First edition 2007-08-15

Pumps — Testing — Submersible mixers for wastewater and similar applications

Pompes — Essais — Mélangeurs immergés pour eaux usées et applications similaires



Reference number ISO 21630:2007(E)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Cont	ents	age
Forewo	ord	iv
Introduction		v
1	Scope	1
2	Terms and definitions	1
3	Symbols and abbreviated terms	3
4 4.1 4.2	Guarantees	4
5 5.1 5.2 5.3 5.4	Execution of tests	5 6 8
6 6.1 6.2 6.3 6.4	Analysis of test results Translation of the test results to the guarantee conditions Measurement uncertainties Values of tolerance factors Verification of guarantees	. 11 . 12 . 13
7 7.1 7.2 7.3	Measurement of thrust	. 15 . 18
8	Measurement of mixer electric power uptake	. 19
Annex	A (informative) Checklist	. 20
Bibliog	ıraphy	. 21

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 21630 was prepared by Technical Committee ISO/TC 115, *Pumps*, Subcommittee SC 2, *Methods of measurement and testing*.

Introduction

This International Standard prescribes acceptance test methods for submersible mixers for wastewater and other applications. It is intended for performance measurements relevant to submersible mixers bearing in mind the similarities to, and crucial differences from, submersible pumps. Hence head (pressure) and flow rate measurements are not included. The basic output performance parameter is the thrust. As continuous operation is commonplace, electric power consumption is important for the Life Cycle Cost, and is put forward as an important parameter. It is acknowledged that the present International Standard draws heavily on ISO 9906:1999 in the generalities.

The major objectives of this International Standard are to

- increase uniformity/compatibility in equipment performance characterization, enabling a comparison of mixers,
- simplify communication between customer and supplier and protect customers,
- reduce the need for documentation.
- increase quality and efficiency in both machinery and process.