

## Specifications

### Welding Fittings (Continued)

#### ASTM A 403

This specification includes seamless and welded wrought austenitic stainless steel butt welding fittings and consists of two general Classes, WP and CR. Class WP fittings are manufactured to the dimensional requirements of ANSI B16.9 or ANSI B16.28 and have pressure ratings equal to that prescribed for the specific matching pipe. Class CR fittings are manufactured to the dimensional requirements and pressure ratings of MSS SP-43. Both Classes require carbide solution heat treatment which includes rapid cooling to prevent reprecipitation of carbides. Fitting sub-classes covered by ASTM A 403 include the following specific requirements:

Sub-class	Requirement
WP-S	Seamless construction
WP-W	Welded fittings where fitting construction welds are 100% radiographed or ultrasonically examined and where welds made with the addition of filler metal in any starting material (e.g., welded pipe) are 100% radiographed.
WP-WX	Welded fittings where all welds are 100% radiographed or ultrasonically examined.
CR	Seamless or welded fittings with no nondestructive testing required.

Special fittings with sizes and shapes not included in the above dimensional specifications can be ordered per A 403, provided they are marked "S9" and meet all other requirements of the sub-class specified.

#### ASME SA-403

This specification includes seamless and welded wrought austenitic stainless steel butt welding fittings intended for use as commercial components that comply with Sections I, IV and VIII and nuclear power plant components that comply with Section III of the ASME Boiler and Pressure Vessel Code.

With the exception of changes in tensile properties of 304L, 316L and 316N, and the additional requirements for ASME Code documentation, this specification is identical to ASTM A 403. Alaskan produces and stocks SA-403 quality fittings, welded with filler metal and stamped with the "U" symbol (Section VIII) under a Certificate of Authorization from the American Society of Mechanical Engineers.

#### ASTM B 361

This specification includes seamless and welded aluminum and aluminum alloy butt welding fittings manufactured to the dimensional requirements of ANSI B16.9 and B16.28 and are generally available in diameters and schedule wall thicknesses shown in ANSI B36.10 and ANSI B36.19 (See page 40).

#### ASTM B 363

This specification covers seamless and welded unalloyed titanium butt welding fittings intended for general corrosion resisting and elevated temperature service. Dimensions are in accordance with ANSI B16.9 or MSS SP-43 standards and are generally available in diameters and schedule wall thicknesses shown in ANSI B36.10 and ANSI B36.19 (See page 40). Alaskan manufactures these fittings using ASME qualified welders and welding procedures.

#### ASTM B 366

This specification includes seamless and welded wrought nickel and nickel alloy butt welding fittings and consists of two general Classes, WP and CR. Class WP fittings are manufactured to the dimensional requirements of ANSI B16.9 or ANSI B16.28 and have pressure ratings equal to that prescribed for the specified matching pipe. Class CR fittings are manufactured to the dimensional requirements and have pressure ratings of MSS SP-43.

Heat treating is optional as agreed upon with the purchaser. Fitting sub-classes covered by ASTM B 366 include the following specific requirements:

Sub-class	Requirement
WP-S	Seamless construction
WP-W	Welded fittings where fitting construction welds are 100% radiographed or ultrasonically examined and where welds made with the addition of filler metal in any starting material (e.g., welded pipe) are 100% radiographically examined.
WP-WX	Welded fittings where all welds are 100% radiographically or ultrasonically examined.
CR	Seamless or welded fittings with no nondestructive testing required.