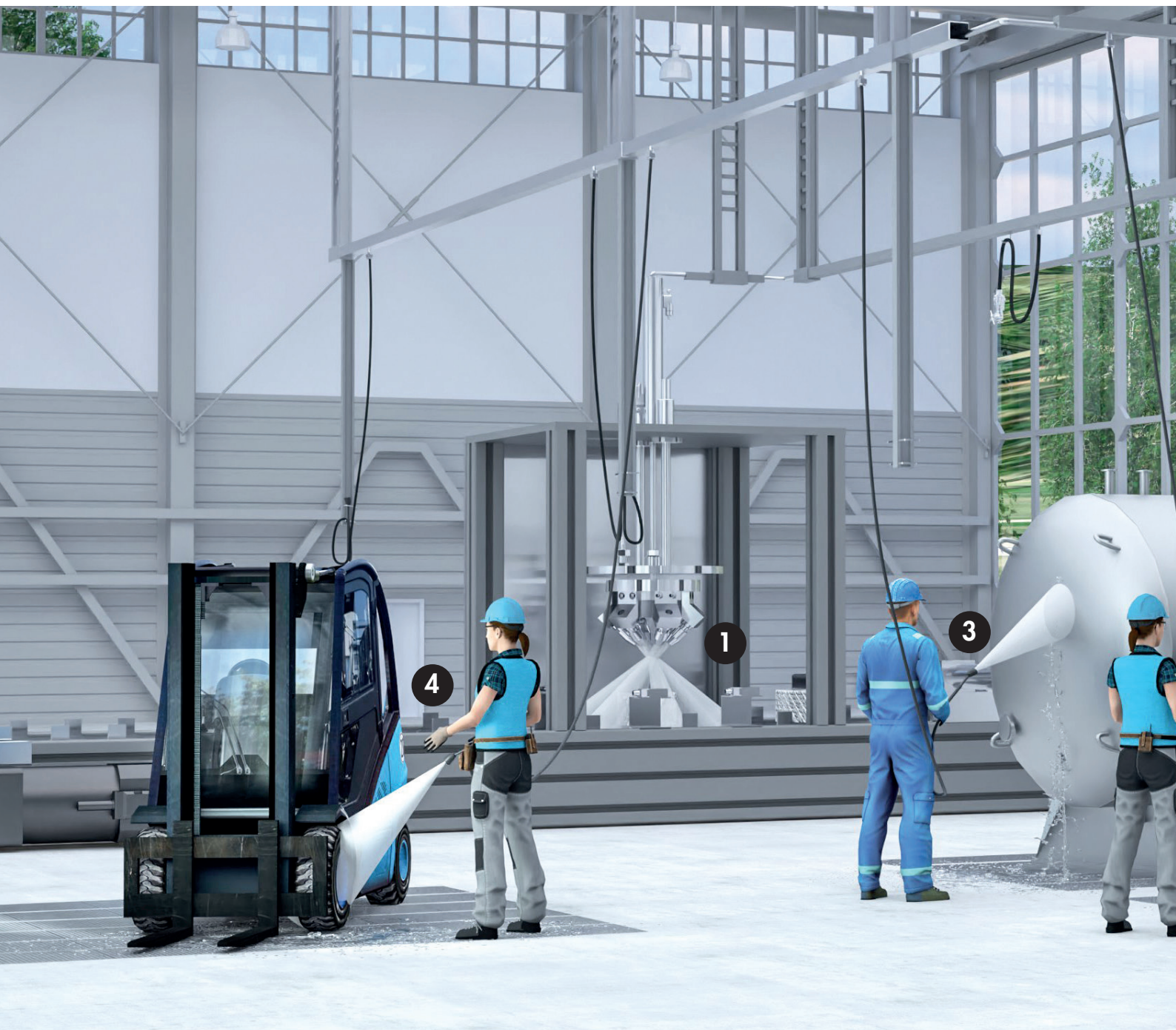


# MULTI-USER CLEANING SYSTEMS



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With the new energy-efficient high-pressure systems for multi-user applications, **sera** is setting new standards in industrial cleaning technology. Developed to simultaneously control up to 24 consumers - from hand lances to tank wash heads - precisely and pressure-dependently, the complete system promises absolute efficiency in continuous operation. It ensures exact water delivery that adapts seamlessly to the requirements of the consumers. The set pressure always remains constant, while the flow rate is dynamically adapted to the number of active consumers by frequency converters.

sera's expertise in the field of pump, nozzle and control technology naturally also flows into every high-pressure system for multi-user applications - so that the perfect system can be designed and built for every customer application. The result is a significant reduction in water and energy consumption. In this way, **sera** also creates added value for people and the environment in the field of industrial high-pressure cleaning.

# APPLICATIONS AND ADVANTAGES



## APPLICATION EXAMPLES

- Surface cleaning (1)
- Internal tank cleaning (2)
- External tank cleaning (3)
- General external cleaning(4)

## ADVANTAGES

- Determining the operating point at the customer's site
- Energy-efficient high-pressure system
- Multiple cleaning stations in a single appliance
- High productivity
- Time saving

# PRODUCT DESCRIPTION



The complete system from **sera** is suitable for the continuous industrial use of several hand lances, tank wash heads or other consumers in the high-pressure range up to 250 bar.

In order to achieve the highest possible efficiency, **sera** offers these systems with a pressure-dependent demand control (1). This control enables the targeted delivery of the amount of water required by the consumer, whether by a single pump unit or by several pump units (2). The preset pressure always remains constant. Depending on how many consumers are in use, the flow rate is regulated upwards or downwards via the frequency converter (3). The use of this pressure-dependent demand control reduces both water and energy consumption.

Wear-promoting bypass operation is avoided and the service life of high-pressure pumps and control valves (4) is significantly increased.

If the pressure drops, e.g. due to wear of the nozzles on the tank wash head, the speed of the machine is automatically adjusted to compensate for nozzle wear for a certain period of time. **sera** uses energy-efficient IE4 motors (5) in these systems. The significantly lower energy and wear part consumption ensures rapid amortisation of the system.

# TECHNICAL DATA

## GENERAL SYSTEM DATA

max. System pressure	up to 250 bar
Runtime	Continuous operation
Control	Demand-led frequency inverter control
Water	Suitable for use with service water*
Temperature	Standard version suitable for water temperatures up to 60°C (higher temperatures on request)

## CONSUMERS

max. Consumers / Lances	24 Consumers / Lances (more consumers on request)
Flow rate per consumer	Standard flow rates approx. 10, 12, 15, 20 l/min per consumer (larger flow rates on request)

\* Pre-filtration is necessary. This is available as an option.

CONTINUOUS  
OPERATION IS  
OUR STANDARD!





# OPERATING POINT DETERMINATION

Outdated high-pressure systems with bypass control are often used. This means that the high-pressure system produces the maximum amount of water required by all consumers. The water that is not used is pumped around the circuit via the bypass. This wastes energy unnecessarily and increases wear on the system dramatically.

For economical, resource-saving use of a high-pressure system for industrial cleaning, it is advisable to determine the exact operating point of the cleaning process.

**sera** technicians determine the operating point and establish which amount of water and which pressure are really necessary to dissolve dirt and deliver a satisfactory result. Determining the operating point is the basis on which every customised complete system is designed.

# CONTINUOUS OPERATION IS OUR STANDARD

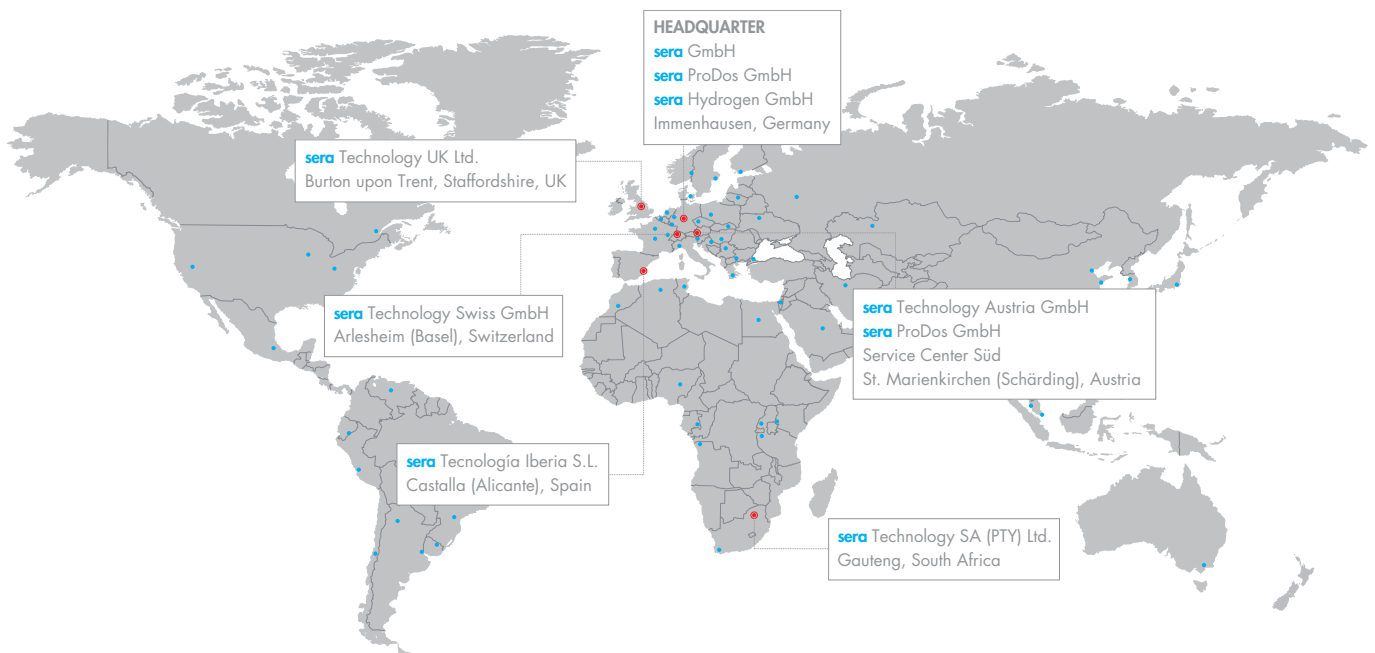
For industrial applications, it is often essential that cleaning systems run in continuous operation - this is the only way to clean machines, parts, tanks, trolleys, etc. as economically as necessary.

With **sera** high-pressure cleaning systems, continuous operation is possible thanks to the very conservative speed of the motors - with guaranteed very good cleaning results. They can run 24 hours a day without any problems.

Multi-user systems are also suitable for use with service water - this only requires pre-filtration, which **sera** offers as an option. By using filtered process water, the system can therefore operate very economically and thus protect the environment.

# EFFICIENT SERVICE

From planning and commissioning of systems to a fast and uncomplicated worldwide device replacement service, **sera** offers support in all project phases. In line with the company motto „We create added value for people and the environment“, the **sera Group** always aims to create sustainable and reliable solutions for the customer and to achieve optimum production results. To ensure this, a high level of system availability with a minimum of system downtime is necessary. To this end, **sera** offers a wide range of services from technical support and spare parts service to repair service.



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