Both ASME A112.18.1 and CSA B125.1 have been harmonized to create this new and updated version of the standard for plumbing supply fittings.

In Section 1.1, a listed was created to show which type of fixtures are covered by the new standard. Water Closet Tank Supply Fittings and Pressurized Flushing Devices were left off the previous B125 list. Letters a, e, f, and j are new to both standards.

In Section 1.2, a statement was added referencing ASME A112.18.2 for plumbing waste fittings. Also, a new Section 1.3 was inserted referencing CSA B125.3 or other plumbing products standards for other devices such as flexible connectors, etc.

Section 1.5 regarding the meaning of words such as “shall” or “may” and other.

New reference standards were added to both versions, ASME A112.18.2 and ISA MC96.1. The B125 version was updated with the following standards, ASME A112.1.2, B16.26, PTC 19.2, PTC 19.5, ASSE 1016, 1019, ISA 75.02, SAE J512, UL 1310 and 1585. The reference to ASME B16.29, B18.6.1, B18.6.3, CSA B45, ASSE 1017, 1017, ASTM B456, B537, B604, D1784, D3965, and D4101 was deleted. The A112.18.1 version was updated with the following standards, ASTM D4060, ISO 228. The reference to ASTM B287, B456 and UL 1951 was deleted.

The information under Section 4.1.1.1 regarding rated pressure is new to the A112.18.1 standard. The B125 rated supply pressure was slightly reduced from 700 kPa to 690 kPa. Also, the new statement is missing the sentence from the old B125 regarding the flushometer valve and supply fittings shall not leak at any line pressure up to 1400 kPa.

The information under Section 4.1.2 regarding rated temperatures is new to the B125 standard. The A112.18.1 working temperatures was slightly lower at 150°F instead of the 160°F now stated. Also, the new statement is missing the sentence from the old A112.18.1 regarding the fittings shall withstand 180°F for 0.5 hr with failure of pressure envelope.

The last sentence in Section 4.1.3.3 is new to the updated A112.18.1. The requirements for replaceable seats were deleted from the previous version of B125.

Under Section 4.2 Serving, a new sentence regarding swing spouts designed to use adjustable packing in the joint between the spout and the body was inserted to both versions of the updated standard.
Sections 3.1 Quality of Work and 3.3 Threaded Fastening Devices from the old B125 were removed along with Sections 3.2.3 and 3.2.4 regarding fittings that have replaceable or repairable parts and where special fastening devices are employed.

In Section 4.4.1, letters (d) and (e) are new to the updated version of A112.18.1 and letters (e) and (f) are new to the updated version of B125.

In Section 4.4.2, new information was added to both standards regarding shanks along with updated Figures 1 and 2.

New requirements for alternative end threaded connections for flexible hoses and components were inserted to Section 4.4.3 for both standards.

The shower head thread requirements in Section 4.4.4 is new to the updated A112.18.1.

Under Section 4.5, the references to ASME 16.29 and CSA B158.1 for Connections other than threaded connections were removed from the updated B125. A new requirement for both standards was also inserted regarding alternative end connections for flexible hoses and components.

A new Section 4.6 Accessible Design was added to updated standard for both versions.

Under Section 4.7, new requirements for diverting and anti-siphoning devices were added to the updated version of A112.18.1. The updated standard also removed the reference to ASME A112.18.3.

In Section 4.8, new requirements for cover plates and escutcheons were added to the updated version of A112.18.1.

Under Section 4.11, the statement regarding shower heads, body sprays, and hand-held showers is different from what was previously written in B125 except for the requirement of 36 N of force required to remove the flow restricting insert. The words “body spray or hand-held shower” are new to the updated version of A112.18.1.

Most of the requirements and information in Section 4.12 cross-flow is new to the updated versions.

The requirements for fittings incorporating electrical features in Section 4.13 are new to the updated B125. Letters (a) and (c) are new to the updated A112.18.1 and the reference to UL 1951 was removed.

The material requirements in Section 4.14 are new to both standards.

Letters (b) through (d) in Section 4.15 are new to both standards and the reference to ASSE 1017 from B125 was deleted.
In Section 4.16, the requirement stating “when installed with a downward slope of 1/8 in./ft toward the faucet” was deleted from the updated version of A112.18.1.

The Packing requirements from the previous version of A112.18.1 were deleted.

All of Section 5.1 is new to the updated A112.18.1. Section 5.1.3 is new to the updated B125 and under Section 5.1.1 the ambient laboratory conditions were previous stated as 23±2°C and 50±5% relative humidity for 40 hours and not 12 hours.

Section 5.2.1 is new to both version of the standard.

In Section 5.2.2.1, the size of the surface defect was increase to 650 mm² instead of 645 mm² which was previous stated in the other two standards. The last sentence regarding widely scattered surface defects is also new to both standards.

In Section 5.2.3.2 letters (a) and (b) are new to the updated B125.

The first sentence in Section 5.2.3.3.1 is new to the updated version of both standards.

In Section 5.2.3.3.2, the specimens shall be subjected to four complete cycles instead of three like stated in other two versions of standards. Also, the updated version left out the corrosion testing for organic coatings complying with ASTM B456 and B604. The new A112.18.1 standard is also missing the dipping in water baths for 450 cycles that is stated in Section 2.2.2 (4)(b).

In Section 5.2.4.3, a new Note was added to the updated standard regarding non-ionic surfactants.

Section 5.3.1 entitled “Static and dynamic seals”, is new to the updated A112.18.1.

Section 5.3.2.1 and the last sentence in 5.3.2.2 are new requirements to the updated B125. Also, the hydrostatic pressure was lowered from 3500 kPa to 3450 kPa.

Section 5.3.3 entitled “Cross-flow check valves” is new to both standards.

Sections 5.3.4 through 5.3.6 are new requirements to the updated A112.18.1. Section 5.3.4.2 Torque is new testing for the updated B125. In Section 5.3.4.3, the hydrostatic pressure was lowered from 700 kPa to 690 kPa as stated in the previous B125 and the time was also lowered from 4 hours to 1 hour with the cold water now being defined.

In Section 5.3.6.1.2, the measuring information is new to the updated B125. Also, in Section 5.3.6.2.1 the rate of leakage was lowered from 1.14 L/min to 1 L/min.

Sections 5.4.2.1 and 5.4.2.2 are new to the updated B125.
In Section 5.4.2.3, the temperature of the water used in flow rate test is now defined in the updated B125. Also, the temperature of the water in letter (b) for the maximum flow for faucets was lowered from 415±5°C to 410±7°C.

The testing requirements in Sections 5.5.2 through 5.5.4 are new to the updated B125. Only the exception statement in 5.5.2 and all of 5.5.3 to 5.5.4 are new to the updated A112.18.1.

The testing requirements in Section 5.6.1.2 are new to the updated B125. Only the exception statement in 5.6.1.2 and letter (b) are new to the updated A112.18.1

In Section 5.6.1.3, the turning force was increased for both standard to 45 N (10 lbf) when supply pressure is 860 kPa (125 psi) and the water temperature is 10±6°C (50±10°F). The reference to ANSI A117.1 was also removed.

Sections 5.1.6.4 and 5.6.1.5 are new testing requirements to both standards.

In Section 5.6.2.1, the amount of cycles was lowered for the updated B125 from 3000 to 1500. The temperature of the hot water was increased for the updated A112.18.1 from 140°F to 150°F and the cold water is now defined instead of just ambient. The last three sentences within that section are also new to both standards.

In Section 5.6.2.2, the amount of cycles was lowered to 1000 instead of 3000 as previously stated in B125 and 6000 in A112.18.1. The additional testing within that section is also new to both standards.

Section 5.6.3 entitled “Fittings and other control devices” is new testing for both standards.

In Section 5.6.4, the weight mass was lowered for both standards along with the rotating force being increase to 45 N (10 lbf) and the amount of cycles lowered to 1000.

All of Section 5.6.5 is new to the updated A112.18.1. The axial force in Section 5.6.5.2 was increased in the updated B125 from 67 N to 334 N.

Section 5.7.1.2 is new to the updated B125. Section 6.7.2 Heating in the previous version of B125 was deleted.

In Section 5.8.1.2, the axial force previously stated in A112.18.1 was lowered from 150 lbf to 100 lbf. Section 6.8.1.3 in the previous version of B125 was deleted.

Section 5.8.2 is new to the updated A112.18.1.

Section 5.8.3 is new to the updated B125. The bending moment of 175 in·lb in the previous version of A112.18.1 was changed to a mass of 14 lb.
Section 5.9.1 is new to both standards. Section 5.9.2.1 is new to the updated B125 while only the last two sentences in the section are new to the updated A112.18.1. The test procedure in Section 5.9.2.2 is new to the updated A112.18.1.

Sections 5.9.3 through 5.10.8 are all new to the updated A112.18.1. In Section 5.9.4.1.4, the amount of time to hold the vacuum was increased from 1 minute to 5 minutes in the updated B125. Also, Section 7.14.3 from the previous B125 was deleted.

The testing in Section 5.10 is similar to the testing in the previous version of B125 that the temperature is now considered and more details were added. In Section 5.10.7, new information regarding the discharge flow rate was added to the updated B125 and the cold is no longer defined.

Sections 6.2 Temperature Identification and 6.4 Instructions for automatic compensating valves are new to both standards. The flow rate marking on the package and part from the older B125 was removed along with the reference to UL 969 for the labels stated in A112.18.1. The marking requirements from previously stated in Sections 8.2 through 8.6 from the previous B125 were removed along with Section 8.7 Installation Instructions.

The previous Table 1 in B125 “Spout Elevation for Deck-Mounted Fittings” was deleted. New information was added to the updated Table 1 for metering, shower heads, compression type supply stops. The flow rates for two handles, automatic compensating valves, diverters, fill valves, fittings, flexible supply stop, flushometer, self-closing faucet and stops/and up were left out.

In Table 2, the torque requirement for sink, lavatory, bath or laundry tray fittings was increased from 0.8 Nm as stated in the older B125 to 1.7 Nm.

In Table 3, the new amounts of cycles were added for lawn or sediment, self-closing faucets, metering faucets, body spray or shower heads. The values were left out for automatic compensating valves, drain-activating mechanisms, and vegetable and handspray assemblies.

Table 4 is new to the updated B125. Tables 6 and 8 from the previous B125 were deleted.

Figure 1 is new to the updated A112.18.1 while only letters D and E are new to B125 and a closer view of the threaded end of the shank was removed.

Figure 2 is new to the updated B125 while only part (b) is new to A112.18.1. Figures 3, 5, and 6 were deleted from the previous B125.

Figure 4 is new to the updated B125. Figures 5 and 6 are new to the updated A112.18.1. Figures 9-11 and 14 in the older B125 were deleted. Figures 7 and 8 are new to both standards. New Annexes B to D were also added to both standards.