



WELL MASTER

Artificial Lift Solutions



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Introduction to Well Master

Well Master Corporation... was founded in Denver, Colorado in 1984 with mission to enhance oil and gas well production and to provide oil and gas producers and operators practical means to maximize well efficiency and extend well life.

Today, Well Master provides a range of proven products and solutions designed to optimize oil and gas well operations. Our ongoing research and development efforts bring new technologies and applications to improve well performance. Our products are superior because we partner with those who know best about what works – the lease operators and owners themselves. Well Master does things differently than the typical “trial and error” tool selection approach typically seen in plunger lift optimization.

Our applications engineering team helps operators manage each well “as a business” by increasing production as well as reducing your LOE. Our extensive well analysis inputs well conditions and produces curves showing important flow characteristics. This information is further combined with our proprietary plunger characterization database, providing tailored plunger and equipment recommendations, operation recommendations, and post installation review recommendations.

Well master plungers and engineering expertise translate into higher levels of productivity and less downtime. The total cost of ownership is less than any other brand of plunger lift available today.



Produce More. Spend Less.

At Well Master, we believe in helping our customers get everything they can out of their wells while minimizing their LOE.

We work hard every day to find new ways to optimize your returns while minimizing the lifetime cost of operating a well by focusing on three specific areas:



Innovative Designs with Extended Life

Our in-house R & D department is constantly working with customers to co-design superior products that last. We provide a variety of plungers with different specification options for multiple applications to meet your needs. With our unique metallurgy, heat-treating process and our Dynamic Seal™ technology, our plungers are built to last 2-3 times longer to maximize time between change-outs and minimize downtime.



Superior Customer Service

Our people are there for our customers. We have representatives all over the world to serve your needs locally and help get your plunger lift systems working perfectly. With our guidance, we can make sure we get you the right product to keep your well producing at its optimal rate. We also have multiple local distribution centers to get you your product when you need it.



Well-Optimization Services

“Learn One. Teach One. Do One.” Well Master trains your employees in everything from basic fundamentals in the classroom to the development of best practices for your company. As part of our well-optimization services, our engineers even come to you to analyze your wells and show you how to apply classroom basics to real life situations. At the end of our services, we help you form best practices for your company, allowing you to teach future employees how to get the most from each well.



Well Master can make a difference in how your wells function over their lifetime, minimizing overall costs while maximizing production. We put your feedback to use to provide the best products for you. Let us show you how Well Master does business differently.

**Contact Well Master today to find out how we can help you
Produce More. Spend Less.**

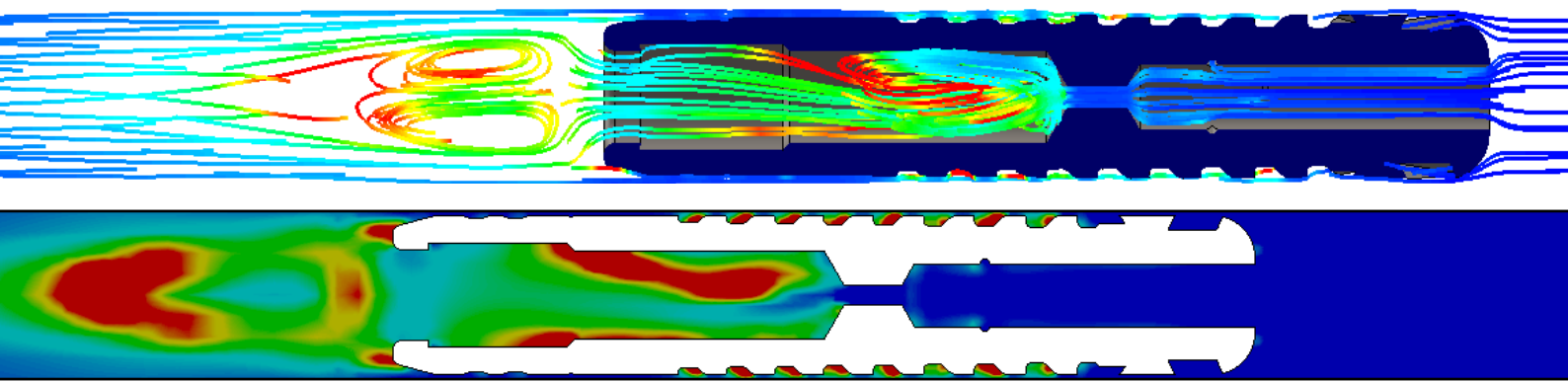


Figure 1: CFD of the flow through a Venturi Viper Plunger

Dynamic Seal™ Technology

Well Master introduces Dynamic Seal™ technology. Traditionally, plunger lift has been used in vertical oil and gas well production. However, today's operators need an all-inclusive solution including directional and horizontal wells.

Well Master's Dynamic Seal™ technology was developed as a solution for directional and horizontal wells without giving up on performance.

Patented Plunger Rib and Groove Design

The design represents a circular airfoil whereby gas attempting to bypass the plunger between the plunger OD and the ID of the tubing wall is drawn into each groove. As this occurs, the gas being drawn into the groove accelerates and is sprayed from under the next rib against the tubing wall creating a high degree of turbulence (high Reynolds number). This scours the tubing wall of liquid and keeps the liquid pushed up and on top of the plunger.

Patented Compression Seal

As the bypassing gas migrates up toward the fishing neck on the plunger, the groove roots become more and more shallow. This allows for the compression of the gas between the groove root and the tubing wall which has the effect of tightening the seal.

The Dynamic Seal™ effect causes the plunger to ride in a cushion of gas helping to reduce wear which increases plunger longevity. Lease Operators have coined the design the "quiet" plunger.

Patented Tangential Holes

The tangential holes in the body of the plunger act as a pressure washer scouring the tubing wall with gas to further enhance the turbulent gas seal. These jets induce a rotation on the plunger keeping the wear even throughout, eliminating flat wear spots on the plunger from tubing deviations or through the heel on horizontal wells.

Fluted Bottom

The fluted bottom of the plunger further adds to the unique rotation of the plunger particularly during its fall. The sharp edges of the flutes are used to control paraffin, scale, and salt.

Patented Dynamic Seal™ technology makes the Viper line of plungers well suited in pad drill deviated wells and horizontal wells since the fluid load is not lost during plunger rise in the inclined portions of the tubing. Many operators have experienced this effect and thus prefer these plungers.

Superior Customer Service

At Well Master, we value our customers. We combine our innovative products with an amazing team of people to find solutions that work best for your needs. Our employees understand oil and gas production and will work with you to find the best plunger for your well. Best of all, Well Master has representatives all over the country to make sure we can be there when you need us.

► Technical Services

Minimize your lease operating expense (LOE)

Lease owners, operators and procurement professionals are being challenged to deliver higher productivity with fewer resources. Don't waste valuable time getting a marginal or aging well performing through trial and error. Our experts can get you up and running quickly, so you don't lose valuable time or profit.

Sometimes even the most experienced lease operators need a little help. When you partner with Well Master, you benefit from decades of hands-on production experience. Whether you are installing a new plunger lift system or trying to get the most from marginal or aging wells, trust Well Master to minimize your lease operating expense (LOE).

- System installation
- Echometer plunger tracking and fluid level
- Well Optimization Consulting and advisory
- Troubleshooting and inspection
- On-site assistance

Our local sales representatives will work with your company to decide how to get you the products that you need. We have a variety of delivery options to match how our customers operate. Well Master has distribution centers throughout our service areas to quickly respond to demand.

If you need guidance in getting your plunger system started, our people can help. If there are issues that arise in the field, we are just a phone call away.

Visit www.wellmaster.com to find your local Well Master representative today or contact our Corporate Office at (303) 980-0254 to learn more.



Training & Optimization Programs

Well Master invites you to apply to participate in a production-focused training series that gets results. From major multinationals to small independents, successful producing companies are focusing on getting more from the asset base. Our industry-tested program has been adopted by numerous gas producers of all sizes and achieves outstanding results. Using the theme *“Every Well is a Business”*, we help producers go beyond simple cost-cutting as a way to boost net operating income. Well Master works with you to fuse classroom instruction with field performance, leading to the creation of best practices. Well Master brings our services to you so your training dollars become more effective. The results will reward your effort with increased revenue and operating income— often in millions of dollars!

► Fundamentals of Gas-Driven Well Optimization

Well Master’s program starts with a 5-hour Fundamentals class designed for everyone. This unique training teaches the participants little-known basic fundamentals of gas- driven wells. We examine simple “guidelines” and “rules of thumb” which we explain or debunk. Students learn to “see” downhole and understand the implications of their observations on production. We have taught this material to field operators up to senior management, and it has provided noticeable changes in well production.

► Well Optimization Training

This hands-on program is designed to cement the concepts of the Fundamentals class into daily routines. One of the biggest gaps in training effectiveness is the lack of direct instruction with relevant applications. Well Master addresses this shortcoming by facilitating a selection of a target group of 10+ wells and providing a detailed evaluation of each well. We advise on tool selection and operating parameters, and follow up with bi-weekly checkups in person or via audio/video conference. The repeated use of principles learned in the classroom allows the participants to see tangible effects, discuss their observations, and reinforce the concepts.

► Best Practices Development

The third phase is perhaps the most important of all. The lessons learned in the first two stages are used to help the producer create specific best practices and procedures that are tailor-made for each asset and well type they may encounter. The operations team gets to build a set of enduring guidelines to instruct how best to operate the asset. By encouraging collaboration from the entire operating team, best practices will be endorsed and implemented throughout the asset, leading towards maximized asset value.



Continuous Run Plungers

Increase the efficiency, productivity, and longevity of your fast flowing wells with high gas or liquid volumes, wells in the initial stages of liquid loading, or in conjunction with gas lift. The ball and sleeve, and clutched and non-clutched bypasses allow for use in multiple applications and flow regimes. Built to last, these plungers provide optimal deliquification with high flow rates.



PBS2000CN9

The TALON™ RF & TS Ball and Sleeve

DESIGNED TO CREATE MORE TRIPS PER DAY AND FALLS AGAINST MORE FLOW TO INCREASE PRODUCTION EARLIER IN THE LIFE OF THE WELL

APPLICATIONS

Used in wells that are in the initial stage of liquid loading which produce high gas and liquid volumes.

FEATURES AND BENEFITS

- The TALON™ Aerodynamic Vents allow the sleeve to fall against more flow and achieve more trips/day
- Turbulent Sealing Technology is specifically designed for high sealing properties in fast falling wells
- Reliability through the Dual Surface Seal on the ball and sleeve interface
- Longevity is achieved by proprietary advanced metallurgy and surface treatment
 - TALON RF (Rapid Fall) version is available for applications that require falling against more flow
 - TALON TS version is available for applications that require premium seal



PLE2000ESC

The Screamin' Eagle™ Bypass Plunger

CLUTCHED CONTINUOUS RUN BYPASS PLUNGER

APPLICATIONS

- Wells in the initial stages of liquid loading
- Deep, fast flowing wells with high gas or liquid volumes
- Ideal for deviated and horizontal wells
- High producing gas injected wells
- Wells moving 150+ BBLs/day

FEATURES AND BENEFITS

- Robust High Strength Alloy clutch spring design prevents premature valve actuation
- Enclosed spring provides extra protection for moving parts
- Designed for high cycle rates for optimal deliquification
- Clutched and non-clutched versions for multiple applications
 - Fall-against-flow rate rivals ball and sleeve designs
 - Valve closes on contact with bottom spring assembly



PSS2000FSC

The Osprey

SLIDING SLEEVE BYPASS PLUNGER

APPLICATIONS

Used in the initial onset of loading and early intervention in the life of a well with high paraffin, solids and/or liquid production. Designed for continuous run applications without the use of a trip rod.

FEATURES AND BENEFITS

- Patented Flow/Shift sliding sleeve bypass plunger
- Advanced turbulent sealing ability due to high efficiency rib design
- Designed to run continuously without the use of a trip rod
- Advanced metallurgy and weld free design
- Engineered flow areas keep bypass open during plunger descent downhole
- Removes high volumes of liquid and debris
- Adjustable fall rate capability through removable plugs
- Available in multiple size and material options

Jetted Technology for Horizontal Wells

Traditionally, plunger lift was designed for vertical well applications. Times have changed and today's operators need a plunger lift solution that optimizes production in deviated or horizontal wells. Well Master's patented Jetted technologies have revolutionized the plunger lift industry to enhance deviated well performance with exterior connecting holes directing turbulent gas to tubing wall, enhancing seal, reducing wear, and minimizing fluid fall back.



PLS2000SV

The Venturi Viper™ Plunger

BREAKTHROUGH INNOVATION

APPLICATIONS

- Patented Innovative design bridges gap between continuous and conventional run plungers
- Dynamic Seal™ provides an ideal solution for horizontal and directional wells
- Proven in a wide range of wells from low to high rates
- Very effective in Low Gas-Liquid Ratio (GLR) wells

FEATURES AND BENEFITS

- Fast fall and efficient lift with no moving parts
- Behaves like a traveling gas lift valve
- Supersonic gas flow through venturi lightens liquid load
- Spin-Cleaning flutes work on cutting debris during plunger fall and upstroke
- Variable groove depth and spin turbulence increases sealing efficiency
- Hardened steel plated with electroless nickel for extended life



PLS2000MV PLS2000S

The Viper™ Plunger

HIGH PERFORMANCE, ALL-PURPOSE EXTENDED LIFE PLUNGER

APPLICATIONS

- Well suited for a variety of applications including horizontal and directional wells
- Helps eliminate sand, paraffin and coal fines

FEATURES AND BENEFITS

- Patented Dynamic Seal™ technology with variable groove depth and spin turbulence increases sealing efficiency
- Spin-Cleaning flutes work on cutting debris during plunger fall and upstroke
- Uniquely crafted from hardened steel and plated with electroless nickel for superior durability
- Consistent run times help fine tune wells on automation

The Vortex Jetted Dual & Single Pads

HIGH PERFORMANCE , EXTENDED LIFE PAD PLUNGER

APPLICATIONS

- Proprietary innovation for wells that need enhanced seal and lift
- Designed for marginal wells and wells with low Gas-Liquid Ratio (GLR)
- Ideal for wells with tight spots and downhole restrictions
- Used where standard pad plungers experience high wear
- Perfect for horizontal and directional wells

FEATURES AND BENEFITS

- Innovative Jetted Ports:
 - Provides additional mechanical seal
 - Eliminates fluid seepage under pads
- Machined tool steel pads for precision mechanical seal
- Standard design uses hardened tool steel and is plated for extended life
- Pad wear indicators at .015" and .030"
- Highly articulated pads allow for up to 49 degrees/100 ft. dogleg severity
- Efficiently runs through profile nipples and tight spots
- Stress relieved fishing neck adds strength



PLPA2000VP PLPA2000VS

Solutions for Excess Sand, Paraffin, or Scale

Most gas or oil well operators experience some form of paraffin, corrosion, or scale issues the first day of production. Operators have found success in using plungers as a low cost solution for clearing the tubing of obstruction. Well Master designs plungers with ribs and designed to scrape the sides of the tubing and are designed to work well with solids.

The ShearMaster™

FLOATING DOWNHOLE STOP AND "SCALE BUSTER"



DHS2000SM

APPLICATIONS

- Excellent paraffin and scale control downhole (bottom few joints of tubing)
- Used in high liquid producing wells in place of bottom hole spring assembly

FEATURES AND BENEFITS

- No setting required
- Square bottom acts as a No-Go
- Easily retrieved with a fishing plunger
- Cleaning action works as the tool cycles in lower few joints of tubing
- Commonly used in combination with a Viper Plunger as a "scale buster" to remove scale above the downhole spring
- Often eliminate acid jobs
- Hardened steel plated with electroless nickel for extended life
- Reverse flutes eliminate spin while providing an effective shear mixing chamber
- Large open area of flutes and hollow core minimize travel during flow cycle

The Sidewinder and Sidewinder Long Solid Plungers

DURABLE, LOW MAINTENANCE, SOLID PLUNGER



PLS2000SWL PLS2000SW

APPLICATIONS

- Effective against paraffin, salt and scale producing wells
- Used in high liquid producing wells

FEATURES AND BENEFITS

- Spin-cleaning flutes work on cutting debris during plunger downstroke, extending the life of the plunger and reducing wear
- Variable groove depth and turbulence increases sealing efficiency
- Hardened solid plunger with grooves designed to remove liquids in wells with moderate to high gas volumes
- Uniquely crafted from hardened steel and plated with electroless nickel providing superior durability

The Cleanout Plunger

THE WORKHORSE FOR WELL CLEANUP



PLS2000CO

APPLICATIONS

- Ideal for wells that produce sand, paraffin, and coal fines or wells with tight spots.

FEATURES AND BENEFITS

- Spin-cleaning flutes work on cutting debris
- One piece, solid design makes plunger durable and economical
- Wide and deep grooves help move large amounts of solids while trapping gas to maximize seal
- Undersized O.D. and slightly shorter length to enable the plunger to pass thru tight spots or slight bends
- Uniquely crafted from hardened steel and zinc plated for superior durability

Solutions for Low Flowing and Marginal Wells

These durable plungers are designed for wells with low gas-to-liquid ratios or wells that are nearing the end of their lifecycle. With their high-efficiency sealing capabilities, they provide optimal deliquification for marginal wells with low pressure. Our plungers are long-lasting, and ideal for longer shut-in times as gas pressure builds, maximizing production to the end.



PLPA2000AXL

The Xcel Dual and Single Pad Plungers

EXTENDED LIFE SINGLE AND DUAL PAD PLUNGERS

APPLICATIONS

- Designed for marginal wells and wells with low Gas-Liquid Ratio (GLR)
- Ideal for wells with tight spots and downhole restrictions
- Used where standard pad plungers experience high wear

FEATURES AND BENEFITS

- Machined tool steel pads for precision mechanical seal
- Lower lifting costs with high performance and longer wear life
- Co-designed by skilled and experienced Field Operators
- Standard design uses hardened tool steel and is plated for extended life
- Pad wear indicators at .015" and .030"
- Highly articulated pads allow for up to 49 degrees/100 ft. dogleg severity
- Efficiently runs through profile nipples and tight spots
- Stress relieved fishing neck adds strength



PLS2000H PLS2500H

Hollow Point™ Plungers

LIGHTWEIGHT ECONOMICAL PLUNGER

APPLICATIONS

- Designed for marginal wells
- Effective in paraffin, salt and scale producing wells
- Ideal for pressure sensitive wells

FEATURES AND BENEFITS

- Spin-cleaning flutes work on cutting debris during plunger downstroke, extending the life of the plunger and reducing wear
- Hardened hollow plunger with grooves designed to remove liquids in wells with low to moderate gas volumes
- Uniquely crafted from hardened steel providing superior durability, extending the time between replacements, increasing your wells' profits and productivity
- Weld free design eliminates associated stress cracking and failure



PLB2000R

Brush Plunger

SUPERIOR SEALING & SWEEPING TOOL

APPLICATIONS

- Deliquification of very marginal or low pressure wells
- Wells that require superior seal efficiency
- Wells that produce sand, salt, and/or coal fines
- Wells with tubing irregularities
- Wells with coated tubing strings

FEATURES AND BENEFITS

- Provide exceptional seal efficiency
- Sweeps off sand, salt, and coal fines that adhere along the inside diameter of the tubing wall
- Designed with high heat, temperature resistant, nylon bristles for extended life and performance
- Designed with flexible, nylon brush material allowing solids to pass while traveling in tubing
- Assembly joints secured with Loc-tite and reinforced with spring pins
- Robust fishing neck for added strength

Premium Lubricators

Surface equipment is vital part of your plunger lift system, providing protection for your plunger and directing the flow of fluids and gas. Our lubricators are available in a variety of configurations to best fit every well and plunger configuration.

The 5000 psi (5K) Unibody™ Lubricator

WELD-FREE, ONE PIECE LUBRICATOR BODY



LUBD2000LPFTT

APPLICATIONS

- Ideal for higher pressure oil & gas wells
- Standard & cold weather/corrosive applications
- Interchangeable with most lubricator installs

FEATURES AND BENEFITS

- Meets API 6A wellhead specifications and spacing ensuring proper alignment and mechanical integrity improving operational efficiency and safety
- Manufactured from one large billet of steel eliminating all operational welds (handles are welded to bowen nut)
- Body constructed of SAE 4140 alloy for cold temperature applications
- Robust, CNC machined catcher mount port for catcher position accuracy
- Heavy Duty, e-nickel plated catcher for extended life and corrosion resistance
- Functional longevity and reliability of catcher with Parbak back-up rings in critical areas (pre-greased at the factory)
- Additional material/wall thickness for dual outlet ports
- Ported outlets to facilitate running ball and sleeve plungers
- Heavy Duty Bowen Top has a 1/2" NPT threaded hole for:
 - Hydrostatic testing while on well head
 - Chemical injection
 - Lifting hook
- Heavy Duty Bowen Nut with welded handles for ease of tightening and/or removal
- Optional anvil/puck to support two piece plunger separating rods
- Two 1/2" tie in ports on side for chemical tie ins or extra bleed
- Unique slots designed to allow sensors to be mounted at the lowest entry point on lubricator
- Chemically washed to prevent corrosion and powder coated for a high quality finish
- Serial tag for traceability
- 100% hydrostatically tested

The 3000 psi (3K) Lubricator

DURABLE, DUAL-OUTLET LUBRICATORS



LUBD2000MPE

APPLICATIONS

- New Wellheads
- Replacement
- Retro-fit
- Interchange

FEATURES AND BENEFITS

- Dual-outlet maximizes flow and enables the routing of debris
- Innovative Super-E Spring option is energy absorbing and specially formulated with TeksPak®, a thermoplastic elastomer which is both cost effective and an excellent solution for eliminating spring breakage
- Constructed of DOM Seamless Tubing, which can withstand impact from potentially fast-rising plungers
- Robust, CNC machined catcher mount port for catcher position accuracy
- Heavy Duty, e-nickel plated catcher for extended life and corrosion resistance
- Additional features of the optional lubricator top with easy access end cap:
 - Improves well site operator equipment safety and productivity given by spring design and the ease of top removal
 - Maximizes serviceability, making inspections simple and more efficient
 - Springs can be replaced easily in minutes
- Unique lubricator end cap designed for easier access to the plunger and spring including:
 - Acme square threads
 - O-Ring sealed
 - Removable by hand or a strap wrench

Bottom Hole Equipment

Having the proper equipment at the bottom of the well is key to maintaining a fully functional plunger lift system. Well Master has an array of options to choose from to provide for every well type. Our spring assemblies are designed to protect your plunger from wear while working with your plunger to form the best bottom seal possible.



SCS2000ALM1XF
(Seat Cup)

SCS2000ZLM1
(Floating)

SCS2000FLM1
(Collar Stop)

Subsurface Spring Assemblies

SHOCK-ABSORBING DOWNHOLE TOOLS

APPLICATIONS

Used in most wells that require a bottom hole spring/stop

FEATURES AND BENEFITS

- Designed to prevent potential damage to plunger by absorbing the plunger impact at the bottom of the well
- Flow-thru maximized with extra-large throat
- Stress relieved fishing neck adds strength
- One piece rod design
- Multiple seat cup materials & sizes available
- One, two and three cup options available

Seat Cup Spring Assembly

- Designed to prevent the bumper spring from moving out of position
- Accommodates X, XN & F [API] seating nipples with multiple seat cup sizes available
- Enhanced seal with 1, 2 or 3 cup design
- Heat-resistant and standard fiber seal cups available
- Available with integral standing valve option (Notched and Unnotched)

Collar Stop/Tubing Stop Spring Assembly

- Designed for accurate placement of the tool in tubing string
- Excellent for use with gas lift assisted plunger lift
- Type F collar stop with bumper spring

Floating Spring Assembly

- Designed for easy set and retrieval with a fishing plunger and does not require a wire line to set or retrieve
- Utilizes a 1.90" No-Go in place of a seat cup
- Movement of floating bumper spring decreases the chance of scale buildup and sand compaction

Pressure Relieving Standing Valve

SHOCK-ABSORBING, PRESSURE RELIEVING DOWNHOLE TOOLS

APPLICATIONS

- Used in wells with high gas to liquid ratio and wells with high-set tubing when liquid retention during the off-cycle is desired.
- Pressure relieving features prevent excess liquid retention, which may stall or reduce plunger function

FEATURES AND BENEFITS

- 23 psi equates to approximately 45ft. of water or 70ft. of oil in 2" tubing
- 34 psi equates to approximately 68ft. of water or 100ft. of oil in 2" tubing
 - Other relief pressure designs available upon request
- Spring backed ball and seat help prevent dry run conditions by maintaining a small level of fluid
- Designed to prevent potential damage to plunger by absorbing the plunger impact at the bottom of the well
- Flow through maximized with extra-large throat
- Stress relieved fishing neck adds strength
- One piece rod design
- Seat Cup Hold Down prevents bumper spring from moving out of position



SPR2000ALM123XP60



Having the proper equipment at the bottom of the well is key to maintaining a fully functional plunger lift system. Well Master has an array of options to choose from to provide for every well type. Our spring assemblies are designed to protect your plunger from wear while working with your plunger to form the best bottom seal possible.

The Rhino SD Spring

THE SPRING DESIGNED FOR MODULAR FLEXIBILITY & EASE OF USE

APPLICATIONS

Used in MOST plunger lift wells that require a bottom hole spring/stop

FEATURES AND BENEFITS

PREVENTS potential damage to the plunger by absorbing the plunger impact at the bottom of the well

- ADDED STRENGTH with our one piece rod design and stress relieved fish neck
- CUSTOMIZABLE to a variety of hold down methods including seating nipples, collar stops, tubing stops with available pack off swab cups
- HEAT-RESISTANT and standard fiber seat cups to prevent bumper spring from moving out of position (2 or 3 cup configurations)
- AVAILABLE in many fluid retention options including standing valve (STV) or multiple pressure relieving ratings (SPR)
- ACCURATE placement of the tool in a tubing string Seat Cup Spring Assembly
- PREVENTS the bumper spring from moving out of position
- Accommodates most leading seat nipple brands with multiple seat cup sizes available Collar Stop/Tubing Stop Spring Assembly
- ACCURATE placement of the tool in tubing string
- EXCELLENT for use with gas lift assisted plunger lift (GAPL) with tubing & collar stop options
- FLEXIBILITY when location of downhole spring can vary Floating Spring Assembly
- EASY RETRIEVAL with a fishing plunger, saving money on wire line costs
- MOVEMENT DECREASES the chance of scale buildup and sand compaction



SPR2000ALM123XP

The Rhino HD Spring

THE HEAVY DUTY SPRING THAT CAN HANDLE ANY PLUNGER



SPR2000AHD123XP

APPLICATIONS

Engineered with a HIGH IMPACT ABSORBING spring for fast falling plungers to prevent wear and tear on plungers and stops.

FEATURES AND BENEFITS

- MAXIMIZE gas/fluid production with a jumbo throat
- LARGE FLUID DISPERSION ports to minimize potential tubing erosion in high flowing wells
- EXTENDED LIFE with a nitride finished spring to decrease fatigue and improve overall longevity
- CUSTOMIZABLE to accommodate most leading seat nipple brands
- HEAT-RESISTANT and standard fiber seat cups to prevent bumper spring from moving out of position (2 or 3 cup configurations)
- AVAILABLE in many fluid retention options including standing valve (STV) or multiple pressure relieving ratings (SPR)

The Rhino HZ Spring

THE HORIZONTAL SPRING THAT INCREASES PRODUCTION THROUGH A WIDER SET RANGE



Part Number Shown: SPR2000AHZ123XP60

APPLICATIONS

Engineered specifically for HORIZONTAL WELLS that can be set deeper and assist in increasing production and deliquidification.

FEATURES AND BENEFITS

- HIGH RANGE of setting angles from 0° to 68° from vertical
- INCREASED GAS PRODUCTION due to a more efficient liquid removal design and an ability to reduce bottom hole pressure
- LARGER FLOW THROUGH AREA of 56% that allows for higher flow rates and less back pressure
- CUSTOMIZABLE to a variety of hold down methods including seating nipples, collar stops, tubing stops, and swab cups.
- HEAT-RESISTANT and standard fiber seat cups to prevent bumper spring from moving out of position (2 or 3 cup configurations)
- AVAILABLE in many fluid retention options including standing valve (STV) or multiple pressure relieving ratings (SPR)

Well Master offers multiple options in automation to address the needs of your operation. Every well has different maintenance requirements, and our valves, sensors and control boxes are designed to meet your specifications. Our systems are made to handle a range of outside temperatures and environments, and our rechargeable batteries require little maintenance.



Plunger Arrival Sensors

FEATURES AND BENEFITS

- Plunger arrival sensors for every application
- Options for 2 and 3 wire sensors
- Designed for safety, easy installation, reliability, low temperature applications, and minimum energy usage
- Available in explosion proof and velocity sensing options

SENTRY AND HAWKEYE IS, XP, AND V AVAILABLE



CON6502

Control Boxes

FEATURES AND BENEFITS

- Designed based on optimizing any plunger lift application
- Plunger cycle histories for the last 25 cycles
- Operate from time inputs or pressure inputs
- Innovative displays in the upgraded boxes ensure operation over the entire outside temperature range
- Controllers draw little energy from rechargeable batteries.

MODELS 550, 600, AND 650 AVAILABLE



VAL2050S

High Performance Control & Choke Valves & Actuators

FEATURES AND BENEFITS

- Valves are machined from solid bar stock and can be used with handle or actuator
- Control discs are made with tungsten carbide for erosion protection
- Side entry design allows for true in-line service and repair without valve removal
- In-line flow path minimizes pressure drop, erosion, and cavitation
- Several actuator brands available upon request

Our accessories are designed to help manage your plunger lift system. Operators need to be able to retrieve plungers from down hole and measure the wear on equipment to ensure the plungers are working to maximize production. Our accessories are made to the same high standards as our plungers themselves to make them as durable and long lasting as possible.



PLS2000FTK

The Tackle Box™ Fishing Tool Kit

FEATURES AND BENEFITS

- Ideal for retrieving all types of downhole equipment
- The 5-in-1 fishing toolkit pays for itself in less than one use!
- Kit includes a fishing plunger, internal and external impression blocks, internal latch, overshot, internal fish neck, 220lb "Rare Earth" magnet and Allen wrench
- Comes in a durable PELICAN case to store and protect tools.
- Stainless steel or plated finishes to prevent rust after multiple uses
- Plunger has the Well Master patented high lift rib and groove design for maximum lifting power



PUL0003MC

Pullers

FEATURES AND BENEFITS

- Assists in plunger retrieval from lubricator
- Magnetic attachment, overshot and internal stop latch available
- Aluminum rod helps with grounding of the puller
- Composite ends designed for extended life and ease of use



PUL0001DE



GAU1860

GAU2305

GAU1900

Gauge Rings

FEATURES AND BENEFITS

- Designed to help determine if a plunger needs to be replaced
- ID chamfered for ease of measurement
- Helps eliminate any guesswork by identifying worn out plungers
- Made of heavy-duty durable stainless steel for extended life
- Precision machined ID held to a tolerance less than .0005"

Why Choose Well Master?



Industry-Leading Service Quality

Service is a key differentiator Well Master. Service can be defined in many different ways. Timeliness, availability, professionalism, and swift resolution of issues are some of the base elements to “good” service. Great service includes technical expertise, an engineering approach, solution providers at the wellhead, and the power of a premier service organization.

Unsurpassed Technical Support

With decades of combined artificial lift and well optimization experience on staff, Well Master has the technical expertise to help maximize your production with proven technologies. Technical solutions such as Nodal Analysis design, well evaluations, well performance reviews, and solution focused production optimization guide customers towards increased production. Remember, Well Master is not here to tell you how to run your well, we are here to support your efforts, challenges, and goals.

Extensive Expertise with GAPL and PAGL

Staff production/application engineers can help you select a plunger lift solution based on the well conditions observed. Add compression, and the tool selection becomes more critical to optimize production. Utilize the combined GAPL and PAGL expertise to get a head start on your programs and eliminate trial & error from your production processes. GAPL and PAGL can make your well behave like it did years’ earlier reviving marginal wells and extending the life/evaluation of your assets.

State of the Art Products

Well Master is known in the plunger lift market as the product innovation and technology leader with over 30 active patents for plunger lift equipment. Well Master has built a reputation of having the longest lasting tools that produce more oil & gas. Increased production and improved longevity equates to the lowest cost of ownership available on the market today.

Results

The artificial lift services provided by Well Master will provide production results for your oil and gas assets that are marginal or underperforming. Implementing plunger lift alone should enhance production. Utilizing the combined solution in applications where GAPL or PAGL makes sense will provide an ROI that exceeds the benefits of either individual technology. Let Well Master help you obtain the results you are looking for.



Well Master Corporation has a sales and support presence in most major Shale Plays in North America. Well Master continues to provide superior operational support and quicker response times in our areas, with the constant support of our corporate office. The Golden, CO office serves as corporate headquarters, sales and service support, and distribution. With our rapidly growing global presence, Well Master is everywhere your global assets need artificial lift.

► **Rocky Mountain Region**

The DJ Basin is supported from **Greeley, CO**

The Green River Basin and Powder River Basins are supported out of **Rock Springs, WY**

The Piceance Basin is supported from **Rifle, CO**

The San Juan Basin is supported from **Bloomfield, NM**

The Uinta Basin is supported from **Vernal, UT**

► **Mid-Con Region**

The Anadarko & Arkoma basin Is supported from **Oklahoma City, OK**

The SCOOP & Stack and Woodford Shale Is supported from **Oklahoma City, OK**

The Barnett Shale Is supported from **Ft. Worth, TX**

The Cotton Valley Is supported from **Tyler, TX**

The Eagle Ford Shale Is supported from **Laredo, TX and San Antonio, TX**

The Fayetteville Shale Is supported from **Damascus, AR**

The Haynesville Shale Is supported from **Shreveport, LA**

The Permian Basin Is supported from **Midland, TX**

► **Northeast Region**

The Marcellus Shale Is supported from **Williamsport, PA**

The Utica Shale Is supported from **Pittsburgh, PA**

► **Canada**

Alberta and Northern BC supported from **Calgary, Edmonton, Edson and Grand Prairie, AB**

► **Asia Pacific**

Australia supported from **Queensland**

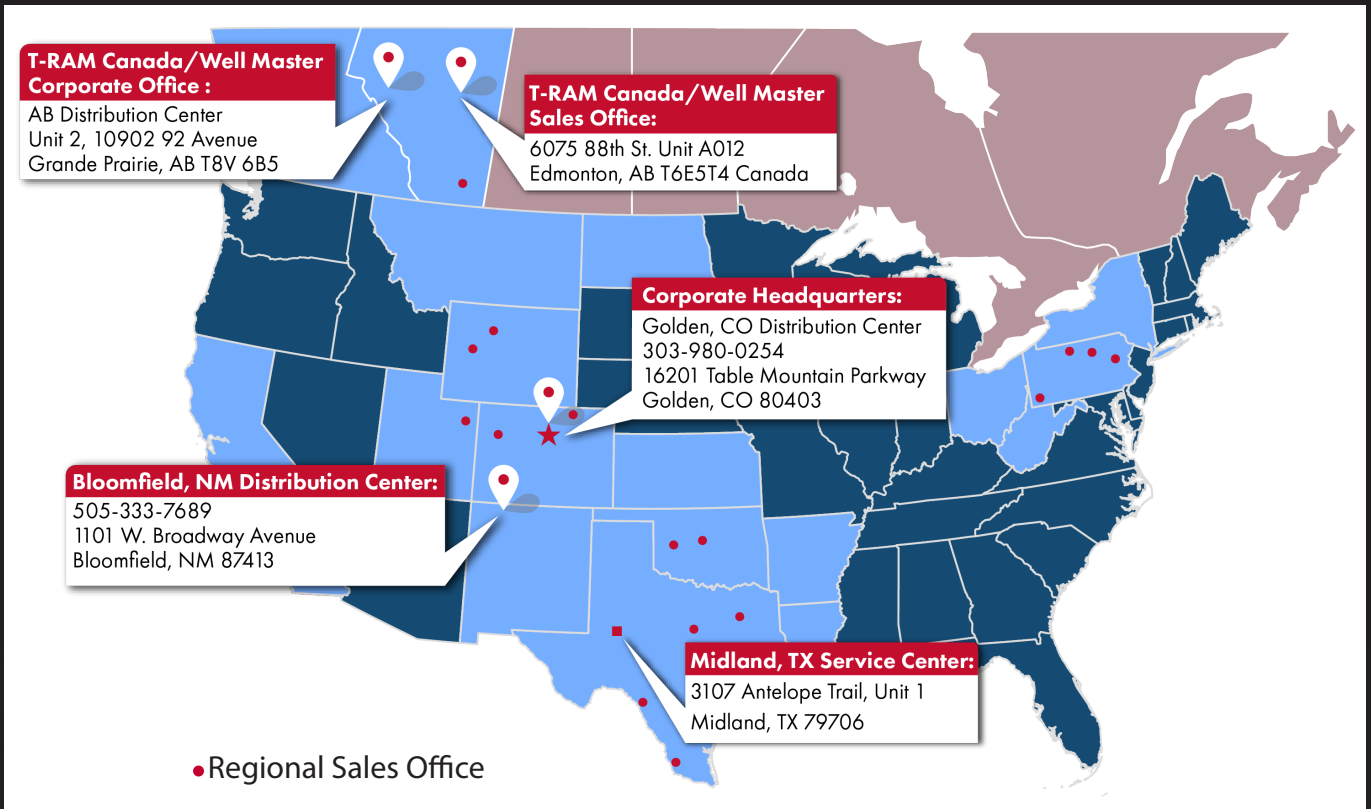
China, India, Malaysia & Pakistan supported from **Beijing, China**

► **Middle East & Europe**

Turkey, Bahrain, Kuwait & Saudi Arabia

Poland

Contact Well Master today to find out how we can help optimize your oil and gas well production



Service Areas

Asia Pacific
Middle East
Europe

Alberta
British Columbia

Arkansas
California
Colorado
Kansas
Louisiana
Montana
New Mexico
New York

North Dakota
Ohio
Oklahoma
Pennsylvania
Texas
Utah
West Virginia
Wyoming



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