

Glossary of

Terms for compressors, pneumatic tools and machines —

Part 3: Pneumatic tools and machines

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Committees responsible for this British Standard

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- British Coal Corporation
- British Compressed Air Society
- British Gas plc
- Construction Plant-hire Association
- Engineering Equipment and Materials Users' Association
- Institute of Marine Engineers
- Institution of Gas Engineers
- Institution of Mechanical Engineers
- Institution of Mining and Metallurgy
- Institution of Mining Engineers
- South Wales Institute of Engineers
- Energy industries Council

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National foreword

This Part of BS 5791 was prepared under the direction of the Machinery and Components Standards Policy Committee and is identical with ISO 3857-3:1989 “Compressors, pneumatic tools and machines — Vocabulary — Part 3: Pneumatic tools and machines” prepared by Technical Committee ISO/TC 118, Compressors, pneumatic tools and pneumatic machines, of the International Organization for Standardization (ISO). This revision supersedes BS 5791-3:1984 which is withdrawn.

This glossary of terms has been prepared in three Parts, the other Parts being as follows.

- Part 1: General;
- Part 2: Compressors.

Cross-references

International Standards	Corresponding British Standard
	BS 5791 <i>Glossary of terms for compressors, pneumatic tools and machines</i>
ISO 3857-1:1977	Part 1:1979 <i>General</i> (Identical)
ISO 3857-2:1977	Part 2:1979 <i>Compressors</i> (Identical)

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Compressors, pneumatic tools and machines — Vocabulary —

Part 3 : Pneumatic tools and machines

Scope

This International Standard constitutes the third part of a vocabulary relating to compressors, pneumatic tools and machines. It deals with pneumatic tools and machines. Part 1 deals with general concepts, symbols and units. Part 2 deals with compressors.

1 Pneumatic motors

The performances (torques, frequencies, powers, consumptions) of a pneumatic motor are influenced by the supply and discharge pressures, and these performances must be qualified by these conditions.

1.1 General

1.1.1 swept volume for a displacement motor : The volume swept in one revolution or in one stroke.

1.1.2 displacement for a displacement motor : The volume swept per unit of time.

1.1.3 clearance volume : The internal volume of the expansion chamber at the beginning of the cycle.

1.2 Pressures

1.2.1 supply pressure : The mean total absolute pressure at the motor inlet flange with the motor running.

NOTE — In practice, the effective (gauge) pressure is commonly used.

1.2.2 discharge pressure : The mean total absolute pressure at the outlet point of the motor. This outlet point must be specified.

NOTE — In practice, the effective (gauge) pressure is commonly used.

Compresseurs, outils et machines pneumatiques — Vocabulaire —

Partie 3 : Outils et machines pneumatiques

Domaine d'application

La présente Norme internationale constitue la troisième partie d'un vocabulaire relatif aux compresseurs, outils et machines pneumatiques. Elle traite des outils et machines pneumatiques. La partie 1 traite des notions fondamentales, symboles et unités, et la partie 2 traite des compresseurs.

1 Moteurs pneumatiques

Les performances (couples, fréquences, puissances, consommations) d'un moteur pneumatique sont influencées par les pressions à l'admission et à l'échappement, et ces performances doivent être définies en fonction de ces conditions.

1.1 Généralités

1.1.1 volume engendré (cylindrée) théorique d'un moteur volumétrique : Volume engendré au cours d'une révolution ou d'une course.

1.1.2 débit engendré d'un moteur volumétrique : Volume engendré par unité de temps.

1.1.3 espace mort : Volume intérieur de la chambre de détente au début du cycle.

1.2 Pressions

1.2.1 pression d'alimentation : Pression totale absolue moyenne à la bride d'entrée du moteur, le moteur étant en rotation.

NOTE — Dans la pratique, la pression effective (manométrique) est couramment utilisée.

1.2.2 pression d'échappement : Pression totale absolue moyenne au point d'échappement du moteur; ce point doit être spécifié.

NOTE — Dans la pratique, la pression effective (manométrique) est couramment utilisée.