# 601NP_8-12_ WAFER CHECK VALVE IOM_ 11072023_.doc

**6400 Corporate Avenue**
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**269-323-2495 or 800-374-0234**
**Fax: 269-323-0630 or 866-879-598**
**www.colonialengineering.com**

**PLEASE READ THE FOLLOWING INFORMATION PRIOR TO INSTALLING AND USING COLONIAL VALVES and STRAINERS, AND OTHER ASSOCIATED PRODUCTS. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY.**

1. Colonial Valve guarantees its products against defects in material and workmanship only. Colonial Valve assumes no responsibility for damage or injury resulting from improper installation, misapplication, or misuse of any product.
2. Colonial Valve assumes no responsibility for damage or injury resulting from chemical incompatibility between its products and the process fluids to which they are subjected. Compatibility charts provided in Colonial Valve literature are based on ambient temperatures of 70ºF and are for reference only. Customer should always test to determine application correctness.
3. Consult Colonial Valve literature to determine operating pressure and temperature limitations before installing any Colonial Valve product. **Note that the maximum recommended fluid velocity through any Colonial Valve product is eight feet per second.** Higher flow rates can result in possible damage due to water hammer effect. Consult with the adjoining pipe and pipe-fittings manufacturers' installation instructions to determine the maximum flow velocity for your piping system. Also note that maximum operating pressure is dependent upon material selection as well as operating temperature. Colonial Valve products are designed primarily for use with non-compressible liquids. **They should NEVER be used or tested with compressible fluids such as compressed air or gas.**
4. **Systems should always be depressurized and drained prior to installing or maintaining valves.**
5. Temperature effect on piping systems should always be considered when the systems are initially designed. Piping systems must be designed and supported to prevent excess mechanical loading on Colonial Valve equipment due to system misalignment, weight, shock, vibration, and the effects of thermal expansion and contraction.
6. Because PVC and CPVC will have reduced impact resistance and flexural strength as temperatures approach 32°F (0°C) and lower, caution is recommended if using pipe, valves or fittings below this temperature.
7. ***Install the valve no closer than 5 pipe diameters from a pump, or directional-changing fitting, or other sources of turbulence.***

WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

**Colonial 601NP Series PVC Wafer Check Valves are designed to fit between two ANSI B16.5, Class 150 or DIN Flanges using a set of EPDM gaskets (included in the carton).**

**Note regarding V80601NP – discontinued 11/1/2019:**
V80601NP 8" Wafer Check was sold by Colonial until 2019. It requires a spacer (Part # V80601NPS) when installing, to allow the disc to open fully without coming into contact with the interior of a Sch 80 ANSI Class 150 flange. Use Bolt Set V80WCKG-A (Galvanized) or V80WCKS-A (304 SS), shown in chart below, sold separately.

**No spacers are required when installing the 10 & 12" wafer checks with Sch 80 ANSI Class 150 flanges.**

## FLANGE CONNECTION:

Use properly sized flat washers under every nut and bolt head. Failure to do so may lead to premature flange failure due to high stress concentrations. Bolts and nuts alone create a high stress point that not only cut into the plastic, but can cause failure in the flange. Washers distribute and reduce the bending force. See Table on page 2 for proper bolt, nut and washer sizes, and torque.

| Description | Qty | Tightening Torque (ft - lbs.) |
|---|---|---|
| FOR WAFER CHECK SIZE 8" | | |
| (Length accomodates valve, spacer, and two flanges) | | |
| 3/4-10 X 10" THREAD HEX BOLT | 8 | 20 -22 |
| 3/4-10 HEX NUT | 8 | |
| 3/4 FLAT WASHER | 16 | |
| FOR WAFER CHECK SIZE 10" | | |
| (Length accomodates valve and two flanges) | | |
| 7/8-9 X 6.50" HEX BOLT | 12 | 23-26 |
| 7/8-11 HEX NUT | 12 | |
| 7/8 FLAT WASHER | 24 | |
| FOR WAFER CHECK SIZE 12" | | |
| (Length accomodates valve and two flanges) | | |
| 7/8-9 X 7.00" HEX BOLT | 12 | 28-30 |
| 7/8-11 HEX NUT | 12 | |
| 7/8 FLAT WASHER | 24 | |

COLONIAL VALVE
A DIVISION OF COLONIAL ENGINEERING, INC.

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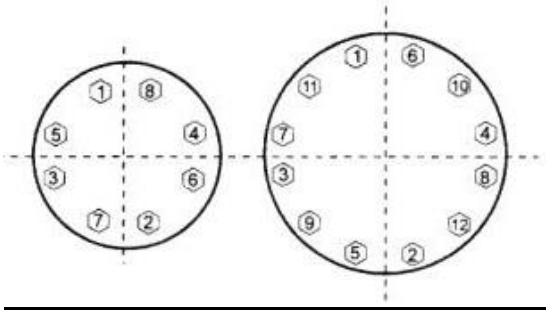
**Clean and inspect flange sealing surfaces for dents and any other damage prior to assembly. Bolts and nuts should be clean and lubricated.**

- ✓ Make sure bolt holes freely align and that flange faces are parallel to each other. Make sure that one end of the system is free to move enough to allow the faces to come together during tightening.
- ✓ Do not hang excessive weight from a flange. These steps need to be taken to prevent mechanical loading on the pipe and flanges. Tighten nuts in small increments with a wrench holding the bolt head and a torque wrench tightening the nut.
- ✓ Flange faces must remain parallel during bolt-tightening. Uneven tightening and / or over-torqueing will damage flanges. Tighten in a sequential, crisscross manner.




**INSTALLATION PRECAUTIONS:**

***The following should be observed when installing onto the discharge side of a pump:***

- ✓ **Never install the valve directly to a pump**
- ✓ **Never install the valve directly to a bend or elbow**
- ✓ **Install all wafer check valves a minimum of 5 times the nominal pipe diameter downstream of pumps, elbows or valves.**
- ✓ **Working pressure for 8" wafer check is 100 psi (non-shock water at 73º F). V80601NP**
- ✓ **Working pressure for 10 & 12" wafer check is 87 psi (non-shock water at 73º F).**

**Be sure to install with the FLOW ARROW in the correct direction**