



Preferred Specifications

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90-45-DS

Modular Slide-In CAFSystem

90-45-DS shall be a slide-in, modular, portable compressed air foam unit designed and constructed to discharge water, foam solution or compressed air foam. The system shall develop a maximum of 90 GPM of water at 100 PSIG (340 L/min @ 6.9 bar) and 45 CFM of air at 100 PSIG (1.2 m³/min @ 6.9 bar). The 90-45-DS develops 40 GPM and 20 CFM @ 125 PSI (300l/min and 0.56 m³/min @ 8.6 bar) simultaneously. The 90-45-DS shall also feature compressed air for pneumatic tools. The system shall come with a Rand 45 sCFM compressor, Aquis™ 1.5 foam proportioner, and electric auto-sync balancing system. It shall be available with an optional Operator Interface Terminal (OIT)..

This system shall be equipped with a Hypro 9203 centrifugal water pump utilizing an iron case, nylon impeller, stainless steel shaft and maintenance-free mechanical seal. It shall come with a 1.5-inch NPT intake and 1-1/4-inch NPT discharge. It shall come with a Venturi Primer with electric activation switch and a poly chain drive transmission with an automatic tensioner and 8mm pitch sprockets.

The system shall be powered by a Kohler engine, three-cylinder, liquid-cooled, delivering a maximum of 23.5 horsepower (17.5 kW), four-cycle, diesel fueled. The engine shall come with a two (2) year manufacturer's warranty. The engine shall draw fuel from a fuel tank (not supplied) via a pulse fuel pump. There shall be a pressure lube system with spin-on oil filter. An extension hose is installed on the engine oil drain with a valve located at the oil pan and a plug installed in the end of the hose to facilitate oil changes. It shall come with a 12 or 24-volt electric with 60A alternator, electric ignition and start switch along with a spark arrestor muffler. The frame of the unit shall be made of high-strength, stainless steel.

The system shall come with an oil-filled, rotary screw air compressor, sized to supply a minimum of 45 scfm (1.2 m³/min) of usable air. The unit shall come with an air compressor is controlled by the pneumatic modulation inlet valve mounted on the air end. It shall control air delivery while maintaining constant pressure. The unit shall come with an auto sync balancing system which automatically maintains the air pressure within +/- 5% of the water pump pressure throughout the pressure range. The auto sync balancing system is located on the operator's panel and allows for the following modes:

- Automatic – Air pressure matched to water pressure
- Fixed – Air pressure defaults to manual setting on compressor mounted control valve
- Unload – Air pressure reduced to 40 psig (2.8 bar) for standby operations

The unit shall come with a spin-on, full-flow oil filter unit is part of the system to control oil flow to the cooler. All lines are routed in braided hose conforming to SAE 100R1 standards for hydraulic hose. The unit shall be available with a modular air / oil separator. The unit shall be available with an air compressor cooling system. The air compressor shall be cooled by a 12 or 24 V electric / air fan type cooler. The system maintains recommended operating temperatures throughout the full operational range in ambient temperatures up to 115°F (46.1° C)

All air hoses, fittings and piping with the unit are rated to a minimum of 250 psi (17.5 bar). Air line fittings are constructed of brass, bronze or steel. Stainless steel or brass check air valves are utilized at all air injection points to prevent water back flow into the air lines. All hoses shall be secured to the frame with insulating clamps and located away from any heat sources.

The system's inlet piping shall be 2-inch with 2-inch Tank to Pump valve controlled at the pump panel. An inline strainer shall be provided. A 2-inch valve shall be provided behind the pump panel for overboard pump inlet 1.5" M-NST connection. Victaulic-type couplings shall be utilized in the pump inlet for flexibility and improved serviceability.

The system's discharge shall be plumbed to two (2) panel mounted 1.5-inch discharge outlets incorporating a stainless steel manifold, welded stainless steel pipe and/or high-pressure hydraulic hose with stainless steel fittings. 1-inch tank fill provision with 1-inch valve shall be provided. Victaulic-type couplings are utilized in the discharge plumbing for flexibility and serviceability. All discharge plumbing shall be designed and tested to a minimum of 500 psig (34.5 bar) burst pressure.

The system shall be equipped with a panel mounted drain to drain the pump, discharge manifold and compressor cooler.

The frame of the unit shall be made of high-strength, steel.

The system shall be equipped with Waterous Aquis™ 1.5 foam proportioner with manual rotary proportioner dial or optional Operator Interface Terminal (OIT), pump module with electric motor/motor driver and microcontroller unit, foam concentrate strainer, shielded electrical cables for connection for all electronic components, foam inject check valve, WYE strainer and flowmeter and tee.

The unit shall be available with optional items:

- Top and side enclosures
- 1.5" discharge for front turret
- On-Site delivery instruction – contact factory for pricing
- Threads on panel intake and discharges HN/NST, NPSH, BSP or STORZ
- 1" discharge w/panel control, water/foam
- Direct tank fill 2-inch valve with 2.5-inch panel connection

The unit shall come standard with a seven-year limited warranty.