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## Features

- Vitreous china.
- Elongated bowl.
- Siphon jet.
- Wall-mount.
- 1-1/2" top spud.
- $1.28 \mathrm{gpf}(4.8 \mathrm{lpf})$ or $1.6 \mathrm{gpf}(6 \mathrm{lpf})$ depending on flushometer specified.
- 10-1/2" $(267 \mathrm{~mm}) \times 9^{\prime \prime}(229 \mathrm{~mm})$ water area.
- 26-1/2" (673 mm) x 16-1/2" (419 mm) x 13-1/4" (337 mm).
- Will replace K-4330 and K-4330-L bowls.


## Optional Accessories

K-10673 WAVE Touchless Toilet 1.28 gpf Flushometer
K-13516 Manual 1.6 GPF WC Flushometer
K-13517 Manual 1.28 GPF WC Flushometer
K-10674-SV WAVE DC 1.6 GPF WC Flushometer
K-10956-SV Tripoint ${ }^{\text {TM }}$ DC 1.28 GPF WC Flushometer
K-10957-SV Tripoint ${ }^{\text {TM }}$ DC 1.6 GPF WC Flushometer
K-4731-C Commercial Heavy-duty Toilet Seat
K-4731-GC Commercial Heavy-duty Toilet Seat
K-4731-SC Commercial Heavy-duty Toilet Seat
K-10956 Tripoint TM DC 1.28 GPF WC Flushometer
K-10674 Wave DC 1.6 GPF WC Flushometer
K-10957 Tripoint ${ }^{\text {TM }}$ DC 1.6 GPF WC Flushometer

## Components

Additional included component/s: Spud.

## ADA CSA B651 OBC

## Codes/Standards

ASME A112.19.2/CSA B45.1
DOE - Energy Policy Act 1992
EPA WaterSense ${ }^{\circledR}$
California Energy Commission (CEC)
ADA
ICC/ANSI A117.1
CSA B651
OBC
KOHLER ${ }^{\circledR}$ One-Year Limited Warranty
See website for detailed warranty information.

## Available Color/Finishes

Color tiles intended for reference only.

| Color | Code | Description |
| :---: | :---: | :--- |
| $\square$ | 0 | White |
| $\square$ | 96 | Biscuit |
| $\square$ | 47 | Almond |
| $\square$ | 7 | Black Black ${ }^{\text {TM }}$ |



## Technical Information

All product dimensions are nominal.
Toilet type:
Waste Outlet: Wall
Bowl shape: Elongated front
Spud size: $1-1 / 2^{\prime \prime}$, Inlet, Top
Trap passageway: 2-1/8" (54 mm)
Water surface size: $10-1 / 2^{\prime \prime} \times 9^{\prime \prime}(267 \mathrm{~mm} \times 229 \mathrm{~mm})$
Rim to water surface: 5-1/4" (133 mm)
Seat-mounting holes: 5-1/2" ( 140 mm )

## Fixture Supply Requirements

Min static pressure: $35 \mathrm{psi}(241.3 \mathrm{kPa})$
Max static pressure: 80 psi ( 551.6 kPa )
Min flowing pressure: $25 \mathrm{psi}(172.4 \mathrm{kPa})$
Min flow rate: $\quad 25 \mathrm{gpm}(94.6 \mathrm{lpm})$

## Notes

Install this product according to the installation instructions.
Refer to manufacturer's instructions and local codes for flushometer requirements.
For back-to-back toilet installations: Use only a $45^{\circ}$ double wye fitting.
ADA, OBC, CSA B651 compliant when installed to the specific requirements of these regulations.
Plumbing Codes require elongated toilets and elongated, open-front toilet seats in public bathrooms.
Accessibility standards require controls to be located on the open side of the toilet.

## - Code Number

3780115

## - SPECIFICATIONS



## Description

Exposed, Battery Powered, Side Mount Sensor Activated High Efficiency Water Closet Flushometer for floor mounted or wall hung top spud bowls.

## Flush Cycle

Model 111-1.28 SMO High Efficiency (1.28 gpf/4.8 Lpf)

## Specifications

Quiet, Exposed, Diaphragm Type, Closet Flushometer for either left or right hand supply with the following features:

- 1" I.P.S. Screwdriver Bak-Chek® Angle Stop with Vandal Resistant Stop Cap
- Spud Coupling and Spud Flange for $11 / 2$ " Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Wall Flange
- Low Consumption flush accuracy
- Vacuum Breaker Flush Connection
- "User in View" Flashing LED
- No External Volume Adjustment to Ensure Water Conservation
- Infrared Sensor Range Adjustment Screw and Reset Button
- Stop Seat and Vacuum Breaker Molded from PERMEX® Rubber Compound for Chloramine resistance
- Four (4) Size C Batteries included
- ADA Compliant OPTIMA® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Angled Sensor Window
- Manual Override Flush Button
- "Low Battery" Flashing LED with Optional Audio Tone
- Optional 24-Hour Sentinel Flush
- High Chloramine Resistant PERMEX® Synthetic Rubber DFB Dual Filtered Bypass Diaphragm
- Chrome Plated Metal Infrared Sensor Housing

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME A112.19.2. Installation conforms to ADA requirements.

## Variations

- DFB - Dual Filtered Bypass Diaphragm
- Bumper on Angle Stop


## Accessories (Sold Separately)

- See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA® Flushometer variations.


## Fixtures

- Consult factory for matching Sloan brand fixture options.
- ELECTRICAL SPECIFICATIONS

Control Circuit

- Solid State
- 6 VDC Input


## Indicator Lights

- User in View

Sensor Type


## - FEATURES

## Automatic Operation

- Sloan OPTIMA SMO equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The Flushometer operates by means of a battery powered infrared sensor. Once the user enters the sensor's effective range and then steps away, the Side Mount Unit initiates the flushing cycle to flush the fixture.


## Economical

- Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs. Installation does not require turning off water to the valve.


## Hygienic

- User makes no physical contact with the Flushometer surface except to initiate the Override Button when required. Helps control the spread of infectious diseases.

Compliance \& Certifications


This space for Architect/Engineer Approval

- Infrared Convergence Type Object Lock Detection


## Sensor Range

- Nominal 8" - 54" (203 mm- 1372 mm), Factory Set at 24" (610 mm )
Battery Type
- (4) C Alkaline


## Battery Life

3 Years @4000 Flushes/Month

## Operating Pressure

- 15-100 psi (104-689 kPa)


## - OPERATION



1. A continuous, invisible light beam is emitted from the object lock infrared sensor.

2. As the user enters the beam's effective range, $8^{\prime \prime}$ to 54 " (203 mm-1372 mm), the Object Lock Infrared Sensor senses the user.

3. When the user steps away from the object lock Infrared sensor, the circuit initiates the flushing cycle to flush the fixture. The circuit then automatically resets and is ready for the next user.

- VISUAL INDICATOR GUIDE


- Sensor Range Reset Button

- ROUGH-IN


Includes EBV-89-A Side Mount Operator

## P-1 \& P-2 SEAT




PLASTIC HINGES WITH STAINLESS STEEL POSTS AND PINTLES


STA-TITE ${ }^{\bullet}$ COMMERCIAL FASTENING SYSTEM ${ }^{\text {TM }}$

## MODEL \#

## COLOR \#

## 1655CT/1655SSCT



## DESCRIPTION:

Open front less cover, elongated, extra heavy-duty, injection molded solid plastic toilet seat. Features four molded-in bumpers, non self-sustaining (1655CT) or self-sustaining (1655SSCT) check hinges with non-corrosive 300 Series stainless steel posts and pintles and STA-TITE ${ }^{\ominus}$ Commercial Fastening System ${ }^{\text {TM }}$. This seat complies with IAPMO/ANSI Z124.5-2013 Plastic Toilet Seats as a class Commercial Heavy Duty.

## SPECIFICATIONS:

Size:
Material:
Style:
Bumpers:
Hinges:

Fastening System:

Elongated
Plastic
Open Front less Cover
Four
Plastic Non Self-Sustaining (1655CT) or SelfSustaining (1655SSCT) with 300 Series Stainless Steel Posts and Pintles

STA-TITE ${ }^{\circledR}$ Commercial Fastening System ${ }^{\text {™ }}$

## FEATURES:

STA-TITE ${ }^{\oplus}$ Commercial Fastening System ${ }^{\text {TM }}$
Non-Corrosive 300 Series Stainless Steel Posts and Pintles

## D I M E N S I O N S :



Dimensional Data (inches and $[\mathrm{mm}]$ ) are Subject to Manufacturing Tolerances and Change Without Notice


| Product <br> Number | Approx. <br> Wt. <br> lbs [kg] |
| :---: | :---: |
| Z1201-NL4 | $50[23]$ |
| Z1201-NR4 | 5 |

Note:

1. Z coupling, Min. 'P' Dim. Obtainable=2 [51]
ZQ coupling, Min. 'P' Dim. Obtainable=5 [127]
2. Feet bolted to floor using min. 1/2 [13] dia. anchors.
3. Rear anchor foot required for secure installation.

ENGINEERING SPECIFICATION: ZURNZ1201-N_4
EZCarry ${ }^{\circledR}$ horizontal siphon jet water closet carrier system with high performance waterway and 4" [102mm] no-hub connections. System includes Dura-Coated cast iron main fitting with hydro-mechanically optimized sweep and extended 2" [51mm] vent, adjustable gasketed faceplate, universal floor mounted pre-fab slotted foot supports, heavy-duty $1 / 2^{\prime \prime}$ [13mm] rear anchor tie down, fixture bolts, trim, stud protectors, bonded "Neo-Seal" gasket, and corrosion resistant, adjustable 3" [76mm] dia. X 6" [ 152 mm ] coupling with integral test cap designed to increase flow velocity and line carry. EZCarry ${ }^{\circledR}$ system complies with the requirements of ASME A112.6.1M up to a 500 lbs [227 kg] static load rating.
OPTIONS (Check/specify appropriate options)

| Z1201-NL4 | 4 [102] No-Hub Left Hand Inlet with Flow to Right |
| :--- | :--- |
| Z1201-NR4 | 4 [102] No-Hub Right Hand Inlet with Flow to Left |


| PREFIXES |  |
| :--- | :--- |
| $\square Z Z Q$ | D.C.C.I. System with Zurn ZZ Adjustable Coupling* |
| $\square$ | D.C.C.I. System with NPT Faceplate, Non-Adjustable Coupling |

## SUFFIXES

_-A $\quad$| Auxiliary Support Assembly |
| :--- |
| (For 'P' Dim. Greater than 18 [457]) |

$\qquad$ -CC Corrosion Resistant Cast Iron Coupling (2-1/4 [57] to 12 [305])
$\qquad$ -CE EZ-Set ${ }^{\text {TM }}$ Coupling (Available 6 [152] ,12 [305] or longer when specified. Minimum length=5 [127])
$\qquad$ -CL Custom Length Standard Coupling with Integral Test Cap (Specify Length 4, 8, 10, 12 [102, 203, 254, 305])
$\qquad$ -CS 2-1/4 [57] Polymer Coupling with Integral Test Cap
$\qquad$ -F Floor Mounted, Back Outlet Fixture Support-G Galvanized Cast Iron
__-JC 2 [51] Auxiliary Inlet with 1/8 Bend
_-M Auxiliary Foot Support (for 'P' Dim. 10 thru 18 [254 thru 457])
$\qquad$ -RYK Unistrut Pre-Fab Foot Support-VP Vandal-Proof Trim -45 Finishing Frame for Siphon Jet System
$\boldsymbol{\checkmark}$-50 Flush Valve Supply Support for Water Closets

[^0][^1]
## Rev. F

Date: 02/18/16
C.N. No. 133969

Prod. | Dwg. No. Z1201-N_4

EZCARRY ${ }^{\circledR}$ ADJUSTABLE VERTICAL HIGH PERFORMANCE SIPHON JET NO-HUB WATER CLOSET CARRIER SYSTEM


## ENGINEERINGSPECIFICATION: ZURNZ1202-N4

EZCarry ${ }^{\circledR}$ vertical siphon jet water closet carrier system with high performance waterway and 4" [102mm] no-hub connections. System includes Dura-Coated cast iron main fitting with hydro-mechanically optimized sweep and extended 2" [51mm] vent, adjustable gasketed faceplate, universal floor mounted pre-fab slotted foot supports, heavy-duty $1 / 2^{\prime \prime}$ [13mm] rear anchor tie down, fixture bolts, trim, stud protectors, bonded "Neo-Seal" gasket, and corrosion resistant, adjustable 3" [76mm] dia. X 6" [152mm] coupling with integral test cap designed to increase flow velocity and line carry. EZCarry ${ }^{\circledR}$ system complies with the requirements of ASME A112.6.1M up to a 500 lbs [227 kg] static load rating.

OPTIONS (Check/specify appropriate options)
Z1202-N4 4 [102] No-Hub Stack, Single Inlet, 2 [51] Right Hand Vent PREFIXES

| $Z Z$ | D.C.C.I. System with Zurn ZZ Adjustable Coupling* |
| :--- | :--- |
|  |  |
| $Z$ | ZQ |
| D.C.C.I. System with NPT Faceplate, Non-Adjustable Coupling |  |


| SUFFIXES |  | -G | Galvanized Cast Iron |
| :---: | :---: | :---: | :---: |
| -A | Auxiliary Support Assembly | -JJ | Two 2 [51] Auxiliary Inlets |
|  | (For 'P' Dim. Greater than 18 [457]) | -JL | 2 [51] Left-Hand Auxiliary Inlet |
| -CC | Corrosion Resistant Cast Iron Coupling | -JR | 2 [51] Right-Hand Auxiliary Inlet |
|  | (2-1/4 [57] to 12 [305]) | -M | Auxiliary Foot Support |
| -CE | EZ-Set ${ }^{\text {TM }}$ Coupling (Available 6 [152], 12 [305] or |  | (for 'P' Dim. 10 thru 18 [254 thru 457]) |
|  | longer when specified. Minimum length=5 [127]) | -RYK | Unistrut Pre-Fab Foot Support |
| -CL | Custom Length Standard Coupling with Integral Test Cap | -RYK17 | One Piece Unidtrut Pre-Fab Foot |
|  | (Specify Length 4, 8, 10, 12 [102, 203, 254, 305]) | -VL | Left Hand Vent Connection |
| -CS | 2-1/4 [57] Polymer Coupling with Integral Test Cap | -VP | Vandal-Proof Trim |
| $\checkmark$-F | Floor Mounted, Back Outlet Fixture Support | -45 | Finishing Frame for Siphon Jet System |
| * Regularly f | furnished unless otherwise specified. | $\checkmark-50$ | Flush Valve Supply Support for Water Closets |
| Zurn Industri | es, LLC \| Specification Drainage Operation |  | Rev. H |
| 1801 Pittsburg | gh Avenue, Erie, PA U.S.A. 16502 Ph. 855-663-9876, Fax 814-454-79 |  | Date: 12/20/2016 |
| In Canada I Z | Zurn Industries Limited |  | C.N. No. 135841 |
| 3544 Nashua ${ }^{\text {w w w }}$. urn. | Drive, Mississauga, Ontario L4V 1L2 • Ph. 905-405-8272, Fax 905-4 .com |  | Prod. \| Dwg. No. Z1202-N4 |



| Product <br> Number | Approx. <br> Wt. <br> Ibs $[\mathrm{kg}]$ |
| :---: | :---: |
| Z1202-ND4 | $103[47]$ |

Note:

1. Z coupling, Min. 'P' Dim. Obtainable $=2$ [51].
ZQ coupling, Min. 'P' Dim. Obtainable $=5$ [127].
2. Feet bolted to floor using min. 1/2 [13] dia. anchors.
3. Auxiliary inlet available right (-JR) or left $(-\mathrm{JL})$ or both sides $(-\mathrm{JJ})$ when specified.

## ENGINEERING SPECIFICATION: ZURNZ1202-ND4

EZCarry ${ }^{\circledR}$ vertical siphon jet water closet carrier system with high performance waterway and 4" [102mm] no-hub connections. System includes Dura-Coated cast iron double main fitting with hydro-mechanically optimized sweep and extended 2" [51mm] vent, adjustable gasketed faceplates, universal floor mounted pre-fab slotted foot supports, fixture bolts, trim, stud protectors, bonded "Neo-Seal" gaskets, and corrosion resistant, adjustable 3" [76mm] dia. X 6" [152mm] couplings with integral test caps designed to increase flow velocity and line carry. EZCarry ${ }^{\circledR}$ system complies with the requirements of ASME A112.6.1M up to a 500 lbs [227 kg] static load rating.

OPTIONS (Check/specify appropriate options)
Z1202-ND4 4 [102] No-Hub Stack, Double Inlets, 2 [51] Vent

## PREFIXES

__Z D.C.C.I. System with Zurn ZZ Adjustable Coupling*
ZQ D.C.C.I. System with NPT Faceplate, Non-Adjustable Coupling

## SUFFIXES

___ -A Auxiliary Support Assembly
(For 'P' Dim. Greater than 18 [457])
__ - CC Corrosion Resistant Cast Iron Coupling (2-1/4 [57] to 12 [305])
$\qquad$ -CE EZ-Set ${ }^{\text {TM }}$ Coupling (Available 6 [152] ,12 [305] or longer when specified. Minimum length=5 [127])
__ - CL Custom Length Standard Coupling with Integral Test Cap
(Specify Length 4, 8, 10, 12 [102, 203, 254, 305])
$\qquad$ -CS 2-1/4 [57] Polymer Coupling with Integral Test Cap -F Floor Mounted, Back Outlet Fixture Support

| -G | Galvanized Cast Iron |
| :---: | :---: |
| -JJ | Two 2 [51] Auxiliary Inlets |
| -JL | 2 [51] Left-Hand Auxiliary Inlet |
| -JR | 2 [51] Right-Hand Auxiliary Inlet |
| -M | Auxiliary Foot Support (for 'P' Dim. 10 thru 18 [254 thru 457]) |
| -RYK | Unistrut Pre-Fab Foot Support |
| -RYK17 | One Piece Unistrut Pre-Fab Foot |
| -VP | Vandal-Proof Trim |
| -45 | Finishing Frame for Siphon Jet System |
| X - 50 | Flush Valve Supply Support for Water Closets |

[^2][^3]Rev. H
Date: 1/18/17
C.N. No. 135876

## Features

- Siphon jet urinal.
- $3 / 4^{\prime \prime}$ top spud.
- 0.5 or 1.0 gpf ( 1.9 or 3.8 lpf ) based on valve selected.
- Siphon jet.
- $3 / 4^{\prime \prime}$ top spud.
- Includes inlet and outlet spuds and hangers.
- Includes anti-backsplash wall.
- 14-1/2" (368 mm) extended rim.
- $0.5 \mathrm{gpf}(1.9 \mathrm{lpf})$ or $1.0 \mathrm{gpf}(3.8 \mathrm{lpf})$.


## Material

- Vitreous china.


## Water Conservation \& Rebates

- WaterSense ${ }^{\circledR}$ compliant when used with WaterSense flushometer.


## Recommended Accessories

K-10675 WAVE DC 0.5 GPF Urinal Flushometer
K-10958 Tripoint ${ }^{\text {TM }}$ DC 0.5 GPF Urinal Flushometer
K-10961 Tripoint ${ }^{\text {TM }}$ DC 1.0 GPF Flushometer
K-13521 Manual 1.0 GPF Urinal Flushometer

## Components

Additional included component/s: 3/4" Inlet Spud, 2" Outlet Spud, and Hanger (2 Required).


ADA


## Codes/Standards

ASME A112.19.2/CSA B45.1
DOE - Energy Policy Act 1992
EPA WaterSense ${ }^{\circledR}$
California Energy Commission (CEC)
ADA
ICC/ANSI A117.1
KOHLER ${ }^{\circledR}$ One-Year Limited Warranty
See website for detailed warranty information.

## Available Color/Finishes

Color tiles intended for reference only.

| Color | Code | Description |
| :---: | :---: | :--- |
| $\square$ | 0 | White |
| $\square$ | 96 | Biscuit |
| $\square$ | 47 | Almond |
| $\square$ | 7 | Black Black ${ }^{\top 1}$ |

*Urinal complies with ADA requirement when rim is mounted no higher than 17" (432 mm) from finished floor.
** Outlet height for ADA compliance.


## Technical Information

All product dimensions are nominal.
Flush outlet
technology:
Spud size:
3/4", inlet, Top
Max. Water per Flush: 0.5 gal ( 1.9 L )


## Notes

Install this product according to the installation guide.
Refer to manufacturer's instructions and local codes for flushometer requirements.

ADA compliant when installed to the specific requirements of these regulations.

- Code Number

3912679

## - SPECIFICATIONS

## Description

Exposed, Battery Powered, Side Mount Sensor Operated Urinal Flushometer for $3 / 4^{\prime \prime}$ top spud urinals.
Flush Cycle
0.5 gpf/1.9 Lpf

## Specifications

Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer with the following features:

- Flush Accuracy Controlled by CID Technology
- Spud Coupling and Flange for $3 / 4$ " Top Spud
- Chrome Plated Infrared Sensor Housing
- "User in View" Flashing LED
- No External Volume Adjustment to Ensure Water Conservation
- Infrared Sensor Range Adjustment Screw and Reset Button
- Sweat Solder Adapter w/Cover Tube and Cast Wall Flange w/Set Screw
- Stop Seat and Vacuum Breaker molded from PERMEX® Rubber Compound for Chloramine Resistance
- $3 / 4$ "I.P.S. Screwdriver Bak-Chek® Angle Stop with Free Spinning, Vandal Resistant Stop Cap
- Four (4) Size C Batteries included
- ADA Compliant OPTIMA® Battery Powered Infrared Sensor for automatic "No Hands" operation
- Angled Sensor Window
- Manual Override Flush Button
- "Low Battery" Flashing LED with Optional Audio Tone
- Optional 24-Hour Sentinel Flush

Valve Body, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037, ANSI/ASME Al12.19.2.

## - ELECTRICAL SPECIFICATIONS

## Control Circuit

- Solid State
- 6 VDC Input


## Sensor Type

- Infrared Convergence Type Object Lock Detection


## Indicator Lights

- User in View


## Battery Type

- (4) C Alkaline


## Battery Life

- 6 Years @ 4,000 flushes/month


## Sensor Range

- Nominal 8" - 54" (203 mm- 1372 mm), Factory Set at 24" (610 mm )


## Operating Pressure

- 15-100 psi (104-689 kPa)
- OPERATION

Royal ${ }^{\circledR}$ Optima ${ }^{\circledR}$ SMO ${ }^{\circledR}$ Exposed Battery-Powered Flushometer 186-SMO


1. A continuous, invisible light beam is emitted from the object lock infrared sensor.

2. As the user enters the beam's effective range, $8^{\prime \prime}$ to 54 " (203 mm - 1372 mm ), the Object Lock Infrared Sensor senses the user.

3. When the user steps away from the object lock Infrared sensor, the circuit initiates the flushing cycle to flush the fixture. The circuit then automatically resets and is ready for the next user.

## - FUNCTION SETTINGS



ROUGH-IN


Includes EBV-89-A Side Mount Operator

- VISUAL INDICATOR GUIDE

USER-IN-VIEW L.E.D. - Green light flashes 3 times after 5 second delay when a user is in view. The green light flashes constantly when a user is in view during the 7 minute start up sequence.
BATTERY L.E.D. - Yellow light flashes indicating it is time to replace batteries with four (4) new Type "C" batteries.
OBJECT LOCK SENSOR Detects user or object.
COURTESY MANUAL FLUSH BUTTON
Allows manual activation of flush when needed.

P-3 CARRIER
Z1221
QTY:4
SPECIFICATION SHEET

## PLATE TYPE SYSTEM WALL URINALS

$\qquad$

Dimensional Data (inches and [ mm ]) are Subject to Manufacturing Tolerances and Change Without Notice


| Product <br> No. | Approx. <br> Wt. Lbs. <br> [kg] |
| :---: | :---: |
| Z1221 | $50[23]$ |

OPTIONS (Check/specify appropriate options)

## PREFIXES

$\stackrel{\checkmark}{ } \quad$ Dura-Coated System with Universal Plate*

## SUFFIXES

$\qquad$ -CB CarrierBank
-CU Floor to Ceiling Upright
-D Back to Back System
___ -EZ Easy to Install Assembly
-EZ Easy to Install Assembly and mounting fasteners.

ENGINEERING SPECIFICATION: ZURN Z1221 Wall urinal supportsystem with top support plate. Complete with Dura-Coated rectangular steel uprights with welded feet, adjustable support plate,

Elkay Asana Stainless Steel $14-3 / 8$ " x 14-3/8" x 6 " Single Bowl Undermount Bathroom Sink Model(s) ELUH12LV

## PRODUCT SPECIFICATIONS

Elkay Asana Stainless Steel $14-3 / 8^{\prime \prime} \times 14-3 / 8^{\prime \prime} \times 6$ ", Single Bowl Undermount Bathroom Sink. Sink is manufactured from 18 gauge 304 Stainless Steel with a Lustrous Highlighted Satin finish, Center drain placement, and Full spray sides and bottom with Sides only pads.

| Installation Type: | Undermount |
| :--- | :--- |
| Material: | 304 Stainless Steel |
| Finish: | Lustrous Highlighted Satin |
| Gauge: | 18 |
| Sound Deadening: | Full spray sides and bottom with <br> Sides only pads |
| Number of Bowls: | 1 |
| Sink Dimensions: | $14-3 / 8^{\prime \prime} \times 14-3 / 8^{\prime \prime} \times 6^{\prime \prime}$ |
| Bowl 1 Dimensions: | $12^{\prime \prime} \times 12^{\prime \prime} \times 6^{\prime \prime}$ |
| Drain Size: | $1-1 / 2^{\prime \prime}(38 \mathrm{~mm})$ |
| Drain Location: | Center |
| Minimum Cabinet Size: | $18^{\prime \prime}$ |
| Mounting Hardware: | Undermount brackets sold <br> separately |
| Template Included: | Yes |
| Cutout Template \#: | $\underline{1000000596}$ |

Template is available for download at elkay.com


This sink is compliant to ADA and ANSI/ICC A117.1 accessibility requirements when installed according to the requirements outlined in these standards.

Installation Profile:


AMERICAN PRIDE. A LIFETIME TRADITION.
Like your family, the Elkay family has values and traditions that endure. For almost a century, Elkay has been a family-owned and operated company, providing thousands of jobs that support our families and communities.

(V)
Sinks are listed by IAPMO ${ }^{\circledR}$ as meeting the applicable requirements of the Uniform Plumbing Code ${ }^{\oplus}$, International

Product Compliance: ADA \& ICC A117.1
ASME A112.19.3/CSA B45.4
BUY AMERICAN ACT
Clean and Care Manual (PDF)
Installation Instructions (PDF)
Limited Lifetime Warranty (PDF)
Similar models are available with: CuVerro antimicrobial copper


Designed to affix to the underside of any solid surface countertop.

PART: $\qquad$ QTY: $\qquad$
PROJECT: $\qquad$
CONTACT: $\qquad$
DATE: $\qquad$
NOTES: $\qquad$
APPROVAL: $\qquad$
In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

SPECIFICATIONS

| Drain: | LK174, LKAD174 |
| :--- | :--- |
| Hardware: | LKUCLIP8 |



Submitted Model No.:
Specific Features:


- Designate proper finish suffix

Delta 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.deltafaucet.com for finish options and product availability.

DSP-L-3538-MPU-DST Rev. C
© DELTA
LAVATORY FAUCETS
■ Lahara ${ }^{\circledR}$ Bath Collection
■ Two Handle Widespread Deck Mount

## FEATURES:

- DIAMOND Seal® ${ }^{\circledR}$ Technology


## STANDARD SPECIFICATIONS:

- Max. 1.20 gpm @ 60 psi, $4.54 \mathrm{~L} / \mathrm{min}$ @ 414 kPa
- Three hole mount
- Solid brass fabricated end valve
- 1/4 turn stops
- Diamond coated ceramic cartridge
- 3/8" O.D. straight PEX supply tubes
- Models with suffix "MPU" have metal drain with pop-up type fitting with plated flange and stopper


## WARRANTY

- Lifetime limited warranty on parts (other than electronic parts and batteries) and finishes: or, for commercial users, for 5 years from date of purchase.
- 5 year limited warranty on electronic parts (other than batteries); or, for commercial users, for 1 year from the date of purchase. No warranty is provided on batteries.

COMPLETE VALVE COMPLIES WITH:

- ASME A112.18.1 / CSA B125.1
- ASME A112.18.2 / CSA B125.2
- ASME A112.18.6

G Indicates compliance to ICC/ANSI A117.1

- EPA WaterSense ${ }^{\circledR}$
- Verified compliant with .25\% weighted average Pb content regulations
©DELTA
FAUCET COMPANY
55 E. 111 th Street, Indianapolis, Indiana 46280 350 South Edgeware Road, St. Thomas, ON N5P 4LI © 2016 Masco Corporation of Indiana
$\qquad$ Contractor $\qquad$
Job Location $\qquad$ Approval $\qquad$
Engineer $\qquad$ Contractor's P.O. No.
$\qquad$ Representative
$\qquad$


## LAAD FREE* Series LFUSG-B Under Sink Guardian ${ }^{\text {® }}$

The LFUSG-B-M2 Under Sink Guardian ${ }^{\circledR} 3 / 8^{\prime \prime}$ (10mm) compression and Quick-Connect fitting thermostatic mixing valves maintain and limit hot water to desired selectable temperature between $80^{\circ} \mathrm{F}$ and $120^{\circ} \mathrm{F}\left(27^{\circ} \mathrm{C}\right.$ and $\left.49^{\circ} \mathrm{C}\right)$ with flow rates as low as $0.25 \mathrm{gpm}(1.0 \mathrm{lpm})$ and as high as $2.25 \mathrm{gpm}(8.5 \mathrm{lpm})$. The mixing valve is listed to ASSE Standard 1070 for single fixture applications and IAPMO cUPC. The LFUSG-B-M2 features Lead Free* construction to comply with Lead Free* installation requirements. The superior flow characteristics of these valves provide temperature control with low pressure drop. As an added feature, the LFUSG-B-M2 incorporates dual check valves to protect against cross-flow and integral screens to filter out debris.

## Features

- Lead Free* Brass body construction
- Installs easily between the stop valves and faucet
- Includes tamper resistant locking nut to prevent accidental misadjustment
- Built-in check valves prevent migration of hot water to cold and cold water to hot water piping
- Provided with cap for three port application
- Integral strainer with 40 mesh stainless steel screens to filter out debris


## Applications

The unit is intended for under sink installation to control the hot water temperature and minimize the occurrence of accidental scalding. The water temperature must be adjusted by the installer using a thermometer to measure the hot water temperature at the faucet outlet. Maximum temperature of $105^{\circ} \mathrm{F}\left(41^{\circ} \mathrm{C}\right)$ is recommended.

## Specifications

A Thermostatic Mixing Valve shall be installed on the hot water supply to the fixture. The valve shall be ASSE Standard 1070 and IAPMO cUPC listed and control the temperature of the hot water. It shall have a Lead Free* brass 4-port, "H" pattern body. Lead Free* under counter thermostatic valves shall comply with state codes and standards, where applicable, requiring reduced lead content. The valve shall include integral check valves, integral screens and an adjustment nut with locking feature. The valve shall be provided with $3 / 8^{\prime \prime}$ ( 10 mm ) male compression or Quickconnect fittings. The valve shall be Watts Series LFUSG-B. For satin chrome finish specify - SC.


ASSE 1070 \& IAPMO cUPC Listed

## Materials

Body: Lead Free* Brass
Rubber Disc: Buna-N O-rings: Buna-N
Spring: Stainless steel
Piston: Noryl ${ }^{\circledR}$
Thermostat: Copper
Approval


## Pressure - Temperature

Minimum supply pressure: 30psi (207 kPa) Hot inlet temperature: $120^{\circ} \mathrm{F}-180^{\circ} \mathrm{F}\left(49^{\circ} \mathrm{C}-82^{\circ} \mathrm{C}\right)$ Cold inlet temperature: $39^{\circ} \mathrm{F}-80^{\circ} \mathrm{F}\left(3.8^{\circ} \mathrm{C}-27^{\circ} \mathrm{C}\right)$ Minimum inlet temperature differential: $5^{\circ} \mathrm{F}\left(2.8^{\circ} \mathrm{C}\right)$
Temperature range: $80^{\circ} \mathrm{F}-120^{\circ} \mathrm{F}\left(27^{\circ} \mathrm{C}-49^{\circ} \mathrm{C}\right)$
Maximum pressure: 150psi (10.3 bar)
Minimum Flow: 0.25 gpm ( $1.0 \mathrm{l} / \mathrm{m}$ )

[^4]Nory ${ }^{\circledR}$ is a registered trademark of SABIC Innovative Plastics ${ }^{\circledR}$.

## Basic Construction



Dimensions - Weights

| MODEL | SIZE |  |  | DIMENSIONS |  |  |  |  |  | WEICHT |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A |  | B |  | C |  | D |  | lbs. | kgs. |
|  |  | in. | mm | in. | mm | in. | mm | in. | mm |  |  |
| LFUSG-B-M2 | 3/8" Comp. | 33/16 | 81 | $33 / 8$ | 85 | $13 / 16$ | 47 | $11 / 2$ | 38 | . 82 | . 37 |
| LFUSG-B-SC-M2 | 3/8" Comp. | 33/16 | 81 | $33 / 8$ | 85 | $13 / 16$ | 47 | $11 / 2$ | 38 | . 82 | . 37 |
| LFUSG-B-QC-M2 | 3/8" Quick Connect | $31 / 4$ | 83 | 4 | 102 | 21/4 | 57 | $11 / 2$ | 38 | 1.05 | . 48 |
| LFUSG-B-QC-SC-M2 | 3/8" Quick Connect | $31 / 4$ | 83 | 4 | 102 | 21/4 | 57 | $11 / 2$ | 38 | 1.05 | . 48 |

## Typical Installations

Two Handle Faucet


This information 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.

## Sensor Faucet




## Submittal Number:



See options and accessories section for details on product variations

## Specifications:

Cast brass chrome plated open grid P.O. plug with 17GA 1-1/4" x 6" seamleass brass tailpiece, brass lock nut, heavy rubber basin washer and fiber friction washer. P.O. plug shall be in compliance with CSA or other recognized testing authority and bear both manufacturer and testing mark.


| NO. | DESCRIPTION | ROUGHING MEASUREMENTS |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  | B | $\mathbf{C}$ |  |
| LFH165 | $3 / 8^{\prime \prime}$ I.P.S. $\times 3 / 8^{\prime \prime}$ O.D. | $1-3 / 8^{\prime \prime}$ | $1-15 / 16^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH165LK | $3 / 8^{\prime \prime}$ I.P.S. $\times 3 / 8^{\prime \prime}$ O.D. | $1-3 / 8^{\prime \prime}$ | $2-7 / 16^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH167 | $3 / 8^{\prime \prime}$ I.P.S. $\times 1 / 2^{\prime \prime}$ O.D. | $1-3 / 8^{\prime \prime}$ | $1-15 / 16^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH167LK | $3 / 8^{\prime \prime}$ I.P.S. $\times 1 / 2^{\prime \prime}$ O.D. | $1-3 / 8^{\prime \prime}$ | $2-7 / 16^{\prime \prime}$ | $1^{\prime \prime}$ |

## LK designates Loose Key



* See options and accessories section for details on product variations.


## Specifications:

Supply kit shall include lead free heavy pattern chrome plated supply stop valves with full turn brass stem, no plastic, $(12,15,20)$ inch chrome plated risers and (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. Inlet shall be $3 / 8$ inch IPS. Outlet shall be $3 / 8$ inch compression. Supply kit shall be McGuire $\qquad$ . Supply shall be certified by recognized authority and bear manufacturer and testing mark.

|  | McGuire Manufacturing Co., Inc. 60 Grandview Court <br> P.O. Box 746 • Cheshire, CT 06410 <br> 203-699-1801 • Fax: 203-699-1813 www.mcguiremfg.com <br> PRODUCT SPECIFICATION | Part No. |
| :---: | :---: | :---: |
|  |  | 8872CBECO, C8872CECO, 8904CBECO <br> 8912CBECO, C8912CECO, <br> 8912CNCBECO, 8912C18BECO |
|  |  | Cast Body P-Trap With or Without Cleanout |
| Job Name: | Submittal | mber: |



ECO-LINE

| ROUGHING MEASUREMENTS |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MODEL NO. | TRAP DIMENSIONS | A | B | C to E | FLANGE | SLIP NUT |  |
|  | INLET |  |  |  |  |  |  |
| $8872 C B E C O$ | $1-1 / 4^{\prime \prime}$ | $1-1 / 4^{\prime \prime}$ | $4-1 / 2^{\prime \prime}$ | $4-1 / 2^{\prime \prime}$ | $11^{\prime \prime}$ | Box | Brass |
| C8872CECO | $1-1 / 4^{\prime \prime}$ | $1-1 / 4^{\prime \prime}$ | $4-1 / 2^{\prime \prime}$ | $4-1 / 2^{\prime \prime}$ | $10^{\prime \prime}$ | Shallow | Zinc |
| $8904 C B E C O$ | $1-1 / 2^{\prime \prime}, 2^{\prime \prime}$ | $2^{\prime \prime}$ | $5^{\prime \prime}$ | $6^{\prime \prime}$ | $13-1 / 2^{\prime \prime}$ | Box | Brass |
| 8912CBECO | $1-1 / 2^{\prime \prime}, 1-1 / 4^{\prime \prime}$ | $1-1 / 2^{\prime \prime}$ | $5^{\prime \prime}$ | $5^{\prime \prime}$ | $12^{\prime \prime}$ | Box | Brass |
| C8912CECO | $1-1 / 2^{\prime \prime}, 1-1 / 4^{\prime \prime}$ | $1-1 / 2^{\prime \prime}$ | $5^{\prime \prime}$ | $5^{\prime \prime}$ | $10-1 / 2^{\prime \prime}$ | Shallow | Zinc |
| 8912CNCBECO | $1-1 / 2^{\prime \prime}, 1-1 / 4^{\prime \prime}$ | $1-1 / 2^{\prime \prime}$ | $4-3 / 4^{\prime \prime}$ | $4-1 / 2^{\prime \prime}$ | $12^{\prime \prime}$ | Box | Brass |
| 8912C18BECO | $1-1 / 2^{\prime \prime}, 1-1 / 4^{\prime \prime}$ | $1-1 / 2^{\prime \prime}$ | $5^{\prime \prime}$ | $5^{\prime \prime}$ | $18^{\prime \prime}$ | Box | Brass |

FED SPEC W.W.P. 541
CAST BRASS P-TRAP
MINIMUM SEAL 2"
ASME A112.18.1-2011/CSA B125.2-11

## Specifications:

Chrome plated P-Trap shall be cast brass body, with or without cleanout, with 17 gauge seamless tubular wall bend and flange.

## Submittal Sheet



## General Description:

LAV GUARD ${ }^{\circledR} 2 \mathrm{E}-\mathrm{Z}$ 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, E-Z Tear-To-Fit <br> trim feature |
| Fasteners (E-Z Series) | Internal E-Z Grip fasteners <br> (reusable) |
| Color | China white |
| Paintability | Apply Latex paint |
| Burning Characteristics | Self extinguished <br> 0 sec (ATB) 0 mm (AEB) |
| ASTM D-635 | ASTM G21 and G22/ <br> Result: 0 growth |
| Bacteria/Fungus | Uesistance |

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

## 3TRUEBRO.

IPS Corporation, 202 Industrial Park Lane, Collierville, TN 38017 (901) 853-5001 (800) 340-5969 FAX: (901) 853-5008 e-mail: info @truebro.com Internet: http://www.truebro.com

\#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.

| Model \#99 E-Z <br> One angle valve and supply cover | Model \#102 E-Z <br> One P-trap cover, two angle valves and covers | Accessory \#105-K Kohler 6" offset |
| :---: | :---: | :---: |
| $\square$ Model \#100 E-Z <br> One P-trap cover | Model \#402W* <br> One P-trap cover, two angle valves and covers | Accessory \#106 E-Z <br> One basket strainer cover and offset waste cover (adjustable to 18") |
| $\square$ Model \#400W* One P-trap cover |  | waste cover (adjustable to 18") Accessory \#107 E-Z |
| $\square$ Model \#101 E-Z <br> One P-trap cover, one angle valve cover | Model \#103 E-Z <br> One P-trap cover, two angle valves and supply covers, one 5 " offset tailpiece wheelchair strainer cover | Two basket strainer covers and center or end outlet waste cover (adjustable) Accessory \#Ex 99 E-Z |
| Model \#401W* <br> One P-trap cover, one angle valve cover | Accessory \#105 E-Z <br> One 5" offset tailpiece wheelchair strainer assembly | One 16" extension for water supply Accessory \#Ex100 E-Z <br> One 16 " extension for drain waste |
| *All \#400W series items are the "original" LAv Guard ${ }^{\oplus}$ design and construction. Specifications may change without notice. |  | tailp |
| Accessory 105 E-Z | Accessory 107 E-Z <br> (Configuration Options Shown) |  |
| Accessory 106 E-Z | Center Outle | End Outlet |
|  |  |  |

Job/Location
Designer
TRUEBRO reserves the right to make product and material changes at any time without notice. $2 / 07$

## PRODUCT SPECIFICATIONS

Elkay Lustertone Stainless Steel 14-1/2" x 14-1/2" x 5-3/8", Single Bowl Undermount Sink. Sink is manufactured from 18 gauge 304 Stainless Steel with a Lustrous Highlighted Satin finish, Rear Center drain placement, and Full spray sides and bottom with Bottom only pads.

| Installation Type: | Undermount |
| :--- | :--- |
| Material: | 304 Stainless Steel |
| Finish: | Lustrous Highlighted Satin |
| Gauge: | 18 |
| Sound Deadening: | Full spray sides and bottom with <br> Bottom only pads |
| Number of Bowls: | 1 |
| Sink Dimensions: | $14-1 / 2^{\prime \prime} \times 14-1 / 2^{\prime \prime} \times 5-3 / 8^{\prime \prime}$ |
| Bowl 1 Dimensions: | $12^{\prime \prime} \times 12^{\prime \prime} \times 5-3 / 8^{\prime \prime}$ |
| Drain Size: | $3-1 / 2^{\prime \prime}(89 \mathrm{~mm})$ |
| Drain Location: | Rear Center |
| Minimum Cabinet Size: | $18^{\prime \prime}$ |
| Mounting Hardware: | Undermount brackets sold <br> separately |
| Template Included: | Yes |
| Cutout Template \#: | 1000001423 |

Template is available for download at elkay.com


This sink is compliant to ADA and ANSI/ICC A117.1 accessibility requirements when installed according to the requirements outlined in these standards.

Installation Profile:


Designed to affix to the underside of any solid surface countertop.


AMERICAN PRIDE. A LIFETIME TRADITION.
Like your family, the Elkay family has values and traditions that endure. For almost a century, Elkay has been a family-owned and operated company, providing thousands of jobs that support our families and communities.

Sinks are listed by IAPMO ${ }^{\circledR}$ as meeting the applicable requirements of the Uniform Plumbing Code ${ }^{\circledR}$, International Plumbing Code ${ }^{\circledR}$, and National Plumbing Code of Canada.
Product Compliance: ADA \& ICC A117.1

## ASME A112.19.3/CSA B45.4

BUY AMERICAN ACT
Clean and Care Manual (PDF)
Installation Instructions (PDF)
Limited Lifetime Warranty (PDF)
Similar models are available with: additional ADA depths


PART: $\qquad$ QTY: $\qquad$
PROJECT:
CONTACT: $\qquad$
DATE: $\qquad$
NOTES: $\qquad$
APPROVAL: $\qquad$

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Elkay Lustertone Stainless Steel 14-1/2" x 14-1/2" x 5-3/8" Single Bowl Undermount Sink Model(s) ELUHAD121255

## OPTIONAL ACCESSORIES

| Drain: | LK99, LKAD35 |
| :--- | :--- |
| Faucet: | LKGT1042, LKGT2042 |
| Hardware: | LKUCLIP8 |
| Rinsing Basket: | LKWRB1209SS |
| Sinkmate: | LKSM17, LKSMHOOK, <br> LKSMSPONGE, LKSMHSL |
| Soap Dispenser: | LKGT1054 |

## MODELS:

- SC-3004-LD-E: Gooseneck faucet

SC-3004-8-LD-E: 8 in. deep gooseneck faucet

- SC-3004-FC-LD: Gooseneck faucet with 2.0 gpm laminar flow control in base of spout


## FEATURES:

- Polished chrome plated widespread gooseneck lavatory faucet with 1/4 turn ceramic cartridges.
- 8 in. fixed centers with rigid copper tee connection.
- Accommodates installations up to $1 \frac{1}{2}$ in. thick.
- Lead-free brass widespread faucet with $5-1 / 4 \mathrm{in}$. deep spread gooseneck spout, rigid or swivel.
- Vandal-resistant 4 in. wrist blade handles with color-coded indexes.
- Vandal-resistant water conserving flow control reduces flow to $0.5 \mathrm{gpm}(1.89 \mathrm{~L} / \mathrm{min})(\mathrm{SC}-3004-L D \& S C-3004-8-L D)$.
- No drain assembly.


## COMPLIANCE:

- ASME A112.18.1/CSA B125.1 certified
- NSF 61 certified
- NSF 372 certified


## FINISH:



SC-3004-8-LD-E

## ADD-ONS:

 _- Cross handle kit: 2 chrome plated metal handles, 2 screws, red \& blue index buttons
- A-CROSS
- 4in. wrist blade handle kit: 2 chrome plated brass handles, 2 screws, 2 lock washers, red \& blue index buttons
- A-4WRIST
- 0.5 gpm Boca spray outlet \& 1.5 gpm laminar flow outlet kit (except SC-3004-FC-LD)
- A-BOLF
- Flex hose kit: 2 stainless steel hoses \& 1 widespread hose tee - A-HOSES
- Strainer drain with flat chrome plated brass strainer plate
- S-3440
- Push Pop-Up Drain in chrome plated brass
- S-3470
- 1.2 gpm laminar flow outlet (except SC-3004-FC-LD)
- A-ELF
- 1.2 gpm aerator (except SC-3004-FC-LD)
] A-EA12


SC-3004-FC-LD

## WARRANTY:

- 5 Year Limited (commerical use)



## GPFAKMAN'

DIMENSIONS: NOTE: 1. All dimensions are in inches (millimeters) unless otherwise specified and are subject to change without notice.


## QTY:1

## GENERAL

## LK35

- Type 304 stainless steel body and removable conical basket strainer with metal stem and rubber stopper.
- Fits $3-1 / 2^{\prime \prime}$ ( 89 mm ) opening.
- Polished finish.
- Chrome plated brass $1-1 / 2^{\prime \prime}(38 \mathrm{~mm}) \times 4$ " ( 102 mm ) tailpiece.


## LK35B

- Type 304 stainless steel body and removable conical basket strainer with metal stem and rubber stopper.
- Fits $3-1 / 2^{\prime \prime}$ ( 89 mm ) opening.
- Polished finish.
- Type 304 stainless steel 1-1/2" (38mm) x 4" (102mm) tailpiece.


## LK35L

- Type 304 stainless steel body and removable conical basket strainer with metal stem and rubber stopper.
- Fits $3-1 / 2^{\prime \prime}$ ( 89 mm ) opening.
- Polished finish.
- Chrome plated cast brass $1-1 / 2^{\prime \prime}(38 \mathrm{~mm}) 90^{\circ}$ elbow.


Models LK35, LK35B


Model LK35L


In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkayusa.com for most current version of Elkay product specification sheets. user. When making a comparison of other producers' offerings, be certain these features are not overlooked.


IPS x Compression


Nominal x Compression

| NO. | DESCRIPTION | ROUGHING MEASUREMENTS |  |  |
| :--- | :--- | :--- | :---: | :---: |
|  |  | A | B | C |
| LFH2165 | $1 / 2^{\prime \prime}$ IPS $\times 3 / 8^{\prime \prime}$ OD, Wheel Handle | $1-3 / 8^{\prime \prime}$ | $1-15 / 16^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2165LK | $1 / 2^{\prime \prime}$ IPS $\times 3 / 8^{\prime \prime}$ OD, Loose Key | $1-3 / 8^{\prime \prime}$ | $2-5 / 8^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2167 | $1 / 2^{\prime \prime}$ IPS $\times 1 / 2^{\prime \prime}$ OD, Wheel Handle | $1-3 / 8^{\prime \prime}$ | $1-15 / 16^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2167LK | $1 / 2^{\prime \prime}$ IPS $\times 1 / 2^{\prime \prime}$ OD, Loose Key | $1-3 / 8^{\prime \prime}$ | $2-5 / 8^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2165CC | $1 / 2^{\prime \prime}$ Nominal $\times 3 / 8^{\prime \prime}$ OD, Wheel Handle | $1-3 / 8^{\prime \prime}$ | $2-1 / 4^{\prime \prime}$ | $1-3 / 8^{\prime \prime}$ |
| LFH2165CCLK | $1 / 2^{\prime \prime}$ Nominal $\times 3 / 8^{\prime \prime}$ OD, Loose Key | $1-3 / 8^{\prime \prime}$ | $2-15 / 16^{\prime \prime}$ | $1-3 / 8^{\prime \prime}$ |

## LK designates Loose Key

* See options and accessories section for details on product variations.



## Specifications:

Supply kit shall include heavy pattern chrome plated AB1953 compliant supply stop valves with full turn brass stem, no plastic, $(12,15,20)$ inch chrome plated risers and (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. Inlet shall be $1 / 2$ inch (IPS, compression). Outlet shall be ( $3 / 8,1 / 2$ ) inch compression. Supply kit shall be McGuire
Supply shall be AB1953 certified by recognized authority and bear manufacturer and testing mark.

|  | McGuire Manufacturing Co., Inc. 60 Grandview Court <br> P.O. Box 746 • Cheshire, CT 06410 <br> 203-699-1801 • Fax: 203-699-1813 www.mcguiremfg.com <br> PRODUCT SPECIFICATION | Part No. |
| :---: | :---: | :---: |
|  |  | 8872CBECO, C8872CECO, 8904CBECO <br> 8912CBECO, C8912CECO, <br> 8912CNCBECO, 8912C18BECO |
|  |  | Cast Body P-Trap With or Without Cleanout |
| Job Name: | Submitta | mber: |



ECO-LINE

| ROUGHING MEASUREMENTS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MODEL NO. | TRAP DIMENSIONS |  | A | B | C to E | FLANGE | SLIP NUT |
|  | INLET | OUTLET |  |  |  |  |  |
| 8872CBECO | 1-1/4" | 1-1/4" | 4-1/2" | 4-1/2" | 11" | Box | Brass |
| C8872CECO | 1-1/4" | 1-1/4" | 4-1/2" | 4-1/2" | 10" | Shallow | Zinc |
| 8904CBECO | 1-1/2", $2^{\prime \prime}$ | 2" | 5 " | 6 | 13-1/2" | Box | Brass |
| 8912CBECO | 1-1/2", 1-1/4" | 1-1/2" | 5 " | 5" | 12" | Box | Brass |
| C8912CECO | 1-1/2", 1-1/4" | 1-1/2" | 5 " | 5" | 10-1/2" | Shallow | Zinc |
| 8912CNCBECO | 1-1/2", 1-1/4" | 1-1/2" | 4-3/4" | 4-1/2" | 12" | Box | Brass |
| 8912C18BECO | 1-1/2", 1-1/4" | 1-1/2" | $5^{\prime \prime}$ | 5" | 18 " | Box | Brass |

FED SPEC W.W.P. 541
CAST BRASS P-TRAP
MINIMUM SEAL 2"
ASME A112.18.1-2011/CSA B125.2-11

## Specifications:

Chrome plated P-Trap shall be cast brass body, with or without cleanout, with 17 gauge seamless tubular wall bend and flange.

# STUDOR MINI-VENT Air Admifitance Valve for Plumbing Ventilation <br> P-5 2" APV QTY:1 

## Product Information/Specification Sheet

## DESCRIPTION

The Studor Mini-Vent AAV is an accepted alternative to replace all forms of conventional branch and stack venting. With localised active ventilation of the building drainage system it is proven that the Mini-Vent provides greater protection to prevent induced and self-siphonage of the fixture traps.
The Mini-Vent opens and admits fresh air when the negative (suction) pressure occurs from a fixture discharging into the system. This equalizes the pressure within the system and protects the trap seal. When the flow stops, the Mini-Vent closes by gravity, preventing any transmission of foul air.
The Mini-Vent is used as an alternative to extending the vent pipes through the roof or sidewall.

## FEATURES

- Screening on the inside and outside of the Mini-Vent to protect the sealing membrane from foreign objects.
- Ability to divert condensation away from the sealing membrane.
- Prevents the release of foul air from the drainage system.
- Available in white $A B S$.
- As standard, the Mini-Vent is fitted with the push-fit Global Connector. For specific markets it may be provided with an alternative or no connector.


## INSTALLATION

-The Mini-Vent should be connected to the piping in accordance with Studor's installation instructions.

- Refer to your local area regulations for open vent requirements.


## WARRANTY

The Studor products have a lifetime warranty - equivalent to that of the drainage system in which they are installed. Visit www.studor.net for full details.

DIMENSIONS

| Dimension | Metric (mm) | Imperial (inches) |
| :---: | :---: | :---: |
| A | $\varnothing 70$ | $\varnothing 2^{12 / 16}$ |
| B | 67 | $2^{10 / 16}$ |
| C | $\varnothing 47$ | $\varnothing 1^{14 / 16}$ |
| D | $\varnothing 67$ | $\varnothing 2^{1 / 16}$ |
| E | 31.9 | $14 / 16$ |
| F | $\varnothing 33$ | $\varnothing 1^{5 / 16}$ |
| G | $\varnothing 64$ | $\varnothing 2^{8 / 16}$ |
| H | $\varnothing 49$ | $\varnothing 1^{15 / 16}$ |
| I | 68 | $2^{11 / 16}$ |
| J | 38 | $1^{8 / 16}$ |
| K | 19 | $\boxed{12 / 16}$ |
| L | $\varnothing 51$ | $\varnothing 2^{2}$ |
| M | $\varnothing 63$ | $\varnothing 2^{8 / 16}$ |

Note: Dimensions for reference only
PERFORMANCE PARAMETER

| Temperature range | $-20^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}(\mathrm{CE})$ <br> $-40^{\circ} \mathrm{F}$ to $+150^{\circ} \mathrm{F}(\mathrm{ASSE})$ |
| :--- | :--- |
| Opening pressure | $-70 \mathrm{~Pa} \mathrm{(-0.010PSI)}$ |
| Max. pressure rating <br> tightness | $10,000 \mathrm{~Pa}(1 \mathrm{~m} / 40 \mathrm{H} 2 \mathrm{O})$ <br> at 0 Pa or higher |


| Air flow capacity | Branch | Stack |
| :---: | :---: | :---: |
| Europe | $7.5 \mathrm{I} / \mathrm{s}$ | $7.5 \mathrm{I} / \mathrm{s}$ |
| $\mathrm{AU} / \mathrm{NZ}$ | $7.5 \mathrm{I} / \mathrm{s} / 94 \mathrm{FU}$ | $7.5 \mathrm{I} / \mathrm{s} / 7 \mathrm{FU}$ |
| USA | 1 to 160 DFU | 8 to 24 DFU |

## MATERIALS

| Component | Material |
| :---: | :---: |
| Mini-Vent cap \& body | ABS |
| Mini-Vent membrane | Synthetic rubber |
| Global connector | TPE |
| US SCH40 adaptor | PVC |
|  |  |


| EN 12380 |
| :--- |
| Studor Ventech Limited, Millennium House, Victoria Road <br> Douglas, Isle of Man IM2 4 RW , British Isles |
| Valve to ventilate drainage systems <br> Designation: Al <br> Airflow capacity: $7.5 \mathrm{I} / \mathrm{s}$ <br> Airtightness tested at: $30 / 500 / 10000 \mathrm{~Pa}$ <br> Range of temperature: $-20^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$ <br> Effectiveness at temperatures below zero: $-20^{\circ} \mathrm{C}$ <br> Pipe material in accordance with: EN1329-1, EN1451-1, <br> EN4514, EN $12056-1$ <br> Pipe DN: $32,40,50,63$ |

PIPE SIZES

| Europe | AU/NZ | USA |
| :--- | :--- | :---: |
| DN 32-50 | DN 32-50 | $1^{1} / 4^{\prime \prime}-2^{\prime \prime}$ |

## "3PB-2DB" Pro-Bowl Sinks - 16 Gauge

## Three Compartment Sinks wl 2 Drainboard wl Stainless Steel Base \& Bracing



FEATURES:

* Standard 16 Gauge

Type 300 stainless steel with \# 4 polish, satin finish

* 12" \& 14" Deep Bowls
* All Corners, both vertical and horizontal, coved at 5/8" radius
* Bottoms of bowls formed for drainage to 3-1/2" diameter die stamped opening
* Full length 10" High Boxed Backsplash, with 2" return to wall at 45 degree and 3/4" turned down rear lip
* 1-1/8" Faucet Holes in Backsplash
* Solid Stainless Steel front panel, type 300 stainless steel with \# 4 polish, satin finish
* All outside corners of assembly are Bullnosed to provide safe,clean and polished edge
* Standard legs 1-5/8" diameter, 16 gauge stainless steel
* Legs located directly under sink bowls, providing increased stability and maximum weight support
* 36" Drainboards are standard w/ additional stainless steel legs


## CONSTRUCTION:

| Top: | Stainless Steel Sinks are TIG welded, Exposed welds <br> are polished to match adjacent surface. |
| :--- | :--- |
| Bases: | Stainless Steel Bases, Standard K.D. |

## OPTIONAL <br> ACCESSORIES

|  | Qty |
| :--- | :--- |
| END SPLASHS, RIGHT, LEFT or BOTH |  |
| FAUCETS |  |
| ADD-A-FAUCETS |  |
| PRE-RINSE UNITS |  |
| LEVEL WASTE |  |
| OVERSHELVES |  |
| POT RACK |  |

## John Boos \& Co

## DETAILED SPECIFICATIONS

| BOWLS | F | G | H |
| :---: | :---: | :---: | :---: |
| $16 \times 18$ | $23-1 / 2^{\prime \prime}$ | $18^{\prime \prime}$ | $11-15 / 16^{\prime \prime}$ |
| $16 \times 20$ | $25-1 / 2^{\prime \prime}$ | $20^{\prime \prime}$ | $12-15 / 16^{\prime \prime}$ |
| $18 \times 18$ | $23-1 / 2^{\prime \prime}$ | $18^{\prime \prime}$ | $11-15 / 16^{\prime \prime}$ |
| $18 \times 24$ | $29-1 / 2^{\prime \prime}$ | $24 "$ | $14-15 / 16^{\prime \prime}$ |
| $24 \times 24$ | $29-1 / 2^{\prime \prime}$ | $24 "$ | $14-15 / 16^{\prime \prime}$ |
| $30 \times 24$ | $29-1 / 2^{\prime \prime}$ | $24 "$ | $14-15 / 16^{\prime \prime}$ |



| 16 GAUGE * 12" DEEP |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| MODEL | BOWL SIZE | DIMENSIONS | DB | WT. |
| 3PB1618-2D18 | $16 \times 18 \times 12$ | $87-1 / 4 " \times 23-1 / 2^{\prime \prime}$ | $18 "$ | 345 |
| 3PB1618-2D24 | $16 \times 18 \times 12$ | $99-1 / 4 " \times 23-1 / 2^{\prime \prime}$ | $24 "$ | 370 |
| 3PB1618-2D30 | $16 \times 18 \times 12$ | $111-1 / 4 " \times 23-1 / 2^{\prime \prime}$ | $30 "$ | 395 |
| 3PB18-2D18 | $18 \times 18 \times 12$ | $93-1 / 4 " \times 23-1 / 2^{\prime \prime}$ | $18 "$ | 317 |
| 3PB18-2D24 | $18 \times 18 \times 12$ | $105-1 / 4 " \times 23-1 / 2^{\prime \prime}$ | $24 "$ | 390 |
| 3PB18-2D30 | $18 \times 18 \times 12$ | $117-1 / 4 " \times 23-1 / 2^{\prime \prime}$ | $30 "$ | 415 |
| 3PB1824-2D18 | $18 \times 24 \times 12$ | $93-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $18 "$ | 405 |
| 3PB1824-2D24 | $18 \times 24 \times 12$ | $105-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $24 "$ | 430 |
| 3PB1824-2D30 | $18 \times 24 \times 12$ | $117-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $30 "$ | 455 |
| 3PB24-2D24 | $24 \times 24 \times 12$ | $123-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $24 "$ | 490 |
| 3PB24-2D30 | $24 \times 24 \times 12$ | $135-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $30 "$ | 515 |
| 3PB3024-2D30 | $30 \times 24 \times 12$ | $153-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $30 "$ | 580 |
| 3PB3024-2D36 | $30 \times 24 \times 12$ | $165-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $36 "$ | 605 |



All dimensions are typical.
Tolerance +/- .500".
All units ship unassembled for reduced shipping cost.

|  | 12 " Deep | $14 "$ Deep |
| :---: | :---: | :---: |
| A | $14^{\prime \prime}$ | $16^{\prime \prime}$ |
| B | $12^{\prime \prime}$ | $14^{\prime \prime}$ |
| C | $10^{\prime \prime}$ | $10^{\prime \prime}$ |
| D | $43^{\prime \prime}$ | $43^{\prime \prime}$ |


| 16 GAUGE * 14" DEEP |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MODEL | BOWL SIZE | DIMENSIONS | DB | WT. |  |
| 3PB16184-2D18 | $16 \times 18 \times 14$ | $87-1 / 4 " \times 23-1 / 2^{\prime \prime}$ | $18 "$ | 348 |  |
| 3PB16184-2D24 | $16 \times 18 \times 14$ | $99-1 / 4^{\prime \prime} \times 23-1 / 2^{\prime \prime}$ | $24 "$ | 373 |  |
| 3PB16184-2D30 | $16 \times 18 \times 14$ | $111-1 / 4^{\prime \prime} \times 23-1 / 2^{\prime \prime}$ | $30 "$ | 398 |  |
| 3PB184-2D18 | $18 \times 24 \times 14$ | $93-1 / 4 " \times 23-1 / 2^{\prime \prime}$ | $18^{\prime \prime}$ | 320 |  |
| 3PB184-2D24 | $18 \times 18 \times 14$ | $105-1 / 4 " \times 23-1 / 2^{\prime \prime}$ | $24 "$ | 393 |  |
| 3PB184-2D30 | $18 \times 18 \times 14$ | $117-1 / 4 " \times 23-1 / 2^{\prime \prime}$ | $30 "$ | 418 |  |
| 3PB18244-2D18 | $18 \times 24 \times 14$ | $93-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $18 "$ | 408 |  |
| 3PB18244-2D24 | $18 \times 24 \times 14$ | $105-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $24 "$ | 433 |  |
| 3PB18244-2D30 | $18 \times 24 \times 14$ | $117-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $30 "$ | 458 |  |
| 3PB244-2D24 | $24 \times 24 \times 14$ | $123-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $24 "$ | 493 |  |
| 3PB244-2D30 | $24 \times 24 \times 14$ | $135-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $30 "$ | 518 |  |
| 3PB30244-2D30 | $30 \times 24 \times 14$ | $153-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $30 "$ | 583 |  |
| 3PB30244-2D36 | $30 \times 24 \times 14$ | $165-1 / 4 " \times 29-1 / 2^{\prime \prime}$ | $36 "$ | 608 |  |

John Boos \& Co
3601 S. Banker Str - Effingham, IL 62401 Phone: 217-347-7701 - Fax: 217-347-7705 Email: sales@johnboos.com - Web-site: www.johnboos.com


July 2013
John Boos is constantly engaged in a program of improving products and therefore reserves the right to change specification without prior notice


T\&S BRASS AND BRONZE WORKS, INC.
2 Saddleback Cove / P.O. Box 1088 Travelers Rest, SC 29690

Model No.
B-0231
Item No.

Travelers Rest, SC: 800-476-4103 • Simi Valley, CA: 800-423-0150 • Fax: 864-834-3518 • www.tsbrass.com


Product Specifications:
8" Wall Mount Mixing Faucet w/ Eterna Cartridges, Lever Handles, 12 " Swing Nozzle \& $1 / 2^{\prime \prime}$ NPT Female Inlets


| NO. | DESCRIPTION | ROUGHING MEASUREMENTS |  |  |
| :--- | :--- | :--- | :---: | :---: |
|  |  | A | B | C |
| LFH2165 | $1 / 2^{\prime \prime}$ IPS $\times 3 / 8^{\prime \prime}$ OD, Wheel Handle | $1-3 / 8^{\prime \prime}$ | $1-15 / 16^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2165LK | $1 / 2^{\prime \prime}$ IPS $\times 3 / 8^{\prime \prime}$ OD, Loose Key | $1-3 / 8^{\prime \prime}$ | $2-5 / 8^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2167 | $1 / 2^{\prime \prime}$ IPS $\times 1 / 2^{\prime \prime}$ OD, Wheel Handle | $1-3 / 8^{\prime \prime}$ | $1-15 / 16^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2167LK | $1 / 2^{\prime \prime}$ IPS $\times 1 / 2^{\prime \prime}$ OD, Loose Key | $1-3 / 8^{\prime \prime}$ | $2-5 / 8^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2165CC | $1 / 2^{\prime \prime}$ Nominal $\times 3 / 8^{\prime \prime}$ OD, Wheel Handle | $1-3 / 8^{\prime \prime}$ | $2-1 / 4^{\prime \prime}$ | $1-3 / 8^{\prime \prime}$ |
| LFH2165CCLK | $1 / 2^{\prime \prime}$ Nominal $\times 3 / 8^{\prime \prime}$ OD, Loose Key | $1-3 / 8^{\prime \prime}$ | $2-15 / 16^{\prime \prime}$ | $1-3 / 8^{\prime \prime}$ |

## LK designates Loose Key

* See options and accessories section for details on product variations.



## Specifications:

Supply kit shall include heavy pattern chrome plated AB1953 compliant supply stop valves with full turn brass stem, no plastic, $(12,15,20)$ inch chrome plated risers and (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. Inlet shall be $1 / 2$ inch (IPS, compression). Outlet shall be ( $3 / 8,1 / 2$ ) inch compression. Supply kit shall be McGuire
Supply shall be AB1953 certified by recognized authority and bear manufacturer and testing mark.


HILOW ${ }_{\text {® }}$


CORLow.


| $\begin{array}{r} \text { 6" FI } \\ \text { WITH STA } \end{array}$ | ROP <br> STEEL CAP | 6" FRONT DROP <br> WITH STAINLESS STEEL CAP ALL SIDES |  | 6" FRONT DROP <br> WITH STAINLESS STEEL CAP |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MODEL | SIZE | MODEL | SIZE | MODEL | SIZE |
| HL-1800 | 24 "x24"x12" | HL-1810 | 24 "x24"x12" | SBC-1700 | 24 "x24"x12" |
| HL-1900 | $32 \times 332 \mathrm{x} \times 12$ | HL-1910 | $32^{\prime \prime} \times 32^{\prime \prime} \times 12^{\prime \prime}$ | SBC-1702• | $24 " \times 24 " \times 12^{\prime \prime}$ |
| HL-2000 | $36 " \times 36$ "x12" | HL-2010 | $36 " \times 36 " \times 12^{\prime \prime}$ | SBC-1725 | 32 "x32"x12" |
| HL-2100 | $36 " \times 24 " \times 12^{\prime \prime}$ | HL-2110 | $36 " \times 24 " \times 12^{\prime \prime}$ | SBC-1750 | $36 " \times 36 " \times 12^{\prime \prime}$ |

Model No. (
) Size (
), as manufactured by Stern-Williams Co., Inc. Shoulders shall not be less than 9-3/4" high inside measurement, and not less than $1-1 / 4^{\prime \prime}$ wide. All models have 6 " drop at threshold. Drain shall be cast brass with stainless steel strainer cast integral and shall provide for a caulked lead connection not less than 1" deep to a 3 " pipe. Receptor composed of pearl gray marble chips and white Portland cement ground smooth, grouted and sealed to resist stains. Stainless steel cap of one piece 20 ga .302 stainless steel cast integral on threshold.


## QUALITY OPTIONAL FITTINGS

A. T-10-VB Mop-Service sink fitting with vacuum breaker, adjustable top brace, 3/4" hose thread on spout with bucket hook inlets 8 " on center, chrome finish.
T-15 VB same as above with polished chrome finish.
B. T-35 Hose and wall hook. Hose $36^{\prime \prime}$ long, with $3 / 4^{\prime \prime}$ chrome couplings. Wall bracket of stainless steel.
C. T-40 Stainless Steel Mop Hanger of stainless steel with \#4 finish. . . 24" long, with 3 rubber spring loaded grips.
D. BP Splash Catcher Panels of 20 ga. type 304 stainless steel.

## JOB

ARCHITECT
LOCATION
ENGINEER


Commander® Service Sink Faucet

## MODELS: <br> - SC-5811: Polished chrome plated Commander service sink <br> $\square$ SC-5811-RCP: Rough chrome plated Commander service sink

P-7 FAUCET QTY:1

FEATURES:

- Chrome plated cast brass Commander service sink fitting with $1 / 4$ turn ceramic cartridges.
- Integral stops. Cast brass nozzle with $3 / 4 \mathrm{in}$. hose thread and pail hook.
- Brass vacuum breaker.
- Brass top brace assembly with wall flange and mounting screws.
- Distance from finished wall to nozzle outlet is 9 in.
- 8 in. centers with adjustable threaded brass wall flanges provide +/- $1 / 4 \mathrm{in}$. adjustments.
- $1 / 2$ in. NPTF inlets.
- Vandal-resistant four-arm handles with color-coded indexes.


## COMPLIANCE:



- ASME A112.18.1/CSA B125.1 certified
- ASSE-1001 certified


## FINISH:

## AD D-ON S:Add suffix to model \#

- Check valves in swivel assembly
- 5 ft. vinyl hose with wall hook

s f. viny hose with wal hook
- A-5H
- Safety eyewash attachment

SEF-9200

- 4in. wrist blade handle kit: 2 chrome plated brass handles, 2 screws, 2 lock washers, red \& blue index buttons
- A-4WRIST

WARRANTY:

- 5 Year Limited (commerical use)


## SPEAKMAN'

D\|MENS\|ONS: NOTE:1.All dimensions are in inches (mililimeters) unless otherwise specified and are subject to change without notice.


| Architect/Engineer Approval Space: | SPEAKMAN | P: 800-537-2107 |
| :---: | :---: | :---: |
|  | 400 ANCHOR MILL ROAD NEW CASTLE, DE 19720 | F: 800-977-2747 <br> w: WWW.SPEAKMAN.COM |
|  |  | R: OCTOBER 2016 |

Profit from the Eagle Advantage ${ }^{\circledR}$

## Specification Sheet

## Short Form Specifications

Eagle Hand Sink, model HSA-10. Constructed of type 304 stainless steel, all-welded with deep-drawn positive drain sink bowl, inverted "V" edge to prevent spillage and basket drain. Unit less faucet.
Eagle Hand Sink, model HSA-10-F. Features the same as sink \#HSA-10, plus splash mounted gooseneck faucet.
Eagle Hand Sink, model HSA-10-FA. Features the same as sink \#HSA-10, plus p-trap, tailpiece, and splash mounted gooseneck faucet.
Eagle Hand Sink, model HSA-10-FAW. Features the same as sink \#HSA-10, plus p-trap, tailpiece, and splash mounted gooseneck faucet with wrist handles.
Eagle Hand Sink, model HSA-10-FL. Constructed of type 304 stainless steel, all-welded with deep-drawn positive drain sink bowl, inverted " V " edge to prevent spillage, polymer lever drain, and splash mounted gooseneck faucet.
Eagle Hand Sink, model HSA-10-FO. Features the same as sink \#HSA-10-FL, plus polymer lever drain includes overflow.


## EAGLE GROUP

100 Industrial Boulevard, Clayton, DE 19938-8903 USA
Phone: 302-653-3000 • Fax: 302-653-2065
www.eaglegrp.com
Foodservice Division: Phone 800-441-8440
MHC/Retail Display Divisions: Phone 800-637-5100

Item No.: $\qquad$
Project No.: $\qquad$
S.I.S. No.: $\qquad$

## Traditional Hand Sinks

MODELS:
$\square$ HSA-10
$\square$ HSA-10-F
$\square$ HSA-10-FAW
$\square$ HSA-10-FA
$\square H S A-10-F L$
$\square H S A-10-F 0$

## Design \& Construction Features

- Heavy gauge type 304 stainless steel all-welded construction.
- Inverted " V " edge rim retards spillage.
- Unique deep-drawn positive-drain bowl assures complete drainage to meet the most stringent health code requirements.
- Water inlet: $1 / 2$ " $(13 \mathrm{~mm})$ NPS.
- Drain outlet: $11 / 2 \prime$ " $(38 \mathrm{~mm})$ NPS.


## Options / Accessories

- P-trap
- Tail piece
$\square$ End splashes
- Front skirt
- Side mount wall bracket
$\square$ MICROGARD ${ }^{\circledR *}$ antimicrobial protection
* For hand sinks \#HSA-10, HSA-10-F, HSA-10-FA, and HSA-10-FAW


Profit from the Eagle Advantage ${ }^{\circledR}$

Item No. $\qquad$
Project No.: $\qquad$
S.I.S. No.: $\qquad$

## Traditional Hand Sinks



## HSA-10-FA




HSA-10-FO


| model \# | includes | width $\frac{\text { bowl size }}{x \text { length } x} \begin{aligned} & \mathrm{x} \text { depth } \\ & \text { in. }\end{aligned}{ }^{\mathrm{mm}}$ |  | overall size <br> width x length x height in. <br> mm |  | weight <br> lbs. kg |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HSA-10 * | $4^{\prime \prime}$ ( 102 mm ) centerline faucet holes, basket drain | $93 / 4 \times 131 /{ }^{\prime \prime} \times 63 / 4$ | $248 \times 343 \times 173$ | $14^{3} /{ }^{\prime \prime} \times 187 /{ }^{\prime \prime} \times 12^{3 / 4}$ | $376 \times 480 \times 324$ | 10 | 4.5 |
| HSA-10-F | faucet, basket drain | $93 / 4 \times 131 / 2 \times 63 / 4$ | $248 \times 343 \times 173$ | $143 / / 3^{\prime \prime} \times 1878^{\prime \prime} \times 123 /{ }^{\prime \prime}$ | $376 \times 480 \times 324$ | 12 | 5.2 |
| HSA-10-FA | faucet, p-trap, tail piece, basket drain | $93 / 4 \times 131 / 2 \times 63 / 4$ | $248 \times 343 \times 173$ | $143 / 4 \times 1878^{\prime \prime} \times 12^{3 / 4}$ | $376 \times 480 \times 324$ | 14 | 6.4 |
| HSA-10-FAW | faucet w/wrist handles, p-trap, tail piece, basket drain | $93 / 4 \times 131 /{ }^{\prime \prime} \times 63 / 4$ | $248 \times 343 \times 173$ | $143 / 4 \times 18{ }^{7} 8^{\prime \prime} \times 12^{3 / 4}$ | $376 \times 480 \times 324$ | 14 | 6.4 |
| HSA-10-FL | faucet, polymer lever drain | $10^{\prime \prime} \times 14^{\prime \prime} \times 5^{\prime \prime}$ | $254 \times 256 \times 127$ | $143 / 4 \times 187 /{ }^{\prime \prime} \times 121 / 2{ }^{\prime \prime}$ | $376 \times 480 \times 318$ | 15 | 6.6 |
| HSA-10-FO | faucet, polymer lever drain w/overflow | $10^{\prime \prime} \times 14^{\prime \prime} \times 5$ " | $254 \times 256 \times 127$ | $143 / 4 \mathrm{l} \times 187 /{ }^{\prime \prime} \times 121 / 2{ }^{\prime \prime}$ | $376 \times 480 \times 318$ | 13 | 5.9 |

* To order hand sink with no faucet holes, add suffix "-NH" to model number (example: HSA-10-NH).

EAGLE GROUP
100 Industrial Boulevard, Clayton, DE 19938-8903 USA
Phone: 302-653-3000 • Fax: 302-653-2065
www.eaglegrp.com

## Submittal Number:



| NO. | DESCRIPTION | ROUGHING MEASUREMENTS |  |  |
| :--- | :--- | :--- | :---: | :---: |
|  |  | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C}$ |
| LFH2165 | $1 / 2^{\prime \prime}$ IPS $\times 3 / 8^{\prime \prime}$ OD, Wheel Handle | $1-3 / 8^{\prime \prime}$ | $1-15 / 16^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2165LK | $1 / 2^{\prime \prime}$ IPS $\times 3 / 8^{\prime \prime}$ OD, Loose Key | $1-3 / 8^{\prime \prime}$ | $2-5 / 8^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2167 | $1 / 2^{\prime \prime}$ IPS $\times 1 / 2^{\prime \prime}$ OD, Wheel Handle | $1-3 / 8^{\prime \prime}$ | $1-15 / 16^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2167LK | $1 / 2^{\prime \prime}$ IPS $\times 1 / 2^{\prime \prime}$ OD, Loose Key | $1-3 / 8^{\prime \prime}$ | $2-5 / 8^{\prime \prime}$ | $1^{\prime \prime}$ |
| LFH2165CC | $1 / 2^{\prime \prime}$ Nominal $\times 3 / 8^{\prime \prime}$ OD, Wheel Handle | $1-3 / 8^{\prime \prime}$ | $2-1 / 4^{\prime \prime}$ | $1-3 / 8^{\prime \prime}$ |
| LFH2165CCLK | $1 / 2^{\prime \prime}$ Nominal $\times 3 / 8^{\prime \prime}$ OD, Loose Key | $1-3 / 8^{\prime \prime}$ | $2-15 / 16^{\prime \prime}$ | $1-3 / 8^{\prime \prime}$ |

## LK designates Loose Key

* See options and accessories section for details on product variations.



## Specifications:

Supply kit shall include heavy pattern chrome plated AB1953 compliant supply stop valves with full turn brass stem, no plastic, $(12,15,20)$ inch chrome plated risers and (shallow, deep, bell) (steel, brass) or (forged brass with set screw) flange. Inlet shall be $1 / 2$ inch (IPS, compression). Outlet shall be ( $3 / 8,1 / 2$ ) inch compression. Supply kit shall be McGuire
Supply shall be AB1953 certified by recognized authority and bear manufacturer and testing mark.



ECO-LINE

| ROUGHING MEASUREMENTS |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MODEL NO. | TRAP DIMENSIONS | A | B | C to E | FLANGE | SLIP NUT |  |
|  | INLET |  |  |  |  |  |  |
| $8872 C B E C O$ | $1-1 / 4^{\prime \prime}$ | $1-1 / 4^{\prime \prime}$ | $4-1 / 2^{\prime \prime}$ | $4-1 / 2^{\prime \prime}$ | $11^{\prime \prime}$ | Box | Brass |
| C8872CECO | $1-1 / 4^{\prime \prime}$ | $1-1 / 4^{\prime \prime}$ | $4-1 / 2^{\prime \prime}$ | $4-1 / 2^{\prime \prime}$ | $10^{\prime \prime}$ | Shallow | Zinc |
| 8904CBECO | $1-1 / 2^{\prime \prime}, 2^{\prime \prime}$ | $2^{\prime \prime}$ | $5^{\prime \prime}$ | $6^{\prime \prime}$ | $13-1 / 2^{\prime \prime}$ | Box | Brass |
| 8912CBECO | $1-1 / 2^{\prime \prime}, 1-1 / 4^{\prime \prime}$ | $1-1 / 2^{\prime \prime}$ | $5^{\prime \prime}$ | $5^{\prime \prime}$ | $12^{\prime \prime}$ | Box | Brass |
| C8912CECO | $1-1 / 2^{\prime \prime}, 1-1 / 4^{\prime \prime}$ | $1-1 / 2^{\prime \prime}$ | $5^{\prime \prime}$ | $5^{\prime \prime}$ | $10-1 / 2^{\prime \prime}$ | Shallow | Zinc |
| 8912CNCBECO | $1-1 / 2^{\prime \prime}, 1-1 / 4^{\prime \prime}$ | $1-1 / 2^{\prime \prime}$ | $4-3 / 4^{\prime \prime}$ | $4-1 / 2^{\prime \prime}$ | $12^{\prime \prime}$ | Box | Brass |
| 8912C18BECO | $1-1 / 2^{\prime \prime}, 1-1 / 4^{\prime \prime}$ | $1-1 / 2^{\prime \prime}$ | $5^{\prime \prime}$ | $5^{\prime \prime}$ | $18^{\prime \prime}$ | Box | Brass |

FED SPEC W.W.P. 541
CAST BRASS P-TRAP
MINIMUM SEAL 2"
ASME A112.18.1-2011/CSA B125.2-11

## Specifications:

Chrome plated P-Trap shall be cast brass body, with or without cleanout, with 17 gauge seamless tubular wall bend and flange.

The Model 24 and B24 are anti-siphon, vacuum breaker protected wall faucets designed for irrigation purposes in mild climate areas. The Model B24 is enclosed in a flush mounted wall box. Both models are designed to blend with modern architecture for installation on or in homes, service stations, churches, motels, drivein restaurants, etc. The Model Y24 is designed to be used on a stand pipe in the lawn and garden, etc.

## SPECIFICATIONS:

VACUUM BREAKER - ANTI-SIPHON:

- NIDEL® Model 34HF with $3 / 4$ inch male hose thread QTY:2
- ASSE Standard 1011 approved
- IAPMO® listed
- Canadian Standards Association

EPDM PACKING: Prevents leaking.
PACKING NUT: Adjustable brass nut with deep stem guard.
VALVE SEAT: Standard "O" size washer.
HANDLES: Furnished with polycarbonate wheel handle and loose tee key.
Optional: Metal wheel handle.
INLETS: Model 24 as shown below.
Model B24: $24 \mathrm{P}-1 / 2$ or $24 \mathrm{P} 3 / 4$ only.
Model Y24: 3/4" FPT.
MAX PRESSURE: 125 p.s.i.
MAX TEMPERATURE: $120^{\circ} \mathrm{F}$
SHIPPING WEIGHT: (per unit)
MODEL 24 \& Y24: 1 lb
MODEL B24: 13 lbs (brass or chrome box)
6 lbs (aluminum box)


> For Installation / Troubleshooting Instructions go to www.woodfordmfg.com or call 1-800-621-6032

## Anti-Siphon Wall Faucets

 Model 24/B24/Y24

Exterior Finish:
Standard - Chrome (CH)
Optional- Rough Brass (BR) or Polished Chrome (PC)


Exterior Finish:
Standard - Chrome (CH)
Optional- Rough Brass (BR) or Polished Brass (PB) Other Options: Anodized Aluminum Box (AL)


## Exterior Finish:

Standard - Chrome (CH)
Optional- Rough Brass (BR) or Polished Chrome (PC)


| MODEL 24/B24/Y24 PARTS LIST |  |  |
| :---: | :---: | :--- |
| ITEM | PART\# | DESCRIPTION |
| 1 | 30009 | Washer Screw |
| 2 | 30008 | Washer |
| 3 | 30104 | Operating Stem |
| 4 | 30105 | Packing Support Washer |
| 5 | 30247 | EPDM Packing |
| 6 | 30109 | Packing Nut - Chrome |
| 7 | 30107 | Packing Nut - Brass |
| 7 | 30120 | Wheel Handle - Clear |
| 8 | 30233 | Wheel Handle - Tan |
| 9 | 30121 | Handle Screw - Nickel |
|  | 30002 | Handle Screw - Brass |
| 10 | $34 \mathrm{HF}-\mathrm{CH}$ | 34HF Vacuum Breaker - Chrome |
| 11 | 50009 | B24BX |$|$| Tee Key |
| :--- |



Manufactured under one or more of the following patents: U.S. Patents: $3,414,001 ; 3,543,786 ; 4,178,956$; 4,316,481; D216,790; D216,791; D277,365; D277,366; Canada Patents: 822,458; 852,529; 865,995

For more information contact...
WOODFORD MANUFACTURING COMPANY
2121 Waynoka Road, Colorado Springs, Colorado 80915 • Phone: (800) 621-6032 • Fax: (800) 765-4115 To view our complete product line visit: www.woodfordmfg.com or email: sales@woodfordmfg.com A Division Of WCM Industries, Inc.

Commercial Light Duty Electric Water Heaters

## PATRIOT"

WH-1,2,3,4

Designed for use as a recovery heater having its own storage tank. Available in upright, standard, and lowboy models.

## GLASSLINED TANK

- Thirteen sizes; 6 thru 119 gallon capacity. Tank interior is coated with glass specially designed by State Water Heaters for water heater use.


## ELEMENTS

- Zinc plated copper sheaths for longer life. Medium watt density means lower surface temperature to minimize scale build-up and more surface to heat water. Element sizes from 1.5 to 6 KW . Maximum input 12 KW (see chart).


## STANDARD VOLTAGES

- 120,277 single phase and 208, 240 and 480 V unbalanced three-phase delta; easily converted to single-phase at terminal block (except 208 V with 6000 watt elements). Single element heaters, single-phase only.


## TERMINAL BLOCK

- Factory-installed. Just bring the service to heater and connect to block. Terminal block not supplied on 120 V \& 277 volt models. (No junction box on PCE 6-20)


## CONTROLS

- Temperature control (adjustable through a range of $120^{\circ}$ to $181^{\circ} \mathrm{F}$ on all models) and manual reset high temperature cutoff per element (dual element models). Factorywired for non-simultaneous operation; easily converted to simultaneous element operation (three phase models only).


## CSA CERTIFIED AND ASME

 RATED T\&P RELIEF VALVESIMPLIFIED CIRCUITRY, COLOR CODED FOR EASE OF SERVICE

ANODE ROD FOR MAXIMUM CORROSION PROTECTION

## CABINET HAS BONDERIZED UNDERCOAT WITH BAKED ENAMEL FINISH

## TOP INLET AND OUTLET

 OPENINGSDRAIN VALVE (EXCLUDES PCE 6-20)

## UL APPROVED

FIELD CONVERSION PROGRAM

COMPLIANCE

- Meets the standby loss Requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1.


## LIMITED WARRANTY OUTLINE

- If the tank should leak any time during the first three years, under the terms of the warranty, State Water Heaters will furnish a replacement heater; installation, labor, handling and local delivery extra. THIS OUTLINE IS NOT A WARRANTY. For complete information consult the written warranty or State Water Heaters.



## Commercial Light Duty Electric <br> Water Heaters

## WH-2,3,4

## Recovery Capacities


 kW as previously explained by 414 and divide by temperature rise. Full load current for single phase = total watts :- voltage.

## WH-1

## Commercial Light Duty Electric

## Tank Capacities, Dimensions and Weights

| Model Number | No. of Elements | Tank Capacity |  | A |  | B |  | C |  | D |  | Approx. Shipping Weight |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | U.S. Gals. | Liters | Inches | mm | Inches | mm | Inches | mm | Inches | nmm | lbs. | kG. |
| PCE 6 10MSA | 1 | 6 | 23 | 15-1/2 | 394 | 14-1/4 | 362 | 11 | 279 | N/A | $\mathrm{N} / \mathrm{h}$ | 35 | 15.9 |
| PCE 10 10MSA | 1 | 10 | 38 | 18-1/4 | 464 | 18 | 457 | 12-1/2 | 318 | N/A | $\mathrm{N} / \mathrm{A} \mathrm{~S}^{2}$ | 54 | 24.5 |
| PCE 17 OMSA | 1 | 15 | 57 | 26 | 660 | 18 | 457 | 20-1/2 | 521 | N/A | N/A | 58 | 26.3 |
| PCE 20 10MSA | 1 | 20 | 76 | 22-1/4 | 565 | 21-3/4 | 552 | 15-3/8 | 391 | N/A | N/A | 73 | 33.1 |
| PCE 30 20LSA | 2 | 30 | 114 | 30-7/8 | 784 | 21-3/4 | 552 | 24-1/8 | 613 | 8 | 203 | 100 | 45.4 |
| PCE 40 20LSA | 2 | 40 | 151 | 32-1/4 | 819 | 24 | 610 | 25-9/16 | 649 | 8 | 203 | 125 | 56.7 |
| PCE 50 20LSA | 2 | 50 | 189 | 32-1/4 | 819 | 26-1/2 | 673 | 25-1/8 | 638 | 8 | 203 | 166 | 75.3 |
| PCE 30 20RTA | 2 | 30 | 114 | 34-1/2 | 876 | 20-1/2 | 521 | N/A | N/A | 8 | 203 | 98 | 44.5 |
| PCE 40 20RTA | 2 | 40 | 151 | 45-1/8 | 1146 | 20-1/2 | 521 | N/A | N/A | 8 | 203 | 113 | 51.3 |
| PCE 52 20RTA | 2 | 50 | 189 | 54-7/8 | 1394 | 20-1/2 | 521 | N/A | N/A | 8 | 203 | 131 | 59.4 |
| PCE 66 20RTA | 2 | 66 | 250 | 60-3/4 | 1543 | 21-3/4 | 552 | N/A | N/A | 8 | 203 | 176 | 79.8 |
| PCE 82 20RTA | 2 | 80 | 303 | 59-3/8 | 1508 | 24 | 610 | N/A | N/A | 8 | 203 | 211 | 95.7 |
| PCE 120 20RTA | 2 | 119 | 450 | 62-7/16 | 1586 | 29-3/8 | 746 | N/A | N/A | 8 ¢ | 203 | 326 | 147.9 |

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.

OUTLET PCE 6-1OMSA


TOP VIEW
PCE 6 10MSA, PCE 10 10MSA PCE 17 10MSA, PCE 20 10MSA


FRONT VIEW
PCE 6 10MSA, PCE 10 10MSA PCE 17 10MSA, PCE 20 10MSA



FRONT VIEW
PCE 30 20LSA, PCE 40 20LSA
PCE 50 20LSA


PCE 30 20RTA - PCE 120 20RTA

FOR MORE INFORMATION, CONTACT: STATE WATER HEATERS 500 TENNESSEE WALTZ PARKWAY, ASHLAND CITY, TN 37015 800-365-0024 TOLL-FREE USA STATEWATERHEATERS.COM

## Commercial Light Duty Electric

## Water Heaters

## SPECIFICATION

The water heaters(s) shall be Patriot ${ }^{\text {TM }}$ Model(s) No. $\qquad$ as manufactured by State Water Heaters or an approved equal. Heater(s) shall be rated at
$\qquad$ kW, $\qquad$ volts, $\qquad$ -phase, 60 cycle AC, and listed by Underwriters' Laboratories. Models shall meet the standby loss requirements of the U.S. $\overline{\text { Department of energy and current edition of ASHRAE/IESNA 90.1. Tank(s) shall be }}$ $\qquad$ gallon capacity. Heater(s) shall have 150 psi working pressure and be equipped with extruded high density anode rod. All internal surfaces of the heater(s) exposed to water shall be glasslined with an alkaline borosilicate composition that has been fused-to-steel by firing at a temperature range of $1400^{\circ} \mathrm{F}$ to $1600^{\circ} \mathrm{F}$. Electric heating elements shall be medium watt density with zinc plated copper sheath. Each element shall be controlled by an individually mounted thermostat and high temperature cutoff switch. The outer jacket shall be of backed enamel finish and shall enclose the tank with foam insulation. Electrical junction box with heavy duty terminal block shall be provided (except on 120 V \& 277 V \{no junction box on PCE 6 thru 20\}). The drain valve shall be located in the front for ease of servicing. Heater tank shall have a three year limited warranty as outlined in the written warranty. Fully illustrated instruction manual to be included.

## FOR MORE INFORMATION, CONTACT: STATE WATER HEATERS 500 TENNESSEE WALTZ PARKWAY, ASHLAND CITY, TN 37015 800-365-0024 TOLL-FREE USA STATEWATERHEATERS.COM



## DESCRIPTION

A series of in-line wet rotor circulation pumps designed specifically for quiet operation in open (potable) water systems. These pumps have lead-free ${ }^{\dagger}$ bronze or stainless steel bodies.
Automatic Timer and Aquastat accessories are available. (See Submittal A-128A for details).

CONSTRUCTION MATERIALS

*3-speed circulators

## TYPICAL SPECIFICATIONS

The contractor shall furnish and install in-line circulating pumps as illustrated on the plans and in accordance with the following specifications:

1. The pumps shall be of the horizontal system lubricated type specifically designed and guaranteed for quiet operation.
2. Pump to be suitable for $\qquad$ ${ }^{\circ} \mathrm{F}($
${ }^{\circ} \mathrm{C}$ ) [choose one: $225^{\circ} \mathrm{F}\left(107^{\circ} \mathrm{C}\right)$ for NBF-25,
NBF-33, NBF-36, NBF- 45 or $230^{\circ} \mathrm{F}\left(110^{\circ} \mathrm{C}\right)$ for all other circulators] operation at 150 psig (10.3 Bar) working pressure.
3. The pumps shall have a ceramic shaft supported by carbon bearings. Bearings are to be lubricated by the circulating fluid.
4. Pump body shall be lead-free bronze for NBF circulators or stainless steel for SSF circulators.
5. Motor stator to be isolated from circulating fluid through use of stainless steel can. Rotor to be sheathed in stainless steel.
6. Motors shall be non-overloading at any point on the pump curve. NBF-36 \& NBF-45 to have built-in thermal protection. All other motors to have built-in impedance protection.
7. NBF-25 has an optional check valve.

Pumps to have a capacity of $\qquad$ GPM at $\qquad$ foot head when powered by 115 volt, 60 cycle single phase electrical supply.
All pumps are to be Xylem - Bell \& Gossett Model $\qquad$
xylem
Let's Solve Water

## System Lubricated Circulators



HALF UNION CONNECTIONS
For NBF-9U/LW, NBF-12U/LW, NBF-22U, SSF-9U/LW, SSF-12U/LW, SSF-22U

| MODEL NUMBER | PART NUMBER | DESCRIPTION (SETS OF 2) |  |  |
| :---: | :---: | :---: | :---: | :---: |
| UC-1/2S | 113203LF | $\begin{array}{\|c\|} \hline 1 / 2 " \text { Bronze Union } \\ \text { Sweat } \\ \hline \end{array}$ |  |  |
| UC-3/4S | 113201LF | $3 / 4 "$ Bronze Union Sweat |  |  |
| UC-3/4NPT | 113202LF | $3 / 4 "$ Bronze Union <br> NPT Female |  |  |


|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  PART <br> MODEL NUMBER | $\begin{gathered} \text { A } \\ \text { in (mm) } \end{gathered}$ | $\begin{gathered} \hline \text { B } \\ \text { in }(\mathrm{mm}) \end{gathered}$ | $\begin{gathered} \text { C } \\ \text { in (mm) } \end{gathered}$ | $\begin{gathered} \hline D \\ \text { in }(\mathrm{mm}) \end{gathered}$ | $\begin{gathered} \hline E \\ \text { in }(\mathrm{mm}) \end{gathered}$ | $\begin{gathered} F \\ \text { in (mm) } \end{gathered}$ | $\begin{gathered} G \\ \text { in }(\mathrm{mm}) \end{gathered}$ |
| NBF-8S/LW | 4-7/8 (124) | 3-3/16 (81) | 1/2 (13) | 5-7/32 (132) | 4-9/32 (109) | 5 (127) | 2-1/2 (63) |
| NBF-9U/LW | 4-7/8 (124) | 3-3/16 (81) | 1-1/4 (32) | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156) | 3-1/16 (78) |
| SSF-9U/LW | 4-7/8 (124) | 3-3/16 (81) | 1-1/4 (32) | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156) | 3-1/16 (78) |
| NBF-10S/LW | 4-7/8 (124) | 3-3/16 (81) | 1/2 (13) | 5-7/32 (132) | 4-9/32 (109) | 5 (127) | 2-1/2 (63) |
| NBF-12U/LW | 4-7/8 (124) | 3-3/16 (81) | 1-1/4 (32) | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156) | 3-1/16 (81) |
| SSF-12U/LW | 4-7/8 (124) | 3-3/16 (81) | 1-1/4 (32) | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156) | 3-1/16 (78) |
| NBF-12F/LW | 4-7/8 (124) | 3-3/16 (81) | 3-3/16 (81) | 5-9/16 (141) | 3-11/16 (93) | 6-3/8 (162) | 3-3/16 (82) |
| SSF-12F/LW | 4-7/8 (124) | 3-3/16 (81) | 3-3/16 (81) | 5-9/16 (141) | 3-11/16 (93) | 6-3/8 (162) | 3-3/16 (82) |
| NBF-18S | 4-7/8 (124) | 3-3/16 (81) | 1/2 (13) | 5-7/32 (132) | 4-9/32 (109) | 5 (127) | 2-1/2 (63) |
| NBF-22U | 4-7/8 (124) | 3-3/16 (81) | 1-1/4 (32) | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156) | 3-1/16 (78) |
| SSF-22U | 4-7/8 (124) | 3-3/16 (81) | 1-1/4 (32) | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156) | 3-1/16 (78) |
| NBF-22 103252LF | 4-7/8 (124) | 3-3/16 (81) | 3-3/16 (81) | 5-9/16 (141) | 3-11/16 (93) | 6-3/8 (162) | 3-3/16 (82) |
| SSF-22 103357LF | 4-7/8 (124) | 3-3/16 (81) | 3-3/16 (81) | 5-9/16 (141) | 3-11/16 (93) | 6-3/8 (162) | 3-3/16 (82) |
| NBF-25** ${ }^{*}$ 103418LF | 5-1/8 (130) | 3-3/16 (81) | 3-3/16 (81) | 6-3/16 (157) | 4-7/8 (124) | 6-3/8 (162) | 2-1/2 (63) |
| NBF-33 103351LF | 4-7/8 (124) | 3-3/16 (81) | 3-3/16 (81) | 6-3/16 (157) | 3-11/16 (94) | 6-3/8 (162) | 3-3/16 (82) |
| NBF-36** ${ }^{*}$ 103401LF | 5-3/4 (146) | 3-9/16 (91) | 3-3/16 (81) | 6-3/16 (157) | 5-3/8 (137) | 6-3/8 (162) | 3-3/16 (82) |
| NBF-45** ${ }^{*}$ 103405LF | 5-3/4 (146) | 3-9/16 (91) | 3-7/16 (87) | 7-3/8 (187) | 5-1/2 (140) | 8-1/2 (216) | 4-1/4 (108) |

Dimensions are subject to change. Not to be used for construction purposes unless certified.
Companion Flanges Available in Sizes: 3/4", 1", 1-1/4", and 1-1/2"

* 3-speed circulators


## EXPANSION TANKS FOR POTABLE WATER AND SPACE HEATING SYSTEMS



## WATERGUARD ${ }^{\text {" }}$

## WATER HEATER EXPANSION TANKS

Thermal expansion occurs when water is heated during non-use periods. The installation of a Pressure Reducing Valve (PRV), Check Valve or Back Flow Preventer "closes" the water system, leaving water with no room for expansion. Many local codes now require a closed system, to prevent backflow into the water main.

Thermal expansion in a closed plumbing system can be damaging, dangerous and costly. Its effects include damage to water heater connections, gas water heater flue tubes, pumps serving washers and dishwashers, leaking faucets, "weeping" of water through the water heater T\&P Safety Valve, and noisy water hammer in the pipes.


A WaterGuard Expansion Tank eliminates these problems by giving water a place to go when thermal expansion occurs. When a water heating cycle ends, or when any fixture is opened within the system, the impact of thermal expansion is reduced and water drains out of the expansion tank back into the system.


Expansion tanks are pre-charged with a 40 PSI QTY: 3f the inlet water pressure is higher than 40 PSI , the expansion tank's air pressure must be adjusted to match that pressure but must not be higher than 80 PSI.


D022652


WaterGuard Sizing Chart For Residential Water Heaters
Water Heater Capacity in Gallons

| Inlet Water Pressure* | Water Heater Capacity in Gallons |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 30 | 40 | 50 | 66 | 82 | 100 |
| 40 PSI | ETC-2X | ETC-2X | ETC-2X | ETC-2X | ETC-5X | ETC-5X |
| 50 PSI | ETC-2X | ETC-2X | ETC-2X | ETC-2X | ETC-5X | ETC-5X |
| 60 PSI | ETC-2X | ETC-2X | ETC-2X | ETC-2X | ETC-5X | ETC-5X |
| 70 PSI | ETC-2X | ETC-2X | ETC-2X | ETC-5X | ETC-5X | ETC-5X |
| 80 PSI | ETC-2X | ETC-2X | ETC-2X | ETC-5X | ETC-5X | ETC-5X |

- For use with residential and commercial water heaters
- In-line design, with $3 / 4$ " MPT Connection: installs in cold water line of water heater
- Field-adjustable 40 PSI Air Charge
- Drawn-steel tank with 2-coat bonded polymer inner lining
- Butyl diaphragm, for permanent separation of air and water, with no waterlogging
- 2-Gallon (ETC-2X), 5-Gallon (ETC-5X) and 10-Gallon (ETC-10X)
- Maximum Working Pressure 150 PSI
- Maximum Temperature: $140^{\circ} \mathrm{F}$ Residential; $180^{\circ} \mathrm{F}$ Commercial
- IAPMO Approved
- 5-Year Limited Warranty
- NSF61 certified



## WaterGuard Water Heater Expansion Tanks

|  |  | Maximum Acceptable <br> Volume (Gallons) |  | Dimensions <br> in Inches |  | Shipping <br> Gallon |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model Number | Capacity | 40 PSI | 60 PSI | A | B | Weight <br> (Lbs.) |
| ETC-2X | 1.96 | 1.27 | 1.03 | $83 / 8$ | $121 / 2$ | 5 |
| ETC-5X | 4.55 | 3.05 | 2.19 | $113 / 8$ | $143 / 4$ | 8 |
| ETC-10X | 9.21 | 6.55 | 5.25 | $153 / 8$ | $153 / 4$ | 20 |

All models: 150 PSIG Maximum Working Pressure
WaterGuard Sizing Chart For Commercial Water Heaters Water Heater Capacity in Gallons

| Water Temperature | 30 | 40 | 50 | 66 | 82 | 100 | 120 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $140^{\circ}$ | ETC-2X | ETC-2X | ETC-5X | ETC-5X | ETC-5X | ETC-10X | ETC-10X |
| $150^{\circ}$ | ETC-2X | ETC-2X | ETC-5X | ETC-5X | ETC-5X | ETC-10X | ETC-10X |
| $160^{\circ}$ | ETC-5X | ETC-5X | ETC-5X | ETC-5X | ETC-5X | ETC-10X | ETC-10X |
| $170^{\circ}$ | ETC-5X | ETC-5X | ETC-10X | ETC-10X | ETC-10X | ETC-10X | ETC-10X |
| $180^{\circ}$ | ETC-5X | ETC-5X | ETC-10X | ETC-10X | ETC-10X | ETC-10X | ETC-10X |

[^5]
## PRODUCT SPECIFICATION DRAWING QUICKSTAND ${ }^{\text {TM }} 30^{\prime \prime} \times 30^{\prime \prime}$ (Water Heater \& Equipment Support) \#40-S-30-A (assembled) and \#40-S-30-U (unassembled)



The QUICKSTAND ${ }^{\text {TM }}$ \#40-S-30- (A or U) stand safely elevates water heaters and other equipment above the floor ( 1,350 lbs rating).

## Product Information:



ALL DIMENSIONS IN INCHES

- Material:

Item \#1: Top, 12 gage CRS, galvanized
Item \#2: Leg, 16 gage CRS, galvanized, 4 places
Item \#3: Safety Clip, 14 gage CRS, galvanized, 2 places
Item \#4: SMS, Phillips Hex Head Washer, w/Serrated Under Head, \#1/4-14 X 1/2"L, 16 places
Item \#5: Lag Bolt, \#1/4-10 X 2-1/2"L, self-drilling, 2 places
(items \#3 and \#5 included with product)

- Engineered and lab tested to meet Uniform Plumbing Code (UPC) and International Plumbing Code (IPC) requirements, including elevation of water heater's ignition source 18" above the floor
- Holds up to 1,350 pounds (typical 100 to 120 U.S. gallons)
- QUICKSTAND ${ }^{\text {TM }}$ weight 36 pounds without packaging
- Available in assembled and unassembled configurations

THIS INFORMATION IS PROPRIETARY TO HOLDRITE AND IS SUBJECT
TO CHANGE WITHOUT NOTICE. IT MAY NOT BE REPRODUCED IN PART OR WHOLE WITHOUT WRITTEN AUTHORIZATION.


CON:ERTING :HAKESHIFTMET-ODS RTO E YMINEERED SOLJT ONS:
P

| Product Submittal |  |
| :--- | :---: |
| Job Name: |  |
| Date: | Qty: |
| Part Number: |  |
|  |  |
|  |  |
| Architect / Ow ner: |  |
|  |  |
| Contractor: |  |
|  |  |
| Notes: |  |
|  |  |

## Point of Use "Non-Thermostatic"

Single Point and Flow Controlled (Designed for cold water feed only)

## Applications

- Hand washing (0.35-2.0 GPM)
- Kitchen/bar/utility sinks
- Manufacturing facilities
- Hand set shower (0.7-2.0 GPM)
- Dual handwash sinks (DL option)
- Modular buildings and tenant spaces


## Performance Features

- On demand hot water. Flow switch activates heater only on demand (no standby heat loss). 99\% efficient
- Endless hot water - no storage capacity to run out
- Easy installation. No T\&P relief valve needed (check local codes). Only one cold water line need be brought to installation, mounts on wall
- High temperature limit switch with automatic reset
- Optional flow restricting aerator (for EX-DL models) ensures proper temperature rise. Standard with SP models
- Prevents Legionella bacteria growth
- Reduces calcification, liming and sedimentation
- Complies with handicap ADA physical installation requirements
- Ni Chrome element - a unique, patented flow path ensures optimum heat transfer and extended element life
- Warranty - Heaters, against failure due to leaks of "Heater Body/Element Assembly", five (5) years - Parts, one (1) year


## Product Specifications

| Dimensions: | $10.75^{\prime \prime} \times 5.25^{\prime \prime} \times 2.78^{\prime \prime}$ |
| :--- | :--- |
| Weight: | 4 lbs. |
| Cover: | ABS UL rated 94V0. |
| Color: | White |
| Element: | Replaceable cartridge insert |
| Fittings: | SP $-3 / 8^{\prime \prime}$ compression fitting at top of unit |
|  | EX $-1 / 2^{\prime \prime}\left(5 / 8^{\prime \prime} 0 \mathrm{D}\right)$ compression fitting at bottom of unit |
| Operating Pressure: | Min. 25 PSI, max. 150 PSI |
| UL listed file number: | E86887 |
| U.S. Patent \#'s: $4,762,980$ and $4,960,976$ |  |

## Special Design Service

Inquiries for units for unique applications are welcome.
Call our Technical Service department at 1-800-543-6163.


## Suggested Specification

Tankless water heater shall be an Eemax Non-Thermostatic model number $\qquad$ -.
Unit shall have ABS-UL 94VO rated cover. Element shall be replaceable cartridge insert. Unit shall have replaceable filter in the inlet connector. Element shall be iron free, nickel chrome material. Water heater to be supplied with compression fittings. EX models will have $1 / 2$ fittings on the bottom of unit, SP units to have $3 / 8$ " fittings on the top of unit. Maximum operating pressure of 150 PSI . Hot water storage tanks prohibited. Unit shall be Eemax or approved equal. NOTE: Refer to rating chart for product information.

Specification options available on EX models:
$\qquad$ DL Dual Lavs- supplied with two faucet aerators
SL Single Lav - supplied with 3/8" compression fittings ( 0.5 or 1.0 GPM aerator included).
N4 NEMA 4 waterproof cabinet w/powder coat finish
N4X NEMA 4 stainless steel waterproof corrosionresistant cabinet

## Point of Use "Non-Thermostatic"

## Specifications

Electric Tankless Hot Water Heater
Single Point and Flow Controlled (Designed for cold water feed only)

|  | MODEL NUMBER | kW | AMPS | TURN ON (GPM) | RECOMMENDED WIRE SIZE (CU) | TEMPERATURE RISE ${ }^{\circ} \mathrm{F}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\begin{array}{r} \hline 0.5 \\ \text { GPM } \end{array}$ | $\begin{aligned} & 0.75 \\ & \text { GPM } \end{aligned}$ | $\begin{gathered} 1.0 \\ \text { GPM } \end{gathered}$ | $\begin{array}{r} 1.5 \\ \text { GPM } \end{array}$ |
| VOLTS 120 |  |  |  |  |  |  |  |  |  |
| C | SP2412 ${ }^{\text {¢ }}$ | 2.4kW | 20 A | 0.3 | 12 AWG | $33^{\circ}$ | - | - | - |
| C | EX2412 | 2.4 kW | 20 A | 0.3 | 12 AWG | $33^{\circ}$ | - | - | - |
| C | SP3012 ${ }^{\dagger}$ | 3.0 kW | 25 A | 0.3 | 10 AWG | $41^{\circ}$ | - | - | - |
| C | EX3012 | 3.0 kW | 25 A | 0.3 | 10 AWG | $41^{\circ}$ | - | - | - |
| C | SP3512 ${ }^{\text {+ }}$ | 3.5 kW | 29A | 0.3 | 10 AWG | $48^{\circ}$ | - | - | - |
| C | EX3512 | 3.5 kW | 29A | 0.3 | 10 AWG | $48^{\circ}$ | - | - | - |
| VOLTS 208 Single Phase |  |  |  |  |  |  |  |  |  |
| C | SP3208 ${ }^{\text {¢ }}$ | 3.0kW | 15A | 0.3 | 14 AWG | $41^{\circ}$ | - | - | - |
| C | EX3208 | 3.0 kW | 15A | 0.3 | 14 AWG | $41^{\circ}$ | - | - | - |
| C | SP4208 ${ }^{\dagger}$ | 4.1 kW | 20A | 0.3 | 12 AWG | $56^{\circ}$ | - | - | - |
| C | EX4208 | 4.1kW | 20A | 0.3 | 12 AWG | $56^{\circ}$ | - | - | - |
| C | SP8208 ${ }^{\dagger}$ | 8.3kW | 40A | 0.7 | 8 AWG | - | $76^{\circ}$ | $57^{\circ}$ | $38^{\circ}$ |
| C | SP8208 DL ${ }^{+}$ | 8.3kW | 40A | 0.7 | 8 AWG | - | $76^{\circ}$ | $57^{\circ}$ | $38^{\circ}$ |
| C | EX8208 | 8.3kW | 40A | 0.7 | 8 AWG | - | $76^{\circ}$ | $57^{\circ}$ | $38^{\circ}$ |
| C | EX8208 DL | 8.3kW | 40A | 0.7 | 8 AWG | - | $76^{\circ}$ | $57^{\circ}$ | $38^{\circ}$ |
| VOLTS 240 |  |  |  |  |  |  |  |  |  |
| C | SP35 ${ }^{+}$ | 3.5 kW | 15A | 0.3 | 14 AWG | $48^{\circ}$ | $32^{\circ}$ | $24^{\circ}$ | $16^{\circ}$ |
| C | SP35 ${ }^{\text {(derated } 208 \mathrm{~V}}$ perf.) | 2.7 kW | 13A | 0.3 | * | $37^{\circ}$ | $24^{\circ}$ | $18^{\circ}$ | $15^{\circ}$ |
| C | EX35 | 3.5 kW | 15A | 0.3 | 14 AWG | $48^{\circ}$ | $32^{\circ}$ | $24^{\circ}$ | $16^{\circ}$ |
| C | EX35 (derated 208V perf.) | 2.7 kW | 13 A | 0.3 |  | $37^{\circ}$ | $24^{\circ}$ | $18^{\circ}$ | $15^{\circ}$ |
| C | EX35 SL | 3.5 kW | 15A | 0.3 | 14 AWG | $48^{\circ}$ | $32^{\circ}$ | $24^{\circ}$ | $16^{\circ}$ |
| C | SP48 ${ }^{+}$ | 4.8kW | 20A | 0.5 | 12 AWG | $64^{\circ}$ | $42^{\circ}$ | $31^{\circ}$ | $21^{\circ}$ |
| C | SP48 ${ }^{\text {( }}$ (erated 208 V perf.) | 3.6 kW | 17A | 0.5 | * | $49^{\circ}$ | $33^{\circ}$ | $25^{\circ}$ | $16^{\circ}$ |
| C | SP48 DL | 4.8 kW | 20A | 0.5 | 12 AWG | $64^{\circ}$ | $42^{\circ}$ | $31^{\circ}$ | $21^{\circ}$ |
| C | EX48 | 4.8 kW | 20A | 0.5 | 12 AWG | $64^{\circ}$ | $42^{\circ}$ | $31^{\circ}$ | $21^{\circ}$ |
| C | EX48 (derated 208V perf.) | 3.6kW | 17A | 0.5 | * | $49^{\circ}$ | $33^{\circ}$ | $25^{\circ}$ | $16^{\circ}$ |
| C | EX48 SL | 4.8kW | 20A | 0.5 | 12 AWG | $64^{\circ}$ | $42^{\circ}$ | $31^{\circ}$ | $21^{\circ}$ |
| C | EX48 DL | 4.8 kW | 20A | 0.5 | 12 AWG | $64^{\circ}$ | $42^{\circ}$ | $31^{\circ}$ | $21^{\circ}$ |
| C | SP55 ${ }^{+}$ | 5.5 kW | 23A | 0.5 | 10 AWG | $75^{\circ}$ | $50^{\circ}$ | $38^{\circ}$ | $25^{\circ}$ |
| C | SP55 ${ }^{\dagger}$ (derated 208 V perf.) | 4.1kW | 20A | 0.5 | * | $56^{\circ}$ | $38^{\circ}$ | $28^{\circ}$ | $19^{\circ}$ |
| C | SP55 DL ${ }^{+}$ | 5.5 kW | 23A | 0.5 | 10 AWG | $75^{\circ}$ | $50^{\circ}$ | $38^{\circ}$ | $25^{\circ}$ |
| C | EX55 | 5.5 kW | 23 A | 0.5 | 10 AWG | $75^{\circ}$ | $50^{\circ}$ | $38^{\circ}$ | $25^{\circ}$ |
| C | EX55 (derated 208V perf.) | 4.1kW | 20 A | 0.5 | * | $56^{\circ}$ | $38^{\circ}$ | $28^{\circ}$ | $19^{\circ}$ |
| C | EX55 DL | 5.5 kW | 23 A | 0.5 | 10 AWG | $75^{\circ}$ | $50^{\circ}$ | $38^{\circ}$ | $25^{\circ}$ |
| C | EX55 SL | 5.5 kW | 23A | 0.5 | 10 AWG | $75^{\circ}$ | $50^{\circ}$ | $38^{\circ}$ | $25^{\circ}$ |
| C | SP65 ${ }^{\text {+ }}$ | 6.5 kW | 27A | 0.7 | 10 AWG | - | $59^{\circ}$ | $44^{\circ}$ | $30^{\circ}$ |
| C | SP65 ${ }^{\dagger}$ (derated 208 V perf.) | 4.9kW | 24A | 0.7 | * | $66^{\circ}$ | $44^{\circ}$ | $33^{\circ}$ | $22^{\circ}$ |
| C | SP65 DL ${ }^{+}$ | 6.5 kW | 27 A | 0.7 | 10 AWG | - | $59^{\circ}$ | $44^{\circ}$ | $30^{\circ}$ |
| C | EX65 | 6.5 kW | 27 A | 0.7 | 10 AWG | - | $59^{\circ}$ | $44^{\circ}$ | $30^{\circ}$ |
| C | EX65 (derated 208V perf.) | 4.9kW | 24A | 0.7 | * | $66^{\circ}$ | $44^{\circ}$ | $33^{\circ}$ | $22^{\circ}$ |
| C | EX65 DL | 6.5 kW | 27 A | 0.7 | 10 AWG | - | $59^{\circ}$ | $44^{\circ}$ | $30^{\circ}$ |
| C | EX65 SL | 6.5 kW | 27 A | 0.7 | 10 AWG | - | $59^{\circ}$ | $44^{\circ}$ | $30^{\circ}$ |
| C | SP75 ${ }^{+}$ | 7.5 kW | 32 A | 0.7 | 8 AWG | - | $68^{\circ}$ | $51^{\circ}$ | $34^{\circ}$ |
| C | SP75 ${ }^{\dagger}$ (derated 208 V perf.) | 5.6 kW | 27 A | 0.7 | * | $77^{\circ}$ | $51^{\circ}$ | $38^{\circ}$ | $26^{\circ}$ |
| C | SP75 DL ${ }^{+}$ | 7.5 kW | 32A | 0.7 | 8 AWG | - | $68^{\circ}$ | $51^{\circ}$ | $34^{\circ}$ |
| C | EX75 | 7.5 kW | 32A | 0.7 | 8 AWG | - | $68^{\circ}$ | $51^{\circ}$ | $34^{\circ}$ |
| C | EX75 (derated 208V perf.) | 5.6 kW | 27 A | 0.7 | * | $77^{\circ}$ | $51^{\circ}$ | $38^{\circ}$ | $26^{\circ}$ |
| C | EX75 DL | 7.5 kW | 32 A | 0.7 | 8 AWG | - | $68^{\circ}$ | $51^{\circ}$ | $34^{\circ}$ |
| C | EX75 SL | 7.5 kW | 32A | 0.7 | 8 AWG | - | $68^{\circ}$ | $51^{\circ}$ | $34^{\circ}$ |
| C | SP95 ${ }^{+}$ | 9.5 kW | 40A | 0.7 | 8 AWG | - | $87^{\circ}$ | $65^{\circ}$ | $43^{\circ}$ |
| C | SP95 ${ }^{\dagger}$ derated 208 V perf.) | 7 kW | 34A | 0.7 | * | $95^{\circ}$ | $64^{\circ}$ | $48^{\circ}$ | $32^{\circ}$ |
| C | SP95 DL ${ }^{+}$ | 9.5 kW | 40A | 0.7 | 8 AWG | - | $87^{\circ}$ | $65^{\circ}$ | $43^{\circ}$ |
| C | EX95 | 9.5 kW | 40A | 0.7 | 8 AWG | - | $87^{\circ}$ | $65^{\circ}$ | $43^{\circ}$ |
| C | EX95 (derated 208V perf.) | 7 kW | 34A | 0.7 | * | $95^{\circ}$ | $64^{\circ}$ | $48^{\circ}$ | $32^{\circ}$ |
| C | EX95 DL | 9.5 kW | 40A | 0.7 | 8 AWG | - | $87^{\circ}$ | $65^{\circ}$ | $43^{\circ}$ |
| C | EX95 SL | 9.5kW | 40A | 0.7 | 8 AWG | - | $87^{\circ}$ | $65^{\circ}$ | $43^{\circ}$ |

* 240 V units can be used on 208 V single phase with $25 \%$ reduced temperature output. Please note per UL
standards the rating plate and installation instructions will all be according to a 240 V applied voltage. Check with local officials prior to derating the electrical infrastructure.
${ }^{+}$" $3 / 8$ " compression fittings at top of unit
"C" indicates evaluation and compliance to either Underwriters Laboratories (UL) or Intertek (ETL) under CAN/ CSA-C22.2 No. 64/No. 88.

| MODEL NUMBER | kW | AMPS | TURN ON (GPM) | RECOMMENDED WIRE SIZE (CU) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} 0.5 \\ \text { GPM } \end{gathered}$ | $\begin{aligned} & 0.75 \\ & \text { GPM } \end{aligned}$ | $\begin{gathered} 1.0 \\ \text { GPM } \end{gathered}$ | $\begin{gathered} 1.5 \\ \text { GPM } \end{gathered}$ |
| VOLTS 277 |  |  |  |  |  |  |  |  |
| SP3277 ${ }^{\dagger}$ | 3.0 kW | 11A | 0.3 | 14 AWG | $41^{\circ}$ | - | - | - |
| EX3277 | 3.0 kW | 11A | 0.3 | 14 AWG | $41^{\circ}$ | - | - | - |
| SP4277 ${ }^{\text { }}$ | 4.1 kW | 14.8A | 0.3 | 14 AWG | $56^{\circ}$ | $37^{\circ}$ | $28^{\circ}$ | $19^{\circ}$ |
| EX4277 | 4.1 kW | 14.8A | 0.3 | 14 AWG | $56^{\circ}$ | $37^{\circ}$ | $28^{\circ}$ | $19^{\circ}$ |
| SP60 ${ }^{\dagger}$ | 6.0 kW | 22A | 0.7 | 10 AWG | - | $55^{\circ}$ | $41^{\circ}$ | $27^{\circ}$ |
| SP60 DL ${ }^{\dagger}$ | 6.0 kW | 22A | 0.7 | 10 AWG | - | $55^{\circ}$ | $41^{\circ}$ | $27^{\circ}$ |
| EX60 | 6.0 kW | 22A | 0.7 | 10 AWG | - | $55^{\circ}$ | $41^{\circ}$ | $27^{\circ}$ |
| EX60 SL | 6.0kW | 22A | 0.7 | 10 AWG | - | $55^{\circ}$ | $41^{\circ}$ | $27^{\circ}$ |
| EX60 DL | 6.0kW | 22A | 0.7 | 10 AWG | - | $55^{\circ}$ | $41^{\circ}$ | $27^{\circ}$ |
| SP80 ${ }^{\dagger}$ | 8.0 kW | 29A | 0.7 | 10 AWG | - | $73^{\circ}$ | $55^{\circ}$ | $36^{\circ}$ |
| SP80 DL ${ }^{\dagger}$ | 8.0 kW | 29A | 0.7 | 10 AWG | - | $73^{\circ}$ | $55^{\circ}$ | $36^{\circ}$ |
| EX80 | 8.0kW | 29A | 0.7 | 10 AWG | - | $73^{\circ}$ | $55^{\circ}$ | $36^{\circ}$ |
| EX80 SL | 8.0 kW | 29A | 0.7 | 10 AWG | - | $73^{\circ}$ | $55^{\circ}$ | $36^{\circ}$ |
| EX80 DL | 8.0 kW | 29A | 0.7 | 10 AWG | - | $73^{\circ}$ | $55^{\circ}$ | $36^{\circ}$ |
| SP90 ${ }^{\dagger}$ | 9.0 kW | 33A | 0.7 | 8 AWG | - | $82^{\circ}$ | $61^{\circ}$ | $41^{\circ}$ |
| SP90 DL ${ }^{\text {+ }}$ | 9.0 kW | 33A | 0.7 | 8 AWG | - | $82^{\circ}$ | $61^{\circ}$ | $41^{\circ}$ |
| EX90 | 9.0 kW | 33A | 0.7 | 8 AWG | - | $82^{\circ}$ | $61^{\circ}$ | $41^{\circ}$ |
| EX90 SL | 9.0 kW | 33 A | 0.7 | 8 AWG | - | $82^{\circ}$ | $61^{\circ}$ | $41^{\circ}$ |
| EX90 DL | 9.0 kW | 33A | 0.7 | 8 AWG | - | $82^{\circ}$ | $61^{\circ}$ | $41^{\circ}$ |
| SP100 ${ }^{\dagger}$ | 10kW | 36A | 0.7 | 8 AWG | - | $91^{\circ}$ | $68^{\circ}$ | $46^{\circ}$ |
| SP100 DL ${ }^{\text {+ }}$ | 10kW | 36A | 0.7 | 8 AWG | - | $91^{\circ}$ | $68^{\circ}$ | $46^{\circ}$ |
| EX100 | 10kW | 36A | 0.7 | 8 AWG | - | $91^{\circ}$ | $68^{\circ}$ | $46^{\circ}$ |
| EX100 SL | 10kW | 36A | 0.7 | 8 AWG | - | $91^{\circ}$ | $68^{\circ}$ | $46^{\circ}$ |
| EX100 DL | 10kW | 36A | 0.7 | 8 AWG | - | $91^{\circ}$ | $68^{\circ}$ | $46^{\circ}$ |

## Suffix Definitions

DL Dual Lavs - Two faucet aerators provided
SL Single Lav - 3/8" compression connections

## "EX"


$1.11-\quad \square 1.50$
OUTLET INLET
"SP"
OUTLET INLET


NEMA 4/4X
For EX version only. NEMA cabinets not available for SP version.


䓢


Dimensional Data (inches and [ mm ]) are Subject to Manufacturing Tolerances and Change Without Notice


| Dimensions in Inches [mm] |  |  |  |  |  | Approx. <br> Wt. Lbs. [kg] | Strainer Open Area Sq. In. [ $\mathrm{cm}^{2}$ ] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | $\begin{gathered} \hline \mathrm{B} \times \mathrm{B}^{\prime} \\ \text { Strainer Top Size } \\ \hline \end{gathered}$ | K |  | K' |  |  |  |
| Pipe Size |  | Min. | Max. | Min. | Max. |  |  |
| 2,3 [51,76] | $5 \times 5$ [127 x 127] | 1 [25] | 1-19/32 [40] | 1-1/4 [32] | 2-3/8 [60] | 12 [5] | 9 [58] |
| 2,3,4 [51,76,102] | $6 \times 6$ [152 $\times 152$ ] | 1 [25] | 1-27/32 [47] | 1-13/32 [36] | 2-19/32 [66] | 13 [6] | 13 [84] |
| 2,3,4 [51,76,102] | $7 \times 7$ [178 $\times 178]$ | 1 [25] | 1-7/8 [48] | 1-3/8 [35] | 2-5/8 [67] | 14 [6] | 21 [135] |
| 3,4 [76,102] | $8 \times 8$ [203 $\times 203$ ] | 1-3/32 [28] | 1-7/8 [48] | 1-3/4 [44] | 2-5/8 [67] | 15 [7] | 28 [181] |
| 6 [152] | $9 \times 9$ [229 x 229] | 1-3/32 [28] | 1-7/8 [48] | 1-3/4 [44] | 2-5/8 [67] | 19 [9] | 28 [181] |
| 6 [152] | $10 \times 10$ [ $254 \times 254$ ] | 1-3/32 [28] | 1-7/8 [48] | 1-3/4 [44] | 2-5/8[67] | 21 [10] | 28 [181] |

ENGINEERINGSPECIFICATION:ZURNZN415S
Floor and shower drain, Dura-Coated cast iron body with bottom outlet, combination invertible membrane clamp and adjustable collar with seepage slots and "TYPE S" polished nickel bronze, square heel-proof, light-duty strainer.
OPTIONS (Check/specify appropriate options)

PIPE SIZE
(Specify size/type) OUTLET

| $2,3,4[51,76,102]$ |  | IC | Inside Caulk |
| :--- | :--- | :--- | :--- |
| $2,3,4[51,76,102]$ |  | IG | Inside Gasket |
| $2[51]$ |  | IP | Threaded |
| $3[76]$ | - | IP | Threaded |
| $4[102]$ | - | IP | Threaded |
| $6[152]$ | - | IP | Threaded |
| $2,3,4[51,76,102]$ |  | NH | No-Hub |
| $2,3,4[51,76,102]$ |  |  |  |


| 'E' BODY HT. DIM. |  |
| :---: | :---: |
| $4-3 / 16$ | $[106]$ |
| $4-3 / 16$ | $[106]$ |
| $2-7 / 16$ | $[62]$ |
| $2-3 / 4$ | $[70]$ |
| $2-13 / 16$ | $[71]$ |
| $2-7 / 8$ | $[73]$ |
| $3-13 / 16$ | $[97]$ |
| $3-7 / 8$ | $[98]$ |

'E' BODY HT. DIM.
4-3/16 [106]
-3/16 [106]

13/16 [71]
2-7/8 [73]
3-13/16 [97]
3-7/8 [98]

## PREFIXES

$$
\begin{array}{cl}
\quad \text { ZB } & \text { D.C.C.I. Body Assembly w/ Polished Bronze Top } \\
\boxed{\imath} \text { ZN } & \text { D.C.C.I. Body Assembly w/ Polished Nickel Bronze Top* }
\end{array}
$$

## SUFFIXES

-AR Acid Resisting Epoxy Coated Cast Iron -CP Chrome-Plated Top -DP Decorative Polished Top -EF 3/8 [10] Extension Frame -G Galvanized Cast Iron -HD Heavy-Duty Grate (ZN $6 \times 6$ [152 x 152] Only) -OF Oval Funnel (Z329-7 (6-10 [152-254] strainers only) -P Trap Primer Connection (Specify 1/2 [13] or 3/4 [19]) -PC Protective Cover -PD Prom-Deck Top (8 x 8 [203 x 203] Only)
$\qquad$ -SA Stabilizer Assembly (See Z1035) -SQ Stabilizer Q-Deck (See Z1035-Q) -SR Stabilizer Ring
__-TC Neo-Loc Test Cap Gasket (2 [51]-4 [102] NL Outlet Only)
___-U 1-3 [25-76] High Extension Adapter -V Backwater Valve
——_-VP Vandal-Proof Secured Top
-Y Sediment Bucket
-4 4 [102] Diameter Funnel (Z328)
-18 Leveling Ring (See Z400-18) -90 $90^{\circ}$ Threaded Side Outlet Body Assembly (2 [51], 3 [76] Only)

## * Regularly furnished unless otherwise specified.

Rev. R
Date: 09/16/16
C.N. No. 135221

Prod.| Dwg. No. Z415S

Zurn Industries, LLC | Specification Drainage Operation
1801 Pittsburgh Avenue, Erie, PA U.S.A. 16502 • Ph. 855-663-9876, Fax 814-454-7929
In Canada | Zurn Industries Limited
3544 Nashua Drive, Mississauga, Ontario L4V 1L2 • Ph. 905-405-8272, Fax 905-405-1292 www.zurn.com

## TRAP GUARD INSERT FOR EXISTING DRAINS

CAN BE USED ABOVE OR BELOW GROUND FLOOR
FD \& HD TRAP GUARD

## QTY:12

TRAP GUARD INSERT FITTING FITS ZURN Z-415 TAILPIECE DRAIN


PART NO. TG33-ZURN 3" INSERT FITS INSIDE Z-415 DRAINS

FOR TRAP GUARDS INSERTING INTO GASKET CONNECTED DRAINS, SEE DRAWING TG-23-G

## IMPORTANT NOTES :

1. This Trap Guard insert can be installed into any Zurn \# 415 drain tops to prevent sewer gas emission.
2. The extra wide flange needs to have an adhesive type caulk installed around the bottom edge.
3. Most $Z 415$ tailpieces have 4 protrusions inside the $3-1 / 2^{\prime \prime}$ opening so the seal must be made around the edge of the TG flange. Make sure inside of tailpiece is clean.

If the trap guard device should get damaged or impaired in any way, the device can be easily removed by using a sharp screw driver under the flange.

Note: Care should be taken not to touch the elastomeric flexible material with the primer.

| DATE : <br> 9-02-03 |
| :--- |
| DRG . NO . |
| TG-33-Z |

Dimensional Data (inches and [ mm ]) are Subject to Manufacturing Tolerances and Change Without Notice


| A <br> Pipe Size In. | Approx <br> Wt. <br> Lbs. $[\mathrm{kg}]$ | Grate <br> Open Area <br> Sq. In. $\left[\mathrm{cm}^{2}\right]$ |
| :---: | :---: | :---: |
| $2-3-4[51-76-102]$ | $32[15]$ | $31[200]$ |

OPTIONS (Check/specify appropriate options)

## PIPE SIZE

2-3-4 [51-76-102]
2-3-4 [51-76-102]
2-3-4 [51-76-102]

ENGINEERING SPECIFICATION: ZURN Z1900
Sani-Flor Receptor $12 \times 12 \times 6$ [ $305 \times 305 \times 152$ ] deep cast iron body and square, light-duty grate with 1/2 [13] slotted openings, white acid resisting porcelain enamel interior and top, complete with white ABS anti-splash interior bottom dome strainer.

PREFIXES
__ Z Cast Iron Body with White A.R.E. Interior*
___ZN Cast Iron Body with White A.R.E. Interior, 12-1/2 [317] Square N.B. Frame and Full Grate with 1/2 [13] Openings (Add 1/2 [13] to 12 [305] Dim.)
$\qquad$ ZS Cast Iron Body with White A.R.E. Interior, 12-1/2 [317] Square Stainless Steel Frame and Full Grate with 1/2 [13] Openings (Add 1/2 [13] to 12 [305] Dim.)

| SUFFIXES |  |
| :---: | :---: |
| -DX | Dex-O-Tex Flange (ZN Only) |
| -HD | Stainless Steel Frame w/ X-Heavy Duty Stainless |
|  | Steel Grate (ZS Only) |
| -HP | Heel-Proof Grate (ZN Only) |
| $\checkmark-\mathrm{K}$ | Anchor Flange |
| -KC | Anchor Flange with Seepage Holes and Clamp Collar (Less) Bottom Dome Strainer |
| -P | 1/2 [13] Trap Primer Connection (See Z1023) |
| -SA | Stabilizer Assembly (See Z1903) |
| -TC | Neo-Loc Test Cap Gasket |
|  | (2-4 [51-102] NL Bottom Outlet Only) |
| -VPS | Vandal-Proof Strainer |
| -1 | (Less) Grate |
| $\checkmark-2$ | 1/2 Grate |
| -3 | 3/4 Grate |
| -4 | Full Grate w/ Center Opening (2 [51] Dia. for Z) and (3-1/32 [77] Square for ZN \& ZS) |
| -5 | Grate w/ 4 [102] Dia. x 3-3/4 [95] High Funnel |
| -6 | Grate w/ 6 [152] Dia. x 6 [152] High Funnel |
| -7 | Grate w/ 6-3/4 $3 \times 1$ [171 $\times 76 \times 25]$ High Oval Funnel |
| *REGULARL | LYFURNISHEDUNLESSOTHERWISESPECIFIED |

_-8 Grate w/ 8-7/8 x 3-5/8 x 3-3/4 [225 x $92 \times 95]$ High Oval Funnel
_-9 Angle Frame and Grate (ZN Only) -11 Vandal-Proof Secured Top (ZN \& ZS Only)
-_-12 Depressed Aluminum Grate (ZN Only)
___ -15 Solid Loose Set Cover (Z \& ZN Only)
_—_-16 1/2 Solid Loose Set Cover (Z \& ZN Only)
-_-17 3/4 Solid Loose Set Cover (Z \& ZN Only)
_-_-18 Solid Loose Set Cover w/ Center Opening
(2-1/4 [57] Square for Z Only) and
(3 [76] Square for ZN Only)
___ - 19 Full Hinged Grate (ZN Only)
__-23 Aluminum Bucket
-_-25 White A.R.C. Bucket
-_-31 Stainless Steel Mesh Liner for Bucket -32 Aluminum Dome Strainer
-_-33 White A.R.C. Anti-Splash Bottom Dome Strainer
__-34 N.B. Anti-Splash Bottom Dome Strainer

## REV. L DATE: 9/20/11 C.N. NO. 122166

Dimensional Data (inches and [ mm ]) are Subject to Manufacturing Tolerances and Change Without Notice


| Size | Inlet/ Outlet Size* | Flow Rate G.P.M. [L] | Capacity |  | Approx. Wt. Lbs. [kg] | Dimensions in Inches |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Water <br> Gal. [L] | Grease <br> Lbs. [kg] |  | C | D/E | F | G |
| 100 | 2 [51] | 4 [15] | 3 [11] | 8 [4] | 42 [19] | 10 [254] | 7 1/4 [184] | $203 / 8$ [518] | $97 / 8$ [251] |
| 200 |  | 7 [26] | 5 [19] | 14 [6] | 53 [24] | $111 / 4$ [286] | 8 1/8 [206] | 21 3/4 [552] | 11 7/8 [302] |
| 300 |  | 10 [38] | 6 [23] | 20 [9] | 66 [30] | $113 / 4$ [298] | $81 / 4$ [210] | $251 / 8$ [638] | 14 [356] |
| 400 | 3 [76] | 15 [57] | 10 [38] | 30 [14] | 83 [38] | 13 3/8 [340] | $93 / 8$ [238] | 27 1/8 [689] | 16 3/4 [425] |
| 500 |  | 20 [76] | 16 [60] | 40 [18] | 99 [45] | 15 [381] | $113 / 4$ [298] | 30 [762] | 17 1/4 [438] |
| 600 |  | 25 [94] | 21 [79] | 50 [23] | 124 [56] | 17 [432] | 12 1/2 [318] | $321 / 4$ [819] | 19 7/8 [505] |
| 700 |  | 35 [132] | 30 [113] | 70 [32] | 151 [68] | 18 3/4 [476] | 14 1/4 [362] | 34 1/8 [867] | 22 1/2 [572] |
| 800 |  | 50 [189] | 40 [151] | 100 [45] | 180 [82] | 21 1/2 [546] | 16 [406] | 36 [914] | 24 1/2 [622] |

ENGINEERING SPECIFICATION: ZURN Z1170 Acid Resistant Coated interior and exterior fabricated steel grease interceptor, PDI, rated at $\qquad$ GPM and ___ Lbs. grease capacity, with internal air relief by-pass, bronze cleanout plug, removable pressure equalizing/flow diffusing inle baffle, fixed bottom outlet baffle, and visible double wall trap seal. Gasketed non-skid secured cover complete with center tie down assembly, with Z1108 flow control fitting. Regularly furnished with a high inlet and outlet connection. Note: Location of outlet from bottom of interceptor cannot be changed.

## PREFIXES

$\begin{array}{ll}\boldsymbol{\imath} \quad \text { Z } & \text { Acid Resistant Coated Fabricated Steel* } \\ \text { ZS } & \text { All Type 304 Fabricated Stainless Steel }\end{array}$

\section*{SUFFIXES

## UFIXES

## UFIXES

-AL Aluminum Cover
-DI Dual High/Low Inlet.
-E Acid Resistant Coated Interior and exterior fabricated steel extension section. (Specify 'C' Dim. required) for recessed installation.
-HD Heavy Duty Cover rated at 10,000 lbs. maximum safe live load. A 3 [76] minimum extension height is required when Heavy Duty Cover (-HD) option is specified.
-K Anchor flange $13 / 4$ [44] down from top and 2 [51] wide. A 3 [76] minimum extension height is required when anchor flange (-K)option is specified.
$\qquad$ -KC Anchor flange 1 3/4 [44] down from top and 2 [51] wide with clamp collar. A 3 [76] minimum extension height is required when anchor flange (-K) option is specified.
$-\mathrm{L} \quad$ Angle type (Z1108-L) flow control device with plunger.
-R Acid resistant coated interior and exterior fabricated steel recessing receiver for recessed installation is equipped with adjustable support brackets and gasketed non-skid cover with covered recessed lift handle.
$\qquad$ -RE Acid resistant coated interior and exterior fabricated steel recessing receiver enclosed type for recessed installation. Furnished with adjustable support brackets and gasketed non-skid cover with covered recessed lift handle.
$\qquad$ -T Cover recessed for tile/terrazzo. A 3 [76] minimum extension height is required. (Specify recess depth - 1/8 [3], 3/4 [19], or 1 1/4 [32]).


#### Abstract

Zurn SHOKTROLS provide complete protection against water hammer in common pipe diameters for varying pipe lengths


 wherever flow velocity is subject to sudden change - in quick closing, solenoid-actuated valves used with lavatories and sinks, dishwashers, and residential automatic washers; in improperly adjusted water closet flush valves; in pumping systems, and in drinking fountains or similar installations where water flow is valved for intermittent operation.Each SHOKTROL has its shock-absorbing air cushion hermetically sealed within the unit. Consequently, there is no loss of air from the SHOKTROL due to leakage past worn elastomeric sealing surfaces nor due to permeation through elastomeric features. In addition, the SHOKTROL's 18-8 stainless steel construction makes it virtually immune to attack and degradation by high levels of chloramine and other common waterborne chemicals which quickly degrade elastomeric components.



#### Abstract

Zurn SHOKTROLS should always be installed in an upright position on a horizontal run of piping.



Pressure and Temperature Requirements
Max. Working Pressure: 125 psi
Max. Static Pressure: 250 psi
Max. Temperature: $\quad 300 \mathrm{~F}$
-


ILLUSTRATION 1: REMOTE INSTALLATIONS

Table I-A. For Pressure Up To 65 spig

| Length <br> of <br> Pipe | Z1700 Series Zurn Shoktrol Water Hammer Arrestors |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nominal Pipe Diameters |  |  |  |  |

For further sizing information, see "Plumbing \& Drainage Institute Standard WH-201."

Table I-B. For Pressure 65 psig to 85 psig

| Length <br> of <br> Pipe | Z1700 Series Zurn Shoktrol Water Hammer Arrestors |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nominal Pipe Diameters |  |  |  |  |  |
| 25 | One \#200 | One \#200 | One \#300 | One \#400 | One \#500 | One \#600 |
| 50 | One \#200 | One \#300 | One \#400 | One \#500 | One \#600 |  <br> One \#600 |
| 75 | One \#300 | One \#400 | One \#500 | One \#600 |  <br> One \#600 | Two \#600 |
| 100 | One \#400 | One \#500 | One \#600 |  <br> One \#600 |  <br> One \#600 |  <br> Two \#600 |
| 125 | One \#400 | One \#500 |  <br> One \#600 |  <br> One \#600 | Two \#600 |  <br> Three \#600 |
| 150 | One \#500 | One \#600 |  <br> One \#600 | Two \#600 |  <br> Two \#600 | Four \#600 |

For further sizing information, see "Plumbing \& Drainage Institute Standard WH-201."

* Regularly furnished unless otherwise specified.

[^6][^7]Dimensional Data (inches and [ mm ]) are Subject to Manufacturing Tolerances and Change Without Notice


| Dimensions In Inches |  | Approx. Wt. Lbs. [kg] |
| :---: | :---: | :---: |
| A-Pipe Size | B |  |
| 2 [51] | 5 [127] | 4 [2] |
| 3 [76] | 5 [127] | 5 [2] |
| 4 [102] | 7 [178] | 7 [3] |
| 5 [127] | 7 [178] | 8 [4] |
| 6 [152] | 9 [229] | 9 [4] |
| 8 [203] | 11 [279] | 12 [5] |

ENGINEERING SPECIFICATION:ZURNZ1441
Wall Cleanout, Dura-Coated cast iron body, gas and watertight ABS tapered thread plug, and round, smooth stainless steel access cover with securing screw.

OPTIONS (Check/specify appropriate options)

## PIPE SIZE

2 thru 6-8 [51 thru 152-203]
(Specify size) OUTLET $\boldsymbol{\sim} \quad \mathrm{NH} \quad$ No-Hub

## PREFIXES

| Z | Dura-Coated Cast Iron Body with Stainless Steel Cover* |
| :--- | :--- |
| ZB | D.C.C.I. Body with Polished Bronze Cover |

## SUFFIXES

| -A | Raised Head Plug |
| :---: | :---: |
| -BP | Bronze Plug |
| -G | Galvanized Cast Iron |
| -SL | Screw Longer Than 3-1/2 [89] |
| -VP | Vandal-Proof SecuredTop |


[^0]:    * Regularly furnished unless otherwise specified.

[^1]:    Zurn Industries, LLC | Specification Drainage Operation
    1801 Pittsburgh Avenue, Erie, PA U.S.A. 16502 • Ph. 855-663-9876, Fax 814-454-7929
    In Canada | Zurn Industries Limited
    3544 Nashua Drive, Mississauga, Ontario L4V 1L2 • Ph. 905-405-8272, Fax 905-405-1292
    www.zurn.com

[^2]:    * Regularly furnished unless otherwise specified.

[^3]:    Zurn Industries, LLC | Specification Drainage Operation
    1801 Pittsburgh Avenue, Erie, PA U.S.A. 16502 • Ph. 855-663-9876, Fax 814-454-7929
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    3544 Nashua Drive, Mississauga, Ontario L4V 1L2 • Ph. 905-405-8272, Fax 905-405-1292
    www.zurn.com

[^4]:    *The wetted surface of this product contacted by consumable water contains less than one quarter of one percent ( $0.25 \%$ ) of lead by weight.

[^5]:    *Highest recorded inlet water pressure in a 24 -hour period of regulated water pressure.

[^6]:    Zurn Industries, LLC | Specification Drainage Operation
    1801 Pittsburgh Avenue, Erie, PA U.S.A. 16502 • Ph. 855-663-9876, Fax 814-454-7929
    In Canada | Zurn Industries Limited
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[^7]:    Rev. C
    Date: 02/14/17
    C.N. No. 136267

    Form \# WH1

