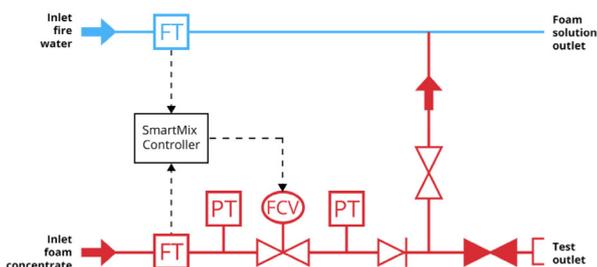




SmartMix® is an electronic foam mixing system which very accurately mixes foam concentrate and water based on the actual firewater demand of the system. This is achieved by continuous monitoring of the firewater and foam concentrate flows using electromagnetic flowmeters and real-time adjustment of the concentrate control valve. The accuracy and stability of the system is based on the combination of specially selected components and a unique control system with state-of-the-art logic developed specifically for SmartMix®. The control system records all process values and alarms during operation or test which are available via a user friendly interface.

An advantage of the SmartMix® system is that there is no pressure loss in the water supply towards the extinguishing systems. The SmartMix® can be installed close to the foam storage or on remote locations where multiple SmartMix® systems can be used on site using a centralized foam storage system.



ENVIRONMENTAL FRIENDLY

The SmartMix® test procedure ensures accurate proportioning is guaranteed every time. During this procedure the injection point to the firewater system is isolated and the foam delivery is diverted through the test outlet fitted with a pressure sustaining valve. Water flow is initiated and the SmartMix® system starts controlling the mixing ratio. The foam concentrate is collected in a clean IBC or mobile tanker which can be returned to the foam concentrate storage tank after the test. Full operation of the SmartMix® system is therefore demonstrated without consuming foam concentrate and without creating foam solution. The full testing procedure is economical and environmentally friendly with no clean up required.

HIGH ACCURACY

Due to the selection of high precision instrumentation and an industrial flow control valve it is possible to obtain a very precise mixing ratio. With SmartMix® technology this accuracy can be controlled to finite levels and will automatically adjust to changes in system demand. The SmartMix® has the possibility to create two different mixing ratios depending on the activation command coming into the system. The required mixing ratios can be set using the touch screen user interface.

SMARTMIX® CABINET

The SmartMix® is designed to be installed in the harshest environments, the cabinet is manufactured from stainless steel and powder coated to ensure maximum corrosion protection. The complete assembly is preassembled using high quality components and fully tested in the factory. Options such as cabinet heating and insulation are available.

DIAGNOSTICS

To guarantee reliability every component of the SmartMix® has continuous signal monitoring and performs self-diagnostics. In addition the SmartMix® flow control valve is tested automatically on a daily basis and the performance of the check valve in the foam concentrate supply line is monitored for leak free operation. The complete system operates on 24VDC and has a monitored battery back-up.

USER INTERFACE

A user touchscreen is integrated into the front panel of the controller cabinet. This intuitive interface allows a user to view system parameters and diagnostics. All process values, alarms and events are recorded during normal operation and testing of the system. This data is available and can be accessed and downloaded to an USB stick. The system can be set during commissioning using a password protected environment within the program.



SYSTEM CAPACITY

The SmartMix® can be adjusted to match project specific requirements and components will be selected to ensure optimum operation. The system capacity depends on the allowable pressure drop over the flow control valve which is sized to suit each

application. Examples of system capacity are indicated for 1% and 3% mixing ratios.

The SmartMix® system up to DN50 is standardized into the same cabinet, larger sizes are available and will be custom built. Other flow rates are available up on request.

SMARTMIX SIZE	1% MIXING RATIO		3% MIXING RATIO	
	Q min (lpm)	Q max (lpm)	Q min (lpm)	Q max (lpm)
DN15	400	6000	150	2000
DN20	800	10500	260	3500
DN25	1300	18000	450	6000
DN32	2000	27000	680	9000
DN40	3000	42000	1000	14000
DN50	5500	71000	1800	24000
DN65	8000	105000	2700	36000
DN80	12000	155000	4000	52000
DN100	18000	240000	6000	80000
DN125	25000	310000	8000	105000
DN150	34000	450000	11300	150000