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All trademarks mentioned belong to their respective owners. Prices in this catalog supersede those found in the Hercules Sealing Products 2018 Seal, Kit, and 15th Edition Cylinder Catalogs. Prices are subject to change at any time. Go to www.Herculesus.com to view current pricing.



US - Introduction

The Corporate Office of Hercules® Sealing Products is located in Clearwater, Florida. Hercules® is an ISO 9001 registered distributor of hydraulic and pneumatic seals, seal kits, repair parts, and replacement cylinders for mobile and industrial applications. Hercules® provides seal products used in hydraulic cylinders to a variety of industries for equipment such as: construction, mining, aerial lift and crane, dump and refuse trucks, material handling, industrial plant applications, paving, agriculture, and logging equipment. Industry-leading technical catalogs provide application, dimensional, material specifications and product pricing.

A technical sales force with 8:00 a.m. to 7:00 p.m. ET hours of operation and an engineering department will provide you with unparalleled technical service. Additional value added services include reduced freight rates, special packaging, wide selection of aftermarket seal kits, largest in-stock inventory in the industry, and same day shipping on orders before 6:30 p.m. ET. Cylinder repair parts such as cylinders, power units, and cylinder rebuilding accessories are also available.

Hercules® Sealing Products offers products from the leading suppliers in the fluid power industry. These suppliers are continually rated and monitored based on the quality of their products. This process enables Hercules® to exceed our goal to deliver the highest quality products and services in the industry.

1016 North Belcher Road
Clearwater, FL 33765
www.HerculesUS.com

Phone:
1-800-777-5617
727-796-1300

Fax: 1-800-759-6391
Intl Fax: 727-797-8849
Email: Sales@HerculesUS.com

Online Ordering - www.HerculesUs.com

Placing orders on the Hercules® website is a fast and easy alternative to calling or faxing in your orders. Simply place items in the shopping cart and register during the checkout process, or click the “register” button on the upper right-hand corner of the homepage to start the process prior to shopping. First-Time visitors need to fill out a short profile to view company specific discounts and inventory. To shop quickly, click the “Quick Order Entry” button on the left side menu and add items by part number directly into your shopping cart. For website assistance, e-mail our Help Desk at HelpDesk@HerculesUS.com, click the **Live Chat**, or call **727-796-1300**.

Sign-up for the Hercules e-newsletter, found at the bottom of the homepage, to receive notice of web-only specials, new product announcements and industry specific articles.



Catalog Offerings

Seal Catalog - The Hercules® Seal Catalog contains over 800 pages of seals in the most popular styles and sizes. The easy-to-use format quickly locates u-seals, piston seals, scrapers, o-rings, piston rings, buffer seals, and much more. Each listing includes seal material, temperature and pressure specifications, and cross-sectional drawings to simplify selection.

Industrial Kit Catalog - The Hercules® Industrial Catalog contains priced listings of the wide range of hydraulic / pneumatic sealing and related products for in-plant industrial applications. This catalog includes OEM quality industrial cylinder repair kits for many popular brands of in-plant cylinders such as; Parker, Miller, Hydro-Line, and many more. Additional product offerings include cylinder repair kits for many popular makes of forklifts; including Toyota, Raymond, Caterpillar®-Towmotor and many more.

Mobile Kit Catalog - The Hercules® Kit Catalog contains hydraulic and pneumatic seal kit information for both in-plant and mobile applications. Complete cylinder repair kits are listed from over 140 different brands of equipment for construction, mining, aerial lift and crane, logging, refuse, agriculture, paving, material handling and industrial plant applications. In addition, a cylinder application reference guide is available to simplify your selection.

Cylinder and Repair Parts Catalog - The Hercules® Cylinder Catalog is packed with valuable for information cylinder replacement and repair parts. It also features our very own HTR, HSTR, HMW, HCW, HTC, and Snow Plow cylinders as well as telescopic cylinders, power units, and cylinder repair parts.

Hercules Social Media

Get connected to Hercules® Sealing Products - Go to the Hercules website at www.HerculesUs.com to link directly to our Facebook, Twitter, Linked In and Hercules YouTube Channel.



Freight Information

Low cost air and ground shipments available world wide. Guaranteed service available (restrictions apply to select zip codes.) One Call to Hercules® Sealing Products gets you top quality seal and repair products, cost saving freight rates, and a wide variety of delivery services to save you time and money! Hercules® pays the dimensional weight charges for air US shipments on boxes up to 13" cubed (additional accessororial charges may apply).



**MOST ARRIVE
WITHIN 2 DAYS!**

United States Postal Service Priority Flat-Rate Options

If It Fits, It Ships for One Low Rate - Anywhere in the Continental United States!

The United States Postal Services is available as a delivery option for all domestic locations. Your flat-rate options are as follows: Small padded envelope, medium and large boxes. When placing your order online at www.HerculesUS.com the envelope or box that would best fit your shipment size will appear on the Shipping and Payment screen. Orders placed via phone or fax will be determined by your regional sales representative. **Shipments placed by 1pm EST will ship the same day.**

\$9.00*

Priority Flat-Rate Envelope
12-1/2 x 9-1/2 or
8-5/8 x 5-3/8 x 1-5/8



\$16.00*

Priority Flat-Rate
Medium Box
11" x 8 1/2" x 5 1/2"



\$20.00*

Priority Flat-Rate
Large Box
12" x 12" x 5 1/2"



* Includes a \$1.50 shipping and handling charge.

UPS and FedEx Special Discounted Rates

These discounted rates offer significant savings on shipments for zones 103 and up (additional accessorial charges may apply).



NEXT DAY AIR

(1-7 lbs.)

Package

Weight

Rate

1 LB.	\$33.50
2 LBS.	35.75
3 LBS.	36.75
4 LBS.	40.00
5 LBS.	44.00
6 LBS.	48.25
7 LBS.	54.50

8LBS. AND UP - PUBLISHED UPS RATES.



NEXT DAY AIR

(1-7 lbs.)

Package

Weight

Rate

1 LB.	\$33.50
2 LBS.	35.75
3 LBS.	36.75
4 LBS.	40.00
5 LBS.	44.00
6 LBS.	48.25
7 LBS.	54.50

8LBS. AND UP - PUBLISHED FEDEX RATES

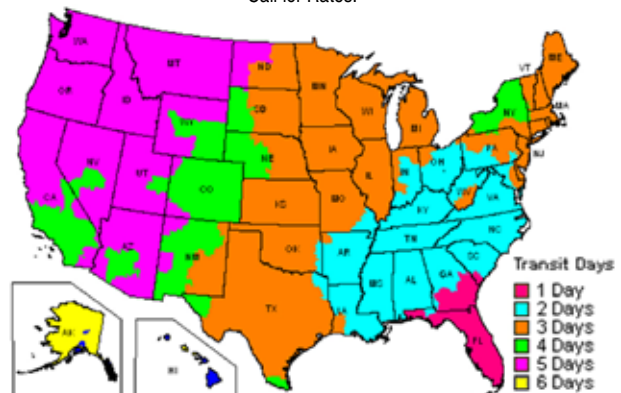
UPS GROUND TRANSIT MAP

Call for Rates.



FEDEX GROUND TRANSIT MAP

Call for Rates.



Order Cut-Off Times

At Hercules, we understand the importance of getting your equipment fixed fast! Therefore, it is imperative that you receive your shipments on-time. Orders placed by the following cut-off times will ship the same day. All cut-off times are based on Eastern Time Zone.

Order Cut-Off Times	Freight Carriers
1:00 pm	United States Postal Service
3:30 pm	Ground (UPS and FedEx - excluding FL)
3:30 pm	LTL Truck Carriers
3:30 pm	3-Day Select (UPS and FedEx)
3:30 pm	International (FedEx Intl. and DHL)
5:00 pm	FedEx Next Day Air
3:30 pm	Florida Ground (UPS and FedEx)
5:00 pm	2nd Day Air FedEx
6:30 pm	UPS Next Day Air
6:30 pm	2nd Day Air UPS

HERCULES® ORDERING INFORMATION

DOMESTIC CUSTOMER SERVICE

SATISFACTION

Total customer satisfaction is our goal. Please call with any questions or problems. Your input helps us to improve our service. We want to be your most reliable supplier.

HOW TO OPEN AN ACCOUNT WITH US - SAME DAY CREDIT APPROVAL

1. Copy and fill out the credit application found on page viii of this catalog.
2. Fax completed and signed Credit Application and your sales tax exempt certificate (if applicable) for processing to 1-800-759-6391.
3. We will fax or email an open account letter. — If you need additional information call our Accounting Department at 1-800-244-5617.

HOW TO ORDER FROM US

Hercules® offers Toll Free phone and fax lines to make ordering as easy as possible. We encourage faxing your order to us Toll Free at 1-800-759-6391 to eliminate any possible error. Our technical sales staff is also available TOLL FREE from 8 a.m. to 7 p.m. EST to take your order, assist you in finding the correct part, or answer any questions you may have. You may also mail your order or use Hercules® Toll Free Fax.

SHIPMENT / DELIVERY

Every order we receive is classified as a RUSH. You tell us how fast you need it. Shipping agreements with UPS and FedEx allow us to offer substantial freight discounts.

PRICE QUOTATIONS/NON-CATALOG ITEMS

Hercules® is constantly adding parts to inventory. If you need a part that is not listed in our catalog, call, fax, or send us a sample of the part you need, roughly how many pieces are required, and we will source, quote, order, and stock the parts for you. Call or fax us anytime for price and delivery on hard-to-find or non-catalog items. Formal quotations for product and freight costs are gladly furnished upon request.

CREDIT CARDS

Hercules® now accepts the following credit cards: Mastercard, Visa, American Express, American Express Corporate Procurement.

INTERNATIONAL CUSTOMER SERVICE

MAILING ADDRESS

HERCULES® SEALING PRODUCTS
1016 North Belcher Road
Clearwater, FL 33765 USA

PHONE / FAX NUMBERS

PHONE: (727) 796-1300
FAX: (727) 797-8849

E-MAIL/WEBSITE

hercules@herculesus.com
<http://www.herculesus.com>

PAYMENT

Payment for all products must be in U.S. dollars.

PLACING ORDERS FOR SHIPMENT

1. Fax, mail, email or telephone order to HB Sealing Products, specifying method of shipment.
2. HB Sealing Products will fax or email order value to you. All prices are in U.S. dollars.
3. Wire transfer funds to: HB Sealing Products, Inc.
Wells Fargo Bank, N.A.
San Francisco, CA USA
All orders must be paid for in U.S. dollars.
Call For Account, Routing and Swift Numbers
4. Payment will be accepted in the form of a wire transfer (in advance), on a letter of credit, or a U.S.A. credit card (Mastercard, Visa, American Express)



SHIPMENT / DELIVERY

Hercules® will gladly ship by the carrier of your choice. Please specify any special shipping requirements you may have. All shipments are Ex-Works Clearwater, FL, USA, unless otherwise specified or prearranged. Additional charges may be incurred for inbound freight and/or special packaging.

PRICE QUOTATIONS/NON-CATALOG ITEMS

Call, fax, or email us anytime for price and delivery. Formal quotations are gladly furnished upon request.

QUALITY

Hercules® has achieved a worldwide reputation as an organization committed to providing products and services that continually meet or exceed the needs and expectations of our customers. Hercules® is an ISO 9001 registered company.

ANTI-DEFAMATION POLICY

All equipment 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. We also do not imply that the list price shown is exactly that of the manufacturer.

TERMS AND CONDITIONS

BACKORDERS

Backorders will ship as ordered and additional freight charges will apply. Cancellation of backorders must be requested at the time of order to prevent additional freight charges. All backorders less than \$5.00 will be automatically canceled unless specified otherwise by the customer at the time of order.

CREDITS

Our payment terms for all open accounts are NET 30 days. Accounts outstanding over 30 days are reviewed daily. At 45 days past due (75 days from invoice date) all orders and backorders will automatically be put on credit hold until full payment is received.

RETURNS

Before you return any item, please call our customer service desk to obtain a Return Material Authorization (RMA) Number. Returned shipments without a Returned Material Authorization (RMA) number will be rejected. Our Receiving Department cannot accept a return without an RMA Number. Parts must be returned within 30 days of receipt of goods. Returned items are subject to a 20% restocking charge. All returns are subject to inspection by our Quality Control Department and may be rejected if not in resalable condition. Special order items are non-returnable.

CLAIMS

It is the policy of HB Sealing Products that inquiries for pricing discrepancies, order discrepancies, freight claims and customer returns must be reported to Hercules Sealing Products Customer Service within 30 days of invoice. Claims/discrepancies reported after 30 days of invoice will not be honored.

ORDER CANCELLATIONS

Orders for Standard Cataloged Products will not be canceled once processed. All custom supplied, non-cataloged products cannot be canceled. Additional cancellation charges may apply.

EXCLUSION OF WARRANTIES; LIMITATIONS OF DAMAGES

EXCEPT AS PROVIDED IN THE NEXT SECTION (TITLED HERCULES BRAND PRODUCTS CYLINDER WARRANTY") ANY WARRANTIES ON THE PRODUCTS SOLD BY H B SEALING PRODUCTS ARE THOSE MADE BY THE MANUFACTURER. EXCEPT AS PROVIDED IN THE "HERCULES BRAND PRODUCTS CYLINDER WARRANTY", HB SEALING PRODUCTS HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. HB SEALING PRODUCTS NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY LIABILITY IN CONNECTION WITH THE SALE OF ITS PRODUCTS.

IN NO EVENT SHALL HB SEALING PRODUCTS BE LIABLE TO BUYER FOR ANY INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES, INCLUDING (WITHOUT LIMITATION) LOST PROFITS, COSTS OF DELAY, PERSONAL INJURY, PROPERTY DAMAGE OR LIABILITIES TO BUYER OR THIRD PARTIES ARISING FROM ANY SOURCE. THIS LIMITATION ON DAMAGES SHALL APPLY TO ALL PRODUCTS SOLD BY HB SEALING PRODUCTS, INCLUDING HERCULES BRAND PRODUCTS CYLINDERS. IN THE EVENT, THAT, NOTWITHSTANDING THE TERMS OF THIS SECTION, HB SEALING PRODUCTS IS FOUND LIABLE FOR DAMAGES BASED ON ANY DEFECT OR NONCONFORMITY IN PRODUCTS SOLD BY IT, INCLUDING HERCULES BRAND PRODUCTS CYLINDERS, ITS TOTAL LIABILITY FOR EACH DEFECTIVE OR NONCONFORMING PRODUCT SHALL NOT EXCEED THE PRICE PAID BY BUYER FOR SUCH DEFECTIVE PRODUCT.

HERCULES® BRAND PRODUCTS CYLINDER WARRANTY

HB Sealing Products herein supplies a limited express warranty to its buyers who purchase standard or custom Hercules Brand Products Cylinders ("Cylinders"). HB Sealing Products warrants that such Cylinders are free from defects in material and workmanship for a period of 12 months from the date the Cylinders are shipped from HB Sealing Products' facility. HB Sealing Products will repair or replace, at its sole option, Cylinders that are found to be defective in material or workmanship upon inspection by HB Sealing Products personnel when the Cylinders have been used under conditions for which the Cylinders were designed to operate. No warranty will be in effect for any of the following reasons:

- Chemical attack, corrosion or erosion;
- Non-compatible or dirty hydraulic fluid;
- Seal degradation due to contamination (including hydraulic fluids), excessive heat or misapplication;
- Excessive side loading;
- Maintenance or disassembly of the cylinder if performed by anyone other than HB Sealing Products personnel without HB Sealing Products' permission, prior to the date of warranty expiration;
- Removal of the HB Sealing Products ID tag indicating bore, stroke, and other information concerning traceability; or Instances of improper installation or misapplication of the Cylinders.

Due to the variety of operating conditions and applications for the Cylinders and HB Sealing Products' related products, HB Sealing Products recommends that Buyer analyze all aspects of the application and carefully select the correct cylinder product to fit the buyer's application. Buyer is solely responsible for the cylinder product selection in assessing that all performance, safety and warning requirements of the application are met. **IMPROPER CYLINDER PRODUCT SELECTION, MISAPPLIED ENGINEERING OR IMPROPER USE OF THE CYLINDERS AND RELATED PRODUCTS DESCRIBED HEREIN MAY CAUSE DEATH, PERSONAL INJURY AND/OR PROPERTY DAMAGE.** HB Sealing Products does not imply or represent that the Cylinders will work properly in any customer application. No sales agent of HB Sealing Products shall have the right to determine warranty periods, terms or conditions for Cylinders if such statements by the sales agents are different from those included herein. Buyer understands that HB Sealing Products will not be held liable for any other costs or damages including any charges for removal, installation, assembly or any other charges in connection with the replacement or repair of the Cylinders. All returned products must have, before being returned to HB Sealing Products, an "RMA" (return material authorization) number assigned to it by HB Sealing Products' customer service department.

THE WARRANTY STATED IN THIS SECTION IS HB SEALING PRODUCTS' SOLE AND EXCLUSIVE WARRANTY PERTAINING TO THE CYLINDERS, AND HB SEALING PRODUCTS HEREBY DISCLAIMS ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE FOR THE CYLINDERS.

CREDIT APPLICATION



Hercules Sealing Products
1016 North Belcher Road
Clearwater, FL 33765 USA

CREDIT APPLICATION

Toll Free: 1-800-777-5617
International: (727) 796-1300
Fax: (800) 759-6391
Intl Fax: (727) 797-8849
E-Mail: sales@herculesus.com

Please Indicate Type
of Request:
☐ Catalog
☐ COD
☐ Credit Card
☐ Net 30

COMPANY INFORMATION

Company Name: _____
Billing Address: _____ City: _____ State: _____ Zip: _____
Shipping Address: _____ City: _____ State: _____ Zip: _____
Branch Office: _____ DBA: _____
Phone: _____ Fax: _____
Business Structure (Sole Ownership, Partnership, Corporation): _____
Type of Business: _____ Year Business Established: At current Address Since: _____
Federal ID#: _____ President/Owner SSN: _____
Owner/President: _____
Primary Contact Person: _____ Title: _____
Controller: _____ Annual Purchases: _____
Website: _____ E-Mail: _____
Primary Industry: ☐ Construction ☐ Mining ☐ Refuse/Waste ☐ Material Handling ☐ Aerial Lift/Crane ☐ Agriculture ☐ Oil and Gas
(Check One) ☐ Concrete/Paving ☐ Logging/Forestry ☐ Industrial Plant ☐ Automotive/Marine ☐ Rental Equipment

BANK REFERENCES

Bank Name and Address: _____
Account #: _____ Contact Name & Phone: _____

TRADE REFERENCES

Firm Name: _____ City, State: _____ Phone/Fax: _____
1: _____
2: _____
3: _____

CREDIT AGREEMENT

I understand the following and will abide by your company regulations:

1. Notify Hercules Sealing Products of any changes in ownership of your company.
2. If granted credit, our company agrees to pay all invoices within 30 days of invoice date.
3. It is agreed that our company will pay 1.5% per month which is 18% yearly for all past due balances.
4. It is agreed that our account will become COD if we fail to pay invoices within the above stated terms.
5. Our company financial condition is satisfactory and we can meet all financial obligations.
6. There are no lawsuits or judgements against me at this present time. If our company defaults on payment of any outstanding valid invoices we agree to pay attorney and/or collection expenses.

Credit Amount Requested

AGREE TO PAY MY ACCOUNT WITHIN THE TERMS AND AUTHORIZE YOU TO OBTAIN SUCH INFORMATION YOU MAY REQUIRE CONCERNING THIS APPLICATION.

Date _____ Signed _____
X _____ Title _____

PERSONAL GUARANTEE

REFERRAL INFORMATION

How did you learn about Hercules Sealing Products? Please choose one and provide detailed information:

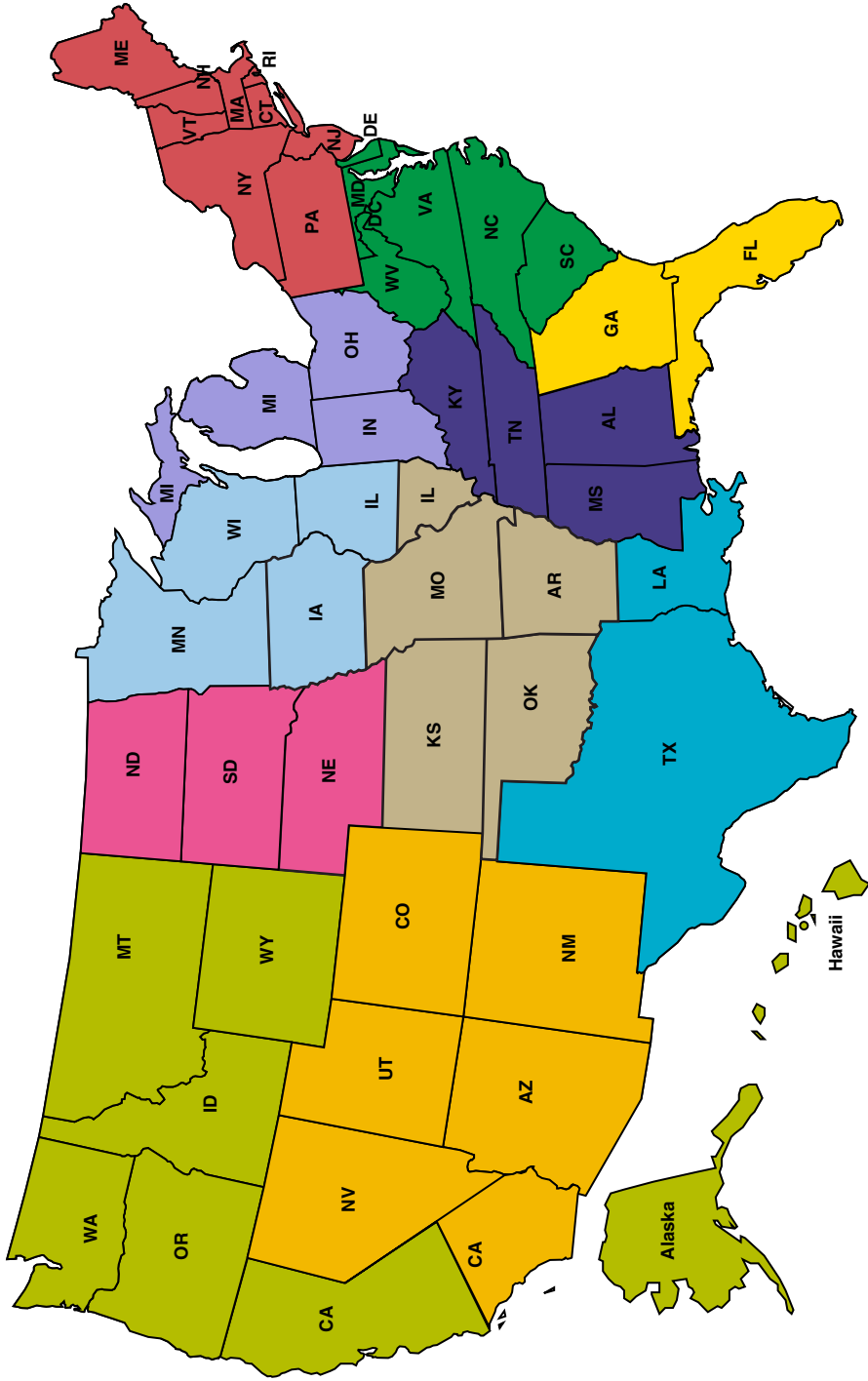
Trade Show: _____ Magazine: _____ Previous Employer: _____
Hercules Customer: _____ Website or Search Engine: _____ Other: _____

LIGHT TO MEDIUM DUTY SEALS



REGIONAL TERRITORY MAP

- Robert Bires**
Email: rbires@herculesus.com
Phone: 727.463.4440
- Harry Conn**
Email: hconn@herculesus.com
Phone: 804.317.1715
- Michelle Cromer**
Email: mcromer@herculesus.com
Phone: 727.509.0268
- Lindsey Freibert**
Email: lfreibert@herculesus.com
Phone: 727.235.9035
- Erick Harris**
Email: eharris@herculesus.com
Phone: 727.330.0530
- Brian Iblings**
Email: biblins@herculesus.com
Phone: 727.212.1381
- Jason Looker**
Email: jlooker@herculesus.com
Phone: 727.330.0666
- Nicole Reasy**
Account Relations Manager
Email: nreasy@herculesus.com
Phone: 727.796.1300 Ext. 1040
- Jeff Roman**
Email: jroman@herculesus.com
Phone: 727.219.7558
- Wayne Staab**
Email: wstaab@herculesus.com
Phone: 904.304.2383
- Dan Stewart**
Email: dstewart@herculesus.com
Phone: 623.910.1227





Seals On Demand
Custom Seal Configurator

Phone App 

Custom Seals
in Your
Back Pocket



The image shows a person's back pocket with a smartphone and a wrench. The smartphone screen displays the Hercules Seal Configurator app interface. The background features a stylized American flag.

Online Ordering Available!
Go to www.HerculesUS.com

Web Features Include:

- Real-Time Inventory • Search by Size
- Search by Machine Type
- Part Substitution • Billing Portal
- Large Order Upload
- Wish List and Much More.



SEAL KIT IDENTIFICATION CODE CONVERSION CHART

<u>WIPERS</u>	<u>ROD SEALS</u>	<u>PISTON SEALS</u>	<u>ROD X BORE SIZE</u>
I = Insert	O = O-Ring	1 = None	
P = Press In	OB = O-Ring & B/U	2 = O-Ring	
N = No Wiper	U = U-Seal	3 = O-Ring & B/U	
	UB = U-Seal & Buffer	4 = 1 U-Seal	
	BB = Tandem Buffers	5 = 2 U-Seals	
	V = Vee Set	6 = 1 Piston Cup	
	N = None	7 = 2 Piston Cups	
	TR = T Seal	8 = "SA" Vee Set	
	SP = Special	9 = "DA" Vee Set	
	UV = U-Seals & Vee Sets	10 = Piston Seal	
		11 = T Seal	
		12 = Cast Iron Piston Ring	
		13 = Special	
		14 = 4 Piece Capped T-Seal	
		15 = 5 Piece Piston Seal	

EXAMPLE

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

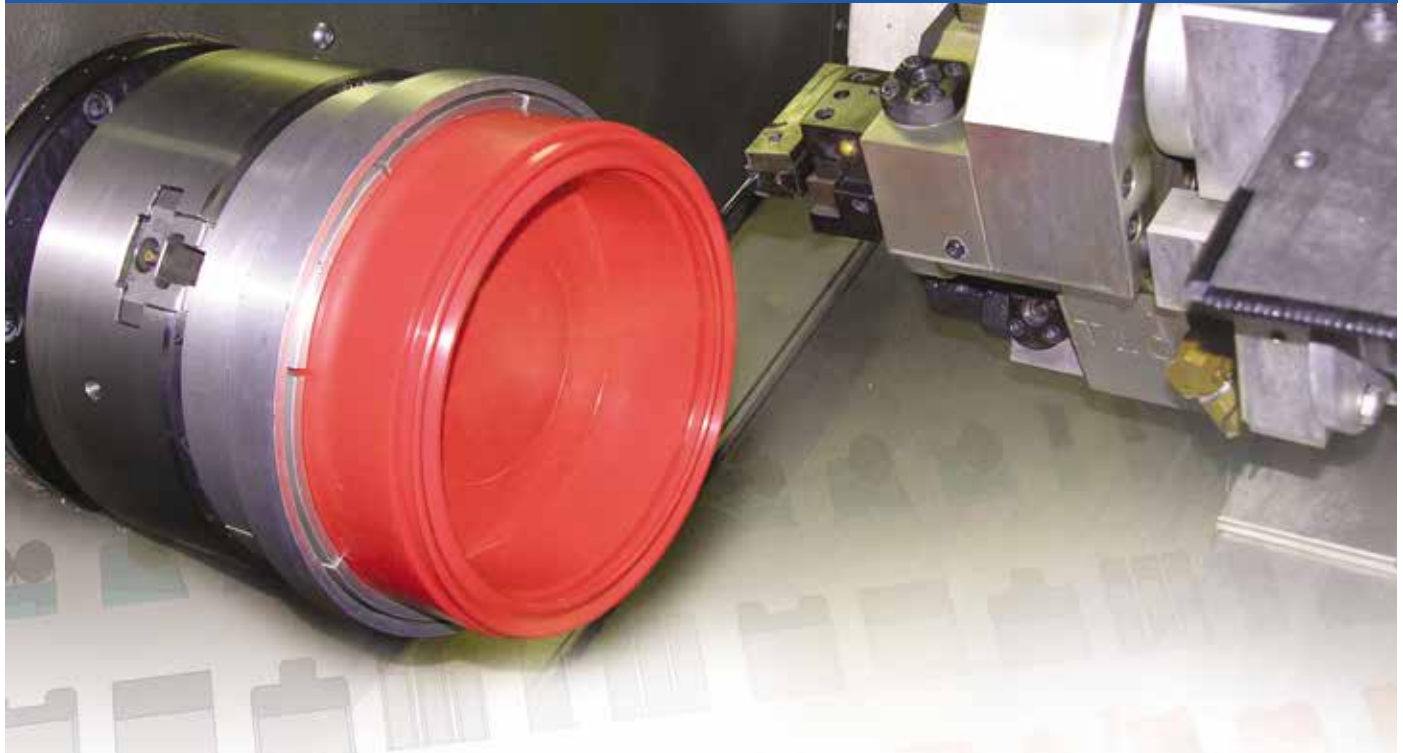
NOTE:

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.

Custom Seals

Contents	Page
Piston Seals	3 - 4
Rod Seals	4 - 5
Wiper Rings	5 - 6
Rotary Seals	6 - 7
Gaskets / Back-Up Rings	8
Guide-Rings	8
Ordering Information	8
Material Index	9 - 10

SEALS ON DEMAND



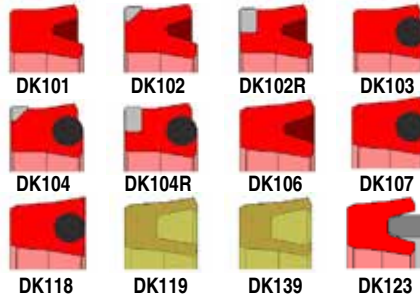
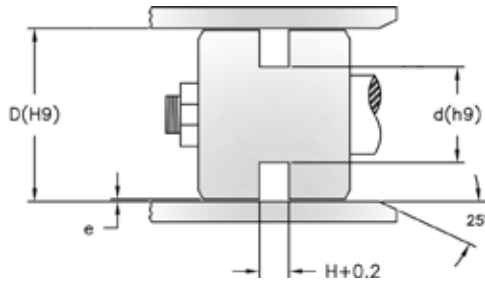
HERCULES® SEALS ON DEMAND provides a wide selection of custom, cost effective sealing solutions using advanced rapid-prototype technology. The programmable CNC production cell can manufacture both hydraulic and pneumatic styles of o-rings, rod seals, piston seals, wipers, backup rings, rotary seals, swivel seals and static seals in both imperial and metric sizes for almost any fluid power application including agriculture, automotive, heavy construction, material handling, manufacturing, mining, logging, fluid handling and refuse. Hercules® Seals On Demand technology gives you the ability to source custom manufactured products with a short turn-around time and with no mold costs. Hercules® Seals On Demand design software offers over 100 standard profiles and can produce countless custom

designs by modifying the standard dimensions. The advanced lathe technology results in exceptional sealing products with smooth corners and fillets, fine surface finishes and sharp lips. Hercules® Seals On Demand has a large inventory of high quality materials in numerous sizes including materials from elastomers of rubber and urethane to plastics of fluoro-polymers (PTFE) and Acetal (POM) available for your sealing application.

The following technical information illustrates common housings for each seal profile. Included in each seal application is a chart detailing the recommended dimensions for typical housing sizes. Hercules Sealing Products offers design assistance for non-standard and custom application needs, which may exceed the size ranges in these recommended charts. To reach our technical department, please call 1.800.777.5617 and press 8.

PISTON SEALS

U-Seal



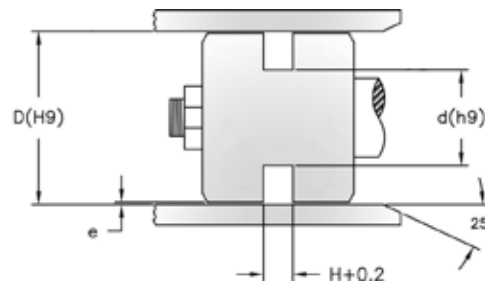
Application: Hydraulic single-acting piston seals
Material: Urethane, NBR, PTFE, Fluorocarbon

Standard Recommended Dimensions

D (Range)	d	H
15 - 25	D - 8	6
25.1 - 50	D - 10	7
50.1 - 75	D - 12	8
75.1 - 150	D - 15	10
150.1 - 300	D - 20	12
300.1 - 450	D - 25	18
450.1 - 575	D - 30	20

All Dimensions Are Millimeters

Two Piece Seal



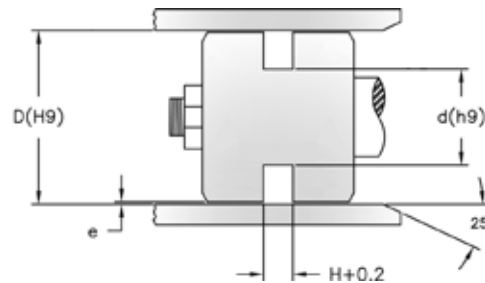
Application: Hydraulic double-acting piston seals
Material: Urethane, NBR, PTFE, Fluorocarbon

Standard Recommended Dimensions

D (Range)	d	H
10 - 15	D - 4.9	2.2
15.1 - 40	D - 7.5	3.2
40.1 - 80	D - 11	4.2
80.1 - 135	D - 15.5	6.3
135.1 - 300	D - 21	8.1
300.1 - 575	D - 24.5	8.1

All Dimensions Are Millimeters

Two Piece Seal Step-Cut



DK138
STEP CUT

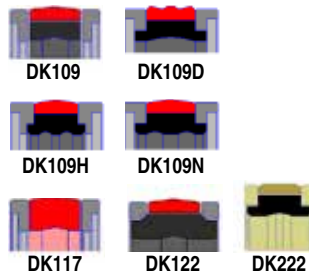
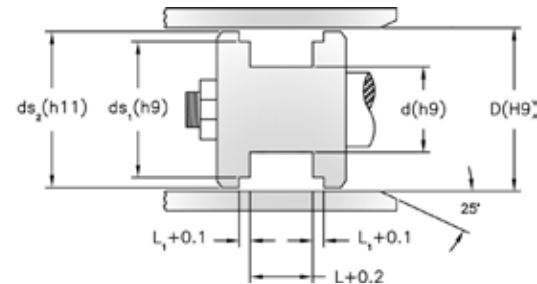
Application: Hydraulic double-acting piston seals
Material: POM, PA6

Standard Recommended Dimensions

D (Range)	d	H
38 - 40	D - 7.5	3.2
40.1 - 80	D - 11	4.2
80.1 - 135	D - 15.5	6.3
135.1 - 300	D - 21	8.1
300.1 - 394	D - 24.5	8.1

All Dimensions Are Millimeters

Compact Seal



Application: Hydraulic double-acting piston seals
Material: Urethane, NBR, PTFE, Fluorocarbon

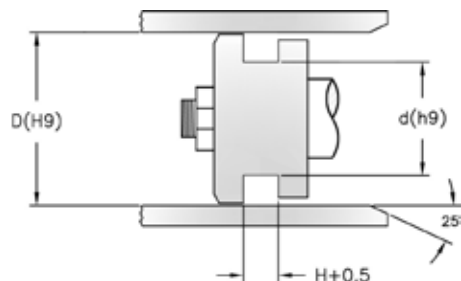
Standard Recommended Dimensions

D (Range)	d	ds ₁	L	L ₁
20 - 50	D - 10	D - 3	12.5	4
50.1 - 80	D - 15	D - 4	20	4
80.1 - 150	D - 20	D - 5	25	5.5
150.1 - 300	D - 25	D - 6	32	7
300.1 - 600	D - 30	D - 8	36	7

All Dimensions Are Millimeters

PISTON SEALS

Pneumatic U-Seal



Pressure: 350 psi max

Application: Hydraulic and Pneumatic single-acting piston seals

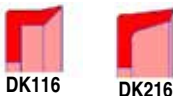
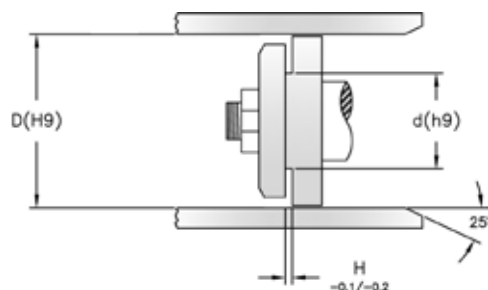
Material: Urethane, NBR, PTFE, Fluorocarbon

Standard Recommended Dimensions

D (Range)	d	H
15 - 25	d - 8	6
25.1 - 50	d - 10	7
50.1 - 75	d - 12	8
75.1 - 150	d - 15	10
150.1 - 300	d - 20	12
300.1 - 450	d - 25	18
450.1 - 575	d - 30	20

All Dimensions Are Millimeters

Piston Cup

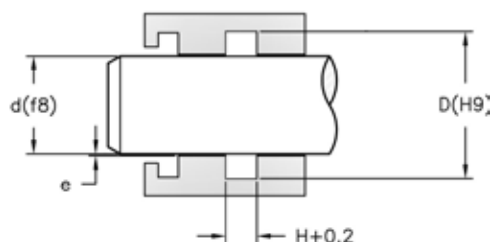


Application: Hydraulic single acting piston seals

Material: Urethane, NBR, PTFE, Fluorocarbon

ROD SEALS

U-Seals



Application: Hydraulic single acting rod seals

Material: Urethane, NBR, PTFE, Fluorocarbon

Standard Recommended Dimensions

d (Range)	D	H
8 - 25	d + 8	6
25.1 - 50	d + 10	8
50.1 - 150	d + 15	10
150.1 - 300	d + 20	14
300.1 - 450	d + 25	17
450.1 - 575	d + 30	20

All Dimensions Are Millimeters

Pneumatic U-Seals

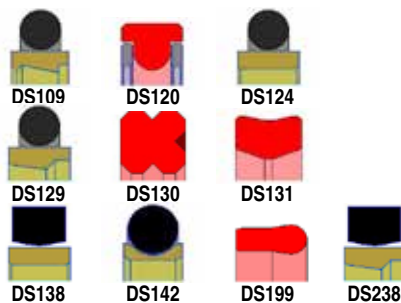
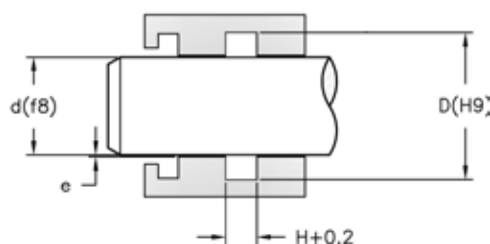


Pressure: 350 psi max

Application: Hydraulic and pneumatic single acting rod seals

Material: Urethane, NBR, PTFE, Fluorocarbon

One and Two Piece Seals



Application: Hydraulic double acting rod seals

Material: Urethane, NBR, PTFE, Fluorocarbon

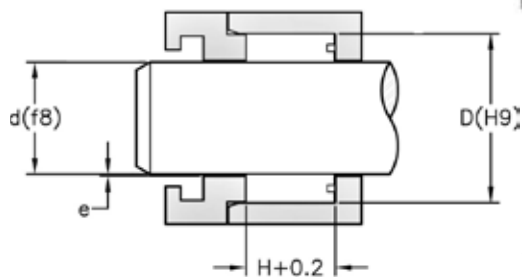
Standard Recommended Dimensions

d (Range)	D	H
8 - 10	d + 4.9	2.2
10.1 - 39	d + 10.7	4.2
39.1 - 199	d + 15.1	6.3
199.1 - 259	d + 20.5	8.1
259.1 - 575	d + 24	8.1

All Dimensions Are Millimeters

ROD SEALS

Vee Packing



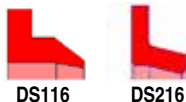
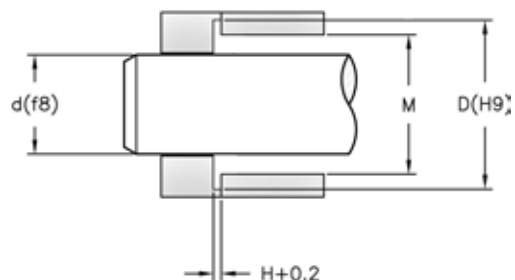
Application: Hydraulic single acting seals
Material: Urethane, NBR, PTFE, Fluorocarbon

Standard Recommended Dimensions

d (Range)	D	H
10 - 40	d + 10	16
40.1 - 75	d + 15	25
75.1 - 150	d + 20	32
150.1 - 200	d + 25	40
200.1 - 300	d + 30	50
300.1 - 575	d + 40	63

All Dimensions Are Millimeters

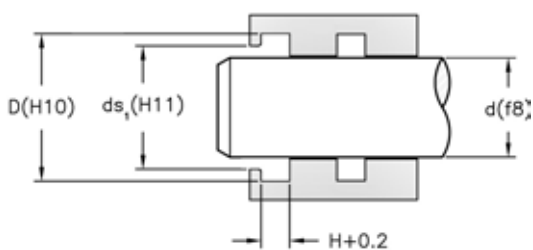
Rod Cup - Seal



Application: Hydraulic single acting rod seals
Material: Urethane, NBR, PTFE, Fluorocarbon

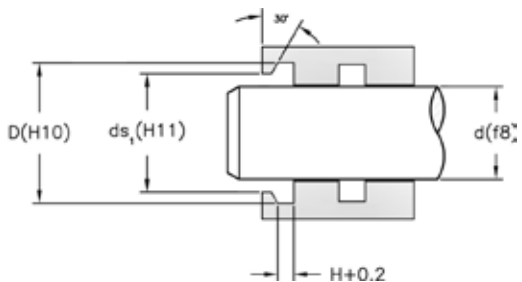
WIPERS

Single Acting Wipers



Application: Single acting wiper
Material: Urethane, NBR, PTFE, Fluorocarbon

Single Acting Wipers



Application: Single acting wiper
Material: Urethane, NBR, PTFE, Fluorocarbon

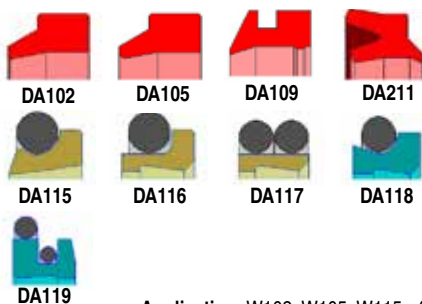
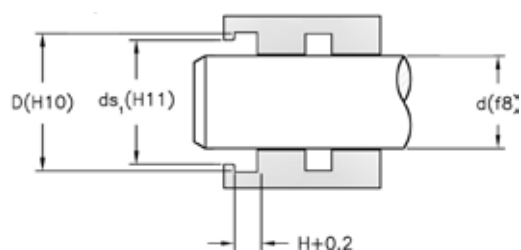
Standard Recommended Dimensions

d (Range)	D	H
8 - 50	d + 4	5
50.1 - 100	d + 5	5
100.1 - 575	d - 7.5	7

All Dimensions Are Millimeters

WIPERS

Single & Double Acting Wipers



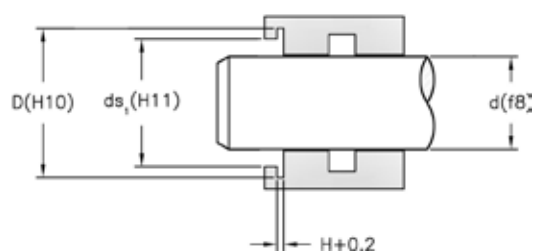
Standard Recommended Dimensions

d (Range)	D	H
8 - 50	d + 4	5
50.1 - 100	d + 5	5
100.1 - 575	d - 7.5	7

All Dimensions Are Millimeters

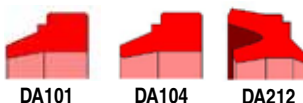
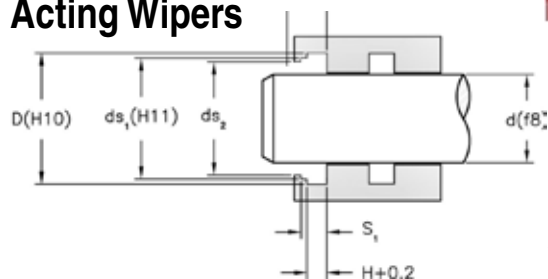
Application: W102, W105, W115 - Single acting wiper
W111, W211, W116, W117 - Single and double acting wiper
Material: Urethane, NBR, PTFE, Fluorocarbon

Single Acting Wipers



Application: Single acting wiper
Material: Urethane, NBR, PTFE, Fluorocarbon

Single and Double Acting Wipers



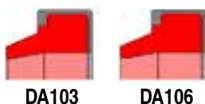
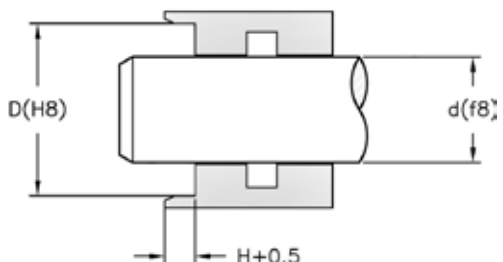
Standard Recommended Dimensions

d (Range)	D	S ₁
8 - 100	d + 8	4
100.1 - 150	d + 9	5.5
150 - 575	d + 11	6.5

All Dimensions Are Millimeters

Application: Single acting wiper
Material: Urethane, NBR, PTFE, Fluorocarbon

Single Acting Wipers



Standard Recommended Dimensions

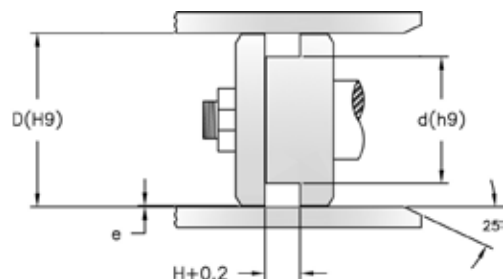
d (Range)	D	S ₁
8 - 10	d + 8	5
10.1 - 100	d + 9	7
100.1 - 200	d + 15	9
200.1 - 575	d + 20	12

All Dimensions Are Millimeters

Application: Single acting wiper
Material: Urethane, NBR, PTFE, Fluorocarbon

ROTARY PISTON SEALS

Piston Rotary Seal



Application: Hydraulic double acting piston seals
Material: Urethane, NBR, PTFE, Fluorocarbon

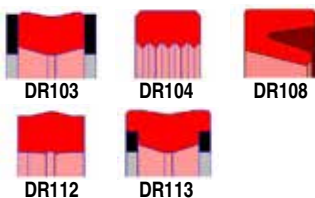
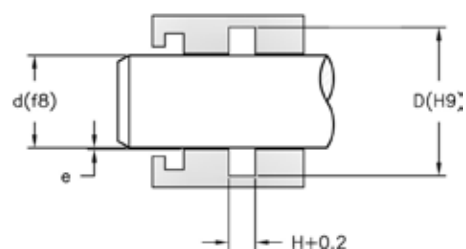
Standard Recommended Dimensions

D (Range)	d	H
10 - 20	D - 4.9	2.2
20.1 - 50	D - 7.5	3.2
50.1 - 150	D - 11	4.2
150.1 - 300	D - 15.5	6.3
300 - 600	D - 21	8.1

All Dimensions Are Millimeters

ROTARY SHAFT SEALS

Rod Rotary Seals



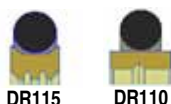
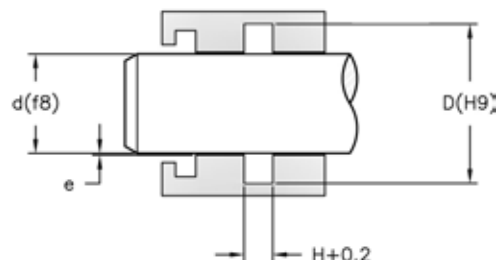
Application: Hydraulic double acting rod seals
Material: Urethane, NBR, PTFE, Fluorocarbon

Standard Recommended Dimensions

D (Range)	D	H
8 - 10	d + 4.9	2.2
10.1 - 39	d + 10.7	4.2
39.1 - 199	d + 15.1	6.3
199.1 - 259	d + 20.5	8.1
259 - 575	d + 25	8.1

All Dimensions Are Millimeters

Rod Rotary Seals



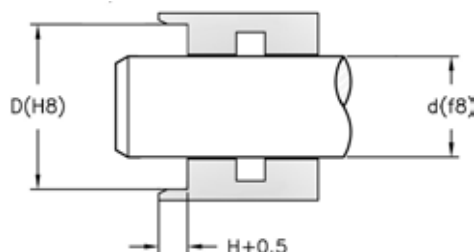
Application: Hydraulic double acting rod seals
Material: Urethane, NBR, PTFE, Fluorocarbon

Standard Recommended Dimensions

d (Range)	D	H
8 - 20	d + 4.9	2.2
20.1 - 50	d + 7.5	3.2
50.1 - 150	d + 11	4.2
150.1 - 300	d + 15.5	6.3
300.1 - 575	d + 21	8.1

All Dimensions Are Millimeters

Shaft Seals



Application: Hydraulic single acting shaft seals
Material: NBR, Fluorocarbon, PTFE

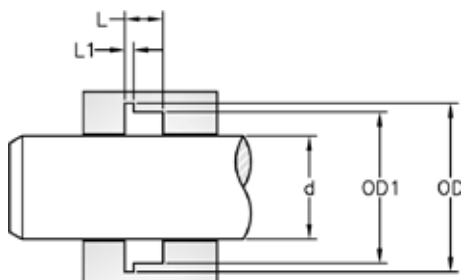
Standard Recommended Dimensions

d (Range)	D	H
10 - 60	d + 12	7
60.1 - 140	d + 15	8
14.1 - 300	d + 20	10
300.1 - 450	d + 30	12
450.1 - 575	d + 40	20

All Dimensions Are Millimeters

ROTARY SHAFT SEALS

Spring Activated Shaft Seal



DR117

DR118

DR119

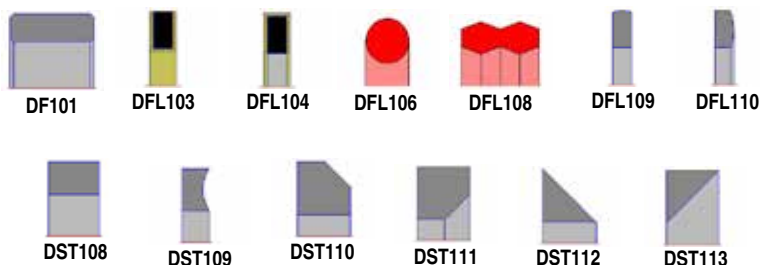
Standard Recommended Dimensions

d (Range)	OD	OD ₁	L	L ₁
8 - 20	d + 9	d + 5	36	0.85
50.1 - 80	d + 12.5	d + 7	4.8	1.35
80.1 - 150	d + 17.5	d + 10.5	7.1	1.8
150.1 - 300	d + 22	d + 14	9.5	2.8

All Dimensions Are Millimeters

Application: Hydraulic single acting shaft seals
Material: PTFE

GASKET / BACK-UP RINGS



GUIDE-RINGS



To place an order Call 1.800.777.5617 and press 8

Please provide the following information:

- Groove dimensions
- Seal profile
- Seal material

OR go to our website at www.HerculesUS.com and click on the CUSTOM SEALS tab at the top of the page.

*The Hercules® Seals On Demand inventory includes sizes from 1/4" to 24", 15 material choices;
Hundreds of combinations, all in-stock and ready for next day delivery!*

MATERIAL INDEX

Material Specifications:

- 94A Freudenberg AU30000 Urethane (Blue)
- 85A NBR (Black)
- 85A Fluorocarbon / Viton (Brown)
- 85A HNBR (Green)
- 85A EPDM (Black)
- 55D Virgin PTFE (White)
- 40% Bronze/PTFE (Bronze)
- 15% Glass/5% Moly PTFE (Black)
- 85D Polyacetal (POM) (White)
- 86D Virgin PEEK (Cream)
- 96A Hydrolysis Resistant Polyurethane (Red)
- 94A Cast Hydrolysis Resistant Polyurethane (Red)
- 55D Hytrel (Orange)
- 61D UHMW (White)
- 77D Polyamide (PA) (Black)
- 86D Synthetic Fabric Thermoset Resin (SFTR) (Turquoise)

MATERIAL			HPU	C-HPU Cast	Freudenberg® AU 30000 Urethane	Hytrel	NBR	HNBR	FPM	EPDM
Property	Specification	Unit								
Color			Red	Red	Blue	Orange	Black	Green	Brown	Black
Min Service Temp		°F	-5	-35	-40	-65	-35	-30	-30	-50
Max Service Temp		°F	240	230	250	275	230	300	425	300
Max Temp - Water/Steam		°F	195	195				245	300	300
Max Temp - Hot Air (short)		°F						355	570	355
Hardness	ASTM D 2240	Shore A	96±2	94±1	94+3/-4		85±5	85±5	85±5	85±5
Hardness	ASTM D 2240	Shore D	47±3	44±3	45±5	55				
Modulus 100%	ASTM D 412	psi	2900	2175	2030◀	2250	1740	1450	1160	
Modulus 300%	ASTM D 412	psi	5800	4160	3190◀					
Tensile Strength	ASTM D 412	psi	6200	7250	8992◀	6100▲	2300	2900	1450	1740
Elongation at break	ASTM D 412	%	300	350	550◀	520▲	150	200	200	80
Tear Strength	ASTM D 624 die C	lbf/inch	570	560	713		140	170	34	50
Abrasion	ASTM D 1630	mm3	17	20			130	130	200	140
Specific Gravity	ASTM D 792	g/cm3	1.19	1.19	1.17	1.19	1.32	1.32	2.51	1.23
Rebound Elasticity	DIN 53512	%					20		7	37
Modulus of Elasticity	DIN 53457	N/mm2								
Compressive Strength	ASTM D 695	psi								
Compressive Modulus	ASTM D 695	psi								
Compression Set										
70°C/24hr @ 20% def	ASTM D 395 Meth B	%	25	27		40%	6	14	8	7
100°C/24hr @ 20% def	ASTM D 395 Meth B	%	30	33	31		5	22	10	

* Lead time required ▼Spec - DIN 53505
 ▲Spec - ASTM D 638 ◀Spec - DIN 53504
 ►Spec - DIN 53455 ●Spec - DIN 53479

MATERIAL INDEX

Material Specifications:

- 94A Freudenberg AU30000 Urethane (Blue)
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- 61D UHMW (White)
- 77D Polyamide (PA) (Black)
- 86D Synthetic Fabric Thermoset Resin (SFTR) (Turquoise)

MATERIAL			PTFE Virgin	PTFE 15% Glass	PTFE 40% Bronze	POM	PA Nylon	UHMW-PE*	PEEK*	SFTR
Property	Specification	Unit								
Color			White	Grey	Brown	White	Black	Natural	Cream	Turquoise
Min Service Temp		°F	-325	-325	-325	-50	-40	-325		-40
Max Service Temp		°F	500	500	500	210	210	175	500	309
Max Temp - Water/Steam		°F								
Max Temp - Hot Air (short)		°F								
Hardness	ASTM D 2240	Shore A								
Hardness	ASTM D 2240	Shore D	50-65	58-63	61-67	85±3	77	61	86	86
Modulus 100%	ASTM D 412	psi								
Modulus 300%	ASTM D 412	psi								
Tensile Strength	ASTM D 412	psi	6000▲	3000▲	3300▲	10100	9400◄	5800▲	14000◄	
Elongation at break	ASTM D 412	%	300▲	280▲	250▲	40	120◄	350▲	50◄	
Tear Strength	ASTM D 624 die C	lbf/inch								
Abrasion	ASTM D 1630	mm3								
Specific Gravity	ASTM D 792	g/cm3	2.2	2.2	3.13	1.41	1.15●	0.93●	1.32●	1.3
Rebound Elasticity	DIN 53512	%								
Modulus of Elasticity	DIN 53457	N/mm2				3000	1800	98000	3600	
Compressive Strength	ASTM D 695	psi	3500	1055	1470	12800				54375
Compressive Modulus	ASTM D 695	psi	70000	63000	66000					406105
Compression Set										
70°C/24hr @ 20% def	ASTM D 395 Meth B	%								
100°C/24hr @ 20% def	ASTM D 395 Meth B	%								

* Lead time required ▼Spec - DIN 53505
 ▲Spec - ASTM D 638 ◄Spec - DIN 53504
 ►Spec - DIN 53455 ●Spec - DIN 53479

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. We also do not imply that the list price shown is exactly that of the manufacturer.

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.

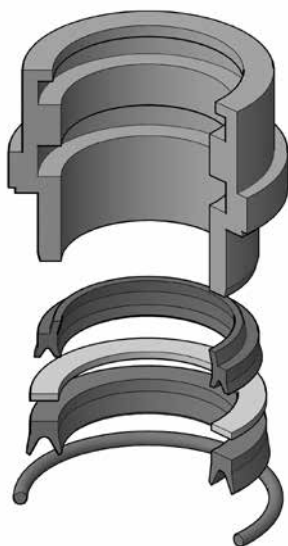
Wiper/Scraper

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

Kit Type		Page
Series A, L & 2LA	Rod Gland Kits	14 - 15
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Series A & L Rod Gland Kits

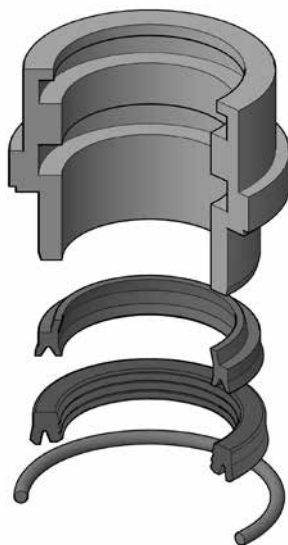
Series A & L Cylinders Nitrile



Kit Includes:

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

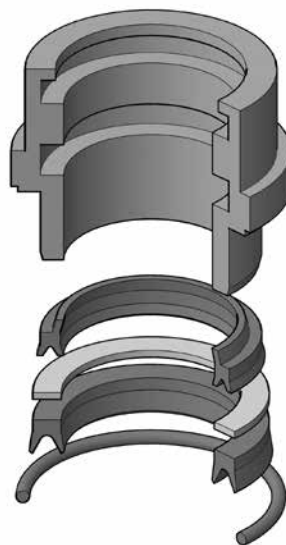
Series L Cylinders Urethane



Kit Includes:

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

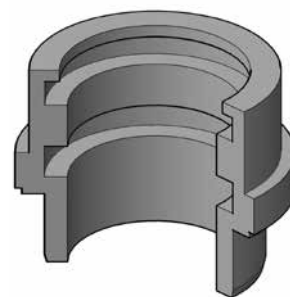
Series A & L Cylinders Fluorocarbon



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

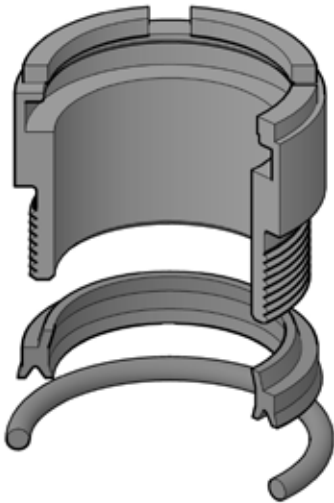
Rod Dia.	(NBR) Kit #	List Price	(URE) Kit #	List Price	(FC) Kit #	List Price	(BZ) Kit #	List Price
5/8"	ATL-4A06R000S	\$97.28	ATL-EA06R000S	\$101.33	ATL-4A06R000V	\$129.17	ATL-RGAL-06	\$85.32
1"	ATL-4A10R000S	114.48	ATL-EA10R000S	113.32	ATL-4A10R000V	151.80	ATL-RGAL-10	95.83
1-3/8"	ATL-4A13R000S	137.13	ATL-EA13R000S	130.26	ATL-4A13R000V	156.67	ATL-RGAL-13	112.34
1-3/4"	ATL-4A17R000S	161.67	ATL-EA17R000S	153.81	ATL-4A17R000V	186.34	ATL-RGAL-17	131.18
2"	ATL-4A20R000S	189.66	ATL-EA20R000S	188.73	ATL-4A20R000V	218.08	ATL-RGAL-20	159.13
2-1/2"	ATL-4A25R000S	215.73	ATL-EA25R000S	212.08	ATL-4A25R000V	259.52	ATL-RGAL-25	179.67
3"	ATL-4A30R000S	266.45	ATL-EA30R000S	282.45	ATL-4A30R000V	314.21	ATL-RGAL-30	223.59

Series 2LA Rod Gland Kits

Nitrile

Series 2LA Air Cylinders

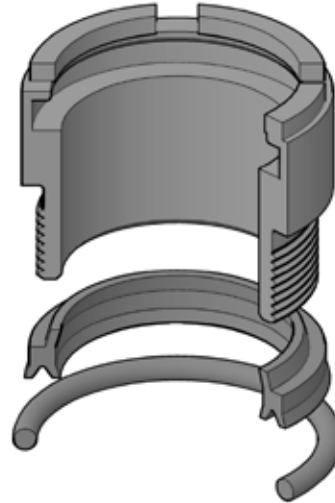
Fluorocarbon



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 #	List Price	(FC) Kit #	List Price
1/2"	ATL-RG02MA0051	\$44.66	ATL-RG02MA0055	\$47.58
5/8"	ATL-RG02MA0061	29.50	ATL-RG02MA0065	47.11
1"	ATL-RG02MA0101	33.80	ATL-RG02MA0105	52.21
1-3/8"	ATL-RG02MA0131	50.48	ATL-RG02MA0135	75.47
1-3/4"	ATL-RG02MA0171	102.73	ATL-RG02MA0175	115.24

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

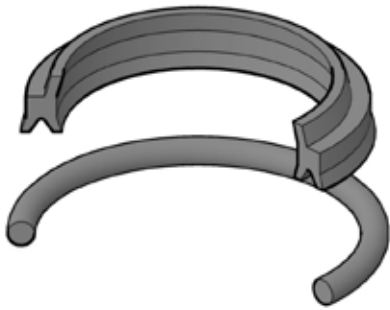
Rod Dia.	(NBR) Kit #	List Price	(URE) Kit #	List Price	(FC) Kit #	List Price
5/8"	ATL-4A06S000S	\$11.09	ATL-EA06S000S	\$9.34	ATL-4A06S000V	\$30.79
3/4"	ATL-4A07S000S	14.94	—		ATL-4A07S000V	44.19
1"	ATL-4A10S000S	11.10	ATL-EA10S000S	10.06	ATL-4A10S000V	31.75
1-3/8"	ATL-4A13S000S	11.38	ATL-EA13S000S	10.72	ATL-4A13S000V	33.39
1-3/4"	ATL-4A17S000S	14.34	ATL-EA17S000S	12.55	ATL-4A17S000V	37.43
2"	ATL-4A20S000S	16.02	ATL-EA20S000S	16.18	ATL-4A20S000V	38.98
2-1/2"	ATL-4A25S000S	21.81	ATL-EA25S000S	18.49	ATL-4A25S000V	49.28
3"	ATL-4A30S000S	31.14	ATL-EA30S000S	37.48	ATL-4A30S000V	57.88
3-1/2"	ATL-4A35S000S	34.07	ATL-EA35S000S	54.27	ATL-4A35S000V	71.97
4"	ATL-4A40S000S	36.56	ATL-EA40S000S	60.48	ATL-4A40S000V	110.15
4-1/2"	ATL-4A45S000S	44.66	ATL-EA45S000S	67.25	ATL-4A45S000V	124.21
5"	ATL-4A50S000S	52.07	ATL-EA50S000S	72.95	ATL-4A50S000V	167.06

Series 2LA Rod Kits

Series 2LA Air Cylinders

Nitrile

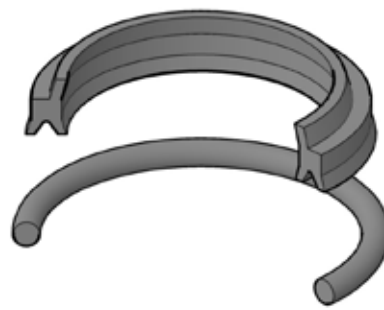
Fluorocarbon



1/2" - 1-3/4"

Kit Includes:

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



1/2" - 1-3/4"

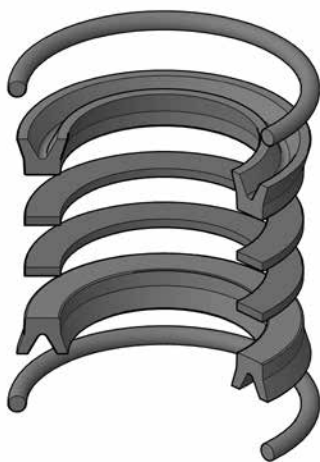
Kit Includes:

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

Rod Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
1/2"	ATL-RK02MA0051	\$14.41	ATL-RK02MA0055	\$21.54
5/8"	ATL-RK02MA0061	14.86	ATL-RK02MA0065	22.13
1"	ATL-RK02MA0101	15.24	ATL-RK02MA0105	22.86
1-3/8"	ATL-RK02MA0131	16.30	ATL-RK02MA0135	28.62
1-3/4"	ATL-RK02MA0171	17.42	ATL-RK02MA0175	35.99

Series A & L Piston Kits

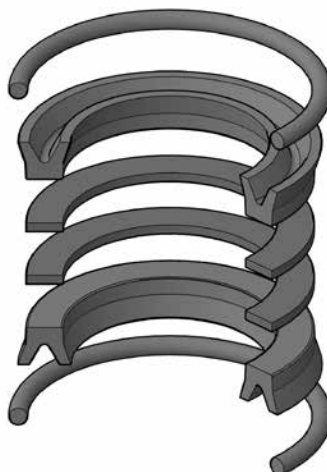
Series A Cylinders Nitrile



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 #	List Price	(NBR) Kit #	List Price	(FC) Kit #	List Price
1-1/2"	ATL-4B00S015S	\$8.93	ATL-EB00S015S	\$8.93	ATL-4B00S015V	\$41.05
2"	ATL-4B00S020S	10.65	ATL-EB00S020S	10.65	ATL-4B00S020V	46.92
2-1/2"	ATL-4B00S025S	12.20	ATL-EB00S025S	12.20	ATL-4B00S025V	65.00
3-1/4"	ATL-4B00S032S	14.81	ATL-EB00S032S	14.81	ATL-4B00S032V	69.80
4"	ATL-4B00S040S	18.86	ATL-EB00S040S	18.86	ATL-4B00S040V	82.78
5"	ATL-4B00S050S	22.83	ATL-EB00S050S	22.83	ATL-4B00S050V	102.67
6"	ATL-4B00S060S	29.67	ATL-EB00S060S	29.67	ATL-4B00S060V	141.19
7"	ATL-4B00S070S	82.73	ATL-4B00S070S	82.73	ATL-4B00S070V	255.28
8"	ATL-4B00S080S	93.85	ATL-EB00S080S	93.85	ATL-4B00S080V	307.77
10"	ATL-4B00S100S	133.60	ATL-4B00S100S	133.60	ATL-4B00S100V	426.51
12"	ATL-4B00S120S	180.80	ATL-4B00S120S	180.80	ATL-4B00S120V	662.01
14"	ATL-4B00S140S	279.93	ATL-4B00S140S	279.93	ATL-4B00S140V	975.91

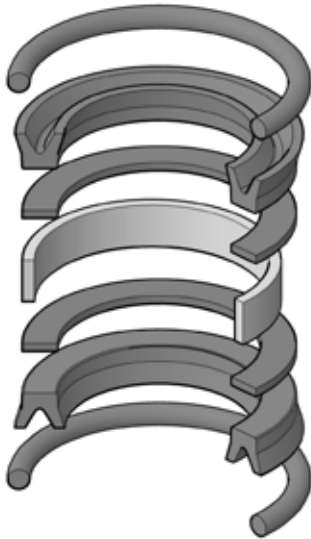
HP URE - High Performance Urethane

Series 2LA Piston Kits

Series 2LA Air Cylinders

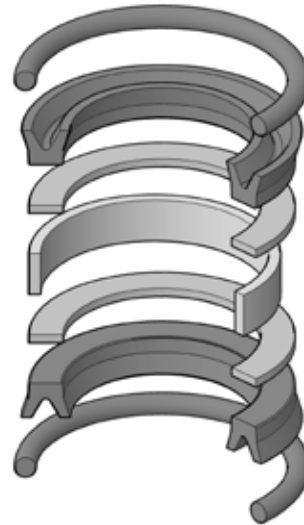
Nitrile

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

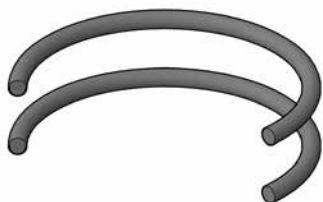
Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
1-1/2"	ATL-PK1502MA01	\$26.87	ATL-PK1502MA05	\$52.34
2"	ATL-PK2002MA01	27.23	ATL-PK2002MA05	56.06
2-1/2"	ATL-PK2502MA01	29.20	ATL-PK2502MA05	74.41
3-1/4"	ATL-PK3202MA01	35.10	ATL-PK3202MA05	91.98
4"	ATL-PK4002MA01	43.04	ATL-PK4002MA05	104.20
5"	ATL-PK5002MA01	55.69	ATL-PK5002MA05	157.68
6"	ATL-PK6002MA01	74.46	ATL-PK6002MA05	223.33
8"	ATL-PK8002MA01	131.45	ATL-PK8002MA05	373.44

Series A & L Head Seal Kits

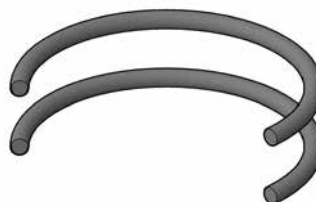
Series A & L Head Seal Kits

Nitrile

Fluorocarbon



Kit Includes:
2 NBR O-Ring Head Seals



Kit Includes:
2 FC O-Ring Head Seals

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
1-1/2"	ATL-4E00S015S	\$5.18	ATL-4E00S015V	\$7.45
2"	ATL-4E00S020S	5.50	ATL-4E00S020V	12.66
2-1/2"	ATL-4E00S025S	6.14	ATL-4E00S025V	16.59
3-1/4"	ATL-4E00S032S	6.22	ATL-4E00S032V	19.37
4"	ATL-4E00S040S	6.53	ATL-4E00S040V	24.94
5"	ATL-4E00S050S	7.63	ATL-4E00S050V	35.10
6"	ATL-4E00S060S	9.45	ATL-4E00S060V	37.02
7"	ATL-4E00S070S	9.58	ATL-4E00S070V	52.32
8"	ATL-4E00S080S	11.66	ATL-4E00S080V	52.49
10"	ATL-4E00S100S	13.52	ATL-4E00S100V	58.45
12"	ATL-4E00S120S	15.60	ATL-4E00S120V	70.49
14"	ATL-4E00S140S	78.91	ATL-4E00S140V	141.52

Series H Rod Seal Kits

Nitrile

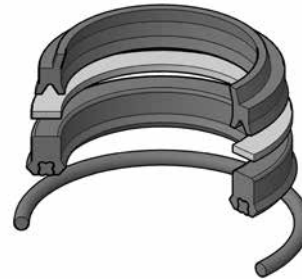
Series H Rod Seal Kits

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

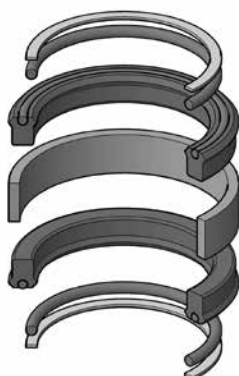
Rod Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
5/8"	ATL-PH06SH000	\$10.04	ATL-VH06SH000	\$30.66
1"	ATL-PH10SH000	10.84	ATL-VH10SH000	43.26
1-3/8"	ATL-PH13SH000	14.56	ATL-VH13SH000	45.12
1-3/4"	ATL-PH17SH000	14.70	ATL-VH17SH000	53.50
2"	ATL-PH20SH000	20.11	ATL-VH20SH000	61.27
2-1/2"	ATL-PH25SH000	25.07	ATL-VH25SH000	99.03
3"	ATL-PH30SH000	26.61	ATL-VH30SH000	114.10
3-1/2"	ATL-PH35SH000	51.48	ATL-VH35SH000	158.63

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

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

Series H Piston Seal Kits

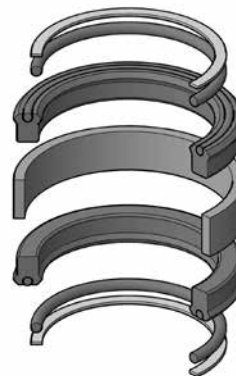
Nitrile



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

Fluorocarbon



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 #	List Price	(FC) Kit #	List Price
1-1/2"	ATL-1B00S015S	\$18.59	ATL-1B00S015V	\$56.32
2"	ATL-1B00S020S	21.66	ATL-1B00S020V	62.69
2-1/2"	ATL-1B00S025S	23.12	ATL-1B00S025V	66.54
3-1/4"	ATL-1B00S032S	35.61	ATL-1B00S032V	95.06
4"	ATL-1B00S040S	45.68	ATL-1B00S040V	136.98
5"	ATL-1B00S050S	95.99	ATL-1B00S050V	206.25
6"	ATL-1B00S060S	164.47	ATL-1B00S060V	279.95
7"	ATL-1B00S070S	214.90	ATL-1B00S070V	429.95
8"	ATL-1B00S080S	228.09	ATL-1B00S080V	451.43
10"	ATL-1B00S100S	298.18	ATL-1B00S100V	598.27
12"	ATL-1B00S120S	378.90	ATL-1B00S120V	734.67

* 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

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

Series H Piston Seal Kits

Nitrile



Kit Includes:

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

Fluorocarbon



Kit Includes:

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

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
1-1/2"	ATL-PH00LH015	\$14.35	ATL-VH00LH015	\$50.47
2"	ATL-PH00LH020	15.17	ATL-VH00LH020	72.72
2-1/2"	ATL-PH00LH025	18.03	ATL-VH00LH025	83.74
3-1/4"	ATL-PH00LH032	32.98	ATL-VH00LH032	96.72
4"	ATL-PH00LH040	39.23	ATL-VH00LH040	221.18
5"	ATL-PH00LH050	57.64	ATL-VH00LH050	332.29
6"	ATL-PH00LH060	86.26	ATL-VH00LH060	390.70

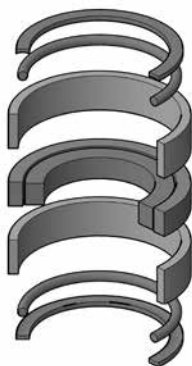
HP URE - High Performance Urethane

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

Nitrile

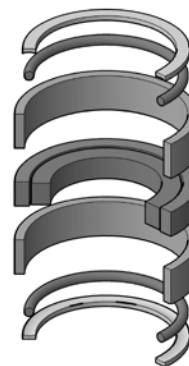
Series H Piston Seal Kits

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 #	List Price	(FC) Kit #	List Price
7"	ATL-PH00KH070	\$347.43	ATL-VH00KH070	\$351.44
8"	ATL-PH00KH080	422.29	ATL-VH00KH080	433.62

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

(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:

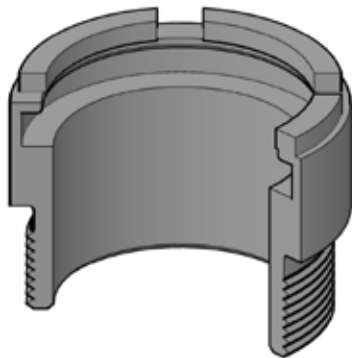
2 FC O-Ring Head Seals
2 PTFE Back-up Rings*

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
1-1/2"	ATL-1E00S015S	\$4.53	ATL-1E00S015V	\$6.73
2"	ATL-1E00S020S	5.81	ATL-1E00S020V	8.01
2-1/2"	ATL-1E00S025S	7.78	ATL-1E00S025V	9.62
3-1/4"	ATL-1E00S032S	14.53	ATL-1E00S032V	19.00
4"	ATL-1E00S040S	17.57	ATL-1E00S040V	20.55
5"	ATL-1E00S050S	21.07	ATL-1E00S050V	31.98
6"	ATL-1E00S060S	33.06	ATL-1E00S060V	34.53
7"	ATL-1E00S070S	70.04	ATL-1E00S070V	81.43
8"	ATL-1E00S080S	74.49	ATL-1E00S080V	95.03
10"	ATL-1E00S100S	135.45	ATL-1E00S100V	152.55
12"	ATL-1E00S120S	153.94	ATL-1E00S120V	175.61

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

Bronze Rod Glands

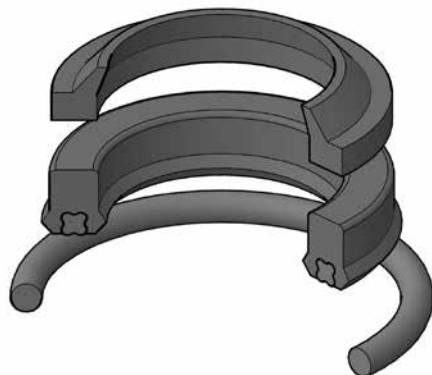
Series 2LA Air Cylinders



Rod Dia.	Kit #	List Price
1/2"	ATL-RG02MA-05	\$37.59
5/8"	ATL-RG02MA-06	27.70
1"	ATL-RG02MA-10	34.67
1-3/8"	ATL-RG02MA-13	50.12
1-3/4"	ATL-RG02MA-17	78.94

Rod Kits

Hydraulic Cylinders



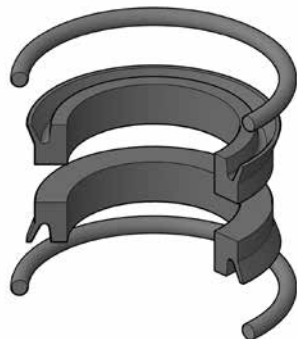
Kit Includes:

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

Rod Dia.	Kit #	List Price
5/8"	ATL-HRK62	\$9.62
1"	ATL-HRK100	11.52
1-3/8"	ATL-HRK137	13.36
1-3/8"	ATL-90030340-79	15.60
1-3/8"	ATL-90030370-79	12.79
1-3/4"	ATL-HRK175	14.78
1-3/4"	ATL-90030340-69	13.95
1-3/4"	ATL-90030370-69	13.84
2"	ATL-HRK200	15.84

Piston Kits

Pneumatic Cylinders

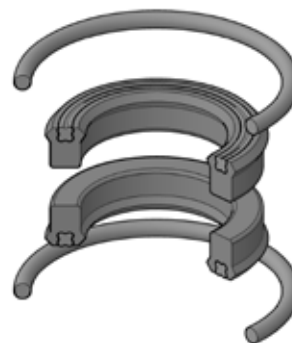


Kit Includes:

- 2 URE U-seals
- 2 NBR O-rings

Bore Dia.	Kit #	List Price	Kit #	List Price
1-1/2"	—		ATL-HPK15-000	\$17.06
2"	ATL-APK20-000	\$14.55	ATL-HPK20-000	19.12
2-1/2"	ATL-APK25-000	15.38	ATL-HPK25-000	20.75
3-1/4"	—		ATL-HPK35-000	31.09
4"	ATL-APK40-000	42.31	ATL-HPK40-000	37.49
5"	ATL-APK50-000	42.66	ATL-HPK50-000	46.59
6"	ATL-APK60-000	50.29	ATL-HPK60-000	55.69
8"	ATL-APK80-000	86.34	ATL-HPK80-000	113.31
10"	ATL-APK100-000	168.10	—	

Hydraulic Cylinders



Kit Includes:

- 2 URE Loaded U-seals
- 2 NBR O-rings

ATLAS

ATLAS

Kit Number	Code	Rod Size	Bore Size	List Price
ATL-1B00S015S	N-N-5		1-1/2	\$18.59
ATL-1B00S015V	N-N-5		1-1/2	56.32
ATL-1B00S020S	N-N-5		2	21.66
ATL-1B00S020V	N-N-5		2	62.69
ATL-1B00S025S	N-N-5		2-1/2	23.12
ATL-1B00S025V	N-N-5		2-1/2	66.54
ATL-1B00S032S	N-N-5		3-1/4	35.61
ATL-1B00S032V	N-N-5		3-1/4	95.06
ATL-1B00S040S	N-N-5		4	45.68
ATL-1B00S040V	N-N-5		4	136.98
ATL-1B00S050S	N-N-5		5	95.99
ATL-1B00S050V	N-N-5		5	206.25
ATL-1B00S060S	N-N-5		6	164.47
ATL-1B00S060V	N-N-5		6	279.95
ATL-1B00S070S	N-N-5		7	214.90
ATL-1B00S070V	N-N-5		7	429.95
ATL-1B00S080S	N-N-5		8	228.09
ATL-1B00S080V	N-N-5		8	451.43
ATL-1B00S100S	N-N-5		10	298.18
ATL-1B00S100V	N-N-5		10	598.27
ATL-1B00S120S	N-N-5		12	378.90
ATL-1B00S120V	N-N-5		12	734.67
ATL-1E00S015S	Head Seal Kit		1-1/2	4.53
ATL-1E00S015V	Head Seal Kit		1-1/2	6.73
ATL-1E00S020S	Head Seal Kit		2	5.81
ATL-1E00S020V	Head Seal Kit		2	8.01
ATL-1E00S025S	Head Seal Kit		2-1/2	7.78
ATL-1E00S025V	Head Seal Kit		2-1/2	9.62
ATL-1E00S032S	Head Seal Kit		3-1/4	14.53
ATL-1E00S032V	Head Seal Kit		3-1/4	19.00
ATL-1E00S040S	Head Seal Kit		4	17.57
ATL-1E00S040V	Head Seal Kit		4	20.55
ATL-1E00S050S	Head Seal Kit		5	21.07
ATL-1E00S050V	Head Seal Kit		5	31.98
ATL-1E00S060S	Head Seal Kit		6	33.06
ATL-1E00S060V	Head Seal Kit		6	34.53
ATL-1E00S070S	Head Seal Kit		7	70.04
ATL-1E00S070V	Head Seal Kit		7	81.43
ATL-1E00S080S	Head Seal Kit		8	74.49
ATL-1E00S080V	Head Seal Kit		8	95.03
ATL-1E00S100S	Head Seal Kit		10	135.45
ATL-1E00S100V	Head Seal Kit		10	152.55
ATL-1E00S120S	Head Seal Kit		12	153.94
ATL-1E00S120V	Head Seal Kit		12	175.61
ATL-4A06R000S	I-U-1	5/8		97.28
ATL-4A06R000V	I-U-1	5/8		129.17
ATL-4A06S000S	I-U-1	5/8		11.09
ATL-4A06S000V	I-U-1	5/8		30.79
ATL-4A07S000S	I-U-1	3/4		14.94
ATL-4A07S000V	I-U-1	3/4		44.19

Kit Number	Code	Rod Size	Bore Size	List Price
ATL-4A10R000S	I-U-1	1		\$114.48
ATL-4A10R000V	I-U-1	1		151.80
ATL-4A10S000S	I-U-1	1		11.10
ATL-4A10S000V	I-U-1	1		31.75
ATL-4A13R000S	I-U-1	1-3/8		137.13
ATL-4A13R000V	I-U-1	1-3/8		156.67
ATL-4A13S000S	I-U-1	1-3/8		11.38
ATL-4A13S000V	I-U-1	1-3/8		33.39
ATL-4A17R000S	I-U-1	1-3/4		161.67
ATL-4A17R000V	I-U-1	1-3/4		186.34
ATL-4A17S000S	I-U-1	1-3/4		14.34
ATL-4A17S000V	I-U-1	1-3/4		37.43
ATL-4A20R000S	I-U-1	2		189.66
ATL-4A20R000V	I-U-1	2		218.08
ATL-4A20S000S	I-U-1	2		16.02
ATL-4A20S000V	I-U-1	2		38.98
ATL-4A25R000S	I-U-1	2-1/2		215.73
ATL-4A25R000V	I-U-1	2-1/2		259.52
ATL-4A25S000S	I-U-1	2-1/2		21.81
ATL-4A25S000V	I-U-1	2-1/2		49.28
ATL-4A30R000S	I-U-1	3		266.45
ATL-4A30R000V	I-U-1	3		314.21
ATL-4A30S000S	I-U-1	3		31.14
ATL-4A30S000V	I-U-1	3		57.88
ATL-4A35S000S	I-U-1	3-1/2		34.07
ATL-4A35S000V	I-U-1	3-1/2		71.97
ATL-4A40S000S	I-U-1	4		36.56
ATL-4A40S000V	I-U-1	4		110.15
ATL-4A45S000S	I-U-1	4-1/2		44.66
ATL-4A45S000V	I-U-1	4-1/2		124.21
ATL-4A50S000S	I-U-1	5		52.07
ATL-4A50S000V	I-U-1	5		167.06
ATL-4B00S015S	N-N-5		1-1/2	8.93
ATL-4B00S015V	N-N-5		1-1/2	41.05
ATL-4B00S020S	N-N-5		2	10.65
ATL-4B00S020V	N-N-5		2	46.92
ATL-4B00S025S	N-N-5		2-1/2	12.20
ATL-4B00S025V	N-N-5		2-1/2	65.00
ATL-4B00S032S	N-N-5		3-1/4	14.81
ATL-4B00S032V	N-N-5		3-1/4	69.80
ATL-4B00S040S	N-N-5		4	18.86
ATL-4B00S040V	N-N-5		4	82.78
ATL-4B00S050S	N-N-5		5	22.83
ATL-4B00S050V	N-N-5		5	102.67
ATL-4B00S060S	N-N-5		6	29.67
ATL-4B00S060V	N-N-5		6	141.19
ATL-4B00S070S	N-N-5		7	82.73
ATL-4B00S070V	N-N-5		7	255.28
ATL-4B00S080S	N-N-5		8	93.85
ATL-4B00S080V	N-N-5		8	307.77

Kit Number	Code	Rod Size	Bore Size	List Price	Kit Number	Code	Rod Size	Bore Size	List Price
ATL-4B00S100S	N-N-5		10	\$133.60	ATL-EA20S000S	I-U-1	2		\$16.18
ATL-4B00S100V	N-N-5		10	426.51	ATL-EA25R000S	I-U-1	2-1/2		212.08
ATL-4B00S120S	N-N-5		12	180.80	ATL-EA25S000S	I-U-1	2-1/2		18.49
ATL-4B00S120V	N-N-5		12	662.01	ATL-EA30R000S	I-U-1	3		282.45
ATL-4B00S140S	N-N-5		14	279.93	ATL-EA30S000S	I-U-1	3		37.48
ATL-4B00S140V	N-N-5		14	975.91	ATL-EA35S000S	I-U-1	3-1/2		54.27
ATL-4E00S015S	Head Seal Kit		1-1/2	5.18	ATL-EA40S000S	I-U-1	4		60.48
ATL-4E00S015V	Head Seal Kit		1-1/2	7.45	ATL-EA45S000S	I-U-1	4-1/2		67.25
ATL-4E00S020S	Head Seal Kit		2	5.50	ATL-EA50S000S	I-U-1	5		72.95
ATL-4E00S020V	Head Seal Kit		2	12.66	ATL-EB00S015S	N-N-5		1-1/2	8.93
ATL-4E00S025S	Head Seal Kit		2-1/2	6.14	ATL-EB00S020S	N-N-5		2	10.65
ATL-4E00S025V	Head Seal Kit		2-1/2	16.59	ATL-EB00S025S	N-N-5		2-1/2	12.20
ATL-4E00S032S	Head Seal Kit		3-1/4	6.22	ATL-EB00S032S	N-N-5		3-1/4	14.81
ATL-4E00S032V	Head Seal Kit		3-1/4	19.37	ATL-EB00S040S	N-N-5		4	18.86
ATL-4E00S040S	Head Seal Kit		4	6.53	ATL-EB00S050S	N-N-5		5	22.83
ATL-4E00S040V	Head Seal Kit		4	24.94	ATL-EB00S060S	N-N-5		6	29.67
ATL-4E00S050S	Head Seal Kit		5	7.63	ATL-4B00S070S	N-N-5		7	82.73
ATL-4E00S050V	Head Seal Kit		5	35.10	ATL-EB00S080S	N-N-5		8	93.85
ATL-4E00S060S	Head Seal Kit		6	9.45	ATL-HPK15-000	N-N-5		1-1/2	17.06
ATL-4E00S060V	Head Seal Kit		6	37.02	ATL-HPK20-000	N-N-5		2	19.12
ATL-4E00S070S	Head Seal Kit		7	9.58	ATL-HPK25-000	N-N-5		2-1/2	20.75
ATL-4E00S070V	Head Seal Kit		7	52.32	ATL-HPK35-000	N-N-5		3-1/4	31.09
ATL-4E00S080S	Head Seal Kit		8	11.66	ATL-HPK40-000	N-N-5		4	37.49
ATL-4E00S080V	Head Seal Kit		8	52.49	ATL-HPK50-000	N-N-5		5	46.59
ATL-4E00S100S	Head Seal Kit		10	13.52	ATL-HPK60-000	N-N-5		6	55.69
ATL-4E00S100V	Head Seal Kit		10	58.45	ATL-HPK80-000	N-N-5		8	113.31
ATL-4E00S120S	Head Seal Kit		12	15.60	ATL-HRK100	I-U-1	1		11.52
ATL-4E00S120V	Head Seal Kit		12	70.49	ATL-HRK137	I-U-1	1-3/8		13.36
ATL-4E00S140S	Head Seal Kit		14	78.91	ATL-HRK175	I-U-1	1-3/4		14.78
ATL-4E00S140V	Head Seal Kit		14	141.52	ATL-HRK200	I-U-1	2		15.84
ATL-90030340-69	I-U-1	1-3/4		13.95	ATL-HRK62	I-U-1	5/8		9.62
ATL-90030340-79	I-U-1	1-3/8		15.60	ATL-PH00KH070	N-N-1		7	347.43
ATL-90030370-69	I-U-1	1-3/4		13.84	ATL-PH00KH080	N-N-1		8	422.29
ATL-90030370-79	I-U-1	1-3/8		12.79	ATL-PH00LH015	N-N-5		1-1/2	14.35
ATL-APK100-000	N-N-5		10	168.10	ATL-PH00LH020	N-N-5		2	15.17
ATL-APK20-000	N-N-5		2	14.55	ATL-PH00LH025	N-N-5		2-1/2	18.03
ATL-APK25-000	N-N-5		2-1/2	15.38	ATL-PH00LH032	N-N-5		3-1/4	32.98
ATL-APK40-000	N-N-5		4	42.31	ATL-PH00LH040	N-N-5		4	39.23
ATL-APK50-000	N-N-5		5	42.66	ATL-PH00LH050	N-N-5		5	57.64
ATL-APK60-000	N-N-5		6	50.29	ATL-PH00LH060	N-N-5		6	86.26
ATL-APK80-000	N-N-5		8	86.34	ATL-PH06SH000	I-U-1	5/8		10.04
ATL-EA06R000S	I-U-1	5/8		101.33	ATL-PH10SH000	I-U-1	1		10.84
ATL-EA06S000S	I-U-1	5/8		9.34	ATL-PH13SH000	I-U-1	1-3/8		14.56
ATL-EA10R000S	I-U-1	1		113.32	ATL-PH17SH000	I-U-1	1-3/4		14.70
ATL-EA10S000S	I-U-1	1		10.06	ATL-PH20SH000	I-U-1	2		20.11
ATL-EA13R000S	I-U-1	1-3/8		130.26	ATL-PH25SH000	I-U-1	2-1/2		25.07
ATL-EA13S000S	I-U-1	1-3/8		10.72	ATL-PH30SH000	I-U-1	3		26.61
ATL-EA17R000S	I-U-1	1-3/4		153.81	ATL-PH35SH000	I-U-1	3-1/2		51.48
ATL-EA17S000S	I-U-1	1-3/4		12.55	ATL-PK1502MA01	N-N-5		1-1/2	26.87
ATL-EA20R000S	I-U-1	2		188.73	ATL-PK1502MA05	N-N-5		1-1/2	52.34

ATLAS

ATLAS

Kit Number	Code	Rod Size	Bore Size	List Price
ATL-PK2002MA01	N-N-5		2	\$27.23
ATL-PK2002MA05	N-N-5		2	56.06
ATL-PK2502MA01	N-N-5		2-1/2	29.20
ATL-PK2502MA05	N-N-5		2-1/2	74.41
ATL-PK3202MA01	N-N-5		3-1/4	35.10
ATL-PK3202MA05	N-N-5		3-1/4	91.98
ATL-PK4002MA01	N-N-5		4	43.04
ATL-PK4002MA05	N-N-5		4	104.20
ATL-PK5002MA01	N-N-5		5	55.69
ATL-PK5002MA05	N-N-5		5	157.68
ATL-PK6002MA01	N-N-5		6	74.46
ATL-PK6002MA05	N-N-5		6	223.33
ATL-PK8002MA01	N-N-5		8	131.45
ATL-PK8002MA05	N-N-5		8	373.44
ATL-RGAL-06	Bronze Rod Gland	5/8		85.32
ATL-RGAL-10	Bronze Rod Gland	1		95.83
ATL-RGAL-13	Bronze Rod Gland	1-3/8		112.34
ATL-RGAL-17	Bronze Rod Gland	1-3/4		131.18
ATL-RGAL-20	Bronze Rod Gland	2		159.13
ATL-RGAL-25	Bronze Rod Gland	2-1/2		179.67
ATL-RGAL-30	Bronze Rod Gland	3		223.59
ATL-RG02MA0051	I-SP-1	1/2		44.66
ATL-RG02MA0055	I-SP-1	1/2		47.58
ATL-RG02MA0061	I-SP-1	5/8		29.50
ATL-RG02MA0065	I-SP-1	5/8		47.11
ATL-RG02MA0101	I-SP-1	1		33.80
ATL-RG02MA0105	I-SP-1	1		52.21
ATL-RG02MA0131	I-SP-1	1-3/8		50.48
ATL-RG02MA0135	I-SP-1	1-3/8		75.47
ATL-RG02MA0171	I-SP-1	1-3/4		102.73
ATL-RG02MA0175	I-SP-1	1-3/4		115.24
ATL-RG02MA-05	Bronze Rod Gland	1/2		37.59

Kit Number	Code	Rod Size	Bore Size	List Price
ATL-RG02MA-06	Bronze Rod Gland	5/8		\$27.70
ATL-RG02MA-10	Bronze Rod Gland	1		34.67
ATL-RG02MA-13	Bronze Rod Gland	1-3/8		50.12
ATL-RG02MA-17	Bronze Rod Gland	1-3/4		78.94
ATL-RK02MA0051	I-SP-1	1/2		14.41
ATL-RK02MA0055	I-SP-1	1/2		21.54
ATL-RK02MA0061	I-SP-1	5/8		14.86
ATL-RK02MA0065	I-SP-1	5/8		22.13
ATL-RK02MA0101	I-SP-1	1		15.24
ATL-RK02MA0105	I-SP-1	1		22.86
ATL-RK02MA0131	I-SP-1	1-3/8		16.30
ATL-RK02MA0135	I-SP-1	1-3/8		28.62
ATL-RK02MA0171	I-SP-1	1-3/4		17.42
ATL-RK02MA0175	I-SP-1	1-3/4		35.99
ATL-VH00KH070	N-N-1		7	351.44
ATL-VH00KH080	N-N-1		8	433.62
ATL-VH00LH015	N-N-5		1-1/2	50.47
ATL-VH00LH020	N-N-5		2	72.72
ATL-VH00LH025	N-N-5		2-1/2	83.74
ATL-VH00LH032	N-N-5		3-1/4	96.72
ATL-VH00LH040	N-N-5		4	221.18
ATL-VH00LH050	N-N-5		5	332.29
ATL-VH00LH060	N-N-5		6	390.70
ATL-VH06SH000	I-U-1	5/8		30.66
ATL-VH10SH000	I-U-1	1		43.26
ATL-VH13SH000	I-U-1	1-3/8		45.12
ATL-VH17SH000	I-U-1	1-3/4		53.50
ATL-VH20SH000	I-U-1	2		61.27
ATL-VH25SH000	I-U-1	2-1/2		99.03
ATL-VH30SH000	I-U-1	3		114.10
ATL-VH35SH000	I-U-1	3-1/2		158.63

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A5 Series Rod Kits

A5 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

Fluorocarbon



Kit Includes:

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

HA5 Cylinders

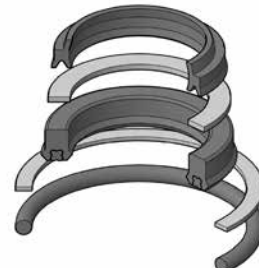
Urethane



Kit Includes:

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

Fluorocarbon



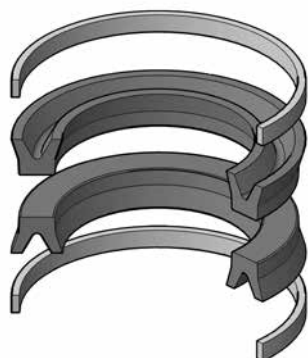
Kit Includes:

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

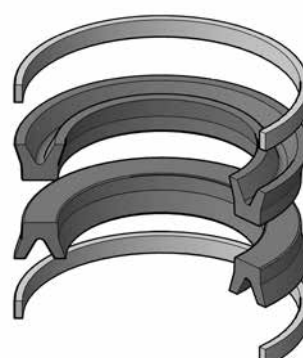
Rod Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price	(URE) Kit #	List Price	(FC) Kit #	List Price
5/8"	HSKN5-660-05	\$10.96	HSKN5-660-05V	\$39.32	HSKN5-681-05	\$18.45	HSKN5-660-P-05V	\$66.15
1"	HSKN5-660-08	11.13	HSKN5-660-08V	41.31	HSKN5-681-08	20.23	HSKN5-660-P-08V	75.09
1-3/8"	HSKN5-660-11	13.96	HSKN5-660-11V	53.99	HSKN5-681-11	22.56	HSKN5-660-P-11V	92.01

A5 Series Piston Kits

Nitrile A5 Cylinders 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 #	List Price	(FC) Kit #	List Price
1-1/2"	HSKA5-512-03	\$28.83	HSKA5-512-03V	\$58.30
2"	HSKA5-512-04	30.71	HSKA5-512-04V	60.41
2-1/2"	HSKA5-512-05	33.07	HSKA5-512-05V	71.24
3-1/4"	HSKA5-512-065	35.67	HSKA5-512-065V	80.34
4"	HSKA5-512-08	41.54	HSKA5-512-08V	87.32
5"	HSKA5-512-10	51.90	HSKA5-512-10V	102.41
6"	HSKA5-512-12	61.11	HSKA5-512-12V	167.58

Tube End Seals

A5 Cylinders PTFE

Bore Dia.	Part #	List Price
1-1/2"	HS-C221-03	\$9.33
2"	HS-C221-04	10.16
2-1/2"	HS-C221-05	11.21
3-1/4"	HS-C221-065	12.10
4"	HS-C221-08	13.66
5"	HS-C221-10	18.48
6"	HS-C221-12	23.78



HYDRO-LINE

E2 Series Rod Kits



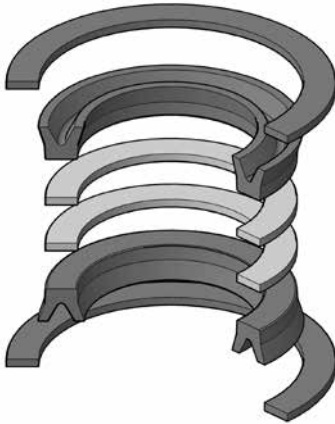
E2 Cylinders Nitrile

Rod Dia.	(NBR) Kit #	List Price
5/8"	HSKE2-660-05	\$4.86
1"	HSKE2-660-08	5.40
1-3/8"	HSKE2-660-11	6.01

Kit Includes:

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

Piston Kits



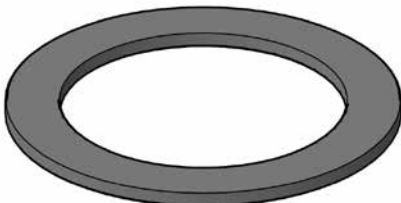
E2 Cylinders Nitrile

Bore Dia.	(NBR) Kit #	List Price
2"	HSKE2-512-04	\$29.24
3-1/4"	HSKE2-512-065	28.11
4"	HSKE2-512-08	49.04

Kit Includes:

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

Tube End Seals



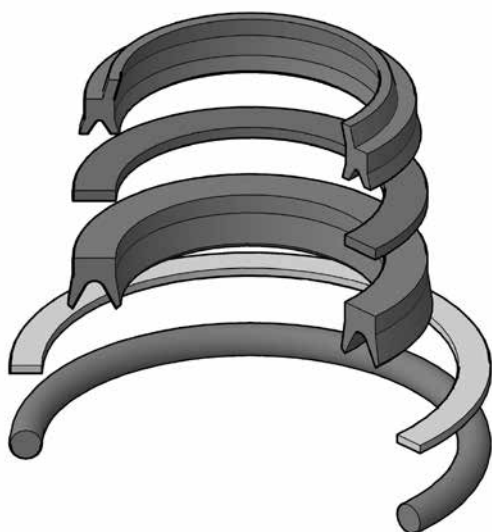
E2 Cylinders Fiber

Bore Dia.	Part #	List Price
1-1/2"	HS-E304-03	\$2.71
2"	HS-E304-04	2.84
3-1/4"	HS-E304-065	3.16
4"	HS-E304-08	3.57

N2 Series Rod Kits

N2 Cylinders

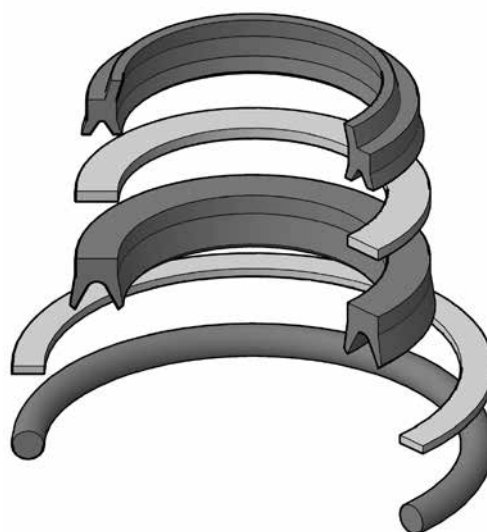
Nitrile



Kit Includes:

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

Fluorocarbon



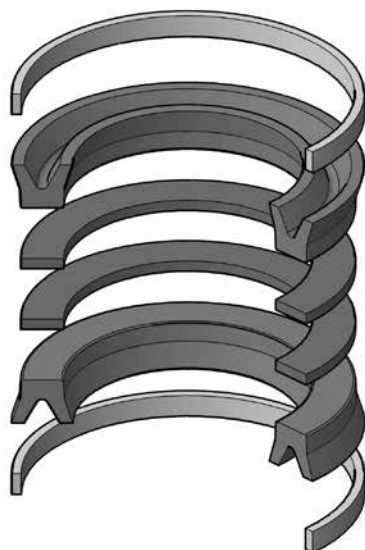
Kit Includes:

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

Rod Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
5/8"	HSKN2-661-05	\$10.99	HSKN2-661-05V	\$40.69
1"	HSKN2-661-08	10.91	HSKN2-661-08V	43.20
1-3/8"	HSKN2-661-11	13.31	HSKN2-661-11V	48.13
1-3/4"	HSKN2-661-14	15.64	HSKN2-661-14V	56.43
2"	HSKN2-661-16	17.31	HSKN2-661-16V	59.59
2-1/2"	HSKN2-661-20	25.98	HSKN2-661-20V	66.50
3"	HSKN5-660-24	22.56	HSKN5-660-24V	87.79
3-1/2"	HSKN5-660-28	24.74	HSKN5-660-28V	102.57
4"	HSKN5-660-32	31.05	HSKN5-660-32V	107.19
4-1/2"	HSKN5-660-36	33.44	HSKN5-660-36V	113.15
5"	HSKN5-660-40	49.51	HSKN5-660-40V	136.02
5-1/2"	HSKN5-660-44	67.50	HSKN5-660-44V	153.61

N2 Series Piston Kits

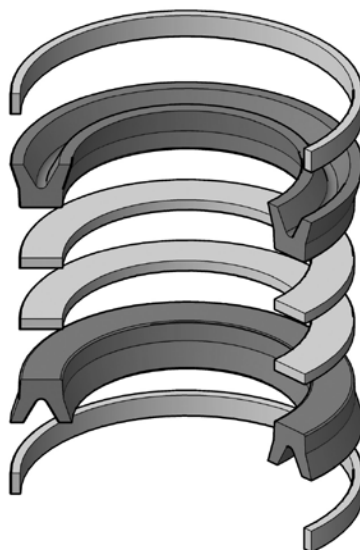
Nitrile



Kit Includes:

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

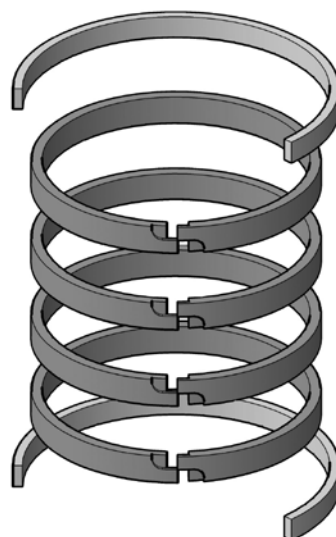
N2 Cylinders Fluorocarbon



Kit Includes:

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

Piston Ring



Kit Includes:

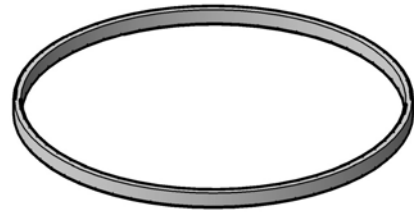
4 Cast-Iron Piston Rings
2 PTFE Tube End Seals

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price	(PR) Kit #	List Price
1-1/2"	HSKN2-512-03	\$36.79	HSKN2-512-03V	\$71.60	HSKN2-511-03	\$91.34
2"	HSKN2-512-04	44.59	HSKN2-512-04V	94.01	HSKN2-511-04	104.13
2-1/2"	HSKN2-512-05	48.13	HSKN2-512-05V	99.94	HSKN2-511-05	105.81
3-1/4"	HSKN2-512-065	46.26	HSKN2-512-065V	113.59	HSKN2-511-065	111.70
4"	HSKN2-512-08	55.58	HSKN2-512-08V	134.36	HSKN2-511-08	125.75
5"	HSKN2-512-10	71.40	HSKN2-512-10V	148.79	HSKN2-511-10	153.02
6"	HSKN2-512-12	80.24	HSKN2-512-12V	197.67	HSKN2-511-12	161.60
7"	HSKN2-512-14	122.52	HSKN2-512-14V	291.18	HSKN2-511-14	181.01
8"	HSKN2-512-16	155.16	HSKN2-512-16V	321.65	HSKN2-511-16	222.55
10"	HSKN2-512-20	174.48	HSKN2-512-20V	598.38	HSKN2-511-20	464.78
12"	HSKN2-512-24	274.26	HSKN2-512-24V	887.20	HSKN2-511-24	628.71

N2 Series Tube End Seals

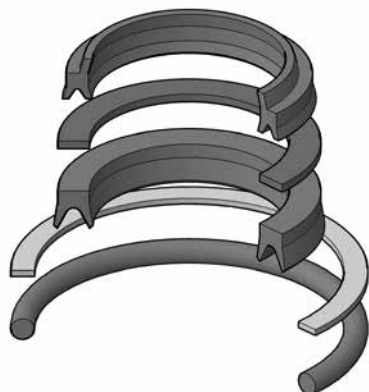
N2 Cylinders PTFE

Bore Dia.	Part #	List Price
1-1/2"	HS-C124-03	\$11.48
2"	HS-C124-04	13.94
2-1/2"	HS-C124-05	16.15
3-1/4"	HS-C124-065	20.42
4"	HS-C124-08	21.96
5"	HS-C124-10	24.16
6"	HS-C124-12	24.95
7" & UP	HS-C124-STRIP (sold by the foot)	17.27



N5 Series Rod Kits

N5 & AN5 Cylinders Nitrile



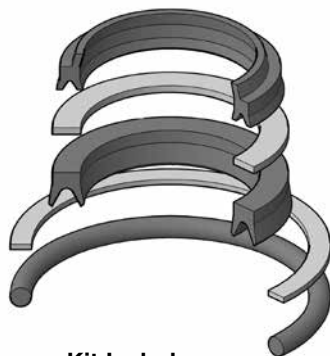
Kit Includes:

- 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 #	List Price
5/8"	HSKN5-660-05	\$10.96
1"	HSKN5-660-08	11.13
1-3/8"	HSKN5-660-11	13.96
1-3/4"	HSKN5-660-14	17.60
2"	HSKN5-660-16	19.72
2-1/2"	HSKN5-660-20	21.69
3"	HSKN5-660-24	22.56
3-1/2"	HSKN5-660-28	24.74
4"	HSKN5-660-32	31.05
4-1/2"	HSKN5-660-36	33.44
5"	HSKN5-660-40	49.51
5-1/2"	HSKN5-660-44	67.50

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 #	List Price
5/8"	HSKN5-660-05V	\$39.32
1"	HSKN5-660-08V	41.31
1-3/8"	HSKN5-660-11V	53.99
1-3/4"	HSKN5-660-14V	55.99
2"	HSKN5-660-16V	59.66
2-1/2"	HSKN5-660-20V	67.32
3"	HSKN5-660-24V	87.79
3-1/2"	HSKN5-660-28V	102.57
4"	HSKN5-660-32V	107.19
4-1/2"	HSKN5-660-36V	113.15
5"	HSKN5-660-40V	136.02
5-1/2"	HSKN5-660-44V	153.61

N5 Series Rod Kits

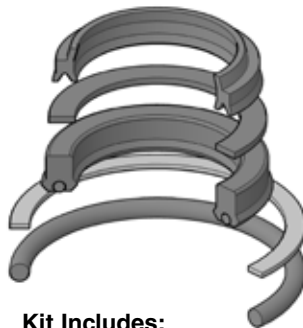
Urethane



Kit Includes:

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

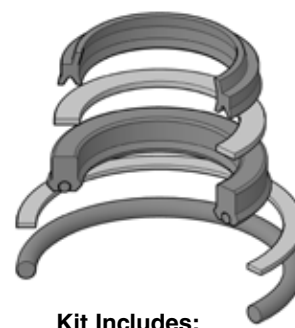
N5 Cylinders Urethane



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

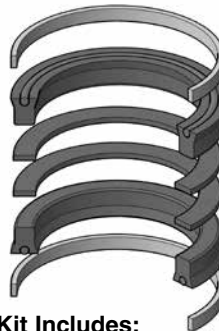
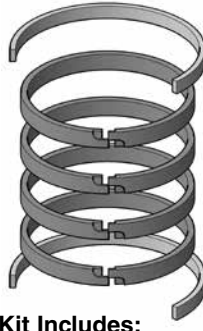


Kit Includes:

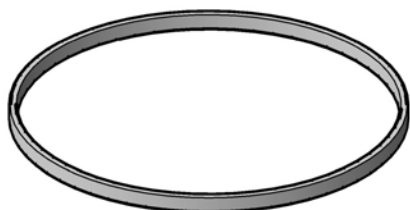
- 1 FC Wiper
- 1 PTFE Back-up Ring
- 1 FC Loaded U-seal
- 1 PTFE Back-up Ring
- 1 FC O-ring

Rod Dia.	(URE) Kit #	List Price	(URE) Kit #	List Price	(FC) Kit #	List Price
1/2"	—		HSKN5-660-P-04	\$15.52	—	
5/8"	HSKN5-681-05	\$18.45	—		HSKN5-660-P-05V	\$66.15
1"	HSKN5-681-08	20.23	HSKN5-660-P-08	17.24	HSKN5-660-P-08V	75.09
1-3/8"	HSKN5-681-11	22.56	—		HSKN5-660-P-11V	92.01
1-3/4"	HSKN5-681-14	24.13	HSKN5-660-P-14	21.40	HSKN5-660-P-14V	101.38
2"	HSKN5-681-16	31.42	—		HSKN5-660-P-16V	105.59
2-1/2"	HSKN5-681-20	44.23	HSKN5-660-P-20	32.20	HSKN5-660-P-20V	153.96
3"	HSKN5-681-24	48.22	—		HSKN5-660-P-24V	177.32
3-1/2"	HSKN5-681-28	52.82	HSKN5-660-P-28	39.60	HSKN5-660-P-28V	197.98
4"	HSKN5-681-32	61.93	—		HSKN5-660-P-32V	239.11
4-1/2"	HSKN5-681-36	81.36	—		HSKN5-660-P-36V	256.46
5"	HSKN5-681-40	85.23	—		HSKN5-660-P-40V	262.90
5-1/2"	HSKN5-681-44	101.41	—		HSKN5-660-P-44V	268.78

N5 Series Piston Kits

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	
Bore Dia.	List Price	(NBR) Kit #	List Price	(FC) Kit #	List Price	(URE) Kit #	List Price	(PR) Kit #
1-1/2"	\$28.59	HSKN5-512-03	\$71.01	HSKN5-512-03V	—	—	\$90.74	HSKN5-511-03
2"	39.32	HSKN5-512-04	98.27	HSKN5-512-04V	—	—	98.90	HSKN5-511-04
2-1/2"	42.07	HSKN5-512-05	99.94	HSKN5-512-05V	HSKN5-512-P-05	\$47.90	99.70	HSKN5-511-05
3-1/4"	46.26	HSKN5-512-065	104.38	HSKN5-512-065V	—	—	102.76	HSKN5-511-065
4"	55.45	HSKN5-512-08	135.10	HSKN5-512-08V	—	—	117.75	HSKN5-511-08
5"	67.61	HSKN5-512-10	158.64	HSKN5-512-10V	—	—	143.35	HSKN5-511-10
6"	70.35	HSKN5-512-12	187.82	HSKN5-512-12V	—	—	161.60	HSKN5-511-12
7"	133.07	HSKN5-512-14	268.05	HSKN5-512-14V	—	—	190.97	HSKN5-511-14
8"	186.67	HSKN5-512-16	301.81	HSKN5-512-16V	HSKN5-512-P-16	239.85	242.34	HSKN5-511-16
10"	174.48	HSKN2-512-20	598.38	HSKN2-512-20V	—	—	464.78	HSKN2-511-20
12"	274.26	HSKN2-512-24	887.20	HSKN2-512-24V	—	—	628.71	HSKN2-511-24

Tube End Seals



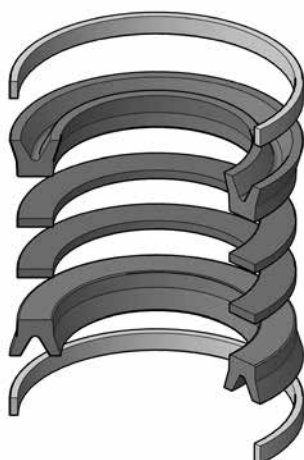
N5 Cylinders PTFE		
Bore Dia.	Part #	List Price
1-1/2"	HS-C255-03	\$12.32
2"	HS-C255-04	14.24
2-1/2"	HS-C255-05	15.03
3-1/4"	HS-C255-065	15.48
4"	HS-C255-08	17.57
5"	HS-C255-10	18.70
6"	HS-C255-12	19.51
7"	HS-C255-14	20.42
8"	HS-C255-16	23.77
10" & UP	HS-C124-STRIP (sold by the foot)	17.27

R2 Series Rod Kits

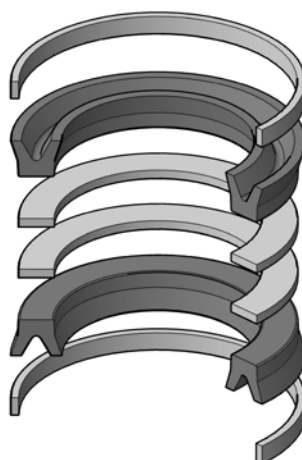
		R2 & LR2 Cylinders							
		Nitrile		Fluorocarbon		Urethane		Fluorocarbon	
									
		Kit Includes: 1 XNBR Wiper 1 URE Back-up Ring 1 NBR U-seal 1 PTFE Back-up Ring 1 NBR O-ring		Kit Includes: 1 FC Wiper 1 PTFE Back-up Ring 1 FC U-seal 1 PTFE Back-up Ring 1 FC O-ring		Kit Includes: 1 XNBR Wiper 1 URE 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 #	List Price	(FC) Kit #	List Price	(URE) Kit #	List Price	(FC) Kit #	List Price
5/8"	1"	HSKR2-662-05A	\$9.63	HSKR2-662-05AV	\$40.61	HSKR2-681-05A	\$16.11	HSKR2-662-P-05AV	\$62.64
5/8"	1.5" & UP	HSKN2-661-05	10.99	HSKN2-661-05V	40.69	—	—	—	—
1"	1.5", 2, 2.5"	HSKR2-662-08	10.50	HSKR2-662-08V	41.43	HSKR2-681-08	20.00	HSKR2-662-P-08V	75.71
1"	3.25" & UP	HSKN2-661-08	10.91	HSKN2-661-08V	43.20	—	—	—	—
1-3/8"	2", 2.5"	HSKR2-662-11	12.79	HSKR2-662-11V	53.39	HSKR2-681-11	20.23	HSKR2-662-P-11V	90.88
1-3/8"	3.25" & UP	HSKN2-661-11	13.31	HSKN2-661-11V	48.13	—	—	—	—
1-3/4"	2.5"	HSKR2-662-14	15.72	HSKR2-662-14V	54.86	HSKR2-681-14	21.13	HSKR2-662-P-14V	101.77
1-3/4"	3.25" & UP	HSKN2-661-14	15.64	HSKN2-661-14V	56.43	—	—	—	—
2"	ALL	HSKN2-661-16	17.31	HSKN2-661-16V	59.59	—	—	—	—
2-1/2"	ALL	HSKN2-661-20	25.98	HSKN2-661-20V	66.50	—	—	—	—
3"	ALL	HSKN5-660-24	22.56	HSKN5-660-24V	87.79	—	—	—	—
3-1/2"	ALL	HSKN5-660-28	24.74	HSKN5-660-28V	102.57	—	—	—	—
4"	ALL	HSKN5-660-32	31.05	HSKN5-660-32V	107.19	—	—	—	—
4-1/2"	ALL	HSKN5-660-36	33.44	HSKN5-660-36V	113.15	—	—	—	—
5"	ALL	HSKN5-660-40	49.51	HSKN5-660-40V	136.02	—	—	—	—
5-1/2"	ALL	HSKN5-660-44	67.50	HSKN5-660-44V	153.61	—	—	—	—

R2 Series Piston Kits

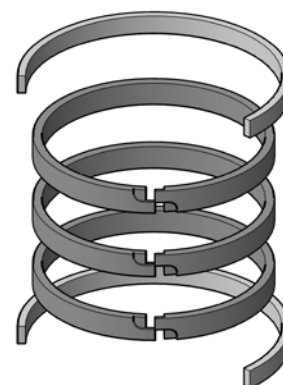
Nitrile	R2 & LR2 Cylinders Fluorocarbon	Piston Ring
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Kit Includes:
2 NBR U-seals
2 URE Back-up Rings
2 PTFE Tube End Seals



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



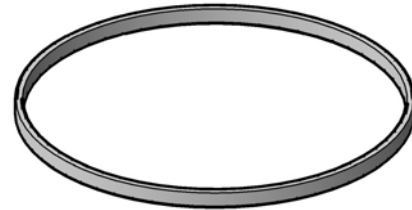
Kit Includes:
3 Cast-Iron Piston Rings
2 PTFE Tube End Seals

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price	(PR) Kit #	List Price
1"	HSKR5-512-02	\$29.50	HSKR5-512-02V	\$62.99	HSKR5-511-02	\$98.30
1-1/2"	HSKR5-512-03	31.16	HSKR5-512-03V	65.94	HSKR5-511-03	65.94
2"	HSKR5-512-04	34.10	HSKR5-512-04V	93.04	HSKR5-511-04	67.91
2-1/2"	HSKR5-512-05	37.25	HSKR5-512-05V	95.10	HSKR5-511-05	69.03
3-1/4"	HSKR5-512-065	41.31	HSKR5-512-065V	99.52	HSKR5-511-065	79.91
4"	HSKR5-512-08	48.45	HSKR5-512-08V	127.94	HSKR5-511-08	90.07
5"	HSKR5-512-10	61.36	HSKR5-512-10V	142.50	HSKR5-511-10	116.49
6"	HSKR5-512-12	68.48	HSKR5-512-12V	185.96	HSKR5-511-12	129.10
8"	HSKR5-512-16	178.14	HSKR5-512-16V	352.99	HSKR5-511-16	151.97
10"	HSKR5-512-20	174.48	HSKR5-512-20V	598.38	HSKR5-511-20	432.89
12"	HSKR5-512-24	274.26	HSKR5-512-24V	857.20	HSKR5-511-24	602.27
14"	HSKR5-512-28	394.52	HSKR5-512-28V	935.24	—	

R2 Series Tube End Seals

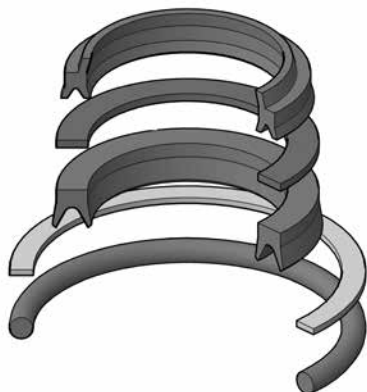
R2 & LR2 Cylinders PTFE

Bore Dia.	Part #	List Price
1"	HS-C221-02	\$8.70
1-1/2"	HS-C221-03	9.33
2"	HS-C221-04	10.16
2-1/2"	HS-C221-05	11.21
3-1/4"	HS-C221-065	12.10
4"	HS-C221-08	13.66
5"	HS-C221-10	18.48
6"	HS-C221-12	23.78
8" & UP	HS-C221-STRIP (sold by the foot)	11.11



R5 Series Rod Kits

R5 & HR5 Cylinders Nitrile

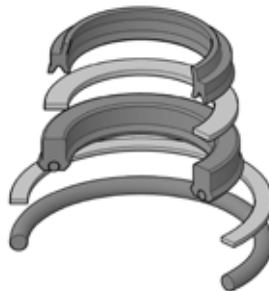


Kit Includes:

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

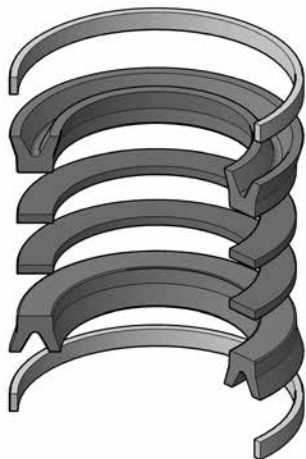
Rod Dia.	Bore Dia.	(NBR) Kit #	List Price
1/2"	1"	HSKN5-660-04	\$8.95
5/8"	1"	HSKR2-662-05A	9.63
5/8"	1.5" & UP	HSKN5-660-05	10.96
1"	2" & UP	HSKN5-660-08	11.13
1-3/8"	2.5" & UP	HSKN5-660-11	13.96
1-3/4"	ALL	HSKN5-660-14	17.60
2"	ALL	HSKN5-660-16	19.72
2-1/2"	ALL	HSKN5-660-20	21.69
3"	ALL	HSKN5-660-24	22.56
3-1/2"	ALL	HSKN5-660-28	24.74
4"	ALL	HSKN5-660-32	31.05
4-1/2"	ALL	HSKN5-660-36	33.44
5"	ALL	HSKN5-660-40	49.51
5-1/2"	ALL	HSKN5-660-44	67.50

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 #	List Price	(URE) Kit #	List Price	(URE) Kit #	List Price	(FC) Kit #	List Price
1/2"	1"	HSKN5-660-04V	\$32.95	—		HSKN5-660-P-04	\$15.52	HSKN5-660-P-04V	62.24
5/8"	1"	HSKR2-662-05AV	40.61	HSKN5-681-05A	\$16.11	—		HSKN5-660-P-05AV	62.65
5/8"	1.5" & UP	HSKN5-660-05V	39.32	HSKN5-681-05	18.45	—		HSKN5-660-P-05V	66.15
1"	2" & UP	HSKN5-660-08V	41.31	HSKN5-681-08	20.23	HSKN5-660-P-08	17.24	HSKN5-660-P-08V	75.09
1-3/8"	2.5" & UP	HSKN5-660-11V	53.99	HSKN5-681-11	22.56	—		HSKN5-660-P-11V	92.01
1-3/4"	ALL	HSKN5-660-14V	55.99	HSKN5-681-14	24.13	HSKN5-660-P-14	21.40	HSKN5-660-P-14V	101.38
2"	ALL	HSKN5-660-16V	59.66	HSKN5-681-16	31.42	—		HSKN5-660-P-16V	105.59
2-1/2"	ALL	HSKN5-660-20V	67.32	HSKN5-681-20	44.23	—		HSKN5-660-P-20V	153.96
3"	ALL	HSKN5-660-24V	87.79	HSKN5-681-24	48.22	—		HSKN5-660-P-24V	177.32
3-1/2"	ALL	HSKN5-660-28V	102.57	HSKN5-681-28	52.82	HSKN5-660-P-28	39.60	HSKN5-660-P-28V	197.98
4"	ALL	HSKN5-660-32V	107.19	HSKN5-681-32	61.93	—		HSKN5-660-P-32V	239.11
4-1/2"	ALL	HSKN5-660-36V	113.15	HSKN5-681-36	81.36	—		HSKN5-660-P-36V	256.46
5"	ALL	HSKN5-660-40V	136.02	HSKN5-681-40	85.23	—		HSKN5-660-P-40V	262.90
5-1/2"	ALL	HSKN5-660-44V	153.61	HSKN5-681-44	101.41	—		HSKN5-660-P-44V	268.78

R5 Series Piston Kits

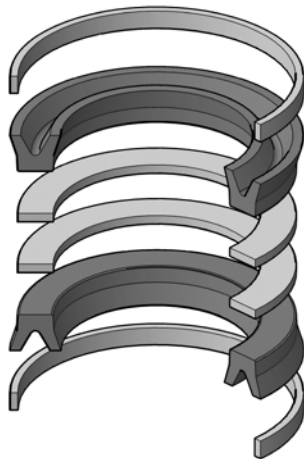
Nitrile



Kit Includes:

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

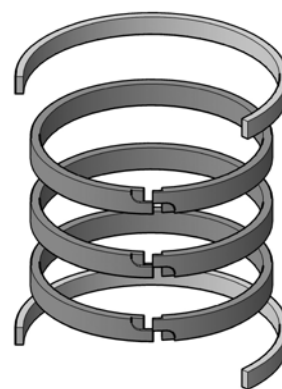
R5 Cylinders Fluorocarbon



Kit Includes:

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

Piston Ring



Kit Includes:

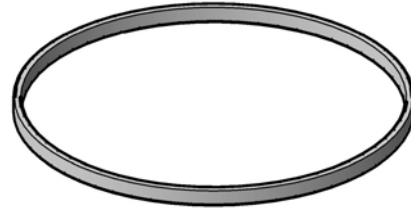
- 3 Cast-Iron Piston Rings
- 2 PTFE Tube End Seals

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price	(PR) Kit #	List Price
1"	HSKR5-512-02	\$29.50	HSKR5-512-02V	\$62.99	HSKR5-511-02	\$98.30
1-1/2"	HSKR5-512-03	31.16	HSKR5-512-03V	65.94	HSKR5-511-03	65.94
2"	HSKR5-512-04	34.10	HSKR5-512-04V	93.04	HSKR5-511-04	67.91
2-1/2"	HSKR5-512-05	37.25	HSKR5-512-05V	95.10	HSKR5-511-05	69.03
3-1/4"	HSKR5-512-065	41.31	HSKR5-512-065V	99.52	HSKR5-511-065	79.91
4"	HSKR5-512-08	48.45	HSKR5-512-08V	127.94	HSKR5-511-08	90.07
5"	HSKR5-512-10	61.36	HSKR5-512-10V	142.50	HSKR5-511-10	116.49
6"	HSKR5-512-12	68.48	HSKR5-512-12V	185.96	HSKR5-511-12	129.10
8"	HSKR5-512-16	178.14	HSKR5-512-16V	352.99	HSKR5-511-16	151.97
10"	HSKR5-512-20	174.48	HSKR5-512-20V	598.38	HSKR5-511-20	432.89
12"	HSKR5-512-24	274.26	HSKR5-512-24V	857.20	HSKR5-511-24	602.27
14"	HSKR5-512-28	394.52	HSKR5-512-28V	935.24	—	

R5 Series Tube End Seals

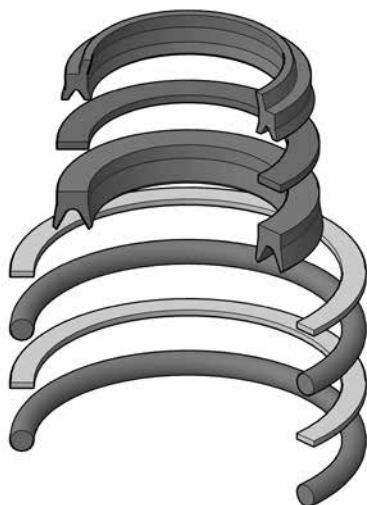
R5 Cylinders PTFE

Bore Dia.	Part #	List Price
1"	HS-C221-02	\$8.70
1-1/2"	HS-C221-03	9.33
2"	HS-C221-04	10.16
2-1/2"	HS-C221-05	11.21
3-1/4"	HS-C221-065	12.10
4"	HS-C221-08	13.66
5"	HS-C221-10	18.48
6"	HS-C221-12	23.78
8" & UP	HS-C221-STRIP (sold by the foot)	11.11



UNIVERSAL Rod Kits

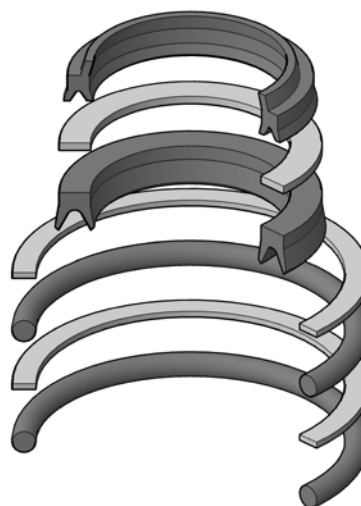
A5, N2, N5, R2, & R5 Cylinders (see note)
Nitrile



Kit Includes:

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

Fluorocarbon



Kit Includes:

- 1 FC Wiper
- 1 PTFE BU Ring
- 1 FC U-seal
- 2 FC O-rings
- 2 PTFE BU Rings

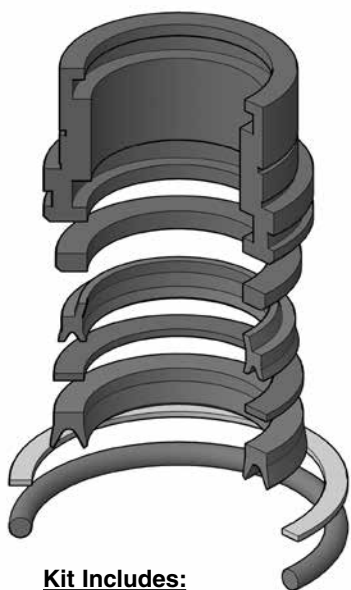
Rod Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
5/8"	HSKN25-665-05	\$12.70	HSKN25-665-05V	\$44.04
1"	HSKN25-665-08	13.21	HSKN25-665-08V	45.82
1-3/8"	HSKN25-665-11	16.86	HSKN25-665-11V	58.19
1-3/4"	HSKN25-665-14	21.30	HSKN25-665-14V	65.32
2"	HSKN25-665-16	23.80	HSKN25-665-16V	69.22
2-1/2"	HSKN25-665-20	28.47	HSKN25-665-20V	78.76

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.

UNIVERSAL Gland Kits

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

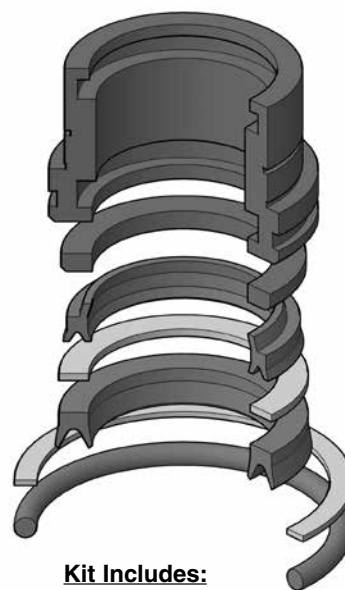
Nitrile



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

Fluorocarbon



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

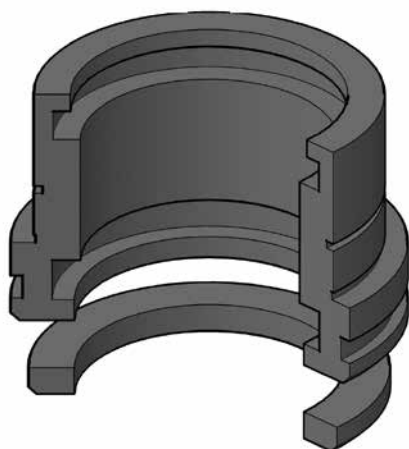
Rod Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
5/8"	HN5-665-05	\$147.24	HN5-665-05V	\$167.83
1"	HN5-665-08	182.78	HN5-665-08V	205.10
1-3/8"	HN5-665-11	195.52	HN5-665-11V	224.21
1-3/4"	HN5-665-14	227.32	HN5-665-14V	255.06
2"	HN5-665-16	236.69	HN5-665-16V	266.82
2-1/2"	HN5-665-20	256.87	HN5-665-20V	286.96
3"	HN5-665-24	386.97	HN5-665-24V	436.09
3-1/2"	HN5-665-28	453.05	HN5-665-28V	493.52
4"	HN5-665-32	502.13	HN5-665-32V	561.28
4-1/2"	HN5-665-36 (2.57" HGT)	710.72	HN5-665-36V (2.57" HGT)	767.30
4-1/2"	HN5-665-36A (1.88" HGT)	710.72	HN5-665-36AV (1.88" HGT)	767.30
5"	HN5-665-40	855.20	HN5-665-40V	928.70
5-1/2"	HN5-665-44	928.01	HN5-665-44V	1029.88

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

UNIVERSAL Gland Kits

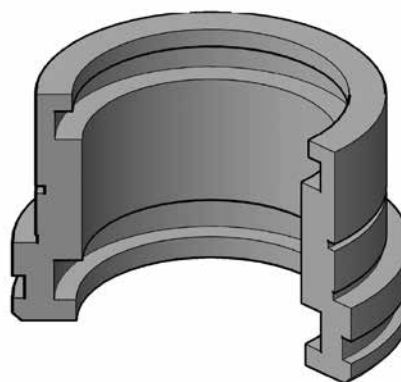
A5, N2, N5, R2, & R5 Cylinders (see note)

Iron Bushing



Kit Includes:
1 Iron Bushing
1 Spacer

Bronze Bushing



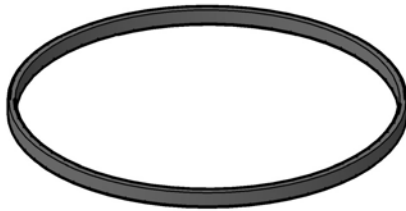
Kit Includes:
1 Bronze Bushing

Rod Dia.	Part #	List Price	Part #	List Price
5/8"	HN5-655-05	\$127.82	HN5-B-650-05	\$124.98
1"	HN5-655-08	163.24	HN5-B-650-08	133.92
1-3/8"	HN5-655-11	171.40	HN5-B-650-11	157.65
1-3/4"	HN5-655-14	197.67	HN5-B-650-14	181.91
2"	HN5-655-16	206.63	HN5-B-650-16	188.10
2-1/2"	HN5-655-20	222.45	HN5-B-650-20	236.96
3"	HN5-655-24	331.24	HN5-B-650-24	252.44
3-1/2"	HN5-655-28	388.03	HN5-B-650-28	447.98
4"	HN5-655-32	425.87	HN5-B-650-32	481.52
4-1/2"	HN5-655-36 (2.57" HGT)	605.70	HN5-B-650-36 (2.57" HGT)	663.43
4-1/2"	HN5-655-36A (1.88" HGT)	605.70	HN5-B-650-36A (1.88" HGT)	521.96
5"	HN5-655-40	738.18	HN5-B-650-40	728.91
5-1/2"	HN5-655-44	794.99	HN5-B-650-44	760.96

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

UNIVERSAL Captive Cushion Adjustment Seal

A, N & R Cylinders

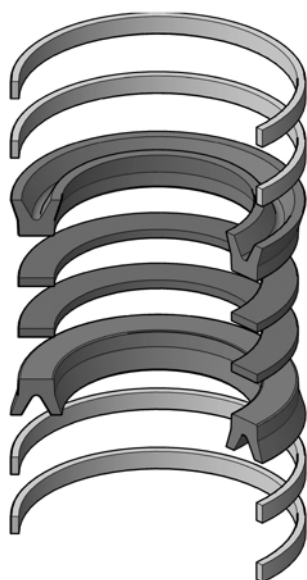


Part #	I.D. X C.S.	List Price
HS-C408-1	.204 X .072	\$6.38
HS-C408-1V	.204 X .072	7.68
HS-C408-2	.298 X .072	6.38
HS-C408-2V	.298 X .072	7.68
HS-C408-3	.420 X .072	6.38
HS-C408-3V	.420 X .072	7.68
HS-C408-4	.542 X .072	6.38
HS-C408-4V	.542 X .072	7.68

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.

UNIVERSAL Piston Kits

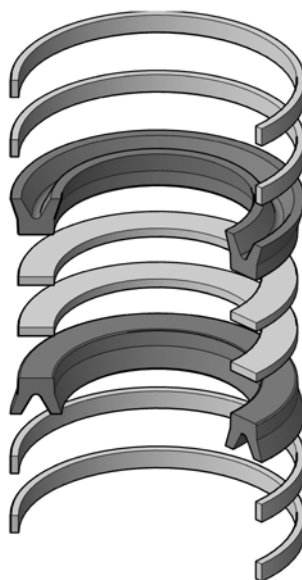
Nitrile



Kit Includes:

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

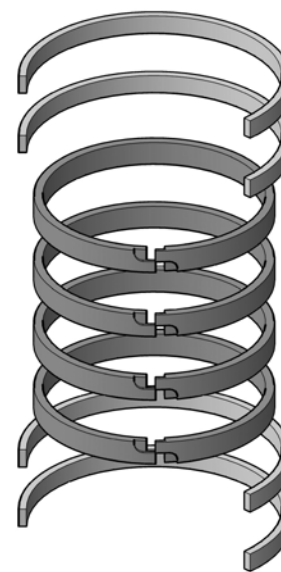
N2 & N5 Cylinders Fluorocarbon



Kit Includes:

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

Piston Ring



Kit Includes:

- 4 Cast Iron Piston Rings
- 4 PTFE Tube End Seals

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price	(PR) Kit #	List Price
1-1/2"	HSKN25-512-03	\$43.24	HSKN25-512-03V	\$85.12	HSKN25-511-03	\$116.70
2"	HSKN25-512-04	48.51	HSKN25-512-04V	123.65	HSKN25-511-04	130.59
2-1/2"	HSKN25-512-05	50.59	HSKN25-512-05V	133.29	HSKN25-511-05	133.07
3-1/4"	HSKN25-512-065	66.07	HSKN25-512-065V	141.70	HSKN25-511-065	139.82
4"	HSKN25-512-08	77.77	HSKN25-512-08V	174.95	HSKN25-511-08	157.61
5"	HSKN25-512-10	101.87	HSKN25-512-10V	192.63	HSKN25-511-10	187.22
6"	HSKN25-512-12	115.69	HSKN25-512-12V	285.58	HSKN25-511-12	206.91
7"	HSKN25-512-14	137.08	HSKN25-512-14V	342.92	HSKN25-511-14	206.70
8"	HSKN25-512-16	193.67	HSKN25-512-16V	284.17	HSKN25-511-16	251.70

HYDRO-LINE

HYDRO-LINE®

Sales Part Number	Description	Rod Size	Bore Size	List Price
HN5-650-08	Bushing	1		\$39.17
HN5-650-11	Bushing	1-3/8		44.19
HN5-650-14	Bushing	1-3/4		57.39
HN5-650-24	Bushing	3		167.42
HN5-650-S-20	Bushing	2-1/2		144.75
HN5-655-05	Bushing w/ spacer	5/8		127.82
HN5-655-08	Bushing w/ spacer	1		163.24
HN5-655-11	Bushing w/ spacer	1-3/8		171.40
HN5-655-14	Bushing w/ spacer	1-3/4		197.67
HN5-655-16	Bushing w/ spacer	2		206.63
HN5-655-20	Bushing w/ spacer	2-1/2		222.45
HN5-655-24	Bushing w/ spacer	3		331.24
HN5-655-28	Bushing w/ spacer	3-1/2		388.03
HN5-655-32	Bushing w/ spacer	4		425.87
HN5-655-36	Bushing w/ spacer	4-1/2 x 2.57ht		605.70
HN5-655-36A	Bushing w/ spacer	4-1/2 x 1.88ht		605.70
HN5-655-40	Bushing w/ spacer	5		738.18
HN5-655-44	Bushing w/ spacer	5-1/2		794.99
HN5-665-05	Rod Gland Kit	5/8		147.24
HN5-665-05V	Rod Gland Kit	5/8		167.83
HN5-665-08	Rod Gland Kit	1		182.78
HN5-665-08V	Rod Gland Kit	1		205.10
HN5-665-11	Rod Gland Kit	1-3/8		195.52
HN5-665-11V	Rod Gland Kit	1-3/8		224.21
HN5-665-14	Rod Gland Kit	1-3/4		227.32
HN5-665-14V	Rod Gland Kit	1-3/4		255.06
HN5-665-16	Rod Gland Kit	2		236.69
HN5-665-16V	Rod Gland Kit	2		266.82
HN5-665-20	Rod Gland Kit	2-1/2		256.87
HN5-665-20V	Rod Gland Kit	2-1/2		286.96
HN5-665-24	Rod Gland Kit	3		386.97
HN5-665-24V	Rod Gland Kit	3		436.09
HN5-665-28	Rod Gland Kit	3-1/2		453.05
HN5-665-28V	Rod Gland Kit	3-1/2		493.52
HN5-665-32	Rod Gland Kit	4		502.13
HN5-665-32V	Rod Gland Kit	4		561.28
HN5-665-36	Rod Gland Kit	4-1/2		710.72
HN5-665-36A	Rod Gland Kit	4-1/2		710.72
HN5-665-36AV	Rod Gland Kit	4-1/2		767.30
HN5-665-36V	Rod Gland Kit	4-1/2		767.30
HN5-665-40	Rod Gland Kit	5		855.20
HN5-665-40V	Rod Gland Kit	5		928.70
HN5-665-44	Rod Gland Kit	5-1/2		928.01
HN5-665-44V	Rod Gland Kit	5-1/2		1029.88
HN5-681-08	Rod Gland Kit	1		54.32
HN5-681-11	Rod Gland Kit	1-3/8		62.79
HN5-681-14	Rod Gland Kit	1-3/4		78.63
HN5-681-24	Rod Gland Kit	3		220.62
HN5-B-650-05	Gland Kit	5/8		124.98

HYDRO-LINE

HYDRO-LINE®

Sales Part Number	Description	Rod Size	Bore Size	List Price
HN5-B-650-08	Gland Kit	1		\$133.92
HN5-B-650-11	Gland Kit	1-3/8		157.65
HN5-B-650-14	Gland Kit	1-3/4		181.91
HN5-B-650-16	Gland Kit	2		188.10
HN5-B-650-20	Gland Kit	2-1/2		236.96
HN5-B-650-20-NH	Bushing	2-1/2		117.85
HN5-B-650-24	Gland Kit	3		252.44
HN5-B-650-28	Gland Kit	3-1/2		447.98
HN5-B-650-32	Gland Kit	4		481.52
HN5-B-650-36	Gland Kit	4-1/2		663.43
HN5-B-650-36A	Gland Kit	4-1/2		521.96
HN5-B-650-40	Gland Kit	5		728.91
HN5-B-650-44	Gland Kit	5-1/2		760.96
HN5-B-650-S24	Bushing	3		197.85
HN5-B-681-20	Gland Kit	2-1/2		152.35
HN5-B-681-28	Gland Kit	3-1/2		461.23
HS-C124-03	Tube End Seals		1-1/2	11.48
HS-C124-04	Tube End Seals		2	13.94
HS-C124-05	Tube End Seals		2-1/2	16.15
HS-C124-065	Tube End Seals		3-1/4	20.42
HS-C124-08	Tube End Seals		4	21.96
HS-C124-10	Tube End Seals		5	24.16
HS-C124-12	Tube End Seals		6	24.95
HS-C124-STRIP	Tube End Seals		0.068cs x 0.140w PTFE strip (sold by the foot)	17.27
HS-C221-02	Tube End Seals		1	8.70
HS-C221-03	Tube End Seals		1-1/2	9.33
HS-C221-04	Tube End Seals		2	10.16
HS-C221-05	Tube End Seals		2-1/2	11.21
HS-C221-065	Tube End Seals		3-1/4	12.10
HS-C221-08	Tube End Seals		4	13.66
HS-C221-10	Tube End Seals		5	18.48
HS-C221-12	Tube End Seals		6	23.78
HS-C221-STRIP	Tube End Seals		0.063cs x 0.093w PTFE strip (sold by the foot)	11.11
HS-C255-03	Tube End Seals		1-1/2	12.32
HS-C255-04	Tube End Seals		2	14.24
HS-C255-05	Tube End Seals		2-1/2	15.03
HS-C255-065	Tube End Seals		3-1/4	15.48
HS-C255-08	Tube End Seals		4	17.57
HS-C255-10	Tube End Seals		5	18.70
HS-C255-12	Tube End Seals		6	19.51
HS-C255-14	Tube End Seals		7	20.42
HS-C255-16	Tube End Seals		8	23.77
HS-C408-1	Captive Cushion Adjustment Seal	0.204 ID x 0.072 CS		6.38
HS-C408-1V	Captive Cushion Adjustment Seal	0.204 ID x 0.072 CS		7.68
HS-C408-2	Captive Cushion Adjustment Seal	0.298 ID x 0.072 CS		6.38
HS-C408-2V	Captive Cushion Adjustment Seal	0.298 ID x 0.072 CS		7.68

HYDRO-LINE

Sales Part Number	Description	Rod Size	Bore Size	List Price
HS-C408-3	Captive Cushion Adjustment Seal	0.420 ID x 0.072 CS		\$6.38
HS-C408-3V	Captive Cushion Adjustment Seal	0.420 ID x 0.072 CS		7.68
HS-C408-4	Captive Cushion Adjustment Seal	0.542 ID x 0.072 CS		6.38
HS-C408-4V	Captive Cushion Adjustment Seal	0.542 ID x 0.072 CS		7.68
HS-E304-03	Tube End Seals		1-1/2	2.71
HS-E304-04	Tube End Seals		2	2.84
HS-E304-065	Tube End Seals		3-1/4	3.16
HS-E304-08	Tube End Seals		4	3.57
HSKA5-512-03	Piston Kit		1-1/2	28.83
HSKA5-512-03V	Piston Kit		1-1/2	58.30
HSKA5-512-04	Piston Kit		2	30.71
HSKA5-512-04V	Piston Kit		2	60.41
HSKA5-512-05	Piston Kit		2-1/2	33.07
HSKA5-512-05V	Piston Kit		2-1/2	71.24
HSKA5-512-065	Piston Kit		3-1/4	35.67
HSKA5-512-065V	Piston Kit		3-1/4	80.34
HSKA5-512-08	Piston Kit		4	41.54
HSKA5-512-08V	Piston Kit		4	87.32
HSKA5-512-10	Piston Kit		5	51.90
HSKA5-512-10V	Piston Kit		5	102.41
HSKA5-512-12	Piston Kit		6	61.11
HSKA5-512-12V	Piston Kit		6	167.58
HSKE2-512-04	Piston Kit		2	29.24
HSKE2-512-065	Piston Kit		3-1/4	28.11
HSKE2-512-08	Piston Kit		4	49.04
HSKE2-660-05	Rod Kit	5/8		4.86
HSKE2-660-08	Rod Kit	1		5.40
HSKE2-660-11	Rod Kit	1-3/8		6.01
HSKN2-511-03	Piston Ring Kit		1-1/2	91.34
HSKN2-511-04	Piston Ring Kit		2	104.13
HSKN2-511-05	Piston Ring Kit		2-1/2	105.81
HSKN2-511-065	Piston Ring Kit		3-1/4	111.70
HSKN2-511-08	Piston Ring Kit		4	125.75
HSKN2-511-10	Piston Ring Kit		5	153.02
HSKN2-511-12	Piston Ring Kit		6	161.60
HSKN2-511-14	Piston Ring Kit		7	181.01
HSKN2-511-16	Piston Ring Kit		8	222.55
HSKN2-511-20	Piston Ring Kit		10	464.78
HSKN2-511-24	Piston Ring Kit		12	628.71
HSKN2-512-03	Piston Kit		1-1/2	36.79
HSKN2-512-03V	Piston Kit		1-1/2	71.60
HSKN2-512-04	Piston Kit		2	44.59
HSKN2-512-04V	Piston Kit		2	94.01
HSKN2-512-05	Piston Kit		2-1/2	48.13
HSKN2-512-05V	Piston Kit		2-1/2	99.94
HSKN2-512-065	Piston Kit		3-1/4	46.26
HSKN2-512-065V	Piston Kit		3-1/4	113.59

HYDRO-LINE

HYDRO-LINE®

Sales Part Number	Description	Rod Size	Bore Size	List Price
HSKN2-512-08	Piston Kit		4	\$55.58
HSKN2-512-08V	Piston Kit		4	134.36
HSKN2-512-10	Piston Kit		5	71.40
HSKN2-512-10V	Piston Kit		5	148.79
HSKN2-512-12	Piston Kit		6	80.24
HSKN2-512-12V	Piston Kit		6	197.67
HSKN2-512-14	Piston Kit		7	122.52
HSKN2-512-14V	Piston Kit		7	291.18
HSKN2-512-16	Piston Kit		8	155.16
HSKN2-512-16V	Piston Kit		8	321.65
HSKN2-512-20	Piston Kit		10	174.48
HSKN2-512-20V	Piston Kit		10	598.38
HSKN2-512-24	Piston Kit		12	274.26
HSKN2-512-24V	Piston Kit		12	887.20
HSKN25-511-03	Piston Kit		1-1/2	116.70
HSKN25-511-04	Piston Kit		2	130.59
HSKN25-511-05	Piston Kit		2-1/2	133.07
HSKN25-511-065	Piston Kit		3-1/4	139.82
HSKN25-511-08	Piston Kit		4	157.61
HSKN25-511-10	Piston Kit		5	187.22
HSKN25-511-12	Piston Kit		6	206.91
HSKN25-511-14	Piston Kit		7	206.70
HSKN25-511-16	Piston Kit		8	251.70
HSKN25-512-03	Piston Kit		1-1/2	43.24
HSKN25-512-03V	Piston Kit		1-1/2	85.12
HSKN25-512-04	Piston Kit		2	48.51
HSKN25-512-04V	Piston Kit		2	123.65
HSKN25-512-05	Piston Kit		2-1/2	50.59
HSKN25-512-05V	Piston Kit		2-1/2	133.29
HSKN25-512-065	Piston Kit		3-1/4	66.07
HSKN25-512-065V	Piston Kit		3-1/4	141.70
HSKN25-512-08	Piston Kit		4	77.77
HSKN25-512-08V	Piston Kit		4	174.95
HSKN25-512-10	Piston Kit		5	101.87
HSKN25-512-10V	Piston Kit		5	192.63
HSKN25-512-12	Piston Kit		6	115.69
HSKN25-512-12V	Piston Kit		6	285.58
HSKN25-512-14	Piston Kit		7	137.08
HSKN25-512-14V	Piston Kit		7	342.92
HSKN25-512-16	Piston Kit		8	193.67
HSKN25-512-16V	Piston Kit		8	284.17
HSKN25-665-05	Rod Kit	5/8		12.70
HSKN25-665-05V	Rod Kit	5/8		44.04
HSKN25-665-08	Rod Kit	1		13.21
HSKN25-665-08V	Rod Kit	1		45.82
HSKN25-665-11	Rod Kit	1-3/8		16.86
HSKN25-665-11V	Rod Kit	1-3/8		58.19
HSKN25-665-14	Rod Kit	1-3/4		21.30
HSKN25-665-14V	Rod Kit	1-3/4		65.32
HSKN25-665-16	Rod Kit	2		23.80

HYDRO-LINE

HYDRO-LINE®

Sales Part Number	Description	Rod Size	Bore Size	List Price
HSKN25-665-16V	Rod Kit	2		\$69.22
HSKN25-665-20	Rod Kit	2-1/2		28.47
HSKN25-665-20V	Rod Kit	2-1/2		78.76
HSKN2-661-05	Rod Kit	5/8		10.99
HSKN2-661-05V	Rod Kit	5/8		40.69
HSKN2-661-08	Rod Kit	1		10.91
HSKN2-661-08V	Rod Kit	1		43.20
HSKN2-661-11	Rod Kit	1-3/8		13.31
HSKN2-661-11V	Rod Kit	1-3/8		48.13
HSKN2-661-14	Rod Kit	1-3/4		15.64
HSKN2-661-14V	Rod Kit	1-3/4		56.43
HSKN2-661-16	Rod Kit	2		17.31
HSKN2-661-16V	Rod Kit	2		59.59
HSKN2-661-20	Rod Kit	2-1/2		25.98
HSKN2-661-20V	Rod Kit	2-1/2		66.50
HSKN5-511-03	Piston Ring Kit		1-1/2	90.74
HSKN5-511-04	Piston Ring Kit		2	98.90
HSKN5-511-05	Piston Ring Kit		2-1/2	99.70
HSKN5-511-065	Piston Ring Kit		3-1/4	102.76
HSKN5-511-08	Piston Ring Kit		4	117.75
HSKN5-511-10	Piston Ring Kit		5	143.35
HSKN5-511-12	Piston Ring Kit		6	161.60
HSKN5-511-14	Piston Ring Kit		7	190.97
HSKN5-511-16	Piston Ring Kit		8	242.34
HSKN5-512-03	Piston Kit		1-1/2	28.59
HSKN5-512-03V	Piston Kit		1-1/2	71.01
HSKN5-512-04	Piston Kit		2	39.32
HSKN5-512-04V	Piston Kit		2	98.27
HSKN5-512-05	Piston Kit		2-1/2	42.07
HSKN5-512-05V	Piston Kit		2-1/2	99.94
HSKN5-512-065	Piston Kit		3-1/4	46.26
HSKN5-512-065V	Piston Kit		3-1/4	104.38
HSKN5-512-08	Piston Kit		4	55.45
HSKN5-512-08V	Piston Kit		4	135.10
HSKN5-512-10	Piston Kit		5	67.61
HSKN5-512-10V	Piston Kit		5	158.64
HSKN5-512-12	Piston Kit		6	70.35
HSKN5-512-12V	Piston Kit		6	187.82
HSKN5-512-14	Piston Kit		7	133.07
HSKN5-512-14V	Piston Kit		7	268.05
HSKN5-512-16	Piston Kit		8	186.67
HSKN5-512-16V	Piston Kit		8	301.81
HSKN5-512-G-08	Piston Kit		4	62.30
HSKN5-512-P-05	Piston Kit		2-1/2	47.90
HSKN5-512-P-16	Piston Kit		8	239.85
HSKN5-517-065	Piston Kit		3-1/4	51.47
HSKN5-660-04	Rod Kit	1/2		8.95
HSKN5-660-04V	Rod Kit	1/2		32.95
HSKN5-660-05	Rod Kit	5/8		10.96
HSKN5-660-05V	Rod Kit	5/8		39.32

HYDRO-LINE

HYDRO-LINE®

Sales Part Number	Description	Rod Size	Bore Size	List Price
HSKN5-660-08	Rod Kit	1		\$11.13
HSKN5-660-08V	Rod Kit	1		41.31
HSKN5-660-11	Rod Kit	1-3/8		13.96
HSKN5-660-11V	Rod Kit	1-3/8		53.99
HSKN5-660-14	Rod Kit	1-3/4		17.60
HSKN5-660-14V	Rod Kit	1-3/4		55.99
HSKN5-660-16	Rod Kit	2		19.72
HSKN5-660-16V	Rod Kit	2		59.66
HSKN5-660-20	Rod Kit	2-1/2		21.69
HSKN5-660-20V	Rod Kit	2-1/2		67.32
HSKN5-660-24	Rod Kit	3		22.56
HSKN5-660-24V	Rod Kit	3		87.79
HSKN5-660-28	Rod Kit	3-1/2		24.74
HSKN5-660-28V	Rod Kit	3-1/2		102.57
HSKN5-660-32	Rod Kit	4		31.05
HSKN5-660-32V	Rod Kit	4		107.19
HSKN5-660-36	Rod Kit	4-1/2		33.44
HSKN5-660-36V	Rod Kit	4-1/2		113.15
HSKN5-660-40	Rod Kit	5		49.51
HSKN5-660-40V	Rod Kit	5		136.02
HSKN5-660-44	Rod Kit	5-1/2		67.50
HSKN5-660-44V	Rod Kit	5-1/2		153.61
HSKN5-660-P-04	Rod Kit	1/2	1	15.52
HSKN5-660-P-04V	Rod Kit	1/2	1	62.24
HSKN5-660-P-05AV	Rod Kit	5/8	1	62.65
HSKN5-660-P-05V	Rod Kit	5/8	1.5 & UP	66.15
HSKN5-660-P-08	Rod Kit	1	2 & UP	17.24
HSKN5-660-P-08V	Rod Kit	1	2 & UP	75.09
HSKN5-660-P-11	Rod Kit	1-3/8		10.02
HSKN5-660-P-11V	Rod Kit	1-3/8	2.5 & UP	92.01
HSKN5-660-P-14	Rod Kit	1-3/4		21.40
HSKN5-660-P-14V	Rod Kit	1-3/4		101.38
HSKN5-660-P-16V	Rod Kit	2		105.59
HSKN5-660-P-20	Rod Kit	2-1/2		32.20
HSKN5-660-P-20V	Rod Kit	2-1/2		153.96
HSKN5-660-P-24	Rod Kit	3		17.85
HSKN5-660-P-24V	Rod Kit	3		177.32
HSKN5-660-P-28	Rod Kit	3-1/2		39.60
HSKN5-660-P-28V	Rod Kit	3-1/2		197.98
HSKN5-660-P-32V	Rod Kit	4		239.11
HSKN5-660-P-36V	Rod Kit	4-1/2		256.46
HSKN5-660-P-40V	Rod Kit	5		262.90
HSKN5-660-P-44V	Rod Kit	5-1/2		268.78
HSKN5-681-05	Rod Kit	5/8		18.45
HSKN5-681-05A	Rod Kit	5/8	1	16.11
HSKN5-681-08	Rod Kit	1		20.23
HSKN5-681-11	Rod Kit	1-3/8		22.56
HSKN5-681-14	Rod Kit	1-3/4		24.13
HSKN5-681-16	Rod Kit	2		31.42
HSKN5-681-20	Rod Kit	2-1/2		44.23

HYDRO-LINE

Sales Part Number	Description	Rod Size	Bore Size	List Price
HSKN5-681-24	Rod Kit	3		\$48.22
HSKN5-681-28	Rod Kit	3-1/2		52.82
HSKN5-681-32	Rod Kit	4		61.93
HSKN5-681-36	Rod Kit	4-1/2		81.36
HSKN5-681-40	Rod Kit	5		85.23
HSKN5-681-44	Rod Kit	5-1/2		101.41
HSKN5-681-S-16	Rod Kit	2		38.62
HSKN5-681-S-20	Rod Kit	2-1/2		40.98
HSKN5-681-S-28	Rod Kit	3-1/2		80.19
HSKN5-681-S-36	Rod Kit	4-1/2		52.67
HSKN5-B-681-28	Rod Kit	3-1/2		32.82
HSKR2-662-05A	Rod Kit	5/8	1	9.63
HSKR2-662-05AV	Rod Kit	5/8	1	40.61
HSKR2-662-08	Rod Kit	1	1.5,2,2.5	10.50
HSKR2-662-08V	Rod Kit	1	1.5,2,2.5	41.43
HSKR2-662-11	Rod Kit	1-3/8	2, 2.5	12.79
HSKR2-662-11V	Rod Kit	1-3/8	2, 2.5	53.39
HSKR2-662-14	Rod Kit	1-3/4	2.5	15.72
HSKR2-662-14V	Rod Kit	1-3/4	2.5	54.86
HSKR2-662-P-05AV	Rod Kit	5/8	1	62.64
HSKR2-662-P-08V	Rod Kit	1	1.5,2,2.5	75.71
HSKR2-662-P-11V	Rod Kit	1-3/8	2, 2.5	90.88
HSKR2-662-P-14V	Rod Kit	1-3/4	2.5	101.77
HSKR2-681-05A	Rod Kit	5/8	1	16.11
HSKR2-681-08	Rod Kit	1	1.5,2,2.5	20.00
HSKR2-681-11	Rod Kit	1-3/8	2, 2.5	20.23
HSKR2-681-14	Rod Kit	1-3/4	2.5	21.13
HSKR5-511-02	Piston Ring Kit		1	98.30
HSKR5-511-03	Piston Ring Kit		1-1/2	65.94
HSKR5-511-04	Piston Ring Kit		2	67.91
HSKR5-511-05	Piston Ring Kit		2-1/2	69.03
HSKR5-511-065	Piston Ring Kit		3-1/4	79.91
HSKR5-511-08	Piston Ring Kit		4	90.07
HSKR5-511-10	Piston Ring Kit		5	116.49
HSKR5-511-12	Piston Ring Kit		6	129.10
HSKR5-511-16	Piston Ring Kit		8	151.97
HSKR5-511-20	Piston Ring Kit		10	432.89
HSKR5-511-24	Piston Ring Kit		12	602.27
HSKR5-512-02	Piston Kit		1	29.50
HSKR5-512-02V	Piston Kit		1	62.99
HSKR5-512-03	Piston Kit		1-1/2	31.16
HSKR5-512-03V	Piston Kit		1-1/2	65.94
HSKR5-512-04	Piston Kit		2	34.10
HSKR5-512-04V	Piston Kit		2	93.04
HSKR5-512-05	Piston Kit		2-1/2	37.25
HSKR5-512-05V	Piston Kit		2-1/2	95.10
HSKR5-512-065	Piston Kit		3-1/4	41.31
HSKR5-512-065V	Piston Kit		3-1/4	99.52
HSKR5-512-08	Piston Kit		4	48.45
HSKR5-512-08V	Piston Kit		4	127.94

HYDRO-LINE

Sales Part Number	Description	Rod Size	Bore Size	List Price
HSKR5-512-10	Piston Kit		5	\$61.36
HSKR5-512-10V	Piston Kit		5	142.50
HSKR5-512-12	Piston Kit		6	68.48
HSKR5-512-12V	Piston Kit		6	185.96
HSKR5-512-16	Piston Kit		8	178.14
HSKR5-512-16V	Piston Kit		8	352.99
HSKR5-512-20	Piston Kit		10	174.48
HSKR5-512-20V	Piston Kit		10	598.38
HSKR5-512-24	Piston Kit		12	274.26
HSKR5-512-24V	Piston Kit		12	857.20
HSKR5-512-28	Piston Kit		14	394.52
HSKR5-512-28V	Piston Kit		14	935.24
HSKX-B-29427-20	Rod Kit	2-1/2		18.90
HSKX-B-31300	Piston Kit		12.030	324.72
HSKX-B-54030	Piston Kit		3	23.45
HSKX-C-53238-36	Rod Kit	4-1/2		137.12
HSKX-C-53238-56	Rod Kit	7		246.67
HSKX-E-49904	Rod Kit	7		285.90

MILLER

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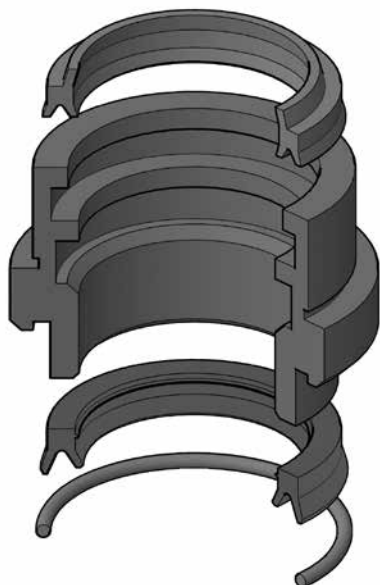
ORTMAN

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Star Bushing Rod Kit, Iron Gland

A, J, & H Cylinders

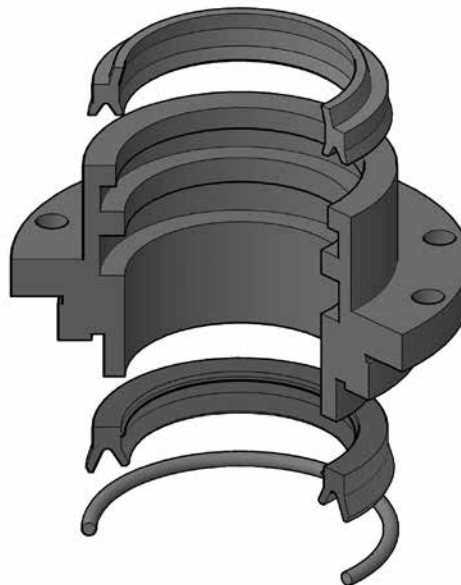
1998 Style Retainer Held



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

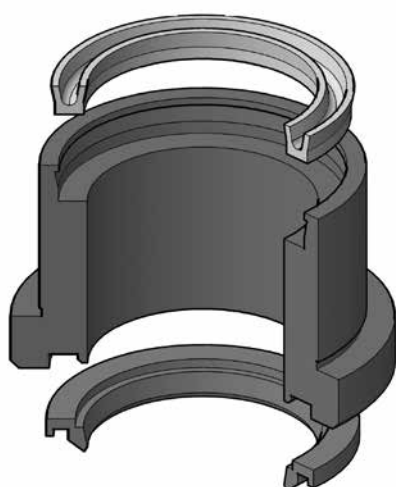
Rod Dia.	Kit #	List Price	Kit #	List Price
5/8"	MLR-051-KR074-063	182.27	MLR-051-KR075-063	\$244.83
1"	MLR-051-KR074-100	226.79	MLR-051-KR075-100	295.30
1-3/8"	MLR-051-KR074-138	267.37	MLR-051-KR075-138	346.12
1-3/4"	—		MLR-051-KR075-175	375.09
2"	—		MLR-051-KR075-200	441.82
2-1/2"	—		MLR-051-KR075-250	606.62
3"	—		MLR-051-KR075-300	777.05
3-1/2"	—		MLR-051-KR075-350	1042.20
4"	—		MLR-051-KR075-400	1120.52
4-1/2"	—		MLR-051-KR075-450	1205.97
5"	—		MLR-051-KR075-500	1605.12
5-1/2"	—		MLR-051-KR075-550	2245.79

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

Pneumatic Rod Kit, Iron Gland

A & C Cylinders

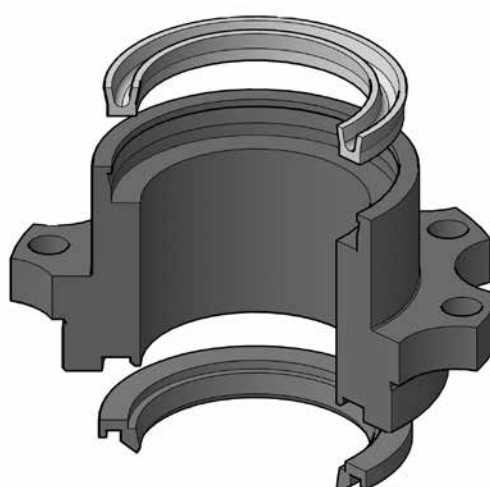
Retainer Held



Kit Includes:

- 1 PTFE Wiper
- 1 Retainer Held Iron Gland
- 1 NBR Hat Packing

Bolted



Kit Includes:

- 1 PTFE Wiper
- 1 Bolted Iron Gland
- 1 NBR Hat Packing

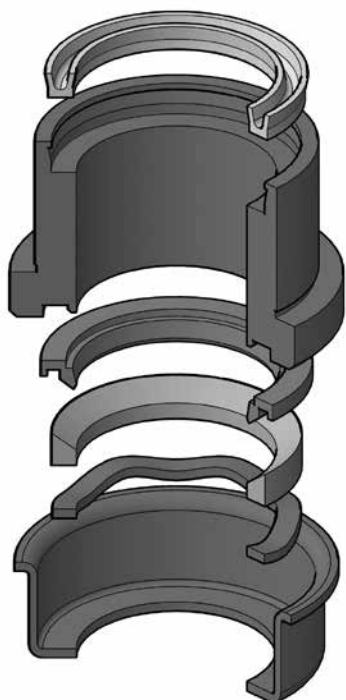
Rod Dia.	Kit #	List Price	Kit #	List Price
5/8"	MLR-051-KR010-063	\$80.09	MLR-051-KR011-063	\$136.04
1"	MLR-051-KR010-100	107.79	MLR-051-KR011-100	157.37
1-3/8"	MLR-051-KR010-138	122.46	MLR-051-KR011-138	170.35
1-3/4"	MLR-051-KR010-175	179.87	MLR-051-KR011-175	267.92
2"	MLR-051-KR010-200	210.39	MLR-051-KR011-200	303.47
2-1/2"	MLR-051-KR010-250	302.74	MLR-051-KR011-250	390.24
3"	MLR-051-KR010-300	395.10	MLR-051-KR011-300	468.34

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

Hydraulic Rod Kit, Iron Gland

AJ, J, M, & H Cylinders

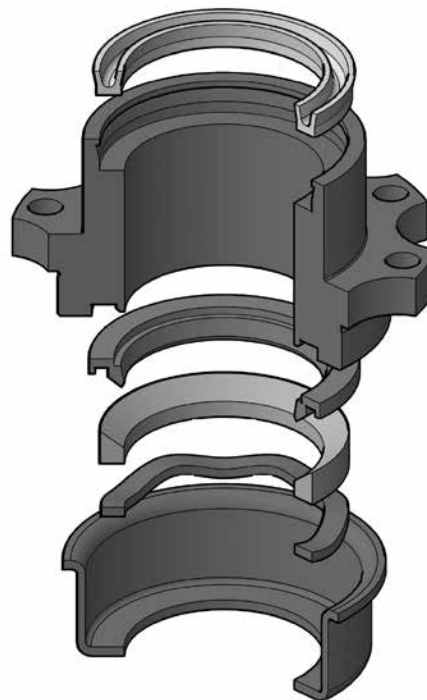
Retainer Held



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

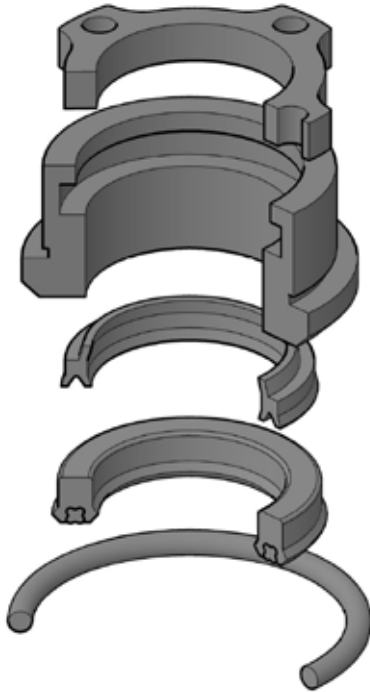
Rod Dia.	Kit #	List Price	Kit #	List Price
5/8"	MLR-051-KR014-063	\$143.50	MLR-051-KR015-063	\$177.36
1"	MLR-051-KR014-100	176.86	MLR-051-KR015-100	213.50
1-3/8"	MLR-051-KR014-138	217.41	MLR-051-KR015-138	264.37
1-3/4"	MLR-051-KR014-175	294.55	MLR-051-KR015-175	336.47
2"	MLR-051-KR014-200	355.41	MLR-051-KR015-200	395.55
2-1/2"	MLR-051-KR014-250	437.98	MLR-051-KR015-250	511.46
3"	MLR-051-KR014-300	578.54	MLR-051-KR015-300	638.69

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

Rod Kit, Iron Gland

HV Cylinders - Retainer Held

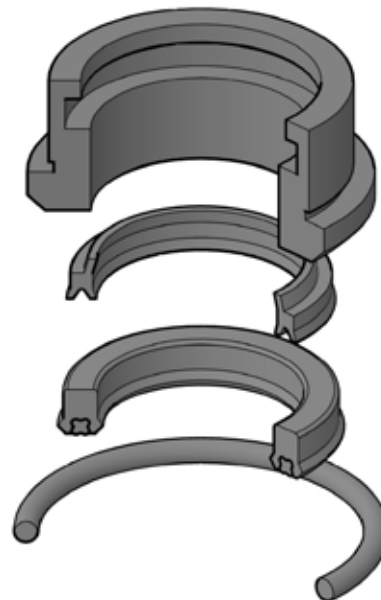
With Retainer



Kit Includes:

- 1 NBR Wiper
- 1 Retainer Held Gland
- 1 Retainer Ring
- 1 URE Rod Seal
- 1 NBR O-ring

Without Retainer



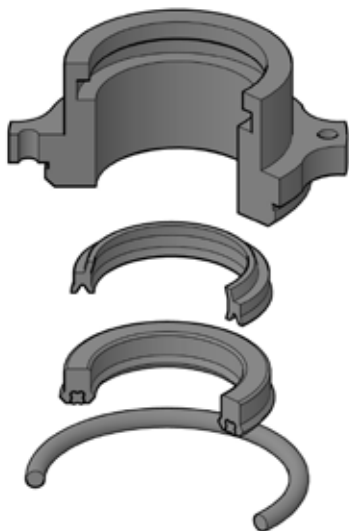
Kit Includes:

- 1 NBR Wiper
- 1 Retainer Held Gland
- 1 URE Rod Seal
- 1 NBR O-ring

Rod Dia.	Kit #	List Price	Kit #	List Price
5/8"	MLR-051-KR065-063	\$107.74	MLR-051-KR064-063	\$45.99
1"	MLR-051-KR065-100	105.80	MLR-051-KR064-100	53.95
1-3/8"	MLR-051-KR065-138	140.43	MLR-051-KR064-138	67.20

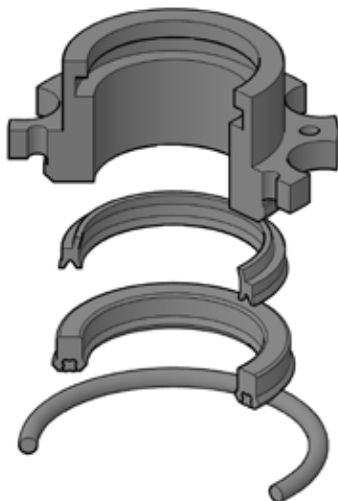
Rod Kit, Iron Gland

HV Cylinders-Bolted



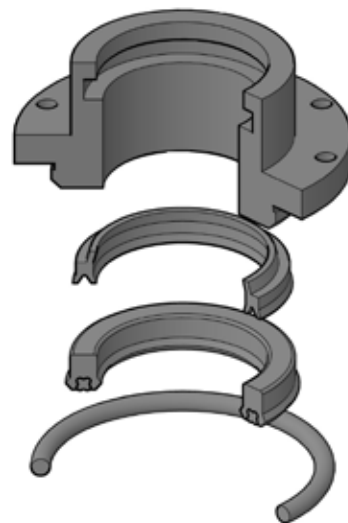
Kit Includes:

- 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 #	List Price	Kit #	List Price	Kit #	List Price
1-3/4"	MLR-051-KR065-175	\$160.57	—	—	—	—
2"	—	—	MLR-051-KR065-200	\$172.33	—	—
2-1/2"	—	—	—	—	MLR-051-KR065-250	\$201.40
3	—	—	—	—	MLR-051-KR065-300	230.95
3-1/2"	—	—	—	—	MLR-051-KR065-350	264.32

Star Rod Kits

A, J, & H Cylinders Star Kits

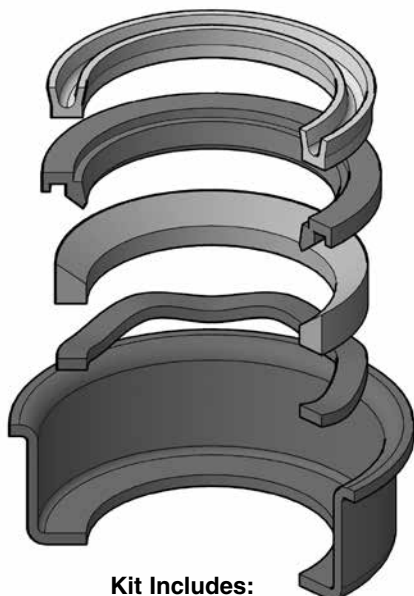
Rod Dia.	Kit #	List Price
5/8"	MLR-051-KR080-063	\$21.66
1"	MLR-051-KR080-100	38.27
1-3/8"	MLR-051-KR080-138	50.84
1-3/4"	MLR-051-KR080-175	63.02
2"	MLR-051-KR080-200	70.74
2-1/2"	MLR-051-KR080-250	84.46
3"	MLR-051-KR080-300	152.12
3-1/2"	MLR-051-KR080-350	162.99
4"	MLR-051-KR080-400	183.11
4-1/2"	MLR-051-KR080-450	206.98
5"	MLR-051-KR080-500	221.25
5-1/2"	MLR-051-KR080-550	345.77

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



Hydraulic Rod Seal Cage Assembly

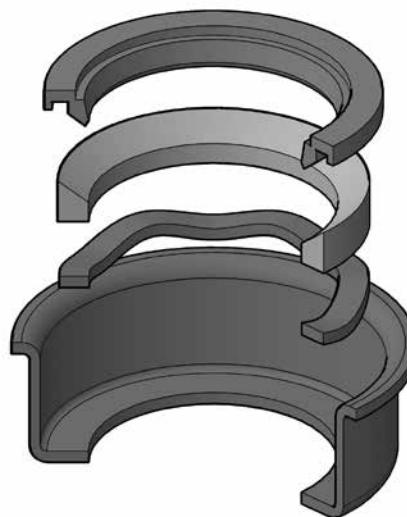
AJ, J, M, & H Cylinders



Kit Includes:

- 1 PTFE Wiper
- 1 PTFE Hat Packing
- 1 Bronze Pressure Ring
- 1 Wave Spring
- 1 Cage

Boosters & Tandems



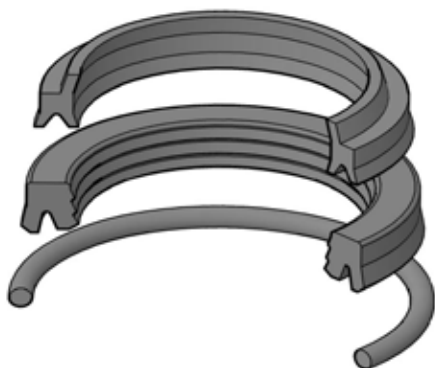
Kit Includes:

- 1 PTFE Hat Packing
- 1 Bronze Pressure Ring
- 1 Wave Spring
- 1 Cage
- No Wiper

Rod Dia.	Kit #	List Price	Kit #	List Price
5/8"	MLR-051-KR012-063	\$80.77	MLR-051-KR024-063	\$73.24
1"	MLR-051-KR012-100	96.68	MLR-051-KR024-100	87.75
1-3/8"	MLR-051-KR012-138	119.73	MLR-051-KR024-138	108.45
1-3/4"	MLR-051-KR012-175	145.43	MLR-051-KR024-175	131.70
2"	MLR-051-KR012-200	169.80	MLR-051-KR024-200	154.11
2-1/2"	MLR-051-KR012-250	211.39	MLR-051-KR024-250	184.10
3"	MLR-051-KR012-300	283.02	MLR-051-KR024-300	252.55

Miller Rod Kits For JV Cylinders

Urethane



Kit Includes:

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

Fluorocarbon



Kit Includes:

- 1 Fluorocarbon Wiper
- 1 Multi-lip Fluorocarbon U-seal
- 1 PTFE Back-Up Ring
- 1 Fluorocarbon O-ring

Rod Dia.	Kit #	List Price	Kit #	List Price
1/2"	MLR-JV-KR300-50	\$18.48	MLR-JV-KR400-50	\$23.72
5/8"	MLR-JV-KR300-63	18.78	MLR-JV-KR400-63	26.93
1"	MLR-JV-KR300-100	19.67	MLR-JV-KR400-100	27.01
1-3/8"	MLR-JV-KR300-138	20.17	MLR-JV-KR400-138	28.09
1-3/4"	MLR-JV-KR300-175	24.19	MLR-JV-KR400-175	29.75
2"	MLR-JV-KR300-200	28.32	MLR-JV-KR400-200	32.1
2-1/2"	MLR-JV-KR300-250	30.48	MLR-JV-KR400-250	38.12
3"	MLR-JV-KR300-300	40.38	MLR-JV-KR400-300	44.9
3-1/2"	MLR-JV-KR300-350	45.33	MLR-JV-KR400-350	58.49
4"	MLR-JV-KR300-400	53.67	MLR-JV-KR400-400	85.38
4-1/2"	MLR-JV-KR300-450	57.75		
5"	MLR-JV-KR300-500	64.19		
5-1/2"	MLR-JV-KR300-550	68.01		

Rod Kits

Miller Rod Kits For 2002 HV2 Cylinders

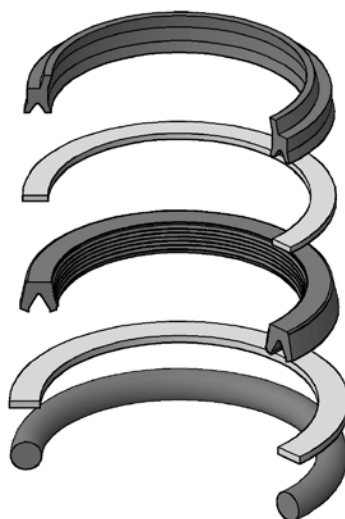
Nitrile / Urethane



Kit Includes:

- 1 URE Multi-Lip U-Seal
- 1 XNBR Wiper
- 1 NBR O-Ring
- 1 NBR Back-Up

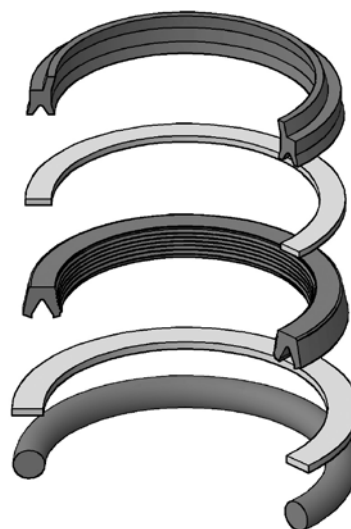
Fluorocarbon



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:

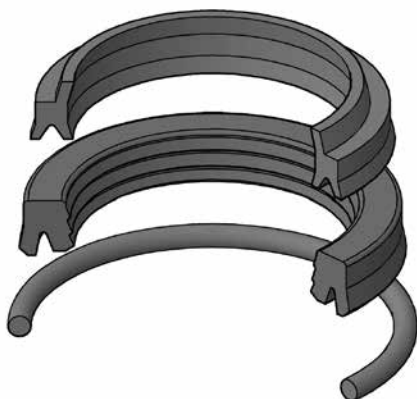
- 1 NBR Multi-Lip U-Seal
- 1 XNBR Wiper
- 1 NBR O-Ring
- 1 NBR Back-Up
- 1 PTFE Back-Up

Rod Dia.	Kit #	List Price	Kit #	List Price	Kit #	List Price
5/8"	MLR-HV2-KR300-63	29.48	MLR-HV2-KR400-63	21.82	MLR-HV2-KR600-63	\$21.04
1"	MLR-HV2-KR300-100	19.96	MLR-HV2-KR400-100	21.23	MLR-HV2-KR600-100	21.99
1-3/8"	MLR-HV2-KR300-138	22.61	MLR-HV2-KR400-138	37.83	MLR-HV2-KR600-138	25.39
1-3/4"	MLR-HV2-KR300-175	24.28	MLR-HV2-KR400-175	41.02	MLR-HV2-KR600-175	29.07
2"	MLR-HV2-KR300-200	25.89	MLR-HV2-KR400-200	47.73	MLR-HV2-KR600-200	32.00
2-1/2"	MLR-HV2-KR300-250	31.83	MLR-HV2-KR400-250	55.01	MLR-HV2-KR600-250	35.23
3"	MLR-HV2-KR300-300	36.69	MLR-HV2-KR400-300	59.88	MLR-HV2-KR600-300	39.15
3-1/2"	MLR-HV2-KR300-350	55.98	MLR-HV2-KR400-350	64.89	MLR-HV2-KR600-350	43.91
4"	MLR-HV2-KR300-400	63.39	MLR-HV2-KR400-400	70.51	MLR-HV2-KR600-400	49.34

Miller Rod Kits For 2004 HV2 Cylinders

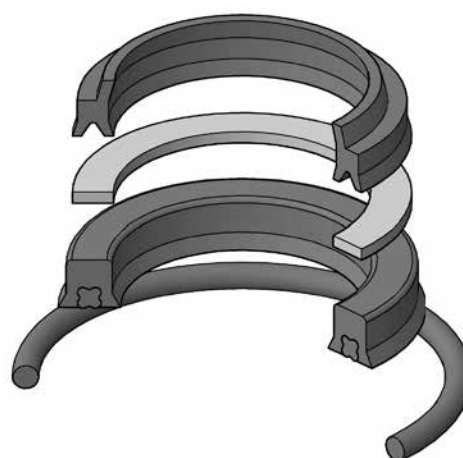
Urethane / Buna

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 #	List Price	Kit #	List Price
5/8"	MLR-HV2-KR310-63	\$15.95	MLR-HV2-KR410-63	\$19.98
1"	MLR-HV2-KR310-100	19.96	MLR-HV2-KR410-100	26.03
1-3/8"	MLR-HV2-KR310-138	22.61	MLR-HV2-KR410-138	38.37
1-3/4"	MLR-HV2-KR310-175	24.28	MLR-HV2-KR410-175	41.27
2"	MLR-HV2-KR310-200	25.89	MLR-HV2-KR410-200	98.84
2-1/2"	MLR-HV2-KR310-250	31.83	MLR-HV2-KR410-250	71.19
3"	MLR-HV2-KR310-300	36.69	MLR-HV2-KR410-300	84.48
3-1/2"	MLR-HV2-KR310-350	50.79	MLR-HV2-KR410-350	90.15
4"	MLR-HV2-KR310-400	60.40	MLR-HV2-KR410-400	103.71
5"	—		MLR-HV2-KR410-500	148.13
5-1/2"	—		MLR-HV2-KR410-550	178.06

Hat Packing

For Hydraulic Service PTFE



For Air & Water Service Nitrile



Rod Dia.	Part #	List Price	Part #	List Price
5/8"	MLR-051-RS007-063	\$11.09	MLR-051-RS014-063	\$12.25
1"	MLR-051-RS007-100	14.25	MLR-051-RS014-100	20.06
1-3/8"	MLR-051-RS007-138	16.78	MLR-051-RS014-138	12.51
1-3/4"	MLR-051-RS007-175	17.67	MLR-051-RS014-175	15.79
2"	MLR-051-RS007-200	18.28	MLR-051-RS014-200	21.96
2-1/2"	MLR-051-RS007-250	23.43	MLR-051-RS014-250	25.65
3"	MLR-051-RS007-300	32.62	MLR-051-RS014-300	28.27
3-1/2"	MLR-051-RS007-350	41.59	MLR-051-RS014-350	40.55
4"	MLR-051-RS007-400	44.75	MLR-051-RS014-400	48.23
4-1/2"	MLR-051-RS007-450	52.10	MLR-051-RS014-450	55.66
5"	MLR-051-RS007-500	56.04	MLR-051-RS014-550	70.67
5-1/2"	MLR-051-RS007-550	65.81	—	—
7"	MLR-051-RS007-700	59.31	—	—
8"	MLR-051-RS007-800	62.10	—	—
9"	MLR-051-RS007-900	62.14	—	—
10"	MLR-051-RS007-1000	121.60	—	—

PTFE Wiper “U” Style

A, C, J, M, & H Cylinders

Rod Dia.	Part #	List Price
5/8"	MLR-051-WP001-063	\$8.00
1"	MLR-051-WP001-100	9.48
1-3/8"	MLR-051-WP001-138	11.97
1-3/4"	MLR-051-WP001-175	14.56
2"	MLR-051-WP001-200	16.60
2-1/2"	MLR-051-WP001-250	28.89
3"	MLR-051-WP001-300	32.25
3-1/2"	MLR-051-WP001-350	36.44
4"	MLR-051-WP001-400	41.38
4-1/2"	MLR-051-WP001-450	54.17
5"	MLR-051-WP001-500	58.36
5-1/2"	MLR-051-WP001-550	59.36
7"	MLR-051-WP001-700	58.01
8"	MLR-051-WP001-800	51.49
9"	MLR-051-WP001-900	65.36
10"	MLR-051-WP001-1000	96.45

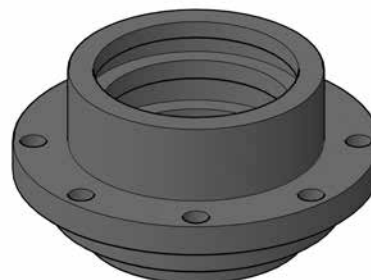


Iron Gland

Star Bushing Style A, J, & H Cylinders

Retainer Held

Bolted



Rod Dia.	Part #	List Price	Part #	List Price
5/8"	MLR-050-BU100-063	\$124.56	MLR-050-BU101-063	\$152.53
1"	MLR-050-BU100-100	152.45	MLR-050-BU101-100	186.96
1-3/8"	MLR-050-BU100-138	156.39	MLR-050-BU101-138	229.69
1-3/4"	—		MLR-050-BU101-175	231.15
2"	—		MLR-050-BU101-200	285.50
2-1/2"	—		MLR-050-BU101-250	399.88
3"	—		MLR-050-BU101-300	443.99
3-1/2"	—		MLR-050-BU101-350	216.56
4"	—		MLR-050-BU101-400	768.60
4-1/2"	—		MLR-050-BU101-450	831.66
5"	—		MLR-050-BU101-500	945.01
5-1/2"	—		MLR-050-BU101-550	1035.62

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

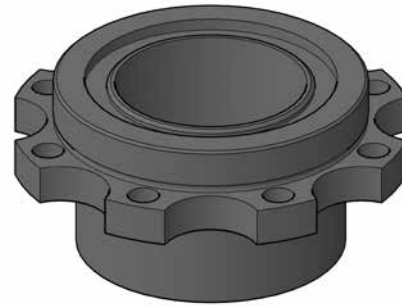
Iron Gland

A, C, J, M, & H Cylinders

Retainer Held



Bolted



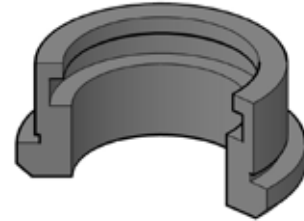
Rod Dia.	Part #	List Price	Part #	List Price
5/8"	MLR-050-BU022-063	\$65.77	MLR-050-BU024-063	\$144.40
1"	MLR-050-BU022-100	82.47	MLR-050-BU024-100	173.94
1-3/8"	MLR-050-BU022-138	100.05	MLR-050-BU024-138	223.81
1-3/4"	MLR-050-BU022-175	143.29	MLR-050-BU024-175	226.35
2"	MLR-050-BU022-200	178.41	MLR-050-BU024-200	254.06
2-1/2"	MLR-050-BU022-250	287.74	MLR-050-BU024-250	293.21
3"	MLR-050-BU022-300	289.47	MLR-050-BU024-300	347.85

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

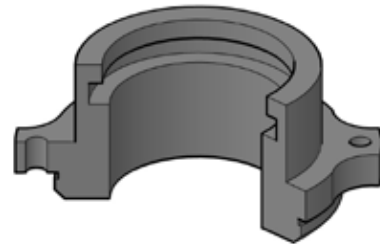
Iron Gland

HV Cylinders

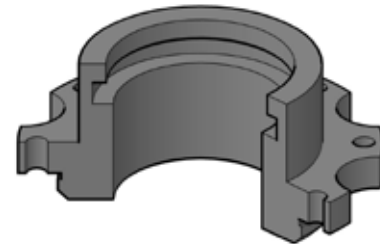
Rod Dia.	Kit #	List Price
5/8"	MLR-RG065-063	\$40.59
1"	MLR-RG065-100	47.28
1-3/8"	MLR-RG065-138	59.10



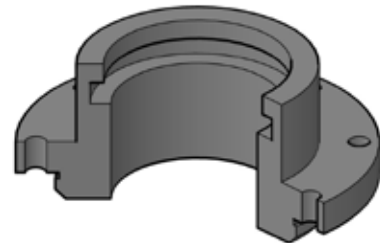
Rod Dia.	Kit #	List Price
1-3/4"	MLR-RG065-175	\$152.11



Rod Dia.	Kit #	List Price
2"	MLR-RG065-200	\$164.51



Rod Dia.	Kit #	List Price
2-1/2"	MLR-RG065-250	\$191.66
3"	MLR-RG065-300	219.87
3-1/2"	MLR-RG065-350	245.41



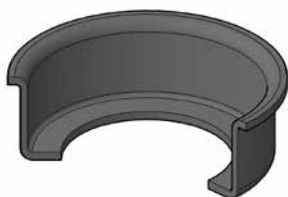
A, C, J, M, H & HV Cylinders

Rod Dia.	Part #	List Price
5/8"	MLR-050-RT005-063	\$41.50
1"	MLR-050-RT005-100	46.29
1-3/8"	MLR-050-RT005-138	59.15



Caged Assembly Components

Rod Seal Cage



Wave Spring



Bronze Pressure Ring



Rod Dia.	Part #	List Price	Part #	List Price	Part #	List Price
5/8"	MLR-051-CG001-063	\$26.71	MLR-051-WS004-063	\$19.22	MLR-051-PG001-063	\$25.64
1"	MLR-051-CG001-100	32.63	MLR-051-WS004-100	19.22	MLR-051-PG001-100	32.01
1-3/8"	MLR-051-CG001-138	34.33	MLR-051-WS004-138	19.22	MLR-051-PG001-138	47.55
1-3/4"	MLR-051-CG001-175	36.26	MLR-051-WS004-175	19.22	MLR-051-PG001-175	64.59
2"	MLR-051-CG001-200	39.76	MLR-051-WS003-200	23.37	MLR-051-PG001-200	75.52
2-1/2"	MLR-051-CG001-250	44.98	MLR-051-WS003-250	24.59	MLR-051-PG001-250	94.13
3"	MLR-051-CG001-300	62.75	MLR-051-WS003-300	29.47	MLR-051-PG001-300	131.82

Piston Kits

A Series Cylinders

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)

J Series Cylinders

January '81 to Current



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)

H Series Cylinders

January '82 to Current



Kit Includes:

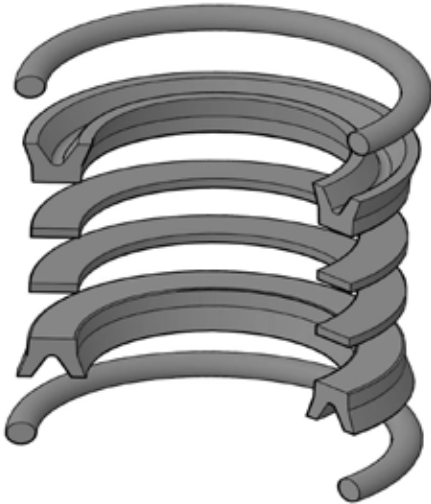
2 PTFE U-seals
1 T-Shape Wear Ring
2 PTFE Tube End Seals
(wear ring material varies
with size)

Bore Dia.	Kit #	List Price	Kit #	List Price	Kit #	List Price
1-1/2"	MLR-090-KB001-150	\$85.49	MLR-091-KB001-150	\$98.42	MLR-171-KB001-150	\$134.87
2"	MLR-090-KB001-200	109.55	MLR-091-KB001-200	98.97	MLR-171-KB001-200	156.23
2-1/2"	MLR-090-KB001-250	118.83	MLR-091-KB001-250	115.26	MLR-171-KB001-250	187.80
3-1/4"	MLR-090-KB001-325	134.69	MLR-091-KB001-325	151.18	MLR-171-KB001-325	223.30
4"	MLR-090-KB001-400	155.79	MLR-091-KB001-400	166.33	MLR-171-KB001-400	308.32
5"	MLR-090-KB001-500	165.54	MLR-091-KB001-500	234.06	MLR-171-KB001-500	358.16
6"	MLR-090-KB001-600	199.38	MLR-091-KB001-600	250.09	MLR-171-KB001-600	398.59
7"	MLR-090-KB001-700	211.11	MLR-091-KB001-700	257.70	MLR-171-KB001-700	561.74
8"	MLR-090-KB001-800	217.06	MLR-091-KB001-800	277.59	MLR-171-KB001-800	701.31
10"	MLR-090-KB001-1000	243.51	MLR-091-KB001-1000	320.47	MLR-171-KB001-1000	821.76
12"	MLR-090-KB001-1200	279.03	MLR-091-KB001-1200	395.27	MLR-171-KB001-1200	930.16

Piston Kits

Miller Piston Kits For JV Cylinders

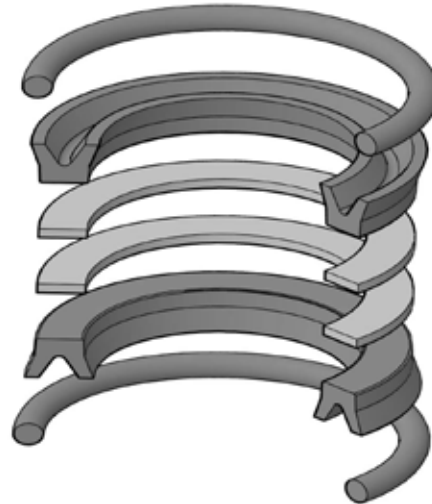
Nitrile



Kit Includes:

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

Fluorocarbon



Kit Includes:

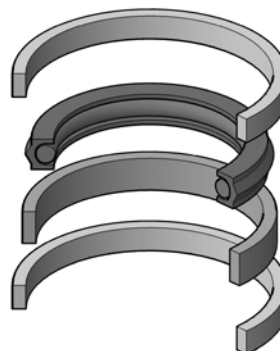
- 2 FKM O-ring Head Seals
- 2 FKM U-seals
- 2 PTFE Back-up Rings

Rod Dia.	Kit #	List Price	Kit #	List Price
1"	MLR-JV-KB100-100	\$5.74	MLR-JV-KB200-100	\$21.83
1-1/2"	MLR-JV-KB100-150	6.79	MLR-JV-KB200-150	30.79
2"	MLR-JV-KB100-200	7.98	MLR-JV-KB200-200	35.14
2-1/2"	MLR-JV-KB100-250	9.22	MLR-JV-KB200-250	49.3
3-1/4"	MLR-JV-KB100-325	11.47	MLR-JV-KB200-325	57.52
4"	MLR-JV-KB100-400	14.33	MLR-JV-KB200-400	61.99
5"	MLR-JV-KB100-500	17.56	MLR-JV-KB200-500	78.67
6"	MLR-JV-KB100-600	22.84	MLR-JV-KB200-600	104.55
8"	MLR-JV-KB100-800	66.2	MLR-JV-KB200-800	226.62

Piston Kits

HV Series Cylinders Urethane

Bore Dia.	(URE) Kit #	List Price
1-1/2"	MLR-181-KB001-150	\$59.58
2"	MLR-181-KB001-200	62.11
2-1/2"	MLR-181-KB001-250	64.91
3-1/4"	MLR-181-KB001-325	71.90
4"	MLR-181-KB001-400	77.35
5"	MLR-181-KB001-500	91.58
6"	MLR-181-KB001-600	106.00
7"	MLR-181-KB001-700	107.35
8"	MLR-181-KB001-800	153.11

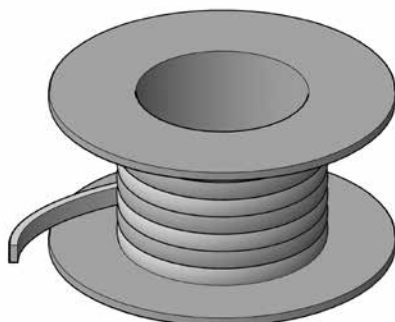


Kit Includes:

- 1 URE Piston Seal
- 1 Wear Ring
- 2 PTFE Tube End Seals

PTFE Tube Seal Cord

A, C, J, M, & H Cylinders

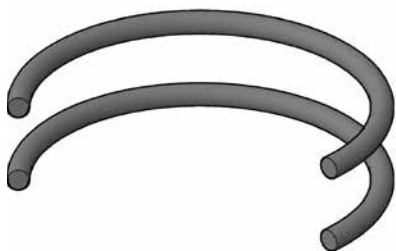


Part #	Radial Wall	Width	List Price
MLR-008-SH001-30	.030	.070	129.48
Includes: 30' spool of PTFE Head Seal			
MLR-SH1-STRIP	.030	.070	8.56

Piston Kits

Tube End Seal Kits For JV Cylinders

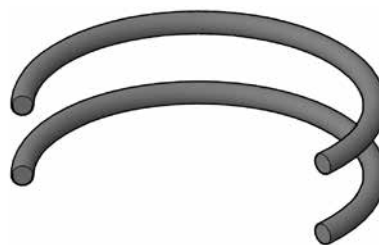
Nitrile



Kit Includes:

2 NBR O-ring Head Seals

Fluorocarbon



Kit Includes:

2 FC O-ring Head Seals

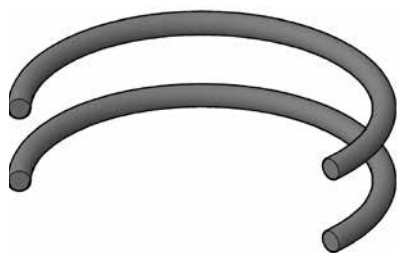
Rod Dia.	Kit #	List Price	Kit #	List Price
1"	MLR-JV-ES100-100	\$8.94	MLR-JV-ES200-100	\$9.39
1-1/2"	MLR-JV-ES100-150	7.00	MLR-JV-ES200-150	9.59
2"	MLR-JV-ES100-200	7.36	MLR-JV-ES200-200	16.39
2-1/2"	MLR-JV-ES100-250	7.67	MLR-JV-ES200-250	20.46
3-1/4"	MLR-JV-ES100-325	8.11	MLR-JV-ES200-325	24.87
4"	MLR-JV-ES100-400	8.47	MLR-JV-ES200-400	31.11
5"	MLR-JV-ES100-500	9.75	MLR-JV-ES200-500	44.91
6"	MLR-JV-ES100-600	9.75	MLR-JV-ES200-600	46.97
8"	MLR-JV-ES100-800	10.14	MLR-JV-ES200-800	48.00

*Note: 1" bore kits also include 2 ptfe tube end seals.

Piston Kits

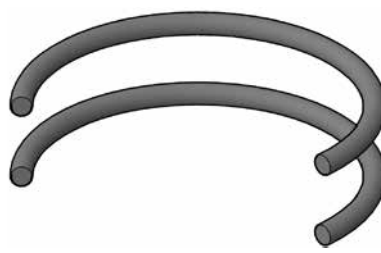
Tube End Seal Kits For HV2 Cylinders

Nitrile



Kit Includes:
2 NBR O-ring Head Seals

Fluorocarbon



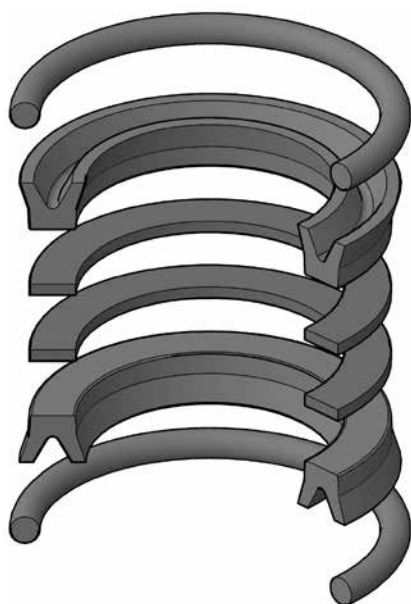
Kit Includes:
2 FC O-ring Head Seals

Bore Dia.	Part #	List Price	Part #	List Price
1-1/2"	MLR-HV2-ES100-150	\$7.35	MLR-HV2-ES200-150	\$10.07
2"	MLR-HV2-ES100-200	7.73	MLR-HV2-ES200-200	17.21
2-1/2"	MLR-HV2-ES100-250	8.05	MLR-HV2-ES200-250	21.48
3-1/4"	MLR-HV2-ES100-325	8.52	MLR-HV2-ES200-325	26.11
4"	MLR-HV2-ES100-400	8.89	MLR-HV2-ES200-400	32.67
5"	MLR-HV2-ES100-500	10.24	MLR-HV2-ES200-500	47.16
6"	MLR-HV2-ES100-600	10.24	MLR-HV2-ES200-600	49.32

Piston Kits

Lip Seal Kits For HV2 Cylinders

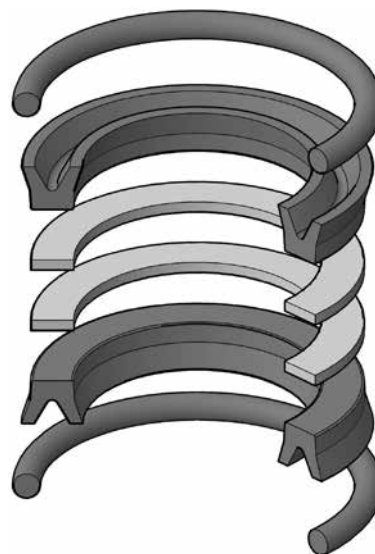
Nitrile



Kit Includes:

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

Fluorocarbon



Kit Includes:

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

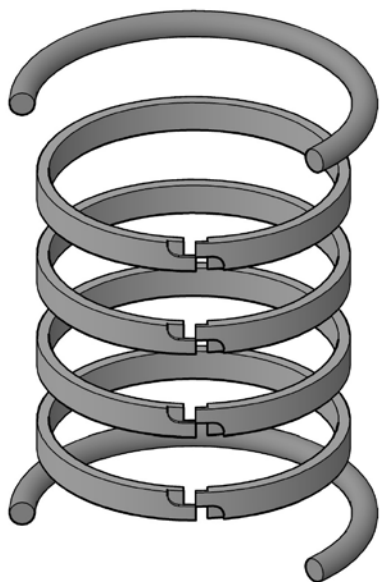
Bore Dia.	Part #	List Price	Part #	List Price
1-1/2"	MLR-HV2-KB100-150	\$11.83	MLR-HV2-KB200-150	\$53.85
2"	MLR-HV2-KB100-200	13.93	MLR-HV2-KB200-200	61.47
2-1/2"	MLR-HV2-KB100-250	16.16	MLR-HV2-KB200-250	86.26
3-1/4"	MLR-HV2-KB100-325	20.03	MLR-HV2-KB200-325	100.67
4"	MLR-HV2-KB100-400	26.33	MLR-HV2-KB200-400	108.51
5"	MLR-HV2-KB100-500	30.71	MLR-HV2-KB200-500	137.71
6"	MLR-HV2-KB100-600	30.71	MLR-HV2-KB200-600	183.04

Piston Kits

Piston Rings Kits For JV Cylinders

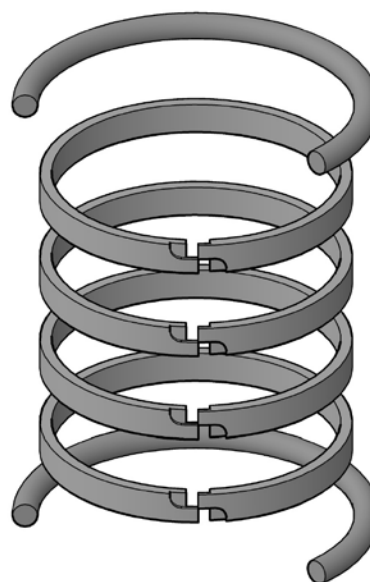
NBR

Fluorocarbon



Kit Includes:

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



Kit Includes:

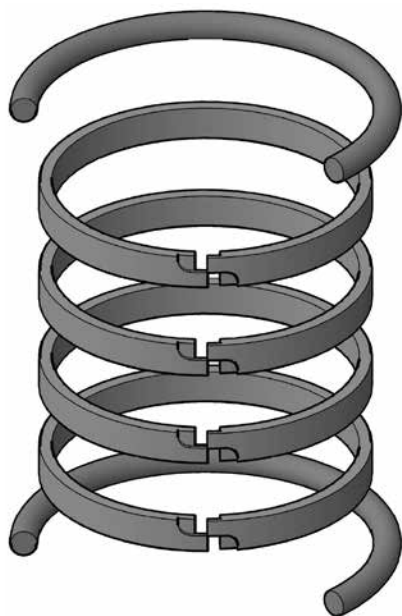
2 FKM O-Ring Head Seals
4 Cast Iron Piston Rings
2 PTFE Head Seals (1" Bore ONLY)

Bore Dia.	Part #	List Price	Part #	List Price
1"	MLR-JV-KB300-100	\$50.49	MLR-JV-KB400-100	\$51.31
1-1/2"	MLR-JV-KB300-150	28.23	MLR-JV-KB400-150	32.71
2"	MLR-JV-KB300-200	30.12	MLR-JV-KB400-200	33.92
2-1/2"	MLR-JV-KB300-250	30.47	MLR-JV-KB400-250	34.38
3-1/4"	MLR-JV-KB300-325	32.94	MLR-JV-KB400-325	40.97
4"	MLR-JV-KB300-400	33.92	MLR-JV-KB400-400	41.74
5"	MLR-JV-KB300-500	44.68	MLR-JV-KB400-500	59.18
6"	MLR-JV-KB300-600	67.17	MLR-JV-KB400-600	71.63
8"	MLR-JV-KB300-800	114.69	MLR-JV-KB400-800	122.38

Piston Kits

Piston Rings Kits For HV2 Cylinders

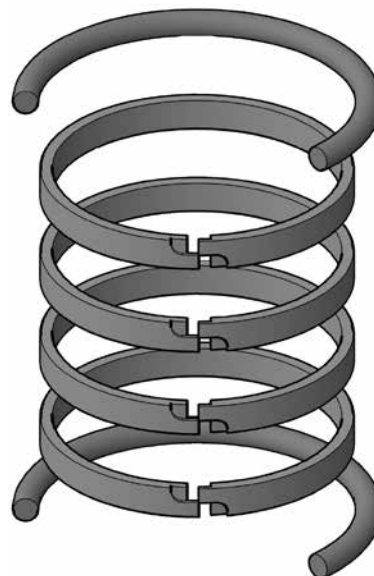
Nitrile



Kit Includes:

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

Fluorocarbon



Kit Includes:

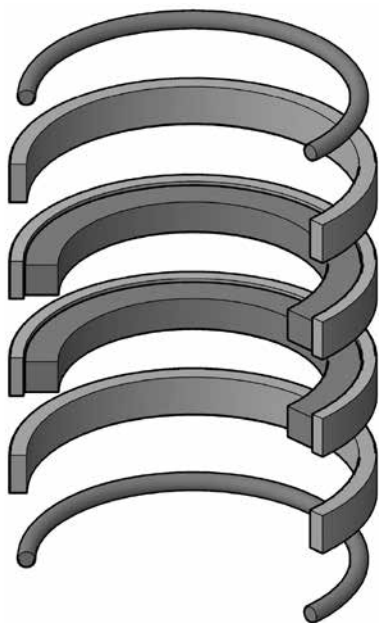
2 FC O-ring Head Seals
4 Cast Iron Piston Rings

Bore Dia.	Part #	List Price	Part #	List Price
1-1/2"	MLR-HV2-KB300-150	\$49.08	MLR-HV2-KB400-150	\$56.85
2"	MLR-HV2-KB300-200	52.36	MLR-HV2-KB400-200	58.92
2-1/2"	MLR-HV2-KB300-250	52.95	MLR-HV2-KB400-250	59.75
3-1/4"	MLR-HV2-KB300-325	57.26	MLR-HV2-KB400-325	71.18
4"	MLR-HV2-KB300-400	58.94	MLR-HV2-KB400-400	72.53
5"	MLR-HV2-KB300-500	77.64	MLR-HV2-KB400-500	102.85
6"	MLR-HV2-KB300-600	116.71	MLR-HV2-KB400-600	124.47

Piston Kits

High Load Kits For HV2 Cylinders

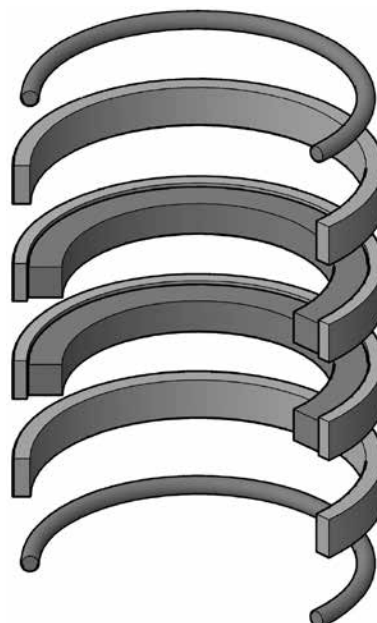
Nitrile



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

Rod Dia.	Kit #	List Price	Kit #	List Price
1-1/2"	MLR-HV2-KB500-150	\$26.78	MLR-HV2-KB600-150	\$46.43
2"	MLR-HV2-KB500-200	34.76	MLR-HV2-KB600-200	52.57
2-1/2"	MLR-HV2-KB500-250	33.51	MLR-HV2-KB600-250	56.51
3-1/4"	MLR-HV2-KB500-325	44.25	MLR-HV2-KB600-325	124.47
4"	MLR-HV2-KB500-400	38.54	MLR-HV2-KB600-400	137.73
5"	MLR-HV2-KB500-500	43.24	MLR-HV2-KB600-500	152.41
6"	MLR-HV2-KB500-600	79.33	MLR-HV2-KB600-600	237.65

Piston U-seals

All Current Style Cylinders

Buna-N



PTFE



Bore Dia.	Part #	List Price	Part #	List Price
1-1/2"	MLR-052-PS025-150	\$19.57	MLR-052-PS017-150	\$18.23
2"	MLR-052-PS025-200	20.30	MLR-052-PS017-200	18.35
2-1/2"	MLR-052-PS025-250	21.51	MLR-052-PS017-250	21.65
3-1/4"	MLR-052-PS025-325	23.35	MLR-052-PS017-325	28.28
4"	MLR-052-PS025-400	23.16	MLR-052-PS017-400	37.50
5"	MLR-052-PS025-500	27.58	MLR-052-PS017-500	56.24
6"	MLR-052-PS025-600	35.33	MLR-052-PS017-600	64.29
7"	MLR-052-PS025-700	22.07	MLR-052-PS017-700	78.11
8"	MLR-052-PS016-800	26.04	MLR-052-PS017-800	90.99
10"	MLR-052-PS025-1000	81.65	MLR-052-PS017-1000	143.70
12"	MLR-052-PS016-1200	61.73	MLR-052-PS017-1200	192.71
14"	MLR-052-PS025-1400	158.54	MLR-052-PS017-1400	198.16
16"	MLR-052-PS025-1600	322.89	MLR-052-PS017-1600	209.72

Wear Rings

Air Service PTFE



Hydraulic Service Acetal



Hydraulic Service Bronze



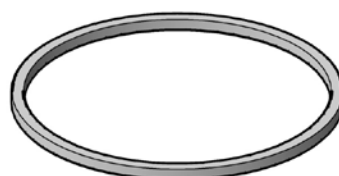
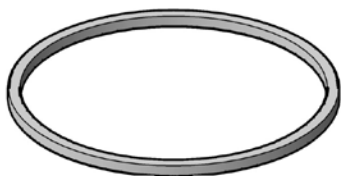
Bore Dia.	Part #	List Price	Part #	List Price	Part #	List Price
1-1/2"	MLR-052-WR005-150-25	\$32.05	MLR-052-WR009-150-25	\$25.62	—	—
2"	MLR-052-WR005-200-25	33.74	MLR-052-WR009-200-25	29.51	—	—
2"	—	—	MLR-052-WR009-200-31	29.97	—	—
2-1/2"	MLR-052-WR005-250-25	35.61	MLR-052-WR009-250-25	36.31	—	—
2-1/2"	—	—	MLR-052-WR009-250-38	38.54	—	—
3-1/4"	MLR-052-WR005-325-25	47.20	MLR-052-WR009-325-25	49.69	—	—
3-1/4"	—	—	MLR-052-WR009-325-50	55.14	—	—
4"	MLR-052-WR005-400-25	58.88	MLR-052-WR009-400-25	57.67	—	—
4"	—	—	MLR-052-WR009-400-63	77.95	—	—
5"	MLR-052-WR005-500-25	73.92	—	—	—	—
5"	—	—	MLR-052-WR009-500-75	154.99	—	—
6"	MLR-052-WR005-600-25	88.38	—	—	—	—
6"	—	—	MLR-052-WR009-600-75	200.75	—	—
7"	MLR-052-WR005-700-38	60.36	—	—	—	—
7"	—	—	—	—	MLR-052-WR008-700-75	\$206.63
8"	MLR-052-WR005-800-38	85.52	—	—	—	—
8"	—	—	—	—	MLR-052-WR008-800-125	276.65
10"	MLR-052-WR005-1000-38	90.56	—	—	—	—
10"	—	—	—	—	MLR-052-WR008-1000-125	322.77
12"	MLR-052-WR005-1200-38	114.04	—	—	—	—
12"	—	—	—	—	MLR-052-WR008-1200-125	353.35
16"	MLR-052-WR005-1600-50	177.61	—	—	—	—
18"	MLR-052-WR005-1800-50	183.73	—	—	—	—
20"	MLR-052-WR005-2000-50	213.13	—	—	—	—

Tube End Seals

Continuous PTFE

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

H & ER6000



Bore Dia.	Part #	List Price	Part #	List Price
1-1/2"	MLR-090-ES009-150	\$9.71	MLR-170-ES010-150	\$14.92
2"	MLR-090-ES009-200	17.71	MLR-170-ES010-200	21.12
2-1/2"	MLR-090-ES009-250	17.78	MLR-170-ES010-250	27.41
3-1/4"	MLR-090-ES009-325	17.93	MLR-170-ES010-325	28.56
4"	MLR-090-ES009-400	26.54	MLR-170-ES010-400	34.17
5"	MLR-090-ES009-500	33.42	MLR-170-ES010-500	40.95
6"	MLR-090-ES009-600	41.63	MLR-170-ES010-600	47.39
7"	MLR-090-ES009-700	52.27	MLR-170-ES010-700	53.79
8"	MLR-090-ES009-800	65.06	MLR-170-ES010-800	67.36
10"	MLR-090-ES009-1000	77.60	MLR-170-ES010-1000	78.20
12"	MLR-090-ES009-1200	86.37	MLR-170-ES010-1200	87.14
14"	MLR-090-ES009-1400	85.73	—	

Various Kits

Kit #	Bore	List Price
MLR-150-KB001-325	3-1/4"	\$244.98
MLR-150-KB001-500	5"	412.06

Kit Includes:

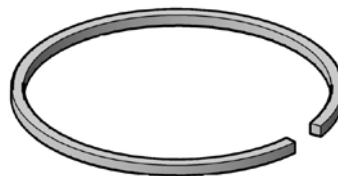
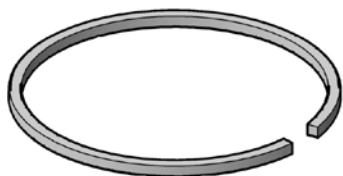
2 Leather Piston Cups
2 PTFE Tube End Seals
1 PTFE Follower Seal

Tube End Seals

Strip PTFE

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

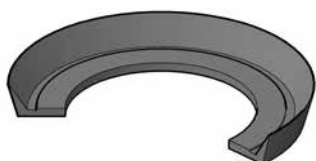
H & ER6000



Bore Dia.	Part #	List Price	Part #	List Price
1-1/2"	MLR-090-ES006-150	\$8.45	MLR-170-ES006-150	\$8.30
2"	MLR-090-ES006-200	14.73	MLR-170-ES006-200	15.13
2-1/2"	MLR-090-ES006-250	15.49	MLR-170-ES006-250	15.32
3-1/4"	MLR-090-ES006-325	17.92	MLR-170-ES006-325	15.81
4"	MLR-090-ES006-400	22.20	MLR-170-ES006-400	22.53
5"	MLR-090-ES006-500	23.79	MLR-170-ES006-500	23.72
6"	MLR-090-ES006-600	29.38	MLR-170-ES006-600	28.08
7"	MLR-090-ES006-700	28.98	MLR-170-ES006-700	28.98
8"	MLR-090-ES006-800	36.23	MLR-170-ES006-800	36.23
10"	MLR-090-ES006-1000	43.48	MLR-170-ES006-1000	43.48
12"	MLR-090-ES006-1200	50.73	MLR-170-ES006-1200	50.73
14"	MLR-090-ES006-1400	57.98	MLR-170-ES006-1400	57.98
18"	—		MLR-170-ES006-1800	72.48

Piston Cups

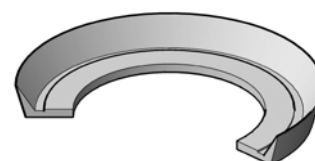
A, JW, & HW Cylinders From 1956-1977 Nitrile



J & H Cylinders From 1956-1977 Leather



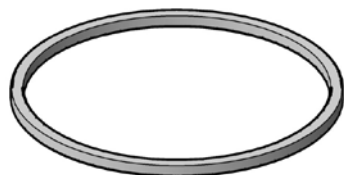
AJ, J, & H Cylinders From 1956-1977 PTFE



Bore Dia.	Part #	List Price	Part #	List Price	Part #	List Price
1-1/2"	MLR-052-PS001-150	\$13.16	MLR-052-PS003-150	\$21.08	MLR-052-PS006-150	\$29.47
2"	MLR-052-PS001-200	14.07	MLR-052-PS003-200	25.85	MLR-052-PS006-200	51.33
2-1/2"	MLR-052-PS001-250	19.23	MLR-052-PS003-250	34.64	MLR-052-PS006-250	54.10
3-1/4"	MLR-052-PS001-325	30.01	MLR-052-PS003-325	54.40	MLR-052-PS006-325	48.75
4"	MLR-052-PS001-400	35.01	MLR-052-PS003-400	66.99	MLR-052-PS006-400	60.21
5"	MLR-052-PS001-500	45.36	MLR-052-PS003-500	93.18	MLR-052-PS006-500	90.15
6"	MLR-052-PS001-600	51.58	MLR-052-PS003-600	126.30	MLR-052-PS006-600	108.96
7"	—	—	—	—	MLR-052-PS006-700	261.94
8"	MLR-052-PS001-800	58.94	—	—	MLR-052-PS006-800	147.43
10"	MLR-052-PS001-1000	70.41	—	—	MLR-052-PS006-1000	190.21
12"	MLR-052-PS001-1200	214.59	—	—	MLR-052-PS006-1200	253.69

PTFE Follower Seals

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



Part #	Bore		I.D.	Radial Wall	Width	List Price
	H	J				
MLR-052-FS001-44	1-1/2	1-1/2, 2, 2-1/2	7/16	0.070	0.070	\$10.56
MLR-052-FS001-75	2, 2-1/2	3-1/4, 4, 5	3/4	0.070	0.070	10.08
MLR-052-FS001-100	3-1/4	6, 7, 8	1	0.142	0.142	15.63
MLR-052-FS001-125	4	10	1-1/4	0.142	0.142	17.36
MLR-052-FS001-150	5	12	1-1/2	0.142	0.142	21.96
MLR-052-FS001-188	6	14	1-7/8	0.142	0.142	24.51
MLR-052-FS001-250	8	-	2-1/2	0.142	0.142	25.35

MILLER

MILLER

Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width	List Price
MLR-HV2-KR400-100	Rod Kit		1				\$21.23
MLR-HV2-KR600-138	Rod Kit		1-3/8				25.39
MLR-HV2-KR600-175	Rod Kit		1-3/4				29.07
MLR-HV2-KR600-200	Rod Kit		2				32.00
MLR-HV2-KR600-250	Rod Kit		2-1/2				35.23
MLR-HV2-KR600-300	Rod Kit		3				39.15
MLR-HV2-KR600-350	Rod Kit		3-1/2				43.91
MLR-HV2-KR600-400	Rod Kit		4				49.34
MLR-050-BU022-063	Iron Gland	5/8					65.77
MLR-050-BU022-100	Iron Gland	1					82.47
MLR-050-BU022-138	Iron Gland	1-3/8					100.05
MLR-050-BU022-175	Iron Gland	1-3/4					143.29
MLR-050-BU022-200	Iron Gland	2					178.41
MLR-050-BU022-250	Iron Gland	2-1/2					287.74
MLR-050-BU022-300	Iron Gland	3					289.47
MLR-050-BU024-063	Iron Gland	5/8					144.40
MLR-050-BU024-100	Iron Gland	1					173.94
MLR-050-BU024-138	Iron Gland	1-3/8					223.81
MLR-050-BU024-175	Iron Gland	1-3/4					226.35
MLR-050-BU024-200	Iron Gland	2					254.06
MLR-050-BU024-250	Iron Gland	2-1/2					293.21
MLR-050-BU024-300	Iron Gland	3					347.85
MLR-050-BU100-063	Iron Gland	5/8					124.56
MLR-050-BU100-100	Iron Gland	1					152.45
MLR-050-BU100-138	Iron Gland	1-3/8					156.39
MLR-050-BU101-063	Iron Gland	5/8					152.53
MLR-050-BU101-100	Iron Gland	1					186.96
MLR-050-BU101-138	Iron Gland	1-3/8					229.69
MLR-050-BU101-175	Iron Gland	1-3/4					231.15
MLR-050-BU101-200	Iron Gland	2					285.50
MLR-050-BU101-250	Iron Gland	2-1/2					399.88
MLR-050-BU101-300	Iron Gland	3					443.99
MLR-050-BU101-350	Iron Gland	3-1/2					216.56
MLR-050-BU101-400	Iron Gland	4					768.60
MLR-050-BU101-450	Iron Gland	4-1/2					831.66
MLR-050-BU101-500	Iron Gland	5					945.01
MLR-050-BU101-550	Iron Gland	5-1/2					1035.62
MLR-050-RT005-063	Retainer	5/8					41.50
MLR-050-RT005-100	Retainer	1					46.29
MLR-050-RT005-138	Retainer	1-3/8					59.15
MLR-051-CG001-063	Rod Seal Cage	5/8					26.71
MLR-051-CG001-100	Rod Seal Cage	1					32.63
MLR-051-CG001-138	Rod Seal Cage	1-3/8					34.33
MLR-051-CG001-175	Rod Seal Cage	1-3/4					36.26
MLR-051-CG001-200	Rod Seal Cage	2					39.76
MLR-051-CG001-250	Rod Seal Cage	2-1/2					44.98
MLR-051-CG001-300	Rod Seal Cage	3					62.75
MLR-051-KR010-063	Rod Kit - Gland	5/8					80.09
MLR-051-KR010-100	Rod Kit - Gland	1					107.79
MLR-051-KR010-138	Rod Kit - Gland	1-3/8					122.46

Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width	List Price
MLR-051-KR010-175	Rod Kit - Gland	1-3/4					\$179.87
MLR-051-KR010-200	Rod Kit - Gland	2					210.39
MLR-051-KR010-250	Rod Kit - Gland	2-1/2					302.74
MLR-051-KR010-300	Rod Kit - Gland	3					395.10
MLR-051-KR011-063	Rod Kit - Gland	5/8					136.04
MLR-051-KR011-100	Rod Kit - Gland	1					157.37
MLR-051-KR011-138	Rod Kit - Gland	1-3/8					170.35
MLR-051-KR011-175	Rod Kit - Gland	1-3/4					267.92
MLR-051-KR011-200	Rod Kit - Gland	2					303.47
MLR-051-KR011-250	Rod Kit - Gland	2-1/2					390.24
MLR-051-KR011-300	Rod Kit - Gland	3					468.34
MLR-051-KR012-063	Rod Kit - Cage Assembly	5/8					80.77
MLR-051-KR012-100	Rod Kit - Cage Assembly	1					96.68
MLR-051-KR012-138	Rod Kit - Cage Assembly	1-3/8					119.73
MLR-051-KR012-175	Rod Kit - Cage Assembly	1-3/4					145.43
MLR-051-KR012-200	Rod Kit - Cage Assembly	2					169.80
MLR-051-KR012-250	Rod Kit - Cage Assembly	2-1/2					211.39
MLR-051-KR012-300	Rod Kit - Cage Assembly	3					283.02
MLR-051-KR014-063	Rod Kit - Gland	5/8					143.50
MLR-051-KR014-100	Rod Kit - Gland	1					176.86
MLR-051-KR014-138	Rod Kit - Gland	1-3/8					217.41
MLR-051-KR014-175	Rod Kit - Gland	1-3/4					294.55
MLR-051-KR014-200	Rod Kit - Gland	2					355.41
MLR-051-KR014-250	Rod Kit - Gland	2-1/2					437.98
MLR-051-KR014-300	Rod Kit - Gland	3					578.54
MLR-051-KR015-063	Rod Kit - Gland	5/8					177.36
MLR-051-KR015-100	Rod Kit - Gland	1					213.50
MLR-051-KR015-138	Rod Kit - Gland	1-3/8					264.37
MLR-051-KR015-175	Rod Kit - Gland	1-3/4					336.47
MLR-051-KR015-200	Rod Kit - Gland	2					395.55
MLR-051-KR015-250	Rod Kit - Gland	2-1/2					511.46
MLR-051-KR015-300	Rod Kit - Gland	3					638.69
MLR-051-KR024-063	Rod Kit - Cage Assembly	5/8					73.24
MLR-051-KR024-100	Rod Kit - Cage Assembly	1					87.75
MLR-051-KR024-138	Rod Kit - Cage Assembly	1-3/8					108.45
MLR-051-KR024-175	Rod Kit - Cage Assembly	1-3/4					131.70
MLR-051-KR024-200	Rod Kit - Cage Assembly	2					154.11
MLR-051-KR024-250	Rod Kit - Cage Assembly	2-1/2					184.10
MLR-051-KR024-300	Rod Kit - Cage Assembly	3					252.55
MLR-051-KR064-063	Rod Kit - Gland	5/8					45.99
MLR-051-KR064-100	Rod Kit - Gland	1					53.95
MLR-051-KR064-138	Rod Kit - Gland	1-3/8					67.20
MLR-051-KR065-063	Rod Kit - Gland	5/8					107.74
MLR-051-KR065-100	Rod Kit - Gland	1					105.80
MLR-051-KR065-138	Rod Kit - Gland	1-3/8					140.43
MLR-051-KR065-175	Rod Kit - Gland	1-3/4					160.57
MLR-051-KR065-200	Rod Kit - Gland	2					172.33
MLR-051-KR065-250	Rod Kit - Gland	2-1/2					201.40
MLR-051-KR065-300	Rod Kit - Gland	3					230.95
MLR-051-KR065-350	Rod Kit - Gland	3-1/2					264.32

Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width	List Price
MLR-051-KR074-063	Rod Kit - Gland	5/8					\$182.27
MLR-051-KR074-100	Rod Kit - Gland	1					226.79
MLR-051-KR074-138	Rod Kit - Gland	1-3/8					267.37
MLR-051-KR075-063	Rod Kit - Gland	5/8					244.83
MLR-051-KR075-100	Rod Kit - Gland	1					295.30
MLR-051-KR075-138	Rod Kit - Gland	1-3/8					346.12
MLR-051-KR075-175	Rod Kit - Gland	1-3/4					375.09
MLR-051-KR075-200	Rod Kit - Gland	2					441.82
MLR-051-KR075-250	Rod Kit - Gland	2-1/2					606.62
MLR-051-KR075-300	Rod Kit - Gland	3					777.05
MLR-051-KR075-350	Rod Kit - Gland	3-1/2					1042.20
MLR-051-KR075-400	Rod Kit - Gland	4					1120.52
MLR-051-KR075-450	Rod Kit - Gland	4-1/2					1205.97
MLR-051-KR075-500	Rod Kit - Gland	5					1605.12
MLR-051-KR075-550	Rod Kit - Gland	5-1/2					2245.79
MLR-051-KR080-063	Rod Kit - Seal	5/8					21.66
MLR-051-KR080-100	Rod Kit - Seal	1					38.27
MLR-051-KR080-138	Rod Kit - Seal	1-3/8					50.84
MLR-051-KR080-175	Rod Kit - Seal	1-3/4					63.02
MLR-051-KR080-200	Rod Kit - Seal	2					70.74
MLR-051-KR080-250	Rod Kit - Seal	2-1/2					84.46
MLR-051-KR080-300	Rod Kit - Seal	3					152.12
MLR-051-KR080-350	Rod Kit - Seal	3-1/2					162.99
MLR-051-KR080-400	Rod Kit - Seal	4					183.11
MLR-051-KR080-450	Rod Kit - Seal	4-1/2					206.98
MLR-051-KR080-500	Rod Kit - Seal	5					221.25
MLR-051-KR080-550	Rod Kit - Seal	5-1/2					345.77
MLR-051-PG001-063	Bronze Pressure Ring	5/8					25.64
MLR-051-PG001-100	Bronze Pressure Ring	1					32.01
MLR-051-PG001-138	Bronze Pressure Ring	1-3/8					47.55
MLR-051-PG001-175	Bronze Pressure Ring	1-3/4					64.59
MLR-051-PG001-200	Bronze Pressure Ring	2					75.52
MLR-051-PG001-250	Bronze Pressure Ring	2-1/2					94.13
MLR-051-PG001-300	Bronze Pressure Ring	3					131.82
MLR-051-RS007-063	Hat Packing - PTFE	5/8					11.09
MLR-051-RS007-100	Hat Packing - PTFE	1					14.25
MLR-051-RS007-1000	Hat Packing - PTFE	10					121.60
MLR-051-RS007-138	Hat Packing - PTFE	1-3/8					16.78
MLR-051-RS007-175	Hat Packing - PTFE	1-3/4					17.67
MLR-051-RS007-200	Hat Packing - PTFE	2					18.28
MLR-051-RS007-250	Hat Packing - PTFE	2-1/2					23.43
MLR-051-RS007-300	Hat Packing - PTFE	3					32.62
MLR-051-RS007-350	Hat Packing - PTFE	3-1/2					41.59
MLR-051-RS007-400	Hat Packing - PTFE	4					44.75
MLR-051-RS007-450	Hat Packing - PTFE	4-1/2					52.10
MLR-051-RS007-500	Hat Packing - PTFE	5					56.04
MLR-051-RS007-550	Hat Packing - PTFE	5-1/2					65.81
MLR-051-RS007-700	Hat Packing - PTFE	7					59.31
MLR-051-RS007-800	Hat Packing - PTFE	8					62.10
MLR-051-RS007-900	Hat Packing - PTFE	9					62.14

Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width	List Price
MLR-051-RS014-063	Hat Packing - Nitrile	5/8					\$12.25
MLR-051-RS014-100	Hat Packing - Nitrile	1					20.06
MLR-051-RS014-138	Hat Packing - Nitrile	1-3/8					12.51
MLR-051-RS014-175	Hat Packing - Nitrile	1-3/4					15.79
MLR-051-RS014-200	Hat Packing - Nitrile	2					21.96
MLR-051-RS014-250	Hat Packing - Nitrile	2-1/2					25.65
MLR-051-RS014-300	Hat Packing - Nitrile	3					28.27
MLR-051-RS014-350	Hat Packing - Nitrile	3-1/2					40.55
MLR-051-RS014-400	Hat Packing - Nitrile	4					48.23
MLR-051-RS014-450	Hat Packing - Nitrile	4-1/2					55.66
MLR-051-RS014-550	Hat Packing - Nitrile	5-1/2					70.67
MLR-051-WP001-063	U' Style Wiper - PTFE	5/8					8.00
MLR-051-WP001-100	U' Style Wiper - PTFE	1					9.48
MLR-051-WP001-1000	U' Style Wiper - PTFE	10					96.45
MLR-051-WP001-138	U' Style Wiper - PTFE	1-3/8					11.97
MLR-051-WP001-175	U' Style Wiper - PTFE	1-3/4					14.56
MLR-051-WP001-200	U' Style Wiper - PTFE	2					16.60
MLR-051-WP001-250	U' Style Wiper - PTFE	2-1/2					28.89
MLR-051-WP001-300	U' Style Wiper - PTFE	3					32.25
MLR-051-WP001-350	U' Style Wiper - PTFE	3-1/2					36.44
MLR-051-WP001-400	U' Style Wiper - PTFE	4					41.38
MLR-051-WP001-450	U' Style Wiper - PTFE	4-1/2					54.17
MLR-051-WP001-500	U' Style Wiper - PTFE	5					58.36
MLR-051-WP001-550	U' Style Wiper - PTFE	5-1/2					59.36
MLR-051-WP001-700	U' Style Wiper - PTFE	7					58.01
MLR-051-WP001-800	U' Style Wiper - PTFE	8					51.49
MLR-051-WP001-900	U' Style Wiper - PTFE	9					65.36
MLR-051-WS003-200	Wave Spring	2					23.37
MLR-051-WS003-250	Wave Spring	2-1/2					24.59
MLR-051-WS003-300	Wave Spring	3					29.47
MLR-051-WS004-063	Wave Spring	5/8					19.22
MLR-051-WS004-100	Wave Spring	1					19.22
MLR-051-WS004-138	Wave Spring	1-3/8					19.22
MLR-051-WS004-175	Wave Spring	1-3/4					19.22
MLR-052-FS001-100	Follower Seal			1	0.142	0.142	15.63
MLR-052-FS001-125	Follower Seal			1-1/4	0.142	0.142	17.36
MLR-052-FS001-150	Follower Seal			1-1/2	0.142	0.142	21.96
MLR-052-FS001-188	Follower Seal			1-7/8	0.142	0.142	24.51
MLR-052-FS001-250	Follower Seal			2-1/2	0.142	0.142	25.35
MLR-052-FS001-44	Follower Seal			7/16	0.070	0.070	10.56
MLR-052-FS001-75	Follower Seal			3/4	0.070	0.070	10.08
MLR-052-PS001-1000	Piston Cup - Nitrile		10				70.41
MLR-052-PS001-1200	Piston Cup - Nitrile		12				214.59
MLR-052-PS001-150	Piston Cup - Nitrile		1-1/2				13.16
MLR-052-PS001-200	Piston Cup - Nitrile		2				14.07
MLR-052-PS001-250	Piston Cup - Nitrile		2-1/2				19.23
MLR-052-PS001-325	Piston Cup - Nitrile		3-1/4				30.01
MLR-052-PS001-400	Piston Cup - Nitrile		4				35.01
MLR-052-PS001-500	Piston Cup - Nitrile		5				45.36
MLR-052-PS001-600	Piston Cup - Nitrile		6				51.58

Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width	List Price
MLR-052-PS001-800	Piston Cup - Nitrile		8				\$58.94
MLR-052-PS003-150	Piston Cup - Leather		1-1/2				21.08
MLR-052-PS003-200	Piston Cup - Leather		2				25.85
MLR-052-PS003-250	Piston Cup - Leather		2-1/2				34.64
MLR-052-PS003-325	Piston Cup - Leather		3-1/4				54.40
MLR-052-PS003-400	Piston Cup - Leather		4				66.99
MLR-052-PS003-500	Piston Cup - Leather		5				93.18
MLR-052-PS003-600	Piston Cup - Leather		6				126.30
MLR-052-PS006-1000	Piston Cup - PTFE		10				190.21
MLR-052-PS006-1200	Piston Cup - PTFE		12				253.69
MLR-052-PS006-150	Piston Cup - PTFE		1-1/2				29.47
MLR-052-PS006-200	Piston Cup - PTFE		2				51.33
MLR-052-PS006-250	Piston Cup - PTFE		2-1/2				54.10
MLR-052-PS006-325	Piston Cup - PTFE		3-1/4				48.75
MLR-052-PS006-400	Piston Cup - PTFE		4				60.21
MLR-052-PS006-500	Piston Cup - PTFE		5				90.15
MLR-052-PS006-600	Piston Cup - PTFE		6				108.96
MLR-052-PS006-700	Piston Cup - PTFE		7				261.94
MLR-052-PS006-800	Piston Cup - PTFE		8				147.43
MLR-052-PS016-1200	Piston U-seal - Nitrile		12				61.73
MLR-052-PS016-800	Piston U-seal - Nitrile		8				26.04
MLR-052-PS017-1000	Piston U-seal - PTFE		10				143.70
MLR-052-PS017-1200	Piston U-seal - PTFE		12				192.71
MLR-052-PS017-1400	Piston U-seal - PTFE		14				198.16
MLR-052-PS017-150	Piston U-seal - PTFE		1-1/2				18.23
MLR-052-PS017-1600	Piston U-seal - PTFE		16				209.72
MLR-052-PS017-1800	Piston U-seal - PTFE		18				253.17
MLR-052-PS017-200	Piston U-seal - PTFE		2				18.35
MLR-052-PS017-250	Piston U-seal - PTFE		2-1/2				21.65
MLR-052-PS017-325	Piston U-seal - PTFE		3-1/4				28.28
MLR-052-PS017-400	Piston U-seal - PTFE		4				37.50
MLR-052-PS017-500	Piston U-seal - PTFE		5				56.24
MLR-052-PS017-600	Piston U-seal - PTFE		6				64.29
MLR-052-PS017-700	Piston U-seal - PTFE		7				78.11
MLR-052-PS017-800	Piston U-seal - PTFE		8				90.99
MLR-052-PS025-1000	Piston U-seal - Nitrile		10				81.65
MLR-052-PS025-1400	Piston U-seal - Nitrile		14				158.54
MLR-052-PS025-150	Piston U-seal - Nitrile		1-1/2				19.57
MLR-052-PS025-1600	Piston U-seal - Nitrile		16				322.89
MLR-052-PS025-200	Piston U-seal - Nitrile		2				20.30
MLR-052-PS025-250	Piston U-seal - Nitrile		2-1/2				21.51
MLR-052-PS025-325	Piston U-seal - Nitrile		3-1/4				23.35
MLR-052-PS025-400	Piston U-seal - Nitrile		4				23.16
MLR-052-PS025-500	Piston U-seal - Nitrile		5				27.58
MLR-052-PS025-600	Piston U-seal - Nitrile		6				35.33
MLR-052-PS025-700	Piston U-seal - Nitrile		7				22.07
MLR-052-WR005-1000-38	Wear Ring - PTFE		10				90.56
MLR-052-WR005-1200-38	Wear Ring - PTFE		12				114.04
MLR-052-WR005-150-25	Wear Ring - PTFE		1-1/2				32.05
MLR-052-WR005-1600-50	Wear Ring - PTFE		16				177.61

Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width	List Price
MLR-052-WR005-1800-50	Wear Ring - PTFE		18				\$183.73
MLR-052-WR005-2000-50	Wear Ring - PTFE		20				213.13
MLR-052-WR005-200-25	Wear Ring - PTFE		2				33.74
MLR-052-WR005-250-25	Wear Ring - PTFE		2-1/2				35.61
MLR-052-WR005-325-25	Wear Ring - PTFE		3-1/4				47.20
MLR-052-WR005-400-25	Wear Ring - PTFE		4				58.88
MLR-052-WR005-500-25	Wear Ring - PTFE		5				73.92
MLR-052-WR005-600-25	Wear Ring - PTFE		6				88.38
MLR-052-WR005-700-38	Wear Ring - PTFE		7				60.36
MLR-052-WR005-800-38	Wear Ring - PTFE		8				85.52
MLR-052-WR008-1000-125	Wear Ring - Bronze		10				322.77
MLR-052-WR008-1200-125	Wear Ring - Bronze		12				353.35
MLR-052-WR008-700-75	Wear Ring - Bronze		7				206.63
MLR-052-WR008-800-125	Wear Ring - Bronze		8				276.65
MLR-052-WR009-150-25	Wear Ring - Acetal		1-1/2				25.62
MLR-052-WR009-200-25	Wear Ring - Acetal		2				29.51
MLR-052-WR009-200-31	Wear Ring - Acetal		2				29.97
MLR-052-WR009-250-25	Wear Ring - Acetal		2-1/2				36.31
MLR-052-WR009-250-38	Wear Ring - Acetal		2-1/2				38.54
MLR-052-WR009-325-25	Wear Ring - Acetal		3-1/4				49.69
MLR-052-WR009-325-50	Wear Ring - Acetal		3-1/4				55.14
MLR-052-WR009-400-25	Wear Ring - Acetal		4				57.67
MLR-052-WR009-400-63	Wear Ring - Acetal		4				77.95
MLR-052-WR009-500-75	Wear Ring - Acetal		5				154.99
MLR-052-WR009-600-75	Wear Ring - Acetal		6				200.75
MLR-090-ES006-1000	Tube End Seal		10				43.48
MLR-090-ES006-1200	Tube End Seal		12				50.73
MLR-090-ES006-1400	Tube End Seal		14				57.98
MLR-090-ES006-150	Tube End Seal		1-1/2				8.45
MLR-090-ES006-200	Tube End Seal		2				14.73
MLR-090-ES006-250	Tube End Seal		2-1/2				15.49
MLR-090-ES006-325	Tube End Seal		3-1/4				17.92
MLR-090-ES006-400	Tube End Seal		4				22.20
MLR-090-ES006-500	Tube End Seal		5				23.79
MLR-090-ES006-600	Tube End Seal		6				29.38
MLR-090-ES006-700	Tube End Seal		7				28.98
MLR-090-ES006-800	Tube End Seal		8				36.23
MLR-090-ES009-1000	Tube End Seal		10				77.60
MLR-090-ES009-1200	Tube End Seal		12				86.37
MLR-090-ES009-1400	Tube End Seal		14				85.73
MLR-090-ES009-150	Tube End Seal		1-1/2				9.71
MLR-090-ES009-200	Tube End Seal		2				17.71
MLR-090-ES009-250	Tube End Seal		2-1/2				17.78
MLR-090-ES009-325	Tube End Seal		3-1/4				17.93
MLR-090-ES009-400	Tube End Seal		4				26.54
MLR-090-ES009-500	Tube End Seal		5				33.42
MLR-090-ES009-600	Tube End Seal		6				41.63
MLR-090-ES009-700	Tube End Seal		7				52.27
MLR-090-ES009-800	Tube End Seal		8				65.06
MLR-090-KB001-1000	Piston Kit		10				243.51

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Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width	List Price
MLR-090-KB001-1200	Piston Kit		12				\$279.03
MLR-090-KB001-150	Piston Kit		1-1/2				85.49
MLR-090-KB001-200	Piston Kit		2				109.55
MLR-090-KB001-250	Piston Kit		2-1/2				118.83
MLR-090-KB001-325	Piston Kit		3-1/4				134.69
MLR-090-KB001-400	Piston Kit		4				155.79
MLR-090-KB001-500	Piston Kit		5				165.54
MLR-090-KB001-600	Piston Kit		6				199.38
MLR-090-KB001-700	Piston Kit		7				211.11
MLR-090-KB001-800	Piston Kit		8				217.06
MLR-091-KB001-1000	Piston Kit		10				320.47
MLR-091-KB001-1200	Piston Kit		12				395.27
MLR-091-KB001-150	Piston Kit		1-1/2				98.42
MLR-091-KB001-200	Piston Kit		2				98.97
MLR-091-KB001-250	Piston Kit		2-1/2				115.26
MLR-091-KB001-325	Piston Kit		3-1/4				151.18
MLR-091-KB001-400	Piston Kit		4				166.33
MLR-091-KB001-500	Piston Kit		5				234.06
MLR-091-KB001-600	Piston Kit		6				250.09
MLR-091-KB001-700	Piston Kit		7				257.70
MLR-091-KB001-800	Piston Kit		8				277.59
MLR-150-KB001-325	Piston Kit		3-1/4				244.98
MLR-150-KB001-500	Piston Kit		5				412.06
MLR-170-ES006-1000	Tube End Seal		10				43.48
MLR-170-ES006-1200	Tube End Seal		12				50.73
MLR-170-ES006-1400	Tube End Seal		14				57.98
MLR-170-ES006-150	Tube End Seal		1-1/2				8.30
MLR-170-ES006-1800	Tube End Seal		18				72.48
MLR-170-ES006-200	Tube End Seal		2				15.13
MLR-170-ES006-250	Tube End Seal		2-1/2				15.32
MLR-170-ES006-325	Tube End Seal		3-1/4				15.81
MLR-170-ES006-400	Tube End Seal		4				22.53
MLR-170-ES006-500	Tube End Seal		5				23.72
MLR-170-ES006-600	Tube End Seal		6				28.08
MLR-170-ES006-700	Tube End Seal		7				28.98
MLR-170-ES006-800	Tube End Seal		8				36.23
MLR-170-ES010-1000	Tube End Seal		10				78.20
MLR-170-ES010-1200	Tube End Seal		12				87.14
MLR-170-ES010-150	Tube End Seal		1-1/2				14.92
MLR-170-ES010-200	Tube End Seal		2				21.12
MLR-170-ES010-250	Tube End Seal		2-1/2				27.41
MLR-170-ES010-325	Tube End Seal		3-1/4				28.56
MLR-170-ES010-400	Tube End Seal		4				34.17
MLR-170-ES010-500	Tube End Seal		5				40.95
MLR-170-ES010-600	Tube End Seal		6				47.39
MLR-170-ES010-700	Tube End Seal		7				53.79
MLR-170-ES010-800	Tube End Seal		8				67.36
MLR-171-KB001-1000	Piston Kit		10				821.76
MLR-171-KB001-1200	Piston Kit		12				930.16
MLR-171-KB001-150	Piston Kit		1-1/2				134.87

Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width	List Price
MLR-171-KB001-200	Piston Kit		2				\$156.23
MLR-171-KB001-250	Piston Kit		2-1/2				187.80
MLR-171-KB001-325	Piston Kit		3-1/4				223.30
MLR-171-KB001-400	Piston Kit		4				308.32
MLR-171-KB001-500	Piston Kit		5				358.16
MLR-171-KB001-600	Piston Kit		6				398.59
MLR-171-KB001-700	Piston Kit		7				561.74
MLR-171-KB001-800	Piston Kit		8				701.31
MLR-181-KB001-150	Piston Kit		1-1/2				59.58
MLR-181-KB001-200	Piston Kit		2				62.11
MLR-181-KB001-250	Piston Kit		2-1/2				64.91
MLR-181-KB001-325	Piston Kit		3-1/4				71.90
MLR-181-KB001-400	Piston Kit		4				77.35
MLR-181-KB001-500	Piston Kit		5				91.58
MLR-181-KB001-600	Piston Kit		6				106.00
MLR-181-KB001-700	Piston Kit		7				107.35
MLR-181-KB001-800	Piston Kit		8				153.11
MLR-HV2-ES100-150	Piston Kit		1-1/2				7.35
MLR-HV2-ES100-200	Piston Kit		2				7.73
MLR-HV2-ES100-250	Piston Kit		2-1/2				8.05
MLR-HV2-ES100-325	Piston Kit		3-1/4				8.52
MLR-HV2-ES100-400	Piston Kit		4				8.89
MLR-HV2-ES100-500	Piston Kit		5				10.24
MLR-HV2-ES100-600	Piston Kit		6				10.24
MLR-HV2-ES200-150	Piston Kit		1-1/2				10.07
MLR-HV2-ES200-200	Piston Kit		2				17.21
MLR-HV2-ES200-250	Piston Kit		2-1/2				21.48
MLR-HV2-ES200-325	Piston Kit		3-1/4				26.11
MLR-HV2-ES200-400	Piston Kit		4				32.67
MLR-HV2-ES200-500	Piston Kit		5				47.16
MLR-HV2-ES200-600	Piston Kit		6				49.32
MLR-HV2-KB100-150	Piston Kit		1-1/2				11.83
MLR-HV2-KB100-200	Piston Kit		2				13.93
MLR-HV2-KB100-250	Piston Kit		2-1/2				16.16
MLR-HV2-KB100-325	Piston Kit		3-1/4				20.03
MLR-HV2-KB100-400	Piston Kit		4				26.33
MLR-HV2-KB100-500	Piston Kit		5				30.71
MLR-HV2-KB100-600	Piston Kit		6				30.71
MLR-HV2-KB300-150	Piston Kit		1-1/2				49.08
MLR-HV2-KB300-200	Piston Kit		2				52.36
MLR-HV2-KB300-250	Piston Kit		2-1/2				52.95
MLR-HV2-KB300-325	Piston Kit		3-1/4				57.26
MLR-HV2-KB300-400	Piston Kit		4				58.94
MLR-HV2-KB300-500	Piston Kit		5				77.64
MLR-HV2-KB300-600	Piston Kit		6				116.71
MLR-HV2-KB400-150	Piston Kit		1-1/2				56.85
MLR-HV2-KB400-200	Piston Kit		2				58.92
MLR-HV2-KB400-250	Piston Kit		2-1/2				59.75
MLR-HV2-KB400-325	Piston Kit		3-1/4				71.18
MLR-HV2-KB400-400	Piston Kit		4				72.53

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Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width	List Price
MLR-HV2-KB400-500	Piston Kit		5				\$102.85
MLR-HV2-KB400-600	Piston Kit		6				124.47
MLR-HV2-KB500-150	Piston Kit		1-1/2				26.78
MLR-HV2-KB500-200	Piston Kit		2				34.76
MLR-HV2-KB500-250	Piston Kit		2-1/2				33.51
MLR-HV2-KB500-325	Piston Kit		3-1/4				44.25
MLR-HV2-KB500-400	Piston Kit		4				38.54
MLR-HV2-KB500-500	Piston Kit		5				43.24
MLR-HV2-KB500-600	Piston Kit		6				79.33
MLR-HV2-KB600-150	Piston Kit		1-1/2				46.43
MLR-HV2-KB600-200	Piston Kit		2				52.57
MLR-HV2-KB600-250	Piston Kit		2-1/2				56.51
MLR-HV2-KB600-325	Piston Kit		3-1/4				124.47
MLR-HV2-KB600-400	Piston Kit		4				137.73
MLR-HV2-KB600-500	Piston Kit		5				152.41
MLR-HV2-KB600-600	Piston Kit		6				237.65
MLR-HV2-KR300-100	Rod Kit		1				19.96
MLR-HV2-KR300-138	Rod Kit		1-3/8				22.61
MLR-HV2-KR300-175	Rod Kit		1-3/4				24.28
MLR-HV2-KR300-200	Rod Kit		2				25.89
MLR-HV2-KR300-250	Rod Kit		2-1/2				31.83
MLR-HV2-KR300-300	Rod Kit		3				36.69
MLR-HV2-KR300-350	Rod Kit		3-1/2				55.98
MLR-HV2-KR300-400	Rod Kit		4				63.39
MLR-HV2-KR300-63	Rod Kit		5/8				29.48
MLR-HV2-KR310-100	Rod Kit		1				19.96
MLR-HV2-KR310-138	Rod Kit		1-3/8				22.61
MLR-HV2-KR310-175	Rod Kit		1-3/4				24.28
MLR-HV2-KR310-200	Rod Kit		2				25.89
MLR-HV2-KR310-250	Rod Kit		2-1/2				31.83
MLR-HV2-KR310-300	Rod Kit		3				36.69
MLR-HV2-KR310-350	Rod Kit		3-1/2				50.79
MLR-HV2-KR310-400	Rod Kit		4				60.40
MLR-HV2-KR310-63	Rod Kit		5/8				15.95
MLR-HV2-KR400-138	Rod Kit		1-3/8				37.83
MLR-HV2-KR400-175	Rod Kit		1-3/4				41.02
MLR-HV2-KR400-200	Rod Kit		2				47.73
MLR-HV2-KR400-250	Rod Kit		2-1/2				55.01
MLR-HV2-KR400-300	Rod Kit		3				59.88
MLR-HV2-KR400-350	Rod Kit		3-1/2				64.89
MLR-HV2-KR400-400	Rod Kit		4				70.51
MLR-HV2-KR400-63	Rod Kit		5/8				21.82
MLR-HV2-KR410-100	Rod Kit		1				26.03
MLR-HV2-KR410-138	Rod Kit		1-3/8				38.37
MLR-HV2-KR410-175	Rod Kit		1-3/4				41.27
MLR-HV2-KR410-200	Rod Kit		2				98.84
MLR-HV2-KR410-250	Rod Kit		2-1/2				71.19
MLR-HV2-KR410-300	Rod Kit		3				84.48
MLR-HV2-KR410-350	Rod Kit		3-1/2				90.15
MLR-HV2-KR410-400	Rod Kit		4				103.71

Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width	List Price
MLR-HV2-KR410-500	Rod Kit		5				\$148.13
MLR-HV2-KR410-550	Rod Kit		5-1/2				178.06
MLR-HV2-KR410-63	Rod Kit		5/8				19.98
MLR-HV2-KR600-100	Rod Kit		1				21.99
MLR-HV2-KR600-63	Rod Kit		5/8				21.04
MLR-RG065-063	Iron Gland		5/8				40.59
MLR-RG065-100	Iron Gland		1				47.28
MLR-RG065-138	Iron Gland		1-3/8				59.10
MLR-RG065-175	Iron Gland		1-3/4				152.11
MLR-RG065-200	Iron Gland		2				164.51
MLR-RG065-250	Iron Gland		2-1/2				191.66
MLR-RG065-300	Iron Gland		3				219.87
MLR-RG065-350	Iron Gland		3-1/2				245.41
MLR-008-SH001-30	0.03cs x 0.07w PTFE strip (30' Spool)						129.48
MLR-SH1-STRIP	0.03cs x 0.07w PTFE strip (sold by the foot)						8.56
MLR-JV-ES100-100	Head Seal Kit		1				8.94
MLR-JV-ES100-150	Head Seal Kit		1-1/2				7.00
MLR-JV-ES100-200	Head Seal Kit		2				7.36
MLR-JV-ES100-250	Head Seal Kit		2-1/2				7.67
MLR-JV-ES100-325	Head Seal Kit		3-1/4				8.11
MLR-JV-ES100-400	Head Seal Kit		4				8.47
MLR-JV-ES100-500	Head Seal Kit		5				9.75
MLR-JV-ES100-600	Head Seal Kit		6				9.75
MLR-JV-ES100-800	Head Seal Kit		8				10.14
MLR-JV-ES200-100	Head Seal Kit		1				9.39
MLR-JV-ES200-150	Head Seal Kit		1-1/2				9.59
MLR-JV-ES200-200	Head Seal Kit		2				16.39
MLR-JV-ES200-250	Head Seal Kit		2-1/2				20.46
MLR-JV-ES200-325	Head Seal Kit		3-1/4				24.87
MLR-JV-ES200-400	Head Seal Kit		4				31.11
MLR-JV-ES200-500	Head Seal Kit		5				44.91
MLR-JV-ES200-600	Head Seal Kit		6				46.97
MLR-JV-ES200-800	Head Seal Kit		8				48.00
MLR-JV-KB100-100	N-N-5		1				5.74
MLR-JV-KB100-150	N-N-5		1-1/2				6.79
MLR-JV-KB100-200	N-N-5		2				7.98
MLR-JV-KB100-250	N-N-5		2-1/2				9.22
MLR-JV-KB100-325	N-N-5		3-1/4				11.47
MLR-JV-KB100-400	N-N-5		4				14.33
MLR-JV-KB100-500	N-N-5		5				17.56
MLR-JV-KB100-600	N-N-5		6				22.84
MLR-JV-KB100-800	N-N-5		8				66.20
MLR-JV-KB200-100	N-N-5		1				21.83
MLR-JV-KB200-150	N-N-5		1-1/2				30.79
MLR-JV-KB200-200	N-N-5		2				35.14
MLR-JV-KB200-250	N-N-5		2-1/2				49.30
MLR-JV-KB200-325	N-N-5		3-1/4				57.52
MLR-JV-KB200-400	N-N-5		4				61.99
MLR-JV-KB200-500	N-N-5		6				78.67
MLR-JV-KB200-600	N-N-5		6				104.55

MILLER

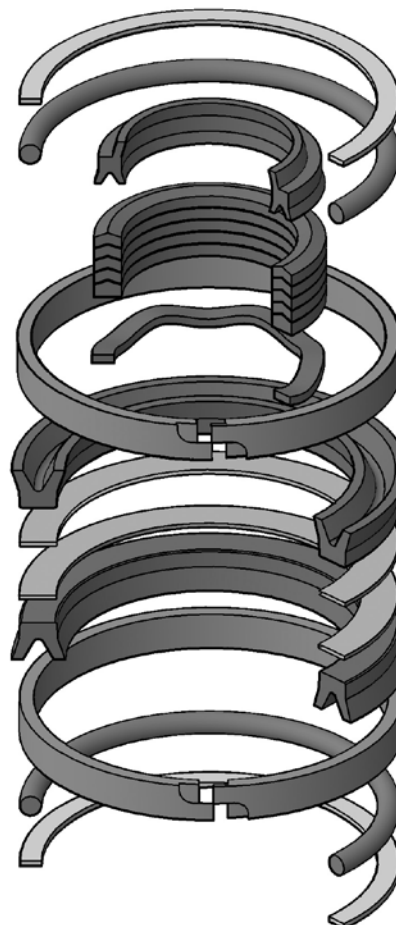
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Sales Part Number	Description	Rod Size	Bore Size	ID	Radial Wall	Width	List Price
MLR-JV-KB200-800	N-N-5		8				\$226.62
MLR-JV-KB300-100	N-N-12		1				50.49
MLR-JV-KB300-150	N-N-12		1-1/2				28.23
MLR-JV-KB300-200	N-N-12		2				30.12
MLR-JV-KB300-250	N-N-12		2-1/2				30.47
MLR-JV-KB300-325	N-N-12		3-1/4				32.94
MLR-JV-KB300-400	N-N-12		4				33.92
MLR-JV-KB300-500	N-N-12		5				44.68
MLR-JV-KB300-600	N-N-12		6				67.17
MLR-JV-KB300-800	N-N-12		8				114.69
MLR-JV-KB400-100	N-N-12		1				51.31
MLR-JV-KB400-150	N-N-12		1-1/2				32.71
MLR-JV-KB400-200	N-N-12		2				33.92
MLR-JV-KB400-250	N-N-12		2-1/2				34.38
MLR-JV-KB400-325	N-N-12		3-1/4				40.97
MLR-JV-KB400-400	N-N-12		4				41.74
MLR-JV-KB400-500	N-N-12		5				59.18
MLR-JV-KB400-600	N-N-12		6				71.63
MLR-JV-KB400-800	N-N-12		8				122.38
MLR-JV-KR300-100	I-U-1		1				19.67
MLR-JV-KR300-138	I-U-1		1-3/8				20.17
MLR-JV-KR300-175	I-U-1		1-3/4				24.19
MLR-JV-KR300-200	I-U-1		2				28.32
MLR-JV-KR300-250	I-U-1		2-1/2				30.48
MLR-JV-KR300-300	I-U-1		3				40.38
MLR-JV-KR300-350	I-U-1		3-1/2				45.33
MLR-JV-KR300-400	I-U-1		4				53.67
MLR-JV-KR300-450	I-U-1		4-1/2				57.75
MLR-JV-KR300-50	I-U-1		1/2				18.48
MLR-JV-KR300-500	I-U-1		5				64.19
MLR-JV-KR300-550	I-U-1		5-1/2				68.01
MLR-JV-KR300-63	I-U-1		5/8				18.78
MLR-JV-KR400-100	I-U-1		1				27.01
MLR-JV-KR400-138	I-U-1		1-3/8				28.09
MLR-JV-KR400-175	I-U-1		1-3/4				29.75
MLR-JV-KR400-200	I-U-1		2				32.10
MLR-JV-KR400-250	I-U-1		2-1/2				38.12
MLR-JV-KR400-300	I-U-1		3				44.90
MLR-JV-KR400-350	I-U-1		3-1/2				58.49
MLR-JV-KR400-400	I-U-1		4				85.38
MLR-JV-KR400-50	I-U-1		1/2				23.72
MLR-JV-KR400-63	I-U-1		5/8				26.93

Kits

H Cylinders Nitrile

Bore	Rod	(NBR) Kit #	List Price
1-1/2"	5/8"	MIL-00151-7-40	\$44.77
1-1/2"	1"	MIL-00152-7-40	47.57
2"	1"	MIL-01510-7-40	46.98
2"	1-3/8"	MIL-01511-7-40	49.74
2-1/2"	1"	MIL-01520-7-40	50.60
2-1/2"	1-3/8"	MIL-01521-7-40	53.17
2-1/2"	1-3/4"	MIL-01522-7-40	55.40
3-1/4"	1-3/8"	MIL-01530-7-40	64.49
3-1/4"	1-3/4"	MIL-01531-7-40	69.95
3-1/4"	2"	MIL-01532-7-40	72.78
4"	1-3/4"	MIL-01540-7-40	74.25
4"	2"	MIL-01541-7-40	76.28
4"	2-1/2"	MIL-01542-7-40	92.98
5"	2"	MIL-01550-7-40	107.79
5"	2-1/2"	MIL-01551-7-40	78.89
5"	3"	MIL-01552-7-40	102.99
5"	3-1/2"	MIL-01553-7-40	109.68
6"	2-1/2"	MIL-01560-7-40	162.34
6"	3"	MIL-01561-7-40	163.46
6"	3-1/2"	MIL-01562-7-40	169.65
6"	4"	MIL-01563-7-40	182.29



Various Kits

Kit #	Code	Rod x Bore	List Price
ORT-RS003540010	I-U-1	5/8 Rod Kit	\$17.49
ORT-RS003540020	I-U-1	1 Rod Kit	17.48
ORT-RS003540040	I-U-1	1-3/4 Rod Kit	33.15
ORT-RS003540060	I-U-1	2-1/2 Rod Kit	35.93
ORT-RS003540090	I-U-1	4" Rod Kit	56.99
ORT-TS563511000	N-N-5	3-1/4 Piston Kit	51.53
ORT-TS583511000	N-N-5	4 Piston Kit	39.10
ORT-TS603511000	N-N-5	6 Piston Kit	102.57
ORT-TS777512000	N-N-5	1-1/2 Piston Kit	11.67

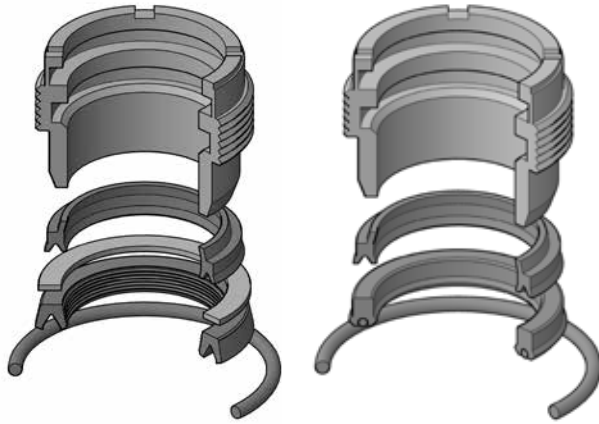
Kit Composition Varies

Consult your
Hercules® Sealing Products representative.

Kit Type		Page
Rod Gland Kits	A, 2A, 2AN, H, 2H, HD, 3H, VH, L, 2L, 3L, HMI, MA & 2MA Air Cylinders	106 - 113
Rod Kits	A, 2A, 2AN, H, 2H, HD, 3H, VH, L, 2L, 3L, HMI, 2MA Air & 2ML Cylinders	114 - 121
Bronze Rod Glands	A, 2A, 2AN, H, 2H, HD, VH, L, 2L, 3L, MA, HMI, 2MA Air & Hydraulic Cylinders	122 - 123
Gland Wrenches	For Parker Glands	124
Rod & Piston Seal Kits	MA Air Cylinders	125
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	126 - 133
Piston Ring Kits	H, HD, 2H, L, 2L, & 3L Hydraulic Cylinders	134
Piston Head Seal Kits	2A, 2H, 3L, HD, VH, 2MA, ML & HMI Cylinders	135 - 136
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Rod Gland Kits

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



1/2" - 3"

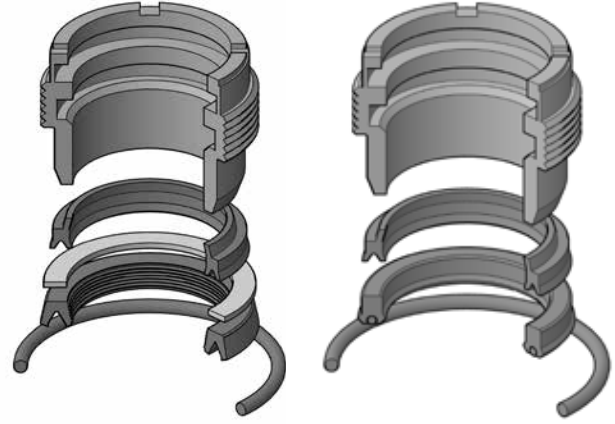
Kit Includes:

- 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"

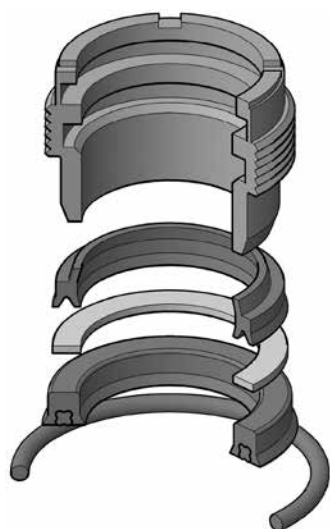
Kit Includes:

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

Rod Dia.	Kit #	List Price	Kit #	List Price
1/2"	PKH-RG2AHL0051	\$71.27	PKH-RG2AHL0055	\$91.61
5/8"	PKH-RG2AHL0061	43.04	PKH-RG2AHL0065	70.22
1"	PKH-RG2AHL0101	52.77	PKH-RG2AHL0105	79.47
1-3/8"	PKH-RG2AHL0131	64.34	PKH-RG2AHL0135	99.84
1-3/4"	PKH-RG2AHL0171	74.51	PKH-RG2AHL0175	109.03
2"	PKH-RG2AHL0201	92.96	PKH-RG2AHL0205	129.77
2-1/2"	PKH-RG2AHL0251	126.83	PKH-RG2AHL0255	168.53
3"	PKH-RG2AHL0301	162.78	PKH-RG2AHL0305	191.58
3-1/2"	PKH-RG2AHL0351	356.85	PKH-RG2AHL0355	386.70
4"	PKH-RG2AHL0401	433.98	PKH-RG2AHL0405	455.66
4-1/2"	PKH-RG2AHL0451	539.96	PKH-RG2AHL0455	544.42
5"	PKH-RG2AHL0501	600.75	PKH-RG2AHL0505	680.04
5-1/2"	PKH-RG2AHL0551	619.58	PKH-RG2AHL0555	742.18

Rod Gland Kits

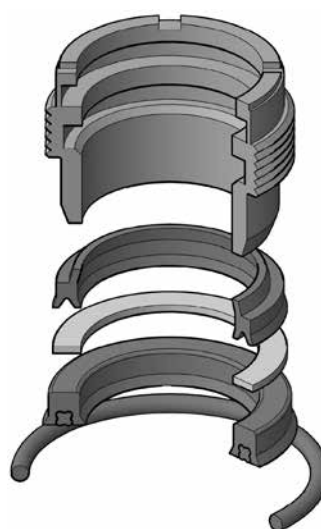
A, 2A, H, 2H, VH, L, 2L, & 3L Cylinders
Nitrile



Kit Includes:

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

Fluorocarbon



Kit Includes:

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

Rod Dia.	Kit #	List Price	Kit #	List Price
1/2"	PKH-RG2AHL0051PS	\$38.16	PKH-RG2AHL0055PS	\$46.46
5/8"	PKH-RG2AHL0061PS	41.38	PKH-RG2AHL0065PS	51.02
1"	PKH-RG2AHL0101PS	51.34	PKH-RG2AHL0105PS	61.73
1-3/8"	PKH-RG2AHL0131PS	63.13	PKH-RG2AHL0135PS	77.06
1-3/4"	PKH-RG2AHL0171PS	71.21	PKH-RG2AHL0175PS	89.39
2"	PKH-RG2AHL0201PS	89.68	PKH-RG2AHL0205PS	104.24
2-1/2"	PKH-RG2AHL0251PS	137.61	PKH-RG2AHL0255PS	168.77
3"	PKH-RG2AHL0301PS	162.82	PKH-RG2AHL0305PS	185.85
3-1/2"	PKH-RG2AHL0351PS	339.51	PKH-RG2AHL0355PS	342.22

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



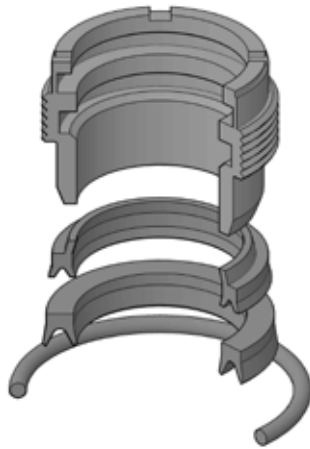
Kit Includes:

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

Rod Dia.	Kit #	List Price	Kit #	List Price
5/8"	PKH-RG1HDL0061	\$60.57	PKH-RG1HDL0065	\$73.41
1"	PKH-RG1HDL0101	77.99	PKH-RG1HDL0105	90.42
1-3/8"	PKH-RG1HDL0131	101.28	PKH-RG1HDL0135	122.58
1-3/4"	PKH-RG1HDL0171	119.69	PKH-RG1HDL0175	149.53
2"	PKH-RG1HDL0201	172.21	PKH-RG1HDL0205	202.83
2-1/2"	PKH-RG1HDL0251	230.57	PKH-RG1HDL0255	264.51
3-1/2"	PKH-RG1HDL0351	285.82	PKH-RG1HDL0355	324.89

Rod Gland Kits

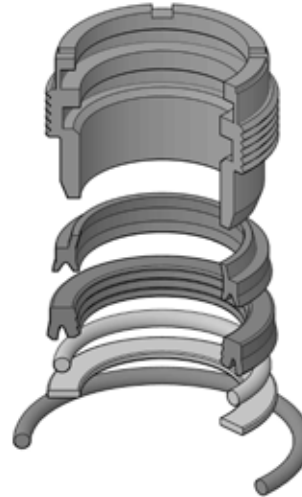
2AN Air Cylinders Nitrile



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"

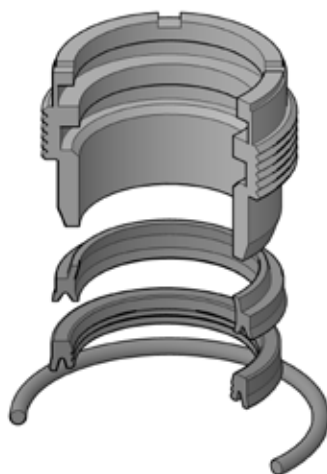
Kit Includes:

- 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 #	List Price
1/2"	PKH-RG2AN00051	\$46.34
5/8"	PKH-RG2AN00061	48.24
1"	PKH-RG2AN00101	54.21
1-3/8"	PKH-RG2AN00131	57.67
1-3/4"	PKH-RG2AN00171	72.47
2"	PKH-RG2AN00201	88.23
2-1/2"	PKH-RG2AN00251	144.32
3"	PKH-RG2AN00301	219.33
3-1/2"	PKH-RG2AN00351	311.97
4"	PKH-RG2AN00401	417.87
4-1/2"	PKH-RG2AN00451	518.07
5"	PKH-RG2AN00501	617.65
5-1/2"	PKH-RG2AN00551	692.01

Rod Gland Kits

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



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 #	List Price
1/2"	PKH-RG2HLTS051	\$104.49
5/8"	PKH-RG2HLTS061	80.13
1"	PKH-RG2HLTS101	90.91
1-3/8"	PKH-RG2HLTS131	106.36
1-3/4"	PKH-RG2HLTS171	114.14
2"	PKH-RG2HLTS201	148.43
2-1/2"	PKH-RG2HLTS251	192.62
3"	PKH-RG2HLTS301	238.77
3-1/2"	PKH-RG2HLTS351	337.85
4"	PKH-RG2HLTS401	441.61
4-1/2"	PKH-RG2HLTS451	480.33
5"	PKH-RG2HLTS501	634.15
5-1/2"	PKH-RG2HLTS551	654.43

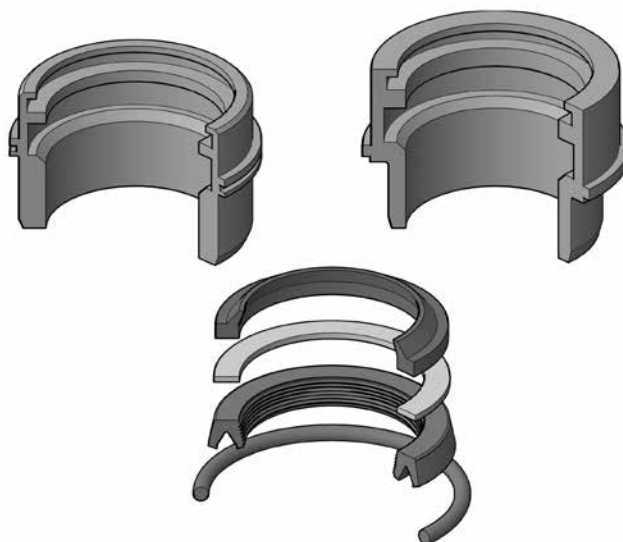
* Excludes 10" and 12" Bore for Series H and 2H.

Rod Gland Kits

Nitrile	MA Air Cylinders	Fluorocarbon
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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:

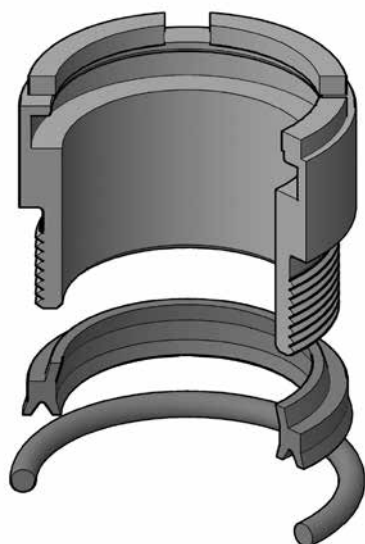
1 Bronze Gland
1 FC Wiper
1 PTFE Back-up Ring
1 FC Multi-lip U-seal
1 FC O-ring

Rod Dia.	Kit #	List Price	Kit #	List Price
5/8"	PKH-RGL6948MA1	\$53.68	PKH-RGL6948MA5	\$60.88
1"	PKH-RGL6949MA1	45.04	PKH-RGL6949MA5	58.05
1-3/8"	PKH-RGL6950MA1	53.60	PKH-RGL6950MA5	71.70

Rod Gland Kits

2MA Air Cylinders

Nitrile

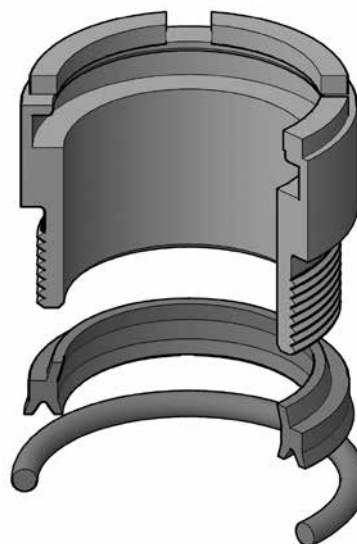


1/2" - 1-3/4"

Kit Includes:

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

Fluorocarbon



1/2" - 1-3/4"

Kit Includes:

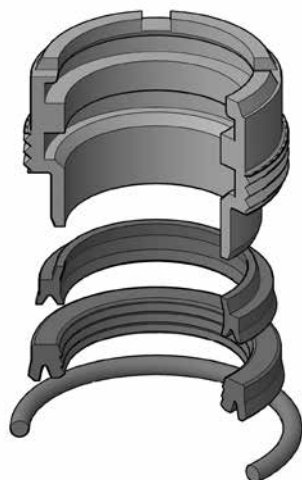
- 1 Bronze Gland
- 1 FC Wiper/Seal
- 1 FC O-ring
- 1 Tube Seal Lubricant

Rod Dia.	Kit #	List Price	Kit #	List Price
1/2"	PKH-RG02MA0051	\$44.66	PKH-RG02MA0055	\$47.58
5/8"	PKH-RG02MA0061	29.50	PKH-RG02MA0065	47.11
1"	PKH-RG02MA0101	33.80	PKH-RG02MA0105	52.21
1-3/8"	PKH-RG02MA0131	50.48	PKH-RG02MA0135	75.47
1-3/4"	PKH-RG02MA0171	102.73	PKH-RG02MA0175	115.24

Rod Gland Kits

HMI Cylinders

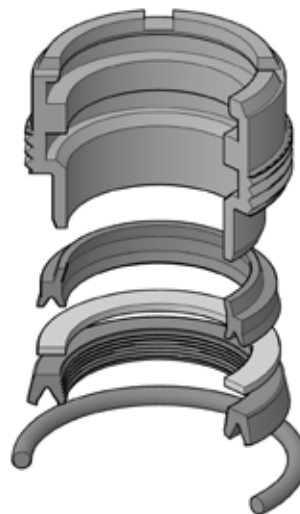
Urethane



Kit Includes:

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

Fluorocarbon



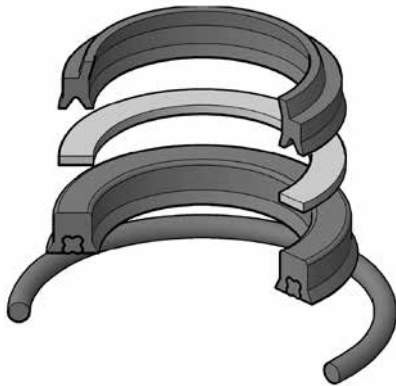
Kit Includes:

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

Rod Dia.	Kit #	List Price	Kit #	List Price
12 mm	PKH-RG2HM0121	\$67.39	PKH-RG2HM0125	\$75.46
14 mm	PKH-RG2HM0141	95.84	PKH-RG2HM0145	103.77
18 mm	PKH-RG2HM0181	93.48	PKH-RG2HM0185	110.84
22 mm	PKH-RG2HM0221	96.49	PKH-RG2HM0225	116.17
28 mm	PKH-RG2HM0281	98.74	PKH-RG2HM0285	128.65
36 mm	PKH-RG2HM0361	94.58	PKH-RG2HM0365	124.90
45 mm	PKH-RG2HM0451	104.77	PKH-RG2HM0455	128.72
56 mm	PKH-RG2HM0561	193.63	PKH-RG2HM0565	239.96
70 mm	PKH-RG2HM0701	284.65	PKH-RG2HM0705	348.88

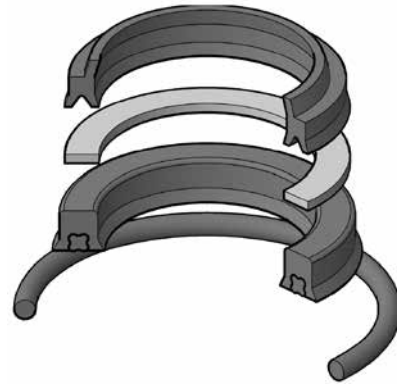
Rod Kits

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



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

Fluorocarbon



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

Rod Dia.	Kit #	List Price	Kit #	List Price
1/2"	PKH-RK2AHL0051PS	\$11.40	PKH-RK2AHL0055PS	\$19.70
5/8"	PKH-RK2AHL0061PS	12.01	PKH-RK2AHL0065PS	21.65
1"	PKH-RK2AHL0101PS	17.11	PKH-RK2AHL0105PS	27.50
1-3/8"	PKH-RK2AHL0131PS	20.12	PKH-RK2AHL0135PS	34.06
1-3/4"	PKH-RK2AHL0171PS	17.30	PKH-RK2AHL0175PS	35.48
2"	PKH-RK2AHL0201PS	21.23	PKH-RK2AHL0205PS	35.79
2-1/2"	PKH-RK2AHL0251PS	32.43	PKH-RK2AHL0255PS	63.59
3"	PKH-RK2AHL0301PS	39.13	PKH-RK2AHL0305PS	62.16
3-1/2"	PKH-RK2AHL0351PS	77.44	PKH-RK2AHL0355PS	80.14

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

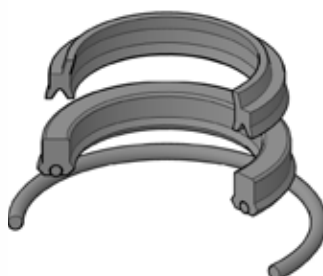
Nitrile
Fluorocarbon



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:

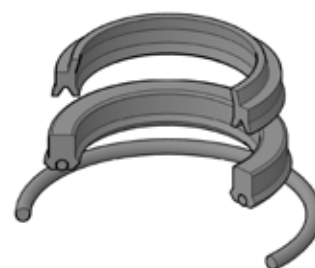
- 1 XNBR Wiper
- 1 NBR Loaded U-seal
- 1 NBR O-ring



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 #	List Price	Kit #	List Price
1/2"	PKH-RK2AHL0051	\$8.26	PKH-RK2AHL0055	\$34.31
5/8"	PKH-RK2AHL0061	14.32	PKH-RK2AHL0065	37.72
1"	PKH-RK2AHL0101	10.35	PKH-RK2AHL0105	42.38
1-3/8"	PKH-RK2AHL0131	11.36	PKH-RK2AHL0135	54.88
1-3/4"	PKH-RK2AHL0171	13.15	PKH-RK2AHL0175	57.16
2"	PKH-RK2AHL0201	14.52	PKH-RK2AHL0205	59.58
2-1/2"	PKH-RK2AHL0251	16.30	PKH-RK2AHL0255	65.20
3"	PKH-RK2AHL0301	21.13	PKH-RK2AHL0305	78.68
3-1/2"	PKH-RK2AHL0351	98.90	PKH-RK2AHL0355	163.21
4"	PKH-RK2AHL0401	122.86	PKH-RK2AHL0405	189.11
4-1/2"	PKH-RK2AHL0451	144.05	PKH-RK2AHL0455	236.69
5"	PKH-RK2AHL0501	179.36	PKH-RK2AHL0505	276.55
5-1/2"	PKH-RK2AHL0551	200.28	PKH-RK2AHL0555	396.77

Rod Kits

HD Cylinders

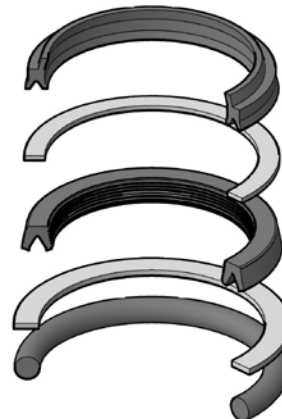
Urethane



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 #	List Price	Kit #	List Price
5/8"	PKH-RK1HDL0061	\$11.50	PKH-RK1HDL0065	\$24.35
1"	PKH-RK1HDL0101	13.60	PKH-RK1HDL0105	26.02
1-3/8"	PKH-RK1HDL0131	16.64	PKH-RK1HDL0135	37.95
1-3/4"	PKH-RK1HDL0171	20.49	PKH-RK1HDL0175	42.39
2"	PKH-RK1HDL0201	25.77	PKH-RK1HDL0205	45.05
2-1/2"	PKH-RK1HDL0251	36.39	PKH-RK1HDL0255	70.34
3-1/2"	PKH-RK1HDL0351	47.37	PKH-RK1HDL0355	86.45

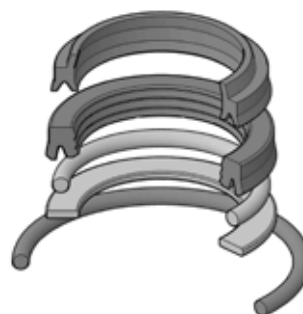
2AN Air Cylinders Nitrile



1/2" - 2-1/2"

Kit Includes:

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



3" - 5-1/2"

Kit Includes:

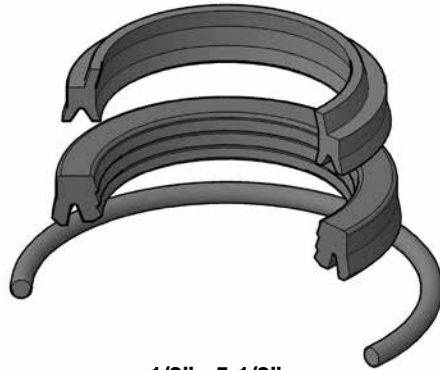
- 1 XNBR Wiper
- 1 NBR Multi-lip U-seal
- 1 Felt Wick
- 1 Felt Washer
- 1 NBR O-ring

Rod Dia.	Kit #	List Price
1/2"	PKH-RK2AN00051	\$20.17
5/8"	PKH-RK2AN00061	21.13
1"	PKH-RK2AN00101	24.28
1-3/8"	PKH-RK2AN00131	26.80
1-3/4"	PKH-RK2AN00171	31.51
2"	PKH-RK2AN00201	37.19
2-1/2"	PKH-RK2AN00251	53.91
3"	PKH-RK2AN00301	88.87
3-1/2"	PKH-RK2AN00351	140.54
4"	PKH-RK2AN00401	170.17
4-1/2"	PKH-RK2AN00451	186.55
5"	PKH-RK2AN00501	204.19
5-1/2"	PKH-RK2AN00551	243.91

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:

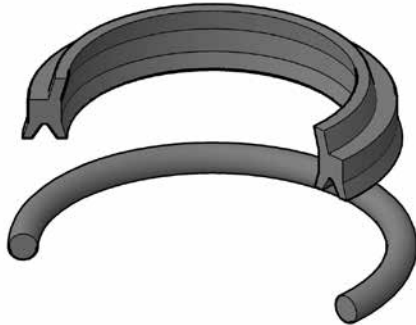
- 1 XNBR Wiper
- 1 Multi-lip Urethane U-seal
- 1 NBR O-ring

Rod Dia.	Kit #	List Price
1/2"	PKH-RK2HLTS051	\$24.63
5/8"	PKH-RK2HLTS061	25.24
1"	PKH-RK2HLTS101	29.83
1-3/8"	PKH-RK2HLTS131	35.24
1-3/4"	PKH-RK2HLTS171	40.94
2"	PKH-RK2HLTS201	46.92
2-1/2"	PKH-RK2HLTS251	50.19
3"	PKH-RK2HLTS301	54.56
3-1/2"	PKH-RK2HLTS351	65.38
4"	PKH-RK2HLTS401	73.03
4-1/2"	PKH-RK2HLTS451	79.75
5"	PKH-RK2HLTS501	86.52
5-1/2"	PKH-RK2HLTS551	94.99

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

2MA Air Cylinders

Nitrile

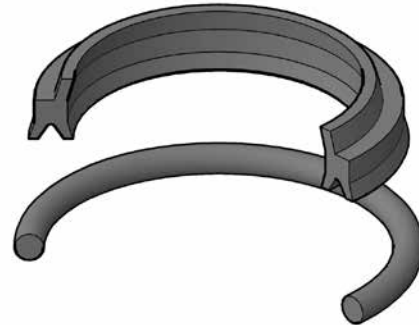


1/2" - 1-3/4"

Kit Includes:

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

Fluorocarbon



1/2" - 1-3/4"

Kit Includes:

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

Rod Dia.	Kit #	List Price	Kit #	List Price
1/2"	PKH-RK02MA0051	\$14.41	PKH-RK02MA0055	\$21.54
5/8"	PKH-RK02MA0061	14.86	PKH-RK02MA0065	22.13
1"	PKH-RK02MA0101	15.24	PKH-RK02MA0105	22.86
1-3/8"	PKH-RK02MA0131	16.30	PKH-RK02MA0135	28.62
1-3/4"	PKH-RK02MA0171	17.42	PKH-RK02MA0175	35.99

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 #	List Price
5/8"	PKH-RK02ML0061	\$19.07
1"	PKH-RK02ML0101	19.71
1-3/8"	PKH-RK02ML0131	22.36
1-3/4"	PKH-RK02ML0171	25.55

Rod Kits

HMI Cylinders

Urethane



Kit Includes:

- 1 URE Wiper
- 1 URE Multi-lip U-seal
- 1 NBR O-ring

Fluorocarbon

12 - 70mm



90 - 140mm



Kit Includes:

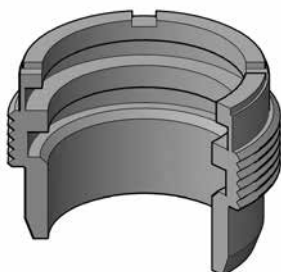
- 1 FC Wiper
- 1 PTFE Back-up Ring*
- 1 FC Multi-lip U-seal*
- 1 FC O-ring

Rod Dia.	Kit #	List Price	Kit #	List Price
12 mm	PKH-RK2HM0121	\$30.60	PKH-RK2HM0125	\$38.72
14 mm	PKH-RK2HM0141	31.52	PKH-RK2HM0145	39.48
18 mm	PKH-RK2HM0181	24.41	PKH-RK2HM0185	41.75
22 mm	PKH-RK2HM0221	33.95	PKH-RK2HM0225	43.58
28 mm	PKH-RK2HM0281	15.33	PKH-RK2HM0285	52.37
36 mm	PKH-RK2HM0361	23.32	PKH-RK2HM0365	53.65
45 mm	PKH-RK2HM0451	37.24	PKH-RK2HM0455	61.11
56 mm	PKH-RK2HM0561	39.75	PKH-RK2HM0565	86.09
70 mm	PKH-RK2HM0701	30.52	PKH-RK2HM0705	94.74
90 mm	PKH-RK2HM0901	57.34	PKH-RK2HM0905	308.33
110 mm	PKH-RK2HM1101	74.03	PKH-RK2HM1105	412.10
140 mm	PKH-RK2HM1401	96.09	PKH-RK2HM1405	493.45

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

Bronze Rod Glands

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

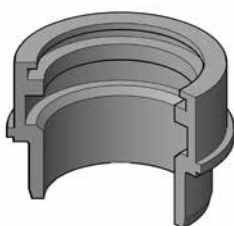
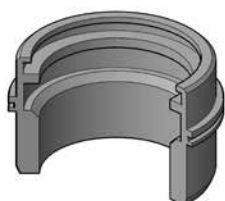


Rod Dia.	Part #	List Price
1/2"	PKH-RG-05	\$40.97
5/8"	PKH-RG-06	24.69
1"	PKH-RG-10	28.67
1-3/8"	PKH-RG-13	39.76
1-3/4"	PKH-RG-17	48.36
2"	PKH-RG-20	59.12
2-1/2"	PKH-RG-25	83.41
3"	PKH-RG-30	115.30
3-1/2"	PKH-RG-35	270.48
4"	PKH-RG-40	275.55
4-1/2"	PKH-RG-45	396.26
5"	PKH-RG-50	459.08
5-1/2"	PKH-RG-55	484.17

MA Air Cylinders

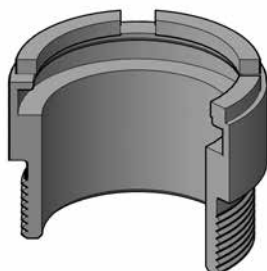
5/8" Rod Gland profile

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



Rod Dia.	Part #	List Price
5/8"	PKH-RGMA-06	\$44.40
1"	PKH-RGMA-10	35.13
1-3/8"	PKH-RGMA-13	42.77

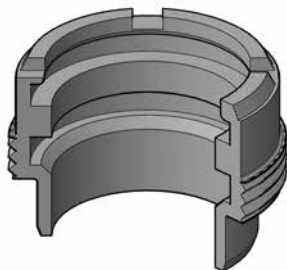
2MA Air Cylinders



Rod Dia.	Part #	List Price
1/2"	PKH-RG02MA-05	\$39.47
5/8"	PKH-RG02MA-06	29.09
1"	PKH-RG02MA-10	36.40
1-3/8"	PKH-RG02MA-13	52.63
1-3/4"	PKH-RG02MA-17	82.89

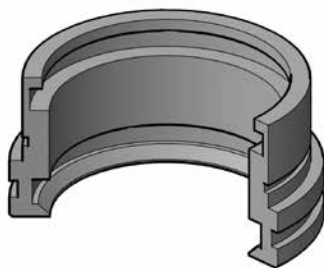
Bronze Rod Glands

HMI Hydraulic Cylinders



Rod Dia.	Part #	List Price
12 mm	PKH-RGHM-012	\$31.23
14 mm	PKH-RGHM-014	54.56
18 mm	PKH-RGHM-018	58.61
22 mm	PKH-RGHM-022	57.30
28 mm	PKH-RGHM-028	62.17
36 mm	PKH-RGHM-036	60.46
45 mm	PKH-RGHM-045	57.33
56 mm	PKH-RGHM-056	130.59
70 mm	PKH-RGHM-070	215.66

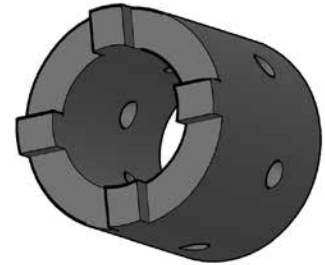
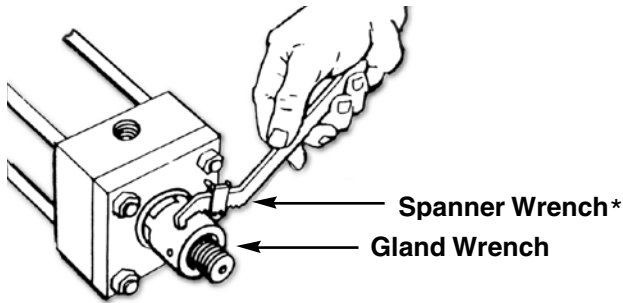
HD Hydraulic Cylinders



Rod Dia.	Part #	List Price
5/8"	PKH-RGHD-06	\$48.14
1"	PKH-RGHD-10	63.19
1-3/8"	PKH-RGHD-13	83.06
1-3/4"	PKH-RGHD-17	105.14
2"	PKH-RGHD-20	154.84
2-1/2"	PKH-RGHD-25	190.54
3-1/2"	PKH-RGHD-35	233.99

Gland Wrenches

Parker Gland Wrenches



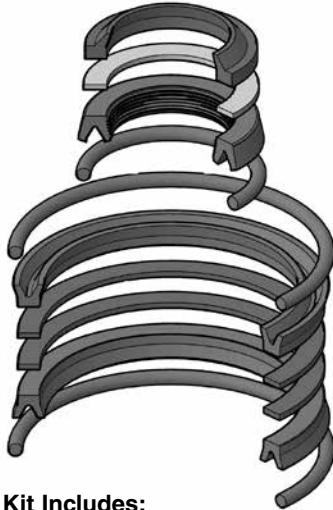
Rod Dia.	Kit #	ID X OD X HT	NET Price
1/2", 5/8", 12mm & 14mm	PKH-069590	11/16" X 1-1/8" X 1-3/8"	\$36.35
18mm	PKH-084765	13/16" X 1-1/4" X 1-7/16"	32.46
1" & 22mm	PKH-069591	1-1/16" X 1-5/8" X 1-1/2"	21.96
28mm	PKH-084766	1-1/4" X 1-11/16" X 1-9/16"	31.05
1-3/8" & 36mm	PKH-069592	1-7/16" X 1-7/8" X 1-5/8"	42.53
1-3/4" & 45mm	PKH-069593	1-13/16" X 2-1/4" X 1-5/8"	40.43
2"	PKH-069594	2-1/16" X 2-1/2" X 2"	50.20
2-1/2" & 56mm	PKH-069595	2-9/16" X 3" X 2-1/8"	79.29
70mm	PKH-069596	2-15/16" X 3-1/2" X 2-3/8"	92.64

*See Assortment Kits and Tools Section

Rod & Piston Seal Kits

MA Air Cylinders

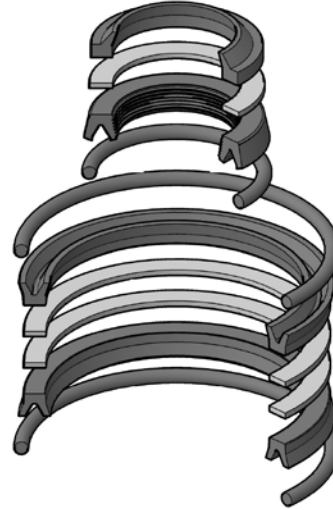
Nitrile



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

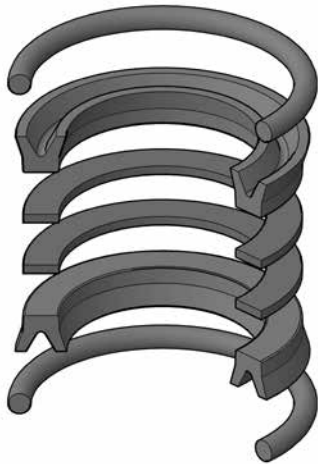
Rod Dia.	Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
5/8"	1-1/2"	PKH-SKL7000MA1	\$23.44	PKH-SKL7000MA5	\$65.98
5/8"	2"	PKH-SKL7001MA1	23.66	PKH-SKL7001MA5	69.02
1"	2"	PKH-SKL7002MA1	24.05	PKH-SKL7002MA5	72.06
5/8"	2-1/2"	PKH-SKL7003MA1	31.19	PKH-SKL7003MA5	84.38
1"	2-1/2"	PKH-SKL7004MA1	25.98	PKH-SKL7004MA5	87.43
1"	3-1/4"	PKH-SKL7005MA1	27.00	PKH-SKL7005MA5	92.49
1-3/8"	3-1/4"	PKH-SKL7006MA1	30.58	PKH-SKL7006MA5	105.52
1"	4"	PKH-SKL7007MA1	31.19	PKH-SKL7007MA5	109.70
1-3/8"	4"	PKH-SKL7008MA1	33.65	PKH-SKL7008MA5	122.81
1"	5"	PKH-SKL7009MA1	38.53	PKH-SKL7009MA5	133.72
1-3/8"	5"	PKH-SKL7010MA1	42.14	PKH-SKL7010MA5	146.86
1-3/8"	6"	PKH-SKL7098MA1	45.38	PKH-SKL7098MA5	181.20

Piston Kits

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

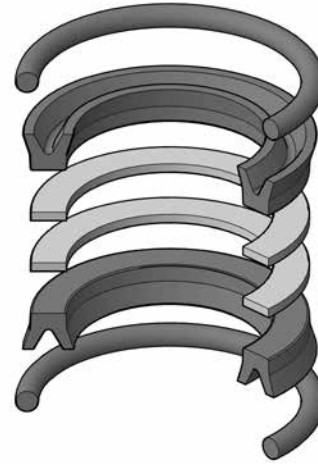
Nitrile

Fluorocarbon



Kit Includes:

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



Kit Includes:

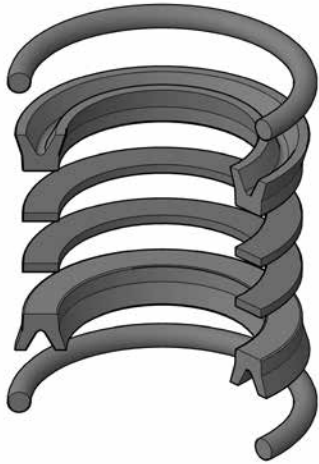
- 2 FC U-seals
- 2 FC O-ring Head Seals
- 2 PTFE Back-up Rings

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
1"	PKH-PK102HLL01	\$15.10	PKH-PK102HLL05	\$52.72
1-1/2"	PKH-PK152HLL01	11.11	PKH-PK152HLL05	54.75
2"	PKH-PK202HLL01	14.16	PKH-PK202HLL05	85.35
2-1/2"	PKH-PK252HLL01	16.42	PKH-PK252HLL05	86.48
3-1/4"	PKH-PK322HLL01	20.36	PKH-PK322HLL05	93.20
4"	PKH-PK402HLL01	26.77	PKH-PK402HLL05	116.38
5"	PKH-PK502HLL01	31.15	PKH-PK502HLL05	139.07
6"	PKH-PK602HLL01	40.49	PKH-PK602HLL05	185.93
7"	PKH-PK702HLL01	107.58	PKH-PK702HLL05	294.77
8"	PKH-PK802HLL01	117.83	PKH-PK802HLL05	403.28
10"	PKH-PK902HLL01	210.08	PKH-PK902HLL05	630.24
12"	PKH-PK922HLL01	285.06	PKH-PK922HLL05	786.31

Piston Kits

1A & 2A Air Cylinders

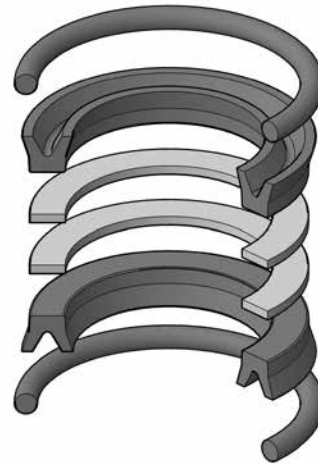
Nitrile



Kit Includes:

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

Fluorocarbon



Kit Includes:

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

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
1"	PKH-PK1002A001	\$10.24	PKH-PK1002A005	\$38.86
1-1/2"	PKH-PK1502A001	12.03	PKH-PK1502A005	54.75
2"	PKH-PK2002A001	14.16	PKH-PK2002A005	62.48
2-1/2"	PKH-PK2502A001	16.42	PKH-PK2502A005	87.69
3-1/4"	PKH-PK3202A001	20.36	PKH-PK3202A005	102.33
4"	PKH-PK4002A001	26.77	PKH-PK4002A005	110.30
5"	PKH-PK5002A001	31.22	PKH-PK5002A005	139.99
6"	PKH-PK6002A001	40.56	PKH-PK6002A005	186.06
7"	PKH-PK7002A001	101.20	PKH-PK7002A005	294.91
8"	PKH-PK8002A001	117.83	PKH-PK8002A005	403.28
10"	PKH-PK9002A001	174.50	PKH-PK9002A005	511.87
12"	PKH-PK9202A001	237.06	PKH-PK9202A005	786.31
14"	PKH-PK9402A001	366.68	PKH-PK9402A005	1284.68

Piston Kits

2AN Cylinders Nitrile



Kit Includes:

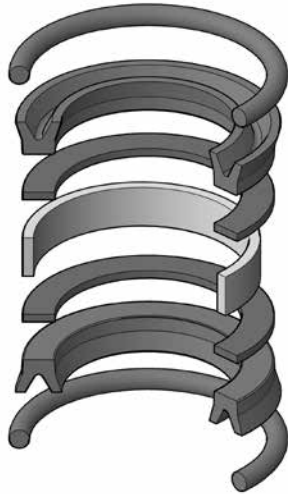
2 NBR O-ring Head Seals
2 NBR U-seals

Bore Dia.	Kit #	List Price
1"	PKH-PK1002AN01	\$21.03
1-1/2"	PKH-PK1502AN01	23.36
2"	PKH-PK2002AN01	26.11
2-1/2"	PKH-PK2502AN01	31.88
3-1/4"	PKH-PK3202AN01	41.63
4"	PKH-PK4002AN01	51.53
5"	PKH-PK5002AN01	61.85
6"	PKH-PK6002AN01	98.54
7"	PKH-PK7002AN01	107.06
8"	PKH-PK8002AN01	152.95
10"	PKH-PK9002AN01	228.43
12"	PKH-PK9202AN01	418.41

Piston Kits

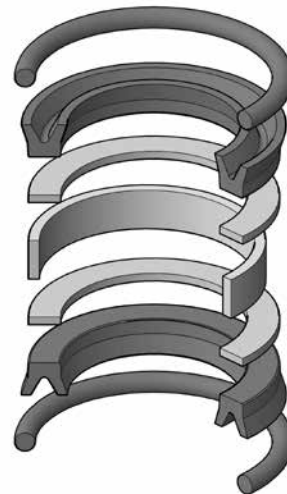
2MA Cylinders

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

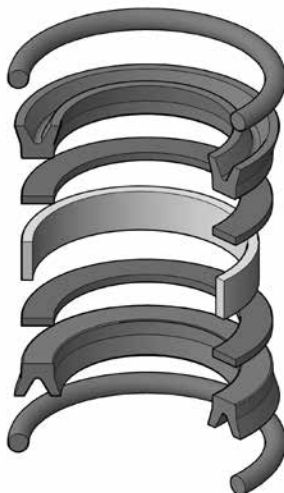


Kit Includes:
 2 FC O-ring Head Seals
 2 FC U-seals
 2 PTFE Back-up Rings
 1 Nylon Wear Ring
 1 Tube Seal Lubricant

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
1-1/2"	PKH-PK1502MA01	\$26.87	PKH-PK1502MA05	\$52.34
2"	PKH-PK2002MA01	27.23	PKH-PK2002MA05	56.06
2-1/2"	PKH-PK2502MA01	29.20	PKH-PK2502MA05	74.41
3-1/4"	PKH-PK3202MA01	35.10	PKH-PK3202MA05	91.98
4"	PKH-PK4002MA01	43.04	PKH-PK4002MA05	104.20
5"	PKH-PK5002MA01	55.69	PKH-PK5002MA05	157.68
6"	PKH-PK6002MA01	74.46	PKH-PK6002MA05	223.33
8"	PKH-PK8002MA01	131.45	PKH-PK8002MA05	373.44

Piston Kits

2ML Cylinders Nitrile



Kit Includes:

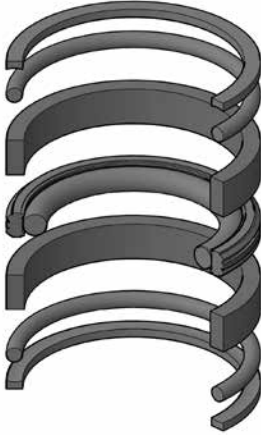
- 2 NBR O-ring Head Seals
- 2 NBR U-seals
- 2 URE Back-up Rings
- 1 Nylon Wear Ring

Rod Dia.	Kit #	List Price
1-1/2"	PKH-PK1502ML01	\$32.53
2"	PKH-PK2002ML01	24.62
2-1/2"	PKH-PK2502ML01	25.78
3-1/4"	PKH-PK3202ML01	30.71
4"	PKH-PK4002ML01	44.03
5"	PKH-PK5002ML01	73.01
6"	PKH-PK6002ML01	93.40
8"	PKH-PK8002ML01	159.14

Piston Kits

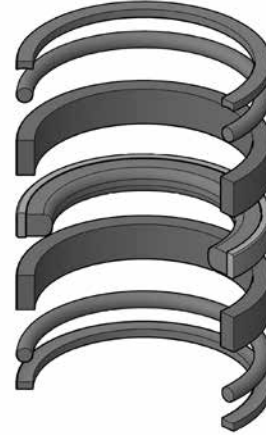
HMI Cylinders

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 #	List Price	(FC) Kit #	List Price
25 mm	PKH-PN025HM001	\$19.23	—	
32 mm	PKH-PN032HM001	22.58	PKH-PN032HM005	\$111.09
40 mm	PKH-PN040HM001	33.16	PKH-PN040HM005	137.26
50 mm	PKH-PN050HM001	36.07	PKH-PN050HM005	143.89
63 mm	PKH-PN063HM001	43.22	PKH-PN063HM005	185.97
80 mm	PKH-PN080HM001	47.53	PKH-PN080HM005	219.59
100 mm	PKH-PN100HM001	63.34	PKH-PN100HM005	225.66
125 mm	PKH-PN125HM001	109.55	PKH-PN125HM005	251.32
160 mm	PKH-PN160HM001	183.52	PKH-PN160HM005	400.03
200 mm	PKH-PN200HM001	193.31	PKH-PN200HM005	462.78

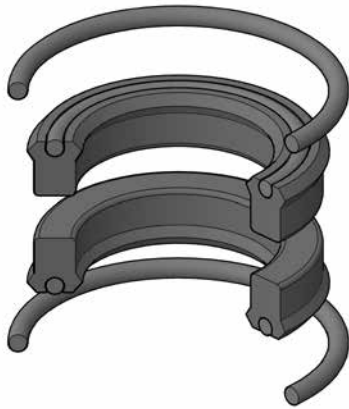
*Back-up Rings used only in 63mm and larger Piston Kits.

Piston Kits

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

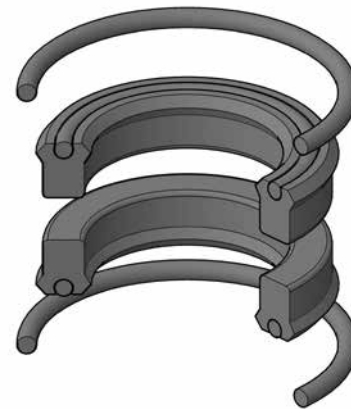
Urethane

Fluorocarbon



Kit Includes:

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



Kit Includes:

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

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
1"	PKH-PK102HLLP1	\$30.83	—	
1-1/2"	PKH-PK152HLLP1	21.28	PKH-PK152HLLP5	\$79.47
2"	PKH-PK202HLLP1	24.06	PKH-PK202HLLP5	90.12
2-1/2"	PKH-PK252HLLP1	25.26	PKH-PK252HLLP5	95.30
3-1/4"	PKH-PK322HLLP1	33.85	PKH-PK322HLLP5	175.82
4"	PKH-PK402HLLP1	39.32	PKH-PK402HLLP5	206.18
5"	PKH-PK502HLLP1	64.32	PKH-PK502HLLP5	245.15
6" *	PKH-PK602HLLP1	96.76	PKH-PK602HLLP5	494.14
6" **	PKH-PK602HLLP1-OLD	89.73	PKH-PK602HLLP5-OLD	350.93
8"	PKH-PK802HLLP1	118.05	PKH-PK802HLLP5	461.17

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

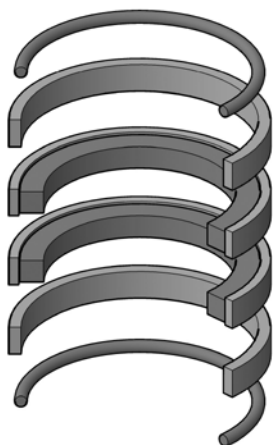
* These 6" kits are for the current standard piston, Jan. 1992-current. U-seal cross section of .28".

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

Piston Kits

High Load Kits for 2H, VH & HD

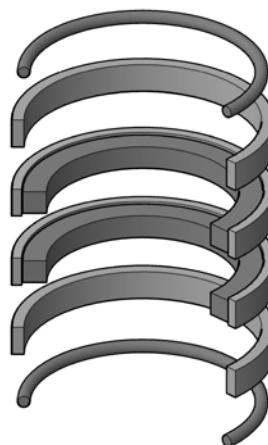
Nitrile



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:

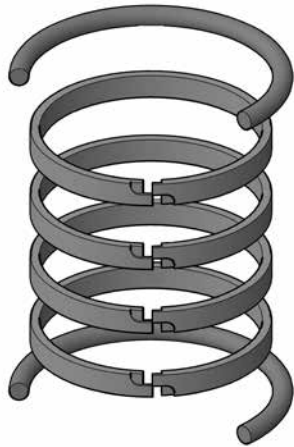
2 FC O-ring Head Seals
2 Nylon Wear Rings
2 Bronze filled PTFE Piston Rings
w/ 2 FC Expanders

Bore Dia.	Kit #	List Price	Kit #	List Price
1-1/2"	PKH-PK152HK001	\$27.22	PKH-PK152HK005	\$47.21
2"	PKH-PK202HK001	35.33	PKH-PK202HK005	53.45
2-1/2"	PKH-PK252HK001	34.07	PKH-PK252HK005	57.45
3-1/4"	PKH-PK322HK001	44.98	PKH-PK322HK005	126.53
4"	PKH-PK402HK001	39.17	PKH-PK402HK005	140.01
5"	PKH-PK502HK001	43.96	PKH-PK502HK005	154.94
6"	PKH-PK602HK001	80.65	PKH-PK602HK005	241.58
7"	PKH-PK702HK001	177.71	PKH-PK702HK005	358.31
8"	PKH-PK802HK001	190.33	PKH-PK802HK005	510.78
10"	PKH-PK902HK001	356.57	PKH-PK902HK005	731.64
12"	PKH-PK922HK001	729.74	PKH-PK922HK005	1,253.64

Piston Ring Kits

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

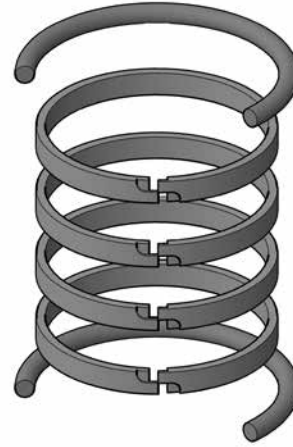
Nitrile



Kit Includes:

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

Fluorocarbon



Kit Includes:

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

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
1"	PKH-PR102H0001	\$89.20	PKH-PR102H0005	\$89.75
1-1/2"	PKH-PR152H0001	49.89	PKH-PR152H0005	57.79
2"	PKH-PR202H0001	53.23	PKH-PR202H0005	59.90
2-1/2"	PKH-PR252H0001	53.83	PKH-PR252H0005	60.73
3-1/4"	PKH-PR322H0001	58.21	PKH-PR322H0005	72.36
4"	PKH-PR402H0001	59.92	PKH-PR402H0005	73.73
5"	PKH-PR502H0001	78.92	PKH-PR502H0005	104.55
6"	PKH-PR602H0001	118.64	PKH-PR602H0005	126.53
7"	PKH-PR702H0001	132.58	PKH-PR702H0005	155.78
8"	PKH-PR802H0001	202.63	PKH-PR802H0005	216.14
10"	PKH-PR902H0001	553.59	PKH-PR902H0005	619.11
12"	PKH-PR922H0001	886.58	PKH-PR922H0005	1034.79

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 #	List Price	(FC) Kit #	List Price
1"	PKH-CB102HL001	\$7.29	PKH-CB102HL005	\$10.23
1-1/2"	PKH-CB152HL001	7.47	PKH-CB152HL005	10.23
2"	PKH-CB202HL001	7.85	PKH-CB202HL005	17.49
2-1/2"	PKH-CB252HL001	8.19	PKH-CB252HL005	21.84
3-1/4"	PKH-CB322HL001	8.66	PKH-CB322HL005	26.55
4"	PKH-CB402HL001	9.04	PKH-CB402HL005	33.21
5"	PKH-CB502HL001	10.41	PKH-CB502HL005	47.94
6"	PKH-CB602HL001	12.39	PKH-CB602HL005	50.13
7"	PKH-CB702HL001	13.35	PKH-CB702HL005	71.93
8"	PKH-CB802HL001	15.16	PKH-CB802HL005	73.20
10"	PKH-CB902HL001	18.47	PKH-CB902HL005	81.04

2MA & ML Cylinders

2MA Cylinders Only

Bore Dia.	(NBR) Kit #	List Price	(FC) Kit #	List Price
1-1/2"	PKH-CB1502MA01	\$7.10	PKH-CB1502MA05	\$7.36
2"	PKH-CB2002MA01	7.10	PKH-CB2002MA05	12.25
2-1/2"	PKH-CB2502MA01	7.31	PKH-CB2502MA05	12.25
3-1/4"	PKH-CB3202MA01	10.02	PKH-CB3202MA05	16.25
4"	PKH-CB4002MA01	15.71	PKH-CB4002MA05	17.86
5"	PKH-CB5002MA01	20.58	PKH-CB5002MA05	32.96
6"	PKH-CB6002MA01	27.37	PKH-CB6002MA05	53.55
8"	PKH-CB8002MA01	33.45	PKH-CB8002MA05	55.16

Piston Head Seal Kits

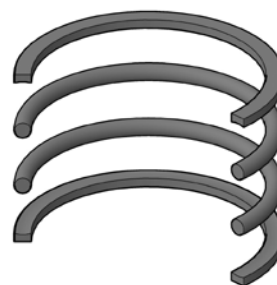
HMI Hydraulic Cylinders

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 #	List Price	(FC) Kit #	List Price
25 mm	PKH-CB025HM001	\$9.05	PKH-CB025HM005	\$17.09
32 mm	PKH-CB032HM001	9.33	PKH-CB032HM005	17.56
40 mm	PKH-CB040HM001	9.64	PKH-CB040HM005	18.38
50 mm	PKH-CB050HM001	9.98	PKH-CB050HM005	22.97
63 mm	PKH-CB063HM001	11.95	PKH-CB063HM005	23.26
80 mm	PKH-CB080HM001	12.58	PKH-CB080HM005	23.76
100 mm	PKH-CB100HM001	14.21	PKH-CB100HM005	35.58
125 mm	PKH-CB125HM001	18.49	PKH-CB125HM005	46.61
160 mm	PKH-CB160HM001	24.18	PKH-CB160HM005	81.01
200 mm	PKH-CB200HM001	31.17	PKH-CB200HM005	125.52

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

Various Kits

Various Kits

Kit #	Series	Code	Rod x Bore	List Price	Kit Includes: 1 XNBR H Style Wiper 2 NBR O-rings 1 NBR Quad Ring
PKH-KT060VP101	VP	I-N-2	1" X 6"	\$27.07	
PKH-KT070VP101	VP	I-N-2	1" X 7"	30.07	
PKH-KT080VP101	VP	I-N-2	1" X 8"	45.76	
PKH-KT100VP101	VP	I-N-2	1" X 10"	56.86	

PARKER - NET PRICE

Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	Net Price
PKH-069590	Gland Wrench	1/2, 5/8, 12mm, 14mm		11/16 x 1-1/8 x 1-3/8	\$36.35
PKH-069591	Gland Wrench	1, 22mm		1-1/16 x 1-5/8 x 1-1/2	21.96
PKH-069592	Gland Wrench	1-3/8, 36mm		1-7/16 x 1-7/8 x 1-5/8	42.53
PKH-069593	Gland Wrench	1-3/4, 45mm		1-13/16 x 2-1/4 x 1-5/8	40.43
PKH-069594	Gland Wrench	2		2-1/16 x 2-1/2 x 2	50.20
PKH-069595	Gland Wrench	2-1/2, 56mm		2-9/16 x 3 x 2-1/8	79.29
PKH-069596	Gland Wrench	70mm		2-15/16 x 3-1/2 x 2-3/8	92.64
PKH-084765	Gland Wrench	18mm		13/16 x 1-1/4 x 1-7/16	32.46
PKH-084766	Gland Wrench	28mm		1-1/4 x 1-11/16 x -1-9/16	31.05

PARKER - LIST PRICE

Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	List Price
PKH-CB025HM001	Piston Head Seal Kit		25 mm		\$9.05
PKH-CB025HM005	Piston Head Seal Kit		25 mm		17.09
PKH-CB032HM001	Piston Head Seal Kit		32 mm		9.33
PKH-CB032HM005	Piston Head Seal Kit		32 mm		17.56
PKH-CB040HM001	Piston Head Seal Kit		40 mm		9.64
PKH-CB040HM005	Piston Head Seal Kit		40 mm		18.38
PKH-CB050HM001	Piston Head Seal Kit		50 mm		9.98
PKH-CB050HM005	Piston Head Seal Kit		50 mm		22.97
PKH-CB063HM001	Piston Head Seal Kit		63 mm		11.95
PKH-CB063HM005	Piston Head Seal Kit		63 mm		23.26
PKH-CB080HM001	Piston Head Seal Kit		80 mm		12.58
PKH-CB080HM005	Piston Head Seal Kit		80 mm		23.76
PKH-CB100HM001	Piston Head Seal Kit		100 mm		14.21
PKH-CB100HM005	Piston Head Seal Kit		100 mm		35.58
PKH-CB102HL001	Piston Head Seal Kit		1		7.29
PKH-CB102HL005	Piston Head Seal Kit		1		10.23
PKH-CB125HM001	Piston Head Seal Kit		125 mm		18.49
PKH-CB125HM005	Piston Head Seal Kit		125 mm		46.61
PKH-CB1502MA01	Piston Head Seal Kit		1-1/2		7.10
PKH-CB1502MA05	Piston Head Seal Kit		1-1/2		7.36
PKH-CB152HL001	Piston Head Seal Kit		1-1/2		7.47
PKH-CB152HL005	Piston Head Seal Kit		1-1/2		10.23
PKH-CB160HM001	Piston Head Seal Kit		160 mm		24.18
PKH-CB160HM005	Piston Head Seal Kit		160 mm		81.01
PKH-CB2002MA01	Piston Head Seal Kit		2		7.10
PKH-CB2002MA05	Piston Head Seal Kit		2		12.25
PKH-CB200HM001	Piston Head Seal Kit		200 mm		31.17
PKH-CB200HM005	Piston Head Seal Kit		200 mm		125.52
PKH-CB202HL001	Piston Head Seal Kit		2		7.85
PKH-CB202HL005	Piston Head Seal Kit		2		17.49
PKH-CB2502MA01	Piston Head Seal Kit		2-1/2		7.31
PKH-CB2502MA05	Piston Head Seal Kit		2-1/2		12.25
PKH-CB252HL001	Piston Head Seal Kit		2-1/2		8.19
PKH-CB252HL005	Piston Head Seal Kit		2-1/2		21.84
PKH-CB3202MA01	Piston Head Seal Kit		3-1/4		10.02

Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	List Price
PKH-CB3202MA05	Piston Head Seal Kit		3-1/4		\$16.25
PKH-CB322HL001	Piston Head Seal Kit		3-1/4		8.66
PKH-CB322HL005	Piston Head Seal Kit		3-1/4		26.55
PKH-CB4002MA01	Piston Head Seal Kit		4		15.71
PKH-CB4002MA05	Piston Head Seal Kit		4		17.86
PKH-CB402HL001	Piston Head Seal Kit		4		9.04
PKH-CB402HL005	Piston Head Seal Kit		4		33.21
PKH-CB5002MA01	Piston Head Seal Kit		5		20.58
PKH-CB5002MA05	Piston Head Seal Kit		5		32.96
PKH-CB502HL001	Piston Head Seal Kit		5		10.41
PKH-CB502HL005	Piston Head Seal Kit		5		47.94
PKH-CB6002MA01	Piston Head Seal Kit		6		27.37
PKH-CB6002MA05	Piston Head Seal Kit		6		53.55
PKH-CB602HL001	Piston Head Seal Kit		6		12.39
PKH-CB602HL005	Piston Head Seal Kit		6		50.13
PKH-CB702HL001	Piston Head Seal Kit		7		13.35
PKH-CB702HL005	Piston Head Seal Kit		7		71.93
PKH-CB8002MA01	Piston Head Seal Kit		8		33.45
PKH-CB8002MA05	Piston Head Seal Kit		8		55.16
PKH-CB802HL001	Piston Head Seal Kit		8		15.16
PKH-CB802HL005	Piston Head Seal Kit		8		73.20
PKH-CB902HL001	Piston Head Seal Kit		9		18.47
PKH-CB902HL005	Piston Head Seal Kit		9		81.04
PKH-KT060VP101	Rod & Piston Seal Kit	1	6		27.07
PKH-KT070VP101	Rod & Piston Seal Kit	1	7		30.07
PKH-KT080VP101	Rod & Piston Seal Kit	1	8		45.76
PKH-KT100VP101	Rod & Piston Seal Kit	1	10		56.86
PKH-PK1002A001	Piston Kit		1		10.24
PKH-PK1002A005	Piston Kit		1		38.86
PKH-PK1002AN01	Piston Kit		1		21.03
PKH-PK102HLL01	Piston Kit		1		15.10
PKH-PK102HLL05	Piston Kit		1		52.72
PKH-PK102HLLP1	Piston Kit		1		30.83
PKH-PK1502A001	Piston Kit		1-1/2		12.03
PKH-PK1502A005	Piston Kit		1-1/2		54.75
PKH-PK1502AN01	Piston Kit		1-1/2		23.36
PKH-PK1502MA01	Piston Kit		1-1/2		26.87
PKH-PK1502MA05	Piston Kit		1-1/2		52.34
PKH-PK1502ML01	Piston Kit		1-1/2		32.53
PKH-PK152HK001	Piston Kit		1-1/2		27.22
PKH-PK152HK005	Piston Kit		1-1/2		47.21
PKH-PK152HLL01	Piston Kit		1-1/2		11.11
PKH-PK152HLL05	Piston Kit		1-1/2		54.75
PKH-PK152HLLP1	Piston Kit		1-1/2		21.28
PKH-PK152HLLP5	Piston Kit		1-1/2		79.47
PKH-PK2002A001	Piston Kit		2		14.16
PKH-PK2002A005	Piston Kit		2		62.48
PKH-PK2002AN01	Piston Kit		2		26.11
PKH-PK2002MA01	Piston Kit		2		27.23
PKH-PK2002MA05	Piston Kit		2		56.06

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Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	List Price
PKH-PK2002ML01	Piston Kit		2		\$24.62
PKH-PK202HK001	Piston Kit		2		35.33
PKH-PK202HK005	Piston Kit		2		53.45
PKH-PK202HLL01	Piston Kit		2		14.16
PKH-PK202HLL05	Piston Kit		2		85.35
PKH-PK202HLLP1	Piston Kit		2		24.06
PKH-PK202HLLP5	Piston Kit		2		90.12
PKH-PK2502A001	Piston Kit		2-1/2		16.42
PKH-PK2502A005	Piston Kit		2-1/2		87.69
PKH-PK2502AN01	Piston Kit		2-1/2		31.88
PKH-PK2502MA01	Piston Kit		2-1/2		29.20
PKH-PK2502MA05	Piston Kit		2-1/2		74.41
PKH-PK2502ML01	Piston Kit		2-1/2		25.78
PKH-PK252HK001	Piston Kit		2-1/2		34.07
PKH-PK252HK005	Piston Kit		2-1/2		57.45
PKH-PK252HLL01	Piston Kit		2-1/2		16.42
PKH-PK252HLL05	Piston Kit		2-1/2		86.48
PKH-PK252HLLP1	Piston Kit		2-1/2		25.26
PKH-PK252HLLP5	Piston Kit		2-1/2		95.30
PKH-PK3202A001	Piston Kit		3-1/4		20.36
PKH-PK3202A005	Piston Kit		3-1/4		102.33
PKH-PK3202AN01	Piston Kit		3-1/4		41.63
PKH-PK3202MA01	Piston Kit		3-1/4		35.10
PKH-PK3202MA05	Piston Kit		3-1/4		91.98
PKH-PK3202ML01	Piston Kit		3-1/4		30.71
PKH-PK322HK001	Piston Kit		3-1/4		44.98
PKH-PK322HK005	Piston Kit		3-1/4		126.53
PKH-PK322HLL01	Piston Kit		3-1/4		20.36
PKH-PK322HLL05	Piston Kit		3-1/4		93.20
PKH-PK322HLLP1	Piston Kit		3-1/4		33.85
PKH-PK322HLLP5	Piston Kit		3-1/4		175.82
PKH-PK4002A001	Piston Kit		4		26.77
PKH-PK4002A005	Piston Kit		4		110.30
PKH-PK4002AN01	Piston Kit		4		51.53
PKH-PK4002MA01	Piston Kit		4		43.04
PKH-PK4002MA05	Piston Kit		4		104.20
PKH-PK4002ML01	Piston Kit		4		44.03
PKH-PK402HK001	Piston Kit		4		39.17
PKH-PK402HK005	Piston Kit		4		140.01
PKH-PK402HLL01	Piston Kit		4		26.77
PKH-PK402HLL05	Piston Kit		4		116.38
PKH-PK402HLLP1	Piston Kit		4		39.32
PKH-PK402HLLP5	Piston Kit		4		206.18
PKH-PK5002A001	Piston Kit		5		31.22
PKH-PK5002A005	Piston Kit		5		139.99
PKH-PK5002AN01	Piston Kit		5		61.85
PKH-PK5002MA01	Piston Kit		5		55.69
PKH-PK5002MA05	Piston Kit		5		157.68
PKH-PK5002ML01	Piston Kit		5		73.01
PKH-PK502HK001	Piston Kit		5		43.96

Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	List Price
PKH-PK502HK005	Piston Kit		5		\$154.94
PKH-PK502HLL01	Piston Kit		5		31.15
PKH-PK502HLL05	Piston Kit		5		139.07
PKH-PK502HLLP1	Piston Kit		5		64.32
PKH-PK502HLLP5	Piston Kit		5		245.15
PKH-PK6002A001	Piston Kit		6		40.56
PKH-PK6002A005	Piston Kit		6		186.06
PKH-PK6002AN01	Piston Kit		6		98.54
PKH-PK6002MA01	Piston Kit		6		74.46
PKH-PK6002MA05	Piston Kit		6		223.33
PKH-PK6002ML01	Piston Kit		6		93.40
PKH-PK602HK001	Piston Kit		6		80.65
PKH-PK602HK005	Piston Kit		6		241.58
PKH-PK602HLL01	Piston Kit		6		40.49
PKH-PK602HLL05	Piston Kit		6		185.93
PKH-PK602HLLP1	Piston Kit		6		96.76
PKH-PK602HLLP1-OLD	Piston Kit		6		89.73
PKH-PK602HLLP5	Piston Kit		6		494.14
PKH-PK602HLLP5-OLD	Piston Kit		6		350.93
PKH-PK7002A001	Piston Kit		7		101.20
PKH-PK7002A005	Piston Kit		7		294.91
PKH-PK7002AN01	Piston Kit		7		107.06
PKH-PK702HK001	Piston Kit		7		177.71
PKH-PK702HK005	Piston Kit		7		358.31
PKH-PK702HLL01	Piston Kit		7		107.58
PKH-PK702HLL05	Piston Kit		7		294.77
PKH-PK8002A001	Piston Kit		8		117.83
PKH-PK8002A005	Piston Kit		8		403.28
PKH-PK8002AN01	Piston Kit		8		152.95
PKH-PK8002MA01	Piston Kit		8		131.45
PKH-PK8002MA05	Piston Kit		8		373.44
PKH-PK8002ML01	Piston Kit		8		159.14
PKH-PK802HK001	Piston Kit		8		190.33
PKH-PK802HK005	Piston Kit		8		510.78
PKH-PK802HLL01	Piston Kit		8		117.83
PKH-PK802HLL05	Piston Kit		8		403.28
PKH-PK802HLLP1	Piston Kit		8		118.05
PKH-PK802HLLP5	Piston Kit		8		461.17
PKH-PK9002A001	Piston Kit		10		174.50
PKH-PK9002A005	Piston Kit		10		511.87
PKH-PK9002AN01	Piston Kit		10		228.43
PKH-PK902HK001	Piston Kit		10		356.57
PKH-PK902HK005	Piston Kit		10		731.64
PKH-PK902HLL01	Piston Kit		10		210.08
PKH-PK902HLL05	Piston Kit		10		630.24
PKH-PK9202A001	Piston Kit		12		237.06
PKH-PK9202A005	Piston Kit		12		786.31
PKH-PK9202AN01	Piston Kit		12		418.41
PKH-PK922HK001	Piston Kit		12		729.74
PKH-PK922HK005	Piston Kit		12		1253.64

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Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	List Price
PKH-PK922HLL01	Piston Kit		12		\$285.06
PKH-PK922HLL05	Piston Kit		12		786.31
PKH-PK9402A001	Piston Kit		14		366.68
PKH-PK9402A005	Piston Kit		14		1284.68
PKH-PN025HM001	Piston Kit		25 mm		19.23
PKH-PN025HM005	Piston Kit		25 mm		86.01
PKH-PN032HM001	Piston Kit		32 mm		22.58
PKH-PN032HM005	Piston Kit		32 mm		111.09
PKH-PN040HM001	Piston Kit		40 mm		33.16
PKH-PN040HM005	Piston Kit		40 mm		137.26
PKH-PN050HM001	Piston Kit		50 mm		36.07
PKH-PN050HM005	Piston Kit		50 mm		143.89
PKH-PN063HM001	Piston Kit		63 mm		43.22
PKH-PN063HM005	Piston Kit		63 mm		185.97
PKH-PN080HM001	Piston Kit		80 mm		47.53
PKH-PN080HM005	Piston Kit		80 mm		219.59
PKH-PN100HM001	Piston Kit		100 mm		63.34
PKH-PN100HM005	Piston Kit		100 mm		225.66
PKH-PN125HM001	Piston Kit		125 mm		109.55
PKH-PN125HM005	Piston Kit		125 mm		251.32
PKH-PN160HM001	Piston Kit		160 mm		183.52
PKH-PN160HM005	Piston Kit		160 mm		400.03
PKH-PN200HM001	Piston Kit		200 mm		193.31
PKH-PN200HM005	Piston Kit		200 mm		462.78
PKH-PR102H0001	Piston Ring Kit		1		89.20
PKH-PR102H0005	Piston Ring Kit		1		89.75
PKH-PR152H0001	Piston Ring Kit		1-1/2		49.89
PKH-PR152H0005	Piston Ring Kit		1-1/2		57.79
PKH-PR202H0001	Piston Ring Kit		2		53.23
PKH-PR202H0005	Piston Ring Kit		2		59.90
PKH-PR252H0001	Piston Ring Kit		2-1/2		53.83
PKH-PR252H0005	Piston Ring Kit		2-1/2		60.73
PKH-PR322H0001	Piston Ring Kit		3-1/4		58.21
PKH-PR322H0005	Piston Ring Kit		3-1/4		72.36
PKH-PR402H0001	Piston Ring Kit		4		59.92
PKH-PR402H0005	Piston Ring Kit		4		73.73
PKH-PR502H0001	Piston Ring Kit		5		78.92
PKH-PR502H0005	Piston Ring Kit		5		104.55
PKH-PR602H0001	Piston Ring Kit		6		118.64
PKH-PR602H0005	Piston Ring Kit		6		126.53
PKH-PR702H0001	Piston Ring Kit		7		132.58
PKH-PR702H0005	Piston Ring Kit		7		155.78
PKH-PR802H0001	Piston Ring Kit		8		202.63
PKH-PR802H0005	Piston Ring Kit		8		216.14
PKH-PR902H0001	Piston Ring Kit		10		553.59
PKH-PR902H0005	Piston Ring Kit		10		619.11
PKH-PR922H0001	Piston Ring Kit		12		886.58
PKH-PR922H0005	Piston Ring Kit		12		1034.79
PKH-RG02MA0051	Rod Gland Kit	1/2			44.66
PKH-RG02MA0055	Rod Gland Kit	1/2			47.58

Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	List Price
PKH-RG02MA0061	Rod Gland Kit	5/8			\$29.50
PKH-RG02MA0065	Rod Gland Kit	5/8			47.11
PKH-RG02MA0101	Rod Gland Kit	1			33.80
PKH-RG02MA0105	Rod Gland Kit	1			52.21
PKH-RG02MA0131	Rod Gland Kit	1-3/8			50.48
PKH-RG02MA0135	Rod Gland Kit	1-3/8			75.47
PKH-RG02MA0171	Rod Gland Kit	1-3/4			102.73
PKH-RG02MA0175	Rod Gland Kit	1-3/4			115.24
PKH-RG02MA-05	Rod Gland	1/2			39.47
PKH-RG02MA-06	Rod Gland	5/8			29.09
PKH-RG02MA-10	Rod Gland	1			36.40
PKH-RG02MA-13	Rod Gland	1-3/8			52.63
PKH-RG02MA-17	Rod Gland	1-3/4			82.89
PKH-RG-05	Rod Gland	1/2			40.97
PKH-RG-06	Rod Gland	5/8			24.69
PKH-RG-10	Rod Gland	1			28.67
PKH-RG-13	Rod Gland	1-3/8			39.76
PKH-RG-17	Rod Gland	1-3/4			48.36
PKH-RG1HDL0061	Rod Gland Kit	5/8			60.57
PKH-RG1HDL0065	Rod Gland Kit	5/8			73.41
PKH-RG1HDL0101	Rod Gland Kit	1			77.99
PKH-RG1HDL0105	Rod Gland Kit	1			90.42
PKH-RG1HDL0131	Rod Gland Kit	1-3/8			101.28
PKH-RG1HDL0135	Rod Gland Kit	1-3/8			122.58
PKH-RG1HDL0171	Rod Gland Kit	1-3/4			119.69
PKH-RG1HDL0175	Rod Gland Kit	1-3/4			149.53
PKH-RG1HDL0201	Rod Gland Kit	2			172.21
PKH-RG1HDL0205	Rod Gland Kit	2			202.83
PKH-RG1HDL0251	Rod Gland Kit	2-1/2			230.57
PKH-RG1HDL0255	Rod Gland Kit	2-1/2			264.51
PKH-RG1HDL0351	Rod Gland Kit	3-1/2			285.82
PKH-RG1HDL0355	Rod Gland Kit	3-1/2			324.89
PKH-RG-20	Rod Gland	2			59.12
PKH-RG-25	Rod Gland	2-1/2			83.41
PKH-RG2AHL0051	Rod Gland Kit	1/2			71.27
PKH-RG2AHL0051PS	Rod Gland Kit	1/2			38.16
PKH-RG2AHL0055	Rod Gland Kit	1/2			91.61
PKH-RG2AHL0055PS	Rod Gland Kit	1/2			46.46
PKH-RG2AHL0061	Rod Gland Kit	5/8			43.04
PKH-RG2AHL0061PS	Rod Gland Kit	5/8			41.38
PKH-RG2AHL0065	Rod Gland Kit	5/8			70.22
PKH-RG2AHL0065PS	Rod Gland Kit	5/8			51.02
PKH-RG2AHL0101	Rod Gland Kit	1			52.77
PKH-RG2AHL0101PS	Rod Gland Kit	1			51.34
PKH-RG2AHL0105	Rod Gland Kit	1			79.47
PKH-RG2AHL0105PS	Rod Gland Kit	1			61.73
PKH-RG2AHL0131	Rod Gland Kit	1-3/8			64.34
PKH-RG2AHL0131PS	Rod Gland Kit	1-3/8			63.13
PKH-RG2AHL0135	Rod Gland Kit	1-3/8			99.84
PKH-RG2AHL0135PS	Rod Gland Kit	1-3/8			77.06

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Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	List Price
PKH-RG2AHL0171	Rod Gland Kit	1-3/4			\$74.51
PKH-RG2AHL0171PS	Rod Gland Kit	1-3/4			71.21
PKH-RG2AHL0175	Rod Gland Kit	1-3/4			109.03
PKH-RG2AHL0175PS	Rod Gland Kit	1-3/4			89.39
PKH-RG2AHL0201	Rod Gland Kit	2			92.96
PKH-RG2AHL0201PS	Rod Gland Kit	2			89.68
PKH-RG2AHL0205	Rod Gland Kit	2			129.77
PKH-RG2AHL0205PS	Rod Gland Kit	2			104.24
PKH-RG2AHL0251	Rod Gland Kit	2-1/2			126.83
PKH-RG2AHL0251PS	Rod Gland Kit	2-1/2			137.61
PKH-RG2AHL0255	Rod Gland Kit	2-1/2			168.53
PKH-RG2AHL0255PS	Rod Gland Kit	2-1/2			168.77
PKH-RG2AHL0301	Rod Gland Kit	3			162.78
PKH-RG2AHL0301PS	Rod Gland Kit	3			162.82
PKH-RG2AHL0305	Rod Gland Kit	3			191.58
PKH-RG2AHL0305PS	Rod Gland Kit	3			185.85
PKH-RG2AHL0351	Rod Gland Kit	3-1/2			356.85
PKH-RG2AHL0351PS	Rod Gland Kit	3-1/2			339.51
PKH-RG2AHL0355	Rod Gland Kit	3-1/2			386.70
PKH-RG2AHL0355PS	Rod Gland Kit	3-1/2			342.22
PKH-RG2AHL0401	Rod Gland Kit	4			433.98
PKH-RG2AHL0405	Rod Gland Kit	4			455.66
PKH-RG2AHL0451	Rod Gland Kit	4-1/2			539.96
PKH-RG2AHL0455	Rod Gland Kit	4-1/2			544.42
PKH-RG2AHL0501	Rod Gland Kit	5			600.75
PKH-RG2AHL0505	Rod Gland Kit	5			680.04
PKH-RG2AHL0551	Rod Gland Kit	5-1/2			619.58
PKH-RG2AHL0555	Rod Gland Kit	5-1/2			742.18
PKH-RG2AN00051	Rod Gland Kit	1/2			46.34
PKH-RG2AN00061	Rod Gland Kit	5/8			48.24
PKH-RG2AN00101	Rod Gland Kit	1			54.21
PKH-RG2AN00131	Rod Gland Kit	1-3/8			57.67
PKH-RG2AN00171	Rod Gland Kit	1-3/4			72.47
PKH-RG2AN00201	Rod Gland Kit	2			88.23
PKH-RG2AN00251	Rod Gland Kit	2-1/2			144.32
PKH-RG2AN00301	Rod Gland Kit	3			219.33
PKH-RG2AN00351	Rod Gland Kit	3-1/2			311.97
PKH-RG2AN00401	Rod Gland Kit	4			417.87
PKH-RG2AN00451	Rod Gland Kit	4-1/2			518.07
PKH-RG2AN00501	Rod Gland Kit	5			617.65
PKH-RG2AN00551	Rod Gland Kit	5-1/2			692.01
PKH-RG2HLTS051	Rod Gland Kit	1/2			104.49
PKH-RG2HLTS061	Rod Gland Kit	5/8			80.13
PKH-RG2HLTS101	Rod Gland Kit	1			90.91
PKH-RG2HLTS131	Rod Gland Kit	1-3/8			106.36
PKH-RG2HLTS171	Rod Gland Kit	1-3/4			114.14
PKH-RG2HLTS201	Rod Gland Kit	2			148.43
PKH-RG2HLTS251	Rod Gland Kit	2-1/2			192.62
PKH-RG2HLTS301	Rod Gland Kit	3			238.77
PKH-RG2HLTS351	Rod Gland Kit	3-1/2			337.85

Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	List Price
PKH-RG2HLTS401	Rod Gland Kit	4			\$441.61
PKH-RG2HLTS451	Rod Gland Kit	4-1/2			480.33
PKH-RG2HLTS501	Rod Gland Kit	5			634.15
PKH-RG2HLTS551	Rod Gland Kit	5-1/2			654.43
PKH-RG2HM0121	Rod Gland Kit	12 mm			67.39
PKH-RG2HM0125	Rod Gland Kit	12 mm			75.46
PKH-RG2HM0141	Rod Gland Kit	14 mm			95.84
PKH-RG2HM0145	Rod Gland Kit	14 mm			103.77
PKH-RG2HM0181	Rod Gland Kit	18 mm			93.48
PKH-RG2HM0185	Rod Gland Kit	18 mm			110.84
PKH-RG2HM0221	Rod Gland Kit	22 mm			96.49
PKH-RG2HM0225	Rod Gland Kit	22 mm			116.17
PKH-RG2HM0281	Rod Gland Kit	28 mm			98.74
PKH-RG2HM0285	Rod Gland Kit	28 mm			128.65
PKH-RG2HM0361	Rod Gland Kit	36 mm			94.58
PKH-RG2HM0365	Rod Gland Kit	36 mm			124.90
PKH-RG2HM0451	Rod Gland Kit	45 mm			104.77
PKH-RG2HM0455	Rod Gland Kit	45 mm			128.72
PKH-RG2HM0561	Rod Gland Kit	56 mm			193.63
PKH-RG2HM0565	Rod Gland Kit	56 mm			239.96
PKH-RG2HM0701	Rod Gland Kit	70 mm			284.65
PKH-RG2HM0705	Rod Gland Kit	70 mm			348.88
PKH-RG-30	Rod Gland	3			115.30
PKH-RG-35	Rod Gland	3-1/2			270.48
PKH-RG-40	Rod Gland	4			275.55
PKH-RG-45	Rod Gland	4-1/2			396.26
PKH-RG-50	Rod Gland	5			459.08
PKH-RG-55	Rod Gland	5-1/2			484.17
PKH-RGHD-06	Bronze Rod Gland	5/8			48.14
PKH-RGHD-10	Bronze Rod Gland	1			63.19
PKH-RGHD-13	Bronze Rod Gland	1-3/8			83.06
PKH-RGHD-17	Bronze Rod Gland	1-3/4			105.14
PKH-RGHD-20	Bronze Rod Gland	2			154.84
PKH-RGHD-25	Bronze Rod Gland	2-1/2			190.54
PKH-RGHD-35	Bronze Rod Gland	3-1/2			233.99
PKH-RGHM-012	Rod Gland	12 mm			31.23
PKH-RGHM-014	Rod Gland	14 mm			54.56
PKH-RGHM-018	Rod Gland	18 mm			58.61
PKH-RGHM-022	Rod Gland	22 mm			57.30
PKH-RGHM-028	Rod Gland	28 mm			62.17
PKH-RGHM-036	Rod Gland	36 mm			60.46
PKH-RGHM-045	Rod Gland	45 mm			57.33
PKH-RGHM-056	Rod Gland	56 mm			130.59
PKH-RGHM-070	Rod Gland	70 mm			215.66
PKH-RGL6948MA1	Rod Gland Kit	5/8			53.68
PKH-RGL6948MA5	Rod Gland Kit	5/8			60.88
PKH-RGL6949MA1	Rod Gland Kit	1			45.04
PKH-RGL6949MA5	Rod Gland Kit	1			58.05
PKH-RGL6950MA1	Rod Gland Kit	1-3/8			53.60
PKH-RGL6950MA5	Rod Gland Kit	1-3/8			71.70

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Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	List Price
PKH-RGMA-06	Rod Gland	5/8			\$44.40
PKH-RGMA-10	Rod Gland	1			35.13
PKH-RGMA-13	Rod Gland	1-3/8			42.77
PKH-RK02MA0051	Rod Kit	1/2			14.41
PKH-RK02MA0055	Rod Kit	1/2			21.54
PKH-RK02MA0061	Rod Kit	5/8			14.86
PKH-RK02MA0065	Rod Kit	5/8			22.13
PKH-RK02MA0101	Rod Kit	1			15.24
PKH-RK02MA0105	Rod Kit	1			22.86
PKH-RK02MA0131	Rod Kit	1-3/8			16.30
PKH-RK02MA0135	Rod Kit	1-3/8			28.62
PKH-RK02MA0171	Rod Kit	1-3/4			17.42
PKH-RK02MA0175	Rod Kit	1-3/4			35.99
PKH-RK02ML0061	Rod Kit	5/8			19.07
PKH-RK02ML0101	Rod Kit	1			19.71
PKH-RK02ML0131	Rod Kit	1-3/8			22.36
PKH-RK02ML0171	Rod Kit	1-3/4			25.55
PKH-RK1HDL0061	Rod Kit	5/8			11.50
PKH-RK1HDL0065	Rod Kit	5/8			24.35
PKH-RK1HDL0101	Rod Kit	1			13.60
PKH-RK1HDL0105	Rod Kit	1			26.02
PKH-RK1HDL0131	Rod Kit	1-3/8			16.64
PKH-RK1HDL0135	Rod Kit	1-3/8			37.95
PKH-RK1HDL0171	Rod Kit	1-3/4			20.49
PKH-RK1HDL0175	Rod Kit	1-3/4			42.39
PKH-RK1HDL0201	Rod Kit	2			25.77
PKH-RK1HDL0205	Rod Kit	2			45.05
PKH-RK1HDL0251	Rod Kit	2-1/2			36.39
PKH-RK1HDL0255	Rod Kit	2-1/2			70.34
PKH-RK1HDL0351	Rod Kit	3-1/2			47.37
PKH-RK1HDL0355	Rod Kit	3-1/2			86.45
PKH-RK2AHL0051	Rod Kit	1/2			8.26
PKH-RK2AHL0051PS	Rod Kit	1/2			11.40
PKH-RK2AHL0055	Rod Kit	1/2			34.31
PKH-RK2AHL0055PS	Rod Kit	1/2			19.70
PKH-RK2AHL0061	Rod Kit	5/8			14.32
PKH-RK2AHL0061PS	Rod Kit	5/8			12.01
PKH-RK2AHL0065	Rod Kit	5/8			37.72
PKH-RK2AHL0065PS	Rod Kit	5/8			21.65
PKH-RK2AHL0101	Rod Kit	1			10.35
PKH-RK2AHL0101PS	Rod Kit	1			17.11
PKH-RK2AHL0105	Rod Kit	1			42.38
PKH-RK2AHL0105PS	Rod Kit	1			27.50
PKH-RK2AHL0131	Rod Kit	1-3/8			11.36
PKH-RK2AHL0131PS	Rod Kit	1-3/8			20.12
PKH-RK2AHL0135	Rod Kit	1-3/8			54.88
PKH-RK2AHL0135PS	Rod Kit	1-3/8			34.06
PKH-RK2AHL0171	Rod Kit	1-3/4			13.15
PKH-RK2AHL0171PS	Rod Kit	1-3/4			17.30
PKH-RK2AHL0175	Rod Kit	1-3/4			57.16

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Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	List Price
PKH-RK2AHL0175PS	Rod Kit	1-3/4			\$35.48
PKH-RK2AHL0201	Rod Kit	2			14.52
PKH-RK2AHL0201PS	Rod Kit	2			21.23
PKH-RK2AHL0205	Rod Kit	2			59.58
PKH-RK2AHL0205PS	Rod Kit	2			35.79
PKH-RK2AHL0251	Rod Kit	2-1/2			16.30
PKH-RK2AHL0251PS	Rod Kit	2-1/2			32.43
PKH-RK2AHL0255	Rod Kit	2-1/2			65.20
PKH-RK2AHL0255PS	Rod Kit	2-1/2			63.59
PKH-RK2AHL0301	Rod Kit	3			21.13
PKH-RK2AHL0301PS	Rod Kit	3			39.13
PKH-RK2AHL0305	Rod Kit	3			78.68
PKH-RK2AHL0305PS	Rod Kit	3			62.16
PKH-RK2AHL0351	Rod Kit	3-1/2			98.90
PKH-RK2AHL0351PS	Rod Kit	3-1/2			77.44
PKH-RK2AHL0355	Rod Kit	3-1/2			163.21
PKH-RK2AHL0355PS	Rod Kit	3-1/2			80.14
PKH-RK2AHL0401	Rod Kit	4			122.86
PKH-RK2AHL0405	Rod Kit	4			189.11
PKH-RK2AHL0451	Rod Kit	4-1/2			144.05
PKH-RK2AHL0455	Rod Kit	4-1/2			236.69
PKH-RK2AHL0501	Rod Kit	5			179.36
PKH-RK2AHL0505	Rod Kit	5			276.55
PKH-RK2AHL0551	Rod Kit	5-1/2			200.28
PKH-RK2AHL0555	Rod Kit	5-1/2			396.77
PKH-RK2AN00051	Rod Kit	1/2			20.17
PKH-RK2AN00061	Rod Kit	5/8			21.13
PKH-RK2AN00101	Rod Kit	1			24.28
PKH-RK2AN00131	Rod Kit	1-3/8			26.80
PKH-RK2AN00171	Rod Kit	1-3/4			31.51
PKH-RK2AN00201	Rod Kit	2			37.19
PKH-RK2AN00251	Rod Kit	2-1/2			53.91
PKH-RK2AN00301	Rod Kit	3			88.87
PKH-RK2AN00351	Rod Kit	3-1/2			140.54
PKH-RK2AN00401	Rod Kit	4			170.17
PKH-RK2AN00451	Rod Kit	4-1/2			186.55
PKH-RK2AN00501	Rod Kit	5			204.19
PKH-RK2AN00551	Rod Kit	5-1/2			243.91
PKH-RK2HLTS051	Rod Kit	1/2			24.63
PKH-RK2HLTS061	Rod Kit	5/8			25.24
PKH-RK2HLTS101	Rod Kit	1			29.83
PKH-RK2HLTS131	Rod Kit	1-3/8			35.24
PKH-RK2HLTS171	Rod Kit	1-3/4			40.94
PKH-RK2HLTS201	Rod Kit	2			46.92
PKH-RK2HLTS251	Rod Kit	2-1/2			50.19
PKH-RK2HLTS301	Rod Kit	3			54.56
PKH-RK2HLTS351	Rod Kit	3-1/2			65.38
PKH-RK2HLTS401	Rod Kit	4			73.03
PKH-RK2HLTS451	Rod Kit	4-1/2			79.75
PKH-RK2HLTS501	Rod Kit	5			86.52

Sales Part Number	Description	Rod Size	Bore Size	ID x OD x W	List Price
PKH-RK2HLTS551	Rod Kit	5-1/2			\$94.99
PKH-RK2HM0121	Rod Kit	12 mm			30.60
PKH-RK2HM0125	Rod Kit	12 mm			38.72
PKH-RK2HM0141	Rod Kit	14 mm			31.52
PKH-RK2HM0145	Rod Kit	14 mm			39.48
PKH-RK2HM0181	Rod Kit	18 mm			24.41
PKH-RK2HM0185	Rod Kit	18 mm			41.75
PKH-RK2HM0221	Rod Kit	22 mm			33.95
PKH-RK2HM0225	Rod Kit	22 mm			43.58
PKH-RK2HM0281	Rod Kit	28 mm			15.33
PKH-RK2HM0285	Rod Kit	28 mm			52.37
PKH-RK2HM0361	Rod Kit	36 mm			23.32
PKH-RK2HM0365	Rod Kit	36 mm			53.65
PKH-RK2HM0451	Rod Kit	45 mm			37.24
PKH-RK2HM0455	Rod Kit	45 mm			61.11
PKH-RK2HM0561	Rod Kit	56 mm			39.75
PKH-RK2HM0565	Rod Kit	56 mm			86.09
PKH-RK2HM0701	Rod Kit	70 mm			30.52
PKH-RK2HM0705	Rod Kit	70 mm			94.74
PKH-RK2HM0901	Rod Kit	90 mm			57.34
PKH-RK2HM0905	Rod Kit	90 mm			308.33
PKH-RK2HM1101	Rod Kit	110 mm			74.03
PKH-RK2HM1105	Rod Kit	110 mm			412.10
PKH-RK2HM1401	Rod Kit	140 mm			96.09
PKH-RK2HM1405	Rod Kit	140 mm			493.45
PKH-SKL7000MA1	Rod & Piston Seal Kit	5/8	1-1/2		23.44
PKH-SKL7000MA5	Rod & Piston Seal Kit	5/8	1-1/2		65.98
PKH-SKL7001MA1	Rod & Piston Seal Kit	5/8	2		23.66
PKH-SKL7001MA5	Rod & Piston Seal Kit	5/8	2		69.02
PKH-SKL7002MA1	Rod & Piston Seal Kit	1	2		24.05
PKH-SKL7002MA5	Rod & Piston Seal Kit	1	2		72.06
PKH-SKL7003MA1	Rod & Piston Seal Kit	5/8	2-1/2		31.19
PKH-SKL7003MA5	Rod & Piston Seal Kit	5/8	2-1/2		84.38
PKH-SKL7004MA1	Rod & Piston Seal Kit	1	2-1/2		25.98
PKH-SKL7004MA5	Rod & Piston Seal Kit	1	2-1/2		87.43
PKH-SKL7005MA1	Rod & Piston Seal Kit	1	3-1/4		27.00
PKH-SKL7005MA5	Rod & Piston Seal Kit	1	3-1/4		92.49
PKH-SKL7006MA1	Rod & Piston Seal Kit	1-3/8	3-1/4		30.58
PKH-SKL7006MA5	Rod & Piston Seal Kit	1-3/8	3-1/4		105.52
PKH-SKL7007MA1	Rod & Piston Seal Kit	1	4		31.19
PKH-SKL7007MA5	Rod & Piston Seal Kit	1	4		109.70
PKH-SKL7008MA1	Rod & Piston Seal Kit	1-3/8	4		33.65
PKH-SKL7008MA5	Rod & Piston Seal Kit	1-3/8	4		122.81
PKH-SKL7009MA1	Rod & Piston Seal Kit	1	5		38.53
PKH-SKL7009MA5	Rod & Piston Seal Kit	1	5		133.72
PKH-SKL7010MA1	Rod & Piston Seal Kit	1-3/8	5		42.14
PKH-SKL7010MA5	Rod & Piston Seal Kit	1-3/8	5		146.86
PKH-SKL7098MA1	Rod & Piston Seal Kit	1-3/8	6		45.38
PKH-SKL7098MA5	Rod & Piston Seal Kit	1-3/8	6		181.20

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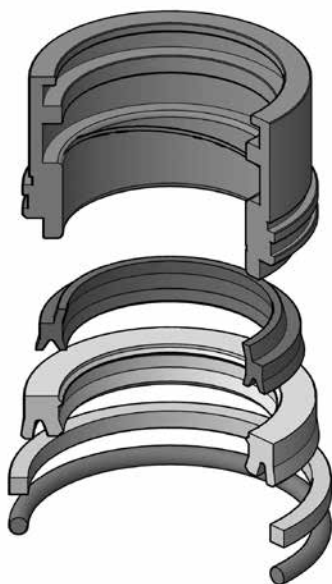
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Gland Kits

CDT1, CGT1, CDT4, CGT4* Hydraulic Cylinders Urethane



Kit #	Rod Dia.	Bore Dia.	List Price
RRTH-R978006773	5/8"		\$112.75
RRTH-R978006774	1"	1-1/2"	121.25
RRTH-R978006775	1"	2" - 2-1/2"	121.15
RRTH-R978006776	1-3/8"	2"	137.67
RRTH-R978006777	1-3/8"	2-1/2" - 3-1/4"	137.66
RRTH-R978006778	1-3/4"		157.61
RRTH-R978006779	2"		185.54
RRTH-R978006780	2-1/2"		211.45

*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

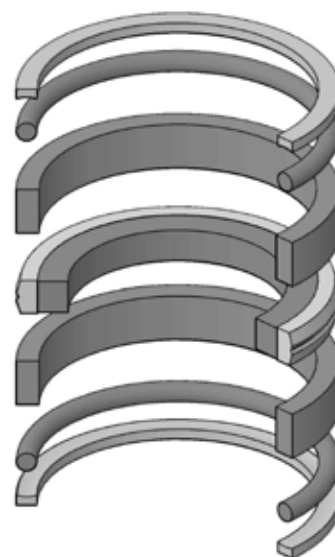
Piston Kits

CDT1, CGT1, CDT4, CGT4 Hydraulic Cylinders Urethane

Kit #	Bore Dia.	List Price
RRTH-R978006830	1-1/2"	\$29.23
RRTH-R978006831	2"	35.40
RRTH-R978006832	2-1/2"	41.51
RRTH-R978006833	3-1/4"	53.61
RRTH-R978006834	4"	69.85
RRTH-R978006835	5"	89.98

Kit Includes:

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

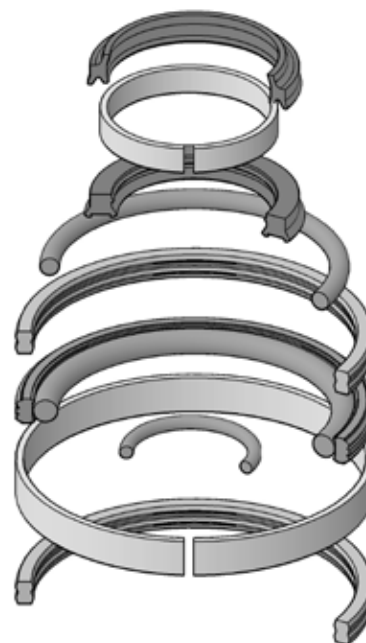


Seal Kits

CDT3, CGT3* Hydraulic Cylinders Urethane

Kit #	Bore Dia.	Rod Dia.	List Price
RRTH-R961008000	25	12	\$70.09
RRTH-R961008001	25	18	51.87
RRTH-R961008002	32	14	60.12
RRTH-R961008003	32	22	52.43
RRTH-R961008004	40	18	63.11
RRTH-R961008005	40	22	60.65
RRTH-R961008006	40	28	63.24
RRTH-R961008007	50	22	91.98
RRTH-R961008008	50	28	63.84
RRTH-R961008009	50	36	91.59
RRTH-R961008010	63	28	79.01
RRTH-R961008011	63	36	99.81
RRTH-R961008012	63	45	100.90
RRTH-R961008013	80	36	123.46
RRTH-R961008014	80	45	136.13
RRTH-R961008015	80	56	133.15
RRTH-R961008016	100	45	136.94
RRTH-R961008017	100	56	161.35
RRTH-R961008018	100	70	149.02
RRTH-R961008019	125	56	169.02
RRTH-R961008020	125	70	193.27
RRTH-R961008021	125	90	184.25

*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	List Price
RRTH-1817005842	RRTH-KIT	N-N-10	63 mm	\$97.33

A Series Pneumatic Kits

A Cylinders

Kit Composition Varies
Consult your Hercules® representative.

Kit #	Code	Rod x Bore	List Price
RYL-KA207	N-U-5	3/4" X 2"	\$49.00
RYL-KA210	N-U-5	1" X 2"	49.07
RYL-KA310	I-U-5	1" X 3"	58.79
RYL-KA312	I-U-5	1-1/4" X 3"	59.41
RYL-KA412	I-U-5	1-1/4" X 4"	82.52
RYL-KA415	I-U-5	1-1/2" X 4"	83.27
RYL-KA512	I-U-5	1-1/4" X 5"	100.14
RYL-KA515	I-U-5	1-1/2" X 5"	100.90
RYL-KA615	I-U-5	1-1/2" X 6"	126.96
RYL-KA617	I-U-5	1-3/4" X 6"	127.49
RYL-KA1030	I-U-5	3" X 10"	154.42
RYL-KA1230	I-U-5	3" X 12"	161.71
RYL-KA1235	I-U-5	3-1/2" X 12"	165.49
RYL-KA1506	N-U-5	5/8" X 1-1/2"	9.10

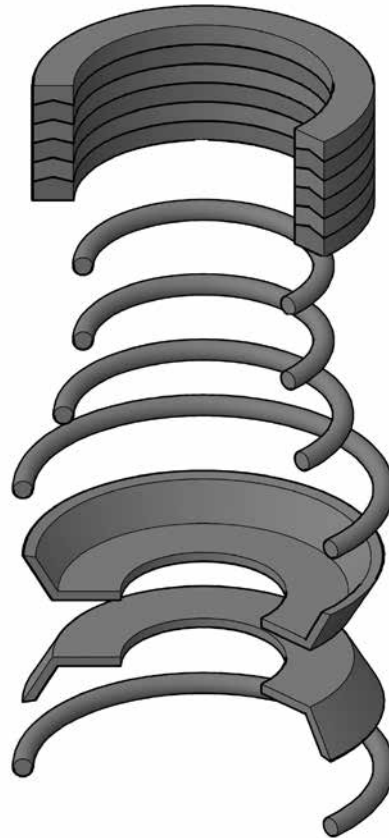
M Series Pneumatic Kits

M Cylinders

Kit #	Code	Rod x Bore	List Price
RYL-KM415	N-V-7	1-1/2" X 4"	\$45.07
RYL-KM620	N-V-7	2" X 6"	68.93
RYL-KM820	N-V-7	2" X 8"	102.91
RYL-KM825	N-V-7	2-1/2" X 8"	105.15
RYL-KM1025	N-V-7	2-1/2" X 10"	136.87
RYL-KM1030	N-V-7	3" X 10"	145.21
RYL-KM1235	N-V-7	3-1/2" X 12"	210.23

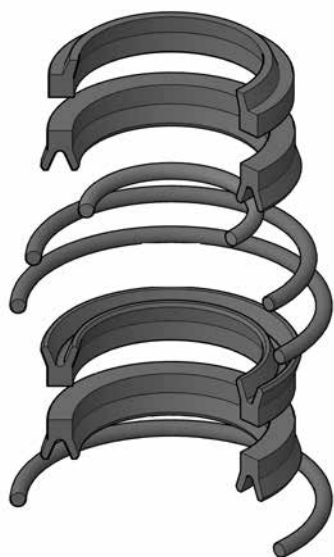
Kit Includes:

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



H Series Hydraulic Kits

H Cylinders



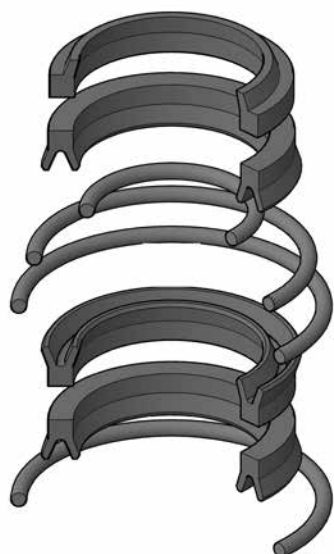
Kit #	Code	Rod x Bore	List Price
RYL-KH1510	I-U-5	1" X 1-1/2"	\$54.04
RYL-KH2510	I-U-5	1" X 2-1/2"	71.12
RYL-KH2517	I-U-5	1-3/4" X 2-1/2"	78.21
RYL-KH3217	I-U-5	1-3/4" X 3-1/4"	104.28
RYL-KH3220	I-U-5	2" X 3-1/4"	105.84
RYL-KH4017	I-U-5	1-3/4" X 4"	110.40
RYL-KH4025	I-U-5	2-1/2" X 4"	124.63
RYL-KH5020	I-U-5	2" X 5"	143.83
RYL-KH6025	I-U-5	2-1/2" X 6"	146.17

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	List Price
RYL-K2K212	I-U-5	1-1/4" X 2"	\$43.80
RYL-K2K2510	I-U-5	1" X 2-1/2"	53.41
RYL-K2K2512	I-U-5	1-1/4" X 2-1/2"	51.69
RYL-K2K312	I-U-5	1-1/4" X 3"	62.05

Kit Includes:

- 1 URE Wiper
- 3 URE U-seals
- 4 NBR O-rings

Kit Number	Code	Rod x Bore	List Price
RYL-K2K212	I-U-5	1-1/4 X 2	\$43.80
RYL-K2K2510	I-U-5	1 X 2-1/2	53.41
RYL-K2K2512	I-U-5	1-1/4 X 2-1/2	51.69
RYL-K2K312	I-U-5	1-1/4 X 3	62.05
RYL-KA1030	I-U-5	3 X 10	154.42
RYL-KA1230	I-U-5	3 X 12	161.71
RYL-KA1235	I-U-5	3-1/2 X 12	165.49
RYL-KA1506	N-U-5	5/8 X 1-1/2	9.10
RYL-KA207	N-U-5	3/4 X 2	49.00
RYL-KA210	N-U-5	1 X 2	49.07
RYL-KA310	I-U-5	1 X 3	58.79
RYL-KA312	I-U-5	1-1/4 X 3	59.41
RYL-KA412	I-U-5	1-1/4 X 4	82.52
RYL-KA415	I-U-5	1-1/2 X 4	83.27
RYL-KA512	I-U-5	1-1/4 X 5	100.14
RYL-KA515	I-U-5	1-1/2 X 5	100.90
RYL-KA615	I-U-5	1-1/2 X 6	126.96
RYL-KA617	I-U-5	1-3/4 X 6	127.49
RYL-KH1510	I-U-5	1 X 1-1/2	54.04
RYL-KH2510	I-U-5	1 X 2-1/2	71.12
RYL-KH2517	I-U-5	1-3/4 X 2-1/2	78.21
RYL-KH3217	I-U-5	1-3/4 X 3-1/4	104.28
RYL-KH3220	I-U-5	2 X 3-1/4	105.84
RYL-KH4017	I-U-5	1-3/4 X 4	110.40
RYL-KH4025	I-U-5	2-1/2 X 4	124.63
RYL-KH5020	I-U-5	2 X 5	143.83
RYL-KH6025	I-U-5	2-1/2 X 6	146.17
RYL-KM1025	N-V-7	2-1/2 X 10	136.87
RYL-KM1030	N-V-7	3 X 10	145.21
RYL-KM1235	N-V-7	3-1/2 X 12	210.23
RYL-KM415	N-V-7	1-1/2 X 4	45.07
RYL-KM620	N-V-7	2 X 6	68.93
RYL-KM820	N-V-7	2 X 8	102.91
RYL-KM825	N-V-7	2-1/2 X 8	105.15

NOTES

NOTES

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VICKERS / EATON

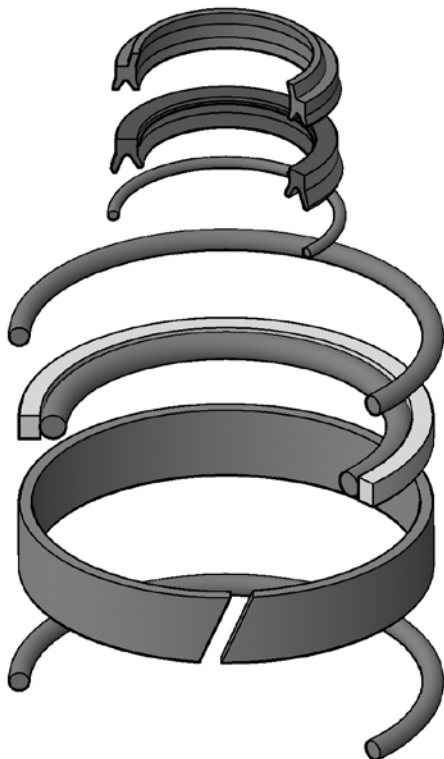
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VICKERS / TOMPKINS-JOHNSON

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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

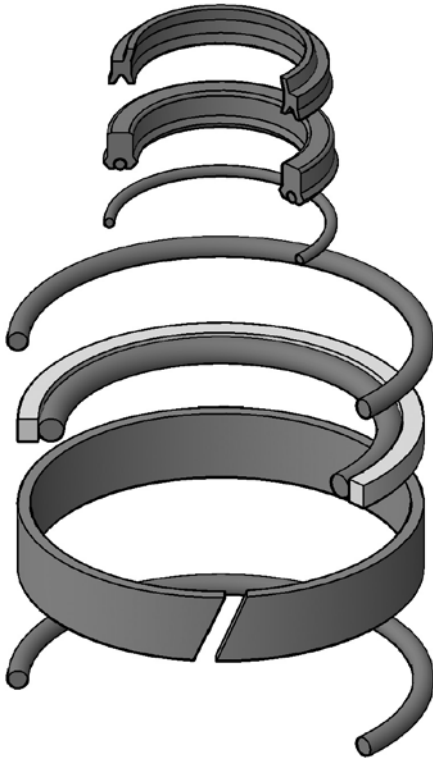
Note:

- * 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 #	List Price
5/8" X 1-1/8"	SHF-761-01-0112-0062	\$27.49
5/8" X 1-1/2"	SHF-761-01-0150-0062	31.89
1" X 1-1/2"	SHF-761-01-0150-0100	33.53
1" X 1-1/2"	SHF-761-01-0200-0100	35.48
1-3/8" X 2"	SHF-761-01-0200-0137	40.67
1-3/8" X 2-1/2"	SHF-761-01-0250-0137	41.39
1-3/4" X 2-1/2"	SHF-761-01-0250-0175	42.89
1-3/8" X 3-1/4"	SHF-761-01-0325-0137	45.88
1-3/4" X 3-1/4"	SHF-761-01-0325-0175	47.57
2" X 3-1/4"	SHF-761-01-0325-0200	48.10
2" X 4"	SHF-761-01-0400-0200	49.29
2-1/2" X 4"	SHF-761-01-0400-0250	52.02
2-1/2" X 5"	SHF-761-01-0500-0250	59.01
3-1/2" X 5"	SHF-761-01-0500-0350	63.01
3" X 6"	SHF-761-01-0600-0300	75.31
4" X 6"	SHF-761-01-0600-0400	80.43
4" X 7"	SHF-761-01-0700-0400	85.57
5" X 7"	SHF-761-01-0700-0500	109.47
3-1/2" X 8"	SHF-761-01-0800-0350	148.69
4" X 8"	SHF-761-01-0800-0400	150.88
5-1/2" X 8"	SHF-761-01-0800-0550	162.01
4-1/2" X 10"	SHF-761-01-1000-0450	189.58
7" X 10"	SHF-761-01-1000-0700	336.28
5-1/2" X 12"	SHF-761-01-1200-0550	408.99
7" X 14"	SHF-761-01-1400-0700	418.02

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

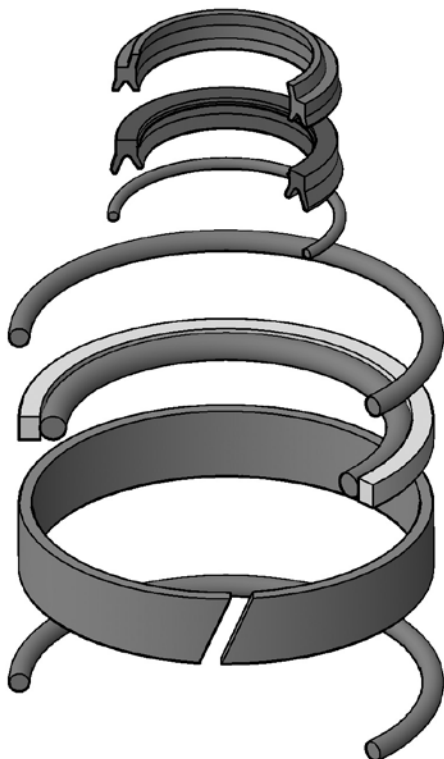
Note:

- * 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 #	List Price
5/8" X 1-1/8"	SHF-761-21-0112-0062	\$41.87
5/8" X 1-1/2"	SHF-761-21-0150-0062	45.62
1" X 1-1/2"	SHF-761-21-0150-0100	50.93
1" X 1-1/2"	SHF-761-21-0200-0100	53.41
1-3/8" X 2"	SHF-761-21-0200-0137	62.03
1-3/8" X 2-1/2"	SHF-761-21-0250-0137	62.82
1-3/4" X 2-1/2"	SHF-761-21-0250-0175	68.34
1-3/8" X 3-1/4"	SHF-761-21-0325-0137	72.29
1-3/4" X 3-1/4"	SHF-761-21-0325-0175	77.60
2" X 3-1/4"	SHF-761-21-0325-0200	80.81
2" X 4"	SHF-761-21-0400-0200	103.07
2-1/2" X 4"	SHF-761-21-0400-0250	114.70
2-1/2" X 5"	SHF-761-21-0500-0250	117.18
3-1/2" X 5"	SHF-761-21-0500-0350	123.93
3" X 6"	SHF-761-21-0600-0300	158.96
4" X 6"	SHF-761-21-0600-0400	194.23
4" X 7"	SHF-761-21-0700-0400	197.62
5" X 7"	SHF-761-21-0700-0500	264.69
3-1/2" X 8"	SHF-761-21-0800-0350	289.60
4" X 8"	SHF-761-21-0800-0400	302.68
5-1/2" X 8"	SHF-761-21-0800-0550	319.32
4-1/2" X 10"	SHF-761-21-1000-0450	393.41
7" X 10"	SHF-761-21-1000-0700	671.14
5-1/2" X 12"	SHF-761-21-1200-0550	561.14
7" X 14"	SHF-761-21-1400-0700	839.59

MH Series

MH Hydraulic Cylinders Standard



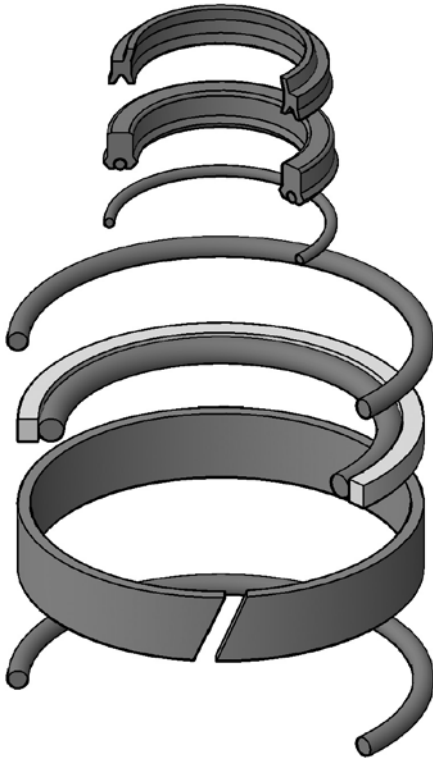
Kit Includes:

- 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 #	List Price
5/8" X 1-1/8"	SHF-757-01-0112-0062	\$17.95
5/8" X 1-1/2"	SHF-757-01-0150-0062	30.08
5/8" X 2"	SHF-757-01-0200-0062	32.59
5/8" X 2-1/2"	SHF-757-01-0250-0062	35.67
1" X 1-1/2"	SHF-757-01-0150-0100	31.62
1" X 2"	SHF-757-01-0200-0100	33.04
1" X 2-1/2"	SHF-757-01-0250-0100	36.57
1" X 3-1/4"	SHF-757-01-0325-0100	42.05
1" X 4"	SHF-757-01-0400-0100	46.18
1" X 5"	SHF-757-01-0500-0100	51.16
1-3/8" X 2"	SHF-757-01-0200-0137	35.00
1-3/8" X 2-1/2"	SHF-757-01-0250-0137	38.34
1-3/8" X 3-1/4"	SHF-757-01-0325-0137	44.92
1-3/8" X 4"	SHF-757-01-0400-0137	47.36
1-3/8" X 5"	SHF-757-01-0500-0137	52.53
1-3/4" X 2-1/2"	SHF-757-01-0250-0175	39.31
1-3/4" X 3-1/4"	SHF-757-01-0325-0175	45.06
1-3/4" X 4"	SHF-757-01-0400-0175	48.12
1-3/4" X 5"	SHF-757-01-0500-0175	53.32
2" X 3-1/4"	SHF-757-01-0325-0200	46.03
2" X 4"	SHF-757-01-0400-0200	48.65
2-1/2" X 4"	SHF-757-01-0400-0250	50.40

MH Series

MH Hydraulic Cylinders Fluorocarbon



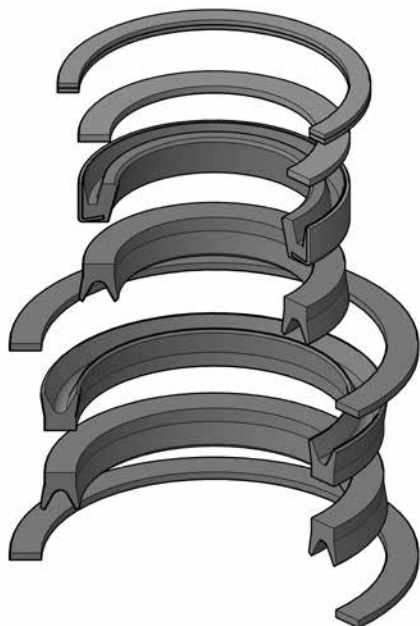
Kit Includes:

- 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 #	List Price
5/8" X 1-1/8"	SHF-757-21-0112-0062	\$39.65
5/8" X 1-1/2"	SHF-757-21-0150-0062	40.69
5/8" X 2"	SHF-757-21-0200-0062	42.27
5/8" X 2-1/2"	SHF-757-21-0250-0062	49.56
1" X 1-1/2"	SHF-757-21-0150-0100	41.63
1" X 2"	SHF-757-21-0200-0100	44.16
1" X 2-1/2"	SHF-757-21-0250-0100	50.73
1" X 3-1/4"	SHF-757-21-0325-0100	60.20
1" X 4"	SHF-757-21-0400-0100	67.47
1" X 5"	SHF-757-21-0500-0100	74.64
1-3/8" X 2"	SHF-757-21-0200-0137	49.06
1-3/8" X 2-1/2"	SHF-757-21-0250-0137	57.00
1-3/8" X 3-1/4"	SHF-757-21-0325-0137	61.87
1-3/8" X 4"	SHF-757-21-0400-0137	68.30
1-3/8" X 5"	SHF-757-21-0500-0137	76.01
1-3/4" X 2-1/2"	SHF-757-21-0250-0175	59.01
1-3/4" X 3-1/4"	SHF-757-21-0325-0175	63.88
1-3/4" X 4"	SHF-757-21-0400-0175	70.32
1-3/4" X 5"	SHF-757-21-0500-0175	79.02
2" X 3-1/4"	SHF-757-21-0325-0200	66.53
2" X 4"	SHF-757-21-0400-0200	72.10
2" X 5"	SHF-757-21-0500-0200	81.26
2-1/2" X 4"	SHF-757-21-0400-0250	73.61
3" X 5"	SHF-757-21-0500-0300	94.04
3-1/2" X 5"	SHF-757-21-0500-0350	103.16

C20 Series

Pneumatic Kits



Kit #	Code	Rod x Bore	List Price
SHF-720-00150	P-U-5	1/2" X 1-1/2"	\$17.86
SHF-720-00200	P-U-5	1/2" X 2"	18.97
SHF-720-00250	P-U-5	5/8" X 2-1/2"	19.71
SHF-720-00300	P-U-5	3/4" X 3"	20.14
SHF-720-00350	P-U-5	3/4" X 3-1/2"	21.58
SHF-720-00400	P-U-5	1" X 4"	22.42
SHF-720-00500	P-U-5	1" X 5"	25.35
SHF-720-00600	P-U-5	1" X 6"	31.18
SHF-720-00700	P-U-5	1-3/8" X 7"	42.85
SHF-720-00800	P-U-5	1-3/8" X 8"	65.30

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	List Price
SHF-720-01-0300	P-U-5	3/4" X 3"	\$25.96
SHF-720-01-0400	P-U-5	1" X 4"	34.85
SHF-720-01-0500	P-U-5	1" X 5"	39.73
SHF-720-01-0800	P-U-5	1-3/8" X 8"	83.48
SHF-726-0267-1000-0175	I-U-5	1-3/4" X 10"	125.00
SHF-760-01-0200-0137	I-U-10	1-3/8" X 2"	100.59
SHF-760-01-0250-0175	I-U-10	1-3/4" X 2-1/2"	36.66
SHF-761-01-0200-0137	I-U-10	1-3/8" x 2"	40.67
SHF-761-01-0250-0175	I-U-10	1-3/4" X 2-1/2"	42.89

Kit Composition Varies

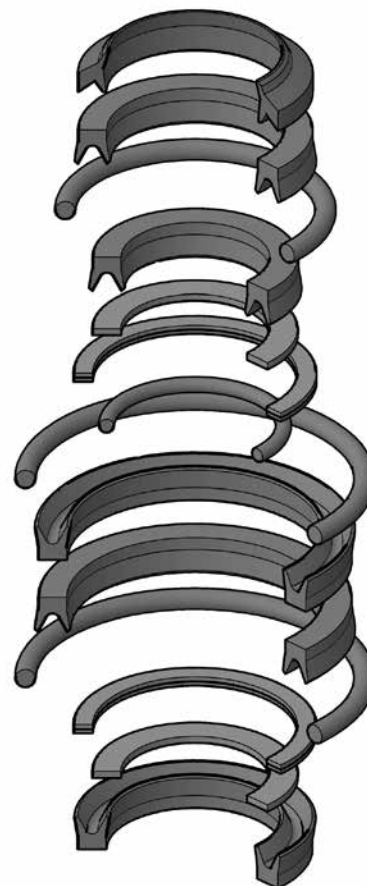
Consult your
Hercules® Sealing Products representative.

Pneumatic Kits

Kit #	Code	Rod x Bore	List Price
SHF-726-0167-0200-0062	I-U-5	5/8" X 2"	\$15.48
SHF-726-0167-0250-0062	I-U-5	5/8" X 2-1/2"	16.50
SHF-726-0167-0250-0100	I-U-5	1" X 2-1/2"	23.34
SHF-726-0167-0250-0137	I-U-5	1-3/8" X 2-1/2"	25.66
SHF-726-0167-0325-0100	I-U-5	1" X 3-1/4"	23.26
SHF-726-0167-0325-0137	I-U-5	1-3/8" X 3-1/4"	28.03
SHF-726-0167-0325-0175	I-U-5	1-3/4" X 3-1/4"	27.55
SHF-726-0167-0400-0100	I-U-5	1 X 4"	29.09
SHF-726-0167-0400-0137	I-U-5	1-3/8" X 4"	25.51
SHF-726-0167-0400-0175	I-U-5	1-3/4" X 4"	27.46
SHF-726-0167-0500-0100	I-U-5	1 X 5"	41.09
SHF-726-0167-0500-0137	I-U-5	1-3/8" X 5"	29.08
SHF-726-0167-0500-0175	I-U-5	1-3/4" X 5"	30.01
SHF-726-0167-0600-0137	I-U-5	1-3/8" X 6"	45.06
SHF-726-0167-0600-0175	I-U-5	1-3/4" X 6"	47.88
SHF-726-0167-0700-0137	I-U-5	1-3/8" X 7"	48.80
SHF-726-0167-0800-0137	I-U-5	1-3/8" X 8"	55.80
SHF-726-0167-0800-0175	I-U-5	1-3/4" X 8"	64.96
SHF-726-0167-1000-0175	I-U-5	1-3/4" X 10"	97.50

Kit Includes:

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



Various Kits

Kit #	Code	Rod x Bore	List Price
SHF-720-01-0600	P-U-4	1" X 6"	\$34.61
SHF-726-0107-0200-0100	I-U-5	1" X 2"	15.01
SHF-729-0200-K019	P-U-5	1-1/4" X 2"	33.52
SHF-729-0500-K003	P-U-5	2" X 5" Double Rod	56.65
SHF-757-01-0325-0137	I-U-10	1-3/8" X 3-1/4"	44.92
SHF-759-0100-0325-0137	I-U-5	1-3/8" X 3-1/4"	45.66
SHF-760-0100-0400-0175	I-U-10	1-3/4" X 4"	51.50
SHF-760-22-0600-0250	I-U-1	2-1/2" x 6"	111.44
SHF-761-01-0800-0350	I-U-10	3-1/2" X 8	148.69
SHF-795-S003	I-U-10	1-1/4 X 2-3/4	53.51

Kit Composition Varies

Consult your
 Hercules® Sealing Products representative.

SHEFFER

SHEFFER

Kit Number	Code	Rod x Bore	List Price
SHF-100-032	O-Ring	Min Pack 20	\$0.30
SHF-100-041	O-Ring	Min Pack 20	0.58
SHF-100-149	O-Ring	Min Pack 20	0.49
SHF-157-0175-0137-031	U-Seal		11.10
SHF-185-301-0325	Piston Seal		6.31
SHF-720-00150	P-U-5	1/2 X 1-1/2	17.86
SHF-720-00200	P-U-5	1/2 X 2	18.97
SHF-720-00250	P-U-5	5/8 X 2-1/2	19.71
SHF-720-00300	P-U-5	3/4 X 3	20.14
SHF-720-00350	P-U-5	3/4 X 3-1/2	21.58
SHF-720-00400	P-U-5	1 X 4	22.42
SHF-720-00500	P-U-5	1 X 5	25.35
SHF-720-00600	P-U-5	1 X 6	31.18
SHF-720-00700	P-U-5	1-3/8 X 7	42.85
SHF-720-00800	P-U-5	1-3/8 X 8	65.30
SHF-720-01-0300	P-U-5	3/4 X 3	25.96
SHF-720-01-0350	P-U-5	3/4 X 3-1/2	27.08
SHF-720-01-0400	P-U-5	1 X 4	34.85
SHF-720-01-0500	P-U-5	1 X 5	39.73
SHF-720-01-0600	P-U-4	1 X 6	34.61
SHF-720-01-0800	P-U-5	1-3/8 X 8	83.48
SHF-726-0107-0200-0100	I-U-5	1 X 2	15.01
SHF-726-0167-0200-0062	I-U-5	5/8 X 2	15.48
SHF-726-0167-0250-0062	I-U-5	5/8 X 2-1/2	16.50
SHF-726-0167-0250-0100	I-U-5	1 X 2-1/2	23.34
SHF-726-0167-0250-0137	I-U-5	1-3/8 X 2-1/2	25.66
SHF-726-0167-0325-0100	I-U-5	1 X 3-1/4	23.26
SHF-726-0167-0325-0137	I-U-5	1-3/8 X 3-1/4	28.03
SHF-726-0167-0325-0175	I-U-5	1-3/4 X 3-1/4	27.55
SHF-726-0167-0400-0100	I-U-5	1 X 4	29.09
SHF-726-0167-0400-0137	I-U-5	1-3/8 X 4	25.51
SHF-726-0167-0400-0175	I-U-5	1-3/4 X 4	27.46
SHF-726-0167-0500-0100	I-U-5	1 X 5	41.09
SHF-726-0167-0500-0137	I-U-5	1-3/8 X 5	29.08
SHF-726-0167-0500-0175	I-U-5	1-3/4 X 5	30.01
SHF-726-0167-0600-0137	I-U-5	1-3/8 X 6	45.06
SHF-726-0167-0600-0175	I-U-5	1-3/4 X 6	47.88
SHF-726-0167-0700-0137	I-U-5	1-3/8 X 7	48.80
SHF-726-0167-0800-0137	I-U-5	1-3/8 X 8	55.80
SHF-726-0167-0800-0175	I-U-5	1-3/4 X 8	64.96
SHF-726-0167-1000-0175	I-U-5	1-3/4 X 10	97.50
SHF-726-0267-1000-0175	I-U-5	1-3/4 X 10	125.00
SHF-729-0200-K019	P-U-5	1-1/4 X 2	33.52
SHF-729-0500-K003	P-U-5	2 X 5 Double Rod	56.65
SHF-757-01-0112-0062	I-U-10	5/8 X 1-1/8	17.95
SHF-757-01-0150-0062	I-U-10	5/8 X 1-1/2	30.08
SHF-757-01-0150-0100	I-U-10	1 X 1-1/2	31.62
SHF-757-01-0200-0062	I-U-10	5/8 X 2	32.59
SHF-757-01-0200-0100	I-U-10	1 X 2	33.04
SHF-757-01-0200-0137	I-U-10	1-3/8 X 2	35.00
SHF-757-01-0250-0062	I-U-10	5/8 X 2-1/2	35.67
SHF-757-01-0250-0100	I-U-10	1 X 2-1/2	36.57
SHF-757-01-0250-0137	I-U-10	1-3/8 X 2-1/2	38.34
SHF-757-01-0250-0175	I-U-10	1-3/4 X 2-1/2	39.31
SHF-757-01-0325-0100	I-U-10	1 X 3-1/4	42.05

SHEFFER

Kit Number	Code	Rod x Bore	List Price
SHF-757-01-0325-0137	I-U-10	1-3/8 X 3-1/4	\$44.92
SHF-757-01-0325-0175	I-U-10	1-3/4 X 3-1/4	45.06
SHF-757-01-0325-0200	I-U-10	2 X 3-1/4	46.03
SHF-757-01-0400-0100	I-U-10	1 X 4	46.18
SHF-757-01-0400-0137	I-U-10	1-3/8 X 4	47.36
SHF-757-01-0400-0175	I-U-10	1-3/4 X 4	48.12
SHF-757-01-0400-0200	I-U-10	2 X 4	48.65
SHF-757-01-0400-0250	I-U-10	2-1/2 X 4	50.40
SHF-757-01-0500-0100	I-U-10	1 X 5	51.16
SHF-757-01-0500-0137	I-U-10	1.370 X 5	52.53
SHF-757-01-0500-0175	I-U-10	1-3/4 X 5	53.32
SHF-757-01-0500-0200	I-U-10	2 X 5	54.23
SHF-757-01-0500-0300	I-U-10	3 X 5	56.39
SHF-757-01-0500-0350	I-U-10	3-1/2 X 5	58.56
SHF-757-01-0600-0138	I-U-10	1.370 X 6	62.10
SHF-757-01-0600-0175	I-U-10	1-3/4 X 6	63.41
SHF-757-01-0600-0200	I-U-10	2 X 6	64.24
SHF-757-01-0600-0300	I-U-10	3 X 6	65.55
SHF-757-01-0600-0350	I-U-10	3-1/2 X 6	66.92
SHF-757-01-0600-0400	I-U-10	4 X 6	68.32
SHF-757-21-0112-0062	I-U-10	5/8 X 1-1/8	39.65
SHF-757-21-0150-0062	I-U-10	5/8 X 1-1/2	40.69
SHF-757-21-0150-0100	I-U-10	1 X 1-1/2	41.63
SHF-757-21-0200-0062	I-U-10	5/8 X 2	42.27
SHF-757-21-0200-0100	I-U-10	1 X 2	44.16
SHF-757-21-0200-0137	I-U-10	1.370 X 2	49.06
SHF-757-21-0250-0062	I-U-10	5/8 X 2-1/2	49.56
SHF-757-21-0250-0100	I-U-10	1 X 2-1/2	50.73
SHF-757-21-0250-0137	I-U-10	1-3/8 X 2-1/2	57.00
SHF-757-21-0250-0175	I-U-10	1-3/4 X 2-1/2	59.01
SHF-757-21-0325-0100	I-U-10	1 X 3-1/4	60.20
SHF-757-21-0325-0137	I-U-10	1-3/8 X 3-1/4	61.87
SHF-757-21-0325-0175	I-U-10	1-3/4 X 3-1/4	63.88
SHF-757-21-0325-0200	I-U-10	2 X 3-1/4	66.53
SHF-757-21-0400-0100	I-U-10	1 X 4	67.47
SHF-757-21-0400-0137	I-U-10	1.370 X 4	68.30
SHF-757-21-0400-0175	I-U-10	1-3/4 X 4	70.32
SHF-757-21-0400-0200	I-U-10	2 X 4	72.10
SHF-757-21-0400-0250	I-U-10	2-1/2 X 4	73.61
SHF-757-21-0500-0100	I-U-10	1 X 5	74.64
SHF-757-21-0500-0137	I-U-10	1.370 X 5	76.01
SHF-757-21-0500-0175	I-U-10	1.370 X 5	79.02
SHF-757-21-0500-0200	I-U-10	2 X 5	81.26
SHF-757-21-0500-0300	I-U-10	3 X 5	94.04
SHF-757-21-0500-0350	I-U-10	3-1/2 X 5	103.16
SHF-757-21-0600-0138	I-U-10	1-3/8 X 6	114.06
SHF-757-21-0600-0175	I-U-10	1-3/4 X 6	117.44
SHF-757-21-0600-0200	I-U-10	2 X 6	120.45
SHF-757-21-0600-0300	I-U-10	3 X 6	138.53
SHF-757-21-0600-0350	I-U-10	3-1/2 X 6	153.51
SHF-757-21-0600-0400	I-U-10	4 X 6	165.21
SHF-759-0100-0325-0137	I-U-5	1-3/8 X 3-1/4	45.66
SHF-760-0100-0400-0175	I-U-10	1-3/4 X 4	51.50
SHF-760-01-0200-0137	I-U-10	1-3/8 X 2	100.59
SHF-760-01-0250-0175	I-U-10	1-3/4 X 2-1/2	36.66

SHEFFER

Kit Number	Code	Rod x Bore	List Price
SHF-760-22-0600-0250	I-U-1	2-1/2 x 6	\$111.44
SHF-761-01-0200-0137	I-U-10	1-3/8 X 2	40.67
SHF-761-01-0250-0175	I-U-10	1-3/4 X 2-1/2	42.89
SHF-761-01-0700-0400	I-U-10	4 X 7	85.57
SHF-761-01-0800-0350	I-U-10	3-1/2 X 8	148.69
SHF-795-S003	I-U-10	1-1/4 X 2-3/4	53.51

Various Kits

Kit #	Code	Rod x Bore	List Price
TJ-28136862	N-TR-11	1 X 5	\$41.22
TJ-6331U-027	N-U-10	1-1/4 X 4	65.61
TJ-6332U-014	N-U-5	1 X 2-1/2	20.80
TJ-6332U-026	N-U-5	1 X 4	26.57
TJ-6332U-028	N-V-5	1-3/8 X 4	24.85
TJ-6332U-030	N-U-5	1-3/4 X 4	29.62
TJ-6332U-035	N-U-5	1 X 5	27.96
TJ-6332U-048	N-V-5	1-3/4 X 6	40.06
TJ-6332U-069	N-V-5	1-3/8 X 8	40.97
TJ-6332U-070	N-V-5	1-3/4 X 8	45.06

Kit Composition Varies

Consult your
Hercules® Sealing Products representative.

NZ Series

Kits For NZ Cylinders

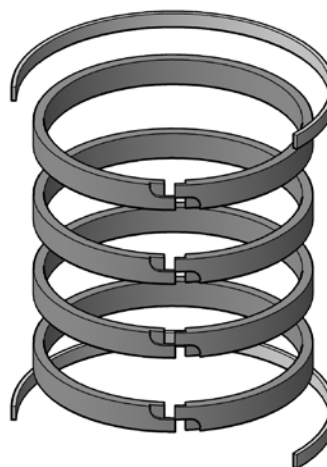
Rod Kits



Kit Includes:

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

Iron Ring Piston Kits



Kit Includes:

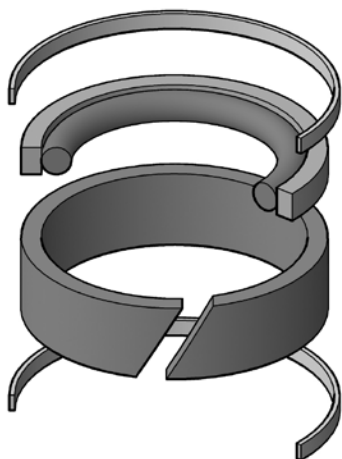
- 4 Iron Piston Rings
- 2 Tube End Seals

Rod Dia.	Kit #	List Price	Bore Dia.	Kit #	List Price
5/8"	VI-6533N-NZC	\$30.22	1-1/2"	VI-6633C-NZC	\$58.85
1"	VI-6533N-NZE	27.23	2"	VI-6633C-NZD	55.99
1-3/8"	VI-6533N-NZH	15.33	2-1/2"	VI-6633C-NZE	54.22
1-3/4"	VI-6533N-NZL	22.80	3-1/4"	VI-6633C-NZG	76.51
2"	VI-6533N-NZM	21.77	4"	VI-6633C-NZH	61.34
2-1/2"	VI-6533N-NZP	28.52	5"	VI-6633C-NZK	77.39
3"	VI-6533N-NZU	32.42	6"	VI-6633C-NZL	97.72
3-1/2"	VI-6533N-NZV	47.96			
4"	VI-6533N-NZW	77.95			

NZ Series

Kits For NZ Cylinders

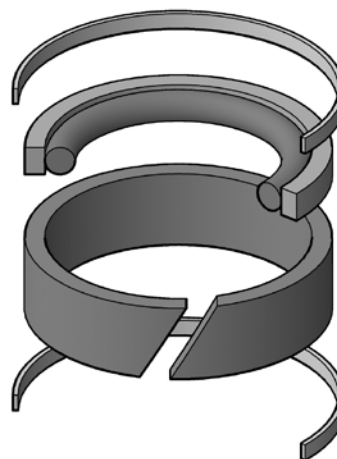
Piston Kits



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 #	List Price	Bore Dia.	Kit #	List Price
1-1/2"	VI-6633N-NZC	\$39.39	1-1/2"	VI-6633L-NZC	\$39.39
2"	VI-6633N-NZD	25.92	2"	VI-6633L-NZD	25.92
2-1/2"	VI-6633N-NZE	35.87	2-1/2"	VI-6633L-NZE	35.87
3-1/4"	VI-6633N-NZG	37.44	3-1/4"	VI-6633L-NZG	37.44
4"	VI-6633N-NZH	37.59	4"	VI-6633L-NZH	37.59
5"	VI-6633N-NZK	81.15	5"	VI-6633L-NZK	81.15
6"	VI-6633N-NZL	85.47	6"	VI-6633L-NZL	85.47

TZ Series

Urethane Kits For TZ Cylinders

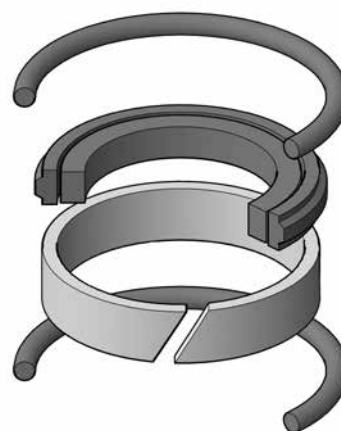
Rod Kits



Kit Includes:

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

Piston Kits



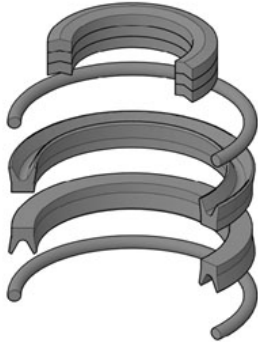
Kit Includes:

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

Rod Dia.	Kit #	List Price	Bore Dia.	Kit #	List Price
5/8"	VI-6533N-TZCC	\$24.92	1-1/2"	VI-6633N-TVCE	\$20.64
1"	VI-6533N-TZDE	42.48	2"	VI-6633N-TVDG	22.61
1-3/8"	VI-6533N-TZGH	31.51	2-1/2"	VI-6633N-TVEJ	24.71
1-3/4"	VI-6533N-TZHL	33.50	3-1/4"	VI-6633N-TVGL	30.82
2"	VI-6533N-TZKM	37.59	4"	VI-6633N-TVHN	39.53
2-1/2"	VI-6533N-TZLP	43.32	5"	VI-6633N-TVKQ	51.78
3"	VI-6533N-TZMU	53.17	6"	VI-6633N-TZLP	54.78
3-1/2"	VI-6533N-TZNV	54.98	7"	VI-6633N-TZMU	68.48
4"	VI-6533N-TZNW	97.96	8"	VI-6633N-TVNU	61.78
4-1/2"	VI-6533N-TZNY	77.28			
5-1/2"	VI-6533N-TZN1	107.49			
5"	VI-6533N-TZNZ	96.24			

TE / TF Series

Universal / No Wiper



Kit Includes:

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

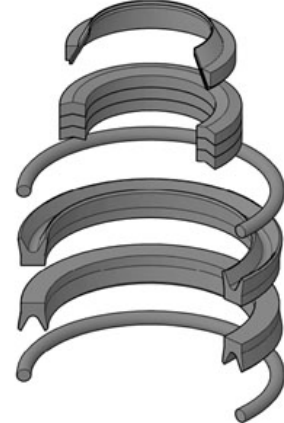
Pneumatic / Urethane Wiper



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 #	List Price	Kit #	List Price	Kit #	List Price
5/8" X 1-1/2"	VI-6332U-004	\$14.27	VI-6332U-004-P	\$18.82	VI-6332U-004-H	\$28.53
5/8" X 2"	VI-6332U-007	14.57	VI-6332U-007-P	19.11	VI-6332U-007-H	28.65
1" X 2"	VI-6332U-009	15.46	VI-6332U-009-P	20.12	VI-6332U-009-H	27.16
1" X 2-1/2"	VI-6332U-014	20.80	VI-6332U-014-P	14.26	VI-6332U-014-H	24.24
1" X 3-1/4"	VI-6332U-020	19.13	VI-6332U-020-P	24.24	VI-6332U-020-H	29.23
1" X 4"	VI-6332U-026	26.57	VI-6332U-026-P	21.96	VI-6332U-026-H	28.08
1" X 1-1/2"	VI-6332U-006	15.12	VI-6332U-006-P	19.68	VI-6332U-006-H	26.94
1" X 5"	VI-6332U-035	27.96	VI-6332U-035-P	27.51	VI-6332U-035-H	42.28
1-3/8" X 2-1/2"	VI-6332U-016	39.54	VI-6332U-016-P	48.04	VI-6332U-016-H	47.63
1-3/8" X 3-1/4"	VI-6332U-022	19.14	VI-6332U-022-P	25.09	VI-6332U-022-H	36.13
1-3/8" X 4"	VI-6332U-028	26.10	VI-6332U-028-P	32.92	VI-6332U-028-H	40.06
1-3/8" X 5"	VI-6332U-037	28.90	VI-6332U-037-P	27.66	VI-6332U-037-H	45.08
1-3/8" X 8"	VI-6332U-069	40.97	VI-6332U-069-P	42.63	VI-6332U-069-H	48.33
1-3/4" X 3-1/4"	VI-6332U-023	23.28	VI-6332U-023-P	29.91	VI-6332U-023-H	45.41
1-3/4" X 4"	VI-6332U-030	28.13	VI-6332U-030-P	35.34	VI-6332U-030-H	48.12
1-3/4" X 5"	VI-6332U-039	30.97	VI-6332U-039-P	38.50	VI-6332U-039-H	51.12
1-3/4" X 6"	VI-6332U-048	40.06	VI-6332U-048-P	42.34	VI-6332U-048-H	48.04
1-3/4" X 8"	VI-6332U-070	45.06	VI-6332U-070-P	48.48	VI-6332U-070-H	54.13
2" X 4"	VI-6332U-031	29.02	VI-6332U-031-P	38.70	VI-6332U-031-H	53.81
2-1/2" X 4"	VI-6332U-033	32.31	VI-6332U-033-P	43.92	VI-6332U-033-H	62.36
2-1/2" X 5"	VI-6332U-042	36.24	VI-6332U-042-P	46.49	VI-6332U-042-H	71.78
3" X 5"	VI-6332U-044	38.52	VI-6332U-044-P	50.55	VI-6332U-044-H	84.59

NOTES

This image shows a full page of blank, lined paper. It features approximately 20 horizontal black lines spaced evenly apart, typical of notebook paper. The lines extend across the entire width of the page, leaving small margins at the top and bottom. There are no vertical lines, text, or other markings present.

Forklift / Manlift Kits

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ALLIS-CHALMERS

LIFT TRUCKS

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
AC-4751907	N-V-1	1-1/4 Rod Kit	\$96.87
AC-4787570	2 STAGE	1-7/8, 2-1/2	249.05
AC-4787619	9/16" SPOOL	9/16" Spool	11.70
AC-4885085	1 HALF RING	2-1/4 Rod Bearing	3.93
AC-4905170		3/4 Shaft Kit	66.65
AC-4906087	I-U-4	3 X 3-1/2	68.67
AC-4906099	I-U-1	2-1/4 X 2-3/4	107.56
AC-4906100	I-U-1	2-1/4 X 2-3/4	41.75
AC-4906322	I-U-11	1-1/4 X 3	31.01
AC-4906332	I-U-11	1-1/4 X 3	34.23
AC-4906336	I-U-11	1-1/2 X 3-3/4	47.08
AC-4906380	I-U-1	1-3/4 X 2-1/4	25.99
AC-4906390	I-U-1	2-5/8 X 3-1/4	28.50
AC-4906391	I-U-4	3-3/4 X 4-1/4 w/ feed tube	182.07
AC-4906392	I,P-U-1	3-3/4 X 4-1/4	79.86
AC-4906396	I-U-11	1-3/4 X 4-7/8	74.69
AC-4907400		Pump Kit	14.22
AC-4907419	I-U-11	1-1/8 X 2-1/4	31.52
AC-4907474	P-U-1	4 X 4-1/2 w/ feed tube	94.43
AC-4907475	P-U-1	3-1/2 X 4-1/4	66.39
AC-4908297	I-O-3	1 X 2-1/2	17.88
AC-4908540	P-U-1	5 X 5-1/2	109.47
AC-4908541	P-U-1	5 X 5-1/2 w/ feed tube	140.17
AC-4908555	I-O-3	3/4 X 1-1/2	9.26
AC-4908917	I-U-1	3-1/4 X 3-3/4	43.70
AC-4908980	7/8" SPOOL	7/8" Spool	13.33
AC-4909028	I-O-3	1-1/4 X 3-1/2	14.83

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
AC-4909035	I-O-11	1-1/2 X 2-1/2	\$57.35
AC-4910116	I-O-11	7/8 X 2	16.92
AC-4910977	9/16" SPOOL	9/16" Spool	9.66
AC-4911398	I-U-4	2 X 3 2 Cylinders	45.30
AC-4912036	I,P-U-1	1, 2-1/4, 3 Stages	117.80
AC-4912039	I-U-11	1-1/8 X 2-1/4	37.58
AC-4912322	I,P-U-1	1, 1-3/4, 2-3/8 Stages	117.54
AC-4912359	P-U-1	3 X 3-1/2	50.90
AC-4913028	P-U-11	7/8 X 2	43.65
AC-4913075	P-U-1	3-3/4 X 4-1/4 w/ feed tube	180.05
AC-4913486	P-U-1	2-1/2 X 3	58.42
AC-4914879	I-U-1	2-3/4 X 3-1/2	38.93
AC-4914917	I-U-4	1-7/8, 2-5/8 2 Stages	107.63
AC-4917136	I-U-10	2-1/4 X 3	69.16
AC-4917655	I-U-4	1-3/4 X 2-1/4	38.68
AC-4918325	I-U-4	1 X 2	38.78
AC-4918585	I-U-1	1-1/2 X 2-1/4	29.92
AC-4932484	I-SP-1	35 mm Rod Kit	15.37
AC-4942582	I-U-1	30 x 55 mm	32.91
AC-4991278	I-OB-3	1-1/8 X 2-1/4	18.62
AC-4992550	N-TR-1	7/8 Rod Only	7.98
AC-4992855	I-V-6	1-1/2 X 3-3/4	95.62
AC-4993273	I-V-6	1-1/4 X 3	83.98
AC-4993661	I-V-6	1-3/4 X 4-7/8	99.34
AC-4998712	I-N-V	3-5/8 X 4-1/4	93.11
AC-78762688	I-U-1	4-1/8 Rod Kit	95.37

BAKER LIFT TRUCKS

BAKER LIFT TRUCKS KIT APPLICATIONS - TILT CYLINDERS

Kit Number	Code (Pg. x)	Rod X Bore Size	List Price
BAK-104840	Multi-Stage	3-1/2, 3-3/8, 4-7/16	\$242.58
BAK-105147	I-V-1	4.438 Rod	194.73
BAK-105235	I-V-1	2.950 Rod	74.47
BAK-105652	I-V-5	1-1/4 X 4	95.36
BAK-106390	I-U-5	1-3/4 X 4-1/2	103.90
BAK-106391	I-V-11	1-3/4 X 4	50.03
BAK-106393	I-V-11	1-1/4 X 4	91.38
BAK-106399	I-V-11	1-1/4 X 3	36.49
BAK-106657	I-V-1	3.950 Rod	99.21
BAK-106663	Multi-Stage	2-1/4, 2-3/8, 3-1/4	86.10
BAK-109009	I-U-4	2-1/2 X 3	64.81
BAK-109010	I-V-1	2-1/2 Rod	115.96
BAK-138727	P-U-10	22 X 60 mm	118.70
BAK-3001Y10	I-V-11	1-3/4 X 4	49.73
BAK-3001Y14	Multi-Stage	2-3/8, 3-3/16, 4-15/16	359.11
BAK-3001Y16	I-V-11	1-1/4 X 3	83.21
BAK-3001Y17	I-V-1	3.450 Rod	108.01
BAK-3001Y20	I-V-1	3.950 Rod	100.97
BAK-3001Y22	P-OB-10	3/4 X 2	30.32
BAK-3001Y28	I-V-5	1-1/4 X 3	133.16

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
122R7774Z	3001Y14
160R7774XC	3001Y14
230HR7774ZC	3001Y14
270HR7774XC	106399
294U7774XC	106657
295HR7774XC	3001Y17
298U7774XC	3001Y14
9025AD	3001Y14
9025AF	3001Y14
9025CN	106657
9025D	106657
9025EH	3001Y17
C9025GB	104840
A9025GC	3001Y20
9025GW	105235
9025HH	3001Y20
9025HX	3001Y20
9025JK	106393
100227-230	105235
102019-20	105235
102064-67	105235
102068-72 & 79	3001Y17
102506-08	105235
102556-559	3001Y17
102569-79	106663
102671-79	3001Y14
102695-102708	104840
102813-16	3001Y20
102898-900	3001Y20
103102	105147
103583	3001Y20
103589	3001Y20

Cylinder Assembly	Repair Kit
103598	3001Y20
103635	3001Y20
103662	105147
103775	106663
103855	106663
103894-95	106663
104100	104840
104131	3001Y14
104178	105147
104244	3001Y14
104278	106663
104349	3001Y20
104377	105147
104431	104840
104438	104840
104441	106663
104516	105147
104529	104840
104548	3001Y20
104604	105147
104617	105147
104705-07	3001Y20
104745	104840
104794-96	3001Y20
104878	3001Y20
104998	104840
105104	3001Y20
105163	105147
105387-89	109010
105727	106663
105730	3001Y14
105842	104840

Cylinder Assembly	Repair Kit
105845	104840
105855	3001Y20
105933	106663
105962	3001Y20
105970	3001Y20
106138	3001Y20
106228	3001Y20
106474-76	109009
106477	109009
106647	104840
106672	106663
106733	104840
107695-96	105147
107794-96	109009
108051	104840
108625	109009
108656	109009
108971-974	105235
109631-641	109009
109788	3001Y20
109823	105147
109879	109010
110095	109009
110506	109010
110648-657	105235
110756	3001Y20
110899	105235
110947-949	109009
111059-61	109009
111124	109010
111549-562	109010
111843	105235

Cylinder Assembly	Repair Kit
112006	104840
112037	3001Y20
112061	109009
112111	104840
112213	104840
112419	105235
112562-63	109009
112600	105147
112658	109009
112832	105235
112904	104840
112962	109009
113111	105147
113194	109009
113228	3001Y20
113251	105235
113388	109009
113434	109009
113638	105147
114040	109009
114141	109009
114283	109009
114392	105147
114889	109009
114954	109009
115237	105147
115247	3001Y20
115656	105147
115956	109009
116318	109009
116740	3001Y20
G7328-3	104840

CASCADE

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
CAS-11.11.73	I-U-15	7/8 X 1-1/2	\$28.18
CAS-210090	I-U-4	20 X 36 mm	172.44
CAS-210288	I-U-4	20 X 36 mm	172.44
CAS-562339	I-U-4,10	1-1/8 X 2-1/4	27.27
CAS-684827	I-U-4	3/4 X 1-1/2	16.48
CAS-552715	I-U-1	2-1/4 X 2-3/4	50.01
CAS-554289	MULTI STAGE	4, 5	171.15
CAS-560349	I-U-4	2" X 75 mm	108.03
CAS-562591	I-U-4	2" X 60 mm	86.35
CAS-564409	I-U-13	25 X 63 mm	64.61
CAS-615939	O-RING KIT		7.46
CAS-615940	O-RING KIT		9.82
CAS-628080	I-V-8	1-1/4 X 3	65.78
CAS-630033	I-U-3	1-1/2 X 4-3/4	33.59
CAS-630038	I-U-3	1-1/2 X 4-3/4	31.10
CAS-630445	I-V-8	1-1/4 X 2-1/2	57.74
CAS-631277	P-V-9	2 X 4-3/4	208.75
CAS-638884	MULTI STAGE	2-3/4, 3-3/4	107.03
CAS-639695	I-U-4	3/4 X 1-3/4	53.04

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
CAS-640371	I-U-4	4 X4-1/2	\$88.88
CAS-641956	MULTI STAGE	4, 5	145.97
CAS-643280	I-U-4	3 X 3-1/2	55.88
CAS-644690	I-U-5	1-3/4 X 4	103.89
CAS-646305	I-U-3	3-1/2 X 4	68.53
CAS-646339	SWIVEL KIT		6.72
CAS-647626	I-U-4	1 X 2-1/4	27.32
CAS-647892	I-V-8	1-3/4 X 4.520	92.77
CAS-650018	I-U-5	3-1/2 X 7	120.62
CAS-651847	I-N-4	2 X 2-1/2	41.95
CAS-654519	P-V-1	2 X 4-3/4	63.23
CAS-656167	MULTI STAGE	4-1/4, 5-7/16	200.48
CAS-658717	MULTI STAGE	2-3/4, 3-3/4	100.86
CAS-660954	I-U-4	1-5/8 X 3-1/2	59.68
CAS-660955	I-U-4	3 X 4	70.35
CAS-664814	N-U-4	3/4 X 1-3/4	28.45
CAS-667622	MULTI STAGE	2-1/2, 3-1/4, 4-1/2	191.84

45C VIEWMAST II

CAS-T555286	P-U-10	2-1/8 X 3	\$83.76
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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.	List Price
CAS-559870	1	\$11.42
CAS-563388	10	1.07
CAS-563907	1	2.96
CAS-563977	5	1.91
CAS-564404	1	10.64
CAS-615009	25	0.39
CAS-615012	25	0.40
CAS-615126	10	0.59
CAS-615128	10	0.69
CAS-615130	10	0.83
CAS-615132	10	0.93
CAS-615135	10	1.08
CAS-615140	10	1.48
CAS-615146	5	2.27
CAS-615147	5	1.98

BACK-UP RINGS

Part Number	Min. Pkgs.	List Price
CAS-615150	5	\$2.29
CAS-615152	5	2.54
CAS-615217	1	4.35
CAS-637565	1	5.76
CAS-638223	1	7.77
CAS-638224	1	7.77
CAS-638225	1	8.10
CAS-638244	10	0.68
CAS-638245	1	5.69
CAS-638247	1	5.97
CAS-638249	1	6.24
CAS-638250	1	5.54
CAS-638252	1	6.87
CAS-638253	1	7.12
CAS-638256	1	7.97

BACK-UP RINGS

Part Number	Min. Pkgs.	List Price
CAS-638257	1	\$8.10
CAS-638293	1	6.66
CAS-638295	1	7.12
CAS-638298	1	8.10
CAS-648569	4	3.14
CAS-660952	1	7.12
CAS-669247	5	2.24
CAS-671754	10	0.92

FACE SEALS

Part Number	List Price
CAS-601468	\$2.45
CAS-607287	3.84

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.	List Price
CAS-1596	50	\$0.09
CAS-1912210	20	0.30
CAS-207300	50	0.06
CAS-208761	50	0.09
CAS-208762	50	0.23
CAS-208763	50	0.27
CAS-209063	15	0.82
CAS-209064	15	0.82
CAS-209065	15	0.84
CAS-209066	15	0.90
CAS-212359	50	0.11
CAS-2696	50	0.03
CAS-2697	50	0.03
CAS-2698	50	0.03
CAS-2699	50	0.03
CAS-2700	50	0.06
CAS-2701	50	0.07
CAS-2702	50	0.06
CAS-2703	50	0.07
CAS-2704	50	0.07
CAS-2705	50	0.07
CAS-2706	50	0.07
CAS-2707	50	0.09
CAS-2709	50	0.09
CAS-2712	50	0.12
CAS-2722	20	0.27
CAS-2753	5	2.15
CAS-2785	20	0.55
CAS-2787	20	0.40
CAS-2789	20	0.43
CAS-2792	20	0.54
CAS-2793	20	0.54
CAS-2797	20	0.67
CAS-2799	20	0.71
CAS-2801	20	0.73
CAS-2803	10	0.81
CAS-2804	10	0.87
CAS-2807	10	1.15
CAS-2808	10	1.18
CAS-2809	10	1.21

O-RINGS

Part Number	Min. Pkgs.	List Price
CAS-2811	10	\$1.28
CAS-2840	50	0.23
CAS-524737	50	0.07
CAS-543372	10	1.48
CAS-557226	50	0.14
CAS-562127	20	0.66
CAS-564363	20	0.42
CAS-581565	50	0.30
CAS-613376	50	0.10
CAS-617724	50	0.12
CAS-622406	20	0.27
CAS-624737	50	0.07
CAS-624738	50	0.10
CAS-626186	50	0.10
CAS-626189	20	0.23
CAS-628033	20	0.19
CAS-630386	20	0.24
CAS-643330	50	0.06
CAS-643331	50	0.06
CAS-643332	50	0.06
CAS-643333	50	0.06
CAS-643334	50	0.06
CAS-643335	50	0.06
CAS-643336	50	0.06
CAS-643337	50	0.07
CAS-643338	50	0.07
CAS-643339	50	0.09
CAS-643340	50	0.09
CAS-643341	50	0.10
CAS-643342	50	0.10
CAS-643343	50	0.10
CAS-643344	50	0.10
CAS-643345	50	0.12
CAS-643346	50	0.12
CAS-643347	50	0.17
CAS-643348	50	0.19
CAS-643349	50	0.19
CAS-643350	20	0.19
CAS-643351	20	0.21
CAS-643352	20	0.24

O-RINGS

Part Number	Min. Pkgs.	List Price
CAS-643353	20	\$0.27
CAS-643354	20	0.30
CAS-643355	20	0.37
CAS-643356	20	0.40
CAS-643357	20	0.40
CAS-643358	20	0.43
CAS-643359	20	0.43
CAS-643360	20	0.48
CAS-643361	20	0.49
CAS-643362	20	0.51
CAS-643363	20	0.58
CAS-643364	20	0.64
CAS-643365	20	0.67
CAS-643366	10	0.79
CAS-643367	10	0.81
CAS-643368	10	0.87
CAS-643369	10	0.96
CAS-643370	10	1.15
CAS-643371	10	1.48
CAS-643373	50	0.09
CAS-643374	50	0.10
CAS-643375	50	0.10
CAS-643376	50	0.10
CAS-643377	50	0.12
CAS-643378	50	0.12
CAS-643379	50	0.12
CAS-643380	50	0.19
CAS-643381	50	0.19
CAS-643382	20	0.21
CAS-643383	20	0.23
CAS-643384	20	0.24
CAS-643385	20	0.24
CAS-643386	20	0.27
CAS-643387	20	0.28
CAS-643388	20	0.28
CAS-643389	20	0.30
CAS-643390	20	0.30
CAS-643391	20	0.30
CAS-643392	20	0.31
CAS-643393	20	0.31

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.	List Price
CAS-643394	20	\$0.37
CAS-643395	20	0.37
CAS-643396	20	0.37
CAS-643397	20	0.43
CAS-643398	20	0.43
CAS-643399	20	0.43
CAS-643400	20	0.48
CAS-643401	20	0.48
CAS-645592	20	0.55
CAS-654926	50	0.19
CAS-655799	50	0.12
CAS-666015	50	0.23
CAS-666183	50	0.23
CAS-666184	50	0.14
CAS-666891	15	0.82
CAS-666892	10	0.90
CAS-666893	15	0.82
CAS-676959	15	0.80
CAS-682862	50	0.07
CAS-684587	50	0.11
CAS-684615	50	0.11
CAS-689937	50	0.11
CAS-689938	50	0.14
CAS-797089	20	0.56

PISTON SEALS

Part Number	Bore Diameter	List Price
CAS-564407	63 mm	\$40.19

RETAINER RINGS

Part Number	List Price
CAS-7197	\$2.64

U-SEALS

Part Number	Rod Dia.	List Price
CAS-646540	3/4	\$5.09
CAS-641835	7/8	5.28
CAS-560502	1	5.49
CAS-662447	1	5.85
CAS-662450	1-3/8	6.67
CAS-662452	1-5/8	7.21
CAS-662454	1-7/8	8.08
CAS-553521	2-1/2	20.33
CAS-662462	3-1/2	15.69
CAS-553954	4-1/2	36.72
CAS-662457	2-1/4	10.47
CAS-553523	3	23.99
CAS-553524	3-1/4	25.13
CAS-662465	4-1/4	20.57
CAS-662467	4-3/4	23.50

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	List Price
CAS-1469	3-1/2	\$47.80
CAS-1471	4-1/2	51.76
CAS-1809	1-3/4	20.76
CAS-1861	2-3/4	44.00
CAS-7501	1-3/8	23.90
CAS-7502	2	23.07
CAS-7514	3-3/4	43.41
CAS-7538	4	29.30
CAS-7542	3	24.85
CAS-7554	4-3/4	74.83
CAS-7561	4-1/4	81.42
CAS-7606	2-1/4	18.77
CAS-7608	3-1/2	24.71
CAS-7609	2-1/2	22.30
CAS-7636	4-1/4	46.19
CAS-827	4-1/2	59.02

WEAR RINGS

Part Number	O.D. X Width	List Price
CAS-660761	2-1/4 X 1/2	\$4.27
CAS-660769	4 X 1/2	4.79
CAS-660784	4-3/4 X 3/4	5.61
CAS-660786	5-1/4 X 3/4	5.73
CAS-636959	5-3/4 X 3/4	7.36

WIPERS

Part Number	Rod Dia.	List Price
CAS-559961	3/4	\$3.33
CAS-636851	7/8	1.23
CAS-636852	1	1.23
CAS-626468	1-1/4	1.33
CAS-636854	1-5/8	2.07
CAS-1916335	2-1/2	5.99
CAS-629608	2-1/2	2.53
CAS-636859	3	3.12
CAS-636860	3-1/4	3.67
CAS-563682	3-1/4	8.67
CAS-636862	4	4.19
CAS-563683	4-1/2	11.17
CAS-626456	4-1/2	4.54
CAS-636864	4-3/4	4.72
CAS-561256	42 mm	20.81

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 (Pg. xiv)	Rode X Bore Size	List Price	Kit Number	Code (Pg. xiv)	Rode X Bore Size	List Price
TM-1033947	I-U-10	40 X 90 mm	\$78.46	TM-396848	P-UB-11	1-1/4 X 3	\$45.60
TM-1040763	P-U-1	70 mm	61.66	TM-396849	I-V-8	2 X 5.025	72.21
TM-1040900	I-U-10	37 X 71 mm	42.28	TM-659060	O-RINGS		7.69
TM-1040948	P-U-1	35 mm	31.37	TM-690003	I-U-5	2 X 5	110.81
TM-1041095	P-U-1	40 x 50 mm	104.24	TM-691389	I-OB-3	1-1/2 X 2-1/2	23.88
TM-1042519	P-U-1	85 X 100 mm	73.02	TM-693683	O-RINGS		9.18
TM-1042609	P-U-4	45 X 55 mm	78.11	TM-694526	I-UB-5	2 X 5	106.18
TM-1146727	P-U-14	50 X 110 mm	113.88	TM-694527	I-UB-5	2-1/2 X 6	117.41
TM-206398	RETAINER RING		0.90	TM-694528	I-U-4,10	2 X 4-1/2	72.06
TM-324908	I-V-8	2 X 4.525	68.53	TM-695522	I-UB-5	1-1/4 X 3-1/2	76.25
TM-375427	I-U-11	1 X 2-1/2	18.61	TM-695523	I-UB-5	1-1/2 X 4	91.01
TM-376968	I-U-1	2-1/2 Rod	36.42	TM-901523	I-U-1	2-1/2, 3-1/4, 4 Stages	166.61
TM-388594-6	P-UB-10	1-1/2 X 3-1/2	44.41	TM-905761	P-U-1	3-1/8, 4-3/8 Stages	216.94
TM-396743	I-P-N-8	3 X 4.025	98.33	TM-905771	P-U-1	2-3/8, 4-3/8 Stages	175.70
TM-396744	I,P-U-8	2-1/2 X 3.525	44.12	TM-905961	VALVE KIT		12.37
TM-396746	I,P-U-1	2-1/4, 3-1/4, 4-1/8 Stages	151.43	TM-905962	VALVE KIT		5.80
TM-396747	P-U-8	3 X 3.525	60.60	TM-906496	I-U-10	3 X 4	59.21
TM-396748	I-U-8	3 X 4.025	55.98	TM-911700	I-U-1	75 mm Rod Kit	49.46
TM-396749	P-U-1	3-1/8, 4-3/8, 5 Stages	257.39	TM-911701	I-U-1	50 mm Rod Kit	52.59
TM-396750	P-U-1	2-3/16 X 2-1/2	51.84	TM-911725	I-N-10	25 X 50 mm	51.09
TM-396751	P-U-8	3-3/4 X 5.025	93.20	TM-911726	I-U-10	35 X 80 mm	63.43
TM-396752	I-U-8	2-5/8 X 3.025	66.86	TM-911956	P-U-1	1-5/8 Rod Kit	25.28
TM-396754	I-U-8	2-1/2 X 3.025	43.91	TM-912067	P-UB-10	1-1/4 X 3	34.07
TM-396755	I-U-8	3 X 3.525	53.28	TM-912711	P-U-1	2-3/8 Rod Kit	39.29
TM-396756	I-P-1-8	3 X 4.025	81.10	TM-912748	P-U-1	2-3/8 Rod Kit	39.40
TM-396757	P-U-1	2-3/8, 4-3/8, 5-3/4 Stages	240.17	TM-914206	P-UB-10	2 X 4-1/2	71.74
TM-396758	I-P-U-1	1-7/8, 2-3/4, 3-5/8 Stages	131.28	TM-914634	I-U-1	3-3/4" Rod	43.32
TM-396759	I-V-1	2.700, 3.450, 5.700 Stgs.	164.60	TM-914635	I-U-10	2 X 2-1/2	75.04
TM-396760	I-V-1	2.200, 2.950, 4.700 Stgs.	128.01	TM-914636	N-U-10	4 X 4-1/2	112.57
TM-396761	I,P-N-8	3 X 5.025	111.95	TM-917170	U-SEAL	4-3/8	33.88
TM-396801	P-U-1	3-3/8, 4-3/8, 5 Stages	285.30	TM-917174	U-SEAL	2-1/4	9.14
TM-396842	P-UB-10	1-1/2 X 3-1/2	42.96	TM-917175	U-SEAL	3-1/4	12.66
TM-396843	P-U-11	1-1/2 X 3-1/2	32.73	TM-917177	U-SEAL	2-3/4	10.92
TM-396844	P-UB-11	1-1/2 X 3-1/2	34.30	TM-918024	P-U-4	150 X 180 mm	404.47
TM-396845	I-U-11	1-1/4 X 3	25.55	TM-919851	P-U-15	120 X 180 mm	716.41
TM-396846	P-UB-10	2 X 4-1/2	96.61	TM-920666	I-U-1	50 mm Rod Kit	43.02
TM-396847	I-V-8	2 X 4.525	62.87	TM-923282	I-U-10	2 X 2-1/2	118.90

REPLACEMENT PARTS FOR CATERPILLAR® TOWMOTOR LIFT TRUCKS

Part Number	Type	I.D.	O.D.	Hgt.	List Price	Part Number	Type	I.D.	O.D.	Hgt.	List Price
TM-5461	Vee Set	1-1/4	1-3/4		\$11.18	TM-67843	Vee Set	5.700	6.450		\$53.52
TM-41248	Vee Set	2.200	2.700	1	20.82	TM-303231	Wiper	1	1-3/8	3/16	3.12
TM-41250	Vee Set	2.950	3.450	1	23.73	TM-303233	Wiper	2			3.61
TM-41252	Vee Set	4.700	5.290	1	38.62	TM-303260	Vee Set	2.275	3.025	1.2	21.25
TM-41340	Vee Set	4.025	5.025	1.3	46.66	TM-371212	Modular Back-up Ring	5	5-3/4	.226	35.80
TM-67841	Vee Set	2.700	3.450		27.12	TM-903016	Wiper	5	5-3/4	3/8	51.21
TM-67842	Vee Set	3.450	4.250	1.5	49.04						

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 Hercules Sealing Products designed seals.

Kit Number	Code (Pg. xviii)	Rod X Bore Size	List Price
CLK-1795529	I-U-5	1-1/2 X 4	\$68.67
CLK-1810820	O-RINGS		12.01
CLK-1811046	I-U-10	1-1/4 X 3	28.76
CLK-1811107	I-N-4	2 X 2-1/4	29.81
CLK-1811108	I-N-4	2-1/4 X 2-1/2	23.06
CLK-1811120		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	166.80
CLK-1811120-E		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	270.70
CLK-1811122		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID	223.95
CLK-1811122-E		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID	311.74
CLK-1811123-E		3-1/4, 4-1/4 VID'S, 6-1/2 UID'S	328.68
CLK-1811124		2-1/8, 3-1/8 VID'S	96.88
CLK-1811125		2-1/8, 3-1/8, 4-1/2 VID'S	220.45
CLK-1811126		2-3/4, 3-3/4, 5-3/4 VID'S	233.48
CLK-1811127		2-3/4, 3-3/4, 5-3/4 VID'S	238.89
CLK-1811129	I-N-4	2-1/2 X 4	48.34
CLK-1811130		1-3/4, 2-5/8, 3-3/4 VID'S	139.47
CLK-1811131		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	178.71
CLK-1811131-E		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	243.86
CLK-1811132		1-3/4, 2-5/8 VID, 3-3/8, 4-1/2 UID	127.15
CLK-1811132-E		1-3/4, 2-5/8 VID, 3-3/8, 4-1/2 UID	198.40
CLK-1811133		1-3/4, 2-5/8 VID'S	66.09
CLK-1811142		1-3/4, 2-5/8, 3-3/4 VID'S	346.32
CLK-1811148		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID	234.89
CLK-1811148-E		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID	312.79
CLK-1811149	I-U-4	3-1/2 X 4-3/4	107.73
CLK-1811154	I-U-1	2-1/2 X 3-1/4	31.21
CLK-1811155	I-N-4	2-1/2 X 3	29.47
CLK-1811157	I-U-5	5 X 7	198.73
CLK-1811158	I-U-5	4-1/2 X 6	153.34
CLK-1811158-E	I-U-5	4-1/2 X 6	186.20
CLK-1811159		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	168.72
CLK-1811159-E		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	244.85
CLK-1811160		1-3/4, 2-5/8 VID, 3-3/8, 4-1/2 UID	126.24
CLK-1811160-E		1-3/4, 2-5/8 VID, 3-3/8, 4-1/2 UID	198.40
CLK-1811161		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	170.01
CLK-1811161-E		1-3/4, 3-1/8 VID, 3-7/8, 5-1/4 UID	237.01
CLK-1811162		2-1/8, 3-1/8, 4-1/2 UID'S	180.84
CLK-1811163		2-1/8, 3-1/8, 4-1/2 VID'S	223.08
CLK-1811164		1-3/4, 2-5/8, 3-3/8, 4-5/8 UID'S	112.75
CLK-1811164-E		1-3/4, 2-5/8, 3-3/8, 4-5/8 UID'S	220.52

Kit Number	Code (Pg. xviii)	Rod X Bore Size	List Price
CLK-1811179	I-V-5	1-1/2 X 4	\$93.08
CLK-1811180	I-V-5	1-1/4 X 4	85.32
CLK-1811184	I-V-5	1-1/4 X 3	92.87
CLK-1811200	I-V-4	2 X 6	168.42
CLK-1811200-E	I-V-4	2 X 6	316.02
CLK-1811204	I-V-1	1-1/4 ROD	92.34
CLK-1811206	I-V-5	3/4 X 1-5/8	42.52
CLK-1811207	I-V-5	1 X 2	61.71
CLK-1811209	I-V-5	1 X 2-1/4	69.58
CLK-1811210	I-V-5	1-1/4 X 2-3/4	86.18
CLK-1811212	I-V-5	1-1/4 X 3-1/4	89.73
CLK-1811217	I-V-5	1-3/4 X 4-1/2	68.15
CLK-1811218	I-V-5	2 X 6	368.45
CLK-1811231	N-N-5	2.26" Piston Kit	46.31
CLK-1811244	I-U-10	1-1/8 X 2-1/4	29.98
CLK-1811275	I-V-5	1-1/2 X 4	70.41
CLK-1811309	I-U-10	1 X 3	16.04
CLK-1811314		1-3/4 VID, 3-1/8, 3-7/8, 5-1/4 UID	147.88
CLK-1811314-E		1-3/4 VID, 3-1/8, 3-7/8, 5-1/4 UID	211.40
CLK-1811315		1-3/4 VID, 3-1/8, 3-7/8, 5-1/4 UID	168.49
CLK-1811315-E		1-3/4 VID, 3-1/8, 3-7/8, 5-1/4 UID	214.48
CLK-1811327		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID	197.56
CLK-1811327-E		2-1/8 VID, 3-7/8, 4-3/4, 6-1/2 UID	311.39
CLK-1811369	P-U-4	60 mm X 73 mm	74.41
CLK-1811376	I-U-10	40 mm X 4"	55.70
CLK-1811392	P-U-10	1-3/4 X 3	72.48
CLK-1811393	I-U-10	40 mm X 4"	61.64
CLK-1811415	P-U-4	60 X 78 mm	79.29
CLK-1811537	P-U-1	60 mm	77.56
CLK-1811538	I-U-4	40 X 56 mm	65.86
CLK-1811542	I-U-10	1-3/8 X 3	36.04
CLK-1811544	I-U-10	1 X 2	60.48
CLK-1811569	P-U-10	2 X 3-3/8	54.66
CLK-1811582	I-U-10	1-1/4 X 3-1/2	33.26
CLK-1811691	P-U-1	2 X 2.450	37.96
CLK-1811697	I-U-10	1-1/4 X 3-1/2	34.99
CLK-1811719	I-U-10	40 mm X 3-1/2	39.74
CLK-1811759	I-U-10	1-1/4 X 3	34.38
CLK-1811785	I-U-10	40 mm x 3-1/2	46.49
CLK-1811799	I-U-10	2 X 3-3/8	88.03

CLARK LIFT TRUCKS

Kit Number	Code (Pg. xviii)	Rod X Bore Size	List Price
CLK-1811820	I-U-10	2 X 3	\$34.94
CLK-1811828	I-U-10	2 X 3	30.88
CLK-1811852	I-U-1	3 X 3-1/2	68.61
CLK-1811855	P-U-1	60 mm X 72 mm	47.83
CLK-1811972	I-U-10	1-1/4 X 3	43.70
CLK-1813014	P-U-1	2 X 2-1/2	35.01
CLK-1813015	I-U-1	2-5/8 Rod Kit	76.73
CLK-1813016	I-U-1	3 X 3-1/2	60.80
CLK-1813017	P-U-1	60mm X 72 mm	47.83
CLK-1813023	I-U-1	40 mm X 2-3/16"	46.01
CLK-1813024	I-U-1	40 mm Rod Kit	22.96
CLK-1813032	I-U-10	50 mm X 3-3/8"	73.42
CLK-1813055	I-U-10	50 mm X 3-1/8"	76.98
CLK-1813075	I-U-10	40 mm X 3-1/2"	45.48
CLK-1813076	I-U-10	40 mm X 4"	48.59
CLK-1813082	I-U-10	50 X 86 mm	67.21
CLK-1813084	I-U-1	50 mm Rod Kit	26.39
CLK-1813176	I-U-4	60 X 73 mm	82.63
CLK-1818816	P-U-10	3/4 X 1-3/4	29.47
CLK-1818864	P-U-10	3/4 X 2	21.87
CLK-1821328	I-U-10	7/8 X 2	15.34
CLK-1830350	I-N-4	2 X 2-1/4	32.22
CLK-1830352	I-N-4	3-1/4 X 4	48.74
CLK-1830358	I-N-4	2-1/2 X 3-1/4	57.54
CLK-1830360	I-N-4	2-1/2 X 3	32.81
CLK-1830361	I-N-4	2-1/4 X 2-1/2	37.06
CLK-1830649	I-U-10	3/4 X 2-3/4	35.71
CLK-1831042	N-V-1	1-1/4" Rod Kit	10.65

Kit Number	Code (Pg. xviii)	Rod X Bore Size	List Price
CLK-1831074	I-U-10	1-3/4 X 4-1/2	\$47.40
CLK-1831075	I-V-1	3-1/4 Rod Kit	47.26
CLK-1831076	I-U-10	1-1/8 X 2-1/2	29.81
CLK-1991085	P-TR-10	2 X 4	44.81
CLK-2367420	I-U-1	2-1/4 X 3-1/4	113.60
CLK-3009626	P-U-10	25 mm X 50 mm	75.45
CLK-3986876	MOTOR KIT		31.75
CLK-841270	P-U-10	2 X 3-3/4	38.72
CLK-886547	P-TR-12	1 X 2	53.24
CLK-896505	MOTOR KIT		7.92
CLK-905074	MOTOR KIT		17.51
CLK-907984	VALVE KIT		19.81
CLK-908985	VALVE KIT		18.91
CLK-912339	P-U-1	2-1/2 X 3	42.46
CLK-914698	I-U-4	1 X 2-1/2	30.03
CLK-914703	I-O-4	1-1/4 X 3	20.07
CLK-917282	O-RING KIT		8.69
CLK-917713	N-N-10	2" Piston Kit	24.31
CLK-918886	I-U-10	2 X 3-3/8	42.87
CLK-921115A	VALVE KIT		11.51
CLK-990076	VALVE KIT		4.85
CLK-990208	SWIVEL KIT		7.75
CLK-990209	SWIVEL KIT		11.59
CLK-992511	O-RING KIT		7.94
CLK-994287	VALVE KIT		13.70
CLK-995815	SWIVEL KIT		11.59
CLK-999820	P-U-10	3/4 X 1-3/4	38.16

CROWN LIFT TRUCKS

CROWN

Kit Number	Code (Pg. xviii)	Rod X Bore Size	List Price
CRN-087484		O-RING	\$4.77
CRN-088719		O-RING	4.27
CRN-089178	I-U-13	1-3/4 X 3-1/2	57.98
CRN-093217		O-RING	4.57
CRN-101296	I-U-1	2-1/2" Rod Kit	24.63
CRN-101301	I-U-1	2 ROD KIT	29.15
CRN-101302	I-U-1	1-7/8 X 2-1/2	76.89
CRN-101305	I-U-1	1-5/8 X Rod Kit	112.85
CRN-101309	I-U-1	1-7/8" ROD KIT	80.68
CRN-101310	I-U-1	2-1/2" ROD KIT	32.80
CRN-101313	I-U-1	1-3/8" Rod Kit	29.62
CRN-101314	I-U-1	2-1/8" ROD KIT	22.88
CRN-101316	I-U-1	2-3/8" ROD KIT	53.41
CRN-101323	I-V-1	1-7/8" Rod Kit	98.55
CRN-101326	I-U-1	2-3/8" Rod Kit	36.27
CRN-101329	I-U-1	1-7/8, 2-5/8 Stages	88.04
CRN-101331	I-U-1	1-3/4, 2-3/8 Stages	72.37
CRN-101332	I-U-1	1-3/4 X 2-1/2	24.14
CRN-101334	I-U-1	1-7/8, 2-5/8 Rod kit	91.04
CRN-101335	I-U-1	1-5/8, 2-1/4 Stages	78.45
CRN-101336	I-U-1	1-5/8, 2-1/4 Stages	81.18
CRN-101339	I-U-1	2" Rod Kit	89.75
CRN-101340	I-U-1	1-7/8 ROD KIT	24.64
CRN-101341	I-U-5	1-1/4 X 2-3/8	60.27
CRN-101342	I-U-3	1-1/2 X 3	79.59
CRN-101343	I-U-5	3/4 X 2	70.29
CRN-101346	I-U-5	3/4 X 1-3/4	50.25
CRN-101347	I-U-5	3/4 X 2-1/8	69.26
CRN-101376	I-U-5	1-1/4 X 3	96.00

Kit Number	Code (Pg. xviii)	Rod X Bore Size	List Price
CRN-101377	I-U-5	1 x 1-3/4	\$51.80
CRN-102659		VALVE KIT	5.61
CRN-105476004		O-RING	8.40
CRN-105476-6		O-RING	2.80
CRN-107366	I-O-1	1/2" Valve Kit	20.44
CRN-111573	I-U-1	3" ROD KIT	40.56
CRN-111574	I-U-1	2" ROD KIT	26.01
CRN-111790-001		O-RING	2.80
CRN-111790-12		O-RING	2.80
CRN-111790-2		O-RING	5.61
CRN-111790-3		O-RING	3.53
CRN-111790-4		O-RING	3.53
CRN-111790-9		O-RING	3.33
CRN-112022	I-U-4	7/8 X 2	25.16
CRN-112704		8, 9/16" Spools Rod Kit	21.75
CRN-113744	I-U-13	2-1/2 X 3-1/4	65.18
CRN-113745	I-U-13	3/4 x 1-3/4	32.34
CRN-115604	I-U-4	7/8 X 2	40.10
CRN-116360	N-O-1	O-RING	6.21
CRN-116820	I-U-1	2" rod kit	17.54
CRN-42249	I-U-1	56 X 80 mm	43.66
CRN-43023-1		VALVE KIT	35.89
CRN-78685		VALVE KIT	16.68
CRN-79017		VALVE KIT	5.15
CRN-87317	N-O-1	O-RING	4.57
CRN-89704	I-U-13	1-3/4 x 2-3/4	81.19
CRN-90880	I-U-5	3/4 X 1-3/4	52.19
CRN-94580	I-O-1	5/8" Rod kit	6.10

Forklifts							
APPLICATION	CYL #	SERIAL #	CODE	ROD	BORE	KIT #	List \$
MODEL 552, 553							
ATTACHMENT ROTATE	L63594		I-U-10	1	2-1/2	GEHL-L99170	40.73
ATTACHMENT SLAVE	L63014		I-U-11	1-3/4	3-1/2	GEHL-L98527	42.15
ATTACHMENT TILT	L63013		I-U-11	2	4	GEHL-L98548	66.01
BOOM EXTEND	L63012		I-U-11	2-1/2	3-1/2	GEHL-L98558	81.22
BOOM LIFT	L63199		I-U-11	2-1/2	4-1/2	GEHL-L98521	74.62
FORK SHIFT	L66920		I-U-10	1-1/4	2	GEHL-L99958	85.38
FRAME LEVEL	L63015		I-U-11	1-3/4	4	GEHL-L98506	49.49
STEER	L98444		I-U-10	45 mm	90 mm	GEHL-L98565	125.84
MODEL 663							
BOOM EXTEND	L64333		I-U-10	3	4	GEHL-L99386	88.85
BOOM LIFT	L64014		I-U-10	3	4	GEHL-L99331	127.19
CARRIER SLAVE	L61869		I-U-10	1-3/4	3-1/2	GEHL-L99332	66.81
CARRIER TILT	L61868		I-U-10	2	4	GEHL-L99385	98.84
FRAME SWAY	L64054	Prior-4319	I-U-10	3	4	GEHL-L97674	74.48
	L64085	4320-4356	P-U-5	1-3/4	4	GEHL-L97903	71.26
	L64818	4357-UP	I-U-10	1-3/4	4	GEHL-L99382	83.14
ROTATE CARRIAGE	L61317		I-U-10	1-3/8	3	GEHL-L97769	49.55
STEER	L97649-L97976		I-U-10	1-1/8	2-1/4	GEHL-L97978	39.58
MODEL 883							
ATTACHMENT TILT	L49988A	7001-7004	I-U-10	2-1/2	5	GEHL-L97716	106.72
	L64086	7005-7444	P-U-10	2-1/2	5	GEHL-L97922	86.21
BOOM EXTEND	L64385	7001-7004	I-U-10	3-1/2	4-1/2	GEHL-L97713	85.94
	L66770	7446-UP	I-U-10	3-1/2	4-1/2	GEHL-L99376	103.14
BOOM LIFT	L64083	7005-7445	I-U-10	3-1/2	4-1/2	GEHL-L97908	57.54
	L64401	7001-7004	I-U-10	3-1/2	4-1/2	GEHL-L97711	71.65
BOOM SLAVE	L64087	7001-7004	I-U-10	2-1/4	4-1/2	GEHL-L97917	59.95
	L64087	7005-7171	I-U-10	2-1/4	4-1/2	GEHL-L97715	67.00
	L66032	7172-7444	I-U-10	2-1/4	4-1/2	GEHL-L97917	59.95
	L66666	7445-UP	I-U-11	2-1/4	5	GEHL-L99330	99.26
FORK SHIFT	L66920		I-U-10	1-1/4	2	GEHL-L99958	85.38
FRAME LEVEL	L64085	7005-7445	P-U-5	1-3/4	4	GEHL-L97903	71.26
	L64818	7001-7004, 7446-UP	I-U-10	1-3/4	4	GEHL-L99382	83.14
MAST LIFT	L66537		I-U-10	2	3	GEHL-L98848	40.86
OUTRIGGER	L64968	Prior-7386	I-U-10	2-1/2	4	GEHL-L97938	47.11
	L66642	7387-UP	I-U-11	2-1/2	4	GEHL-L99059	63.61
ROTATE CARRIAGE	L61317		I-U-10	1-3/8	3	GEHL-L97769	49.55
STEER	L97649		I-U-10	1-1/8	2-1/4	GEHL-L97978	39.58
	L99428		I-U-10	1-1/8	3	GEHL-L99430	50.10
SWING CARRIAGE	L63970	2781-UP	I-U-10	1-1/4	2-1/2	GEHL-L99944	39.99
	L65659	Prior-2780	I-U-10	1-3/8	3	GEHL-L97955	63.38

GEHL

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
GEHL-L97617	I-U-10	2 X 4	\$48.45
GEHL-L97674	I-U-10	3 X 4	74.48
GEHL-L97711	I-U-10	3-1/2 X 4-1/2	71.65
GEHL-L97713	I-U-10	3-1/2 X 4-1/2	85.94
GEHL-L97715	I-U-10	2-1/4 X 4-1/2	67.00
GEHL-L97716	I-U-10	2-1/2 X 5	106.72
GEHL-L97769	I-U-10	1-3/8 X 3	49.55
GEHL-L97903	P-U-5	1-3/4 X 4	71.26
GEHL-L97908	I-U-10	3-1/2 X 4-1/2	57.54
GEHL-L97917	I-U-10	2-1/4 X 4-1/2	59.95
GEHL-L97922	P-U-10	2-1/2 X 5	86.21
GEHL-L97938	I-U-10	2-1/2 X 4	47.11
GEHL-L97955	I-U-10	1-3/8 X 3	63.38
GEHL-L97978	I-U-10	1-1/8 X 2-1/4	39.58
GEHL-L98506	I-U-11	1-3/4 X 4	49.49
GEHL-L98521	I-U-11	2-1/2 X 4-1/2	74.62
GEHL-L98527	I-U-11	1-3/4 X 3-1/2	42.15
GEHL-L98548	I-U-11	2 X 4	66.01
GEHL-L98558	I-U-11	2-1/2 X 3-1/2	81.22
GEHL-L98565	I-U-10	45 X 90 mm	125.84
GEHL-L98848	I-U-10	2 X 3	40.86
GEHL-L99059	I-U-11	2-1/2 X 4	63.61
GEHL-L99170	I-U-10	1 X 2-1/2	40.73
GEHL-L99330	I-U-11	2-1/4 X 5	99.26
GEHL-L99331	I-U-10	3 X 4	127.19
GEHL-L99332	I-U-10	1-3/4 X 3-1/2	66.81
GEHL-L99376	I-U-10	3-1/2 X 4-1/2	103.14
GEHL-L99382	I-U-10	1-3/4 X 4	83.14
GEHL-L99385	I-U-10	2 X 4	98.84
GEHL-L99386	I-U-10	3 X 4	88.85
GEHL-L99430	I-U-10	1-1/8 X 3	50.10
GEHL-L99944	I-U-10	1-1/4 X 2-1/2	39.99
GEHL-L99958	I-U-10	1-1/4 X 2	85.38

GENIE

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
GENIE-101252	P-U-15	100 X 140	\$177.75
GENIE-101254	I,P-U-15	40 X 75	66.82
GENIE-102126	MISC		128.95
GENIE-106119	MISC		87.43

GENIE

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
GENIE-106125	MISC		\$45.36
GENIE-106508	MISC		67.27
GENIE-107813	WASHER		7.03
GENIE-110202	34542 VALVE KIT		12.43
GENIE-130917	I-U-15	40 X 90	51.75
GENIE-139972	MISC		268.43
GENIE-18471	I-SP-10	1.5 X 2.5	43.61
GENIE-226542	MISC		185.67
GENIE-230483	I-U-10	1.750 X 4	73.22
GENIE-33487	I-U-10	1.5 X 3	59.31
GENIE-43018	O-rings + Back-ups		22.07
GENIE-44233	CHECK VALVE KIT		14.13
GENIE-44250	I-U-10	.750 X 20	39.64
GENIE-45898	I-SP-10	2 X 4	36.70
GENIE-52620	I-U-10	1.500 X 30	29.23
GENIE-59050	I-U-14	1.5 X 2.5	67.00
GENIE-59169	I-U-10	10 X 20	36.74
GENIE-59444	I-U-10	1.750 X 2.5	61.73
GENIE-62417	N-TR-5,11	2.125 X 3.5	169.36
GENIE-63350	P-U-15	40 X 75	73.70
GENIE-63353	P-U-15	40 X 63	85.88
GENIE-63354	P-U-15	40 X 63	59.33
GENIE-635965	I-U-15	60 X 120	87.84
GENIE-640096	I-U-15	70 X 110	60.07
GENIE-65789	P-U-15	32 X 50	73.65
GENIE-66470	I-N-1	3	60.14
GENIE-72047	O-rings		16.22
GENIE-7-234-31	CARTRIDGE SEAL KIT		25.95
GENIE-77189	P-U-15	45 X 90	65.23
GENIE-77364	P-U-15	40 X 75	48.59
GENIE-77520	Swivel Kit		375.44
GENIE-77521	P-U-15	45 X 63	38.32
GENIE-7-900-33	P-U-11	3 X 4-1/2	167.70
GENIE-7-900-180	I-U-10	1.5 X 3.5	52.97
GENIE-84394	Check Valve Kit		8.63
GENIE-88338	P-U-10	25 X 50	46.15
GENIE-88338	P-U-10	25 X 50	46.15
GENIE-89066	P-U-10	25 X 50	57.12
GENIE-89294	P-U-10	40 X 63	52.91
GENIE-89310	O-rings + Back-ups		16.12
GENIE-94255	P-U-15	32 X 50	114.13
GENIE-94256	P-U-15	32 X 50	114.13
GENIE-94620	MISC		52.27
GENIE-94625	O-Rings + Back-Ups		23.76
GENIE-94937	MISC		330.67

HYSTER

Kit Number	Code (Pg. xviii)	Rod X Bore Size	List Price
HYS-1332565	I-U-1	1-7/8 X 2-1/4	\$53.63
HYS-1334570	I-U-4	3-1/2 X 4	77.68
HYS-1334571	I-N-5	4 X 4-1/2	97.86
HYS-133462	I-V-1	1-3/4" ROD	22.80
HYS-1355337		GEAR KIT	27.88
HYS-144267		O-RING KIT	13.78
HYS-148292	N-N-8	3-1/4" PISTON KIT	60.39
HYS-148414	I-V-1	1-3/4" ROD	24.86
HYS-149193	N-N-P	2-1/2" BORE	22.27
HYS-149194	P-V-1	1-3/4 X 2-1/2	30.54
HYS-149254	I-V-1	1-3/4" ROD	20.87
HYS-149258	P-V-1	2" ROD	46.84
HYS-149259	N-V-1	2-1/4" ROD	27.14
HYS-149260	I-V-1	1-1/4" ROD	25.65
HYS-149292		O-RING KIT	7.73
HYS-1494726	P-U-10	1-3/4 X 4	36.82
HYS-168801	N-U-12	1 X 3	66.95
HYS-170881	P-V-8	1-1/4 X 3	44.91
HYS-2026822	P-U-10	35 X 65 mm	91.44
HYS-2085015	P-U-13	35 X 70 mm	72.06
HYS-226074	I-U-8	1-1/2 X 3-1/2	57.28
HYS-2302714	I-U-11	28 mm X 2-1/2	22.29
HYS-2303974	I-U-1	3 X 3-3/4	54.25
HYS-250050	P-U-10	1-1/2 X 3-1/2	44.04
HYS-250051	P-U-10	1-1/4 X 3	46.74
HYS-250550	I-U-4	4-1/4 X 6	140.66
HYS-250559	I-U-4	5-1/4 X 7-1/2	193.25
HYS-250603	I-U-8	1 X 2-1/2	54.08
HYS-250937	I-U-8	1-1/2 X 3.525	129.08
HYS-250943	I-U-1	3.70, 5.45 Stages	237.52

Kit Number	Code (Pg. xviii)	Rod X Bore Size	List Price
HYS-280182	I-O-10	1 X 2-1/4	\$17.14
HYS-280537	I-U-4	2-1/8 X 2-1/2	58.98
HYS-281474	P-U-10	1-1/2 X 3-1/2	46.23
HYS-281815	I-U-10	1-3/4 X 3-1/2	23.68
HYS-281822	I-U-10	1-1/4 X 3	21.68
HYS-281855	I-U-10, 12	1-3/4 X 3-1/2	48.96
HYS-281859	I-U-10, 12	2-1/4 X 3-1/2	52.14
HYS-281864	I-U-10	1-3/4 X 3-1/2	23.85
HYS-314993		O-RING KIT	6.82
HYS-318005	I-U-1	2-3/4, 3-3/4 Stages	77.77
HYS-321758	I-U-10	2-1/4 X 4-1/2	35.12
HYS-321909	I-U-5	3 X 4-3/4	129.02
HYS-323645	I-U-8	1-3/4 X 4	64.25
HYS-327393	I-U-4	2-1/8 X 2-1/2	43.13
HYS-328074	I-U-10	1-1/4 X 2-3/4	25.97
HYS-328121	P-U-10	1-1/4 X 3	50.63
HYS-328226	P-U-10	1-3/4 X 4-1/4	52.64
HYS-333742	P-U-10	2-1/8 X 3	75.61
HYS-334997	I-U-10	1-1/4 X 2-3/4	30.13
HYS-337281	I-U-4	1-3/8 X 2	42.35
HYS-339347	I-U-4	4, 5 Stages	178.96
HYS-340079	N-U-4	1-3/4 X 2-3/4	54.79
HYS-355695	P-U-10	1-3/8 X 3	45.07
HYS-355909	I-U-5	1-1/2 X 4	64.46
HYS-381762	I-U-10	2-7/8 X 4-1/2	71.09
HYS-383991	P-U-10	1-1/4 X 3	43.13
HYS-48628	I-U-4	3/4 X 1-5/8	21.66
HYS-629326		HOSE REEL KIT	8.47
HYS-639456	I-U-4	3 X 3-1/2	68.66
HYS-643280	I-U-4	3 X 3-1/2	72.60

HYSTER - KALMAR

KALMAR

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
KAL-920670.0003	P-U-13	32 X 63 mm	\$121.94
KAL-920673.0005	P-U-15	80 X 125 mm	161.78
KAL-920744.0001	P-U-13	32 X 63 mm	115.88
KAL-920744.0002	I-U-13	40 X 80 mm	160.79
KAL-920744.0003	P-U-10	60 X 80 mm	169.42

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
KAL-920744.0005	P-U-10	70 X 125 mm	\$194.43
KAL-920744.0006	P-U-15	70 X 160 mm	119.98
KAL-920744.0013	P-U-15	90 X 180 mm	139.36
KAL-921307.0001	P-U-10	50 X 100 mm	189.60

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	List Price
KAL-0926644	10	\$1.32
KAL-0930280	5	1.98
KAL-4741128	10	1.12
KAL-8653585	10	1.32
KAL-8653594	1	2.96
KAL-931868-4	10	1.19

O-RINGS

Part Number	Min. Pkg Qty	List Price
KAL-0922571	50	\$0.07
KAL-0923376	50	0.07
KAL-0923379	50	0.09
KAL-0923558	50	0.06
KAL-0923560	50	0.06
KAL-0923561	50	0.07
KAL-0923562	50	0.10
KAL-0923563	50	0.12
KAL-0923564	50	0.19
KAL-0923565	50	0.07
KAL-0923566	50	0.10
KAL-0923567	50	0.10
KAL-0923568	50	0.12
KAL-0923569	20	0.21
KAL-0923570	20	0.24
KAL-0923571	20	0.28
KAL-0923572	20	0.30
KAL-0923573	20	0.30
KAL-0923574	50	0.10
KAL-0923575	50	0.17
KAL-0923576	20	0.30
KAL-0923577	20	0.55
KAL-0923578	20	0.33
KAL-0923579	20	0.40
KAL-0923580	20	0.40
KAL-0923582	20	0.54
KAL-0923584	20	0.60
KAL-0923585	20	0.64
KAL-0923586	20	0.71

O-RINGS

Part Number	Min. Pkg Qty	List Price
KAL-0923587	20	\$0.74
KAL-0923591	10	0.81
KAL-0923598	10	0.90
KAL-0923599	10	1.09
KAL-0923644	50	0.17
KAL-0923645	50	0.09
KAL-0923646	20	0.27
KAL-0923648	50	0.19
KAL-0923649	50	0.21
KAL-0923650	20	0.33
KAL-0923651	20	0.57
KAL-0923663	50	0.07
KAL-0923664	20	0.27
KAL-0923702	20	0.48
KAL-0923718	50	0.21
KAL-0923719	50	0.09
KAL-0923810	50	0.12
KAL-0923811	50	0.19
KAL-0923812	50	0.21
KAL-0923813	20	0.23
KAL-0923814	20	0.43
KAL-0923815	20	0.51
KAL-0923816	20	0.67
KAL-0923817	20	0.73
KAL-0923826	20	0.33
KAL-0923827	20	0.67
KAL-0923828	20	0.73
KAL-0923829	20	0.74
KAL-0923831	10	1.18
KAL-0923832	10	1.21
KAL-0923833	10	1.21
KAL-0923843	50	0.03
KAL-0923845	50	0.06
KAL-0923847	50	0.09
KAL-0923848	50	0.10
KAL-0923849	50	0.09
KAL-0923850	20	0.24
KAL-0923851	50	0.12
KAL-0923852	20	0.48
KAL-0923855	10	1.00
KAL-0923856	20	0.51

O-RINGS

Part Number	Min. Pkg Qty	List Price
KAL-0923865	20	\$0.28
KAL-0923896	20	0.24
KAL-0923922	20	0.60
KAL-0923934	50	0.12
KAL-0923935	20	0.67
KAL-0923936	10	0.87
KAL-0923944	50	0.03
KAL-0923945	50	0.09
KAL-0923947	50	0.12
KAL-0923948	50	0.19
KAL-0923949	20	0.43
KAL-0923988	50	0.10
KAL-0923989	50	0.12
KAL-0924003	50	0.07
KAL-0924038	20	0.30
KAL-0924137	20	0.19
KAL-0924158	20	0.82
KAL-0924187	20	0.67
KAL-0924416	50	0.12
KAL-0924686	10	1.05
KAL-0924859	20	0.21
KAL-0927902	50	0.03
KAL-0930897	50	0.10
KAL-231416	50	0.10
KAL-4255395	50	0.14
KAL-4910140	50	0.07
KAL-4910366	20	0.27
KAL-4910375	50	0.23
KAL-4910378	10	1.45
KAL-4910379	20	0.51
KAL-70923812	50	0.21
KAL-70923829	20	0.74
KAL-70924003	50	0.07
KAL-70926560	5	1.32
KAL-8653584	20	0.60

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.	List Price
KAL-74816749	1/8 x 5/32	\$0.70

PISTON SEALS

Part Number	Bore Dia.	List Price
KAL-4909279	2-1/2	\$8.71

PISTON U-SEALS

Part Number	Bore Dia.	List Price
KAL-4910347	4	\$21.64

RETAINER RINGS

Part Number	List Price
KAL-231423	\$5.09
KAL-4255082	5.13
KAL-4910370	3.16
KAL-4910376	10.84
KAL-4910377	4.46
KAL-927822	11.52

U-SEALS

Part Number	Rod Dia.	List Price
KAL-78630662	1-1/2	\$13.81
KAL-4850624-0	2-1/2	11.50
KAL-74820556	2-5/8	12.01
KAL-8653586	2-3/4	12.58
KAL-8653592	4-1/2	28.80
KAL-8653595	4-1/2	21.39
KAL-74843499	5	28.23

WEAR RINGS

Part Number	OD X W	List Price
KAL-4910372	2-1/2 X 3/8	\$4.41
KAL-4850622-4	2-3/4 X 1	5.79
KAL-4910373	4 X 1/2	4.79
KAL-74844040	5-1/2 X 1	7.66

WIPERS

Part Number	Rod Dia.	List Price
KAL-4908498	1	\$1.23
KAL-74857829	1-1/4	5.57
KAL-4911395	2	2.11
KAL-4910380	2-1/2	2.53
KAL-74820557	2-5/8	9.17
KAL-8653582	2-3/4	2.68
KAL-74845370	3	21.17
KAL-8653591	4-1/2	4.54

KALMAR

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 (Pg. xiv)	Rod X Bore Size	List Price
KOM-34A-63-05010	I-U-4,12	50 X 70 mm	\$144.35
KOM-34A-64-05010	I-U-1	30mm Rod Kit	26.95
KOM-34B-63-05011	I-U-4,10	55 X 80 mm	181.56
KOM-34B-63-05021	I-U-4,10	60 X 80 mm	173.47
KOM-34B-64-05010	I-U-1	35 X 50 mm	38.87
KOM-3EA-64-05020	I-U-1	25 X 60 mm	42.94
KOM-3EA-64-05030	I-U-1	35mm Rod Kit	46.64
KOM-3EA-64-05190	I-U-10	1 X 2-1/2	46.71
KOM-3EB-34-05010	O-Ring Kit		23.12
KOM-3EB-63-05010	P-U-4	40 X 50 mm	102.94
KOM-3EB-63-05020	P-U-4	45 X 55 mm	46.18
KOM-3EB-64-05010	I-U-1	25 X 50 mm	36.55
KOM-3EB-64-05020	I-U-1	25 X 50 mm	55.98
KOM-3EB-64-05020L	P-U-10	25 X 50mm	32.30
KOM-3EB-64-05050	I-U-1	30 X 70 mm	42.96
KOM-3EB-64-05050L	I-U-3	30 X 70 mm	38.89
KOM-3EB-64-05060	I-U-1	35 X 65 mm	37.97
KOM-3EB-64-05091	I-U-3	30 X 70 mm	31.60
KOM-3EB-64-05190	I-U-10	1-1/4 X 2-3/4	56.21
KOM-3EB-64-A2000	I-U-10	1-5/8 X 2-1/2	72.05
KOM-3EB-64-A5191	I-U-10	1-1/4 X 2-3/4	93.84
KOM-3EC-63-05020	P-U-4	50 X 70 mm	71.13
KOM-3EC-64-05010L	I-U-3	45 X 90 mm	44.62
KOM-3EC-64-05190	I-U-10	1-3/4 X 3-1/2	52.79
KOM-3EC-64-A2390	I-U-10	1 X 2	39.60
KOM-ON43001-07567	I-U-10	50 X 75 mm	117.35

LULL

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
LULL-3586-34	I-U-10	1-1/8 X 3	\$33.68
LULL-P19382	I-U-10	1-1/8 X 2-1/2	19.69

MITSUBISHI LIFT TRUCKS

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
MIT-91254-10330	P-U-10	22 X 45mm	\$50.81
MIT-91254-30330	P-U-10	22 X 45mm	44.78
MIT-91255-11120	I-U-10	22.4 X 45 mm	45.21
MIT-91273-30150	Valve Kit		6.43
MIT-91273-30220	Valve Kit		6.27
MIT-91854-15310	I-U-10	25 X 55 mm	40.73
MIT-91854-40230	P-U-10	25 X 55 mm	52.63
MIT-91872-22120	Valve Kit		9.34
MIT-93051-00028	I-U-4	2 in X 75 mm	130.42
MIT-93051-10068	I-U-4	40 X 50 mm	55.24
MIT-94004-00120	P-UB-1	30 mm Rod Kit	41.60
MIT-94004-00130	N-N-15	63 mm Piston Kit	62.10
MIT-94104-00110	N-N-13	70 mm Piston Kit	77.79
MIT-94104-00120	P-UB-1	35 mm Rod Kit for 70 mm Bore	43.66
MIT-94104-00170	I-U-10	30 X 63 mm	56.38
MIT-94114-00110	I-U-4	50 X 70 mm	90.50
MIT-94114-00210	I-U-4	60 X 70 mm	50.79
MIT-94119-00018	I-U-1	70 mm Rod Kit	49.81
MIT-94119-00048	I-U-1	50 mm Rod Kit	23.55
MIT-94119-00068	P-U-1	32 mm Rod Kit	43.07
MIT-94119-00088	P-U-1	32 mm	45.79
MIT-94133-00018	I-N-4	40 X 50 mm	71.45
MIT-94151-00018	P-U-1	70 mm Rod Kit	52.89
MIT-94151-00028	P-U-1	70 mm Rod Kit	56.93
MIT-94162-00018	P-U-4	35 X 45 mm	48.83
MIT-94204-10120	I-U-10	35 X 70 mm	27.45
MIT-94219-00018	P-U-1	35 mm Rod Kit	17.91
MIT-94219-00028	P-U-1	35 mm Rod Kit	28.98
MIT-94251-00018	I-U-1	75 mm Rod Kit	50.14
MIT-94251-00038	P-U-1	75 mm Rod Kit	69.03
MIT-94251-00058	P-U-1	75 mm Rod Kit	53.80
MIT-94262-00028	P-U-4	40 X 50 mm	93.00
MIT-94304-00110	N-N-13	80 mm Piston Kit	86.37
MIT-94304-00120	P-UB-1	35 mm Rod Kit for 80 mm Bore	49.21
MIT-94304-10140	I-U-10	35 X 80 mm	41.32
MIT-94314-00110	I-U-1	65 X 80 mm	50.88
MIT-94319-00018	I-U-1	60 mm Rod Kit	27.23
MIT-94319-00038	I-U-1	85 mm Rod Kit	47.54
MIT-94319-00068	P-U-1	40 mm Rod Kit	19.14
MIT-94319-00088	I-U-1	40 mm Rod Kit	61.02

MITSUBISHI LIFT TRUCKS

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
MIT-94351-00018	I-U-1	80 mm Rod Kit	\$36.26
MIT-94351-00028	P-U-1	45 X 55 mm	108.13
MIT-94351-00038	P-U-1	85 mm Rod Kit	72.89
MIT-94351-00068	P-U-1	85 mm Rod Kit	68.89
MIT-94362-00018	P-U-1	45 X 55 mm	108.13
MIT-94404-00120	P-UB-3	45 X 90 mm	65.24
MIT-94404-10140	I-U-10	40 X 80 mm	97.56
MIT-94404-10160	I-U-10	40 X 90 mm	81.17
MIT-94504-02090	P-U-1	40 X 100 mm	54.10

MOFFETT

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
MOFT-270021	I-V-15	40 X 75 mm	\$63.89
MOFT-270078	I-V-15	1-3/4 X 90 mm	62.28
MOFT-270711	I-U-15	1 X 2	25.43
MOFT-519-023-0000	I-U-15	25 X 50 mm	47.05

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 (Pg. xiv)	Rod X Bore Size	List Price
NN-49440-00H00	MOTOR KIT		\$9.70
NN-49510-L6025	P-U-10	25 X 55 mm	75.64
NN-49599-11H00	P-U-10	40 X 60 Double Rod	103.68
NN-49599-51K00	P-U-10	40 X 65 mm	103.61
NN-49599-FC000	I-U-10	40 mm X 2-3/8	85.14
NN-58099-00H00	P-U-4	35 X 45 mm	71.40
NN-58099-00H60	P-U-4	35 X 45 mm	50.68
NN-58099-0G211	I-U-4	2 in X 75 mm	36.33
NN-58099-0G511	I-U-4	2 in X 80 mm	121.52
NN-58099-10H00	P-U-5	40 X 50 mm	123.57
NN-58099-10H60	P-U-4	40 X 50 mm	47.17
NN-58099-20H12	P-U-4	45 X 60 mm	84.25
NN-58099-20H62	P-U-4	45 X 60 mm	43.72
NN-58099-23H00	P-U-1	45 X 55 mm	61.21
NN-58099-23H60	P-U-4	45 X 55 mm	53.71
NN-58099-31K11	I-U-4	2" X 2-3/4"	47.58
NN-58099-51H10	P-U-14	50 X 70 mm	96.50
NN-58099-51H60	P-U-4	50 X 65 mm	44.45
NN-58099-51H70	P-U-4	50 X 70 mm	72.85
NN-58099-L2600	P-U-4	40 X 50 mm	115.91
NN-58099-L4900	P-U-1	55 mm Rod Kit	62.94
NN-58099-L6000	P-U-4	50 X 70 mm	142.40
NN-58099-L6001	P-U-4	60 X 70 mm	151.97
NN-58099-L900	P-U-1	55 mm Rod Kit	62.94
NN-58099-L9010	P-U-4	60 X 80 mm	81.69
NN-58099-L9016	P-U-15	65 X 80 mm	84.35
NN-58199-L1100	I-U-4	50 X 70 mm	129.69
NN-58199-L1300	I-U-4	60 X 80 mm	141.86
NN-58199-L1400	I-U-4	45 X 65 mm	123.64
NN-58199-L1700	I-U-4	50 X 70 mm	129.69
NN-58199-L6000	I-U-4	65 X 90 mm	146.87
NN-58199-L6100	I-U-4	70 X 100 mm	152.11
NN-58299-01H00	P-U-1	32 mm Rod Kit	50.83
NN-58299-11H00	P-U-1	35 X 55 mm	56.38
NN-58299-L1100	I-U-1	60, 80, 112mm Stages	111.48

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
NN-58399-L1100	I-U-4	60 X 90 mm	\$145.33
NN-58499-02H10	P-U-1	70 mm Rod Kit	74.49
NN-58499-12H11	P-U-1	75 X 85 mm	96.61
NN-58499-22H10	P-U-1	90 mm Rod Kit	85.95
NN-58499-25H10	P-U-1	80 mm Rod Kit	97.19
NN-58499-6G500	I-U-4	2 in X 60 mm	131.30
NN-58499-L1100	I-U-1	80 mm Rod Kit	68.30
NN-58499-L1101	I-U-1	50 mm Rod Kit	43.50
NN-58499-L1102	I-U-1	50 mm Rod Kit	45.77
NN-58499-L1400	I-U-1	70 mm Rod Kit	58.30
NN-58499-L1401	I-U-1	45 mm Rod Kit	40.53
NN-58499-L1402	I-U-1	45 mm Rod Kit	42.69
NN-58499-L6000	I-U-4	70 X 100 mm	126.51
NN-58499-L6001	P-U-1	65mm Rod Kit	71.49
NN-58499-L7401	P-U-1	45 mm Rod Kit	34.92
NN-58699-00H00	P-U-1	25 X 65 mm	72.14
NN-58699-05H00	P-U-1	30 X 65 mm	66.76
NN-58699-10H00	P-U-3	30 X 70 mm	72.59
NN-58699-14H00	P-U-3	35 X 70 mm	75.03
NN-58699-20H00	P-U-1	35 X 80 mm	55.98
NN-58699-21H00	P-U-1	40 X 80 mm	67.66
NN-58699-51K00	P-U-3	30 X 60 mm	42.78
NN-58699-L1125	I-U-1	35 mm Rod Kit	47.66
NN-58699-L1126	I-U-1	35 mm Rod Kit	50.60
NN-58699-L1425	I-U-1	30 mm Rod Kit	50.60
NN-58699-L1426	I-U-1	30 mm Rod Kit	44.78
NN-58699-L6000	I-U-1	40 mm Rod Kit	51.21
NN-58699-L6011	I-U-1	40 mm Rod Kit	55.39
NN-58699-L6800	I-U-1	45 mm Rod Kit	57.49
NN-58699-L6811	I-U-1	45 mm Rod Kit	61.90
NN-58699-L8100	I-U-1	35 X 80 mm	35.49
NN-58699-L9000	I-U-1	50mm Rod Kit	59.04
NN-58699-L9010	I-U-1	50 X 100 mm	71.34
NN-69399-90H00		9/16" Valve Kit	8.00
NN-69399-L1202		9/16" Valve Kit	23.86

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	List Price
NN-49516-L6004	10	\$0.92
NN-49526-L6004	10	3.36
NN-58117-L6000	20	0.76
NN-58122-L0700	2	4.54
NN-58123-L1100	5	1.91
NN-58123-L1300	5	1.85
NN-58123-L1400	10	1.21
NN-58124-L1300	5	6.64
NN-58124-L1400	10	1.54
NN-58124-L6100	5	2.19
NN-58142-L0800	5	2.61
NN-58185-48570	5	6.64
NN-58225-47600	2	3.56
NN-58245-47701	25	0.36
NN-58248-47230	2	5.83
NN-58251-48570	2	4.96
NN-58417-L1100	10	1.48
NN-58423-L1100	2	5.44
NN-58423-L1400	2	5.13
NN-58424-L1100	5	2.16
NN-58424-L1400	5	2.50
NN-58624-L3100	5	1.87
NN-58624-L6800	5	1.92
NN-58634-L3100	25	0.36
NN-69386-L1106	20	0.60
NN-69399-L2500	10	2.50
NN-85225-47600	2	3.56
NN-E8122-F8101	10	1.39
NN-G9386-L1106	20	0.60

PISTON U-SEALS

Part Number	Bore Dia.	List Price
NN-58140-L1401	65 mm	\$38.27
NN-58140-L1100	70 mm	38.27
NN-58140-L6000	90 mm	45.21
NN-58140-L6100	100 mm	45.21

U-SEALS

Part Number	Rod Dia.	List Price
NN-49522-L6004	25 mm	\$3.13
NN-58621-L1400	30 mm	7.34
NN-58621-L1100	35 mm	11.11
NN-58221-24H00	38 mm	13.13
NN-58621-L3100	40 mm	12.17
NN-58121-L1400	45 mm	14.35
NN-58242-L1400	65 mm	15.28
NN-30961-08012	80 mm	28.44

BUSHINGS

Part Number	Rod Dia.	List Price
NN-49521-FC000	60 mm	\$3.90

WIPERS

Part Number	Rod Dia.	List Price
NN-49524-L6004	25 mm	\$16.72
NN-58622-L1400	30 mm	7.79
NN-58222-01H01	32 mm	20.79
NN-58222-24H01	38 mm	28.39
NN-58622-L3100	40 mm	4.74
NN-58122-L1400	45 mm	5.80
NN-58017-L1300	50 mm	23.63
NN-58122-L1100	50 mm	6.58
NN-58017-L4900	55 mm	27.00
NN-58017-L6007	60 mm	29.26
NN-58122-L1300	60 mm	8.54
NN-58243-L1400	65 mm	9.10
NN-58453-L6000	65 mm	31.03
NN-58422-L1400	70 mm	9.49
NN-58243-L1100	80 mm	10.51

NISSAN

RAYMOND LIFT TRUCKS

RAYMOND

Kit Number	Code (Pg. x)	Rod X Bore Size	List Price
RAY-400-148-01	O-RING KIT		\$6.63
RAY-500-412-02	O-RING KIT		11.63
RAY-520-037-15	O-RING KIT		0.66
RAY-520-038-12	O-RING KIT		6.63
RAY-520-041-01	O-RING KIT		6.22
RAY-520-044-01	O-RING KIT		6.63
RAY-520047004	P-U-10	3/4 X 1-3/4	42.22
RAY-520-053-01	O-RING KIT		6.63
RAY-520-066-01	O-RING KIT		7.74
RAY-520-077-01	VALVE KIT		32.83
RAY-520-817-08	O-RING KIT		6.63
RAY-520-899-113	O-RING KIT		3.53
RAY-53072101	I-U-11	3/4 X 2-1/2	27.18
RAY-530-722-02	I-U-11	1 X 2-1/2	27.73

Kit Number	Code (Pg. x)	Rod X Bore Size	List Price
RAY-53072702	P-U-1	1-3/4	\$133.32
RAY-53073101	I-U-11	1-1/4 X 2-1/2	27.62
RAY-53073102	I-U-11	1-1/4 X 3	39.22
RAY-54004105	P-OB-10	3/4 X 1-3/4	51.40
RAY-540041105	P-OB-10	3/4 X 1-3/4	35.79
RAY-540-043-07	P-OB-10	3/4 X 1-3/4	46.13
RAY-540-046-05	P-OB-10	3/4 X 1-3/4	66.14
RAY-540-052-01	SEAL KIT		4.02
RAY-540-056-06	SEAL KIT		7.40
RAY-540067214	I-U-13	1-3/4 X 3-1/2	60.26
RAY-540113269	I-U-13	1-3/4 X 3-1/2	45.28
RAY-870-460-217	VALVE KIT		21.12
RAY-870-607-26	VALVE KIT		11.49

REPLACEMENT KITS FOR TCM LIFT TRUCKS

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
TCM-20804-59801	P-U-10	25 X 60 mm	\$63.58
TCM-210F0-89804	P-U-4	35 X 45 mm	116.62
TCM-210F8-49804	P-U-4	35 X 46 mm	81.00
TCM-214A0-59801	P-U-10	75 X 90 mm	135.64
TCM-214A0-59821	P-U-1	35 X 45 mm	71.40
TCM-214A0-89804	P-U-4	40 X 50 mm	81.61
TCM-214A4-59801	P-U-10	25 X 50 mm	60.11
TCM-214A8-49804	P-U-4	40 X 50 mm	94.56
TCM-214A8-49812	P-U-4	40 X 50 mm	99.02
TCM-214A8-59801	P-U-5	32 X 71 mm	168.54
TCM-214J0-59812	P-U-1	40 X 50 mm	95.64
TCM-214J8-49804	P-U-4	45 X 55 mm	95.44
TCM-214T0-89811	P-U-4	50 X 60 mm	124.30
TCM-214T8-49801	P-U-4	50 X 60 mm	119.09
TCM-22438-49811	P-N-4	60 X 90 mm	113.56
TCM-22438-49812	P-N-4	60 X 90 mm	54.84
TCM-22438-59804	P-U-5	40 X 90 mm	184.21
TCM-224T8-49803	P-U-1	50 X 65 mm	101.84
TCM-22578-49801	P-N-4	45 X 63 mm	115.20
TCM-22580-89801	P-N-4	45 X 70 mm	81.61
TCM-22678-59801	P-U-5	32 X 80 mm	96.88
TCM-228C0-59801	P-U-1	112 X 130 mm	392.89
TCM-23460-89801	P-N-4	50 X 90 mm	91.56
TCM-234A8-49803	P-U-4	40 X 50 mm	68.53
TCM-234A8-59805	P-U-5	30 X 71 mm	122.62
TCM-234F8-49801	P-U-4	45 X 55 mm	73.57
TCM-23650-59801	P-U-1	35 X 45 mm	84.64
TCM-23650-59802	P-U-1	35 X 45 mm	65.90
TCM-23650-89802	P-U-1	40 X 50 mm	81.92
TCM-23650-89803	P-N-4	40 X 50 mm	70.34
TCM-23650-89822	P-U-1	75 X 90 mm	127.60
TCM-23650-89841	P-U-1	40 mm	55.95

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
TCM-23654-52201	I-U-10	25 X 60 mm	\$50.91
TCM-23658-59811	P-U-5	32 X 70 mm	125.51
TCM-23658-59813	P-U-5	32 X 70 mm	125.51
TCM-23678-59801	P-U-5	32 X 71 mm	114.12
TCM-24239-49801	P-N-4	38 X 45 mm	88.87
TCM-24239-49804	P-U-1	35 X 45 mm	87.40
TCM-24240-89801	P-U-1	70 X 80 mm	73.78
TCM-24248-59802	P-U-5	30 X 63 mm	162.02
TCM-24248-59807	P-U-5	30 X 63 mm	111.63
TCM-24328-59804	P-U-5	50 X 100 mm	184.80
TCM-24450-89803	P-U-1	85 mm	83.09
TCM-24450-89823	P-N-4	45 X 55 mm	83.46
TCM-24458-59812	P-U-10	32 X 71 mm	178.17
TCM-24469-49803	P-U-4	45 X 55 mm	57.65
TCM-24600-89902	P-U-1	50 X 60 mm	163.82
TCM-24608-59803	P-U-10	50 X 90 mm	163.28
TCM-25594-59802	P-U-10	22 X 50 mm	70.19
TCM-25954-59802	P-U-10	25 X 60 mm	50.65
TCM-26094-17161	VALVE KIT		10.75
TCM-27248-49801	P-N-4	50 X 80 mm	102.43
TCM-27390-59801	P-U-10	70 X 80 mm	147.17
TCM-27390-59902	P-U-1	32 mm Rod Kit	118.30
TCM-27410-89811	P-U-1	75 mm	68.33
TCM-277H8-59802	P-U-5	30 X 63 mm	111.84
TCM-27830-89802	P-U-10	85 X 100 mm	180.37
TCM-510F0-59801	P-U-1	32 X 45 mm	101.28
TCM-510F2-40601	P-U-10	40 X 70 mm	262.89
TCM-514A2-40552	P-U-10	50 X 80 mm	275.30
TCM-514A2-40554	P-U-10	50 X 80 mm	216.42
TCM-514A2-42631	VALVE KIT		10.97
TCM-52486-09811	VALVE KIT		25.67

PISTON SEALS FOR TCM EQUIPMENT

Part Number	Bore Diam.	List Price
TCM-24458-50311	71 mm	\$27.45

TOYOTA LIFT TRUCKS

TOYOTA

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
TOY-04431-30091-71	P-U-5	60 X 90 mm	\$257.32
TOY-04433-10010-71	P-U-10	40 X 60 mm	106.84
TOY-04433-10020-71	P-U-10	40 X 60 mm	66.93
TOY-04433-10101-71	I-U-10	40 X 60 mm	70.27
TOY-04433-20011-71	I-U-10	50 X 75 mm	207.37
TOY-04433-20030-71	I-U-10	50 X 80 mm	177.78
TOY-04433-U1010-71	I-U-10	40 mm X 2-3/8 in	53.20
TOY-04433-U2040-71	I-U-10	50 mm X 3	50.53
TOY-04433-U2050-71	I-U-10	50 mm X 3-1/8 in	198.10
TOY-04433-U3010-71	I-U-10	50 mm X 3-1/8 in	198.10
TOY-04451-10070-71	P-V-12	22 X 40 mm	74.47
TOY-04451-10090-71	P-V-12	22 X 40 mm	82.40
TOY-04451-10220-71	VALVE KIT		16.73
TOY-04451-10120-71	P-U-12	22 X 45 mm	76.84
TOY-04451-20100-71	P-V-12	22 X 50 mm	82.71
TOY-04451-20101-71	P-U-12	22 X 50 mm	88.19
TOY-04451-20170-71	P-V-12	22 X 50 mm	83.65
TOY-04451-20171-71	P-U-12	22 X 50 mm	83.98
TOY-04455-U2010-71	OVERHAUL STEER KIT		79.35
TOY-04456-10020-71	P-U-10	22 X 50 mm	54.54
TOY-04456-10031-71	P-U-5	30 X 55 mm	162.88
TOY-04456-10050-71	P-U-12	22 X 45 mm	69.46
TOY-04456-20010-71	P-U-12	22 X 40 mm	79.48
TOY-04456-20020-71	P-U-12	22 X 40 mm	74.62
TOY-04456-20030-71	N-U-12	22 X 50 mm	63.12
TOY-04456-20060-71	I-U-12	22 X 50 mm	36.24
TOY-04456-30010-71	P-U-1	25 X 55 mm	58.41
TOY-04456-30011-71	P-U-12	25 X 55 mm	78.50
TOY-04651-10060-71	P-N-4	50 X 80 mm	71.83
TOY-04651-10132-71	P-U-5	30 X 80 mm	96.05
TOY-04651-10330-71	P-U-5	30 X 70 mm	75.69
TOY-04651-10333-71	P-U-5	30 X 70 mm	111.71
TOY-04651-10334-71	P-U-5	30 X 70 mm	111.71
TOY-04651-10652-71	P-U-4	50 X 65 mm	114.66
TOY-04651-10662-71	P-U-4	50 X 65 mm	114.66
TOY-04651-10671-71	P-U-1	70 mm Rod Kit	97.08
TOY-04651-10870-71	P-U-1	70 X 80 mm	110.68
TOY-04651-10871-71	P-U-1	70 mm Rod Kit	97.08
TOY-04651-10882-71	P-U-5	30 X 70 mm	111.71
TOY-04651-10892-71	P-U-5	30 X 70 mm	111.71
TOY-04651-11032-71	P-U-1	35 X 50 mm	67.99
TOY-04651-11061-71	P-U-4	40 X 50 mm	79.78
TOY-04651-11250-71	P-U-1	75 X 90 mm	164.13
TOY-04651-11261-71	P-U-1	35 X 50 mm	67.60
TOY-04651-11270-71	P-U-1	75 X 90 mm	165.74
TOY-04651-11271-71	P-U-1	75 mm Rod Kit	104.13
TOY-04651-11290-71	P-U-4	40 X 50 mm	79.34
TOY-04651-11291-71	P-U-4	40 X 50 mm	78.85
TOY-04651-11300-71	N-U-4	50 X 65 mm	85.16
TOY-04651-11390-71	P-U-4	40 X 50 mm	85.39
TOY-04651-20132-71	P-U-1	60 X 70 mm	120.02
TOY-04651-20133-71	P-U-4	60 X 70 mm	133.24
TOY-04651-20141-71	P-U-4	50 X 70 mm	98.01
TOY-04651-20142-71	P-U-4	50 X 70 mm	111.59
TOY-04651-20151-71	P-V-5	30 X 70 mm	176.05
TOY-04651-20182-71	P-U-4	60 X 75 mm	115.82
TOY-04651-20184-71	P-U-1	75 X 90 mm	119.22
TOY-04651-20185-71	P-U-1	75 X 90 mm	119.22

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
TOY-04651-20186-71	P-U-1	75 X 90 mm	\$165.74
TOY-04651-20260-71	P-U-1	50 X 70 mm	78.52
TOY-04651-20262-71	P-U-1	50 X 70 mm	99.20
TOY-04651-20262-71	P-U-1	50 X 70 mm	99.20
TOY-04651-20390-71	P-U-4	50 X 70 mm	118.03
TOY-04651-20400-71	P-U-4	60 X 70 mm	129.48
TOY-04651-20421-71	P-U-4	50 X 70 mm	112.89
TOY-04651-20441-71	P-U-5	30 X 70 mm	70.31
TOY-04651-20442-71	P-U-5	30 X 70 mm	111.71
TOY-04651-20841-71	P-U-1	75 X 90 mm	166.00
TOY-04651-20970-71	P-U-1	75 X 90 mm	165.74
TOY-04651-20971-71	P-U-1	75 mm Rod Kit	104.37
TOY-04651-20980-71	P-U-4	40 X 50 mm	64.92
TOY-04651-20992-71	P-U-1	35 X 50 mm	67.60
TOY-04651-21150-71	P-U-4	40 X 50 mm	65.41
TOY-04651-21151-71	P-U-4	40 X 50 mm	79.34
TOY-04651-21290-71	P-U-4	40 X 50 mm	65.41
TOY-04651-21310-71	P-U-1	35 X 50 mm	67.14
TOY-04651-21340-71	P-U-1	35 X 50 mm	67.60
TOY-04651-21350-71	P-U-4	40 X 50 mm	84.24
TOY-04651-30111-71	P-N-4	60 X 100 mm	91.13
TOY-04651-30170-71	P-U-5	40 X 100 mm	108.21
TOY-04651-30181-71	I-U-1	30 X 90 mm	102.96
TOY-04651-30211-71	P-N-4	60 X 80 mm	107.02
TOY-04651-30212-71	P-U-4	60 X 80 mm	111.71
TOY-04651-30561-71	P-U-4	60 X 80 mm	121.68
TOY-04651-30841-71	P-U-1	90 X 105 mm	149.61
TOY-04651-30842-71	P-U-1	90 X 105 mm	202.26
TOY-04651-30911-71	P-U-1	60 X 80 mm	106.79
TOY-04651-30920-71	P-U-4	60 X 80 mm	123.77
TOY-04651-30980-71	P-U-4	60 X 80 mm	85.87
TOY-04651-30991-71	P-U-5	40 X 100 mm	78.92
TOY-04651-31170-71	P-U-1	55 X 65 mm	94.62
TOY-04651-31180-71	P-U-4	50 X 65 mm	109.50
TOY-04651-31181-71	P-U-4	50 X 65 mm	99.91
TOY-04651-31210-71	P-U-1	90 X 105 mm	203.90
TOY-04651-31211-71	P-U-1	85 X 105 mm	245.23
TOY-04651-31220-71	P-U-1	40 X 60 mm	65.05
TOY-04651-31230-71	P-U-1	40 X 60 mm	65.51
TOY-04651-31240-71	P-U-1	55 X 65 mm	96.15
TOY-04651-31250-71	P-U-1	55 X 65 mm	96.61
TOY-04651-31280-71	P-U-4	50 X 65 mm	107.82
TOY-04651-31281-71	P-U-4	50 X 65 mm	98.26
TOY-04651-31282-71	P-U-4	50 X 65 mm	82.82
TOY-04651-31290-71	P-U-4	60 X 90 mm	121.43
TOY-04651-31302-71	P-U-1	95 mm Rod Kit	124.60
TOY-04651-31311-71	P-U-1	105 mm Rod Kit	125.98
TOY-04651-31410-71	P-U-1	45 X 65 mm	82.00
TOY-04651-31420-71	P-U-1	45 X 65 mm	83.65
TOY-04651-31430-71	P-U-1	55 X 65 mm	97.08
TOY-04651-31440-71	P-U-1	55 X 65 mm	93.45
TOY-04651-31450-71	P-U-4	70 X 90 mm	152.65
TOY-04651-31500-71	P-U-4	45 X 55 mm	84.35
TOY-04651-31510-71	P-U-4	45 X 55 mm	83.87
TOY-04651-31520-71	P-U-4	45 X 55 mm	85.51
TOY-04651-31530-71	P-U-4	45 X 55 mm	82.49
TOY-04651-31800-71	P-U-4	55 X 80 mm	98.79
TOY-04651-31810-71	P-U-4	55 X 80 mm	92.20

TOYOTA LIFT TRUCKS

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
TOY-04651-31820-71	P-U-5	70 X 120 mm	\$243.37
TOY-04651-31830-71	P-U-5	70 X 110 mm	74.24
TOY-04652-10020-71	P-U-1	70 X 80 mm	155.80
TOY-04652-10030-71	P-U-1	70 X 80 mm	155.80
TOY-04652-10170-71	P-U-1	70 mm Rod Kit	80.96
TOY-04652-10191-71	P-U-1	70 X 85 mm	56.72
TOY-04652-10300-71	P-U-10	50 X 70 mm	103.93
TOY-04652-20031-71	P-U-1	75 X 90 mm	126.70
TOY-04652-20040-71	P-U-1	75 X 90 mm	118.30
TOY-04652-20080-71	P-U-10	50 X 75 mm	107.00
TOY-04652-30010-71	P-U-1	90 X 105 mm	151.37
TOY-04652-30011-71	P-U-1	85 X 105 mm	148.31
TOY-04652-30020-71	P-U-1	40 X 60 mm	65.51
TOY-04652-30030-71	P-U-1	40 X 60 mm	65.05
TOY-04652-30040-71	P-U-1	50 X 70 mm	86.78
TOY-04652-30050-71	P-U-1	50 X 70 mm	88.47
TOY-04652-30131-71	P-U-1	85 X 105 mm	147.99
TOY-04652-30132-71	P-U-1	85 X 105 mm	85.82
TOY-04652-30150-71	P-U-1	85 X 105 mm	139.43
TOY-04652-U1020-71	I-U-4	2 X 2-3/4	140.81
TOY-04652-U2010-71	I-U-4	50 X 75 mm	124.41
TOY-04652-U2020-71	I-U-4	2" X 75 mm	109.05
TOY-04653-10020-71	P-U-4	35 X 45 mm	76.26
TOY-04653-10030-71	P-U-4	35 X 45 mm	75.44
TOY-04653-10040-71	P-U-4	35 X 45 mm	76.26
TOY-04653-10050-71	P-U-4	35 X 45 mm	75.80
TOY-04653-10060-71	P-U-1	35 X 50 mm	69.03
TOY-04653-10170-71	P-U-1	35 mm	39.95
TOY-04653-10500-71	P-U-1	35 X 45 mm	32.73
TOY-04653-10530-71	P-U-4	35 X 45 mm	29.22
TOY-04653-20071-71	P-U-4	40 X 50 mm	85.39
TOY-04653-20081-71	P-U-4	40 X 50 mm	85.96
TOY-04653-20090-71	P-U-1	35 X 50 mm	73.59
TOY-04653-20100-71	P-U-1	35 mm Rod Kit	63.98
TOY-04653-20110-71	P-U-1	35 X 50 mm	48.97
TOY-04653-20130-71	P-U-1	40 X 50 mm	65.82
TOY-04653-20230-71	P-U-4	50 X 63 mm	48.51
TOY-04653-30010-71	P-U-1	55 X 65 mm	95.10
TOY-04653-30020-71	P-U-1	55 X 65 mm	95.10
TOY-04653-30030-71	P-U-1	115 mm Rod Kit	187.59
TOY-04653-30050-71	P-U-5	45 X 55 mm	82.82
TOY-04653-30060-71	P-U-4	45 X 55 mm	85.03
TOY-04653-30111-71	P-U-1	90 mm	46.00
TOY-04653-30211-71	P-U-4	45 X 55 mm	82.12
TOY-04653-30221-71	P-U-4	45 X 55 mm	89.61
TOY-04653-30230-71	P-U-1	40 X 55 mm	82.49
TOY-04653-30231-71	P-U-1	40 X 55 mm	51.93
TOY-04653-30240-71	P-U-1	40 X 55 mm	74.62
TOY-04653-30310-71	P-U-3	50 X 70 mm	43.72
TOY-04653-U1010-71	I-U-1	32 mm X 1-3/4	35.05
TOY-04653-U1011-71	I-U-1	32 mm X 1-3/4	83.27
TOY-04653-U2010-71	I-U-4	1-3/8 X 2	58.87
TOY-04653-U3010-71	I-U-1	40 mm X 2-1/8	35.05
TOY-04654-10020-71	P-U-4	35 X 45 mm	76.39
TOY-04654-10030-71	P-U-4	35 X 45 mm	75.80
TOY-04654-20020-71	P-U-1	40 X 50 mm	65.82
TOY-04654-30020-71	P-U-4	45 X 55 mm	118.93
TOY-04654-30030-71	P-U-4	45 X 55 mm	116.50

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
TOY-04654-U1010-70	I-U-4	1-3/8 X 1-3/4	\$37.13
TOY-04654-U1010-71	I-U-1	1-3/8 X 1-3/4	37.13
TOY-04654-U2010-71	I-U-4	42 X 50 mm	127.59
TOY-04654-U3010-71	I-U-4	45 X 55 mm	62.13
TOY-04655-20030-71	P-U-5	30 X 70 mm	100.26
TOY-04655-20080-71	P-U-5	30 X 70 mm	67.54
TOY-04655-20090-71	I-U-13	30 X 70 mm	213.40
TOY-04655-30040-71	P-U-5	40 X 90 mm	118.13
TOY-04655-30041-71	P-U-5	40 X 90 mm	127.84
TOY-04655-30300-71	P-U-5	45 X100 mm	89.25
TOY-04655-U1010-71	I-U-10	30 X 70 mm	172.30
TOY-04655-U2010-71	I-U-10	1-1/4 X 2-3/4	91.87
TOY-04655-U3010-71	I-U-10	1-1/4 X 3	103.28
TOY-04671-20380-71	VALVE KIT		22.86
TOY-04671-20390-71	VALVE KIT		53.18
TOY-04676-20370-71	VALVE KIT		20.70
TOY-04676-20380-71	VALVE KIT		24.88
TOY-04676-20421-71	VALVE KIT		15.45
TOY-04676-20431-71	VALVE KIT		17.57
TOY-04676-20441-71	VALVE KIT		17.08
TOY-04676-20491-71	VALVE KIT		14.68
TOY-04676-20501-71	VALVE KIT		15.45
TOY-04676-20511-71	VALVE KIT		16.35
TOY-04676-20521-71	VALVE KIT		17.77
TOY-04676-20560-71	VALVE KIT		16.84
TOY-04676-20570-71	VALVE KIT		32.90
TOY-04676-20580-71	VALVE KIT		16.35
TOY-04676-20590-71	VALVE KIT		14.36
TOY-04676-20600-71	VALVE KIT		19.61
TOY-04676-20680-71	VALVE KIT		12.16
TOY-04676-20690-71	VALVE KIT		19.66
TOY-04676-20700-71	VALVE KIT		17.56
TOY-04676-20722-71	VALVE KIT		14.54
TOY-04676-20742-71	O-RING KIT		18.15
TOY-04676-30311-71	VALVE KIT		13.43
TOY-04676-30312-71	VALVE KIT		14.36
TOY-04676-30313-71	VALVE KIT		12.05
TOY-04676-30331-71	VALVE KIT		17.77
TOY-04676-30332-71	VALVE KIT		14.56
TOY-04676-30341-71	VALVE KIT		47.90
TOY-04676-30342-71	VALVE KIT		21.77
TOY-04676-30620-71	VALVE KIT		16.83
TOY-04676-30920-71	VALVE KIT		16.53
TOY-04676-30930-71	VALVE KIT		15.30
TOY-04676-30940-71	VALVE KIT		20.72
TOY-04676-30950-71	VALVE KIT		20.80
TOY-04676-30970-71	VALVE KIT		13.44
TOY-04676-30980-71	VALVE KIT		11.09
TOY-04676-30990-71	VALVE KIT		26.59
TOY-04676-31000-71	VALVE KIT		15.14
TOY-04676-31010-71	VALVE KIT		17.60
TOY-04676-31020-71	VALVE KIT		23.72
TOY-04676-31161-71	VALVE KIT		10.71
TOY-04676-31171-71	O-RING KIT		14.54
TOY-04676-U2010-71	VALVE KIT		28.34

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	List Price
TOY-65592-U2200-71	20	\$0.23

U-SEALS

Part Number	Rod Dia.	List Price
TOY-77167-20100-71	80 mm	\$32.09

WIPERS

Part Number	Rod Dia.	List Price
TOY-65575-31620-71	40 mm	\$21.56

PISTON BUSHINGS

Part Number	Bore Dia.	List Price
TOY-65254-14180-71	90 mm	\$101.91

WHITE LIFT TRUCK

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
WLT-20-7300283	I-U-4	1-3/4 X 4	\$64.91
WLT-20-7302715	I-U-10	1-1/2 X 3-1/2	36.18
WLT-30-3305457	P-U-10	1-1/2 X 3-1/2	36.12

YALE LIFT TRUCKS

YALE

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
YA-066414600	4-1/16 Rod Wiper		\$17.94
YA-5001689-04	4-1/16 ID Vee Set		47.52
YA-502566003	I-N-8	2-1/2 X 3-1/2	127.89
YA-502566004	I-N-8	2 X 3-1/2	122.19
YA-503130000	P-V-4	2 X 3-1/4	62.00
YA-504236229	P-U-10	2-1/8 X 2-3/4	74.03
YA-504236245	P-U-10	1-3/8 X 3	40.01
YA-504853000	I-U-5	1-1/4 X 3	91.07
YA-504857000	I-N-8	2-1/4 X 4	54.31
YA-5048620	I-N-8	1-3/4 X 2-1/2	25.92
YA-505136003	I-N-8	2-1/2 X 3-1/2	52.47
YA-505136004	I-N-8	2 X 3-1/2	43.86
YA-505136007	I-U-1	1-5/8 X 2-1/4	20.69
YA-505136008	I-U-1	1-5/16 X 2-1/4	20.26
YA-505136009	I-U-1	3-1/4" Rod	30.88
YA-505136010	I-U-1	1-7/8 X 2-1/2	19.47
YA-505136012	I-U-11	1-7/8 X 2-1/4	60.92
YA-505136013	I-U-1	2-5/8 Rod Kit	22.21
YA-505136014	I-U-1	3-3/4 Rod Kit	29.15
YA-505136015	I-U-10	2-5/8 X 3	92.74
YA-505136027	I-U-1	1-5/8 X 2	25.36
YA-505136028	i-u-4	1-3/8 x 2	83.19
YA-505136031	I-U-1	3 X 3-3/4	31.75
YA-505136035	I-U-4	1-3/8 X 2	51.92
YA-505136036	I-U-4	1-5/8 X 2	43.74
YA-505136037	I-U-12	1-3/8 X 2	53.89
YA-505136040	I-U-4	1-5/8 X 1-7/8	48.60
YA-505136059	I-U-1	1-1/4 X 1-3/4	25.32
YA-505142000	I-V-1	3-3/8, 4-1/16 Stages	103.07
YA-505143000	I-V-1	2-1/2, 3 Stages	73.65
YA-505163001	Rod Kit		16.23

Kit Number	Code (Pg. xiv)	Rod X Bore Size	List Price
YA-506785001	I-N-8	2-1/4 X 4	\$187.69
YA-506787001	I-N-8	2-3/4 X 4-1/2	199.82
YA-506788001	I-N-8	2-3/4 X 4-1/2	87.17
YA-507016002	I-V-5	1-1/2 x 4	72.55
YA-509753000	I-V-12	1 X 2	34.14
YA-510078000	I-U-5	1 X 2-1/2	45.18
YA-510398000	I-V-1	2-1/4, 3, 3-3/4 Stages	155.61
YA-510659001	I-V-2	1-1/4 X 3-1/2	40.87
YA-512944003	I-U-10	1 X 2	22.06
YA-513355800	O-ring Kit		4.32
YA-514527000	I-V-1	3, 3-3/4 Stages	96.36
YA-515229000	I-U-4	2-1/4 X 3-3/4	47.12
YA-516149002	I-U-11	1 X 2	29.74
YA-516149005	I-U-11	1 X 2	23.76
YA-516149006	I-U-11	1-1/8 X 2-1/2	29.35
YA-5178128-17	Shaft Kit		1.99
YA-518617001	I-V-10	1-1/4 X 2-1/2	73.55
YA-519132600	I-U-5	1-3/4 X 3-1/2	51.55
YA-519675801	O-RING KIT		7.83
YA-580026957	P-U-10	2-1/8 X 2-3/4	35.81
YA-580060036	P-U-10	2-1/8 X 2-3/4	54.86
YA-900299851	65 mm, 80 mm	2 Stage	54.18
YA-900847850	P-U-10	25 X 60 mm	48.85
YA-900879850	I-U-3	35 X 80 mm	20.27
YA-901115850	P-U-1	32 mm Rod Kit	46.03
YA-9012238-07	P-U-10	40 X 70 mm	75.16
YA-9017888-10	P-U-10	35 X 70 mm	59.13
YA-9019058-52	P-U-10	35 X 65 mm	90.78
YA-9022018-50	Shaft Kit		13.31

NOTES

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Repair Accessories

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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			

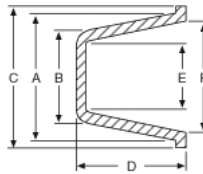


This style cap plug is equipped with a handy fold-down pull ring.

Tapered Caps & Plugs With Pull Ring

Part Number	NPT Port Size	OD Size Tapered	HT	Min Std Pkg	List Price
CAP-PR-9	1/8	.337/.375	1/4	50	\$0.13
CAP-PR-12	1/4	.436/.475	1/4	50	0.39
CAP-PR-17	3/8	.552/.615	3/8	50	0.23
CAP-PR-22	1/2	.668/.767	1/2	40	0.25
CAP-PR-27X	3/4	.878/.977	1/2	40	0.28
CAP-PR-32	1	1.113/1.212	1/2	25	0.31
CAP-PR-39	1-1/4	1.505/1.580	1/2	25	0.40
CAP-PR-43	1-1/2	1.780/1.860	1/2	20	0.44
CAP-PR-50	2	2.226/2.258	1/2	20	0.55

PLASTIC CAP PLUGS



**Tapered Caps & Plugs
For Misc. Applications**

Part Number	A	B	C	D	E	F	List Price
CAP-00	.180	.115	5/16	13/32	.051	.118	\$0.28
CAP-0	.240	.175	3/8	3/8	.109	.175	0.42
CAP-0-X	0.275	0.209	7/16	3/8	0.150	0.209	0.09
CAP-1	.302	.240	15/32	3/8	.175	.240	0.30
CAP-1-X	.335	.265	15/32	3/8	.240	.275	0.30
CAP-2	.365	.300	17/32	3/8	.234	.301	0.30
CAP-3	.428	.360	19/32	3/8	.299	.365	0.26
CAP-3-X	.460	.390	5/8	3/8	.325	.396	0.30
CAP-4-X	.512	.447	5/8	3/8	.385	.448	0.05
CAP-5	.547	.490	23/32	1/2	.409	.485	0.05
CAP-5-X	.568	.500	3/4	7/16	.435	.503	0.06
CAP-6	.620	.531	3/4	1/2	.468	.555	0.05
CAP-6A-X	0.576	0.500	0.720	0.470	0.440	0.516	0.10
CAP-7	.675	.590	7/8	17/32	.520	.605	0.06
CAP-7-X	.695	.610	27/32	1/5	.549	.634	0.09
CAP-8	.728	.641	7/8	1/2	.575	.665	0.06
CAP-8-X	.754	.675	7/8	5/8	.615	.690	0.06
CAP-9-X	.925	.725	1	3/4	.662	.760	0.06
CAP-10	.848	.750	1-1/32	5/8	.686	.785	0.06
CAP-11	.910	.802	1-3/32	3/4	.740	.846	0.23
CAP-11-X	.931	.820	1-1/8	5/8	.754	.868	0.06
CAP-12A-X	0.973	0.856	1-1/8	3/4	0.768	0.906	0.17
CAP-13	1.091	.966	1-1/4	3/4	.902	1.025	0.23
CAP-13-X	1.145	1.002	1-5/16	3/4	.938	1.079	0.09
CAP-14-X	1.285	1.180	1-7/16	3/4	1.105	1.215	0.70
CAP-16A-X	1.312	1.276	1.380	0.560	1.155	1.190	0.25
CAP-17A-X	1.507	1.344	1-3/4	15/16	1.282	1.450	0.27
CAP-18	1.680	1.560	1-7/8	3/4	1.497	1.620	0.19
CAP-20	1.958	1.806	2.125	1	1.745	1.893	0.76
CAP-20-X	2.310	1.940	2.470	0.880	1.875	2.255	0.46
CAP-21	2.078	1.902	2-1/4	1	1.839	2.015	0.31
CAP-38	1.045	.980	1-1/4	1/2	.916	.984	0.30
CAP-220	2.132	1.980	2-1/4	1	1.915	2.068	0.31
CAP-230	2.330	2.156	2-5/8	1	2.094	2.264	0.86
CAP-240	2.465	2.300	2-5/8	1	2.235	2.400	0.40
CAP-250	2.605	2.395	2-5/8	1	2.331	2.541	0.42

Tapered Caps & Plugs For NPT Style Ports

Part Number	NPT Port Size	OD Size Tapered	HT	Min Std Pkg	List Price
CAP-2-X	1/8	.330/.396	3/8	50	\$0.09
CAP-4	1/4	.419/.485	3/8	50	0.09
CAP-6-X	3/8	.550/.631	7/16	50	0.13
CAP-9	1/2	.690/.788	9/16	50	0.13
CAP-12	3/4	.870/.975	5/8	120	0.06
CAP-12-X	3/4	.915/1.040	11/16	25	0.25
CAP-14	1	1.094/1.215	3/4	25	0.25
CAP-15	1	1.225/1.355	3/4	3	0.43
CAP-15-X	1	1.235/1.350	3/4	25	0.28
CAP-17	1-1/4	1.450/1.600	3/4	60	0.13
CAP-17-S	1-1/4	1.513/1.600	1/2	25	1.04
CAP-19	1-1/2	1.735/1.870	3/4	25	0.43
CAP-20-S	1-1/2	1.781/1.805	3/8	25	0.28
CAP-24-S	2	2.230/2.260	1/2	20	0.34

**MCAP Tapered Caps & Plugs For Misc.
Applications**



Part Number	A mm	B mm	C mm	D mm	E mm	F mm	List Price
CAP-M10X1	13.00	11.35	15.88	10.32	9.78	11.38	\$0.05
CAP-M12X1	14.43	12.70	19.05	11.11	11.05	12.78	0.06
CAP-M12X1.5	14.63	12.70	18.29	11.94	11.18	13.11	0.10
CAP-M14X1.5	17.15	14.99	22.23	13.49	13.21	15.37	0.06
CAP-M16X1.5	19.15	17.15	22.23	15.88	15.62	17.53	0.06
CAP-M18X1.5	21.54	19.05	26.19	15.88	17.42	19.74	0.06
CAP-M20X1.5	24.71	21.74	28.58	19.05	19.51	23.01	0.17
CAP-M22X1.5	26.42	22.73	29.37	19.05	21.13	24.77	0.25
CAP-M25X1.5	29.08	25.45	33.34	19.05	23.83	27.41	0.09
CAP-M26X1.5	29.08	25.45	33.34	19.05	23.83	27.41	0.09
CAP-M27	31.12	29.19	38.50	19.05	26.37	29.97	0.25
CAP-M28X1.5	32.81	29.59	36.10	19.05	27.69	30.61	0.70
CAP-M30X2	33.32	32.41	35.05	14.22	29.34	30.23	0.25
CAP-M35	38.53	34.14	44.45	23.81	32.56	36.83	0.27
CAP-M39	42.49	39.62	47.63	19.05	38.02	41.15	0.19
CAP-M4	6.99	5.31	11.11	9.53	3.81	5.31	0.09
CAP-M42X2	44.45	40.79	49.21	19.05	39.83	42.80	0.63
CAP-M45	49.73	45.87	53.98	25.40	44.32	48.08	0.76
CAP-M48	58.67	49.28	62.74	22.35	47.63	57.28	0.46
CAP-M5	7.67	6.1	11.91	9.53	4.45	6.1	0.30
CAP-M6	8.51	6.73	11.91	9.53	5.18	6.99	0.30
CAP-M8X1	10.87	9.14	15.08	9.53	7.59	9.27	0.26

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	List Price
CAP-G-2	7/16-20	1/4	#4	20	\$0.25
CAP-G-8	9/16-18	3/8	#6	20	0.25
CAP-G-14	3/4-16	1/2	#8	20	0.28
CAP-G-18	7/8-14	5/8	#10	20	0.28
CAP-G-20	7/8-18	5/8	#10	20	0.61
CAP-G-22	1-1/16-12	3/4	#12	20	0.34
CAP-G-25	1-3/16-12	7/8	#14	20	0.40
CAP-G-27	1-5/16-12	1	#16	20	0.40



Flat Face Fitting Caps

Part Number	Tube Size OD	Thread Size	Min Std Pkg	List Price
CAP-PDF-40	1/4	9/16-18	25	\$0.39
CAP-PDF-60	3/8	11/16-16	25	0.34
CAP-PDF-80	1/2	13/16-16	25	0.39
CAP-PDF-100	5/8	1-14	20	0.41
CAP-PDF-120	3/4	1-3/16-12	20	0.49
CAP-PDF-160	1	1-7/16-12	10	2.25



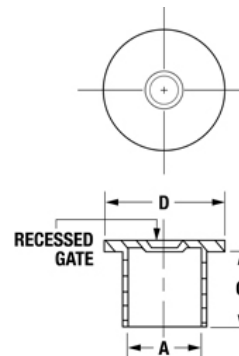
O-Ring Face Fitting Caps

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

Part Number	Thread Size	Min Std Pkg	List Price
CAP-OR-4	9/16-18	35	\$0.26
CAP-OR-6	11/16-16	25	0.29
CAP-OR-8	13/16-16	25	0.32
CAP-OR-10	1-14	25	0.40
CAP-OR-12	1-3/16-12	25	0.42
CAP-OR-16	1-7/16-12	15	0.96
CAP-OR-20	1-11/16-12	10	1.60



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	List Price
CAP-PO-20	25	7/16"	0.428	0.47	0.69	\$0.42
CAP-PO-30	25	1/2"	0.49	0.47	0.75	0.58
CAP-PO-40	25	9/16"	0.55	0.50	0.81	0.61
CAP-PO-50	25	11/16"	0.676	0.50	0.94	0.67
CAP-PO-55	25	-	0.721	0.67	1.00	0.70
CAP-PO-60	25	3/4"	0.738	0.67	1.00	0.70
CAP-PO-70	25	13/16"	0.802	0.56	1.06	0.73
CAP-PO-80	25	7/8"	0.864	0.66	1.12	0.75
CAP-PO-90	25	1.00"	0.99	0.66	1.25	0.79
CAP-PO-100	15	1-1/16"	1.051	0.75	1.31	0.84
CAP-PO-110	15	1-3/16"	1.175	0.75	1.44	1.02
CAP-PO-120	15	1-5/16"	1.298	0.75	1.56	1.15
CAP-PO-130	15	1-7/16"	1.426	0.75	1.69	1.42
CAP-PO-140	10	1-5/8"	1.12	0.85	1.88	1.57

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

PLASTIC CAP PLUGS



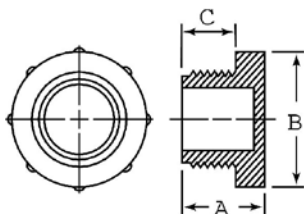
Male Threaded Pipe Plugs (Sq. Top)

Part Number	NPT Port Size	Thread Size	Min Std Pkg	List Price
CAP-P-18	1/8	0.364	25	\$0.13
CAP-P-28	1/4	0.477	25	0.25
CAP-P-38	3/8	0.612	25	0.28
CAP-P-48	1/2	0.758	25	0.28
CAP-P-68-H	3/4	0.968	25	0.31
CAP-P-88-H	1	1.214	20	1.25
CAP-TP-13	1-1/4	1.557	5	2.17
CAP-TP-15	1-1/2	1.796	5	2.17



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

Part Number	Std Thread Size	OD Size Tube	Dash Size	Min Std Pkg	List Price
CAP-PD-40	7/16-20	1/4	#4	25	\$0.41
CAP-PD-50	1/2-20	5/16	#5	25	0.41
CAP-PD-60	9/16-18	3/8	#6	25	0.25
CAP-PD-80	3/4-16	1/2	#8	25	0.25
CAP-PD-100	7/8-14	5/8	#10	25	0.28
CAP-PD-120	1-1/16-12	3/4	#12	25	0.28
CAP-PD-140	1-3/16-12	7/8	#14	20	0.42
CAP-PD-160	1-5/16-12	1	#16	20	0.42
CAP-PD-200	1-5/8-12	1-1/4	#20	15	0.52
CAP-PD-220	1-3/4-12	1-3/8	#22	10	1.32
CAP-PD-240	1-7/8-12	1-1/2	#24	10	1.19



Miscellaneous - MCAP-TP

Part Number	To Fit Metric Thread Size	A		B		C		Min Std Pkg	List Price
		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	\$0.72
MCAP-TP-M10X1	M10 x 1	0.574	14.58	0.602	15.29	0.409	10.39	10	1.00
MCAP-TP-M12X1	M12 x 1	0.657	16.69	0.728	18.49	0.421	10.69	10	1.07
MCAP-TP-M12X1.5	M12 x 1.5	0.641	16.28	0.657	16.69	0.342	8.69	10	1.24
MCAP-TP-M14X1.5	M14 x 1.5	0.677	17.20	0.728	18.49	0.374	9.50	10	1.31
MCAP-TP-M16X1.5	M16 x 1.5	0.677	17.20	0.866	22.00	0.492	12.50	10	1.28
MCAP-TP-M18X1.5	M18 x 1.5	0.720	18.29	0.960	24.38	0.539	13.69	10	1.35
MCAP-TP-M20X1.5	M20 x 1.5	0.716	18.19	1.035	26.29	0.551	14.00	10	1.28
MCAP-TP-M22X1.5	M22 x 1.5	0.720	18.29	1.110	28.19	0.539	13.69	10	1.28
MCAP-TP-M24X1.5	M24 x 1.5	0.728	18.49	1.232	31.29	0.543	13.79	10	1.47
MCAP-TP-M25X1.5	M25 x 1.5	0.728	18.49	1.232	31.30	0.551	14.00	5	1.62
MCAP-TP-M26X1.5	M26 x 1.5	0.736	18.69	1.287	32.69	0.543	13.79	5	1.65

PLASTIC CAP PLUGS



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

Split Flange Coupling Caps - SAE CODE 61

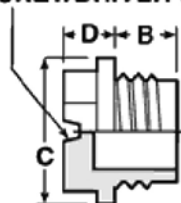
Part Number	Flange Size	Cap Size	Min Std Pkg	List Price
CAP-SF-8	1/2	1.19	50	\$0.13
CAP-SF-10	5/8	1.35	50	0.19
CAP-SF-12	3/4	1.50	50	0.23
CAP-SF-16	1	1.75	35	0.25
CAP-SF-20	1-1/4	2.00	35	0.26
CAP-SF-24	1-1/2	2.38	25	0.40
CAP-SF-32	2	2.81	15	0.53
CAP-SF-40	2-1/2	3.31	15	0.75

Split Flange Coupling Caps - SAE CODE 62

Part Number	Flange Size	Cap Size	Min Std Pkg	List Price
CAP-HPSF-8	1/2	1.25	10	\$1.33
CAP-HPSF-12	3/4	1.625	10	1.50
CAP-HPSF-16	1	1.87	10	1.54
CAP-HPSF-20	1-1/4	2.125	10	1.58
CAP-HPSF-24	1-1/2	2.5	10	1.80
CAP-HPSF-32	2	3.125	10	1.79



SCREWDRIVER SLOT



Threaded O-Ring Plugs

Part Number	Std Thread Size	B	C	D	Min Std Pkg	List Price
CAP-TF-9-OR	9/16-18	0.35	0.81	0.19	10	\$1.61
CAP-TF-12-OR	3/4-16	0.44	0.89	0.18	10	1.70

BOLTED SPLIT FLANGE PROTECTORS



3,000 PSI Flanges SAE Code 61

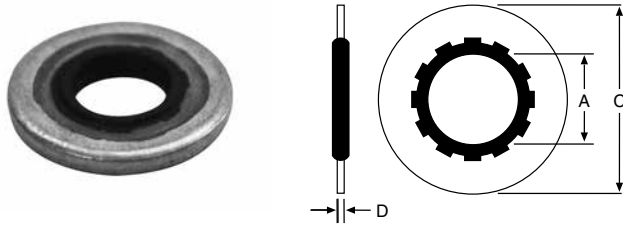
Part Number	Port Size	Min Std Pkg	List Price
CAP-8218	1/2	10	\$1.61
CAP-8219	3/4	10	1.65
CAP-8220	1	10	1.76
CAP-8221	1-1/4	10	1.87
CAP-8222	1-1/2	10	1.99
CAP-8223	2	10	2.20
CAP-8224	2-1/2	10	2.20

5,000 PSI Flanges SAE Code 62

Part Number	Port Size	Min Std Pkg	List Price
CAP-XP-075	3/4	10	\$1.65
CAP-XP-100	1	10	1.76
CAP-XP-125	1-1/4	10	1.87
CAP-XP-150	1-1/2	10	1.99
CAP-XP-200	2	10	2.20

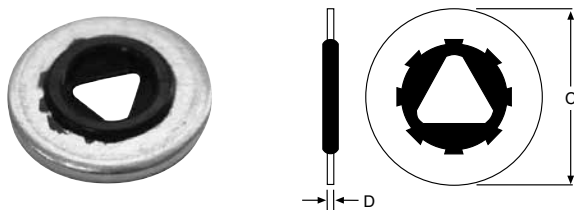
**Cap Plug Assortment Kits
Also Available -
See the Kit & Tool Section**

STYLE 110 FACE SEALS



Part Number	Max Screw Size	A Rubber I.D.	B Steel I.D.	C Steel O.D.	D Steel Thick.	List Price
DY-110X8	.164	.156	.255	.385	.041	\$1.52
DY-110X10	.177	.180	.317	.443	.050	2.11
DY-110X3/16	.190	.220	.281	.425	.054	4.13
DY-110X7/32	.216	.246	.307	.455	.054	14.59
DY-110X1/4	.250	.240	.381	.505	.054	2.45
DY-110X5/16	.312	.301	.488	.603	.054	2.50
DY-110X3/8	.375	.368	.546	.666	.054	2.54
DY-110X7/16	.437	.427	.618	.760	.054	6.24
DY-110X1/2	.500	.490	.696	.880	.054	6.93
DY-110X9/16	.562	.552	.759	1.067	.054	6.93
DY-110X5/8	.625	.615	.818	1.193	.054	8.48

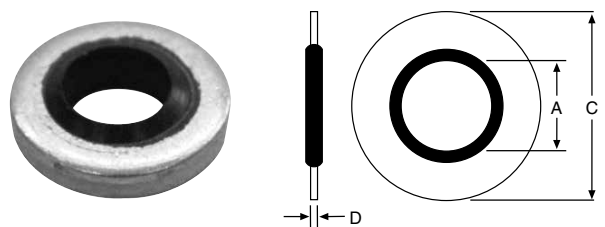
THREAD SEAL



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

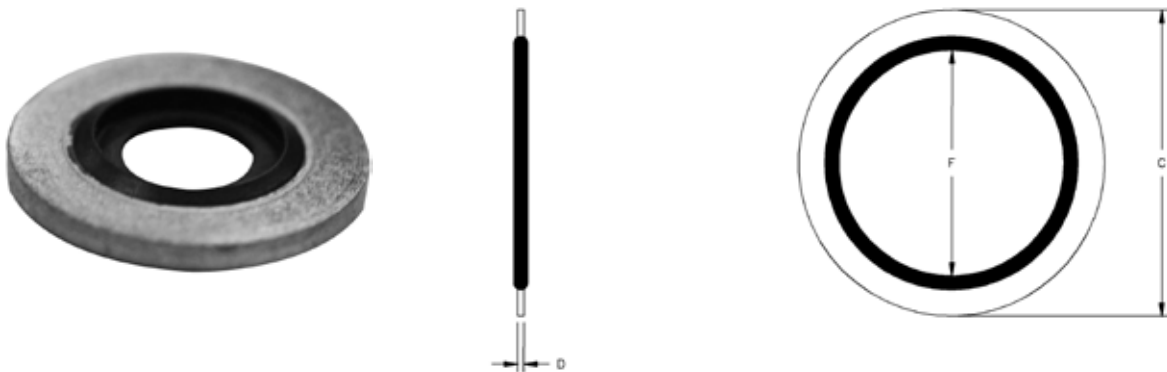
Part Number	C	D	Thread Size	List Price
TS7500X10	.469	.051	-10	\$3.18
TS7500X1/4	.562	.051	1/4	3.18
TS7500X5/16	.687	.064	5/16	3.97
TS7500X3/8	.750	.064	3/8	5.56
TS7500X7/16	.906	.078	7/16	6.83
TS7500X1/2	1.000	.078	1/2	12.78
TS7500X7/8	1.562	.109	7/8	20.93

STYLE SB FACE SEALS



Part Number	A	C	D	List Price
DY-SB-001	.115	.250	.048	\$2.13
DY-SB-002	.157	.286	.048	2.13
DY-SB-003	.205	.330	.051	1.66
DY-SB-004	.270	.520	.051	1.66
DY-SB-005	.270	.525	.048	2.35
DY-SB-006	.322	.525	.048	2.35
DY-SB-007	.340	.560	.051	1.70
DY-SB-020A	.408	.625	.083	1.81
DY-SB-008	.443	.723	.083	1.81
DY-SB-009	.460	.750	.083	1.83
DY-SB-225	.531	.866	.059	1.87
DY-SB-021B	.541	.810	.083	1.83
DY-SB-010	.585	.875	.083	2.00
DY-SB-022BB	.625	.875	.083	2.02
DY-SB-011	.650	1.000	.083	2.06
DY-SB-023C	.680	.937	.083	2.09
DY-SB-012	.715	1.000	.097	2.09
DY-SB-024CC	.775	1.060	.097	2.29
DY-SB-025D	.848	1.125	.097	2.58
DY-SB-026E	.925	1.250	.097	2.83
DY-SB-013	.955	1.310	.097	4.95
DY-SB-027F	1.065	1.375	.097	3.44
DY-SB-240	1.083	1.417	.07	3.52
DY-SB-028	1.095	1.520	.097	4.47
DY-SB-014	1.150	1.440	.092	4.89
DY-SB-029G	1.213	1.500	.097	5.20
DY-SB-015	1.280	1.630	.128	5.58
DY-SB-031	1.329	1.685	.092	6.13
DY-SB-030H	1.334	1.685	.133	5.24
DY-SB-016	1.410	1.750	.133	12.02
DY-SB-032J	1.690	2.062	.103	10.04
DY-SB-033K	1.907	2.307	.103	11.63
DY-SB-019	2.030	2.500	.128	18.24
DY-SB-034	2.161	2.750	.133	19.66
DY-SB-036	2.385	2.875	.133	16.43
DY-SB-038	2.625	3.130	.133	26.37
DY-SB-039	2.995	3.550	.133	29.56

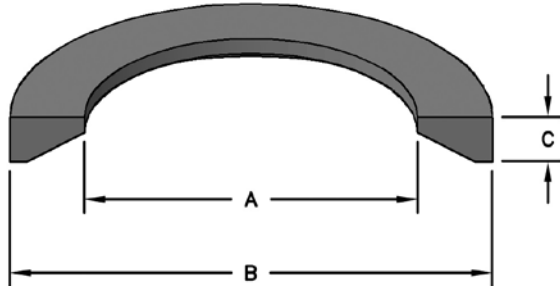
STYLE SB-SCR FACE SEALS



Part Number	F Self-Centralizing	C	D	List Price
DY-SB-004-SCR	0.185	0.520	0.048	\$1.66
DY-SB-005-SCR	0.185	0.525	0.048	2.35
DY-SB-006-SCR	0.240	0.525	0.048	2.35
DY-SB-007-SCR	0.240	0.560	0.048	1.70
DY-SB-020A-SCR	0.337	0.625	0.080	1.81
DY-SB-008-SCR	0.337	0.723	0.080	1.81
DY-SB-009-SCR	0.346	0.750	0.080	1.83
DY-SB-021B-SCR	0.451	0.810	0.080	1.83
DY-SB-010-SCR	0.456	0.875	0.080	2.00
DY-SB-022BB-SCR	0.476	0.875	0.080	2.02
DY-SB-023C-SCR	0.589	0.937	0.080	2.09
DY-SB-012-SCR	0.571	1.000	0.098	2.09
DY-SB-024CC-SCR	0.622	1.060	0.098	2.29
DY-SB-025D-SCR	0.734	1.125	0.098	2.58
DY-SB-026E-SCR	0.811	1.250	0.098	2.83
DY-SB-013-SCR	0.795	1.310	0.098	4.95
DY-SB-027F-SCR	0.950	1.375	0.098	3.44
DY-SB-028-SCR	0.902	1.520	0.098	4.47
DY-SB-014-SCR	0.941	1.440	0.098	4.89
DY-SB-031-SCR	1.193	1.685	0.098	6.13
DY-SB-029G-SCR	1.098	1.500	0.098	5.20
DY-SB-015-SCR	1.067	1.630	0.126	5.58
DY-SB-030H-SCR	1.193	1.685	0.126	5.24
DY-SB-016-SCR	1.161	1.750	0.126	12.02

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).



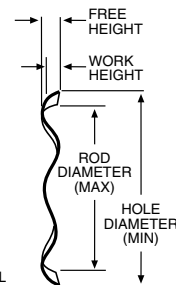
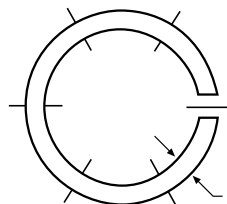
SEAL INFORMATION

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	List Price
DIN3869-M8X1	8	M8 x 1	6.50	9.90	1.00	5	\$1.55
DIN3869-M10X1	10	M10 x 1	8.40	11.90	1.00	5	0.94
DIN3869-M12X1.5	12	M12 x 1.5	9.80	14.40	1.50	5	0.94
DIN3869-M14X1.5	14	M14 x 1.5	11.60	16.50	1.50	5	1.22
DIN3869-M16X1.5	16	M16 x 1.5	13.80	18.90	1.50	5	1.22
DIN3869-M17X1.5	17	M17 x 1.5	14.70	18.90	1.50	5	1.22
DIN3869-M18X1.5	18	M18 x 1.5	15.70	20.90	1.50	5	1.32
DIN3869-M20X1.5	20	M20 x 1.5	17.80	22.90	1.50	5	1.55
DIN3869-M21X1.5	21	M21 x 1.5	18.50	23.90	1.50	5	1.82
DIN3869-M22X1.5	22	M22 x 1.5	19.60	24.30	1.50	5	1.84
DIN3869-M27X2	27	M27 x 2	23.90	29.20	2.00	5	1.76
DIN3869-M30X2	30	M30 x 2	27.70	32.70	2.00	2	3.68
DIN3869-M33X2	33	M33 x 2	29.70	35.70	2.00	2	1.11
DIN3869-M42X2	42	M42 x 2	38.80	45.80	2.00	2	1.83
DIN3869-M48X2	48	M48 x 2	44.70	50.70	2.00	2	2.33
DIN3869-M8X1-V	8	M8 x 1	6.50	9.90	1.00	5	3.37
DIN3869-M10X1-V	10	M10 x 1	8.40	11.90	1.00	5	3.37
DIN3869-M12X1.5-V	12	M12 x 1.5	9.80	14.40	1.50	5	5.52
DIN3869-M14X1.5-V	14	M14 x 1.5	11.60	16.50	1.50	5	5.52
DIN3869-M16X1.5-V	16	M16 x 1.5	13.80	18.90	1.50	2	2.82
DIN3869-M18X1.5-V	18	M18 x 1.5	15.70	20.90	1.50	2	3.07
DIN3869-M20X1.5-V	20	M20 x 1.5	17.80	22.90	1.50	2	3.93
DIN3869-M21X1.5-V	21	M21 x 1.5	18.50	23.90	1.50	2	4.16
DIN3869-M22X1.5-V	22	M22 x 1.5	19.60	24.30	1.50	2	4.29
DIN3869-M27X2-V	27	M27 x 2	23.90	29.20	2.00	2	4.54
DIN3869-M30X2-V	30	M30 x 2	27.70	32.70	2.00	2	7.73

WAVE SPRINGS

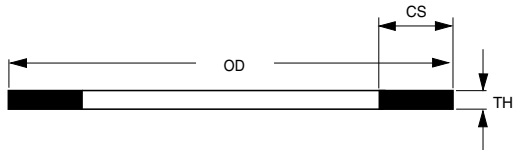
Wave Springs offer a convenient method of exerting a pre-load on vee packing where little or no adjustment is available. Because of a low fatigue factor, the spring should provide a proper pre-load throughout the life of the packing.



Part Number	WORK HEIGHT	FREE HEIGHT	E ROD DIAMETER	HOLE DIAMETER	RADIAL WALL	List Price
SSR-0112	.078	.130	.840	1.125	.133	\$13.20
SSR-0125	.078	.150	.960	1.250	.133	4.99
SSR-0150	.078	.170	1.170	1.500	.143	5.30
SSR-0175	.078	.140	1.440	1.750	.143	5.30
SSR-0187	.078	.150	1.560	1.875	.143	5.30
SSR-0200	.093	.140	1.680	2.000	.150	5.77
SSR-0225	.093	.170	1.930	2.250	.150	6.10
SSR-0237	.093	.160	1.990	2.375	.178	6.29
SSR-0250	.093	.170	2.120	2.500	.178	6.62
SSR-0262	.093	.190	2.240	2.625	.178	6.62
SSR-0275	.109	.170	2.340	2.750	.188	7.28
SSR-0300	.109	.190	2.590	3.000	.188	7.79
SSR-0312	.109	.210	2.710	3.120	.188	7.73
SSR-0325	.109	.200	2.750	3.250	.233	8.37
SSR-0350	.109	.230	3.000	3.500	.233	15.60
SSR-0362	.109	.240	3.120	3.625	.233	15.90
SSR-0375	.109	.260	3.250	3.750	.233	9.82
SSR-0400-N	.109	.200	3.570	4.000	.188	28.87
SSR-0425	.109	.210	3.740	4.250	.233	30.97
SSR-0462	.109	.230	4.125	4.625	.233	12.08
SSR-0475	.125	.310	4.240	4.750	.233	37.43
SSR-0512	.125	.340	4.610	5.125	.233	43.35

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	List Price
SSRS-0150	1.2	1-1/2	.024	.150	\$2.13
SSRS-0175	1.45	1-3/4	.024	.150	2.13
SSRS-0200	1.7	2	.024	.150	2.97
SSRS-0237	2.019	2-3/8	.024	.178	4.43
SSRS-0312	2.749	3-1/8	.03	.188	2.83
SSRS-0375	3.284	3-3/4	.03	.233	3.35

GRADE C LOCKNUTS

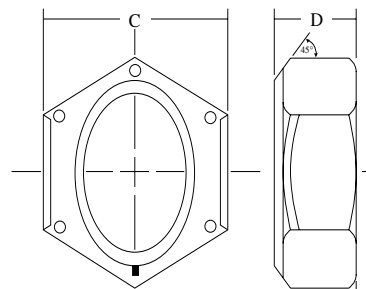
These fine-threaded Grade C locknuts are formed from medium carbon, heat-treated steel and are designed to be used with a Grade 8 bolt. Smaller size locknuts employ an automation style collar while the larger ones use a full collar design. Both locknut types are stocked with cadmium and wax plating.

Automation Style

Part Number	Size	Thread Pitch	C Width Across Flats		D Overall Thickness		List Price
			Max	Min	Max	Min	
LN-1/2-13	1/2	13	0.7500	0.736	0.510	0.490	\$1.02
LN-1/2-20	1/2	20	0.752	0.741	0.609	0.579	0.61
LN-1-14	1	14	1.5020	1.450	0.887	0.831	5.08
LN-3/4-16	3/4	16	1.1250	1.088	0.665	0.617	3.06
LN-5/8-18	5/8	18	0.9375	0.922	0.645	0.621	1.46
LN-7/8-14	7/8	14	1.3145	1.269	0.922	0.724	4.04
LN-7/16-20	7/16	20	0.627	0.616	0.468	0.438	2.63



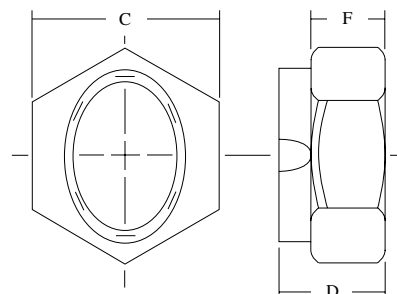
Automation Style



Full Collar Style

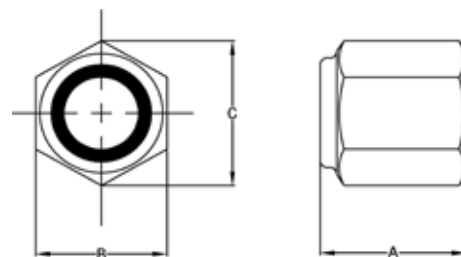
Part Number	Size	Thread Pitch	C Width Across Flats		D Overall Thickness		F Hex Height		List Price
			Max	Min	Max	Min	Max	Min	
LN-1-1/2-12	1-1/2	12	2.250	2.175	1.317	1.246	0.885	0.843	\$26.92
LN-1-1/4-12	1-1/4	12	1.876	1.812	1.094	1.030	0.719	0.698	19.44
LN-1-1/8-12	1-1/8	12	1.687	1.631	0.999	0.939	0.657	0.636	13.15
LN-1-3/4-12	1-3/4	12	2.625	2.538	1.540	1.460	1.012	0.989	49.35
LN-1-3/8-12	1-3/8	12	2.062	1.994	1.206	1.138	0.795	0.771	24.08
LN-2-12	2	12	3.000	2.900	1.763	1.675	1.158	1.134	104.15
LN-2-1/2-12	2-1/2	12	3.750	3.625	2.193	2.089	1.930	1.840	137.50

Full Collar Style



Part Number	Bar Size	A	B	C	List Price
CM-LN45050	1/2"-20	0.60	0.75	0.84	\$4.80
CM-LN45062	5/8"-18	0.75	0.94	1.06	16.67
CM-LN45075	3/4"-16	0.88	1.06	1.19	20.89
CM-LN45087	7/8"-14	1.00	1.25	1.40	11.50
CM-LN45100	1"-14	1.06	1.44	1.62	15.58
CM-LN45101	1"-14	0.88	1.62	1.83	18.56
CM-LN45112	1-1/8"-12	1.19	1.62	1.83	21.38
CM-LN45126	1-1/4"-12	1.38	1.81	2.06	24.87
CM-LN45151	1-1/2"-12	1.62	2.19	2.44	32.67
CM-LN45152	1-1/2"-12	0.81	2.19	2.44	25.65
CM-LN45175	1-3/4"-12	1.50	2.75	3.06	62.87
CM-LN45200	2"-12	1.62	3.12	3.50	67.11
CM-LN45225	2-1/4"-12	1.94	3.50	3.94	142.90
CM-LN45226	2-1/4"-12	2.81	3.50	3.94	195.67
CM-LN45250	2-1/2"-12	2.25	4.00	4.50	309.84

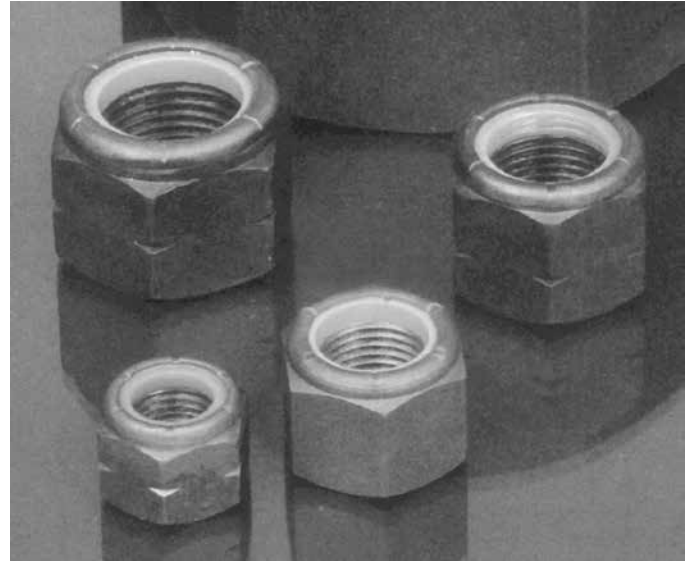
Nylon Insert Lock Nut



“NYLON INSERT” LOCKING NUTS

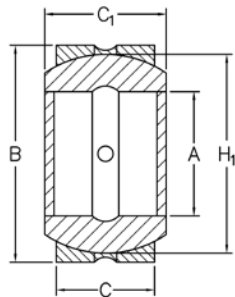
Manufactured from the finest quality steel to offer superior strength, Hercules® Sealing Products locking nuts with nylon inserts are specifically designed and manufactured to exact dimensions. The high temperature locking inserts are designed to withstand the high temperatures associated with close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

Part Number	Thread Size & Pitch	Height	Flats	List Price
CTC-2J0564	2 - 12	1-5/8	3-1/8	\$67.11
CTC-2J3247	1-3/4 - 12	1-7/16	2-3/4	62.87
CTC-2J3950	1-1/2 - 12	1-5/16	2-3/8	43.22
CTC-2J6384	1-1/4 - 12	1-1/8	2	38.51
CTC-2J7686	2-1/2 - 12	2-3/16	4	309.84
CTC-3J6899	2-1/4 - 12	2-13/16	3-1/2	195.67
CTC-3J9449	2-1/2 - 12	2-5/8	4	289.59
CTC-3J9545	2 - 12	2-7/16	3-1/8	180.09
CTC-4J6888	2-3/4 - 12	2-1/4	4	183.06
CTC-4J8734	2-3/4 - 12	3-1/8	4	350.00
CTC-5J3488	2-1/4 - 12	1-15/16	3-1/2	142.90
CTC-5J5731	1-3/4 - 12	1-7/16	2-1/2	40.31
CTC-7J9250	3-1/4 - 12	3-1/8	4-1/2	374.28
CTC-9X6018	4 - 12	3.73	5.62	785.60
CTC-1438149	M48 × 2	50 mm	75 mm	167.33
CTC-1438150	M56 × 2	56 mm	85 mm	175.85
CTC-1336686	M56 × 2	57 mm	80 mm	192.28
CTC-1475835	M64 × 2	63 mm	95 mm	236.38
CTC-7Y4622	M72 × 2	70 mm	105 mm	417.14
CTC-7Y4695	M80 × 2	76 mm	115 mm	418.37
CTC-1232060	M80 × 2	64 mm	115 mm	296.61
CTC-1232112	M90 × 2	76 mm	130 mm	525.00
CTC-7Y4956	M90 × 2	84 mm	130 mm	500.99
CTC-0875385	M95 × 2	88 mm	135 mm	623.93
CTC-1261971	M100 × 2	89 mm	146 mm	858.98
CTC-1163513	M105 × 2	97 mm	150 mm	991.42
CTC-1163516	M120 × 2	108 mm	170 mm	1191.66



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

STYLE HH SELF ALIGNING BEARINGS (INCH)



SEAL INFORMATION

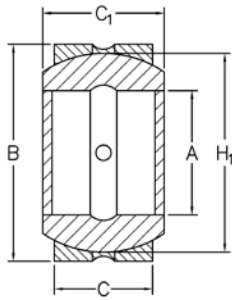
MATERIAL

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)	MATERIAL	List Price
HH008ES	1/2	7/8	3/8	.437	.875 ^{+0.000} _{-0.008}	.709	9337	3156	STEEL	\$24.60
HH010ES	5/8	1-1/16	15/32	.547	1.0625 ^{+0.000} _{-0.008}	.899	14732	4864	STEEL	27.05
HH012ES	3/4	1-1/4	9/16	.656	1.250 ^{+0.000} _{-0.001}	1.083	20927	7089	STEEL	25.44
HH100ES	1	1-5/8	3/4	.875	1.625 ^{+0.000} _{-0.001}	1.417	37359	12605	STEEL	22.14
HHW100ES	1	1-5/8	1-1/2	1.500	1.625 ^{+0.000} _{-0.001}	1.417	37351	12604	STEEL	27.78
HH104ES	1-1/4	2	15/16	1.093	2.000 ^{+0.000} _{-0.012}	1.772	58507	19468	STEEL	31.96
HH106ES	1-3/8	2-3/16	1-1/32	1.187	2.1875 ^{+0.000} _{-0.012}	1.929	69756	23404	STEEL	48.38
HH108ES	1-1/2	2-7/16	1-1/8	1.312	2.4375 ^{+0.000} _{-0.012}	2.165	84379	28129	STEEL	41.82
HH108ES2RS	1-1/2	2-7/16	1-1/8	1.312	2.4375 ^{+0.000} _{-0.012}	2.165	84379	28129	STEEL	55.74
HH112ES	1-3/4	2-13/16	1-5/16	1.531	2.8125 ^{+0.000} _{-0.012}	2.520	114752	38255	STEEL	57.40
HH112ES2RS	1-3/4	2-13/16	1-5/16	1.531	2.8125 ^{+0.000} _{-0.012}	2.520	114752	38255	STEEL	72.15
HH200ES	2	3-3/16	1-1/2	1.750	3.1875 ^{+0.000} _{-0.014}	2.874	150754	50408	STEEL	77.90
HH200ES2RS	2	3-3/16	1-1/2	1.750	3.1875 ^{+0.000} _{-0.014}	2.874	150754	50408	STEEL	93.48
HHW200ES	2	3-3/16	3	3.000	3.1875 ^{+0.000} _{-0.014}	2.874	150757	50406	STEEL	88.23
HH204ES	2-1/4	3-9/16	1-11/16	1.969	3.5625 ^{+0.000} _{-0.014}	3.228	191251	63002	STEEL	106.60
HH204ES2RS	2-1/4	3-9/16	1-11/16	1.969	3.5625 ^{+0.000} _{-0.014}	3.228	191251	63002	STEEL	145.48
HH208ES	2-1/2	3-15/16	1-7/8	2.187	3.9375 ^{+0.000} _{-0.014}	3.583	234007	77629	STEEL	144.33
HH212ES	2-3/4	4-3/8	2-1/16	2.406	4.375 ^{+0.000} _{-0.014}	3.937	285752	95628	STEEL	169.47
HH300ES	3	4-3/4	2-1/4	2.625	4.750 ^{+0.000} _{-0.016}	4.331	337506	112505	STEEL	254.19
HH300ES2RS	3	4-3/4	2-1/4	2.625	4.750 ^{+0.000} _{-0.016}	4.331	337506	112505	STEEL	302.92
HH308ES	3-1/2	5-1/2	2-5/8	3.062	5.500 ^{+0.000} _{-0.016}	5.039	459001	153003	STEEL	451.01
HH308ES2RS	3-1/2	5-1/2	2-5/8	3.062	5.500 ^{+0.000} _{-0.016}	5.039	459001	153003	STEEL	500.22
HH312ES	3-3/4	5-7/8	2-13/16	3.281	5.875 ^{+0.000} _{-0.016}	5.394	531004	175507	STEEL	487.08
HH400ES	4	6-1/4	3	3.500	6.250 ^{+0.000} _{-0.016}	5.748	596256	202508	STEEL	657.64

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)	List Price
MHH20ES	20	35	12	16	35 ^{+0.000} _{-0.025}	29	32857	6759	\$31.02
MHH25ES	25	42	16	20	42 ^{+0.000} _{-0.025}	36	54003	10804	38.63
MHH25ES2RS	25	42	16	20	42 ^{+0.000} _{-0.025}	36	54003	10804	36.06
MHH30ES	30	47	18	22	47 ^{+0.000} _{-0.025}	41	69751	13951	40.89
MHH30ES2RS	30	47	18	22	47 ^{+0.000} _{-0.025}	41	69751	13951	51.15
MHH35ES	35	55	20	25	55 ^{+0.00} _{-0.03}	47	90008	18009	52.97
MHH35ES2RS	35	55	20	25	55 ^{+0.00} _{-0.03}	47	90008	18009	51.15
MHH40ES	40	62	22	28	62 ^{+0.00} _{-0.03}	53	112507	22501	58.46
MHH40ES2RS	40	62	22	28	62 ^{+0.00} _{-0.03}	53	112507	22501	50.17
MHH45ES2RS	45	68	25	32	68 ^{+0.00} _{-0.03}	60	144009	28578	90.27
MHH50ES	50	75	28	35	75 ^{+0.00} _{-0.03}	66	175509	35109	85.38
MHH50ES2RS	50	75	28	35	75 ^{+0.00} _{-0.03}	66	175509	35109	166.38
MHH60ES	60	90	36	44	90 ^{+0.000} _{-0.035}	80	274509	55128	131.85
MHH70ES2RS	70	105	30	49	105 ^{+0.000} _{-0.035}	92	351007	70876	166.38
MHH70ES	70	105	40	49	105 ^{+0.000} _{-0.035}	92	351007	70876	197.67
MHH80ES	80	120	45	55	120 ^{+0.000} _{-0.035}	105	450005	90008	215.76

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	List Price
SS-1/4-20X1/2	1/4-20	1/2	\$1.12
SS-1/4-20X3/8	1/4-20	3/8	1.31
SS-1/4-28X1/4	1/4-28	1/4	1.05
SS-1/4-28X3/8	1/4-28	3/8	1.05
SS-5/16-18X1/4	5/16-18	1/4	1.05
SS-5/16-18X3/8	5/16-18	3/8	1.05
SS-5/16-18X3/4	5/16-18	3/4	1.42
SS-5/16-24X5/16	5/16-24	5/16	0.45
SS-5/16-24X3/8	5/16-24	3/8	1.42
SS-3/8-16X3/8	3/8-16	3/8	0.80
SS-3/8-16X1/2	3/8-16	1/2	1.12
SS-3/8-16X5/8	3/8-16	5/8	1.38
SS-3/8-16X7/8	3/8-16	7/8	1.59
SS-1/2-13X1/2	1/2-13	1/2	1.86
SS-1/2-13X5/8	1/2-13	5/8	2.16
SS-#8-32X1/4	#8-32	1/4	2.51
SS-#10-24X1/4	#10-24	1/4	1.05

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	List Price
NYPLUG-125-125	1/8	1/8	\$0.82
NYPLUG-125-156	1/8	5/32	0.74
NYPLUG-125-875	1/8	7/8	1.38
NYPLUG-187-109	3/16	7/64	0.71
NYPLUG-187-187	3/16	3/16	0.71
NYPLUG-187-250	3/16	1/4	0.72
NYPLUG-250-070	1/4	0.070	1.06
NYPLUG-250-125	1/4	1/8	0.71
NYPLUG-250-187	1/4	3/16	0.71
NYPLUG-250-250	1/4	1/4	1.26
NYPLUG-312-125	5/16	1/8	0.71
NYPLUG-312-250	5/16	1/4	2.17
NYPLUG-312-312	5/16	5/16	2.05
NYPLUG-375-250	3/8	1/4	0.71
NYPLUG-500-875-125H	1/2	7/8	5.33

WIND-IN LOCK WIRES



Part Number	Thickness	Length	List Price
LW-093-1262	3/32 sq.	12-5/8	\$30.25
MARION-35240	1/8 sq.	10-1/4	13.98
MARION-35250	1/8 sq.	13-3/8	13.17
MARION-35260	1/8 sq.	16-3/8	13.41
MARION-35270	1/8 sq.	19-1/4	15.41
MARION-1031	3/16 sq.	21.00	22.41
1/8 RD WIRE	1/8 round	11	3.51

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.

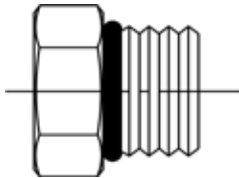
Part Number	NPT Port Size	List Price
FV-.125	1/8	\$4.88
FV-.250	1/4	6.61
FV-.375	3/8	7.98
FV-.500	1/2	9.59
FV-.750	3/4	14.75
FV-1.000	1	17.67

STEEL PLUGS AND VENTS

Steel Plug (O-Ring Boss)



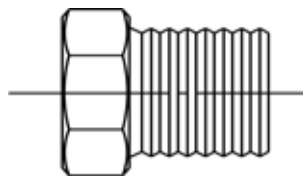
PART NUMBER	PORT SIZE	LIST PRICE
CM-74004	#4 SAE	\$2.95
CM-74005	#5 SAE	3.27
CM-74006	#6 SAE	3.51
CM-74008	#8 SAE	6.99
CM-74010	#10 SAE	5.90
CM-74012	#12 SAE	9.12
CM-74014	#14 SAE	21.48
CM-74016	#16 SAE	24.31
CM-74020	#20 SAE	29.85



NPT Steel Plug



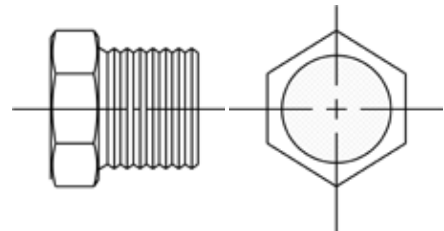
PART NUMBER	PORT SIZE	LIST PRICE
CM-74112	1/8" NPT	\$1.15
CM-74125	1/4" NPT	1.15
CM-74137	3/8" NPT	1.82
CM-74150	1/2" NPT	8.37
CM-74175	3/4" NPT	3.70
CM-74199	1" NPT	5.54
CM-74200	1-1/4" NPT	12.68



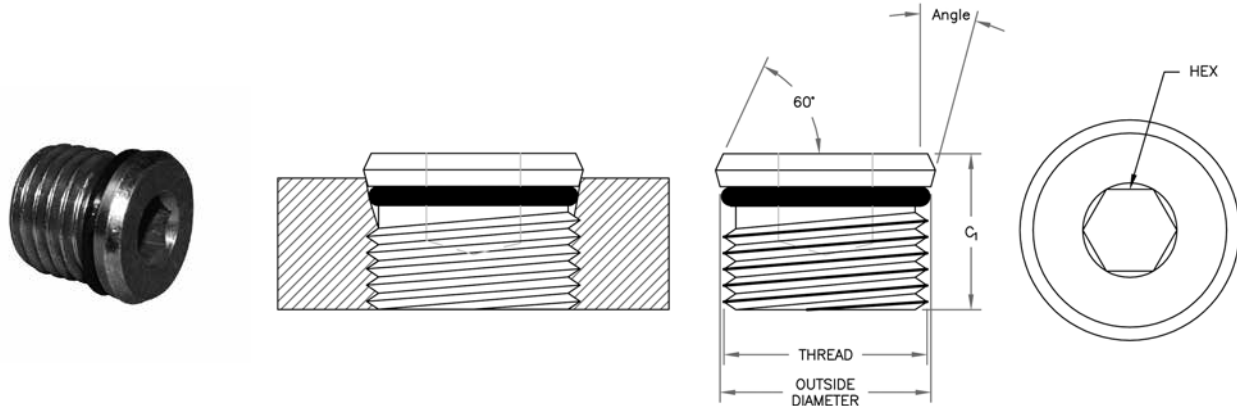
NPT Air Vent



PART NUMBER	PORT SIZE	LIST PRICE
CM-77002	1/8" NPT	\$4.88
CM-77004	1/4" NPT	6.61
CM-77006	3/8" NPT	7.98
CM-77008	1/2" NPT	9.59
CM-77010	3/4" NPT	14.75



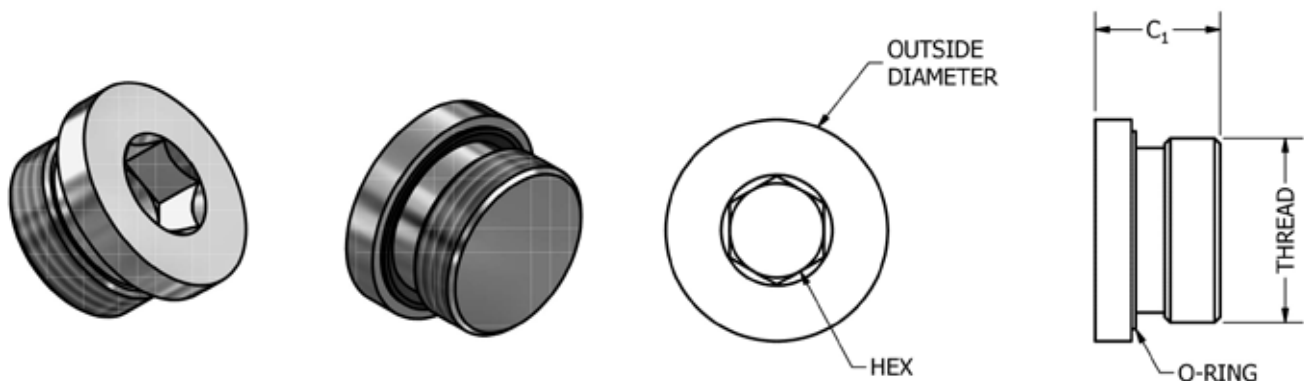
ZERO-LEAK GOLD STANDARD THREAD PORT PLUGS



Part Number	SIZE NUMBER	C ₁ OVERALL HEIGHT	OUTSIDE DIAMETER	HEX	Angle	TESTED TORQUE (ft-lbs)	O-RING	THREAD	List Price
SHTPP-S04	4	.450 ±.020	.477 ±.003	.188 ^{+.005} / _{+.000}	12 ^{+0.0} / _{-0.5}	7	MOR-8X1.5	7/16-20 UNF	\$2.56
SHTPP-S06	6	.480 ±.020	.606 ±.003	.250 ^{+.005} / _{+.000}	12 ^{+0.0} / _{-0.5}	11	MOR-12.1X1.6	9/16-18 UNF	3.23
SHTPP-S08	8	.560 ±.020	.800 ±.003	.313 ^{+.005} / _{+.000}	15 ^{+0.0} / _{-0.5}	28	568-016	3/4-16 UNF	3.81
SHTPP-S10	10	.630 ±.020	.930 ±.003	.375 ^{+.005} / _{+.000}	15 ^{+0.0} / _{-0.5}	46	MOR-18X2	7/8-14 UNF	5.14
SHTPP-S12	12	.750 ±.020	1.130 ±.003	.563 ^{+.005} / _{+.000}	15 ^{+0.0} / _{-0.5}	51	MOR-22.3X2.4	1-1/16-12 UN	9.10
SHTPP-S16	16	.750 ±.020	1.385 ±.003	.625 ^{+.005} / _{+.000}	15 ^{+0.0} / _{-0.5}		MOR-27X2.5	1-5/16-12 UN	17.47

BSPP THREAD PORT PLUGS

BSPP are British Standard Pipe Plugs. Plugs come with DIN3869 NBR 85 shore A axial seals already installed to ensure zero leak.

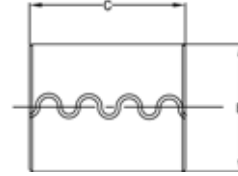


Part Number	Outside Diameter	C ₁ Overall Height	Hex	O-ring	Thread	List Price
SHTPP-G-1/4	0.748	0.669	6	DIN3869-M14X1.5	BSPP G 1/4-19	\$3.69
SHTPP-G-3/8	0.866	0.669	8	DIN3869-M16X1.5	BSPP G 3/8-19	3.76
SHTPP-G-1/2	1.063	0.748	10	DIN3869-M21X1.5	BSPP G 1/2-14	4.54
SHTPP-G-3/4	1.26	0.827	12	DIN3869-M27X2	BSPP G 3/4-14	4.90
SHTPP-G-1	1.571	0.886	17	DIN3869-M33X2	BSPP G 1-11	11.32

SPLIT TENSION BUSHINGS



Material: Hardened Spring Steel



PART NUMBER	A	B	C	HOUSING DIAMETER	LIST PRICE
CM-99507	0.75	1.00	2.00	1.002/1.006	\$13.67
CM-99508	0.88	1.00	2.00	1.002/1.006	13.15
CM-99510	1.00	1.25	0.75	1.252/1.256	8.60
CM-99514	1.00	1.25	0.88	1.252/1.256	10.97
CM-99511	1.00	1.25	1.00	1.252/1.256	9.62
CM-99513	1.00	1.25	1.25	1.252/1.256	12.73
CM-99512	1.00	1.25	1.50	1.252/1.256	11.38
CM-99519	1.25	1.50	1.25	1.502/1.506	10.13
CM-99522	1.25	1.50	1.50	1.502/1.506	14.40
CM-99521	1.25	1.50	2.00	1.502/1.506	15.93
CM-99531	1.50	1.75	1.50	1.752/1.756	12.68
CM-99533	1.50	1.75	2.00	1.752/1.756	17.19
CM-99535	1.50	1.75	3.00	1.752/1.756	25.89
CM-99534	1.50	1.88	2.00	1.877/1.881	29.18
CM-995335	1.50	1.75	2.50	1.752/1.756	24.30
CM-99537	1.50	2.00	1.25	2.002/2.006	23.70

PART NUMBER	A	B	C	HOUSING DIAMETER	LIST PRICE
CM-995371	1.50	2.00	2.00	2.002/2.006	\$31.46
CM-99540	1.75	2.00	1.25	2.002/2.006	16.40
CM-995375	1.75	2.00	1.50	2.002/2.006	20.07
CM-99538	1.75	2.00	2.00	2.002/2.006	18.49
CM-99539	1.75	2.00	2.25	2.002/2.006	28.15
CM-995410	1.75	2.00	3.00	2.002/2.006	34.38
CM-99541	1.75	2.25	2.00	2.252/2.256	38.57
CM-99546	2.00	2.38	3.00	2.377/2.381	52.23
CM-99549	2.00	2.25	1.50	2.252/2.256	17.70
CM-99550	2.00	2.25	2.50	2.252/2.256	22.77
CM-99547	2.00	2.50	2.00	2.502/2.506	38.98
CM-99545	2.00	2.50	2.50	2.502/2.506	50.93
CM-99556	2.50	3.00	2.00	3.002/3.006	55.86
CM-99557	2.50	3.00	3.00	3.002/3.006	93.86
CM-99565	3.00	3.50	2.50	3.502/3.506	93.17

MANUAL BLEEDER VALVES



Part Number	Thread Size	Min Pkg Qty	List Price
WH705	1/8 NPT	3	\$5.65

LOCTITE



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

Part Number	Application	List Price
LOCTITE-24205	Removable Threadlocker 0.5 ml bottle	\$13.06
LOCTITE-24221	Removable Threadlocker 10 ml bottle	48.50
LOCTITE-24231	Removable Threadlocker 50 ml bottle	143.47
LOCTITE-27105	High Strength Threadlocker 0.5 ml bottle	8.93
LOCTITE-29021	Penetrating Threadlocker 10 ml bottle	68.37
LOCTITE-29031	Penetrating Threadlocker 50 ml bottle	150.63
LOCTITE-54531	Hyd/Pneum Thread Sealant 50 ml tube	159.21
LOCTITE-82325	Super Lube 3 oz tube	37.93

SEAL LUBE™

O-Ring Lubricant



Part Number: SEAL LUBE

List Price: \$24.39

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	List Price
THREAD LOCKER-11-001	Removable Threadlocker 2 ml bottle	\$5.29
THREAD LOCKER-11-010	Removable Threadlocker 10 ml bottle	36.92
THREAD LOCKER-11-050	Removable Threadlocker 50 ml bottle	64.60
THREAD LOCKER-14-001	High Strength Threadlocker 2 ml bottle	5.29
THREAD LOCKER-14-250	High Strength Threadlocker 250 ml bottle	221.91
THREAD LOCKER-16-010	Penetrating Threadlocker 10 ml bottle	22.87
THREAD LOCKER-16-050	Penetrating Threadlocker 50 ml bottle	59.20

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

GREASE FITTINGS



Part Number	Description	List Price
GF-125NPTS	1/8" NPT STRAIGHT	\$1.46
GF-125NPT45	1/8" NPT 45°	2.33
GF-125NPT90	1/8" NPT 90°	2.33
GF-187DS	3/16" DRIVE STRAIGHT	1.00
GF-250-28S	1/4"-28 STRAIGHT	0.76
GF-250-28-45	1/4"-28 45°	2.07
GF-250-28-90	1/4"-28 90°	2.07
GF-312DS	5/16" DRIVE STRAIGHT	1.32

PTFE THREAD SEAL TAPE

Part Number: PTFE TAPE

List Price: \$3.26



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	List Price
SILICONE TAPE	1" X 432" Roll	\$50.22

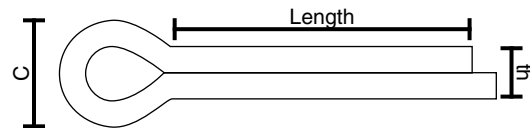
GREASE FITTING CAP



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

Part Number	Description	List Price
CAP-GF-10	Cap Plug	\$0.23

COTTER PINS



Part Number	C	Length	th	List Price
CP-1X3/32	0.1875	1	0.082	\$0.46
CP-1-1/4X1/8	0.25	1.25	0.115	0.34
CP-1-1/2X5/32	0.3125	1.5	0.15	0.46
CP-1-3/4X3/16	0.39	1.75	0.1875	0.26
CP-2X3/16	0.375	2	0.176	0.57
CP-2X1/4	0.5	2	0.225	0.46
CP-2-1/2X1/8	0.25	2.5	0.115	0.34
CP-2-1/2X5/32	0.357	2.5	0.15625	0.56
CP-2-1/2X3/16	0.375	2.5	0.176	0.69
CP-2-1/2X1/4	0.5	2.5	0.225	0.63
CP-3X5/32	0.3125	3	0.15	0.59
CP-3X1/4	0.52	3	0.25	1.59
CP-3-1/2X1/4	0.5	3.5	0.225	0.88
CP-4X1/4	0.5	4	0.225	1.00
CP-5X1/4	0.5	5	0.225	3.16
CP-6X5/16	0.625	6	0.28	3.77

STYLE MCPL COUPLINGS

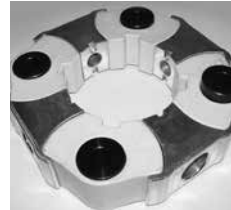
MCPL power transmission couplings are commonly found on mobile equipment to solve vibration problems in combustion engine driven equipment. The rubber or Hytrel elements effectively absorb shock loads, misalignment forces, and torsional vibrations generated by the connecting equipment at start-up for 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	List Price
MCPL-110H-AL	100 X 222 mm	Plastic with Aluminum	Hitachi, Kato, etc.	\$555.55
MCPL-140H-AL	130 X 250 mm	Plastic with Aluminum	Komatsu, Kobelco, Kato, etc.	879.11
MCPL-50A-AL	107 X 200 mm	Rubber with Aluminum	Kobelco, Mitsubishi, etc.	413.16
MCPL-50H-AL	97 X 200 mm	Plastic with Aluminum	Komatsu, Hitachi, Kobelco, Mitsubishi, Kato, etc.	364.02

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

Industrial Repair Parts

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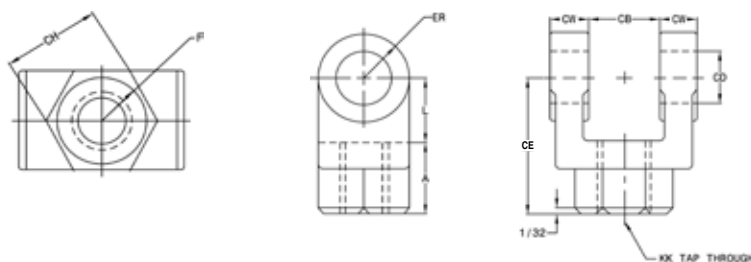
INDUSTRIAL MOUNTS

Rod Clevis



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

PART NUMBER	CB	CD	CE	CH	CW	F	L	A	KK	ER	LIST PRICE
CM-RC0500	0.765	1/2	1-1/2	1	1/2	1	3/4	3/4	7/16"-20	1/2	\$20.89
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	44.47
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	72.27
CM-RC1375	2.032	1-3/8	4-1/8	2	1	2	2-1/8	2	1-1/4"-12	1-3/8	146.11
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	179.18
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	294.36
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	396.80
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	669.43
CM-RC3500	4.032	3-1/2	8-1/2	5	2	5	4	4-1/2	3-1/4"-12	3-1/2	919.63
CM-RC4000	4.532	4	10	6-1/8	2-1/4	6-1/8	4-1/2	5-1/2	4"-12	4	1,535.52



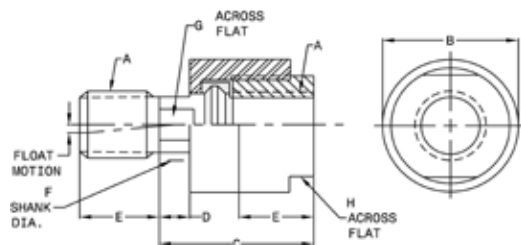
Alignment Coupler



1/16 Radial Float 2°
Spherical Motion

ALIGNMENT COUPLER	A	B	C	D	E	F	G	H	MAX PULL YIELD	LIST PRICE
CM-BD-437	7/16"-20	1-1/4	2	1/2	3/4	5/8	1/2	1	10,000	\$90.38
CM-BD-500	1/2"-20	1-1/4	2	1/2	3/4	5/8	1/2	1	14,000	90.38
CM-BD-625	5/8"-18	1-1/4	2	1/2	3/4	5/8	1/2	1	19,000	107.16
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	81.52
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	123.99
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	186.59
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	250.05
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	436.46
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	436.15
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	592.25

NOTE: Metric Thread Sizes Also Available



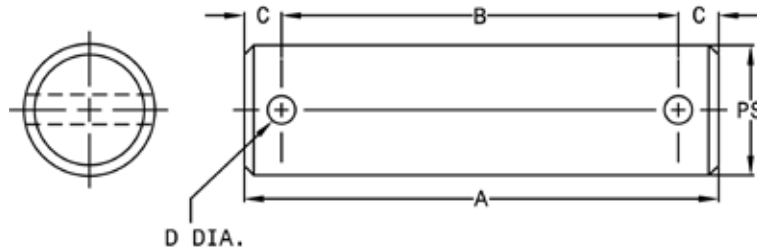
INDUSTRIAL MOUNTS

Pivot Pin



Material: 1144 Steel Nitrotec
Treated Surface

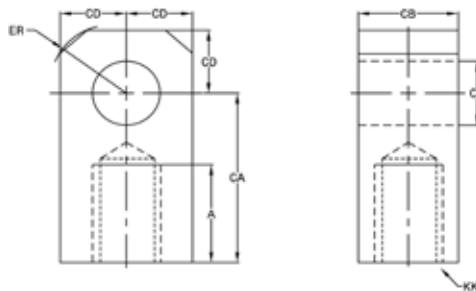
PART NUMBER	PIN SIZE	A	B	C	D	LIST PRICE
CM-PP0500	0.500	2.281	1.938	0.172	0.106	\$6.40
CM-PP0750	0.750	3.094	2.719	0.188	0.140	8.21
CM-PP1000	1.000	3.594	3.219	0.188	0.140	17.52
CM-PP1375	1.375	4.656	4.250	0.203	0.173	28.00
CM-PP1750	1.750	5.656	5.250	0.203	0.173	44.43
CM-PP2000	2.000	5.719	5.281	0.219	0.204	53.90
CM-PP2500	2.500	6.781	6.313	0.234	0.219	125.68



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

Rod Eyes

PART NUMBER	A	CA	CB	CD	ER	KK	LIST PRICE
CM-RE0500	3/4	1-1/2	3/4	1/2	5/8	7/16"-20	\$18.63
CM-RE0750	1-1/8	2-1/16	1-1/4	3/4	7/8	3/4"-16	35.09
CM-RE1000	1-5/8	2-13/16	1-1/2	1	1-3/16	1"-14	57.45
CM-RE1375	2	3-7/16	2	1-3/8	1-9/16	1-1/4"-12	108.26
CM-RE1750	2-1/4	4	2-1/2	1-3/4	2	1-1/2"-12	151.70
CM-RE2000	3	5	2-1/2	2	2-1/2	1-7/8"-12	325.16
CM-RE2500	3-1/2	5-13/16	3	2-1/2	2-13/16	2-1/4"-12	475.23



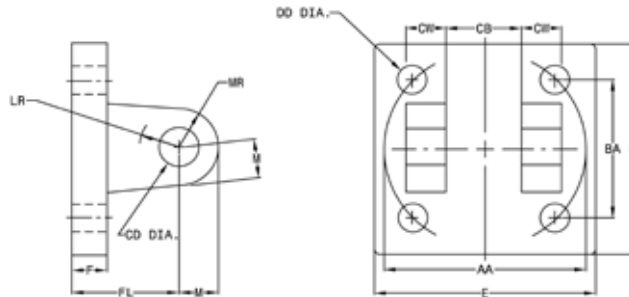
INDUSTRIAL MOUNTS



Clevis Bracket

PART NUMBER	AA	BA	CB	CD	CW	DD	E	F	FL	LR	M	MR	LIST PRICE
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	\$125.25
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	210.11
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	239.13
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	699.82

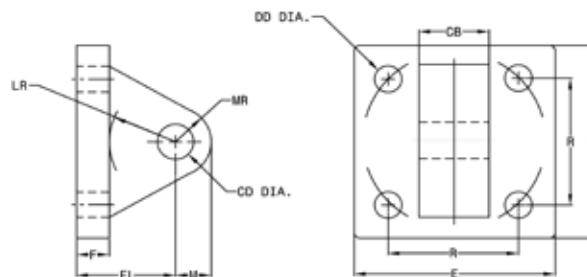
Material: Forging, Weldment, or Ductile Iron



Eye Bracket

PART NUMBER	CB	CD	DD	E	F	FL	LR	M	MR	R	LIST PRICE
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	\$31.78
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	58.74
CM-BDEB-10	1-1/2	1	21/32	4-1/2	3/4	2-1/4	1-1/2	1	1-1/4	3.25	95.89
CM-BDEB-13	2	1-3/8	21/32	5	7/8	3	2-1/8	1-3/8	1-5/8	3.81	164.80
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	324.96
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	568.17
CM-BDEB-25	3	2-1/2	1-3/16	8-1/2	1	4	3	2-1/2	3	6.59	733.19
CM-BDEB-30	3	3	1-5/16	9-1/2	1	4-1/4	3-1/4	3	3-1/4	7.50	890.81
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	3,885.26

Material: Forging, Weldment, or Ductile Iron



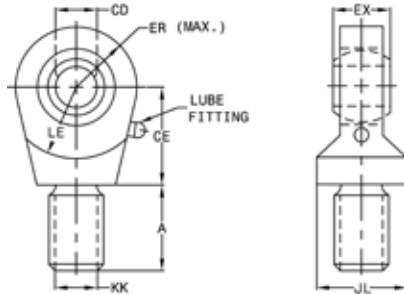
INDUSTRIAL MOUNTS



Material: Forging,
Weldment, or Ductile Iron

Spherical Rod Eye

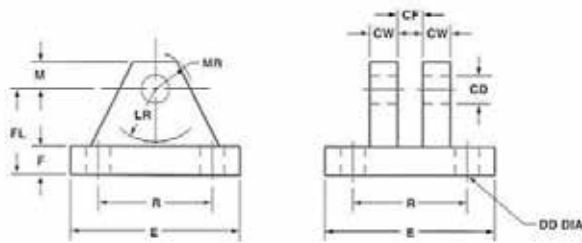
PART NUMBER	CD	A	CE	EX	ER	LE	KK	JL REF	LOAD CAP	SPACER WIDTH	LIST PRICE
CM-RES-05	0.500	11/16	7/8	7/16	7/8	3/4	7/16"-20	7/8	2,600	0.150	\$114.85
CM-RES-07	0.750	1	1-1/4	21/32	1-1/4	1-1/16	3/4"-16	1-5/16	9,400	0.250	143.78
CM-RES-10	1.000	1-1/2	1-7/8	7/8	1-3/8	1-7/16	1"-14	1-1/2	16,800	0.250	154.13
CM-RES-13	1.375	2	2-1/8	1-3/16	1-13/16	1-7/8	1-1/4"-12	2	28,600	0.375	218.27
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	505.31
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	674.85



Material: Steel Weldment

Spherical Clevis Brackets

PART NUMBER	E	F	M	R	CD	CF	CW	DD	FL	LR	MR	LIST PRICE
CM-CBS-0500	3.00	.50	.50	2.05	.500	.44	.50	.41	1.50	.94	.62	\$160.60
CM-CBS-0750	3.75	.62	.88	2.76	.750	.66	.62	.53	2.00	1.38	1.00	245.42
CM-CBS-1000	5.50	.75	1.00	4.10	1.000	.88	.75	.53	2.50	1.69	1.19	321.06
CM-CBS-1375	6.50	.88	1.38	4.95	1.375	1.19	1.00	.66	3.50	2.44	1.62	453.27
CM-CBS-1750	8.50	1.25	1.75	6.58	1.750	1.53	1.25	.91	4.50	2.88	2.06	669.94
CM-CBS-2000	10.62	1.50	2.00	7.92	2.000	1.75	1.50	.91	5.00	3.31	2.38	1,528.57



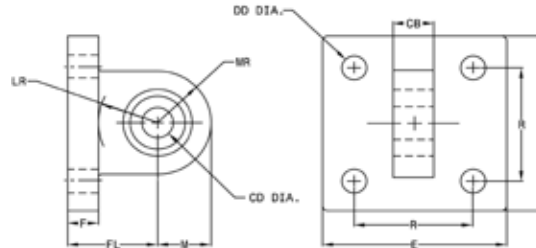
INDUSTRIAL MOUNTS, COUPLINGS AND NUTS



Spherical Eye Bracket

PART NUMBER	CB	CD	DD	E	F	FL	LR	M	MR	R	LIST PRICE
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	\$450.46
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	360.54
CM-BDS-13	1-3/8	1-3/8	21/32	5	7/8	3	2-1/8	2	2	3.81	585.31

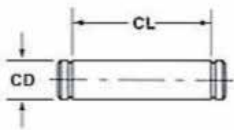
Material: Forging,
Weldment, or Ductile Iron



Pivot Pins for Spherical Clevis Brackets

PART NUMBER	CD	CL	LIST PRICE
CM-PPS0500	.4997-.0004	1 9/16	\$11.78
CM-PPS0750	.7497-.0005	2 1/32	18.23
CM-PPS1000	.9997-.0005	2 1/2	21.59
CM-PPS1375	1.3746-.0006	3 5/16	37.09
CM-PPS1750	1.7496-.0006	4 7/32	73.12
CM-PPS2000	1.9996-.0007	4 15/16	89.35

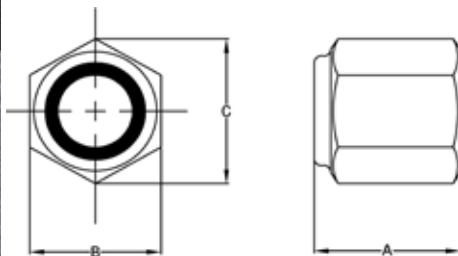
Material: CD1144
- Close tolerance on pin diameter



Nylon Insert Lock Nut

PART NUMBER	BAR SIZE	A	B	C	LIST PRICE
CM-LN45050	1/2"-20	0.60	0.75	0.84	\$4.80
CM-LN45062	5/8"-18	0.75	0.94	1.06	16.67
CM-LN45075	3/4"-16	0.88	1.06	1.19	20.89
CM-LN45087	7/8"-14	1.00	1.25	1.40	11.50
CM-LN45100	1"-14	1.06	1.44	1.62	15.58
CM-LN45101	1"-14	0.88	1.62	1.83	18.56
CM-LN45112	1-1/8"-12	1.19	1.62	1.83	21.38
CM-LN45126	1-1/4"-12	1.38	1.81	2.06	24.87
CM-LN45151	1-1/2"-12	1.62	2.19	2.44	32.67
CM-LN45152	1-1/2"-12	0.81	2.19	2.44	25.65
CM-LN45175	1-3/4"-12	1.50	2.75	3.06	62.87
CM-LN45200	2"-12	1.62	3.12	3.50	67.11
CM-LN45225	2-1/4"-12	1.94	3.50	3.94	142.90
CM-LN45226	2-1/4"-12	2.81	3.50	3.94	195.67
CM-LN45250	2-1/2"-12	2.25	4.00	4.60	309.84

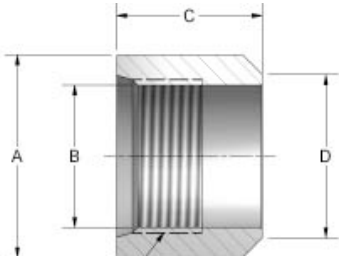
*Grade N8 (Grade C equivalent), except LN45101 is Grade N5 (Grade B equivalent)



PORTS



O-ring Boss Half Coupling Port

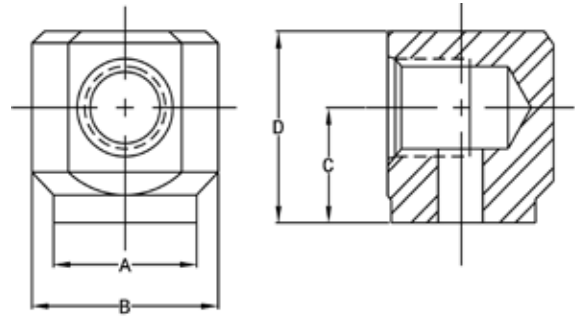


PART NUMBER	PORT SIZE	A	B	C	D	NET PRICE
CM-PO65304	#4 SAE	0.88	.389	1.00	.570	\$11.11
CM-PO65305	#5 SAE	0.88	.452	1.00	.570	12.88
CM-PO65306	#6 SAE	1.00	.508	1.00	.690	11.53
CM-PO65308	#8 SAE	1.25	.689	1.06	.870	11.96
CM-PO65310	#10 SAE	1.38	.806	1.06	.990	11.82
CM-PO65312	#12 SAE	1.50	.981	1.28	1.160	16.65
CM-PO65314	#14 SAE	1.63	1.106	1.25	1.290	19.52
CM-PO65316	#16 SAE	1.75	1.231	1.28	1.410	24.00
CM-PO65320	#20 SAE	2.25	1.544	1.28	1.720	31.56
CM-PO65324	#24 SAE	2.50	1.794	1.28	1.980	49.41

- AISI1020 Carbon Steel

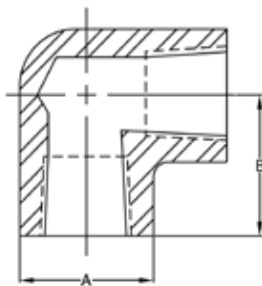
*No Bevel

90 Degree O-ring Boss Port



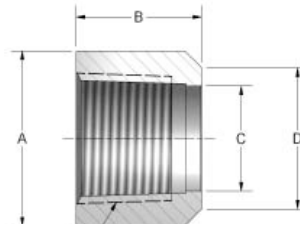
PART NUMBER	BAR SIZE	A	B	C	D	NET PRICE
CM-PO65604	#4 SAE	0.75	1.12	0.75	1.12	\$25.48
CM-PO65606	#6 SAE	0.87	1.25	0.81	1.25	27.62
CM-PO65608	#8 SAE	1.25	1.62	1.00	1.62	30.22
CM-PO65610	#10 SAE	1.25	1.75	1.12	1.88	34.91
CM-PO65612	#12 SAE	1.50	2.12	1.19	2.00	50.45
CM-PO65616	#16 SAE	1.50	2.25	1.25	2.38	67.12

90 Degree Pipe Thread Port



PART NUMBER	PORT SIZE	A	B	NET PRICE
CM-PO65225	1/4" NPT	0.75	1.00	\$15.68
CM-PO65237	3/8" NPT	0.88	1.00	23.37
CM-PO65250	1/2" NPT	1.12	1.25	34.89
CM-PO65275	3/4" NPT	1.38	1.38	39.80
CM-PO652751	1" NPT	1.75	1.62	43.51

Pipe Thread Half Coupling



PART NUMBER	PORT SIZE	A	B	C	D	NET PRICE
CM-PO65025	1/4" NPT	0.88	1.06	.391	.570	\$3.77
CM-PO65037	3/8" NPT	1.00	1.00	.520	.690	3.87
CM-PO65050	1/2" NPT	1.25	1.06	.650	.870	5.21
CM-PO65075	3/4" NPT	1.50	1.28	.850	1.160	5.76
CM-PO65100	1" NPT	1.75	1.28	1.050	1.410	11.53
CM-PO65125	1-1/4" NPT	2.25	1.28	1.420	1.720	20.60
CM-PO65150	1-1/2" NPT	2.75	1.28	1.560	1.980	24.72

- AISI1020 Carbon Steel

NOTES

NOTES

Assortment Kits and Tools

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O-RING KITS

O-RING KIT

Part Number: 568 KIT-A

List Price: \$37.05

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.

HNBR O-RING KIT

Part Number: 568 HNBR KIT

List Price: \$58.72

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.

O-RING METRIC KIT

Part Number: METRIC O KIT-J-A

List Price: \$59.61

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.



MASTER O-RING FITTING KIT

Part Number: MASTER OR FITTING KIT

List Price: \$220.86

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.

O-RING KITS

SAE FLANGE SEALS

Part Number: SAE FLANGE SEALS

List Price: \$38.62

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

List Price: \$40.90

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

List Price: \$28.21

Part Number: BOSS-TUBE FITTINGS-2

List Price: \$40.33

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

List Price: \$157.44

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.



Part Number: O-R FITTING KIT-V

List Price: \$343.98

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.



O-RING KITS

SAE 900 O-RING BOSS FLUOROCARBON KIT

Part Number: 900 BOSS FC
List Price: \$204.64

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
List Price: \$38.83

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
List Price: \$34.80

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
List Price: \$40.94

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

List Price: \$110.43

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

List Price: \$45.78

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

List Price: \$112.73

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

List Price: \$593.48

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

List Price: \$65.20

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

List Price: \$634.86

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

List Price: \$291.04

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

List Price: \$128.86

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

List Price: \$113.75

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.



O-RING KITS

O-RING WAREHOUSE KIT

Part Number: 568 WH KIT

List Price: \$569.45

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

Our 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

List Price: \$533.75

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		

Our 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.



FLUOROCARBON O-RING WAREHOUSE KIT

Part Number: 568 WH KIT-FC

List Price: \$768.45

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

Our 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.



O-RING KITS

MAX O-RING KIT

Part Number: MAX 1381 KIT

List Price: \$389.76



Part Number: MAX 1381 KIT-90D

List Price: \$446.18



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

List Price: \$71.80

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

List Price: \$54.86

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.

COMMON JAPANESE SIZE O-RINGS IN 90 DUROMETER

Part Number: METRIC O KIT-J-90D

List Price: \$174.72

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

List Price: \$186.71

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

List Price: \$56.72

Kit Contains:

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

Replacement Parts

Parts:	List Price
568 SPLICE TOOL	\$11.23 ea
568 ADHESIVE	\$8.49 ea
70 Duro. Cord	



O-RING SPLICE KIT INCH & METRIC SIZES

Part Number: MET/INCH SPLICE KIT

List Price: \$100.49

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



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

List Price: \$206.71

Kit Contains:

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

Replacement Parts

Parts:	List Price
568 SPLICE TOOL	\$11.23 ea
568 ADHESIVE	\$8.49 ea
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

List Price: \$97.07

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

List Price: \$213.19

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

List Price: \$221.31

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

List Price: \$273.95

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

List Price: \$349.99

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

List Price: \$92.73

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

List Price: \$198.39

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

THE ULTIMATE NITRILE O-RING ASSORTMENT

Part Number: 568 KIT-ULTIMATE

List Price: \$4,149.52



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

List Price: \$8,774.82



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

List Price: \$41.06

	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

List Price: \$91.58

	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

List Price: \$49.64

	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

List Price: \$45.10

	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

List Price: \$142.00



	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

List Price: \$68.43



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

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

List Price: \$239.92



The cap plug kit contains 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

List Price: \$123.11

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

Net Price: \$344.49

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	Net Price
IT 100	3/4" to 1-1/4"	19 - 31 mm	0.300"	\$22.54
IT 150	1-3/8" to 1-7/8"	35 - 47 mm	0.360"	22.54
IT 200	2" to 3"	51 - 76 mm	0.600"	22.54
IT 100-NN	3/4" to 1-1/4"	19 - 31 mm	0.300"	22.54
IT 150-NN	1-3/8" to 1-7/8"	35 - 47 mm	0.360"	22.54
IT 200-NN	2" to 3"	51 - 76 mm	0.600"	22.54

These tools aid U-seal installation, eliminating the risk of damaging the seal lip. NN = Without Hercules® logo.

Usage Instructions online at www.HerculesUS.com / Technical / Usage and Installation Instructions / IT Tools Installation and Assembly.

VALUE ROD U-SEAL INSTALLATION TOOLS



Part Number	Seal ID Range		Net Price
SEAL TWISTOR M	1-3/16" to 2"	30 - 50 mm	\$12.42
SEAL TWISTOR L	2" to 2-3/4"	50 - 70 mm	13.98
SEAL TWISTOR XL	2-3/4" to 6-1/2"	70 - 165 mm	15.53

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

Usage Instructions online at www.HerculesUS.com / Technical / Usage and Installation Instructions / IT Tools Installation and Assembly.

INSTALLATION TOOL SET

Part Number: IT TOOL SET-A

Net Price: \$46.46

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.



INSTALLATION / SPLICING / CUTTING TOOLS

SEAL CLASPER

Part Number: SEAL CLASPER

Net Price: \$106.52



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.

Part Number: SEAL CLASPER XL

Net Price: \$205.27



The Seal clasper is designed to press a PTFE piston seal back into the groove. The Clasper XL works on seals from 350mm to 710mm 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.

SPLICE IRON

Part Number: SEAL HEATER

Net Price: \$43.40



100 to 400°C

O-RING SPLICE TOOL

Part Number: OR SPLICER

Net Price: \$32.40

- 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



O-RING SPLICE KIT

Part Number: OR SPLICE KIT

Net Price: \$187.69

Kit contains:

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



ULTRASHARP 4.0

Part Number: ULTRASHARP 4.0

Net Price: \$51.92



This heavy duty Ultrasharp 4.0 cutter is capable of cutting fabric resin bearing tape up to 4mm thick and 40mm wide. This cutting tool can be easily adjusted to cut at 45°, 60° and 90° with a simple turn of the positioning wheel. It comes with 10 extra cutting blades and spare parts for easy replacement.

CUTTING / CHOPPING / REMOVAL TOOLS

O-RING CORD CHOPPER

Part Number: ORC CHOPPER

Net Price: \$37.88



- 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

Net Price: \$7.53



Quantity of 20 Chopper Blades.

OIL SEAL REMOVAL & INSTALLATION TOOL

Part Number: SR TOOL

Net Price: \$64.80



SSOR PICKER

Part Number: SSOR PICKER

List Price: \$10.17

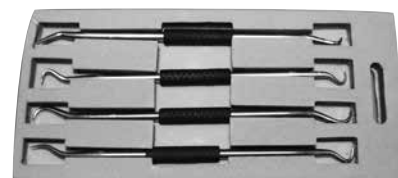


A set of 4 picks uniquely designed with spring steel round tips to prevent scratching delicate surfaces such as bronze or damaging O-rings during removal.

O-RING PICK SET

Part Number: OR HOOK

List Price: \$7.82



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

REMOVAL TOOLS

O-RING PICK SET 1

Part Number: O-RING PICK
Net Price: \$6.73

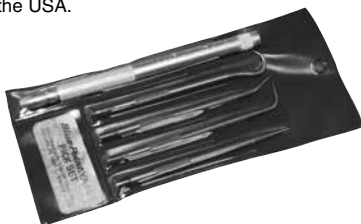
These bronze O-ring picks, w/ black vinyl case, aid in the installation and extraction of O-rings.



O-RING PICK SET 2

Part Number: O PICK SET
Net Price: \$35.77

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
Net Price: \$63.35

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.



CHEVRON ASSEMBLY TOOL

Part Number: CM-376-9067-001
Net Price: \$58.51

Vee Packing assembly tool for Telescopic Cylinders.



GLAND REMOVAL TOOLS

Part Number	Bore Diameter	List Price
JD-6.00X0.40-IT	6"	\$29.06
JD-70MM-IT	70 mm	10.05
JD-80MM-IT	80 mm	10.74
JD-90MM-IT	90 mm	11.82
JD-100MM-IT	100 mm	13.62

NEW SIZES

Part Number	List Price
JD-45MM-IT	\$5.32
JD-50MM-IT	3.55
JD-53MM-IT	5.72
JD-56MM-IT	5.93
JD-63MM-IT	8.92
JD-110MM-IT	14.86
JD-115MM-IT	17.77
JD-125MM-IT	16.58

5 PIECE TOOL KIT SET

Part Number: CH-TK-1
Net Price: \$104.09



Vee Packing tool kit set for Telescopic Cylinders.

8 PIECE O-RING PICK SET

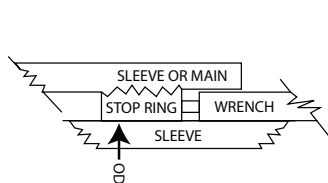
Part Number: O PICK SET-A
Net Price: \$21.52



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	Net Price
CM-376-6067-047	2-3/4"	5 Pins	\$258.35
CM-376-6067-048	3-3/4"	5 Pins	293.13
CM-376-6067-049	4-3/4"	5 Pins	315.56
CM-376-6067-050	5-3/4"	5 Pins	368.60
CM-376-6067-051	6-3/4"	5 Pins	402.77
CM-376-6067-052	7-7/8"	5 Pins	435.68
CM-376-6067-053	9-3/8"	5 Pins	510.34
CM-391-2086-007	Replacement Stop Wrench Pin		3.17



REMOVAL TOOLS

11 PIECE PACKING TOOL KIT

Part Number: **PACK TOOL SET-11**
Net Price: **\$148.84**



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

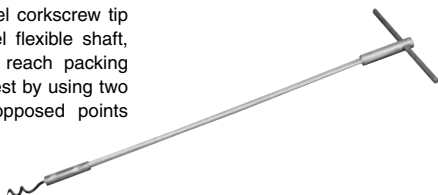
Part Number	Packing Space	Net Price
FPH-RTW312	5/16"-up	\$8.46
FPH-RTW437	7/16"-up	9.93
FPH-RTW500	1/2"-up	10.22



FLEXIBLE PACKING HOOKS

Part Number	Packing Space	Length	Net Price
FPH-187	3/16"-up	6-1/2"	\$16.36
FPH-312R	5/16"-up	7-1/2"	17.94
FPH-437R	7/16"-up	10-1/2"	19.72
FPH-500R	1/2"-up	14-1/2"	26.90

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**
Net Price: **\$245.68**



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	Net Price
FPH-RTC312	5/16"-up	\$7.18
FPH-RTC437	7/16"-up	20.34
FPH-RTC500	1/2"-up	10.76



SOLID SHAFT PICKS

Part Number	Packing Space	Length	Net Price
SSP-125	1/8 -up	9-1/2"	\$23.40
SSP-187	3/16 -up	10"	28.78
SSP-312	5/16"-up	10"	46.22

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.



DISMANTLING TOOLS

SPANNER WRENCHES

(1) ADJUSTABLE HEAD — PIN STYLE

PART NUMBER	PART OD RANGE	PIN DIA.	PIN LGTH.	NET PRICE
SPAP-2.00X0.13	3/4" to 2" (19mm to 50mm)	1/8"	1/8"	\$59.32
SPAP-2.00X0.19	3/4" to 2" (19mm to 50mm)	3/16"	5/32"	59.32
SPAP-3.00X0.19	1-1/4" to 3" (32mm to 76mm)	3/16"	3/16"	68.03
SPAP-3.00X0.25	1-1/4" to 3" (32mm to 76mm)	1/4"	7/32"	68.03
SPAP-4.75X0.25	2" to 4-3/4" (51mm to 120mm)	1/4"	1/4"	86.52
SPAP-6.25X0.38	4-1/2" to 6-1/4" (115mm to 159mm)	3/8"	1/4"	91.25



1

(2) ADJUSTABLE HEAD — HOOK STYLE

PART NUMBER	PART OD RANGE	HOOK WD.	HOOK DP.	NET PRICE
SPAH-2.00	3/4" to 2" (19mm to 50mm)	11/32"	1/8"	\$54.02
SPAH-3.00	1-1/4" to 3" (32mm to 76mm)	13/32"	5/32"	65.28
SPAH-4.75	2" to 4-3/4" (51mm to 120mm)	15/32"	3/16"	82.45
SPAH-6.25	4-1/2" to 6-1/4" (115mm to 159mm)	15/32"	1/4"	88.18
SPAH-8.75	6-1/8" to 8-3/4" (155mm to 222mm)	15/32"	5/16"	117.10



2

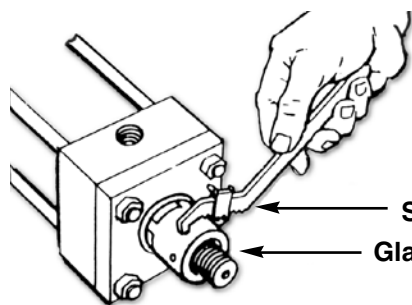
(3) ADJUSTABLE FACE — PIN STYLE

PART NUMBER	DIA. RANGE (CENTER TO CENTER)	PIN DIA.	PIN LGTH.	NET PRICE
SPAPF-2.00X0.19	5/8" to 2" (16mm to 50mm)	3/16"	1/8"	\$47.80
SPAPF-3.00X0.25	5/8" to 3" (16mm to 76mm)	1/4"	3/16"	69.88
SPAPF-4.00X0.31	5/8" to 4" (16mm to 101mm)	5/16"	1/4"	101.23



3

PARKER GLAND WRENCHES



Spanner Wrench (Sold Separately Above)
Gland Wrench



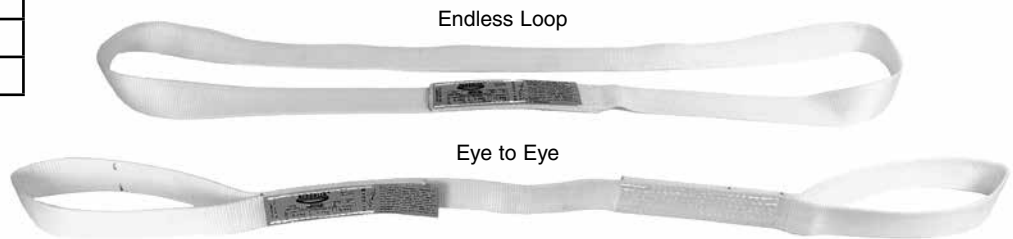
Rod Dia.	Kit #	ID X OD X HT	Net Price	Spanner (Sold Separately Above)
1/2", 5/8", 12mm & 14mm	PKH-069590	11/16" X 1-1/8" X 1-3/8"	\$36.35	SPAP-2.00X0.19
18mm	PKH-084765	13/16" X 1-1/4" X 1-7/16"	32.46	SPAP-2.00X0.19 or SPAP-3.00X0.19
1" & 22mm	PKH-069591	1-1/16" X 1-5/8" X 1-1/2"	21.96	SPAP-2.00X0.19 or SPAP-3.00X0.19
28mm	PKH-084766	1-1/4" X 1-11/16" X 1-9/16"	31.05	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"	42.53	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"	40.43	SPAP-3.00X0.25 or SPAP-4.75X0.25
2"	PKH-069594	2-1/16" X 2-1/2" X 2"	50.20	SPAP-3.00X0.25 or SPAP-4.75X0.25
2-1/2" & 56mm	PKH-069595	2-9/16" X 3" X 2-1/8"	79.29	SPAP-3.00X0.25 or SPAP-4.75X0.25
70mm	PKH-069596	2-15/16" X 3-1/2" X 2-3/8"	92.64	SPAP-4.75X0.25

LIFTING SLINGS

Hercules now carries 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.)	Net Price
SLEN1-4	1"	4'	Endless Loop	3200	2500	6400	\$8.52
SLEN1-6	1"	6'	Endless Loop	3200	2500	6400	10.85
SLEN2-4	2"	4'	Endless Loop	6400	5000	12800	12.85
SLEN2-6	2"	6'	Endless Loop	6400	5000	12800	17.09
SLEN2-8	2"	8'	Endless Loop	6400	5000	12800	21.33
SLEE1-4	1"	4'	Eye to Eye	1600	1200	3200	7.94
SLEE1-6	1"	6'	Eye to Eye	1600	1200	3200	9.10
SLEE2-4	2"	4'	Eye to Eye	3200	2400	6400	11.78
SLEE2-6	2"	6'	Eye to Eye	3200	2400	6400	13.90
SLEE2-8	2"	8'	Eye to Eye	3200	2400	6400	16.02

REMANUFACTURING TOOLS - LEEK DETECTION

PISTON SEAL REFORMING TOOL

Part Number: PS CONSTRICTOR

Net Price: \$14.80



PTFE Piston seal resizing tool.

PISTON SEAL STRETCHER

Part Number: SEAL STRETCHER PLUS

Net Price: \$128.04

This Seal Stretcher is heavy duty with a handle for easier use and includes the following:

- 8 stepped segments
- 1 top nut/handle
- 5/16" thick aluminum flat base including 4 mounting bolt holes
- 1 threaded rod with a piston pre-installed
- 1 stop adjustable nut
- Assembly instructions sheet



Usage instructions are online at www.HerculesUS.com/Technical/Usage and [Installation Instructions/Seal Stretcher Instructions](#).

MINI GRINDER

Part Number:

Net Price:

OR GRINDER

\$52.77



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)

LEAK DETECTION

LEAK DETECTION KIT

Part Number: LDU-OPK-341

Net Price: \$373.69

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	Net Price
LDU-CR-800	CLEANER, 8 OZ SPRAY	\$11.58
LDU-OIL-GLO-44-P	DYE, ALL-IN-ONE, 16 OZ	105.26
LDU-OPX-3000	LAMP, LED, 115V CHARGER	224.04
LDU-UVS-40	SPECTACLES, UV ENHANCING	18.95

MEASURING TOOLS

HIGH QUALITY DIGITAL CALIPER

Part Number: HH-CALIPER-6-FR

Net Price: \$44.37

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	Net Price
HH-CALIPER-6	\$38.50
HH-CALIPER-6-P	38.50
HH-CALIPER-12	92.77
HH-CALIPER-12-P	92.77

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 ±0.001" (±0.03mm). These calipers come in a sturdy, padded plastic case with instructions and a spare battery.

P = No Hercules logo.



INNER GROOVE CALIPER

Part Number: INNER CALIPER

Net Price: \$108.75

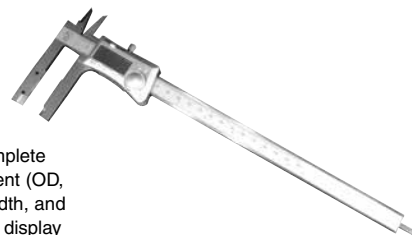


Inner Groove Caliper - 200 mm.

INNER DEPTH CALIPER

Part Number: INNER-DEPTH CALIPER

Net Price: \$135.00



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

Net Price: \$12.50

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

Net Price: \$12.50

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

Net Price: \$12.30

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

Net Price: \$95.07

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

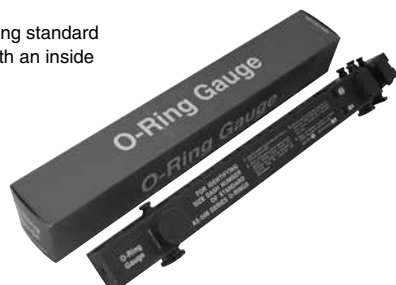


O-RING GAUGE

Part Number: OR-GAUGE

Net Price: \$21.53

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

Net Price: \$20.50

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.



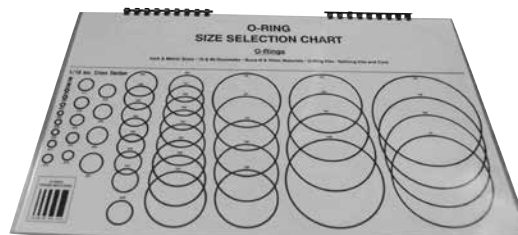
O-RING CHART

Part Number: O-RING CHART

Net Price: \$18.68

Part Number: O-RING CHART NN

Net Price: \$18.68



Durable, Accurate, and Fast, these charts allow for easy Standard O-ring size identification. No shop should be without one!

NN = Without Hercules® logo.

TYPES OF SEALING MATERIAL

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.

FLUID COMPATIBILITY TABLE

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 COMPATIBILITY TABLE

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	X	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
Hydrochloric 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
Phenylhydrazine	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

FLUID COMPATIBILITY TABLE

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

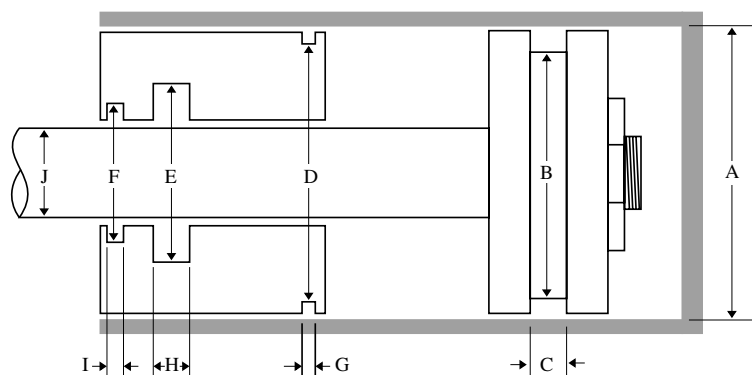
Fluid	Nitrile	SBR	EPDM	Neoprene	Polyacrylate	Urethane	Silicone	Fluoroelastomer
Sulfuric Acid	R	R	R	R	R	U	U	R
Tall Oil	R	U	U	M	R	U	X	R
Tannic Acid	R	R	R	R	U	X	R	R
Tar	R	U	U	M	U	X	R	R
Tartaric Acid	R	R	R	R	X	X	R	R
Tetrachloro Ethane	U	U	U	U	U	U	U	R
Tetralin	U	U	U	U	U	U	U	R
Tidewater Oil	R	U	U	R	R	R	R	R
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 TO SIZE GROOVE DIMENSIONS FOR SEALS

HOW OFTEN HAVE YOU RECEIVED A CYLINDER FOR REPAIR AND THE SEALS WERE ...

- MISSING
- EXTRUDED
- ROLLED
- COOKED
- NIBBLED
- SPLIT
- INCORRECT
- TWISTED
- 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 Hercules® Sealing Products 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 .



Call us TOLL FREE! 1-800-665-7325

FOR A PROFESSIONAL ANALYSIS OF SEAL FAILURE, SEND YOUR DAMAGED SEALS TO OUR ENGINEERING DEPARTMENT.

PISTON SEALS AND BEARINGS

DIAGRAM REFERENCE

DIMENSIONS

A = Bore = Nominal Seal O.D.
B = Groove Diameter = Nominal Seal I.D.
C = Groove Width = Nominal Seal Width

ROD SEALS AND BEARINGS

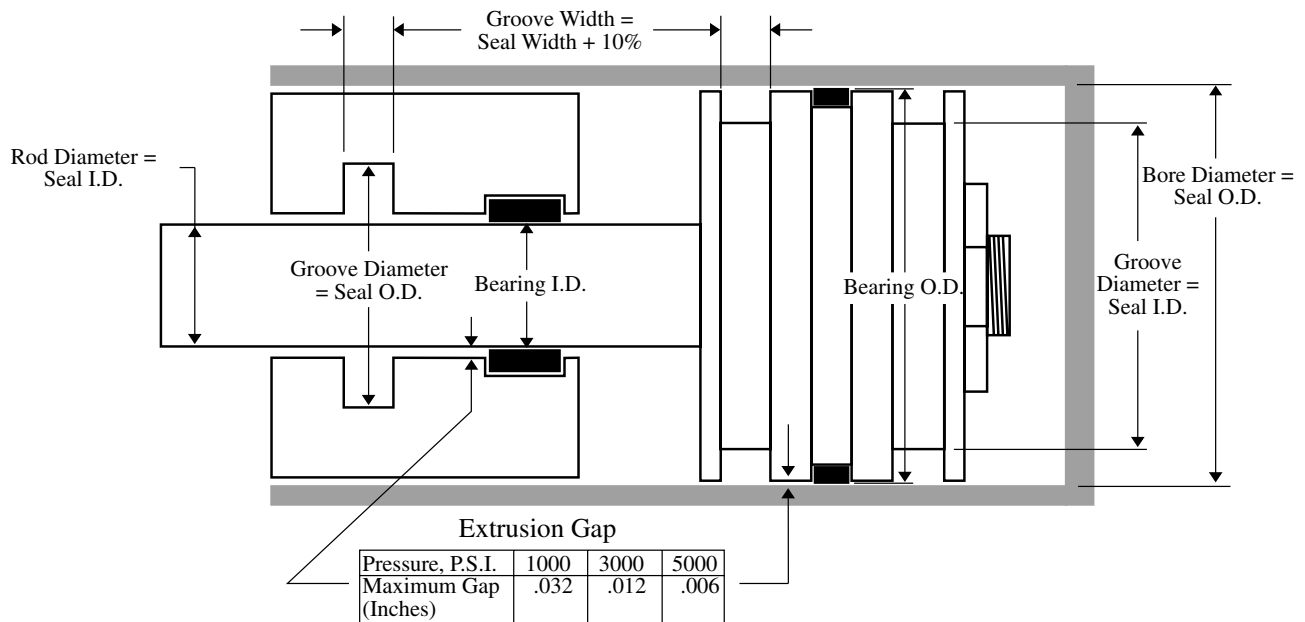
DIAGRAM REFERENCE

DIMENSIONS

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.

COPY FOR SHOP & COUNTER USE

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

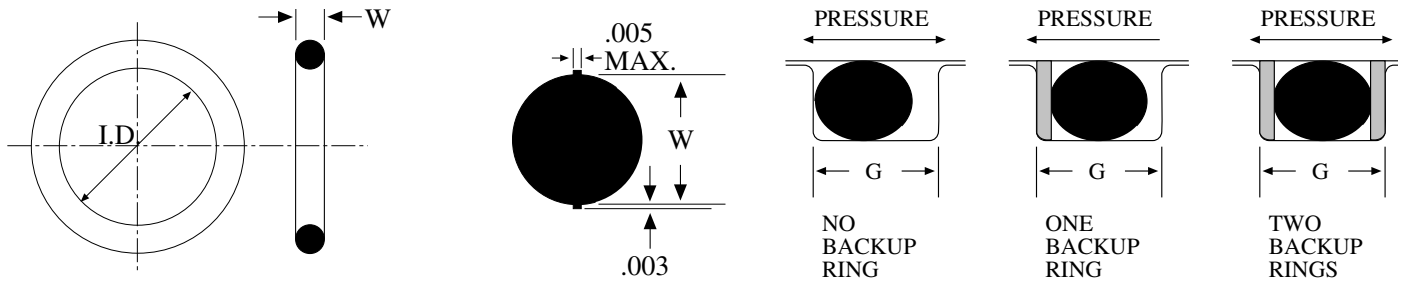
BORE DIAM RANGE, IN.	BORE DIAM. TOLERANCE	GROOVE DIAM TOLERANCE	MAX DIAMETRICAL CLEARANCE		
			1000 PSI	3000 PSI	5000 PSI
.750 - 1.062	+ .003 / -.0	+ .0 / -.004	.010	.008	.004
1.125 - 1.625	+ .003 / -.0	+ .0 / -.005	.010	.008	.004
1.750 - 2.500	+ .003 / -.0	+ .0 / -.007	.012	.008	.004
2.625 - 2.875	+ .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	-	-

METRIC / INCH CONVERSION TABLE

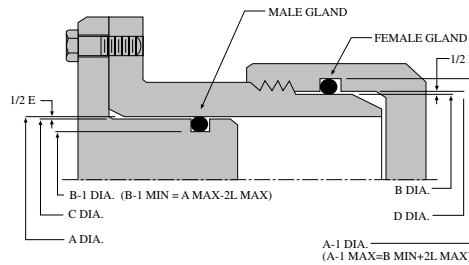
FRACTIONS, DECIMALS AND MILLIMETERS

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	3.719	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	—	4.500	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	254.00
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	279.40
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	304.80
—	.6496	16.5	1-15/16	1.9375	49.213	—	3.4648	88.0	13	13.000	330.20
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	355.60
43/64	.672	17.066	2	2.000	50.800	—	3.5039	89.0	15	15.000	381.00
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	406.40
—	.7087	18.0	—	2.0472	52.0	3-9/16	3.562	90.4877	17	17.000	431.80
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	457.20
47/64	.734	18.653	2-3/32	2.094	53.181	—	3.622	92.0	19	19.000	482.60
—	.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	508.00
49/64	.7656	19.447	2-5/32	2.156	54.769	—	3.6614	93.0	—	—	—

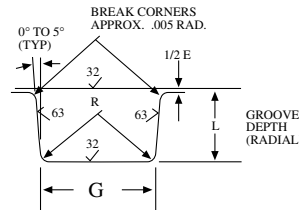
O-RING GLAND DIMENSIONS



O-Ring Gland Design For Static Seals



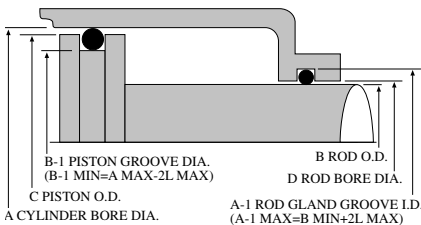
GLAND DETAIL



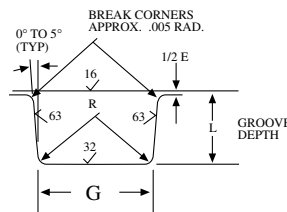
- A - Bore Dia. (male gland)
- A-1 - Groove Dia. (female gland)
- B - Tube OD (female gland)
- B-1 - Groove Dia. (male gland)
- C - Plug Dia. (male gland)
- D - Throat Dia. (female gland)
- E - Diametrical Clearance

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		
	RADIAL	AXIAL	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



GLAND DETAIL



- 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.
		INCHES	%		NO BACKUP RING	ONE BACKUP RING	TWO BACKUP RINGS		
.070	.055-.057	.010-.018	15-25	.004	.095	.140	.207	.005-.015	.002
.103	.088-.090	.010-.018	10-17	.005	.142	.173	.240	.005-.015	.002
.139	.121-.123	.012-.022	9-16	.006	.189	.210	.277	.010-.025	.003
.210	.185-.188	.017-.030	8-14	.006	.283	.313	.413	.020-.035	.004
.275	.237-.240	.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

O-RING SIZE CHART AND INSTALLATION DATA

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	ID	OD	Width	ID Tol.	W. Tol.
-145	2 9/16	2 3/4	3/32	2.550±.020	.103±.003
-146	2 5/8	2 13/16	3/32	2.612±.020	.103±.003
-147	2 11/16	2 7/8	3/32	2.675±.022	.103±.003
-148	2 3/4	2 15/16	3/32	2.737±.022	.103±.003
-149	2 13/16	3	3/32	2.800±.022	.103±.003
-150	2 7/8	3 1/16	3/32	2.862±.022	.103±.003
-151	3	3 3/16	3/32	2.987±.024	.103±.003
-152	3 1/4	3 7/16	3/32	3.237±.024	.103±.003
-153	3 1/2	3 11/16	3/32	3.487±.024	.103±.003
-154	3 3/4	3 15/16	3/32	3.737±.028	.103±.003
-155	4	4 3/16	3/32	3.987±.028	.103±.003
-156	4 1/4	4 7/16	3/32	4.237±.030	.103±.003
-157	4 1/2	4 11/16	3/32	4.487±.030	.103±.003
-158	4 3/4	4 15/16	3/32	4.737±.030	.103±.003
-159	5	5 3/16	3/32	4.987±.035	.103±.003
-160	5 1/4	5 7/16	3/32	5.237±.035	.103±.003
-161	5 1/2	5 11/16	3/32	5.487±.035	.103±.003
-162	5 3/4	5 15/16	3/32	5.737±.035	.103±.003
-163	6	6 3/16	3/32	5.987±.035	.103±.003
-164	6 1/4	6 7/16	3/32	6.237±.040	.103±.003
-165	6 1/2	6 11/16	3/32	6.487±.040	.103±.003
-166	6 3/4	6 15/16	3/32	6.737±.040	.103±.003
-167	7	7 3/16	3/32	6.987±.040	.103±.003
-168	7 1/4	7 7/16	3/32	7.237±.045	.103±.003
-169	7 1/2	7 11/16	3/32	7.487±.045	.103±.003
-170	7 3/4	7 15/16	3/32	7.737±.045	.103±.003
-171	8	8 3/16	3/32	7.987±.045	.103±.003
-172	8 1/4	8 7/16	3/32	8.237±.050	.103±.003
-173	8 1/2	8 11/16	3/32	8.487±.050	.103±.003
-174	8 3/4	8 15/16	3/32	8.737±.050	.103±.003
-175	9	9 3/16	3/32	8.987±.050	.103±.003
-176	9 1/4	9 7/16	3/32	9.237±.055	.103±.003
-177	9 1/2	9 11/16	3/32	9.487±.055	.103±.003
-178	9 3/4	9 15/16	3/32	9.737±.055	.103±.003
-201	3/16	7/16	1/8	.171±.005	.139±.004
-202	1/4	1/2	1/8	.234±.005	.139±.004
-203	5/16	9/16	1/8	.296±.005	.139±.004
-204	3/8	5/8	1/8	.359±.005	.139±.004
-205	7/16	11/16	1/8	.421±.005	.139±.004
-206	1/2	3/4	1/8	.484±.005	.139±.004
-207	9/16	13/16	1/8	.546±.007	.139±.004
-208	5/8	7/8	1/8	.609±.009	.139±.004
-209	11/16	15/16	1/8	.671±.009	.139±.004
-210	3/4	1	1/8	.734±.010	.139±.004
-211	13/16	1 1/16	1/8	.796±.010	.139±.004
-212	7/8	1 1/8	1/8	.859±.010	.139±.004
-213	15/16	1 3/16	1/8	.921±.010	.139±.004

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	ID	OD	Width	ID Tol.	W. Tol.
-214	1	1 1/4	1/8	.984±.010	.139±.004
-215	1 1/16	1 5/16	1/8	1.046±.010	.139±.004
-216	1 1/8	1 3/8	1/8	1.109±.012	.139±.004
-217	1 3/16	1 7/16	1/8	1.171±.012	.139±.004
-218	1 1/4	1 1/2	1/8	1.234±.012	.139±.004
-219	1 5/16	1 9/16	1/8	1.296±.012	.139±.004
-220	1 3/8	1 5/8	1/8	1.359±.012	.139±.004
-221	1 7/16	1 11/16	1/8	1.421±.012	.139±.004
-222	1 1/2	1 3/4	1/8	1.484±.015	.139±.004
-223	1 5/8	1 7/8	1/8	1.609±.015	.139±.004
-224	1 3/4	2	1/8	1.734±.015	.139±.004
-225	1 7/8	2 1/8	1/8	1.859±.018	.139±.004
-226	2	2 1/4	1/8	1.984±.018	.139±.004
-227	2 1/8	2 3/8	1/8	2.109±.018	.139±.004
-228	2 1/4	2 1/2	1/8	2.234±.020	.139±.004
-229	2 3/8	2 5/8	1/8	2.359±.020	.139±.004
-230	2 1/2	2 3/4	1/8	2.484±.020	.139±.004
-231	2 5/8	2 7/8	1/8	2.609±.020	.139±.004
-232	2 3/4	3	1/8	2.734±.024	.139±.004
-233	2 7/8	3 1/8	1/8	2.859±.024	.139±.004
-234	3	3 1/4	1/8	2.984±.024	.139±.004
-235	3 1/8	3 3/8	1/8	3.109±.024	.139±.004
-236	3 1/4	3 1/2	1/8	3.234±.024	.139±.004
-237	3 3/8	3 5/8	1/8	3.359±.024	.139±.004
-238	3 1/2	3 3/4	1/8	3.484±.024	.139±.004
-239	3 5/8	3 7/8	1/8	3.609±.028	.139±.004
-240	3 3/4	4	1/8	3.734±.028	.139±.004
-241	3 7/8	4 1/8	1/8	3.859±.028	.139±.004
-242	4	4 1/4	1/8	3.984±.028	.139±.004
-243	4 1/8	4 3/8	1/8	4.109±.028	.139±.004
-244	4 1/4	4 1/2	1/8	4.234±.030	.139±.004
-245	4 3/8	4 5/8	1/8	4.359±.030	.139±.004
-246	4 1/2	4 3/4	1/8	4.484±.030	.139±.004
-247	4 5/8	4 7/8	1/8	4.609±.030	.139±.004
-248	4 3/4	5	1/8	4.734±.030	.139±.004
-249	4 7/8	5 1/8	1/8	4.859±.035	.139±.004
-250	5	5 1/4	1/8	4.984±.035	.139±.004
-251	5 1/8	5 3/8	1/8	5.109±.035	.139±.004
-252	5 1/4	5 1/2	1/8	5.234±.035	.139±.004
-253	5 3/8	5 5/8	1/8	5.359±.035	.139±.004
-254	5 1/2	5 3/4	1/8	5.484±.035	.139±.004
-255	5 5/8	5 7/8	1/8	5.609±.035	.139±.004
-256	5 3/4	6	1/8	5.734±.035	.139±.004
-257	5 7/8	6 1/8	1/8	5.859±.035	.139±.004
-258	6	6 1/4	1/8	5.984±.035	.139±.004
-259	6 1/4	6 1/2	1/8	6.234±.040	.139±.004
-260	6 1/2	6 3/4	1/8	6.484±.040	.139±.004

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

O-RING SIZE CHART AND INSTALLATION DATA

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	ID	OD	Width	ID Tol.	W. Tol.
-379	11	11 3/8	3/16	10.975±.060	.210±.005
-380	11 1/2	11 7/8	3/16	11.475±.065	.210±.005
-381	12	12 3/8	3/16	11.975±.065	.210±.005
-382	13	13 3/8	3/16	12.975±.065	.210±.005
-383	14	14 3/8	3/16	13.975±.070	.210±.005
-384	15	15 3/8	3/16	14.975±.070	.210±.005
-385	16	16 3/8	3/16	15.955±.075	.210±.005
-386	17	17 3/8	3/16	16.955±.080	.210±.005
-387	18	18 3/8	3/16	17.955±.085	.210±.005
-388	19	19 3/8	3/16	18.955±.090	.210±.005
-389	20	20 3/8	3/16	19.955±.095	.210±.005
-390	21	21 3/8	3/16	20.955±.095	.210±.005
-391	22	22 3/8	3/16	21.955±.100	.210±.005
-392	23	23 3/8	3/16	22.940±.105	.210±.005
-393	24	24 3/8	3/16	23.940±.110	.210±.005
-394	25	25 3/8	3/16	24.940±.115	.210±.005
-395	26	26 3/8	3/16	25.940±.120	.210±.005
-400*	1 3/8	1 7/8	1/4	1.225±.012	.275±.006
-401*	1 1/2	2	1/4	1.475±.014	.275±.006
-402*	1 5/8	2 1/8	1/4	1.600±.015	.275±.006
-403*	1 3/4	2 1/4	1/4	1.725±.016	.275±.006
-404*	1 7/8	2 3/8	1/4	1.850±.016	.275±.006
-405*	2	2 1/2	1/4	1.975±.017	.275±.006
-406*	2 1/8	2 5/8	1/4	2.100±.018	.275±.006
-407*	2 1/4	2 3/4	1/4	2.225±.018	.275±.006
-408*	2 3/8	2 7/8	1/4	2.350±.020	.275±.006
-409*	2 1/2	3	1/4	2.475±.020	.275±.006
-410*	2 5/8	3 1/8	1/4	2.600±.020	.275±.006
-411*	2 3/4	3 1/4	1/4	2.725±.022	.275±.006
-412*	2 7/8	3 3/8	1/4	2.850±.022	.275±.006
-413*	3	3 1/2	1/4	2.975±.024	.275±.006
-414*	3 1/8	3 5/8	1/4	3.100±.024	.275±.006
-415*	3 1/4	3 3/4	1/4	3.225±.024	.275±.006
-416*	3 3/8	3 7/8	1/4	3.350±.026	.275±.006
-417*	3 1/2	4	1/4	3.475±.026	.275±.006
-418*	3 5/8	4 1/8	1/4	3.600±.026	.275±.006
-419*	3 3/4	4 1/4	1/4	3.725±.028	.275±.006
-420*	3 7/8	4 3/8	1/4	3.850±.028	.275±.006
-421*	4	4 1/2	1/4	3.975±.028	.275±.006
-422*	4 1/8	4 5/8	1/4	4.100±.030	.275±.006
-423*	4 1/4	4 3/4	1/4	4.225±.030	.275±.006
-424*	4 3/8	4 7/8	1/4	4.350±.030	.275±.006
-425	4 1/2	5	1/4	4.475±.033	.275±.006
-426	4 5/8	5 1/8	1/4	4.600±.033	.275±.006
-427	4 3/4	5 1/4	1/4	4.725±.033	.275±.006
-428	4 7/8	5 3/8	1/4	4.850±.033	.275±.006
-429	5	5 1/2	1/4	4.975±.037	.275±.006

AS-568A SERIES	NOMINAL SIZE			ACTUAL DIMENSIONS	
	ID	OD	Width	ID Tol.	W. Tol.
-430	5 1/8	5 5/8	1/4	5.100±.037	.275±.006
-431	5 1/4	5 3/4	1/4	5.225±.037	.275±.006
-432	5 3/8	5 7/8	1/4	5.350±.037	.275±.006
-433	5 1/2	6	1/4	5.475±.037	.275±.006
-434	5 5/8	6 1/8	1/4	5.600±.037	.275±.006
-435	5 3/4	6 1/4	1/4	5.725±.037	.275±.006
-436	5 7/8	6 3/8	1/4	5.850±.037	.275±.006
-437	6	6 1/2	1/4	5.975±.037	.275±.006
-438	6 1/4	6 3/4	1/4	6.225±.040	.275±.006
-439	6 1/2	7	1/4	6.475±.040	.275±.006
-440	6 3/4	7 1/4	1/4	6.725±.040	.275±.006
-441	7	7 1/2	1/4	6.975±.040	.275±.006
-442	7 1/4	7 3/4	1/4	7.225±.045	.275±.006
-443	7 1/2	8	1/4	7.475±.045	.275±.006
-444	7 3/4	8 1/4	1/4	7.725±.045	.275±.006
-445	8	8 1/2	1/4	7.975±.045	.275±.006
-446	8 1/2	9	1/4	8.475±.055	.275±.006
-447	9	9 1/2	1/4	8.975±.055	.275±.006
-448	9 1/2	10	1/4	9.475±.055	.275±.006
-449	10	10 1/2	1/4	9.975±.055	.275±.006
-450	10 1/2	11	1/4	10.475±.060	.275±.006
-451	11	11 1/2	1/4	10.975±.060	.275±.006
-452	11 1/2	12	1/4	11.475±.060	.275±.006
-453	12	12 1/2	1/4	11.975±.060	.275±.006
-454	12 1/2	13	1/4	12.475±.060	.275±.006
-455	13	13 1/2	1/4	12.975±.060	.275±.006
-456	13 1/2	14	1/4	13.475±.070	.275±.006
-457	14	14 1/2	1/4	13.975±.070	.275±.006
-458	14 1/2	15	1/4	14.475±.070	.275±.006
-459	15	15 1/2	1/4	14.975±.070	.275±.006
-460	15 1/2	16	1/4	15.475±.070	.275±.006
-461	16	16 1/2	1/4	15.955±.075	.275±.006
-462	16 1/2	17	1/4	16.455±.075	.275±.006
-463	17	17 1/2	1/4	16.955±.080	.275±.006
-464	17 1/2	18	1/4	17.455±.085	.275±.006
-465	18	18 1/2	1/4	17.955±.085	.275±.006
-466	18 1/2	19	1/4	18.455±.085	.275±.006
-467	19	19 1/2	1/4	18.955±.090	.275±.006
-468	19 1/2	20	1/4	19.455±.090	.275±.006
-469	20	20 1/2	1/4	19.955±.090	.275±.006
-470	21	21 1/2	1/4	20.955±.090	.275±.006
-471	22	22 1/2	1/4	21.955±.100	.275±.006
-472	23	23 1/2	1/4	22.940±.105	.275±.006
-473	24	24 1/2	1/4	23.940±.110	.275±.006
-474	25	25 1/2	1/4	24.940±.115	.275±.006
-475	26	26 1/2	1/4	25.940±.120	.275±.006

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