Micro-Abrasive Blasting Solutions for Wire Stripping Applications

Effective Surface Preparation

The rapid growth of minimally invasive procedures in the medical industry has created a growing demand for guide wires and catheters. To reduce friction in the body, these products are typically coated with a polymer. The lubricity of the coating however, creates a challenge in manufacturing as it is not conducive to bonding. On locations where components need to be welded or bonded with an adhesive to the guide wire the coating must be removed; if not, it will impact this process.

Micro-abrasive blasting (microblasting) is often used to treat fine wires and tubes because of its ability to selectively remove material. Derived from sandblasting, this technology involves mixing a very fine amount of abrasive with an air stream. Controlled with a pen-sized handpiece, small areas can be targeted precisely without the need for masking.

Choosing the Right Abrasive

A gentle abrasive, like sodium bicarbonate is able to remove the coating completely without damaging the integrity of the guidewire. Since it is a water-soluble abrasive, it is also often used because it can be easily removed through a simple cleaning process.

Microblasting consistently provides complete removal of the coating, essential to avoiding the risk of residual contamination.

In some cases the surface of the wire or tube needs to be roughened to improve the bond strength. By selecting a more aggressive abrasive, the process will quickly etch the surface of the wire and create a rough finish. By increasing the roughness of the surface the strength of a mechanical bond is increased significantly.

The power, precision and repeatability of micro-abrasive blasting make it an ideal process for a variety of applications. The use of non-toxic substances and the precision obtainable using this technology also make this a safe and effective method for surface treatment in the medical and electronic industries.
Introducing a Ring Nozzle for wire stripping
Comco’s Ring Nozzle, powered by a tall tank AccuFlo or a DirectFlo, is designed to uniformly texture or remove coatings from wire or tubes.

The Ring Nozzle spreads the abrasive flow uniformly through five nozzles over the circumference of any cylindrical part. This eliminates the need for rotation of parts, as required in a single nozzle set-up.

Ideal for reel-to-reel and wire-tip applications
Designed for both reel-to-reel wire and wire-end applications, the Ring Nozzle creates a sharp delineation without masking.

Compatible with any Comco workstation
The Ring Nozzle can be easily mounted inside any Comco workstation. Wire is fed through a specially sized guide bolt.

Various size guides are available for wire up to .125” (3.18 mm).

The length of the blast region is easily adjusted and a stop is included for wire-end applications.

Contact us today at 800-796-6626
And discover the MicroBlasting solution to your production problems!