

TOVATECH

Which Ultrasonic Cleaning Solution is Right for Your Application?

Answer these questions:



What is being cleaned?

The requirements to clean engine and drive train assemblies, plastic injection molds, PCBs, and surgical instruments vary substantially.



What are the contaminants?

Gross deposits of grease and grime; burned on residues, oils, flashing and grease; solder flux, and blood and other contaminants require different procedures.



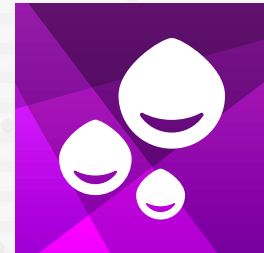
What is the product made of?

Aluminum, steel, glass, plastic, and composites are examples.



What is the product configuration?

Simple? Complex? Characterized by blind or narrow holes?



Are there post-cleaning requirements?

Some may require one or more rinsing steps to remove cleaning bath residues either for sanitation reasons or to prepare the product for further finishing steps such as painting, plating or powder coating.



Based on your answers to the above questions, one of the following solutions will work best.

How Much Storage Capacity?

Acidic cleaning solutions are used to remove corrosion and lime deposits, water damage, grease, oil and oxide layers from non-ferrous and light metals as well as PCBs, glass, plastics, tarnished brass and copper. Stronger acidic solutions are also available for these materials along with nonferrous heavy metals, stainless steel, and cast iron.

Alkaline (aka Caustic) Cleaning Solutions

Alkaline solutions remove grease, oils, soot, wax, combustion residues, and organic contaminants from engine parts, all metals, glass, ceramics, plastics and rubber. A milder solution can be suitable when removing light oils, fluxing agents, dust, grease and fingerprints from PCBs, electromechanical devices, electronics and fine optics. Use an ammonia containing solution to remove grinding, polishing and lapping media, grease and oil from nonferrous metals, precious metals, brass and copper. The ammonia content leaves a bright shiny surface on brass and copper products.

Neutral Ultrasonic Cleaning Solutions

Neutral cleaning solution formulations are recommended for gentle cleaning action on highly sensitive products to remove oils, grease, grinding and polishing media, dust and fingerprints. Other applications include ceramics, precious metals and jewelry.

How Much Storage Capacity?

In certain instances a volatile solvent such as IPA, acetone or toluene is recommended for conducting ultrasonic cleaning operations. IPA, for example, is used for cleaning medical instruments and surgical implants; acetone is a great solvent for degreasing and cleaning, both for the same reasons: they do not leave solution residues on parts being cleaned. The disadvantage is that the solvent and fumes create what is called a hazardous area or hazardous environment. Cleaning with volatile solvents is a subject unto itself. If your operations require cleaning with volatile solvents contact Tovatech for information on how to comply with NFPA and related codes concerning hazardous areas

We've touched on but a few examples of ultrasonic cleaning solutions available to solve virtually any cleaning challenge. Tovatech's scientists are ready to assist you in selecting the correct formulation for your operations.

Visit www.tovatech.com for contact information.