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Fluid power systems and components — Cylinders — Basic series of piston strokes

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National foreword

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A list of organizations represented on this committee can be obtained on request to its secretary.

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**Fluid power systems and
components — Cylinders — Basic
series of piston strokes**

*Transmissions hydrauliques et pneumatiques — Vérins — Série de
base de courses de piston*



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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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The committee responsible for this document is ISO/TC 131, *Fluid power systems*, Subcommittee SC 3, *Cylinders*.

This second edition cancels and replaces the first edition (ISO 4393:1978), which has been technically revised.

Introduction

In fluid power systems, power is transmitted and controlled through a fluid (liquid or gas) under pressure within a circuit. One component of such systems is the fluid power cylinder. This is a device which converts fluid power into linear mechanical force and linear motion. It consists of a movable element, i.e. a piston and piston rod, operating within a cylindrical bore.

Fluid power systems and components — Cylinders — Basic series of piston strokes

1 Scope

This International Standard specifies the preferred series of piston strokes for application to single-acting and double-acting fluid power cylinders. These strokes are mainly used for pneumatic cylinders but may also be used for hydraulic cylinders.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5598, *Fluid power systems and components — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5598 apply.

4 Dimensions

Refer to [Figure 1](#) for the identification of piston strokes.

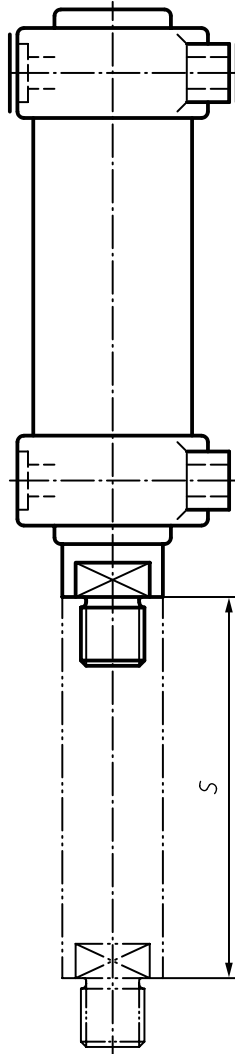


Figure 1 — Identification of piston strokes

Select the preferred series of piston strokes from the dimensions in [Table 1](#).

Table 1 — Piston strokes

Dimensions in millimetres

S	5	10	25	50	80	100	125	160	200	250	320	400	500
NOTE If an extension of the series shown above is required, use the rounded-off R 10 series of values as shown in ISO 497.													

5 Identification statement (reference to this International Standard)

It is recommended that manufacturers use the following statement in test reports, catalogues and sales literature when electing to comply with this International Standard:

“Preferred series of piston strokes selected in accordance with ISO 4393, *Fluid power systems — Cylinders — Basic series of piston strokes.*”

Bibliography

- [1] ISO 497, *Guide to the choice of series of preferred numbers and of series containing more rounded values of preferred numbers*

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