

ERV-750Extended Reach Mounted Valve Exerciser

Capacity Operates all valves 4" (100mm) and larger Speed S-30 RPM (30 RPM at maximum recommended flow) Torque 750 fibls [1016 Nm] fully isolated within equipment's design X Supply Requirements Finish White, two part powder on carbon steel components X Dexterity Range Complete head coverage within reach over 270 degrees of motion Reach 13' of total reach from the pedestal mount to the center of the machine head. X Alignment Swivel output allows up to 30 degrees of valves the misalignment. Valve Key Telescoping valve key operates standard AWWA 2" nuts to a depth of 6". Rated for 800 fiths of torque, the modular design can increase reach by adding 4" extension attachments. Valve Machine Intelligent Automation (VITALS) Wachs valve exercisers utilize proprietary "no assumption" automation technology to safely and effectively turn valves using AWWA recommended procedures. This technology protects the valve by not assuming size, direction, or current position. Torque is applied until the device senses resistance, causing the programming and sensors to automatically stop the rotation and reverse in half-lurn increments to flush calcification from the valve gate. This patented automation process always exercises valves at the minimum forque required to turn, then automation process always exercises valves at the minimum forque required to turn, then automation process always exercises valves at the minimum forque required to turn, then automation process always exercises valves at the minimum forque required to turn, then automation process always exercises valves at the minimum forque required to turn, then automation process always exercises valves at the minimum forque required to turn, then automation process always exercises valves at the minimum forque required to turn, then automation process always exercises valves at the minimum forque required to turn, then automation process always exercises valves at the minimum forque required to turn, then automation process always exercises and the feet of the proces		Extended Nederi Woulded Valve Exercises			
Speed S-30 RPM (20 RPM at maintaining recommended from)		General	Yes	No	Specify
Torque	Capacity	Operates all valves 4" (100mm) and larger			
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Properties Serving 2,000 PG (rec Cardin Verticular excontinetural) A		750 ft/lbs [1016 Nm] fully isolated within equipment's design	Х		
Finish White, two part powder on carbon steel components Range Complete head coverage within reach over 270 degrees of motion X X Range Roach To of total reach from the pectedatal mount to the center of the machine head. X X X Alignment Sevel output allows up to 20 degrees of views eath massignment. Valve Key Telescoping valve key operaties standard APWWA 2* ruits to a depth of 6*. Retail for 800 titles of toque, the modality descays to 10 degrees of views eath massignment. Valve Machine Intelligent Automation (VITALS) Washs valve exercisers utilize aproprietary "no assumption" automation isochnology to safely and effectively turn valves using AWWA recommended procedures. This technology protects the coperation by keeping their "transcal of" the machine while exercising the valve and protects the valve by not assuming size, direction, or current position. Torque is applied until the device senses resistance, causing the programming and sensors to automatically stop the rotation and reverse in Indiffrum increments to flust sacisfication from the valve gate. This patiented automatically lowers the present threshold once rotation begins so the impact at end of valve travel is soft as possible. Registered with 17 Tables Controller to operate and collect data for either arm (ERV-750) or side (TK-50 upgraded & TM-7) sife valve exercisers. The TC-100 includes a built-in GPS and bright flush screen display. To Chilo Is water resistant and morels 1969 and mill. STD 410 or military specifications. Timble R2 (CPB upgrade kt 79-412-00) sullevin operation with the combined with automation or equired during whee exercises, all reaction torque and feedback is absoluted through inteller only. This combined with automate control time to the hard-flush and the service of the highly of the service of the service of the service of the s		8 GPM @ 2,000 PSI (4-8 GPM variable recommended)	X		
Range Complete head coverage within reach over 270 degrees of motion X X Reach 130 for foat insoch from the pedestal mount to the center of the machine head. X X Alignment Valve Key I of foat insoch from the pedestal mount to the center of the machine head. X X Several dupts all lower up to 30 degrees of valve stem misalignment. X Yalve Key Telescoping valve key operates standard ARVe/X 2 must be a cept of 6: Rated for 800 fellos of torque, the modular design can increase reach by adding 2 scherolan stationerists. Yellow Reach Reach 140 feet of the pedestal mount to the center of the machine head. X X Yalve Key Telescoping valve key operates standard ARVe/X 2 must be a cept of 6: Rated for 800 fellos of torque, the modular design can increase reach by adding 2 scherolan stationerists. Which was to the center of the c	_	Mhite tue part paydar an earle a cheel componente			
Range Complete head coverage within reach over 270 degrees of motion	Finish	white, two part powder on carbon steel components	^		
Alignment 3" of fotal reach from the pedeatal mounts to the center of the machine head. X Alignment Swive output allows up to 3 lodgregs of valve sem misalignment. X Telescoping valve key operates standard AWWA 2" rusts to a depth of 6. Rated for 800 rt blos of broque, the modular design can increase reach by adding 4" extension attachments. Yes No Warke valve exercisers utilize proprietary "no assumption" automation technology to safely and effectively turn valves using AWWA recommended procedures. This technology protects the operators by keeping their "hands of!" the machine while exercising the valve and protects the valve by not assuming size, effection, or current position. Trupie is technology to safely and effectively turn valves using reference, or current position. Trupie is applied until it device senses resistance, causing the programming and sensors to automatically step the rotation and reverse in half-turn increments to florch calcifaction from the valve gate. This patient of valve trave is not as a possible. Ruggested Wirth 17 ablet Controller to operate and collect data for either arm (ERV-750) or slide (TMS upgraded & TM-71 sitle valve exercises. The TC-100 includes a builtien GPS and blight fued where present the resistent and means the impact at end of valve trave in soft as possible. Ruggested Wirth 17 ablet Controller to operate and collect data for either arm (ERV-750) or slide (TMS upgraded & TM-71 sitle valve exercises. The TC-100 includes a builtien GPS and blight fued was present framework. The coll is valve resistent and means the impact at end of valve trave to comment and controller with subscription service operator is comment and control developed. A specific and the services. A specific and the services. A specific and the services. A specific and traverse in the programming and control the exercises. A specific and the services. A specific and the	Dexterity		Yes	No	Specify
Alignment Swived output allows up to 30 degrees of valve stem misalignment. X Telescoping valve key operates allandar AWW2 2" rust so a depth of 6". Rated for 800 febs of forque, the modular design can increase reach by adding 4" extension attachments. Yes No Specify	Range	Complete head coverage within reach over 270 degrees of motion	Χ		
Valve Key Telescopting valve key operates standard AWWA 2" rusts to a depth of 6". Rated for 800 R/bbs of torque, the modular design can increase reach by adding 4" extension attachments. **Coperation** Wachs valve exercisers utilize proprietary "no assumption" automation technology to safely and effectively flux valves usercisers utilize proprietary "no assumption" automation technology to safely and effectively flux valves user discovering a proprietary to assumption automation technology to safely and effectively flux valves using AWWA recommended procedures. This technology protects the operators by keeping their "hands off" the machine while exercising the valve and protects the valve by not assuming size, direction, or current position. Troque is applied until the device senses resistance, causing the programming and sensors to automatically stop the rotation and reverse in high-turn increments to flux hacification from the valve gate. This patiented automatically lowers the present trenshol concert originally stop the rotation and reverse in high-turn increments to flux the certification from the valve gate. This patiented automatically lowers the present trenshol corn correction being sent end for drave travel is soft as possible. Registrated Wint of radiate Controller to operate and collect data for either arm (ERV-750) or side (TMF-8 upgraded 8 TMF-7) style valve exercisers. The TC-100 includes a built-in GPS and bright touch screen display. TC-100 is water selection at the certification or driven to be carried with subscription service original properties of the style of the properties or display to the properties or display t	Reach	13' of total reach from the pedestal mount to the center of the machine head.			
Valve Machine Valve Machine Patent: #5,837,373 **Controller** #6,937,373 **Controller* #6,937,373 #6,937,37	Alignment	Swivel output allows up to 30 degrees of valve stem misalignment.	Х		
Valve Machine Nachine	Valve Key				Optional
Valve Machine Intelligent Automation Cylindra	·		Yes	No	Specify
silde (TM-6 upgraded & TM-7) style valve exercisers. The TC-100 includes a built-in GPS and MILSTOR of tools or remote display. TC-100 is water resistant and meets IPS8 and MILSTOR. B10G military specifications. Trimble R2 GPS upgrade kit 79-412-02 (Submeter without subscription or down to Centimeter with subscription service) optionally available. No operator support or interaction required during valve exercise, all reaction torque and feedback is absorbed through machine only. This combined with automated control allow the operator to start the exercise time gle unit of any environmental conditions which might pose a hazard. When combined with optional wireless control tether (#79-419-00), allows operator to monitor and control the exercises up to 25 away for increased safety. Bluetooth Tether Biluetooth Tether Wireless control of your valve exercising machine(s) via a secure Bluetooth connection. Up to 25 range to control the exercise up to 25 range for increased safety. Fully compatible with the VITALS database, infraMap with VITALS, Unity with VITALS, or Sedam with VITALS GIS software packages enabling full data logging and synchronization between the handheid and your ArciSIG database. Allows importing/exporting of existing data labels and categories with user-defined fields. Machine Positioning Peterts: #9,038,667 #9,038,667 #9,038,667 #9,038,667 #9,038,667 #9,038,667 #9,038,667 #9,038,667 #0,038,667	Intelligent Automation (VITALS) Patent:	effectively turn valves using AWWA recommended procedures. This technology protects the operators by keeping their "hands off" the machine while exercising the valve and protects the valve by not assuming size, direction, or current position. Torque is applied until the device senses resistance, causing the programming and sensors to automatically stop the rotation and reverse in half-turn increments to flush calcification from the valve gate. This patented automation process always exercises valves at the minimum torque required to turn, then automatically lowers the preset threshold once rotation begins so the impact at end of valve travel is soft as possible.	X		
Feedback is absorbed through machine only. This combined with automated control allow the parant or batter the exercise then get out of any environmental conditions which might pose a hazard. When combined with optional wireless control tether (#79-419-00), allows operator to monitor and control the exerciser up to 25 away for increased safety. Bluetooth Tether	TC-100 Controller (#79-422-05)	slide (TM-6 upgraded & TM-7) style valve exercisers. The TC-100 includes a built-in GPS and bright touch screen display. TC-100 is water resistant and meets IP68 and MIL-STD-810G military specifications. Trimble R2 GPS upgrade kit 79-412-02 (Submeter without subscription			Optional
Data Management Fully compatible with the VITALS database, infraMap with VITALS, Unity with VITALS, or Sedaru with VITALS GlS software packages enabling full data logging and synchronization between the handheld and your ArcGIS database. Allows importing/exporting of existing data labels and categories with user-defined fields. Machine Positioning Patents: #9,038,667 Arm Position Locks Patents: #9,038,667 Arm Position Locks Patents: #9,523,443 #9,188,240 Pivot arms - A500 steel structural square tube, 2.5" x.120 wall (11 GA) Extension arm - A500 steel structural square tube, 2.5" x.120 wall (11 GA) Extension arm - A500 steel structural square tube, 2.5" x.120 wall (11 GA) Extension arm - A500 steel structural square tube, 2.5" x.120 wall (11 GA) Extension arm - A500 steel structural square tube, 2.5" x.120 wall (11 GA) Extension arm - A500 steel structural square tube, 2.5" x.120 wall (11 GA) Extension arm - A500 steel structural square tube, 2.5" x.120 wall (11 GA) Spindles, Torque Head & Pedestais: Carbon Steel Brake Disks: Sa04 Stainless Steel Torque Measurement Prival incompanies on both sides of the motor measure differential pressure for the most accurate control of torque output (single sensor units guess at actual torque output because they do not know system back pressure). Single hydraulic drive motor with offset chain drive reduction allowing for pass through of drive key to keep operating head at a consistent and convenient working height. Power Supply Yes No Specify Poptional Optional	Operator Safety	feedback is absorbed through machine only. This combined with automated control allow the operator to start the exercise then get out of any environmental conditions which might pose a hazard. When combined with optional wireless control tether (#79-419-00), allows operator to	Х		
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Machine Positioning Patents: #9,038,667 #8,025,078 Dual pivoting arms; the first attached to a vehicle, the second attached to the other end of the first provides quick and easy positioning similar to that of a human arm. The combined range of the two arms is ~10' from the mounting point, the second arm is telescoping which provides an additional 3' of reach, for a total of 13' of reach. ★ Arm Position Locks Patents: #9,523,443 #9,188,240 Dual hydraulic disc brakes per arm (4 total) to secure arms in any orientation (no locking pins) within range when positioning and in operation. Safety scripts in the programming verify hydraulic brake pressure and automatically stop operation if per pogramming verify hydraulic brake pressure and automatically stop operation if pressure is compromised. A simple "push to disengage" thumb switch allows easy two hand arm position and lock control. ★ Materials of Construction Pivot arms - A500 steel structural square tube, 2.5" x .120 wall (11 GA) ★ Extension arm - A500 steel structural square tube, 2" x .120 wall (11 GA) ★ Brake Disks: 304 Stainless Steel Hydraulic sensors on both sides of the motor measure differential pressure for the most accurate control of torque output (single sensor units guess at actual torque output because they do not know system back pressure). X Drive Single hydraulic drive motor with offset chain drive reduction allowing for pass through of drive key to keep operating head at a consistent and convenient working height. X Power Supply Yes No Specify <th>Data Management</th> <td>Sedaru with VITALS GIS software packages enabling full data logging and synchronization between the handheld and your ArcGIS database. Allows importing/exporting of existing data</td> <td>X</td> <td></td> <td></td>	Data Management	Sedaru with VITALS GIS software packages enabling full data logging and synchronization between the handheld and your ArcGIS database. Allows importing/exporting of existing data	X		
Machine Positioning Patents: #9,038,667 #8,025,078 Dual pivoting arms; the first attached to a vehicle, the second attached to the other end of the first provides quick and easy positioning similar to that of a human arm. The combined range of the two arms is ~10' from the mounting point, the second arm is telescoping which provides an additional 3' of reach, for a total of 13' of reach. ★ Arm Position Locks Patents: #9,523,443 #9,188,240 Dual hydraulic disc brakes per arm (4 total) to secure arms in any orientation (no locking pins) within range when positioning and in operation. Safety scripts in the programming verify hydraulic brake pressure and automatically stop operation if per pogramming verify hydraulic brake pressure and automatically stop operation if pressure is compromised. A simple "push to disengage" thumb switch allows easy two hand arm position and lock control. ★ Materials of Construction Pivot arms - A500 steel structural square tube, 2.5" x .120 wall (11 GA) ★ Extension arm - A500 steel structural square tube, 2" x .120 wall (11 GA) ★ Brake Disks: 304 Stainless Steel Hydraulic sensors on both sides of the motor measure differential pressure for the most accurate control of torque output (single sensor units guess at actual torque output because they do not know system back pressure). X Drive Single hydraulic drive motor with offset chain drive reduction allowing for pass through of drive key to keep operating head at a consistent and convenient working height. X Power Supply Yes No Specify <th></th> <th>Mechanical</th> <th>Yes</th> <th>No</th> <th>Specify</th>		Mechanical	Yes	No	Specify
Locks Patents: #9,523,443 #9,188,240 Pivot arms - A500 steel structural square tube, 2.5" x .120 wall (11 GA) Extension arm - A500 steel structural square tube, 2" x .120 wall (11 GA) Spindles, Torque Head & Pedestal: Carbon Steel Brake Disks: 304 Stainless Steel Torque Measurement Pivot arms on the programming verify hydraulic brake pressure and automatically stop operation if pressure is compromised. A simple "push to disengage" thumb switch allows easy two hand arm position and lock control. Pivot arms - A500 steel structural square tube, 2.5" x .120 wall (11 GA) Spindles, Torque Head & Pedestal: Carbon Steel Brake Disks: 304 Stainless Steel Hydraulic sensors on both sides of the motor measure differential pressure for the most accurate control of torque output (single sensor units guess at actual torque output because they do not know system back pressure). Drive Single hydraulic drive motor with offset chain drive reduction allowing for pass through of drive key to keep operating head at a consistent and convenient working height. Power Supply Yes No Specify Stand alone HTMA Class II Hydraulic Power Supply Skid unit with electric start 16 H.P. Briggs & Stratton Vanguard V-Twin Engine with 10 gallon reservoir, heat exchanger and auxiliary tool circuit. Supplies both hydraulic and 12v power	Positioning Patents: #9,038,667	first provides quick and easy positioning similar to that of a human arm. The combined range of the two arms is ~10' from the mounting point, the second arm is telescoping which provides an	Х		
Materials of ConstructionExtension arm - A500 steel structural square tube, 2" x .120 wall (11 GA)XSpindles, Torque Head & Pedestal: Carbon Steel Brake Disks: 304 Stainless SteelXTorque MeasurementHydraulic sensors on both sides of the motor measure differential pressure for the most accurate control of torque output (single sensor units guess at actual torque output because they do not know system back pressure).XDriveSingle hydraulic drive motor with offset chain drive reduction allowing for pass through of drive key to keep operating head at a consistent and convenient working height.XFower SupplyYesNoSpecifyGas Engine (79-405-00)Stand alone HTMA Class II Hydraulic Power Supply Skid unit with electric start 16 H.P. Briggs & Stratton Vanguard V-Twin Engine with 10 gallon reservoir, heat exchanger and auxiliary tool circuit. Supplies both hydraulic and 12v powerOptional	Locks Patents: #9,523,443	within range when positioning and in operation. Safety scripts in the programming verify hydraulic brake pressure and automatically stop operation if pressure is compromised. A simple	Х		
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	_	16 H.P. Briggs & Stratton Vanguard V-Twin Engine with 10 gallon reservoir, heat exchanger and auxiliary tool circuit. Supplies both hydraulic and 12v power			