

## SERVO COMMAND<sup>®</sup> FOAM PROPORTIONING SYSTEM KIT NME115

- One Switch Balanced Pressure On-Demand-Type Foam Proportioning System
- No Re-Circulation of Foam Liquid Concentrate
- Proven Technology - Now Available in Kit Form
- Simple, Reliable Operation



### System Description

The National Foam Servo Command foam proportioning system is an automatic, hydrostatically driven, balanced pressure, demand-type foam proportioning system with all hydraulic drive and controls. Foam concentrate flow and pressure automatically match system demand; there is no recirculation back to the foam concentrate tank or around the pump. The Servo Command system is maintained in a flooded ready to pump condition and requires no flushing after use. Water and / or foam solution can be discharged simultaneously from any combination of outlets up to the rated capacity of the water and foam pumps.

The foam proportioning rate at each outlet is adjustable from 1% to 6%.

The hydrostatic drive eliminates the need for fragile electronic control systems, with power provided from the apparatus engine.

The foam proportioning system pumps a measured amount of foam from a tank at atmospheric pressure in to the pressurized water flow from the main apparatus fire pump. Foam can be regulated with the system automatically compensating for changes in water flow such as when a second hose line is connected to the pump outlet and the system also compensates for any changes in the pump outlet pressure.

The Servo Command foam proportioning system has been operating on hundreds of industrial fire

appliances around the World for over 30 years with many of the earliest installed systems still performing to this day.

### Features

- On demand foam proportioning – water or foam at every discharge
- Unmatched foam proportioning accuracy
- Designed for the most extreme environmental conditions
- All hydraulic – no fragile or sensitive electronic components
- Pump ratings from 1,000 GPM to 3,000 gpm from draft. Higher from pressurized water sources
- Suitable for installation with any brand of apparatus pumps
- No flushing required
- Easily field calibrated and low maintenance requirements
- Minimal training required
- Follows 1901 guidelines
- 30 years of proven reliability

### Servo Command Kit

The Servo Command foam proportioning system is now available as a kit allowing apparatus builders to cost effectively install a hydraulically driven, demand type, balanced pressure, reliable, robust, foam proportioning system to their apparatus. The kit includes all the necessary components to quickly and easily install the Servo Command system.

The Servo Command kit comprises 18 components including all required

foam making components such as the foam pumps, proportioners and metering valves, all the hydraulic system components including hydraulic pump, motor and reservoir as well as the Servo Control valve and control panel plus a number of other items to complete the system installation including gauges, various connections, controllers and valves. A full list of National Foam supplied components is given on the back page of this data sheet.

### Apparatus Builder Supplied Components

The Servo Command kit is fitted to existing components provided by the apparatus builder including the fire pump and associated components, foam / water discharge piping, including discharge valves, drains, etc., water suction piping and valves as required, caps, plugs, adaptors etc., pump module structure, fabricated foam manifold, foam concentrate hoses and check valves, hydraulic fluid and hydraulic hose fabrication.

### Ordering information

National Foam requires details of the fire pump make and model to which the Servo Command will be added along with hydraulic pump rotation, hydraulic pump drive type (PTO or Hale G gearbox), foam pump capacity (150 or 300 GPM), number and sizes of foam / water outlets, hydraulic hose and coupling brand utilized and the apparatus operating voltage (12 or 24 VDC).

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## FOAM PROPORTIONING SYSTEM KIT

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### Servo Command Kit Components List

<i>Foam Making Components</i>	
Foam Pump	150 GPM or 300 GPM pump is available. Complete with mounting bracket and hydraulic motor mount
Foam Proportioners (RC's)	Sizes available from 2" through 8" with varying flow ranges. For sizes, flow ranges, and required foam metering valve contact NF Mobile Equipment Engineering.
Foam Metering Valves (VPV's)	Sizes available to match foam proportioners.
Metering Valve Escutcheon Plates	Stainless steel escutcheon plate to surround foam metering valve.
Nameplate Kit	Innovative Controls nameplate kit for foam valves and system components.
<i>Hydraulic System Components</i>	
Hydraulic Pump	Available in CW or CCW rotation depending on the application. National Foam must be informed of drive method and rotation.
Hydraulic Motor	Two sizes available to match foam pump.
Hydraulic Reservoir	Stainless steel 10-gallon reservoir with mounting flange.
Servo Command Control Panel	Stainless steel panel for mounting of control valves and indicator lights.
Servo Control Valve	Control valve for monitoring foam and water pressure and controlling hydraulic pump output.
Hydraulic Kit	Miscellaneous components and fittings.
Motor to Foam Pump Coupling	Heavy duty splined by splined shaft coupling.
<i>Miscellaneous Items</i>	
4-1/2" Duplex Gauge	Displays foam and water pressures - twin needle. 4-1/2", 0-400 PSI/kPa dial plate.
4-1/2" Compound Gauge	Standard pump master gauge. 4-1/2", 30"-0-400 PSI/kPa dial plate.
2-1/2" Discharge Pressure Gauges	Individual foam/water discharge gauges. 2-1/2", 0-400 PSI/kPa dial plate.
3" or 4" Foam Tank-to-Pump Valve	Air-operated butterfly valve. 3" for 150 GPM foam pump, 4" for 300 GPM foam pump.
Foam Tank-to-Pump Valve Controller	Air controller switch for foam tank-to-pump valve.
Auxiliary Foam Concentrate Pick-Up Hose(s)	2" x 10 foot pick-up hoses for use with auxiliary foam inlet valves, 2-1/2" male NH hose thread with 2" OD brass stinger pipe.