Check valve shall be of the flanged, full body type with no internal moving parts except for the resilient disc. The flanged ends shall be manufactured in accordance with ANSI B16.1 Class 125. Valves shall be rated to 250 psi for all sizes.

The valves shall be designed, manufactured, tested and certified to American Water Works Association Standard ANSI/AWWA C508. The valves used in potable water service shall be certified to NSF/ANSI 61 Drinking Water System Components – Health Effects, and certified to be Lead-Free in accordance with NSF/ANSI 372.

The valves shall have flanges with drilling to ANSI B16.1, Class 125.

The valve body shall be constructed of ductile iron ASTM A-536 Grade 65-45-12 with flow area equal to the nominal pipe inside diameter throughout the valve. Seat shall be constructed on a 45 degree angle to reduce disc travel. The seat and internal body shall be fully coated with a two part thermosetting epoxy suitable for use in both potable water and wastewater applications.

The domed bonnet shall be manufactured of ductile iron ASTM A-536 Grade 65-45-12.

The bonnet-to-body seal shall be provided by a gasket to allow easy removal and replacement of the access bonnet. Bonnet bolting shall be SAE Grade 5.

The resilient disc shall feature a fully encapsulated alloy steel pressure plate with integral molded O-ring on the face of the elastomer. Nylon reinforcements shall be provided in the flexible hinge area of the disc assembly. Non-slam closing characteristics shall be provided via a 35 degree disc stroke and a flexor assembly, which together, requires no more than 0.25 psi of cracking pressure to open the disc.

The disc surge inhibitor assembly shall be replaceable and adjustable in the field without removing the valve from the line. The valve disc shall be cycle-tested 1 million times, in accordance with ANSI/AWWA C508, and show no evidence of wear, cracking or distortion.

If requested, a mechanical disc position indicator and limit switch or a bottom mounted back flow device shall be provided. Surge Inhibitor Check Valves shall be Pratt Model PSI as manufactured by Pratt.