Fittings

- 20 - 315mm (1/2" - 12")  
SDR 21 / PN 16 / 230 psi
- 90 - 315mm (3" - 12")  
SDR 33 / PN 10 / 150 psi



#### Valves

- T-342 Diaphragm Valves: 20 - 110mm (1/2" - 4")
- T-343 Zero Dead Leg (ZDL) Valve: 20 - 110mm (1/2" - 4")  
*Over 49 different sizes and configurations*
- T-21 Ball Valves: 20 - 110mm (1/2" - 4")
- Frank Series Regulating Valves: 20 - 75mm (1/2" - 2-1/2")

#### Welding

- IR/Butt, Socket, Beadless, Electrofusion

## PolyPure® (Natural PP)

### Supply Range

#### Pipe and Fittings

- 20 - 110mm (1/2" - 4")  
SDR 11 / PN 10 / 150 psi



#### Valves

- T-342 Diaphragm Valves: 20 - 63mm (1/2" - 2")
- T-343 Zero Dead Leg (ZDL) Valve: 20 - 63mm (1/2" - 2")
- Ball Valves: 20 - 63mm (1/2" - 2")
- 3" and 4" Valves: Only available in PP

#### Welding

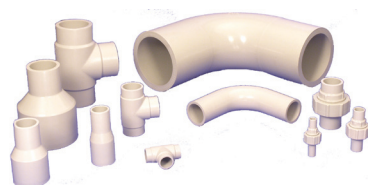
- IR/Butt, Socket, Beadless

## PP-Pure® (Pigmented PP)

### Supply Range

#### Pipe and Fittings

- 20 - 315mm (1/2" - 12")  
SDR 11 / PN 10 / 150 psi



#### Valves

- T-342 Diaphragm Valves: 20 - 110mm (1/2" - 4")
- T-343 Zero Dead Leg (ZDL) Valve: 20 - 63mm (1/2" - 2")
- T-21 Ball Valves: 20 - 110mm (1/2" - 4")

#### Welding

- IR/Butt, Beadless

## Frank Pressure Regulators

**Size:** 20 - 110mm (1/2" - 4")

**Models:** Pressure Regulators, Back Pressure, Relief Valves

**Materials:** PVC, PP, PPn, PVDF, E-CTFE



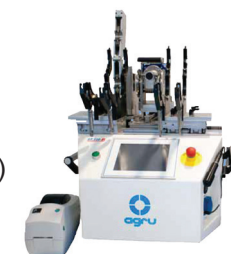
## Welding Equipment

The SP Series of automated fusion equipment



### SP 110-S IR Fusion

- 20 - 110mm (1/2" - 4")



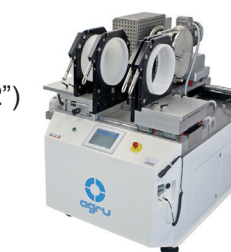
### SP 110-B Beadless Fusion

- 20 - 110mm (1/2" - 4")



### SP 250-S IR Fusion

- 110 - 250mm (4" - 10")



### SP 315-S IR Fusion

- 110 - 315mm (4" - 12")

## Polytetra Heat Exchangers

Polytetra Series are all-thermoplastic, corrosion resistant heat exchangers that are designed and built per customer specification.

**Size:** Up to 500 sq. ft.  
**Models:** Shell & Tube, Modular in Tank Bundle  
**Materials:** PE, PP, PPn, PVDF, E-CTFE, PFA



## Heaters

Completely encapsulated with corrosion resistant PFA and PTFE, able to withstand the most aggressive chemicals over an extended period of time.

**Size:** Up to 6 kw single line  
**Models:** Coil, Panel, Custom Bend





## (PE)

### Supply Range Pipe and Fittings

- 50 - 315mm (1/2" - 12")  
SDR11, 150 psi



### Valves

- T-21 Ball Valves: 20 - 63mm (1/2" - 2")
- T-57 Butterfly Valves: 50 - 315mm (1-1/2" - 12")
- T-14 Diaphragm Valves: 20 - 63mm (1/2" - 2")
- Ball Check Valves: 20 - 63mm (1/2" - 2")

### Welding

- Butt, Socket, Electrofusion

## Proline® (PP)

### Supply Range Pipe and Fittings

- 20 - 1200mm (1/2" - 48")  
SDR11, 150psi
- 110 - 1400mm (4" - 55")  
SDR33, 45psi



### Valves

- T-21 Ball Valves: 20 - 110mm (1/2" - 4")
- T-57 Butterfly Valves: 50 - 1400mm (1-1/2" - 55")
- T-14/15/G Diaphragm Valves: 20 - 200mm (1/2" - 10")
- Ball Check Valves: 20 - 110mm (1/2" - 4")
- Frank Series Regulating Valves: 20 - 110mm (1/2" - 4")

### Welding

- Butt, Socket, Electrofusion

## Ultra Proline® (Halar®)

### Supply Range Pipe and Fittings

- 20 - 50mm (1/2" - 1-1/2")  
SDR21, 150psi
- 63-110mm (2" - 4")  
SDR21, 120psi



### Valves

- T-21 Ball Valves: 20 - 32mm (1/2" - 1")
- T-342 Diaphragm Valves: 20 - 63mm (1/2" - 2")
- Frank Series Regulating Valves: 20 - 63mm (1/2" - 2")

### Welding

- Butt

## Super Proline® (PVDF)

### Supply Range Pipe and Fittings

- 20 - 315mm (1/2" - 12")  
SDR21, 230 psi
- 90 - 400mm (3" - 16")  
SDR33, 150 psi



### Valves

- T-21 Ball Valves: 20 - 110mm (1/2" - 4")
- T-57 Butterfly Valves: 50 - 315mm (1-1/2" - 12")
- T-14 Diaphragm Valves: 20 - 63mm (1/2" - 4")
- Ball Check Valves: 20 - 110mm (1/2" - 4")
- Frank Series Regulating Valves: 20 - 75mm (1/2" - 2-1/2")

### Welding

- Butt, Socket

## Air-Pro®

### Compressed Air Piping

### Supply Range Pipe and Fittings

- 20 - 110mm (1/2" - 4")  
SDR 7.4 / 230 psi
- 160 - 315mm (6" - 12")  
SDR 11 / 160 psi



### Valves

- Ball Valves: 20 - 90mm (1/2" - 3")

### Welding

- Butt, Socket, Electrofusion



## Duo-Pro®

### Supply Range

- 1x3 through 16x20

**Materials:** Polypropylene, PVDF, & E-CTFE (Halar®)

### Welding

- Simultaneous or Staggered Butt



## Poly-Flo®

### Supply Range

- 1x2, 2x3, or 4x6

**Materials:** Black Polypropylene & HDPE

### Welding

- Simultaneous or Staggered Butt



## Pro-Lock®

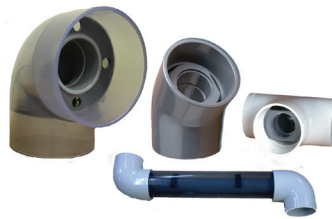
### Supply Range

- 1/2x2 through 4x8

**Materials:** PVC & CPVC

### Assembly

- Simultaneous or Staggered Glue



## Fluid-Lok®

### Supply Range

- 1x3 through 18x24

**Materials:** HDPE

### Welding

- Simultaneous or Staggered Butt



## Welding Equipment

ProWeld welding equipment offers the latest innovations in reliable thermoplastic fusion technology.



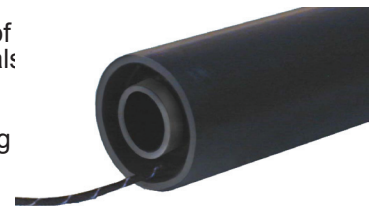
**Models:** Shop (manual), Field (hydraulic), Socket (both hand and bench styles), Electrofusion, Hot Air and Extrusion Welders.

## Leak Detection Systems

For underground pressure systems of hazardous chemicals:

### Options:

Continuous Sensing Cable, Low Point Sensors, or a combination of Components, Cable and Probes.



**PAL-AT™:** A continuous leak detection cable system that can also incorporate low point probes.

**Liquid Watch™:** A flexible, modular low point system based on inline probes.



# Another Corrosion Problem Solved.<sup>TM</sup>



**ASAHI/AMERICA<sup>®</sup>**

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