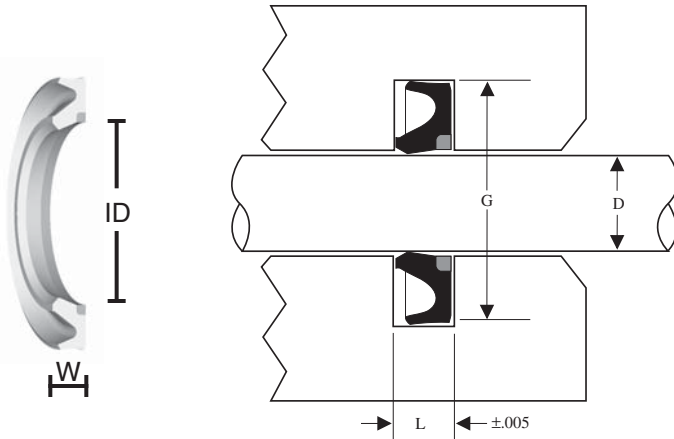


STYLE DYR ROD BUFFER SEALS

This U-cup style buffer ring offers an asymmetric sealing lip profile, chamfered sealing edges, and pressure relieving capabilities to prevent inner pressure entrapment when employed in a tandem sealing system. This rod buffer seal is designed to absorb impact pressure fluctuations under high-load conditions thus increasing the life of the primary seal.



SEAL INFORMATION

MATERIAL	URETHANE U-STYLE POLYACETAL BACK-UP
TEMPERATURE RANGE	-40° TO +230° F
PRESSURE RANGE	0 TO 8,000 PSI
PART NUMBER	(Prefix)(CS) - (Inside Dia) (O-Ring CS)

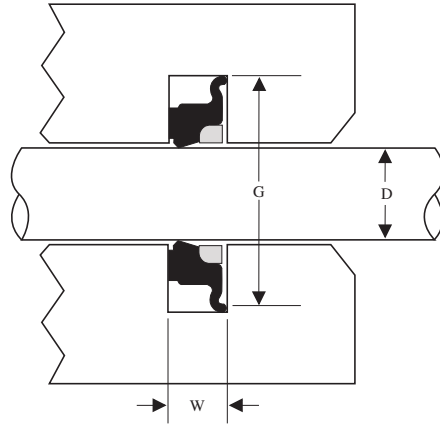
Part Number	D Nominal Rod Dia. Seal ID	G Groove Diameter	W Seal Width	L Groove Width	Diametrical Clearance Gap			List Price
					1000 PSI	3000 PSI	5000 PSI	
DYR28-1.25-12	1-1/4	1.819 ±0.004	1/8	0.140 ±0.005	0.012	0.008	0.005	\$ 11.47
DYR28-1.50-12	1-1/2	2.067 ±0.004	1/8	0.140 ±0.005	0.012	0.008	0.005	13.24
DYR28-1.75-12	1-3/4	2.319 ±0.004	1/8	0.140 ±0.005	0.012	0.008	0.005	15.03
DYR28-2.00-12	2	2.567 ±0.004	1/8	0.140 ±0.005	0.012	0.008	0.005	16.80
DYR31-2.75-22BU	2-3/4	3.402 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018	22.13
DYR31-3.00-22BU	3	3.649 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018	23.91
DYR31-4.00-22BU	4	4.669 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018	30.99
DYR32-1.75-20BU	1-3/4	2.395 ±0.005	0.22	0.220 ±0.005	0.030	0.022	0.018	17.46
DYR34-2.25-22BU	2-1/4	2.929 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018	18.60
DYR34-2.50-22BU	2-1/2	3.177 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018	20.35
DYR34-3.50-22BU	3-1/2	4.169 ±0.004	3/16	0.234 ±0.005	0.030	0.022	0.018	27.47

Part Number	D Nominal Rod Dia. Seal ID	G Groove Diameter	W Seal Width	L Groove Width	Diametrical Clearance Gap			List Price
					1000 PSI	3000 PSI	5000 PSI	
DYR-25003	2-1/2	3.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	\$ 31.59
DYR-27503	2-3/4	3.366 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	26.19
DYR-30003	3	3.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	36.96
DYR-35003	3-1/2	4.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	37.71
DYR-40003	4	4.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	51.94
DYR-45003	4-1/2	5.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	64.60
DYR-47503	4-3/4	5.366 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	66.69
DYR-50003	5	5.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	68.70
DYR-55003	5-1/2	6.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	67.04
DYR-60003	6	6.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	63.09
DYR-65003	6-1/2	7.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	69.82
DYR-70003	7	7.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	75.49
DYR-75003	7-1/2	8.116 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	76.81
DYR-80003	8	8.616 +0.005/-0	0.235	0.247 +0.010/-0	0.030	0.022	0.018	81.00

STYLE DYM ROD BUFFER SEALS



Buffer seals have an asymmetric sealing profile that offers improved performance in small diameter applications and pressure relieving capabilities to prevent pressure entrapment in tandem sealing systems. DYM Style Rod Buffer Seals can also be used to retrofit DYR and KR applications when properly sized.



SEAL INFORMATION

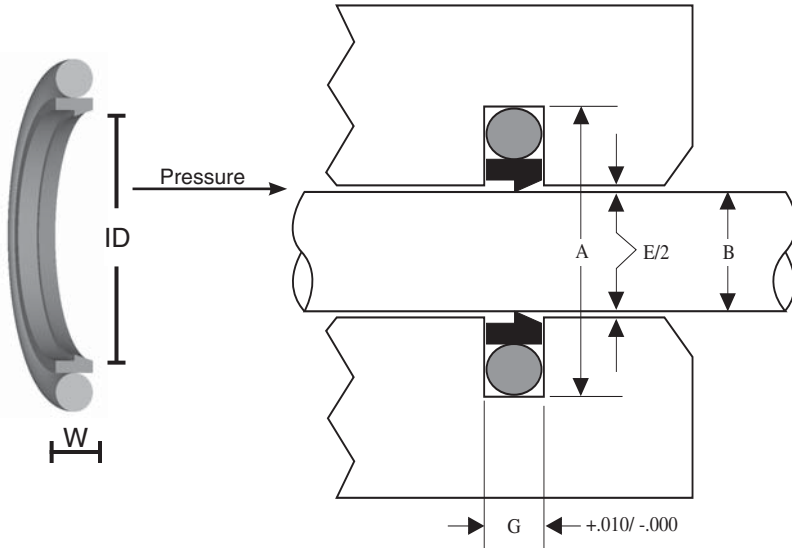
MATERIAL	URETHANE SEAL NYLON BACK-UP
TEMPERATURE RANGE	-40° TO +225° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Inside Dia) (O-Ring CS)

ROD BUFFER SEALS

Part Number	D Nominal Rod Dia. Seal ID	G Groove Diameter	H Seal Width	W Groove Width	Diametrical Clearance Gap			List Price
					1000 PSI	3000 PSI	5000 PSI	
DYM-10002	1	1.424 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018	\$ 22.35
DYM-12502	1-1/4	1.674 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018	22.35
DYM-15002	1-1/2	1.924 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018	20.15
DYM-17502	1-3/4	2.174 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018	21.01
DYM-17503	1-3/4	2.366 +0.005/-0	0.235 ±0.005	0.247 +0.010/-0	0.030	0.022	0.018	21.52
DYM-20002	2	2.424 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018	22.62
DYM-20003	2	2.616 +0.005/-0	0.235 ±0.005	0.247 +0.010/-0	0.030	0.022	0.018	24.34
DYM-22502	2-1/4	2.674 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018	25.27
DYM-25002	2-1/2	2.924 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018	22.81
DYM-25003	2-1/2	3.116 +0.005/-0	0.235 ±0.005	0.247 +0.010/-0	0.030	0.022	0.018	31.59
DYM-27502	2-3/4	3.174 +0.005/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018	26.19
DYM-27503	2-3/4	3.366 +0.005/-0	0.235 ±0.005	0.247 +0.010/-0	0.030	0.022	0.018	26.19
DYM-30002	3	3.424 +0.004/-0	0.155 ±0.005	0.166 +0.010/-0	0.030	0.022	0.018	29.64
DYM-30003	3	3.616 +0.005/-0	0.235 ±0.005	0.247 +0.010/-0	0.030	0.022	0.018	36.96

STYLE KR ROD BUFFER SEALS

Molded in PTFE with a rubber energizer, this seal absorbs the shock of pressure spikes to protect the rod seal.



SEAL INFORMATION

MATERIAL	BRONZE FILLED PTFE SEAL RUBBER ENERGIZER
TEMPERATURE RANGE	-40° TO +220° F
PRESSURE RANGE	0 TO 5,000 PSI
PART NUMBER	(Prefix) - (Inside Dia) (O-Ring CS)

ROD BUFFER SEALS

Part Number	B Nominal Rod Dia. Seal ID	A Groove Diameter	W Seal Width	G Groove Width	E - Maximum Diametrical Clearance			List Price
					1000 PSI	3000 PSI	5000 PSI	
KR-05001	1/2	0.798 +0.003/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004	\$ 3.93
KR-10001	1	1.298 +0.004/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004	13.25
KR-10002	1	1.433 +0.004/-0	.155±.005	0.165 +0.008/-0	0.016	0.008	0.006	6.74
KR-11201	1-1/8	1.423 +0.003/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004	13.54
KR-12501	1-1/4	1.548 +0.003/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004	15.75
KR-12502	1-1/4	1.674 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006	16.76
KR-13702	1-3/8	1.799 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006	18.30
KR-15001	1-1/2	1.798 +0.003/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004	15.36
KR-15002	1-1/2	1.924 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006	18.30
KR-15003	1-1/2	2.116 +0.004/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	11.80
KR-17501	1-3/4	2.048 +0.003/-0	.122±.005	0.126 +0.010/-0	0.012	0.006	0.004	31.12
KR-17502	1-3/4	2.174 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006	19.10
KR-17503	1-3/4	2.366 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	19.55
KR-18702	1-7/8	2.299 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006	16.40
KR-20002	2	2.424 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006	20.56
KR-20003	2	2.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	22.13
KR-21202	2-1/8	2.549 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006	21.73
KR-22502	2-1/4	2.674 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006	22.99
KR-25002	2-1/2	2.924 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006	20.72
KR-25003	2-1/2	3.116 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	28.70

STYLE KR ROD BUFFER SEALS

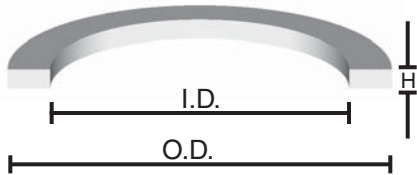


ROD BUFFER SEALS

Part Number	B Nominal Rod Dia. Seal ID	A Groove Diameter	W Seal Width	G Groove Width	E - Maximum Diametrical Clearance			List Price
					1000 PSI	3000 PSI	5000 PSI	
KR-26203	2-5/8	3.241 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	\$ 27.68
KR-27503	2-3/4	3.366 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	23.79
KR-30002	3	3.424 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006	26.95
KR-30003	3	3.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	33.61
KR-32503	3-1/4	3.866 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	33.91
KR-35003	3-1/2	4.116 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	34.26
KR-37503	3-3/4	4.366 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	44.62
KR-40002	4	4.424 +0.004/-0	.155±.005	0.166 +0.010/-0	0.016	0.008	0.006	42.37
KR-40003	4	4.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	47.23
KR-40004	4	4.830 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009	43.08
KR-45003	4-1/2	5.116 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	58.70
KR-45004	4-1/2	5.330 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009	56.25
KR-47503	4-3/4	5.366 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	60.61
KR-50003	5	5.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	62.45
KR-50004	5	5.830 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009	62.88
KR-55004	5-1/2	6.330 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009	66.33
KR-57504	5-3/4	6.580 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009	59.74
KR-60003	6	6.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	57.34
KR-60004	6	6.830 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009	59.72
KR-65003	6-1/2	7.116 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	29.86
KR-67504	6-3/4	7.580 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009	74.04
KR-70003	7	7.616 +0.005/-0	.235±.005	0.247 +0.010/-0	0.020	0.010	0.008	68.63
KR-70004	7	7.830 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009	80.99
KR-82504	8-1/4	9.080 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009	119.00
KR-90004	9	9.830 +0.006/-0	.305±.005	0.320 +0.010/-0	0.024	0.012	0.009	82.38

STYLE RBS ROD BUFFER SEALS

The RBS style rod buffer seals are a rectangular urethane buffer ring designed to absorb pressure fluctuations to protect the primary rod seal. Some sizes include a radial and axial slot, which faces the pressure, to relieve back pressure between the primary and buffer seal. This simple design is commonly found on older construction equipment.



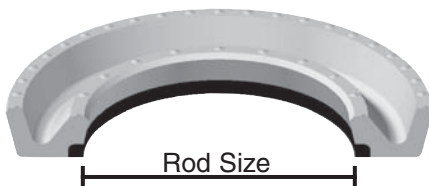
SEAL INFORMATION

MATERIAL	92A URETHANE
TEMPERATURE RANGE	-40° TO +200° F
PRESSURE RANGE	0 TO 5,000 PSI

Part Number	ID	OD	H.	List Price
RBS-1.2X1.6	1.250	1.620	0.118	\$ 11.98
RBS-1.50X2.00SL	1.500	2.000	0.118	4.78
RBS-1.75X2.25SL	1.750	2.250	0.118	5.14
RBS-2.00X2.50SL	2.000	2.500	0.118	5.65
RBS-2.25X2.87SL	2.250	2.870	0.190	6.29
RBS-2.50X3.12SL	2.500	3.120	0.190	6.84
RBS-3.00X3.62SL	3.000	3.620	0.190	12.48
RBS-4.0X4.4X.19	4.000	4.380	0.190	4.97
RBS-4.5X5.2X.17	4.500	5.220	0.170	17.43
RBS-6X6.7X.17	6.000	6.720	0.170	22.16
RBS-7.5X8.2X.17	7.500	8.220	0.170	23.70

CATERPILLAR® SPECIFIC BUFFER SEALS - DYP STYLE

These lip-type buffer seals are designed for replacement in Caterpillar® cylinders. The hinged-lip design reduces friction, heat, and wear under low-pressure conditions and acts as a check valve allowing back-pressure relief. Seals for rod sizes 2-1/8" and under do not have a back-up ring.



SEAL INFORMATION

MATERIAL	URETHANE
TEMPERATURE RANGE	-22° TO +230° F
PRESSURE RANGE	0 TO 6,000 PSI

Part Number	Rod Size	List Price
CTC-1672186	1 1/2	\$ 2.51
CTC-1672190	1 3/4	3.07
CTC-1672192	1 7/8	3.41
CTC-1672195	2	3.57
CTC-1672198	2 1/8	3.93
CTC-1672200	2 1/4	4.28
CTC-1672201	2 1/2	4.86

Part Number	Rod Size	List Price
CTC-1672202	2 3/8	\$ 4.80
CTC-1672207	2 3/4	6.35
CTC-1672208	3	6.52
CTC-1672209	3 1/4	6.86
CTC-1672211	3 1/2	7.41
CTC-1672214	3 3/4	8.56
CTC-1672216	4	10.03