

# DRY CHEMICAL MOBILEMOUNT UNITS

## Large Capacity, Hose Line Fire Fighting Units

### Specifications

Specifications Available as ASCII File (0501-DDS.TXT)

Call: 1-800-866-4779

**Agent Container Assembly.** The container shall be welded steel construction built to the latest ASME Unfired Pressure Vessel Code. It shall be designed for a working pressure of 250 psi and identified by manufacturer data plate and serial number.

The container shall include gas tube(s) arranged to fluidize the dry chemical and pressurize the container upon actuation. Gas tube(s) shall include a rubber check valve to prevent agent from backing up into the expellant gas supply. The container shall include an agent pickup tube and outlet sized to the discharge requirements of the unit. A 4.0 inch I.D. agent fill opening with a nickel-plated threaded collar shall be provided.

**Container Fill Cap.** Agent container(s) shall be provided with a cast aluminum fill cap, hardlube anodized black dyed and Teflon® coated. Each fill cap includes two integral handles for easy hand tightening and removal. Fill caps are equipped with rubber gaskets, and optional visual pressure indicator and safety vent holes to vent pressure while engaging at least 3 - 1/2 threads.

**Container Pressure Relief Valve.** Agents container(s) shall be provided with a pressure relief valve to prevent the container from exceeding pressures 10% above maximum working pressure.

**Actuation.** Unit actuation shall incorporate an UL® listed quick opening (QO) nitrogen cylinder valve capable of:

1. manual actuation by QO lever or handwheel action
2. remote actuation using optional truckside panel
3. remote actuation using optional cab actuator

Actuation method(s) employed shall be independent and not obstruct one another.

Each QO valve shall be constructed of Chrome-plated brass with hardened stainless steel moving parts in areas subject to wear. The valve shall be fitted with an integral pressure gauge and safety relief device. Valve outlets and connections shall conform to CGA 580 standards for nitrogen service.

**Expellant Nitrogen Assembly.** Unit agent shall be expelled by gas pressure for nitrogen gas cylinder(s) conforming to the requirements of DOT 3AA.

Cylinder size and quantity shall provide for both agent discharge and unit requirements.

Pressure regulator(s) shall be provided to reduce nitrogen cylinder pressure to working pressure. Regulator output shall be adjusted and sealed to discourage field manipulation, and a full flow relief valve shall be provided.

**Agent Lines.** Agent hand hose line shall be UL® 92 extinguisher booster hose fitted with reusable couplings and sized to the discharge requirements of the unit.

**Agent Container Purge and Blowdown.** Low pressure agent container piping for system purge and blowdown shall be brass or other suitable material. Dissimilar metals shall be protected against electrolytic corrosion. Low pressure hoses shall have a burst pressure of not less than four times the maximum working pressure of the unit.

**Hose Storage.** Manual and electric hose reels shall be of steel construction suitable to carry the selected length and weight of hose. Hose reels shall incorporate a friction brake and horizontal roller guides. Discharge nozzle holders shall be provided.

**Agent Discharge.** All agent discharge nozzles shall be constructed of brass, bronze or hardlube anodized aluminum and be equipped with on/off bail type handles capable of leak free sealing at unit operation pressure. Optional pistol grip nozzle handles shall be designed with finger grooves for operator gripping.

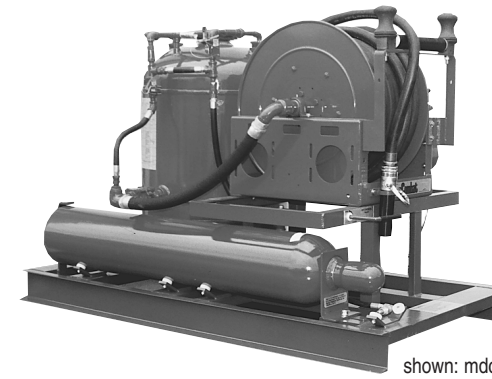
**Finish.** Painted surfaces shall be cleaned and primed with an alkyd-phenolic rust inhibiting primer and receive a top coat of red automotive grade polyurethane paint. All hoses, instruction plates and control markings shall not be painted.

**Skid.** Skids for mounting system components shall be low profile welded steel construction with lifting provisions and arranged so completed unit can be securely mounted to truck bed. Optional cylinder winch shall be capable of supporting the weight of a fully charged nitrogen cylinder sized to the unit. Finish shall be the same as that used with unit components.

**Operating Instructions.** Control markings, and operating and precautionary instructions shall be permanently affixed near the appropriate controls for operator use.

want to consult a fire protection professional at Fire Combat before finalizing your MobileMount purchase, or for custom OEM design.

Call: 1-800-866-4779



shown: mdc500 for 1-ton pickup truck

# DRY CHEMICAL MOBILEMOUNT UNITS

## Large Capacity, Hose Line Fire Fighting Units

### Features

- Units engineered to mount on most standard truck bed sizes, or custom configured for OEM applications
- Modular design provides units sized to fit every hazard with agent capacities from 500 to 2000 lbs. and choice of components
- Available with BC type (Purple K or Monnex) or ABC type (multi-purpose) dry chemicals
- Designed for either one or two person operation for swift first response situations
- Gives rapid flame knockdown to minimize spread and damage of fire
- Totally self-contained unit includes agent container, actuator, expellant gas, agent lines, hose storage, and discharge method
- Works independent of possible interruptions in municipal electrical and water supplies
- Easy to maintain and fully field rechargeable to ensure long, reliable service life
- Built to strict U.S. military specifications for extra long service life
- Rugged construction – hardened stainless steel moving parts, corrosion-resistant hoses and finishes, and brass fittings available
- Complies with NFPA 17, critical components meet ASME and DOT codes

### Applications

- Aircraft Rescue and Fire Fighting
- Petroleum Production Field Service
- Shipyard and Port Operations
- Remote Site Chemical Manufacturing
- Surface Mining and Belt Drive Systems
- Flammable Liquid Storage and Loading
- Processes Where Water is Reactive
- Heated Oil in Pressurized Piping Systems
- LNG Transfer and Charging Stations
- Oil-Filled Electrical Distribution Equipment

### Operation

When the unit is in standby mode on the vehicle, only the nitrogen gas cylinder is under pressure. After arrival at the fire scene, the operator positions and secures the vehicle at a safe distance and actuates the unit. Actuation permits nitrogen expellant to enter the agent container through special gas tubes, fluidizing and pressuring the dry chemical agent in the container for discharge.

The operator grasps the nozzle, pulling the hose from the hose reel. Once positioned safely to fight the fire, the

operator opens the discharge nozzle fully and directs agent to the fire. Agent is applied until fire suppression is achieved.

After the fire is completely extinguished all agent lines are blown clear. The unit is then recharged with agent and expellant gas, individual components are evaluated to operational guidelines, and the unit is returned to service.

### Ordering

To order a dry chemical MobileMount unit, specify the unit model number and capacity, agent type, actuation mode, expellant assembly, agent line type, hose storage, discharge method and unit skid dimensions. You may

**FireCombat**  
A DIVISION OF SENSOR ELECTRONICS CORP.

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Fire Detection and Suppression Units and Components

- Gas Detectors • Stationary and Mobile Dry Chemical and Twin Agent Units
- Halon Substitute Units • Portable Automatic Systems • Foam Resupply Trailers
- CAFS • Actuators • Nozzles • Turrets • Hose Reels • Parts

Fire Combat also specializes in custom units to meet unique and OEM fire protection requirements. Call our 800 number to discuss your specific requirements with one of our fire protection professionals.

# DRY CHEMICAL MOBILEMOUNT UNITS

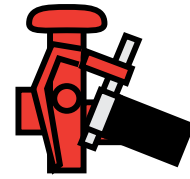
## Large Capacity, Hose Line Fire Fighting Units

### Description

#### Components



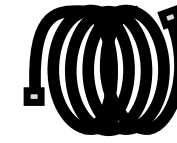
**Agent Container Assembly**  
 mdc500  
 mdc700  
 mdc1000  
 mdc2000



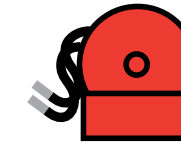
**Actuation**  
 manual quick open (QO) valve  
 truckside actuator  
 cab actuator



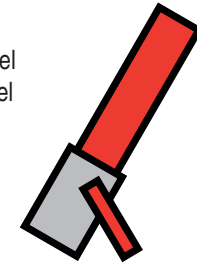
**Expellant Nitrogen Assembly**  
 300 cu. ft.  
 400 cu. ft.



**Agent Line**  
 50 ft. x 1.0 in. dia. hand hose line  
 100 ft. x 1.0 in. dia. hand hose line  
 125 ft. x 1.0 in. dia. hand hose line  
 150 ft. x 1.0 in. dia. hand hose line



**Hose Storage**  
 manual rewind hose reel  
 electric rewind hose reel



**Discharge Method**  
 standard nozzle  
 Maxflow nozzle  
 pistol grip  
 manual turret

### Component Availability by Model (Availability subject to change without notice. Call Fire Combat for current models and custom design.)

Model Number	Nominal Capacity	Agent Container Assy. Capacity	Actuation Options	Expellant Nitrogen Assy.	Agent Line Options	Hose Storage Options	Discharge Method Options	Available Flow Rates	Discharge Time*	Ship Wt. (Empty)**	Dimensions (H x W x D)***
mdc500	500 lbs.	500 lbs. (227 kg) Purple K 375 lbs. (170 kg) Monnex 525 lbs. (238 kg) ABC	manual QO truckside cab actuator	1-300 cu. ft. (8.5 m <sup>3</sup> )	1-50 ft. (15.2 m) hose 1-100 ft. (30.4 m) hose	1-manual reel 1-electric reel	standard nozzle Maxflow nozzle pistol grip nozzle	4.5 lb./sec. 8.0 lb./sec. 6.0 lb./sec.	111 sec. 63 sec. 83 sec.	947 lbs. (429 kg)	48 in. x 36 in. x 68 in. (1.21 m x 0.91 m x 1.72 m)
mdc700	700 lbs.	700 lbs. (318 kg) Purple K 583 lbs. (264 kg) Monnex 777 lbs. (352 kg) ABC	manual QO truckside cab actuator	2-300 cu. ft. (8.5 m <sup>3</sup> )	1-or 2-50 ft. (15.2 m) hose 1-or 2-100 ft. (30.4 m) hose	1- or 2-manual reel 1-or 2-electric reel	standard nozzle Maxflow nozzle pistol grip nozzle	4.5 lb./sec. 8.0 lb./sec. 6.0 lb./sec.	156 sec. 88 sec. 117 sec.	925 lbs. (419 kg)	66 in. x 36 in. x 80.5 in. (1.68 m x 0.91 m x 2.04 m)
mdc1000	1000 lbs.	1000 lbs. (454 kg) Purple K 835 lbs. (379 kg) Monnex 1050 lbs. (476 kg) ABC	manual QO truckside cab actuator	2-300 cu. ft. (8.5 m <sup>3</sup> )	1-or 2-50 ft. (15.2 m) hose 1-or 2-100 ft. (30.4 m) hose 1- or 2-125 ft. (37.9 m) hose	1- or 2-manual reel 1-or 2-electric reel	standard nozzle Maxflow nozzle pistol grip nozzle	4.5 lb./sec. 8.0 lb./sec. 6.0 lb./sec.	222 sec. 125 sec. 167 sec.	1500 lbs. (678kg)	63 in. x 36 in. x 85 in. (1.60 m x 0.91 m x 2.16 m)
mdc2000	2000 lbs.	2000 lbs. (907 kg) Purple K 1667 lbs. (756 kg) Monnex 2100 lbs. (952 kg) ABC	manual QO truckside cab actuator	4-400 cu. ft. (11 m <sup>3</sup> )	1-or 2-50 ft. (15.2 m) hose 1-or 2-100 ft. (30.4 m) hose 1- or 2-150 ft. (45.6 m) hose	1- or 2-manual reel 1-or 2-electric reel	standard nozzle Maxflow nozzle pistol grip nozzle manual turret	4.5 lb./sec. 8.0 lb./sec. 6.0 lb./sec. (engineered for particular hazard)	444 sec. 250 sec. 333 sec.	2300 lbs. (1040 kg)	66 in. x 48 in. x 95 in. (1.68 m x 1.21 m x 2.40 m)

\*\*Discharge Time\* equals "Nominal Capacity" of agent container divided by flow rate using one operator.

\*\*For full shipping weight, add weight of dry chemical choice needed to fill unit (see "Agent Container Assy." Capacity column).

\*\*\*"Width" and "Depth" are skid unit dimensions

### Description

Your choice of unit specifications should follow a thorough hazard analysis. At a minimum, this includes a full definition of your:

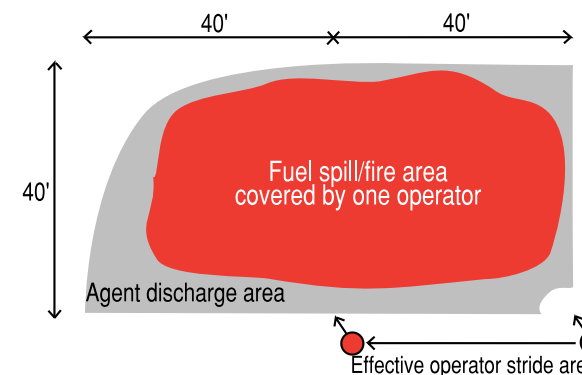
- fire hazard** - the type of fuel, potential hazard size, and likely burning configuration factors like fuel pressure, obstacles, fires in 3 dimensions, etc.;
- protection objective** - the relative importance of code compliance, fire extinguishment vs. controlling fire spread, and your escape/rescue mission;
- agent choice, discharge time and flow rate** - match agent with fire class, and define necessary agent discharge characteristics suitable for likely fire configuration;
- unit capacity and components required** - allow a minimum 30 second agent discharge per application point (longer if possible), and address manpower/environmental considerations;
- training and ongoing support needed** - conduct a full assessment of fire fighter skills, and acquire maintenance/recharge supplies for both periodic training and fire emergency response.

#### Notes:

- Coverage representations are based on agent application by trained operators
- Large fires will require multiple operators with overlapping coverages
- The presence of obstacles in a fire may require at least two simultaneous operators
- Maximum coverage and nozzle range depend on factors such as obstacles, wind conditions, agent type and operator experience, among others

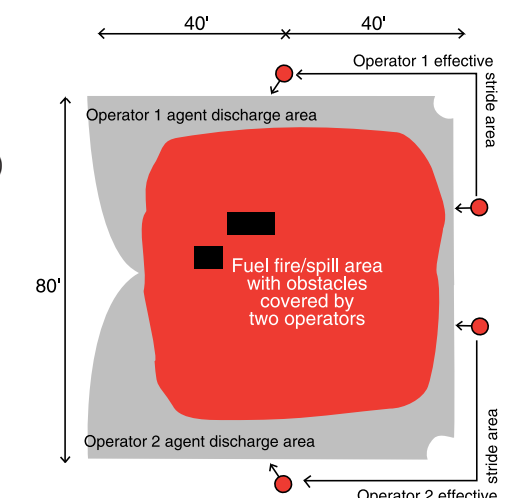
#### One Operator (overhead view)

Surface area coverage: approximately 1800 sq. ft. (mdc500)  
(single trained operator applying 500 lb. of Purple K at 8lb./sec.)



#### Two Operators (overhead view)

Surface area coverage: approximately 3200 sq. ft. (mdc1000)  
(two trained operators each applying 500 lb. of Purple K at 8lb./sec.)



**Note:** Operators should approach fire with wind at back.