

## SECTION 10521

### FIRE EXTINGUISHERS

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Hand-portable Fire Extinguishers.
- B. Wheeled Fire Extinguishers.

##### 1.2 REFERENCES

- A. 29 CFR 1910.157 - Portable Fire Extinguishers.
- B. NFPA 10 - Standard for Portable Fire Extinguishers.
- C. UL 711 - Fire Extinguishers, Rating and Fire Test.

##### 1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's descriptive literature for specified products; indicate compliance to specified requirements.
- C. Shop Drawings: Indicate location of each type product specified; include mounting heights.
- D. Manufacturer's Instructions: Printed installation instructions for each product, including product storage requirements.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Provide products made by Badger Fire Protection, 4251 Seminole Trail, Charlottesville VA 22911. ASD. Tel: (800) 446-3857 or (804) 973-4361. Fax: (800) 248-7809 or (804) 973-1589. Web site <http://www.badgerfire.com>
- B. Requests for substitution will be considered in accordance with provisions of Section 01600.
- C. Substitutions: Not permitted.

## 2.2 FIRE EXTINGUISHERS

- A. Fire Extinguishers:
  - 1. Conform to requirements of 29 CFR 1910.157, NFPA 10, and UL 711.
  - 2. Attach manufacturer's standard metal foil label to cylinder, with printing and graphics indicating information and instructions required by local authorities having jurisdiction.
- B. Fire Extinguisher Type \_\_: Carbon dioxide.
  - 1. Acceptable product: Badger Model B5V, capacity 5 pounds (2.27 kg), UL rating 5-B:C.
  - 2. Acceptable product: Badger Model B10V, capacity 10 pounds (4.54 kg), UL rating 10-B:C.
  - 3. Acceptable product: Badger Model B15V, capacity 15 pounds (6.8 kg), UL rating 10-B:C.
  - 4. Acceptable product: Badger Model B20V, capacity 20 pounds (9.07 kg), UL rating 10-B:C.
  - 5. Agent: Pressurized liquid carbon dioxide, discharged as fine particles and gas.
  - 6. Tank: Aluminum, with red powder epoxy paint coating.
  - 7. Valve assembly: Nickel/chrome plated brass.
  - 8. Accessories: Hose and horn, with stainless steel bracket band.
  - 9. Wall mounting bracket: Type specified in manufacturer's product literature for indicated tank size, with wall anchoring devices for indicated wall type.
- C. Fire Extinguisher Type \_\_: Pressurized water.
  - 1. Acceptable product: Badger Model WP-61, capacity 2.5 gallons (9.46 l), UL rating 2-A.
  - 2. Agent: Pressurized water.
  - 3. Tank: Stainless steel.
  - 4. Valve assembly: Nickel/chrome plated brass, field-removable for refill without requiring special tools.
  - 5. Accessories: Hose, pressurizing air chuck.
  - 6. Wall mounting bracket: Type specified in manufacturer's product literature for indicated tank size, with wall anchoring devices for indicated wall type.
  - 7. Anti-freezing admixture: Acetate compound, extending service temperature to minus 40 degrees F (minus 40 degrees C).

- D. Fire Extinguisher Type \_\_: Wet-chemical pressurized potassium acetate.
1. Acceptable product: Badger Model WC-10, capacity 1.59 gallons (6 l), UL rating 1-B:C.
  2. Acceptable product: Badger Model WC-25, capacity 2.5 gallons (9.43 l), UL rating 2-A:1-B:C.
  3. Agent: Pressurized low-pH potassium acetate solution, discharged as fine mist.
  4. Tank: Stainless steel.
  5. Valve assembly: Nickel/chrome plated brass.
  6. Accessories: Hose and wand, with stainless steel bracket band.
  7. Wall mounting bracket: Type specified in manufacturer's product literature for indicated tank size, with wall anchoring devices for indicated wall type.
- E. Fire Extinguisher Type \_\_: Dry-chemical potassium bicarbonate (Purple K).
1. Acceptable product: Badger Model 250PB-2, capacity 2.5 pounds (1.13 kg); UL rating 10-B:C.
  2. Acceptable product: Badger Model 5PB-4H, capacity 5 pounds (2.27 kg); UL rating 30-B:C.
  3. Acceptable product: Badger Model 10PB-5H, capacity 10 pounds (4.54 kg); UL rating 80-B:C.
  4. Acceptable product: Badger Model 10PB-6H, capacity 10 pounds (4.54 kg); UL rating 80-B:C.
  5. Acceptable product: Badger Model 20PB-2H, capacity 20 pounds (9.07 kg); UL rating 120-B:C.
  6. Acceptable product: Badger Model 20PB-3H, capacity 20 pounds (9.07 kg); UL rating 120-B:C.
  7. Agent: Stored-pressure dry-chemical potassium bicarbonate (Purple K), discharged as fine silicone-coated particles.
  8. Tank: Steel, with red powder epoxy paint coating.
  9. Valve assembly: Nickel/chrome plated brass or anodized aluminum.
  10. Accessories: Hose, with stainless steel bracket band.
  11. Wall mounting bracket: Type specified in manufacturer's product literature for indicated tank size, with wall anchoring devices for indicated wall type.
- F. Fire Extinguisher Type \_\_: Multi-purpose dry-chemical ammonium phosphate.

1. Acceptable product: Badger Model 250MB-1, capacity 2.5 pounds (1.13 kg), UL rating 1-A:10-B:C.
2. Acceptable product: Badger Model 5MB-7H, capacity 4 pounds (1.81 kg), UL rating 2-A:10-B:C.
3. Acceptable product: Badger Model 5MB-7HB, capacity 4 pounds (1.81 kg); UL rating 2-A:10-B:C.
4. Acceptable product: Badger Model 5MB-6H, capacity 5 pounds (2.27 kg); UL rating 3-A:40-B:C.
5. Acceptable product: Badger Model 5MB-6HB, capacity 5 pounds (2.27 kg); UL rating 3-A:40-B:C.
6. Acceptable product: Badger Model 5MB-8H, capacity 5 pounds (2.27 kg); UL rating 2-A:10-B:C.
7. Acceptable product: Badger Model 5MB-8HB, capacity 5 pounds (2.27 kg); UL rating 2-A:10-B:C.
8. Acceptable product: Badger Model 10MB-8H, capacity 10 pounds (4.54 kg); UL rating 4-A:80-B:C.
9. Acceptable product: Badger Model 10MB-9H, capacity 10 pounds (4.54 kg); UL rating 4-A:80-B:C.
10. Acceptable product: Badger Model 20MB-5H, capacity 20 pounds (9.07 kg); UL rating 20-A:120-B:C.
11. Acceptable product: Badger Model 20MB-6H, capacity 20 pounds (9.07 kg); UL rating 20-A:120-B:C.
12. Agent: Stored-pressure multi-purpose dry-chemical ammonium phosphate, discharged as fine silicone-coated particles.
13. Tank: Steel, with red powder epoxy paint coating.
14. Valve assembly: Nickel/chrome plated brass or anodized aluminum.
15. Accessories: Hose, with stainless steel bracket band.
16. Wall mounting bracket: Type specified in manufacturer's product literature for indicated tank size, with wall anchoring devices for indicated wall type.

G. Fire Extinguisher Type \_\_: Dry-chemical sodium bicarbonate.

1. Acceptable product: Badger Model 275RB-1, capacity 2.75 pounds (1.25 kg), UL rating 10-B:C.
2. Acceptable product: Badger Model 4RB-2, capacity 4 pounds (1.81 kg), UL rating 10-B:C.
3. Acceptable product: Badger Model 4RB-2B, capacity 4 pounds (1.81 kg); UL rating 10-B:C.
4. Acceptable product: Badger Model 5RB-4H, capacity 5.5 pounds (2.49 kg); UL rating 40-B:C.
5. Acceptable product: Badger Model 10RB-6H, capacity 10 pounds (4.54 kg); UL rating 60-B:C.

6. Acceptable product: Badger Model 10RB-7H, capacity 10 pounds (4.54 kg); UL rating 60-B:C.
  7. Acceptable product: Badger Model 20RB-4H, capacity 20 pounds (9.07 kg); UL rating 120-B:C.
  8. Acceptable product: Badger Model 20RB-7H, capacity 20 pounds (9.07 kg); UL rating 120-B:C.
  9. Agent: Stored-pressure regular dry-chemical sodium bicarbonate, discharged as fine silicone-coated particles.
  10. Tank: Steel, with red powder epoxy paint coating.
  11. Valve assembly: Nickel/chrome plated brass or aluminum.
  12. Accessories: Hose, with stainless steel bracket band.
  13. Wall mounting bracket: Type specified in manufacturer's product literature for indicated tank size, with wall anchoring devices for indicated wall type.
- H. Fire Extinguisher Type \_\_: Carbon dioxide, wheeled.
1. Acceptable product: Badger Model CD-50-1, capacity 50 pounds (22.68 kg); UL rating 20-B:C.
  2. Acceptable product: Badger Model CD-100-1, capacity 100 pounds (45.36 kg); UL rating 20-B:C.
  3. Agent: Pressurized liquid carbon dioxide, discharged as fine particles and gas.
  4. Tank: Steel, with red powder epoxy paint coating.
  5. Valve assembly: Nickel/chrome plated brass.
  6. Accessories: Hose and horn, with steel bracket band.
  7. Cart: Steel frame with corrosion-resistant black powder epoxy finish, 16-inch (406 mm) diameter rubber-tread wheels.
- I. Fire Extinguisher Type \_\_: Multi-purpose dry-chemical ammonium phosphate, wheeled.
1. Acceptable product: Badger Model 50-MB, capacity 50 pounds (22.68 kg); UL rating 30-A:160-B:C; stored-pressure; with 25-foot (7.6 m) long hose with 360-degree swivel fitting.
  2. Acceptable product: Badger Model 150-MB, capacity 125 pounds (56.7 kg); UL rating 40-A:240-B:C; stored-pressure; with 50-foot (15.2 m) long hose with 360-degree swivel fitting.
  3. Acceptable product: Badger Model B150A-1, capacity 145 pounds (65.77 kg); UL rating 40-A:240-B:C; cartridge-operated with pressurized nitrogen gas, 110

- cubic feet (3.1 cu m) capacity; with 50-foot (15.2 m) long hose.
4. Agent: Multi-purpose dry-chemical ammonium phosphate, discharged as fine silicone-coated particles.
  5. Tank: Steel, with red powder epoxy paint coating.
  6. Valve assembly: Nickel/chrome plated brass.
  7. Cart: Steel frame with corrosion-resistant red epoxy finish, 12-inch (304 mm) diameter by 3-inch (76 mm) wide semi-pneumatic rubber-tread wheels.
  8. Cart: Steel frame with tow ring, corrosion-resistant red epoxy finish, 16-inch (406 mm) diameter by 4-inch (101 mm) wide semi-pneumatic rubber-tread wheels.
  9. Cart:
    - a. Frame: Steel frame, corrosion-resistant red epoxy finish.
    - b. Wheels: 16-inch (406 mm) diameter by 4-inch (101 mm) wide semi-pneumatic rubber-tread wheels.
    - c. Wheels: 36-inch (914 mm) diameter steel-spoke solid rubber-tread wheels.
    - d. Tow ring: Integral with frame, for attachment to vehicle.
- J. Fire Extinguisher Type \_\_: Regular dry-chemical sodium bicarbonate, wheeled.
1. Acceptable product: Badger Model 50-RB, capacity 50 pounds (22.68 kg); UL rating 160-B:C; stored-pressure; with 25-foot (7.6 m) long hose with 360-degree swivel fitting.
  2. Acceptable product: Badger Model 150-RB, capacity 150 pounds (68 kg); UL rating 240-B:C; stored-pressure; with 50-foot (15.2 m) long hose with 360-degree swivel fitting.
  3. Acceptable product: Badger Model B150R-1, capacity 150 pounds (68 kg); UL rating 240-B:C; cartridge-operated with pressurized nitrogen gas, 110 cubic feet (3.1 cu m) capacity; with 50-foot (15.2 m) long hose.
  4. Agent: Regular dry-chemical sodium bicarbonate, discharged as fine silicone-coated particles.
  5. Tank: Steel, with red powder epoxy paint coating.
  6. Valve assembly: Nickel/chrome plated brass.
  7. Cart: Steel frame with corrosion-resistant red epoxy finish, 12-inch (304 mm) diameter by 3-inch (76 mm) wide semi-pneumatic rubber-tread wheels.

8. Cart: Steel frame with tow ring, corrosion-resistant red epoxy finish, 16-inch (406 mm) diameter by 4-inch (101 mm) wide semi-pneumatic rubber-tread wheels.
  9. Cart:
    - a. Frame: Steel frame, corrosion-resistant red epoxy finish.
    - b. Wheels: 16-inch (406 mm) diameter by 4-inch (101 mm) wide semi-pneumatic rubber-tread wheels.
    - c. Wheels: 36-inch (914 mm) diameter steel-spoke solid rubber-tread wheels.
    - d. Tow ring: Integral with frame, for attachment to vehicle.
- K. Fire Extinguisher Type \_\_: Dry-chemical potassium bicarbonate (Purple K), wheeled.
1. Acceptable product: Badger Model 50-PB, capacity 50 pounds (22.68 kg); UL rating 160-B:C; stored-pressure; with 25-foot (7.6 m) long hose with 360-degree swivel fitting.
  2. Acceptable product: Badger Model 150-PB, capacity 125 pounds (56.7 kg); UL rating 240-B:C; stored-pressure; with 50-foot (15.2 m) long hose with 360-degree swivel fitting.
  3. Acceptable product: Badger Model B125K-1, capacity 125 pounds (56.7 kg); UL rating 240-B:C; cartridge-operated with pressurized nitrogen gas, 110 cubic feet (3.1 cu m) capacity; with 50-foot (15.2 m) long hose.
  4. Agent: Dry-chemical potassium bicarbonate (Purple K), discharged as fine silicone-coated particles.
  5. Tank: Steel, with red epoxy paint coating.
  6. Valve assembly: Nickel/chrome plated brass.
  7. Cart: Steel frame with corrosion-resistant red epoxy finish, 12-inch (304 mm) diameter by 3-inch (76 mm) wide semi-pneumatic rubber-tread wheels.
  8. Cart: Steel frame with tow ring, corrosion-resistant red epoxy finish, 16-inch (406 mm) diameter by 4-inch (101 mm) wide semi-pneumatic rubber-tread wheels.
  9. Cart:
    - a. Frame: Steel frame, corrosion-resistant red epoxy finish.
    - b. Wheels: 16-inch (406 mm) diameter by 4-inch (101 mm) wide semi-pneumatic rubber-tread wheels.
    - c. Wheels: 36-inch (914 mm) diameter steel-spoke solid rubber-tread wheels.
    - d. Tow ring: Integral with frame, for attachment to vehicle.

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Install products specified in this section in accordance with NFPA 10, shop drawings, and manufacturer's instructions.

### 3.2 ADJUSTING

- A. Immediately prior to Substantial Completion, ensure extinguishers are fully charged and bear tag recording date of charging and signature of verifying entity.

### 3.3 PROTECTION OF INSTALLED PRODUCTS

- A. Protect finishes of fire extinguishers from damage by subsequent construction activities
- B. Repair minor damage to finishes in accordance with manufacturer's recommendations; replace components which cannot be repaired to Architect's acceptance.

### 3.4 SCHEDULES

- A. Location: Room Number \_\_\_\_.
  - 1. Fire extinguisher type: \_\_\_\_.
  - 2. Fire extinguisher rating: \_\_\_\_.

END OF SECTION