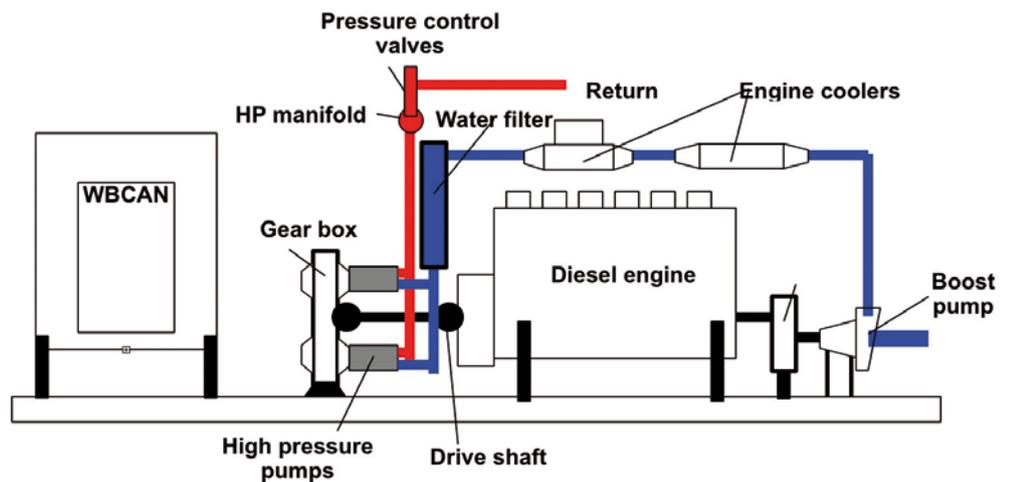


Simplified representation of HI-PR Firepack



the never failing
power behind safety

HI-PR Firepack

The **HI-PR Firepack** is a High Pressure Firepack for application in water mist systems. In these systems a very fine mist is created by a combination of high pressure and special sprinkler heads. The fast evaporation of the small droplets dissipates heat from the fire and displace the oxygen.



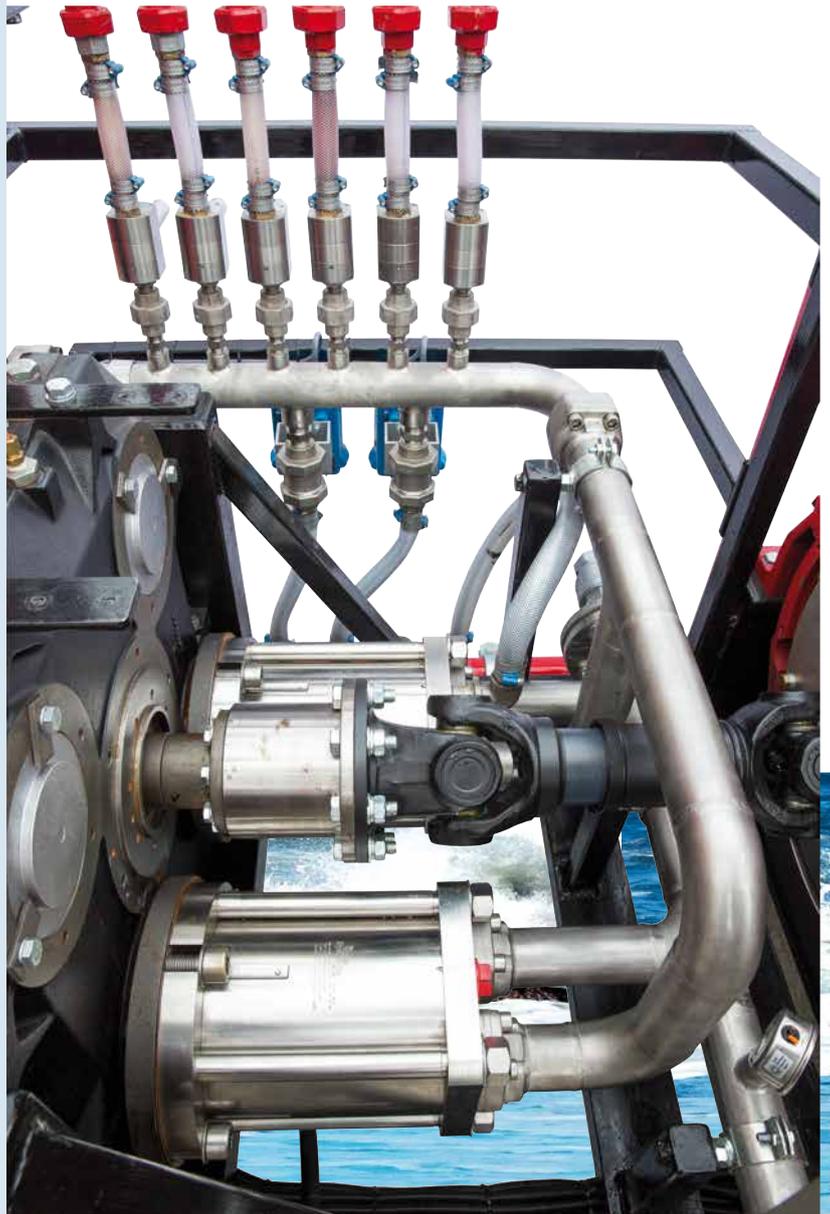
Unique features of the **HI-PR Firepack** are:

- Integrated boost pump so the **HI-PR Firepack** functions as standalone unit, without external energy source.
- Cooling of diesel engine integrated in the main circuit, no need for separate cooling pumps and piping.
- Standard equipped with WBCAN controller, listed according NFPA-20.
- Combination of electronically controlled valves and speed control ensures gradual pressure control without pressure spikes.
- Long service life due to automatic test procedure and “cool-down” cycle.

Advantages compared to conventional sprinkler systems are:

- A much lower water consumption
 - Virtual absence of water damage.
- The low water consumption saves costs in the construction of water supply tanks as well as smaller pipe dimensions. The absence of water damage makes applications possible, which were unthinkable before, such as data centres, museums, theatre buildings, etcetera.

The **HI-PR Firepack** is capable of water pressures up to 140 bars and can therefore be used for every water mist system.



The **HI-PR Firepack** is built around the high pressure plunger pumps which are rated at 160 bar. These pumps are cooled as well as lubricated by the water itself and therefore maintenance free. Depending on the required capacity multiple pumps are driven by the same diesel engine through a gearbox.

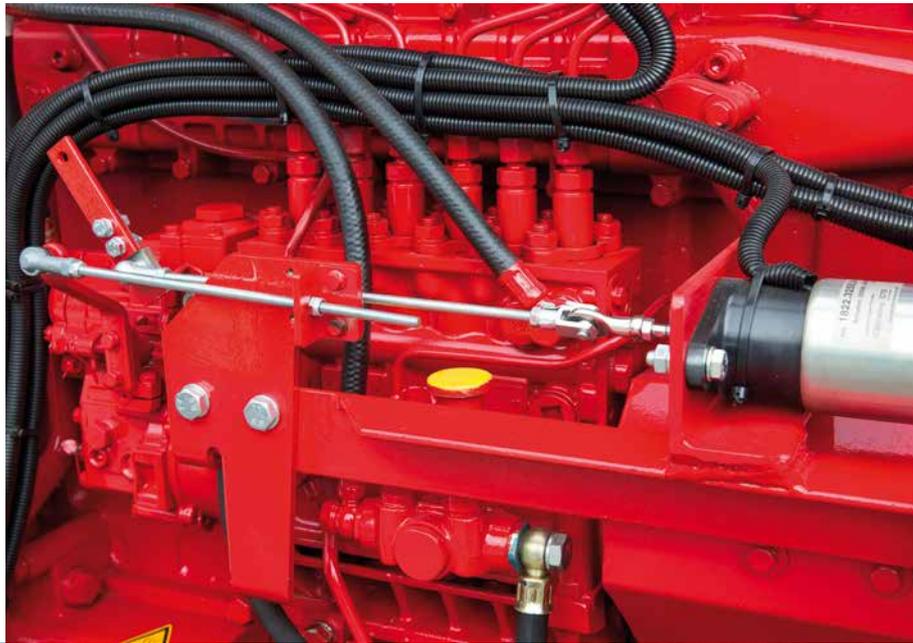
The philosophy of WBFP is that a diesel driven **HI-PR Firepack** should be able to operate autonomously in case of emergency, just like every other diesel Firepack. A result of this philosophy is the fact that the boost pump is driven by the diesel engine instead of a, commonly used, separate drive.

The engine coolers and the water filter are installed between the boost and high pressure pumps. The system works according the full flow principle, which means no failure prone control valves are required and no adjustments need to be performed. Also the installation is simplified because no additional pumps, control valves and piping for cooling the engine are required.

Just before the inlet of the high pressure pumps a 10 micron filter is installed, which guarantees the lifespan of the pumps and avoids contamination of the system. The large capacity ensures a low pressure drop and increases the lifespan of the easy to replace filter elements. A flow switch guards against excessive filter restriction.

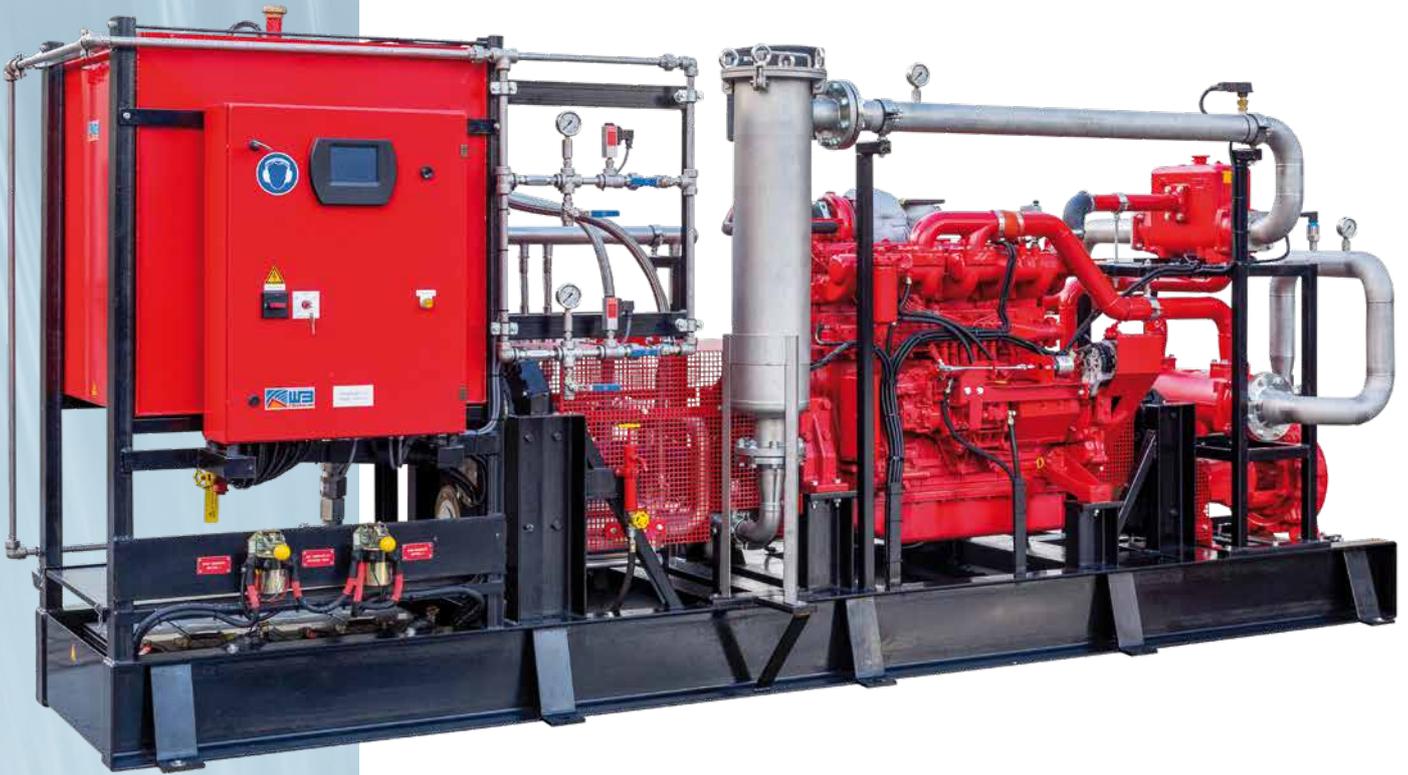
The **HI-PR Firepack** is equipped with a speed control system. Together with the motor operated ball valves this provides a gradual increase of pump pressure. After an engine start the valves are closed first at reduced engine speed, so pressure is gradually increased to the required value, after which the engine speed is increased to the nominal value to make the full capacity available. Compared with the usually applied solenoid valves this system greatly reduces the occurrence of pressure spikes in the system.

The combination of speed control and motor operated valves also makes it possible to include a cool down cycle in which the engine runs at reduced engine load and speed before being stopped. This significantly improves engine life and maintenance requirements compared to the current systems where the engine is usually stopped while running at nominal speed and load.



The pump pressure of the **HI-PR Firepack** is controlled by means of purpose designed control valves. These pilot controlled valves are much more stable than the usual spring loaded valves. For a diesel **HI-PR Firepack** unloading the pumps is required for starting and stopping the diesel engine. This is performed by electric controlled ball valves, which of course work with 24V from the batteries, ensuring autonomous operation.

Please contact VAN WIJK & BOERMA FIREPACKS B.V. for additional information.



VAN WIJK & BOERMA FIREPACKS B.V. is pleased to help you with the design and application of your **HI-PR Firepack** unit. You will receive outstanding technical application and installation support, complete warranty, service and further assistance for the life of the **HI-PR Firepack** unit.

You are supported 24/7 with services and parts by a dedicated, ISO9001 certified, production system and a network of experienced representatives, all backed up by VAN WIJK & BOERMA FIREPACKS B.V. for quick response and delivery.



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