

HAMMELMANN®

CALDER



# EASILY REMOVE CONTAMINATIONS WITH WATER TEMPERATURES ABOVE 95 °C

Hammelmann **THERMOJET**  hot water unit

High cleaning performance

Sturdy industrial engine

High energy efficiency

Safe operation

High mobility

Wide range of applications

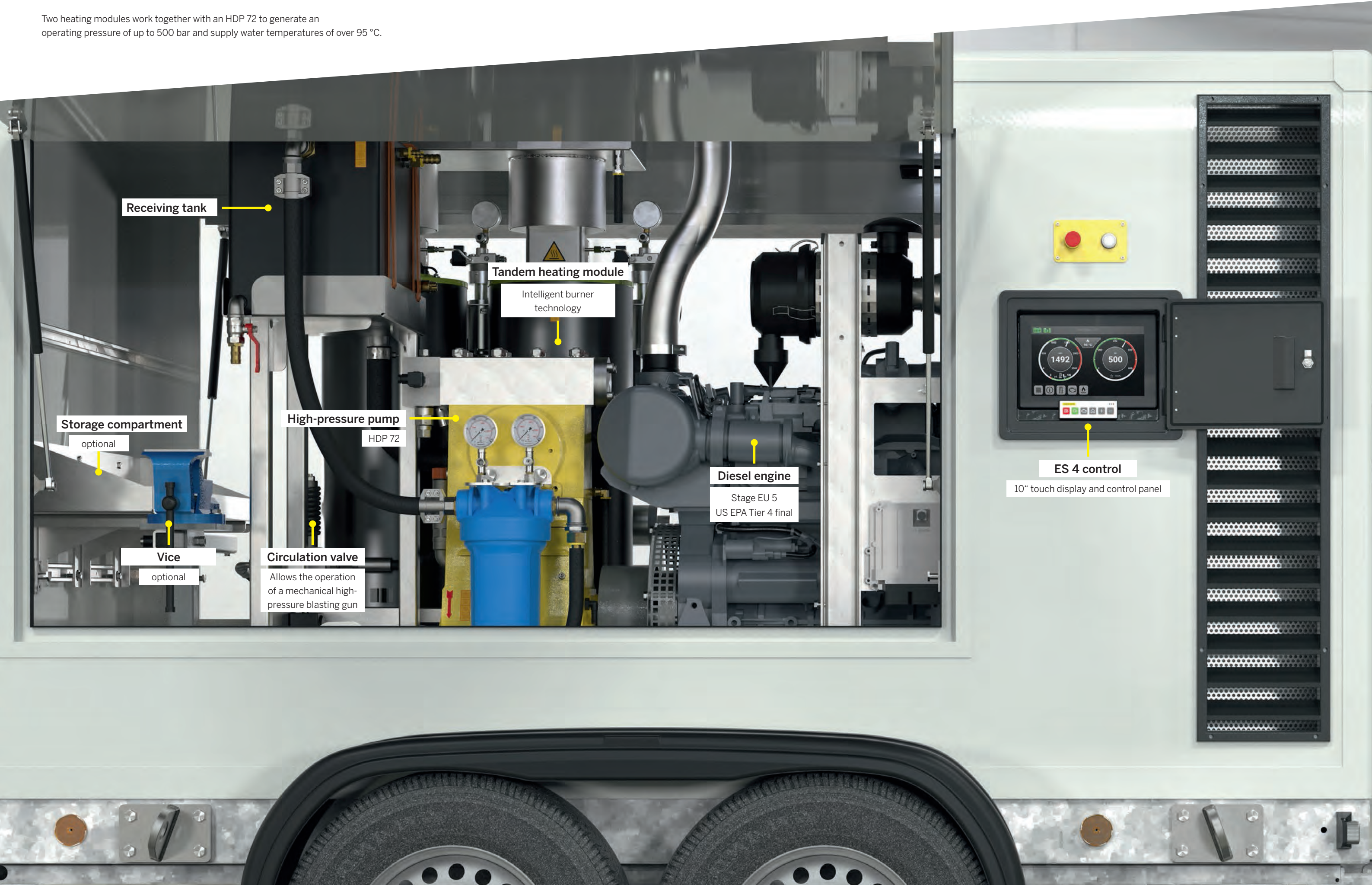


**THERMOJET**  
HOT WATER UNIT



# THERMOJET DESIGN

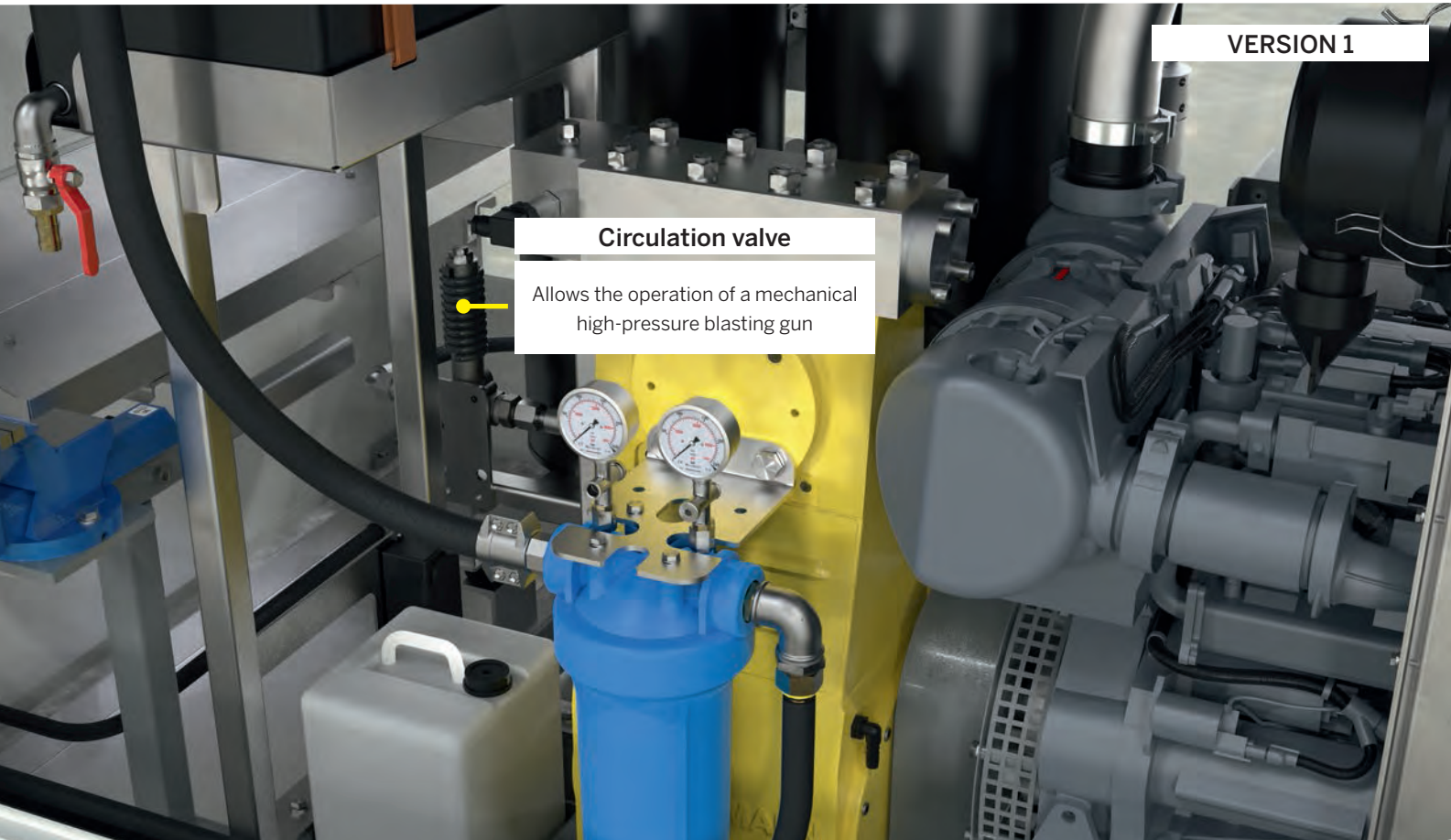
Two heating modules work together with an HDP 72 to generate an operating pressure of up to 500 bar and supply water temperatures of over 95 °C.





OPTIONS AND PRODUCT BENEFITS

The Thermojet combines the extensive know-how from the development of the Aquajet® series with the special heating module.



VERSION 1

Circulation valve

Allows the operation of a mechanical high-pressure blasting gun

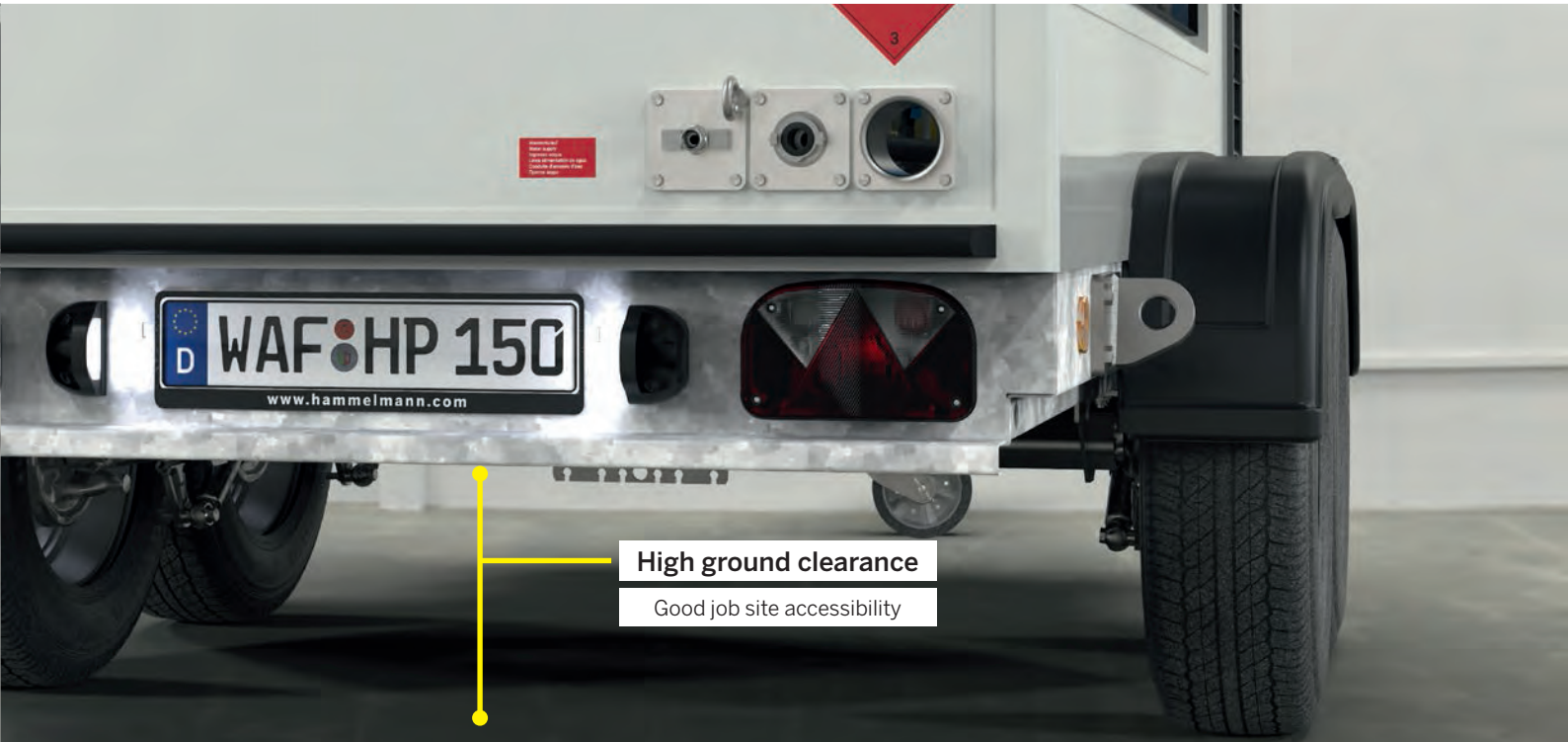


VERSION 2

Optional pressure control valve

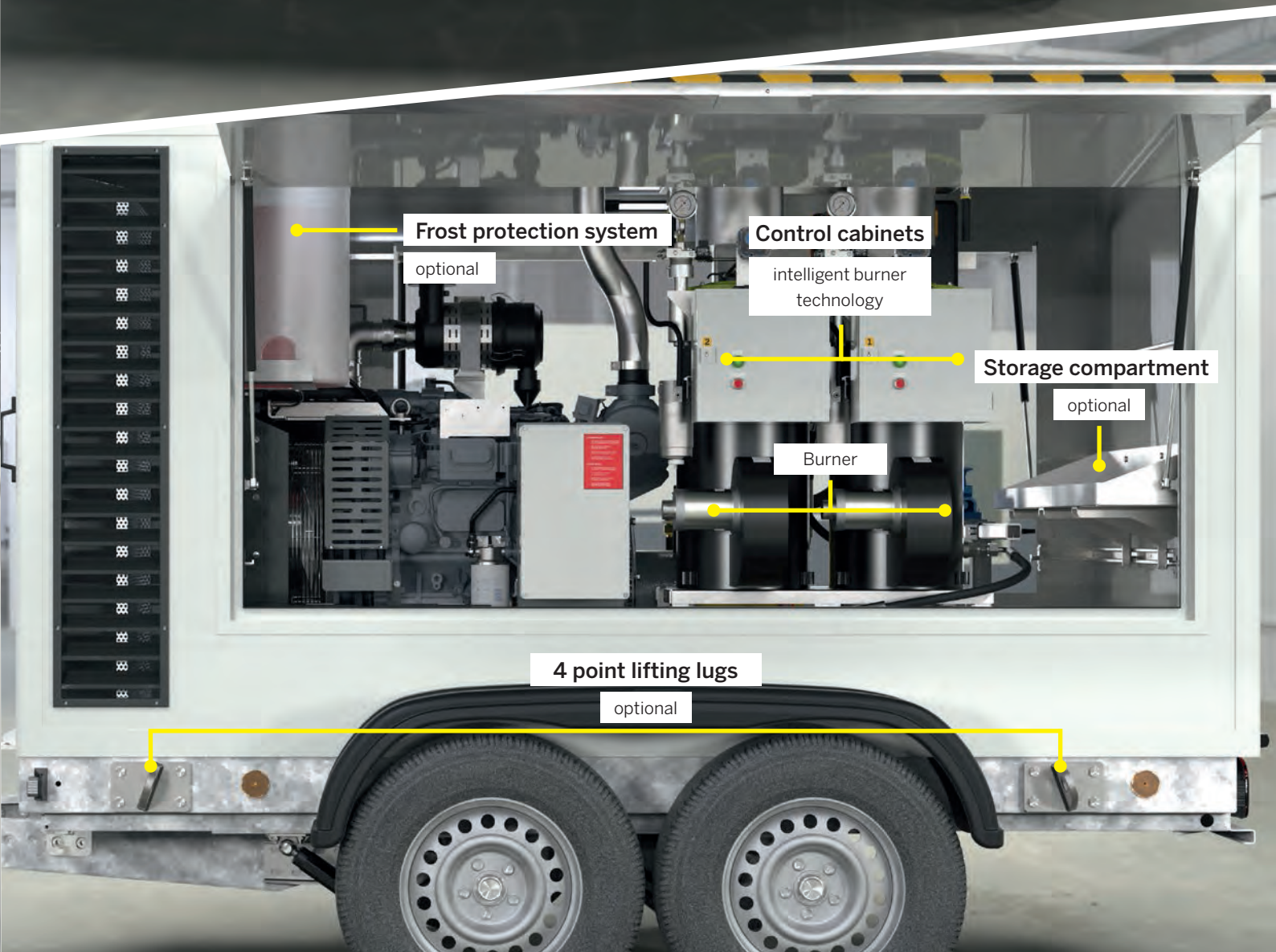
The pneumatic pressure control allows the operation of electrically controlled water tools

Air filter installation



High ground clearance

Good job site accessibility



Frost protection system

optional

Control cabinets

intelligent burner technology

Storage compartment

optional

Burner

4 point lifting lugs

optional



# HAMMELMANN HIGH-PRESSURE SYSTEMS

## The endurance runner in top quality

- **Long lifetime of all high pressure components** due to optimal valve and sealing technology, use of top quality materials and precise series production with most modern machines
- **Long lasting corrosion resistance** of the fluid end
- **High operational reliability** and long maintenance intervals through the hermetical sealing of the gear end by means of the patented bellows sealing system
- **Leakage free pump** thanks to the arrangement of all pressurised high pressure components inside the pump housing
- **Significant operating cost advantage** thanks to the pump which is designed for at least 25,000 operating hours under full load
- **High reliability in continuous duty** due to the performance reserves of high pressure pump, drive engine and all components

## Energy savings through high efficiency

- **High efficiency.** The Aquajet ultra high pressure pump converts 95 % of the shaft power into hydraulic energy
- **Very smooth running** due to low speed at maximum performance
- **Low diesel consumption** due to modern engines

## Safe operation

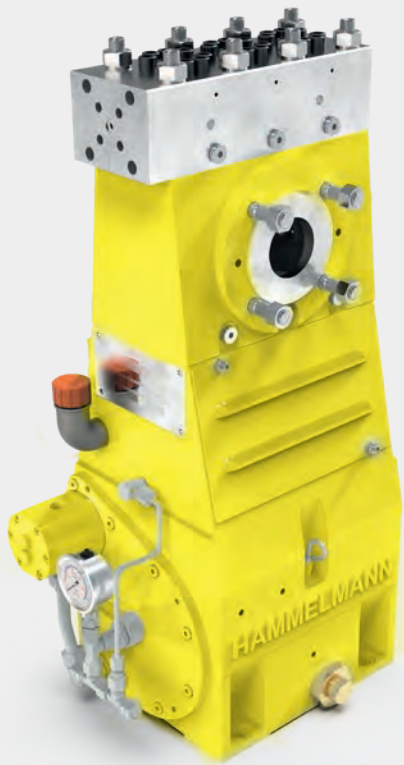
- **Everything under control.** Monitoring, control and nozzle calculation via the Hammelmann ES4 control unit. Intuitive navigation in many languages. All important operating data at a glance.
- **Easy set-up** due to easily accessible supply and high pressure connections
- **High safety** while operating tools secured by a mechanical or optional pneumatic pressure regulating valve

## Sturdy industrial engine

- **Economical industrial engines** built by renowned manufacturers
- **Ample power reserves:** 36 kW engines for real 30 kW pump performance

## High mobility

- **Low noise pump unit** due to super soundproofing
- **Environmentally safe operation** due to totally enclosed bottom tray made of aluminium
- **Large fuel supply.** Minimum of 8 hours operation possible due to the large internal fuel tank
- **High quality tandem chassis** with overrun brake. Chassis is completely galvanised
- **Can be easily positioned** by means of 4 point lifting lugs (optional)



**The endurance runner**  
At least 25,000 operating hours of the high-pressure pump under full load

**High efficiency**  
95% of the shaft power is converted into hydraulic energy

**Safe operation**  
Large power reserves, maximum operational reliability

**High mobility**  
Compact build, high ground clearance





# ES 4

The highly automated control ensures the energy-efficient and low-wear availability of high-pressure water at 95 °C.

## Fully digital display with practical hot keys



# HEATING MODULE

Clean immediately with hot water without temperature fluctuations. Effective and resource-saving.

## Intelligent tandem heating module





ES 4

The clever control unit

- Highly efficient combustion by controlling the fan speed. Optimal air-oil ratio during operation.
- Fully digital, integrated pump control
- Precise temperature control between 40 - 95 °C
- Perfect automatic load distribution between one or both heating units, minimizes wear and tear and optimizes utilization and energy requirements.
- Easy to use. The pump is ready for use after a few steps.
- The injection pressure for the burner is variable in the range of 5–15 bar and is automatically adjusted to the required heating power via the control. **That saves resources and money!**

Technical details

- Intuitive operation of core functions
- Large high-resolution touch display: splashproof, 1280x800 px, 10 inch diagonal
- User-friendly keypad: suitable for construction sites and easy to use even with gloves
- Low-reflection display with self-illuminating buttons
- Engine speed, working pressure, fuel gauge and water temperature at a glance



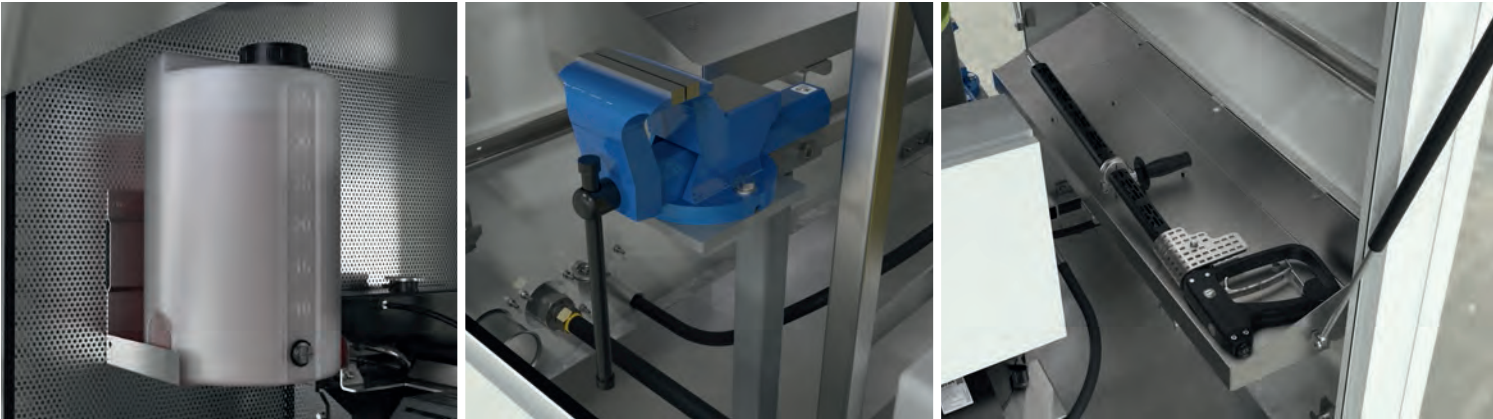
HEATING MODULE

Details explained

- Hot water jet exceeds 95 °C on the surface, well suited for removing oily dirt
- The ES4 control is optimized for the operation of the Thermojet and takes over the automatic control of the heating modules and speed
- Powerful heating modules deliver hot water reliably and efficiently at the preset temperature
- High-pressure safety valve and safety temperature limiter



Options



Frost protection system

Vice

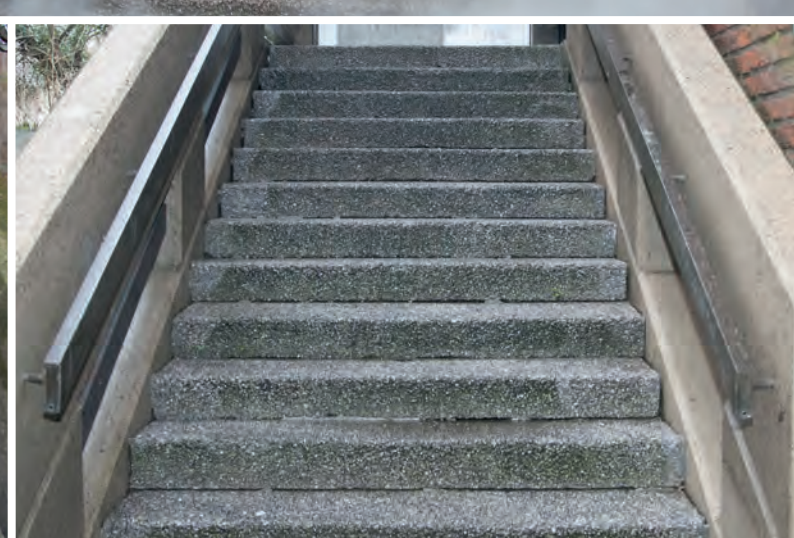
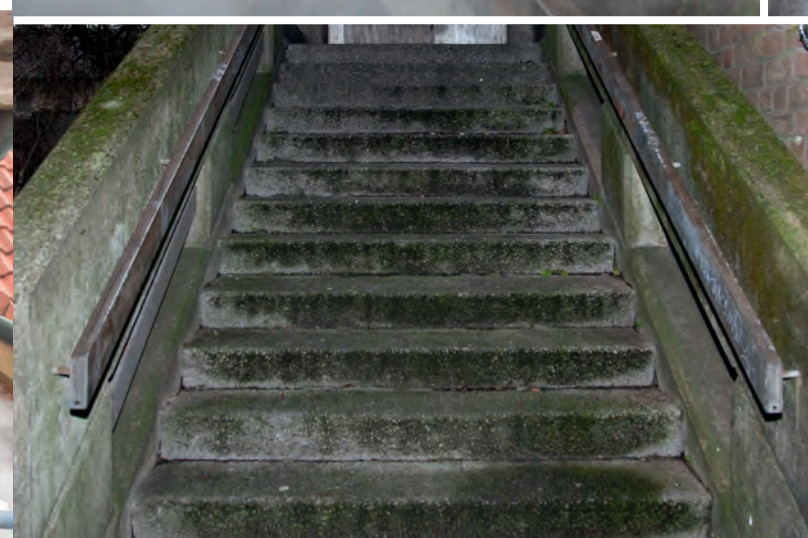
Storage compartment

Technical details

Model	Plunger Ø	Op. pressure	Flow rate	Engine power	Pump performance
THERMOJET	20 mm	500 bar	30 l/min	36 kW	30 kW

Optional equipment: frost protection system, vice, storage compartments for transporting accessories







# TOOLS FOR YOUR THERMOJET

Add ergonomic waterjetting tools to your hot water unit and optimize your work processes.

## High-pressure hot water blasting guns



Hot water blasting gun (electric)  
for Thermojet units with pneumatic pressure regulating valve

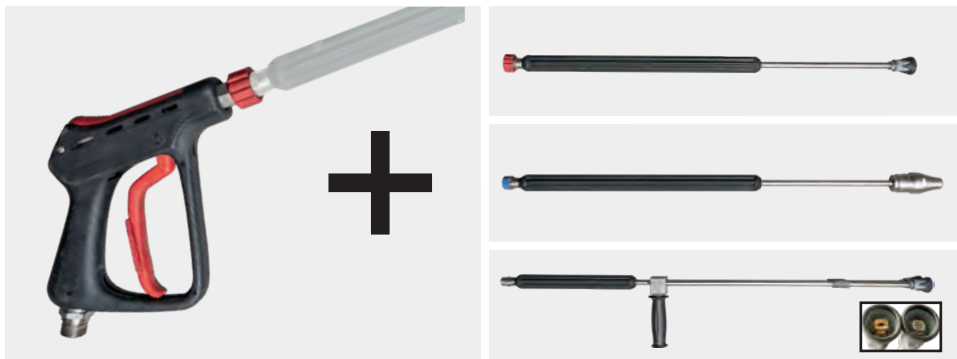
Hammelmann high pressure blasting guns are designed for demanding, industrial use. The ergonomically shaped handle and various extensions are easy to install - so every operator will find the ideal working position, which saves energy and at the same time increases operator safety.

Hot water blasting gun (mechanical)  
for Thermojet units with mechanical pressure regulating valve

A simple lever mechanism makes the trigger of the blasting guns very easy to engage and hold. The operator can use the gun without feeling strain and physical stress which enables longer, more concentrated working periods.

## Hot water blasting gun - Basic

The modular Basic version is an efficient introduction into the field of hot water high pressure blasting guns. Depending on the application, different lances and nozzle variants are available, which, in combination with the simple handle, provide a solid tool.



Handle for hot water blasting gun (mechanical)  
for Thermojet units with mechanical pressure regulating valve

# WATER JETTING TOOLS



RD MASTERJET

The professional water tool. Thanks to its compact design and low weight, enduring, fatigue-free working is possible. The Masterjet offers a long service life thanks to the Hammelmann HPS sealing system and robust components.

RD Mono

The simple rotor jet processes surfaces precisely and reliably with hot water and is designed for an operating pressure of 600 bar.

Fan jet

The light-weight fixed fan jet nozzle treats surfaces gently and sufficiently.

## AQUABLAST® Basic



Surface cleaner

Designed to handle larger areas, the Aquablast Basic surface cleaner is a useful addition that extends the potential range of application of the Thermojet system.

## AQUAMAT S 600



Compact tank cleaning unit

The AQUAMAT S 600 tank cleaning unit has been developed for particularly small and medium-sized openings. Various nozzle holders complete the system.





**HAMMELMANN - DISCOVER  
THE MARKET LEADER**

Hammelmann has been a successful manufacturer of high-pressure systems for over 70 years, which are used for cleaning and cutting purposes as well as in production processes. With over 500 employees in the Hammelmann Group, in Oelde and the subsidiaries in the USA, Australia, Spain, China, France and Switzerland as well as 40 other agencies, we are a company that operates worldwide.

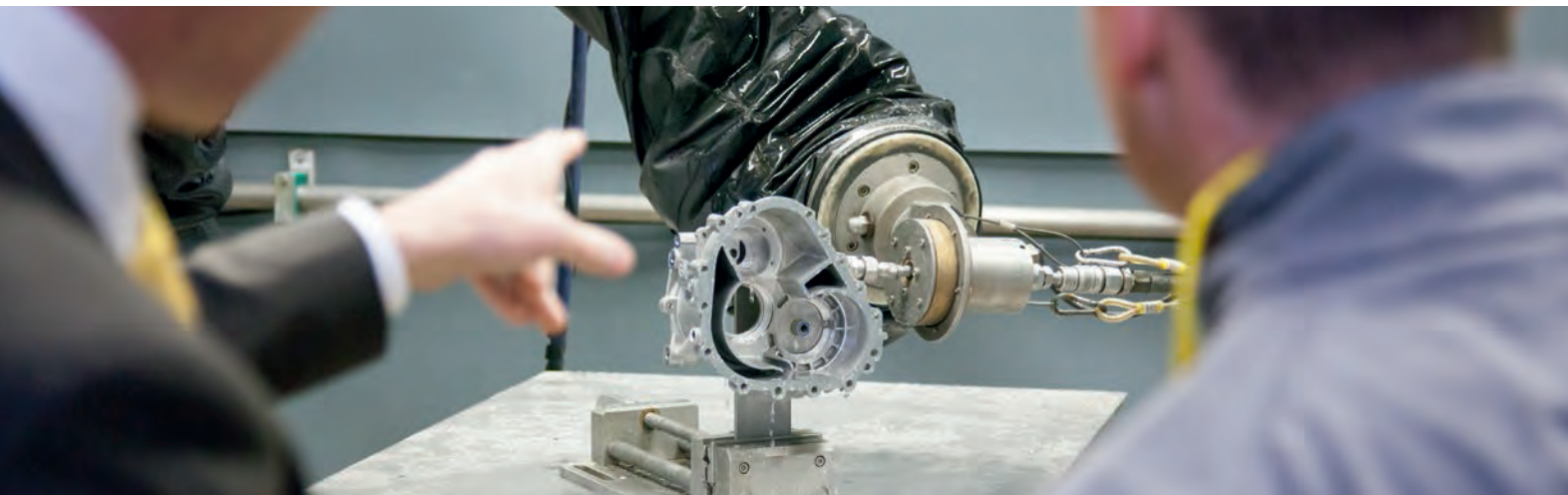
**STATE-OF-THE-ART  
TECHNOLOGY CENTER**

For you and for our own R&D we run extensive tests in our modern Technology Center to see how and where water jet technology can be used in an economical, beneficial and ecological way. This is where modern technology and our innovative spirit go hand in hand to test product developments, new ideas, and specific customer requests in a practical setting and to put them through their paces.

Product quality and customer satisfaction are most important to Hammelmann. For this reason, products are not only tested under ideal conditions and then sold, but put to the test under extreme conditions.

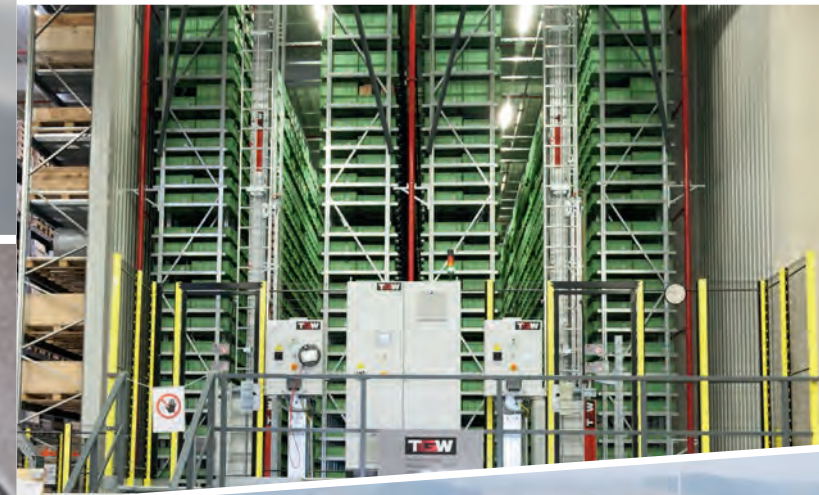
In order to simulate the toughest and most demanding conditions possible at your site, we have a number of tanks and containers, concrete and metal walls, pipes, lines and components that we prepare and then process accordingly. The extensive tests can be carried out indoors with the help of automated robots and systems, or outdoors.

If desired, simulations can also be developed in cooperation with you. Together we will examine possible solutions for your particular application and provide you with fully documented test protocols and reproducible results. We are looking forward to your challenge.



**SPARE PARTS SERVICE IN A CLASS OF ITS  
OWN, AVAILABLE AROUND THE CLOCK**

Hammelmann's unique spare parts service offers you many advantages - a state-of-the-art logistics center, same-day dispatch and short delivery times.



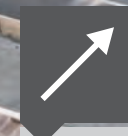
**SAME DAY DISPATCH**

of spare parts



**23.000 STORAGE SLOTS**

in a fully automated storage system



**500 EMPLOYEES**

in the Hammelmann Group

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**HAMMELMANN®**

for over 20 years