Colonial Engineering, Inc.
6400 Corporate Ave., Portage, MI 49002
Ph: 269-323-2495 Fax: 269-323-0630 www.colonialengineering.com
Sample Specification for Plastic Ball Valve, Ball Check Valves and Butterfly Valves

True Union Ball Valves shall be produced of PVC Type I, cell classification 12454, or CPVC Type IV, cell-classification 23447, or PP material. Valves shall be full port Schedule 80. Valve o-rings shall be made of EPDM or FKM material. Valve stem shall have two o-rings. Valve body shall have two stem stops. Valve seat-carrier shall have a polymeric locking-strip which can be removed to dis-assemble the valve for service, and allowing for external-adjustment for seat wear with the valve in-line. Valve seats shall be produced of PTFE material. 1/2 - 4" valves shall be full port. 6" valves shall be a venturied 4" valve. End connectors shall be of socket, female-NPT, or flange type meeting ASTM/ANSI standards. PVC & CPVC valves shall meet the requirements of ASTM F-1970 for pressure rating (1/2 - 2" 235 psi), (2-1/2 - 6" 150 psi), non-shock water at 73 degrees F. PP valves shall be rated (1/2 - 2" 150 psi) non-shock water at 73 degrees F. Valves shall be operated manually or pneumatically or electrically by an actuator. Valves may be retro-fitted with Colonial's actuator mounting kit. **Colonial Full Block Series**.

True Union Ball Check Valves ½ - 2" shall be produced of PVC Type I, cell classification 12454, or CPVC Type IV, cell classification 23447 material. Valve o-rings and Seat/Seal shall be made of EPDM or FKM material. End connectors shall be of socket, female-NPT, or flange type meeting ASTM/ANSI standards. PVC & CPVC Valves shall meet the requirements of ASTM F-1970 for pressure rating (1/2 - 2" 235 psi) non-shock water at 73 degrees F. System pressure will unseat the ball, allowing flow. 30" of back-flow head pressure (1 – 2 psi) will properly seat the ball to stop backflow. **Colonial 271N Series**

Butterfly Valve (311) 3 – 6" Butterfly Valves shall be lever or gear actuated. Valve body and disc shall be produced of PVC **Type** I, cell classification 12454 material. Valve boot/seal and o-rings shall be made of EPDM. Valve stem shall be 410 stainless steel. Boot/seal and disc shall be the only wetted parts of the valve. Ten-position lever handle shall painted steel. Bolt pattern shall conform to ANSI/ASME B 16.5, class 150 standard. Valves have a full boot seal and require no flange gaskets. Valves shall be pressure rated at 150 psi, non-shock water at 73 degrees F. **Colonial 311N series.**

Butterfly Valve - Industrial (411) 2 - 12" shall be lever or gear actuated. Valve body and disc shall be produced of PVC Type I, cell classification 12454, or CPVC Type IV, cell classification 23447 or PP material. Valve boot/seal and o-rings shall be made of EPDM or FKM or Buna-N material. Valve stem shall be 410 SS. Boot/seal and disc shall be the only wetted parts of the valve. Seven-position locking lever handle shall be produced of PP material. Bolt pattern shall conform to ANSI/ASME B 16.5, class 150 standard. Valves have a full boot seal and require no flange gaskets. Valves shall be pressure rated at 150 psi, non-shock water at 73 degrees F. **Colonial 411N series**. **(411NG Series for 8 – 12" with cast iron gear operator).**

Butterfly Valve – Commercial (711) 3 - 8" shall be lever actuated. Valve body and disc shall be produced of PVC Type I, cell classification 12454 material. Valve boot/seal and o-rings shall be made of EPDM. Valve stem shall be 410 SS. Boot/seal and disc shall be the only wetted parts of the valve. Seven-position locking lever handle shall be produced of ABS material. Bolt pattern shall conform to ANSI/ASME B 16.5, class 150 standard. Valves have a full boot seal and require no flange gaskets. Valves shall be pressure rated at 150 psi, non-shock water at 73 degrees F. **Colonial 711N series**.

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