

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS B 8703 : 2025

**Performance measurement method of
drag-reducing agent for water circulation
system in central air conditioning system**

ICS 17.020;23.120

Reference number: JIS B 8703 : 2025 (E)

PROTECTED BY COPYRIGHT

9 5

B 8703 : 2025

Date of Establishment: 2025-05-20

Date of Public Notice in Official Gazette: 2025-05-20

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Industrial Machinery

JIS B 8703 : 2025, First English edition published in 2026-06

Translated and published by: Japanese Standards Association
Mita Avanti, 3-11-28, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2026

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 the publisher.

Printed in Japan

HN

PROTECTED BY COPYRIGHT

Contents

	Page
1	Scope 1
2	Normative references 1
3	Terms and definitions 1
4	Performance evaluation criteria 2
5	Drag-reducing performance tests 2
5.1	Test fluid 2
5.2	Measuring apparatus 2
5.3	Measurement of drag reduction rate 3
5.4	Measurement of drag reduction durability 7
6	Rust prevention performance test 7
6.1	Test fluid 7
6.2	Measuring equipment 7
6.3	Measurement conditions and procedure 8
6.4	Calculation of corrosion rate 9
7	Test report 9
Annex A (informative)	Example of test report format 10

Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Act.

This **JIS** document is protected by the Copyright Act.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, published patent application or utility model rights.

Performance measurement method of drag-reducing agent for water circulation system in central air conditioning system

1 Scope

This Japanese Industrial Standard specifies the test methods for drag-reducing performance and rust prevention performance (corrosion rate) of drag-reducing agent used for closed-loop water circulation system in central air conditioning system (hereafter referred to as the drag-reducing agent), as well as items to be included in the test report. This Standard covers the drag-reducing performance in the temperature range from a typical chilled water circulation temperature for cooling to around ordinary temperature, and the rust prevention performance at a typical hot water circulation temperature for heating.

This Standard is also applicable where the drag-reducing agent is added to reduce pipe resistance in a circulation system using antifreeze solutions (organic brines) such as propylene glycol aqueous solutions.

2 Normative references

Part or all of the provisions of the following standards, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS G 3141 *Cold-reduced carbon steel sheet and strip*

JIS H 3100 *Copper and copper alloy sheets, plates and strips*

JIS Z 0103 *Glossary of terms used in rust and corrosion preventive technology*

3 Terms and definitions

For the purpose of this Standard, the following terms and definitions, and those given in **JIS Z 0103** apply.

3.1

pipe resistance

force acting in the direction opposite to the fluid flow within the piping, caused by friction between the inner wall of the piping and the fluid

3.2

pressure drop of piping

energy lost by a fluid as it flows through the piping and pipe fittings (such as elbows, reducers, and valves)