

Thermal Cleaning of Metal Parts and Tools

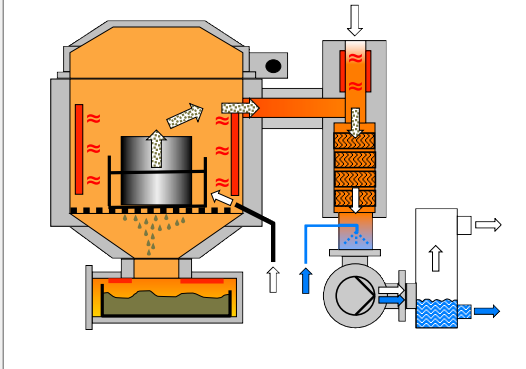


Systems & Services for the Plastics, Fiber and Nonwovens Industries



Clean, safe & fast ■ German Art of Engineering since 1969

Gentle & green



Cleaning time: 8-30 h



VACUCLEAN gently removes organic contaminants from heat resistant metal parts and tools by melt-off and thermal decomposition under vacuum.

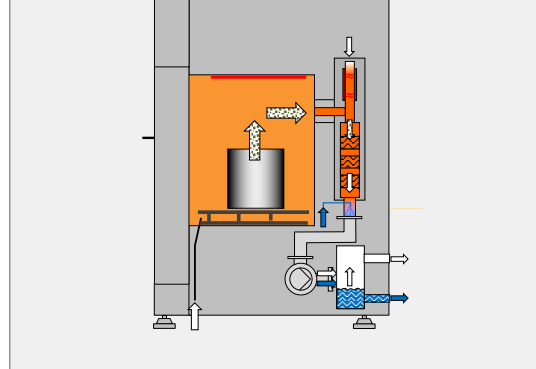
System Advantages

- Perfect for temperature-sensitive dies and filters
- Only electricity and water required
- Catalytic converter for off-gas cleaning

Especially recommended for:

- Spinnerets, melt-blown and spunbond dies
- Filter bundles, leaf disks
- Blown film die heads
- Extruder screws

Small footprint



Cleaning time: 8-12 h



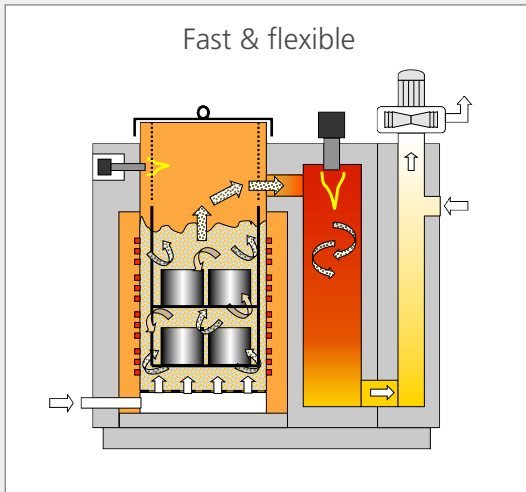
VACUCLEAN COMPACT is a particularly compact electrically heated model, ideal for complex tools in small batches, which can be easily integrated into any workshop area.

System Advantages

- Small space requirements, clean operation
- Ideal for technical centers and laboratories
- All other advantages of the VACUCLEAN systems

Especially recommended for:

- Small granulation and extrusion tools
- Laser filters for plastic recycling systems
- Screw elements, laboratory equipment
- Spinnerets and small gear pumps



Cleaning time: 1-4 h



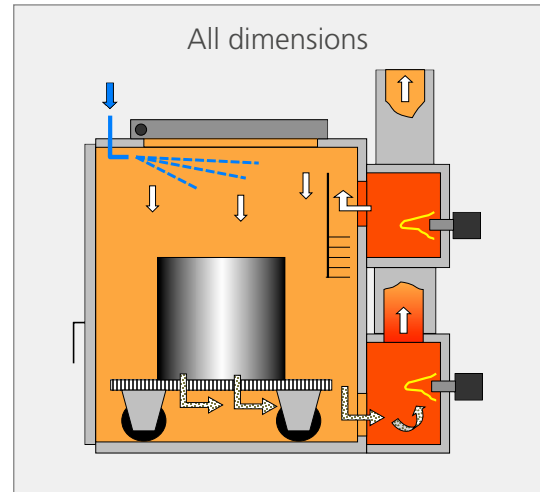
INNOVACLEAN removes all organic contaminants (including halogenated polymers) from heat resistant metal parts by thermal decomposition in a fluidized bed.

System Advantages

- Very short cleaning times
- Suitable for all polymers (incl. PVC, PTFE, PEEK)
- Highest flexibility

Especially recommended for:

- Spinnerets, assembled spin packs
- Breaker plates
- Special profile dies
- Hot runners



Cleaning time: 4-8 h



SCHWING Industrial Burn-off Oven is a gas-heated thermal cleaning system. It removes organic contaminants from large metal parts and tools by thermal oxidation.

System Advantages

- For large parts and machine tools
- Applicable for large amount of polymers
- Suitable for most polymers & organic contaminants

Especially recommended for:

- Filter bundles
- Extruder screws
- Large extrusion and pelletizing dies
- Large hot runners

Our Expertise

Your Benefits

Typical Components

- Injection moulding:
 - Screws
 - Nozzles
 - Static mixers
 - Needle valves
 - Non-return valves
 - Hot runners
- Extrusion:
 - Screws
 - Screw elements
 - Breaker plates
 - Screen changers
 - Filter, Filter plates
 - Profile dies
 - Blown film die heads
- Fiber / Nonwovens:
 - Spin packs
 - Spinnerets
 - Spinning pumps
 - Spinning beams
 - Filter bundles, candles

For ALL Polymers and Organic Contaminants

- Polyolefins: PE, HDPE, PP, PB, EVA, EVOH
- Polyesters: PET, PBT, PC, PTT, PEN
- Polyamides: PA6, PA6.6, PA12, PPA
- Halogenated Polymers: PVC, PTFE, PVDF
- Polyacrylates: PAN, PBA, PMA, PMMA
- Polystyrenes: PS, ABS, SB, SBS, SAN
- Polysulfides: PPS, PSU, PES, PPSU
- Biopolymers: PLA, PEA, PVAL, PPOX
- Polyetherketones: PAE, PEK, PEEK
- Polyimides: PI, PBI, PEI, PBO, PMI
- Polyurethanes: PUR, TPA, TPO, TPU, Spandex
- Special Polymers: LCP, POM, BR, NBR
- Organic contaminants: varnishes, resins etc.

Perfectly clean

- Removal of all polymers
- Free of all polymer & carbon residues
- No damage to parts and tools

Flexible Solutions

- All thermal cleaning methods
- Systems for assembled, disassembled and complex parts and tools
- All sizes and geometries of parts

Intelligent & safe

- Easy and safe operation
- Intelligent control systems
- Automated process management

Environmentally friendly

- Integrated or separate off-gas cleaning
- No polluted water
- Minimized energy consumption

Service & Support

- Process consulting and planning
- Commissioning and training
- Technical support



Accessories

In addition to its Thermal Cleaning Systems, SCHWING offers optionally a variety of accessories and post treatment systems:



Chimney elements



Bubble test units



Loading baskets, tables and racks



Thermal afterburning systems



Ultrasonic & rinsing units



Shot blasting systems



High pressure washers



Quality inspection systems

Cleaning Services



Working from its manufacturing headquarters in Germany, SCHWING designs, engineers, manufactures and markets the most advanced Thermal Cleaning Systems since 1969. Valuable experience resulting in industrial leadership and excellent processes with perfect results for the plastics and fiber industry.

For more than 30 years, SCHWING has provided high quality contract cleaning services around the world. Each year more than 250,000 parts are cleaned for hundreds of customers. SCHWING's experience and know-how provides strong application support for its customers.

Depending on the specific requirements or applications, different Thermal Cleaning Systems are available to remove organic contaminants. The complete range of equipment can handle component weights of more than 5,000 kgs (e.g. a blown film die head) and part lengths up to 6 meters (e.g. nonwoven dies and extruder screws).



In order to obtain completely clean parts, specialized post treatment methods have been devised especially for complex parts like spinnerets, spin packs, filter discs and candles. The cleaning results are always verified and documented by precise process control, strict quality procedures and inspection techniques.

SCHWING has the vast expertise and total experience for all procedures in thermal cleaning and post treatment. Rely on SCHWING's professionalism for all of your sophisticated cleaning needs. SCHWING's quality and company management is certified according to ISO 9001 and ISO 14001.

**German Art of Engineering
since 1969**



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