

## OFFEXT SKUNK – ARM NOZZLE

The OFFEXT SKUNK Arm Nozzle is a powerful tool for offensive exterior firefighting. It is specially designed for putting out fires from the outside of the building.

The arm nozzle creates a 660 liters per minute water spray that is aimed into the ceiling and upper parts of walls. The design principle relies on variable droplet size for both hot gas cooling (small droplets with high heat absorption) and surface cooling (bigger droplets with adequate travel distance to reach hot surfaces).

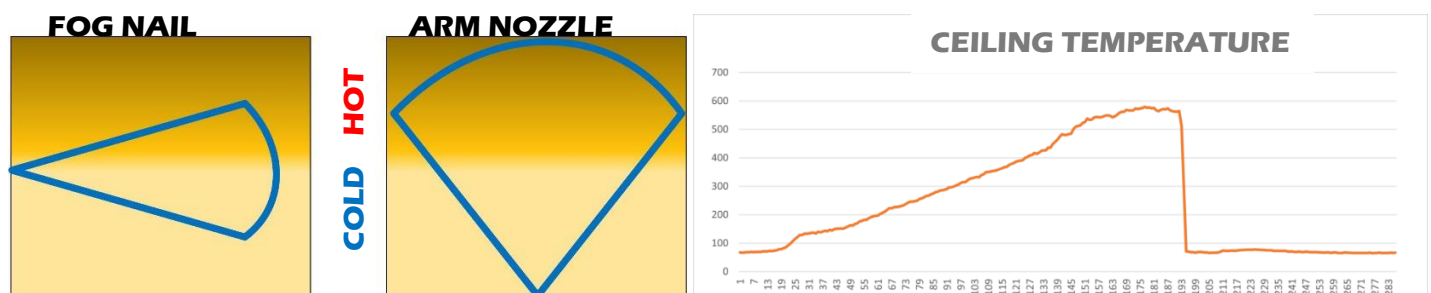
The extinguishing effect is based on a very simple principle of applying water where the heat is, that is, on the ceiling and upper parts of walls.



In traditional offensive interior attack firefighting, the steam generated by applying water onto hot surfaces and hot gases can be problematic for the firefighter and, even, cause burn injuries. With offensive exterior firefighting, the generated steam is very effective suppressant as it is an inert gas. For this reason, applying ample amount of water is only beneficial. This can be done easily and safely through a door, window or purpose made opening with the OFFEXT SKUNK Arm nozzle.



When using a traditional fog nail for offensive exterior firefighting, only a very small proportion of room surfaces are reached by the water spray. Using the Arm nozzle, the ceiling and most of the hot wall surfaces are reached. The water spray vaporises very effectively and the temperature drops sharply, from 650 degrees Celsius to 70 degrees in two seconds in our house burning tests.



OFFEXT™ SKUNK contains three fire extinguishing heads, one for house fires and vehicle fires, one for cooling battery of an electric vehicle battery and one for piles of wood chips and forest fires. The extinguishing head is attached into the operating arm which has an operating valve. One or more extension arms can be also used, allowing a total arm length of approximately five meters.



Putting out a vehicle fire with the arm nozzle is easier and safer compared to traditional approach using a traditional nozzle. Risks with vehicle fires include projectiles from exploding safety mechanisms (such as airbags) and molten metal sprays from different components. With the arm nozzle, the firefighter can keep safer distance from the burning vehicle. The extinguishing work can be done without entering the smoke cloud, giving much cleaner work environment and less exposure to toxic and carcinogenic substances in the smoke.

Electric vehicles and battery fires is a rather new challenge for firefighters. A battery fire is very different type of incident than any other fire, including vehicle fires. As there are several approaches to handle an EV battery fire, the safest and easiest to execute is external cooling of the battery.

Battery fires emit highly toxic smoke and fumes that contain, for example, HF (hydrogen fluoride). Using the OFFEXT SKUNK Arm nozzle with the special EV head makes it very easy to set up effective battery cooling with no or minimal need to work inside the toxic cloud. Installing the arm under the car is extremely simple and safe. After the arm is installed, the firefighter can move away from the vehicle, to a safe distance from toxic smoke and hot, dangerous jet flames erupting from the battery.



OFFEXT™ products are made in Finland and designed to make firefighter work faster, safer and healthier.



**SKUNK PILE NOZZLE** - is an easily penetrating tool for extinguishing piles of organic material, such as peat, wood chips or pellets. The design of the tip sprays water in such a way that the water jet clears a cavity that helps penetrate the pile. With the pile nozzle water can be injected into the hot spots without a need to tear down the whole pile.



The PILE SKUNK is also used in forest fires to extinguish hard to reach cavities that burn on tree stumps and stone cavities.

Peat piles are especially difficult to extinguish as the surface tension stops water from being absorbed into the peat. This makes the water to drift off the top of the pile. Traditionally surfactants have been used to combat this issue, also in forest fire extinguishing. Surfactants are generally also pollutants, especially the ones using PFAS compounds. With the PILE SKUNK we can work effectively without the need for using surfactants.



Additional information: <https://www.offext.fi/en/skunk/>