
International Standard



3019/2

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

**Hydraulic fluid power — Positive displacement pumps
and motors — Dimensions and identification code for
mounting flanges and shaft ends —
Part 2: Two- and four-hole flanges and shaft ends —
Metric series**

*Transmissions hydrauliques — Pompes volumétriques et moteurs — Dimensions et code d'identification des flasques de montage
et des bouts d'arbres — Partie 2: Flasques à deux et quatre trous et bouts d'arbres — Série métrique*

Second edition — 1986-08-15

UDC 621.225 : 621.651 : 621.8.032

Ref. No. ISO 3019/2-1986 (E)

Descriptors: hydraulic fluid power, hydraulic equipment, pumps, positive displacement pumps, hydraulic motors, retaining flanges, shaft ends, dimensions, designation, codes, metric system.

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 3019/2 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*.

This second edition cancels and replaces the first edition (ISO 3019/2-1980), of which it constitutes a technical revision.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Hydraulic fluid power — Positive displacement pumps and motors — Dimensions and identification code for mounting flanges and shaft ends — Part 2: Two- and four-hole flanges and shaft ends — Metric series

0 Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure within an enclosed circuit. Pumps are components which convert mechanical power into hydraulic fluid power. Motors are components which convert hydraulic fluid power into mechanical power.

1 Scope and field of application

1.1 This part of ISO 3019 specifies dimensions and establishes an identification code for mounting flanges of positive displacement rotary hydraulic fluid power pumps and motors of the following types:

- two-hole oval flanges;
- four-hole square flanges;
- four-hole rectangular flanges.

NOTE — A series of circular and polygonal flanges, for products having geometry unsuitable for any of the above flanges, is included in ISO 3019/3.

1.2 This part of ISO 3019 also specifies dimensions and establishes an identification code for shaft ends of positive displacement rotary hydraulic fluid power pumps and motors of the following types:

- cylindrical shaft end with key;
- conical shaft end with key and external thread;

- cylindrical shaft end with metric involute spline.

NOTE — Additional shaft sizes required for circular and polygonal flanges are included in ISO 3019/3.

1.3 This part of ISO 3019 establishes a metric series of mounting flanges and shaft ends for positive displacement rotary hydraulic fluid power pumps and motors. The preferred series shall be used for all future pump and motor designs.

The non-preferred series in annex A and the inch-based series in ISO 3019/1 should be avoided whenever possible.

1.4 This part of ISO 3019 provides

- a minimum number of flanges and shaft sizes to cover probable present and future requirements: short and long flange spigot options are included;
- dimensional interchangeability of flange and shaft end mountings;
- a facility for making certain flanges from castings designed originally for sizes specified in ISO 3019/1;
- flange and spigot dimensions which allow for recommended sealing arrangements when sealing is required between a flange and its mating housing (see annex B);
- identification codes for flanges and shaft ends — these codes can be used separately or in combination.