



# UHPS

Ultra high pressure system

Efficient and compact system for first attack

 rosenbauer

# Ultra high pressure system UHPS

## Maximum extinguishing efficiency with optimum performance

Rosenbauer has been offering the UHPS, a compact and efficient extinguishing system, for over 10 years now. It has proved to be of value, especially in first attack. The next generation of the Rosenbauer UHPS was developed in cooperation with experienced users with the objective to improve upon the over 1000 UHPS units being used over the world.



### A ultra high pressure unit – Why?

The advantages of the UHPS ultra high pressure system are especially evident in fast attack, rapid intervention and technical vehicles. Fast attack vehicles can be moved in pedestrian area as well, and are able to reach the fire-affected area much faster despite rush-hour traffic, narrow old-city streets, or heavy snow. Since these vehicles rarely have fire pump systems, Rosenbauer has developed a lightweight, complete extinguishing unit – the UHPS.

### The UHPS unit comprises of:

- 3-cylinder brass ultra high pressure piston pump with ceramic pistons (oil-bath lubrication) and water pre-filter, output 38 litres/min
- Integrated foam proportioning system, manual foam proportioning rate 0 to 6 %, continuously adjustable
- 2-cylinder 4-stroke petrol engine Briggs & Stratton with e-starter + battery; 8.5 litres fuel
- Hose reel with 60 m rubber hose, incompressible DN 12/20 mm
- UHPS standard nozzle, full/spray jet continuously adjustable with foam attachment
- Foam canister 20 litre
- Water tank 100 to 500 litre in various designs

### Optimal extinguishing effect - 38 litres/min at 100 bar

Full atomizing of the water being used and an adequate amount of water are important prerequisites for effective extinguishing. Extensive experiments in Austria and USA showed that there is no remarkable increase in the extinguishing effect and throw range with a pressure of over 100 bar. There is a dramatic decline in the extinguishing effect with a water output below 35 to 40 litres/min. Therefore the Rosenbauer ultra high pressure unit is designed to provide an optimum of 38 litres/min at 100 bar pressure.

### A sophisticated and complete system

The UHPS basic module comprises a piston pump driven by a Briggs & Stratton petrol engine and an integrated, continuously variable proportioning system providing foam proportioning rates of 0-6% with the help of an integrated, continuous proportioning system. The manual reel contains a 60 m long, thin, non collapsible and fire-resistant rubber

hose. The extinguishing agent is sprayed on the burning object through a standard nozzle with long throw range. Compact, flexible and space-saving, the UHPS basic module can be installed on all vehicles. The vehicle PTO can also be used for the operation.

### The UHPS branch pipes

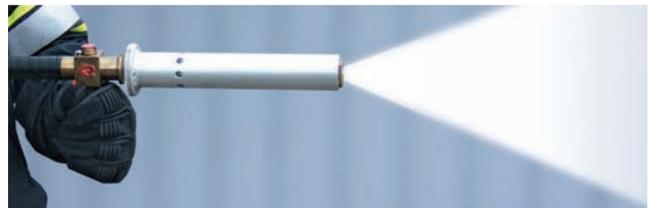
The standard branch pipe is ideally customised according to the pump pressure. This ensures that finest tiny water droplets are generated in full and spray jet for maximum extinguishing effect with long throw range. It has a continuously variable full/spray jet setting and a detachable foam barrel.

The UHPS combined branch pipe has all the standard nozzle functions and is also equipped with an integrated adjustable foam barrel. This allows you not only switching between full and spray jet, but also directly changing over to the foam mode – simply push the foam barrel forward.

Full jet



Spray jet



Low expansion foam jet



### The advantages of the UHPS Ultra high pressure system:

- Long throw range: Extinguishing from a safe distance (>10 m)
- 70 m action radius (60 m hose, 10 m throw range)
- Easy hose handling: only approx. 7 kg weight at 60 m when full with water
- Perfect elimination of hot spots. Volumes of 38 litre/min and 100 bar pressure give out particularly high kinetic energy with flame penetration by the full jet up to the hot spot
- Best cooling effect: Finest water atomization in spray jet
- Extinguish continuously or in bursts, since the jet can be changed from full to spray stream in continuous setting
- Integrated foam proportioning system and attachment
- Very easy operation – the unit does not need any observation after starting it
- UHPS can be retrofitted in all vehicles and also on a hand-cart. You can also attach it for stationary use.



**UHPS Variants**

- 1. UHPS basic module
- 2. UHPS SKID with pull out tray - mounted on a basic frame
- 3. UHPS HELI 500
- 4. UHPS SKID with pull out tray - mounted on an AT municipal vehicle
- 5. UHPS PTO - mounted on an AT municipal vehicle
- 6. UHPS ATV - mounted on Polaris Sportsman 6x6





**UHPS is ideal for:**

- Fast attack vehicles
- Small extinguishing vehicles
- Technical vehicles

**UHPS ist used for:**

- First attack
- Forrest fire fighting
- Vehicle fires
- Narrow staircases and old urban quarters
- Culural monuments

Rosenbauer International AG  
Paschinger Straße 90  
4060 Leonding, Austria  
Tel.: +43 732 6794-0  
Fax: +43 732 6794-77  
office@rosenbauer.com

[www.rosenbauer.com](http://www.rosenbauer.com)

 [www.facebook.com/rosenbauergroup](https://www.facebook.com/rosenbauergroup)

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