



## Product Guide



# Plattco Corporation

founded in 1897

When your process is critical, when conditions are demanding,  
When your valve has to work, it has to be a **Plattco Valve**.



## Plattco Double Flap Airlock® Valves.

To reduce maintenance time, increase efficiency and lower costs, companies around the world choose Plattco when they need a valve that will:

- ♦ **ensure a reliable, long lasting seal** ... even when the material is abrasive or corrosive, pressurized or subject to extreme temperatures,
- ♦ **be easy and inexpensive to maintain** for decades of “like new” operation,
- ♦ **fit their specific applications**, using Plattco’s 50 years of experience designing exceptionally performing valves.

### Economically & Operationally Better Than Rotary Valves

Plattco valves have been installed in dozens of industries in all 50 states and over 60 countries. Many are purchased in place of rotary valves by bottom-line oriented managers who insist on valves that require less maintenance and improved productivity.

Plattco provides a long-term solution to airlock wear by eliminating the rotary action of other valves. The body of the valve is not a sealing surface. All our bodies are cast in alloys specifically designed for the valve application. They are long-life units that are designed to provide many years of maintenance-free service.

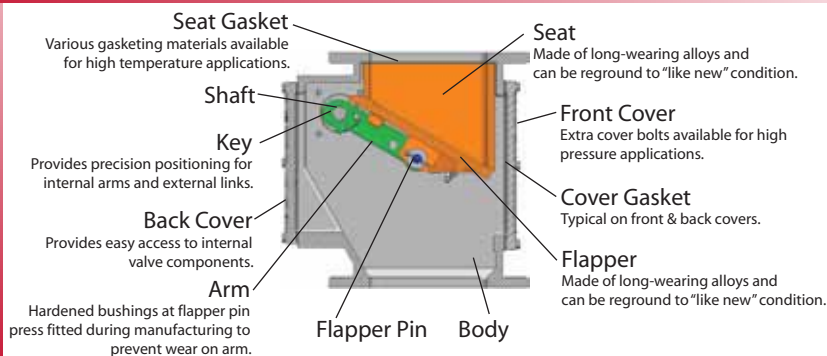
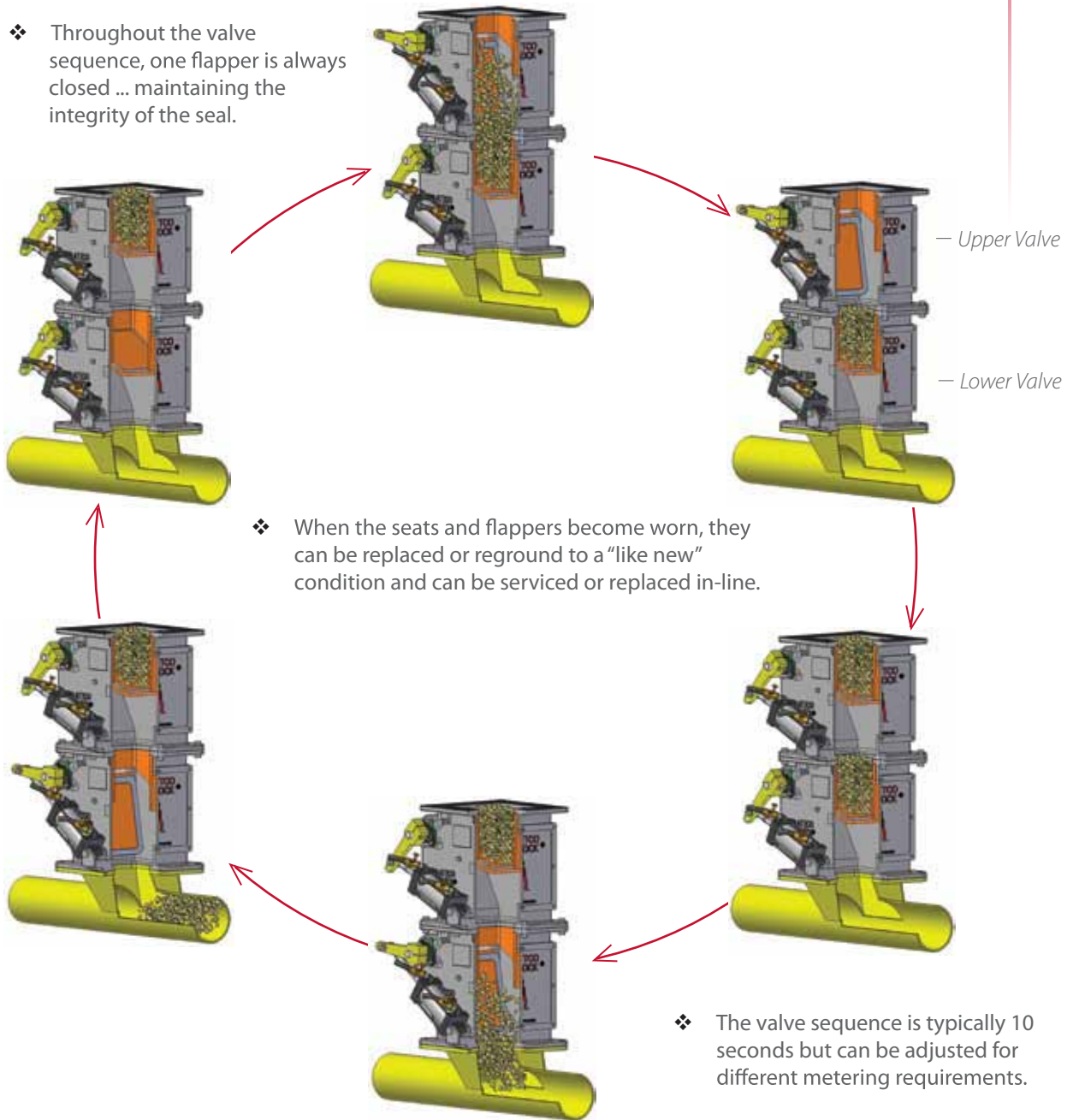
The seats and flappers, which provide the critical seal, are cast and machined of wear-resistant alloys that can be reground to provide the same level of seal performance each time. They can be replaced quickly and easily without disassembling the valve or taking it out of line, using Plattco’s unique Easy Maintenance Technology.

**Our valve designs eliminate bridging and clogging to maximize operating efficiency. For elevated temperatures, abrasive materials or high pressure differentials, Plattco is the respected leader around the world as the standard for valve excellence.**

*Determine the value of switching to Plattco valves for your operation ... use our **Cost-Benefit Calculator** found at [Plattco.com](http://Plattco.com) or contact us today.*

# Plattco Double Flap Airlock® Valves ... The Seal Is Never Broken

- ❖ Throughout the valve sequence, one flapper is always closed ... maintaining the integrity of the seal.

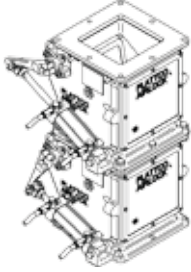


To view our valves cycling, visit our website at: [www.Plattco.com](http://www.Plattco.com)



## H-Series / *Premiere Valve*

1800° Maximum Material Temperature



The original Plattco Double Flap Airlock® Valve continues to be the standard of excellence for heavy duty solid processing applications.

Used extensively in difficult applications and in challenging operating environments, our H-Series double flap valve is manufactured in a variety of high performance alloys including cast iron, Ni-resist and stainless steel.

### **Features of our H-Series Valves:**

Exclusive “full throat” openings provide maximum material flow and prevent material bridging.

Seats and flappers of long-wearing alloys can be repeatedly reground for extended service life.

Self flushing linkage option on electric valves designed to permit passage of surge-loads and eliminate plugged lines.

Front and rear access covers permit cleaning, servicing and internal parts replacement without system interruption.

Outboard mounted shaft seals and bearings permit easy access for visual inspection and maintenance, and air circulation to bearings.

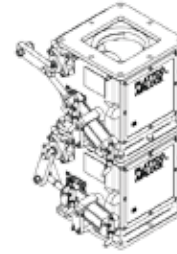
Optional knife edge seats prevent material buildup on the flappers, increase closing force and help cut through stringy materials.

*Easy Maintenance Technology*

*Ideal For Extreme Conditions*

*Superior Airlock Seal*

*Significant utility & maintenance cost savings replacing screw pumps*



## R-Series / *Radial Valve*

1800° Maximum Material Temperature

Our **Radial** valve combines all the features of the H-Series with an air tight radial seat and flapper.

### **Features of our R-Series Valves:**

No rotary action means no need to build clearance, and thus leakage, into the valve.

Double flaps ensure the seal is never broken throughout filling and emptying the valve.

All cast construction for consistency, proprietary alloys for durability and wear resistance.

Large throat opening eliminates bridging, jamming and material build up.

Plattco's optional patented mechanical seal eliminates potential for shaft seal leakage in pressurized applications.

Seats and flappers can be reground several times to bring them back to “like new” performance.

Housing is not part of the seal -- allowing it to last for decades in the worst operational environments.





## S8-Series / Low Profile Valve

1800° Maximum Material Temperature

Use the S8-Series valve where low overall height is required. Features the same rugged design as our famous H-Series valve in a low headroom alternative.

As customers look for more opportunities to gain the advantages of a Plattco -- often in very tight spaces -- they have made the S8-Series one of our best selling valves.

### **Features of our S8-Series Valves:**

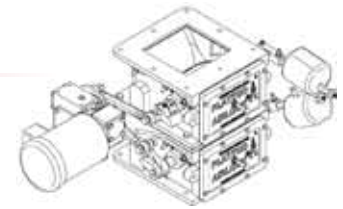
Low profile design for optimal performance with dry, free flowing materials.

Seats and flappers of long-wearing alloys can be repeatedly reground for extended service life.

Front access covers permit cleaning, servicing and internal parts replacement without system interruption.

Outboard mounted shaft seals and bearings permit easy access for visual inspection and maintenance, and air circulation to bearings.

Optional knife edge seats prevent material buildup on the flappers, increase closing force and help cut through stringy materials.



*Combine with our slide gates to maximize system integrity & easy maintenance.*

*Expand material throughput, cost-effectively, by combining valves with variously sized Dutchmen.*



Shown with access cover removed.

## PCV-Series / Pollution Control Valve

750° Maximum Material Temperature

Use the PCV-Series valve in low pressure applications. Replace your existing rotary valve and get reliable, long wear performance in highly abrasive applications.

Our patented design eliminates internal bridging and plugging.

### **Features of our PCV-Series Valves:**

Low profile design.

Seats and flappers of Plattalloy #3 can be repeatedly reground for extended service life.

Front access covers permit cleaning, servicing and internal parts replacement without system interruption.

Outboard mounted shaft seals and bearings permit easy access for visual inspection and maintenance, and air circulation to bearings.

Valve design eliminates jamming under normal conditions.





## H-Series

1800° F  
 Maximum Material Temperature



## H-Series

**The Premiere Valve** in dry material handling with thousands of successful applications in industries throughout the world.

**Inlet/Outlet Sizes:** 6, 8, 10, 12, 16, 18, 24  
**Capacity Expanding Spool Pieces**  
 (inches in height): 2 - 30  
**Operators:** Pneumatic, Rotary Actuator, Electrical, Hydraulic, Gravity  
**Valve Body Materials:** Cast Iron, Ni-Resist, Cast Steel, Stainless Steel  
**Seat & Flapper Materials:** Ni-Hard, Plattalloy 650, Ni-Resist, Stainless Steel  
**Seat & Flapper Design:** Classic, Knife Edge  
**Shaft Seals:** Standard Graphite Packing, Lantern Rings, Injectable, Mechanical (*Patented*)

## R-Series

1800° F  
 Maximum Material Temperature



## R-Series

**The Radial Valve** that combines all the features of the H-Series with an airtight radial seat and flapper.

**Inlet/Outlet Sizes:** 6, 8, 10, 12, 16, 18, 24  
**Capacity Expanding Spool Pieces**  
 (inches in height): 2 - 30  
**Operators:** Pneumatic, Rotary Actuator, Electrical, Hydraulic, Gravity  
**Valve Body Materials:** Cast Iron, Ni-Resist, Cast Steel, Stainless Steel  
**Seat & Flapper Materials:** Ni-Hard, Plattalloy 650, Ni-Resist, Stainless Steel  
**Seat & Flapper Design:** Classic, Knife Edge  
**Shaft Seals:** Standard Graphite Packing, Lantern Rings, Injectable, Mechanical (*Patented*)

## S8-Series

1800° F  
 Maximum Material Temperature



## S8-Series

**The Low Profile Valve** is built with the same rugged design as our famous H-Series valve at roughly half the height for applications where headroom is restricted.

**Inlet/Outlet Sizes:** 6, 8, 10, 12, 16, 18  
**Capacity Expanding Spool Pieces**  
 (inches in height): 2 - 24  
**Operators:** Pneumatic, Rotary Actuator, Electrical, Hydraulic, Gravity  
**Valve Body Materials:** Cast Iron, Ni-Resist, Cast Steel, Stainless Steel  
**Seat & Flapper Materials:** Ni-Hard, Plattalloy 650, Ni-Resist, Stainless Steel  
**Seat & Flapper Design:** Classic, Knife Edge  
**Shaft Seals:** Standard Graphite Packing, Lantern Rings, Injectable, Mechanical (*Patented*)

## PCV-Series

750° F  
 Maximum Material Temperature



Shown with access cover removed.

## PCV-Series

**The Pollution Control Valve** provides a lower-cost alternative that is perfect for pollution control systems and other low pressure ( $\leq 2$  psi) applications, with the same profile as the S8-Series.

**Inlet/Outlet Sizes:** 6, 8, 10, 12  
**Capacity Expanding Spool Pieces**  
 (inches in height): 2 - 24  
**Operators:** Pneumatic, Rotary Actuator, Electrical, Hydraulic, Gravity  
**Valve Body Materials:** Cast Iron  
**Seat & Flapper Materials:** Plattalloy #3  
**Seat & Flapper Design:** Classic, Knife Edge  
**Shaft Seals:** Standard Graphite Packing

## T-Series & U-Series

750° F  
 Maximum Material Temperature



T-Series

U-Series

## T-Series & U-Series

**The High-cycling T-Series and U-Series Maintenance Gates** are compatible with all Plattco Double Flap Airlock® Valves or as stand-alone maintenance gates.

**Inlet/Outlet Sizes:** 8, 10, 12  
**Operators:** Pneumatic, Hand Wheel  
**Valve Body Materials:** A36 Steel (T-Series); Cast Iron (U-Series)  
**Gate Material:** Stainless Steel  
**Drill Pattern:** Distinct pattern allows gates to remain in place if equipment below needs to be removed.

H-Series, R-Series Valves			Capacities at 6 cycles/minute for valves below 16" and 4 cycles/minute for valves 16" and above								
Valve Size	Std Height (inches)	Std Capacity (cf/hour)	Height of Spool Piece (in inches)								
			2"	3"	4"	6"	8"	10"	12"	18"	24"
6"	29 9/16"	60	75	83	90	123	145	167	188	253	319
8"	32 1/16"	90	116	130	148	188	222	256	289	390	491
10"	36 1/16"	150	196	218	237	319	375	431	488	656	825
12"	44 1/16"	300	356	384	426	524	602	699	760	999	1232
16"	60 1/8"	405	476	511	546	770	920	1070	1220	1669	2119
18"	66 1/8"	540	630	675	720	967	1140	1313	1487	2007	2527
24"	88 1/8"	1440	1600	1680	1760	2136	2407	2678	2949	3761	4573

S8-Series, PCV-Series Valves			Capacities at 6 cycles/minute for valves below 16" and 4 cycles/minute for valves 16" and above								
Valve Size	Std Height (inches)	Std Capacity (cf/hour)	Height of Spool Piece (in inches)								
			2"	3"	4"	6"	8"	10"	12"	18"	24"
6"	14 1/16"	17	32	39	46	84	108	131	155	226	296
8"	16 1/16"	34	59	72	85	132	166	199	233	333	434
10"	20 1/16"	66	107	128	148	228	284	340	397	565	734
12"	24 1/16"	104	160	188	230	328	406	485	563	800	1036
16"	32 1/8"	160	231	267	302	536	686	836	986	1435	1885
18"	36 1/8"	250	340	385	430	677	850	1023	1197	1716	2237

Maximum Spool Piece Temperatures: Cast Iron = 750°F; Ni-Resist = 1200°F; Stainless Steel = 1800° F

## Custom engineering ensures the perfect valve.

Plattco invented the double flap valve and has more than 50 years experience creating thousands of successful applications, in dozens of industries around the world.

We make our living solving material handling problems that no other valve can handle. It's the only thing we do. Our organization concentrates on designing, engineering, manufacturing and delivering the best valves in the world.

Over the past 50 years, we have developed and proven the best performance options in valves. Some of these options include:

- ♦ Four standard valve models with many sizes available for each.
- ♦ Two coordinating slide gate models in a variety of sizes.
- ♦ Various height spool pieces to inexpensively increase throughput.
- ♦ Proprietary alloys -- from cast iron to stainless steel -- to handle extremes of material properties.

Let us work with you to design the ideal valve for your material handling needs.

## Our Patented Mechanical Shaft Seal.

When maintaining a seal in your high-pressure application is critical, Plattco's patented Mechanical Shaft Seals are absolutely unbeatable.

### Benefits of our patented Mechanical Shaft Seals include:

- ♦ Eliminates damage caused by air cutting.
- ♦ Replacing shaft seal packing is no longer needed.
- ♦ No air is needed for shaft seals.
- ♦ Features a self-contained cartridge.
- ♦ Seals can be factory rebuilt for many more years of superior performance.
- ♦ Seals up to 40 psi.
- ♦ Requires no scheduled lubrication or maintenance.
- ♦ Easy to replace.
- ♦ Eliminates environmental issues.





## More than a century of innovation and excellence.



Plattco Corporation specializes in the design and manufacture of **Double Flap Airlock® Valves** and associated multi-purpose slide gates to solve solid material handling problems in a wide variety of industrial applications.

With more than 50 years of flap valve expertise and over 75 years of metallurgical and manufacturing experience, our long list of clients look to Plattco for their most challenging projects.

### History

Plattco began as a gray iron foundry in 1897 – producing drainage castings, stock valves and other machined castings for the paper, mining and other regional industries. Always a leader, Plattco became the first licensee for “white irons” (Ni-Hard, Hi-Chrome, Ni-Resist) patented by International Nickel in the 1930's.

Our customers have always looked to us for solutions to their most difficult dry material handling issues. This problem-solving role led Plattco to invent the first **Double Flap Airlock® Valves** in 1960 to eliminate leakage with sintering and pelletizing in the mining industry, and for handling of cement clinker.

Since then, Plattco has engineered thousands of solutions, in dozens of industries, throughout the world. We have established an unmatched reputation for providing valves and slide gates to resolve process challenges in applications that involve high temperature, high pressure, and abrasive or corrosive materials.

As an integrated manufacturer, Plattco is able to seamlessly tackle the toughest applications with our on-site engineering, pattern shop, foundry and machine shop in Plattsburgh, New York. We own several U.S. and International patents and are considered a premier innovator in the solid materials handling valve business.

Plattco is employee-owned. Every employee is a stockholder with a direct interest in ensuring that our customers are pleased with our valves and continue to consider us the best company in our industry.

We are proud of our history and mindful of our responsibility to provide the very best solution to every material handling application we undertake.





## Decades of success.

*"The Plattco Double Flap Airlock® Valves that Essroc chose to purchase instead of a conventional screw pump have saved us many thousands of dollars in electricity and maintenance over the past year.*

*"They have required very little maintenance and very few replacement parts."*

John Holiday, Essroc

*"Prior to installing the new Plattco seal assemblies, we spent between 150 and 200 man hours on problems directly related to leakage of the seals -- which translates into \$12,000 to \$16,000 just in labor alone, not to mention parts.*

*"Since that time, labor hours on anything related to the seals or bearings has dropped to 0 (not counting routine maintenance). Needless to say, we are very pleased with the Plattco seals and would recommend using them."*

Jim Warnock, Omya California Inc.

*"Before the Plattco valves were installed, the rotary valves' vanes would pack with dust or foreign objects and not convey material very well. Plattco valves do not experience these plugging problems.*

*"The conversion was straightforward, technical support was excellent and the conversion to Plattco valves eliminated the constant vane adjustment maintenance necessary with rotary valves. We have had Plattco valves since 1999, and they have required very little maintenance and very few replacement parts."*

Mark Cooke, US Steel

*"The Plattco model PCV-0822-11 Double Flap Airlock® Valves have improved my cyclone's efficiency significantly. We also noticed a reduction in our emissions due to the reduced amount of false air that was allowed back into the cyclones. This reduction in the false air also reduces the load on the ID fan, which means less horsepower and less electrical costs!*

*"We encounter less maintenance and down time with the Plattco valves."*

Ron Brown, Constellation Energy



### Plattco Valve Applications

*Precipitators*

*Baghouses*

*Clinker Coolers*

*Cyclones*

*Ash Handling*

*Air Heater Hoppers*

*Burner Chutes*

*Bulk Handling*

*CFB Boilers*

*Dust Collectors*

*Grinding Mills*

*Kilns*

*Preheater Hoppers*

*Pneumatic Conveying*

*Coal Mill Feeders*

*Spritzer Traps*

*Vacuum Systems*

*Filter Receivers*

*Classifiers*

*Alternate Fuel Feed*

*Storage Silos*

*Cooling Towers*

*Air Slides*

*Conditioning Towers*



## The Standard of Excellence.

To reduce maintenance time, increase efficiency and lower costs, companies around the world choose Plattco when they need a valve that will:

- ♦ **ensure a reliable, long lasting seal** ... even when the material is abrasive or corrosive, pressurized or subject to extreme temperatures,
- ♦ **be easy and inexpensive to maintain** for decades of "like new" operation,
- ♦ **fit their specific applications**, using Plattco's 50 years of experience designing exceptionally performing valves.

Our on-site foundry, pattern shop, machine shop, and experienced design team give us complete flexibility when delivering solutions for your specific applications.

For superior high-performance air seals, on-line maintenance and rugged durability, companies around the world choose Plattco valves.

Our **Cost-Benefit Calculator** is an interactive model that you can use to determine the cost savings and benefits of Plattco valves to your operation, using your data.

Find out for yourself the true value to your operation of choosing Plattco valves -- use our **Cost-Benefit Calculator** found at [www.Plattco.com](http://www.Plattco.com) or contact us today.



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seals and would recommend using them."*

Double Flap Airlock<sup>®</sup> Valves  
Slide / Isolation Gates