

# Wire cleaning system by MTM

## MTM-Technology

MTM has a long tradition in wire cleaning concepts. Already in the mid-1980s, successful system concepts were supplied to leading wire manufacturers such as Thyssen Krupp VDM in Werdohl and Deutsche Nickel AG in Schwerte.

MTM is using intensive product management to reenter this market.



In wire washing systems, oils, lubricant, oxides and dirt are removed from the wire surface. When using wires in medicine or semiconductor technology, this dirt may be bothersome.

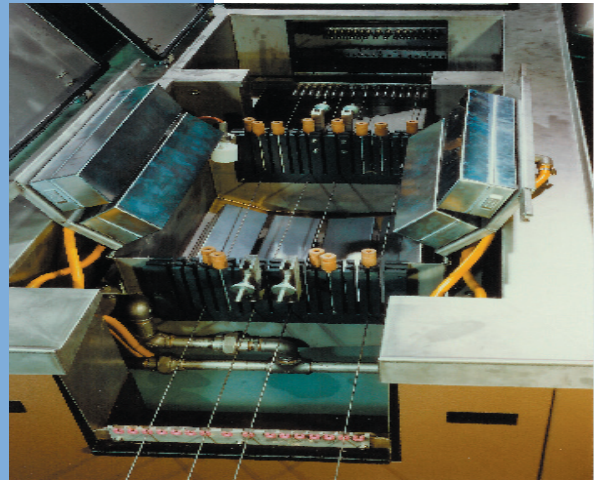
Vaporization during heat treatment processes, such as wire annealing can also damage this furnace and discolor the wire surfaces.

## Ultrasonic Cleaning

Wire cleaning systems are based on ultrasound technologies:

High frequency generators generate electrical oscillations and then transform them into mechanical oscillations of the same frequency.

Depending on the specific application, different oscillator types beam the oscillations into the cleaning medium. The rapid interchange of suction and pressure phases generates numerous vacuum bubbles at the wire surface. These cavitation bubbles implode in the pressure phase and burst impurities off the wire surface in the process. Implosions result in very high pressure and temperatures, but also in liquid beams with velocities of up to 400 km/h.



## The new MTM concept

MTM wire cleaning systems can implement the procedural steps of washing / rinsing / drying. For this purpose, a high performance ultrasound is used. The sound projecting, rinsing and drying distances have modular lengths of about 500 mm. The ultrasound output can be up to between 600 and 2000 W. Throughput speeds of up to 30 m/min. can be achieved.

## Improvement

Steam is an excellent cleaning medium. In the steaming phase, it is used in its purest form.

On an oil-covered metal surface, it reduces the viscosity of the oil due to the temperature change. Applied under pressure, steam is particularly effective.

In our new MTM concept a special drying process with a high air speed follows. The result is a fat-free and dry wire surface.

Are you interested in washing experiments? Please send us a wire sample directly to our technology division:

MTM GmbH  
-Technikum-  
Gottower Straße 37  
14943 Luckenwalde/Germany