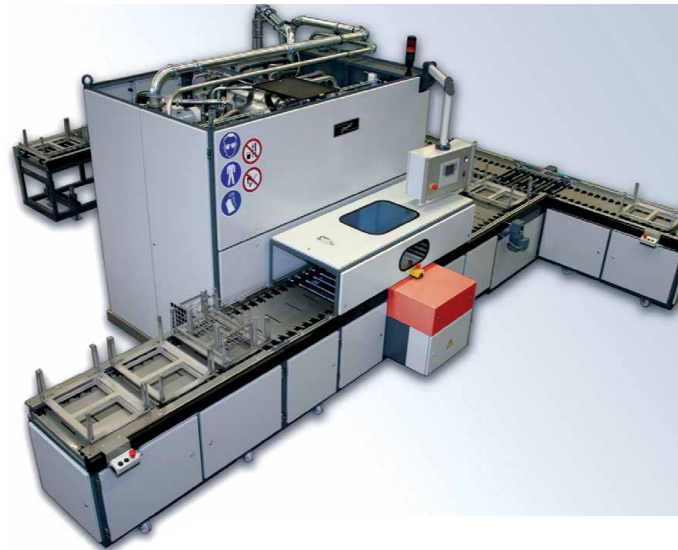
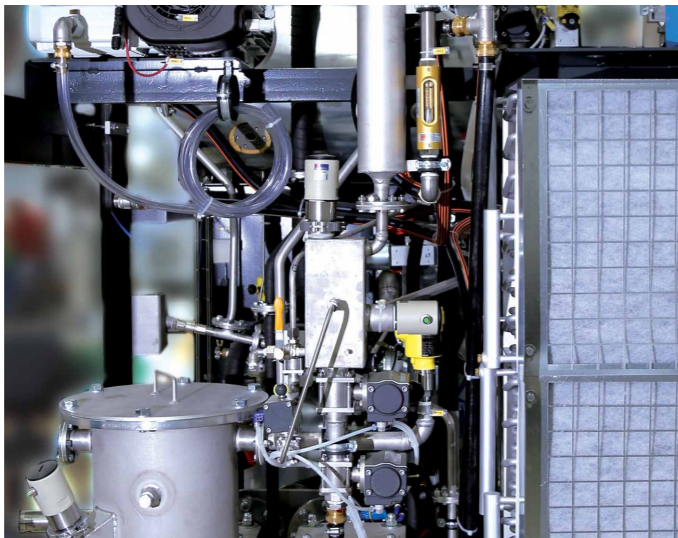


## MAXIMUM STANDARDIZATION – PROGRESSIVE DEVELOPMENTS

As a pioneer in industrial parts cleaning PERO AG has been offering cleaning machines for more than 60 years. Pero is one of the leading manufacturers and is an important contact in the field of component cleaning. Our engineers are permanently striving to improve and standardize our cleaning machines, in order to make them available to a broad spectrum of applications and advance your processes further.



Cutting edge technology, an optimum level of standardization and high technical availability are the preconditions for PERO's international orientation. The highly qualified staff in our local service centers can quickly react to various maintenance and repair demands. In combination with the extremely high availability of spare parts and fast dispatch handling PERO will become your long-term reliable partner.



## OPTIMUM SOLUTIONS

PERO test centers have been developed for test cleaning with originally soiled components. You, the customer are involved in developing solutions fitting your specification. By working together we establish the required technical cleanliness of the parts. The focus is on meeting all aspects of your individual project, to find the most efficient and effective process for you. From the very beginning of the project, these trials will form the best basis for an optimal project realization.

TECHNICAL DATA R1

## TECHNISCHE DATEN

Efficient process technology for highest cleanliness requirements

Cleaning Media	
Halogenated or non-halogenated hydrocarbon or modified alcohol with flashpoint > 55°C	
Load Sizes	
Standard- Dimensions (LxWxH)	530 / 480 x 320 x 200 mm Additional Load Sizes or configurations on request
Load Weight	
Load Weight max.	80 kg
Throughput (i.e. 35 kg of steel parts) (depending on the selected process)	
	up to 20 loads / hour
Electrical Data	
Total Load	19 – 25 kW (depending on configuration)
Heating Power	13,2 kW
Heating-up Time	60 – 80 min.
Noise Level	< 75 db(A)
Ultrasonic (Option)	2 x 600 W, 25 kHz, or 2 x 1.000 W, 25 kHz
Solvent Capacity Tank Machine 1/2/3	215 / 340 / 460 l
External Machine Dimensions	
Width	2.600 mm
Depth	without / with automatic load = 1.600 / 2.785 mm
Height (Machine Frame)	1 / 2 / 3- tank machine = 2.340 / 2.340 / 3.253 mm
Load Height	830 mm
Transport data	
Weight 1/2/3 Tanks	3.000 / 3.300 / 3.600 kg
Automatic loading unit	600 kg

pero

Advanced Parts Cleaning Systems

pero

**R1** efficient parts cleaning  
with customary solvents

FAST AND FLEXIBLE



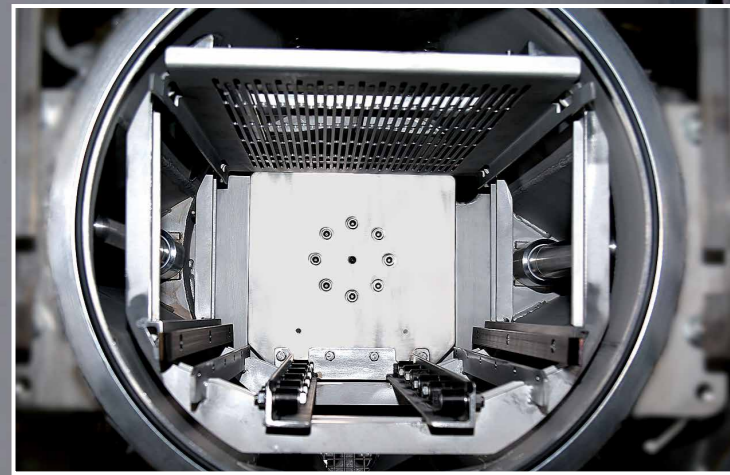
PERO AG  
Hunnenstr. 18, 86343 Königsbrunn, Germany  
Phone +49 (0) 82 31 / 60 11-0  
Fax +49 (0) 82 31 / 60 11-888  
pero.info@pero.ag



## HIGH EFFICIENCY

Type R1 cleaning machines are renowned for their **excellent performance and high efficient use of resources**. They are the **fastest in their class** with benchmark cycle times and still guarantee **continuously high cleaning results**. Thus they meet even the most challenging cleanliness requirements.

Optimum cleaning can be achieved not only for metal components but for components made from plastics, ceramics and even glass as well. These can be cleaned fast and efficiently as **bulk goods, positioned, or single components**.



## MAXIMUM FLEXIBILITY

PERO solvent-based machines are applicable with **all customary solvents** including chlorinated and non-halogenated hydrocarbons as well as modified alcohol. The machines can easily be adjusted to an **alternative solvent with low mechanical effort** if necessary. This fact in combination with individual cleaning programs guarantees the **utmost flexibility** in using the machine.

The machines are geared to effectively degrease parts and clean work pieces from solids and particles. The entire cleaning process takes place under **full-vacuum conditions** and is **controlled automatically**. There are multiple possibilities for load sizes and combinations on top of the standard dimensions of 530 x 320 x 200 mms for **baskets, boxes and palettes**.

Hoch effizient und flexibel durch

- ▶ Efficient processing – high throughput; maximum technical cleanliness
- ▶ Low connected load – low energy consumption
- ▶ Efficient energy management and heat recovery
- ▶ Simple adjustment to alternative solvents
- ▶ Combining processes including vapor degreasing / Cleaning / Rinsing / Conserving
- ▶ Versatile options for individualization

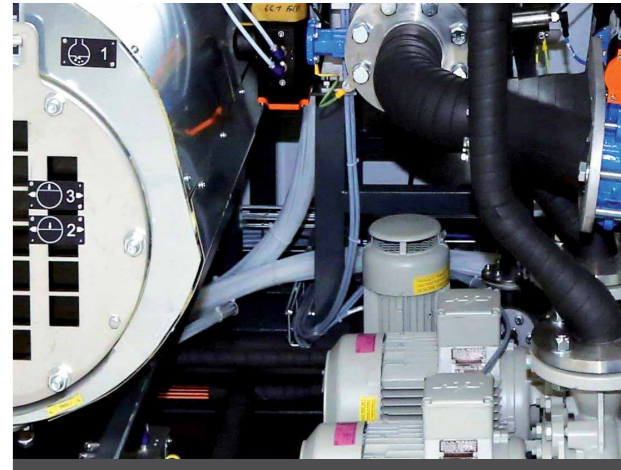
- ▶ Efficient process technology – constantly high solvent quality
- ▶ Full vacuum operation – preserving the solvent in use
- ▶ Near zero emissions – extremely low solvent usage; protecting people and the environment
- ▶ Use of all customary solvents
- ▶ Low floor space and optimum access for maintenance



## R1 – CONFIGURATION

### STANDARD VERSION

- ▶ One tank, full-vacuum conditions
- ▶ Process steps included: solvent immersion, vapor degreasing, vacuum drying
- ▶ Processes can be supported by Flooding, Wave Flooding, Ultrasonics
- ▶ Component movement programmable according to individual needs: Slewing, synchronized rotating, rotating, angular position, no movement
- ▶ Drying: Condensing in combination with vacuum technology
- ▶ Continuous distillation for solvent recycling
- ▶ Full flow filtration using bag filters
- ▶ Vacuum distillation and automatic oil discharge
- ▶ Filter-drying for emission-free change of filter bags
- ▶ Automatic service programs – distillation, automatic discharge of distillation sump, restoration of operation capability
- ▶ Week-day-timer for automatic start and switching off
- ▶ Multi-color TOUCH panel including process visualization
- ▶ Sensors for acid detection in water separator
- ▶ Preparations for ultrasonics
- ▶ Floor pan made of stainless steel – capable of holding the entire solvent volume



### OPTIONAL FEATURES

- ▶ Additional tanks for rinsing or preservation (tank 2, tank 3)
- ▶ Ultrasonic unit and rod-style transducers for better cleaning results
- ▶ Additional distillation unit Compact D for continuous oil discharge
- ▶ Fire- and explosion-proof equipment for the use of hydrocarbons and modified alcohol with a flashpoint > 55°C
- ▶ Manual loading table or roller track
- ▶ Automatic loading unit
- ▶ Modem for remote maintenance / tele-service via internet

Additional options available on request