VALVE INTEGRITY MADE EASY

CATALOGUE

VALVE CARE PRODUCTS

VALVE & ACTUATOR

MAINTENANCE

VALVE TECHNICIAN TRAINING





SEALWELD #106, 4116-64TH AVE. S.E. CALGARY, ALBERTA, CANADA T2C 2B3

1-800-661-8465

SEALWELD (USA), INC #118, 15421 VANTAGE PARKWAY W. HOUSTON, TEXAS 77032

1-800-624-4301

Always innovative, professional and dedicated, Sealweld[®]... valve integrity made easy.



Sealweld® products have proven reliable in over 90 countries worldwide since 1969. Our focus is on the safe reduction and elimination of pipeline valve leakage. We offer all of the tools you'll need with a one-stop shopping convenience that is not available elsewhere. When you shop with Sealweld®, you get access to the know-how that saves pipeline operators millions in unnecessary shutdown costs.

SEALWELD® SYNTHETIC VALVE LUBRICANTS & SEALANTS

Sealweld® Valve Care products are preferred by professional valve maintenance technicians around the world who have come to depend on our consistent quality and performance in routine use and in an emergency when a critical seal is demanded. Sealweld® Valve Care Products are recommended by many of the world's largest valve manufacturers and are recommended as "no substitute" by many of the world's largest pipeline operators and oil and gas companies for over forty years.

Our easy 3-step process of injecting Valve Cleaner Plus, Total-Lube #911 and Ball Valve Sealant #5050 sealant will resolve over 80% of all normal valve leakage problems in natural gas, crude oil and related hydrocarbon service conditions.

Sealweld® synthetic valve lubricants are formulated to remain soft and pliable, and will not break-down or go hard in order to achieve the longest possible in-service maintenance cycle.

Sealweld® synthetic valve sealants are unique and have no equal. They are designed to provide a reliable, temporary seal even in severely leaking valves.

SEALWELD® HIGH-PRESSURE SEALANT INJECTION PUMPS

Our line of injection equipment is designed by professional valve technicians to be the most rugged and reliable high-pressure pumps in the world. These pumps are easy to repair and designed for many years of reliable service in all working conditions. Dependable performance, in the most demanding field conditions, is what makes Sealweld® injection pumps so popular with field personnel.

SEALWELD® SEALANT INJECTION FITTINGS & ADAPTERS

The patented **Flow Wolf**® one-way check valve design has been incorporated into many of our fittings and adapters for increased technician safety and improved pipeline integrity. Extend the in-service life span of all of your critical valves many times over by specifying "**Flow Wolf**® – No Substitutes" when ordering new valves and during outages when fittings can be safely replaced.

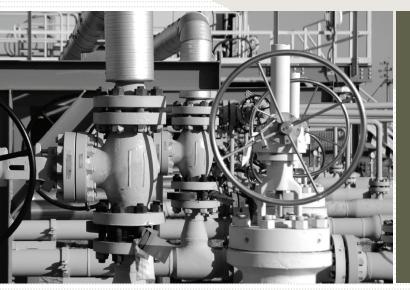
VALVEPRO® - VALVE TECHNICIAN CERTIFICATION PROGRAM

Learn all the basic procedures for servicing valves in-line and under pressure in a clearly defined step-by-step computer-based learning format. **ValvePro®** is designed by professional valve technicians with decades of experience.

It's ideal for new hires to learn the basics of preventative valve maintenance. This training program is effective as a refresher program for experienced field personnel who need a quick solution to a valve emergency situation.

ValvePro® encompasses proven learning techniques including; computer and web-based learning, instructor-led lectures, workshops and task competency testing. Students receive a PETEX - University of Texas Certificate of Completion. It can be complimented by instructor-led field training at your facility for advanced hands-on troubleshooting workshops.

Sealweld® is your single-source solution for all of your valve maintenance needs. Our dependable product line has a long history of saving pipeline operators from unscheduled shutdowns and outages. Our training products are designed to empower your maintenance personnel to work more safely and achieve reliable, consistent results. Sealweld® works with a global network of ValvePro-certified, independent valve service providers available for short and long-term valve maintenance service contracts who are specialized in a broad range of valve specialist services. www.valvepro.com



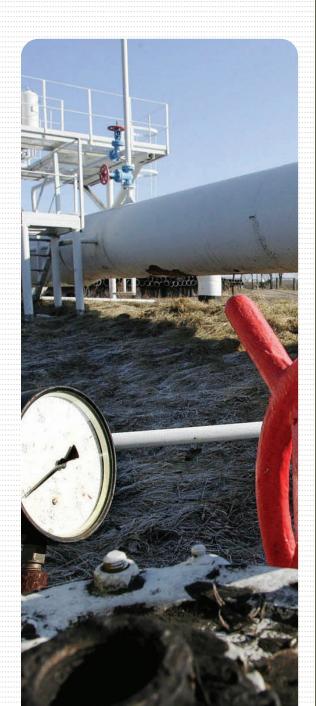
VALVE MAINTENANCE & SERVICE HINTS

KEY POINTS FOR SAFE VALVE MAINTENANCE

Effective valve maintenance can be accomplished using cleaners and introducing the proper lubricant at regular and frequent intervals. This will ensure efficient and safe operation of thousands of valves that are now being removed and repaired or discarded each year.

It has been suggested that increasing the frequency of servicing valves automatically places more grease into pipelines and other facilities. Not so. Injecting small amounts of our high quality and insoluble lubricants will protect moving parts inside your valve which will ultimately lead to using less lubricant.

Cleaning and lubricating a valve, like changing oil in a new car, is a MUST if economical operation and long life are expected.



- 1. ALWAYS get specific authorization from your supervisor or the control room BEFORE cycling (turning or operating) any valve in the system.
- 2. Do NOT open the body vent/drain fitting unless it is safe to do so.
- 3. Most gases are lethal in high concentrations. Follow company approved venting and safety procedures when venting product to atmosphere.
- 4. REMEMBER, many types of hydrocarbon liquids and gases can explode violently in certain mixtures and concentrations.
- 5. Take your time when servicing valves, be patient. The problems have taken many years to develop, it may take a few hours or even days to get some of the more difficult valves working properly again.
- 6. NEVER use excessive force or torque when trying to turn a seized valve. Excess torque may cause the valve stem to bend or break making the valve inoperable.
- 7. ALWAYS keep the high-pressure gauge on the sealant injection pump working properly.
- 8. Most hand-held sealant injection pumps are capable of generating 10,000 to 15,000 PSI. Learn to 'read' the high-pressure gauge attached to the pump.
- 9. Read the original maintenance manual supplied with the valve for specific details regarding safe valve maintenance routines.
- 10. Watch the needle on the gauge drop as sealant moves into the valve. If blockage occurs the needle will not drop. Stop pumping and inject Sealweld® Valve Cleaner Plus to open the passage.

CLEANING VALVES

Valves which hang up, are hard-to-turn or do not seal properly usually require cleaning. Inject sufficient quantities of cleaner to displace all of the lubricant/ sealant in the valve sealant system*. Leave the valve cleaner in the valve for at least 30 to 40 minutes and cycle the valve, if permitted, to ensure complete coverage. ALWAYS displace the valve cleaner with equal quantities of lubricant/ sealant after cleaning. For problem valves, leave the cleaner inside the valve for several days and top-up frequently. Tests prove that periodic lubrication with valve cleaner prevents formation of gums and lacquers in valves, preventing costly repairs and down-time.

* Consult the "Valve Lubricant/ Sealant Capacity Chart" on page 23.

Valve cleaner is used as an internal valve cleaning compound in ball, gate and plug valves, as well as orifice fittings. Use in wellhead valves, at pump and compressor stations and distribution systems. This product is ideal for use on valves with plugged sealant fittings, seat leakage problems or valves which are hard-to-turn. The best results are achieved by injecting while the valve is in the full open or full closed position. Purge valve cleaner from the system after use.

ALWAYS attach a Flow Wolf® Leak-Lock Adapter to the valve fitting prior to injecting valve cleaners.

TOPPING-UP LUBRICANT/ SEALANT

Routine maintenance often consists of topping-up the lubricant/ sealant in the valve sealant system.* The sealant system is a network of grooves and channels inside the valve leading to seal points around the ball, gate or plug. Quantities required to top-up any valve can vary greatly depending on the valve size, design, cycle frequency, service conditions and riser pipe height, if applicable. Use correct volumes of grease, too much and the excess is washed downstream, too little is a waste of time, money and manpower. Learn how to properly 'read' a high-pressure sealant injection gauge (mounted on the pump) to help determine when the sealant reaches the seal points.

* Consult the "Sealweld" Service Procedures Library" on page 18 for Technical Papers and Training Materials.

LUBRICANTS

Sealweld® synthetic valve lubricant is a grease-like substance designed to lower torque in valves, is resistant to deterioration by product flowing through the pipeline and is stable over a broad temperature range.

.* Consult the "Cleaners, Lubricants & Sealants" section on pages 25 - 39.

LUBRICANT/ SEALANTS

Lubricant/ sealants are similar in characteristics to

valve lubricants, with added bridging agents to provide sealing ability for minor damage such as scratches on seal faces.

EMERGENCY SEALANTS

The introduction of heavy sealants provides the ability to achieve a reliable, temporary seal even if more serious seal damage has occurred. ALWAYS displace extra heavy sealant and double extra heavy sealant with a lighter lubricant/ sealant when the seal is no longer required to avoid the risk of plugging complications at some future date. Valves which constantly require extra heavy sealant should be adjusted, repaired or replaced.

VALVE STEM PACKINGS

Sealweld® also manufactures a complete product line of semi-liquid and injectable packing compounds for valve stems, pump glands and stuffing boxes. Our packings are designed to lubricate and seal and extend seal life many times over. Our newest product, Sealweld® **Steam Shield Sticks** valve stem packing is performing exceptionally well in temperatures up to + 370°C (+ 700°F) and beyond.

For safety reasons, the removal of stem packing should NOT be attempted while the valve is under pressure.

INJECTION TECHNIQUES

The best results are achieved by injecting while the valve is in the fully open or fully closed position. When attempting to seal a valve, if leakage persists, check the valve stops to ensure the valve is fully closed.

VALVE FITTINGS

Many existing lubricant fittings have a two-piece body construction. Some valve manufacturers install this type at the factory. Usually reliable, the fitting pieces have been known to separate under pressure causing serious injury or fatality. Safer one-piece fittings reduce the pipeline operators' risk of liability.

Due to the absence of industry standards, many dangerous types of fittings have been put into service. Fitting failure is the #1 cause of technician injury and/or death.

Sealweld® has invested many years of research and development into designing the Flow Wolf® and has obtained Alberta Boilers Branch approval for our Flow Wolf® Internal Check Valves, Flow Wolf® Sealant Injection Fittings, and Sealweld® Body Vent Fittings. Certified fittings are stamped with a Canadian Registration Number.

COMMISSIONING NEW VALVES

Most valve seal damage occurs during construction and commissioning because this is when the most foreign debris is in the system. Sealweld® has developed simple and proven effective procedures for eliminating the most common reasons for seal damage. These procedures are proven cost-effective and can add many years to the service life of all types and brands of valves.

New Valve Commissioning has been included in the **ValvePro®** - Valve Technician Certification program. Call Sealweld® for more information.

All of our technical papers are available on our web site at www.sealweld.com.

CAUTION

ALWAYS consult the valve manufacturer's service manual BEFORE attempting any maintenance procedure.

FOLLOW THESE SIMPLE PROCEDURES TO PREVENT THE LOSS OF PRODUCTION, REDUCE DOWN-TIME AND COSTLY REPAIRS. For procedures for the safe, in-line servicing of valves under pressure, we recommend ValvePro®, the Certified Valve Maintenance Technician Training Program. For more information and to register, go to: www.valvepro.com

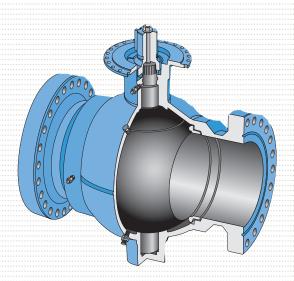
BALL VALVES

VALVE SEAT LEAKS

Inject Sealweld® **Valve Cleaner Plus** then cycle the valve 3 times (if permitted). Wait 30 to 40 minutes and cycle again. If there is no physical damage to the seals this will be all that is required. The cleaning procedure will remove the build-up of contaminants from seal faces, allowing the seat rings to sit down tightly on the ball. Purge the cleaner by injecting an equal amount of lubricant or sealant. In new valves or valves with no seat damage inject **Equa-Lube Eighty**. If the seat leakage rate is minor, inject **Total-Lube #911**. In cases of severe seat leakage, inject Sealweld® **Ball Valve Sealant #5050**.

VALVE STEM LEAKS

If the valve is equipped with a buttonhead sealant injection fitting in the stem seal area, inject Sealweld® **Ball Valve Sealant #5050**. DO NOT exceed 3,000 PSI injection pressure. Refer to the Valve Maintenance and Servicing Hints available from Sealweld® and follow these simple procedures to help reduce the loss of product, down-time and costly repairs.



ALL OF THE SEALWELD® COMPOUNDS
REFERRED TO MAY BE INJECTED USING
SEALWELD® SEALANT INJECTION EQUIPMENT
OR ANY OTHER TYPE OF HIGH-PRESSURE
MANUAL OR PNEUMATIC INJECTION PUMP.
DO NOT USE LOW-PRESSURE AUTOMOTIVE
PUMPS.

SEE THE SEALWELD® INJECTION EQUIPMENT SECTION FOR ADDITIONAL INFORMATION.

GATE VALVES

VALVE SEAT LEAKS

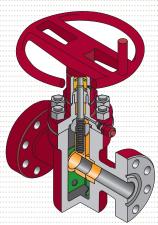
When injecting product directly into the body cavity, the injection pressure should NEVER exceed the maximum rated working pressure (MWP) of the valve. Inject Sealweld® Valve Cleaner Plus, allow the cleaner to soak from 30 - 40 minutes and up to 24 hours. Cycle the valve 3 times to spread the cleaner. Follow up by injecting Total-Lube #911 and cycle the valve repeatedly. Always consult the original valve manufacturer's maintenance manual.

VALVE STEM LEAKS

If equipped with a packing injector, inject Sealweld® Slick Sticks.

WELLHEAD GATE VALVES

Field Operators around the world have discovered that the use of Sealweld® synthetic lubricants will extend the service life of the valve. The have found it reduces maintenance frequency which leads to increased production and minimizes downtime. Contact Sealweld® directly for recommendation of which product is best suited for your field conditions.



PLUG VALVES

SEIZED OR HARD-TO-TURN

Calculate the quantity required*, then fill with **Valve Cleaner Plus**. Wait 30 minutes, cycle the valve repeatedly, then inject the same quantity of **Total-Lube #911**.

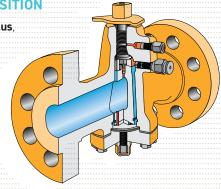
* Consult the "Valve Lubricant/ Sealant Capacity Chart" on page 23:

STEM PACKING LEAKS OR VALVE IS STILL HARD-TO-TURN

For plug valves equipped with stem packing such as threaded-stem plug valves - use the following procedure. Once the pressure in the valve is relieved, remove the plug from the opposite side of the packing injector, dig out the old packing and fill the cavity with **Valve Cleaner Plus** to soften and breakdown any dried up product. Replace the plug. Load the stem packing injector with Sealweld* **Slick Sticks** and repack the valve stem by turning the bolt in until it is tight. This may take several sticks. If the plug valve stem is leaking but the valve turns easily - simply load the packing injector with Slick Sticks to repack.

VALVE LEAKS IN CLOSED POSITION

After cleaning with Valve Cleaner Plus, inject Sealweld® Total-Lube #911 Lubricant/ Sealant.





VALVE & ACTUATOR MAINTENANCE

SEALWELD® SERVICES DIVISION

Sealweld® Valve Specialists are experts at servicing all makes and types of lubricated valves and actuators. In the past few years our service department has saved clients over 1 billion dollars by helping prevent emergency shutdowns.

Sealweld® Services has been granted Master Service Agreements with many of the world's largest oil & gas companies and pipeline operators. We are registered in ISNetworld, Canqual, and other contractor management providers.

We do NOT sell valves or maintain a large valve repair facility - all of our focus is concentrated on keeping the valve in line and avoiding costly shutdowns.

Our speciality in the industry is achieving the maximum life span for all critical service valves.

- · In factory pre-delivery inspection
- · New valve commissioning during construction
- · Valve seal verification prior to handover
- Annual valve maintenance contracts
- · Actuator installation, maintenance and minor repairs
- Sealing valve stem leaks, seat leaks, body leaks, flange leaks, fitting leaks
- Maintaining an emergency seal for the duration of the critical outage
- Transferring our technology to your operations and field personnel
- · In-line ultrasonic leakage measurement

SEALWELD® EMERGENCY VALVE SEALING SERVICES

Sealweld® Chameleon Seal – this specialized Sealing technique has an amazing 98% success rate proven effective over the past 15 years on hundreds of large diameter ball and gate valves.

Uses:

- · Leakage across the seats
- · Body leakage problems
- · Bonnet leakage problems

Call Sealweld® Services for a comprehensive services proposal.

CONTACT SEALWELD® FOR ADVICE, PROCEDURES, VALVE SPECIFIC INFORMATION

ROUTINE VALVE MAINTENANCE

- Annual / Routine Preventative
 Maintenance Lubricated Ball, Plug
 & Gate Valves
- Actuator and Gearbox Maintenance
- Testing Seat Sealing Integrity

IN-LINE & UNDER PRESSURE TROUBLESHOOTING

- · Emergency Valve Sealing
- Seized / Hard-to-Turn Valves
- · Internal Seat Leakage
- Stem Leakage
- Orifice Fitting Leakage
- · Body Leakage
- · Flange Leakage
- · Launcher/Receiver Leakage
- Actuators & Controls

VALVE & ACTUATOR REPAIRS

- Stem Seal Change-Out
- Refurbishing Old & Worn Mechanical Parts
- Procurement and Installation of Replacement Parts & Seals

CONSULTATION

- Preventative Maintenance Planning
- Valve Site Surveys
- Valve Maintenance Programs
- Valve Health Audits
- Fitting Inspection/Replacement
- Documentation / Reporting
- Training
- Procurement Consultation
- Outage Planning
- Valve Manufacturer Audits

NEW VALVE / ACTUATOR COMMISSIONING

- Fitting Inspection
- Valve Seat Lubrication
- Seat Integrity Test Inspect& Adjust Travel Limits
- Actuator Installation and Calibration

WWW.SEALWELD.COM or +1-403-236-0043

- WELLHEADS GAS DISTRIBUTION LARGE DIAMETER PIPELINES SUB-SEA
 UNITED NATIONS APPROVED GAS CENTRE METHODOLOGIES
- · U.S. EPA STAR PROGRAM APPROVED · ASK SEALWELD® FOR MORE INFO •







TRAINING & TECHNOLOGY TRANSFER

Sealweld® takes great pride in our philosophy that knowledge is meant to be shared. This has been the cornerstone of our training division for over 40 years.

Technology Transfer is a two way process. For all the ideas and procedures we provide to our students, they return in kind their ideas and experiences – what works and what doesn't. Over the past 40 plus years we have proudly provided training to over 25,000 field technicians and have collected and documented hundreds of effective site specific procedures, ideas and proven methods that work around the problem to avoid a shutdown.

We can deliver proven and effective valve technician training developed and refined over hundreds of instructor led sessions.

- · Basic Valve Technician Training
- Repair and Maintenance of High Pressure Grease Guns and Sealant Pumps
- · Valve Actuator Maintenance and Troubleshooting
- Advanced Troubleshooting Techniques

SEALWELD® CUSTOMIZED FLEX TRAINING

Sealweld® can customize a training package tailored to meet the needs of your personnel for the specific valves & actuators at your facility.

Sealweld® Training can be delivered at your facility with special attention given to troubleshooting specific problem valves thus providing a real added value to the training experience.

SEALWELD® ONE DAY VALVE MAINTENANCE AND SAFETY SEMINAR

The full day seminar consists of two parts: a morning classroom session followed by an interactive "hands-on" demonstration at the client's valve site, workshop or field office.

The Sealweld® on-site "Valve Maintenance and Safety Seminar" is designed for valve technicians, operators and safety personnel, and is presented from their point of view – with many helpful hints on how to perform their job safely and effectively.

Following the procedures discussed in the seminar will save countless valves from ending up in the scrap heap, not to mention the down time and man hours lost to unscheduled repairs. The "Hands On" portion of our presentation allows the participants the opportunity to put the theory to use. On many occasions this portion of the seminar has saved at least one valve thereby offsetting the entire cost of the seminar.

The classroom session usually runs three to four hours, depending on class participation. Teaching aids include computer animation, overheads and cuta-a-ways to assist in the visualization of the working principles of sealant injection fittings, injection pumps, Plug, Ball, and Gate lubricated valve types.

Safety is a major part of the seminar and we spend all the time necessary to ensure attendees understand the proper handling of High Pressure Pumping Equipment, and the principles of servicing valves under pressure. The "Hands On" session usually requires three hours and it is in this portion of the program that we demonstrate the safe application of various valve servicing techniques.



VALVEPRO® - VALVE TECHNICIAN TRAINING Training That Works

ValvePro® is a comprehensive training and qualification program aimed at the people responsible for the servicing and maintenance of valves.

COMPUTER-BASED TRAINING (CBT) ONLY (ACCESS TO THE VALVEPRO® WEB-BASED LEARNING CENTER)

This read-only reference version of the ValvePro CBT module will appeal to all departments including engineering operations, procurement, environmental and, of course, maintenance.

COMPUTER-BASED TRAINING WITH TESTING

You can purchase the CBT Software License separately from the full package as a standalone resource or as a step towards Certified Valve Maintenance Technician (CVMT) designation at a later date with tests included. This option is suitable for Management or personnel who need the knowledge but are not actively servicing equipment.

- · Learn how to safely service valves in-line and under pressure.
- · Learn how to extend valve service life.
- Develop a checklist of everything to be done to properly service your equipment.
- Perform a complete valve health check including before and after service leakage verification.
- Demonstrate your qualification to comply with Occupational Health and Safety legislation.
- · Free a seized ball, gate or plug valve safely.
- Seal stem and seat leakage from all makes and types of lubricated valves.
- Safely inject cleaners, lubricants, sealants and emergency sealants into valves under pressure.
- · Avoid costly mistakes by ensuring workers have the skills they need.
- Save time and frustration knowing the service job has been done right the first time.
- · Troubleshoot inoperable lubrication equipment.

FULL TRAINING WITH CERTIFICATION

The complete package leading to Certified Valve Maintenance Technician (CVMT) designation includes the Computer-Based Training module plus a 3-day certification 'hands-on' sessions. This option is ideal for the person in the field. We have 2 training facilities, 1 in Calgary, Alberta and 1 in Texas. The first 2 days are spent in our classroom and training lab. On the final day of the seminar, students will complete competency testing in our training lab one-on-one with the instructor to prove their skills and earn their certification.

HERE'S WHAT TO EXPECT FROM THE VALVEPRO® TRAINING PROGRAM:



GO TO WWW.VALVEPRO.COM FOR INFORMATION AND VIST OUR TRAINING PORTAL AT WWW.VALVEPRO.NET

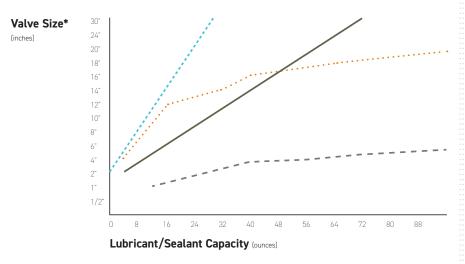
AVAILABLE IN ENGLISH, SPANISH AND RUSSIAN







VALVE LUBRICANTS/ SEALANT CAPACITY CHART



Ball Valve

Ball Valve

Gate Valve Seal

Gate Valve Body

*Use as a guideline only. Always refer to the original valve manufacturer's maintenance manual for valve specific information

BALL VALVES

Inject approximately 1 ounce of lubricant/ sealant per inch of valve size into each seat ring.

Example: 10" ball valve x 2 seat rings = 20 ounces lubricant/ sealant

GATE VALVES

Pipeline gate valves with seat sealant systems require approximately 0.5 ounces of lubricant/ sealant per inch of valve size into each seat ring.

Example: 4" gate valve x 2 seat rings = 4 ounces lubricant/ sealant

CONTACT SEALWELD® FOR VALVE CAPACITY CALCULATION TABLES.

WELLHEAD GATE VALVES

Refer to original manufacturer's manual or contact a Sealweld® representative.

PLUG VALVES

4" & smaller: 1 ounce/inch size

Example: 4" plug valve x 1 ounce = 4 ounces lubricant/ sealant

6" to 14": 1.5 ounces/inch size

Example: 10" plug valve x 1.5 ounces = 15 ounces lubricant/ sealant

14" to 18": 2.5 ounces/inch size

Example: 16" plug valve x 2.5 ounces = 40 ounces lubricant/ sealant

18" & larger: 3.5 ounces/inch size

Example: 24" plug valve x 3.5 ounces = 84 ounces lubricant/ sealant

SEALANT CAPACITY FOR HOSES & RISER PIPES

Use the following calculation to determine how much lubricant/ sealant you need to get the job done right, the first time!

VALVE CAPACITY + HOSE CAPACITY + RISER PIPE CA	APACITY = TOTAL QUANTITY REQUIRED
1/4" inside diameter hose requires approximately 0.5 ounces per foot*	Example: 1/4" ID x 18" sealant hose = 1.5 foot sealant hose x 0.5 ounces = 0.75 ounces hose capacity
3/8" inside diameter hose requires approximately 1.3 ounces per foot	Example: 3/8" ID x 60" sealant hose = 5 foot sealant hose x 1.3 ounces = 6.5 ounces hose capacity
1/2" inside diameter hose requires approximately 2 ounces per foot	Example: 1/2" ID x 160" sealant hose = 10 foot sealant hose x 2 ounces = 20 ounces hose capacity Example: 1/2" ID x 8 foot* risers x 2.0 ounces x 2 riser pipes = 32 ounces riser pipe capacity
3/4" inside diameter hose requires approximately 4	Example: 3/4" ID x 160" sealant hose = 10 foot sealant hose x 4 ounces = 40

One foot equals 12 inches/30 cm. One ounce equals 28 grams/0.03 kg. Contact Sealweld for free valve volume spreadsheets.



VALVE CLEANERS, LUBRICANTS & SEALANTS

SEALWELD® VALVE CLEANER PLUS

This non-hazardous, environmentally friendly product is designed to clean important valve seal faces and internal sealant passages.

In many cases, simply cleaning the seat sealant system and/or valve body will loosen seized metal components and clean build-up and debris from critical sealing surfaces. In many cases this may solve the problem. Always start with cleaning.

DESCRIPTION

Valve Cleaner Plus is not a sealant, it is a combination of solvent and semi-synthetic lubrication oils formulated to be injected directly into the seat sealant system to clean important seal faces and sealant passages. Cycle the valve (if permitted) to ensure complete coverage, to allow the valve cleaner to soften old sealants and remove residual build-up from seal points. Valves with severe or persistent leakage may require more wait time. The best results are achieved by displacing the valve cleaner with equal quantities of lubricant/ sealant after cleaning. This product is recommended for use in ball, gate or plug valves and orifice fittings. It's also designed for use at refineries, wellheads, pump or compressor stations and in gas distribution systems.

- Non-Flammable
- · Non-Carcinogenic
- · Non-Ozone Depleting



Product Specifications

Base Oil	Semi-synthetic	
Colour	Black	
Drop Point	+ 235°C or + 455°F	
Texture	Thin paste	
Pressure	10,000 PSI	
ASTM Penetration	250 - 340	
Compatibility	Dispersant	
Solvent Resistance	N/A	
Special Additives	Molybdenum Disulfide	
Composition	Semi-liquid	
Temperature Range	- 40°C to + 204°C	
	- 40°F to + 400°F	

Order Details

: 10 Ounce Cartridge - 1 Single	S-VCP-HG	
14 Ounce Cartridge - 1 Single	S-VCP-SG	
10 Ounce Cartridges - 16 per Case	S-VCP-HGC	
14 Ounce Cartridges - 12 per Case	S-VCP-SGC	
9 Pound Can	S-VCP-9P	
36 Pound Pail	S-VCP-36P	
110 Pound Drum	S-VCP-110D	
360 Pound Drum	S-VCP-360D	_

BE PATIENT! LET VALVE CLEANER SOAK OVERNIGHT IF NECESSARY.

SEALWELD® ODYSSEY INDUSTRIAL CLEANING SOLVENT

Industrial cleaner.

DESCRIPTION

Sealweld® Odyssey Cleaning Solvent is a synthetic industrial cleaning solvent. This product is excellent at removing heavy deposits of grease, lubricant, and heavy oils, as well as sludge and dirt from metal parts. Odyssey Cleaning Solvent will not harm metal, most types of rubber, plastic or concrete. It is excellent for dissolving asphaltene build-up and has many other uses in the industrial marketplace. Odyssey Cleaning Solvent does not contain water and is not water-soluble, on the contrary, it leaves behind a protective barrier that inhibits spot rust. This non-flammable, non-hazardous, and non-polluting solvent is as safe for the person using it as it is for the environment.

- Use as a valve body flushing solvent for seized or hard-to-turn valves
- · Non-Flammable
- Non-Hazardous
- Non-Polluting

EQUA-LUBE EIGHTY

Our most economical, light synthetic lubricant is ideal for commissioning new pipeline valves. Use in ball, gate and plug valves with little to no wear, as well as orifice fittings.

Ideal for year-round use and in all climates.

DESCRIPTION

Sealweld* Equa-Lube Eighty provides an insoluble film of lubricant to protect critical seal faces and reduce torque requirements. Extend valve service life by injecting Equa-Lube Eighty immediately after the hydrostatic test at the valve factory or repair facility. This will purge all test water from the seat pockets where corrosion commonly occurs. It protects against damage

from pipeline contaminants, such as dirt, sand, line scale and welding slag at start-up. This product is insoluble in water, crude oil, natural gas, condensate and related byproducts.

This product is recommended for use in new valves, wellhead valves, at refineries, pump and compressor stations andin gas distribution systems.



Product Specifications

Temperature Range $-79^{\circ}\text{C to} + 81^{\circ}\text{C}$ $-110^{\circ}\text{F to} + 178^{\circ}\text{F}$

Order Details

Ordering Size	Part No.
Spray Bottle	K-0S-SB
Bottle - 4 Liters	K-0S-4L
Pail - 5 Gallons	K-OS-5G
Drum - 45 Gallons	K-0S-45G



Product Specification

Synthetic
Amber/ Brown
None
Tacky
10,000 PSI
210 - 290
Excellent
Excellent
None
N/A
Semi-liquid
- 40°C to + 149°C
- 40°F to + 300°F

Order Details

Ordering Size	Part No.
'J' Stick - 1-3/8" x 8-1/2" - 1 Stick	S-EQ-J
'J' Stick - 1-3/8" x 8-1/2" - 16/Box	S-EQ-16J
16 Ounce Brush Top Can	S-EQ-BT
16 Ounce Brush Top Can - 12/Case	S-EQ-BTC
11 Ounce Cartridge - 1 Single	S-EQ-HG
15 Ounce Cartridge - 1 Single	S-EQ-SG
11 Ounce Cartridges - 16/Case	S-EQ-HGC
15 Ounce Cartridges - 12/Case	S-EQ-SGC
10 Pound Can	S-EQ-10P
40 Pound Pail	S-EQ-40P
120 Pound Drum	S-EQ-120D
400 Pound Drum	S-EQ-400D

SEALWELD® TOTAL-LUBE #911

Our superior grade synthetic lubricant/ sealant is designed specifically for worn valves with minor leakage problems.

DESCRIPTION

Sealweld* Total-Lube #911 provides an insoluble film of lubricant to protect seal faces and reduce torque requirements. Microscopic particles of PTFE will seal minor scratches to sealing surfaces and shallow corrosion pits up to 0.010". It is designed specifically as an all-purpose seat lubricant/ sealant to extend the maintenance interval in severe and critical service valves. #911 is insoluble in water, oil, natural gas, related by-products and suitable for use in sour service valves.

Total-lube #911 is recommended for use in ball, gate, and plug valves as well as orifice fittings. Use this product at refineries, wellheads, pump or compressor stations and in gas distribution systems.

Custom stick sizes are available by special request and are subject to minimum order quantities.

Contact a Sealweld® representative for a quotation.



Product Specification

Base Oil	Synthetic
Colour	White
Drop Point	None
Texture	Tacky
Pressure	10,000 PSI
ASTM Penetration	170 – 250
Compatibility	Excellent
Solvent Resistance	Excellent
Special Additives	PTFE
Particle Size	Micronized
Composition	Semi-liquid
Temperature Range	- 29°C to + 232°C
	- 20°F to + 450°F

Order Details

Ordering Size	Part No.
'B' Stick - 3/8" x 1-1/2" - 72/Box	S-TL-72B
'J' Stick - 1-3/8" x 8-1/2" - 16/Box	S-TL-16J
11 Ounce Cartridge - 1 Single	S-TL-HG
15 Ounce Cartridge -1 Single	S-TL-SG
11 Ounce Cartridges - 16/Case	S-TL-HGC
15 Ounce Cartridges - 12/Case	S-TL-SGC
10 Pound Can	S-TL-10P
40 Pound Pail	S-TL-40P
120 Pound Drum	S-TL-120D
400 Pound Drum	S-TL-400D

SEALWELD® BALL VALVE SEALANT #5050

A synthetic sealant recommended for use in pipeline valves with more severe leakage problems.

DESCRIPTION

Sealweld® **Ball Valve Sealant #5050** provides an insoluble film of lubricant to protect seal faces and reduce torque requirements. Specially processed particles of PTFE will seal scratches to sealing surfaces up to 0.030". It will not harden or plug off conventional giant buttonhead sealant injection fittings. **#5050** is ideal for use in natural gas, oil, and related by-products. Use in ball, gate and plug valves, orifice fittings, valve stems and seat seals with minor to severe leakage problems. Use at refineries, wellheads, pump or compressor stations and in gas distribution systems. This product is suitable for crude oil, sour gas, CO₂, water/ brine solutions, and refined petroleum product pipelines.

For best results, first inject Sealweld® Valve Cleaner Plus, then leave in the valve for 30 - 40 minutes (up to 8 hours for problem valves). Purge the system with Sealweld® Total-Lube #911. Inject #5050 if #911 fails to hold a reliable seal.

#5050 is also available in heavier grades for severely leaking valves and emergency valve sealing conditions.

Extra heavy grades are blended with increasing amounts of PTFE. **#5050** is designed for use by qualified technicians ONLY. Contact Sealweld® for consultation prior to application of these products.

Colour	Green
Drop Point	None
Texture	Tacky
Pressure	10,000 PSI
ASTM Penetration	200 – 250
Compatibility	Excellent
Solvent Resistance	Excellent
Special Additives	PTFE
Particle Size	Semi-micronized
Composition	Semi-liquid

Synthetic

- 29°C to + 232°C

- 20°F to + 450°F

Product Specification

Temperature Range

Base Oil

Order Details Ordering Size Part No. 11 Ounce Cartridge - 1 Single S-VS-HG 15 Ounce Cartridge - 1 Single S-VS-SG 11 Ounce Cartridges - 16/Case S-VS-HGC 15 Ounce Cartridges - 12/Case S-VS-SGC 10 Pound Can S-VS-10P 40 Pound Pail S-VS-40P 120 Pound Drum S-VS-120D 400 Pound Drum S-VS-400D



EXTRA HEAVY BALL VALVE SEALANT #5050

This is a synthetic emergency sealant for ball and gate valves with SEVERE leakage problems and pipeline valve stems in extreme service conditions.

Always use the lightest grade sealant before progressing to the heavier, more aggressive sealants to avoid complications with the sealant fittings and internal passages.

DESCRIPTION

Heavier grades of **#5050** are designed for use by qualified technicians ONLY. Contact Sealweld[®] for consultation prior to application of these products.

These heavy sealants are not recommended for use in plug valves except in an emergency. The excellent sealing ability of this compound may restrict internal sealant passages and/ or plug them completely. Purge sealant from the system after use. These products are not recommended for use in small diameter plug valves.

Order Details - XH #5050

Ordering Size	Part No.
11 Ounce Cartridge - 1 Single	S-XS-HG
15 Ounce Cartridge - 1 Single	S-XS-SG
11 Ounce Cartridges - 16/Case	S-XS-HGC
15 Ounce Cartridges - 12/Case	S-XS-SGC
10 Pound Can	S-XS-10P
40 Pound Pail	S-XS-40P
120 Pound Drum	S-XS-120D
400 Pound Drum	S-XS-400D

Order Details - XXH #5050

11 Ounce Cartridge - 1 Single	S-XXS-HG
15 Ounce Cartridge - 1 Single	S-XXS-SG
11 Ounce Cartridges - 16/Case	S-XXS-HGC
15 Ounce Cartridges - 12/Case	S-XXS-SGC
10 Pound Can	S-XXS-10P
40 Pound Pail	S-XXS-40P
120 Pound Drum	S-XXS-120D
400 Pound Drum	S-XXS-400D

Order Details - XXXH #5050

S-XXXS-HG
S-XXXS-SG
S-XXXS-HGC
S-XXXS-SGC
S-XXXS-10P
S-XXXS-40P
S-XXXS-120D
S-XXXS-400D

Order Details - XXXXH #5050

11 Ounce Cartridge - 1 Single	S-XXXXS-HG
15 Ounce Cartridge - 1 Single	S-XXXXS-SG
11 Ounce Cartridges - 16/Case	S-XXXXS-HGC
15 Ounce Cartridges - 12/Case	S-XXXXS-SGC
10 Pound Can	S-XXXXS-10P
40 Pound Pail	S-XXXXS-40P
120 Pound Drum	S-XXXXS-120D
400 Pound Drum	S-XXXXS-400D

WINTER-LUBE #7030

This all-purpose synthetic valve lubricant is formulated to remain soft in sub-zero climates.

DESCRIPTION

Sealweld® Winter-Lube #7030 is a synthetic-based lubricant designed specifically for use in winter climates where conventional sealants become stiff and too hard to pump. Unique additives provide excellent low-temperature pumping ability and lower operating torque in severe operating conditions. #7030 can be used year-round in all types of service. It is formulated to remain insoluble in water, oil and all types of hydrocarbon services including natural gas, condensate, related by-products and refined petroleum products. Use in ball, gate and plug valves. #7030 is also recommended for use on: above ground valves such as blow-down valves, pig launching and receiving valves and in refineries, wellheads, pump or compressor stations and in gas distribution systems. It is also suitable for use in Sour Service.



Product Specification Base Oil Synthetic Colour Grey Drop Point None Texture Tacky Pressure 10,000 PSI **ASTM** Penetration 210 - 290 Compatibility Excellent Solvent Resistance Excellent Special Additives PTFE Particle Size Micronized - 40°C to + 205°C Temperature Range - 40°F to + 400°F

Order Details	
Ordering Size	Part No.
11 Ounce Cartridge - 1 Single	S-WL-HG
15 Ounce Cartridge - 1 Single	S-WL-SG
11 Ounce Cartridges - 16/Case	S-WL-HGC
15 Ounce Cartridges - 12/Case	S-WL-SGC
10 Pound Can	S-WL-10P
40 Pound Pail	S-WL-40P
120 Pound Drum	S-WL-120D
400 Pound Drum	S-WL-400D

SEALWELD® WINTER-SEAL #2525

This synthetic valve sealant is designed for use in extremely cold climates. **Winter-Seal #2525** is similar to our **#5050** sealant in terms of sealing ability and remains soft and pliable at cold temperatures. It can also be custom blended into XH, XXH, XXXH grades.

DESCRIPTION

Sealweld® **Winter-Seal #2525** utilizes the same base formula as **Winter-Lube #7030** with added PTFE particles that improve the sealing characteristics.

#2525 reduces torque and provides reliable sealing in leak passages up to 0.030". This product may also be used as a secondary stem sealant when the ambient temperature makes pumping conventional sealants difficult and time consuming. **#2525** is designed to remain insoluble in all types of hydrocarbon services including natural gas, condensate, related by-products, crude oil and refined petroleum products. It is also suitable for use in Sour Service.



Product Specifications

Synthetic
Dark Grey
None
Tacky
10,000 PSI
200 - 250
Excellent
Excellent
PTFE
Semi-micronized
- 40°C to + 205°C
- 40°F to + 400°F

Order Details

Ordering Size	Part No.
11 Ounce Cartridge - 1 Single	S-WS-HG
15 Ounce Cartridge - 1 Single	S-WS-SG
11 Ounce Cartridges - 16 per Case	S-WS-HGC
15 Ounce Cartridges - 12 per Case	S-WS-SGC
10 Pound Can	S-WS-10P
40 Pound Pail	S-WS-40P
120 Pound Drum	S-WS-120D
400 Pound Drum	S-WS-400D

Order Details - XH / XXH

Ordering Size	Part No.
10 Pound Can - Extra Heavy	S-WSX-10P
10 Pound Can - Extra Extra Heavy	S-WSXX-10P
	10 Pound Can - Extra Heavy

MOHAVE BODY FILL

This product is a good all-around lubricant designed for use in a variety of operating conditions.

DESCRIPTION

Sealweld* Mohave Body Fill is the best option for wellhead gate valve body filling jobs. It is a corrosion inhibiting grease that eases valve operation by lubricating internal components and moving parts. It is also designed to remain pliable in all kinds of operating conditions and reduces breakout torque on tight and hard-to-turn valves. Mohave Body Fill can be injected into valve stems and seat sealant systems for additional protection and is recommended for use in methane, ethane, propane, butane, alkalis, dilute acids, and salt water processing.

When using **Mohave Body Fill** to top up a wellhead body cavity, make sure you don't exceed the maximum operating pressure of the valve. If you're unsure about the proper procedures please contact a Sealweld® representative.



Order Details With PTFE

Ordering Size	Part No.
11 Ounce Cartridge - 1 Single	S-MO-HG
15 Ounce Cartridge - 1 Single	S-MO-SG
11 Ounce Cartridges - 16/Case	S-MO-HGC
15 Ounce Cartridges - 12/Case	S-MO-SGC
10 Pound Can	S-M0-10P
40 Pound Pail	S-M0-40P
120 Pound Drum	S-M0-120D
400 Pound Drum	S-M0-400D

Product Specification

Base Oil	Synthetic
Colour	Brown
Drop Point	None
Texture	Tacky
Pressure	10,000 PSI
ASTM Penetration	320 - 380
Compatibility	Excellent
Solvent Resistance	Excellent
Special Additives	None
Particle Size:	n/a
Composition	Semi-liquid
Temperature Range	0°F or + 300°F
	- 18°C to + 149°C

LOW-TEMPERATURE LUBRICANT D-1014

This synthetic valve lubricant has an extremely light consistency and is designed for super-cold LNG/LPG and similar applications. **D-1014** is available with or without PTFE and in extra heavy grade S-XD.

DESCRIPTION

Sealweld® Low-Temperature Lubricant D-1014 is a proprietary blend of synthetic materials formulated with low-temperature additives. D-1014 significantly reduces torque requirements, counters the extreme drying effects produced by liquefied petroleum gases and lubricates long after other types of lubricants have been washed out. It is recommended for use in LPG/NGL services including propane, butane, ethane, ethylene and related by-products. It is also ideal for use in ball, gate, plug, wellhead valves and other valves and gearboxes left offline in extreme climate conditions that must be available for actuation as in the case of pig traps and launchers.



Order Details With PTFE

Ordering Size	Part No.
11 Ounce Cartridge - 1 Single	S-DS-HG
15 Ounce Cartridge - 1 Single	S-DS-SG
11 Ounce Cartridges - 16/Case	S-DS-HGC
15 Ounce Cartridges - 12/Case	S-DS-SGC
10 Pound Can	S-DS-10P
40 Pound Pail	S-DS-40P
120 Pound Drum	S-DS-120D
400 Pound Drum	S-DS-400D

Order Details No PTFE

S-DSX-HG
S-DSX-SG
S-DSX-HGC
S-DSX-SGC
S-DSX-10P
S-DSX-40P
S-DSX-120D
S-DSX-400D

Product Specification

Base Oil	Synthetic
Colour	Grey
Drop Point	None
Texture	Thin Paste
Pressure	10,000 PSI
NGLI Grade	1
ASTM Penetration	230 - 330
Special Additives	Graphite & PTFE
Flash Point	+ 221°C or + 430°F
Melting Point	None
Temperature Range	- 54°C to + 204°C
	- 75°F to + 400°F

ETERNA-LUBE #1000

This anti-seize compound and high-temperature lubricant is used in severe service conditions. Use in gear boxes, stem extensions and steam service.

DESCRIPTION

Sealweld® Eterna-Lube #1000 is a superior multiuse, anti-seize compound formulated to provide rust and corrosion protection for all metal surfaces by forming a protective coating. It is enhanced with additives that create an impenetrable barrier that will withstand extreme heat, pressure and friction, reduce torque requirements and eliminate wear. Eterna-Lube #1000 is waterproof, non-melting, highly resistant to chemicals and gases (except oxygen) and will not harden.

Eterna-Lube #1000 is the recommended valve seat lubricant in high-temperature services including hydrocarbons, hot air and steam.

This product is recommended for use in: valve stems, gear boxes, expansion joints, conveyor belts, air motors, pumping mechanisms, all threaded connections, hand and motor-operated valves, gaskets, flanges, O-rings, bushings, bearings, rollers, gears, transmission boxes, chains, drives, automotive chassis, low speed wheel bearings, universal joints, electric motors, compressors, hoists, turbines, winches, furnaces, burner assemblies, regulators, pumps, control chests, headers, cylinder head assemblies, gasket manifold assemblies, stud assemblies, fuel injectors, pre-combustion chambers, valve cages, turbo charger fittings, guides, fine thread tubing, compressor cages, silencer piping, shaft coupling bolts, keyways, spark plugs, torque rod pins and lubes, air cylinder assemblies, pneumatic cylinder shafts, liquid fuel pumps, air slides and axle shafts.

NOT recommended for use in high-speed bearings.



Product Specification

Base Oil	Synthetic
Colour	Silver Grey
Drop Point	+ 327°C or + 621°F
NLGI Grade	1
ASTM Penetration	240 - 330
Specific Gravity	1.30
Flash Point (Base Oils)	+ 302°C or + 575°F
Thermal Decomposition Point	+ 371°C or + 700°F
Spontaneous Ignition Point	+ 487°C or + 910°F
Freeze Point	- 22°C or - 8°F
Temperature Range	- 40°C to + 1093°C
	- 40°F to + 2000°F

Order Details

Ordering Size	Part No.
16 Ounce Brush Top Can	S-EL-BT
16 Ounce Brush Top Can- 12/Case	S-EL-BTC
11 Ounce Cartridge - 1 Single	S-EL-HG
15 Ounce Cartridge - 1 Single	S-EL-SG
11 Ounce Cartridges - 16/Case	S-EL-HGC
15 Ounce Cartridges - 12/Case	S-EL-SGC
10 Pound Can	S-EL-10P
40 Pound Pail	S-EL-40P
120 Pound Drum	S-EL-120D
400 Pound Drum	S-EL-400D

STEAM SHIELD 2000

Sealweld® **Steam Shield 2000**, is a unique specialty synthetic valve lubricant tested and proven to remain stable at extremely high temperatures.

Steam Shield 2000 is recommended specifically for use in valves used for steam injection and heavy oil recovery. It is also recommended for use in building steam-heating systems, geothermal service, etc.

This product is ideal for use in university, hospital and other institution steam-heating systems.

DESCRIPTION

Sealweld® **Steam Shield 2000** is a proprietary blend of synthetic ingredients that, when combined, exceed the ratings of the components. As a result, **Steam Shield 2000** lubricant/ sealant withstands temperatures up to + 398°C or + 750°F with minimal thermal decomposition.

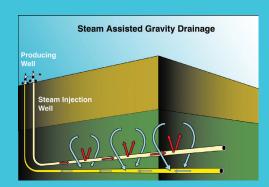
Steam Shield 2000 provides an insoluble film of synthetic lubricant to protect valve seal faces and reduce torque requirements. It is non-melting and insoluble in water, steam and related by-products.

Steam Shield 2000 was originally tested in California and Alberta's steam-enhanced recovery projects as a valve and stuffing box sealant and demonstrated excellent results. The viscosity allows for ease of application using a brush, grease pump or automatic injection equipment.

In cases of extreme valve leakage where regular sealants do not achieve desired results, Sealweld® offers a full range of specialty sealants to assure a reliable temporary seal.

SAGD

oil. The process uses twin horizontal wells drilled and extended into the base of a reservoir with the horizontal steam injector placed directly above the horizontal production well. The mobilized oil drains by gravity to the lower well and is produced to the surface. The SAGD-based technology was developed in Alberta, Canada.



Product Specification

Synthetic
Black
+ 327°C or + 621°F
Tacky
1
260 - 340
Excellent
Excellent
Moly
< 4 Microns
Semi-liquid
- 30°C to + 400°C
- 21°F to + 750°F

Order Details

Part No.
S-SS-HG
S-SS-SG
S-SS-HGC
S-SS-SGC
S-SS-10P
S-SS-40P
S-SS-120D
S-SS-400D

CASE STUDY

The original field pilot began in spring of 2002. Several wellhead valves were filled with **Steam Shield 2000** lubricant and then put into service. Steam was injected into the formation at $+ 295^{\circ}\text{C}/ + 563^{\circ}\text{F}$ continuously for the first year. At the first maintenance interval the same wellhead valves were re-lubricated with additional lubricant.

Observations: **Steam Shield 2000** remained exceptionally stable with very little to no break down or hardening occurring. It helped to dissipate the heat caused by the extreme high-temperature steam injection and hot oil production.

The presence of this inert lubricant helped prevent internal seat seal damage, wash-outs and cuts normally associated with this high-temperature and high-pressure service.

Wellhead valves protected by **Steam Shield 2000** will exhibit prolonged valve service life. Wellhead valves in nearby fields, using the same SAGD technology, were found to be exhibiting extensive seal damage and in many cases severe seat leakage. These valves were injected with CONVENTIONAL high-temp lubricants or none at all.

High-temperature wellhead repair costs become prohibitively expensive when the cost of lost production revenue is taken into consideration. Protect your comany's investment -- use **Steam Shield 2000** on all of the SAGD wellheads at your facility.

VALVE STEM PACKING

SLICK STICKS

This product is a moldable valve stem packing stick. It is used in wellhead gate valves, plug valves and as a supplemental pump gland packing.

DESCRIPTION

Sealweld® Slick Sticks are made of a moldable packing putty with a proprietary blend of PTFE particles which bond to form a durable yet replaceable seal. Slick Sticks provide maximum sealing and lubricating efficiency when injected into ball, gate, or plug valves, stems, stuffing boxes, pump and packing glands and expansion joints. Slick Sticks are insoluble in water, oil, sweet or sour natural gas and related by-products. This product is recommended for use at: refineries, wellheads, pump or compressor stations and in gas distribution systems.

Note: When using **Slick Sticks** on centrifugal pumps, the maximum surface speed of the shaft should not exceed 1000 RPM. i.e. Maximum shaft size and speed is 2.25 inch diameter shaft rotating at 1800 RPM.

Product Specification

Temperature Range $-40^{\circ}\text{C to} + 260^{\circ}\text{C}$ $-40^{\circ}\text{F to} + 500^{\circ}\text{F}$

Order Details - High-Temperature Packing

Ordering Size	Part No.	
'J' Stick - 1 Stick	P-SP-J	
Jar - approximately 100 'B' Sticks	P-SP-100J	
Pail - approximately 1,000 'B' Sticks	P-SP-1MP	



STEAM SHIELD STICKS

This product is an extreme high-temperature valve stem and pump packing.

DESCRIPTION

Steam Shield Sticks are blended with specially processed Vespel[®]* particles for extremely high-temperature sealing capability.

* Vespel is the registered trademark of E.I. duPont de Nemours and Co.

Product Specification

Temperature Range $-22^{\circ}\text{C to} + 400^{\circ}\text{C}$ $-8^{\circ}\text{F to} + 750^{\circ}\text{F}$

Order Details - High-Temperature Packing

Ordering Size	Part No.	
10 ounce Jar - approx/100 Sticks "B"	P-HTS-100J	
Pail - approx/7.5 Pounds 1000 "B"	P-HTS-7.5	

Order Details - Stem Packing

Ordering Size	Part No.
10 Ounce Jar - approx/100 Sticks	P-HTS-SP-100J
Pail - approx/7.5 Pounds	P-HTS-SP-7.5
"J" Stick - 8 ounce	P-HTS-SP-J

VALVE STEM PACKING

PACK KING #301

Moldable plastic valve stem packing sticks. Similar to **Slick Sticks** with a higher concentration of PTFE.

DESCRIPTION

Sealweld® Pack King #301 is a putty-type PTFE packing compound made from a 100% synthetic base formulated as an injectable packing for valve stems, packing glands and stuffing boxes. It is designed to mold around valve stems and pump rods to form a drip-tight seal where other sealing procedures prove ineffective. Pack King #301 exhibits an extremely low coefficient of friction and is resistant to most chemicals, solvents, exotic products and is ideal for condensate service. Pack King #301 is also available in bulk containers for use as a flange sealant.

Product Specification

Temperature Range	- 29°C to + 250°C
	- 20°F to + 500°F

Order Details - Stem Packing

(Ordering Size	Part No.
	'J' Stick - approx/8 ounce Stick	P-301-J
	'B' Sticks - approx/12 ounce Jar	P-301-12J



PACK-IT PARTICLE PAK

This product is a multi-purpose, self-forming packing made with specifically processed granulated PTFE.

DESCRIPTION

Sealweld* Pack-It is a granular packing made with specially processed PTFE. It compacts to form a rigid but flexible self-sealing packing which will conform to any size or type of shaft, rod or stuffing box. Simple in application and durable in service, this product ends the need for expensive inventories of various sizes of packing rings. Pack-It will not decompose, oxidize, or deteriorate and compensates for wear simply by remolding itself when the packing gland is adjusted. It may also be used as a valve stem packing on all valves, including ball, gate, plug, check, globe, motor and control valves regardless of service. Use in conjunction with conventional rope packing to extend packing life and eliminate leakage at start-up.

Product Specification

Temperature Range $-240^{\circ}\text{C to} + 250^{\circ}\text{C}$ $-400^{\circ}\text{F to} + 500^{\circ}\text{F}$

Order Details - Stem Packing

Ordering Size	Part No.
Jar - approx/10 ounce	P-PK-10J
Pail - approx/6.25 Pounds	P-PK-6.25





SEALANT INJECTION EQUIPMENT

SEALWELD® HIGH-PRESSURE SEALANT INJECTION PUMPS

Sealweld® Sealant Injection Pumps are specifically designed to safely inject viscous sealants into valves operating under pressure. ALWAYS use a high-pressure gauge and learn how to 'read' it. Make sure the hose assembly and all of the components are rated to the maximum working pressure (MWP) of the pump and are in good working order.

Our pumps have been designed for years of continuous service in demanding field conditions and are preferred by professionals around the world.

The Sealweld® SuperGun® Pump is the best manual sealant pump in the world and is designed for easy field repair, quick sealant delivery and extremely high injection pressure.

The Sealweld® Uni-Seal™ and ACTIV-8® pumps utilize a unique air/ hydraulic motor and direct-push technology to safely inject even the most viscous and heavy sealants quickly and efficiently. We recommend each crew have 2 pumps, one for injecting cleaner and the other for sealant. This eliminates having to empty the pump when changing products and cuts overall maintenance time considerably.

Sealweld* can repair all makes of high-pressure sealant injection pumps. We carry a vast inventory of parts and provide instructions for doing your own repairs. Our pump technicians will do repairs and pump repair training at your field location.



Sealweld injection pumps are designed to pump all types of valve cleaners, lubricant/sealants and emergency valve sealants.

The use of a gauge will assist you in determining what is happening inside the valve during injection.

ALWAYS keep your pump loaded and in top working order in case of an emergency.

SEALANT INJECTION PUMP COMPARISONS

Pump	Туре	Maximum Discharge	Loaded Capacity	Discharge Volume
		(,	Approx.)	
SuperGun Pump	Manual	15,000 PSI	16 Ounces	1 Ounce/ 25 Strokes
Hydraulic Hand-Held	Manual	10,000 PSI	12 Ounces	1 Ounce/50 Strokes
ACTIV-8 [®]	Pneumatic/ Hydraulic	10,000 PSI	160 Ounces	16 Ounces/ < 2 Minutes
Uni-Seal™	Pneumatic/ Hydraulic	10,000 PSI	16 Ounces	16 Ounces/ < 2 Minutes
SuperSeal Series	Pneumatic	6,500 10,000 PSI	40 Pounds (5 Gallon)	Variable

^{*} Larger pumps available on request



NEVER USE AN AUTOMOTIVE TYPE GREASE PUMP FOR INJECTING INTO A VALVE UNDER PRESSURE!

SUPERGUN® SCREW-PRIMED PUMP

The patented Sealweld* **SuperGun* Pump** is designed for many years of rugged use.

FEATURES INCLUDE:

- Discharges 1 ounce of sealant easily with every 25 (approx.) strokes
- · Generates up to 15,000 PSI when required
- Large capacity barrel holds 33% more than other similar hand-held injection pumps
- · Field-replaceable piston head cartridge
- Reloads easily with a 12 or 16 ounce cartridge from **EZ-Loader**
- Pumps 'K' sticks, Gun-Packs and all types of bulk lubricant/ sealants



G-SGUN-C

The Sealweld SuperGun Pump has an extra long lever handle that makes high-pressure injection easy. It is lightweight and very portable. The screw-primed design indicates how much product remains in the barrel and the high-pressure check valve system prevents dangerous "kicks" caused by back pressure.

The **SuperGun® Pump** has been designed to withstand the rigors of field use and every pump is tested prior to shipment. Durability, easy to carry and faster pumping make it the valve technician's favorite hand-held, high-pressure sealant injection pump for topping-up procedures when only small quantities of lubricant are required.

SUPERGUN® PUMP KITS

SuperGun® Pump Repair Kit #R-SG-KIT

This kit contains all the replacement parts you'll need to extend the service life of our most popular hand-held pump.

Qty	Part No.	Ref.
1 Piston Cartridge Assembly	R-SG-02	4
1 Barrel Gasket	R-SG-07A	7
1 Bonded Seal - 3/8"	R-SG-19B2	9B
1 Leather Cup	R-SG-19D	9D
1 Spring	R-SG-19F	9F
1 Piston O-Ring Nitrile	R-SG-02D	4B
3 Piston Body O-Ring - Nitrile	R-SG-02E	4C

Linkage Assembly Kit #R-SG-17

This linkage kit contains all the replacement parts you'll need keep your pump operating like new.

3A
3B
3C
3D
3E
3F

Primer Rod Assembly #R-SG-19

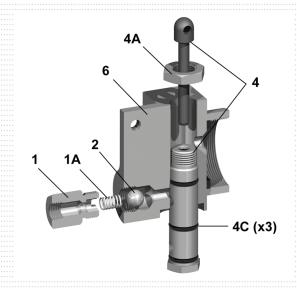
This primer rod assembly kit contains all the replacement parts you'll need to ensure the piston operates efficiently.

Qty	Part No.	Ref.
1 End Nut	R-SG-19A	9A
1 Bonded Seal - 3/8"	R-SG-19B2	9B
1 Rod Bearing	R-SG-06B	9K
1 Small Cup Washer	R-SG-19C	9C
1 Leather Cup	R-SG-19D	9D
1 Large Cup Washer	R-SG-19E	9E
1 Spring	R-SG-19F	9F
1 Shaft	R-SG-19G	9G
2 Shaft Body Nut	R-SG-19H	9H
1 Shaft Bearings	R-SG-19I	91
1 Shaft End Nut	R-SG-19J	9J
1 Primer Rod Crank	R-SG-06A	12

Order Details

Description	Part No.	
SuperGun® Screw-Primed Pump - Complete	G-SGUN-C	
Includes: 18 inch high-pressure hose assembly		
with 15,000 PSI gauge.		
Plastic Carrying Case - optional	B-PC-SG	

SUPERGUN® PUMP PARTS LIST



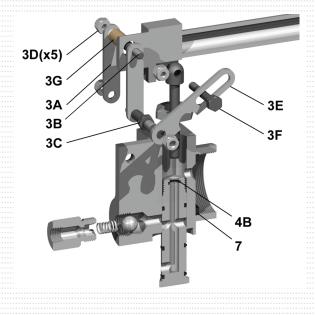
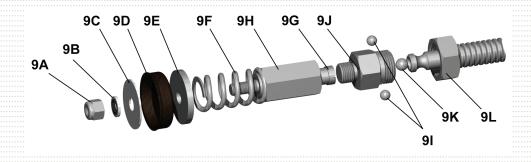


Illustration #	Description	Order Part #	Qty. Req'd
1	FLOW WOLF® Check Valve Nut	R-SG-16	1
1A	Check Valve Spring	R-SG-01A	1
2	Ball - 1/2"	R-SG-16A	1
3	Linkage Assembly	R-SG-17	1
3A	Harness Links	R-SG-17A	2
3B	Handle Pin	R-SG-17B1	1
3C	Head Pin	R-SG-17B3	1
3D	NyLock Nuts	R-SG-17C	5
3E	Fulcrum Link	R-SG-18A	1
3F	Fulcrum Bolt	R-SG-18B	1
3G	Handle Bushing	R-SG-03A	1
4	Piston Cartridge Assembly	R-SG-02	1
4A	Body Nut	R-SG-02C	1
4B	Piston O-Ring - Nitrile	R-SG-02D	1
4C	Piston Body O-Rings - Nitrile	R-SG-02E	3
5	Handle	R-SG-03	1
6	Head - Bare	R-SG-01	1
7	Barrel Gasket	R-SG-07A	1
8	Sealant Barrel	R-SG-07	1
9	Primer Rod Assembly	R-SG-19	1
9A	End Nut	R-SG-19A	1
9B	Bonded Seal - 3/8"	R-SG-19B2	1
9C	Small Cup Washer	R-SG-19C	1
9D	Leather Cup	R-SG-19D	1
9E	Large Cup Washer	R-SG-19E	1
9F	Spring	R-SG-19F	1
9G	Shaft	R-SG-19G	1
9H	Shaft Body Nut	R-SG-19H	1
91	Shaft Bearings - 5/16" Diameter	R-SG-19I	2
9J	Shaft End Nut	R-SG-19J	1
9K	Rod Bearing – 3/8" Diameter	R-SG-06B	1
9L	Rod Nut	R-SG-06C	1



SUPERGUN® PUMP PARTS LIST (continued)

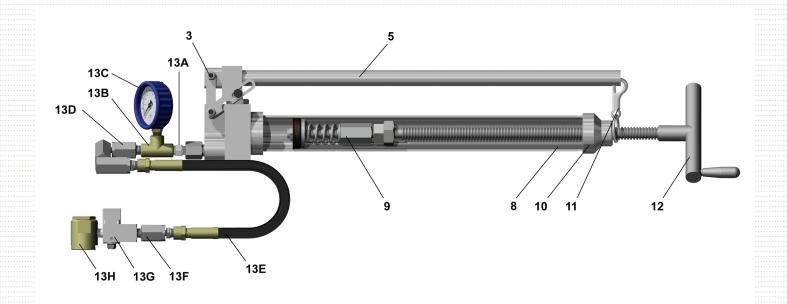


Illustration #	Description	Order Part #	Qty. Req'd
10	End Cap	R-SG-05	1
11	Handle Clasp and Ring	R-SG-04	1
12	Primer Rod Crank	R-SG-06A	1
13	SuperGun Pump Hose Assembly - Complete	H-S-HOSE	
13A	Adapter – 1/4" Male X 1/4" Male	H-AD-4M4M	1
13B	High Pressure TEE 1/4" F X 1/4" F X 1/4" F X 1/4" F	H-T-444	1
13C	High Pressure Gauge Assembly – 15,000 PSI	H-GD-01C	1
13D	'Z' Swivel 1/4" Male X 1/2" - 27 Male	H-SV-Z1	1
13E	Extra High Pressure Hose - 18"	H-HS-18XHP	1
13F	Straight Swivel 1/4" Male X 1/2"-27 Male	H-SV-ST1	1
13G	Release Valve 1/4" Male X 1/4" Female	H-RVAB	1
13H	Sealweld® Giant Buttonhead Coupler	H-CPSG-2	1
Optional Accessor	ries		
	Oversized Piston Assembly	R-SG-02LP	1
	Plastic Carrying Case	B-PC-SG	1

CHECK OUT OUR MODELED PUMPS AT: WWW.SEALWELD.COM



HYDRAULIC HAND-HELD PUMP

The Sealweld® **Hydraulic Hand-Held Pump** lightweight and very portable.

FEATURES INCLUDE:

- Discharges 1 ounce of sealant easily with every 50 strokes
- · Generates up to 10,000 PSI when required
- Self-priming hydraulic action makes manual injection simple
- Reloads easily with a 12 ounce cartridge from **EZ-Loader**
- Pumps liquids, flange sealants, stem packings,
 'J' sticks, Gun-Packs and all types of sealants

G-HGUN-C

The Sealweld* **Hydraulic Hand-Held Pump** has a locking handle to prevent piston-damage. It is lightweight and very portable. The compact size makes it easy to keep one in your general toolbox or behind the seat of your pickup for quick topups and emergency sealing jobs between regular maintenance intervals.

This pump ships with an 18 inch long hose, buttonhead coupler and high-pressure gauge and it is ready for loading and field use right out of the box. It is perfect for pumping small quantities of valve cleaner, lubricant or sealant. No toolbox is complete without one.

Order Details

Description	Part No.
Hydraulic Hand-Held Pump - Complete	G-HGUN-C
Includes: 18 inch high-pressure hose assembly with	15,000 PSI gauge

HYDRAULIC HAND-HELD PUMP KITS

This kit contains all the o-rings you'll need to extend the service life of this hand-held pump.

0-Ring	Repair	Kit	#R-HG	-OREP

Qty.	Part No.	Ref.
1 Piston O-Ring	R-A8-20E	2G
1 Barrel O-Ring - Nitrile	R-A8-19C	3B
1 Cylinder Neck O-Ring - Nitrile	R-HG-11C	5A
1 Bottom Cylinder O-Ring - Nitrile	R-HG-11D	5B
1 Pump Piston O-Ring	R-HG-08B	5D
1 By-Pass Valve O-Ring - Nitrile	R-HG-31	7C
1 Hydraulic Relief O-Ring - Nitrile	R-HG-11K	8A

Includes all of the O-Ring Repair Kit parts plus the parts required to repair or replace the major sub-assemblies quickly in the field.

Minor Repair Kit #R-HG-MIN

Qty.	Part No.	Ref.
1 Nylon Piston Cup	R-A8-20C	2E
1 Piston O-Ring	R-A8-20E	2G
1 Inner Leather Cup	R-HG-08H	2H
1 Barrel Gasket	R-HG-10A	2A
1 Barrel O-Ring - Nitrile	R-A8-19C	3B
1 Cylinder Neck O-Ring - Nitrile	R-HG-11C	5A
1 Bottom Cylinder O-Ring - Nitrile	R-HG-11D	5B
1 Pump Piston O-Ring	R-HG-08B	5D
1 Check Valve Assembly	R-HG-11F	6
1 By-PassValve	R-HG-11G	7
1 By-Pass Valve O-Ring - Nitrile	R-HG-31	7C
1 Hydraulic Relief O-Ring - Nitrile	R-HG-11K	8A
1 Hydraulic Fluid - One Pint	R-HOPINT	
1 Fluid Bag Assembly	R-HG-15	12

This complete kit includes all of the parts in the O-Ring and Minor Repair Kits, plus body and piston pump parts. This kit is ideal and you should keep one on hand at all times.

Major Repair Kit #R-HG-MAJ

Qty.	Part No.	Ref.
1 Nylon Piston Cup	R-A8-20C	2E
1 Piston O-Ring	R-A8-20E	2G
1 Inner Leather Cup	R-HG-08H	2H
1 Barrel Gasket	R-HG-10A	3A
1 Barrel O-Ring - Nitrile	R-A8-19C	3B
1 Hydraulic Pump Cylinder	R-HG-11B	5
1 Cylinder Neck O-Ring - Nitrile	R-HG-11C	5A
1 Bottom Cylinder O-Ring - Nitrile	R-HG-11D	5B
1 Pump Piston	R-HG-11E	5C
1 Pump Piston O-Ring	R-HG-08B	5D
1 Check Valve Assembly	R-HG-11F	6
1 By-Pass Valve	R-HG-11G	7
1 By-Pass Valve O-Ring - Nitrile	R-HG-31	7C
1 Hydraulic Relief O-Ring - Nitrile	R-HG-11K	8A
1 Hydraulic Fluid - One Pint	R-HOPINT	
1 Fluid Bag Assembly	R-HG-15	12

HYDRAULIC HAND-HELD PUMP PARTS LIST

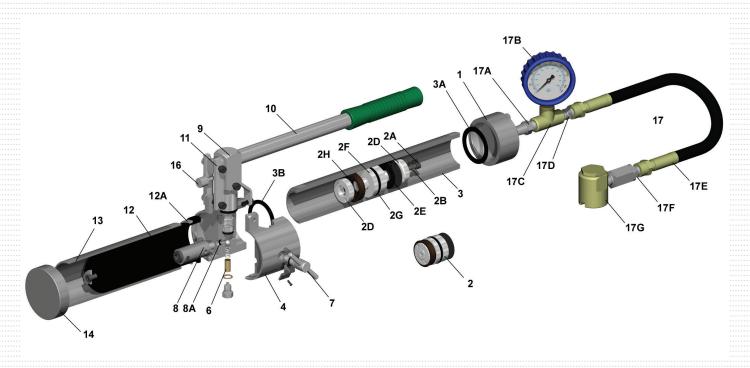
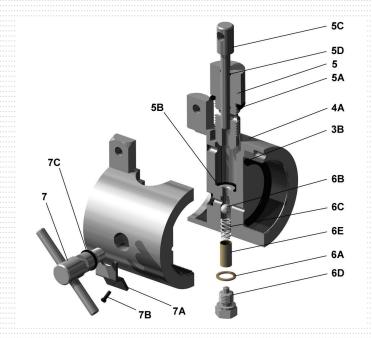


Illustration #	Description	Order Part #	Qty. Req'd
1	Sealant Barrel Cap	R-HG-07	1
2	Piston Assembly	R-HG-08	1
2A	Cap Screw	R-HG-08A	1
2B	Copper Washer	R-HG-08BA	1
2D	Washer Nut	R-HG-08C	2
2E XX	Nylon Piston Cup	R-A8-20C	1
2F	Piston Body	R-HG-08E	1
2G X	Piston O-Ring	R-A8-20E	1
2H XX	Inner Leather Cup	R-HG-08H	1
3	Sealant Barrel	R-HG-09	1
3A XX	Barrel Gasket	R-HG-10A	1
3B X	Barrel O-Ring – Nitrile	R-A8-19C	1
4	Pump Body Assembly	R-HG-11	1
4A	Pump Body - Bare	R-HG-11A	1
5 XXX	Hydraulic Pump Cylinder	R-HG-11B	1
5A X	Cylinder Neck O-Ring - Nitrile	R-HG-11C	1
5B X	Bottom Cylinder O-Ring - Nitrile	R-HG-11D	1
5C XXX	Pump Piston	R-HG-11E	1
5D X	Pump Piston O-Ring	R-HG-08B	1
6 XX	Check Valve Assembly	R-HG-11F	1
6A	Copper Washer	R-HG-11FA	1
6B	Ball - ¼"	R-HG-11FB	1
6C	Check Valve Spring	R-HG-11FC	1
6D	Check Valve Screw	R-HG-11FD	1
6E	Check Valve Screen	R-HG-11FE	1
7 XX	By-Pass Valve	R-HG-11G	1
7A	By-Pass Valve Stop	R-HG-11H	1
7B	Cap Screw	R-HG-11I	1
7C X	By-Pass Valve O-Ring - Nitrile	R-HG-31	1
8	Hydraulic Relief Valve	R-HG-11J	1
8A X	Hydraulic Relief O-Ring - Nitrile	R-HG-11K	1
9	Fulcrum Assembly	R-HG-12	1
10	Handle	R-HG-13	1
	Linkage Assembly	R-HG-14	1

HYDRAULIC HAND-HELD PUMP PARTS LIST

(continued)



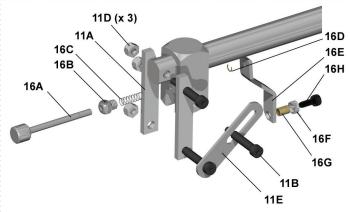


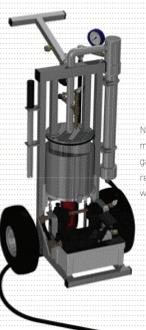
Illustration #	Description	Order Part #	Qty. Req'd
11A	Link	R-HG-14A	2
11B	Bolts	R-HG-14B	3
11D	Lock Nuts	R-HG-14C	3
11E	Fulcrum Link	R-HG-14E	1
XX	Hydraulic Fluid	R-HOPINT	1
12 XX	Fluid Bag	R-HG-15	1
12A	Fluid Bag Seal Ring	R-HG-15A	1
13	Fluid Bag Barrel	R-HG-16	1
14	Fluid Bag Barrel Cap	R-HG-17	1
16	Handle Latch Assembly	R-HG-30	1
16A	Stem & Knob	R-HG-30A	1
16B	Latch Screw	R-HG-30B	1
16C	Stem Spring	R-HG-30C	1
16D	Retainer	R-HG-30D	1
16E	Latch Arm	R-HG-30E	1
16F	Latch Spring	R-HG-30F	1
16G	Latch Sleeve	R-HG-30G	1
16H	Cap Screw	R-HG-30H	1
17	Hydraulic Pump Hose Assembly	H-H-H0SE	1
17A	Adapter - 1/4" M X 1/4" M	H-AD-4M4M	1
17B	15,000 PSI Gauge with Guard	H-GD-01C	1
17C	High-Pressure TEE - 1/4"	H-T-444	1
17D	Adapter - 1/4" M x 1/2" - 27 M	H-AD-4M7M	1
17E	Extra High-Pressure Hose - 18"	H-HS-18XHP	1
17F	Straight Swivel 1/4" M X 1/2"-27M	H-SV-ST1	1
17G	Giant Buttonhead Coupler	H-CPSG-2	1
Χ	0-Ring Repair Kit	R-HG-OREP	1
XX	Minor Repair Kit	R-HG-MIN	1
XXX	Major Repair Kit	R-HG-MAJ	1

XX includes all parts with a single X illustration number.
XX includes all parts with a single X AND all parts with a double X illustration number.
XXX includes all parts with a single X, double X and triple X illustration number.

ACTIV-8®

The Sealweld* **ACTIV-8*** is the favorite pump of professional valve technicians. It is capable of drawing product directly from a 10 pound pail and is capable of running on compressed air, bottled air or natural gas in an emergency.*

- Generates up to 10,000 PSI injection pressure
- Controls the quantity of lubricant/ sealant being injected; prevents over-lubrication
- Rugged steel frame and pneumatic tires make this pump ideal for field and plant work
- · Simple design makes field repairs quick and easy
- Delivers lubricant/ sealant at up to 1 pound every 70 seconds
- High speed action cuts valve maintenance time by up to 75% on large diameter valves and at facilities with many valves
- Delivers valve cleaners, lubricants and sealants faster than any other pump on two wheels
- High-speed action and 10 pound (5 quart) capacity makes this pump ideal for pipelines and large plants
- Complete with 10 foot sealant hose, swivels and coupler. 15,000 PSI gauge and guard is also standard equipment. Longer hoses are available on request
- · Built-in air filter/ lubricator system
- Each pump comes complete with an owner's manual and an 8 minute DVD describing safe operating procedures
- * Consult your company's safety policy BEFORE operating with natural gas G-A8GUN-C



NOTE: The air/hydraulic motor may be powered by natural gas in an emergency, it is not recommended and may void warranty.

Order Details

Description	Part No.	
Sealweld® ACTIV-8® Pump - Complete	G-A8GUN-C	
Includes:		
10 foot/ 120 inch High-Pressure Hose	H-HS-120HP	
15,000 PSI High-Pressure Gauge /w Guard	H-GD-01C	
Swivels	H-SV-ST1	
Coupler	H-SV-L1	
	H-CPSG-2	
Release Valve	H-RVAB	
8-Minute Operating Instructions on DVD	D-VD-A8	
Owner's Manual	A-M-A8	

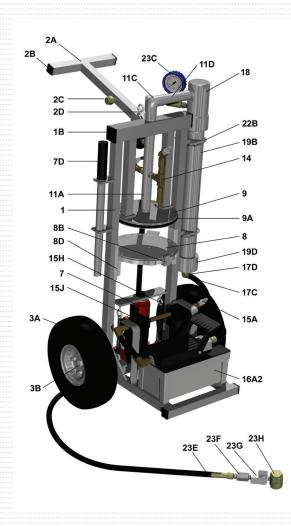
Product Specification

Maximum Inlet Air Pressure	120 PSI
Recommended Air Volume	20 CFM
Maximum Discharge Pressure	10,000 PSI
Delivery Rate	16 ounces/ +/- 70 seconds
77% Fewer Moving Parts	Less wear
Re-load Time	1-2 minutes
Sealant Capacity	10 pounds/ 5 quarts
Air/ Hydraulic Motor	Serviceable world-wide
100% Guarantee	1 Year - Normal use
Repairable	In the field or shop

2-Year Spare Parts #R-A8-SPARES-2Y

Qty	Description	Part No.
4	Loading Tube O-Ring	R-A8-11B
2	Loading Plate O-Ring	R-A8-09A
2	Relief Valve - 200 PSI	R-A8-14F
2	Barrel Gasket	R-A8-19A
2	Barrel O-Ring	R-A8-19C
2	Nylon Piston Cup	R-A8-20C
2	Piston O-Ring	R-A8-20E
2	Inner Leather Cup	R-HG-08H
4	Loading Plate O-Ring - Nitrile	R-A8-09A
4	Check Valve	R-A8-14D
4	Axle - 1/2" x 3-1/4" - New Style	R-A8-03P5
2	Large Filter Element Kit	R-A8-15H-KIT
2	Hydraulic Oil - One Gallon	R-HOGALL
2	Mineral Oil - Pint Bottle	R-MINPINT
2	OTC Model 'F' - Major Repair Kit	R-A8-OTC-300805
2	Release Valve Kit	R-A8-OTC-200383

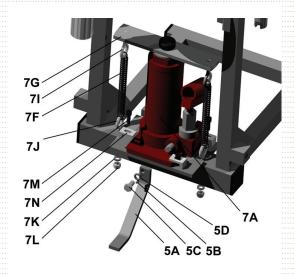
ACTIV-8® PARTS BREAK-DOWN

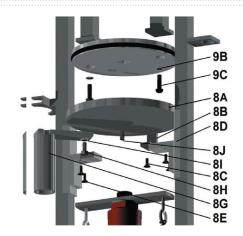


ACTIV-8° PARTS LIST PT1

Illus.#	Description	Order Part #	Qty. Req'd
1	ACTIV-8° Frame (bare)	R-A8-01	1
1B	1-1/2" Frame Plugs	R-A8-01B	4
**	T-Handle Assembly	R-A8-02	
2A	T-Handle (bare)	R-A8-02A	1
2B	1" Frame Plugs	R-A8-02B	4
2C	Capped Sealant Fitting ¼" Carbon Steel	F-SC1/4-BH-CS	1
2D	T-Handle Large Eye Hook	R-A8-53	1
	Washer - ½"	R-A8-32	1
	½" Nylock Lock Nut	R-A8-33	1
3A	Pneumatic Wheel	R-A8-03P1	2
3B	½" x 3-1/4" New Style Axle	R-A8-03P5	2
	Kick Stand Assembly	R-A8-05	
5A	Kick Stand	R-A8-05A	1
5B	Kick Stand Set Screw	R-A8-05B	1
5C	Kick Stand Bolt	R-A8-34	1
5D	Washer – ½"	R-A8-32	2
•	½" Nylock Lock Nut	R-A8-33	1
7	Jack Assembly	R-A8-07	
7A	Jack	R-A8-07A	1
	Jack Collar	R-A8-07AC	1
•	Jack Handle with Grip Assembly	R-A8-07B	1
7D	Jack Handle with Grip	R-A8-07B2	1
•	Washer - ½"	R-A8-32	1
	Jack Bracket Bolt	R-A8-50A	1
7F	Jack Pull Down Springs	R-A8-07C	2
7G	Jack Pull-Down Bar	R-A8-07D	1
71	Upper Eye Bolts	R-A8-29	2
7J	Lower Eye Bolts	R-A8-30	2
7K	Washer – ½"	R-A8-32	2
7L	½" Nylock Lock Nut	R-A8-33	2
7M	Jack Bracket Bolts	R-A8-50A	4
7N	Jack Bracket	R-A8-50B	4
8	Elevator Plate Assembly	R-A8-08	
8A	Elevator Plate	R-A8-08A	1
8B	Elevator Plate Back-Stop	R-A8-08B	1
8C	Back Stop Bolt	R-A8-37	1
8D	Slide Rails	R-A8-08C	2
8E	Slide Rail Screw	R-A8-52	4
	Jack Extension Assembly	R-A8-08D	

continued on page 53 >





ACTIV-8° PARTS LIST PT2

Illus. #	Description	Order Part #	Qty. Req'd
8G	Swing Bar	R-A8-08D1	1
	Dowel Pin - 1/8" x ½"	R-A8-08E	1
8H	Swing Bar Bolt – 5/16"	R-A8-39	1
81	Washer - ½"	R-A8-32	1
8J	Swing Bar Stop Bolt	R-A8-39A	1
9	Loading Plate	R-A8-09	1
9A	Loading Plate O-Ring - Nitrile	R-A8-09A	1
9B	Bonded Seal – 5/16"	R-A8-09D	2
9C	Loading Plate Cap Screws – 5/16" x 1"	R-A8-09C	2
11A	Lower Loading Tube	R-A8-11A	1
11B	Loading Tube O-Rings - Nitrile	R-A8-11B	2
11C	Loading Tube Elbow	R-A8-11C	1
11D	Upper Loading Tube	R-A8-11D	1
12	Vent Valve Assembly	R-A8-12A	1
13	Loading Tube Gauge – 200 PSI	R-A8-13	1
14	Blow Down Assembly	R-A8-14	
14A	Modified Air Nipple	R-A8-14A	1
14B	Elbow - 45 Degree - LP - M x F	R-A8-14B	1
14C	Collar – Low Pressure – F x F	R-A8-14C	1
14D	Check Valve	R-A8-14D	1
14E	Low Pressure Tee	R-A8-14E	1
14F	Relief Valve – 200 PSI	R-A8-14F	1
14G	Low Pressure Nipple - ½"	R-A8-14G	1
	Quick Coupler	R-A8-14H	1
	Filter / Lubricator Assembly	R-A8-15	
15A	Air Nipple	R-A8-15A	1
•	Air Swivel Elbow	R-A8-15F3	1
	Low Pressure Hose	R-A8-15F4	1
	Elbow - 90 Degree - LP - F x F	R-A8-15F7	2
	Pipe Nipple - LP - 3" - ¼" NPT	R-A8-15F8	1
	Pipe Nipple – LP – 2" – ¼" NPT	R-A8-15F9	2
	Pipe Bracket Screws	R-A8-15G	4
	Pipe Bracket Nylock Lock Nuts	R-A8-15G2	4
•	Lubricator/Filter Pipe Brackets	R-A8-15G3	2
15H	Large Air Filter Unit	R-A8-15H	1
15J	Large Lubricator- ¼"	R-A8-15J	1
	Lubricator/Filter Bracket Set	R-A8-15K	1
16A2	Air / Hydraulic Motor - OTC Pump	R-A8-16A2	1
	Bolts for Metal Pump Box	R-A8-31	4
	Washers - ½"	R-A8-32	4
17C	OTC Hydraulic Hose	R-A8-17C	1

continued on page 54>

18A 11D 23C 11B 23A 11C 23B 11B 23D 11A 23E **≠** 14A 14B 18C 14C 18D -14D 18E -14E 19A 13 14G 14F 12 19B 20A 20B 20C 20E 19C 20D -20G 19D 20F

ACTIV-8° PARTS LIST PT3

Illus. #	Description	Order Part #	Qty. Req'd
17D	Elbow - 90 Degree ½" M x ½" F	R-A8-17D	1
18	Head Assembly	R-A8-18	
18A	Head - Bare	R-A8-18A	1
18C	Steel Flag Ball for Head – 1-1/4"	R-A8-18C	1
18D	Spring for Head	R-A8-18D	1
18E	Flow Wolf Cage for Head	R-A8-18E	1
	Sealant Barrel Assembly	R-A8-19	
19A	Barrel Gasket	R-A8-19A	1
19B	Sealant Barrel	R-A8-19B	1
19C	Barrel O-Ring - Nitrile	R-A8-19C	1
19D	Barrel End Cap	R-A8-19D	1
	Piston Assembly	R-A8-20	
20A	Piston Screw	R-A8-20A	1
20B	Piston Stop	R-A8-20B	1
20C	Nylon Piston Cup	R-A8-20C	1
20D	Piston Body	R-A8-20D	1
20E	Piston O-Ring	R-A8-20E	1
20F	Piston End Nut	R-A8-20F	1
20G	Leather Piston Cup	R-HG-08H	1
	Head and Barrel Assembly	R-A8-21	
22B	"U" Bolts	R-A8-22B	2
0 1	Washers - ¼"	R-A8-32	4
	3/8" – "U" Bolt - Nylock Nuts	R-A8-45	4
	High-Pressure Hose Assembly	H-A-HOSE	
23A	Adapter – ¼" M x ¼" M	H-AD-4M4M	1
23B	High-Pressure Tee – ¼" F x ¼" F	H-T-444	1
23C	HP Gauge Assembly - 15,000 PSI	H-GD-01C	1
23D	"L" Swivel - 1/4 " M x ½" - 27M	H-SV-L1	1
23E	HP 10 foot Hose - 3/8" - 10,000 PSI	H-HS-120HP	1
23F	Straight Swivel ¼" M x ¼" – 27 M	H-SV-ST1	1
23G	Release Valve ¼" M x ¼" F	H-RVAB	1
23H	Sealweld® Giant Buttonhead Coupler	H-CPSG-2	1
o -	Pail Guard	R-A8-24	1
	Pail Guard Wing Nuts – 5/16"	R-A8-48	2
	MINOR REPAIR KIT	R-A8-25	

UNI-SEAL*

The **Uni-Seal**[™] is the fastest hand-held air/ hydraulic injection pump on the market.



G-UGUN-C

The **Uni-Seal™** pump has an air/ hydraulic motor that can be powered by compressed air, bottled air or natural gas.*

Up to 10,000 PSI is quickly generated by stepping on the foot pedal making this pump ideal for servicing large diameter valves.

The high speed action of the **Uni-Seal**™ pump makes it ideal for "popping" the plug out of it's seat in tapered plug valves that become hard-to-turn.

- * Consult your company's safety policy BEFORE operating with natural gas.
- * May void warranty.

Features include:

- Air over hydraulic hand-held pump for all makes of sealants, lubricants and cleaners
- · Lightweight and portable
- Pumps 'J' sticks, Gun-Paks or bulk cleaner, lubricant or sealant
- Pumps 'K' sticks, Gun-Packs and all types of bulk lubricant/ sealants
- Use to lubricate, seal or clean: ball, gate or plug valves in minutes
- · Makes valve maintenance simple
- · Reduces valve maintenance costs
- Powered by the most reliable and easily serviced pump manufactured
- Will accept all types of grease containers including: bulk, bag, stick or cartridge with **EZ-Loader**
- Lubricant hose becomes carrying handle when coupled to large buttonhead fitting at base of pump
- Large buttonhead fitting becomes a spare valve fitting if needed

Product Specification

Maximum Inlet Air Pressure	120 PSI
Recommended Air Volume	20 CFM
Maximum Discharge Pressure	10,000 PSI
Delivery Rate	16 ounces/ 2 minutes
Re-load	EZ-LOADER
Sealant Capacity	10 or 15 ounce cartridges
Weight	25 pounds
100% Guarantee	1 Year - Normal use
Repairable	In shop

Order Details

Description	Part No.	
Uni-Seal™ Pump - Complete	G-UGUN-C	
High Pressure Hose Assembly	H-U-HOSE	

UNI-SEAL™ PUMP KITS

This kit contains all the o-rings you'll need to extend the service life of this hand-held pump.

Uni-Seal™ Minor Repair Kit #R-UG-MIN

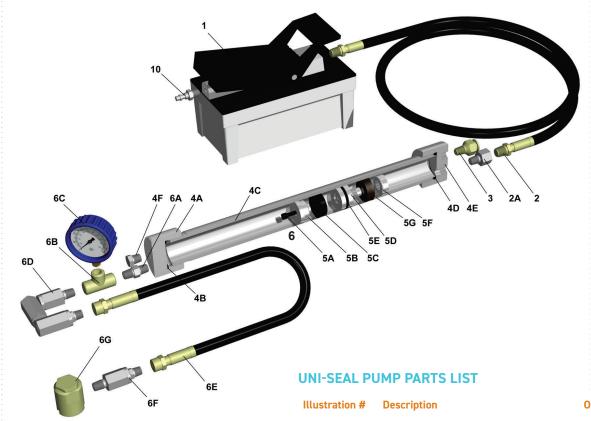
Qty.	Part No.	Ref.	
1	Barrel Gasket	R-A8-19A	4B
1	Nylon Piston Cups	R-A8-20C	5C
1	Piston O-Ring	R-A8-20E	5E
1	Barrel O-Ring - Nitrile	R-A8-19C	4D
2	Hydraulic Oil - One Pint	R-HOPINT	
1	Inner Leather Cup	R-HG-08H	5G

1-Year Spare Parts Repair Kit #R-UGUN-1Y

Qty.	Part No.
1 Uni-Seal™ Minor Repair Kit	R-UG-MIN
1 Hydraulic Oil - Gallon	R-HOGALL
1 Major Repair Kit Model "F"	R-A8-OTC-300805
1 Release Valve Kit	R-A8-OTC-200383

CHECK OUT OUR MODELED PUMPS AT: HTTP://WWW.SEALWELD.COM

UNI-SEAL™ PARTS LIST



LONGER HOSES AVAILABLE BY REQUEST

Illustration #	Description	Order Part #	Qty. Req'd
. 1	Air/ Hydraulic Motor - OTC Pump	R-A8-16A2	1
2	6' Hydraulic Hose	H-HS-72HYD	1
2A	Adapter - 1/4" M X 3/8" F	H-AD-6F4M	1
3	Sealweld® Sealant Fitting – ½" Carbon Steel	F-SW 14-CS	1
4A	Head Cap	R-UG-1A	1
4B X	Barrel Gasket	R-A8-19A	1
4C	Barrel	R-A8-19B	1
4D X	Barrel O-Ring - Nitrile	R-A8-19C	1
4E	Bottom End Cap	R-UG-04	1
4F	Plug - 1/4" M NPT	H-AD-4M	1
5	Piston Assembly	R-A8-20	1
5A	Piston Set Screw	R-A8-20A	1
5B	Piston Stop	R-A8-20B	1
5C X	Nylon Piston Cup	R-A8-20C	1
5D	Piston Body	R-A8-20D	1
5E X	Piston O-Ring	R-A8-20E	1
5F	Piston End Nut	R-A8-20F	1
5G X	Inner Leather Cup	R-HG-08H	1
6	Uni-Seal Pump Hose Assembly - Complete	R-U-HOSE	1
6A	Adapter - 1/4" M X 1/4" M	H-AD-4M4M	1
6B	High-Pressure Tee - ¼"	H-T-444	1
6C	15,000 PSI Gauge with Rubber Guard	H-GD-01C	1
6D	Z Swivel - 1/4" x 1/2"-27	H-SV-Z1	1
6E	Extra High-Pressure Hose - 60"	H-HS-60XHP	1
6F	Straight Swivel - 1/4" M X 1/2"-27	H-SV-ST1	1
6G	Giant Buttonhead Coupler	H-CPSG-2	1
10	Air Nipple	R-A8-15A	1
11	Hydraulic Fluid	R-HOPINT	2

EZ-LOADER

The Sealweld® **EZ-Loader** was designed to make loading cartridges quick and easy. Just pull back the T-handle, insert a cartridge, screw on the adapter and transfer the lubricant/ sealant into the high-pressure pump barrel. No waste, no mess and easy to store.

The use of cartridge type lubricant/sealants has been found to greatly reduce the risk of product contamination and trapped air in any pump.

-	 er	п	-	

Description	Part No.
Fits Hydraulic Hand-Held, SuperGun Pump,	
Uni-Seal™	G-EZ-LOADER
Fits Alemite 6268, Rockwell 400A	G-EZ-LOADER-AG





EZ-LOADER OPERATING INSTRUCTIONS

- 1. Remove Pump from valve.
- 2. Relieve any internal pump pressure.
- 3. In case of:
 - A) Sealweld* SuperGun Pump remove head
 - B) Sealweld® Uni-Seal remove top cap.
 - C) Any Hydraulic Hand Pump remove top cap.
- 4. In all cases, make sure piston or cups are at the top of the sealant barrel.

- 5. Remove EZ-Loader adapter ring, remove cap from sealant cartridge and place open end into EZ-LOADER.
- 6. Pull until cartridge is completely inside EZ-LOADER with T-HANDLE as illustrated.
- 7. When cartridge is completely inside EZ-LOADER, remove PULL TAB from cartridge and attach adapter
- 8. Push T-HANDLE until product is flush with adapter ring and thread the EZ-LOADER assembly to the sealant barrel.
 - **NOTE:** Leave the threaded connection loose, as this will allow the air trapped between the sealant and piston cup to escape. Gently push the EZ-LOADER T-HANDLE forward until contact is made between sealant and piston cups; this forces the trapped air to escape through loose threads.
- 9. Tighten EZ-LOADER assembly to sealant barrel and follow the pump loading instructions.



SEALWELD® CUSTOM DESIGNED PROFESSIONAL HIGH PRESSURE PUMP PACKAGES

Sealweld® can design and manufacture customized large-volume and multiple unit pumps and air compressor packages for service trucks, valve service skids and offshore containers.

Every package is custom designed to each customer's specific requirements depending on the type and size of valves, maintenance frequency, valve capacities, available manpower and mobility issues as it relates to valve proximity.

Climatic considerations are critical to designing the optimum packages.

These are only a few of the many packages currently being produced. New combinations of technologies are being bundled as needs arise.

We have the ability to design packages specifically for:

- Sub Sea Applications
- Hele-Portable Applications
- · Rugged Pipeline Right-of-Way Applications
- · Long Distance Pipeline Specific Packages
- Wellhead Service Units for both on-shore and offshore
- Plant and Platform specific applications for unique situations
- · Others by request

SEALWELD® SUPERSEAL II PUMP PACKAGE

Designed for use by Professional Valve Technicians for full time duty in rugged field conditions.

- · Heavy duty steel frame
- 100:1 ratio pump 10,000 psi maximum discharge
- Uses 5 gallon/ 40lbs metal pail
- 100 psi maximum air inlet pressure
- · Pneumatic air lifting ram
- · Complete with high pressure hose assembly









AUSCILLATER™ PORTABLE VALVE FLUSHING CART

This unit is designed by one of the world's largest pipeline operators for the safe injection of flushing liquids into pressurized valves and vessels. It is proven to flush out clogged riser pipes on large diameter buried valves, flush foreign debris from valve bodies and critical seal faces.

The Auscillater Pump is proven effective – 2 years in development and 3 years in field service.

This unit works great for flushing contaminants from critical internal seals before and after pigging exercises to extend valve seal life.

The Auscillater pump consists of an 8SFD-40 Liquid Pump with Arctic Modification Drive Assembly, fluid reservoir with fill port, air drive regulator, air drive filter, air drive gauge, speed control valve, return to tank valve, outlet regulator capable of 3 gpm at 2,000 PSI, relief valve to be downstream of the outlet regulator and to drain back to the tank, hydraulic accumulator suitable for diesel fuel, isolation valve for accumulator, and outlet pressure gauge all housed in a metal cart frame with panel-mounted gauges and wheels. Parts are available on request.

24 gallon capacity tank.

Arctic-duty rated regulator to be (using Buna-C seals)



Ord	ler	D	eta	ils

Description	Part No.
Portable Valve Flushing Cart	G-FGUN

CYCLONE RECOVERY TANK

This tank is recommended for use when blowing down valve bodies in natural gas pipelines to capture liquids.

Use the Cyclone Tank during normal valve servicing procedures. Connect the cyclone via high-pressure hoses to the body vent or blow-down assembly. The cyclonic action will separate gas and liquids. The tank will collect the various liquids associated with the transportation of natural gas including gas liquids, water, condensate and compressor/ turbine oil. Take the oil to a recycling depot and test for contamination. Recycle the clean oil and send contaminated product to the nearest hazardous waste disposal site.

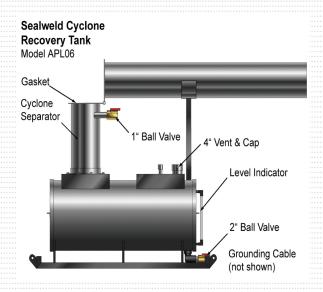
The tank is **NOT** a pressure vessel, ALL gas pressure is vented to atmosphere through the 4" vent cap on top.

The **Cyclone Tank** comes complete as illustrated with all necessary piping, baffles and valves including sight glass/ level indicator.

The unit price includes black enamel painting.

Complete with 2 each: 1 inch 1D x 20 foot 2,000 PSI high-pressure hoses, forged steel unions and 2,000 PSI full-port shut-off valves.

Includes: 7 foot hinged stack extension, 2" drain valve, grounding cable.



Order Details

Description	Part No.
Sealweld® Cyclone Tank Model APL06	W-CYC

PUMP REPAIR SERVICES

Sealweld® Pump Repair Specialists are here to keep your high pressure injection equipment in optimum operation condition.

Routine Pump Maintenance, Annual Tune-Up and Pressure Gauge Recalibration are all services available at Sealweld*. High Pressure Sealant Injection Guns and Pumps are designed to generate pressures from 7000psi to 15,000 psi – many times more than the maximum operating pressure of the valve in order to pump high viscosity synthetic sealants and lubricants.

Many operators now insist on independent pressure test certificates for the pumps, hoses and related components due to increased safety and compliance related concerns. Regular pump maintenance and annual recertification is recommended.

CUSTOM BLENDED PRODUCTS

Sealweld® has the ability to custom blend and package a wide variety of specialty products for unique and/or challenging field applications.

- Extreme high temperatures < 600 °F / 315 °C
- Extreme low temperatures > -90 °F / -68 °C
- · Severe leakage of;
 - Valve Seats
 - Valve Body Leaks
 - Valve Stem Leaks
 - Flange Leakage
 - Pump & Stuffing Box Leakage

7 PIECE SOCKET SET FOR PLUG VALVES

This socket set is designed to help evenly distribute torque across the stem for all sizes of Plug Valves.

Use when Plug Valves becomes too difficult to operate with a standard Valve wrench.

Reduce valve replacement, disruption of services, and risk of injury.

PART # DESCRIPTION

V-VLV-CES-1 7 Piece Socket Set for Plug Valves
V-VLV-CES-2 7 Piece Socket Set for Plug Valves W/Case

V-VLV-TM Torque Multiplier Wrench

7 PIECE SOCKET SET FOR PLUG VALVES:

Made of 1045 Medium Tensile Carbon Steel

- 1 Socket square type for 1.75" stem
- 1 Socket square type for 2" stem
- 1 Socket square type for 2.25" stem
- 1 Socket square type for 2,5"stem, that goes on 8" valve
- 1 Socket o'blong type 1 7/8" X 1" X 3" total hight
- 1 Socket o'blong type 1 7/8" X 1 1/4" X 3" total hight



TORQUE MULTIPLIER WRENCH

Storage Case Gear ratio 20.25:1 3200 ft. lb. Output 1/2" Input Drive

NOTE: The handle or other anchor plate serves as a "reaction bar" and must be placed against a strong fixed object.

- Designed to free up seized plug valves that have not been turned in years.
- Adjustable torque range can be reset according to the valve manufacturer's maximum torque rating and are determined by size, material, and valve model.
- · Avoid a costly shutdown
- · Reduce injury to maintenance personnel
- · Rental rates available



VALVE FITTINGS

SETTING NEW VALVE FITTING STANDARDS

Many of the world's oldest and largest oil & gas fields have exceeded their original planned life expectancy and are seeing expansions as new technologies are applied to increase production. This is in direct response to increased energy prices - fields that were once considered marginal are now being revitalized.

Sealweld® has been focused for over 40 years on developing products, technologies and procedures to extend the in-service life of large diameter valves in high-pressure pipeline applications. Now these technologies are being applied to valves on wellheads, gathering systems, processing facilities and gas distribution systems with equal success.

Sealweld® valve sealants are designed to achieve a reliable temporary seal in older worn valves. A valve technician's ability to inject an emergency sealant compound is determined by the quality and capability of the fittings installed on the valve. In an effort to manufacture a cheaper, less expensive valve, many manufacturers install cheap, and in some cases, dangerous fittings. Now, operators are discovering that their ability to avoid a million dollar emergency shutdown is being determined by a \$5 valve fitting.

For decades, Sealweld® has invested in research dedicated to understanding fitting failures. In collaboration with oil & gas producers, pipeline operators and through extensive cooperation with local and international regulatory and administrative bodies, we have designed valve fittings capable of meeting or exceeding the demands of our rapidly expanding energy industry.

DANGEROUS AND SUB-STANDARD VALVE FITTING DESIGNS ARE THE #1 CAUSE OF VALVE TECHNICIAN INJURY AND EVEN DEATH.

Pressure Vessel Markings		
ABSA	Alberta Boilers Safety Association	
	CRN 0C07140.2	
PED	97/23/EC CE0035	
	Nr. 01 202 I / U -06 2320	
ATEX	94/9/EC	
	Nr. 968/Ex-Ab 871/06	

Quality System

ISO	9001:2008 Nr. APIQR-0502
ISO	TS 29001 Nr. TS-0012
API	Q1 ED.8 Nr. Q1-0221

Design in Accordance with

API	6D - 23rd ED.
API	6D SS I ED.
API	6A 19th ED.
ASME	VIII
ASTM	B16.34
ARAMCO	STD. 04/SAMSS-01 P35

^{*} According to available latest edition standard.

Fugitive Emission (Upon Request)

ISO	15848
Shell	SPE 77/312

^{*} Additional qualifications available on request.

Pressure Test

- In accordance with internal procedures or upon request in accordance with API 598 or other stds.
- · Canadian, U.S. and Italian patent approved
- ASME III for nuclear service

FLOW WOLF° FITTINGS MEET OR EXCEED INTERNATIONALLY RECOGNIZED QUALITY STANDARDS & SPECIAL APPLICATIONS



PATENTED FLOW WOLF® FITTINGS

The patented **Flow Wolf**® threaded-cage design has been incorporated into many of our popular fitting and adapter designs including:

- Sealant injection fittings
- Body grease fittings
- · Internal check valves
- · Leak-Lock adapters
- Cameron®, WKM®, Daniel® and other specialty adapters
- · Quad-Seal fittings and more!!

DESCRIPTION

The patented **Flow Wolf**® design was originally invented in the field by our founder, W.J. "Bill" Chisholm, on a job where we needed to inject a super heavy sealant compound into severely leaking valves.

The valve manufacturer's sealant fittings plugged off immediately and subsequent high-pressure resulted in the "blow-out" of the check valve mechanism.

This situation lead to the development of the **Flow Wolf**° design with the assistance of Russian field engineers and Sealweld° engineers in Canada. The **Flow Wolf**° design is now in use in pipeline valves around the globe and preferred by many of the world's largest pipeline operators. This design is also available by special request when you order new valves from all the world's leading valve manufacturers. Be sure to specify:

"Sealant fittings to be the Sealweld" **Flow Wolf**" design - no substitutes!"

SEALWELD® FLOW WOLF® SEALANT
INJECTION FITTINGS HAVE
BEEN GRANTED A CERTIFICATE
OF AUTHORIZATION ISSUED BY
ABSA (ALBERTA BOILERS SAFETY
ASSOCIATION) AND ASSIGNED THE
FOLLOWING CANADIAN REGISTRATION
NUMBER: CRN 0C07140.2

Flow Wolf® Patented Designs

Description	Part Number
Capped Buttonhead Fittings	F-FW#-BH
Capped Buttonhead Fitting	F-FWT
Quad-Seal Fitting Series	F-FWQS#

Specialty Adapters for Cameron, WKM and Daniel Fittings

Speciatty Adapters for Gameron, With and Be	unice i renigs
Cameron® Screw-On Adapters	D-FW-CAM-SO-CS
Inner Check Design Series	D-FW-IC#
Leak-Lock Adapter Series	D-FW-LL#
Screw-On Buttonhead Adapter/Coupler	D-FW-SO-BH-CS

Product Specifications

BUTTONHEAD FLANGE

For Giant Buttonhead Coupler

UNIQUE THREADED-CAGE DESIGN

Prevents check valve blow-out

"SAFETY VENT" CAP

With secondary metal-to-metal seal

"POSITIVE SEAL" THREADS

For screw-on coupler or valve bleed-down tool

REDUCES INJECTION PRESSURE

Up to 60%

ONE-PIECE BODY

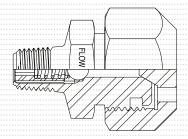
Withstands more pressure than two-piece

THREADED CAGE

Reduces the risk of fatigue by distributing the force across many threads



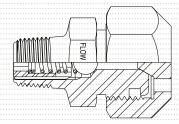
Illustration only. Actual design may vary by model



FLOW WOLF® 1/4" BUTTONHEAD FITTING

The 1/4 inch **Flow Wolf®** vented cap, single check, sealant injection fitting with giant buttonhead, comes in stainless steel ONLY. The tapered thread ensures a tight fit. Perfect for small ball and gate valves and suitable for high-pressure service.

Thread	Material	Part Number
1/4" - 18	NPT .316 Stainless	Steel F-FW1/4-BH-SS-CRN

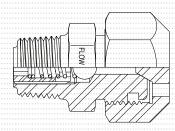


FLOW WOLF® 3/8" BUTTONHEAD FITTING

The 3/8 inch **Flow Wolf**® vented cap, single check, sealant injection fitting with giant buttonhead, comes in both stainless and carbon steel.

It is suitable for high-pressure service.

Thread	Material	Part Number
3/8" - 18 NPT	Stainless Steel	F-FW3/8-BH-SS-CRN
3/8" - 18 NPT	Carbon Steel	F-FW3/8-BH-CS

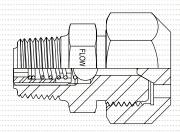


FLOW WOLF® 1/2" BUTTONHEAD FITTING

The 1/2 inch **Flow Wolf**® vented cap, single check, sealant injection fitting with giant buttonhead, comes in both stainless and carbon steel.

This fitting is the industry standard for ball valve fittings and is suitable for high-pressure service.

Thread	Material	Part Number
1/2" - 14 NPT	Stainless Steel	F-FW1/2-BH-SS-CRN
1/2" - 14 NPT	Carbon Steel	F-FW1/2-BH-CS



FLOW WOLF® 1/2" SCREW-ON BODY GREASE FITTING

This 1/2 inch **Flow Wolf**® vented cap, single check, screw-on sealant injection fitting does not have a giant buttonhead flange. This design is most often used on wellhead gate valves or when using screw-on couplers.

It is suitable for high-pressure service.

Thread	nd Material Part Number	
1/2" - 14 NPT	Stainless Steel	F-FW-S01/2-SS-CRN
1/2" - 14 NPT	Carbon Steel	F-FW-S01/2-CS

PATENTED FLOW WOLF® QUAD SEAL FITTINGS

SEALWELD® IS PROUD TO INTRODUCE THE LATEST ADVANCEMENT IN SEALANT INJECTION FITTING DESIGN TECHNOLOGY; THE FLOW WOLF® - QUAD-SEAL INJECTION FITTING

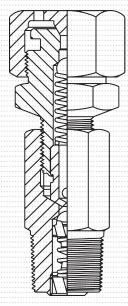
DESCRIPTION

The Sealweld® **Quad-Seal Injection Fitting** eliminates all leakage to atmosphere and harmful fugitive emissions during the maintenance routine and when the valve is unattended.

It is ideal for use on offshore platforms, inside buildings, compressor and meter stations, or when handling hazardous or toxic gases and/ or liquids.

The all-stainless steel construction eliminates the risk of plating failure which can occur on all types of standard carbon steel. The thin plating is often worn off through use. The bare steel then begins to rust and corrode, rendering the fitting unusable and potentially dangerous.

The design and material extend the effective service life of the fitting many times over. Reduce fitting replacement costs in all types of valves and wellhead equipment by installing the **Quad-Seal Injection Fitting.**



FLOW WOLF® QUAD SEAL FITTING

This fitting is designed to be LEAK-FREE.

It allows the technician to safely remove the cap and attach the pump with ZERO RISK of product leakage to atmosphere. Unscrew the upper section one full turn to open the metal-to-metal seal between the upper and lower sections, then begin pumping. Close the metal-to-metal seal (one full turn) before detaching the pump. Replace the steel cap to provide reliable double-isolation.

RECOMMENDED FOR:

SEVERE service, including (but not limited to):

H2S, C02, NGL/LPG, SAGD, steam, enclosed spaces, sub-sea applications, etc.

* Seal material specification is determined by intended service. Custom orders accepted.

Thread	Material	Part Number
1/4" - 18 NPT	.316 Stainless Steel	F-FWQS1/4-SS-CRN
3/8" - 18 NPT	.316 Stainless Steel	F-FWQS3/8-SS-CRN
1/2" - 14 NPT	.316 Stainless Steel	F-FWQS1/2-SS-CRN

Product Specifications

.316 STAINLESS STEEL CONSTRUCTION

For long life and superior corrosion resistance

4 INDEPENDENT METAL-TO-METAL SEALS

For maximum seal reliability

2 DOUBLE-ISOLATION CHECK VALVES

With verification capability

PATENTED FLOW WOLF® THREADED CAGE

Allows heavy sealants to be injected in an emergency

2 COLLAPSE-PROOF SPRINGS

Reduce injection pressures

INTERNAL CHECK VALVES

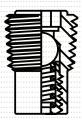
BEFORE commissioning a new valve it is important to make sure it contains a top-quality internal check valve. When ordering a new valve, specify to the manufacturer that you want Sealweld® Flow Wolf® Internal Check Valves.

Sealweld* Flow Wolf* Internal Check Valves are ONLY manufactured from stainless steel and all include the patented Flow Wolf* threaded-cage to ensure that the ball check is NOT accidentally injected into the valve when pumping heavy sealant.

A working check valve is CRITICAL to ensuring valves can be serviced under pressure safely. Internal check valves will remain in place for years and must stand up to direct contact with corrosive environments. In addition, it is much more difficult to remove an internal check valve than a standard fitting, especially when the check valve is corroded.

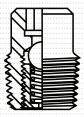
Ensure years of safe service by insisting on Sealweld® patented Flow Wolf® Internal Check Valves.

FLOW WOLF® 1/4" INTERNAL CHECK VALVE



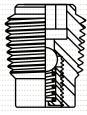
Thread	Material	Part Number
1/4" - 18 NPT	Stainless Steel	D-FW-IC1/4-SS-CRN

FLOW WOLF® 3/8" INTERNAL CHECK VALVE



Thread	Material	Part Number
3/8" - 18 NPT	Stainless Steel	D-FW-IC3/8-SS-CRN

FLOW WOLF[®] 1/2" INTERNAL CHECK VALVE

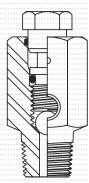


Thread	Material	Part Number
1/2" - 14 NPT	Stainless Steel	D-FW-IC1/2-SS-CRN

SEALWELD° FLOW WOLF° INTERNAL CHECK VALVES HAVE BEEN GRANTED A CERTIFICATE OF AUTHORIZATION ISSUED BY ABSA (ALBERTA BOILERS SAFETY ASSOCIATION) AND ASSIGNED THE FOLLOWING CANADIAN REGISTRATION NUMBER: CRN 0C07140.2

BODY VENT/ DRAIN FITTINGS

TC3 STYLE



The standard body vent/ drain fitting does not allow for the removal of the stinger which is held in place with pins. This fitting is ideal for blowing-down ball valves or releasing pressure from the body of a gate valve during normal service.

This fitting has a large opening to prevent freeze-up during depressurization.

It is available from stock in stainless steel ONLY. Other materials are available by special request.

Thread	Material	Part Number	
1/2" NPT	Stainless Steel	F-BV1/2-TC3-SS-CRN	
3/4" NPT	Stainless Steel	F-BV3/4-TC3-SS-CRN	
1" NPT	Stainless Steel	F-BV1-TC3-SS-CRN	
1-1/2" NPT	Stainless Steel	F-BV11/2-TC3-SS	

Product Specifications

WEATHER SEAL O-RING

Prevents water from entering fitting.

SPRING PINS

Prevent removal of bolt.

THREAD SEAL O-RING

Prevents leakage through threads

COARSE THREAD

Prohibits thread damage

THREADED VENT HOLE

Pipe leakage away from work site

REDUCED BORE HOLE

Prevents jamming of ball

.316 STAINLESS STEEL BODY

.316 STAINLESS STEEL BOLT

Prevents corrosion, extend service life

TC4 STYLE



This design is similar to the TC3 in all respects with an added stainless steel ring and cable. It is designed to replace the existing carbon steel bleeder on hinged closures where plating failure has rendered the existing fitting inoperable.

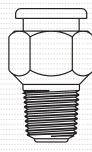
The TC4 is available from stock in stainless steel ONLY. Other materials are available by special request.

Thread	Material	Part Number	
1/2" NPT	Stainless Steel	F-BV1/2-TC4-SS-CRN	
3/4" NPT	Stainless Steel	Stainless Steel F-BV3/4-TC4-SS-CRN	
1" NPT	Stainless Steel	Stainless Steel F-BV1-TC4-SS-CRN	
1-1/2" NPT	Stainless Steel	F-BV11/2-TC4-SS	

Disclaimer: Material selections suggested in this catalog are based on historical sales information ONLY. It is the responsibility of your engineering manager to make the final decision on the suitability of materials used for fittings on valves in your system. We have the capability to manufacture fittings out of various materials and grades. The carbon steel and stainless steel fittings referenced in this catalogue should work in most field conditions.

SEALWELD® BODY VENT/ DRAIN FITTINGS
HAVE BEEN GRANTED A CERTIFICATE
OF AUTHORIZATION ISSUED BY ABSA
(ALBERTA BOILERS SAFETY ASSOCIATION)
AND ASSIGNED THE FOLLOWING CANADIAN
REGISTRATION NUMBER:
CRN 0C07140.2

GIANT BUTTONHEAD FITTING

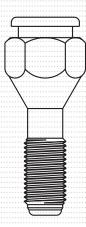


SW STYLE

These standard one-piece body, carbon steel buttonhead fittings are designed for use in enclosed, non-corrosive service areas.

Larger sizes come with a double-ball check, the smallest size has a single-ball check.

Thread	Material	Part Number
1/8" - 27 NPT	Carbon Steel	F-SW1/8-CS
1/4" - 18 NPT	Carbon Steel	F-SW1/4-CS
3/8" - 18 NPT	Carbon Steel	F-SW3/8-CS
1/2" - 14 NPT	Carbon Steel	F-SW1/2-CS



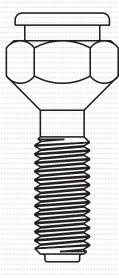
RN SYTLE

When servicing a plug valve with an injection pump, back the fitting out of the valve slightly. Inject sealant into the fitting then disconnect the coupler from the fitting.

If you need additional lubricant/ sealant injected and you do not have injection equipment with you, simply screw the fitting further into the valve and the lubricant/ sealant will be injected as if you were using a packing injector.

This style of fitting is available in carbon steel ONLY. Stainless steel or other materials are available by special request.

Thread	Material	Part Number
1/4" - 18 NPS	Carbon Steel	F-RN1/4-CS
3/8" - 18 NPS	Carbon Steel	F-RN3/8-CS
1/2" - 14 NPS	Carbon Steel	F-RN1/2-CS
3/4" - 14 NPS	Carbon Steel	F-RN3/4-CS



NH FITTINGS

Features include:

- · One-piece body
- Double-ball check
- · Designed for use in plug valves
- Use as a plunger for injecting sealant sticks or simply attach to your pump using a side-entry or top-entry giant buttonhead coupler

Combination fittings can be used as a standard injection fitting when attached to an injection pump or can be used like a packing injector by simply screwing the fitting further into the valve.

This style of fitting is available in carbon steel ONLY. Stainless steel or other materials are available by special request.

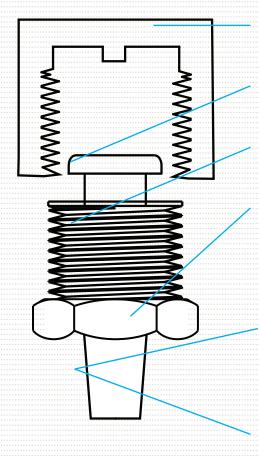
Thread	Material	Part Number
3/8" - 16 UNC	Carbon Steel	F-NH3/8-CS
1/2" - 13 UNC	Carbon Steel	F-NH1/2-CS
5/8" - 11 UNC	Carbon Steel	F-NH5/8-CS
3/4" - 10 UNC	Carbon Steel	F-NH3/4-CS

Notes

Stainless Steel Material is also available by special request. The **FlowWolf** design with these thread styles is also available by request but not in stock.

CUSTOM DESIGNED VALVE FITTINGS AND ADAPTERS

Due to the absense of standards for vavle fittings, many different designs are currently in service. In an effort to improve plant, platform and pipeline safety, a site survey should be completed and new valve fittings manufactured for replacement during your next scheduled outage. Are your valve fittings in compliance with current regulations?



STEEL CAP

· vented with metal to metal seal

GIANT BUTTONHEAD

matches your pump couplers

CAP THREADS

match your screw-on style couplers and vent tools

WRENCH FLAT STENCILS IDENTIFYING

- Material certification traceability
- Material Grade
- Manufacturer
- · Design-code Reference

CHECK VALVE DESIGN

- · Check valve type and material
- · Spring material and design
- Threaded cage for maximum flow characteristics and anti-blowout protection
- · Crimped retainer backup

CONNECTING THREAD TYPE

- · NPT, NPTF, NPS, UNC, UNF, BS, METRIC
- Pressure Seals
- Fire Safe Seals



ADAPTERS & COUPLERS

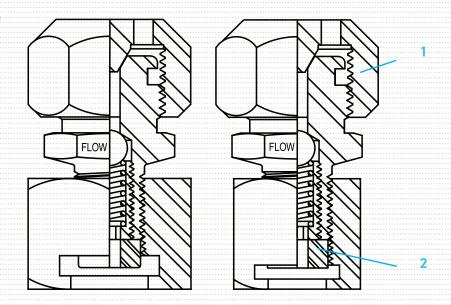
NEW FLOW WOLF MEGA-LOCK

Sealweld® designs and manufactures a broad range of different and specialized valve fitting adapters. Our most popular styles are illustrated on the following pages. We have many more different styles and combinations available - too numerous to include in this current publication.

To obtain a quotation just call Sealweld®, send us an email, or better yet, send us a sample fitting if you're unsure of what you need.

- Never remove a valve fitting from a valve under pressure.
- Some valve fittings, such as combination fittings found in plug valves, have additional independent check valves. Always request permission, obtain additional training, and consult the original valve manufacturer.
- · Never stand in front of the valve fitting
- Always use a backup wrench when removing steel caps and when installing adapters
- · Never take chances with safety. When in doubt ask.

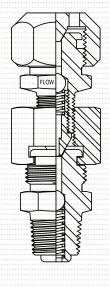
The fittings and adapters illustrated on the following pages are only a few of the many hundreds of different designs, styles and materials grades we are capable of manufacturing. If you don't see what you need, just call, fax or email Sealweld.



- 1 Steel Cap Prevents leakage when unattended.
- 2 NEW: PTFE Gasket ideal for severely damaged buttonheads and hard to hold liquids and cleaners.

Material	Part Number
Stainless Steel - Giant Buttonhead	D-FW-LL1-SS-ML
Stainless Steel - Small Buttonhead	D-FWLL2-SS-ML
PTFE MEGA-LOCK GASKET giant buttonhead style	D-LL-GSK-ML1
PTFE MEGA-LOCK GASKET small buttonhead style	D-LL-GSK-ML2

FLOW WOLF® LEAK-LOCK METAL SEAT



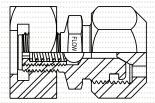
LEAK-LOCK ADAPTERS

The **Flow Wolf**° **Leak-Lock #1** Metal-Seated Adapter is designed for use on capped fittings ONLY. It provides an additional check valve so you can continue to service the valve in-line and under pressure.

Seal type: Metal-to-Metal

The new **Flow Wolf**® style **Leak-Lock Adapter** has all the features of a regular Leak-Lock plus an additional metal-to-metal seal (with cap). It will accept liquids and pass the heaviest sealants without plugging off.

Material	Part Number
Stainless Steel - Giant Buttonhead	D-FW-LL1-MS-SS
Stainless Steel - Small Buttonhead	D-FW-LL2-MS-SS



FLOW WOLF® LEAK-LOCK ADAPTER #1

Emergency Sealing Device for Buttonhead Fittings

Convert leaking or damaged fittings into safe fittings without shutdown or loss of production. The Sealweld® **Leak-Lock** is not a permanent repair device but should be used until a scheduled turn-around or when the pipeline is depressurized and the leaking fitting can be replaced safely. It is also designed for use on damaged buttonhead fittings.

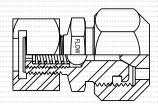
The **Leak-Lock** can be used in applications where a second independent check valve is required to comply with safety codes or company policy. It can be left on permanently or until the pipeline is depressurized and the existing fitting can be replaced safely.

Material	Part Number
Stainless Steel	D-FW-LL1-SS
Leak-Lock Gasket	D-LL-GSK-ASB

This emergency sealing device fits on a leaking or damaged giant buttonhead fitting and utilizes a replaceable gasket seal.

The **Leak-Lock** is ideal for old or leaking fittings or when you need to go from giant buttonhead to a threaded coupler.

Seal type: Gasket

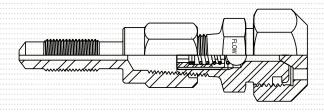


FLOW WOLF® LEAK-LOCK ADAPTER #2

This emergency sealing device converts a small buttonhead fitting to a giant buttonhead fitting fitting and utilizes a replaceable gasket seal.

Seal type: Gasket

Material	Part Number
Stainless Steel	D-FW-LL2-SS
Leak-Lock Gasket	D-LL-GSK-ASB



DANIEL ORIFICE FITTING ADAPTER

This adapter allows you to service a Daniel Senior Orifice fitting as well as allowing you to inject sealant into a standard gate valve stem just like a combination fitting.

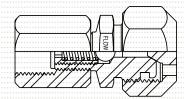
This adapter is designed for Daniel Senior Orifice fittings and allows the technician to inject **Valve Cleaner Plus** to clean the internal valve sealing surfaces. It can also be used to inject **Total-Lube #911** or **#5050** sealant in an emergency.

This fitting also fits into packing injectors for **Valve Cleaner Plus** or sealant injection.

This product is available from stock in carbon and stainless steel. Other materials and grades are available by special request.

Description	Material	Part Number
Top Only	Stainless Steel	F-FW-0A1/4-T-SS
With Bottom	Stainless Steel	F-FW-OA1/4-SS
Top Only	Carbon Steel	F-FW-OA1/4-T-CS
With Bottom	Carbon Steel	F-FW-OA1/4-CS

Top section illustrated. Also available with bottom section (packing injector bottom)

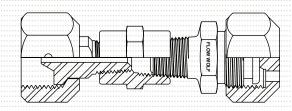


CAMERON SCREW-ON ADAPTER

This adapter allows you to go from a small Cameron capped fitting thread connection to a standard giant buttonhead fitting or screw-on style. This adapter can be left on permanently to simplify servicing of Cameron valves.

It is available from stock in carbon steel ONLY. Stainless steel or other materials are available by special request.

Material	Part Number	
Carbon Steel	D-FW-CAM-SO-CS	

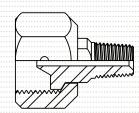


FLOW WOLF® SCREW-ON ADAPTER

This adapter goes from a standard screw-on fitting (body grease fitting) typically found on wellhead gate valves to a standard large buttonhead fitting. It allows you to quickly service a valve without changing the adapter on your injection equipment. This adapter also extends the fitting length allowing you to get at those hard-to-reach fittings.

This adapter is available from stock in carbon steel ONLY. Stainless steel or other materials are available by special request.

Material	Part Number
Carbon Steel	D-FW-SO-BH

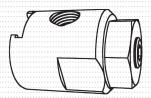


SEALWELD® SCREW-ON COUPLER

This screw-on coupler provides a tight metal-to-metal seal and is ideal for injecting heavy sealant or when working in high-pressure or sour service.

Available in carbon steel ONLY.

Material	Part Number
Carbon Steel	H-CPS0



TOP-ENTRY BUTTONHEAD COUPLER

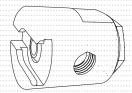
The top-entry buttonhead coupler allows you to easily gain entry to buried or confined valves.

Features - metal button with spring.

Available in carbon steel ONLY.

Material	Part Number
Carbon Steel	H-CPSG-3

STAINLESS STEEL OR OTHER MATERIALS AVAILABLE BY SPECIAL REQUEST



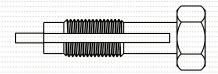
GIANT BUTTONHEAD COUPLER

The Sealweld® giant buttonhead side-entry coupler allows you to quickly attach on to standard giant buttonhead fittings for fast service.

Features - metal button with spring.

Available in carbon steel ONLY

Material	Part Number
Carbon Steel	H-CPSG-2

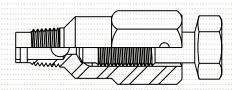


PRESSURE RELIEF TOOL

This specialty tool is used to un-seat the ball check in packing injectors to relieve excess gland pressure.

It is available from stock in carbon steel ONLY. Stainless steel or other materials are available by special request.

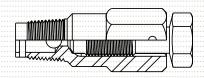
1	Material	Part Number
(Carbon Steel	D-PI-RLF



1/4" PACKING INJECTOR

This injector is available from stock in carbon steel and stainless steel. Other materials and grades are available by special request.

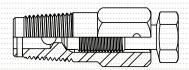
Material	Part Number	
Stainless Steel	F-PI1/4-SS	
Carbon Steel	F-PI1/4-CS	



3/8" PACKING INJECTOR

This injector is available from stock in carbon steel and stainless steel. Other materials and grades are available by special request.

Material	Part Number
Stainless Steel	F-PI3/8-SS
Carbon Steel	F-PI3/8-CS

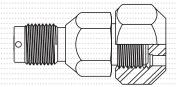


1/2" PACKING INJECTOR

This injector is available from stock in carbon steel and stainless steel. Other materials and grades are available by special request.

Material	Part Number
Stainless Steel	F-PI1/2-SS
Carbon Steel	F-PI1/2-CS

OTHER STYLES AVAILABLE ON REQUEST.

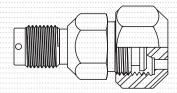


MCEVOY-STYLE FITTING

This is a specialized body cavity fitting for a McEvoy valves and fits a McEvoy 7/8" – 14 UNS screw-on coupler thread.

This fitting is available from stock in carbon steel ONLY. Stainless steel or other materials are available by special request.

Thread	Material	Part Number
3/4" - 16 UNF	Carbon Steel	F-M1-CS

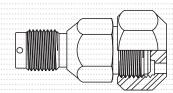


MCEVOY-STYLE GIANT BUTTONHEAD

This is a specialized sealant fitting for a McEvoy valves and fits a standard giant buttonhead fitting and screw-on coupler thread.

This fitting is available from stock in carbon steel ONLY. Stainless steel or other materials are available by special request.

Thread	Material	Part Number
3/4" - 16 UNF	Carbon Steel	F-M2-CS

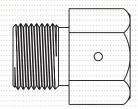


MCEVOY-STYLE SCREW-ON FITTING

This is a specialized body cavity fitting for McEvoy valves and fits a standard 1" – 14 UNS screw-on coupler thread.

This fitting is available from stock in carbon steel ONLY. Stainless steel or other materials are available by special request.

Thread	Material	Part Number
3/4" - 16 UNF	Carbon Steel	F-MS0-3-CS



MCEVOY-STYLE SCREW-ON ADAPTER

This screw-on adapter converts from a McEvoy 7/8" screw-on coupler thread to a standard 1" – 14 UNS coupler thread.

This adapter is available from stock in carbon steel ONLY. Stainless steel or other materials are available by special request.

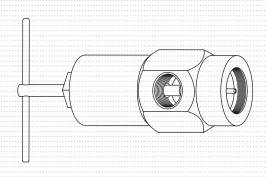
Thread	Material	Part Number
7/8" - 14 UNS	Carbon Steel	D-M1-S0-CS

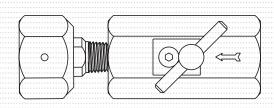


RECOMMENDED ACCESSORIES



Photograph of D-FWKT 1





SEALWELD® FLOW WOLF® VALVE FITTING ADAPTER KIT

This kit is a MUST for every valve technician. It features an assortment of our most popular adapters for attaching the hose assembly to the different styles of valve fittings.

D-FW-KIT-06 - Flow Wolf® Adapter Kit Includes

Description	Part No.
Flow Wolf® Leak-Lock Adapter #1	D-FW-LL1-SS
Flow Wolf® Leak-Lock Adapter #2	D-FW-LL2-SS
Flow Wolf® Leak-Lock Adapter #1Metal-Seated	D-FW-LL1-MS-SS
Screw-On Body Vent Tool	D-SO-BV-CS
Flow Wolf® Screw-On Adapter	D-FW-SO-BH
Daniel Orifice Adapter	D-FW-0A1/4-CS
Cameron Screw-On Adapter	D-FW-CAM-SO-CS
Small Buttonhead Coupler	H-CPAS
Sealweld® Screw-On Coupler	H-CPS0
Small Screw-On Adapter	D-SSO-SO-CS
McEvoy-Style Screw-On Adapter	D-M1-SO-CS
Screw-On Relief Valve Coupler	D-SO-RV
High-Pressure Straight Swivel	H-SV-ST1
Release Valve	H-RVAB
Giant Buttonhead Coupler	H-CPSG-2
Locking Plastic Case	B-CS-ADPKIT

Sealweld® can also customize an adapter kit specifically for your needs depending on the variety of valves at your facility.

SEALWELD® SCREW-ON BODY VENT TOOL

This tool is specifically designed to allow you to un-seat the ball check in the body grease and sealant injection fittings.

This tool is a MUST when servicing many types of wellhead gate valves.

It is also ideal for equalizing pressure when servicing wellhead gate valves.

This tool is available in carbon steel ONLY.

Material	Part Number
Carbon Steel	D-SO-BV-CS

SCREW-ON RELIEF VALVE COUPLER

This handy screw-on style coupler includes a built-in needle valve for isolating the hose assembly from a leaking check valve in the body grease fitting and is commonly used for wellhead valve maintenance.

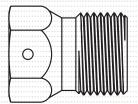
This screw-on coupler combines a one-way check valve and a release tool.

It is ideal for servicing wellhead gate valves, quickly and easily.

In the event that an old or inferior fitting fails during service, the coupler can be safely left on until the next scheduled shutdown. Keep a few extra couplers in your kit for this reason.

This coupler is available in carbon steel ONLY. Stainless steel or other materials are available by special request.

Material	Part Number	
Carbon Steel	D-SO-RV	



SMALL SCREW-ON ADAPTER

This is a screw-on adapter for small W-K-M/ IKS-type capped fittings.

It is available in carbon steel ONLY. Stainless steel or other materials are available by special request.

Material	Part Number	
Carbon Steel	D-SSO-SO-CS	



HIGH-PRESSURE GAUGE ASSEMBLY

ALWAYS use a high-pressure sealant injection pump with a high-pressure gauge attached. Keep ALL equipment in good working order and ready in case of an emergency. This gauge comes complete with a rubber guard to extend service life.

Order Details

Description	Part No.	
High-Pressure Gauge - 15,000 PSI	H-GD-01	
High-Pressure Gauge /w Guard - 15,000	H-GD-01C	
High-Pressure Gauge - 2.5" -		
Guard ONLY	H-GD-2.5	

HIGH-PRESSURE HOSE ASSEMBLIES

ALWAYS use a high-pressure hose and high-pressure threaded connections. Contact us for special order items.

Optional: High-Pressure Hoses

Hose Length	Part No.
2.3 foot/ 28 inches	H-HS-28HP
2.3 foot/ 28 inches	H-HS-28HYD
3.5 foot/ 42 inches	H-HS-42HYD
10 foot/ 120 inches	H-HS-120HP
12 foot/ 144 inches	H-HS-144HP
20 foot/ 240 inches	H-HS-240HP
25 foot/ 300 inches	H-HS-300HP
35 foot/ 420 inches	H-HS-420HP
50 foot/ 600 inches	H-HS-600HP
75 foot/ 900 inches	H-HS-900HP

Optional: Extra High-Pressure Hoses

Hose Length	Part No.
1.5 foot/ 18 inches	H-HS-18XHP
2.3 foot/ 28 inches	H-HS-28XHP
3 foot/36 inches	H-HS-36XHP
4 foot/ 48 inches	H-HS-48XHP
5 foot/60 inches	H-HS-60XHP
6 foot/ 72 inches	H-HS-72XHP
10 foot/ 120 inches	H-HS-120XHP
15 foot/ 180 inches	H-HS-180XHP
20 foot/ 240 inches	H-HS-240XHP
30 foot/ 360 inches	H-HS-360XHP