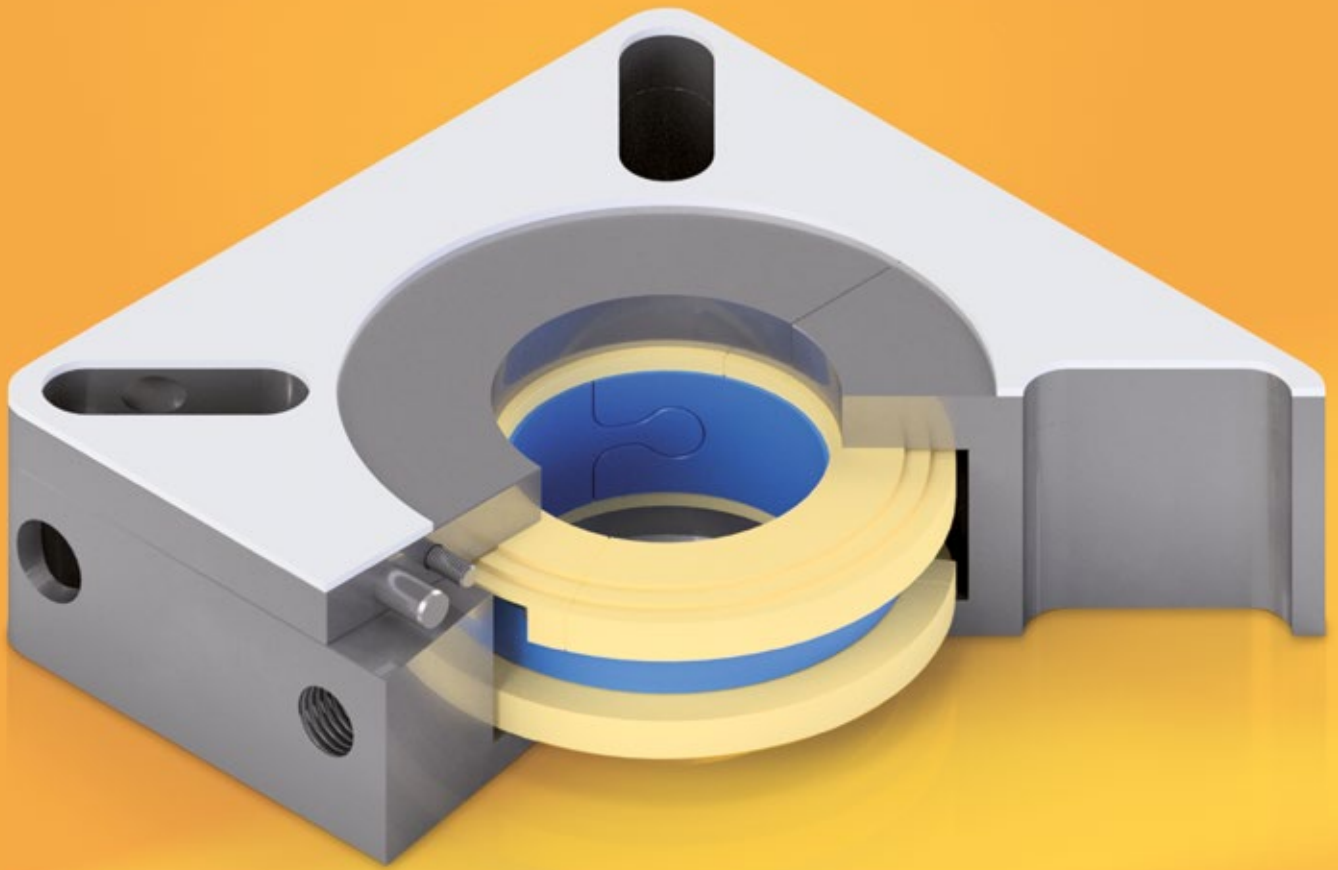


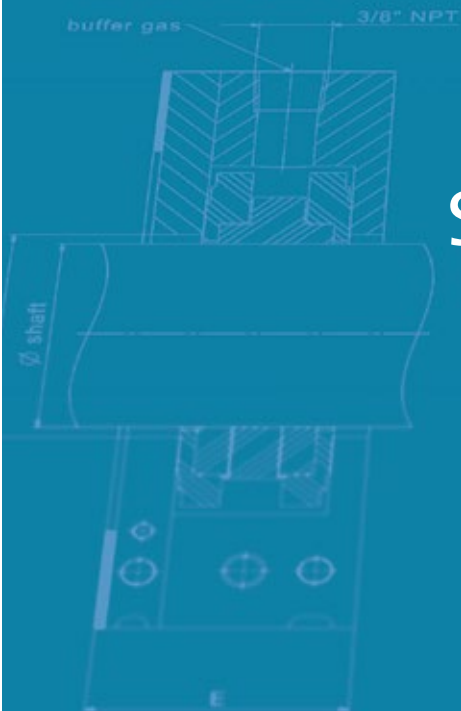
**STASSKOL**



## ***DYNAMICSEAL SDF 320***

### **SPLIT HOUSING SHAFT SEAL**

Eliminates leakage and product loss  
Easy access and field replacement  
Long service life



The STASSKOL SDF 320, a split housing shaft seal design, is a solution for applications that lack access to slide the seal assembly on the end of the shaft. The split design eliminates the need to remove bearings, couplings, motors and other accessories, thereby saving significant time and cost associated with traditional seal installations.

The design is characterized by significantly reduced friction compared to conventional soft packings. Thus, resulting in less heat in the sealing area. The seal assembly is available for a wide range of shaft diameters and can be adapted flexibly to existing installation spaces. The housing design comes in standard and customizable packages depending on the customer's desired configuration.

## DESIGN

With its two rotating seal rings, the SDF Series shaft seal forms an axial seal against the housing's running surfaces. An elastomeric sealing element connects the shaft to the sealing rings prevent contact between them and the shaft. This design feature protects the shaft from wear and eliminates the need for expensive coatings or shaft sleeves.

## APPLICATIONS

The SDF Series shaft seal, designed to seal with buffer gases, ensures safety in your operations. The sealing compounds, specifically tailored to seal against various media, including explosive dust, powders, liquids, slurries, and vapors, guarantee the seal's long service life.

STASSKOL even offers FDA-approved compounds if required by the application, further enhancing safety.

The SDF's proven design has demonstrated its reliability in challenging applications for Mixers, Blenders, Augers and Screw Conveyors. STASSKOL offers standard CEMA mounting options for Screw Conveyors and Bearing Mounted applications if required.

## MATERIALS

|                  |   |
|------------------|---|
| Housings:        | 304SS or 316SS  |
| Sealing Rings:   | PTFE SK133, PEEK SK933,<br>PE SK4133 (PFAS free)  |
| Sealing Element: | Standard Silicone SK5102<br>(FDA, to 400°F)<br>High Temp. Silicone SK5105<br>(to 482°F) |



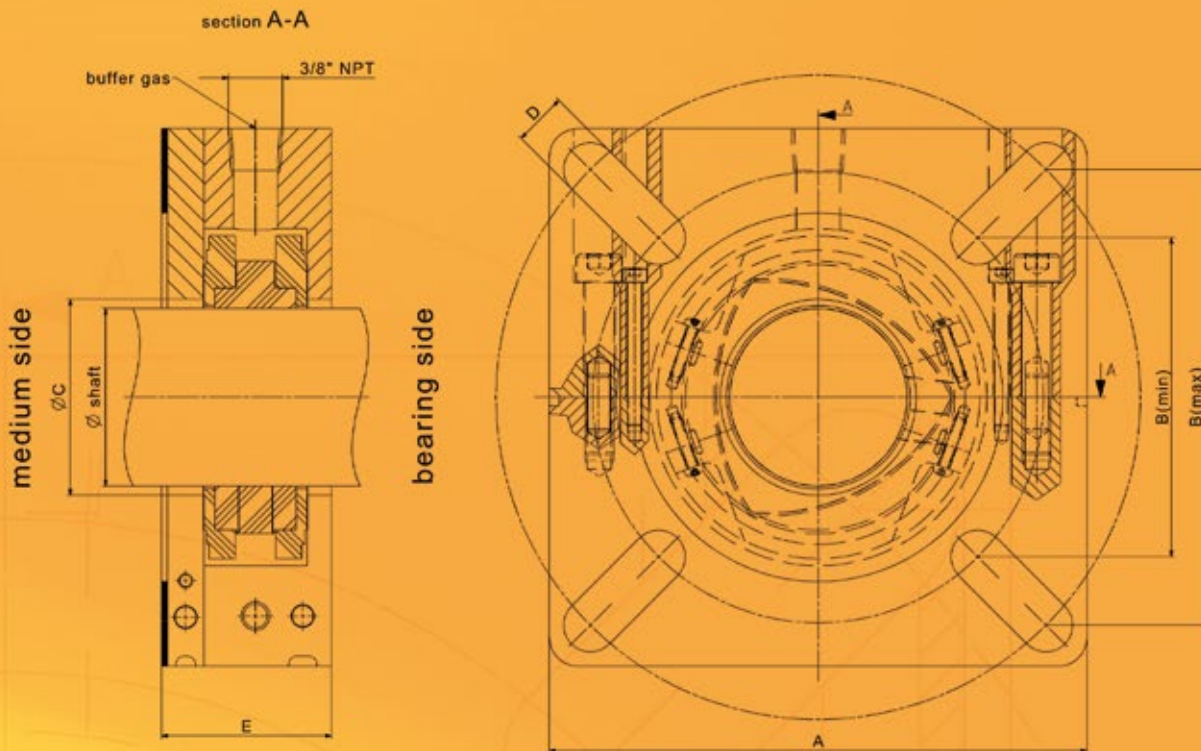
## PARAMETERS

|                       |   |
|-----------------------|---|
| Standard Shaft Sizes: | 1.375 in to 7.875 in<br>(larger shaft sizes upon request)               |
| Sliding Speed:        | 5.25 ft/sec (Maximum)   |
| Temperature*:         | -4°F to 482°F<br>(non-FDA approved)<br>-14°F to 400°F<br>(FDA approved) |
| Application Pressure: | Vacuum to 29 psig   |
| Buffer Gas:           | Air and Notrogen<br>(other gases<br>possible upon request)              |
| Buffer Gas Pressure:  | 2 Δpsig to 3 Δpsig  |

\*Note: Temperature limits may vary depending on operation speed. Contact representative for more details.

## CEMA SHAFT SEAL DIMENSIONS

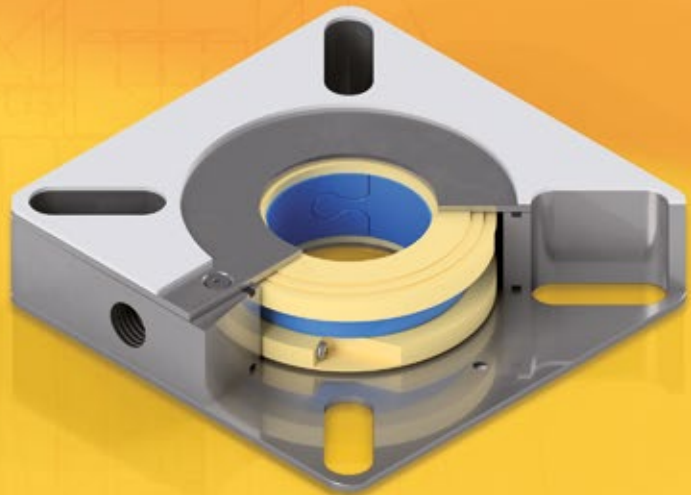
| Shaft Diameter (in) | A (in) | B Minimum (in) | B Maximum (in) | C (in) | D Maximum (in) | E Maximum (in) | Max. Speed (rpm) |
|---------------------|--------|----------------|----------------|--------|----------------|----------------|------------------|
| 1.5000              | 5.375  | 3.375          | 4.375          | 1.870  | 0.625          | 2.25           | 802              |
| 2.0000              | 6.500  | 3.875          | 5.375          | 2.410  | 0.754          | 2.25           | 602              |
| 2.4375              | 7.375  | 4.375          | 6.250          | 2.800  | 0.754          | 2.25           | 494              |
| 3.0000              | 7.875  | 4.875          | 6.625          | 3.390  | 0.926          | 2.25           | 401              |
| 3.4375              | 9.250  | 5.250          | 8.000          | 3.780  | 0.926          | 2.25           | 350              |
| 3.9375              | 10.250 | 6.625          | 8.875          | 4.313  | 1.051          | 2.25           | 306              |
| 4.4375              | 10.875 | 7.125          | 9.500          | 4.813  | 1.051          | 2.25           | 271              |
| 4.9375              | 11.500 | 7.500          | 10.125         | 5.313  | 1.051          | 2.25           | 244              |



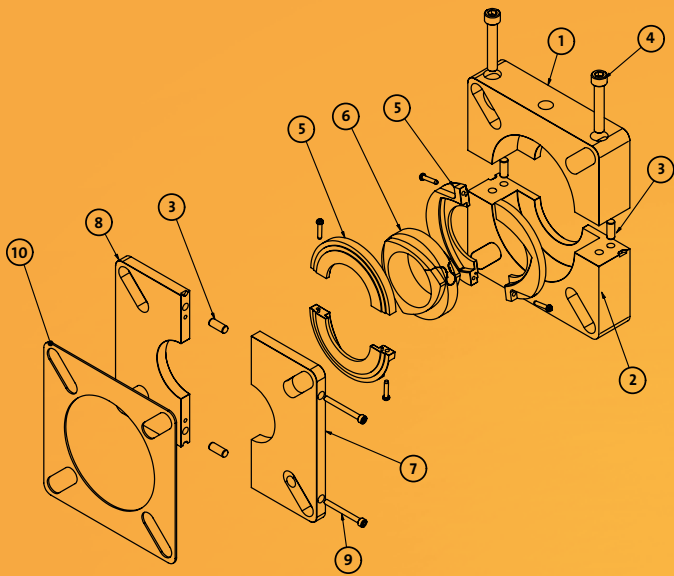
### FURTHER VARIANTS

#### SDF320c

Cup Housing with CEMA standard mounting options







## INSTALLATION INSTRUCTION

1. Place the flat gasket (10) against the rear wall of the machine or place the O-ring in the O-ring groove.  
**Note:** Take care to protect the shaft during the assembly of the seal assembly.
2. Place the lower housing cover (8), with the cylindrical pins (3) facing upwards, at the bottom of the shaft.
3. Carefully align cylindrical pins (3) of the lower housing cover with the holes in the upper housing cover (7) and assemble the parts flush together over the shaft. Ensure that the continuous cylindrical flat surface and the O-ring groove are facing the mounting plate of the application.
4. Tighten the bolts (9) to the torque listed in the table to fasten the two housing cover halves together.
5. Open the puzzle joint of the sealing element (6) and place it around the shaft. Close the puzzle joint, in which a small gap must then be visible.
6. Place the two halves of the sealing ring (5) with cylindrical pins over the shaft and fasten the screws to 3 ft-lbs (4 Nm).
7. Slide the assembled sealing rings onto the element ring so that the two triangles engage with each other in a form-fitting manner.
8. Repeat steps 8 and 9 for the remaining, unmounted sealing ring (5).
9. Place the lower housing (2), with the cylindrical pins (3) facing upwards, at the bottom of the shaft.

| Tread Size | M4     | M5 | M6 | M8 | M10 | M12 | M16 |     |
|------------|--------|----|----|----|-----|-----|-----|-----|
| Torque     | N-m    | 3  | 5  | 7  | 16  | 31  | 53  | 129 |
|            | Ft-lbs | 2  | 4  | 5  | 12  | 23  | 29  | 95  |

10. Carefully align cylindrical pins of the lower housing cover with the holes in the upper housing cover (1) and assemble the parts flush together over the shaft. Ensure that the cup part of the housing is facing the seal assembly.
11. Tighten the bolts (4) to the torque listed in the table to fasten the two housing cover halves together.
12. Now carefully slide the housing, the sealing element ring with the sliding rings on the lid against the rear wall of the machine with flat gasket or O-ring.
13. Screw the housing to the lid and the rear wall of the machine while respecting the tightening torques Table 1.
14. Connect the buffer gas line to the housing (1).

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