

THERE ARE 3 WAYS TO SERVICE VALVES

LUBRICANT MAINTENANCE

Periodic application of lubricant to valves is the only recommended maintenance necessary under normal conditions. Lubrication is essential to the proper operation of the valve. The sealant, actually being the soft bearing seat of the valve, requires replacement when depleted due to flow media, operating temperatures, pressures and frequency of cycles.

Lubricant maintenance means injecting enough sealant into a valve to provide a sealant film between tapered plug and body to minimize sticking.

1 . MANUAL INJECTION

Small lubricant sticks are for manual injection. Be sure to choose the proper Valve Sealant for the service considering line product, pressure and temperature.

HOW TO INJECT LUBRICANT MANUALLY:

1. Remove valve lubricant screw.
2. Insert the correct size of valve sealant stick and place it into the stem.
3. Replace the fitting and screw down with a wrench until the sealant system is filled completely. This is determined by the resistance produced by the sealant pressure. Larger valves will require several sticks or tubes of sealant due to the capacity of their sealant systems.
4. Continue to add sealant until the plug lifts (sometimes with a hissing sound) indicating the sealant system is full. When the plug lifts, effort to turn the lubricating screw will be noticeably reduced.
5. If the plug fails to respond or continues to be difficult to turn, check with an authorized dealer.

CLIMAX FITTING AS A SEALANT SCREW

The one piece Climax Fitting can also be used to maintain sealant pressure between mechanical injection periods if used as a sealant screw. After the valve is properly lubricated, remove the lubricant screw, insert another stick of sealant and screw the fitting down until the fitting threads are totally engaged in the stem. The fitting will then extend one or two inches, providing that much more sealant capacity in the stem. The additional sealant capacity can be used as an auxiliary reservoir for further lubrication. The valve can then be pressurized by screwing in the fitting as a sealant screw as explained. When the fitting is finally turned into the valve as far as it will go, it indicates additional sealant should be added.

IMPORTANT: EXTREME CAUTION SHOULD BE TAKEN TO PREVENT ANY FOREIGN MATTER FROM ENTERING THE VALVE'S SEALANT SYSTEM.

2. HAND GUN

For installations with valves requiring frequent service, a hand operated 1699 High Pressure Hydraulic or the 10516 Screwprime Hand Gun is recommended. This gun permits speedier servicing and also prevents waste of sealant and over filling of valves.

HOW TO INJECT SEALANT WITH A 1699 or 10516 HIGH PRESSURE HAND GUN:

1. Choose the proper sealant in "J" or "K" stick size for the Hand Gun.
2. Clean accumulated dirt from the top of the fitting before engaging the coupler.
3. Fit the gun's button head coupler over the fitting on the valve.
CAUTION: Coupler should not be attached or detached while gun is under pressure.
4. Inject sealant by hand pumping the gun as long as the needle on the pressure gauge climbs steadily. This should be continued as long as the valve will take pressure and volume. At some high pressure point on the gauge, the needle will "drop-back" when the plug un-seats indicating a fully pressurized system. This point can also be felt when the pumping effort falls off. Additional pumping will not hold the gauge needle and injecting should be stopped at this point. The plug should then be turned to check the ease of operation. Additional sealant can then be injected to purge the line product or eliminate air in the system if necessary.

3. CLIMAX MODEL 10 GUN

Where a large number of valves are in service, the Climax Model 10 is recommended. It is filled by using bulk five (5) quart (4.7 Liters) sealant cans which are loaded directly into the Model 10. It is selfpriming, air operated and is designed to meet extensive field maintenance requirements.

HOW TO INJECT SEALANT WITH A MODEL 10:

1. Choose the proper sealant in a five (5) quart (4.7 Liters) can and load it into the Model 10.
2. Attach the button head coupler.
3. Note the same procedure as Step 3 under Hand Gun Procedure.



CLIMAX LUBRICANT GUNS

No. 10516

For efficient and controlled Plug Valve Lubrication.
Handles the heaviest plug valve lubricant/sealants.
Builds pressure up to 10,000 lbs. plus.
Strong, Durable Aluminum Barrel, Cast Steel Head & Collar.
High Pressure Piston of Finest Lapped Steel.
Positive Prime, Screw Type Plunger Assembly.
Provides 20 or more Strokes without Re-Prime.
Uses "K" Size Stick (1 ½" Dia. x 12" long).
Giant Buttonhead Coupler with Pressure Release.
Hose Assembly (1/4" I.D. x 12" long H.P. Grease Hose with Built-in Swivels or Available with 1/2"-27 THD Straight Swivel on one end, 5,000 PSI WP - Standard).



No. 10516-S

Exactly like the Climax 10516 Gun with a Part No. 10557 Z-Swivel (1/4" NPT x 1/2" - 27 THD), 1/4"-NPT High Pressure "TEE" and 15,000 PSI Gauge with protector for more efficient lubrication of Plug Valves.



No. 10516-C

For efficient and controlled Plug Valve Lubrication.
Handles the heaviest plug valve lubricants/sealants.
Builds pressure up to 10,000 lbs. plus.
Strong, Durable Aluminum Barrel, Cast Steel Head & Collar.
High Pressure Piston of Finest Lapped Steel.
Positive Prime, Screw Type Plunger Assembly.
Provides 20 or more Strokes without Re-Prime.
Uses standard 14 1/2 oz. grease gun cartridges.
Giant Buttonhead Coupler with Pressure Release.
Hose Assembly (1/4" I.D. x 12" long H.P. Grease Hose with
Built-in Swivels or Available with 1/2" - 27 THD Straight Swivel on
one end, 5,000 PSI WP - Standard).



No. 10516-SC

Exactly like the Climax 10516-C Gun with a Part No. 10557 Z-Swivel (1/4" NPT x 1/2" - 27 THD), 1/4"-NPT High Pressure "TEE" and 15,000 PSI Gauge with protector for more efficient lubrication of Plug Valves.



CLIMAX HYDRAULIC PLUG VALVE LUBRICATING GUN # 1699



This specially designed high pressure handgun, light in weight (approximately 16 lb.), is more rugged than most conventional types and meets the exacting demands of plug valve sealants. Because the grease gun is built for servicing plug valves, all parts are machined with minute accuracy. The polished hardened steel piston is perfectly fitted in the high pressure cylinder to provide absolute smoothness of operation.

The CLIMAX 1699 is self-priming and can be used in any position. Because of its hydraulic principle, this gun's powerful floating piston forces lubricants, sealants, liquids, packing ect. out of the gun regardless of viscosity.

The gun is equipped with a CLIMAX 1699 Button Head Coupler for connection to the button head sealant fitting in the shank of the valve. This coupler has a built-in feature which locks it to the fitting when the gun is under positive pressure. The coupler cannot be connected to or separated from the fitting with the gun under pressure. This pressure may be relieved by a turn of the by-pass valve. The by-pass valve should not be closed to a point where it is jammed into its seat, nor should it be opened tight against the stop. The valve should be closed firmly, but not tightly. It is not necessary to open the valve past one full turn.

Due to "built-in" safety features, the CLIMAX 1699 provides the maximum safety to both the valve and the gun itself. The hydraulic system of the gun is equipped with a relief fitting to protect the gun from injury if the operator were to continue to pump after the gun had been depleted of valve sealant. Also, to prevent damage to the valve and sealant gun, in the event of sealant clogging the system or the operator pumping too fast, a CLIMAX 15,000 psi gauge is provided. This accessory indicates the point at which sufficient sealant pressure has been developed within the valve. The gauge also indicates valve adjustment and other services required. The CLIMAX 0-15,000 psi gauge is the highest quality, most reliable glycerin filled gauge available. The one piece die cast brass case and heavy duty bourdon tube and movement enable the gauge to stand up to the shock and vibration encountered on the most demanding applications. The CLIMAX gauge also features a rubber gauge protector. Climax offers this gun with body drilled and tapped for 1/4" NPT: including 0-15,000 psi gauge with protector for pumping valve stem packing - This set-up indicates direct Hydraulic pressure (1699D). In addition to the gauge an external relief valve coupler is provided, pre-set at 7500 psi. A carrying case for the Climax Model 1699 is available. Refer to the parts list for other available options.

CLIMAX EXCHANGE GUNS

Trade your old hydraulic gun
in on a Climax Rebuilt Gun.

Cheaper than a major repair.

Prices on request.

Exchange guns do not include hose assemblies or pressure gauges.
We accept Nordstrom and Walworth guns. All parts interchangeable.



PACKING GUN
WITH SIDE TAP GAUGE
& CONICAL CAP



Conical
Cap

CLIMAX MODEL 1700 · AIR / HYDRAULIC SEALANT GUN

For pumping all kinds of Valve Lubricants / Sealants, Valve Stem Packings and Leak Sealing / Thermal-Setting materials to 10,000 psi max., with 100 psi, 10 cfm air.



FEATURES

Foot-operated trigger at pump. Same quality construction as the popular CLIMAX Model 1699 Grease Gun.

CAPACITY

11" Barrel Length - 16 cu. in. volume (Standard "J" - Size Stick, 1-3/8" Dia. x 8-3/4" Long)

20" Barrel Length - 32.5 cu. in. volume (2-Standard "J" - Size Sticks)

PERFORMANCE

RESISTANCE, psi	0	5,000	10,000
FLOW RATE, cu. in./min.	35	10	4
TIME TO EMPTY GUN, min.:sec.	0:28	1:36	4:00

WEIGHT

With standard 9-foot hoses from AIR/HYDRAULIC pump to gun, 12" hose from gun to coupler, 11" grease barrel: 42-lbs. With the 20" grease barrel: 45.5-lbs.

Gun alone is approximately 13 pounds.

OPERATION

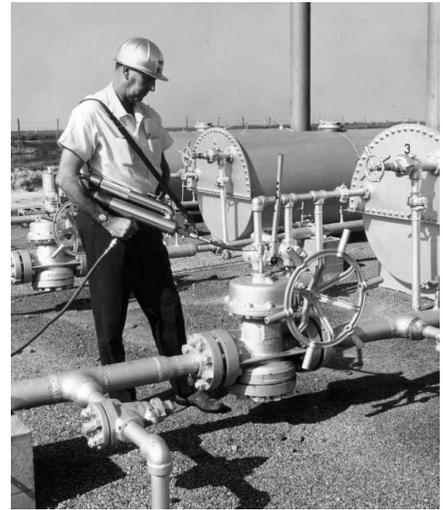
With 11" grease barrel: To load, open by-pass valve at side of gun, unscrew carrying handle, take off grease barrel cap, use handle to push piston to bottom of grease barrel, and load material. Replace cap and handle and close bypass valve. Connect pump to air supply and unit is ready to use. With 20" grease barrel: A wooden dowel is supplied to push piston back in grease barrel.

NOTE

An in-line air filter and lubricator should be installed as close to unit as possible. Otherwise, pump requires 4 drops of #10 oil in air inlet for each day of use.

CLIMAX ROCKET 280

AIR POWERED HAND GUN
FOR VALVE LUBRICANTS
& SEALANTS



NOW AVAILABLE:

Rocket 380HP

(High Pressure - Developing 15,000-lbs. grease pressure)

Rocket 380HV

(High Volume - Developing 10,000-lbs. grease pressure)

CLIMAX ROCKET 280 AIR POWERED HAND GUN

The sealed-in air motor has a 100 to 1 pumping ratio producing 10,000 psi sealant pressure at an air pressure to the motor of 100 psi. The gun operates on an air supply pressure ranging from 70 psi to 125 psi. It weighs approximately 17 lbs. when loaded with sealant. The gun uses size "K" stick Sealant (1-1/2" Dia. x 12" Long). The forward stroke of the air motor pumps the sealant and the backstroke acts as a booster compressor to supply the necessary pressure to the forced fed priming system. The gun exhaust is at the rear of the air motor away from the operator. Comes complete with shoulder sling, 15,000 psi Gauge w/protector, 1/4" I.D. x 12" Long H.P. Grease Hose (5,000 PSI W.P.-STANDARD) w/built in swivels or available with 1/2"-27 Thd Straight Swivel on one end and Giant Buttonhead Coupler w/plug.

NOTE: CLIMAX DOES NOT RECOMMEND USING VALVE STEM PACKING OR LEAK SEALING MATERIAL IN THE ROCKET 280.

Climax Model 90 Series Pneumatic Lube Guns



Model 120-90
for 16 Gal. Drum
(120 lb. - 150 lb.)



Model 10-90-OS
for 5 Qt. Can
(10 Lb.)

Plug/Ball Valve
Setup



Wellhead Gate
Valve Setup



Model 40-90 MT
for 5 Gal. or 6 Gal. Can
(35 lb. - 40 lb.)



Model 10-90
for 5 Qt. Can
(10 lb.)

The Model 90 series is a 90:1 ratio pump with a totally sealed-in 3-1/4" air motor which will provide efficient operations at an air inlet pressure of 100 psi, producing 9,000 lbs. of grease pressure.

Now Available: The Model 120 series is a 120:1 ratio pump with a 4" air motor providing efficient operations at an air inlet pressure of 100 psi, producing 12,000 lbs. of grease pressure.

The Model 10 & 40 are furnished with 10" pneumatic tires.

All models are furnished with 10 feet of 3/8" ID (std.) 16,000 lb.-burst High Pressure Grease Hose with 90° swivel on one end and 1/4" NPT built-in swivel on the other end, 0-15,000 psi Gauge w/protector, air shut-off valve and necessary Adaptors ready for use.

Specify whether for use on Plug/Ball Valves or Wellhead Gate Valves.

A Climax Plug/Ball Valve Setup includes a 319700 Shutoff Relief Valve and Giant Buttonhead Coupler.

A Climax Wellhead Gate Valve Setup includes a 319700 Shutoff Relief Valve and a 1714 Lube Adapter (1"-14 THD WKM/API).

CLIMAX PPSI - 550

POWER PUMP SEALANT INJECTOR 550



Improved Mechanics • Lighter Weight
Counterbalanced for Easier Handling

The POWER PUMP has a 5" Sealed Air Motor with a 1/2" High Pressure Sealant Piston to deliver sealant to the valve at pressures up to 10,000 PSI on 100 PSI Air Inlet Pressure.

Comes Complete with 0 - 15,000 lb. PSI Gauge w/ Protectors • 10' - 3/8" ID Sealant Hose, 10,000 lb. 1/4" Ball Valve & Plug/Ball Valve Set-Up (Giant Button Head Coupler)
OPTION: Wellhead Gate Valve Adapter - WKM/API 1" - 14 THD

ALSO AVAILABLE:

High Pressure Model developing 15,000 lbs. of Sealant Pressure - Part #PPSI 570

Frees Frozen or Stuck Plugs Quickly

Low volume capability of most sealant pumps allows sealant to leak through worn contact points between the valve body and the plug. The POWER PUMP's high volume and pressure rates easily raise the plug from its seat in only a few strokes. This often allows older valves to remain operable with in-line injection, rather than removal for shop repair.

Eliminates "Air Lock" in Sealant Pumps

The POWER PUMP virtually eliminates the formation of air pockets associated with the installation of new sealant cans and the need to frequently bleed the sealant system. The POWER PUMP delivers sealant to the valve with the first piston stroke after installation of a new can of sealant.

Reduces Danger of Sealant Can Ruptures

On the POWER PUMP, the sealant can is fully enclosed in a heavy duty cylinder. The air cylinder is mounted directly on top of 5 qt. can for positive prime pumping.

Measures Amount of Sealant Injected

The POWER PUMP design includes an indicator rod that gauges the prescribed amount of sealant injected into each valve, eliminating injecting too little or too much sealant into the valve.

Power Pump Comes Complete with Oil Injector

An oil injector is a vital part of any air-operated pump and is an integral part of the POWER PUMP package. Some competitive pumps do not include an oil injector which must be obtained and installed in the inlet air piping.



* Unit Holds
5-qt. (10-lb.) Cans

Approximate Sealant Capacities

Ball Valves:	1 oz. per seat per inch of valve size
Plug Valves:	4" & smaller - 1 oz. per inch of valve size
	6" thru 14" - 1½ oz. per inch of valve size
	14" thru 18" - 2½ oz. per inch of valve size
	18" & larger - 3½ oz. per inch of valve size

Warranty

Every POWER PUMP is warranted for 1 Full Year for Parts and Workmanship

Test Results

Valve Sealant Used
Climax 950-SWS (NLGI #3-ASTM 220-250)
9 Strokes per Ounce
No Pressure - 10' Hose
Runs at 35 Strokes per Minute
Pumps approximately
1/2 lb. per minute @ 77 degrees F



*6713-30
3-1/2 Gallon Pail*



Climax Skid Mounted Lubrication System: Gas or Diesel Compressor



*SL-90-5
Steel Lid, 90:1 Ratio - 5-Gallon Pail
*Follow Plate Optional
**120:1 Ratio also available*



*Model 10-120-OS
5-qt. - 10-lb. Can
120:1 Ratio - 100 PSI Inlet Pressure
Produces 12,000-lbs. Sealant Pressure*



*Wellhead Gate Valve
Hose Assembly
WKMAPI - 1"-14THD*



Plug/Ball Valve Adapter



*6713-10
5-qt. - 10 lb. Can or Bulk Fill*



*Model 40-120MT
5-Gallon - 40-lb. Pail
120:1 Ratio - 100 PSI Inlet Pressure
Produces 12,000-lbs. Sealant Pressure*



Serpent Model 1800 Volume Gun



Serpent Model 1699-33 Carrying Case



CLIMAX MODEL 150

75:1 RATIO AND 140:1 RATIO AVAILABLE



Climax High Pressure Lubrication Grease Pump for 16 Gallon (120 lb.- 150 lb. drums); also available for 55 gallon (400 lb.-450 lb. drums).

The 75:1 pressure ratio pump with a sealed-in 4" air-motor is dependable and pumps lubricant at a high volume. With an air inlet pressure of 100 psi, this unit produces 7,500 lbs. of grease pressure.

The 140:1 pressure ratio pump with a sealed-in 6" air-motor produces 14,000 lbs. of grease pressure with an air inlet pressure of 100 psi.

Both the Climax Model 150 (75:1) & Climax Model 150 (140:1) come with a drum cover and a choice of a steel or rubber follow plate.

Available Options:

1. A 1/2" Grease Hose ranging from 14,000 lbs. to 40,000 lbs. burst pressure (Available in various lengths).
2. A Plug/Ball valve set-up consists of a 1/2" NPT-10,000 b. needle valve or ball valve with 1/4" grease hose (12" long), giant button-head coupler, 0-15,000 psi gauge w/protector and "Z"-swivel.
3. A Gate Valve set-up consists of a 1/2" NPT- 10,000 lb. needle valve or ball valve with 1/4" grease hose (12" long), 0-15,000 psi gauge w/protector, "Z"-swivel and a 1714 lube adapter* (1"-14 thd/WKM-API).
*Other lube adapters are available for McEvoy, Cameron, etc.
4. A Standard Drum Dolly with pneumatic tires; contains a stationary steel strap at the bottom of the dolly and a swivel strap at the top for easy drum interchange and portability.

CLIMAX LUBRICANTS & EQUIPMENT CO.®

VALVE LUBRICATION ADAPTER KIT

Kit contains one of each of the following:

PRT-12

Pressure Releasing Tool - WKM 1" - 14 THD

GBH-W/P

Giant Button Head Coupler w/plug

7834

1/2" Bleeder Plug

1200-AUX

to fit Giant Button Head

1200S-AUX

to fit Standard Button Head

1200VCS-AUX

to fit Giant Button Head
5/8" - 18M w/ gasket x 1/4" NPTF w/Vent Cap

1200NL-AUX

to fit Giant Button Head - Lock-On Style w/ Nylon Seal

1200PSC-AUX

to fit Giant Button Head - Steel Cone Type for Positive Seal

PIBT

Packing Injector Bleeder Tool, 1/2-20 THD

1714C

WKM 1" - 14THD Lube Adapter w/Vent Cap

1716C

McEvoy 7/8" - 14THD Lube Adapter w/Vent Cap

1718C

Cameron 3/4" - 16THD Lube Adapter w/Vent Cap

14716-20C

1/4" NPTF x 7/16"-20 M Adapter
for Orbit Packing Injectors w/Vent Cap

1412-20C

1/4" NPTF x 1/2" - 20 M Adapter
for Daniel/WKM Type Packing Injectors w/Vent Cap



Kit is packaged in a handgun type plastic case with foam insulation for maximum protection.

Part #: VLAK



NOTE: Other Special Adapters/Fittings for Plug/Ball/Gate Valves available or manufactured upon request.

ALSO AVAILABLE FROM CLIMAX



6713-5

Note: This unit also available with the 90 series grease pump (Part #SL 90-5). Follow plate optional with both units.



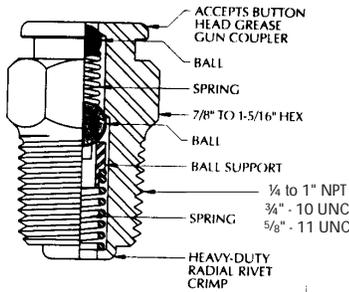
6713-4 CFS



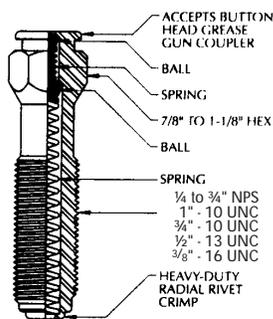
Spring & Follow Plate

CLIMAX VALVE FITTINGS

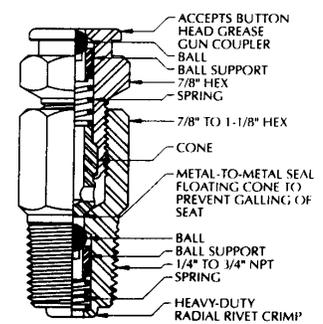
P - SERIES



H - SERIES



HF - SERIES



P - SERIES: A double-check one-piece fitting for extreme high pressure, temperature, acids. Also available: 1/2"-13, 5/8"-11, 3/4"-10, & 7/8"-9 NC Sizes.

H - SERIES: A double-check one-piece fitting. This is a combination lubricant screw & gun type fitting. Also available: 5/8"-11, 3/4"-10, & 7/8"-9 NC Sizes.

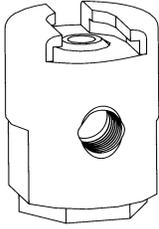
HF - SERIES: A double-ball-check two-piece metal-to-metal positive intermediate seal with floating cone to prevent galling of seat.

For Service to 10,000 PSI

CONVERSION CHART

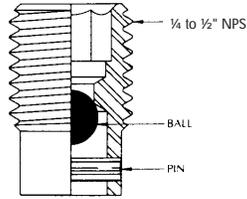
VALVE SIZE	NORDSTROM POWELL		WALWORTH		A.C.F.
1/2"	P-14	H-14	P-14	H-14	H-12A
3/4"	P-14	H-14	P-14	H-14	H-12A
1"	P-14	H-14	P-14	H-14	H-12A
1 1/2"	P-14	H-14	P-14	H-14	H-12A
Nordstrom					
2" Fig. #s 142-143	P-14	H-14			
2"	P-38	H-38	P-14	H-14	H-58A
2 1/2"	P-38	H-38	P-38	H-38	H-58A
3"	P-12	H-12	P-38	H-38	H-34A
4"	P-12	H-12	P-12	H-12	H-34A
6"	P-34	H-34	P-12	H-12	H-34A
8"	P-34	H-34	P-12	H-12	H-34A
10"	P-34	H-34	P-34	H-34	H-34A
12" 14" 16"	P-34	H-34	P-34	H-34	

Giant Button Head Coupler



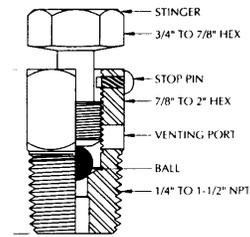
With Pressure Release or Plug
Fits 7/8" Dia. Button Head Fittings
& adapts to Grease Gun via 1/4" NPT female thread.
Standard Button Head Coupler also available to fit
5/8" Dia. (Dime Size) Button Head Fittings

Internal Check Fitting



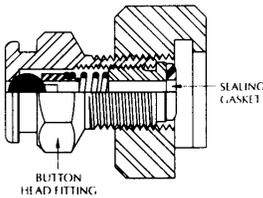
CV-14
(1/4" NPS)
Single Ball (Floating)
For Service to 10,000 PSI

Body Vent (Bleeder) Fitting

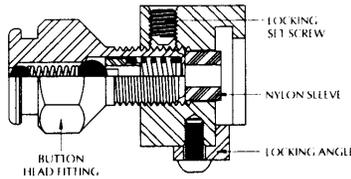


7834
(1/2" NPT)
Standard Hex Head Style
For Service to 10,000 PSI

Auxiliary Fittings
for temporary sealing of
leaking Giant or Standard Button Head fittings.



AUX 1200
Standard Type

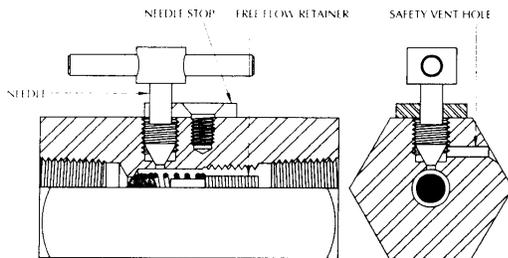


AUX 1200-LO
Nylon Insert / Lock-On Style

AUX 1200
Standard Type



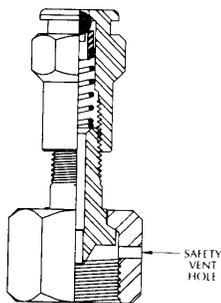
Safe Vent Coupler



SVC

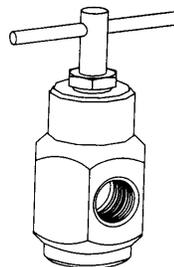
Grease Gun Lube Adapter with Pressure Release & Check.
Adapts to Grease Gun Hose via 1/4" NPT Female Port.
Can be purchased with or without Lube Adapter.
Available w/ 1" - 14 THD WKM/API
7/8" - 14 THD McEvoy
3/4" - 16 THD Cameron

Combination Grease Gun Lube Adapter



1714
with Giant Button Head & Ball Check
Available w/ 1" - 14 THD WKM/API
7/8" - 14 THD McEvoy
3/4" - 16 THD Cameron

Pressure Relief Tool



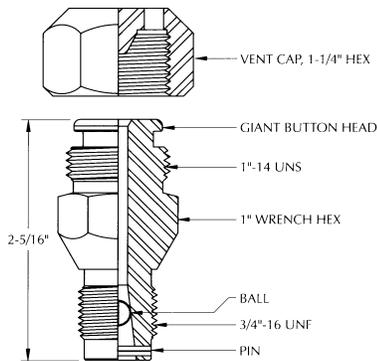
PRT-12
For 1" - 14 UNS Vented Cap Fittings
1/2" NPT Vent Port

Pressure Gauge



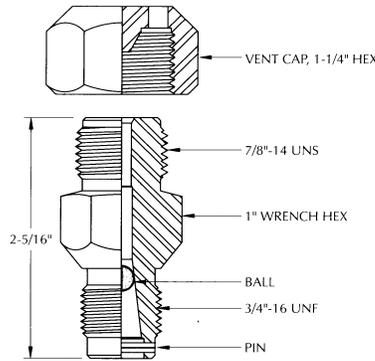
169950
0 - 15000 PSI, Cast Brass,
Glycerin Filled
with Rubber Protector (169951)

Combination Compound Fittings



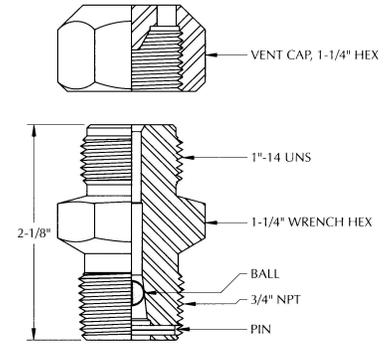
1234B-M114

Compound Fittings



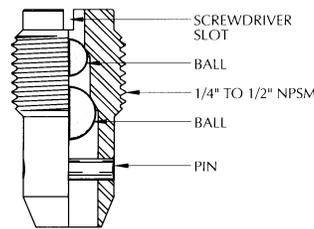
1234-M78

Large Compound Fittings

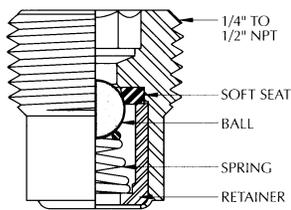


1234-C114

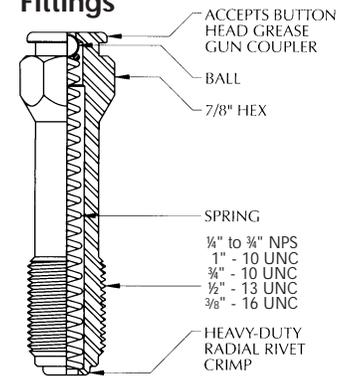
Internal Double Ball Check Fittings (Floating)



Internal Single Ball Check Fittings Soft Seat, Spring Biased

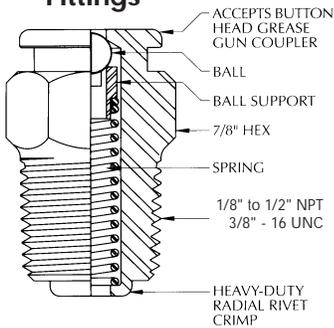


H - Series Single Ball Check Fittings

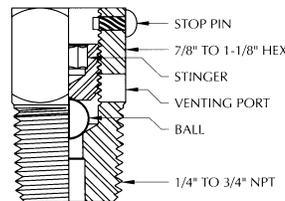


For Service to 10,000 PSI

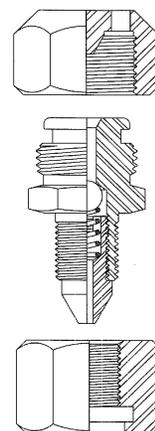
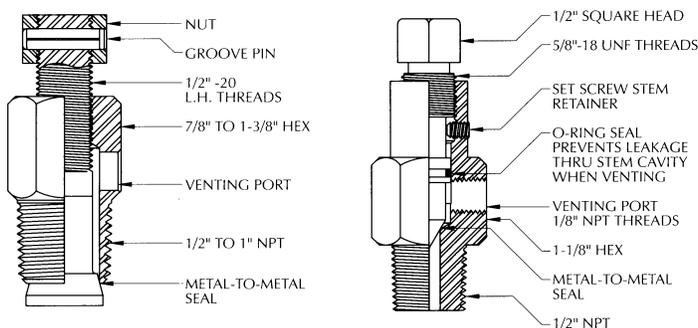
P - Series Single Ball Check Fittings



Body Vent (Bleeder) Fittings Hex Socket Head Style



Optional Style of Body Vent (Bleeder) Fittings

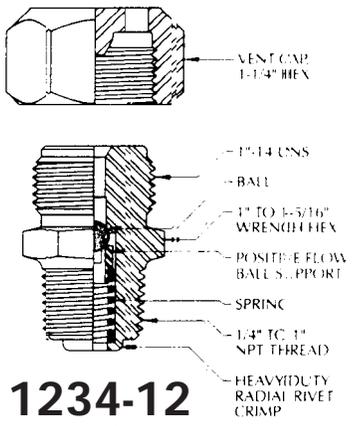
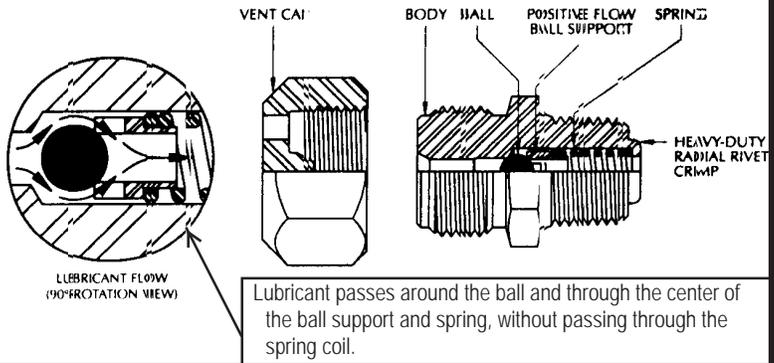


1200PSC-AUX
to fit Giant Button Head
Steel Cone Type for Positive Seal

MOST VALVE FITTINGS ARE AVAILABLE IN 1215, 316SS OR 4140 MATERIALS.

OUR STANDARD BODY GREASE FITTING features the Positive Flow Ball Support. This design directs the flow of the lubricant and/or sealant through the center of the spring without passing through the spring coil, reducing the tendency to "pack-off". The positive Flow Ball Support is available in many other fitting styles.

Another feature of the standard body grease fitting is the heavy-duty radial rivet crimp. This special crimp provides the best "blow-out" protection of any available crimped style fitting. The radial rivet crimp process conforms to the latest revision of NACE.

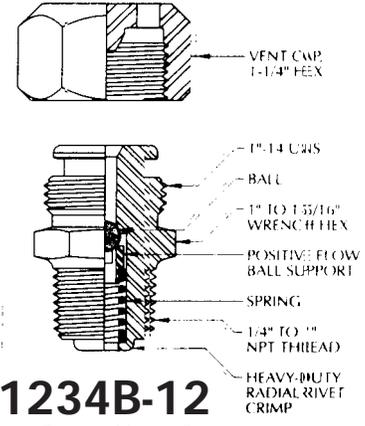


1234-12
Standard Style

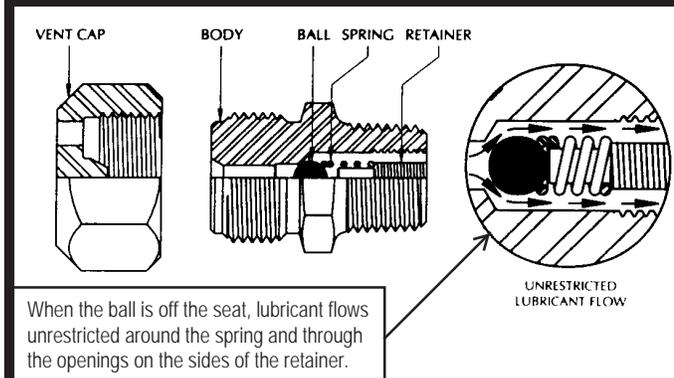
Vented Cap Body Grease Fittings

with Positive Flow Ball Support

For Service to 10,000 PSI

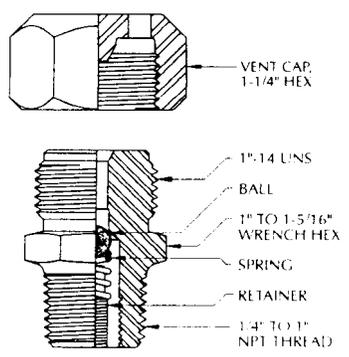


1234B-12
Giant Button Head Style



THE PATENTED FREE FLOW FITTING utilizes a unique spring retainer that is threaded into the body of the fitting. This special retainer also acts as a ball support and spring guide, and its design allows the Free Flow of lubricants and sealant around the spring, instead of through it.

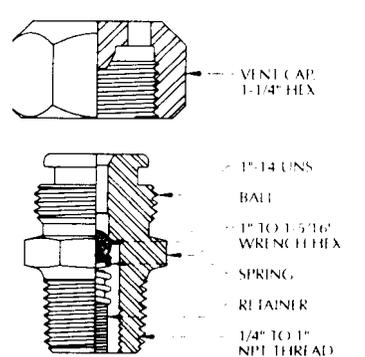
- Only unrestricted flow path on the market - the straight-line passageway significantly reduces tendency to "pack off."
- Guaranteed against "Blow Out" when used within design limitations of the fitting. Excellent in extreme cold environments.
- Increased flow rates due to unrestricted flow path.



1234-12FF
Standard Style

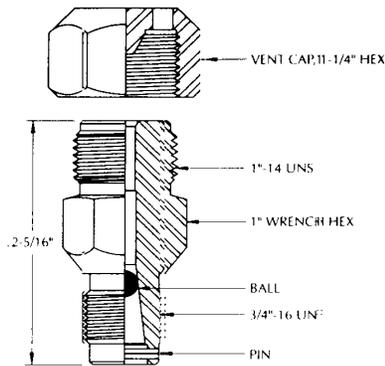
Free Flow Vented Cap Body Grease Fittings

For Service to 10,000 PSI



1234B-12FF
Giant Button Head Style

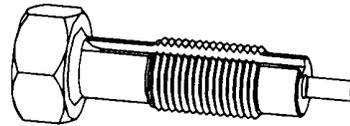
Vented Cap Body Grease Fitting with Floating Ball-Taper Cavity



1234-M114

3/4" - 16 UNF Engagement Thread
1" - 14 UNS Cap Thread

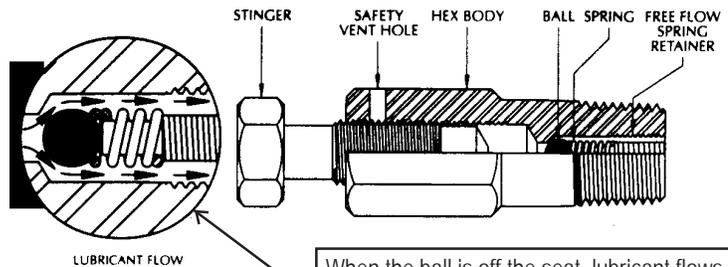
Pressure Relief Tool for Packing Injection Fittings



PIBT
(1/2" - 20 THD)

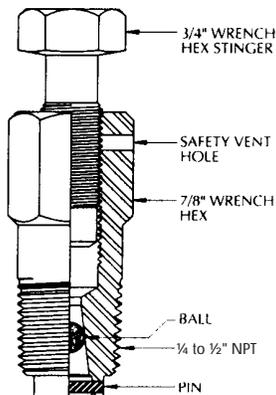
THE PATENTED FREE FLOW DESIGN OF THE BODY GREASE FITTING has been incorporated into our Packing Injection Fittings. Compared to standard floating ball designs, the Free Flow's specially designed spring retainer allows even the heaviest of lubricants and/or sealant to flow freely through the Packing Injection Fitting.

- Positive back seating is provided without relying on the presence of back pressure.
- Guaranteed against "Blow Out" when used within design limitations of the fitting. Excellent in extreme cold environments.
- Meets latest revision of NACE - no cold working of materials.



When the ball is off the seat, lubricant flows unrestricted around the spring and through the openings on the sides of the retainer.

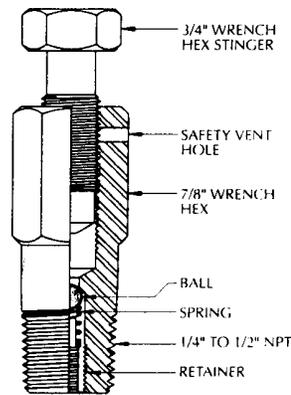
Packing Injection Fitting Floating Ball-Taper Cavity



PI-12
(1/2" NPT)

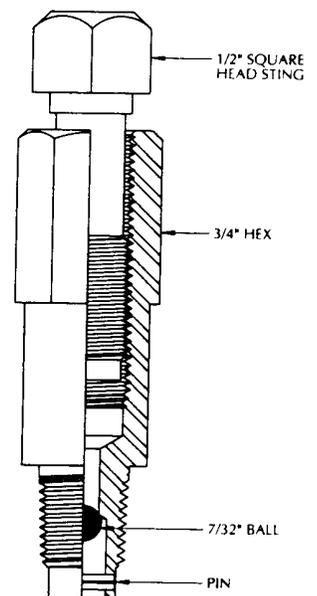
Also Available:
5/8" - 11 & 3/4" - 10 NC

Free Flow Packing Injection Fitting



PI-12FF
(1/2" NPT)

Injection Fitting Daniel Style - Senior Office



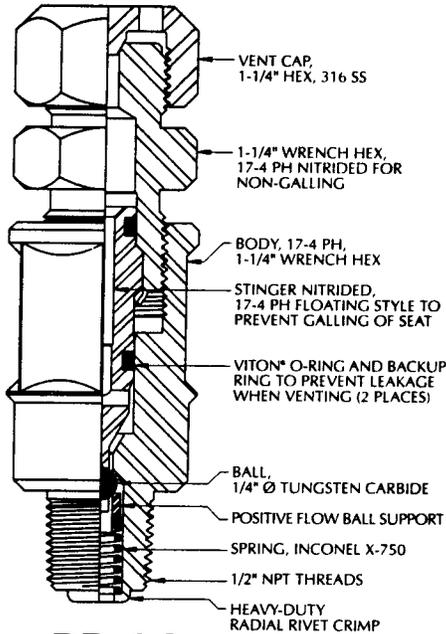
PI-14SS

"Grease Gun" 1/4" NPT

For Service to 10,000 PSI

High Pressure Lubrication & Sealant Fittings

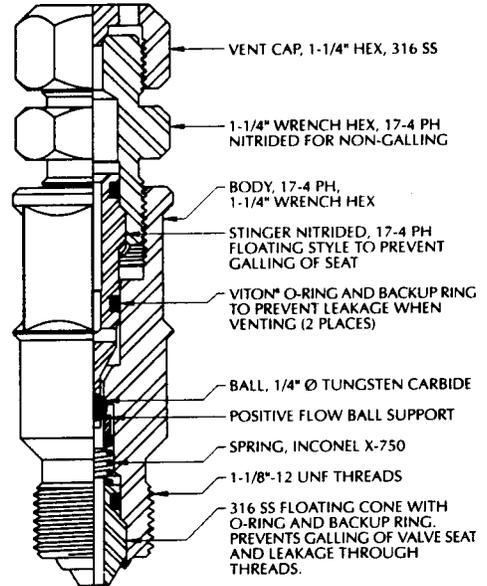
Blowdown Fitting 1/2" NPT



PR-14
WINN BLOW DOWN

For Service to 10,000 PSI

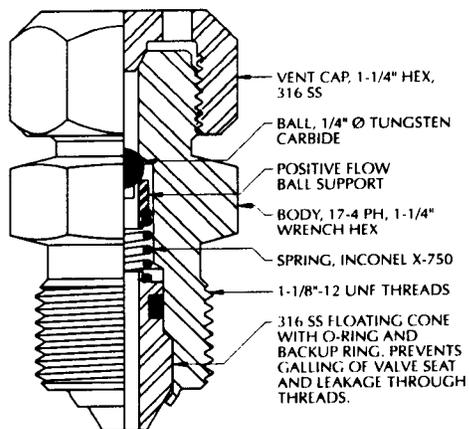
Blowdown Fitting 9/16" Autoclave Style



PR-14AC
WINN BLOW DOWN

For Service to 20,000 PSI

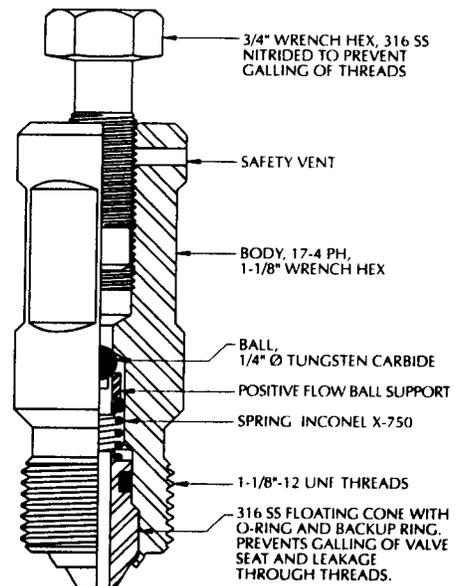
Lubrication (Sealant) Fitting 9/16" Autoclave Style



1236-VC

For Service to 20,000 PSI

Packing Injection Fitting 9/16" Autoclave Style



1236-PI

For Service to 20,000 PSI

CLIMAX VALVE STEM PROTECTORS

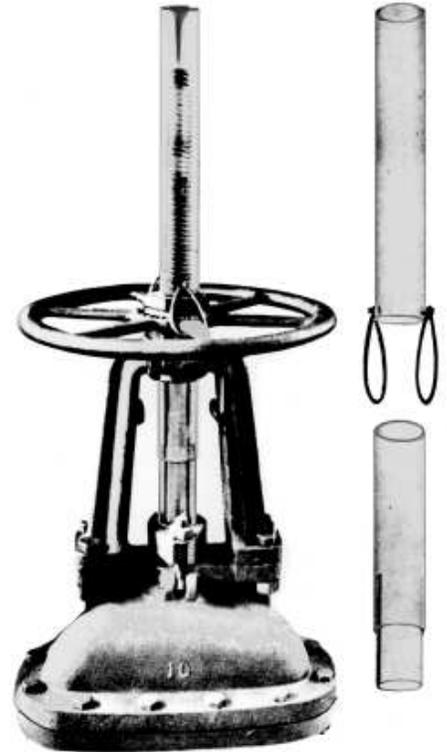
Patent No. 2,973,774

CLIMAX Valve Stem Protectors provide complete protection for threads on rising stem gate valves. Each set consists of two sections:

UPPER SECTION: unit has sealed top, slips over threaded stem above hand wheel. Special Neoprene Flexible Fasteners or Stainless Steel Springs clamp it in place securely, yet allow "give" to compensate for force of blows.

LOWER SECTION: unit has two telescoping split sleeves, permitting complete coverage of stem between yoke and packing gland.

CLIMAX Valve Stem Protectors, made of heavy-duty, clear plastic *Lexan, are resistant to heat, cold, and shock. You can see the position and condition of stem at all times, yet both stem and lubricants are protected from dirt, corrosion, etc. Sizes are available to fit practically every rising stem gate valve.



REGULAR VALVE STEM PROTECTORS WITH STAINLESS STEEL SPRINGS

Description	Set Part #	Upper Part #	Lower Part #
2", 3" & 4" GATE VALVES	C240	C241	C242
6" & 8" GATE VALVES	C680	C681	C682
10" & 12" GATE VALVES	C10120	C10121	C10122
14" GATE VALVES	C14140	C14141	C14142
16" & 18" GATE VALVES	C16180	C16181	C16182
20" & 24" GATE VALVES	C20240	C20241	C20242

All Motor-Operated Gate Valve Protectors Must Be Threaded
 Upper Sections Available with Threaded Ends, Standard Pipe Sizes
 * G.E. Trademark

CLIMAX VALVE STEM LUBRICANT S-100

There is no finer compound for protecting and lubricating the threads and stems of gate valves. Just brush it on for prevention of rust, corrosion, icing, heat and cold damage. Has natural silver color.



CLEAR PVC PLASTIC STEM PROTECTORS



Description	Part #	Additional Inches
j 1" N.P.T. X 12'	1310	Over 12" additional charge (per inch)
j 1½" N.P.T. X 12'	1900	Over 12" additional charge (per inch)
j 2" N.P.T. X 12'	2375	Over 12" additional charge (per inch)
j 2½" N.P.T. X 24'	2875	Over 24" additional charge (per inch)
k 3" N.P.T. X 24'	3500	Over 24" additional charge (per inch)
k 3½" N.P.T. X 24'	4000	Over 24" additional charge (per inch)
k 4" N.P.T. X 24'	4500	Over 24" additional charge (per inch)
k 5" N.P.T. X 24'	5500	Over 24" additional charge (per inch)
k 6" N.P.T. X 24'	6625	Over 24" additional charge (per inch)

j Lexan* or Clear PVC in these sizes
 *(Lexan is a G.E. trademark)
 k Acrylic or Clear PVC in these sizes
 Over 6" N.P.T. by Special Order, Call for Prices