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SEAL KIT IDENTIFICATION CODE CONVERSION CHART

WIPERS

I = Insert
P = Press In
N = No Wiper

ROD SEALS

O = O-Ring
OB = O-Ring & B/U
U = U-Seal
UB = U-Seal & Buffer
BB = Tandem Buffers
V = Vee Set
N = None
TR = T Seal
SP = Special
UV = U-Seals &
Vee Sets

PISTON SEALS

1 = None
2 = O-Ring
3 = O-Ring & B/U
4 = 1 U-Seal
5 = 2 U-Seals
6 = 1 Piston Cup
7 = 2 Piston Cups
8 = "SA" Vee Set
9 = "DA" Vee Set
10 = Piston Seal
11 = T Seal
12 = Cast Iron Piston Ring
13 = Special
14 = 4 Piece Capped T-Seal
15 = 5 Piece Piston Seal

ROD X BORE SIZE

EXAMPLE

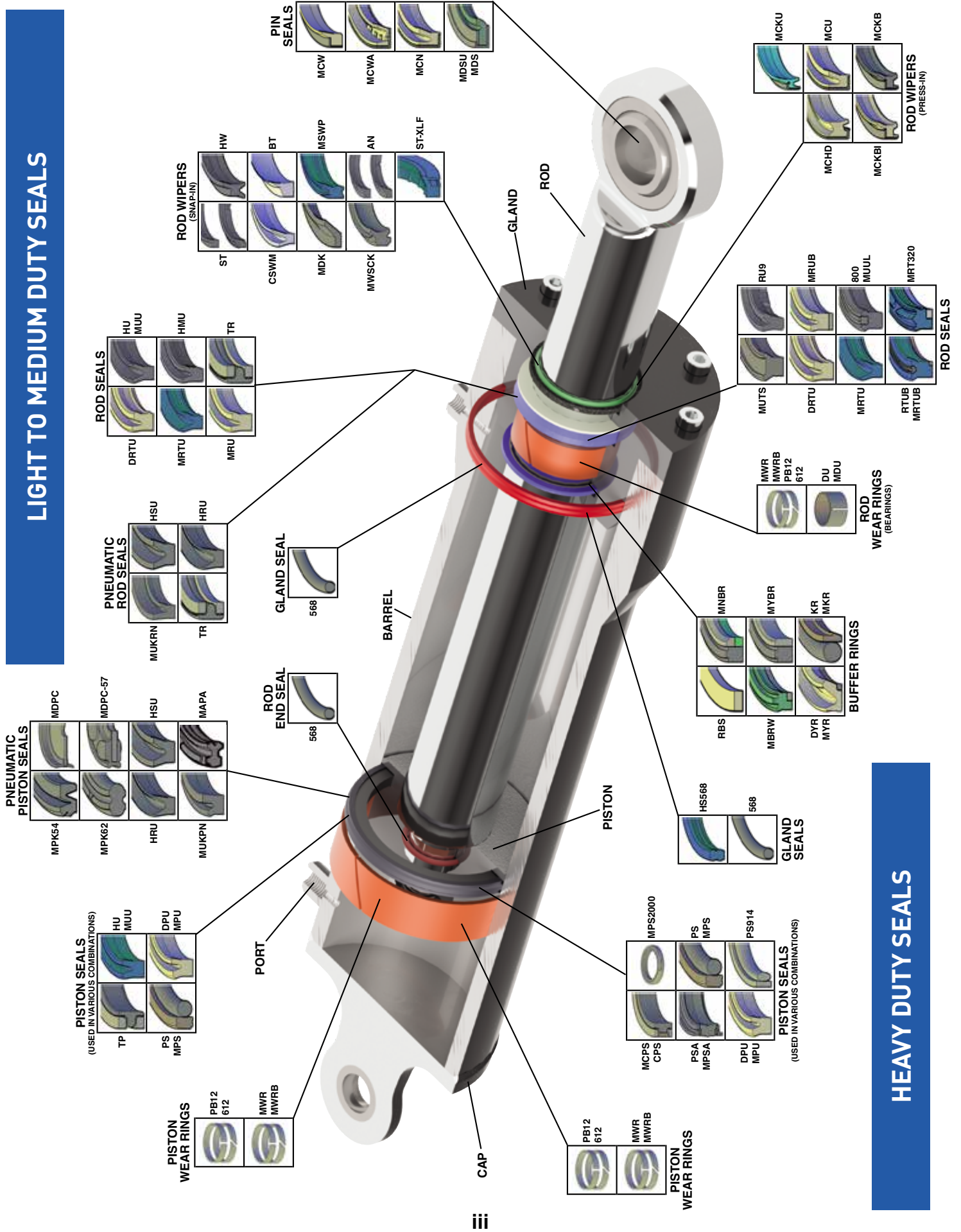
P	-	U	-	5		2	X	4
Wiper		Rod Seal		Piston Seal		Rod		Bore

NOTE:

These codes were developed as an aid for kit identification. Verification can be made by calling our sales department and comparing the parts to be replaced with those offered in our kit.

TYPICAL SEALING COMPONENTS

LIGHT TO MEDIUM DUTY SEALS



HEAVY DUTY SEALS



NOTES

NOTES



Industrial Kits

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All manufacturer's names, part numbers and descriptions are used for reference purposes only. We do not imply that any part shown is the product of these manufacturers.



Materials Used

Urethane (URE)

Formulated of copolymers of ether or ester based urethanes, this material is used in a wide application of seals, wipers, back-up rings, cushions, bumpers, and a myriad of other uses. Highly resistant to oil swell, ozone, oxidation and abrasion, it also has excellent cut resistance. Highly resilient, urethanes also have high tensile strength and elongation properties. Urethanes remain an excellent choice in hydraulic systems using petroleum based fluids. Most urethane seals remain flexible and efficient in temperatures ranging from -65° F to +200° F with some able to withstand intermittent temperatures up to +300° F.

Nitrile (NBR) (XNBR)

Two common nitrile copolymer blends are Buna-N (NBR) and Carboxylated Nitrile (XNBR). Possessing very good resistance to petroleum based hydraulic oils, Buna-N also works well with fuels such as diesel or gasoline. XNBR compounds feature improved abrasion resistance and tensile strength. Nitrile seals have a good resistance to compression set, but their flexibility suffers somewhat in the lower temperature range. Seals made from this material have a low resistance to ozone and must be stored carefully in most environments. Working temperatures are -40° to +240°F.

Polytetrafluoroethylene (PTFE)

Most PTFE seals, in order to retain their toughness and flexibility, are fortified with short glass fiber, bronze flashes, carbon, graphite, or a combination of these fillers. Because of a lack of resilience (memory) in PTFE, an energizer is most often employed to obtain the desired fit. Benefits are chemical inertness, high heat resistance, low temperature flexibility, low running friction, and non-adhesive characteristics. Temperatures to +500° F are obtainable but are often reduced by the filler or energizer employed.

Fluorocarbon (FC)

Fluorocarbon combines high temperature resistance with excellent chemical resistance. Excellent for use with alcohol and aromatic fuels and is highly resistant to ultraviolet light and ozone. This material is not recommended for use in low temperatures or in aircraft hydraulic fluids. Temperature range is -20° to +400° F.

Glossary of Terms

Bearing/Wear Rings

Soft metal or plastic rings placed in grooves on the piston or in the head to prevent contact between hard metal surfaces.

Durometer

A generic term referring to the instrument and the scale used to measure the relative hardness of various elastomers. The lower the durometer rating, the softer the material.

Dynamic Seal

A sealing device used between mating surfaces that have relative motion.

Elastomer

A rubber-like material having the capacity for large deformation and rapid, complete recovery from the deforming force.

Gland

A rod bushing containing sealing devices fitted into the rod end cap. A groove or open area machined into the head or piston that houses the sealing device.

Static Seal

A sealing device used between mating surfaces that have no relative motion.

Wiper/Scraper

A device placed in the head of a cylinder for the purpose of excluding foreign matter from the inside of the cylinder.



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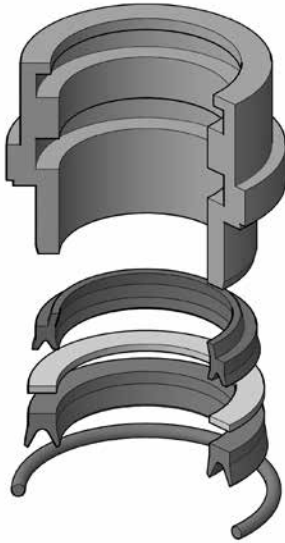
Kit Type		Page
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Series A & L Rod Gland Kits

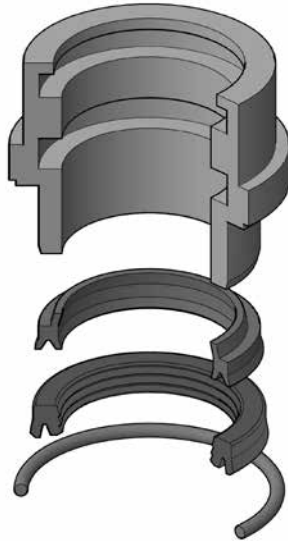
Series A & L Cylinders Nitrile



Kit Includes:

- 1 Bronze Gland
- 1 XNBR Wiper
- 1 PTFE Back-Up Ring
- 1 NBR U-Seal
- 1 NBR O-Ring

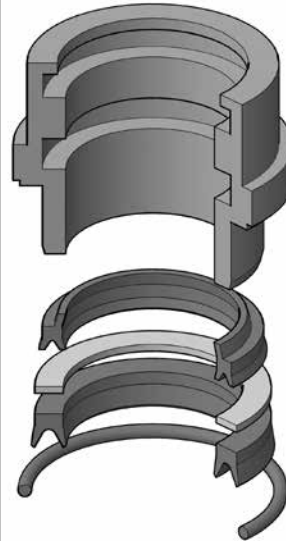
Series L Cylinders Urethane



Kit Includes:

- 1 Bronze Gland
- 1 XNBR Wiper
- 1 Multi-lip Urethane U-Seal
- 1 NBR O-Ring

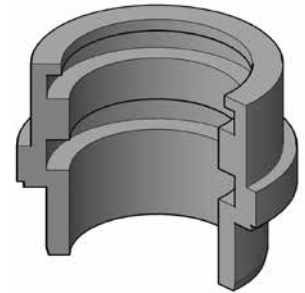
Series A & L Cylinders Fluorocarbon



Kit Includes:

- 1 Bronze Gland
- 1 FC Wiper
- 1 PTFE Back-Up Ring
- 1 FC U-Seal
- 1 FC O-Ring

Series A & L Cylinders Bronze



Kit Includes:

- 1 Bronze Gland

Rod Dia.	(NBR) Kit #	(URE) Kit #	(FC) Kit #	(BZ) Kit #
5/8"	ATL-4A06R000S	ATL-EA06R000S	ATL-4A06R000V	ATL-RGAL-06
1"	ATL-4A10R000S	ATL-EA10R000S	ATL-4A10R000V	ATL-RGAL-10
1-3/8"	ATL-4A13R000S	ATL-EA13R000S	ATL-4A13R000V	ATL-RGAL-13
1-3/4"	ATL-4A17R000S	ATL-EA17R000S	ATL-4A17R000V	ATL-RGAL-17
2"	ATL-4A20R000S	ATL-EA20R000S	ATL-4A20R000V	ATL-RGAL-20
2-1/2"	ATL-4A25R000S	ATL-EA25R000S	ATL-4A25R000V	ATL-RGAL-25
3"	ATL-4A30R000S	ATL-EA30R000S	ATL-4A30R000V	ATL-RGAL-30



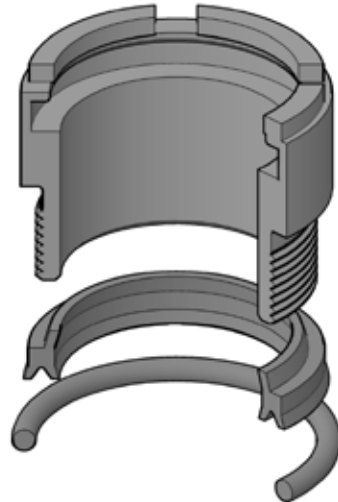
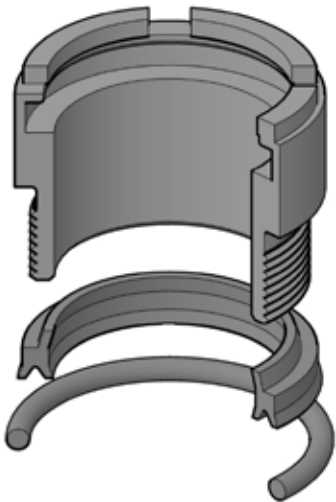
ATLAS

Series 2LA Rod Gland Kits

Series 2LA Air Cylinders

Nitrile

Fluorocarbon



1/2" - 1-3/4"

Kit Includes:

- 1 Bronze gland
- 1 XNBR Wiper/Seal
- 1 NBR O-Ring
- 1 Tube Seal Lubricant

1/2" - 1-3/4"

Kit Includes:

- 1 Bronze gland
- 1 FC Wiper/Seal
- 1 FC O-Ring
- 1 Tube Seal Lubricant

Rod Dia.	(NBR) Kit #	(FC) Kit #
1/2"	ATL-RG02MA0051	ATL-RG02MA0055
5/8"	ATL-RG02MA0061	ATL-RG02MA0065
1"	ATL-RG02MA0101	ATL-RG02MA0105
1-3/8"	ATL-RG02MA0131	ATL-RG02MA0135
1-3/4"	ATL-RG02MA0171	ATL-RG02MA0175

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Series A & L Rod Seal Kits

Series A Cylinders Nitrile



Kit Includes:

- 1 XNBR Wiper
- 1 PTFE Back-up Ring
- 1 NBR U-Seal
- 1 NBR O-Ring

Series L Cylinders Urethane



Kit Includes:

- 1 XNBR Wiper
- 1 Multi-lip Urethane U-Seal
- 1 NBR O-Ring

Series A & L Cylinders Fluorocarbon



Kit Includes:

- 1 FC Wiper
- 1 PTFE Back-up Ring
- 1 FC U-Seal
- 1 FC O-Ring

Rod Dia.	(NBR) Kit #	(URE) Kit #	(FC) Kit #
5/8"	ATL-4A06S000S	ATL-EA06S000S	ATL-4A06S000V
3/4"	ATL-4A07S000S	—	ATL-4A07S000V
1"	ATL-4A10S000S	ATL-EA10S000S	ATL-4A10S000V
1-3/8"	ATL-4A13S000S	ATL-EA13S000S	ATL-4A13S000V
1-3/4"	ATL-4A17S000S	ATL-EA17S000S	ATL-4A17S000V
2"	ATL-4A20S000S	ATL-EA20S000S	ATL-4A20S000V
2-1/2"	ATL-4A25S000S	ATL-EA25S000S	ATL-4A25S000V
3"	ATL-4A30S000S	ATL-EA30S000S	ATL-4A30S000V
3-1/2"	ATL-4A35S000S	ATL-EA35S000S	ATL-4A35S000V
4"	ATL-4A40S000S	ATL-EA40S000S	ATL-4A40S000V
4-1/2"	ATL-4A45S000S	ATL-EA45S000S	ATL-4A45S000V
5"	ATL-4A50S000S	ATL-EA50S000S	ATL-4A50S000V



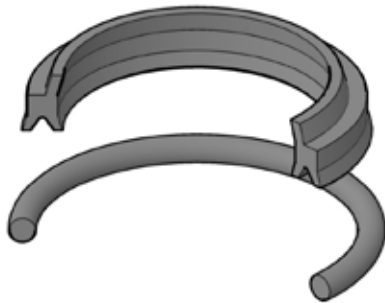
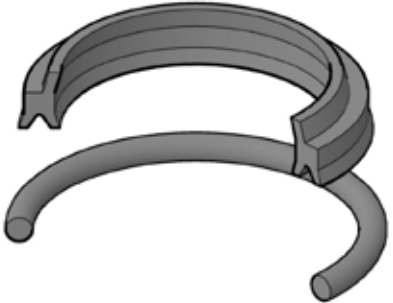
ATLAS

Series 2LA Rod Kits

Series 2LA Air Cylinders

Nitrile

Fluorocarbon



1/2" - 1-3/4"

Kit Includes:

- 1 XNBR Wiper/Seal
- 1 NBR O-Ring
- 1 Tube Seal Lubricant

1/2" - 1-3/4"

Kit Includes:

- 1 FC Wiper/Seal
- 1 FC O-Ring
- 1 Tube Seal Lubricant

Rod Dia.	(NBR) Kit #	(FC) Kit #
1/2"	ATL-RK02MA0051	ATL-RK02MA0055
5/8"	ATL-RK02MA0061	ATL-RK02MA0065
1"	ATL-RK02MA0101	ATL-RK02MA0105
1-3/8"	ATL-RK02MA0131	ATL-RK02MA0135
1-3/4"	ATL-RK02MA0171	ATL-RK02MA0175

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ATLAS

Series A & L Piston Kits

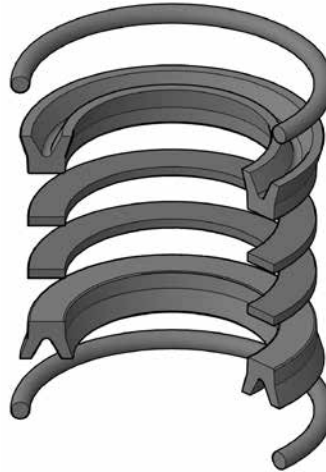
Series A Cylinders Nitrile



Kit Includes:

2 NBR U-Seals
2 HP URE Back-Up Rings
2 NBR O-Ring Head Seals

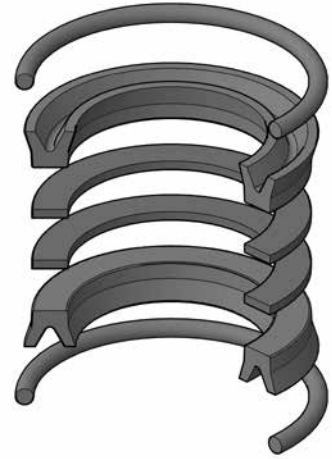
Series L Cylinders Nitrile



Kit Includes:

2 NBR U-Seals
2 HP URE Back-Up Rings
2 NBR O-Ring Head Seals

Series A & L Cylinders Fluorocarbon



Kit Includes:

2 FC U-Seals
2 HP URE Back-Up Rings
2 FC O-Ring head Seals

Bore Dia.	(NBR) Kit #	(NBR) Kit #	(FC) Kit #
1-1/2"	ATL-4B00S015S	ATL-EB00S015S	ATL-4B00S015V
2"	ATL-4B00S020S	ATL-EB00S020S	ATL-4B00S020V
2-1/2"	ATL-4B00S025S	ATL-EB00S025S	ATL-4B00S025V
3-1/4"	ATL-4B00S032S	ATL-EB00S032S	ATL-4B00S032V
4"	ATL-4B00S040S	ATL-EB00S040S	ATL-4B00S040V
5"	ATL-4B00S050S	ATL-EB00S050S	ATL-4B00S050V
6"	ATL-4B00S060S	ATL-EB00S060S	ATL-4B00S060V
7"	ATL-4B00S070S	ATL-4B00S070S	ATL-4B00S070V
8"	ATL-4B00S080S	ATL-EB00S080S	ATL-4B00S080V
10"	ATL-4B00S100S	ATL-4B00S100S	ATL-4B00S100V
12"	ATL-4B00S120S	ATL-4B00S120S	ATL-4B00S120V
14"	ATL-4B00S140S	ATL-4B00S140S	ATL-4B00S140V

HP URE - High Performance Urethane

KANSAS
PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA
PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797



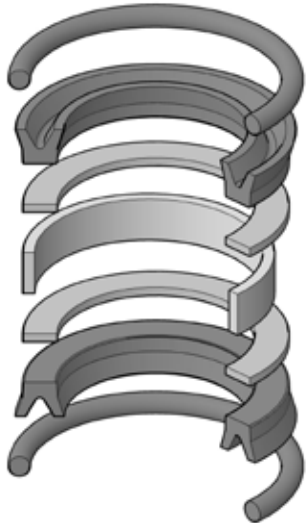
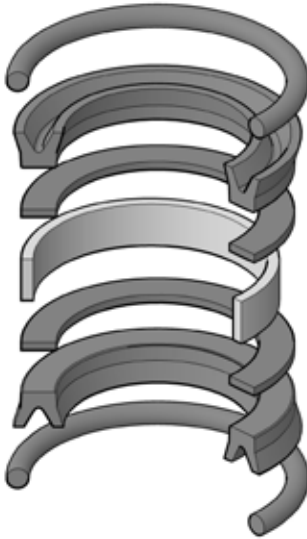
ATLAS

Series 2LA Piston Kits

Series 2LA Air Cylinders

Nitrile

Fluorocarbon



- Kit Includes:**
 2 NBR O-ring Head Seals
 2 NBR U-Seals
 2 URE Back-up Rings
 1 Nylon Wear Ring
 1 Tube Seal Lubricant

- Kit Includes:**
 2 FC O-ring Head Seals
 2 FC U-Seals
 2 PTFE Back-up Rings
 1 Nylon Wear Ring
 1 Tube Seal Lubricant

Bore Dia.	(NBR) Kit #	(FC) Kit #
1-1/2"	ATL-PK1502MA01	ATL-PK1502MA05
2"	ATL-PK2002MA01	ATL-PK2002MA05
2-1/2"	ATL-PK2502MA01	ATL-PK2502MA05
3-1/4"	ATL-PK3202MA01	ATL-PK3202MA05
4"	ATL-PK4002MA01	ATL-PK4002MA05
5"	ATL-PK5002MA01	ATL-PK5002MA05
6"	ATL-PK6002MA01	ATL-PK6002MA05
8"	ATL-PK8002MA01	ATL-PK8002MA05

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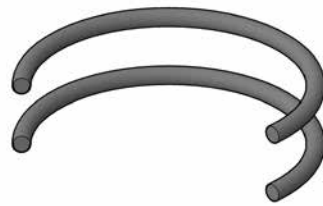
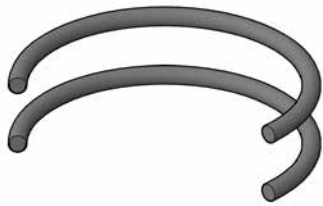
ATLAS

Series A & L Head Seal Kits

Series A & L Head Seal Kits

Nitrile

Fluorocarbon



Kit Includes:
2 NBR O-Ring Head Seals

Kit Includes:
2 FC O-Ring Head Seals

Bore Dia.	(NBR) Kit #	(FC) Kit #
1-1/2"	ATL-4E00S015S	ATL-4E00S015V
2"	ATL-4E00S020S	ATL-4E00S020V
2-1/2"	ATL-4E00S025S	ATL-4E00S025V
3-1/4"	ATL-4E00S032S	ATL-4E00S032V
4"	ATL-4E00S040S	ATL-4E00S040V
5"	ATL-4E00S050S	ATL-4E00S050V
6"	ATL-4E00S060S	ATL-4E00S060V
7"	ATL-4E00S070S	ATL-4E00S070V
8"	ATL-4E00S080S	ATL-4E00S080V
10"	ATL-4E00S100S	ATL-4E00S100V
12"	ATL-4E00S120S	ATL-4E00S120V
14"	ATL-4E00S140S	ATL-4E00S140V

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Series H Rod Seal Kits

Series H Rod Seal Kits

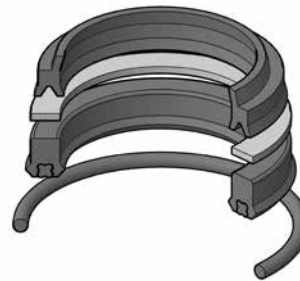
Nitrile

Fluorocarbon



Kit Includes:

- 1 URE Wiper (For cyl. mfg. before April 2005)
- 1 XNBR Wiper (For cyl. mfg. April 2005 and after)
- 1 Multi-lip URE U-Seal
- 1 NBR O-Ring



Kit Includes:

- 1 FC Wiper (For cyl. mfg. April 2005 and after*)
- 1 PTFE Back-Up Rings
- 1 FC Loaded FC U-Seals
- 1 FC O-Ring

Rod Dia.	(NBR) Kit #	(FC) Kit #
5/8"	ATL-PH06SH000	ATL-VH06SH000
1"	ATL-PH10SH000	ATL-VH10SH000
1-3/8"	ATL-PH13SH000	ATL-VH13SH000
1-3/4"	ATL-PH17SH000	ATL-VH17SH000
2"	ATL-PH20SH000	ATL-VH20SH000
2-1/2"	ATL-PH25SH000	ATL-VH25SH000
3"	ATL-PH30SH000	ATL-VH30SH000
3-1/2"	ATL-PH35SH000	ATL-VH35SH000

* Fluorocarbon Rod Seal Kits for cylinders manufactured before April 2005 use a bronze AN style wiper ring.

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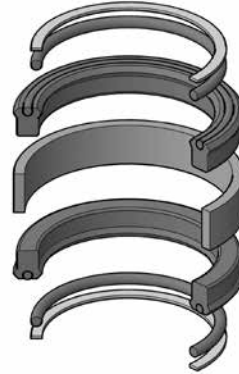
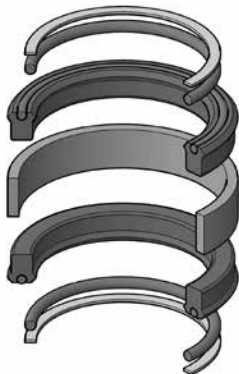
Series H (for cylinders manufactured before April 2005) Piston Seal Kits

ATLAS

Series H Piston Seal Kits

Nitrile

Fluorocarbon



Kit Includes:

- * See notes below
- 2 NBR Loaded URE U-Seals
- 1 Nylon Wear Ring
- 2 NBR O-Ring Head Seals
- 2 PTFE Back-up Rings

Kit Includes:

- * See notes below
- 2 FC Loaded FC U-Seals
- 1 Nylon Wear Ring
- 2 FC O-Ring Head Seals
- 2 PTFE Back-Up Rings

Bore Dia.	(NBR) Kit #	(FC) Kit #
1-1/2"	ATL-1B00S015S	ATL-1B00S015V
2"	ATL-1B00S020S	ATL-1B00S020V
2-1/2"	ATL-1B00S025S	ATL-1B00S025V
3-1/4"	ATL-1B00S032S	ATL-1B00S032V
4"	ATL-1B00S040S	ATL-1B00S040V
5"	ATL-1B00S050S	ATL-1B00S050V
6"	ATL-1B00S060S	ATL-1B00S060V
7"	ATL-1B00S070S	ATL-1B00S070V
8"	ATL-1B00S080S	ATL-1B00S080V
10"	ATL-1B00S100S	ATL-1B00S100V
12"	ATL-1B00S120S	ATL-1B00S120V

* Kit contents are size dependant:
 1-1/2" thru 4" - U-Seals and O-Rings
 5" - U-Seals, O-Rings and Wear Rings
 6" - Same as 5, also includes 2 PTFE U-Seal Back-Up Rings
 7" thru 12" - contain all parts listed



ATLAS

(for cylinders manufactured April 2005 and after) **Series H**
(1-1/2" to 6" Bores) **Piston Seal Kits**

Series H Piston Seal Kits

Nitrile

Fluorocarbon



Kit Includes:
2 NBR O-Ring Head Seals
2 HP URE Back-up Rings
2 NBR U-Seals

Kit Includes:
2 FC O-Ring Head Seals
2 PTFE Back-Up Rings
2 FC U-Seals

Bore Dia.	(NBR) Kit #	(FC) Kit #
1-1/2"	ATL-PH00LH015	ATL-VH00LH015
2"	ATL-PH00LH020	ATL-VH00LH020
2-1/2"	ATL-PH00LH025	ATL-VH00LH025
3-1/4"	ATL-PH00LH032	ATL-VH00LH032
4"	ATL-PH00LH040	ATL-VH00LH040
5"	ATL-PH00LH050	ATL-VH00LH050
6"	ATL-PH00LH060	ATL-VH00LH060

HP URE - High Performance Urethane

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Series H (for cylinders manufactured April 2005 and after) Piston Seal Kits (7" & 8" Bores)

ATLAS

Series H Piston Seal Kits

Nitrile

Fluorocarbon



- Kit Includes:**
 2 NBR Back-Up Rings
 2 NBR O-Ring Head Seals
 2 Nylon Wear Rings
 1 Bronze filled PTFE Piston Ring
 w/ 1 NBR Expander

- Kit Includes:**
 2 PTFE Back-Up Rings
 2 FC O-Ring Head Seals
 2 Nylon Wear Rings
 1 Bronze filled PTFE Piston Ring
 w/1 FC Expander

Bore Dia.	(NBR) Kit #	(FC) Kit #
7"	ATL-PH00KH070	ATL-VH00KH070
8"	ATL-PH00KH080	ATL-VH00KH080

High load Piston Seal Kits are standard for 7" & 8" Bores



ATLAS

(for cylinders manufactured before April 2005) **Series H Head Seal Kits**

Nitrile Series H Head Seal Kits Fluorocarbon



Kit Includes:
2 NBR O-Ring Head Seals
2 PTFE Back-up Rings*



Kit Includes:
2 FC O-Ring Head Seals
2 PTFE Back-up Rings*

Bore Dia.	(NBR) Kit #	(FC) Kit #
1-1/2"	ATL-1E00S015S	ATL-1E00S015V
2"	ATL-1E00S020S	ATL-1E00S020V
2-1/2"	ATL-1E00S025S	ATL-1E00S025V
3-1/4"	ATL-1E00S032S	ATL-1E00S032V
4"	ATL-1E00S040S	ATL-1E00S040V
5"	ATL-1E00S050S	ATL-1E00S050V
6"	ATL-1E00S060S	ATL-1E00S060V
7"	ATL-1E00S070S	ATL-1E00S070V
8"	ATL-1E00S080S	ATL-1E00S080V
10"	ATL-1E00S100S	ATL-1E00S100V
12"	ATL-1E00S120S	ATL-1E00S120V

* Back-up Rings in 7", 8", 10" and 12" kits only

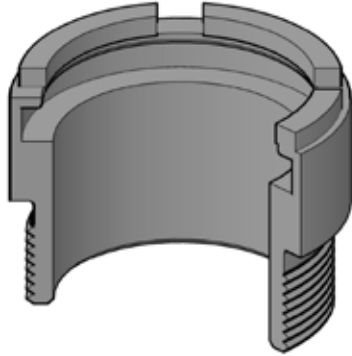
ATLAS



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Bronze Rod Glands

Series 2LA Air Cylinders



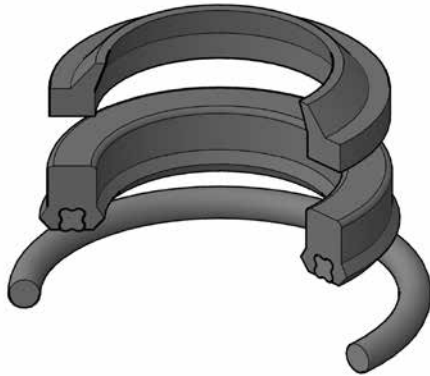
Rod Dia.	Kit #
1/2"	ATL-RG02MA-05
5/8"	ATL-RG02MA-06
1"	ATL-RG02MA-10
1-3/8"	ATL-RG02MA-13
1-3/4"	ATL-RG02MA-17

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Rod Kits

Hydraulic Cylinders



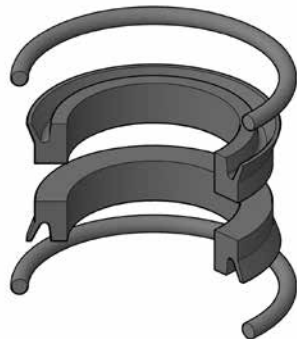
Kit Includes:
 1 URE Wiper
 1 URE Loaded U-seal
 1 NBR O-ring

Rod Dia.	Kit #
5/8"	ATL-HRK62
1"	ATL-HRK100
1-3/8"	ATL-HRK137
1-3/8"	ATL-90030340-79
1-3/8"	ATL-90030370-79
1-3/4"	ATL-HRK175
1-3/4"	ATL-90030340-69
1-3/4"	ATL-90030370-69
2"	ATL-HRK200

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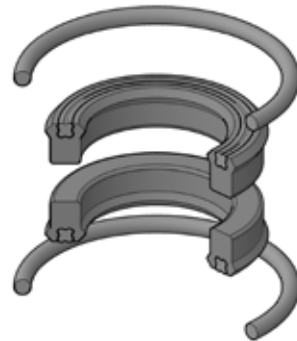
Piston Kits

Pneumatic Cylinders Hydraulic Cylinders



Kit Includes:
 2 URE U-seals
 2 NBR O-rings

Bore Dia.	Kit #
1-1/2"	—
2"	ATL-APK20-000
2-1/2"	ATL-APK25-000
3-1/4"	—
4"	ATL-APK40-000
5"	ATL-APK50-000
6"	ATL-APK60-000
8"	ATL-APK80-000
10"	ATL-APK100-000



Kit Includes:
 2 URE Loaded U-seals
 2 NBR O-rings

Kit #
ATL-HPK15-000
ATL-HPK20-000
ATL-HPK25-000
ATL-HPK35-000
ATL-HPK40-000
ATL-HPK50-000
ATL-HPK60-000
ATL-HPK80-000
—



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Kit Number	Code	Rod Size	Bore Size
ATL-1B00S015S	N-N-5		1-1/2
ATL-1B00S015V	N-N-5		1-1/2
ATL-1B00S020S	N-N-5		2
ATL-1B00S020V	N-N-5		2
ATL-1B00S025S	N-N-5		2-1/2
ATL-1B00S025V	N-N-5		2-1/2
ATL-1B00S032S	N-N-5		3-1/4
ATL-1B00S032V	N-N-5		3-1/4
ATL-1B00S040S	N-N-5		4
ATL-1B00S040V	N-N-5		4
ATL-1B00S050S	N-N-5		5
ATL-1B00S050V	N-N-5		5
ATL-1B00S060S	N-N-5		6
ATL-1B00S060V	N-N-5		6
ATL-1B00S070S	N-N-5		7
ATL-1B00S070V	N-N-5		7
ATL-1B00S080S	N-N-5		8
ATL-1B00S080V	N-N-5		8
ATL-1B00S100S	N-N-5		10
ATL-1B00S100V	N-N-5		10
ATL-1B00S120S	N-N-5		12
ATL-1B00S120V	N-N-5		12
ATL-1E00S015S	Head Seal Kit		1-1/2
ATL-1E00S015V	Head Seal Kit		1-1/2
ATL-1E00S020S	Head Seal Kit		2
ATL-1E00S020V	Head Seal Kit		2
ATL-1E00S025S	Head Seal Kit		2-1/2
ATL-1E00S025V	Head Seal Kit		2-1/2
ATL-1E00S032S	Head Seal Kit		3-1/4
ATL-1E00S032V	Head Seal Kit		3-1/4
ATL-1E00S040S	Head Seal Kit		4
ATL-1E00S040V	Head Seal Kit		4
ATL-1E00S050S	Head Seal Kit		5
ATL-1E00S050V	Head Seal Kit		5
ATL-1E00S060S	Head Seal Kit		6
ATL-1E00S060V	Head Seal Kit		6
ATL-1E00S070S	Head Seal Kit		7
ATL-1E00S070V	Head Seal Kit		7
ATL-1E00S080S	Head Seal Kit		8
ATL-1E00S080V	Head Seal Kit		8
ATL-1E00S100S	Head Seal Kit		10
ATL-1E00S100V	Head Seal Kit		10
ATL-1E00S120S	Head Seal Kit		12
ATL-1E00S120V	Head Seal Kit		12
ATL-4A06R000S	I-U-1	5/8	
ATL-4A06R000V	I-U-1	5/8	
ATL-4A06S000S	I-U-1	5/8	
ATL-4A06S000V	I-U-1	5/8	
ATL-4A07S000S	I-U-1	3/4	
ATL-4A07S000V	I-U-1	3/4	

Kit Number	Code	Rod Size	Bore Size
ATL-4A10R000S	I-U-1	1	
ATL-4A10R000V	I-U-1	1	
ATL-4A10S000S	I-U-1	1	
ATL-4A10S000V	I-U-1	1	
ATL-4A13R000S	I-U-1	1-3/8	
ATL-4A13R000V	I-U-1	1-3/8	
ATL-4A13S000S	I-U-1	1-3/8	
ATL-4A13S000V	I-U-1	1-3/8	
ATL-4A17R000S	I-U-1	1-3/4	
ATL-4A17R000V	I-U-1	1-3/4	
ATL-4A17S000S	I-U-1	1-3/4	
ATL-4A17S000V	I-U-1	1-3/4	
ATL-4A20R000S	I-U-1	2	
ATL-4A20R000V	I-U-1	2	
ATL-4A20S000S	I-U-1	2	
ATL-4A20S000V	I-U-1	2	
ATL-4A25R000S	I-U-1	2-1/2	
ATL-4A25R000V	I-U-1	2-1/2	
ATL-4A25S000S	I-U-1	2-1/2	
ATL-4A25S000V	I-U-1	2-1/2	
ATL-4A30R000S	I-U-1	3	
ATL-4A30R000V	I-U-1	3	
ATL-4A30S000S	I-U-1	3	
ATL-4A30S000V	I-U-1	3	
ATL-4A35S000S	I-U-1	3-1/2	
ATL-4A35S000V	I-U-1	3-1/2	
ATL-4A40S000S	I-U-1	4	
ATL-4A40S000V	I-U-1	4	
ATL-4A45S000S	I-U-1	4-1/2	
ATL-4A45S000V	I-U-1	4-1/2	
ATL-4A50S000S	I-U-1	5	
ATL-4A50S000V	I-U-1	5	
ATL-4B00S015S	N-N-5		1-1/2
ATL-4B00S015V	N-N-5		1-1/2
ATL-4B00S020S	N-N-5		2
ATL-4B00S020V	N-N-5		2
ATL-4B00S025S	N-N-5		2-1/2
ATL-4B00S025V	N-N-5		2-1/2
ATL-4B00S032S	N-N-5		3-1/4
ATL-4B00S032V	N-N-5		3-1/4
ATL-4B00S040S	N-N-5		4
ATL-4B00S040V	N-N-5		4
ATL-4B00S050S	N-N-5		5
ATL-4B00S050V	N-N-5		5
ATL-4B00S060S	N-N-5		6
ATL-4B00S060V	N-N-5		6
ATL-4B00S070S	N-N-5		7
ATL-4B00S070V	N-N-5		7
ATL-4B00S080S	N-N-5		8
ATL-4B00S080V	N-N-5		8

KANSAS
 PHONE 1-316-267-1051
 FAX 1-316-267-1010

OKLAHOMA
 PHONE 1-918-446-4591
 FAX 1-918-446-4743

TEXAS
 PHONE 1-903-753-0341
 FAX 1-903-236-9797



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Kit Number	Code	Rod Size	Bore Size
ATL-4B00S100S	N-N-5		10
ATL-4B00S100V	N-N-5		10
ATL-4B00S120S	N-N-5		12
ATL-4B00S120V	N-N-5		12
ATL-4B00S140S	N-N-5		14
ATL-4B00S140V	N-N-5		14
ATL-4E00S015S	Head Seal Kit		1-1/2
ATL-4E00S015V	Head Seal Kit		1-1/2
ATL-4E00S020S	Head Seal Kit		2
ATL-4E00S020V	Head Seal Kit		2
ATL-4E00S025S	Head Seal Kit		2-1/2
ATL-4E00S025V	Head Seal Kit		2-1/2
ATL-4E00S032S	Head Seal Kit		3-1/4
ATL-4E00S032V	Head Seal Kit		3-1/4
ATL-4E00S040S	Head Seal Kit		4
ATL-4E00S040V	Head Seal Kit		4
ATL-4E00S050S	Head Seal Kit		5
ATL-4E00S050V	Head Seal Kit		5
ATL-4E00S060S	Head Seal Kit		6
ATL-4E00S060V	Head Seal Kit		6
ATL-4E00S070S	Head Seal Kit		7
ATL-4E00S070V	Head Seal Kit		7
ATL-4E00S080S	Head Seal Kit		8
ATL-4E00S080V	Head Seal Kit		8
ATL-4E00S100S	Head Seal Kit		10
ATL-4E00S100V	Head Seal Kit		10
ATL-4E00S120S	Head Seal Kit		12
ATL-4E00S120V	Head Seal Kit		12
ATL-4E00S140S	Head Seal Kit		14
ATL-4E00S140V	Head Seal Kit		14
ATL-90030340-69	I-U-1	1-3/4	
ATL-90030340-79	I-U-1	1-3/8	
ATL-90030370-69	I-U-1	1-3/4	
ATL-90030370-79	I-U-1	1-3/8	
ATL-APK100-000	N-N-5		10
ATL-APK20-000	N-N-5		2
ATL-APK25-000	N-N-5		2-1/2
ATL-APK40-000	N-N-5		4
ATL-APK50-000	N-N-5		5
ATL-APK60-000	N-N-5		6
ATL-APK80-000	N-N-5		8
ATL-EA06R000S	I-U-1	5/8	
ATL-EA06S000S	I-U-1	5/8	
ATL-EA10R000S	I-U-1	1	
ATL-EA10S000S	I-U-1	1	
ATL-EA13R000S	I-U-1	1-3/8	
ATL-EA13S000S	I-U-1	1-3/8	
ATL-EA17R000S	I-U-1	1-3/4	
ATL-EA17S000S	I-U-1	1-3/4	
ATL-EA20R000S	I-U-1	2	

Kit Number	Code	Rod Size	Bore Size
ATL-EA20S000S	I-U-1	2	
ATL-EA25R000S	I-U-1	2-1/2	
ATL-EA25S000S	I-U-1	2-1/2	
ATL-EA30R000S	I-U-1	3	
ATL-EA30S000S	I-U-1	3	
ATL-EA35S000S	I-U-1	3-1/2	
ATL-EA40S000S	I-U-1	4	
ATL-EA45S000S	I-U-1	4-1/2	
ATL-EA50S000S	I-U-1	5	
ATL-EB00S015S	N-N-5		1-1/2
ATL-EB00S020S	N-N-5		2
ATL-EB00S025S	N-N-5		2-1/2
ATL-EB00S032S	N-N-5		3-1/4
ATL-EB00S040S	N-N-5		4
ATL-EB00S050S	N-N-5		5
ATL-EB00S060S	N-N-5		6
ATL-4B00S070S	N-N-5		7
ATL-EB00S080S	N-N-5		8
ATL-HPK15-000	N-N-5		1-1/2
ATL-HPK20-000	N-N-5		2
ATL-HPK25-000	N-N-5		2-1/2
ATL-HPK35-000	N-N-5		3-1/4
ATL-HPK40-000	N-N-5		4
ATL-HPK50-000	N-N-5		5
ATL-HPK60-000	N-N-5		6
ATL-HPK80-000	N-N-5		8
ATL-HRK100	I-U-1	1	
ATL-HRK137	I-U-1	1-3/8	
ATL-HRK175	I-U-1	1-3/4	
ATL-HRK200	I-U-1	2	
ATL-HRK62	I-U-1	5/8	
ATL-PH00KH070	N-N-1		7
ATL-PH00KH080	N-N-1		8
ATL-PH00LH015	N-N-5		1-1/2
ATL-PH00LH020	N-N-5		2
ATL-PH00LH025	N-N-5		2-1/2
ATL-PH00LH032	N-N-5		3-1/4
ATL-PH00LH040	N-N-5		4
ATL-PH00LH050	N-N-5		5
ATL-PH00LH060	N-N-5		6
ATL-PH06SH000	I-U-1	5/8	
ATL-PH10SH000	I-U-1	1	
ATL-PH13SH000	I-U-1	1-3/8	
ATL-PH17SH000	I-U-1	1-3/4	
ATL-PH20SH000	I-U-1	2	
ATL-PH25SH000	I-U-1	2-1/2	
ATL-PH30SH000	I-U-1	3	
ATL-PH35SH000	I-U-1	3-1/2	
ATL-PK1502MA01	N-N-5		1-1/2
ATL-PK1502MA05	N-N-5		1-1/2

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Kit Number	Code	Rod Size	Bore Size
ATL-PK2002MA01	N-N-5		2
ATL-PK2002MA05	N-N-5		2
ATL-PK2502MA01	N-N-5		2-1/2
ATL-PK2502MA05	N-N-5		2-1/2
ATL-PK3202MA01	N-N-5		3-1/4
ATL-PK3202MA05	N-N-5		3-1/4
ATL-PK4002MA01	N-N-5		4
ATL-PK4002MA05	N-N-5		4
ATL-PK5002MA01	N-N-5		5
ATL-PK5002MA05	N-N-5		5
ATL-PK6002MA01	N-N-5		6
ATL-PK6002MA05	N-N-5		6
ATL-PK8002MA01	N-N-5		8
ATL-PK8002MA05	N-N-5		8
ATL-RGAL-06	Bronze Rod Gland	5/8	
ATL-RGAL-10	Bronze Rod Gland	1	
ATL-RGAL-13	Bronze Rod Gland	1-3/8	
ATL-RGAL-17	Bronze Rod Gland	1-3/4	
ATL-RGAL-20	Bronze Rod Gland	2	
ATL-RGAL-25	Bronze Rod Gland	2-1/2	
ATL-RGAL-30	Bronze Rod Gland	3	
ATL-RG02MA0051	I-SP-1	1/2	
ATL-RG02MA0055	I-SP-1	1/2	
ATL-RG02MA0061	I-SP-1	5/8	
ATL-RG02MA0065	I-SP-1	5/8	
ATL-RG02MA0101	I-SP-1	1	
ATL-RG02MA0105	I-SP-1	1	
ATL-RG02MA0131	I-SP-1	1-3/8	
ATL-RG02MA0135	I-SP-1	1-3/8	
ATL-RG02MA0171	I-SP-1	1-3/4	
ATL-RG02MA0175	I-SP-1	1-3/4	
ATL-RG02MA-05	Bronze Rod Gland	1/2	

Kit Number	Code	Rod Size	Bore Size
ATL-RG02MA-06	Bronze Rod Gland	5/8	
ATL-RG02MA-10	Bronze Rod Gland	1	
ATL-RG02MA-13	Bronze Rod Gland	1-3/8	
ATL-RG02MA-17	Bronze Rod Gland	1-3/4	
ATL-RK02MA0051	I-SP-1	1/2	
ATL-RK02MA0055	I-SP-1	1/2	
ATL-RK02MA0061	I-SP-1	5/8	
ATL-RK02MA0065	I-SP-1	5/8	
ATL-RK02MA0101	I-SP-1	1	
ATL-RK02MA0105	I-SP-1	1	
ATL-RK02MA0131	I-SP-1	1-3/8	
ATL-RK02MA0135	I-SP-1	1-3/8	
ATL-RK02MA0171	I-SP-1	1-3/4	
ATL-RK02MA0175	I-SP-1	1-3/4	
ATL-VH00KH070	N-N-1		7
ATL-VH00KH080	N-N-1		8
ATL-VH00LH015	N-N-5		1-1/2
ATL-VH00LH020	N-N-5		2
ATL-VH00LH025	N-N-5		2-1/2
ATL-VH00LH032	N-N-5		3-1/4
ATL-VH00LH040	N-N-5		4
ATL-VH00LH050	N-N-5		5
ATL-VH00LH060	N-N-5		6
ATL-VH06SH000	I-U-1	5/8	
ATL-VH10SH000	I-U-1	1	
ATL-VH13SH000	I-U-1	1-3/8	
ATL-VH17SH000	I-U-1	1-3/4	
ATL-VH20SH000	I-U-1	2	
ATL-VH25SH000	I-U-1	2-1/2	
ATL-VH30SH000	I-U-1	3	
ATL-VH35SH000	I-U-1	3-1/2	



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A5 Series Rod Kits

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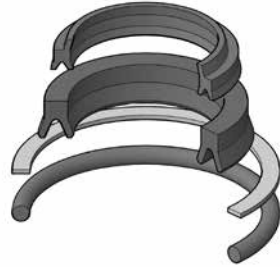
A5 Cylinders		HA5 Cylinders	
Nitrile	Fluorocarbon	Urethane	Fluorocarbon



- Kit Includes:**
 1 XNBR Wiper
 1 URE Back-up Ring
 1 NBR U-seal
 1 PTFE Back-up Ring
 1 NBR O-ring



- Kit Includes:**
 1 FC Wiper
 1 PTFE Back-up Ring
 1 FC U-seal
 1 PTFE Back-up Ring
 1 FC O-ring



- Kit Includes:**
 1 XNBR Wiper
 1 URE U-seal
 1 PTFE Back-up Ring
 1 NBR O-ring



- Kit Includes:**
 1 FC Wiper
 1 PTFE Back-up Ring
 1 FC Loaded U-seal
 1 PTFE Back-up Ring
 1 FC O-ring

Rod Dia.	(NBR) Kit #	(FC) Kit #	(URE) Kit #	(FC) Kit #
5/8"	HSKN5-660-05	HSKN5-660-05V	HSKN5-681-05	HSKN5-660-P-05V
1"	HSKN5-660-08	HSKN5-660-08V	HSKN5-681-08	HSKN5-660-P-08V
1-3/8"	HSKN5-660-11	HSKN5-660-11V	HSKN5-681-11	HSKN5-660-P-11V

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A5 Series Piston Kits

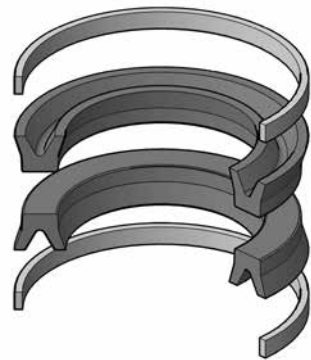
A5 Cylinders

Nitrile

Fluorocarbon



Kit Includes:
2 NBR U-seals
2 PTFE Tube End Seals



Kit Includes:
2 FC U-seals
2 PTFE Tube End Seals

Bore Dia.	(NBR) Kit #	(FC) Kit #
1-1/2"	HSKA5-512-03	HSKA5-512-03V
2"	HSKA5-512-04	HSKA5-512-04V
2-1/2"	HSKA5-512-05	HSKA5-512-05V
3-1/4"	HSKA5-512-065	HSKA5-512-065V
4"	HSKA5-512-08	HSKA5-512-08V
5"	HSKA5-512-10	HSKA5-512-10V
6"	HSKA5-512-12	HSKA5-512-12V

Tube End Seals

A5 Cylinders PTFE

Bore Dia.	Part #
1-1/2"	HS-C221-03
2"	HS-C221-04
2-1/2"	HS-C221-05
3-1/4"	HS-C221-065
4"	HS-C221-08
5"	HS-C221-10
6"	HS-C221-12



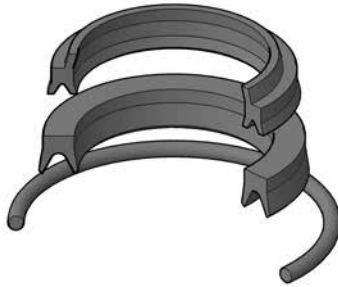
HYDRO-LINE®



HYDRO-LINE

E2 Series Rod Kits

E2 Cylinders Nitrile



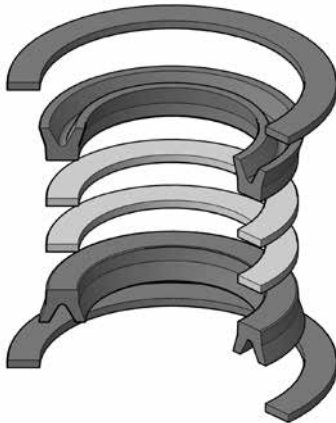
Rod Dia.	(NBR) Kit #
5/8"	HSKE2-660-05
1"	HSKE2-660-08
1-3/8"	HSKE2-660-11

Kit Includes:

- 1 XNBR Wiper
- 1 NBR U-seal
- 1 NBR O-ring

Piston Kits

E2 Cylinders Nitrile



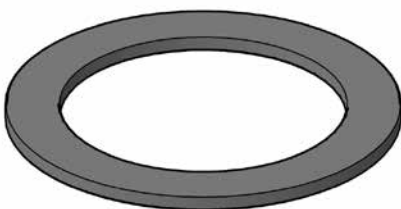
Bore Dia.	(NBR) Kit #
2"	HSKE2-512-04
3-1/4"	HSKE2-512-065
4"	HSKE2-512-08

Kit Includes:

- 2 NBR U-seals
- 2 PTFE Back-up Rings (found in 2" & 4" Bore Kits Only)
- 2 Fiber Gaskets

Tube End Seals

E2 Cylinders Fiber



Bore Dia.	Part #
1-1/2"	HS-E304-03
2"	HS-E304-04
3-1/4"	HS-E304-065
4"	HS-E304-08

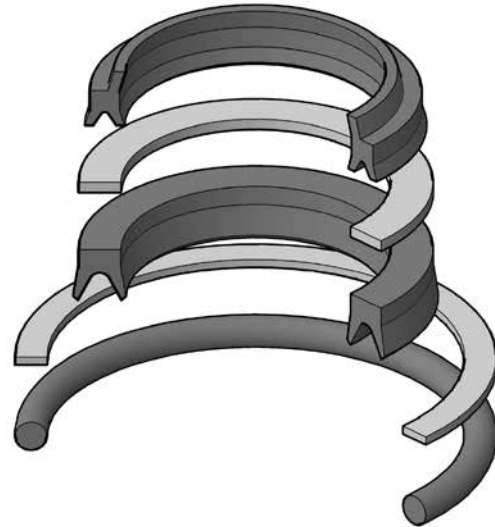
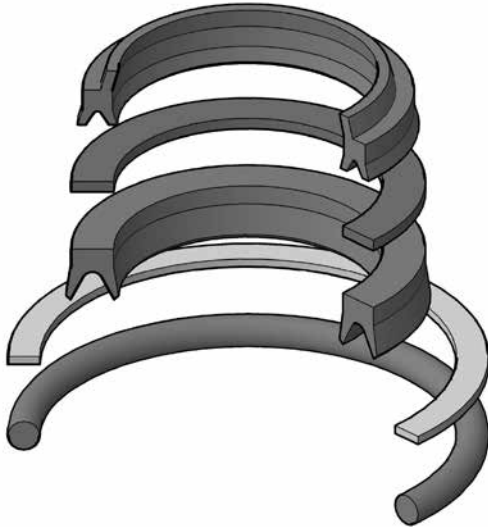
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N2 Series Rod Kits

N2 Cylinders

Nitrile

Fluorocarbon



- Kit Includes:**
 1 XNBR Wiper
 1 URE Back-up Ring
 1 NBR U-seal
 1 PTFE Back-up Ring
 1 NBR O-ring

- Kit Includes:**
 1 FC Wiper
 1 PTFE Back-up Ring
 1 FC U-seal
 1 PTFE Back-up Ring
 1 FC O-ring

Rod Dia.	(NBR) Kit #	(FC) Kit #
5/8"	HSKN2-661-05	HSKN2-661-05V
1"	HSKN2-661-08	HSKN2-661-08V
1-3/8"	HSKN2-661-11	HSKN2-661-11V
1-3/4"	HSKN2-661-14	HSKN2-661-14V
2"	HSKN2-661-16	HSKN2-661-16V
2-1/2"	HSKN2-661-20	HSKN2-661-20V
3"	HSKN5-660-24	HSKN5-660-24V
3-1/2"	HSKN5-660-28	HSKN5-660-28V
4"	HSKN5-660-32	HSKN5-660-32V
4-1/2"	HSKN5-660-36	HSKN5-660-36V
5"	HSKN5-660-40	HSKN5-660-40V
5-1/2"	HSKN5-660-44	HSKN5-660-44V

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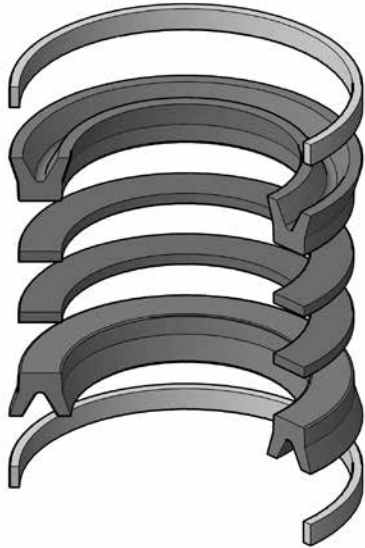


HYDRO-LINE

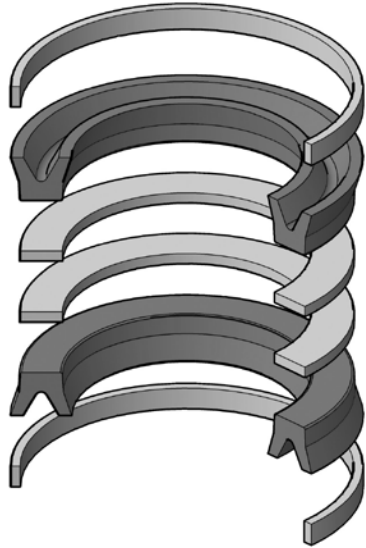
N2 Series Piston Kits

HYDRO-LINE®

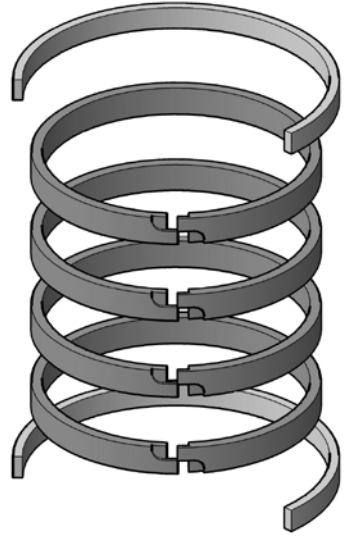
Nitrile N2 Cylinders Fluorocarbon Piston Ring



Kit Includes:
 2 NBR U-seals
 2 URE Back-up Rings
 2 PTFE Tube End Seals



Kit Includes:
 2 FC U-seals
 2 PTFE Back-up Rings
 2 PTFE Tube End Seals



Kit Includes:
 4 Cast-Iron Piston Rings
 2 PTFE Tube End Seals

Bore Dia.	(NBR) Kit #	(FC) Kit #	(PR) Kit #
1-1/2"	HSKN2-512-03	HSKN2-512-03V	HSKN2-511-03
2"	HSKN2-512-04	HSKN2-512-04V	HSKN2-511-04
2-1/2"	HSKN2-512-05	HSKN2-512-05V	HSKN2-511-05
3-1/4"	HSKN2-512-065	HSKN2-512-065V	HSKN2-511-065
4"	HSKN2-512-08	HSKN2-512-08V	HSKN2-511-08
5"	HSKN2-512-10	HSKN2-512-10V	HSKN2-511-10
6"	HSKN2-512-12	HSKN2-512-12V	HSKN2-511-12
7"	HSKN2-512-14	HSKN2-512-14V	HSKN2-511-14
8"	HSKN2-512-16	HSKN2-512-16V	HSKN2-511-16
10"	HSKN2-512-20	HSKN2-512-20V	HSKN2-511-20
12"	HSKN2-512-24	HSKN2-512-24V	HSKN2-511-24

KANSAS
 PHONE 1-316-267-1051
 FAX 1-316-267-1010

OKLAHOMA
 PHONE 1-918-446-4591
 FAX 1-918-446-4743

TEXAS
 PHONE 1-903-753-0341
 FAX 1-903-236-9797

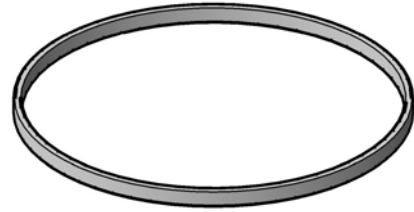


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N2 Series Tube End Seals

N2 Cylinders PTFE

Bore Dia.	Part #
1-1/2"	HS-C124-03
2"	HS-C124-04
2-1/2"	HS-C124-05
3-1/4"	HS-C124-065
4"	HS-C124-08
5"	HS-C124-10
6"	HS-C124-12
7" & UP	HS-C124-STRIP (sold by the foot)



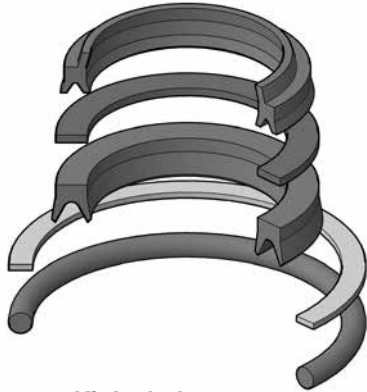
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HYDRO-LINE

N5 Series Rod Kits

N5 & AN5 Cylinders Nitrile



Kit Includes:

- 1 XNBR Wiper
- 1 URE Back-up Ring
- 1 NBR U-seal
- 1 PTFE Back-up Ring
- 1 NBR O-ring

Rod Dia.	(NBR) Kit #
5/8"	HSKN5-660-05
1"	HSKN5-660-08
1-3/8"	HSKN5-660-11
1-3/4"	HSKN5-660-14
2"	HSKN5-660-16
2-1/2"	HSKN5-660-20
3"	HSKN5-660-24
3-1/2"	HSKN5-660-28
4"	HSKN5-660-32
4-1/2"	HSKN5-660-36
5"	HSKN5-660-40
5-1/2"	HSKN5-660-44

Rod Kits

N5 Cylinders Fluorocarbon



Kit Includes:

- 1 FC Wiper
- 1 PTFE Back-up Ring
- 1 FC U-seal
- 1 PTFE Back-up Ring
- 1 FC O-ring

Rod Dia.	(FC) Kit #
5/8"	HSKN5-660-05V
1"	HSKN5-660-08V
1-3/8"	HSKN5-660-11V
1-3/4"	HSKN5-660-14V
2"	HSKN5-660-16V
2-1/2"	HSKN5-660-20V
3"	HSKN5-660-24V
3-1/2"	HSKN5-660-28V
4"	HSKN5-660-32V
4-1/2"	HSKN5-660-36V
5"	HSKN5-660-40V
5-1/2"	HSKN5-660-44V

HYDRO-LINE

N5 Series Rod Kits

N5 Cylinders

Urethane



- Kit Includes:**
 1 XNBR Wiper
 1 URE U-seal
 1 PTFE Back-up Ring
 1 NBR O-ring

Urethane



- Kit Includes:**
 1 XNBR Wiper
 1 Urethane Back-up Ring
 1 Urethane Loaded U-seal
 1 PTFE Back-up Ring
 1 NBR O-ring

Fluorocarbon



- Kit Includes:**
 1 FC Wiper
 1 PTFE Back-up Ring
 1 FC Loaded U-seal
 1 PTFE Back-up Ring
 1 FC O-ring

Rod Dia.	(URE) Kit #	(URE) Kit #	(FC) Kit #
1/2"	—	HSKN5-660-P-04	—
5/8"	HSKN5-681-05	—	HSKN5-660-P-05V
1"	HSKN5-681-08	HSKN5-660-P-08	HSKN5-660-P-08V
1-3/8"	HSKN5-681-11	—	HSKN5-660-P-11V
1-3/4"	HSKN5-681-14	HSKN5-660-P-14	HSKN5-660-P-14V
2"	HSKN5-681-16	—	HSKN5-660-P-16V
2-1/2"	HSKN5-681-20	HSKN5-660-P-20	HSKN5-660-P-20V
3"	HSKN5-681-24	—	HSKN5-660-P-24V
3-1/2"	HSKN5-681-28	HSKN5-660-P-28	HSKN5-660-P-28V
4"	HSKN5-681-32	—	HSKN5-660-P-32V
4-1/2"	HSKN5-681-36	—	HSKN5-660-P-36V
5"	HSKN5-681-40	—	HSKN5-660-P-40V
5-1/2"	HSKN5-681-44	—	HSKN5-660-P-44V



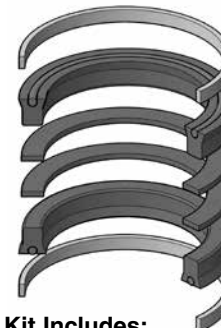
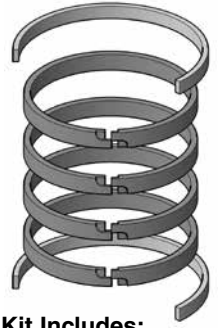
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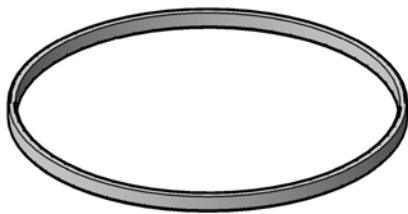
N5 Series Piston Kits

HYDRO-LINE®

Bore Dia.	N5 Cylinders			
	Nitrile	Fluorocarbon	Urethane	Piston Ring
				
	Kit Includes: 2 NBR U-seals 2 URE Back-up Rings 2 PTFE Tube End Seals	Kit Includes: 2 FC U-seals 2 PTFE Back-up Rings 2 PTFE Tube End Seals	Kit Includes: 2 Urethane U-seals 2 URE Back-up Rings 2 PTFE Tube End Seals	Kit Includes: 4 Cast-Iron Piston Rings 2 PTFE Tube End Seals
(NBR) Kit #	(FC) Kit #	(URE) Kit #	(PR) Kit #	
1-1/2"	HSKN5-512-03	HSKN5-512-03V	—	HSKN5-511-03
2"	HSKN5-512-04	HSKN5-512-04V	—	HSKN5-511-04
2-1/2"	HSKN5-512-05	HSKN5-512-05V	HSKN5-512-P-05	HSKN5-511-05
3-1/4"	HSKN5-512-065	HSKN5-512-065V	—	HSKN5-511-065
4"	HSKN5-512-08	HSKN5-512-08V	—	HSKN5-511-08
5"	HSKN5-512-10	HSKN5-512-10V	—	HSKN5-511-10
6"	HSKN5-512-12	HSKN5-512-12V	—	HSKN5-511-12
7"	HSKN5-512-14	HSKN5-512-14V	—	HSKN5-511-14
8"	HSKN5-512-16	HSKN5-512-16V	HSKN5-512-P-16	HSKN5-511-16
10"	HSKN2-512-20	HSKN2-512-20V	—	HSKN2-511-20
12"	HSKN2-512-24	HSKN2-512-24V	—	HSKN2-511-24

Tube End Seals

N5 Cylinders PTFE



Bore Dia.	Part #
1-1/2"	HS-C255-03
2"	HS-C255-04
2-1/2"	HS-C255-05
3-1/4"	HS-C255-065
4"	HS-C255-08
5"	HS-C255-10
6"	HS-C255-12
7"	HS-C255-14
8"	HS-C255-16
10" & UP	HS-C124-STRIP (sold by the foot)

KANSAS
PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA
PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797

HYDRO-LINE

R2 Series Rod Kits

R2 & LR2 Cylinders

Nitrile

Fluorocarbon

Urethane

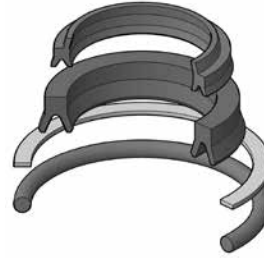
Fluorocarbon



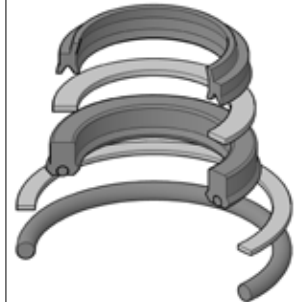
Kit Includes:
 1 XNBR Wiper
 1 URE Back-up Ring
 1 NBR U-seal
 1 PTFE Back-up Ring
 1 NBR O-ring



Kit Includes:
 1 FC Wiper
 1 PTFE Back-up Ring
 1 FC U-seal
 1 PTFE Back-up Ring
 1 FC O-ring



Kit Includes:
 1 XNBR Wiper
 1 URE U-seal
 1 PTFE Back-up Ring
 1 NBR O-ring



Kit Includes:
 1 FC Wiper
 1 PTFE Back-up Ring
 1 FC Loaded U-seal
 1 PTFE Back-up Ring
 1 FC O-ring

Rod Dia.	Bore Dia.	(NBR) Kit #	(FC) Kit #	(URE) Kit #	(FC) Kit #
5/8"	1"	HSKR2-662-05A	HSKR2-662-05AV	HSKR2-681-05A	HSKR2-662-P-05AV
5/8"	1.5" & UP	HSKN2-661-05	HSKN2-661-05V	—	—
1"	1.5", 2, 2.5"	HSKR2-662-08	HSKR2-662-08V	HSKR2-681-08	HSKR2-662-P-08V
1"	3.25" & UP	HSKN2-661-08	HSKN2-661-08V	—	—
1-3/8"	2", 2.5"	HSKR2-662-11	HSKR2-662-11V	HSKR2-681-11	HSKR2-662-P-11V
1-3/8"	3.25" & UP	HSKN2-661-11	HSKN2-661-11V	—	—
1-3/4"	2.5"	HSKR2-662-14	HSKR2-662-14V	HSKR2-681-14	HSKR2-662-P-14V
1-3/4"	3.25" & UP	HSKN2-661-14	HSKN2-661-14V	—	—
2"	ALL	HSKN2-661-16	HSKN2-661-16V	—	—
2-1/2"	ALL	HSKN2-661-20	HSKN2-661-20V	—	—
3"	ALL	HSKN5-660-24	HSKN5-660-24V	—	—
3-1/2"	ALL	HSKN5-660-28	HSKN5-660-28V	—	—
4"	ALL	HSKN5-660-32	HSKN5-660-32V	—	—
4-1/2"	ALL	HSKN5-660-36	HSKN5-660-36V	—	—
5"	ALL	HSKN5-660-40	HSKN5-660-40V	—	—
5-1/2"	ALL	HSKN5-660-44	HSKN5-660-44V	—	—

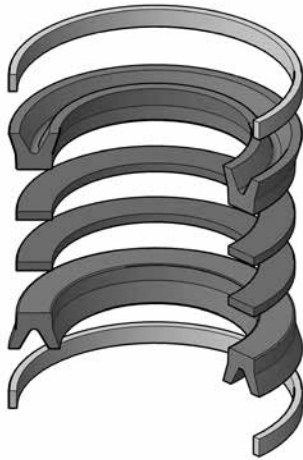
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R2 Series Piston Kits

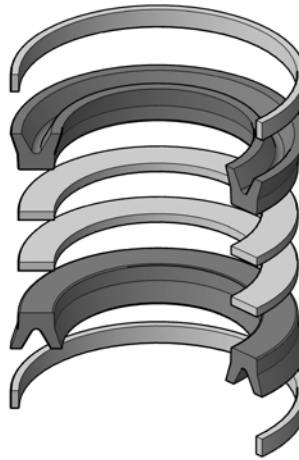
Nitrile



Kit Includes:

- 2 NBR U-seals
- 2 URE Back-up Rings
- 2 PTFE Tube End Seals

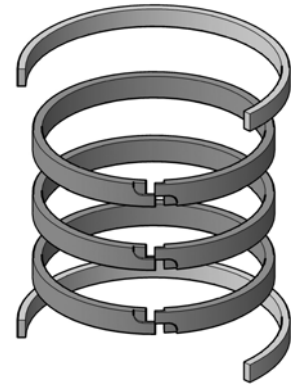
R2 & LR2 Cylinders Fluorocarbon



Kit Includes:

- 2 FC U-seals
- 2 PTFE Back-up Rings
- 2 PTFE Tube End Seals

Piston Ring



Kit Includes:

- 3 Cast-Iron Piston Rings
- 2 PTFE Tube End Seals

Bore Dia.	(NBR) Kit #	(FC) Kit #	(PR) Kit #
1"	HSKR5-512-02	HSKR5-512-02V	HSKR5-511-02
1-1/2"	HSKR5-512-03	HSKR5-512-03V	HSKR5-511-03
2"	HSKR5-512-04	HSKR5-512-04V	HSKR5-511-04
2-1/2"	HSKR5-512-05	HSKR5-512-05V	HSKR5-511-05
3-1/4"	HSKR5-512-065	HSKR5-512-065V	HSKR5-511-065
4"	HSKR5-512-08	HSKR5-512-08V	HSKR5-511-08
5"	HSKR5-512-10	HSKR5-512-10V	HSKR5-511-10
6"	HSKR5-512-12	HSKR5-512-12V	HSKR5-511-12
8"	HSKR5-512-16	HSKR5-512-16V	HSKR5-511-16
10"	HSKR5-512-20	HSKR5-512-20V	HSKR5-511-20
12"	HSKR5-512-24	HSKR5-512-24V	HSKR5-511-24
14"	HSKR5-512-28	HSKR5-512-28V	—

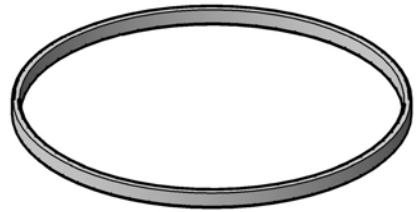


HYDRO-LINE

R2 Series Tube End Seals

R2 & LR2 Cylinders PTFE

Bore Dia.	Part #
1"	HS-C221-02
1-1/2"	HS-C221-03
2"	HS-C221-04
2-1/2"	HS-C221-05
3-1/4"	HS-C221-065
4"	HS-C221-08
5"	HS-C221-10
6"	HS-C221-12
8" & UP	HS-C221-STRIP (sold by the foot)



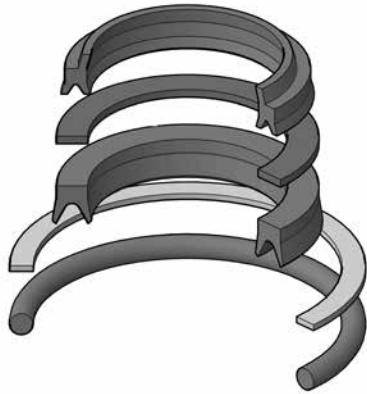
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HYDRO-LINE

R5 Series Rod Kits

R5 & HR5 Cylinders Nitrile



Kit Includes:

- 1 XNBR Wiper
- 1 URE Back-up Ring
- 1 NBR U-seal
- 1 PTFE Back-up Ring
- 1 NBR O-ring

Rod Dia.	Bore Dia.	(NBR) Kit #
1/2"	1"	HSKN5-660-04
5/8"	1"	HSKR2-662-05A
5/8"	1.5" & UP	HSKN5-660-05
1"	2" & UP	HSKN5-660-08
1-3/8"	2.5" & UP	HSKN5-660-11
1-3/4"	ALL	HSKN5-660-14
2"	ALL	HSKN5-660-16
2-1/2"	ALL	HSKN5-660-20
3"	ALL	HSKN5-660-24
3-1/2"	ALL	HSKN5-660-28
4"	ALL	HSKN5-660-32
4-1/2"	ALL	HSKN5-660-36
5"	ALL	HSKN5-660-40
5-1/2"	ALL	HSKN5-660-44

HYDRO-LINE

R5 Series Rod Kits

HR5 Cylinders

Fluorocarbon

Urethane

Urethane

Fluorocarbon



Kit Includes:

- 1 FC Wiper
- 1 PTFE Back-up Ring
- 1 FC U-seal
- 1 PTFE Back-up Ring
- 1 FC O-ring



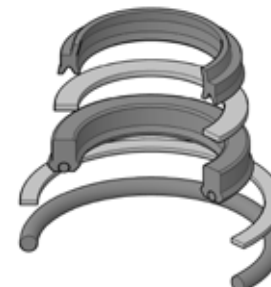
Kit Includes:

- 1 XNBR Wiper
- 1 URE U-seal
- 1 PTFE Back-up Ring
- 1 NBR O-ring



Kit Includes:

- 1 XNBR Wiper
- 1 Urethane Back-up Ring
- 1 Urethane Loaded U-seal
- 1 PTFE Back-up Ring
- 1 NBR O-ring



Kit Includes:

- 1 FC Wiper
- 1 PTFE Back-up Ring
- 1 FC Loaded U-seal
- 1 PTFE Back-up Ring
- 1 FC O-ring

Rod Dia.	Bore Dia.	(FC) Kit #	(URE) Kit #	(URE) Kit #	(FC) Kit #
1/2"	1"	HSKN5-660-04V	—	HSKN5-660-P-04	HSKN5-660-P-04V
5/8"	1"	HSKR2-662-05AV	HSKN5-681-05A	—	HSKN5-660-P-05AV
5/8"	1.5" & UP	HSKN5-660-05V	HSKN5-681-05	—	HSKN5-660-P-05V
1"	2" & UP	HSKN5-660-08V	HSKN5-681-08	HSKN5-660-P-08	HSKN5-660-P-08V
1-3/8"	2.5" & UP	HSKN5-660-11V	HSKN5-681-11	—	HSKN5-660-P-11V
1-3/4"	ALL	HSKN5-660-14V	HSKN5-681-14	HSKN5-660-P-14	HSKN5-660-P-14V
2"	ALL	HSKN5-660-16V	HSKN5-681-16	—	HSKN5-660-P-16V
2-1/2"	ALL	HSKN5-660-20V	HSKN5-681-20	—	HSKN5-660-P-20V
3"	ALL	HSKN5-660-24V	HSKN5-681-24	—	HSKN5-660-P-24V
3-1/2"	ALL	HSKN5-660-28V	HSKN5-681-28	HSKN5-660-P-28	HSKN5-660-P-28V
4"	ALL	HSKN5-660-32V	HSKN5-681-32	—	HSKN5-660-P-32V
4-1/2"	ALL	HSKN5-660-36V	HSKN5-681-36	—	HSKN5-660-P-36V
5"	ALL	HSKN5-660-40V	HSKN5-681-40	—	HSKN5-660-P-40V
5-1/2"	ALL	HSKN5-660-44V	HSKN5-681-44	—	HSKN5-660-P-44V

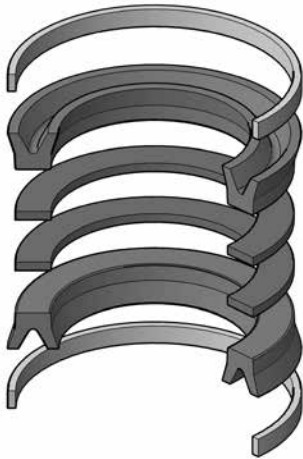
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HYDRO-LINE

R5 Series Piston Kits

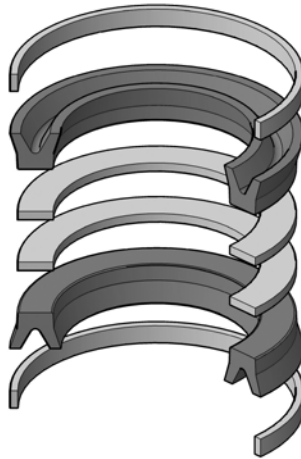
Nitrile



Kit Includes:

- 2 NBR U-seals
- 2 URE Back-up Rings
- 2 PTFE Tube End Seals

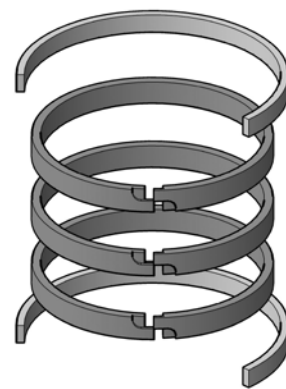
R5 Cylinders Fluorocarbon



Kit Includes:

- 2 FC U-seals
- 2 PTFE Back-up Rings
- 2 PTFE Tube End Seals

Piston Ring



Kit Includes:

- 3 Cast-Iron Piston Rings
- 2 PTFE Tube End Seals

Bore Dia.	(NBR) Kit #	(FC) Kit #	(PR) Kit #
1"	HSKR5-512-02	HSKR5-512-02V	HSKR5-511-02
1-1/2"	HSKR5-512-03	HSKR5-512-03V	HSKR5-511-03
2"	HSKR5-512-04	HSKR5-512-04V	HSKR5-511-04
2-1/2"	HSKR5-512-05	HSKR5-512-05V	HSKR5-511-05
3-1/4"	HSKR5-512-065	HSKR5-512-065V	HSKR5-511-065
4"	HSKR5-512-08	HSKR5-512-08V	HSKR5-511-08
5"	HSKR5-512-10	HSKR5-512-10V	HSKR5-511-10
6"	HSKR5-512-12	HSKR5-512-12V	HSKR5-511-12
8"	HSKR5-512-16	HSKR5-512-16V	HSKR5-511-16
10"	HSKR5-512-20	HSKR5-512-20V	HSKR5-511-20
12"	HSKR5-512-24	HSKR5-512-24V	HSKR5-511-24
14"	HSKR5-512-28	HSKR5-512-28V	—

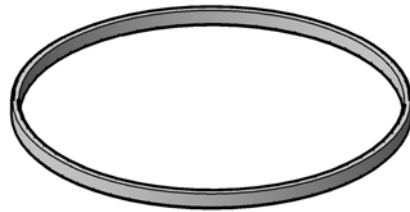


HYDRO-LINE

R5 Series Tube End Seals

R5 Cylinders PTFE

Bore Dia.	Part #
1"	HS-C221-02
1-1/2"	HS-C221-03
2"	HS-C221-04
2-1/2"	HS-C221-05
3-1/4"	HS-C221-065
4"	HS-C221-08
5"	HS-C221-10
6"	HS-C221-12
8" & UP	HS-C221-STRIP (sold by the foot)



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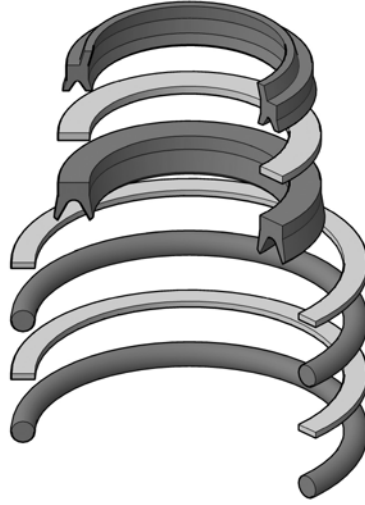
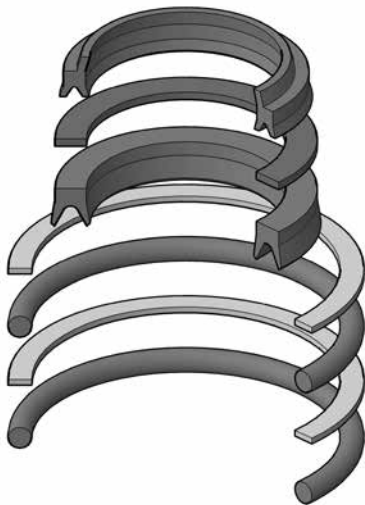
HYDRO-LINE

UNIVERSAL Rod Kits

A5, N2, N5, R2, & R5 Cylinders (see note)

Nitrile

Fluorocarbon



- Kit Includes:**
 1 XNBR Wiper
 1 URE Back-up Ring
 1 NBR U-seal
 2 NBR O-rings
 2 PTFE BU Rings

- Kit Includes:**
 1 FC Wiper
 1 PTFE BU Ring
 1 FC U-seal
 2 FC O-rings
 2 PTFE BU Rings

Rod Dia.	(NBR) Kit #	(FC) Kit #
5/8"	HSKN25-665-05	HSKN25-665-05V
1"	HSKN25-665-08	HSKN25-665-08V
1-3/8"	HSKN25-665-11	HSKN25-665-11V
1-3/4"	HSKN25-665-14	HSKN25-665-14V
2"	HSKN25-665-16	HSKN25-665-16V
2-1/2"	HSKN25-665-20	HSKN25-665-20V

Note: Rod Seal Kits are good for all cylinders except R2/R5 1" Bore X All Rods, 1-1/2" Bore X 1" Rod, and 2" Bore X 1-3/8" Rod.

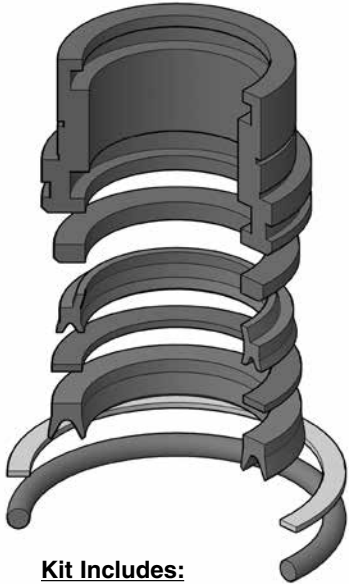
HYDRO-LINE

UNIVERSAL Gland Kits

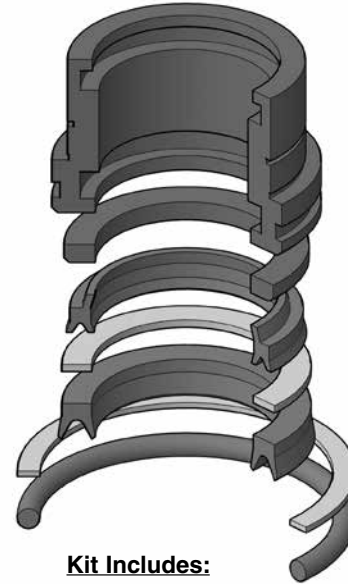
A5, N2, N5, R2, & R5 Cylinders (see note)

Nitrile

Fluorocarbon



- Kit Includes:**
- 1 Iron Bushing
 - 1 Spacer
 - 1 XNBR Wiper
 - 1 URE Back-up Ring
 - 1 NBR U-seal
 - 1 PTFE Back-up ring
 - 1 NBR O-ring



- Kit Includes:**
- 1 Iron Bushing
 - 1 Spacer
 - 1 FC Wiper
 - 1 PTFE Back-up Ring
 - 1 FC U-seal
 - 1 PTFE Back-up ring
 - 1 FC O-ring

Rod Dia.	(NBR) Kit #	(FC) Kit #
5/8"	HN5-665-05	HN5-665-05V
1"	HN5-665-08	HN5-665-08V
1-3/8"	HN5-665-11	HN5-665-11V
1-3/4"	HN5-665-14	HN5-665-14V
2"	HN5-665-16	HN5-665-16V
2-1/2"	HN5-665-20	HN5-665-20V
3"	HN5-665-24	HN5-665-24V
3-1/2"	HN5-665-28	HN5-665-28V
4"	HN5-665-32	HN5-665-32V
4-1/2"	HN5-665-36 (2.57" HGT)	HN5-665-36V (2.57" HGT)
4-1/2"	HN5-665-36A (1.88" HGT)	HN5-665-36AV (1.88" HGT)
5"	HN5-665-40	HN5-665-40V
5-1/2"	HN5-665-44	HN5-665-44V

**Note: Gland Seal Kits are good for all cylinders with some exceptions.
Call with series, rod & bore size for more information.**

HYDRO-LINE®



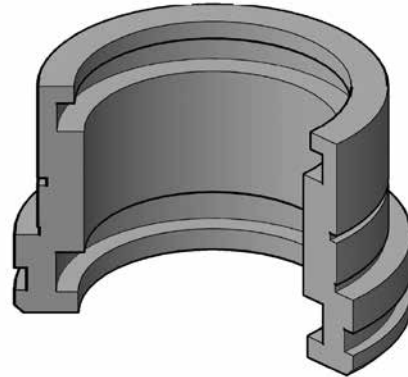
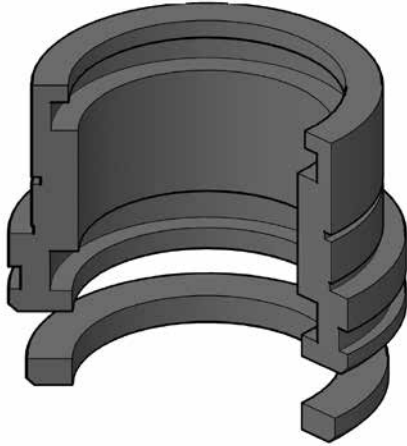
HYDRO-LINE

UNIVERSAL Gland Kits

A5, N2, N5, R2, & R5 Cylinders (see note)

Iron Bushing

Bronze Bushing



Kit Includes:
1 Iron Bushing
1 Spacer

Kit Includes:
1 Bronze Bushing

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Rod Dia.	Part #	Part #
5/8"	HN5-655-05	HN5-B-650-05
1"	HN5-655-08	HN5-B-650-08
1-3/8"	HN5-655-11	HN5-B-650-11
1-3/4"	HN5-655-14	HN5-B-650-14
2"	HN5-655-16	HN5-B-650-16
2-1/2"	HN5-655-20	HN5-B-650-20
3"	HN5-655-24	HN5-B-650-24
3-1/2"	HN5-655-28	HN5-B-650-28
4"	HN5-655-32	HN5-B-650-32
4-1/2"	HN5-655-36 (2.57" HGT)	HN5-B-650-36 (2.57" HGT)
4-1/2"	HN5-655-36A (1.88" HGT)	HN5-B-650-36A (1.88" HGT)
5"	HN5-655-40	HN5-B-650-40
5-1/2"	HN5-655-44	HN5-B-650-44

**Note: Gland Seal Kits are good for all cylinders with some exceptions.
Call with series, rod & bore size for more information.**

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FAX 1-316-267-1010

OKLAHOMA
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FAX 1-918-446-4743

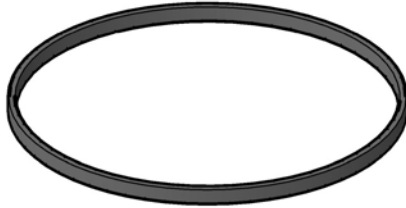
TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797



HYDRO-LINE

UNIVERSAL Captive Cushion Adjustment Seal

A, N & R Cylinders



Part #	I.D. X C.S.
HS-C408-1	.204 X .072
HS-C408-1V	.204 X .072
HS-C408-2	.298 X .072
HS-C408-2V	.298 X .072
HS-C408-3	.420 X .072
HS-C408-3V	.420 X .072
HS-C408-4	.542 X .072
HS-C408-4V	.542 X .072

Used on Captive Cushion Adjustment Valves for precise adjustment under pressure over a broad range of operating conditions. Available in both 90A material - Nitrile and Fluorocarbon.

HYDRO-LINE®

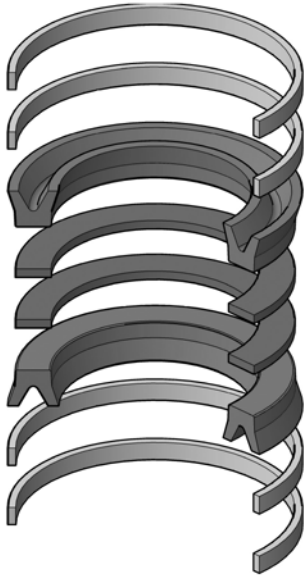


HYDRO-LINE

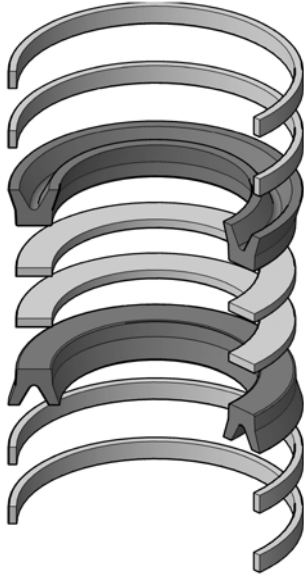
UNIVERSAL Piston Kits

HYDRO-LINE®

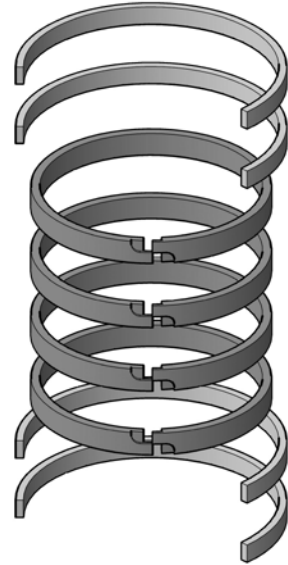
Nitrile	N2 & N5 Cylinders Fluorocarbon	Piston Ring
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Kit Includes:
 2 NBR U-seals
 2 URE Back-up Rings
 4 PTFE Tube End Seals



Kit Includes:
 2 FC U-seals
 2 PTFE Back-up Rings
 4 PTFE Tube End Seals



Kit Includes:
 4 Cast Iron Piston Rings
 4 PTFE Tube End Seals

Bore Dia.	(NBR) Kit #	(FC) Kit #	(PR) Kit #
1-1/2"	HSKN25-512-03	HSKN25-512-03V	HSKN25-511-03
2"	HSKN25-512-04	HSKN25-512-04V	HSKN25-511-04
2-1/2"	HSKN25-512-05	HSKN25-512-05V	HSKN25-511-05
3-1/4"	HSKN25-512-065	HSKN25-512-065V	HSKN25-511-065
4"	HSKN25-512-08	HSKN25-512-08V	HSKN25-511-08
5"	HSKN25-512-10	HSKN25-512-10V	HSKN25-511-10
6"	HSKN25-512-12	HSKN25-512-12V	HSKN25-511-12
7"	HSKN25-512-14	HSKN25-512-14V	HSKN25-511-14
8"	HSKN25-512-16	HSKN25-512-16V	HSKN25-511-16

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HYDRO-LINE®

Sales Part Number	Description	Rod Size	Bore Size
HN5-650-08	Bushing	1	
HN5-650-11	Bushing	1-3/8	
HN5-650-14	Bushing	1-3/4	
HN5-650-24	Bushing	3	
HN5-650-S-20	Bushing	2-1/2	
HN5-655-05	Bushing w/ spacer	5/8	
HN5-655-08	Bushing w/ spacer	1	
HN5-655-11	Bushing w/ spacer	1-3/8	
HN5-655-14	Bushing w/ spacer	1-3/4	
HN5-655-16	Bushing w/ spacer	2	
HN5-655-20	Bushing w/ spacer	2-1/2	
HN5-655-24	Bushing w/ spacer	3	
HN5-655-28	Bushing w/ spacer	3-1/2	
HN5-655-32	Bushing w/ spacer	4	
HN5-655-36	Bushing w/ spacer	4-1/2 x 2.57ht	
HN5-655-36A	Bushing w/ spacer	4-1/2 x 1.88ht	
HN5-655-40	Bushing w/ spacer	5	
HN5-655-44	Bushing w/ spacer	5-1/2	
HN5-665-05	Rod Gland Kit	5/8	
HN5-665-05V	Rod Gland Kit	5/8	
HN5-665-08	Rod Gland Kit	1	
HN5-665-08V	Rod Gland Kit	1	
HN5-665-11	Rod Gland Kit	1-3/8	
HN5-665-11V	Rod Gland Kit	1-3/8	
HN5-665-14	Rod Gland Kit	1-3/4	
HN5-665-14V	Rod Gland Kit	1-3/4	
HN5-665-16	Rod Gland Kit	2	
HN5-665-16V	Rod Gland Kit	2	
HN5-665-20	Rod Gland Kit	2-1/2	
HN5-665-20V	Rod Gland Kit	2-1/2	
HN5-665-24	Rod Gland Kit	3	
HN5-665-24V	Rod Gland Kit	3	
HN5-665-28	Rod Gland Kit	3-1/2	
HN5-665-28V	Rod Gland Kit	3-1/2	
HN5-665-32	Rod Gland Kit	4	
HN5-665-32V	Rod Gland Kit	4	
HN5-665-36	Rod Gland Kit	4-1/2	
HN5-665-36A	Rod Gland Kit	4-1/2	
HN5-665-36AV	Rod Gland Kit	4-1/2	
HN5-665-36V	Rod Gland Kit	4-1/2	
HN5-665-40	Rod Gland Kit	5	
HN5-665-40V	Rod Gland Kit	5	
HN5-665-44	Rod Gland Kit	5-1/2	
HN5-665-44V	Rod Gland Kit	5-1/2	
HN5-681-08	Rod Gland Kit	1	
HN5-681-11	Rod Gland Kit	1-3/8	
HN5-681-14	Rod Gland Kit	1-3/4	
HN5-681-24	Rod Gland Kit	3	
HN5-B-650-05	Gland Kit	5/8	



HYDRO-LINE

HYDRO-LINE®

Sales Part Number	Description	Rod Size	Bore Size
HN5-B-650-08	Gland Kit	1	
HN5-B-650-11	Gland Kit	1-3/8	
HN5-B-650-14	Gland Kit	1-3/4	
HN5-B-650-16	Gland Kit	2	
HN5-B-650-20	Gland Kit	2-1/2	
HN5-B-650-20-NH	Bushing	2-1/2	
HN5-B-650-24	Gland Kit	3	
HN5-B-650-28	Gland Kit	3-1/2	
HN5-B-650-32	Gland Kit	4	
HN5-B-650-36	Gland Kit	4-1/2	
HN5-B-650-36A	Gland Kit	4-1/2	
HN5-B-650-40	Gland Kit	5	
HN5-B-650-44	Gland Kit	5-1/2	
HN5-B-650-S24	Bushing	3	
HN5-B-681-20	Gland Kit	2-1/2	
HN5-B-681-28	Gland Kit	3-1/2	
HS-C124-03	Tube End Seals		1-1/2
HS-C124-04	Tube End Seals		2
HS-C124-05	Tube End Seals		2-1/2
HS-C124-065	Tube End Seals		3-1/4
HS-C124-08	Tube End Seals		4
HS-C124-10	Tube End Seals		5
HS-C124-12	Tube End Seals		6
HS-C124-STRIP	Tube End Seals		0.068cs x 0.140w PTFE strip (sold by the foot)
HS-C221-02	Tube End Seals		1
HS-C221-03	Tube End Seals		1-1/2
HS-C221-04	Tube End Seals		2
HS-C221-05	Tube End Seals		2-1/2
HS-C221-065	Tube End Seals		3-1/4
HS-C221-08	Tube End Seals		4
HS-C221-10	Tube End Seals		5
HS-C221-12	Tube End Seals		6
HS-C221-STRIP	Tube End Seals		0.063cs x 0.093w PTFE strip (sold by the foot)
HS-C255-03	Tube End Seals		1-1/2
HS-C255-04	Tube End Seals		2
HS-C255-05	Tube End Seals		2-1/2
HS-C255-065	Tube End Seals		3-1/4
HS-C255-08	Tube End Seals		4
HS-C255-10	Tube End Seals		5
HS-C255-12	Tube End Seals		6
HS-C255-14	Tube End Seals		7
HS-C255-16	Tube End Seals		8
HS-C408-1	Captive Cushion Adjustment Seal	0.204 ID x 0.072 CS	
HS-C408-1V	Captive Cushion Adjustment Seal	0.204 ID x 0.072 CS	
HS-C408-2	Captive Cushion Adjustment Seal	0.298 ID x 0.072 CS	
HS-C408-2V	Captive Cushion Adjustment Seal	0.298 ID x 0.072 CS	
HS-C408-3	Captive Cushion Adjustment Seal	0.420 ID x 0.072 CS	
HS-C408-3V	Captive Cushion Adjustment Seal	0.420 ID x 0.072 CS	
HS-C408-4	Captive Cushion Adjustment Seal	0.542 ID x 0.072 CS	
HS-C408-4V	Captive Cushion Adjustment Seal	0.542 ID x 0.072 CS	

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Sales Part Number	Description	Rod Size	Bore Size
HS-E304-03	Tube End Seals		1-1/2
HS-E304-04	Tube End Seals		2
HS-E304-065	Tube End Seals		3-1/4
HS-E304-08	Tube End Seals		4
HSKA5-512-03	Piston Kit		1-1/2
HSKA5-512-03V	Piston Kit		1-1/2
HSKA5-512-04	Piston Kit		2
HSKA5-512-04V	Piston Kit		2
HSKA5-512-05	Piston Kit		2-1/2
HSKA5-512-05V	Piston Kit		2-1/2
HSKA5-512-065	Piston Kit		3-1/4
HSKA5-512-065V	Piston Kit		3-1/4
HSKA5-512-08	Piston Kit		4
HSKA5-512-08V	Piston Kit		4
HSKA5-512-10	Piston Kit		5
HSKA5-512-10V	Piston Kit		5
HSKA5-512-12	Piston Kit		6
HSKA5-512-12V	Piston Kit		6
HSKE2-512-04	Piston Kit		2
HSKE2-512-065	Piston Kit		3-1/4
HSKE2-512-08	Piston Kit		4
HSKE2-660-05	Rod Kit	5/8	
HSKE2-660-08	Rod Kit	1	
HSKE2-660-11	Rod Kit	1-3/8	
HSKN2-511-03	Piston Ring Kit		1-1/2
HSKN2-511-04	Piston Ring Kit		2
HSKN2-511-05	Piston Ring Kit		2-1/2
HSKN2-511-065	Piston Ring Kit		3-1/4
HSKN2-511-08	Piston Ring Kit		4
HSKN2-511-10	Piston Ring Kit		5
HSKN2-511-12	Piston Ring Kit		6
HSKN2-511-14	Piston Ring Kit		7
HSKN2-511-16	Piston Ring Kit		8
HSKN2-511-20	Piston Ring Kit		10
HSKN2-511-24	Piston Ring Kit		12
HSKN2-512-03	Piston Kit		1-1/2
HSKN2-512-03V	Piston Kit		1-1/2
HSKN2-512-04	Piston Kit		2
HSKN2-512-04V	Piston Kit		2
HSKN2-512-05	Piston Kit		2-1/2
HSKN2-512-05V	Piston Kit		2-1/2
HSKN2-512-065	Piston Kit		3-1/4
HSKN2-512-065V	Piston Kit		3-1/4
HSKN2-512-08	Piston Kit		4
HSKN2-512-08V	Piston Kit		4
HSKN2-512-10	Piston Kit		5
HSKN2-512-10V	Piston Kit		5
HSKN2-512-12	Piston Kit		6
HSKN2-512-12V	Piston Kit		6
HSKN2-512-14	Piston Kit		7



HYDRO-LINE

HYDRO-LINE®

Sales Part Number	Description	Rod Size	Bore Size
HSKN2-512-14V	Piston Kit		7
HSKN2-512-16	Piston Kit		8
HSKN2-512-16V	Piston Kit		8
HSKN2-512-20	Piston Kit		10
HSKN2-512-20V	Piston Kit		10
HSKN2-512-24	Piston Kit		12
HSKN2-512-24V	Piston Kit		12
HSKN25-511-03	Piston Kit		1-1/2
HSKN25-511-04	Piston Kit		2
HSKN25-511-05	Piston Kit		2-1/2
HSKN25-511-065	Piston Kit		3-1/4
HSKN25-511-08	Piston Kit		4
HSKN25-511-10	Piston Kit		5
HSKN25-511-12	Piston Kit		6
HSKN25-511-14	Piston Kit		7
HSKN25-511-16	Piston Kit		8
HSKN25-512-03	Piston Kit		1-1/2
HSKN25-512-03V	Piston Kit		1-1/2
HSKN25-512-04	Piston Kit		2
HSKN25-512-04V	Piston Kit		2
HSKN25-512-05	Piston Kit		2-1/2
HSKN25-512-05V	Piston Kit		2-1/2
HSKN25-512-065	Piston Kit		3-1/4
HSKN25-512-065V	Piston Kit		3-1/4
HSKN25-512-08	Piston Kit		4
HSKN25-512-08V	Piston Kit		4
HSKN25-512-10	Piston Kit		5
HSKN25-512-10V	Piston Kit		5
HSKN25-512-12	Piston Kit		6
HSKN25-512-12V	Piston Kit		6
HSKN25-512-14	Piston Kit		7
HSKN25-512-14V	Piston Kit		7
HSKN25-512-16	Piston Kit		8
HSKN25-512-16V	Piston Kit		8
HSKN25-665-05	Rod Kit	5/8	
HSKN25-665-05V	Rod Kit	5/8	
HSKN25-665-08	Rod Kit	1	
HSKN25-665-08V	Rod Kit	1	
HSKN25-665-11	Rod Kit	1-3/8	
HSKN25-665-11V	Rod Kit	1-3/8	
HSKN25-665-14	Rod Kit	1-3/4	
HSKN25-665-14V	Rod Kit	1-3/4	
HSKN25-665-16	Rod Kit	2	
HSKN25-665-16V	Rod Kit	2	
HSKN25-665-20	Rod Kit	2-1/2	
HSKN25-665-20V	Rod Kit	2-1/2	
HSKN2-661-05	Rod Kit	5/8	
HSKN2-661-05V	Rod Kit	5/8	
HSKN2-661-08	Rod Kit	1	
HSKN2-661-08V	Rod Kit	1	

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Sales Part Number	Description	Rod Size	Bore Size
HSKN2-661-11	Rod Kit	1-3/8	
HSKN2-661-11V	Rod Kit	1-3/8	
HSKN2-661-14	Rod Kit	1-3/4	
HSKN2-661-14V	Rod Kit	1-3/4	
HSKN2-661-16	Rod Kit	2	
HSKN2-661-16V	Rod Kit	2	
HSKN2-661-20	Rod Kit	2-1/2	
HSKN2-661-20V	Rod Kit	2-1/2	
HSKN5-511-03	Piston Ring Kit		1-1/2
HSKN5-511-04	Piston Ring Kit		2
HSKN5-511-05	Piston Ring Kit		2-1/2
HSKN5-511-065	Piston Ring Kit		3-1/4
HSKN5-511-08	Piston Ring Kit		4
HSKN5-511-10	Piston Ring Kit		5
HSKN5-511-12	Piston Ring Kit		6
HSKN5-511-14	Piston Ring Kit		7
HSKN5-511-16	Piston Ring Kit		8
HSKN5-512-03	Piston Kit		1-1/2
HSKN5-512-03V	Piston Kit		1-1/2
HSKN5-512-04	Piston Kit		2
HSKN5-512-04V	Piston Kit		2
HSKN5-512-05	Piston Kit		2-1/2
HSKN5-512-05V	Piston Kit		2-1/2
HSKN5-512-065	Piston Kit		3-1/4
HSKN5-512-065V	Piston Kit		3-1/4
HSKN5-512-08	Piston Kit		4
HSKN5-512-08V	Piston Kit		4
HSKN5-512-10	Piston Kit		5
HSKN5-512-10V	Piston Kit		5
HSKN5-512-12	Piston Kit		6
HSKN5-512-12V	Piston Kit		6
HSKN5-512-14	Piston Kit		7
HSKN5-512-14V	Piston Kit		7
HSKN5-512-16	Piston Kit		8
HSKN5-512-16V	Piston Kit		8
HSKN5-512-G-08	Piston Kit		4
HSKN5-512-P-05	Piston Kit		2-1/2
HSKN5-512-P-16	Piston Kit		8
HSKN5-517-065	Piston Kit		3-1/4
HSKN5-660-04	Rod Kit	1/2	
HSKN5-660-04V	Rod Kit	1/2	
HSKN5-660-05	Rod Kit	5/8	
HSKN5-660-05V	Rod Kit	5/8	
HSKN5-660-08	Rod Kit	1	
HSKN5-660-08V	Rod Kit	1	
HSKN5-660-11	Rod Kit	1-3/8	
HSKN5-660-11V	Rod Kit	1-3/8	
HSKN5-660-14	Rod Kit	1-3/4	
HSKN5-660-14V	Rod Kit	1-3/4	
HSKN5-660-16	Rod Kit	2	



HYDRO-LINE

HYDRO-LINE®

Sales Part Number	Description	Rod Size	Bore Size
HSKN5-660-16V	Rod Kit	2	
HSKN5-660-20	Rod Kit	2-1/2	
HSKN5-660-20V	Rod Kit	2-1/2	
HSKN5-660-24	Rod Kit	3	
HSKN5-660-24V	Rod Kit	3	
HSKN5-660-28	Rod Kit	3-1/2	
HSKN5-660-28V	Rod Kit	3-1/2	
HSKN5-660-32	Rod Kit	4	
HSKN5-660-32V	Rod Kit	4	
HSKN5-660-36	Rod Kit	4-1/2	
HSKN5-660-36V	Rod Kit	4-1/2	
HSKN5-660-40	Rod Kit	5	
HSKN5-660-40V	Rod Kit	5	
HSKN5-660-44	Rod Kit	5-1/2	
HSKN5-660-44V	Rod Kit	5-1/2	
HSKN5-660-P-04	Rod Kit	1/2	1
HSKN5-660-P-04V	Rod Kit	1/2	1
HSKN5-660-P-05AV	Rod Kit	5/8	1
HSKN5-660-P-05V	Rod Kit	5/8	1.5 & UP
HSKN5-660-P-08	Rod Kit	1	2 & UP
HSKN5-660-P-08V	Rod Kit	1	2 & UP
HSKN5-660-P-11	Rod Kit	1-3/8	
HSKN5-660-P-11V	Rod Kit	1-3/8	2.5 & UP
HSKN5-660-P-14	Rod Kit	1-3/4	
HSKN5-660-P-14V	Rod Kit	1-3/4	
HSKN5-660-P-16V	Rod Kit	2	
HSKN5-660-P-20	Rod Kit	2-1/2	
HSKN5-660-P-20V	Rod Kit	2-1/2	
HSKN5-660-P-24	Rod Kit	3	
HSKN5-660-P-24V	Rod Kit	3	
HSKN5-660-P-28	Rod Kit	3-1/2	
HSKN5-660-P-28V	Rod Kit	3-1/2	
HSKN5-660-P-32V	Rod Kit	4	
HSKN5-660-P-36V	Rod Kit	4-1/2	
HSKN5-660-P-40V	Rod Kit	5	
HSKN5-660-P-44V	Rod Kit	5-1/2	
HSKN5-681-05	Rod Kit	5/8	
HSKN5-681-05A	Rod Kit	5/8	1
HSKN5-681-08	Rod Kit	1	
HSKN5-681-11	Rod Kit	1-3/8	
HSKN5-681-14	Rod Kit	1-3/4	
HSKN5-681-16	Rod Kit	2	
HSKN5-681-20	Rod Kit	2-1/2	
HSKN5-681-24	Rod Kit	3	
HSKN5-681-28	Rod Kit	3-1/2	
HSKN5-681-32	Rod Kit	4	
HSKN5-681-36	Rod Kit	4-1/2	
HSKN5-681-40	Rod Kit	5	
HSKN5-681-44	Rod Kit	5-1/2	
HSKN5-681-S-16	Rod Kit	2	

KANSAS
PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA
PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797



HYDRO-LINE

HYDRO-LINE®

Sales Part Number	Description	Rod Size	Bore Size
HSKN5-681-S-20	Rod Kit	2-1/2	
HSKN5-681-S-28	Rod Kit	3-1/2	
HSKN5-681-S-36	Rod Kit	4-1/2	
HSKN5-B-681-28	Rod Kit	3-1/2	
HSKR2-662-05A	Rod Kit	5/8	1
HSKR2-662-05AV	Rod Kit	5/8	1
HSKR2-662-08	Rod Kit	1	1.5,2,2.5
HSKR2-662-08V	Rod Kit	1	1.5,2,2.5
HSKR2-662-11	Rod Kit	1-3/8	2, 2.5
HSKR2-662-11V	Rod Kit	1-3/8	2, 2.5
HSKR2-662-14	Rod Kit	1-3/4	2.5
HSKR2-662-14V	Rod Kit	1-3/4	2.5
HSKR2-662-P-05AV	Rod Kit	5/8	1
HSKR2-662-P-08V	Rod Kit	1	1.5,2,2.5
HSKR2-662-P-11V	Rod Kit	1-3/8	2, 2.5
HSKR2-662-P-14V	Rod Kit	1-3/4	2.5
HSKR2-681-05A	Rod Kit	5/8	1
HSKR2-681-08	Rod Kit	1	1.5,2,2.5
HSKR2-681-11	Rod Kit	1-3/8	2, 2.5
HSKR2-681-14	Rod Kit	1-3/4	2.5
HSKR5-511-02	Piston Ring Kit		1
HSKR5-511-03	Piston Ring Kit		1-1/2
HSKR5-511-04	Piston Ring Kit		2
HSKR5-511-05	Piston Ring Kit		2-1/2
HSKR5-511-065	Piston Ring Kit		3-1/4
HSKR5-511-08	Piston Ring Kit		4
HSKR5-511-10	Piston Ring Kit		5
HSKR5-511-12	Piston Ring Kit		6
HSKR5-511-16	Piston Ring Kit		8
HSKR5-511-20	Piston Ring Kit		10
HSKR5-511-24	Piston Ring Kit		12
HSKR5-512-02	Piston Kit		1
HSKR5-512-02V	Piston Kit		1
HSKR5-512-03	Piston Kit		1-1/2
HSKR5-512-03V	Piston Kit		1-1/2
HSKR5-512-04	Piston Kit		2
HSKR5-512-04V	Piston Kit		2
HSKR5-512-05	Piston Kit		2-1/2
HSKR5-512-05V	Piston Kit		2-1/2
HSKR5-512-065	Piston Kit		3-1/4
HSKR5-512-065V	Piston Kit		3-1/4
HSKR5-512-08	Piston Kit		4
HSKR5-512-08V	Piston Kit		4
HSKR5-512-10	Piston Kit		5
HSKR5-512-10V	Piston Kit		5
HSKR5-512-12	Piston Kit		6
HSKR5-512-12V	Piston Kit		6
HSKR5-512-16	Piston Kit		8
HSKR5-512-16V	Piston Kit		8
HSKR5-512-20	Piston Kit		10



HYDRO-LINE

HYDRO-LINE®

Sales Part Number	Description	Rod Size	Bore Size
HSKR5-512-20V	Piston Kit		10
HSKR5-512-24	Piston Kit		12
HSKR5-512-24V	Piston Kit		12
HSKR5-512-28	Piston Kit		14
HSKR5-512-28V	Piston Kit		14
HSKX-B-29427-20	Rod Kit	2-1/2	
HSKX-B-31300	Piston Kit		12.030
HSKX-B-54030	Piston Kit		3
HSKX-C-53238-36	Rod Kit	4-1/2	
HSKX-C-53238-56	Rod Kit	7	
HSKX-E-49904	Rod Kit	7	



MILLER

Kit Type		Page
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	Hydraulic - AJ, J, M & H Cylinders	54
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Hat Packing	PTFE & Nitrile	61
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Iron Gland	Star Bushing Style A, J, & H Cylinders - Retainer Held & Bolted	63
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Caged Assembly Components	Rod Seal Cage, Wave Spring, & Bronze Pressure Ring	66
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Follower Seals	PTFE	76
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MILLER / ORTMAN

MILWAUKEE

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ORTMAN

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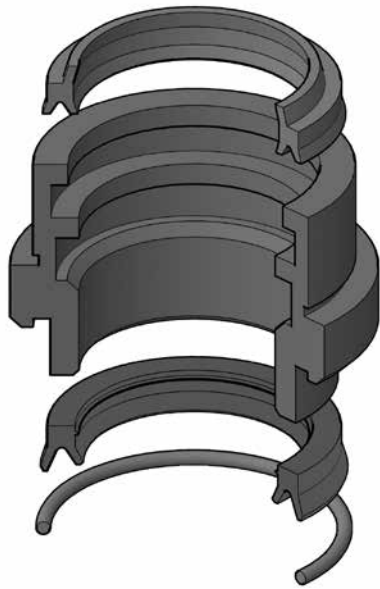


MILLER

Star Bushing Rod Kit, Iron Gland

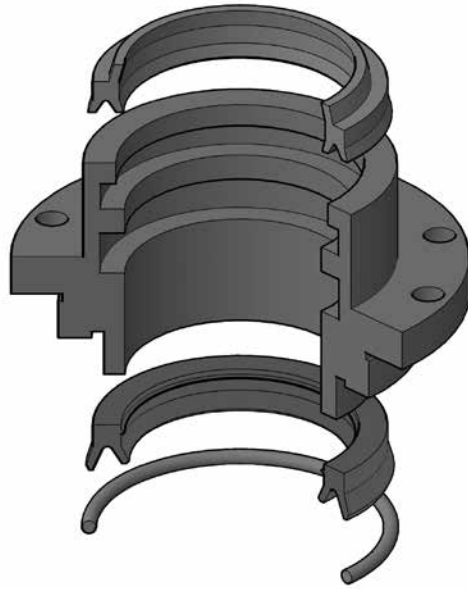
A, J, & H Cylinders

1998 Style Retainer Held



- Kit Includes:**
 1 XNBR Wiper
 1 Retainer Held Star Bushing
 1 URE Rod Seal
 1 NBR O-ring

1998 Style Bolted



- Kit Includes:**
 1 XNBR Wiper
 1 Bolted Star Bushing
 1 URE Rod Seal
 1 NBR O-ring

Rod Dia.	Kit #	Kit #
5/8"	MLR-051-KR074-063	MLR-051-KR075-063
1"	MLR-051-KR074-100	MLR-051-KR075-100
1-3/8"	MLR-051-KR074-138	MLR-051-KR075-138
1-3/4"	—	MLR-051-KR075-175
2"	—	MLR-051-KR075-200
2-1/2"	—	MLR-051-KR075-250
3"	—	MLR-051-KR075-300
3-1/2"	—	MLR-051-KR075-350
4"	—	MLR-051-KR075-400
4-1/2"	—	MLR-051-KR075-450
5"	—	MLR-051-KR075-500
5-1/2"	—	MLR-051-KR075-550

Bolted bushings from: 5/8" to 1-3/4" have 4 bolt holes
 2" to 4-1/2" have 8 bolt holes
 5" to 5-1/2" have 12 bolt holes

MILLER

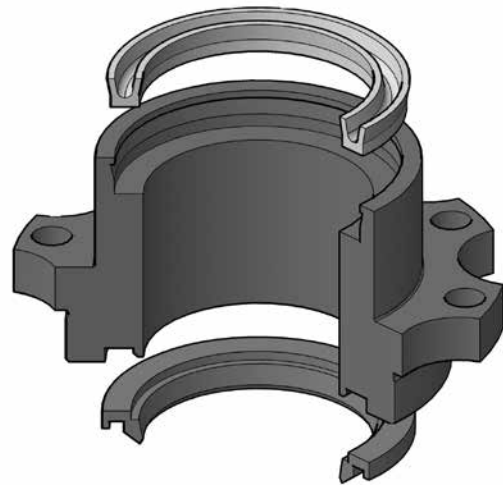
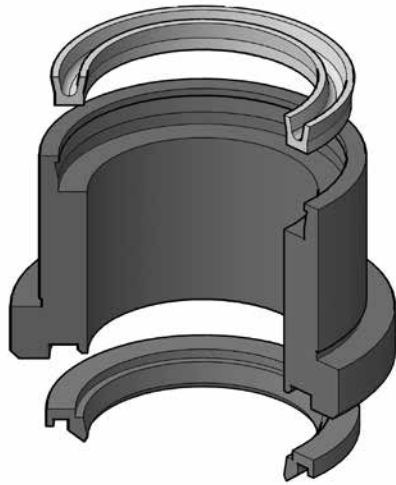
MILLER

Pneumatic Rod Kit, Iron Gland

A & C Cylinders

Retainer Held

Bolted



Kit Includes:
 1 PTFE Wiper
 1 Retainer Held Iron Gland
 1 NBR Hat Packing

Kit Includes:
 1 PTFE Wiper
 1 Bolted Iron Gland
 1 NBR Hat Packing

Rod Dia.	Kit #	Kit #
5/8"	MLR-051-KR010-063	MLR-051-KR011-063
1"	MLR-051-KR010-100	MLR-051-KR011-100
1-3/8"	MLR-051-KR010-138	MLR-051-KR011-138
1-3/4"	MLR-051-KR010-175	MLR-051-KR011-175
2"	MLR-051-KR010-200	MLR-051-KR011-200
2-1/2"	MLR-051-KR010-250	MLR-051-KR011-250
3"	MLR-051-KR010-300	MLR-051-KR011-300

Bolted bushings from: 5/8" to 1-3/4" have 4 bolt holes
 2" to 4-1/2" have 8 bolt holes
 5" to 5-1/2" have 12 bolt holes



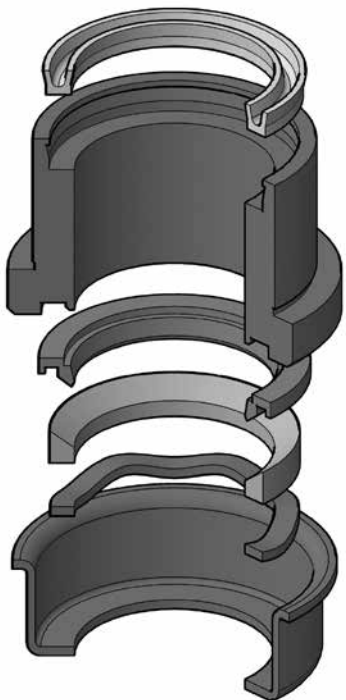


MILLER

Hydraulic Rod Kit, Iron Gland

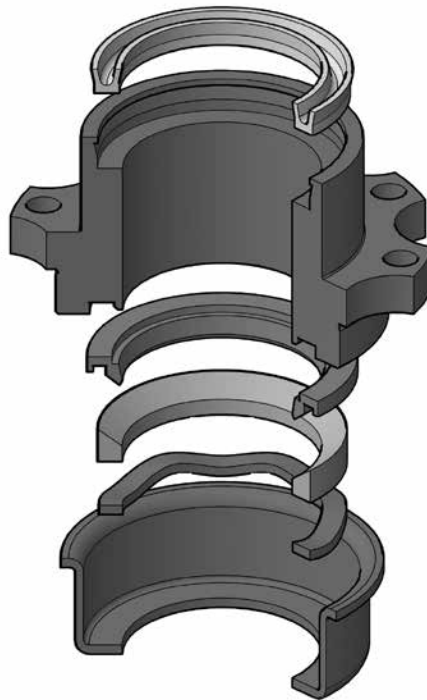
AJ, J, M, & H Cylinders

Retainer Held



- Kit Includes:**
 1 PTFE Wiper
 1 Retainer Held Iron Gland
 1 PTFE Hat Packing
 1 Bronze Pressure Ring
 1 Wave Spring
 1 Cage

Bolted



- Kit Includes:**
 1 PTFE Wiper
 1 Bolted Iron Gland
 1 PTFE Hat Packing
 1 Bronze Pressure Ring
 1 Wave Spring
 1 Cage

Rod Dia.	Kit #	Kit #
5/8"	MLR-051-KR014-063	MLR-051-KR015-063
1"	MLR-051-KR014-100	MLR-051-KR015-100
1-3/8"	MLR-051-KR014-138	MLR-051-KR015-138
1-3/4"	MLR-051-KR014-175	MLR-051-KR015-175
2"	MLR-051-KR014-200	MLR-051-KR015-200
2-1/2"	MLR-051-KR014-250	MLR-051-KR015-250
3"	MLR-051-KR014-300	MLR-051-KR015-300

Bolted bushings from: 5/8" to 1-3/4" have 4 bolt holes
 2" to 4-1/2" have 8 bolt holes
 5" to 5-1/2" have 12 bolt holes

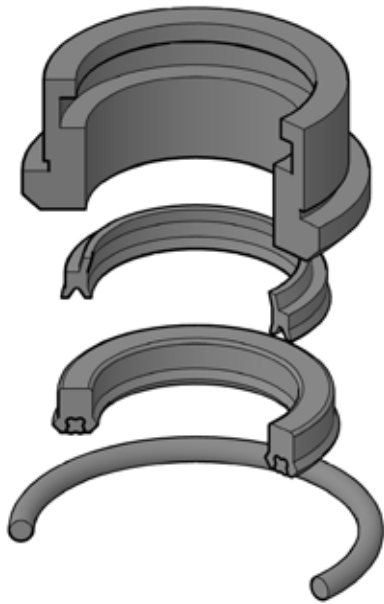
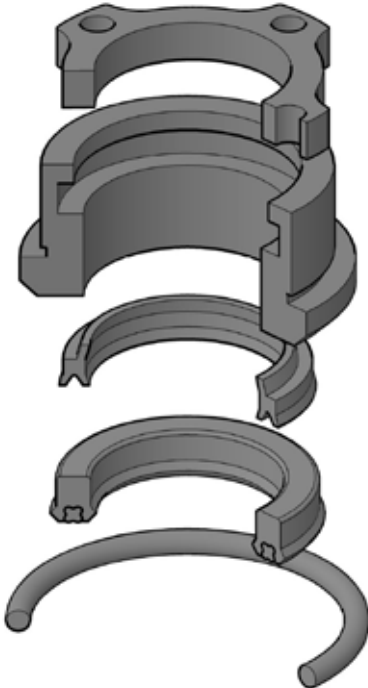
MILLER

Rod Kit, Iron Gland

HV Cylinders - Retainer Held

With Retainer

Without Retainer



- Kit Includes:**
- 1 NBR Wiper
 - 1 Retainer Held Gland
 - 1 Retainer Ring
 - 1 URE Rod Seal
 - 1 NBR O-ring

- Kit Includes:**
- 1 NBR Wiper
 - 1 Retainer Held Gland
 - 1 URE Rod Seal
 - 1 NBR O-ring

Rod Dia.	Kit #	Kit #
5/8"	MLR-051-KR065-063	MLR-051-KR064-063
1"	MLR-051-KR065-100	MLR-051-KR064-100
1-3/8"	MLR-051-KR065-138	MLR-051-KR064-138

MILLER

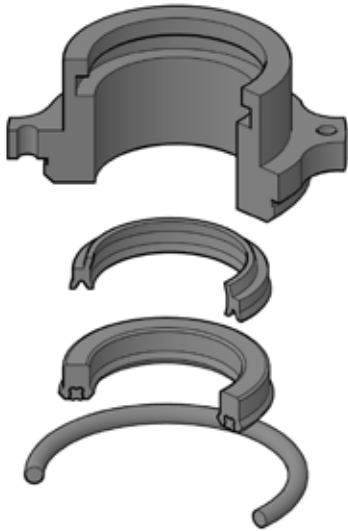


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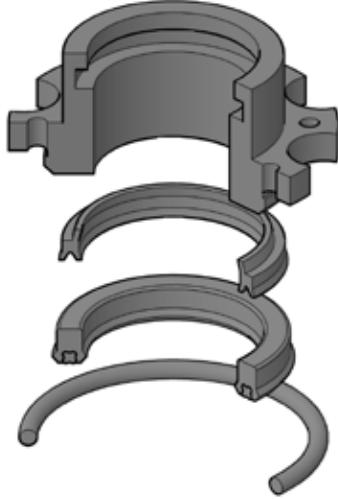
Rod Kit, Iron Gland

HV Cylinders-Bolted

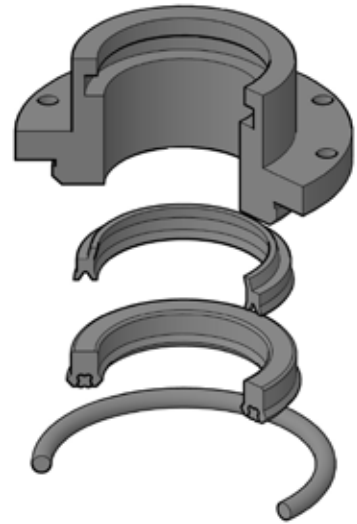
MILLER



- Kit Includes:**
 1 NBR Wiper
 1 Bolted Gland
 1 URE Rod Seal
 1 NBR O-ring



- Kit Includes:**
 1 NBR Wiper
 1 Bolted Gland
 1 URE Rod Seal
 1 NBR O-ring



- Kit Includes:**
 1 NBR Wiper
 1 Bolted Gland
 1 URE Rod Seal
 1 NBR O-ring

Rod Dia.	Kit #	Kit #	Kit #
1-3/4"	MLR-051-KR065-175	—	—
2"	—	MLR-051-KR065-200	—
2-1/2"	—	—	MLR-051-KR065-250
3	—	—	MLR-051-KR065-300
3-1/2"	—	—	MLR-051-KR065-350

MILLER

Star Rod Kits

A, J, & H Cylinders Star Kits

Rod Dia.	Kit #
5/8"	MLR-051-KR080-063
1"	MLR-051-KR080-100
1-3/8"	MLR-051-KR080-138
1-3/4"	MLR-051-KR080-175
2"	MLR-051-KR080-200
2-1/2"	MLR-051-KR080-250
3"	MLR-051-KR080-300
3-1/2"	MLR-051-KR080-350
4"	MLR-051-KR080-400
4-1/2"	MLR-051-KR080-450
5"	MLR-051-KR080-500
5-1/2"	MLR-051-KR080-550

Kit Includes:
 1 XNBR Wiper
 1 URE Rod Seal
 1 NBR O-ring



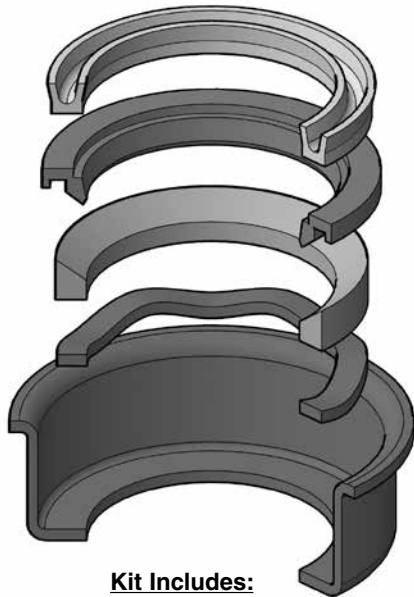
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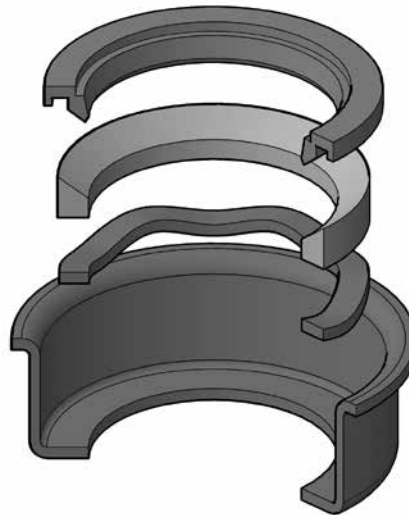
MILLER

Hydraulic Rod Seal Cage Assembly

AJ, J, M, & H Cylinders	Boosters & Tandems
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- Kit Includes:**
 1 PTFE Wiper
 1 PTFE Hat Packing
 1 Bronze Pressure Ring
 1 Wave Spring
 1 Cage



- Kit Includes:**
 1 PTFE Hat Packing
 1 Bronze Pressure Ring
 1 Wave Spring
 1 Cage
 No Wiper

Rod Dia.	Kit #	Kit #
5/8"	MLR-051-KR012-063	MLR-051-KR024-063
1"	MLR-051-KR012-100	MLR-051-KR024-100
1-3/8"	MLR-051-KR012-138	MLR-051-KR024-138
1-3/4"	MLR-051-KR012-175	MLR-051-KR024-175
2"	MLR-051-KR012-200	MLR-051-KR024-200
2-1/2"	MLR-051-KR012-250	MLR-051-KR024-250
3"	MLR-051-KR012-300	MLR-051-KR024-300

MILLER

Rod Kits

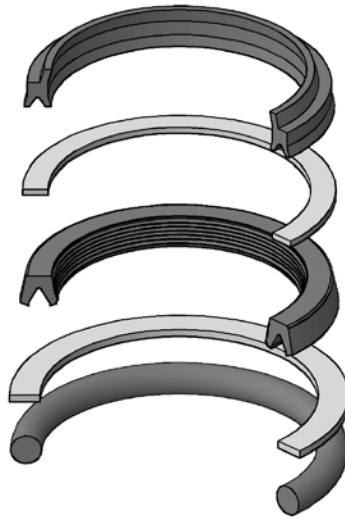
Miller Rod Kits For 2002 HV2 Cylinders

Nitrile / Urethane



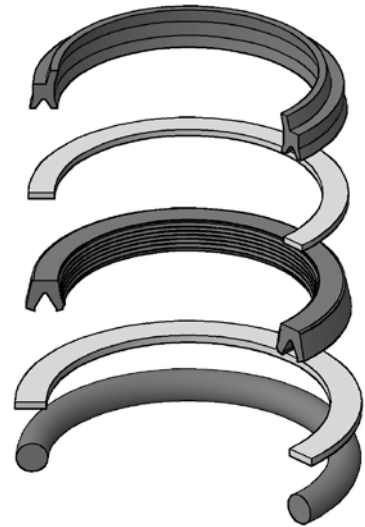
- Kit Includes:**
 1 URE Multi-Lip U-Seal
 1 XNBR Wiper
 1 NBR O-Ring
 1 NBR Back-Up

Fluorocarbon



- Kit Includes:**
 1 FC Multi-Lip U-Seal
 1 FC Wiper
 1 FC O-Ring
 1 FC Back-Up
 1 PTFE Back-Up

Buna



- Kit Includes:**
 1 NBR Multi-Lip U-Seal
 1 XNBR Wiper
 1 NBR O-Ring
 1 NBR Back-Up
 1 PTFE Back-Up

Rod Dia.	Kit #	Kit #	Kit #
5/8"	MLR-HV2-KR300-63	MLR-HV2-KR400-63	MLR-HV2-KR600-63
1"	MLR-HV2-KR300-100	MLR-HV2-KR400-100	MLR-HV2-KR600-100
1-3/8"	MLR-HV2-KR300-138	MLR-HV2-KR400-138	MLR-HV2-KR600-138
1-3/4"	MLR-HV2-KR300-175	MLR-HV2-KR400-175	MLR-HV2-KR600-175
2"	MLR-HV2-KR300-200	MLR-HV2-KR400-200	MLR-HV2-KR600-200
2-1/2"	MLR-HV2-KR300-250	MLR-HV2-KR400-250	MLR-HV2-KR600-250
3"	MLR-HV2-KR300-300	MLR-HV2-KR400-300	MLR-HV2-KR600-300
3-1/2"	MLR-HV2-KR300-350	MLR-HV2-KR400-350	MLR-HV2-KR600-350
4"	MLR-HV2-KR300-400	MLR-HV2-KR400-400	MLR-HV2-KR600-400

MILLER



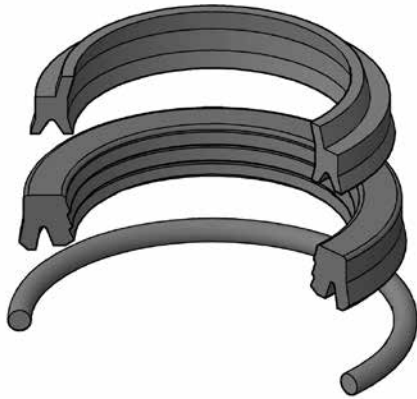
MILLER

Rod Kits

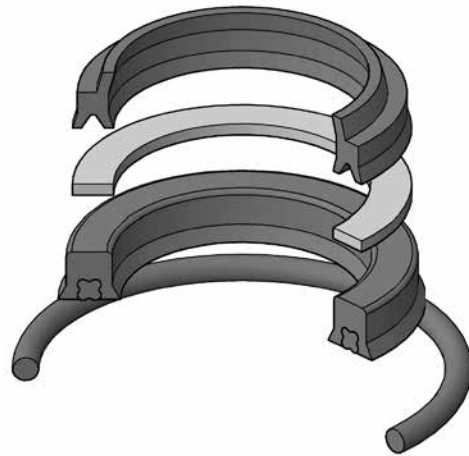
Miller Rod Kits For 2004 HV2 Cylinders

Urethane / Buna

Fluorocarbon



- Kit Includes:**
 1 URE Multi-Lip U-Seal
 1 XNBR Wiper
 1 NBR O-Ring



- Kit Includes:**
 1 FC Multi-Lip U-Seal
 1 FC Wiper
 1 FC O-Ring
 1 Teflon Back-Up

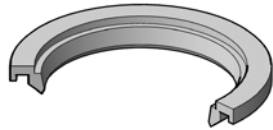
Rod Dia.	Kit #	Kit #
5/8"	MLR-HV2-KR310-63	MLR-HV2-KR410-63
1"	MLR-HV2-KR310-100	MLR-HV2-KR410-100
1-3/8"	MLR-HV2-KR310-138	MLR-HV2-KR410-138
1-3/4"	MLR-HV2-KR310-175	MLR-HV2-KR410-175
2"	MLR-HV2-KR310-200	MLR-HV2-KR410-200
2-1/2"	MLR-HV2-KR310-250	MLR-HV2-KR410-250
3"	MLR-HV2-KR310-300	MLR-HV2-KR410-300
3-1/2"	MLR-HV2-KR310-350	MLR-HV2-KR410-350
4"	MLR-HV2-KR310-400	MLR-HV2-KR410-400
5"	—	MLR-HV2-KR410-500
5-1/2"	—	MLR-HV2-KR410-550



MILLER

Hat Packing

For Hydraulic Service PTFE	For Air & Water Service Nitrile
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Rod Dia.	Part #	Part #
5/8"	MLR-051-RS007-063	MLR-051-RS014-063
1"	MLR-051-RS007-100	MLR-051-RS014-100
1-3/8"	MLR-051-RS007-138	MLR-051-RS014-138
1-3/4"	MLR-051-RS007-175	MLR-051-RS014-175
2"	MLR-051-RS007-200	MLR-051-RS014-200
2-1/2"	MLR-051-RS007-250	MLR-051-RS014-250
3"	MLR-051-RS007-300	MLR-051-RS014-300
3-1/2"	MLR-051-RS007-350	MLR-051-RS014-350
4"	MLR-051-RS007-400	MLR-051-RS014-400
4-1/2"	MLR-051-RS007-450	MLR-051-RS014-450
5"	MLR-051-RS007-500	MLR-051-RS014-500
5-1/2"	MLR-051-RS007-550	MLR-051-RS014-550
7"	MLR-051-RS007-700	—
8"	MLR-051-RS007-800	—
9"	MLR-051-RS007-900	—
10"	MLR-051-RS007-1000	—

MILLER



MILLER

PTFE Wiper "U" Style

A, C, J, M, & H Cylinders

Rod Dia.	Part #
5/8"	MLR-051-WP001-063
1"	MLR-051-WP001-100
1-3/8"	MLR-051-WP001-138
1-3/4"	MLR-051-WP001-175
2"	MLR-051-WP001-200
2-1/2"	MLR-051-WP001-250
3"	MLR-051-WP001-300
3-1/2"	MLR-051-WP001-350
4"	MLR-051-WP001-400
4-1/2"	MLR-051-WP001-450
5"	MLR-051-WP001-500
5-1/2"	MLR-051-WP001-550
7"	MLR-051-WP001-700
8"	MLR-051-WP001-800
9"	MLR-051-WP001-900
10"	MLR-051-WP001-1000



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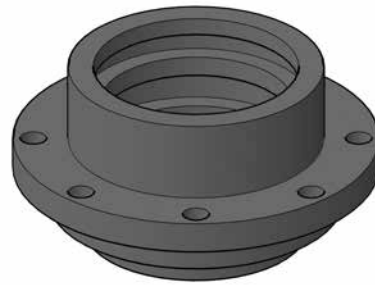
MILLER

Iron Gland

Star Bushing Style A, J, & H Cylinders

Retainer Held

Bolted



Rod Dia.	Part #	Part #
5/8"	MLR-050-BU100-063	MLR-050-BU101-063
1"	MLR-050-BU100-100	MLR-050-BU101-100
1-3/8"	MLR-050-BU100-138	MLR-050-BU101-138
1-3/4"	—	MLR-050-BU101-175
2"	—	MLR-050-BU101-200
2-1/2"	—	MLR-050-BU101-250
3"	—	MLR-050-BU101-300
3-1/2"	—	MLR-050-BU101-350
4"	—	MLR-050-BU101-400
4-1/2"	—	MLR-050-BU101-450
5"	—	MLR-050-BU101-500
5-1/2"	—	MLR-050-BU101-550

Bolted bushings from: 5/8" to 1-3/4" have 4 bolt holes
 2" to 4-1/2" have 8 bolt holes
 5" to 5-1/2" have 12 bolt holes

MILLER



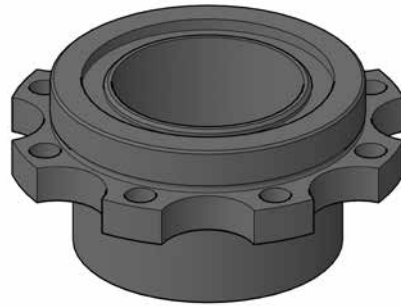
MILLER

Iron Gland

A, C, J, M, & H Cylinders

Retainer Held

Bolted



MILLER

Rod Dia.	Part #	Part #
5/8"	MLR-050-BU022-063	MLR-050-BU024-063
1"	MLR-050-BU022-100	MLR-050-BU024-100
1-3/8"	MLR-050-BU022-138	MLR-050-BU024-138
1-3/4"	MLR-050-BU022-175	MLR-050-BU024-175
2"	MLR-050-BU022-200	MLR-050-BU024-200
2-1/2"	MLR-050-BU022-250	MLR-050-BU024-250
3"	MLR-050-BU022-300	MLR-050-BU024-300

Bolted bushings from: 5/8" to 1-3/4" have 4 bolt holes
 2" to 4-1/2" have 8 bolt holes
 5" to 5-1/2" have 12 bolt holes

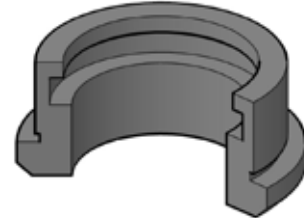


MILLER

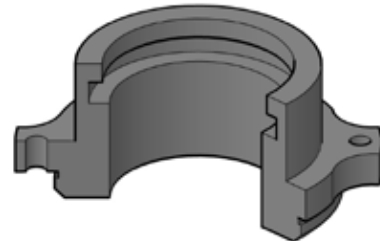
Iron Gland

HV Cylinders

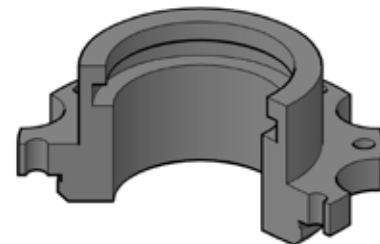
Rod Dia.	Kit #
5/8"	MLR-RG065-063
1"	MLR-RG065-100
1-3/8"	MLR-RG065-138



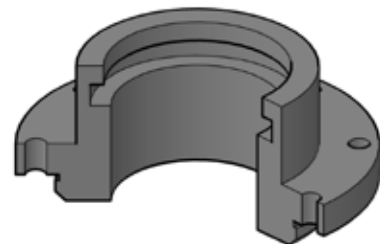
Rod Dia.	Kit #
1-3/4"	MLR-RG065-175



Rod Dia.	Kit #
2"	MLR-RG065-200



Rod Dia.	Kit #
2-1/2"	MLR-RG065-250
3"	MLR-RG065-300
3-1/2"	MLR-RG065-350





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Retainer

A, C, J, M, H & HV Cylinders

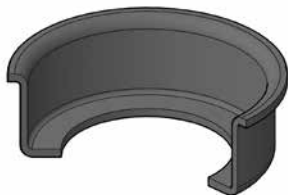
Rod Dia.	Part #
5/8"	MLR-050-RT005-063
1"	MLR-050-RT005-100
1-3/8"	MLR-050-RT005-138



MILLER

Caged Assembly Components

Rod Seal Cage	Wave Spring	Bronze Pressure Ring
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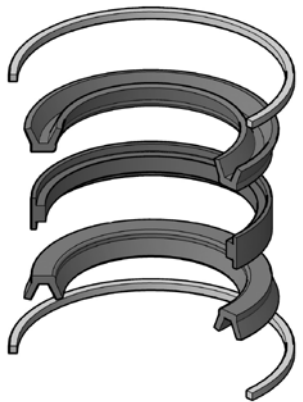
Rod Dia.	Part #	Part #	Part #
5/8"	MLR-051-CG001-063	MLR-051-WS004-063	MLR-051-PG001-063
1"	MLR-051-CG001-100	MLR-051-WS004-100	MLR-051-PG001-100
1-3/8"	MLR-051-CG001-138	MLR-051-WS004-138	MLR-051-PG001-138
1-3/4"	MLR-051-CG001-175	MLR-051-WS004-175	MLR-051-PG001-175
2"	MLR-051-CG001-200	MLR-051-WS003-200	MLR-051-PG001-200
2-1/2"	MLR-051-CG001-250	MLR-051-WS003-250	MLR-051-PG001-250
3"	MLR-051-CG001-300	MLR-051-WS003-300	MLR-051-PG001-300



MILLER

Piston Kits

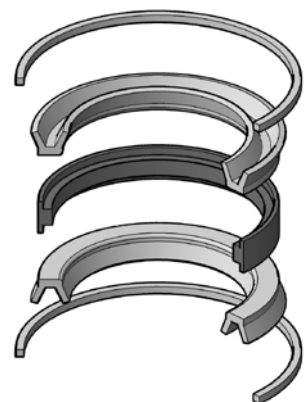
A Series Cylinders	J Series Cylinders	H Series Cylinders
January '82 to Current	January '81 to Current	January '82 to Current



Kit Includes:
 2 NBR U-seals
 1 Wear Ring
 2 PTFE Tube End Seals
 (wear ring material and profile varies with size)



Kit Includes:
 2 U-seals (PTFE up to 5",
 NBR from 6" to 12")
 1 Wear Ring
 2 PTFE Tube End Seals
 (wear ring and u-seal material and profile varies with size)



Kit Includes:
 2 PTFE U-seals
 1 T-Shape Wear Ring
 2 PTFE Tube End Seals
 (wear ring material varies with size)

MILLER

Bore Dia.	Kit #	Kit #	Kit #
1-1/2"	MLR-090-KB001-150	MLR-091-KB001-150	MLR-171-KB001-150
2"	MLR-090-KB001-200	MLR-091-KB001-200	MLR-171-KB001-200
2-1/2"	MLR-090-KB001-250	MLR-091-KB001-250	MLR-171-KB001-250
3-1/4"	MLR-090-KB001-325	MLR-091-KB001-325	MLR-171-KB001-325
4"	MLR-090-KB001-400	MLR-091-KB001-400	MLR-171-KB001-400
5"	MLR-090-KB001-500	MLR-091-KB001-500	MLR-171-KB001-500
6"	MLR-090-KB001-600	MLR-091-KB001-600	MLR-171-KB001-600
7"	MLR-090-KB001-700	MLR-091-KB001-700	MLR-171-KB001-700
8"	MLR-090-KB001-800	MLR-091-KB001-800	MLR-171-KB001-800
10"	MLR-090-KB001-1000	MLR-091-KB001-1000	MLR-171-KB001-1000
12"	MLR-090-KB001-1200	MLR-091-KB001-1200	MLR-171-KB001-1200

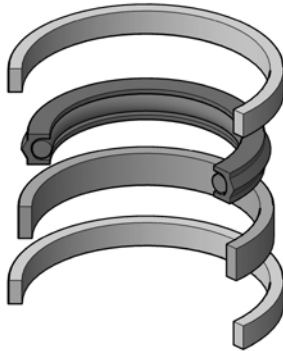


MILLER

Piston Kits

HV Series Cylinders Urethane

Bore Dia.	(URE) Kit #
1-1/2"	MLR-181-KB001-150
2"	MLR-181-KB001-200
2-1/2"	MLR-181-KB001-250
3-1/4"	MLR-181-KB001-325
4"	MLR-181-KB001-400
5"	MLR-181-KB001-500
6"	MLR-181-KB001-600
7"	MLR-181-KB001-700
8"	MLR-181-KB001-800

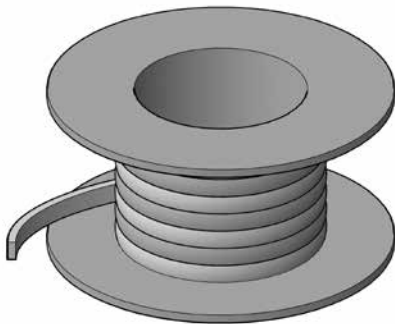


Kit Includes:
 1 URE Piston Seal
 1 Wear Ring
 2 PTFE Tube End Seals

MILLER

PTFE Tube Seal Cord

A, C, J, M, & H Cylinders



Part #	Radial Wall	Width
MLR-008-SH001-30	.030	.070
Includes: 30' spool of PTFE Head Seal		
MLR-SH1-STRIP	.030	.070



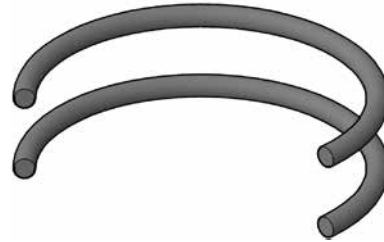
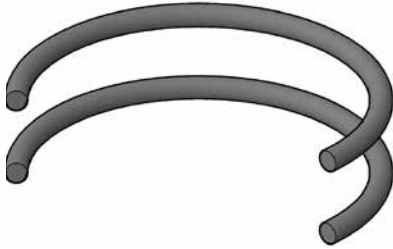
MILLER

Piston Kits

Tube End Seal Kits For HV2 Cylinders

Nitrile

Fluorocarbon



Kit Includes:
2 NBR O-ring Head Seals

Kit Includes:
2 FC O-ring Head Seals

Bore Dia.	Part #	Part #
1-1/2"	MLR-HV2-ES100-150	MLR-HV2-ES200-150
2"	MLR-HV2-ES100-200	MLR-HV2-ES200-200
2-1/2"	MLR-HV2-ES100-250	MLR-HV2-ES200-250
3-1/4"	MLR-HV2-ES100-325	MLR-HV2-ES200-325
4"	MLR-HV2-ES100-400	MLR-HV2-ES200-400
5"	MLR-HV2-ES100-500	MLR-HV2-ES200-500
6"	MLR-HV2-ES100-600	MLR-HV2-ES200-600





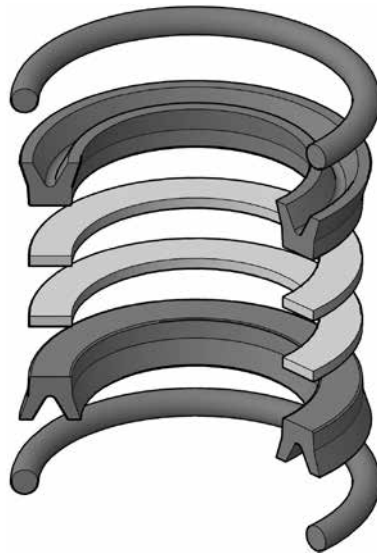
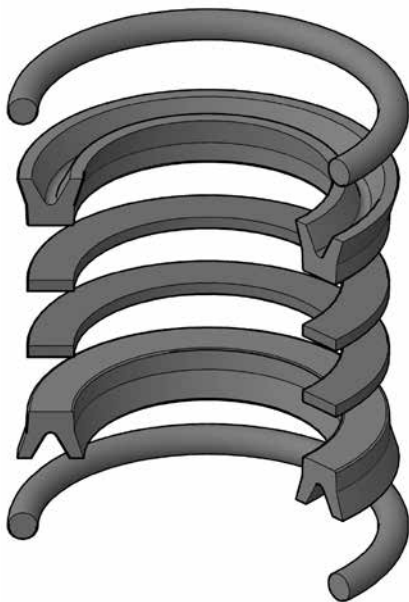
MILLER

Piston Kits

Lip Seal Kits For HV2 Cylinders

Nitrile

Fluorocarbon



Kit Includes:
 2 NBR O-ring Head Seals
 2 NBR U-seals
 2 URE Back-up Rings

Kit Includes:
 2 FC O-ring Head Seals
 2 FC U-seals
 2 PTFE Back-up Rings

Bore Dia.	Part #	Part #
1-1/2"	MLR-HV2-KB100-150	MLR-HV2-KB200-150
2"	MLR-HV2-KB100-200	MLR-HV2-KB200-200
2-1/2"	MLR-HV2-KB100-250	MLR-HV2-KB200-250
3-1/4"	MLR-HV2-KB100-325	MLR-HV2-KB200-325
4"	MLR-HV2-KB100-400	MLR-HV2-KB200-400
5"	MLR-HV2-KB100-500	MLR-HV2-KB200-500
6"	MLR-HV2-KB100-600	MLR-HV2-KB200-600

MILLER

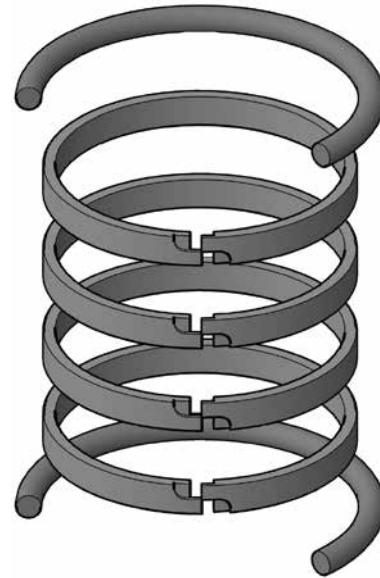
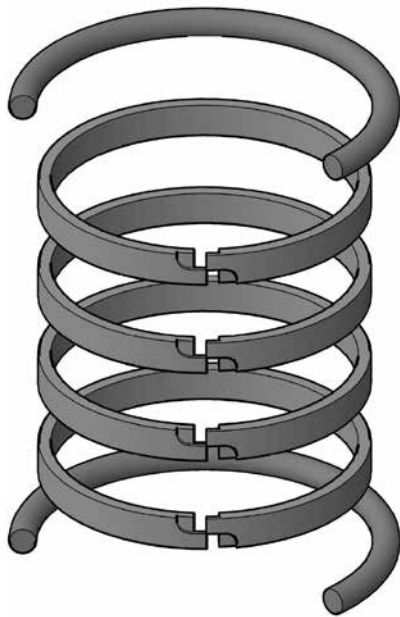
MILLER

Piston Kits

Piston Rings Kits For HV2 Cylinders

Nitrile

Fluorocarbon



Kit Includes:
 2 NBR O-ring Head Seals
 4 Cast Iron Piston Rings

Kit Includes:
 2 FC O-ring Head Seals
 4 Cast Iron Piston Rings

Bore Dia.	Part #	Part #
1-1/2"	MLR-HV2-KB300-150	MLR-HV2-KB400-150
2"	MLR-HV2-KB300-200	MLR-HV2-KB400-200
2-1/2"	MLR-HV2-KB300-250	MLR-HV2-KB400-250
3-1/4"	MLR-HV2-KB300-325	MLR-HV2-KB400-325
4"	MLR-HV2-KB300-400	MLR-HV2-KB400-400
5"	MLR-HV2-KB300-500	MLR-HV2-KB400-500
6"	MLR-HV2-KB300-600	MLR-HV2-KB400-600





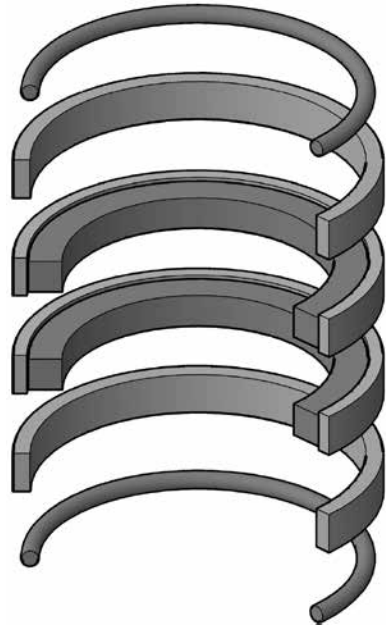
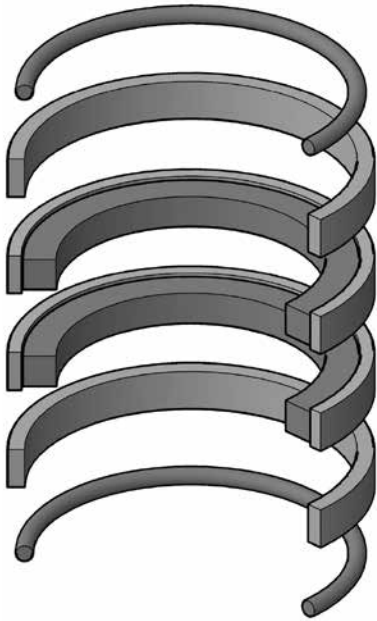
MILLER

Piston Kits

High Load Kits For HV2 Cylinders

Nitrile

Fluorocarbon



Kit Includes:
 2 NBR O-ring Head Seals
 2 Nylon Wear Rings
 2 Bronze filled PTFE Piston Rings
 w/ 2 NBR Expanders

Kit Includes:
 2 FC O-ring Head Seals
 2 Nylon Wear Rings
 2 Bronze filled PTFE Piston Rings
 w/ 2 FC Expanders

Rod Dia.	Kit #	Kit #
1-1/2"	MLR-HV2-KB500-150	MLR-HV2-KB600-150
2"	MLR-HV2-KB500-200	MLR-HV2-KB600-200
2-1/2"	MLR-HV2-KB500-250	MLR-HV2-KB600-250
3-1/4"	MLR-HV2-KB500-325	MLR-HV2-KB600-325
4"	MLR-HV2-KB500-400	MLR-HV2-KB600-400
5"	MLR-HV2-KB500-500	MLR-HV2-KB600-500
6"	MLR-HV2-KB500-600	MLR-HV2-KB600-600

MILLER



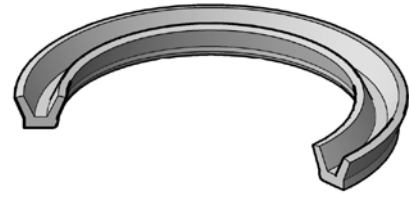
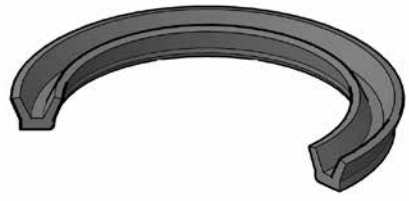
MILLER

Piston U-seals

All Current Style Cylinders

Buna-N

PTFE



Bore Dia.	Part #	Part #
1-1/2"	MLR-052-PS025-150	MLR-052-PS017-150
2"	MLR-052-PS025-200	MLR-052-PS017-200
2-1/2"	MLR-052-PS025-250	MLR-052-PS017-250
3-1/4"	MLR-052-PS025-325	MLR-052-PS017-325
4"	MLR-052-PS025-400	MLR-052-PS017-400
5"	MLR-052-PS025-500	MLR-052-PS017-500
6"	MLR-052-PS025-600	MLR-052-PS017-600
7"	MLR-052-PS025-700	MLR-052-PS017-700
8"	MLR-052-PS016-800	MLR-052-PS017-800
10"	MLR-052-PS025-1000	MLR-052-PS017-1000
12"	MLR-052-PS016-1200	MLR-052-PS017-1200
14"	MLR-052-PS025-1400	MLR-052-PS017-1400
16"	MLR-052-PS025-1600	MLR-052-PS017-1600

MILLER



MILLER

Wear Rings

MILLER

Air Service PTFE	Hydraulic Service Acetal	Hydraulic Service Bronze
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Bore Dia.	Part #	Part #	Part #
1-1/2"	MLR-052-WR005-150-25	MLR-052-WR009-150-25	—
2"	MLR-052-WR005-200-25	MLR-052-WR009-200-25	—
2"	—	MLR-052-WR009-200-31	—
2-1/2"	MLR-052-WR005-250-25	MLR-052-WR009-250-25	—
2-1/2"	—	MLR-052-WR009-250-38	—
3-1/4"	MLR-052-WR005-325-25	MLR-052-WR009-325-25	—
3-1/4"	—	MLR-052-WR009-325-50	—
4"	MLR-052-WR005-400-25	MLR-052-WR009-400-25	—
4"	—	MLR-052-WR009-400-63	—
5"	MLR-052-WR005-500-25	—	—
5"	—	MLR-052-WR009-500-75	—
6"	MLR-052-WR005-600-25	—	—
6"	—	MLR-052-WR009-600-75	—
7"	MLR-052-WR005-700-38	—	—
7"	—	—	MLR-052-WR008-700-75
8"	MLR-052-WR005-800-38	—	—
8"	—	—	MLR-052-WR008-800-125
10"	MLR-052-WR005-1000-38	—	—
10"	—	—	MLR-052-WR008-1000-125
12"	MLR-052-WR005-1200-38	—	—
12"	—	—	MLR-052-WR008-1200-125
16"	MLR-052-WR005-1600-50	—	—
18"	MLR-052-WR005-1800-50	—	—
20"	MLR-052-WR005-2000-50	—	—

KANSAS
PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA
PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797



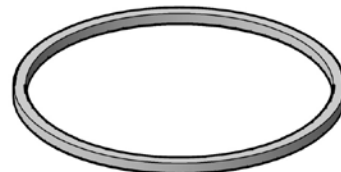
MILLER

Tube End Seals

Continuous PTFE

A, C, J, M, ER500, & ER3000

H & ER6000



Bore Dia.	Part #	Part #
1-1/2"	MLR-090-ES009-150	MLR-170-ES010-150
2"	MLR-090-ES009-200	MLR-170-ES010-200
2-1/2"	MLR-090-ES009-250	MLR-170-ES010-250
3-1/4"	MLR-090-ES009-325	MLR-170-ES010-325
4"	MLR-090-ES009-400	MLR-170-ES010-400
5"	MLR-090-ES009-500	MLR-170-ES010-500
6"	MLR-090-ES009-600	MLR-170-ES010-600
7"	MLR-090-ES009-700	MLR-170-ES010-700
8"	MLR-090-ES009-800	MLR-170-ES010-800
10"	MLR-090-ES009-1000	MLR-170-ES010-1000
12"	MLR-090-ES009-1200	MLR-170-ES010-1200
14"	MLR-090-ES009-1400	—

MILLER

Various Kits

Kit #	Bore
MLR-150-KB001-325	3-1/4"
MLR-150-KB001-500	5"

Kit Includes:
 2 Leather Piston Cups
 2 PTFE Tube End Seals
 1 PTFE Follower Seal



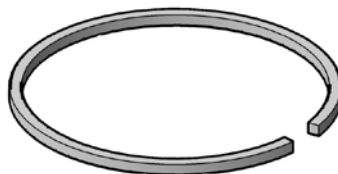
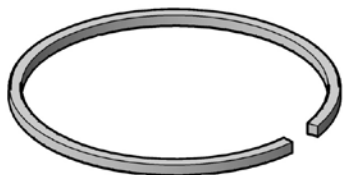
MILLER

Tube End Seals

Strip PTFE

A, C, J, M, ER500, & ER3000

H & ER6000



Bore Dia.	Part #	Part #
1-1/2"	MLR-090-ES006-150	MLR-170-ES006-150
2"	MLR-090-ES006-200	MLR-170-ES006-200
2-1/2"	MLR-090-ES006-250	MLR-170-ES006-250
3-1/4"	MLR-090-ES006-325	MLR-170-ES006-325
4"	MLR-090-ES006-400	MLR-170-ES006-400
5"	MLR-090-ES006-500	MLR-170-ES006-500
6"	MLR-090-ES006-600	MLR-170-ES006-600
7"	MLR-090-ES006-700	MLR-170-ES006-700
8"	MLR-090-ES006-800	MLR-170-ES006-800
10"	MLR-090-ES006-1000	MLR-170-ES006-1000
12"	MLR-090-ES006-1200	MLR-170-ES006-1200
14"	MLR-090-ES006-1400	MLR-170-ES006-1400
18"	—	MLR-170-ES006-1800

MILLER

PTFE Follower Seals

J & H Cylinders For 3 Piece Pistons From 1956-1977



Part #	Bore		I.D.	Radial Wall	Width
	H	J			
MLR-052-FS001-44	1-1/2	1-1/2, 2, 2-1/2	7/16	0.070	0.070
MLR-052-FS001-75	2, 2-1/2	3-1/4, 4, 5	3/4	0.070	0.070
MLR-052-FS001-100	3-1/4	6, 7, 8	1	0.142	0.142
MLR-052-FS001-125	4	10	1-1/4	0.142	0.142
MLR-052-FS001-150	5	12	1-1/2	0.142	0.142
MLR-052-FS001-188	6	14	1-7/8	0.142	0.142
MLR-052-FS001-250	8	-	2-1/2	0.142	0.142

KANSAS
PHONE 1-316-267-1051
FAX 1-316-267-1010

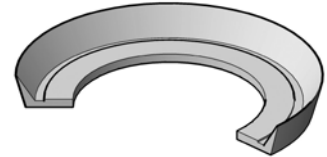
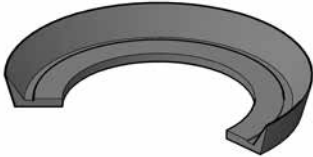
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Piston Cups

A, JW, & HW Cylinders From 1956-1977 Nitrile	J & H Cylinders From 1956-1977 Leather	AJ, J, & H Cylinders From 1956-1977 PTFE
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Bore Dia.	Part #	Part #	Part #
1-1/2"	MLR-052-PS001-150	MLR-052-PS003-150	MLR-052-PS006-150
2"	MLR-052-PS001-200	MLR-052-PS003-200	MLR-052-PS006-200
2-1/2"	MLR-052-PS001-250	MLR-052-PS003-250	MLR-052-PS006-250
3-1/4"	MLR-052-PS001-325	MLR-052-PS003-325	MLR-052-PS006-325
4"	MLR-052-PS001-400	MLR-052-PS003-400	MLR-052-PS006-400
5"	MLR-052-PS001-500	MLR-052-PS003-500	MLR-052-PS006-500
6"	MLR-052-PS001-600	MLR-052-PS003-600	MLR-052-PS006-600
7"	—	—	MLR-052-PS006-700
8"	MLR-052-PS001-800	—	MLR-052-PS006-800
10"	MLR-052-PS001-1000	—	MLR-052-PS006-1000
12"	MLR-052-PS001-1200	—	MLR-052-PS006-1200

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Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width
MLR-HV2-KR400-100	Rod Kit		1			
MLR-HV2-KR600-138	Rod Kit		1-3/8			
MLR-HV2-KR600-175	Rod Kit		1-3/4			
MLR-HV2-KR600-200	Rod Kit		2			
MLR-HV2-KR600-250	Rod Kit		2-1/2			
MLR-HV2-KR600-300	Rod Kit		3			
MLR-HV2-KR600-350	Rod Kit		3-1/2			
MLR-HV2-KR600-400	Rod Kit		4			
MLR-050-BU022-063	Iron Gland	5/8				
MLR-050-BU022-100	Iron Gland	1				
MLR-050-BU022-138	Iron Gland	1-3/8				
MLR-050-BU022-175	Iron Gland	1-3/4				
MLR-050-BU022-200	Iron Gland	2				
MLR-050-BU022-250	Iron Gland	2-1/2				
MLR-050-BU022-300	Iron Gland	3				
MLR-050-BU024-063	Iron Gland	5/8				
MLR-050-BU024-100	Iron Gland	1				
MLR-050-BU024-138	Iron Gland	1-3/8				
MLR-050-BU024-175	Iron Gland	1-3/4				
MLR-050-BU024-200	Iron Gland	2				
MLR-050-BU024-250	Iron Gland	2-1/2				
MLR-050-BU024-300	Iron Gland	3				
MLR-050-BU100-063	Iron Gland	5/8				
MLR-050-BU100-100	Iron Gland	1				
MLR-050-BU100-138	Iron Gland	1-3/8				
MLR-050-BU101-063	Iron Gland	5/8				
MLR-050-BU101-100	Iron Gland	1				
MLR-050-BU101-138	Iron Gland	1-3/8				
MLR-050-BU101-175	Iron Gland	1-3/4				
MLR-050-BU101-200	Iron Gland	2				
MLR-050-BU101-250	Iron Gland	2-1/2				
MLR-050-BU101-300	Iron Gland	3				
MLR-050-BU101-350	Iron Gland	3-1/2				
MLR-050-BU101-400	Iron Gland	4				
MLR-050-BU101-450	Iron Gland	4-1/2				
MLR-050-BU101-500	Iron Gland	5				
MLR-050-BU101-550	Iron Gland	5-1/2				
MLR-050-RT005-063	Retainer	5/8				
MLR-050-RT005-100	Retainer	1				
MLR-050-RT005-138	Retainer	1-3/8				
MLR-051-CG001-063	Rod Seal Cage	5/8				
MLR-051-CG001-100	Rod Seal Cage	1				
MLR-051-CG001-138	Rod Seal Cage	1-3/8				
MLR-051-CG001-175	Rod Seal Cage	1-3/4				
MLR-051-CG001-200	Rod Seal Cage	2				
MLR-051-CG001-250	Rod Seal Cage	2-1/2				
MLR-051-CG001-300	Rod Seal Cage	3				
MLR-051-KR010-063	Rod Kit - Gland	5/8				
MLR-051-KR010-100	Rod Kit - Gland	1				
MLR-051-KR010-138	Rod Kit - Gland	1-3/8				

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Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width
MLR-051-KR010-175	Rod Kit - Gland	1-3/4				
MLR-051-KR010-200	Rod Kit - Gland	2				
MLR-051-KR010-250	Rod Kit - Gland	2-1/2				
MLR-051-KR010-300	Rod Kit - Gland	3				
MLR-051-KR011-063	Rod Kit - Gland	5/8				
MLR-051-KR011-100	Rod Kit - Gland	1				
MLR-051-KR011-138	Rod Kit - Gland	1-3/8				
MLR-051-KR011-175	Rod Kit - Gland	1-3/4				
MLR-051-KR011-200	Rod Kit - Gland	2				
MLR-051-KR011-250	Rod Kit - Gland	2-1/2				
MLR-051-KR011-300	Rod Kit - Gland	3				
MLR-051-KR012-063	Rod Kit - Cage Assembly	5/8				
MLR-051-KR012-100	Rod Kit - Cage Assembly	1				
MLR-051-KR012-138	Rod Kit - Cage Assembly	1-3/8				
MLR-051-KR012-175	Rod Kit - Cage Assembly	1-3/4				
MLR-051-KR012-200	Rod Kit - Cage Assembly	2				
MLR-051-KR012-250	Rod Kit - Cage Assembly	2-1/2				
MLR-051-KR012-300	Rod Kit - Cage Assembly	3				
MLR-051-KR014-063	Rod Kit - Gland	5/8				
MLR-051-KR014-100	Rod Kit - Gland	1				
MLR-051-KR014-138	Rod Kit - Gland	1-3/8				
MLR-051-KR014-175	Rod Kit - Gland	1-3/4				
MLR-051-KR014-200	Rod Kit - Gland	2				
MLR-051-KR014-250	Rod Kit - Gland	2-1/2				
MLR-051-KR014-300	Rod Kit - Gland	3				
MLR-051-KR015-063	Rod Kit - Gland	5/8				
MLR-051-KR015-100	Rod Kit - Gland	1				
MLR-051-KR015-138	Rod Kit - Gland	1-3/8				
MLR-051-KR015-175	Rod Kit - Gland	1-3/4				
MLR-051-KR015-200	Rod Kit - Gland	2				
MLR-051-KR015-250	Rod Kit - Gland	2-1/2				
MLR-051-KR015-300	Rod Kit - Gland	3				
MLR-051-KR024-063	Rod Kit - Cage Assembly	5/8				
MLR-051-KR024-100	Rod Kit - Cage Assembly	1				
MLR-051-KR024-138	Rod Kit - Cage Assembly	1-3/8				
MLR-051-KR024-175	Rod Kit - Cage Assembly	1-3/4				
MLR-051-KR024-200	Rod Kit - Cage Assembly	2				
MLR-051-KR024-250	Rod Kit - Cage Assembly	2-1/2				
MLR-051-KR024-300	Rod Kit - Cage Assembly	3				
MLR-051-KR064-063	Rod Kit - Gland	5/8				
MLR-051-KR064-100	Rod Kit - Gland	1				
MLR-051-KR064-138	Rod Kit - Gland	1-3/8				
MLR-051-KR065-063	Rod Kit - Gland	5/8				
MLR-051-KR065-100	Rod Kit - Gland	1				
MLR-051-KR065-138	Rod Kit - Gland	1-3/8				
MLR-051-KR065-175	Rod Kit - Gland	1-3/4				
MLR-051-KR065-200	Rod Kit - Gland	2				
MLR-051-KR065-250	Rod Kit - Gland	2-1/2				
MLR-051-KR065-300	Rod Kit - Gland	3				
MLR-051-KR065-350	Rod Kit - Gland	3-1/2				





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Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width
MLR-051-KR074-063	Rod Kit - Gland	5/8				
MLR-051-KR074-100	Rod Kit - Gland	1				
MLR-051-KR074-138	Rod Kit - Gland	1-3/8				
MLR-051-KR075-063	Rod Kit - Gland	5/8				
MLR-051-KR075-100	Rod Kit - Gland	1				
MLR-051-KR075-138	Rod Kit - Gland	1-3/8				
MLR-051-KR075-175	Rod Kit - Gland	1-3/4				
MLR-051-KR075-200	Rod Kit - Gland	2				
MLR-051-KR075-250	Rod Kit - Gland	2-1/2				
MLR-051-KR075-300	Rod Kit - Gland	3				
MLR-051-KR075-350	Rod Kit - Gland	3-1/2				
MLR-051-KR075-400	Rod Kit - Gland	4				
MLR-051-KR075-450	Rod Kit - Gland	4-1/2				
MLR-051-KR075-500	Rod Kit - Gland	5				
MLR-051-KR075-550	Rod Kit - Gland	5-1/2				
MLR-051-KR080-063	Rod Kit - Seal	5/8				
MLR-051-KR080-100	Rod Kit - Seal	1				
MLR-051-KR080-138	Rod Kit - Seal	1-3/8				
MLR-051-KR080-175	Rod Kit - Seal	1-3/4				
MLR-051-KR080-200	Rod Kit - Seal	2				
MLR-051-KR080-250	Rod Kit - Seal	2-1/2				
MLR-051-KR080-300	Rod Kit - Seal	3				
MLR-051-KR080-350	Rod Kit - Seal	3-1/2				
MLR-051-KR080-400	Rod Kit - Seal	4				
MLR-051-KR080-450	Rod Kit - Seal	4-1/2				
MLR-051-KR080-500	Rod Kit - Seal	5				
MLR-051-KR080-550	Rod Kit - Seal	5-1/2				
MLR-051-PG001-063	Bronze Pressure Ring	5/8				
MLR-051-PG001-100	Bronze Pressure Ring	1				
MLR-051-PG001-138	Bronze Pressure Ring	1-3/8				
MLR-051-PG001-175	Bronze Pressure Ring	1-3/4				
MLR-051-PG001-200	Bronze Pressure Ring	2				
MLR-051-PG001-250	Bronze Pressure Ring	2-1/2				
MLR-051-PG001-300	Bronze Pressure Ring	3				
MLR-051-RS007-063	Hat Packing - PTFE	5/8				
MLR-051-RS007-100	Hat Packing - PTFE	1				
MLR-051-RS007-1000	Hat Packing - PTFE	10				
MLR-051-RS007-138	Hat Packing - PTFE	1-3/8				
MLR-051-RS007-175	Hat Packing - PTFE	1-3/4				
MLR-051-RS007-200	Hat Packing - PTFE	2				
MLR-051-RS007-250	Hat Packing - PTFE	2-1/2				
MLR-051-RS007-300	Hat Packing - PTFE	3				
MLR-051-RS007-350	Hat Packing - PTFE	3-1/2				
MLR-051-RS007-400	Hat Packing - PTFE	4				
MLR-051-RS007-450	Hat Packing - PTFE	4-1/2				
MLR-051-RS007-500	Hat Packing - PTFE	5				
MLR-051-RS007-550	Hat Packing - PTFE	5-1/2				
MLR-051-RS007-700	Hat Packing - PTFE	7				
MLR-051-RS007-800	Hat Packing - PTFE	8				
MLR-051-RS007-900	Hat Packing - PTFE	9				

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Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width
MLR-051-RS014-063	Hat Packing - Nitrile	5/8				
MLR-051-RS014-100	Hat Packing - Nitrile	1				
MLR-051-RS014-138	Hat Packing - Nitrile	1-3/8				
MLR-051-RS014-175	Hat Packing - Nitrile	1-3/4				
MLR-051-RS014-200	Hat Packing - Nitrile	2				
MLR-051-RS014-250	Hat Packing - Nitrile	2-1/2				
MLR-051-RS014-300	Hat Packing - Nitrile	3				
MLR-051-RS014-350	Hat Packing - Nitrile	3-1/2				
MLR-051-RS014-400	Hat Packing - Nitrile	4				
MLR-051-RS014-450	Hat Packing - Nitrile	4-1/2				
MLR-051-RS014-500	Hat Packing - Nitrile	5				
MLR-051-RS014-550	Hat Packing - Nitrile	5-1/2				
MLR-051-WP001-063	U' Style Wiper - PTFE	5/8				
MLR-051-WP001-100	U' Style Wiper - PTFE	1				
MLR-051-WP001-1000	U' Style Wiper - PTFE	10				
MLR-051-WP001-138	U' Style Wiper - PTFE	1-3/8				
MLR-051-WP001-175	U' Style Wiper - PTFE	1-3/4				
MLR-051-WP001-200	U' Style Wiper - PTFE	2				
MLR-051-WP001-250	U' Style Wiper - PTFE	2-1/2				
MLR-051-WP001-300	U' Style Wiper - PTFE	3				
MLR-051-WP001-350	U' Style Wiper - PTFE	3-1/2				
MLR-051-WP001-400	U' Style Wiper - PTFE	4				
MLR-051-WP001-450	U' Style Wiper - PTFE	4-1/2				
MLR-051-WP001-500	U' Style Wiper - PTFE	5				
MLR-051-WP001-550	U' Style Wiper - PTFE	5-1/2				
MLR-051-WP001-700	U' Style Wiper - PTFE	7				
MLR-051-WP001-800	U' Style Wiper - PTFE	8				
MLR-051-WP001-900	U' Style Wiper - PTFE	9				
MLR-051-WS003-200	Wave Spring	2				
MLR-051-WS003-250	Wave Spring	2-1/2				
MLR-051-WS003-300	Wave Spring	3				
MLR-051-WS004-063	Wave Spring	5/8				
MLR-051-WS004-100	Wave Spring	1				
MLR-051-WS004-138	Wave Spring	1-3/8				
MLR-051-WS004-175	Wave Spring	1-3/4				
MLR-052-FS001-100	Follower Seal			1	0.142	0.142
MLR-052-FS001-125	Follower Seal			1-1/4	0.142	0.142
MLR-052-FS001-150	Follower Seal			1-1/2	0.142	0.142
MLR-052-FS001-188	Follower Seal			1-7/8	0.142	0.142
MLR-052-FS001-250	Follower Seal			2-1/2	0.142	0.142
MLR-052-FS001-44	Follower Seal			7/16	0.070	0.070
MLR-052-FS001-75	Follower Seal			3/4	0.070	0.070
MLR-052-PS001-1000	Piston Cup - Nitrile		10			
MLR-052-PS001-1200	Piston Cup - Nitrile		12			
MLR-052-PS001-150	Piston Cup - Nitrile		1-1/2			
MLR-052-PS001-200	Piston Cup - Nitrile		2			
MLR-052-PS001-250	Piston Cup - Nitrile		2-1/2			
MLR-052-PS001-325	Piston Cup - Nitrile		3-1/4			
MLR-052-PS001-400	Piston Cup - Nitrile		4			
MLR-052-PS001-500	Piston Cup - Nitrile		5			





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Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width
MLR-052-PS001-600	Piston Cup - Nitrile		6			
MLR-052-PS001-800	Piston Cup - Nitrile		8			
MLR-052-PS003-150	Piston Cup - Leather		1-1/2			
MLR-052-PS003-200	Piston Cup - Leather		2			
MLR-052-PS003-250	Piston Cup - Leather		2-1/2			
MLR-052-PS003-325	Piston Cup - Leather		3-1/4			
MLR-052-PS003-400	Piston Cup - Leather		4			
MLR-052-PS003-500	Piston Cup - Leather		5			
MLR-052-PS003-600	Piston Cup - Leather		6			
MLR-052-PS006-1000	Piston Cup - PTFE		10			
MLR-052-PS006-1200	Piston Cup - PTFE		12			
MLR-052-PS006-150	Piston Cup - PTFE		1-1/2			
MLR-052-PS006-200	Piston Cup - PTFE		2			
MLR-052-PS006-250	Piston Cup - PTFE		2-1/2			
MLR-052-PS006-325	Piston Cup - PTFE		3-1/4			
MLR-052-PS006-400	Piston Cup - PTFE		4			
MLR-052-PS006-500	Piston Cup - PTFE		5			
MLR-052-PS006-600	Piston Cup - PTFE		6			
MLR-052-PS006-700	Piston Cup - PTFE		7			
MLR-052-PS006-800	Piston Cup - PTFE		8			
MLR-052-PS016-1200	Piston U-seal - Nitrile		12			
MLR-052-PS016-800	Piston U-seal - Nitrile		8			
MLR-052-PS017-1000	Piston U-seal - PTFE		10			
MLR-052-PS017-1200	Piston U-seal - PTFE		12			
MLR-052-PS017-1400	Piston U-seal - PTFE		14			
MLR-052-PS017-150	Piston U-seal - PTFE		1-1/2			
MLR-052-PS017-1600	Piston U-seal - PTFE		16			
MLR-052-PS017-1800	Piston U-seal - PTFE		18			
MLR-052-PS017-200	Piston U-seal - PTFE		2			
MLR-052-PS017-250	Piston U-seal - PTFE		2-1/2			
MLR-052-PS017-325	Piston U-seal - PTFE		3-1/4			
MLR-052-PS017-400	Piston U-seal - PTFE		4			
MLR-052-PS017-500	Piston U-seal - PTFE		5			
MLR-052-PS017-600	Piston U-seal - PTFE		6			
MLR-052-PS017-700	Piston U-seal - PTFE		7			
MLR-052-PS017-800	Piston U-seal - PTFE		8			
MLR-052-PS025-1000	Piston U-seal - Nitrile		10			
MLR-052-PS025-1400	Piston U-seal - Nitrile		14			
MLR-052-PS025-150	Piston U-seal - Nitrile		1-1/2			
MLR-052-PS025-1600	Piston U-seal - Nitrile		16			
MLR-052-PS025-200	Piston U-seal - Nitrile		2			
MLR-052-PS025-250	Piston U-seal - Nitrile		2-1/2			
MLR-052-PS025-325	Piston U-seal - Nitrile		3-1/4			
MLR-052-PS025-400	Piston U-seal - Nitrile		4			
MLR-052-PS025-500	Piston U-seal - Nitrile		5			
MLR-052-PS025-600	Piston U-seal - Nitrile		6			
MLR-052-PS025-700	Piston U-seal - Nitrile		7			
MLR-052-WR005-1000-38	Wear Ring - PTFE		10			
MLR-052-WR005-1200-38	Wear Ring - PTFE		12			
MLR-052-WR005-150-25	Wear Ring - PTFE		1-1/2			

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Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width
MLR-052-WR005-1600-50	Wear Ring - PTFE		16			
MLR-052-WR005-1800-50	Wear Ring - PTFE		18			
MLR-052-WR005-2000-50	Wear Ring - PTFE		20			
MLR-052-WR005-200-25	Wear Ring - PTFE		2			
MLR-052-WR005-250-25	Wear Ring - PTFE		2-1/2			
MLR-052-WR005-325-25	Wear Ring - PTFE		3-1/4			
MLR-052-WR005-400-25	Wear Ring - PTFE		4			
MLR-052-WR005-500-25	Wear Ring - PTFE		5			
MLR-052-WR005-600-25	Wear Ring - PTFE		6			
MLR-052-WR005-700-38	Wear Ring - PTFE		7			
MLR-052-WR005-800-38	Wear Ring - PTFE		8			
MLR-052-WR008-1000-125	Wear Ring - Bronze		10			
MLR-052-WR008-1200-125	Wear Ring - Bronze		12			
MLR-052-WR008-700-75	Wear Ring - Bronze		7			
MLR-052-WR008-800-125	Wear Ring - Bronze		8			
MLR-052-WR009-150-25	Wear Ring - Acetal		1-1/2			
MLR-052-WR009-200-25	Wear Ring - Acetal		2			
MLR-052-WR009-200-31	Wear Ring - Acetal		2			
MLR-052-WR009-250-25	Wear Ring - Acetal		2-1/2			
MLR-052-WR009-250-38	Wear Ring - Acetal		2-1/2			
MLR-052-WR009-325-25	Wear Ring - Acetal		3-1/4			
MLR-052-WR009-325-50	Wear Ring - Acetal		3-1/4			
MLR-052-WR009-400-25	Wear Ring - Acetal		4			
MLR-052-WR009-400-63	Wear Ring - Acetal		4			
MLR-052-WR009-500-75	Wear Ring - Acetal		5			
MLR-052-WR009-600-75	Wear Ring - Acetal		6			
MLR-090-ES006-1000	Tube End Seal		10			
MLR-090-ES006-1200	Tube End Seal		12			
MLR-090-ES006-1400	Tube End Seal		14			
MLR-090-ES006-150	Tube End Seal		1-1/2			
MLR-090-ES006-200	Tube End Seal		2			
MLR-090-ES006-250	Tube End Seal		2-1/2			
MLR-090-ES006-325	Tube End Seal		3-1/4			
MLR-090-ES006-400	Tube End Seal		4			
MLR-090-ES006-500	Tube End Seal		5			
MLR-090-ES006-600	Tube End Seal		6			
MLR-090-ES006-700	Tube End Seal		7			
MLR-090-ES006-800	Tube End Seal		8			
MLR-090-ES009-1000	Tube End Seal		10			
MLR-090-ES009-1200	Tube End Seal		12			
MLR-090-ES009-1400	Tube End Seal		14			
MLR-090-ES009-150	Tube End Seal		1-1/2			
MLR-090-ES009-200	Tube End Seal		2			
MLR-090-ES009-250	Tube End Seal		2-1/2			
MLR-090-ES009-325	Tube End Seal		3-1/4			
MLR-090-ES009-400	Tube End Seal		4			
MLR-090-ES009-500	Tube End Seal		5			
MLR-090-ES009-600	Tube End Seal		6			
MLR-090-ES009-700	Tube End Seal		7			
MLR-090-ES009-800	Tube End Seal		8			





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Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width
MLR-090-KB001-1000	Piston Kit		10			
MLR-090-KB001-1200	Piston Kit		12			
MLR-090-KB001-150	Piston Kit		1-1/2			
MLR-090-KB001-200	Piston Kit		2			
MLR-090-KB001-250	Piston Kit		2-1/2			
MLR-090-KB001-325	Piston Kit		3-1/4			
MLR-090-KB001-400	Piston Kit		4			
MLR-090-KB001-500	Piston Kit		5			
MLR-090-KB001-600	Piston Kit		6			
MLR-090-KB001-700	Piston Kit		7			
MLR-090-KB001-800	Piston Kit		8			
MLR-091-KB001-1000	Piston Kit		10			
MLR-091-KB001-1200	Piston Kit		12			
MLR-091-KB001-150	Piston Kit		1-1/2			
MLR-091-KB001-200	Piston Kit		2			
MLR-091-KB001-250	Piston Kit		2-1/2			
MLR-091-KB001-325	Piston Kit		3-1/4			
MLR-091-KB001-400	Piston Kit		4			
MLR-091-KB001-500	Piston Kit		5			
MLR-091-KB001-600	Piston Kit		6			
MLR-091-KB001-700	Piston Kit		7			
MLR-091-KB001-800	Piston Kit		8			
MLR-150-KB001-325	Piston Kit		3-1/4			
MLR-150-KB001-500	Piston Kit		5			
MLR-170-ES006-1000	Tube End Seal		10			
MLR-170-ES006-1200	Tube End Seal		12			
MLR-170-ES006-1400	Tube End Seal		14			
MLR-170-ES006-150	Tube End Seal		1-1/2			
MLR-170-ES006-1800	Tube End Seal		18			
MLR-170-ES006-200	Tube End Seal		2			
MLR-170-ES006-250	Tube End Seal		2-1/2			
MLR-170-ES006-325	Tube End Seal		3-1/4			
MLR-170-ES006-400	Tube End Seal		4			
MLR-170-ES006-500	Tube End Seal		5			
MLR-170-ES006-600	Tube End Seal		6			
MLR-170-ES006-700	Tube End Seal		7			
MLR-170-ES006-800	Tube End Seal		8			
MLR-170-ES010-1000	Tube End Seal		10			
MLR-170-ES010-1200	Tube End Seal		12			
MLR-170-ES010-150	Tube End Seal		1-1/2			
MLR-170-ES010-200	Tube End Seal		2			
MLR-170-ES010-250	Tube End Seal		2-1/2			
MLR-170-ES010-325	Tube End Seal		3-1/4			
MLR-170-ES010-400	Tube End Seal		4			
MLR-170-ES010-500	Tube End Seal		5			
MLR-170-ES010-600	Tube End Seal		6			
MLR-170-ES010-700	Tube End Seal		7			
MLR-170-ES010-800	Tube End Seal		8			
MLR-171-KB001-1000	Piston Kit		10			
MLR-171-KB001-1200	Piston Kit		12			

KANSAS
PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA
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FAX 1-918-446-4743

TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797



MILLER

Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width
MLR-171-KB001-150	Piston Kit		1-1/2			
MLR-171-KB001-200	Piston Kit		2			
MLR-171-KB001-250	Piston Kit		2-1/2			
MLR-171-KB001-325	Piston Kit		3-1/4			
MLR-171-KB001-400	Piston Kit		4			
MLR-171-KB001-500	Piston Kit		5			
MLR-171-KB001-600	Piston Kit		6			
MLR-171-KB001-700	Piston Kit		7			
MLR-171-KB001-800	Piston Kit		8			
MLR-181-KB001-150	Piston Kit		1-1/2			
MLR-181-KB001-200	Piston Kit		2			
MLR-181-KB001-250	Piston Kit		2-1/2			
MLR-181-KB001-325	Piston Kit		3-1/4			
MLR-181-KB001-400	Piston Kit		4			
MLR-181-KB001-500	Piston Kit		5			
MLR-181-KB001-600	Piston Kit		6			
MLR-181-KB001-700	Piston Kit		7			
MLR-181-KB001-800	Piston Kit		8			
MLR-HV2-ES100-150	Piston Kit		1-1/2			
MLR-HV2-ES100-200	Piston Kit		2			
MLR-HV2-ES100-250	Piston Kit		2-1/2			
MLR-HV2-ES100-325	Piston Kit		3-1/4			
MLR-HV2-ES100-400	Piston Kit		4			
MLR-HV2-ES100-500	Piston Kit		5			
MLR-HV2-ES100-600	Piston Kit		6			
MLR-HV2-ES200-150	Piston Kit		1-1/2			
MLR-HV2-ES200-200	Piston Kit		2			
MLR-HV2-ES200-250	Piston Kit		2-1/2			
MLR-HV2-ES200-325	Piston Kit		3-1/4			
MLR-HV2-ES200-400	Piston Kit		4			
MLR-HV2-ES200-500	Piston Kit		5			
MLR-HV2-ES200-600	Piston Kit		6			
MLR-HV2-KB100-150	Piston Kit		1-1/2			
MLR-HV2-KB100-200	Piston Kit		2			
MLR-HV2-KB100-250	Piston Kit		2-1/2			
MLR-HV2-KB100-325	Piston Kit		3-1/4			
MLR-HV2-KB100-400	Piston Kit		4			
MLR-HV2-KB100-500	Piston Kit		5			
MLR-HV2-KB100-600	Piston Kit		6			
MLR-HV2-KB300-150	Piston Kit		1-1/2			
MLR-HV2-KB300-200	Piston Kit		2			
MLR-HV2-KB300-250	Piston Kit		2-1/2			
MLR-HV2-KB300-325	Piston Kit		3-1/4			
MLR-HV2-KB300-400	Piston Kit		4			
MLR-HV2-KB300-500	Piston Kit		5			
MLR-HV2-KB300-600	Piston Kit		6			
MLR-HV2-KB400-150	Piston Kit		1-1/2			
MLR-HV2-KB400-200	Piston Kit		2			
MLR-HV2-KB400-250	Piston Kit		2-1/2			
MLR-HV2-KB400-325	Piston Kit		3-1/4			





MILLER

MILLER

Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width
MLR-HV2-KB400-400	Piston Kit		4			
MLR-HV2-KB400-500	Piston Kit		5			
MLR-HV2-KB400-600	Piston Kit		6			
MLR-HV2-KB500-150	Piston Kit		1-1/2			
MLR-HV2-KB500-200	Piston Kit		2			
MLR-HV2-KB500-250	Piston Kit		2-1/2			
MLR-HV2-KB500-325	Piston Kit		3-1/4			
MLR-HV2-KB500-400	Piston Kit		4			
MLR-HV2-KB500-500	Piston Kit		5			
MLR-HV2-KB500-600	Piston Kit		6			
MLR-HV2-KB600-150	Piston Kit		1-1/2			
MLR-HV2-KB600-200	Piston Kit		2			
MLR-HV2-KB600-250	Piston Kit		2-1/2			
MLR-HV2-KB600-325	Piston Kit		3-1/4			
MLR-HV2-KB600-400	Piston Kit		4			
MLR-HV2-KB600-500	Piston Kit		5			
MLR-HV2-KB600-600	Piston Kit		6			
MLR-HV2-KR300-100	Rod Kit		1			
MLR-HV2-KR300-138	Rod Kit		1-3/8			
MLR-HV2-KR300-175	Rod Kit		1-3/4			
MLR-HV2-KR300-200	Rod Kit		2			
MLR-HV2-KR300-250	Rod Kit		2-1/2			
MLR-HV2-KR300-300	Rod Kit		3			
MLR-HV2-KR300-350	Rod Kit		3-1/2			
MLR-HV2-KR300-400	Rod Kit		4			
MLR-HV2-KR300-63	Rod Kit		5/8			
MLR-HV2-KR310-100	Rod Kit		1			
MLR-HV2-KR310-138	Rod Kit		1-3/8			
MLR-HV2-KR310-175	Rod Kit		1-3/4			
MLR-HV2-KR310-200	Rod Kit		2			
MLR-HV2-KR310-250	Rod Kit		2-1/2			
MLR-HV2-KR310-300	Rod Kit		3			
MLR-HV2-KR310-350	Rod Kit		3-1/2			
MLR-HV2-KR310-400	Rod Kit		4			
MLR-HV2-KR310-63	Rod Kit		5/8			
MLR-HV2-KR400-138	Rod Kit		1-3/8			
MLR-HV2-KR400-175	Rod Kit		1-3/4			
MLR-HV2-KR400-200	Rod Kit		2			
MLR-HV2-KR400-250	Rod Kit		2-1/2			
MLR-HV2-KR400-300	Rod Kit		3			
MLR-HV2-KR400-350	Rod Kit		3-1/2			
MLR-HV2-KR400-400	Rod Kit		4			
MLR-HV2-KR400-63	Rod Kit		5/8			
MLR-HV2-KR410-100	Rod Kit		1			
MLR-HV2-KR410-138	Rod Kit		1-3/8			
MLR-HV2-KR410-175	Rod Kit		1-3/4			
MLR-HV2-KR410-200	Rod Kit		2			
MLR-HV2-KR410-250	Rod Kit		2-1/2			
MLR-HV2-KR410-300	Rod Kit		3			
MLR-HV2-KR410-350	Rod Kit		3-1/2			

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PHONE 1-903-753-0341
FAX 1-903-236-9797



MILLER

Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width
MLR-HV2-KR410-400	Rod Kit		4			
MLR-HV2-KR410-500	Rod Kit		5			
MLR-HV2-KR410-550	Rod Kit		5-1/2			
MLR-HV2-KR410-63	Rod Kit		5/8			
MLR-HV2-KR600-100	Rod Kit		1			
MLR-HV2-KR600-63	Rod Kit		5/8			
MLR-RG065-063	Iron Gland		5/8			
MLR-RG065-100	Iron Gland		1			
MLR-RG065-138	Iron Gland		1-3/8			
MLR-RG065-175	Iron Gland		1-3/4			
MLR-RG065-200	Iron Gland		2			
MLR-RG065-250	Iron Gland		2-1/2			
MLR-RG065-300	Iron Gland		3			
MLR-RG065-350	Iron Gland		3-1/2			
MLR-008-SH001-30	0.03cs x 0.07w PTFE strip (30' Spool)					
MLR-SH1-STRIP	0.03cs x 0.07w PTFE strip (sold by the foot)					



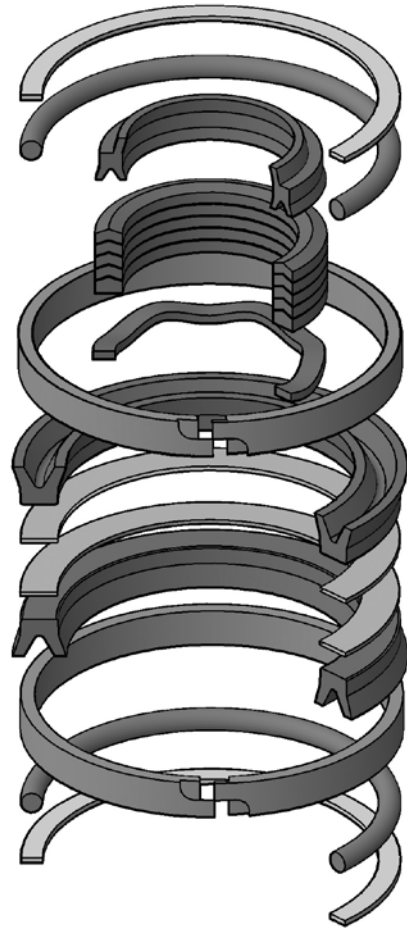


MILWAUKEE

Kits

H Cylinders Nitrile

Bore	Rod	(NBR) Kit #
1-1/2"	5/8"	MIL-00151-7-40
1-1/2"	1"	MIL-00152-7-40
2"	1"	MIL-01510-7-40
2"	1-3/8"	MIL-01511-7-40
2-1/2"	1"	MIL-01520-7-40
2-1/2"	1-3/8"	MIL-01521-7-40
2-1/2"	1-3/4"	MIL-01522-7-40
3-1/4"	1-3/8"	MIL-01530-7-40
3-1/4"	1-3/4"	MIL-01531-7-40
3-1/4"	2"	MIL-01532-7-40
4"	1-3/4"	MIL-01540-7-40
4"	2"	MIL-01541-7-40
4"	2-1/2"	MIL-01542-7-40
5"	2"	MIL-01550-7-40
5"	2-1/2"	MIL-01551-7-40
5"	3"	MIL-01552-7-40
5"	3-1/2"	MIL-01553-7-40
6"	2-1/2"	MIL-01560-7-40
6"	3"	MIL-01561-7-40
6"	3-1/2"	MIL-01562-7-40
6"	4"	MIL-01563-7-40





ORTMAN

Various Kits

Kit #	Code	Rod x Bore
ORT-RS003540010	I-U-1	5/8 Rod Kit
ORT-RS003540020	I-U-1	1 Rod Kit
ORT-RS003540040	I-U-1	1-3/4 Rod Kit
ORT-RS003540060	I-U-1	2-1/2 Rod Kit
ORT-RS003540090	I-U-1	4" Rod Kit
ORT-TS563511000	N-N-5	3-1/4 Piston Kit
ORT-TS583511000	N-N-5	4 Piston Kit
ORT-TS603511000	N-N-5	6 Piston Kit
ORT-TS777512000	N-N-5	1-1/2 Piston Kit

Kit Composition Varies

Consult your representative.

ORTMAN



PARKER

Kit Type		Page
Rod Gland Kits	A, 2A, 2AN, H, 2H, HD, 3H, VH, L, 2L, 3L, HMI, MA & 2MA Air Cylinders	92 - 99
Rod Kits	A, 2A, 2AN, H, 2H, HD, 3H, VH, L, 2L, 3L, HMI, 2MA Air & 2ML Cylinders	100 - 107
Bronze Rod Glands	A, 2A, 2AN, H, 2H, HD, VH, L, 2L, 3L, MA, HMI, 2MA Air & Hydraulic Cylinders	108 - 109
Gland Wrenches	For Parker Glands	110
Rod & Piston Seal Kits	MA Air Cylinders	111
Piston Kits	HD, HL, 2HL, L, LL, 2LL, & 3LL Hydraulic Cylinders, 1A & 2A Air Cylinders, 2AN, 2MA & 2ML Cylinders, L, 2L, 3L, H, 2H, HD, VH & HMI Cylinders	112 - 119
Piston Ring Kits	H, HD, 2H, L, 2L, & 3L Hydraulic Cylinders	120
Piston Head Seal Kits	2A, 2H, 3L, HD, VH, 2MA, ML & HMI Cylinders	121 - 122
Various Kits		123
Repair Kits	By Part Number	124 - 134





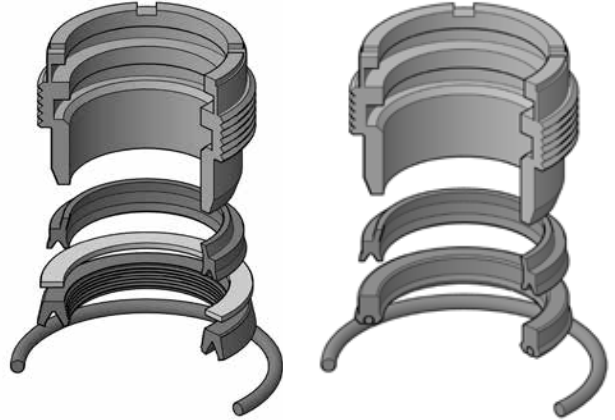
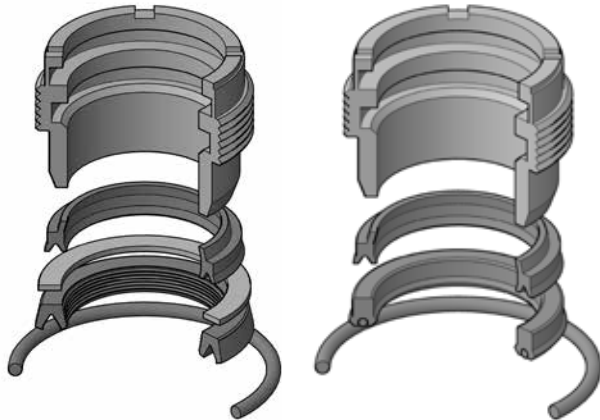
PARKER

Rod Gland Kits

A, 2A, H, 2H, VH, L, 2L, & 3L Cylinders

Nitrile

Fluorocarbon



- 1/2" - 3"**
Kit Includes:
 1 Bronze Gland
 1 XNBR Wiper
 1 URE Back-up Ring
 1 NBR U-seal
 1 NBR O-ring

- 3-1/2" - 5-1/2"**
Kit Includes:
 1 Bronze Gland
 1 XNBR Wiper
 1 NBR Loaded U-seal
 1 NBR O-ring

- 1/2" - 3"**
Kit Includes:
 1 Bronze Gland
 1 FC Wiper
 1 PTFE Back-up Ring
 1 FC U-seal
 1 FC O-ring

- 3-1/2" - 5-1/2"**
Kit Includes:
 1 Bronze Gland
 1 FC Wiper
 1 FC Loaded U-seal
 1 FC O-ring

Rod Dia.	Kit #	Kit #
1/2"	PKH-RG2AHL0051	PKH-RG2AHL0055
5/8"	PKH-RG2AHL0061	PKH-RG2AHL0065
1"	PKH-RG2AHL0101	PKH-RG2AHL0105
1-3/8"	PKH-RG2AHL0131	PKH-RG2AHL0135
1-3/4"	PKH-RG2AHL0171	PKH-RG2AHL0175
2"	PKH-RG2AHL0201	PKH-RG2AHL0205
2-1/2"	PKH-RG2AHL0251	PKH-RG2AHL0255
3"	PKH-RG2AHL0301	PKH-RG2AHL0305
3-1/2"	PKH-RG2AHL0351	PKH-RG2AHL0355
4"	PKH-RG2AHL0401	PKH-RG2AHL0405
4-1/2"	PKH-RG2AHL0451	PKH-RG2AHL0455
5"	PKH-RG2AHL0501	PKH-RG2AHL0505
5-1/2"	PKH-RG2AHL0551	PKH-RG2AHL0555

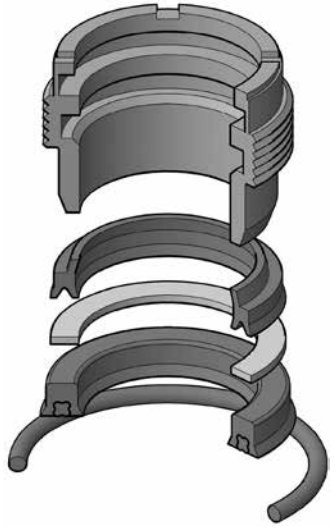
PARKER

Rod Gland Kits

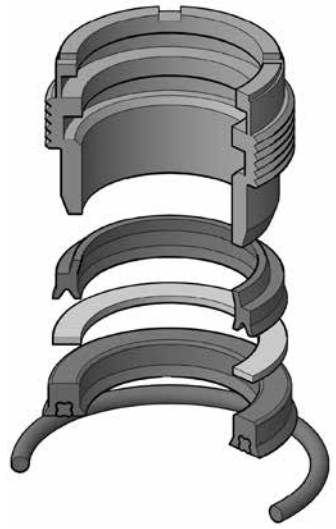
A, 2A, H, 2H, VH, L, 2L, & 3L Cylinders

Nitrile

Fluorocarbon



- Kit Includes:**
 1 Bronze Gland
 1 XNBR Wiper
 1 PTFE Back-up Ring
 1 XNBR U-seal
 1 NBR O-ring



- Kit Includes:**
 1 Bronze Gland
 1 FC Wiper
 1 PTFE Back-up Ring
 1 FC U-seal
 1 FC O-ring

Rod Dia.	Kit #	Kit #
1/2"	PKH-RG2AHL0051PS	PKH-RG2AHL0055PS
5/8"	PKH-RG2AHL0061PS	PKH-RG2AHL0065PS
1"	PKH-RG2AHL0101PS	PKH-RG2AHL0105PS
1-3/8"	PKH-RG2AHL0131PS	PKH-RG2AHL0135PS
1-3/4"	PKH-RG2AHL0171PS	PKH-RG2AHL0175PS
2"	PKH-RG2AHL0201PS	PKH-RG2AHL0205PS
2-1/2"	PKH-RG2AHL0251PS	PKH-RG2AHL0255PS
3"	PKH-RG2AHL0301PS	PKH-RG2AHL0305PS
3-1/2"	PKH-RG2AHL0351PS	PKH-RG2AHL0355PS





PARKER

Rod Gland Kits

HD Cylinders

Urethane



- Kit Includes:**
- 1 Bronze Gland
 - 1 XNBR Wiper
 - 1 URE Multi-lip U-seal
 - 1 NBR Back-up Ring
 - 1 NBR O-ring

Fluorocarbon



- Kit Includes:**
- 1 Bronze Gland
 - 1 FC Wiper
 - 1 Multi-lip FC U-seal
 - 2 PTFE Back-up Rings
 - 1 FC O-ring

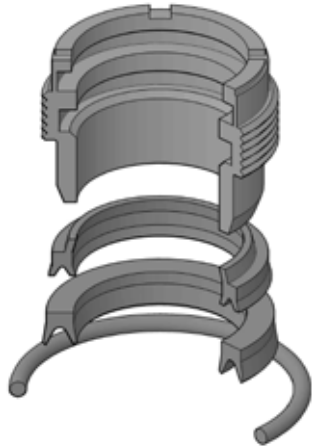
Rod Dia.	Kit #	Kit #
5/8"	PKH-RG1HDL0061	PKH-RG1HDL0065
1"	PKH-RG1HDL0101	PKH-RG1HDL0105
1-3/8"	PKH-RG1HDL0131	PKH-RG1HDL0135
1-3/4"	PKH-RG1HDL0171	PKH-RG1HDL0175
2"	PKH-RG1HDL0201	PKH-RG1HDL0205
2-1/2"	PKH-RG1HDL0251	PKH-RG1HDL0255
3-1/2"	PKH-RG1HDL0351	PKH-RG1HDL0355

PARKER

PARKER

Rod Gland Kits

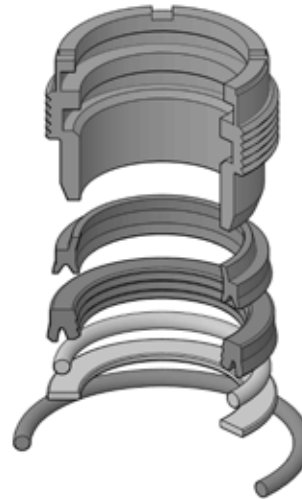
2AN Air Cylinders Nitrile



1/2" - 2-1/2"

Kit Includes:

- 1 Bronze Gland
- 1 XNBR Wiper
- 1 NBR U-seal
- 1 NBR O-ring



3" - 5-1/2"

Kit Includes:

- 1 Bronze Gland
- 1 XNBR Wiper
- 1 NBR Multi-lip U-seal
- 1 Felt Wick
- 1 Felt Washer
- 1 NBR O-ring

Rod Dia.	Kit #
1/2"	PKH-RG2AN00051
5/8"	PKH-RG2AN00061
1"	PKH-RG2AN00101
1-3/8"	PKH-RG2AN00131
1-3/4"	PKH-RG2AN00171
2"	PKH-RG2AN00201
2-1/2"	PKH-RG2AN00251
3"	PKH-RG2AN00301
3-1/2"	PKH-RG2AN00351
4"	PKH-RG2AN00401
4-1/2"	PKH-RG2AN00451
5"	PKH-RG2AN00501
5-1/2"	PKH-RG2AN00551



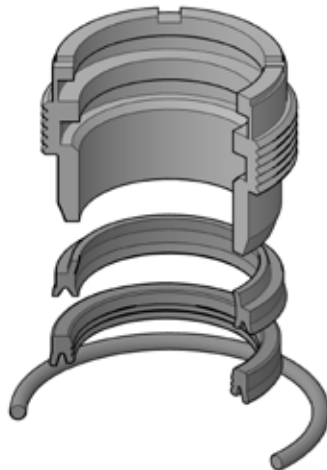


PARKER

Rod Gland Kits

H*, 2H*, 3H (7" & 8" Bore), VH, L, 2L, and 3L Cylinders
Urethane

PARKER



1/2" - 5-1/2"

Kit Includes:

- 1 Bronze Gland
- 1 XNBR Wiper
- 1 Multi-lip Urethane U-seal
- 1 NBR O-ring

Rod Dia.	Kit #
1/2"	PKH-RG2HLTS051
5/8"	PKH-RG2HLTS061
1"	PKH-RG2HLTS101
1-3/8"	PKH-RG2HLTS131
1-3/4"	PKH-RG2HLTS171
2"	PKH-RG2HLTS201
2-1/2"	PKH-RG2HLTS251
3"	PKH-RG2HLTS301
3-1/2"	PKH-RG2HLTS351
4"	PKH-RG2HLTS401
4-1/2"	PKH-RG2HLTS451
5"	PKH-RG2HLTS501
5-1/2"	PKH-RG2HLTS551

* Excludes 10" and 12" Bore for Series H and 2H.



PARKER

Rod Gland Kits

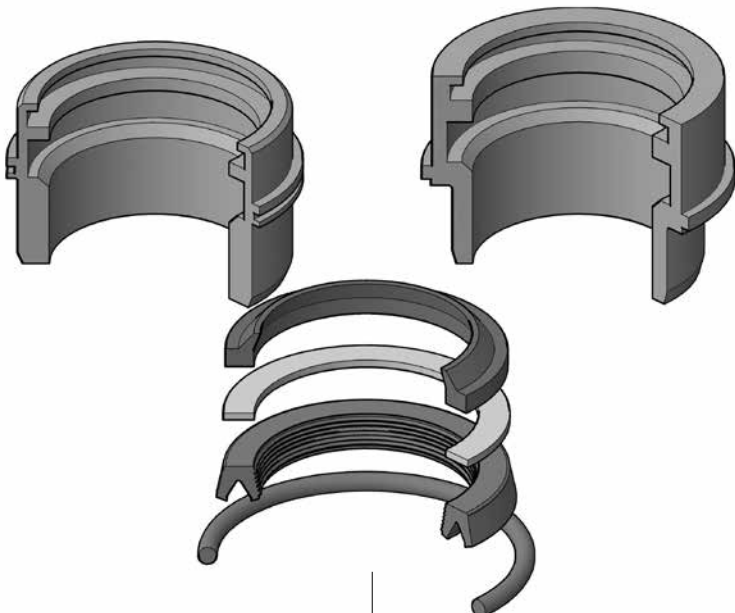
MA Air Cylinders

Nitrile

Fluorocarbon

5/8" Rod Gland profile

1" & 1-3/8" Rod Gland profile



- Kit Includes:**
- 1 Bronze Gland
 - 1 URE Wiper
 - 1 PTFE Back-up Ring
 - 1 NBR Multi-lip U-seal
 - 1 NBR O-ring

- Kit Includes:**
- 1 Bronze Gland
 - 1 FC Wiper
 - 1 PTFE Back-up Ring
 - 1 FC Multi-lip U-seal
 - 1 FC O-ring

Rod Dia.	Kit #	Kit #
5/8"	PKH-RGL6948MA1	PKH-RGL6948MA5
1"	PKH-RGL6949MA1	PKH-RGL6949MA5
1-3/8"	PKH-RGL6950MA1	PKH-RGL6950MA5





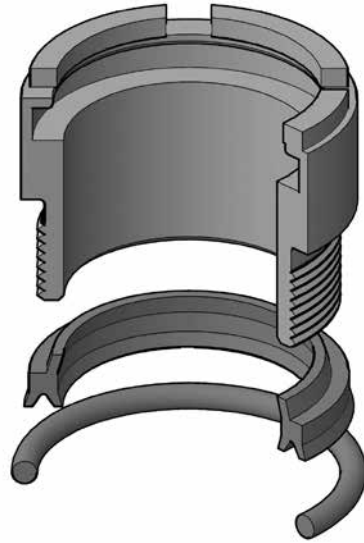
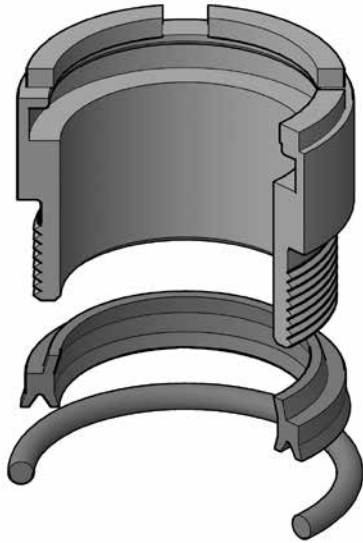
PARKER

Rod Gland Kits

2MA Air Cylinders

Nitrile

Fluorocarbon



1/2" - 1-3/4"

Kit Includes:

- 1 Bronze Gland
- 1 XNBR Wiper/Seal
- 1 NBR O-ring
- 1 Tube Seal Lubricant

1/2" - 1-3/4"

Kit Includes:

- 1 Bronze Gland
- 1 FC Wiper/Seal
- 1 FC O-ring
- 1 Tube Seal Lubricant

Rod Dia.	Kit #	Kit #
1/2"	PKH-RG02MA0051	PKH-RG02MA0055
5/8"	PKH-RG02MA0061	PKH-RG02MA0065
1"	PKH-RG02MA0101	PKH-RG02MA0105
1-3/8"	PKH-RG02MA0131	PKH-RG02MA0135
1-3/4"	PKH-RG02MA0171	PKH-RG02MA0175

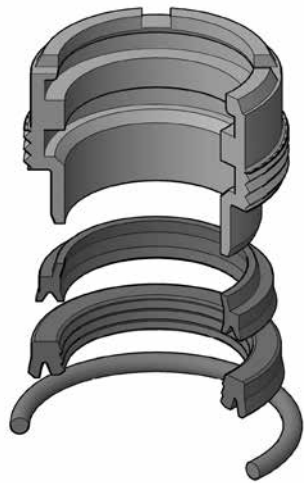
PARKER

Rod Gland Kits

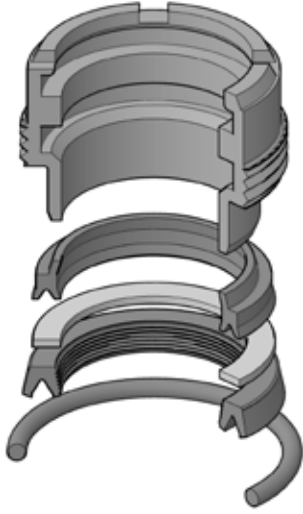
HMI Cylinders

Urethane

Fluorocarbon



- Kit Includes:**
- 1 Bronze Gland
 - 1 URE Wiper
 - 1 URE Multi-lip U-seal
 - 1 NBR O-ring



- Kit Includes:**
- 1 Bronze Gland
 - 1 FC Wiper
 - 1 PTFE Back-up Ring
 - 1 FC Multi-lip U-seal
 - 1 FC O-ring

Rod Dia.	Kit #	Kit #
12 mm	PKH-RG2HM0121	PKH-RG2HM0125
14 mm	PKH-RG2HM0141	PKH-RG2HM0145
18 mm	PKH-RG2HM0181	PKH-RG2HM0185
22 mm	PKH-RG2HM0221	PKH-RG2HM0225
28 mm	PKH-RG2HM0281	PKH-RG2HM0285
36 mm	PKH-RG2HM0361	PKH-RG2HM0365
45 mm	PKH-RG2HM0451	PKH-RG2HM0455
56 mm	PKH-RG2HM0561	PKH-RG2HM0565
70 mm	PKH-RG2HM0701	PKH-RG2HM0705





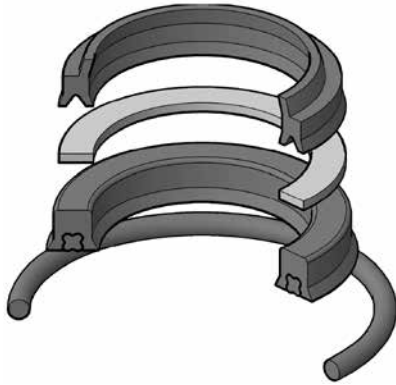
PARKER

Rod Kits

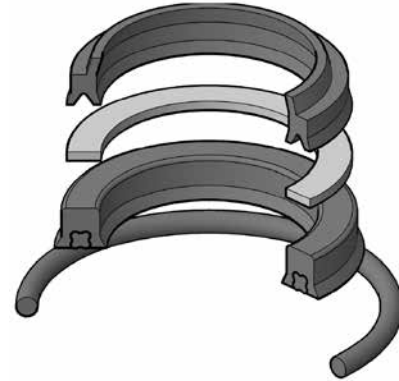
A, 2A, H, 2H, VH, L, 2L, & 3L Cylinders

Nitrile

Fluorocarbon



Kit Includes:
 1 XNBR Wiper
 1 PTFE Back-up Ring
 1 XNBR U-seal
 1 NBR O-ring



Kit Includes:
 1 FC Wiper
 1 PTFE Back-up Ring
 1 FC U-seal
 1 FC O-ring

Rod Dia.	Kit #	Kit #
1/2"	PKH-RK2AHL0051PS	PKH-RK2AHL0055PS
5/8"	PKH-RK2AHL0061PS	PKH-RK2AHL0065PS
1"	PKH-RK2AHL0101PS	PKH-RK2AHL0105PS
1-3/8"	PKH-RK2AHL0131PS	PKH-RK2AHL0135PS
1-3/4"	PKH-RK2AHL0171PS	PKH-RK2AHL0175PS
2"	PKH-RK2AHL0201PS	PKH-RK2AHL0205PS
2-1/2"	PKH-RK2AHL0251PS	PKH-RK2AHL0255PS
3"	PKH-RK2AHL0301PS	PKH-RK2AHL0305PS
3-1/2"	PKH-RK2AHL0351PS	PKH-RK2AHL0355PS

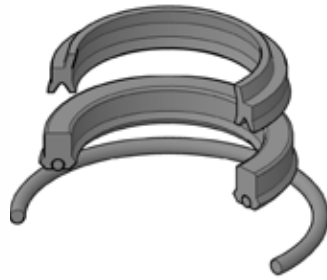
PARKER

Rod Kits

A, 2A, H, 2H, VH, L, 2L, & 3L Cylinders

Nitrile

Fluorocarbon



1/2" - 3"

Kit Includes:

- 1 XNBR Wiper
- 1 URE Back-up Ring
- 1 NBR U-seal
- 1 NBR O-ring

3-1/2" - 5-1/2"

Kit Includes:

- 1 XNBR Wiper
- 1 NBR Loaded U-seal
- 1 NBR O-ring

1/2" - 3"

Kit Includes:

- 1 FC Wiper
- 1 PTFE Back-up Ring
- 1 FC U-seal
- 1 FC O-ring

3-1/2" - 5-1/2"

Kit Includes:

- 1 FC Wiper
- 1 FC Loaded U-seal
- 1 FC O-ring

Rod Dia.	Kit #	Kit #
1/2"	PKH-RK2AHL0051	PKH-RK2AHL0055
5/8"	PKH-RK2AHL0061	PKH-RK2AHL0065
1"	PKH-RK2AHL0101	PKH-RK2AHL0105
1-3/8"	PKH-RK2AHL0131	PKH-RK2AHL0135
1-3/4"	PKH-RK2AHL0171	PKH-RK2AHL0175
2"	PKH-RK2AHL0201	PKH-RK2AHL0205
2-1/2"	PKH-RK2AHL0251	PKH-RK2AHL0255
3"	PKH-RK2AHL0301	PKH-RK2AHL0305
3-1/2"	PKH-RK2AHL0351	PKH-RK2AHL0355
4"	PKH-RK2AHL0401	PKH-RK2AHL0405
4-1/2"	PKH-RK2AHL0451	PKH-RK2AHL0455
5"	PKH-RK2AHL0501	PKH-RK2AHL0505
5-1/2"	PKH-RK2AHL0551	PKH-RK2AHL0555

PARKER



PARKER

Rod Kits

HD Cylinders

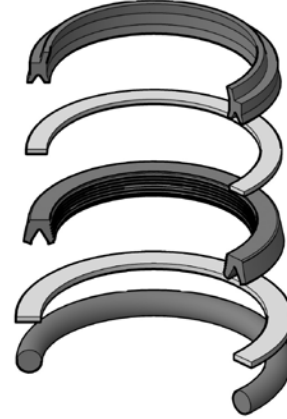
Urethane



Kit Includes:

- 1 XNBR Wiper
- 1 Multi-lip Urethane U-seal
- 1 NBR O-ring
- 1 NBR Back-up Ring

Fluorocarbon



Kit Includes:

- 1 FC Wiper
- 1 Multi-lip FC U-seal
- 2 PTFE Back-up Rings
- 1 FC O-ring

Rod Dia.	Kit #	Kit #
5/8"	PKH-RK1HDL0061	PKH-RK1HDL0065
1"	PKH-RK1HDL0101	PKH-RK1HDL0105
1-3/8"	PKH-RK1HDL0131	PKH-RK1HDL0135
1-3/4"	PKH-RK1HDL0171	PKH-RK1HDL0175
2"	PKH-RK1HDL0201	PKH-RK1HDL0205
2-1/2"	PKH-RK1HDL0251	PKH-RK1HDL0255
3-1/2"	PKH-RK1HDL0351	PKH-RK1HDL0355

PARKER

Rod Kits

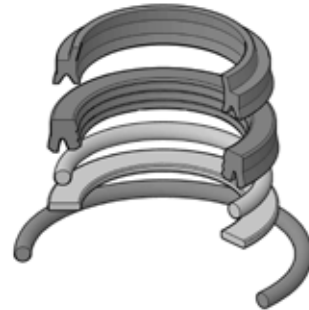
2AN Air Cylinders Nitrile



1/2" - 2-1/2"

Kit Includes:

- 1 XNBR Wiper
- 1 NBR U-seal
- 1 NBR O-ring



3" - 5-1/2"

Kit Includes:

- 1 XNBR Wiper
- 1 NBR Multi-lip U-seal
- 1 Felt Wick
- 1 Felt Washer
- 1 NBR O-ring

Rod Dia.	Kit #
1/2"	PKH-RK2AN00051
5/8"	PKH-RK2AN00061
1"	PKH-RK2AN00101
1-3/8"	PKH-RK2AN00131
1-3/4"	PKH-RK2AN00171
2"	PKH-RK2AN00201
2-1/2"	PKH-RK2AN00251
3"	PKH-RK2AN00301
3-1/2"	PKH-RK2AN00351
4"	PKH-RK2AN00401
4-1/2"	PKH-RK2AN00451
5"	PKH-RK2AN00501
5-1/2"	PKH-RK2AN00551



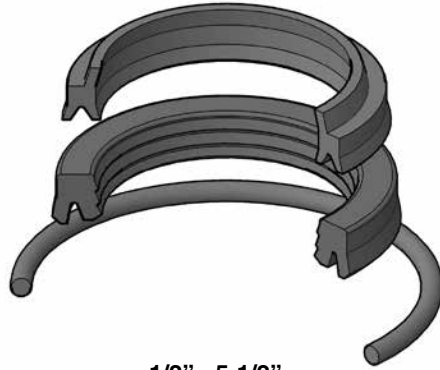


PARKER

Rod Kits

H*, 2H*, 3H (7" & 8" Bore), VH, L, 2L, and 3L Cylinders Urethane

Standard seals for Series 2H*, VH, 3L, and 3H (7" and 8" Bore) manufactured after September 30, 1990.
Interchangeable seals for Series H*, 2H*, VH, L, 2L, and 3L manufactured before September 30, 1990.



1/2" - 5-1/2"

Kit Includes:

- 1 XNBR Wiper
- 1 Multi-lip Urethane U-seal
- 1 NBR O-ring

Rod Dia.	Kit #
1/2"	PKH-RK2HLTS051
5/8"	PKH-RK2HLTS061
1"	PKH-RK2HLTS101
1-3/8"	PKH-RK2HLTS131
1-3/4"	PKH-RK2HLTS171
2"	PKH-RK2HLTS201
2-1/2"	PKH-RK2HLTS251
3"	PKH-RK2HLTS301
3-1/2"	PKH-RK2HLTS351
4"	PKH-RK2HLTS401
4-1/2"	PKH-RK2HLTS451
5"	PKH-RK2HLTS501
5-1/2"	PKH-RK2HLTS551

*Excludes 10" and 12" Bore for Series H and 2H.



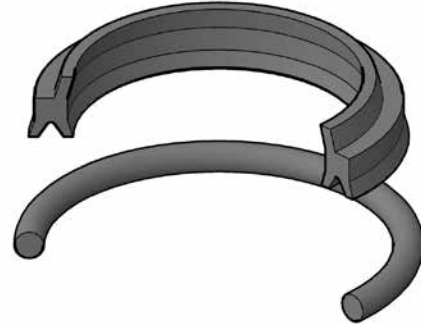
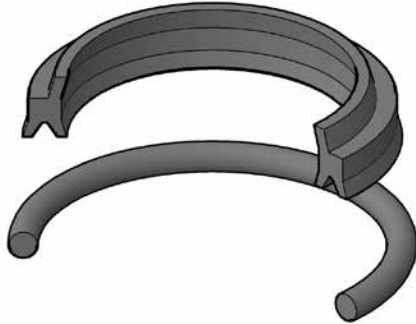
PARKER

Rod Kits

2MA Air Cylinders

Nitrile

Fluorocarbon



1/2" - 1-3/4"

Kit Includes:

- 1 XNBR Wiper/Seal
- 1 NBR O-ring
- 1 Tube Seal Lubricant

1/2" - 1-3/4"

Kit Includes:

- 1 FC Wiper/Seal
- 1 FC O-ring
- 1 Tube Seal Lubricant

Rod Dia.	Kit #	Kit #
1/2"	PKH-RK02MA0051	PKH-RK02MA0055
5/8"	PKH-RK02MA0061	PKH-RK02MA0065
1"	PKH-RK02MA0101	PKH-RK02MA0105
1-3/8"	PKH-RK02MA0131	PKH-RK02MA0135
1-3/4"	PKH-RK02MA0171	PKH-RK02MA0175





PARKER

Rod Kits

2ML Hydraulic Cylinders Urethane



1/2" - 5-1/2"

Kit Includes:

- 1 XNBR Wiper / Seal
- 1 Multi-lip Urethane U-seal
- 1 NBR O-ring

Rod Dia.	Kit #
5/8"	PKH-RK02ML0061
1"	PKH-RK02ML0101
1-3/8"	PKH-RK02ML0131
1-3/4"	PKH-RK02ML0171

PARKER

Rod Kits

HMI Cylinders

Urethane

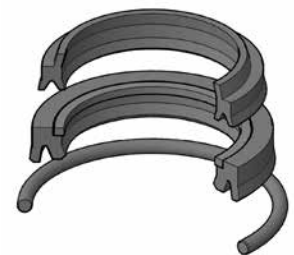
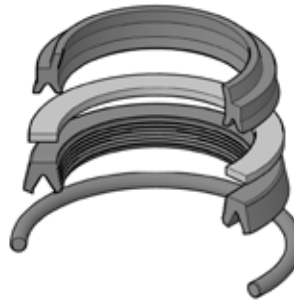
Fluorocarbon



- Kit Includes:**
 1 URE Wiper
 1 URE Multi-lip U-seal
 1 NBR O-ring

12 - 70mm

90 - 140mm



- Kit Includes:**
 1 FC Wiper
 1 PTFE Back-up Ring*
 1 FC Multi-lip U-seal*
 1 FC O-ring

Rod Dia.	Kit #	Kit #
12 mm	PKH-RK2HM0121	PKH-RK2HM0125
14 mm	PKH-RK2HM0141	PKH-RK2HM0145
18 mm	PKH-RK2HM0181	PKH-RK2HM0185
22 mm	PKH-RK2HM0221	PKH-RK2HM0225
28 mm	PKH-RK2HM0281	PKH-RK2HM0285
36 mm	PKH-RK2HM0361	PKH-RK2HM0365
45 mm	PKH-RK2HM0451	PKH-RK2HM0455
56 mm	PKH-RK2HM0561	PKH-RK2HM0565
70 mm	PKH-RK2HM0701	PKH-RK2HM0705
90 mm	PKH-RK2HM0901	PKH-RK2HM0905
110 mm	PKH-RK2HM1101	PKH-RK2HM1105
140 mm	PKH-RK2HM1401	PKH-RK2HM1405

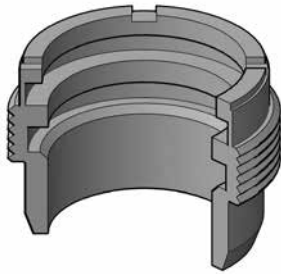
*90, 110, & 140mm Fluorocarbon kits use (1) FC Single Lip Rod U-seal w/ a Bronze/PTFE ID back-up ring



PARKER

Bronze Rod Glands

A, 2A, 2AN, H, 2H, VH, L, 2L, & 3L Air and Hydraulic Cylinders



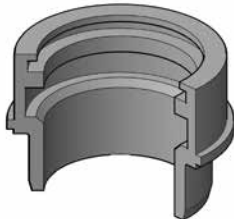
Rod Dia.	Part #
1/2"	PKH-RG-05
5/8"	PKH-RG-06
1"	PKH-RG-10
1-3/8"	PKH-RG-13
1-3/4"	PKH-RG-17
2"	PKH-RG-20
2-1/2"	PKH-RG-25
3"	PKH-RG-30
3-1/2"	PKH-RG-35
4"	PKH-RG-40
4-1/2"	PKH-RG-45
5"	PKH-RG-50
5-1/2"	PKH-RG-55

MA Air Cylinders

5/8" Rod Gland profile

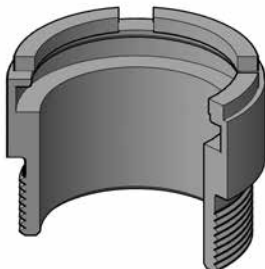


1" & 1-3/8" Rod Gland profile



Rod Dia.	Part #
5/8"	PKH-RGMA-06
1"	PKH-RGMA-10
1-3/8"	PKH-RGMA-13

2MA Air Cylinders

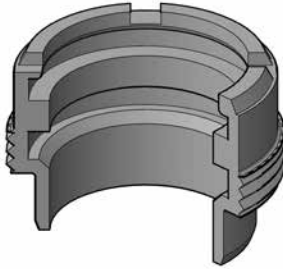


Rod Dia.	Part #
1/2"	PKH-RG02MA-05
5/8"	PKH-RG02MA-06
1"	PKH-RG02MA-10
1-3/8"	PKH-RG02MA-13
1-3/4"	PKH-RG02MA-17

PARKER

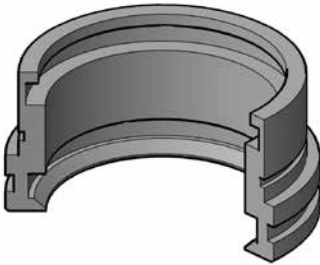
Bronze Rod Glands

HMI Hydraulic Cylinders



Rod Dia.	Part #
12 mm	PKH-RGHM-012
14 mm	PKH-RGHM-014
18 mm	PKH-RGHM-018
22 mm	PKH-RGHM-022
28 mm	PKH-RGHM-028
36 mm	PKH-RGHM-036
45 mm	PKH-RGHM-045
56 mm	PKH-RGHM-056
70 mm	PKH-RGHM-070

HD Hydraulic Cylinders



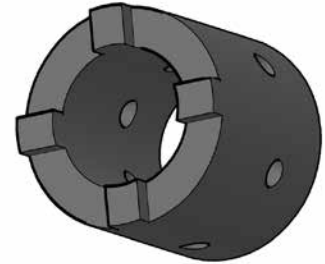
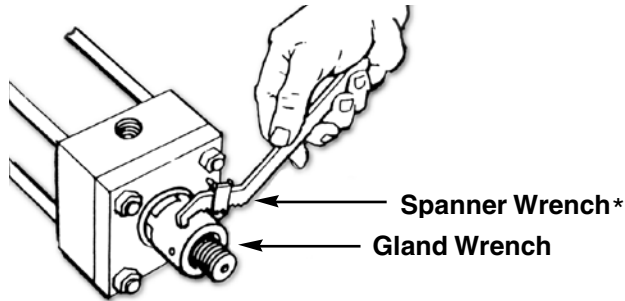
Rod Dia.	Part #
5/8"	PKH-RGHD-06
1"	PKH-RGHD-10
1-3/8"	PKH-RGHD-13
1-3/4"	PKH-RGHD-17
2"	PKH-RGHD-20
2-1/2"	PKH-RGHD-25
3-1/2"	PKH-RGHD-35



PARKER

Gland Wrenches

Parker Gland Wrenches



Rod Dia.	Kit #	ID X OD X HT
1/2", 5/8", 12mm & 14mm	PKH-069590	11/16" X 1-1/8" X 1-3/8"
18mm	PKH-084765	13/16" X 1-1/4" X 1-7/16"
1" & 22mm	PKH-069591	1-1/16" X 1-5/8" X 1-1/2"
28mm	PKH-084766	1-1/4" X 1-11/16" X 1-9/16"
1-3/8" & 36mm	PKH-069592	1-7/16" X 1-7/8" X 1-5/8"
1-3/4" & 45mm	PKH-069593	1-13/16" X 2-1/4" X 1-5/8"
2"	PKH-069594	2-1/16" X 2-1/2" X 2"
2-1/2" & 56mm	PKH-069595	2-9/16" X 3" X 2-1/8"
70mm	PKH-069596	2-15/16" X 3-1/2" X 2-3/8"

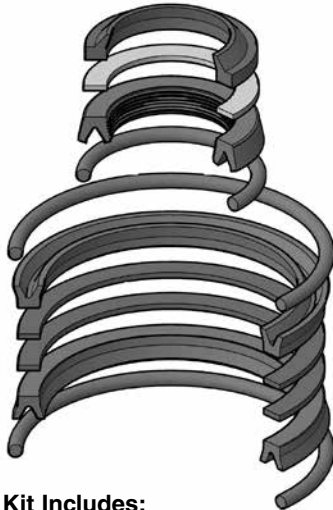
*See Assortment Kits and Tools Section

PARKER

Rod & Piston Seal Kits

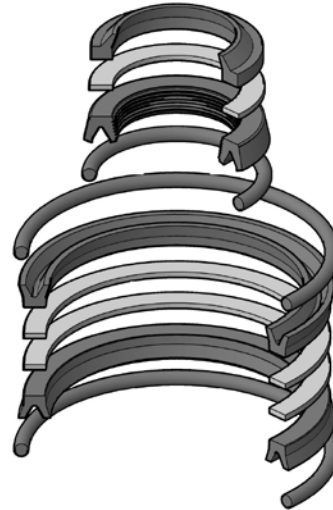
MA Air Cylinders

Nitrile



- Kit Includes:**
 1 URE Wiper
 1 PTFE Back-up Ring
 1 NBR Multi-lip U-seal
 2 NBR U-seals
 2 URE Back-up Rings
 3 NBR O-rings

Fluorocarbon



- Kit Includes:**
 1 FC Wiper
 1 FC Multi-lip U-seal
 2 FC U-seals
 3 PTFE Back-up Ring
 3 FC O-rings

Rod Dia.	Bore Dia.	(NBR) Kit #	(FC) Kit #
5/8"	1-1/2"	PKH-SKL7000MA1	PKH-SKL7000MA5
5/8"	2"	PKH-SKL7001MA1	PKH-SKL7001MA5
1"	2"	PKH-SKL7002MA1	PKH-SKL7002MA5
5/8"	2-1/2"	PKH-SKL7003MA1	PKH-SKL7003MA5
1"	2-1/2"	PKH-SKL7004MA1	PKH-SKL7004MA5
1"	3-1/4"	PKH-SKL7005MA1	PKH-SKL7005MA5
1-3/8"	3-1/4"	PKH-SKL7006MA1	PKH-SKL7006MA5
1"	4"	PKH-SKL7007MA1	PKH-SKL7007MA5
1-3/8"	4"	PKH-SKL7008MA1	PKH-SKL7008MA5
1"	5"	PKH-SKL7009MA1	PKH-SKL7009MA5
1-3/8"	5"	PKH-SKL7010MA1	PKH-SKL7010MA5
1-3/8"	6"	PKH-SKL7098MA1	PKH-SKL7098MA5

PARKER



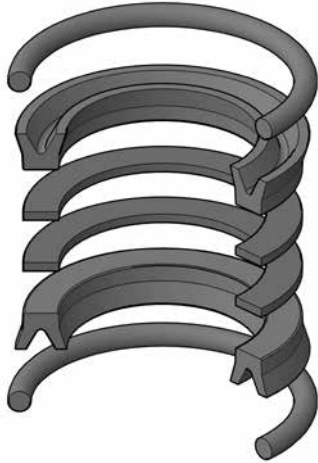
PARKER

Piston Kits

HD, HL, 2HL, L, LL, 2LL, & 3LL Hydraulic Cylinders

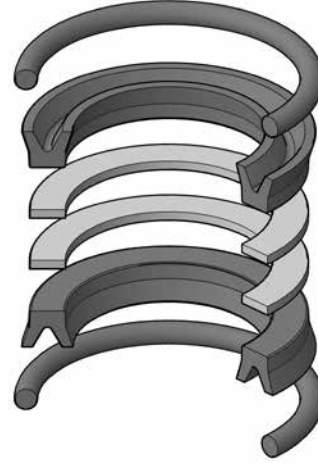
Nitrile

Fluorocarbon



Kit Includes:

2 NBR U-seals
2 NBR O-ring Head Seals
2 URE Back-up Rings



Kit Includes:

2 FC U-seals
2 FC O-ring Head Seals
2 PTFE Back-up Rings

Bore Dia.	(NBR) Kit #	(FC) Kit #
1"	PKH-PK102HLL01	PKH-PK102HLL05
1-1/2"	PKH-PK152HLL01	PKH-PK152HLL05
2"	PKH-PK202HLL01	PKH-PK202HLL05
2-1/2"	PKH-PK252HLL01	PKH-PK252HLL05
3-1/4"	PKH-PK322HLL01	PKH-PK322HLL05
4"	PKH-PK402HLL01	PKH-PK402HLL05
5"	PKH-PK502HLL01	PKH-PK502HLL05
6"	PKH-PK602HLL01	PKH-PK602HLL05
7"	PKH-PK702HLL01	PKH-PK702HLL05
8"	PKH-PK802HLL01	PKH-PK802HLL05
10"	PKH-PK902HLL01	PKH-PK902HLL05
12"	PKH-PK922HLL01	PKH-PK922HLL05

KANSAS

PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA

PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS

PHONE 1-903-753-0341
FAX 1-903-236-9797

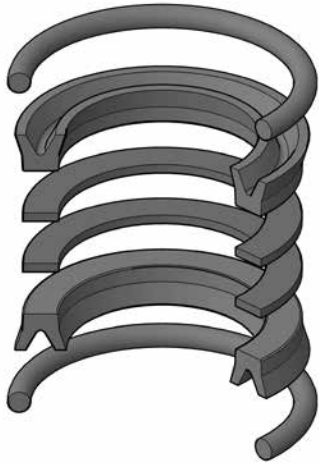
PARKER

Piston Kits

1A & 2A Air Cylinders

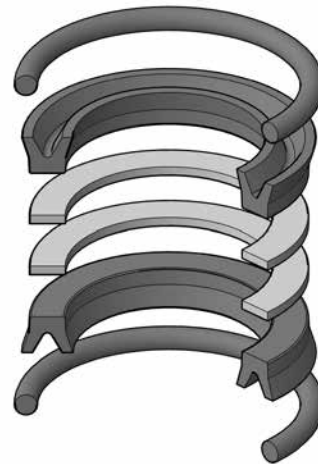
Nitrile

Fluorocarbon



Kit Includes:

- 2 NBR O-ring Head Seals
- 2 NBR U-seals
- 2 URE Back-up Rings



Kit Includes:

- 2 FC O-ring Head Seals
- 2 FC U-seals
- 2 PTFE Back-up Rings

Bore Dia.	(NBR) Kit #	(FC) Kit #
1"	PKH-PK1002A001	PKH-PK1002A005
1-1/2"	PKH-PK1502A001	PKH-PK1502A005
2"	PKH-PK2002A001	PKH-PK2002A005
2-1/2"	PKH-PK2502A001	PKH-PK2502A005
3-1/4"	PKH-PK3202A001	PKH-PK3202A005
4"	PKH-PK4002A001	PKH-PK4002A005
5"	PKH-PK5002A001	PKH-PK5002A005
6"	PKH-PK6002A001	PKH-PK6002A005
7"	PKH-PK7002A001	PKH-PK7002A005
8"	PKH-PK8002A001	PKH-PK8002A005
10"	PKH-PK9002A001	PKH-PK9002A005
12"	PKH-PK9202A001	PKH-PK9202A005
14"	PKH-PK9402A001	PKH-PK9402A005

PARKER



PARKER

Piston Kits

2AN Cylinders Nitrile



Kit Includes:
2 NBR O-ring Head Seals
2 NBR U-seals

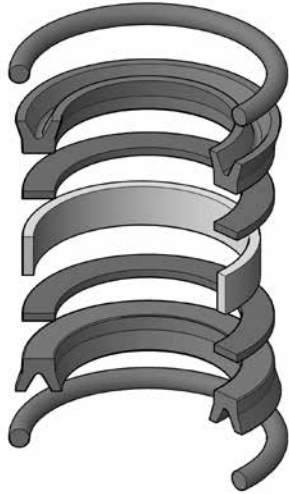
Bore Dia.	Kit #
1"	PKH-PK1002AN01
1-1/2"	PKH-PK1502AN01
2"	PKH-PK2002AN01
2-1/2"	PKH-PK2502AN01
3-1/4"	PKH-PK3202AN01
4"	PKH-PK4002AN01
5"	PKH-PK5002AN01
6"	PKH-PK6002AN01
7"	PKH-PK7002AN01
8"	PKH-PK8002AN01
10"	PKH-PK9002AN01
12"	PKH-PK9202AN01

PARKER

Piston Kits

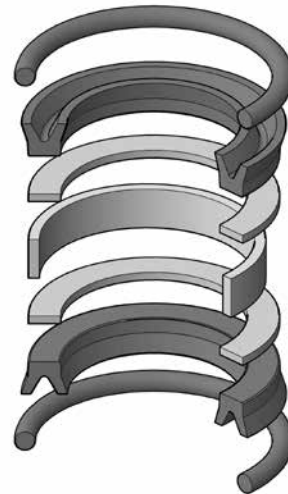
2MA Cylinders

Nitrile



- Kit Includes:**
 2 NBR O-ring Head Seals
 2 NBR U-seals
 2 URE Back-up Rings
 1 Nylon Wear Ring
 1 Tube Seal Lubricant

Fluorocarbon



- Kit Includes:**
 2 FC O-ring Head Seals
 2 FC U-seals
 2 PTFE Back-up Rings
 1 Nylon Wear Ring
 1 Tube Seal Lubricant

Bore Dia.	(NBR) Kit #	(FC) Kit #
1-1/2"	PKH-PK1502MA01	PKH-PK1502MA05
2"	PKH-PK2002MA01	PKH-PK2002MA05
2-1/2"	PKH-PK2502MA01	PKH-PK2502MA05
3-1/4"	PKH-PK3202MA01	PKH-PK3202MA05
4"	PKH-PK4002MA01	PKH-PK4002MA05
5"	PKH-PK5002MA01	PKH-PK5002MA05
6"	PKH-PK6002MA01	PKH-PK6002MA05
8"	PKH-PK8002MA01	PKH-PK8002MA05

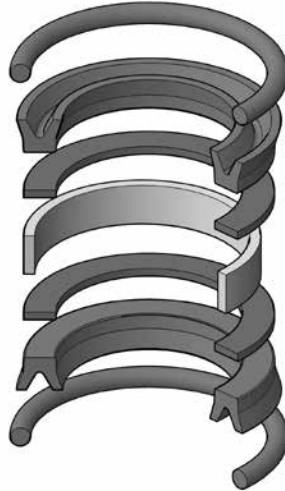
PARKER



PARKER

Piston Kits

2ML Cylinders
Nitrile



Kit Includes:

2 NBR O-ring Head Seals
2 NBR U-seals
2 URE Back-up Rings
1 Nylon Wear Ring

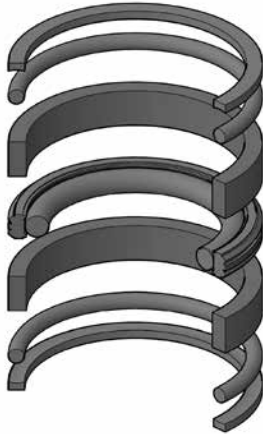
Rod Dia.	Kit #
1-1/2"	PKH-PK1502ML01
2"	PKH-PK2002ML01
2-1/2"	PKH-PK2502ML01
3-1/4"	PKH-PK3202ML01
4"	PKH-PK4002ML01
5"	PKH-PK5002ML01
6"	PKH-PK6002ML01
8"	PKH-PK8002ML01

PARKER

Piston Kits

HMI Cylinders

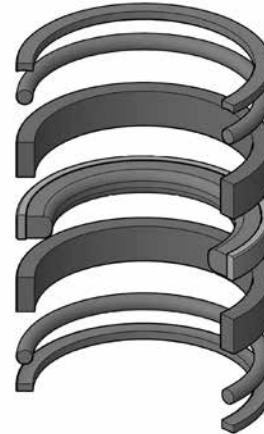
Nitrile



Kit Includes:

- 2 NBR Back-up Rings*
- 2 NBR O-ring Head Seals
- 2 Polyacetal Wear Rings
- 1 URE Piston Ring
- w/ 1 NBR Expander

Fluorocarbon



Kit Includes:

- 2 FC Back-up Rings*
- 2 FC O-ring Head Seals
- 2 Phenolic Wear Rings
- 1 Step-cut Nylon Piston Ring
- w/ 1 FC Expander

Bore Dia.	(NBR) Kit #	(FC) Kit #
25 mm	PKH-PN025HM001	—
32 mm	PKH-PN032HM001	PKH-PN032HM005
40 mm	PKH-PN040HM001	PKH-PN040HM005
50 mm	PKH-PN050HM001	PKH-PN050HM005
63 mm	PKH-PN063HM001	PKH-PN063HM005
80 mm	PKH-PN080HM001	PKH-PN080HM005
100 mm	PKH-PN100HM001	PKH-PN100HM005
125 mm	PKH-PN125HM001	PKH-PN125HM005
160 mm	PKH-PN160HM001	PKH-PN160HM005
200 mm	PKH-PN200HM001	PKH-PN200HM005

*Back-up Rings used only in 63mm and larger Piston Kits.

PARKER

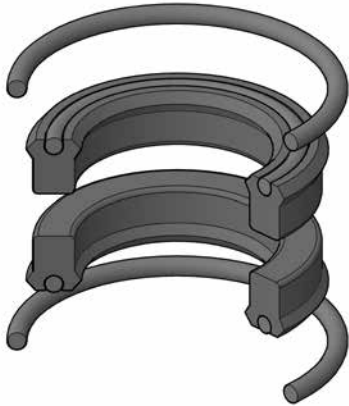


PARKER

Piston Kits

Poly Pack kits for L, 2L, 3L, H, 2H, HD, & VH Cylinders

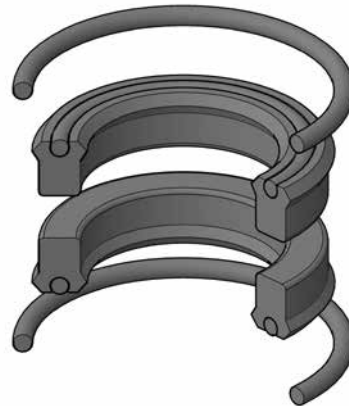
Urethane



Kit Includes:

- 2 NBR O-ring Head Seals
- 2 NBR Loaded Urethane U-seals
- 2 PTFE Head Seals (1" Bore Only)

Fluorocarbon



Kit Includes:

- 2 FC O-ring Head Seals
- 2 FC Loaded U-seals

Bore Dia.	(NBR) Kit #	(FC) Kit #
1"	PKH-PK102HLLP1	—
1-1/2"	PKH-PK152HLLP1	PKH-PK152HLLP5
2"	PKH-PK202HLLP1	PKH-PK202HLLP5
2-1/2"	PKH-PK252HLLP1	PKH-PK252HLLP5
3-1/4"	PKH-PK322HLLP1	PKH-PK322HLLP5
4"	PKH-PK402HLLP1	PKH-PK402HLLP5
5"	PKH-PK502HLLP1	PKH-PK502HLLP5
6" *	PKH-PK602HLLP1	PKH-PK602HLLP5
6" **	PKH-PK602HLLP1-OLD	PKH-PK602HLLP5-OLD
8"	PKH-PK802HLLP1	PKH-PK802HLLP5

Note: These kits are used in the lipseal type piston for the models shown above.

* These 6" kits are for the current standard piston, Jan. 1992-current. U-seal cross section of .28".

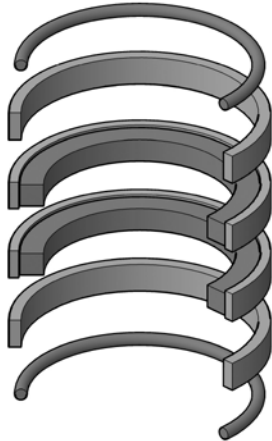
** These 6" kits are for the pre-1992 reworked piston. U-seal cross section of 5/16".

PARKER

Piston Kits

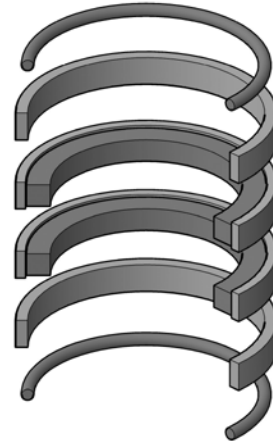
High Load Kits for 2H, VH & HD

Nitrile



Kit Includes:
 2 NBR O-ring Head Seals
 2 Nylon Wear Rings
 2 Bronze filled PTFE Piston Rings
 w/ 2 NBR Expanders

Fluorocarbon



Kit Includes:
 2 FC O-ring Head Seals
 2 Nylon Wear Rings
 2 Bronze filled PTFE Piston Rings
 w/ 2 FC Expanders

Bore Dia.	Kit #	Kit #
1-1/2"	PKH-PK152HK001	PKH-PK152HK005
2"	PKH-PK202HK001	PKH-PK202HK005
2-1/2"	PKH-PK252HK001	PKH-PK252HK005
3-1/4"	PKH-PK322HK001	PKH-PK322HK005
4"	PKH-PK402HK001	PKH-PK402HK005
5"	PKH-PK502HK001	PKH-PK502HK005
6"	PKH-PK602HK001	PKH-PK602HK005
7"	PKH-PK702HK001	PKH-PK702HK005
8"	PKH-PK802HK001	PKH-PK802HK005
10"	PKH-PK902HK001	PKH-PK902HK005
12"	PKH-PK922HK001	PKH-PK922HK005



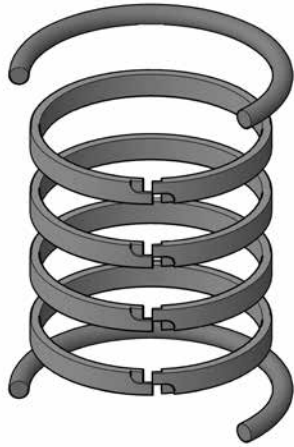
PARKER

Piston Ring Kits

H, HD, 2H, L, 2L, & 3L Hydraulic Cylinders

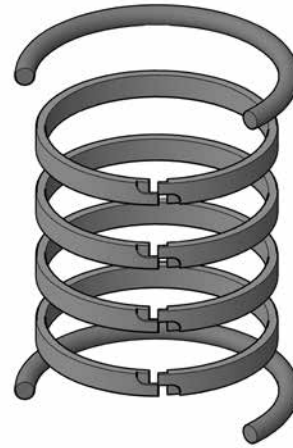
Nitrile

Fluorocarbon



Kit Includes:

2 NBR O-ring Head Seals
4 Cast Iron Piston Rings
2 PTFE Head Seals (1" Bore Only)



Kit Includes:

2 FC O-ring Head Seals
4 Cast Iron Piston Rings
2 PTFE Head Seals (1" Bore Only)

Bore Dia.	(NBR) Kit #	(FC) Kit #
1"	PKH-PR102H0001	PKH-PR102H0005
1-1/2"	PKH-PR152H0001	PKH-PR152H0005
2"	PKH-PR202H0001	PKH-PR202H0005
2-1/2"	PKH-PR252H0001	PKH-PR252H0005
3-1/4"	PKH-PR322H0001	PKH-PR322H0005
4"	PKH-PR402H0001	PKH-PR402H0005
5"	PKH-PR502H0001	PKH-PR502H0005
6"	PKH-PR602H0001	PKH-PR602H0005
7"	PKH-PR702H0001	PKH-PR702H0005
8"	PKH-PR802H0001	PKH-PR802H0005
10"	PKH-PR902H0001	PKH-PR902H0005
12"	PKH-PR922H0001	PKH-PR922H0005

**PARKER****Piston Head Seal Kits****Nitrile**

Kit Includes:
2 NBR O-ring Head Seals

Fluorocarbon

Kit Includes:
2 FC O-ring Head Seals

2A, 2H, 3L, HD, & VH Cylinders

Bore Dia.	(NBR) Kit #	(FC) Kit #
1"	PKH-CB102HL001	PKH-CB102HL005
1-1/2"	PKH-CB152HL001	PKH-CB152HL005
2"	PKH-CB202HL001	PKH-CB202HL005
2-1/2"	PKH-CB252HL001	PKH-CB252HL005
3-1/4"	PKH-CB322HL001	PKH-CB322HL005
4"	PKH-CB402HL001	PKH-CB402HL005
5"	PKH-CB502HL001	PKH-CB502HL005
6"	PKH-CB602HL001	PKH-CB602HL005
7"	PKH-CB702HL001	PKH-CB702HL005
8"	PKH-CB802HL001	PKH-CB802HL005
10"	PKH-CB902HL001	PKH-CB902HL005

2MA & ML Cylinders**2MA Cylinders Only**

Bore Dia.	(NBR) Kit #	(FC) Kit #
1-1/2"	PKH-CB1502MA01	PKH-CB1502MA05
2"	PKH-CB2002MA01	PKH-CB2002MA05
2-1/2"	PKH-CB2502MA01	PKH-CB2502MA05
3-1/4"	PKH-CB3202MA01	PKH-CB3202MA05
4"	PKH-CB4002MA01	PKH-CB4002MA05
5"	PKH-CB5002MA01	PKH-CB5002MA05
6"	PKH-CB6002MA01	PKH-CB6002MA05
8"	PKH-CB8002MA01	PKH-CB8002MA05



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Piston Head Seal Kits

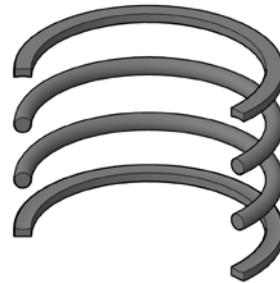
HMI Hydraulic Cylinders

Nitrile



Kit Includes:
2 NBR Back-up Rings*
2 NBR O-ring Head Seals

Fluorocarbon



Kit Includes:
2 FC Back-up Rings*
2 FC O-ring Head Seals

Bore Dia.	(NBR) Kit #	(FC) Kit #
25 mm	PKH-CB025HM001	PKH-CB025HM005
32 mm	PKH-CB032HM001	PKH-CB032HM005
40 mm	PKH-CB040HM001	PKH-CB040HM005
50 mm	PKH-CB050HM001	PKH-CB050HM005
63 mm	PKH-CB063HM001	PKH-CB063HM005
80 mm	PKH-CB080HM001	PKH-CB080HM005
100 mm	PKH-CB100HM001	PKH-CB100HM005
125 mm	PKH-CB125HM001	PKH-CB125HM005
160 mm	PKH-CB160HM001	PKH-CB160HM005
200 mm	PKH-CB200HM001	PKH-CB200HM005

*Back-up rings used only in 63mm and larger piston kits.



PARKER

Various Kits

Various Kits

Kit #	Series	Code	Rod x Bore
PKH-KT060VP101	VP	I-N-2	1" X 6"
PKH-KT070VP101	VP	I-N-2	1" X 7"
PKH-KT080VP101	VP	I-N-2	1" X 8"
PKH-KT100VP101	VP	I-N-2	1" X 10"

Kit Includes:
 1 XNBR H Style Wiper
 2 NBR O-rings
 1 NBR Quad Ring





PARKER

Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W
PKH-069590	Gland Wrench	1/2, 5/8, 12mm, 14mm		11/16 x 1-1/8 x 1-3/8
PKH-069591	Gland Wrench	1, 22mm		1-1/16 x 1-5/8 x 1-1/2
PKH-069592	Gland Wrench	1-3/8, 36mm		1-7/16 x 1-7/8 x 1-5/8
PKH-069593	Gland Wrench	1-3/4, 45mm		1-13/16 x 2-1/4 x 1-5/8
PKH-069594	Gland Wrench	2		2-1/16 x 2-1/2 x 2
PKH-069595	Gland Wrench	2-1/2, 56mm		2-9/16 x 3 x 2-1/8
PKH-069596	Gland Wrench	70mm		2-15/16 x 3-1/2 x 2-3/8
PKH-084765	Gland Wrench	18mm		13/16 x 1-1/4 x 1-7/16
PKH-084766	Gland Wrench	28mm		1-1/4 x 1-11/16 x -1-9/16

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Sales Part Number	Description	Rod Size	Bore Size
PKH-CB025HM001	Piston Head Seal Kit		25 mm
PKH-CB025HM005	Piston Head Seal Kit		25 mm
PKH-CB032HM001	Piston Head Seal Kit		32 mm
PKH-CB032HM005	Piston Head Seal Kit		32 mm
PKH-CB040HM001	Piston Head Seal Kit		40 mm
PKH-CB040HM005	Piston Head Seal Kit		40 mm
PKH-CB050HM001	Piston Head Seal Kit		50 mm
PKH-CB050HM005	Piston Head Seal Kit		50 mm
PKH-CB063HM001	Piston Head Seal Kit		63 mm
PKH-CB063HM005	Piston Head Seal Kit		63 mm
PKH-CB080HM001	Piston Head Seal Kit		80 mm
PKH-CB080HM005	Piston Head Seal Kit		80 mm
PKH-CB100HM001	Piston Head Seal Kit		100 mm
PKH-CB100HM005	Piston Head Seal Kit		100 mm
PKH-CB102HL001	Piston Head Seal Kit		1
PKH-CB102HL005	Piston Head Seal Kit		1
PKH-CB125HM001	Piston Head Seal Kit		125 mm
PKH-CB125HM005	Piston Head Seal Kit		125 mm
PKH-CB1502MA01	Piston Head Seal Kit		1-1/2
PKH-CB1502MA05	Piston Head Seal Kit		1-1/2
PKH-CB152HL001	Piston Head Seal Kit		1-1/2
PKH-CB152HL005	Piston Head Seal Kit		1-1/2
PKH-CB160HM001	Piston Head Seal Kit		160 mm
PKH-CB160HM005	Piston Head Seal Kit		160 mm
PKH-CB2002MA01	Piston Head Seal Kit		2
PKH-CB2002MA05	Piston Head Seal Kit		2
PKH-CB200HM001	Piston Head Seal Kit		200 mm
PKH-CB200HM005	Piston Head Seal Kit		200 mm
PKH-CB202HL001	Piston Head Seal Kit		2
PKH-CB202HL005	Piston Head Seal Kit		2
PKH-CB2502MA01	Piston Head Seal Kit		2-1/2
PKH-CB2502MA05	Piston Head Seal Kit		2-1/2
PKH-CB252HL001	Piston Head Seal Kit		2-1/2
PKH-CB252HL005	Piston Head Seal Kit		2-1/2
PKH-CB3202MA01	Piston Head Seal Kit		3-1/4
PKH-CB3202MA05	Piston Head Seal Kit		3-1/4

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TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797



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Sales Part Number	Description	Rod Size	Bore Size
PKH-CB322HL001	Piston Head Seal Kit		3-1/4
PKH-CB322HL005	Piston Head Seal Kit		3-1/4
PKH-CB4002MA01	Piston Head Seal Kit		4
PKH-CB4002MA05	Piston Head Seal Kit		4
PKH-CB402HL001	Piston Head Seal Kit		4
PKH-CB402HL005	Piston Head Seal Kit		4
PKH-CB5002MA01	Piston Head Seal Kit		5
PKH-CB5002MA05	Piston Head Seal Kit		5
PKH-CB502HL001	Piston Head Seal Kit		5
PKH-CB502HL005	Piston Head Seal Kit		5
PKH-CB6002MA01	Piston Head Seal Kit		6
PKH-CB6002MA05	Piston Head Seal Kit		6
PKH-CB602HL001	Piston Head Seal Kit		6
PKH-CB602HL005	Piston Head Seal Kit		6
PKH-CB702HL001	Piston Head Seal Kit		7
PKH-CB702HL005	Piston Head Seal Kit		7
PKH-CB8002MA01	Piston Head Seal Kit		8
PKH-CB8002MA05	Piston Head Seal Kit		8
PKH-CB802HL001	Piston Head Seal Kit		8
PKH-CB802HL005	Piston Head Seal Kit		8
PKH-CB902HL001	Piston Head Seal Kit		9
PKH-CB902HL005	Piston Head Seal Kit		9
PKH-KT060VP101	Rod & Piston Seal Kit	1	6
PKH-KT070VP101	Rod & Piston Seal Kit	1	7
PKH-KT080VP101	Rod & Piston Seal Kit	1	8
PKH-KT100VP101	Rod & Piston Seal Kit	1	10
PKH-PK1002A001	Piston Kit		1
PKH-PK1002A005	Piston Kit		1
PKH-PK1002AN01	Piston Kit		1
PKH-PK102HLL01	Piston Kit		1
PKH-PK102HLL05	Piston Kit		1
PKH-PK102HLLP1	Piston Kit		1
PKH-PK1502A001	Piston Kit		1-1/2
PKH-PK1502A005	Piston Kit		1-1/2
PKH-PK1502AN01	Piston Kit		1-1/2
PKH-PK1502MA01	Piston Kit		1-1/2
PKH-PK1502MA05	Piston Kit		1-1/2
PKH-PK1502ML01	Piston Kit		1-1/2
PKH-PK152HK001	Piston Kit		1-1/2
PKH-PK152HK005	Piston Kit		1-1/2
PKH-PK152HLL01	Piston Kit		1-1/2
PKH-PK152HLL05	Piston Kit		1-1/2
PKH-PK152HLLP1	Piston Kit		1-1/2
PKH-PK152HLLP5	Piston Kit		1-1/2
PKH-PK2002A001	Piston Kit		2
PKH-PK2002A005	Piston Kit		2
PKH-PK2002AN01	Piston Kit		2
PKH-PK2002MA01	Piston Kit		2
PKH-PK2002MA05	Piston Kit		2
PKH-PK2002ML01	Piston Kit		2
PKH-PK202HK001	Piston Kit		2



PARKER

PARKER

Sales Part Number	Description	Rod Size	Bore Size
PKH-PK202HK005	Piston Kit		2
PKH-PK202HLL01	Piston Kit		2
PKH-PK202HLL05	Piston Kit		2
PKH-PK202HLLP1	Piston Kit		2
PKH-PK202HLLP5	Piston Kit		2
PKH-PK2502A001	Piston Kit		2-1/2
PKH-PK2502A005	Piston Kit		2-1/2
PKH-PK2502AN01	Piston Kit		2-1/2
PKH-PK2502MA01	Piston Kit		2-1/2
PKH-PK2502MA05	Piston Kit		2-1/2
PKH-PK2502ML01	Piston Kit		2-1/2
PKH-PK252HK001	Piston Kit		2-1/2
PKH-PK252HK005	Piston Kit		2-1/2
PKH-PK252HLL01	Piston Kit		2-1/2
PKH-PK252HLL05	Piston Kit		2-1/2
PKH-PK252HLLP1	Piston Kit		2-1/2
PKH-PK252HLLP5	Piston Kit		2-1/2
PKH-PK3202A001	Piston Kit		3-1/4
PKH-PK3202A005	Piston Kit		3-1/4
PKH-PK3202AN01	Piston Kit		3-1/4
PKH-PK3202MA01	Piston Kit		3-1/4
PKH-PK3202MA05	Piston Kit		3-1/4
PKH-PK3202ML01	Piston Kit		3-1/4
PKH-PK322HK001	Piston Kit		3-1/4
PKH-PK322HK005	Piston Kit		3-1/4
PKH-PK322HLL01	Piston Kit		3-1/4
PKH-PK322HLL05	Piston Kit		3-1/4
PKH-PK322HLLP1	Piston Kit		3-1/4
PKH-PK322HLLP5	Piston Kit		3-1/4
PKH-PK4002A001	Piston Kit		4
PKH-PK4002A005	Piston Kit		4
PKH-PK4002AN01	Piston Kit		4
PKH-PK4002MA01	Piston Kit		4
PKH-PK4002MA05	Piston Kit		4
PKH-PK4002ML01	Piston Kit		4
PKH-PK402HK001	Piston Kit		4
PKH-PK402HK005	Piston Kit		4
PKH-PK402HLL01	Piston Kit		4
PKH-PK402HLL05	Piston Kit		4
PKH-PK402HLLP1	Piston Kit		4
PKH-PK402HLLP5	Piston Kit		4
PKH-PK5002A001	Piston Kit		5
PKH-PK5002A005	Piston Kit		5
PKH-PK5002AN01	Piston Kit		5
PKH-PK5002MA01	Piston Kit		5
PKH-PK5002MA05	Piston Kit		5
PKH-PK5002ML01	Piston Kit		5
PKH-PK502HK001	Piston Kit		5
PKH-PK502HK005	Piston Kit		5
PKH-PK502HLL01	Piston Kit		5
PKH-PK502HLL05	Piston Kit		5

KANSAS
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PHONE 1-903-753-0341
FAX 1-903-236-9797



PARKER

Sales Part Number	Description	Rod Size	Bore Size
PKH-PK502HLLP1	Piston Kit		5
PKH-PK502HLLP5	Piston Kit		5
PKH-PK6002A001	Piston Kit		6
PKH-PK6002A005	Piston Kit		6
PKH-PK6002AN01	Piston Kit		6
PKH-PK6002MA01	Piston Kit		6
PKH-PK6002MA05	Piston Kit		6
PKH-PK6002ML01	Piston Kit		6
PKH-PK602HK001	Piston Kit		6
PKH-PK602HK005	Piston Kit		6
PKH-PK602HLL01	Piston Kit		6
PKH-PK602HLL05	Piston Kit		6
PKH-PK602HLLP1	Piston Kit		6
PKH-PK602HLLP1-OLD	Piston Kit		6
PKH-PK602HLLP5	Piston Kit		6
PKH-PK602HLLP5-OLD	Piston Kit		6
PKH-PK7002A001	Piston Kit		7
PKH-PK7002A005	Piston Kit		7
PKH-PK7002AN01	Piston Kit		7
PKH-PK702HK001	Piston Kit		7
PKH-PK702HK005	Piston Kit		7
PKH-PK702HLL01	Piston Kit		7
PKH-PK702HLL05	Piston Kit		7
PKH-PK8002A001	Piston Kit		8
PKH-PK8002A005	Piston Kit		8
PKH-PK8002AN01	Piston Kit		8
PKH-PK8002MA01	Piston Kit		8
PKH-PK8002MA05	Piston Kit		8
PKH-PK8002ML01	Piston Kit		8
PKH-PK802HK001	Piston Kit		8
PKH-PK802HK005	Piston Kit		8
PKH-PK802HLL01	Piston Kit		8
PKH-PK802HLL05	Piston Kit		8
PKH-PK802HLLP1	Piston Kit		8
PKH-PK802HLLP5	Piston Kit		8
PKH-PK9002A001	Piston Kit		10
PKH-PK9002A005	Piston Kit		10
PKH-PK9002AN01	Piston Kit		10
PKH-PK902HK001	Piston Kit		10
PKH-PK902HK005	Piston Kit		10
PKH-PK902HLL01	Piston Kit		10
PKH-PK902HLL05	Piston Kit		10
PKH-PK9202A001	Piston Kit		12
PKH-PK9202A005	Piston Kit		12
PKH-PK9202AN01	Piston Kit		12
PKH-PK922HK001	Piston Kit		12
PKH-PK922HK005	Piston Kit		12
PKH-PK922HLL01	Piston Kit		12
PKH-PK922HLL05	Piston Kit		12
PKH-PK9402A001	Piston Kit		14
PKH-PK9402A005	Piston Kit		14

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Sales Part Number	Description	Rod Size	Bore Size
PKH-PN025HM001	Piston Kit		25 mm
PKH-PN025HM005	Piston Kit		25 mm
PKH-PN032HM001	Piston Kit		32 mm
PKH-PN032HM005	Piston Kit		32 mm
PKH-PN040HM001	Piston Kit		40 mm
PKH-PN040HM005	Piston Kit		40 mm
PKH-PN050HM001	Piston Kit		50 mm
PKH-PN050HM005	Piston Kit		50 mm
PKH-PN063HM001	Piston Kit		63 mm
PKH-PN063HM005	Piston Kit		63 mm
PKH-PN080HM001	Piston Kit		80 mm
PKH-PN080HM005	Piston Kit		80 mm
PKH-PN100HM001	Piston Kit		100 mm
PKH-PN100HM005	Piston Kit		100 mm
PKH-PN125HM001	Piston Kit		125 mm
PKH-PN125HM005	Piston Kit		125 mm
PKH-PN160HM001	Piston Kit		160 mm
PKH-PN160HM005	Piston Kit		160 mm
PKH-PN200HM001	Piston Kit		200 mm
PKH-PN200HM005	Piston Kit		200 mm
PKH-PR102H0001	Piston Ring Kit		1
PKH-PR102H0005	Piston Ring Kit		1
PKH-PR152H0001	Piston Ring Kit		1-1/2
PKH-PR152H0005	Piston Ring Kit		1-1/2
PKH-PR202H0001	Piston Ring Kit		2
PKH-PR202H0005	Piston Ring Kit		2
PKH-PR252H0001	Piston Ring Kit		2-1/2
PKH-PR252H0005	Piston Ring Kit		2-1/2
PKH-PR322H0001	Piston Ring Kit		3-1/4
PKH-PR322H0005	Piston Ring Kit		3-1/4
PKH-PR402H0001	Piston Ring Kit		4
PKH-PR402H0005	Piston Ring Kit		4
PKH-PR502H0001	Piston Ring Kit		5
PKH-PR502H0005	Piston Ring Kit		5
PKH-PR602H0001	Piston Ring Kit		6
PKH-PR602H0005	Piston Ring Kit		6
PKH-PR702H0001	Piston Ring Kit		7
PKH-PR702H0005	Piston Ring Kit		7
PKH-PR802H0001	Piston Ring Kit		8
PKH-PR802H0005	Piston Ring Kit		8
PKH-PR902H0001	Piston Ring Kit		10
PKH-PR902H0005	Piston Ring Kit		10
PKH-PR922H0001	Piston Ring Kit		12
PKH-PR922H0005	Piston Ring Kit		12
PKH-RG02MA0051	Rod Gland Kit	1/2	
PKH-RG02MA0055	Rod Gland Kit	1/2	
PKH-RG02MA0061	Rod Gland Kit	5/8	
PKH-RG02MA0065	Rod Gland Kit	5/8	
PKH-RG02MA0101	Rod Gland Kit	1	
PKH-RG02MA0105	Rod Gland Kit	1	
PKH-RG02MA0131	Rod Gland Kit	1-3/8	

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Sales Part Number	Description	Rod Size	Bore Size
PKH-RG02MA0135	Rod Gland Kit	1-3/8	
PKH-RG02MA0171	Rod Gland Kit	1-3/4	
PKH-RG02MA0175	Rod Gland Kit	1-3/4	
PKH-RG02MA-05	Rod Gland	1/2	
PKH-RG02MA-06	Rod Gland	5/8	
PKH-RG02MA-10	Rod Gland	1	
PKH-RG02MA-13	Rod Gland	1-3/8	
PKH-RG02MA-17	Rod Gland	1-3/4	
PKH-RG-05	Rod Gland	1/2	
PKH-RG-06	Rod Gland	5/8	
PKH-RG-10	Rod Gland	1	
PKH-RG-13	Rod Gland	1-3/8	
PKH-RG-17	Rod Gland	1-3/4	
PKH-RG1HDL0061	Rod Gland Kit	5/8	
PKH-RG1HDL0065	Rod Gland Kit	5/8	
PKH-RG1HDL0101	Rod Gland Kit	1	
PKH-RG1HDL0105	Rod Gland Kit	1	
PKH-RG1HDL0131	Rod Gland Kit	1-3/8	
PKH-RG1HDL0135	Rod Gland Kit	1-3/8	
PKH-RG1HDL0171	Rod Gland Kit	1-3/4	
PKH-RG1HDL0175	Rod Gland Kit	1-3/4	
PKH-RG1HDL0201	Rod Gland Kit	2	
PKH-RG1HDL0205	Rod Gland Kit	2	
PKH-RG1HDL0251	Rod Gland Kit	2-1/2	
PKH-RG1HDL0255	Rod Gland Kit	2-1/2	
PKH-RG1HDL0351	Rod Gland Kit	3-1/2	
PKH-RG1HDL0355	Rod Gland Kit	3-1/2	
PKH-RG-20	Rod Gland	2	
PKH-RG-25	Rod Gland	2-1/2	
PKH-RG2AHL0051	Rod Gland Kit	1/2	
PKH-RG2AHL0051PS	Rod Gland Kit	1/2	
PKH-RG2AHL0055	Rod Gland Kit	1/2	
PKH-RG2AHL0055PS	Rod Gland Kit	1/2	
PKH-RG2AHL0061	Rod Gland Kit	5/8	
PKH-RG2AHL0061PS	Rod Gland Kit	5/8	
PKH-RG2AHL0065	Rod Gland Kit	5/8	
PKH-RG2AHL0065PS	Rod Gland Kit	5/8	
PKH-RG2AHL0101	Rod Gland Kit	1	
PKH-RG2AHL0101PS	Rod Gland Kit	1	
PKH-RG2AHL0105	Rod Gland Kit	1	
PKH-RG2AHL0105PS	Rod Gland Kit	1	
PKH-RG2AHL0131	Rod Gland Kit	1-3/8	
PKH-RG2AHL0131PS	Rod Gland Kit	1-3/8	
PKH-RG2AHL0135	Rod Gland Kit	1-3/8	
PKH-RG2AHL0135PS	Rod Gland Kit	1-3/8	
PKH-RG2AHL0171	Rod Gland Kit	1-3/4	
PKH-RG2AHL0171PS	Rod Gland Kit	1-3/4	
PKH-RG2AHL0175	Rod Gland Kit	1-3/4	
PKH-RG2AHL0175PS	Rod Gland Kit	1-3/4	
PKH-RG2AHL0201	Rod Gland Kit	2	
PKH-RG2AHL0201PS	Rod Gland Kit	2	



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Sales Part Number	Description	Rod Size	Bore Size
PKH-RG2AHL0205	Rod Gland Kit	2	
PKH-RG2AHL0205PS	Rod Gland Kit	2	
PKH-RG2AHL0251	Rod Gland Kit	2-1/2	
PKH-RG2AHL0251PS	Rod Gland Kit	2-1/2	
PKH-RG2AHL0255	Rod Gland Kit	2-1/2	
PKH-RG2AHL0255PS	Rod Gland Kit	2-1/2	
PKH-RG2AHL0301	Rod Gland Kit	3	
PKH-RG2AHL0301PS	Rod Gland Kit	3	
PKH-RG2AHL0305	Rod Gland Kit	3	
PKH-RG2AHL0305PS	Rod Gland Kit	3	
PKH-RG2AHL0351	Rod Gland Kit	3-1/2	
PKH-RG2AHL0351PS	Rod Gland Kit	3-1/2	
PKH-RG2AHL0355	Rod Gland Kit	3-1/2	
PKH-RG2AHL0355PS	Rod Gland Kit	3-1/2	
PKH-RG2AHL0401	Rod Gland Kit	4	
PKH-RG2AHL0405	Rod Gland Kit	4	
PKH-RG2AHL0451	Rod Gland Kit	4-1/2	
PKH-RG2AHL0455	Rod Gland Kit	4-1/2	
PKH-RG2AHL0501	Rod Gland Kit	5	
PKH-RG2AHL0505	Rod Gland Kit	5	
PKH-RG2AHL0551	Rod Gland Kit	5-1/2	
PKH-RG2AHL0555	Rod Gland Kit	5-1/2	
PKH-RG2AN00051	Rod Gland Kit	1/2	
PKH-RG2AN00061	Rod Gland Kit	5/8	
PKH-RG2AN00101	Rod Gland Kit	1	
PKH-RG2AN00131	Rod Gland Kit	1-3/8	
PKH-RG2AN00171	Rod Gland Kit	1-3/4	
PKH-RG2AN00201	Rod Gland Kit	2	
PKH-RG2AN00251	Rod Gland Kit	2-1/2	
PKH-RG2AN00301	Rod Gland Kit	3	
PKH-RG2AN00351	Rod Gland Kit	3-1/2	
PKH-RG2AN00401	Rod Gland Kit	4	
PKH-RG2AN00451	Rod Gland Kit	4-1/2	
PKH-RG2AN00501	Rod Gland Kit	5	
PKH-RG2AN00551	Rod Gland Kit	5-1/2	
PKH-RG2HLTS051	Rod Gland Kit	1/2	
PKH-RG2HLTS061	Rod Gland Kit	5/8	
PKH-RG2HLTS101	Rod Gland Kit	1	
PKH-RG2HLTS131	Rod Gland Kit	1-3/8	
PKH-RG2HLTS171	Rod Gland Kit	1-3/4	
PKH-RG2HLTS201	Rod Gland Kit	2	
PKH-RG2HLTS251	Rod Gland Kit	2-1/2	
PKH-RG2HLTS301	Rod Gland Kit	3	
PKH-RG2HLTS351	Rod Gland Kit	3-1/2	
PKH-RG2HLTS401	Rod Gland Kit	4	
PKH-RG2HLTS451	Rod Gland Kit	4-1/2	
PKH-RG2HLTS501	Rod Gland Kit	5	
PKH-RG2HLTS551	Rod Gland Kit	5-1/2	
PKH-RG2HM0121	Rod Gland Kit	12 mm	
PKH-RG2HM0125	Rod Gland Kit	12 mm	
PKH-RG2HM0141	Rod Gland Kit	14 mm	

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Sales Part Number	Description	Rod Size	Bore Size
PKH-RG2HM0145	Rod Gland Kit	14 mm	
PKH-RG2HM0181	Rod Gland Kit	18 mm	
PKH-RG2HM0185	Rod Gland Kit	18 mm	
PKH-RG2HM0221	Rod Gland Kit	22 mm	
PKH-RG2HM0225	Rod Gland Kit	22 mm	
PKH-RG2HM0281	Rod Gland Kit	28 mm	
PKH-RG2HM0285	Rod Gland Kit	28 mm	
PKH-RG2HM0361	Rod Gland Kit	36 mm	
PKH-RG2HM0365	Rod Gland Kit	36 mm	
PKH-RG2HM0451	Rod Gland Kit	45 mm	
PKH-RG2HM0455	Rod Gland Kit	45 mm	
PKH-RG2HM0561	Rod Gland Kit	56 mm	
PKH-RG2HM0565	Rod Gland Kit	56 mm	
PKH-RG2HM0701	Rod Gland Kit	70 mm	
PKH-RG2HM0705	Rod Gland Kit	70 mm	
PKH-RG-30	Rod Gland	3	
PKH-RG-35	Rod Gland	3-1/2	
PKH-RG-40	Rod Gland	4	
PKH-RG-45	Rod Gland	4-1/2	
PKH-RG-50	Rod Gland	5	
PKH-RG-55	Rod Gland	5-1/2	
PKH-RGHD-06	Bronze Rod Gland	5/8	
PKH-RGHD-10	Bronze Rod Gland	1	
PKH-RGHD-13	Bronze Rod Gland	1-3/8	
PKH-RGHD-17	Bronze Rod Gland	1-3/4	
PKH-RGHD-20	Bronze Rod Gland	2	
PKH-RGHD-25	Bronze Rod Gland	2-1/2	
PKH-RGHD-35	Bronze Rod Gland	3-1/2	
PKH-RGHM-012	Rod Gland	12 mm	
PKH-RGHM-014	Rod Gland	14 mm	
PKH-RGHM-018	Rod Gland	18 mm	
PKH-RGHM-022	Rod Gland	22 mm	
PKH-RGHM-028	Rod Gland	28 mm	
PKH-RGHM-036	Rod Gland	36 mm	
PKH-RGHM-045	Rod Gland	45 mm	
PKH-RGHM-056	Rod Gland	56 mm	
PKH-RGHM-070	Rod Gland	70 mm	
PKH-RGL6948MA1	Rod Gland Kit	5/8	
PKH-RGL6948MA5	Rod Gland Kit	5/8	
PKH-RGL6949MA1	Rod Gland Kit	1	
PKH-RGL6949MA5	Rod Gland Kit	1	
PKH-RGL6950MA1	Rod Gland Kit	1-3/8	
PKH-RGL6950MA5	Rod Gland Kit	1-3/8	
PKH-RGMA-06	Rod Gland	5/8	
PKH-RGMA-10	Rod Gland	1	
PKH-RGMA-13	Rod Gland	1-3/8	
PKH-RK02MA0051	Rod Kit	1/2	
PKH-RK02MA0055	Rod Kit	1/2	
PKH-RK02MA0061	Rod Kit	5/8	
PKH-RK02MA0065	Rod Kit	5/8	
PKH-RK02MA0101	Rod Kit	1	



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Sales Part Number	Description	Rod Size	Bore Size
PKH-RK02MA0105	Rod Kit	1	
PKH-RK02MA0131	Rod Kit	1-3/8	
PKH-RK02MA0135	Rod Kit	1-3/8	
PKH-RK02MA0171	Rod Kit	1-3/4	
PKH-RK02MA0175	Rod Kit	1-3/4	
PKH-RK02ML0061	Rod Kit	5/8	
PKH-RK02ML0101	Rod Kit	1	
PKH-RK02ML0131	Rod Kit	1-3/8	
PKH-RK02ML0171	Rod Kit	1-3/4	
PKH-RK1HDL0061	Rod Kit	5/8	
PKH-RK1HDL0065	Rod Kit	5/8	
PKH-RK1HDL0101	Rod Kit	1	
PKH-RK1HDL0105	Rod Kit	1	
PKH-RK1HDL0131	Rod Kit	1-3/8	
PKH-RK1HDL0135	Rod Kit	1-3/8	
PKH-RK1HDL0171	Rod Kit	1-3/4	
PKH-RK1HDL0175	Rod Kit	1-3/4	
PKH-RK1HDL0201	Rod Kit	2	
PKH-RK1HDL0205	Rod Kit	2	
PKH-RK1HDL0251	Rod Kit	2-1/2	
PKH-RK1HDL0255	Rod Kit	2-1/2	
PKH-RK1HDL0351	Rod Kit	3-1/2	
PKH-RK1HDL0355	Rod Kit	3-1/2	
PKH-RK2AHL0051	Rod Kit	1/2	
PKH-RK2AHL0051PS	Rod Kit	1/2	
PKH-RK2AHL0055	Rod Kit	1/2	
PKH-RK2AHL0055PS	Rod Kit	1/2	
PKH-RK2AHL0061	Rod Kit	5/8	
PKH-RK2AHL0061PS	Rod Kit	5/8	
PKH-RK2AHL0065	Rod Kit	5/8	
PKH-RK2AHL0065PS	Rod Kit	5/8	
PKH-RK2AHL0101	Rod Kit	1	
PKH-RK2AHL0101PS	Rod Kit	1	
PKH-RK2AHL0105	Rod Kit	1	
PKH-RK2AHL0105PS	Rod Kit	1	
PKH-RK2AHL0131	Rod Kit	1-3/8	
PKH-RK2AHL0131PS	Rod Kit	1-3/8	
PKH-RK2AHL0135	Rod Kit	1-3/8	
PKH-RK2AHL0135PS	Rod Kit	1-3/8	
PKH-RK2AHL0171	Rod Kit	1-3/4	
PKH-RK2AHL0171PS	Rod Kit	1-3/4	
PKH-RK2AHL0175	Rod Kit	1-3/4	
PKH-RK2AHL0175PS	Rod Kit	1-3/4	
PKH-RK2AHL0201	Rod Kit	2	
PKH-RK2AHL0201PS	Rod Kit	2	
PKH-RK2AHL0205	Rod Kit	2	
PKH-RK2AHL0205PS	Rod Kit	2	
PKH-RK2AHL0251	Rod Kit	2-1/2	
PKH-RK2AHL0251PS	Rod Kit	2-1/2	
PKH-RK2AHL0255	Rod Kit	2-1/2	
PKH-RK2AHL0255PS	Rod Kit	2-1/2	

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Sales Part Number	Description	Rod Size	Bore Size
PKH-RK2AHL0301	Rod Kit	3	
PKH-RK2AHL0301PS	Rod Kit	3	
PKH-RK2AHL0305	Rod Kit	3	
PKH-RK2AHL0305PS	Rod Kit	3	
PKH-RK2AHL0351	Rod Kit	3-1/2	
PKH-RK2AHL0351PS	Rod Kit	3-1/2	
PKH-RK2AHL0355	Rod Kit	3-1/2	
PKH-RK2AHL0355PS	Rod Kit	3-1/2	
PKH-RK2AHL0401	Rod Kit	4	
PKH-RK2AHL0405	Rod Kit	4	
PKH-RK2AHL0451	Rod Kit	4-1/2	
PKH-RK2AHL0455	Rod Kit	4-1/2	
PKH-RK2AHL0501	Rod Kit	5	
PKH-RK2AHL0505	Rod Kit	5	
PKH-RK2AHL0551	Rod Kit	5-1/2	
PKH-RK2AHL0555	Rod Kit	5-1/2	
PKH-RK2AN00051	Rod Kit	1/2	
PKH-RK2AN00061	Rod Kit	5/8	
PKH-RK2AN00101	Rod Kit	1	
PKH-RK2AN00131	Rod Kit	1-3/8	
PKH-RK2AN00171	Rod Kit	1-3/4	
PKH-RK2AN00201	Rod Kit	2	
PKH-RK2AN00251	Rod Kit	2-1/2	
PKH-RK2AN00301	Rod Kit	3	
PKH-RK2AN00351	Rod Kit	3-1/2	
PKH-RK2AN00401	Rod Kit	4	
PKH-RK2AN00451	Rod Kit	4-1/2	
PKH-RK2AN00501	Rod Kit	5	
PKH-RK2AN00551	Rod Kit	5-1/2	
PKH-RK2HLTS051	Rod Kit	1/2	
PKH-RK2HLTS061	Rod Kit	5/8	
PKH-RK2HLTS101	Rod Kit	1	
PKH-RK2HLTS131	Rod Kit	1-3/8	
PKH-RK2HLTS171	Rod Kit	1-3/4	
PKH-RK2HLTS201	Rod Kit	2	
PKH-RK2HLTS251	Rod Kit	2-1/2	
PKH-RK2HLTS301	Rod Kit	3	
PKH-RK2HLTS351	Rod Kit	3-1/2	
PKH-RK2HLTS401	Rod Kit	4	
PKH-RK2HLTS451	Rod Kit	4-1/2	
PKH-RK2HLTS501	Rod Kit	5	
PKH-RK2HLTS551	Rod Kit	5-1/2	
PKH-RK2HM0121	Rod Kit	12 mm	
PKH-RK2HM0125	Rod Kit	12 mm	
PKH-RK2HM0141	Rod Kit	14 mm	
PKH-RK2HM0145	Rod Kit	14 mm	
PKH-RK2HM0181	Rod Kit	18 mm	
PKH-RK2HM0185	Rod Kit	18 mm	
PKH-RK2HM0221	Rod Kit	22 mm	
PKH-RK2HM0225	Rod Kit	22 mm	
PKH-RK2HM0281	Rod Kit	28 mm	



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Sales Part Number	Description	Rod Size	Bore Size
PKH-RK2HM0285	Rod Kit	28 mm	
PKH-RK2HM0361	Rod Kit	36 mm	
PKH-RK2HM0365	Rod Kit	36 mm	
PKH-RK2HM0451	Rod Kit	45 mm	
PKH-RK2HM0455	Rod Kit	45 mm	
PKH-RK2HM0561	Rod Kit	56 mm	
PKH-RK2HM0565	Rod Kit	56 mm	
PKH-RK2HM0701	Rod Kit	70 mm	
PKH-RK2HM0705	Rod Kit	70 mm	
PKH-RK2HM0901	Rod Kit	90 mm	
PKH-RK2HM0905	Rod Kit	90 mm	
PKH-RK2HM1101	Rod Kit	110 mm	
PKH-RK2HM1105	Rod Kit	110 mm	
PKH-RK2HM1401	Rod Kit	140 mm	
PKH-RK2HM1405	Rod Kit	140 mm	
PKH-SKL7000MA1	Rod & Piston Seal Kit	5/8	1-1/2
PKH-SKL7000MA5	Rod & Piston Seal Kit	5/8	1-1/2
PKH-SKL7001MA1	Rod & Piston Seal Kit	5/8	2
PKH-SKL7001MA5	Rod & Piston Seal Kit	5/8	2
PKH-SKL7002MA1	Rod & Piston Seal Kit	1	2
PKH-SKL7002MA5	Rod & Piston Seal Kit	1	2
PKH-SKL7003MA1	Rod & Piston Seal Kit	5/8	2-1/2
PKH-SKL7003MA5	Rod & Piston Seal Kit	5/8	2-1/2
PKH-SKL7004MA1	Rod & Piston Seal Kit	1	2-1/2
PKH-SKL7004MA5	Rod & Piston Seal Kit	1	2-1/2
PKH-SKL7005MA1	Rod & Piston Seal Kit	1	3-1/4
PKH-SKL7005MA5	Rod & Piston Seal Kit	1	3-1/4
PKH-SKL7006MA1	Rod & Piston Seal Kit	1-3/8	3-1/4
PKH-SKL7006MA5	Rod & Piston Seal Kit	1-3/8	3-1/4
PKH-SKL7007MA1	Rod & Piston Seal Kit	1	4
PKH-SKL7007MA5	Rod & Piston Seal Kit	1	4
PKH-SKL7008MA1	Rod & Piston Seal Kit	1-3/8	4
PKH-SKL7008MA5	Rod & Piston Seal Kit	1-3/8	4
PKH-SKL7009MA1	Rod & Piston Seal Kit	1	5
PKH-SKL7009MA5	Rod & Piston Seal Kit	1	5
PKH-SKL7010MA1	Rod & Piston Seal Kit	1-3/8	5
PKH-SKL7010MA5	Rod & Piston Seal Kit	1-3/8	5
PKH-SKL7098MA1	Rod & Piston Seal Kit	1-3/8	6
PKH-SKL7098MA5	Rod & Piston Seal Kit	1-3/8	6

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REXROTH

Kit Type		Page
Gland Kits	CDT1, CGT1, CDT4, CGT4	136
Piston Kits	CDT1, CGT1, CDT4, CGT4	136
Seal Kits	CDT3, CGT3	137
Various Kits		137

ROYAL

Kit Type		Page
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Pneumatic Kits	M Series	139
Hydraulic Kits	H & S2 Series	140
Repair Kits	By Part Number	141

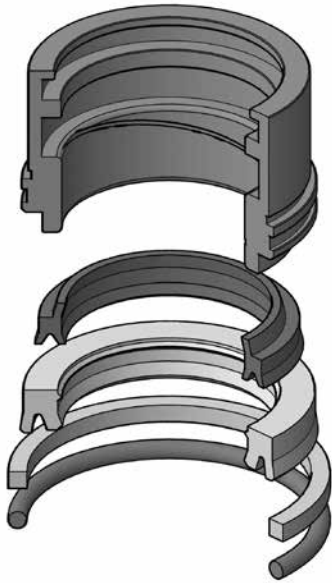
REXROTH - ROYAL



REXROTH

Gland Kits

CDT1, CGT1, CDT4, CGT4* Hydraulic Cylinders Urethane



Kit #	Rod Dia.	Bore Dia.
RRTH-R978006773	5/8"	
RRTH-R978006774	1"	1-1/2"
RRTH-R978006775	1"	2" - 2-1/2"
RRTH-R978006776	1-3/8"	2"
RRTH-R978006777	1-3/8"	2-1/2" - 3-1/4"
RRTH-R978006778	1-3/4"	
RRTH-R978006779	2"	
RRTH-R978006780	2-1/2"	

*CGT4 Series Double Rod cylinder may require 2 kits.

Kit Includes:

- 1 Iron Gland
- 1 URE Wiper
- 1 URE U-seal
- 1 PTFE Back-up Ring
- 1 NBR O-ring

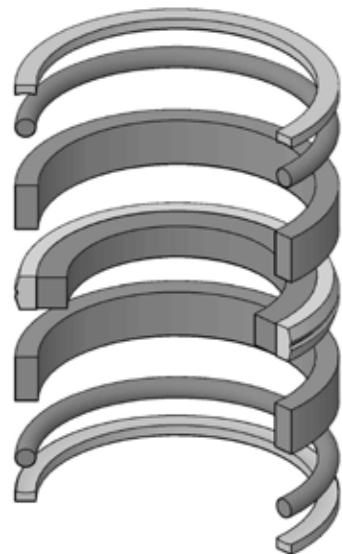
Piston Kits

CDT1, CGT1, CDT4, CGT4 Hydraulic Cylinders Urethane

Kit #	Bore Dia.
RRTH-R978006830	1-1/2"
RRTH-R978006831	2"
RRTH-R978006832	2-1/2"
RRTH-R978006833	3-1/4"
RRTH-R978006834	4"
RRTH-R978006835	5"

Kit Includes:

- 1 Urethane Piston Seal
- 2 Wear Rings
- 2 Tube End Seals
- 2 Back-up Rings





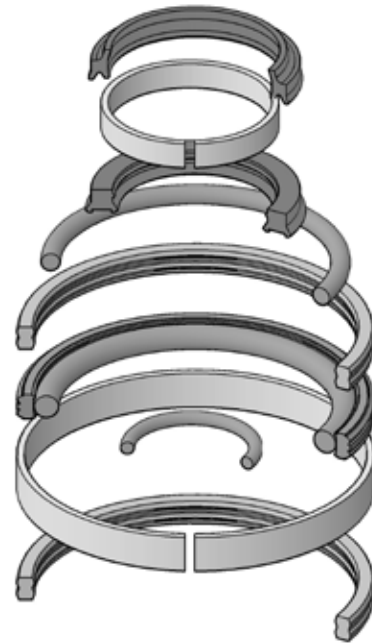
REXROTH

Seal Kits

CDT3, CGT3* Hydraulic Cylinders Urethane

Kit #	Bore Dia.	Rod Dia.
RRTH-R961008000	25	12
RRTH-R961008001	25	18
RRTH-R961008002	32	14
RRTH-R961008003	32	22
RRTH-R961008004	40	18
RRTH-R961008005	40	22
RRTH-R961008006	40	28
RRTH-R961008007	50	22
RRTH-R961008008	50	28
RRTH-R961008009	50	36
RRTH-R961008010	63	28
RRTH-R961008011	63	36
RRTH-R961008012	63	45
RRTH-R961008013	80	36
RRTH-R961008014	80	45
RRTH-R961008015	80	56
RRTH-R961008016	100	45
RRTH-R961008017	100	56
RRTH-R961008018	100	70
RRTH-R961008019	125	56
RRTH-R961008020	125	70
RRTH-R961008021	125	90

*CGT3 series double rod cylinder may require 2 kits.

**Kit Includes:**

- 1 Urethane Wiper
- 2 Rod Wear Bands
(40x22, 40x28, and 50 thru 100mm Bore**)
- 1 Urethane Rod Seal
- 1 NBR Gland Seal
- 1 Urethane Piston Seal
- 1 Piston Wear Band (25 thru 63mm Bore)
- 2 Piston Wear Bands (80 thru 125mm Bore)
- 1 Stub O-ring
- 2 Head Seals
- 2 Port O-rings

**Not Included With 70mm Rod

Various Kits

Various Kits

Kit #	Model	Code	Bore
RRTH-1817005842	RRTH-KIT	N-N-10	63 mm



ROYAL

A Series Pneumatic Kits

A Cylinders

Kit Composition Varies
Consult your representative.

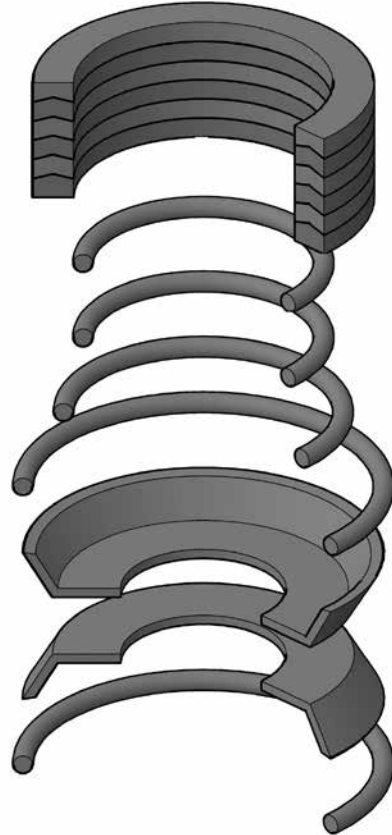
Kit #	Code	Rod x Bore
RYL-KA207	N-U-5	3/4" X 2"
RYL-KA210	N-U-5	1" X 2"
RYL-KA310	I-U-5	1" X 3"
RYL-KA312	I-U-5	1-1/4" X 3"
RYL-KA412	I-U-5	1-1/4" X 4"
RYL-KA415	I-U-5	1-1/2" X 4"
RYL-KA512	I-U-5	1-1/4" X 5"
RYL-KA515	I-U-5	1-1/2" X 5"
RYL-KA615	I-U-5	1-1/2" X 6"
RYL-KA617	I-U-5	1-3/4" X 6"
RYL-KA1030	I-U-5	3" X 10"
RYL-KA1230	I-U-5	3" X 12"
RYL-KA1235	I-U-5	3-1/2" X 12"
RYL-KA1506	N-U-5	5/8" X 1-1/2"

**ROYAL****M Series
Pneumatic Kits****M Cylinders**

Kit #	Code	Rod x Bore
RYL-KM415	N-V-7	1-1/2" X 4"
RYL-KM620	N-V-7	2" X 6"
RYL-KM820	N-V-7	2" X 8"
RYL-KM825	N-V-7	2-1/2" X 8"
RYL-KM1025	N-V-7	2-1/2" X 10"
RYL-KM1030	N-V-7	3" X 10"
RYL-KM1235	N-V-7	3-1/2" X 12"

Kit Includes:

- 1 Vee-Set
- 5 NBR O-rings
- 2 NBR Piston Cups

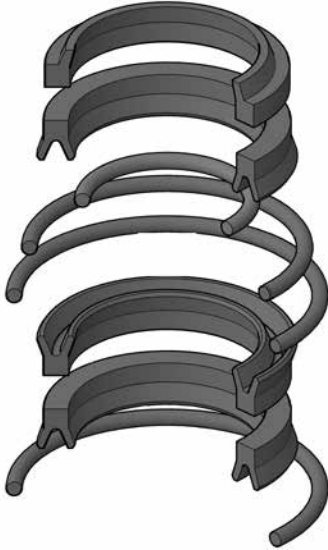
**ROYAL**



ROYAL

H Series Hydraulic Kits

H Cylinders

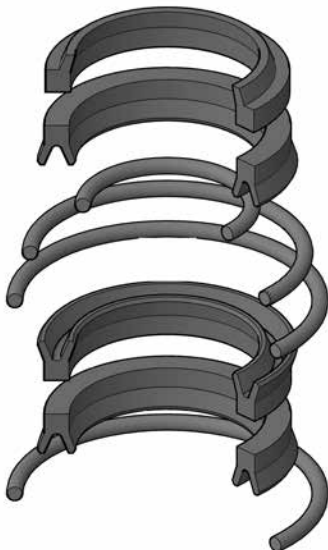


Kit #	Code	Rod x Bore
RYL-KH1510	I-U-5	1" X 1-1/2"
RYL-KH2510	I-U-5	1" X 2-1/2"
RYL-KH2517	I-U-5	1-3/4" X 2-1/2"
RYL-KH3217	I-U-5	1-3/4" X 3-1/4"
RYL-KH3220	I-U-5	2" X 3-1/4"
RYL-KH4017	I-U-5	1-3/4" X 4"
RYL-KH4025	I-U-5	2-1/2" X 4"
RYL-KH5020	I-U-5	2" X 5"
RYL-KH6025	I-U-5	2-1/2" X 6"

Kit Includes:
 1 URE Wiper
 3 URE U-seals
 1 NBR O-ring
 3 URE O-rings

S2 Series Hydraulic Kits

S2 Cylinders



Kit #	Code	Rod x Bore
RYL-K2K212	I-U-5	1-1/4" X 2"
RYL-K2K2510	I-U-5	1" X 2-1/2"
RYL-K2K2512	I-U-5	1-1/4" X 2-1/2"
RYL-K2K312	I-U-5	1-1/4" X 3"

Kit Includes:
 1 URE Wiper
 3 URE U-seals
 4 NBR O-rings

**ROYAL**

Kit Number	Code	Rod x Bore
RYL-K2K212	I-U-5	1-1/4 X 2
RYL-K2K2510	I-U-5	1 X 2-1/2
RYL-K2K2512	I-U-5	1-1/4 X 2-1/2
RYL-K2K312	I-U-5	1-1/4 X 3
RYL-KA1030	I-U-5	3 X 10
RYL-KA1230	I-U-5	3 X 12
RYL-KA1235	I-U-5	3-1/2 X 12
RYL-KA1506	N-U-5	5/8 X 1-1/2
RYL-KA207	N-U-5	3/4 X 2
RYL-KA210	N-U-5	1 X 2
RYL-KA310	I-U-5	1 X 3
RYL-KA312	I-U-5	1-1/4 X 3
RYL-KA412	I-U-5	1-1/4 X 4
RYL-KA415	I-U-5	1-1/2 X 4
RYL-KA512	I-U-5	1-1/4 X 5
RYL-KA515	I-U-5	1-1/2 X 5
RYL-KA615	I-U-5	1-1/2 X 6
RYL-KA617	I-U-5	1-3/4 X 6
RYL-KH1510	I-U-5	1 X 1-1/2
RYL-KH2510	I-U-5	1 X 2-1/2
RYL-KH2517	I-U-5	1-3/4 X 2-1/2
RYL-KH3217	I-U-5	1-3/4 X 3-1/4
RYL-KH3220	I-U-5	2 X 3-1/4
RYL-KH4017	I-U-5	1-3/4 X 4
RYL-KH4025	I-U-5	2-1/2 X 4
RYL-KH5020	I-U-5	2 X 5
RYL-KH6025	I-U-5	2-1/2 X 6
RYL-KM1025	N-V-7	2-1/2 X 10
RYL-KM1030	N-V-7	3 X 10
RYL-KM1235	N-V-7	3-1/2 X 12
RYL-KM415	N-V-7	1-1/2 X 4
RYL-KM620	N-V-7	2 X 6
RYL-KM820	N-V-7	2 X 8
RYL-KM825	N-V-7	2-1/2 X 8

ROYAL



NOTES

NOTES

Lined area for notes with horizontal ruling lines.

KANSAS
PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA
PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797



SHEFFER

Kit Type		Page
Hydraulic Kits	HH Series	144 - 145
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Pneumatic Kits	C20 Series	148
	A Series	149
Various Kits		148 - 149
Repair Kits	By Part Number	150 - 152

TOMPKINS-JOHNSON / TJ

Kit Type	Page
Tompkins-Johnson / TJ	153

VICKERS / EATON

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	TZ Series	156

VICKERS / TOMPKINS-JOHNSON

Kit Type	Page
Repair Kits	TE / TF Series 157



SHEFFER

HH Series

HH Hydraulic Cylinders Standard



Kit Includes:

- 1 NBR Rod Wiper
- 1 Urethane Rod Seal
- 1 NBR Gland O-ring
- 1 PTFE Piston seal
- *Piston Wear Strips
- **1 NBR Piston/ Rod O-ring
- 2 NBR Tube End O-rings

Note:

- * Piston Wear Strips:
 - 1 Wear Strip thru 4" bore
 - 2 Wear Strips 5" to 8" bore
 - 3 Wear Strips 10" and 12" bore
 - 4 Wear Strips 14" bore
- ** Where Applicable

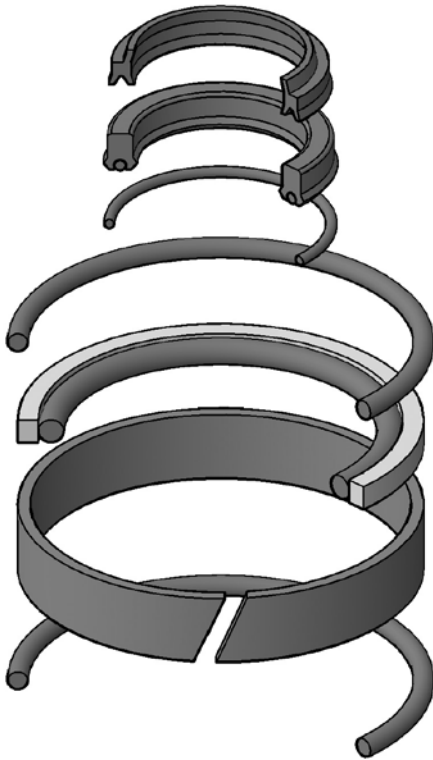
Rod x Bore	(NBR) Kit #
5/8" X 1-1/8"	SHF-761-01-0112-0062
5/8" X 1-1/2"	SHF-761-01-0150-0062
1" X 1-1/2"	SHF-761-01-0150-0100
1" X 1-1/2"	SHF-761-01-0200-0100
1-3/8" X 2"	SHF-761-01-0200-0137
1-3/8" X 2-1/2"	SHF-761-01-0250-0137
1-3/4" X 2-1/2"	SHF-761-01-0250-0175
1-3/8" X 3-1/4"	SHF-761-01-0325-0137
1-3/4" X 3-1/4"	SHF-761-01-0325-0175
2" X 3-1/4"	SHF-761-01-0325-0200
2" X 4"	SHF-761-01-0400-0200
2-1/2" X 4"	SHF-761-01-0400-0250
2-1/2" X 5"	SHF-761-01-0500-0250
3-1/2" X 5"	SHF-761-01-0500-0350
3" X 6"	SHF-761-01-0600-0300
4" X 6"	SHF-761-01-0600-0400
4" X 7"	SHF-761-01-0700-0400
5" X 7"	SHF-761-01-0700-0500
3-1/2" X 8"	SHF-761-01-0800-0350
4" X 8"	SHF-761-01-0800-0400
5-1/2" X 8"	SHF-761-01-0800-0550
4-1/2" X 10"	SHF-761-01-1000-0450
7" X 10"	SHF-761-01-1000-0700
5-1/2" X 12"	SHF-761-01-1200-0550
7" X 14"	SHF-761-01-1400-0700



SHEFFER

HH Series

HH Hydraulic Cylinders Fluorocarbon



Kit Includes:

- 1 FKM Rod Wiper
- 1 FKM Rod Seal
- 1 FKM Gland O-ring
- 1 PTFE Piston seal
- *Piston Wear Strips
- **1 FKM Piston/ Rod O-ring
- 2 FKM Tube End O-rings

Note:

- * Piston Wear Strips:
 - 1 Wear Strip thru 4" bore
 - 2 Wear Strips 5" to 8" bore
 - 3 Wear Strips 10" and 12" bore
 - 4 Wear Strips 14" bore
- ** Where Applicable

Rod x Bore	(FKM) Kit #
5/8" X 1-1/8"	SHF-761-21-0112-0062
5/8" X 1-1/2"	SHF-761-21-0150-0062
1" X 1-1/2"	SHF-761-21-0150-0100
1" X 1-1/2"	SHF-761-21-0200-0100
1-3/8" X 2"	SHF-761-21-0200-0137
1-3/8" X 2-1/2"	SHF-761-21-0250-0137
1-3/4" X 2-1/2"	SHF-761-21-0250-0175
1-3/8" X 3-1/4"	SHF-761-21-0325-0137
1-3/4" X 3-1/4"	SHF-761-21-0325-0175
2" X 3-1/4"	SHF-761-21-0325-0200
2" X 4"	SHF-761-21-0400-0200
2-1/2" X 4"	SHF-761-21-0400-0250
2-1/2" X 5"	SHF-761-21-0500-0250
3-1/2" X 5"	SHF-761-21-0500-0350
3" X 6"	SHF-761-21-0600-0300
4" X 6"	SHF-761-21-0600-0400
4" X 7"	SHF-761-21-0700-0400
5" X 7"	SHF-761-21-0700-0500
3-1/2" X 8"	SHF-761-21-0800-0350
4" X 8"	SHF-761-21-0800-0400
5-1/2" X 8"	SHF-761-21-0800-0550
4-1/2" X 10"	SHF-761-21-1000-0450
7" X 10"	SHF-761-21-1000-0700
5-1/2" X 12"	SHF-761-21-1200-0550
7" X 14"	SHF-761-21-1400-0700

SHEFFER



SHEFFER

MH Series

MH Hydraulic Cylinders Standard



Kit Includes:

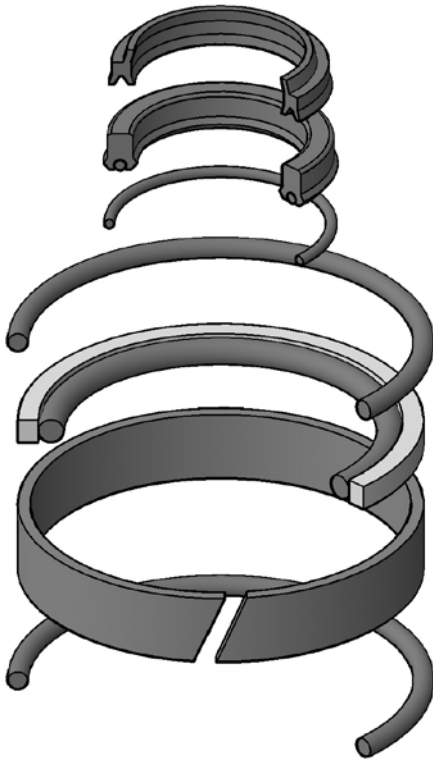
- 1 Urethane Rod Wiper
- 1 Urethane Rod Seal
- 1 NBR Gland O-ring
- 1 PTFE Piston seal
- Piston Wear Strip
- 1 NBR Piston/ Rod O-ring
- 2 NBR Tube End O-rings

Rod x Bore	(NBR) Kit #
5/8" X 1-1/8"	SHF-757-01-0112-0062
5/8" X 1-1/2"	SHF-757-01-0150-0062
5/8" X 2"	SHF-757-01-0200-0062
5/8" X 2-1/2"	SHF-757-01-0250-0062
1" X 1-1/2"	SHF-757-01-0150-0100
1" X 2"	SHF-757-01-0200-0100
1" X 2-1/2"	SHF-757-01-0250-0100
1" X 3-1/4"	SHF-757-01-0325-0100
1" X 4"	SHF-757-01-0400-0100
1" X 5"	SHF-757-01-0500-0100
1-3/8" X 2"	SHF-757-01-0200-0137
1-3/8" X 2-1/2"	SHF-757-01-0250-0137
1-3/8" X 3-1/4"	SHF-757-01-0325-0137
1-3/8" X 4"	SHF-757-01-0400-0137
1-3/8" X 5"	SHF-757-01-0500-0137
1-3/4" X 2-1/2"	SHF-757-01-0250-0175
1-3/4" X 3-1/4"	SHF-757-01-0325-0175
1-3/4" X 4"	SHF-757-01-0400-0175
1-3/4" X 5"	SHF-757-01-0500-0175
2" X 3-1/4"	SHF-757-01-0325-0200
2" X 4"	SHF-757-01-0400-0200
2-1/2" X 4"	SHF-757-01-0400-0250

SHEFFER

MH Series

MH Hydraulic Cylinders Fluorocarbon



Kit Includes:

- 1 Urethane Rod Wiper
- 1 Urethane Rod Seal
- 1 NBR Gland O-ring
- 1 PTFE Piston seal
- Piston Wear Strip
- 1 NBR Piston/ Rod O-ring
- 2 NBR Tube End O-rings

Rod x Bore	(FKM) Kit #
5/8" X 1-1/8"	SHF-757-21-0112-0062
5/8" X 1-1/2"	SHF-757-21-0150-0062
5/8" X 2"	SHF-757-21-0200-0062
5/8" X 2-1/2"	SHF-757-21-0250-0062
1" X 1-1/2"	SHF-757-21-0150-0100
1" X 2"	SHF-757-21-0200-0100
1" X 2-1/2"	SHF-757-21-0250-0100
1" X 3-1/4"	SHF-757-21-0325-0100
1" X 4"	SHF-757-21-0400-0100
1" X 5"	SHF-757-21-0500-0100
1-3/8" X 2"	SHF-757-21-0200-0137
1-3/8" X 2-1/2"	SHF-757-21-0250-0137
1-3/8" X 3-1/4"	SHF-757-21-0325-0137
1-3/8" X 4"	SHF-757-21-0400-0137
1-3/8" X 5"	SHF-757-21-0500-0137
1-3/4" X 2-1/2"	SHF-757-21-0250-0175
1-3/4" X 3-1/4"	SHF-757-21-0325-0175
1-3/4" X 4"	SHF-757-21-0400-0175
1-3/4" X 5"	SHF-757-21-0500-0175
2" X 3-1/4"	SHF-757-21-0325-0200
2" X 4"	SHF-757-21-0400-0200
2" X 5"	SHF-757-21-0500-0200
2-1/2" X 4"	SHF-757-21-0400-0250
3" X 5"	SHF-757-21-0500-0300
3-1/2" X 5"	SHF-757-21-0500-0350

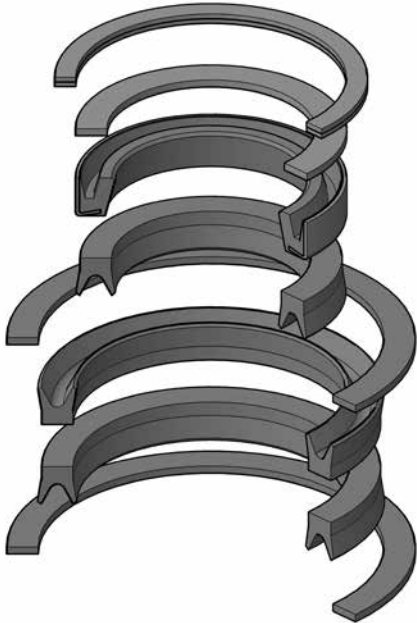
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C20 Series

Pneumatic Kits



Kit #	Code	Rod x Bore
SHF-720-00150	P-U-5	1/2" X 1-1/2"
SHF-720-00200	P-U-5	1/2" X 2"
SHF-720-00250	P-U-5	5/8" X 2-1/2"
SHF-720-00300	P-U-5	3/4" X 3"
SHF-720-00350	P-U-5	3/4" X 3-1/2"
SHF-720-00400	P-U-5	1" X 4"
SHF-720-00500	P-U-5	1" X 5"
SHF-720-00600	P-U-5	1" X 6"
SHF-720-00700	P-U-5	1-3/8" X 7"
SHF-720-00800	P-U-5	1-3/8" X 8"

Kit Includes:

- 1 Metal-Clad Wiper
- 3 NBR U-seals
- 1 Steel Washer
- 2 Gaskets
- 1 Spiral Retainer Ring

(8" Bore also Includes:
4 NBR O-rings
2 NBR Cushion Seals)

Various Kits

Kit #	Code	Rod x Bore
SHF-720-01-0300	P-U-5	3/4" X 3"
SHF-720-01-0400	P-U-5	1" X 4"
SHF-720-01-0500	P-U-5	1" X 5"
SHF-720-01-0800	P-U-5	1-3/8" X 8"
SHF-726-0267-1000-0175	I-U-5	1-3/4" X 10"
SHF-760-01-0200-0137	I-U-10	1-3/8" X 2"
SHF-760-01-0250-0175	I-U-10	1-3/4" X 2-1/2"
SHF-761-01-0200-0137	I-U-10	1-3/8" x 2"
SHF-761-01-0250-0175	I-U-10	1-3/4" X 2-1/2"

Kit Composition Varies

Consult your representative.

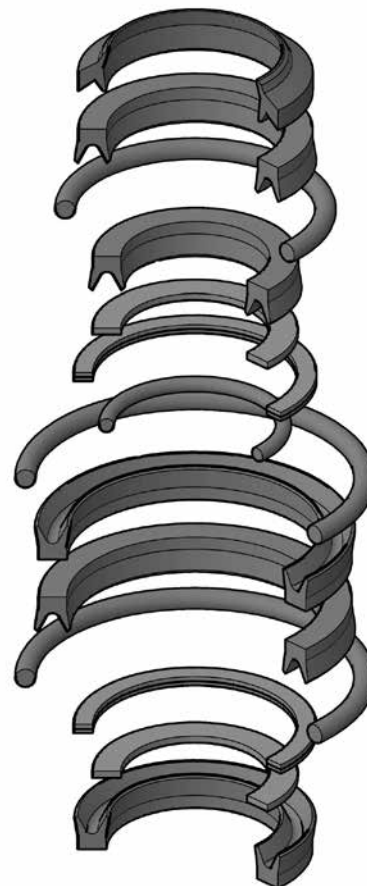
SHEFFER

A Series

Pneumatic Kits

Kit #	Code	Rod x Bore
SHF-726-0167-0200-0062	I-U-5	5/8" X 2"
SHF-726-0167-0250-0062	I-U-5	5/8" X 2-1/2"
SHF-726-0167-0250-0100	I-U-5	1" X 2-1/2"
SHF-726-0167-0250-0137	I-U-5	1-3/8" X 2-1/2"
SHF-726-0167-0325-0100	I-U-5	1" X 3-1/4"
SHF-726-0167-0325-0137	I-U-5	1-3/8" X 3-1/4"
SHF-726-0167-0325-0175	I-U-5	1-3/4" X 3-1/4"
SHF-726-0167-0400-0100	I-U-5	1 X 4"
SHF-726-0167-0400-0137	I-U-5	1-3/8" X 4"
SHF-726-0167-0400-0175	I-U-5	1-3/4" X 4"
SHF-726-0167-0500-0100	I-U-5	1 X 5"
SHF-726-0167-0500-0137	I-U-5	1-3/8" X 5"
SHF-726-0167-0500-0175	I-U-5	1-3/4" X 5"
SHF-726-0167-0600-0137	I-U-5	1-3/8" X 6"
SHF-726-0167-0600-0175	I-U-5	1-3/4" X 6"
SHF-726-0167-0700-0137	I-U-5	1-3/8" X 7"
SHF-726-0167-0800-0137	I-U-5	1-3/8" X 8"
SHF-726-0167-0800-0175	I-U-5	1-3/4" X 8"
SHF-726-0167-1000-0175	I-U-5	1-3/4" X 10"

Kit Includes:
 1 URE Wiper
 5 NBR U-seals
 4 NBR O-rings
 2 Steel Washers
 2 Spiral Retainer Rings



SHEFFER

Various Kits

Kit #	Code	Rod x Bore
SHF-720-01-0600	P-U-4	1" X 6"
SHF-726-0107-0200-0100	I-U-5	1" X 2"
SHF-729-0200-K019	P-U-5	1-1/4" X 2"
SHF-729-0500-K003	P-U-5	2" X 5" Double Rod
SHF-757-01-0325-0137	I-U-10	1-3/8" X 3-1/4"
SHF-759-0100-0325-0137	I-U-5	1-3/8" X 3-1/4"
SHF-760-0100-0400-0175	I-U-10	1-3/4" X 4"
SHF-760-22-0600-0250	I-U-1	2-1/2" x 6"
SHF-761-01-0800-0350	I-U-10	3-1/2" X 8
SHF-795-S003	I-U-10	1-1/4 X 2-3/4

Kit Composition Varies

Consult your representative.



SHEFFER

SHEFFER

Kit Number	Code	Rod x Bore
SHF-100-032	O-Ring	Min Pack 20
SHF-100-041	O-Ring	Min Pack 20
SHF-100-149	O-Ring	Min Pack 20
SHF-157-0175-0137-031	U-Seal	
SHF-185-301-0325	Piston Seal	
SHF-720-00150	P-U-5	1/2 X 1-1/2
SHF-720-00200	P-U-5	1/2 X 2
SHF-720-00250	P-U-5	5/8 X 2-1/2
SHF-720-00300	P-U-5	3/4 X 3
SHF-720-00350	P-U-5	3/4 X 3-1/2
SHF-720-00400	P-U-5	1 X 4
SHF-720-00500	P-U-5	1 X 5
SHF-720-00600	P-U-5	1 X 6
SHF-720-00700	P-U-5	1-3/8 X 7
SHF-720-00800	P-U-5	1-3/8 X 8
SHF-720-01-0300	P-U-5	3/4 X 3
SHF-720-01-0350	P-U-5	3/4 X 3-1/2
SHF-720-01-0400	P-U-5	1 X 4
SHF-720-01-0500	P-U-5	1 X 5
SHF-720-01-0600	P-U-4	1 X 6
SHF-720-01-0800	P-U-5	1-3/8 X 8
SHF-726-0107-0200-0100	I-U-5	1 X 2
SHF-726-0167-0200-0062	I-U-5	5/8 X 2
SHF-726-0167-0250-0062	I-U-5	5/8 X 2-1/2
SHF-726-0167-0250-0100	I-U-5	1 X 2-1/2
SHF-726-0167-0250-0137	I-U-5	1-3/8 X 2-1/2
SHF-726-0167-0325-0100	I-U-5	1 X 3-1/4
SHF-726-0167-0325-0137	I-U-5	1-3/8 X 3-1/4
SHF-726-0167-0325-0175	I-U-5	1-3/4 X 3-1/4
SHF-726-0167-0400-0100	I-U-5	1 X 4
SHF-726-0167-0400-0137	I-U-5	1-3/8 X 4
SHF-726-0167-0400-0175	I-U-5	1-3/4 X 4
SHF-726-0167-0500-0100	I-U-5	1 X 5
SHF-726-0167-0500-0137	I-U-5	1-3/8 X 5
SHF-726-0167-0500-0175	I-U-5	1-3/4 X 5
SHF-726-0167-0600-0137	I-U-5	1-3/8 X 6
SHF-726-0167-0600-0175	I-U-5	1-3/4 X 6
SHF-726-0167-0700-0137	I-U-5	1-3/8 X 7
SHF-726-0167-0800-0137	I-U-5	1-3/8 X 8
SHF-726-0167-0800-0175	I-U-5	1-3/4 X 8
SHF-726-0167-1000-0175	I-U-5	1-3/4 X 10
SHF-726-0267-1000-0175	I-U-5	1-3/4 X 10
SHF-729-0200-K019	P-U-5	1-1/4 X 2
SHF-729-0500-K003	P-U-5	2 X 5 Double Rod
SHF-757-01-0112-0062	I-U-10	5/8 X 1-1/8
SHF-757-01-0150-0062	I-U-10	5/8 X 1-1/2
SHF-757-01-0150-0100	I-U-10	1 X 1-1/2
SHF-757-01-0200-0062	I-U-10	5/8 X 2
SHF-757-01-0200-0100	I-U-10	1 X 2
SHF-757-01-0200-0137	I-U-10	1-3/8 X 2
SHF-757-01-0250-0062	I-U-10	5/8 X 2-1/2
SHF-757-01-0250-0100	I-U-10	1 X 2-1/2
SHF-757-01-0250-0137	I-U-10	1-3/8 X 2-1/2
SHF-757-01-0250-0175	I-U-10	1-3/4 X 2-1/2
SHF-757-01-0325-0100	I-U-10	1 X 3-1/4

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FAX 1-903-236-9797



SHEFFER

Kit Number	Code	Rod x Bore
SHF-757-01-0325-0137	I-U-10	1-3/8 X 3-1/4
SHF-757-01-0325-0175	I-U-10	1-3/4 X 3-1/4
SHF-757-01-0325-0200	I-U-10	2 X 3-1/4
SHF-757-01-0400-0100	I-U-10	1 X 4
SHF-757-01-0400-0137	I-U-10	1-3/8 X 4
SHF-757-01-0400-0175	I-U-10	1-3/4 X 4
SHF-757-01-0400-0200	I-U-10	2 X 4
SHF-757-01-0400-0250	I-U-10	2-1/2 X 4
SHF-757-01-0500-0100	I-U-10	1 X 5
SHF-757-01-0500-0137	I-U-10	1.370 X 5
SHF-757-01-0500-0175	I-U-10	1-3/4 X 5
SHF-757-01-0500-0200	I-U-10	2 X 5
SHF-757-01-0500-0300	I-U-10	3 X 5
SHF-757-01-0500-0350	I-U-10	3-1/2 X 5
SHF-757-01-0600-0138	I-U-10	1.370 X 6
SHF-757-01-0600-0175	I-U-10	1-3/4 X 6
SHF-757-01-0600-0200	I-U-10	2 X 6
SHF-757-01-0600-0300	I-U-10	3 X 6
SHF-757-01-0600-0350	I-U-10	3-1/2 X 6
SHF-757-01-0600-0400	I-U-10	4 X 6
SHF-757-21-0112-0062	I-U-10	5/8 X 1-1/8
SHF-757-21-0150-0062	I-U-10	5/8 X 1-1/2
SHF-757-21-0150-0100	I-U-10	1 X 1-1/2
SHF-757-21-0200-0062	I-U-10	5/8 X 2
SHF-757-21-0200-0100	I-U-10	1 X 2
SHF-757-21-0200-0137	I-U-10	1.370 X 2
SHF-757-21-0250-0062	I-U-10	5/8 X 2-1/2
SHF-757-21-0250-0100	I-U-10	1 X 2-1/2
SHF-757-21-0250-0137	I-U-10	1-3/8 X 2-1/2
SHF-757-21-0250-0175	I-U-10	1-3/4 X 2-1/2
SHF-757-21-0325-0100	I-U-10	1 X 3-1/4
SHF-757-21-0325-0137	I-U-10	1-3/8 X 3-1/4
SHF-757-21-0325-0175	I-U-10	1-3/4 X 3-1/4
SHF-757-21-0325-0200	I-U-10	2 X 3-1/4
SHF-757-21-0400-0100	I-U-10	1 X 4
SHF-757-21-0400-0137	I-U-10	1.370 X 4
SHF-757-21-0400-0175	I-U-10	1-3/4 X 4
SHF-757-21-0400-0200	I-U-10	2 X 4
SHF-757-21-0400-0250	I-U-10	2-1/2 X 4
SHF-757-21-0500-0100	I-U-10	1 X 5
SHF-757-21-0500-0137	I-U-10	1.370 X 5
SHF-757-21-0500-0175	I-U-10	1.370 X 5
SHF-757-21-0500-0200	I-U-10	2 X 5
SHF-757-21-0500-0300	I-U-10	3 X 5
SHF-757-21-0500-0350	I-U-10	3-1/2 X 5
SHF-757-21-0600-0138	I-U-10	1-3/8 X 6
SHF-757-21-0600-0175	I-U-10	1-3/4 X 6
SHF-757-21-0600-0200	I-U-10	2 X 6
SHF-757-21-0600-0300	I-U-10	3 X 6
SHF-757-21-0600-0350	I-U-10	3-1/2 X 6
SHF-757-21-0600-0400	I-U-10	4 X 6
SHF-759-0100-0325-0137	I-U-5	1-3/8 X 3-1/4
SHF-760-0100-0400-0175	I-U-10	1-3/4 X 4
SHF-760-01-0200-0137	I-U-10	1-3/8 X 2
SHF-760-01-0250-0175	I-U-10	1-3/4 X 2-1/2

SHEFFER



SHEFFER

Kit Number	Code	Rod x Bore
SHF-760-22-0600-0250	I-U-1	2-1/2 x 6
SHF-761-01-0200-0137	I-U-10	1-3/8 X 2
SHF-761-01-0250-0175	I-U-10	1-3/4 X 2-1/2
SHF-761-01-0700-0400	I-U-10	4 X 7
SHF-761-01-0800-0350	I-U-10	3-1/2 X 8
SHF-795-S003	I-U-10	1-1/4 X 2-3/4

SHEFFER

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TEXAS
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FAX 1-903-236-9797



TOMPKINS-JOHNSON / TJ

Various Kits

Kit #	Code	Rod x Bore
TJ-28136862	N-TR-11	1 X 5
TJ-6331U-027	N-U-10	1-1/4 X 4
TJ-6332U-014	N-U-5	1 X 2-1/2
TJ-6332U-026	N-U-5	1 X 4
TJ-6332U-028	N-V-5	1-3/8 X 4
TJ-6332U-030	N-U-5	1-3/4 X 4
TJ-6332U-035	N-U-5	1 X 5
TJ-6332U-048	N-V-5	1-3/4 X 6
TJ-6332U-069	N-V-5	1-3/8 X 8
TJ-6332U-070	N-V-5	1-3/4 X 8

Kit Composition Varies

Consult your representative.



VICKERS / EATON

NZ Series

Kits For NZ Cylinders

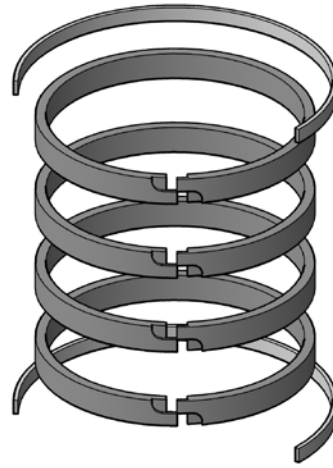
Rod Kits



Kit Includes:

- 1 NBR Wiper
- 1 Urethane Rod Seal
- 1 Wear Strip
- 1 Gland Seal
- 1 Backup Ring

Iron Ring Piston Kits



Kit Includes:

- 4 Iron Piston Rings
- 2 Tube End Seals

Rod Dia.	Kit #	Bore Dia.	Kit #
5/8"	VI-6533N-NZC	1-1/2"	VI-6633C-NZC
1"	VI-6533N-NZE	2"	VI-6633C-NZD
1-3/8"	VI-6533N-NZH	2-1/2"	VI-6633C-NZE
1-3/4"	VI-6533N-NZL	3-1/4"	VI-6633C-NZG
2"	VI-6533N-NZM	4"	VI-6633C-NZH
2-1/2"	VI-6533N-NZP	5"	VI-6633C-NZK
3"	VI-6533N-NZU	6"	VI-6633C-NZL
3-1/2"	VI-6533N-NZV		
4"	VI-6533N-NZW		

VICKERS / EATON

NZ Series

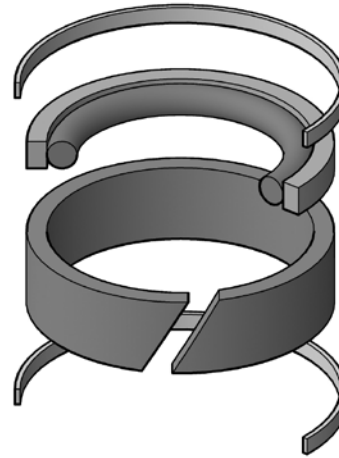
Kits For NZ Cylinders

Piston Kits



Kit Includes:
 1 PTFE Piston Seal
 1 Wear Strip
 2 Tube End Seals

Low Friction Piston Kits



Kit Includes:
 1 PTFE Piston Seal
 1 Wear Strip
 2 Tube End Seals

Bore Dia.	Kit #	Bore Dia.	Kit #
1-1/2"	VI-6633N-NZC	1-1/2"	VI-6633L-NZC
2"	VI-6633N-NZD	2"	VI-6633L-NZD
2-1/2"	VI-6633N-NZE	2-1/2"	VI-6633L-NZE
3-1/4"	VI-6633N-NZG	3-1/4"	VI-6633L-NZG
4"	VI-6633N-NZH	4"	VI-6633L-NZH
5"	VI-6633N-NZK	5"	VI-6633L-NZK
6"	VI-6633N-NZL	6"	VI-6633L-NZL

VICKERS



VICKERS / EATON

TZ Series

Urethane Kits For TZ Cylinders

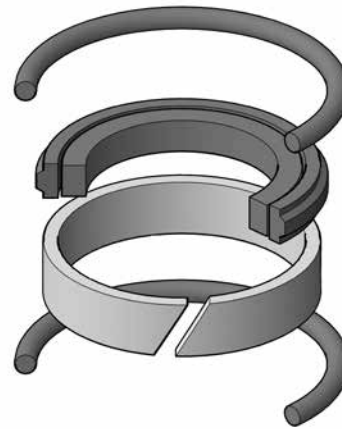
Rod Kits



Kit Includes:

- 1 NBR Wiper
- 1 Urethane Rod Seal
- 1 Wear Strip
- 2 Gland Seals

Piston Kits



Kit Includes:

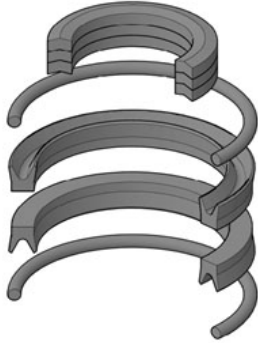
- 1 Urethane Piston Seal
- 1 Wear Strip
- 2 Tube End Seals

Rod Dia.	Kit #	Bore Dia.	Kit #
5/8"	VI-6533N-TZCC	1-1/2"	VI-6633N-TVCE
1"	VI-6533N-TZDE	2"	VI-6633N-TVDG
1-3/8"	VI-6533N-TZGH	2-1/2"	VI-6633N-TVEJ
1-3/4"	VI-6533N-TZHL	3-1/4"	VI-6633N-TVGL
2"	VI-6533N-TZKM	4"	VI-6633N-TVHN
2-1/2"	VI-6533N-TZLP	5"	VI-6633N-TVKQ
3"	VI-6533N-TZMU	6"	VI-6633N-TZLP
3-1/2"	VI-6533N-TZNV	7"	VI-6633N-TZMU
4"	VI-6533N-TZNW	8"	VI-6633N-TVNU
4-1/2"	VI-6533N-TZNY		
5-1/2"	VI-6533N-TZN1		
5"	VI-6533N-TZNZ		

VICKERS / TOMPKINS-JOHNSON

TE / TF Series

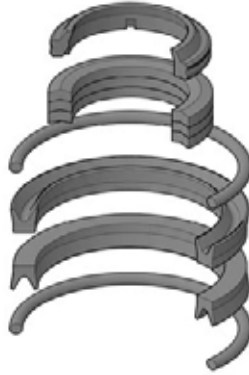
Universal / No Wiper



Kit Includes:

- 3 NBR Vee Rings
- 2 NBR Piston Seals
- 2 Tube End Seals

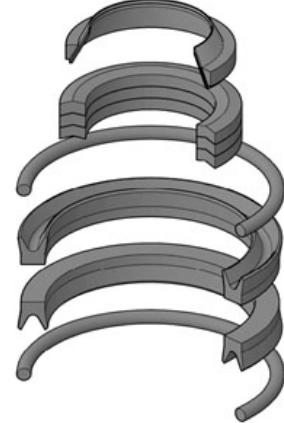
Pneumatic / Urethane Wiper



Kit Includes:

- 1 Urethane Insert Wiper
- 3 NBR Vee Rings
- 2 NBR Piston Seals
- 2 Tube End Seals

Hydraulic / Bronze Wiper



Kit Includes:

- 1 Bronze Insert Wiper
- 3 NBR Vee Rings
- 2 NBR Piston Seals
- 2 Tube End Seals

Rod x Bore	Kit #	Kit #	Kit #
5/8" X 1-1/2"	VI-6332U-004	VI-6332U-004-P	VI-6332U-004-H
5/8" X 2"	VI-6332U-007	VI-6332U-007-P	VI-6332U-007-H
1" X 2"	VI-6332U-009	VI-6332U-009-P	VI-6332U-009-H
1" X 2-1/2"	VI-6332U-014	VI-6332U-014-P	VI-6332U-014-H
1" X 3-1/4"	VI-6332U-020	VI-6332U-020-P	VI-6332U-020-H
1" X 4"	VI-6332U-026	VI-6332U-026-P	VI-6332U-026-H
1" X 1-1/2"	VI-6332U-006	VI-6332U-006-P	VI-6332U-006-H
1" X 5"	VI-6332U-035	VI-6332U-035-P	VI-6332U-035-H
1-3/8" X 2-1/2"	VI-6332U-016	VI-6332U-016-P	VI-6332U-016-H
1-3/8" X 3-1/4"	VI-6332U-022	VI-6332U-022-P	VI-6332U-022-H
1-3/8" X 4"	VI-6332U-028	VI-6332U-028-P	VI-6332U-028-H
1-3/8" X 5"	VI-6332U-037	VI-6332U-037-P	VI-6332U-037-H
1-3/8" X 8"	VI-6332U-069	VI-6332U-069-P	VI-6332U-069-H
1-3/4" X 3-1/4"	VI-6332U-023	VI-6332U-023-P	VI-6332U-023-H
1-3/4" X 4"	VI-6332U-030	VI-6332U-030-P	VI-6332U-030-H
1-3/4" X 5"	VI-6332U-039	VI-6332U-039-P	VI-6332U-039-H
1-3/4" X 6"	VI-6332U-048	VI-6332U-048-P	VI-6332U-048-H
1-3/4" X 8"	VI-6332U-070	VI-6332U-070-P	VI-6332U-070-H
2" X 4"	VI-6332U-031	VI-6332U-031-P	VI-6332U-031-H
2-1/2" X 4"	VI-6332U-033	VI-6332U-033-P	VI-6332U-033-H
2-1/2" X 5"	VI-6332U-042	VI-6332U-042-P	VI-6332U-042-H
3" X 5"	VI-6332U-044	VI-6332U-044-P	VI-6332U-044-H



Forklift / Manlift Kits

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ALLIS-CHALMERS LIFT TRUCKS

ALLIS-CHALMERS

Kit Number	Code	Rod X Bore Size
AC-4751907	N-V-1	1-1/4 Rod Kit
AC-4787570	2 STAGE	1-7/8, 2-1/2
AC-4787619	9/16" SPOOL	9/16" Spool
AC-4885085	1 HALF RING	2-1/4 Rod Bearing
AC-4905170		3/4 Shaft Kit
AC-4906087	I-U-4	3 X 3-1/2
AC-4906099	I-U-1	2-1/4 X 2-3/4
AC-4906100	I-U-1	2-1/4 X 2-3/4
AC-4906322	I-U-11	1-1/4 X 3
AC-4906332	I-U-11	1-1/4 X 3
AC-4906336	I-U-11	1-1/2 X 3-3/4
AC-4906380	I-U-1	1-3/4 X 2-1/4
AC-4906390	I-U-1	2-5/8 X 3-1/4
AC-4906391	I-U-4	3-3/4 X 4-1/4 w/ feed tube
AC-4906392	I,P-U-1	3-3/4 X 4-1/4
AC-4906396	I-U-11	1-3/4 X 4-7/8
AC-4907400		Pump Kit
AC-4907419	I-U-11	1-1/8 X 2-1/4
AC-4907474	P-U-1	4 X 4-1/2 w/ feed tube
AC-4907475	P-U-1	3-1/2 X 4-1/4
AC-4908297	I-O-3	1 X 2-1/2
AC-4908540	P-U-1	5 X 5-1/2
AC-4908541	P-U-1	5 X 5-1/2 w/ feed tube
AC-4908555	I-O-3	3/4 X 1-1/2
AC-4908917	I-U-1	3-1/4 X 3-3/4
AC-4908980	7/8" SPOOL	7/8" Spool
AC-4909028	I-O-3	1-1/4 X 3-1/2

Kit Number	Code	Rod X Bore Size
AC-4909035	I-O-11	1-1/2 X 2-1/2
AC-4910116	I-O-11	7/8 X 2
AC-4910977	9/16" SPOOL	9/16" Spool
AC-4911398	I-U-4	2 X 3 2 Cylinders
AC-4912036	I,P-U-1	1, 2-1/4, 3 Stages
AC-4912039	I-U-11	1-1/8 X 2-1/4
AC-4912322	I,P-U-1	1, 1-3/4, 2-3/8 Stages
AC-4912359	P-U-1	3 X 3-1/2
AC-4913028	P-U-11	7/8 X 2
AC-4913075	P-U-1	3-3/4 X 4-1/4 w/ feed tube
AC-4913486	P-U-1	2-1/2 X 3
AC-4914879	I-U-1	2-3/4 X 3-1/2
AC-4914917	I-U-4	1-7/8, 2-5/8 2 Stages
AC-4917136	I-U-10	2-1/4 X 3
AC-4917655	I-U-4	1-3/4 X 2-1/4
AC-4918325	I-U-4	1 X 2
AC-4918585	I-U-1	1-1/2 X 2-1/4
AC-4932484	I-SP-1	35 mm Rod Kit
AC-4942582	I-U-1	30 x 55 mm
AC-4991278	I-OB-3	1-1/8 X 2-1/4
AC-4992550	N-TR-1	7/8 Rod Only
AC-4992855	I-V-6	1-1/2 X 3-3/4
AC-4993273	I-V-6	1-1/4 X 3
AC-4993661	I-V-6	1-3/4 X 4-7/8
AC-4998712	I-N-V	3-5/8 X 4-1/4
AC-78762688	I-U-1	4-1/8 Rod Kit

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BAKER LIFT TRUCKS

Kit Number	Code	Rod X Bore Size
BAK-104840	Multi-Stage	3-1/2, 3-3/8, 4-7/16
BAK-105147	I-V-1	4.438 Rod
BAK-105235	I-V-1	2.950 Rod
BAK-105652	I-V-5	1-1/4 X 4
BAK-106390	I-U-5	1-3/4 X 4-1/2
BAK-106391	I-V-11	1-3/4 X 4
BAK-106393	I-V-11	1-1/4 X 4
BAK-106399	I-V-11	1-1/4 X 3
BAK-106657	I-V-1	3.950 Rod
BAK-106663	Multi-Stage	2-1/4, 2-3/8, 3-1/4
BAK-109009	I-U-4	2-1/2 X 3
BAK-109010	I-V-1	2-1/2 Rod
BAK-138727	P-U-10	22 X 60 mm
BAK-3001Y10	I-V-11	1-3/4 X 4
BAK-3001Y14	Multi-Stage	2-3/8, 3-3/16, 4-15/16
BAK-3001Y16	I-V-11	1-1/4 X 3
BAK-3001Y17	I-V-1	3.450 Rod
BAK-3001Y20	I-V-1	3.950 Rod
BAK-3001Y22	P-OB-10	3/4 X 2
BAK-3001Y28	I-V-5	1-1/4 X 3

BAKER LIFT TRUCKS KIT APPLICATIONS - TILT CYLINDERS

Cylinder Assembly	Repair Kit	Cylinder Assembly	Repair Kit
233HR7774ZC	3001Y10	9025JT	105652
270HR7774ZC	106399	9025JV	105652
9025AT	106399	9025JW	105652
9025AX	106399	9025JX	3001Y28
9025BE	3001Y10	9025JY	3001Y28
9025BF	3001Y10	9025KA	105652
9025BL	3001Y10	A9025KA	105652
9025BM	106391	9025KB	105652
9025BN	106391	9025KC	105652
9025CH	106399	100072-75	3001Y28
9025EG	3001Y16	100472-477	105652
9025EP	3001Y16	100503-508	105652
9025EW	3001Y10	100516-519	105652
9025FB	3001Y16	100742-743	105652
9025FF	106391	100960-963	105652
9025FH	3001Y10	102793-94	3001Y28
9025FN	3001Y16	102961-62	3001Y28
9025FP	106391	103904-05	105652
9025FT	3001Y10	104183-86	3001Y28
A9025GK	106393	104639-40	105652
A9025GN	106393	105840-41	105652
9025GN	106393	106058-59	105652
9025HC	106393	108259-60	105652
9025JA	106393	109351-52	105652
9025JJ	106393	110872-73	106390
9025JM	106393	113352-53	106390
9025JS	105652		





BAKER LIFT TRUCKS

KIT APPLICATIONS - HOIST CYLINDERS

BAKER

Cylinder Assembly	Repair Kit	Cylinder Assembly	Repair Kit	Cylinder Assembly	Repair Kit	Cylinder Assembly	Repair Kit
122R7774Z	3001Y14	103598	3001Y20	105845	104840	112006	104840
160R7774XC	3001Y14	103635	3001Y20	105855	3001Y20	112037	3001Y20
230HR7774ZC	3001Y14	103662	105147	105933	106663	112061	109009
270HR7774XC	106399	103775	106663	105962	3001Y20	112111	104840
294U7774XC	106657	103855	106663	105970	3001Y20	112213	104840
295HR7774XC	3001Y17	103894-95	106663	106138	3001Y20	112419	105235
298U7774XC	3001Y14	104100	104840	106228	3001Y20	112562-63	109009
9025AD	3001Y14	104131	3001Y14	106474-76	109009	112600	105147
9025AF	3001Y14	104178	105147	106477	109009	112658	109009
9025CN	106657	104244	3001Y14	106647	104840	112832	105235
9025D	106657	104278	106663	106672	106663	112904	104840
9025EH	3001Y17	104349	3001Y20	106733	104840	112962	109009
C9025GB	104840	104377	105147	107695-96	105147	113111	105147
A9025GC	3001Y20	104431	104840	107794-96	109009	113194	109009
9025GW	105235	104438	104840	108051	104840	113228	3001Y20
9025HH	3001Y20	104441	106663	108625	109009	113251	105235
9025HX	3001Y20	104516	105147	108656	109009	113388	109009
9025JK	106393	104529	104840	108971-974	105235	113434	109009
100227-230	105235	104548	3001Y20	109631-641	109009	113638	105147
102019-20	105235	104604	105147	109788	3001Y20	114040	109009
102064-67	105235	104617	105147	109823	105147	114141	109009
102068-72 & 79	3001Y17	104705-07	3001Y20	109879	109010	114283	109009
102506-08	105235	104745	104840	110095	109009	114392	105147
102556-559	3001Y17	104794-96	3001Y20	110506	109010	114889	109009
102569-79	106663	104878	3001Y20	110648-657	105235	114954	109009
102671-79	3001Y14	104998	104840	110756	3001Y20	115237	105147
102695-102708	104840	105104	3001Y20	110899	105235	115247	3001Y20
102813-16	3001Y20	105163	105147	110947-949	109009	115656	105147
102898-900	3001Y20	105387-89	109010	111059-61	109009	115956	109009
103102	105147	105727	106663	111124	109010	116318	109009
103583	3001Y20	105730	3001Y14	111549-562	109010	116740	3001Y20
103589	3001Y20	105842	104840	111843	105235	G7328-3	104840

KANSAS
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TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797



CASCADE

Kit Number	Code	Rod X Bore Size
CAS-11.11.73	I-U-15	7/8 X 1-1/2
CAS-210090	I-U-4	20 X 36 mm
CAS-210288	I-U-4	20 X 36 mm
CAS-562339	I-U-4,10	1-1/8 X 2-1/4
CAS-684827	I-U-4	3/4 X 1-1/2
CAS-552715	I-U-1	2-1/4 X 2-3/4
CAS-554289	MULTI STAGE	4, 5
CAS-560349	I-U-4	2" X 75 mm
CAS-562591	I-U-4	2" X 60 mm
CAS-564409	I-U-13	25 X 63 mm
CAS-615939	O-RING KIT	
CAS-615940	O-RING KIT	
CAS-628080	I-V-8	1-1/4 X 3
CAS-630033	I-U-3	1-1/2 X 4-3/4
CAS-630038	I-U-3	1-1/2 X 4-3/4
CAS-630445	I-V-8	1-1/4 X 2-1/2
CAS-631277	P-V-9	2 X 4-3/4
CAS-638884	MULTI STAGE	2-3/4, 3-3/4
CAS-639695	I-U-4	3/4 X 1-3/4

Kit Number	Code	Rod X Bore Size
CAS-640371	I-U-4	4 X4-1/2
CAS-641956	MULTI STAGE	4, 5
CAS-643280	I-U-4	3 X 3-1/2
CAS-644690	I-U-5	1-3/4 X 4
CAS-646305	I-U-3	3-1/2 X 4
CAS-646339	SWIVEL KIT	
CAS-647626	I-U-4	1 X 2-1/4
CAS-647892	I-V-8	1-3/4 X 4.520
CAS-650018	I-U-5	3-1/2 X 7
CAS-651847	I-N-4	2 X 2-1/2
CAS-654519	P-V-1	2 X 4-3/4
CAS-656167	MULTI STAGE	4-1/4, 5-7/16
CAS-658717	MULTI STAGE	2-3/4, 3-3/4
CAS-660954	I-U-4	1-5/8 X 3-1/2
CAS-660955	I-U-4	3 X 4
CAS-664814	N-U-4	3/4 X 1-3/4
CAS-667622	MULTI STAGE	2-1/2, 3-1/4, 4-1/2
45C VIEWMAST II		
CAS-T555286	P-U-10	2-1/8 X 3

CASCADE

REPLACEMENT PARTS FOR CASCADE EQUIPMENT

NOTE: Cascade part numbers are used as a reference only. We do not imply that these kits are original REPLACEMENT PARTS.

BACK-UP RINGS

Part Number	Min. Pkgs.
CAS-559870	1
CAS-563388	10
CAS-563907	1
CAS-563977	5
CAS-564404	1
CAS-615009	25
CAS-615012	25
CAS-615126	10
CAS-615128	10
CAS-615130	10
CAS-615132	10
CAS-615135	10
CAS-615140	10
CAS-615146	5
CAS-615147	5

BACK-UP RINGS

Part Number	Min. Pkgs.
CAS-615150	5
CAS-615152	5
CAS-615217	1
CAS-637565	1
CAS-638223	1
CAS-638224	1
CAS-638225	1
CAS-638244	10
CAS-638245	1
CAS-638247	1
CAS-638249	1
CAS-638250	1
CAS-638252	1
CAS-638253	1
CAS-638256	1

BACK-UP RINGS

Part Number	Min. Pkgs.
CAS-638257	1
CAS-638293	1
CAS-638295	1
CAS-638298	1
CAS-648569	4
CAS-660952	1
CAS-669247	5
CAS-671754	10

FACE SEALS

Part Number
CAS-601468
CAS-607287



REPLACEMENT PARTS FOR CASCADE

NOTE: Cascade part numbers are used as a reference only. We do not imply that these kits are original REPLACEMENT PARTS.

O-RINGS

Part Number	Min. Pkgs.
CAS-1596	50
CAS-1912210	20
CAS-207300	50
CAS-208761	50
CAS-208762	50
CAS-208763	50
CAS-209063	15
CAS-209064	15
CAS-209065	15
CAS-209066	15
CAS-212359	50
CAS-2696	50
CAS-2697	50
CAS-2698	50
CAS-2699	50
CAS-2700	50
CAS-2701	50
CAS-2702	50
CAS-2703	50
CAS-2704	50
CAS-2705	50
CAS-2706	50
CAS-2707	50
CAS-2709	50
CAS-2712	50
CAS-2722	20
CAS-2753	5
CAS-2785	20
CAS-2787	20
CAS-2789	20
CAS-2792	20
CAS-2793	20
CAS-2797	20
CAS-2799	20
CAS-2801	20
CAS-2803	10
CAS-2804	10
CAS-2807	10
CAS-2808	10
CAS-2809	10

O-RINGS

Part Number	Min. Pkgs.
CAS-2811	10
CAS-2840	50
CAS-524737	50
CAS-543372	10
CAS-557226	50
CAS-562127	20
CAS-564363	20
CAS-581565	50
CAS-613376	50
CAS-617724	50
CAS-622406	20
CAS-624737	50
CAS-624738	50
CAS-626186	50
CAS-626189	20
CAS-628033	20
CAS-630386	20
CAS-643330	50
CAS-643331	50
CAS-643332	50
CAS-643333	50
CAS-643334	50
CAS-643335	50
CAS-643336	50
CAS-643337	50
CAS-643338	50
CAS-643339	50
CAS-643340	50
CAS-643341	50
CAS-643342	50
CAS-643343	50
CAS-643344	50
CAS-643345	50
CAS-643346	50
CAS-643347	50
CAS-643348	50
CAS-643349	50
CAS-643350	20
CAS-643351	20
CAS-643352	20

O-RINGS

Part Number	Min. Pkgs.
CAS-643353	20
CAS-643354	20
CAS-643355	20
CAS-643356	20
CAS-643357	20
CAS-643358	20
CAS-643359	20
CAS-643360	20
CAS-643361	20
CAS-643362	20
CAS-643363	20
CAS-643364	20
CAS-643365	20
CAS-643366	10
CAS-643367	10
CAS-643368	10
CAS-643369	10
CAS-643370	10
CAS-643371	10
CAS-643373	50
CAS-643374	50
CAS-643375	50
CAS-643376	50
CAS-643377	50
CAS-643378	50
CAS-643379	50
CAS-643380	50
CAS-643381	50
CAS-643382	20
CAS-643383	20
CAS-643384	20
CAS-643385	20
CAS-643386	20
CAS-643387	20
CAS-643388	20
CAS-643389	20
CAS-643390	20
CAS-643391	20
CAS-643392	20
CAS-643393	20

CASCADE

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TEXAS

PHONE 1-903-753-0341
FAX 1-903-236-9797



REPLACEMENT PARTS FOR CASCADE EQUIPMENT

NOTE: Cascade part numbers are used as a reference only. We do not imply that these kits are original REPLACEMENT PARTS.

O-RINGS

Part Number	Min. Pkgs.
CAS-643394	20
CAS-643395	20
CAS-643396	20
CAS-643397	20
CAS-643398	20
CAS-643399	20
CAS-643400	20
CAS-643401	20
CAS-645592	20
CAS-654926	50
CAS-655799	50
CAS-666015	50
CAS-666183	50
CAS-666184	50
CAS-666891	15
CAS-666892	10
CAS-666893	15
CAS-676959	15
CAS-682862	50
CAS-684587	50
CAS-684615	50
CAS-689937	50
CAS-689938	50
CAS-797089	20

PISTON SEALS

Part Number	Bore Diameter
CAS-564407	63 mm

RETAINER RINGS

Part Number
CAS-7197

U-SEALS

Part Number	Rod Dia.
CAS-646540	3/4
CAS-641835	7/8
CAS-560502	1
CAS-662447	1
CAS-662450	1-3/8
CAS-662452	1-5/8
CAS-662454	1-7/8
CAS-553521	2-1/2
CAS-662462	3-1/2
CAS-553954	4-1/2
CAS-662457	2-1/4
CAS-553523	3
CAS-553524	3-1/4
CAS-662465	4-1/4
CAS-662467	4-3/4

CASCADE



REPLACEMENT PARTS FOR CASCADE

NOTE: Cascade part numbers are used as a reference only. We do not imply that these kits are original REPLACEMENT PARTS.

VEE SETS

Part Number	Bore
CAS-1469	3-1/2
CAS-1471	4-1/2
CAS-1809	1-3/4
CAS-1861	2-3/4
CAS-7501	1-3/8
CAS-7502	2
CAS-7514	3-3/4
CAS-7538	4
CAS-7542	3
CAS-7554	4-3/4
CAS-7561	4-1/4
CAS-7606	2-1/4
CAS-7608	3-1/2
CAS-7609	2-1/2
CAS-7636	4-1/4
CAS-827	4-1/2

WEAR RINGS

Part Number	O.D. X Width
CAS-660761	2-1/4 X 1/2
CAS-660769	4 X 1/2
CAS-660784	4-3/4 X 3/4
CAS-660786	5-1/4 X 3/4
CAS-636959	5-3/4 X 3/4

WIPERS

Part Number	Rod Dia.
CAS-559961	3/4
CAS-636851	7/8
CAS-636852	1
CAS-626468	1-1/4
CAS-636854	1-5/8
CAS-1916335	2-1/2
CAS-629608	2-1/2
CAS-636859	3
CAS-636860	3-1/4
CAS-563682	3-1/4
CAS-636862	4
CAS-563683	4-1/2
CAS-626456	4-1/2
CAS-636864	4-3/4
CAS-561256	42 mm

CASCADE



REPLACEMENT KITS FOR CATERPILLAR® TOWMOTOR LIFT TRUCKS

NOTE: If you can locate the cylinder group number, it can aid in identifying the proper kit.

Kit Number	Code	Rode X Bore Size
TM-1033947	I-U-10	40 X 90 mm
TM-1040763	P-U-1	70 mm
TM-1040900	I-U-10	37 X 71 mm
TM-1040948	P-U-1	35 mm
TM-1041095	P-U-1	40 x 50 mm
TM-1042519	P-U-1	85 X 100 mm
TM-1042609	P-U-4	45 X 55 mm
TM-1146727	P-U-14	50 X 110 mm
TM-206398	RETAINER RING	
TM-324908	I-V-8	2 X 4.525
TM-375427	I-U-11	1 X 2-1/2
TM-376968	I-U-1	2-1/2 Rod
TM-388594-6	P-UB-10	1-1/2 X 3-1/2
TM-396743	I-P-N-8	3 X 4.025
TM-396744	I,P-U-8	2-1/2 X 3.525
TM-396746	I,P-U-1	2-1/4, 3-1/4, 4-1/8 Stages
TM-396747	P-U-8	3 X 3.525
TM-396748	I-U-8	3 X 4.025
TM-396749	P-U-1	3-1/8, 4-3/8, 5 Stages
TM-396750	P-U-1	2-3/16 X 2-1/2
TM-396751	P-U-8	3-3/4 X 5.025
TM-396752	I-U-8	2-5/8 X 3.025
TM-396754	I-U-8	2-1/2 X 3.025
TM-396755	I-U-8	3 X 3.525
TM-396756	I-P-1-8	3 X 4.025
TM-396757	P-U-1	2-3/8, 4-3/8, 5-3/4 Stages
TM-396758	I-P-U-1	1-7/8, 2-3/4, 3-5/8 Stages
TM-396759	I-V-1	2.700, 3.450, 5.700 Stgs.
TM-396760	I-V-1	2.200, 2.950, 4.700 Stgs.
TM-396761	I,P-N-8	3 X 5.025
TM-396801	P-U-1	3-3/8, 4-3/8, 5 Stages
TM-396842	P-UB-10	1-1/2 X 3-1/2
TM-396843	P-U-11	1-1/2 X 3-1/2
TM-396844	P-UB-11	1-1/2 X 3-1/2
TM-396845	I-U-11	1-1/4 X 3
TM-396846	P-UB-10	2 X 4-1/2
TM-396847	I-V-8	2 X 4.525

Kit Number	Code	Rode X Bore Size
TM-396848	P-UB-11	1-1/4 X 3
TM-396849	I-V-8	2 X 5.025
TM-659060	O-RINGS	
TM-690003	I-U-5	2 X 5
TM-691389	I-OB-3	1-1/2 X 2-1/2
TM-693683	O-RINGS	
TM-694526	I-UB-5	2 X 5
TM-694527	I-UB-5	2-1/2 X 6
TM-694528	I-U-4,10	2 X 4-1/2
TM-695522	I-UB-5	1-1/4 X 3-1/2
TM-695523	I-UB-5	1-1/2 X 4
TM-901523	I-U-1	2-1/2, 3-1/4, 4 Stages
TM-905761	P-U-1	3-1/8, 4-3/8 Stages
TM-905771	P-U-1	2-3/8, 4-3/8 Stages
TM-905961	VALVE KIT	
TM-905962	VALVE KIT	
TM-906496	I-U-10	3 X 4
TM-911700	I-U-1	75 mm Rod Kit
TM-911701	I-U-1	50 mm Rod Kit
TM-911725	I-N-10	25 X 50 mm
TM-911726	I-U-10	35 X 80 mm
TM-911956	P-U-1	1-5/8 Rod Kit
TM-912067	P-UB-10	1-1/4 X 3
TM-912711	P-U-1	2-3/8 Rod Kit
TM-912748	P-U-1	2-3/8 Rod Kit
TM-914206	P-UB-10	2 X 4-1/2
TM-914634	I-U-1	3-3/4" Rod
TM-914635	I-U-10	2 X 2-1/2
TM-914636	N-U-10	4 X 4-1/2
TM-917170	U-SEAL	4-3/8
TM-917174	U-SEAL	2-1/4
TM-917175	U-SEAL	3-1/4
TM-917177	U-SEAL	2-3/4
TM-918024	P-U-4	150 X 180 mm
TM-919851	P-U-15	120 X 180 mm
TM-920666	I-U-1	50 mm Rod Kit
TM-923282	I-U-10	2 X 2-1/2

CATERPILLAR®

REPLACEMENT PARTS FOR CATERPILLAR® TOWMOTOR LIFT TRUCKS

Part Number	Type	I.D.	O.D.	Hgt.
TM-5461	Vee Set	1-1/4	1-3/4	
TM-41248	Vee Set	2.200	2.700	1
TM-41250	Vee Set	2.950	3.450	1
TM-41252	Vee Set	4.700	5.290	1
TM-41340	Vee Set	4.025	5.025	1.3
TM-67841	Vee Set	2.700	3.450	
TM-67842	Vee Set	3.450	4.250	1.5

Part Number	Type	I.D.	O.D.	Hgt.
TM-67843	Vee Set	5.700	6.450	
TM-303231	Wiper	1	1-3/8	3/16
TM-303233	Wiper	2		
TM-303260	Vee Set	2.275	3.025	1.2
TM-371212	Modular Back-up Ring	5	5-3/4	.226
TM-903016	Wiper	5	5-3/4	3/8



CLARK LIFT TRUCKS

NOTE: A CLARK deck number can positively identify the kit needed for lift cylinders. Looking at the upright (lift mechanism) from the driver's seat, the deck number is stamped on the right outer channel.

SAMPLE: MO141, HO351, FO168, etc.

ALSO NOTE: Kits with an "E" suffix contain original equipment u-seals. Kits without "E" suffix contain Aftermarket seals.

CLARK

Kit Number	Code	Rod X Bore Size	Kit Number	Code	Rod X Bore Size
CLK-1795529	I-U-5	1-1/2 X 4	CLK-1811179	I-V-5	1-1/2 X 4
CLK-1810820	O-RINGS		CLK-1811180	I-V-5	1-1/4 X 4
CLK-1811046	I-U-10	1-1/4 X 3	CLK-1811184	I-V-5	1-1/4 X 3
CLK-1811107	I-N-4	2 X 2-1/4	CLK-1811200	I-V-4	2 X 6
CLK-1811108	I-N-4	2-1/4 X 2-1/2	CLK-1811200-E	I-V-4	2 X 6
CLK-1811120		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	CLK-1811204	I-V-1	1-1/4 ROD
CLK-1811120-E		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	CLK-1811206	I-V-5	3/4 X 1-5/8
CLK-1811122		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID	CLK-1811207	I-V-5	1 X 2
CLK-1811122-E		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID	CLK-1811209	I-V-5	1 X 2-1/4
CLK-1811123-E		3-1/4, 4-1/4 VID'S, 6-1/2 UID'S	CLK-1811210	I-V-5	1-1/4 X 2-3/4
CLK-1811124		2-1/8, 3-1/8 VID'S	CLK-1811212	I-V-5	1-1/4 X 3-1/4
CLK-1811125		2-1/8, 3-1/8, 4-1/2 VID'S	CLK-1811217	I-V-5	1-3/4 X 4-1/2
CLK-1811126		2-3/4, 3-3/4, 5-3/4 VID'S	CLK-1811218	I-V-5	2 X 6
CLK-1811127		2-3/4, 3-3/4, 5-3/4 VID'S	CLK-1811231	N-N-5	2.26" Piston Kit
CLK-1811129	I-N-4	2-1/2 X 4	CLK-1811244	I-U-10	1-1/8 X 2-1/4
CLK-1811130		1-3/4, 2-5/8, 3-3/4 VID'S	CLK-1811275	I-V-5	1-1/2 X 4
CLK-1811131		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	CLK-1811309	I-U-10	1 X 3
CLK-1811131-E		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	CLK-1811314		1-3/4 VID, 3-1/8, 3-7/8, 5-1/4 UID
CLK-1811132		1-3/4, 2-5/8 VID, 3-3/8, 4-1/2 UID	CLK-1811314-E		1-3/4 VID, 3-1/8, 3-7/8, 5-1/4 UID
CLK-1811132-E		1-3/4, 2-5/8 VID, 3-3/8, 4-1/2 UID	CLK-1811315		1-3/4 VID, 3-1/8, 3-7/8, 5-1/4 UID
CLK-1811133		1-3/4, 2-5/8 VID'S	CLK-1811315-E		1-3/4 VID, 3-1/8, 3-7/8, 5-1/4 UID
CLK-1811142		1-3/4, 2-5/8, 3-3/4 VID'S	CLK-1811327		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID
CLK-1811148		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID	CLK-1811327-E		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID
CLK-1811148-E		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID	CLK-1811369	P-U-4	60 mm X 73 mm
CLK-1811149	I-U-4	3-1/2 X 4-3/4	CLK-1811376	I-U-10	40 mm X 4"
CLK-1811154	I-U-1	2-1/2 X 3-1/4	CLK-1811392	P-U-10	1-3/4 X 3
CLK-1811155	I-N-4	2-1/2 X 3	CLK-1811393	I-U-10	40 mm X 4"
CLK-1811157	I-U-5	5 X 7	CLK-1811415	P-U-4	60 X 78 mm
CLK-1811158	I-U-5	4-1/2 X 6	CLK-1811537	P-U-1	60 mm
CLK-1811158-E	I-U-5	4-1/2 X 6	CLK-1811538	I-U-4	40 X 56 mm
CLK-1811159		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	CLK-1811542	I-U-10	1-3/8 X 3
CLK-1811159-E		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	CLK-1811544	I-U-10	1 X 2
CLK-1811160		1-3/4, 2-5/8 VID, 3-3/8, 4-1/2 UID	CLK-1811569	P-U-10	2 X 3-3/8
CLK-1811160-E		1-3/4, 2-5/8 VID, 3-3/8, 4-1/2 UID	CLK-1811582	I-U-10	1-1/4 X 3-1/2
CLK-1811161		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	CLK-1811691	P-U-1	2 X 2.450
CLK-1811161-E		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	CLK-1811697	I-U-10	1-1/4 X 3-1/2
CLK-1811162		2-1/8, 3-1/8, 4-1/2 UID'S	CLK-1811719	I-U-10	40 mm X 3-1/2
CLK-1811163		2-1/8, 3-1/8, 4-1/2 VID'S	CLK-1811759	I-U-10	1-1/4 X 3
CLK-1811164		1-3/4, 2-5/8, 3-3/8, 4-5/8 UID'S	CLK-1811785	I-U-10	40 mm x 3-1/2
CLK-1811164-E		1-3/4, 2-5/8, 3-3/8, 4-5/8 UID'S	CLK-1811799	I-U-10	2 X 3-3/8

KANSAS
PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA
PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797



CLARK LIFT TRUCKS

Kit Number	Code	Rod X Bore Size
CLK-1811820	I-U-10	2 X 3
CLK-1811828	I-U-10	2 X 3
CLK-1811852	I-U-1	3 X 3-1/2
CLK-1811855	P-U-1	60 mm X 72 mm
CLK-1811972	I-U-10	1-1/4 X 3
CLK-1813014	P-U-1	2 X 2-1/2
CLK-1813015	I-U-1	2-5/8 Rod Kit
CLK-1813016	I-U-1	3 X 3-1/2
CLK-1813017	P-U-1	60mm X 72 mm
CLK-1813023	I-U-1	40 mm X 2-3/16"
CLK-1813024	I-U-1	40 mm Rod Kit
CLK-1813032	I-U-10	50 mm X 3-3/8"
CLK-1813055	I-U-10	50 mm X 3-1/8"
CLK-1813075	I-U-10	40 mm X 3-1/2"
CLK-1813076	I-U-10	40 mm X 4"
CLK-1813082	I-U-10	50 X 86 mm
CLK-1813084	I-U-1	50 mm Rod Kit
CLK-1813176	I-U-4	60 X 73 mm
CLK-1818816	P-U-10	3/4 X 1-3/4
CLK-1818864	P-U-10	3/4 X 2
CLK-1821328	I-U-10	7/8 X 2
CLK-1830350	I-N-4	2 X 2-1/4
CLK-1830352	I-N-4	3-1/4 X 4
CLK-1830358	I-N-4	2-1/2 X 3-1/4
CLK-1830360	I-N-4	2-1/2 X 3
CLK-1830361	I-N-4	2-1/4 X 2-1/2
CLK-1830649	I-U-10	3/4 X 2-3/4
CLK-1831042	N-V-1	1-1/4" Rod Kit

Kit Number	Code	Rod X Bore Size
CLK-1831074	I-U-10	1-3/4 X 4-1/2
CLK-1831075	I-V-1	3-1/4 Rod Kit
CLK-1831076	I-U-10	1-1/8 X 2-1/2
CLK-1991085	P-TR-10	2 X 4
CLK-2367420	I-U-1	2-1/4 X 3-1/4
CLK-3009626	P-U-10	25 mm X 50 mm
CLK-3986876	MOTOR KIT	
CLK-841270	P-U-10	2 X 3-3/4
CLK-886547	P-TR-12	1 X 2
CLK-896505	MOTOR KIT	
CLK-905074	MOTOR KIT	
CLK-907984	VALVE KIT	
CLK-908985	VALVE KIT	
CLK-912339	P-U-1	2-1/2 X 3
CLK-914698	I-U-4	1 X 2-1/2
CLK-914703	I-O-4	1-1/4 X 3
CLK-917282	O-RING KIT	
CLK-917713	N-N-10	2" Piston Kit
CLK-918886	I-U-10	2 X 3-3/8
CLK-921115A	VALVE KIT	
CLK-990076	VALVE KIT	
CLK-990208	SWIVEL KIT	
CLK-990209	SWIVEL KIT	
CLK-992511	O-RING KIT	
CLK-994287	VALVE KIT	
CLK-995815	SWIVEL KIT	
CLK-999820	P-U-10	3/4 X 1-3/4

CLARK



CROWN LIFT TRUCKS

CROWN

Kit Number	Code	Rod X Bore Size
CRN-087484		O-RING
CRN-088719		O-RING
CRN-089178	I-U-13	1-3/4 X 3-1/2
CRN-093217		O-RING
CRN-101296	I-U-1	2-1/2" Rod Kit
CRN-101301	I-U-1	2 ROD KIT
CRN-101302	I-U-1	1-7/8 X 2-1/2
CRN-101305	I-U-1	1-5/8 X Rod Kit
CRN-101309	I-U-1	1-7/8" ROD KIT
CRN-101310	I-U-1	2-1/2" ROD KIT
CRN-101313	I-U-1	1-3/8" Rod Kit
CRN-101314	I-U-1	2-1/8" ROD KIT
CRN-101316	I-U-1	2-3/8" ROD KIT
CRN-101323	I-V-1	1-7/8" Rod Kit
CRN-101326	I-U-1	2-3/8" Rod Kit
CRN-101329	I-U-1	1-7/8, 2-5/8 Stages
CRN-101331	I-U-1	1-3/4, 2-3/8 Stages
CRN-101332	I-U-1	1-3/4 X 2-1/2
CRN-101334	I-U-1	1-7/8, 2-5/8 Rod kit
CRN-101335	I-U-1	1-5/8, 2-1/4 Stages
CRN-101336	I-U-1	1-5/8, 2-1/4 Stages
CRN-101339	I-U-1	2" Rod Kit
CRN-101340	I-U-1	1-7/8 ROD KIT
CRN-101341	I-U-5	1-1/4 X 2-3/8
CRN-101342	I-U-3	1-1/2 X 3
CRN-101343	I-U-5	3/4 X 2
CRN-101346	I-U-5	3/4 X 1-3/4
CRN-101347	I-U-5	3/4 X 2-1/8
CRN-101376	I-U-5	1-1/4 X 3

Kit Number	Code	Rod X Bore Size
CRN-101377	I-U-5	1 x 1-3/4
CRN-102659		VALVE KIT
CRN-105476004		O-RING
CRN-105476-6		O-RING
CRN-107366	I-O-1	1/2" Valve Kit
CRN-111573	I-U-1	3" ROD KIT
CRN-111574	I-U-1	2" ROD KIT
CRN-111790-001		O-RING
CRN-111790-12		O-RING
CRN-111790-2		O-RING
CRN-111790-3		O-RING
CRN-111790-4		O-RING
CRN-111790-9		O-RING
CRN-112022	I-U-4	7/8 X 2
CRN-112704		8, 9/16" Spools Rod Kit
CRN-113744	I-U-13	2-1/2 X 3-1/4
CRN-113745	I-U-13	3/4 x 1-3/4
CRN-115604	I-U-4	7/8 X 2
CRN-116360	N-O-1	O-RING
CRN-116820	I-U-1	2" rod kit
CRN-42249	I-U-1	56 X 80 mm
CRN-43023-1		VALVE KIT
CRN-78685		VALVE KIT
CRN-79017		VALVE KIT
CRN-87317	N-O-1	O-RING
CRN-89704	I-U-13	1-3/4 x 2-3/4
CRN-90880	I-U-5	3/4 X 1-3/4
CRN-94580	I-O-1	5/8" Rod kit

KANSAS
PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA
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FAX 1-918-446-4743

TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797



GEHL

Replacement Kits For

Forklifts						
APPLICATION	CYL #	SERIAL #	CODE	ROD	BORE	KIT #
MODEL 552, 553						
ATTACHMENT ROTATE	L63594		I-U-10	1	2-1/2	GEHL-L99170
ATTACHMENT SLAVE	L63014		I-U-11	1-3/4	3-1/2	GEHL-L98527
ATTACHMENT TILT	L63013		I-U-11	2	4	GEHL-L98548
BOOM EXTEND	L63012		I-U-11	2-1/2	3-1/2	GEHL-L98558
BOOM LIFT	L63199		I-U-11	2-1/2	4-1/2	GEHL-L98521
FORK SHIFT	L66920		I-U-10	1-1/4	2	GEHL-L99958
FRAME LEVEL	L63015		I-U-11	1-3/4	4	GEHL-L98506
STEER	L98444		I-U-10	45 mm	90 mm	GEHL-L98565
MODEL 663						
BOOM EXTEND	L64333		I-U-10	3	4	GEHL-L99386
BOOM LIFT	L64014		I-U-10	3	4	GEHL-L99331
CARRIER SLAVE	L61869		I-U-10	1-3/4	3-1/2	GEHL-L99332
CARRIER TILT	L61868		I-U-10	2	4	GEHL-L99385
FRAME SWAY	L64054	Prior-4319	I-U-10	3	4	GEHL-L97674
	L64085	4320-4356	P-U-5	1-3/4	4	GEHL-L97903
	L64818	4357-UP	I-U-10	1-3/4	4	GEHL-L99382
ROTATE CARRIAGE	L61317		I-U-10	1-3/8	3	GEHL-L97769
STEER	L97649-L97976		I-U-10	1-1/8	2-1/4	GEHL-L97978
MODEL 883						
ATTACHMENT TILT	L49988A	7001-7004	I-U-10	2-1/2	5	GEHL-L97716
	L64086	7005-7444	P-U-10	2-1/2	5	GEHL-L97922
BOOM EXTEND	L64385	7001-7004	I-U-10	3-1/2	4-1/2	GEHL-L97713
	L66770	7446-UP	I-U-10	3-1/2	4-1/2	GEHL-L99376
BOOM LIFT	L64083	7005-7445	I-U-10	3-1/2	4-1/2	GEHL-L97908
	L64401	7001-7004	I-U-10	3-1/2	4-1/2	GEHL-L97711
BOOM SLAVE	L64087	7001-7004	I-U-10	2-1/4	4-1/2	GEHL-L97917
	L64087	7005-7171	I-U-10	2-1/4	4-1/2	GEHL-L97715
	L66032	7172-7444	I-U-10	2-1/4	4-1/2	GEHL-L97917
	L66666	7445-UP	I-U-11	2-1/4	5	GEHL-L99330
FORK SHIFT	L66920		I-U-10	1-1/4	2	GEHL-L99958
FRAME LEVEL	L64085	7005-7445	P-U-5	1-3/4	4	GEHL-L97903
	L64818	7001-7004, 7446-UP	I-U-10	1-3/4	4	GEHL-L99382
MAST LIFT	L66537		I-U-10	2	3	GEHL-L98848
OUTRIGGER	L64968	Prior-7386	I-U-10	2-1/2	4	GEHL-L97938
	L66642	7387-UP	I-U-11	2-1/2	4	GEHL-L99059
ROTATE CARRIAGE	L61317		I-U-10	1-3/8	3	GEHL-L97769
STEER	L97649		I-U-10	1-1/8	2-1/4	GEHL-L97978
	L99428		I-U-10	1-1/8	3	GEHL-L99430
SWING CARRIAGE	L63970	2781-UP	I-U-10	1-1/4	2-1/2	GEHL-L99944
	L65659	Prior-2780	I-U-10	1-3/8	3	GEHL-L97955

GEHL



GEHL

Kit Number	Code	Rod X Bore Size
GEHL-L97617	I-U-10	2 X 4
GEHL-L97674	I-U-10	3 X 4
GEHL-L97711	I-U-10	3-1/2 X 4-1/2
GEHL-L97713	I-U-10	3-1/2 X 4-1/2
GEHL-L97715	I-U-10	2-1/4 X 4-1/2
GEHL-L97716	I-U-10	2-1/2 X 5
GEHL-L97769	I-U-10	1-3/8 X 3
GEHL-L97903	P-U-5	1-3/4 X 4
GEHL-L97908	I-U-10	3-1/2 X 4-1/2
GEHL-L97917	I-U-10	2-1/4 X 4-1/2
GEHL-L97922	P-U-10	2-1/2 X 5
GEHL-L97938	I-U-10	2-1/2 X 4
GEHL-L97955	I-U-10	1-3/8 X 3
GEHL-L97978	I-U-10	1-1/8 X 2-1/4
GEHL-L98506	I-U-11	1-3/4 X 4
GEHL-L98521	I-U-11	2-1/2 X 4-1/2
GEHL-L98527	I-U-11	1-3/4 X 3-1/2
GEHL-L98548	I-U-11	2 X 4
GEHL-L98558	I-U-11	2-1/2 X 3-1/2
GEHL-L98565	I-U-10	45 X 90 mm
GEHL-L98848	I-U-10	2 X 3
GEHL-L99059	I-U-11	2-1/2 X 4
GEHL-L99170	I-U-10	1 X 2-1/2
GEHL-L99330	I-U-11	2-1/4 X 5
GEHL-L99331	I-U-10	3 X 4
GEHL-L99332	I-U-10	1-3/4 X 3-1/2
GEHL-L99376	I-U-10	3-1/2 X 4-1/2
GEHL-L99382	I-U-10	1-3/4 X 4
GEHL-L99385	I-U-10	2 X 4
GEHL-L99386	I-U-10	3 X 4
GEHL-L99430	I-U-10	1-1/8 X 3
GEHL-L99944	I-U-10	1-1/4 X 2-1/2
GEHL-L99958	I-U-10	1-1/4 X 2

GENIE

Kit Number	Code	Rod X Bore Size
GENIE-101252	P-U-15	100 X 140
GENIE-101254	I,P-U-15	40 X 75
GENIE-102126	MISC	
GENIE-106119	MISC	

GENIE

Kit Number	Code	Rod X Bore Size
GENIE-106125	MISC	
GENIE-106508	MISC	
GENIE-107813	WASHER	
GENIE-110202	34542 VALVE KIT	
GENIE-139972	MISC	
GENIE-18471	I-SP-10	1.5 X 2.5
GENIE-226542	MISC	
GENIE-230483	I-U-10	1.750 X 4
GENIE-33487	I-U-10	1.5 X 3
GENIE-43018	O-rings + Back-ups	
GENIE-44233	CHECK VALVE KIT	
GENIE-44250	I-U-10	.750 X 20
GENIE-45898	I-SP-10	2 X 4
GENIE-52620	I-U-10	1.500 X 30
GENIE-59050	I-U-14	1.5 X 2.5
GENIE-59169	I-U-10	10 X 20
GENIE-59444	I-U-10	1.750 X 2.5
GENIE-62417	N-TR-5,11	2.125 X 3.5
GENIE-63350	P-U-15	40 X 75
GENIE-63353	P-U-15	40 X 63
GENIE-63354	P-U-15	40 X 63
GENIE-640096	I-U-15	70 X 110
GENIE-65789	P-U-15	32 X 50
GENIE-72047	O-rings	
GENIE-7-234-31	CARTRIDGE SEAL KIT	
GENIE-77189	P-U-15	45 X 90
GENIE-77364	P-U-15	40 X 75
GENIE-77521	P-U-15	45 X 63
GENIE-7-900-180	I-U-10	1.5 X 3.5
GENIE-88338	P-U-10	25 X 50
GENIE-88338	P-U-10	25 X 50
GENIE-89066	P-U-10	25 X 50
GENIE-89294	P-U-10	40 X 63
GENIE-89310	O-rings + Back-ups	
GENIE-94255	P-U-15	32 X 50
GENIE-94256	P-U-15	32 X 50
GENIE-94620	MISC	
GENIE-94625	O-Rings + Back-Ups	
GENIE-94937	MISC	



HYSTER

Kit Number	Code	Rod X Bore Size
HYS-1332565	I-U-1	1-7/8 X 2-1/4
HYS-1334570	I-U-4	3-1/2 X 4
HYS-1334571	I-N-5	4 X 4-1/2
HYS-133462	I-V-1	1-3/4" ROD
HYS-1355337		GEAR KIT
HYS-144267		O-RING KIT
HYS-148292	N-N-8	3-1/4" PISTON KIT
HYS-148414	I-V-1	1-3/4" ROD
HYS-149193	N-N-P	2-1/2" BORE
HYS-149194	P-V-1	1-3/4 X 2-1/2
HYS-149254	I-V-1	1-3/4" ROD
HYS-149258	P-V-1	2" ROD
HYS-149259	N-V-1	2-1/4" ROD
HYS-149260	I-V-1	1-1/4" ROD
HYS-149292		O-RING KIT
HYS-1494726	P-U-10	1-3/4 X 4
HYS-168801	N-U-12	1 X 3
HYS-170881	P-V-8	1-1/4 X 3
HYS-2026822	P-U-10	35 X 65 mm
HYS-2085015	P-U-13	35 X 70 mm
HYS-226074	I-U-8	1-1/2 X 3-1/2
HYS-2302714	I-U-11	28 mm X 2-1/2
HYS-2303974	I-U-1	3 X 3-3/4
HYS-250050	P-U-10	1-1/2 X 3-1/2
HYS-250051	P-U-10	1-1/4 X 3
HYS-250550	I-U-4	4-1/4 X 6
HYS-250559	I-U-4	5-1/4 X 7-1/2
HYS-250603	I-U-8	1 X 2-1/2
HYS-250937	I-U-8	1-1/2 X 3.525
HYS-250943	I-U-1	3.70, 5.45 Stages

Kit Number	Code	Rod X Bore Size
HYS-280182	I-O-10	1 X 2-1/4
HYS-280537	I-U-4	2-1/8 X 2-1/2
HYS-281474	P-U-10	1-1/2 X 3-1/2
HYS-281815	I-U-10	1-3/4 X 3-1/2
HYS-281822	I-U-10	1-1/4 X 3
HYS-281855	I-U-10, 12	1-3/4 X 3-1/2
HYS-281859	I-U-10, 12	2-1/4 X 3-1/2
HYS-281864	I-U-10	1-3/4 X 3-1/2
HYS-314993		O-RING KIT
HYS-318005	I-U-1	2-3/4, 3-3/4 Stages
HYS-321758	I-U-10	2-1/4 X 4-1/2
HYS-321909	I-U-5	3 X 4-3/4
HYS-323645	I-U-8	1-3/4 X 4
HYS-327393	I-U-4	2-1/8 X 2-1/2
HYS-328074	I-U-10	1-1/4 X 2-3/4
HYS-328121	P-U-10	1-1/4 X 3
HYS-328226	P-U-10	1-3/4 X 4-1/4
HYS-333742	P-U-10	2-1/8 X 3
HYS-334997	I-U-10	1-1/4 X 2-3/4
HYS-337281	I-U-4	1-3/8 X 2
HYS-339347	I-U-4	4, 5 Stages
HYS-340079	N-U-4	1-3/4 X 2-3/4
HYS-355695	P-U-10	1-3/8 X 3
HYS-355909	I-U-5	1-1/2 X 4
HYS-381762	I-U-10	2-7/8 X 4-1/2
HYS-383991	P-U-10	1-1/4 X 3
HYS-48628	I-U-4	3/4 X 1-5/8
HYS-629326		HOSE REEL KIT
HYS-639456	I-U-4	3 X 3-1/2
HYS-643280	I-U-4	3 X 3-1/2

HYSTER - KALMAR

KALMAR

Kit Number	Code	Rod X Bore Size
KAL-920670.0003	P-U-13	32 X 63 mm
KAL-920673.0005	P-U-15	80 X 125 mm
KAL-920744.0001	P-U-13	32 X 63 mm
KAL-920744.0002	I-U-13	40 X 80 mm
KAL-920744.0003	P-U-10	60 X 80 mm

Kit Number	Code	Rod X Bore Size
KAL-920744.0005	P-U-10	70 X 125 mm
KAL-920744.0006	P-U-15	70 X 160 mm
KAL-920744.0013	P-U-15	90 X 180 mm
KAL-921307.0001	P-U-10	50 X 100 mm



REPLACEMENT PARTS FOR KALMAR

NOTE: Kalmar part numbers are used as a reference only. We do not imply that these kits are original REPLACEMENT PARTS.

BACK-UP RINGS

Part Number	Min. Pkg Qty
KAL-0926644	10
KAL-0930280	5
KAL-4741128	10
KAL-8653585	10
KAL-8653594	1
KAL-931868-4	10

O-RINGS

Part Number	Min. Pkg Qty
KAL-0922571	50
KAL-0923376	50
KAL-0923379	50
KAL-0923558	50
KAL-0923560	50
KAL-0923561	50
KAL-0923562	50
KAL-0923563	50
KAL-0923564	50
KAL-0923565	50
KAL-0923566	50
KAL-0923567	50
KAL-0923568	50
KAL-0923569	20
KAL-0923570	20
KAL-0923571	20
KAL-0923572	20
KAL-0923573	20
KAL-0923574	50
KAL-0923575	50
KAL-0923576	20
KAL-0923577	20
KAL-0923578	20
KAL-0923579	20
KAL-0923580	20
KAL-0923582	20
KAL-0923584	20
KAL-0923585	20
KAL-0923586	20
KAL-0923587	20
KAL-0923591	10

O-RINGS

Part Number	Min. Pkg Qty
KAL-0923598	10
KAL-0923599	10
KAL-0923644	50
KAL-0923645	50
KAL-0923646	20
KAL-0923648	50
KAL-0923649	50
KAL-0923650	20
KAL-0923651	20
KAL-0923663	50
KAL-0923664	20
KAL-0923702	20
KAL-0923718	50
KAL-0923719	50
KAL-0923810	50
KAL-0923811	50
KAL-0923812	50
KAL-0923813	20
KAL-0923814	20
KAL-0923815	20
KAL-0923816	20
KAL-0923817	20
KAL-0923826	20
KAL-0923827	20
KAL-0923828	20
KAL-0923829	20
KAL-0923831	10
KAL-0923832	10
KAL-0923833	10
KAL-0923843	50
KAL-0923845	50
KAL-0923847	50
KAL-0923848	50
KAL-0923849	50
KAL-0923850	20
KAL-0923851	50
KAL-0923852	20
KAL-0923855	10
KAL-0923856	20
KAL-0923865	20
KAL-0923896	20
KAL-0923922	20
KAL-0923934	50

O-RINGS

Part Number	Min. Pkg Qty
KAL-0923935	20
KAL-0923936	10
KAL-0923944	50
KAL-0923945	50
KAL-0923947	50
KAL-0923948	50
KAL-0923949	20
KAL-0923988	50
KAL-0923989	50
KAL-0924003	50
KAL-0924038	20
KAL-0924137	20
KAL-0924158	20
KAL-0924187	20
KAL-0924416	50
KAL-0924686	10
KAL-0924859	20
KAL-0927902	50
KAL-0930897	50
KAL-231416	50
KAL-4255395	50
KAL-4910140	50
KAL-4910366	20
KAL-4910375	50
KAL-4910378	10
KAL-4910379	20
KAL-70923812	50
KAL-70923829	20
KAL-70924003	50
KAL-70926560	5
KAL-8653584	20

KALMAR

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REPLACEMENT PARTS FOR KALMAR

NOTE: Kalmar part numbers are used as a reference only. We do not imply that these kits are original REPLACEMENT PARTS.

NYLON PLUGS

Part Number	Rod Dia.
KAL-74816749	1/8 x 5/32

PISTON SEALS

Part Number	Bore Dia.
KAL-4909279	2-1/2

PISTON U-SEALS

Part Number	Bore Dia.
KAL-4910347	4

RETAINER RINGS

Part Number
KAL-231423
KAL-4255082
KAL-4910370
KAL-4910376
KAL-4910377
KAL-927822

U-SEALS

Part Number	Rod Dia.
KAL-78630662	1-1/2
KAL-4850624-0	2-1/2
KAL-74820556	2-5/8
KAL-8653586	2-3/4
KAL-8653592	4-1/2
KAL-8653595	4-1/2
KAL-74843499	5

WEAR RINGS

Part Number	OD X W
KAL-4910372	2-1/2 X 3/8
KAL-4850622-4	2-3/4 X 1
KAL-4910373	4 X 1/2
KAL-74844040	5-1/2 X 1

WIPERS

Part Number	Rod Dia.
KAL-4908498	1
KAL-74857829	1-1/4
KAL-4911395	2
KAL-4910380	2-1/2
KAL-74820557	2-5/8
KAL-8653582	2-3/4
KAL-74845370	3
KAL-8653591	4-1/2





KOMATSU LIFT TRUCKS

NOTE: Komatsu part numbers are used as a reference only. We do not imply that these kits are original REPLACEMENT PARTS.

Kit Number	Code	Rod X Bore Size
KOM-34A-63-05010	I-U-4,12	50 X 70 mm
KOM-34A-64-05010	I-U-1	30mm Rod Kit
KOM-34B-63-05011	I-U-4,10	55 X 80 mm
KOM-34B-63-05021	I-U-4,10	60 X 80 mm
KOM-34B-64-05010	I-U-1	35 X 50 mm
KOM-3EA-64-05020	I-U-1	25 X 60 mm
KOM-3EA-64-05030	I-U-1	35mm Rod Kit
KOM-3EA-64-05190	I-U-10	1 X 2-1/2
KOM-3EB-34-05010	O-Ring Kit	
KOM-3EB-63-05010	P-U-4	40 X 50 mm
KOM-3EB-63-05020	P-U-4	45 X 55 mm
KOM-3EB-64-05010	I-U-1	25 X 50 mm
KOM-3EB-64-05020	I-U-1	25 X 50 mm
KOM-3EB-64-05020L	P-U-10	25 X 50mm
KOM-3EB-64-05050	I-U-1	30 X 70 mm
KOM-3EB-64-05050L	I-U-3	30 X 70 mm
KOM-3EB-64-05060	I-U-1	35 X 65 mm
KOM-3EB-64-05091	I-U-3	30 X 70 mm
KOM-3EB-64-05190	I-U-10	1-1/4 X 2-3/4
KOM-3EB-64-A2000	I-U-10	1-5/8 X 2-1/2
KOM-3EB-64-A5191	I-U-10	1-1/4 X 2-3/4
KOM-3EC-63-05020	P-U-4	50 X 70 mm
KOM-3EC-64-05010L	I-U-3	45 X 90 mm
KOM-3EC-64-05190	I-U-10	1-3/4 X 3-1/2
KOM-3EC-64-A2390	I-U-10	1 X 2
KOM-ON43001-07567	I-U-10	50 X 75 mm

LULL

Kit Number	Code	Rod X Bore Size
LULL-3586-34	I-U-10	1-1/8 X 3
LULL-P19382	I-U-10	1-1/8 X 2-1/2

MITSUBISHI LIFT TRUCKS

Kit Number	Code	Rod X Bore Size
MIT-91254-10330	P-U-10	22 X 45mm
MIT-91254-30330	P-U-10	22 X 45mm
MIT-91255-11120	I-U-10	22.4 X 45 mm
MIT-91273-30150	Valve Kit	
MIT-91273-30220	Valve Kit	
MIT-91854-15310	I-U-10	25 X 55 mm
MIT-91854-40230	P-U-10	25 X 55 mm
MIT-91872-22120	Valve Kit	
MIT-93051-00028	I-U-4	2 in X 75 mm
MIT-93051-10068	I-U-4	40 X 50 mm
MIT-94004-00120	P-UB-1	30 mm Rod Kit
MIT-94004-00130	N-N-15	63 mm Piston Kit
MIT-94104-00110	N-N-13	70 mm Piston Kit
MIT-94104-00120	P-UB-1	35 mm Rod Kit for 70 mm Bore
MIT-94104-00170	I-U-10	30 X 63 mm
MIT-94114-00110	I-U-4	50 X 70 mm
MIT-94114-00210	I-U-4	60 X 70 mm
MIT-94119-00018	I-U-1	70 mm Rod Kit
MIT-94119-00048	I-U-1	50 mm Rod Kit
MIT-94119-00068	P-U-1	32 mm Rod Kit
MIT-94119-00088	P-U-1	32 mm
MIT-94133-00018	I-N-4	40 X 50 mm
MIT-94151-00018	P-U-1	70 mm Rod Kit
MIT-94151-00028	P-U-1	70 mm Rod Kit
MIT-94162-00018	P-U-4	35 X 45 mm
MIT-94204-10120	I-U-10	35 X 70 mm
MIT-94219-00018	P-U-1	35 mm Rod Kit
MIT-94219-00028	P-U-1	35 mm Rod Kit
MIT-94251-00018	I-U-1	75 mm Rod Kit
MIT-94251-00038	P-U-1	75 mm Rod Kit
MIT-94251-00058	P-U-1	75 mm Rod Kit
MIT-94262-00028	P-U-4	40 X 50 mm
MIT-94304-00110	N-N-13	80 mm Piston Kit
MIT-94304-00120	P-UB-1	35 mm Rod Kit for 80 mm Bore
MIT-94304-10140	I-U-10	35 X 80 mm
MIT-94314-00110	I-U-1	65 X 80 mm
MIT-94319-00018	I-U-1	60 mm Rod Kit
MIT-94319-00038	I-U-1	85 mm Rod Kit
MIT-94319-00068	P-U-1	40 mm Rod Kit
MIT-94319-00088	I-U-1	40 mm Rod Kit



MITSUBISHI LIFT TRUCKS

Kit Number	Code	Rod X Bore Size
MIT-94351-00018	I-U-1	80 mm Rod Kit
MIT-94351-00028	P-U-1	45 X 55 mm
MIT-94351-00038	P-U-1	85 mm Rod Kit
MIT-94351-00068	P-U-1	85 mm Rod Kit
MIT-94362-00018	P-U-1	45 X 55 mm
MIT-94404-00120	P-UB-3	45 X 90 mm
MIT-94404-10140	I-U-10	40 X 80 mm
MIT-94404-10160	I-U-10	40 X 90 mm
MIT-94504-02090	P-U-1	40 X 100 mm

MOFFETT

Kit Number	Code	Rod X Bore Size
MOFT-270021	I-V-15	40 X 75 mm
MOFT-270078	I-V-15	1-3/4 X 90 mm
MOFT-270711	I-U-15	1 X 2
MOFT-519-023-0000	I-U-15	25 X 50 mm

MITSUBISHI - MOFFETT



REPLACEMENT KITS FOR NISSAN LIFT TRUCKS

NOTE: A cylinder number will help in determining the proper kit part number. If no cylinder number is available, furnish rod and bore sizes and description of parts.

NISSAN

Kit Number	Code	Rod X Bore Size
NN-49440-00H00	MOTOR KIT	
NN-49510-L6025	P-U-10	25 X 55 mm
NN-49599-11H00	P-U-10	40 X 60 Double Rod
NN-49599-51K00	P-U-10	40 X 65 mm
NN-49599-FC000	I-U-10	40 mm X 2-3/8
NN-58099-00H00	P-U-4	35 X 45 mm
NN-58099-00H60	P-U-4	35 X 45 mm
NN-58099-0G211	I-U-4	2 in X 75 mm
NN-58099-0G511	I-U-4	2 in X 80 mm
NN-58099-10H00	P-U-5	40 X 50 mm
NN-58099-10H60	P-U-4	40 X 50 mm
NN-58099-20H12	P-U-4	45 X 60 mm
NN-58099-20H62	P-U-4	45 X 60 mm
NN-58099-23H00	P-U-1	45 X 55 mm
NN-58099-23H60	P-U-4	45 X 55 mm
NN-58099-31K11	I-U-4	2" X 2-3/4"
NN-58099-51H10	P-U-14	50 X 70 mm
NN-58099-51H60	P-U-4	50 X 65 mm
NN-58099-51H70	P-U-4	50 X 70 mm
NN-58099-L2600	P-U-4	40 X 50 mm
NN-58099-L4900	P-U-1	55 mm Rod Kit
NN-58099-L6000	P-U-4	50 X 70 mm
NN-58099-L6001	P-U-4	60 X 70 mm
NN-58099-L900	P-U-1	55 mm Rod Kit
NN-58099-L9010	P-U-4	60 X 80 mm
NN-58099-L9016	P-U-15	65 X 80 mm
NN-58199-L1100	I-U-4	50 X 70 mm
NN-58199-L1300	I-U-4	60 X 80 mm
NN-58199-L1400	I-U-4	45 X 65 mm
NN-58199-L1700	I-U-4	50 X 70 mm
NN-58199-L6000	I-U-4	65 X 90 mm
NN-58199-L6100	I-U-4	70 X 100 mm
NN-58299-01H00	P-U-1	32 mm Rod Kit
NN-58299-11H00	P-U-1	35 X 55 mm
NN-58299-L1100	I-U-1	60, 80, 112mm Stages

Kit Number	Code	Rod X Bore Size
NN-58399-L1100	I-U-4	60 X 90 mm
NN-58499-02H10	P-U-1	70 mm Rod Kit
NN-58499-12H11	P-U-1	75 X 85 mm
NN-58499-22H10	P-U-1	90 mm Rod Kit
NN-58499-25H10	P-U-1	80 mm Rod Kit
NN-58499-6G500	I-U-4	2 in X 60 mm
NN-58499-L1100	I-U-1	80 mm Rod Kit
NN-58499-L1101	I-U-1	50 mm Rod Kit
NN-58499-L1102	I-U-1	50 mm Rod Kit
NN-58499-L1400	I-U-1	70 mm Rod Kit
NN-58499-L1401	I-U-1	45 mm Rod Kit
NN-58499-L1402	I-U-1	45 mm Rod Kit
NN-58499-L6000	I-U-4	70 X 100 mm
NN-58499-L6001	P-U-1	65mm Rod Kit
NN-58499-L7401	P-U-1	45 mm Rod Kit
NN-58699-00H00	P-U-1	25 X 65 mm
NN-58699-05H00	P-U-1	30 X 65 mm
NN-58699-10H00	P-U-3	30 X 70 mm
NN-58699-14H00	P-U-3	35 X 70 mm
NN-58699-20H00	P-U-1	35 X 80 mm
NN-58699-21H00	P-U-1	40 X 80 mm
NN-58699-51K00	P-U-3	30 X 60 mm
NN-58699-L1125	I-U-1	35 mm Rod Kit
NN-58699-L1126	I-U-1	35 mm Rod Kit
NN-58699-L1425	I-U-1	30 mm Rod Kit
NN-58699-L1426	I-U-1	30 mm Rod Kit
NN-58699-L6000	I-U-1	40 mm Rod Kit
NN-58699-L6011	I-U-1	40 mm Rod Kit
NN-58699-L6800	I-U-1	45 mm Rod Kit
NN-58699-L6811	I-U-1	45 mm Rod Kit
NN-58699-L8100	I-U-1	35 X 80 mm
NN-58699-L9000	I-U-1	50mm Rod Kit
NN-58699-L9010	I-U-1	50 X 100 mm
NN-69399-90H00		9/16" Valve Kit
NN-69399-L1202		9/16" Valve Kit

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REPLACEMENT PARTS FOR NISSAN EQUIPMENT

NOTE: Nissan part numbers are used as a reference only. We do not imply that these kits are original REPLACEMENT PARTS.

O-RINGS

Part Number	Min Pkg Qty
NN-49516-L6004	10
NN-49526-L6004	10
NN-58117-L6000	20
NN-58122-L0700	2
NN-58123-L1100	5
NN-58123-L1300	5
NN-58123-L1400	10
NN-58124-L1300	5
NN-58124-L1400	10
NN-58124-L6100	5
NN-58142-L0800	5
NN-58185-48570	5
NN-58225-47600	2
NN-58245-47701	25
NN-58248-47230	2
NN-58251-48570	2
NN-58417-L1100	10
NN-58423-L1100	2
NN-58423-L1400	2
NN-58424-L1100	5
NN-58424-L1400	5
NN-58624-L3100	5
NN-58624-L6800	5
NN-58634-L3100	25
NN-69386-L1106	20
NN-69399-L2500	10
NN-85225-47600	2
NN-E8122-F8101	10
NN-G9386-L1106	20

PISTON U-SEALS

Part Number	Bore Dia.
NN-58140-L1401	65 mm
NN-58140-L1100	70 mm
NN-58140-L6000	90 mm
NN-58140-L6100	100 mm

U-SEALS

Part Number	Rod Dia.
NN-49522-L6004	25 mm
NN-58621-L1400	30 mm
NN-58621-L1100	35 mm
NN-58221-24H00	38 mm
NN-58621-L3100	40 mm
NN-58121-L1400	45 mm
NN-58242-L1400	65 mm
NN-30961-08012	80 mm

BUSHINGS

Part Number	Rod Dia.
NN-49521-FC000	60 mm

WIPERS

Part Number	Rod Dia.
NN-49524-L6004	25 mm
NN-58622-L1400	30 mm
NN-58222-01H01	32 mm
NN-58222-24H01	38 mm
NN-58622-L3100	40 mm
NN-58122-L1400	45 mm
NN-58017-L1300	50 mm
NN-58122-L1100	50 mm
NN-58017-L4900	55 mm
NN-58017-L6007	60 mm
NN-58122-L1300	60 mm
NN-58243-L1400	65 mm
NN-58453-L6000	65 mm
NN-58422-L1400	70 mm
NN-58243-L1100	80 mm

NISSAN



RAYMOND LIFT TRUCKS

Kit Number	Code	Rod X Bore Size
RAY-400-148-01	O-RING KIT	
RAY-500-412-02	O-RING KIT	
RAY-520-037-15	O-RING KIT	
RAY-520-038-12	O-RING KIT	
RAY-520-041-01	O-RING KIT	
RAY-520-044-01	O-RING KIT	
RAY-520047004	P-U-10	3/4 X 1-3/4
RAY-520-053-01	O-RING KIT	
RAY-520-066-01	O-RING KIT	
RAY-520-077-01	VALVE KIT	
RAY-520-817-08	O-RING KIT	
RAY-520-899-113	O-RING KIT	
RAY-53072101	I-U-11	3/4 X 2-1/2
RAY-530-722-02	I-U-11	1 X 2-1/2

Kit Number	Code	Rod X Bore Size
RAY-53072702	P-U-1	1-3/4
RAY-53073101	I-U-11	1-1/4 X 2-1/2
RAY-53073102	I-U-11	1-1/4 X 3
RAY-54004105	P-OB-10	3/4 X 1-3/4
RAY-540041105	P-OB-10	3/4 X 1-3/4
RAY-540-043-07	P-OB-10	3/4 X 1-3/4
RAY-540-046-05	P-OB-10	3/4 X 1-3/4
RAY-540-052-01	SEAL KIT	
RAY-540-056-06	SEAL KIT	
RAY-540067214	I-U-13	1-3/4 X 3-1/2
RAY-540113269	I-U-13	1-3/4 X 3-1/2
RAY-870-460-217	VALVE KIT	
RAY-870-607-26	VALVE KIT	

RAYMOND

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REPLACEMENT KITS FOR TCM LIFT TRUCKS

Kit Number	Code	Rod X Bore Size
TCM-20804-59801	P-U-10	25 X 60 mm
TCM-210F0-89804	P-U-4	35 X 45 mm
TCM-210F8-49804	P-U-4	35 X 46 mm
TCM-214A0-59801	P-U-10	75 X 90 mm
TCM-214A0-59821	P-U-1	35 X 45 mm
TCM-214A0-89804	P-U-4	40 X 50 mm
TCM-214A4-59801	P-U-10	25 X 50 mm
TCM-214A8-49804	P-U-4	40 X 50 mm
TCM-214A8-49812	P-U-4	40 X 50 mm
TCM-214A8-59801	P-U-5	32 X 71 mm
TCM-214J0-59812	P-U-1	40 X 50 mm
TCM-214J8-49804	P-U-4	45 X 55 mm
TCM-214T0-89811	P-U-4	50 X 60 mm
TCM-214T8-49801	P-U-4	50 X 60 mm
TCM-22438-49811	P-N-4	60 X 90 mm
TCM-22438-49812	P-N-4	60 X 90 mm
TCM-22438-59804	P-U-5	40 X 90 mm
TCM-224T8-49803	P-U-1	50 X 65 mm
TCM-22578-49801	P-N-4	45 X 63 mm
TCM-22580-89801	P-N-4	45 X 70 mm
TCM-22678-59801	P-U-5	32 X 80 mm
TCM-228C0-59801	P-U-1	112 X 130 mm
TCM-23460-89801	P-N-4	50 X 90 mm
TCM-234A8-49803	P-U-4	40 X 50 mm
TCM-234A8-59805	P-U-5	30 X 71 mm
TCM-234F8-49801	P-U-4	45 X 55 mm
TCM-23650-59801	P-U-1	35 X 45 mm
TCM-23650-59802	P-U-1	35 X 45 mm
TCM-23650-89802	P-U-1	40 X 50 mm
TCM-23650-89803	P-N-4	40 X 50 mm
TCM-23650-89822	P-U-1	75 X 90 mm
TCM-23650-89841	P-U-1	40 mm

Kit Number	Code	Rod X Bore Size
TCM-23654-52201	I-U-10	25 X 60 mm
TCM-23658-59811	P-U-5	32 X 70 mm
TCM-23658-59813	P-U-5	32 X 70 mm
TCM-23678-59801	P-U-5	32 X 71 mm
TCM-24239-49801	P-N-4	38 X 45 mm
TCM-24239-49804	P-U-1	35 X 45 mm
TCM-24240-89801	P-U-1	70 X 80 mm
TCM-24248-59802	P-U-5	30 X 63 mm
TCM-24248-59807	P-U-5	30 X 63 mm
TCM-24328-59804	P-U-5	50 X 100 mm
TCM-24450-89803	P-U-1	85 mm
TCM-24450-89823	P-N-4	45 X 55 mm
TCM-24458-59812	P-U-10	32 X 71 mm
TCM-24469-49803	P-U-4	45 X 55 mm
TCM-24600-89902	P-U-1	50 X 60 mm
TCM-24608-59803	P-U-10	50 X 90 mm
TCM-25594-59802	P-U-10	22 X 50 mm
TCM-25954-59802	P-U-10	25 X 60 mm
TCM-26094-17161	VALVE KIT	
TCM-27248-49801	P-N-4	50 X 80 mm
TCM-27390-59801	P-U-10	70 X 80 mm
TCM-27390-59902	P-U-1	32 mm Rod Kit
TCM-27410-89811	P-U-1	75 mm
TCM-277H8-59802	P-U-5	30 X 63 mm
TCM-27830-89802	P-U-10	85 X 100 mm
TCM-510F0-59801	P-U-1	32 X 45 mm
TCM-510F2-40601	P-U-10	40 X 70 mm
TCM-514A2-40552	P-U-10	50 X 80 mm
TCM-514A2-40554	P-U-10	50 X 80 mm
TCM-514A2-42631	VALVE KIT	
TCM-52486-09811	VALVE KIT	

TCM

PISTON SEALS FOR TCM EQUIPMENT

Part Number	Bore Diam.
TCM-24458-50311	71 mm



TOYOTA LIFT TRUCKS

TOYOTA

Kit Number	Code	Rod X Bore Size
TOY-04431-30091-71	P-U-5	60 X 90 mm
TOY-04433-10010-71	P-U-10	40 X 60 mm
TOY-04433-10020-71	P-U-10	40 X 60 mm
TOY-04433-10101-71	I-U-10	40 X 60 mm
TOY-04433-20011-71	I-U-10	50 X 75 mm
TOY-04433-20030-71	I-U-10	50 X 80 mm
TOY-04433-U1010-71	I-U-10	40 mm X 2-3/8 in
TOY-04433-U2040-71	I-U-10	50 mm X 3
TOY-04433-U2050-71	I-U-10	50 mm X 3-1/8 in
TOY-04433-U3010-71	I-U-10	50 mm X 3-1/8 in
TOY-04451-10070-71	P-V-12	22 X 40 mm
TOY-04451-10090-71	P-V-12	22 X 40 mm
TOY-04451-10120-71	P-U-12	22 X 45 mm
TOY-04451-20100-71	P-V-12	22 X 50 mm
TOY-04451-20101-71	P-U-12	22 X 50 mm
TOY-04451-20170-71	P-V-12	22 X 50 mm
TOY-04451-20171-71	P-U-12	22 X 50 mm
TOY-04455-U2010-71	OVERHAUL STEER KIT	
TOY-04456-10020-71	P-U-10	22 X 50 mm
TOY-04456-10031-71	P-U-5	30 X 55 mm
TOY-04456-10050-71	P-U-12	22 X 45 mm
TOY-04456-20010-71	P-U-12	22 X 40 mm
TOY-04456-20020-71	P-U-12	22 X 40 mm
TOY-04456-20030-71	N-U-12	22 X 50 mm
TOY-04456-20060-71	I-U-12	22 X 50 mm
TOY-04456-30010-71	P-U-1	25 X 55 mm
TOY-04456-30011-71	P-U-12	25 X 55 mm
TOY-04651-10060-71	P-N-4	50 X 80 mm
TOY-04651-10132-71	P-U-5	30 X 80 mm
TOY-04651-10330-71	P-U-5	30 X 70 mm
TOY-04651-10333-71	P-U-5	30 X 70 mm
TOY-04651-10334-71	P-U-5	30 X 70 mm
TOY-04651-10652-71	P-U-4	50 X 65 mm
TOY-04651-10662-71	P-U-4	50 X 65 mm
TOY-04651-10671-71	P-U-1	70 mm Rod Kit
TOY-04651-10870-71	P-U-1	70 X 80 mm
TOY-04651-10871-71	P-U-1	70 mm Rod Kit
TOY-04651-10882-71	P-U-5	30 X 70 mm
TOY-04651-10892-71	P-U-5	30 X 70 mm
TOY-04651-11032-71	P-U-1	35 X 50 mm
TOY-04651-11061-71	P-U-4	40 X 50 mm
TOY-04651-11250-71	P-U-1	75 X 90 mm
TOY-04651-11261-71	P-U-1	35 X 50 mm
TOY-04651-11270-71	P-U-1	75 X 90 mm
TOY-04651-11271-71	P-U-1	75 mm Rod Kit
TOY-04651-11290-71	P-U-4	40 X 50 mm
TOY-04651-11291-71	P-U-4	40 X 50 mm
TOY-04651-11300-71	N-U-4	50 X 65 mm
TOY-04651-11390-71	P-U-4	40 X 50 mm
TOY-04651-20132-71	P-U-1	60 X 70 mm
TOY-04651-20133-71	P-U-4	60 X 70 mm
TOY-04651-20141-71	P-U-4	50 X 70 mm
TOY-04651-20142-71	P-U-4	50 X 70 mm
TOY-04651-20151-71	P-V-5	30 X 70 mm
TOY-04651-20182-71	P-U-4	60 X 75 mm
TOY-04651-20184-71	P-U-1	75 X 90 mm
TOY-04651-20185-71	P-U-1	75 X 90 mm

Kit Number	Code	Rod X Bore Size
TOY-04651-20186-71	P-U-1	75 X 90 mm
TOY-04651-20260-71	P-U-1	50 X 70 mm
TOY-04651-20262-71	P-U-1	50 X 70 mm
TOY-04651-20262-71	P-U-1	50 X 70 mm
TOY-04651-20390-71	P-U-4	50 X 70 mm
TOY-04651-20400-71	P-U-4	60 X 70 mm
TOY-04651-20421-71	P-U-4	50 X 70 mm
TOY-04651-20441-71	P-U-5	30 X 70 mm
TOY-04651-20442-71	P-U-5	30 X 70 mm
TOY-04651-20841-71	P-U-1	75 X 90 mm
TOY-04651-20970-71	P-U-1	75 X 90 mm
TOY-04651-20971-71	P-U-1	75 mm Rod Kit
TOY-04651-20980-71	P-U-4	40 X 50 mm
TOY-04651-20992-71	P-U-1	35 X 50 mm
TOY-04651-21150-71	P-U-4	40 X 50 mm
TOY-04651-21151-71	P-U-4	40 X 50 mm
TOY-04651-21290-71	P-U-4	40 X 50 mm
TOY-04651-21310-71	P-U-1	35 X 50 mm
TOY-04651-21340-71	P-U-1	35 X 50 mm
TOY-04651-21350-71	P-U-4	40 X 50 mm
TOY-04651-30111-71	P-N-4	60 X 100 mm
TOY-04651-30170-71	P-U-5	40 X 100 mm
TOY-04651-30181-71	I-U-1	30 X 90 mm
TOY-04651-30211-71	P-N-4	60 X 80 mm
TOY-04651-30212-71	P-U-4	60 X 80 mm
TOY-04651-30561-71	P-U-4	60 X 80 mm
TOY-04651-30841-71	P-U-1	90 X 105 mm
TOY-04651-30842-71	P-U-1	90 X 105 mm
TOY-04651-30911-71	P-U-1	60 X 80 mm
TOY-04651-30920-71	P-U-4	60 X 80 mm
TOY-04651-30980-71	P-U-4	60 X 80 mm
TOY-04651-30991-71	P-U-5	40 X 100 mm
TOY-04651-31170-71	P-U-1	55 X 65 mm
TOY-04651-31180-71	P-U-4	50 X 65 mm
TOY-04651-31181-71	P-U-4	50 X 65 mm
TOY-04651-31210-71	P-U-1	90 X 105 mm
TOY-04651-31211-71	P-U-1	85 X 105 mm
TOY-04651-31220-71	P-U-1	40 X 60 mm
TOY-04651-31230-71	P-U-1	40 X 60 mm
TOY-04651-31240-71	P-U-1	55 X 65 mm
TOY-04651-31250-71	P-U-1	55 X 65 mm
TOY-04651-31280-71	P-U-4	50 X 65 mm
TOY-04651-31281-71	P-U-4	50 X 65 mm
TOY-04651-31282-71	P-U-4	50 X 65 mm
TOY-04651-31290-71	P-U-4	60 X 90 mm
TOY-04651-31302-71	P-U-1	95 mm Rod Kit
TOY-04651-31311-71	P-U-1	105 mm Rod Kit
TOY-04651-31410-71	P-U-1	45 X 65 mm
TOY-04651-31420-71	P-U-1	45 X 65 mm
TOY-04651-31430-71	P-U-1	55 X 65 mm
TOY-04651-31440-71	P-U-1	55 X 65 mm
TOY-04651-31450-71	P-U-4	70 X 90 mm
TOY-04651-31500-71	P-U-4	45 X 55 mm
TOY-04651-31510-71	P-U-4	45 X 55 mm
TOY-04651-31520-71	P-U-4	45 X 55 mm
TOY-04651-31530-71	P-U-4	45 X 55 mm
TOY-04651-31800-71	P-U-4	55 X 80 mm

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TOYOTA LIFT TRUCKS

Kit Number	Code	Rod X Bore Size
TOY-04651-31810-71	P-U-4	55 X 80 mm
TOY-04651-31820-71	P-U-5	70 X 120 mm
TOY-04651-31830-71	P-U-5	70 X 110 mm
TOY-04652-10020-71	P-U-1	70 X 80 mm
TOY-04652-10030-71	P-U-1	70 X 80 mm
TOY-04652-10170-71	P-U-1	70 mm Rod Kit
TOY-04652-10191-71	P-U-1	70 X 85 mm
TOY-04652-10300-71	P-U-10	50 X 70 mm
TOY-04652-20031-71	P-U-1	75 X 90 mm
TOY-04652-20040-71	P-U-1	75 X 90 mm
TOY-04652-30010-71	P-U-1	90 X 105 mm
TOY-04652-30011-71	P-U-1	85 X 105 mm
TOY-04652-30020-71	P-U-1	40 X 60 mm
TOY-04652-30030-71	P-U-1	40 X 60 mm
TOY-04652-30040-71	P-U-1	50 X 70 mm
TOY-04652-30050-71	P-U-1	50 X 70 mm
TOY-04652-30131-71	P-U-1	85 X 105 mm
TOY-04652-30132-71	P-U-1	85 X 105 mm
TOY-04652-30150-71	P-U-1	85 X 105 mm
TOY-04652-U1020-71	I-U-4	2 X 2-3/4
TOY-04652-U2010-71	I-U-4	50 X 75 mm
TOY-04652-U2020-71	I-U-4	2" X 75 mm
TOY-04653-10020-71	P-U-4	35 X 45 mm
TOY-04653-10030-71	P-U-4	35 X 45 mm
TOY-04653-10040-71	P-U-4	35 X 45 mm
TOY-04653-10050-71	P-U-4	35 X 45 mm
TOY-04653-10060-71	P-U-1	35 X 50 mm
TOY-04653-10170-71	P-U-1	35 mm
TOY-04653-10500-71	P-U-1	35 X 45 mm
TOY-04653-10530-71	P-U-4	35 X 45 mm
TOY-04653-20071-71	P-U-4	40 X 50 mm
TOY-04653-20081-71	P-U-4	40 X 50 mm
TOY-04653-20090-71	P-U-1	35 X 50 mm
TOY-04653-20100-71	P-U-1	35 mm Rod Kit
TOY-04653-20110-71	P-U-1	35 X 50 mm
TOY-04653-20130-71	P-U-1	40 X 50 mm
TOY-04653-20230-71	P-U-4	50 X 63 mm
TOY-04653-30010-71	P-U-1	55 X 65 mm
TOY-04653-30020-71	P-U-1	55 X 65 mm
TOY-04653-30030-71	P-U-1	115 mm Rod Kit
TOY-04653-30050-71	P-U-5	45 X 55 mm
TOY-04653-30060-71	P-U-4	45 X 55 mm
TOY-04653-30111-71	P-U-1	90 mm
TOY-04653-30211-71	P-U-4	45 X 55 mm
TOY-04653-30221-71	P-U-4	45 X 55 mm
TOY-04653-30230-71	P-U-1	40 X 55 mm
TOY-04653-30231-71	P-U-1	40 X 55 mm
TOY-04653-30240-71	P-U-1	40 X 55 mm
TOY-04653-30310-71	P-U-3	50 X 70 mm
TOY-04653-U1010-71	I-U-1	32 mm X 1-3/4
TOY-04653-U1011-71	I-U-1	32 mm X 1-3/4
TOY-04653-U2010-71	I-U-4	1-3/8 X 2
TOY-04653-U3010-71	I-U-1	40 mm X 2-1/8
TOY-04654-10020-71	P-U-4	35 X 45 mm
TOY-04654-10030-71	P-U-4	35 X 45 mm
TOY-04654-20020-71	P-U-1	40 X 50 mm
TOY-04654-30020-71	P-U-4	45 X 55 mm

Kit Number	Code	Rod X Bore Size
TOY-04654-30030-71	P-U-4	45 X 55 mm
TOY-04654-U1010-70	I-U-4	1-3/8 X 1-3/4
TOY-04654-U1010-71	I-U-1	1-3/8 X 1-3/4
TOY-04654-U3010-71	I-U-4	45 X 55 mm
TOY-04655-20030-71	P-U-5	30 X 70 mm
TOY-04655-20080-71	P-U-5	30 X 70 mm
TOY-04655-20090-71	I-U-13	30 X 70 mm
TOY-04655-30040-71	P-U-5	40 X 90 mm
TOY-04655-30041-71	P-U-5	40 X 90 mm
TOY-04655-30300-71	P-U-5	45 X100 mm
TOY-04655-U1010-71	I-U-10	30 X 70 mm
TOY-04655-U2010-71	I-U-10	1-1/4 X 2-3/4
TOY-04655-U3010-71	I-U-10	1-1/4 X 3
TOY-04671-20380-71	VALVE KIT	
TOY-04671-20390-71	VALVE KIT	
TOY-04676-20370-71	VALVE KIT	
TOY-04676-20380-71	VALVE KIT	
TOY-04676-20421-71	VALVE KIT	
TOY-04676-20431-71	VALVE KIT	
TOY-04676-20441-71	VALVE KIT	
TOY-04676-20491-71	VALVE KIT	
TOY-04676-20501-71	VALVE KIT	
TOY-04676-20511-71	VALVE KIT	
TOY-04676-20521-71	VALVE KIT	
TOY-04676-20560-71	VALVE KIT	
TOY-04676-20570-71	VALVE KIT	
TOY-04676-20580-71	VALVE KIT	
TOY-04676-20590-71	VALVE KIT	
TOY-04676-20600-71	VALVE KIT	
TOY-04676-20680-71	VALVE KIT	
TOY-04676-20690-71	VALVE KIT	
TOY-04676-20700-71	VALVE KIT	
TOY-04676-20722-71	VALVE KIT	
TOY-04676-20742-71	O-RING KIT	
TOY-04676-30311-71	VALVE KIT	
TOY-04676-30312-71	VALVE KIT	
TOY-04676-30313-71	VALVE KIT	
TOY-04676-30331-71	VALVE KIT	
TOY-04676-30332-71	VALVE KIT	
TOY-04676-30341-71	VALVE KIT	
TOY-04676-30342-71	VALVE KIT	
TOY-04676-30620-71	VALVE KIT	
TOY-04676-30920-71	VALVE KIT	
TOY-04676-30930-71	VALVE KIT	
TOY-04676-30940-71	VALVE KIT	
TOY-04676-30950-71	VALVE KIT	
TOY-04676-30970-71	VALVE KIT	
TOY-04676-30980-71	VALVE KIT	
TOY-04676-30990-71	VALVE KIT	
TOY-04676-31000-71	VALVE KIT	
TOY-04676-31010-71	VALVE KIT	
TOY-04676-31020-71	VALVE KIT	
TOY-04676-31161-71	VALVE KIT	
TOY-04676-31171-71	O-RING KIT	
TOY-04676-U2010-71	VALVE KIT	

TOYOTA



REPLACEMENT PARTS FOR TOYOTA EQUIPMENT

NOTE: Toyota part numbers are used as a reference only. We do not imply that these kits are original REPLACEMENT PARTS.

O-RINGS

Part Number	Min Pkg Qty
TOY-65592-U2200-71	20

U-SEALS

Part Number	Rod Dia.
TOY-77167-20100-71	80 mm

WIPERS

Part Number	Rod Dia.
TOY-65575-31620-71	40 mm

PISTON BUSHINGS

Part Number	Bore Dia.
TOY-65254-14180-71	90 mm

WHITE LIFT TRUCK

Kit Number	Code	Rod X Bore Size
WLT-20-7300283	I-U-4	1-3/4 X 4
WLT-20-7302715	I-U-10	1-1/2 X 3-1/2
WLT-30-3305457	P-U-10	1-1/2 X 3-1/2

TOYOTA - WHITE



YALE LIFT TRUCKS

Kit Number	Code	Rod X Bore Size
YA-066414600	4-1/16 Rod Wiper	
YA-5001689-04	4-1/16 ID Vee Set	
YA-502566003	I-N-8	2-1/2 X 3-1/2
YA-502566004	I-N-8	2 X 3-1/2
YA-503130000	P-V-4	2 X 3-1/4
YA-504236229	P-U-10	2-1/8 X 2-3/4
YA-504236245	P-U-10	1-3/8 X 3
YA-504853000	I-U-5	1-1/4 X 3
YA-504857000	I-N-8	2-1/4 X 4
YA-5048620	I-N-8	1-3/4 X 2-1/2
YA-505136003	I-N-8	2-1/2 X 3-1/2
YA-505136004	I-N-8	2 X 3-1/2
YA-505136007	I-U-1	1-5/8 X 2-1/4
YA-505136008	I-U-1	1-5/16 X 2-1/4
YA-505136009	I-U-1	3-1/4" Rod
YA-505136010	I-U-1	1-7/8 X 2-1/2
YA-505136012	I-U-11	1-7/8 X 2-1/4
YA-505136013	I-U-1	2-5/8 Rod Kit
YA-505136014	I-U-1	3-3/4 Rod Kit
YA-505136015	I-U-10	2-5/8 X 3
YA-505136027	I-U-1	1-5/8 X 2
YA-505136028	i-u-4	1-3/8 x 2
YA-505136031	I-U-1	3 X 3-3/4
YA-505136035	I-U-4	1-3/8 X 2
YA-505136036	I-U-4	1-5/8 X 2
YA-505136037	I-U-12	1-3/8 X 2
YA-505136040	I-U-4	1-5/8 X 1-7/8
YA-505136059	I-U-1	1-1/4 X 1-3/4
YA-505142000	I-V-1	3-3/8, 4-1/16 Stages
YA-505143000	I-V-1	2-1/2, 3 Stages
YA-505163001	Rod Kit	

Kit Number	Code	Rod X Bore Size
YA-506785001	I-N-8	2-1/4 X 4
YA-506787001	I-N-8	2-3/4 X 4-1/2
YA-506788001	I-N-8	2-3/4 X 4-1/2
YA-507016002	I-V-5	1-1/2 x 4
YA-509753000	I-V-12	1 X 2
YA-510078000	I-U-5	1 X 2-1/2
YA-510398000	I-V-1	2-1/4, 3, 3-3/4 Stages
YA-510659001	I-V-2	1-1/4 X 3-1/2
YA-512944003	I-U-10	1 X 2
YA-513355800	O-ring Kit	
YA-514527000	I-V-1	3, 3-3/4 Stages
YA-515229000	I-U-4	2-1/4 X 3-3/4
YA-516149002	I-U-11	1 X 2
YA-516149005	I-U-11	1 X 2
YA-516149006	I-U-11	1-1/8 X 2-1/2
YA-5178128-17	Shaft Kit	
YA-518617001	I-V-10	1-1/4 X 2-1/2
YA-519132600	I-U-5	1-3/4 X 3-1/2
YA-519675801	O-RING KIT	
YA-580026957	P-U-10	2-1/8 X 2-3/4
YA-580060036	P-U-10	2-1/8 X 2-3/4
YA-900299851	65 mm, 80 mm 2 Stage	
YA-900847850	P-U-10	25 X 60 mm
YA-900879850	I-U-3	35 X 80 mm
YA-901115850	P-U-1	32 mm Rod Kit
YA-9012238-07	P-U-10	40 X 70 mm
YA-9017888-10	P-U-10	35 X 70 mm
YA-9019058-52	P-U-10	35 X 65 mm
YA-9022018-50	Shaft Kit	

YALE



NOTES

NOTES

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PLASTIC CAP PLUGS

CAP PLUG APPLICATION CHART

CAP-	NPT		INCH THREAD		METRIC THREAD	
	CAPS	PLUGS	CAPS	PLUGS	CAPS	PLUGS
00				10/32	M2,M2.5	M5
0				1/4	M3,M3.5	M6
1				5/16	M5	M8x1
1-X					M6	
2			15/64	3/8	M7	M10x1.25
2-X		1/8				
3				7/16	M8x1	M12
3-X			3/8			M12x1.25
4	1/8	1/4		1/2	M10x1.25	M14
4-X			7/16			M14x1.5
5			1/2	9/16		
5-X					M12x1.25	M16
6	1/4			5/8		
6-X		3/8	9/16			M18
7			5/8		M14x1.5	M18x1.5
7-X						
8				3/4		M20
8-X	3/8				M16x1.5	M20x1.5
9		1/2				M22
9-X			3/4			M22x1.5
10				7/8	M18x1.5	M24
11	1/2					M24x2
11-X			7/8		M20x1.5	
12		3/4				
12-X				1-1/16	M22x1.5	M27x2
13	3/4				M24x2	
13-X			1-1/16			M30x2
14		1			M27x2	M33
17		1-1/4			M36x3	
17-S				1-5/8		
18	1-1/4		1-5/8	1-3/4	M39x3	
19		1-1/2		1-7/8		
20	1-1/2		1-7/8			
20-S						
21						
220						
230			2-1/4			
24-S		2				
240	2					
250			2-1/2			



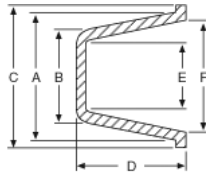
This style cap plug is equipped with a handy fold-down pull ring.

Tapered Caps & Plugs With Pull Ring

Part Number	NPT Port Size	OD Size Tapered	HT	Min Std Pkg
CAP-PR-9	1/8	.337/.375	1/4	50
CAP-PR-12	1/4	.436/.475	1/4	50
CAP-PR-17	3/8	.552/.615	3/8	50
CAP-PR-22	1/2	.668/.767	1/2	40
CAP-PR-27X	3/4	.878/.977	1/2	40
CAP-PR-32	1	1.113/1.212	1/2	25
CAP-PR-39	1-1/4	1.505/1.580	1/2	25
CAP-PR-43	1-1/2	1.780/1.860	1/2	20
CAP-PR-50	2	2.226/2.258	1/2	20

REPAIR ACCESSORIES

PLASTIC CAP PLUGS



Tapered Caps & Plugs For Misc. Applications

Part Number	A	B	C	D	E	F
CAP-00	.180	.115	5/16	13/32	.051	.118
CAP-0	.240	.175	3/8	3/8	.109	.175
CAP-0-X	0.275	0.209	7/16	3/8	0.150	0.209
CAP-1	.302	.240	15/32	3/8	.175	.240
CAP-1-X	.335	.265	15/32	3/8	.240	.275
CAP-2	.365	.300	17/32	3/8	.234	.301
CAP-3	.428	.360	19/32	3/8	.299	.365
CAP-3-X	.460	.390	5/8	3/8	.325	.396
CAP-4-X	.512	.447	5/8	3/8	.385	.448
CAP-5	.547	.490	23/32	1/2	.409	.485
CAP-5-X	.568	.500	3/4	7/16	.435	.503
CAP-6	.620	.531	3/4	1/2	.468	.555
CAP-6A-X	0.576	0.500	0.720	0.470	0.440	0.516
CAP-7	.675	.590	7/8	17/32	.520	.605
CAP-7-X	.695	.610	27/32	1/5	.549	.634
CAP-8	.728	.641	7/8	1/2	.575	.665
CAP-8-X	.754	.675	7/8	5/8	.615	.690
CAP-9-X	.925	.725	1	3/4	.662	.760
CAP-10	.848	.750	1-1/32	5/8	.686	.785
CAP-11	.910	.802	1-3/32	3/4	.740	.846
CAP-11-X	.931	.820	1-1/8	5/8	.754	.868
CAP-12A-X	0.973	0.856	1-1/8	3/4	0.768	0.906
CAP-13	1.091	.966	1-1/4	3/4	.902	1.025
CAP-13-X	1.145	1.002	1-5/16	3/4	.938	1.079
CAP-14-X	1.285	1.180	1-7/16	3/4	1.105	1.215
CAP-16A-X	1.312	1.276	1.380	0.560	1.155	1.190
CAP-17A-X	1.507	1.344	1-3/4	15/16	1.282	1.450
CAP-18	1.680	1.560	1-7/8	3/4	1.497	1.620
CAP-20	1.958	1.806	2.125	1	1.745	1.893
CAP-20-X	2.310	1.940	2.470	0.880	1.875	2.255
CAP-21	2.078	1.902	2-1/4	1	1.839	2.015
CAP-38	1.045	.980	1-1/4	1/2	.916	.984
CAP-220	2.132	1.980	2-1/4	1	1.915	2.068
CAP-230	2.330	2.156	2-5/8	1	2.094	2.264
CAP-240	2.465	2.300	2-5/8	1	2.235	2.400
CAP-250	2.605	2.395	2-5/8	1	2.331	2.541

Tapered Caps & Plugs For NPT Style Ports

Part Number	NPT Port Size	OD Size Tapered	HT	Min Std Pkg
CAP-2-X	1/8	.330/.396	3/8	50
CAP-4	1/4	.419/.485	3/8	50
CAP-6-X	3/8	.550/.631	7/16	50
CAP-9	1/2	.690/.788	9/16	50
CAP-12	3/4	.870/.975	5/8	120
CAP-12-X	3/4	.915/1.040	11/16	25
CAP-14	1	1.094/1.215	3/4	25
CAP-15	1	1.225/1.355	3/4	3
CAP-15-X	1	1.235/1.350	3/4	25
CAP-17	1-1/4	1.450/1.600	3/4	60
CAP-17-S	1-1/4	1.513/1.600	1/2	25
CAP-19	1-1/2	1.735/1.870	3/4	25
CAP-20-S	1-1/2	1.781/1.805	3/8	25
CAP-24-S	2	2.230/2.260	1/2	20

MCAP Tapered Caps & Plugs For Misc. Applications



Part Number	A mm	B mm	C mm	D mm	E mm	F mm
CAP-M10X1	13.00	11.35	15.88	10.32	9.78	11.38
CAP-M12X1	14.43	12.70	19.05	11.11	11.05	12.78
CAP-M12X1.5	14.63	12.70	18.29	11.94	11.18	13.11
CAP-M14X1.5	17.15	14.99	22.23	13.49	13.21	15.37
CAP-M16X1.5	19.15	17.15	22.23	15.88	15.62	17.53
CAP-M18X1.5	21.54	19.05	26.19	15.88	17.42	19.74
CAP-M20X1.5	24.71	21.74	28.58	19.05	19.51	23.01
CAP-M22X1.5	26.42	22.73	29.37	19.05	21.13	24.77
CAP-M25X1.5	29.08	25.45	33.34	19.05	23.83	27.41
CAP-M26X1.5	29.08	25.45	33.34	19.05	23.83	27.41
CAP-M27	31.12	29.19	38.50	19.05	26.37	29.97
CAP-M28X1.5	32.81	29.59	36.10	19.05	27.69	30.61
CAP-M30X2	33.32	32.41	35.05	14.22	29.34	30.23
CAP-M35	38.53	34.14	44.45	23.81	32.56	36.83
CAP-M39	42.49	39.62	47.63	19.05	38.02	41.15
CAP-M4	6.99	5.31	11.11	9.53	3.81	5.31
CAP-M42X2	44.45	40.79	49.21	19.05	39.83	42.80
CAP-M45	49.73	45.87	53.98	25.40	44.32	48.08
CAP-M48	58.67	49.28	62.74	22.35	47.63	57.28
CAP-M5	7.67	6.1	11.91	9.53	4.45	6.1
CAP-M6	8.51	6.73	11.91	9.53	5.18	6.99
CAP-M8X1	10.87	9.14	15.08	9.53	7.59	9.27

REPAIR ACCESSORIES



PLASTIC CAP PLUGS



**Female Threaded Cap Plugs
for J.I.C. Fittings**

Part Number	Std Thread Size	O.D. Size Tube	Dash Size	Min Std Pkg
CAP-G-2	7/16-20	1/4	#4	20
CAP-G-8	9/16-18	3/8	#6	20
CAP-G-14	3/4-16	1/2	#8	20
CAP-G-18	7/8-14	5/8	#10	20
CAP-G-20	7/8-18	5/8	#10	20
CAP-G-22	1-1/16-12	3/4	#12	20
CAP-G-25	1-3/16-12	7/8	#14	20
CAP-G-27	1-5/16-12	1	#16	20



Flat Face Fitting Caps

Part Number	Tube Size OD	Thread Size	Min Std Pkg
CAP-PDF-40	1/4	9/16-18	25
CAP-PDF-60	3/8	11/16-16	25
CAP-PDF-80	1/2	13/16-16	25
CAP-PDF-100	5/8	1-14	20
CAP-PDF-120	3/4	1-3/16-12	20
CAP-PDF-160	1	1-7/16-12	10



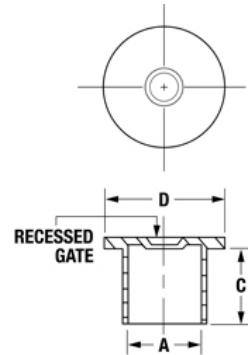
O-Ring Face Fitting Caps

These low density polyethylene caps are designed to fit female o-ring face seals.

Part Number	Thread Size	Min Std Pkg
CAP-OR-4	9/16-18	35
CAP-OR-6	11/16-16	25
CAP-OR-8	13/16-16	25
CAP-OR-10	1-14	25
CAP-OR-12	1-3/16-12	25
CAP-OR-16	1-7/16-12	15
CAP-OR-20	1-11/16-12	10



Unlike tear-tab closures that can only be used once, the CAP-PO series is designed to be reused. Specifically designed to protect straight threads with or without o-rings, this unique design is also ideal for use on a variety of thread forms and non-threaded fittings.



Straight Threaded Cap Plugs

Part Number	Min Std Pkg	To Cap Thread size	A	C	D
CAP-PO-20	25	7/16"	0.428	0.47	0.69
CAP-PO-30	25	1/2"	0.49	0.47	0.75
CAP-PO-40	25	9/16"	0.55	0.50	0.81
CAP-PO-50	25	11/16"	0.676	0.50	0.94
CAP-PO-55	25	-	0.721	0.67	1.00
CAP-PO-60	25	3/4"	0.738	0.67	1.00
CAP-PO-70	25	13/16"	0.802	0.56	1.06
CAP-PO-80	25	7/8"	0.864	0.66	1.12
CAP-PO-90	25	1.00"	0.99	0.66	1.25
CAP-PO-100	15	1-1/16"	1.051	0.75	1.31
CAP-PO-110	15	1-3/16"	1.175	0.75	1.44
CAP-PO-120	15	1-5/16"	1.298	0.75	1.56
CAP-PO-130	15	1-7/16"	1.426	0.75	1.69
CAP-PO-140	10	1-5/8"	1.12	0.85	1.88

**Cap Plug Assortment Kits
Also Available -
See the Kit & Tool Section**

REPAIR ACCESSORIES

PLASTIC CAP PLUGS



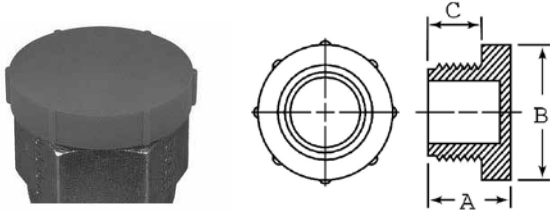
Male Threaded Pipe Plugs (Sq. Top)

Part Number	NPT Port Size	Thread Size	Min Std Pkg
CAP-P-18	1/8	0.364	25
CAP-P-28	1/4	0.477	25
CAP-P-38	3/8	0.612	25
CAP-P-48	1/2	0.758	25
CAP-P-68-H	3/4	0.968	25
CAP-P-88-H	1	1.214	20
CAP-TP-13	1-1/4	1.557	5
CAP-TP-15	1-1/2	1.796	5



Male Threaded Cap Plugs for Flared J.I.C. Fittings

Part Number	Std Thread Size	OD Size Tube	Dash Size	Min Std Pkg
CAP-PD-40	7/16-20	1/4	#4	25
CAP-PD-50	1/2-20	5/16	#5	25
CAP-PD-60	9/16-18	3/8	#6	25
CAP-PD-80	3/4-16	1/2	#8	25
CAP-PD-100	7/8-14	5/8	#10	25
CAP-PD-120	1-1/16-12	3/4	#12	25
CAP-PD-140	1-3/16-12	7/8	#14	20
CAP-PD-160	1-5/16-12	1	#16	20
CAP-PD-200	1-5/8-12	1-1/4	#20	15
CAP-PD-220	1-3/4-12	1-3/8	#22	10
CAP-PD-240	1-7/8-12	1-1/2	#24	10



Miscellaneous - MCAP- TP

Part Number	To Fit Metric Thread Size	A		B		C		Min Std Pkg
		in	mm	in	mm	in	mm	
MCAP-TP-M8X1	M8 x 1	0.562	14.27	0.484	12.29	0.374	9.50	10
MCAP-TP-M10X1	M10 x 1	0.574	14.58	0.602	15.29	0.409	10.39	10
MCAP-TP-M12X1	M12 x 1	0.657	16.69	0.728	18.49	0.421	10.69	10
MCAP-TP-M12X1.5	M12 x 1.5	0.641	16.28	0.657	16.69	0.342	8.69	10
MCAP-TP-M14X1.5	M14 x 1.5	0.677	17.20	0.728	18.49	0.374	9.50	10
MCAP-TP-M16X1.5	M16 x 1.5	0.677	17.20	0.866	22.00	0.492	12.50	10
MCAP-TP-M18X1.5	M18 x 1.5	0.720	18.29	0.960	24.38	0.539	13.69	10
MCAP-TP-M20X1.5	M20 x 1.5	0.716	18.19	1.035	26.29	0.551	14.00	10
MCAP-TP-M22X1.5	M22 x 1.5	0.720	18.29	1.110	28.19	0.539	13.69	10
MCAP-TP-M24X1.5	M24 x 1.5	0.728	18.49	1.232	31.29	0.543	13.79	10
MCAP-TP-M25X1.5	M25 x 1.5	0.728	18.49	1.232	31.30	0.551	14.00	5
MCAP-TP-M26X1.5	M26 x 1.5	0.736	18.69	1.287	32.69	0.543	13.79	5
MCAP-TP-M52X1.5	M52 x 1.5	0.846	21.50	2.508	63.70	0.610	15.50	5

REPAIR ACCESSORIES



PLASTIC CAP PLUGS



These low density polyethylene caps protect the faces of split flange connectors

Split Flange Coupling Caps - SAE CODE 61

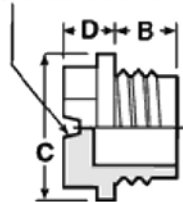
Part Number	Flange Size	Cap Size	Min Std Pkg
CAP-SF-8	1/2	1.19	50
CAP-SF-10	5/8	1.35	50
CAP-SF-12	3/4	1.50	50
CAP-SF-16	1	1.75	35
CAP-SF-20	1-1/4	2.00	35
CAP-SF-24	1-1/2	2.38	25
CAP-SF-32	2	2.81	15
CAP-SF-40	2-1/2	3.31	15

Split Flange Coupling Caps - SAE CODE 62

Part Number	Flange Size	Cap Size	Min Std Pkg
CAP-HPSF-8	1/2	1.25	10
CAP-HPSF-12	3/4	1.625	10
CAP-HPSF-16	1	1.87	10
CAP-HPSF-20	1-1/4	2.125	10
CAP-HPSF-24	1-1/2	2.5	10
CAP-HPSF-32	2	3.125	10



SCREWDRIVER SLOT



Threaded O-Ring Plugs

Part Number	Std Thread Size	B	C	D	Min Std Pkg
CAP-TF-9-OR	9/16-18	0.35	0.81	0.19	10
CAP-TF-12-OR	3/4-16	0.44	0.89	0.18	10

BOLTED SPLIT FLANGE PROTECTORS



3,000 PSI Flanges SAE Code 61

Part Number	Port Size	Min Std Pkg
CAP-8218	1/2	10
CAP-8219	3/4	10
CAP-8220	1	10
CAP-8221	1-1/4	10
CAP-8222	1-1/2	10
CAP-8223	2	10
CAP-8224	2-1/2	10

5,000 PSI Flanges SAE Code 62

Part Number	Port Size	Min Std Pkg
CAP-XP-075	3/4	10
CAP-XP-100	1	10
CAP-XP-125	1-1/4	10
CAP-XP-150	1-1/2	10
CAP-XP-200	2	10

**Cap Plug Assortment Kits
Also Available -
See the Kit & Tool Section**

KANSAS

PHONE 1-316-267-1051
FAX 1-316-267-1010

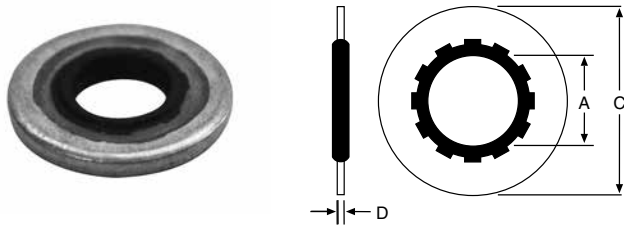
OKLAHOMA

PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS

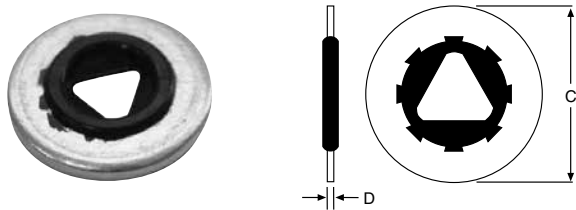
PHONE 1-903-753-0341
FAX 1-903-236-9797

STYLE 110 FACE SEALS



Part Number	Max Screw Size	A Rubber I.D.	B Steel I.D.	C Steel O.D.	D Steel Thick.
DY-110X8	.164	.156	.255	.385	.041
DY-110X10	.177	.180	.317	.443	.050
DY-110X3/16	.190	.220	.281	.425	.054
DY-110X7/32	.216	.246	.307	.455	.054
DY-110X1/4	.250	.240	.381	.505	.054
DY-110X5/16	.312	.301	.488	.603	.054
DY-110X3/8	.375	.368	.546	.666	.054
DY-110X7/16	.437	.427	.618	.760	.054
DY-110X1/2	.500	.490	.696	.880	.054
DY-110X9/16	.562	.552	.759	1.067	.054
DY-110X5/8	.625	.615	.818	1.193	.054

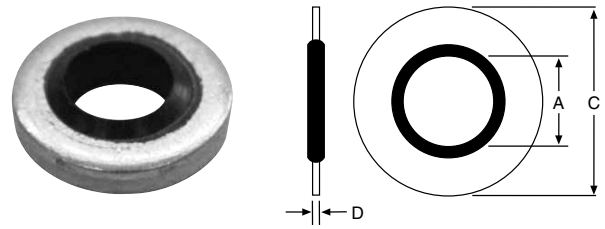
THREAD SEAL



Thread seals provide a positive seal directly against the threads of a bolt. Self-centering and easily installed.

Part Number	C	D	Thread Size
TS7500X10	.469	.051	-10
TS7500X1/4	.562	.051	1/4
TS7500X5/16	.687	.064	5/16
TS7500X3/8	.750	.064	3/8
TS7500X7/16	.906	.078	7/16
TS7500X1/2	1.000	.078	1/2
TS7500X7/8	1.562	.109	7/8

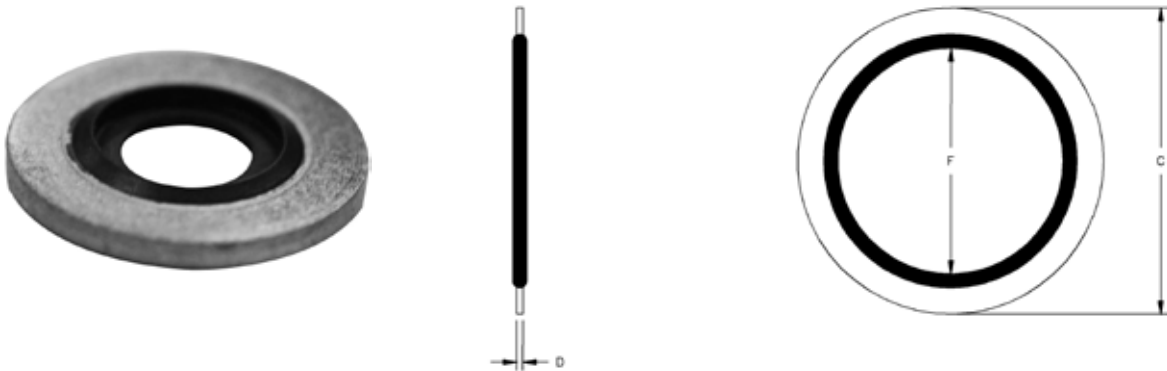
STYLE SB FACE SEALS



Part Number	A	C	D
DY-SB-001	.115	.250	.048
DY-SB-002	.157	.286	.048
DY-SB-003	.205	.330	.051
DY-SB-004	.270	.520	.051
DY-SB-005	.270	.525	.048
DY-SB-006	.322	.525	.048
DY-SB-007	.340	.560	.051
DY-SB-020A	.408	.625	.083
DY-SB-008	.443	.723	.083
DY-SB-009	.460	.750	.083
DY-SB-225	.531	.866	.059
DY-SB-021B	.541	.810	.083
DY-SB-010	.585	.875	.083
DY-SB-022BB	.625	.875	.083
DY-SB-011	.650	1.000	.083
DY-SB-023C	.680	.937	.083
DY-SB-012	.715	1.000	.097
DY-SB-024CC	.775	1.060	.097
DY-SB-025D	.848	1.125	.097
DY-SB-026E	.925	1.250	.097
DY-SB-013	.955	1.310	.097
DY-SB-027F	1.065	1.375	.097
DY-SB-240	1.083	1.417	.07
DY-SB-028	1.095	1.520	.097
DY-SB-014	1.150	1.440	.092
DY-SB-029G	1.213	1.500	.097
DY-SB-015	1.280	1.630	.128
DY-SB-031	1.329	1.685	.092
DY-SB-030H	1.334	1.685	.133
DY-SB-016	1.410	1.750	.133
DY-SB-032J	1.690	2.062	.103
DY-SB-033K	1.907	2.307	.103
DY-SB-019	2.030	2.500	.128
DY-SB-034	2.161	2.750	.133
DY-SB-036	2.385	2.875	.133
DY-SB-038	2.625	3.130	.133
DY-SB-039	2.995	3.550	.133



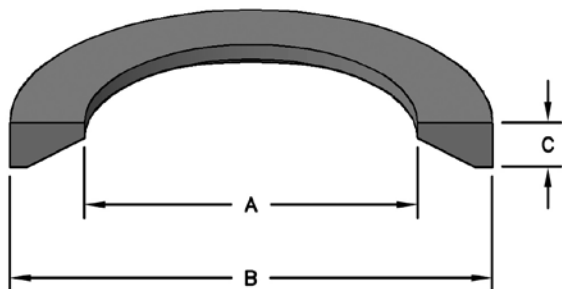
STYLE SB-SCR FACE SEALS



Part Number	F Self-Centralizing	C	D
DY-SB-004-SCR	0.185	0.520	0.048
DY-SB-005-SCR	0.185	0.525	0.048
DY-SB-006-SCR	0.240	0.525	0.048
DY-SB-007-SCR	0.240	0.560	0.048
DY-SB-020A-SCR	0.337	0.625	0.080
DY-SB-008-SCR	0.337	0.723	0.080
DY-SB-009-SCR	0.346	0.750	0.080
DY-SB-021B-SCR	0.451	0.810	0.080
DY-SB-010-SCR	0.456	0.875	0.080
DY-SB-022BB-SCR	0.476	0.875	0.080
DY-SB-023C-SCR	0.589	0.937	0.080
DY-SB-012-SCR	0.571	1.000	0.098
DY-SB-024CC-SCR	0.622	1.060	0.098
DY-SB-025D-SCR	0.734	1.125	0.098
DY-SB-026E-SCR	0.811	1.250	0.098
DY-SB-013-SCR	0.795	1.310	0.098
DY-SB-027F-SCR	0.950	1.375	0.098
DY-SB-028-SCR	0.902	1.520	0.098
DY-SB-014-SCR	0.941	1.440	0.098
DY-SB-031-SCR	1.193	1.685	0.098
DY-SB-029G-SCR	1.098	1.500	0.098
DY-SB-015-SCR	1.067	1.630	0.126
DY-SB-030H-SCR	1.193	1.685	0.126
DY-SB-016-SCR	1.161	1.750	0.126

DIN 3869 CONNECTOR RINGS

DIN 3869 profile rings are axially static soft seals in combination with threaded elements. They are molded from elastomers used for sealing threaded tube connections and fittings. Most common application, construction machinery, hydraulic presses, injection machines, etc. The DIN3869 is offered in two materials, an NBR 85 Shore A (black finish), and FKM 80 Shore A (green finish).



SEAL INFORMATION		
MATERIAL	COLOR	TEMP RANGE
85A NBR	BLACK	-30° TO +100° C -22° TO +212° F
VITON (FKM)	GREEN	-20° TO +200° C -4° TO +392° F

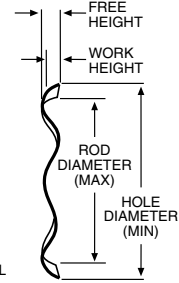
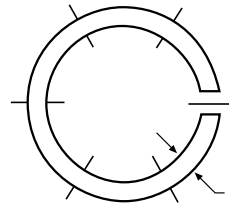
Part Number	Nominal Size	Thread	A Inside Diameter	B Outside Diameter	C Height	Package Quantity
DIN3869-M8X1	8	M8 x 1	6.50	9.90	1.00	5
DIN3869-M10X1	10	M10 x 1	8.40	11.90	1.00	5
DIN3869-M12X1.5	12	M12 x 1.5	9.80	14.40	1.50	5
DIN3869-M14X1.5	14	M14 x 1.5	11.60	16.50	1.50	5
DIN3869-M16X1.5	16	M16 x 1.5	13.80	18.90	1.50	5
DIN3869-M17X1.5	17	M17 x 1.5	14.70	18.90	1.50	5
DIN3869-M18X1.5	18	M18 x 1.5	15.70	20.90	1.50	5
DIN3869-M20X1.5	20	M20 x 1.5	17.80	22.90	1.50	5
DIN3869-M21X1.5	21	M21 x 1.5	18.50	23.90	1.50	5
DIN3869-M22X1.5	22	M22 x 1.5	19.60	24.30	1.50	5
DIN3869-M27X2	27	M27 x 2	23.90	29.20	2.00	5
DIN3869-M30X2	30	M30 x 2	27.70	32.70	2.00	2
DIN3869-M33X2	33	M33 x 2	29.70	35.70	2.00	2
DIN3869-M42X2	42	M42 x 2	38.80	45.80	2.00	2
DIN3869-M48X2	48	M48 x 2	44.70	50.70	2.00	2
DIN3869-M8X1-V	8	M8 x 1	6.50	9.90	1.00	5
DIN3869-M10X1-V	10	M10 x 1	8.40	11.90	1.00	5
DIN3869-M12X1.5-V	12	M12 x 1.5	9.80	14.40	1.50	5
DIN3869-M14X1.5-V	14	M14 x 1.5	11.60	16.50	1.50	5
DIN3869-M16X1.5-V	16	M16 x 1.5	13.80	18.90	1.50	2
DIN3869-M18X1.5-V	18	M18 x 1.5	15.70	20.90	1.50	2
DIN3869-M20X1.5-V	20	M20 x 1.5	17.80	22.90	1.50	2
DIN3869-M21X1.5-V	21	M21 x 1.5	18.50	23.90	1.50	2
DIN3869-M22X1.5-V	22	M22 x 1.5	19.60	24.30	1.50	2
DIN3869-M27X2-V	27	M27 x 2	23.90	29.20	2.00	2
DIN3869-M30X2-V	30	M30 x 2	27.70	32.70	2.00	2

REPAIR ACCESSORIES



WAVE SPRINGS

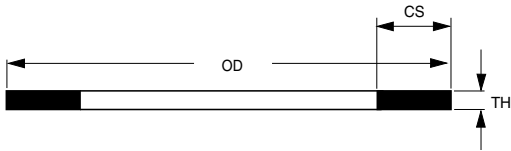
Wave Springs offer a convenient method of exerting a pre-load on vee packing where little or no adjustment is available. Because of a low fatigue factor, the spring should provide a proper pre-load throughout the life of the packing.



Part Number	WORK HEIGHT	FREE HEIGHT	E ROD DIAMETER	HOLE DIAMETER	RADIAL WALL
SSR-0112	.078	.130	.840	1.125	.133
SSR-0125	.078	.150	.960	1.250	.133
SSR-0150	.078	.170	1.170	1.500	.143
SSR-0175	.078	.140	1.440	1.750	.143
SSR-0187	.078	.150	1.560	1.875	.143
SSR-0200	.093	.140	1.680	2.000	.150
SSR-0225	.093	.170	1.930	2.250	.150
SSR-0237	.093	.160	1.990	2.375	.178
SSR-0250	.093	.170	2.120	2.500	.178
SSR-0262	.093	.190	2.240	2.625	.178
SSR-0275	.109	.170	2.340	2.750	.188
SSR-0300	.109	.190	2.590	3.000	.188
SSR-0312	.109	.210	2.710	3.120	.188
SSR-0325	.109	.200	2.750	3.250	.233
SSR-0350	.109	.230	3.000	3.500	.233
SSR-0362	.109	.240	3.120	3.625	.233
SSR-0375	.109	.260	3.250	3.750	.233
SSR-0400-N	.109	.200	3.570	4.000	.188
SSR-0425	.109	.210	3.740	4.250	.233
SSR-0462	.109	.230	4.125	4.625	.233
SSR-0475	.125	.310	4.240	4.750	.233
SSR-0512	.125	.340	4.610	5.125	.233

CARBON STEEL SHIMS

These carbon steel shims are commonly used with vee packing sets to fill the empty space in a gland.



Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	RADIAL WALL
SSRS-0150	1.2	1-1/2	.024	.150
SSRS-0175	1.45	1-3/4	.024	.150
SSRS-0200	1.7	2	.024	.150
SSRS-0237	2.019	2-3/8	.024	.178
SSRS-0312	2.749	3-1/8	.03	.188
SSRS-0375	3.284	3-3/4	.03	.233

REPAIR ACCESSORIES



GRADE C LOCKNUTS

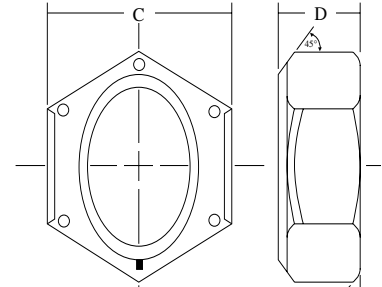
These fine-threaded Grade C locknuts are formed from medium carbon, heat-treated steel and are designed to be used with a Grade 8 bolt. Smaller size locknuts employ an automation style collar while the larger ones use a full collar design. Both locknut types are stocked with cadmium and wax plating.

Automation Style

Part Number	Size	Thread Pitch	C Width Across Flats		D Overall Thickness	
			Max	Min	Max	Min
LN-1/2-13	1/2	13	0.7500	0.736	0.510	0.490
LN-1/2-20	1/2	20	0.752	0.741	0.609	0.579
LN-1-14	1	14	1.5020	1.450	0.887	0.831
LN-3/4-16	3/4	16	1.1250	1.088	0.665	0.617
LN-5/8-18	5/8	18	0.9375	0.922	0.645	0.621
LN-7/8-14	7/8	14	1.3145	1.269	0.922	0.724
LN-7/16-20	7/16	20	0.627	0.616	0.468	0.438



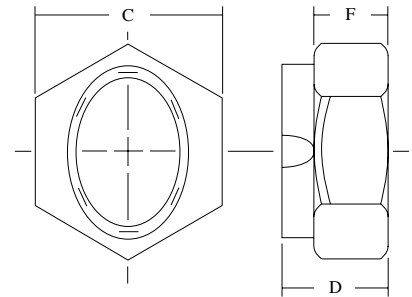
Automation Style



Full Collar Style

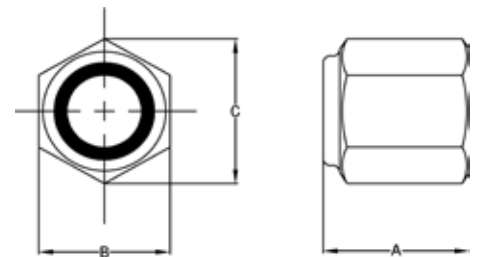
Part Number	Size	Thread Pitch	C Width Across Flats		D Overall Thickness		F Hex Height	
			Max	Min	Max	Min	Max	Min
LN-1-1/2-12	1-1/2	12	2.250	2.175	1.317	1.246	0.885	0.843
LN-1-1/4-12	1-1/4	12	1.876	1.812	1.094	1.030	0.719	0.698
LN-1-1/8-12	1-1/8	12	1.687	1.631	0.999	0.939	0.657	0.636
LN-1-3/4-12	1-3/4	12	2.625	2.538	1.540	1.460	1.012	0.989
LN-1-3/8-12	1-3/8	12	2.062	1.994	1.206	1.138	0.795	0.771
LN-2-12	2	12	3.000	2.900	1.763	1.675	1.158	1.134
LN-2-1/2-12	2-1/2	12	3.750	3.625	2.193	2.089	1.930	1.840

Full Collar Style



Part Number	Bar Size	A	B	C
CM-LN45050	1/2"-20	0.60	0.75	0.84
CM-LN45062	5/8"-18	0.75	0.94	1.06
CM-LN45075	3/4"-16	0.88	1.06	1.19
CM-LN45087	7/8"-14	1.00	1.25	1.40
CM-LN45100	1"-14	1.06	1.44	1.62
CM-LN45101	1"-14	0.88	1.62	1.83
CM-LN45112	1-1/8"-12	1.19	1.62	1.83
CM-LN45126	1-1/4"-12	1.38	1.81	2.06
CM-LN45151	1-1/2"-12	1.62	2.19	2.44
CM-LN45152	1-1/2"-12	0.81	2.19	2.44
CM-LN45175	1-3/4"-12	1.50	2.75	3.06
CM-LN45200	2"-12	1.62	3.12	3.50
CM-LN45225	2-1/4"-12	1.94	3.50	3.94
CM-LN45226	2-1/4"-12	2.81	3.50	3.94
CM-LN45250	2-1/2"-12	2.25	4.00	4.50

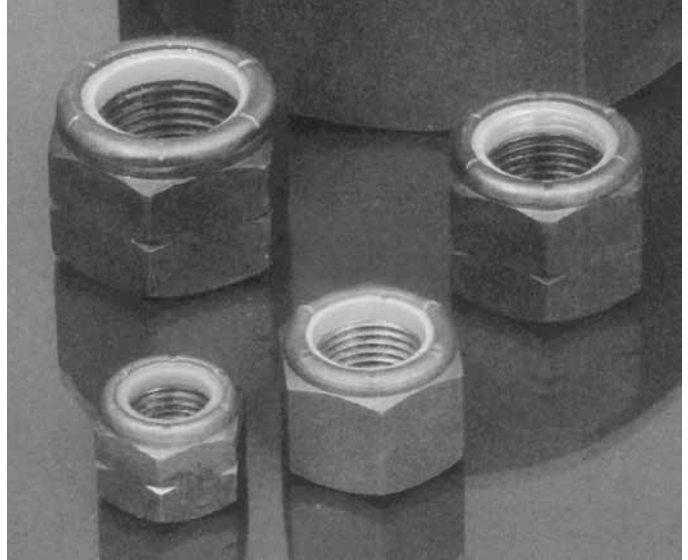
Nylon Insert Lock Nut



“NYLON INSERT” LOCKING NUTS

Manufactured from the finest quality steel to offer superior strength, these locking nuts with nylon inserts are specifically designed and manufactured to exact dimensions. The high temperature locking inserts are designed to withstand the high temperatures associated with close tolerance performance applications.

Part Number	Thread Size & Pitch	Height	Flats
CTC-2J0564	2 - 12	1-5/8	3-1/8
CTC-2J3247	1-3/4 - 12	1-7/16	2-3/4
CTC-2J3950	1-1/2 - 12	1-5/16	2-3/8
CTC-2J6384	1-1/4 - 12	1-1/8	2
CTC-2J7686	2-1/2 - 12	2-3/16	4
CTC-3J6899	2-1/4 - 12	2-13/16	3-1/2
CTC-3J9449	2-1/2 - 12	2-5/8	4
CTC-3J9545	2 - 12	2-7/16	3-1/8
CTC-4J6888	2-3/4 - 12	2-1/4	4
CTC-4J8734	2-3/4 - 12	3-1/8	4
CTC-5J3488	2-1/4 - 12	1-15/16	3-1/2
CTC-5J5731	1-3/4 - 12	1-7/16	2-1/2
CTC-7J9250	3-1/4 - 12	3-1/8	4-1/2
CTC-9X6018	4 - 12	3.73	5.62
CTC-1438149	M48 × 2	50 mm	75 mm
CTC-1438150	M56 × 2	56 mm	85 mm
CTC-1336686	M56 × 2	57 mm	80 mm
CTC-1475835	M64 × 2	63 mm	95 mm
CTC-7Y4622	M72 × 2	70 mm	105 mm
CTC-7Y4695	M80 × 2	76 mm	115 mm
CTC-1232060	M80 × 2	64 mm	115 mm
CTC-1232112	M90 × 2	76 mm	130 mm
CTC-7Y4956	M90 × 2	84 mm	130 mm
CTC-0875385	M95 × 2	88 mm	135 mm
CTC-1261971	M100 × 2	89 mm	146 mm
CTC-1163513	M105 × 2	97 mm	150 mm
CTC-1163516	M120 × 2	108 mm	170 mm

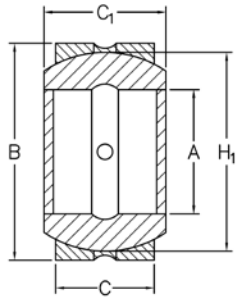


REPAIR ACCESSORIES

*Grade N8 (Grade C equivalent) or non-heat treated micro-alloy steel.



STYLE HH SELF ALIGNING BEARINGS (INCH)



SEAL INFORMATION

MATERIAL

CARBON
CHROMIUM STEELSUFFIX:
2RS = SEALED BEARINGS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	C ₁ OVERALL HEIGHT	G HOUSING DIAMETER	H ₁ BEARING GROOVE DIAMETER	Static Radial Load (lbs)	Dynamic Radial Load (lbs)	MATERIAL
HH008ES	1/2	7/8	3/8	.437	.875 ^{+0.000} _{-0.008}	.709	9337	3156	STEEL
HH010ES	5/8	1-1/16	15/32	.547	1.0625 ^{+0.000} _{-0.008}	.899	14732	4864	STEEL
HH012ES	3/4	1-1/4	9/16	.656	1.250 ^{+0.000} _{-0.001}	1.083	20927	7089	STEEL
HH100ES	1	1-5/8	3/4	.875	1.625 ^{+0.000} _{-0.001}	1.417	37359	12605	STEEL
HHW100ES	1	1-5/8	1-1/2	1.500	1.625 ^{+0.000} _{-0.001}	1.417	37351	12604	STEEL
HH104ES	1-1/4	2	15/16	1.093	2.000 ^{+0.000} _{-0.0012}	1.772	58507	19468	STEEL
HH106ES	1-3/8	2-3/16	1-1/32	1.187	2.1875 ^{+0.000} _{-0.0012}	1.929	69756	23404	STEEL
HH108ES	1-1/2	2-7/16	1-1/8	1.312	2.4375 ^{+0.000} _{-0.0012}	2.165	84379	28129	STEEL
HH108ES2RS	1-1/2	2-7/16	1-1/8	1.312	2.4375 ^{+0.000} _{-0.0012}	2.165	84379	28129	STEEL
HH112ES	1-3/4	2-13/16	1-5/16	1.531	2.8125 ^{+0.000} _{-0.0012}	2.520	114752	38255	STEEL
HH112ES2RS	1-3/4	2-13/16	1-5/16	1.531	2.8125 ^{+0.000} _{-0.0012}	2.520	114752	38255	STEEL
HH200ES	2	3-3/16	1-1/2	1.750	3.1875 ^{+0.000} _{-0.0014}	2.874	150754	50408	STEEL
HH200ES2RS	2	3-3/16	1-1/2	1.750	3.1875 ^{+0.000} _{-0.0014}	2.874	150754	50408	STEEL
HHW200ES	2	3-3/16	3	3.000	3.1875 ^{+0.000} _{-0.0014}	2.874	150757	50406	STEEL
HH204ES	2-1/4	3-9/16	1-11/16	1.969	3.5625 ^{+0.000} _{-0.0014}	3.228	191251	63002	STEEL
HH204ES2RS	2-1/4	3-9/16	1-11/16	1.969	3.5625 ^{+0.000} _{-0.0014}	3.228	191251	63002	STEEL
HH208ES	2-1/2	3-15/16	1-7/8	2.187	3.9375 ^{+0.000} _{-0.0014}	3.583	234007	77629	STEEL
HH212ES	2-3/4	4-3/8	2-1/16	2.406	4.375 ^{+0.000} _{-0.0014}	3.937	285752	95628	STEEL
HH300ES	3	4-3/4	2-1/4	2.625	4.750 ^{+0.000} _{-0.0016}	4.331	337506	112505	STEEL
HH300ES2RS	3	4-3/4	2-1/4	2.625	4.750 ^{+0.000} _{-0.0016}	4.331	337506	112505	STEEL
HH308ES	3-1/2	5-1/2	2-5/8	3.062	5.500 ^{+0.000} _{-0.0016}	5.039	459001	153003	STEEL
HH308ES2RS	3-1/2	5-1/2	2-5/8	3.062	5.500 ^{+0.000} _{-0.0016}	5.039	459001	153003	STEEL
HH312ES	3-3/4	5-7/8	2-13/16	3.281	5.875 ^{+0.000} _{-0.0016}	5.394	531004	175507	STEEL
HH400ES	4	6-1/4	3	3.500	6.250 ^{+0.000} _{-0.0016}	5.748	596256	202508	STEEL

KANSAS

PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA

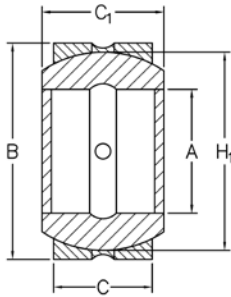
PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS

PHONE 1-903-753-0341
FAX 1-903-236-9797



STYLE MHH SELF ALIGNING BEARINGS (METRIC)



SEAL INFORMATION	
MATERIAL	CARBON CHROMIUM STEEL

SUFFIX:
2RS = SEALED BEARINGS

Part Number	A Nom. ID	B Nom. OD	C Nom. Ht	C ₁ OVERALL HEIGHT	G HOUSING DIAMETER	H ₁ BEARING GROOVE DIAMETER	Static Radial Load (lbs)	Dynamic Radial Load (lbs)
MHH20ES	20	35	12	16	35 ^{+0.000} _{-0.025}	29	32857	6759
MHH25ES	25	42	16	20	42 ^{+0.000} _{-0.025}	36	54003	10804
MHH25ES2RS	25	42	16	20	42 ^{+0.000} _{-0.025}	36	54003	10804
MHH30ES	30	47	18	22	47 ^{+0.000} _{-0.025}	41	69751	13951
MHH30ES2RS	30	47	18	22	47 ^{+0.000} _{-0.025}	41	69751	13951
MHH35ES	35	55	20	25	55 ^{+0.00} _{-0.03}	47	90008	18009
MHH35ES2RS	35	55	20	25	55 ^{+0.00} _{-0.03}	47	90008	18009
MHH40ES	40	62	22	28	62 ^{+0.00} _{-0.03}	53	112507	22501
MHH40ES2RS	40	62	22	28	62 ^{+0.00} _{-0.03}	53	112507	22501
MHH45ES2RS	45	68	25	32	68 ^{+0.00} _{-0.03}	60	144009	28578
MHH50ES	50	75	28	35	75 ^{+0.00} _{-0.03}	66	175509	35109
MHH50ES2RS	50	75	28	35	75 ^{+0.00} _{-0.03}	66	175509	35109
MHH60ES	60	90	36	44	90 ^{+0.000} _{-0.035}	80	274509	55128
MHH70ES2RS	70	105	30	49	105 ^{+0.000} _{-0.035}	92	351007	70876
MHH70ES	70	105	40	49	105 ^{+0.000} _{-0.035}	92	351007	70876
MHH80ES	80	120	45	55	120 ^{+0.000} _{-0.035}	105	450005	90008

REPAIR ACCESSORIES



SET SCREWS



These set screws are used on many cylinder headnuts. Use nylon plugs to ensure no damage to the headnut threads. All set screws employ Allen wrench heads.

Part Number	Thread Size	Length
SS-1/4-20X1/2	1/4-20	1/2
SS-1/4-20X3/8	1/4-20	3/8
SS-1/4-28X1/4	1/4-28	1/4
SS-1/4-28X3/8	1/4-28	3/8
SS-5/16-18X1/4	5/16-18	1/4
SS-5/16-18X3/8	5/16-18	3/8
SS-5/16-18X3/4	5/16-18	3/4
SS-5/16-24X5/16	5/16-24	5/16
SS-5/16-24X3/8	5/16-24	3/8
SS-3/8-16X3/8	3/8-16	3/8
SS-3/8-16X1/2	3/8-16	1/2
SS-3/8-16X5/8	3/8-16	5/8
SS-3/8-16X7/8	3/8-16	7/8
SS-1/2-13X1/2	1/2-13	1/2
SS-1/2-13X5/8	1/2-13	5/8
SS-#8-32X1/4	#8-32	1/4
SS-#10-24X1/4	#10-24	1/4

NYLON PLUGS



These nylon plugs are used with headnut set screws to ensure that there is no damage to the headnut threads.

Part Number	Diameter	Length
NYPLUG-125-125	1/8	1/8
NYPLUG-125-156	1/8	5/32
NYPLUG-125-875	1/8	7/8
NYPLUG-187-109	3/16	7/64
NYPLUG-187-187	3/16	3/16
NYPLUG-187-250	3/16	1/4
NYPLUG-250-070	1/4	0.070
NYPLUG-250-125	1/4	1/8
NYPLUG-250-187	1/4	3/16
NYPLUG-250-250	1/4	1/4
NYPLUG-312-125	5/16	1/8
NYPLUG-312-250	5/16	1/4
NYPLUG-312-312	5/16	5/16
NYPLUG-375-250	3/8	1/4
NYPLUG-500-875-125H	1/2	7/8

WIND-IN LOCK WIRES



Part Number	Thickness	Length
LW-093-1262	3/32 sq.	12-5/8
MARION-35240	1/8 sq.	10-1/4
MARION-35250	1/8 sq.	13-3/8
MARION-35260	1/8 sq.	16-3/8
MARION-35270	1/8 sq.	19-1/4
MARION-1031	3/16 sq.	21.00
1/8 RD WIRE	1/8 round	11

FILTER VENT PLUGS



These plugs are used to allow air to pass in and out of the non-pressurized end of a single-acting cylinder.

Part Number	NPT Port Size
FV-.125	1/8
FV-.250	1/4
FV-.375	3/8
FV-.500	1/2
FV-.750	3/4
FV-1.000	1

MANUAL BLEEDER VALVES



Part Number	Thread Size	Min Pkg Qty
WH705	1/8 NPT	3

STEEL PLUGS AND VENTS

Steel Plug (O-Ring Boss)



PART NUMBER	PORT SIZE
CM-74004	#4 SAE
CM-74005	#5 SAE
CM-74006	#6 SAE
CM-74008	#8 SAE
CM-74010	#10 SAE
CM-74012	#12 SAE
CM-74014	#14 SAE
CM-74016	#16 SAE
CM-74020	#20 SAE

NPT Steel Plug

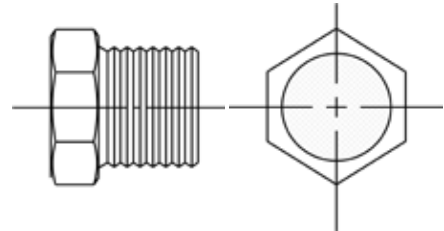
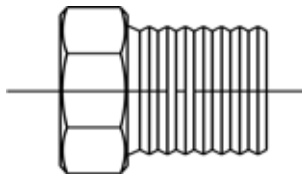
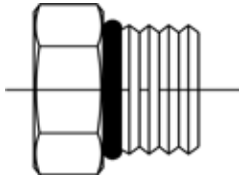


PART NUMBER	PORT SIZE
CM-74112	1/8" NPT
CM-74125	1/4" NPT
CM-74137	3/8" NPT
CM-74150	1/2" NPT
CM-74175	3/4" NPT
CM-74199	1" NPT
CM-74200	1-1/4" NPT

NPT Air Vent

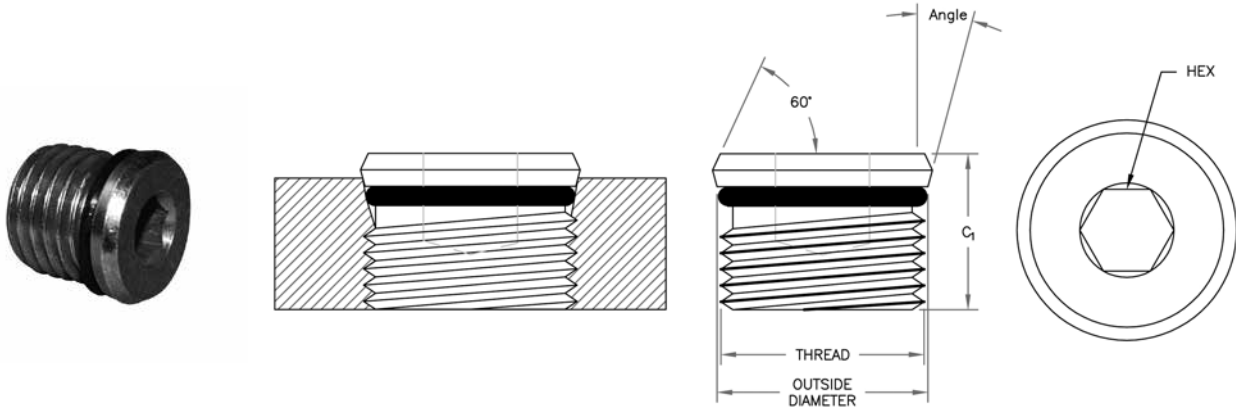


PART NUMBER	PORT SIZE
CM-77002	1/8" NPT
CM-77004	1/4" NPT
CM-77006	3/8" NPT
CM-77008	1/2" NPT
CM-77010	3/4" NPT





ZERO-LEAK GOLD STANDARD THREAD PORT PLUGS

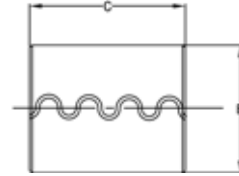


Part Number	SIZE NUMBER	C ₁ OVERALL HEIGHT	OUTSIDE DIAMETER	HEX	Angle	TESTED TORQUE (ft-lbs)	O-RING	THREAD
SHTPP-S04	4	.450 ±.020	.477 ±.003	.188 ^{+0.005} / _{+0.000}	12 ^{+0.0} / _{-0.5}	7	MOR-8X1.5	7/16-20 UNF
SHTPP-S06	6	.480 ±.020	.606 ±.003	.250 ^{+0.005} / _{+0.000}	12 ^{+0.0} / _{-0.5}	11	MOR-12.1X1.6	9/16-18 UNF
SHTPP-S08	8	.560 ±.020	.800 ±.003	.313 ^{+0.005} / _{+0.000}	15 ^{+0.0} / _{-0.5}	28	568-016	3/4-16 UNF
SHTPP-S10	10	.630 ±.020	.930 ±.003	.375 ^{+0.005} / _{+0.000}	15 ^{+0.0} / _{-0.5}	46	MOR-18X2	7/8-14 UNF
SHTPP-S12	12	.750 ±.020	1.130 ±.003	.563 ^{+0.005} / _{+0.000}	15 ^{+0.0} / _{-0.5}	51	MOR-22.3X2.4	1-1/16-12 UN
SHTPP-S16	16	.750 ±.020	1.385 ±.003	.625 ^{+0.005} / _{+0.000}	15 ^{+0.0} / _{-0.5}		MOR-27X2.5	1-5/16-12 UN

SPLIT TENSION BUSHINGS



Material: Hardened Spring Steel



PART NUMBER	A	B	C	HOUSING DIAMETER
CM-99507	0.75	1.00	2.00	1.002/1.006
CM-99508	0.88	1.00	2.00	1.002/1.006
CM-99510	1.00	1.25	0.75	1.252/1.256
CM-99514	1.00	1.25	0.88	1.252/1.256
CM-99511	1.00	1.25	1.00	1.252/1.256
CM-99513	1.00	1.25	1.25	1.252/1.256
CM-99512	1.00	1.25	1.50	1.252/1.256
CM-99519	1.25	1.50	1.25	1.502/1.506
CM-99522	1.25	1.50	1.50	1.502/1.506
CM-99521	1.25	1.50	2.00	1.502/1.506
CM-99531	1.50	1.75	1.50	1.752/1.756
CM-99533	1.50	1.75	2.00	1.752/1.756
CM-99535	1.50	1.75	3.00	1.752/1.756
CM-99534	1.50	1.88	2.00	1.877/1.881
CM-995335	1.50	1.75	2.50	1.752/1.756
CM-99537	1.50	2.00	1.25	2.002/2.006

PART NUMBER	A	B	C	HOUSING DIAMETER
CM-995371	1.50	2.00	2.00	2.002/2.006
CM-99540	1.75	2.00	1.25	2.002/2.006
CM-995375	1.75	2.00	1.50	2.002/2.006
CM-99538	1.75	2.00	2.00	2.002/2.006
CM-99539	1.75	2.00	2.25	2.002/2.006
CM-995410	1.75	2.00	3.00	2.002/2.006
CM-99541	1.75	2.25	2.00	2.252/2.256
CM-99546	2.00	2.38	3.00	2.377/2.381
CM-99549	2.00	2.25	1.50	2.252/2.256
CM-99550	2.00	2.25	2.50	2.252/2.256
CM-99547	2.00	2.50	2.00	2.502/2.506
CM-99545	2.00	2.50	2.50	2.502/2.506
CM-99556	2.50	3.00	2.00	3.002/3.006
CM-99557	2.50	3.00	3.00	3.002/3.006
CM-99565	3.00	3.50	2.50	3.502/3.506

REPAIR ACCESSORIES



LOCTITE



Threadlocker 242 locks fasteners 1/4" and larger yet allows easy disassembly with hand tools. Prevents rust and corrosion.

Part Number	Application
LOCTITE-24205	Removable Threadlocker 0.5 ml bottle
LOCTITE-24221	Removable Threadlocker 10 ml bottle
LOCTITE-24231	Removable Threadlocker 50 ml bottle
LOCTITE-27105	High Strength Threadlocker 0.5 ml bottle
LOCTITE-29021	Penetrating Threadlocker 10 ml bottle
LOCTITE-29031	Penetrating Threadlocker 50 ml bottle
LOCTITE-54531	Hyd/Pneum Thread Sealant 50 ml tube
LOCTITE-82325	Super Lube 3 oz tube

SEAL LUBE™

O-Ring Lubricant



Part Number: SEAL LUBE

Seal-Lube™ lubricant is a thick, clear, high viscosity silicone oil recommended for use with most seal compounds (except silicone) and a wide variety of hydraulic fluids. Insoluble in water, alcohol, petroleum oil and glycol, Seal-Lube™ can prolong seal life when applied prior to seal installation. Chemically inert and non-toxic, Seal-Lube™ retains its viscosity over a wide temperature range. The handy squeeze 2 ounce bottle dispenses just enough where you want it.

TURBO LOCK



Turbo Lock threadlocker adhesive series is an economical alternative to Loctite.

Part Number	Application
THREAD LOCKER-11-001	Removable Threadlocker 2 ml bottle
THREAD LOCKER-11-010	Removable Threadlocker 10 ml bottle
THREAD LOCKER-11-050	Removable Threadlocker 50 ml bottle
THREAD LOCKER-14-001	High Strength Threadlocker 2 ml bottle
THREAD LOCKER-14-250	High Strength Threadlocker 250 ml bottle
THREAD LOCKER-16-010	Penetrating Threadlocker 10 ml bottle
THREAD LOCKER-16-050	Penetrating Threadlocker 50 ml bottle

**Set Screw and Nylon Plug
Assortment Kits
Also Available -
See the Kits & Tools Section**

KANSAS

PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA

PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS

PHONE 1-903-753-0341
FAX 1-903-236-9797

GREASE FITTINGS



Part Number	Description
GF-125NPTS	1/8" NPT STRAIGHT
GF-125NPT45	1/8" NPT 45°
GF-125NPT90	1/8" NPT 90°
GF-187DS	3/16" DRIVE STRAIGHT
GF-250-28S	1/4"-28 STRAIGHT
GF-250-28-45	1/4"-28 45°
GF-250-28-90	1/4"-28 90°
GF-312DS	5/16" DRIVE STRAIGHT

PTFE THREAD SEAL TAPE

Part Number: PTFE TAPE



1/2" Wide by 520" Roll

SILICONE TAPE



Used to create permanent seals for low pressure gas or liquid leaks in hydraulic hoses.
Temperature Range: -62/+500° F

Part Number	Description
SILICONE TAPE	1" X 432" Roll

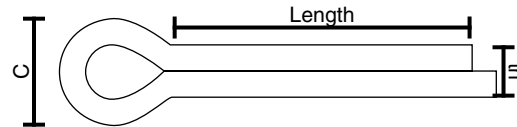
GREASE FITTING CAP



Low density polyethane cap plug for use with standard grease fittings.

Part Number	Description
CAP-GF-10	Cap Plug

COTTER PINS



Part Number	C	Length	th
CP-1X3/32	0.1875	1	0.082
CP-1-1/4X1/8	0.25	1.25	0.115
CP-1-1/2X5/32	0.3125	1.5	0.15
CP-1-3/4X3/16	0.39	1.75	0.1875
CP-2X3/16	0.375	2	0.176
CP-2X1/4	0.5	2	0.225
CP-2-1/2X1/8	0.25	2.5	0.115
CP-2-1/2X5/32	0.357	2.5	0.15625
CP-2-1/2X3/16	0.375	2.5	0.176
CP-2-1/2X1/4	0.5	2.5	0.225
CP-3X5/32	0.3125	3	0.15
CP-3X1/4	0.52	3	0.25
CP-3-1/2X1/4	0.5	3.5	0.225
CP-4X1/4	0.5	4	0.225
CP-5X1/4	0.5	5	0.225
CP-6X5/16	0.625	6	0.28



STYLE MCPL COUPLINGS

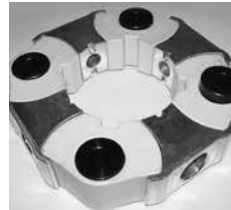
MCPL power transmission couplings are commonly found on mobile equipment to solve vibration problems in combustion engine driven equipment. The rubber or Hytrel elements effectively absorb shock loads, misalignment forces, and torsional vibrations generated by the connecting equipment at start-up for example. The coupling is axially connected to a PTO or flywheel on the engine side and radially connected to the driven equipment such as hydraulic pumps, generators, compressors, etc.



50H



110H



140H



50A

Part Number	ID X OD Dimensions	Material	Application
MCPL-110H-AL	100 X 222 mm	Plastic with Aluminum	Hitachi, Kato, etc.
MCPL-140H-AL	130 X 250 mm	Plastic with Aluminum	Komatsu, Kobelco, Kato, etc.
MCPL-50A-AL	107 X 200 mm	Rubber with Aluminum	Kobelco, Mitsubishi, etc.
MCPL-50H-AL	97 X 200 mm	Plastic with Aluminum	Komatsu, Hitachi, Kobelco, Mitsubishi, Kato, etc.

**Cotter Pin and Grease Fitting Assortment Kits
Also Available -
See the Kits & Tools Section**



Industrial Repair Parts

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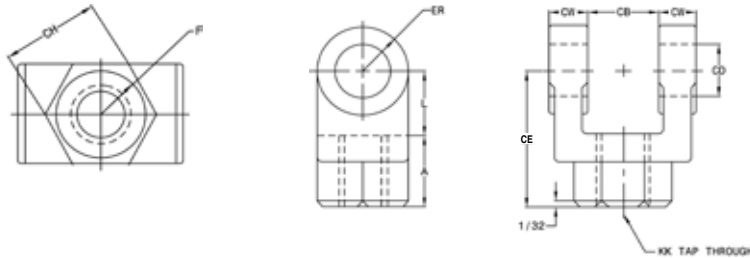
INDUSTRIAL MOUNTS



Rod Clevis

Material: 05, 07, 10
Forging 13 & Up Ductile
Iron Casting

PART NUMBER	CB	CD	CE	CH	CW	F	L	A	KK	ER
CM-RC0500	0.765	1/2	1-1/2	1	1/2	1	3/4	3/4	7/16"-20	1/2
CM-RC0750	1.265	3/4	2-3/8	1-1/4	5/8	1-1/4	1-1/4	1-1/8	3/4"-16	3/4
CM-RC1000	1.515	1	3-1/8	1-1/2	3/4	1-1/2	1-1/2	1-5/8	1"-14	1
CM-RC1375	2.032	1-3/8	4-1/8	2	1	2	2-1/8	2	1-1/4"-12	1-3/8
CM-RC1750	2.531	1-3/4	4-1/2	2-3/8	1-1/4	2-3/8	2-1/4	2-1/4	1-1/2"-12	1-3/4
CM-RC2000	2.531	2	5-1/2	2-15/16	1-1/4	2-15/16	2-1/2	3	1-7/8"-12	2
CM-RC2500	3.032	2-1/2	6-1/2	3-1/2	1-1/2	3-1/2	3	3-1/2	2-1/4"-12	2-1/2
CM-RC3000	3.032	3	6-3/4	3-7/8	1-1/2	3-7/8	3-1/4	3-1/2	2-1/2"-12	2-3/4
CM-RC3500	4.032	3-1/2	8-1/2	5	2	5	4	4-1/2	3-1/4"-12	3-1/2
CM-RC4000	4.532	4	10	6-1/8	2-1/4	6-1/8	4-1/2	5-1/2	4"-12	4



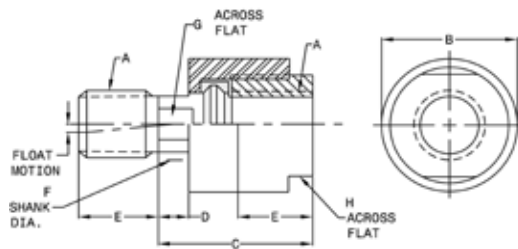
Alignment Coupler



1/16 Radial Float 2°
Spherical Motion

ALIGNMENT COUPLER	A	B	C	D	E	F	G	H	MAX PULL YIELD
CM-BD-437	7/16"-20	1-1/4	2	1/2	3/4	5/8	1/2	1	10,000
CM-BD-500	1/2"-20	1-1/4	2	1/2	3/4	5/8	1/2	1	14,000
CM-BD-625	5/8"-18	1-1/4	2	1/2	3/4	5/8	1/2	1	19,000
CM-BD-750	3/4"-16	1-3/4	2-5/16	1/2	1-1/8	31/32	13/16	1-1/2	34,000
CM-BD-875	7/8"-14	1-3/4	2-5/16	1/2	1-1/8	31/32	13/16	1-1/2	39,000
CM-BD-1000	1"-14	2-1/2	2-15/16	1/2	1-5/8	1-3/8	1-5/32	2-1/4	64,000
CM-BD-1250	1-1/4"-12	2-1/2	2-15/16	1/2	1-5/8	1-3/8	1-5/32	2-1/4	78,000
CM-BD-1500	1-1/2"-12	3-1/4	4-3/8	13/16	2-1/4	1-3/4	1-1/2	3	134,000
CM-BD-1750	1-3/4"-12	3-1/4	4-3/8	13/16	2-1/4	1-3/4	1-1/2	3	134,000
CM-BD-1875	1-7/8"-12	3-3/4	5-7/16	7/8	3	2	1-7/8	3-1/2	240,000

NOTE: Metric Thread Sizes Also Available



REPAIR ACCESSORIES

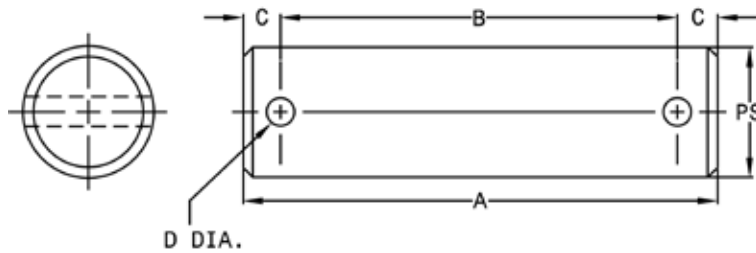
INDUSTRIAL MOUNTS

Pivot Pin



Material: 1144 Steel Nitrotec Treated Surface

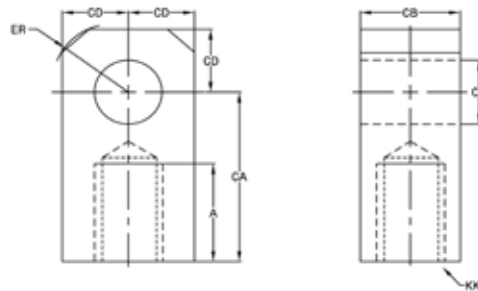
PART NUMBER	PIN SIZE	A	B	C	D
CM-PP0500	0.500	2.281	1.938	0.172	0.106
CM-PP0750	0.750	3.094	2.719	0.188	0.140
CM-PP1000	1.000	3.594	3.219	0.188	0.140
CM-PP1375	1.375	4.656	4.250	0.203	0.173
CM-PP1750	1.750	5.656	5.250	0.203	0.173
CM-PP2000	2.000	5.719	5.281	0.219	0.204
CM-PP2500	2.500	6.781	6.313	0.234	0.219



Material: 05 thru 13, C.F. Bar
Material: 17 thru 40, Steel Plate

Rod Eyes

PART NUMBER	A	CA	CB	CD	ER	KK
CM-RE0500	3/4	1-1/2	3/4	1/2	5/8	7/16"-20
CM-RE0750	1-1/8	2-1/16	1-1/4	3/4	7/8	3/4"-16
CM-RE1000	1-5/8	2-13/16	1-1/2	1	1-3/16	1"-14
CM-RE1375	2	3-7/16	2	1-3/8	1-9/16	1-1/4"-12
CM-RE1750	2-1/4	4	2-1/2	1-3/4	2	1-1/2"-12
CM-RE2000	3	5	2-1/2	2	2-1/2	1-7/8"-12
CM-RE2500	3-1/2	5-13/16	3	2-1/2	2-13/16	2-1/4"-12



REPAIR ACCESSORIES



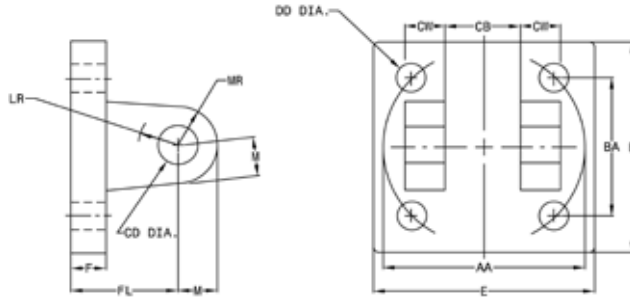
INDUSTRIAL MOUNTS



Clevis Bracket

PART NUMBER	AA	BA	CB	CD	CW	DD	E	F	FL	LR	M	MR
CM-BDCB-07	3.6	2-9/16	1.265	3/4	5/8	1/2"-20	3-1/2	5/8	1-7/8	1-1/16	3/4	1-1/16
CM-BDCB-10	4.6	3-1/4	1.515	1	3/4	5/8"-18	4-1/2	3/4	2-1/4	1-1/4	1	1-1/8
CM-BDCB-13	5.4	3-13/16	2.032	1-3/8	1	5/8"-18	5	7/8	3	7/8	1-3/8	1-3/4
CM-BDCB-20	8.2	5-3/4	2.531	2	1-1/4	1"-14	7-1/2	1	3-12	2-1/8	2	2-1/8

Material: Forging, Weldment, or Ductile Iron



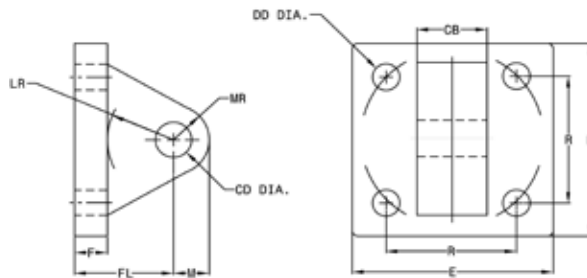
REPAIR ACCESSORIES



Eye Bracket

PART NUMBER	CB	CD	DD	E	F	FL	LR	M	MR	R
CM-BDEB-05	3/4	1/2	13/32	2-1/2	3/8	1-1/8	3/4	1/2	9/16	1.63
CM-BDEB-07	1-1/4	3/4	17/32	3-1/2	5/8	1-7/8	1-1/4	3/4	7/8	2.56
CM-BDEB-10	1-1/2	1	21/33	4-1/2	3/4	2-1/4	1-1/2	1	1-1/4	3.25
CM-BDEB-13	2	1-3/8	21/32	5	7/8	3	2-1/8	1-3/8	1-5/8	3.81
CM-BDEB-17	2-1/2	1-3/4	29/32	6-1/2	7/8	3-1/8	2-1/4	1-3/4	2-1/8	4.95
CM-BDEB-20	2-1/2	2	1-1/16	7-1/2	1	3-1/2	2-1/2	2	2-7/16	5.75
CM-BDEB-25	3	2-1/2	1-3/16	8-1/2	1	4	3	2-1/2	3	6.59
CM-BDEB-30	3	3	1-5/16	9-1/2	1	4-1/4	3-1/4	3	3-1/4	7.50
CM-BDEB-40	4-1/2	4	2-1/16	14-7/8	1-15/16	6-7/16	4-1/2	4	5-1/4	11.50

Material: Forging, Weldment, or Ductile Iron



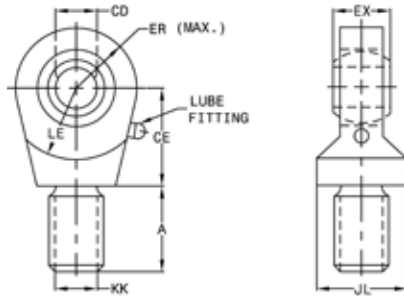
INDUSTRIAL MOUNTS



Material: Forging, Weldment, or Ductile Iron

Spherical Rod Eye

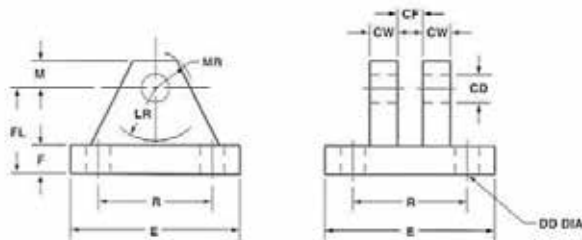
PART NUMBER	CD	A	CE	EX	ER	LE	KK	JL REF	LOAD CAP	SPACER WIDTH
CM-RES-05	0.500	11/16	7/8	7/16	7/8	3/4	7/16"-20	7/8	2,600	0.150
CM-RES-07	0.750	1	1-1/4	21/32	1-1/4	1-1/16	3/4"-16	1-5/16	9,400	0.250
CM-RES-10	1.000	1-1/2	1-7/8	7/8	1-3/8	1-7/16	1"-14	1-1/2	16,800	0.250
CM-RES-13	1.375	2	2-1/8	1-3/16	1-13/16	1-7/8	1-1/4"-12	2	28,600	0.375
CM-RES-17	1.750	2-1/8	2-1/2	1-17/32	2-3/16	2-1/8	1-1/2"-12	2-1/4	43,000	0.416
CM-RES-20	2.000	2-7/8	2-3/4	1-3/4	2-5/8	2-1/2	1-7/8"-12	2-3/4	70,000	0.375



Material: Steel Weldment

Spherical Clevis Brackets

PART NUMBER	E	F	M	R	CD	CF	CW	DD	FL	LR	MR
CM-CBS-0500	3.00	.50	.50	2.05	.500	.44	.50	.41	1.50	.94	.62
CM-CBS-0750	3.75	.62	.88	2.76	.750	.66	.62	.53	2.00	1.38	1.00
CM-CBS-1000	5.50	.75	1.00	4.10	1.000	.88	.75	.53	2.50	1.69	1.19
CM-CBS-1375	6.50	.88	1.38	4.95	1.375	1.19	1.00	.66	3.50	2.44	1.62
CM-CBS-1750	8.50	1.25	1.75	6.58	1.750	1.53	1.25	.91	4.50	2.88	2.06
CM-CBS-2000	10.62	1.50	2.00	7.92	2.000	1.75	1.50	.91	5.00	3.31	2.38





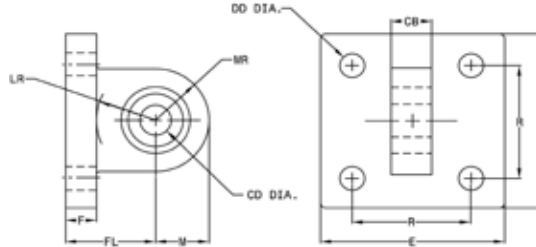
INDUSTRIAL MOUNTS, COUPLINGS AND NUTS



Spherical Eye Bracket

PART NUMBER	CB	CD	DD	E	F	FL	LR	M	MR	R
CM-BDS-07	3/4	3/4	17/32	3-1/2	5/8	1-7/8	1-1/4	1-3/16	1-3/16	2.56
CM-BDS-10	1	1	21/32	4-1/2	3/4	2-1/4	1-1/2	1-3/8	1-3/8	3.25
CM-BDS-13	1-3/8	1-3/8	21/32	5	7/8	3	2-1/8	2	2	3.81

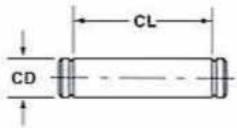
Material: Forging,
Weldment, or Ductile Iron



Pivot Pins for Spherical Clevis Brackets

Material: CD1144
- Close tolerance on pin diameter

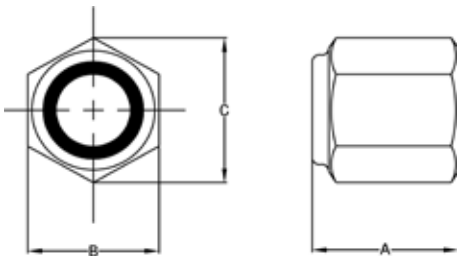
PART NUMBER	CD	CL
CM-PPS0500	.4997-.0004	1 9/16
CM-PPS0750	.7497-.0005	2.1/32
CM-PPS1000	.9997-.0005	2 1/2
CM-PPS1375	1.3746-.0006	3 5/16
CM-PPS1750	1.7496-.0006	4 7/32
CM-PPS2000	1.9996-.0007	4 15/16



Nylon Insert Lock Nut

PART NUMBER	BAR SIZE	A	B	C
CM-LN45050	1/2"-20	0.60	0.75	0.84
CM-LN45062	5/8"-18	0.75	0.94	1.06
CM-LN45075	3/4"-16	0.88	1.06	1.19
CM-LN45087	7/8"-14	1.00	1.25	1.40
CM-LN45100	1"-14	1.06	1.44	1.62
CM-LN45101	1"-14	0.88	1.62	1.83
CM-LN45112	1-1/8"-12	1.19	1.62	1.83
CM-LN45126	1-1/4"-12	1.38	1.81	2.06
CM-LN45151	1-1/2"-12	1.62	2.19	2.44
CM-LN45152	1-1/2"-12	0.81	2.19	2.44
CM-LN45175	1-3/4"-12	1.50	2.75	3.06
CM-LN45200	2"-12	1.62	3.12	3.50
CM-LN45225	2-1/4"-12	1.94	3.50	3.94
CM-LN45226	2-1/4"-12	2.81	3.50	3.94
CM-LN45250	2-1/2"-12	2.25	4.00	4.60

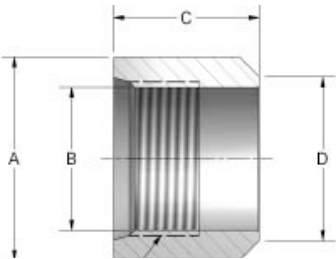
*Grade N8 (Grade C equivalent), except LN45101 is Grade N5 (Grade B equivalent)



PORTS



O-ring Boss Half Coupling Port

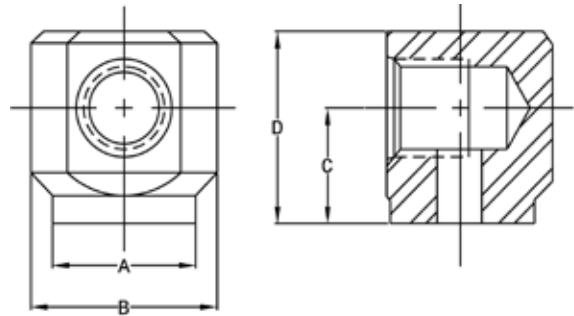


PART NUMBER	PORT SIZE	A	B	C	D
CM-PO65304	#4 SAE	0.88	.389	1.00	.570
CM-PO65305	#5 SAE	0.88	.452	1.00	*
CM-PO65306	#6 SAE	1.00	.508	1.00	.690
CM-PO65308	#8 SAE	1.25	.689	1.06	.870
CM-PO65310	#10 SAE	1.38	.806	1.06	.990
CM-PO65312	#12 SAE	1.50	.981	1.28	1.160
CM-PO65314	#14 SAE	1.63	1.106	1.25	1.290
CM-PO65316	#16 SAE	1.75	1.231	1.28	1.410
CM-PO65320	#20 SAE	2.25	1.544	1.28	1.720
CM-PO65324	#24 SAE	2.50	1.794	1.28	1.980

- AISI1020 Carbon Steel

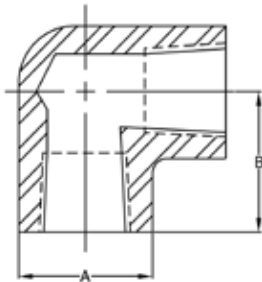
*No Bevel

90 Degree O-ring Boss Port



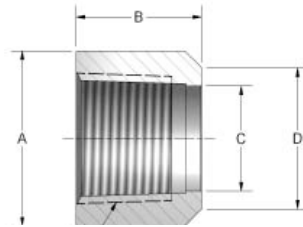
PART NUMBER	BAR SIZE	A	B	C	D
CM-PO65604	#4 SAE	0.75	1.12	0.75	1.12
CM-PO65606	#6 SAE	0.87	1.25	0.81	1.25
CM-PO65608	#8 SAE	1.25	1.62	1.00	1.62
CM-PO65610	#10 SAE	1.25	1.75	1.12	1.88
CM-PO65612	#12 SAE	1.50	2.12	1.19	2.00
CM-PO65616	#16 SAE	1.50	2.25	1.25	2.38

90 Degree Pipe Thread Port



PART NUMBER	PORT SIZE	A	B
CM-PO65225	1/4" NPT	0.75	1.00
CM-PO65237	3/8" NPT	0.88	1.00
CM-PO65250	1/2" NPT	1.12	1.25
CM-PO65275	3/4" NPT	1.38	1.38
CM-PO652751	1" NPT	1.75	1.62

Pipe Thread Half Coupling



PART NUMBER	PORT SIZE	A	B	C	D
CM-PO65025	1/4" NPT	0.88	1.06	.391	.570
CM-PO65037	3/8" NPT	1.00	1.00	.520	.690
CM-PO65050	1/2" NPT	1.25	1.06	.650	.870
CM-PO65075	3/4" NPT	1.50	1.28	.850	1.160
CM-PO65100	1" NPT	1.75	1.28	1.050	1.410
CM-PO65125	1-1/4" NPT	2.25	1.28	1.420	1.720
CM-PO65150	1-1/2" NPT	2.75	1.28	1.560	1.980

- AISI1020 Carbon Steel



NOTES

A series of horizontal lines providing a space for notes.

NOTES

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OKLAHOMA
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FAX 1-918-446-4743

TEXAS
PHONE 1-903-753-0341
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O-RING KITS

O-RING KIT

Part Number: 568 KIT-A

DASH NUMBER	QTY
006 THRU 012	20
110 THRU 116	13
210 THRU 222	10
325 THRU 327	7



This kit contains a total of 382 O-Rings in 30 different sizes, providing an extremely low cost per size value.

O-RING METRIC KIT

Part Number: METRIC O KIT-J-A

I.D X C.S. (mm)	QTY	I.D X C.S. (mm)	QTY	I.D X C.S. (mm)	QTY
3 X 2.0	16	14 X 2.5	13	28 X 3.0	12
4 X 2.0	16	16 X 2.5	13	30 X 3.0	12
5 X 2.0	16	17 X 2.5	13	32 X 3.0	12
6 X 2.0	16	19 X 2.5	13	33 X 3.0	12
7 X 2.0	16	19 X 3.0	11	35 X 3.0	12
8 X 2.0	16	20 X 3.0	12	36 X 3.0	12
10 X 2.0	16	22 X 3.0	12	38 X 3.0	12
10 X 2.5	13	24 X 3.0	12	38 X 4.0	9
11 X 2.5	13	25 X 3.0	12	41 X 4.0	9
12 X 2.5	13	27 X 3.0	12	44 X 4.0	9

The Metric O-Kit J-A contains a total of 385 O-Rings in 30 different sizes, another extremely low cost per size value.



HNBR O-RING KIT

Part Number: 568 HNBR KIT

PART NUMBER	QTY
568-008H	20
568-010H	20
568-011H	20
568-012H	20
568-013H	20
568-014H	20
568-015H	15
568-017H	15
568-111H	15
568-116H	15
568-118H	10
568-211H	10



This kit contains a total of 200 70A Durometer HNBR o-rings in 12 different sizes, providing an extremely low cost per size value.

MASTER O-RING FITTING KIT

Part Number: MASTER OR FITTING KIT

PORT DASH SIZE	PART NUMBER	QTY	PORT DASH SIZE	PART NUMBER	QTY
SAE BOSS #4	568-904	50	ORS #8	568-014-90D	50
SAE BOSS #5	568-905	50	ORS #10	568-016-90D	50
SAE BOSS #6	568-906	50	ORS #12	568-018-90D	50
SAE BOSS #8	568-908	50	ORS #16	568-021-90D	50
SAE BOSS #10	568-910	50	ORS #20	568-025-90D	50
SAE BOSS #12	568-912	50	ORS #24	568-029-90D	40
SAE BOSS #14	568-914	40	SAE #8	568-210-90D	50
SAE BOSS #16	568-916	40	SAE #12	568-214-90D	50
SAE BOSS #20	568-920	20	SAE #16	568-219-90D	20
SAE BOSS #24	568-924	10	SAE #20	568-222-90D	20
SAE BOSS #32	568-932	10	SAE #24	568-225-90D	20
ORS #4	568-011-90D	50	SAE #32	568-228-90D	20
ORS #6	568-012-90D	50	SAE #40	568-232-90D	10



This 1000 piece assortment contains 1/16" CS, 1/8" CS, and Boss 90A Durometer NBR O-rings in 26 of the most popular fitting sizes, including O-ring face seals and SAE straight thread boss fittings. Individually separated inside of a sturdy steel case.

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FAX 1-903-236-9797

O-RING KITS

SAE FLANGE SEALS

Part Number: SAE FLANGE SEALS

BOX PART NUMBER	PART NUMBER	QTY
-8	568-210-90D	8
-12	568-214-90D	8
-16	568-219-90D	8
-20	568-222-90D	8
-24	568-225-90D	8
-32	568-228-90D	8



Fits SAE J518 code 61/62 split flanges.

FLAT FACE SEALS

Part Number: FLAT FACE O-RINGS

BOX PART NUMBER	PART NUMBER	QTY
-4	568-011-90D	8
-6	568-012-90D	8
-8	568-014-90D	8
-10	568-016-90D	8
-12	568-018-90D	8
-16	568-021-90D	8
-20	568-025-90D	8
-24	568-029-90D	8



Fits SAE O-ring face seal fittings.

BOSS & TUBE SEALS

Part Number: BOSS-TUBE FITTINGS-1

Part Number: BOSS-TUBE FITTINGS-2

BOX PART NUMBER	PART NUMBER	QTY	KIT NUMBER
-2	568-902	8	FITTINGS-1
-3	568-903	8	FITTINGS-1
-4	568-904	8	FITTINGS-1
-5	568-905	8	FITTINGS-1
-6	568-906	8	FITTINGS-1
-8	568-908	8	FITTINGS-1
-10	568-910	8	FITTINGS-1
-12	568-912	8	FITTINGS-1
-14	568-914	8	FITTINGS-1
-16	568-916	8	FITTINGS-2
-20	568-920	8	FITTINGS-2
-24	568-924	8	FITTINGS-2
-32	568-932	8	FITTINGS-2

Fits SAE Boss straight thread tube fittings.



HOSE END & ADAPTER KIT

Part Number: O-R FITTING KIT

This handy kit contains 27 sizes and 216 pieces of 90A Durometer O-rings for boss, split flange, and flat face hose end fittings and adapters. Each box has a graphic label identifying the type of application and dash number for the seal. A chart on the back of the box lists popular OEM part number matches for each O-ring.



ASSORTMENT KITS AND TOOLS



O-RING KITS

SAE 900 O-RING BOSS FLUOROCARBON KIT

Part Number: 900 BOSS FC

PART NUMBER	QTY	SAE PORT SIZE
568-901V	10	-1
568-902V	10	-2
568-903V	10	-3
568-904V	10	-4
568-905V	12	-5
568-906V	12	-6
568-907V	12	-7
568-908V	12	-8
568-909V	12	-9
568-910V	12	-10
568-911V	10	-11
568-912V	10	-12
568-913V	10	-13
568-914V	10	-14
568-916V	10	-16
568-918V	10	-18
568-920V	10	-20
568-924V	10	-24
568-928V	10	-28
568-932V	10	-32



This 212 piece assortment contains the most popular size 90 Durometer FKM Boss O-rings in 20 different fitting sizes, individually separated, which will supply your shop, service truck, or parts counter with the sizes you need!

SAE J514 O-RING BOSS KIT

Part Number: 900 BOSS KIT

PART NUMBER	QTY	SAE PORT SIZE
568-901	10	-1
568-902	10	-2
568-903	10	-3
568-904	10	-4
568-905	12	-5
568-906	12	-6
568-907	12	-7
568-908	12	-8
568-909	12	-9
568-910	12	-10
568-911	10	-11
568-912	10	-12
568-913	10	-13
568-914	10	-14
568-916	10	-16
568-918	10	-18
568-920	10	-20
568-924	10	-24
568-928	10	-28
568-932	10	-32



This 212 piece assortment contains the most popular size 90 Durometer Boss O-rings in 20 different fitting sizes, individually separated, which will supply your shop, service truck, or parts counter with the sizes you need!

O-RING FACE KIT

Part Number: 568 FACE KIT

DASH NUMBER	FITTING	QTY
011-90D	#4	25
012-90D	#6	25
014-90D	#8	25
016-90D	#10	25
018-90D	#12	20
021-90D	#16	15
025-90D	#20	10
029-90D	#24	10



This kit contains a total of 155 90 Durometer O-Rings in 8 different sizes, providing an extremely low cost per size value.

SAE CODE 61 & 62 O-RING FLANGE KIT

Part Number: 568 FLANGE KIT

DASH NUMBER	FITTING	QTY
210-90D	1/2"	10
214-90D	3/4"	10
219-90D	1"	10
222-90D	1-1/4"	10
225-90D	1-1/2"	10
228-90D	2"	10
232-90D	2-1/2"	10



This kit contains a total of 70, 90 Durometer O-Rings, in 7 different sizes, providing an extremely low cost per size value.

O-RING KITS

SPLIT FLANGE SEAL KIT

Part Number: SFS KIT

PART NUMBER	Flange Size	Replaces O-Ring No.	Outside Diam.	QTY
SFS-8	1/2"	-210	1.005	5
SFS-12	3/4"	-214	1.255	5
SFS-16	1"	-219	1.565	5
SFS-20	1-1/4"	-222	1.755	5
SFS-24	1-1/2"	-225	2.125	5
SFS-32	2"	-228	2.500	5
SFS-40	2-1/2"	-232	3.005	5



This kit contains 35 seals in 7 popular sizes for SAE J518 4-Bolt code 61 and code 62 split flanges.

U.S. INDUSTRIAL O-RING KIT

Part Number: 568 KIT

DASH NUMBER	QTY
005 THRU 011	25
012	15
013 THRU 018	10
110	15
111 THRU 116	10
117 THRU 121	7
210 THRU 211	10
212 THRU 219	7



This kit contains a total of 436 70 Durometer O-Rings in 36 different sizes, providing an extremely low cost per size value.

QUAD RING KIT

Part Number: QUAD-RING KIT

DASH NUMBER	QTY
4005 THRU 4012	10
4013 THRU 4016	6
4017 THRU 4018	5
4110 THRU 4116	6
4117 THRU 4121	4
4210 THRU 4219	5



QUAD WAREHOUSE KIT

Part Number: QUAD-RING WH KIT

DASH NUMBER	QTY
4004 THRU 4012	10
4013 THRU 4030	5
4031 THRU 4038	3
4039 THRU 4048	2
4108 THRU 4116	10
4117 THRU 4124	5
4125 THRU 4135	3
4136 THRU 4154	2
4204 THRU 4216	5
4217 THRU 4229	3
4230 THRU 4338	2



Similar to the O-Ring Warehouse kit, the Quad Seal Warehouse kit contains a total of 583 four-lobed seals in 145 different sizes. This kit is ideal for the small distributor who wishes to have a comprehensive on-hand inventory of Quad seals for counter sales.



O-RING KITS

90 DUROMETER O-RING KIT

Part Number: 568 90D KIT

DASH NUMBER	QTY
005 THRU 011-90D	25
012-90D	15
013 THRU 018-90D	10
110-90D	15
111 THRU 116-90D	10
117 THRU 121-90D	7
210 THRU 211-90D	10
212 THRU 219-90D	7



This kit contains a total of 436 90 Durometer O-Rings in 36 different sizes, providing an extremely low cost per size value.

PTFE O-RING KIT

Part Number: 568 PTFE KIT

DASH NUMBER	QTY
005 THRU 012T	15
013 THRU 018T	10
110 THRU 116T	10
117 THRU 121T	5
210 THRU 219T	5



This kit contains a total of 325 PTFE O-Rings (55 - 58 Shore D) in 36 different sizes. PTFE O-Rings can withstand temperatures up to 500° F and are impervious to a wide range of chemicals.

FLUOROCARBON O-RING KIT

Part Number: 568 FC KIT

DASH NUMBER	QTY
005 THRU 011V	25
012V	15
013 THRU 018V	10
110V	15
111 THRU 116V	10
117 THRU 121V	7
210 THRU 211V	10
212 THRU 219V	7



This kit contains a total of 436 75 Durometer Fluorocarbon O-Rings in 36 different sizes, providing an extremely low cost per size value.

FLUOROCARBON O-RING KIT

Part Number: 568 FC KIT-A

DASH NUMBER	QTY
006 THRU 012	10
110 THRU 114	10
115 THRU 116	5
210 THRU 214	5
216 THRU 222	2
325 THRU 327	2



This kit contains a total of 180 75 Shore A fluorocarbon o-rings in 30 different sizes.

VITON KIT

Part Number: METRIC O KIT-V

I.D.	C.S	QTY	I.D.	C.S	QTY	I.D.	C.S	QTY
5.00	1.50	20	9.00	2.00	15	19.00	2.00	10
2.20	1.60	20	10.00	2.00	15	20.00	2.00	10
3.10	1.60	20	12.00	2.00	15	10.00	2.50	10
4.10	1.60	20	4.30	2.40	15	13.00	2.50	10
7.10	1.60	20	5.30	2.40	15	14.00	2.50	10
4.00	2.00	20	5.60	2.40	15	15.00	2.50	10
6.00	2.00	20	7.60	2.40	15	17.00	2.50	10
13.00	1.50	15	8.30	2.40	15	18.00	2.50	10
9.10	1.60	15	8.60	2.40	15	19.00	2.50	10
10.10	1.60	15	16.00	1.50	10	9.00	3.00	10
13.10	1.60	15	14.00	2.00	10	10.00	3.00	10
8.00	2.00	15	16.00	2.00	10	11.00	3.00	10

This 500 piece kit contains 75 Shore A fluorocarbon o-rings in 36 metric sizes.



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O-RING KITS

O-RING WAREHOUSE KIT

Part Number: 568 WH KIT

DASH NUMBER	QTY	DASH NUMBER	QTY	DASH NUMBER	QTY
001 THRU 016	20	125 THRU 142	5	325 THRU 328	5
017 THRU 024	10	143 THRU 146	3	329 THRU 330	4
025 THRU 031	7	147 THRU 151	2	331 THRU 338	2
032 THRU 043	5	210 THRU 216	10	901 THRU 914	5
044 THRU 046	2	217 THRU 229	5	916, 918	5
110 THRU 116	15	230 THRU 232	3	920, 924	5
117 THRU 124	10	233 THRU 237	2	928, 932	5

This O-ring Warehouse kit is ideally suited for the repair shop that needs a large on-hand selection of O-rings to ensure quick repair of all machine types. 1,110 O-Rings in 150 different sizes are included in this kit. Each size is individually packaged in heavy duty ziploc bags to protect against environmental exposure and contamination. All packages are then stored in a sturdy styrene cabinet with pull-out drawers for easy access to parts. Included card shows size, dimensions, and drawer location for each ring.



FLUOROCARBON O-RING WAREHOUSE KIT

Part Number: 568 WH KIT-FC

DASH NUMBER	QTY	DASH NUMBER	QTY	DASH NUMBER	QTY
001 THRU 016V	20	125 THRU 142V	5	325 THRU 328V	5
017 THRU 024V	10	143 THRU 146V	3	329 THRU 330V	4
025 THRU 031V	7	147 THRU 151V	2	331 THRU 338V	2
032 THRU 043V	5	210 THRU 216V	10	901 THRU 914V	5
044 THRU 046V	2	217 THRU 229V	5	916V, 918V	5
110 THRU 116V	15	230 THRU 232V	3	920V, 924V	5
117 THRU 124V	10	233 THRU 237V	2	928V, 932V	5

This 75 Durometer Fluorocarbon O-ring Warehouse kit is ideally suited for the repair shop that needs a large on-hand selection of O-rings to ensure quick repair of all machine types. 1,110 O-Rings in 150 different sizes are included in this kit. Each size is individually packaged in heavy duty ziploc bags to protect against environmental exposure and contamination. All packages are then stored in a sturdy styrene cabinet with pull-out drawers for easy access to parts. Included card shows size, dimensions, and drawer location for each ring.



90 DUROMETER O-RING WAREHOUSE KIT

Part Number: 568 WH KIT-90D

DASH NUMBER	QTY	DASH NUMBER	QTY
001 THRU 016-90D	20	217 THRU 229-90D	5
017 THRU 024-90D	10	230 THRU 232-90D	3
025 THRU 031-90D	7	233 THRU 237-90D	2
032 THRU 043-90D	5	325 THRU 328-90D	5
044 THRU 046-90D	2	329 THRU 330-90D	4
110 THRU 116-90D	15	331 THRU 338-90D	2
117 THRU 124-90D	10	901 THRU 914-90D	5
125 THRU 142-90D	5	916, 918-90D	5
143 THRU 146-90D	3	920, 924-90D	5
147 THRU 151-90D	2	928, 932-90D	5
210 THRU 216-90D	10		

This 90 Durometer O-ring Warehouse kit is ideally suited for the repair shop that needs a large on-hand selection of O-Rings to insure quick repair of all machine types. 1,110 O-Rings in 150 different sizes are included in this kit.



ASSORTMENT KITS AND TOOLS



O-RING KITS

MAX O-RING KIT

Part Number: MAX 1381 KIT

Part Number: MAX 1381 KIT-90D



These sturdy kits, packaged in a heavy duty box, contain 1,415 O-Rings in the most popular sizes. Every service truck should have one of these. Five internal boxes contain 1/16" C/S, 3/32" C/S, 1/8" C/S, Boss, and Flange fitting o-rings. Contents and quantities are listed below.

Flange Seals

DASH NUMBER	QTY
8	10
12	10
16	10
20	5
24	5
32	5

Boss O-Rings

DASH NUMBER	QTY
903	15
904	25
905	15
906	25
908	25
910	25
912	15
916	10

1/16" C/S O-Rings

DASH NUMBER	QTY
006 THRU 018	25
019 THRU 021	20
022 THRU 026	15
028	15
029	10
030	10

1/8" C/S O-Rings

DASH NUMBER	QTY
210 THRU 214	20
215 THRU 222	15
223 THRU 224	10
226	10
228	10
232	10
236	10

3/32" C/S O-Rings

DASH NUMBER	QTY
109 THRU 118	25
119 THRU 120	20
121 THRU 127	15
128	10
129	10
131	10
133	10
135	5

O-RING KITS

COMMON JAPANESE SIZE O-RINGS IN 70 DUROMETER

Part Number: METRIC O KIT-J

I.D.	C.S	QTY	I.D.	C.S	QTY
2.8	1.9	25	20.8	2.4	8
3.8	1.9	20	21.8	2.4	8
4.8	1.9	20	24.4	3.1	6
5.8	1.9	20	29.4	3.1	7
6.8	1.9	15	21.7	3.5	5
7.8	1.9	15	22.1	3.5	5
8.8	1.9	15	23.7	3.5	7
9.8	1.9	15	24.7	3.5	7
9.8	2.4	15	25.2	3.5	7
10.8	2.4	15	25.7	3.5	7
11.0	2.4	15	27.7	3.5	7
11.8	2.4	12	28.7	3.5	6
12.8	2.4	12	29.2	3.5	6
13.8	2.4	12	29.7	3.5	6
14.8	2.4	12	30.7	3.5	6
15.8	2.4	12	31.2	3.5	6
17.8	2.4	8	14.5	4.0	4
19.8	2.4	8	23.5	4.0	6



This 380 piece kit contains the most popular Japanese Industrial metric O-ring sizes.

COMMON EUROPEAN SIZE O-RINGS IN 70 DUROMETER

Part Number: METRIC O KIT-E

I.D.	C.S.	QTY	I.D.	C.S.	QTY
5.0	1.5	20	19.0	2.0	10
13.0	1.5	15	20.0	2.0	10
16.0	1.5	10	4.3	2.4	15
2.2	1.6	20	5.3	2.4	15
3.1	1.6	20	5.6	2.4	15
4.1	1.6	20	7.6	2.4	15
7.1	1.6	20	8.3	2.4	15
9.1	1.6	15	8.6	2.4	15
10.1	1.6	15	10.0	2.5	10
13.1	1.6	15	13.0	2.5	10
4.0	2.0	20	14.0	2.5	10
6.0	2.0	20	15.0	2.5	10
8.0	2.0	15	17.0	2.5	10
9.0	2.0	15	18.0	2.5	10
10.0	2.0	15	19.0	2.5	10
12.0	2.0	15	9.0	3.0	10
14.0	2.0	10	10.0	3.0	10
16.0	2.0	10	11.0	3.0	10



This 500 piece kit contains the most popular European metric O-ring sizes.

ASSORTMENT KITS AND TOOLS



O-RING KITS

COMMON JAPANESE SIZE O-RINGS IN 90 DUROMETER

Part Number: METRIC O KIT-J-90D

I.D.	C.S.	QTY	I.D.	C.S.	QTY
2.8	1.9	25	20.8	2.4	8
3.8	1.9	20	21.8	2.4	8
4.8	1.9	20	24.4	3.1	6
5.8	1.9	20	29.4	3.1	7
6.8	1.9	15	21.7	3.5	5
7.8	1.9	15	22.1	3.5	5
8.8	1.9	15	23.7	3.5	7
9.8	1.9	15	24.7	3.5	7
9.8	2.4	15	25.2	3.5	7
10.8	2.4	15	25.7	3.5	7
11.0	2.4	15	27.7	3.5	7
11.8	2.4	12	28.7	3.5	6
12.8	2.4	12	29.2	3.5	6
13.8	2.4	12	29.7	3.5	6
14.8	2.4	12	30.7	3.5	6
15.8	2.4	12	31.2	3.5	6
17.8	2.4	8	14.5	4.0	4
19.8	2.4	8	23.5	4.0	6



This 380 piece kit contains the most popular Japanese Industrial metric O-ring sizes in 90 durometer NBR.

COMMON EUROPEAN SIZE O-RINGS IN 90 DUROMETER

Part Number: METRIC O KIT-E-90D

I.D.	C.S.	QTY	I.D.	C.S.	QTY
5.0	1.5	20	19.0	2.0	10
13.0	1.5	15	20.0	2.0	10
16.0	1.5	10	4.3	2.4	15
2.2	1.6	20	5.3	2.4	15
3.1	1.6	20	5.6	2.4	15
4.1	1.6	20	7.6	2.4	15
7.1	1.6	20	8.3	2.4	15
9.1	1.6	15	8.6	2.4	15
10.1	1.6	15	10.0	2.5	10
13.1	1.6	15	13.0	2.5	10
4.0	2.0	20	14.0	2.5	10
6.0	2.0	20	15.0	2.5	10
8.0	2.0	15	17.0	2.5	10
9.0	2.0	15	18.0	2.5	10
10.0	2.0	15	19.0	2.5	10
12.0	2.0	15	9.0	3.0	10
14.0	2.0	10	10.0	3.0	10
16.0	2.0	10	11.0	3.0	10



This 500 piece kit contains the most popular European metric O-ring sizes in 90 durometer NBR.

O-RING SPLICE KITS

O-RING SPLICE KIT INCH SIZES

Part Number: 568 SPLICE KIT

Kit Contains:

1. Stock of 70 Durometer Buna O-ring Cord*
2. Razor Blade
3. Splicing tool
4. Tube of Adhesive

Replacement Parts

Parts:

568 SPLICE TOOL
568 ADHESIVE
70 Duro. Cord



*Cross Sections: 1/16"(.070), 3/32"(.103), 1/8"(.139), 3/16"(.210), 1/4"(.275).
Length: 7 Feet Each

O-RING SPLICE KIT INCH & METRIC SIZES

Part Number: MET/INCH SPLICE KIT

This kit can produce O-Rings of any standard inch size cross-section plus a wide variety of metric sizes. Each kit contains quick drying adhesive, cutting and splicing jig, razor blade, and 14 lengths of 70 Durometer Buna-N cord stock as follows:

Inch cross-sections: (inch)

1/16" (.070), 3/32" (.103), 1/8" (.139),
3/16" (.210), 1/4" (.275)

Metric cross-sections: (mm)

1.6, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 5.7, 8.4

Length: 1 Meter Each



These kits can produce O-Rings of any circumference. The 568 kit contains the most popular inch cross sectional sized O-ring cord. The Metric and Inch Kit has both standard inch size cross sectional cord plus a wide variety of metric sized cord. Both kits contain quick drying adhesive, a cutting and splicing jig, a razor blade and 70 Durometer Buna-N cord.

FLUOROCARBON O-RING SPLICE KIT INCH SIZES

Part Number: 568 FC SPLICE KIT

Kit Contains:

1. Stock of 75 Durometer Fluorocarbon Cord*
2. Razor Blade
3. Splicing tool
4. Tube of Adhesive

Replacement Parts

Parts:

568 SPLICE TOOL
568 ADHESIVE
75 Duro. Fluorocarbon Cord



*Cross Sections: 1/16" (.070), 3/32"(.103), 1/8"(.139), 3/16"(.210),
1/4"(.275). Length: 7 Feet Each



BACK-UP RING KITS

574 BACK-UP RING KIT

Part Number: 574 KIT

PART NUMBER	QTY	PART NUMBER	QTY
574-005	10	574-114	10
574-006	10	574-115	10
574-007	10	574-116	10
574-008	10	574-117	5
574-009	10	574-118	5
574-010	10	574-119	5
574-011	10	574-120	5
574-012	10	574-121	5
574-013	10	574-210	7
574-014	10	574-211	7
574-015	10	574-212	7
574-016	10	574-213	7
574-017	10	574-214	5
574-018	10	574-215	5
574-110	10	574-216	5
574-111	10	574-217	5
574-112	10	574-218	5
574-113	10	574-219	5



This 293 piece kit contains 36 of the most popular size "Parback®" Style Dished Cross Section back-up rings. Molded of 90A Durometer Buna-N Rubber, they stretch for installation and return quickly to their original size. SIZES CORRESPOND TO O-RING NUMBERS. Your shop and service truck should not be without this handy kit.

575 BACK-UP RING KIT

Part Number: 575 KIT

PART NUMBER	QTY	PART NUMBER	QTY
575-111	25	575-216	25
575-112	25	575-217	15
575-113	25	575-218	15
575-114	25	575-219	15
575-115	25	575-220	15
575-116	25	575-221	15
575-210	25	575-222	15
575-211	25	575-223	15
575-212	25	575-224	15
575-213	25	575-325	10
575-214	25	575-326	10
575-215	25	575-327	10



This 475 piece kit contains 24 of the most popular size urethane back-up rings. This assortment is essential for parts counters, shop use, and service trucks.

PTFE BACK-UP RING KIT

Part Number: 575 PTFE KIT S

PART NUMBER	QTY	PART NUMBER	QTY
575-005ST	15	575-114ST	10
575-006ST	15	575-115ST	10
575-007ST	15	575-116ST	10
575-008ST	15	575-117ST	5
575-009ST	15	575-118ST	5
575-010ST	15	575-119ST	5
575-011ST	15	575-120ST	5
575-012ST	15	575-121ST	5
575-013ST	10	575-210ST	5
575-014ST	10	575-211ST	5
575-015ST	10	575-212ST	5
575-016ST	10	575-213ST	5
575-017ST	10	575-214ST	5
575-018ST	10	575-215ST	5
575-110ST	10	575-216ST	5
575-111ST	10	575-217ST	5
575-112ST	10	575-218ST	5
575-113ST	10	575-219ST	5

This 325 piece kit contains 36 of the most popular size PTFE Back-up Rings. These rings are compatible with all hydraulic fluids, since they are virtually chemically inert, and can be used in applications involving elevated operating temperatures. These rings are scarf cut to facilitate installation.



RETAINER RING KITS

SPIRAL WOUND

Part Number: SRR KIT

PART NUMBER	QTY.	PART NUMBER	QTY.
WHM-050	12	WSM-050	12
WHM-062	12	WSM-062	12
WHM-075	12	WSM-075	12
WHM-087	12	WSM-087	12
WHM-100	12	WSM-100	12
WHM-112	12	WSM-112	12
WHM-125	12	WSM-125	12
WHM-137	12	WSM-137	12
WHM-150	12	WSM-150	12



EATON

Part Number: ERR KIT

PART NUMBER	QTY.	PART NUMBER	QTY.
NAN-050	12	XAN-050	12
NAN-062	12	XAN-062	12
NAN-075	12	XAN-075	12
NAN-087	12	XAN-087	12
NAN-100	12	XAN-100	12
NAN-112	12	XAN-112	12
NAN-125	12	XAN-125	12
NAN-137	12	XAN-137	12
NAN-150	12	XAN-150	12



Each kit contains: 18 sizes - 9 internal, 9 external • 216 rings per box • 12 rings per size

Each kit has an assortment of retainer rings (Spiral and Eaton style) packed in a reusable plastic box. All rings are made in the USA from carbon spring steel.

EXTERNAL RETAINER RINGS

Part Number: 310 KIT

PART NUMBER	SHAFT SIZE	QTY.	PART NUMBER	SHAFT SIZE	QTY.
310-100	1.000	5	310-200	2.000	5
310-125	1.250	5	310-225	2.250	5
310-137	1.375	5	310-250	2.500	5
310-150	1.500	5	310-275	2.750	3
310-175	1.750	5	310-300	3.000	3



These assortments contain the most popular size retainer rings commonly used in many application such as pumps, motors, and forklift cylinders. Boxed in a handy storage and display case, which will supply your shop, service truck, or parts counter with the sizes you need!

INTERNAL RETAINER RINGS

Part Number: 300 KIT

PART NUMBER	BORE SIZE	QTY.	PART NUMBER	BORE SIZE	QTY.
300-075	0.750	10	300-200	2.000	10
300-087	0.875	10	300-225	2.250	5
300-100	1.000	10	300-250	2.500	5
300-112	1.125	10	300-275	2.750	5
300-125	1.250	10	300-300	3.000	5
300-137	1.375	10	300-350	3.500	5
300-150	1.500	10	300-400	4.000	5
300-162	1.625	10	300-450	4.500	2
300-175	1.750	10	300-500	5.000	2



ASSORTMENT KITS AND TOOLS



ASSORTMENT KITS

THE ULTIMATE NITRILE O-RING ASSORTMENT

Part Number: 568 KIT-ULTIMATE



Includes: 12 drawers and 3 slide racks, plus base. Total weight 232 lbs.

214 Items, 1324 Pieces.

Sizes Include:

- 001 THRU -010
- 012 THRU -050
- 106 THRU -163
- 204 THRU -262
- 314 THRU -355
- 425 THRU -429

3 racks - each one is: 20" wide x 15-3/4" deep x 15" high
 1 base - 20-3/8" wide x 16" deep x 15-1/8" high
 Approximately 61" from top to bottom

THE ULTIMATE FLUOROCARBON O-RING ASSORTMENT

Part Number: 568 FC KIT-ULTIMATE



Includes: 12 drawers and 3 slide racks, plus base. Total weight 232 lbs.

214 Items, 1324 Pieces.

Sizes Include:


- 001 THRU -010
- 012 THRU -050
- 106 THRU -163
- 204 THRU -262
- 314 THRU -355
- 425 THRU -429

3 racks - each one is: 20" wide x 15-3/4" deep x 15" high
 1 base - 20-3/8" wide x 16" deep x 15-1/8" high
 Approximately 61" from top to bottom

ASSORTMENT KITS

COTTER PIN KIT

Part Number: COTTER PIN KIT


	1/8" X 1-1/4" 75 pcs.	3/32" X 1" 150 pcs.
	1/8" X 1-1/4" 75 pcs.	3/32" X 1-1/2" 100 pcs.
	1/8" X 2" 50 pcs.	5/32" X 2-1/2" 30 pcs.

555 Pieces



WOODRUFF KEY KIT

Part Number: WOODRUFF KEYS KIT


	1/8" X 1/2" No. 3 16 pcs.	1/8" X 5/8" No. 5 15 pcs.
	3/32" X 5/8" No. 6 15 pcs.	3/16" X 3/4" No. 9 10 pcs.
	1/4" X 7/8" No. A 5 pcs.	1/4" X 1" No. 15 4 pcs.

65 Pieces



GREASE FITTING KIT

Part Number: GREASE FITTING KIT


	1/8" NPT Straight 6 pcs.	1/4" - 28 Straight 6 pcs.
	3/16" Drive Straight 4 pcs.	1/8" NPT 45 1/8" NPT 90 3 pcs. ea.
	1/4" - 28 45 1/4" - 28 90 3 pc. ea.	5/16" Drive Straight 4 pcs.

32 Pieces



GREASE FITTING KIT-A

Part Number: GREASE FITTING KIT-A


	1/8" PT Straight 25 pcs.	1/8" PT 45° 1/8" PT 90° 1/8" PT 7.5° 5 pcs.
	1/4"-28 PT Straight 50 pcs.	1/4"-28 PT 45° 1/4"-28 PT 90° 5 pcs.

100 Pieces



NYLON PLUG KIT

Part Number: NYLON PLUG KIT

	Nyplug-125-125 1/8" x 1/8" 20 pcs.	Nyplug-187-109 3/16" x 7/64" 20 pcs.	Nyplug-250-125 1/4" x 1/8" 20 pcs.	
	Nyplug-125-156 1/8" x 5/32" 20 pcs.	Nyplug-187-187 3/16" x 3/16" 20 pcs.	Nyplug-250-187 1/4" x 3/16" 20 pcs.	Nyplug-312-125 5/16" x 1/8" 20 pcs.
	Nyplug-125-875 1/8" x 7/8" 20 pcs.	Nyplug-187-250 3/16" x 1/4" 20 pcs.	Nyplug-250-250 1/4" x 1/4" 20 pcs.	Nyplug-375-250 3/8" x 1/4" 20 pcs.

220 Pieces
11 Sizes



SET SCREW KIT

Part Number: SSK-INCH



Use these set screws in confined areas, where there is no room for a protruding head. Nine coarse sizes, three fine sizes.

Hex wrench shown not included. Coarse sizes: 1/8"-40 x 3/16", 5/32"-32 x 3/16", 3/16"-24 x 1/4", 1/4"-20 x 1/4", 1/4"-20 x 3/8", 5/16"-18 x 3/8", 5/16"-18 x 1/2", 3/8"-16 x 3/8", and 3/8"-16 x 1/2". Fine sizes: 1/4"-28 x 1/4", 5/16"-24 x 3/8", 3/8"-24 x 3/8"



ASSORTMENT KITS & INSTALLATION TOOLS

CAP PLUG KIT

Part Number: CAP PLUG KIT



These new and improved cap plug kit contains 22% more cap plugs in an environmentally friendly corrugated box. Separated areas hold 625 cap plugs in 24 of the most popular sizes.

Cap Plug Number	QTY	Cap Plug Number	QTY	Cap Plug Number	QTY
CAP-2-X	50	CAP-PD-100	25	CAP-G-22	20
CAP-4	50	CAP-PD-120	25	CAP-G-25	20
CAP-6-X	50	CAP-PD-140	20	CAP-G-27	20
CAP-9	50	CAP-PD-160	20	CAP-P-28	25
CAP-12-X	25	CAP-G-2	20	CAP-P-38	25
CAP-14	20	CAP-G-8	20	CAP-P-48	25
CAP-PD-60	25	CAP-G-14	20	CAP-P-68-H	25
CAP-PD-80	25	CAP-G-18	20	CAP-P-88-H	20

CAP PLUG CASE

Part Number: CAP PLUG CASE

This rugged case has 24 empty compartments to hold a limited variety of cap plugs from the master kit (shown above).

Case only - cap plugs sold separately.



SEAL TOOL KIT

Part Number: SEAL TOOL KIT

Kit contains:

- Piston seal compressor
- Pick set
- Pi Tape
- Seal installation tool set
- Wear strip cutter
- O-ring adhesive
- Precision cord cutter
- Seal install and remove tool
- O-ring detector



QUALITY ROD U-SEAL INSTALLATION TOOLS



Part Number	Seal ID Range		Max Heel Cross Section
IT 100-NN	3/4" to 1-1/4"	19 - 31 mm	0.300"
IT 150-NN	1-3/8" to 1-7/8"	35 - 47 mm	0.360"
IT 200-NN	2" to 3"	51 - 76 mm	0.600"

These tools aid U-seal installation, eliminating the risk of damaging the seal lip.

VALUE ROD U-SEAL INSTALLATION TOOLS



Part Number	Seal ID Range	
SEAL TWISTOR M	1-3/16" to 2"	30 - 50 mm
SEAL TWISTOR L	2" to 2-3/4"	50 - 70 mm
SEAL TWISTOR XL	2-3/4" to 6-1/2"	70 - 165 mm

These tools aid Rod U-seal installation, eliminating the risk of damaging the seal lip.

KANSAS

PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA

PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS

PHONE 1-903-753-0341
FAX 1-903-236-9797

INSTALLATION / SPLICING / CUTTING TOOLS

INSTALLATION TOOL SET

Part Number: IT TOOL SET-A

Sizes Included	Max Heel Cross Section
S (22 - 30 mm)	6.6 mm
M (30 - 50 mm)	10.7 mm
L (50 - 70 mm)	19.3 mm
XL (70 - 165 mm)	27.1 mm



This handy tool set has 4 different size installation tools, along with a holder.

O-RING SPLICE TOOL

Part Number: OR SPLICER

- Splicing tool for o-rings
- For cross section diameter from 2.5 to 20 mm
- Clamping plates for locking
- Aluminium stands for use with glue or heat



SEAL CLASPER

Part Number: SEAL CLASPER



The Seal clasper is designed to press a PTFE piston seal back into the groove. The clasper works on seals from 50mm to 360mm OD. It allows a piston seal to be installed into a cylinder safely and rapidly.

The stainless steel belt can be adjusted according to the dimension of seals. The HPU triangle protector prevents seal damage.

How to use:

1. Adjust the length of stainless steel belt to match the seal.
2. Pull the grid to clasp the PTFE piston seal back into groove.

O-RING SPLICE KIT

Part Number: OR SPLICE KIT 3

- Kit contains:
- Splice iron
 - Pi tape
 - Grinding tool
 - O-ring adhesive
 - Precision cord cutter
 - Splice tool



SPLICE IRON

Part Number: SEAL HEATER



WEAR STRIP CUTTER

Part Number: WS CUTTER



Cut your own wear rings to exact dimensions.

ASSORTMENT KITS AND TOOLS



CUTTING / CHOPPING / REMOVAL TOOLS

CUTTER BLADES

Part Number: WS CUTTER BLADE



Quantity of 10 Wear Strip
Cutter Blades.

O-RING CORD CHOPPER

Part Number: ORC CHOPPER



- Cuts o-ring cord to prepare it for splicing
- Suitable for cross section from 0.103 to 0.551 inches (2.62 to 14 mm)

CHOPPER BLADES

Part Number: ORC CHOPPER BLADE



Quantity of 20 Chopper
Blades.

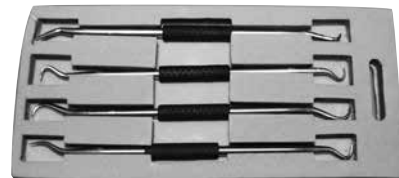
OIL SEAL REMOVAL & INSTALLATION TOOL

Part Number: SR TOOL



O-RING PICK SET

Part Number: OR HOOK



This Value package of O-ring Picks in plastic carrying case, aid in the installation and extraction of O-rings.

O-RING PICK SET 1

Part Number: O-RING PICK

These Bronze O-ring Picks, w/ black vinyl case, aid in the installation and extraction of O-rings.



KANSAS

PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA

PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS

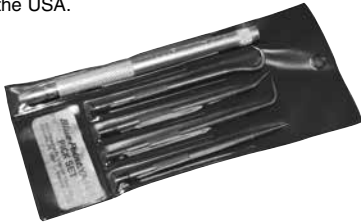
PHONE 1-903-753-0341
FAX 1-903-236-9797

REMOVAL TOOLS

O-RING PICK SET 2

Part Number: O PICK SET

Designed for heavy duty use and packaged in a clear vinyl pouch, this kit contains a knurled handle and four screw-in picks with different hook configurations. Set includes straight tip, o-ring 90° tip, hook tip, and angle tip. Made in the USA.



SNAP-ON O-RING PICK SET 4

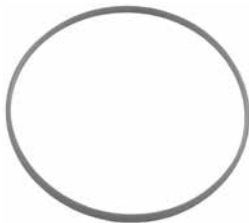
Part Number: MAXI PICK SET

Designed for heavy duty use and packaged in a plastic pouch, these highly visible picks feature screwdriver-type colored handles. Set includes awl, hook tip, 45° bent tip tool, and 90° bent tip tool. Made in the USA.



GLAND REMOVAL TOOLS

Part Number	Bore Diameter
JD-6.00X0.40-IT	6"
JD-70MM-IT	70 mm
JD-80MM-IT	80 mm
JD-90MM-IT	90 mm
JD-100MM-IT	100 mm



CHEVRON ASSEMBLY TOOL

Part Number: CM-376-9067-001

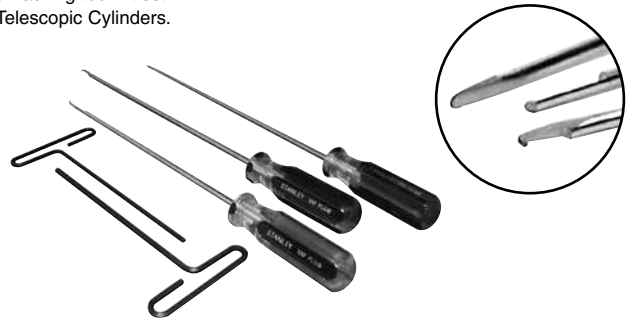
Vee Packing assembly tool for Telescopic Cylinders.



5 PIECE TOOL KIT SET

Part Number: CH-TK-1

Vee Packing tool kit set for Telescopic Cylinders.



8 PIECE O-RING PICK SET

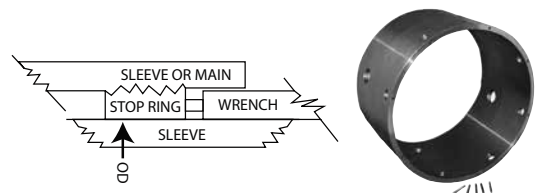
Part Number: O PICK SET-A

This economical seal pick tool set lowers your chance of surface damage. It contains 8 different hard metal hooks with sturdy plastic handles.



STOP RING WRENCH

Part Number	Sleeve or Plunger O.D.	Pins
CM-376-6067-047	2-3/4"	5 Pins
CM-376-6067-048	3-3/4"	5 Pins
CM-376-6067-049	4-3/4"	5 Pins
CM-376-6067-050	5-3/4"	5 Pins
CM-376-6067-051	6-3/4"	5 Pins
CM-376-6067-052	7-7/8"	5 Pins
CM-376-6067-053	9-3/8"	5 Pins
CM-391-2086-007	Replacement Stop Wrench Pin	



ASSORTMENT KITS AND TOOLS



REMOVAL TOOLS

11 PIECE PACKING TOOL KIT

Part Number: **PACK TOOL SET-11**



Part Number	QTY	Part Number	QTY
FPH-312R	2	FPH-RTC312	3
FPH-437R	2	FPH-RTC437	3
SSP-125	1	WRENCH	1
SSP-187	1	BOX	1
SSP-312	1		

REPLACEABLE WOODSCREW TIPS

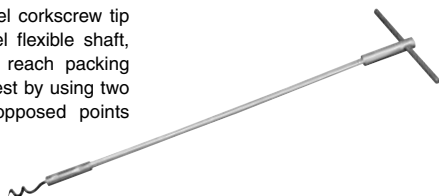
Part Number	Packing Space
FPH-RTW312	5/16"-up
FPH-RTW437	7/16"-up
FPH-RTW500	1/2"-up



FLEXIBLE PACKING HOOKS

Part Number	Packing Space	Length
FPH-187	3/16"-up	6-1/2"
FPH-312R	5/16"-up	7-1/2"
FPH-437R	7/16"-up	10-1/2"
FPH-500R	1/2"-up	14-1/2"

With a tempered tool steel corkscrew tip and a woven strand steel flexible shaft, this tool makes hard to reach packing easy to pull out. Works best by using two hooks at diametrically opposed points (180°).



17 PIECE PACKING TOOL KIT

Part Number: **PACK TOOL SET-17**



Part Number	QTY	Part Number	QTY
FPH-312R	2	FPH-RTC437	3
FPH-437R	2	FPH-RTC500	3
FPH-500R	2	FPH-RTW312	1
SSP-125	1	FPH-RTW437	1
SSP-187	1	FPH-RTW500	1
SSP-312	1	WRENCH	1
FPH-RTC312	3	BOX	1

REPLACEABLE CORKSCREW TIPS

Part Number	Packing Space
FPH-RTC312	5/16"-up
FPH-RTC437	7/16"-up
FPH-RTC500	1/2"-up



SOLID SHAFT PICKS

Part Number	Packing Space	Length
SSP-125	1/8 -up	9-1/2"
SSP-187	3/16 -up	10"
SSP-312	5/16"-up	10"

Formed from hardened steel, this tool's length and sharp angled point gets at hard to reach o-rings, back-up rings and braided packing. You'll be amazed at all the uses you find for this tool.



ASSORTMENT KITS AND TOOLS

KANSAS
PHONE 1-316-267-1051
FAX 1-316-267-1010

OKLAHOMA
PHONE 1-918-446-4591
FAX 1-918-446-4743

TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797

DISMANTLING TOOLS

SPANNER WRENCHES

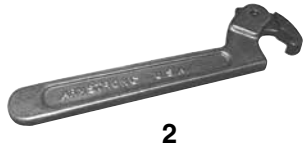
(1) ADJUSTABLE HEAD — PIN STYLE

PART NUMBER	PART OD RANGE		PIN DIA.	PIN LGTH.
SPAP-2.00X0.13	3/4" to 2"	(19mm to 50mm)	1/8"	1/8"
SPAP-2.00X0.19	3/4" to 2"	(19mm to 50mm)	3/16"	5/32"
SPAP-3.00X0.19	1-1/4" to 3"	(32mm to 76mm)	3/16"	3/16"
SPAP-3.00X0.25	1-1/4" to 3"	(32mm to 76mm)	1/4"	7/32"
SPAP-4.75X0.25	2" to 4-3/4"	(51mm to 120mm)	1/4"	1/4"
SPAP-6.25X0.38	4-1/2" to 6-1/4"	(115mm to 159mm)	3/8"	1/4"



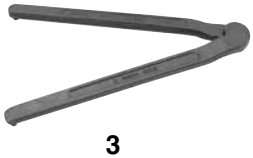
(2) ADJUSTABLE HEAD — HOOK STYLE

PART NUMBER	PART OD RANGE		HOOK WD.	HOOK DP.
SPAH-2.00	3/4" to 2"	(19mm to 50mm)	11/32"	1/8"
SPAH-3.00	1-1/4" to 3"	(32mm to 76mm)	13/32"	5/32"
SPAH-4.75	2" to 4-3/4"	(51mm to 120mm)	15/32"	3/16"
SPAH-6.25	4-1/2" to 6-1/4"	(115mm to 159mm)	15/32"	1/4"
SPAH-8.75	6-1/8" to 8-3/4"	(155mm to 222mm)	15/32"	5/16"

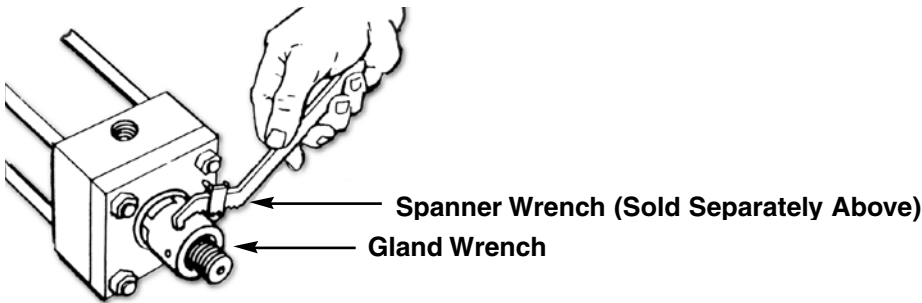


(3) ADJUSTABLE FACE — PIN STYLE

PART NUMBER	DIA. RANGE (CENTER TO CENTER)	PIN DIA.	PIN LGTH.
SPAPF-2.00X0.19	5/8" to 2"	(16mm to 50mm)	3/16"
SPAPF-3.00X0.25	5/8" to 3"	(16mm to 76mm)	1/4"
SPAPF-4.00X0.31	5/8" to 4"	(16mm to 101mm)	5/16"



PARKER GLAND WRENCHES



Rod Dia.	Kit #	ID X OD X HT	Spanner (Sold Separately Above)
1/2", 5/8", 12mm & 14mm	PKH-069590	11/16" X 1-1/8" X 1-3/8"	SPAP-2.00X0.19
18mm	PKH-084765	13/16" X 1-1/4" X 1-7/16"	SPAP-2.00X0.19 or SPAP-3.00X0.19
1" & 22mm	PKH-069591	1-1/16" X 1-5/8" X 1-1/2"	SPAP-2.00X0.19 or SPAP-3.00X0.19
28mm	PKH-084766	1-1/4" X 1-11/16" X 1-9/16"	SPAP-2.00X0.19 or SPAP-3.00X0.19
1-3/8" & 36mm	PKH-069592	1-7/16" X 1-7/8" X 1-5/8"	SPAP-2.00X0.19 or SPAP-3.00X0.19
1-3/4" & 45mm	PKH-069593	1-13/16" X 2-1/4" X 1-5/8"	SPAP-3.00X0.25 or SPAP-4.75X0.25
2"	PKH-069594	2-1/16" X 2-1/2" X 2"	SPAP-3.00X0.25 or SPAP-4.75X0.25
2-1/2" & 56mm	PKH-069595	2-9/16" X 3" X 2-1/8"	SPAP-3.00X0.25 or SPAP-4.75X0.25
70mm	PKH-069596	2-15/16" X 3-1/2" X 2-3/8"	SPAP-4.75X0.25

ASSORTMENT KITS AND TOOLS

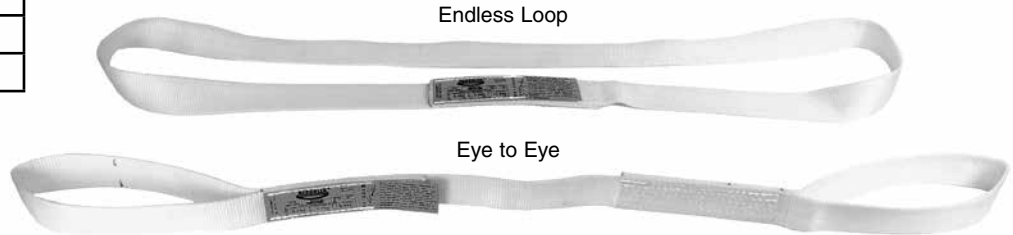


LIFTING SLINGS

New synthetic web lifting slings which are primarily composed of nylon. Our lifting slings are a soft and flexible solution to rigging and are offered in endless and eye to eye styles. All of the synthetic web slings are constructed with 9800 lbs. maximum load rated heavy duty webbing, and are in full compliance with current ASME B30.9 standards, with a 5:1 safety factor.

Nylon web slings with flat eye to eye loops are one of the most popular straps for lifting because of their versatility: they can be used in a choker, basket or vertical hitch. The design also makes it easy to remove from underneath a load.

Material	Nylon
Max Temperature	180°F
UV Degradation	High



Part Number	Width (in)	Length (ft)	Product	Vertical Load Limit (lbs.)	Choker Load Limit (lbs.)	Basket Load Limit (lbs.)
SLEN1-4	1"	4'	Endless Loop	3200	2500	6400
SLEN1-6	1"	6'	Endless Loop	3200	2500	6400
SLEN2-4	2"	4'	Endless Loop	6400	5000	12800
SLEN2-6	2"	6'	Endless Loop	6400	5000	12800
SLEN2-8	2"	8'	Endless Loop	6400	5000	12800
SLEE1-4	1"	4'	Eye to Eye	1600	1200	3200
SLEE1-6	1"	6'	Eye to Eye	1600	1200	3200
SLEE2-4	2"	4'	Eye to Eye	3200	2400	6400
SLEE2-6	2"	6'	Eye to Eye	3200	2400	6400
SLEE2-8	2"	8'	Eye to Eye	3200	2400	6400

REMANUFACTURING TOOLS

PISTON SEAL REFORMING TOOL

Part Number: PS CONSTRICTOR



PTFE Piston seal resizing tool.

MINI GRINDER

Part Number: OR GRINDER

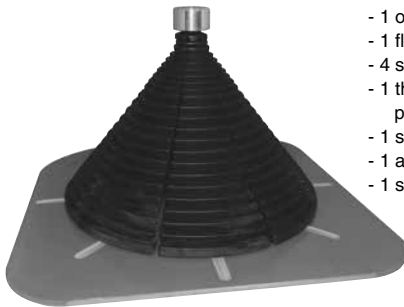


The Mini Grinder has a no load speed of 5000-18,000 rpm adjustable, and includes the following:

- Copper collet: 2.4 & 3.2 (mm)
- 2 Diamonds bits
- 2 Grinding Stones
- 1 Nylon Brush
- 1 Connective posts for sanding bands
- 2 sanding bands
- 1 engraving bit
- 1 collet (2.4 mm)

PISTON SEAL STRETCHER

Part Number: SEAL STRETCHER



- The Seal Stretcher
Includes the following:
- 8 stepped segments
 - 1 top nut/handle
 - 1 o-ring
 - 1 flat base
 - 4 screws
 - 1 threaded rod with a piston pre-installed
 - 1 stop nut
 - 1 aluminum support base
 - 1 spring

ASSORTMENT KITS AND TOOLS



LEAK DETECTION

LEAK DETECTION KIT

Part Number: LDU-OPK-341

HOW IT WORKS

A small amount of liquid fluorescent dye is added to a circulating fluid system that is being inspected for leaks. The system is then run for a short time to allow the dye to mix and circulate with the host fluid. The dye/fluid mixture escapes with the host fluid wherever there is a leak and glows a bright yellow/green when inspected with a high-intensity ultraviolet or UV/black light lamp. This method is extremely effective in locating even the smallest, most elusive leaks, as well as multiple leaks.



INDIVIDUAL LEAK DETECTION PRODUCTS

Part Number	Description
LDU-CR-800	CLEANER, 8 OZ SPRAY
LDU-OIL-GLO-44-P	DYE, ALL-IN-ONE, 16 OZ
LDU-OPX-3000	LAMP, LED, 115V CHARGER
LDU-UVS-40	SPECTACLES, UV ENHANCING

MEASURING TOOLS

HIGH QUALITY DIGITAL CALIPER

Part Number: HH-CALIPER-6-FR

This high quality instrument measures to 6" (150 mm). A push of a button changes from fractions, mm and inches. Functions also include: On/Off function, zero key, data input capabilities, test for low voltage, and "Auto Off" function when unit sits dormant for more than 4 minutes.



DIGITAL CALIPERS

Part Number

- HH-CALIPER-6
- HH-CALIPER-6-P
- HH-CALIPER-12
- HH-CALIPER-12-P

Quality calipers able to measure up to 6" (150mm) or 12" (300mm). A push of a button changes from inches to metric. A clear LCD display shows a reading with a resolution of 0.0005" (0.01mm) that is accurate to $\pm 0.001"$ ($\pm 0.03\text{mm}$). These calipers come in a sturdy, padded plastic case with instructions and a spare battery.
P = No logo.



INNER GROOVE CALIPER

Part Number: INNER CALIPER



Inner Groove Caliper - 200 mm.

INNER DEPTH CALIPER

Part Number: INNER-DEPTH CALIPER



This inner depth caliper is complete with five modes of measurement (OD, ID, General Depth, Groove Width, and Groove Depth). It has a digital display capable of displaying mm, inches, and fractions and can take measurements of up to 8" (205 mm). The four groove depth pins located on the back of the calipers measure 10mm, 20mm, 3/8", and 3/4".

INNER DEPTH CALIPER PINS

Part Number: INNER-DEPTH CALIPER DP

This Inner-Depth Caliper replacement part includes four groove depth pins measuring 10mm, 20mm, 3/8", and 3/4".



INNER DEPTH CALIPER KNIVES

Part Number: INNER-DEPTH CALIPER WK

This Inner-Depth Caliper replacement part includes one pair of width knives and four installation screws.





MEASURING TOOLS

O-RING COMPOUND IDENTIFIER

Part Number: OR RECOGNISER

Identify a variety of o-ring compounds with this handy O-Ring Recognizer kit. Testing for EPDM70, NBR, FFKM (KALREZ®) and FKM o-rings. Three sample seals included.



BORE TAPE

Part Number: BORE TAPE 300

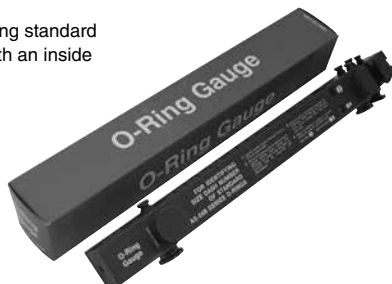
Measures inside and outside diameters from 50 mm 300 mm (2"-12").



O-RING GAUGE

Part Number: OR-GAUGE

Slide gauge for measuring standard cross-section o-rings with an inside diameter up to 13".



O-RING MEASURING CONE

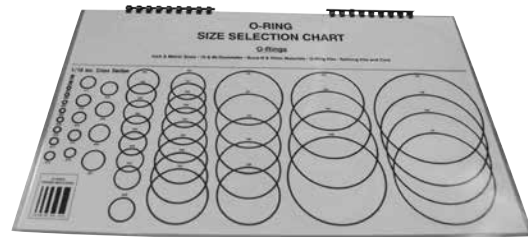
Part Number: O RING CONE-INCH

This handy cone provides o-ring dash numbers instantly. Measures 184 of the most widely used sizes in 5 standard widths, 1/4" ID to 5-5/8" ID. Made of high density polyurethane, the cone stands 17-1/2" high.



O-RING CHART

Part Number: O-RING CHART NN



Durable, Accurate, and Fast, these charts allow for easy Standard O-ring size identification. No shop should be without one!

Urethane

Formulated of copolymers of ether or ester based urethanes, this material is used in a wide application of seals, wipers, back-up rings, cushions, bumpers, and a myriad of other uses. Highly resistant to oil swell, ozone, oxidation and abrasion, it also has excellent cut resistance. Highly resilient, urethanes also have high tensile strength and elongation properties. Urethanes remain an excellent choice in hydraulic systems using petroleum based fluids. Most urethane seals remain flexible and efficient in temperatures ranging from -65° F to +200° F with some able to withstand intermittent temperatures up to +300° F.

Nitrile

The most common nitrile copolymer blend is the compound known as Buna-N. Possessing very good resistance to petroleum based hydraulic oils, Buna-N also works well with fuels such as diesel or gasoline. Nitrile seals have a good resistance to compression set, but their flexibility suffers somewhat in the lower temperature range. Seals made from this material have a low resistance to ozone and must be stored carefully in most environments. Working temperatures are -40° to +240° F.

PTFE

Most PTFE seals, in order to retain their toughness and flexibility, are fortified with short glass fiber, bronze flashes, carbon graphite, or a combination of these fillers. Because of a lack of resilience (memory) in PTFE, an energizer is most often employed to obtain the desired fit. Benefits are chemical inertness, high heat resistance, low temperature flexibility, low running friction, and non-adhesive characteristics. Temperatures to +500° F are obtainable but are often reduced by the filler or energizer employed.

Fluorocarbon

Fluorocarbon combines high temperature resistance with excellent chemical resistance. Excellent for use with alcohol and aromatic fuels and highly resistant to ultraviolet light and ozone. This material is not recommended for use in low temperatures or in aircraft hydraulic fluids. Temperature range is -20° to +400° F.

Ethylene-Propylene

Ethylene-Propylene can be used for sealing phosphate ester hydraulic fluids such as Skydrol. Not suitable for petroleum based fluids, Ethylene-Propylene is highly effective for use with steam, acetone, and dilute acids and bases. Specially compounded Ethylene-Propylene can be made suitable for automobile brake systems. Temperature range from -20° to +300° F.

Silicone

Silicone is an elastomer made from silicon, oxygen, hydrogen, and carbon. The key use of this material is in static seals employed in a wide (-75° F to +450° F) range of temperatures. Silicone has a high resistance to dry heat, ultraviolet light and ozone. This material is not recommended for dynamic situations due to poor abrasion resistance and high friction characteristics.

Glossary of Terms

- Bearing/Wear Rings:** Soft metal or plastic rings placed in grooves on the piston or in the head to prevent contact between hard metal surfaces.
- Durometer:** A generic term referring to the instrument and the scale used to measure the relative hardness of various elastomers. The lower the durometer reading, the softer the material.
- Dynamic Seal:** A sealing device used between mating surfaces that have relative motion.
- Elastomer:** A rubber-like material having the capacity for large deformation and rapid, complete recovery from the deforming force.
- Gland:** A groove or open area machined into the head or piston that houses the sealing device.
- Static Seal:** A sealing device used between mating surfaces that have no relative motion.
- Wiper/Scraper:** A device placed in the head of a cylinder for the purpose of excluding foreign matter from the inside of the cylinder.

These are general guidelines only, and users must conduct their own functional tests to determine the suitability of any compound for their particular application.

R = Recommended
M = Marginal
U = Unsatisfactory
X = Insufficient Data

Fluid	Nitrile	SBR	EPDM	Neoprene	Polyacrylate	Urethane	Silicone	Fluoroelastomer
Acetaldehyde	U	U	R	U	U	U	R	U
Acetamide	R	U	R	R	U	U	M	U
Acetic Acid	M	M	R	R	U	U	R	U
Acetone	U	M	R	M	U	U	M	U
Acetophenone	U	U	R	U	U	U	U	U
Acetylene	R	R	R	R	X	X	R	R
Ammonia	R	R	R	R	U	X	R	U
Ammonium Hydroxide	R	R	R	R	U	U	R	R
Amyl Acetate	U	U	M	U	U	U	U	U
Anderol L-774	M	U	U	U	R	U	U	R
Aniline	U	U	R	U	U	U	U	M
Ansul Ether	M	U	M	U	U	R	U	U
Antifreeze	R	R	R	R	U	U	R	R
Aroclors	M	U	R	U	U	X	M	R
Askarel	R	U	U	U	U	U	U	R
ASTM #1	R	U	U	R	R	R	R	R
ASTM #3	R	U	U	U	R	R	U	R
ASTM Fuel A	R	U	U	R	R	R	U	R
ASTM Fuel B	R	U	U	U	U	R	U	R
ASTM Fuel C	R	U	U	U	U	R	U	R
ASTM Fuel D	M	U	U	U	U	R	U	R
Auto Transmission Fluid	R	U	U	M	R	R	M	R
Beer	R	R	R	R	U	U	R	R
Benzaldehyde	U	U	R	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	R
Benzine	R	U	U	R	R	R	U	R
Benzoic Acid	U	U	U	U	U	U	U	R
Benzophenone	U	U	R	X	U	U	U	R
Benzyl Alcohol	U	U	U	R	U	U	X	R
Bleach	R	R	R	R	U	U	U	R
Borax	R	R	R	U	R	R	R	R
Boric Acid	R	R	R	R	U	R	R	R
* Brake Fluid (non-Petroleum)	U	R	R	R	U	U	R	U
Bromine	U	U	U	U	U	U	U	R
Bromobenzene	U	U	U	U	U	U	U	R
Bunker Oil	R	U	U	U	R	R	U	R
Butane	R	M	U	R	R	U	U	R
Butter	R	U	M	R	R	R	R	R
Butyl Acetate	U	U	U	U	U	U	U	U
Butyl Alcohol	R	R	R	R	U	U	R	R
Butyl Amine	M	U	U	U	U	U	R	U
Butyl Carbitol	U	U	R	M	U	X	U	M
Butyl Cellosolve	M	U	R	M	U	U	R	U
Butyraldehyde	U	U	R	U	U	U	U	U
Carbitol	R	R	R	R	U	U	R	R

*Requires special formulation of EPDM

Fluid	Nitrile	SBR	EPDM	Neoprene	Polyacrylate	Urethane	Silicone	Fluoroelastomer
Carbitol Acetate	U	U	U	U	U	U	U	R
Carbon Disulfide	U	U	U	U	U	X	U	R
Carbon Tetrachloride	R	U	U	U	U	U	U	R
Carbonic Acid	R	R	R	R	R	R	R	R
Castor Oil	R	R	R	R	R	R	R	R
Cellosolve	U	R	U	U	U	U	U	U
Chassis Grease	R	U	U	M	R	X	U	R
Chloracetic Acid	U	U	R	U	U	U	X	U
Chloracetone	U	U	R	M	X	X	U	R
Chlordane	R	U	U	M	X	X	U	R
Chlorine	U	U	R	U	U	U	X	R
Chlorobenzol	U	U	U	U	U	U	U	R
Chloroform	U	U	U	U	U	U	U	R
Chlorsulfonic Acid	U	U	U	U	U	U	U	U
Chrome Plating Solution	U	U	R	U	U	U	R	R
Chromic Acid	U	U	X	U	X	X	M	R
Citric Acid	R	R	R	R	X	X	R	R
Cod Liver Oil	R	U	U	R	R	U	R	R
Coffee	R	R	R	R	U	U	R	R
Corn Oil	R	U	U	U	R	U	R	R
Creosote	R	U	U	R	R	M	U	R
Creoste Oil	R	U	U	M	X	X	M	R
Creosylic Acid	U	U	U	U	U	U	U	R
Crude Oil	R	U	U	U	R	X	U	R
Cyclohexane	R	U	U	M	R	R	U	R
Cyclohexanol	R	U	U	R	X	X	U	R
Decalin	U	U	U	U	U	U	U	R
Denatured Alcohol	R	R	R	R	U	U	R	R
Diacetone	U	U	R	U	U	U	U	U
Dibutyl Amine	U	U	U	M	U	U	U	U
Dibutyl Phthalate	U	U	R	U	U	X	X	M
Dichloro Aniline	U	U	U	U	U	U	U	M
Dichloro Butane	R	U	U	U	U	U	U	R
Diesel Oil	R	U	U	M	U	U	U	R
Diethyl Benzene	M	U	U	U	X	X	X	R
Diethylamine	R	R	R	R	U	M	R	U
Diethylene Glycol	R	R	R	R	U	U	R	R
Dimethyl Ether	U	U	U	M	M	R	U	U
Dimethyl Formamide	U	X	R	X	X	X	R	U
Dimethyl Phthalate	U	U	R	U	U	X	X	R
Dimethyl Terephthalate	U	U	U	U	U	U	U	R
Dioctyl Phthalate	U	U	R	U	U	U	M	R
Dioxane	U	U	R	U	U	U	U	U
Diphenyl	U	U	U	U	U	U	U	R
Dow Corning 550	R	R	R	R	R	R	R	R

Fluid	Nitrile	SBR	EPDM	Neoprene	Polyacrylate	Urethane	Silicone	Fluoroelastomer
Dow Gard	R	R	R	R	M	M	R	R
Dowtherm A & E	U	U	U	U	U	U	U	R
Elco 28	R	U	U	M	R	R	R	R
Epoxy Resins	X	X	R	R	X	X	X	U
Ethane	R	U	U	R	R	M	U	R
Ethanol	R	R	R	R	U	R	R	R
Ethanolamine	R	R	R	R	U	M	R	U
Ethyl Acetate	U	U	R	U	U	U	R	U
Ethyl Benzene	U	U	U	U	U	U	U	R
Ethyl Cellulose	R	R	R	R	U	R	R	U
Ethyl Chloride	R	R	R	R	M	R	U	R
Ethyl Ether	M	U	M	U	U	R	U	U
Ethyl Formate	U	U	R	R	X	X	X	R
Ethyl Hexanol	M	R	R	R	X	X	X	R
Ethyl Merlaptan	U	U	X	M	X	X	M	R
Ethylene Chloride	U	U	U	U	U	U	U	R
Ethylene Glycol	R	R	R	R	U	X	R	R
Ethylene Oxide	U	U	R	U	U	U	U	U
Formaldehyde	M	M	R	M	U	U	R	U
Formic Acid	M	R	R	R	X	X	M	U
Freon 12	R	R	R	R	X	R	U	R
Fuel Oil	R	U	U	R	R	U	U	R
Furfuryl Alcohol	U	U	R	U	U	U	U	X
Furan	U	U	X	U	U	X	X	X
Furfural	U	U	R	U	U	X	U	U
Fyrquel	U	U	R	U	U	U	R	R
Gallic Acid	R	R	R	R	U	I	X	R
Gasoline	R	U	U	R	R	R	U	R
Gelatin	R	R	R	R	U	U	R	R
Glucose	R	R	R	R	X	U	R	R
Glycerine	R	R	R	R	U	U	R	R
Heptane	R	U	U	R	R	R	U	R
Hexaldehyde	U	U	R	R	X	X	R	U
Hexane	R	U	U	R	R	R	U	R
Hexanol	R	R	M	R	U	U	R	R
Home Heating Oil	R	U	U	M	R	R	R	R
Hydrazine	R	R	R	R	X	X	R	X
Hydrochloride Acid	R	M	R	R	M	U	U	R
Hydrocyanic Acid	R	R	R	R	U	X	M	R
Hydrogen Peroxide	R	R	R	R	U	X	R	R
Hydrogen Sulfide	U	U	R	R	U	X	M	U
Hydroquinone	M	U	U	U	U	X	X	R
Hypoid Gear Lube	R	U	U	M	R	R	M	R
Iodine	R	R	R	U	X	X	X	R
Iso Octane	R	U	U	R	R	R	U	R
Iso Phorone	U	U	R	U	U	U	U	U
Isocyanate	X	X	X	X	X	X	X	R
Isopar	R	X	U	R	R	R	U	R
Isopropanol	R	R	R	R	U	U	R	R
Isopropyl Acetate	U	U	R	U	U	U	U	U

Fluid	Nitrile	SBR	EPDM	Neoprene	Polyacrylate	Urethane	Silicone	Fluoroelastomer
JP-4(MIL-J-5624)	R	U	U	U	R	R	U	R
JP-4(MIL-J-5624)	R	U	U	U	R	R	U	R
Kerosene	R	U	U	R	R	R	U	R
Lacquers	U	U	U	U	U	U	U	U
Lactic Acid	R	R	R	R	U	X	X	R
Lard	R	U	R	R	R	R	R	R
Linoleic Acid	R	U	U	R	X	X	R	R
Linseed Oil	R	U	M	M	R	X	R	R
Lye Solutions	R	R	R	R	U	U	R	R
Malathion	R	U	U	X	X	X	U	R
Maleic Acid	U	U	U	U	U	X	X	R
Mercury	R	R	R	R	X	X	X	R
Meter-Cresol	U	U	U	R	U	U	U	R
Methacrylic Acid	U	U	R	R	U	U	U	M
Methane	R	U	U	R	R	M	U	R
Methanol	R	R	R	R	U	U	U	U
Methyl Acetate	U	U	R	R	U	U	U	U
Methyl Cellosolve	M	U	R	R	U	U	U	M
Methyl Ether Ketone	U	U	R	U	U	U	U	U
Methyl Mercaptan	X	X	R	X	X	X	X	X
Methylene Chloride	U	U	U	U	U	U	U	R
Milk	R	R	R	R	U	U	R	R
Mineral Oil	R	U	M	R	R	R	R	R
Mineral Spirits	R	U	U	U	R	R	U	R
Monovinyl Acetylene	R	R	R	R	X	X	R	R
Mustard	X	R	R	X	X	X	R	R
Naphtha	R	U	U	U	R	R	U	R
Naphthalene	U	U	U	U	X	X	U	R
Naphthenic Acid	R	U	U	U	X	X	U	R
Natural Gas	R	R	U	R	R	R	R	R
Neatsfoot Oil	R	U	R	U	R	R	R	R
Nitric Acid	U	M	R	U	U	U	U	M
Nitrobenzene	U	U	U	U	U	U	U	R
Nitropropane	U	U	R	U	U	U	U	U
Octane	R	U	U	U	U	U	U	R
Octanol	R	R	R	R	U	U	R	R
Oleic Acid	M	U	U	M	X	X	U	R
Oleum	R	U	U	M	X	X	U	R
Oronite 8200	R	U	U	R	X	R	U	R
Oxalic Acid	R	R	R	R	R	X	X	R
Peanut Oil	R	U	M	M	R	X	R	R
Pentane	R	M	U	R	R	U	U	R
Perchlorethylene	R	U	U	U	U	U	U	R
Petroleum Ether	U	U	U	U	U	U	U	R
Phenol	U	U	U	U	U	U	U	R
Phenyhydrazine	U	M	U	U	U	X	X	R
Phosphoric Acid	R	R	R	R	M	U	R	R
Pine Oil	R	U	U	U	U	X	X	R
Potassium Hydroxide	R	R	R	R	U	U	M	U
Propane	R	U	U	R	R	M	U	R

TECHNICAL INFORMATION

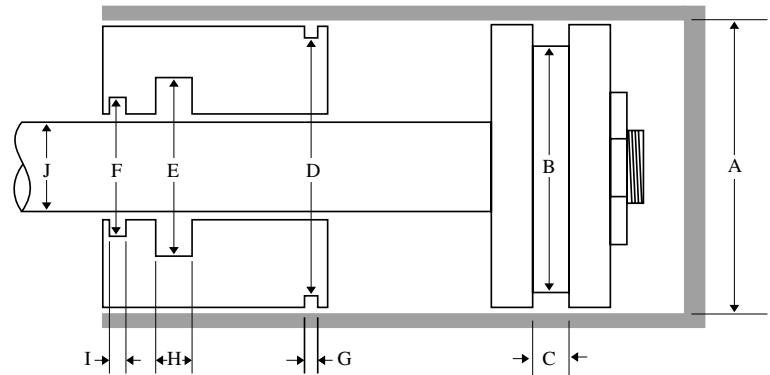
Fluid	Nitrile	SBR	EPDM	Neoprene	Polyacrylate	Urethane	Silicone	Fluoroelastomer
Propanol	R	R	R	R	U	U	R	R
Propyl Acetate	U	U	R	U	U	U	U	U
Propylene Glycol	R	R	R	M	U	M	R	R
Pydraul	U	U	R	U	U	U	U	R
Pyranol	R	U	U	R	R	R	U	R
Pyridine	U	R	U	U	U	X	U	U
Rapeseed Oil	R	U	R	R	R	R	U	R
Resurcinol	X	R	R	X	X	X	X	X
SAE 10W30	R	U	U	M	R	R	R	R
Seawater	R	R	R	R	U	U	R	X
Silicone Grease	R	R	R	R	R	R	R	R
Silver Nitrate	R	R	R	R	R	R	R	R
Skelly Solvent	R	U	U	U	X	X	X	R
Skydrol	U	U	R	U	U	U	U	R
Skydrol 500	U	U	R	U	U	U	U	R
Sodium Hydroxide	R	R	R	R	U	R	R	R
Sovasol	R	U	U	R	R	R	U	R
Soy Bean Oil	R	U	M	M	R	X	R	R
Stearic Acid	R	R	R	R	R	U	U	R
Stoddard Solvent	R	U	U	R	R	R	U	R
Sucrose	R	R	R	R	U	U	R	R

Fluid	Nitrile	SBR	EPDM	Neoprene	Polyacrylate	Urethane	Silicone	Fluoroelastomer
Sulfuric Acid	R	R	R	R	R	U	U	R
Tall Oil	R	U	U	M	R	U	X	R
Tannic Acid	R	R	R	R	U	X	R	R
Tar	R	U	U	M	U	X	R	R
Tartaric Acid	R	R	R	R	X	X	R	R
Tetrachloro Ethane	U	U	U	U	U	U	U	R
Tetralin	U	U	U	U	U	U	U	R
Tidewater Oil	R	U	U	R	R	R	R	R
Toluene	U	U	U	U	U	U	U	R
Trichloro Ethylene	M	U	U	U	U	U	U	R
Triethanol Amine	M	R	R	R	U	U	X	U
Turbine Oil	R	U	U	U	R	R	U	R
Turpentine	R	U	U	U	R	U	U	R
UCDN 50HB280X	R	R	R	R	X	X	R	R
Univis J-43	R	U	U	R	R	R	U	R
Varnish	R	U	U	U	U	M	U	R
Vinegar	R	R	R	R	U	U	R	R
Water	R	R	R	R	U	U	R	R
Wheat Germ Oil	R	U	U	M	R	R	R	R
Whiskey & Wine	R	R	R	R	U	U	R	R
Wood Oil	R	U	U	R	X	M	U	R

HOW OFTEN HAVE YOU RECEIVED A CYLINDER FOR REPAIR AND THE SEALS WERE . . .

- MISSING
- COOKED
- INCORRECT
- EXTRUDED
- NIBBLED
- TWISTED
- ROLLED
- SPLIT
- WORN OUT

The chart below can be used by your counter people, repair shops, or sales people to determine the seals you need. Note the dimensions, refer to your catalog, and call our sales staff with your information. If the part number(s) you need can't be located in the catalog, our Sales personnel will be glad to help you .



FOR A PROFESSIONAL ANALYSIS OF SEAL FAILURE, SEND YOUR DAMAGED SEALS TO OUR ENGINEERING DEPARTMENT.

PISTON SEALS AND BEARINGS

DIAGRAM REFERENCE

- A = Bore = Nominal Seal O.D.
- B = Groove Diameter = Nominal Seal I.D.
- C = Groove Width = Nominal Seal Width

DIMENSIONS

ROD SEALS AND BEARINGS

DIAGRAM REFERENCE

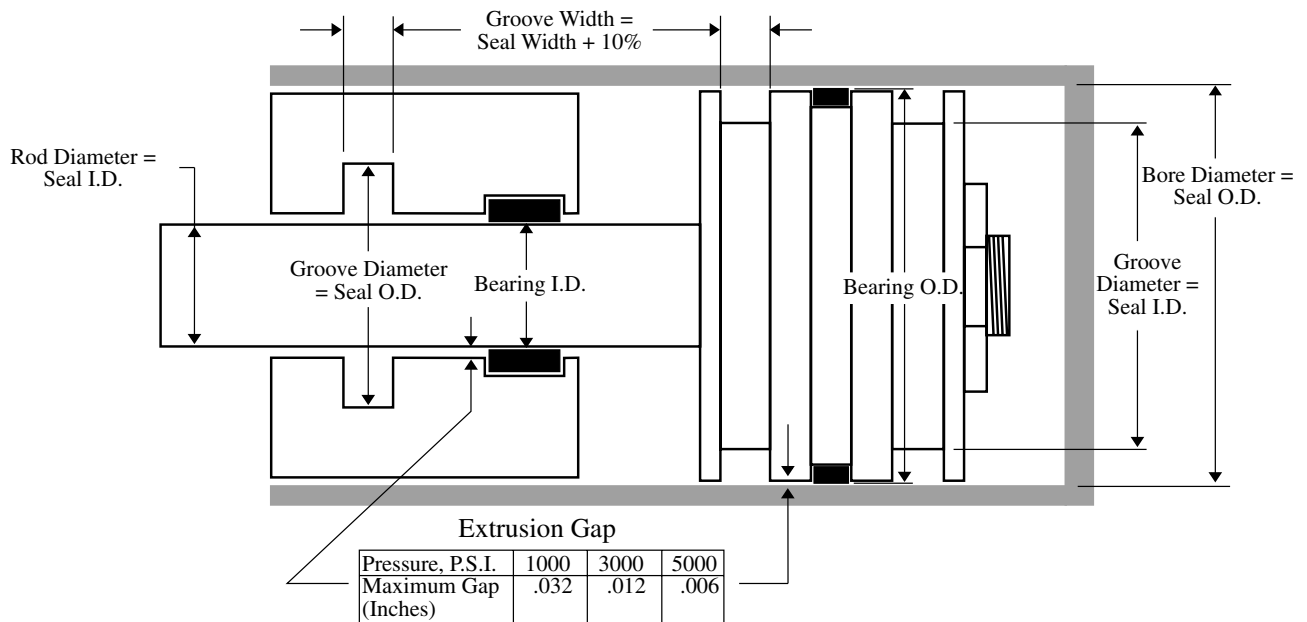
- D = Gland Groove Diameter = Nominal Seal I.D.
- E = Rod Seal Groove Diameter = Nominal Seal O.D.
- F = Wiper Groove Diameter = Nominal Wiper O.D.
- G = Gland Groove Width = Nominal Seal Width
- H = Rod Seal Groove Width = Nominal Seal Width
- I = Wiper Groove Width = Base Width
- J = Rod Diameter = Seal & Nominal Wiper I.D.

DIMENSIONS

COPY FOR SHOP & COUNTER USE

TECHNICAL INFORMATION

GROOVE DIMENSIONS FOR URETHANE U-SEALS



ROD AND ROD GROOVE DIAMETERS

ROD DIAM RANGE, IN.	ROD DIAM. TOLERANCE	GROOVE DIAM TOLERANCE	MAX DIAMETRICAL CLEARANCE		
			1000 PSI	3000 PSI	5000 PSI
.125 - .687	+ .0 / -.002	+ .004 / -.0	.008	.006	.004
.750 - 2.875	+ .0 / -.003	+ .008 / -.0	.012	.008	.004
3.000 - 7.000	+ .0 / -.004	+ .010 / -.0	.014	.010	-
7.000 - 7.750	+ .0 / -.005	+ .011 / -.0	.016	.010	-
8.000 - 9.500	+ .0 / -.005	+ .012 / -.0	.016	-	-
10.000 - 15.000	+ .0 / -.006	+ .015 / -.0	.016	-	-

BORE AND PISTON GROOVE DIAMETERS

BORE DIAM RANGE, IN.	BORE DIAM. TOLERANCE	GROOVE DIAM TOLERANCE	MAX DIAMETRICAL CLEARANCE		
			1000 PSI	3000 PSI	5000 PSI
.750 - 1.062	+ .003 / -.0	+ .0 / -.004	.010	.008	.004
1.125 - 1.625	+ .003 / -.0	+ .0 / -.005	.010	.008	.004
1.750 - 2.500	+ .003 / -.0	+ .0 / -.007	.012	.008	.004
2.625 - 2.875	+ .003 / -.0	+ .0 / -.008	.012	.008	.005
3.000 - 3.500	+ .004 / -.0	+ .0 / -.008	.014	.010	-
3.625 - 5.625	+ .004 / -.0	+ .0 / -.009	.014	.010	-
5.750 - 6.750	+ .004 / -.0	+ .0 / -.010	.014	.010	-
7.000 - 8.500	+ .005 / -.0	+ .0 / -.011	.016	.010	-
9.000 - 11.000	+ .005 / -.0	+ .0 / -.011	.016	-	-
12.000 - 16.000	+ .006 / -.0	+ .0 / -.012	.018	-	-

TECHNICAL INFORMATION

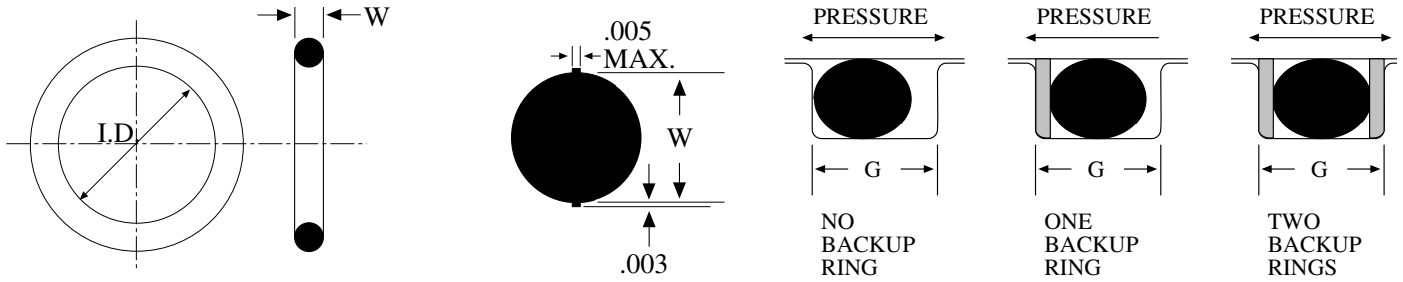
METRIC / INCH CONVERSION TABLE

FRACTIONS, DECIMALS AND MILLIMETERS

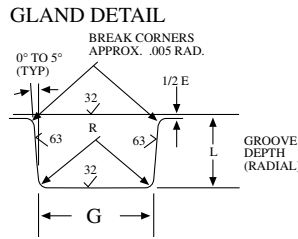
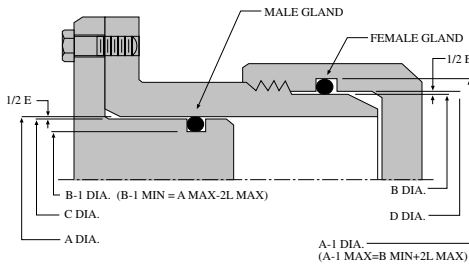
Inches			Inches			Inches			Inches		
Fractions	Decimals	M M	Fractions	Decimals	M M	Fractions	Decimals	M M	Fractions	Decimals	M M
—	.0004	.01	25/32	.781	19.844	—	2.165	55.0	3-11/16	3.6875	93.663
—	.004	.10	—	.7874	20.0	2-3/16	2.1875	55.563	—	3.7008	94.0
—	.01	.25	51/64	.797	20.241	—	2.2047	56.0	3-23/32	—	94.456
1/64	.0156	.397	13/16	.8125	20.638	2-7/32	2.219	56.356	—	3.7401	95.0
—	.0197	.50	—	.8268	21.0	—	2.244	57.0	3-3/4	3.750	95.250
—	.0295	.75	53/64	.828	21.034	2-1/4	2.250	57.150	—	3.7795	96.0
1/32	.03125	.794	27/32	.844	21.431	2-9/32	2.281	57.944	3-25/32	3.781	96.044
—	.0394	1.0	55/64	.859	21.828	—	2.2835	58.0	3-13/16	3.8125	96.838
3/64	.0469	1.191	—	.8661	22.0	2-5/16	2.312	58.738	—	3.8189	97.0
—	.059	1.5	7/8	.875	22.225	—	2.3228	59.0	3-27/32	3.844	97.631
1/16	.062	1.588	57/64	.8906	22.622	2-11/32	2.344	59.531	—	3.8583	98.0
5/64	.0781	1.984	—	.9055	23.0	—	2.3622	60.0	3-7/8	3.875	98.425
—	.0787	2.0	29/32	.9062	23.019	2-3/8	2.375	60.325	—	3.8976	99.0
3/32	.094	2.381	59/64	.922	23.416	—	2.4016	61.0	3-29/32	3.9062	99.219
—	.0984	2.5	15/16	.9375	23.813	2-13/32	2.406	61.119	—	3.9370	100.0
7/64	.109	2.778	—	.9449	24.0	2-7/16	2.438	61.913	3-15/16	3.9375	100.013
—	.1181	3.0	61/64	.953	24.209	—	2.4409	62.0	3-31/32	3.969	100.806
1/8	.125	3.175	31/32	.969	24.606	2-15/32	2.469	62.706	—	3.9764	101.0
—	.1378	3.5	—	.9843	25.0	—	2.4803	63.0	4	4.000	101.600
9/64	.141	3.572	63/64	.9844	25.003	2-1/2	2.500	63.500	4-1/16	4.062	103.188
5/32	.156	3.969	1	1.000	25.400	—	2.5197	64.0	4-1/8	4.125	104.775
—	.1575	4.0	—	1.0236	26.0	2-17/32	2.531	64.294	—	4.1338	105.0
11/64	.172	4.366	1-1/32	1.0312	26.194	—	2.559	65.0	4-3/16	4.1875	106.363
—	.177	4.5	1-1/16	1.062	26.988	2-9/16	2.562	65.088	4-1/4	4.250	107.950
3/16	.1875	4.763	—	1.063	27.0	2-19/32	2.594	65.881	4-5/16	4.312	109.538
—	.1969	5.0	1-3/32	1.094	27.781	—	2.5984	66.0	—	4.3307	110.0
13/64	.203	5.159	—	1.1024	28.0	2-5/8	2.625	66.675	4-3/8	4.375	111.125
—	.2165	5.5	1-1/8	1.125	28.575	—	2.638	67.0	4-7/16	4.438	112.713
7/32	.219	5.556	—	1.1417	29.0	2-21/32	2.656	67.469	4-1/2	4.500	114.300
15/64	.234	5.953	1-5/32	1.156	29.369	—	2.6772	68.0	—	4.5275	115.0
—	.2362	6.0	—	1.1811	30.0	2-11/16	2.6875	68.263	4-9/16	4.562	115.888
1/4	.250	6.350	1-3/16	1.1875	30.163	—	2.7165	69.0	4-5/8	4.625	117.475
—	.2559	6.5	1-7/32	1.219	30.956	2-23/32	2.719	69.056	4-11/16	4.6875	119.063
17/64	.2656	6.747	—	1.2205	31.0	2-3/4	2.750	69.850	—	4.7244	120.0
—	.2756	7.0	1-1/4	1.250	31.750	—	2.7559	70.0	4-3/4	4.750	120.650
9/32	.281	7.144	—	1.2598	32.0	2-25/32	2.781	70.6439	4-13/16	4.8125	122.238
—	.2953	7.5	1-9/32	1.281	32.544	—	2.7953	71.0	4-7/8	4.875	123.825
19/64	.297	7.541	—	1.2992	33.0	2-13/16	2.8125	71.4376	—	4.9212	125.0
5/16	.312	7.938	1-5/16	1.312	33.338	—	2.8346	72.0	4-15/16	4.9375	125.413
—	.315	8.0	—	1.3386	34.0	2-27/32	2.844	72.2314	5	5.000	127.000
21/64	.328	8.334	1-11/32	1.344	34.131	—	2.8740	73.0	—	5.1181	130.0
—	.335	8.5	1-3/8	1.375	34.925	2-7/8	2.875	73.025	5-1/4	5.250	133.350
11/32	.344	8.731	—	1.3779	35.0	2-29/32	2.9062	73.819	5-1/2	5.500	139.700
—	.3543	9.0	1-13/32	1.406	35.719	—	2.9134	74.0	—	5.5118	140.0
23/64	.359	9.128	—	1.4173	36.0	2-15/16	2.9375	74.613	5-3/4	5.750	146.050
—	.374	9.5	1-7/16	1.438	36.513	—	2.9527	75.0	—	5.9055	150.0
3/8	.375	9.525	—	1.4567	37.0	2-31/32	2.969	75.406	6	6.000	152.400
25/64	.391	9.922	1-15/32	1.469	37.306	—	2.9921	76.0	6-1/4	6.250	158.750
—	.3937	10.0	—	1.4961	38.0	3	3.000	76.200	—	6.2992	160.0
13/32	.406	10.319	1-1/2	1.500	38.100	3-1/32	3.0312	76.994	6-1/2	6.500	165.100
—	.413	10.5	1-17/32	1.531	38.894	—	3.0315	77.0	—	6.6929	170.0
27/64	.422	10.716	—	1.5354	39.0	3-1/16	3.062	77.788	6-3/4	6.750	171.450
—	.4331	11.0	1-9/16	1.562	39.688	—	3.0709	78.0	7	7.000	177.800
7/16	.438	11.113	—	1.5748	40.0	3-3/32	3.094	78.581	—	7.0866	180.0
29/64	.453	11.509	1-19/32	1.594	40.481	—	3.1102	79.0	—	7.4803	190.0
15/32	.469	11.906	—	1.6142	41.0	3-1/8	3.125	79.581	7-1/2	7.500	190.500
—	.4724	12.0	1-5/8	1.625	41.275	—	3.1496	80.0	—	7.8740	200.0
31/64	.484	12.303	—	1.6535	42.0	3-5/32	3.156	80.169	8	8.000	203.200
—	.492	12.5	1-21/32	1.6562	42.069	3-3/16	3.1875	80.963	—	8.2677	210.0
1/2	.500	12.700	1-11/16	1.6875	42.863	—	3.1890	81.0	8-1/2	8.500	215.900
—	.5118	13.0	—	1.6929	43.0	3-7/32	3.219	81.756	—	8.6614	220.0
33/64	.5156	13.097	1-23/32	1.719	43.656	—	3.2283	82.0	9	9.000	228.600
17/32	.531	13.494	—	1.7323	44.0	3-1/4	3.250	82.550	—	9.0551	230.0
35/64	.547	13.891	1-3/4	1.750	44.450	—	3.2677	83.0	—	9.4488	240.0
—	.5512	14.0	—	1.7717	45.0	3-9/32	3.281	83.344	9-1/2	9.500	241.300
9/16	.563	14.288	1-25/32	1.781	45.244	—	3.3071	84.0	—	9.8425	250.0
—	.571	14.5	—	1.8110	46.0	3-5/16	3.312	84.1377	10	10.000	254.000
37/64	.578	14.684	1-13/16	1.8125	46.038	3-11/32	3.344	84.9314	—	10.2362	260.0
—	.5906	15.0	1-27/32	1.844	46.831	—	3.3464	85.0	—	10.6299	270.0
19/32	.594	15.081	—	1.8504	47.0	3-3/8	3.375	85.725	11	11.000	279.400
39/64	.609	15.478	1-7/8	1.875	47.625	—	3.3858	86.0	—	11.0236	280.0
5/8	.625	15.875	—	1.8898	48.0	3-13/32	3.406	86.519	—	11.4173	290.0
—	.6299	16.0	1-29/32	1.9062	48.419	—	3.4252	87.0	—	11.8110	300.0
41/64	.6406	16.272	—	1.9291	49.0	3-7/16	3.438	87.313	12	12.000	304.800
—	.6496	16.5	1-15/16	1.9375	49.213	—	3.4648	88.0	13	13.000	330.200
21/32	.658	16.669	—	1.9685	50.0	3-15/32	3.469	88.108	—	13.7795	350.0
—	.6693	17.0	1-31/32	1.969	50.006	3-1/2	3.500	88.900	14	14.000	355.600
43/64	.672	17.066	2	2.000	50.800	—	3.5039	89.0	15	15.000	381.000
11/16	.6875	17.463	—	2.0079	51.0	3-17/32	3.531	89.694	—	15.7480	400.0
45/64	.703	17.859	2-1/32	2.03125	51.594	—	3.5433	90.0	16	16.000	406.400
—	.7087	18.0	—	2.0472	52.0	3-9/16	3.562	90.4877	17	17.000	431.800
23/32	.719	18.256	2-1/6	2.062	52.388	—	3.5827	91.0	—	17.7165	450.0
—	.7283	18.5	—	2.0866	53.0	3-19/32	3.594	91.281	18	18.000	457.200
47/64	.734	18.653	2-3/32	2.094	53.181	—	3.622	92.0	19	19.000	482.600
—	.7480	19.0	2-1/8	2.125	53.975	3-5/8	3.625	92.075	—	19.6850	500.0
3/4	.750	19.050	—	2.126	54.0	3-21/32	3.656	92.869	20	20.000	508.000
49/64	.7656	19.447	2-5/32	2.156	54.769	—	3.6614	93.0	—	—	—

TECHNICAL INFORMATION

O-RING GLAND DIMENSIONS



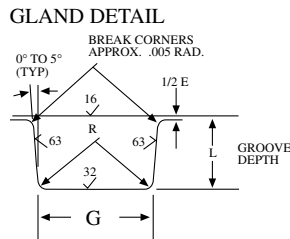
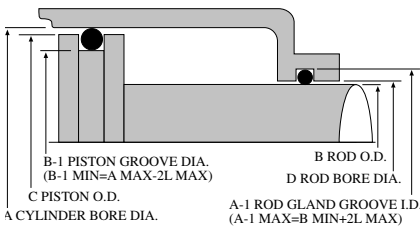
O-Ring Gland Design For Static Seals



- A - Bore Dia. (male gland)
- A-1 - Groove Dia. (female gland)
- B - Tube OD (female gland)
- B-1 - Groove Dia. (male gland)
- C - Plug Dia. (male gland)
- D - Throat Dia. (female gland)
- E - Diametrical Clearance

W O-RING CROSS SECTION	L GROOVE DEPTH		SQUEEZE				E DIAMETRICAL CLEARANCE MAX.	G GROOVE WIDTH ± .005			R GROOVE RADIUS	ECCEN- TRICITY MAX.
			RADIAL		AXIAL			NO BACKUP RING	ONE BACKUP RING	TWO BACKUP RINGS		
			INCHES	%	INCHES	%						
.070	.050-.052	.050-.054	.015-.023	22-23	.013-.023	19-32	.004	.095	.140	.207	.005-.015	.002
.103	.081-.083	.074-.080	.017-.025	17-24	.020-.032	20-30	.005	.142	.173	.240	.005-.015	.002
.139	.111-.113	.101-.107	.022-.032	16-23	.028-.042	20-30	.006	.189	.210	.277	.010-.025	.003
.210	.170-.173	.152-.162	.032-.045	15-21	.043-.063	21-30	.006	.283	.313	.413	.020-.035	.004
.275	.226-.229	.201-.211	.040-.055	15-20	.058-.080	21-29	.007	.377	.410	.540	.020-.035	.00

O-Ring Gland Design For Reciprocating Seals



- A - Bore Dia. of Cylinder
- B - OD of Rod
- C - OD of Piston
- D - Bore Dia. for Rod

W O-RING CROSS SECTION	L GROOVE DEPTH		SQUEEZE		E DIAMETRICAL CLEARANCE MAX.	G GROOVE WIDTH ± .005			R GROOVE RADIUS	ECCEN- TRICITY MAX.
			RADIAL			NO BACKUP RING	ONE BACKUP RING	TWO BACKUP RINGS		
			INCHES	%						
.070	.055-.057	.050-.054	.010-.018	15-25	.004	.095	.140	.207	.005-.015	.002
.103	.088-.090	.074-.080	.010-.018	10-17	.005	.142	.173	.240	.005-.015	.002
.139	.121-.123	.101-.107	.012-.022	9-16	.006	.189	.210	.277	.010-.025	.003
.210	.185-.188	.152-.162	.017-.030	8-14	.006	.283	.313	.413	.020-.035	.004
.275	.237-.240	.201-.211	.029-.044	11-16	.007	.377	.410	.540	.020-.035	.005

O-RING SIZE CHART AND INSTALLATION DATA

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	ID	OD	Width	ID Tol.	W. Tol.
-001	1/32	3/32	1/32	.029±.004	.040±.003
-001 1/2	1/16	1/8	1/32	.070±.004	.040±.003
-002	3/64	9/64	3/64	.042±.004	.050±.003
-003	1/16	3/16	1/16	.056±.004	.060±.003
-004	5/64	13/64	1/16	.070±.005	.070±.003
-005	3/32	7/32	1/16	.101±.005	.070±.003
-006	1/8	1/4	1/16	.114±.005	.070±.003
-007	5/32	9/32	1/16	.145±.005	.070±.003
-008	3/16	5/16	1/16	.176±.005	.070±.003
-009	7/32	11/32	1/16	.208±.005	.070±.003
-010	1/4	3/8	1/16	.239±.005	.070±.003
-011	5/16	7/16	1/16	.301±.005	.070±.003
-012	3/8	1/2	1/16	.364±.005	.070±.003
-013	7/16	9/16	1/16	.426±.005	.070±.003
-014	1/2	5/8	1/16	.489±.005	.070±.003
-015	9/16	11/16	1/16	.551±.007	.070±.003
-016	5/8	3/4	1/16	.614±.009	.070±.003
-017	11/16	13/16	1/16	.676±.009	.070±.003
-018	3/4	7/8	1/16	.739±.009	.070±.003
-019	13/16	15/16	1/16	.801±.009	.070±.003
-020	7/8	1	1/16	.864±.009	.070±.003
-021	15/16	1 1/16	1/16	.926±.009	.070±.003
-022	1	1 1/8	1/16	.989±.010	.070±.003
-023	1 1/16	1 3/16	1/16	1.051±.010	.070±.003
-024	1 1/8	1 1/4	1/16	1.114±.010	.070±.003
-025	1 3/16	1 5/16	1/16	1.176±.011	.070±.003
-026	1 1/4	1 3/8	1/16	1.239±.011	.070±.003
-027	1 5/16	1 7/16	1/16	1.301±.011	.070±.003
-028	1 3/8	1 1/2	1/16	1.364±.013	.070±.003
-029	1 1/2	1 5/8	1/16	1.489±.013	.070±.003
-030	1 5/8	1 3/4	1/16	1.614±.013	.070±.003
-031	1 3/4	1 7/8	1/16	1.739±.015	.070±.003
-032	1 7/8	2	1/16	1.864±.015	.070±.003
-033	2	2 1/8	1/16	1.989±.018	.070±.003
-034	2 1/8	2 1/4	1/16	2.114±.018	.070±.003
-035	2 1/4	2 3/8	1/16	2.239±.018	.070±.003
-036	2 3/8	2 1/2	1/16	2.364±.018	.070±.003
-037	2 1/2	2 5/8	1/16	2.489±.018	.070±.003
-038	2 5/8	2 3/4	1/16	2.614±.020	.070±.003
-039	2 3/4	2 7/8	1/16	2.739±.020	.070±.003
-040	2 7/8	3	1/16	2.864±.020	.070±.003
-041	3	3 1/8	1/16	2.989±.024	.070±.003
-042	3 1/4	3 3/8	1/16	3.239±.024	.070±.003
-043	3 1/2	3 5/8	1/16	3.489±.024	.070±.003
-044	3 3/4	3 7/8	1/16	3.739±.027	.070±.003
-045	4	4 1/8	1/16	3.989±.027	.070±.003
-046	4 1/4	4 3/8	1/16	4.239±.030	.070±.003

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	ID	OD	Width	ID Tol.	W. Tol.
-047	4 1/2	4 5/8	1/16	4.489±.030	.070±.003
-048	4 3/4	4 7/8	1/16	4.739±.030	.070±.003
-049	5	5 1/8	1/16	4.989±.037	.070±.003
-050	5 1/4	5 3/8	1/16	5.239±.037	.070±.003
-102	1/16	1/4	3/32	.049±.005	.103±.003
-103	3/32	9/32	3/32	.081±.005	.103±.003
-104	1/8	5/16	3/32	.112±.005	.103±.003
-105	5/32	11/32	3/32	.143±.005	.103±.003
-106	3/16	3/8	3/32	.174±.005	.103±.003
-107	7/32	13/32	3/32	.206±.005	.103±.003
-108	1/4	7/16	3/32	.237±.005	.103±.003
-109	5/16	1/2	3/32	.299±.005	.103±.003
-110	3/8	9/16	3/32	.362±.005	.103±.003
-111	7/16	5/8	3/32	.424±.005	.103±.003
-112	1/2	11/16	3/32	.487±.005	.103±.003
-113	9/16	3/4	3/32	.549±.005	.103±.003
-114	5/8	13/16	3/32	.612±.009	.103±.003
-115	11/16	7/8	3/32	.674±.009	.103±.003
-116	3/4	15/16	3/32	.737±.009	.103±.003
-117	13/16	1	3/32	.799±.010	.103±.003
-118	7/8	1 1/16	3/32	.862±.010	.103±.003
-119	15/16	1 1/8	3/32	.924±.010	.103±.003
-120	1	1 3/16	3/32	.987±.010	.103±.003
-121	1 1/16	1 1/4	3/32	1.049±.010	.103±.003
-122	1 1/8	1 5/16	3/32	1.112±.010	.103±.003
-123	1 3/16	1 3/8	3/32	1.174±.012	.103±.003
-124	1 1/4	1 7/16	3/32	1.237±.012	.103±.003
-125	1 5/16	1 1/2	3/32	1.299±.012	.103±.003
-126	1 3/8	1 9/16	3/32	1.362±.012	.103±.003
-127	1 7/16	1 5/8	3/32	1.424±.012	.103±.003
-128	1 1/2	1 11/16	3/32	1.487±.012	.103±.003
-129	1 9/16	1 3/4	3/32	1.549±.015	.103±.003
-130	1 5/8	1 13/16	3/32	1.612±.015	.103±.003
-131	1 11/16	1 7/8	3/32	1.674±.015	.103±.003
-132	1 3/4	1 15/16	3/32	1.737±.015	.103±.003
-133	1 13/16	2	3/32	1.799±.015	.103±.003
-134	1 7/8	2 1/16	3/32	1.862±.015	.103±.003
-135	1 15/16	2 1/8	3/32	1.925±.017	.103±.003
-136	2	2 3/16	3/32	1.987±.017	.103±.003
-137	2 1/16	2 1/4	3/32	2.050±.017	.103±.003
-138	2 1/8	2 5/16	3/32	2.112±.017	.103±.003
-139	2 3/16	2 3/8	3/32	2.175±.017	.103±.003
-140	2 1/4	2 7/16	3/32	2.237±.017	.103±.003
-141	2 5/16	2 1/2	3/32	2.300±.020	.103±.003
-142	2 3/8	2 9/16	3/32	2.362±.020	.103±.003
-143	2 7/16	2 5/8	3/32	2.425±.020	.103±.003
-144	2 1/2	2 11/16	3/32	2.487±.020	.103±.003

TECHNICAL INFORMATION

O-RING SIZE CHART AND INSTALLATION DATA

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS		AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	ID	OD	Width	ID Tol.	W. Tol.		ID	OD	Width	ID Tol.	W. Tol.
-145	2 9/16	2 3/4	3/32	2.550±.020	.103±.003	-214	1	1 1/4	1/8	.984±.010	.139±.004
-146	2 5/8	2 13/16	3/32	2.612±.020	.103±.003	-215	1 1/16	1 5/16	1/8	1.046±.010	.139±.004
-147	2 11/16	2 7/8	3/32	2.675±.022	.103±.003	-216	1 1/8	1 3/8	1/8	1.109±.012	.139±.004
-148	2 3/4	2 15/16	3/32	2.737±.022	.103±.003	-217	1 3/16	1 7/16	1/8	1.171±.012	.139±.004
-149	2 13/16	3	3/32	2.800±.022	.103±.003	-218	1 1/4	1 1/2	1/8	1.234±.012	.139±.004
-150	2 7/8	3 1/16	3/32	2.862±.022	.103±.003	-219	1 5/16	1 9/16	1/8	1.296±.012	.139±.004
-151	3	3 3/16	3/32	2.987±.024	.103±.003	-220	1 3/8	1 5/8	1/8	1.359±.012	.139±.004
-152	3 1/4	3 7/16	3/32	3.237±.024	.103±.003	-221	1 7/16	1 11/16	1/8	1.421±.012	.139±.004
-153	3 1/2	3 11/16	3/32	3.487±.024	.103±.003	-222	1 1/2	1 3/4	1/8	1.484±.015	.139±.004
-154	3 3/4	3 15/16	3/32	3.737±.028	.103±.003	-223	1 5/8	1 7/8	1/8	1.609±.015	.139±.004
-155	4	4 3/16	3/32	3.987±.028	.103±.003	-224	1 3/4	2	1/8	1.734±.015	.139±.004
-156	4 1/4	4 7/16	3/32	4.237±.030	.103±.003	-225	1 7/8	2 1/8	1/8	1.859±.018	.139±.004
-157	4 1/2	4 11/16	3/32	4.487±.030	.103±.003	-226	2	2 1/4	1/8	1.984±.018	.139±.004
-158	4 3/4	4 15/16	3/32	4.737±.030	.103±.003	-227	2 1/8	2 3/8	1/8	2.109±.018	.139±.004
-159	5	5 3/16	3/32	4.987±.035	.103±.003	-228	2 1/4	2 1/2	1/8	2.234±.020	.139±.004
-160	5 1/4	5 7/16	3/32	5.237±.035	.103±.003	-229	2 3/8	2 5/8	1/8	2.359±.020	.139±.004
-161	5 1/2	5 11/16	3/32	5.487±.035	.103±.003	-230	2 1/2	2 3/4	1/8	2.484±.020	.139±.004
-162	5 3/4	5 15/16	3/32	5.737±.035	.103±.003	-231	2 5/8	2 7/8	1/8	2.609±.020	.139±.004
-163	6	6 3/16	3/32	5.987±.035	.103±.003	-232	2 3/4	3	1/8	2.734±.024	.139±.004
-164	6 1/4	6 7/16	3/32	6.237±.040	.103±.003	-233	2 7/8	3 1/8	1/8	2.859±.024	.139±.004
-165	6 1/2	6 11/16	3/32	6.487±.040	.103±.003	-234	3	3 1/4	1/8	2.984±.024	.139±.004
-166	6 3/4	6 15/16	3/32	6.737±.040	.103±.003	-235	3 1/8	3 3/8	1/8	3.109±.024	.139±.004
-167	7	7 3/16	3/32	6.987±.040	.103±.003	-236	3 1/4	3 1/2	1/8	3.234±.024	.139±.004
-168	7 1/4	7 7/16	3/32	7.237±.045	.103±.003	-237	3 3/8	3 5/8	1/8	3.359±.024	.139±.004
-169	7 1/2	7 11/16	3/32	7.487±.045	.103±.003	-238	3 1/2	3 3/4	1/8	3.484±.024	.139±.004
-170	7 3/4	7 15/16	3/32	7.737±.045	.103±.003	-239	3 5/8	3 7/8	1/8	3.609±.028	.139±.004
-171	8	8 3/16	3/32	7.987±.045	.103±.003	-240	3 3/4	4	1/8	3.734±.028	.139±.004
-172	8 1/4	8 7/16	3/32	8.237±.050	.103±.003	-241	3 7/8	4 1/8	1/8	3.859±.028	.139±.004
-173	8 1/2	8 11/16	3/32	8.487±.050	.103±.003	-242	4	4 1/4	1/8	3.984±.028	.139±.004
-174	8 3/4	8 15/16	3/32	8.737±.050	.103±.003	-243	4 1/8	4 3/8	1/8	4.109±.028	.139±.004
-175	9	9 3/16	3/32	8.987±.050	.103±.003	-244	4 1/4	4 1/2	1/8	4.234±.030	.139±.004
-176	9 1/4	9 7/16	3/32	9.237±.055	.103±.003	-245	4 3/8	4 5/8	1/8	4.359±.030	.139±.004
-177	9 1/2	9 11/16	3/32	9.487±.055	.103±.003	-246	4 1/2	4 3/4	1/8	4.484±.030	.139±.004
-178	9 3/4	9 15/16	3/32	9.737±.055	.103±.003	-247	4 5/8	4 7/8	1/8	4.609±.030	.139±.004
-201	3/16	7/16	1/8	.171±.005	.139±.004	-248	4 3/4	5	1/8	4.734±.030	.139±.004
-202	1/4	1/2	1/8	.234±.005	.139±.004	-249	4 7/8	5 1/8	1/8	4.859±.035	.139±.004
-203	5/16	9/16	1/8	.296±.005	.139±.004	-250	5	5 1/4	1/8	4.984±.035	.139±.004
-204	3/8	5/8	1/8	.359±.005	.139±.004	-251	5 1/8	5 3/8	1/8	5.109±.035	.139±.004
-205	7/16	11/16	1/8	.421±.005	.139±.004	-252	5 1/4	5 1/2	1/8	5.234±.035	.139±.004
-206	1/2	3/4	1/8	.484±.005	.139±.004	-253	5 3/8	5 5/8	1/8	5.359±.035	.139±.004
-207	9/16	13/16	1/8	.546±.007	.139±.004	-254	5 1/2	5 3/4	1/8	5.484±.035	.139±.004
-208	5/8	7/8	1/8	.609±.009	.139±.004	-255	5 5/8	5 7/8	1/8	5.609±.035	.139±.004
-209	11/16	15/16	1/8	.671±.009	.139±.004	-256	5 3/4	6	1/8	5.734±.035	.139±.004
-210	3/4	1	1/8	.734±.010	.139±.004	-257	5 7/8	6 1/8	1/8	5.859±.035	.139±.004
-211	13/16	1 1/16	1/8	.796±.010	.139±.004	-258	6	6 1/4	1/8	5.984±.035	.139±.004
-212	7/8	1 1/8	1/8	.859±.010	.139±.004	-259	6 1/4	6 1/2	1/8	6.234±.040	.139±.004
-213	15/16	1 3/16	1/8	.921±.010	.139±.004	-260	6 1/2	6 3/4	1/8	6.484±.040	.139±.004

KANSAS
PHONE 1-316-267-1051
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FAX 1-918-446-4743

TEXAS
PHONE 1-903-753-0341
FAX 1-903-236-9797

O-RING SIZE CHART AND INSTALLATION DATA

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	ID	OD	Width	ID Tol.	W. Tol.
-261	6 3/4	7	1/8	6.734±.040	.139±.004
-262	7	7 1/4	1/8	6.984±.040	.139±.004
-263	7 1/4	7 1/2	1/8	7.234±.045	.139±.004
-264	7 1/2	7 3/4	1/8	7.484±.045	.139±.004
-265	7 3/4	8	1/8	7.734±.045	.139±.004
-266	8	8 1/4	1/8	7.984±.045	.139±.004
-267	8 1/4	8 1/2	1/8	8.234±.050	.139±.004
-268	8 1/2	8 3/4	1/8	8.484±.050	.139±.004
-269	8 3/4	9	1/8	8.734±.050	.139±.004
-270	9	9 1/4	1/8	8.984±.050	.139±.004
-271	9 1/4	9 1/2	1/8	9.234±.055	.139±.004
-272	9 1/2	9 3/4	1/8	9.484±.055	.139±.004
-273	9 3/4	10	1/8	9.734±.055	.139±.004
-274	10	10 1/4	1/8	9.984±.055	.139±.004
-275	10 1/2	10 3/4	1/8	10.484±.055	.139±.004
-276	11	11 1/4	1/8	10.984±.065	.139±.004
-277	11 1/2	11 3/4	1/8	11.484±.065	.139±.004
-278	12	12 1/4	1/8	11.984±.065	.139±.004
-279	13	13 1/4	1/8	12.984±.065	.139±.004
-280	14	14 1/4	1/8	13.984±.065	.139±.004
-281	15	15 1/4	1/8	14.984±.065	.139±.004
-282	16	16 1/4	1/8	15.955±.075	.139±.004
-283	17	17 1/4	1/8	16.955±.080	.139±.004
-284	18	18 1/4	1/8	17.955±.085	.139±.004
-309	7/16	13/16	3/16	.412±.005	.210±.005
-310	1/2	7/8	3/16	.475±.005	.210±.005
-311	9/16	15/16	3/16	.537±.007	.210±.005
-312	5/8	1	3/16	.600±.009	.210±.005
-313	11/16	1 1/16	3/16	.662±.009	.210±.005
-314	3/4	1 1/8	3/16	.725±.010	.210±.005
-315	13/16	1 3/16	3/16	.787±.010	.210±.005
-316	7/8	1 1/4	3/16	.850±.010	.210±.005
-317	15/16	1 5/16	3/16	.912±.010	.210±.005
-318	1	1 3/8	3/16	.975±.010	.210±.005
-319	1 1/16	1 7/16	3/16	1.037±.010	.210±.005
-320	1 1/8	1 1/2	3/16	1.100±.012	.210±.005
-321	1 3/16	1 9/16	3/16	1.162±.012	.210±.005
-322	1 1/4	1 5/8	3/16	1.225±.012	.210±.005
-323	1 5/16	1 11/16	3/16	1.287±.012	.210±.005
-324	1 3/8	1 3/4	3/16	1.350±.012	.210±.005
-325	1 1/2	1 7/8	3/16	1.475±.015	.210±.005
-326	1 5/8	2	3/16	1.600±.015	.210±.005
-327	1 3/4	2 1/8	3/16	1.725±.015	.210±.005
-328	1 7/8	2 1/4	3/16	1.850±.015	.210±.005
-329	2	2 3/8	3/16	1.975±.018	.210±.005
-330	2 1/8	2 1/2	3/16	2.100±.018	.210±.005
-331	2 1/4	2 5/8	3/16	2.225±.018	.210±.005

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	ID	OD	Width	ID Tol.	W. Tol.
-332	2 3/8	2 3/4	3/16	2.350±.018	.210±.005
-333	2 1/2	2 7/8	3/16	2.475±.020	.210±.005
-334	2 5/8	3	3/16	2.600±.020	.210±.005
-335	2 3/4	3 1/8	3/16	2.725±.020	.210±.005
-336	2 7/8	3 1/4	3/16	2.850±.020	.210±.005
-337	3	3 3/8	3/16	2.975±.024	.210±.005
-338	3 1/8	3 1/2	3/16	3.100±.024	.210±.005
-339	3 1/4	3 5/8	3/16	3.225±.024	.210±.005
-340	3 3/8	3 3/4	3/16	3.350±.024	.210±.005
-341	3 1/2	3 7/8	3/16	3.475±.024	.210±.005
-342	3 5/8	4	3/16	3.600±.028	.210±.005
-343	3 3/4	4 1/8	3/16	3.725±.028	.210±.005
-344	3 7/8	4 1/4	3/16	3.850±.028	.210±.005
-345	4	4 3/8	3/16	3.975±.028	.210±.005
-346	4 1/8	4 1/2	3/16	4.100±.028	.210±.005
-347	4 1/4	4 5/8	3/16	4.225±.030	.210±.005
-348	4 3/8	4 3/4	3/16	4.350±.030	.210±.005
-349	4 1/2	4 7/8	3/16	4.475±.030	.210±.005
-350	4 5/8	5	3/16	4.600±.030	.210±.005
-351	4 3/4	5 1/8	3/16	4.725±.030	.210±.005
-352	4 7/8	5 1/4	3/16	4.850±.030	.210±.005
-353	5	5 3/8	3/16	4.975±.037	.210±.005
-354	5 1/8	5 1/2	3/16	5.100±.037	.210±.005
-355	5 1/4	5 5/8	3/16	5.225±.037	.210±.005
-356	5 3/8	5 3/4	3/16	5.350±.037	.210±.005
-357	5 1/2	5 7/8	3/16	5.475±.037	.210±.005
-358	5 5/8	6	3/16	5.600±.037	.210±.005
-359	5 3/4	6 1/8	3/16	5.725±.037	.210±.005
-360	5 7/8	6 1/4	3/16	5.850±.037	.210±.005
-361	6	6 3/8	3/16	5.975±.037	.210±.005
-362	6 1/4	6 5/8	3/16	6.225±.040	.210±.005
-363	6 1/2	6 7/8	3/16	6.475±.040	.210±.005
-364	6 3/4	7 1/8	3/16	6.725±.040	.210±.005
-365	7	7 3/8	3/16	6.975±.040	.210±.005
-366	7 1/4	7 5/8	3/16	7.225±.045	.210±.005
-367	7 1/2	7 7/8	3/16	7.475±.045	.210±.005
-368	7 3/4	8 1/8	3/16	7.725±.045	.210±.005
-369	8	8 3/8	3/16	7.975±.045	.210±.005
-370	8 1/4	8 5/8	3/16	8.225±.050	.210±.005
-371	8 1/2	8 7/8	3/16	8.475±.050	.210±.005
-372	8 3/4	9 1/8	3/16	8.725±.050	.210±.005
-373	9	9 3/8	3/16	8.975±.050	.210±.005
-374	9 1/4	9 5/8	3/16	9.225±.055	.210±.005
-375	9 1/2	9 7/8	3/16	9.475±.055	.210±.005
-376	9 3/4	10 1/8	3/16	9.725±.055	.210±.005
-377	10	10 3/8	3/16	9.975±.055	.210±.005
-378	10 1/2	10 7/8	3/16	10.475±.060	.210±.005

TECHNICAL INFORMATION

O-RING SIZE CHART AND INSTALLATION DATA

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS		AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	ID	OD	Width	ID Tol.	W. Tol.		ID	OD	Width	ID Tol.	W. Tol.
-379	11	11 3/8	3/16	10.975±.060	.210±.005	-430	5 1/8	5 5/8	1/4	5.100±.037	.275±.006
-380	11 1/2	11 7/8	3/16	11.475±.065	.210±.005	-431	5 1/4	5 3/4	1/4	5.225±.037	.275±.006
-381	12	12 3/8	3/16	11.975±.065	.210±.005	-432	5 3/8	5 7/8	1/4	5.350±.037	.275±.006
-382	13	13 3/8	3/16	12.975±.065	.210±.005	-433	5 1/2	6	1/4	5.475±.037	.275±.006
-383	14	14 3/8	3/16	13.975±.070	.210±.005	-434	5 5/8	6 1/8	1/4	5.600±.037	.275±.006
-384	15	15 3/8	3/16	14.975±.070	.210±.005	-435	5 3/4	6 1/4	1/4	5.725±.037	.275±.006
-385	16	16 3/8	3/16	15.955±.075	.210±.005	-436	5 7/8	6 3/8	1/4	5.850±.037	.275±.006
-386	17	17 3/8	3/16	16.955±.080	.210±.005	-437	6	6 1/2	1/4	5.975±.037	.275±.006
-387	18	18 3/8	3/16	17.955±.085	.210±.005	-438	6 1/4	6 3/4	1/4	6.225±.040	.275±.006
-388	19	19 3/8	3/16	18.955±.090	.210±.005	-439	6 1/2	7	1/4	6.475±.040	.275±.006
-389	20	20 3/8	3/16	19.955±.095	.210±.005	-440	6 3/4	7 1/4	1/4	6.725±.040	.275±.006
-390	21	21 3/8	3/16	20.955±.095	.210±.005	-441	7	7 1/2	1/4	6.975±.040	.275±.006
-391	22	22 3/8	3/16	21.955±.100	.210±.005	-442	7 1/4	7 3/4	1/4	7.225±.045	.275±.006
-392	23	23 3/8	3/16	22.940±.105	.210±.005	-443	7 1/2	8	1/4	7.475±.045	.275±.006
-393	24	24 3/8	3/16	23.940±.110	.210±.005	-444	7 3/4	8 1/4	1/4	7.725±.045	.275±.006
-394	25	25 3/8	3/16	24.940±.115	.210±.005	-445	8	8 1/2	1/4	7.975±.045	.275±.006
-395	26	26 3/8	3/16	25.940±.120	.210±.005	-446	8 1/2	9	1/4	8.475±.055	.275±.006
-400*	1 3/8	1 7/8	1/4	1.225±.012	.275±.006	-447	9	9 1/2	1/4	8.975±.055	.275±.006
-401*	1 1/2	2	1/4	1.475±.014	.275±.006	-448	9 1/2	10	1/4	9.475±.055	.275±.006
-402*	1 5/8	2 1/8	1/4	1.600±.015	.275±.006	-449	10	10 1/2	1/4	9.975±.055	.275±.006
-403*	1 3/4	2 1/4	1/4	1.725±.016	.275±.006	-450	10 1/2	11	1/4	10.475±.060	.275±.006
-404*	1 7/8	2 3/8	1/4	1.850±.016	.275±.006	-451	11	11 1/2	1/4	10.975±.060	.275±.006
-405*	2	2 1/2	1/4	1.975±.017	.275±.006	-452	11 1/2	12	1/4	11.475±.060	.275±.006
-406*	2 1/8	2 5/8	1/4	2.100±.018	.275±.006	-453	12	12 1/2	1/4	11.975±.060	.275±.006
-407*	2 1/4	2 3/4	1/4	2.225±.018	.275±.006	-454	12 1/2	13	1/4	12.475±.060	.275±.006
-408*	2 3/8	2 7/8	1/4	2.350±.020	.275±.006	-455	13	13 1/2	1/4	12.975±.060	.275±.006
-409*	2 1/2	3	1/4	2.475±.020	.275±.006	-456	13 1/2	14	1/4	13.475±.070	.275±.006
-410*	2 5/8	3 1/8	1/4	2.600±.020	.275±.006	-457	14	14 1/2	1/4	13.975±.070	.275±.006
-411*	2 3/4	3 1/4	1/4	2.725±.022	.275±.006	-458	14 1/2	15	1/4	14.475±.070	.275±.006
-412*	2 7/8	3 3/8	1/4	2.850±.022	.275±.006	-459	15	15 1/2	1/4	14.975±.070	.275±.006
-413*	3	3 1/2	1/4	2.975±.024	.275±.006	-460	15 1/2	16	1/4	15.475±.070	.275±.006
-414*	3 1/8	3 5/8	1/4	3.100±.024	.275±.006	-461	16	16 1/2	1/4	15.955±.075	.275±.006
-415*	3 1/4	3 3/4	1/4	3.225±.024	.275±.006	-462	16 1/2	17	1/4	16.455±.075	.275±.006
-416*	3 3/8	3 7/8	1/4	3.350±.026	.275±.006	-463	17	17 1/2	1/4	16.955±.080	.275±.006
-417*	3 1/2	4	1/4	3.475±.026	.275±.006	-464	17 1/2	18	1/4	17.455±.085	.275±.006
-418*	3 5/8	4 1/8	1/4	3.600±.026	.275±.006	-465	18	18 1/2	1/4	17.955±.085	.275±.006
-419*	3 3/4	4 1/4	1/4	3.725±.028	.275±.006	-466	18 1/2	19	1/4	18.455±.085	.275±.006
-420*	3 7/8	4 3/8	1/4	3.850±.028	.275±.006	-467	19	19 1/2	1/4	18.955±.090	.275±.006
-421*	4	4 1/2	1/4	3.975±.028	.275±.006	-468	19 1/2	20	1/4	19.455±.090	.275±.006
-422*	4 1/8	4 5/8	1/4	4.100±.030	.275±.006	-469	20	20 1/2	1/4	19.955±.090	.275±.006
-423*	4 1/4	4 3/4	1/4	4.225±.030	.275±.006	-470	21	21 1/2	1/4	20.955±.090	.275±.006
-424*	4 3/8	4 7/8	1/4	4.350±.030	.275±.006	-471	22	22 1/2	1/4	21.955±.100	.275±.006
-425	4 1/2	5	1/4	4.475±.033	.275±.006	-472	23	23 1/2	1/4	22.940±.105	.275±.006
-426	4 5/8	5 1/8	1/4	4.600±.033	.275±.006	-473	24	24 1/2	1/4	23.940±.110	.275±.006
-427	4 3/4	5 1/4	1/4	4.725±.033	.275±.006	-474	25	25 1/2	1/4	24.940±.115	.275±.006
-428	4 7/8	5 3/8	1/4	4.850±.033	.275±.006	-475	26	26 1/2	1/4	25.940±.120	.275±.006
-429	5	5 1/2	1/4	4.975±.037	.275±.006						

