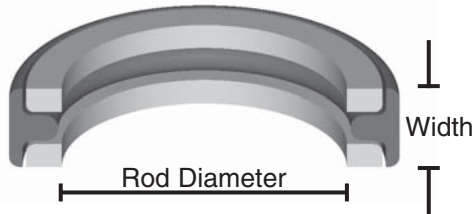


STYLE TR ROD T-SEALS

T-Seals combine a resilient sealing ring with a hard, split back-up ring on each side of the sealing element. The assembly installs in a standard o-ring groove. T-Seals are non-spiraling and extrusion resistant to 5,000 psi with improved tolerances.



SEAL INFORMATION

MATERIAL	BUNA-N RUBBER SEAL-HARD PLASTIC BACK-UPS
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Size)

Part Number	Rod Diameter	O-Ring Groove Dash Number	List Price
TR-001	3/16	-106	\$ 4.61
TR-004	3/8	-204	4.61
TR-006	1/2	-206	7.79
TR-008	5/8	-208	5.74
TR-009	11/16	-209	5.76
TR-010	3/4	-210	6.08
TR-012	7/8	-212	6.91
TR-014	1	-214	6.08
TR-015	1-1/16	-215	6.29
TR-016	1-1/8	-216	6.91
TR-017	1-3/16	-217	12.17
TR-018	1-1/4	-218	6.21
TR-020	1-3/8	-220	6.91
TR-022	1-1/2	-222	6.91
TR-023	1-1/2	-325	5.65
TR-024	1-5/8	-326	8.53
TR-025	1-3/4	-327	6.40
TR-026	1-7/8	-328	8.82
TR-027	2	-329	7.13
TR-028	2-1/8	-330	7.54
TR-029	2-1/4	-331	8.41
TR-030	2-3/8	-332	8.76
TR-031	2-1/2	-333	8.84
TR-032	2-5/8	-334	8.87
TR-033	2-3/4	-335	10.08

Part Number	Rod Diameter	O-Ring Groove Dash Number	List Price
TR-034	2-7/8	-336	\$ 10.35
TR-035	3	-337	10.83
TR-036	3-1/8	-338	11.58
TR-037	3-1/4	-339	12.38
TR-038	3-3/8	-340	12.82
TR-039	3-1/2	-341	13.75
TR-040	3-5/8	-342	14.40
TR-041	3-3/4	-343	15.25
TR-042	3-7/8	-344	15.74
TR-043	4	-345	16.72
TR-045	4-1/4	-347	18.21
TR-046	4-3/8	-348	20.68
TR-047	4-1/2	-349	20.69
TR-048	5	-429	26.07
TR-049	5-1/4	-431	33.33
TR-050	5-1/2	-433	55.98
TR-052	6	-437	32.99
TR-058	7-1/2	-443	59.45
TR-059	8	-445	89.62
TR-060	9	-447	103.60

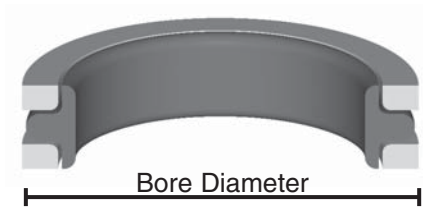
Intermediate and Wide Base T-Seals are designed to fit MIL-5514F o-ring glands only and interchange with 1 o-ring / 1 back-up ring and 1 o-ring / 2 back-up ring grooves, respectively.

TR-027WB	2	.405	\$ 15.48
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STYLE TP PISTON T-SEALS



T-Seals combine a resilient sealing ring with a hard, split back-up ring on each side of the sealing element. The assembly installs in a standard o-ring groove. T-Seals are non-spiraling and extrusion resistant to 5,000 psi with improved tolerances.



SEAL INFORMATION

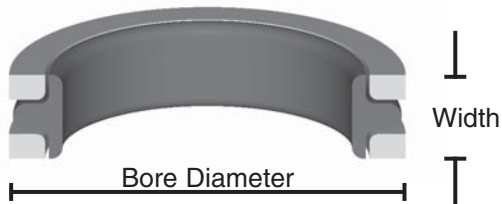
MATERIAL	BUNA-N RUBBER SEAL-HARD PLASTIC BACK-UPS
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Size)

Part Number	Bore Diameter	O-Ring Groove Dash Number	List Price
TP-009	7/8	-208	\$ 5.87
TP-011	1	-210	6.53
TP-012	1-1/16	-211	7.94
TP-013	1-1/8	-212	6.08
TP-014	1-3/16	-213	7.94
TP-015	1-1/4	-214	6.91
TP-016	1-5/16	-215	4.20
TP-017	1-3/8	-216	6.08
TP-018	1-7/16	-217	7.94
TP-019	1-1/2	-218	5.40
TP-021	1-5/8	-220	6.91
TP-022	1-3/4	-222	5.84
TP-023	1-7/8	-325	7.94
TP-024	2	-326	6.09
TP-025	2-1/8	-327	6.40
TP-026	2-1/4	-328	6.79
TP-027	2-3/8	-329	7.13
TP-028	2-1/2	-330	7.54
TP-029	2-5/8	-331	8.18
TP-030	2-3/4	-332	8.29
TP-031	2-7/8	-333	8.58
TP-032	3	-334	8.91
TP-033	3-1/8	-335	9.29
TP-034	3-1/4	-336	10.35
TP-035	3-1/2	-338	11.33
TP-036	3-5/8	-339	12.33
TP-037	3-3/4	-340	12.82
TP-038	3-7/8	-341	16.58

Part Number	Bore Diameter	O-Ring Groove Dash Number	List Price
TP-039	4	-342	\$ 14.29
TP-040	4-1/8	-343	23.18
TP-041	4-1/4	-344	16.45
TP-042	4-3/8	-345	17.42
TP-043	4-1/2	-346	17.74
TP-045	4-3/4	-348	24.77
TP-046	4-7/8	-349	24.92
TP-047	5	-350	25.88
TP-048	5-1/8	-426	30.96
TP-049	5-1/4	-427	28.35
TP-051	5-1/2	-429	31.14
TP-053	5-3/4	-431	31.82
TP-054	5-7/8	-432	32.60
TP-055	6	-433	34.37
TP-057	6-1/4	-435	35.33
TP-058	6-1/2	-437	35.41
TP-060	7	-439	41.12
TP-062	7-1/2	-441	44.94
TP-064	8	-443	52.37
TP-065	8-1/4	-444	55.96
TP-066	8-1/2	-445	69.71
TP-067	9	-446	66.03
TP-068	9-1/2	-447	74.83
TP-069	10	-448	76.36
TP-070	10-1/2	-449	90.27
TP-071	11	-450	100.19
TP-072	11-1/2	-451	114.53
TP-073	12	-452	122.33

INTERMEDIATE & WIDE BASE PISTON T-SEALS

Intermediate and Wide Base T-Seals are designed to fit MIL-5514F o-ring glands only and interchange with 1 o-ring / 1 back-up ring and 1 o-ring / 2 back-up ring grooves, respectively.



SEAL INFORMATION

MATERIAL	BUNA-N RUBBER SEAL- HARD PLASTIC BACK-UPS
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Size) - (IB or WB)

T-SEALS

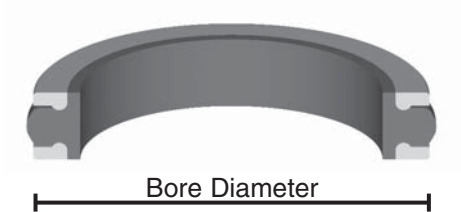
Part Number	Bore Diameter	Seal Base Width	Groove Width	List Price
TP-218-WB	1-1/2	.270	.304	\$ 10.22
TP-221	1-11/16	.170	.185	6.08
TP-222-IB	1-3/4	.215	.235	14.40
TP-326-IB	2	.312	.334	14.40
TP-328-IB	2-1/4	.312	.334	15.36
TP-328-WB	2-1/4	.405	.424	16.31
TP-330-IB	2-1/2	.312	.334	15.75
TP-330-WB	2-1/2	.405	.424	17.19
TP-333-WB	2-7/8	.405	.424	23.50
TP-334-IB	3	.312	.334	25.17
TP-334-WB	3	.405	.424	26.45
TP-338-IB	3-1/2	.312	.334	26.24
TP-338-WB	3-1/2	.405	.424	28.60
TP-342-WB	4	.405	.424	33.75
TP-346-IB	4-1/2	.312	.334	50.32
TP-346-WB	4-1/2	.405	.424	40.85

Part Number	Bore Diameter	Seal Base Width	Groove Width	List Price
TP-347-IB	4-5/8	.312	.334	\$ 48.13
TP-350-WB	5	.405	.424	52.44
TP-425-IB	5	.450	.475	57.55
TP-425-WB	5	.550	.579	70.74
TP-427-WB	5-1/4	.550	.579	57.68
TP-429-IB	5-1/2	.450	.475	58.25
TP-433-IB	6	.450	.475	66.70
TP-433-WB	6	.550	.579	74.19
TP-435-IB	6-1/4	.450	.475	75.80
TP-439-IB	7	.450	.475	78.49
TP-439-WB	7	.550	.579	85.59
TP-443-WB	8	.550	.579	90.48
TP-444-IB	8-1/4	.450	.475	97.43
TP-446-IB	9	.450	.475	112.64
TP-448-IB	10	.450	.475	132.52
TP-450-IB	11	.450	.475	155.91

STYLE TP-L LOCKING PISTON T-SEALS



The Style TP-L seal is a zero drift piston seal for bi-directional pressure applications. The locking anti-extrusion rings provide for an easier installation. It is designed to retrofit O-Ring and standard T-seal grooves. The 70 Shore A NBR is designed specifically for performance in compression type dynamic seals. Other features include a net molded dynamic sealing surface and backup chamfers.



SEAL INFORMATION	
MATERIAL	BUNA-N RUBBER SEAL-HARD PLASTIC BACK-UPS
TEMPERATURE RANGE	-35° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Size)

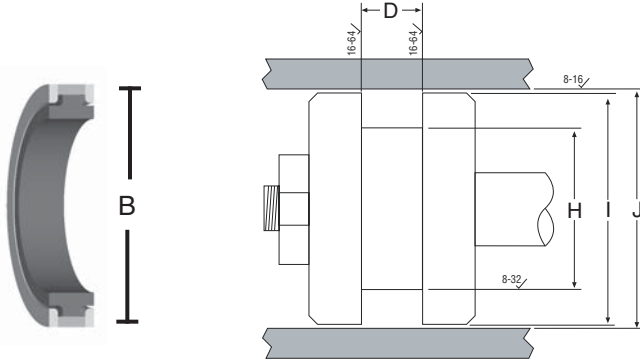
Part Number	Bore Diameter	O-Ring Groove Dash Number	List Price
TP-009-L	7/8	-208	\$ 8.36
TP-011-L	1	-210	7.51
TP-013-L	1-1/8	-212	8.36
TP-015-L	1-1/4	-214	8.36
TP-017-L	1-3/8	-216	8.36
TP-019-L	1-1/2	-218	7.82
TP-021-L	1-5/8	-220	8.36
TP-022-L	1-3/4	-222	8.36
TP-023-L	1-7/8	-325	8.35
TP-024-L	2	-326	7.01
TP-025-L	2-1/8	-327	7.35
TP-026-L	2-1/4	-328	7.81
TP-027-L	2-3/8	-329	8.21
TP-028-L	2-1/2	-330	8.67
TP-029-L	2-5/8	-331	9.42
TP-030-L	2-3/4	-332	9.52

Part Number	Bore Diameter	O-Ring Groove Dash Number	List Price
TP-031-L	2-7/8	-333	\$ 9.87
TP-032-L	3	-334	10.93
TP-033-L	3-1/8	-335	10.68
TP-034-L	3-1/4	-336	11.87
TP-035-L	3-1/2	-338	13.04
TP-037-L	3-3/4	-340	14.73
TP-039-L	4	-342	16.44
TP-041-L	4-1/4	-344	18.90
TP-043-L	4-1/2	-346	20.40
TP-045-L	4-3/4	-348	28.49
TP-047-L	5	-350	29.76
TP-049-L	5-1/4	-427	32.61
TP-051-L	5-1/2	-429	35.82
TP-053-L	5-3/4	-431	36.61
TP-055-L	6	-433	39.51
TP-058-L	6-1/2	-437	40.71

T-SEALS

STYLE CPS CAPPED PISTON T-SEALS

A heavy duty double-acting assembly, the capped piston T-seal exhibits excellent sealability, extrusion resistance, and wearability. T-seals with "BR" suffix utilize a Bronze Filled PTFE cap instead of the standard Glass Filled PTFE cap.



SEAL INFORMATION

MATERIAL	PTFE CAP NYLON BACK-UP RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 6,000 psi
PART NUMBER	(Prefix) - (Bore Size)

T-SEALS

Part Number	B Nom O.D.	D Groove Width	H Groove Diameter	I Piston Diameter		J Bore Diameter	List Price
				W/O WR	W/ WR		
CPS-1750BR	1 3/4	0.424 +0.010 -0.000	1.376 +0.000 -0.002	1.749 +0.000 -0.006	1.749 +0.000 -0.024	1.750 +0.002 -0.000	\$ 37.73
CPS-2000	2	0.424 +0.010 -0.000	1.626 +0.000 -0.002	1.999 +0.000 -0.006	1.999 +0.000 -0.024	2.000 +0.002 -0.000	40.48
CPS-2500	2 1/2	0.424 +0.010 -0.000	2.126 +0.000 -0.002	2.499 +0.000 -0.006	2.499 +0.000 -0.024	2.500 +0.002 -0.000	42.25
CPS-2750BR	2 3/4	0.424 +0.010 -0.000	2.376 +0.000 -0.002	2.749 +0.000 -0.006	2.749 +0.000 -0.024	2.750 +0.002 -0.000	57.12
CPS-3000	3	0.579 +0.010 -0.000	2.520 +0.000 -0.003	2.999 +0.000 -0.006	2.999 +0.000 -0.029	3.000 +0.003 -0.000	54.53
CPS-3000A	3	0.420 +0.010 -0.000	2.442 +0.000 -0.002	2.999 +0.000 -0.006	2.999 +0.000 -0.029	3.000 +0.003 -0.000	58.78
CPS-3000BR	3	0.579 +0.010 -0.000	2.520 +0.000 -0.003	2.999 +0.000 -0.006	2.999 +0.000 -0.029	3.000 +0.003 -0.000	59.20
CPS-3250	3 1/4	0.579 +0.010 -0.000	2.770 +0.000 -0.003	3.249 +0.000 -0.006	3.249 +0.000 -0.029	3.250 +0.003 -0.000	56.32
CPS-3500	3 1/2	0.579 +0.010 -0.000	3.020 +0.000 -0.003	3.499 +0.000 -0.006	3.499 +0.000 -0.029	3.500 +0.003 -0.000	56.71
CPS-3500BR	3 1/2	0.579 +0.010 -0.000	3.020 +0.000 -0.003	3.499 +0.000 -0.006	3.499 +0.000 -0.029	3.500 +0.003 -0.000	61.60
CPS-3750	3 3/4	0.579 +0.010 -0.000	3.270 +0.000 -0.003	3.749 +0.000 -0.006	3.749 +0.000 -0.029	3.750 +0.003 -0.000	57.40
CPS-4000	4	0.579 +0.010 -0.000	3.520 +0.000 -0.003	3.999 +0.000 -0.006	3.999 +0.000 -0.029	4.000 +0.003 -0.000	59.08
CPS-4000BR	4	0.579 +0.010 -0.000	3.520 +0.000 -0.003	3.999 +0.000 -0.006	3.999 +0.000 -0.029	4.000 +0.003 -0.000	64.63
CPS-4250	4 1/4	0.579 +0.010 -0.000	3.770 +0.000 -0.003	4.249 +0.000 -0.006	4.249 +0.000 -0.029	4.250 +0.003 -0.000	61.73
CPS-4500	4 1/2	0.579 +0.010 -0.000	4.020 +0.000 -0.003	4.499 +0.000 -0.007	4.499 +0.000 -0.029	4.500 +0.003 -0.000	63.08
CPS-4500BR	4 1/2	0.579 +0.010 -0.000	4.020 +0.000 -0.003	4.499 +0.000 -0.007	4.499 +0.000 -0.029	4.500 +0.003 -0.000	66.17
CPS-5000	5	0.750 +0.010 -0.000	4.270 +0.000 -0.004	4.999 +0.000 -0.008	4.999 +0.000 -0.029	5.000 +0.004 -0.000	79.32
CPS-5000BR	5	0.750 +0.010 -0.000	4.270 +0.000 -0.004	4.999 +0.000 -0.008	4.999 +0.000 -0.029	5.000 +0.004 -0.000	80.10
CPS-5250	5 1/4	0.750 +0.010 -0.000	4.520 +0.000 -0.004	5.249 +0.000 -0.008	5.249 +0.000 -0.029	5.250 +0.004 -0.000	83.24
CPS-5500	5 1/2	0.750 +0.010 -0.000	4.770 +0.000 -0.004	5.499 +0.000 -0.008	5.499 +0.000 -0.029	5.500 +0.004 -0.000	88.50
CPS-5500BR	5 1/2	0.750 +0.010 -0.000	4.770 +0.000 -0.004	5.499 +0.000 -0.008	5.499 +0.000 -0.029	5.500 +0.004 -0.000	94.08
CPS-5504BR	5 1/2	0.579 +0.010 -0.000	5.020 +0.000 -0.004	5.499 +0.000 -0.008	5.499 +0.000 -0.029	5.500 +0.004 -0.000	85.93

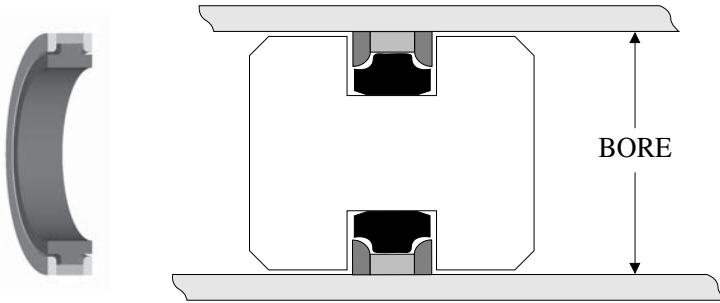
STYLE CPS CAPPED PISTON T-SEALS



Part Number	B Nom O.D.	D Groove Width	H Groove Diameter	I Piston Diameter		J Bore Diameter	List Price
				W/O WR	W/ WR		
CPS-6000	6	0.750 +0.010 -0.000	5.270 +0.000 -0.004	5.999 +0.000 -0.008	5.999 +0.000 -0.029	6.000 +0.004 -0.000	\$ 90.98
CPS-6000A	6	0.579 +0.010 -0.000	5.520 +0.000 -0.003	5.999 +0.000 -0.008	5.999 +0.000 -0.029	6.000 +0.003 -0.000	109.82
CPS-6015	6.015	0.750 +0.010 -0.000	5.285 +0.000 -0.004	6.014 +0.000 -0.008	6.014 +0.000 -0.029	6.015 +0.004 -0.000	129.68
CPS-6250	6 1/4	0.750 +0.010 -0.000	5.520 +0.000 -0.004	6.249 +0.000 -0.008	6.249 +0.000 -0.029	6.250 +0.004 -0.000	92.78
CPS-6250BR	6 1/4	0.750 +0.010 -0.000	5.520 +0.000 -0.004	6.249 +0.000 -0.008	6.249 +0.000 -0.029	6.250 +0.004 -0.000	96.12
CPS-6500	6 1/2	0.750 +0.010 -0.000	5.770 +0.000 -0.004	6.499 +0.000 -0.008	6.499 +0.000 -0.029	6.500 +0.004 -0.000	92.15
CPS-6504BR	6 1/2	0.579 +0.010 -0.000	6.020 +0.000 -0.004	6.499 +0.000 -0.008	6.499 +0.000 -0.029	6.500 +0.004 -0.000	104.92
CPS-7000	7	0.750 +0.010 -0.000	6.270 +0.000 -0.004	6.999 +0.000 -0.008	6.999 +0.000 -0.029	7.000 +0.004 -0.000	118.27
CPS-7000BR	7	0.750 +0.010 -0.000	6.270 +0.000 -0.004	6.999 +0.000 -0.008	6.999 +0.000 -0.029	7.000 +0.004 -0.000	120.08
CPS-7250BR	7 1/4	0.750 +0.010 -0.000	6.520 +0.000 -0.004	7.249 +0.000 -0.008	7.249 +0.000 -0.029	7.250 +0.004 -0.000	123.68
CPS-7500	7 1/2	0.750 +0.010 -0.000	6.770 +0.000 -0.004	7.499 +0.000 -0.008	7.499 +0.000 -0.029	7.500 +0.004 -0.000	106.14
CPS-8000	8	0.750 +0.010 -0.000	7.270 +0.000 -0.004	7.999 +0.000 -0.008	7.999 +0.000 -0.029	8.000 +0.004 -0.000	134.51
CPS-9000	9	0.750 +0.010 -0.000	8.270 +0.000 -0.004	8.999 +0.000 -0.008	8.999 +0.000 -0.029	9.000 +0.004 -0.000	146.97
CPS-10000	10	0.750 +0.010 -0.000	9.270 +0.000 -0.004	9.999 +0.000 -0.008	9.999 +0.000 -0.029	10.000 +0.004 -0.000	155.01

T-SEALS

REPLACEMENT CAPPED PISTON T-SEALS FOR CATERPILLAR EQUIPMENT*



SEAL INFORMATION

MATERIAL	BUNA-N RUBBER SEAL- HARD PLASTIC BACK-UPS
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 6,000 PSI

T-SEALS

Part Number	Bore Diameter	List Price
CTC-3G4762	8-1/2	\$ 134.40
CTC-3G4765	10-1/2	172.20
CTC-8J3747	4-1/2	66.15
CTC-8J3749	7	110.11
CTC-8J4390	8-1/4	128.13
CTC-8J4510	7-1/4	113.69
CTC-8J5644	7-3/4	120.11
CTC-8J8703	6-1/2	106.79

Part Number	Bore Diameter	List Price
CTC-8J8767	5-1/2	\$ 90.69
CTC-9J1242	6	94.76
CTC-9J2987	11-1/2	196.01
CTC-9J3406	10	159.44
CTC-9J5558	6-1/4	96.79
CTC-9J5567	7-1/2	115.28
CTC-9J7868	5	80.83

INSTALLATION OF PTFE PISTON SEALS

Installing PTFE piston seals is not always an easy task. The use of installation tools is recommended but often not convenient when working with a wide variety of sizes and applications. Finger installations are practical with rings of smaller cross-sections. Using fingers or a rounded plastic stick, knead the ring over the piston into the groove. With rings of larger cross-sections it may be necessary to heat the ring. Warming the ring in water or oil at 130° F or 140° F for about 5 minutes will soften the material for easier installation. Always avoid inconsistent stretching or overstretching of the PTFE seal.

To prevent the PTFE ring from snapping into the wrong groove, cover wear ring grooves with plastic tape.

After seal installation, assembly of the cylinder may be difficult if the piston seal is loose on the piston or the cylinder has an inadequate leading edge chamfer. In such cases, compress the piston seal with belting or a suitable hose clamp. If the piston seal must pass threads or any other sharp edges during the cylinder assembly, cover the edges with plastic tape or wrap.

NOTE: Caterpillar® part numbers are used as a reference only. We do not imply that these parts are original equipment parts.