The Compact Revolution

Rapid fire extinguishing by atomisation of water

The Principle

The high-pressure extinguishing process is created by atomising water. Minute water droplets are generated, resulting in an increased water surface. The cooling effect of the water is very efficient in removing the energy from the fire (energy extraction), whilst the expansion of steam starves the fire of oxygen.

Manner of Work

The water flow is pressurised to 250 bar (3600 psi) ensuring that the water emerges from the atomisation nozzle at high velocity. The moist mist even reaches difficult areas of a fire, such as roof timbers, wooden wall panels or intermediate ceilings. The fire rapidly loses considerable amounts of energy by evaporation which reduces the oxygen level below critical limits, resulting in suffocation of the already weakened fire. The synergetic effect of these two processes creates an incredibly effective extinguishing action.

Applications

The high-pressure fire extinguisher HDL is suitable for both class A and class B fires. For class A (burning solids) the traditional extinguishing agent is normally water. It is possible to quickly and easily switch the rollover valve of the gun from water to foam which is most suitable for extinguishing class B fires (burning liquids). The foam will also prevent the re-ignition of burning solids.

Conclusions

Fire Brigade statistics show that more than 80% of all fires are small and medium size fires. These fires can successfully and quickly be extinguished with the HDL system, allowing faster access to the fire and avoiding water damage.
The Highlights

- No set-up time
- Most effective in reducing the fire’s energy by cooling
- Sufocation of fires by steam generation
- Extremely fast extinguishing terms
- Long distance throw
- Low gun recoil
- Minimal water consumption – max. 23 l/min.
- Avoids water damage and spillage of contaminated water
- Injection of foam agents is possible if required – standard feature
- Minimum space and weight requirements when installed in vehicles

HDL installations in Multicar, van, pick-up, electromobile, Unimog, standard car, trailer

OERTZEN FIRE-TEC high pressure fire extinguishing units fit perfect each customer’s demand due to their compact modular design. HDL high pressure pumps are fed by own water tanks (125/175/360 l) or by tanks installed in firefighting vehicles. Hose reels (standard: 60 m, option: 100 m) are HDL integrated, but can as well be mounted separately (upright or overhead).

Automatic hose reel drive (option) makes it easy to coil up extinguishing hose after operation.

Standard drive motor of high pressure pump is 13.2 kW petrol engine (HDL 250) - other kinds of drive motors or bigger hp pumps are available on request (s.o.). All components of HDL are first class quality products, that can save lives in case of emergency.