Duradyne is the new surface modification process that increases the performance and reliability of medical products and components. The Duradyne Plasma Treatment System uses plasma (electrically conductive, ionized gas) in a new and unique way to create permanent, failure-proof bonds between non-conductive surfaces and materials such as glues, inks and specialized lubricious coatings. The modular Duradyne system treats complex, microscopic interior spaces or exterior surfaces of virtually any size. It facilitates stronger joints between hypodermic needles and hubs, angioplasty balloons and catheters. It improves coatings application inside balloons and catheters, tubing and connectors for oxygenators, dialysis and cardiorespiratory support systems. Duradyne goes where nothing else has gone before, because there's nothing else like it, anywhere.
Now you can modify any surface with one modular system
The Duradyne system brings surface modification exactly where it’s needed. It will plasma-treat the inner and outer surfaces of any medical component made from non-conductive material: the insides of tubing as small as 50 microns, the outsides of larger items such as connectors, and other surfaces of any size or shape, of any length.

Stronger bonding
Duradyne produces a failure-proof bond that meets or exceeds all current testing standards. It increases bond strength between hypodermic needles and hubs, angioplasty balloons and catheters of any size or shape, plus many other medical components where a fail-safe joint is crucial.

Better adhesion of specialized coatings
Duradyne improves adhesion of biocompatible coatings in heart/lung oxygenators, filters and tubing. It facilitates effective application of porous coatings for orthopedic and dental implants. It can improve adhesion of heparin coating for dialysis components, tubing and equipment for long-term cardiorespiratory support.

Greater lubricity
Duradyne enhances application of lubricious coatings for catheters, including ultra-thin neurological catheters, guide wires, and any medical tubing where reduced friction is required.

Permanent identification
For indelible labeling of medical tubing and plastic components, Duradyne prepares surfaces to receive I.D. markings. The unique properties of plasma treatment make such markings absolutely permanent.

Pinpoint accuracy and precision
The Duradyne plasma stream can be directed into the smallest, most convoluted spaces. This precise, selective and qualitatively adjustable process is simple to operate, reliable and reduces human error.

Safe and environmentally friendly
Duradyne uses no chemicals and produces no hazardous wastes. It eliminates cumbersome vacuum chambers, and works in an open environment at ambient pressure and temperature. It will not damage heat-sensitive or other materials. The process affects the surface layer of an object without degrading its properties in any way, physically or chemically.

Energy efficient
Duradyne uses the power of an average light bulb, about 100 watts, for most applications. All it needs is a small amount of industrial grade argon and an ordinary 110-volt electrical outlet.

Versatile, adaptable
The compact, modular Duradyne unit fits anywhere – you just plug it in. We can supply a complete, portable turnkey system to fit any point on your assembly line. Or we’ll design a custom-made configuration for your specific requirements.

We back our product all the way
The most advanced plasma treatment system in the world is reinforced by an equally advanced level of service. Maintenance, trouble-shooting, and consultation are always available from our technical support team. We’re ready to provide you with the level of individual service you deserve.

Here’s the proof
Send us a sample of your product – we’ll plasma-treat it free. Just mail it to us and we’ll do the rest, with no obligation or expense on your part. For more information, visit our website, e-mail, fax or call us.

---

Duradyne
Tri-Star Technologies • a D.A.H. Company
2201 Rosecrans Avenue
El Segundo, CA 90245 • U.S.A.
Phone: 310.536.0444
Fax: 310.536.0201
e-mail: duradyne@tri-starelectronics.com
Website: http://www.tri-star-technologies.com

Approx. 1/16" diam. plasma stream
Approx. 2" diam. plasma stream
Approx. 5" wide plasma stream.
Linking modules provide stream of any width.

Patents Pending ©1999 Tri-Star Technologies