

SECTION 01 2500  
SUBSTITUTIONS

01 2500-3

TO: **BLRB Architects**  
**404 SW Columbia St**  
**Bend, OR 97702**

**PROJECT NAME: Pilot Butte Middle School Renovation – Buildings A, E & F**

We hereby submit for consideration, the following product instead of specified item for above project:

Section: 224000 Pg. 3 Paragraph: 2.3.J  
Specified Item ESH-1 Guardian G1643 with G1814  
Proposed Substitution: Acorn Safety 50200 & 50440

Attach complete dimensional information and technical data including laboratory tests, if applicable.

Include complete information on changes to Drawings and/or specifications, which proposed substitution will require for its proper installation.

Submit with request all necessary samples and substantiating data to provide equal quality, performance, and appearance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance. Differences in quality of materials and construction shall be indicated.

The undersigned states that the following paragraphs, unless modified on attachments, are correct:

1. The proposed substitutions do not affect dimensions shown on drawings.
2. The undersigned will pay for changes to the building design, including engineering design, detailing and construction costs caused by the requested substitution.
3. The proposed substitution will have no adverse affect on other trades, the construction schedule, or specified warranty requirements.
4. Maintenance and service parts will be locally available for the proposed substitution.
5. The proposed substitution will have no affect on applicable codes.
6. The manufacturer's guarantee or warranties of proposed product is equivalent to; or exceeds that of the specified product.
7. Proposed substituted item will match all sizes, profiles, specifications and colors of item originally specified.

List of names and location of three similar projects on which product was used, date of installation, and Architect's name and phone number.

Project No. 1: 4J school district Eugene, OR 1/2014 Rodd Hansen (541) 687-7800  
Project No. 2: University of Oregon Airc. Projects Eugene, OR 2014/2015 TBG (541) 687-1010  
Project No. 3: Univ. of Oregon Memorial Union Bldg, Eugene, OR 1/2015 Glumac (503) 227-5286

ADMINISTRATIVE SCHOOL DISTRICT #1  
Pilot Butte Middle School Renovation – Buildings A, E & F

01 2500-3

**CERTIFICATION OF EQUAL  
PERFORMANCE AND  
ASSUMPTION OF LIABILITY  
FOR EQUAL PERFORMANCE**

UNDERSIGNED ATTESTS THAT  
FUNCTION AND QUALITY ARE  
EQUAL TO OR SUPERIOR TO  
SPECIFIED ITEMS.

Submitted By:     Matt Files      
Signature:                                   
Title:     Project Citations      
Firm:     Braley Gray & Associates      
Address:     2818 E 2nd Street      
                    Vancouver, WA      
Telephone:     360-643-9900      
Date:     3/6/18    

Above signature must be by person having authority to legally bind his firm to the above terms.

**FOR USE BY ARCHITECT:**

Accepted                               Accepted as Noted  
 Not Accepted                               Received Too Late

By:                     Inakako Biken      
Date:                     3-8-18      
Remarks:                                           
                                                  
                                                

END OF SECTION

# Model S2200

Horizontally Mounted Emergency Shower,  
Stainless Steel Showerhead



## SPECIFICATIONS:

Model S2200 is a horizontally mounted emergency shower with a stainless steel showerhead and a 1" stay-open ball valve with a 29" pull rod.

## STANDARD EQUIPMENT:

**Showerhead:** Stainless steel, 8" diameter showerhead with a 20 gpm flow regulator.

**Valve:** 1" rough chrome plated brass stay-open ball valve. Unit is provided with a stainless steel actuator arm and a 29" stainless steel pull rod.

**Water Supply:** 1" NPT female threaded brass inlet.

**Piping:** Schedule 40, 1" galvanized steel pipe, yellow powder coated finish.

**Universal Sign:** ANSI compliant, vertical identification sign.

**Weekly Test Tag:** A water proof test card to record the date and inspector's name for weekly functional testing of the unit.

Model: S2200



## OPTIONAL ACCESSORIES:

Additional costs may be incurred

- AL2 Electric alarm with flashing light and horn
- AS All stainless steel
- ET71-2-BVS-OTG Thermostatic mixing valve is ASSE Listed per the ASSE 1071 standard. The tepid output water complies with ANSI Z358.1 standard. Valve includes Ball Valve Shut-offs, Outlet Temperature Gauge
- FLW1 Flow switch, single pole
- MC1 Modesty curtain for horizontal showers
- MS1 MAP (magnetically actuated proximity) switch, for one (1) actuator
- PCP Polished chrome plated pipe
- SV1 1" stainless steel ball valve



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Recyclable  
Product

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Submittal # **S2200**  
[SHR] Date: 07/24/17

Product carries the following certifications:



Test rating conditions are compliant to ANSI Z358.1



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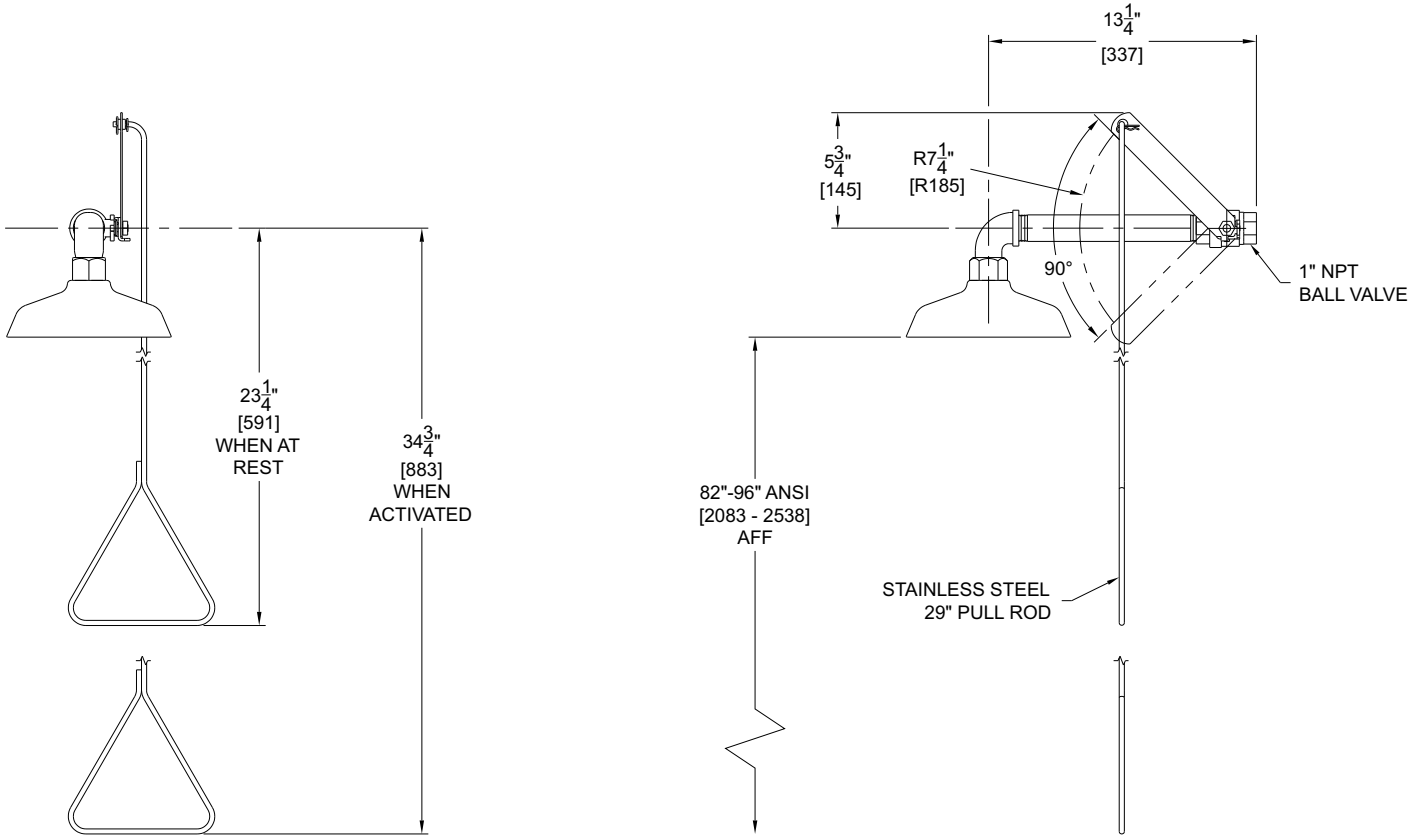
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# TECHNICAL DIMENSIONS

All dimensions are subject to manufacturer's tolerance of plus or minus 1/2" nominal and subject to change without notice. Acorn Safety® assumes no responsibility for use of void or superseded data. Dimensions may change with the addition of optional accessories. © Acorn Safety®, A Division of Acorn Engineering Company®, Member of Morris Group International™. Please visit [www.acorneng.com](http://www.acorneng.com) for most current specifications.

☐ **Model S2200** : Horizontally Mounted Emergency Shower, Stainless Steel Showerhead



**GENERAL NOTES:**

1. ALL DIMENSIONS ARE INCHES [MM].
- \*2. ANSI Z358.1 REQUIRES THE SHOWER HEAD TO BE MOUNTED BETWEEN MINIMUM 82" [2083] TO MAXIMUM 96" [2438] ABOVE THE FLOOR.

**S2200** Date: 07/24/17

*Acorn Safety warrants that its products are free from defects in material or workmanship under normal use and service for a period of one year from date of shipment. Acorn's liability under this warranty shall be discharged solely by replacement or repair of defective material, provided Acorn is notified in writing within one year from date of shipment, F.O.B. Industry, California.*

SELECTION SUMMARY & APPROVAL FOR MANUFACTURING

Model Number & Options \_\_\_\_\_ Quantity \_\_\_\_\_

Company \_\_\_\_\_

Contact \_\_\_\_\_ Title \_\_\_\_\_

Signature (Approval for Manufacturing) \_\_\_\_\_ Date \_\_\_\_\_



**800-591-9372**  
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# Model ET71-BVS-OTG Series

Lead-Free Emergency Fixture Thermostatic Mixing Valve with Cold Water Bypass and Includes Ball Valve Shut-offs and Outlet Temperature Gauge



## APPLICATION:

The Acorn ET71-BVS-OTG Series Emergency Tempering Valve is certified to ASSE 1071, rev 2012 and will deliver safe tepid water to safety systems such as eye, face and shower fixtures and combination units. It's factory set to 85° F to ensure comfort when used with an eye wash, yet can be safely set up to 95° F for maximum comfort and effectiveness when used with body washes. The ET71 is offered in 4 models/sizes you can meet the needs of your application based on minimum flow performance requirements and maximum flow demands. This valve can be used to control the temperature of recirculating as well as non-recirculating supply systems.



ET71-1-BVS-OTG

Patent Pending

## FEATURES:

- IAPMO certified per ASSE 1071 at the minimum flow rates shown in the chart to the right.
- ⚡ Lead-Free certified DZR brass body with corrosion resistant and lead free internal components.
- Integral cartridge style checks with screens to prevent backflow and to filter debris from entering the valve.
- On demand internal cold water bypass ensures the flow of cold water in the event of loss of hot water.
- Temperature adjustment is made using a allen wrench. A locknut on the bonnet prevents unauthorized or accidental temperature adjustment.
- Commercial quality paraffin actuator provides repeatable, reliable performance.
- Acorn's -BVS lockable ball valve shut-offs meet ANSI Z358 and ASSE 1071 requirements that state "If shut-off valves are installed in the supply line for maintenance purposes provisions SHALL be made to prevent unauthorized shut-off". Acorn eliminates the need for a locked cabinet or other means to prevent unauthorized access to un-lockable, and potentially unsafe, check stop shut-off valves."
- Outlet Temperature Gauge

⚡ The wetted surface of these valves contacted by consumable water contains less than 0.25% of lead by weight in conformance with national lead free law.

## GUIDE SPECIFICATION:

Emergency Fixture Thermostatic Mixing Valve shall be IAPMO lab certified to ASSE 1071 and CSA standards. Valve shall have an on demand internal cold water bypass of at least 60% of the normal flow rate. Valve body shall be "lead-free" brass with corrosion resistant internal components. Checks and screen must be integral. The sensor will be an advanced paraffin actuator with a temperature range of 60° to 95° F (16° or 35° C) or 60° to 90° F (16° to 32° C) (†), factory set to 85° F (29° C) and adjustable by the safety officer. A locknut will prevent unauthorized or accidental set point changes. Shut-offs shall be lockable ball valves to help prevent unauthorized or accidental closing in accordance with ANSI Z358 and ASSE 1071. Valve shall include an outlet temperature gauge. Valve shall be Acorn Model ET71 - (1,2,3 or 4) - BVS-OTG-(Option(s))."

## SPECIFICATIONS:

### Valve Specifications:

Maximum Operating Pressure: ..... 125 psi (861 kpa)  
 Maximum Hot Water Supply Temp: ..... 180°F (82°C)  
 Outlet Temp. Range: ..... 60-95°F (15-35°C)  
 (ET71-4 Only)..... 60-90°F (15-32°C)  
 Minimum Hot Water Supply ..... 5°F (3°C)  
 Above Set Point

### Certified Minimum Flow\*:

ET71-1-BVS-OTG ..... 0.5 gpm (1.9 lpm)  
 ET71-2-BVS-OTG ..... 1 gpm (3.8 lpm)  
 ET71-3-BVS-OTG ..... 2 gpm (7.6 lpm)  
 ET71-4-BVS-OTG ..... 3 gpm (11.4 lpm)

GPM (LPM) FLOW RATES @30 PSID*			
MODEL	TEMPERED	CW BY-PASS	CW FAILURE MAX.
ET71-1-BVS-OTG	9.8 (37.1)	6.5 (24.5)	0.5 (1.9)
ET71-2-BVS-OTG	35.1 (133)	25 (94.6)	1 (3.8)
ET71-3-BVS-OTG	70.2 (256.7)	60 (227)	1 (3.8)
ET71-4-BVS-OTG	110 (416.4)	80 (302.8)	1 (3.8)

\* In accordance with ASSE 1071 (†) For ET71-4 Only



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Submittal # **ET71-BVS-OTG Series**  
 Revised: 01/22/16 Page 1 of 3

### Product carries the following certifications:



C ASSE 1071  
 CSA B125.3



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### ACORN SAFETY

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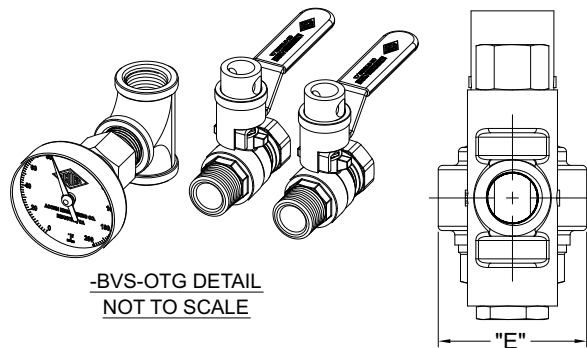
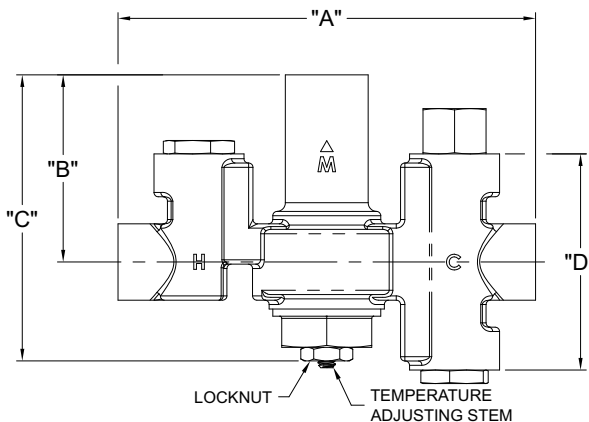
## VALVE SELECTION:

- ET71-1-BVS-OTG Brass Valve Body With Ball Valve Shut-offs, Outlet Temperature Gauge & 1/2" NPT Inlet & Outlet Connections
- ET71-2-BVS-OTG Brass Valve Body With Ball Valve Shut-offs, Outlet Temperature Gauge, 3/4" NPT Inlets & 1" NPT Outlet Connections
- ET71-3-BVS-OTG Brass Valve Body With Ball Valve Shut-offs, Outlet Temperature Gauge, 1" NPT Inlet & 1-1/4" NPT Outlet Connections
- ET71-4-BVS-OTG Brass Valve Body With Ball Valve Shut-offs, Outlet Temperature Gauge, 1-1/4" NPT Inlet & 1-1/2" NPT Outlet Connections

Acorn's locking ball valves are the only safe and acceptable method for supply shut-off to this product, unless installed in a lockable cabinet or other means to prevent unauthorized supply shut-off.

## TECHNICAL DIMENSIONS:

	INLET	OUTLET	"A"	"B"	"C"	"D"	"E"
ET71-1-BVS-OTG	1/2" NPT	1/2" NPT	5-3/4" (146)	2-5/8" (67)	4" (102)	3" (76)	2" (50)
ET71-2-BVS-OTG	3/4" NPT	1" NPT	8-1/2" (216)	3 (78)	5-1/2" (141)	4-1/4" (107)	2" (50)
ET71-3-BVS-OTG	1" NPT	1-1/4" NPT	14" (356)	5-1/4" (132)	8-3/4" (222)	6-1/4" (160)	5-3/4" (145)
ET71-4-BVS-OTG	1-1/4" NPT	1-1/2" NPT	14" (356)	5-1/4" (132)	8-3/4" (222)	6-1/4" (160)	5-3/4" (145)



## OPTIONAL CABINET:

### STYLE

- SMC Surface Mounted Cabinet

### FINISH

- PRC Prime Coat Finish (16 Gage Mild Steel)
- SSTL Stainless Steel (18 Gage Type 304)

### DOOR OPTIONS

- DRS Solid Door
- DRV Door Viewport

Must Specify: Hinge Location: (N/A ET71-3 & ET71-4)

- L Left
- R Right

	PRESSURE DROP PSID (KPA)	CV	5 (34)	10 (69)	15 (103)	20 (138)	30 (207)	45 (310)	60 (414)
ET71-1-BVS-OTG 12 GPM (45 LPM)	FLOW RATE GPM (LPM)	1.8	4 (15.1)	5.66 (21.4)	6.9 (26.1)	8 (30.2)	9.8 (37.1)	12 (45.4)	13.9 (52.6)
	COLD WATER BYPASS ONLY								6.5 (24.5)
ET71-2-BVS-OTG 43 GPM (163 LPM)	FLOW RATE GPM (LPM)	6.4	14.3 (54.1)	20.3 (76.8)	24.8 (93.9)	28.7 (108.6)	35.1 (132.9)	43 (162.8)	49.7 (188)
	COLD WATER BYPASS ONLY								25 (94.6)
ET71-3-BVS-OTG 86 GPM (325.5 LPM)	FLOW RATE GPM (LPM)	12.8	28.7 (108.6)	40.5 (153.3)	49.7 (188.1)	57.3 (217)	70.2 (265.7)	86 (325.5)	99.3 (375.9)
	COLD WATER BYPASS ONLY								60 (227)
ET71-4-BVS-OTG 150 GPM (568 LPM)	FLOW RATE GPM (LPM)	22.4	50 (189.2)	70.7 (267.6)	86.6 (327.8)	100 (378.5)	110 (416.4)	150 (567.8)	173 (654.8)
	COLD WATER BYPASS ONLY								80 (302.8)

# ET71-BVS-OTG Series Revised: 01/22/16

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SELECTION SUMMARY  
& APPROVAL FOR  
MANUFACTURING

Model Number & Options \_\_\_\_\_ Quantity \_\_\_\_\_

Company \_\_\_\_\_

Contact \_\_\_\_\_ Title \_\_\_\_\_

Signature  
(Approval for  
Manufacturing)

Date \_\_\_\_\_



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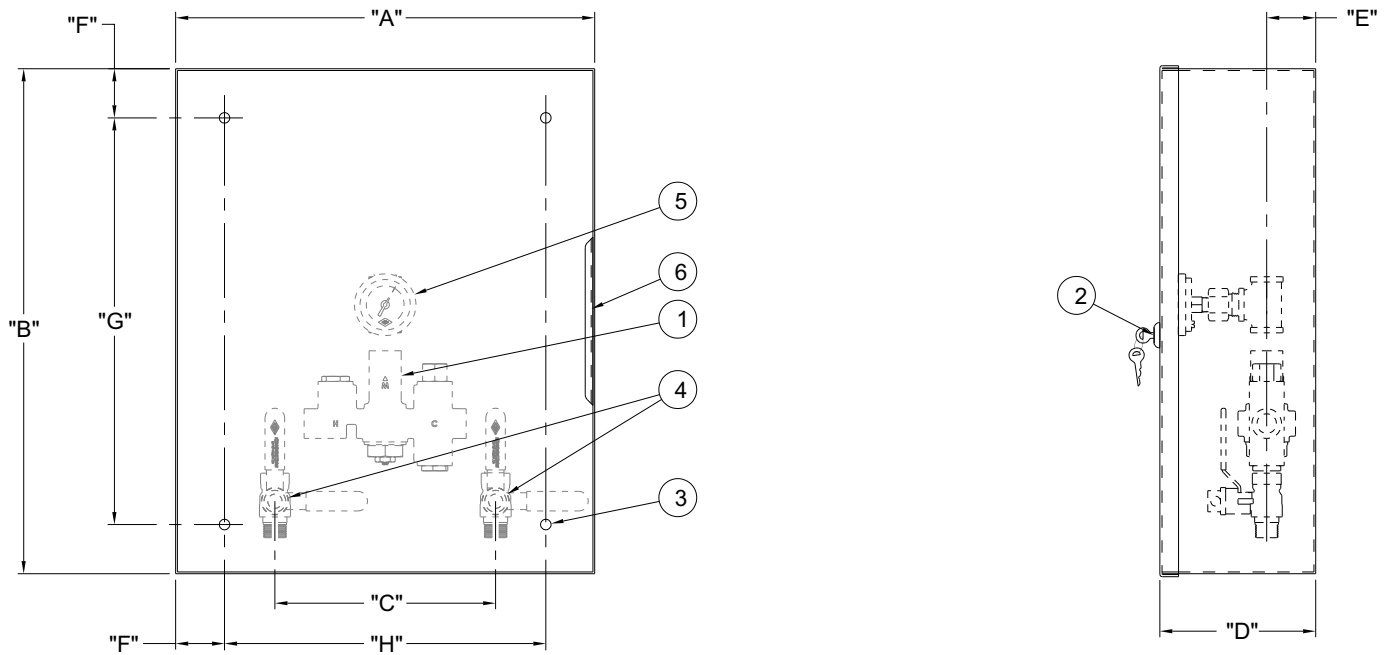
# Model ET71-BVS-OTG Series Cabinet

Emergency Fixture Thermostatic Mixing Valve Cabinets



## TECHNICAL DIMENSIONS:

**NOTE:**  
 ITEMS ①, ④, AND ⑤ ARE SHOWN FOR REFERENCE ONLY.  
 ALL PLUMBING CONNECTIONS ARE PROVIDED BY INSTALLER.



SHOWN LESS DOOR FOR CLARITY

- ① ET71 SERIES THERMOSTATIC MIXING VALVE
- ④ -BVS BALL VALVE SHUT-OFFS
- ② CYLINDER LOCK WITH KEYS
- ⑤ -OTG OUTLET TEMPERATURE GAUGE
- ③ Ø3/8" MOUNTING HOLES (4) PLACES
- ⑥ DOOR STOP

	INLET	OUTLET	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"
ET71-1 -BVS -OTG	1/2" NCT	1/2" NCT	15" (381)	18" (457)	7-7/8" (200)	5-5/8" (143)	1-3/4" (45)	1-3/4" (45)	14-1/2" (368)	11-1/2" (292)
ET71-2 -BVS -OTG	3/4" NCT	1" NCT	21" (533)	22" (559)	11" (279)	6" (153)	2" (51)	1-3/4" (45)	18-1/2" (470)	17-1/2" (445)
ET71-3 -BVS -OTG	1" NCT	1-1/4" NCT	28-1/2" (724)	29-1/2" (749)	16-7/8" (429)	7-3/4" (197)	3-1/4" (83)	2-1/2" (64)	24-1/2" (622)	23-1/2" (597)
ET71-4 -BVS -OTG	1-1/4" NCT	1-1/2" NCT	30-1/2" (775)	33" (838)	17-3/4" (450)	7-3/4" (197)	3-1/4" (83)	2-1/2" (64)	28" (711)	25-1/2" (648)

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Submittal # **ET71-BVS-OTG Series**  
 Revised: 01/22/16 Page 3 of 3

Product carries the following certifications:



C ASSE 1071  
 CSA B125.3



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 626-855-4804

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# Model S0440

Wall Mounted Eye/Face Wash,  
Stainless Steel Bowl



## SPECIFICATIONS:

Model S0440 is a wall mounted eye/face wash with a stainless steel bowl, ABS plastic eye/face wash spray heads, an inline strainer and a stay-open 1/2" ball valve with a push handle.

## STANDARD EQUIPMENT:

**Spray Head Assembly:** ABS yellow plastic eye/face wash heads with integral flip dust covers, internal flow controls and filters to remove debris from the water. An anti-microbial agent is molded into the ABS material, providing integrated protection.

**Valve:** 1/2" NPT chrome plated brass stay-open ball valve with a stainless steel push handle and a 50 mesh inline strainer.

**Water Supply:** 1/2" NPT female threaded, chrome plated brass inlet.

**Waste:** Chrome plated brass, 1-1/4" OD tailpiece.

**Bowl:** Stainless steel, 11-3/4" diameter bowl.

**Mounting:** 11 gage galvanized steel wall bracket with a yellow powder coated finish.

**Universal Sign:** ANSI compliant, vertical identification sign.

**Weekly Test Tag:** A waterproof test card to record the date and inspector's name for weekly functional testing of the unit.

Model: S0440



## OPTIONAL ACCESSORIES:

Additional costs may be incurred

- BF Barrier free, handicap accessible
- CS1 Stainless Steel "clam shell" cover
- FLW2 Flow switch, single pole
- FPV Freeze protection valve
- LWB Less wall bracket
- MS1 MAP (magnetically actuated proximity) switch, for one (1) actuator
- PT1 P-trap, chrome plated brass with 1-1/4" OD waste outlet
- SDC Stainless steel dust covers
- SPV Scald protection valve
- SV2 Stainless steel ball valve
- ET71-1 Thermostatic mixing valve is ASSE Listed per the ASSE 1071 standard. The tepid output water complies with ANSI Z358.1 standard.
- "1" Auxiliary hand-held drench hose with a self-closing valve (Use model S0441)



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Submittal # **S0440**  
[EFW] Revised: 04/09/14

Product carries the following certifications:



Test rating conditions are compliant to ANSI Z358.1-2009



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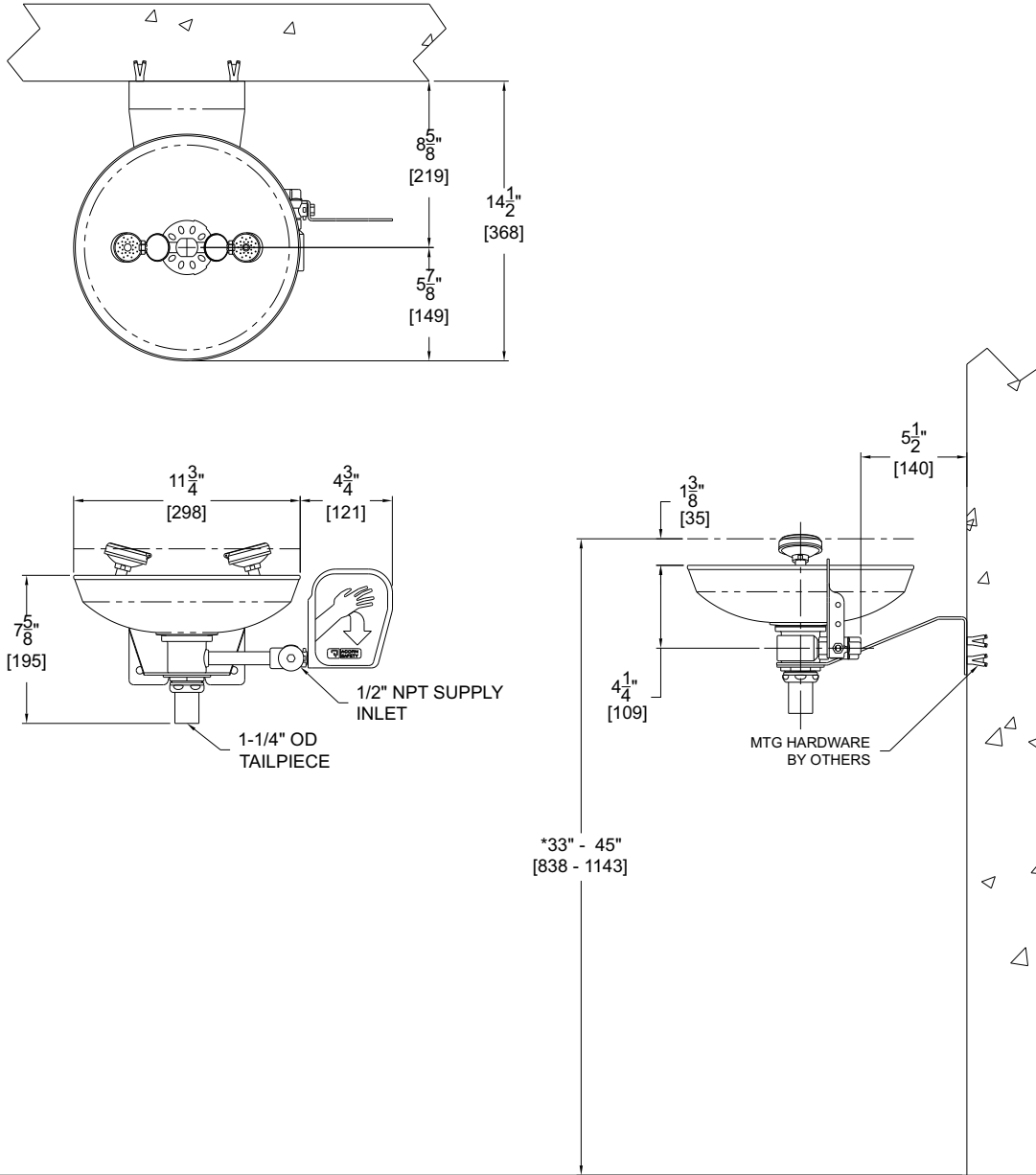
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# TECHNICAL DIMENSIONS

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**Model S0440 : Wall Mounted Eye/Face Wash, Stainless Steel Bowl**



**GENERAL NOTES:**

1. ALL DIMENSIONS ARE IN INCHES [MM].
- \*2. ANSI Z358.1 REQUIRES NOZZLES TO BE MOUNTED BETWEEN 33" - 45" [838 - 1143] ABOVE THE FINISHED FLOOR.

**S0440** Revised: 04/09/14

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SELECTION SUMMARY & APPROVAL FOR MANUFACTURING

Model Number & Options \_\_\_\_\_ Quantity \_\_\_\_\_

Company \_\_\_\_\_

Contact \_\_\_\_\_ Title \_\_\_\_\_

Signature (Approval for Manufacturing) \_\_\_\_\_ Date \_\_\_\_\_



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