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Testing methods for turbo-fans

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS B 8330 : 1981** is replaced with **JIS B 8330 : 2000**.

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In the event of any doubts arising as to the contents,
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Testing methods for turbo-fans

Introduction The body of this Standard specifies the testing methods for turbo-fans which have been conventionally specified in the Japanese Industrial Standard, and the Annex of this Standard has been prepared based on the first edition of **ISO 5801** *Industrial fans—Performance testing using standardized airways* published in 1997 without any modification in technical contents.

The concept of **ISO** Standard differs largely from that of the conventional **JIS** by adopting almost all test apparatus structures specified in respective original test standards of European countries and USA which are currently used, in consideration of the fact that test apparatus, especially that for a large-sized fan, is very expensive. Accordingly, **ISO** Standard specifies the fan test apparatus not limited to one kind, but adopts, although it varies according to each installation type, seven or eight kinds of the test apparatus used in European countries and USA. For choosing which test apparatus among them to use, **ISO** Standard adopts a selection system of test apparatus and calculation method, where the choice is left to the standard-using side. Therefore, this Standard adopts a selection system between the body and Annex, where the body of the conventional **JIS** used widely in Japan and Southeast Asia is applied as it is, and the performance test may be carried out according to the Annex.

1 Scope This Japanese Industrial Standard specifies the test and inspection method for centrifugal fans, axial flow fans, mixed flow fans, etc. (hereafter referred to as “fans”) of about less than 1.3 pressure ratio⁽¹⁾ performed at works using air at room temperatures and normal pressures. In the case of the test and inspection for fans having a special structure or fans to be used under special gases or other special conditions, the agreement between the parties concerned with delivery shall be made and this Standard shall suitably apply by accepting or rejecting or supplementing it.

Furthermore, the performance test may be carried out according to the Annex.

Note ⁽¹⁾ This pressure ratio indicates the case where a fan is tested using the room temperature air. When the pressure ratio exceeds this value when using the room temperature air, **JIS B 8340** shall apply.

Remarks : The corresponding International Standard of this Standard shall be as follows:

ISO 5801 : 1997 *Industrial fans—Performance testing using standardized airways*

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 0132 *Glossary of terms for fans, blowers and compressors*

JIS B 8340 *Testing methods for turbo blowers and compressors*

JIS B 8346 *Fans, blowers and compressors—Determination of A-weighted sound pressure level*