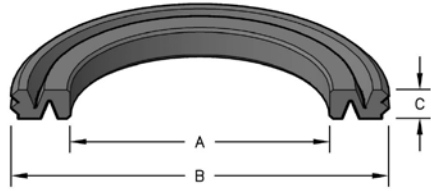


STYLE MPK54 PISTON SEALS



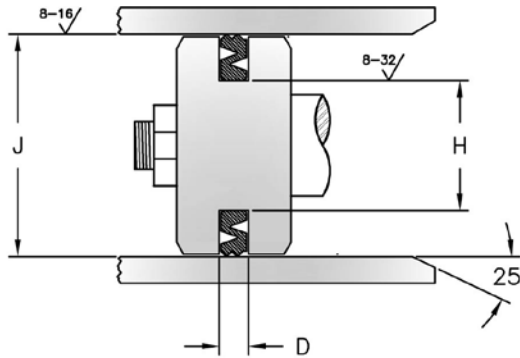
MPK54 is designed as a piston seal suitable for pneumatic cylinders and valves. MPK54 seals are useful in short stroke applications because of its ease of assembly and low friction capabilities.



PART NUMBERS

MPK54 - 012

Type of Seal: MPK54
Outside Diameter: 012



SEAL INFORMATION	
MATERIAL	70A NBR
TEMPERATURE RANGE	-20° TO +220° F
MAXIMUM PRESSURE	0 TO 175 PSI
SPEED	3 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPK54-012	7	12	2	2.50 +0.20 -0.00	7.00 +0.000 -0.036	12.00 +0.11 +0.00	\$2.19
MPK54-016	9	16	2.1	2.50 +0.20 +0.00	9.00 +0.000 -0.036	16.00 +0.11 +0.00	2.60
MPK54-020	13	20	2.1	2.50 +0.20 +0.00	13.00 +0.000 -0.043	20.00 +0.13 +0.00	2.89
MPK54-025	18	25	2.1	2.50 +0.20 +0.00	18.00 +0.000 -0.043	25.00 +0.13 +0.00	3.43
MPK54-028	19	28	2.5	3.00 +0.20 +0.00	19.00 +0.000 -0.052	28.00 +0.13 +0.00	3.51
MPK54-030	21	30	2.5	3.00 +0.20 +0.00	21.00 +0.000 -0.052	30.00 +0.13 +0.00	3.51
MPK54-032	23	32	2.5	3.00 +0.20 +0.00	23.00 +0.000 -0.052	32.00 +0.16 +0.00	3.72
MPK54-035	26	35	2.5	3.00 +0.20 +0.00	26.00 +0.000 -0.052	35.00 +0.16 +0.00	3.89
MPK54-040	31	40	2.5	3.00 +0.20 +0.00	31.00 +0.000 -0.062	40.00 +0.16 +0.00	4.14
MPK54-045	36	45	2.5	3.00 +0.20 +0.00	36.00 +0.000 -0.062	45.00 +0.16 +0.00	4.59
MPK54-050	41	50	2.5	3.00 +0.20 +0.00	41.00 +0.000 -0.062	50.00 +0.16 +0.00	5.15
MPK54-060	44	60	3.4	4.00 +0.20 +0.00	44.00 +0.000 -0.062	60.00 +0.19 +0.00	5.74
MPK54-063	51	63	3.4	4.00 +0.20 +0.00	51.00 +0.000 -0.074	63.00 +0.19 +0.00	5.84
MPK54-070	58	70	3.4	4.00 +0.20 +0.00	58.00 +0.000 -0.074	70.00 +0.19 +0.00	6.22
MPK54-080	68	80	3.4	4.00 +0.20 +0.00	68.00 +0.000 -0.074	80.00 +0.19 +0.00	6.84



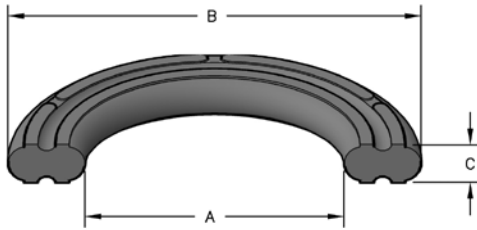
STYLE MPK54 PISTON SEALS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPK54-100	88	100	3.4	4.00 ^{+0.20} / _{+0.00}	88.00 ^{+0.000} / _{-0.087}	100.00 ^{+0.22} / _{+0.00}	7.54
MPK54-125	110	125	4.4	5.00 ^{+0.20} / _{+0.00}	110.00 ^{+0.000} / _{-0.087}	125.00 ^{+0.25} / _{+0.00}	9.90

STYLE MPK62 PISTON SEALS

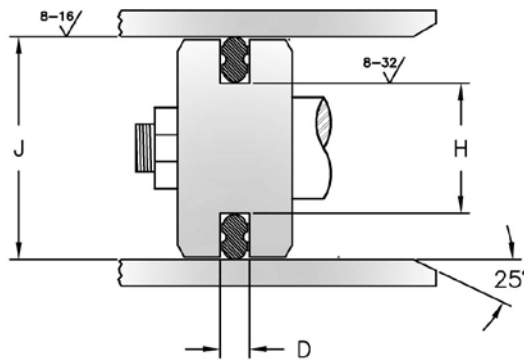


MPK62 is a double-acting pneumatic piston seal designed to work in low axial height housings. The solid body molded in 70 durometer nitrile provides superior low-pressuring sealing.



PART NUMBERS

MPK62 - 032
 Style Prefix Bore Diameter



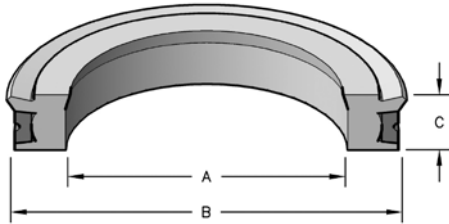
SEAL INFORMATION	
MATERIAL	70A NBR
TEMPERATURE RANGE	-20° TO +220° F
MAXIMUM PRESSURE	0 TO 175 PSI
SPEED	3 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPK62-032	24	32	3.2	3.20 +0.20 +0.00	24.00 +0.000 -0.052	32.00 +0.16 +0.00	\$6.61
MPK62-040	32	40	3.2	3.20 +0.20 +0.00	32.00 +0.000 -0.062	40.00 +0.16 +0.00	7.24
MPK62-050	40	50	4	4.00 +0.20 +0.00	40.00 +0.000 -0.062	50.00 +0.16 +0.00	9.59
MPK62-063	53	63	4	4.00 +0.20 +0.00	53.00 +0.000 -0.074	63.00 +0.19 +0.00	10.75
MPK62-080	65	80	6	6.00 +0.20 +0.00	65.00 +0.000 -0.074	80.00 +0.19 +0.00	12.58
MPK62-100	85	100	6	6.00 +0.20 +0.00	85.00 +0.000 -0.087	100.00 +0.22 +0.00	13.99

Seal color may vary. Special order sizes are available.

STYLE PU-TDA PISTON SEALS

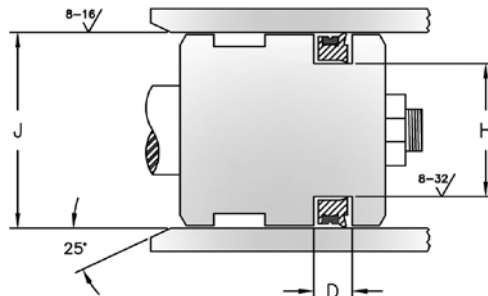
The PU-TDA tandem seal has a urethane sealing lip with a PTFE insert secondary sealing lip. Under increasing pressure, the inner seal acts to compress the PTFE slide ring onto the cylinder bore. This action creates a high force sealing edge of low-frictional resistance. These are genuine Hunger® parts.



PART NUMBERS

PU-TDA - 70 X 58 X 13.5

Type of Seal: PU-TDA
Outside Diameter: 70
Inside Diameter: 58
Height: 13.5



SEAL INFORMATION

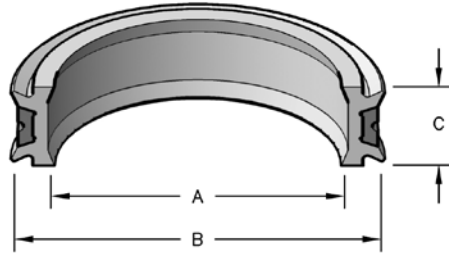
MATERIAL	URETHANE BRONZE-FILLED PTFE
TEMPERATURE RANGE	-31° TO +212° F
MAXIMUM PRESSURE	0 TO 6,500 PSI
SPEED	3 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
PU-TDA 70X58X13.5	58	70	13.5	14.50 +0.12 -0.05	58.00 +0.000 -0.074	70.00 +0.046 +0.000	\$92.90
PU-TDA 80X65X12	65	80	12	13.00 +0.12 -0.05	65.00 +0.000 -0.074	80.00 +0.046 +0.000	92.90
PU-TDA 105X90X12	90	105	12	13.00 +0.12 -0.05	90.00 +0.000 -0.087	105.00 +0.054 +0.000	123.88
PU-TDA 125X110X12	110	125	12	13.00 +0.12 -0.05	110.00 +0.000 -0.087	125.00 +0.063 +0.000	150.20
PU-TDA 115X130X12	115	130	12	13.00 +0.12 -0.05	115.00 +0.000 -0.087	130.00 +0.063 +0.000	231.64
PU-TDA 180X160X16	160	180	16	17.00 +0.12 -0.05	160.00 +0.00 -0.10	180.00 +0.063 +0.000	296.13
PU-TDA 200X180X16	180	200	16	17.00 +0.12 -0.05	180.00 +0.00 -0.10	200.00 +0.072 +0.000	360.77
PU-TDA 220X200X16	200	220	16	17.00 +0.12 -0.05	200.00 +0.000 -0.115	220.00 +0.072 +0.000	418.06
PU-TDA 250X230X16	230	250	16	17.00 +0.12 -0.05	230.00 +0.000 -0.115	250.00 +0.072 +0.000	541.93
PU-TDA 280X260X16	260	280	16	17.00 +0.12 -0.05	260.00 +0.00 -0.13	280.00 +0.081 +0.000	774.19

Seal color may vary. Special order sizes are available.

STYLE PU-TDMA PISTON SEALS

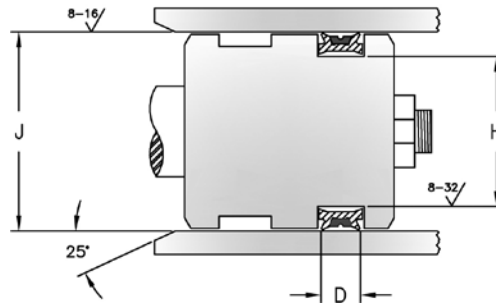
The PU-TDMA double-acting tandem seal has two urethane sealing lips with a PTFE insert as a center sealing ring. Due to good dry-running properties, it can be used in multi-fluid sealing applications. These are genuine Hunger® parts.



PART NUMBERS

PU-TDMA - 63 X 53 X 15

Type of Seal: PU-TDMA
Outside Diameter: 63
Inside Diameter: 53
Height: 15



SEAL INFORMATION

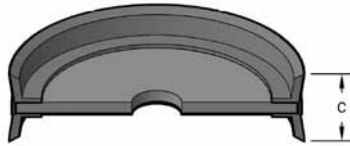
MATERIAL	BRONZE-FILLED PTFE AND URETHANE
TEMPERATURE RANGE	-31° TO +212° F
PRESSURE RANGE	0 TO 3,600 PSI
SPEED	3 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
PU-TDMA63X53X15	53	63	15	16.00 +0.12 -0.05	53.00 +0.000 -0.074	63.00 +0.046 +0.000	\$96.57
PU-TDMA90X80X15	80	90	15	16.00 +0.12 -0.05	80.00 +0.000 -0.074	90.00 +0.054 +0.000	135.98
PU-TDMA 100X90X15	90	100	15	16.00 +0.12 -0.05	90.00 +0.000 -0.087	100.00 +0.054 +0.000	155.69

Seal color may vary. Special order sizes are available.

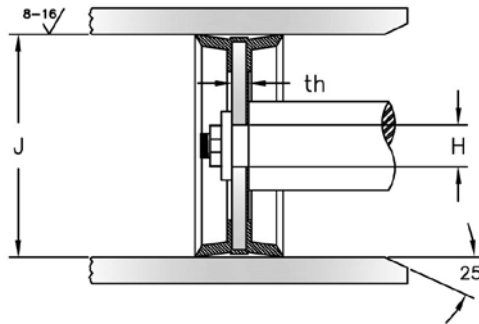
STYLE MDPC PISTON SEALS

MDPC is a complete double-acting piston constructed of a steel plate bonded to nitrile rubber sealing lips. Pneumatic applications to 230 psi pressure.



PART NUMBERS

MDPC - 020
Type of Seal Bore Diameter



SEAL INFORMATION	
MATERIAL	75A NBR
TEMPERATURE RANGE	-22° TO +220° F
PRESSURE RANGE	0 TO 230 PSI
SPEED	3 FT/SEC

Part Number	J BORE DIAMETER	H HOLE SIZE	C LIP HEIGHT	th THICKNESS	List Price
MDPC-020	20.00 ^{+0.13} / _{+0.00}	5.20 ^{+0.00} / _{-0.03}	8.00	3.00	\$5.16
MDPC-025	25.00 ^{+0.13} / _{+0.00}	8.00 ^{+0.000} / _{-0.036}	12.00	4.00	5.16
MDPC-032	32.00 ^{+0.16} / _{+0.00}	8.00 ^{+0.000} / _{-0.036}	15.00	4.00	6.14
MDPC-040	40.00 ^{+0.16} / _{+0.00}	10.00 ^{+0.000} / _{-0.036}	18.00	5.00	7.74
MDPC-050	50.00 ^{+0.16} / _{+0.00}	10.00 ^{+0.000} / _{-0.036}	18.00	5.00	8.92
MDPC-050A	50.00 ^{+0.16} / _{+0.00}	16.00 ^{+0.000} / _{-0.043}	20.50	4.00	10.03
MDPC-063	63.00 ^{+0.19} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	22.00	6.00	11.39
MDPC-070	70.00 ^{+0.19} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	22.00	6.00	14.46
MDPC-080	80.00 ^{+0.19} / _{+0.00}	16.00 ^{+0.000} / _{-0.043}	22.50	5.00	16.63
MDPC-080A	80.00 ^{+0.19} / _{+0.00}	16.00 ^{+0.000} / _{-0.043}	25.00	6.50	16.06
MDPC-090	90.00 ^{+0.22} / _{+0.00}	16.00 ^{+0.000} / _{-0.043}	25.00	6.50	20.49
MDPC-100	100.00 ^{+0.22} / _{+0.00}	16.00 ^{+0.000} / _{-0.043}	25.00	6.50	21.88
MDPC-100A	100.00 ^{+0.22} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	25.00	5.00	21.79
MDPC-102	102.00 ^{+0.22} / _{+0.00}	16.00 ^{+0.000} / _{-0.043}	25.00	5.00	23.34
MDPC-110	110.00 ^{+0.22} / _{+0.00}	18.00 ^{+0.000} / _{-0.043}	25.00	7.50	34.11
MDPC-125	125.00 ^{+0.25} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	30.00	10.00	40.34
MDPC-150	150.00 ^{+0.25} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	30.00	12.00	61.85
MDPC-160	160.00 ^{+0.25} / _{+0.00}	27.00 ^{+0.000} / _{-0.052}	31.00	12.00	68.77
MDPC-180	180.00 ^{+0.25} / _{+0.00}	27.00 ^{+0.000} / _{-0.052}	31.00	12.00	89.70

STYLE MDPC PISTON SEALS

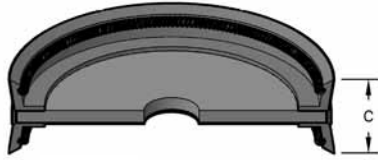


Part Number	J BORE DIAMETER	H HOLE SIZE	C LIP HEIGHT	th THICKNESS	List Price
MDPC-200	200.00 ^{+0.29} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	35.00	12.00	105.65
MDPC-200B	200.00 ^{+0.29} / _{+0.00}	27.00 ^{+0.000} / _{-0.052}	35.00	15.00	105.43
MDPC-250	250.00 ^{+0.29} / _{+0.00}	30.00 ^{+0.000} / _{-0.052}	35.00	16.50	130.61

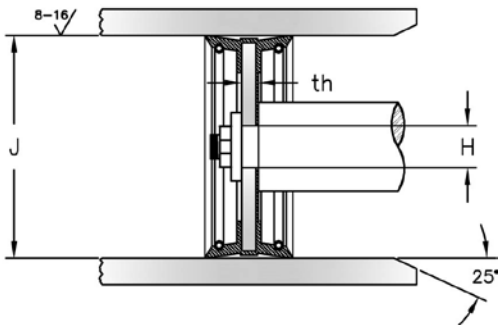
Seal color may vary. Special order sizes are available.

STYLE MDPCS PISTON SEALS

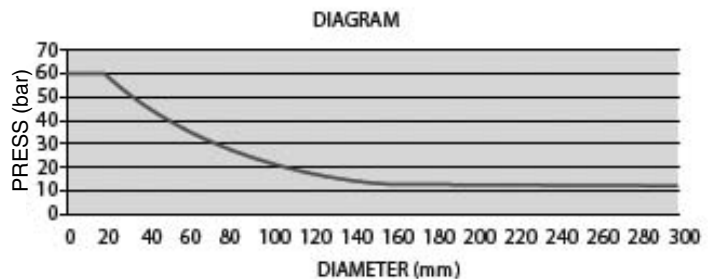
MDPCS is a double-acting complete piston seal constructed of a steel plate bonded to nitrile rubber sealing lips and spring energized for low-pressure sealing. Pneumatic applications to 230 psi pressure. Hydraulic pressure limits range from 175 to 870 psi, depending on size.



MDPCS - 030
Type of Seal Bore Diameter



SEAL INFORMATION	
MATERIAL	90A NBR
TEMPERATURE RANGE	- 22° TO +220° F
PRESSURE RANGE	MAX 175 TO 870 PSI
SPEED	3 FT/SEC



Part Number	J BORE DIAMETER	H HOLE SIZE	C LIP HEIGHT	th THICKNESS	List Price
MDPCS-030	30.00 ^{+0.13} / _{+0.00}	8.00 ^{+0.000} / _{-0.036}	22.00	3.50	\$7.04
MDPCS-032	32.00 ^{+0.16} / _{+0.00}	8.00 ^{+0.000} / _{-0.036}	25.00	3.50	7.28
MDPCS-035	35.00 ^{+0.16} / _{+0.00}	8.00 ^{+0.000} / _{-0.036}	18.00	3.00	8.71
MDPCS-038	38.00 ^{+0.16} / _{+0.00}	8.00 ^{+0.000} / _{-0.036}	25.00	3.50	8.92
MDPCS-040A	40.00 ^{+0.16} / _{+0.00}	10.00 ^{+0.000} / _{-0.036}	25.00	3.50	8.92
MDPCS-045	45.00 ^{+0.16} / _{+0.00}	10.00 ^{+0.000} / _{-0.036}	25.00	4.50	9.59
MDPCS-050A	50.00 ^{+0.16} / _{+0.00}	16.00 ^{+0.000} / _{-0.043}	23.00	4.00	10.34
MDPCS-050	50.00 ^{+0.16} / _{+0.00}	10.00 ^{+0.000} / _{-0.036}	25.00	4.50	10.31
MDPCS-055	55.00 ^{+0.19} / _{+0.00}	10.00 ^{+0.000} / _{-0.036}	25.00	4.50	11.53
MDPCS-060C	60.00 ^{+0.19} / _{+0.00}	21.00 ^{+0.000} / _{-0.052}	26.00	4.00	12.67
MDPCS-060A	60.00 ^{+0.19} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	27.00	4.00	12.20
MDPCS-063A	63.00 ^{+0.19} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	25.00	4.50	14.21
MDPCS-065	65.00 ^{+0.19} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	25.00	4.50	14.18
MDPCS-070	70.00 ^{+0.19} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	30.00	5.90	16.66
MDPCS-075	75.00 ^{+0.19} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	30.00	5.90	17.96

STYLE MDPCS PISTON SEALS



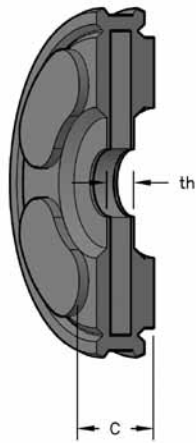
Part Number	J BORE DIAMETER	H HOLE SIZE	C LIP HEIGHT	th THICKNESS	List Price
MDPCS-080	80.00 ^{+0.19} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	30.00	5.90	19.28
MDPCS-085	85.00 ^{+0.22} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	35.00	7.10	20.64
MDPCS-090	90.00 ^{+0.22} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	35.00	7.10	23.70
MDPCS-100	100.00 ^{+0.22} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	35.00	7.10	25.36
MDPCS-110	110.00 ^{+0.22} / _{+0.00}	12.00 ^{+0.000} / _{-0.043}	40.00	7.00	42.61
MDPCS-120	120.00 ^{+0.22} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	8.00	9.00	49.14
MDPCS-125	125.00 ^{+0.25} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	40.00	9.00	52.56
MDPCS-125A	125.00 ^{+0.25} / _{+0.00}	30.00 ^{+0.000} / _{-0.052}	40.00	8.00	54.95
MDPCS-130	130.00 ^{+0.25} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	40.00	9.00	62.80
MDPCS-145	145.00 ^{+0.25} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	45.00	11.00	72.72
MDPCS-150	150.00 ^{+0.25} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	40.00	11.00	76.92
MDPCS-160	160.00 ^{+0.25} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	40.00	11.00	85.57
MDPCS-175	175.00 ^{+0.25} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	40.00	11.00	111.55
MDPCS-180	180.00 ^{+0.25} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	40.00	11.00	122.68
MDPCS-200	200.00 ^{+0.29} / _{+0.00}	20.00 ^{+0.000} / _{-0.052}	40.00	11.00	131.33
MDPCS-230	230.00 ^{+0.29} / _{+0.00}	30.00 ^{+0.000} / _{-0.052}	40.00	13.00	162.95
MDPCS-250	250.00 ^{+0.29} / _{+0.00}	30.00 ^{+0.000} / _{-0.052}	40.00	13.00	182.94

SPECIAL ORDER STYLE MDPCS PISTON SEALS

Part Number	List Price	Part Number	List Price	Part Number	List Price
MDPCS-026	\$ 3.62	MDPCS-060B	\$ 7.65	MDPCS-125B	\$ 35.01
MDPCS-035A	5.35	MDPCS-062	10.06	MDPCS-145A	52.72
MDPCS-060	7.59	MDPCS-082	11.73	MDPC-202.2	74.25

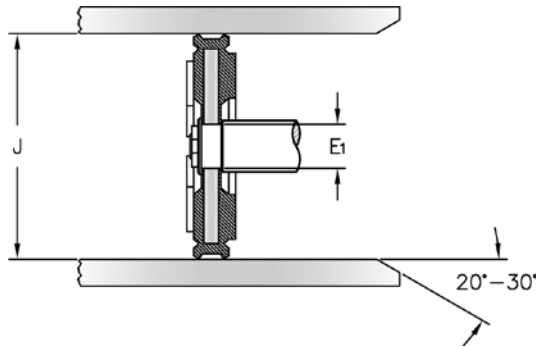
STYLE MDPC-57 PISTON SEALS

This double-acting piston seal consists of an aluminum plate bonded to elastomeric NBR.



PART NUMBERS

MDPC-57 - 010
 Type of Seal Bore Diameter



SEAL INFORMATION

MATERIAL	70A NBR
TEMPERATURE RANGE	-22 - +220° F
PRESSURE RANGE	0 TO 175 PSI
SPEED	3 FT/SEC

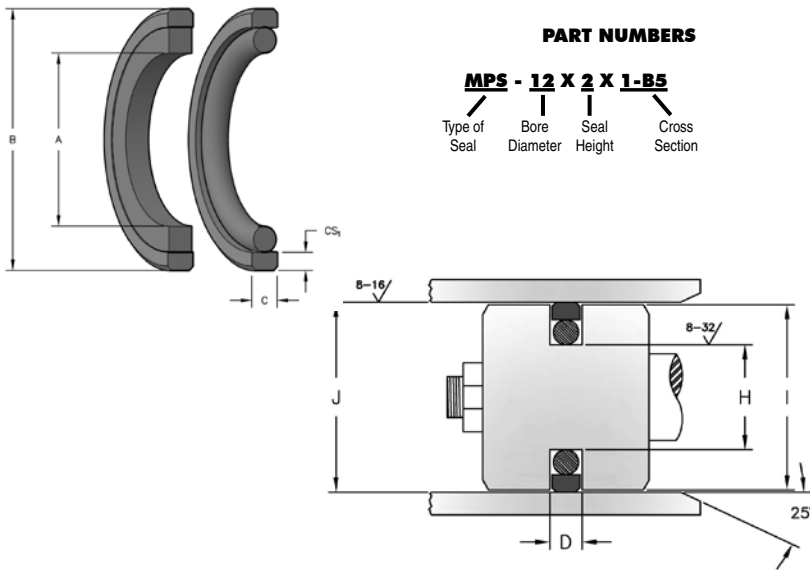
Part Number	J BORE DIAMETER	E ₁ STUB DIAMETER	C LIP HEIGHT	th THICKNESS	List Price
MDPC-57-010	10.00 +0.09 +0.00	3.00 +0.00 -0.04	5.00	1.80	\$8.69
MDPC-57-012	12.00 +0.11 +0.00	4.50 +0.000 -0.048	6.00	2.30	8.77
MDPC-57-016	16.00 +0.11 +0.00	4.50 +0.000 -0.048	6.50	2.30	8.77
MDPC-57-025	25.00 +0.13 +0.00	7.00 +0.000 -0.058	8.80	3.50	8.77
MDPC-57-032	32.00 +0.16 +0.00	8.00 +0.000 -0.058	11.00	3.50	10.76
MDPC-57-040	40.00 +0.16 +0.00	8.00 +0.000 -0.058	11.80	4.50	13.19
MDPC-57-050	50.00 +0.16 +0.00	10.00 +0.000 -0.058	14.00	4.50	15.37
MDPC-57-063	63.00 +0.19 +0.00	12.00 +0.00 -0.07	14.00	4.50	19.79
MDPC-57-080	80.00 +0.19 +0.00	16.00 +0.00 -0.07	16.00	5.50	28.92
MDPC-57-100	100.00 +0.22 +0.00	20.00 +0.000 -0.084	18.00	6.50	38.02

Seal color may vary. Special order sizes are available.

STYLE MPS TWO PIECE PISTON SEALS



Molded from filled PTFE and machined to close tolerances, these seals feature low friction and excellent wear characteristics. Nitrile o-rings are used for energizers.



SEAL INFORMATION	
MATERIAL	PTFE PISTON SEAL 70A NITRILE ENERGIZER
TEMPERATURE RANGE	-40° TO +230° F
PRESSURE RANGE	0 TO 5,000 psi
SPEED	12 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPS-12X2X1-B5	7.1	12	2	2.20 +0.20 -0.00	7.10 +0.000 -0.036	12.00 +0.043 +0.000	\$9.60
MPS-15X3X2-B5	7.5	15	3	3.20 +0.20 +0.00	7.50 +0.000 -0.036	15.00 +0.043 +0.000	11.17
MPS-16X2X1-B5	11.1	16	2	2.20 +0.20 +0.00	11.10 +0.000 -0.043	16.00 +0.043 +0.000	12.69
MPS-20X3X2-B5	12.5	20	3	3.20 +0.20 +0.00	12.50 +0.000 -0.043	20.00 +0.052 +0.000	12.69
MPS-22X3X2-B5	14.5	22	3	3.20 +0.20 +0.00	14.50 +0.000 -0.043	22.00 +0.052 +0.000	12.69
MPS-25X3X2-B5	17.5	25	3	3.20 +0.20 +0.00	17.50 +0.000 -0.043	25.00 +0.052 +0.000	12.69
MPS-28X3X2-B5	20.5	28	3	3.20 +0.20 +0.00	20.50 +0.000 -0.052	28.00 +0.052 +0.000	14.71
MPS-30X2X1-B5	25.1	30	2	2.20 +0.20 +0.00	25.10 +0.000 -0.052	30.00 +0.052 +0.000	16.25
MPS-30X3X2-B5	22.5	30	3	3.20 +0.20 +0.00	22.50 +0.000 -0.052	30.00 +0.052 +0.000	14.71
MPS-32X2X1-B5	27.1	32	2	2.20 +0.20 +0.00	27.10 +0.000 -0.052	32.00 +0.062 +0.000	20.43
MPS-32X3X2	24.5	32	3	3.20 +0.20 +0.00	24.50 +0.000 -0.052	32.00 +0.062 +0.000	14.71
MPS-35X3X2-B5	27.5	35	3	3.20 +0.20 +0.00	27.50 +0.000 -0.052	35.00 +0.062 +0.000	14.71
MPS-35X25.5X4.5	25.5	35	4.3	4.50 +0.20 +0.00	25.50 +0.000 -0.052	35.00 +0.062 +0.000	4.11
MPS-36X3X2-B5	28.5	36	3	3.20 +0.20 +0.00	28.50 +0.000 -0.052	36.00 +0.062 +0.000	17.83
MPS-40X3X2-B5	32.5	40	3	3.20 +0.20 +0.00	32.50 +0.000 -0.062	40.00 +0.062 +0.000	17.83
MPS-40X4X2.9-B5	29	40	4	4.20 +0.20 +0.00	29.00 +0.000 -0.052	40.00 +0.062 +0.000	17.83

STYLE MPS TWO PIECE PISTON SEALS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPS-40X6X3.5-B5	24.5	40	6	6.30 ^{+0.20} / _{+0.00}	24.50 ^{+0.000} / _{-0.052}	40.00 ^{+0.062} / _{+0.000}	17.83
MPS-42X4X2.9-B5	31	42	4	4.20 ^{+0.20} / _{+0.00}	31.00 ^{+0.000} / _{-0.062}	42.00 ^{+0.062} / _{+0.000}	21.66
MPS-45X3.8X1.5	36.4	45	3.8	4.20 ^{+0.20} / _{+0.00}	36.40 ^{+0.000} / _{-0.062}	45.00 ^{+0.062} / _{+0.000}	14.72
MPS-45X4X2.9-B5	34	45	4	4.20 ^{+0.20} / _{+0.00}	34.00 ^{+0.000} / _{-0.062}	45.00 ^{+0.062} / _{+0.000}	17.83
MPS-45X4.3X2	35	45	4.3	4.50 ^{+0.20} / _{+0.00}	35.00 ^{+0.000} / _{-0.062}	45.00 ^{+0.062} / _{+0.000}	17.81
MPS-45X4.4X1.2	37.1	45	4.4	4.60 ^{+0.20} / _{+0.00}	37.10 ^{+0.000} / _{-0.062}	45.00 ^{+0.062} / _{+0.000}	16.87
MPS-48X4X2.9-B5	37	48	4	4.20 ^{+0.20} / _{+0.00}	37.00 ^{+0.000} / _{-0.062}	48.00 ^{+0.062} / _{+0.000}	28.19
MPS-50X2.7X2.5	41.3	50	2.7	2.90 ^{+0.20} / _{+0.00}	41.30 ^{+0.000} / _{-0.062}	50.00 ^{+0.062} / _{+0.000}	16.09
MPS-50X3X2-B5	42.2	50	3	3.20 ^{+0.20} / _{+0.00}	42.20 ^{+0.000} / _{-0.062}	50.00 ^{+0.062} / _{+0.000}	28.19
MPS-50X3.8X1.5	41.5	50	3.8	4.20 ^{+0.20} / _{+0.00}	41.50 ^{+0.000} / _{-0.062}	50.00 ^{+0.062} / _{+0.000}	20.46
MPS-50X4X2.9-B5	39	50	4	4.20 ^{+0.20} / _{+0.00}	39.00 ^{+0.000} / _{-0.062}	50.00 ^{+0.062} / _{+0.000}	17.83
MPS-50X4.3X2	40	50	4.3	4.50 ^{+0.20} / _{+0.00}	40.00 ^{+0.000} / _{-0.062}	50.00 ^{+0.062} / _{+0.000}	28.47
MPS-50X4.4X1.2	42.1	50	4.4	4.60 ^{+0.20} / _{+0.00}	42.10 ^{+0.000} / _{-0.062}	50.00 ^{+0.062} / _{+0.000}	22.63
MPS-50X6X3.5	34.5	50	6	6.30 ^{+0.20} / _{+0.00}	34.50 ^{+0.000} / _{-0.062}	50.00 ^{+0.062} / _{+0.000}	30.76
MPS-52X4X2.9-B5	41	52	4	4.20 ^{+0.20} / _{+0.00}	41.00 ^{+0.000} / _{-0.062}	52.00 ^{+0.074} / _{+0.000}	26.32
MPS-53X4X2.5	42.5	53	4	4.20 ^{+0.20} / _{+0.00}	42.50 ^{+0.000} / _{-0.062}	53.00 ^{+0.074} / _{+0.000}	20.40
MPS-55X4X2.9-B5	44	55	4	4.20 ^{+0.20} / _{+0.00}	44.00 ^{+0.000} / _{-0.062}	55.00 ^{+0.074} / _{+0.000}	30.50
MPS-55X4.3X2	45	55	4.3	4.50 ^{+0.20} / _{+0.00}	45.00 ^{+0.000} / _{-0.062}	55.00 ^{+0.074} / _{+0.000}	28.47
MPS-55X6X3.5	39.5	55	6	6.30 ^{+0.20} / _{+0.00}	39.50 ^{+0.000} / _{-0.062}	55.00 ^{+0.074} / _{+0.000}	33.54
MPS-56X4X2.9-B5	45.5	56	4	4.20 ^{+0.20} / _{+0.00}	45.50 ^{+0.000} / _{-0.062}	56.00 ^{+0.074} / _{+0.000}	32.53
MPS-60X3.8X2	51.1	60	3.8	4.20 ^{+0.20} / _{+0.00}	51.10 ^{+0.000} / _{-0.074}	60.00 ^{+0.074} / _{+0.000}	20.01
MPS-60X4X2.9-B5	49	60	3.9	4.20 ^{+0.20} / _{+0.00}	49.00 ^{+0.000} / _{-0.062}	60.00 ^{+0.074} / _{+0.000}	17.83
MPS-60X4.4X1.3	52.5	60	4.4	4.60 ^{+0.20} / _{+0.00}	52.50 ^{+0.000} / _{-0.074}	60.00 ^{+0.074} / _{+0.000}	27.87
MPS-60X4.9X2.5	49.5	60	4.9	5.10 ^{+0.20} / _{+0.00}	49.50 ^{+0.000} / _{-0.062}	60.00 ^{+0.074} / _{+0.000}	24.31
MPS-60X6X3.5	44.5	60	6	6.30 ^{+0.20} / _{+0.00}	44.50 ^{+0.000} / _{-0.062}	60.00 ^{+0.074} / _{+0.000}	33.64
MPS-60X7X2.5	45.8	60	7	7.20 ^{+0.20} / _{+0.00}	45.80 ^{+0.000} / _{-0.062}	60.00 ^{+0.074} / _{+0.000}	8.46
MPS-63X4X2.9-B5	52	63	4	4.20 ^{+0.20} / _{+0.00}	52.00 ^{+0.000} / _{-0.074}	63.00 ^{+0.074} / _{+0.000}	17.83
MPS-63X5X5	53	63	5	5.20 ^{+0.20} / _{+0.00}	53.00 ^{+0.000} / _{-0.074}	63.00 ^{+0.074} / _{+0.000}	11.24
MPS-63X5X1	51.8	63	5	5.20 ^{+0.20} / _{+0.00}	51.80 ^{+0.000} / _{-0.074}	63.00 ^{+0.074} / _{+0.000}	40.27
MPS-63X6X3.5	47.5	63	6	6.30 ^{+0.20} / _{+0.00}	47.50 ^{+0.000} / _{-0.062}	63.00 ^{+0.074} / _{+0.000}	33.64

STYLE MPS TWO PIECE PISTON SEALS



Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPS-63X47.5X6.3	47.5	63	6.3	6.50 ^{+0.20} / _{+0.00}	47.50 ^{+0.000} / _{-0.062}	63.00 ^{+0.074} / _{+0.000}	17.15
MPS-63X7.3X2.5	48	63	7.3	7.50 ^{+0.20} / _{+0.00}	48.00 ^{+0.000} / _{-0.062}	63.00 ^{+0.074} / _{+0.000}	33.97
MPS-65X4X2.9-B5	54	65	4	4.20 ^{+0.20} / _{+0.00}	54.00 ^{+0.000} / _{-0.074}	65.00 ^{+0.074} / _{+0.000}	46.45
MPS-65X6X3.5	49.5	65	6	6.30 ^{+0.20} / _{+0.00}	49.50 ^{+0.000} / _{-0.062}	65.00 ^{+0.074} / _{+0.000}	34.32
MPS-65X7.3X2.5	50	65	7.3	7.50 ^{+0.20} / _{+0.00}	50.00 ^{+0.000} / _{-0.062}	65.00 ^{+0.074} / _{+0.000}	21.35
MPS-70X4X1.8	61.7	70	4	4.20 ^{+0.20} / _{+0.00}	61.70 ^{+0.000} / _{-0.074}	70.00 ^{+0.074} / _{+0.000}	21.68
MPS-70X4X2.5	60	70	4	4.20 ^{+0.20} / _{+0.00}	60.00 ^{+0.000} / _{-0.074}	70.00 ^{+0.074} / _{+0.000}	34.10
MPS-70X4X2.9	59	70	4	4.20 ^{+0.20} / _{+0.00}	59.00 ^{+0.000} / _{-0.074}	70.00 ^{+0.074} / _{+0.000}	18.57
MPS-70X6X3.5	54.5	70	6	6.30 ^{+0.20} / _{+0.00}	54.50 ^{+0.000} / _{-0.074}	70.00 ^{+0.074} / _{+0.000}	35.86
MPS-70X6.2X2.5	55.9	70	6.2	6.50 ^{+0.20} / _{+0.00}	55.90 ^{+0.000} / _{-0.074}	70.00 ^{+0.074} / _{+0.000}	23.82
MPS-70X7X2.5	56.4	70	7	7.20 ^{+0.20} / _{+0.00}	56.40 ^{+0.000} / _{-0.074}	70.00 ^{+0.074} / _{+0.000}	9.51
MPS-71X7.3X2.5	56	71	7.3	7.50 ^{+0.20} / _{+0.00}	56.00 ^{+0.000} / _{-0.074}	71.00 ^{+0.074} / _{+0.000}	27.45
MPS-75X4X2.9-B5	64	75	4	4.20 ^{+0.20} / _{+0.00}	64.00 ^{+0.000} / _{-0.074}	75.00 ^{+0.074} / _{+0.000}	19.35
MPS-75X6X3.5	59	75	6	6.30 ^{+0.20} / _{+0.00}	59.00 ^{+0.000} / _{-0.074}	75.00 ^{+0.074} / _{+0.000}	35.35
MPS-75X6.2X2.5	60.9	75	6.2	6.50 ^{+0.20} / _{+0.00}	60.90 ^{+0.000} / _{-0.074}	75.00 ^{+0.074} / _{+0.000}	30.88
MPS-75X7.3X2.5	60	75	7.3	7.50 ^{+0.20} / _{+0.00}	60.00 ^{+0.000} / _{-0.074}	75.00 ^{+0.074} / _{+0.000}	22.92
MPS-80X4X2.9-B5	69	80	4	4.20 ^{+0.20} / _{+0.00}	69.00 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	30.17
MPS-80X6X3.5	64.5	80	6	6.30 ^{+0.20} / _{+0.00}	64.50 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	36.54
MPS-80X6.2X2.5	65.9	80	6.2	6.50 ^{+0.20} / _{+0.00}	65.90 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	35.27
MPS-80X7X2.5	65.8	80	7	7.20 ^{+0.20} / _{+0.00}	65.80 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	11.40
MPS-80X7.3X2.5	66	80	7.3	7.50 ^{+0.20} / _{+0.00}	66.00 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	39.51
MPS-80X7.9X5	59	80	7.9	8.10 ^{+0.20} / _{+0.00}	59.00 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	43.27
MPS-85X6X3.5	69.5	85	6	6.30 ^{+0.20} / _{+0.00}	69.50 ^{+0.000} / _{-0.074}	85.00 ^{+0.087} / _{+0.000}	37.58
MPS-85X70X7.3	70	85	7.3	7.60 ^{+0.20} / _{+0.00}	70.00 ^{+0.000} / _{-0.074}	85.00 ^{+0.087} / _{+0.000}	32.66
MPS-85X7.9X5	64	85	7.9	8.10 ^{+0.20} / _{+0.00}	64.00 ^{+0.000} / _{-0.074}	85.00 ^{+0.087} / _{+0.000}	44.21
MPS-90X6X3.5	74.5	90	6	6.30 ^{+0.20} / _{+0.00}	74.50 ^{+0.000} / _{-0.074}	90.00 ^{+0.087} / _{+0.000}	39.69
MPS-90X7X2.5	75.8	90	7	7.20 ^{+0.20} / _{+0.00}	75.80 ^{+0.000} / _{-0.074}	90.00 ^{+0.087} / _{+0.000}	11.91
MPS-90X7.3X2.5	75	90	7.3	7.50 ^{+0.20} / _{+0.00}	75.00 ^{+0.000} / _{-0.074}	90.00 ^{+0.087} / _{+0.000}	46.14
MPS-90X7.9X5	69	90	7.9	8.10 ^{+0.20} / _{+0.00}	69.00 ^{+0.000} / _{-0.074}	90.00 ^{+0.087} / _{+0.000}	49.03
MPS-95X6X3.5	79.5	95	6	6.30 ^{+0.20} / _{+0.00}	79.50 ^{+0.000} / _{-0.074}	95.00 ^{+0.087} / _{+0.000}	44.21

STYLE MPS TWO PIECE PISTON SEALS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPS-95X7.9X5	74	95	7.9	8.10 ^{+0.20} / _{+0.00}	74.00 ^{+0.000} / _{-0.074}	95.00 ^{+0.087} / _{+0.000}	51.15
MPS-100X6X3.5	84.5	100	6	6.30 ^{+0.20} / _{+0.00}	84.50 ^{+0.000} / _{-0.087}	100.00 ^{+0.087} / _{+0.000}	37.06
MPS-100X7X2.5	86.6	100	7	7.20 ^{+0.20} / _{+0.00}	86.60 ^{+0.000} / _{-0.087}	100.00 ^{+0.087} / _{+0.000}	20.18
MPS-100X85X7.5	85	100	7.3	7.50 ^{+0.20} / _{+0.00}	85.00 ^{+0.000} / _{-0.087}	100.00 ^{+0.087} / _{+0.000}	29.05
MPS-100X7.9X5	79	100	7.9	8.10 ^{+0.20} / _{+0.00}	79.00 ^{+0.000} / _{-0.074}	100.00 ^{+0.087} / _{+0.000}	50.70
MPS-105X6X3.5	89.5	105	6	6.30 ^{+0.20} / _{+0.00}	89.50 ^{+0.000} / _{-0.087}	105.00 ^{+0.087} / _{+0.000}	41.10
MPS-105X7.29X3.23	89.8	105	7.29	7.60 ^{+0.20} / _{+0.00}	89.80 ^{+0.000} / _{-0.087}	105.00 ^{+0.087} / _{+0.000}	59.73
MPS-105X7.9X5	84	105	7.9	8.10 ^{+0.20} / _{+0.00}	84.00 ^{+0.000} / _{-0.087}	105.00 ^{+0.087} / _{+0.000}	49.86
MPS-110X6X3.5	94.5	110	6	6.30 ^{+0.20} / _{+0.00}	94.50 ^{+0.000} / _{-0.087}	110.00 ^{+0.087} / _{+0.000}	41.33
MPS-110X7X2.5	95.8	110	7	7.20 ^{+0.20} / _{+0.00}	95.80 ^{+0.000} / _{-0.087}	110.00 ^{+0.087} / _{+0.000}	14.15
MPS-110X7.9X5	89	110	7.9	8.10 ^{+0.20} / _{+0.00}	89.00 ^{+0.000} / _{-0.087}	110.00 ^{+0.087} / _{+0.000}	54.44
MPS-115X6X3.5	99.5	115	6	6.30 ^{+0.20} / _{+0.00}	99.50 ^{+0.000} / _{-0.087}	115.00 ^{+0.087} / _{+0.000}	43.77
MPS-115X7X2.5	100.8	115	7	7.20 ^{+0.20} / _{+0.00}	100.80 ^{+0.000} / _{-0.087}	115.00 ^{+0.087} / _{+0.000}	26.93
MPS-115X7.9X5	94	115	7.9	8.10 ^{+0.20} / _{+0.00}	94.00 ^{+0.000} / _{-0.087}	115.00 ^{+0.087} / _{+0.000}	55.74
MPS-120X6X3.5	104.5	120	6	6.30 ^{+0.20} / _{+0.00}	104.50 ^{+0.000} / _{-0.087}	120.00 ^{+0.087} / _{+0.000}	44.72
MPS-120X7.9X5	99	120	7.9	8.10 ^{+0.20} / _{+0.00}	99.00 ^{+0.000} / _{-0.087}	120.00 ^{+0.087} / _{+0.000}	55.74
MPS-125X6X3.5	109.5	125	6	6.30 ^{+0.20} / _{+0.00}	109.50 ^{+0.000} / _{-0.087}	125.00 ^{+0.10} / _{+0.00}	46.14
MPS-125X7X2.5	110.8	125	7	7.20 ^{+0.20} / _{+0.00}	110.80 ^{+0.000} / _{-0.087}	125.00 ^{+0.10} / _{+0.00}	30.40
MPS-125X7.9X5	104	125	7.9	8.10 ^{+0.20} / _{+0.00}	104.00 ^{+0.000} / _{-0.087}	125.00 ^{+0.10} / _{+0.00}	55.74
MPS-130X6X3.5	114.5	130	6	6.30 ^{+0.20} / _{+0.00}	114.50 ^{+0.000} / _{-0.087}	130.00 ^{+0.10} / _{+0.00}	49.33
MPS-130X7.9X5	109	130	7.9	8.10 ^{+0.20} / _{+0.00}	109.00 ^{+0.000} / _{-0.087}	130.00 ^{+0.10} / _{+0.00}	57.68
MPS-135X7.9X5	114	135	7.9	8.10 ^{+0.20} / _{+0.00}	114.00 ^{+0.000} / _{-0.087}	135.00 ^{+0.10} / _{+0.00}	65.14
MPS-140X7.9X5	119	140	7.9	8.10 ^{+0.20} / _{+0.00}	119.00 ^{+0.000} / _{-0.087}	140.00 ^{+0.10} / _{+0.00}	65.86
MPS-145X7.9X5	124	145	7.9	8.10 ^{+0.20} / _{+0.00}	124.00 ^{+0.00} / _{-0.10}	145.00 ^{+0.10} / _{+0.00}	67.63
MPS-150X7.9X5	129	150	7.9	8.10 ^{+0.20} / _{+0.00}	129.00 ^{+0.00} / _{-0.10}	150.00 ^{+0.10} / _{+0.00}	70.80
MPS-155X7.9X5	134	155	7.9	8.10 ^{+0.20} / _{+0.00}	134.00 ^{+0.00} / _{-0.10}	155.00 ^{+0.10} / _{+0.00}	72.43
MPS-160X145X7.55	145	160	7.3	7.50 ^{+0.20} / _{+0.00}	145.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.10} / _{+0.00}	44.67
MPS-160X7.9X5	139	160	7.9	8.10 ^{+0.20} / _{+0.00}	139.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.10} / _{+0.00}	77.30
MPS-160X8.9X3.5	140.5	160	8.9	9.10 ^{+0.20} / _{+0.00}	140.50 ^{+0.00} / _{-0.10}	160.00 ^{+0.10} / _{+0.00}	77.30
MPS-165X7.9X5	144	165	7.9	8.10 ^{+0.20} / _{+0.00}	144.00 ^{+0.00} / _{-0.10}	165.00 ^{+0.10} / _{+0.00}	85.43

STYLE MPS TWO PIECE PISTON SEALS



Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPS-170X7.9X5	149	170	7.9	8.10 +0.20 +0.00	149.00 +0.00 -0.10	170.00 +0.10 +0.00	87.84
MPS-180X7.9X5	159	180	7.9	8.10 +0.20 +0.00	159.00 +0.00 -0.10	180.00 +0.10 +0.00	95.98
MPS-190X7.9X5	169	190	7.9	8.10 +0.20 +0.00	169.00 +0.00 -0.10	190.00 +0.115 +0.000	99.95
MPS-200X7.9X5	179	200	7.9	8.10 +0.20 +0.00	179.00 +0.00 -0.10	200.00 +0.115 +0.000	102.96
MPS-215X7.9X5	194	215	7.9	8.10 +0.20 +0.00	194.00 +0.000 -0.115	215.00 +0.115 +0.000	104.79
MPS-220X7.9X5-B5	199	220	7.9	8.10 +0.20 +0.00	199.00 +0.000 -0.115	220.00 +0.115 +0.000	371.65
MPS-225X7.9X5	204	225	7.9	8.10 +0.20 +0.00	204.00 +0.000 -0.115	225.00 +0.115 +0.000	115.02
MPS-240X7.9X5	219	240	7.9	8.10 +0.20 +0.00	219.00 +0.000 -0.115	240.00 +0.115 +0.000	117.26
MPS-250X7.9X5	229	250	7.9	8.10 +0.20 +0.00	229.00 +0.000 -0.115	250.00 +0.115 +0.000	363.12
MPS-320X299X8.1	299	320	7.9	8.10 +0.20 +0.00	299.00 +0.00 -0.13	320.00 +0.14 +0.00	275.40

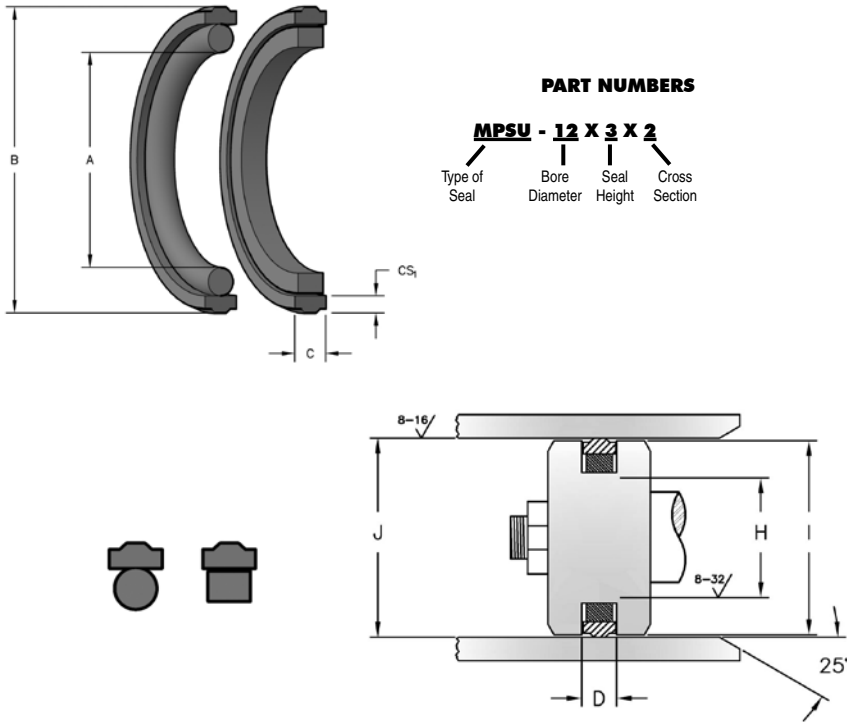
Seal color may vary. Special order sizes are available.

MADE TO ORDER MPS STYLE PISTON SEALS

Part Number	List Price	Part Number	List Price	Part Number	List Price	Part Number	List Price
MPS-10X5.1X2.2	\$ 6.79	MPS-60X52.4X3.2	\$ 35.55	MPS-120X112X10	\$ 42.10	MPS-186X165X8.1	\$ 62.16
MPS-16X10X2.85	8.30	MPS-62X53X3.2	35.55	MPS-120X92X13	42.10	MPS-190X169X8.1	62.17
MPS-16X8.5X3.2	8.31	MPS-65X46.7X7	35.55	MPS-125X114.2X4.2	42.10	MPS-198X190.4X3.8	62.18
MPS-22X15.9X3.2	11.22	MPS-69.9X59X4	35.55	MPS-129X112X5.85	42.10	MPS-200X156.2X20	62.19
MPS-25X19X3	16.66	MPS-75X65X2.9	39.42	MPS-130X114.5X6.3	42.10	MPS-200X182X7.55	62.20
MPS-32X23X3.6	30.14	MPS-80X57.6X10	39.42	MPS-130X115X7.55	42.10	MPS-200X183X6.3	62.21
MPS-32.5X21X4.2	30.14	MPS-80X67.5X5.6	39.42	MPS-137X121.5X6.3	44.67	MPS-215X194X8.1	79.07
MPS-35X22X6.3	30.14	MPS-85X64X8.1	39.42	MPS-140X130X5	44.67	MPS-230X209X8.1	79.07
MPS-35X24.2X4.2	30.14	MPS-85X72.5X5.6	39.42	MPS-140X118X9.1	44.67	MPS-230X214X5.1	79.07
MPS-35X27.5X3.2	30.14	MPS-100X77X10	39.42	MPS-140X119X9.14	44.67	MPS-230X214X6.3	79.07
MPS-38X30.5X3.2	30.14	MPS-100X87.5X5.6	39.42	MPS-145X124X8.1	44.68	MPS-235X221X8	79.07
MPS-40X23.2X8	32.79	MPS-100X89.2X4.2	39.42	MPS-150X134.5X6.3	44.69	MPS-249X227.9X8	79.07
MPS-40X32X3.75	32.79	MPS-100X89X4.2	39.42	MPS-150X135X7.56	44.70	MPS-260X239X8.1	112.46
MPS-44.45X36.73X4.78	32.79	MPS-105X84X8.1	39.42	MPS-150X116.4X15	44.71	MPS-270X249X8.1	127.73
MPS-47.6X40.1X3.2	32.79	MPS-105X88X6.3	39.42	MPS-150.2X143.2X6.3	44.67	MPS-290X7.9X5-B5	222.92
MPS-50X33.2X8	32.79	MPS-110X99.2X4.2	39.42	MPS-152.4X131.4X8.1	47.06	MPS-340X315.5X8.1	149.80
MPS-52X41X4.2	35.55	MPS-115X102.5X5.6	42.10	MPS-155X139.5X6.3	44.67	MPS-350X7.9X5-B5	405.44
MPS-53X43X4.2	35.55	MPS-115X105.8X7.7	42.10	MPS-160X126.5X15	44.67	MPS-400X375.5X8.1	214.20
MPS-58X48X5	35.55	MPS-115X107X10	42.10	MPS-160X146X4.2	44.67		
MPS-60X37.6X10	35.55	MPS-115X93X10	42.10	MPS-165X144X8.1	62.15		

STYLE MPSU TWO PIECE PISTON SEALS

Molded from tough, wear resistant polyester with additives of 5% glass fiber and 5% PTFE, these seals are totally interchangeable with style MPS seals of the same dimensions. Nitrile o-rings are used as energizers.



SEAL INFORMATION	
MATERIAL	GLASS/PTFE FILLED POLYESTER SEAL, RUBBER ENERGIZER
TEMPERATURE RANGE	-40 TO +230° F
PRESSURE RANGE	0 TO 5,000 PSI
SPEED	3 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSU-25X3X2	17.5	25	3	3.20 +0.20 -0.00	17.50 +0.000 -0.043	25.00 +0.052 +0.000	\$6.56
MPSU-30X3X2	22.5	30	3	3.20 +0.20 +0.00	22.50 +0.000 -0.052	30.00 +0.052 +0.000	7.29
MPSU-40X4X2.9	29	40	4	4.20 +0.20 +0.00	29.00 +0.000 -0.052	40.00 +0.062 +0.000	8.14
MPSU-40X6.3X2.5	27	40	6	6.30 +0.20 +0.00	27.00 +0.000 -0.052	40.00 +0.062 +0.000	14.04
MPSU-45X4X2.9	34	45	4	4.20 +0.20 +0.00	34.00 +0.000 -0.062	45.00 +0.062 +0.000	8.33
MPSU-50X4X2.9	39	50	4	4.20 +0.20 +0.00	39.00 +0.000 -0.062	50.00 +0.062 +0.000	8.71
MPSU-55X6X2.5	39.5	55	6	6.30 +0.20 +0.00	39.50 +0.000 -0.062	55.00 +0.074 +0.000	12.79
MPSU-60X4X2.9	49	60	4	4.20 +0.20 +0.00	49.00 +0.000 -0.062	60.00 +0.074 +0.000	9.31
MPSU-63X4X2.9	52	63	4	4.20 +0.20 +0.00	52.00 +0.000 -0.074	63.00 +0.074 +0.000	9.51
MPSU-63X6X2.4	50	63	6	6.30 +0.20 +0.00	50.00 +0.000 -0.062	63.00 +0.074 +0.000	16.55
MPSU-70X4X2.9	59	70	4	4.20 +0.20 +0.00	59.00 +0.000 -0.074	70.00 +0.074 +0.000	11.29
MPSU-70X5.9X2.5	54	70	5.9	6.30 +0.20 +0.00	54.00 +0.000 -0.074	70.00 +0.074 +0.000	16.87
MPSU-70X6X2.8	57	70	6	6.30 +0.20 +0.00	57.00 +0.000 -0.074	70.00 +0.074 +0.000	10.92

STYLE MPSU TWO PIECE PISTON SEALS

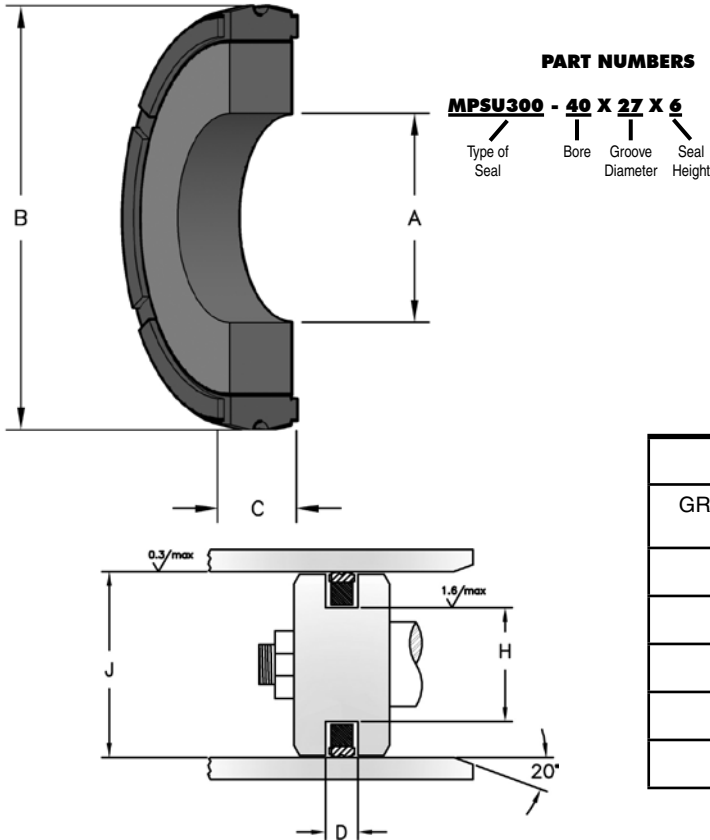


Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSU-75X4X2.9	64	75	4	4.20 ^{+0.20} / _{+0.00}	64.00 ^{+0.000} / _{-0.074}	75.00 ^{+0.074} / _{+0.000}	12.09
MPSU-80X6X3.5	64.5	80	6	6.30 ^{+0.20} / _{+0.00}	64.50 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	13.57
MPSU-90X6X3.5	74.5	90	6	6.30 ^{+0.20} / _{+0.00}	74.50 ^{+0.000} / _{-0.074}	90.00 ^{+0.087} / _{+0.000}	13.46
MPSU-90X7.3X2.5	75	90	7.3	7.50 ^{+0.20} / _{+0.00}	75.00 ^{+0.000} / _{-0.074}	90.00 ^{+0.087} / _{+0.000}	40.36
MPSU-95X6X2.5	79.5	95	6	6.30 ^{+0.20} / _{+0.00}	79.50 ^{+0.000} / _{-0.074}	95.00 ^{+0.087} / _{+0.000}	34.18
MPSU-100X6X3.5	84.5	100	6	6.30 ^{+0.20} / _{+0.00}	84.50 ^{+0.000} / _{-0.087}	100.00 ^{+0.087} / _{+0.000}	14.35
MPSU-120X7.9X5	99	120	7.9	8.10 ^{+0.20} / _{+0.00}	99.00 ^{+0.000} / _{-0.087}	120.00 ^{+0.087} / _{+0.000}	24.48
MPSU-120X10X4	99	120	10	10.50 ^{+0.20} / _{+0.00}	99.00 ^{+0.000} / _{-0.087}	120.00 ^{+0.087} / _{+0.000}	46.45
MPSU-125X6X3.5	109.5	125	6	6.30 ^{+0.20} / _{+0.00}	109.50 ^{+0.000} / _{-0.087}	125.00 ^{+0.10} / _{+0.00}	17.72
MPSU-125X7.9X5	104	125	7.9	8.10 ^{+0.20} / _{+0.00}	104.00 ^{+0.000} / _{-0.087}	125.00 ^{+0.10} / _{+0.00}	40.42
MPSU-130X6X3.5	114.5	130	6	6.30 ^{+0.20} / _{+0.00}	114.50 ^{+0.000} / _{-0.087}	130.00 ^{+0.10} / _{+0.00}	19.12
MPSU-130X7.9X5	109	130	7.9	8.10 ^{+0.20} / _{+0.00}	109.00 ^{+0.000} / _{-0.087}	130.00 ^{+0.10} / _{+0.00}	25.36
MPSU-135X7.9X5	114	135	7.9	8.10 ^{+0.20} / _{+0.00}	114.00 ^{+0.000} / _{-0.087}	135.00 ^{+0.10} / _{+0.00}	27.39
MPSU-140X7.9X5	119	140	7.9	8.10 ^{+0.20} / _{+0.00}	119.00 ^{+0.000} / _{-0.087}	140.00 ^{+0.10} / _{+0.00}	28.22
MPSU-140X10X4	119	140	10	10.50 ^{+0.20} / _{+0.00}	119.00 ^{+0.000} / _{-0.087}	140.00 ^{+0.10} / _{+0.00}	55.82
MPSU-150X7.9X5	129	150	7.9	8.10 ^{+0.20} / _{+0.00}	129.00 ^{+0.00} / _{-0.10}	150.00 ^{+0.10} / _{+0.00}	29.42
MPSU-150X10X4	129	150	10	10.50 ^{+0.20} / _{+0.00}	129.00 ^{+0.00} / _{-0.10}	150.00 ^{+0.10} / _{+0.00}	56.21
MPSU-160X7.9X5	139	160	7.9	8.10 ^{+0.20} / _{+0.00}	139.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.10} / _{+0.00}	30.99
MPSU-170X7.9X5	149	170	7.9	8.10 ^{+0.20} / _{+0.00}	149.00 ^{+0.00} / _{-0.10}	170.00 ^{+0.10} / _{+0.00}	23.34
MPSU-180X7.9X5	159	180	7.9	8.10 ^{+0.20} / _{+0.00}	159.00 ^{+0.00} / _{-0.10}	180.00 ^{+0.10} / _{+0.00}	36.15
MPSU-210X7.9X5	189	210	7.9	8.10 ^{+0.20} / _{+0.00}	189.00 ^{+0.000} / _{-0.115}	210.00 ^{+0.115} / _{+0.000}	38.79

Seal color may vary. Special order sizes are available.

STYLE MPSU300 TWO PIECE PISTON SEALS

The MPSU300 is a compact, double-acting piston seal consisting of two parts: a urethane sealing ring with a pronounced sealing edge and a rectangular nitrile energizer to prevent the seal from twisting within the groove. It also has low friction and smooth operating movement even at low linear velocities.



SEAL INFORMATION	
MATERIAL	94A URETHANE SEAL 70/80A NITRILE ENERGIZER
TEMPERATURE RANGE	-22 TO +212° F
PRESSURE RANGE	0 TO 5,800 PSI
SPEED	1.5 FT/SEC

MAXIMUM EXTRUSION GAP				
GROOVE WIDTH (mm)	2,400 psi 16MPa	3,700 psi 26MPa	4,700 psi 32 MPa	5,800 psi 40 MPa
3.2	0.3	0.2	-	-
4.2	0.4	0.3	0.2	-
6.3	0.5	0.4	0.3	0.25
8.1	0.6	0.5	0.4	0.35
10.5	0.65	0.55	0.45	0.4

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSU300-32X24.5X3	24.5	32	3	3.20 ^{+0.20} _{+0.00}	24.50 ^{+0.000} _{-0.052}	32.00 ^{+0.062} _{+0.000}	\$ 15.96
MPSU300-40X27X6	27	40	6	6.30 ^{+0.20} _{+0.00}	27.00 ^{+0.000} _{-0.052}	40.00 ^{+0.062} _{+0.000}	14.04
MPSU300-45X34X4	34	45	4	4.20 ^{+0.20} _{+0.00}	34.00 ^{+0.000} _{-0.062}	45.00 ^{+0.062} _{+0.000}	17.31
MPSU300-50X39X4	39	50	4	4.20 ^{+0.20} _{+0.00}	39.00 ^{+0.000} _{-0.062}	50.00 ^{+0.062} _{+0.000}	12.35
MPSU300-50X34.5X6	34.5	50	6	6.30 ^{+0.20} _{+0.00}	34.50 ^{+0.000} _{-0.062}	50.00 ^{+0.062} _{+0.000}	11.20
MPSU300-50X37X6	37	50	6	6.30 ^{+0.20} _{+0.00}	37.00 ^{+0.000} _{-0.062}	50.00 ^{+0.062} _{+0.000}	11.74
MPSU300-55X39.5X6	39.5	55	6	6.30 ^{+0.20} _{+0.00}	39.50 ^{+0.000} _{-0.062}	55.00 ^{+0.074} _{+0.000}	12.79
MPSU300-60X49X4	49	60	4	4.20 ^{+0.20} _{+0.00}	49.00 ^{+0.000} _{-0.062}	60.00 ^{+0.074} _{+0.000}	14.24
MPSU300-60X44.5X6	44.5	60	6	6.30 ^{+0.20} _{+0.00}	44.50 ^{+0.000} _{-0.062}	60.00 ^{+0.074} _{+0.000}	14.04
MPSU300-63X52X4	52	63	4	4.20 ^{+0.20} _{+0.00}	52.00 ^{+0.000} _{-0.074}	63.00 ^{+0.074} _{+0.000}	16.50
MPSU300-63X47.5X6	47.5	63	6	6.30 ^{+0.20} _{+0.00}	47.50 ^{+0.000} _{-0.062}	63.00 ^{+0.074} _{+0.000}	24.31

STYLE MPSU300 TWO PIECE PISTON SEALS

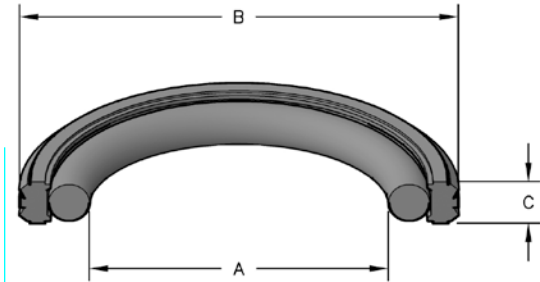


Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSU300-63X50X6	50	63	6	6.30 ^{+0.20} _{+0.00}	50.00 ^{+0.000} _{-0.062}	63.00 ^{+0.074} _{+0.000}	16.55
MPSU300-65X49.5X6	49.5	65	6	6.30 ^{+0.20} _{+0.00}	49.50 ^{+0.000} _{-0.062}	65.00 ^{+0.074} _{+0.000}	18.52
MPSU300-70X54.5X5.9	54	70	5.9	6.30 ^{+0.20} _{+0.00}	54.00 ^{+0.000} _{-0.074}	70.00 ^{+0.074} _{+0.000}	16.87
MPSU300-70X55X7.3	55	70	7.35	7.50 ^{+0.20} _{+0.00}	55.00 ^{+0.000} _{-0.074}	70.00 ^{+0.074} _{+0.000}	17.03
MPSU300-75X59.5X6	59.5	75	6	6.30 ^{+0.20} _{+0.00}	59.50 ^{+0.000} _{-0.074}	75.00 ^{+0.074} _{+0.000}	17.08
MPSU300-80X64.5X6	64.5	80	6	6.30 ^{+0.20} _{+0.00}	64.50 ^{+0.000} _{-0.074}	80.00 ^{+0.074} _{+0.000}	21.27
MPSU300-80X66.5X6	66.5	80	6	6.30 ^{+0.20} _{+0.00}	66.50 ^{+0.000} _{-0.074}	80.00 ^{+0.074} _{+0.000}	26.41
MPSU300-80X59X10	59	80	10	10.30 ^{+0.20} _{+0.00}	59.00 ^{+0.000} _{-0.074}	80.00 ^{+0.074} _{+0.000}	19.52
MPSU300-85X69.5X6	69.5	85	6	6.30 ^{+0.20} _{+0.00}	69.50 ^{+0.000} _{-0.074}	85.00 ^{+0.087} _{+0.000}	32.85
MPSU300-85X71.5X6	71.5	85	6	6.30 ^{+0.20} _{+0.00}	71.50 ^{+0.000} _{-0.074}	85.00 ^{+0.087} _{+0.000}	33.31
MPSU300-90X74.5X6	74.5	90	6	6.30 ^{+0.20} _{+0.00}	74.50 ^{+0.000} _{-0.074}	90.00 ^{+0.087} _{+0.000}	33.63
MPSU300-115X94X7.8	115	94	7.8	8.10 ^{+0.20} _{+0.00}	94.00 ^{+0.000} _{-0.087}	115.00 ^{+0.087} _{+0.000}	41.37
MPSU300-95X79.5X6	79.5	95	6	6.30 ^{+0.20} _{+0.00}	79.50 ^{+0.000} _{-0.074}	95.00 ^{+0.087} _{+0.000}	34.18
MPSU300-100X84.5X6	84.5	100	6	6.30 ^{+0.20} _{+0.00}	84.50 ^{+0.000} _{-0.087}	100.00 ^{+0.087} _{+0.000}	35.17
MPSU300-100X79X7.8	79	100	7.8	8.10 ^{+0.20} _{+0.00}	79.00 ^{+0.000} _{-0.074}	100.00 ^{+0.087} _{+0.000}	35.08
MPSU300-110X94.5X6	94.5	110	6	6.30 ^{+0.20} _{+0.00}	94.50 ^{+0.000} _{-0.087}	110.00 ^{+0.087} _{+0.000}	35.57
MPSU300-110X89X7.8	89	110	7.8	8.10 ^{+0.20} _{+0.00}	89.00 ^{+0.000} _{-0.087}	110.00 ^{+0.087} _{+0.000}	35.37
MPSU300-120X99X7.8	99	120	7.8	8.10 ^{+0.20} _{+0.00}	99.00 ^{+0.000} _{-0.087}	120.00 ^{+0.087} _{+0.000}	42.89
MPSU300-120X99X10	99	120	10	10.50 ^{+0.20} _{+0.00}	99.00 ^{+0.000} _{-0.087}	120.00 ^{+0.087} _{+0.000}	46.45
MPSU300-125X104X7.8	104	125	7.8	8.10 ^{+0.20} _{+0.00}	104.00 ^{+0.000} _{-0.087}	125.00 ^{+0.10} _{+0.00}	48.59
MPSU300-125X104X10	104	125	10	10.30 ^{+0.20} _{+0.00}	104.00 ^{+0.000} _{-0.087}	125.00 ^{+0.10} _{+0.00}	50.04
MPSU300-130X109X7.8	109	130	7.8	8.10 ^{+0.20} _{+0.00}	109.00 ^{+0.000} _{-0.087}	130.00 ^{+0.10} _{+0.00}	61.50
MPSU300-140X119X7.8	119	140	7.8	8.10 ^{+0.20} _{+0.00}	119.00 ^{+0.000} _{-0.087}	140.00 ^{+0.10} _{+0.00}	56.78
MPSU300-140X119X10	119	140	10	10.50 ^{+0.20} _{+0.00}	119.00 ^{+0.000} _{-0.087}	140.00 ^{+0.10} _{+0.00}	55.82
MPSU300-150X129X10	129	150	10	10.50 ^{+0.20} _{+0.00}	129.00 ^{+0.00} _{-0.10}	150.00 ^{+0.10} _{+0.00}	56.21
MPSU300-160X139X7.8	139	160	7.8	8.10 ^{+0.20} _{+0.00}	139.00 ^{+0.00} _{-0.10}	160.00 ^{+0.10} _{+0.00}	92.50
MPSU300-180X159X7.8	159	180	7.8	8.10 ^{+0.20} _{+0.00}	159.00 ^{+0.00} _{-0.10}	180.00 ^{+0.10} _{+0.00}	109.35

Seal color may vary. Special order sizes are available.

STYLE MKPD TWO PIECE PISTON SEALS

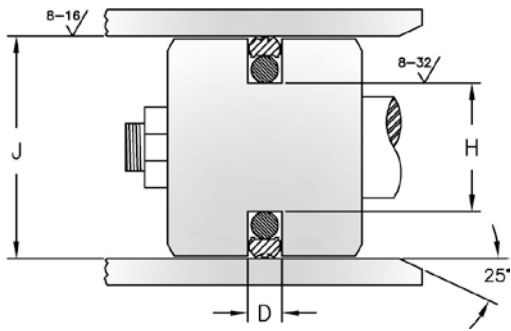
A double acting piston seal with many features: Two compact seal edges to concentrate the load against the dynamic surface, a cavity between the two external seal edges to retain fluid (reducing friction and wear), side grooves to allow pressure to load the energizer in all working conditions, high sealing performance at low pressure, excellent wear-resistance, and high resistance against extrusion.



PART NUMBERS

MKPD - 25 X 14 X 4.2

Type of Seal Bore Diameter Groove Diameter Groove Width



SEAL INFORMATION

MATERIAL	97A URETHANE SEAL 70A NITRILE EXPANDER
TEMPERATURE RANGE	-22° TO +210° F
PRESSURE RANGE	0 TO 5,800 PSI
SPEED	1.5 FT/SEC

MAXIMUM EXTRUSION GAP

Pressure (psi)	725	1450	2900	4350	5800
Max Diametrical Gap (inches)	0.047	0.031	0.016	0.010	0.007

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MKPD-25X17.5X3.2	17.5	25	3.2	3.20 +0.20 +0.00	17.50 +0.10 +0.00	25.00 +0.084 +0.000	\$6.51
MKPD-25X14X4.2	14	25	4.2	4.20 +0.20 +0.00	14.00 +0.10 +0.00	25.00 +0.084 +0.000	6.51
MKPD-30X22.5X3.2	22.5	30	3.2	3.20 +0.20 +0.00	22.50 +0.10 +0.00	30.00 +0.084 +0.000	6.52
MKPD-32X24.5X3.2	24.5	32	3.2	3.20 +0.20 +0.00	24.50 +0.10 +0.00	32.00 +0.10 +0.00	6.94
MKPD-32X21X4.2	21	32	4.2	4.20 +0.20 +0.00	21.00 +0.10 +0.00	32.00 +0.10 +0.00	7.12
MKPD-35X27.5X3.2	27.5	35	3.2	3.20 +0.20 +0.00	27.50 +0.10 +0.00	35.00 +0.10 +0.00	7.35
MKPD-38X30.5X3.2	30.5	38	3.2	3.20 +0.20 +0.00	30.50 +0.10 +0.00	38.00 +0.10 +0.00	6.30
MKPD-40X32.5X3.2	32.5	40	3.2	3.20 +0.20 +0.00	32.50 +0.10 +0.00	40.00 +0.10 +0.00	7.52
MKPD-40X29X4.2	29	40	4.2	4.20 +0.20 +0.00	29.00 +0.10 +0.00	40.00 +0.10 +0.00	7.90
MKPD-40X24.5X6.3	24.5	40	6.3	6.30 +0.20 +0.00	24.50 +0.10 +0.00	40.00 +0.10 +0.00	8.32
MKPD-45X34X4.2	34	45	4.2	4.20 +0.20 +0.00	34.00 +0.10 +0.00	45.00 +0.10 +0.00	7.92
MKPD-45X29.5X6.3	29.5	45	6.3	6.30 +0.20 +0.00	29.50 +0.10 +0.00	45.00 +0.10 +0.00	9.10
MKPD-50X39X4.2	39	50	4.2	4.20 +0.20 +0.00	39.00 +0.10 +0.00	50.00 +0.10 +0.00	8.64

STYLE MKPD TWO PIECE PISTON SEALS



Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MKPD-50X34.5X6.3	34.5	50	6.3	6.30 ^{+0.20} / _{+0.00}	34.50 ^{+0.10} / _{+0.00}	50.00 ^{+0.10} / _{+0.00}	9.60
MKPD-55X44X4.2	44	55	4.2	4.20 ^{+0.20} / _{+0.00}	44.00 ^{+0.10} / _{+0.00}	55.00 ^{+0.12} / _{+0.00}	9.61
MKPD-55X39.5X6.3	39.5	55	6.3	6.30 ^{+0.20} / _{+0.00}	39.50 ^{+0.10} / _{+0.00}	55.00 ^{+0.12} / _{+0.00}	9.96
MKPD-60X49X4.2	49	60	4.2	4.20 ^{+0.20} / _{+0.00}	49.00 ^{+0.10} / _{+0.00}	60.00 ^{+0.12} / _{+0.00}	10.63
MKPD-60X44.5X6.3	44.5	60	6.3	6.30 ^{+0.20} / _{+0.00}	44.50 ^{+0.10} / _{+0.00}	60.00 ^{+0.12} / _{+0.00}	11.26
MKPD-63X52X4.2	52	63	4.2	4.20 ^{+0.20} / _{+0.00}	52.00 ^{+0.10} / _{+0.00}	63.00 ^{+0.12} / _{+0.00}	11.56
MKPD-63X47.5X6.3	47.5	63	6.3	6.30 ^{+0.20} / _{+0.00}	47.50 ^{+0.10} / _{+0.00}	63.00 ^{+0.12} / _{+0.00}	12.38
MKPD-65X54X4.2	54	65	4.2	4.20 ^{+0.20} / _{+0.00}	54.00 ^{+0.10} / _{+0.00}	65.00 ^{+0.12} / _{+0.00}	11.96
MKPD-65X49.5X6.3	49.5	65	6.3	6.30 ^{+0.20} / _{+0.00}	49.50 ^{+0.10} / _{+0.00}	65.00 ^{+0.12} / _{+0.00}	12.68
MKPD-70X59X4.2	59	70	4.2	4.20 ^{+0.20} / _{+0.00}	59.00 ^{+0.10} / _{+0.00}	70.00 ^{+0.12} / _{+0.00}	12.67
MKPD-70X54.5X6.3	54.5	70	6.3	6.30 ^{+0.20} / _{+0.00}	54.50 ^{+0.10} / _{+0.00}	70.00 ^{+0.12} / _{+0.00}	13.55
MKPD-75X64X4.2	64	75	4.2	4.20 ^{+0.20} / _{+0.00}	64.00 ^{+0.10} / _{+0.00}	75.00 ^{+0.12} / _{+0.00}	13.57
MKPD-75X59.5X6.3	59.5	75	6.3	6.30 ^{+0.20} / _{+0.00}	59.50 ^{+0.10} / _{+0.00}	75.00 ^{+0.12} / _{+0.00}	15.33
MKPD-80X69X4.2	69	80	4.2	4.20 ^{+0.20} / _{+0.00}	69.00 ^{+0.10} / _{+0.00}	80.00 ^{+0.12} / _{+0.00}	14.07
MKPD-80X64.5X6.3	64.5	80	6.3	6.30 ^{+0.20} / _{+0.00}	64.50 ^{+0.10} / _{+0.00}	80.00 ^{+0.12} / _{+0.00}	14.69
MKPD-85X69.5X6.3	69.5	85	6.3	6.30 ^{+0.20} / _{+0.00}	69.50 ^{+0.10} / _{+0.00}	85.00 ^{+0.14} / _{+0.00}	15.65
MKPD-90X74.5X6.3	74.5	90	6.3	6.30 ^{+0.20} / _{+0.00}	74.50 ^{+0.10} / _{+0.00}	90.00 ^{+0.14} / _{+0.00}	16.19
MKPD-95X79.5X6.3	79.5	95	6.3	6.30 ^{+0.20} / _{+0.00}	79.50 ^{+0.10} / _{+0.00}	95.00 ^{+0.14} / _{+0.00}	17.61
MKPD-100X84.5X6.3	84.5	100	6.3	6.30 ^{+0.20} / _{+0.00}	84.50 ^{+0.10} / _{+0.00}	100.00 ^{+0.14} / _{+0.00}	19.35
MKPD-100X86.5X6.3	86.5	100	6.3	6.30 ^{+0.20} / _{+0.00}	86.50 ^{+0.10} / _{+0.00}	100.00 ^{+0.14} / _{+0.00}	38.00
MKPD-110X94.5X6.3	94.5	110	6.3	6.30 ^{+0.20} / _{+0.00}	94.50 ^{+0.10} / _{+0.00}	110.00 ^{+0.14} / _{+0.00}	37.18
MKPD-120X104.5X6.3	104.5	120	6.3	6.30 ^{+0.20} / _{+0.00}	104.50 ^{+0.10} / _{+0.00}	120.00 ^{+0.14} / _{+0.00}	39.35
MKPD-125X109.5X6.3	109.5	125	6.3	6.30 ^{+0.20} / _{+0.00}	109.50 ^{+0.10} / _{+0.00}	125.00 ^{+0.16} / _{+0.00}	38.39
MKPD-130X114.5X6.3	114.5	130	6.3	6.30 ^{+0.20} / _{+0.00}	114.50 ^{+0.10} / _{+0.00}	130.00 ^{+0.16} / _{+0.00}	27.87
MKPD-140X119X8.1	119	140	8.1	8.10 ^{+0.20} / _{+0.00}	119.00 ^{+0.10} / _{+0.00}	140.00 ^{+0.16} / _{+0.00}	29.48
MKPD-150X129X8.1	129	150	8.1	8.10 ^{+0.20} / _{+0.00}	129.00 ^{+0.10} / _{+0.00}	150.00 ^{+0.16} / _{+0.00}	32.29
MKPD-160X139X8.1	139	160	8.1	8.10 ^{+0.20} / _{+0.00}	139.00 ^{+0.10} / _{+0.00}	160.00 ^{+0.16} / _{+0.00}	34.98
MKPD-170X149X8.1	149	170	8.1	8.10 ^{+0.20} / _{+0.00}	149.00 ^{+0.10} / _{+0.00}	170.00 ^{+0.16} / _{+0.00}	35.96
MKPD-180X159X8.1	159	180	8.1	8.10 ^{+0.20} / _{+0.00}	159.00 ^{+0.10} / _{+0.00}	180.00 ^{+0.16} / _{+0.00}	38.00
MKPD-200X179X8.1	179	200	8.1	8.10 ^{+0.20} / _{+0.00}	179.00 ^{+0.10} / _{+0.00}	200.00 ^{+0.185} / _{+0.000}	45.04

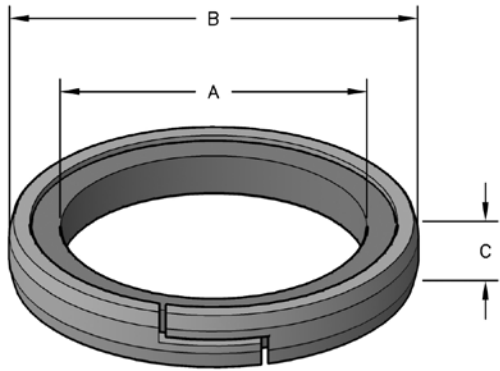
STYLE MKPD TWO PIECE PISTON SEALS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MKPD-250X229X8.1	229	250	8.1	8.10 ^{+0.20} _{+0.00}	229.00 ^{+0.10} _{+0.00}	250.00 ^{+0.185} _{+0.000}	69.65

Seal color may vary. Special order sizes are available.

STYLE MPS2000 NYLON STEP CUT PISTON SEALS

The MPS2000 double acting piston seal is designed for heavy duty hydraulic applications. The small profile is resistant to shock loads and has high abrasion and extrusion resistance. Its split design allows simple installation on a solid piston.



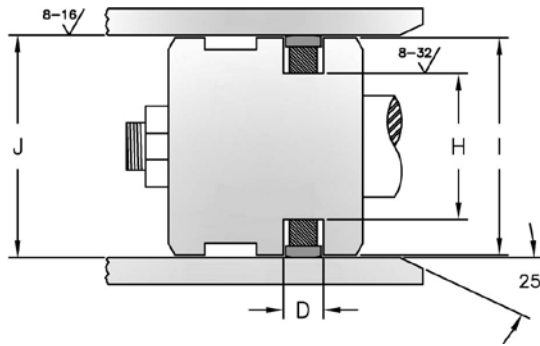
PART NUMBERS

MPS2000 - 50

Type of Seal / Bore Diameter

SEAL INFORMATION

MATERIAL	NYLON SEAL WITH NITRILE ENERGIZER
TEMPERATURE RANGE	-22° F TO +230° F
PRESSURE RANGE	0 TO 7250 PSI
SPEED	3 FT/SEC



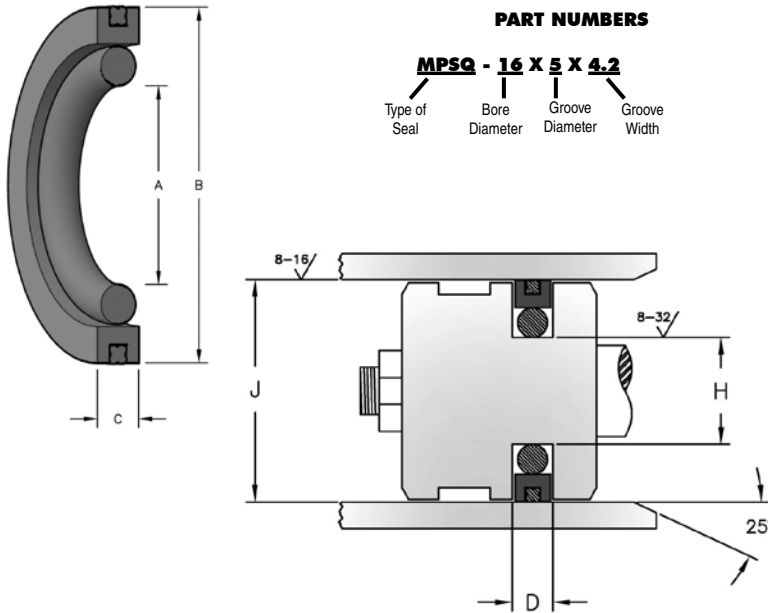
Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPS2000-38	30.5	38	3.2	3.20 +0.20 +0.00	30.50 +0.000 -0.062	38.00 +0.062 +0.000	\$ 19.67
MPS2000-45	34	45	4.2	4.20 +0.20 +0.00	34.00 +0.000 -0.062	45.00 +0.062 +0.000	22.38
MPS2000-50	34.5	50	6.3	6.30 +0.20 +0.00	34.50 +0.000 -0.062	50.00 +0.062 +0.000	26.73
MPS2000-63	47.5	63	6.3	6.30 +0.20 +0.00	47.50 +0.000 -0.062	63.00 +0.074 +0.000	28.39
MPS2000-75	54	75	8.1	8.10 +0.20 +0.00	54.00 +0.000 -0.074	75.00 +0.07 +0.00	27.45
MPS2000-80	64.5	80	6.3	6.30 +0.20 +0.00	64.50 +0.000 -0.074	80.00 +0.074 +0.000	26.51
MPS2000-80/1	59	80	8.1	8.10 +0.20 +0.00	59.00 +0.000 -0.074	80.00 +0.074 +0.000	48.76
MPS2000-85	64	85	8.1	8.10 +0.20 +0.00	64.00 +0.000 -0.074	85.00 +0.09 +0.00	26.97
MPS2000-90	69	90	8.1	8.10 +0.20 +0.00	69.00 +0.000 -0.074	90.00 +0.087 +0.000	27.43
MPS2000-100/1	84.5	100	6.3	6.30 +0.20 +0.00	84.50 +0.000 -0.087	100.00 +0.087 +0.000	37.07
MPS2000-100	79	100	8.1	8.10 +0.20 +0.00	79.00 +0.000 -0.074	100.00 +0.087 +0.000	30.33
MPS2000-105	84	105	8.1	8.10 +0.20 +0.00	84.00 +0.000 -0.087	105.00 +0.087 +0.000	34.20
MPS2000-110	89	110	8.1	8.10 +0.20 +0.00	89.00 +0.000 -0.087	110.00 +0.087 +0.000	35.69

STYLE MPS2000 NYLON STEP CUT PISTON SEALS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MPS2000-115	94	115	8.1	8.10 ^{+0.20} / _{+0.00}	94.00 ^{+0.000} / _{-0.087}	115.00 ^{+0.087} / _{+0.000}	39.81
MPS2000-120	99	120	8.1	8.10 ^{+0.20} / _{+0.00}	99.00 ^{+0.000} / _{-0.087}	120.00 ^{+0.087} / _{+0.000}	40.27
MPS2000-125/1	109.5	125	6.3	6.30 ^{+0.20} / _{+0.00}	109.50 ^{+0.000} / _{-0.087}	125.00 ^{+0.10} / _{+0.00}	50.15
MPS2000-125	104	125	8.1	8.10 ^{+0.20} / _{+0.00}	104.00 ^{+0.000} / _{-0.087}	125.00 ^{+0.10} / _{+0.00}	44.22
MPS2000-130	109	130	8.1	8.10 ^{+0.20} / _{+0.00}	109.00 ^{+0.000} / _{-0.087}	130.00 ^{+0.10} / _{+0.00}	47.04
MPS2000-135	114	135	8.1	8.10 ^{+0.20} / _{+0.00}	114.00 ^{+0.000} / _{-0.087}	135.00 ^{+0.10} / _{+0.00}	60.53
MPS2000-140	119	140	8.1	8.10 ^{+0.20} / _{+0.00}	119.00 ^{+0.000} / _{-0.087}	140.00 ^{+0.10} / _{+0.00}	55.00
MPS2000-145	124	145	8.1	8.10 ^{+0.20} / _{+0.00}	124.00 ^{+0.00} / _{-0.10}	145.00 ^{+0.10} / _{+0.00}	84.48
MPS2000-150	129	150	8.1	8.10 ^{+0.20} / _{+0.00}	129.00 ^{+0.00} / _{-0.10}	150.00 ^{+0.10} / _{+0.00}	57.77
MPS2000-160	139	160	8.1	8.10 ^{+0.20} / _{+0.00}	139.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.10} / _{+0.00}	61.70
MPS2000-165	144	165	8.1	8.10 ^{+0.20} / _{+0.00}	144.00 ^{+0.00} / _{-0.10}	165.00 ^{+0.10} / _{+0.00}	125.04
MPS2000-170	149	170	8.1	8.10 ^{+0.20} / _{+0.00}	149.00 ^{+0.00} / _{-0.10}	170.00 ^{+0.10} / _{+0.00}	67.22
MPS2000-180	159	180	8.1	8.10 ^{+0.20} / _{+0.00}	159.00 ^{+0.00} / _{-0.10}	180.00 ^{+0.10} / _{+0.00}	78.77
MPS2000-190	169	190	8.1	8.10 ^{+0.20} / _{+0.00}	169.00 ^{+0.00} / _{-0.10}	190.00 ^{+0.115} / _{+0.000}	99.36
MPS2000-200	179	200	8.1	8.10 ^{+0.20} / _{+0.00}	179.00 ^{+0.00} / _{-0.10}	200.00 ^{+0.115} / _{+0.000}	109.79
MPS2000-210	189	210	8.1	8.10 ^{+0.20} / _{+0.00}	189.00 ^{+0.000} / _{-0.115}	210.00 ^{+0.115} / _{+0.000}	115.31
MPS2000-220	199	220	8.1	8.10 ^{+0.20} / _{+0.00}	199.00 ^{+0.000} / _{-0.115}	220.00 ^{+0.115} / _{+0.000}	123.13
MPS2000-220A	205	220	8.1	8.10 ^{+0.20} / _{+0.00}	205.00 ^{+0.000} / _{-0.115}	220.00 ^{+0.115} / _{+0.000}	307.62
MPS2000-230	209	230	8.1	8.10 ^{+0.20} / _{+0.00}	209.00 ^{+0.000} / _{-0.115}	230.00 ^{+0.115} / _{+0.000}	140.71
MPS2000-250	229	250	8.1	8.10 ^{+0.20} / _{+0.00}	229.00 ^{+0.000} / _{-0.115}	250.00 ^{+0.115} / _{+0.000}	182.71
MPS2000-260	239	260	8.1	8.10 ^{+0.20} / _{+0.00}	239.00 ^{+0.000} / _{-0.115}	260.00 ^{+0.13} / _{+0.00}	242.27
MPS2000-280	255.5	280	8.1	8.10 ^{+0.20} / _{+0.00}	255.50 ^{+0.00} / _{-0.13}	280.00 ^{+0.13} / _{+0.00}	263.19
MPS2000-290	271	290	9.5	9.50 ^{+0.20} / _{+0.00}	271.00 ^{+0.00} / _{-0.13}	290.00 ^{+0.13} / _{+0.00}	707.94
MPS2000-300	272	300	9.5	9.50 ^{+0.20} / _{+0.00}	272.00 ^{+0.00} / _{-0.13}	300.00 ^{+0.13} / _{+0.00}	733.19

STYLE MPSQ PISTON SEALS

MPSQ piston seals are designed for bi-directional, low friction sealing with increased stability and superior leakage control. This seal is highly effective in applications requiring media separation or low gas permeation rate. This double acting seal is primarily used in accumulators and heavy duty cylinders.



SEAL INFORMATION	
MATERIAL	40% BRONZE FILLED PTFE, NBR ENERGIZER, NBR QUAD® RING
TEMPERATURE RANGE	-40 - +220° F
PRESSURE RANGE	0 TO 5000 PSI
SPEED	6 FT/SEC

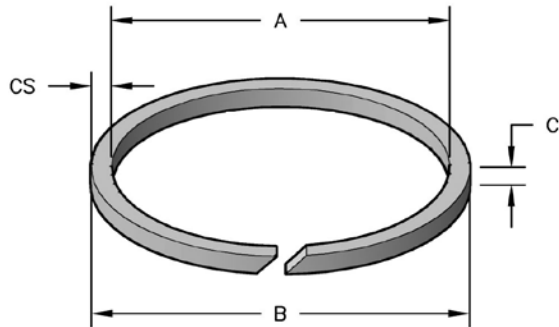
Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	C HEIGHT	List Price
MPSQ-16X5X4.2	5	16	4	4.20 +0.20 +0.00	5.00 +0.00 -0.03	16.00 +0.043 +0.000	4.00	\$ 16.04
MPSQ-22X11X4.2	11	22	4	4.20 +0.20 +0.00	11.00 +0.000 -0.043	22.00 +0.052 +0.000	4.00	16.04
MPSQ-25X14X4.2	14	25	4	4.20 +0.20 +0.00	14.00 +0.000 -0.043	25.00 +0.052 +0.000	4.00	16.04
MPSQ-28X17X4.2	17	28	4	4.20 +0.20 +0.00	17.00 +0.000 -0.043	28.00 +0.052 +0.000	4.00	16.83
MPSQ-30X19X4.2	19	30	4	4.20 +0.20 +0.00	19.00 +0.000 -0.052	30.00 +0.052 +0.000	4.00	20.52
MPSQ-32X21X4.2	21	32	4	4.20 +0.20 +0.00	21.00 +0.000 -0.052	32.00 +0.062 +0.000	4.00	20.52
MPSQ-35X24X4.2	24	35	4	4.20 +0.20 +0.00	24.00 +0.000 -0.052	35.00 +0.062 +0.000	4.00	21.30
MPSQ-40X29X4.2	29	40	4	4.20 +0.20 +0.00	29.00 +0.000 -0.052	40.00 +0.062 +0.000	4.00	19.14
MPSQ-42X31X4.2	31	42	4	4.20 +0.20 +0.00	31.00 +0.000 -0.062	42.00 +0.062 +0.000	4.00	19.14
MPSQ-45X34X4.2	34	45	4	4.20 +0.20 +0.00	34.00 +0.000 -0.062	45.00 +0.062 +0.000	4.00	23.22
MPSQ-50X39X4.2	39	50	4	4.20 +0.20 +0.00	39.00 +0.000 -0.062	50.00 +0.062 +0.000	4.00	22.52
MPSQ-50X34.5X6.3	34.5	50	6.1	6.30 +0.20 +0.00	34.50 +0.000 -0.062	50.00 +0.062 +0.000	6.10	27.31
MPSQ-52X41X4.2	41	52	4	4.20 +0.20 +0.00	41.00 +0.000 -0.062	52.00 +0.074 +0.000	4.00	24.22
MPSQ-55X44X4.2	44	55	4	4.20 +0.20 +0.00	44.00 +0.000 -0.062	55.00 +0.074 +0.000	4.00	25.93
MPSQ-60X49X4.2	49	60	4	4.20 +0.20 +0.00	49.00 +0.000 -0.062	60.00 +0.074 +0.000	4.00	28.23

STYLE MPSQ PISTON SEALS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	C HEIGHT	List Price
MPSQ-63X52X4.2	52	63	4	4.20 ^{+0.20} / _{+0.00}	52.00 ^{+0.000} / _{-0.074}	63.00 ^{+0.074} / _{+0.000}	4.00	31.33
MPSQ-63X47.5X6.3	47.5	63	6.1	6.30 ^{+0.20} / _{+0.00}	47.50 ^{+0.000} / _{-0.062}	63.00 ^{+0.074} / _{+0.000}	6.10	31.33
MPSQ-65X54X4.2	54	65	4	4.20 ^{+0.20} / _{+0.00}	54.00 ^{+0.000} / _{-0.074}	65.00 ^{+0.074} / _{+0.000}	4.00	31.47
MPSQ-70X59X4.2	59	70	4	4.20 ^{+0.20} / _{+0.00}	59.00 ^{+0.000} / _{-0.074}	70.00 ^{+0.074} / _{+0.000}	4.00	33.17
MPSQ-70X54.5X6.3	54.5	70	6.1	6.30 ^{+0.20} / _{+0.00}	54.50 ^{+0.000} / _{-0.074}	70.00 ^{+0.074} / _{+0.000}	6.10	43.50
MPSQ-75X64X4.2	64	75	4	4.20 ^{+0.20} / _{+0.00}	64.00 ^{+0.000} / _{-0.074}	75.00 ^{+0.074} / _{+0.000}	4.00	34.88
MPSQ-80X64.5X6.3	64.5	80	6.1	6.30 ^{+0.20} / _{+0.00}	64.50 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	6.10	48.60
MPSQ-80X59X8.1	59	80	7.9	8.10 ^{+0.20} / _{+0.00}	59.00 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	7.90	60.95
MPSQ-85X69.5X6.3	69.5	85	6.1	6.30 ^{+0.20} / _{+0.00}	69.50 ^{+0.000} / _{-0.074}	85.00 ^{+0.087} / _{+0.000}	6.10	55.24
MPSQ-90X74.5X6.3	74.5	90	6.1	6.30 ^{+0.20} / _{+0.00}	74.50 ^{+0.000} / _{-0.074}	90.00 ^{+0.087} / _{+0.000}	6.10	58.93
MPSQ-95X79.5X6.3	79.5	95	6.1	6.30 ^{+0.20} / _{+0.00}	79.50 ^{+0.000} / _{-0.074}	95.00 ^{+0.087} / _{+0.000}	6.10	66.35
MPSQ-100X84.5X6.3	84.5	100	6.1	6.30 ^{+0.20} / _{+0.00}	84.50 ^{+0.000} / _{-0.087}	100.00 ^{+0.087} / _{+0.000}	6.10	69.74
MPSQ-105X89.5X6.3	89.5	105	6.1	6.30 ^{+0.20} / _{+0.00}	89.50 ^{+0.000} / _{-0.087}	105.00 ^{+0.087} / _{+0.000}	6.10	70.36
MPSQ-110X94.5X6.3	94.5	110	6.1	6.30 ^{+0.20} / _{+0.00}	94.50 ^{+0.000} / _{-0.087}	110.00 ^{+0.087} / _{+0.000}	6.10	77.15
MPSQ-115X99.5X6.3	99.5	115	6.1	6.30 ^{+0.20} / _{+0.00}	99.50 ^{+0.000} / _{-0.087}	115.00 ^{+0.087} / _{+0.000}	6.10	92.89
MPSQ-120X104.5X6.3	104.5	120	6.1	6.30 ^{+0.20} / _{+0.00}	104.50 ^{+0.000} / _{-0.087}	120.00 ^{+0.087} / _{+0.000}	6.10	84.86
MPSQ-125X109.5X6.3	109.5	125	6.1	6.30 ^{+0.20} / _{+0.00}	109.50 ^{+0.000} / _{-0.087}	125.00 ^{+0.10} / _{+0.00}	6.10	95.35

STYLE MBNP PISTON SEAL ANTI-EXTRUSION RINGS

Placed in adjacent grooves on each side of style MPS piston seals, they prevent cold flow or extrusion at high pressures.



PART NUMBERS

MBNP - 95 X 2.5 X 2.5

Type of Seal: MBNP
Outside Diameter: 95
Cross Section: 2.5
Width: 2.5

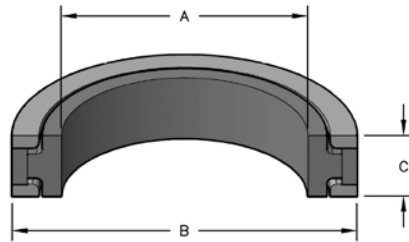
SEAL INFORMATION	
MATERIAL	NYLON
TEMPERATURE RANGE	-65° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	List Price
MBNP-95X2.5X2.5	90	95	2.5	\$9.16
MBNP-100X2.5X2.5	95	100	2.5	9.16
MBNP-105X2.5X2.5	100	105	2.5	9.80
MBNP-110X2.5X2.5	105	110	2.5	9.80
MBNP-110X3X3	104	110	3	10.30
MBNP-115X2.5X2.5	110	115	2.5	8.53
MBNP-115X3X3	109	115	3	11.43
MBNP-120X3X3	114	120	3	11.43
MBNP-125X3X3	119	125	3	12.59
MBNP-130X3X3	124	130	3	12.59
MBNP-135X3X3	129	135	3	13.72
MBNP-140X3X3	134	140	3	14.88
MBNP-145X3X3	139	145	3	14.88
MBNP-150X3X3	144	150	3	16.01
MBNP-160X3X3	154	160	3	17.18
MBNP-170X3X3	164	170	3	18.30
MBNP-180X3X3	174	180	3	19.44
MBNP-190X3X3	184	190	3	21.76

Seal color may vary. Special order sizes are available.

STYLE MCPS FOUR PIECE PISTON SEALS

This capped piston seal consists of a filled PTFE cap, a T-shaped NBR energizer, and two split nylon backup rings. It exhibits low friction, high sealability, and excellent resistance to extrusion and wear.

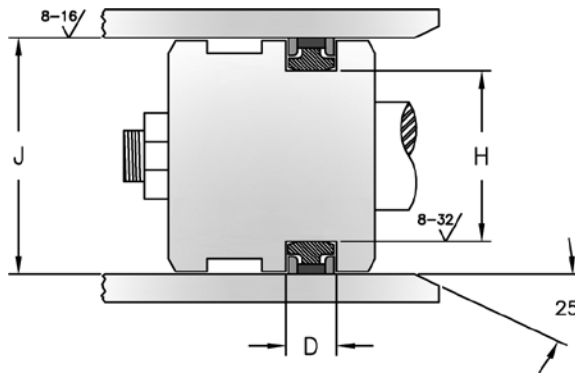


PART NUMBERS

MCPS - 50 X 36 X 8.5

Type of Seal Bore Diameter Groove Diameter Height

SEAL INFORMATION	
MATERIAL	PTFE PISTON SEAL NYLON BACK-UP NITRILE ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 6,000 psi
SPEED	4.5 FT/SEC
SUFFIX	BR = BRONZE FILLED PTFE CAP



CAN BE MANUFACTURED IN H-NBR AND FLUOROCARDON FOR HIGH TEMP AND WATER GLYCOL APPLICATIONS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MCPS-32X21X7.7	21	32	7.7	8.20 +0.20 +0.00	21.00 +0.000 -0.052	32.00 +0.062 +0.000	\$80.69
MCPS-50X40X7.5	40	50	7.5	8.00 +0.20 +0.00	40.00 +0.000 -0.062	50.00 +0.062 +0.000	51.55
MCPS-50X36X8.5	36	50	8.5	9.00 +0.20 +0.00	36.00 +0.000 -0.062	50.00 +0.062 +0.000	100.85
MCPS-55X41X8.5	41	55	8.5	9.00 +0.20 +0.00	41.00 +0.000 -0.062	55.00 +0.074 +0.000	45.05
MCPS-56X45X8	45	56	8	8.00 +0.20 +0.00	45.00 +0.000 -0.062	56.00 +0.074 +0.000	60.28
MCPS-60X46X8.5	46	60	8.5	9.00 +0.20 +0.00	46.00 +0.000 -0.062	60.00 +0.074 +0.000	50.17
MCPS-63X53X7.5	53	63	7.5	8.00 +0.20 +0.00	53.00 +0.000 -0.074	63.00 +0.074 +0.000	72.85
MCPS-63X48X10.5	48	63	10.5	11.00 +0.20 +0.00	48.00 +0.000 -0.062	63.00 +0.074 +0.000	34.09
MCPS-65X51X8.5	51	65	8.5	9.00 +0.20 +0.00	51.00 +0.000 -0.074	65.00 +0.074 +0.000	78.49
MCPS-65X50X10.5	50	65	10.5	11.00 +0.20 +0.00	50.00 +0.000 -0.062	65.00 +0.074 +0.000	30.05
MCPS-70X60X7.5	60	70	7.5	8.00 +0.20 +0.00	60.00 +0.000 -0.074	70.00 +0.074 +0.000	48.85
MCPS-70X55X10.5	55	70	10.5	11.00 +0.20 +0.00	55.00 +0.000 -0.074	70.00 +0.074 +0.000	50.17
MCPS-70X55X12	55	70	12	12.50 +0.20 +0.00	55.00 +0.000 -0.074	70.00 +0.074 +0.000	70.40

STYLE MCPS FOUR PIECE PISTON SEALS



Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MCPS-75X63X8.6	63	75	8.6	9.10 ^{+0.20} / _{+0.00}	63.00 ^{+0.000} / _{-0.074}	75.00 ^{+0.074} / _{+0.000}	52.23
MCPS-75X60X10.5	60	75	10.5	11.00 ^{+0.20} / _{+0.00}	60.00 ^{+0.000} / _{-0.074}	75.00 ^{+0.074} / _{+0.000}	48.66
MCPS-80X65X10.5	65	80	10.5	11.00 ^{+0.20} / _{+0.00}	65.00 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	54.54
MCPS-80X65X11.5	65	80	11.5	12.00 ^{+0.20} / _{+0.00}	65.00 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	54.20
MCPS-85X70X10.5	70	85	10.5	11.00 ^{+0.20} / _{+0.00}	70.00 ^{+0.000} / _{-0.074}	85.00 ^{+0.087} / _{+0.000}	62.70
MCPS-90X75X10.5	75	90	10.5	11.00 ^{+0.20} / _{+0.00}	75.00 ^{+0.000} / _{-0.074}	90.00 ^{+0.087} / _{+0.000}	61.45
MCPS-90X75X11.5	75	90	11.5	12.00 ^{+0.20} / _{+0.00}	75.00 ^{+0.000} / _{-0.074}	90.00 ^{+0.087} / _{+0.000}	59.19
MCPS-90X75X12.5	75	90	12.5	13.00 ^{+0.20} / _{+0.00}	75.00 ^{+0.000} / _{-0.074}	90.00 ^{+0.087} / _{+0.000}	79.99
MCPS-95X80X10.5	80	95	10.5	11.00 ^{+0.20} / _{+0.00}	80.00 ^{+0.000} / _{-0.074}	95.00 ^{+0.087} / _{+0.000}	62.70
MCPS-95X80X12	80	95	12	12.50 ^{+0.20} / _{+0.00}	80.00 ^{+0.000} / _{-0.074}	95.00 ^{+0.087} / _{+0.000}	65.60
MCPS-100X85X12	85	100	12	12.50 ^{+0.20} / _{+0.00}	85.00 ^{+0.000} / _{-0.087}	100.00 ^{+0.087} / _{+0.000}	66.38
MCPS-100X85X13U	85	100	13	13.50 ^{+0.20} / _{+0.00}	85.00 ^{+0.00} / _{-0.09}	100.00 ^{+0.14} / _{+0.00}	87.39
MCPS-105X90X12	90	105	12	12.50 ^{+0.20} / _{+0.00}	90.00 ^{+0.000} / _{-0.087}	105.00 ^{+0.087} / _{+0.000}	69.39
MCPS-110X95X12	95	110	12	12.50 ^{+0.20} / _{+0.00}	95.00 ^{+0.000} / _{-0.087}	110.00 ^{+0.087} / _{+0.000}	70.65
MCPS-130X110X15.5	110	110	15.5	16.00 ^{+0.20} / _{+0.00}	110.00 ^{+0.000} / _{-0.087}	110.00 ^{+0.087} / _{+0.000}	102.68
MCPS-115X100X12	100	115	12	12.50 ^{+0.20} / _{+0.00}	100.00 ^{+0.000} / _{-0.087}	115.00 ^{+0.087} / _{+0.000}	78.06
MCPS-120X105X12	105	120	12	12.50 ^{+0.20} / _{+0.00}	105.00 ^{+0.000} / _{-0.087}	120.00 ^{+0.087} / _{+0.000}	73.63
MCPS-120X100X15.5	100	120	15.5	16.00 ^{+0.20} / _{+0.00}	100.00 ^{+0.000} / _{-0.087}	120.00 ^{+0.087} / _{+0.000}	103.69
MCPS-125X110X12.5	110	125	12.5	12.50 ^{+0.20} / _{+0.00}	110.00 ^{+0.000} / _{-0.087}	125.00 ^{+0.10} / _{+0.00}	74.22
MCPS-125X102X15.5	102	125	15.5	16.00 ^{+0.20} / _{+0.00}	102.00 ^{+0.000} / _{-0.087}	125.00 ^{+0.10} / _{+0.00}	81.86
MCPS-125X105X15.5	105	125	15.5	16.00 ^{+0.20} / _{+0.00}	105.00 ^{+0.000} / _{-0.087}	125.00 ^{+0.10} / _{+0.00}	112.07
MCPS-130X115X12.5	115	130	12.5	12.50 ^{+0.20} / _{+0.00}	115.00 ^{+0.000} / _{-0.087}	130.00 ^{+0.10} / _{+0.00}	77.41
MCPS-130X107X15.5	107	130	15.5	16.00 ^{+0.20} / _{+0.00}	107.00 ^{+0.000} / _{-0.087}	130.00 ^{+0.10} / _{+0.00}	88.46
MCPS-135X112X15.5	112	135	15.5	16.00 ^{+0.20} / _{+0.00}	112.00 ^{+0.000} / _{-0.087}	135.00 ^{+0.10} / _{+0.00}	94.12
MCPS-140X117X15.5	117	140	15.5	16.00 ^{+0.20} / _{+0.00}	117.00 ^{+0.000} / _{-0.087}	140.00 ^{+0.10} / _{+0.00}	100.17
MCPS-140X120X15.5	120	140	15.5	16.00 ^{+0.20} / _{+0.00}	120.00 ^{+0.000} / _{-0.087}	140.00 ^{+0.10} / _{+0.00}	127.06
MCPS-140X120X18.5	120	140	18.5	19.00 ^{+0.20} / _{+0.00}	120.00 ^{+0.000} / _{-0.087}	140.00 ^{+0.10} / _{+0.00}	119.75
MCPS-145X122X15.5	122	145	15.5	16.00 ^{+0.20} / _{+0.00}	122.00 ^{+0.00} / _{-0.10}	145.00 ^{+0.10} / _{+0.00}	100.90
MCPS-150X127X15.5	127	150	15.5	16.00 ^{+0.20} / _{+0.00}	127.00 ^{+0.00} / _{-0.10}	150.00 ^{+0.10} / _{+0.00}	108.97
MCPS-150X130X18.5	130	150	18.5	19.00 ^{+0.20} / _{+0.00}	130.00 ^{+0.00} / _{-0.10}	150.00 ^{+0.10} / _{+0.00}	143.84

STYLE MCPS FOUR PIECE PISTON SEALS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MCPS-155X132X15.5	132	155	15.5	16.00 ^{+0.20} / _{+0.00}	132.00 ^{+0.00} / _{-0.10}	155.00 ^{+0.10} / _{+0.00}	84.38
MCPS-160X145X12.5	145	160	12.5	13.00 ^{+0.20} / _{+0.00}	145.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.10} / _{+0.00}	143.58
MCPS-160X137X15.5	137	160	15.5	16.00 ^{+0.20} / _{+0.00}	137.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.10} / _{+0.00}	123.77
MCPS-160X140X15.5	140	160	15.5	16.00 ^{+0.20} / _{+0.00}	140.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.10} / _{+0.00}	113.63
MCPS-160X140X18.5	140	160	18.5	19.00 ^{+0.20} / _{+0.00}	140.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.10} / _{+0.00}	148.44
MCPS-165X142X15.5	142	165	15.5	16.00 ^{+0.20} / _{+0.00}	142.00 ^{+0.00} / _{-0.10}	165.00 ^{+0.10} / _{+0.00}	136.86
MCPS-170X147X15.5	147	170	15.5	16.00 ^{+0.00} / _{-0.20}	147.00 ^{+0.00} / _{-0.10}	170.00 ^{+0.10} / _{+0.00}	140.25
MCPS-175X152X15.5	152	175	15.5	16.00 ^{+0.20} / _{+0.00}	152.00 ^{+0.00} / _{-0.10}	175.00 ^{+0.10} / _{+0.00}	108.15
MCPS-180X165X12.5BR	165	180	12.5	12.50 ^{+0.20} / _{+0.00}	165.00 ^{+0.00} / _{-0.10}	180.00 ^{+0.10} / _{+0.00}	172.71
MCPS-180X157X15.5	157	180	15.5	16.00 ^{+0.20} / _{+0.00}	157.00 ^{+0.00} / _{-0.10}	180.00 ^{+0.10} / _{+0.00}	129.73
MCPS-180X160X15.5	160	180	15.5	16.00 ^{+0.20} / _{+0.00}	160.00 ^{+0.00} / _{-0.10}	180.00 ^{+0.10} / _{+0.00}	127.24
MCPS-185X162X15.5	162	185	15.5	16.00 ^{+0.20} / _{+0.00}	162.00 ^{+0.00} / _{-0.10}	185.00 ^{+0.115} / _{+0.000}	135.63
MCPS-190X175X12.5	175	190	12.5	13.00 ^{+0.20} / _{+0.00}	175.00 ^{+0.00} / _{-0.10}	190.00 ^{+0.115} / _{+0.000}	229.81
MCPS-190X167X15.5	167	190	15.5	16.00 ^{+0.20} / _{+0.00}	167.00 ^{+0.00} / _{-0.10}	190.00 ^{+0.115} / _{+0.000}	163.73
MCPS-195X172X15.5	172	195	15.5	16.00 ^{+0.20} / _{+0.00}	172.00 ^{+0.00} / _{-0.10}	195.00 ^{+0.115} / _{+0.000}	131.03
MCPS-200X177X15.5BR	177	200	15.5	16.00 ^{+0.20} / _{+0.00}	177.00 ^{+0.00} / _{-0.10}	200.00 ^{+0.115} / _{+0.000}	153.19
MCPS-200X180X18.5	180	200	18.5	18.50 ^{+0.20} / _{+0.00}	180.00 ^{+0.00} / _{-0.10}	200.00 ^{+0.115} / _{+0.000}	134.10
MCPS-200X167X23.3BR	167	200	23.3	23.80 ^{+0.20} / _{+0.00}	167.00 ^{+0.00} / _{-0.10}	200.00 ^{+0.115} / _{+0.000}	420.75
MCPS-210X187X15.5	187	210	15.5	16.00 ^{+0.20} / _{+0.00}	187.00 ^{+0.000} / _{-0.115}	210.00 ^{+0.115} / _{+0.000}	139.94
MCPS-220X197X15.5	197	220	15.5	16.00 ^{+0.20} / _{+0.00}	197.00 ^{+0.000} / _{-0.115}	220.00 ^{+0.115} / _{+0.000}	147.00
MCPS-225X202X15.5	202	225	15.5	16.00 ^{+0.20} / _{+0.00}	202.00 ^{+0.000} / _{-0.115}	225.00 ^{+0.115} / _{+0.000}	195.08
MCPS-230X207X15.5	207	230	15.5	16.00 ^{+0.20} / _{+0.00}	207.00 ^{+0.000} / _{-0.115}	230.00 ^{+0.115} / _{+0.000}	157.41
MCPS-230X210X16	210	230	16	16.00 ^{+0.20} / _{+0.00}	210.00 ^{+0.000} / _{-0.115}	230.00 ^{+0.115} / _{+0.000}	311.21
MCPS-240X217X15.5	217	240	15.5	16.00 ^{+0.20} / _{+0.00}	217.00 ^{+0.000} / _{-0.115}	240.00 ^{+0.115} / _{+0.000}	158.09
MCPS-250X222X17	222	250	17	17.50 ^{+0.20} / _{+0.00}	222.00 ^{+0.000} / _{-0.115}	250.00 ^{+0.115} / _{+0.000}	208.38
MCPS-250X210X25.5BR	210	250	25.5	26.00 ^{+0.20} / _{+0.00}	210.00 ^{+0.000} / _{-0.115}	250.00 ^{+0.115} / _{+0.000}	702.20
MCPS-260X240X16	240	260	16	16.50 ^{+0.20} / _{+0.00}	240.00 ^{+0.000} / _{-0.115}	260.00 ^{+0.13} / _{+0.00}	337.41
MCPS-260X232X17	232	260	17	17.50 ^{+0.20} / _{+0.00}	232.00 ^{+0.000} / _{-0.115}	260.00 ^{+0.13} / _{+0.00}	208.38
MCPS-280X252X17	252	280	17	17.50 ^{+0.20} / _{+0.00}	252.00 ^{+0.00} / _{-0.13}	280.00 ^{+0.13} / _{+0.00}	233.66
MCPS-300X272X17	272	300	17	17.50 ^{+0.20} / _{+0.00}	272.00 ^{+0.00} / _{-0.13}	300.00 ^{+0.13} / _{+0.00}	310.17

STYLE MCPS FOUR PIECE PISTON SEALS





Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price
MCPS-300X260X25.5BR	260	300	25.5	26.00 ^{+0.20} _{+0.00}	260.00 ^{+0.00} _{-0.13}	300.00 ^{+0.13} _{+0.00}	844.54

Seal color may vary. Special order sizes are available.

REPLACEMENT SPECIFIC PISTON SEALS FOR CATERPILLAR® EQUIPMENT


These seals are specials for certain Caterpillar® cylinders. **NOTE:** Caterpillar® part numbers are used as a reference only. We do not imply that these parts are original equipment parts.


PISTON SEAL TYPE		MATERIAL			TEMPERATURE RANGE		PRESSURE RANGE		
2 PIECE PISTON SEAL		PTFE PISTON SEAL 70A NITRILE ENERGIZER			-40° TO 220° F		0 TO 5,000 PSI		
Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER		List Price	
CTC-1200890	60	75	7.3	7.50 ^{+0.20} _{+0.00}	60.00 ^{+0.000} _{-0.074}	75.00 ^{+0.074} _{+0.000}		\$22.92	

PISTON SEAL TYPE		MATERIAL			TEMPERATURE RANGE		PRESSURE RANGE		
2 PIECE STEP CUT PISTON SEAL		NYLON SEAL 70 A NITRILE ENERGIZER			-40° TO 220° F		0 TO 5,000 PSI		
Part Number	J BORE DIAMETER							List Price	
CTC-1846970	75.00							\$60.12	
CTC-1841687	85.00							32.90	
CTC-9X7298	100.00							63.85	
CTC-9X7301	110.00							73.06	
CTC-9X3589	115.00							40.69	
CTC-9X3592	120.00							70.08	
CTC-9X3595	130.00							66.30	
CTC-2371934	135.00							104.15	
CTC-9X3598	140.00							75.22	
CTC-9X3601	150.00							64.04	
CTC-9X3604	160.00							64.15	
CTC-9X3607	170.00							74.31	
CTC-9X3610	180.00							74.32	
CTC-1251286	190.00							61.36	

REPLACEMENT SPECIFIC PISTON SEALS FOR CATERPILLAR® EQUIPMENT

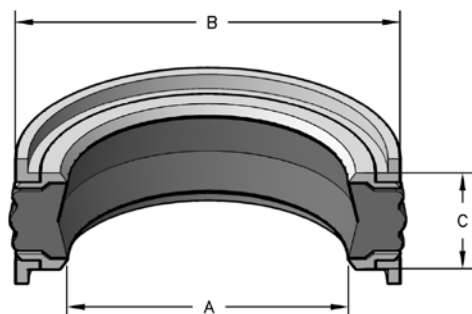


PISTON SEAL TYPE		MATERIAL			TEMPERATURE RANGE		PRESSURE RANGE		
4 PIECE PISTON SEAL		PTFE PISTON SEAL NYLON BACK-UP BUNA-N ENERGIZER			-40° TO +220° F		0 TO 6,000 PSI		
Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	J BORE DIAMETER	List Price		
CTC-0996998	65	80	10.5	11.00 ^{+0.20} / _{+0.00}	65.00 ^{+0.000} / _{-0.074}	80.00 ^{+0.074} / _{+0.000}	\$50.46		
CTC-0996973	75	90	10.5	11.00 ^{+0.20} / _{+0.00}	75.00 ^{+0.000} / _{-0.074}	90.00 ^{+0.087} / _{+0.000}	57.35		
CTC-5I5928	85	100	12	12.50 ^{+0.20} / _{+0.00}	85.00 ^{+0.000} / _{-0.087}	100.00 ^{+0.087} / _{+0.000}	61.94		
CTC-0996922	95	110	12	12.50 ^{+0.20} / _{+0.00}	95.00 ^{+0.000} / _{-0.087}	110.00 ^{+0.087} / _{+0.000}	65.35		
CTC-A04601713	95	110	12	12.50 ^{+0.20} / _{+0.00}	95.00 ^{+0.000} / _{-0.087}	110.00 ^{+0.087} / _{+0.000}	70.65		
CTC-A04601719	137	160	15.5	16.00 ^{+0.20} / _{+0.00}	137.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.10} / _{+0.00}	123.77		

PISTON SEAL TYPE		MATERIAL			TEMPERATURE RANGE		PRESSURE RANGE		
5 PIECE PISTON SEAL		70A NBR / FABRIC SEAL PTFE BACK-UP NYLON BEARING			-20° TO 190° F		0 TO 5,000 PSI		
Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
CTC-A04601215	96	110	22	22.00	9.95	96.00	101.50	110.00	\$144.65
CTC-A04601216	106	120	22	22.00	9.95	106.00	111.50	120.00	144.65

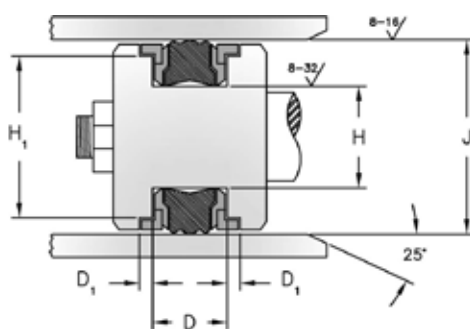
STYLE MPSA FIVE PIECE PISTON SEALS

Designed to fit on one or two piece pistons, this piston seal employs a nitrile seal for high sealability, nylon split back-ups for extrusion resistance, and two split bearing rings. No further support bearings are required.



PART NUMBERS

MPSA - 020
 ↙ ↘
 Type of Seal Bore Diameter



SEAL INFORMATION

MATERIAL	70A NBR SEAL NYLON BACK-UP & BEARING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 6,000 PSI
SPEED	1.5 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSA-020	11	20	13.5	13.50 ^{+0.20} / _{+0.00}	2.10 ^{+0.10} / _{+0.00}	11.00 ^{+0.000} / _{-0.043}	17.00 ^{+0.000} / _{-0.043}	20.00 ^{+0.084} / _{+0.000}	\$9.97
MPSA-025	15	25	12.5	12.50 ^{+0.20} / _{+0.00}	4.00 ^{+0.10} / _{+0.00}	15.00 ^{+0.000} / _{-0.043}	22.00 ^{+0.000} / _{-0.052}	25.00 ^{+0.084} / _{+0.000}	9.97
MPSA-025B	16	25	13.5	13.50 ^{+0.20} / _{+0.00}	2.10 ^{+0.10} / _{+0.00}	16.00 ^{+0.000} / _{-0.043}	22.00 ^{+0.000} / _{-0.052}	25.00 ^{+0.084} / _{+0.000}	9.97
MPSA-025A	15	25	16.4	16.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	15.00 ^{+0.000} / _{-0.043}	21.40 ^{+0.000} / _{-0.052}	25.00 ^{+0.084} / _{+0.000}	9.97
MPSA-028	19	28	13.5	13.50 ^{+0.20} / _{+0.00}	2.10 ^{+0.10} / _{+0.00}	19.00 ^{+0.000} / _{-0.052}	25.00 ^{+0.000} / _{-0.052}	28.00 ^{+0.084} / _{+0.000}	10.25
MPSA-030A	21	30	13.5	13.50 ^{+0.20} / _{+0.00}	2.10 ^{+0.10} / _{+0.00}	21.00 ^{+0.000} / _{-0.052}	27.00 ^{+0.000} / _{-0.052}	30.00 ^{+0.084} / _{+0.000}	10.25
MPSA-032A	22	32	12.5	12.50 ^{+0.20} / _{+0.00}	4.00 ^{+0.10} / _{+0.00}	22.00 ^{+0.000} / _{-0.052}	27.40 ^{+0.000} / _{-0.052}	32.00 ^{+0.10} / _{+0.00}	15.54
MPSA-032C	22	32	15.5	15.50 ^{+0.20} / _{+0.00}	2.60 ^{+0.10} / _{+0.00}	22.00 ^{+0.000} / _{-0.052}	28.00 ^{+0.000} / _{-0.052}	32.00 ^{+0.10} / _{+0.00}	14.52
MPSA-032D	24	32	15.5	15.50 ^{+0.20} / _{+0.00}	3.20 ^{+0.10} / _{+0.00}	24.00 ^{+0.000} / _{-0.052}	28.00 ^{+0.000} / _{-0.052}	32.00 ^{+0.10} / _{+0.00}	14.52
MPSA-032	22	32	16.3	16.30 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	22.00 ^{+0.000} / _{-0.052}	27.40 ^{+0.000} / _{-0.052}	32.00 ^{+0.10} / _{+0.00}	15.54
MPSA-035A	25	35	15.5	15.50 ^{+0.20} / _{+0.00}	2.60 ^{+0.10} / _{+0.00}	25.00 ^{+0.000} / _{-0.052}	31.00 ^{+0.000} / _{-0.062}	35.00 ^{+0.10} / _{+0.00}	16.09
MPSA-035	25	35	16.4	16.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	25.00 ^{+0.000} / _{-0.052}	31.40 ^{+0.000} / _{-0.062}	35.00 ^{+0.10} / _{+0.00}	11.48
MPSA-040H	32	40	10	10.00 ^{+0.20} / _{+0.00}	4.00 ^{+0.10} / _{+0.00}	32.00 ^{+0.000} / _{-0.062}	37.00 ^{+0.000} / _{-0.062}	40.00 ^{+0.10} / _{+0.00}	16.48
MPSA-040F	30	40	12.5	12.50 ^{+0.20} / _{+0.00}	4.00 ^{+0.10} / _{+0.00}	30.00 ^{+0.000} / _{-0.052}	37.00 ^{+0.000} / _{-0.062}	40.00 ^{+0.10} / _{+0.00}	17.15
MPSA-040D	26	40	15.5	15.50 ^{+0.20} / _{+0.00}	2.60 ^{+0.10} / _{+0.00}	26.00 ^{+0.000} / _{-0.052}	36.00 ^{+0.000} / _{-0.062}	40.00 ^{+0.10} / _{+0.00}	17.15
MPSA-040G	32	40	15.5	15.50 ^{+0.20} / _{+0.00}	3.20 ^{+0.10} / _{+0.00}	32.00 ^{+0.000} / _{-0.062}	36.00 ^{+0.000} / _{-0.062}	40.00 ^{+0.10} / _{+0.00}	17.15
MPSA-040E	30	40	16.4	16.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	30.00 ^{+0.000} / _{-0.052}	35.40 ^{+0.000} / _{-0.062}	40.00 ^{+0.10} / _{+0.00}	17.15

STYLE MPSA FIVE PIECE PISTON SEALS



Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSA-045B	31	45	15.5	15.50 ^{+0.20} / _{+0.00}	2.60 ^{+0.10} / _{+0.00}	31.00 ^{+0.000} / _{-0.062}	41.00 ^{+0.000} / _{-0.062}	45.00 ^{+0.10} / _{+0.00}	17.85
MPSA-045	35	45	16.4	16.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	35.00 ^{+0.000} / _{-0.062}	40.40 ^{+0.000} / _{-0.062}	45.00 ^{+0.10} / _{+0.00}	17.81
MPSA-045A	29	45	18.4	18.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	29.00 ^{+0.000} / _{-0.052}	40.40 ^{+0.000} / _{-0.062}	45.00 ^{+0.10} / _{+0.00}	17.85
MPSA-050B	40	50	12.5	12.50 ^{+0.20} / _{+0.00}	4.00 ^{+0.10} / _{+0.00}	40.00 ^{+0.000} / _{-0.062}	47.00 ^{+0.000} / _{-0.062}	50.00 ^{+0.10} / _{+0.00}	18.26
MPSA-050	34	50	18.4	18.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	34.00 ^{+0.000} / _{-0.062}	45.40 ^{+0.000} / _{-0.062}	50.00 ^{+0.10} / _{+0.00}	18.26
MPSA-050A	38	50	20.5	20.50 ^{+0.20} / _{+0.00}	4.20 ^{+0.10} / _{+0.00}	38.00 ^{+0.000} / _{-0.062}	46.00 ^{+0.000} / _{-0.062}	50.00 ^{+0.10} / _{+0.00}	18.26
MPSA-050D	34	50	20.5	20.50 ^{+0.20} / _{+0.00}	3.10 ^{+0.10} / _{+0.00}	34.00 ^{+0.000} / _{-0.062}	46.00 ^{+0.000} / _{-0.062}	50.00 ^{+0.10} / _{+0.00}	18.84
MPSA-055	39	55	18.4	18.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	39.00 ^{+0.000} / _{-0.062}	50.40 ^{+0.000} / _{-0.074}	55.00 ^{+0.12} / _{+0.00}	20.21
MPSA-055B	39	55	20.5	20.50 ^{+0.20} / _{+0.00}	3.10 ^{+0.10} / _{+0.00}	39.00 ^{+0.000} / _{-0.062}	51.00 ^{+0.000} / _{-0.074}	55.00 ^{+0.12} / _{+0.00}	19.46
MPSA-060	44	60	18.4	18.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	44.00 ^{+0.000} / _{-0.062}	55.40 ^{+0.000} / _{-0.074}	60.00 ^{+0.12} / _{+0.00}	21.55
MPSA-060B	48	60	20.5	20.50 ^{+0.20} / _{+0.00}	4.20 ^{+0.10} / _{+0.00}	48.00 ^{+0.000} / _{-0.062}	56.00 ^{+0.000} / _{-0.074}	60.00 ^{+0.12} / _{+0.00}	21.55
MPSA-060C	44	60	20.5	20.50 ^{+0.20} / _{+0.00}	3.10 ^{+0.10} / _{+0.00}	44.00 ^{+0.000} / _{-0.062}	56.00 ^{+0.000} / _{-0.074}	60.00 ^{+0.12} / _{+0.00}	11.37
MPSA-063B	53	63	12.5	12.50 ^{+0.20} / _{+0.00}	4.00 ^{+0.10} / _{+0.00}	53.00 ^{+0.000} / _{-0.074}	60.00 ^{+0.000} / _{-0.074}	63.00 ^{+0.12} / _{+0.00}	23.35
MPSA-063E	47	63	18.4	18.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	47.00 ^{+0.000} / _{-0.062}	58.40 ^{+0.000} / _{-0.074}	63.00 ^{+0.12} / _{+0.00}	12.79
MPSA-063	47	63	19.4	19.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	47.00 ^{+0.000} / _{-0.062}	58.40 ^{+0.000} / _{-0.074}	63.00 ^{+0.12} / _{+0.00}	23.35
MPSA-063A	51	63	20.15	20.15 ^{+0.20} / _{+0.00}	4.20 ^{+0.10} / _{+0.00}	51.00 ^{+0.000} / _{-0.074}	59.00 ^{+0.000} / _{-0.074}	63.00 ^{+0.12} / _{+0.00}	23.35
MPSA-063C	47	63	20.5	20.50 ^{+0.20} / _{+0.00}	3.10 ^{+0.10} / _{+0.00}	47.00 ^{+0.000} / _{-0.062}	59.00 ^{+0.000} / _{-0.074}	63.00 ^{+0.12} / _{+0.00}	29.71
MPSA-065	50	65	18.4	18.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	50.00 ^{+0.000} / _{-0.062}	60.40 ^{+0.000} / _{-0.074}	65.00 ^{+0.12} / _{+0.00}	23.39
MPSA-065A	49	65	20.5	20.50 ^{+0.20} / _{+0.00}	3.10 ^{+0.10} / _{+0.00}	49.00 ^{+0.000} / _{-0.062}	61.00 ^{+0.000} / _{-0.074}	65.00 ^{+0.12} / _{+0.00}	14.58
MPSA-070C	55	70	20	20.00 ^{+0.20} / _{+0.00}	5.00 ^{+0.10} / _{+0.00}	55.00 ^{+0.000} / _{-0.074}	66.00 ^{+0.000} / _{-0.074}	70.00 ^{+0.12} / _{+0.00}	26.48
MPSA-070A	58	70	20.15	20.15 ^{+0.20} / _{+0.00}	4.20 ^{+0.10} / _{+0.00}	58.00 ^{+0.000} / _{-0.074}	66.00 ^{+0.000} / _{-0.074}	70.00 ^{+0.12} / _{+0.00}	23.93
MPSA-070B	54	70	20.5	20.50 ^{+0.20} / _{+0.00}	3.10 ^{+0.10} / _{+0.00}	54.00 ^{+0.000} / _{-0.074}	66.00 ^{+0.000} / _{-0.074}	70.00 ^{+0.12} / _{+0.00}	29.50
MPSA-070	50	70	22.4	22.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	50.00 ^{+0.000} / _{-0.062}	64.20 ^{+0.000} / _{-0.074}	70.00 ^{+0.12} / _{+0.00}	23.93
MPSA-075A	59	75	20.5	20.50 ^{+0.20} / _{+0.00}	3.10 ^{+0.10} / _{+0.00}	59.00 ^{+0.000} / _{-0.074}	71.00 ^{+0.000} / _{-0.074}	75.00 ^{+0.12} / _{+0.00}	20.48
MPSA-075	55	75	22.4	22.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	55.00 ^{+0.000} / _{-0.074}	69.20 ^{+0.000} / _{-0.074}	75.00 ^{+0.12} / _{+0.00}	24.83
MPSA-080B	65	80	20	20.00 ^{+0.20} / _{+0.00}	5.00 ^{+0.10} / _{+0.00}	65.00 ^{+0.000} / _{-0.074}	76.00 ^{+0.000} / _{-0.074}	80.00 ^{+0.12} / _{+0.00}	20.56
MPSA-080	60	80	22.4	22.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	60.00 ^{+0.000} / _{-0.074}	74.20 ^{+0.000} / _{-0.074}	80.00 ^{+0.12} / _{+0.00}	27.11
MPSA-080A	66	80	22.5	22.50 ^{+0.20} / _{+0.00}	5.20 ^{+0.10} / _{+0.00}	66.00 ^{+0.000} / _{-0.074}	76.00 ^{+0.000} / _{-0.074}	80.00 ^{+0.12} / _{+0.00}	27.11
MPSA-080C	62	80	22.5	22.50 ^{+0.20} / _{+0.00}	3.60 ^{+0.10} / _{+0.00}	62.00 ^{+0.000} / _{-0.074}	76.00 ^{+0.000} / _{-0.074}	80.00 ^{+0.12} / _{+0.00}	27.11
MPSA-080D	60	80	25	25.00 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	60.00 ^{+0.000} / _{-0.074}	75.00 ^{+0.000} / _{-0.074}	80.00 ^{+0.12} / _{+0.00}	27.11

STYLE MPSA FIVE PIECE PISTON SEALS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSA-085	65	85	22.4	22.40 +0.20 +0.00	6.35 +0.10 +0.00	65.00 +0.000 -0.074	79.20 +0.000 -0.074	85.00 +0.14 +0.00	28.17
MPSA-090	70	90	22.4	22.40 +0.20 +0.00	6.35 +0.10 +0.00	70.00 +0.000 -0.074	84.20 +0.000 -0.087	90.00 +0.14 +0.00	31.37
MPSA-090B	76	90	22.5	22.50 +0.20 +0.00	5.20 +0.10 +0.00	76.00 +0.000 -0.074	86.00 +0.000 -0.087	90.00 +0.14 +0.00	31.37
MPSA-090C	72	90	22.5	22.50 +0.20 +0.00	3.60 +0.10 +0.00	72.00 +0.000 -0.074	86.00 +0.000 -0.087	90.00 +0.14 +0.00	22.32
MPSA-092	82	92	12.5	12.50 +0.20 +0.00	6.35 +0.10 +0.00	82.00 +0.000 -0.087	88.00 +0.000 -0.087	92.00 +0.14 +0.00	42.44
MPSA-095	75	95	22.4	22.40 +0.20 +0.00	6.35 +0.10 +0.00	75.00 +0.000 -0.074	89.15 +0.000 -0.087	95.00 +0.14 +0.00	43.86
MPSA-100A	85	100	20	20.00 +0.20 +0.00	5.00 +0.10 +0.00	85.00 +0.000 -0.087	96.00 +0.000 -0.087	100.00 +0.14 +0.00	44.94
MPSA-100	75	100	22.4	22.40 +0.20 +0.00	6.35 +0.10 +0.00	75.00 +0.000 -0.074	93.20 +0.000 -0.087	100.00 +0.14 +0.00	33.89
MPSA-100E	82	100	22.5	22.50 +0.20 +0.00	3.60 +0.10 +0.00	82.00 +0.000 -0.087	96.00 +0.000 -0.087	100.00 +0.14 +0.00	25.42
MPSA-100F	86	100	22.5	22.50 +0.20 +0.00	5.20 +0.10 +0.00	86.00 +0.000 -0.087	96.00 +0.000 -0.087	100.00 +0.14 +0.00	25.42
MPSA-100B	80	100	25	25.00 +0.20 +0.00	6.30 +0.10 +0.00	80.00 +0.000 -0.074	94.15 +0.000 -0.087	100.00 +0.14 +0.00	33.89
MPSA-105A	92.5	105	14.3	14.30 +0.20 +0.00	6.35 +0.10 +0.00	92.50 +0.000 -0.087	98.80 +0.000 -0.087	105.00 +0.14 +0.00	51.30
MPSA-105	80	105	22.5	22.50 +0.20 +0.00	6.35 +0.10 +0.00	80.00 +0.000 -0.074	98.10 +0.000 -0.087	105.00 +0.14 +0.00	35.61
MPSA-110E	95	110	20	20.00 +0.20 +0.00	5.00 +0.10 +0.00	95.00 +0.000 -0.087	105.00 +0.000 -0.087	110.00 +0.14 +0.00	27.07
MPSA-110	85	110	22.4	22.40 +0.20 +0.00	6.35 +0.10 +0.00	85.00 +0.000 -0.087	103.10 +0.000 -0.087	110.00 +0.14 +0.00	37.49
MPSA-110B	96	110	22.5	22.50 +0.20 +0.00	5.20 +0.10 +0.00	96.00 +0.000 -0.087	106.00 +0.000 -0.087	110.00 +0.14 +0.00	26.58
MPSA-110D	92	110	22.5	22.50 +0.20 +0.00	3.60 +0.10 +0.00	92.00 +0.000 -0.087	106.00 +0.000 -0.087	110.00 +0.14 +0.00	26.59
MPSA-110A	85	110	25	25.00 +0.20 +0.00	6.35 +0.10 +0.00	85.00 +0.000 -0.087	103.00 +0.000 -0.087	110.00 +0.14 +0.00	37.49
MPSA-110C	90	110	25.3	25.30 +0.20 +0.00	6.40 +0.10 +0.00	90.00 +0.000 -0.087	104.10 +0.000 -0.087	110.00 +0.14 +0.00	30.02
MPSA-115	90	115	22.4	22.40 +0.20 +0.00	6.35 +0.10 +0.00	90.00 +0.000 -0.087	108.10 +0.000 -0.087	115.00 +0.14 +0.00	38.94
MPSA-115B	97	115	22.5	22.50 +0.20 +0.00	3.60 +0.10 +0.00	97.00 +0.000 -0.087	111.00 +0.000 -0.087	115.00 +0.14 +0.00	39.91
MPSA-120	95	120	22.4	22.40 +0.20 +0.00	6.35 +0.10 +0.00	95.00 +0.000 -0.087	113.10 +0.000 -0.087	120.00 +0.14 +0.00	39.89
MPSA-120B	106	120	22.5	22.50 +0.20 +0.00	5.20 +0.10 +0.00	106.00 +0.000 -0.087	116.00 +0.000 -0.087	120.00 +0.14 +0.00	40.32
MPSA-125A	105	125	24.5	24.50 +0.20 +0.00	6.35 +0.10 +0.00	105.00 +0.000 -0.087	120.00 +0.000 -0.087	125.00 +0.16 +0.00	70.90
MPSA-125	100	125	25.4	25.40 +0.20 +0.00	6.35 +0.10 +0.00	100.00 +0.000 -0.087	118.00 +0.000 -0.087	125.00 +0.16 +0.00	40.67
MPSA-125E	103	125	26.5	26.50 +0.20 +0.00	5.10 +0.10 +0.00	103.00 +0.000 -0.087	121.00 +0.00 -0.10	125.00 +0.16 +0.00	42.41
MPSA-125F	108	125	26.5	26.50 +0.20 +0.00	7.20 +0.10 +0.00	108.00 +0.000 -0.087	121.00 +0.00 -0.10	125.00 +0.16 +0.00	42.41
MPSA-125G	100	125	45	45.00 +0.20 +0.00	12.70 +0.10 +0.00	100.00 +0.000 -0.087	116.80 +0.000 -0.087	125.00 +0.16 +0.00	104.63
MPSA-130	105	130	25.4	25.40 +0.20 +0.00	9.52 +0.10 +0.00	105.00 +0.000 -0.087	122.60 +0.00 -0.10	130.00 +0.16 +0.00	43.86
MPSA-135	110	135	25.4	25.40 +0.20 +0.00	6.35 +0.10 +0.00	110.00 +0.000 -0.087	128.10 +0.00 -0.10	135.00 +0.16 +0.00	44.64

STYLE MPSA FIVE PIECE PISTON SEALS



Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSA-140C	120	140	25	25.00 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	120.00 ^{+0.000} / _{-0.087}	135.00 ^{+0.00} / _{-0.10}	140.00 ^{+0.16} / _{+0.00}	44.64
MPSA-140	115	140	25.4	25.40 ^{+0.20} / _{+0.00}	9.52 ^{+0.10} / _{+0.00}	115.00 ^{+0.000} / _{-0.087}	132.60 ^{+0.00} / _{-0.10}	140.00 ^{+0.16} / _{+0.00}	44.64
MPSA-140B	115	140	25.4	25.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	115.00 ^{+0.000} / _{-0.087}	133.00 ^{+0.00} / _{-0.10}	140.00 ^{+0.16} / _{+0.00}	44.64
MPSA-140E	118	140	26.5	26.50 ^{+0.20} / _{+0.00}	5.10 ^{+0.10} / _{+0.00}	118.00 ^{+0.000} / _{-0.087}	136.00 ^{+0.00} / _{-0.10}	140.00 ^{+0.16} / _{+0.00}	27.38
MPSA-140F	123	140	26.5	26.50 ^{+0.20} / _{+0.00}	7.20 ^{+0.10} / _{+0.00}	123.00 ^{+0.00} / _{-0.10}	136.00 ^{+0.00} / _{-0.10}	140.00 ^{+0.16} / _{+0.00}	54.91
MPSA-140A	115	140	45	45.00 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	115.00 ^{+0.000} / _{-0.087}	131.70 ^{+0.00} / _{-0.10}	140.00 ^{+0.16} / _{+0.00}	94.27
MPSA-145	120	145	25.4	25.40 ^{+0.20} / _{+0.00}	9.52 ^{+0.10} / _{+0.00}	120.00 ^{+0.000} / _{-0.087}	137.60 ^{+0.00} / _{-0.10}	145.00 ^{+0.16} / _{+0.00}	54.05
MPSA-150	125	150	25.4	25.40 ^{+0.20} / _{+0.00}	9.52 ^{+0.10} / _{+0.00}	125.00 ^{+0.00} / _{-0.10}	142.60 ^{+0.00} / _{-0.10}	150.00 ^{+0.16} / _{+0.00}	51.30
MPSA-150D	125	150	25.5	25.50 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	125.00 ^{+0.00} / _{-0.10}	143.00 ^{+0.00} / _{-0.10}	150.00 ^{+0.16} / _{+0.00}	38.39
MPSA-150B	128	150	26.5	26.50 ^{+0.20} / _{+0.00}	5.10 ^{+0.10} / _{+0.00}	128.00 ^{+0.00} / _{-0.10}	146.00 ^{+0.00} / _{-0.10}	150.00 ^{+0.16} / _{+0.00}	197.50
MPSA-150C	133	150	26.5	26.50 ^{+0.20} / _{+0.00}	7.20 ^{+0.10} / _{+0.00}	133.00 ^{+0.00} / _{-0.10}	146.00 ^{+0.00} / _{-0.10}	150.00 ^{+0.16} / _{+0.00}	34.71
MPSA-150A	125	150	45	45.00 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	125.00 ^{+0.00} / _{-0.10}	141.70 ^{+0.00} / _{-0.10}	150.00 ^{+0.16} / _{+0.00}	99.05
MPSA-160B	140	160	25	25.00 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	140.00 ^{+0.00} / _{-0.10}	155.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.16} / _{+0.00}	59.00
MPSA-160	135	160	25.4	25.40 ^{+0.20} / _{+0.00}	9.50 ^{+0.10} / _{+0.00}	135.00 ^{+0.00} / _{-0.10}	152.60 ^{+0.00} / _{-0.10}	160.00 ^{+0.16} / _{+0.00}	46.55
MPSA-160A	130	160	25.4	25.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	130.00 ^{+0.00} / _{-0.10}	153.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.16} / _{+0.00}	59.00
MPSA-160F	130	160	25.4	25.40 ^{+0.20} / _{+0.00}	9.50 ^{+0.10} / _{+0.00}	130.00 ^{+0.00} / _{-0.10}	152.60 ^{+0.00} / _{-0.10}	160.00 ^{+0.16} / _{+0.00}	59.00
MPSA-160D	138	160	26.5	26.50 ^{+0.20} / _{+0.00}	5.10 ^{+0.10} / _{+0.00}	138.00 ^{+0.00} / _{-0.10}	156.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.16} / _{+0.00}	213.61
MPSA-160H	135	160	32	32.00 ^{+0.20} / _{+0.00}	10.00 ^{+0.10} / _{+0.00}	135.00 ^{+0.00} / _{-0.10}	154.00 ^{+0.00} / _{-0.10}	160.00 ^{+0.16} / _{+0.00}	151.33
MPSA-165A	140	165	25.3	25.30 ^{+0.20} / _{+0.00}	9.50 ^{+0.10} / _{+0.00}	140.00 ^{+0.00} / _{-0.10}	157.60 ^{+0.00} / _{-0.10}	165.00 ^{+0.16} / _{+0.00}	80.01
MPSA-170A	140	170	25	25.00 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	140.00 ^{+0.00} / _{-0.10}	163.00 ^{+0.00} / _{-0.10}	170.00 ^{+0.16} / _{+0.00}	144.76
MPSA-170	145	170	25.3	25.30 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	145.00 ^{+0.00} / _{-0.10}	161.70 ^{+0.00} / _{-0.10}	170.00 ^{+0.16} / _{+0.00}	66.97
MPSA-175B	150	175	25.4	25.40 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	150.00 ^{+0.00} / _{-0.10}	166.70 ^{+0.00} / _{-0.10}	175.00 ^{+0.16} / _{+0.00}	51.83
MPSA-180	155	180	25.4	25.40 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	155.00 ^{+0.00} / _{-0.10}	171.70 ^{+0.00} / _{-0.10}	180.00 ^{+0.16} / _{+0.00}	77.35
MPSA-180B	158	180	26.5	26.50 ^{+0.20} / _{+0.00}	5.10 ^{+0.10} / _{+0.00}	158.00 ^{+0.00} / _{-0.10}	176.00 ^{+0.00} / _{-0.10}	180.00 ^{+0.16} / _{+0.00}	196.91
MPSA-180C	163	180	26.5	26.50 ^{+0.20} / _{+0.00}	7.20 ^{+0.10} / _{+0.00}	163.00 ^{+0.00} / _{-0.10}	176.00 ^{+0.00} / _{-0.10}	180.00 ^{+0.16} / _{+0.00}	64.14
MPSA-180A	150	180	35.4	35.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	150.00 ^{+0.00} / _{-0.10}	173.00 ^{+0.00} / _{-0.10}	180.00 ^{+0.16} / _{+0.00}	77.35
MPSA-185	160	185	25.3	25.30 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	160.00 ^{+0.00} / _{-0.10}	176.70 ^{+0.00} / _{-0.10}	185.00 ^{+0.185} / _{+0.000}	163.94
MPSA-190	165	190	25.4	25.40 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	165.00 ^{+0.00} / _{-0.10}	181.70 ^{+0.000} / _{-0.115}	190.00 ^{+0.185} / _{+0.000}	86.09
MPSA-195	170	195	25.4	25.40 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	170.00 ^{+0.00} / _{-0.10}	187.10 ^{+0.000} / _{-0.115}	195.00 ^{+0.185} / _{+0.000}	87.08
MPSA-200	175	200	25.4	25.40 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	175.00 ^{+0.00} / _{-0.10}	191.60 ^{+0.000} / _{-0.115}	200.00 ^{+0.185} / _{+0.000}	64.52



STYLE MPSA FIVE PIECE PISTON SEALS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSA-200F	180	200	31.5	31.50 ^{+0.20} / _{+0.00}	9.20 ^{+0.10} / _{+0.00}	180.00 ^{+0.00} / _{-0.10}	196.00 ^{+0.000} / _{-0.115}	200.00 ^{+0.185} / _{+0.000}	37.02
MPSA-200A	170	200	35.4	35.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	170.00 ^{+0.00} / _{-0.10}	193.00 ^{+0.000} / _{-0.115}	200.00 ^{+0.185} / _{+0.000}	61.79
MPSA-200D	170	200	36	36.00 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	170.00 ^{+0.00} / _{-0.10}	193.00 ^{+0.000} / _{-0.115}	200.00 ^{+0.185} / _{+0.000}	63.18
MPSA-200B	175	200	45	45.00 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	175.00 ^{+0.00} / _{-0.10}	191.60 ^{+0.000} / _{-0.115}	200.00 ^{+0.185} / _{+0.000}	149.30
MPSA-210	185	210	25.4	25.40 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	185.00 ^{+0.000} / _{-0.115}	201.60 ^{+0.000} / _{-0.115}	210.00 ^{+0.185} / _{+0.000}	62.38
MPSA-220A	195	220	25.7	25.70 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	195.00 ^{+0.000} / _{-0.115}	211.60 ^{+0.000} / _{-0.115}	220.00 ^{+0.185} / _{+0.000}	93.29
MPSA-225	200	225	25.4	25.40 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	200.00 ^{+0.000} / _{-0.115}	216.60 ^{+0.000} / _{-0.115}	225.00 ^{+0.185} / _{+0.000}	38.48
MPSA-230	205	230	25.3	25.30 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	205.00 ^{+0.000} / _{-0.115}	221.60 ^{+0.000} / _{-0.115}	230.00 ^{+0.185} / _{+0.000}	64.85
MPSA-240	215	240	25.3	25.30 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	215.00 ^{+0.000} / _{-0.115}	231.60 ^{+0.000} / _{-0.115}	240.00 ^{+0.185} / _{+0.000}	46.37
MPSA-250D	225	250	25.3	25.30 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	225.00 ^{+0.000} / _{-0.115}	241.60 ^{+0.000} / _{-0.115}	250.00 ^{+0.185} / _{+0.000}	44.03
MPSA-250A	225	250	31.5	31.50 ^{+0.20} / _{+0.00}	6.60 ^{+0.10} / _{+0.00}	225.00 ^{+0.000} / _{-0.115}	246.00 ^{+0.000} / _{-0.115}	250.00 ^{+0.185} / _{+0.000}	72.72
MPSA-250B	230	250	31.5	31.50 ^{+0.20} / _{+0.00}	9.20 ^{+0.10} / _{+0.00}	230.00 ^{+0.000} / _{-0.115}	249.40 ^{+0.000} / _{-0.115}	250.00 ^{+0.185} / _{+0.000}	64.73
MPSA-250C	220	250	35.3	35.30 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	220.00 ^{+0.000} / _{-0.115}	243.00 ^{+0.000} / _{-0.115}	250.00 ^{+0.185} / _{+0.000}	126.97
MPSA-260	235	260	35.1	35.10 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	235.00 ^{+0.000} / _{-0.115}	252.90 ^{+0.00} / _{-0.13}	260.00 ^{+0.21} / _{+0.00}	92.54
MPSA-280	250	280	36.3	36.30 ^{+0.20} / _{+0.00}	10.00 ^{+0.10} / _{+0.00}	250.00 ^{+0.000} / _{-0.115}	273.00 ^{+0.00} / _{-0.13}	280.00 ^{+0.21} / _{+0.00}	134.28

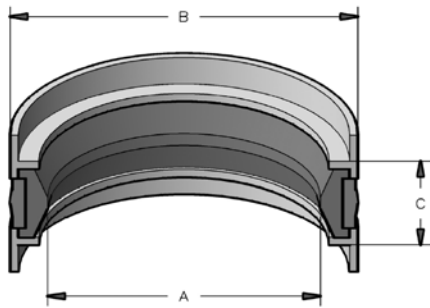
Seal color may vary. Special order sizes are available.

SPECIAL ORDER STYLE MPSA PISTON SEALS ASSEMBLIES


Part Number	List Price	Part Number	List Price	Part Number	List Price	Part Number	List Price
MPSA-022	\$ 20.06	MPSA-58-040B	\$ 34.96	MPSA-59-110A	\$ 59.87	MPSA-133.35A	\$ 74.07
MPSA-038.1	28.51	MPSA-58-045	101.95	MPSA-59-114.3A	142.33	MPSA-135A	476.82
MPSA-042	15.53	MPSA-58-063A	27.89	MPSA-59-135	105.69	MPSA-135B	48.19
MPSA-055-PDE	72.08	MPSA-58-085	42.13	MPSA-59-139.7	102.98	MPSA-140D	43.41
MPSA-060.32	30.18	MPSA-58-100B	30.17	MPSA-59-146.05	106.41	MPSA-152.4-PDE	192.88
MPSA-060D	30.41	MPSA-58-145	65.91	MPSA-59-190	264.71	MPSA-155	55.03
MPSA-063-PDE	92.79	MPSA-58-1500A	38.07	MPSA-59-200	145.61	MPSA-155A	55.35
MPSA-067	21.90	MPSA-58-150A	67.96	MPSA-101.6	71.53	*MPSA-160C	133.40
MPSA-069.85PDE	61.49	MPSA-58-170	70.96	MPSA-101.6-PDE	128.71	MPSA-177.8	140.18
MPSA-075-PDE	100.76	MPSA-58-220A	131.75	MPSA-107.95	61.25	MPSA-203.2	139.31
MPSA-076.2	44.04	MPSA-58-280	102.31	MPSA-110F	39.42	MPSA-203.2A	134.68
MPSA-080-PDE	101.71	MPSA-58-32	19.17	MPSA-115C	45.80	MPSA-220B	144.17
MPSA-090A	26.99	MPSA-58-35	20.32	MPSA-125B	44.53	MPSA-260-PDE	438.09
MPSA-090E	37.80	MPSA-59-050.8	37.35	MPSA-127	80.16	MPSA-290-PDE	533.68
MPSA-090-PDE	105.69	MPSA-59-063.5	37.75	MPSA-127A	80.16		
MPSA-092.08-PDE	117.57	MPSA-59-088.9	61.49	MPSA-127B	86.26		
MPSA-095E	34.17	MPSA-59-107.9	76.62	MPSA-130C	46.60		

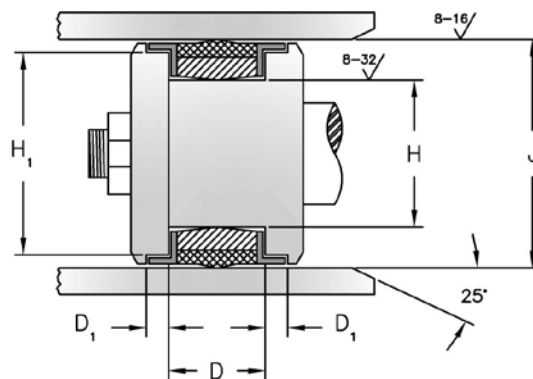
STYLE MPSB THREE PIECE PISTON SEALS

Incorporating a nitrile / fabric seal with two split bearings, this assembly affords low friction and high strength for one or two piece pistons.



PART NUMBERS

MPSB - 032B
 ↙ ↘
 Type of Seal Bore Diameter



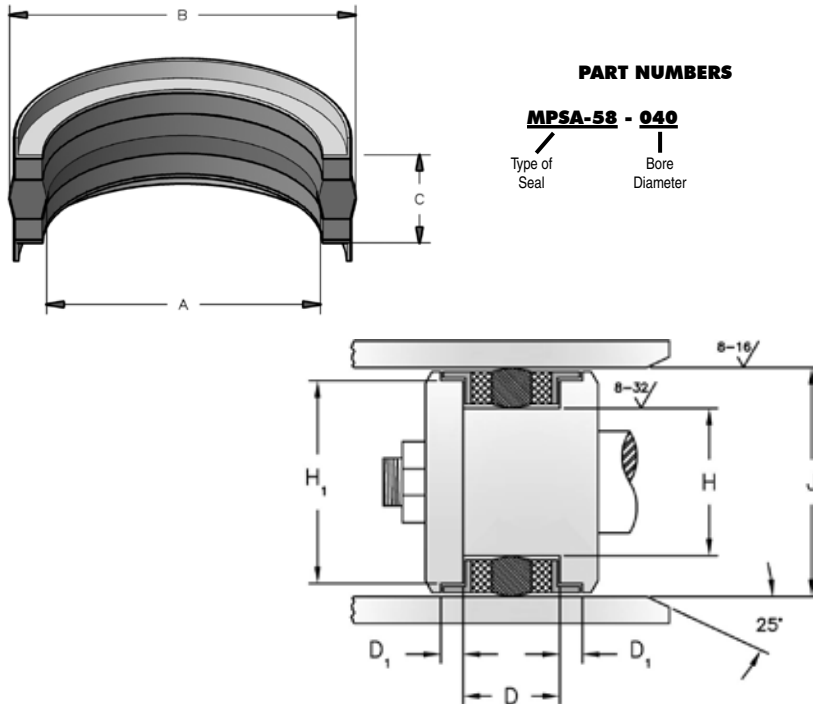
SEAL INFORMATION	
MATERIAL	70A NBR / FABRIC SEAL OD 70A NBR SEAL ID ACETAL BEARING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 5,000 PSI
SPEED	1.5 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSB-032B	24	32	16.4	10.00 +0.20 +0.00	3.20 +0.10 +0.00	24.00 +0.000 -0.052	29.00 +0.000 -0.052	32.00 +0.10 +0.00	\$24.90
MPSB-035	24	35	21.9	15.50 +0.20 +0.00	3.20 +0.10 +0.00	24.00 +0.000 -0.052	31.00 +0.000 -0.062	35.00 +0.10 +0.00	32.46
MPSB-045	34	45	21.9	15.50 +0.20 +0.00	3.20 +0.10 +0.00	34.00 +0.000 -0.062	41.00 +0.000 -0.062	45.00 +0.10 +0.00	26.28
MPSB-050A	38	50	28.9	20.50 +0.20 +0.00	4.20 +0.10 +0.00	38.00 +0.000 -0.062	46.00 +0.000 -0.062	50.00 +0.10 +0.00	16.55
MPSB-060B	48	60	28.9	20.50 +0.20 +0.00	4.20 +0.10 +0.00	48.00 +0.000 -0.062	56.00 +0.000 -0.074	60.00 +0.12 +0.00	28.38
MPSB-070	58	70	28.9	20.50 +0.20 +0.00	4.20 +0.10 +0.00	58.00 +0.000 -0.074	66.00 +0.000 -0.074	70.00 +0.12 +0.00	26.02
MPSB-080	66	80	32.9	22.50 +0.20 +0.00	5.20 +0.10 +0.00	66.00 +0.000 -0.074	76.00 +0.000 -0.074	80.00 +0.12 +0.00	33.23
MPSB-090B	76	90	32.9	22.50 +0.20 +0.00	5.20 +0.10 +0.00	76.00 +0.000 -0.074	86.00 +0.000 -0.087	90.00 +0.14 +0.00	26.97
MPSB-100F	86	100	32.9	22.50 +0.20 +0.00	5.20 +0.10 +0.00	86.00 +0.000 -0.087	96.00 +0.000 -0.087	100.00 +0.14 +0.00	36.84
MPSB-110B	96	110	32.9	22.50 +0.20 +0.00	5.20 +0.10 +0.00	96.00 +0.000 -0.087	106.00 +0.000 -0.087	110.00 +0.14 +0.00	49.82
MPSB-120B	106	120	32.9	22.50 +0.20 +0.00	5.20 +0.10 +0.00	106.00 +0.000 -0.087	116.00 +0.000 -0.087	120.00 +0.14 +0.00	42.28
MPSB-125F	108	125	40.9	26.50 +0.20 +0.00	7.20 +0.10 +0.00	108.00 +0.000 -0.087	121.00 +0.000 -0.10	125.00 +0.16 +0.00	63.55
MPSB-150	133	150	40.9	26.50 +0.20 +0.00	7.20 +0.10 +0.00	133.00 +0.000 -0.10	146.00 +0.000 -0.10	150.00 +0.16 +0.00	43.83
MPSB-160	143	160	40.9	26.50 +0.20 +0.00	7.20 +0.10 +0.00	143.00 +0.000 -0.10	156.00 +0.000 -0.10	160.00 +0.16 +0.00	91.82
MPSB-180	163	180	40.9	26.50 +0.20 +0.00	7.20 +0.10 +0.00	163.00 +0.000 -0.10	176.00 +0.000 -0.10	180.00 +0.16 +0.00	159.46

Seal color may vary. Special order sizes are available.

STYLE MPSA-58 THREE PIECE PISTON SEALS

With a nitrile seal bonded on each side by fabric material, this seal incorporates 2 full depth "L" bearings to form a very strong assembly. This seal requires a two piece piston.



SEAL INFORMATION	
MATERIAL	70A NBR / FABRIC SEAL ACETAL BEARING / BACK-UP
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 5,000 PSI
SPEED	1.5 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSA-58-040	25	40	24	24.00 ^{+0.20} / _{+0.00}	6.00 ^{+0.10} / _{+0.00}	25.00 ±0.065	34.80 ±0.05	40.00 ^{+0.16} / _{+0.00}	\$23.22
MPSA-58-050A	35	50	24	24.00 ^{+0.20} / _{+0.00}	6.00 ^{+0.10} / _{+0.00}	35.00 ±0.08	44.80 ±0.05	50.00 ^{+0.16} / _{+0.00}	15.77
MPSA-58-055	40	55	24	24.00 ^{+0.20} / _{+0.00}	5.90 ^{+0.10} / _{+0.00}	40.00 ±0.08	49.80 ±0.05	55.00 ^{+0.19} / _{+0.00}	18.71
MPSA-58-060	40	60	31	31.00 ^{+0.20} / _{+0.00}	7.00 ^{+0.10} / _{+0.00}	40.00 ±0.08	53.80 ±0.05	60.00 ^{+0.19} / _{+0.00}	20.97
MPSA-58-063B	48	63	24	24.00 ^{+0.20} / _{+0.00}	6.00 ^{+0.10} / _{+0.00}	48.00 ±0.08	57.80 ±0.05	63.00 ^{+0.19} / _{+0.00}	19.58
MPSA-58-070	50	70	31	31.00 ^{+0.20} / _{+0.00}	7.00 ^{+0.10} / _{+0.00}	50.00 ±0.08	63.80 ±0.05	70.00 ^{+0.19} / _{+0.00}	28.52
MPSA-58-080A	60	80	31	31.00 ^{+0.20} / _{+0.00}	7.00 ^{+0.10} / _{+0.00}	60.00 ±0.095	73.80 ±0.05	80.00 ^{+0.19} / _{+0.00}	25.90
MPSA-58-090A	70	90	31	31.00 ^{+0.20} / _{+0.00}	7.00 ^{+0.10} / _{+0.00}	70.00 ±0.095	83.80 ±0.05	90.00 ^{+0.22} / _{+0.00}	32.32
MPSA-58-100C	86	100	22.5	22.50 ^{+0.20} / _{+0.00}	5.20 ^{+0.10} / _{+0.00}	86.00 ±0.11	96.00 ±0.05	100.00 ^{+0.22} / _{+0.00}	23.59
MPSA-58-100	80	100	31	31.00 ^{+0.20} / _{+0.00}	7.00 ^{+0.10} / _{+0.00}	80.00 ±0.095	93.80 ±0.05	100.00 ^{+0.22} / _{+0.00}	30.17
MPSA-58-110	90	110	31	31.00 ^{+0.20} / _{+0.00}	7.00 ^{+0.10} / _{+0.00}	90.00 ±0.11	103.80 ±0.05	110.00 ^{+0.22} / _{+0.00}	54.91
MPSA-58-120	100	120	31	31.00 ^{+0.20} / _{+0.00}	7.00 ^{+0.10} / _{+0.00}	100.00 ±0.11	113.80 ±0.05	120.00 ^{+0.22} / _{+0.00}	41.65
MPSA-58-125D	108	125	26.5	26.50 ^{+0.20} / _{+0.00}	7.20 ^{+0.10} / _{+0.00}	108.00 ±0.11	121.00 ±0.05	125.00 ^{+0.25} / _{+0.00}	29.95
MPSA-58-125A	100	125	38	38.00 ^{+0.20} / _{+0.00}	9.50 ^{+0.10} / _{+0.00}	100.00 ±0.11	118.80 ±0.05	125.00 ^{+0.25} / _{+0.00}	44.03
MPSA-58-140	120	140	31	31.00 ^{+0.20} / _{+0.00}	7.00 ^{+0.10} / _{+0.00}	120.00 ±0.11	133.80 ±0.05	140.00 ^{+0.25} / _{+0.00}	80.91

STYLE MPSA-58 THREE PIECE PISTON SEALS

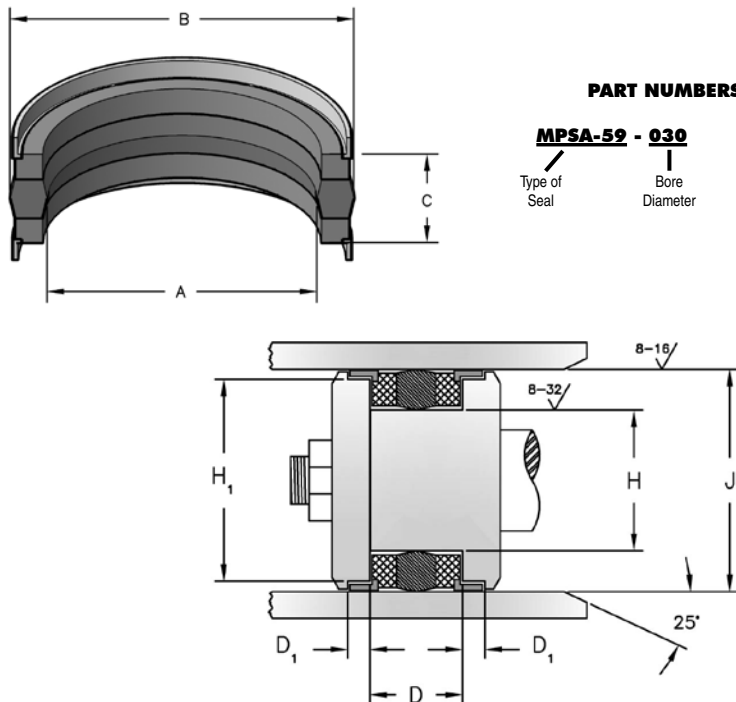
Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSA-58-150	120	150	44	44.00 ^{+0.20} / _{+0.00}	9.50 ^{+0.10} / _{+0.00}	120.00 ±0.11	143.90 ±0.05	150.00 ^{+0.25} / _{+0.00}	181.61
MPSA-58-160C	140	160	25	25.00 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	140.00 ±0.125	153.90 ±0.05	160.00 ^{+0.25} / _{+0.00}	60.18
MPSA-58-160A	140	160	31	31.00 ^{+0.20} / _{+0.00}	7.00 ^{+0.10} / _{+0.00}	140.00 ±0.125	153.90 ±0.05	160.00 ^{+0.25} / _{+0.00}	163.92
MPSA-58-180	163	180	26.5	26.50 ^{+0.20} / _{+0.00}	7.20 ^{+0.10} / _{+0.00}	163.00 ±0.125	176.00 ±0.05	180.00 ^{+0.25} / _{+0.00}	44.95
MPSA-58-190	160	190	44	44.00 ^{+0.20} / _{+0.00}	8.50 ^{+0.10} / _{+0.00}	160.00 ±0.125	183.90 ±0.05	190.00 ^{+0.29} / _{+0.00}	74.37
MPSA-58-200	170	200	35.4	35.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	170.00 ±0.125	193.00 ±0.05	200.00 ^{+0.29} / _{+0.00}	97.52
MPSA-58-220	200	220	31.5	31.50 ^{+0.20} / _{+0.00}	9.50 ^{+0.10} / _{+0.00}	200.00 ±0.145	216.00 ±0.05	220.00 ^{+0.29} / _{+0.00}	46.95

Seal color may vary. Special order sizes are available.

STYLE MPSA-59 THREE PIECE PISTON SEALS



This style is designed for two piece pistons. The seal is a molded Nitrile rubber element with bonded rubberized fabric reinforcements and two anti-extrusion polyacetal bearings.



SEAL INFORMATION	
MATERIAL	70A NBR / FABRIC SEAL ACETAL BEARING / BACK-UP
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 5,000 PSI
SPEED	1.5 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSA-59-030	17	30	15.4	15.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	17.00 ±0.055	26.50 ±0.05	30.00 ^{+0.13} / _{+0.00}	\$20.02
MPSA-59-040	24	40	18.4	18.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	24.00 ±0.065	35.40 ±0.05	40.00 ^{+0.16} / _{+0.00}	18.74
MPSA-59-050	34	50	18.4	18.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	34.00 ±0.08	45.40 ±0.05	50.00 ^{+0.16} / _{+0.00}	19.85
MPSA-59-055	39	55	18.4	18.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	39.00 ±0.08	50.40 ±0.05	55.00 ^{+0.19} / _{+0.00}	22.73
MPSA-59-060	44	60	18.4	18.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	44.00 ±0.08	55.40 ±0.05	60.00 ^{+0.19} / _{+0.00}	24.63
MPSA-59-060A	44	60	20	20.00 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	44.00 ±0.08	56.00 ±0.05	60.00 ^{+0.19} / _{+0.00}	28.00
MPSA-59-063	47	63	19.4	19.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	47.00 ±0.08	58.40 ±0.05	63.00 ^{+0.19} / _{+0.00}	27.58
MPSA-59-065	50	65	18.4	18.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	50.00 ±0.08	60.40 ±0.05	65.00 ^{+0.19} / _{+0.00}	28.44
MPSA-59-070	50	70	22.4	22.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	50.00 ±0.08	64.15 ±0.05	70.00 ^{+0.19} / _{+0.00}	28.73
MPSA-59-070A	50	70	25	25.00 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	50.00 ±0.08	64.20 ±0.05	70.00 ^{+0.19} / _{+0.00}	24.20
MPSA-59-075	55	75	22.4	22.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	55.00 ±0.095	69.20 ±0.05	75.00 ^{+0.19} / _{+0.00}	38.94
MPSA-59-080	60	80	22.4	22.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	60.00 ±0.095	74.20 ±0.05	80.00 ^{+0.19} / _{+0.00}	27.76
MPSA-59-080A	60	80	31.4	31.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	60.00 ±0.095	74.20 ±0.05	80.00 ^{+0.19} / _{+0.00}	28.03
MPSA-59-085	65	85	22.4	22.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	65.00 ±0.095	79.20 ±0.05	85.00 ^{+0.22} / _{+0.00}	28.73
MPSA-59-090	70	90	22.4	22.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	70.00 ±0.095	84.20 ±0.05	90.00 ^{+0.22} / _{+0.00}	34.21

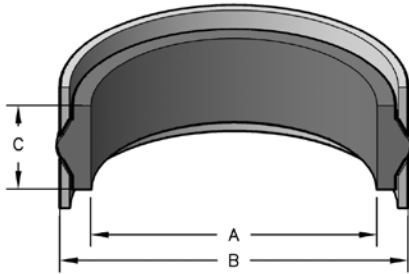
STYLE MPSA-59 THREE PIECE PISTON SEALS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSA-59-100A	75	100	22.4	22.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	75.00 ±0.095	93.10 ±0.05	100.00 ^{+0.22} / _{+0.00}	40.56
MPSA-59-100	80	100	25.4	25.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	80.00 ±0.095	94.20 ±0.05	100.00 ^{+0.22} / _{+0.00}	44.66
MPSA-59-110	90	110	25.4	25.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	90.00 ±0.11	104.10 ±0.05	110.00 ^{+0.22} / _{+0.00}	35.19
MPSA-59-120	100	120	25.4	25.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	100.00 ±0.11	114.10 ±0.05	120.00 ^{+0.22} / _{+0.00}	43.05
MPSA-59-125	100	125	25.4	25.40 ^{+0.20} / _{+0.00}	6.45 ^{+0.10} / _{+0.00}	100.00 ±0.11	118.10 ±0.05	125.00 ^{+0.25} / _{+0.00}	62.24
MPSA-59-125A	100	125	32.4	32.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	100.00 ±0.11	118.10 ±0.05	125.00 ^{+0.25} / _{+0.00}	60.66
MPSA-59-130	105	130	25.4	25.40 ^{+0.20} / _{+0.00}	6.40 ^{+0.10} / _{+0.00}	105.00 ±0.11	123.10 ±0.05	130.00 ^{+0.25} / _{+0.00}	45.34
MPSA-59-140	115	140	25.4	25.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	115.00 ±0.11	133.00 ±0.05	140.00 ^{+0.25} / _{+0.00}	68.94
MPSA-59-145	120	145	25.4	25.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	120.00 ±0.11	138.30 ±0.05	145.00 ^{+0.25} / _{+0.00}	77.21
MPSA-59-160	130	160	25.4	25.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	130.00 ±0.125	153.00 ±0.05	160.00 ^{+0.25} / _{+0.00}	58.71
MPSA-59-170	140	170	25.4	25.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	140.00 ±0.125	163.00 ±0.05	170.00 ^{+0.25} / _{+0.00}	78.22
MPSA-59-180	160	180	31.4	31.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	160.00 ±0.125	173.00 ±0.05	180.00 ^{+0.25} / _{+0.00}	78.22
MPSA-59-210	180	210	32.4	32.40 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	180.00 ±0.125	202.70 ±0.05	210.00 ^{+0.29} / _{+0.00}	85.01

Seal color may vary. Special order sizes are available.

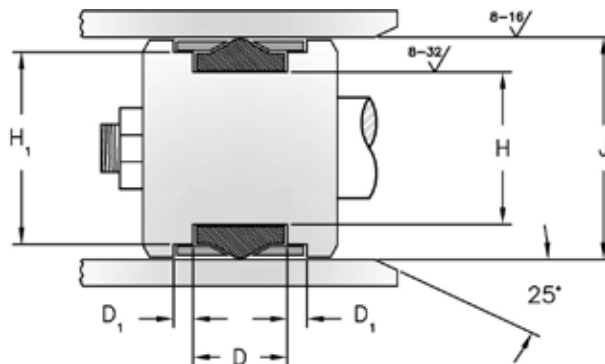
STYLE MPSA-65 THREE PIECE PISTON SEALS

Consisting of a nitrile seal and two split acetal bearing, this assembly is used in light duty applications and can be installed on one or two piece pistons.



PART NUMBERS

MPSA-65 - 025
 Type of Seal Bore Diameter



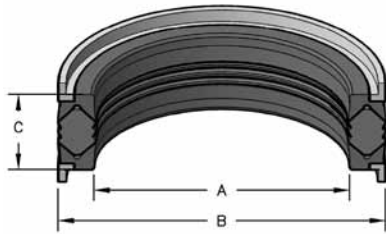
SEAL INFORMATION	
MATERIAL	NITRILE SEAL ACETAL BEARING
TEMPERATURE RANGE	-22° TO +212° F
PRESSURE RANGE	0 TO 3,000 PSI
SPEED	1.5 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSA-65-025	17.5	25	8.5	8.50 +0.20 +0.00	3.25 +0.10 +0.00	17.50 +0.000 -0.043	21.30 +0.000 -0.052	25.00 +0.084 +0.000	\$8.13
MPSA-65-040	30	40	11	11.00	4.00 +0.10 +0.00	30.00 +0.000 -0.052	35.50 +0.000 -0.062	40.00 +0.10 +0.00	10.38
MPSA-65-050	40	50	11	11.00	4.00 +0.10 +0.00	40.00 +0.000 -0.062	45.50 +0.000 -0.062	50.00 +0.10 +0.00	10.66
MPSA-65-063	53	63	11	11.00	4.00 +0.10 +0.00	53.00 +0.000 -0.074	58.50 +0.000 -0.074	63.00 +0.12 +0.00	13.75
MPSA-65-080	70	80	11	11.00	4.00 +0.10 +0.00	70.00 +0.000 -0.074	75.50 +0.000 -0.074	80.00 +0.12 +0.00	19.24
MPSA-65-100	87	100	14	14.00	6.00 +0.10 +0.00	87.00 +0.000 -0.087	93.80 +0.000 -0.087	100.00 +0.14 +0.00	38.50
MPSA-65-125	112	125	14	14.00	6.00 +0.10 +0.00	112.00 +0.000 -0.087	118.00 +0.000 -0.087	125.00 +0.16 +0.00	48.84
MPSA-65-125B	112	125	14	14.00	6.00 +0.10 +0.00	112.00 +0.000 -0.087	107.40 +0.000 -0.087	125.00 +0.16 +0.00	24.70

Seal color may vary. Special order sizes are available.

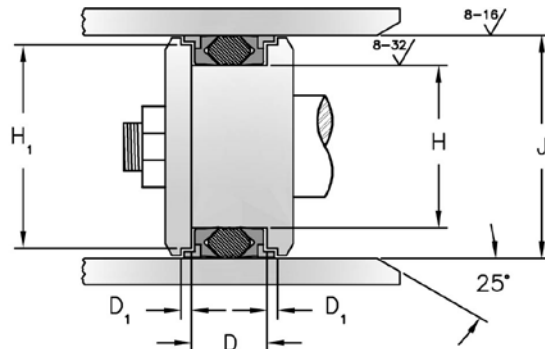
STYLE MPSA-PDE PISTON SEALS

MPSA-PDE is a double-acting piston seal designed for use on split pistons where severe vibration, shock, and high pressure exist. It consists of an NBR sealing element, two plastic support rings, and two acetal bearing rings.



PART NUMBERS

MPSA - 050 - PDE
 Type of Seal Bore Diameter Suffix



SEAL INFORMATION

MATERIAL	NITRILE PLASTIC POM
TEMPERATURE RANGE	-22° TO +230° F
PRESSURE RANGE	0 TO 8,700 PSI
SPEED	1.5 FT/SEC

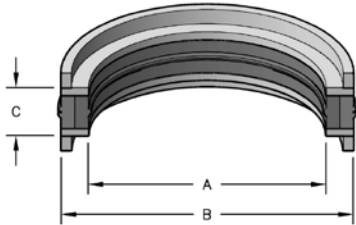
Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MPSA-050-PDE	34	50	32	32.00 ^{+0.20} / _{+0.00}	6.35 ^{+0.10} / _{+0.00}	34.00 ±0.08	43.70 ±0.05	50.00 ^{+0.16} / _{+0.00}	\$46.37
MPSA-070-PDE	50	70	35	35.00 ^{+0.20} / _{+0.00}	9.52 ^{+0.10} / _{+0.00}	50.00 ±0.08	62.62 ±0.05	70.00 ^{+0.19} / _{+0.00}	94.02
MPSA-100-PDE	80	100	35	35.00 ^{+0.20} / _{+0.00}	9.52 ^{+0.10} / _{+0.00}	80.00 ±0.095	92.60 ±0.05	100.00 ^{+0.22} / _{+0.00}	93.78
MPSA-110-PDE	85	110	45	45.00 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	85.00 ±0.11	101.82 ±0.05	110.00 ^{+0.22} / _{+0.00}	139.33
MPSA-160-PDE	135	160	45	45.00 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	135.00 ±0.125	151.72 ±0.05	160.00 ^{+0.25} / _{+0.00}	111.03
MPSA-210-PDE	185	210	45	45.00 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	185.00 ±0.145	201.60 ±0.05	210.00 ^{+0.29} / _{+0.00}	195.72
MPSA-220-PDE	195	220	45	45.00 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	195.00 ±0.145	211.60 ±0.05	220.00 ^{+0.29} / _{+0.00}	221.99
MPSA-230-PDE	205	230	45	45.00 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	205.00 ±0.145	221.72 ±0.05	230.00 ^{+0.29} / _{+0.00}	232.32
MPSA-240-PDE	215	240	45	45.00 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	215.00 ±0.145	231.72 ±0.05	240.00 ^{+0.29} / _{+0.00}	236.82
MPSA-360-PDE	335	360	44.5	44.50 ^{+0.20} / _{+0.00}	12.70 ^{+0.10} / _{+0.00}	335.00 ±0.18	351.72 ±0.05	360.00 ^{+0.36} / _{+0.00}	591.92

Seal color may vary. Special order sizes are available.

STYLE MNCF FIVE PIECE PISTON SEALS

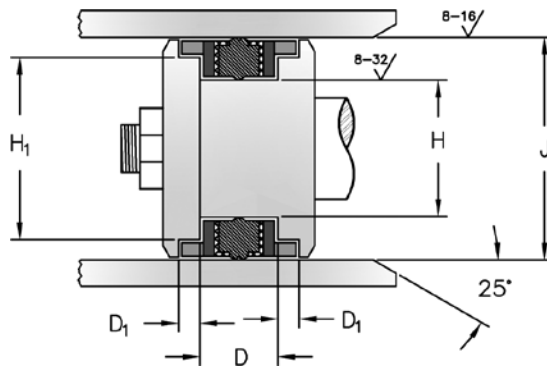


For two piece pistons, this seal incorporates a nitrile / fabric seal with two split bearings.



PART NUMBERS

MNCF - 070
 Type of Seal Bore Diameter



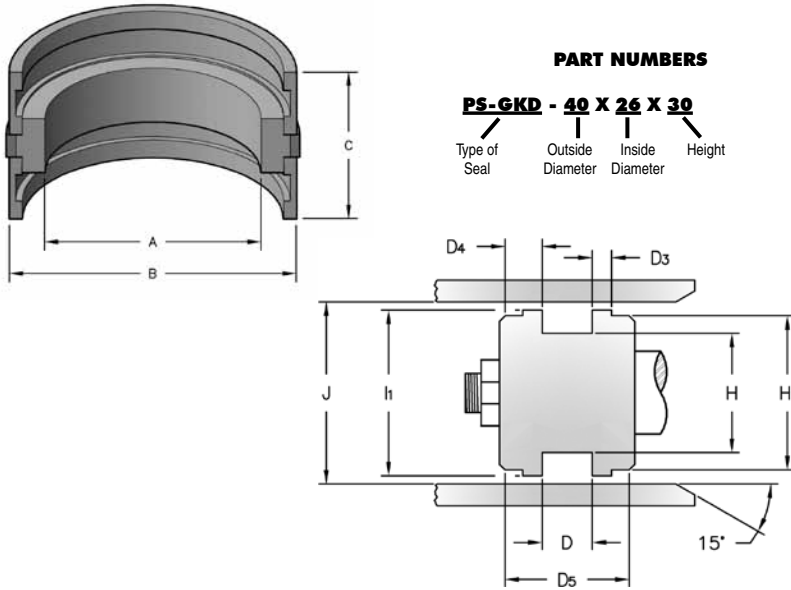
SEAL INFORMATION	
MATERIAL	NITRILE SEAL ACETAL BEARING
TEMPERATURE RANGE	-22° TO +190° F
PRESSURE RANGE	0 TO 5,000 PSI
SPEED	1.5 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D SEAL GROOVE WIDTH	D ₁ BEARING GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	J BORE DIAMETER	List Price
MNCF-070	56	70	22	22.00	7.95	56.00	61.50	70.00	\$96.45
MNCF-080	66	80	22	22.00	7.95	66.00	71.50	80.00	104.49
MNCF-090	76	90	22	22.00	7.95	76.00	81.50	90.00	112.54
MNCF-100	86	100	22	22.00	9.95	86.00	91.50	100.00	128.59
MNCF-110	96	110	22	22.00	9.95	96.00	101.50	110.00	144.65
MNCF-120	106	120	22	22.00	9.95	106.00	111.50	120.00	144.65

Seal color may vary. Special order sizes are available.

STYLE PS-GKD PISTON SEALS

PS-GKD consists of a bronze-filled PTFE cap energized by a urethane expander and guided with PTFE/bronze reinforced POM bearing rings. The standard piston construction permits use to 5200 psi pressure and the reinforced piston construction up to 8700 psi. These are genuine Hunger® parts.



SEAL INFORMATION	
MATERIAL	BRONZE/PTFE URETHANE PTFE/ BRONZE/POM
TEMPERATURE RANGE	-22° TO +248° F
PRESSURE RANGE	0 TO 8,700 PSI
SPEED	3 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	I ₁ PROTRUSION DIAMETER	J BORE DIAMETER	D ₃ PROTRUSION WIDTH	D ₅ PISTON WIDTH	D ₄ PISTON END TO GROOVE	List Price
PS-GKD40X26X30	26	40	30	15.50 +0.12 -0.05	26.00 +0.000 -0.052	32.00 -0.025 -0.064	36.00 -0.025 -0.064	40.00 +0.039 +0.000	3.50 -0.030 -0.078	30.00	7.25 +0.10 +0.00	\$124.25
PS-GKD45X31X30	31	45	30	15.50 +0.12 -0.05	31.00 +0.000 -0.062	37.00 -0.025 -0.064	41.00 -0.025 -0.064	45.00 +0.039 +0.000	3.00 -0.02 -0.06	30.00	7.25 +0.10 +0.00	146.91
PS-GKD50X34X32	34	50	32	20.50 +0.149 -0.065	34.00 +0.000 -0.062	42.00 -0.025 -0.064	46.00 -0.025 -0.064	50.00 +0.039 +0.000	3.00 -0.02 -0.06	32.00	5.80 +0.10 +0.00	129.50
PS-GKD60X44X32	44	60	32	20.50 +0.149 -0.065	44.00 +0.000 -0.062	52.00 -0.030 -0.076	56.00 -0.030 -0.076	60.00 +0.046 +0.000	3.00 -0.02 -0.06	32.00	5.80 +0.10 +0.00	145.69
PS-GKD63X47X32	47	63	32	20.50 +0.149 -0.065	47.00 +0.000 -0.062	55.00 -0.030 -0.076	59.00 -0.030 -0.076	63.00 +0.046 +0.000	3.00 -0.02 -0.06	32.00	5.80 +0.10 +0.00	146.99
PS-GKD65X49X32	49	65	32	20.50 +0.149 -0.065	49.00 +0.000 -0.062	57.00 -0.030 -0.076	61.00 -0.030 -0.076	65.00 +0.046 +0.000	3.00 -0.02 -0.06	32.00	5.80 +0.10 +0.00	145.69
PS-GKD70X54X32	54	70	32	20.50 +0.149 -0.065	54.00 +0.000 -0.074	62.00 -0.030 -0.076	66.00 -0.030 -0.076	70.00 +0.046 +0.000	3.00 -0.02 -0.06	32.00	5.80 +0.10 +0.00	153.38
PS-GKD75X59X32	59	75	32	20.50 +0.149 -0.065	59.00 +0.000 -0.074	67.00 -0.030 -0.076	71.00 -0.030 -0.076	75.00 +0.046 +0.000	3.00 -0.02 -0.06	32.00	5.80 +0.10 +0.00	145.69
PS-GKD80X62X36	62	80	36	22.50 +0.149 -0.065	62.00 +0.000 -0.074	72.00 -0.030 -0.076	76.00 -0.030 -0.076	80.00 +0.046 +0.000	3.00 -0.02 -0.06	36.00	6.80 +0.10 +0.00	161.47
PS-GKD85X67X36	67	85	36	22.50 +0.149 -0.065	67.00 +0.000 -0.074	77.00 -0.030 -0.076	81.00 -0.036 -0.090	85.00 +0.054 +0.000	3.00 -0.02 -0.06	36.00	6.80 +0.10 +0.00	153.78
PS-GKD90X72X36	72	90	36	22.50 +0.149 -0.065	72.00 +0.000 -0.074	82.00 -0.036 -0.090	86.00 -0.036 -0.090	90.00 +0.054 +0.000	3.00 -0.02 -0.06	36.00	6.80 +0.10 +0.00	160.66
PS-GKD100X82X36	82	100	36	22.50 +0.149 -0.065	82.00 +0.000 -0.087	92.00 -0.036 -0.090	96.00 -0.036 -0.090	100.00 +0.054 +0.000	3.00 -0.02 -0.06	36.00	6.80 +0.10 +0.00	157.83
PS-GKD115X97X36	97	115	36	22.50 +0.149 -0.065	97.00 +0.000 -0.087	107.00 -0.036 -0.090	111.00 -0.036 -0.090	115.00 +0.054 +0.000	3.00 -0.02 -0.06	36.00	6.80 +0.10 +0.00	184.53
PS-GKD120X102X36	102	120	36	22.50 +0.149 -0.065	102.00 +0.000 -0.087	112.00 -0.036 -0.090	116.00 -0.036 -0.090	120.00 +0.054 +0.000	3.00 -0.02 -0.06	36.00	6.80 +0.10 +0.00	188.59

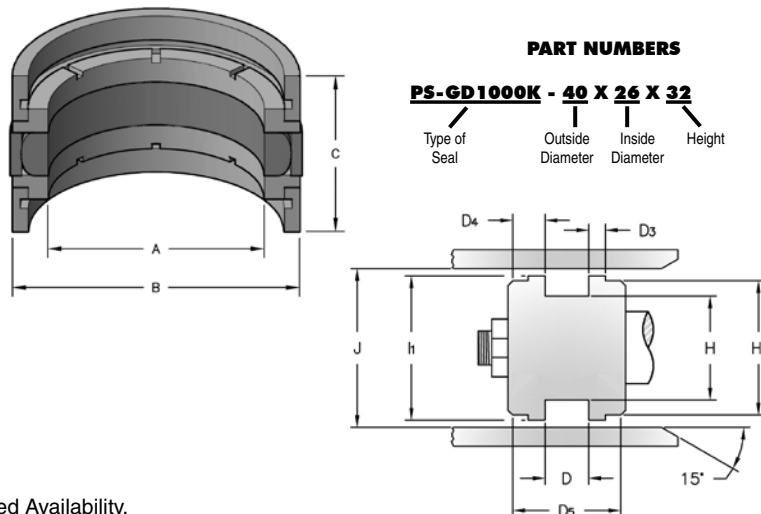
Seal color may vary. Special order sizes are available.

STYLE PS-GKD PISTON SEALS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	I ₁ PROTRUSION DIAMETER	J BORE DIAMETER	D ₃ PROTRUSION WIDTH	D ₅ PISTON WIDTH	D ₄ PISTON END TO GROOVE	List Price
PS-GKD 125X103X43	103	125	43	26.50 ^{+0.149} _{-0.065}	103.00 ^{+0.000} _{-0.087}	115.00 ^{-0.036} _{-0.090}	121.00 ^{-0.043} _{-0.106}	125.00 ^{+0.063} _{+0.000}	4.00 ^{-0.030} _{-0.078}	43.00	8.30 ^{+0.10} _{+0.00}	178.06
PS-GKD 140X118X43	118	140	43	26.50 ^{+0.149} _{-0.065}	118.00 ^{+0.000} _{-0.087}	130.00 ^{-0.043} _{-0.106}	136.00 ^{-0.043} _{-0.106}	140.00 ^{+0.063} _{+0.000}	4.00 ^{-0.030} _{-0.078}	43.00	8.30 ^{+0.10} _{+0.00}	229.87
PS-GKD 150X128X43	128	150	43	26.50 ^{+0.149} _{-0.065}	128.00 ^{+0.000} _{-0.10}	140.00 ^{-0.043} _{-0.106}	146.00 ^{-0.043} _{-0.106}	150.00 ^{+0.063} _{+0.000}	4.00 ^{-0.030} _{-0.078}	43.00	8.30 ^{+0.10} _{+0.00}	242.82
PS-GKD 160X138X43	138	160	43	26.50 ^{+0.149} _{-0.065}	138.00 ^{+0.000} _{-0.10}	150.00 ^{-0.043} _{-0.106}	156.00 ^{-0.043} _{-0.106}	160.00 ^{+0.063} _{+0.000}	4.00 ^{-0.030} _{-0.078}	43.00	8.30 ^{+0.10} _{+0.00}	259.01
PS-GKD 170X148X48	148	170	48	26.50 ^{+0.149} _{-0.065}	148.00 ^{+0.000} _{-0.10}	160.00 ^{-0.043} _{-0.106}	166.00 ^{-0.043} _{-0.106}	170.00 ^{+0.063} _{+0.000}	6.00 ^{-0.030} _{-0.078}	48.00	10.80 ^{+0.10} _{+0.00}	275.18
PS-GKD 180X158X48	158	180	48	26.50 ^{+0.149} _{-0.065}	158.00 ^{+0.000} _{-0.10}	170.00 ^{-0.043} _{-0.106}	176.00 ^{-0.043} _{-0.106}	180.00 ^{+0.063} _{+0.000}	6.00 ^{-0.030} _{-0.078}	48.00	10.80 ^{+0.10} _{+0.00}	291.37
PS-GKD 200X175X48	175	200	48	31.50 ^{+0.18} _{-0.08}	175.00 ^{+0.000} _{-0.10}	190.00 ^{-0.050} _{-0.122}	196.00 ^{-0.050} _{-0.122}	200.00 ^{+0.072} _{+0.000}	4.50 ^{-0.030} _{-0.078}	48.00	8.30 ^{+0.10} _{+0.00}	337.92
PS-GKD 220X195X58	195	220	58	31.50 ^{+0.18} _{-0.08}	195.00 ^{+0.000} _{-0.115}	210.00 ^{-0.050} _{-0.122}	216.00 ^{-0.050} _{-0.122}	220.00 ^{+0.072} _{+0.000}	8.00 ^{-0.040} _{-0.098}	58.00	13.30 ^{+0.10} _{+0.00}	377.57
PS-GKD 240X215X74	215	240	74	31.50 ^{+0.18} _{-0.08}	215.00 ^{+0.000} _{-0.115}	230.00 ^{-0.050} _{-0.122}	236.00 ^{-0.050} _{-0.122}	240.00 ^{+0.072} _{+0.000}	15.00 ^{-0.05} _{-0.12}	74.00	21.30 ^{+0.10} _{+0.00}	416.01
PS-GKD 250X225X74	225	250	74	31.50 ^{+0.18} _{-0.08}	225.00 ^{+0.000} _{-0.115}	240.00 ^{-0.050} _{-0.122}	246.00 ^{-0.050} _{-0.122}	250.00 ^{+0.072} _{+0.000}	15.00 ^{-0.05} _{-0.12}	74.00	21.30 ^{+0.10} _{+0.00}	437.86
PS-GKD 280X255X74	255	280	74	31.50 ^{+0.18} _{-0.08}	255.00 ^{+0.000} _{-0.13}	270.00 ^{-0.056} _{-0.137}	276.00 ^{-0.056} _{-0.137}	280.00 ^{+0.081} _{+0.000}	15.00 ^{-0.05} _{-0.12}	74.00	21.30 ^{+0.10} _{+0.00}	898.01

STYLE PS-GD1000K PISTON SEALS

PS-GD1000K consists of PTFE-bronze cap energized by a nitrile expander, supported by plastic back-up rings and guided with PTFE/bronze reinforced POM bearing rings. The standard piston construction permits use to 5200 psi pressure and the reinforced piston construction up to 9000 psi. These are genuine Hunger® parts.



SEAL INFORMATION	
MATERIAL	BRZ-PTFE URETHANE FILLED POM
TEMPERATURE RANGE	-22° TO +248° F
PRESSURE RANGE	0 TO 9,000 PSI
SPEED	3 FT/SEC

* Limited Availability.

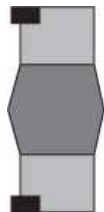
Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	I ₁ PROTRUSION DIAMETER	J BORE DIAMETER	D ₃ PROTRUSION WIDTH	D ₅ PISTON WIDTH	D ₄ PISTON END TO GROOVE	List Price
PS-GD1000K 40X26X32	26	40	32	15.50 +0.12 +0.05	26.00 +0.000 -0.052	32.00 -0.025 -0.064	36.00 -0.025 -0.064	40.00 +0.039 +0.000	3.50 -0.030 -0.078	32.00	8.25 +0.10 +0.00	\$ 169.97
PS-GD1000K 50X34X32	34	50	32	20.50 +0.149 +0.065	34.00 +0.000 -0.062	42.00 -0.025 -0.064	46.00 -0.025 -0.064	50.00 +0.039 +0.000	3.00 -0.02 -0.06	32.00	5.80 +0.10 +0.00	214.50
PS-GD1000K 50X34X39	34	50	39	20.50 +0.149 +0.065	34.00 +0.000 -0.062	42.00 -0.025 -0.064	46.00 -0.025 -0.064	50.00 +0.039 +0.000	3.00 -0.02 -0.06	39.00	9.25 +0.10 +0.00	242.82
PS-GD1000K 60X44X39	44	60	39	20.50 +0.149 +0.065	44.00 +0.000 -0.062	52.00 -0.030 -0.076	56.00 -0.030 -0.076	60.00 +0.046 +0.000	3.00 -0.02 -0.06	39.00	9.25 +0.10 +0.00	202.36
PS-GD1000K 63X47X39	47	63	39	20.50 +0.149 +0.065	47.00 +0.000 -0.062	55.00 -0.030 -0.076	59.00 -0.030 -0.076	63.00 +0.046 +0.000	3.00 -0.02 -0.06	39.00	9.25 +0.10 +0.00	201.55
PS-GD1000K 70X54X32	54	70	32	20.50 +0.149 +0.065	54.00 +0.000 -0.074	62.00 -0.030 -0.076	66.00 -0.030 -0.076	70.00 +0.046 +0.000	3.00 -0.02 -0.06	32.00	5.80 +0.10 +0.00	237.15
PS-GD1000K 70X54X39	54	70	39	20.50 +0.149 +0.065	54.00 +0.000 -0.074	62.00 -0.030 -0.076	66.00 -0.030 -0.076	70.00 +0.046 +0.000	3.00 -0.02 -0.06	39.00	9.25 +0.10 +0.00	202.36
PS-GD1000K 80X62X43	62	80	43	22.50 +0.149 +0.065	62.00 +0.000 -0.074	72.00 -0.030 -0.076	76.00 -0.030 -0.076	80.00 +0.046 +0.000	3.00 -0.02 -0.06	43.00	10.25 +0.10 +0.00	212.06
PS-GD1000K 90X72X36	72	90	36	22.50 +0.149 +0.065	72.00 +0.000 -0.074	82.00 -0.036 -0.090	86.00 -0.036 -0.090	90.00 +0.054 +0.000	3.00 -0.02 -0.06	36.00	6.80 +0.10 +0.00	263.87
PS-GD1000K 90X72X43	72	90	43	22.50 +0.149 +0.065	72.00 +0.000 -0.074	82.00 -0.036 -0.090	86.00 -0.036 -0.090	90.00 +0.054 +0.000	3.00 -0.02 -0.06	43.00	10.25 +0.10 +0.00	225.41
PS-GD1000K 100X82X36	82	100	36	22.50 +0.149 +0.065	82.00 +0.000 -0.087	92.00 -0.036 -0.090	96.00 -0.036 -0.090	100.00 +0.054 +0.000	3.00 -0.02 -0.06	36.00	6.80 +0.10 +0.00	265.47
PS-GD1000K 100X82X43	82	100	43	22.50 +0.149 +0.065	82.00 +0.000 -0.087	92.00 -0.036 -0.090	96.00 -0.036 -0.090	100.00 +0.054 +0.000	3.00 -0.02 -0.06	43.00	10.25 +0.10 +0.00	233.51
PS-GD1000K 110X92X36	92	110	36	22.50 +0.149 +0.065	92.00 +0.000 -0.087	102.00 -0.036 -0.090	106.00 -0.036 -0.090	110.00 +0.054 +0.000	3.00 -0.02 -0.06	36.00	6.80 +0.10 +0.00	279.23
PS-GD1000K 110X92X43	92	110	43	22.50 +0.149 +0.065	92.00 +0.000 -0.087	102.00 -0.036 -0.090	106.00 -0.036 -0.090	110.00 +0.054 +0.000	3.00 -0.02 -0.06	43.00	10.25 +0.10 +0.00	239.17
PS-GD1000K 115X97X43	97	115	43	22.50 +0.149 +0.065	97.00 +0.000 -0.087	107.00 -0.036 -0.090	111.00 -0.036 -0.090	115.00 +0.054 +0.000	3.00 -0.02 -0.06	43.00	10.25 +0.10 +0.00	242.82
PS-GD1000K 120X102X43	102	120	43	22.50 +0.149 +0.065	102.00 +0.000 -0.087	112.00 -0.036 -0.090	116.00 -0.036 -0.090	120.00 +0.054 +0.000	3.00 -0.02 -0.06	43.00	10.25 +0.10 +0.00	256.18
PS-GD1000K 125X103X43	103	125	43	26.50 +0.149 +0.065	103.00 +0.000 -0.087	115.00 -0.036 -0.090	121.00 -0.043 -0.106	125.00 +0.063 +0.000	4.00 -0.030 -0.078	43.00	8.30 +0.10 +0.00	271.95
PS-GD1000K 125X103X53	103	125	53	26.50 +0.149 +0.065	103.00 +0.000 -0.087	115.00 -0.036 -0.090	121.00 -0.043 -0.106	125.00 +0.063 +0.000	4.00 -0.030 -0.078	53.00	13.25 +0.10 +0.00	270.76

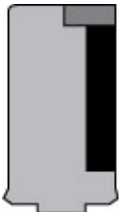
STYLE PS-GD1000K PISTON SEALS


Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	D GROOVE WIDTH	H GROOVE DIAMETER	H ₁ BEARING GROOVE DIAMETER	I ₁ PROTRUSION DIAMETER	J BORE DIAMETER	D ₃ PROTRUSION WIDTH	D ₅ PISTON WIDTH	D ₄ PISTON END TO GROOVE	List Price
PS-GD1000K 130X108X53	108	130	53	26.50 +0.149 +0.065	108.00 +0.000 -0.087	120.00 -0.036 -0.090	126.00 -0.043 -0.106	130.00 +0.063 +0.000	4.00 -0.030 -0.078	53.00	13.25 +0.10 +0.00	283.29
PS-GD1000K 140X118X43	118	140	43	26.50 +0.149 +0.065	118.00 +0.000 -0.087	130.00 -0.043 -0.106	136.00 -0.043 -0.106	140.00 +0.063 +0.000	4.00 -0.030 -0.078	43.00	8.30 +0.10 +0.00	377.49
PS-GD1000K 140X118X53	118	140	53	26.50 +0.149 +0.065	118.00 +0.000 -0.087	130.00 -0.043 -0.106	136.00 -0.043 -0.106	140.00 +0.063 +0.000	4.00 -0.030 -0.078	53.00	13.25 +0.10 +0.00	303.51
PS-GD1000K 150X128X53	128	150	53	26.50 +0.149 +0.065	128.00 +0.00 -0.10	140.00 -0.043 -0.106	146.00 -0.043 -0.106	150.00 +0.063 +0.000	4.00 -0.030 -0.078	53.00	13.25 +0.10 +0.00	323.76
PS-GD1000K 155X133X43	133	155	43	26.50 +0.149 +0.065	133.00 +0.00 -0.10	145.00 -0.043 -0.106	151.00 -0.043 -0.106	155.00 +0.063 +0.000	4.00 -0.030 -0.078	43.00	8.30 +0.10 +0.00	364.22
PS-GD1000K 160X138X43	138	160	43	26.50 +0.149 +0.065	138.00 +0.00 -0.10	150.00 -0.043 -0.106	156.00 -0.043 -0.106	160.00 +0.063 +0.000	4.00 -0.030 -0.078	43.00	8.30 +0.10 +0.00	364.22
PS-GD1000K 160X138X53	138	160	53	26.50 +0.149 +0.065	138.00 +0.00 -0.10	150.00 -0.043 -0.106	156.00 -0.043 -0.106	160.00 +0.063 +0.000	4.00 -0.030 -0.078	53.00	13.25 +0.10 +0.00	365.85
PS-GD1000K 165X143X57	143	165	57	26.50 +0.149 +0.065	143.00 +0.00 -0.10	155.00 -0.043 -0.106	161.00 -0.043 -0.106	165.00 +0.063 +0.000	6.00 -0.030 -0.078	57.00	15.25 +0.10 +0.00	416.44
PS-GD1000K 180X158X48	158	180	48	26.50 +0.149 +0.065	158.00 +0.00 -0.10	170.00 -0.043 -0.106	176.00 -0.043 -0.106	180.00 +0.063 +0.000	6.00 -0.030 -0.078	48.00	10.80 +0.10 +0.00	404.70
PS-GD1000K 180X158X57	158	180	57	26.50 +0.149 +0.065	158.00 +0.00 -0.10	170.00 -0.043 -0.106	176.00 -0.043 -0.106	180.00 +0.063 +0.000	6.00 -0.030 -0.078	57.00	15.25 +0.10 +0.00	423.31
PS-GD1000KS 185X160X48	160	185	48		160.00 +0.00 -0.10			185.00 +0.072 +0.000		48.00		445.17
PS-GD1000KS 190X165X48	165	190	48	31.50 +0.18 +0.08	165.00 +0.00 -0.10	180.00 -0.043 -0.106	186.00 -0.050 -0.122	190.00 +0.072 +0.000	4.50 -0.030 -0.078	48.00	8.30 +0.10 +0.00	472.67
PS-GD1000KS 200X175X48	175	200	48	31.50 +0.18 +0.08	175.00 +0.00 -0.10	190.00 -0.050 -0.122	196.00 -0.050 -0.122	200.00 +0.072 +0.000	4.50 -0.030 -0.078	48.00	8.30 +0.10 +0.00	456.82
PS-GD1000KS 200X175X64	175	200	64	31.50 +0.18 +0.08	175.00 +0.00 -0.10	190.00 -0.050 -0.122	196.00 -0.050 -0.122	200.00 +0.072 +0.000	4.50 -0.030 -0.078	64.00	16.25 +0.10 +0.00	562.11
PS-GD1000K 220X195X58	195	220	58	31.50 +0.18 +0.08	195.00 +0.000 -0.115	210.00 -0.050 -0.122	216.00 -0.050 -0.122	220.00 +0.072 +0.000	8.00 -0.040 -0.098	58.00	13.30 +0.10 +0.00	494.13
PS-GD1000K 220X195X71	195	220	71	31.50 +0.18 +0.08	195.00 +0.000 -0.115	210.00 -0.050 -0.122	216.00 -0.050 -0.122	220.00 +0.072 +0.000	8.00 -0.040 -0.098	71.00	19.75 +0.10 +0.00	456.90
PS-GD1000K 225X200X71	200	225	71	31.50 +0.18 +0.08	200.00 +0.000 -0.115	215.00 -0.050 -0.122	221.00 -0.050 -0.122	225.00 +0.072 +0.000	8.00 -0.040 -0.098	71.00	19.75 +0.10 +0.00	488.46
PS-GD1000K 230X205X85	205	230	85	31.50 +0.18 +0.08	205.00 +0.000 -0.115	220.00 -0.050 -0.122	226.00 -0.050 -0.122	230.00 +0.072 +0.000	15.00 -0.05 -0.12	85.00	26.75 +0.10 +0.00	526.10
PS-GD1000K 235X210X85	210	235	85	31.50 +0.18 +0.08	210.00 +0.000 -0.115	225.00 -0.050 -0.122	231.00 -0.050 -0.122	235.00 +0.072 +0.000	15.00 -0.05 -0.12	85.00	26.75 +0.10 +0.00	537.44
PS-GD1000K 240X215X85	215	240	85	31.50 +0.18 +0.08	215.00 +0.000 -0.115	230.00 -0.050 -0.122	236.00 -0.050 -0.122	240.00 +0.072 +0.000	15.00 -0.05 -0.12	85.00	26.75 +0.10 +0.00	586.00
PS-GD1000K 250X225X85	225	250	85	31.50 +0.18 +0.08	225.00 +0.000 -0.115	240.00 -0.050 -0.122	246.00 -0.050 -0.122	250.00 +0.072 +0.000	15.00 -0.05 -0.12	85.00	26.75 +0.10 +0.00	551.60
PS-GD1000K 275X250X74	250	275	74	31.50 +0.18 +0.08	250.00 +0.000 -0.115	265.00 -0.056 -0.137	271.00 -0.056 -0.137	275.00 +0.081 +0.000	15.00 -0.05 -0.12	74.00	21.30 +0.10 +0.00	954.68
PS-GD1000K 310X280X80	280	310	80	36.50 +0.18 +0.08	280.00 +0.00 -0.13	298.00 -0.056 -0.137	304.00 -0.056 -0.137	310.00 +0.081 +0.000	8.50 -0.040 -0.098	80.00	21.75 +0.10 +0.00	1456.89
PS-GD1000K 320X290X80	290	320	80	36.50 +0.18 +0.08	290.00 +0.00 -0.13	308.00 -0.056 -0.137	314.00 -0.056 -0.137	320.00 +0.089 +0.000	8.50 -0.040 -0.098	80.00	21.75 +0.10 +0.00	1276.40
PS-GD1000K 340X310X80	310	340	80	36.50 +0.18 +0.08	310.00 +0.00 -0.13	328.00 -0.062 -0.151	334.00 -0.062 -0.151	340.00 +0.089 +0.000	8.50 -0.040 -0.098	80.00	21.75 +0.10 +0.00	1520.82
PS-GD1000K 350X320X80	320	350	80	36.50 +0.18 +0.08	320.00 +0.00 -0.14	338.00 -0.062 -0.151	344.00 -0.062 -0.151	350.00 +0.089 +0.000	8.50 -0.040 -0.098	80.00	21.75 +0.10 +0.00	1639.01
PS-GD1000K 360X330X80	330	360	80	36.50 +0.18 +0.08	330.00 +0.00 -0.14	348.00 -0.062 -0.151	354.00 -0.062 -0.151	360.00 +0.089 +0.000	8.50 -0.040 -0.098	80.00	21.75 +0.10 +0.00	1821.11


Seal color may vary. Special order sizes are available.


SPECIAL ORDER PISTON SEALS ASSEMBLIES

MPDE	SEAL INFORMATION	
	MATERIAL	NBR / FABRIC / POM
	TEMPERATURE RANGE	-30° C TO +110° C
	PRESSURE RANGE	≤400 (BAR)
	SPEED	0.5 M/S

MPDS	SEAL INFORMATION	
	MATERIAL	NBR / FABRIC / POM
	TEMPERATURE RANGE	-30° C TO +110° C
	PRESSURE RANGE	≤500 (BAR)
	SPEED	0.5 M/S

MPRF	SEAL INFORMATION	
	MATERIAL	NBR / FABRIC
	TEMPERATURE RANGE	-30° C TO +110° C
	PRESSURE RANGE	≤250 (BAR)
	SPEED	0.5 M/S

MSFD	SEAL INFORMATION	
	MATERIAL	NBR / FABRIC / POM
	TEMPERATURE RANGE	-30° C TO +110° C
	PRESSURE RANGE	≤500 (BAR)
	SPEED	0.5 M/S

PSA	SEAL INFORMATION	
	MATERIAL	70A NBR SEAL NYLON BACK-UP & BEARING
	TEMPERATURE RANGE	-22° TO +212° F
	PRESSURE RANGE	0 TO 6,000 PSI
	SPEED	1.5 FT/SEC

Part Number	List Price	Part Number	List Price	Part Number	List Price
MPDE-20	\$ 23.87	MPDE- 135	\$ 61.49	MPRF-13X25X7.5	\$ 11.76
MPDE-45	26.50	MPDE- 150	108.16	MPRF-15X27X7.5	11.83
MPDE- 48	29.24	MPDE-155	114.06	MPRF-16X28X7.5	11.83
MPDE- 60	47.40	MPDS-40X52X21	26.81	MPRF-18X30X8	12.79
MPDE- 63	47.47	MPDS-41X53X21	35.20	MPRF-20X32X7.5	12.79
MPDE- 70	67.70	MPDS-65X80X21	34.72	MPRF-22X34X7.5	13.24
MPDE- 80	47.43	MPDS-80X95X21	38.20	MPRF-23X35X7.5	13.24
MPDE- 90	48.02	MPDS-100X115X28.5	54.52	MPRF-25X35X8.5	13.56
MPDE- 115	62.12	MPRF-12X24X7.5	11.76	MPRF-25X40X9.5	14.12

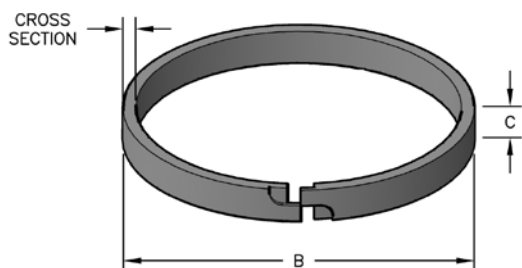


SPECIAL ORDER PISTON SEALS ASSEMBLIES

Part Number	List Price	Part Number	List Price	Part Number	List Price
MPRF-28X38X8.2	\$ 39.55	MPRF-85X100X13	\$ 27.87	MPRF-230X260X19	\$ 120.36
MPRF-30X40X7	14.12	MPRF-90X110X12.5	30.68	MPRF-300X330X19	124.32
MPRF-30X45X9.5	15.15	MPRF-95X115X12.5	32.01	MSFD-45X60X10	20.36
MPRF-32X47X9.5	15.67	MPRF-100X125X15.5	48.13	MSFD-80X100X12.5	11.27
MPRF-33X50X14	19.31	MPRF-100X120X13	39.55	MSFD-95X115X13	20.36
MPRF-35X55X12.5	16.93	MPRF-110X130X13	39.55	MSFD-105X130X17	30.17
MPRF-40X50X7	16.04	MPRF-115X140X15	54.27	MSFD-120X140X15	30.97
MPRF-40X60X12	18.26	MPRF-120X140X14	54.27	MSFD-120X150X18	31.76
MPRF-45X60X9.5	17.52	MPRF-120X150X19	70.83	MSFD-150X180X18.8	57.60
MPRF-45X65X12.5	19.81	MPRF-125X150X15.5	59.00	MSFD-195X225X19	58.39
MPRF-48X63X9.5	18.85	MPRF-135X160X20	75.48	PSA-59-2625	16.45
MPRF-50X65X9.5	19.97	MPRF-140X165X15.5	63.65	PSA-65-3250	37.44
MPRF-55X72X11	21.29	MPRF-150X180X19	84.94	PSA-125A	27.43
MPRF-55X75X12.5	21.88	MPRF-160X180X17	70.83	PSA-125B	27.43
MPRF-60X80X13	23.07	MPRF-160X190X19	89.74	PSA-2500A	18.97
MPRF-65X80X9.5	39.55	MPRF-170X200X19	94.40	PSA-2620	19.30
MPRF-65X85X12.5	24.25	MPRF-180X210X19	96.70		
MPRF-75X95X12	26.69	MPRF-195X225X19	103.80		

STYLE MSPR PISTON RING

Machined from iron, most employ an overlapped joint which allows the passing of ports.



PART NUMBERS

MSPR - 40 X 2 X 2

Type of Seal Outside Diameter Width Radial Wall

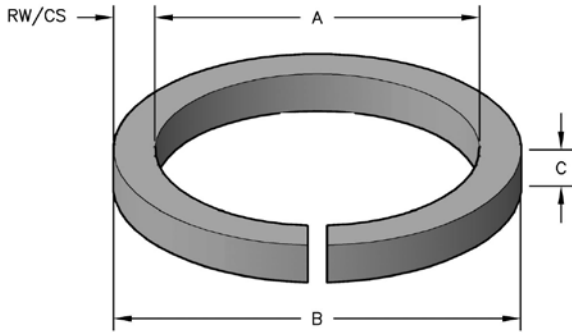
SEAL INFORMATION

MATERIAL

IRON

Part Number	B Nom. OD	C Nom. Ht	Nom. Cross Section	List Price
MSPR-40X2X2	40	2	2	\$12.54
MSPR-45X2.5X2.2	45	2.2	2.5	12.54
MSPR-50X2X2	50	2	2	12.54
MSPR-50X2.5X2.3	50	2.5	2.3	12.54
MSPR-55X3X2.5	55	2.5	3	14.01
MSPR-90X4X3.5	90	3.5	4	22.71
MSPR-95X4X4	95	4	4	27.27
MSPR-100X4X4.7	100	4	4.7	78.85
MSPR-100X4.7X4.2	100	4.7	4.2	92.87
MSPR-105X4X4.4	105	4	4.4	27.82
MSPR-115X4X4.7	115	4.7	4	51.43
MSPR-120X4X5	120	5	4	54.86
MSPR-125X4X4.8	125	4	4.8	28.45
MSPR-130X4X5.4	130	4	5.4	58.26
MSPR-130X6.3X3.75	130	6.3	3.75	46.90
MSPR-135X4X5.4	135	5.4	4	35.73
MSPR-135X6.3X3.75	135	6.3	3.75	31.15
MSPR-140X4X5.7	140	5.7	4	42.23
MSPR-145X4X6	145	4	6	45.61
MSPR-150X4X6.3	150	4	6.3	48.09
MSPR-160X4X6.55	160	6.55	4	49.36
MSPR-160X7.88X5.55	160	7.88	5.55	49.85
MSPR-170X4X7	170	4	7	53.13
MSPR-185X4X7.55	185	4	7.55	59.75
MSPR-200X7.88X6.8	200	7.88	6.8	67.23

STYLE MBR PISTON RING



PART NUMBERS

MBR - 70 X 6 X 6

Type of Seal Outside Diameter Width Radial Wall

SEAL INFORMATION

MATERIAL	BRONZE
SPEED	3 FT/SEC

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	Nom. Cross Section	List Price
MBR-70X6X6	58	70	6	6	\$36.31
MBR-80X6X6	68	80	6	6	45.49

Seal color may vary. Special order sizes are available.