

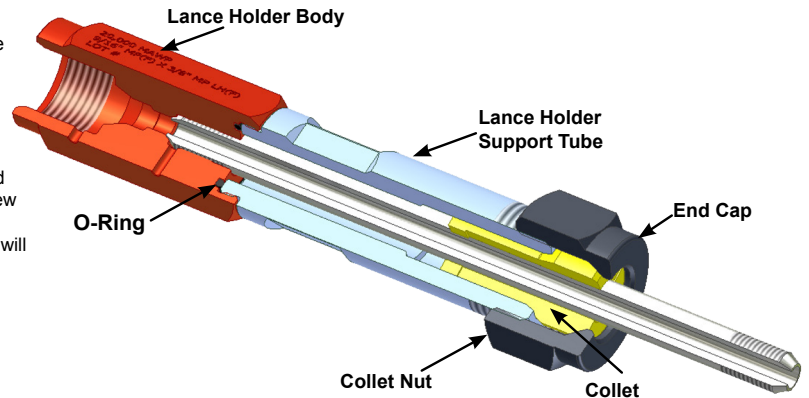
## LANCE ACCESSORIES

**20K Rigid Lance Holder** The threaded end of a rigid lance where it connects directly to a manifold is at its weakest point. A break at this threaded connection renders an otherwise good lance unusable.



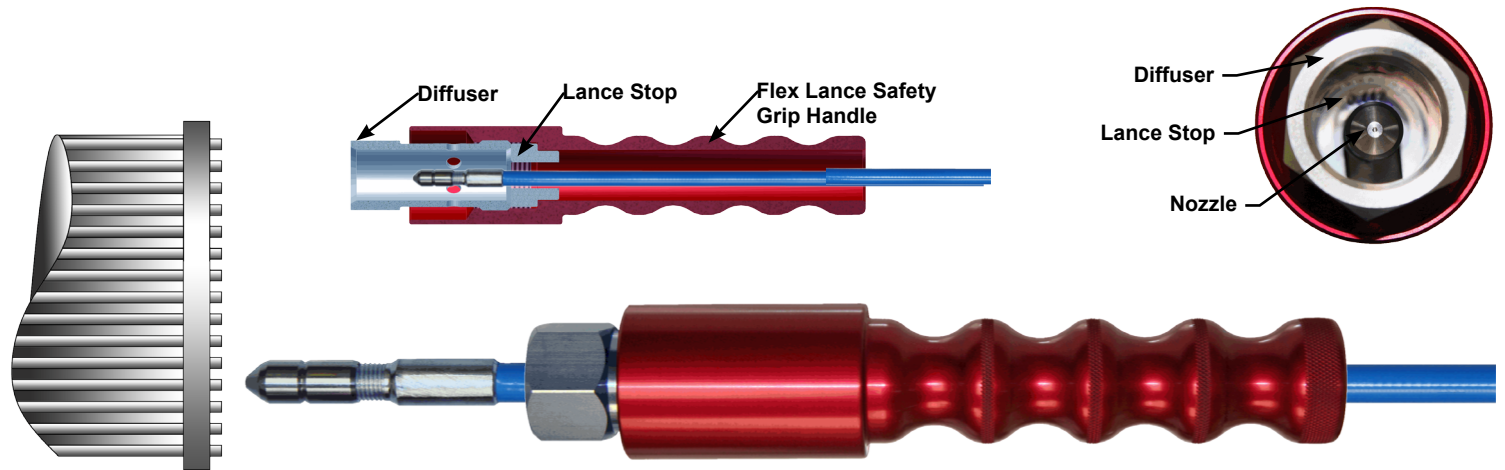
The **Advanced Pressure Systems Rigid Lance Holder** provides full support to the lance at a point well in front of the thread. This Lance Holder is designed to be the best available on the market. It uses a collet and lock nut of the same design as used for a machine shop lathe, which provides a vise like grip on the lance, completely relieving stress on the thread.

Installation or removal of the lance is very easily accomplished: Simply slide the end cap, collet and lance holder support tube onto the lance, in that order, and then screw the lance into the lance holder body. The lance holder tube is then screwed into the Body and the collet is secured into the lance holder tube by the end cap. The lance will then be fully supported.



Part #	20K Lance Holders Description	PSI/Bar
21-030-001	Lance Holder Assy. 9/16" MP (F) x 1/4"-28 RH (F)	20K/1379
21-030-002	Lance Holder Assy. 9/16" MP (F) x 3/8"-24 RH (F)	20K/1379
21-030-003	Lance Holder Assy. 9/16" MP (F) x 9/16"-18 RH (F)	20K/1379
21-030-004	Lance Holder Assy. 9/16" MP (F) x 1/4"-28 LH (F)	20K/1379
21-030-005	Lance Holder Assy. 9/16" MP (F) x 3/8"-24 LH (F)	20K/1379
21-030-006	Lance Holder Assy. 9/16" MP (F) x 9/16"-18 LH (F)	20K/1379

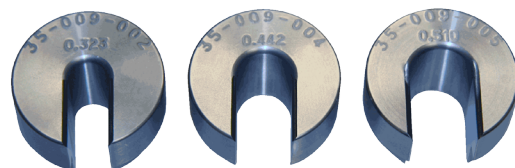
**Flex Lance Safety Grip** The **FLEX LANCE SAFETY GRIP** is designed to minimize the risk of injury to flex lance operators caused by a live nozzle exiting the tube unexpectedly. The comfortably contoured handle makes it easy to hold the **SAFETY GRIP** against the tube sheet, allowing retraction of an active nozzle into a stainless steel sleeve where the force of the jets is dissipated.



The **FLEX LANCE SAFETY GRIP** is simple to install and is quickly adapted to handle various lance sizes by selecting the appropriately sized **LANCE STOP**.

Part #	Flex Lance Safety Grip
35-009-000	COMPLETE ASSEMBLY: Small Flex Lance Safety Grip*
35-009-001	HANDLE: Small Flex Lance Safety Grip
35-009-007	DIFFUSER: Small Flex Lance Safety Grip

**Installation of LANCE STOPS:** Simply unscrew the **DIFFUSER** from the **SAFETY GRIP HANDLE**, which will allow the **LANCE STOP** to be removed. Insert the new lance into the back of the **SAFETY GRIP HANDLE**. Select the correct size **LANCE STOP** for the lance to be used and place it onto the lance behind the nozzle end fitting. Insert the nozzle through the **DIFFUSER** and tighten the assembly into the **HANDLE**. (Note: the larger diameter end of the Lance Stop must be next to the end fitting.)



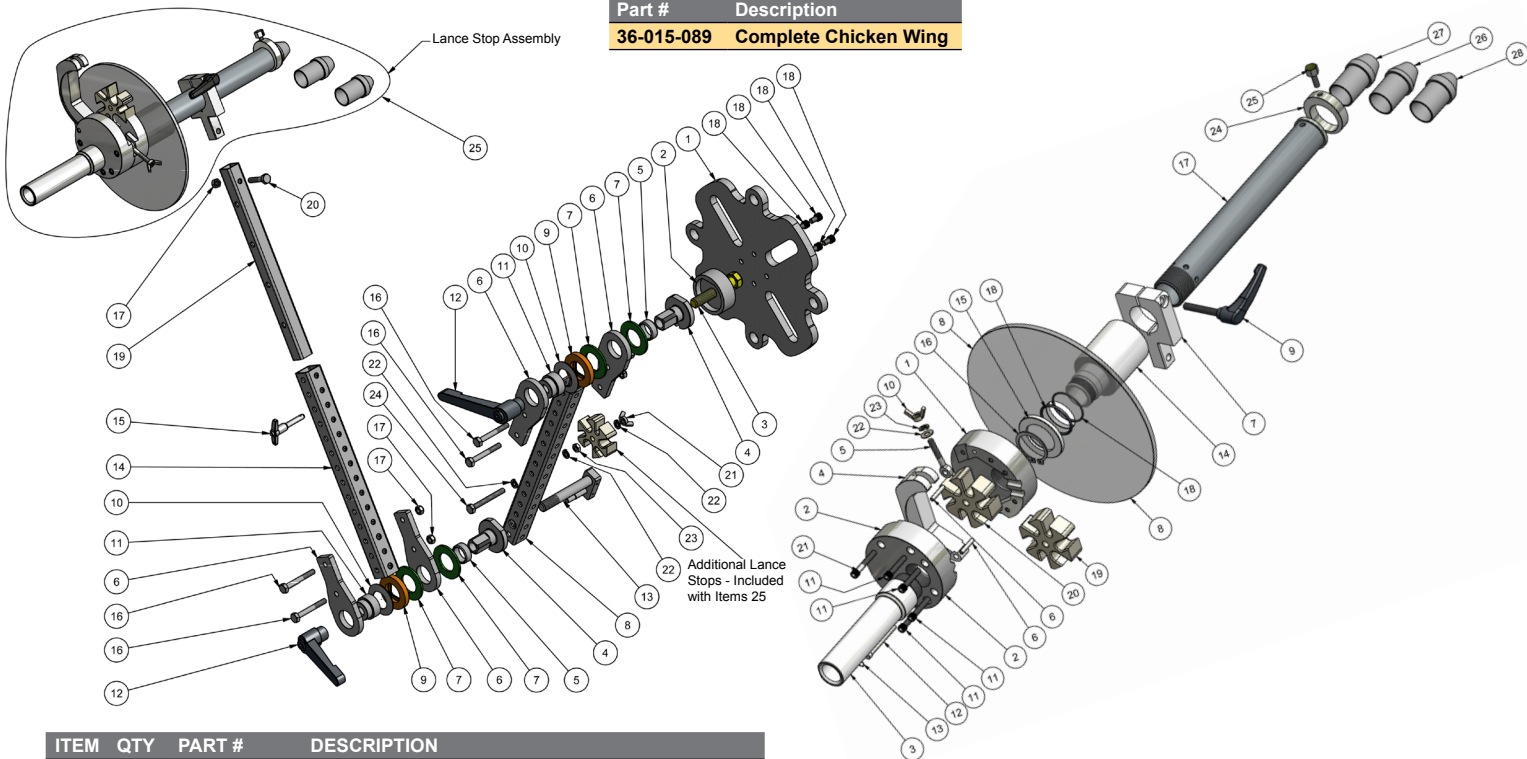
Part #	Lance Stop Description
35-009-002	Stop .323 Flex Lance Safety Guard Lance
35-009-003	Stop .390 Flex Lance Safety Guard Lance
35-009-004	Stop .442 Flex Lance Safety Guard Lance (2005 Lance)
35-009-005	Stop .510 Flex Lance Safety Guard Lance (2006 Lance)
35-009-006	Stop .725 Flex Lance Safety Guard Lance (2108 Lance)
35-009-010	Stop .290 Flex Lance Safety Guard Lance (3/2 & 3004 Lance)
35-009-011	Stop .530 Flex Lance Safety Guard Lance (6005 Lance)
35-009-012	Stop .570 Flex Lance Safety Guard Lance (1/4" NPT & 9/16" Rigid Lance Size)
35-009-013	Stop .470 Flex Lance Safety Guard Lance (4005 Lance)
35-009-014	Stop .870 Flex Lance Safety Guard Lance

## Articulated Flex Lance Safety Stop For Tube Sheet Mounting

This takes the Hand Held "Flex Lance Safety Grip" to the next level. This versatile lance stop/anti-withdrawal device attaches easily to the tube sheet for safer pipe cleaning operations. It features ready adaptability to vertical or horizontal applications and its wide range of expansion accommodates any size of tube sheet. Construction is galvanized steel with aluminum handles and includes a **Lexan®** splash guard.

The stops for six sizes of lances are provided by a quick-change insert, which is built into the design. This eliminates the problem of lost lance stops and makes changing to a different lance diameter quick and easy.

Part #	Description
<b>36-015-089</b>	<b>Complete Chicken Wing</b>



ITEM	QTY	PART #	DESCRIPTION
1	1	<b>36-015-026</b>	Chicken Wing Mounting Plate
2	1	<b>36-015-025</b>	Clutch Mounting Plate
3	1	<b>10-121-325</b>	Hex. Head Bolt 5/8"-11 x 3-1/4" Long
4	2	<b>36-015-046</b>	Limiter - AWD Modified Torque
5	2	<b>36-015-034</b>	Bearing - Torque Limiter
6	4	<b>36-015-016</b>	Pivot Mounting Plate
7	4	<b>36-015-033</b>	Torque Limiter Fiber Washer
8	1	<b>36-015-018.1</b>	Telespar Arm
9	2	<b>36-015-035</b>	Torque Limiter Spacer (Orange)
10	2	<b>36-015-032</b>	Spring Washer
11	2	<b>36-015-023</b>	Spacer for Torque Limiter
12	2	<b>36-015-028</b>	Handle
13	1	<b>36-015-068</b>	Pivot Pin & Locking Plate Assembly
14	1	<b>36-015-019</b>	Telespar Arm
15	1	<b>36-015-027</b>	Extension Locking Pin
16	4	<b>10-015-250</b>	Hex. Head Bolt 5/16"-18 x 2-1/2" Long
17	5	<b>10-100-003</b>	Nylon Lock Nut 5/16"-18 SS
18	4	<b>10-002-050</b>	SHCS 5/16"-18 x 1/2" Long SS
19	1	<b>36-015-088</b>	Telespar Extension Arm
20	1	<b>10-015-150</b>	Hex. Head Bolt 5/16"-18 x 3" Long
21	1	<b>36-015-076</b>	Wing Nut 5/16"-18 SS
22	3	<b>10-020-002</b>	Lock Washer 5/16" SS
23	1	<b>10-100-006</b>	Jam Hex. Nut 5/16"-18 SS
24	1	<b>10-060-275</b>	Hex. Head Bolt (full thread) 5/16"-18 x 2-3/4" long SS.
25	1	<b>36-015-082-3</b>	Multi Lance Stop Assembly

ITEM	QTY	PART #	DESCRIPTION
1	1	<b>36-015-070</b>	Lance Stop Body - Part 1
2	1	<b>36-015-072</b>	Lance Stop Body - Part 2
3	1	<b>36-015-073</b>	Lance Guide Tube
4	1	<b>36-015-071</b>	Latch - Lance Stop Holder
5	1	<b>36-015-074</b>	Latch Bolt
6	2	<b>36-015-080</b>	Dowel Pin
7	1	<b>36-015-069</b>	Clamp
8	1	<b>36-015-044</b>	Splash Shield (1.5" Size)
9	1	<b>36-015-031</b>	Handle
10	1	<b>36-015-075</b>	Wing Nut
11	4	<b>10-001-125</b>	SHCS 1-1/4" Long
12	1	<b>36-015-077</b>	Latch Pivot Pin
13	1	<b>10-022-031</b>	Retaining Clip
14	1	<b>36-015-081</b>	Extension Tube Holder
15	1	<b>36-015-084</b>	Splash Shield Retaining Ring
16	1	<b>10-024-150</b>	Retaining Clip (5100-150) SS
17	1	<b>36-015-087</b>	Extension Tube
18	2	<b>30-002-126</b>	O-Ring Dur. 70
19	1	<b>36-015-007.1</b>	Lance Stop - Parker
20	1	<b>36-015-007.2</b>	Lance Stop - Spir Star
21	1	<b>10-001-150</b>	SHCS 1-1/2" Long
22	1	<b>10-010-003</b>	Flat Washer
23	1	<b>10-020-001</b>	Lock Washer
24	1	<b>36-015-159</b>	Retaining Ring - Guide Bushing
25	1	<b>36-015-160</b>	Hex. Head Thumb Screw
26	1	<b>36-015-161</b>	Flex Lance - Guide Bushing 0.625 I.D.
27	1	<b>36-015-162</b>	Flex Lance - Guide Bushing 0.750 I.D.
28	1	<b>36-015-163</b>	Flex Lance - Guide Bushing 0.437 I.D.

### Change of Lance Stop Size:

1. Unscrew Cover.
2. Open Lance Stop Retainer Latch.
3. Pull out Lance Stop Insert.
4. Feed lance into Support Tube.
5. Select Stop size and install Insert.
6. Close Latch and replace Cover.

**Spir-Star**  
Part # 36-015-007.2



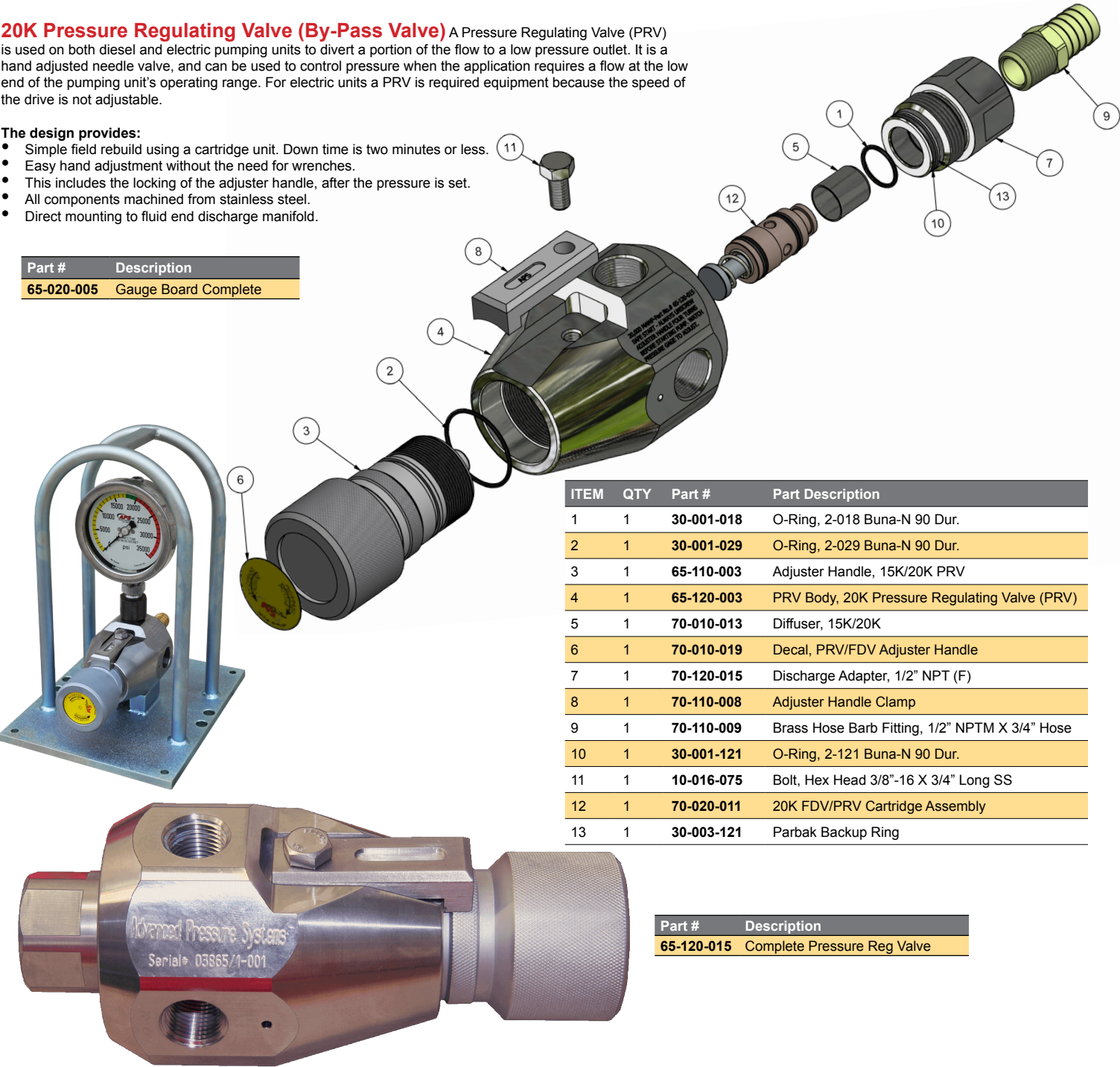
**Parker**  
Part # 36-015-007.1

**20K Pressure Regulating Valve (By-Pass Valve)** A Pressure Regulating Valve (PRV) is used on both diesel and electric pumping units to divert a portion of the flow to a low pressure outlet. It is a hand adjusted needle valve, and can be used to control pressure when the application requires a flow at the low end of the pumping unit's operating range. For electric units a PRV is required equipment because the speed of the drive is not adjustable.

The design provides:

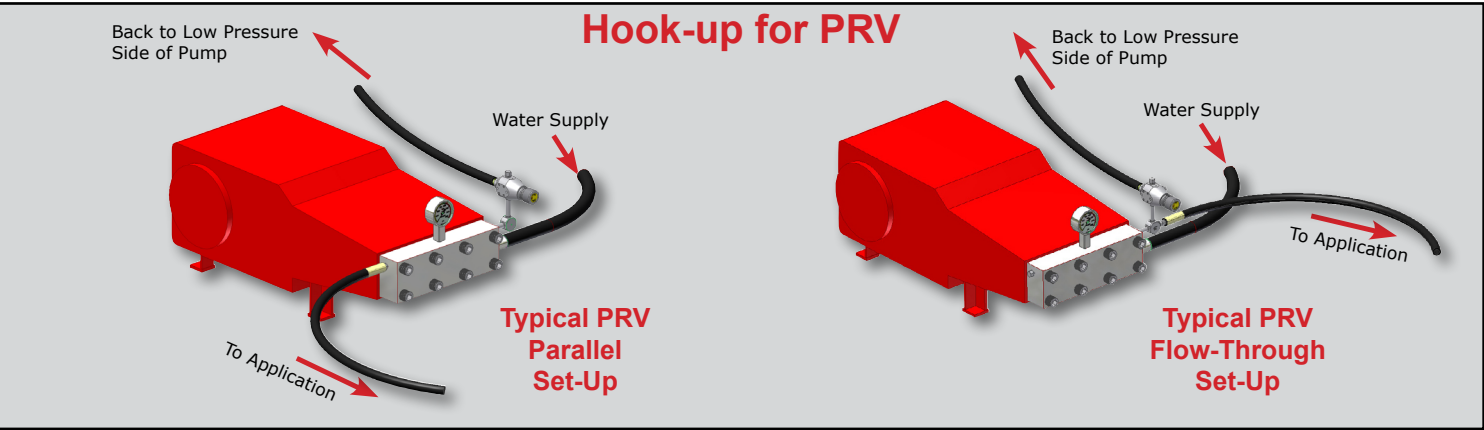
- Simple field rebuild using a cartridge unit. Down time is two minutes or less.
- Easy hand adjustment without the need for wrenches.
- This includes the locking of the adjuster handle, after the pressure is set.
- All components machined from stainless steel.
- Direct mounting to fluid end discharge manifold.

Part #	Description
65-020-005	Gauge Board Complete



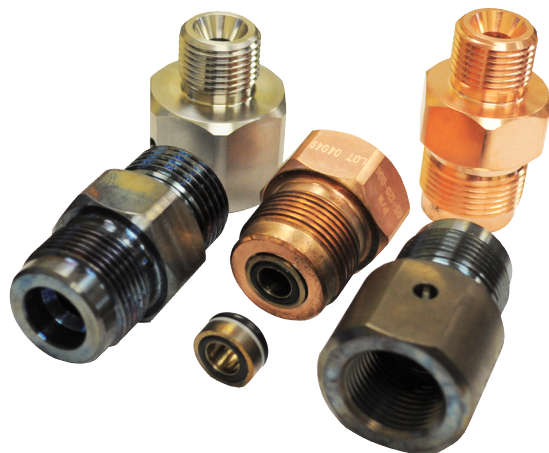
ITEM	QTY	Part #	Part Description
1	1	30-001-018	O-Ring, 2-018 Buna-N 90 Dur.
2	1	30-001-029	O-Ring, 2-029 Buna-N 90 Dur.
3	1	65-110-003	Adjuster Handle, 15K/20K PRV
4	1	65-120-003	PRV Body, 20K Pressure Regulating Valve (PRV)
5	1	70-010-013	Diffuser, 15K/20K
6	1	70-010-019	Decal, PRV/FDV Adjuster Handle
7	1	70-120-015	Discharge Adapter, 1/2" NPT (F)
8	1	70-110-008	Adjuster Handle Clamp
9	1	70-110-009	Brass Hose Barb Fitting, 1/2" NPTM X 3/4" Hose
10	1	30-001-121	O-Ring, 2-121 Buna-N 90 Dur.
11	1	10-016-075	Bolt, Hex Head 3/8"-16 X 3/4" Long SS
12	1	70-020-011	20K FDV/PRV Cartridge Assembly
13	1	30-003-121	Parbak Backup Ring

Part #	Description
65-120-015	Complete Pressure Reg Valve





## 20K J/S Type Port Fittings



Part #	Description
65-120-003	BODY, J/S TYPE 20K PRESSURE REGULATING VALVE (PRV)
65-120-004	BUSHING, J/S TYPE 1"-16 RHM X 9/16" MP (F) W/O SEAL ASSY.
65-120-005	ADAPTER, 1"-16 RHM X 9/16" MP (F) W/ SEAL ASSY. (J/S TYPE 52044)
65-120-006	PLUG, J/S TYPE 1"-16 RHM W/O SEAL ASSY.
65-120-007	PLUG, J/S TYPE 1"-16 RHM W/ SEAL ASSY. (J/S TYPE 52076)
65-120-008	HOUSING, J/S TYPE HP SS SEAL
65-120-009	SPACER, .563 O.D. X .438 I.D. ANTI-EXTRUSION
65-120-011	SEAL ASSY., 20K FACE (J/S TYPE 52040)
65-120-015	ASSY., 20K J/S TYPE PRESSURE REGULATING VALVE (PRV) (J/S TYPE: 54592)
65-120-016	ADAPTER, J/S TYPE 1"-16 RHM X 5MM (9/16"-18) TYPE M W/O SEAL ASSY. 20K
65-120-017	ADAPTER, J/S TYPE 1"-16 RHM X 8MM (3/4"-16) TYPE M W/O SEAL ASSY. 20K
65-120-018	ADAPTER, J/S TYPE 1"-16 RHM X 13MM (1"-12) TYPE M W/O SEAL ASSY. 20K
65-120-019	ADAPTER, J/S TYPE 1"-16 RHM X 1-5/16" TYPE M W/O SEAL ASSY.
65-120-020	ADAPTER, J/S TYPE 1"-16 RHM X 9/16" TYPE M W/ SEAL ASSY.(J/S TYPE 54739)
65-120-021	ADAPTER, J/S TYPE 1"-16 RHM X 3/4" TYPE M W/ SEAL ASSY. (J/S TYPE 54741)
65-120-022	ADAPTER, J/S TYPE 1"-16 RHM X 1" TYPE M W/ SEAL ASSY. (J/S TYPE 53284)
65-120-023	ADAPTER, J/S TYPE 1"-16 RHM X 1-5/16" TYPE M W/ SEAL ASSY. (J/S TYPE 54749)
65-120-024	ADAPTER, J/S TYPE 1"-16 RHF X 8MM (3/4"-16) TYPE M 20K
65-120-025	ADAPTER, J/S TYPE 1"-16 RHM X 1"-16 RHF X 2.5" LONG W/O SEAL ASSY.
65-120-026	ADAPTER, J/S TYPE 1"-16 RHM X 1/2" NPT(M) W/O SEAL ASSY. 15K MAWP
65-120-027	ADAPTER, J/S TYPE 1"-16 RHM X 1/2" NPT(M) W/ SEAL ASSY. 15K MAWP
65-120-028	ADAPTER, J/S TYPE 1"-16 RHM (PORT) X M24 X 1.5 (M) W/ SEAL ASSY. (1379 MAX. BAR)
65-120-029	ADAPTER, J/S TYPE 1"-16 RHM (PORT) X M24 X 1.5 (M) W/O SEAL ASSY. (1379 MAX. BAR)
65-120-030	TOOL, 65-120-011 SEAL ASSEMBLY (NOT FOR SALE)
65-120-031	ADAPTER, 1"-16 RHM (PORT) X 3/4" MP (F) W/SEAL ASSY. 20K MAWP (J/S TYPE: 54737)
65-120-031	1 ADAPTER, J/S TYPE 1"-16 RHM (PORT) X 3/4" MP (F) W/O SEAL ASSY. 20K
65-120-035	ADAPTER, J/S TYPE 1"-16 RHM X 1"-16 RHF X 2.5" LONG W/ SEAL ASSY.

**Relief Valve** 20,000 psi. (Field Adjustable)  
1/4" HPF Bottom inlet conn X 1/4" NPT outlet.



#35-013-009

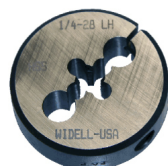
## TOOLS

APS offers a complete line of coning and threading tool kits for manually coning and threading 1/4" O.D. to 9/16" O.D. tubing.

There are three different tool kit versions, "High" pressure, "Medium pressure, and our "Combination Kit" that contains both the Medium and the High Pressure tools. All items are conveniently packaged in a sturdy hand carry tool case with removable top tray. The unique coning and threading tool designs allows for interchangeability between components, eliminating multiple tool inventories.

### Coning Tool

#24-017-010 - 1/4"  
#24-017-011 - 3/8"  
#24-017-012 - 9/16"



Part #	Description
24-018-043	DIE, 1/4"-28 LH X 1 1/2" O.D. PREMIUM THREAD
24-018-044	DIE, 3/8"-24 LH X 1 1/2" O. D. PREMIUM THREAD
24-018-045	DIE, 9/16"-18 LH X 1 1/2" O. D. PREMIUM THREAD
24-018-048	DIE, 1/4"-28 LH X 1 1/2" O.D. PREMIUM THREAD
24-018-049	DIE, 3/8"-24 RH X 1 1/2" O.D. PREMIUM THREAD
24-018-050	DIE, 9/16"-18 RH X 1 1/2" O.D. PREMIUM THREAD

### Threading Tool

#24-119-007 - 1/4"  
#24-119-008 - 3/8"  
#24-119-009 - 9/16"



5-Piece Micro Pick Set  
#15-099-126

Pin Vise used to Clean Nozzles  
# 15-099-002 (0-.055") Range  
# 15-099-003 (.025-.075") Range



Pin Gage Set  
# 15-099-000 (.011"-.060") Range  
# 15-099-001 (.0115"-.0605") Range



Nozzle Cleaners  
#15-099-125  
Standard Set - No.6 Thru 26



# LUBRICANTS, SEALANTS AND TAPE

**Lubricants, Sealants and Tapes** It is essential to keep the correct lubricants, sealants and Teflon® tapes on hand to guard against leaks and pressure loss, and to protect the threads on all water jetting components. **APS** keeps these things in stock as an added convenience for our customers. Our goal is to always be the first source you call.

Part #	Description	Size
24-001-001	Blue Goop® Thread Lubricant	2 Fl. Oz. Tube
24-001-002	Loctite® Nickel-Based Anti-Seize	1 Lb. Jar
24-001-003	Loctite® 567™ Thread Sealant	1.69 Fl. Oz.
24-001-004	1/2" White Teflon® Tape	520 Ft. Roll
24-001-005	3/4" White Teflon® Tape	520 Ft. Roll
24-001-006	1/2" Blue Monster® Premium Teflon®	1,429 Ft. Roll
24-001-007	3/4" Blue Monster® Premium Teflon® Tape	1,429 Ft. Roll
24-001-009	Jet-Lube 550	1/2 Lb. Jar
24-001-010	Jet-Lube 550	1 Lb. Jar
24-001-011	Yellow Lube®	6-6 Oz. sq tube
24-001-013	Loctite® Clover Compound, Grease Mix	16 Oz. Net WT
24-001-014	Loctite® Clover Compound, Water Mix	6-6 oz sq tube
24-001-020	Lubritech® Air Lube Airline Lubricants	16 Fl. Oz. Bottel
24-001-015	Lubemaster® Permalube 4099	14.8 Oz. Tube
24-001-020	LubriMatic® White Lithium Grease	16 Oz. Can

**Blue Goop® Thread Lubricant** (Excellent anti-seize lubricant, especially for 40K applications.) **Part# 24-001-001** Oil-based thread lubricant for use on stainless steel, steel, titanium, aluminum, and nickel-based alloys.



**Loctite® Nickel-Based Anti-Seize Part# 24-001-002** A heavy duty, high temperature lubricant; it resists galling and corrosion, reduces wear in heavy pressure applications, contains oils and graphite which cannot be burned away or be removed by slow moving parts.



**Loctite® Clover Compound, Grease Mix Part# 24-001-013** Silicon carbide particles in a grease mix. Perfect for smoothing and finishing of metal surfaces. Retains its texture and lubrication properties during extended use. Uses include cleaning corroded threads, valve rebuilding, smoothing gears, removing tool marks, lapping for flatness.



**1/2" Blue Monster® Premium Teflon® Part# 24-001-006** Blue Monster is rugged, not flimsy like most thread seal tapes on the market. Blue Monster has not been stretched during the manufacturing process, so it is thicker and creates a more effective seal with less tape. Blue Monster could be used in conjunction with # 24-001-003 Loctite® Thread Sealant for all NPT Threads.



**Jet-Lube 550 1 LB. Net WT. Part# 24-001-010 1/2 LB. Net WT. Part# 24-001-009** 550 contains carefully balanced proportions of molybdenum disulphide (MoS<sub>2</sub>), graphite, and low friction fillers in an aluminum complex base grease that is fortified with effective rust and corrosion inhibitors. 550 assures protection against rust, oxidation and corrosion. It will not harden, evaporate, or settle out; and it requires no thinning. 550 is the ideal product for petrochemical plants' maintenance needs.  
**Applications:** Threads, Flange Faces, Keyways, Gaskets, Slides, Guides and Fittings



**LubriMatic® White Lithium Grease Part# 24-001-016** Includes zinc additive for a clean, white color. Ideal for general home, shop, automotive, agricultural and industrial applications. NLGI #2, drop point 393 Deg. F.



**Loctite® 567™ Thread Sealant** (Designed for the locking and sealing of tapered metal threads & fittings NPT.) **Part# 24-001-003** Designed for the locking and sealing of metal tapered threads and fittings. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. The high lubricating properties of this compound prevent galling on stainless steel, aluminum and all other metal pipe threads and fittings.



**Yellow Lube**  
**6 oz. tube/cs Part# 24-001-011**  
**3 oz. tube/cs Part# 24-001-023** (Very good general purpose anti-seize lubricant which also helps to seal tapered threads.) Yellow Lube is a thread compound employing a heavy duty sulfur/phosphorus extreme pressure additive package for a variety of types and combinations of metals. Galling of threads is virtually impossible.



**Loctite® Clover Compound, Water Mix Part# 24-001-014** Paste formulation for fast metal removal. Biodegradable, recommended for applications where cleanup with water is required.



**White 1/2 Teflon® Tape 520 Ft. Roll Part# 24-001-004**  
**White 3/4 Teflon® Tape 520 Ft. Roll Part# 24-001-005**  
The use of Teflon Tape on MPT fittings will help to prevent leaks.



**Lubritech® Air Lube Airline Lubricants Part# 24-001-020** Air Lube Airline Lubricants are formulated specifically to absorb the moisture present in compressed air used in pneumatic tools, air motors and cylinders. They contain a unique emulsifier system designed to encapsulate up to 10% of its weight in water, while corrosion inhibitors form a protective film on metal surfaces, preventing oxidation and rust formation. Made from highly thermally stable base stocks, these hard-working lubricants help eliminate varnish formation and associated valve sticking. Air Lube Airline Lubricants will not leave hard carbon deposits or effect rubber or plastic valves and seals.



**Lubemaster® Permalube 4099 (Tube) Part# 24-001-015** This grease is for the Cobra Gun.



# Yellow Lube

## WATERJET THREAD PROTECTION

### Benefits

Yellow Lube Water Blasting Thread Protection eliminates wear and galling. Yellow Lube adheres to heavily loaded rotating, reciprocating or sliding parts. It may be used on any heavily loaded equipment that would normally be lubricated with an extreme pressure grease. Yellow Lube is a film forming lubricant having a strong polar attraction to metal. During use, a chemical reaction occurs on areas subjected to heavy loading and frictional heat. This reaction creates a resilient, self-lubricating layer in the metal surface that helps prevent further abrasive contact.

### Applications

Yellow Lube Water Blasting Thread Protection is a thread lubricant designed to protect and seal stainless NPT fittings. In high pressure applications such as water blasting, steps to creating a seal are as follows:

1. Be sure the fitting is clean and dry.
2. Apply Yellow Lube to all mating surfaces.
3. Make fitting up hand tight.
4. Using a wrench or other device, tighten the connection one to one and a quarter full turns.
5. Solid metal to metal seal will have been established: the crest of the threads will be buried in the root, but without galling.

3 oz. Tube - Part # 24-001-023

6 oz. Tube - Part # 24-001-011



### Specifications

NLGI Grade .....	2 1/2
Appearance.....	Yellow, smooth
Solids Content.....	45%
Temperature Range.....	0°F. to 300°F.
Oil description .....	Synthetic
Viscosity, SUS @ 1 00°F. ....	730
Water spray off (with 5% salt spray)ASTM D-4049 .....	0%
Evaporation Rate .....	Nil
Thickener .....	Inorganic (non-melt)
U.S. Environmental Protection Agency static sheen test .....	Pass
Active Toxicity* .....	None
K-Factor .....	(316 Stainless Steel Bolts) 0.174