MECHANICAL TESTING LABORATORY

LIST OF APPROVED LISTING AND TESTING AGENCIES

December 26, 2019

Part I: Approved Listing Agencies
Part II: Approved Testing Agencies

201 N. Figueroa Street, Suite 500
Los Angeles, CA 90012
Phone: (213) 482-0065
www.ladbs.org

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request will provide reasonable accommodation to ensure equal access to its programs, services and activities.
Part I: Approved Listing Agencies

1. CSA Group Testing & Certification Inc.

(Main Lab) 178 Rexdale Boulevard  
Toronto, ON M9W 1R3  
Canada  
Phone: (416) 747-2798

(Branch Lab) CSA America Testing & Certification LLC  
8501 E. Pleasant Valley Road  
Cleveland, OH 44131  
Phone: (216) 524-4990

(Branch Lab) No. 10, Keyan Road, Science Park  
Luo Gang District, Guangzhou  
Guangdong 510663  
People’s Republic of China  
Phone: 949-733-4300

Expiration: May 1, 2020

This agency is approved for listing of plumbing and mechanical products to meet the referenced standards listed below as found in the City of Los Angeles Plumbing and Mechanical Codes, 2017 Edition:

This agency is also approved for listing of plumbing products to meet the lead-free requirements of Section 116875 of the California Health and Safety Code (Toronto location only).

**Mechanical**

- **ASME B16.33**  
  Manually Operated Metallic Gas Valves for Use in Gas Piping Systems up to 175 PSI (Sizes NPS 1/2 Through NPS 2)

- **CSA Z21.1b**  
  Household Cooking Gas Appliances

- **CSA Z21.5.1a**  
  Gas Clothes Dryers- Volume I, Type 1 Clothes Dryers (same as CSA 7.1a)

- **CSA Z21.5.2**  
  Gas Clothes Dryers- Volume II, Type 2 Clothes Dryers (same as CSA 7.2)

- **CSA Z21.11.2**  
  Gas-Fired Room Heaters, Volume II, Unvented Room Heaters

- **CSA Z21.12b**  
  Draft Hoods

- **CSA Z21.13**  
  Gas-Fired Low Pressure Steam and Hot Water Boilers (same as CSA 4.9)

- **CSA Z21.19a**  
  Refrigerators Using Gas Fuel (same as CSA 1.4a)

- **CSA Z21.20a**  
  Automatic Gas Ignition Systems and Components

- **CSA Z21.23**  
  Gas Appliance Thermostats

- **CSA Z21.24a**  
  Connectors for Gas Appliances (same as CSA 6.10a)

- **CSA Z21.40.1a/CGA 2.91a**  
  Gas-Fired, Heat Activated Air-Conditioning and Heat Pump Appliances

- **CSA Z21.41**  
  Quick Disconnect Devices for Use with Gas Fuel Appliances (same as CSA 6.9)

- **CSA Z21.42**  
  Gas-Fired Illuminating Appliances

- **CSA Z21.61**  
  Gas-Fired Toilets

- **CSA Z21.66/CGA 6.14**  
  Automatic Vent Damper Devices for Use with Gas-Fired Appliances

- **CSA Z21.71a**  
  Automatic Intermittent Pilot Ignition Systems for Field Installation
CSA Z21.90b
Gas Convenience Outlets and
Optional Enclosures (same as
6.24b)

CSA Z83.11b
Gas Food Service Equipment
(Same as CSA 1.8b)

CSA Z83.18
Recirculating Direct Gas-Fired
Industrial Air Heaters

CSA Z83.19a
Gas-Fired High-Intensity Infrared
Heaters (same as CSA 2.35a)

UL 21
LP-Gas Hose

UL 125
Flow Control Valves for
Anhydrous Ammonia and LP-Gas

UL 144
LP-Gas Regulators

UL 252
Compressed Gas Regulators

UL 296
Oil Burners

UL 343
Pumps for Oil-Burning
Appliances

UL 353
Limit Controls

UL 378
Draft Equipment

UL 391
Solid-Fuel and Combination-Fuel
Central and Supplementary
Furnaces

UL 429
Electrically Operated Valves

UL 441
Gas Vents

UL 536
Flexible Metallic Hose

UL 569
Pigtails and Flexible Hose
Connectors for LP-Gas

UL 726
Oil-Fired Boiler Assemblies

UL 727
Oil-Fired Central Furnaces

UL 729
Oil-Fired Floor Furnaces

UL 730
Oil-Fired Wall Furnaces

UL 731
Oil-Fired Unit Heaters

UL 732
Oil-Fired Storage Tank Water
Heaters

UL 733
Oil-Fired Air Heaters and Direct-
Fired Heaters

UL 795
Commercial-Industrial Gas
Heating Equipment

UL 896
Oil-Burning Stoves

UL 1482
Solid-Fuel Type Room Heaters

UL 1995
Heating and Cooling Equipment

Plumbing

ASCE 25
Earthquake-Actuated Automatic Gas
Shutoff Devices

ASME A112.3.4/CSA B45.9
Plumbing Fixtures with Pumped Waste
and Macerating Toilet Systems

ASME A112.4.14
Manually Operated Quarter-turn
Shutoff Valves for Use in Plumbing
Systems

ASME A112.18.1/CSA B125.1
Plumbing Supply Fittings

ASME A112.18.2/CSA B125.2
Plumbing Waste Fittings

ASME A112.18.3
Performance Requirements for
Backflow Protection Devices and
Systems in Plumbing Fixture Fittings

ASME A112.19.2/CSA B45.1
Ceramic Plumbing Fixtures

ASME A112.19.3/CSA B45.4
Stainless Steel Plumbing Fixtures

ASME A112.19.5
Flush Valves and Spuds for Water
Closets, Urinals and Tanks

ASME A112.19.7/CSA B45.10
Hydromassage Bathtub Systems

ASME A112.19.10
Dual Flush Devices for Water Closets

ASME B16.33
Manually Operated Metallic Gas Valves
for Use in Gas Piping Systems up to
175 PSI (Sizes NPS 1/2
Through NPS 2)

ASME B16.40
Manually Operated Thermoplastic Gas
Shutoffs and Valves in Gas Distribution
Systems

ASSE 1001
Atmospheric Type Vacuum Breakers

ASSE 1002
Anti-Siphon Fill Valves for Water Closet
Tanks

ASSE 1003
Water Pressure Reducing Valves for
Domestic Water Distribution Systems

ASSE 1010
Water Hammer Arrestors

ASSE 1011
Hose Connection Vacuum Breakers

ASSE 1012
Backflow Preventers with an
Intermediate Atmospheric Vent

ASSE 1013
Reduced Pressure Principle Backflow
Preventers and Reduced Pressure
Principle Fire Protection Backflow
Preventers

ASSE 1014
Backflow Prevention Devices for Hand-
Held Showers
ASSE 1015
Double Check Backflow Prevention Assemblies and Double Check Fire Prevention Backflow Prevention Assemblies

ASSE 1016
Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations

ASSE 1017
Temperature Actuated Mixing Valves for Hot Water Distribution Systems

ASSE 1018
Trap Seal Primer Valves - Potable Water Supplied

ASSE 1019
Wall Hydrant with Backflow Protection and Freeze Resistance

ASSE 1020
Pressure Vacuum Breaker Assembly

ASSE 1022
Backflow Preventer for Beverage Dispensing Equipment

ASSE 1024
Dual Check Backflow Preventers

ASSE 1035
Laboratory Faucet Backflow Preventers

ASSE 1037
Pressurized Flushing Devices (Flushometers) For Plumbing Fixtures

ASSE 1044
Trap Seal Primer Devices - Drainage Types and Electronic Design Types

ASSE 1047
Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies

ASSE 1048
Double Check Detector Fire Protection Backflow Prevention Assemblies

ASSE 1052
Hose Connection Backflow Preventers

ASSE 1056
Spill Resistant Vacuum Breakers

ASSE 1061
Push-Fit Fittings

ASSE 1062
Temperature Actuated, Flow Reduction (TAFR) Valves for Individual Supply Fittings

ASSE 1066
Individual Pressure Balancing In-Line Valves for Individual Fixture Fittings

ASSE 1069
Automatic Temperature Control Mixing Valves

ASSE 1070
Water Temperature Limiting Devices

ASTM C1173
Flexible Transition Couplings for Underground Piping Systems

ASTM C1277
Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings

ASTM C1460
Shielded Transition Couplings For Use With Dissimilar DWV Pipe and Fittings Above Ground

ASTM D2235
Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings

ASTM D2466
Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40

ASTM D2564
Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Fittings

ASTM D2661
Acrylonitrile-Butadiene Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe and Fittings

ASTM D2665
Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings

ASTM D2683
Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing

ASTM D3034
Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings

ASTM D3138
Solvent Cements for Transition Joints Between Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Non-Pressure Piping Components

CISPI 310
Coupling for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

CSA B45.0
General Requirements for Plumbing Fixtures

CSA B45.5
Plastic Plumbing Fixtures

CSA B64
Backflow Preventers and Vacuum Breakers

CSA B64.1.1
Atmospheric Vacuum Breakers (AVB)

CSA B64.1.2
Pressure Vacuum Breakers (PVB)

CSA B64.2
Hose Connection Vacuum Breakers (HCVB)

CSA B64.2.1.1
Hose Connection Dual Check Vacuum Breakers (HCDVB)

CSA B64.4
Reduced Pressure Principle (RP) Backflow Preventers

CSA B64.4.1
Reduced Pressure Principle Backflow Preventers for Fire Protection Systems (RPF)

CSA B64.5
Double Check Valve (DCVA) Backflow Preventers

CSA B64.5.1
Double Check Valve Backflow Preventers for Fire Protection Systems (DCVAF)
CSA B64.7
Laboratory Faucet Vacuum Breakers (LFVB)

CSA B79
Commercial and Residential Drains and Cleanouts

CSA B125.3
Plumbing Fittings

CSA B181.3
Polyolefin and Polyvinylidene Fluoride (PVDF) Laboratory Drainage Systems

CSA B356
Water Pressure Reducing Valves for Domestic Water Supply Systems

CSA LC 1b
Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST) (same as CSA 6.26b)

CSA LC 4a
Press-Connect Metallic Fittings For Use in Fuel Gas Distribution Systems (same as CSA 6.32a)

CSA Z21.10.1
Gas Water Heaters-Volume I, Storage Water Heaters With Input Ratings of 75,000 Btu Per Hour or Less (same as CSA 4.1)

CSA Z21.12b
Draft Hoods

CSA Z21.13
Gas-Fired Low Pressure Steam and Hot Water Boilers (same as CSA 4.9)

CSA Z21.22b
Relief Valves for Hot Water Supply Systems (same as CSA 4.4b)

CSA Z21.24a
Connectors for Gas Appliances (same as CSA 6.10a)

CSA Z21.40.1a
Gas-Fired, Heat Activated Air-Conditioning and Heat Pump Appliances (same as CSA 2.91a)

CSA Z21.41
Quick-Disconnect Devices for Use with Gas Fuel Appliances (same as CSA 6.9)

CSA Z21.47
Gas-Fired Central Furnaces (same as CSA 2.3)

CSA Z21.56
Gas-Fired Pool Heaters (same as CSA 4.7)

CSA Z21.86
Vented Gas-Fired Space Heating Appliances (same as CSA 2.32)

CSA Z83.11b
Gas Food Service Equipment (same as CSA 1.8b)

IAPMO PS 90
Elastomeric Test Caps, Cleanout Caps, and Combination Test Caps / Shielded Couplings

IAPMO Z124.5
Plastic Toilet Seats

NSF 41
Non-Liquid Saturation Treatment Systems

NSF 42
Drinking Water Treatment Units - Aesthetic Effects

NSF 53
Drinking Water Treatment Units - Health Effects

NSF 61
Drinking Water System Components – Health Effects

PDI WH-201
Water Hammer Arrester

UL 125
Flow Control Valves for Anhydrous Ammonia and LP-Gas

UL 144
LP-Gas Regulators

UL 252
Compressed Gas Regulators

UL 296
Oil Burners

UL 343
Pumps for Oil-Burning Appliances

UL 441
Gas Vents

UL 569
Pigtails and Flexible Hose Connectors for LP-Gas

UL 726
Oil-Fired Boiler Assemblies

UL 732
Oil-Fired Storage Tank Water Heaters

UL 778
Motor-Operated Water Pumps

UL 1081
Swimming Pool Pumps, Filters, and Chlorinators
### Certification Marks:

<table>
<thead>
<tr>
<th>CSA Mark</th>
<th>Type of Mark/Label</th>
<th>CSA Mark/Label Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ CSA Mark ](CSA Mark.png)</td>
<td>Certification mark</td>
<td>Indicates that the product was tested and has met the certification requirements for electrical, plumbing and/or mechanical products.</td>
</tr>
<tr>
<td>![ CSA Mark ](CSA Mark.png)</td>
<td>Certification mark</td>
<td>Indicates that the product was tested and has met the certification requirements for electrical, plumbing and/or mechanical products.</td>
</tr>
<tr>
<td>![ Certificate of Design ](Certificate of Design.png)</td>
<td>Certification mark</td>
<td>Indicates that the product was tested and has met the certification requirements for gas-fired products.</td>
</tr>
<tr>
<td>![ Certification mark ](Certification mark.png)</td>
<td>Certification mark</td>
<td>Indicates the product was tested and has met low lead content requirements.</td>
</tr>
<tr>
<td>![ Certification mark ](Certification mark.png)</td>
<td>Certification mark</td>
<td>Indicates the product was tested and has met low lead content requirements.</td>
</tr>
<tr>
<td>![ Certification mark ](Certification mark.png)</td>
<td>Certification mark</td>
<td>Indicates that the product was tested and has met the Drinking Water requirements. Applicable NSF/ANSI and/or CSA Group standard is listed under DRINKING WATER.</td>
</tr>
<tr>
<td>Field certification label</td>
<td>Indicates that the product was tested and has met the certification and regional installation requirements for products.</td>
<td></td>
</tr>
<tr>
<td>US FIELD CERTIFICATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field certification label</td>
<td>Indicates that the gas-fired product was tested and met the certification and regional installation requirements for products.</td>
<td></td>
</tr>
<tr>
<td>Field certification label</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field evaluation label</td>
<td>Indicates that the product was tested and has met the all requirements, including the National Fire Protection Association and the National Electric Code for installation and use.</td>
<td></td>
</tr>
<tr>
<td>US FIELD EVALUATION</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. FM Approvals LLC

(Main Lab) (Branch Lab)
1151 Boston-Providence Turnpike Hydraulics Laboratory
P.O. Box 9102 743A Reynolds Road
Norwood, MA 02062 West Glocester, RI 02814
Phone: (781) 762-4300 Phone: (401) 567-0590

Expiration: October 1, 2020

This agency is approved for listing of fire protection equipment to meet applicable ANSI or UL Standards as long as the listed products and their installations are not in violations of the Los Angeles Plumbing Code, 2017 Edition.

Where FM Standards are used, they shall meet or exceed the ANSI or UL Standards. The equipment includes automatic sprinkler system components, fire pumps, tanks, hydrants, flame and smoke testing to ASTM E84 (UL 723).

Certification Marks:

<table>
<thead>
<tr>
<th>Mark</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="FM Approved Mark" /></td>
<td>FM Approved Mark&lt;br&gt;This marking indicates that the product has been evaluated and is listed to the applicable standard specified.</td>
</tr>
<tr>
<td><img src="image" alt="FM Approved Mark with “C” and “US”" /></td>
<td>FM Approved Mark with “C” and “US”&lt;br&gt;This marking indicates that the product has been evaluated to meet Canadian and U.S. standards, and is listed to the applicable standard specified.</td>
</tr>
<tr>
<td><img src="image" alt="FM Approved Cast-On Marks" /></td>
<td>FM Approved Cast-On Marks&lt;br&gt;Where reproduction of the FM Approved mark described above is impossible because of production restrictions, use of these modified versions of the FM Approved mark is allowed.</td>
</tr>
</tbody>
</table>
3. International Association of Plumbing and Mechanical Officials Research and Testing (IAPMO R&T)

5001 E. Philadelphia Street
Ontario, CA  91761
Phone: (909) 472-4100

Expiration: June 1, 2020

This agency is approved for listing of plumbing and mechanical products to meet the referenced standards listed below as found in the City of Los Angeles Plumbing and Mechanical Codes, 2017 Edition:

This agency is also approved for listing of plumbing products to meet the lead-free requirements of Section 116875 of the California Health and Safety Code.

Plumbing:

AHAM FWD-1
Food waste disposers

APSP 1
Public Swimming Pools

ASCE 25
Earthquake-Actuated Automatic Gas Shutoff Devices

ASME A13.1
Scheme for the Identification of Piping Systems

ASME A112.1.2
Air Gaps in Plumbing Systems (For Plumbing Fixtures and Water-Connected Receptors)

ASME A112.1.3
Air Gap for use with Plumbing Fixtures, Appliances, and Appurtenances

ASME A112.3.1
Stainless Steel Drainage Systems for Sanitary DWV, Storm and Vacuum Applications, Above and Below Ground

ASME A112.3.4 / CSA B45.9
Plumbing Fixtures with Pumped Waste and Macerating Toilet System

ASME A112.4.1
Water Heater Relief Valve Drain Tubes

ASME A112.4.2
Water Closet Personal Hygiene Devices

ASME A112.4.3
Plastic Fittings for Connecting Water Closets to the Sanitary Drainage System

ASME A112.4.14
Manually Operated, Quarter-Turn Shutoff Valves for Use in Plumbing Systems

ASME A112.6.1M
Floor-Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use

ASME A112.6.2
Framing-Affixed Supports for Off-the-Floor Water Closets with Concealed Tanks

ASME A112.6.3
Floor and Trench Drains

ASME A112.6.4
Roof, Deck, and Balcony Drains

ASME A112.6.7
Sanitary Floor Sinks

ASME A112.6.9
Siphonic Roof Drains

ASME A112.14.1
Backwater Valves

ASME A112.14.3
Grease Interceptors

ASME A112.14.4
Grease Removal Devices

ASME A112.14.6
FOG (Fats, Oils, and Greases) Disposal Systems

ASME A112.18.1/CSA B125.1
Plumbing Supply Fittings

ASME A112.18.2 / CSA B125.2
Plumbing Waste Fittings

ASME A112.18.3
Performance Requirements for Backflow Protection Devices and Systems in Plumbing Fixture Fittings

ASME A112.18.6 / CSA B125.6
Flexible Water Connectors

ASME A112.18.9
Protectors/Insulators for Exposed Waste and Supplies on Accessible Fixtures

ASME A112.19.1/CSA B45.2
Enamelled Cast Iron and Enamelled Steel Plumbing Fixtures

ASME A112.19.2/CSA B45.1
Ceramic Plumbing Fixtures

ASME A112.19.3/CSA B45.4
Stainless Steel Plumbing Fixtures

ASME A112.19.5/CSA B45.15
Flush Valves and Spuds for Water Closets, Urinals and Tanks

ASME A112.19.7 / CSA B45.10
Hydromassage Bathtub Appliances
ASME A112.19.10  
Dual Flush Devices for Water Closets

ASME A112.19.12  
Wall Mounted, Pedestal Mounted, Adjustable, Elevating, Tilting, and Pivoting Lavatory, Sink and Shampoo Bowl Carrier Systems and Drain Waste Systems

ASME A112.19.14  
Six-Liter Water Closets Equipment with a Dual Flushing Device

ASME A112.19.15  
Bathtub/whirlpool bathtubs with pressure sealed doors

ASME A112.19.19  
Vitreous China Nonwater Urinals

ASME A112.21.3M  
Hydrants for Utility and Maintenance Use

ASME A112.36.2M  
Cleanouts

ASME B1.20.1  
Pipe Threads, General Purpose, Inch

ASME B1.20.3  
Dryseal Pipe Threads, Inch

ASME B16.1  
Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250

ASME B16.3  
Malleable Iron Threaded Fittings: Classes 150 and 300

ASME B16.4  
Gray Iron Threaded Fittings: Classes 125 and 250

ASME B16.5  
Pipe Flanges and Flanged Fittings: NPS 1/2 through NPS 24 Metric/Inch

ASME B16.12  
Cast Iron Threaded Drainage Fittings

ASME B16.15  
Cast Copper Alloy Threaded Fittings: Classes 125 and 250

ASME B16.18  
Cast Copper Alloy Solder Joint Pressure Fittings

ASME B16.20  
Metallic Gaskets For Pipe Flanges: Ring-Joint, Spiral-Wound, and Jacketed

ASME B16.22  
Wrought Copper and Copper Alloy Solder-Joint Pressure Fittings

ASME B16.23  
Cast Copper Alloy Solder Joint Drainage Fittings: DWV

ASME B16.24  
Cast Copper Alloy Pipe Flanges and Flanged Fittings: Classes 150, 300, 600, 900, 1500 and 2,500

ASME B16.26  
Cast Copper Alloy Fittings for Flared Copper Tubes

ASME B16.29  
Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings - DWV

ASME B16.33  
Manually Operated Metallic Gas Valves for use in Gas Piping Systems up to 175 psi (Size NPS 1/2 - NPS 2)

ASME B16.34  
Valves - Flanged, threaded and welding end

ASME B16.39  
Malleable Iron Threaded Pipe Unions: Classes 150, 250 and 300 (Includes Revision Services)

ASME B16.40  
Manually Operated Thermoplastic Gas Shutoffs and Valves in Gas Distribution Systems

ASME B16.47  
Large Diameter Steel Flanges: NPS 26 through NPS 60 metric/Inch

ASME B16.50  
Wrought Copper and Copper Alloy Braze-Joint Pressure Fittings

ASME B31.1  
Power Piping

ASME B31.3  
Process Piping

ASME B36.10M  
Welded and Seamless Wrought Steel Pipe

ASME B36.19  
Stainless Steel Pipe

ASME BPVC Section IV  
Rules for Construction of Heating Boilers

ASME BPVC Section VIII  
Rules for Construction of Pressure Vessels Division 1

ASME BPVC Section IX  
Welding, Brazing and Fusing Qualifications

ASSE 1001  
Atmospheric Type Vacuum Breakers

ASSE 1002  
Anti-Siphon Fill Valves for Water Closet Tanks

ASSE 1003  
Water Pressure Reducing Valves for Domestic Water Distribution Systems

ASSE 1004  
Backflow Preventing Requirements for Commercial Dishwashing Machines

ASSE 1008  
Plumbing Aspects of Residential Food Waste Disposer Units

ASSE 1010  
Water Hammer Arresters

ASSE 1011  
Hose-Connection Vacuum Breakers

ASSE 1012  
Backflow Preventer with Intermediate Atmosphere Vent

ASSE 1013  
Reduced Pressure Principle Backflow Preventers and Reduced Pressure Principle Fire Protection Backflow Preventers

ASSE 1014  
Backflow Prevention Devices for Hand-Held Showers
ASSE 1015  
Double Check Backflow Prevention  
Assemblies and Double Check Fire  
Protection Backflow Prevention  
Assemblies  

ASSE 1016/ASME 112.1016/CSA  
B125.16  
Automatic Compensating Valves for  
Individual Showers and Tub/Shower  
Combinations  

ASSE 1017  
Temperature Actuated Mixing Valves  
for Hot Water Distribution Systems  

ASSE 1018  
Trap Seal Primer Valves- Potable  
Water Supplied  

ASSE 1019  
Wall Hydrant with Backflow Protection  
and Freeze Resistance  

ASSE 1020  
Pressure Vacuum Breaker Assembly  

ASSE 1022  
Backflow Preventer for Beverage  
Dispensing Equipment  

ASSE 1023  
Hot Water Dispensers Household  
Storage Type-Electrical  

ASSE 1024  
Dual Check Backflow Preventers  

ASSE 1025  
Dual Check Valve Type Backflow  
Preventers for Carbonated Beverage  
Dispensers, Post Mix Types  

ASSE 1026  
Laboratory Faucet Backflow Preventer  

ASSE 1027  
Pressurized Flushing Devices  
(Flushometers) for Plumbing Fixtures  

ASSE 1028  
Trap Seal Primer Devices-Drainage  
Types and Electronic Design Types  

ASSE 1029  
Reduced Pressure Detector Fire  
Protection Backflow Prevention  
Assemblies  

ASSE 1030  
Double Check Detector Fire Protection  
Backflow Prevention Assemblies  

ASSE 1052  
Hose Connection Backflow Preventer  

ASSE 1055  
Chemical Dispensing Systems  

ASSE 1056  
Spill Resistant Vacuum  
Breakers Assemblies  

ASSE 1057  
Freeze Resistant Sanitary Yard  
Hydrant with Backflow Protection  

ASSE 1060  
Outdoor Enclosures for Fluid  
Conveying Components  

ASSE 1061  
Push-Fit Fittings  

ASSE 1062  
Temperature Actuated, Flow  
Reduction (TAFR) Valves for Individual  
Fixture Fittings  

ASSE 1066  
Individual Pressure Balancing In-Line  
Valves for Individual Fixture Fittings  

ASSE 1069  
Automatic Temperature Control Mixing  
Valves  

ASSE 1070  
Water Temperature Limiting Devices  

ASSE 1071  
Temperature Actuated Mixing Valves  
for Plumbed Emergency Equipment  

ASSE 1079  
Dielectric Pipe Unions  

ASSE Series 5000  
Cross-Connection Control Professional  
Qualifications  

ASSE Series 6000  
Professional Qualifications Standard  
for Medical Gas Systems Personnel  

ASTM A47  
Ferritic Malleable Iron Castings  

ASTM A48  
Gray Iron Casting  

ASTM A53/A53M  
Pipe, Steel, Black and Hot-Dipped,  
Zinc-Coated, Welded, and Seamless  

ASTM A74  
Cast Iron Soil Pipe and Fittings  

ASTM A106/A106M  
Seamless Carbon Steel Pipe for High-  
Temperature Service  

ASTM A126  
Gray Iron Casting for Valves, Flanges,  
and Pipe Fittings  

ASTM A197/A197M  
Cupola Malleable Iron  

ASTM A254/A254M  
Copper-Brazed Steel Tubing  

ASTM A269  
Seamless and Welded Austenitic  
Stainless Steel Tubing for General  
Service  

ASTM A312/A312M  
Seamless and Welded Austenitic  
Stainless Steel Pipes  

ASTM A377  
Ductile-Iron Pressure Pipe  

ASTM A479/A479M  
Stainless Steel Bars and Shapes for  
Use in Boilers and Other Pressure  
Vessels  

ASTM A518/A518M  
Corrosion-Resistant High-Silicon Iron  
Castings  

ASTM A536  
Ductile Iron Castings  

ASTM A653/A653M  
Steel Sheet, Zinc-Coated (Galvanized)  
or Zinc-Iron Alloy-Coated  
(Galvannealed) by the Hot-Dip  
Process  

ASTM A733  
Welded and Seamless Carbon Steel  
and Austenitic Stainless Steel Pipe  
Nipples  

ASTM A861  
High-Silicon Iron Pipe and Fittings  

ASTM A888  
Hubless Cast Iron Soil Pipe and  
Fittings for Sanitary and Storm Drain,  
Waste, and Vent Piping Applications
ASTM A1045
Flexible Poly (Vinyl Chloride) (PVC) Gaskets used in Connection of Vitreous China Plumbing Fixtures to Sanitary Drainage Systems

ASTM A1056
Cast Iron Couplings used for Joining Hubless Cast Iron Soil Pipe and Fittings

ASTM B29
Refined Lead

ASTM B32
Solder Metal

ASTM B42
Seamless Copper Pipe, Standard Sizes

ASTM B43
Seamless Red Brass Pipe, Standards Sizes

ASTM B75/B75M
Seamless Copper Tube

ASTM B88
Seamless Copper Water Tube

ASTM B135
Seamless Brass Tube

ASTM B152/B152M
Copper Sheet, Strip, Plate, and Rolled Bar

ASTM B187/B187M
Copper, Bus Bar, Rod, and Shapes and General Purpose Rod, Bar, and Shapes

ASTM B210
Aluminum and Aluminum-Alloy Drawn Seamless Tubes

ASTM B241/B241M
Aluminum and Aluminum-Alloy Drawn Seamless Pipe and Seamless Extruded Tube

ASTM B251
General Requirements for Wrought Seamless Copper and Copper-Alloy Tube

ASTM B280
Seamless Copper Tube for Air Conditioning and Refrigeration Field Service

ASTM B302
Threadless Copper Pipe, Standard Sizes

ASTM B306
Copper Drainage Tube (DWV)

ASTM B370
Copper Sheet and Strip for Building Construction

ASTM B447
Welded Copper Tube

ASTM B584
Copper Alloy Sand Casting for general Applications

ASTM B587
Welded Brass Tube

ASTM B687
Brass, Copper, and Chromium-Plated Pipe Nipples

ASTM B813
Liquid and Paste Fluxes for Soldering of Copper and Copper Alloy Tube

ASTM B819
Seamless Copper Tube for Medical Gas Systems

ASTM B828
Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings

ASTM C4
Clay Drain Tile and Perforated Clay Drain Tile

ASTM C14
Nonreinforced Concrete Sewer, Storm Drain, and Culvert Pipe

ASTM C412
Concrete Drain Tile

ASTM C425
Compression Joints for Vitrified Clay Pipe and Fittings

ASTM C443
Joints for Concrete Pipe and Manholes, Using Rubber Gaskets

ASTM C444
Perforated Concrete Pipe

ASTM C478
Precast Reinforced Concrete Manhole Sections

ASTM C564
Rubber Gaskets for Cast Iron Soil Pipe and Fittings

ASTM C700
Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated

ASTM C1053
Borosilicate Glass Pipe and Fittings for Drain, Waste and Vent (DWV) Applications

ASTM C1173
Flexible Transition Couplings for Underground Piping Systems

ASTM C1227
Precast Concrete Septic Tanks

ASTM C1277
Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings

ASTM C1440
Thermoplastic Elastomeric (TPE) Gasket Materials for Drain, Waste, and Vent (DWV), Sewer, Sanitary and Storm Plumbing Systems

ASTM C1460
Shielded Transition Couplings for use with Dissimilar DWV Pipe and Fittings Above Ground

ASTM C1461
Mechanical Couplings Using Thermoplastic Elastomeric (TPE) Gasket for Joining Drain, Waste, and Vent, (DWV), Sewer, Sanitary, and Storm Plumbing Systems for Above and Below Ground Use

ASTM C1540
Heavy Duty Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings

ASTM D1784
Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds

ASTM D1785
Poly (Vinyl Chloride) (PVC) Plastic Pipe Schedules 40, 80 and 120
ASTM D2235  
Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings

ASTM D2239  
Polyethylene (PE) Plastic Pipe, (SDR-PR) Based on Controlled Inside Diameter

ASTM D2241  
Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe

ASTM D2321  
Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications

ASTM D2464  
Threaded Poly (Vinyl Chloride)(PVC) Plastic Pipe Fittings, Schedule 80

ASTM D2466  
Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40

ASTM D2467  
Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80

ASTM D2513  
Polyethylene (PE) Gas Pressure Pipe, tubing, and Fittings

ASTM D2517  
Reinforced Epoxy Resin Gas Pressure Pipe and Fittings

ASTM D2564  
Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems

ASTM D2609  
Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe

ASTM D2657  
Heat Fusion Joining of Polyolefin Pipe and Fittings

ASTM D2661  
Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe and Fittings

ASTM D2665  
Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste and Vent Pipe and Fittings

ASTM D2672  
Joints for IPS PVC Pipe Using Solvent Cement

ASTM D2680  
Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Composite Sewer Piping

ASTM D2683  
Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing

ASTM D2729  
Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings

ASTM D2737  
Polyethylene (PE) Plastic Tubing

ASTM D2741  
Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings

ASTM D2774  
Underground Installation of Thermoplastic Pressure Piping

ASTM D2855  
Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings

ASTM D2996  
Filament-Wound “Fiberglass” (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe

ASTM D3034  
Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings

ASTM D3035  
Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter

ASTM D3122  
Solvent Cements for Styrene-Rubber (SR) Plastic Pipe and Fittings

ASTM D3138  
Solvent Cements for Transitions Joints Between Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Non-Pressure Components

ASTM D3139  
Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals

ASTM D3142  
Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals

ASTM D3261  
Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing

ASTM D3311  
Drain, Waste, and Vent (DWV) Plastic Fittings Patterns

ASTM D3965  
Rigid Acrylonitrile-Butadiene-Styrene (ABS) Materials for Pipe and Fittings

ASTM D4068  
Chlorinated Polyethylene (CPE) Sheeting for Concealed Water-Containment Membrane

ASTM D4101  
Polypropylene Injection and Extrusion Materials

ASTM D4551  
Poly (Vinyl Chloride) (PVC) Plastic Flexible Concealed Water-Containment Membrane

ASTM E84  
Surface Burning Characteristics of Building Materials

ASTM E119  
Fire Tests of Building Construction and Materials

ASTM E814  
Fire Tests of Penetration Firestop Systems

ASTM F402  
Safe Handling of Solvent Cements, Primers, and Cleaners Used for Joining Thermoplastic Pipe and Fittings

ASTM F405  
Corrugated Polyethylene (PE) Tubing and Fittings

ASTM F409  
Thermoplastic Accessible and Replaceable Plastic Tube and Tubular Fittings

ASTM F437  
Threaded Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80
ASTM F438  
Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40

ASTM F439  
Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80

ASTM F446  
Grab Bars and Accessories Installed in the Bathing Area

ASTM F480  
Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), Schedule 40 and Schedule 80

ASTM F493  
Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings

ASTM F628  
Acrylonitrile-Butadiene-Styrene (ABS) Sch. 40 Plastic Drain, Waste and Vent Pipe with a Cellular Core

ASTM F656  
Primers for Use in Solvent Cement Joints of Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings

ASTM F667  
3 through 24 in. Corrugated Polyethylene Tubing and Fittings

ASTM F714  
Polyethylene (PE) Plastic Pipe (SDR-PR) (Based on outside diameter)

ASTM F794  
Poly (Vinyl Chloride) (PVC) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter

ASTM F810  
Smoothwall Polyethylene (PE) Pipe for Use in Drainage and Waste Disposal Absorption Fields

ASTM F891  
Coextruded Poly (Vinyl Chloride) (PVC) Plastic Pipe with a Cellular Core

ASTM F 894  
Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe

ASTM F949  
Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe with a Smooth Interior and Fittings

ASTM F1055  
Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene and Crosslinked Polyethylene (PEX) Pipe and Tubing

ASTM F1216  
Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube

ASTM F1336  
Poly (Vinyl Chloride) (PVC) Gasketed Sewer Fittings

ASTM F1412  
Polyolefin Pipe and Fittings for Corrosive Waste Drainage Systems

ASTM F1476  
Performance of Gasketed Mechanical Couplings for Use in Piping Applications

ASTM F1488  
Coextruded Composite Pipe

ASTM F1499  
Coextruded Composite Drain, Waste, and Vent Pipe (DWV)

ASTM F1673  
Polyvinylidene Fluoride (PVDF) Corrosive Waste Drainage Systems

ASTM F1743  
Rehabilitation of Existing Pipelines and Conduits by Pulled-In-Place Installation of Cured-in-place Thermosetting Resin pipe (CIPP)

ASTM F1866  
Poly (Vinyl Chloride) Plastic Schedule 40 Drainage and DWV Fabricated Fitting

ASTM F1924  
Plastic Mechanical Fittings for Use on Outside Diameter Controlled Polyethylene Gas Distribution Pipe and Tubing

ASTM F1948  
Metallic Mechanical Fittings for Use on Outside Diameter Controlled Thermoplastic Gas Distribution Pipe and Tubing

ASTM F1970  
Special Engineered Fittings, Appurtenances or Valves for Use in Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Systems

ASTM F1973  
Factory Assembled Anodeless Risers and Transition Fittings in Polyethylene (PE) and Polyamide 11 (PA 11) and Polyamide 12 (PA 12) Fuel Gas Distribution Systems

ASTM F1974  
Metal Insert Fittings for Polyethylene/Aluminum/Polyethylene and Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Composite Pressure Pipe

ASTM F1986  
Multilayer Pipe Type 2, Compression Fittings, and Compression Joints for Hot and Cold Drinking Water Systems

ASTM F2165  
Flexible Pre-Insulated Piping

ASTM F2206  
Fabricated Fittings of Butt-Fused Polyethylene (PE) Plastic Pipe, Fittings, Sheet Stock, or Block Stock

ASTM F2306/F2306M  
Specification for 12 to 60 in. [300 to 1500 mm] Annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Gravity-Flow Storm Sewer and Subsurface Drainage Applications

ASTM F2509  
Field- Assembled Anodeless Riser Kits for Use on Outside Diameter Controlled Polyethylene Gas Distribution Pipe and Tubing

ASTM F2831  
Internal Non Structural Epoxy Barrier Coating Material Used in Rehabilitation of Metallic Pressurized Piping Systems

AWS A5.8  
Filler Metals for Brazing and Braze Welding
AWS B2.2/B2.2M  
Brazing Procedure and Performance Qualification

AWS B2.4  
Welding Procedure and Performance Qualification for Thermoplastic

AWWA C110  
Ductile-Iron and Gray-Iron Fittings

AWWA C111  
Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings

AWWA C151  
Ductile-Iron Pipe, Centrifugally Cast

AWWA C153  
Ductile-Iron Compact Fittings

AWWA C203  
Coal-Tar Protective Coatings and Linings for Steel Water Pipelines - Enamel and Tape - Hot Applied

AWWA C210  
Liquid-Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines

AWWA C213  
Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines

AWWA C215  
Extruded Polyolefin Coating for the Exterior of Steel Water Pipelines

AWWA C500  
Metal Seated Service Gate Valves for Water Supply Service

AWWA C504  
Rubber Seated Butterfly Valves, 3 in (75 mm) through 72 in (1800 mm)

AWWA C507  
Ball Valves, 6 in. through 60 in. (150 mm through 1,500 mm)

AWWA C510  
Double Check Valve Backflow Prevention Assembly

AWWA C511  
Reduced Pressure Principle Backflow Prevention Assembly

AWWA C606  
Grooved and Shouldered Joints

AWWA C900  
Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 in. through 12 in. (100 mm through 300 mm), for Water Transmission and Distribution

AWWA C901  
Polyethylene (PE) Pressure Pipe and Tubing, 1/2 in. (13 mm) Through 3 in. (76 mm) for Water Service

AWWA C907  
Injection-Molded Polyvinyl Chloride (PVC) Pressure Fittings 4 in. Through 12 in. (100 mm Through 300 mm), for Water, Wastewater and Reclaimed Water Service

CGA C-9  
Standard Color Marking of Compressed Gas Containers for Medical use

CGA G-4.1  
Cleaning Equipment for Oxygen Service

CGA S-1.3  
Pressure Relief Device Standards-Part 3-Stationary Storage Containers for Compressed Gases

CGA V-1  
Compressed Gas Cylinder Valve Outlet and Inlet Connections

CISPI 301  
Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste and Vent Piping Applications

CISPI 310  
Couplings For Use in Connection with Hubless Cast Iron Soil Pipe and Fittings For Sanitary and Storm Drain, Waste, and Vent Piping Applications

CSA A257  
Concrete Pipe and Manhole Sections

CSA B45.5/IAPMO Z124  
Plastic Plumbing Fixtures

CSA B45.11/IAPMO Z401  
Glass Plumbing Fixtures

CSA B64  
Backflow Preventers and Vacuum Breakers

CSA B64.1.1  
Atmospheric Vacuum Breakers (AVB)

CSA B64.1.2  
Pressure Vacuum Breakers (PVB)

CSA B64.2  
Hose Connection Vacuum Breakers (HCVB)

CSA B64.2.1.1  
Hose Connection Dual Vacuum Breakers (HCDVB)

CSA B64.4  
Reduced Pressure Principle (RP) Backflow Preventers

CSA B64.4.1  
Reduced Pressure Principle Backflow Preventers for Fire Protection Systems (RPF)

CSA B64.5  
Double Check Valve (DCVA) Backflow Preventers

CSA B64.5.1  
Double Check Valve Backflow Preventers for Fire Protection Systems (DVCAC)

CSA B64.7  
Laboratory Faucet Vacuum Breakers (LFVB)

CSA B79  
Commercial and Residential Drains and Cleanouts

CSA B125.3  
Plumbing Fittings

CSA B137.1  
Polyethylene (PE) Pipe, Tubing, and Fittings for Cold-Water Pressure Services

CSA B181.3  
Polyolefin and Polyvinylidene Fluoride (PVDF) Laboratory Drainage Systems

CSA B242  
Grooved-and Shouldered-Type Mechanical Pipe Couplings
<table>
<thead>
<tr>
<th>CSA B356</th>
<th>Water Pressure Reducing Valves for Domestic Water Supply Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSA B481</td>
<td>Grease Interceptors</td>
</tr>
<tr>
<td>CSA G401</td>
<td>Corrugated Steel Pipe Products</td>
</tr>
<tr>
<td>CSA LC 1b</td>
<td>Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST) (same as CSA 6.26b)</td>
</tr>
<tr>
<td>CSA LC 3</td>
<td>Appliance Stands and Drains Pans</td>
</tr>
<tr>
<td>CSA LC 4a</td>
<td>Press-Connect Metallic Fittings for Use in Fuel Gas Distribution Systems (same as CSA 6.32a)</td>
</tr>
<tr>
<td>CSA Z21.10.1</td>
<td>Gas Water Heaters - Volume I, Storage Water Heaters with Input Ratings of 75000 Btu Per Hour or Less (same as CSA 4.1)</td>
</tr>
<tr>
<td>CSA Z21.10.3</td>
<td>Gas-Fired Water Heaters - Volume III, Storage Water Heaters with Input Ratings Above 75000 Btu Per Hour, Circulating and Instantaneous (same as CSA 4.3)</td>
</tr>
<tr>
<td>CSA Z21.12b</td>
<td>Draft Hoods</td>
</tr>
<tr>
<td>CSA Z21.13</td>
<td>Gas-Fired Low Pressure Steam and Hot Water Boilers (same as CSA 4.9)</td>
</tr>
<tr>
<td>CSA Z21.15b</td>
<td>Manually Operated Gas Valves for Appliances, Appliance Connector Valves, and Hose End Valves</td>
</tr>
<tr>
<td>CSA Z21.22b</td>
<td>Relief Valves for Hot Water Supply Systems (same as CSA 4.4b)</td>
</tr>
<tr>
<td>CSA Z21.24a</td>
<td>Connectors for Gas Appliances (same as CSA 6.10a)</td>
</tr>
<tr>
<td>CSA Z21.40.1a</td>
<td>Gas-Fired, Heat Activated Air Conditioning and Heat Pump Appliances (same as CSA 2.91a)</td>
</tr>
<tr>
<td>CSA Z21.41</td>
<td>Quick-Disconnected Devices for Use with Gas Fuel Appliances (same as CSA 6.9)</td>
</tr>
<tr>
<td>CSA Z21.47</td>
<td>Gas-Fired Central Furnaces (same as CSA 2.3)</td>
</tr>
<tr>
<td>CSA Z21.54b</td>
<td>Gas Hose Connectors for Portable Outdoor Gas-Fired Appliances (same as CSA 8.4b)</td>
</tr>
<tr>
<td>CSA Z21.56</td>
<td>Gas-Fired Pool Heaters (same as CSA 4.7)</td>
</tr>
<tr>
<td>CSA Z21.69a</td>
<td>Connectors for Movable Gas Appliances (same as CSA 6.16a)</td>
</tr>
<tr>
<td>CSA Z21.80a</td>
<td>Line Pressure Regulators (same as CSA 6.22a)</td>
</tr>
<tr>
<td>CSA Z21.86</td>
<td>Vented Gas-Fired Space Heating Appliances (same as CSA 2.32)</td>
</tr>
<tr>
<td>CSA Z83.11b</td>
<td>Gas Food Service Equipment (same as 1.8b)</td>
</tr>
<tr>
<td>CSA Z317.1</td>
<td>Special Requirements for Plumbing Installations in Health Care Facilities</td>
</tr>
<tr>
<td>Energy Star – 2007</td>
<td>Specification for Commercial Dishwashers</td>
</tr>
<tr>
<td>EPA Watersense – 2007</td>
<td>High-Efficiency Lavatory Faucet Specification</td>
</tr>
<tr>
<td>EPA Watersense – 2009</td>
<td>Specification for Flushing Urinals</td>
</tr>
<tr>
<td>EPA Watersense – 2011</td>
<td>Specification for Tank-Type Toilets</td>
</tr>
<tr>
<td>IAPMO IGC 154</td>
<td>Shower and Tub/Shower Enclosures and Shower Panel</td>
</tr>
<tr>
<td>IAPMO IGC 157</td>
<td>Ball Valves</td>
</tr>
<tr>
<td>IAPMO IGC 193</td>
<td>Safety Plates, Plate Straps, Notched Plates and Safety Collars</td>
</tr>
<tr>
<td>IAPMO IGC 226</td>
<td>Drinking Water Fountains With or Without Chiller or Heater</td>
</tr>
<tr>
<td>IAPMO PS 23</td>
<td>Dishwasher Drain Airgaps</td>
</tr>
<tr>
<td>IAPMO PS 25</td>
<td>Metallic Fittings for Joining Polyethylene Pipe for Water Service and Yard Piping</td>
</tr>
<tr>
<td>IAPMO PS 34</td>
<td>Encasement Sleeve for Portable Water Pipe and Tube</td>
</tr>
<tr>
<td>IAPMO PS 36</td>
<td>Lead-Free Sealing Compounds for Threaded Joints</td>
</tr>
<tr>
<td>IAPMO PS 37</td>
<td>Black Plastic PVC or PE Pressure-Sensitive Corrosion Preventive Tape</td>
</tr>
<tr>
<td>IAPMO PS 42</td>
<td>Pipe Alignment and Secondary Support Systems</td>
</tr>
<tr>
<td>IAPMO PS 50</td>
<td>Flush Valves with Dual Flush Device for Water Closets or Water Closet Tank with an integral Flush Valves with a Dual Flush Device</td>
</tr>
<tr>
<td>IAPMO PS 51</td>
<td>Expansion Joints for DWV Piping Systems</td>
</tr>
<tr>
<td>IAPMO PS 52</td>
<td>Pump/Dose, Sumps and Sewage Ejector Tanks with or without a Pump</td>
</tr>
<tr>
<td>IAPMO PS 53</td>
<td>Grooved Mechanical Pipe Couplings and Grooved Fittings</td>
</tr>
<tr>
<td>IAPMO PS 54</td>
<td>Metallic and Plastic Utility Boxes</td>
</tr>
<tr>
<td>IAPMO PS 57</td>
<td>PVC Hydraulically Actuated Diaphragm Type Water Control Valves</td>
</tr>
<tr>
<td>IAPMO PS 59</td>
<td>Waste Water Diverter Valves and Diversion System</td>
</tr>
<tr>
<td>IAPMO PS 63</td>
<td>Plastic Leaching Chambers</td>
</tr>
<tr>
<td>IAPMO PS 64</td>
<td>Roof Pipe Flashings</td>
</tr>
<tr>
<td>IAPMO PS 65</td>
<td>Airgap Units for Water Conditioning Equipment Installation</td>
</tr>
<tr>
<td>IAPMO PS 67</td>
<td>Early-Closure Replacement Flappers or Early-Closure Replacement Flapper with Mechanical Assemblies</td>
</tr>
<tr>
<td>IAPMO PS 69</td>
<td>Bathwaste and Overflow Assemblies with Tub Filler Spout</td>
</tr>
<tr>
<td>IAPMO PS 72</td>
<td>Valves with Atmospheric Vacuum Breaker</td>
</tr>
<tr>
<td>IAPMO PS 73</td>
<td>Dental Vacuum Pumps</td>
</tr>
<tr>
<td>IAPMO PS 76</td>
<td>Trap Primers for Fill Valves and Flushometer Valves</td>
</tr>
<tr>
<td>IAPMO PS 79</td>
<td>Multiport Electronic Trap Primer</td>
</tr>
<tr>
<td>IAPMO PS 80</td>
<td>Clarifiers</td>
</tr>
<tr>
<td>IAPMO PS 81</td>
<td>Precast Concrete Seepage Pit Liners and Covers</td>
</tr>
<tr>
<td>IAPMO PS 82</td>
<td>Fiberglass (Glass Fiber Reinforced Thermosetting Resin) Fittings</td>
</tr>
<tr>
<td>IAPMO PS 85</td>
<td>Tools for Mechanically Formed Tee Connections in Copper Tubing</td>
</tr>
<tr>
<td>IAPMO PS 86</td>
<td>Rainwater Diverter Valve for Non-Roofed Area Slabs</td>
</tr>
<tr>
<td>IAPMO PS 87</td>
<td>Diverter and Shut-Off Valves for Pool/Spas</td>
</tr>
<tr>
<td>IAPMO PS 89</td>
<td>Soaking and Hydrotherapy (Whirlpool) Bathtubs with Hydraulic Seatlift</td>
</tr>
<tr>
<td>IAPMO PS 90</td>
<td>Elastomeric Test Caps/Cleanout Caps and Combination Test Caps/Shielded Couplings</td>
</tr>
<tr>
<td>IAPMO PS 91</td>
<td>Plastic Stabilizer for Use with Plastic Closet Bends</td>
</tr>
<tr>
<td>IAPMO PS 92</td>
<td>Heat Exchangers and Indirect Water Heaters</td>
</tr>
<tr>
<td>IAPMO PS 94</td>
<td>Insulated Protectors for P-Traps, Supply Stops and Risers</td>
</tr>
<tr>
<td>IAPMO PS 95</td>
<td>Drain, Waste, and Vent Hangers and Plastic Pipe Support Hooks</td>
</tr>
<tr>
<td>IAPMO PS 96</td>
<td>Passive Direct Solar Water Heaters</td>
</tr>
<tr>
<td>IAPMO PS 98</td>
<td>Prefabricated Fiberglass Church Baptisteries</td>
</tr>
<tr>
<td>IAPMO PS 100</td>
<td>Porous Filter Protector for Sub-Drain Weep Holes</td>
</tr>
<tr>
<td>IAPMO PS 101</td>
<td>Suction Relief Valves</td>
</tr>
<tr>
<td>IAPMO PS 104</td>
<td>Pressure Relief Connection for Dispensing Equipment</td>
</tr>
<tr>
<td>IAPMO PS 105</td>
<td>Polyethylene Distribution Boxes</td>
</tr>
<tr>
<td>IAPMO PS 106</td>
<td>Tileable Shower Receptors and Shower Kits</td>
</tr>
<tr>
<td>IAPMO PS 107</td>
<td>Aramid Reinforced Rubber Hose for Use in Non-Potable Water Radiant Heating and Snowmelting</td>
</tr>
<tr>
<td>IAPMO PS 110</td>
<td>PVC Cold Water Compression Fittings</td>
</tr>
<tr>
<td>IAPMO PS 111</td>
<td>PVC Cold Water Gripper Fittings</td>
</tr>
<tr>
<td>IAPMO PS 112</td>
<td>PVC Plastic Valves for Cold Water Distribution Systems Outside a Building and CPVC Plastic Valves for Hot and Cold Water Distribution Systems</td>
</tr>
<tr>
<td>IAPMO PS 113</td>
<td>Hydraulically Powered Household Food Waste Disposers</td>
</tr>
<tr>
<td>IAPMO PS 115</td>
<td>Hot Water On-Demand or Automatic Activated Hot Water Pumping Systems</td>
</tr>
<tr>
<td>IAPMO Z124.5</td>
<td>Plastic Toilet Seats</td>
</tr>
<tr>
<td>IAPMO Z124.7</td>
<td>Prefabricated Plastic Spa Shells</td>
</tr>
<tr>
<td>IAPMO Z124.8</td>
<td>Plastic Liners for Bathubs and Shower Receptors</td>
</tr>
<tr>
<td>IAPMO Z1000</td>
<td>Prefabricated Septic Tanks</td>
</tr>
<tr>
<td>IAPMO Z1001</td>
<td>Prefabricated Gravity Grease Interceptors</td>
</tr>
<tr>
<td>IAPMO Z1033</td>
<td>Flexile PVC Hoses and Tubing for Pools, Hot Tubs, Spas and Jetted Bathtubs</td>
</tr>
<tr>
<td>ICC A117.1</td>
<td>Accessible and Usable Buildings and Facilities</td>
</tr>
<tr>
<td>ISEA Z358.1</td>
<td>Emergency Eyewash and Shower Equipment</td>
</tr>
<tr>
<td>MSS SP-6</td>
<td>Finishes for Contact Faces of Pipe Flanges and Connecting-End Flanges of Valves and Fittings</td>
</tr>
<tr>
<td>MSS SP-25</td>
<td>Marking Systems for Valves, Fittings, Flanges, and Unions</td>
</tr>
<tr>
<td>MSS SP-42</td>
<td>Corrosion Resistant Gate, Globe, Angle and Check Valves with Flanged and Butt Weld Ends (Classes 150,300 &amp; 600)</td>
</tr>
<tr>
<td>MSS SP-44</td>
<td>Steel Pipeline Flanges</td>
</tr>
<tr>
<td>MSS SP-58</td>
<td>Pipe Hangers and Supports - Materials, Design, and Manufacture, Selection, Application and Installation</td>
</tr>
<tr>
<td>MSS SP-67</td>
<td>Butterfly Valves</td>
</tr>
</tbody>
</table>
MSS SP-70  Gray Iron Gate Valves, Flanged and Threaded Ends

MSS SP-71  Gray Iron Swing Check Valves, Flanged and Threaded Ends

MSS SP-72  Ball Valves with Flanged or Butt-Welding Ends for General Service

MSS SP-78  Cast Iron Plug Valves, Flanged and Threaded Ends

MSS SP-80  Bronze gate, Globe, Angle, and Check Valves

MSS SP-83  Class 3000 Steel Pipe Unions Socket-Welding and Threaded

MSS SP 104  Wrought Copper Solder Joint Pressure Fittings

MSS SP 106  Cast Copper Alloy Flanges and Flanged Fittings Class 125, 150 and 300

MSS SP 109  Welded Fabricated Copper Solder Joint Pressure Fittings

MSS SP 123  Non-Ferrous Threaded and Solder Joint Unions for Use with Copper Water Tube

NSF 2  Food Equipment

NSF 3  Commercial Warewashing Equipment

NSF 4  Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transport Equipment

NSF 5  Water Heaters, Hot Water Supply Boilers, and Heat Recovery Equipment

NSF 12  Automatic Ice Making Equipment

NSF 14  Plastics Piping System Components and Related Materials

NSF 18  Manual Food and Beverage Dispensing Equipment

NSF 29  Detergent and Chemical Feeders for Commercial Spray-Type Dishwashing Machines

NSF 40  Residential Wastewater Treatment Systems

NSF 41  Non-Liquid Saturated Treatment Systems

NSF 42  Drinking Water Treatment Units-Aesthetic Effects

NSF 44  Residential Cation Exchange Water Softeners

NSF 46  Evaluation of Components and Devices Used in Wastewater Treatment Systems

NSF 53  Drinking Water Treatment Unit-Health Effects

NSF 54  Ultraviolet Microbiological Water Treatment Systems

NSF 58  Reverse Osmosis Drinking Water Treatment Systems

NSF 61  Drinking Water System Components - Health Effects

NSF 62  Drinking Water Distillation Systems

NSF 169  Special Purpose Food Equipment and Devices


PDI G-101  Testing and Rating Procedure for Hydro Mechanical Grease Interceptors with Appendix of Installation and Maintenance

PDI G-102  Testing and Certification for Grease Interceptors with FOG Sensing and Alarm Devices

PDIWH 201  Water Hammer Arresters

PSAI Z4.1  For Sanitation - In Places of Employment - Minimum Requirements

SAE J512  Automotive Tube Fittings

SAE J1670  Type "F" Clamps for Plumbing Applications

TCNA A118.10  Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation

TCNA A137.1  Specifications for Ceramic Tile

UL 70  Septic Tanks, Bituminous Coated Metal

UL 80  Steel Tanks for Oil-Burner Fuels and Other Combustible Liquids

UL 103  Factory-Built Chimneys for Residential Type and Building Heating Appliances

UL 125  Flow Control Valves for Anhydrous Ammonia and LP-Gas

UL 132  Safety Relief Valves for Anhydrous Ammonia and LP-Gas

UL 144  LP-Gas Regulators

UL 174  Household Electric Storage Tank Water Heaters

UL 252  Compressed Gas Regulators
UL 263
Fire Test of Building Construction and Materials

UL 296
Oil Burners

UL 343
Pumps for Oil-Burning Appliances

UL 378
Draft Equipment

UL 399
Drinking Water Coolers

UL 404
Gauges, Indicating Pressure, for Compressed Gas Services

UL 429
Electrically Operated Valves

UL 430
Waste Disposers

UL 441
Gas Vents

UL 443
Steel Auxiliary Tanks for Oil-Burner Fuel

UL 499
Electric Heating Appliances

UL 536
Flexible Metallic Hose

UL 563
Ice Makers

UL 565
Liquid-Level Gauges for Anhydrous Ammonia and LP-Gas

UL 569
Pigtails and Flexible Hose Connectors for LP-Gas

UL 651
Schedule 40, 80, Type EB and A Rigid PVC Conduit and Fittings

UL 723
Test for Surface Burning Characteristics of Building Materials

UL 726
Oil-Fired Boiler Assemblies

UL 732
Oil-Fired Storage Tank Water Heaters

UL 749
Household Dishwashers

UL 778
Motor-Operated Water Pumps

UL 834
Heating, Water Supply, and Power Boilers-Electric

UL 921
Commercial Dishwasher

UL 959
Medium Heat Appliances Factory-Built Chimneys

UL 1081
Swimming Pool Pumps, Filters, and Chlorinators

UL 1206
Electric Commercial Clothes-Washing Equipment

UL 1261
Electric Water Heaters for Pools and Tubs

UL 1331
Station Inlets and Outlets

UL 1453
Electric Booster and Commercial Storage Tank Water Heaters

UL 1469
Strength of Body and Hydraulic Pressure Loss Testing of Backflow Special Check Valves

UL 1479
Fire Test of Through-Penetrations Firestops

UL 1795
Hydromassage Bathtubs

UL 1951
Electric Plumbing Accessories

UL 2157
Electric Clothes Washing Machines and Extractors

WQA S-300
Point-of-Use Low Pressure Reverse Osmosis Drinking Water Systems.

Mechanical Standards:

AHRI 700
Specification for Fluorocarbon Refrigerants

AMCA 500-D
Laboratory Methods of Testing Dampers for Ratings

AMCA 540
Louvers Impacted by Wind Borne Debris

AMCA 550
High Velocity Wind Driven Rain Resistance Louvers

ASCE 25
Earthquake-Actuated Automatic Gas Shutoff Devices

ASHRAE 52.2
General Ventilation Air Cleaning Devices for Removal Efficiency by Particle Size
<table>
<thead>
<tr>
<th>Standard</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM B302</td>
<td>Threadless Copper Pipe, Standard Sizes</td>
</tr>
<tr>
<td>ASTM B306</td>
<td>Copper Drainage Tube (DWV)</td>
</tr>
<tr>
<td>ASTM B370</td>
<td>Copper Sheet and Strip for Building Construction</td>
</tr>
<tr>
<td>ASTM B447</td>
<td>Welded Copper Tube</td>
</tr>
<tr>
<td>ASTM B587</td>
<td>Welded Brass Tube</td>
</tr>
<tr>
<td>ASTM B687</td>
<td>Brass, Copper, and Chromium-Plated Pipe Nipples</td>
</tr>
<tr>
<td>ASTM B813</td>
<td>Liquid and Paste Fluxes for Soldering of Copper and Copper Alloy Tube</td>
</tr>
<tr>
<td>ASTM B828</td>
<td>Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings</td>
</tr>
<tr>
<td>ASTM C315</td>
<td>Clay Flue Liners and Chimney Pots</td>
</tr>
<tr>
<td>ASTM C411</td>
<td>Hot Surface Performance of High-Temperature Thermal Insulation</td>
</tr>
<tr>
<td>ASTM D293</td>
<td>Flash Point by Pensky-Martens Closed Cup Tester</td>
</tr>
<tr>
<td>ASTM D396</td>
<td>Fuel Oils</td>
</tr>
<tr>
<td>ASTM D1693</td>
<td>Environmental Stress-Cracking of Ethylene Plastics</td>
</tr>
<tr>
<td>ASTM D1785</td>
<td>Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120</td>
</tr>
<tr>
<td>ASTM D2241</td>
<td>Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe</td>
</tr>
<tr>
<td>ASTM D2464</td>
<td>Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80</td>
</tr>
<tr>
<td>ASTM D2466</td>
<td>Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40</td>
</tr>
<tr>
<td>ASTM D2467</td>
<td>Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80</td>
</tr>
<tr>
<td>ASTM D2513</td>
<td>Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings</td>
</tr>
<tr>
<td>ASTM D2517</td>
<td>Reinforced Epoxy Resin Gas Pressure Pipe and Fittings</td>
</tr>
<tr>
<td>ASTM D2609</td>
<td>Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe</td>
</tr>
<tr>
<td>ASTM D2683</td>
<td>Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing</td>
</tr>
<tr>
<td>ASTM D2837</td>
<td>Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials or Pressure Design Basis for Thermoplastic Pipe Products</td>
</tr>
<tr>
<td>ASTM D3035</td>
<td>Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter</td>
</tr>
<tr>
<td>ASTM D3261</td>
<td>Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing</td>
</tr>
<tr>
<td>ASTM D3350</td>
<td>Polyethylene Plastics Pipe and Fittings Materials</td>
</tr>
<tr>
<td>ASTM E84</td>
<td>Surface Burning Characteristics of Building Materials</td>
</tr>
<tr>
<td>ASTM E96</td>
<td>Water Vapor Transmission of Materials</td>
</tr>
<tr>
<td>ASTM E136</td>
<td>Behavior of Materials in a Vertical Tube Furnace at 750°C</td>
</tr>
<tr>
<td>ASTM E814</td>
<td>Fire Tests of Penetration Firestop Systems</td>
</tr>
<tr>
<td>ASTM E2231</td>
<td>Specimen Preparation and Mounting of Pipe and Duct Insulation Materials to Assess Surface Burning Characteristics</td>
</tr>
<tr>
<td>ASTM E2336</td>
<td>Fire Resistant Grease Duct Enclosure Systems</td>
</tr>
<tr>
<td>ASTM F437</td>
<td>Threaded Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80</td>
</tr>
<tr>
<td>ASTM F438</td>
<td>Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40</td>
</tr>
<tr>
<td>ASTM F439</td>
<td>Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80</td>
</tr>
<tr>
<td>ASTM F1055</td>
<td>Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene Pipe and Tubing</td>
</tr>
<tr>
<td>ASTM F1476</td>
<td>Performance of Gasketed Mechanical Couplings for Use in Piping Applications</td>
</tr>
<tr>
<td>ASTM F1807</td>
<td>Metal Insert Fittings Utilizing A Copper Crimp Ring for SDR9 Cross-Linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing</td>
</tr>
<tr>
<td>ASTM F1960</td>
<td>Cold Expansion Fittings with PEX Reinforcing Rings for Use with Cross-Linked Polyethylene (PEX) Tubing</td>
</tr>
<tr>
<td>ASTM F1961</td>
<td>Metal Mechanical Cold Flare Compression Fittings with Disc Spring for Crosslinked Polyethylene (PEX) Tubing</td>
</tr>
</tbody>
</table>
ASTM F1970
Special Engineered Fittings, Appurtenances or Valves for Use in Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Systems

ASTM F1973
Factory Assembled Anodeless Risers and Transition Fittings in Polyethylene (PE) and Polyamide 11 (PA11) and Polyamide12 (PA12) Fuel Gas Distribution Systems

ASTM F1974
Metal Insert Fittings for Polyethylene/Aluminum/Polyethylene and Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Composite Pressure Pipe

ASTM F2080
Cold-Expansion Fittings with Metal Compression-Sleeves for Crosslinked Polyethylene (PEX) Pipe

ASTM F2098
Stainless Steel Clamps for Securing SDR9 Cross-linked Polyethylene (PEX) Tubing to Metal Insert and Plastic Insert Fittings

ASTM F2158
Residential Central-Vacuum Tube and Fittings

ASTM F2159
Plastic Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing

ASTM F2434
Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL-PEX) Tubing

ASTM F2509
Field-Assembled Anodeless Riser Kits for Use on Outside Diameter Controlled Polyethylene Gas Distribution Pipe and Tubing

AWS A5.8 / A5.8M
Filler Metals for Brazing and Braze Welding

AWS B2.4
Welding Procedures and Performance Qualifications for Thermoplastics

AWWA C110
Ductile-Iron and Gray-Iron Fittings

AWWA C115
Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges

AWWA C151
Ductile-Iron Pipe, Centrifugally Cast

AWWA C153
Ductile-Iron Compact Fittings

AWWA C203
Coal-Tar Protective Coatings and Linings for Steel Water Pipelines - Enamel and Tape- Hot-Applied

AWWA C500
Metal-Seated Gate Valves for Water Supply Service

CAN / CGSB 3.2
Heating Fuel Oil

CGA 2.91a-M97 / CSA Z21.40.1a
Gas Fired, Heat Activated Air Conditioning and Heat Pump Appliances

CGA 6.14-M96 / CSA Z21.66
Automatic Vent Damper Devices for Use with Gas-Fired Appliances

CSA B137.1
Polyethylene (PE) Pipe, Tubing, and Fittings for Cold-Water Pressure Services

CSA B137.2
Polyvinylchloride (PVC) Injection-Molded Gasketed Fittings for Pressure Applications

CSA B137.3
Rigid Polyvinylchloride (PVC) Pipe and Fittings for Pressure Applications

CSA C448
Design and Installation of Earth-Energy Systems

CSA F379
Packaged Solar Domestic Hot Water Systems (Liquid to Liquid Heat Transfer)

CSA LC 1b
Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST) (same as CSA 6.26b)

CSA LC 4a
Press-Connect Metallic Fittings for Use in Fuel Gas Distribution Systems (same as CSA 6.32a)

CSA Z21.1b
Household Gas Cooking Appliances

CSA Z21.5.1a
Gas Clothes Dryers-Volume I, Type 1 Clothes Dryers (same as CSA 7.1a)

CSA Z21.5.2
Gas Clothes Dryers-Volume II, Type 2 Clothes Dryers (same as CSA 7.2)

CSA Z21.10.1
Gas Water Heaters-Volume I, Storage Water Heaters with Input Ratings of 75,000 Btu Per Hour or Less (same as CSA 4.1)

CSA Z21.10.3
Gas Water Heaters-Volume III, Storage Water Heaters with Input Ratings Above 75,000 Btu Per Hour, Circulating and Instantaneous (same as CSA 4.3)

CSA Z21.11.2
Gas-Fired Room Heaters, Volume II, Unvented Room Heaters

CSA Z21.12b
Draft Hoods

CSA Z21.13
Gas-Fired Low Pressure Steam and Hot Water Boilers (same as CSA 4.9)

CSA Z21.15b
Manually Operated Gas Valves for Appliances, Appliance Connector Valves and Hose End Valves (same as CSA 9.1b)

CSA Z21.17a
Domestic Gas Conversion Burners (same as CSA 2.7a)

CSA Z21.18a
Gas Appliance Pressure Regulators (same as CSA 6.3b)
SMACNA 2002
HVAC Systems Testing, Adjusting and Balancing

SMACNA 2003
Fibrous Glass Duct Construction Standard

SMACNA 2006
HVAC Duct Construction Standards Metal and Flexible

UL 17
Vent or Chimney Connector Dampers for Oil-Fired Appliances

UL 21
LP-Gas Hose

UL 33
Heat Responsive Links for Fire-Protection Service

UL 51
Power-Operated Pumps and Bypass Valves for Anhydrous Ammonia, LP-Gas and Propylene

UL 80
Steel Tanks for Oil-Burner Fuels and Other Combustible Liquids

UL 103
Factory Built Chimneys for Residential Type and Building Heating Appliances

UL 125
Flow Control Valves for Anhydrous Ammonia and LP-Gas

UL 127
Factory-Built Fireplaces

UL 132
Safety Relief Valves for Anhydrous Ammonia and LP-Gas

UL 144
LP-Gas Regulators

UL 174
Household Electric Storage Tank Water Heaters

UL 180
Liquid-Level Indicating Gauges for Oil Burner Fuels

UL 181
Factory-Made Air Ducts and Air Connectors

UL 181A
Closure Systems for Use with Rigid Air Ducts

UL 181B
Closure Systems for Use with Flexible Air Ducts and Air Connectors

UL 197
Commercial Electric Cooking Appliances

UL 207
Refrigerant-Containing Components and Accessories, Nonelectrical

UL 252
Compressed Gas Regulators

UL 268A
Smoke Detectors for Duct Application

UL 296
Oil Burners

UL 300
Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment

UL 343
Pumps for Oil-Burning Appliances

UL 353
Limit Controls

UL 378
Draft Equipment

UL 391
Solid-Fuel and Combination-Fuel Central and Supplementary Furnaces

UL 399
Drinking Water Coolers

UL 404
Gauges, Indicating Pressure for Compressed Gas Service

UL 412
Refrigeration Unit Coolers

UL 429
Electrically Operated Valves

UL 441
Gas Vents

UL 443
Steel Auxiliary Tanks for Oil-Burner Fuel

UL 471
Commercial Refrigerators and Freezers

UL 525
Flame Arresters

UL 536
Flexible Metallic Hose

UL 555
Fire Dampers

UL 555C
Ceiling Dampers

UL 555S
Smoke Dampers

UL 565
Liquid-Level Gauges and Indications for Anhydrous Ammonia and LP-Gas

UL 569
Pigtails and Flexible Hose Connectors for LP-Gas

UL 641
Type L Low-Temperature Venting Systems

UL 651
Schedule 40, 80 Type EB and A Rigid PVD Conduit and Fittings

UL 710
Exhaust Hoods for Commercial Cooking Equipment

UL 710B
Recirculating Systems

UL 723
Test for Surface Burning Characteristics of Building Materials

UL 726
Oil-Fired Boiler Assemblies

UL 727
Oil-Fired Central Furnaces

UL 729
Oil-Fired Floor Furnaces

UL 730
Oil-Fired Wall Furnaces

UL 731
Oil-Fired Unit Heater

UL 732
Oil-Fired Storage Tank Water Heaters
UL 733  
Oil-Fired Air Heaters and Direct-Fired Heaters

UL 737  
Fireplace Stoves

UL 791  
Residential Incinerators

UL 795  
Commercial-Industrial Gas Heating Equipment

UL 834  
Heating, Water Supply, and Power Boilers-Electric

UL 842  
Valves for Flammable Fluids

UL 858  
Household Electric Ranges

UL 867  
Electrostatic Air Cleaners

UL 896  
Oil-Burning Stoves

UL 900  
Air Filter Units

UL 907  
Fireplace Accessories

UL 921  
Commercial Dishwashers

UL 959  
Medium Heat Appliance Factory-Built Chimneys

UL 984  
Hermetic Refrigerant Motor-Compressors

UL 1026  
Electric Household Cooking and Food Serving Appliances

UL 1046  
Grease Filters for Exhaust Ducts

UL 1206  
Electric Commercial Clothes-Washing Equipment

UL 1240  
Electric Commercial Clothes-Drying Equipment

UL 1453  
Electric Booster and Commercial Storage Tank Water Heaters

UL 1479  
Fire Tests of Through-Penetration FireStops

UL 1482  
Solid-Fuel Type Room Heaters

UL 1746  
External Corrosion Protection Systems for Steel Underground Storage Tanks

UL 1777  
Chimney Liners

UL 1812  
Ducted Heat Recovery Ventilators

UL 1815  
Nonducted Heat Recovery Ventilators

UL 1820  
Fire Test of Pneumatic Tubing for Flame and Smoke Characteristics

UL 1887  
Fire Test of Plastic Sprinkler Pipe for Visible Flame and Smoke Characteristics

UL 1963  
Refrigerant Recovery/Recycling Equipment

UL 1978  
Grease Ducts

UL 1995  
Heating and Cooling Equipment

UL 2021  
Fixed and Location-Dedicated Electric Room Heaters

UL 2043  
Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces

UL 2157  
Electric Clothes Washing Machines and Extractors

UL 2158  
Electric Clothes Dryers

UL 2200  
Stationary Engine Generator Assemblies

UL 2221  
Tests of Fire Resistive Grease Duct Enclosure Assemblies
### Certification Marks:

<table>
<thead>
<tr>
<th>Certification Mark</th>
<th>Description</th>
</tr>
</thead>
</table>
| **UPC®** | Uniform Plumbing Code Certification Marks  
The product complies with BOTH the product's performance standard AND the Uniform Plumbing Code (UPC). Applies to all plumbing products, appliances, pipe, fixtures, valves and related products. |
| **UMC®** | Uniform Mechanical Code Certification Marks  
The product complies with BOTH product's performance standard AND the Uniform Mechanical Code (UMC). |
| **USPC®** | Uniform Pool, Spa & Hot Tub Code Certification Marks  
The product complies with BOTH the product's performance standard AND the Uniform Swimming Pool, Spa and Hot Tub Code (USPC). |
| **USEC®** | Uniform Solar Energy Code Certification Marks  
The product complies with BOTH the product's performance standard AND the Uniform Solar Energy Code (USEC). |
| **IAPMO R&T Mark** | This marking indicates that the product has been tested and complies with the product’s specifications or legislative standard. |
| **Low-Lead** | IAPMO R&T Low Lead Mark  
This marking indicates that the product has been tested and found to comply with the low-lead requirements for drinking water system components |
4. ICC Evaluation Service, LLC

3060 Saturn Street, Suite 100
Brea, CA 92821
Phone: (562) 699-0543

Expiration: July 1, 2020

This agency is approved for listing of plumbing and mechanical products to meet the referenced standards listed below as found in the City of Los Angeles Plumbing and Mechanical Codes, 2017 Edition:

This agency is also approved for listing of plumbing products to meet the lead-free requirements of Section 116875 of the California Health and Safety Code.

Mechanical Standards

AHRI 700  
Specification for Fluorocarbon Refrigerants

ASCE 25  
Earthquake Actuated Automatic Gas Shutoff Devices

ASHRAE 62.1  
Ventilation for Acceptable Indoor Air Quality

ASME A13.1  
Scheme for the Identification of Piping Systems

ASME A112.18.6/CSA B125.6  
Flexible Water Connectors

ASME A112.4.1  
Water Heater Relief Valve Drain Tubes

ASME B1.20.1  
Pipe Threads, General Purpose (Inch)

ASME B1.20.3  
Dryseal Pipe Threads (Inch)

ASME B16.1  
Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250

ASME B16.18  
Cast Copper Alloy Solder Joint Pressure Fittings

ASME B16.20  
Metallic Gaskets For Pipe Flanges: Ring-Joint, Spiral-Wound, And Jacketed

ASME B16.22  
Wrought Copper and Copper Alloy Solder-Joint Pressure Fittings

ASME B16.23  
Cast Copper Alloy Solder Joint Drainage Fittings: DWV

ASME B16.24  
Cast Copper Alloy Pipe Flanges and Flanged Fittings: Classes 150, 300, 600, 900, 1,500 and 2500

ASME B16.26  
Cast Copper Alloy Fittings for Flared Copper Tubes

ASME B16.29  
Wrought Copper and Wrought Copper Alloy Solder-Joint Drainage Fittings- DWV

ASME B16.33  
Manually Operated Metallic Gas Valves for Use in Gas Piping Systems up to 175 psi (Sizes NPS 1/2 - NPS 2)

ASME B16.50  
Wrought Copper and Copper Alloy Braze-Joint Pressure Fittings

ASME B31.5  
Refrigeration Piping and Heat Transfer Components

ASME B36.10M  
Welded and Seamless Wrought Steel Pipe

ASME Section IV  
Rules for Construction of Heating Boilers

ASME Section VIII  
Rules for Construction of Pressure Vessels Division 1

ASTM A53 / A53M  
Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded, and Seamless

ASTM A254 / A254M  
Copper-Brazed Steel Tubing

ASTM A312/ A312M  
Seamless, Welded and Heavy Cold Worked Austenitic Stainless Steel Pipes

ASTM A653 / A653M  
Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

ASTM A733  
Welded and Seamless Carbon Steel and Austenitic Stainless Steel Pipe Nipples
ASTM A861
High-Silicon Iron Pipe and Fittings

ASTM B32
Solder Metal

ASTM B42
Seamless Copper Pipe, Standard Sizes

ASTM B43
Seamless Red Brass Pipe, Standard Sizes

ASTM B75 / B75M
Seamless Copper Tube

ASTM B88
Seamless Copper Water Tube

ASTM B135
Seamless Brass Tube

ASTM B210
Aluminum and Aluminum-Alloy Drawn Seamless Tubes

ASTM B241 / B241M
Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube

ASTM B280
Seamless Copper Tube for Air Conditioning and Refrigeration Field Service

ASTM B302
Threadless Copper Pipe, Standard Sizes

ASTM B306
Copper Drainage Tube (DWV)

ASTM B370
Copper Sheet and Strip for Building Construction

ASTM B447
Welded Copper Tube

ASTM B587
Welded Brass Tube

ASTM B687
Brass, Copper, and Chromium-Plated Pipe Nipples

ASTM B813
Liquid and Paste Fluxes for Soldering Applications of Copper and Copper Alloy Tube

ASTM B828
Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings

ASTM C411
Hot-Surface Performance of High-Temperature Thermal Insulation

ASTM C518

ASTM D93
Flash Point by Pensky-Martens Closed Cup Tester

ASTM D2513
Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings

ASTM E84
Surface Burning Characteristics of Building Materials

ASTM E814
Fire Tests of Penetration Firestop Systems

ASTM E2336
Fire Resistive Grease Duct Enclosure Systems

ASTM F1807
Metal Insert Fittings Utilizing Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing

ASTM F1960
Cold Expansion Fittings with PEX Reinforcing Rings for Use with Cross-linked Polyethylene (PEX) Tubing

ASTM F1961
Metal Mechanical Cold Flare Compression Fittings with Disc Springs for Cross-linked Polyethylene (PEX) Tubing

ASTM F1970
Special Engineered Fittings or Appurtenances or Valves for Use in Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Systems

ASTM F1973
Factory Assembled Anodeless Risers and Transition Fitting in Polyethylene (PE) and Polyamide 11 (PA11) and Polyamide 12 (PA12) Fuel Gas Distribution Systems

ASTM F1974
Metal Insert Fittings for Polyethylene/Aluminum/Polyethylene and Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Composite Pressure Pipe

ASTM F2080
Cold-Expansion Fittings With Metal Compression-Sleeves for Crosslinked Polyethylene (PEX) Pipe

ASTM F2098
Stainless Steel Clamps for Securing SDR9 Crosslinked Polyethylene (PEX) Tubing to Metal Insert and Plastic Insert Fittings

ASTM F2158
Residential Central-Vacuum Tube and Fittings

ASTM F2159
Plastic Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing

ASTM F2434
Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing

ASTM F2509
Field-Assembled Anodeless Riser Kits for Use on Outside Diameter Controlled Polyethylene Gas Distribution Pipe and Tubing

AWS A5.8 / A5.8M
Filler Metals for Brazing and Braze Welding

AWS B2.4
Welding Procedure and Performance Qualification for Thermoplastics

AWWA C110
Ductile-Iron and Gray-Iron Fittings
AWWA C151
Ductile-Iron Pipe, Centrifugally Cast

AWWA C203
Coal-Tar Protective Coatings and Linings for Steel Water Pipelines - Enamel and Tape- Hot-Applied

AWWA C500
Metal-Seated Service Gate Valves for Water Supply Service

CAN/CGSB 3.2
Heating Fuel Oil

CGA 2.91a
Gas-Fired, Heat Activated Air Conditioning and Heat Pump Appliances (same as CSA Z21.40.1)

CGA 6.14
Automatic Vent Damper Devices for Use with Gas-Fired Appliances (same as CSA Z21.66)

CSA F379 Series
Packaged Solar Domestic Hot Water Systems (Liquid-to-Liquid Heat Transfer)

CSA FC 1
Stationary Fuel Cell Power Systems

CSA LC 1b
Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST) (same as 6.26b)

CSA LC 4a
Press-Connect Metallic Fittings For Use in Fuel Gas Distribution Systems (same as CSA 6.32a)

CSA Z21.1b
Household Gas Cooking Appliances

CSA Z21.5.1a
Gas Clothes Dryers - Volume I, Type 1 Clothes Dryers (same as CSA 7.1a)

CSA Z21.5.2
Gas Clothes Dryers - Volume II, Type 2 Clothes Dryers (same as CSA 7.2)

CSA Z21.10.1
Gas Water Heaters - Volume I, Storage Water Heaters with Input Ratings of 75,000 Btu Per Hour or Less (same as CSA 4.1)

CSA Z21.10.3
Gas-Fired Water Heaters – Volume III, Storage Water Heaters with Input Ratings Above 75,000 Btu Per Hour, Circulating and Instantaneous (same as CSA 4.3)

CSA Z21.11.2
Gas-Fired Room Heaters, Volume II, Unvented Room Heaters

CSA Z21.12b
Draft Hoods

CSA Z21.13
Gas-Fired Low Pressure Steam and Hot Water Boilers (same as CSA 4.9)

CSA Z21.15b
Manually Operated Gas Valves for Appliances, Appliance Connector Valves and Hose End Valves (same as CSA 9.1b)

CSA Z21.17a
Domestic Gas Conversion Burners (same as CSA 2.27a)

CSA Z21.18b
Gas Appliance Pressure Regulators (same as CSA 6.3b)

CSA Z21.19a
Refrigerators Using Gas Fuel (same as CSA 1.4a)

CSA Z21.20a
Automatic Gas Ignition Systems and Components

CSA Z21.21
Automatic Valves for Gas Appliances (same as CSA 6.5)

CSA Z21.22b
Relief Valves for Hot Water Supply Systems (same as CSA 4.4b)

CSA Z21.23
Gas Appliance Thermostats

CSA Z21.24a
Connectors for Gas Appliances (same as CSA 6.10a)

CSA Z21.35a
Pilot Gas Filters (same as CSA 6.8a)

CSA Z21.41
Quick Disconnect Devices for Use with Gas Fuel Appliances (same as CSA 6.9)

CSA Z21.42
Gas-Fired Illuminating Appliances

CSA Z21.50
Vented Gas Fireplaces (same as CSA 2.22)

CSA Z21.54b
Gas Hose Connectors for Portable Outdoor Gas-Fired Appliances (same as CSA 8.4b)

CSA Z21.56
Gas-Fired Pool Heaters (same as CSA 4.7)

CSA Z21.58b
Outdoor Gas Cooking Appliances (same as CSA 1.6b)

CSA Z21.60
Decorative Gas Appliances for Installation in Solid-Fuel Burning Fireplaces (same as CSA 2.26)

CSA Z21.61
Gas-Fired Toilets

CSA Z21.69a
Connectors for Moveable Gas Appliances (same as CSA 6.16a)

CSA Z21.71a
Automatic Intermittent Ignition Systems for Field Installation

CSA Z21.80a
Line Pressure Regulators (same as CSA 6.22a)

CSA Z21.86
Vented Gas-Fired Space Heating Appliances (same as CSA 2.32)

CSA Z21.88a
Vented Gas Fireplace Heaters (same as CSA 2.33a)

CSA Z21.90b
Gas Convenience Outlets and Optional Outlets (same as CSA 6.24)

CSA Z83.4
Non-Recirculating Direct Gas-Fired Industrial Air Heaters (same as CSA 3.7)

CSA Z83.7
Gas-Fired Construction Heaters (same as CSA 2.14)
CSA Z83.8
Gas Unit Heaters, Gas Packaged Heaters, Gas Utility Heaters, and Gas-Fired Duct Furnaces (same as CSA 2.6)

CSA Z83.11b
Gas Food Service Equipment (same as CSA 1.8b)

CSA Z83.18
Recirculating Direct Gas-Fired Industrial Air Heaters

CSA Z83.19a
Gas-Fired High-Intensity Infrared Heaters (same as CSA 2.35a)

CSA Z83.20b
Gas-Fired Low-Intensity Infrared Heaters (same as CSA 2.34b)

IAPMO PS 120
Flashing and Stand Combination for Air Conditioning Units (Residential or Commercial Unit Curb)

IAPMO Z1033
Flexible PVC Hose for Pools, Hot Tubs, Spas and Jetted Bathtub

IAS 1-91
U.S. Requirements for Indirect Water Heaters for Use With External Heat Source

IIAR 2
Equipment, Design, and Installation of Closed-Circuit Ammonia Mechanical Refrigerating Systems

MSS SP-6
Finishes for Contact Faces of Pipe Flanges and Connecting-End Flanges of Valves and Fittings

MSS SP-58
Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application, and Installation

MSS SP-67
Butterfly Valves

MSS SP-80
Bronze Gate, Globe, Angle, and Check Valves

MSS SP-104
Wrought Copper Solder-Joint Pressure Fittings

MSS SP-106
Cast Copper Alloy Flanges and Flanged Fittings Class 125, 150, and 300

MSS SP-109
Welded Fabricated Copper Solder-Joint Pressure Fittings

PPI TR-4
Listing for Hydrostatic Design Basis (HBD), Hydrostatic Design Stress (HDS), Strength Design Basis (SDB), Pressure Design Basis (PDB) and Minimum Required Strength (MRS) Ratings for Thermoplastic Piping Materials or Pipe

SAE J512
Automotive Tube Fittings

SMACNA-2003
Fibrous Glass Duct Construction Standard, 7th Edition

SMACNA-2006
HVAC Duct Construction Standards Metal and Flexible, 3rd Edition

UL 17
Vent or Chimney Connector Dampers for Oil-Fired Appliances

UL 21
LP-Gas Hose

UL 33
Heat Responsive Links for Fire-Protection Service

UL 51
Power-Operated Pumps and Bypass Valves for Anhydrous Ammonia, LP-Gas, and Propylene

UL 80
Steel Tanks for Oil-Burner Fuels and Other Combustible Liquids

UL 103
Factory-Built Chimneys for Residential Type and Building Heating Appliances

UL 125
Flow Control Valves for Anhydrous Ammonia and LP-Gas

UL 127
Factory-Built Fireplaces

UL 132
Safety Relief Valves for Anhydrous Ammonia and LP-Gas

UL 144
LP-Gas Regulators

UL 174
Household Electric Storage Tank Water Heaters

UL 180
Liquid-Level Indicating Gauges for Oil Burner Fuels

UL 181
Factory-Made Air Ducts and Air Connectors

UL 181A
Closure Systems for Use with Rigid Air Ducts

UL 181B
Closure Systems for Use with Flexible Air Ducts and Air Connectors

UL 197
Commercial Electric Cooking Appliances

UL 207
Refrigerant-Containing Components and Accessories, Nonelectrical

UL 252
Compressed Gas Regulators

UL 268A
Smoke Detectors for Duct Application

UL 296
Oil Burners

UL 300
Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment

UL 343
Pumps for Oil-Burning Appliances

UL 353
Limit Controls

UL 378
Draft Equipment

UL 391
Solid-Fuel and Combination-Fuel Central and Supplementary Furnaces
UL 399
Drinking Water Coolers

UL 404
Gauges, Indicating Pressure, for Compressed Gas Service

UL 412
Refrigeration Unit Coolers

UL 429
Electrically Operated Valves

UL 441
Gas Vents

UL 443
Steel Auxiliary Tanks for Oil-Burner Fuel

UL 471
Commercial Refrigerators and Freezers

UL 525
Flame Arresters

UL 536
Flexible Metallic Hose

UL 555
Fire Dampers

UL 555C
Ceiling Dampers

UL 555S
Smoke Dampers

UL 565
Liquid-Level Gauges and Indicators for Anhydrous Ammonia and LP-Gas

UL 569
Pigtails and Flexible Hose Connectors for LP-Gas

UL 641
Type L Low-Temperature Venting Systems

UL 710
Exhaust Hoods for Commercial Cooking Equipment

UL 723
Test for Surface Burning Characteristics of Building Materials

UL 726
Oil-Fired Boiler Assemblies

UL 727
Oil-Fired Central Furnaces

UL 729
Oil-Fired Floor Furnaces

UL 730
Oil-Fired Wall Furnaces

UL 731
Oil-Fired Unit Heaters

UL 732
Oil-Fired Storage Tank Water Heaters

UL 733
Oil-Fired Air Heaters and Direct-Fired Heaters

UL 737
Fireplace Stoves

UL 791
Residential Incinerators

UL 795
Commercial-Industrial Gas Heating Equipment

UL 834
Heating, Water Supply, and Power Boilers–Electric

UL 842
Valves for Flammable Fluids

UL 858
Household Electric Ranges

UL 867
Electrostatic Air Cleaners

UL 896
Oil-Burning Stoves

UL 900
Air Filter Units

UL 907
Fireplace Accessories

UL 921
Commercial Dishwashers

UL 959
Medium Heat Appliance Factory-Built Chimneys

UL 984
Hermetic Refrigerant Motor-Compressors

UL 1026
Electric Household Cooking and Food Serving Appliances

UL 1046
Grease Filters for Exhaust Ducts

UL 1206
Electric Commercial Clothes-Washing Equipment

UL 1240
Electric Commercial Clothes-Drying Equipment

UL 1453
Electric Booster and Commercial Storage Tank Water Heaters

UL 1479
Fire Tests of Through-Penetration Firestops

UL 1482
Solid-Fuel Type Room Heaters

UL 1746
External Corrosion Protection Systems for Steel Underground Storage Tanks

UL 1777
Chimney Liners

UL 1812
Ducted Heat Recovery Ventilators

UL 1815
Nonducted Heat Recovery Ventilators

UL 1820
Fire Test of Pneumatic Tubing for Flame and Smoke Characteristics

UL 1887
Fire Test of Plastic Sprinkler Pipe for Visible Flame and Smoke Characteristics

UL 1963
Refrigerant Recovery/ Recycling Equipment

UL 1978
Grease Ducts

UL 1995
Heating and Cooling Equipment

UL 2021
Fixed and Location-Dedicated Electric Room Heaters
**UL 2043**
Fire Test for Heat and Visible Smoke
Release For Discrete Products and Their Accessories Installed in Air-Handling Spaces

**UL 2157**
Electric Clothes Washing Machines and Extractors

**UL 2158**
Electric Clothes Dryers

**UL 2200**
Stationary Engine Generator Assemblies

**UL 2221**
Tests of Fire Resistive Grease Duct Enclosure Assemblies

---

**Plumbing Standards**

**AHAM FWD-1**
Food Waste Disposers

**APSP 1**
Public Swimming Pools

**ASCE 25**
Earthquake-Actuated Automatic Gas Shutoff Devices

**ASME A13.1**
Scheme for the Identification of Piping Systems

**ASME A112.1.3**
Air Gap Fittings for Use with Plumbing Fixtures, Appliances, and Appurtenances

**ASME A112.3.1**
Stainless Steel Drainage Systems for Sanitary DWV, Storm, and Vacuum Applications, Above- and Below-Ground

**ASME A112.3.4/CSA B45.9**
Plumbing Fixtures with Pumped Waste and Macerating Toilet Systems

**ASME A112.4.1**
Water Heater Relief Valve Drain Tubes

**ASME A112.4.2**
Water Closet Personal Hygiene Devices

**ASME A112.4.3**
Plastic Fittings for Connecting Water Closets to the Sanitary Drainage System

**ASME A112.4.14**
Manually Operated, Quarter-Turn Shutoff Valves for Use in Plumbing Systems

**ASME A112.6.1M**
Floor-Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use

**ASME A112.6.2**
Framing-Affixed Supports for Off-the-Floor Water Closets with Concealed Tanks

**ASME A112.6.3**
Floor and Trench Drains

**ASME A112.6.4**
Roof, Deck, and Balcony Drains

**ASME A112.6.7**
Sanitary Floor Sinks

**ASME A112.6.9**
Siphonic Roof Drains

**ASME A112.14.1**
Backwater Valves

**ASME A112.14.3**
Grease Interceptors

**ASME A112.14.4**
Grease Removal Devices

**ASME A112.14.6**
FOG (Fats, Oils, and Greases) Disposal Systems

**ASME A112.18.1/CSA B125.1**
Plumbing Supply Fittings

**ASME A112.18.2/CSA B125.2**
Plumbing Waste Fittings

**ASME A112.18.3**
Performance Requirements for Backflow Protection Devices and Systems in Plumbing Fixtures Fittings

**ASME A112.18.6/CSA B125.6**
Flexible Water Connectors

**ASME A112.19.1/CSA B45.2**
Enamel Cast-Iron and Enamel Steel Plumbing Fixtures

**ASME A112.19.2/CSA B45.1**
Ceramic Plumbing Fixtures

**ASME A112.19.3/CSA B45.4**
Stainless Steel Plumbing Fixtures

**ASME A112.19.5/CSA B45.15**
Flush Valves and Spuds for Water Closets, Urinals and Tanks

**ASME A112.19.7/CSA B45.10**
Hydromassage Bathtub Appliances

**ASME A112.19.10**
Dual Flush Devices for Water Closets

**ASME A112.19.12**
Wall Mounted, Pedestal Mounted, Adjustable, Elevating, Tilting and Pivoting Lavatory, Sink, and Shampoo Bowl Carrier Systems and Drainage Waste Systems

**ASME A112.19.14**
Six-Liter Water Closets Equipped with a Dual Flushing Device

**ASME A112.19.15**
Bathtubs/Whirlpool Bathtubs with Pressure Sealed Doors

**ASME A112.19.19**
Vitreous China Nonwater Urinals

**ASME A112.21.3M**
Hydrants for Utility and Maintenance Use

**ASME A112.36.2M**
Cleannouts

**ASME B1.20.1**
Pipe Threads, General Purpose, Inch

**ASME B1.20.3**
Dryseal Pipe Threads, (Inch)

**ASME B16.1**
Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, 250

**ASME B16.3**
Malleable Iron Threaded Fittings: Classes 150 and 300
ASME B16.4  Gray Iron Threaded Fittings: Classes 125 and 250

ASME B16.5  Pipe Flanges and Flanged Fittings: NPS ½ through 24 Metric/Inch

ASME B16.12  Cast Iron Threaded Drainage Fittings

ASME B16.15  Cast Copper Alloy Threaded Fittings: Classes 125 and 250

ASME B16.18  Cast Copper Alloy Solder Joint Pressure Fittings

ASME B16.20  Metallic Gaskets For Pipe Flanges: Ring-Joint, Spiral-Wound, And Jacketed

ASME B16.21  Nonmetallic Flat Gaskets for Pipe Flanges

ASME B16.22  Wrought Copper and Copper Alloy Solder-Joint Pressure Fittings

ASME B16.23  Cast Copper Alloy Solder Joint Drainage Fittings: DWV

ASME B16.24  Cast Copper Alloy Pipe Flanges and Flanged Fittings: Classes 150, 300, 600, 900, 1,500 and 2,500

ASME B16.26  Cast Copper Alloy Fittings for Flared Copper Tubes

ASME B16.29  Wrought Copper and Wrought Copper Alloy Solder-Joint Drainage Fittings - DWV

ASME B16.33  Manually Operated Metallic Gas Valves for Use in Gas Piping Systems up to 175 psi (Sizes NPS 1/2 - NPS 2)

ASME B16.34  Valves – Flanged, Threaded, and Welding End

ASME B16.39  Malleable Iron Threaded Pipe Unions: Classes 150, 250 and 300

ASME B16.40  Manually Operated Thermoplastic Gas Shutoff and Valves in Gas Distribution Systems

ASME B16.47  Large Diameter Steel Flanges: NPS 26 through NPS 60 Metric/Inch Standard

ASME B16.50  Wrought Copper and Copper Alloy Brazed-Joint Pressure Fittings

ASME B31.1  Power Piping

ASME B36.10M  Welded and Seamless Wrought Steel Pipe

ASME B36.19  Stainless Steel Pipe

ASME BPVC Section IV  Rules for Construction of Heating Boilers

ASME BPVC Section VIII  Rules for Construction of Pressure Vessels Division 1

ASME BPVC Section IX  Welding, Brazing, and Fusing Qualifications

ASSE 1001  Atmospheric-Type Vacuum Breakers

ASSE 1002  Anti-Siphon Fill Valves for Water Closet Tanks

ASSE 1003  Water Pressure Reducing Valves for Domestic Water Distribution Systems

ASSE 1004  Backflow Prevention Requirements for Commercial Dishwashing Machines

ASSE 1008  Plumbing Aspects of Residential Food Waste Disposer Units

ASSE 1010  Water Hammer Arresters

ASSE 1011  Hose Connection Vacuum Breakers

ASSE 1012  Backflow Preventer with Intermediate Atmospheric Vent

ASSE 1013  Reduced Pressure Principle Backflow Preventers and Reduced Pressure Principle Fire Protection Backflow Preventers

ASSE 1014  Backflow Prevention Devices for Hand-Held Showers

ASSE 1015  Double Check Backflow Prevention Assemblies and Double Check Fire Protection Backflow Prevention Assemblies

ASSE 1016 / ASME A112.1016 / CSA B124.16  Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations

ASSE 1017  Temperature Actuated Mixing Valves for Hot Water Distribution Systems

ASSE 1018  Trap Seal Primer Valves-Potable Water Supplied

ASSE 1019  Wall Hydrant with Backflow Protection and Freeze Resistance

ASSE 1020  Pressure Vacuum Breaker Assembly

ASSE 1022  Backflow Preventer for Beverage Dispensing Equipment

ASSE 1023  Hot Water Dispensers Household Storage Type - Electrical

ASSE 1024  Dual Check Valve Backflow Preventers

ASSE 1032  Dual Check Valve Type Backflow Preventers for Carbonated Beverage Dispensers-Post Mix Type

ASSE 1035  Laboratory Faucet Backflow Preventers

ASSE 1037  Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures
ASSE 1044
Trap Seal Primer Devices-Drainage Types and Electronic Design Types

ASSE 1047
Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies

ASSE 1048
Double Check Detector Fire Protection Backflow Prevention Assemblies

ASSE 1047
Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies

ASSE 1048
Double Check Detector Fire Protection Backflow Prevention Assemblies

ASSE 1052
Hose Connection Backflow Preventers

ASSE 1055
Chemical Dispensing Systems

ASSE 1056
Spill Resistant Vacuum Breaker Assemblies

ASSE 1057
Hose Connection Backflow Preventers

ASSE 1058
Chemical Dispensing Systems

ASSE 1059
Spill Resistant Vacuum Breaker Assemblies

ASSE 1060
Outdoor Enclosures for Backflow Prevention Assemblies

ASSE 1061
Push-Fit Fittings

ASSE 1062
Temperature Actuated, Flow Reduction (TAFR) Valves for Individual Fixture Fittings

ASSE 1066
Individual Pressure Balancing In-Line Valves for Individual Fixture Fittings

ASSE 1069
Automatic Temperature Control Mixing Valves

ASSE 1070
Water Temperature Limiting Devices

ASSE 1079
Dielectric Pipe Unions

ASSE Series 5000
Cross-Connection Control Professional Qualifications

ASSE Series 6000
Professional Qualifications Standard for Medical Gas Systems Personnel

ASTM A47 / A47M
Ferritic Malleable Iron Castings

ASTM A48 / A48M
Gray Iron Castings

ASTM A53 / A53M
Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded, and Seamless

ASTM A74
Cast Iron Soil Pipe and Fittings

ASTM A126
Gray Iron Castings for Valves, Flanges, and Pipe Fittings

ASTM A197
Cupola Malleable Iron

ASTM A269
Seamless and Welded Austenitic Stainless Steel Tubing for General Service

ASTM A312 / A312M
Seamless, Welded and Heavy Cold Worked Austenitic Stainless Steel Pipes

ASTM A377
Ductile-Iron Pressure Pipe

ASTM A479 / A479M
Stainless Steel Bars and Shapes for Use in Boilers and Other Pressure Vessels

ASTM A518 / A518M
Corrosion-Resistant High-Silicon Iron Castings

ASTM A536
Ductile Iron Castings

ASTM A635 / A653M
Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

ASTM A733
Welded and Seamless Carbon Steel and Austenitic Stainless Steel Pipe Nipples

ASTM A861
High-Silicon Iron Pipe and Fittings

ASTM A888
Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

ASTM B29
Refined Lead

ASTM B32
Solder Metal

ASTM B42
Seamless Copper Pipe, Standard Sizes

ASTM B43
Seamless Red Brass Pipe, Standard Sizes

ASTM B75 / B75M
Seamless Copper Tube

ASTM B88
Seamless Copper Water Tube

ASTM B135
Seamless Brass Tube

ASTM B152 / B152M
Copper Sheet, Strip, Plate, and Rolled Bar

ASTM B187 / B187M
Copper Bar, Bus Bar, Rod and Shapes and General Purpose Rod, Bar and Shapes

ASTM B251
General Requirements for Wrought Seamless Copper and Copper-Alloy Tube

ASTM B280
Seamless Copper Tube for Air Conditioning and Refrigeration Field Service

ASTM B302
Threadless Copper Pipe, Standard Sizes

ASTM B306
Copper Drainage Tube (DWV)

ASTM B370
Copper Sheet and Strip for Building Construction

ASTM B447
Welded Copper Tube

ASTM B584
Copper Alloy Sand Casting for General Applications

ASTM B587
Welded Brass Tube

ASTM B687
Brass, Copper, and Chromium-Plated Pipe Nipples

ASTM B813
Liquid and Paste Fluxes for Soldering Applications of Copper and Copper Alloy Tube

ASTM B819
Seamless Copper Tube for Medical Gas Systems
ASTM B828  
Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings

ASTM C14  
Nonreinforced Concrete Sewer, Storm Drain, and Culvert Pipe

ASTM C412  
Concrete Drain Tile

ASTM C425  
Compression Joints for Vitrified Clay Pipe and Fittings

ASTM C443  
Joints for Concrete Pipe and Manholes, Using Rubber Gaskets

ASTM C478  
Precast Reinforced Concrete Manhole Sections

ASTM C564  
Rubber Gaskets for Cast Iron Soil Pipe and Fittings

ASTM C700  
Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated

ASTM C1053  
Borosilicate Glass Pipe and Fittings for Drain, Waste, and Vent (DWV)

ASTM C1173  
Flexible Transition Couplings for Underground Piping Systems

ASTM C1227  
Precast Concrete Septic Tanks

ASTM C1277  
Shielded Couplings Joining Hubless Cast Iron Soil Pipe & Fittings

ASTM C1440  
Thermoplastic Elastomeric (TPE) Gasket Materials for Drain, Waste, and Vent (DWV), Sewer, Sanitary and Storm Plumbing Systems

ASTM C1460  
Shielded Transition Couplings for Use with Dissimilar DWV Pipe and Fittings Above Ground

ASTM C1461  
Mechanical Couplings Using Thermoplastic Elastomeric (TPE) Gaskets for Joining Drain, Waste, and Vent (DWV); Sewer; Sanitary; and Storm Plumbing Systems for Above and Below Ground Use

ASTM C1540  
Heavy Duty Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings

ASTM D1784  
Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds

ASTM D1785  
Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120

ASTM D2235  
Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings

ASTM D2239  
Polyethylene (PE) Plastic Pipe, (SIDR-PR) Based on Controlled Inside Diameter

ASTM D2241  
Poly (Vinyl Chloride) (PVC) Pressure-Rated pipe (SDR Series)

ASTM D2321  
Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications

ASTM D2464  
Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80

ASTM D2466  
Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40

ASTM D2467  
Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80

ASTM D2513  
Polyethylene (PE) Gas Pressure Pipe Tubing and Fittings

ASTM D2517  
Reinforced Epoxy Resin Gas Pressure Pipe and Fittings

ASTM D2564  
Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems

ASTM D2609  
Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe

ASTM D2657  
Heat Fusion Joining of Polyolefin Pipe Fittings

ASTM D2665  
Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings

ASTM D2672  
Joints for IPS PVC Pipe Using Solvent Cement

ASTM D2680  
Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Composite Sewer Piping

ASTM D2683  
Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing

ASTM D2729  
Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings

ASTM D2737  
Polyethylene (PE) Plastic Tubing

ASTM D2751  
Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings

ASTM D2774  
Underground Installation of Thermoplastic Pressure Piping

ASTM D2855  
Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings

ASTM D2996  
Filament-Wound "Fiberglass" (Glass-Fiber- Reinforced Thermosetting Resin) Pipe

ASTM D3034  
Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings

ASTM D3035  
Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter
ASTM D3122
Solvent Cements for Styrene-Rubber (SR) Plastic Pipe and Fittings

ASTM D3138
Solvent Cements for Transition Joints Between Acrylonitrile-Butadiene- Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Non-Pressure Piping Components

ASTM D3139
Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals

ASTM D3212
Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals

ASTM D3261
Butt Heat Fusion Polyethylene (PE) Plastic Fitting for Polyethylene (PE) Plastic Pipe and Tubing

ASTM D3311
Drain, Waste, and Vent (DWV) Plastic Fittings Patterns

ASTM D3965
Rigid Acrylonitrile-Butadiene-Styrene (ABS) Materials for Pipe and Fittings

ASTM D4068
Chlorinated Polyethylene (CPE) Sheeting for Concealed Water-Containment Membrane

ASTM D4101
Polypropylene Injection and Extrusion Materials

ASTM D4551
Poly (Vinyl Chloride) (PVC) Plastic Flexible Concealed Water-Containment Membrane

ASTM D6104
Determining the Performance of Oil/Water Separators Subjected to Surface Run-Off

ASTM E84
Surface Burning Characteristics of Building Materials

ASTM E 19
Fire Tests of Building Construction and Materials

ASTM E814
Fire Tests of Penetration Fire Stops

ASTM F402
Safe Handling of Solvent Cements, Primers, and Cleaners Used for Joining Thermoplastic Pipe and Fittings

ASTM F405
Corrugated Polyethylene (PE) Pipe and Fittings

ASTM F409
Thermoplastic Accessible and Replaceable Plastic Tube and Tubular Fittings

ASTM F437
Threaded Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80

ASTM F438
Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40

ASTM F439
Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80

ASTM F446
Grab Bars and Accessories Installed in the Bathing Area

ASTM F480
Thermoplastic Well Casing Pipe andCouplings Made in Standard Dimension Ratios (SDR), Schedule 40 and Schedule 80

ASTM F493
Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings

ASTM F628
Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe with a Cellular Core

ASTM F656
Primers for Use in Solvent Cement Joints of Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings

ASTM F667
3 through 24 in. Corrugated Polyethylene Pipe and Fittings

ASTM F714
Polyethylene (PE) Plastic Pipe (DR-PR) Based on Outside Diameter

ASTM F794
Poly (Vinyl Chloride) (PVC) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter

ASTM F810
Smoothwall Polyethylene (PE) Pipe for Use in Drainage and Waste Disposal Absorption Fields

ASTM F891
Coextruded Poly (Vinyl Chloride) (PVC) Plastic Pipe with a Cellular Core

ASTM F894
Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe

ASTM F949
Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe with a Smooth Interior and Fittings

ASTM F1055
Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene and Crosslinked Polyethylene (PEX) Pipe and Fittings

ASTM F1216
Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube

ASTM F1336
Poly (Vinyl Chloride) (PVC) Gasketed Sewer Fittings

ASTM F1412
Polyolefin Pipe and Fittings for Corrosive Waste Drainage Systems

ASTM F1476
Performance of Gasketed Mechanical Couplings for Use in Piping Applications

ASTM F1488
Coextruded Composite Pipe

ASTM F1499
Coextrude Composite Drain, Waste, and Vent Pipe (DWV)

ASTM F1673
Polyvinylidene Fluoride (PVDF) Corrosive Waste Drainage Systems

ASTM F1743
Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in Place Thermosetting Resin Pipe (CIPP)
ASTM F1807
Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Crosslinked Polyethylene of Raised Temperature (PE-RT) Tubing

ASTM F1866
Poly (Vinyl Chloride) (PVC) Plastic Schedule 40 Drainage and DWV Fabricated Fittings

ASTM F1924
Plastic Mechanical Fitting for Use on Outside Diameter Controlled Polyethylene Gas Distribution Pipe and Tubing

ASTM F1948
Metallic Mechanical Fittings for Use on Outside Diameter Controlled Thermoplastic Gas Distribution Pipe and Tubing

ASTM F1960
Cold Expansion Fittings with PEX Reinforcing Rings for Use with Cross-linked Polyethylene (PEX) Tubing

ASTM F1961
Metal Mechanical Cold flare Compression Fittings with Disc Springs for Cross-linked Polyethylene (PEX) Tubing

ASTM F1970
Special Engineered Fittings or Appurtenances or Valves for Use in Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Systems

ASTM F1973
Factory Assembled Anodeless Riser and Transition Fittings in Polyethylene (PE) and Polyamide 12 (PA12) Fuel Gas Distribution Systems

ASTM F1974
Metal Insert Fittings for Polyethylene/Aluminum/Polyethylene and Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Composite Pressure Pipe

ASTM F1986
Multilayer Pipe Type 2, Compression Fittings, and Compression Joints for Hot and Cold Drinking-Water Systems

ASTM F2080
Cold-Expansion Fittings With Metal Compression-Sleeves for Cross-linked Polyethylene (PEX) Pipe

ASTM F2098
Stainless Steel Clamps for Securing SDR9 Cross-linked Polyethylene (PEX) Tubing to Metal Insert and Plastic Insert Fittings

ASTM F2159
Plastic Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raise Temperature (PE-RT) Tubing

ASTM F2165
Flexible Pre-Insulated Piping

ASTM F2434
Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (PE-AL-PEX) Tubing

ASTM F2509
Field-Assembled Anodeless Riser Kits for Use on Outside Diameter Controlled Polyethylene Gas Distribution Pipe and Tubing

ASTM F2831
Internal Non Structural Epoxy Barrier Coating Material Used in Rehabilitation of Metallic Pressurized Piping Systems

AWS A5.8
Filler Metals for Brazing and Braze Welding

AWS B2.2/ B2.2M
Brazing Procedure and Performance Qualification

AWS B2.4
Welding Procedure and Performance Qualification for Thermoplastics

AWWA C110
Ductile-Iron and Gray-Iron Fittings

AWWA C111
Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings

AWWA C151
Ductile-Iron Pipe, Centrifugally Cast

AWWA C153
Ductile-Iron Compact Fittings

AWWA C203
Coal-Tar Protective Coatings and Linings for Steel Water Pipelines - Enamel and Tape – Hot Applied

AWWA C213
Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines

AWWA C215
Extruded Polyolefin Coatings for the Exterior of Steel Water Pipelines

AWWA C500
Metal-Seated Service Gate Valves for Water Supply Service

AWWA C504
Rubber Seated Butterfly Valves, 3in. (75mm) through 72 in. (1800mm)

AWWA C507
Ball Valves, 6 in. through 60 in. (150 mm through 1,500 mm)

AWWA C510
Double Check Valve Backflow Prevention Assembly

AWWA C511
Reduced-Pressure Principle Backflow Prevention Assembly

AWWA C606
Grooved and Shouldered Joints

AWWA C900
Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings 4 in. through 12 in. (100 mm through 300 mm), for Water Transmission and Distribution

AWWA C901
Polyethylene (PE) Pressure Pipe and Tubing, 1/2 in. (13 mm) through 3 in. (76 mm), for Water Service

AWWA C907
Injection-Molded Polyvinyl Chloride (PVC) Pressure Fittings 4 in. through 12 in. (100mm through 300mm), for Water, Wastewater, and Reclaimed Water Service

CGA S-1.3
Pressure Relief Device Standards-Part 3-Stationary Storage Containers for Compressed Gases
CGA V-1
Compressed Gas Cylinder Valve Outlet and Inlet Connections

CISPI 301
Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

CISPI 310
Couplings for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

CISA A257
Concrete Pipe and Manhole Sections

CSA B45.0
General Requirements for Plumbing Fixtures

CSA B45.5 / IAPMO Z124
Plastic Plumbing Fixtures

CSA B45.11 / IAPMO Z401
Glass Plumbing Fixtures

CSA B64
Backflow Preventers and Vacuum Breakers

CSA B64.1.1
Atmospheric Vacuum Breakers (AVB)

CSA B64.1.2
Pressure Vacuum Breakers (PVB)

CSA B64.2
Hose Connection Vacuum Breakers (HCVB)

CSA B64.2.1.1
Hose Connection Dual Check Type (HCDVB)

CSA B64.4
Reduced Pressure Principle (RP) Backflow Preventers

CSA B64.4.1
Reduced Pressure Principle Backflow Preventers for Fire Protection Systems (RPF)

CSA B64.5
Double Check Valve (DVCA) Backflow Preventers

CSA B64.5.1
Double Check Valve Backflow Preventers for Fire Protection Systems (DVCAF)

CSA B64.7
Laboratory Faucet Vacuum Breakers (LFVB)

CSA B79
Commercial and Residential Drains and Cleanouts

CSA B125.3
Plumbing Fittings

CSA B128.1 / CSA B128.2
Design and Installation of Non-Potable Water Systems/Maintenance and Field Testing of Non-Potable Water Systems

CSA B137.1
Polyethylene (PE) Pipe, Tubing, and Fittings for Cold-Water Pressure Services

CSA B181.3
Polyolefin and Polyvinylidene Fluoride (PVDF) Laboratory Drainage Systems

CSA B242
Groove- and Shoulder- Type Mechanical Pipe Couplings

CSA B356
Water Pressure Reducing Valves for Domestic Water Supply Systems

CSA G401
Corrugated Steel Pipe Products

CSA LC 1b
Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST) (same as CSA 6.26b)

CSA LC 3
Appliance Stands and Drain Pans

CSA LC 4a
Press-Connect Metallic Fittings for Use in Fuel Gas Distribution Systems (same as CSA 6.32a)

CSA Z21.10.1
Gas Water Heaters – Volume I, Storage Water Heaters with Input Ratings of 75,000 Btu per Hour or Less (same as CSA 4.1)

CSA Z21.10.3
Gas Water Heaters – Volume III, Storage, with Input Ratings Above 75,000 Btu per Hour, Circulating and Instantaneous (same as CSA 4.3)

CSA Z21.12b
Draft Hoods

CSA Z21.13
Gas-Fired Low Pressure Steam and Hot Water Boilers (same as CSA 4.9)

CSA Z21.15b
Manually Operated Gas Valves for Appliances, Appliance Connector Valves, and Hose End Valves (same as CSA 9.1b)

CSA Z21.22b
Relief Valves for Hot Water Supply Systems (same as CSA 4.4b)

CSA Z21.24b
Connectors for Gas Appliances (same as CSA 6.10a)

CSA Z21.40.1a
Gas-Fired, Heat Activated Air-Conditioning and Heat Pump Appliances (same as CSA 2.91b)

CSA Z21.41
Quick-Disconnect Devices for Use with Gas Fuel Appliances (same as CSA 6.9)

CSA Z21.47
Gas-Fired Central Furnaces (same as CSA 2.3)

CSA Z21.56
Gas-Fired Pool Heaters (same as CSA 4.7)

CSA Z21.69a
Connectors for Movable Gas Appliances (same as CSA 6.16a)

CSA Z21.80a
Line Pressure Regulators (same as CSA 6.22a)

CSA Z21.81a
Cylinder Connection Devices (same as CSA 6.25a)

CSA Z21.86
Vented Gas-Fired Space-Heating Appliances (same as CSA 2.32)

CSA Z83.11b
Gas Food Service Equipment (same as CSA 1.8b)

CSA Z317.1
Special Requirements for Plumbing Installations in Health Care Facilities

IAPMO IGC 154
Shower and Tub/Shower Enclosures and Shower Panels
IAPMO IGC 157  
Ball Valves

IAPMO IGC 193  
Safety Plates, Plate Straps, Notched Plates and Safety Collars

IAPMO IGC 226  
Drinking Water Fountains With or Without Chiller or Heater

IAPMO PS 23  
Dishwasher Drain Airgaps

IAPMO PS 25  
Metallic Fittings for Joining Polyethylene Pipe For Water Service and Yard Piping

IAPMO PS 34  
Encasement Sleeve for Potable Water Pipe and Tubing

IAPMO PS 36  
Lead Free Sealing Compounds for Threaded Joints

IAPMO PS 37  
Black Plastic PVC or PE Pressure-Sensitive Corrosion Preventive Tape

IAPMO PS 42  
Pipe Alignment and Secondary Support Systems

IAPMO PS 50  
Flush Valves with Dual Flush Devices For Water Closets or Water Closet Tank with an Integral Flush Valves with a Dual Flush Device

IAPMO PS 51  
Expansion Joints for DWV Piping Systems

IAPMO PS 52  
Pump/Dose, Sumps and Sewage Ejector Tanks with or without a Pump

IAPMO PS 53  
Grooved Mechanical Pipe Couplings and Grooved Fittings

IAPMO PS 54  
Metallic and Plastic Utility Boxes

IAPMO PS 57  
PVC Hydraulically Actuated Diaphragm Type Water Control Valves

IAPMO PS 59  
Wastewater Diverter Valves and Diversion Systems

IAPMO PS 60  
Sewage Holding Tank Containing Sewage Ejector Pump for Direct Mounted Water Closet

IAPMO PS 63  
Plastic Leaching Chambers

IAPMO PS 64  
Roof Pipe Flashings

IAPMO PS 65  
Airgap Units for Water Conditioning Equipment Installation

IAPMO PS 66  
Dielectric Waterway Fittings

IAPMO PS 67  
Early-Closure Replacement Flappers or Early-Closure Replacement Flapper With Mechanical Assemblies

IAPMO PS 69  
Bathwaste and Overflow Assemblies with Tub Filler Spout

IAPMO PS 72  
Valves with Atmospheric Vacuum Breakers

IAPMO PS 73  
Dental Vacuum Pumps

IAPMO PS 76  
Trap Primers for Fill Valves and Flushometer Valves

IAPMO PS 79  
Multiport Electronic Trap Primer

IAPMO PS 80  
Clarifiers

IAPMO PS 81  
Precast Concrete Seepage Pit Liners and Covers

IAPMO PS 82  
Fiberglass (Glass Fiber Reinforced Thermosetting Resin) Fittings

IAPMO PS 85  
Tools for Mechanically Formed Tee Connections in Copper Tubing

IAPMO PS 86  
Rainwater Diverter Valve for Non-Roofed Area Slabs

IAPMO PS 87  
Diverter and Shutoff Valves for Pool/Spas

IAPMO PS 89  
Soaking and Hydrotherapy (Whirlpool) Bathtubs with Hydraulic Seatlift

IAPMO PS 90  
Elastomeric Test Caps, Cleanout Caps, and Combination Test Caps/Shielded Couplings

IAPMO PS 91  
Plastic Stabilizers for Use with Plastic Closet Bends

IAPMO PS 92  
Heat Exchangers and Indirect Water Heaters

IAPMO PS 94  
Insulated Protectors for P-Traps, Supply Stops and Risers

IAPMO PS 95  
Drain, Waste, and Vent Hangers and Plastic Pipe Support Hooks

IAPMO PS 96  
Passive Direct Solar Water Heaters

IAPMO PS 98  
Prefabricated Fiberglass Church Baptisteries

IAPMO PS 100  
Porous Filter Protector for Sub-Drain Weep Holes

IAPMO PS 101  
Suction Relief Valves

IAPMO PS 104  
Pressure Relief Connection for Dispensing Equipment

IAPMO PS 105  
Polyethylene Distribution Boxes

IAPMO PS 106  
Tileable Shower Receptors and Shower Kits

IAPMO PS 107  
Aramid Reinforced Rubber Hose for Use in Non-Potable Water Radiant Heating and Snowmelting

IAPMO PS 108  
Restaurant Fire Suppression Systems

IAPMO PS 110  
PVC Cold Water Compression Fittings
IAPMO PS 111
PVC Cold Water Gripper Fittings

IAPMO PS 112
PVC Plastic Valves for Cold Water Distribution Systems Outside a Building and CPVC Plastic Valves for Hot and Cold Water Distribution Systems

IAPMO PS 113
Hydraulically Powered Household Food Waster Disposers

IAPMO PS 114
Remote, Floor Box Industrial Water Supply, Air Supply, Drainage

IAPMO PS 115
Hot Water On-Demand or Automatic Activated Hot Water Pumping Systems

IAPMO PS 116
Hot Water Circulating Devices Which Do Not Use a Pump

IAPMO PS 117
Press and Nail Connections

IAPMO PS 119
Water-Powered Sump Pumps

IAPMO Z124.5
Plastic Toilet Seats

IAPMO Z124.7
Prefabricated Plastic Spa Shells

IAPMO Z124.8
Plastic Liners for Bathtubs and Shower Receptors

IAPMO Z403
Terrazzo, Concrete, and Natural Stone Plumbing Fixtures (supersedes IAPMO PS 99)

IAPMO Z1000
Prefabricated Septic Tanks

IAPMO Z1001
Prefabricated Gravity Grease Interceptors

IAPMO Z1033
Flexible PVC Hose for Pools, Hot Tubs, Spas and Jetted Bathtub (supersedes IAPMO PS 33)

IAPMO Z1088
Pre-Pressurized Potable Water Tanks (supersedes IAPMO PS 88)

ICC A117.1
Accessible and Usable Buildings and Facilities

ISEA Z358.1
Emergency Eyewash and Shower Equipment

MSS SP-25
Marking System for Valves, Fittings, Flanges, and Unions

MSS SP-42
Corrosion-Resistant Gate, Globe, Angle, and Check Valves with Flanged and Butt Weld Ends (Classes 150, 300, & 600)

MSS SP-44
Steel Pipeline Flanges

MSS SP-58
Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application, and Installation

MSS SP-67
Butterfly Valves

MSS SP-70
Gray Iron Gate Valves, Flanged and Threaded Ends

MSS SP-71
Gray Iron Swing Check Valves, Flanged and Threaded Ends

MSS SP-72
Ball Valves with Flanged or Butt-Welding Ends for General Service

MSS SP-78
Gray Iron Plug Valves, Flanged and Threaded Ends

MSS SP-80
Bronze Gate, Globe, Angle, and Check Valves

MSS SP-83
Class 3000 Steel Pipe Unions Socket Welding and Threaded

MSS SP-104
Wrought Copper Solder Joint Pressure Fittings

MSS SP-106
Cast Copper Alloy Flanges and Flanged Fittings: Class 125, 150, and 300

MSS SP-109
Weld-Fabricated Copper Solder-Joint Pressure Fittings

MSS SP-123
Non-Ferrous Threaded and Solder-Joint Unions for Use with Copper Water Tube

NSF 2
Food Equipment

NSF 3
Commercial Warewashing Equipment

NSF 4
Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transport Equipment

NSF 5
Water Heaters, Hot Water Supply Boilers, and Heat Recovery Equipment

NSF 12
Automatic Ice Making Equipment

NSF 14
Plastic Piping System Components and Related Materials

NSF 18
Manual Food and Beverage Dispensing Equipment

NSF 29
Detergent and Chemical Feeders for Commercial Spray-Type Dishwashing Machines

NSF 40
Residential Wastewater Treatment Systems

NSF 41
Non-Liquid Saturated Treatment Systems

NSF 42
Drinking Water Treatment Units–Aesthetic Effects

NSF 44
Residential Cation Exchange Water Softeners

NSF 46
Evaluation of Components and Devices Used in Wastewater Treatment Systems

NSF 53
Drinking Water Treatment Units–Health Effects
NSF 55  
Ultraviolet Microbiological Water Treatment Systems

NSF 58  
Reverse Osmosis Drinking Water Treatment Systems

NSF 61  
Drinking Water System Components—Health Effects

NSF 62  
Drinking Water Distillation Systems

NSF 169  
Special Purpose Food Equipment and Devices

PDI G-101  
Testing and Rating Procedure for Hydro Mechanical Grease Interceptors with Appendix of Installation and Maintenance

PDI-WH 201  
Water Hammer Arresters

PSAI Z4.1  
For Sanitation - In Places of Employment - Minimum Requirements

SAE J 512  
Automotive Tube Fittings

SAE J1670  
Type "F" Clamps for Plumbing Applications

TCNA A118.10  
Load, Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installations

TCNA A137.1  
Specification for Ceramic Tile

UL 70  
Septic Tanks, Bituminous-Coated Metal

UL 80  
Steel Tanks for Oil-Burner Fuels and Other Combustible Liquids

UL 103  
Factory-Built Chimneys for Residential Type and Building Heating Appliances

UL 125  
Flow Control Valves for Anhydrous Ammonia and LP-Gas

UL 132  
Safety Relief Valves for Anhydrous Ammonia and LP-Gas

UL 144  
LP-Gas Regulators

UL 174  
Household Electric Storage Tank Water Heaters

UL 252  
Compressed Gas Regulators

UL 263  
Fire Tests of Building Construction and Materials

UL 296  
Oil Burners

UL 343  
Pumps for Oil-Burning Appliances

UL 378  
Draft Equipment

UL 399  
Drinking Water Coolers

UL 404  
Gauges, Indicating Pressure, for Compressed Gas Service

UL 429  
Electrically Operated Valves

UL 430  
Waste Disposers

UL 441  
Gas Vents

UL 443  
Steel Auxiliary Tanks for Oil-Burner Fuel

UL 499  
Electric Heating Appliances

UL 536  
Flexible Metallic Hose

UL 563  
Ice Makers

UL 565  
Liquid-Level Gauges and Indicators for Anhydrous Ammonia and LP-Gas

UL 569  
Pigtails and Flexible Hose Connectors for LP Gas

UL 723  
Test for Surface Burning Characteristics of Building Materials

UL 726  
Oil-Fired Boiler Assemblies

UL 732  
Oil-Fired Storage Tank Water Heaters

UL 749  
Household Dishwashers

UL 778  
Motor-Operated Water Pumps

UL 834  
Heating, Water Supply, and Power Boilers—Electric

UL 921  
Commercial Dishwashers

UL 959  
Medium Heat Appliance Factory-Built Chimneys

UL 1081  
Swimming Pool Pumps, Filters, and Chlorinators

UL 1206  
Electric Commercial Clothes-Washing Equipment

UL 1261  
Electric Water Heaters for Pools and Tubs

UL 1331  
Station Inlets and Outlets

UL 1453  
Electric Booster and Commercial Storage Tank Water Heaters

UL 1469  
Strength of Body and Hydraulic Pressure Loss Testing of Backflow Special Check Valves

UL 1479  
Fire Tests of Through-Penetration Firestops

UL 1951  
Electric Plumbing Accessories
Certification Marks:

**UL 2157**
Electric Clothes Washing Machines and Extractors

**WQA S-300**
Point-of-Use Low Pressure Reverse Osmosis Drinking Water Systems

This mark indicates that the product is listed under the Evaluation Service (ES) Program, and a technical evaluation for code compliance has been performed on the product, and the product has been found to comply with applicable codes and standards indicated in the report.

This mark indicates that the product is listed under the PMG Listing Program, which certifies products in the areas of plumbing, mechanical and fuel gas. While most listing programs only verify that products adhere to standards, the ICC-ES program provides comprehensive coverage of both codes and standards.

This mark indicates that the product is listed under the PMG Listing Program, which certifies products in the areas of plumbing, mechanical and fuel gas, and meets the requirements of the Uniform Solar Energy Code (USEC).

This mark indicates that the product is listed under the PMG Listing Program, which certifies products in the areas of plumbing, mechanical and fuel gas, and meets the low-lead requirements for drinking water system components.

This mark indicates that the product is listed under the PMG Listing Program, which certifies products in the areas of plumbing, mechanical and fuel gas, and meets the Uniform Solar Energy Code (USEC).
5. Intertek Testing Services NA, Inc.

(Main Lab)
545 E. Algonquin Road
Arlington Heights, IL 60065
Phone: (847) 439-5667

(Branch Lab)
16015 Shady Falls Road
Elmendorf, TX 78112-9784
Phone: (210) 635-8100

(Branch Lab)
1500 Brigantine Drive
Coquitlam, BC V3K 7C1, Canada
Phone: (604) 520-3321

(Branch Lab)
8431 Murphy Drive
Middleton, WI 53562
Phone: (604) 529-3321

(Branch Lab)
25791 Commercentre Drive
Lake Forest, CA 92630
Phone: (714) 448-4100

(Branch Lab)
3933 US Route 11
Cortland, NY 13045
Phone: (607) 753-6711

Expiration: June 1, 2020

This agency branch is approved for listing of plumbing and mechanical products to meet the referenced standards listed below as found in the City of Los Angeles Plumbing and Mechanical Codes, 2017 Edition:

This agency branch is also approved for listing of plumbing products to meet the lead-free requirements of Section 116875 of the California Health and Safety Code.

Plumbing Standards:

AHAM FDW-1
Food Waste Disposers

ASME A112.18.1
Plumbing Supply Fittings

ASME A112.19.1/CSA B45.2
Enamelled Cast Iron and Enamelled Steel Plumbing Fixtures

ASME A112.19.2/CSA B45.1
Ceramic Plumbing Fixtures

ASME A112.19.3/CSA B45.4
Stainless Steel Plumbing Fixtures

ASME A112.19.5/CSA B45.15
Flush Valves and Spuds for Water Closets, Urinals, and Tanks

ASME A112.19.7/CSA B45.10
Hydromassage Bathtub Systems

ASME A112.19.10
Dual Flush Devices for Water Closets

ASME A112.19.15
Bathtubs/Whirlpool Bathtubs with Pressure Sealed Doors

ASME B16.18
Cast Copper Alloy Solder Joint Pressure Fittings

ASME B116.18
Cast Copper Alloy Solder Joint Pressure Fittings

ASME B121.2
Backflow Preventers

ASME B121.5
Self-Sealing Devices

ASME B121.7
Audible Alarm Valves

ASME B121.8
Readjustable Backflow Preventers

ASME B121.9
Backflow Preventers for Vertical Mains

ASME B121.10
Backflow Prevention Devices for Hand-Held Shower

ASME B121.11
Backflow Prevention Devices for Individual Showers

ASME B121.12
Backflow Prevention Devices for Individual Showers and Tub/Shower Combinations

ASTM A74
Cast Iron Soil Pipe and Fittings

ASTM A197/A197M
Cupola Malleable Iron

ASTM B42
Seamless Copper Pipe, Standard Sizes

ASTM B43
Seamless Red Brass Pipe, Standard Sizes

ASTM B75/B75M
Seamless Copper Tube

ASTM B88
Seamless Copper Water Tube

ASTM B135
Seamless Brass Tube

ASTM B302
Threadless Copper Pipe, Standard Sizes

ASTM B306
Copper Drainage Tube (DWV)

ASTM C14
Nonreinforced Concrete Sewer, Storm Drain, and Culvert Pipe

ASTM C425
Compression Joints for Vitrified Clay Pipe and Fittings
ASTM C443
Joints for Concrete Pipe and Manholes, Using Rubber Gaskets

ASTM C564
Rubber Gaskets for Cast Iron Soil Pipe and Fittings

ASTM C700
Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated

ASTM C1173
Flexible Transition Couplings for Underground Piping Systems

ASTM D2235
Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Piping and Fittings

ASTM D2564
Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems

ASTM D2661
Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe and Fittings

ASTM D2665
Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings

ASTM D2680
Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Composite Sewer Piping

ASTM D2729
Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings

ASTM D2751
Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings

ASTM E84
Surface Burning Characteristics of Building Materials

ASTM E119
Fire Tests of Building Construction and Materials

ASTM E814
Fire Tests of Penetration Firestop Systems

ASTM F405
Corrugated Polyethylene (PE) Pipe and Fittings

ASTM F628
Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe with a Cellular Core

ASTM F891
Coextruded Poly (Vinyl Chloride) (PVC) Plastic Pipe with a Cellular Core

ASTM F949
Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe with a Smooth Interior and Fittings

BS EN 12975-1
Thermal Solar Systems and Components - Solar Collectors- Part 1: General Requirements

BS EN 12975-2
Thermal Solar Systems and Components - Solar Collectors- Part 2: Test Methods

BS EN 12976-1
Thermal Solar Systems and Components - Factory Made Systems- Part 1: General Requirements

BS EN 12976-2
Thermal Solar Systems and Components - Factory Made Systems- Part 2: Test Methods

CSA B45.0
General Requirements for Plumbing Fixtures

CSA B45.5/IAPMO Z124
Plastic Plumbing Fixtures

CSA B45.9/ASME 112.3.4
Plumbing Fixtures with Pumped Waste and Macerating Toilet Systems

CSA B45.11/IAPMO Z401
Glass Plumbing Fixtures

CSA B125.3
Plumbing Fittings

CSA Z21.10.1
Gas Water Heaters – Volume I – Storage Water Heaters with Input Ratings of 75,000 Btu per Hour or Less (same as CSA 4.1a)

CSA Z21.10.3
Gas Water Heaters-Volume III, Storage Water Heaters with Input Ratings Above 75 000 Btu per Hour, Circulating and Instantaneous (same as CSA 4.3b)

CSA Z21.12b
Draft Hoods

CSA Z21.13
Gas-Fired Low-Pressure Steam and Hot-Water Boilers (Same as CSA 4.9)

CSA Z21.15b
Manually Operated Gas Valves for Appliances, Appliance Connector Valves and Hose End Valves (same as CSA 9.1b)

CSA Z21.22b
Relief Valves for Hot Water Supply Systems (same as CSA 4.4b)

CSA Z21.24a
Connectors for Gas Appliances (same as CSA 6.10a)

CSA Z21.40.1a
Gas-Fired, Heat Activated Air Conditioning and Heat Pump Appliances (same as CSA 2.91a)

CSA Z21.41
Quick Disconnect Devices for Use with Gas Fuel Appliances (same as CSA 6.9)

CSA Z21.56
Gas-Fired Pool Heaters (same as CSA 4.7a)

CSA Z21.69a
Connectors for Moveable Gas Appliances (same as CSA 6.16a)

CSA Z21.80a
Line Pressure Regulators (same as CSA 6.22a)

CSA Z21.81a
Cylinder Connection Devices (same as CSA 6.25a)

IAPMO Z124.5
Plastic Toilet Seats

IAPMO Z124.7
Prefabricated Plastic Spa Shells

IAPMO Z124.8
Plastic Liners for Bathtubs and Shower Receptors

NSF 2
Food Equipment

NSF 3
Commercial Warewashing Equipment
NSF 4
Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transport Equipment

NSF 5
Water Heaters, Hot Water Supply Boilers, and Heat Recovery Equipment

NSF 12
Automatic Ice Making Equipment

NSF 14
Plastic Piping System Components and Related Materials

NSF 18
Manual Food and Beverage Dispensing Equipment

NSF 61
Drinking Water System Components - Health Effects

NSF 169
Special Purpose Food Equipment and Devices

PDI WH-201
Water Hammer Arresters

UL 103
Factory-Built Chimneys for Residential Type and Building Heating Appliances

UL 125
Flow Control Valves for Anhydrous Ammonia and LP-Gas

UL 132
Safety Relief Valves for Anhydrous Ammonia and LP-Gas

UL 144
LP-Gas Regulators

UL 174
Household Electric Storage Tank Water Heaters

UL 252
Compressed Gas Regulators

UL 263
Fire Tests of Building Construction and Materials

UL 296
Oil Burners

UL 343
Pumps for Oil-Burning Appliances

UL 378
Draft Equipment

UL 399
Drinking Water Coolers

UL 404
Gauges, Indicating Pressure for Compressed Gas Service

UL 429
Electrically Operated Valves

UL 430
Waste Disposers

UL 441
Gas Vents

UL 499
Electric Heating Appliances

UL 536
Flexible Metallic Hose

UL 563
Ice Makers

UL 565
Liquid-Level Gauges for Anhydrous Ammonia and LP-Gas

UL 569
Pigtails and Flexible Hose Connectors for LP-Gas

UL 723
Test for Surface Burning Characteristics of Building Materials

UL 726
Oil-Fired Boiler Assemblies

UL 732
Oil-Fired Storage Tank Water Heaters

UL 749
Household Dishwashers

UL 778
Motor Operated Water Pumps

UL 834
Heating, Water Supply, and Power Boilers-Electric

UL 921
Commercial Dishwashers

UL 959
Medium Heat Appliance Factory-Built Chimneys

UL 1081
Swimming Pool Pumps, Filters, and Chlorinators

UL 1206
Electric Commercial Clothes-Washing Equipment

UL 1261
Electric Water Heaters for Pools and Tubs

UL 1331
Station Inlets and Outlets

UL 1453
Electric Booster and Commercial Storage Tank Water Heaters

UL 1479
Fire Tests of Through-Penetration Firestops

UL 1951
Electric Plumbing Accessories

UL 2157
Electric Clothes Washing Machines and Extractors
Mechanical Standards:

ASME B 16.18
Cast Copper Alloy Solder Joint Pressure Fittings

ASTM B88
Seamless Copper Water Tube

ASTM B302
Threadless Copper Pipe, Standard Sizes

CGA 2.91a
Gas-Fired, Heat Activated Air Conditioning and Heat Pump Appliances (same as CSA Z21.40.1)

CSA Z21.1b
Household Cooking Gas Appliances

CSA Z21.5.1a
Gas Clothes Dryers-Volume I, Type 1 Clothes Dryers (same as CSA 7.1)

CSA Z21.5.2
Gas Clothes Dryers-Volume II, Type 2 Clothes Dryers (same as CSA 7.2)

CSA Z21.10.1
Gas Water Heaters- Volume I, Storage Water Heaters with Input Ratings of 75,000 Btu per Hour or Less (same as CSA 4.1)

CSA Z21.10.3
Gas-Fired Water Heaters-Volume III, Storage Water Heaters with Input Ratings Above 75,000 Btu per Hour, Circulating and Instantaneous (same as CSA 4.3)

CSA Z21.11.2
Gas-Fired Room Heaters, Volume II, Unvented Room Heaters

CSA Z21.12b
Draft Hoods

CSA Z21.13
Gas-Fired Low Pressure Steam and Hot Water Boilers (same as CSA 4.9)

CSA Z21.15b
Manually Operated Gas Valves for Appliances, Appliance Connector Valves and Hose End Valves (same as CSA 9.1b)

CSA Z21.17a
Domestic Gas Conversion Burners (same as CSA 2.7a)

CSA Z21.18b
Gas Appliance Pressure Regulators (same as CSA 6.3b)

CSA Z21.21
Automatic Valves for Gas Appliances (same as CSA 6.5)

CSA Z21.22b
Relief Valves for Hot Water Supply Systems (same as CSA 4.4b)

CSA Z21.23
Gas Appliances Thermostats

CSA Z21.24a
Connectors for Gas Appliances (same as CSA 6.10a)

CSA Z21.35a
Pilot Gas Filters (same as CSA 6.8a)

CSA Z21.41
Quick Disconnect Devices for Use with Gas Fuel Appliances (same as CSA 6.9)

CSA Z21.42
Gas-Fired Illuminating Appliances

CSA Z21.47
Gas-Fired Central Furnaces (same as CSA 2.3)

CSA Z21.50
Vented Gas Fireplaces (same as CSA 2.22)

CSA Z21.56
Gas-Fired Pool Heaters (same as CSA 4.7)

CSA Z21.58b
Outdoor Cooking Gas Appliances

CSA Z21.60
Decorative Gas Appliances for Installation in Solid-Fuel Burning Fireplaces

CSA Z21.69a
Connectors for Moveable Gas Appliances (same as CSA 6.16a)

CSA Z21.80a
Line Pressure Regulators (same as CSA 6.22a)

CSA Z21.86
Vented Gas-Fired Space Heating Appliances (same as CSA 2.32)

CSA Z21.88a
Vented Gas Fireplace Heaters (same as CSA 2.33)

CSA Z83.4
Non-Recirculating Direct Gas-Fired Industrial Air Heaters (same as CSA 3.7)

CSA Z83.7
Gas-Fired Construction Heaters (same as CSA 2.14)

CSA Z83.8
Gas Unit Heaters, Gas Package Heaters, Gas Utility Heaters and Gas-Fired Duct Furnaces (same as CSA 2.6)

CSA Z83.11b
Gas Food Service Equipment (same as CSA 1.8b)

CSA Z83.18
Recirculating Direct Gas-Fired Industrial Air Heaters

CSA Z83.19a
Gas-Fired High-Intensity Infrared Heaters (same as CSA 2.35a)

CSA Z83.20b
Gas-Fired Low-Intensity Infrared Heaters (same as CSA 2.34b)

UL 103
Factory-Built Chimneys for Residential Type and Building Heating Appliances

UL 125
Flow Control Valves for Anhydrous Ammonia and LP-Gas

UL 127
Factory-Built Fireplaces

UL 132
Safety Relief Valves for Anhydrous Ammonia and LP-Gas

UL 144
LP-Gas Regulators

UL 181
Factory-Made Air Ducts and Air Connectors

UL 197
Commercial Electric Cooking Appliances
UL 252
Compressed Gas Regulators

UL 268A
Smoke Detectors for Duct Applications

UL 296
Oil Burners

UL 300
Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment

UL 343
Pumps for Oil-Burning Appliances

UL 378
Draft Equipment

UL 391
Solid-Fuel and Combination-Fuel Central and Supplementary Furnaces

UL 399
Drinking Water Coolers

UL 404
Gauges, Indicating Pressure for Compressed Gas Service

UL 412
Refrigeration Unit Coolers

UL 429
Electrically Operated Valves

UL 441
Gas Vents

UL 471
Commercial Refrigerators and Freezers

UL 555
Fire Dampers

UL 565
Liquid-Level Gauges for Anhydrous Ammonia and LP-Gas

UL 569
Pigtails and Flexible Hose Connectors for LP-Gas

UL 710
Exhaust Hoods for Commercial Cooking Equipment

UL 723
Test for Surface Burning Characteristics of Building Materials

UL 726
Oil-Fired Boiler Assemblies

UL 727
Oil-Fired Central Furnaces

UL 729
Oil-Fired Floor Furnaces

UL 730
Oil-Fired Wall Furnaces

UL 731
Oil-Fired Unit Heaters

UL 732
Oil-Fired Storage Tank Water Heaters

UL 733
Oil-Fired Air Heaters and Direct-Fired Heaters

UL 737
Fireplace Stoves

UL 795
Commercial-Industrial Gas Heating Equipment

UL 834
Heating, Water Supply, and Power Boilers-Electric

UL 858
Household Electric Ranges

UL 867
Electrostatic Air Cleaners

UL 896
Oil-Burning Stoves

UL 900
Air Filter Units

UL 907
Fireplace Accessories

UL 921
Commercial Dishwashers

UL 959
Medium Heat Appliance Factory-Built Chimney

UL 984
Hermetic Refrigeration Motor-Compressors

UL 1026
Electric Household Cooking and Food Serving Appliances

UL 1046
Grease Filters for Exhaust Ducts

UL 1206
Electric Commercial Clothes-Washing Equipment

UL 1240
Electric Commercial Clothes-Drying Equipment

UL 1453
Electric Booster and Commercial Storage Tank Water Heaters

UL 1479
Fire Tests of Through-Penetration Firestops

UL 1482
Solid-Fuel Type Room Heaters

UL 1777
Chimney Liners

UL 1812
Ducted Heat Recovery Ventilators

UL 1815
Nonducted Heat Recovery Ventilators

UL 1963
Refrigerant Recovery/Recycling Equipment

UL 1978
Grease Ducts

UL 1995
Heating and Cooling Equipment

UL 2021
Fixed and Location-Dedicated Electric Room Heaters

UL 2157
Electric Clothes Washing Machines and Extractors

UL 2158
Electric Clothes Dryers

UL 2162
Commercial Wood-Fired Baking Ovens-Refractory Type
UL 2200
Stationary Engine Generator Assemblies

UL 2221
Tests of Fire Resistive Grease Duct Enclosure Assemblies
Certification Mark:

Indicates that the product was tested and has met the certification requirements for electrical, plumbing and/or mechanical products.

Indicates that the product was tested and has met the certification requirements for food service and pool/spa products.

Indicates that the product was tested and has met the certification and regional installation requirements for products.

Indicates that the product was tested and has met the certification requirements for the Uniform Plumbing Code.

Indicates that the product was tested and has met the certification requirements for electrical, plumbing and/or mechanical products.
6. LabTest Certification, Inc.

(Main Lab)  
205 – 8291 92nd Street  
Delta, British Columbia  
Canada V4G 0A4  
Phone: (604) 247 – 0444

(Branch Lab)  
3255 Pepper Lane, Suite 112  
Las Vegas, NV 89120  
USA, 89120  
Phone: (702) 269 - 0578

Expiration: August 1, 2020

This agency branch is approved for listing of plumbing and mechanical products to meet the referenced standards listed below as found in the City of Los Angeles Plumbing and Mechanical Codes, 2017 Edition:

Mechanical Standards:

- **CSA Z21.1b**  
  Gas-Fired Low Pressure Steam and Hot Water Boilers

- **CSA Z21.13**  
  Gas-Fired Low Pressure Steam and Hot Water Boilers (Same as CSA 4.9)

- **CSA Z21.50**  
  Vented Gas Fireplaces (Same as CSA 2.22)

- **CSA Z21.88**  
  Vented Gas Fireplace Heater (Same as CSA 2.33a)

- **CSA Z83.11b**  
  Gas Food Service Equipment (Same as CSA 1.8b)

- **UL 197**  
  Commercial Electric Cooking Equipment

Plumbing Standards:

- **ASME A112.3.4 / CSA B45.9**  
  Plumbing Fixtures with Pumped Waste and Macerating Toilet Systems

- **ASME A112.18.1 / CSA B125.1**  
  Plumbing Supply Fittings

- **ASME A112.18.2 / CSA B125.2**  
  Plumbing Waste Fittings

- **ASME A112.18.6 / CSA B125.6**  
  Flexible Water Connectors

- **ASME A112.19.1 / CSA B45.2**  
  Enamelled Cast Iron and Enamelled Steel Plumbing Fixtures

- **ASME A112.19.2 / CSA B45.1**  
  Ceramic Plumbing Fixtures

- **ASME A112.19.3 / CSA B 45.4**  
  Stainless Steel Plumbing Fixtures

- **ASME 112.19.5 / CSA B45.15**  
  Flush valves and Spuds for Water Closet, Urinals, and Tanks

- **ASME A112.19.7 / CSA B 45.10**  
  Hydromassage Bathtub System

- **ASME A112.1016/CSA B125.16**  
  Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations

- **CSA B45.5**  
  Plastic Plumbing Fixtures

- **UL 499**  
  Electric Heating Appliances

- **UL 1261**  
  Electric Water Heaters for Pools and Tubs

- **UL 1795**  
  Hydromassage Bathtubs
Certification Mark:

Indicates that the product was evaluated and has met the certification requirements for mechanical products.

Indicates that the product was field evaluated and has met the certification requirements for mechanical products.

Indicates that the product was certified for the United States and Canada.
7. NSF International

789 N. Dixboro Road
Ann Arbor, MI 48105
Phone: (734) 769-8010

Expiration: February 1, 2020

This agency branch is approved for listing of plumbing and mechanical products to meet the referenced standards listed below as found in the City of Los Angeles Plumbing and Mechanical Codes, 2017 Edition:

This agency is also approved for listing of plumbing products to meet the lead-free requirements of Section 116875 of the California Health and Safety Code.

Mechanical Standards:

ASME A112.18.6/CSA B125.6
Flexible Water Connectors

ASME B16.22
Wrought Copper and Copper Alloy Solder-Joint Pressure Fittings

ASME B16.51
Copper and Copper Alloy Press-Connect Pressure Fittings

ASSE 1013
Reduced Pressure Principle Backflow Preventers and Reduced Pressure Principle Fire Protection Backflow Preventers

ASSE 1017
Temperature Actuated Mixing Valves for Hot Water Distribution Systems

ASME B88
Seamless Copper Water Tube

ASTM B280
Seamless Copper Tube for Air Conditioning and Refrigeration Field Service

ASTM B306
Copper Drainage Tube (DWV)

ASTM D1785
Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120

ASTM D2241
Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)

ASTM D2464
Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80

ASTM D2466
Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40

ASTM D2467
Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80

ASTM D2513
Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings

ASTM D2564
Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems

ASTM D2609
Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe

ASTM D2663
Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing

ASTM D2737
Polyethylene (PE) Plastic Tubing

ASTM D3035
Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter

ASTM D3139
Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals

ASTM D3261
Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing

ASTM E84
Surface Burning Characteristics of Building Materials.

ASTM F437
Threaded Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80

ASTM F438
Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40

ASTM F439
Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80

ASTM F493
Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings

ASTM F656
Primers for Use in Solvent Cement Joints of Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings
ASTM F714
Polyethylene (PE) Plastic Pipe (SDR-PR)
Based on Outside Diameter

ASTM F1807
Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR 9 Polye

ASTM F1960
Cold Expansion Fittings with PEX Reinforcing Rings for Use with Cross-linked Polyethylene (PEX) Tubing

ASTM F1970
Special Engineered Fittings, Appurtenances or Valves for Use in Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Systems

ASTM F1974
Metal Insert Fittings for Polyethylene/Aluminum/Polyethylene and Crosslinked Polyethylene/Aluminum/ Crosslinked Polyethylene Composite Pressure Pipe

ASTM F2080
Cold-Expansion Fittings With Metal Compression-Sleeves for Cross-Linked Polyethylene (PEX) Pipe

ASTM F2098
Stainless Steel Clamps for Securing SDR9 Cross-linked Polyethylene (PEX) Tubing to Metal Insert and Plastic Insert Fittings

ASTM F2159
Plastic Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing

ASTM F2434
Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Cross-linked Polyethylene/Aluminum/ Cross-linked Polyethylene (PEX-AL-PEX) Tubing

AWWA C901
Polyethylene (PE) Pressure Pipe and Tubing, 1/2 in. (13 mm) Through 3 in. (76 mm), for Water Service

CSA B137.1
Polyethylene (PE) Pipe, Tubing, and Fittings for Cold-Water Pressure Services

CSA B137.3
Rigid Polyvinylchloride (PVC) Pipe and Fittings for Pressure Applications

CSA C448
Design and Installation of Earth-Energy Systems

IAPMO PS 117
Press and Nail Connections

NSF 358-1
Polyethylene Pipe and Fittings for Water-Based Ground-Source “Geothermal” Heat Pump Systems

NSF 358-2
Polypropylene Pipe and Fittings for Water-Based Ground-Source “Geothermal” Heat Pump Systems

Plumbing Standards:

ASME A112.1.2
Air Gaps in Plumbing Systems

ASME A112.1.3
Air Gap Fittings for Use with Plumbing Fixtures, Appliances, and Appurtenances

ASME A112.3.1
Stainless Steel Drainage Systems for Sanitary DWV, Storm, and Vacuum Applications, Above- and Below-Ground

ASME A112.3.4/CSA B45.9
Plumbing Fixtures with Pumped Waste and Macerating Toilet Systems

ASME A112.4.14
Manually Operated, Quarter-Turn Shutoff Valves for Use in Plumbing Systems

ASME A112.6.2
Framing-Affixed Supports for Off-the-Floor Water Closets with Concealed Tanks

ASME A112.6.3
Floor and Trench Drains

ASME A112.14.1
Backwater Valves

ASME A112.14.3
Grease Interceptors

ASME A112.14.4
Grease Removal Devices

ASME A112.18.1/CSA B125.1
Plumbing Supply Fittings

ASME A112.18.2/CSA B125.2
Plumbing Waste Fittings

ASME A112.18.3
Performance Requirements for Backflow Devices and Systems in Plumbing Fixture Fittings

ASME A112.18.6/CSA B125.6
Flexible Water Connectors

ASME A112.19.1/CSA B45.2
Enamelled Cast Iron and Enamelled Steel Plumbing Fixtures

ASME A112.19.2/CSA B45.1
Ceramic Plumbing Fixtures

ASME A112.19.3/CSA B45.4
Stainless Steel Plumbing Fixtures

ASME A112.19.5
Flush Valves and Spuds for Water Closets, Urinals, and Tanks

ASME A112.19.7/CSA B45.10
Hydromassage Bathtub Systems

ASME A112.19.10
Dual Flush Devices for Water Closets

ASME A112.21.3
Hydrants for Utility and Maintenance Use

ASME A112.36.2
Cleanouts
ASME B16.22
Wrought Copper and Copper Alloy Solder Joint Pressure Fittings

ASME B16.51
Copper and Copper Alloy Press-Connect Pressure Fittings

ASSE 1001
Atmospheric Type Vacuum Breakers

ASSE 1002
Anti-Siphon Fill Valves for Water Closet Tanks

ASSE 1003
Water Pressure Reducing Valves for Domestic Water Distribution Systems

ASSE 1004
Backflow Prevention Requirements for Commercial Dishwashing Machines

ASSE 1010
Water Hammer Arresters

ASSE 1013
Reduced Pressure Principle Backflow Preventers and Reduced Pressure Principle Fire Protection Backflow Preventers

ASSE 1015
Double Check Backflow Prevention Assemblies and Double Check Fire Protection Backflow Prevention Assemblies

ASSE 1016
Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations

ASSE 1017
Temperature Actuated Mixing Valves for Hot Water Distribution Systems

ASSE 1018
Trap Seal Primer Valves-Potable Water Supplied

ASSE 1019
Wall Hydrant with Backflow Protection and Freeze Resistance

ASSE 1020
Pressure Vacuum Breaker Assembly

ASSE 1022
Backflow Preventer for Beverage Dispensing Equipment

ASSE 1023
Hot Water Dispensers Household Storage Type-Electrical

ASSE 1024
Dual Check Backflow Preventers

ASSE 1032
Dual Check Valve Type Backflow Preventers for Carbonated Beverage Dispensers - Post Mix Type

ASSE 1035
Laboratory Faucet Backflow Preventers

ASSE 1037
Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures

ASSE 1047
Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies

ASSE 1048
Double Check Detector Fire Protection Backflow Prevention Assemblies

ASSE 1052
Hose Connection Backflow Preventers

ASSE 1056
Spill Resistant Vacuum Breaker Assemblies

ASSE 1061
Push-Fit Fittings

ASSE 1070
Water Temperature Limiting Devices

ASTM A74
Cast Iron Soil Pipe and Fittings

ASTM A536
Ductile Iron Castings

ASTM A888
Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

ASTM B88
Seamless Copper Water Tube

ASTM B280
Seamless Copper Tube for Air Conditioning and Refrigeration Field Service

ASTM B306
Copper Drainage Tube (DWV)

ASTM B819
Seamless Copper Tube for Medical Gas Systems

ASTM C1277
Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings

ASTM D1784
Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds

ASTM D1785
Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120

ASTM D2235
Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings

ASTM D2239
Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter

ASTM D2241
Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)

ASTM D2464
Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80

ASTM D2466
Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40

ASTM D2467
Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80

ASTM D2513
Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings

ASTM D2564
Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems

ASTM D2609
Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe

ASTM D2661
Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe and Fittings
ASTM D2665 Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and fittings

ASTM D2672 Joints for IPS PVC Pipe Using Solvent Cement

ASTM D2683 Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing

ASTM D2729 Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings

ASTM D2737 Polyethylene (PE) Plastic Tubing

ASTM D2751 Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings

ASTM D2996 Filament-Wound “Fiberglass” (Glass-Fiber Reinforced Thermosetting-Resin) Pipe

ASTM D3034 Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings

ASTM D3035 Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter

ASTM D3138 Solvent Cements for Transition Joints between Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Non-Pressure Pipe Components

ASTM D3139 Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals

ASTM D3212 Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals

ASTM D3261 Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing

ASTM D3311 Drain, Waste, and Vent (DWV) Plastic Fittings Patterns

ASTM D3965 Rigid Acrylonitrile-Butadiene-Styrene (ABS) Materials for Pipe and Fittings

ASTM D4101 Polypropylene Injection and Extrusion Materials

ASTM D4551 Poly (Vinyl Chloride) (PVC) Plastic Flexible Concealed Water-Containment Membrane

ASTM E84 Surface Burning Characteristics of Building Materials.

ASTM F409 Thermoplastic Accessible and Replaceable Plastic Tube and Tubular Fittings

ASTM F437 Threaded Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80

ASTM F438 Specification for Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40

ASTM F439 Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80

ASTM F480 Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), SCH 40 and SCH 80

ASTM F493 Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings

ASTM F628 Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe With a Cellular Core

ASTM F656 Primers for Use in Solvent Cement Joints of Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings

ASTM F667 3 through 24 in. Corrugated Polyethylene Pipe and Fittings

ASTM F714 Polyethylene (PE) Plastic Pipe (DR-PR) Based on Outside Diameter

ASTM F891 Coextruded Poly (Vinyl Chloride) (PVC) Plastic Pipe With a Cellular Core

ASTM F894 Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe

ASTM F949 Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe with a Smooth Interior and Fittings

ASTM F1216 Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube

ASTM F1336 Poly (Vinyl Chloride) (PVC) Gasketed Sewer Fittings

ASTM F1412 Polyolefin Pipe and Fittings for Corrosive Waste Drainage Systems

ASTM F1488 Coextruded Composite Pipe

ASTM F1673 Polyvinylidene Fluoride (PVDF) Corrosive Waste Drainage Systems

ASTM F1807 Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR 9 Polyethylene of Raised Temperature (PE-RT) Tubing

ASTM F1866 Poly (Vinyl Chloride) (PVC) Plastic Schedule 40 Drainage and DWV Fabricated Fittings

ASTM F1960 Cold Expansion Fittings with PEX Reinforcing Rings for Use with Cross-linked Polyethylene (PEX) Tubing
ASTM F1970
Special Engineered Fittings, Appurtenances or Valves for use in Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Systems

ASTM F1974
Metal Insert Fittings for Polyethylene/Aluminum/Polyethylene and Crosslinked Polyethylene/Aluminum/ Crosslinked Polyethylene Composite Pressure Pipe

ASTM F2080
Cold-Expansion Fittings With Metal Compression-Sleeves for Cross-Linked Polyethylene (PEX) Pipe

ASTM F2098
Stainless Steel Clamps for Securing SDR9 Cross-linked Polyethylene (PEX) Tubing to Metal Insert and Plastic Insert Fittings

ASTM F2159
Plastic Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing

AWWA C510
Double-Check Valve Backflow Prevention Assembly

AWWA C511
Reduced-Pressure Principle Backflow Prevention Assembly

AWWA C606
Grooved and Shouldered Joints

AWWA C900
Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 in. through 12 in. (100 mm Through 300 mm), for Water Transmission and Distribution

AWWA C901
Polyethylene (PE) Pressure Pipe and Tubing, 1/2 in. (13 mm) through 3 in. (76 mm), for Water Service

CISPI 301
Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

CISPI 310
Couplings for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

CSA B45.0
General Requirements for plumbing fixtures

CSA B45.5
Plastic Plumbing Fixtures

CSA B64
Backflow Preventers and Vacuum Breakers

CSA B79
Commercial and Residential Drains and Cleanouts

CSA B125.3
Plumbing Fittings

CSA B137.1
Polyethylene (PE) Pipe, Tubing, and Fittings for Cold-Water Pressure Services

CSA B181.3
Polyolefin and Polyvinylidene Fluoride (PVDF) Laboratory Drainage Systems

CSA B356
Water Pressure Reducing Valves for Domestic Water Supply Systems

CSA B481
Grease Interceptors

IAPMO IGC 157
Ball Valves

IAPMO PS 36
Lead-Free Sealing Compounds for Threaded Joints

IAPMO PS 65
Airgap Units For Water Conditioning Equipment Installation

IAPMO PS 117
Press and Nail Connections

IAPMO Z1000
Prefabrecitated Septic Tanks

IAPMO Z1001
Prefabricated gravity Grease interceptors

NSF 2
Food Equipment

NSF 3
Commercial Warewashing Equipment

NSF 4
Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transport Equipment

NSF 5
Water Heaters, Hot Water Supply Boilers, and Heat Recovery Equipment

NSF 12
Automatic Ice Making Equipment

NSF 14
Plastic Piping System Components and Related Materials

NSF 18
Manual Food and Beverage Dispensing Equipment

NSF 29
Detergent and Chemical Feeders for Commercial Spray-Type Dishwashing Machines

NSF 40
Residential Wastewater Treatment Systems

NSF 41
Non-Liquid Saturated Treatment Systems

NSF 42
Drinking Water Treatment Units – Aesthetic Effects

NSF 44
Residential Cation Exchange Water Softeners

NSF 46
Evaluation of Components and Devices Used in Wastewater Treatment Systems

NSF 53
Drinking Water Treatment Units - Health Effects

NSF 55
Ultraviolet Microbiological Water Treatments Systems
NSF 58
Reverse Osmosis Drinking Water Treatment Systems

NSF 61
Drinking Water System Components – Health Effects

NSF 62
Drinking Water Distillation Systems

NSF 169
Special Purpose Food Equipment and Devices

NSF 350
Onsite Residential and Commercial Water Reuse Treatment Systems

NSF 359
Valves for Crosslinked Polyethylene (PEX) Water Distribution Tubing Systems
Certification Marks:

- **NSF C US**: This mark indicates that the product is certified to both Canadian and U.S. requirements.

- **NSF**: This mark indicates that the product is certified to the standard indicated in the box.

- **NSF pw**: This Mark indicates that the product is certified to NSF/ANSI 14 for potable water.

- **NSF dwv**: This Mark indicates that the product is certified to NSF/ANSI 14 for drain, waste and vent.
This agency is approved for listing of plumbing and mechanical products to meet the referenced standards listed below as found in the City of Los Angeles Mechanical Code, 2017 Edition:

- **CSA Z21.11.2**
  Gas-Fired Room Heaters, Volume II, Unvented Room Heaters

- **CSA Z21.20a**
  Automatic Gas Ignition Systems and Components

- **CSA Z21.41**
  Quick Disconnect Devices for Use with Gas Fuel Appliances (Same as CSA 6.9)

- **CSA Z21.42**
  Gas-Fired Illuminating Appliances

- **CSA Z21.47**
  Gas-Fired Central Furnaces (Same as CSA 2.3)

- **CSA Z21.50**
  Vented Gas Fireplaces (Same as CSA 2.22)

- **CSA Z21.58b**
  Outdoor Cooking Gas Appliances (Same as CSA 1.6b)

- **CSA Z21.60**
  Decorative Gas Appliances for Installation in Solid-Fuel Burning Fireplaces (Same as CSA 2.26)

- **CSA Z21.66/CGA 6.14**
  Automatic Vent Damper Devices for Use with Gas-Fired Appliances

- **CSA Z21.86**
  Vented Gas-Fired Space Heating Appliances (Same as CSA 2.32)

- **CSA Z21.88a**
  Vented Gas Fireplace Heaters (Same as CSA 2.33a)

- **CSA Z83.7**
  Gas-Fired Construction Heaters (Same as CSA 2.14)

- **CSA Z83.11b**
  Gas Food Service Equipment (Same as CSA 1.8)

- **UL 103**
  Factory-Built Chimneys for Residential Type and Building Heating Appliances

- **UL 127**
  Factory-Built Fireplaces

- **UL 197**
  Commercial Electric Cooking Appliances

- **UL 378**
  Draft Equipment

- **UL 391**
  Solid-Fuel and Combination-Fuel Central and Supplementary Furnaces

- **UL 441**
  Gas Vents

- **UL 641**
  Type L Low-Temperature Venting Systems

- **UL 726**
  Oil-Fired Boiler Assemblies

- **UL 727**
  Oil-Fired Central Furnaces

- **UL 731**
  Oil-Fired Unit Heaters

- **UL 733**
  Oil-Fired Air Heaters and Direct-Fired Heaters

- **UL 737**
  Fireplace Stoves

- **UL 858**
  Household Electric Ranges

- **UL 896**
  Oil-Burning Stoves

- **UL 907**
  Fireplace Accessories

- **UL 1026**
  Electric Household Cooking and Food Serving Appliances

- **UL 1482**
  Solid-Fuel Type Room Heaters

- **UL 1777**
  Chimney Liners

- **UL 1995**
  Heating and Cooling Equipment

- **UL 2021**
  Fixed and Location-Dedicated Electric Room Heaters
Certification Mark:

This mark indicates that the product is listed to the applicable standard specified.
9. PFS Corporation

1507 Matt Pass
Cottage Grove, WI 53527
Phone: (608) 839-1013

Expiration: May 1, 2020

This agency is approved for listing of plumbing and mechanical products to meet the referenced standards listed below as found in the City of Los Angeles Mechanical Code, 2017 Edition:

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSA Z21.11.2</td>
<td>Gas-Fired Room Heaters, Volume II, Unvented Room Heaters</td>
</tr>
<tr>
<td>CSA Z21.50</td>
<td>Vented Gas Fireplaces (same as CSA 2.22)</td>
</tr>
<tr>
<td>CSA Z21.58b</td>
<td>Outdoor Cooking Gas Appliances (same as CSA 1.6b)</td>
</tr>
<tr>
<td>CSA Z21.60</td>
<td>Decorative Gas Appliances for Installation in Solid-Fuel Burning Fireplaces (same as CSA 2.26)</td>
</tr>
<tr>
<td>CSA Z21.86</td>
<td>Vented Gas-Fired Space Heating Appliances (same as CSA 2.32)</td>
</tr>
<tr>
<td>CSA Z21.88a</td>
<td>Vented Gas Fireplace Heaters (same as CSA 2.33a)</td>
</tr>
<tr>
<td>CSA Z83.8</td>
<td>Gas Unit Heaters, Gas Packaged Heaters, Gas Utility Heaters, and Gas-Fired Duct Furnaces (same as CSA 2.6)</td>
</tr>
<tr>
<td>CSA Z83.20b</td>
<td>Gas-Fired Low-Intensity Infrared Heaters (same as CSA 2.34b)</td>
</tr>
<tr>
<td>UL 127</td>
<td>Factory-Built Fireplaces</td>
</tr>
<tr>
<td>UL 391</td>
<td>Solid-Fuel and Combination-Fuel Central and Supplementary Furnaces</td>
</tr>
<tr>
<td>UL 737</td>
<td>Fireplace Stoves</td>
</tr>
<tr>
<td>UL 907</td>
<td>Fireplace Accessories</td>
</tr>
<tr>
<td>UL 1482</td>
<td>Solid-Fuel Type Room Heaters</td>
</tr>
</tbody>
</table>

Certification Marks:

- This marking indicates that the product has been evaluated to meet Canadian and U.S. standards, and is listed to the applicable standard specified.

- This marking indicates that the product has been evaluated to meet U.S. standards, and is listed to the applicable standard specified.

- This marking indicates that the product has been evaluated and is listed to the applicable standard specified.
This agency is approved for listing of plumbing products to meet the referenced standards listed below as found in the City of Los Angeles Plumbing Codes, 2017 Edition:

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASME A112.1.2</td>
<td>Air Gaps in Plumbing Systems</td>
</tr>
<tr>
<td>ASME A112.1.3</td>
<td>Air Gap Fittings for Use with Plumbing Fixtures, Appliances, and Appurtenances</td>
</tr>
<tr>
<td>ASME A112.3.1</td>
<td>Stainless Steel Drainage Systems for Sanitary DWV, Storm, and Vacuum Applications, Above- and Below Ground</td>
</tr>
<tr>
<td>ASME A112.3.4 / CSA B45.9</td>
<td>Plumbing Fixtures with Pumped Waste and Macerating Toilet Systems</td>
</tr>
<tr>
<td>ASME A112.6.1M</td>
<td>Floor-Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use</td>
</tr>
<tr>
<td>ASME A112.6.2</td>
<td>Framing-Affixed Supports for Off-The Floor Water Closets with Concealed Tanks</td>
</tr>
<tr>
<td>ASME A112.6.3</td>
<td>Floor and Trench Drains</td>
</tr>
<tr>
<td>ASME A112.6.4</td>
<td>Roof, Deck, and Balcony Drains</td>
</tr>
<tr>
<td>ASME A112.6.7</td>
<td>Sanitary Floor Sinks</td>
</tr>
<tr>
<td>ASME A112.14.1</td>
<td>Backwater Valves</td>
</tr>
<tr>
<td>ASME A112.18.1 / CSA B125.1</td>
<td>Plumbing Supply Fittings</td>
</tr>
<tr>
<td>ASME A112.19.1 / CSA B45.2</td>
<td>Enamelled Cast Iron and Enamelled Steel Plumbing Fixtures</td>
</tr>
<tr>
<td>ASME A112.19.2 / CSA B45.1</td>
<td>Ceramic Plumbing Fixtures</td>
</tr>
<tr>
<td>ASME A112.19.3 / CSA B45.4</td>
<td>Stainless Steel Plumbing Fixtures</td>
</tr>
<tr>
<td>ASME A112.19.5</td>
<td>Flush Valves and Spuds for Water Closets, Urinals, and Tanks</td>
</tr>
<tr>
<td>ASME A112.19.10</td>
<td>Dual Flush Devices for Water Closets</td>
</tr>
<tr>
<td>ASME A112.19.14</td>
<td>Six-Liter Water Closets Equipped With Dual Flush Device</td>
</tr>
<tr>
<td>ASME A112.19.15</td>
<td>Bathtubs/Whirlpool Bathtubs with Pressure Sealed Doors</td>
</tr>
<tr>
<td>ASME A112.19.19</td>
<td>Vitreous China Nonwater Urinals</td>
</tr>
<tr>
<td>ASSE 1001</td>
<td>Atmospheric Type Vacuum Breakers</td>
</tr>
<tr>
<td>ASSE 1002</td>
<td>Anti-Siphon Fill Valves for Water Closet Tanks</td>
</tr>
<tr>
<td>ASSE 1003</td>
<td>Water Pressure Reducing Valves for Domestic Water Distribution Systems</td>
</tr>
<tr>
<td>ASSE 1010</td>
<td>Water Hammer Arresters</td>
</tr>
<tr>
<td>ASSE 1012</td>
<td>Backflow Preventers with Intermediate Atmospheric Vent</td>
</tr>
<tr>
<td>ASSE 1013</td>
<td>Reduced Pressure Principle Backflow Preventers and Reduced Pressure Principle Fire Protection Backflow Preventers</td>
</tr>
<tr>
<td>ASSE 1014</td>
<td>Backflow Prevention Devices for Hand-Held Shower</td>
</tr>
<tr>
<td>ASSE 1015</td>
<td>Double Check Backflow Prevention Assemblies and Double Check Fire Protection Backflow Prevention Assemblies</td>
</tr>
<tr>
<td>ASSE 1016 / ASME A112.1016 / CSAB125.16</td>
<td>Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations</td>
</tr>
<tr>
<td>ASSE 1017</td>
<td>Temperature Actuated Mixing Valves for Hot Water Distribution Systems</td>
</tr>
<tr>
<td>ASSE 1018</td>
<td>Trap Seal Primer Valves - Potable Water Supplied</td>
</tr>
<tr>
<td>ASSE 1019</td>
<td>Wall Hydrant with Backflow Protection and Freeze Resistance</td>
</tr>
<tr>
<td>ASSE 1020</td>
<td>Pressure Vacuum Breaker Assembly</td>
</tr>
<tr>
<td>ASSE 1023</td>
<td>Hot Water Dispensers Household Storage Type - Electrical</td>
</tr>
<tr>
<td>Standard</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>ASSE 1024</td>
<td>Dual Check Backflow Preventers</td>
</tr>
<tr>
<td>ASSE 1032</td>
<td>Dual Check Valve Type Backflow Preventers for Carbonated Beverage Dispensers, Post Mix Type</td>
</tr>
<tr>
<td>ASSE 1035</td>
<td>Laboratory Faucet Backflow Preventers</td>
</tr>
<tr>
<td>ASSE 1037</td>
<td>Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures</td>
</tr>
<tr>
<td>ASSE 1044</td>
<td>Trap Seal Primer Devices - Drainage Types and Electronic Design Types</td>
</tr>
<tr>
<td>ASSE 1047</td>
<td>Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies</td>
</tr>
<tr>
<td>ASSE 1048</td>
<td>Double Check Detector Fire Protection Backflow Prevention Assemblies</td>
</tr>
<tr>
<td>ASSE 1052</td>
<td>Hose Connection Backflow Preventers</td>
</tr>
<tr>
<td>ASSE 1055</td>
<td>Chemical Dispensing Systems</td>
</tr>
<tr>
<td>ASSE 1056</td>
<td>Spill Resistant Vacuum Breaker Assemblies</td>
</tr>
<tr>
<td>ASSE 1057</td>
<td>Freeze Resistant Sanitary Yard Hydrants with Backflow Protection</td>
</tr>
<tr>
<td>ASSE 1061</td>
<td>Push-Fit Fittings</td>
</tr>
<tr>
<td>ASSE 1062</td>
<td>Temperature Actuated Flow Reduction (TAFR) Valves for Individual Fixture Fittings</td>
</tr>
<tr>
<td>ASSE 1066</td>
<td>Individual Pressure Balancing In-Line Valves for Individual Fixture Fittings</td>
</tr>
<tr>
<td>ASSE 1070</td>
<td>Water Temperature Limiting Devices</td>
</tr>
<tr>
<td>ASTM C1277</td>
<td>Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings</td>
</tr>
<tr>
<td>ASTM D1785</td>
<td>Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120</td>
</tr>
<tr>
<td>ASTM D2239</td>
<td>Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter</td>
</tr>
<tr>
<td>ASTM D2241</td>
<td>Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)</td>
</tr>
<tr>
<td>ASTM D2513</td>
<td>Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings</td>
</tr>
<tr>
<td>ASTM D2665</td>
<td>Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings</td>
</tr>
<tr>
<td>ASTM D2737</td>
<td>Polyethylene (PE) Plastic Tubing</td>
</tr>
<tr>
<td>ASTM E84</td>
<td>Surface Burning Characteristics of Building Materials</td>
</tr>
<tr>
<td>ASTM F409</td>
<td>Thermoplastic Accessible and Replaceable Plastic Tube and Tubular Fittings</td>
</tr>
<tr>
<td>ASTM F446</td>
<td>Grab Bars and Accessories Installed in the Bathing Area</td>
</tr>
<tr>
<td>ASTM F1412</td>
<td>Polyolefin Pipe and Fittings for Corrosive Waste Drainage Systems</td>
</tr>
<tr>
<td>CSA B45.5</td>
<td>Reduced Pressure Principle (RP) Backflow Preventers</td>
</tr>
<tr>
<td>CSA B64.4</td>
<td>Reduced Pressure Principle Backflow Preventers for Fire Protection Systems (RPF)</td>
</tr>
<tr>
<td>CSA B64.5</td>
<td>Double Check Valve (DCVA) Backflow Preventers</td>
</tr>
<tr>
<td>CSA B64.5.1</td>
<td>Double Check Valve Backflow Preventers for Fire Protection Systems (DCVAF)</td>
</tr>
<tr>
<td>CSA B64.7</td>
<td>Laboratory Faucet Vacuum Breakers (LFVB)</td>
</tr>
<tr>
<td>CSA B79</td>
<td>Commercial and Residential Drains and Cleanouts</td>
</tr>
<tr>
<td>CSA B125.3</td>
<td>Plumbing Fittings</td>
</tr>
<tr>
<td>EPA Watersense - 2007</td>
<td>High-Efficiency Lavatory Faucet Specification</td>
</tr>
<tr>
<td>EPA Watersense - 2009</td>
<td>Specification for Flushing Urinals</td>
</tr>
<tr>
<td>EPA Watersense - 2011</td>
<td>Specification for Tank-Type Toilets</td>
</tr>
<tr>
<td>IAPMO IGC 157</td>
<td>Ball Valves</td>
</tr>
<tr>
<td>IAPMO PS 34</td>
<td>Encasement Sleeve for Potable Water Pipe and Tubing</td>
</tr>
<tr>
<td>IAPMO PS 52</td>
<td>Pump/Dose, Sumps and Sewage Ejector Tanks with or without a Pump</td>
</tr>
<tr>
<td>IAPMO PS 54</td>
<td>Metallic and Plastic Utility Boxes</td>
</tr>
<tr>
<td>IAPMO PS 59</td>
<td>Wastewater Diverter Valves and Diversion Systems</td>
</tr>
<tr>
<td>IAPMO PS 65</td>
<td>Airgap Units for Water Conditioning Equipment Installation</td>
</tr>
</tbody>
</table>
IAPMO PS 67
Early-Closure Replacement Flappers
or Early-Closure Replacement Flapper
with Mechanical Assemblies

IAPMO PS 69
Bathwaste and Overflow Assemblies
with Tub Filler Spout

IAPMO PS 72
Valves with Atmospheric Vacuum
Breakers

IAPMO PS 79
Multiport Electronic Trap Primer

IAPMO PS 90
Elastomeric Test Caps, Cleanout
Caps, and Combination Test
Caps/Shielded Couplings

IAPMO PS 94
Insulated Protectors for P-Traps,
Supply Stops, and Risers

IAPMO PS 95
Drain, Waste, and Vent Hangers and
Plastic Pipe Support Hooks

IAPMO PS 98
Prefabricated Fiberglass Church
Baptisteries

MSS SP-67
Butterfly Valves

NSF 61
Drinking Water System Components -
Health Effects

Certification Mark:

QAI Certification Mark: This mark is used on products that have been evaluated to nationally recognized standards that fall within QAI’s scope of accreditation for the noted country, US and or Canada. QAI maintains an ongoing inspection program at the manufacturer’s location to validate that current product are representative of the product submitted for evaluation. The NRTL Logo is only used for products that fall within the Scope of QAI’s NRTL program.

QAI Recognized Mark: This mark is used on products that been evaluated to national recognized standards that fall within QAI’s scope of accreditation for the noted country, US and or Canada. The specific product is considered a component and further evaluation will be required when it is incorporated in a finished product.

QAI Classified Mark: This mark is used on products that have been evaluated against a portion of a published criterial, this could be a code or standard, and obtained a specific rating or performance value. QAI maintains an ongoing inspection program at the manufacturer’s location to validate that current product are representative of the product submitted for evaluation. Note C and US optional.

QAI Verified Mark: This mark is used on products that have been evaluated against a published criterial, this typically is a client’s own requirements, and QAI maintains an ongoing inspection program at the manufacturer’s location to validate that current products are representative of the product submitted for evaluation. Note C and US optional.
11. Solar Rating & Certification Corporation

3060 Saturn Street, Suite 100
Brea, CA 92821
Phone: (888) 422-7233, ext. 7735

Expiration: June 1, 2020

This agency is approved for listing of plumbing products to meet the referenced standards listed below as found in the City of Los Angeles Plumbing Code, 2017 Edition:

This agency is also approved for listing of plumbing products to meet the lead-free requirements of Section 116875 of the California Health and Safety Code.

IAPMO PS 92
Heat Exchangers and Indirect Water Heaters

IAPMO PS 96
Passive Direct Solar Water Heaters

SRCC 100
Solar Thermal Collectors

SRCC 300
Solar Water Heating Systems

NSF 50
Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities
Certification Mark:

This marking indicates that the product has been tested and has met the certification requirements of SRCC Standard 100.

This marking indicates that the product has been tested and has met the certification requirements of SRCC Standard 300.

This mark indicates the product is listed under the SRCC Solar Heating and Cooling Listing Program, which certifies solar heating and cooling products to the Uniform Solar Energy Code (USEC), Uniform Plumbing Code (UPC), Uniform Mechanical Code (UMC), and Uniform Swimming Pool and Hot Tub Code (USPC). It is also used to specify products that meet the low-lead requirements for drinking water system components.
12. Truesdail Laboratories, Inc.

3337 Michelson Drive, Suite CN750
Irvine, CA 92612
Phone: (714) 730-6239

Expiration: January 1, 2020

This agency is approved for listing of plumbing products to meet the referenced standards listed below as found in the City of Los Angeles Plumbing Code, 2017 Edition:

This agency is also approved for listing of plumbing products to meet the lead-free requirements of Section 116875 of the California Health and Safety Code.

ASME A112.18.1/CSA B125.1
Plumbing Supply Fittings

ASME A112.18.2/CSA B125.2
Plumbing Waste Fittings

ASME A112.18.3
Performance Requirements for Backflow Protection Devices and Systems in Plumbing Fixture Fittings

ASME A112.18.6 /CSA B125.6
Flexible Water Connectors

ASME A112.19.1/CSA B45.2
Enamelled Cast Iron and Enamelled Steel Plumbing Fixtures

ASME A112.19.2/CSA B45.1
Ceramic Plumbing Fixtures

ASME A112.19.3/CSA B45.4
Stainless Steel Plumbing Fixtures

ASME A112.19.5/CSA B45.15
Flush Valves and Spuds for Water Closets, Urinals and Tanks

ASME A112.19.10
Dual Flush Devices for Water Closets

ASME A112.19.14
Six-Liter Water Closets Equipped with a Dual Flushing Device

ASME A112.19.19
Vitreous China Nonwater Urinals

ASME B16.23
Cast Copper Alloy Solder Joint Drainage Fittings: DWV

ASME B16.24
Cast Copper Alloy Pipe Flanges and Flanged Fittings: Classes 150, 300, 600, 900, 1500 and 2500

ASSE 1001
Atmospheric Type Vacuum Breakers

ASSE 1002
Anti-Siphon Fill Valves for Water Closet Tanks

ASSE 1003
Water Pressure Reducing Valves for Domestic Water Distribution Systems

ASSE 1004
Backflow Prevention Requirements for Commercial Dishwashing Machines

ASSE 1008
Plumbing Aspects of Residential Food Waste Disposer Units

ASSE 1010
Water Hammer Arresters

ASSE 1011
Hose Connection Vacuum Breakers

ASSE 1012
Backflow Preventer with Intermediate Atmospheric Vent

ASSE 1013
Reduced Pressure Principle Backflow Preventers and Reduced Pressure Fire Protection Principle Backflow Preventers

ASSE 1014
Backflow Prevention Devices for Hand-Held Showers

ASSE 1015
Double Check Backflow Prevention Assemblies and Double Check Fire Protection Backflow Prevention Assemblies

ASSE 1016 / ASME A112.1016 / CSA B124.16
Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations

ASSE 1017
Temperature Actuated Mixing Valves for Hot Water Distribution Systems

ASSE 1018
Trap Seal Primer Valves-Potable Water Supplied

ASSE 1019
Wall Hydrant with Backflow Protection and Freeze Resistance

ASSE 1020
Pressure Vacuum Breaker Assembly

ASSE 1022
Backflow Preventer for Beverage Dispensing Equipment

ASSE 1023
Hot Water Dispensers Household Storage Type – Electrical

ASSE 1024
Dual Check Valve Backflow Preventers
ASSE 1032
Dual Check Valve Type Backflow Preventers for Carbonated Beverage Dispensers-Post Mix Type

ASSE 1035
Laboratory Faucet Backflow Preventers

ASSE 1037
Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures

ASSE 1044
Trap Seal Primer Devices-Drainage Types and Electronic Design Types

ASSE 1047
Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies

ASSE 1048
Double Check Detector Fire Protection Backflow Prevention Assemblies

ASSE 1052
Hose Connection Backflow Preventers

ASSE 1055
Chemical Dispensing Systems

ASSE 1056
Spill Resistant Vacuum Breaker Assemblies

ASSE 1057
Freeze Resistant Sanitary Yard Hydrants with Backflow Protection

ASSE 1060
Outdoor Enclosures for Fluid Conveying Components

ASSE 1061
Push-Fit Fittings

ASSE 1062
Temperature Actuated, Flow Reduction (TAFR) Valves for Individual Fixture Fittings

ASSE 1066
Individual Pressure Balancing In-Line Valves for Individual Fixture Fittings

ASSE 1069
Automatic Temperature Control Mixing Valves

ASSE 1070
Water Temperature Limiting Devices

ASSE 1071
Temperature Actuated Mixing Valves for Plumbed Emergency Equipment

ASSE 1079
Dielectric Pipe Unions

CSA B45.5 / IAPMO Z124
Plastic Plumbing Fixtures

CSA B64
Backflow Preventers and Vacuum Breakers

CSA B125.3
Plumbing Fittings

CSA B137.1
Polyethylene (PE) Pipe, Tubing, and Fittings for Cold-Water Pressure Services

EPA Watersense – 2007
High-Efficiency Lavatory Faucet Specification

EPA Watersense – 2009
Specification for Flushing Urinals

EPA Watersense – 2011
Specification for Tank-Type Toilets

NSF 42
Drinking Water Treatment Units-Aesthetic Effects

NSF 53
Drinking Water Treatment Unit-Health Effects

NSF 61
Drinking Water System Components - Health Effects

Certification Mark:

This marking indicates that the product has been evaluated and is listed to the applicable standard specified.
13. UL LLC

(Main Lab)  
333 Pfingsten Road  
Northbrook, IL 60062  
Phone: (847) 272-8800

(Branch Lab)  
1285 Walt Whitman Road  
Melville, NY 11747  
Phone: (516) 271-6200

(Branch Lab)  
12 Laboratory Drive  
Research Triangle Park, NC  27709  
Phone: (919) 549-1400

(Branch Lab)  
2600 N.W. Lake Road  
Camas, WA  98607-9526  
Phone: (360) 817-5500

(Branch Lab)  
47173 Benicia St.  
Fremont, CA  94583  
Phone: (510) 771-1000

(Branch Lab)  
2929 East Imperial Hwy, Ste. 100  
Brea, CA  92821-66729  
Phone: (714) 223-3600

Expiration: November 1, 2019

This agency is approved for listing of plumbing and mechanical products to meet the referenced standards listed below as found in the City of Los Angeles Plumbing and Mechanical Codes, 2017 Edition:

This agency is also approved for listing of plumbing products to meet the lead-free requirements of Section 116875 of the California Health and Safety Code.

Mechanical Standards:

**AHRI 1200**  
Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets

**AHRI 1230**  
Performance Rating of Variable Refrigerant Flow (VRF) Multi-Split Air-Conditioning and Heat Pump Equipment

**AMCA 500 D**  
Laboratory Methods of Testing Damper for Rating

**AMCA 540**  
Louvers Impacted by Wind Borne Debris

**AMCA 550**  
High Velocity Wind Driven Rain Resistance Louvers

**ASCE 25**  
Earthquake-Actuated Automatic Gas Shutoff Devices

**ASHRAE 127**  
Method of Testing for Rating Computer and Data Processing Room Unitary Air Conditioners

**ASME A112.18.6/CSA B125.6**  
Flexible Water Connectors

**ASME B16.1**  
Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125 and 250

**ASME B16.3**  
Malleable Iron Threaded Fittings: Classes 150 and 300

**ASME B16.5**  
Pipe Flanges and Flanged Fittings: NPS½ through 24 Metric/Inch

**ASME B16.15**  
Cast Copper Alloy Threaded Fittings: Classes 125 and 250

**ASME B16.22**  
Wrought Copper and Copper Alloy Solder Joint Pressure Fittings

**ASME B31.5**  
Refrigeration Piping and Heat Transfer Components

**ASME BPVC Section I**  
Rules for Construction of Power Boilers

**ASME BPVC Section IV**  
Rules for Construction of Heating Boilers

**ASME BPVC Section VIII**  
Rules for Construction of Pressure Vessels Division 1

**ASME CSD-1**  
Controls and Safety Devices for Automatically Fired Boilers

**ASSE 1013**  
Reduced Pressure Principle Backflow Preventers and Reduced Pressure Fire Protection Principle Backflow Preventers

**ASSE 1061**  
Push-Fit Fittings

**ASTM A53 /A53M**  
Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded, and Seamless

**ASTM A733**  
Welded and Seamless Carbon Steel and Austenitic Stainless Steel Pipe Nipples

**ASTM B280**  
General Requirements for Wrought Seamless Copper and Copper-Alloy Tube

**ASTM C411**  
Hot-Surface Performance of High-Temperature Thermal Insulation
UL 127  Factory-Built Fireplaces
UL 132  Safety Relief Valves for Anhydrous Ammonia and LP-Gas
UL 144  LP-Gas Regulators
UL 174  Household Electric Storage Tank Water Heaters
UL 180  Liquid-Level Gauges for Oil Burner Fuels
UL 181  Factory-Made Air Ducts and Air Connectors
UL 181A Closure Systems for Use with Rigid Air Ducts
UL 181B Closure Systems for Use With Flexible Air Ducts and Air Connectors
UL 197  Commercial Electric Cooking Appliances
UL 207  Refrigerant-Containing Components and Accessories, Nonelectrical
UL 252  Compressed Gas Regulators
UL 268A Smoke Detectors for Duct Application
UL 295  Commercial-Industrial Gas Burners
UL 296  Oil Burners
UL 300  Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment
UL 343  Pumps for Oil-Burning Appliances
UL 353  Limit Controls
UL 378  Draft Equipment
UL 391  Solid-Fuel and Combination-Fuel Central and Supplementary Furnaces
UL 399  Drinking Water Coolers
UL 404  Gauges, Indicating Pressure, for Compressed Gas Service Indicating Pressure
UL 412  Refrigeration Unit Coolers
UL 427  Refrigerating Units
UL 429  Electrically Operated Valves
UL 441  Gas Vents
UL 443  Steel Auxiliary Tanks for Oil-Burner Fuel
UL 471  Commercial Refrigerators and Freezers
UL 525  Flame Arresters
UL 536  Flexible Metallic Hose
UL 555  Fire Dampers
UL 555C Ceiling Dampers
UL 555S Smoke Dampers
UL 565 Liquid-Level Gauges for Anhydrous Ammonia and LP-Gas
UL 569 Pigtails and Flexible Hose Connectors for LP-Gas
UL 641 Type L Low-Temperature Venting Systems
UL 651 Schedule 40, 80, Type EB and A Rigid PVC Conduit and Fittings
UL 710 Exhaust Hoods for Commercial Cooking Equipment
UL 710B Recirculating Systems
UL 710C Ultraviolet Radiation Systems for Use in the Ventilation Control of Commercial Cooking Operations
UL 723 Test for Surface Burning Characteristics of Building
UL 726 Oil-Fired Boiler Assemblies
UL 727 Oil-Fired Central Furnaces
UL 729 Oil-Fired Floor Furnaces
UL 730 Oil-Fired Wall Furnaces
UL 731 Oil-Fired Unit Heaters
UL 732 Oil-Fired Storage Tank Water Heaters
UL 733 Oil-Fired Air Heaters and Direct-Fired Heaters
UL 737 Fireplace Stoves
UL 762 Power Roof Ventilators for Restaurant Exhaust Appliances
UL 791 Residential Incinerators
UL 795 Commercial-Industrial Gas Heating Equipment
UL 834 Heating, Water Supply, and Power Boilers - Electric
UL 842 Valves for Flammable Fluids
UL 858 Household Electric Ranges
UL 867 Electrostatic Air Cleaners
UL 896 Oil-Burning Stoves
UL 900 Air Filter Units
<table>
<thead>
<tr>
<th>UL 907</th>
<th>Fireplace Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL 921</td>
<td>Commercial Dishwashers</td>
</tr>
<tr>
<td>UL 923</td>
<td>Microwave Cooking Appliances</td>
</tr>
<tr>
<td>UL 959</td>
<td>Medium Heat Appliance Factory-Built Chimneys</td>
</tr>
<tr>
<td>UL 984</td>
<td>Hermetic Refrigerant Motor-Compressors</td>
</tr>
<tr>
<td>UL 1026</td>
<td>Electric Household Cooking and Food Serving Appliances</td>
</tr>
<tr>
<td>UL 1046</td>
<td>Grease Filters for Exhaust Ducts</td>
</tr>
<tr>
<td>UL 1206</td>
<td>Electric Commercial Clothes-Washing Equipment</td>
</tr>
<tr>
<td>UL 1240</td>
<td>Electric Commercial Clothes-Drying Equipment</td>
</tr>
<tr>
<td>UL 1453</td>
<td>Electric Booster and Commercial Storage Tank Water Heaters</td>
</tr>
<tr>
<td>UL 1479</td>
<td>Fire Tests of Through-Penetration Firestops</td>
</tr>
<tr>
<td>UL 1482</td>
<td>Solid-Fuel Type Room Heaters</td>
</tr>
<tr>
<td>UL 1746</td>
<td>External Corrosion Protection Systems for Steel Underground Storage Tanks</td>
</tr>
<tr>
<td>UL 1777</td>
<td>Chimney Liners</td>
</tr>
<tr>
<td>UL 1812</td>
<td>Ducted Heat Recovery Ventilators</td>
</tr>
<tr>
<td>UL 1815</td>
<td>Nonducted Heat Recovery Ventilators</td>
</tr>
<tr>
<td>UL 1820</td>
<td>Fire Test of Pneumatic Tubing for Flame and Smoke Characteristics</td>
</tr>
<tr>
<td>UL 1877</td>
<td>Fire Test of Plastic Sprinkler Pipe for Visible Flame and Smoke Characteristics</td>
</tr>
<tr>
<td>UL 1963</td>
<td>Refrigerant Recovery/Recycling Equipment</td>
</tr>
<tr>
<td>UL 1978</td>
<td>Grease Ducts</td>
</tr>
<tr>
<td>UL 1995</td>
<td>Heating and Cooling Equipment</td>
</tr>
<tr>
<td>UL 2021</td>
<td>Fixed and Location-Dedicated Electric Room Heaters</td>
</tr>
<tr>
<td>UL 2043</td>
<td>Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces</td>
</tr>
<tr>
<td>UL 2157</td>
<td>Electric Clothes Washing Machines and Extractors</td>
</tr>
<tr>
<td>UL 2158</td>
<td>Electric Clothes Dryers</td>
</tr>
<tr>
<td>UL 2162</td>
<td>Commercial Wood-Fired Baking Ovens - Refractory Type</td>
</tr>
<tr>
<td>UL 2200</td>
<td>Stationary Engine Generator Assemblies</td>
</tr>
<tr>
<td>UL 2221</td>
<td>Tests of Fire Resistant Grease Duct Enclosure Assemblies</td>
</tr>
<tr>
<td>UL 2523</td>
<td>Solid Fuel-Fired Hydronic Heating Appliances, Water Heaters, and Boilers</td>
</tr>
<tr>
<td>UL 2790</td>
<td>Commercial Incinerators</td>
</tr>
<tr>
<td>UL 60335-2-40</td>
<td>Household and Similar Electrical Appliances, Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers</td>
</tr>
</tbody>
</table>

**Plumbing Standards:**

| AHAM FWD-1 | Food Waste Disposers |
| ASCE 25 | Earthquake-Actuated Automatic Gas Shutoff Devices |
| ASME A112.1.2 | Air Gaps in Plumbing Systems (For Plumbing Fixtures and Water-Connected Receptors) |
| ASME A112.1.3 | Air Gap Fittings for Use with Plumbing Fixtures, Appliances and Appurtenances |
| ASME A112.3.1 | Stainless Steel Drainage Systems for Sanitary DWV, Storm, and Chemical Applications, Above- and Below-Ground |
| ASME A112.4.2 | Water Closet Personal Hygiene Devices |
| ASME A112.4.3 | Plastic Fittings for Connecting Water Closets to the Sanitary Drainage System |
| ASME A112.4.14 | Manually Operated, Quarter-Turn Shutoff Valves for Use in Plumbing Systems Valves |
| ASME A112.6.3 | Floor and Trench Drains |
| ASME A112.6.7 | Sanitary Floor Sinks |
| ASME A112.18.1 / CSA B125.1 | Plumbing Supply Fittings |
| ASME A112.18.2 / CSA B125.2 | Plumbing Waste Fittings |
| ASME A112.18.3 | Performance Requirements for Backflow Protection Devices and Systems in Plumbing Fixture Fittings |
| ASME A112.18.6 / CSA B125.6 | Flexible Water Connectors |
| ASME A112.18.9 | Protectors/Insulators for Exposed Waste and Supplies on Accessible Fixtures |
| ASME A112.19.1 / CSA B45.2 | Enamelled Cast Iron and Enamelled Steel Plumbing Fixtures |
| ASME A112.19.2 / CSA B45.1 | Ceramic Plumbing Fixtures |
| ASME A112.19.3 / CSA B45.4 | Stainless Steel Plumbing Fixtures |
ASME A112.19.5 / CSA B45.15
Flush Valves and Spuds for Water Closets, Urinals, and Tanks

ASME A112.19.7 / CSA B45.10
Hydromassage Bathtub Systems

ASME A112.19.10
Dual Flush Devices for Water Closets

ASME A112.19.12
Wall Mounted, Pedestal Mounted, Adjustable, Elevating, Tilting, and Pivoting Lavatory, Sink, and Shampoo Bowl Carrier Systems and Drainage Waste Systems

ASME A112.19.14
Six-Liter Water Closets Equipped with a Dual Flushing Device

ASME A112.19.15
Bathtubs/Whirlpool Bathtubs with Pressure Sealed Doors

ASME A112.19.19
Vitreous China Nonwater Urinals

ASME A112.21.3
Hydrants for Utility and Maintenance Use

ASME A112.36.2M
Cleanouts

ASME B16.1
Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250

ASME B16.3
Malleable Iron Threaded Fittings: Classes 150 and 300

ASME B16.4
Gray Iron Threaded Fittings: Classes 125 and 250

ASME B16.5
Pipe Flanges and Flanged Fittings: NPS ½ through 24 Metric/Inch

ASME B16.15
Cast Copper Alloy Threaded Fittings: Classes 125 and 250

ASME B16.18
Cast Copper Alloy Solder Joint Pressure Fittings

ASME B16.22
Wrought Copper and Copper Alloy Solder-Joint Pressure Fittings Alloy

ASME B16.39
Malleable Iron Threaded Pipe Unions: Classes 150, 250 and 300

ASME BPVC Section IV
Rules for Construction of Heating Boilers

ASME BPVC Section VIII
Rules for Construction of Pressure Vessels Division 1

ASSE 1001
Atmospheric Type Vacuum Breakers

ASSE 1002
Anti-Siphon Fill Valves for Water Closet Tanks

ASSE 1004
Backflow Prevention Requirements for Commercial Dishwashing Machines

ASSE 1008
Plumbing Aspects of Residential Food Waste Disposer Units

ASSE 1011
Hose Connection Vacuum Breakers

ASSE 1012
Backflow Preventer with an Intermediate Atmospheric Vent

ASSE 1013
Reduced Pressure Principle Backflow Preventers and Reduced Pressure Fire Protection Principle Backflow Preventers

ASSE 1014
Backflow Prevention Devices for Hand-Held Showers

ASSE 1015
Double Check Backflow Prevention Assemblies and Double Check Fire Protection Backflow Prevention Assemblies

ASSE 1016
Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations

ASSE 1017
Temperature Actuated Mixing Valves for Hot Water Distribution Systems

ASSE 1020
Pressure Vacuum Breaker Assembly

ASSE 1022
Backflow Preventer for Beverage Dispensing Equipment

ASSE 1023
Hot Water Dispensers Household Storage Type-Electrical

ASSE 1024
Dual Check Valve Backflow Preventers

ASSE 1032
Dual Check Valve Type Backflow Preventers for Carbonated Beverage Dispensers, Post Mix Types

ASSE 1037
Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures

ASSE 1048
Double Check Detector Fire Protection Backflow Prevention Assemblies

ASSE 1055
Chemical Dispensing Systems

ASSE 1056
Spill Resistant Vacuum Breaker Assemblies

ASSE 1061
Push-Fit Fittings

ASSE 1062
Temperature Actuated, Flow, Reduction (TAFR) Valves for Individual Fixture Fittings

ASSE 1066
Individual Pressure Balancing In-Line Valves for Individual Fixture Fittings

ASSE 1069
Automatic Temperature Control Mixing Valves

ASSE 1070
Water Temperature Limiting Devices

ASTM A53/ A53M
Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded, and Seamless

ASTM A888
Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

ASTM B280
Seamless Copper Tube for Air-Conditioning and Refrigeration Field Service
ASTM C1277
Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings

ASTM E84
Surface Burning Characteristics of Building Materials

ASTM E119
Fire Tests of Building Construction and Materials

ASTM E814
Fire Tests of Penetration Fire Stops

ASTM F446
Grab Bars and Accessories Installed in the Bathing Area

AWWA C110
Ductile-Iron and Gray-Iron Fittings

AWWA C151
Ductile-Iron Pipe, Centrifugally Cast

AWWA C153
Ductile-Iron Compact Fittings

AWWA C606
Grooved and Shouldered Joints

AWWA C900
Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 in. through 12 in. (100 mm through 300 mm) for Water Transmission and Distribution

AWWA C907
Injection-Molded Polyvinyl Chloride (PVC) Pressure Fittings 4 in. through 12 in. (100 mm through 300 mm), for Water, Wastewater, and Reclaimed Water Service

CISPI 301
Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

CISPI 310
Couplings for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

CSA B45.0
General Requirements for Plumbing Fixtures

CSA B45.1 / ASME A112.19.2
Ceramic Plumbing Fixtures

CSA B45.2 / ASME A112.19.1
Enamelled Cast-Iron Plumbing Fixtures

CSA B45.4 / ASME A112.19.3
Stainless Steel Plumbing Fixtures

CSA B45.5 / IAPMO Z124
Plastic Plumbing Fixtures

CSA B45.10 / ASME A112.19.7
Hydromassage Bathtub Systems

CSA B45.11 / IAPMO Z401
Glass Plumbing Fixtures

CSA B45.12 / IAPMO Z402
Aluminum and Copper Plumbing Fixtures

CSA B64
Backflow Preventers and Vacuum Breakers

CSA B64.1.1
Atmospheric Vacuum Breakers (AVB)

CSA B64.1.2
Pressure Vacuum Breakers (PVB)

CSA B64.4
Reduced Pressure Principle (RP) Backflow Preventers

CSA B125.3
Plumbing Fittings

CSA Z21.10.1
Gas Water Heaters – Volume I, Storage Water Heaters with Input Ratings of 75,000 Btu per Hour or Less

CSA Z21.10.3
Gas Water Heaters – Volume III, Storage, with Input Ratings Above 75,000 But per Hour, Circulating and Instantaneous

CSA Z21.13
Gas-Fired Low-Pressure Steam and Hot-Water Boilers

CSA Z21.40.1a
Gas-Fired, Heat Activated Air-Conditioning and Heat Pump Appliances

CSA Z21.47
Gas-Fired Central Furnaces

CSA Z21.56
Gas-Fired Pool Heaters

CSA Z21.86
Vented Gas-Fired Space-Heating Appliances

CSA Z83.11b
Gas Food Service Equipment

Energy Star – 2007
Specification for Commercial Dishwashers

Energy Star – 2011
Specification for Clothes Washers

Energy Star – 2012
Specification for Residential Dishwashers

EPA WaterSense - 2007
High-Efficiency Lavatory Faucet Specification

EPA WaterSense - 2009
Specification for Flushing Urinals

EPA WaterSense – 2011
Specification for Tank-Type Toilets

IAPMO IGC 157
Ball Valves

IAPMO IGC 193
Safety Plates, Plate Straps, Notched Plates and Safety Collars

IAPMO IGC 226
Drinking Water Fountains With or Without Chiller or Heater

IAPMO PS 23
Dishwasher Drain Airgaps

IAPMO PS 37
Black Plastic PVC or PE Pressure-Sensitive Corrosion Preventive Tape

IAPMO PS 42
Pipe Alignment and Secondary Support Systems

IAPMO PS 54
Metallic and Plastic Utility Boxes

IAPMO PS 86
Rainwater Diverter Valve for Non-Roofed Area Slabs

IAPMO PS 87
Diverter and Shutoff Valves for Pool/Spas

IAPMO PS 117
Press and Nail Connections

IAPMO Z124.5
Plastic Toilet Seats

IAPMO Z124.7
Prefabricated Plastic Spa Shells

IAPMO Z124.8
Plastic Liners for Bathtubs and Shower Receptors

IAPMO Z403 / CSA B45.8
Terrazzo, Concrete, and Natural Stone Plumbing Fixtures

73
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAPMO Z1000</td>
<td>Prefabricated Septic Tanks</td>
</tr>
<tr>
<td>IAPMO Z1001</td>
<td>Prefabricated Gravity Grease Interceptors</td>
</tr>
<tr>
<td>IAPMO Z1088</td>
<td>Pre-Pressurized Potable Water Tanks</td>
</tr>
<tr>
<td>ISEA Z358.1</td>
<td>Emergency Eyewash and Shower Equipment</td>
</tr>
<tr>
<td>MSS SP-67</td>
<td>Butterfly Valves</td>
</tr>
<tr>
<td>NSF 2</td>
<td>Food Equipment</td>
</tr>
<tr>
<td>NSF 3</td>
<td>Commercial Warewashing Equipment</td>
</tr>
<tr>
<td>NSF 4</td>
<td>Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transport Equipment</td>
</tr>
<tr>
<td>NSF 5</td>
<td>Water Heaters, Hot Water Supply Boilers, and Heat Recovery Equipment</td>
</tr>
<tr>
<td>NSF 12</td>
<td>Automatic Ice Making Equipment</td>
</tr>
<tr>
<td>NSF 14</td>
<td>Plastic Piping System Components and Related Materials</td>
</tr>
<tr>
<td>NSF 18</td>
<td>Manual Food and Beverage Dispensing Equipment</td>
</tr>
<tr>
<td>NSF 42</td>
<td>Drinking Water Treatment Units – Aesthetic Effects</td>
</tr>
<tr>
<td>NSF 44</td>
<td>Residential Cation Exchange Water Softeners</td>
</tr>
<tr>
<td>NSF 46</td>
<td>Evaluation of Components and Devices Used in Wastewater Treatment Systems</td>
</tr>
<tr>
<td>NSF 53</td>
<td>Drinking Water Treatment Units – Health Effects</td>
</tr>
<tr>
<td>NSF 55</td>
<td>Ultraviolet Microbiological Water Treatment Systems</td>
</tr>
<tr>
<td>NSF 58</td>
<td>Reverse-Osmosis Drinking Water Treatment Systems</td>
</tr>
<tr>
<td>NSF 61</td>
<td>Drinking Water System Components – Health Effects</td>
</tr>
<tr>
<td>NSF 169</td>
<td>Special Purpose Food Equipment and Devices</td>
</tr>
<tr>
<td>UL 17</td>
<td>Vent or Chimney Connector Dampers for Oil-Fired Appliances</td>
</tr>
<tr>
<td>UL 70</td>
<td>Septic Tanks, Bituminous Coated Metal</td>
</tr>
<tr>
<td>UL 80</td>
<td>Steel Tanks for Oil-Burner Fuels and Other Combustible Liquids</td>
</tr>
<tr>
<td>UL 103</td>
<td>Factory-Built Chimneys for Residential Type and Building Heating Appliances</td>
</tr>
<tr>
<td>UL 125</td>
<td>Valves for Anhydrous Ammonia and LP-Gas</td>
</tr>
<tr>
<td>UL 132</td>
<td>Safety Relief Valves for Anhydrous Ammonia and LP-Gas</td>
</tr>
<tr>
<td>UL 144</td>
<td>LP-Gas Regulators</td>
</tr>
<tr>
<td>UL 174</td>
<td>Household Electric Storage Tank Water Heaters</td>
</tr>
<tr>
<td>UL 252</td>
<td>Compressed Gas Regulators</td>
</tr>
<tr>
<td>UL 263</td>
<td>Fire Tests of Building Construction and Materials</td>
</tr>
<tr>
<td>UL 296</td>
<td>Oil Burners</td>
</tr>
<tr>
<td>UL 343</td>
<td>Pumps for Oil-Burning Appliances</td>
</tr>
<tr>
<td>UL 378</td>
<td>Draft Equipment</td>
</tr>
<tr>
<td>UL 399</td>
<td>Drinking Water Coolers</td>
</tr>
<tr>
<td>UL 404</td>
<td>Gauges, Indicating Pressure, for Compressed Gas Service Indicating Pressure</td>
</tr>
<tr>
<td>UL 429</td>
<td>Electrically Operated Valves</td>
</tr>
<tr>
<td>UL 430</td>
<td>Waste Disposers</td>
</tr>
<tr>
<td>UL 441</td>
<td>Gas Vents</td>
</tr>
<tr>
<td>UL 443</td>
<td>Steel Auxiliary Tanks for Oil-Burner Fuel</td>
</tr>
<tr>
<td>UL 499</td>
<td>Electric Heating Appliances</td>
</tr>
<tr>
<td>UL 536</td>
<td>Flexible Metallic Hose</td>
</tr>
<tr>
<td>UL 563</td>
<td>Ice Makers</td>
</tr>
<tr>
<td>UL 565</td>
<td>Liquid-Level Gauges for Anhydrous Ammonia and LP-Gas</td>
</tr>
<tr>
<td>UL 569</td>
<td>Pigtailed and Flexible Hose Connectors for LP-Gas</td>
</tr>
<tr>
<td>UL 641</td>
<td>Type L Low-Temperature Venting Systems</td>
</tr>
<tr>
<td>UL 651</td>
<td>Schedule 40, 80, Type EB and A Rigid PVC Conduit and Fittings</td>
</tr>
<tr>
<td>UL 723</td>
<td>Test for Surface Burning Characteristics of Building Materials</td>
</tr>
<tr>
<td>UL 726</td>
<td>Oil-Fired Boiler Assemblies</td>
</tr>
<tr>
<td>UL 732</td>
<td>Oil-Fired Storage Tank Water Heaters</td>
</tr>
<tr>
<td>UL 749</td>
<td>Household Dishwashers</td>
</tr>
<tr>
<td>UL 778</td>
<td>Motor-Operated Water Pumps</td>
</tr>
<tr>
<td>UL 834</td>
<td>Heating, Water Supply, and Power Boilers-Electric</td>
</tr>
<tr>
<td>UL 921</td>
<td>Commercial Dishwashers</td>
</tr>
<tr>
<td>UL 959</td>
<td>Medium Heat Appliance Factory-Built Chimneys</td>
</tr>
<tr>
<td>UL 1081</td>
<td>Swimming Pool Pumps, Filters, and Chlorinators</td>
</tr>
</tbody>
</table>
UL 1206
Electric Commercial Clothes-Washing Equipment

UL 1261
Electric Water Heaters for Pools and Tubs

UL 1331
Station Inlets and Outlets

UL 1453
Electric Booster and Commercial Storage Tank Water Heaters

UL 1469
Strength of Body and Hydraulic Pressure Loss Testing of Backflow Special Check Valves

UL 1479
Fire Tests of Through-Penetration Firestops

UL 1795
Hydromassage Bathtubs

UL 1951
Electric Plumbing Accessories

UL 2157
Electric Clothes Washing Machines and Extractors

UL 2523
Solid Fuel-Fired Hydronic Heating Appliances, Water Heaters, and Boilers

Certification Marks:

UL Listing Mark
This mark is one of the most common UL Marks. If a product bears this Mark, it means UL found that representative product samples met applicable safety requirements.

UL Gas-Fired Mark
This mark is used exclusively on gas-fired appliances and equipment, to indicate a product’s compliance to nationally recognized gas standards, including UL, ANSI Z21/Z83 Series, and the CSA/CGA standards. The UL Gas-Fired Mark indicates that a product has been evaluated to reasonable and foreseeable hazards including both gas and electrical.

Combined UL Mark for Europe, Canada and United States
This mark indicates that the product has been evaluated to European, Canadian and U.S. requirements, and is listed to the applicable standard specified.

UL Plumbing Mark
This mark appears on plumbing-related products and clearly identifies those products that comply with applicable health-effect and plumbing performance standards and requirements of plumbing codes, including the Uniform Plumbing Code. The UL Plumbing Mark appears on plumbing fixture fittings such as kitchen sink and lavatory supply fittings, bath and shower supply fittings and various types of automatic compensating valves.

UL Field Evaluated Product Mark
A Field Evaluated Product Mark is applied to a product that is thoroughly evaluated in the field instead of UL’s laboratories or a manufacturer’s facility. If a product has been significantly modified since its manufacture or the product doesn’t bear any third-party certification mark, a building owner, a regulatory authority or anyone else directly involved with the product can request that UL test a specific piece of equipment in the field. Products that meet appropriate safety requirements are labeled with a tamper resistant Field Evaluated Product Mark.
14. Water Quality Association

4151 Naperville Road
Lisle, IL  60532-1088
Phone: (630) 505-0160

Expiration: November 1, 2020

This agency is approved for listing of plumbing products to meet the referenced standards listed below as found in the City of Los Angeles Plumbing Codes, 2017 Edition:

This agency is also approved for listing of plumbing products to meet the lead-free requirements of Section 116875 of the California Health and Safety Code.

NSF 14
Plastics Piping System Components and Related Materials

NSF 18
Manual Food and Beverage Dispensing Equipment

NSF 42
Drinking Water Treatment Units - Aesthetic Effects

NSF 44
Residential Cation Exchange Water Softeners

NSF 50
Equipment for Swimming Pools, Spas, Hot Tubs, and other Rec Water Facilities

NSF 53
Drinking Water Treatment Units - Health Effects

NSF 55
Ultraviolet Microbiological Water Treatment Systems

NSF 58
Reverse Osmosis Drinking Water Treatment Systems

NSF 60
Drinking Water Treatment Chemicals - Health Effects

NSF 61
Drinking Water System Components - Health Effects

NSF 62
Drinking Water Distillation Systems

NSF 169
Special Purpose Food Equipment and Devices

WQA S-300
Point-of-Use Low Pressure Reverse Osmosis Drinking Water Systems

Certification Mark:

This marking indicates that the product is certified with the WQA Gold Seal Program and is listed to the applicable standard specified.
Part II: Approved Testing Agencies

1. Home Innovation Research Labs

400 Prince George’s Boulevard
Upper Marlboro, MD 20774
(301) 430-6246

Expiration November 1, 2019

This agency is approved for testing of plumbing products to the following standards:

- **ASME A112.19.7/CSA B45.10**
  Hydromassage Bathtub Systems

- **CSA B45.5/IAPMO Z124**
  Plastic Plumbing Systems

- **IAPMO Z124.8**
  Plastic Liners for Bathtubs and Shower Receptors

- **ICC A117.1**
  Accessible and Usable Buildings and Facilities (Chapter 6 Only)

### Certification Mark:

This marking indicates that the product has been tested and is found to be in compliance with the applicable product standard.
2. **International Association of Plumbing and Mechanical Officials (IAPMO), R&T Lab**

5001 E. Philadelphia Street
Ontario, CA 91761
Phone: (909) 472-4100

*Expiration: March 1, 2020*

This agency is approved for testing of plumbing products to the following standards:

- **ASME A112.18.1/CSA B125.1**
  Plumbing Supply Fittings

- **ASME A112.19.2/CSA B45.1**
  Ceramic Plumbing Fixtures

- **ASME A112.19.5**
  Flush valves and Spuds for Water Closets, Urinals, and Tanks

- **ASME A112.19.7**
  Hydromassage Bathtub Systems

- **ASSE 1001**
  Atmospheric Type Vacuum Breakers

- **ASSE 1002**
  Anti-Siphon Fill Valves for Water Closet Tanks

- **ASSE 1014**
  Backflow Prevention Devices for Hand-Held Showers

- **ASSE 1016**
  Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations

- **ASSE 1017**
  Temperature Actuated Mixing Valves for Hot Water Distribution Systems

- **ASSE 1019**
  Wall Hydrant with Backflow Protection and Freeze Resistance

- **ASSE 1037**
  Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures

- **IAPMO Z124.5**
  Plastic Toilet Seats

- **IAPMO Z124.7**
  Prefabricated Plastic Spa Shells

- **IAPMO Z124.8**
  Plastic Liners for Bathtubs and Shower Receptors

- **IAPMO Z124**
  Plastic Plumbing Fixtures

- **IAPMO Z124.5**
  Plastic Toilet Seats

- **IAPMO Z124.7**
  Prefabricated Plastic Spa Shells

- **IAPMO Z124.8**
  Plastic Liners for Bathtubs and Shower Receptors
This agency is approved for testing of mechanical products to meet the referenced standards listed below as found in the City of Los Angeles Mechanical Code, 2020 Edition:

- **CSA Z21.1**: Household Cooking Gas Appliances
- **CSA Z21.42**: Gas-Fired Illuminating Appliances
- **CSA Z83.11**: Gas Food Service Equipment (same as CSA 1.8)
- **CSA Z21.47**: Gas-Fired Central Furnaces (same as CSA 2.3)
- **CSA Z83.18**: Recirculating Direct Gas-Fired Industrial Air Heaters
- **CSA Z21.50**: Vented Gas Fireplaces (same as CSA 2.22)
- **CSA Z83.19a**: Gas-Fired High-Intensity Infrared Heaters (same as CSA 2.35a)
- **CSA Z21.56**: Gas-Fired Pool Heaters (same as CSA 4.7)
- **CSA Z83.20b**: Gas-Fired Low-Intensity Infrared Heaters (same as CSA 2.34b)
- **CSA Z21.58**: Outdoor Cooking Gas Appliances (same as CSA 1.6)
- **CSA Z21.60**: Decorative Gas Appliances for Installation in Solid-Fuel Burning Fireplaces (same as CSA 1.6)
- **UL 103**: Factory-Built Chimneys for Residential Type and Building Heating Appliances
- **CSA Z21.61**: Gas-Fired Toilets
- **UL 127**: Factory-Built Fireplaces
- **CSA Z21.86**: Vented Gas-Fired Space Heating Appliances (same as CSA 2.32)
- **UL 181**: Factory-Made Air Ducts and Air Connectors
- **CSA Z21.88**: Vented Gas Fireplace Heaters (same as CSA 2.33)
- **UL 295**: Commercial-Industrial Gas Burners
- **CSA Z83.4**: Non-Recirculating Direct Gas-Fired Industrial Air Heaters (same as CSA 3.7)
- **UL 441**: Gas Vents
- **CSA Z83.8**: Gas Unit Heaters, Gas Packed Heaters, Gas Utility Heaters, and Gas-Fired Duct Furnaces (same as CSA 2.6)
- **UL 471**: Commercial Refrigerators and Freezers
- **CSA Z21.9**: Refrigerators Using Gas Fuel (same as CSA 1.4)
- **UL 737**: Fireplace Stoves
- **UL 1046**: Grease Filters for Exhaust Ducts