Australian Standard®

Medical suction equipment

Part 3: Suction equipment powered from a vacuum or pressure source

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Association of Consulting Engineers, Australia
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Department of Health, N.S.W.
Health Department, W.A.
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PREFACE

This Standard was prepared by the Standards Australia Committee on Medical Gases and Pipeline Services, under the direction of the Multitechnics Standards Policy Board, to supersede, in part, AS 2120—1977, *Suction systems for medical use in hospitals*.

This Standard is the third in a series of Standards for medical suction equipment, and deals only with suction equipment powered from a vacuum or pressure source. Part 1 deals with safety requirements for electrically-powered suction equipment, and Part 2 deals with manually-powered suction equipment.

This Standard has been prepared in response to a need for a safety and performance standard for suction systems. Suction is used to clear the airway and remove unwanted material from body cavities. Suction is also used to assist drainage and decompress body cavities. Suction and vacuum systems are used widely in health care facilities such as hospitals, for domiciliary care of patients who are nursed at home, and in emergency situations both outside hospitals in field conditions and during transport in ambulances.

As far as possible, this Standard has been written specifying performance requirements for effective and safe treatment of the patient.

Some devices specified in this Standard are intended to be operated in conjunction with a pipeline complying with AS 2896—1991, *Medical gas systems—Installation and testing of non-flammable medical gas pipeline systems*.

The clauses of this Standard supplement or modify the corresponding clauses in ISO 10079-3, *Medical suction equipment* — Part 3: *Suction equipment powered from a vacuum or pressure source*. Although this Standard closely follows ISO 10079-3 in format and technical content, some of the requirements of that publication have been modified to take account of local conditions.

Where this Standard deviates technically from ISO 10079-3 by way of additional or different requirements, the deviation is indicated by a rule in the margin against the clause, or part thereof, affected. Minor changes are not indicated. An annex to the Standard lists the variations from ISO 10079-3.

Appendix A is normative; it gives test methods to be used to verify compliance with the requirements given in this Standard.

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STANDARDS AUSTRALIA

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1 SCOPE This Standard specifies safety and performance requirements for medical suction equipment powered from a vacuum or pressure source (see Figure 1). In particular it applies to connections to the terminal unit of vacuum systems.

NOTE: Suction equipment with electronic timing, controlled by electrical means, may also need to comply with AS 3200.1.

This Standard does not apply to transportable electrically-powered suction equipment, whether mains or battery-powered, which is dealt with in AS 2120.1 nor to manually-powered suction equipment which is dealt with in AS 2120.2 nor to the following:

(a) Central power source (by vacuum/compressed air generation), piping systems of vehicles and buildings, and wall connectors.

(b) Catheter tubes, drains, curettes and suction tips.

(c) Syringes.

(d) Dental suction equipment complying with AS 2686.2.

(e) Waste gas scavenging systems.

(f) Laboratory suction.

(g) Autotransfusion systems.

(h) Passive urinary drainage.

(i) Closed systems for wound drainage.

(j) Gravity gastric drainage.

(k) Orally-operated mucous extractors.

(l) Suction equipment where the collection container is downstream of the vacuum pump.

(m) Equipment marked as suction unit for permanent tracheostomy.

(n) Ventouse (obstetric) equipment.

(o) Neonatal mucous extractors.

(p) Breast pumps.

(q) Liposuction.

(r) Uterine aspiration.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS
2496 Breathing attachments for anaesthetic purposes for human use

2686 Dental equipment — Suction systems
2686.2 Part 2: Mobile systems

2700 Colour standards for general purposes

2896 Medical gas systems — Installation and testing of non-flammable medical gas pipeline systems

2902 Medical gas systems — Low pressure flexible connecting assemblies (hose assemblies)

3200 Approval and test specification — Electromedical equipment — General requirements
3200.1 Part 1: General requirements for safety

ISO
407 Small medical gas cylinders — Yoke-type valve connections

3 DEFINITIONS For the purposes of this Standard, the definitions below apply.

3.1 Collection container — container in which liquids or solid particles are collected.

3.2 Drainage — removal of fluids from a body cavity or wound, assisted by vacuum.

3.3 End piece — that part of the suction equipment applied to the patient. The end piece starts at the site where material is drawn in and ends at the first detachable connection.

3.4 Exhaust opening — port or ports through which exhaust is discharged.

3.5 Filter — device for separation of particulate matter.

AS 2120.3-1992 Medical suction equipment - Suction equipment powered from a vacuum or pressure source