



# Sample Engineering Specifications

## CPVC Valves for Marine

### **CPVC 2000 Industrial True Union Ball Valve Sample Specification for Marine**

All thermoplastic 2000 industrial ball valves shall be True Union 2000 industrial type manufactured to ASTM F 1970 and constructed from CPVC Type IV, ASTM D1784 Cell Classification 23447 per ASTM D1784. All O-rings shall be EPDM or FKM. All valves shall have Safe-T-Shear<sup>®</sup> stem with double O-ring stem seals. All valve handles shall be polypropylene with built-in lockout mechanism. All valve union nuts shall have Buttress threads. All seal carriers shall be Safe-T-Blocked<sup>®</sup>. All valve components shall be replaceable. All valves with EPDM Elastomers shall be certified by NSF International for use in potable water service. All 1/2" through 4" valves shall be pressure rated to 235 psi, with a Limited Lifetime Warranty as manufactured by Spears<sup>®</sup> Manufacturing Company. All CPVC Industrial Ball Valves 1/2" through 4" shall be type approved in conformance with ASTM D635 by the American Bureau of Shipping (ABS). All CPVC 2000 Industrial True Union Ball Valves 1/2" through 8" shall be suitable for use with Spears<sup>®</sup> U.S. Coast Guard Approved piping systems only.

### **CPVC 2000 Standard True Union Ball Valve Sample Specification for Marine**

All thermoplastic standard ball valves shall be True Union 2000 standard type manufactured to ASTM F 1970 and constructed from CPVC Type IV, ASTM D1784 Cell Classification 23447. All O-rings shall be EPDM or FKM. All valves shall have Safe-T-Shear<sup>®</sup> stem with O-ring stem seal. All handles shall be polypropylene. All union nuts shall have Buttress threads. All seal carriers shall be Safe-T-Blocked<sup>®</sup>. All valves with EPDM Elastomers shall be certified by NSF International for use in potable water service. All 1/2" - 2" valves shall be pressure rated to 235 psi, all 2-1/2" - 4" valves and all flanged valves to 150 psi for water @ 73°F with a Limited Lifetime Warranty as manufactured by Spears<sup>®</sup> Manufacturing Company. All CPVC Standard Ball Valves 1/2" through 4" shall be type approved in conformance with ASTM D635 by the American Bureau of Shipping (ABS). All CPVC 2000 Standard True Union Ball Valves 1/2" through 4" shall be suitable for use with Spears<sup>®</sup> U.S. Coast Guard Approved piping systems only.

### **CPVC 2000 True Union 3-Way Ball Valve Sample Specification**

All thermoplastic ball valves shall be True Union 2000 3-Way [specify horizontal or vertical] type with [specify port option] manufactured to ASTM F1970 and constructed from ASTM D1784 CPVC Type IV, ASTM D1784 Cell Classification 23447. All O-rings shall be EPDM or FKM. All valves shall have Safe-T-Shear<sup>®</sup> stem with double O-ring stem seals. All valve handles shall be polypropylene with built-in lockout mechanism. All valve union nuts shall have Buttress threads. All seal carriers shall be Safe-T-Blocked<sup>®</sup>. All valve components shall be replaceable. All valves with EPDM elastomers shall be certified by NSF International for use in potable water service. All CPVC 1/2" through 2" valves shall be pressure rated to 235 psi, all 2-1/2" through 4" valves and all flanged valves shall be pressure rated to 150 psi for water at 73°F as manufactured by Spears<sup>®</sup> Manufacturing Company. All CPVC Ball Valves 1/2" through 4" shall be suitable for use with Spears<sup>®</sup> U.S. Coast Guard Approved piping systems only.

### **CPVC 2000 Industrial True Union Ball Check Valve Sample Specification for Marine**

All thermoplastic check valves shall be True Union 2000 Industrial Ball Check type manufactured to ASTM F 1970 and constructed from CPVC Type IV, ASTM D1784 Cell Classification 23447. All O-rings shall be EPDM or FKM. All valve union nuts shall have Buttress threads. All valve seats shall be a standard O-ring type. All seal carriers shall be Safe-T-Blocked<sup>®</sup>. All valve components shall be replaceable. All valves with EPDM Elastomers shall be certified by NSF International for use in potable water service. All CPVC 1/2" through 4" valves shall be pressure rated to 235 psi, and all flanged valves shall be pressure rated to 150 psi for water at 73°F with a Limited Lifetime Warranty as manufactured by Spears<sup>®</sup> Manufacturing Company. All CPVC Industrial Ball Check Valves 1/2" through 4" shall be type approved in conformance with ASTM D635 by the American Bureau of Shipping (ABS). All CPVC 2000 Industrial True Union Ball Check Valves 1/2" through 8" shall be suitable for use with Spears<sup>®</sup> U.S. Coast Guard Approved piping systems only.

### **CPVC 2000 Compact Ball Valve Sample Specification**

All thermoplastic ball valves shall be 2000 Compact type manufactured to ASTM F1970 and constructed from CPVC Type IV, ASTM D 1784 Cell Classification 23447. All O-rings shall be EPDM or FKM. All valves shall have Safe-T-Shear<sup>®</sup> stem with O-ring stem seal. All handles shall be Polypropylene. All valves with EPDM elastomers shall be certified by NSF International for use with potable water. All 1/2" - 2" valves shall be pressure rated to 235 psi, for water @ 73°F, as manufactured by Spears<sup>®</sup> Manufacturing Company. All Ball Valves shall be suitable for use with Spears<sup>®</sup> U.S. Coast Guard Approved piping systems only.

### **CPVC Butterfly Valve Sample Specification for Marine**

All thermoplastic valves shall be Butterfly type constructed from CPVC Type IV ASTM D1784 Cell Classification 23447. All valve seats and O-rings shall be EPDM or FKM. Valves with EPDM seats and seals shall be certified by NSF International. Seat shall be a non-liner type interlocked to valve body. Bolt hole patterns shall conform to ANSI/ASME B16.5 CL150. Disc shall be offset design with fully isolated Type 316L stainless steel stem and Type 316 stainless steel hardware. Lever operated valves shall be equipped with high impact polypropylene handle having built-in lockout capability. Gear operated valves shall be equipped with position indicator and high impact polypropylene handwheel. Valves shall be pressure rated at 150 psi for water at 73° F, with a Limited Lifetime Warranty as manufactured by Spears<sup>®</sup> Manufacturing Company. All CPVC Wafer Butterfly Valves 1-1/2" through 6" shall be type approved in conformance with ASTM D635 by the American Bureau of Shipping (ABS). All CPVC Wafer Butterfly Valves 1-1/2" through 12" shall be suitable for use with Spears<sup>®</sup> U.S. Coast Guard Approved piping systems only.

### **CPVC Wafer Butterfly Valve Sample Specification for Marine**

All thermoplastic valves shall be Wafer Butterfly type constructed from CPVC Type IV ASTM D1784 Cell Classification 23447 per ASTM D1784. All valve seats and O-rings shall be EPDM or FKM. Seat shall be a non-liner type mounted to the valve disc. All valves shall have built-in Santoprene<sup>™</sup> Thermoplastic Elastomer (TFE) flange gaskets. Valves with EPDM seats and seals shall be certified by NSF International. Wafer style valves shall be for mounting between two flanges having bolt hole pattern that conform to ANSI/ASME B16.5 CL150. Disc shall be offset design with Type 316L stainless steel stem. Stem shall be isolated from the process medium for dry operation. Lever operated valves shall be equipped with high impact polypropylene handle having 7-position stops and built-in lockout capability. Gear operated valves shall be equipped with position indicator and high impact polypropylene handwheel. Valves shall be pressure rated at 150 psi for water at 73° F, with a Limited Lifetime Warranty as manufactured by Spears<sup>®</sup> Manufacturing Company. All CPVC Wafer Butterfly Valves 2" through 6" shall be type approved in conformance with ASTM D635 by the American Bureau of Shipping (ABS). All CPVC Wafer Butterfly Valves 2" through 12" shall be suitable for use with Spears<sup>®</sup> U.S. Coast Guard Approved piping systems only.