

Going Green to Clean with Vapor Degreasing

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Vapor degreasing is an environmentally sound way to clean metal parts.

In today's demanding manufacturing environment, parts must leave the production floor perfectly clean, dry and ready for post-processing. Oils, dust, metal particulate and other production debris needs to be removed. This ensures the successful completion of subsequent steps like painting, plating or welding.

One of the best ways to achieve parts cleanliness is by using a vapor degreaser and modern metal cleaning fluids. Vapor degreasing is a common cleaning process. Manufacturers like it because it is safe, fast and affordable. It is also an environmentally-sound way to clean metal parts.

Recycle and Reuse

A vapor degreaser is not only a parts cleaner but also a continuous recovery and recycling system. The cleaning fluid recycles and purifies for reuse in the vapor degreaser many times. It also concentrates the soil and contaminants, minimizing the amount and frequency of waste disposal.

A vapor degreaser boils a nonflammable cleaning fluid into a dense vapor. The vapor rises through and traps inside the machine. The boiling fluid and vapors combine to clean and dry the contaminated parts inside. When the vapors reach condensing coils at the top of the machine, the coils chill the vapors back into a liquid state. This liquid falls into a trough and readied for another use. This recycling happens for hundreds of hours before the cleaning fluid needs to be refreshed or replaced, making cleaning environmentally-friendly.

Energy Savings

Vapor degreasing is a proven technology. It was originally developed in the 1940s to clean aviation parts. Today, expanding energy demands and growing environmental concerns are generating renewed interest in vapor degreasing. Mostly because it uses little electricity and operates without water. In addition, modern vapor degreasers use updated environmentally-progressive fluids to deliver consistent and safe cleaning results.

These innovative fluids are engineered with just the right characteristics (boiling point, specific gravity and surface tension) to wet every surface, getting into and out of tiny apertures to remove contaminants and residue. They also offer high solvency which allows them to rigorously clean surfaces and displace stubborn soils. Typical cleaning cycles vary from 5 to 15 minutes per batch and the parts come out clean, dry, and immediately ready for packaging or further processing.

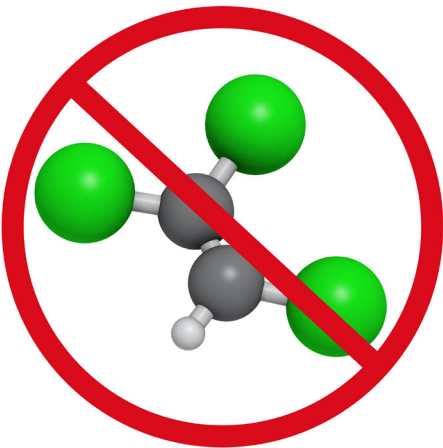
Many of the modern cleaning fluids have a low boiling point and low heat of vaporization meaning the vapor degreaser can start up quickly and requires little heat input to run. In addition, since vapor degreasing cleans and dries parts in just one step, there is no need for blowers, air knives or any other drying method that uses power. This translates into less energy consumption and an overall cost savings.



Tech Article



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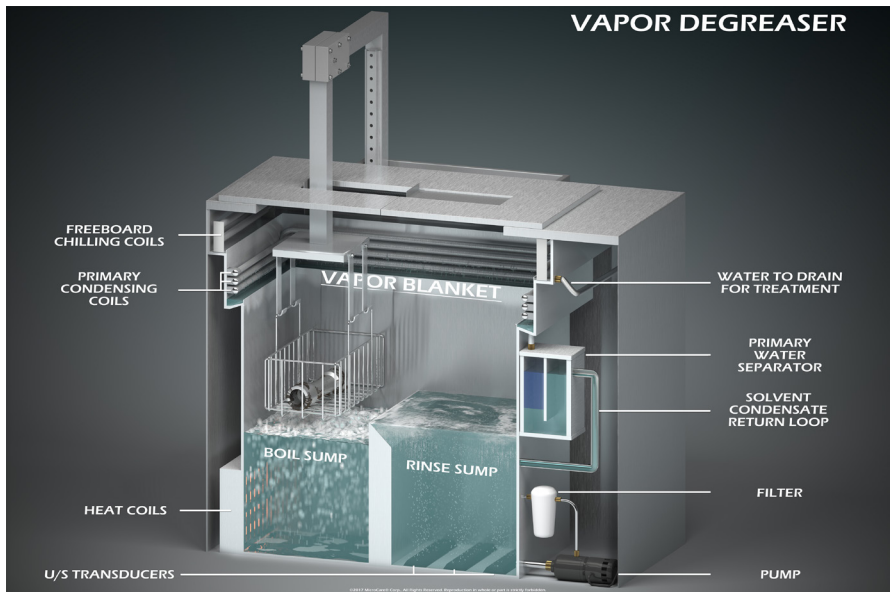
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Low Environmental Impact

Today's modern metal cleaning fluids meet strict global environmental regulations and help manufacturers replace outdated chlorinated solvents, like Trichloroethylene (TCE) that contribute to ground water and air quality problems. Most of the modern cleaning fluids are not considered a HAP (Hazardous Air Pollutant) and many do not require NESHAP (National Emission Standards for Hazardous Air Pollutants) permits.

Environmentally Sound Options

In today's world where safety, compliance and energy efficiency are paramount, vapor degreasing is a modern, planet-friendly cleaning option. Fortunately, there are a number of good choices for 'greener' cleaning fluids too. They are safer for people and gentler on the planet.



Vapor degreasing uses little energy and no water to clean.

To learn more about vapor degreasing and modern metal cleaning fluids, partner with a company with precision cleaning expertise. They can recommend environmentally-sound options for the best cleaning results.

About the Author:

Venesia Hurtubise is a Technical Chemist at MicroCare which offers precision cleaning solutions. She has been in the industry more than 6 years and holds a MS in Green Chemistry from Imperial College. Hurtubise researches, develops and tests cleaning-related products that are used on a daily basis in precision cleaning and medical applications.

For more information, visit www.microcare.com.



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