INTEGRATED
engineering

SHOP DRAWING TRANSMITTAL

To: Daniel Cusimano Architect Inc.
185 Bridgeland Ave.
Suite 107
Toronto, ON M6A 1Y7

Att: Stacey Melville

Project: **Shopper's Drug Mart #935**
1000 Islands Mall
Brockville, Ontario

From: Kyle McCallum
Date: July 31, 2025
File: 7503.pt

We have reviewed the attached contractor's equipment shop drawings for general conformity with the design documents and are forwarding them to you for your use in association with the above noted project.

The documents are sent by: Courier • Hand • Pick-up • Facsimile • **E-mail**

Qty	Shop Drawings	Notes
1	Plumbing Fixtures	Reviewed: Ensure sinks' supplies are being provided. Verify quantities prior to ordering. Shop drawings received via email and returned. Ensure hard copies are created for submission with maintenance manual.

54 Audia Court, Unit 2
Concord, ON L4K 3N5
(905)-738-1400

Submittal

PROJECT NAME	PROJECT ADDRESS	DATE SUBMITTED
SDM 935 - Brockville 25-043	1000 Islands Mall, Brockville, ON	

TO	FROM
Nick Cvik	
COMPANY	COMPANY
FLUID CONSTRUCTION & PROJECT MANAGEMENT	
EMAIL	EMAIL
nick@fluidconstruction.ca	
ADDRESS	ADDRESS
2800 JOHN ST #23 MARKHAM, ON L3R 0E2	54 Audia Court, Unit 2 Concord, ON L4K 3N5

Title

Plumbing Fixtures

Description

HS : LBS9106-1 / 1959LF
WH-1 : DEL 10
ET-1 : PLT-5
SUMP PUMP : LIBERTY 405
CO : Z1454
HD : Z211

INTEGRATED ENGINEERING			
REVIEW OF THIS DRAWING IS FOR GENERAL CONFORMITY WITH THE DESIGN ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIREMENTS OF THE INSTALLATION.			
PROJ No.	7503	REVIEWED	✓
DATE	25.07.31	REVISED	
BY	KJM	RESUBMIT	

SPEC	SUBSECTION	ITEM	TYPE

NEXT
PLUMBING • HYDRONICS

SHOP DRAWING PACKAGE

Prepared for
CONSULT MECHANICAL

SHOPPERS DRUG MART #935 BROCKVILLE

JULY 24, 2025

KINDRED COMMERCIAL

LBS9106-1
Single Sink

Specification:
ADA compliant. Single compartment sink with faucet ledge. 20 gauge, type 302, 18-8 stainless steel. Self rimming. Exposed surfaces are satin finished. Undercoated to reduce condensation and resonance. Includes factory applied rim seal, cutout template, Universal Installation System hardware and waste assembly, location center.

Compartment Size: 9 1/4" x 11 5/8" x 6" (23cm x 30cm x 15cm)

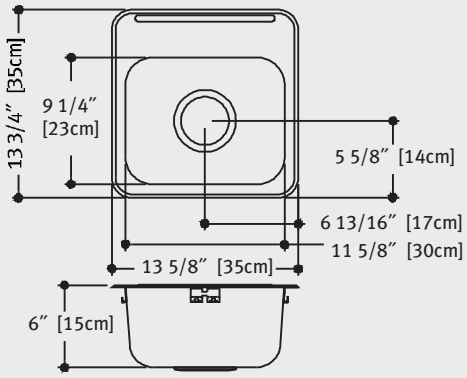
Overall Size: 13 3/4" x 13 5/8" (35cm x 35cm)

Waste Options:
-1 = 3 1/2" (89mm) crumb cup waste assembly.
-3 = 1 1/2" (38mm) duplex waste assembly, with rubber stopper.

3 1/2" waste	1 1/2" waste	Faucet hole drilling options
☑ LBS9106-1/1	❑ LBS9106-3/1	1 hole, 1 1/2" diameter
❑ LBS9106-1/2	❑ LBS9106-3/2	2 hole, 1 1/2" diameter, 4" centers
❑ LBS9106-1	❑ LBS9106-3	Custom (non-returnable)

***For custom please specify drilling requirements.**

Notes:
- Electronic specifications, reference www.kindred-sinkware.com
- The model as constructed is subject to the interpretation of local building codes. Check ADA, local wheelchair accessibility guidelines and local building codes to ensure the unobstructed knee space is achieved after installation.



PROJECT INFORMATION

Project Name:

Item Reference:

Location:

Quote #:

Faucet Model #:

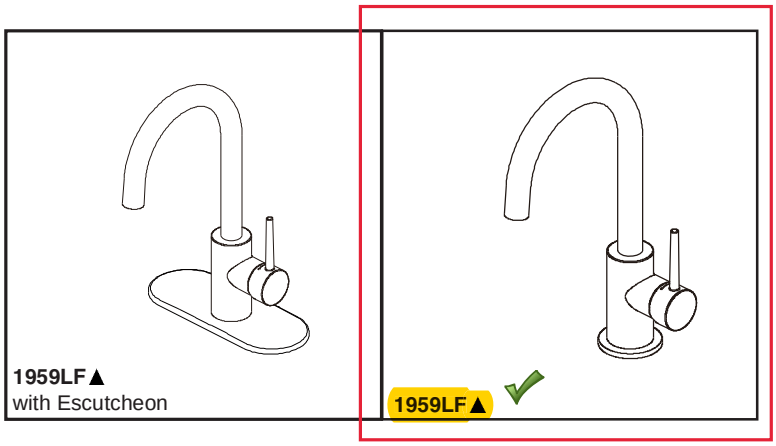
Drillings Required:

Notes:

cUPC®

ADA

Franke Kindred Canada Limited
1000 Franke Kindred Road, Midland, Ontario, Canada L4R 4K9
web www.kindred-sinkware.com email info@kindred-sinkware.com
Telephone 1-866-687-7465 Fax 1-800-361-8408



DELTA

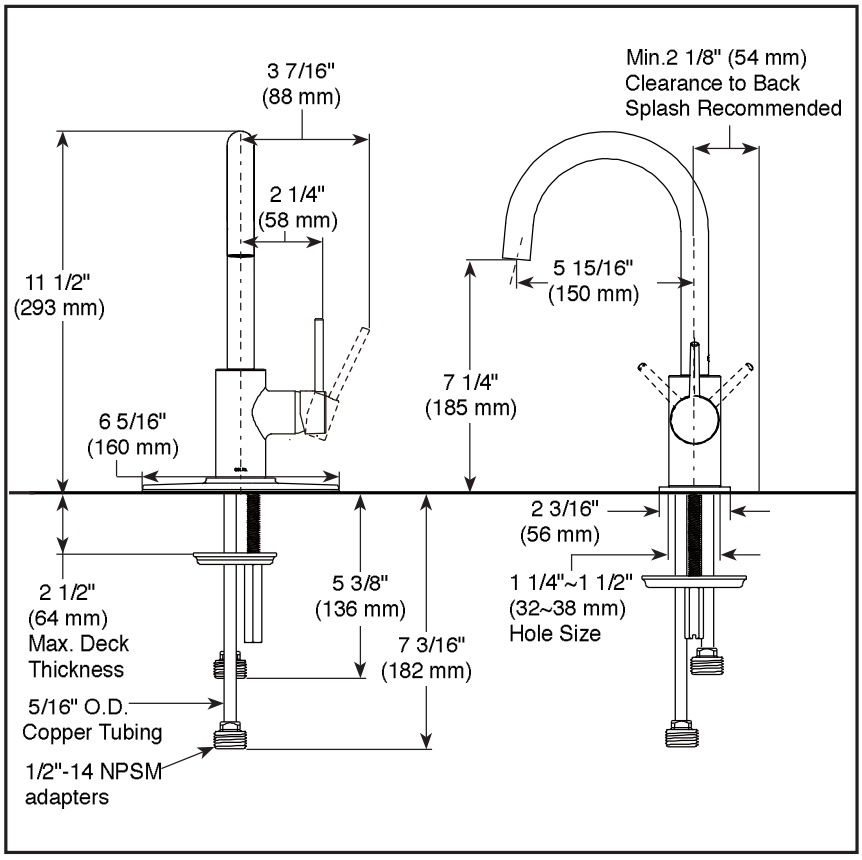
see what Delta can do™

BAR & PREP SINK FAUCETS

- Contemporary
- Single Handle Deck Mount

Submitted Model No.: _____

Specific Features: _____



▲ Designate proper finish suffix

STANDARD SPECIFICATIONS

- One or three hole mount (escutcheon optional, not included)
- Max flow rate 1.5 gpm @ 60 psi, 5.7 L/min @ 414 kPa
- Solid brass fabricated body
- Spout rotates 120°
- Hot/Cold logo on handle to indicate temperature
- Ceramic disc cartridge
- 5/16" staggered copper supply lines with 1/2" adapters
- ADA compliante lever handle
- Order RP77702 for optional escutcheon
- Order RP1001 for coordinating soap dispenser

WARRANTY

- Parts and Finish - Lifetime limited warranty; or for commercial purchasers, 10 years for multi-family residential (apartments and condominiums) and 5 years for all other commercial uses, in each case from the date of purchase.
- Electronic Parts and Batteries (if applicable) - 5 years from the date of purchase; or for commercial purchasers, 1 year from the date of purchase. No warranty is provided on batteries.

COMPLIES WITH:

- ASME A112.18.1 / CSA B125.1

Indicates compliance to ICC/ANSI A117.1

Delta Faucet Company
55 E. 111th Street, Indianapolis, IN 46280
350 South Edgeware Road, St. Thomas, ON N5P 4L1

DSP-K-1959LF Rev. D

LAWLER
MANUFACTURING CO., INC.

SUBMITTAL DATA SHEET

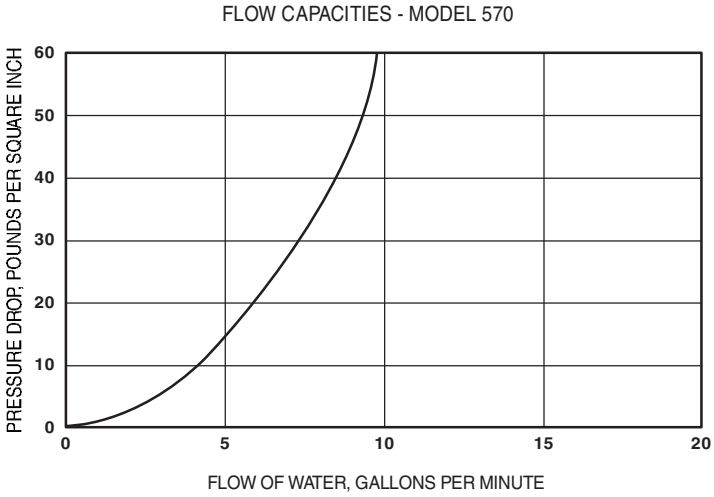
temperedwater.com
5330 East 25th St.
Indianapolis, IN 46218
Phone (317) 261-1212
Fax (317) 261-1208

Model 570 Thermostatic Mixing Valve for Point of Use Controlled Fixtures Unit No. 86820

CAPACITIES – MODEL 570-3/8”

Pressure Drop PSI	5	10	20	40
Valve Number	Capacity			
570-GPM	3	4	5	6.5
570-LPM	11	15	19	25

The mixing valve for point of use mixing fixtures shall be a lead free brass thermostatic mixing valve. The mixing valve shall be 3/8” Compression Fit. The mixing valve shall have a spindle to adjust outlet temperature. The mixing valve shall have internal checks. The mixing valve shall be Lawler model 570.



Specifications

- Outlet temperature range: 95-115°F (35-46°C).
- Temperature, hot supply: 180°F max. (91°C).
- Temperature, cold supply: 40-80°F (4-27°C).
- Temperature stability (nominal): ±5°F (±3°C).
- Temperature differential (between hot supply and outlet temperature): 10°F (11°C).
- Hydrostatic pressure: 125 psi max. (1000 kPa).
- Permitted supply pressure variation: ±20%.
- Flow rate @ 45psi pressure loss: 7 gpm (26L/min).
- Flow rate, minimum: .25 gpm (4L/min).
- Flow rate, maximum: 8 gpm (30L/min).

Benefits

- Protects against scalding and chilling.
- Offers choice of temperature settings from 95° through 115°F.
- Easy installation.
- Backed by Lawler’s One Year Warranty.

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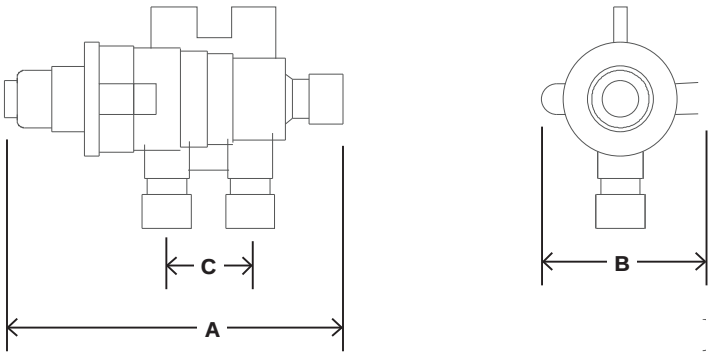


Model 570
Unit No. 86820

DIMENSIONS

Valve Number	A	B	C
570	4-7/8”	1-3/4”	1-1/8”

Dimensions are for reference purposes only. For rough-in dimensions please refer to Lawler’s Revit/BIM models found at temperedwater.com.

Inlets & outlet are 3/8” compression fittings.

Temperature Adjustment

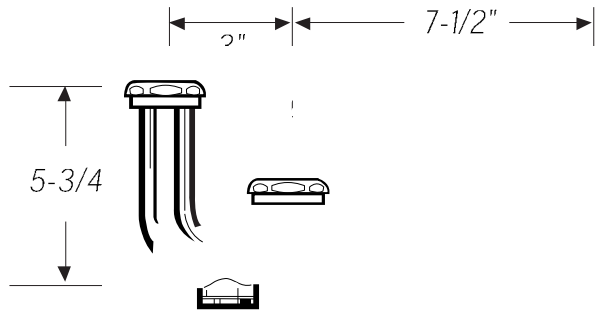
To adjust the mixed outlet temperature of the valve, remove the cap to gain access to the adjusting spindle. The spindle should be rotated-clockwise to reduce the temperature, counter-clockwise to increase the temperature until the desired set point is reached.

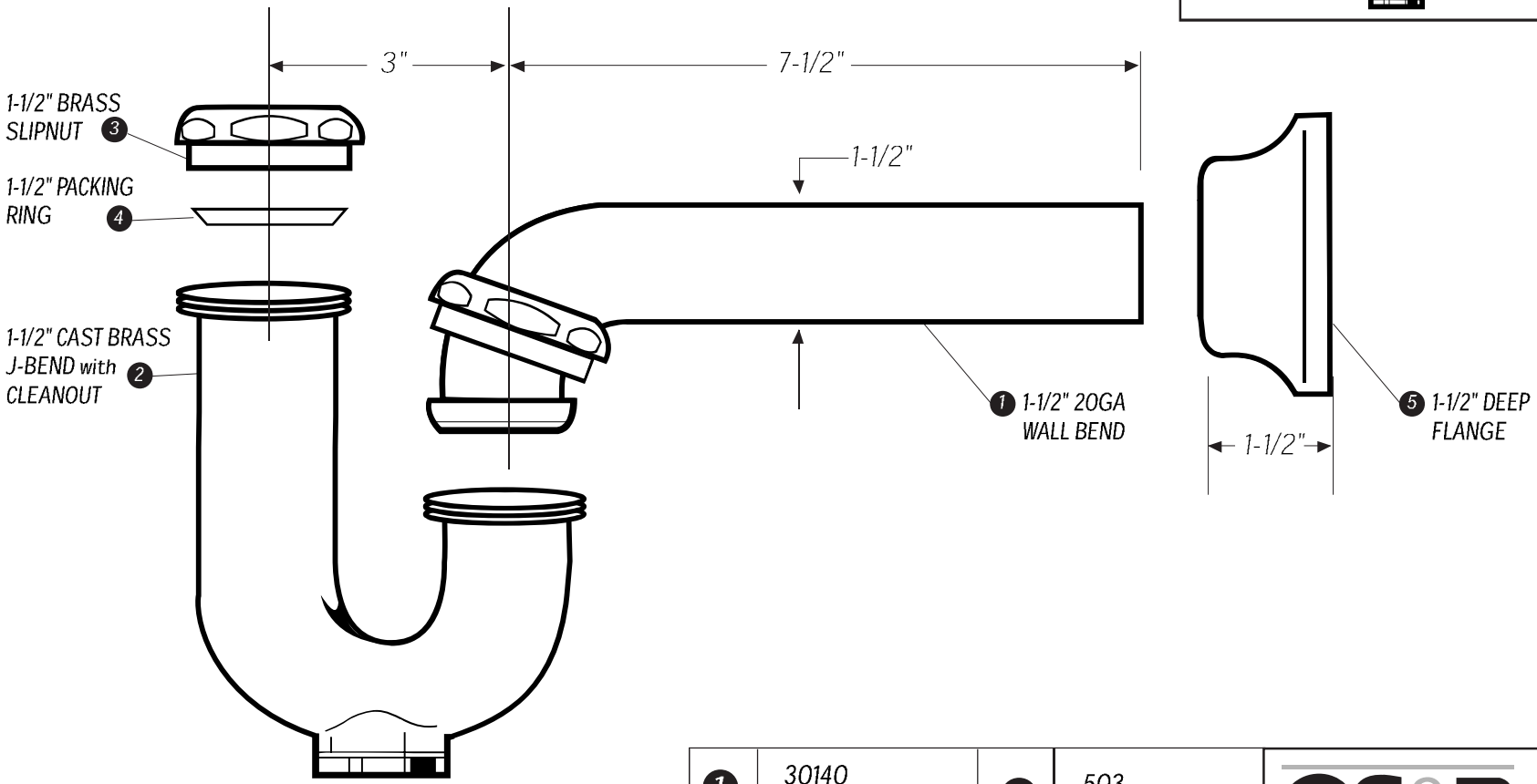
Fitting the Valve

The mixed water outlet from the valve should be used to supply outlets used primarily for personal hygiene purposes.

It is recommended that the valve is installed as close as possible to the point of use; however, it may be fitted anywhere on the hot water supply pipe.

HS





1	30140 1-1/2" 20GA WALL BEND	5	503 1-1/2" DEEP FLANGE
2	19121 1-1/2" CAST BRASS J-BEND with CLEANOUT		
3	550B-CP 1-1/2" BRASS SLIP NUT		
4	405P 1-1/2" POLY PACKING RING		

5158247

OS&B
OAKVILLE STAMPING & BENDING

Date: 12/08/00	Approved by: K.Ernst	Drawn by: S.Black
Scale: not to scale		Revision: 01
Product: 1-1/2" SEMI-CAST TRAP w/co		Number: ITEM #96

Commercial Electric Water Heaters

™

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

GLASS-LINED TANK - Thirteen sizes; 6 thru 119 gallon capacity. Tank interior is coated with glass specially designed by A. O. Smith 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 on back).

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

TERMINAL BLOCK - Factory-installed. Just bring the service to heater and connect to block. Terminal block not supplied on 120V & 277 volt models.

CONTROLS - Temperature control (adjustable through arange of 110° to 170°F on single element and 120° to 180°Fon dual element) and manual reset high temperature cutoff per element (dual element models). Factory-wired for non-simultaneous operation; easily converted to simultaneous element operation (three phase models only).

CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE

SIMPLIFIED 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 OPENINGS

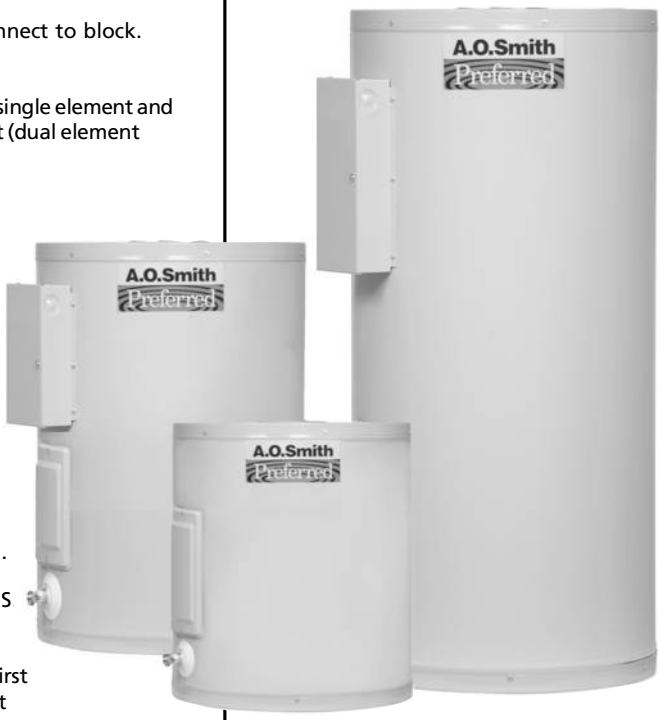
DRAIN VALVE

UL APPROVED FIELD CONVERSION PROGRAM - The 6 through 20 models are UL listed to UL 174 and the 30 through 120 models are listed to UL 1453.

COMPLIANCE - Meets or exceeds 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, A. O. Smith will furnish a replacement heater; installation, labor, handeling and local delivery extra. THIS OUTLINE IS NOT A WARRANTY. For complete information consult the written warranty or A. O. Smith Water Products Company.

DEN/DEL MODELS



ELEMENT AVAILABILITY CHART

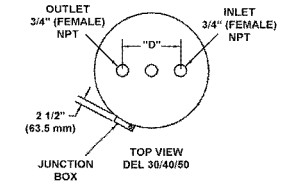
Input	120V	208V	240V	277V	480V
1,500	YES	YES	YES	YES	—-
2,000	YES	YES	YES	YES	YES
2,500	YES	YES	YES	YES	YES
3,000	YES	YES	YES	YES	YES
3,500	—-	—-	YES	—-	—-
4,000	—-	YES	YES	YES	YES
4,500	—-	YES	YES	YES	YES
5,000	—-	YES*	YES*	YES*	YES*
5,500	—-	—-	YES*	—-	—-
6,000	—-	YES**	YES	YES	YES

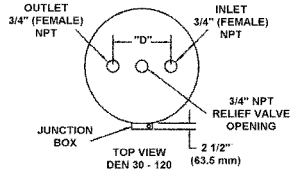
NOTE: DEL-6 not available in above 2.5 KW.
DEL-6 not available in 480V.
* Not available in DEL-10, DEL-15 and DEN-30.
** A6 non-simultaneous circuit only.

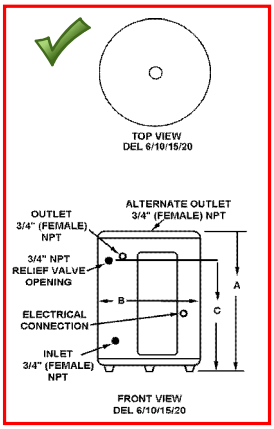
Commercial Electric Water Heaters

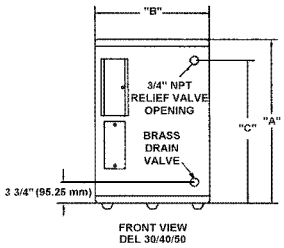
TM

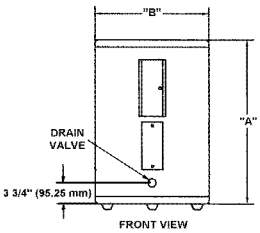
PRODUCT SPECIFICATIONS











ROUGH-IN DIMENSIONS

Models Dimensions	No. of Elements	Tank Capacity US Gals.	Tank Capacity Litres	A inches	A mm	B inches	B mm	C inches	C mm	D inches	D mm	Shipping Weight. Lbs.	Shipping Weight. Kg.
DEL-6	1	6	23	15 1/2	394	14 1/4	362	11	279	-	-	35	15.9
DEL-10	1	10	38	18 1/4	464	18	457	12 1/2	318	-	-	54	24.5
DEL-15	1	15	57	26	660	18	457	20 1/2	521	-	-	58	26.3
DEL-20	1	20	76	22 1/4	565	21 3/4	552	15 3/8	391	-	-	73	33.1
DEL-30	2	30	114	30 7/8	784	21 3/4	552	24 1/8	613	8	203	100	45.4
DEL-40	2	40	151	32 1/4	819	24	610	25 9/16	649	8	203	125	56.7
DEL-50	2	50	189	32 1/4	819	26 1/2	673	25 1/8	638	8	203	166	75.3
DEN-30	2	30	114	34 1/2	876	20 1/2	521	-	-	8	203	98	44.5
DEN-40	2	40	151	45 1/8	1146	20 1/2	521	-	-	8	203	113	51.3
DEN-52	2	50	189	54 7/8	1394	20 1/2	521	-	-	8	203	131	59.4
DEN-66	2	66	250	60 3/4	1543	21 3/4	552	-	-	8	203	176	79.8
DEN-80	2	80	303	59 3/8	1508	24	610	-	-	8	203	211	95.7
DEN-120	2	119	450	62 7/16	1586	29 3/8	746	-	-	8	203	326	147.9

RECOVERY CAPACITIES

Element Wattage (Upper/Lower)	INPUT KW	U.S. Gallons/Hr and Litres/Hr at TEMPERATURE RISE INDICATED F° C°	36F° 20C°	40F° 22.2C°	54F° 30C°	60F° 33.3C°	72F° 40C°	80F° 44.4C°	90F° 50C°	100F° 55.5C°	108F° 60C°	120F° 66.6C°	126F° 70C°
NON-SIMULATANEOUS OPERATION													
/1500		GPH	17	15	11	10	8	8	7	6	6	5	5
	1.5	LPH	64	58	43	38	32	29	26	23	21	19	18
/2000		GPH	23	20	15	14	11	10	9	8	8	7	6
	2.0	LPH	85	77	57	51	43	38	34	31	28	26	24
/2500		GPH	28	25	19	17	14	13	11	10	9	8	8
	2.5	LPH	107	96	71	64	53	48	43	38	36	32	30
3000/3000		GPH	34	30	23	20	17	15	14	12	11	10	10
	3.0	LPH	128	115	85	77	64	58	51	46	43	38	37
4000/4000		GPH	45	41	30	27	23	20	18	16	15	14	13
	4.0	LPH	170	153	114	102	85	77	68	61	57	51	49
4500/4500		GPH	51	46	34	30	25	23	20	18	17	15	14
	4.5	LPH	192	173	128	115	96	86	77	69	64	58	55
5000/5000		GPH	56	51	38	34	28	25	23	20	19	17	16
	5.0	LPH	213	192	142	128	107	96	85	77	71	64	61
6000/6000		GPH	68	61	45	41	34	30	27	24	23	20	19
	6.0	LPH	256	230	170	153	128	115	102	92	85	77	73
SIMULATANEOUS OPERATION													
3000/3000		GPH	68	61	45	41	34	30	27	24	23	20	19
	6	LPH	256	230	170	153	128	115	102	92	85	77	73
4000/4000		GPH	90	81	60	54	45	41	36	32	30	27	26
	8	LPH	341	307	227	205	170	153	136	123	114	102	97
4500/4500		GPH	101	91	68	61	51	46	41	36	34	30	29
	9	LPH	384	345	256	230	192	173	153	138	128	115	110
5000/5000		GPH	113	101	75	68	56	51	45	41	38	34	32
	10	LPH	426	384	284	256	213	192	170	153	142	128	122
6000/6000		GPH	135	122	90	81	68	61	54	49	45	41	39
	12	LPH	511	460	341	307	256	230	205	184	170	153	146

Recovery capacities at 100° F rise equal: for non-simultaneous element operation = 4.1 gal. x KW of one element; for simultaneous element operation = 4.1 gal. x 2/3 KW of both elements. For other rises multiply element KW as previously explained by 410 and divide by temperature rise. Full load current for single phase = total watts ÷ voltage.

SUGGESTED SPECS

The water heaters(s) shall be Dura-Power Model(s) No. _____ as manufactured by A. O. SMITH or an approved equal. Heater(s) shall be rated at _____KW, _____volts, _____ phase, 60 cycle AC, and listed by Underwriters' Laboratories. Models shall meet or exceed the standby loss requirements of the U.S. Department of energy and current edition of ASHRAE/IESNA 90.1. Tank(s) shall be _____ gallon capacity. Heater(s) shall have 150 psi working pressure and be equipped with extruded high density anode rod. All steel by firing at a temperature range of 1600°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 be provided with full size control compartment for performance of service and maintenance through hinged front panels and shall enclose the tank with foam insulation. Electrical junction box with heavy duty terminal block shall be provided (except on 120V & 277V {no junction box on DEL-6 thru 20}). The drain value 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.

ES-PLT

For Water Heater and Hot Water Storage Tank Applications

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

LEAD FREE*

Series PLT

Potable Water Expansion Tanks

Series PLT Potable Water Expansion Tanks are designed to absorb the increased volume of water created by thermal expansion and to maintain balanced pressure throughout the potable water supply system.

Heated water expands, and in a domestic hot water system, the system may be closed when the potable water system is isolated from the public water supply by a one-way valve such as pressure reducing valve, backflow preventer or check valve. Provisions must be made for this expansion.

Series PLT expansion tanks absorb the increased volume of water created when the hot water storage tank is heated and keeps the system pressure below the relief setting of the T&P relief valve.
It is a pre-pressurized steel tank with an expansion membrane that prevents contact of the water with the air in the tank. This prevents loss of air to the water and insures long and trouble-free life for the system. These tanks may be used with all types of Direct Fired Hot Water Heaters (gas, oil or electric) and hot water storage tanks.

Features

- Rugged flexible butyl diaphragm
- Field adjustable pre-charge
- In-line and free standing models
- Can be used with most standard hot water heaters and storage tanks

Models

PLT-5-M1 has ¾" male connection, tank volume 2.1 gal.
PLT-12-M1 has ¾" male connection, tank volume 4.5 gal.
PLT-20-M1 has ¾" male connection, tank volume 8.5 gal.
PLT-35-M1 has 1" female connection, tank volume 14.00 gal.

Specifications

The potable water expansion tank shall be of drawn steel construction. It shall have a Butyl diaphragm separating the air chamber from the water containing chamber. Inlet connector shall be Stainless Steel. Materials of manufacture for the diaphragm shall be FDA approved.

The potable water expansion tank shall be a Watts Model PLT.

***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

Standards

Models PLT-5, PLT-12 and PLT-20
are Listed by IAPMO.
Certified to ANSI/NSF 61
Model PLT-35
Certified to ANSI/NSF 61

(73°F/23°C)

Note: The potable water expansion tank shall be installed in the cold water service pipe line on the supply side of the water heater (or water storage tank). A pressure relief valve sized and installed in accordance with local codes must be incorporated in the system.
In those systems requiring a combined temperature and pressure safety relief valve, the temperature and pressure relief valve should be sized and installed in accordance with local codes. Adequate drainage provisions should be provided where water flow will cause damage.

See chart on back

Selection

This Quick Reference Selection Guide may be used as an alternative to using a formula to determine the correct expansion tank for the system. This table is based upon a relief valve setting of 150psi (10.3 bar),
and a maximum of 50°F temperature rise.

To select the correct model PLT series tank, simply go the supply pressure equal to the system supply pressure (for pressures between those shown use next highest supply pressure shown), read across the chart to the correct tank as indicated by the water heater capacity (for capacities between those shown, use next highest capacity).

To accommodate the thermal expansion required for higher temperature and/or higher pressure systems, multiple tanks may be used. Please contact the factory for sizing information.

SUPPLY PRESSURE (PSIG)	WATER HEATER (GALLONS)						
	20	30	40	50	80	100	120
40							
50							
55							
60							
70							
80							
90							
100							
110							
120							

PLT-5 ✓ PLT-20

PLT-12 PLT-35

Multiple tanks required - consult factory

Materials

Diaphragm: Butyl rubber

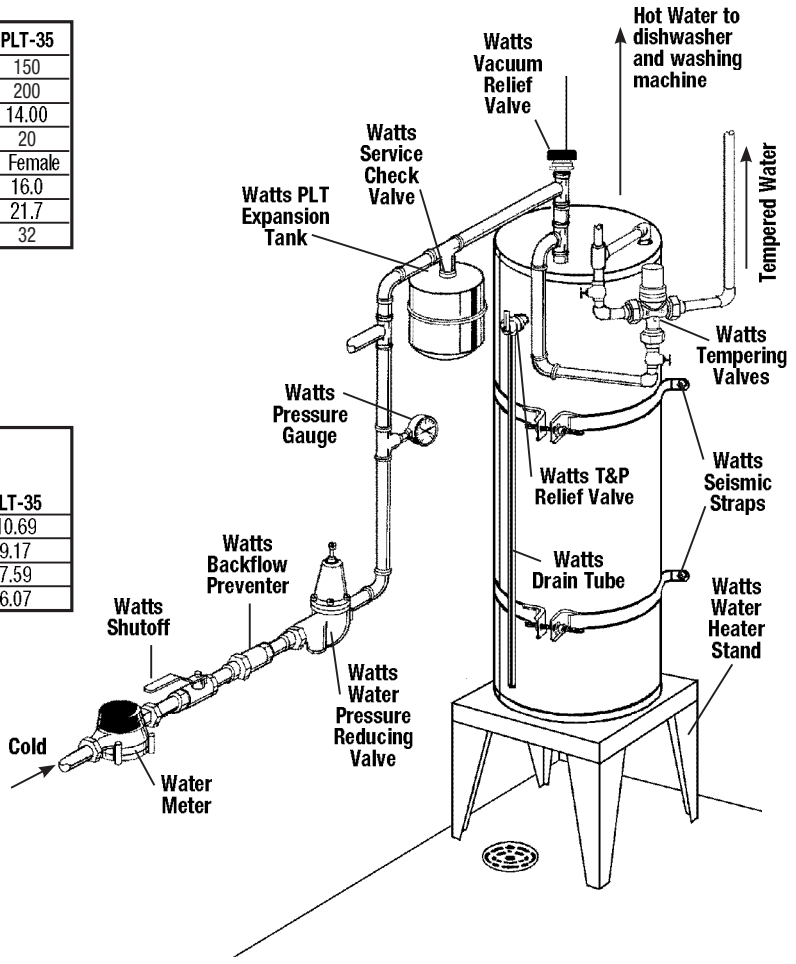
Inlet Connection: Stainless Steel

Technical Information

Description	PLT-5 ✓	PLT-12	PLT-20	PLT-35
Max. Pressure - PSI	150	150	150	150
Max. Temp. - °F	200	200	200	200
Tank Volume - Gal.	2.1	4.5	8.5	14.00
Air Pre-charge - PSI	20	20	20	20
Connections Size - Inches	¾ Male	¾ Male	¾ Male	1 Female
Diameter - Inches	8	10.5	12.5	16.0
Length - Inches	11	13.5	19.2	21.7
Weight - Lbs.	5.5	10	15	32

Acceptance Volume

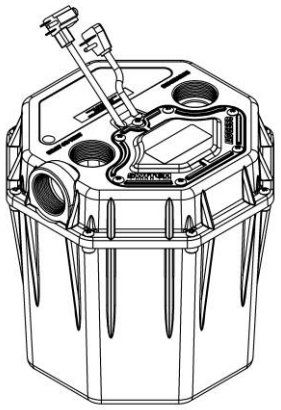
Air Side Pre-pressure (psi)	Water Side Volume at 150psi (gallons)			
	PLT-5 ✓	PLT-12	PLT-20	PLT-35
20	1.48	3.42	7.102	10.69
40	1.26	2.88	5.882	9.17
60	1.0	2.49	4.705	7.59
80	.8	1.85	4.009	6.07

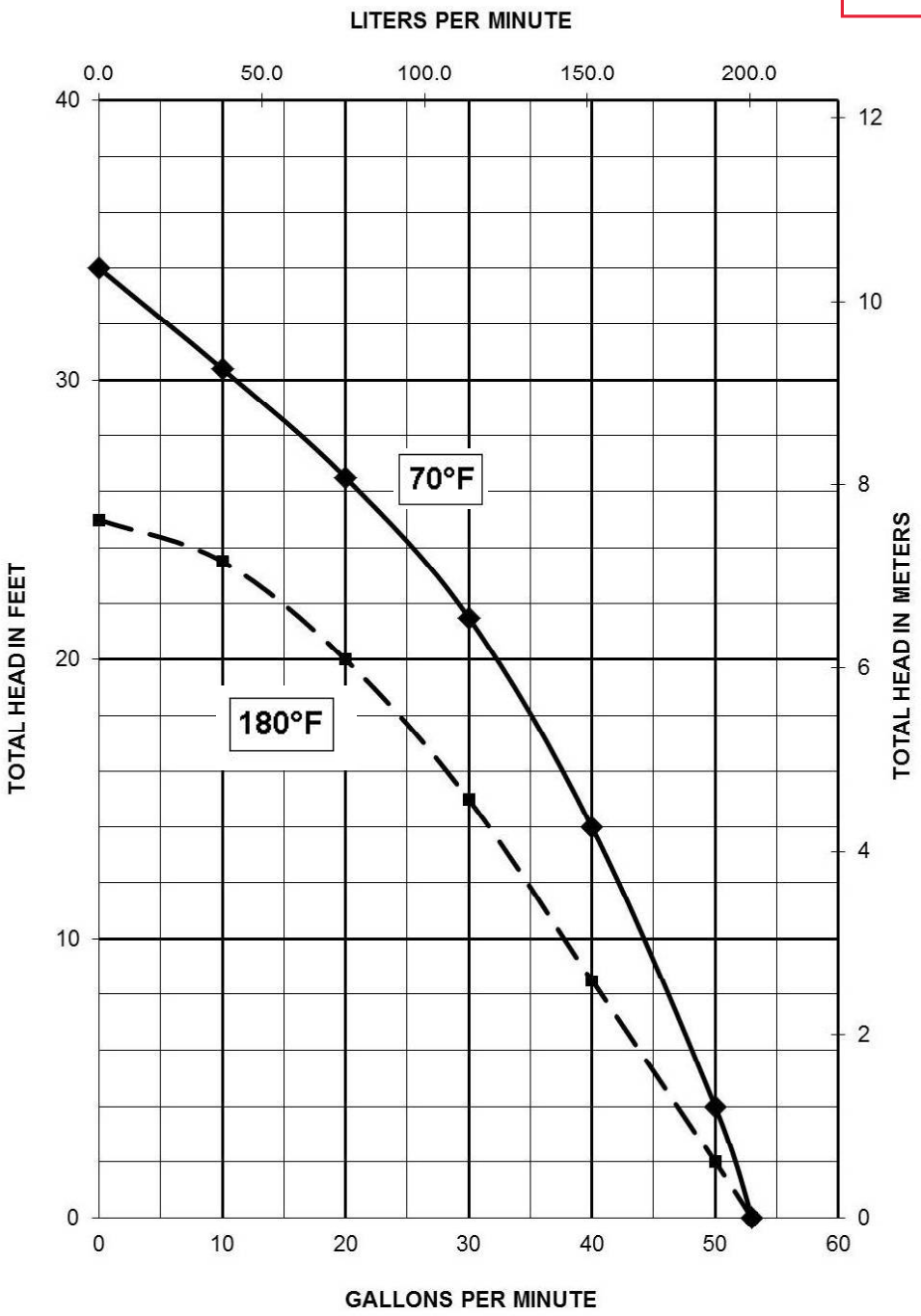


Liberty Pumps®

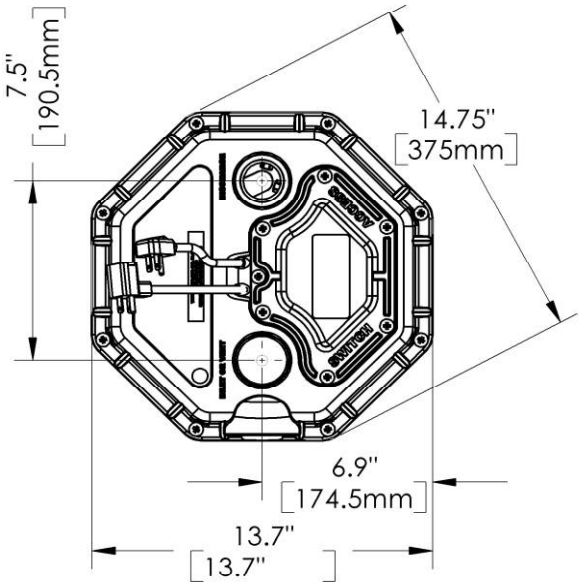
Pump Specifications

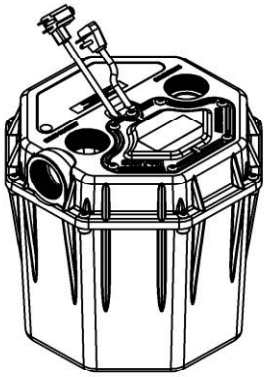
405 Series Commercial Drain Pump (High-Temp)



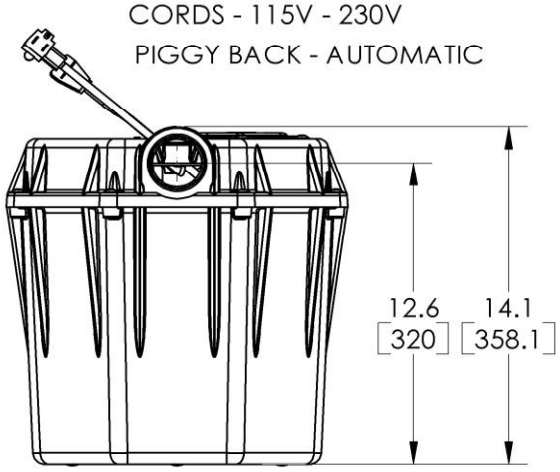


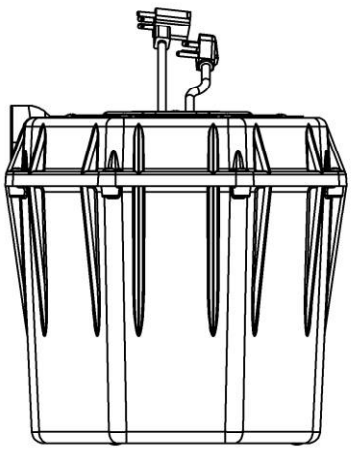
Liberty Pumps®





CORDS - 115V - 230V
PIGGY BACK - AUTOMATIC





405 SERIES DIMENSIONAL

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LIBERTY PUMPS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LIBERTY PUMPS INC. IS PROHIBITED.

APPLICATION | DO NOT SCALE DRAWING

SIZE A | JAN / 2007 | REV. A
SCALE:1:4 | WEIGHT: 23 LBS | SHEET 1 OF 1

405-Series Electrical Data

MODEL	HP	VOLTAGE	PH.	FULL LOAD AMPS	LOCKED ROTOR AMPS	THERMAL OVERLOAD TEMP	STATOR WINDING CLASS	CORD LENGTH FT	DISCHARGE	AUTOMATIC	ALARM
405	½	115	1	7.3	16	140˚C / 284˚F	F	10	(2")	YES	
405-HV	½	208/230	1	3.5	7	140˚C / 284˚F	F	10	2"	YES	
405/A	½	115	1	7.3	16	140˚C / 284˚F	F	10	2"	YES	YES
405/A-EYE	½	115	1	7.3	16	140˚C / 284˚F	F	10	2"	YES	YES NIGHTEYE®

405-Series Technical Data

IMPELLER	VORTEX HIGH TEMPERATUER ENGINEERED POLYMER
SOLIDS HANDLING	3/8"
PAINT (PUMP)	POWDER COAT
MAX LIQUID TEMP	82˚C / 180˚F CONTINUOUS
MAX STATOR TEMP	CLASS F 155˚C/ 311˚F
THERMAL OVERLOAD	140˚C/ 284˚F
POWER CORD TYPE	SJTOOW
MOTOR HOUSING	DEEP FINNED POWDER COATED ALUMINUM
VOLUTE	ENGINEERED POLYMER
SHAFT	STAINLESS
HARDWARE	STAINLESS
ORINGS	BUNA N
SHAFT SEAL	ENGINEERED DOUBLE LIP WITH STAINLESS SPRINGS
WEIGHT	23 LBS
TANK MATERIAL	POLYPROPYLENE
INLET SIZE	2" FEMALE NPT
DISCHARGE SIZE	2" FEMALE NPT
VENT SIZE	2" FEMALE NPT

405-Series Specifications

1.01 GENERAL:

The contractor shall provide labor, material, equipment, and incidentals required to provide_____(QTY) commercial drain pumps as specified herein. The pump models covered in this specification are Series 405 single phase pumps. The pump furnished for this application shall be model _____as manufactured by Liberty pumps, and have a maximum fluid temperature rating of 180 degrees F.

2.01 OPERATING CONDITIONS:

Each drain pump shall be rated at 1/2 hp_____volts, single phase, 60 Hz. 3450 RPM. The unit shall produce_____G.P.M. at_____ feet of total dynamic head.

The drain pump shall be capable of handling effluent with 3/8 The drain pump shall have a shut-off head of 34 feet and a maximum flow of 48 GPM @ 5 feet of total dynamic head.

The pump shall be controlled with a piggy back style on/off float switch.

3.01 CONSTRUCTION:

Each drain pump shall be equal to the Series 405 with c SA us Certified pump as manufactured by Liberty Pumps, Bergen NY. The motor housing shall be constructed of a deep finned powder coated aluminum. The motor housing shall be oil filled to dissipate heat. Air filled motors shall not be considered equal since they do not properly dissipate heat from the motor. All mating parts shall be machined and sealed with a Buna-N O-ring. All fasteners exposed to the liquid shall be stainless steel. The motor shall be protected on the top side with sealed cord entry plate with molded pins to conduct electricity eliminating the ability of water to enter internally through the cord. The motor shall be protected on the lower side with an engineered double lip seal with stainless steel springs. The tank shall be made of polypropylene.

4.01 ELECTRICAL POWER CORD

The drain pump shall be supplied with 10 feet of multiconductor power cord. It shall be cord type SJTOOW, capable of continued exposure to the pumped liquid. The power cord shall be sized for the rated full load amps of the pump in accordance with the National Electric Code. The power cable shall not enter the motor housing directly but will conduct electricity to the motor by means of a water tight compression fitting cord plate assembly, with molded pins to conduct electricity. This will eliminate the ability of water to enter internally through the cord, by means of a damaged or wicking cord.

5.01 MOTORS

Single phase motors shall be oil filled, permanent split capacitor, class F insulated, NEMA B design, rated for continuous duty. At maximum load the winding temperature shall not exceed 155 degrees C unsubmerged. Since air filled motors are not capable of dissipating heat they shall not be considered equal. The pump motor shall have an integral thermal overload switch in the windings for protecting the motor. The capacitor circuit shall be mounted internally in the pump.

6.01 BEARINGS AND SHAFT

Upper and lower ball bearings shall be required. The bearings shall be a single ball / race type bearing. Both bearings shall be permanently lubricated by the oil, which fills the motor housing. The motor shaft shall be made of 300 or 400 series stainless steel and have a minimum diameter of .311".

7.01 SEALS

The pump shall have an engineered double lip seal with stainless steel springs. The motor plate / housing interface shall be sealed with a Buna-N o-ring.

8.01 IMPELLER

The impeller shall be molded engineered polymer, with pump out vanes on the back shroud to keep debris away from the seal area. It shall be threaded to the motor shaft.

9.01 CONTROLS

All units are supplied with CSA and UL approved automatic wide angle tilt float switches. The switches shall be equipped with piggy back style plug that allows the pump to be operated manually without the removal of the pump in the event that a switch becomes inoperable. The switches shall be mounted under a separately sealed access cover and tethered to a removable stainless steel rod for easy removal and serviceability.

10.01 PAINT

The exterior of the casting shall be protected with powder coat paint.

11.01 SUPPORT

The polyolefin tank shall be a free standing unit.

12.01 SERVICEABILTY

Components required for the repair of the pump shall be shipped within a period of 24 hours.

13.01 TESTING

The pump shall have a ground continuity check and the motor chamber shall be Hi-potted to test for electrical integrity, moisture content and insulation defects. The motor and volute housing shall be pressurized, and an air leak decay test is performed to ensure integrity of the motor housing. The pump shall be run, voltage current monitored, and the tester checks for noise or other malfunction.

14.01 QUALITY CONTROL

The pump shall be manufactured in an ISO 9001 certified Facility.

15.01 WARRANTY

Standard limited warranty shall be 3 years.

CLEAN OUT

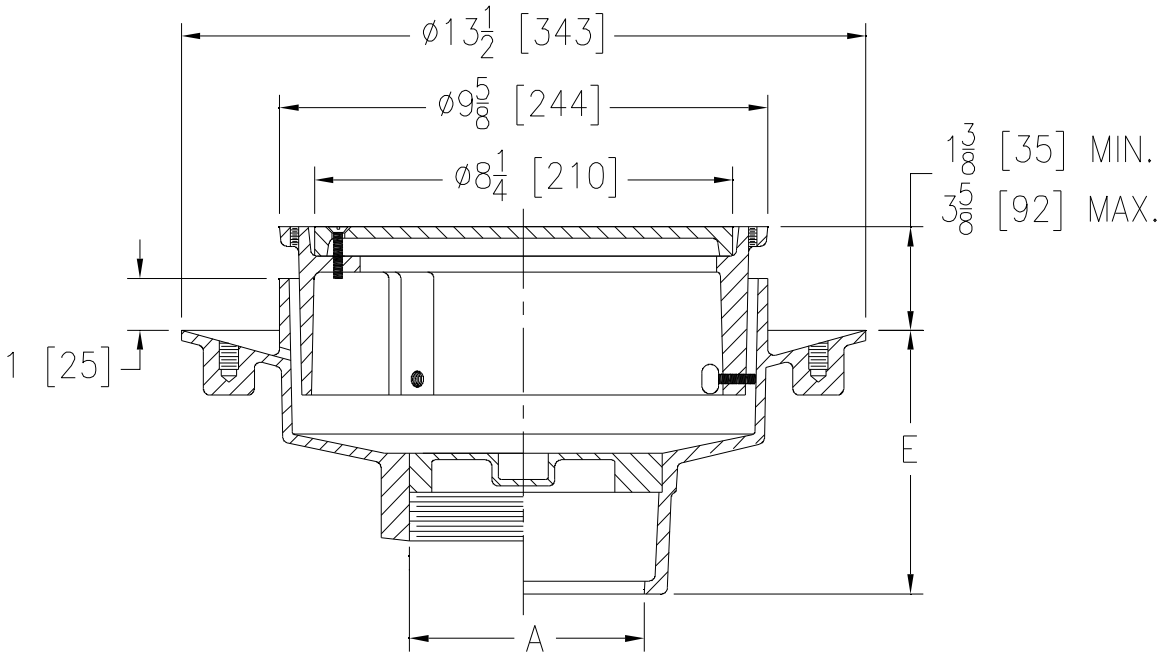
Z1454

ADJUSTABLE FLOOR CLEANOUT
W/ FLASHING FLANGE

SPECIFICATION SHEET

TAG _____

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



A Pipe Size In. [mm]	Approx. Wt. Lbs [kg]
2,3 [51,76]	33 [15]
4 [102]	34 [15]

ENGINEERING SPECIFICATION: ZURN Z1454
Adjustable Floor cleanout, Dura-Coated cast iron body, gas and watertight ABS tapered thread plug, and round scoriated Dura-Coated cast iron adjustable with secured cover top complete with membrane flashing flange.

OPTIONS (Check/specify appropriate options)

PIPE SIZE	(Specify size/type) **OUTLET**		**'E' DIM**
2,3,4 [51,76,102]	✓	IC Inside Caulk	5-1/4 [133]
2,3,4 [51,76,102]	____	IP Threaded	4-1/4 [108]

PREFIXES

- ✓ Z Dura-Coated Cast Iron.*
- ____ ZN D.C.C.I. with Polished Nickel Bronze Scoriated Top (Add 3/16 [5] to 1-3/8 [35] Min.- 3-5/8 [92] Max.)

SUFFIXES

- ____ -C Clamp Collar
- ____ -G Galvanized Cast Iron
- ____ -VP Vandal-Proof Secured Top

* Regularly furnished unless otherwise specified.

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

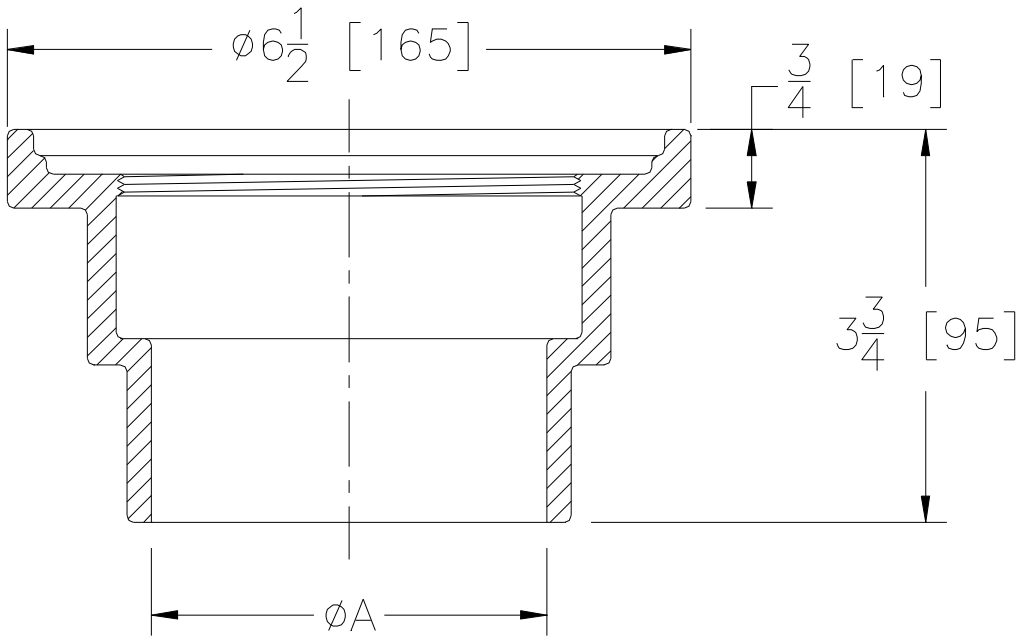
Rev. H
Date: 09/25/2017
C.N. No. 137827
Prod. | Dwg. No. Z1454

Z-211
FLOOR DRAIN BODY ONLY

SPECIFICATION SHEET

TAG_____

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



A Pipe Size Inches / [mm]	Body Height Inches / [mm]	Approx. Wt. Lbs. / [kg]
2 - 3 - 4 [51 - 76 - 102]	3-3/4 [95]	4 [2]

ENGINEERING SPECIFICATION: ZURN Z-211 Floor and Shower Drain, Dura-Coated cast iron body with bottom outlet.

OPTIONS (Check/specify appropriate options)

PIPE SIZE

2,3,4 [50,75,100]

(Specify size/type) **OUTLET**

✓ NH No-Hub

E BODY HT. DIM.

3 3/4 [95]

SUFFIXES

____ -G Galvanized Cast Iron
____ -P 1/2" [13] Trap Primer Connection
____ -210 8" [203] Wide Flange Body

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

REV.	DATE: 11/15/99	C.N. NO. 83319
DWG. NO. 63607	PRODUCT NO. Z-211	

ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V 1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292
In the U.S.: ZURN INDUSTRIES, INC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com

EZC-6

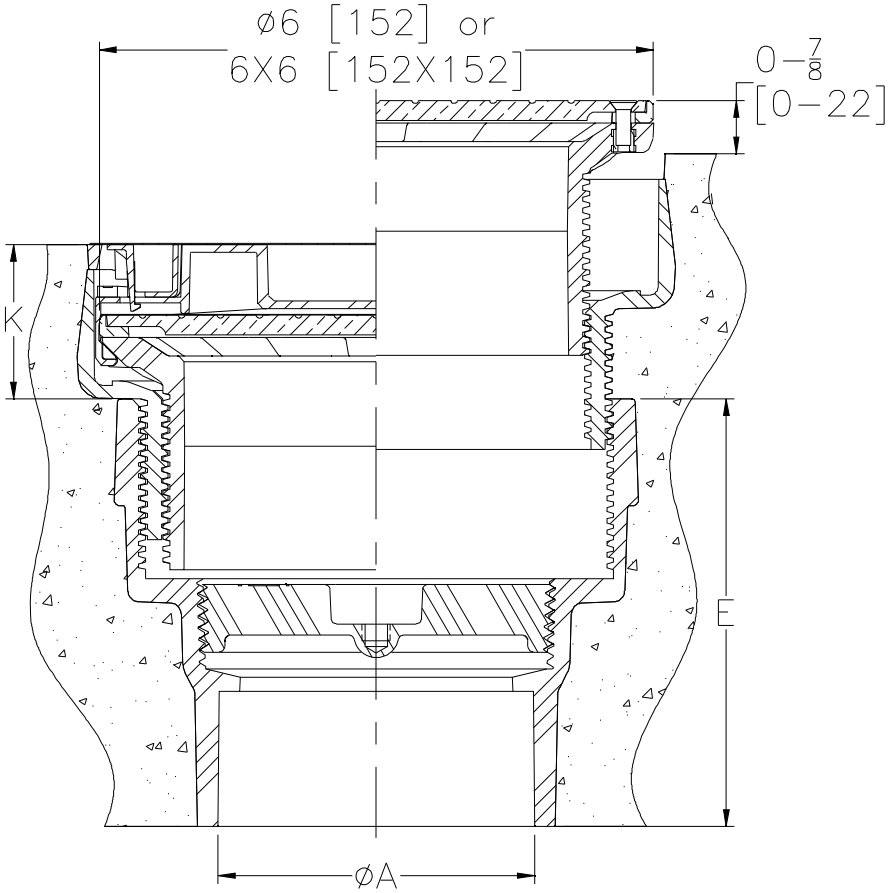
6" Top Assembly Adjustable Floor Cleanout with EZ1™ Technology

SPECIFICATION SHEET

TAG _____

PATENT PENDING

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



Dimensions in Inches [mm]						Approx. Wt. Lbs [kg]	Strainer Type
Product Number		A	E	K			
PVC Body	ABS Body	Pipe Size	Body Height	Min	Max		
EZC-PV3-R6	EZC-AB3-R6	3-4 [76-102]	4-3/4 [121]	1-3/4 [44]	2-15/16 [75]	6 [3]	Nickel Bronze Round
EZC-PV4-R6	EZC-AB4-R6	4 [102]	4-3/4 [121]	1-3/4 [44]	2-15/16 [75]	6 [3]	Nickel Bronze Round
EZC-PV3-S6	EZC-AB3-S6	3-4 [76-102]	4-3/4 [121]	2 [51]	3-5/32 [80]	7 [3]	Nickel Bronze Square
EZC-PV4-S6	EZC-AB4-S6	4 [102]	4-3/4 [121]	2 [51]	3-5/32 [80]	7 [3]	Nickel Bronze Square
EZC-PV3-R6-SS	EZC-AB3-R6-SS	3-4 [76-102]	4-3/4 [121]	1-3/4 [44]	2-15/16 [75]	6 [3]	Stainless Steel Round
EZC-PV4-R6-SS	EZC-AB4-R6-SS	4 [102]	4-3/4 [121]	1-3/4 [44]	2-15/16 [75]	6 [3]	Stainless Steel Round
EZC-PV3-S6-SS	EZC-AB3-S6-SS	3-4 [76-102]	4-3/4 [121]	2 [51]	3-5/32 [80]	7 [3]	Stainless Steel Square
EZC-PV4-S6-SS	EZC-AB4-S6-SS	4 [102]	4-3/4 [121]	2 [51]	3-5/32 [80]	7 [3]	Stainless Steel Square

ENGINEERING SPECIFICATION:

Zurn EZ1™ Floor Cleanout, PVC or ABS solvent weld body, with gas and water tight ABS threaded tapered plug and top assembly. EZ1 cleanout series is engineered to simplify product installation, comprised of concrete shield, up to 7/8" [22] of vertical post pour adjustment, pre-packaged shims for tilt correction, and integrated self contained square or round light duty scoriated cover in nickel bronze or stainless steel with rough-in cover for protection during the concrete pour. Cleanout is designed in accordance with ASME A112.36.2M.

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www.zurn.com

Rev. A
Date: 07/25/2018
C.N. No. 140342
Prod. | Dwg. No. EZC-6