



Solid Solutions in Sealing Technology



## Self-Adjusting 7500 Series CinchSeal

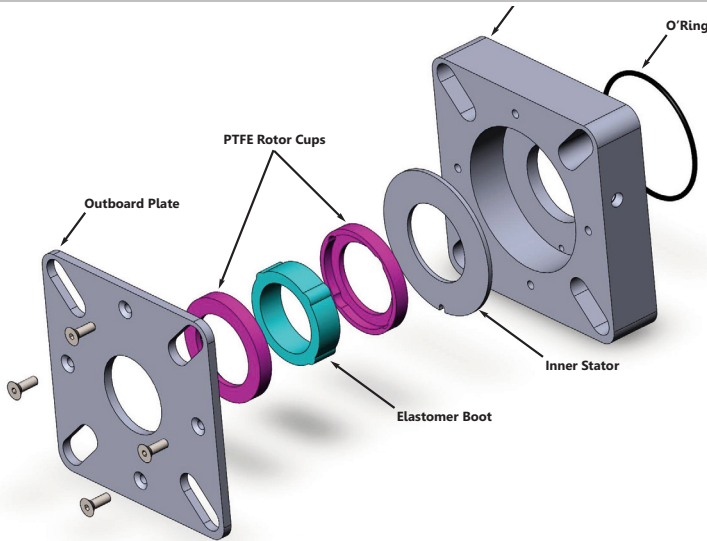
Our **7500 Series CinchSeals** are designed for zero maintenance due to the unique self adjusting design. These are ideal for screw conveyors, bucket elevators, and similar bulk solid applications.

The **7500 Series** consumes 30% less power than packing seals and will not undercut shafts. Fully assembled and possessing a rugged modular design, our **7500 Series** will not leak to foul bearings or contaminate processing areas.

- Designed for C.E.M.A. screw conveyor and bulk handling equipment
- Temperature ranges -50F to 400F
- Designed to accommodate repair kits
- Bolting pattern will accommodate flange mounted bearings
- The housing is machined out of Anodized Aluminum
- Designed to handle linear shaft growth, and 1/4" total radial shaft runout
- Purge with air, 5 to 8 psi above vessel pressure, or silicone grease.
- Zero maintenance due to unique self adjusting design



## 7550 Assembly

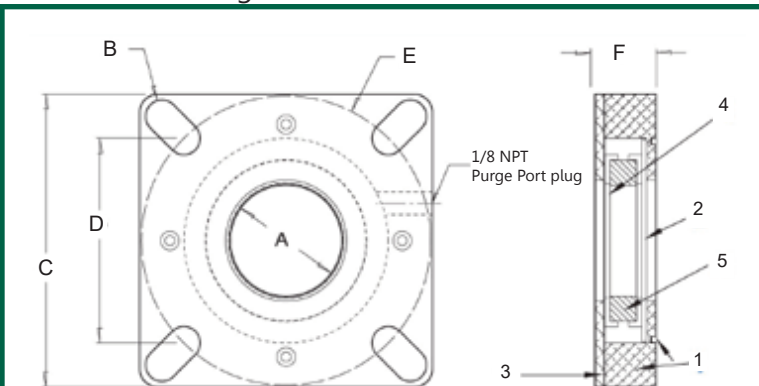


## How the 7550 Series Works

The key component in the 7550 solid seal is the elastomer which is molded out of a special silicon material that can handle temperatures up to 400F. The elastomer is molded slightly smaller than the shaft size so that an interference fit is achieved. It is the interference fit of the elastomer and shaft that not only seals the shaft so product can't migrate past and leak out, but it also causes the internal seal parts to turn with the shaft so that damage to the shaft is eliminated. As the elastomer turns with the shaft it drives a pair of PTFE mineral filled rotor cups against two stationary faces to form the primary seal. The fact that CinchSeal turns with the shaft is what makes it unique and superior to rope packing and lip seals that are stationary and have the shaft turning through them which lead to scored shafts.

## Available Accessories

- Seal Repair Kits
- Air Pressure Regulators



1. Housing - O'ring at Inboard
2. Inner Stator
3. Outboard Plate
4. Rotor Cup
5. Elastomer Boot - FDA Approved

As the shaft turns, the elastomer drives two PTFE rotor cups that are being compressed with the optimum face pressure against a stationary face. It is the face pressure between the rotating faces and the stationary faces that stops material from leaking by. The PTFE rotor cups are the softer and sacrificial part of the seal, and are designed to wear and be replaced. Inexpensive re-build kits, which consist of a new elastomer and two new PTFE rotor cups, can be installed in minutes.

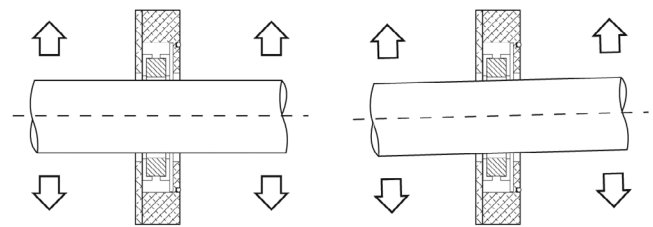
CinchSeal is an air purged seal that performs best when purged with 5 to 8 PSI of air over vessel pressure. The air purge improves seal life by accomplishing 3 things: it creates a higher pressure inside the seal which creates a natural air barrier that helps keep material out of the seal. Keeps the rotating faces cooler, and it adds to the closing force on the seal faces so product can't leak by.

The 7500 series meets all C.E.M.A. Dimensions and is easy to bolt up in place of waste packs, plate seals, and packing glands. Try CinchSeal today and stop all powder and dust leaks on all your rotating equipment.

## DIMENSIONAL CHART

A	B	C	D min	D max	E min	E max	F
1.5	.625	5.375	3.30	4.375	4.709	6.162	1.75
2.0	.750	6.50	4.0	5.386	5.657	7.618	1.75
2.437	.750	7.375	4.5	6.26	6.364	8.856	1.75
3.0	.880	7.875	5.50	6.677	7.778	9.443	1.75
3.437	.880	9.25	6.76	8.052	9.560	11.387	1.75

## Self Adjustment and Aligning



The CinchSeal module readily accommodates a reasonable amount of shaft vibration, misalignment or wobble. The rotor cup "floats" against the face of the stator plate so any lateral shaft movement produces nothing more than a slight orbital eccentricity.



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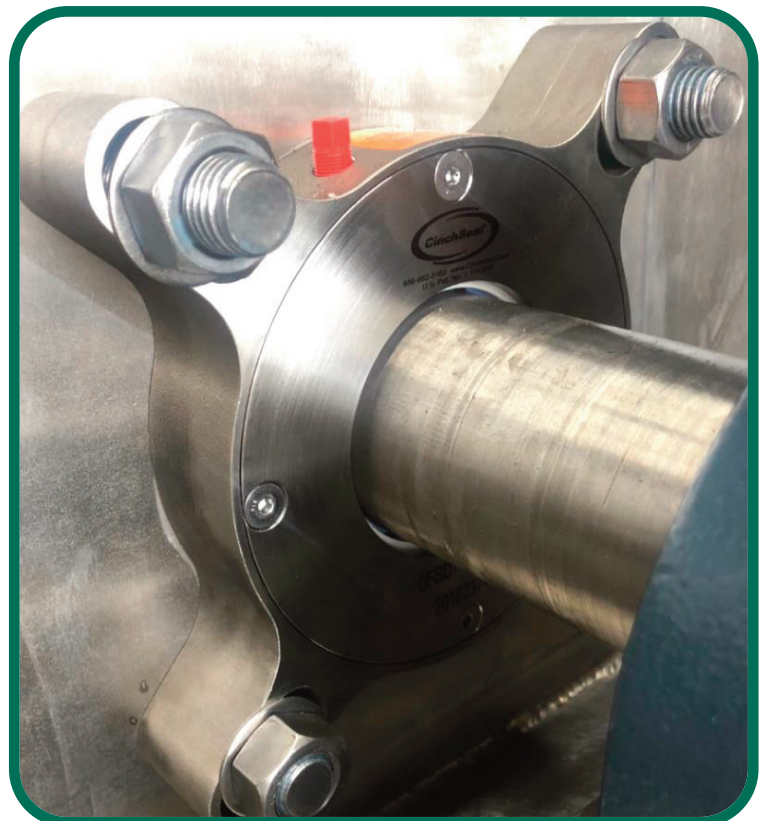


## 7850 Sanitary Seal

### 316 Stainless Steel Solid Housing

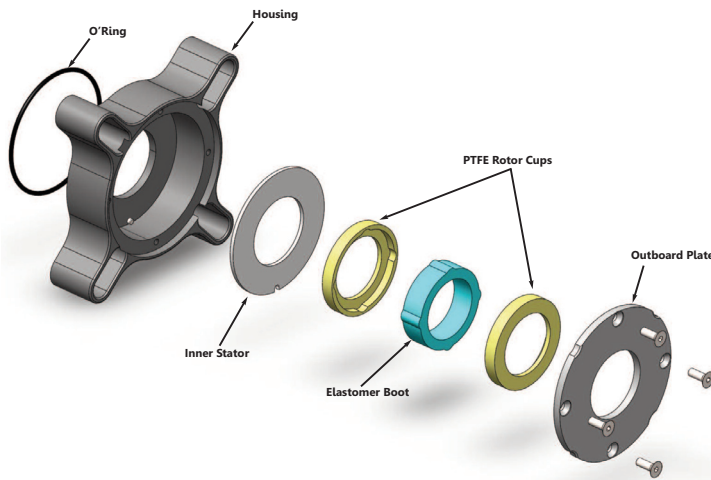
The maintenance free 7850 CinchSeal® for screw conveyors and other bulk handling equipment are made out of 316 Stainless Steel to handle dry and slurry products in the food service, pharmaceutical and chemical industries where stainless steel is a requirement. Why use antiquated technology like rope packing when CinchSeal® offers you a more efficient and greener alternative? Try CinchSeal® and stop powder and dust leaks in a Cinch!

- Designed for C.E.M.A. screw conveyor and bulk handling equipment
- Temperature ranges -50F to 400F
- Designed to accommodate repair kits
- Bolting pattern will accommodate flange mounted bearings
- Manufactured out of 316 Stainless Steel to handle caustic wash downs
- Designed to handle linear shaft growth, and 1/4" total radial shaft runout
- Purge with air, 5 to 8 psi above vessel pressure, or silicone grease.
- Zero maintenance due to unique self adjusting design
- Will not damage or undercut shaft. Stops product loss and premature bearing failure
- Seals dust and Vapors



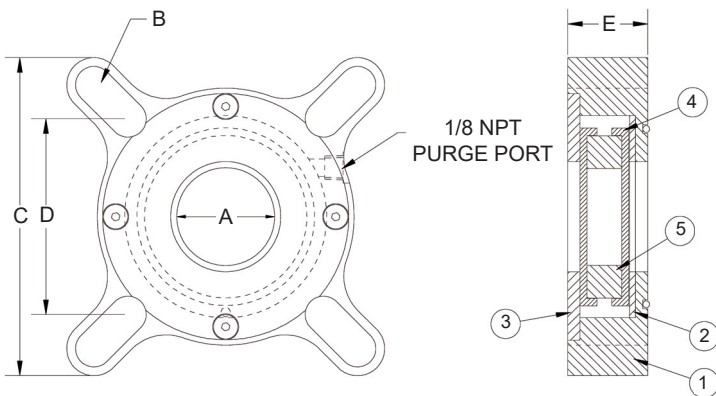
## 7850 Assembly

## How the 7850 Works



### Available Accessories

- Seal Repair Kits
- Air Pressure Regulators



1. Housing - O'ring at Inboard
2. Inner Stator
3. Outboard Plate
4. Rotor Cup
5. Elastomer Boot - FDA Approved

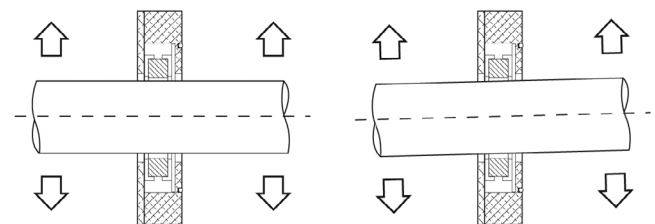
The key component in the 7850 solid seal is the elastomer which is molded out of a special silicon material that can handle high temperatures. The elastomer is molded slightly smaller than the shaft size so that an interference fit is achieved. It is the interference fit of the elastomer and shaft that not only seals the shaft so product can't migrate past and leak out, but it also causes the internal seal parts to turn with the shaft so that damage to the shaft is eliminated. As the elastomer turns with the shaft it drives a pair of PTFE mineral filled rotor cups against two stationary faces to form the primary seal. The fact that CinchSeal turns with the shaft is what makes it unique and superior to rope packing and lip seals that are stationary and have the shaft turning through them which lead to scored shafts.

As the shaft turns, the elastomer drives two PTFE rotor cups that are being compressed with the optimum face pressure against a stationary face. It is the face pressure between the rotating faces and the stationary faces that stops material from leaking by. The PTFE rotor cups are the softer and sacrificial part of the seal, and are designed to wear and be replaced. Inexpensive re-build kits, which consist of a new elastomer and two new PTFE rotor cups, can be installed in minutes.

CinchSeal is an air purged seal that performs best when purged with 5 to 8 PSI of air over vessel pressure. The air purge improves seal life by accomplishing 3 things: it creates a higher pressure inside the seal which creates a natural air barrier that helps keep material out of the seal. Keeps the rotating faces cooler, and it adds to the closing force on the seal faces so product can't leak by.

The 7850 seal meets all C.E.M.A. dimensions and is easy to bolt up in place of waste packs, plate seals, and packing glands. Try CinchSeal today and stop all powder and dust leaks on all your rotating equipment.

### Self Adjustment and Aligning



The CinchSeal® module readily accommodates a reasonable amount of shaft vibration, misalignment or wobble. The rotor cup "floats" against the face of the stator plate so any lateral shaft movement produces nothing more than a slight orbital eccentricity. The CinchSeal is designed to handle 1/8" shaft runout in any direction.

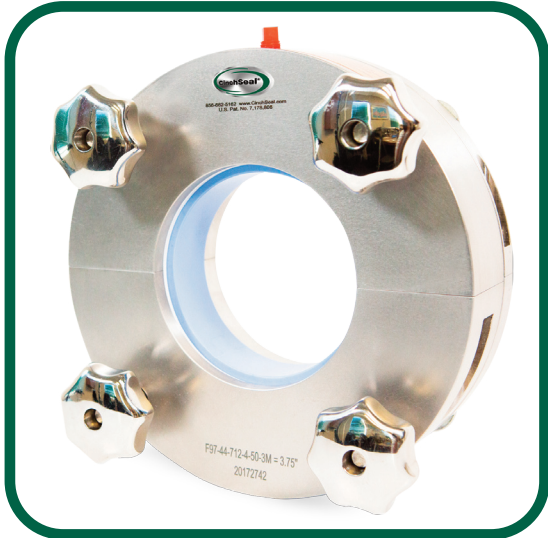
## DIMENSIONAL CHART

A	B	C	D min	D max	E
1.5	.625	5.375	3.30	4.375	1.640
2.0	.750	6.50	4.00	5.386	1.640
2.437	.750	7.375	4.50	6.26	1.640
3.0	.880	7.875	5.50	6.677	1.640
3.437	.880	9.25	6.76	8.052	1.640

Confidential, U.S. Pat. No. 7,178,806. These drawings and specifications are the property of CinchSeal, LLC. Not to be released, or used for any manufacturing or sales without written permission. Other sizes and metric available.



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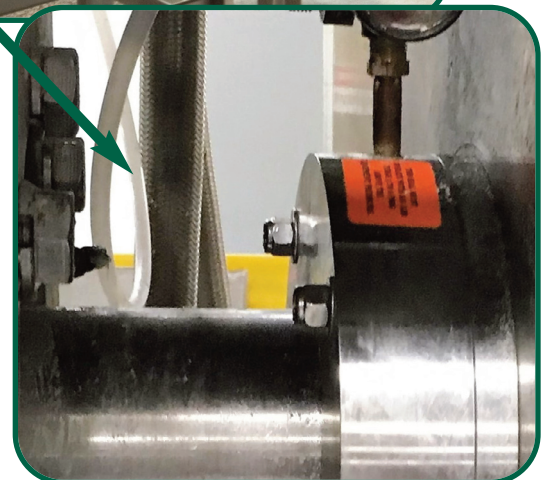
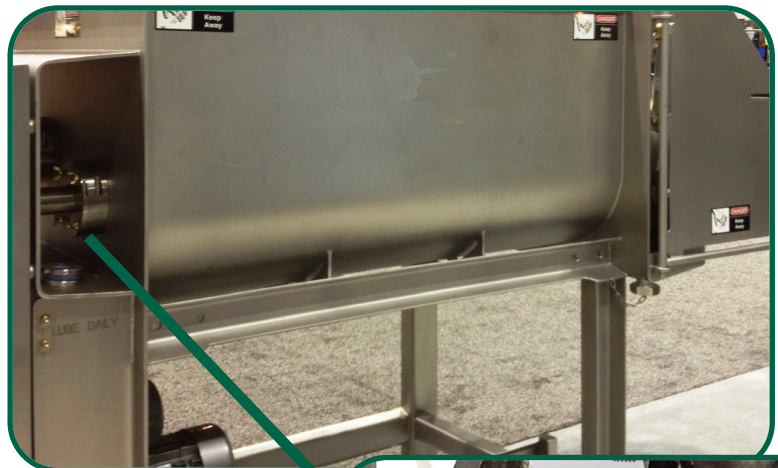


## 9700 Sanitary Seal

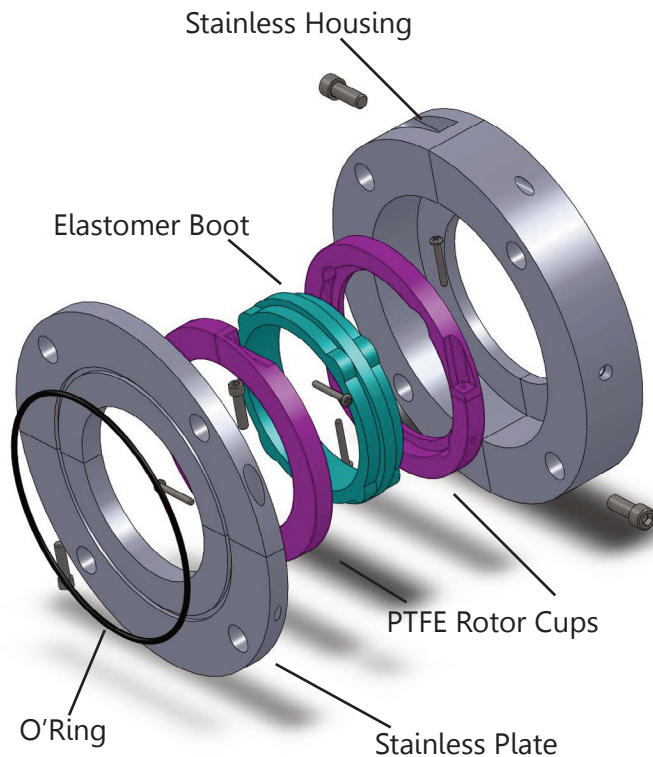
Machined entirely split to make installation a Cinch...

The model 9700 CinchSeal® is designed to seal mixing and blending equipment. It is manufactured entirely out of stainless steel to handle dry powder and slurry products in the food service, pharmaceutical and chemical industries where stainless steel is required.

- Eliminates product leakage, house keeping issues, bearing and drive failure
- Installation requires no equipment removal
- Shaft damage and wear is totally eliminated due to the unique elastomer design that turns with the shaft
- Eliminates product contamination caused by the breaking down of braided packing
- Seals hazardous vapors and dust
- Consumes less power than braided packing
- Will not damage or undercut shaft



## Exploded view of CinchSeal 9700



## How the 9700 Works

The heart of the 9700 CinchSeal is the FDA approved elastomer which is designed to create an interference fit on the shaft. This tight fit allows the elastomer to turn with the shaft and thereby eliminating shaft damage or wear. The elastomer seals the shaft and stops product from migrating past while also turning a set of mineral filled PTFE rotor cups. As the elastomer and rotor cups turn with the shaft they are compressed with the optimum amount of face pressure against a stationary face. The rotating face against a stationary face is what creates the primary seal that stops product from getting by. The PTFE rotor cups are designed to be the wearable part of the seal and repair kits are available. The repair kit consists of two new PTFE split rotor cups and new split elastomer. The seal is designed to be purged with air 5 to 8 PSI over vessel pressure to keep rotating seal faces cool and free of material. The 9700 seal is easy to take apart, clean, and re-assemble for daily maintenance.

## Applications

The 9700 CinchSeal is proven effective in sealing ribbon blenders, driers, and paddle mixers used in processing dry powder, semi-solid and slurry applications. Among the particularly challenging materials we have been successful in sealing are: cement, spices, cocoa powder, liquid chocolate, plastics and resins, salt, sugar, etc.

## Available Accessories

- Seal Repair Kits
- Air Pressure Regulators
- CIP Option available
- Additional Elastomers

## Purge Options

All CinchSeals should be purged with either plant air, nitrogen, or silicone grease. For best results, each seal should have an individual air regulator and not share. Air purging the seal creates a higher pressure inside the seal cavity which creates an air barrier that helps keep material inside the tank and out of the seal which adds to the life of the wearable parts of the seal.

## Installation

The 9700 CinchSeal should not be installed on severely worn equipment. Damaged shafts or excessive float or misalignment should be corrected prior to installation. The seal must be mounted square to the shaft. Please refer to installation guide when mounting your seal. Call or visit our website if help is needed.



## Solid Solutions in Sealing Technology



### **Poly Split (PS) Shaft Seal** Machined entirely split to make installation a Cinch...

The model PS CinchSeal® is designed to seal screw conveyors, mixing and blending equipment. It is manufactured out of polypropylene and stainless steel to handle dry powder and slurry products in the food service, pharmaceutical and chemical industries where stainless steel is required.

- Eliminates product leakage, house keeping issues, bearing and drive failure
- Installation requires no equipment removal
- Shaft damage and wear is totally eliminated due to the unique elastomer design that turns with the shaft
- Eliminates product contamination caused by the breaking down of braided packing
- Seals hazardous vapors and dust
- Consumes less power than braided packing
- Will not damage or undercut shaft

### **Applications**

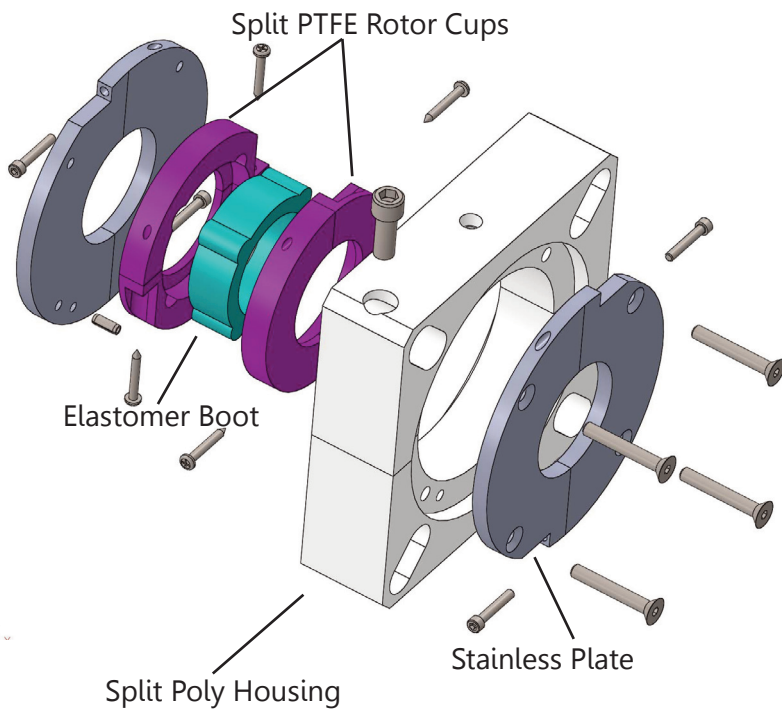
The PS CinchSeal is proven effective in sealing ribbon blenders, driers, and paddle mixers used in processing dry powder, semi-solid and slurry applications. Among the particularly challenging materials we have been successful in sealing are: cement, spices, cocoa powder, liquid chocolate, plastics and resins, salt, sugar, etc.

### **Available Accessories**

- Seal Repair Kits
- Air Pressure Regulators
- Additional Elastomers



## Exploded view of CinchSeal Poly Split



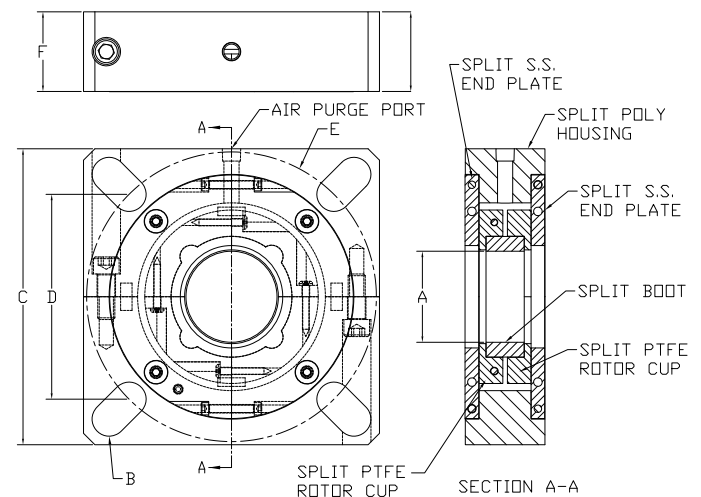
## How the Poly Split Works

The heart of the PS CinchSeal is the FDA approved elastomer which is designed to create an interference fit on the shaft. This tight fit allows the elastomer to turn with the shaft and thereby eliminating shaft damage or wear. The elastomer seals the shaft and stops product from migrating past while also turning a set of mineral filled PTFE rotor cups. As the elastomer and rotor cups turn with the shaft they are compressed with the optimum amount of face pressure against a stationary face. The rotating face against a stationary face is what creates the primary seal that stops product from getting by. The PTFE rotor cups are designed to be the wearable part of the seal and repair kits are available. The repair kit consists of two new PTFE split rotor cups and new split elastomer. The seal is designed to be purged with air 5 to 8 PSI over vessel pressure to keep rotating seal faces cool and free of material. The PS seal is easy to take apart, clean, and re-assemble for daily maintenance.

## Installation

The PS CinchSeal should not be installed on severely worn equipment. Damaged shafts or excessive float or misalignment should be corrected prior to installation. The seal must be mounted square to the shaft. Please refer to installation guide when mounting your seal. Call or visit our website if help is needed.

## Poly Split Assembly Drawing



## Purge Options

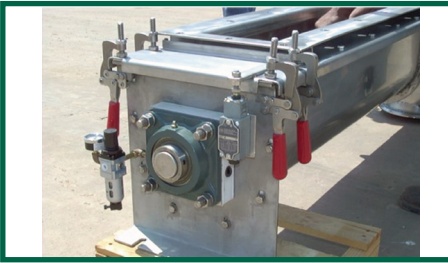
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## Dimensional Chart

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2.0	.750	6.50	4.0	5.386	6.657	7.618	1.75
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3.437	.875	9.25	6.76	8.052	9.560	11.387	1.75

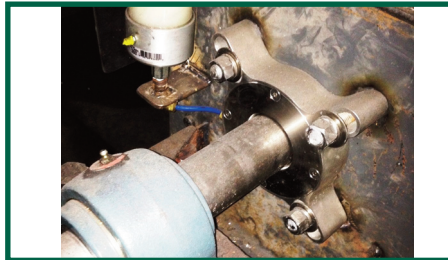


# Solid Solutions in Sealing Technology



- Cement and Gypsum
- Metal Powders
- Grain and Ethanol
- Sugar
- Mining

7500



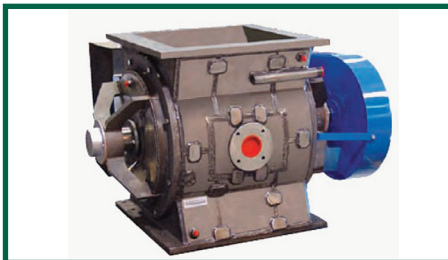
- Lime
- Chemical Processing
- Salt
- Spices
- Rendering

7800



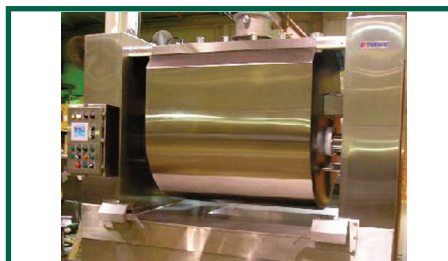
- Food Processing
- Spices & Flavorings
- Cheese & Dairy
- Pet Foods
- Chemical Processing
- Chocolate

9700



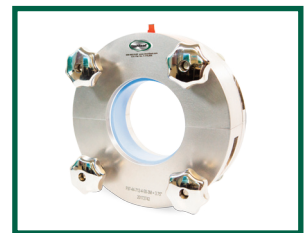
- TiO<sub>2</sub>
- Salt/Sugar
- Plastics
- Variety of Powders

Rotary Air Lock Seal



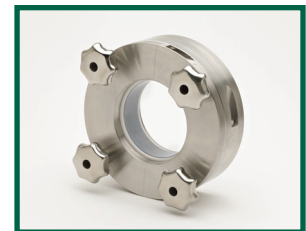
- Bakery
- Bread
- Cookies
- Crackers

9700



- Meat Processing
- Poultry
- Meat Rendering

9100

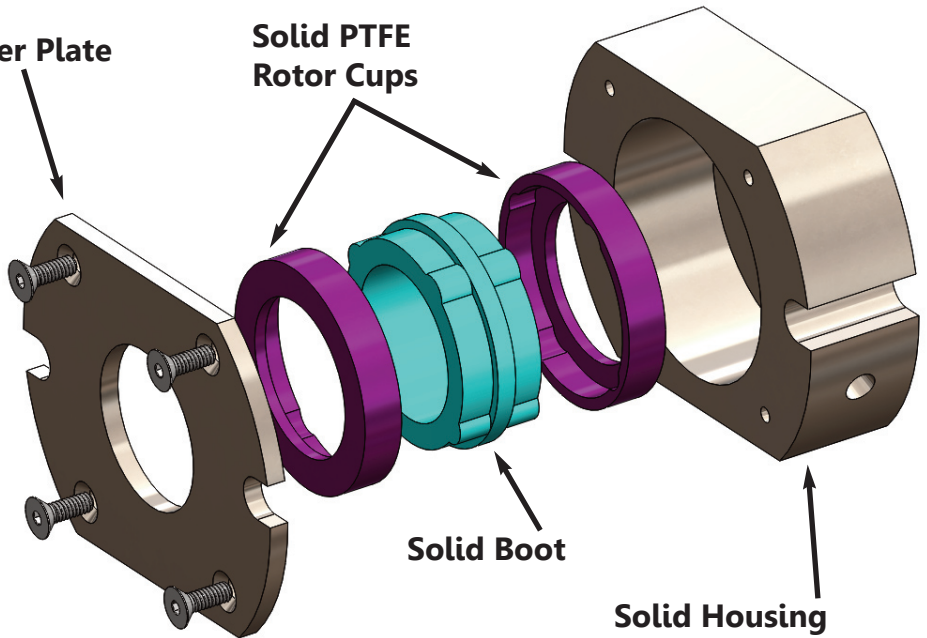


# Rotary Air Lock Seal



Cover Plate

Solid PTFE Rotor Cups



Solid Boot

Solid Housing



- Designed to replace rope packing on rotary air locks
- Zero maintenance due to self-adjusting design
- Custom seal housings available in Aluminum and SS
- Seals can be rebuilt with inexpensive repair kits
- Designed to handle 1/4" total radial shaft runout
- Designed to be air purged at 7 PSI over vessel pressure
- Designed for temperature ranges -50F to 400F

