Successful Cleaning Processes without Heavily Regulated Solvents - Act now before it's too late

Featuring JCOM

Practical, hands-on and independent, training in cleaning.
More Info
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Olaf Tessarzyk
CEO JCOM
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Hosts: The Product Quality Cleaning Workshop Team

Barbara and Ed Kanegsberg – "The Cleaning Lady and the Rocket Scientist"
- BFK Solutions - Consultants in Critical Cleaning
- Authors and Editors of the two-volume CRC Handbook for Critical Cleaning
- Independent evaluations and recommendations
- Co-chairs of the Product Quality Cleaning Workshops
- barbara@bfksolutions.com and ed@bfksolutions.com

Darren Williams – "The Professor"
- Professor of Physical Chemistry at Sam Houston State University
- Leader of the Cleaning Research Group
- Co-chair of the Product Quality Cleaning Workshops
- Performs cleaning trials and formulates cleaning chemistries
- williams@shsu.edu

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Our Speaker

Olaf Tessarzyk
Chief Executive Officer - JCOM

- CEO of JCOM - a company he started in 2008.
- JCOM distributes Aqueous and Solvent standard and custom degreasers in North America.
- 30 years of experience in financial management, private equity, operations, leadership in start-up, growth and restructuring of technology-focused companies.
- Masters Degree in Mechanical Engineering and a Bachelor in Economics.
- Living in Carlsbad, CA, he flies on weekends as a SAR pilot, serving his community with the experience from his early career as a military test pilot and Squadron Commander in the German Army.
- Phone: +1 317 730 0478
- E-mail: olaf@jcom-import.com

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Content

1. Vitae & JCOM
2. What are Hazardous Solvents?
3. Cleanliness Specifications
4. How do I clean my parts best?
5. The "modern" solvent cleaning process
6. Environment
7. Cost Comparison / Amortization
8. Application examples
9. Questions and Answers

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Olaf Tessarzyk

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- ✓ 12 Year Service, Capt. & SqdCdr
- ✓ Master Deg. Eng.
- ✓ Started as setup engineer after the military
- ✓ Ran machine shops in Germany and started a machine shop in the USA
- ✓ First US user of Vacuum Solvent cleaning Technology 1996 in CT
- ✓ Started and ran several Machine Tool companies as CEO & owner
- ✓ Owner of JCOM with wife Claudia
- ✓ Volunteer SAR pilot

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Locations

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Indianapolis IN
HQ

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Hazardous Solvents

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- PFAS (per- and polyfluoroalkyl substances):

  ➢ PCE (perchlorethylene)
  ➢ TCE (trichlorethylene)
  ➢ nPB (n-propyl bromide)
  ➢ MC (methylene Chloride)
  ➢ HFE (hydrofluoether)
  ➢ HFO (hydrofluoroolefin)
  ➢ HFCO (hydrochlorofluoroolefin)

- ✓ EPA amended exposure limits

3M Science. Applied to Life.™

"Exit all PFAS manufacturing by the end of 2025:
3M will discontinue manufacturing all fluoropolymers, fluorinated fluids, and PFAS-based additive products. We will help facilitate an orderly transition for customers. 3M intends to fulfill current contractual obligations during the transition period."

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Basics
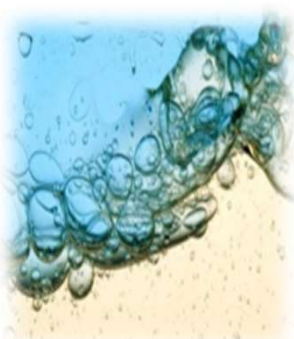
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- ✓ **Polar** substances such as salt as well as polar organic compounds are soluble in strongly polar solvents such as water.
  Hydrophilic: "loving the water"

- ✓ **Nonpolar** (paraffins) or slightly polar substances (grease) are present in nonpolar or slightly polar organic solvents such as modified alcohol or non halogenated hydrocarbons
  Hydrophobic: "fearing the water"

Oil and water don't mix!

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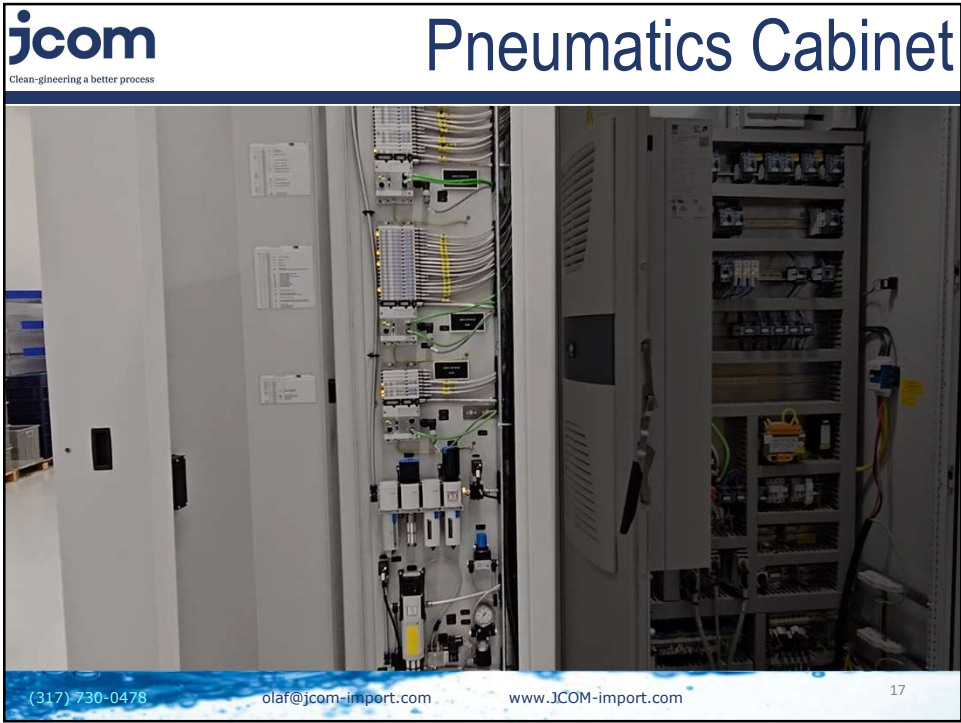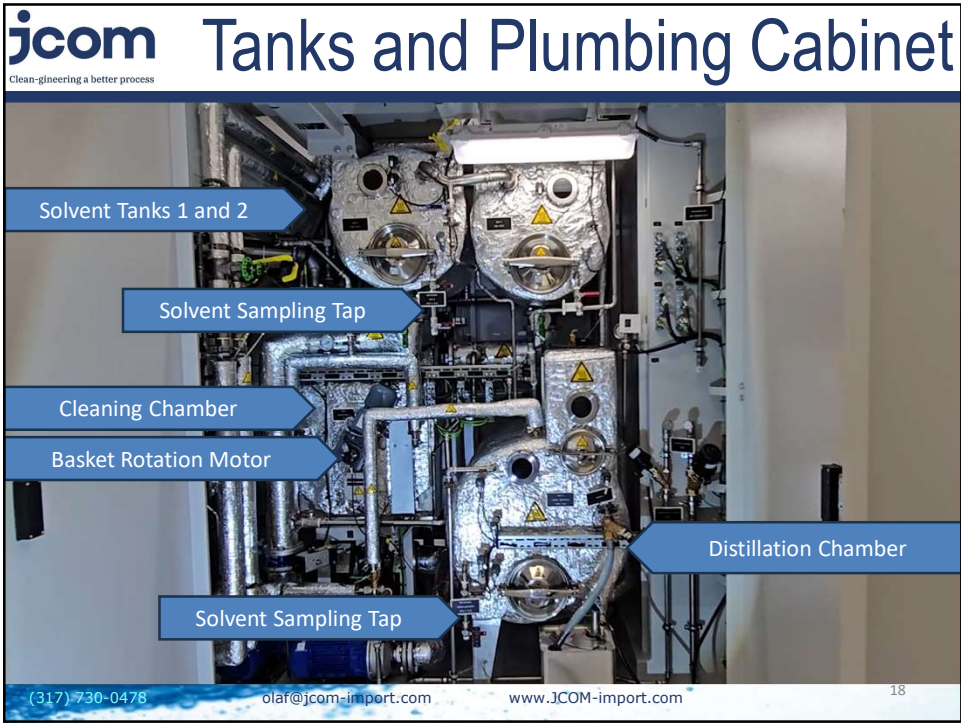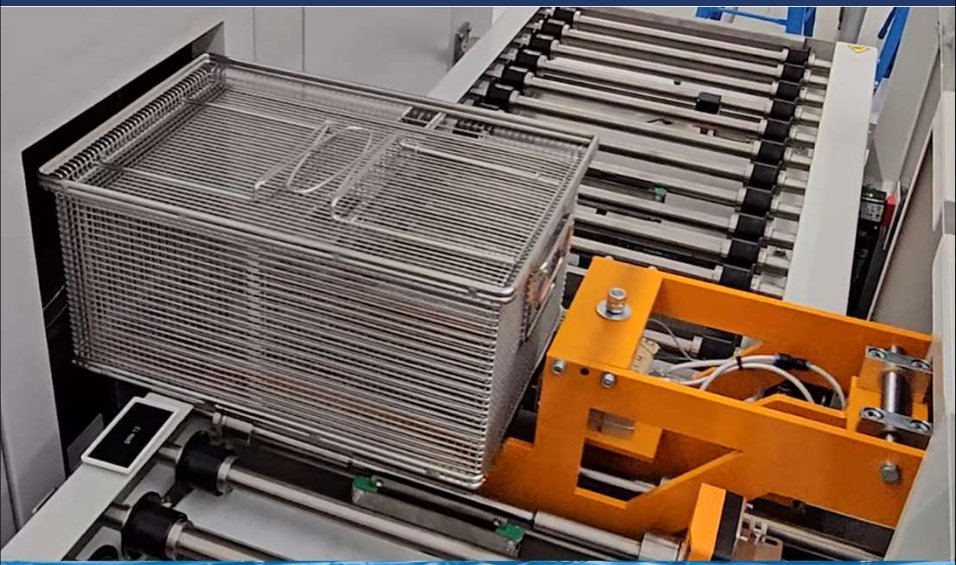
jcom What is the best for what?

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Aqueous cleaning

- Can be used in different processes (spray, immersion, flood)
- Very well integrated in the production line
- Depends on the process, use of simple to complex component geometries
- Cleaning of processing water based cutting fluids and polar contaminations
- Very high diversity of chemistry
- Pickling, passivation, tarnish protection etc. can be integrated

Solvent cleaning

- Cleaning of non-polar contaminations (oils and grease), "Like dissolves like" Recycling of the solvent by integrated distillation
- Drying: very good
- High material compatibility
- Compact design
- Plant operation completely in vacuum (KW)
- Low running costs
- Rust protection can be integrated

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jcom Products

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Aqueous cleaning

Single chamber   Tunnel / Conveyor Belt   Carrousel   Multi-Chamber

Solvent cleaning

Chlorinated solvents (Perc)   Modified Alcohol / Hydrocarbon   TwinTec Technology Solvent / Aqueous

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Filtration Cabinet

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Vacuum, Air, & Water Mgmt

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Customer - now

"A big leap forward towards sustainability, technology, and automation.

We're launching cutting edge modified alcohols and vacuum technology to yield high tolerance, reputable and reliable results. "

John Clark, owner E&J Parts Cleaning Connecticut

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Solvent Single Chamber

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Solvent & Demagnetization

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Solvent EURO pallet

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Solvent Vac Through-feed

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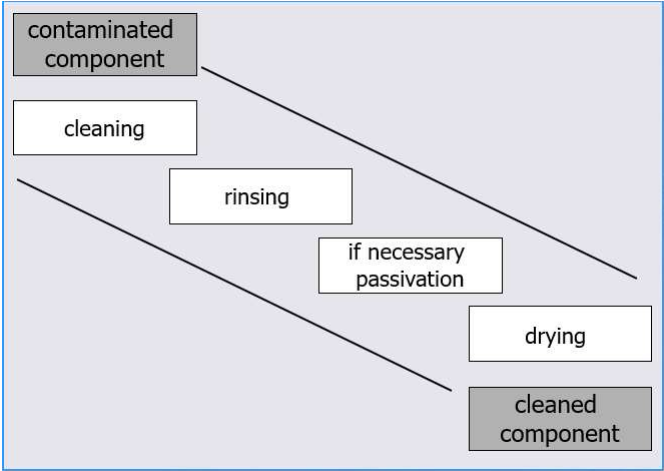
Steps of the Aqueous Cleaning Process

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PQCW On-Demand Workshop on Aqueous Cleaning

- Half day on-line program
- Includes 30 minutes individualized live consulting with a PQCW Instructor
- Convenient training modules
- Continuing education credit / certificate
- The Product Quality Cleaning Workshop Team
  - Barbara Kanegsberg, BFK Solutions
  - Ed Kanegsberg, PhD, BFK Solutions
  - Professor Darren Williams, Sam Houston State U.

Go to www.shsu.edu/pqcw
to sign up for the course!

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Thank you for attending!

product quality
cleaning workshops

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