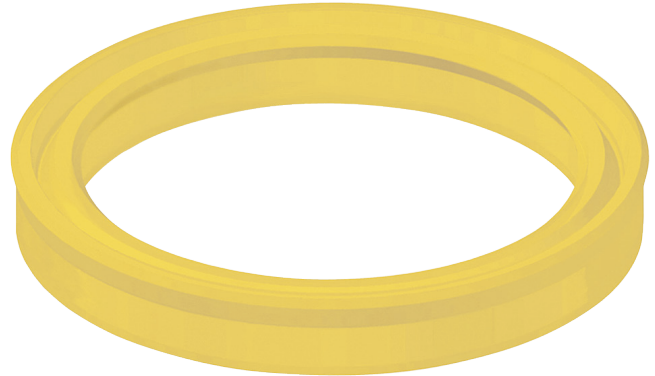


Material	Temp. Range
Urethane	-54°C to 105°C



Rod (RO)
Standard Lip (STD)



Rod (RO)
Double Lip (DL)



Symmetrical (SY)



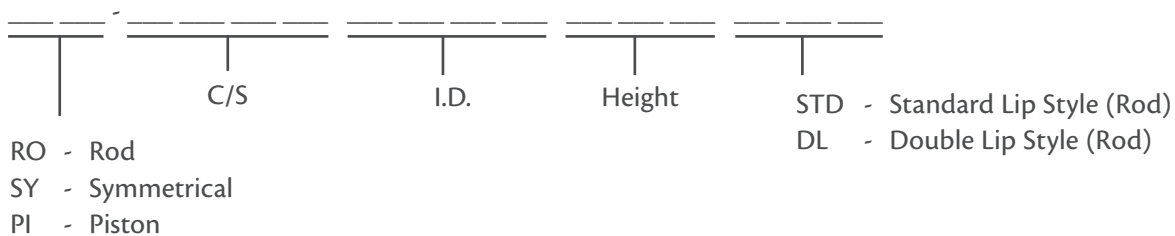
Piston (PI)

Product Description

Urethane U-cups are designed to provide an excellent heavy duty seal for both piston and rod applications. Urethane U-cups work in both static and dynamic applications.

The non-symmetric urethane U-cups provide customers with additional benefits including reduced seal movement, increased stability in static applications, and protection of the dynamic lip during installation. Rod styles provide improved sealability on the I.D., while piston styles provide improved sealability on the O.D.

Part Numbers:

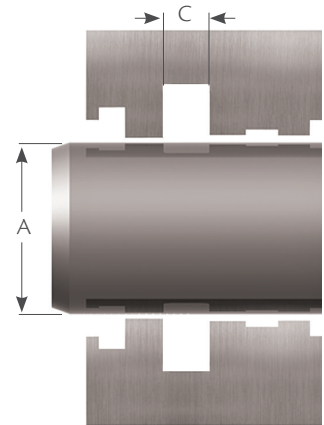


Example: RO 1870 0625 375 DL - Rod Style, Double Lip Seal, 3/16" C/S, 5/8" I.D., 3/8" Height

Urethane U-Cups

IMPERIAL SEALS

Rod Style



Urethane U-cups fit into standard and deep loaded U-cup glands. For groove dimensions please reference the loaded U-cup section, which starts on page 39.

* Can be used for RO and SY

Part Number	C/S	A Shaft Diameter	C Groove Width
RO 12500375187DL	1/8	3/8	3/16
RO 12500500187STD	1/8	1/2	3/16
RO 12500625187DL	1/8	5/8	3/16
RO 12500625250STD	1/8	5/8	1/4
RO 12500750187DL	1/8	3/4	3/16
RO 12500750250STD	1/8	3/4	1/4
RO 12501000187DL	1/8	1	3/16
RO 12501000250STD	1/8	1	1/4
RO 12501000250DL	1/8	1	1/4
RO 12501062187DL	1/8	1 - 1/16	3/16
RO 12501062250DL	1/8	1 - 1/16	1/4
RO 12501125187DL	1/8	1 - 1/8	3/16
RO 12501125250DL	1/8	1 - 1/8	1/4
RO 12501250187DL	1/8	1 - 1/4	3/16
RO 12501375250DL	1/8	1 - 3/8	1/4
RO 12501500250DL	1/8	1 - 1/2	1/4
RO 12501625250DL	1/8	1 - 5/8	1/4
RO 12501750250DL	1/8	1 - 3/4	1/4
RO 15601500312DL	5/32	1 - 1/2	5/16
RO 18700500312DL	3/16	1/2	5/16
RO 18700625250STD	3/16	5/8	1/4
RO 18700625375DL	3/16	5/8	3/8
RO 18700750312DL	3/16	3/4	5/16
RO 18700875312DL	3/16	7/8	5/16
RO 18701125312STD	3/16	1 - 1/8	5/16
RO 18701125312DL	3/16	1 - 1/8	5/16
RO 18701250250STD	3/16	1 - 1/4	1/4
RO 18701250250DL	3/16	1 - 1/4	1/4
RO 18701250312STD	3/16	1 - 1/4	5/16
RO 18701250375DL	3/16	1 - 1/4	3/8
RO 18701375312DL	3/16	1 - 3/8	5/16
RO 18701500250DL	3/16	1 - 1/2	1/4
RO 18701500250DL	3/16	1 - 1/2	1/4

Part Number	C/S	A Shaft Diameter	C Groove Width
RO 18701750250DL	3/16	1 - 3/4	1/4
RO 18701750312DL	3/16	1 - 3/4	5/16
RO 18701750375STD	3/16	1 - 3/4	3/8
RO 18701750375DL	3/16	1 - 3/4	3/8
RO 18701875375DL	3/16	1 - 7/8	3/8
RO 18702000187DL	3/16	2	3/16
RO 18702000312STD	3/16	2	5/16
RO 18702000375DL	3/16	2	3/8
RO 18702125375DL	3/16	2 - 1/8	3/8
RO 18702250312STD	3/16	2 - 1/4	5/16
RO 18702250312DL	3/16	2 - 1/4	5/16
RO 18702500312STD	3/16	2 - 1/2	5/16
RO 18702500375DL	3/16	2 - 1/2	3/8
RO 18703000375DL	3/16	3	3/8
RO 18703500375DL	3/16	3 - 1/2	3/8
RO 18704000375DL	3/16	4	3/8
RO 18704500375DL	3/16	4 - 1/2	3/8
RO 18705000375DL	3/16	5	3/8
RO 25001000250STD	1/4	1	1/4
RO 25001125375STD	1/4	1 - 1/8	3/8
RO 25001125375DL	1/4	1 - 1/8	3/8
RO 25001375375DL	1/4	1 - 3/8	3/8
RO 25001500312STD	1/4	1 - 1/2	5/16
RO 25001500375DL	1/4	1 - 1/2	3/8
RO 25001750375STD	1/4	1 - 3/4	3/8
RO 25001750375DL	1/4	1 - 3/4	3/8
RO 25001875375DL	1/4	1 - 7/8	3/8
RO 25002000375STD	1/4	2	3/8
RO 25002000375DL	1/4	2	3/8
RO 25002250375DL	1/4	2 - 1/4	3/8
RO 25002500375STD	1/4	2 - 1/2	3/8
RO 25002500375DL	1/4	2 - 1/2	3/8
RO 25002625375DL	1/4	2 - 5/8	3/8

Urethane U-Cups

Rod Style

Part Number	C/S	A Shaft Diameter	C Groove Width
RO 18701500312STD	3/16	1 - 1/2	5/16
RO 18701500312DL	3/16	1 - 1/2	5/16
RO 18701500375DL	3/16	1 - 1/2	3/8
RO 25003500375STD	1/4	3 - 1/2	3/8
RO 25004000562DL	1/4	4	9/16
RO 25004500375DL	1/4	4 - 1/2	3/8
RO 25004500562STD	1/4	4 - 1/2	9/16
RO 25005500562STD	1/4	5 - 1/2	9/16
RO 31202000500DL	5/16	2	1/2
RO 31202375375STD	5/16	2 - 3/8	3/8
RO 31202500500DL	5/16	2 - 1/2	1/2
RO 31202625500DL	5/16	2 - 5/8	1/2
RO 31202750625DL	5/16	2 - 3/4	5/8
RO 31203000500DL	5/16	3	1/2
RO 31203375562DL	5/16	3 - 3/8	9/16
RO 31203500500DL	5/16	3 - 1/2	1/2

Part Number	C/S	A Shaft Diameter	C Groove Width
RO 25002625500DL	1/4	2 - 5/8	1/2
RO 25002750375DL	1/4	2 - 3/4	3/8
RO 25003000375STD	1/4	3	3/8
RO 31205250625DL	5/16	5 - 1/4	5/8
RO 31205750625STD	5/16	5 - 3/4	5/8
RO 37502000625DL	3/8	2	5/8
RO 37502500625DL	3/8	2 - 1/2	5/8
RO 37503000500STD	3/8	3	1/2
RO 37503000625DL	3/8	3	5/8
RO 37503500500DL	3/8	3 - 1/2	1/2
RO 37503500625STD	3/8	3 - 1/2	5/8
RO 37503500625DL	3/8	3 - 1/2	5/8
RO 37504000625DL	3/8	4	5/8
RO 37505000500DL	3/8	5	1/2
RO 37506750625DL	3/8	6 - 3/4	5/8

Symmetrical Style



Part Number	C/S	A Shaft/Groove Diameter	C Groove Width
SY 12500312250	1/8	5/16	1/4
SY 12500500187	1/8	1/2	3/16
SY 12500750250	1/8	3/4	1/4
SY 12500875250	1/8	7/8	1/4
SY 15601375250	5/32	1 - 3/8	1/4
SY 18700625312	3/16	5/8	5/16
SY 18700750312	3/16	3/4	5/16
SY 18700875312	3/16	7/8	5/16
SY 18701000250	3/16	1	1/4
SY 18701125312	3/16	1 - 1/8	5/16
SY 18701500312	3/16	1 - 1/2	5/16
SY 18702125375	3/16	2 - 1/8	3/8
SY 18705125312	3/16	5 - 1/8	5/16
SY 21800500250	7/32	1/2	1/4
SY 21802500375	7/32	2 - 1/2	3/8
SY 25000812375	1/4	13/16	3/8
SY 25000937375	1/4	15/16	3/8
SY 25001125375	1/4	1 - 1/8	3/8
SY 25001250375	1/4	1 - 1/4	3/8

* Can be used in place of an RO and PI

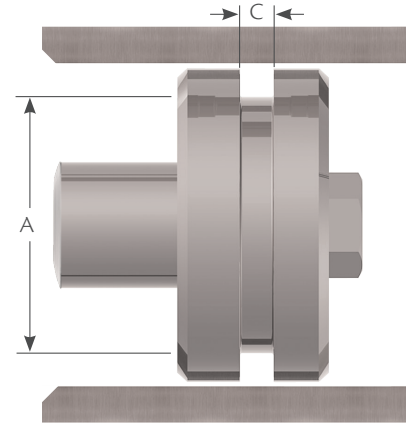
Part Number	C/S	A Shaft/Groove Diameter	C Groove Width
SY 25001500375	1/4	1 - 1/2	3/8
SY 25002000375	1/4	2	3/8
SY 25002000562	1/4	2	9/16
SY 25002375375	1/4	2 - 3/8	3/8
SY 25004750625	1/4	4 - 3/4	5/8
SY 25005500750	1/4	5 - 1/2	3/4
SY 31202625625	5/16	2 - 5/8	5/8
SY 31203750625	5/16	3 - 3/4	5/8
SY 31203750875	5/16	3 - 3/4	7/8
SY 31204750875	5/16	4 - 3/4	7/8
SY 31205750875	5/16	5 - 3/4	7/8
SY 31206750625	5/16	6 - 3/4	5/8
SY 37502750375	3/8	2 - 3/4	3/8
SY 37502750625	3/8	2 - 3/4	5/8
SY 37503500625	3/8	3 - 1/2	5/8
SY 37507500562	3/8	7 - 1/2	9/16
SY 43703875750	7/16	3 - 7/8	3/4
SY 50007875100	1/2	7 - 7/8	1

Urethane U-Cups

Urethane U-Cups

IMPERIAL SEALS

Piston Style



Urethane U-cups fit into standard and deep loaded U-cup glands. For groove dimensions please reference the loaded U-cup section, which starts on page 39.

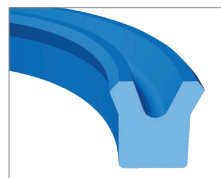
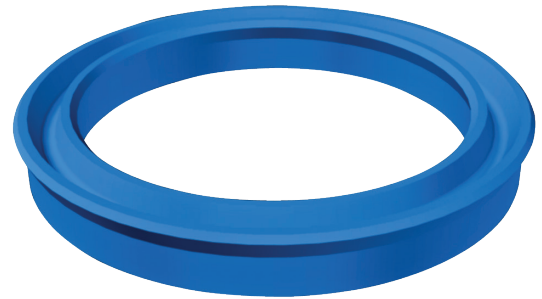
* Can be used for PI and SY

Part Number	C/S	A Groove Diameter	C Groove Width
PI 18700875312	3/16	7/8	5/16
PI 18701125312	3/16	1 - 1/8	5/16
PI 18701375312	3/16	1 - 3/8	5/16
PI 18701625312	3/16	1 - 5/8	5/16
PI 18702125312	3/16	2 - 1/8	5/16
PI 25000750375	1/4	3/4	3/8
PI 25001000375	1/4	1	3/8
PI 25001250375	1/4	1 - 1/4	3/8
PI 25001500375	1/4	1 - 1/2	3/8
PI 25001750375	1/4	1 - 3/4	3/8
PI 25002000375	1/4	2	3/8
PI 25002250375	1/4	2 - 1/4	3/8
PI 25002500375	1/4	2 - 1/2	3/8
PI 25002750375	1/4	2 - 3/4	3/8
PI 25003000375	1/4	3	3/8
PI 25003250375	1/4	3 - 1/4	3/8
PI 25003500375	1/4	3 - 1/2	3/8
PI 25004000375	1/4	4	3/8
PI 25004500375	1/4	4 - 1/2	3/8
PI 25005000375	1/4	5	3/8

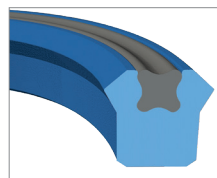
Part Number	C/S	A Groove Diameter	C Groove Width
PI 25005500375	1/4	5 - 1/2	3/8
PI 31201375500	5/16	1 - 3/8	1/2
PI 31201875500	5/16	1 - 7/8	1/2
PI 31202375500	5/16	2 - 3/8	1/2
PI 31202875500	5/16	2 - 7/8	1/2
PI 31203375500	5/16	3 - 3/8	1/2
PI 31203875500	5/16	3 - 7/8	1/2
PI 31205375500	5/16	5 - 3/8	1/2
PI 37501750625	3/8	1 - 3/4	5/8
PI 37502250625	3/8	2 - 1/4	5/8
PI 37502500625	3/8	2 - 1/2	5/8
PI 37502750625	3/8	2 - 3/4	5/8
PI 37503250625	3/8	3 - 1/4	5/8
PI 37503750625	3/8	3 - 3/4	5/8
PI 37504250625	3/8	4 - 1/4	5/8
PI 37504750625	3/8	4 - 3/4	5/8
PI 37505250625	3/8	5 - 1/4	5/8
PI 37505750625	3/8	5 - 3/4	5/8
PI 37506250625	3/8	6 - 1/4	5/8
PI 37507250625	3/8	7 - 1/4	5/8

For custom size urethane U-cups, please contact a Hi-Tech Seals representative.

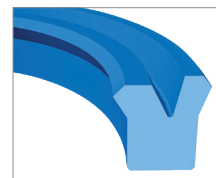
Seal Material	Temp. Range
Urethane	-54°C to 105°C
Loader Materials	
Nitrile	-40°C to 120°C
Viton™/Fluorocarbon	-26°C to 204°C
Hydrogenated Nitrile	-40°C to 160°C



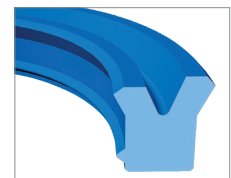
Symmetrical (MSY)



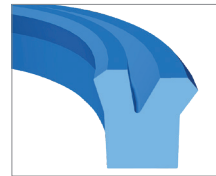
Symmetrical Loaded (MSY - P)



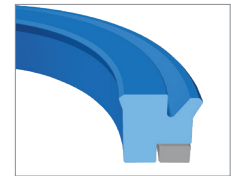
Rod (MRO)



Rod Double Lip (MRO - BH)



Piston (MPI)



Piston w/ Anti-Extrusion (MPI - UE)

Product Description

Urethane U-cups are designed to provide an excellent heavy duty seal for both piston and rod applications. They work well in both static and dynamic applications. Symmetrical, rod, and piston styles are available in a range of sizes. Non-symmetrical urethane U-cups provide customers with additional benefits including reduced seal movement, added stability in static applications, and protection of the dynamic lip during installation. Rod styles provide improved sealability on the I.D., while the piston style provides improved sealability on the O.D.

Part Numbers:

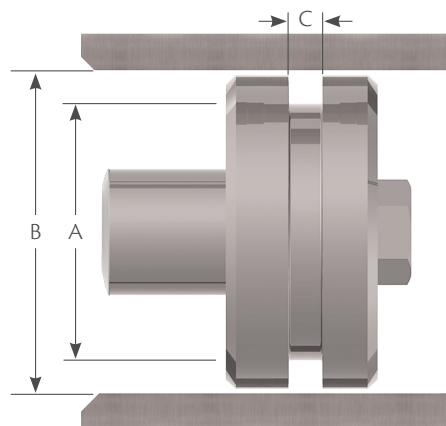
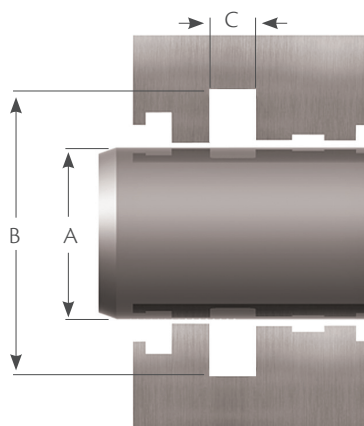
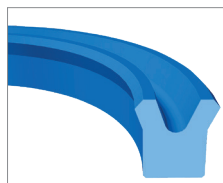
I.D.	O.D.	Height	Style	Suffix:	
MSY - Symmetrical				Blank - Standard, Unloaded U-Cup	
MRO - Rod				P - Loaded U-Cup	
MPI - Piston				BH - Bump heel (Double Lip)	
				UE - Piston Seal w/Anti-Extrusion ring	

Example: MSY 10 16 4 - Symmetrical U-Cup., 10.00 mm I.D., 16.00 mm O.D., 4.00 mm Height

Urethane U-Cups

METRIC SEALS

Symmetrical Style



Part Number	A Shaft/Piston Groove Diameter	B Bore/Rod Groove Diameter	C Groove Width
MSY 4104	4.00	10.00	4.00
MSY 41045	4.00	10.00	4.50
MSY 51255	5.00	12.00	5.50
MSY 6124	6.00	12.00	4.00
MSY 6126	6.00	12.00	6.00
MSY 6158	6.00	15.00	8.00
MSY 71435	7.00	14.00	3.50
MSY 8158	8.00	15.00	8.00
MSY 8168	8.00	16.00	8.00
MSY 8188	8.00	18.00	8.00
MSY 10164	10.00	16.00	4.00
MSY 101645	10.00	16.00	4.50
MSY 101653	10.00	16.00	5.30
MSY 10166	10.00	16.00	6.00
MSY 101855	10.00	18.00	5.50
MSY 10186	10.00	18.00	6.00
MSY 10208	10.00	20.00	8.00
MSY 12186	12.00	18.00	6.00
MSY 122057	12.00	20.00	5.70
MSY 12208	12.00	20.00	8.00
MSY 12228	12.00	22.00	8.00
MSY 122510	12.00	25.00	10.00
MSY 1252055	12.50	20.50	5.00
MSY 13184	13.00	18.00	4.00
MSY 142048	14.00	20.00	4.80
MSY 14224	14.00	22.00	4.00
MSY 14226	14.00	22.00	6.00
MSY 14248P	14.00	24.00	8.00
MSY 142810	14.00	28.00	10.00
MSY 15257	15.00	25.00	7.00
MSY 15258	15.00	25.00	8.00

Part Number	A Shaft/Piston Groove Diameter	B Bore/Rod Groove Diameter	C Groove Width
MSY 152810	15.00	28.00	10.00
MSY 16225	16.00	22.00	5.00
MSY 16245P	16.00	24.00	5.00
MSY 162465	16.00	24.00	6.50
MSY 16249	16.00	24.00	9.00
MSY 16267	16.00	26.00	7.00
MSY 16268	16.00	26.00	8.00
MSY 172510	17.00	25.00	10.00
MSY 182445	18.00	24.00	4.50
MSY 18245	18.00	24.00	5.00
MSY 182546P	18.00	25.00	4.60
MSY 18255	18.00	25.00	5.00
MSY 18265P	18.00	26.00	5.00
MSY 18266	18.00	26.00	6.00
MSY 18268	18.00	26.00	8.00
MSY 18288	18.00	28.00	8.00
MSY 18306	18.00	30.00	6.00
MSY 18308	18.00	30.00	8.00
MSY 18348	18.00	34.00	8.00
MSY 19253	19.00	25.00	3.00
MSY 20265	20.00	26.00	5.00
MSY 20284	20.00	28.00	4.00
MSY 20285P	20.00	28.00	5.00
MSY 202857P	20.00	28.00	5.70
MSY 20288	20.00	28.00	8.00
MSY 20307	20.00	30.00	7.00
MSY 20308	20.00	30.00	8.00
MSY 20308P	20.00	30.00	8.00
MSY 203010	20.00	30.00	10.00
MSY 203275	20.00	32.00	7.50
MSY 20328	20.00	32.00	8.00

Urethane U-Cups

Urethane U-Cups

Symmetrical Style

Urethane U-Cups

Part Number	A Shaft/Piston Groove Diameter	B Bore/Rod Groove Diameter	C Groove Width
MSY 203512	20.00	35.00	12.00
MSY 204010	20.00	40.00	10.00
MSY 22288	22.00	28.00	8.00
MSY 22305	22.00	30.00	5.00
MSY 223057P	22.00	30.00	5.70
MSY 22306	22.00	30.00	6.00
MSY 22307	22.00	30.00	7.00
MSY 22327	22.00	32.00	7.00
MSY 22328	22.00	32.00	8.00
MSY 223210	22.00	32.00	10.00
MSY 22346	22.00	34.00	6.00
MSY 224010	22.00	40.00	10.00
MSY 224012	22.00	40.00	12.00
MSY 224305	22.00	43.00	5.00
MSY 223510	22.40	30.00	10.00
MSY 243257	24.00	32.00	5.70
MSY 24408	24.00	40.00	8.00
MSY 25335	25.00	33.00	5.00
MSY 253357P	25.00	33.00	5.70
MSY 25338	25.00	33.00	8.00
MSY 25338P	25.00	33.00	8.00
MSY 253565	25.00	35.00	6.50
MSY 25358	25.00	35.00	8.00
MSY 25358P	25.00	35.00	8.00
MSY 253510P	25.00	35.00	10.00
MSY 253810	25.00	38.00	10.00
MSY 254010	25.00	40.00	10.00
MSY 254010P	25.00	40.00	10.00
MSY 264712	26.00	47.00	12.00
MSY 283555P	28.00	35.50	5.00
MSY 28364	28.00	36.00	4.00
MSY 283655	28.00	36.00	5.50
MSY 28368P	28.00	36.00	8.00
MSY 283873P	28.00	38.00	7.30
MSY 28388	28.00	38.00	8.00
MSY 28409	28.00	40.00	9.00
MSY 284010	28.00	40.00	10.00
MSY 303857	30.00	38.00	5.70
MSY 303863P	30.00	38.00	6.30
MSY 30388	30.00	38.00	8.00
MSY 30405	30.00	40.00	5.00
MSY 30406P	30.00	40.00	6.00
MSY 304010	30.00	40.00	10.00

Part Number	A Shaft/Piston Groove Diameter	B Bore/Rod Groove Diameter	C Groove Width
MSY 304010P	30.00	40.00	10.00
MSY 30429	30.00	42.00	9.00
MSY 304210	30.00	42.00	10.00
MSY 304210P	30.00	42.00	10.00
MSY 30458P	30.00	45.00	8.00
MSY 304510	30.00	45.00	10.00
MSY 304510P	30.00	45.00	10.00
MSY 304610	30.00	46.00	10.00
MSY 305010	30.00	50.00	10.00
MSY 305012	30.00	50.00	12.00
MSY 324057P	32.00	40.00	5.70
MSY 32406	32.00	40.00	6.00
MSY 324075P	32.00	40.00	7.50
MSY 32408	32.00	40.00	8.00
MSY 324210P	32.00	42.00	10.00
MSY 324510	32.00	45.00	10.00
MSY 324810P	32.00	48.00	10.00
MSY 325010	32.00	50.00	10.00
MSY 334310	33.00	43.00	10.00
MSY 354357	35.00	43.00	5.70
MSY 354363	35.00	43.00	6.30
MSY 35438	35.00	43.00	8.00
MSY 35456	35.00	45.00	6.00
MSY 354510	35.00	45.00	10.00
MSY 354510P	35.00	45.00	10.00
MSY 354810	35.00	48.00	10.00
MSY 355010	35.00	50.00	10.00
MSY 355010P	35.00	50.00	10.00
MSY 36448P	36.00	44.00	8.00
MSY 36467	36.00	46.00	7.00
MSY 365110	36.00	51.00	10.00
MSY 38455	38.00	45.00	5.00
MSY 38509	38.00	50.00	9.00
MSY 385010	38.00	50.00	10.00
MSY 385510	38.00	55.00	10.00
MSY 40486P	40.00	48.00	6.00
MSY 404811	40.00	48.00	11.00
MSY 40505	40.00	50.00	5.00
MSY 40506	40.00	50.00	6.00
MSY 40506P	40.00	50.00	6.00
MSY 40507	40.00	50.00	7.00
MSY 405075	40.00	50.00	7.50
MSY 40508	40.00	50.00	8.00

Urethane U-Cups

METRIC SEALS

Symmetrical Style

Part Number	A Shaft/Piston Groove Diameter	B Bore/Rod Groove Diameter	C Groove Width
MSY 40508P	40.00	50.00	8.00
MSY 405010	40.00	50.00	10.00
MSY 405010P	40.00	50.00	10.00
MSY 405510	40.00	55.00	10.00
MSY 405510P	40.00	55.00	10.00
MSY 40608	40.00	60.00	8.00
MSY 406010P	40.00	60.00	10.00
MSY 406012	40.00	60.00	12.00
MSY 406012P	40.00	60.00	12.00
MSY 406018	40.00	60.00	18.00
MSY 425065P	42.00	50.00	6.50
MSY 42557	42.00	55.00	7.00
MSY 42557P	42.00	55.00	7.00
MSY 426212	42.00	62.00	12.00
MSY 45538	45.00	53.00	8.00
MSY 45556P	45.00	55.00	6.00
MSY 455565	45.00	55.00	6.50
MSY 455573	45.00	55.00	7.30
MSY 455510	45.00	55.00	10.00
MSY 455510P	45.00	55.00	10.00
MSY 45585	45.00	58.00	5.00
MSY 456010	45.00	60.00	10.00
MSY 456010P	45.00	60.00	10.00
MSY 456510	45.00	65.00	10.00
MSY 456512	45.00	65.00	12.00
MSY 456512P	45.00	65.00	12.00
MSY 485810	48.00	58.00	10.00
MSY 48609	48.00	60.00	9.00
MSY 486310	48.00	63.00	10.00
MSY 486312	48.00	63.00	12.00
MSY 50588	50.00	58.00	8.00
MSY 50606	50.00	60.00	6.00
MSY 50606P	50.00	60.00	6.00
MSY 506073P	50.00	60.00	7.30
MSY 506010	50.00	60.00	10.00
MSY 506010P	50.00	60.00	10.00
MSY 506012	50.00	60.00	12.00
MSY 506012P	50.00	60.00	12.00
MSY 50636	50.00	63.00	6.00
MSY506510	50.00	65.00	10.00
MSY 506510P	50.00	65.00	10.00
MSY 5065114	50.00	65.00	11.40
MSY 507010	50.00	70.00	10.00
MSY 507010P	50.00	70.00	10.00

Part Number	A Shaft/Piston Groove Diameter	B Bore/Rod Groove Diameter	C Groove Width
MSY 507012	50.00	70.00	12.00
MSY 507012P	50.00	70.00	12.00
MSY 53636	53.00	63.00	6.00
MSY 55638	55.00	63.00	8.00
MSY 55656P	55.00	65.00	6.00
MSY 556510P	55.00	65.00	10.00
MSY 556512	55.00	65.00	12.00
MSY 557012	55.00	70.00	12.00
MSY 557012P	55.00	70.00	12.00
MSY 557512	55.00	75.00	12.00
MSY 5671114	56.00	71.00	11.40
MSY 60688P	60.00	68.00	8.00
MSY 60706P	60.00	70.00	6.00
MSY 60708P	60.00	70.00	8.00
MSY 607010	60.00	70.00	10.00
MSY 607012	60.00	70.00	12.00
MSY 607012P	60.00	70.00	12.00
MSY 60725	60.00	72.00	5.00
MSY 60729	60.00	72.00	9.00
MSY 607511P	60.00	75.00	11.00
MSY 607512	60.00	75.00	12.00
MSY 608012	60.00	80.00	12.00
MSY 608012P	60.00	80.00	12.00
MSY 6080145P	60.00	80.00	14.50
MSY 608018	60.00	80.00	18.00
MSY 61716	61.00	71.00	6.00
MSY 637312P	63.00	73.00	12.00
MSY 637510	63.00	75.00	10.00
MSY 637810	63.00	78.00	10.00
MSY 6378106	63.00	78.00	10.60
MSY 638315	63.00	83.00	15.00
MSY 638315P	63.00	83.00	15.00
MSY 65738	65.00	73.00	8.00
MSY 65756	65.00	75.00	6.00
MSY 657512	65.00	75.00	12.00
MSY 65809	65.00	80.00	9.00
MSY 658010	65.00	80.00	10.00
MSY 658012	65.00	80.00	12.00
MSY 658012P	65.00	80.00	12.00
MSY 658512	65.00	85.00	12.00
MSY 658512P	65.00	85.00	12.00
MSY 659015P	65.00	90.00	15.00
MSY 67776	67.00	77.00	6.00
MSY 70806P	70.00	80.00	6.00

Urethane U-Cups

Symmetrical Style

Part Number	A Shaft/Piston Groove Diameter	B Bore/Rod Groove Diameter	C Groove Width
MSY 708012	70.00	80.00	12.00
MSY 708012P	70.00	80.00	12.00
MSY 708210	70.00	82.00	10.00
MSY 7083114P	70.00	83.00	11.40
MSY 7085114P	70.00	85.00	11.40
MSY 708512	70.00	85.00	12.00
MSY 709010P	70.00	90.00	10.00
MSY 709012	70.00	90.00	12.00
MSY 709012P	70.00	90.00	12.00
MSY 709018	70.00	90.00	18.00
MSY 71806	71.00	80.00	6.00
MSY 75856	75.00	85.00	6.00
MSY 75858	75.00	85.00	8.00
MSY 758512	75.00	85.00	12.00
MSY 758512P	75.00	85.00	12.00
MSY 759011P	75.00	90.00	11.00
MSY 759012	75.00	90.00	12.00
MSY 759512	75.00	95.00	12.00
MSY 759512P	75.00	95.00	12.00
MSY 80888	80.00	88.00	8.00
MSY 80906P	80.00	90.00	6.00
MSY 80908P	80.00	90.00	8.00
MSY 809010	80.00	90.00	10.00
MSY 809010P	80.00	90.00	10.00
MSY 809012	80.00	90.00	12.00
MSY 809012P	80.00	90.00	12.00
MSY 8095114P	80.00	95.00	11.40
MSY 809512	80.00	95.00	12.00
MSY 8010010P	80.00	100.00	10.00
MSY 8010012	80.00	100.00	12.00
MSY 8010012P	80.00	100.00	12.00
MSY 851009P	85.00	100.00	9.00
MSY 8510010	85.00	100.00	10.00
MSY 8510010P	85.00	100.00	10.00
MSY 8510012	85.00	100.00	12.00
MSY 8510012P	85.00	100.00	12.00
MSY 8510512P	85.00	105.00	12.00
MSY 9010010	90.00	100.00	10.00
MSY9010012	90.00	100.00	12.00
MSY9010510P	90.00	105.00	10.00
MSY 9010512	90.00	105.00	12.00
MSY 9011012	90.00	110.00	12.00
MSY 9011012P	90.00	110.00	12.00
MSY 9011015	90.00	110.00	15.00

Part Number	A Shaft/Piston Groove Diameter	B Bore/Rod Groove Diameter	C Groove Width
MSY 9510512	95.00	105.00	12.00
MSY 951109P	95.00	110.00	9.00
MSY 9511012	95.00	110.00	12.00
MSY 9511512	95.00	115.00	12.00
MSY 10010812P	100.00	108.00	12.00
MSY 1001108	100.00	110.00	8.00
MSY 10011510P	100.00	115.00	10.00
MSY 10011512	100.00	115.00	12.00
MSY 100120114	100.00	120.00	11.40
MSY 10012012	100.00	120.00	12.00
MSY 10012012P	100.00	120.00	12.00
MSY 10012512	100.00	125.00	12.00
MSY 100125124P	100.00	125.00	12.40
MSY 10012515	100.00	125.00	15.00
MSY 10013015	100.00	130.00	15.00
MSY 1051209P	105.00	120.00	9.00
MSY 10512515	105.00	125.00	15.00
MSY 10512515P	105.00	125.00	15.00
MSY 10513012	105.00	130.00	12.00
MSY 1101259	110.00	125.00	9.00
MSY 11012512	110.00	125.00	12.00
MSY 11012515	110.00	125.00	15.00
MSY 11013012P	110.00	130.00	12.00
MSY 110130145P	110.00	130.00	14.50
MSY 11013015	110.00	130.00	15.00
MSY 1121259P	112.00	125.00	9.00
MSY 11512514	115.00	125.00	14.00
MSY 11512515	115.00	125.00	15.00
MSY 1151309	115.00	130.00	9.00
MSY 11513515	115.00	135.00	15.00
MSY 11514018	115.00	140.00	18.00
MSY 1201359	120.00	135.00	9.00
MSY 12014012P	120.00	140.00	12.00
MSY 12014015	120.00	140.00	15.00
MSY 12014015P	120.00	140.00	15.00
MSY 1221306P	122.00	130.00	6.00
MSY 12514015	125.00	140.00	15.00
MSY 12514515	125.00	145.00	15.00
MSY 12815015	128.00	150.00	15.00
MSY 13015015	130.00	150.00	15.00
MSY 13015715	130.00	157.00	15.00
MSY 1351509	135.00	150.00	9.00
MSY 13515011	135.00	150.00	11.00
MSY 13515016	135.00	150.00	16.00

Urethane U-Cups

METRIC SEALS

Symmetrical Style

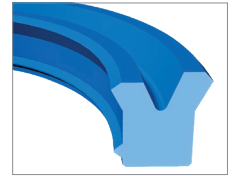
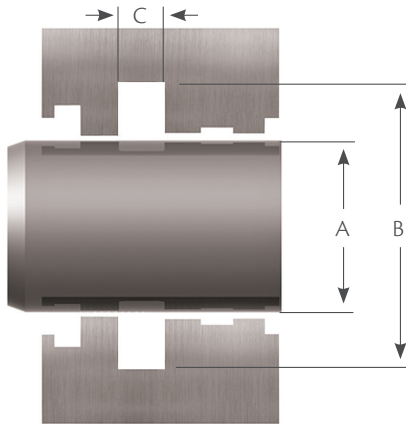
Urethane U-Cups

Part Number	A Shaft/Piston Groove Diameter	B Bore/Rod Groove Diameter	C Groove Width
MSY 13515515	135.00	155.00	15.00
MSY 13515515P	135.00	155.00	15.00
MSY 13615085	136.00	150.00	8.50
MSY 14016012P	140.00	160.00	12.00
MSY 14016015	140.00	160.00	15.00
MSY 14016015P	140.00	160.00	15.00
MSY 1451609	145.00	160.00	9.00
MSY 150160135	150.00	160.00	13.50
MSY 150170145P	150.00	170.00	14.50
MSY 15017015	150.00	170.00	15.00
MSY 1601759	160.00	175.00	9.00
MSY 16018015	160.00	180.00	15.00
MSY 16018015P	160.00	180.00	15.00
MSY 16019018	160.00	190.00	18.00
MSY 17018520	170.00	185.00	20.00
MSY 17019015	170.00	190.00	15.00
MSY 17020018	170.00	200.00	18.00
MSY 17518579P	175.00	185.00	7.90
MSY17520515	175.00	205.00	15.00

Part Number	A Shaft/Piston Groove Diameter	B Bore/Rod Groove Diameter	C Groove Width
MSY18020012	180.00	200.00	12.00
MSY18020015	180.00	200.00	15.00
MSY20022015	200.00	220.00	15.00
MSY20022015P	200.00	220.00	15.00
MSY20022515	200.00	225.00	15.00
MSY22025018	220.00	250.00	18.00
MSY22025020P	220.00	250.00	20.00
MSY22525012	225.00	250.00	12.00
MSY23025012	230.00	250.00	12.00
MSY24525514P	245.00	255.00	14.00
MSY25028022	250.00	280.00	22.00
MSY250280285	250.00	280.00	28.50
MSY26528520	265.00	285.00	20.00
MSY285300115	285.00	300.00	11.50
MSY29532018	295.00	320.00	18.00
MSY32035020	320.00	350.00	20.00
MSY33036020	330.00	360.00	20.00
MSY41644012	416.00	440.00	12.00

Urethane U-Cups

Rod Style



Urethane U-Cups

Part Number	A Shaft Diameter	B Groove Diameter	C Groove Width
MRO 81682	8.00	16.00	8.20
MRO 12184BH	12.00	18.00	4.00
MRO 121945BH	12.00	19.00	4.50
MRO 122057	12.00	20.00	5.70
MRO 122282	12.00	22.00	8.20
MRO 152257	15.00	22.00	5.70
MRO 15258	15.00	25.00	8.00
MRO 162457	16.00	24.00	5.70
MRO 16265	16.00	26.00	5.00
MRO 162673	16.00	26.00	7.30
MRO17256	17.00	25.00	6.00
MRO 182445	18.00	24.00	4.50
MRO 182657	18.00	26.00	5.70
MRO 18267BH	18.00	26.00	7.00
MRO 18268	18.00	26.00	8.00
MRO 182682	18.00	26.00	8.20
MRO 20265	20.00	26.00	5.00
MRO 202857	20.00	28.00	5.70
MRO 202857BH	20.00	28.00	5.70
MRO 22305	22.00	30.00	5.00
MRO 223057	22.00	30.00	5.70
MRO 223082	22.00	30.00	8.20
MRO 223273BH	22.00	32.00	7.30
MRO 223282	22.00	32.00	8.20
MRO 253357	25.00	33.00	5.70
MRO 253357BH	25.00	33.00	5.70
MRO 25336	25.00	33.00	6.00
MRO 253310	25.00	33.00	10.00
MRO 253573	25.00	35.00	7.30

Part Number	A Shaft Diameter	B Groove Diameter	C Groove Width
MRO 25358BH	25.00	35.00	8.00
MRO 253582	25.00	35.00	8.20
MRO 283653BH	28.00	36.00	5.30
MRO 283657	28.00	36.00	5.70
MRO 28368	28.00	36.00	8.00
MRO 28388BH	28.00	38.00	8.00
MRO 28536565BH	28.50	36.50	6.50
MRO 303857	30.00	38.00	5.70
MRO 30386	30.00	38.00	6.00
MRO 30388	30.00	38.00	8.00
MRO 30407BH	30.00	40.00	7.00
MRO 304072	30.00	40.00	7.20
MRO 304010	30.00	40.00	10.00
MRO 304010BH	30.00	40.00	10.00
MRO 304310	30.00	43.00	10.00
MRO 324057	32.00	40.00	5.70
MRO 32407BH	32.00	40.00	7.00
MRO 324273	32.00	42.00	7.30
MRO 324210BH	32.00	42.00	10.00
MRO 324710	32.00	47.00	10.00
MRO 3247225	32.00	47.00	22.50
MRO 334310	33.00	43.00	10.00
MRO 334310BH	33.00	43.00	10.00
MRO 354357	35.00	43.00	5.70
MRO 354357BH	35.00	43.00	5.70
MRO 35456	35.00	45.00	6.00
MRO 35457BH	35.00	45.00	7.00
MRO 354572	35.00	45.00	7.20
MRO 354510	35.00	45.00	10.00

Urethane U-Cups

METRIC SEALS

Rod Style

Part Number	A Shaft Diameter	B Groove Diameter	C Groove Width
MRO 364457	36.00	44.00	5.70
MRO 364482	36.00	44.00	8.20
MRO 364673	36.00	46.00	7.30
MRO 364610	36.00	46.00	10.00
MRO 364610BH	36.00	46.00	10.00
MRO 365110BH	36.00	51.00	10.00
MRO 404857	40.00	48.00	5.70
MRO 404857BH	40.00	48.00	5.70
MRO 404882	40.00	48.00	8.20
MRO 40507	40.00	50.00	7.00
MRO 405073	40.00	50.00	7.30
MRO 405082	40.00	50.00	8.20
MRO 405010	40.00	50.00	10.00
MRO 405010BH	40.00	50.00	10.00
MRO 405595	40.00	55.00	9.50
MRO 405510	40.00	55.00	10.00
MRO 405510BH	40.00	55.00	10.00
MRO 425057	42.00	50.00	5.70
MRO 425211	42.00	52.00	11.00
MRO 436011	43.00	60.00	11.00
MRO 455382	45.00	53.00	8.20
MRO 4553113BH	45.00	53.00	11.30
MRO 45556BH	45.00	55.00	6.00
MRO 455573BH	45.00	55.00	7.30
MRO 455575	45.00	55.00	7.50
MRO 45558	45.00	55.00	8.00
MRO 455510	45.00	55.00	10.00
MRO 4555115BH	45.00	55.00	11.50
MRO 45567	45.00	56.00	7.00
MRO 4557795BH	45.00	57.70	9.50
MRO 456010BH	45.00	60.00	10.00
MRO505710BH	50.00	57.00	10.00
MRO 5058109	50.00	58.00	10.90
MRO 50606BH	50.00	60.00	6.00
MRO 506073	50.00	60.00	7.30
MRO 50608	50.00	60.00	8.00
MRO 506010	50.00	60.00	10.00
MRO 506010BH	50.00	60.00	10.00
MRO 506012	50.00	60.00	12.00
MRO 506295	50.00	62.00	9.50
MRO 506210	50.00	62.00	10.00
MRO 506310	50.00	63.00	10.00

Part Number	A Shaft Diameter	B Groove Diameter	C Groove Width
MRO 506510	50.00	65.00	10.00
MRO 506510BH	50.00	65.00	10.00
MRO 5065114	50.00	65.00	11.40
MRO 5065114BH	50.00	65.00	11.40
MRO 526210BH	52.00	62.00	10.00
MRO 537011	53.00	70.00	11.00
MRO 556573	55.00	65.00	7.30
MRO 556510	55.00	65.00	10.00
MRO 5565118	55.00	65.00	11.80
MRO 556810	55.00	68.00	10.00
MRO 557010	55.00	70.00	10.00
MRO 566665	56.00	66.00	6.50
MRO 566673	56.00	66.00	7.30
MRO 566682	56.00	66.00	8.20
MRO 566610BH	56.00	66.00	10.00
MRO 56719	56.00	71.00	9.00
MRO 5671114	56.00	71.00	11.40
MRO 5671114BH	56.00	71.00	11.40
MRO 587095	58.00	70.00	9.50
MRO 607073	60.00	70.00	7.30
MRO 607010	60.00	70.00	10.00
MRO 6070118	60.00	70.00	11.80
MRO 607210	60.00	72.00	10.00
MRO 607310	60.00	73.00	10.00
MRO 607510	60.00	75.00	10.00
MRO 607510BH	60.00	75.00	10.00
MRO 6075165BH	60.00	75.00	16.50
MRO 63736	63.00	73.00	6.00
MRO 6373118	63.00	73.00	11.80
MRO 637587	63.00	75.00	8.70
MRO 6378114	63.00	78.00	11.40
MRO 6378114BH	63.00	78.00	11.40
MRO 6383114BH	63.00	83.00	11.40
MRO 657787	65.00	77.00	8.70
MRO 6577795BH	65.00	77.70	9.50
MRO 657810	65.00	78.00	10.00
MRO 687664	68.00	76.00	6.40
MRO 7078109	70.00	78.00	10.90
MRO 7080118	70.00	80.00	11.80
MRO 708287	70.00	82.00	8.70
MRO 708287BH	70.00	82.00	8.70
MRO 7085114	70.00	85.00	11.40

Urethane U-Cups

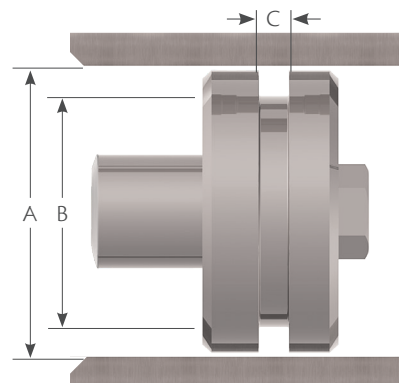
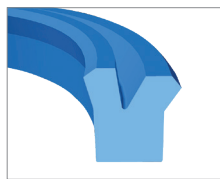
Part Number	A Shaft Diameter	B Groove Diameter	C Groove Width
MRO 7090146	70.00	90.00	14.60
MRO 7585118	75.00	85.00	11.80
MRO 758787	75.00	87.00	8.70
MRO 75879	75.00	87.00	9.00
MRO 758810	75.00	88.00	10.00
MRO 7588132	75.00	88.00	13.20
MRO 75909	75.00	90.00	9.00
MRO 759010	75.00	90.00	10.00
MRO 759512	75.00	95.00	12.00
MRO 788683	78.00	86.00	8.30
MRO 80888	80.00	88.00	8.00
MRO 8090118	80.00	90.00	11.80
MRO 809287	80.00	92.00	8.70
MRO 809510	80.00	95.00	10.00
MRO 8095114BH	80.00	95.00	11.40
MRO 80100114	80.00	100.00	11.40
MRO 80100146BH	80.00	100.00	14.60
MRO 8010515	80.00	105.00	15.00
MRO 859787	85.00	97.00	8.70
MRO 85100114	85.00	100.00	11.40
MRO 8510012	85.00	100.00	12.00
MRO 9010073BH	90.00	100.00	7.30
MRO 9010287BH	90.00	102.00	8.70
MRO 90105114	90.00	105.00	11.40
MRO 90110114	90.00	110.00	11.40
MRO 90110114BH	90.00	110.00	11.40
MRO 95103115BH	95.00	103.00	11.50
MRO 951109	95.00	110.00	9.00
MRO 9511010	95.00	110.00	10.00
MRO 9511512	95.00	115.00	12.00
MRO 10011013BH	100.00	110.00	13.00
MRO 100115116	100.00	115.00	11.60
MRO 100120114	100.00	120.00	11.40
MRO 100120114BH	100.00	120.00	11.40
MRO 10012015	100.00	120.00	15.00
MRO 10511512	105.00	115.00	12.00
MRO 105120114	105.00	120.00	11.40
MRO 105125146	105.00	125.00	14.60
MRO 110125109	110.00	125.00	10.90
MRO 110130146	110.00	130.00	14.60
MRO 11013016	110.00	130.00	16.00
MRO 110135145BH	110.00	135.00	14.50

Part Number	A Shaft Diameter	B Groove Diameter	C Groove Width
MRO 11512514BH	115.00	125.00	14.00
MRO 11513011	115.00	130.00	11.00
MRO 115135146	115.00	135.00	14.60
MRO 12013516	120.00	135.00	16.00
MRO 12014013	120.00	140.00	13.00
MRO 120140146	120.00	140.00	14.60
MRO 12014517	120.00	145.00	17.00
MRO 125140109	125.00	140.00	10.90
MRO 12514512	125.00	145.00	12.00
MRO 125145146	125.00	145.00	14.60
MRO 12514516BH	125.00	145.00	16.00
MRO 12515019	125.00	150.00	19.00
MRO 130140145	130.00	140.00	14.50
MRO 1301459	130.00	145.00	9.00
MRO 130150146	130.00	150.00	14.60
MRO 135145135	135.00	145.00	13.50
MRO 14016012	140.00	160.00	12.00
MRO 14016012BH	140.00	160.00	12.00
MRO 140160146BH	140.00	160.00	14.60
MRO 150170146	150.00	170.00	14.60
MRO 150180173	150.00	180.00	17.30
MRO 160185146	160.00	185.00	14.60
MRO 180200146	180.00	200.00	14.60
MRO 19021015	190.00	210.00	15.00
MRO 20021215	200.00	212.00	15.00
MRO 20022016	200.00	220.00	16.00
MRO 200225146	200.00	225.00	14.60
MRO 200230227	200.00	230.00	22.70
MRO 210230146	210.00	230.00	14.60
MRO 23025014	230.00	250.00	14.00
MRO 24026016	240.00	260.00	16.00
MRO 24027019	240.00	270.00	19.00
MRO 270300173	270.00	300.00	17.30
MRO 285315173	285.00	315.00	17.30
MRO 32535520	325.00	355.00	20.00
MRO 340370173	340.00	370.00	17.30
MRO 34037020BH	340.00	370.00	20.00
MRO 360380146	360.00	380.00	14.60
MRO 36039020	360.00	390.00	20.00
MRO 370390146	370.00	390.00	14.60
MRO 39042019	390.00	420.00	19.00
MRO 50054034	500.00	540.00	34.00

Urethane U-Cups

METRIC SEALS

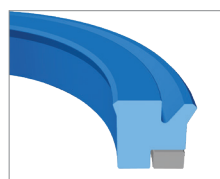
Piston Style



Part Number	A Bore Diameter	B Groove Diameter	C Groove Width
MPI 2230425	30.00	22.00	4.25
MPI 2230625	30.00	22.00	6.25
MPI 254095	40.00	25.00	9.50
MPI 33408	40.00	33.00	8.00
MPI 334012	40.00	33.00	12.00
MPI 486310	63.00	48.00	10.00
MPI 50607	60.00	50.00	7.00
MPI 536373	63.00	53.00	7.30
MPI 536312	63.00	53.00	12.00
MPI 6068115	68.00	60.00	11.50
MPI 61716	71.00	61.00	6.00
MPI 7080425	80.00	70.00	4.25
MPI 728012	80.00	72.00	12.00
MPI 759010	90.00	75.00	10.00

Part Number	A Bore Diameter	B Groove Diameter	C Groove Width
MPI 78100145	100.00	78.00	14.50
MPI 8510515	105.00	85.00	15.00
MPI 9010042	100.00	90.00	4.20
MPI 9011010	110.00	90.00	10.00
MPI 11013012	130.00	110.00	12.00
MPI 1121259	125.00	112.00	9.00
MPI 11213212	132.00	112.00	12.00
MPI 13515010	150.00	135.00	10.00
MPI 1451609	160.00	145.00	9.00
MPI 25028022	280.00	250.00	22.00
MPI 28030015	300.00	280.00	15.00
MPI 33536018	360.00	335.00	18.00
MPI 42046030	460.00	420.00	30.00

Piston Style w/ an Anti-Extrusion Ring



Part Number	A Bore Diameter	B Groove Diameter	C Groove Width
MPI 30459UE	45.00	30.00	9.00
MPI 304595UE	45.00	30.00	9.50
MPI 355095UE	50.00	35.00	9.50
MPI 355010UE	50.00	35.00	10.00
MPI 456095UE	60.00	45.00	9.50
MPI 486393UE	63.00	48.00	9.30
MPI 5070125UE	70.00	50.00	12.50
MPI 6080122UE	80.00	60.00	12.20
MPI 80100122UE	100.00	80.00	12.20
MPI 8510095UE	100.00	85.00	9.50
MPI 100125155UE	125.00	100.00	15.50

Part Number	A Bore Diameter	B Groove Diameter	C Groove Width
MPI 120140125UE	140.00	120.00	12.50
MPI 12015019UE	150.00	120.00	19.00
MPI 115140152UE	140.00	125.00	15.20
MPI 130160186UE	160.00	130.00	18.60
MPI 150180186UE	180.00	150.00	18.60
MPI 170200186UE	200.00	170.00	18.90
MPI 220250186UE	250.00	220.00	18.60
MPI 22525017UE	250.00	225.00	17.00
MPI 250280186UE	280.00	250.00	18.60
MPI 27030019UE	300.00	270.00	19.00