



The first and only fire hose nozzle that gives the nozzle team control of the water flow

System Overview for the Fire Service

MEET THE SAM SMART NOZZLE WITH REVOLUTIONARY N₂P TECHNOLOGY

Groundbreaking Advancement In Fire Nozzle Technology

The innovative SAM Smart Nozzle, with N₂P Technology, is designed to work with SAM. With N₂P Technology, the nozzle system communicates with the truck through SAM, providing the nozzle operator unprecedented information and control.

Currently, it is up to the pump operator to set the pump and line pressures. But it is no small task. The pump operator must estimate friction and head loss plus cope with unknown losses from bends and kinks in the line. The result can be incorrect pressure and flow at the end of the hose, the critical point of the fire attack. Meanwhile, the attack crew is on the radio calling for water. Once they have water in a charged attack line, they may need more or less pressure, wasting precious time in a situation where seconds matter.

With patent-pending Nozzle-to-Pump, or N₂P Technology, SAM Smart Nozzle gives the crew on the line direct information and provides feedback to the truck using the SAM System technology. The result is greater safety and efficiency on the fireground.

The SAM Smart Nozzle's wireless communication allows the attack crew at a fire scene to know water availability by tracking water supply. An easy-to-read water tank level gauge is located on the nozzle itself

The Smart Nozzle coupled to SAM allows the nozzle team to operate at rated nozzle pressure and flow; and charge the hose line on-demand without tying up the pump operator or communications.



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A Closer Look

- The SAM Smart Nozzle with N₂P Technology gives the crew on the line information and control.
- Information is looped from the pump to the nozzle using the SAM System's patented technology.
- The Smart Nozzle charges the hose line and tells SAM to set the discharge line pressure to assure that the rated pressure and flow is available at the end of the hose, where they are needed.
- The water tank level and status of the water supply are shown on the nozzle, giving nozzle operators the information that they need without tying up precious communication lines.
- The SAM System continues to operate and provide consistent pressure at the valve even if wireless transmission is interrupted.
- SAM System discharges can still be controlled from the SAM System control screen, allowing pressures to be adjusted automatically or manually at the valve.
- The traditional bail handle continues to serve as the water open/close at the nozzle, and nozzle adjustments for stream and flow rate (if so equipped) function as they do today for easy integration and limited training requirements..
- With the SAM Smart Nozzle installed, the pump operator will be able to see valve pressure, rated nozzle pressure, actual nozzle pressure, hose/friction loss, battery life and signal strength for each Smart Nozzle equipped discharge line. for each discharge.



Technical

- The wireless, battery-operated Smart Control Console is an integrated unit mounted to the inlet of Turbojet™, Assault, and Smoothbore Akron Brass nozzles.
- Operating pressure can be 50, 75, or 100 psi, depending upon the nozzle and customer requirements.
- The system uses spread-spectrum technology for communications and a low power draw.
 - Range of operation: The SAM Smart Nozzle technology will compensate for advancing the line up to five floors above the pumper or two floors below grade (beyond the typical 200-300-foot pre-connect deployment).
- The SAM Smart Nozzle is designed and tested for use on pre-connected hand lines up to 300 feet long.

Communication Components

- Truck-Installed Radio and Antenna
- Akron Brass Handline Nozzle with wireless SAM Smart Nozzle Control

The SAM Smart Nozzle with N₂P Technology is an option on all new and existing SAM Integrated Total Water Control Systems.



SAM SMART NOZZLE with N₂P Technology™

SYSTEM REQUIREMENTS

The system requires the following components to be specified with the truck:

- Hale Qmax or Qmax-XS
- Akron Brass Electric Valves and pressure transducers
- Class 1 ITL-40 tank level
- Hale SPV primer
- Hale electric MIV(s)

Optional items:

- Akron Brass Navigator electric valve controllers
(can be used as redundant controllers, but not required)
- Class 1 SmartFoam or SmartCAFS
- Additional SAM Control Center (Up to 2 additional)



AVAILABILITY

- Available for OEM orders in January 2022
- To learn more, please contact your IDEX Fire & Safety representative



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