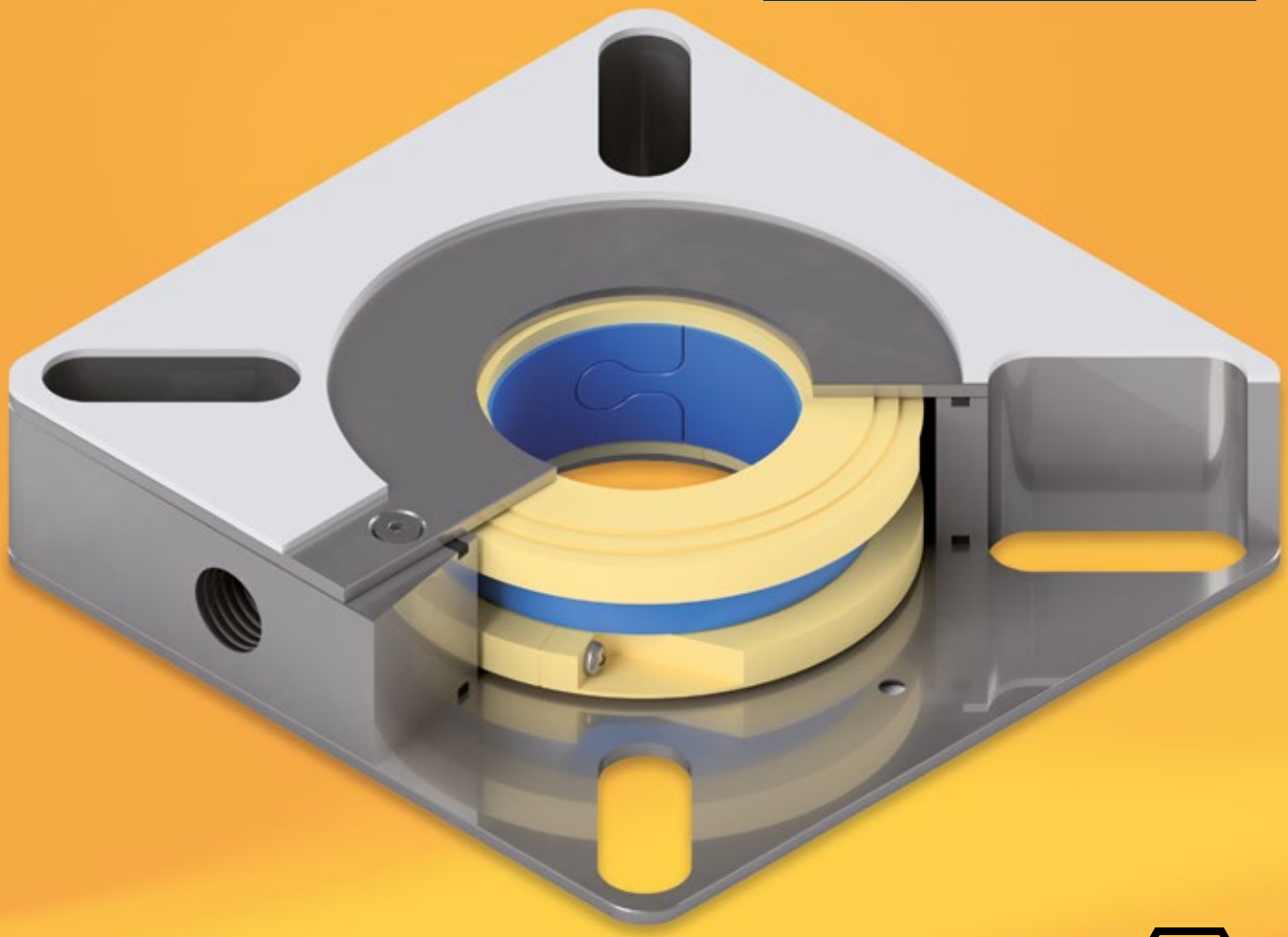
STASSKOL



CEMA
CONVEYOR EQUIPMENT MANUFACTURERS ASSOCIATION

FDA APPROVED

ATEX GECERTIFICEERD

DYNAMICSEAL SDF320c

Cup Housing Shaft Seal

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

The STASSKOL SDF 320c, a cup housing shaft seal design, is a cost-effective solution for applications that need a high-performing seal with access to slide the seal assembly on the end of the shaft. This 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 customized packages depending on the customer's desired configuration.

Design

With its two rotating seal rings, the SDF 320c shaft seal forms an axial seal against the housing's running surfaces. An elastomeric sealing element connects the shaft to the sealing rings to prevent contact between them and the shaft. This design feature protects the shaft from wear and eliminates the need for expesive coating or shaft sleeves. STASSKOL offers standard CEMA mounting options for screw conveyors and bearing mounted applications if required.

Applications

The SDF 320c shaft seal, designed to seal with buffer gases, ensure 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.

Materials

Housing:	Mild Steel, 304SS, 316SS, Aluminium 6061Al or Polymer
Sealing Rings:	PTFE SK133, PEEK SK933, PE SK4133 (PFAS free) Carbon
Sealing Element:	Standard Silicone SK5102 (FDA, to 400°F) High Temp. Silicone SK5105 (to 482°F)

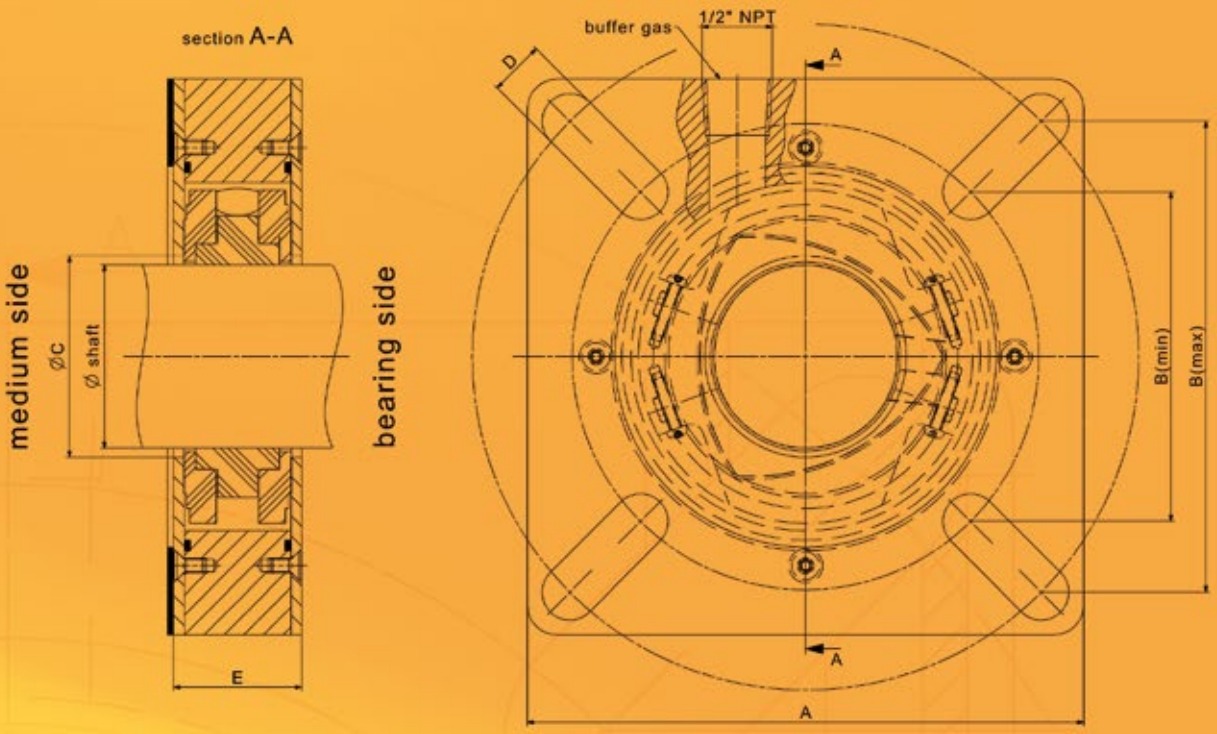
Parameters

standard shaft sizes:	1.375 in to 7.875 in (larger shaft sizes upon request)
Sliding Speed:	5.25 ft/sec (Maximum)
Temperature*:	-4°F to 482°F (non-FDA approved) -14°F to 400°F (FDA approved)
Application Pressure:	Vacuum to 29 psig
Buffer Gas:	Air and Notrogen (other gases 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.

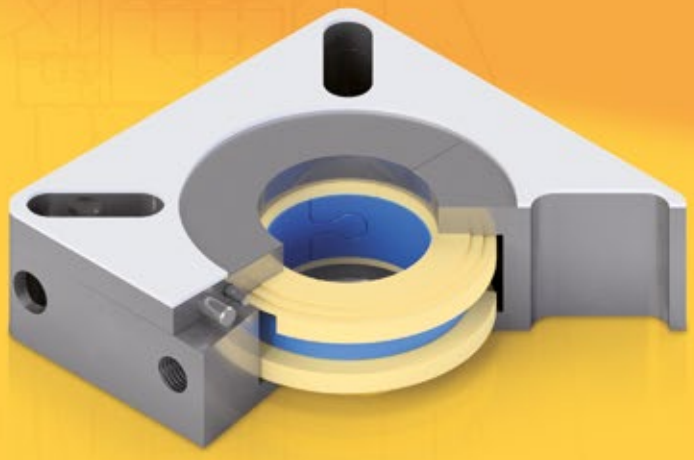
CEMA Cup Shaft Seal Dimensions

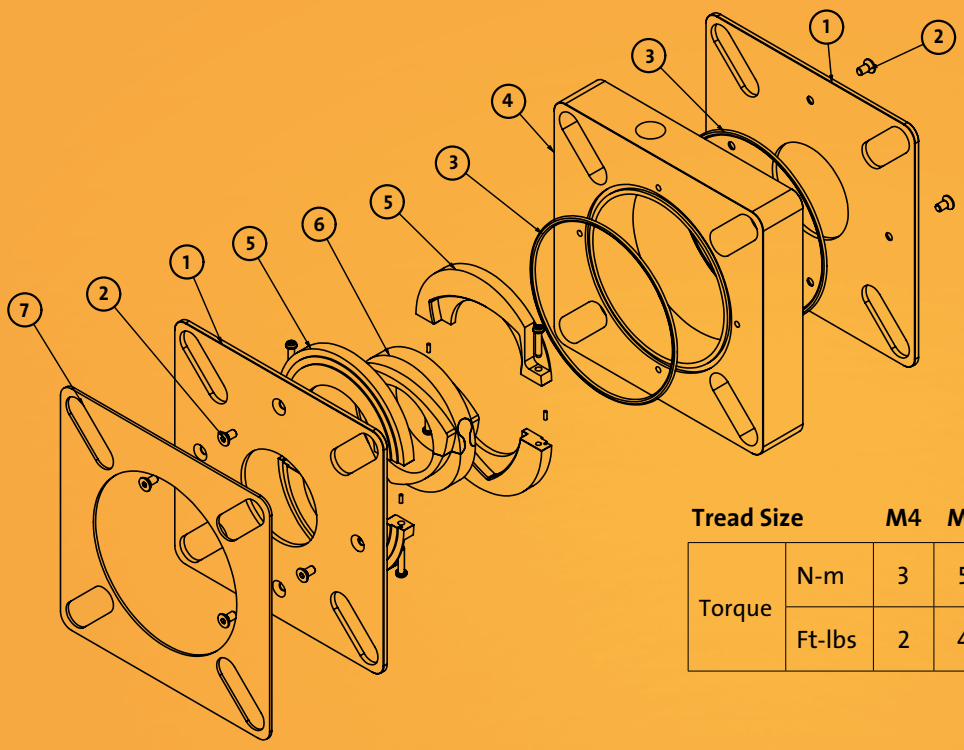
Shaft Diameter (in)	A (in)	B Minimum (in)	B Maximum (in)	C (in)	D Maximum (in)	E Maximum (in)	Max. Speed (rpm)
1.5000	5.375	3.375	4.375	1.870	0.625	1.75	802
2.0000	6.500	3.875	5.375	2.410	0.754	1.75	602
2.4375	7.375	4.375	6.250	2.800	0.754	1.75	494
3.0000	7.875	4.875	6.625	3.390	0.926	1.75	401
3.4375	9.250	5.250	8.000	3.780	0.926	1.75	350
3.9375	10.250	6.625	8.875	4.313	1.051	1.75	306
4.4375	10.875	7.125	9.500	4.813	1.051	1.75	271
4.9375	11.500	7.500	10.125	5.313	1.051	1.75	244



Further variants

SDF320
Split Housing with CEMA standard options





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

Installation Instruction

1. Place the flat gasket (7) against the rear wall of the machine or place the O-ring in the O-ring groove.
   Note: Taker care to protect the shaft during the assembly of the seal assembly.
2. Loosen the front screws (2) on the full turn prior to assembling. Failure to do so will prevent the assembly from being installed due to compression of the sealing element.**Attention!** Loosing the screws more than the recommendation could result in the seal components failing out and resulting in damage of the seal.
3. Carefully slide the entire seal assembly (with the screws slightly loosened facing the end of the shaft) over the end of the shaft until the final installation position on the machine housing is reached. Align the gasket with the assembly if applicable.
   Note: If the sealing element (5) is difficult to move on the shaft, temporary a rubber lubricant (liquid Soap or soapy water) can be used to temporarily reduce the friction. Before starting the machine, the liquid soap or soapy water must have dried to ensure full function of the seal. This usually takes place after 24 hours.
   Attention! Under no circumstance should oil or grease be used as a lubricant between the sealing element (5) and the shaft.
4. Remove the front screws (2) one screw at a time and apply Loctite 243 or equivalent.
5. Tighten front screws per the torque listed in the table.
6. Install and tighten the bolts or nuts to the torquer listed in the table to fasten the seal assembly to the application. Be sure to keep the shaft seal assembly aligned with shaft, ensuring that the housing and housing cover are not contacting the shaft.
7. Connect the buffer gas line to the housing (4).

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