



# Industrial Systems

Combining modern technology with years of experience, Elkhart's industrial systems are designed for use in many different types of industrial settings, including: refineries, chemical plants, loading docks, tanker berthings, railroad yards, offshore platforms, mining operations, etc.

A complete Elkhart Brass industrial fire suppression system is composed of hardware (water cannon / monitor, nozzle, valve, etc.), electrical capabilities (control system, wiring, etc.), programming, and integration of the hardware and software within the facility.

The instant the monitor is needed for fire protection or actual firefighting, it can be activated from a remote location where the operator can turn on the water supply; direct the monitor vertically or horizontally; and change the stream pattern of the nozzles; all from a safe distance. There is also an option that allows the monitor to oscillate automatically and start an auxiliary device such as foam or booster pump, thus freeing the operator to attend to other duties.

Elkhart's industrial systems are available as a pre-engineered solution or a custom created installation that offer multiple options that accomodate any installation:

- Single Monitor or Multi-Monitor system
- Environment Conditions: Class I, Division 1 or Division/Zone 2 ; Marine (Saltwater) ; Caustic Gas Environments
- Material: Brass ASTM B-62/85-5-5-5 (Marine spec) or ASTM 584/81-3-7-9 ; Stainless Steel (299-20 Only)
- Actuation: Electric ; Hydraulic
- Communication: Electric (Discrete Cable) ; Electronic (Digital Network) ; Wireless (Digital Network)
- Operator Controls: Push Button ; Joystick (Electrical) ; Touch Screen / Digital Panel ; Plant Interface ; Portable RF
- Voltage: 120, 240, 480 VAC STD (380 VAC Optional)
- Common Elective Features: System status and warning notification, panic button discharge and oscillation, plant supervisory control integration, multiple control

### ECHO (ERCM):

Electric Remote Controlled Monitor systems are pre-engineered systems specifically designed for hazardous location Class I, Division or Zone 2 environments.

Each ERCM includes: monitor / water cannon (85 brass), master stream nozzle (brass\*), monitor junction box (stainless steel), monitor motor control panel (stainless steel), and an operator control panel (stainless steel).

### HRCM:

Hydraulic Remote Controlled Monitor systems are pre-engineered systems specifically designed for hazardous location Class I, Division 1 environments.

Each HRCM includes: monitor / water cannon (85 brass or SS), master stream nozzle (brass), valve & pump box (NEMA 7/4 cast aluminum) with spool assembly (welded steel riser pipe), and operator control panel (NEMA 7/4 or NEMA 4X).

### Custom:

Custom systems are designed and engineered for your specific hazardous location application. This could include anything from gas mitigation to mining operations to marine & saltwater applications.

Custom systems allow the user to specify how many monitors per system, the environmental rating, material, actuation type, communication type, etc.

Contact your Elkhart Brass representative to start designing your next installation.



\*Available with Electroless Nickel for increased corrosion resistance.





ERCM

## ECHO

### Hazardous Location: Class I, Division or Zone 2

When a fire strikes, seconds count. Prompt response can mean the difference between a minor inconvenience and a six-month plant shut-down. Instantaneous control needs to be in reach, but well out of harm's way. At Elkhart Brass, our advanced electronic controls provide prompt and dependable control of potential crisis situations. That's just one reason why many of the biggest names in the industry protect their physical investments with our electronic remote controlled monitor (ERCM) ECHO systems. They also know we have the experience and capabilities to do the entire job right - right from the start and all the way through final installation and service.

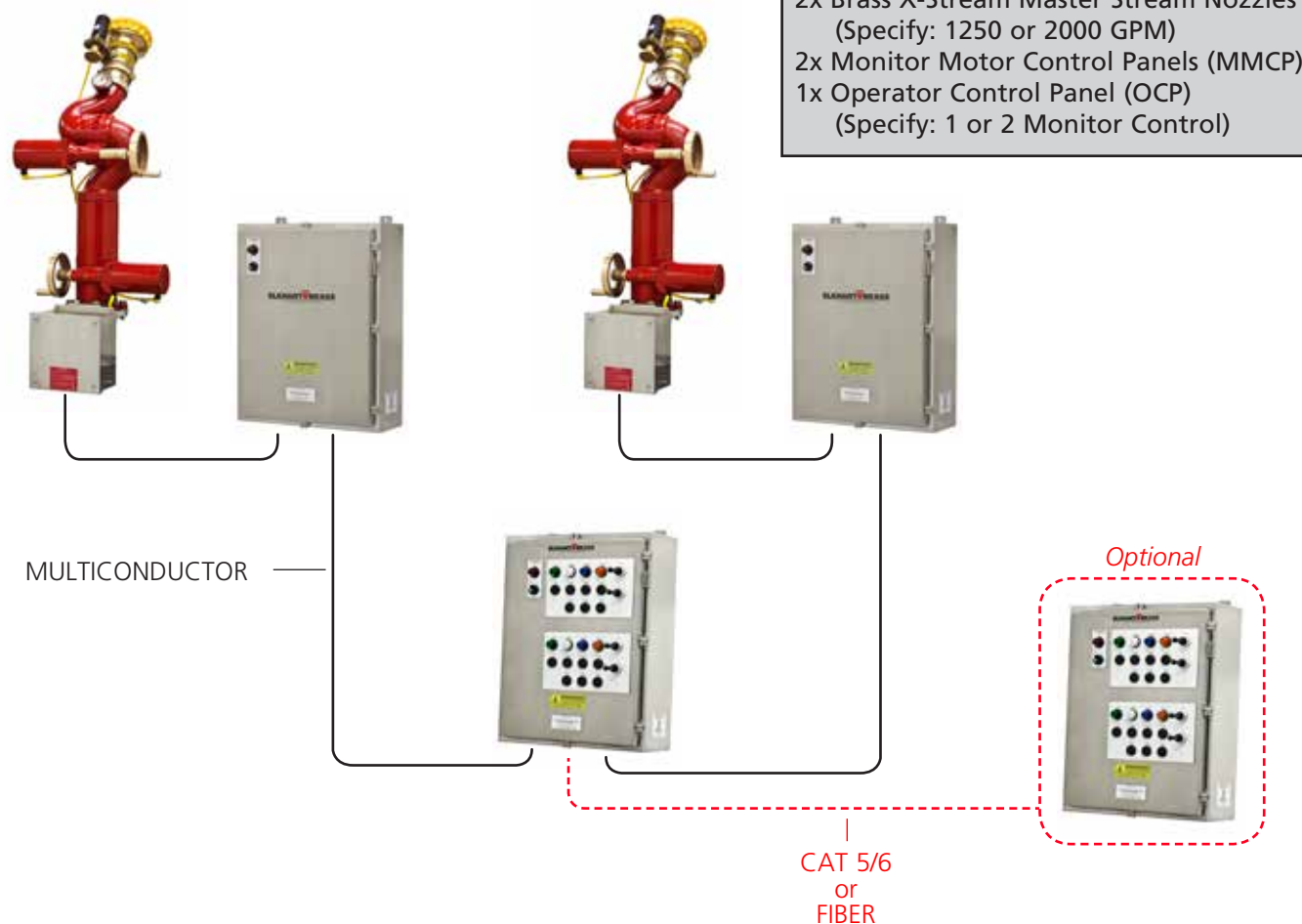
Pre-engineered ECHO systems are designed for remote firefighting and gas mitigation applications and support two to sixteen monitors thanks to systems expandability.

### Spit-Fire 8394053 Features:

- 2000 GPM (7570 LPM) max flow @ 200 PSI (13.8 BAR) max working pressure
- Rugged, corrosion-resistant cast brass
- 4"-150# ANSI flange base inlet
- 3.5" NHT male discharge outlet
- Double-race, SS bearings on brass vertical and horizontal swivels
- Junction Box is stainless steel, NEMA 4X (IP 66) water tight, corrosion resistant ATEX certified & UL listed
- 346° horizontal travel (L173°/R173°) & 135° vertical travel (+90° to -45°)
- Motors are UL recognized for Class I, Division or Zone 2 use and provide constant torque and speed, capable of continuous operation in all modes including stall conditions all at the same low current draw
- Monitor meets NEC (NFPA 70) Article 501 requirements for use in Class I, Groups A, B, C, & D, Division or Zone 2 & Article 505 – Class I, Zone 2, A Ex nA IIC T4 hazardous location areas
- System (Monitor, Cables, & Junction Box) is FM approved for Class I, Division or Zone 2, Groups A, B, C, D & T4
- FM approved: Includes whole monitor assembly (motors, cables, junction box, etc.)
  - FM approved for Class I, Division or Zone 2 use, Groups A, B, C & D, T4
  - Motors and cables FM rated to IP67, Junction Box FM rated to IP66



## ECHO Base System:



## Components & Options:



COMPONENTS & OPTIONS			ILLUSTRATION	MODEL
X-Stream Series Nozzle	Automatic	1250 GPM (4731 LPM)	1	SM-1250BE
		2000 GPM (7570 LPM)	1	SM-2000BE
Industrial Valve	Butterfly	4" (1300 in/lbs torque)	2	70117000
		8" (2500 in/lbs torque)	2	70133000
Control Panels	Stainless Steel	Monitor Motor Control Panel (MMCP)	3	81471068
		Operator Control Panel (OCP)	4	24359000
	Touchscreen	HMI Control Room Console	5	24352078
	Portable RF Control	Wireless transmitter and receiver options	6	



HRCM

## HRCM

### Hazardous Location: Class I, Division 1

The Hydraulic Remote Controlled Monitor (HRCM) system includes a monitor with nozzle, a valve box complete with hydraulic pump motor tank unit, and a control box with a complete panel of function controls. Both the valve box and the control panel are available in either stainless steel NEMA #4X for Class I, Division or Zone 2, or unclassified areas; or cast aluminum NEMA #7/4 for Class I, Groups B, C & D, Divisions 1 & 2 hazardous area classifications. Several monitors may be operated from one control station with the option of a secondary control station at another remote location.



#### 294-11XBHC Features:

- 1100 GPM (4164 LPM) max flow
- Rugged, corrosion-resistant cast brass
- 4"-150# ANSI flange base inlet
- 2.5" NHT male discharge outlet
- Double-race, ball bearings on vertical and horizontal swivels



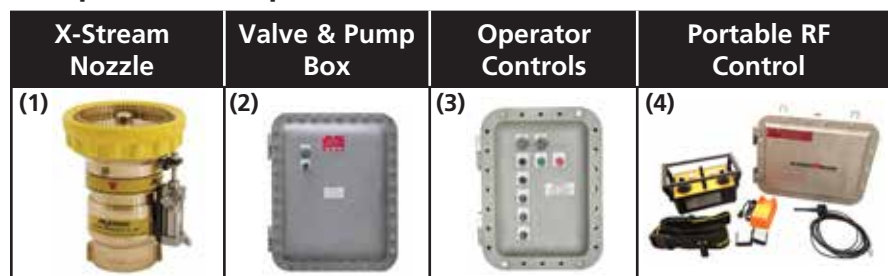
#### 299-20XHC Features:

- 2000 GPM (7570 LPM) max flow
- Seamless, 304 stainless steel tubing (3.5" I.D.) with cast stainless steel swivel joints
- 4"-150# ANSI flange base inlet
- 3.5" NHT male discharge outlet
- Double-race, stainless steel bearings on vertical and horizontal swivels
- Safety covers on both vertical and horizontal spur gears

## Common Monitor Features:

- Powerful hydraulic actuators with sufficient torque to move the monitor even under the most adverse conditions.
- These actuators have built-in, hydraulic flow controlling, adjustable needle valves and are constructed of materials suitable for salt water environments.
- The vertical actuator allows movement of 150° (+90/-60).
- The horizontal rotation of 180° is standard; 270° and 360° are optional (please specify).
- Automatic horizontal oscillation is available upon request:
  - NEMA #4X - 20°-180° (requires NEMA #4X valve box)
  - NEMA #4X - 20°-360° (requires NEMA #4X valve box)
  - NEMA #7/4 - 20°-180° (requires NEMA #7/4 valve box)
  - NEMA #7/4 - 20°-360° (requires NEMA #7/4 valve box)
- Nozzle pattern is infinitely adjustable from straight stream to wide fog by means of two hydraulic pistons with a flow control, needle valve.
- Monitors are shipped mounted on top of a 38" long pipe spool (44" for monitors with optional horizontal oscillation) with all hydraulic lines attached and the valve box mounted to the spool.
- The entire assembly can be installed at ground level or in an elevated location.
- The monitors can also be utilized on fire boats or work boats.
- A red urethane enamel finish is standard on all monitors.

## Components & Options:



COMPONENTS & OPTIONS			ILLUSTRATION	MODEL
X-Stream Series Nozzle	Automatic	1250 GPM (4731 LPM)	1	SM-1250HB
		2000 GPM (7570 LPM)	1	SM-2000HB
Control Panels	Valve & Pump Box with Spool (riser pipe) Assembly	NEMA 4X (stainless steel) for unclassified areas		81250001
		NEMA 7/4 (cast aluminum) for hazardous locations	2	81249001
	Operator Control Panel (OCP)	1 Monitor ; NEMA 4X (stainless steel)		24230000
		2 Monitor ; NEMA 4X (stainless steel)		24231000
		4 Monitor ; NEMA 4X (stainless steel)		24233000
		1 Monitor ; NEMA 7/4 (cast aluminum)	3	24224000
		2 Monitor ; NEMA 7/4 (cast aluminum)	3	24225000
		4 Monitor ; NEMA 7/4 (cast aluminum)	3	24227000
Portable RF Control	Wireless transmitter and receiver options	4		