



American National Standard for

# Submersible Pump Tests

ANSI/HI 11.6-2001



6 Campus Drive  
First Floor North  
Parsippany, New Jersey  
07054-4406  
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**Submersible Pump Tests**

Secretariat  
**Hydraulic Institute**  
[www.Pumps.org](http://www.Pumps.org)

Approved June 10, 2002  
**American National Standards Institute, Inc.**

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Published By

**Hydraulic Institute**  
**6 Campus Drive, First Floor North**  
**Parsippany, NJ 07054-4406**

**[www.Pumps.org](http://www.Pumps.org)**

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Printed in the United States of America

ISBN 1-880952-51-3



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## **Foreword (Not part of Standard)**

### **Purpose and aims of the Hydraulic Institute**

The purpose and aims of the Institute are to promote the continued growth and well-being of pump manufacturers and further the interests of the public in such matters as are involved in manufacturing, engineering, distribution, safety, transportation and other problems of the industry, and to this end, among other things:

- a) To develop and publish standards for pumps;
- b) To collect and disseminate information of value to its members and to the public;
- c) To appear for its members before governmental departments and agencies and other bodies in regard to matters affecting the industry;
- d) To increase the amount and to improve the quality of pump service to the public;
- e) To support educational and research activities;
- f) To promote the business interests of its members but not to engage in business of the kind ordinarily carried on for profit or to perform particular services for its members or individual persons as distinguished from activities to improve the business conditions and lawful interests of all of its members.

### **Purpose of Standards**

- 1) Hydraulic Institute Standards are adopted in the public interest and are designed to help eliminate misunderstandings between the manufacturer, the purchaser and/or the user and to assist the purchaser in selecting and obtaining the proper product for a particular need.
- 2) Use of Hydraulic Institute Standards is completely voluntary. Existence of Hydraulic Institute Standards does not in any respect preclude a member from manufacturing or selling products not conforming to the Standards.

### **Definition of a Standard of the Hydraulic Institute**

Quoting from Article XV, Standards, of the By-Laws of the Institute, Section B:

“An Institute Standard defines the product, material, process or procedure with reference to one or more of the following: nomenclature, composition, construction, dimensions, tolerances, safety, operating characteristics, performance, quality, rating, testing and service for which designed.”

### **Comments from users**

Comments from users of this Standard will be appreciated, to help the Hydraulic Institute prepare even more useful future editions. Questions arising from the content of this Standard may be directed to the Hydraulic Institute. It will direct all such questions to the appropriate technical committee for provision of a suitable answer.

If a dispute arises regarding contents of an Institute publication or an answer provided by the Institute to a question such as indicated above, the point in question shall be referred to the Executive Committee of the Hydraulic Institute, which then shall act as a Board of Appeals.

## Revisions

The Standards of the Hydraulic Institute are subject to constant review, and revisions are undertaken whenever it is found necessary because of new developments and progress in the art. If no revisions are made for five years, the standards are reaffirmed using the ANSI canvass procedure.

## Scope

This standard applies to tests of centrifugal submersible pumps driven by induction motors, unless stated otherwise. A centrifugal submersible pump is defined as a close-coupled impeller pump/motor unit designed to operate submerged in liquid. This definition includes submersible pumps operating in either a wet-pit or dry-pit environment. This standard does not apply to submersible vertical turbine pumps or to accessory items, such as discharge elbows, suction fittings, or sliding connections.

## Units of Measurement

Metric units of measurement are used; corresponding US units appear in brackets. Charts, graphs and sample calculations are also shown in both metric and US units.

Since values given in metric units are not exact equivalents to values given in US units, it is important that the selected units of measure to be applied be stated in reference to this standard. If no such statement is provided, metric units shall govern.

## Consensus for this standard was achieved by use of the Canvass Method

The following organizations, recognized as having an interest in the standardization of centrifugal pumps were contacted prior to the approval of this revision of the standard. Inclusion in this list does not necessarily imply that the organization concurred with the submittal of the proposed standard to ANSI.

Black & Veatch Corporation	Kellogg, Brown & Root
Brown & Caldwell	Malcolm Pirnie, Inc.
Camp Dresser & McKee	Montana State University
Cheng Fluid Systems	Montgomery Watson Harza
Cornell Pump Company	National Pump Company, LCC
DuPont Engineering	Sewerage and Water Board of New Orleans
Equistar LP	Simflo Pumps Inc.
F.E. Myers, Pentair Pump Group	SJE-Rhombus
Fairbanks Morse, Pentair Pump Group	South Florida Water Management District
Floway Pumps	Stettler Supply Company
Flowserve Corporation	SWPA
Flygt - ITT Industries	Systecon, Inc.
Franklin Electric	The Process Group
Goulds Industrial Pumps - ITT Industries	Weir Speciality Pumps
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