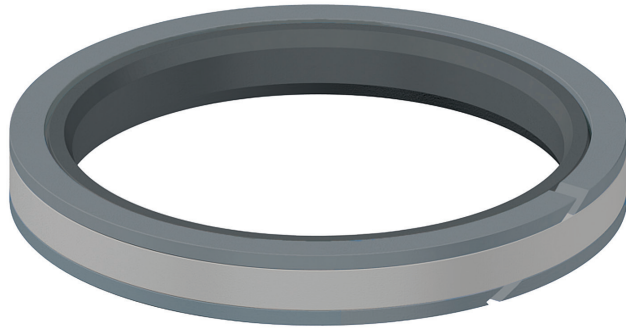


# Capped T-Seals

IMPERIAL SEALS



Capped T-Seals

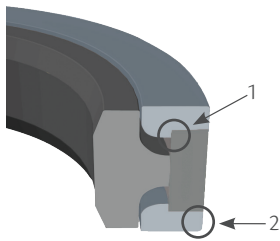
Seal (Cap) Materials	Temp. Range		
15% Glass, 5% Moly PTFE	-268°C	to	288°C
40% Bronze filled PTFE	-268°C	to	288°C
Energizer Materials			
Nitrile	-40°C	to	120°C
Low Temp. Nitrile	-54°C	to	116°C
Viton™/Fluorocarbon	-26°C	to	204°C
Ethylene Propylene	-54°C	to	150°C
Back-up Ring Material:			
Nylon	-54°C	to	121°C

Other popular Back-up materials that are available include PEEK and various PTFE compounds.

## Product Description

Capped T-seals are double-acting, high pressure, high performance piston seals. They are designed to accommodate large extrusion gaps. The major benefits of this design are its excellent extrusion resistance, low friction, and low wear, which are all presented in a compact and stable design. Standard capped T-seals consist of four pieces; a nitrile energizer, a 15% glass, 5% moly PTFE cap, and two nylon anti-extrusion rings. Suitable for pressures up to 10000 PSI.

## Improve Ease of Installation



1. With the inter-locking design, customers benefit from:
  - A reduced chance of installing the back-up rings incorrectly.
  - The back-up rings locking behind T-seal when assembled in the application.
2. Chamfered back-up ring reduces the possibility that the back-up ring can be sheared off in a port or retaining ring groove during assembly.

Contact us if you have any issue installing a capped T-Seal.

## Part Numbers:

CTS - \_\_\_\_\_  
          |  
          Nominal O.D.

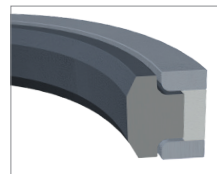
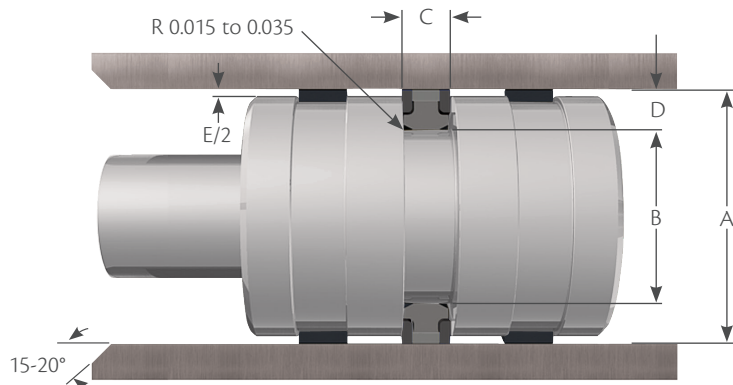
          |  
          Material - if other than standard

CAT\* - \_\_\_\_\_ 4  
          |  
          O.D.

**Example:** CTS 2500 - Capped T-seal, Nitrile Energizer, Glass/Moly PTFE Cap, Two Nylon Anti-Extrusion Rings, 2 - 1/2" Nominal ID

\* Caterpillar equivalent style

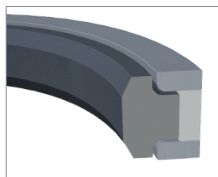
# Capped T-Seals



Capped T-Seals

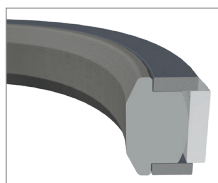
Part Number	A		B		C Groove Width +0.010 -0.000	D Groove Depth	Nominal E*	
	Bore Diameter	Tolerance	Groove Diameter	Tolerance			Capped T-Seal C/S	Diametrical Clearance
CTS 1500	1.500	+0.002 / - 0.000	1.126	+0.000 / - 0.002	0.424	0.187	3/16	0.025
CTS 1750	1.750	+0.002 / - 0.000	1.376	+0.000 / - 0.002	0.424	0.187	3/16	0.025
CTS 2000	2.000	+0.002 / - 0.000	1.626	+0.000 / - 0.002	0.424	0.187	3/16	0.025
CTS 2250	2.250	+0.002 / - 0.000	1.876	+0.000 / - 0.002	0.424	0.187	3/16	0.025
CTS 2500	2.500	+0.002 / - 0.000	2.126	+0.000 / - 0.002	0.424	0.187	3/16	0.025
CTS 2750	2.750	+0.002 / - 0.000	2.376	+0.000 / - 0.002	0.424	0.187	3/16	0.025
CTS 3000	3.000	+0.003 / - 0.000	2.520	+0.000 / - 0.003	0.579	0.240	1/4	0.030
CTS 3250	3.250	+0.003 / - 0.000	2.770	+0.000 / - 0.003	0.579	0.240	1/4	0.030
CTS 3500	3.500	+0.003 / - 0.000	3.020	+0.000 / - 0.003	0.579	0.240	1/4	0.030
CTS 3750	3.750	+0.003 / - 0.000	3.270	+0.000 / - 0.003	0.579	0.240	1/4	0.030
CTS 4000	4.000	+0.003 / - 0.000	3.520	+0.000 / - 0.003	0.579	0.240	1/4	0.030
CTS 4250	4.250	+0.003 / - 0.000	3.770	+0.000 / - 0.003	0.579	0.240	1/4	0.030
CTS 4500	4.500	+0.003 / - 0.000	4.020	+0.000 / - 0.003	0.579	0.240	1/4	0.030
CTS 4750	4.750	+0.003 / - 0.000	4.270	+0.000 / - 0.003	0.579	0.240	1/4	0.030
CTS 4780	4.780	+0.003 / - 0.000	4.300	+0.000 / - 0.003	0.579	0.240	1/4	0.030
CTS 5000	5.000	+0.004 / - 0.000	4.270	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 5250	5.250	+0.004 / - 0.000	4.520	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 5500	5.500	+0.004 / - 0.000	4.770	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 5750	5.750	+0.004 / - 0.000	5.020	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 6000	6.000	+0.004 / - 0.000	5.270	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 6250	6.250	+0.004 / - 0.000	5.520	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 6290	6.290	+0.004 / - 0.000	5.560	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 6500	6.500	+0.004 / - 0.000	5.770	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 6750	6.750	+0.004 / - 0.000	6.020	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 7000	7.000	+0.004 / - 0.000	6.270	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 7040	7.040	+0.004 / - 0.000	6.310	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 7250	7.250	+0.004 / - 0.000	6.520	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 7500	7.500	+0.004 / - 0.000	6.770	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 7540	7.540	+0.004 / - 0.000	6.810	+0.000 / - 0.004	0.750	0.365	3/8	0.035

# Capped T-Seals



Part Number	A		B		C	D	Nominal E*	
	Bore Diameter	Tolerance	Groove Diameter	Tolerance	Groove Width +0.010 -0.000	Groove Depth	Capped T-Seal C/S	Diametrical Clearance
CTS 7750	7.750	+0.004 / - 0.000	7.020	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 7800	7.800	+0.004 / - 0.000	7.070	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 8000	8.000	+0.004 / - 0.000	7.270	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 8250	8.250	+0.004 / - 0.000	7.520	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 8300	8.300	+0.004 / - 0.000	7.570	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 8500	8.500	+0.004 / - 0.000	7.770	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 8750	8.750	+0.004 / - 0.000	8.020	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 9000	9.000	+0.004 / - 0.000	8.270	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 9040	9.040	+0.004 / - 0.000	8.310	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 9500	9.500	+0.004 / - 0.000	8.770	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 10000	10.000	+0.004 / - 0.000	9.270	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 10500	10.500	+0.004 / - 0.000	9.770	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 11000	11.000	+0.004 / - 0.000	10.270	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 12000	12.000	+0.004 / - 0.000	11.270	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 12500	12.500	+0.004 / - 0.000	11.770	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 13000	13.000	+0.004 / - 0.000	12.270	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 13500	13.500	+0.004 / - 0.000	12.770	+0.000 / - 0.004	0.750	0.365	3/8	0.035
CTS 14000	14.000	+0.004 / - 0.000	13.270	+0.000 / - 0.004	0.750	0.365	3/8	0.035

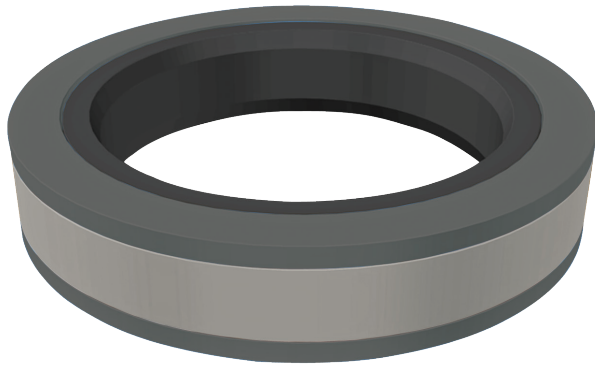
## \* Caterpillar Four Piece



Part Number	CAT Number	O.D.	Height	Length
CAT 55004	8J8767	5.500	0.412 - 0.416	0.628 - 0.632
CAT 65004	8J8703	6.500	0.480 - 0.484	0.628 - 0.632
CAT 70004	8J3749	7.000	0.480 - 0.484	0.628 - 0.632
CAT 85004	3G4762	8.500	0.543 - 0.547	0.628 - 0.632
CAT 105004	3G4765	10.500	0.591 - 0.595	0.688 - 0.692

Our Caterpillar parts are not original equipment parts. Caterpillar part numbers are only provided as a reference.

# Capped T- Seals



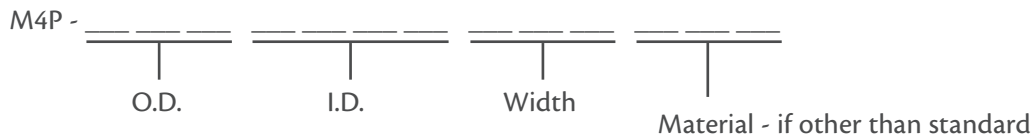
Seal (Cap) Materials	Temp. Range
15% Glass, 5% Moly filled PTFE	-268°C to 288°C
40% Bronze filled PTFE	-268°C to 288°C
Energizer Materials	
Nitrile	-40°C to 120°C
Low Temp. Nitrile	-54°C to 116°C
Viton™/Fluorocarbon	-26°C to 204°C
Ethylene Propylene	-54°C to 150°C
Back-up Ring Materials	
Nylon	-54°C to 121°C
PEEK	-70°C to 260°C

## Product Description

Capped T-seals are a double-acting, high pressure, high performance piston seal. They are designed to accommodate large extrusion gaps. The major benefits of this design are its excellent extrusion resistance, low friction, and low wear, all pre-sented in a compact and stable design. Standard capped T-seals consist of four pieces, including, a nitrile energizer, a filled PTFE cap, and two nylon anti-extrusion rings.

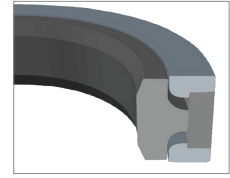
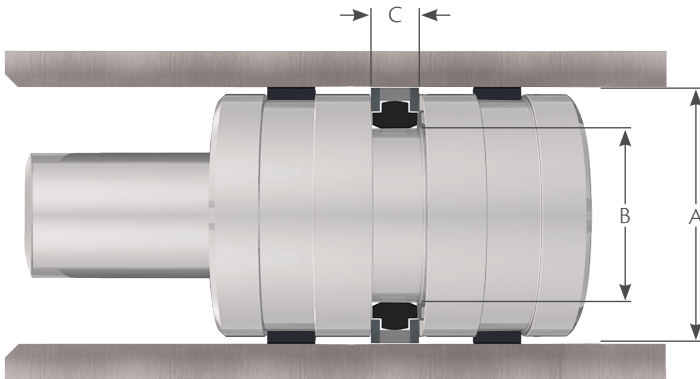
Capped T-Seals are available in an inter-locking design, upon request. This design eases the installation process and reduce the change of installing the back-up rings incorrectly.

## Part Numbers:



**Example:** M4P 10085125 - Capped T-Seal, 85.00 mm I.D., 100.00 mm O.D., 12.50 mm Width

# Capped T- Seals

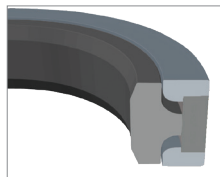


Capped T-Seals

Part Number	Groove Dimensions						Nominal C/S	Piston Clearance	
	A		B		C			w/o Wear Ring	w/ Wear Ring
	Bore Diameter	Tolerance	Groove Diameter	Tolerance	Groove Width	Tolerance			
M4P 50369	50.00	0.05/-0.00	36.00	0.00/-0.05	9.00	0.25/-0.00	7.00	0.15	0.76
M4P 50408	50.00	0.05/-0.00	40.00	0.00/-0.05	8.00	0.25/-0.00	5.00	0.15	0.76
M4P 55419	55.00	0.05/-0.00	41.00	0.00/-0.05	9.00	0.25/-0.00	7.00	0.15	0.76
M4P 60469	60.00	0.05/-0.00	46.00	0.00/-0.05	9.00	0.25/-0.00	7.00	0.15	0.76
M4P 60508	60.00	0.05/-0.00	50.00	0.00/-0.05	8.00	0.25/-0.00	5.00	0.15	0.76
M4P 63538	63.00	0.05/-0.00	53.00	0.00/-0.05	8.00	0.25/-0.00	5.00	0.15	0.76
M4P 655011	65.00	0.08/-0.00	50.00	0.00/-0.08	11.00	0.25/-0.00	7.50	0.20	0.94
M4P 65519	65.00	0.05/-0.00	51.00	0.00/-0.05	9.00	0.25/-0.00	7.00	0.15	0.76
M4P 705511	70.00	0.08/-0.00	55.00	0.00/-0.08	11.00	0.25/-0.00	7.50	0.20	0.94
M4P 7055125	70.00	0.08/-0.00	55.00	0.00/-0.08	12.50	0.25/-0.00	7.50	0.20	0.94
M4P 70608	70.00	0.05/-0.00	60.00	0.00/-0.05	8.00	0.25/-0.00	5.00	0.15	0.76
M4P 756011	75.00	0.08/-0.00	60.00	0.00/-0.08	11.00	0.25/-0.00	7.50	0.20	0.94
M4P 75639	75.00	0.05/-0.00	63.00	0.00/-0.05	9.00	0.25/-0.00	6.00	0.15	0.76
M4P 806511	80.00	0.08/-0.00	65.00	0.00/-0.08	11.00	0.25/-0.00	7.50	0.20	0.94
M4P 806512	80.00	0.08/-0.00	65.00	0.00/-0.08	12.00	0.25/-0.00	7.50	0.20	0.94
M4P 8065125	80.00	0.08/-0.00	65.00	0.00/-0.08	12.50	0.25/-0.00	7.50	0.20	0.94
M4P 857011	85.00	0.08/-0.00	70.00	0.00/-0.08	11.00	0.25/-0.00	7.50	0.20	0.94
M4P 857012	85.00	0.08/-0.00	70.00	0.00/-0.08	12.00	0.25/-0.00	7.50	0.20	0.94
M4P 907511	90.00	0.08/-0.00	75.00	0.00/-0.08	11.00	0.25/-0.00	7.50	0.20	0.94
M4P 9075125	90.00	0.08/-0.00	75.00	0.00/-0.08	12.50	0.25/-0.00	7.50	0.20	0.94
M4P 958011	95.00	0.08/-0.00	80.00	0.00/-0.08	11.00	0.25/-0.00	7.50	0.20	0.94
M4P 10085125	100.00	0.08/-0.00	85.00	0.00/-0.08	12.50	0.25/-0.00	7.50	0.20	0.94
M4P 10590125	105.00	0.08/-0.00	90.00	0.00/-0.08	12.50	0.25/-0.00	7.50	0.20	0.94
M4P 11095125	110.00	0.08/-0.00	95.00	0.00/0.08	12.50	0.25/-0.00	7.50	0.20	0.94
M4P 115100125	115.00	0.08/-0.00	100.00	0.00/-0.08	12.50	0.25/-0.00	7.50	0.20	0.94
M4P 12010016	120.00	0.10/-0.00	100.00	0.00/-0.10	16.00	0.25/-0.00	10.00	0.25	1.12
M4P 120105125	120.00	0.08/-0.00	105.00	0.00/-0.08	12.50	0.25/-0.00	7.50	0.20	0.94
M4P 12510216	125.00	0.10/-0.00	102.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 12510516	125.00	0.10/-0.00	105.00	0.00/-0.10	16.00	0.25/-0.00	10.00	0.25	1.12
M4P 13010716	130.00	0.10/-0.00	107.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12

# Capped T- Seals

METRIC SEALS



Capped T- Seals

Part Number	Groove Dimensions						Nominal C/S	Piston Clearance	
	A		B		C			w/o Wear Ring	w/ Wear Ring
	Bore Diameter	Tolerance	Groove Diameter	Tolerance	Groove Width	Tolerance			
M4P 13011016	130.00	0.10/-0.00	110.00	0.00/-0.10	16.00	0.25/-0.00	10.00	0.25	1.12
M4P 13511216	135.00	0.10/-0.00	112.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 14011716	140.00	0.10/-0.00	117.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 14012016	140.00	0.10/-0.00	120.00	0.00/-0.10	16.00	0.25/-0.00	10.00	0.25	1.12
M4P 14012019	140.00	0.08/-0.00	120.00	0.00/-0.08	19.00	0.25/-0.00	10.00	0.25	1.12
M4P 14512216	145.00	0.10/-0.00	122.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 15012716	150.00	0.10/-0.00	127.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 15013019	150.00	0.08/-0.00	130.00	0.00/-0.08	19.00	0.25/-0.00	10.00	0.25	1.12
M4P 15513216	155.00	0.10/-0.00	132.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 16013716	160.00	0.10/-0.00	137.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 16014016	160.00	0.10/-0.00	140.00	0.00/-0.10	16.00	0.25/-0.00	10.00	0.25	1.12
M4P 16014019	160.00	0.08/-0.00	140.00	0.00/-0.08	19.00	0.25/-0.00	10.00	0.25	1.12
M4P 16514216	165.00	0.10/-0.00	142.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 17014716	170.00	0.10/-0.00	147.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 17015016	170.00	0.10/-0.00	150.00	0.00/-0.10	16.00	0.25/-0.00	10.00	0.25	1.12
M4P 18015716	180.00	0.10/-0.00	157.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 18016016	180.00	0.10/-0.00	160.00	0.00/-0.10	16.00	0.25/-0.00	10.00	0.25	1.12
M4P 18516216	185.00	0.10/-0.00	162.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 19016716	190.00	0.10/-0.00	167.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 20017716	200.00	0.10/-0.00	177.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 21018716	210.00	0.10/-0.00	187.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 22019716	220.00	0.10/-0.00	197.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 22520216	225.00	0.10/-0.00	202.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 23020716	230.00	0.10/-0.00	207.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 24021716	240.00	0.10/-0.00	217.00	0.00/-0.10	16.00	0.25/-0.00	11.50	0.25	1.12
M4P 250222175	250.00	0.13/-0.00	222.00	0.00/-0.13	17.50	0.25/-0.00	14.00	0.25	1.12
M4P 260232175	260.00	0.13/-0.00	232.00	0.00/-0.13	17.50	0.25/-0.00	14.00	0.25	1.12
M4P 270242175	270.00	0.13/-0.00	242.00	0.00/-0.13	17.50	0.25/-0.00	14.00	0.25	1.12
M4P 280252175	280.00	0.13/-0.00	252.00	0.00/-0.13	17.50	0.25/-0.00	14.00	0.25	1.12
M4P 300272175	300.00	0.13/-0.00	272.00	0.00/-0.13	17.50	0.25/-0.00	14.00	0.25	1.12
M4P 320292175	320.00	0.13/-0.00	292.00	0.00/-0.13	17.50	0.25/-0.00	14.00	0.25	1.12