

JIS

JAPANESE INDUSTRIAL STANDARD

Vacuum Flanges

JIS B 2290 — 1968

Translated and Published

by

Japanese Standards Association

Printed in Japan

6 S



Translation without guarantee
In the event of any doubt arising, the original
standard in Japanese is to be evidence

B 2290-1968

Japanese Text

Established by Minister of International Trade and Industry

Date of Establishment: March 29, 1957

Date of Revision: March 1, 1968

Date of Reaffirmation: February 1, 1974

Date of Public Notice in Official Gazette: February 22, 1974

Investigated by: Japanese Industrial Standards Committee
Technical Committee on Vacuum Flange
(Chairman: ISHII Hiroshi)
Divisional Council on Machine Element
(Chairman: AOKI Yasuo)

This English translation is published by:
Japanese Standards Association
1-24, Akasaka 4, Minato-ku,
Tokyo 107 Japan

JAPANESE INDUSTRIAL STANDARD

J I S

Vacuum Flanges

B 2290-1968
(Reaffirmed: 1974)1. Scope

This standard specifies welded, cast and forged flanges, hereinafter referred to as the "flange", to be used in the joint of pipes, pumps and valves of a vacuum apparatus.

This standard applies ordinarily in case that the interior of pipes and containers of the system is in vacuum.

2. Kind of Flanges and Materials

The kind of flanges and materials shall be as specified by Table 1.

Table 1

Kind of flanges	Materials
Welded flange	The material of this flange shall be the one specified by SS 41 of JIS G 3101 or any other material as strong as or stronger than that and fit for welding.
Cast flange	The material of this flange shall be the one specified by FC 15 of JIS G 5501 or any other cast material as strong as or stronger than that.
Forged flange	The material of this flange shall be the one specified by S 20 C of JIS G 4051 or any other forged material as strong as or stronger than that.

3. Types

The types of flanges shall be classified in conformity with Table 2 according to the form of the face of the joint.

Reference Standards:

JIS B 0601-Surface Roughness, Waviness

JIS B 2401-O Rings

JIS G 3101-Rolled Steel for General Structure

JIS G 4051-Carbon Steel for Machine Structural Use

JIS G 5501-Grey Iron Castings

Table 2

Type	Mark	Shape of joint face
Flat type	VF	The face shall be flat with no gasket groove (see Attached Table 1)
Grooved type	VG	The face shall be grooved for gasket (see Attached Table 1)

4. Shape and Dimensions

The shape and standard dimensions of the flange shall be as specified by Attached Table 1 and their tolerance by Attached Table 2.

5. Appearance

The surface of the flange shall be smooth and free from detrimental cracks, fissures, flaws, rust and other defects. The welded flange shall have no foreign substance on the welding and the cast flange shall have no blow holes or cavities.

6. Finishing

The mating face of the flange to which the gasket is to be applied and the bottom of the gasket groove shall, as a rule, be finished in conformity with 6-S of JIS B 0601 (VVV finish).

7. Way of Use of the Flanges

The grooved type (VG) with the gasket (see the Reference) inserted into the groove and the flat type (VF) shall make the couple to be jointed. The couple of flanges shall be fastened by means of bolts and nuts. Major cases of joints are as follows:

- (1) For all pumps, the grooved type (VG) shall be used.
- (2) For all valves, the flat type (VF) shall be used.
- (3) For the piping in general, of the couple of flanges to be jointed, the grooved one (VG) shall be in principle placed on the lower side of the flow of the gas as illustrated below:

Figure

