

Exclusive Manufacturer of the HYDRAMATIC Hydraulic Swimming Pool Safety Cover

RE: ASTM F-1346-91 CERTIFICATION

To Whom It May Concern,

The pool cover fabric used by Aquamatic Cover Systems for all the safety cover systems consists of a 16 oz. sq. yd. solid vinyl, including a polyester substrata scrim reinforcing layer to enhance tear strength and prevent tear propagation.

The material used substantially exceeds ASTM requirements set forth for safety covers of the type manufactured and distributed by this company. ASTM F-1346-91 requirements are as follows;

The cover and fabric installed on the swimming pool filled to its normal water level shall be capable of supporting the weight of 485 lbs. This total weight shall be composed of one 210 lb., one 225 lb., and one 50 lb. weight, each distributed over a one square foot area and all three contained within a three foot radius. The test weights shall be placed at the center of the cover system (or at least 4 ft., but not to exceed 6 ft.) from the edge of the swimming pool. The above test shall not cause damage to allow any of the test objects or the persons to pass through the cover.

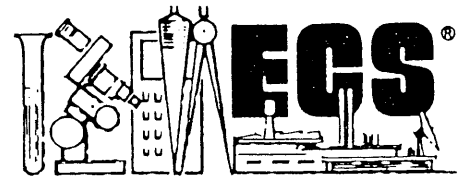
The Aquamatic Cover Systems have, in fact, been independently tested by two testing agencies including Underwriters Laboratories to exceed the above listed standard.

Sincerely,

A handwritten signature in black ink, appearing to read "H. Last", with a long, sweeping horizontal line extending to the right.

Harry J. Last, BSME, MBA  
President

dm:hjl



AUTOMATIC SWIMMING POOL COVER CERTIFICATION

ECS® File: #059T3030-2  
Date Tested: May 20, 1993  
Date Reported: May 21, 1993

Specification: ASTM Designation: F 1346-91

Tested Unit: Built-In, Under-Deck-Track, Automatic Swimming Pool Cover System

Source: Manufacturer: AquaMatic Cover Systems

**\* LABORATORY ANALYSIS \***

REFERENCE: Standard Performance Specification and Labeling Requirements for Safety Covers for Swimming Pools, Spas and Hot Tubs (ASTM Designation: F 1346-91).

1. **SCOPE**  
Requirements for safety per ASTM F 1346-91.
2. As stated in referenced standard.
3. As stated in referenced standard.
4. **CLASSIFICATIONS & MINIMUM CRITERIA**
  - 4.1 Power Safety Cover (PSC):  
Provides a high level of safety for children under the age of five by inhibiting their access to the water.
    - 4.1.1 As stated in referenced standard.
5. **MATERIALS AND MANUFACTURE**  
Test unit complies with the 5.1, 5.2 and 5.3 requirements.

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### 6. GENERAL REQUIREMENTS FOR SAFETY COVERS

- 6.1 Installation/Use of safety covers. Unit complies with requirement.
- 6.2 Label attached to the cover meets, and/or exceeds the general requirements as required by the 8.5.1, 8.8, 8.8.1 and 8.8.2 guidelines.
- 6.3 Markings for safety covers.
  - 6.3.1 Unit lists manufacturers name. Unit complies with guideline.
  - 6.3.2 Unit lists date manufactured. Unit complies with guideline.
  - 6.3.3 Manufacturer provides instructions to consumers to inspect the cover for premature wear in consumer packaging. Unit therefore complies.
  - 6.3.4 Label attached to unit meets the general requirements described in 8.4.1, 8.7, 8.7.1, 8.7.2., 8.7.3, 8.8, 8.8.1 and 8.9. Unit complies with guideline.
- 6.4. Fastening Mechanisms or Devices. Fastening devices remained in their intended, secured positions when the test unit was subjected to the load and perimeter deflection tests performed as called for under the 9.1 and 9.2 guidelines. Unit complies with all requirements.
- 6.5. Openings. No openings were allowed, when tested by the test method described in 9.4. Test object did not gain access to the water, nor was it subject to entrapment. Therefore, unit complies with this guideline.
- 6.6. Seams, ties or welds in the cover showed no signs of damage when tested by the methods described in 9.1, 9.2, 9.3 and 9.4. Unit met all requirements under this guideline.

### 7. PERFORMANCE REQUIREMENTS FOR SAFETY COVERS

Refer to Test Methods as described in the 9.1, 9.2, 9.3 and 9.4 guidelines.

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### 8. **MINIMUM LABEL REQUIREMENTS FOR ALL COVERS**

Unit complies with requirements.

### 9. **TEST METHODS FOR SAFETY COVERS**

9.1 **Static Load Test.** Test Unit was subjected to 490-lbs (composed of one 150-lb, one 160-lb and one 180-lb weight) slightly exceeding load required per Standard. Test objects were applied at two different points (the center point of the cover; and, between attachment points at a distance of 4.5 feet) and remained in each test position for a period of 5 minutes or greater. Although, normal deflection was observed, no passage through the cover was possible. Test Unit complies with requirement.

9.2 **Perimeter Deflection Test.** Applied 50-lb weight at a distance of four-and-one-half feet from side of pool. Applied 36.6-lb. ellipsoidal shaped test object. Test Unit did not allow the test object to pass through, gain access to, or be subject to entrapment between the cover and the side of the pool. Test Unit complies with requirements.

9.3 **Surface Drainage Test.** Applied a 36.6-lb. torso shaped test object in a supine position, faceup, at a distance of two-and-one-half feet parallel with edge of pool. An even water spray was applied at a rate of 10 gallons per minute. After 3 minutes, minimal water collection was observed around test object. Continued applying water with no unsafe water pooling. After 30 minutes drain time, re-applied 36.6-lb test object with no unsafe amount of water pooling. Test Unit complies with requirements.

9.4 **Openings Test.** Applied solid faced spherical test object with a breadth of 4.5 in. at a force rate of 40-lbs., steadily, to the top surface of the pool. No allowable passage was observable. Test Unit complies with requirements.

### 10. **OPERATING CONTROLS, SAFETY COVERS**

10.1 Unit complies with requirements.

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10.2 Unit complies with requirements.

10.3 Unit complies with requirements.

10.4 Pool cover operating controls.

10.4.1 Controls comply with requirements. Unit complies with requirements.

10.4.2 Unit complies with requirements.

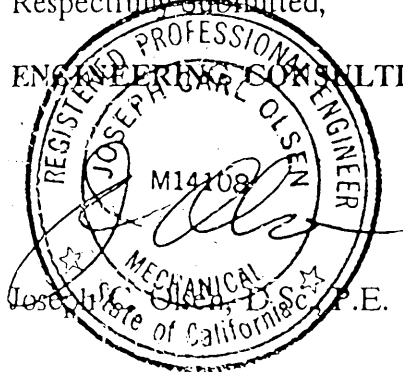
CONCLUSION:

Tested unit has met all requirements of this Standard.

UNIT COMPLIES WITH ASTM F 1346-91 REQUIREMENTS.

Respectfully Submitted,

ENGINEERING CONSULTING SERVICES®



93.05.20CKK