

Service

The Palmetto CHEKSEAL™ is a self-adjusting, shaft-mounted, axial lip seal designed as an exclusion device, deflecting and excluding contaminants such as dust, dirt, mud and water. The CHEKSEAL also functions as a “retainer” seal, preventing the loss of viscous lubricants such as heavy greases.

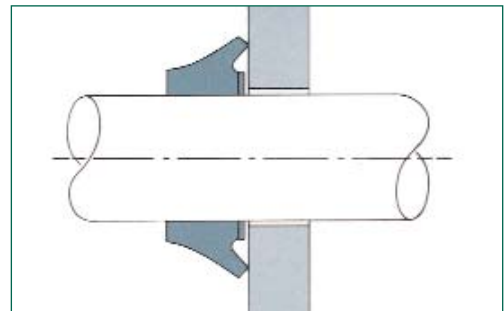
Compression molded with Greene, Tweed’s proprietary elastomers to assure high resiliency, low wear and fluid resistance, the CHEKSEAL incorporates a tough, but flexible, hinged lip that seals axially against a radial (perpendicular) face. This straightforward design requires no special machining for a tight shaft fit.

Unlike conventional spring-loaded oil seals, the CHEKSEAL cannot fret or groove expensive shafts and accepts radial shaft motion due to bearing play. The CHEKSEAL automatically vents excess grease during re-greasing operations.

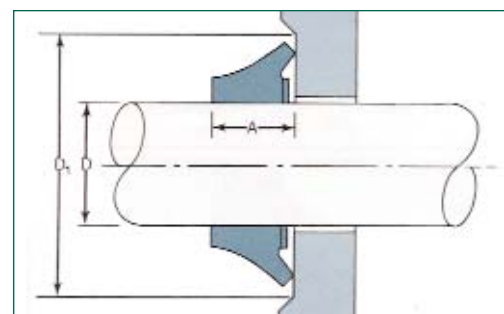
The CHEKSEAL installs easily. Manufactured entirely of highly resilient rubber, it can be stretched over shaft obstructions and pressed firmly against the radial face. When the shaft is set in final operating position and begins turning, the CHEKSEAL self—adjusts after the first several rotations, with the axial base stop and lip working together to provide proper interference. Once in position on the shaft, the CHEKSEAL does not back off—its position maintained by the rubber compound’s natural tension.

Typical Applications

- Bearings
- Axles
- Wheels
- Motors
- Pumps
- Mixers
- Transmissions
- Appliances
- Swivel Joints
- Rotary Valves
- Rotary Switches
- Rolls/Rollers
- Blowers & Fans



The CHEKSEAL is shaft-mounted and seals directly against the radial.



See Dimensional Information (page 2)



CHEKSEAL™

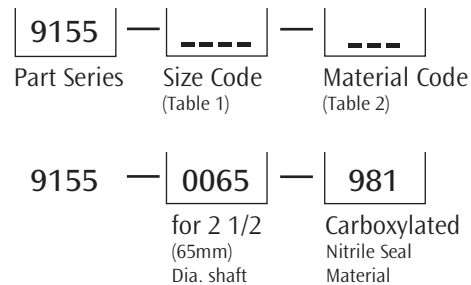
Lip Seal Exclusion Device

Dimensional Information

Shaft Diameter		Chekseal ID (In)	Design Envelope (Installed Part)			Size Code	
In	mm (Nom.)		D ₁ (Min.)	A (Min.)	Max. End Play		
0.18-0.21	5	0.166	D+	.190	.007"	0005	
0.21-0.26	6	0.193				0006	
0.26-0.31	7	0.239				0007	
0.31-0.37	8	0.285	D+	.520	.250	.010"	0008
0.37-0.45	10	0.340					0010
0.45-0.53	12	0.414					0012
0.53-0.61	14	0.488	D+	.600	.375	.014"	0014
0.61-0.69	16	0.561					0016
0.69-0.77	18	0.635					0018
0.77-0.83	20	0.708	D+	.600	.375	.014"	0020
0.83-0.95	22	0.763					0022
0.95-1.07	25	0.874					0025
1.07-1.14	28	0.984	D+	.600	.375	.014"	0028
1.14-1.22	30	1.049					0030
1.22-1.30	32	1.122					0032
1.30-1.42	35	1.196	D+	.600	.375	.014"	0035
1.42-1.50	37	1.306					0037
1.50-1.70	40	1.380					0040
1.70-1.89	45	1.564	D+	.600	.375	.014"	0045
1.89-2.09	50	1.739					0050
2.09-2.29	55	1.923					0055
2.29-2.48	60	2.107	D+	.600	.375	.018"	0060
2.48-2.68	65	2.282					0065
2.68-2.88	70	2.466					0070
2.88-3.07	75	2.650	D+	.600	.375	.018"	0075
3.07-3.27	80	2.824					0080
3.27-3.47	85	3.008					0085
3.47-3.66	90	3.192	D+	.600	.375	.018"	0090
3.66-3.86	95	3.367					0095
3.86-4.14	100	3.551					0100
4.41-4.53	110	3.809	D+	1.000	.625	.023"	0110
4.53-4.92	120	4.168					0120
4.92-5.32	130	4.526					0130
5.32-5.71	140	4.894	D+	1.000	.625	.023"	0140
5.71-6.10	150	5.253					0150
6.10-6.50	160	5.612					0160
6.50-6.89	170	5.980	D+	1.000	.625	.023"	0170
6.89-7.29	180	6.339					0180
7.29-7.68	190	6.707					0190
7.68-8.27	199	7.066	D+	1.375	.875	.032"	0199
9.25-10.43	250	8.860					0250
18.90-20.87	500	17.750					0500

When designing the CHEKSEAL™ as an excluder for bearings or oil seals, the outer race or stamped metal may be suitably employed as the dynamic surface. If, due to space or other considerations, this cannot be done, a machined surface of 125 μ in. RMS max is recommended. Please contact our engineering department, your Palmetto representative or your authorized distributor when considering applications with shaft speeds in excess of 1800 FPM (RPM x Shaft Diameter X .262).

Part Numbering



Seal Material Selection

Service Conditions		Seal Material		
Fluid Media	Temperature Range	Base Polymer	Durometer Hardness (Shore "A")	Code
General purpose (air, water-glycol, water, water-soluble oils)	-20°F to 225°F (-30°C to 110°C)	NBR (Carboxylated Nitrile)	85	981
Acids, reactive fluids, gasoline, jet fuels, solvents, brake fluids	0°F to 300°F (-20°C to 150°C)	FKM (Fluoro-elastomer)	85	760*
Caustics, brake fluids, fire-resistant fluids, ozone	-65°F to 300°F (-55°C to 150°C)	EPR (Ethylene-propylene)	80	952*
Steam, caustics, amines, liquors, sour fluids, acids, radiation, ozone	32°F to 500°F (0°C to 260°C)	Fluoraz® (PTFE-PE)	75	797*
FDA compliant	32°F to 500°F (0°C to 260°C)	Fluoraz® (PTFE-PE)	80	890*

*Contact factory for specific size recommendations

Palmetto® Inc.



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Product data is based upon our experience and knowledge of typical applications and should be used to determine approximate service compatibility.

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