QAI LABORATORIES
CERTIFICATION TESTING INSPECTION

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CLIENT: **Trugard Systems**
892 Van Briggle Path
Sugar Hill, GA 30518

Test Report No: TJ2370-1	Date: September 24, 2014

SAMPLE ID: **TGLD-48SS-S-1**
TGLD-28SS-S-1
TGLD-28SS-CL-1
TGLD-28SS-TI-1

SAMPLING DETAIL: Test samples were submitted to the laboratory directly by the client. No special sampling conditions or sample preparation were observed by QAI.

DATE OF RECEIPT: Samples were received at QAI on August 26, 2014.

TESTING PERIOD: September 15, 2014 – September 17, 2014.

AUTHORIZATION: Signed Work Order *(FB-2014-081903)* by Mathew Kriser, Manager on August 21, 2014.

TEST PROCEDURE: Test and evaluate the submitted samples to *ASME A112.18.2-2011/ CSA B125.2-11 Plumbing waste fittings.*

TEST RESULTS: The samples **meet** the criteria of ASME A112.18.2-2011. Detailed test results are presented in the subsequent pages of this report.

Prepared By

Christopher Clark
Laboratory Test Technician

Signed for and on behalf of QAI Laboratories, Inc.

Joe Cavett
Laboratory Project Manager

4 General requirements

4.1 Materials

4.1.8 Stainless steel **Pass**

Requirements: Stainless steel alloys shall be of the 300 or 400 Series.

4.2 Installation

4.2.1 Connection to waste system **Pass**

Requirements: Waste fittings shall be provided with a means to connect to a type of trap or waste system in common use.

4.2.2 Protection of finish **Pass**

Requirements: Provision shall be made to enable waste fittings to be connected and mounted without marring the finish or otherwise damaging the fitting or the surface on which it is to be mounted.

4.2.3 Fixture seal **Not Applicable**

4.3 Threads **Not Applicable**

4.4 Solder connections **Not Applicable**

4.5.1 Use of standard tools **Pass**

Requirements: Repair and maintenance of waste fittings shall be accomplished with the use of standard tools.

4.5.2 Replacement part design **Pass**

Requirements: Joints that have to be taken apart to replace worn parts after the fitting is installed shall be designed so that disassembly and replacement are possible without damaging or marring the fitting or significant surface on which the fitting is installed.

4.6.1.2 Sink, shower, bathtub, laundry tub, and bar sink waste fittings **Pass**

Requirements: Sink, shower, bathtub, laundry tub, and bar sink waste fittings shall be provided with a minimum 1-1/2 in nominal outside diameter (OD) outlet.

4.6.3.1 Metal tube and tubular fittings **Pass**

Requirements: When measured on a straight portion of the part, the wall thickness of metal tube and tubular fittings shall be at least the following:

(a) Brass or copper:
  (i) 0.73 mm (0.029 in) unthreaded;
  (ii) 0.83 mm (0.032 in) threaded by cutting; and
  (iii) 0.40 mm (0.016 in) for corrugated tubing: and
(b) Stainless steel:
  (i) 0.30 mm (0.012 in) unthreaded; and
  (ii) 0.83 mm (0.032 in) threaded by cutting.

5 Performance requirements and test procedures

5.2 Corrosion **Pass**

Requirements: When tested in accordance with Clause 5.2.2 (tested in accordance with ASTM B117 for 96 hours), functional metallic parts shall not exhibit corrosion that would adversely affect the functioning of the fitting or the disassembly and reassembly of the components. Disassembly and reassembly of the functional metallic parts shall be accomplished without damage to the components or the fitting on completion of the test procedure specified in Clause 5.2.2.

5.3 Thermal cycling **Pass**

Requirements: When tested in accordance with Clause 5.3.2, waste fittings shall show no signs of cracking, leaking, or deformation.

5.4 Coatings **Pass**

Requirements: Coatings shall comply with Clause 5.2 of ASME A112.18.1/ CSA B125.1.

5.5 Shower drain strainers **Pass**

Requirements: When tested in accordance with Clause 5.5.2 (a 300 lb load applied uniformly through a 2 inch load distribution disk for 2 minutes), shower drain strainers shall not crack or deflect more than 3% of the largest transverse dimension with the load in place.

5.6 Sink strainer assemblies **Not Applicable**

5.7 Body and clamping rings of subdrains for built-up shower pans **Not Applicable**

5.8 Minimum flow rate **Pass**

Requirements: The minimum flow rate for a waste fitting with all of its component parts installed shall be 27 L/min (7.0 gpm) when a sustained water head of 150 mm (6.0 in) is applied above the inlet and the outlet is open to the atmosphere.

5.9 Strength **Not Applicable**

5.10 Life cycle **Not Applicable**

5.11 Seals leakage **Pass**

Requirements: When tested in accordance with Clause 5.11.1.2 (Subject the specimen to the static pressure of a 6 in column of water for 5 minutes.), the seals of waste fittings used to control drainage flow shall not leak more than 1.0 gph.

6 Markings, packaging, and installation instructions

6.1 General **Pass**

Requirements: Products covered by and complying with this Standard shall be marked with the manufacturer's recognized name, trademark, or other mark; or in the case of private labeling, the name, trademark, or other mark of the customer for whom the fitting was manufactured.

6.2 Packaging **Pass**

Requirements: Packaging shall be marked with the manufacturer's recognized name, trademark, or other mark; or in the case of private labeling, the name, trademark, or other mark of the customer for whom the fitting was manufactured.

*** END OF TEST REPORT ***