

Colonial Engineering, Inc.  
6400 Corporate Ave., Portage, MI 49002  
Ph: 269-323-2495 Fax: 269-323-0630 [www.colonialengineering.com](http://www.colonialengineering.com)

#### Sample Specification for Plastic Ball Valves and Butterfly Valves for Irrigation

**True Union Ball Valves** shall be produced of PVC Type I, cell classification 12454 material. Valve o-rings shall be made of EPDM or Viton® (FKM) material. Valves shall be full port Schedule 80 (equal or greater to the minimum inside diameter of Sch 80 pipe). Valve stem shall have two o-rings. Valve body shall have two stem stops. Valve seat-carrier shall have a Full Block polymeric locking strip, which can be removed to disassemble the valve for service, and which allows for external-adjustment for seat wear with the valve in-line. Valve seats shall be produced of Teflon® PTFE material. 1/2 - 4" valves shall be full port. End connectors shall be of socket, female-NPT, or flange type. Valves shall meet the requirements of ASTM F-1970 for pressure rating (1/2 - 2" 235 psi), (2-1/2 - 4" 150 psi), non-shock water at 73 degrees F. Valves shall be operated manually with ABS T-Handle or Operating Nut, or pneumatically or electrically by an actuator. Valves may be retro-fitted with Colonial's actuator mounting kit. **Colonial / Lasco Full Block 101N TUBV Series.**

**Super C Compact Ball Valves** shall be produced of PVC Type I, cell classification 12454 material. Valves shall have independent internal live-load seat-carrier for maximum seat life. Valves shall be full port Schedule 80 (equal or greater to the minimum inside diameter of Sch 80 pipe). Valve o-rings shall be made of EPDM or Viton® (FKM) material. Valve stem shall have two o-rings. Valve body shall have two stem stops. Valve seats shall be produced of Teflon material. 1/2 - 4" valves shall be full port. End connectors shall be of socket or female-NPT type. Valves shall meet the requirements of ASTM F-1970 for pressure rating (1/2 - 2" 235 psi), (2-1/2 - 4" 150 psi), non-shock water at 73 degrees F. **Colonial / Lasco Super C 191N Series.**

**Butterfly Valves 3 - 6"**, shall be actuated by lever handle. Valve body and disc shall be produced of PVC Type I, cell classification 12454 material. Valves shall be full port Schedule 80 (equal or greater to the minimum inside diameter of Sch 80 pipe). 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 be coated metal. Flange pattern shall conform to ANSI/ASME B 16.5, class 150 standard. 3 - 6" valves shall 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 / Lasco 311N series. With Aluminum Alloy Gear Operator: 311NG Series. Stem Extensions are available.**

**Butterfly Valves 8"**, shall be actuated by Gear Operator with standard 2" operating nut for Buried Service. 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. Bolt pattern shall conform to ANSI/ASME B 16.5, class 150 standard. Valve shall have a replaceable single side seal, and a single offset disc, and requires flange gaskets. Gear Operator shall be worm-gear type, 30:1 ratio, manganese bronze output gear, Epoxy E-Coat for Buried Service. Valves shall be pressure rated at 150 psi, non-shock water at 73 degrees F. **Colonial / Lasco V80311GBS**