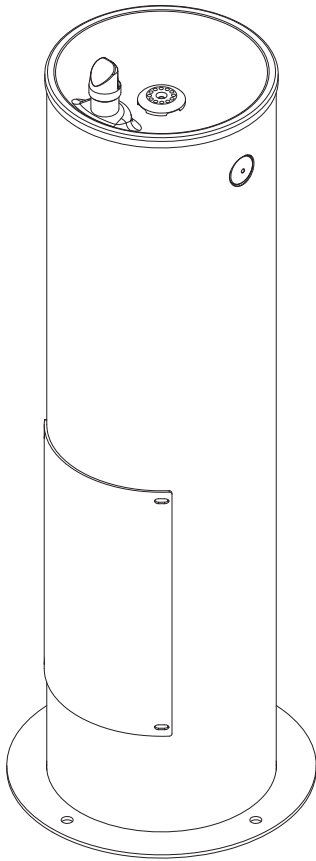


# Installation & Operation Manual

## WODF Series

### One-, Two-, and Three-station Outdoor Drinking Fountains



**WODF-1**

#### Table of Contents

Pre-Installation Information.....	3
Standard Fountain Configurations.....	4
Physical Dimensions .....	5
Rough-in Dimensions .....	6
Required Installation Supplies .....	8
Parts List and Exploded-view Drawings.....	9
Hardware Identification .....	12
Installation Instructions .....	
Step 1: Fixture Installation .....	13
Step 2: Adjusting Drinking Spout Flow.....	14
Care and Maintenance .....	15
Troubleshooting .....	
WODF Drinking Fountain .....	16
Drawings.....	
Physical Dimensions .....	17
Rough-in Dimensions .....	20
Pushbutton Details .....	22
Warranty.....	23



**Willoughby Industries, Inc.**

5105 West 78th Street

Indianapolis, IN 46268

Toll Free: (800) 428-4065

Local: (317) 875-0830

Fax: (317) 875-0837

[www.willoughby-ind.com](http://www.willoughby-ind.com)

**WILLOUGHBY**

Rev. 6/2015

MADE IN THE U.S.A.



***(Page intentionally left blank)***

## Pre-Installation Information

# Installation notice!

Check Rough-In location **PRIOR** to installation

Flush lines thoroughly **PRIOR** to hook-up

When installing the **Willoughby Industries' WODF Series** drinking fountain system:

Before step 1 of the installation instructions, ensure that rough-ins are in the correct location.

The valve assembly, including the spray head, **MUST NOT BE** connected until *after* all lines have been flushed to remove the small particles of debris that are inherent with new construction projects and all chemicals that are used in flushing are purged from the system.

Chemicals used in flushing plumbing systems can attack the internal components of the valve and spray head and severely damage them, so any flushing of the system must be followed by a full flushing with pure water to clear any harsh chemicals remaining in the system. Debris in the system if allowed to enter the valve assembly and spray head can cause poor performance or outright failure.

Again **DO NOT** attempt to connect the valve assembly and spray head until *after* all flushing is complete and pure water is the only media that will be passing through the system. Damage to the valve assembly or spray head caused by harsh chemicals or debris will not be covered by the manufacturer's warranty.

Any fittings provided by the installer should be made of plastic to electrically isolate the unit from the building or connected plumbing system.

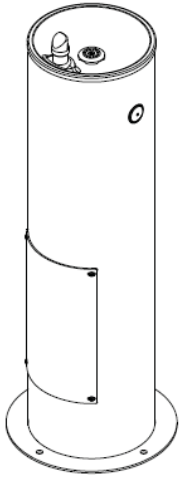
The grounding of electric equipment such as telephones, computers, etc, to water lines is a common procedure. This grounding can cause electrical feedback into a water fountain or similar fixture, causing electrolysis, which results in a metallic taste or an increase in the metal content of the water. This can easily be avoided by using the proper materials as indicated.

# Installation notice!

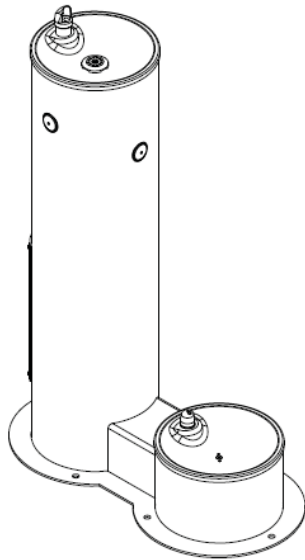
Check Rough-In location **PRIOR** to installation

Flush lines thoroughly **PRIOR** to hook-up

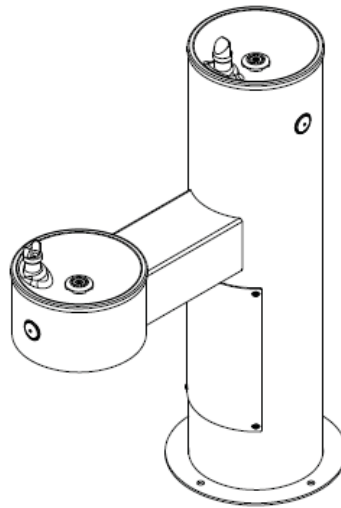
# Standard Fountain Configurations- WODF Series



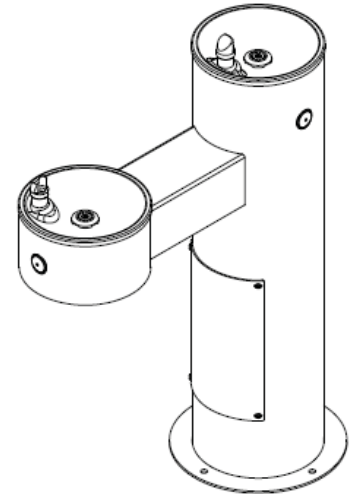
WODF-1



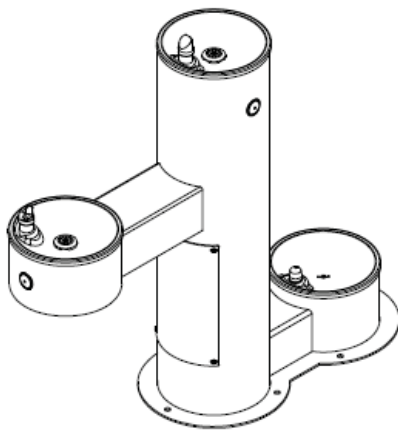
WODF-2-PET



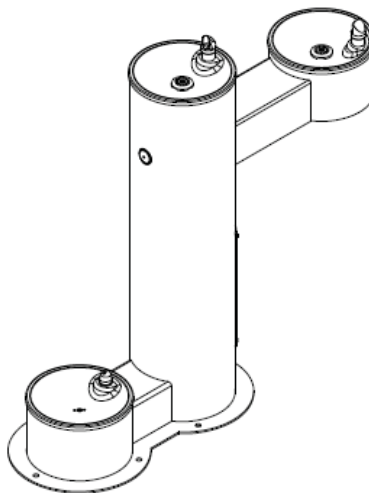
WODF-2-CHD



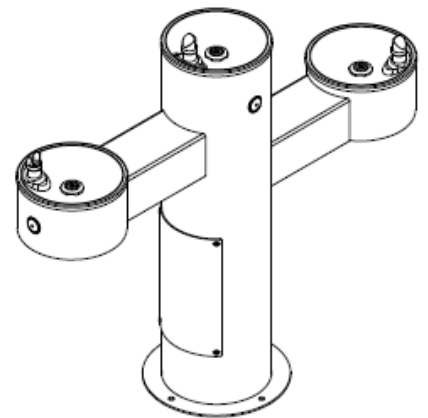
WODF-2-HC



WODF-3-CHD-PET



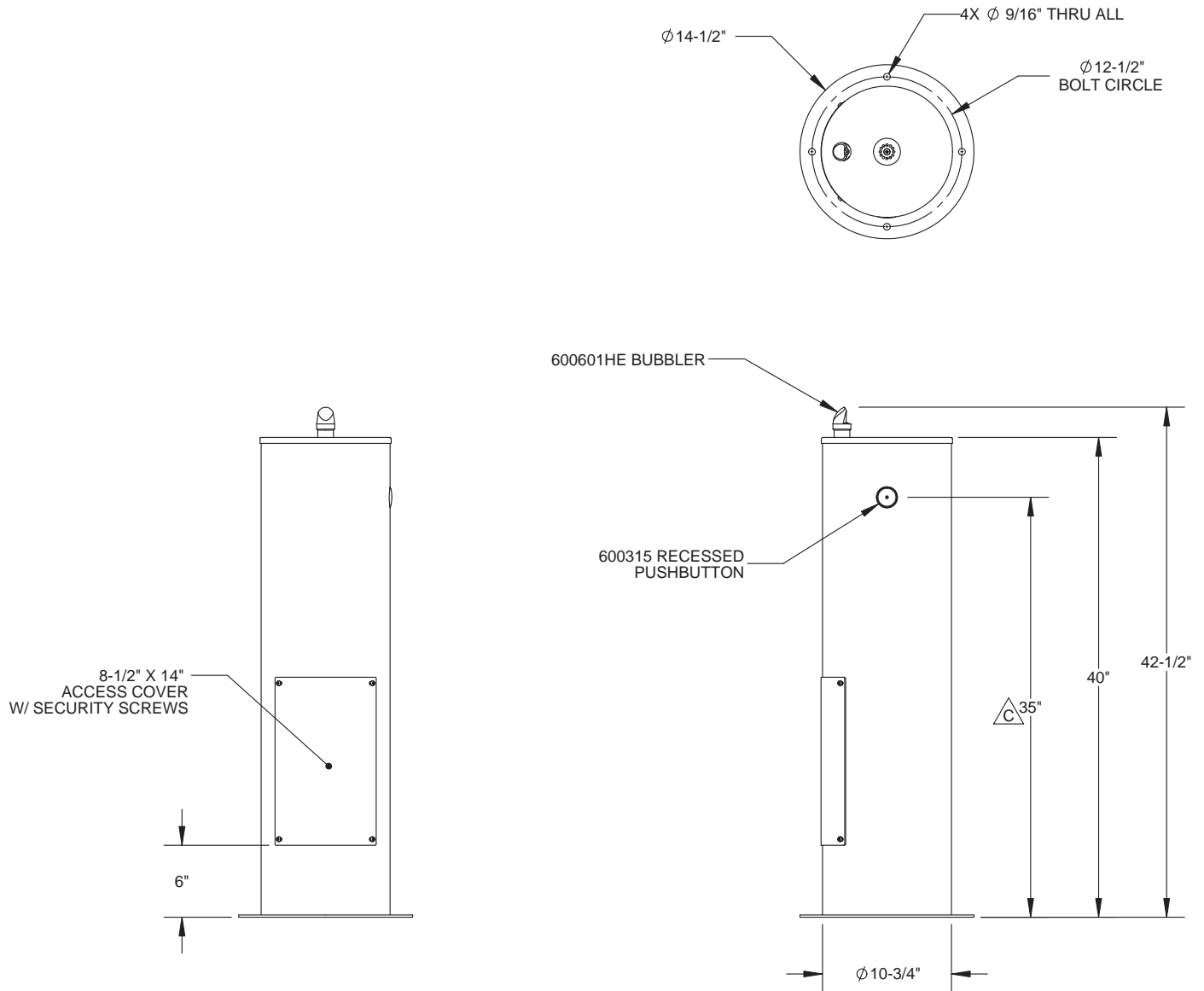
WODF-3-HC-PET



WODF-3-HC-CHD

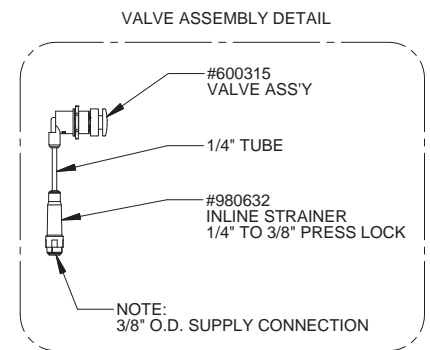
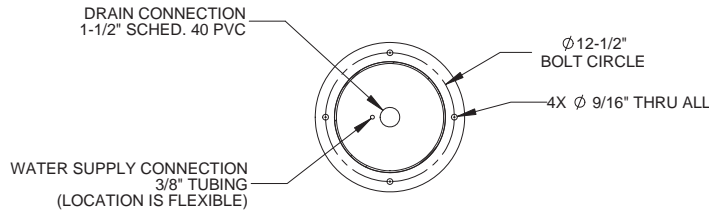
# Physical Dimensions- WODF-1

\*WODF-1 shown; for WODF-2 and WODF-3 model variations, refer to factory drawings. Contact Willoughby Ind. if further information is needed.



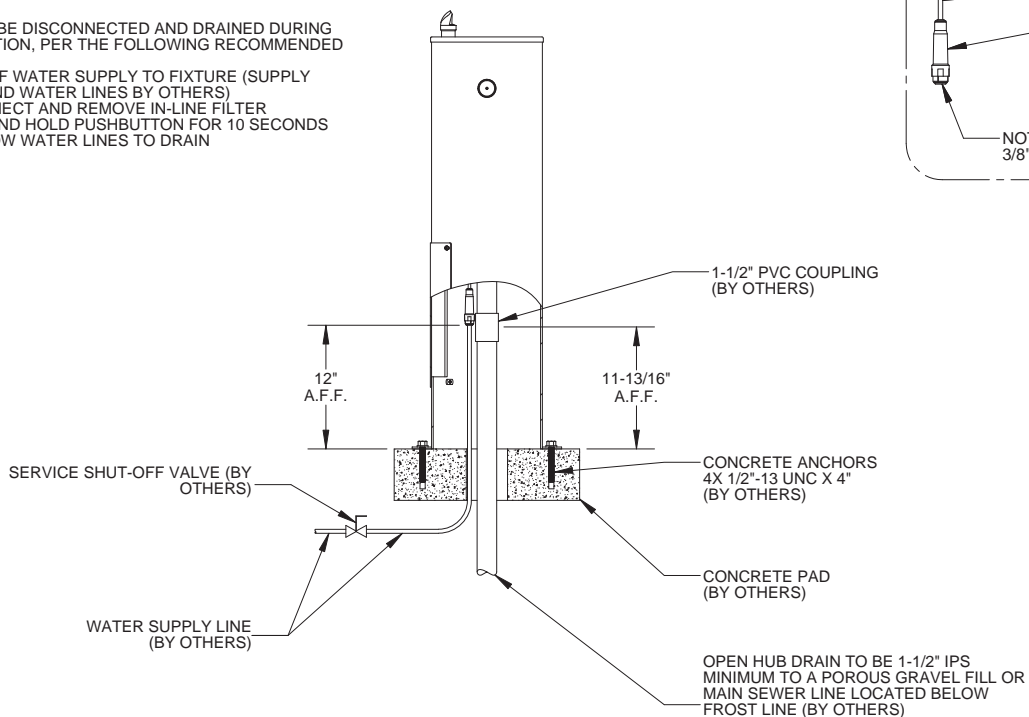
# Rough-in Dimensions- WODF Series

**\*WODF-1 shown; applicable to all WODF-2 and WODF-3 model variations without Pet Fountain**



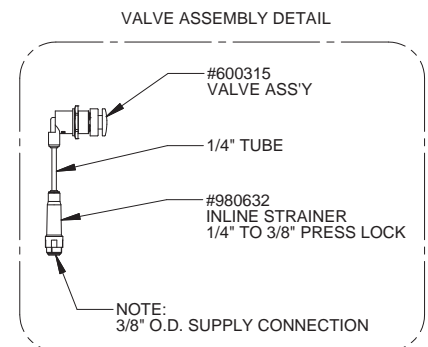
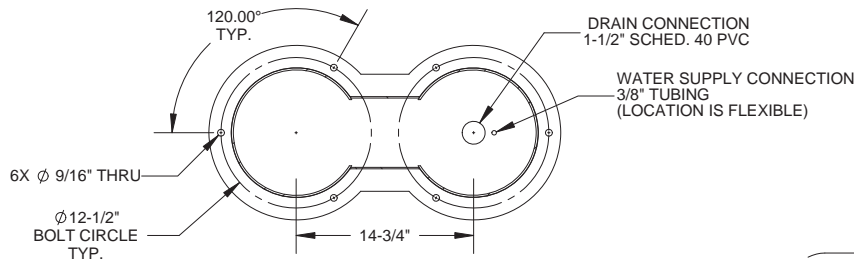
NOTE:  
UNIT MUST BE DISCONNECTED AND DRAINED DURING WINTERIZATION, PER THE FOLLOWING RECOMMENDED PRACTICES:

- SHUT OFF WATER SUPPLY TO FIXTURE (SUPPLY STOP AND WATER LINES BY OTHERS)
- DISCONNECT AND REMOVE IN-LINE FILTER
- PRESS AND HOLD PUSHBUTTON FOR 10 SECONDS TO ALLOW WATER LINES TO DRAIN



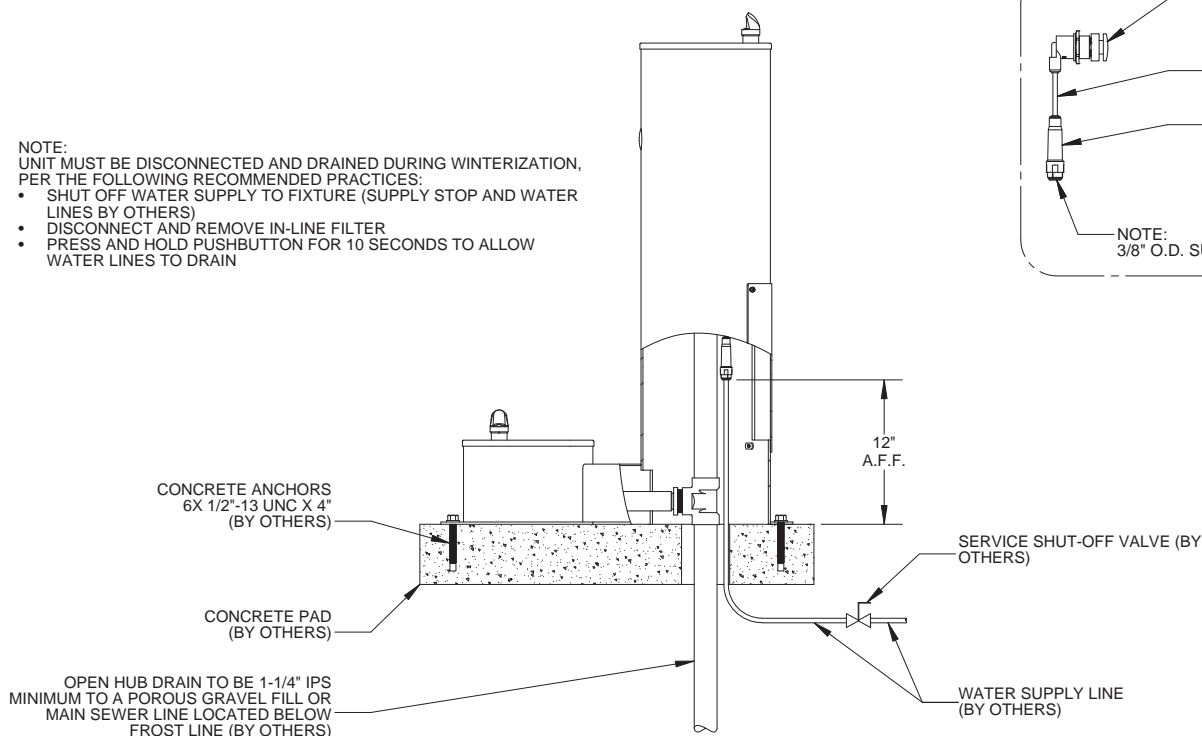
# Rough-in Dimensions- WODF Series w/ Pet Fountain

**\*WODF-2-PET shown; applicable to all WODF-2 and WODF-3 model variations with Pet Fountain**



NOTE:  
UNIT MUST BE DISCONNECTED AND DRAINED DURING WINTERIZATION, PER THE FOLLOWING RECOMMENDED PRACTICES:

- SHUT OFF WATER SUPPLY TO FIXTURE (SUPPLY STOP AND WATER LINES BY OTHERS)
- DISCONNECT AND REMOVE IN-LINE FILTER
- PRESS AND HOLD PUSHBUTTON FOR 10 SECONDS TO ALLOW WATER LINES TO DRAIN



## **Required Installation Supplies**

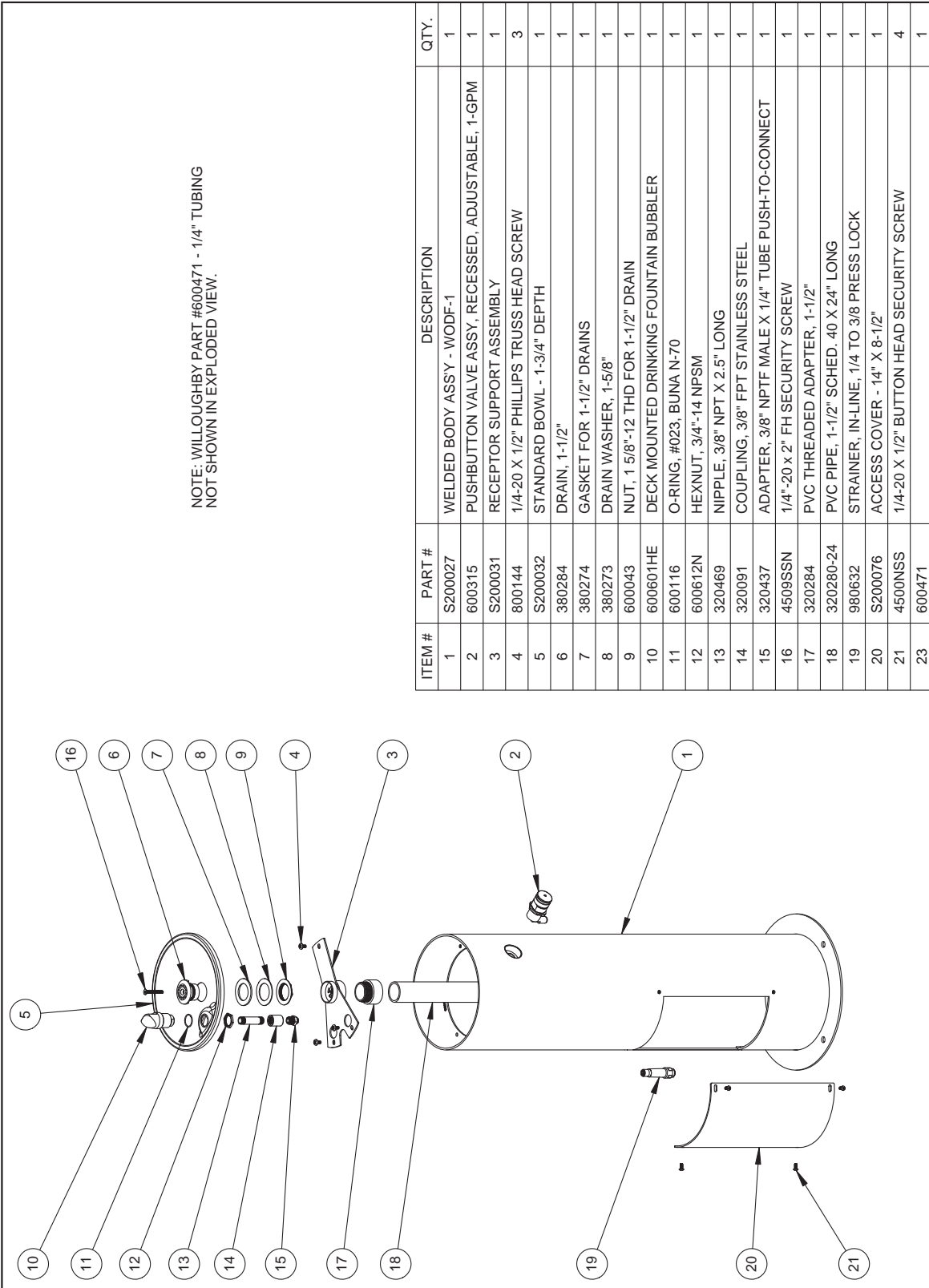
- Proper mounting hardware
- Proper plastic fittings as indicated
- Hardware for waste outlet connections
- Gasket for waste outlet connection
- Shims (for installation if necessary)
- Supply piping
- Silicone caulk
- Plumbers putty

**WARNING: Willoughby Industries does not assume any responsibility for personal injury or damage to equipment due to an improperly installed WODF Series Drinking Fountain**



# Parts List and Exploded-view Drawing- WODF-1

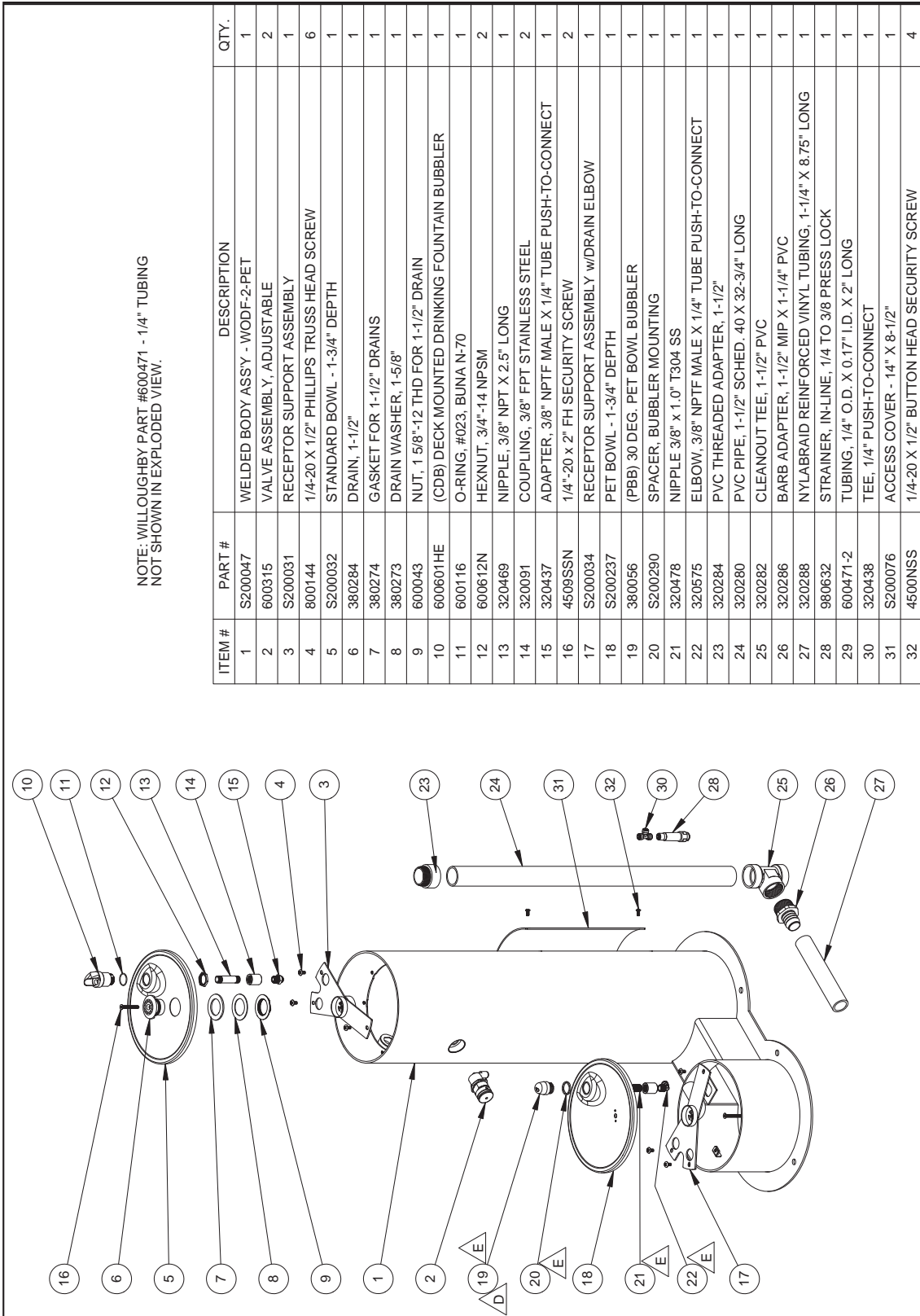
NOTE: WILLOUGHBY PART #600471 - 1/4" TUBING  
NOT SHOWN IN EXPLODED VIEW.



ITEM #	PART #	DESCRIPTION	QTY.
1	S200027	WELDED BODY ASSY - WODF-1	1
2	600315	PUSHBUTTON VALVE ASSY, RECESSED, ADJUSTABLE, 1-GPM	1
3	S200031	RECEPTOR SUPPORT ASSEMBLY	1
4	800144	1/4-20 X 1/2" PHILLIPS TRUSS HEAD SCREW	3
5	S200032	STANDARD BOWL - 1-3/4" DEPTH	1
6	380284	DRAIN, 1-1/2"	1
7	380274	GASKET FOR 1-1/2" DRAINS	1
8	380273	DRAIN WASHER, 1-5/8"	1
9	600043	NUT, 1 5/8"-12 THD FOR 1-1/2" DRAIN	1
10	600601HE	DECK MOUNTED DRINKING FOUNTAIN BUBBLER	1
11	600116	O-RING, #023, BUNA N-70	1
12	600612N	HEXNUT, 3/4"-14 NPSM	1
13	320469	NIPPLE, 3/8" NPT X 2.5" LONG	1
14	320091	COUPLING, 3/8" FPT STAINLESS STEEL	1
15	320437	ADAPTER, 3/8" NPTF MALE X 1/4" TUBE PUSH-TO-CONNECT	1
16	4509SSN	1/4"-20 x 2" FH SECURITY SCREW	1
17	320284	PVC THREADED ADAPTER, 1-1/2"	1
18	320280-24	PVC PIPE, 1-1/2" SCHED. 40 X 24" LONG	1
19	980632	STRAINER, IN-LINE, 1/4 TO 3/8 PRESS LOCK	1
20	S200076	ACCESS COVER - 14" X 8-1/2"	1
21	4500NSS	1/4-20 X 1/2" BUTTON HEAD SECURITY SCREW	4
23	600471		1

# Parts List and Exploded-view Drawing- WODF-2-PET

NOTE: WILLOUGHBY PART #600471 - 1/4" TUBING  
NOT SHOWN IN EXPLODED VIEW.



ITEM #	PART #	DESCRIPTION	QTY.
1	S200047	WELDED BODY ASSY - WODF-2-PET	1
2	600315	VALVE ASSEMBLY, ADJUSTABLE	2
3	S200031	RECEPTOR SUPPORT ASSEMBLY	1
4	800144	1/4-20 X 1/2" PHILLIPS TRUSS HEAD SCREW	6
5	S200032	STANDARD BOWL - 1-3/4" DEPTH	1
6	380284	DRAIN, 1-1/2"	1
7	380274	GASKET FOR 1-1/2" DRAINS	1
8	380273	DRAIN WASHER, 1-5/8"	1
9	600043	NUT, 1 5/8"-12 THD FOR 1-1/2" DRAIN	1
10	600601HE	(CDB) DECK MOUNTED DRINKING FOUNTAIN BUBBLER	1
11	600116	O-RING, #023, BUNA N-70	1
12	600612N	HEXNUT, 3/4"-14 NPSM	2
13	320469	NIPPLE, 3/8" NPT X 2.5" LONG	1
14	320091	COUPLING, 3/8" FPT STAINLESS STEEL	2
15	320437	ADAPTER, 3/8" NPTF MALE X 1/4" TUBE PUSH-TO-CONNECT	1
16	4509SSN	1/4"-20 X 2" FH SECURITY SCREW	2
17	S200034	RECEPTOR SUPPORT ASSEMBLY w/DRAIN ELBOW	1
18	S200237	PET BOWL - 1-3/4" DEPTH	1
19	380056	(PBB) 30 DEG. PET BOWL BUBBLER	1
20	S200290	SPACER, BUBBLER MOUNTING	1
21	320478	NIPPLE 3/8" x 1.0" T304 SS	1
22	320575	ELBOW, 3/8" NPTF MALE X 1/4" TUBE PUSH-TO-CONNECT	1
23	320284	PVC THREADED ADAPTER, 1-1/2"	1
24	320280	PVC PIPE, 1-1/2" SCHED. 40 X 32-3/4" LONG	1
25	320282	CLEANOUT TEE, 1-1/2" PVC	1
26	320286	BARB ADAPTER, 1-1/2" MIP X 1-1/4" PVC	1
27	320288	NYLABRAID REINFORCED VINYL TUBING, 1-1/4" X 8.75" LONG	1
28	980632	STRAINER, IN-LINE, 1/4 TO 3/8 PRESS LOCK	1
29	600471-2	TUBING, 1/4" O.D. X 0.17" I.D. X 2" LONG	1
30	320438	TEE, 1/4" PUSH-TO-CONNECT	1
31	S200076	ACCESS COVER - 14" X 8-1/2"	1
32	4500NSS	1/4-20 X 1/2" BUTTON HEAD SECURITY SCREW	4

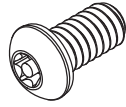
# Parts List and Exploded-view Drawing- WODF-2-CHD / WODF-2-HC

NOTE: WILLOUGHBY PART #600471 - 1/4" TUBING  
NOT SHOWN IN EXPLODED VIEW.

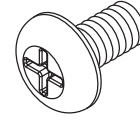
ITEM #	PART #	DESCRIPTION	QTY.
1	320284	PVC THREADED ADAPTER, 1-1/2"	1
2	320282	CLEANOUT TEE, 1-1/2" PVC	1
3	320286	BARB ADAPTER, 1-1/2" MIP X 1-1/4" PVC	1
4	320288-14	NYLABRAID REINFORCED VINYL TUBING, 1-1/4" X 14" LONG	1
5	320280-16	PVC PIPE, 1-1/2" SCHED. 40 X 16" LONG	1
6	980632	STRAINER, IN-LINE, 1/4 TO 3/8 PRESS LOCK	1
7	320438	TEE, 1/4" PUSH-TO-CONNECT	1
8	S200076	ACCESS COVER - 14" X 8-1/2"	1
9	4500NSS	1/4-20 X 1/2" BUTTON HEAD SECURITY SCREW	9
10	S200075	OUTER BOTTOM COVER - ADA / CHILD	1
11	600315	VALVE ASSEMBLY, ADJUSTABLE	2
12	S200034	RECEPTOR SUPPORT ASSEMBLY w/DRAIN ELBOW	1
13	S200033	ADA BOWL - 1-3/4" DEPTH	1
14	320437	ADAPTER, 3/8" NPTF MALE X 1/4" TUBE PUSH-TO-CONNECT	2
15	320091	COUPLING, 3/8" FPT STAINLESS STEEL	2
16	320469	NIPPLE, 3/8" NPT X 2.5" LONG	2
17	600612N	HEX NUT, 3/4"-14 NPSM	2
18	600116	O-RING, #023, BUNA N-70	2
19	600601HE	DECK MOUNTED DRINKING FOUNTAIN BUBBLER	2
20	S200032	STANDARD BOWL - 1-3/4" DEPTH	1
21	4509SSN	1/4"-20 x 2" FH SECURITY SCREW	2
22	380284	DRAIN, 1-1/2"	2
23	380274	GASKET FOR 1-1/2" DRAINS	2
24	380273	DRAIN WASHER, 1-5/8"	2
25	600043	NUT, 1 5/8"-12 THD FOR 1-1/2" DRAIN	2
26	800144	1/4-20 X 1/2" PHILLIPS TRUSS HEAD SCREW	6
27	S200031	RECEPTOR SUPPORT ASSEMBLY	1
28	600471	TUBING, 1/4" O.D. X 0.17" I.D.	1
31	600471-21	TUBING, 1/4" OD X .170" ID X 21" LONG	1
32	S200037	WELDED BODY ASSY - WODF-2-CHD	1
33	320280-11.75	PVC PIPE, 1-1/2" SCHED. 40 X 11-3/4" LONG	1
34	600471-30	TUBING, 1/4" OD X 0.17" ID X 24" LONG	1

# **Hardware Identification**

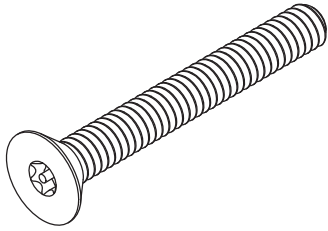
## **WODF Series Hardware**



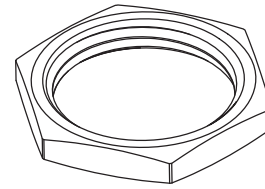
1/4"-20 x 1/2"  
SECURITY SCREW  
4500NSS



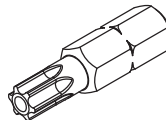
1/4"-20 x 1/2"  
PHILLIPS SCREW  
800144



1/4"-20 x 2"  
FLAT HEAD SECURITY SCREW  
4509SSN



3/4" NPT  
BRASS LOCKNUT  
600612N



T27  
1/4" PINNED TORX BIT  
800115

# **Installation Instructions**

## **Step 1: Fixture Installation**

***Note: the WODF outdoor drinking fountain is to be mounted on a flat, level surface (concrete or otherwise) with an adequate support structure.***

***Note: refer to Rough-In Dimensions for locating plumbing connections.***

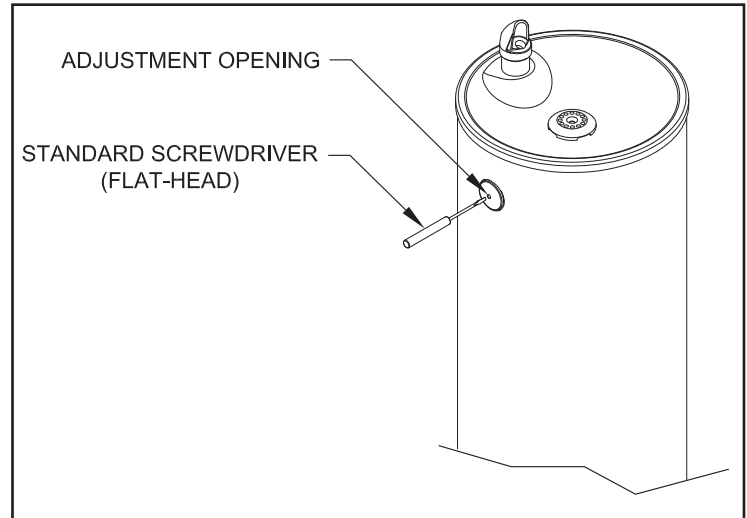
- 1.) Install service shut-off valve in water supply line (valve not furnished).
- 2.) Locate and install drinking fountain using 1/2"-13 x 4" concrete anchors (anchors not furnished).
- 3.) As noted previously, flush the water supply line with clean drinking water before making final connections to the drinking fountain.
- 4.) Connect water supply line to inline strainer inside drinking fountain using 3/8" plastic tubing (extra tubing not furnished). Push tube straight into fitting on filter about 3/4" until it reaches a positive stop. Water supply connection must comply with local codes.
- 5.) Connect fountain drain line to drainage system. Drain is to be 1-1/2" IPS minimum to a porous gravel fill or main sewer line located below frost line. Installer to provide waste trap downstream of drain connection. Drain and waste trap must comply with local codes.
- 6.) Turn on water supply and check both the water supply lines and drain lines for leaks.

# **Installation Instructions (cont.)**

## **Step 2: Adjusting Drinking Fountain Flow**

- 1.) Insert a standard flat-head screwdriver into adjustment opening on face of pushbutton, as shown.
- 2.) Rotate screwdriver to adjust until desired flow is achieved:

Rotate clockwise to increase flow.  
Rotate counterclockwise to decrease flow.



**(WODF-1 shown)**

---

# **Care and Maintenance**

## **Unit Care**

Willoughby Industries' WODF Outdoor Drinking Fountains are not freeze resistant without the FRV Freeze Resistant Valve option. The unit should be disconnected or shut off from the water supply and drained during the colder months. For more information, refer to the rough-in detail.

In order to ensure adequate flow and cleanliness of water, the inline strainer in the supply line should be cleaned or replaced regularly. New inline strainers can be ordered using Willoughby Part No. 980632.

---

## **Stainless Steel Care**

Stainless Steels are basically alloys of iron and chromium and are corrosion resistant. Stainless steel has a bright surface that is easy to clean and is free from oxides. Therefore, cleaning of stainless steel is relatively simple and easy if done on a regular basis.

Frequency of cleaning should depend on the rate at which the fixture becomes dirty. Remember that fresh (soft) deposits of all kinds are relatively easy to remove, while removing older (hard) deposits are much more difficult. Establish a cleaning SCHEDULE.

Routine cleaning should involve ordinary soap or detergent and water, applied with a sponge, brush or cloth. Baking soda, borax or any of several non-abrasive commercial cleansing agents can help hasten the cleaning action. After scrubbing, rinse THOROUGHLY and wipe dry.

DO NOT use common steel wool, scouring pads, scrapers, wire brushes, files or other steel tools to clean stainless steel. Such items will scratch the surface or leave small particles of iron imbedded in the surface, which will eventually rust and stain the surface - even appearing as if the stainless itself was rusting.

Certain chemical compounds, if used on stainless steel, can give the appearance of rust and if allowed to stand for long periods of time, can pit the surface of even stainless. Products containing hydrochloric acid, muriatic acid or potassium hydrochloride can ruin the surface.

# **Troubleshooting-** **WODF Drinking Fountain**

## **INSUFFICIENT FLOW**

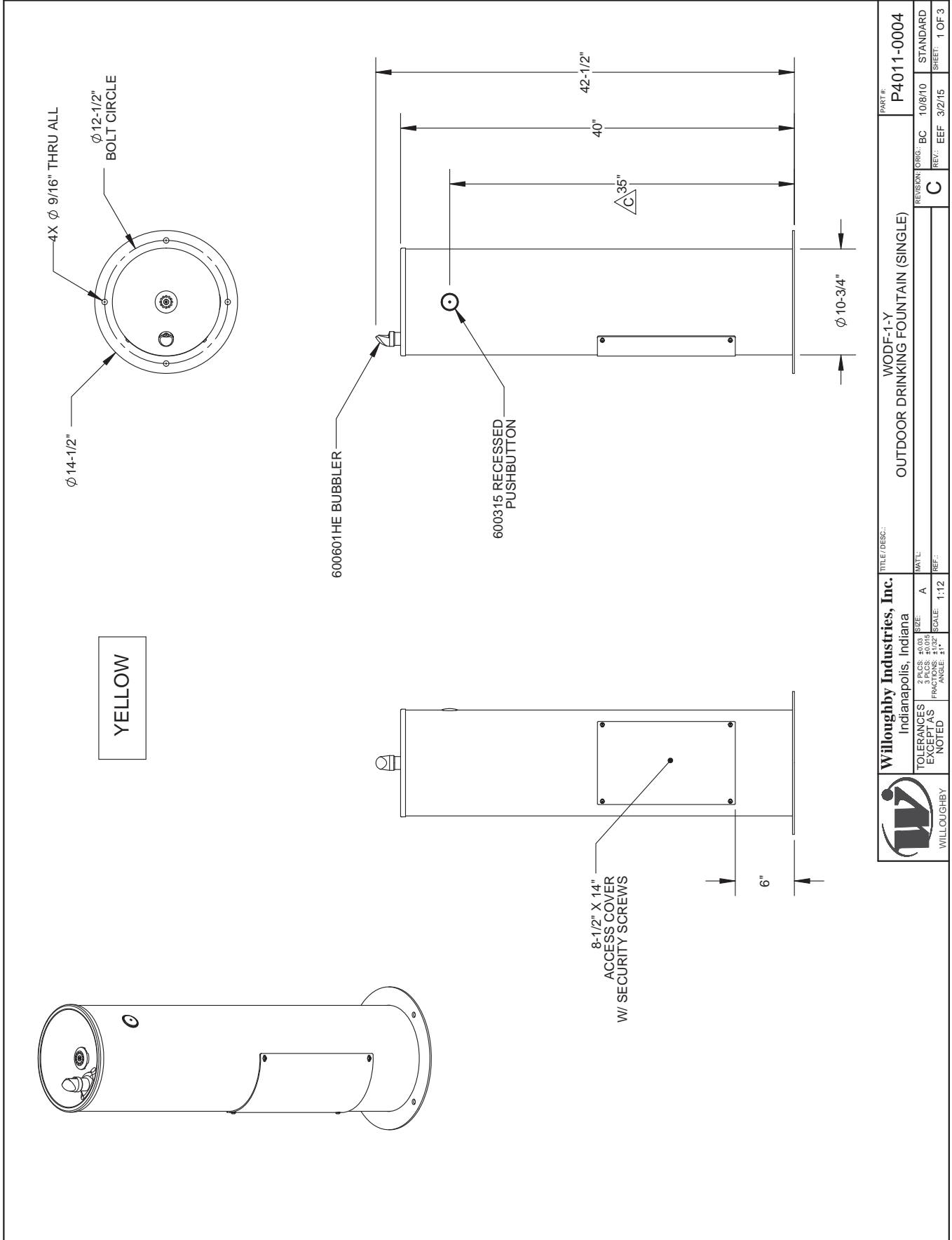
- A. Ensure the service shut-off valve is fully open (provided by installer).
- B. Ensure water supply is within the normal operating range of 40-60 psi.
  - 1. If pressure is too low, flow can be drastically reduced.
  - 2. If pressure is too high, the strainer and/or valve may have been damaged.
  - 3. The unit is rated for a maximum range of 30-105 psi.
- C. Inspect the unit's valve for damage, and replace if necessary.
- D. Inspect the inline strainer for damage and/or clogging, and clean or replace as necessary.
- E. Check all fittings and tubing for damage and leaks. Replace components as necessary.

## **UNIT HAS PROBLEMS DRAINING**

- A. Remove any debris from the drain.
- B. Remove any debris from the PVC pipe and fittings.
- C. Check and clear the waste trap (provided by installer).

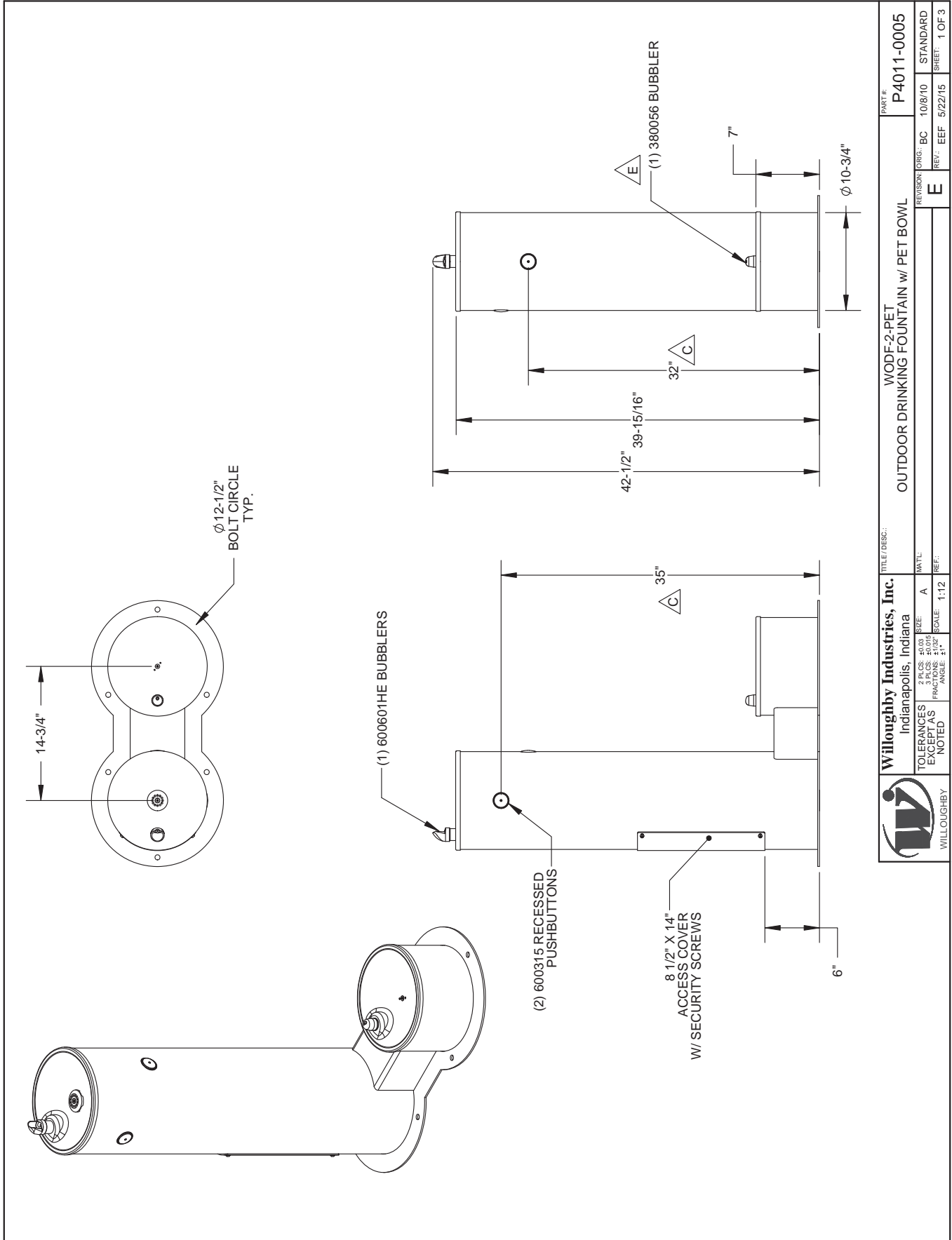


**DRAWING: Physical Dimensions**



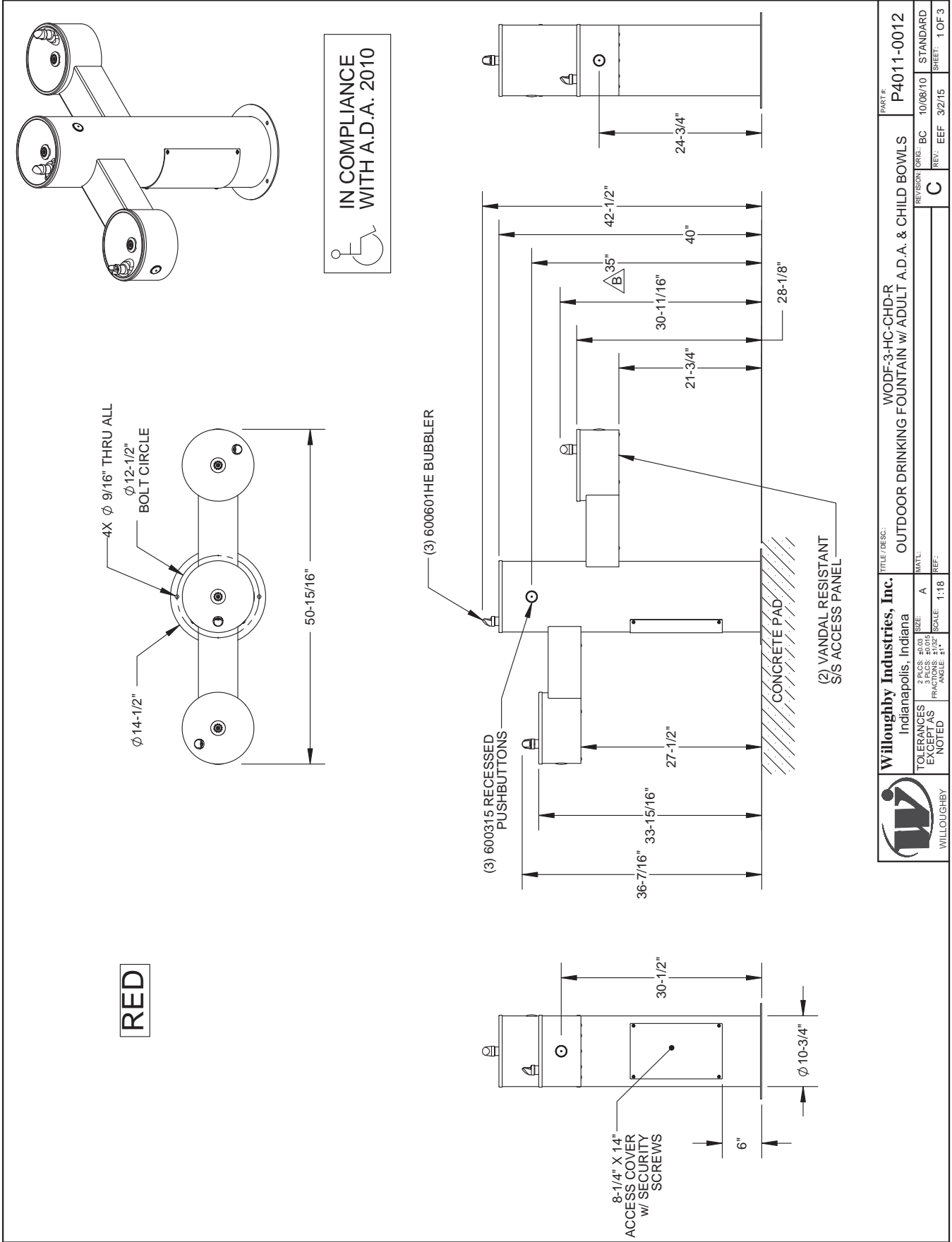
<b>Willoughby Industries, Inc.</b> Indianapolis, Indiana		PART #: <b>P4011-0004</b>
TOLERANCES UNLESS NOTED DIMENSIONS IN PARENTHESES	SIZE 3 PLS: #000 5 PLS: #0016 FRACTIONS: #100 ANGLE: #1	TITLE / DESC.: <b>WODF-1-Y                  OUTDOOR DRINKING FOUNTAIN (SINGLE)</b>
TOUGHNESS EXCEPT AS NOTED	SCALE: 1:12	REVISION ORIG: BC 10/8/10 REV: EEF 3/2/15 SHEET: 1 OF 3
WILLOUGHBY		C

**DRAWING: Physical Dimensions**

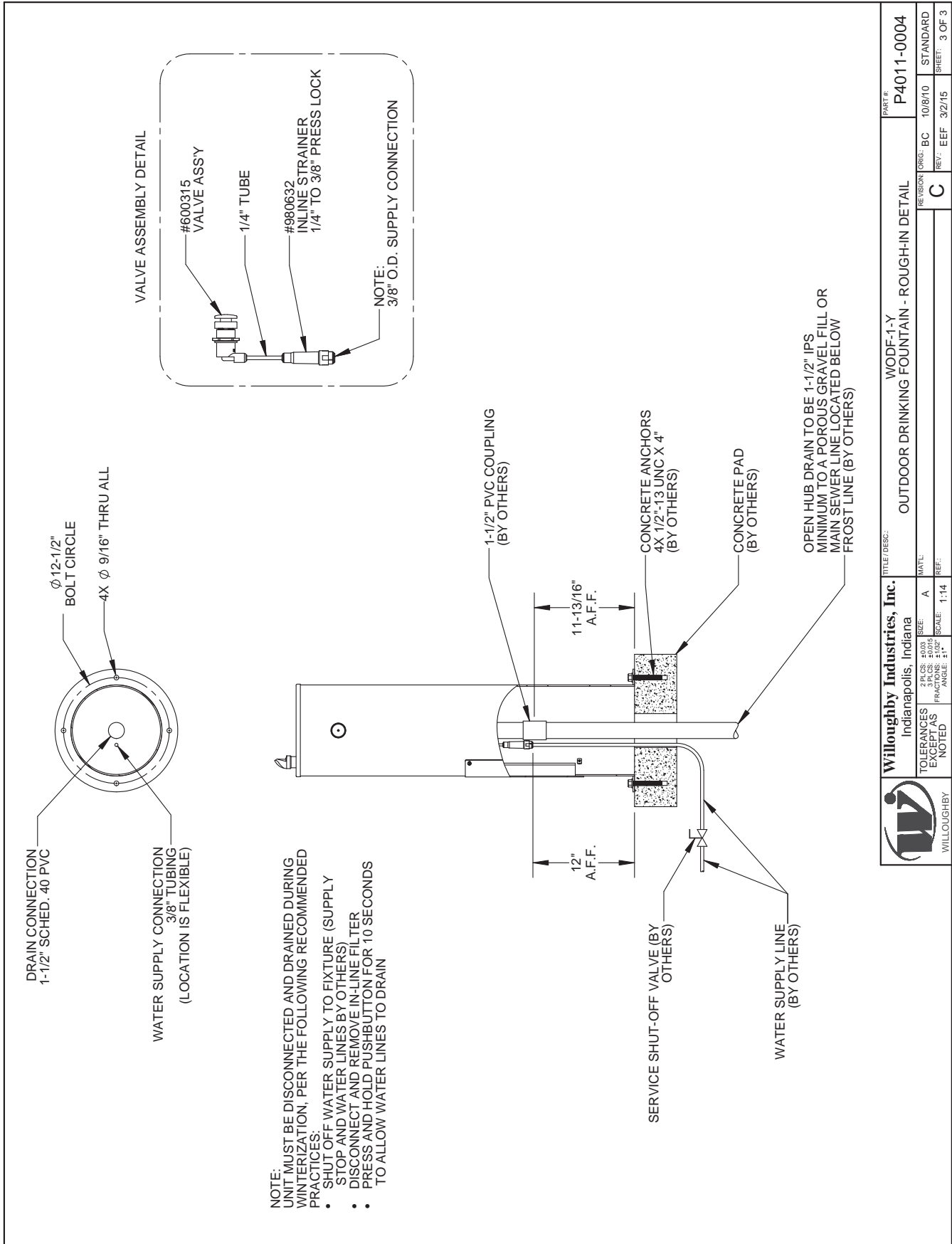


<b>Willoughby Industries, Inc.</b> Indianapolis, Indiana		TITLE/DESC: WODF-2-PET OUTDOOR DRINKING FOUNTAIN w/ PET BOWL		PART #: P4011-0005	
TOLERANCES EXCEPT AS NOTED		MATERIAL: A		REVISION: ORIG.: BC 10/8/10 STANDARD	
2 PLCS: 40.00		SCALE: 1:12		REV.: EEF 5/22/15 SHEET: 1 OF 3	
FRACIONS: 1/16"		ANGLE: 1°			
WILLOUGHBY					

**DRAWING: Physical Dimensions**

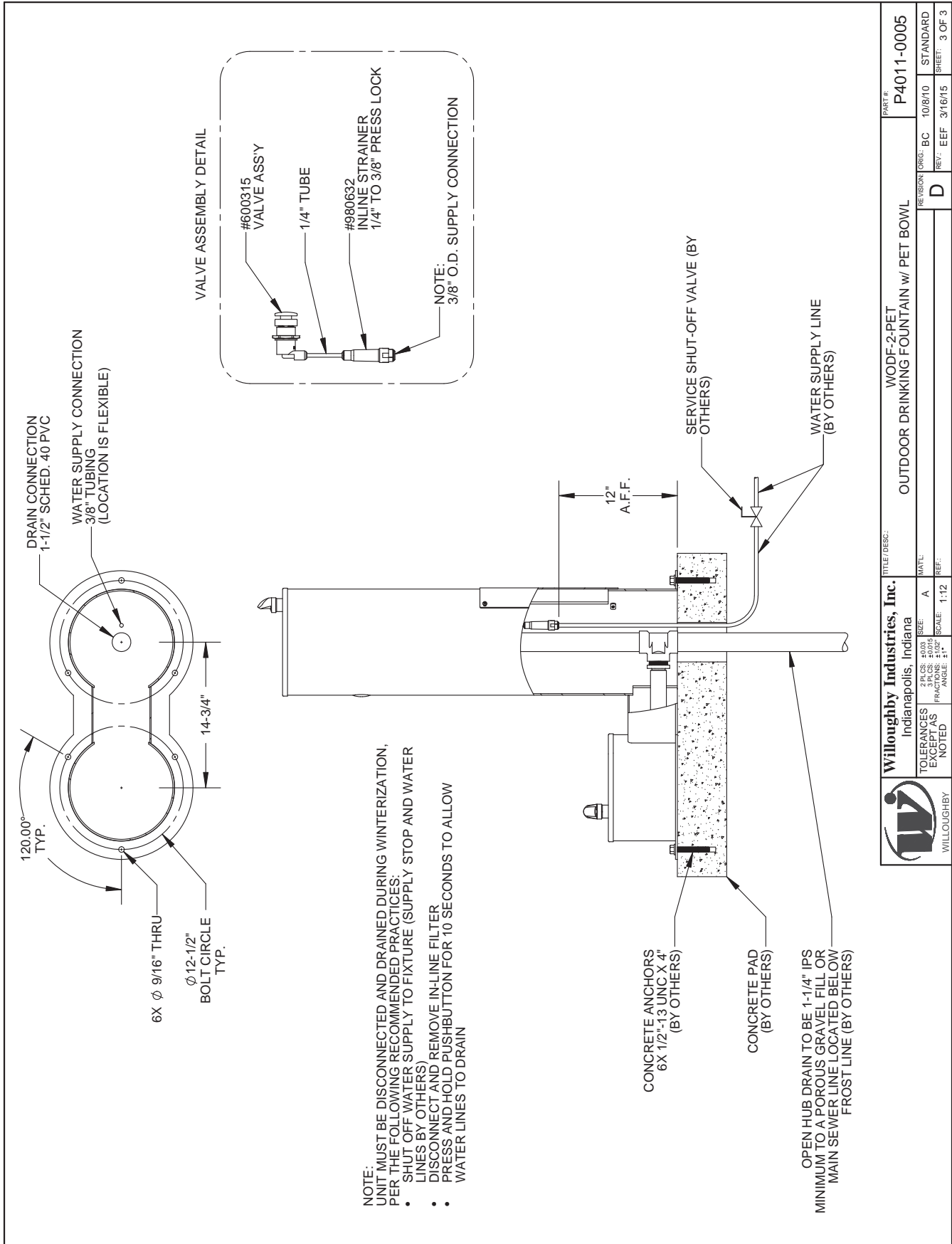


**DRAWING: Rough-in Dimensions**



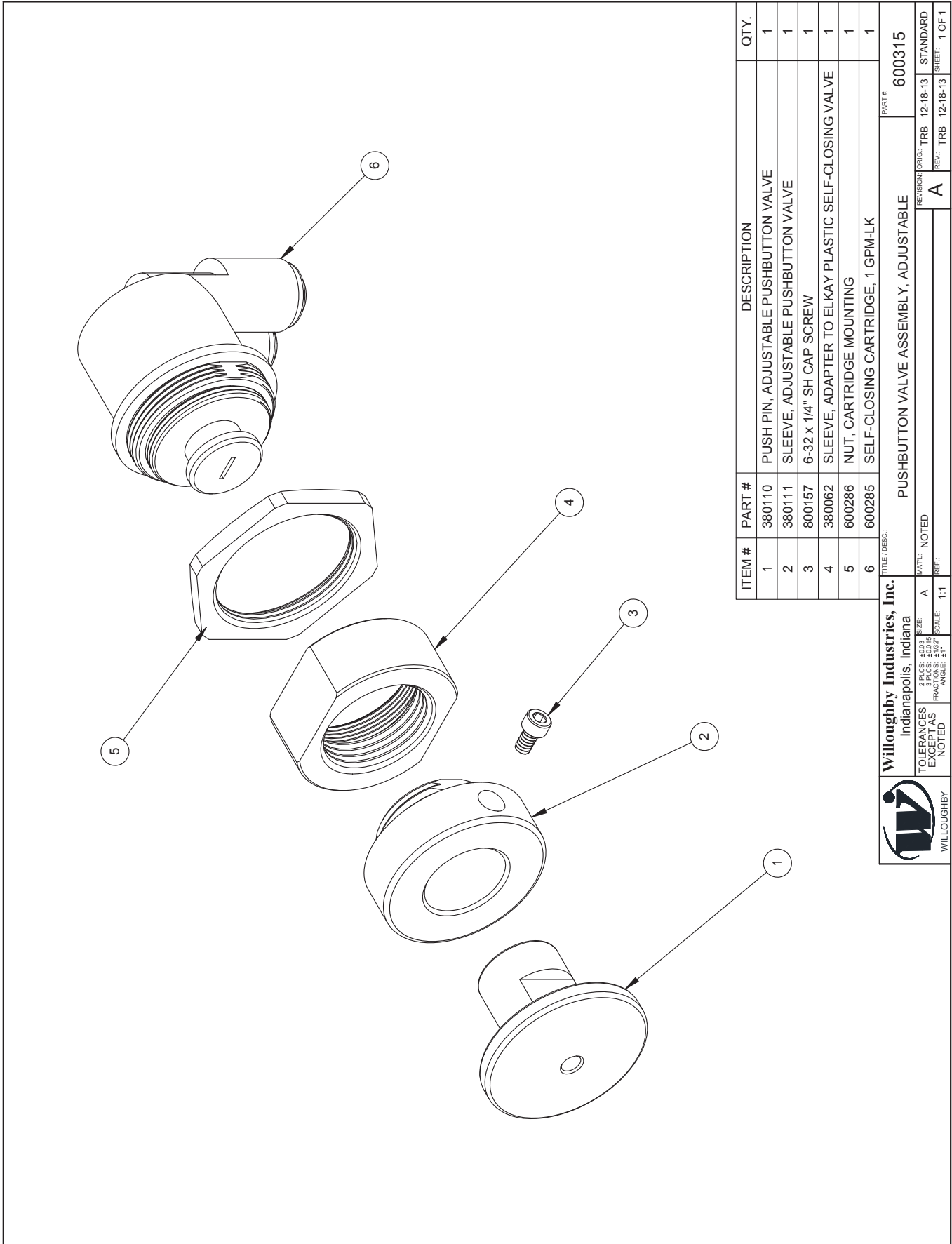
	<b>Willoughby Industries, Inc.</b> Indianapolis, Indiana	TITLE / DESC: WODF-1-Y OUTDOOR DRINKING FOUNTAIN - ROUGH-IN DETAIL		PART #: P4011-0004
		TOLERANCES EXCEPT AS NOTED	2 PLCS #003 SIZE A	WATL: 10/8/10
	FRAGILE 1" ANGLE 1"	3 PLCS #0016	SCALE: 1:14	REV: EEF 3/2/15
				STANDARD SHEET: 3 OF 3

**DRAWING: Rough-in Dimensions**



<p>WILLOUGHBY</p>	<p><b>Willoughby Industries, Inc.</b> Indianapolis, Indiana</p>	<p>TITLE/DESC: WODF-2-PET OUTDOOR DRINKING FOUNTAIN w/ PET BOWL</p>	<p>PART #: P4011-0005</p>
	<p>2 P.C.S. - 503 3 P.C.S. - 5015</p> <p>SCALE: 1:12</p>	<p>REVISION ORG: BC 10/8/10 STANDARD REV: EEF 3/16/15 SHEET: 3 OF 3</p>	<p>MATL: A</p>

**DRAWING: Pushbutton Detail**



ITEM #	PART #	DESCRIPTION	QTY.
1	380110	PUSH PIN, ADJUSTABLE PUSHBUTTON VALVE	1
2	380111	SLEEVE, ADJUSTABLE PUSHBUTTON VALVE	1
3	800157	6-32 x 1/4" SH CAP SCREW	1
4	380062	SLEEVE, ADAPTER TO ELKAY PLASTIC SELF-CLOSING VALVE	1
5	600286	NUT, CARTRIDGE MOUNTING	1
6	600285	SELF-CLOSING CARTRIDGE, 1 GPM-LK	1

**Willoughby Industries, Inc.**  
Indianapolis, Indiana

2 PAGES: 4003 SIZE: A  
 PAGES: 50019  
 FRACT: 1/2 OF SCALE  
 ANGLE: 31°  
 SCALE: 1:1

TOLERANCES EXCEPT AS NOTED

MATL: NOTED  
 REF:

TITLE/DESC: PUSHBUTTON VALVE ASSEMBLY, ADJUSTABLE  
 PART #: 600315

REVISION: TRB 12-18-13 STANDARD  
 REV: TRB 12-18-13 SHEET: 1 OF 1



WILLOUGHBY

# **Warranty**

Willoughby Industries, Inc. warrants to commercial and institutional purchasers only that each unit will be free from defects in workmanship and materials under normal use and service upon the following terms and conditions for a period of one (1) year from date of shipment.

This warranty does not cover installation or any other labor charges and does not apply to any components damaged by accident, abuse, improper installation or improper maintenance. This warranty does not cover any installation that did not comply with national, state and local building, plumbing or electrical codes. The warranty is limited to replacing or repairing at manufacturer's option, transportation charges prepaid by the purchaser, any component or part which upon our inspection shall be deemed as defective within the limitations of this warranty. The replacement or repair of defective units as stated in this warranty shall constitute the sole remedy of the purchaser and the sole liability of Willoughby Industries, Inc. Willoughby Industries, Inc. shall not otherwise be liable under any indirect damages caused by defects in the repair or replacement thereof.

This warranty only extends to commercial and industrial purchasers and does not extend to any others, including consumer customers of commercial institutional purchasers. This warranty is in lieu of all other warranties, expressed or implied, including implied warranty of merchantability or fitness for a particular purpose or otherwise.