

## AMBASSADOR Monitor Trailer

### Description

The WILLIAMS FIRE & HAZARD CONTROL AMBASSADOR Monitor Trailer is designed to meet modern industrial fire-fighting and protection needs, especially for mitigating hazards involving flammable liquids in storage and gases under pressure. The trailer is a mobile, large-volume discharging platform capable of delivering up to 6,000 gpm (22,700 Lpm) of water or foam solution for fire suppression, cooling, personnel protection, toxic gas dispersion, and more. The optional HYDRO-CHEM Flex Nozzle capability delivers dry chemicals to extinguish 3-dimensional fires or gas pressure fires. If more flow is needed, a maximum flow rate of 8,000 gpm (30,000 Lpm) is available on selected models.

The AMBASSADOR Monitor Trailer features A-frame tow bar construction with an integral waterway, internal ballast, and external toolbox. The trailer has been purposely designed to reduce weight and maximize maneuverability, with a stability safety factor achieved by the water ballast tank to increase weight once staged for deployment.

### Features and Benefits

#### Advanced Hybrid Nozzle Technology

The AMBASSADOR Monitor Trailer features a unique hybrid nozzle that functions as an automatic or fixed flow nozzle. During automatic operation, the nozzle responds to a varying supply of water, from 2,000 gpm to 6,000 gpm (7,570 Lpm to 22,700 Lpm). This maintains a nearly constant tip pressure of approximately 100 psi (6.9 bar) which maximizes its effective reach distance. This is particularly useful in applications where the water supply may be inadequate or variable, or to establish an initial discharge while more supply lines are being connected.

In fixed flow mode, the nozzle can be preset, with the included fixed position plugs (flow stops), to a flow rate needed for a specific situation — between 2,000 gpm and 6,000 gpm (7,570 Lpm and 22,700 Lpm). Flow rate and reach distance increase as the water supply increases, with a nearly constant K-factor. If the flow is not hitting the target and longer distance is needed, increasing the pump engine throttle will increase the water supply. Once the flow rate reaches the set point, it performs as a conventional fixed flow nozzle. There is no need to shut down operations to adjust flow, unless more flow is needed beyond the set point. This mode is desirable for foam proportioning operations on storage tank fires or other hazards requiring specific application densities.

#### HYDRO-FOAM Monitor Nozzle Proportioning

The nozzle has HYDRO-FOAM proportioning capability at flow rates up to 6,000 gpm (22,700 Lpm) at 1% or 3%, and 3,000 gpm (11,356 Lpm) at 6%, by using remote jet pump technology for easy and efficient foam application. Jet pumps are supplied with the trailer. A flood-plate disperses the rich water and foam solution from the jet pumps around the periphery of the master stream for thorough mixing.



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#### HYDRO-CHEM Flex Nozzle Capability

The nozzle has HYDRO-CHEM capability and delivers up to 100 lb/s (45 kg/s) of dry chemical agent when adding the dry chemical accessory kit for 3-dimensional or pressure fires.

This HYDRO-CHEM nozzle capability allows dry chemical, such as WILLIAMS FIRE & HAZARD CONTROL PKW agent, to be propelled inside the protective “Tunnel” of the master stream. This enables the dry chemical to reach a greater distance than what is possible with conventional equipment. Dry chemical manifolds are available for interconnecting WILLIAMS FIRE & HAZARD CONTROL GORILLA 500 LB PKW units or common wheeled dry chemical units to produce the required flow.

Use the following guidelines to achieve HYDRO-CHEM nozzle capabilities:

- Feed the foam solution to the trailer through the water inlet connections from other systems such as WILLIAMS FIRE & HAZARD CONTROL Around-The-Pump (WATP) or HOT SHOT foam systems.
- Remove the HYDRO-FOAM nozzle “flood plate” and replace it with a chemical extension tube. Fit this tube with your choice of dry chemical choke tips for dry chemical flow rates at 25 lb/s, 50 lb/s, 75 lb/s, or 100 lb/s (11 kg/s, 23 kg/s, 34 kg/s, or 45 kg/s).

#### Highly Efficient Waterway

The trailer has a large integrated stainless steel waterway and inlet manifold with standard Storz couplings. Various combinations of inlet sizes are available for maximum connectivity. The monitor waterway has an 8 in. (200 mm) full-flow construction to provide minimum friction loss and maximum efficiency. The nozzle features a hard coat anodized aluminum and stainless steel assembly. Constructed of stainless steel, the monitor is designed to provide years of trouble-free service.

#### Easy and Safe Operations

The nozzle provides an easy pattern control, from full fog for personnel protection, to straight stream for maximum reach and delivery by a full wrap-around handle attached to the outer sleeve. The monitor allows a full monitor articulation of 360° rotation, and down to -10° and up to +80° vertical travel for the tiller bar models. The trailer features approximately a 400 gal (1,500 L) ballast for stability to counteract the reactionary force generated by the large flow. The ballast is below an anti-skid grip deck for firm footing, even when the surface is completely

### Easy and Safe Operations (Continued)

wet. Flowing up to 6,000 gpm (22,700 Lpm), the monitor can be easily and safely operated by a fire-fighter using the standard tiller-bar for the freedom of smooth, rapid horizontal, and vertical movement. For even easier and safer operations, an electric/hydraulic version that can be remotely controlled from up to 300 ft (91 m) away, and with gear operation as backup, is also available. The remote controlled unit is fully self-contained and requires no additional power.

### Optional Features

For the European market, a version built and certified to European Road Legal standards is available. For even higher flow rates, WILLIAMS FIRE & HAZARD CONTROL also provides an 8,000 gpm (30,000 Lpm) model. Customization, including non-standard inlet manifolds, is available upon request.

## Range and Elevation Performance

| Operating Pressure 100 psi (6.9 bar) |           |                  |                 |           |                  |                 |           |                  |                 |           |            |                 |      |       |      |     |      |     |      |
|--------------------------------------|-----------|------------------|-----------------|-----------|------------------|-----------------|-----------|------------------|-----------------|-----------|------------|-----------------|------|-------|------|-----|------|-----|------|
|                                      |           | Nozzle Angle 30° |                 |           | Nozzle Angle 45° |                 |           | Nozzle Angle 80° |                 |           |            |                 |      |       |      |     |      |     |      |
| Flow Rate                            | Max Range | Max Height       | Height Location | Max Range | Max Height       | Height Location | Max Range | Max Height       | Height Location | Max Range | Max Height | Height Location |      |       |      |     |      |     |      |
|                                      |           |                  |                 |           |                  |                 |           |                  |                 |           |            |                 | gpm  | (Lpm) | ft   | (m) | ft   | (m) | ft   |
| 2,000                                | (7,570)   | 301              | (92)            | 50        | (15)             | 201             | (61)      | 243              | (74)            | 114       | (35)       | 162             | (49) | 118   | (36) | 144 | (44) | 78  | (24) |
| 3,000                                | (11,356)  | 372              | (114)           | 56        | (17)             | 248             | (76)      | 279              | (85)            | 133       | (41)       | 186             | (57) | 141   | (43) | 170 | (52) | 94  | (29) |
| 4,000                                | (15,142)  | 404              | (123)           | 63        | (19)             | 269             | (82)      | 334              | (102)           | 146       | (45)       | 223             | (68) | 147   | (45) | 191 | (58) | 98  | (30) |
| 5,000                                | (18,927)  | 435              | (133)           | 68        | (21)             | 290             | (88)      | 380              | (116)           | 152       | (46)       | 253             | (77) | 154   | (47) | 211 | (64) | 102 | (31) |
| 6,000                                | (22,700)  | 454              | (138)           | 72        | (22)             | 302             | (92)      | 401              | (122)           | 157       | (48)       | 267             | (81) | 158   | (48) | 223 | (68) | 105 | (32) |

- Note:**
1. The above data is for a straight stream in still air to 5 mph (8 km/h) tail wind conditions using water only.
  2. Foam decreases in range from 5% – 20% in still air. Winds increase stream aspiration and reduce range further.

## Standard AMBASSADOR Trailers

| Part Number | Flow Range<br>gpm (Lpm)    | Control Type            | 5 in.<br>Inlets | 6 in.<br>Inlets | 12 in.<br>Inlets | Lighting |
|-------------|----------------------------|-------------------------|-----------------|-----------------|------------------|----------|
| 10214       | 2,000-6,000 (7,570-22,700) | Tiller Bar              | 6               |                 |                  | US DOT   |
| 10215       | 2,000-6,000 (7,570-22,700) | Tiller Bar              |                 | 4               |                  | US DOT   |
| 18803       | 2,000-6,000 (7,570-22,700) | Tiller Bar              |                 | 6               |                  | US DOT   |
| 10216       | 2,000-6,000 (7,570-22,700) | Tiller Bar              |                 | 4               | 1                | US DOT   |
| 18885       | 2,000-6,000 (7,570-22,700) | Tiller Bar              |                 | 4               | 1                | European |
| 10217       | 2,000-6,000 (7,570-22,700) | Wireless Remote Control | 6               |                 |                  | US DOT   |
| 10218       | 2,000-6,000 (7,570-22,700) | Wireless Remote Control |                 | 4               |                  | US DOT   |
| 20623       | 2,000-6,000 (7,570-22,700) | Wireless Remote Control |                 | 6               |                  | US DOT   |
| 10219       | 2,000-8,000 (7,570-30,000) | Gear Operated           | 8               |                 |                  | US DOT   |
| 10220       | 2,000-8,000 (7,570-30,000) | Gear Operated           |                 | 6               |                  | US DOT   |
| 10221       | 2,000-8,000 (7,570-30,000) | Gear Operated           |                 | 4               | 1                | US DOT   |
| 10222       | 2,000-8,000 (7,570-30,000) | Wireless Remote Control | 8               |                 |                  | US DOT   |
| 10223       | 2,000-8,000 (7,570-30,000) | Wireless Remote Control |                 | 6               |                  | US DOT   |
| 10224       | 2,000-8,000 (7,570-30,000) | Wireless Remote Control |                 | 4               | 1                | US DOT   |

- Notes:**
1. All of the above trailers include jet pumps for foam proportioning for 1% and 3% operation.
  2. Customized models are available, with additional lead time and cost.
  3. Part No. 10216 is typically built for stock.
  4. Part No. 18885 is European Road Legal.

## Accessories

| Part Number | Description  |
|-------------|--|
| 10227       | Kit, HYDRO-CHEM Accessories, Monitor Trailer Applications, Up to 14 (quantity), 350 lb (158 kg) Wheeled Units          |
| 15461       | Kit, HYDRO-CHEM Accessories, Monitor Trailer Applications, Up to 7 (quantity), 350 lb (158 kg) Wheeled Units           |
| 10228       | Kit, HYDRO-CHEM Accessories, Monitor Trailer Applications, Up to 2 (quantity), 500 lb (226 kg) Dry Chemical Units      |
| 20123       | Kit, Adapter, AMBASSADOR 2x6, BI JRC, Converts 2x6 AMBASSADOR Jet Pump Accessories to British Instantaneous Connection |
| 20124       | Kit, Adapter, AMBASSADOR 2x6, BSP JRC, Converts 2x6 AMBASSADOR Jet Pump Accessories to BSP Connection                  |
| 20125       | Kit, Adapter, AMBASSADOR 2x8, BI JRC, Converts 2x8 AMBASSADOR Jet Pump Accessories to British Instantaneous Connection |
| 20126       | Kit, Adapter, AMBASSADOR 2x8, BSP JRC, Converts 2x8 AMBASSADOR Jet Pump Accessories to BSP Connection                  |

Note: Accessories are sold separately

## Jet Pump Manifold Assemblies

| JPMA 2-180 Standard Units |                         |                                     |
|---------------------------|-------------------------|-------------------------------------|
| Part Number               | Water Inlet Connections | Rich Solution Discharge Connections |
| 10229                     | 2.5 in. (F)NST          | 4 in. Storz                         |
| 16214                     | 2.5 in. (M)BI           | 4 in. Storz                         |
| 10230                     | 2.5 in. (F)NST          | 5 in. Storz                         |
| 16215                     | 2.5 in. (M)BI           | 5 in. Storz                         |
| 10231                     | 2.5 in. (F)NST          | 6 in. Storz                         |
| 16216                     | 2.5 in. (M)BI           | 6 in. Storz                         |

| Adapters, etc. |                       |                                      |
|----------------|-----------------------|--------------------------------------|
| Part Number    | Inlet from JPMA 2-180 | Outlet to 3 in. Ambassador Foam Hose |
| 15848          | 4 in. Storz           | 3 in. (M)NPSH (AMBASSADOR 2x6)       |
| 15849          | 5 in. Storz           | 3 in. (M)NPSH (AMBASSADOR 2x6)       |
| 20131          | 6 in. Storz           | 3 in. (M)NPSH (AMBASSADOR 2x6)       |
| 20132          | 4 in. Storz           | 4 in. (M)NPSH (AMBASSADOR 2x8)       |
| 16884          | 5 in. Storz           | 4 in. (M)NPSH (AMBASSADOR 2x8)       |
| 20133          | 6 in. Storz           | 4 in. (M)NPSH (AMBASSADOR 2x8)       |

- Notes:**
- As an alternative to jet pumps for foam proportioning, jet pump manifold assemblies can be used.
  - The JPMA 2-180 will proportion up to 180 gpm (680 Lpm) of foam concentrate.
  - The JPMA 2-180 will facilitate 1% proportioning with up to 8,000 gpm (30,000 Lpm) of water, and 3% proportioning with up to 6,000 gpm (22,700 LPM) of water.
  - NST and NH are compatible, BI stands for British Instantaneous.
  - Consult factory for 3% proportioning at 8,000 GPM (30,000 LPM) with JPMA.
  - Customized models are available, but lead time and cost may be affected.

**Note:** The converted metric values in this document are provided for dimensional reference only and do not reflect an actual measurement.

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