

Coplastix®



OPTIMUM
PERFORMANCE
AND LONG-LIFE
OPERATION



**Ashbrook®
Simon-Hartley**
OPTIMIZED PROCESS RESULTS

Flap Valves

Coplastix Flap Valves are available for sizes 4" - 24" in diameter and rectangular for widths 20" and larger. For applications where standard flap valves could experience a strong surf or backsurge, flexible flap valves are available. We are the original patent holder, with over 20 years experience.

All flap valves can be used in applications calling for discharge, where prevention of reverse flow back into the line is necessary...water works, sewage and industrial effluent treatment discharge areas are but a few of the many possible applications for these valves. Coplastix flap valves enjoy a number of advantages over cast iron...

- Lighter, easier to install
- Quieter operation since metal-to-metal contact is eliminated
- Corrosion-free frames and door
- Door surface does not support marine growth
- Hinges cannot seize and offer an almost unlimited life expectancy

Circular flap valves are constructed solely of Coplastix materials and may be either wall-mounted or pipe-mounted. Rectangular flap valves employ a Coplastix door and frame of specially milled and coated steel. Flexible flap valves employ a specially developed rubberized Coplastix compound for the door.



Flap Valve

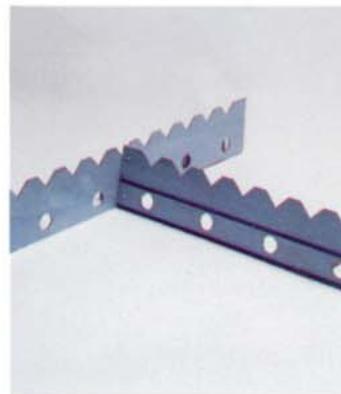
Flexible Flap Valve

Weirplates and Scumboards

Weirplates and scumboards are employed in scum separation and weir-edge applications in both circular and rectangular settling tanks. Either can be manufactured to virtually any length, depth, and profile.

Coplastix weirplates are available with either a straight edge or as a notched type ("V", semi-circular, rectangular, or trapezoidal) for use where fluctuations in flow rates are to be expected.

Oversized mounting holes are provided to make adjustment of the weirline simple and special Coplastix elastomer is bonded to the wall side ensuring an effective seal with the wall, without the use of mastic. Cleaning of Coplastix weirplates and scumboards is made easy by their smooth finish, algae resistant surface (hose off).



Weirplates

Operating Equipment

There is a variety of operating equipment available to work with Coplastix equipment, sluice gates in particular. This equipment uses special corrosion-resistant Coplastix polyolefin in stem nuts, thrust washer, and guide brackets. This material has an extremely low friction coefficient, requiring no lubrication.

Operating equipment can be defined in the following manner:

Drive—Handwheel, Square Cap, Gearbox, Actuator, Pneumatic Cylinder, Hydraulic Cylinder

Mounting—Direct On, Pedestal Direct On, Pedestal Mounted on Coping, Pedestal Overhung from Coping, or Floor Box

Stem Material—Stainless Steel Standard

Stem Movement—Rising or Nonrising

Coplastix sluice gates can also be equipped with position indicators. A clear Indicator Tube or a Traveling Nut Indicator are available to detail the position of the door at a glance. All are supplied as specified by the engineer.



Operating Equipment



Coplastix products from Ashbrook Simon-Hartley are the performance leaders in flow control equipment. When used in the fabrication of a number of products including sluice gates, stop gates and logs, and flap valves. Coplastix offers numerous advantages...

- Coplastix is lighter, weighing as little as 20% of similar cast iron products. The friction coefficient of Coplastix is only 10% of that of conventional metal-to-metal faces. These two factors combine to make Coplastix products significantly easier to operate manually or they require smaller, less expensive actuators
- All Coplastix products are much easier to install than cast iron
- Coplastix products are exceptionally water tight and exceed AWWA requirements
- Coplastix products are corrosion free and resistant to chemicals and petroleum products
- Coplastix products feature smooth surfaces that resist marine growth and are easily cleaned
- Coplastix is extremely durable
- Coplastix products do not experience problems related to thermal expansion
- Coplastix products may be confidently used for ambient temperatures ranging from -50°F to +180°F
- Coplastix is totally unlike plastic or fiberglass, in fact, it is rated as Class I fire resistant
- Coplastix products are backed by decades of dependable performance

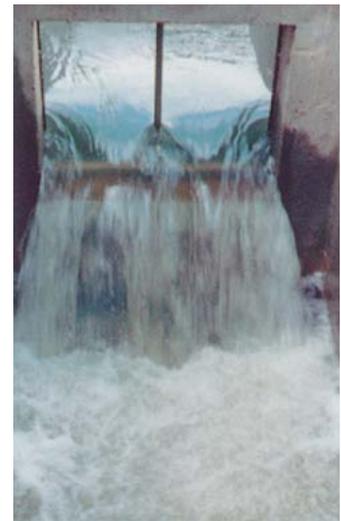
Coplastix, in reality, is a "system" for product fabrication. In a Coplastix design, a special milled carbon steel matrix is utilized to serve as a skeleton giving the product structural strength equal to that of cast iron. The structure is then encapsulated by specially formulated synthetic composite Coplastix materials.



*Typical
Coplastix Wall-
Mounting
Sluice Gate*



Flexible Flap Valves



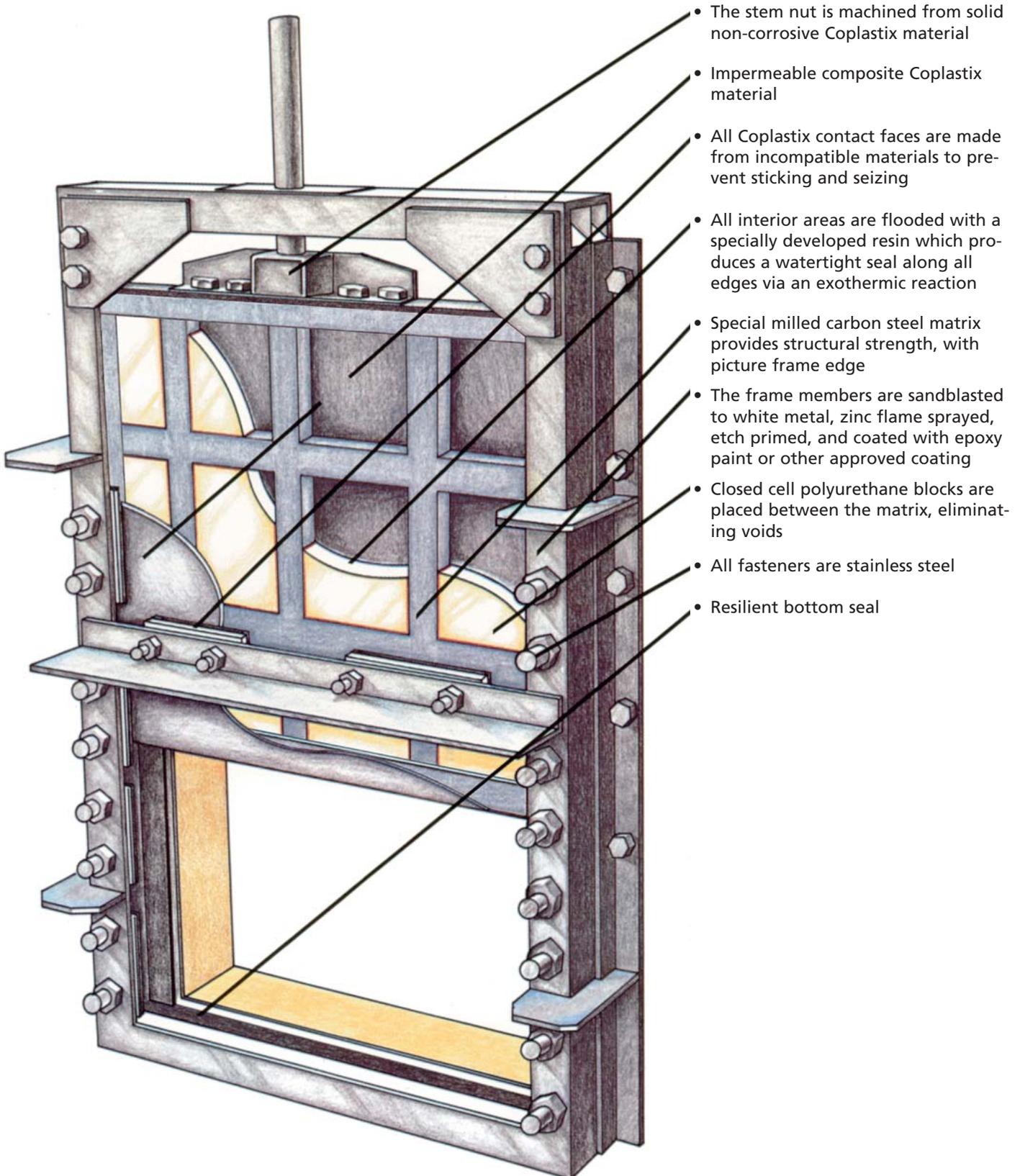
Coplastix Weir Sluice Gate



Coplastix Weir Sluice Gate mounted over circular holes

Coplastix products are covered by existing and pending patents.

Typical Fabrication of Coplastix Product



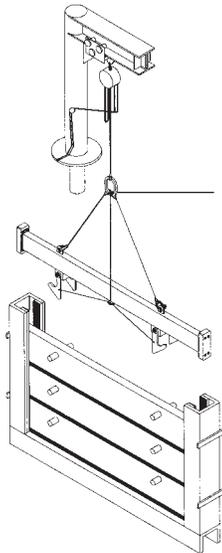
- The stem nut is machined from solid non-corrosive Coplastix material
- Impermeable composite Coplastix material
- All Coplastix contact faces are made from incompatible materials to prevent sticking and seizing
- All interior areas are flooded with a specially developed resin which produces a watertight seal along all edges via an exothermic reaction
- Special milled carbon steel matrix provides structural strength, with picture frame edge
- The frame members are sandblasted to white metal, zinc flame sprayed, etch primed, and coated with epoxy paint or other approved coating
- Closed cell polyurethane blocks are placed between the matrix, eliminating voids
- All fasteners are stainless steel
- Resilient bottom seal

Stopgates and Stoplogs

Watertight Stoplogs

Stoplogs from Ashbrook Simon-Hartley are particularly suitable in situations where temporary or infrequent isolation of a channel is necessary. Whether located in the channel or wall-mounted at the end of the channel, stoplogs provide a watertight means to vary weir depth with little effort in handling. Coplastix stoplogs can be equipped with either eyebolts or SS pegs for easy, accessible handling. For larger stoplogs specially designed lifting beams are available. Coplastix stoplogs are designed with the lower frame cross member placed flush with the channel invert offering no obstruction to a smooth flow. This eliminates inefficient turbulence and material buildup.

Coplastix stoplog frames are either mounted in channel recess or are wall-mounted. These stoplogs are fabricated of Coplastix materials placed over a special steel matrix. All areas of contact are of incompatible Coplastix, eliminating sticking. Smooth catch-free movement make the stoplogs exceptionally easy to operate, each and every time.



Watertight Stoplogs

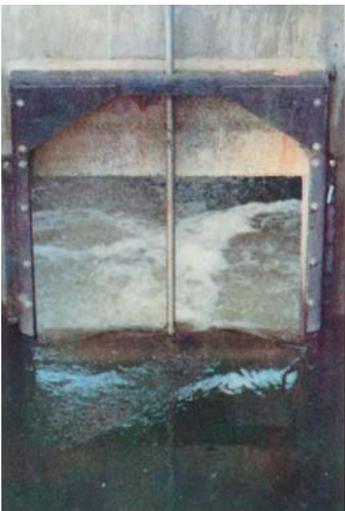
Watertight Stopgates

Watertight stopgates from Ashbrook Simon-Hartley are designed for hand operated flow control channels. Whether mounted in channels or wall-mounted, all gates feature the lower frame member positioned level with the invert for straight through flow with no turbulence created or grit deposits formed.

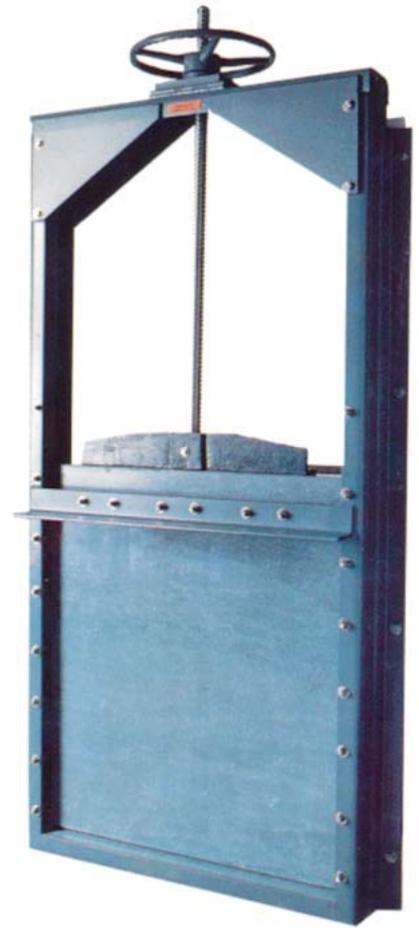
In sizes 6" - 20" in width, only the Coplastix material is employed. In gates 24" in width and larger, the Coplastix slide is contained and supported by a special steel frame for additional rigidity. To facilitate lifting, the gates 20" and smaller employ a hand hole at the top of the door. All gate contact faces are constructed of incompatible Coplastix in order to eliminate sticking and permit easy operation. The product's reduced weight also adds to overall ease of operation.



Watertight Stopgates



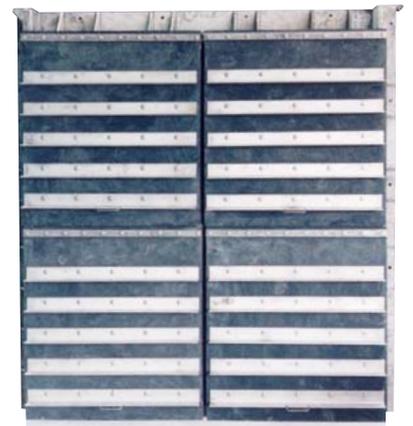
Downward Opening Weir Sluice Gate



Wall-Mounted Sluice Gate



Coplastix Special Wall-Mounted Rigid Door Flap Valve



Coplastix Flexible Flap Valve (Multi Door Design)

Sluice Gates

Coplastix Sluice Gates from Ashbrook Simon-Hartley are available in wall-mounted, flush, invert, channel-mounted, and downward opening weir versions. The channel and wall mount gates are equipped for square, rectangular, or circular openings, while the weir gates are offered in square or rectangular openings. All gates deliver a superior seal with a leakage rate of 0.05 gallons per minute per foot of seating perimeter for seating heads and 0.10 for unseating heads, which is twice as good as allowed by the AWWA standards.

Usually it is standard practice to position sluice gates in seating positions so that the head will tend to push the door to its seat, but with Coplastix this is unnecessary. Coplastix offers the only sluice gates that are equally capable of delivering dependable performance even in unseating heads, making them unmatched in versatility and reliability.

All Coplastix sluice gates are built for dependable performance. Special milled steel matrices lend strength to the durable Coplastix doors. All contact faces are made from incompatible materials for minimum friction. The result of this type of construction is a lighter gate that can be handled easier when manually operated and requires less horsepower when actuators are employed.



Coplastix Wall Mounting Sluice Gates

Wall-Mounted Sluice Gates

Coplastix wall-mounted sluice gates combine dependable flow control with ease of installation. These gates require no special concrete work, and due to their lighter weight, can be installed in less than three hours. While Ashbrook Simon-Hartley wall-mounted sluice gates are available in all standard sizes, special orders present no problem, nor delay.

Channel-Mounted Sluice Gates

Channel-mounted sluice gates are available with a choice of square and rectangular openings. These gates are designed to be mounted in knock-out recesses that are much smaller than those required for cast iron, typically avoiding any special placement of reinforcements or necessitating over-width walls.

Downward Opening Weir Sluice Gates

Weir sluice gates are designed for applications where a level weir-edge must be maintained in all positions. These gates are normally wall-mounted but other methods of installation can be employed. Coplastix Weir Sluice Gates are available in a variety of sizes with the choice of square or rectangular openings. For special applications, custom orifices or doors in the gate can be provided.



Coplastix Channel Mounted Sluice Gates

Ashbrook[®] Simon-Hartley

OPTIMIZED PROCESS RESULTSSM

**Featuring the Industry's Most
Advanced and Fully Optimized
Process Options, Including:**

- Activated Sludge Technology
- Selector Technology
- Membrane Bioreactor
- Aerobic Digestion to achieve Class "B" Biosolids
- Nitrification/Denitrification
- Tertiary and Ultrafiltration
- Phosphorus Removal
- Disinfection Systems

**Ashbrook Simon-Hartley Also Provides a
Comprehensive Line of Fully Optimized
Equipment and Systems, Including:**

- Aeration Basins and Equipment, Including Diffused Aeration Systems
- Membrane Bioreactors
- Clarifiers
- Liquid/Solids Separation Technologies
 - Tertiary Filtration
 - ▲ Denitrification
 - ▲ Rapid Rate/Gravity Sand
 - ▲ Continuous Backwash
 - Ultrafiltration Membrane
 - High Performance Belt Filter Press Technologies
 - High Performance Belt Thickeners
 - Advanced Centrifuge Technologies
- Disinfection
 - Solution Feeders
 - Ultra-Violet
- Pasteurization and Digestion to achieve Class "A" Biosolids
- Flow Equalization
- Primary Treatment
- Lift Stations
- Bar Screens and Grit Collection
- Electrical Controls & Automated Systems (PLC and SCADA)
- Ground Water Contamination Remediation
- Industrial Process Wastewater Treatment
- Advanced Flow Control Technologies
 - Sluice Gates and Weir Gates
 - Flap Valves (Rigid and Flexible)
 - Stop Logs and Gates
- Mobile Dewatering

**Plus, Comprehensive Installation Services
As Well As Optimized Rebuilds,
Retrofits and Spare Parts.**

The products pictured, described, or listed in this publication are illustrative only and are subject to change as appropriate.

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