E.H. WACHS®
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ERV-750 – Mounted Valve Exerciser

General		Yes	No	Specify
Capacity	Operates all valves 4" (100mm) and larger	X		
Speed	5-30 RPM (30 RPM at recommended flow)	X		
Torque	750 Ft-Lb [1016 Nm]fully isolated within equipment's design	X		
Supply Requirements	4-12 GPM @ 2,000 PSI (8 GPM recommended)	X		
Finish	White, two part powder on carbon steel components	X		

Dexterity		Yes	No	Specify
Range	Complete head coverage within reach over 270 degrees of motion	X		
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 valve stem misalignment.	X		
Valve Key	Telescoping valve key operates standard AWWA 2" nuts to a depth of 6'. Rated for 800 ft. lbs of torque, the modular design can increase reach by adding 4' extension attachments.			Optional

Operation		Yes	No	Specify
Valve Machine Intelligent Automation	Wachs valve exercisers utilize industry exclusive "no assumption" automation technology to safely and effectively turn valves using AWWA recommended procedures. This technology protects the operators by keeping "hands off" the machine while exercising the valve and protects the valve by not assuming size, direction or current position. Allowing the machine to follow the path of least resistance, the programming and sensors automatically stop the rotation and reverse in half turn increments as to flush calcification from valve gate. This automation always exercises valve at the minimum torque required to turn, then automatically lowers preset threshold once rotation begins so impact at end of valve travel is soft as possible.	X		
HC-100	Ruggedized Controller/Datalogger to operate and collect data (including GPS) during the operation of ERV-750, TM7 and TM-6 machine (includes PDA style PC, 12v vehicle charger kit, AC charging kit, USB sync cable, machine control cable, screen protector & preloaded with Vitals Mobile software). Submeter GPS options available.			Optional

		Yes	No	Specify
Operator Safety	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 then get out of any environmental conditions which might pose a hazard. When combined with optional wireless control tether (#79-419-00), allow operator to monitor and control the exerciser up to 25' away for increased safety.	X		
Wireless Control Tether	Wireless adapter for valve machines provides a secure Bluetooth connection between machine and controller to function either wirelessly to a range of 25' or tethered through the existing control cable.			Optional
Data Management	Fully compatible with either VITALS or infraMap with VITALS software packages which enable full data logging and synchronization between the handheld and your desktop. Allows importing of existing data labels and categories with user defined fields.	X		

Mechanical		Yes	No	Specify
Arm Position Locks Patents: #9,188,240 #9,038,667 #8,024,078	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 pressure is compromised. A simple "push to disengage" thumb switch allows easy two hand arm position and lock control.	X		
Materials of Construction	Pivot arms- A500 steel structural square tube, 2 ½" 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	X		
Torque Measurement	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 back pressure).	X		
Drive	Single Hydraulic 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		