

# JIS

JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

---

JIS S 3019 : 1997

## Oil control valves for oil burning appliances

---

ICS 27.060.10

**Descriptors** : controllers, safety valves, control devices, control equipment, fluidic  
control equipment, burners, oil-fuelled devices, liquid fuel appliances

**Reference number** : JIS S 3019 : 1997 (E)

S 3019 :1997

## Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS S 3019 : 1979** is replaced with **JIS S 3019 : 1997**.

Although this Standard was reaffirmed in 1985 and 1990, it has been more than 15 years since the Standard was revised in 1979. This revision was made to conform to the present situation of oil control valves.

Date of Establishment: 1969-11-01

Date of Revision: 1997-06-20

Date of Public Notice in Official Gazette: 1997-06-20

Investigated by: Japanese Industrial Standards Committee  
Divisional Council on Consumer Life

---

JIS S 3019:1997, First English edition published in 1998-12

Translated and published by: Japanese Standards Association  
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

---

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

© JSA 1998

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

PROTECTED BY COPYRIGHT

## Contents

|  | Page |
|--|------|
| Introduction.....                                      | 1    |
| 1 Scope.....   | 1    |
| 2 Normative references.....                            | 1    |
| 3 Classification.....                                  | 1    |
| 4 Qualitative performance.....                         | 2    |
| 5 Construction.....                                    | 2    |
| 5.1 Generic construction.....                          | 2    |
| 5.2 Construction of sealed type oil control valve..... | 4    |
| 6 Materials.....                                       | 5    |
| 7 Processing.....                                      | 5    |
| 8 Appearance.....                                      | 5    |
| 8.1 Appearance.....                                    | 5    |
| 8.2 Rust prevention.....                               | 5    |
| 9 Test method.....                                     | 5    |
| 9.1 Test condition.....                                | 5    |
| 9.1.1 Temperature in the laboratory.....               | 5    |
| 9.1.2 Test oil.....                                    | 5    |
| 9.1.3 Test voltage and frequency.....                  | 5    |
| 9.1.4 Measuring devices.....                           | 5    |
| 9.2 Leakage test.....                                  | 5    |
| 9.2.1 Main body.....                                   | 5    |
| 9.2.2 Float.....                                       | 5    |
| 9.3 Closing capacity test.....                         | 5    |
| 9.3.1 Inflow valve.....                                | 6    |
| 9.3.2 Abnormal inflow breaker.....                     | 6    |
| 9.3.3 Outflow valve.....                               | 6    |
| 9.4 Salt-water resistant test.....                     | 6    |
| 9.4.1 Test apparatus.....                              | 6    |
| 9.4.2 Preparation for specimen.....                    | 6    |
| 9.4.3 Test method.....                                 | 6    |
| 9.5 Indication accuracy.....                           | 6    |
| 9.6 Inclination test.....                              | 7    |

|   | Page |
|---|------|
| 9.7 Head change test                                    | 7    |
| 9.8 Repeated operation test for flow control            | 8    |
| 9.9 Repeated operation test for abnormal inflow breaker | 8    |
| 9.10 Falling test                                       | 8    |
| 9.11 Airtightness test                                  | 8    |
| 9.12 Flow change test at low temperature                | 8    |
| 9.13 Oilproof test                                      | 9    |
| 9.14 Insulation resistance test                         | 9    |
| 9.15 Withstand voltage test                             | 9    |
| 9.16 Construction                                       | 9    |
| 9.17 Material   | 9    |
| 9.18 Processing   | 9    |
| 9.19 Appearance   | 9    |
| 9.20 Marking  | 9    |
| 9.21 Marking for exports                                | 9    |
| 10 Inspection   | 10   |
| 10.1 Type inspection                                    | 10   |
| 10.1.1 Application of type inspection                   | 10   |
| 10.1.2 Sampling and sample size of specimen             | 10   |
| 10.1.3 Inspection items                                 | 10   |
| 10.1.4 Criterion  | 10   |
| 10.1.5 Inspection record                                | 10   |
| 10.2 Products inspection                                | 10   |
| 10.2.1 Application of products inspection               | 10   |
| 10.2.2 Inspection items                                 | 10   |
| 10.2.3 Criterion  | 10   |
| 10.2.4 Inspection record                                | 10   |
| 11 Marking  | 11   |
| 11.1 Marking  | 11   |
| 11.2 Markings on flow control, etc.                     | 11   |
| 11.3 Marking of type inspection passed                  | 11   |
| 12 Marking for export                                   | 11   |
| Attached Fig. 1 Open type                               | 12   |
| Attached Fig. 2 Sealed type                             | 13   |
| Attached Table 1 Material                               | 14   |
| Attached Table 2 Testing devices                        | 14   |

## Oil control valves for oil burning appliances

**Introduction** For the purpose of securing the quality, performance and safety of oil control valves used mainly for pot type oil space heaters, **JIS S 3019** was established in 1969.

**1 Scope** This Japanese Industrial Standard specifies constant level type <sup>(1)</sup> oil control valves for oil burning appliances used at an oil head of 2.5 m or less (hereafter referred to as “oil control valves”).

Note <sup>(1)</sup> Constant level type means a system keeping fed oil at a constant level to control the flow rate with an outflow valve.

**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 indicated below shall be applied.

JIS B 0202 *Parallel pipe threads*

JIS B 0205 *Metric coarse screw threads*

JIS B 0207 *Metric fine screw threads*

JIS K 2201 *Gasoline for industrial purpose*

JIS K 2203 *Kerosine*

JIS S 3028 *Oil discharge copper pipe for oil burning appliances*

JIS Z 2371 *Methods of neutral salt spray testing*

JIS Z 8803 *Viscosity of liquid—Methods of measurement*

**3 Classification** Oil control valves shall be classified by the construction as given in Table 1.

**Table 1 Classification**

| Classification | Construction   | Informative reference |
|----------------|--|-----------------------|
| Open type      | Keeping a constant oil level with float or the like, and having an outlet on the area upper oil surface.   | Attached Fig. 1       |
| Sealed type    | Keeping a constant oil level with float or the like, and holding airtightness of the area upper oil surface with oil resistant packings and the like. Excepting the draft cylinder part. | Attached Fig. 2       |