



**BRADLEY COMBINATION EMERGENCY FIXTURES – Skid-Mounted
Indoor Units
Guide Specification**

Bradley's Safety Showers utilize superior design standards, premium features, and innovative drenching technology to deliver safe initial treatment response under industry's harshest conditions.

The safety showers provide a packaged solution for a wide range of freeze protected, and extreme environment safety equipment for industrial operations world-wide.

Bradley's skid mounted safety showers utilize Bradley's state of the art emergency drench showers and options for eyewash and eye/face wash fixtures. A variety of monitoring and control options are available.

Bradley's safety showers are manufactured in the US.

A separate version of this guide specification is available for exterior use enclosed safety showers.

Architects, engineers, and specifiers look to Bradley Corporation for innovation in design and leadership in the development of environmentally conscious products. Bradley Corporation, a member of the U.S. Green Building Council, the Wisconsin Green Building Alliance, has several products earning certification by Greenguard Environmental Institute, and Greenguard Children and Schools program.

Bradley eases the specifying process with a seasoned customer service staff and a range of helpful information tools on an advanced website. For example, easy-to-use sizing software, available on Bradley's website, allows engineers to quickly determine the correct size Thermostatic Mixing Valves.

Contact Bradley Corporation, Menomonee Falls, WI 53051; Phone: 800-BRADLEY ((800)272-3539) or visit the Bradley web site www.bradleycorp.com. Bradley Corporation is an AIA/CES registered provider currently offering five programs providing one HS&W Learning Unit each.

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SECTION 22 45 33.03 – COMBINATION EMERGENCY FIXTURES, SKID MOUNTED INDOOR UNITS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Emergency showers equipped with:
 - 1. Combination emergency shower and eye/face wash units.
 - 2. Water tempering equipment.
 - 3. Alarm and control accessories.
 - 4. Pipe and valve insulation, anti-freeze valves, and electrical cabinet heater.

Specifier: If retaining optional "Related Sections" article, edit to include sections applicable to Project.

1.2 RELATED SECTIONS

- A. Division 22 Section "Domestic Water Piping" for [hot and cold] [tempered] water piping.
- B. Division 22 Section "Sanitary Waste Piping Specialties" for floor drains.
- C. Division 26 sections for electrical power and control wiring.

Specifier: If retaining optional "References" article, edit to include standards cited in edited Section.

1.3 REFERENCES

- A. General: Applicable edition of references cited in this Section is current edition published on date of issue of Project specifications, unless otherwise required by building code in force.
- B. American National Standards Institute (ANSI) <http://webstore.ansi.org>:
 - 1. ANSI Z358.1 – American National Standard for Emergency Eyewash and Shower Equipment.
- C. ASTM International (ASTM) www.astm.org:
 - 1. ASTM E 84: Standard Test Method for Surface Burning Characteristics of Building Materials.
- D. CSA International (CSA) www.csa-international.org:
 - 1. CSA Certified Product Listings for Industrial Control Equipment – Miscellaneous Apparatus – For Hazardous Locations.
- E. National Electrical Manufacturers Association (NEMA) www.global.nema.com:
 - 1. NEMA Standards Publication 250, "Enclosures for Electrical Equipment (1000 Volts Maximum)."

- F. National Fire Protection Association (NFPA) www.nfpa.org:
 - 1. NFPA 70 – National Electrical Code.
- G. Underwriters Laboratories (UL) www.ul.com:
 - 1. UL 94 - Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances Testing.

1.4 ACTION SUBMITTALS

- A. Product Data: For each product:
 - 1. Manufacturer's data sheets indicating enclosure materials and construction, equipment, and accessories.
 - 2. Include details of electrical and mechanical operating parts.
 - 3. Provide mounting and securing requirements and utility connection requirements.

1.5 INFORMATION SUBMITTALS

Specifier: Retain paragraphs below when Project requirements include compliance with Federal Buy American provisions. Bradley manufactures enclosed emergency showers in both the US and Canada.

- A. Buy American Act Certification: Submit documentation certifying that products comply with provisions of the Buy American Act 41 U.S.C 10a – 10d.
- B. Manufacturer's Certificates: Submit certificates documenting factory testing of emergency shower units.
- C. Field quality-control test reports.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

1.7 MAINTENANCE SUBMITTALS

- A. Furnish indicated spare parts that are packaged with identifying labels listing associated products.

1.8 QUALITY ASSURANCE

- A. Source Limitations: Obtain emergency shower enclosures through a single source from a single manufacturer.
- B. Electrical Components: Listed and labeled per NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
- C. ANSI Standard: Comply with ANSI Z358.1.
- D. NSF Standard: Comply with NSF 61 for fixture components in contact with potable water.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide emergency shower enclosures manufactured by **The Bradley Corporation**, Menomonee Falls, WI 53051; (800)272-3539; fax (262)251-5817; Email info@BradleyCorp.com; Website www.bradleycorp.com.
1. Submit requests for substitution in accordance with Instructions to Bidders and Division 01 General Requirements.

2.2 EMERGENCY SHOWERS

- A. Description: Emergency showers suitable facility for quick drenching or flushing of the eyes and body for immediate emergency use.
- B. Basis of Design Manufacture/Model: **The Bradley Corp., Freeze Protected Safety Shower, Model S19361HF.**
1. Hazardous Area Classification, NFPA 70: General Area.
- a. Unit Insulation: Insulated to resist freezing to -30 degrees.
- b. Heat traced: thermostatically controlled electrical heat trace under insulation
- C. Basis of Design Manufacture/Model: **The Bradley Corp., Safety Shower, Model S19361.**
1. Hazardous Area Classification, NFPA 70: General Area.
- D. Skid Platform: Number 10 electro galvanized sheet steel frame, powder coated, safety yellow with a square molded fiberglass grating with non-slip surface covering the integrated shower pan.
- E. Plumbed Emergency Shower with Eye-Face Wash Combination Unit: ANSI Z358.1, self-draining, factory-assembled and tested, with standard-compliant identification sign and inspection tag.

Specifier: [Bradley's patented SpinTec showerhead technology provides maximum water distribution while providing consistent water flow.](#)

1. Showerhead:
- a. Basis of Design Product: **Bradley, SpinTec Drench Shower.**
- b. Flow Rate: 22 gpm at 30 psi (1.45 L/s at 207 kPa) flow rate, 3.1-inch (78.1 mm) diameter yellow impact-resistant plastic head.
- c. Shower Ball Valve: NPS 1-inch (DN 25), [chrome-plated brass], stay-open, activated with stainless steel pull rod.
2. Eye/Face Wash:
- a. Basis of Design Product: **Bradley, Halo Eye/Face Wash.**
- b. Flow Rate: 5.1 gpm (19.1 L/m).
- c. Bowl and Cover: yellow impact resistant plastic.

- d. Eyewash Ball Valve: NPS 1/2-inch (DN 15) eyewash valve, [chrome-plated brass], stay-open, activated with hand-activated push handle.
3. Pipe and Fittings:
- a. Water Inlet: NPS 1-1/4-inch (DN 32) diameter, stainless steel with epoxy safety yellow coating.
 - b. Freeze Protection Equipment: Anti-freeze valve.
 - c. Exterior Drain Connection: PVC, NPS 3 (DN 80).

Specifier: The electric tankless water heater will deliver tepid water meeting ANSI Z358.1 utilizing the water heater controls without a separate TMV.

F. Water Heater Power and Controls:

- 1. Supply Voltage: [480V 3 phase] [600 V 3 phase].

Specifier: Select the following options based on project needs.

- 2. Electrical enclosure: [14-gauge mild steel, powder coated] [NEMA 4 16-gauge stainless steel, [316] [304]].
- 3. Alarm System: Dry contacts that open to signal flow greater than 1.5 gpm [with local audible and visual alarm].

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Provide connections to fixtures and associated fittings in accordance with manufacturer's instructions.
- B. Install plumbed connection from unit waste outlet to waste system incorporating holding tank designed to contain hazardous waste water.
- C. Install unit level, plumb, and anchored firmly in place in accordance with manufacturer's rough-in drawings.
- D. Install water supply piping to each fixture requiring water supply connection. Provide lock-on stop on each supply in readily-serviced location.

3.2 CLEANING AND PROTECTION

- A. Repair or replace defective work, including damaged fixtures and components.
- B. Clean unit surfaces, test fixtures, and leave in ready-to-use condition.
- C. Turn over keys, tools, maintenance instructions, and maintenance stock to Owner.

3.3 TESTING AND ADJUSTING

- A. Set field-adjustable temperature set points of temperature-actuated water mixing valves. Adjust set point within allowable temperature range.
- B. Test and adjust installation.

END OF SECTION