

Ingenieurbüro ISH ist offizieller Vertriebspartner der CinchSeal Inc. in Deutschland, Österreich und der Schweiz



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CinchSeal

- Gegründet 1995
- Hersteller von Wellendichtungen
- Adresse: Pennsauken, New Jersey USA

(12) **United States Patent**
Pitchko et al.

(10) Patent No.: **US 7,178,806 B1**
(45) Date of Patent: **Feb. 20, 2007**

Kein Verschleiß an Ihrer Welle!!

Leckagefrei !

Reduzierung des Wartungsaufwandes!

Steigerung der Anlagensauberkeit!

Chemikalienbeständig!





Kunststoff und Dichtungstechnik Dipl.-Ing. Andreas Eickmeier e.K.



- Wir beliefern verschiedene Prozess- und OEM-Branchen, wie zum Beispiel:
- **Lebensmittelindustrie**
 - Zucker
 - Backwaren
 - Schokolade
 - Milch
 - Getreide
 - Gewürze
 - Fleisch
 - Geflügel
- **Pharmaindustrie**
- **Chemieindustrie**
- **Erdölindustrie**
- **Pulpe und Papierindustrie**
- **Steine, Lehm, Glasindustrie**
- **Farben und Pigmente**
- **Gummiindustrie**
- **Kosmetik**



Einige Referenzkunden

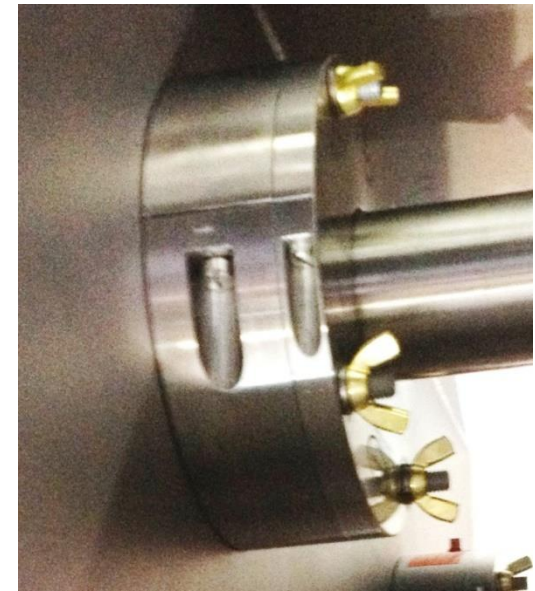
- AMMAG Schüttguttechnik
- Brabender Technologie
- CHT R. Beitlich
- DEK Deutsche Extrakt Kaffee
- Fuchs Gewürze
- Hachez Schokolade
- Hamburg Dresdner Maschinenfabriken
- Industriepark Höchst
- Jungbunzlauer
- Lanxess
- Lödige
- Omnisal
- Perstorp Chemicals
- Ruberg Mischtechnik
- Rockwood Lithium
- Saint-Gobain Rigips
- Südwestdeutsche Salzwerke
- Werkstätten GmbH



Technische Grenzen der Dichtungen:

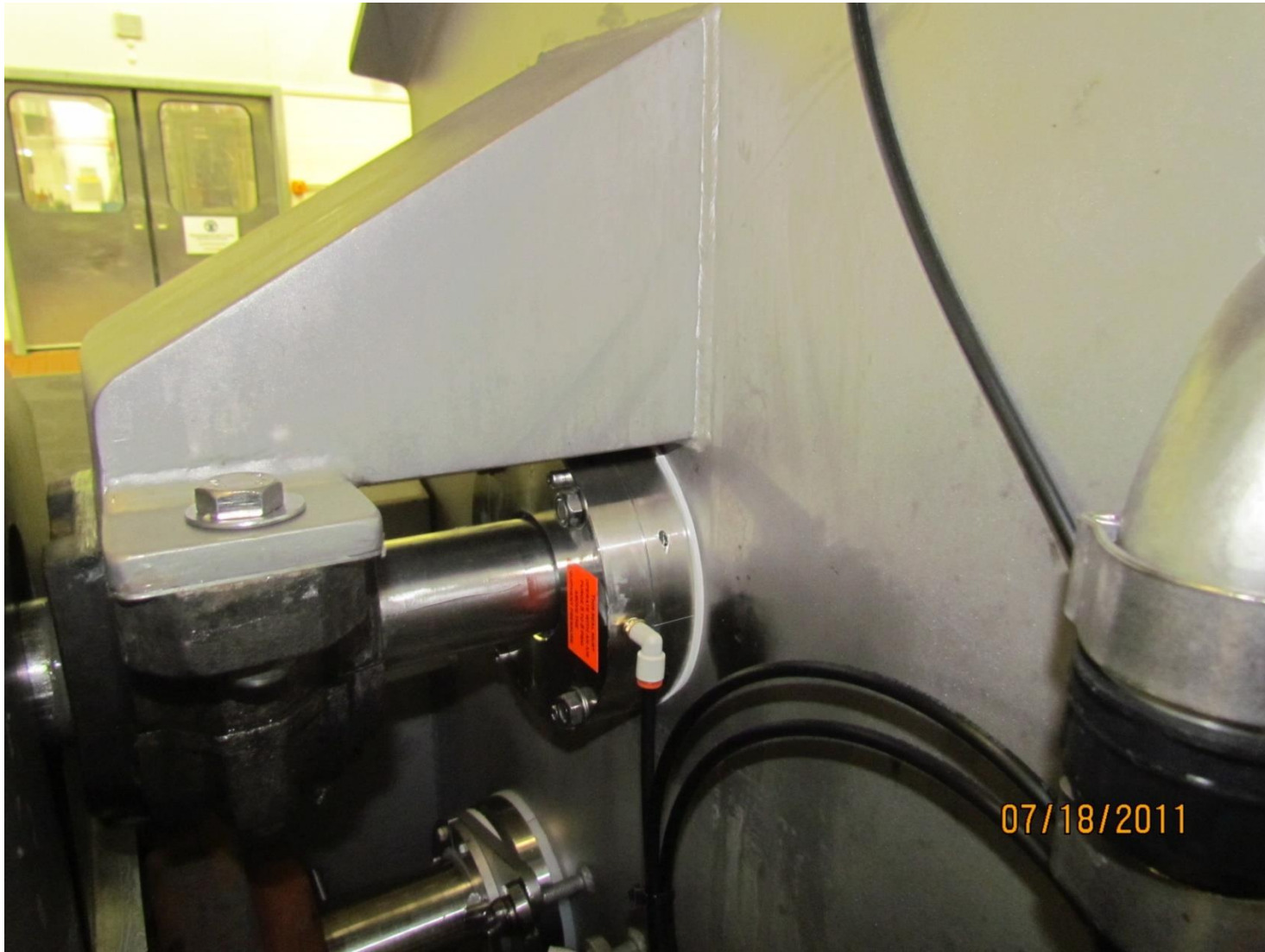
- Einsatztemperatur von **-40 bis +220°C**
- Maximaler Druck gegen den abgedichtet werden muß: **4bar, Vakuum möglich**
 - Gleitgeschwindigkeit auf Wellendurchmesser bezogen: **max 1,3 m/sec**
- Dichtsysteme müssen mit **Sperrluft** ausgestattet werden, **mind. 0.3 bar** über Systemdruck

Anwendungsbeispiele



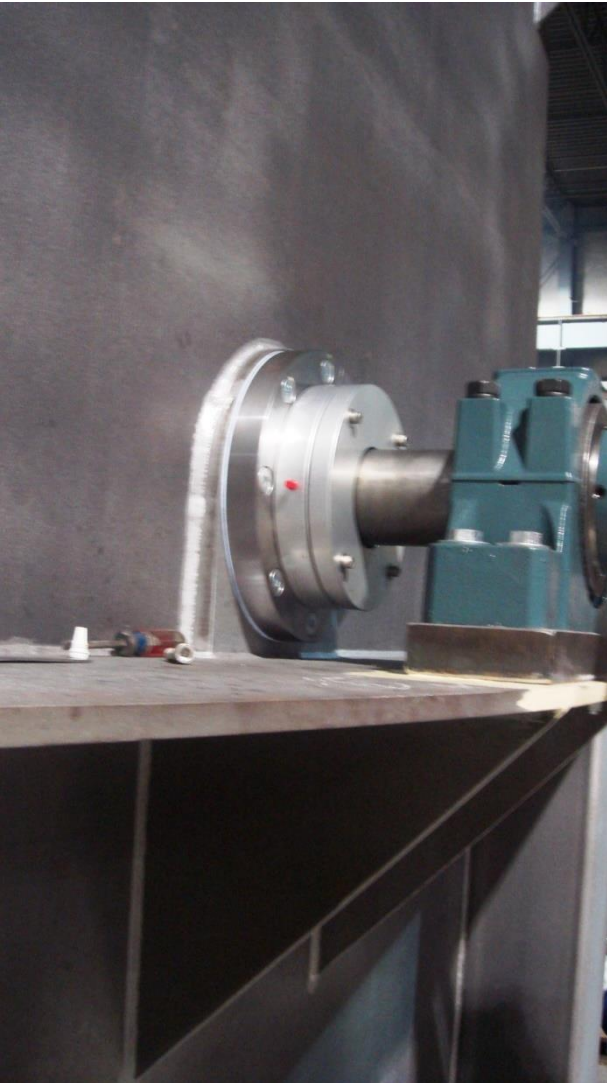
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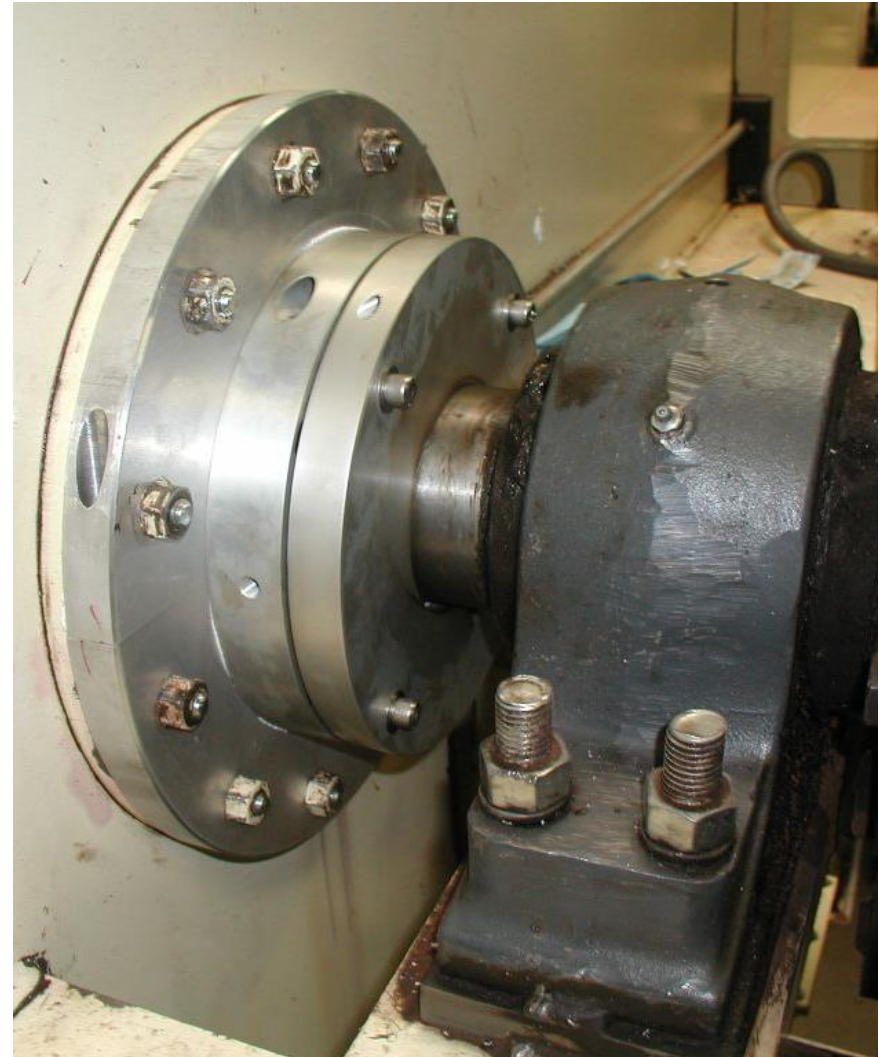






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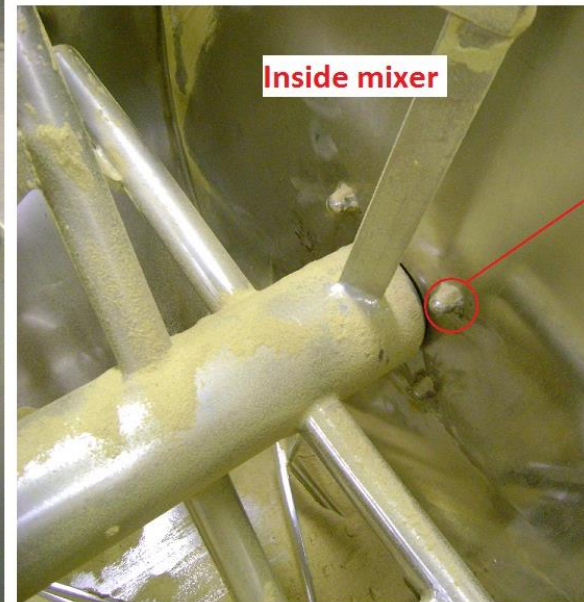






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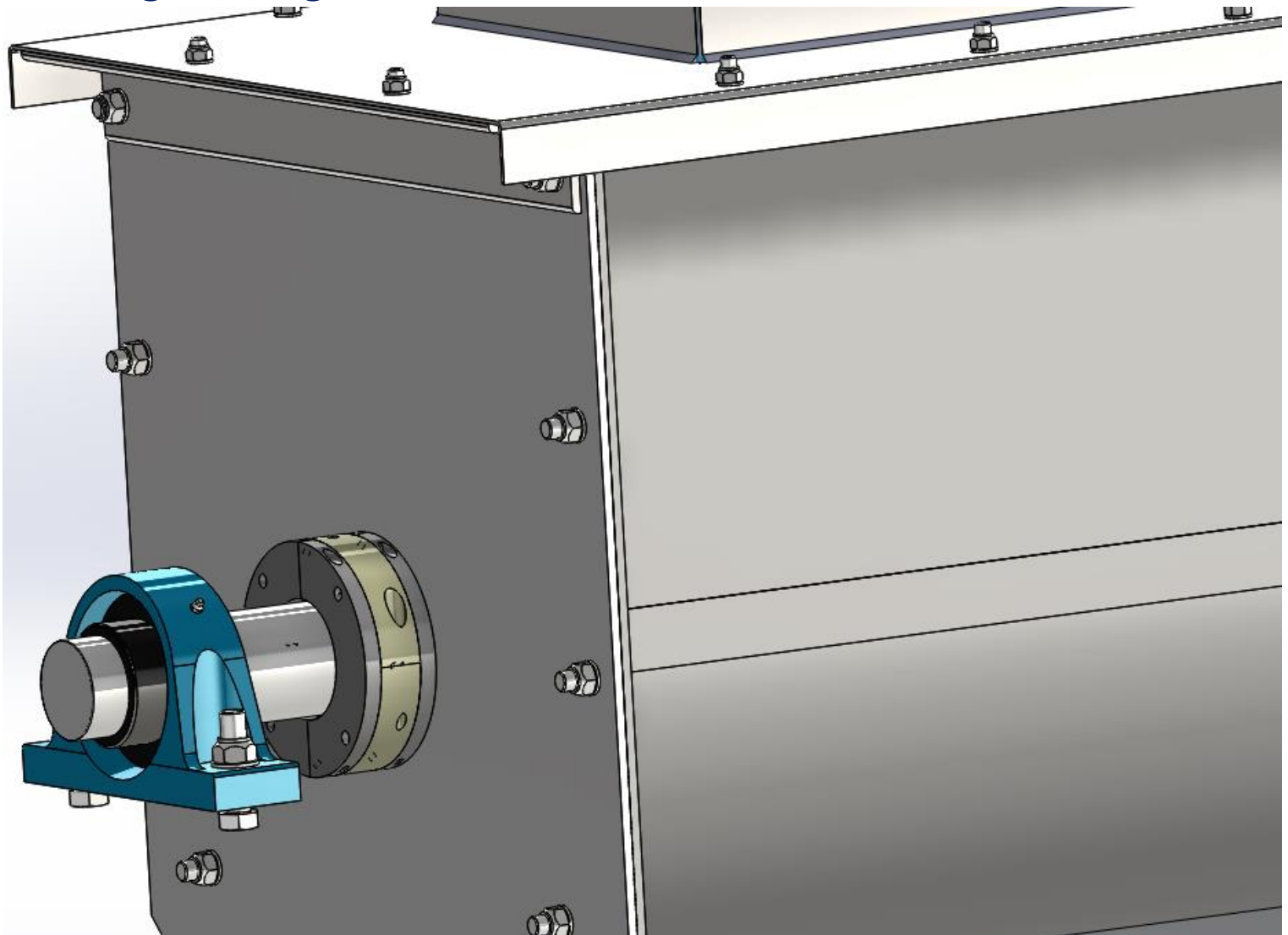


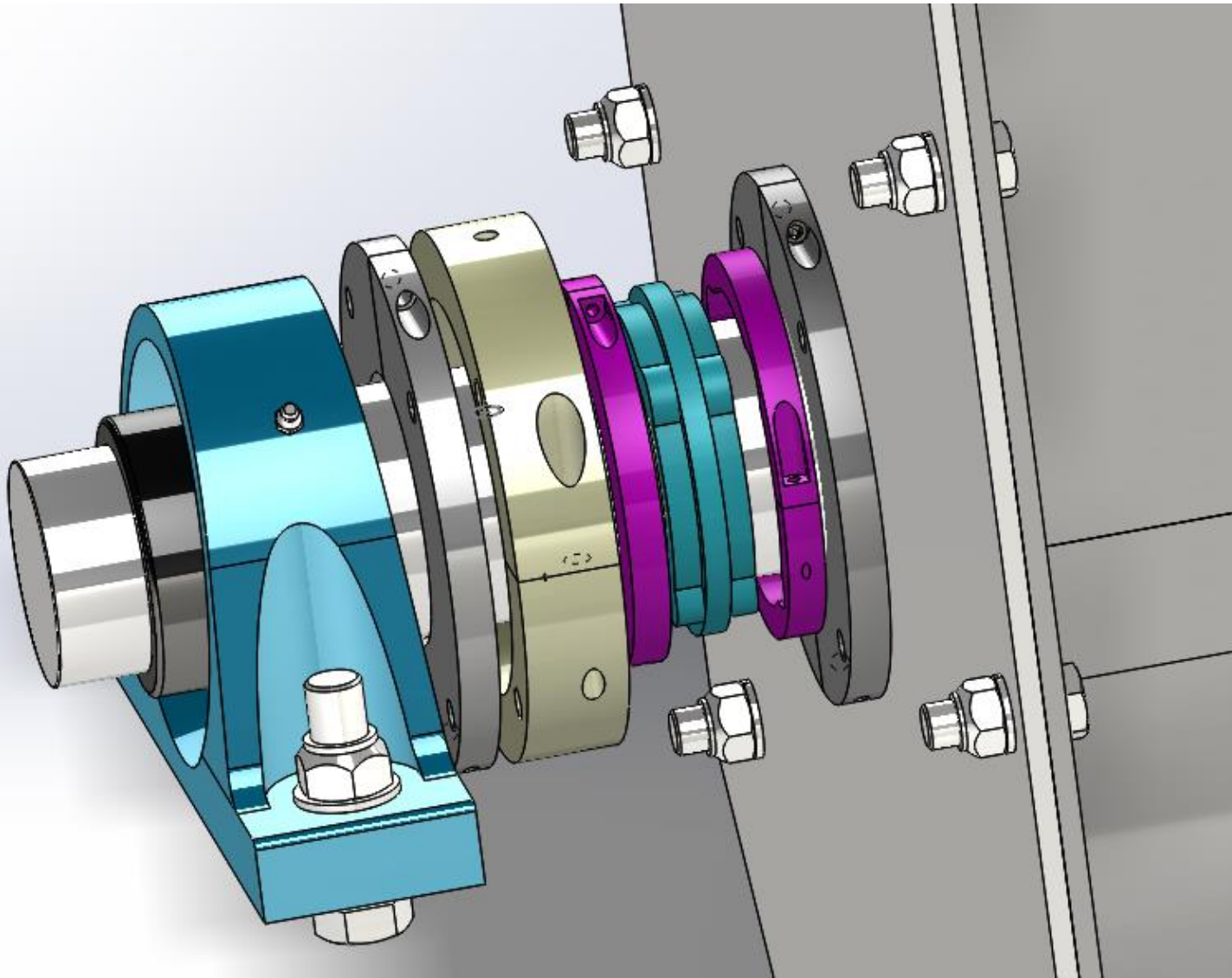
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Dichtungsmontage:





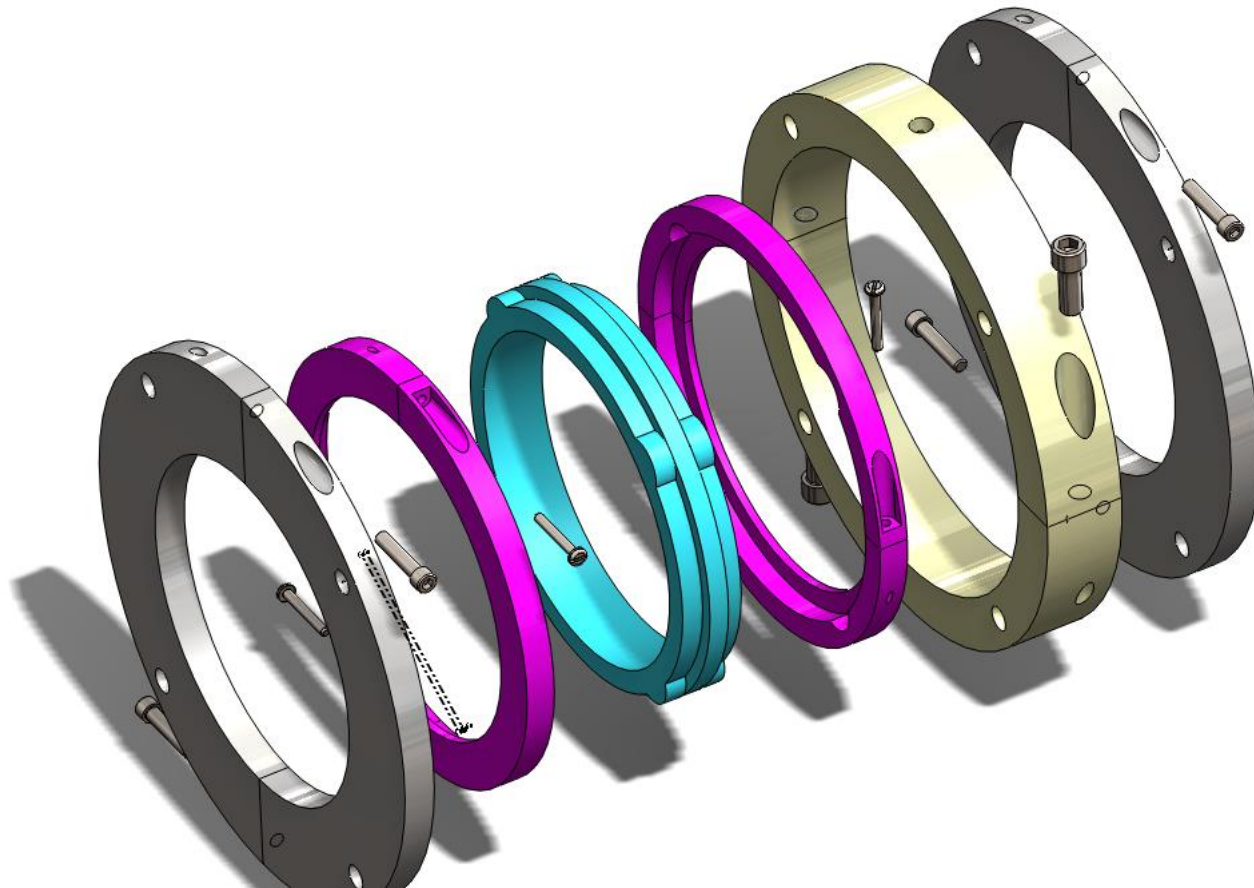


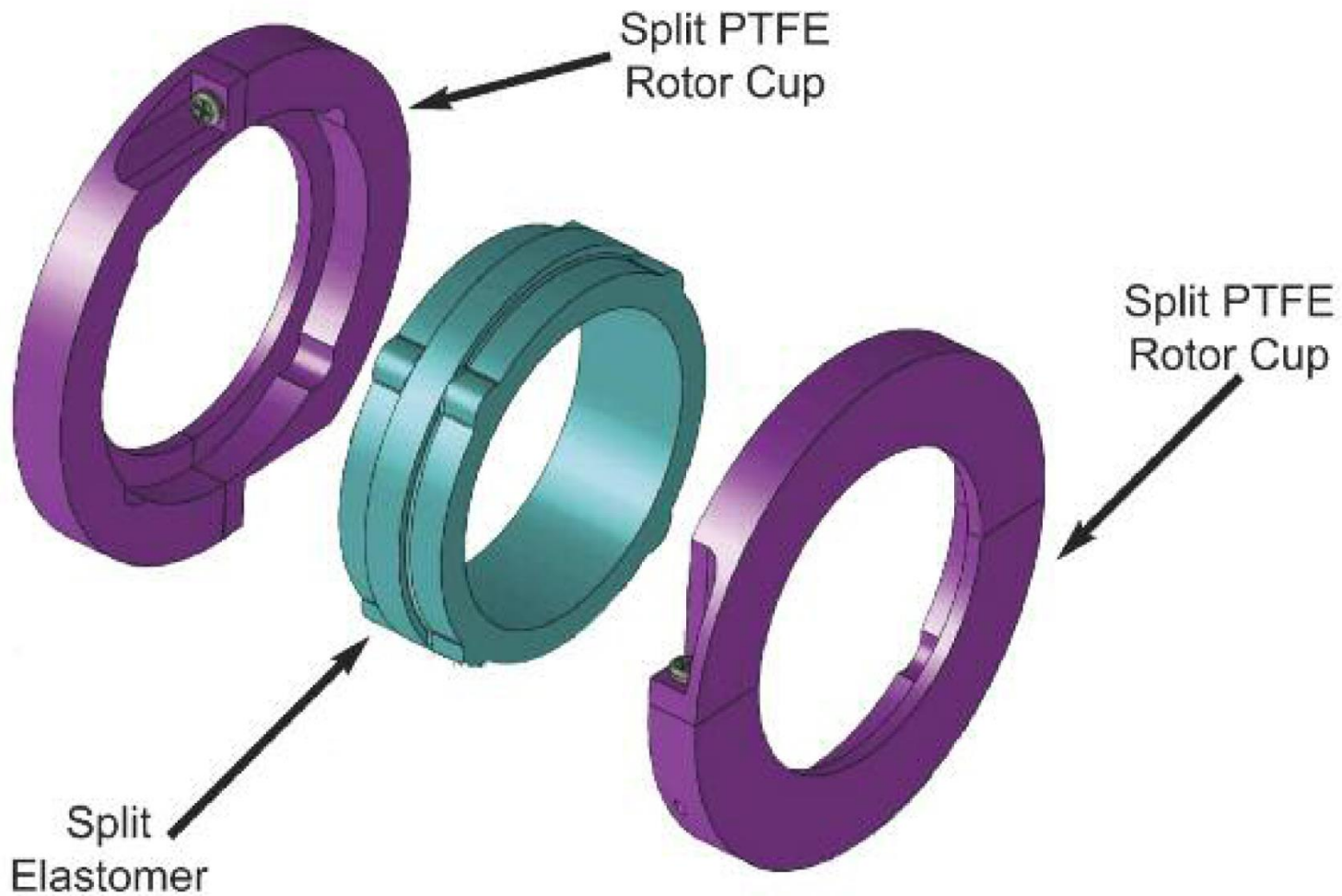
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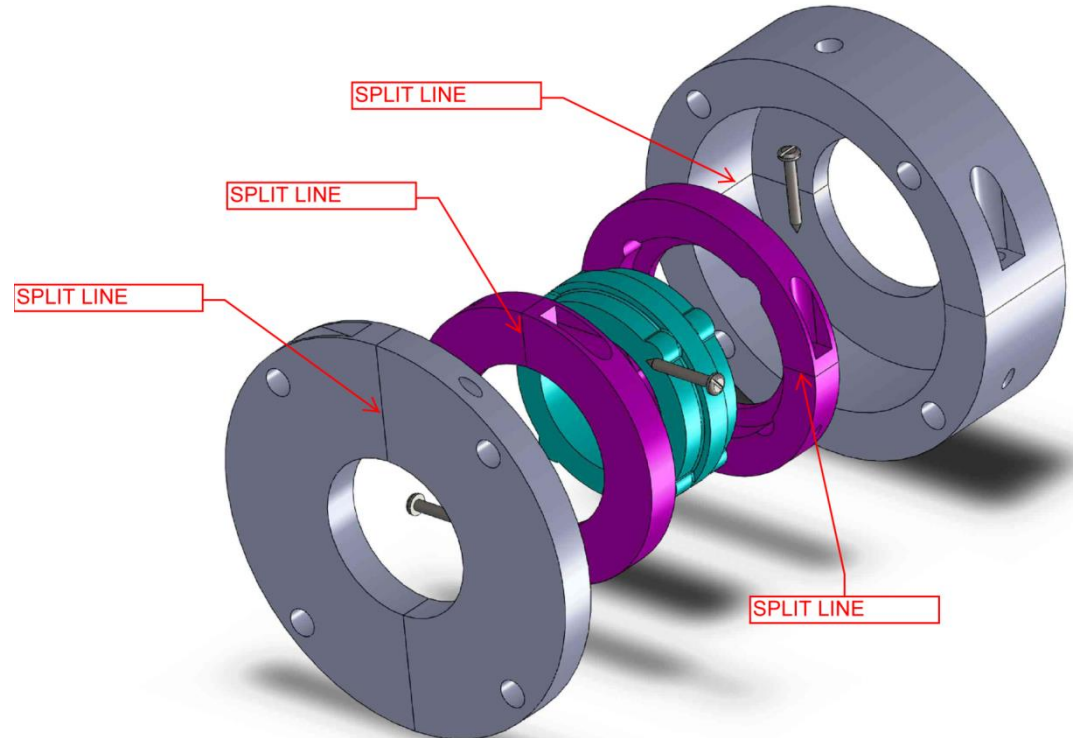
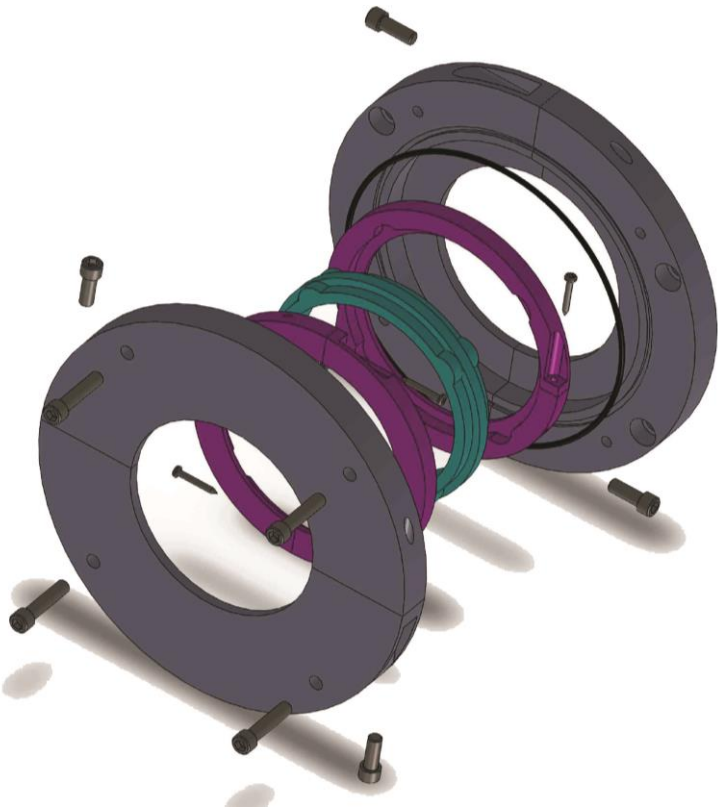
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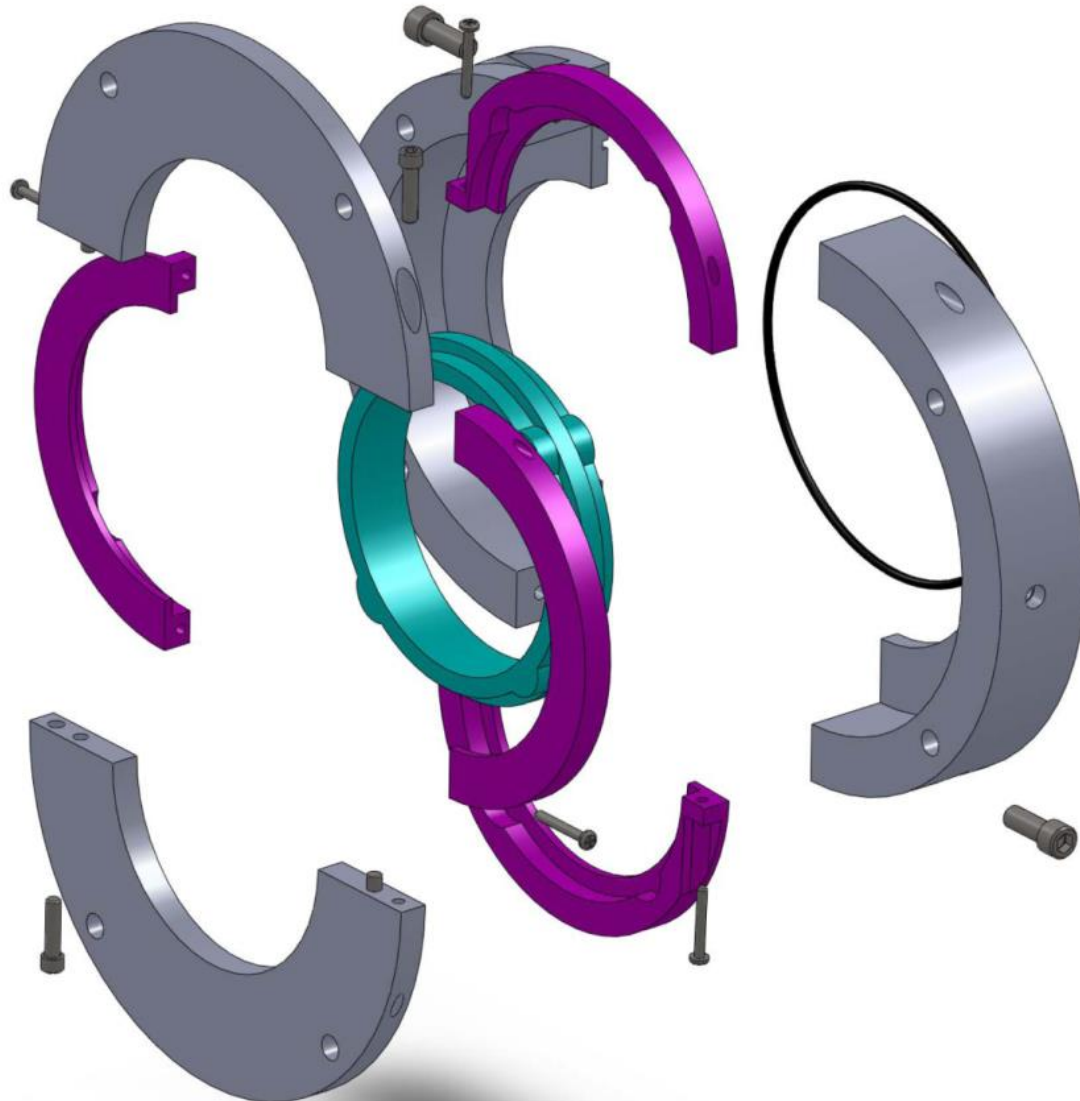


Geteilte Gehäuse





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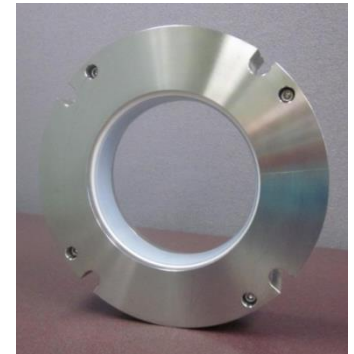
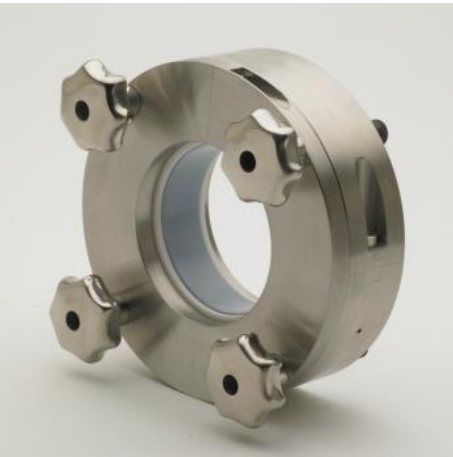
Hier Montage einer CinchSeal ansehen:

<https://youtu.be/wvCvIrgl0I>

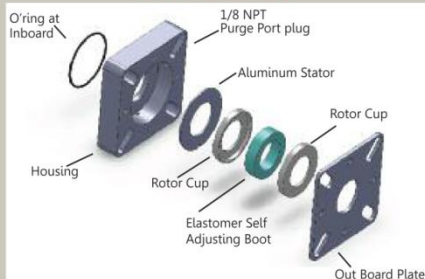
CinchSeal Ausführungen



- OFX Series Rotary Shaft Seals
- 7500 Series Rotary Shaft Seals
- 7800 Series Rotary Shaft Seals
- 9100 Series Sanitary Seals
- 9700 Series Rotary Shaft Seals
- Cartridge Seals



7550 Assembly



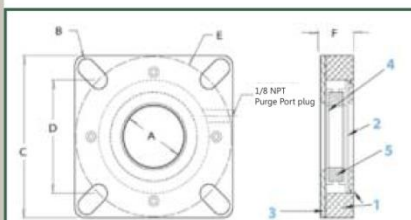
How the 7500 Series Works

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 450F. 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
- Automatic Greaser
- Water Pressure Regulator

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.



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

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.

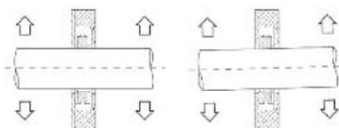
The 7550 seal meets all C.E.M.A. Dimensions and is easy to bolt up in place of waste packs, plate seals, and packing glands. Try CinchSeal today and stop all powder and dust leaks on all your rotating equipment.

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	6.657	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

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.

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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**UNITED STATES DEPARTMENT OF AGRICULTURE
MARKETING AND REGULATORY PROGRAMS
AGRICULTURAL MARKETING SERVICE**

EQUIPMENT ACCEPTANCE CERTIFICATE

Firm:

CinchSeal
731 Hylton Road
Pennsauken, New Jersey 08110

Model Designation:

304 Stainless Steel Seal Assembly, 2.187 Shaft
Other shaft size are also accepted.

March 13, 2012
Date of Issuance

March 12, 2017
Date of Expiration


U.S. Department of Agriculture
Marketing and Regulatory Programs
Agricultural Marketing Service
Dairy Grading Branch
1400 Independence Ave., SW
Washington, DC 20250-0230

The issuance of this form is based on U.S. Department of Agriculture, Dairy Grading Branch, Equipment Design Review Section, evaluation of the equipment listed above for compliance with:

USDA Dairy Equipment Guidelines

This form does not limit USDA's responsibility to take appropriate action in cases in which evidence of non-compliance, improper maintenance, or non-sanitary conditions have been observed.

 **USDA**
United States Department of Agriculture



DA-161 (09-04) Destroy previous editions.



Return on Investment when converting to CinchSeal vs. Packing:

Old Method of Braided Packing Based On 5000 gallon McCarter Choc. Tank for 4 ½ inch shaft:

Sealing with Mechanical Packing Cost:

1" Teflon Packing costs \$150 / pound	
5 rings to fill stuffing box weighs 8.75lbs x two stuffing boxes	
If packed twice per year (150x8.75=\$1312.50x2=\$2625x2 times/year)	\$5250.00 Per Year
Labor to Install Packing / Housekeeping	
2 Men x 4 Hours x \$65.00 per Hour = \$ 520.00	
\$180 Labor x 2 Times per year =	\$720.00 Per Year
Product Lose due to Leakage	
Leakage Rate of 200 pounds per month x 12 Months = 2400 Pounds	
2400 Pounds x .18 Cents per Pound =	\$430.00 Per Year
Total operating cost when Packing twice/year =	\$6,400.00 Per Year

CinchSeal Method of Sealing:

Seal Cost	
OFXT 4.5 shaft Chocolate tank CinchSeal Seal Cost	
\$ 2,000.00 each x 2 seal units initial installation	\$4,000
Labor to Install Seals	
1 Man x 4 Hours x \$65.00 per Hour = \$ 260.00	
\$260 Labor, one time per year =	\$260.00
Product Lost	
Leakage Rate of 0 Pounds per Week x 52 Weeks = 0 Pounds	
0 Pounds x .29 Cents per Pound =	\$0.00 per Year
Total operating cost first year =	\$4,260.00 Year

Comparison of old method vs. CinchSeal method of Sealing per tank:

OLD METHOD OF SEALING COST PER YEAR =	\$6400.00 per Year
CINCHSEAL METHOD OF SEALING COST FIRST YEAR =	\$4,260.00 per Year
Savings First Year =	\$2,140.00
CINCHSEAL SECOND YEAR OLD METHOD	\$0.00 \$6,400.00
Cost savings at second year	\$6,400.00

As you can see changing to the CinchSeal Chocolate Tank Seal can save your company on average \$2,120 the first year and \$6,400 per tank the second year. Presently, our seals have been running for four years resulting in savings of approximately, **\$19,200** per tank.

Sincerely,
David Pitchko, President and CEO

- **Vorteile:**
 - **Kein Verschleiß an Ihrer Welle!!**
 - **Leckagefrei !**
 - **Reduzierung des Wartungsaufwandes**
 - **Steigerung der Anlagensauberkeit**
 - **Chemikalienbeständig !**



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HERZLICHEN DANK
FÜR IHRE AUFMERKSAMKEIT