

RED LINE® HAND PORTABLE EXTINGUISHERS MODELS 5, 10, 20, 30

Data/Specifications



FEATURES

- Rugged, durable, reliable fire protection
- Ergonomically designed for maximum operator performance
- Meets or exceeds requirements of ANSI/UL 299 and 711
- DOT and USCG approved with proper bracket
- Simple and safe operation
- Maintenance checks can be easily made on every moving part
- Field rechargeable
- Four normal sizes (5, 10, 20 and 30) available with many options to suit your needs
- Field replacement metal cartridge guard option available for 20 and 30 pound extinguishers.
- Choice of dry chemical agents to satisfy specific protection requirements
- First response fire fighting training available at the ANSUL Fire School or through trained distributors
- Manual, parts lists and training video tapes available
- Twelve year limited warranty
- Sold and serviced through our network of independent distributors in every state and most countries throughout the world

APPLICATION

RED LINE® dry chemical extinguishers are designed for the protection of ordinary and high risk hazards. This hand portable extinguisher is used in industries where the occurrence or possibility of fire is high. The RED LINE extinguisher has set the standard for reliable fire protection in many industries and applications including refining, petrochemical, oil and natural gas production, mining, transportation, utilities, metal processing, paint process areas, welding areas, material storage areas and many others.

DESCRIPTION

- Dry chemical tank shell is a three piece steel assembly consisting of a welded tube, a bottom closure and a top closure.
- Forged, non-slip aluminum handle positions extinguisher at optimum 45° angle for easy carrying.
- Each finished shell assembly is hydrostatically tested at three times the operating pressure (600 psi (41.4 bar)) and is designed to withstand a pressure of no less than six times the normal operating pressure.
- UL listing mark, rating and model information are permanently marked on the fill collar using dot matrix marking technology.
- Cartridge receiver is made of cast aluminum with a stainless steel insert to prevent thread wear.
- Stainless steel puncture pin is sealed with impregnated felt washers which seal against moisture and provide lubrication to the pin.
- Large three-inch fill opening allows for fast and easy recharge.
- Large forged aluminum fill cap with indicator seals the shell, protecting the agent from contamination. A tamper seal may also be attached to the fill cap to prevent tampering with the agent.
- Flat gasket and quad ring on fill cap provide a gas and moisture tight seal.



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- Handle is spring loaded to prevent movement during vibration.
- Hanger attachment is located on extinguisher to allow for easy removal from wall bracket.
- Split nameplates are etched aluminum with a varnish coating to provide durability, readability, and corrosion resistance.

- The front operating nameplate has easy to understand instructions and pictograms for the inexperienced operator.
- The back maintenance nameplate contains after-use and maintenance information, model bar code, along with approvals and other pertinent information.



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- Standard models are equipped with CO₂ cartridges and receivers which are listed and approved for operation in environments with temperatures between -40 °F (-40 °C) to 120 °F (48.8 °C).

- Hose couplings are corrosion resistant aluminum alloy. The shell connection coupling is equipped with an O-ring to provide a proper seal.

- Shell connection coupling is internally machined to accept an inspection seal and retaining ring.

- Nozzle body is cast aluminum with component parts of stainless steel and other corrosion resistant materials.

- Nozzle plunger assembly is provided with two guide bushings to assure proper seating when used with intermittent discharge, thus providing gas and water tightness.

- Nozzle design directs the nozzle body downward when the nozzle is squeezed thus directing the agent stream at the base of the fire and increasing the chance of extinguishment.



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DESCRIPTION (Continued)

- Nozzle tips feature a converging-diverging design to give an expanded round stream of dry chemical.
- The steel gas tube is designed with two rubber check valves clamped in place. The check valves, which cover the gas discharge holes, produce multidirectional gas streams to fluidize the dry chemical agent.
- Agent outlet elbow is machined from low carbon steel barstock and allows for maximum discharge of the dry chemical when the extinguisher is held at the normal 45° angle.
- Discharge hose is ethylene propylene diamine and is UL approved for use at temperatures of -65 °F to +120 °F (-54 °C to 49 °C).
- Completed assembly is subjected to a final production air test of 240 psi (16.6 bar) and stamped to indicate year of manufacture.
- Expellent gas cartridge is fabricated of one-piece spun steel in accordance with DOT 3A-1800 specifications. **Note:** The Model 10 cartridge two piece construction is exempt from DOT requirements due to volume and is made in accordance with UL specifications.

- Cartridges are sealed with a brass seal assembly utilizing a copper seat. The seal assembly has “ANSUL” printed on it indicating the seal meets or exceeds ANSUL’s quality levels and UL requirements.
- Cartridge seal has a safe rupture pressure range of 4050 to 4500 psi (279 to 310 bar) in a temperature range of 195 °F to 210 °F (91 °C to 99 °C).
- Painted steel parts are prepared by going through a series of surface preparation steps, including degreasing, an acid pickling process, iron phosphate bonding and chromate sealing.
- The parts are then painted using an electrostatically applied polyester powder coating and cured at 365 °F (185 °C).



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| Model | I-10-G | I-A-10-G | I-K-10-G | I-20-G |
|--|--|---|--|---|
| Agent | PLUS-FIFTY C | FORAY | Purple-K | PLUS-FIFTY C |
| Capacity | 10 lb (4.5 kg) | 8.5 lb (3.7 kg) | 9 lb (4.1 kg) | 20 lb (9.1 kg) |
| ▶ UL Rating (US) | 40-B:C | 4-A:40-B:C | 60-B:C | 60-B:C |
| ▶ ULC Rating (Can) | 40-B:C | 3-A:40-B:C | 60-B:C | 60-B:C |
| Coast Guard Classification | Type B:C, Size II | Type A, Size II Type B:C, Size I | Type B:C, Size II | Type B:C, Size III |
| ▶ Discharge Time | 15 sec | 15 sec | 19 sec | 22 sec |
| ▶ Flow Rate | 0.62 lb/sec (0.30 kg/sec) | 0.63 lb/sec (0.29 kg/sec) | 0.51 lb/sec (0.23 kg/sec) | 0.90 lb/sec (0.40 kg/sec) |
| Effective Range | 21 ft (6.4 m) | 17 ft (5.2 m) | 25 ft (7.6 m) | 24 ft (7.3 m) |
| Nozzle Stream | Expanding | Expanding | Expanding | Expanding |
| ▶ Options | | | | |
| • Low Temperature (to -65 °F (-54 °C)) | X | X | X | X |
| • Corrosion Resistant | N/A | X | X | X |
| • Ring Pin | X | X | X | X |
| • High Flow | N/A | N/A | N/A | N/A |
| Flow Rate | - | - | - | - |
| Effective Discharge Time | - | - | - | - |
| Range | - | - | - | - |
| Rating | - | - | - | - |
| Approvals | UL, FM, USCG** | UL, FM, USCG** | UL, FM, USCG** | UL, FM, USCG** |
| Brackets | | | | |
| • Multipurpose*** | 14228 | 14228 | 14228 | 14091 |
| • Heavy Duty*** | 30886 | 30886 | 30886 | 30759 |
| • Heavy Duty Ring Pin*** | N/A | N/A | N/A | 15665 |
| Charged Weight | 22 lb (10.0 kg) | 20.5 lb (9.3 kg) | 21 lb (9.5 kg) | 38 lb (17.2 kg) |
| Dimensions: Height | 16.1 in (40.9 cm) | 16.1 in (40.9 cm) | 16.1 in (40.9 cm) | 20.5 in. (52.1 cm) |
| Width | 8.3 in (20.9 cm) | 8.3 in (20.9 cm) | 8.3 in (20.9 cm) | 10.4 in. (26.4 cm) |
| Depth | 5.3 in (13.3 cm) | 5.3 in (13.3 cm) | 5.3 in (13.3 cm) | 7.0 in. (17.8 cm) |
| Hose ID | 0.4 in (0.9 cm) | 0.4 in (0.9 cm) | 0.4 in (0.9 cm) | 0.5 in. (3 cm) |
| Hose Length | 26.6 in (67.6 cm) | 26.6 in (67.6 cm) | 26.6 in (67.6 cm) | 31.6 in. (80.3 cm) |
| Shell OD | 4.9 in (12.4 cm) | 4.9 in (12.4 cm) | 4.9 in (12.4 cm) | 6.0 in. (15 cm) |
| Fire Suppression Capability* | | | | |
| Novice Operator | 30 ft ² (2.8 m ²) | 40 ft ² (3.7 m ²) | 60 ft ² (5.6 m ²) | 40 ft ² (3.7 m ²) |
| Experienced Operator | 75 ft ² (6.9 m ²) | 100 ft ² (9.3 m ²) | 150 ft ² (13.9 m ²) | 100 ft ² (9.3 m ²) |

* Underwriters Laboratories classifies a “novice operator” as one who has little or no experience in operating a fire extinguisher.

** U.S.C.G. Approved only with bracket

*** Corrosion resistant epoxy painted brackets also available.

- Cartridge guard is made of a composite consisting of fiber filled, polypropylene and various additives to resist UV degradation and maintain strength and integrity.
- Composite guard is designed with the nozzle holster as an integral part of the one piece construction. It contains a hose retainer tab which can be used to attach the visual inspection seal. The guard is designed to prevent its removal unless the inspection seal is broken.



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| | I-A-20-G | I-K-20-G | I-30-G | I-A-30-G | I-K-30-G |
|--|---|---|--|---|---|
| | FORAY | Purple-K | PLUS-FIFTY C | FORAY | Purple-K |
| | 17 lb (7.7 kg) | 18 lb (8.2 kg) | 30 lb (13.6 kg) | 25 lb (11.3 kg) | 27 lb (12.3 kg) |
| | 10-A:60-B:C | 80-B:C | 80-B:C | 20-A:80-B:C | 120-B:C |
| | 10-A:80-B:C | 80-B:C | 80-B:C | 10-A:80-B:C | 120-B:C |
| | Type A, Size II Type B:C, Size II | Type B:C, Size III | Type B:C, Size IV | Type A, Size II Type B:C, Size III | Type B:C, Size IV |
| | 20 sec | 22 sec | 32 sec | 25 sec | 32 sec |
| | 0.91 lb/sec (0.41 kg/sec) | 0.91 lb/sec (0.41 kg/sec) | 0.90 lb/sec (0.40 kg/sec) | 1.02 lb/sec (0.46 kg/sec) | 0.94 lb/sec (0.43 kg/sec) |
| | 20 ft (6.1 m) | 30 ft (9.1 m) | 23 ft (7.0 m) | 20 ft (6.1 m) | 30 ft (9.1 m) |
| | Expanding | Expanding | Expanding | Expanding | Expanding |
| | X X X X 1.55 lb/sec (0.70 kg/sec) 12 sec 15-20 ft (4.6 – 6.1 m) 1-A:20-B:C | X X X X 1.55 lb/sec (0.70 kg/sec) 12 sec 15-20 ft (4.6 – 6.1 m) 20-B:C | X X X N/A – – – – | X X X X 2.10 lb/sec (0.95 kg/sec) 12 sec 15-20 ft (4.6 – 6.1 m) 1-A:20-B:C | X X X X 2.35 lb/sec (1.10 kg/sec) 12 sec 15-20 ft (4.6 – 6.1 m) 20-B:C |
| | UL, FM, USCG** | UL, FM, USCG** | UL, FM, USCG** | UL, FM, USCG** | UL, FM, USCG** |
| | 14091 30759 15665 | 14091 30759 15665 | 14098 30889 25428 | 14098 30889 25428 | 14098 30889 25428 |
| | 35 lb (15.9 kg) | 36 lb (16.3 kg) | 54.5 lb (24.7 kg) | 49.5 lb (22.5 kg) | 51.5 lb (23.4 kg) |
| | 20.5 in (52.1 cm) 10.4 in (26.4 cm) 7.0 in (17.8 cm) | 20.5 in (52.1 cm) 10.4 in (26.4 cm) 7.0 in (17.8 cm) | 22.5 in (57.2 cm) 11.1 in (28.3 cm) 8.0 in (20.3 cm) | 22.5 in (57.2 cm) 11.1 in (28.3 cm) 8.0 in (20.3 cm) | 22.5 in (57.2 cm) 11.1 in (28.3 cm) 8.0 in (20.3 cm) |
| | 0.5 in (1.3 cm) | 0.5 in (1.3 cm) | 0.6 in (1.6 cm) | 0.6 in (1.6 cm) | 0.6 in (1.6 cm) |
| | 31.6 in (80.3 cm) | 31.6 in (80.3 cm) | 35.6 in (90.5 cm) | 35.6 in (90.5 cm) | 35.6 in (90.5 cm) |
| | 6.0 in (15 cm) | 6.0 in (15 cm) | 7.0 in (17.5 cm) | 7.0 in (17.5 cm) | 7.0 in (17.5 cm) |
| | 60 ft ² (5.6 m ²) 150 ft ² (13.9 m ²) | 80 ft ² (7.4 m ²) 200 ft ² (18.6 m ²) | 60 ft ² (5.6 m ²) 150 ft ² (13.9 m ²) | 80 ft ² (7.4 m ²) 200 ft ² (18.6 m ²) | 120 ft ² (11.1 m ²) 300 ft ² (27.9 m ²) |

OPTIONS

ANSUL offers a wide array of options to customize the extinguisher to meet your needs. For some users, these options have become the standard for RED LINE extinguishers.

Corrosion resistant (CR) models

- In addition to the standard surface preparation procedures, the steel parts are primed using a zinc rich primer with a minimum zinc content of 90%.
- The top coat is a polyester paint applied as a powder and oven cured. The dry film is continuous and is a minimum thickness of 1.5 mils.
- The hose couplings, fill cap, carrying handle, nozzle body, nozzle lever, nozzle tip and cartridge receiver push lever are black anodized for added corrosion resistance.
- The cartridge receiver body is painted with an epoxy paint for added protection in corrosive environments.

Ring Pin (RP) Models

- The ring pin, when inserted in the cartridge receiver, provides secondary protection against accidental actuation of the unit when the hose is not in place.
- The operating instruction nameplate notes the removal of ring pin before actuation of the extinguisher.

Low Temperature (LT) Models

- The LT model is equipped with a nitrogen cartridge and cartridge receiver which is listed and approved for operation in environments with temperatures as low as -65°F (-54°C).

High Flow Models

- Extinguisher is equipped with a special nozzle and nozzle tip to maximize agent flow rates.
- Nozzle handle is painted red to differentiate it from standard flow extinguishers.

Note: The high flow extinguishers have been designed for pressurized flammable liquids and pressurized gas fires and other special hazards where agent flow rate is crucial to extinguishment. (Reference NFPA 10, Paragraph 2-3.1 and 2-3.3.) The high flow extinguishers can also extinguish other type of fires but the shorter discharge times reduces the effectiveness of novice fire fighters.

Metal Cartridge Guard

- Metal cartridge guard is available as a distributor installed option on models 20 and 30 lb extinguishers.



Features Specific To 5 lb RED LINE Extinguisher

- Internal Cartridge
- Compact
- Dimensions – (H) 19 in (48 cm)
(W) 5 1/2 in (14 cm)
(D) 5 1/2 in (14 cm)
- Many of the same design features and testing requirements as the 10, 20, and 30 lb models.



AGENTS

FORAY®

A monoammonium phosphate-based agent for use on Class A (wood, paper cloth), Class B (flammable liquids and gases), and Class C (electrical) fires.

Purple-K

A potassium bicarbonate-based agent which is the most effective ANSUL agent for knock-down of Class B (flammable liquids and gases) and Class C (electrical) fires.

PLUS-FIFTY® C

A sodium bicarbonate-based agent for use on Class B (flammable liquids and gases) and Class C (electrical) fires.

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SENTRY® CARBON DIOXIDE CANADIAN HAND PORTABLE EXTINGUISHERS

Data/Specifications



FEATURES

- Simple operation and maintenance
- Portable, compact design
- Non-corrosive, non-conductive, clean extinguishing agent
- Lightweight aluminum shell
- Models are available in 5, 10, 15 and 20 pound sizes
- ULC Listed
- Five, ten, and fifteen pound models with heavy duty vehicle brackets are U.S. Coast Guard approved for marine use. Most other manufacturers' brackets do not meet Coast Guard requirements.
- ▶ ■ Operation temperature range is -40°C to 49°C (-40°F to 120°F)

APPLICATION

ANSUL® Carbon Dioxide Fire Extinguishers are designed to protect areas where Class B (flammable liquids and gases) or Class C (energized electrical equipment) fires could occur. They may be used indoors where winds and drafts do not affect discharge or where a clean extinguishing agent is required.

Typical applications include:

- Laboratories
- Electronic equipment
- Low voltage electrical equipment
- Municipal fire departments





DESCRIPTION

1. The easy grip handle provides non-slip holding and quick activation of the extinguisher.
2. The ring pin and visual seal help prevent unwanted discharge of the extinguisher. If the extinguisher is tampered with, the visual seal self-destructs, making detection of tampering easy. Metal ring pins are designed to help prevent accidental discharge if the extinguisher is dropped or mishandled.
3. The extinguisher nameplate provides only vital information related to the use and care of the unit, such as:
 - Operation instructions – Easy to follow pictographs and instructions allow novice fire fighters to operate the unit correctly.
 - Agent identification and fire class rating – Pictographs and clear, simple statements show what fuels the agent can extinguish.
 - After-use instructions – Provide basic steps for extinguisher recharge.
4. The aluminum shell is sturdy, yet lightweight.
5. The special red powder paint finish makes the unit easy to locate in an emergency. The paint resists cracking and chipping, adding to the corrosion resistance of the shell.
6. The 5, 10 and 15 pound extinguishers are available with a U.S. Coast Guard approved vehicle mounting bracket, or a standard wall hanger is available for all sizes to provide versatility in extinguisher selection and application.

ORDERING INFORMATION

For fire protection assistance, see your nearest authorized ANSUL distributor listed in your local yellow pages or contact your ANSUL sales representative.

SPECIFICATIONS

| Carbon Dioxide Extinguishers | | SENTRY 5 | SENTRY 10 | SENTRY 15 | SENTRY 20 |
|--------------------------------------|--------------------|---|---|--|---|
| | |  002314 |  002317 |  002312 |  002313 |
| ▶ Model | | CD05A-1 (aluminum) | CD10A-1 (aluminum) | CD15A-1 (aluminum) | CD20A-1 (aluminum) |
| ▶ Extinguisher Part No. | | 431557 | 431558 | 431559 | 431560 |
| Bracket Part No. | | 25419 | 79456 | 79456 | 25420 |
| Agent Capacity | | 2.3 kg (5.0 lb.) CO ₂ | 4.6 kg (10.0 lb.) CO ₂ | 6.9 kg (15.0 lb.) CO ₂ | 9.2 kg (20.0 lb.) CO ₂ |
| U.L.C. Rating | | 5B:C | 10B:C | 10B:C | 10B:C |
| ▶ Discharge Time | | 10.0 seconds | 10.0 seconds | 11.0 seconds | 13.0 seconds |
| ▶ Maximum Effective Range | | 1.8 m (6 ft.) | 1.8 m (6 ft.) | 1.8 m (6 ft.) | 1.8 m (6 ft.) |
| ▶ Charged Weight (with agent) | | 6.1 kg (13 1/2 lb.) | 12.1 kg (26 3/4 lbs.) | 16.2 kg (35 3/4 lbs.) | 21.2 kg (46 3/4 lbs.) |
| Dimensions: | Height | 435 mm (17 1/8 in.) | 500 mm (19 11/16 in.) | 665 mm (26 3/16 in.) | 664 mm (26 1/8 in.) |
| | Width | 184 mm (7 1/4 in.) | 278 mm (10 15/16 in.) | 278 mm (10 15/16 in.) | 305 mm (12 in.) |
| | Depth | 136 mm (5 11/32 in.) | 178 mm (7 in.) | 178 mm (7 in.) | 206 mm (8 3/32 in.) |
| Service Pressure | | 124 bar (1800 psi) | 124 bar (1800 psi) | 124 bar (1800 psi) | 124 bar (1800 psi) |
| Fire Suppression Capability* | | | | | |
| Operator: | Novice | 0.47 sq. m (5 sq. ft.) | 0.93 sq. m (10 sq. ft.) | 0.93 sq. m (10 sq. ft.) | 0.93 sq. m (10 sq. ft.) |
| | Experienced | 1.16 sq. m (12 1/2 sq. ft.) | 2.32 sq. m (25 sq. ft.) | 2.32 sq. m (25 sq. ft.) | 2.32 sq. m (25 sq. ft.) |

* Underwriters Laboratories of Canada classifies a "novice operator" as one who has little or no experience in operating a fire extinguisher

Listings: ULC (All Models)

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