



# Submittal Records

|                                   |  |
|-----------------------------------|--|
| Architect: Snyder Architects Inc. | Date: 2024-09-20                           |
| Attention: Amit Patel,            | Project: Gymnasium Addition at Glenview PS |
| Subcontractor: Kirk Mechanical    | Shop Drawings – SD 15-2                    |

| Copies | Title /Description | # Pages |
|--------|--------------------|---------|
| 1      | Plumbing Fixtures  | 40      |
|        |                    |         |
|        |                    |         |
|        |                    |         |

## Method of Delivery: Electronic

PROVIDE SUBMITTAL FOR FLOOR  
MOUNTED WALL CARRIER

PROVIDE SUBMITTAL FOR  
INSULATION L-1

PROVIDE SUBMITTAL FOR FD-1  
AND RD-1

The Architect's review is for the sole purpose of ascertaining conformance with the general design concept and for the general arrangement. This review shall not mean approval of the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor and such review shall not relieve the Contractor of their responsibility for errors or omissions in the shop drawings or of their responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes, quantities or to techniques of construction and installation and for coordination of related work.

sn/der  
architects

Date Oct 2 2024  
By AP  
Proj. No. 2314  
No exceptions taken             
Comply with notations ✓  
Revise & Resubmit             
Not reviewed



HDSB - GLENVIEW PS - GYM ADDITION - 134  
TOWNSEND AVE BURLING

HDSB - GLENVIEW PS - GYM ADDITION - 134  
TOWNSEND AVE BURLING

## Submittal Package

Prepared For:

**KIRK MECHANICAL LIMITED**

Date Prepared:

**09/19/2024**

Prepared By:

**JESSICA PICKVANCE**

THIS SUBMITTAL PACKAGE IS PREPARED TO THE BEST OF OUR ABILITY BASED ON THE INFORMATION PRESENTED TO US REGARDING THIS PROJECT



**REVIEWED**

By KIRK MECHANICAL LIMITED at 6:02 am, Sep 20, 2024



BARRIER FREE

# MADERA™ FloWise® 16-1/2" HEIGHT ELONGATED FLUSHOMETER TOILET

VITREOUS CHINA with EVERCLEAN®

## MADERA™ FloWise® 16-1/2" HEIGHT ELONGATED with EVERCLEAN®

- Floor mount flushometer valve toilet
- Vitreous china
- High Efficiency, Low Consumption. Operates in the range of 1.1 gpf to 1.6 gpf (4.2 Lpf to 6.0 Lpf)
- Meets definition of HET (High Efficiency Toilet) when used with a high efficiency flush valve (1.28 gpf or 1.6 / 1.1 gpf dual flush)
- Permanent EverClean® surface inhibits the growth of stain and odor-causing bacteria, mold, and mildew on the surface
- Fully glazed 2-1/8" trapway
- Elongated bowl
- 10" or 12" roughing-in
- 16-1/2" rim height for accessible application
- Condensation channel
- Powerful direct-fed siphon jet action
- 10" x 12" water surface area
- 1-1/2" inlet spud
- 2 bolt caps
- 100% factory flush tested

- ✓ **3461.001** Elongated bowl only, top spud
- ❑ **3462.001** Elongated bowl only, top spud with slotted rim for bedpan holding (White only)
- ❑ **3465.001** Elongated bowl only, top spud with 4 bolts (White Only)
- ❑ **3466.001** Elongated bowl only, top spud with slotted rim for bedpan holding with 4 bolts (White only)
- ❑ **3463.001** Elongated bowl only, back spud
- ❑ **3464.001** Elongated bowl only, back spud with slotted rim for bedpan holding (White only)

### System MaP\* Score:

- 1,000 grams of miso @ 1.1 gpf, 1.28 gpf or 1.6 gpf when used with an American Standard flush valve

\* Maximum Performance (MaP) testing performed by IAPMO R&T Lab. MaP Report conducted by Veritec Consulting, Inc. and Koeller and Company.

### Component Parts:

- ❑ **047007-0070A** Inlet Spud (furnished with bowl)
- ❑ **481310-100** Bolt caps with retainers (furnished with bowl)

### Nominal Dimensions:

718 x 311 x 410mm  
(28-1/4" x 12-1/4" x 16-1/2")

Fixture only, less seat and flush valve  
MECHANICAL ELECTRICAL AQUATIC

Recommended working pressure - between  
25 psi at valve when flushing and 80 psi static

### Compliance Certifications:

- ASME A12.19-2-2008 / CSA B45.1-08 for Vitreous China Fixtures

- ☒ Reviewed      ☐ Reviewed As Noted  
☐ Not Reviewed      ☐ Revise and Resubmit



SEE REVERSE FOR ROUGHING-IN DIMENSIONS

### To Be Specified:

- ❑ Color: ☒ White    ☐ Bone    ☐ Linen
- ❑ Seat:
  - ❑ American Standard #5901.100 Heavy duty open front less cover
  - ❑ American Standard #5905.100 Extra heavy duty open front less cover
- ❑ Flushometer Valve:
  - ❑ 1.6 gpf:
    - ❑ Sensor-Operated: American Standard Selectronic® DC Power #6065.161.002 (Top Spud)
    - ❑ Sensor-Operated: American Standard Selectronic® AC Power #6067.261.002 (Back Spud)
    - ❑ Manual: American Standard #6047.161.002 (Top Spud)
  - ❑ 1.28 gpf:
    - ❑ Sensor-Operated: American Standard Selectronic® DC Power #6065.121.002 (Top Spud)
    - ❑ Sensor-Operated: American Standard Selectronic® AC Power #6067.221.002 (Back Spud)
    - ❑ Manual: American Standard #6047.121.002 (Top Spud)
  - ❑ 1.6 / 1.1 gpf Dual Flush:
    - ❑ Sensor-Operated: American Standard Selectronic® DC Power #6065.761.002 (Top Spud)



MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES  
AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USABLE  
BUILDING FACILITIES - CHECK LOCAL CODES.

EVERCLEAN®  
Surface

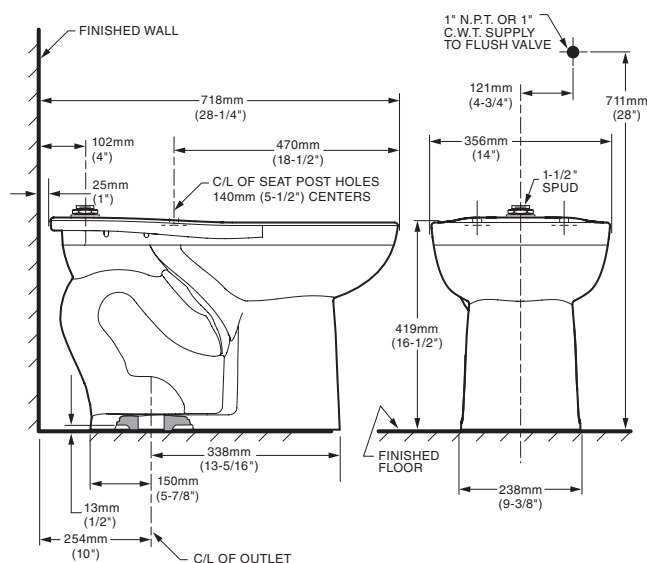




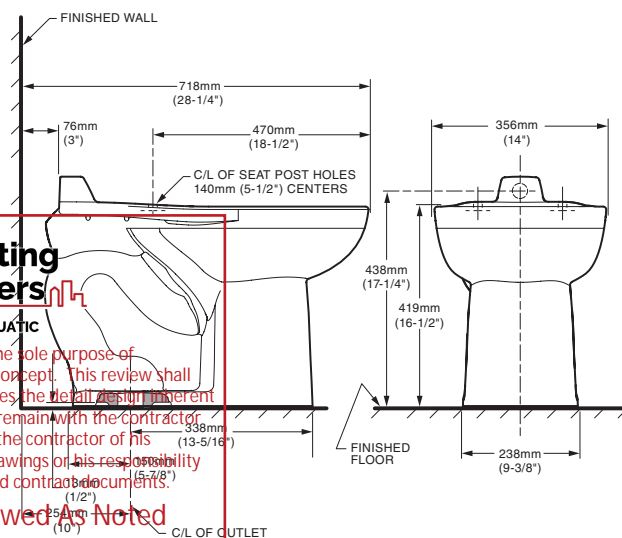
# MADERA™ FloWise® 16-1/2" HEIGHT ELONGATED FLUSHOMETER TOILET

VITREOUS CHINA with EVERCLEAN®

3461.001/3462.001/3465.001/3466.001



3463.001/3464.001



**DEI Consulting Engineers**  
MECHANICAL | ELECTRICAL | AQUATIC

This review by DEI Consulting Engineers Inc. is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that DEI Consulting Engineers Inc. approves the detail design inherent in the shop drawings, responsibility for which shall remain with the contractor submitting same, and such review shall not relieve the contractor of his responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the construction and contract documents.

☒ Reviewed ☐ Reviewed As Noted  
☐ Not Reviewed ☐ Revise and Resubmit

## NOTES:

PRODUCT 3461 AND 3463 SHOWN, 3462 AND 3464 SAME EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.  
TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON THE FLUSHOMETER VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING.  
THIS TOILET DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 254MM (10") AND A MAXIMUM DIMENSION OF 305MM (12") FROM FINISHED WALL TO C/L OF OUTLET.  
FLUSHOMETER VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY. FLUSHOMETER VALVE REQUIREMENTS FOR 12" (305MM) ROUGH-IN: SWEAT EXTENSION NIPPLE IS REQUIRED. REFER TO VALVE MANUFACTURER AND LOCAL CODES.

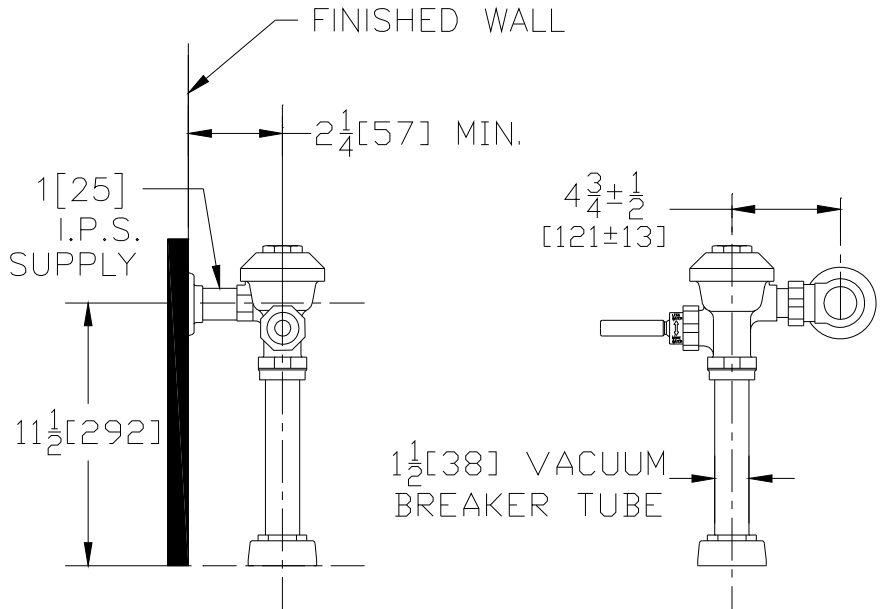
**IMPORTANT:** Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.





# Z6000AV-WS1-DF ✓

Flush Valve for Low Consumption Water Closets



## Flow Options

□-WS1 Low Consumption Flush (1.6/1.1)

## Accessories

- -BG BioCare ADA Handle
- -YJ Split Ring Pipe Support
- -YK Solid Ring Pipe Support
- -YO Bumper on Angle Stop
- -\_\_\_\_\_ Other



This review by DEI Consulting Engineers Inc. is for the sole purpose of ascertaining conformance with the GreenSpec.com concept. This review shall not mean that DEI Consulting Engineers Inc. approves the detail design inherent in the shop drawings, responsibility for which shall remain with the contractor submitting same. It is hereby acknowledged that the contractor is responsible for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the construction and contract documents.

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Reviewed | <input type="checkbox"/> Reviewed As Noted   |
| <input type="checkbox"/> Not Reviewed        | <input type="checkbox"/> Revise and Resubmit |

ZURN INDUSTRIES, LLC. ♦ COMMERCIAL BRASS OPERATION  
 5900 ELWIN BUCHANAN DRIVE ♦ SANFORD NC 27330  
 PHONE: 1-800-997-3876 ♦ FAX: 919-775-3541  
 WWW.ZURN.COM  
 IN CANADA: ZURN INDUSTRIES LIMITED  
 3544 NASHUA DRIVE ♦ MISSISSAUGA, ONTARIO L4V1L2  
 PHONE: 905-405-8272 FAX: 905-405-1292

AquaVantage® is a registered trademark of Zurn Industries, LLC.

## ENGINEERING SPECIFICATIONS

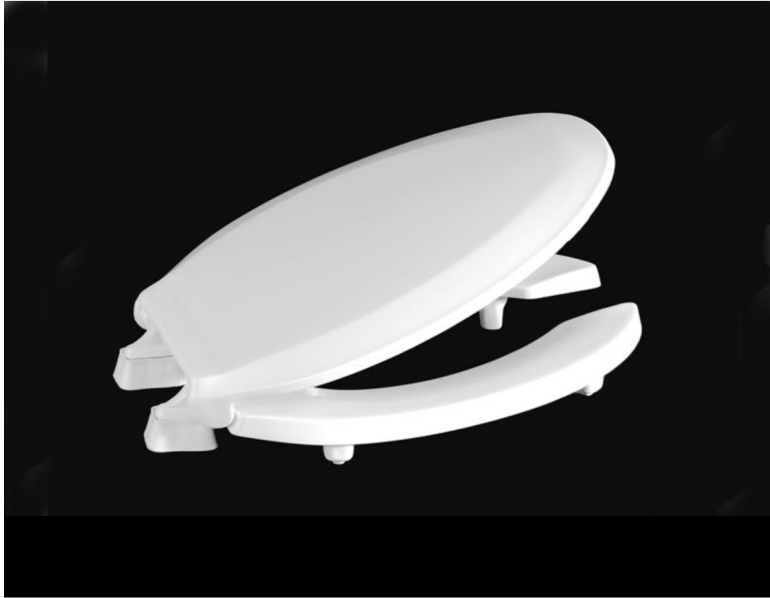
Exposed, quiet diaphragm-type, chrome plated flushometer valve with a polished exterior.

- Zurn's AquaVantage® TPE diaphragm
  - Clog Resistant by-pass
  - Chloramine resistant
  - Dual seal
- Proprietary DR resistant low lead brass alloy
- Dual Flush Handle
  - Lift handle up for 30% of full flush. (Liquid Waste)
  - Push handle down for full flush. (Solid waste)
  - Wall plate with graphics and instructions
  - ADA compliant
- Control Stop
  - Internal siphon-guard protection
  - Vandal resistant stop cap
  - Sweat solder kit
  - Cast wall flange with set screw
- Vacuum Breaker
  - High back pressure
  - One piece hex coupling nut
- Internal seals
  - Chloramine resistant
- Adjustable tailpiece
- Spud coupling and flange for top spud connection

The information contained in this document is subject to change without notice.  
 Please contact Zurn for most up to date information.

**Antimicrobial**

US: Antimicrobial additive inhibits the growth of stain and odor causing bacteria on this article.  
CDN: Contains CESA-MB8233 as a preservative for the protection of this article.


**Product Specifications**

|                          |                 |
|--------------------------|-----------------|
| <b>Shape</b>             | Elongated       |
| <b>Seat Material</b>     | Polypropylene   |
| <b>Seat Form</b>         | Open front      |
| <b>Commercial Hinge</b>  | Yes             |
| <b>Bolt Material</b>     | Stainless steel |
| <b>Hardware Material</b> | Stainless Steel |
| <b>Check Hinge</b>       | Yes             |
| <b>Cover</b>             | Yes             |
| <b>Custom Gasket</b>     | Yes             |
| <b>Color</b>             | White           |

**Warranty** 1 year limited warranty

**Available Colors** White, bone,

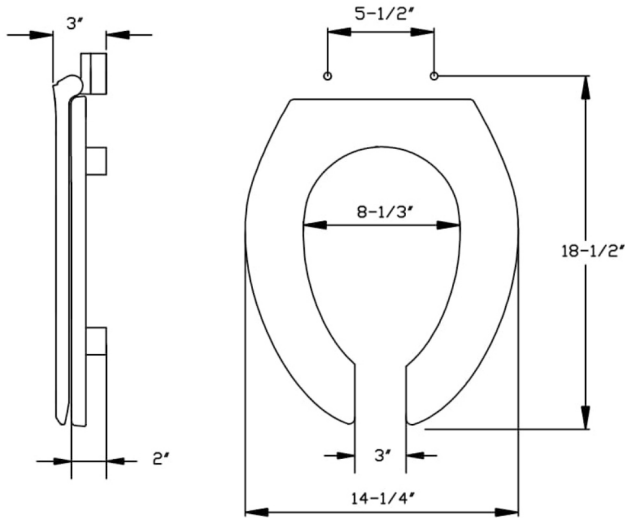
**Features**
**ADA Compliant Raised Seat**

ADA compliant 2" medical assistance raised toilet seat.

**Commercial Hinge**

Includes commercial grade hinges. One piece solid metal hinge pin and bolt over molded with plastic.

**PROVIDE**  
**AMHL820STS-001**



Dimensions shown are nominal and may vary within a range of tolerance. Product specifications are subject to change without notice.



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|                                       |   |
|---------------------------------------|---|
| <input type="checkbox"/> Reviewed     | <input checked="" type="checkbox"/> Reviewed As Noted |
| <input type="checkbox"/> Not Reviewed | <input type="checkbox"/> Revise and Resubmit          |



# Madera™ FloWise® 15" Height Elongated Flushometer Toilet

VITREOUS CHINA with EVERCLEAN®

## Madera™ FloWise® 15" Height Elongated with EverClean®

- Floor mount flushometer valve toilet
- Vitreous china
- High Efficiency, Low Consumption. Operates in the range of 1.1 gpf to 1.6 gpf (4.2 Lpf to 6.0 Lpf)
- Meets definition of HET (High Efficiency Toilet) when used with a high efficiency flush valve (1.28 gpf or 1.6 / 1.1 gpf dual flush)
- Permanent EverClean® surface inhibits the growth of stain and odor-causing bacteria, mold, and mildew on the surface
- Fully glazed 2-1/8" trapway
- Elongated bowl
- 10" or 12" roughing-in
- 15" rim height
- Condensation channel
- Powerful direct-fed siphon jet action
- 10" x 12" water surface area
- 1-1/2" inlet spud
- 2 bolt caps



**3451001** Elongated bowl only, top spud

☐ **3452001** Elongated bowl only, top spud with slotted rim for bedpan holding

☐ **3453001** Elongated bowl only, back spud

☐ **3455001** Elongated bowl only, back spud with slotted rim for bedpan holding

### System MaP\* Score:

- 1,000 grams of miso @ 1.1 gpf, 1.28 gpf or 1.6 gpf when used with an American Standard flush valve

\* Maximum Performance (MaP) testing performed by IAPMO R&T Lab. MaP Report conducted by Veritec Consulting, Inc. and Koeller and Company.

### Component Parts:

- ☐ **047007-0070A** Inlet Spud (furnished with bowl)
- ☐ **481310-100** Bolt caps with retainers (furnished with bowl)

### Nominal Dimensions:

718 x 356 x 381mm  
(28-1/4" x 14" x 15")

Fixture only, less seat and flush valve

Record per working pressure between 25 psi at valve when flushing and 30 psi static

MECHANICAL | ELECTRICAL | AQUATIC

### Compliance Certifications:

Meets or Exceeds the Following Specifications:

• ASME A112.19.2 / CSA B45.1 for Vitreous China Fixtures

☒ Reviewed

☐ Reviewed As Noted

☐ Not Reviewed

☐ Revise and Resubmit



SEE REVERSE FOR ROUGHING-IN DIMENSIONS

### To Be Specified:

☐ Color: ☒ White

☐ Seat:

☐ American Standard #5901.100 Heavy duty open front less cover

☐ American Standard #5905.100 Extra heavy duty open front less cover

☐ Flushometer Valve:

☐ 1.6 gpf:

☐ Sensor-Operated: American Standard Selectronic® DC Power #6065.161.002 (Top Spud)

☐ Sensor-Operated: American Standard Selectronic® AC Power #6067.261.002 (Back Spud)

☐ Manual: American Standard #6047.161.002 (Top Spud)

☐ 1.28 gpf:

☐ Sensor-Operated: American Standard Selectronic® DC Power #6065.121.002 (Top Spud)

☐ Sensor-Operated: American Standard Selectronic® AC Power #6067.221.002 (Back Spud)

☐ Manual: American Standard #6047.121.002 (Top Spud)

☐ 1.6 / 1.1 gpf Dual Flush:

☐ Sensor-Operated: American Standard Selectronic® DC Power #6065.761.002 (Top Spud)



ENVIRONMENTAL  
PRODUCT  
DECLARATION



When used with  
1.1 or 1.28 gpf  
toilet flush valves



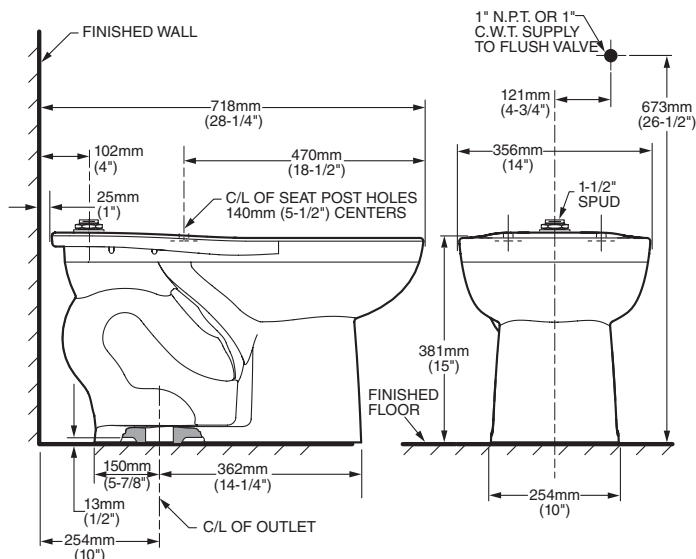
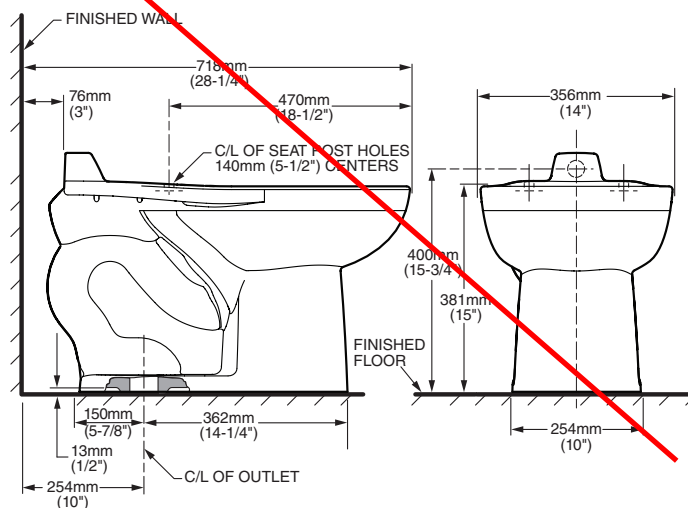
EVERCLEAN



WATER  
EFFICIENT

© 2019 AS America Inc.

spec\_3451001 Madera FW 15Height-EL-Flushometer Rev 1 5/19

**3451001 / 3452001**

**3453001 / 3455001**

**NOTES:**

PRODUCT 3451 AND 3453 SHOWN, 3452 AND 3455 SAME EXCEPT  
 UNMOUNTED RIM FOR BED PAN HOLDING.  
 TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM  
 BREAKER ON THE FLUSHOMETER VALVE, THE PLUMBER MUST  
 VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING.  
 FLUSHOMETER VALVE DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION  
 OF 254MM (10") AND A MAXIMUM DIMENSION OF 305MM (12") FROM  
 FINISHED WALL TO C/L OF OUTLET.  
 FLUSHOMETER VALVE NOT INCLUDED WITH FIXTURE AND MUST BE  
 ORDERED SEPARATELY. FLUSHOMETER VALVE REQUIREMENTS FOR  
 SWEAT EXTENSION NIPPLE IS REQUIRED.  
 REFER TO VALVE MANUFACTURER AND LOCAL CODES.

**IMPORTANT:** Dimensions of fixtures are nominal and may vary within  
 the range of tolerances established by ANSI Standard A112.19.2. These  
 dimensions are subject to change or cancellation. No responsibility is  
 assumed for use of superseded or voided pages.



MECHANICAL | ELECTRICAL | PLUMBING

This review by DEI Consulting Engineers Inc. is for the sole purpose of  
 ascertaining conformance with the general design of the product. It does  
 not mean that DEI Consulting Engineers Inc. approves the design shown  
 in the shop drawings, responsibility for which shall remain with the  
 submitting same, and such review shall not relieve the contractor of his  
 responsibility for errors or omissions in the shop drawings or his responsibility  
 for meeting all requirements of the construction contract documents.

☒ Reviewed

☐ Revised

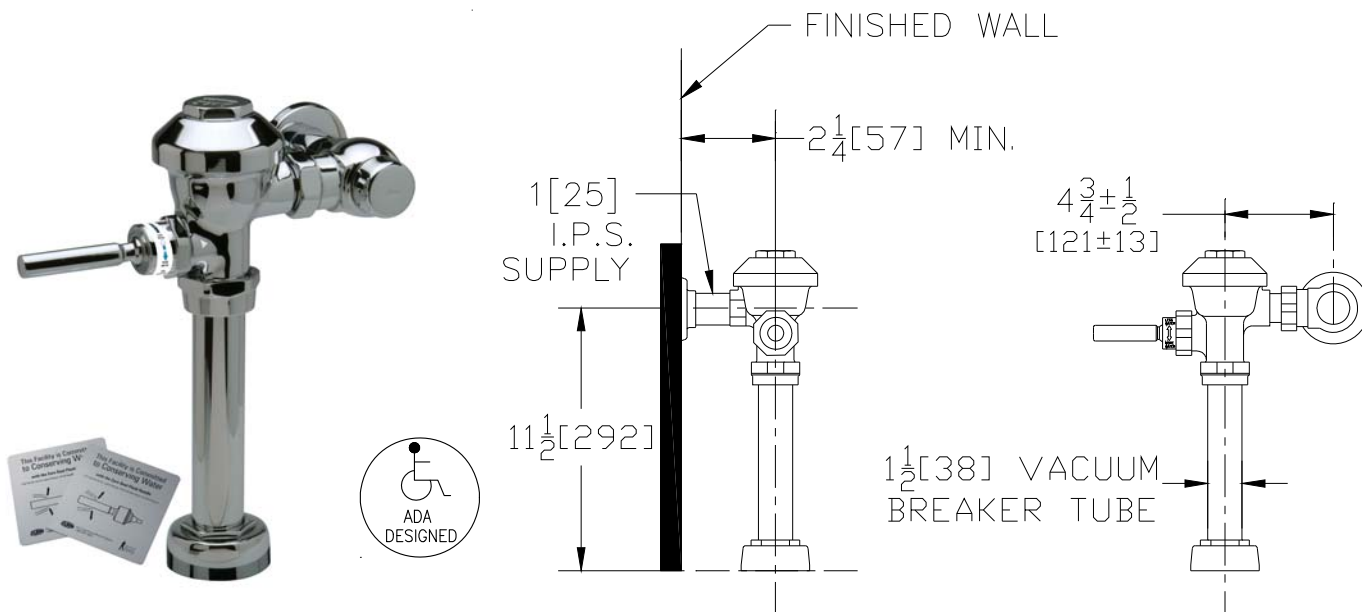
☐ Not Reviewed

☐ Revise and Resubmit



# Z6000AV-WS1-DF ✓

Flush Valve for Low Consumption Water Closets



## Flow Options

□-WS1 Low Consumption Flush (1.6/1.1)

## Accessories

- -BG BioCare ADA Handle
- -YJ Split Ring Pipe Support
- -YK Solid Ring Pipe Support
- -YO Bumper on Angle Stop
- -\_\_\_\_\_ Other



This review by DEI Consulting Engineers Inc. is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that DEI Consulting Engineers Inc. approves the detail design inherent in the shop drawings, responsibility for which shall remain with the contractor submitting said drawings. The undersigned hereby certifies that he/she has the responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the construction and contract documents.

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Reviewed | <input type="checkbox"/> Reviewed As Noted   |
| <input type="checkbox"/> Not Reviewed        | <input type="checkbox"/> Revise and Resubmit |

ZURN INDUSTRIES, LLC. ♦ COMMERCIAL BRASS OPERATION  
 5900 ELWIN BUCHANAN DRIVE ♦ SANFORD NC 27330  
 PHONE: 1-800-997-3876 ♦ FAX: 919-775-3541  
 WWW.ZURN.COM  
 IN CANADA: ZURN INDUSTRIES LIMITED  
 3544 NASHUA DRIVE ♦ MISSISSAUGA, ONTARIO L4V1L2  
 PHONE: 905-405-8272 FAX: 905-405-1292

## ENGINEERING SPECIFICATIONS

Exposed, quiet diaphragm-type, chrome plated flushometer valve with a polished exterior.

- Zurn's AquaVantage® TPE diaphragm
  - Clog Resistant by-pass
  - Chloramine resistant
  - Dual seal
- Proprietary DR resistant low lead brass alloy
- Dual Flush Handle
  - Lift handle up for 30% of full flush. (Liquid Waste)
  - Push handle down for full flush. (Solid waste)
  - Wall plate with graphics and instructions
  - ADA compliant
- Control Stop
  - Internal siphon-guard protection
  - Vandal resistant stop cap
  - Sweat solder kit
  - Cast wall flange with set screw
- Vacuum Breaker
  - High back pressure
  - One piece hex coupling nut
- Internal seals
  - Chloramine resistant
- Adjustable tailpiece
- Spud coupling and flange for top spud connection

The information contained in this document is subject to change without notice.  
 Please contact Zurn for most up to date information.



COMMERCIAL HEAVY DUTY



Product Specifications

|                   |                 |
|-------------------|-----------------|
| Shape             | Elongated       |
| Seat Material     | Polypropylene   |
| Seat Form         | Open front      |
| Commercial Hinge  | Yes             |
| Bolt Material     | Stainless steel |
| Hardware Material | Stainless Steel |
| Check Hinge       | Yes             |
| Cover             | No              |
| Custom Gasket     | Yes             |
| Color             | White           |

|          |                         |
|----------|-------------------------|
| Warranty | 1 year limited warranty |
|----------|-------------------------|

|                  |        |
|------------------|--------|
| Available Colors | White, |
|------------------|--------|

Features

Self Sustaining

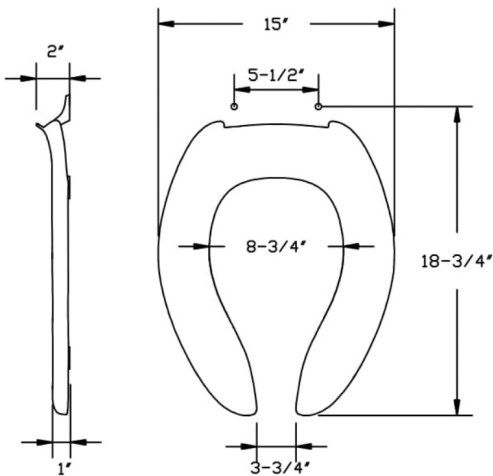
Self Sustaining hinge holds commercial seats in place and avoids slamming.

Antimicrobial

US: Antimicrobial additive inhibits the growth of stain and odor causing bacteria on this article.  
CDN: Contains CESA-MB8233 as a preservative for the protection of this article.

Commercial Hinge

Includes commercial grade hinges. One piece solid metal hinge pin and bolt over molded with plastic.



Dimensions shown are nominal and may vary within a range of tolerance. Product specifications are subject to change without notice.



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|  |  |
|--|--|
| <input checked="" type="checkbox"/> Reviewed | <input type="checkbox"/> Reviewed As Noted   |
| <input type="checkbox"/> Not Reviewed        | <input type="checkbox"/> Revise and Resubmit |



# MURRO™ UNIVERSAL DESIGN WALL-HUNG LAVATORY WITH EVERCLEAN®

BARRIER FREE

VITREOUS CHINA/ACRYLIC

## MURRO™ UNIVERSAL DESIGN WALL-HUNG LAVATORY WITH EVERCLEAN®

- Vitreous china with EverClean
- Available with rear overflow or less overflow
- Recessed self-draining deck
- For concealed arm or wall support
- Optional vitreous china shroud/knee contact guard 0059.020EC available
- Optional acrylic shroud/knee contact guard 0062.000 available
- ADA and TAS compliant

- ☒ **0954.004EC** Faucet holes on 102mm (4") Ctrs with overflow (Illustrated)
- ☐ **0954.123EC** Faucet holes on 102mm (4") Ctrs with overflow
  - Extra right-hand hole
- ☐ **0954.121EC** Faucet holes on 102mm (4") Ctrs with overflow
  - Extra left-hand hole
- ☐ **0954.904EC** Faucet holes on 102mm (4") Ctrs less overflow
- ☐ **0958.008EC** Faucet holes on 203mm (8") Ctrs with overflow
- ☐ **0958.908EC** Faucet holes on 203mm (8") Ctrs less overflow
- ☐ **0955.001EC** Center hole only with overflow
- ☐ **0955.123EC** Center hole only with overflow
  - Extra right-hand hole
- ☐ **0955.121EC** Center hole only with overflow
  - Extra left-hand hole
- ☐ **0955.901EC** Center hole only less overflow

### Nominal Dimensions:

520mm (20.5") deep, 540mm (21-1/4") wide

### Bowl sizes:

394mm (15-1/2") wide, 343mm (13-1/2") front to back, 127mm (5") deep

- ☐ **0062.000 Acrylic Shroud/Knee Contact Guard**  
(Must be purchased separately)

- ☒ **0059.020EC Shroud/Knee Contact Guard**  
(Vitreous China with EverClean)  
(Must be purchased separately)

**DEI Consulting Engineers**

MECHANICAL | ELECTRICAL | AQUATIC

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- |                                       |   |
|---------------------------------------|---|
| <input type="checkbox"/> Reviewed     | <input checked="" type="checkbox"/> Reviewed As Noted |
| <input type="checkbox"/> Not Reviewed | <input type="checkbox"/> Revise and Resubmit          |



Shown with 0062.000 shroud



Shown with 0059.020EC shroud

SEE REVERSE FOR ROUGHING-IN DIMENSIONS

### To Be Specified:

- ☐ Color: ☒ White
- ☐ Optional Acrylic Shroud/Knee Contact Guard: 0062.000
- ☒ Optional Vitreous China Shroud/Knee Contact Guard: 0059.020EC
- ☐ Faucet\*:
- ☐ Faucet Finish:
- ☐ Supplies:
- ☐ 1-1/4" Trap:
- ☐ Nipple:

**PROVIDE SUBMITTAL FOR FLOOR MOUNTED WALL CARRIER AND INSULATION**

\* See faucet section for additional models available

### Compliance Certifications - Meets or Exceeds the Following Specifications:

- ASME A112.19.2 for Vitreous China Fixtures



MEETS THE AMERICANS WITH DISABILITIES ACT GUIDE-  
LINES AND ANSI A117.1 ACCESSIBLE AND USABLE  
BUILDINGS AND FACILITIES - CHECK LOCAL CODES.  
Top of front rim mounted 864mm (34") from finished floor.

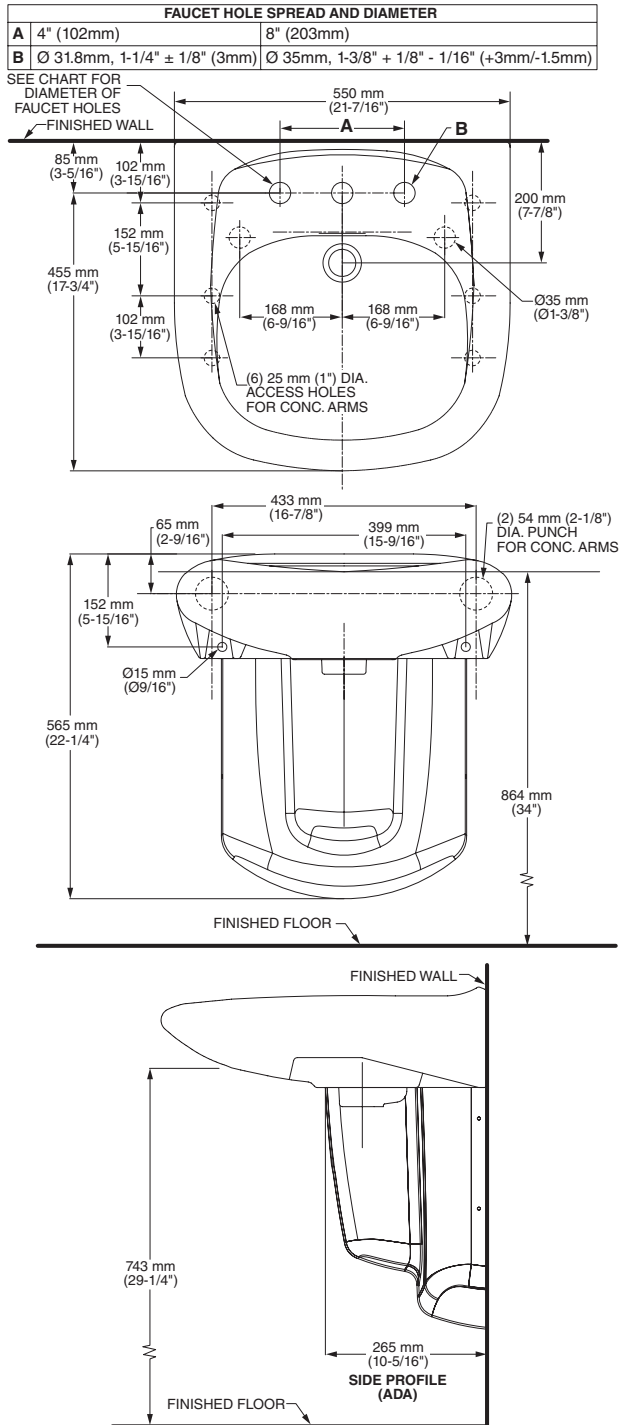


# MURRO™ UNIVERSAL DESIGN WALL-HUNG LAVATORY WITH EVERCLEAN®

VITREOUS CHINA/ACRYLIC

BARRIER FREE

## MURRO WITH ACRYLIC SHROUD



### NOTES:

● LOOSE KEY ANGLE STOPS, LESS WALL ESCUTCHEONS. SUPPLIES REQUIRED.

\* DIMENSIONS SHOWN FOR LOCATION OF SUPPLIES AND "P" TRAP ARE SUGGESTED.

SHROUD/KNEE CONTACT GUARD 0059.020 NOT INCLUDED AND MUST BE ORDERED SEPARATELY.

■ SUITABLE FOR REINFORCEMENT ONLY, ACTUAL DIMENSIONS MUST BE TAKEN FROM FIXTURE.

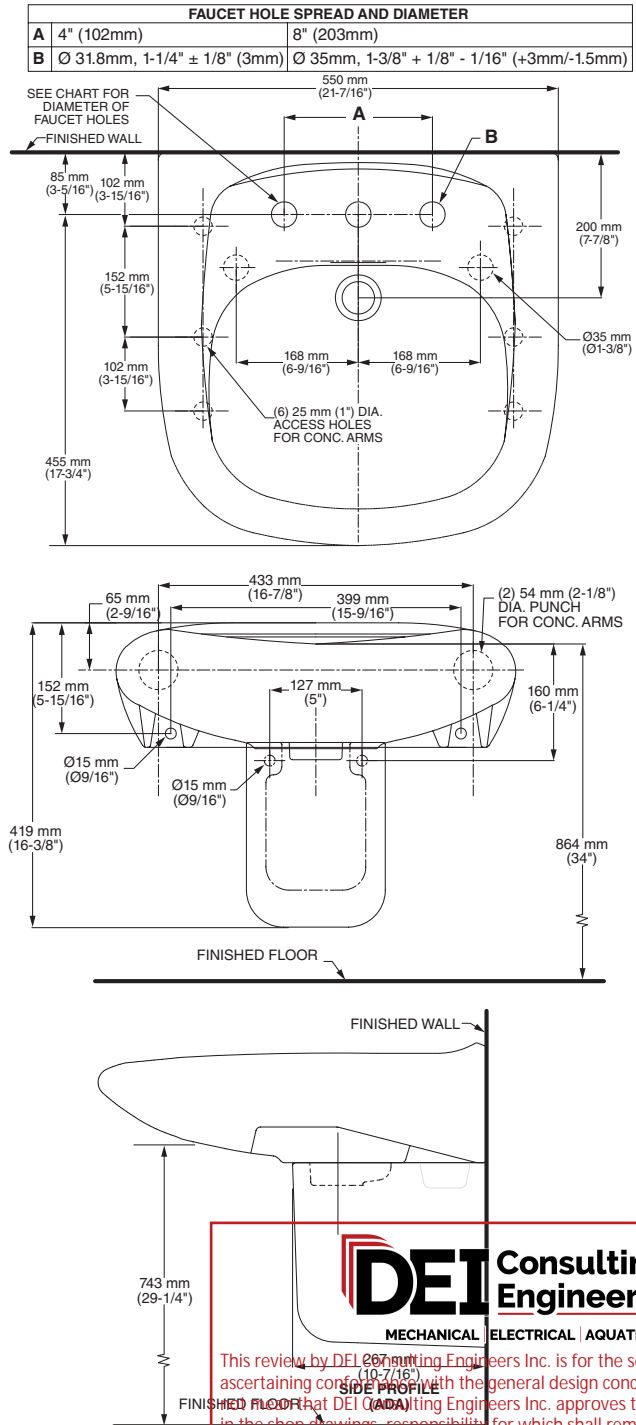
FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY.

PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS.

INSTALLATION INSTRUCTIONS SUPPLIED WITH LAVATORY.

**IMPORTANT:** Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

## MURRO WITH VITREOUS CHINA SHROUD



**DEI Consulting Engineers**

MECHANICAL | ELECTRICAL | AQUATIC

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☒ Reviewed

☐ Reviewed As Noted

☐ Not Reviewed

☐ Revise and Resubmit

**TECK®****591TF Series****Electronic Faucet with Surface Mount Control**

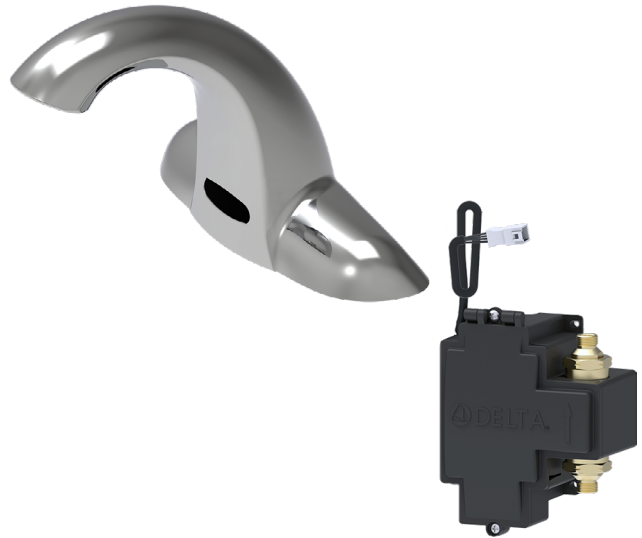
QUOTED AS PER MODEL # SPECIFIED, IF HARDWIRED  
FAUCET IS REQUIRED, PLEASE ADVISE BEFORE  
ORDERING

**COMMERCIAL****SPECIFICATION:** (Example - 591TF0220)

- Supplied as complete product
- H<sub>2</sub>Optics® Technology** – no external adjustments required
- Chrome-plated **CAST** 4" (102 mm) spout with integral sensor
- Metal hold-down package
- Hardwire Operated** (24 VAC) infrared electronic handwash system
- Laminar outlet - 1.5 gpm (5.7 L/min)
- Adjustable sensing range and timeout
- Surface mount housing
- Mixing valve required (order separately)
- Serviceable filter screen upstream of the valve

**AVAILABLE CONFIGURATIONS:**

- Battery Operated** (4 "C" cell) – supplied as complete
- Hardwire Operated** (24 VAC) – supplied as complete
- Outlets**
  - Laminar outlet - 1.5 gpm (5.7 L/min)
  - Laminar outlet - 0.5 gpm (1.9 L/min)
  - Spray outlet - 0.35 gpm (1.32 L/min)

**MODEL NUMBER EXAMPLE:**

Configurations vary, see below for availability.

**5 9 1 T F 1 2 5 0****Power Supply**

0 = Hardwire operated

1 = Battery operated

**Outlet**

2 = Laminar outlet

5 = Laminar outlet

9 = Spray outlet

1.5 gpm (5.7 L/min)  
0.5 gpm (1.9 L/min)  
0.35 gpm (1.32 L/min)

| Available Models |  | Power Supply            |  |                         |   |
|------------------|--|-------------------------|--|-------------------------|---|
|                  |  | 0 = Hardwire Operated   |  | 1 = Battery Operated    |   |
|                  |  | Deckmount Hi-Rise Spout |  | Deckmount Hi-Rise Spout |   |
| <b>Outlet</b>    | <b>2</b> Laminar outlet<br>1.5 gpm (5.7 L/min) | 591TF0220               |  | 591TF1220               |   |
|                  | <b>5</b> Laminar outlet<br>0.5 gpm (1.9 L/min) | 591TF0250               |  | 591TF1250               | ✓ |
|                  | <b>9</b> Spray outlet<br>0.35 gpm (1.32 L/min) | 591TF0290               |  | 591TF1290               |   |

**PROVIDE HARDWIRED FAUCET**

**DEI Consulting Engineers**

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☐ Reviewed☐ Reviewed As Noted☐ Not Reviewed☒ Revise and Resubmit**Engineer/Architect Approval**

Model Specified:

Approval:

Date:

Watersense® is a registered trademark of the U.S. Environmental Protection Agency

Delta Faucet reserves the right (1) to make changes in specifications and materials, and (2) to change or discontinue models, both without notice or obligation. Dimensions are for reference only. See current full-line price book or [www.specselect.com](http://www.specselect.com) for finish options and product availability.

Flow Rates are at 60 PSI.

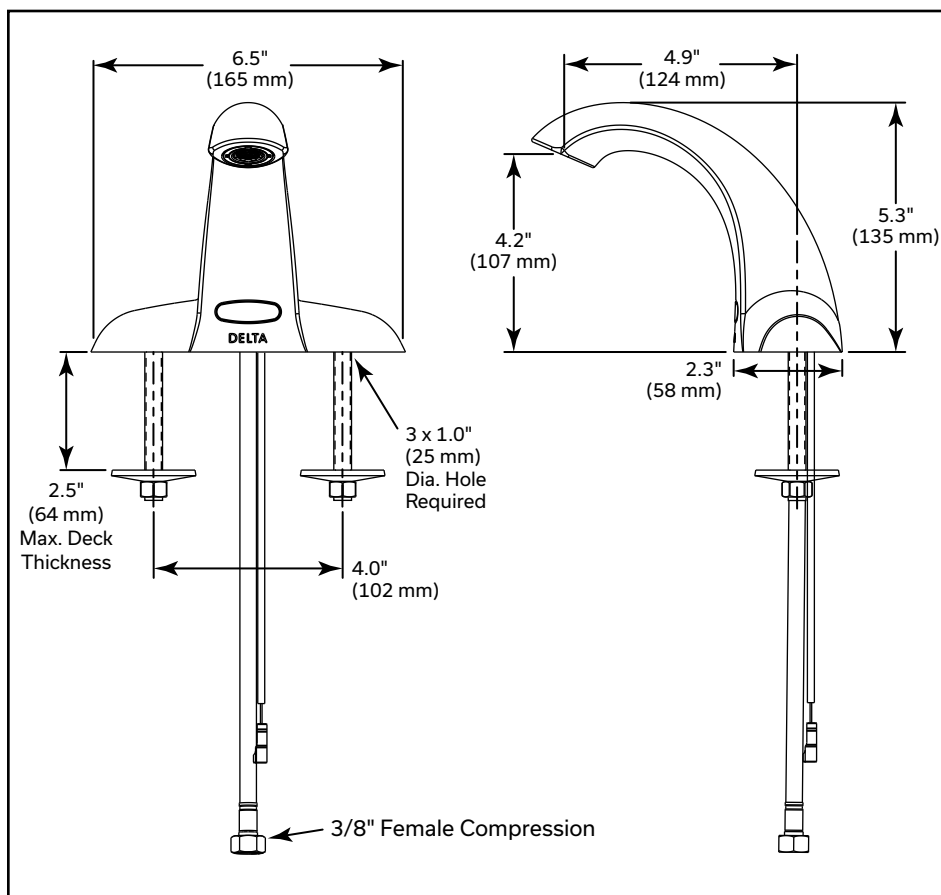
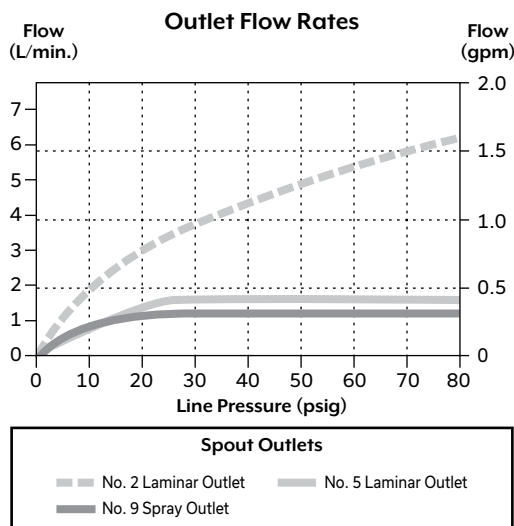
**NOTICE** Use all pages as product submittal sheets.**DSP-591TFCB0, Rev A**

**TECK®****591TF Series****Electronic Faucet with Surface Mount Control****COMMERCIAL****APPROVALS:**

- Complies to ASME A112.18.1/CSA B125.1
- Indicates compliance to ICC / ANSI A117.1
- Outlet options 2 is EPA WaterSense® listed
- Verified compliant with 0.25% weighted average Pb content regulations

**AVAILABLE OPTIONS FOR FIELD CONVERSION** *(Sold Separately)*

- ☐ **063268A - Battery backup assembly for surface mount box** *(Batteries included)*  
See DSP-BBBox for detailed specification.
- ☐ **063266A - Plug-in power supply**
- ☐ **061406A - Plug-In with Battery Backup**
- ☐ **060704A - 120 to 24 VAC - Class 2 - 20 VA**  
(Up to 5 Electronic Valves)
- ☐ **060771A - 120 to 24 VAC - Class 2 - 40 VA**  
(Up to 10 Electronic Valves)
- ☐ **061256A - 36" Sensor Cable Extension**
- ☐ **063272A - Ganging cable**
- ☐ **062032A - Polymer Braided Hose**
- ☐ **060651A - 3 Position Switch**  
See DSP-ELACC for detailed specification.

**PROVIDE HARDWIRED FAUCET****NOTICE** Measurements may vary  $\pm 0.25"$  (6mm)

**DEI Consulting Engineers**

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- |                                       |   |
|---------------------------------------|---|
| <input type="checkbox"/> Reviewed     | <input type="checkbox"/> Reviewed As Noted              |
| <input type="checkbox"/> Not Reviewed | <input checked="" type="checkbox"/> Revise and Resubmit |

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Flow Rates are at 60 PSI.

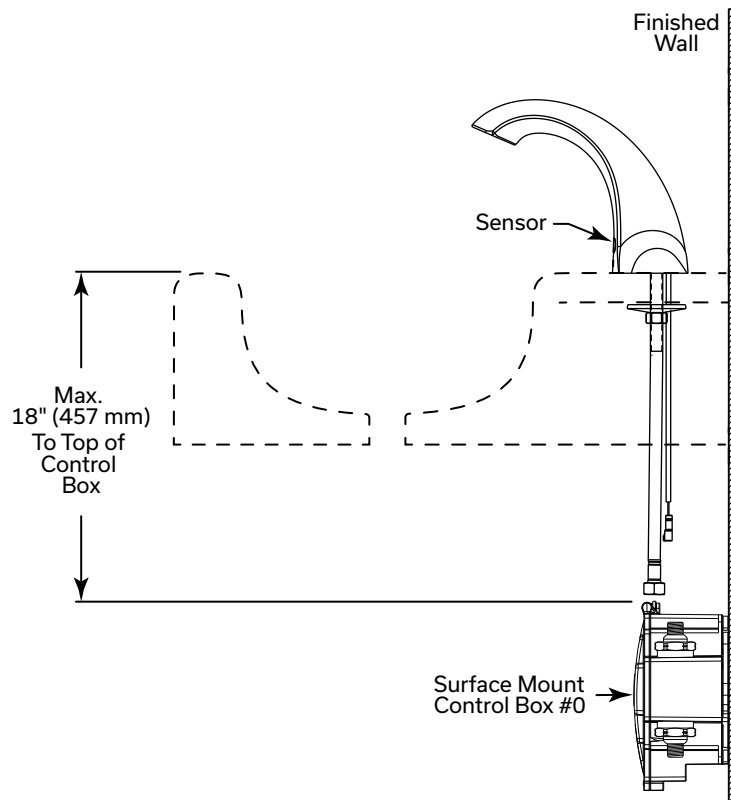
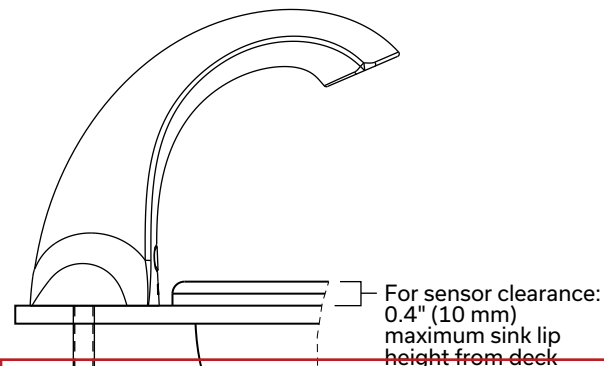
**NOTICE** Use all pages as product submittal sheets.**DSP-591TFCB0, Rev A**

**TECK®****591TF Series****Electronic Faucet with Surface Mount Control****COMMERCIAL****OPERATION:**

- Hands free (touchless) operation.
- Water flows when sensor is activated.
- Water flow stops upon de-activation of sensor.
- Adjustable auto shut-off feature. Factory set to 45 seconds. Will reset once obstruction is removed.
- Adjustable sensing distance 3" to 15" (76 to 381mm) factory set to 9"  $\pm 3.0$ " (229 mm  $\pm$  76 mm)
- Low battery audible beep (for battery models only) will activate after faucet shuts off when approximately 1500 cycles remain.
- Metering mode with selectable flow times of 7 seconds to 4 minutes, factory set off.
- Periodic Rinse feature, time adjustable in 6 hour increments up to 2 days. Selectable rinsing lengths from 10 to 180 seconds. Factory set off.

**NOTICE**

- **#1** - For optimum performance of this product, we recommend a system pressure between 20 and 80 Psi (138 and 552 kPa) static. This product will operate up to a maximum of 125 Psi (862 kPa) static per ANSI and CSA requirements. However, we do not recommend pressures above 80 Psi (552 kPa). Thermal expansion or leaking pressure reducing valves may require use of expansion tanks or relief valves to ensure your system never exceeds its maximum intended pressure setting.
- **#2** - Designed for routine 171°F (77°C) disinfection cycles up to 30 minutes.

**PROVIDE HARDWIRED FAUCET****TYPICAL INSTALLATION****SENSOR CLEARANCE**

**DEI Consulting Engineers**

MECHANICAL | ELECTRICAL | AQUATIC

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|                                       |   |
|---------------------------------------|---|
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| <input type="checkbox"/> Not Reviewed | <input checked="" type="checkbox"/> Revise and Resubmit |

**TECK®**

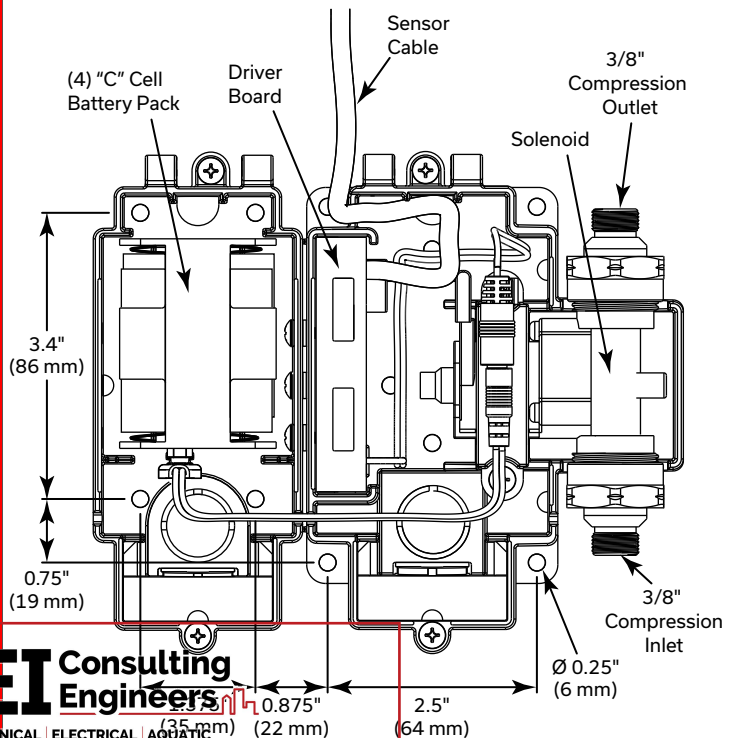
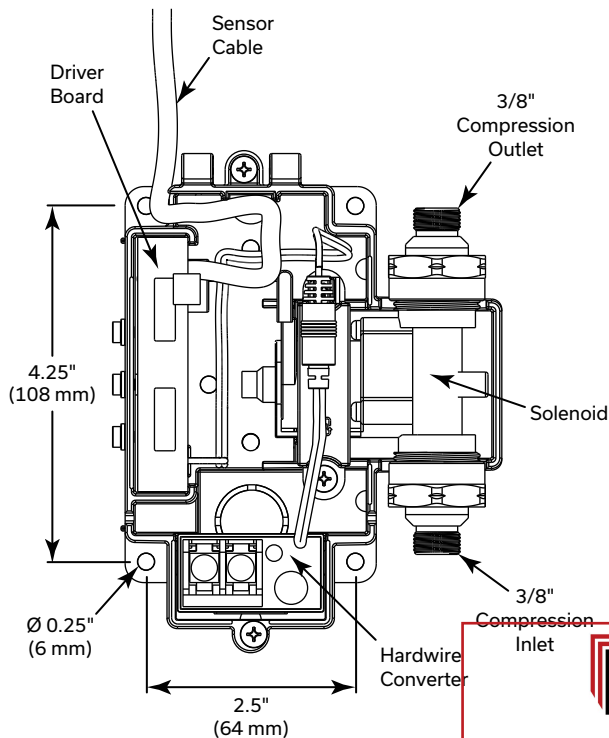
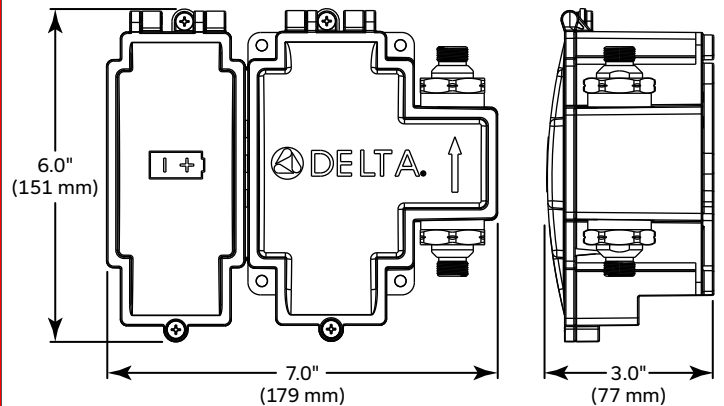
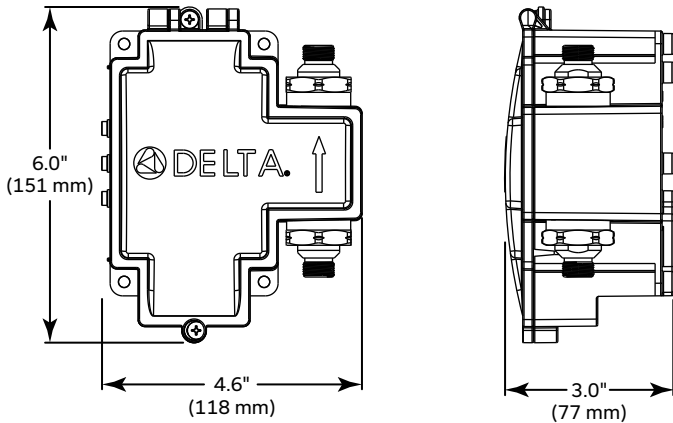
PROVIDE HARDWIRED FAUCET

**591TF Series****Electronic Faucet with Surface Mount Control****COMMERCIAL****SURFACE MOUNT CONTROL CONFIGURATIONS****Hardwire Operated**

- Supplied as complete product
- **H<sub>2</sub>Optics®** Technology – no external adjustments required
- **Hardwire Operated** (24 VAC) infrared electronic handwash system
- Watertight Connector
- Hardwire Converter 24 VAC to 6.4 VDC.
- Surface mount housing
- Serviceable filter screen upstream of the valve
- Mixing valve required (order separately)

**Battery Operated**

- Supplied as complete product
- **H<sub>2</sub>Optics®** Technology – no external adjustments required
- **Battery Operated** (4 "C" cell) infrared electronic handwash system
- Watertight Connector
- Surface mount housing
- Serviceable filter screen upstream of the valve
- Mixing valve required (order separately)



**DEI Consulting Engineers Inc.**  
MECHANICAL | ELECTRICAL | PLUMBING

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Not Reviewed ☐ Revise and Resubmit ☒

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Flow Rates are at 60 PSI.

Use all pages as product submittal sheets.

**NOTICE****DSP-591TFCB0, Rev A**

## Product Specification

Job Name \_\_\_\_\_  
 Job Location \_\_\_\_\_  
 Engineer \_\_\_\_\_  
 Approval \_\_\_\_\_

Contractor \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Contractor's P.O. No. \_\_\_\_\_  
 Representative \_\_\_\_\_

# LEAD FREE\*

## HYDROGUARD®

### Series LFLM495 ✓

#### Thermostatic Mixing Valves for Lavatory Installations

#### Features

- Temperature control to ASSE 1069, 1070 and 1017 down to 0.5 gpm
- Advanced thermal actuator improves performance at low flow
- Lead Free\* cast copper silicon alloy body construction for durability and to comply with Lead Free\* requirements
- Adjustable temperature selection with lock down
- Union connections for easy maintenance
- Integral checks and screen prevents cross-flow and contamination
- Available in 1/2", 3/4", 1" (15, 20, 25 mm) with NPT, Sweat, PEX, Quick-Connect, CPVC union connections and w/press

#### Specifications

**Temperature Adjustment:** 80°- 120°F (27°C to 49°C)  
**Approach Temperature:** 5°F (3°C) above set point  
**Max. Operating Pressure:** 125 psi (861 kPa)  
**Max. Hot Water Temperature:** 200°F (93°C)  
**Max. Pressure Differential between**  
**Hot & Cold Water Supplies:** 25%  
**Minimum Flow:** 0.5 gpm (1.90 lpm) when tested in accordance with ASSE 1017-2003  
**Check Valves:** Integral  
**Construction:** Lead Free\* Cast copper silicon alloy body  
**Listing:** ASSE 1069, ASSE 1070, ASSE 1017, IAPMO cUPC, and NSF372

**Viagra Pro-Press™ connections are optional factory installed fitting on each end of the approved/certified assembly**

#### Capacity

| Pressure Drop Across The Valve |                       |                       |                       |                       |                       |                        |                        |
|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|------------------------|
| (Cv) 1 psi<br>(7 kPa)          | 5 psi<br>(34 kPa)     | 10 psi<br>(69 kPa)    | 15 psi<br>(103 kPa)   | 20 psi<br>(138 kPa)   | 30 psi<br>(207 kPa)   | 45 psi<br>(310 kPa)    | 60 psi<br>(414 kPa)    |
| 1.79                           | 4.0 gpm<br>(15.3 lpm) | 5.7 gpm<br>(21.6 lpm) | 7.0 gpm<br>(26.7 lpm) | 8.0 gpm<br>(30.3 lpm) | 9.8 gpm<br>(37.0 lpm) | 12.0 gpm<br>(45.0 lpm) | 13.9 gpm<br>(53.0 lpm) |

**DEI Consulting Engineers**

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

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☐ Not Reviewed ☐ Revise and Resubmit



| UNION CONNECTIONS |           |                   |
|-------------------|-----------|-------------------|
| Female NPT        | 1/2" (15) | LFLM495-1         |
|                   | 3/4" (20) | LFLM496-1         |
|                   | 1" (25)   | LFLM497-1         |
| Sweat             | 1/2" (15) | LFLM495-2         |
|                   | 3/4" (20) | LFLM496-2         |
|                   | 1" (25)   | LFLM497-2         |
| CPVC              | 1/2" (15) | LFLM495-3         |
|                   | 3/4" (20) | LFLM496-3         |
|                   | 1" (25)   | LFLM497-3         |
| PEX               | 1/2" (15) | LFLM495-4         |
|                   | 3/4" (20) | LFLM496-4         |
|                   | 1" (25)   | LFLM497-4         |
| Quick-Connect     | 1/2" (15) | LFLM495-5         |
|                   | 3/4" (20) | LFLM496-5         |
|                   | 1" (25)   | LFLM497-5         |
| w/Press           | 1/2" (15) | LFLM495-1 w/press |
|                   | 3/4" (20) | LFLM496-1 w/press |
|                   | 1" (25)   | LFLM497-1 w/press |

#### ⚠ WARNING

When used in an ASSE 1017 application at the hot water source, the Powers Thermostatic Mixing Valve Series LFLM495 cannot be used by itself to control final temperature at fixtures where ASSE Standard 1016 or ASSE Standard 1070 listed devices are required. Such use may result in severe bodily injury (i.e. scalding or chilling) and/or death. ASSE Standard 1016, ASSE 1069 or ASSE Standard 1070 listed devices, such as Powers Series LFe480 or LFLM495, should be used at point-of-use to prevent possible injury. Consult all product manuals, and instruction guides before installing any referenced product.

Recirculation systems should recirculate water at temperatures over 140°F to reduce the risk of bacterial growth in the piping. This valve should not be used at the hot water source in recirculation systems.

#### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

**POWERS™**  
 A WATTS Brand

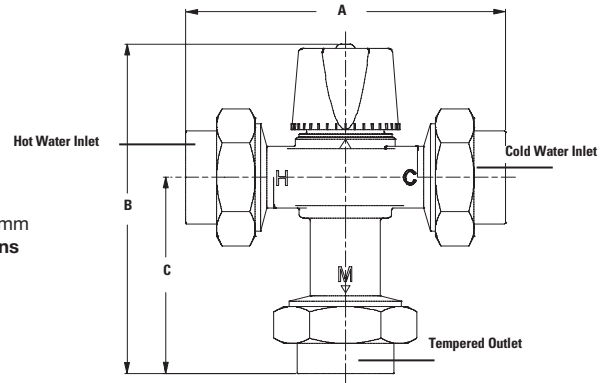


## Dimensions

| MODEL       | LFLM495-1          | LFLM496-1          | LFLM497-1         | LFLM495-2          | LFLM496-2         | LFLM497-2          | LFLM495-3         | LFLM496-3         | LFLM497-3          | LFLM495-4         | LFLM496-4          | LFLM497-4        |
|-------------|--------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|-------------------|--------------------|-------------------|--------------------|------------------|
| CONNECTIONS | 1/2" NPT<br>FEMALE | 3/4" NPT<br>FEMALE | 1" NPT<br>FEMALE  | 1/2" SWEAT         | 3/4" SWEAT        | 1" SWEAT           | 1/2" CPVC         | 3/4" CPVC         | 1" CPVC            | 1/2" PEX          | 3/4" PEX           | 1" PEX           |
| "A"         | 4-7/8<br>(124mm)   | 4-7/8<br>(124mm)   | 5-5/16<br>(135mm) | 4-13/16<br>(123mm) | 5-5/16<br>(135mm) | 5-13/16<br>(148mm) | 4-3/4<br>(121mm)  | 5-1/4<br>(133mm)  | 5-11/16<br>(144mm) | 5-1/4<br>(133mm)  | 5-1/2<br>(140mm)   | 5-7/8<br>(149mm) |
| "B"         | 5-7/16<br>(137mm)  | 5-7/16<br>(137mm)  | 5-5/8<br>(143mm)  | 5-3/8<br>(137mm)   | 5-5/8<br>(143mm)  | 5-7/8<br>(149mm)   | 5-5/16<br>(136mm) | 5-9/16<br>(142mm) | 5-13/16<br>(147mm) | 5-9/16<br>(142mm) | 5-11/16<br>(145mm) | 5-7/8<br>(150mm) |
| "C"         | 3-3/16<br>(80mm)   | 3-3/16<br>(80mm)   | 3-3/8<br>(86mm)   | 3-1/8<br>(80mm)    | 3-3/8<br>(86mm)   | 3-5/8<br>(92mm)    | 3-1/16<br>(79mm)  | 3-5/16<br>(85mm)  | 3-9/16<br>(90mm)   | 3-5/16<br>(85mm)  | 3-7/16<br>(88mm)   | 3-5/8<br>(93mm)  |

| MODEL       | LFLM495-5          | LFLM496-5          | LFLM497-5        |
|-------------|--------------------|--------------------|------------------|
| CONNECTIONS | 1/2" QUICK-CONNECT | 3/4" QUICK-CONNECT | 1" QUICK-CONNECT |
| "A"         | 6-5/8<br>(168mm)   | 6-15/16<br>(177mm) | 7-1/8<br>(181mm) |
| "B"         | 6-1/4<br>(159mm)   | 6-7/16<br>(163mm)  | 6-1/2<br>(165mm) |
| "C"         | 4<br>(102mm)       | 4-3/16<br>(106mm)  | 4-1/4<br>(108mm) |

Note:  
Dimensions are shown  $\pm 1/4"$   
Dimensions in brackets are in mm  
**Consult factory for dimensions w/press**



## Ordering Information

**Model LFLM49**  
(80° - 120°F)  
(27° - 49°C)

### Valve

|                |   |
|----------------|---|
| 1/2" . . . . . | 5 |
| 3/4" . . . . . | 6 |
| 1" . . . . .   | 7 |

### Inlets

|                            |           |
|----------------------------|-----------|
| Union NPT Female . . . . . | 1         |
| Union Sweat . . . . .      | 2         |
| Union CPVC . . . . .       | 3         |
| Union PEX . . . . .        | 4         |
| Quick-Connect . . . . .    | 5         |
| w/press . . . . .          | 1-w/press |

## Typical Specification

Thermostatic tempering valve shall be constructed using Lead Free\* cast copper silicon alloy material which shall comply with state codes and standards, where applicable requiring reduced lead content. The valve shall feature advanced paraffin-based actuation technology and union connections for ease of maintenance. All internal components shall be corrosion-resistant. Valve shall feature integral checks to prevent cross-flow and inlet screens to filter out debris. The valve shall be ASSE 1069, ASSE 1070, ASSE 1017 and IAPMO cUPC listed. Capacity of the valve shall be 12.0 gpm (45.0 lpm) at 45psi (310 kPa) differential. Valve shall perform to a minimum flow of 0.5 gpm (2 lpm) to ASSE 1070. Control temperature shall be adjustable between 80°F - 120°F (27 - 49°C). The

valve shall feature a vandal-resistant lockable handle to prevent tampering. The valve shall be a Powers' HydroGuard® Model LFLM495 (1/2", 15mm), LFLM496 (3/4", 20mm), LFLM497 (1", 25mm). Any alternate must have a written approval prior to bidding.

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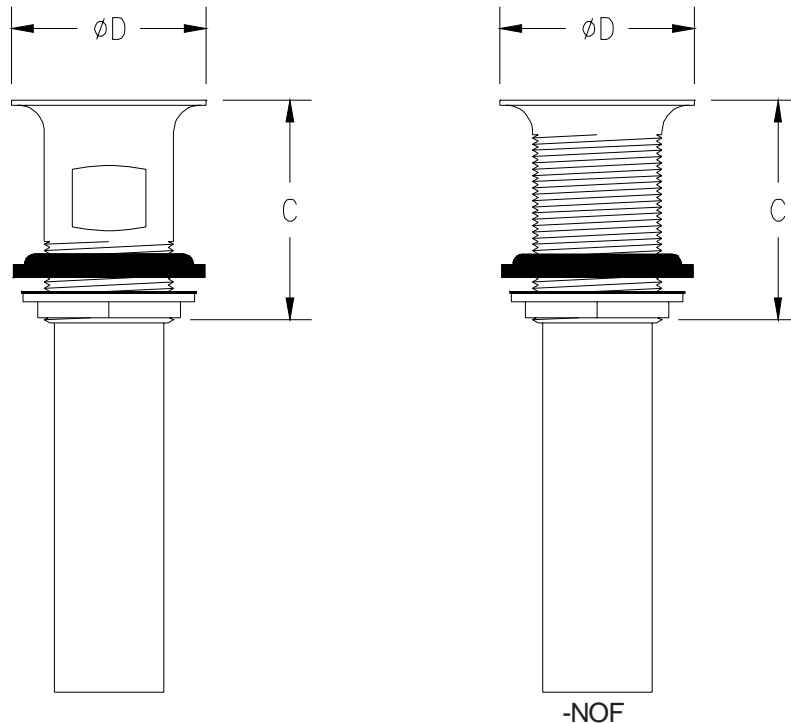
L-1

# SOLID TOP, OPEN-GRID P.O. PLUGS

✓ Z8743-PC

TAG \_\_\_\_\_

**Engineering Specification:** Zurn Z8743-PC – Chrome plated cast brass solid top, open grid, P.O. plug. Furnished with 5"[127mm] long, chrome plated brass 17 gauge tailpiece and chrome plated cast brass locknut for sink depth up to 2 1/4"[57mm]. 6"-, 8"-, 10"- and 12"- tailpieces available.



Note: All dimensions are for reference only. Do not use for pre-plumbing

| PRODUCT NUMBER | TAILPIECE in[mm] | DIMENSIONS |           | MASTER CARTON | WEIGHT CARTON |
|----------------|------------------|------------|-----------|---------------|---------------|
|                |                  | Cin[mm]    | ØDin[mm]  |               |               |
| ✓ Z8743-PC     | 1 1/4[32]        | 2 9/16[65] | 2 1/4[57] | 30            | 30            |
| Z8743-1-PC     | 1 1/2[38]        | 2 9/16[65] | 2 1/4[57] | 30            | 30            |

## OPTIONAL ACCESSORIES

| Suffix     | Description            |
|------------|------------------------|
| _____ -NOF | No Overflow (PC Only)  |
| _____ -PB  | Polished Brass         |
| _____ -6   | w/6"[152mm] Tailpiece  |
| _____ -8   | w/8"[203mm] Tailpiece  |
| _____ -12  | w/12"[305mm] Tailpiece |



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☒ Reviewed ☐ Reviewed As Noted  
☐ Not Reviewed ☐ Revise and Resubmit

ZURN INDUSTRIES, INC. ♦ COMMERCIAL BRASS OPERATION ♦ 2640 SOUTH WORK STREET ♦ FALCONER NY 14733

Phone: 1-716-665-1132 ♦ Fax: 1-716-665-1135 ♦ World Wide Web: [www.zurn.com](http://www.zurn.com)

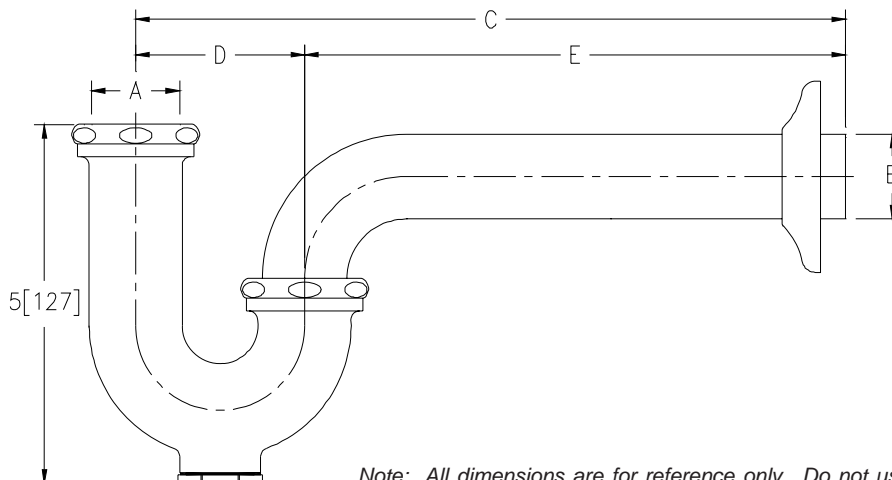
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292



L-1

**SEMI-CAST P-TRAPS WITH WALL BEND****Z8700-PC TO Z8708-PC  
TAG**

**Engineering Specification:** Zurn Z8700-PC to Z8708-PC. – Chrome-plated cast brass (copper alloy) body P-trap with cleanout, tubular brass wall bend as specified, die-cast nuts, and shallow escutcheon with compression inlet.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

| PRODUCT NUMBER  | A INLET in[mm] | B OUTLET in[mm] | GAUGE | DIMENSIONS  |           |             | MASTER CARTON | WEIGHT CARTON [lbs] |
|-----------------|----------------|-----------------|-------|-------------|-----------|-------------|---------------|---------------------|
|                 |                |                 |       | C in[mm]    | D in[mm]  | E in[mm]    |               |                     |
| <b>Z8700-PC</b> | 1 1/4[32]      | 1 1/4[32]       | 17    | 10[254]     | 2 1/2[64] | 7 1/2[191]  | 12            | 24                  |
| Z8700-8-PC      | 1 1/4[32]      | 1 1/4[32]       | 17    | 11[279]     | 2 1/2[64] | 8 1/2[216]  | 12            | 24                  |
| Z8700-15-PC     | 1 1/4[32]      | 1 1/4[32]       | 17    | 15[381]     | 2 1/2[64] | 12 1/2[318] | 18            | 40                  |
| Z8701-PC        | 1 1/4[32]      | 1 1/2[38]       | 17    | 10 1/2[267] | 3[76]     | 7 1/2[191]  | 12            | 24                  |
| Z8701-9-PC      | 1 1/4[32]      | 1 1/2[38]       | 17    | 12[305]     | 3[76]     | 9[229]      | 12            | 24                  |
| Z8701-15-PC     | 1 1/4[32]      | 1 1/2[38]       | 17    | 15[381]     | 3[76]     | 12[305]     | 18            | 42                  |
| Z8702-PC*       | 1 1/2[38]      | 1 1/2[38]       | 17    | 10 1/2[267] | 3[76]     | 7 1/2[191]  | 12            | 24                  |
| Z8702-9-PC*     | 1 1/2[38]      | 1 1/2[38]       | 17    | 12[305]     | 3[76]     | 9[229]      | 12            | 24                  |
| Z8702-15-PC*    | 1 1/2[38]      | 1 1/2[38]       | 17    | 15[381]     | 3[76]     | 12[305]     | 18            | 42                  |
| Z8703B-PC**     | 1 1/2[38]      | 2[51]           | 17    | 12 1/2[318] | 3 1/2[89] | 9[229]      | 6             | 18                  |
| Z8704B-PC**     | 2[51]          | 2[51]           | 17    | 12 1/2[318] | 3 1/2[89] | 9[229]      | 6             | 18                  |
| Z8706-PC        | 1 1/4[32]      | 1 1/4[32]       | 20    | 10[254]     | 2 1/2[64] | 7 1/2[191]  | 12            | 24                  |
| Z8707-PC        | 1 1/4[32]      | 1 1/2[38]       | 20    | 10 1/2[267] | 3[76]     | 7 1/2[191]  | 12            | 24                  |
| Z8708-PC*       | 1 1/2[38]      | 1 1/2[38]       | 20    | 10 1/2[267] | 3[76]     | 7 1/2[191]  | 12            | 24                  |

**OPTIONAL ACCESSORIES**

| Suffix  | Description  |
|---------|--|
| ✓ -B    | Brass Nuts   |
| ___ -BX | Box Escutcheon   |
| ___ -CE | Cast Brass Escutcheon with Setscrew                                |
| ✓ -D    | Deep Escutcheon (Note = not available for Z8703B-PC and Z8704B-PC) |
| ___ -J  | Metal to Metal Ground Joint Connection                             |
| ___ -WC | Waste Connections - Compression                                    |
| ___ -15 | 15[381] C Dim. 1 1/4[32] and 1 1/2[38] Only                        |
| ___ -18 | 18[457] C Dim. 1 1/4[32] and 1 1/2[38] Only                        |

\* COMES WITH OPTIONAL 1-1/2" x 1-1/4" REDUCTION POLY-WASHER FOR INLET

\*\* SHIPPED WITH BRASS NUTS UNLESS OTHERWISE SPECIFIED



MECHANICAL | ELECTRICAL | AQUATIC

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☒ Reviewed

☐ Reviewed As Noted

☐ Not Reviewed

☐ Revise and Resubmit

ZURN INDUSTRIES, LLC ♦ COMMERCIAL BRASS OPERATION ♦ 2640 SOUTH WORK STREET ♦ FALCONER NY 14733

Phone: 1-800-997-3876 ♦ Fax: 1-919-775-3541 ♦ www.zurn.com

In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

## For Residential and Commercial Applications

|                |  |                      |  |
|----------------|--|----------------------|--|
| Job Name       |  | Engineer / Architect |  |
| Job Location   |  | Wholesaler           |  |
| Submittal Date |  | Contractor           |  |

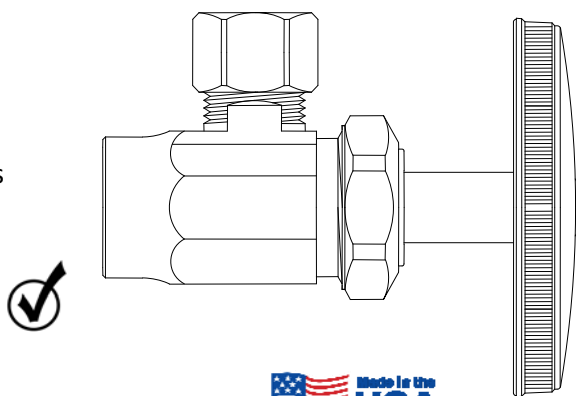
### ~~R1B/ R09/ R19/ R39~~ Multi-Turn Angle Stop – Sweat x Compression

**Use:** For use in potable water distribution systems. Not intended for recirculating water systems that produce continuous use temperatures above 115° F. For those applications, use BrassCraft KT series ball stops

**Design Features:**

PROVIDE SCREWDRIVER STOP

- **Machined one-piece brass body** provides strength, durability and long-lasting performance
- **Oval knurled handle** provides a secure grip and smooth on/off operation
- **Easy-to-remove handle** with screw attachment protects accidental stop operation during rough-ins
- **Compliant Multi-Turn Stops** available for California and Vermont “low-lead” requirements



**Operating Specifications:**

**Temperature:** 40° - 140° F

**Pressure:** 125 psi maximum

REVISE AND RESUBMIT SHOP DRAWING FROM  
ONE OF THE ACCEPTABLE MANUFACTURER  
INDICATED IN SPECIFICATIONS



**Standard**

| MATERIAL SPECIFICATIONS          |                             |
|----------------------------------|-----------------------------|
| <b>Valve Body</b>                | C36000 brass                |
| <b>Stem</b>                      | POM or C36000 brass*        |
| <b>Bib &amp; Packing Washers</b> | Nitrile or EPDM rubber      |
| <b>Packing Nut</b>               | C36000 brass                |
| <b>Handle</b>                    | Metal                       |
| <b>Handle Screw</b>              | Zinc-plated steel           |
| <b>Compression Sleeve</b>        | C36000 brass                |
| <b>Compression Nut</b>           | C36000 brass, chrome plated |

\*Where specified

**Compliant**

| MATERIAL SPECIFICATIONS          |                             |
|----------------------------------|-----------------------------|
| <b>Valve Body</b>                | Compliant brass             |
| <b>Stem</b>                      | POM or Compliant brass*     |
| <b>Bib &amp; Packing Washers</b> | Nitrile or EPDM rubber      |
| <b>Packing Nut</b>               | Compliant brass             |
| <b>Handle</b>                    | Metal                       |
| <b>Handle Screw</b>              | Zinc-plated steel           |
| <b>Compression Sleeve</b>        | C36000 brass                |
| <b>Compression Nut</b>           | C36000 brass, chrome plated |

**Standard Part Listing:**

- |                          |         |   |
|--------------------------|---------|---|
| <input type="checkbox"/> | R1B C   | 3/8" Nom. Sweat x 3/8" OD Compression, chrome plated              |
| <input type="checkbox"/> | R09 C   | 1/2" Nom. Sweat x 1/4" OD Compression, chrome plated              |
| <input type="checkbox"/> | R09 CBT | 1/2" Nom. Sweat x 1/4" OD Compression, chrome plated, plain trim  |
| <input type="checkbox"/> | R09 C1  | 1/2" Nom. Sweat x 1/4" OD Compression, chrome plated, window tray |
| <input type="checkbox"/> | R09 R   | 1/2" Nom. Sweat x 1/4" OD Compression, rough brass                |
| <input type="checkbox"/> | R09 R1  | 1/2" Nom. Sweat x 1/4" OD Compression, rough brass, window tray   |
| <input type="checkbox"/> | R19 C   | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated              |
| <input type="checkbox"/> | R19 CBT | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated, plain trim  |



MECHANICAL | ELECTRICAL | AQUATIC

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- |   |   |
|---|---|
| <input type="checkbox"/> Reviewed, bulk | <input type="checkbox"/> Reviewed As Noted              |
| <input type="checkbox"/> Not Reviewed   | <input checked="" type="checkbox"/> Revise and Resubmit |

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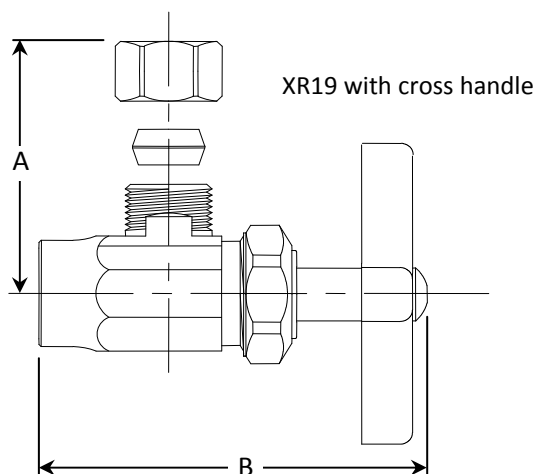
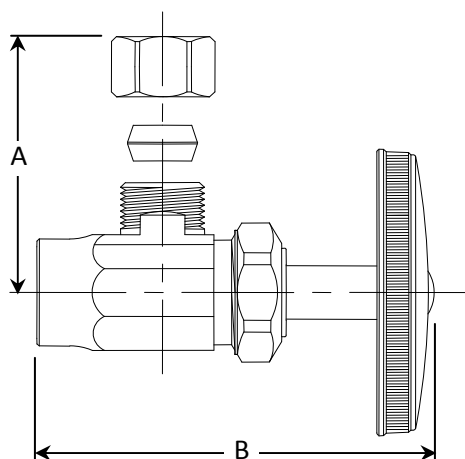
**BrassCraft®**

**~~R1B/ R09/ R19/ R39~~ Multi-Turn Angle Stop – Sweat x Compression****Standard Part Listing (con't):** **PROVIDE SCREWDRIVER STOP**

|                          |         |  |
|--------------------------|---------|--|
| <input type="checkbox"/> | R19 CD  | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated, carded         |
| <input type="checkbox"/> | R19 C1  | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated, window tray    |
| <input type="checkbox"/> | R19 R   | 1/2" Nom. Sweat x 3/8" OD Compression, rough brass                   |
| <input type="checkbox"/> | R19 RBT | 1/2" Nom. Sweat x 3/8" OD Compression, rough brass, plain tray, bulk |
| <input type="checkbox"/> | R19 R1  | 1/2" Nom. Sweat x 3/8" OD Compression, rough brass, window tray      |
| <input type="checkbox"/> | R19P C  | 1/2" Nom. Sweat x 3/8" OD Compression, pre-assembled, chrome plated  |
| <input type="checkbox"/> | R19P R  | 1/2" Nom. Sweat x 3/8" OD Compression, pre-assembled, rough brass    |
| <input type="checkbox"/> | R39 C   | 1/2" Nom. Sweat x 1/2" OD Compression, chrome plated                 |
| <input type="checkbox"/> | R39 C1  | 1/2" Nom. Sweat x 1/2" OD Compression, chrome plated, window tray    |
| <input type="checkbox"/> | R39 R   | 1/2" Nom. Sweat x 1/2" OD Compression, rough brass                   |
| <input type="checkbox"/> | XR19 C  | 1/2" Nom. Sweat x 3/8" OD Compression, cross handle, chrome plated   |
| <input type="checkbox"/> | XR19 R  | 1/2" Nom. Sweat x 3/8" OD Compression, cross handle, rough brass     |

**Compliant Part Listing:**

|                                     |         |   |
|-------------------------------------|---------|---|
| <input checked="" type="checkbox"/> | R19X C  | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated              |
| <input type="checkbox"/>            | R19X C1 | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated, window tray |
| <input type="checkbox"/>            | R19X R  | 1/2" Nom. Sweat x 3/8" OD Compression, rough brass                |
| <input type="checkbox"/>            | R19X R1 | 1/2" Nom. Sweat x 3/8" OD Compression, rough brass, window tray   |
| <input type="checkbox"/>            | R39X C1 | 1/2" Nom. Sweat x 1/2" OD Compression, chrome plated, window tray |

**REVISE AND RESUBMIT SHOP DRAWING FROM ONE OF THE ACCEPTABLE MANUFACTURER INDICATED IN SPECIFICATIONS****PART DIMENSIONS (Inches)**

| Model      | DIM. A | DIM. B |
|------------|--------|--------|
| R1B        | 1.02   | 2.56   |
| R09        | 1.02   | 2.50   |
| <b>R19</b> | 1.02   | 2.50   |
| R39        | 1.15   | 2.50   |
| XR19       | 1.02   | 2.50   |

**Listings & Certifications:**

- IAPMO listed to ASME A112.18.1-05 / CSA B125.1-05 (File # 0645)
- CSA listed to ASME A112.18.1-05 / CSA B125.1-05 (File # 204593)
- Compliant product CSA approved to California Health & Safety Code 116875 and Vermont Bill S.152 (Project # 217478)



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- |                                       |   |
|---------------------------------------|---|
| <input type="checkbox"/> Reviewed     | <input type="checkbox"/> Reviewed As Noted              |
| <input type="checkbox"/> Not Reviewed | <input checked="" type="checkbox"/> Revise and Resubmit |

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**BrassCraft®**

## For Residential and Commercial Applications

|                |  |                      |  |
|----------------|--|----------------------|--|
| Job Name       |  | Engineer / Architect |  |
| Job Location   |  | Wholesaler           |  |
| Submittal Date |  | Contractor           |  |

## ~~B1-\*\*A/ B2 \*\*A/ B3 \*\*A~~ Speedi Plumb® PLUS Braided Faucet Connector - Compression Inlet

**Use:** For use in potable water distribution systems in accessible locations only

**REVISE AND RESUBMIT SHOP DRAWING FROM ONE OF THE ACCEPTABLE MANUFACTURER INDICATED IN SPECIFICATIONS**

**Design Features:**

- **Superior corrosion resistance** to harsh chemicals found in common household cleaning and plumbing repair products
- **More flexible than stainless steel**, the braided polymer-coated fibers bend freely without kinking or crimping
- **Tough inner core** is reinforced to resist chlorine and chloramine leaching and deterioration
- **Nitrile rubber washers** provide a large pliable sealing surface and ensures a long lasting water tight connection
- **8-sided pneumatic crimp** provides greater dependability for realible nut-to-hose connections
- **100% Compliant** to California and Vermont "low-lead" requirements

**Operating Specifications:**

**Temperature:** 40° - 140° F

**Pressure:** 125 psi maximum

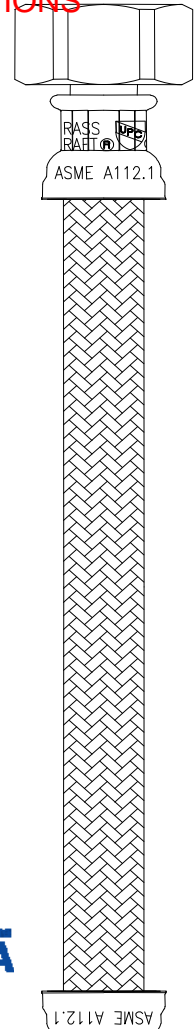
**Tubing Diameter:** 0.300" I.D. (0.550" O.D.)

| MATERIAL SPECIFICATIONS |                           |
|-------------------------|---------------------------|
| Inner Hose              | Reinforced PVC            |
| Braiding                | PVC coated polyester yarn |
| Barb                    | Compliant brass           |
| Ferrule                 | Zinc plated 1008 steel    |
| Nut                     | C36000 brass              |
| Washer                  | Nitrile rubber            |
| Compression Ring & Nut  | C36000 brass              |

**Part Listing:**

- |                                     |           |   |
|-------------------------------------|-----------|---|
| <input type="checkbox"/>            | B1-9A F   | 3/8" Compression x 1/2" F.I.P. x 9" length              |
| <input checked="" type="checkbox"/> | B1-12A F  | 3/8" Compression x 1/2" F.I.P. x 12" length             |
| <input type="checkbox"/>            | B1-16A F  | 3/8" Compression x 1/2" F.I.P. x 16" length             |
| <input type="checkbox"/>            | B1-20A F  | 3/8" Compression x 1/2" F.I.P. x 20" length             |
| <input type="checkbox"/>            | B1-20AU D | 3/8" Compression x 1/2" F.I.P. x 20" length             |
|                                     |           | 1/2" Iron Pipe valve adapters, carded                   |
| <input type="checkbox"/>            | B1-20H F  | 3/8" Compression x 1/2" F.I.P. plastic nut x 20" length |

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☐ Drawn      ☐ Reviewed As Noted  
☐ Not Reviewed      ☒ Revise and Resubmit

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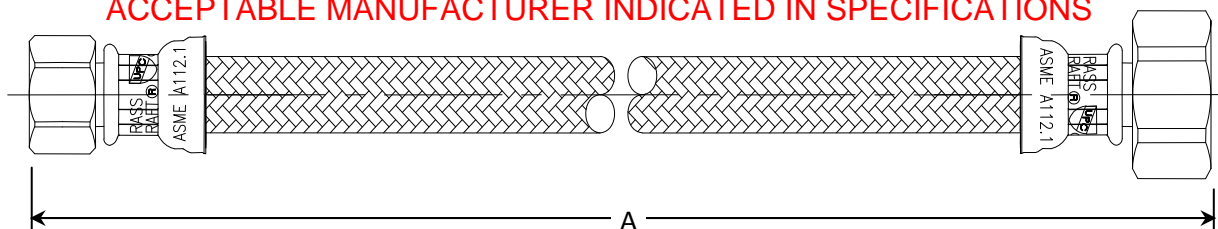


# ~~B1-\*\*A/ B2 \*\*A/ B3 \*\*A~~ Speedi Plumb® PLUS Braided Faucet Connector - Compression Inlet

## Part Listing (con't):

|                          |          |  |
|--------------------------|----------|--|
| <input type="checkbox"/> | B1-24A F | 3/8" Compression x 1/2" F.I.P. x 24" length  |
| <input type="checkbox"/> | B1-30A F | 3/8" Compression x 1/2" F.I.P. x 30" length  |
| <input type="checkbox"/> | B1-36A F | 3/8" Compression x 1/2" F.I.P. x 36" length  |
| <input type="checkbox"/> | B1-48A F | 3/8" Compression x 1/2" F.I.P. x 48" length  |
| <input type="checkbox"/> | B1-60A F | 3/8" Compression x 1/2" F.I.P. x 60" length  |
| <input type="checkbox"/> | B2-12A F | 7/16" Compression x 1/2" F.I.P. x 12" length |
| <input type="checkbox"/> | B2-16A F | 7/16" Compression x 1/2" F.I.P. x 16" length |
| <input type="checkbox"/> | B2-20A F | 7/16" Compression x 1/2" F.I.P. x 20" length |
| <input type="checkbox"/> | B3-9A F  | 1/2" Compression x 1/2" F.I.P. x 9" length   |
| <input type="checkbox"/> | B3-12A F | 1/2" Compression x 1/2" F.I.P. x 12" length  |
| <input type="checkbox"/> | B3-16A F | 1/2" Compression x 1/2" F.I.P. x 16" length  |
| <input type="checkbox"/> | B3-20A F | 1/2" Compression x 1/2" F.I.P. x 20" length  |
| <input type="checkbox"/> | B3-30A F | 1/2" Compression x 1/2" F.I.P. x 30" length  |
| <input type="checkbox"/> | B3-36A F | 1/2" Compression x 1/2" F.I.P. x 36" length  |

REVISE AND RESUBMIT SHOP DRAWING FROM ONE OF THE  
ACCEPTABLE MANUFACTURER INDICATED IN SPECIFICATIONS



| PART DIMENSIONS (Inches) |             |
|--------------------------|-------------|
| Model                    | DIM. A      |
| B1-9A                    | 9.0 / 10.0  |
| <b>B1-12A</b>            | 12.0 / 13.0 |
| B1-16A                   | 16.0 / 17.0 |
| B1-20A                   | 20.0 / 21.0 |
| B1-30A                   | 30.0 / 31.0 |
| B1-36A                   | 36.0 / 37.0 |

| PART DIMENSIONS (Inches) |             |
|--------------------------|-------------|
| Model                    | DIM. A      |
| B1-48A                   | 48.0 / 49.0 |
| B1-60A                   | 60.0 / 61.0 |
| B2-12A                   | 12.0 / 13.0 |
| B2-16A                   | 16.0 / 17.0 |
| B2-20A                   | 20.0 / 21.0 |
| B3-9A                    | 9.0 / 10.0  |

| PART DIMENSIONS (Inches) |             |
|--------------------------|-------------|
| Model                    | DIM. A      |
| B3-12A                   | 12.0 / 13.0 |
| B3-16A                   | 16.0 / 17.0 |
| B3-20A                   | 20.0 / 21.0 |
| B3-30A                   | 30.0 / 31.0 |
| B3-36A                   | 36.0 / 37.0 |

## Listings & Certifications:

- IAPMO listed to ASME A112.18.6-2003 (File # 0452)
- CSA listed to ASME A112.18.6-2003 / CSA B125 (File # 2045931)
- CSA approved to California Health & Safety Code 116875.8 Vermont Bill S.152 (Project # 2174785)

**DEI Consulting Engineers**

MECHANICAL ELECTRICAL PLUMBING

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☐ Reviewed

☐ Reviewed As Noted

☐ Not Reviewed

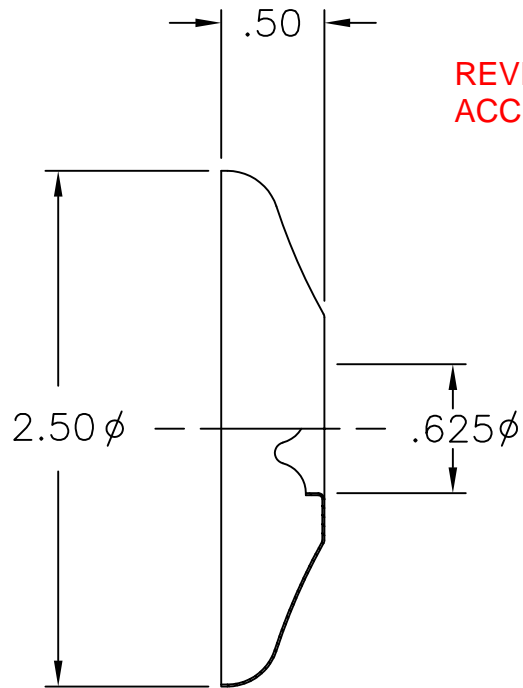
☒ Revise and Resubmit

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**BrassCraft®**

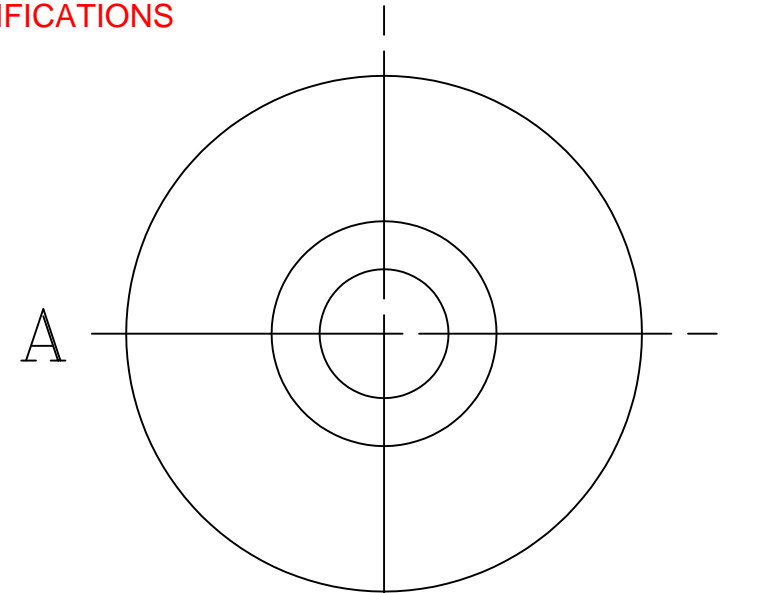
| LET. | DATE    | PER | BY  | CHANGE            |
|------|---------|-----|-----|-------------------|
| B    | 6/22/07 | ROL | KAK | REVISED & UPDATED |

REVISE AND RESUBMIT SHOP DRAWING FROM ONE OF THE  
ACCEPTABLE MANUFACTURER INDICATED IN SPECIFICATIONS



SECTION A-A

| ITEM ID | FINISH            |
|---------|-------------------|
| 649     | STAINLESS STEEL   |
| 649 A   | ANTIQUE BRASS     |
| 649 BS  | BISCUIT           |
| 649 BZ  | OIL RUBBED BRONZE |
| 649 NS  | SATIN NICKEL      |
| 649 P   | POLISHED BRASS    |
| 649 W   | WHITE             |



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☐ Reviewed
 ☐ Reviewed As Noted
 ☐ Not Reviewed
 ☒ Revise and Resubmit

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NOVI, MICHIGAN

ALL GDT PER ANSI STD Y14.5M  
CLASSIFICATION OF QUALITY LEVELS

| CLASS                                   | SYMBOL |
|---|--------|
| KPC (KEY PRODUCT CHARACTERISTICS)       | ◇      |
| STPC (STANDARD PRODUCT CHARACTERISTICS) | △      |
| PRODUCT MARKINGS                        | ○      |

#### DESCRIPTION

1/2 NOM (5/8 OD) SHALLOW  
FLANGE (SUBMITTAL)

|          |            |
|----------|------------|
| DRAWN    | DATE:      |
| PERNAK   | 08/29/2003 |
| CHK'D.   | DATE:      |
| Learmont | 06/22/2007 |
| APP'D.   | DATE:      |

#### MATERIAL

#### VOLUME

NOTE: UNLESS OTHERWISE SPECIFIED  
TWO PLACE DECIMALS +/-.010  
THREE PLACE DECIMALS +/-.005  
ANGULARITY +/-.1°

#### DRAWING NO.

MPG0139B

#### ITEM DESCRIPTION

649

#### ITEM ID

SEE CHART



SIZE

#### UNITS

INCH

SCALE:  
(UNLESS NOTED)

FULL

#### REV.

B





### LUCERNE™ WALL-HUNG LAVATORY

- Wall-hung sink
- Vitreous china
- Front overflow
- D-shaped bowl
- Self-draining deck area with contoured back and side splash shields
- Faucet ledge
- Compliant with Texas accessibility standard (TAS) for children age group 13 and up

#### Faucet holes on 203mm (8") centers (Illus.):

- ☐ **0356.028** For exposed bracket support  
Shown with 4801.862 Amarilis Heritage faucet with Triune Cross handles (not included)
- ☐ **0356.015** For wall hanger (included) or concealed arms support
- ☐ **0356.915** For wall hanger (included) or concealed arms support
  - Less overflow

#### Faucet holes on 102mm (4") centers:

- ☐ **0355.027** For exposed bracket support
- ☒ **0355.012** For wall hanger (included) or concealed arms support
- ☐ **0355.912** For wall hanger (included) or concealed arms support
  - Less overflow

#### Single center faucet hole (Illus.):

- ☐ **0356.041** For exposed bracket support  
Shown with 1340.000 metering faucet (not included)
- ☐ **0356.421** For wall hanger (included) or concealed arms support
- ☐ **0356.921** For wall hanger (included) or concealed arms support
  - Less overflow
- ☐ **0356.439** For wall hanger (included) or concealed arms support
  - Single faucet hole on right
- ☐ **0356.066** For exposed bracket support
  - Single faucet hole on right

#### Nominal Dimensions:

521 x 464mm  
(20-1/2" x 18-1/4")

#### Bowl sizes:

381mm (15") wide  
254mm (10") front to back  
165mm (6 1/2") deep

**Complies with or Exceeds the Following Specifications:**

- ASME A112.19.2 / CSA B43.1 for Vitreous China Fixtures

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- |                                       |   |
|---------------------------------------|---|
| <input type="checkbox"/> Reviewed     | <input checked="" type="checkbox"/> Reviewed As Noted |
| <input type="checkbox"/> Not Reviewed | <input type="checkbox"/> Revise and Resubmit          |



**0356.028**



**0356.041**

SEE FOLLOWING PAGES FOR ROUGHING-IN DIMENSIONS

#### To Be Specified:

- ☒ Color: White
- ☐ Faucet\*:
- ☐ Faucet Finish:
- ☐ Supplies:
- ☐ 1-1/4" Trap:
- ☐ Nipple:
- ☐ Bracket Support (by others):
- ☐ Concealed Arms Support (by others):

**PROVIDE SUBMITTAL FOR FLOOR MOUNTED WALL CARRIER**

\* See faucet section for additional models available



**MEETS THE AMERICANS WITH DISABILITIES ACT GUIDE-LINES AND ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES - CHECK LOCAL CODES.**  
Top of front rim mounted 864mm (34") from finished floor.

M37

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spec\_0355-0356 Lucerne WallHung Lavs Rev. A 8/16

*American  
Standard*

PROVIDE SUBMITTAL FOR FLOOR  
MOUNTED WALL CARRIER

**LUCERNE™**  
**WALL-HUNG LAVATORY**  
VITREOUS CHINA

 BARRIER FREE

**0356.028** 8" CTRS FOR EXPOSED BRACKET SUPPORT

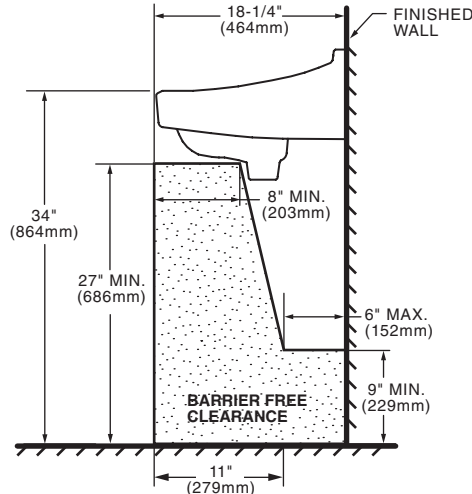
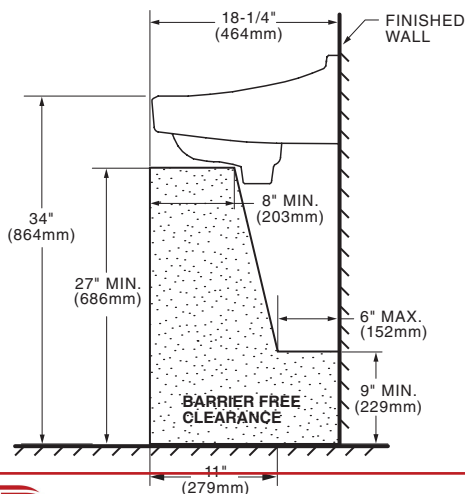
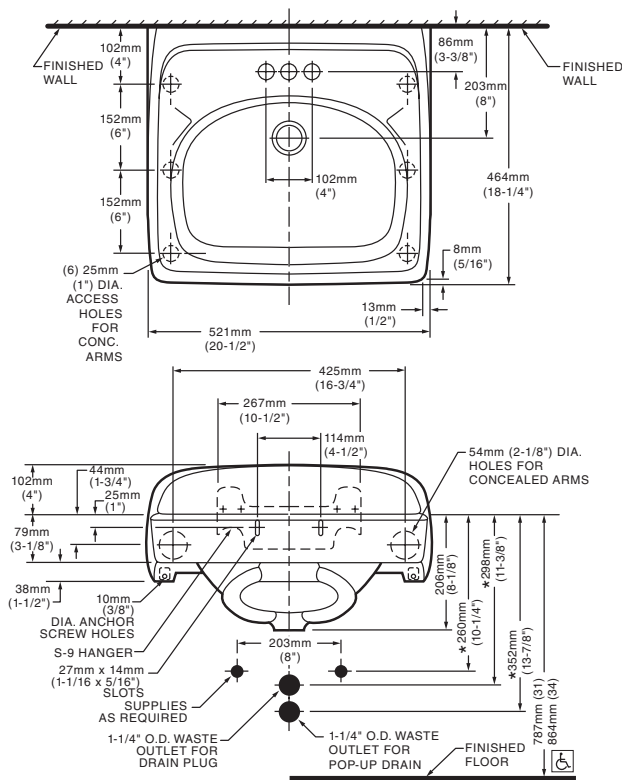
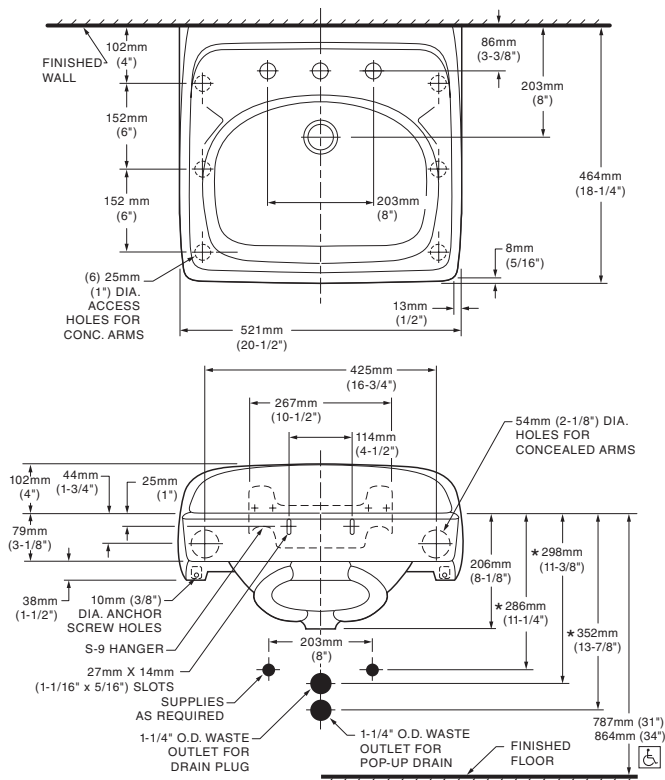
**0356.015** 8" CTRS FOR WALL HANGER  
OR CONCEALED ARMS

**0356.915** LESS OVERFLOW

**0355.027** 4" CTRS FOR EXPOSED BRACKET SUPPORT

**0355.012** 4" CTRS FOR WALL HANGER OR  
CONCEALED ARMS

**0355.912** LESS OVERFLOW



**DEI Consulting Engineers**

MECHANICAL ELECTRICAL PLUMBING

NOTES: 1. DIMENSIONS SHOWN FOR LOCATION OF SUPPLIES AND "P" TRAP ARE SUGGESTED. 2. FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY. 3. CONCEALED ARM SUPPORT AS REQUIRED TO BE FURNISHED BY OTHERS.

This review by DEI Consulting Engineers Inc. is for the sole purpose of ascertaining conformance with the minimum requirements of the International Plumbing Code (IPC) and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages. In the shop drawings, responsibility shall not relieve the contractor of his responsibility for errors or omissions in the construction and contract documents. For meeting all requirements of the construction and contract documents.

☐ Reviewed ☒ Reviewed As Noted  
☐ Not Reviewed ☐ Revise and Resubmit

PART OF L1X11

M38

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spec\_0355-0356 Lucerne WallHung Lavs Rev. A 8/16

**TECK®****591TF Series****Electronic Faucet with Surface Mount Control**

QUOTED AS PER MODEL # SPECIFIED, IF HARDWIRED  
FAUCET IS REQUIRED, PLEASE ADVISE BEFORE  
ORDERING

**SPECIFICATION:** (Example - 591TF0220)

- Supplied as complete product
- H<sub>2</sub>Optics® Technology** – no external adjustments required
- Chrome-plated **CAST** 4" (102 mm) spout with integral sensor
- Metal hold-down package
- Hardwire Operated** (24 VAC) infrared electronic handwash system
- Laminar outlet - 1.5 gpm (5.7 L/min)
- Adjustable sensing range and timeout
- Surface mount housing
- Mixing valve required (order separately)
- Serviceable filter screen upstream of the valve

**AVAILABLE CONFIGURATIONS:**

- Battery Operated** (4 "C" cell) – supplied as complete
- Hardwire Operated** (24 VAC) – supplied as complete
- Outlets**
  - Laminar outlet - 1.5 gpm (5.7 L/min)
  - Laminar outlet - 0.5 gpm (1.9 L/min)
  - Spray outlet - 0.35 gpm (1.32 L/min)

**MODEL NUMBER EXAMPLE:**

Configurations vary, see below for availability.

**5 9 1 T F 1 2 5 0****Power Supply**

0 = Hardwire operated

1 = Battery operated

**Outlet**

2 = Laminar outlet

5 = Laminar outlet

9 = Spray outlet

1.5 gpm (5.7 L/min)

0.5 gpm (1.9 L/min)

0.35 gpm (1.32 L/min)

PROVIDE HARDWIRED FAUCET

| Available Models |  | Power Supply            |  |                         |   |
|------------------|--|-------------------------|--|-------------------------|---|
|                  |  | 0 = Hardwire Operated   |  | 1 = Battery Operated    |   |
|                  |  | Deckmount Hi-Rise Spout |  | Deckmount Hi-Rise Spout |   |
| <b>Outlet</b>    | <b>2</b> Laminar outlet<br>1.5 gpm (5.7 L/min) | 591TF0220               |  | 591TF1220               |   |
|                  | <b>5</b> Laminar outlet<br>0.5 gpm (1.9 L/min) | 591TF0250               |  | 591TF1250               | ✓ |
|                  | <b>9</b> Spray outlet<br>0.35 gpm (1.32 L/min) | 591TF0290               |  | 591TF1290               |   |

**DEI Consulting Engineers**  
MECHANICAL | ELECTRICAL | AQUATIC

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**Engineer/Architect Approval**

Model Specified:

Approval:

Date:

☐ Reviewed☐ Reviewed As Noted☐ Not Reviewed☒ Revise and Resubmit

Watersense® is a registered trademark of the U.S. Environmental Protection Agency

Delta Faucet reserves the right (1) to make changes in specifications and materials, and (2) to change or discontinue models, both without notice or obligation. Dimensions are for reference only. See current full-line price book or [www.specselect.com](http://www.specselect.com) for finish options and product availability.

**NOTICE** Flow Rates are at 60 PSI.  
Use all pages as product submittal sheets.

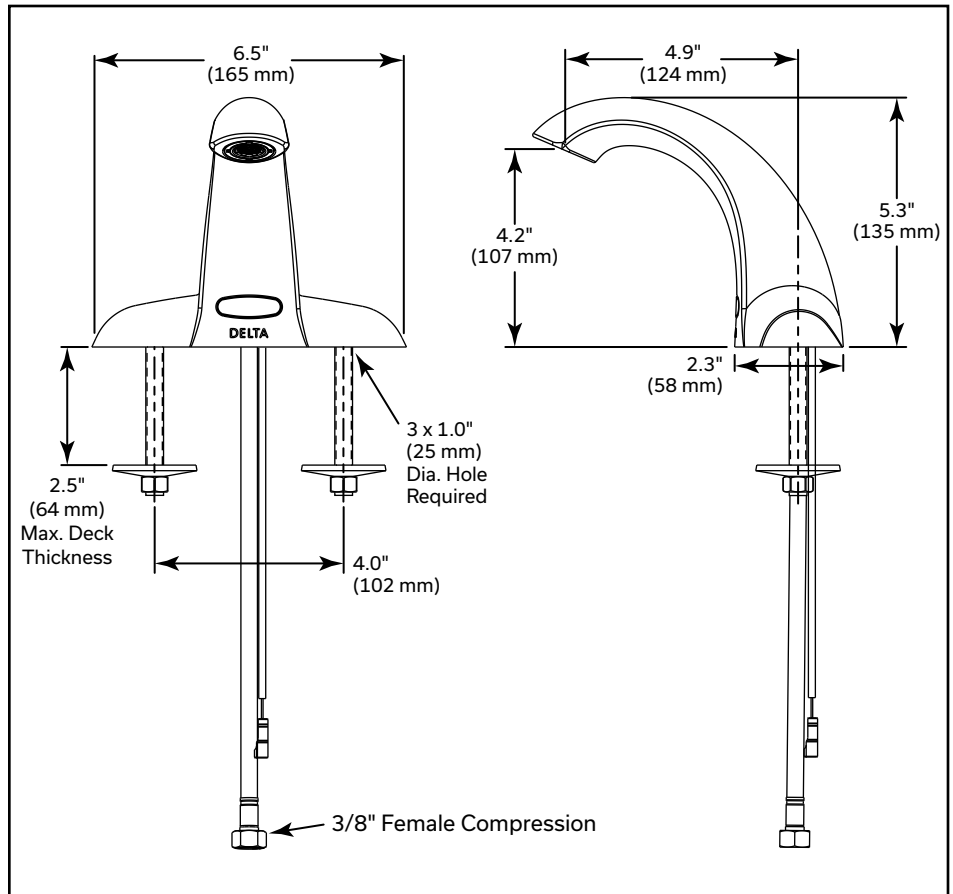
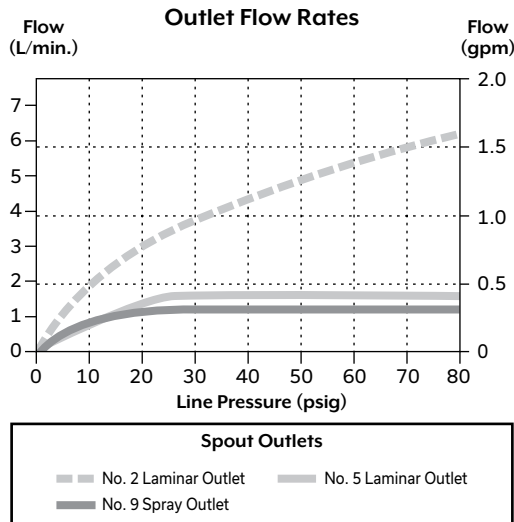
**DSP-591TFCB0, Rev A**

**TECK®****591TF Series****Electronic Faucet with Surface Mount Control****COMMERCIAL****APPROVALS:**

- Complies to ASME A112.18.1/CSA B125.1
- Indicates compliance to ICC / ANSI A117.1
- Outlet options 2 is EPA WaterSense® listed
- Verified compliant with 0.25% weighted average Pb content regulations

**AVAILABLE OPTIONS FOR FIELD CONVERSION** *(Sold Separately)*

- ☐ **063268A - Battery backup assembly for surface mount box** *(Batteries included)*  
See DSP-BBBox for detailed specification.
- ☐ **063266A - Plug-in power supply**
- ☐ **061406A - Plug-In with Battery Backup**
- ☐ **060704A - 120 to 24 VAC - Class 2 - 20 VA**  
(Up to 5 Electronic Valves)
- ☐ **060771A - 120 to 24 VAC - Class 2 - 40 VA**  
(Up to 10 Electronic Valves)
- ☐ **061256A - 36" Sensor Cable Extension**
- ☐ **063272A - Ganging cable**
- ☐ **062032A - Polymer Braided Hose**
- ☐ **060651A - 3 Position Switch**  
See DSP-ELACC for detailed specification.

**PROVIDE HARDWIRED FAUCET****NOTICE** Measurements may vary  $\pm 0.25"$  (6mm)

**DEI Consulting Engineers**

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| <input type="checkbox"/> Reviewed     | <input type="checkbox"/> Reviewed As Noted              |
| <input type="checkbox"/> Not Reviewed | <input checked="" type="checkbox"/> Revise and Resubmit |

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Flow Rates are at 60 PSI.

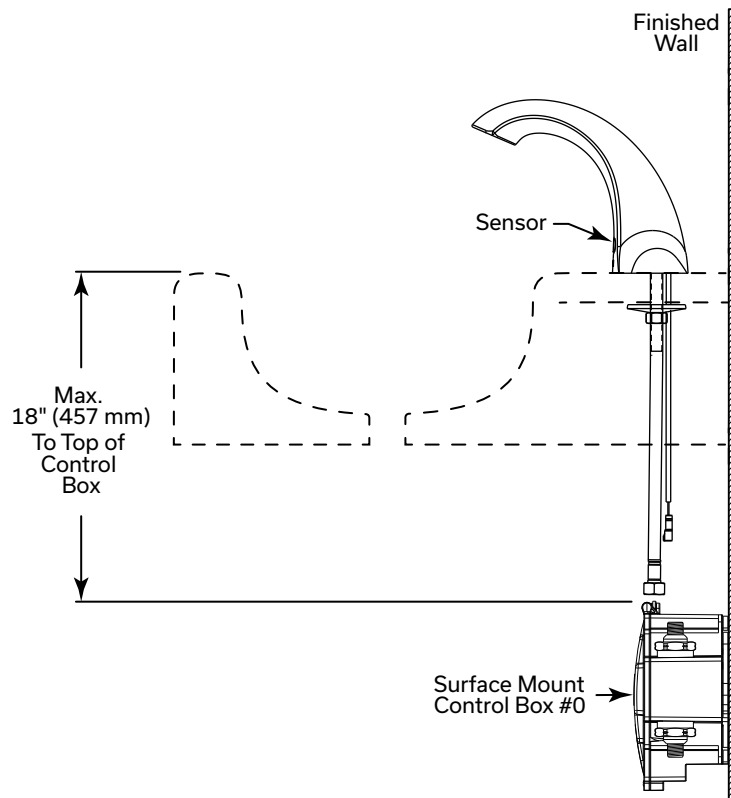
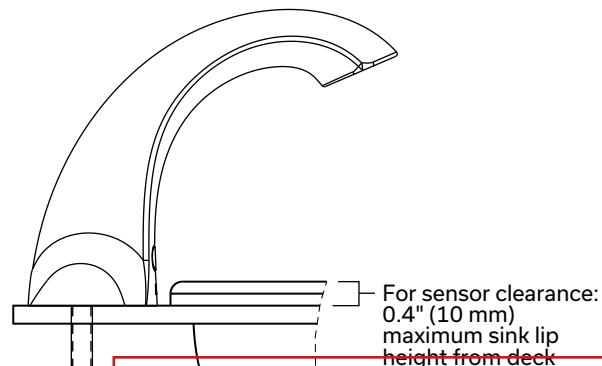
**NOTICE** Use all pages as product submittal sheets.**DSP-591TFCB0, Rev A**

**TECK®****591TF Series****Electronic Faucet with Surface Mount Control****COMMERCIAL****OPERATION:**

- Hands free (touchless) operation.
- Water flows when sensor is activated.
- Water flow stops upon de-activation of sensor.
- Adjustable auto shut-off feature. Factory set to 45 seconds. Will reset once obstruction is removed.
- Adjustable sensing distance 3" to 15" (76 to 381mm) factory set to 9"  $\pm$  3.0" (229 mm  $\pm$  76 mm)
- Low battery audible beep (for battery models only) will activate after faucet shuts off when approximately 1500 cycles remain.
- Metering mode with selectable flow times of 7 seconds to 4 minutes, factory set off.
- Periodic Rinse feature, time adjustable in 6 hour increments up to 2 days. Selectable rinsing lengths from 10 to 180 seconds. Factory set off.

**NOTICE**

- **#1** - For optimum performance of this product, we recommend a system pressure between 20 and 80 Psi (138 and 552 kPa) static. This product will operate up to a maximum of 125 Psi (862 kPa) static per ANSI and CSA requirements. However, we do not recommend pressures above 80 Psi (552 kPa). Thermal expansion or leaking pressure reducing valves may require use of expansion tanks or relief valves to ensure your system never exceeds its maximum intended pressure setting.
- **#2** - Designed for routine 171°F (77°C) disinfection cycles up to 30 minutes.

**PROVIDE HARDWIRED FAUCET****TYPICAL INSTALLATION****SENSOR CLEARANCE**

**DEI Consulting Engineers**  
MECHANICAL | ELECTRICAL | AQUATIC

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☐ Reviewed

☐ Reviewed As Noted

☐ Not Reviewed

☒ Revise and Resubmit



**TECK®**

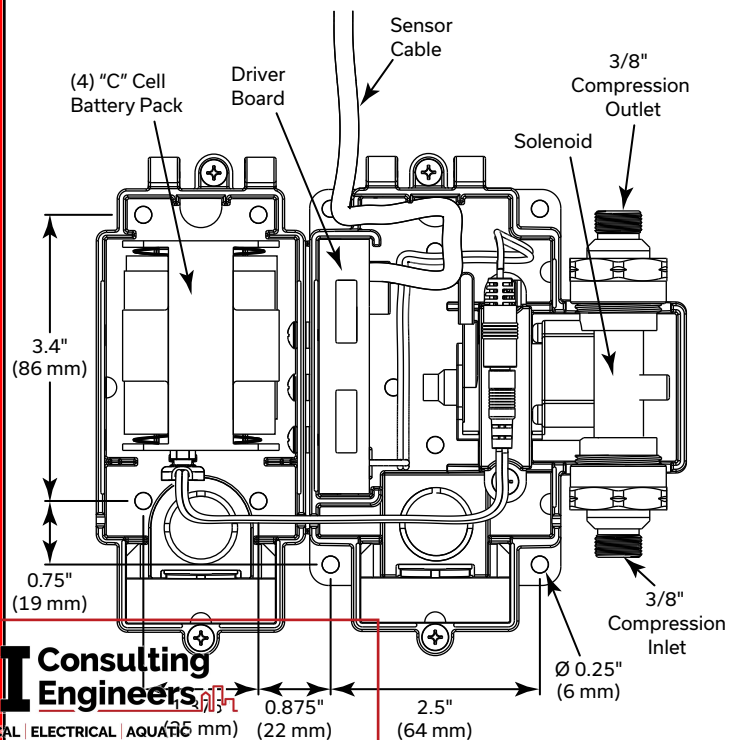
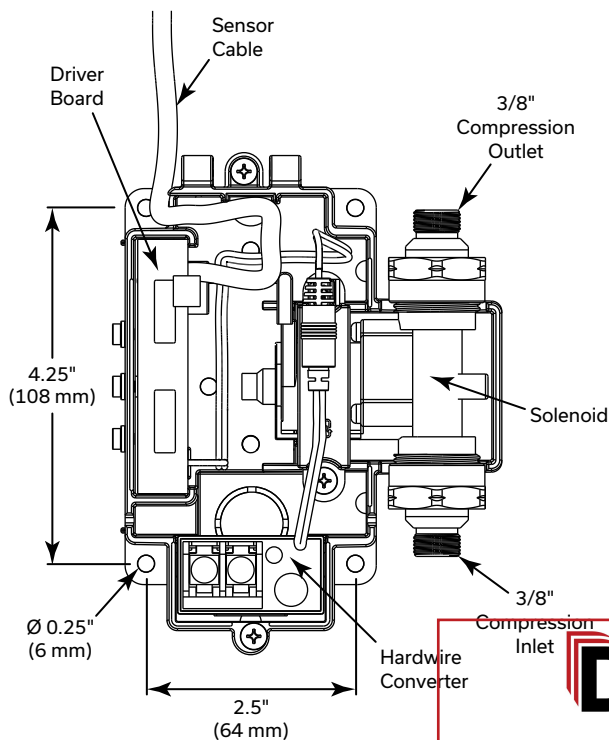
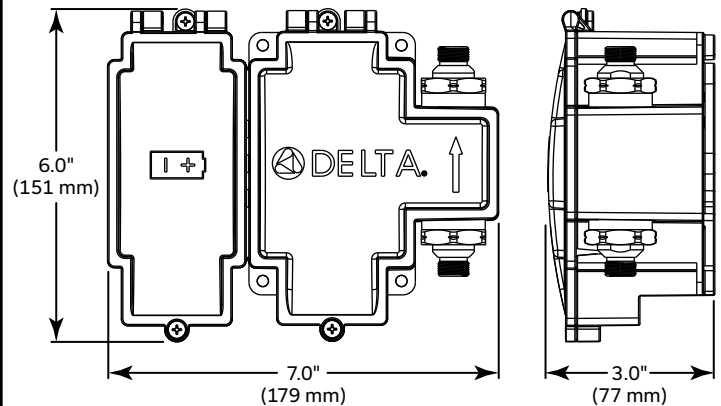
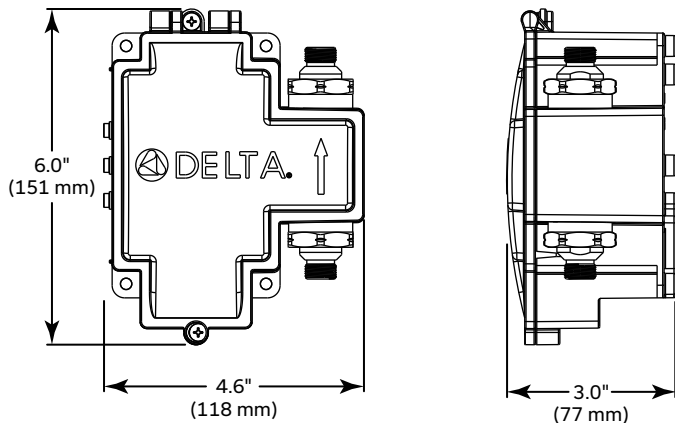
PROVIDE HARDWIRED FAUCET

**COMMERCIAL****591TF Series****Electronic Faucet with Surface Mount Control****SURFACE MOUNT CONTROL CONFIGURATIONS****Hardwire Operated**

- Supplied as complete product
- **H<sub>2</sub>Optics®** Technology – no external adjustments required
- **Hardwire Operated** (24 VAC) infrared electronic handwash system
- Watertight Connector
- Hardwire Converter 24 VAC to 6.4 VDC.
- Surface mount housing
- Serviceable filter screen upstream of the valve
- Mixing valve required (order separately)

**Battery Operated**

- Supplied as complete product
- **H<sub>2</sub>Optics®** Technology – no external adjustments required
- **Battery Operated** (4 "C" cell) infrared electronic handwash system
- Watertight Connector
- Surface mount housing
- Serviceable filter screen upstream of the valve
- Mixing valve required (order separately)



**DEI Consulting Engineers Inc.**  
MECHANICAL | ELECTRICAL | PLUMBING

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☐ Reviewed  
☐ Not Reviewed  
☐ Reviewed As Noted  
☒ Revise and Resubmit

**NOTICE**

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Flow Rates are at 60 PSI.

**DSP-591TFCB0, Rev A**

## Product Specification

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# LEAD FREE\*

## HYDROGUARD®

### Series LFLM495

#### Thermostatic Mixing Valves for Lavatory Installations

#### Features

- Temperature control to ASSE 1069, 1070 and 1017 down to 0.5 gpm
- Advanced thermal actuator improves performance at low flow
- Lead Free\* cast copper silicon alloy body construction for durability and to comply with Lead Free\* requirements
- Adjustable temperature selection with lock down
- Union connections for easy maintenance
- Integral checks and screen prevents cross-flow and contamination
- Available in 1/2", 3/4", 1" (15, 20, 25 mm) with NPT, Sweat, PEX, Quick-Connect, CPVC union connections and w/press

#### Specifications

**Temperature Adjustment:** 80°- 120°F (27°C to 49°C)

**Approach Temperature:** 5°F (3°C) above set point

**Max. Operating Pressure:** 125 psi (861 kPa)

**Max. Hot Water Temperature:** 200°F (93°C)

**Max. Pressure Differential between**
**Hot & Cold Water Supplies:** 25%

**Minimum Flow:** 0.5 gpm (1.90 lpm) when tested in accordance with ASSE 1017-2003

**Check Valves:** Integral

**Construction:** Lead Free\* Cast copper silicon alloy body

**Listing:** ASSE 1069, ASSE 1070, ASSE 1017, IAPMO cUPC, and NSF372

**Viagra Pro-Press™ connections are optional factory installed fitting on each end of the approved/certified assembly**

#### Capacity

| Pressure Drop Across The Valve |                   |                   |                   |                   |
|--------------------------------|-------------------|-------------------|-------------------|-------------------|
| (Cv) 1 gpm (3.8 lpm)           | 15 psi (1.05 kPa) | 30 psi (2.07 kPa) | 45 psi (3.10 kPa) | 60 psi (4.14 kPa) |
| <b>MECHANICAL</b>              | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) |
| <b>ELECTRICAL</b>              | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) |
| <b>AQUATIC</b>                 | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) |
| <b>1/2" (15.2 mm)</b>          | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) |
| <b>3/4" (19.1 mm)</b>          | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) |
| <b>1" (25.4 mm)</b>            | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) | 1.0 gpm (3.8 lpm) |

This review by DEI Consulting Engineers Inc. is for the sole purpose of ascertaining conformity with the ASSE 1017-2003 standard. It does not mean that DEI Consulting Engineers Inc. bears any responsibility for the design or construction of the product. Responsibility for the design and construction of the product shall remain with the contractor submitting same, and such review shall not relieve the contractor of his responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the construction and contract documents.

☒ Reviewed

☐ Reviewed As Noted

☐ Not Reviewed

☐ Revise and Resubmit

Powers product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Powers Technical Service. Powers reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Powers products previously or subsequently sold.



| UNION CONNECTIONS |           |                   |
|-------------------|-----------|-------------------|
| Female NPT        | 1/2" (15) | LFLM495-1         |
|                   | 3/4" (20) | LFLM496-1         |
|                   | 1" (25)   | LFLM497-1         |
| Sweat             | 1/2" (15) | LFLM495-2         |
|                   | 3/4" (20) | LFLM496-2         |
|                   | 1" (25)   | LFLM497-2         |
| CPVC              | 1/2" (15) | LFLM495-3         |
|                   | 3/4" (20) | LFLM496-3         |
|                   | 1" (25)   | LFLM497-3         |
| PEX               | 1/2" (15) | LFLM495-4         |
|                   | 3/4" (20) | LFLM496-4         |
|                   | 1" (25)   | LFLM497-4         |
| Quick-Connect     | 1/2" (15) | LFLM495-5         |
|                   | 3/4" (20) | LFLM496-5         |
|                   | 1" (25)   | LFLM497-5         |
| w/Press           | 1/2" (15) | LFLM495-1 w/press |
|                   | 3/4" (20) | LFLM496-1 w/press |
|                   | 1" (25)   | LFLM497-1 w/press |

#### ⚠ WARNING

When used in an ASSE 1017 application at the hot water source, the Powers Thermostatic Mixing Valve Series LFLM495 cannot be used by itself to control final temperature at fixtures where ASSE Standard 1016 or ASSE Standard 1070 listed devices are required. Such use may result in severe bodily injury (i.e. scalding or chilling) and/or death. ASSE Standard 1016, ASSE 1069 or ASSE Standard 1070 listed devices, such as Powers Series LFe480 or LFLM495, should be used at point-of-use to prevent possible injury. Consult all product manuals, and instruction guides before installing any referenced product.

Recirculation systems should recirculate water at temperatures over 140°F to reduce the risk of bacterial growth in the piping. This valve should not be used at the hot water source in recirculation systems.

#### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

**POWERS™**  
A WATTS Brand

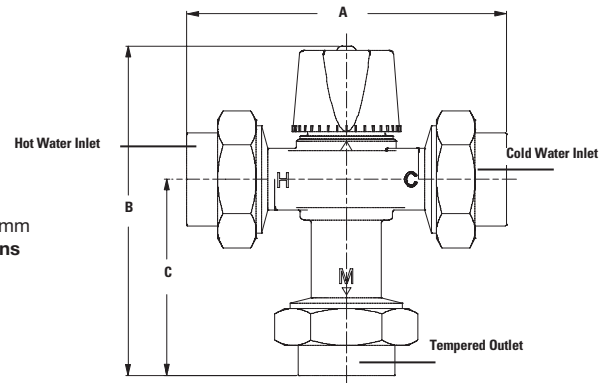


## Dimensions

| MODEL<br>CONNECTIONS | LFLM495-1<br>1/2" NPT<br>FEMALE | LFLM496-1<br>3/4" NPT<br>FEMALE | LFLM497-1<br>1" NPT<br>FEMALE | LFLM495-2<br>1/2" SWEAT | LFLM496-2<br>3/4" SWEAT | LFLM497-2<br>1" SWEAT | LFLM495-3<br>1/2" CPVC | LFLM496-3<br>3/4" CPVC | LFLM497-3<br>1" CPVC | LFLM495-4<br>1/2" PEX | LFLM496-4<br>3/4" PEX | LFLM497-4<br>1" PEX |
|----------------------|---------------------------------|---------------------------------|-------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|----------------------|-----------------------|-----------------------|---------------------|
| "A"                  | 4-7/8<br>(124mm)                | 4-7/8<br>(124mm)                | 5-5/16<br>(135mm)             | 4-13/16<br>(123mm)      | 5-5/16<br>(135mm)       | 5-13/16<br>(148mm)    | 4-3/4<br>(121mm)       | 5-1/4<br>(133mm)       | 5-11/16<br>(144mm)   | 5-1/4<br>(133mm)      | 5-1/2<br>(140mm)      | 5-7/8<br>(149mm)    |
| "B"                  | 5-7/16<br>(137mm)               | 5-7/16<br>(137mm)               | 5-5/8<br>(143mm)              | 5-3/8<br>(137mm)        | 5-5/8<br>(143mm)        | 5-7/8<br>(149mm)      | 5-5/16<br>(136mm)      | 5-9/16<br>(142mm)      | 5-13/16<br>(147mm)   | 5-9/16<br>(142mm)     | 5-11/16<br>(145mm)    | 5-7/8<br>(150mm)    |
| "C"                  | 3-3/16<br>(80mm)                | 3-3/16<br>(80mm)                | 3-3/8<br>(86mm)               | 3-1/8<br>(80mm)         | 3-3/8<br>(86mm)         | 3-5/8<br>(92mm)       | 3-1/16<br>(79mm)       | 3-5/16<br>(85mm)       | 3-9/16<br>(90mm)     | 3-5/16<br>(85mm)      | 3-7/16<br>(88mm)      | 3-5/8<br>(93mm)     |

| MODEL<br>CONNECTIONS | LFLM495-5<br>1/2"<br>QUICK-<br>CONNECT | LFLM496-5<br>3/4"<br>QUICK-<br>CONNECT | LFLM497-5<br>1"<br>QUICK-<br>CONNECT |
|----------------------|--|--|--------------------------------------|
| "A"                  | 6-5/8<br>(168mm)                       | 6-15/16<br>(177mm)                     | 7-1/8<br>(181mm)                     |
| "B"                  | 6-1/4<br>(159mm)                       | 6-7/16<br>(163mm)                      | 6-1/2<br>(165mm)                     |
| "C"                  | 4<br>(102mm)                           | 4-3/16<br>(106mm)                      | 4-1/4<br>(108mm)                     |

Note:  
Dimensions are shown  $\pm 1/4"$   
Dimensions in brackets are in mm  
**Consult factory for dimensions  
w/press**



## Ordering Information

**Model LFLM49**  
**(80° - 120°F)**  
**(27° - 49°C)**

5 - 1

### Valve

|                |   |
|----------------|---|
| 1/2" . . . . . | 5 |
| 3/4" . . . . . | 6 |
| 1" . . . . .   | 7 |

### Inlets

|                            |           |
|----------------------------|-----------|
| Union NPT Female . . . . . | 1         |
| Union Sweat . . . . .      | 2         |
| Union CPVC . . . . .       | 3         |
| Union PEX . . . . .        | 4         |
| Quick-Connect . . . . .    | 5         |
| w/press . . . . .          | 1-w/press |

**DEI Consulting Engineers**  
MECHANICAL | ELECTRICAL | AQUATIC

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☒ Reviewed ☐ Reviewed As Noted  
☐ Not Reviewed ☐ Revise and Resubmit

## Typical Specification

Thermostatic tempering valve shall be constructed using Lead Free\* cast copper silicon alloy material which shall comply with state codes and standards, where applicable requiring reduced lead content. The valve shall feature advanced paraffin-based actuation technology and union connections for ease of maintenance. All internal components shall be corrosion-resistant. Valve shall feature integral checks to prevent cross-flow and inlet screens to filter out debris. The valve shall be ASSE 1069, ASSE 1070, ASSE 1017 and IAPMO cUPC listed. Capacity of the valve shall be 12.0 gpm (45.0 lpm) at 45psi (310 kPa) differential. Valve shall perform to a minimum flow of 0.5 gpm (2 lpm) to ASSE 1070. Control temperature shall be adjustable between 80°F - 120°F (27 - 49°C). The

valve shall feature a vandal-resistant lockable handle to prevent tampering. The valve shall be a Powers' HydroGuard® Model LFLM495 (1/2", 15mm), LFLM496 (3/4", 20mm), LFLM497 (1", 25mm). Any alternate must have a written approval prior to bidding.

**POWERS™**  
**A WATTS Brand**

USA: Tel: (800) 669-5430 • Fax: (847) 229-0526 • PowersControls.com

Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • PowersControls.ca

Latin America: Tel: (52) 81-1001-8600 • Fax: (52) 81-8000-7091 • PowersControls.com



L-2

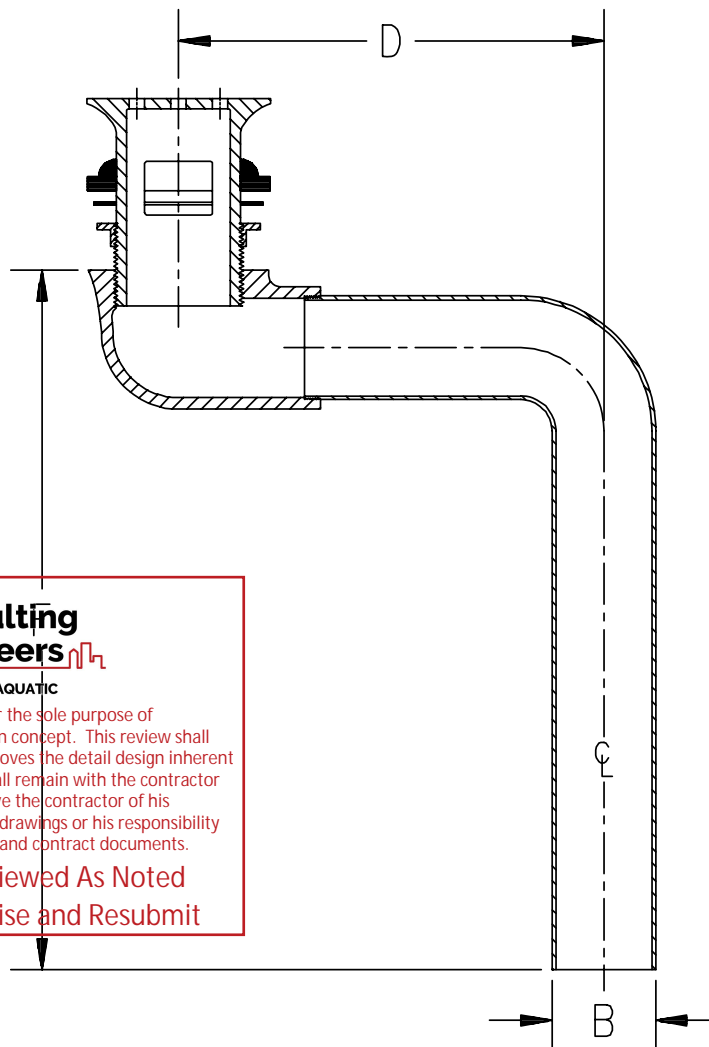
# OFFSET LAVATORY STRAINERS ADA COMPLIANT

Z8746-PC

TAG \_\_\_\_\_



**Engineering Specification:** Zurn Z8746-PC – Chrome plated cast brass open grid drain strainer, and chrome plated cast brass elbow. Furnished with 1-1/4[32] 17 gauge, chrome plated tubular brass offset tailpiece for sink depth to 2-1/2[57].



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Note: All dimensions are for reference only. Do not use for pre-plumbing

| PRODUCT<br>NUMBER | B<br>OUTLET | DIMENSIONS |            | MASTER<br>CARTON | WEIGHT<br>CARTON |
|-------------------|-------------|------------|------------|------------------|------------------|
|                   |             | D          | F          |                  |                  |
| ✓ Z8746-PC        | 1-1/4[32]   | 5-1/8[130] | 8-3/4[222] | 24               | 40               |

## OPTIONAL ACCESSORIES

| Suffix   | Description |
|----------|-------------|
| ____-NOF | No Overflow |

ZURN INDUSTRIES, LLC ♦ COMMERCIAL BRASS OPERATION ♦ 2640 SOUTH WORK STREET ♦ FALCONER NY 14733

Phone: 1-800-997-3876 ♦ Fax: 1-919-775-3541 ♦ www.zurn.com

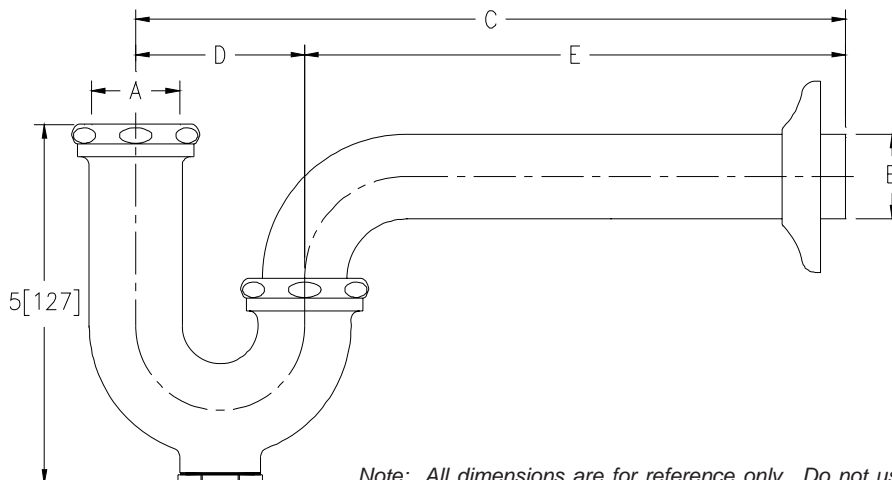
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292



L-2

**SEMI-CAST P-TRAPS WITH WALL BEND****Z8700-PC TO Z8708-PC  
TAG**

**Engineering Specification:** Zurn Z8700-PC to Z8708-PC. – Chrome-plated cast brass (copper alloy) body P-trap with cleanout, tubular brass wall bend as specified, die-cast nuts, and shallow escutcheon with compression inlet.



Note: All dimensions are for reference only. Do not use for pre-plumbing.

| PRODUCT NUMBER  | A INLET in[mm] | B OUTLET in[mm] | GAUGE | DIMENSIONS  |           |             | MASTER CARTON | WEIGHT CARTON [lbs] |
|-----------------|----------------|-----------------|-------|-------------|-----------|-------------|---------------|---------------------|
|                 |                |                 |       | C in[mm]    | D in[mm]  | E in[mm]    |               |                     |
| <b>Z8700-PC</b> | 1 1/4[32]      | 1 1/4[32]       | 17    | 10[254]     | 2 1/2[64] | 7 1/2[191]  | 12            | 24                  |
| Z8700-8-PC      | 1 1/4[32]      | 1 1/4[32]       | 17    | 11[279]     | 2 1/2[64] | 8 1/2[216]  | 12            | 24                  |
| Z8700-15-PC     | 1 1/4[32]      | 1 1/4[32]       | 17    | 15[381]     | 2 1/2[64] | 12 1/2[318] | 18            | 40                  |
| Z8701-PC        | 1 1/4[32]      | 1 1/2[38]       | 17    | 10 1/2[267] | 3[76]     | 7 1/2[191]  | 12            | 24                  |
| Z8701-9-PC      | 1 1/4[32]      | 1 1/2[38]       | 17    | 12[305]     | 3[76]     | 9[229]      | 12            | 24                  |
| Z8701-15-PC     | 1 1/4[32]      | 1 1/2[38]       | 17    | 15[381]     | 3[76]     | 12[305]     | 18            | 42                  |
| Z8702-PC*       | 1 1/2[38]      | 1 1/2[38]       | 17    | 10 1/2[267] | 3[76]     | 7 1/2[191]  | 12            | 24                  |
| Z8702-9-PC*     | 1 1/2[38]      | 1 1/2[38]       | 17    | 12[305]     | 3[76]     | 9[229]      | 12            | 24                  |
| Z8702-15-PC*    | 1 1/2[38]      | 1 1/2[38]       | 17    | 15[381]     | 3[76]     | 12[305]     | 18            | 42                  |
| Z8703B-PC**     | 1 1/2[38]      | 2[51]           | 17    | 12 1/2[318] | 3 1/2[89] | 9[229]      | 6             | 18                  |
| Z8704B-PC**     | 2[51]          | 2[51]           | 17    | 12 1/2[318] | 3 1/2[89] | 9[229]      | 6             | 18                  |
| Z8706-PC        | 1 1/4[32]      | 1 1/4[32]       | 20    | 10[254]     | 2 1/2[64] | 7 1/2[191]  | 12            | 24                  |
| Z8707-PC        | 1 1/4[32]      | 1 1/2[38]       | 20    | 10 1/2[267] | 3[76]     | 7 1/2[191]  | 12            | 24                  |
| Z8708-PC*       | 1 1/2[38]      | 1 1/2[38]       | 20    | 10 1/2[267] | 3[76]     | 7 1/2[191]  | 12            | 24                  |

**OPTIONAL ACCESSORIES**

| Suffix                                 | Description  |
|--|--|
| <input checked="" type="checkbox"/> -B | Brass Nuts   |
| <input type="checkbox"/> -BX           | Box Escutcheon   |
| <input type="checkbox"/> -CE           | Cast Brass Escutcheon with Setscrew                                |
| <input checked="" type="checkbox"/> -D | Deep Escutcheon (Note = not available for Z8703B-PC and Z8704B-PC) |
| <input type="checkbox"/> -J            | Metal to Metal Ground Joint Connection                             |
| <input type="checkbox"/> -WC           | Waste Connections - Compression                                    |
| <input type="checkbox"/> -15           | 15[381] C Dim. 1 1/4[32] and 1 1/2[38] Only                        |
| <input type="checkbox"/> -18           | 18[457] C Dim. 1 1/4[32] and 1 1/2[38] Only                        |

\* COMES WITH OPTIONAL 1-1/2" x 1-1/4" REDUCTION POLY-WASHER FOR INLET

\*\* SHIPPED WITH BRASS NUTS UNLESS OTHERWISE SPECIFIED



MECHANICAL | ELECTRICAL | AQUATIC

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☒ Reviewed

☐ Reviewed As Noted

☐ Not Reviewed

☐ Revise and Resubmit

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In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

## For Residential and Commercial Applications

|                |  |                      |  |
|----------------|--|----------------------|--|
| Job Name       |  | Engineer / Architect |  |
| Job Location   |  | Wholesaler           |  |
| Submittal Date |  | Contractor           |  |

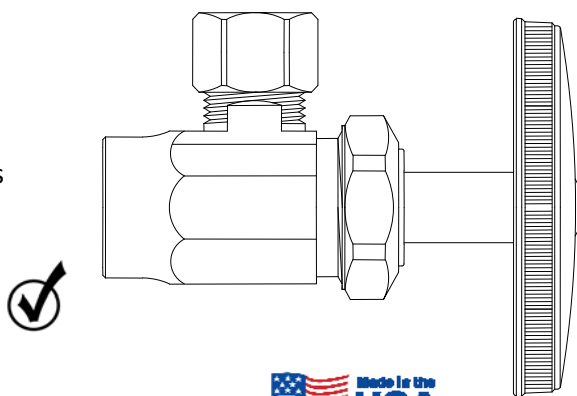
### ~~R1B/ R09/ R19/ R39~~ Multi-Turn Angle Stop – Sweat x Compression

**Use:** For use in potable water distribution systems. Not intended for recirculating water systems that produce continuous use temperatures above 115° F. For those applications, use BrassCraft KT series ball stops

**Design Features:**

PROVIDE SCREWDRIVER STOP

- **Machined one-piece brass body** provides strength, durability and long-lasting performance
- **Oval knurled handle** provides a secure grip and smooth on/off operation
- **Easy-to-remove handle** with screw attachment protects accidental stop operation during rough-ins
- **Compliant Multi-Turn Stops** available for California and Vermont “low-lead” requirements



**Operating Specifications:**

**Temperature:** 40° - 140° F

**Pressure:** 125 psi maximum



REVISE AND RESUBMIT SHOP DRAWING FROM ONE OF THE ACCEPTABLE MANUFACTURER INDICATED IN SPECIFICATIONS

**Standard**

| MATERIAL SPECIFICATIONS          |                             |
|----------------------------------|-----------------------------|
| <b>Valve Body</b>                | C36000 brass                |
| <b>Stem</b>                      | POM or C36000 brass*        |
| <b>Bib &amp; Packing Washers</b> | Nitrile or EPDM rubber      |
| <b>Packing Nut</b>               | C36000 brass                |
| <b>Handle</b>                    | Metal                       |
| <b>Handle Screw</b>              | Zinc-plated steel           |
| <b>Compression Sleeve</b>        | C36000 brass                |
| <b>Compression Nut</b>           | C36000 brass, chrome plated |

\*Where specified

**Compliant**

| MATERIAL SPECIFICATIONS          |                             |
|----------------------------------|-----------------------------|
| <b>Valve Body</b>                | Compliant brass             |
| <b>Stem</b>                      | POM or Compliant brass*     |
| <b>Bib &amp; Packing Washers</b> | Nitrile or EPDM rubber      |
| <b>Packing Nut</b>               | Compliant brass             |
| <b>Handle</b>                    | Metal                       |
| <b>Handle Screw</b>              | Zinc-plated steel           |
| <b>Compression Sleeve</b>        | C36000 brass                |
| <b>Compression Nut</b>           | C36000 brass, chrome plated |

**Standard Part Listing:**

- |                          |         |   |
|--------------------------|---------|---|
| <input type="checkbox"/> | R1B C   | 3/8" Nom. Sweat x 3/8" OD Compression, chrome plated              |
| <input type="checkbox"/> | R09 C   | 1/2" Nom. Sweat x 1/4" OD Compression, chrome plated              |
| <input type="checkbox"/> | R09 CBT | 1/2" Nom. Sweat x 1/4" OD Compression, chrome plated, plain tray  |
| <input type="checkbox"/> | R09 C1  | 1/2" Nom. Sweat x 1/4" OD Compression, chrome plated, window tray |
| <input type="checkbox"/> | R09 R   | 1/2" Nom. Sweat x 1/4" OD Compression, rough brass                |
| <input type="checkbox"/> | R09 R1  | 1/2" Nom. Sweat x 1/4" OD Compression, rough brass, window tray   |
| <input type="checkbox"/> | R19 C   | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated              |
| <input type="checkbox"/> | R19 CBT | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated, plain tray  |

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☐ Reviewed Bulk

☐ Reviewed As Noted

☐ Not Reviewed

☒ Revise and Resubmit

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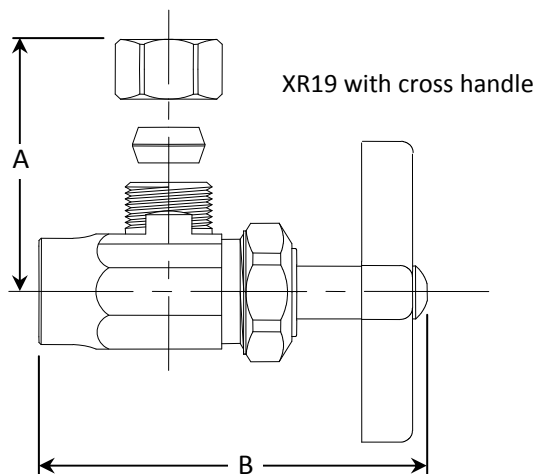
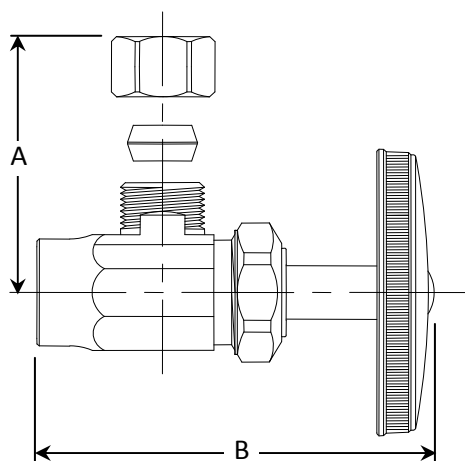
**BrassCraft®**

**~~R1B/ R09/ R19/ R39~~ Multi-Turn Angle Stop – Sweat x Compression****Standard Part Listing (con't): PROVIDE SCREWDRIVER STOP**

|                          |         |  |
|--------------------------|---------|--|
| <input type="checkbox"/> | R19 CD  | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated, carded         |
| <input type="checkbox"/> | R19 C1  | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated, window tray    |
| <input type="checkbox"/> | R19 R   | 1/2" Nom. Sweat x 3/8" OD Compression, rough brass                   |
| <input type="checkbox"/> | R19 RBT | 1/2" Nom. Sweat x 3/8" OD Compression, rough brass, plain tray, bulk |
| <input type="checkbox"/> | R19 R1  | 1/2" Nom. Sweat x 3/8" OD Compression, rough brass, window tray      |
| <input type="checkbox"/> | R19P C  | 1/2" Nom. Sweat x 3/8" OD Compression, pre-assembled, chrome plated  |
| <input type="checkbox"/> | R19P R  | 1/2" Nom. Sweat x 3/8" OD Compression, pre-assembled, rough brass    |
| <input type="checkbox"/> | R39 C   | 1/2" Nom. Sweat x 1/2" OD Compression, chrome plated                 |
| <input type="checkbox"/> | R39 C1  | 1/2" Nom. Sweat x 1/2" OD Compression, chrome plated, window tray    |
| <input type="checkbox"/> | R39 R   | 1/2" Nom. Sweat x 1/2" OD Compression, rough brass                   |
| <input type="checkbox"/> | XR19 C  | 1/2" Nom. Sweat x 3/8" OD Compression, cross handle, chrome plated   |
| <input type="checkbox"/> | XR19 R  | 1/2" Nom. Sweat x 3/8" OD Compression, cross handle, rough brass     |

**Compliant Part Listing: REVISE AND RESUBMIT SHOP DRAWING FROM ONE OF THE ACCEPTABLE MANUFACTURER INDICATED IN SPECIFICATIONS**

|                                     |         |   |
|-------------------------------------|---------|---|
| <input checked="" type="checkbox"/> | R19X C  | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated              |
| <input type="checkbox"/>            | R19X C1 | 1/2" Nom. Sweat x 3/8" OD Compression, chrome plated, window tray |
| <input type="checkbox"/>            | R19X R  | 1/2" Nom. Sweat x 3/8" OD Compression, rough brass                |
| <input type="checkbox"/>            | R19X R1 | 1/2" Nom. Sweat x 3/8" OD Compression, rough brass, window tray   |
| <input type="checkbox"/>            | R39X C1 | 1/2" Nom. Sweat x 1/2" OD Compression, chrome plated, window tray |

**PART DIMENSIONS (Inches)**

| Model      | DIM. A | DIM. B |
|------------|--------|--------|
| R1B        | 1.02   | 2.56   |
| R09        | 1.02   | 2.50   |
| <b>R19</b> | 1.02   | 2.50   |
| R39        | 1.15   | 2.50   |
| XR19       | 1.02   | 2.50   |

**Listings & Certifications:**

- IAPMO listed to ASME A112.18.1-05 / CSA B125.1-05 (File # 0645)
- CSA listed to ASME A112.18.1-05 / CSA B125.1-05 (File # 204593)
- Compliant product CSA approved to California Health & Safety Code 116875 and Vermont Bill S.152 (Project # 2174)



**DEI Consulting Engineers**

MECHANICAL | ELECTRICAL | AQUATIC

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☐ Reviewed

☐ Reviewed As Noted

☐ Not Reviewed

☒ Revise and Resubmit

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**BrassCraft®**

## For Residential and Commercial Applications

|                |  |                      |  |
|----------------|--|----------------------|--|
| Job Name       |  | Engineer / Architect |  |
| Job Location   |  | Wholesaler           |  |
| Submittal Date |  | Contractor           |  |

### ~~B1-\*\*A/ B2 \*\*A/ B3 \*\*A~~ Speedi Plumb® PLUS Braided Faucet Connector - Compression Inlet

**Use:** For use in potable water distribution systems in accessible locations only

**Design Features:**

- **Superior corrosion resistance** to harsh chemicals found in common household cleaning and plumbing repair products
- **More flexible than stainless steel**, the braided polymer-coated fibers bend freely without kinking or crimping
- **Tough inner core** is reinforced to resist chlorine and chloramine leaching and deterioration
- **Nitrile rubber washers** provide a large pliable sealing surface and ensures a long lasting water tight connection
- **8-sided pneumatic crimp** provides greater dependability for realible nut-to-hose connections
- **100% Compliant** to California and Vermont "low-lead" requirements

**Operating Specifications:**

**Temperature:** 40° - 140° F

**Pressure:** 125 psi maximum

**Tubing Diameter:** 0.300" I.D. (0.550" O.D.)

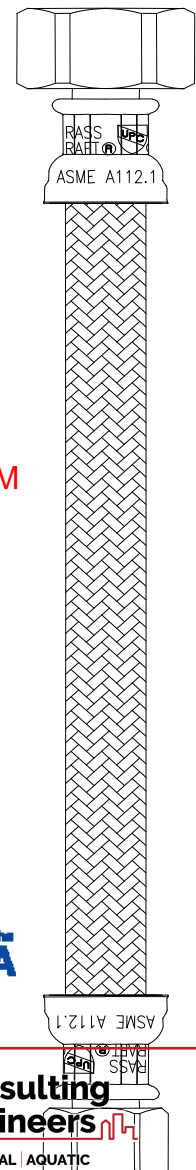
#### MATERIAL SPECIFICATIONS

|                                   |                           |
|-----------------------------------|---------------------------|
| <b>Inner Hose</b>                 | Reinforced PVC            |
| <b>Braiding</b>                   | PVC coated polyester yarn |
| <b>Barb</b>                       | Compliant brass           |
| <b>Ferrule</b>                    | Zinc plated 1008 steel    |
| <b>Nut</b>                        | C36000 brass              |
| <b>Washer</b>                     | Nitrile rubber            |
| <b>Compression Ring &amp; Nut</b> | C36000 brass              |

**Part Listing:**

- |                                     |           |  |
|-------------------------------------|-----------|--|
| <input type="checkbox"/>            | B1-9A F   | 3/8" Compression x 1/2" F.I.P. x 9" length   |
| <input checked="" type="checkbox"/> | B1-12A F  | 3/8" Compression x 1/2" F.I.P. x 12" length  |
| <input type="checkbox"/>            | B1-16A F  | 3/8" Compression x 1/2" F.I.P. x 16" length  |
| <input type="checkbox"/>            | B1-20A F  | 3/8" Compression x 1/2" F.I.P. x 20" length  |
| <input type="checkbox"/>            | B1-20AU D | 3/8" Compression x 1/2" F.I.P. x 20" length connector with 1/2" OD Compression & 1/2" Iron Pipe valve adapters, carded |
| <input type="checkbox"/>            | B1-20H F  | 3/8" Compression x 1/2" F.I.P. plastic nut x 20" length  |

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- |                                       |   |
|---------------------------------------|---|
| <input type="checkbox"/> Not Reviewed | <input type="checkbox"/> Reviewed As Noted              |
| <input type="checkbox"/> Not Reviewed | <input checked="" type="checkbox"/> Revise and Resubmit |

**BrassCraft®**

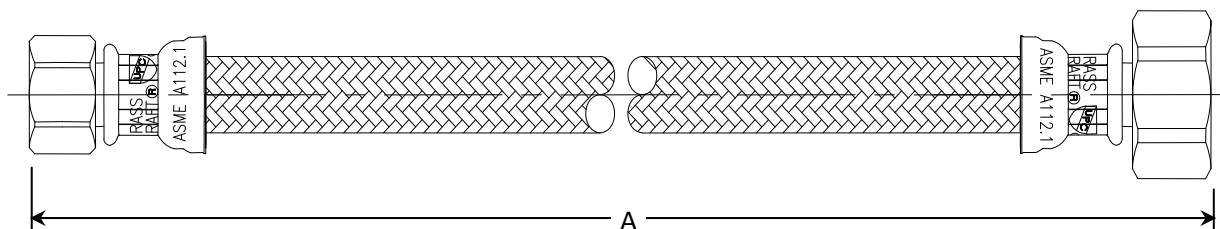


# ~~B1-\*\*A/ B2 \*\*A/ B3 \*\*A~~ Speedi Plumb® PLUS Braided Faucet Connector - Compression Inlet

## Part Listing (con't):

|                          |          |  |
|--------------------------|----------|--|
| <input type="checkbox"/> | B1-24A F | 3/8" Compression x 1/2" F.I.P. x 24" length  |
| <input type="checkbox"/> | B1-30A F | 3/8" Compression x 1/2" F.I.P. x 30" length  |
| <input type="checkbox"/> | B1-36A F | 3/8" Compression x 1/2" F.I.P. x 36" length  |
| <input type="checkbox"/> | B1-48A F | 3/8" Compression x 1/2" F.I.P. x 48" length  |
| <input type="checkbox"/> | B1-60A F | 3/8" Compression x 1/2" F.I.P. x 60" length  |
| <input type="checkbox"/> | B2-12A F | 7/16" Compression x 1/2" F.I.P. x 12" length |
| <input type="checkbox"/> | B2-16A F | 7/16" Compression x 1/2" F.I.P. x 16" length |
| <input type="checkbox"/> | B2-20A F | 7/16" Compression x 1/2" F.I.P. x 20" length |
| <input type="checkbox"/> | B3-9A F  | 1/2" Compression x 1/2" F.I.P. x 9" length   |
| <input type="checkbox"/> | B3-12A F | 1/2" Compression x 1/2" F.I.P. x 12" length  |
| <input type="checkbox"/> | B3-16A F | 1/2" Compression x 1/2" F.I.P. x 16" length  |
| <input type="checkbox"/> | B3-20A F | 1/2" Compression x 1/2" F.I.P. x 20" length  |
| <input type="checkbox"/> | B3-30A F | 1/2" Compression x 1/2" F.I.P. x 30" length  |
| <input type="checkbox"/> | B3-36A F | 1/2" Compression x 1/2" F.I.P. x 36" length  |

REVISE AND RESUBMIT SHOP DRAWING FROM ONE OF THE  
ACCEPTABLE MANUFACTURER INDICATED IN SPECIFICATIONS



| PART DIMENSIONS (Inches) |             |
|--------------------------|-------------|
| Model                    | DIM. A      |
| B1-9A                    | 9.0 / 10.0  |
| <b>B1-12A</b>            | 12.0 / 13.0 |
| B1-16A                   | 16.0 / 17.0 |
| B1-20A                   | 20.0 / 21.0 |
| B1-30A                   | 30.0 / 31.0 |
| B1-36A                   | 36.0 / 37.0 |

| PART DIMENSIONS (Inches) |             |
|--------------------------|-------------|
| Model                    | DIM. A      |
| B1-48A                   | 48.0 / 49.0 |
| B1-60A                   | 60.0 / 61.0 |
| B2-12A                   | 12.0 / 13.0 |
| B2-16A                   | 16.0 / 17.0 |
| B2-20A                   | 20.0 / 21.0 |
| B3-9A                    | 9.0 / 10.0  |

| PART DIMENSIONS (Inches) |             |
|--------------------------|-------------|
| Model                    | DIM. A      |
| B3-12A                   | 12.0 / 13.0 |
| B3-16A                   | 16.0 / 17.0 |
| B3-20A                   | 20.0 / 21.0 |
| B3-30A                   | 30.0 / 31.0 |
| B3-36A                   | 36.0 / 37.0 |

## Listings & Certifications:

- IAPMO listed to ASME A112.18.6-2003 (File # 0452)
- CSA listed to ASME A112.18.6-2003 / CSA B125 (File # 2045931)
- CSA approved to California Health & Safety Code 116875.8  
Vermont Bill S.152 (Project # 2174785)

**DEI Consulting Engineers**  
MECHANICAL / ELECTRICAL / PLUMBING / HVAC

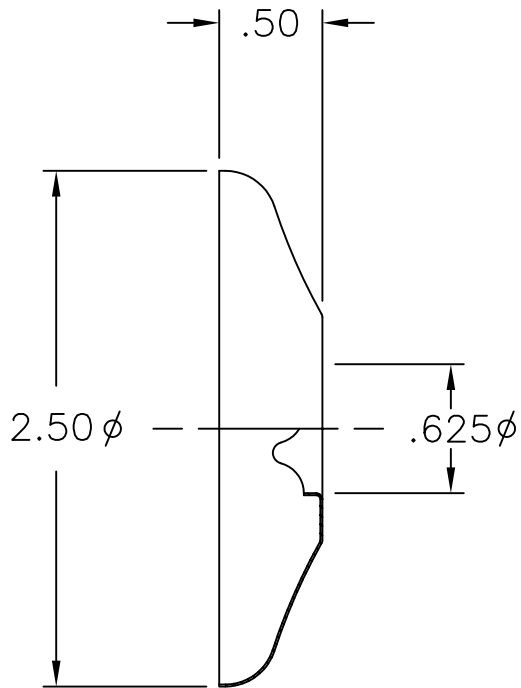
This review by DEI Consulting Engineers Inc. is for the sole purpose of ascertaining conformance with the general design intent. This review shall not mean that DEI Consulting Engineers Inc. approves the detail design inherent in the shop drawings, responsibility for which shall remain with the contractor submitting same, and such review shall not relieve the contractor of his responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the construction and contract documents.

☐ Reviewed
 ☐ Reviewed As Noted  
☐ Not Reviewed
 ☒ Revise and Resubmit

This specification and all information contained herein is the confidential and exclusive property of BrassCraft Manufacturing, and shall not be disclosed to others without the written consent of BrassCraft. This specification must be returned to BrassCraft if requested.

**BrassCraft**®

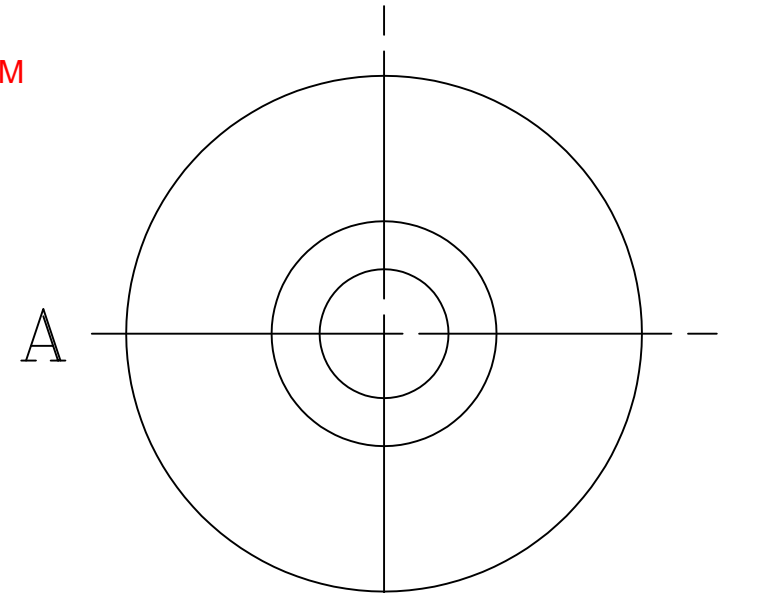
| LET. | DATE    | PER | BY  | CHANGE            |
|------|---------|-----|-----|-------------------|
| B    | 6/22/07 | ROL | KAK | REVISED & UPDATED |



SECTION A-A

REVISE AND RESUBMIT SHOP DRAWING FROM ONE OF THE ACCEPTABLE MANUFACTURER INDICATED IN SPECIFICATIONS

| ITEM ID | FINISH            |
|---------|-------------------|
| 649     | STAINLESS STEEL   |
| 649 A   | ANTIQUE BRASS     |
| 649 BS  | BISCUIT           |
| 649 BZ  | OIL RUBBED BRONZE |
| 649 NS  | SATIN NICKEL      |
| 649 P   | POLISHED BRASS    |
| 649 W   | WHITE             |



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NOVI, MICHIGAN

ALL GDT PER ANSI STD Y14.5M  
CLASSIFICATION OF QUALITY LEVELS

| CLASS                                   | SYMBOL |
|---|--------|
| KPC (KEY PRODUCT CHARACTERISTICS)       | ◇      |
| STPC (STANDARD PRODUCT CHARACTERISTICS) | △      |
| PRODUCT MARKINGS                        | ○      |

## DESCRIPTION

1/2 NOM (5/8 OD) SHALLOW  
FLANGE (SUBMITTAL)

|          |            |
|----------|------------|
| DRAWN    | DATE:      |
| PERNAK   | 08/29/2003 |
| CHK'D.   | DATE:      |
| Learmont | 06/22/2007 |
| APP'D.   | DATE:      |

## MATERIAL

## VOLUME

NOTE: UNLESS OTHERWISE SPECIFIED  
TWO PLACE DECIMALS +/-.010  
THREE PLACE DECIMALS +/-.005  
ANGULARITY +/-.1°

## DRAWING NO.

MPG0139B

## ITEM DESCRIPTION

649

## ITEM ID

SEE CHART



SIZE

## UNITS

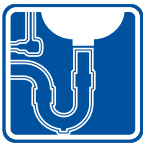
INCH

SCALE:  
(UNLESS NOTED)

FULL

## REV.

B



**LAV GUARD<sup>2</sup>**  
FAST FIT UNDERSINK PIPING COVERS

L-2

All New  
E-Z Series

ADA-compliant undersink protection



# Submittal Sheet

## General Description:

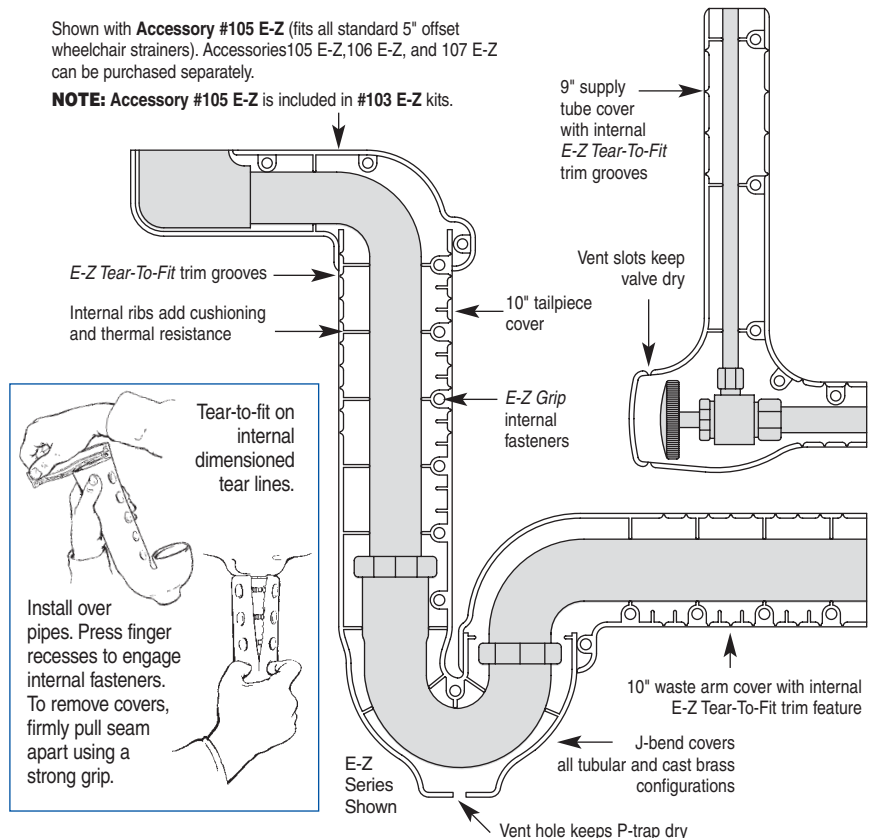
LAV GUARD<sup>2</sup> E-Z Series waste and supply piping covers satisfy ADA compliance requirements. Built-in *E-Z Grip* internal fasteners and internal, *E-Z Tear-To-Fit* trimming feature allow for fast installation without tools. *Series #100 E-Z* kits are designed to fit on all tubular and cast brass P-trap assemblies. *Series #400* kits are the "original" LAV GUARD design and fit schedule 40 ABS and PVC P-trap assemblies — regardless of their geometry or rotational offset. Valve cover completely encloses angle valve and supply tube for both handled and keyed type water stops.

|                                       |   |
|---------------------------------------|---|
| Material                              | Molded vinyl                                  |
| Nominal Wall                          | 1/8" constant                                 |
| Durometer                             | 70 - 80 - Shore A                             |
| UV Protection                         | Will not fade or discolor                     |
| Durability                            | Virtually indestructible                      |
| Trimming (E-Z Series)                 | Internal, <i>E-Z Tear-To-Fit</i> trim feature |
| Fasteners (E-Z Series)                | Internal <i>E-Z Grip</i> fasteners (reusable) |
| Color                                 | China white                                   |
| Paintability                          | Apply Latex paint                             |
| Burning Characteristics<br>ASTM D-635 | Self extinguished<br>0 sec (ATB) 0 mm (AEB)   |
| Bacteria/Fungus<br>Resistance         | ASTM G21 and G22/<br>Result: 0 growth         |
| Maintenance                           | Use common detergents                         |

Manufactured under one or more of the following U.S. or Canadian patents.  
Other patents pending.  
5,303,730 5,360,031 5,524,669 5,564,463 5,678,598 5,699,828 5,915,412  
5,915,413 5,901,739 5,960,820 2,075,324 2,119,427 2,136,027 2,158,083

Shown with **Accessory #105 E-Z** (fits all standard 5" offset wheelchair strainers). Accessories 105 E-Z, 106 E-Z, and 107 E-Z can be purchased separately.

**NOTE:** Accessory #105 E-Z is included in #103 E-Z kits.



**#100 E-Z Series** (shown above right) for tubular and cast brass P-trap assemblies.

**#400W\* Series** (original design) for schedule 40 P-trap assemblies.

|   |  |  |
|---|--|--|
| <input type="checkbox"/> <b>Model #99 E-Z</b><br>One angle valve and supply cover         | <input type="checkbox"/> <b>Model #102 E-Z</b><br>One P-trap cover, two angle valves and covers  | <input type="checkbox"/> <b>Accessory #105-K</b><br>Kohler 6" offset   |
| <input type="checkbox"/> <b>Model #100 E-Z</b><br>One P-trap cover                        | <input type="checkbox"/> <b>Model #402W*</b><br>One P-trap cover, two angle valves and covers  | <input type="checkbox"/> <b>Accessory #106 E-Z</b><br>One basket strainer cover and offset waste cover (adjustable to 18")         |
| <input type="checkbox"/> <b>Model #400W*</b><br>One P-trap cover                          | <input checked="" type="checkbox"/> <b>Model #103 E-Z</b><br>One P-trap cover, two angle valves and supply covers, one 5" offset tailpiece wheelchair strainer cover | <input type="checkbox"/> <b>Accessory #107 E-Z</b><br>Two basket strainer covers and center or end outlet waste cover (adjustable) |
| <input type="checkbox"/> <b>Model #101 E-Z</b><br>One P-trap cover, one angle valve cover | <input type="checkbox"/> <b>Accessory #105 E-Z</b><br>One 5" offset tailpiece wheelchair strainer assembly   | <input type="checkbox"/> <b>Accessory #Ex99 E-Z</b><br>One 16" extension for water supply  |
| <input type="checkbox"/> <b>Model #401W*</b><br>One P-trap cover, one angle valve cover   |  | <input type="checkbox"/> <b>Accessory #Ex100 E-Z</b><br>One 16" extension for drain waste arm or tailpiece                         |

\*All #400W series items are the "original" LAV GUARD<sup>2</sup> design and construction. Specifications may change without notice.



IPS Corporation, 202 Industrial Park Lane, Northbrook, IL 60062

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e-mail: info@truebro.com Internet: http://www.truebro.com

**DEI Consulting Engineers**

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☒ Reviewed ☐ Reviewed As Noted  
☐ Not Reviewed ☐ Revise and Resubmit



Job/Location  
Designer

TRUEBRO reserves the right to make product and material changes at any time without notice.

2 / 07