



**Summary of Substantive Changes
between
ASME A112.19.7-2006, “Hydromassage Bathtub Appliances”, and
CSA B45.10-01 “Hydromassage Bathtubs”,
and
ASME A112.19.7-2012/CSA B45.10-12, “Hydromassage bathtub systems”**

**Presented to the IAPMO Standards Review Committee on May 7, 2012
Revised on May 15, 2012**

General: This is the first edition of the harmonized standard ASME A112.19.7/CSA B45.10, which replaces ASME A112.19.7-06 and CSA B45.10-01 and which had significant formatting and editorial changes. Changes to this standard might require changes in testing of currently listed products. The major technical changes are:

- Clause 4.3: Added the requirement for plumbing fittings to conform to the appropriate ASME/CSA standard.
- Clause 5.1: Changed the test set-up for testing hydromassage systems.
- Clause 5.2: The water retention test in the harmonized standard has two options: the chlorine test method of CSA B45.10-01, or the volumetric test, also in CSA B45.10-01. In ASME A112.19.7-2006, the water retention test did not have the volumetric test as an option and did not require a cover as part of the chlorine test procedure.
- Clause 5.3: The tests for suction fittings in ASME A112.19.7-2006 were kept in the harmonized standard; those tests are no longer conducted in accordance with ASME A112.19.8 (now APSP-16), as required in CSA B45.10-01.
- Clause 5.3.1: For “previously rated” suction fittings, the vacuum and point impact test (Clause 5.3.6) is no longer excluded.
- Clause 5.3.4: The deflection test, originally in ASME A112.19.7, was kept in the harmonized standard but the point load was reduced from ~~300 lb ± 10 lb (136 kg ± 4.5 kg)~~ to 68 kg ± 2.35 kg (150 lb ± 5 lb).
- Clause 5.3.5: The shear load test, originally in ASME A112.19.7, was kept in the harmonized standard but the load was reduced from ~~68 kg (150 lb)~~ to 46 kg (100 lb).

Clause 4 General requirements:

Clause 4.3 Plumbing supply fittings: Added the following requirement:

[Plumbing supply fittings shall comply with ASME A112.18.1/CSA B125.11 and plumbing waste fittings shall comply with ASME A112.18.2/CSA B125.2](#)

Clause 4.4, Piping and Tubing:

Clause 4.4.4, Alternative materials: Expanded the general requirements to include other piping material as follows:



Piping made of alternative materials shall be acceptable if it meets all of the performance requirements of this standard.

Clause 4.8: Pump or blower: Added the following requirement:

The location of the pump or blower shall be determined by the manufacturer. A means to fasten the pump or blower shall be provided.

Clause 5, Testing:

Clause 5.1, Installation: Added the following requirement for the test set-up:

When installation tolerances are specified, the hydromassage system shall be tested in the least favorable slope for drainage, but within the manufacturer's specifications positioned in a level and connected position as it would be installed in the field. ~~Directions jets which are not self adjusting shall be positioned horizontally.~~

Cause 5.2, Water retention in whirlpool or air-jetted bathtubs:

Clause 5.2.2 Preconditioning: Changed to require preconditioning of all specimens as follows;

Where flexible circulation piping is used in the hydromassage system, ~~t~~the specimen system shall be preconditioned as follows:

Clause 5.2.4.6: removed the specific types of chlorine colorimeters that were permitted in ASME A112.19.7-2006 for the test and replaced with the following general requirement:

The chlorine colorimeter shall be accurate to within $\pm 5\%$, using the DPD (N, N-diethyl-p-phenylenediamine) indicator method.

Clause 5.3, Physical test for suction fittings (whirlpool bathtubs only):

Clause 5.3.1: For "previously rated" suction fittings, ASME A112.19.7-2006 did not require conducting the deflection tests (Sections 3.2.2.1 and 3.2.2.2), shear load test (Section 3.2.2.4), and vacuum and point impact test (Section 3.2.3). The harmonized standard only excludes the deflection test (Clause 5.3.4), and shear load test (Clause 5.3.5). The vacuum and point impact test (Clause 5.3.6) is no longer excluded.

Clause 5.3.3.1, Surface examination procedure: clarified the lighting required as follows:

...using a light source of partially diffused artificial light giving and illuminance on the surface of 1615 ± 540 lx (150 ± 50 ft-candles).

Clause 5.3.4, Deflection Test:

Clause 5.3.4.1: Decreased the point load for the deflection test for fittings intended for installation in a horizontal plane from ~~$300\text{ lb} \pm 10\text{ lb}$ ($136\text{ kg} \pm 4.5\text{ kg}$)~~ to $68\text{ kg} \pm 2.35\text{ kg}$ ($150\text{ lb} \pm 5\text{ lb}$). The deflection test for fittings intended for installation in a vertical plane was unchanged.

Clause 6.2 and 6.3: Increased the height of the lettering on the label from ~~4.8 mm ($3/16\text{ in}$)~~ to 5 mm (0.2 in).



Clause 6.4, Suction fittings (whirlpool bathtubs only): removed the requirement to mark with the manufacturer's name.

Clause 6.5.3, Roughing-in dimensions: Removed the requirement to include the overall dimensions as follows:

Roughing-in dimensions for the water supply and drainage piping and overall dimensions of the ~~whirlpool or air-jetted bathtub appliances~~ shall be provided

Figures 1 to 4 were editorially revised.

Figure 5, Test Equipment with Puller Assembly: Removed the requirement to use Parker brand components.

Figure 6, Test cylinder assembly: Changed the dimension for U-bolt with nuts from ~~$\frac{1}{4}$ in \times 2 in \times 3 $\frac{1}{2}$ in~~ to 19 \times 51 \times 90 mm (0.75 \times 2 \times 3.5 in).

Figure 7, Test Procedure, was editorially revised

Annex B, Random sampling method for testing bathtubs

Table B.1 Random sampling parameters: Editorially revised former Table 3 of ASME A112.19.7.

The following sections of ASME A112.19.7-2006 were removed:

Section 2.1.2 of ASME A112.19.7-2006, Piping: The following requirement for steel assemblies was removed:

~~*(c) Steel Assemblies. Steel pipes shall be Schedule 40.*~~

Section 2.13 of ASME A112.19.7-2006, Joints: The requirements for threaded joints, coupling and rubber hose and fasteners, were removed.

Section 3.2.2.3 of ASME A112.19.7-2006, Point Load to Protrusion Test, was removed