

AGRICULTURAL & WATER CONTROL PRODUCTS AT-A-GLANCE

Water Distribution & Control
Drainage Control & Irrigation



CAST IRON CANAL GATES C-10 & C-20 "RED TOP" SERIES

Waterman Canal Gates offer reliable water control on canal and pipeline systems which operate at low and medium heads. They are designed for years of reliable service and incorporate best-in-class construction available only from Waterman.

Typical applications:

Canal water control, farm turnouts, industrial and food processing, waste, drainage control.

Waterman Exclusives:

- Gray iron with a minimum 1/4" thickness. Computer analyzed for stress and deflection using finite element analysis.
- Handwheel operation with a heavy cast-bronze lift nut and acme thread stem.
- Bolted steel frame. Choice of standard painted steel, upgraded galvanized steel, or stainless steel.
- Adjustable cast iron wedge blocks have two machine bolts for most dependable seating and high degree of water tightness.
- Precision machined seating surfaces.
- Machine-threaded stem provides ease of operation and extended life.

Options:

- Bronze seats (C-20 only); stainless steel structural frame, guide rails and bolts; stainless steel or brass stems; epoxy, coal tar or ASTM galvanized coatings.
- Extended stems, custom pitch and thread rotation, stem guides, limit nuts.
- Flatback flanges with 25# or 125# ANSI standard drilling available on special order. (C-20)
- Waterman Rising-Stem Extensions are factory installed to the height required, providing a rising stem and hand wheel, keeping threads and lifts above the water level and allowing the amount of gate opening to be readily determined.
- Non-Rising Stem Extensions position the gate handwheel at convenient static operating elevations, eliminating hardware which might otherwise rise into traffic areas.
- Geared handcrank lift for ease of operation of large gates.
- Square, flat plate slide cover (Model CL-10) which allows for a more open clog-free flow at points of initial opening.

Configurations:

F = Flatback for headwall mounting.

SB = Spigotback for connection to pipe.

CIP = For solvent cement mounting over plastic pipe.

C = With galvanized steel tapered setting collar for concrete or AC pipe.

TYPE 4 = For mounting in plastic pipe utilizing special two part epoxy.



Model C-10 (12" size shown)



Model C-20



Model CL-10 Allows for Non-Rising Stem



Gates can be fitted to metal and plastic pipe (different methods for each). Consult factory for best methods.

ALUMINUM CANAL GATES-AC-31 SERIES

Best in class design for corrosion-resistant, rust-proof installations. Heavy-duty, yet labor-saving, lightweight installation. Eliminates electrolysis when using cast iron gates with aluminum pipe. Seating heads to 30 feet, unseating heads to 20 feet. Many options, sizes and configurations available. Consult factory with your requirements.

- Tight closure with tapered wedge seating, low friction opening.
- Nearly drip-tight performance. Rugged, replaceable J-bulb seal.
- UHMW Polyethylene guide inserts. Stainless steel stem, bronze lift nut.



AC-31-F

SSC-10 SERIES STAINLESS STEEL CANAL GATES - CIRCULAR OPENING

Built for Superior Performance

- Stainless steel major components for optimum corrosion resistance.
- Tapered wedge seating.
- Maximum seating head 10'; not for use with unseating head.



SSC-10

COMBINATION DRAINAGE & CANAL GATES-SSFC-331 SERIES

The SSFC-331 combines a SSC-10 canal gate and SSF-41 flap gate in a single unit. When the unit is closed, the flap functions as an automatic drainage gate. The gate can be raised to permit backflow when desired. See SSC-10 canal gate for specifications and options.

Waterman Canal Gates Selection Guide

GATE DIAMETER	C-10 CAST IRON MAXIMUM HEAD (FEET)		C-20 CAST IRON MAXIMUM HEAD (FEET)		SSC-10 STAINLESS MAXIMUM HEAD (FEET)		AC-31 ALUMINUM MAXIMUM HEAD (FEET)	
	SEATING	UNSEATING	SEATING	UNSEATING	SEATING	UNSEATING	SEATING	UNSEATING
6	23	0	35	10				
8	23	0	35	10				
10	23	0	35	10				
12	23	0	35	10	10	0	30	20
14	23	0	32	10				
15	23	0	32	10	10	0	30	20
16	23	0	32	10				
18	23	0	32	10	10	0	30	20
20	23	0	26	10				
21	23	0	26	10				
24	23	0	26	10	10	0	30	20
30	11	0	20	10	10	0	30	20
36	11	0	20	10	10	0	20	20
42	9	0	20	10	10	0	20	20
48	9	0	20	10	10	0	15	15
54	6	0					15	15
60	6	0					15	15
66	6	0					10	10
72	6	0					10	10
84							10	10

PRESSURE SLIDE GATES-P-30 "RED TOP" SERIES

Used for medium duty water control in small reservoirs, distribution boxes, ponding areas and pumping stations. Not for use with continuous throttling. Holds pressure in both directions. Center-point, wedge-action closure. Typically mounted to head walls or pipe stands. Flange back models (P-30-FF) for direct installation on pipe flanges with 125# ANSI straddle center drilling standard. Size range: 6" to 24".

Key Features:

- Seat faces are iron (bronze optional). Guide rails on 6"-14" are cast iron. Guide rails on 16" and larger are stainless steel.
- For 60 foot seating (face) pressure and 10 foot unseating (back) pressure
- Non-Rising bronze stem standard. Sizes up to 14" have tee-handle, larger sizes have hand wheel.



P-30

LINE GATES-H-30 "RED TOP" SERIES

Our line gates are for direct installation into pipelines and are designed for longevity. The heavy-cast iron construction is complimented by a non-rising stainless steel screw and bronze nut with double lead Acme threads. A cast iron packing gland with a bronze packing nut which eliminates "freezing" due to rust or corrosion.

Key Features:

- Precision-machined iron seating surface (bronze seats optional)
- Each gate is hydrostatically tested
- 60 feet maximum seating (face) pressure
- 10 feet maximum unseating (back) pressure
- Non-rising stainless steel stem, with bronze nut and precision machined double lead Acme threads
- Bronze packing gland nut and lift nut
- Hand wheel standard; 2" square operating nut optional

Options:

- Waterman M-1 operating pedestal with sliding valve position indicator pointer.



H-30

CAST IRON FLAP GATES-F-10 "RED TOP" SERIES

Flap gates permit the free outflow of water from a pipe or structure while preventing and sealing against backflow. They are applied in reservoirs, tidal basins, ponding basins, waste lines, pump stands and storm drain systems. It is rated for a seating head of up to 10 feet. (Consult factory for flap gates with seating head capability above 10 feet.) Sizes 4" - 72".

Key Features:

- Frame and cover of heavy-duty cast iron.
- Galvanized steel angle links balance pivoted on bronze bushings.
- Built-in "Safety Bar" prevents sticking.
- 5 degree seat on sizes to 24", 2.5 degree seat on larger sizes allows for closure and compensates for piping irregularities.
- Mounting options: flatback, spogot back or tapered setting collar for concrete pipe.



F-10

FLAP GATES- AF-41 SERIES (ALUMINUM) SSF-41 SERIES (STAINLESS STEEL)

AC-31-F

Our AF-41 gates are inherently corrosion-resistant and rust-proof automatic drainage gates. They are commonly used with aluminum corrugated pipe, plastic or HDPE. Models are also available for flange and wall mounting. The rugged J-bulb neoprene adjustable seats provide excellent sealing against return flow. Sizes 8"- 84". Available in aluminum, 304 stainless steel and 316 stainless steel. Square and rectangular versions also available (AF-43 Series)



AF-41



SSF-41

PUMP DISCHARGE FLAP VALVE - PF-25 SERIES

A durable design with a cast iron flap cover, this valve features a positive 7.5 degree seating seal with neoprene seat. Choose compression style pipe connection for 4"- 14" diameter or flange style mount in 4"- 24" diameter.



PF-25 compression



PF-25 flanged 125#

OVERFLOW RISER VALVES

Waterman overflow riser valves provide regulation and shut-off of flow from pipelines to furrows or checks.

To Order a Riser Valve

SELECT THE COVER STYLE the traditional "Red Top" concave design features high-strength ribs. The smooth convex (domed) "Sunshine" design is preferred in some areas. The "Pasture" design features a flush, key operated, self-cleaning stem, for use in areas where livestock are present.

SELECT THE THREAD PATTERN our popular high strength National Standard (vee) thread for is standard on "Red Top". Acme threads are available on all models, and are standard on 6" and larger Sunshine and Pasture.

SELECT YOUR PIPE STYLE Models are available for use with concrete, PVC and plastic (PIP/IPS) irrigation pipe.

Key Features:

- High Strength, close-grained grey iron frame and cover
- Stainless steel screws with fully machined threads for less corrosion and reduced vandalism
- Continuous ring synthetic rubber cover seal and a friction-resistant synthetic washer seal



Red Top



Sunshine



Concrete



*Type 4
(Plastic Pipe, Epoxy Fit)*



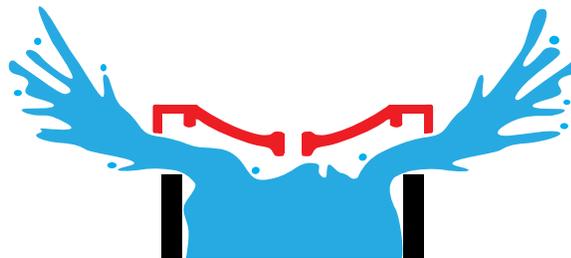
Solvent Weld (IPS/PIP)



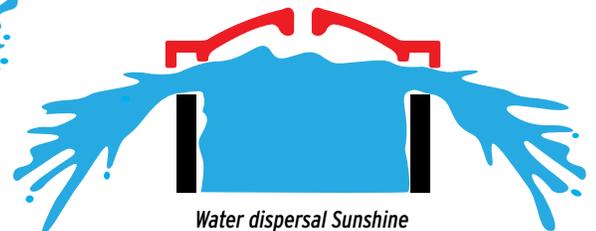
*Pasture
Acme Thread Standard*



*Exclusive
stainless steel stem*



Water dispersal Red Top



Water dispersal Sunshine

ALFALFA RISER VALVES & UNIVERSAL HYDRANT

Alfalfa Valves are commonly used with the Waterman Universal Hydrant for connection of portable surface pipe. They are also applied where an extra heavy duty riser valve is desired. A fully machined outer rim is provided to fit and make a watertight seal with our hydrant. The larger diameter screw and brass nut is designed to provide resistance to higher flow. Frame and nut are field replaceable.

Options:

- Red top or sunshine cover
- Acme thread screw standard; National standard thread optional
- Solid arch or removable arch
- Web frame, quick setting frame, steel pipe mount, plastic pipe mount, solvent-weld
- Standard stainless screw, bronze screw optional

Universal Hydrant

- Pierce-style connection
- Quick connect or standard connection to alfalfa riser valve



Alfalfa



Hydrant

AIR VENTS - STANDARD

Waterman air vents protect irrigation and piping systems by releasing entrapped air as pipelines fill and providing vacuum relief when lines drain. Installation of proper air relief is essential to the proper operation and longevity of piping systems and the proper functioning of system pumps.

Installation of proper Waterman air vents can help prevent these issues:

- Impedance of flow due to air obstruction, head losses. Inadequate flow to crops.
- Water hammer and vacuum damage.
- Corrosion and cavitation.
- Danger to operators from air-blown parts

SERIES AV-150 ALUMINUM BODY AIR VENT uses a hard, precision ground, inert solid plastic float ball which prevents "sticking" in the closed position. The float ball seats against a precision o-ring providing a tight seal at very low pressures where other vents often leak. Rated to 150 psi on the 1.5" and 2" and 100 psi on the 3" and 4". The aerodynamic "air-flow" design of a high strength alloy aluminum body and full baffle assures maximum vent capacity without premature closing.

SERIES CR-101 ALUMINUM BODY CONTINUOUS ACTING AIR VENT AND VACUUM RELIEF VALVE continually provides high-volume air and vacuum protection, insures full line capacity, and conserves pump horsepower. It seals at pressures as low as 2 psi. It has a high strength aluminum alloy body, baffle, and rubber bonded poppet and a specially designed cylindrical float. The guide rod and assembly hardware are stainless steel. Cast iron is used for the threaded base to provide easy installation and removal without the thread damage which can occur with aluminum threads. 2", 3" and 4" sizes rated to 100PSI.

SERIES CR-101-HP ALUMINUM BODY CONTINUOUS ACTING AIR VENT AND VACUUM RELIEF VALVE continually provides high-volume air and vacuum protection, insures full line capacity, and conserves pump horsepower. It seals at pressures as low as 2 psi. It has a high strength aluminum alloy body, baffle, and rubber bonded poppet and a specially designed cylindrical float. The guide rod and assembly hardware are stainless steel. Cast iron is used for the threaded base to provide easy installation and removal without the thread damage which can occur with aluminum threads. 2", 3" and 4" sizes rated to 300PSI.



AV-150



CR-101

PRESSURE RELIEF VALVES

Our pressure relief valves provide reliable surge protection for irrigation systems. With a dependable spring-loaded design, these units provide reliable performance year-after-year. All models are available either factory pre-set or with field-adjustable pressure setting. Options include a protective cover (C) and a directional-flush protective cover (DC) which can be connected to a discharge pipe. All models include a pressure gauge port.

AA-6, sizes 2" and 2.5", settings to 120PSI, aluminum body and stainless spring

AA-9, 6" size, settings to 120PSI, cast iron body and stainless spring, high volume discharge

AA-96, sizes 3" and 4", settings to 150PSI, cast iron body and stainless spring



AA-6



AA-9



AA-96



AA-96C



AA-60D/AA-96D

GET TO KNOW WATERMAN

Waterman is a leading brand of water control products for the water treatment, rural water distribution, industrial processing and agricultural industries. Our manufacturing plant and distribution center are located in Exeter, California.



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