

DISTRIBUTION

OVERVIEW

The distribution network consists of heavy-duty stainless steel tubing and/or hydraulic hose. At the end of the distribution network, the dry chemical is disbursed into the protected areas through cone spray nozzles, which permit the broad distribution of the powder that is necessary for a "total flooding" system. Spring-loaded, hinged caps at the nozzle openings prevent the infiltration of foreign materials that could possibly clog the nozzle and prevent or diminish the system discharge.

Liquid agent nozzles are directed onto the target surface. Rubber nozzle caps prevent the infiltration of foreign materials that could possibly clog the nozzle and prevent or diminish the system discharge.

AFEX's dual agent system combines the best aspects of both systems to give the best coverage possible.

FEATURES

- FM 5970 Approved
- Australian Standards AS 5062
- Purpose-built for heavy equipment
- Dry Agent provides "total flooding" of systems
- Liquid Agent rapidly cools superheated temperatures.



APPLICATIONS

The AFEX fire suppression system is a pre-engineered dry chemical, liquid agent, or dual agent system. It is designed to suppress fires that occur on heavy duty mobile equipment. Typical applications are found on machines used in surface mining, logging, landfill, agriculture, resource recovery, O&G, slag operations, buses and transportation applications, and special uses such as conveyor belts, compressors and generators.

The fire system described is a suppression system only and is not designed or intended to suppress all fires.

DESCRIPTIONS

NOZZLES

Nozzles disperse the fire suppression agent(s) into the protected area of the machine. The dry chemical agent nozzle (A551000) is covered by a fixed spring-loaded nozzle cap and the liquid agent nozzle (A551700) is covered by a plastic nozzle cap (A551720) in order to keep the opening clean and free of debris that could cause clogging. The nozzles deliver a conical discharge pattern for the broad distribution of the agent(s). The nozzles are finished with a 1/2" male NPT thread.

A551000 DRY CHEMICAL NOZZLE



A551700 LIQUID AGENT NOZZLE W/A551720 CAP



DRY CHEMICAL AGENT TANKS

Each assembly consists of the dry chemical agent, agent tank, gas tube, cap, and bursting disc. The agent tank is non-pressurized, with the introduction of nitrogen gas for pressurization only at the time of actuation.

A200505 30 LB. TANK

Nominal capacity: 30 lb. (13.6kg)
Maximum nozzles: 6



A200507 125 LB. TANK

Nominal capacity: 125 lb. (56.8kg)
Maximum nozzles: 24



A200720 20 LB. TANK

Nominal capacity: 20 lb. (9.1kg)
Maximum nozzles: 4



A202000 60 LB. TANK

Nominal capacity: 60 lb. (27.2kg)
Maximum nozzles: 12



LIQUID AGENT TANKS

Each assembly consists of the liquid agent, agent tank, gas tube, check valve package, cap, pressure relief valve, and bursting disc. The agent tank is non-pressurized, with the introduction of nitrogen gas for pressurization only at the time of actuation. The liquid agent is provided in 5 gallon (18.93L) shipping containers and must be added to the tank after installation.

A200511 15 GAL. TANK

Capacity: 15 gal. (56.78L)
Maximum Nozzles: 9



A200513 30 GAL. TANK

Capacity: 30 gal. (113.56L)
Maximum Nozzles: 18



A201000 5 GAL. TANK

Capacity: 5 gal. (18.93L)
Maximum Nozzles: 4



BURSTING DISKS

The bursting discs are a consumable item and must be replaced after each discharge. An arrow is inscribed on the bursting disc to indicate the direction of flow.

A200567 3/4" (19mm) BURSTING DISC



A200568 1.5" (38mm) BURSTING DISC



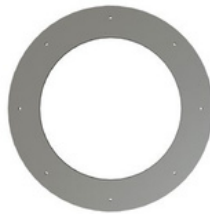
AGENT TANK MOUNTING BRACKETS

Depending on the system configuration and mounting requirements, the following brackets are used to mount the agent tanks. Vertical brackets are used for mounting to vertical surfaces (ex. walls), horizontal brackets are used for mounting to horizontal surfaces (ex. floors).

**A200509 125LB OR 15GAL
BASE RING**



A200510 30GAL BASE RING



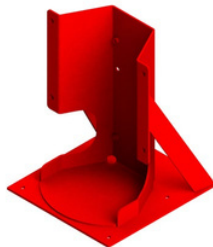
A210010 20 OR 30LB VERTICAL



A211010 20 OR 30LB HORIZONTAL



A213010 60 LB OR 5 GAL HORIZONTAL

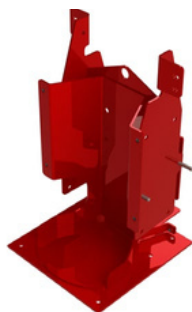


A213510 60LB OR 5GAL VERTICAL



In addition to the standard brackets, two compact options are available for horizontal mount applications. A213700 allows for mounting one 20 lb. or 30 lb. agent tank and one 60 lb. or 5 gal. liquid agent tank, and the relevant nitrogen cartridges. A213800 allows for mounting two 60 lb. agent tanks or two 5 gal. liquid agent tanks (or a combination), and the relevant nitrogen cartridges.

A213700 30/60 COMPACT DUAL

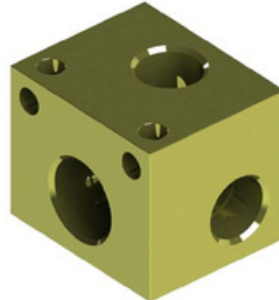


A213800 60/60 COMPACT DUAL



TEES

Tees are used as a manifold for the distribution network. Depending on the system configuration, the following tees are used for distribution of the fire suppression agent(s).



STAINLESS STEEL TUBING

Stainless steel tubing is used for the distribution of the fire suppression agent(s). The tubing is typically used between the supply tee and the distribution tees, as well as between the distribution tees and the nozzles.



DISTRIBUTION HOSE AND FITTINGS

The approved flexible hydraulic hose may be used in the distribution network for the equivalent stainless steel tubing. Female hose fittings must be used with the corresponding adapters.



SPECIFICATION CHART

DISTRIBUTION COMPONENTS

COMPONENTS & PART NUMBERS	DIMENSIONS	SPRAY PATTERN	SHIPPING WEIGHT
A551000 DRY CHEMICAL NOZZLE	1"x1.5" (25x38mm)	30° CONE UP TO 3' (91CM) DIA. AT 6' (183CM) DISTANCE	0.0499 kg (0.11 lb)
A551700 LIQUID AGENT NOZZLE W/A551720 CAP	1"x1.25" (25x32mm)	60° CONE UP TO 18" (46CM) DIA. AT 20" (51CM) DISTANCE	0.0839 kg (0.185 lb)

COMPONENTS & PART NUMBERS	DIMENSIONS	NOMINAL CAPACITY	MAX NOZZLES	SHIPPING WEIGHT
DRY CHEMICAL TANKS				
A200505 30 LB. TANK	7"x21.5" (18x55cm)	30 lb. (13.6kg)	6	22.6796 kg (50 lb)
A200507 125 LB. TANK	14.75"x29.5" (38x75cm)	125 lb. (56.8kg)	24	106.5942 kg (235 lb)
A200720 20 LB. TANK	7"x14.5" (18x37cm)	20 lb. (9.1kg)	4	15.8757 kg (35 lb)
A202000 60 LB. TANK	9"x26.75" (23x68cm)	60 lb. (27.2kg)	12	37.1946 kg (82 lb)

COMPONENTS & PART NUMBERS	DIMENSIONS	NOMINAL CAPACITY	MAX NOZZLES	SHIPPING WEIGHT
LIQUID AGENT TANKS				
A200511 15 GAL. TANK	14.75"x29.5" (38x75cm)	15 gal. (56.78L)	9	93.894 kg (207 lb)
A200513 30 GAL. TANK	20"x33.75" (51x86cm)	30 gal. (113.56L)	18	177.355 kg (391 lb)
A201000 5 GAL. TANK	9"x26.75" (23x68cm)	5 gal. (18.93L)	4	34.7 kg (76.5 lb)

COMPONENTS & PART NUMBERS	DIMENSIONS	USED ON	INLET	OUTLET	SHIPPING WEIGHT
BURSTING DISCS A200567 3/4" (19mm) BURSTING DISC	1.5"x2.5" (38x64mm)	A200505, A200511, A200513, A200720, A201000, and A202000	3/4" male NPT	3/4" female NPT	0.2812 kg (0.62 lb)
A200568 1.5" (38mm) BURSTING DISC	1"x5" (51x127mm)	A200507	1.5" male NPT	1.5" male NPT	0.9662 kg (2.13 lb)

COMPONENTS & PART NUMBERS	DIMENSIONS	SHIPPING WEIGHT
AGENT TANKS MOUNTING BRACKETS A200509 125LB OR 15GAL BASE RING	19.75" diameter (50cm)	10.886 kg (24 lb)
A200510 30GAL BASE RING	26" diameter (66cm)	17.69 kg (39 lb)
A210010 20 OR 30LB VERTICAL	9.25"x7"x12.25" (24x18x31cm)	4.0823 kg (9 lb)
A211010 20 OR 30LB HORIZONTAL	10"x10.5"x12.5" (25x27x32cm)	7.8993 kg (17.41 lb)
A213010 60 LB OR 5 GAL HORIZONTAL	13"x13.75"x19.5" (33x35x50cm)	14.9685kg (33 lb)
A213510 60LB OR 5GAL VERTICAL	13"x9.5"x19" (33x24x48cm)	6.7246 kg (14.82 lb)
A213700 30/60 COMPACT DUAL	16.75"x13"x22.75" (41x33x58cm)	21.7727 kg (48 lb)
A213800 60/60 COMPACT DUAL	19.5" x 13" x 23" (50x33x58cm)	25 kg (55.11 lb)

COMPONENTS & PART NUMBERS	DIMENSIONS	INLET	OUTLET	SHIPPING WEIGHT
TEES				
A523000 TEE	2.5"x2"x2" (6x5x5cm)	3/4" NPT	3 x 1/2" NPT	0.3039 kg (0.67 lb)
A523007 TEE	2.5"x2"x2" (6x5x5cm)	3/4" NPT	3 x 3/4" NPT	0.2654 kg (0.585 lb)
A523009 TEE	4"x3"x4" (10x8x10cm)	1.5" NPT	4 x 3/4" NPT	1.6375 kg (3.61 lb)
A523010 TEE	2.5"x2"x2.5" (6x5x6cm)	3/4" NPT	4 x 1/2" NPT	0.3946 kg (0.87lb)

COMPONENTS & PART NUMBERS	DESCRIPTION	SHIPPING WEIGHT
STAINLESS STEEL TUBING		
A401000	1/2" (12.7MM) OD TUBING X 0.035" (0.89MM) WALL	0.0785 kg (0.173 lb)
A402000	3/4" (19.1MM) OD TUBING X 0.049" (1.24MM) WALL	0.1573 kg (0.347 lb)
A511000	3/4" TUBE X 3/4" MALE NPT FITTING	0.195 kg (0.43 lb)
A511500	1/2" TUBE X 1/2" MALE NPT FITTING	0.1066 kg (0.235 lb)
A512000	1/2" TUBE X 1/2" FEMALE NPT FITTING	0.152 kg (0.335 lb)
A513000	1/2" TUBE X 1/2" MALE NPT X 90 FITTING	0.1542 kg (0.34 lb)

**COMPONENTS &
PART NUMBERS**

DESCRIPTION

**SHIPPING
WEIGHT**

DISTRIBUTION HOSE AND FITTINGS		
A602000P	1/2" DISTRIBUTION HOSE	00.1089 kg (0.24 lb)
A602200P	1/2" HOSE X 1/2" MALE NPT FITTING	0.0816 kg (0.18 lb)
A602400P	1/2" HOSE X 1/2" FEMALE JIC FITTING	0.161 kg (0.355 lb)
A602600P	1/2" MALE NPT X 1/2" MALE JIC ADAPTER	0.0794 kg (0.175 lb)
A603000P	3/4" DISTRIBUTION HOSE	0.2177 kg (0.48 lb)
A603200P	3/4" HOSE X 3/4" MALE NPT FITTING	0.2948 kg (0.65 lb)
A603400P	3/4" HOSE X 3/4" FEMALE JIC FITTING	0.1814 kg (0.4 lb)
A603600P	3/4" MALE NPT X 3/4" MALE JIC ADAPTER	0.1383 kg (0.305 lb)
A609000	1.5" DISTRIBUTION HOSE	0.2586 kg (0.57 lb)
A609200	1.5" HOSE X 1.5" MALE NPT FITTING	0.601 kg (1.325 lb)
A609400	1.5" HOSE X 1.5" FEMALE JIC FITTING	0.7212 kg (1.59 lb)
A609600	1.5" MALE NPT X 1.5" MALE JIC ADAPTER	0.474 kg (1.045 lb)

SYSTEM TYPES

MANUAL SYSTEMS

These systems do not have heat detection circuits and require human action to identify a fire condition and take appropriate actions to initiate the system's discharge sequence.

MAIN INDUSTRY USES

These types of actuation systems are primarily used in steel & slag industries due to the high ambient temperature of the environment in which they operate

AUTOMATIC SYSTEMS

Automatic systems feature a detection circuit that senses heat in the protected areas of the machine and then automatically initiate the discharge sequence. All automatic systems are required to have a manual override method of initiating the discharge sequence.

MAIN INDUSTRY USES

These types of actuation systems are primarily used in mining, forestry, oil, gas & energy, coal, waste handling, and agriculture industries

APPROVAL

AFEX fire suppression systems have been tested by Factory Mutual in accordance with FM Standard 5970, "Heavy Duty Mobile Equipment Protection" and Australian Standards AS 5062 "Fire protection for mobile and transportable equipment," and have been found to comply with all applicable requirements.

ADVANTAGES OF CHOOSING AFEX

- You will be working with a company that is committed to top-notch, personable customer service. When you call us, you speak to a real person who cares.
- You will be supporting an American manufacturer and American workers.
- You will benefit from working with a forward-thinking, innovative company that keeps current with heavy equipment trends
- You will receive timely and professional shipping of your order.

ORDERING INFORMATION

We appreciate our customers and are committed to providing the industry's best service and support. That's part of what makes AFEX the #1 manufacturer of vehicle fire suppression systems in the Americas.

Order all system components through your local distributors.

Corporate office:
6031 Oak Forest Drive
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