



American National Standard for

Rotodynamic (Centrifugal and Vertical) Pumps

– Guideline for Allowable Operating
Region

ANSI/HI 9.6.3-2012



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Parsippany, New Jersey
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www.Pumps.org

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**Rotodynamic (Centrifugal and
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American National Standard

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Contents

Page

Foreword	v
9.6.3 Allowable operating region	1
9.6.3.1 Preferred operating region	1
9.6.3.2 Allowable operating region	1
9.6.3.3 Factors affecting AOR	2
Appendix A Index	9
Figures	
9.6.3.3.7a – NPSH versus rate of flow	5
9.6.3.3.7b – NPSH margin versus rate of flow	5
9.6.3.3.8a – Pump head versus rate-of-flow curve illustrating a “droop”	6
9.6.3.3.8b – Pump head versus rate-of-flow curve illustrating a “dip”	7
9.6.3.3.9a – Estimated minimum rate of flow to avoid suction recirculation (metric units)	8
9.6.3.3.9b – Minimum rate of flow to avoid suction recirculation (US customary units, in thousands)	8
Tables	
9.6.3.1 — Preferred operating region related to specific speed	1

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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 of the 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 and guidelines 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 and Guidelines

- 1) Hydraulic Institute Standards and Guidelines 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 and Guidelines is completely voluntary. Existence of Hydraulic Institute Standards or Guidelines does not in any respect preclude a member from manufacturing or selling products not conforming to these standards or guidelines.

Definition of a Hydraulic Institute Guideline

A Hydraulic Institute Guideline is not normative. The guideline is tutorial in nature, to help the reader better understand the subject matter.

Comments from users

Comments from users of this guideline will be appreciated, to help the Hydraulic Institute prepare even more useful future editions. Questions arising from the content of this guideline may be sent to the Technical Director of the Hydraulic Institute. The inquiry will then be directed to the appropriate technical committee for provision of a suitable answer.

If a dispute arises regarding the contents of an Institute Standard or Guideline, or an answer provided by the Institute to a question such as indicated above, the point in question shall be referred to the Technical Director of the Hydraulic Institute, who shall initiate the Appeals Process.

Revisions

The Standards and Guidelines 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 or guidelines are reaffirmed using the ANSI canvass procedure.

Scope

This guideline applies to rotodynamic (centrifugal and vertical) pump types. It describes the effects of operating a rotodynamic pump at rates of flow that are greater or less than the rate of flow at the pump's best efficiency point (BEP).