



Zenith Ultrasonics

Waves at Work

85 Oak St., Norwood, NJ 07648-0412 Tel: 800-432-SONIC (7664) sales@zenith-ultrasonics.com www.zenith-ultrasonics.com

SSW-690 Ultrasonic Wire Washing System

For cleaning continuous lengths of wire or profiled materials

For applications which require the cleaning of continuous lengths of wire or profiled materials with a smaller system footprint at slower speeds, Zenith Ultrasonics introduces the SSW-690 Ultrasonic Wire Cleaning System. Designed specifically for the cleaning of wire, the SSW-690 removes liquid or dry stearate lubricants.

In the past, manufacturers of wire materials relied on spray washing systems to remove the contaminants typically found in such operations. However, spray washers designed for this purpose were not capable of consistently producing good cleaning results while simultaneously requiring significantly more maintenance. In addition, large volumes of water are lost through evaporation with such systems.



To address the shortcomings of the spray washing process, Zenith utilized the same technology used in its Strip Washing Equipment to produce a wire washer that can remove contaminants while simultaneously being smaller in size for applications where wire speed is slower.. By incorporating our patented CROSSFIRE Multiple Frequency Ultrasonic System in both cleaning and rinsing cycles (pat #5,865,199 and 6,019,852), the SSW-690 removes contamination down to the very pores of the material itself, removing all contamination down to .1 microns in size, performance that spray washers are not capable of producing.

The SSW-690 is typically positioned at the exit side of the drawing line and is fed through the system using existing pay-out and take-up equipment.

The wire first enters the Ultrasonic Cleaning Chamber, where it is bombarded with dual-frequency ultrasonic cavitation which gently scrubs the surface clean to remove both dry or liquid drawing lubricants. The included adjustable Spray Assemblies simultaneously sprays the wire with heated detergent to enhance the cleaning operation. .





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After exiting the ultrasonic cleaning reactor, compressed air knives gently remove over 95% of the detergent from the wire to prevent the detergent from entering the rinse water. This feature greatly extends the life of the rinse water thereby further reducing water consumption.

The wire then enters the Rinse chamber where a spray rinsing system is used to remove detergent contaminants using heated rinse water..

After exiting the rinse chamber, the excess water is removed with compressed air knives before the wire enters the Drying Chamber which includes a custom-manufactured Compressed Air Strip Wipe to remove all water residue from the material. The strip exits the SSW-690 cleaned, rinsed, and dried to a perfect finish.

The SSW-690 includes all of the equipment necessary to support the wire cleaning operation, and several options can be added to enhance the operation. Heating systems are included to keep cleaning and rinsing fluids at required temperatures, and are controlled with digital temperature controllers. A Filter system is included to extend the life span of cleaning agents.

Optional 5-light Signal Tower keeps operators notified on system conditions. Optional Automatic Fresh Water Make-up Systems automatically replace water lost by evaporation. And, all metal wetted components are manufactured of 316L low-carbon stainless steel for superior corrosion resistance.



The SSW-690 can typically clean wire at speeds of up to 100FPM when the proper cleaning agents are used in the process. The slower the wire moves through the system, the more contact time the wire will have with the ultrasonic cleaning chamber and the more effective the cleaning results.

Larger systems, such as the SSW-132 or a custom-length can be manufactured which can provide cleaning capabilities at speeds up to 1000FPM. If your application requires such speeds, speak to your Zenith equipment representative for details.

If you have the need for an in-line strip cleaning system, contact Zenith Ultrasonics to purchase the most advanced wire cleaning system available today.