INTERNATIONAL STANDARD

ISO 5356-2

First edition
1987-07-15

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

Anaesthetic and respiratory equipment — Conical connectors —

Part 2 : Screw-threaded weight-bearing connectors

Matériel respiratoire et d'anesthésie — Raccords coniques —

Partie 2 : Raccords à vis pouvant supporter un certain poids

Reference number
ISO 5356-2 : 1987 (E)

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 5356-2 was prepared by Technical Committee ISO/TC 121, *Anaesthetic and respiratory equipment.*

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.

Printed in Switzerland

Anaesthetic and respiratory equipment — Conical connectors —

Part 2 : Screw-threaded weight-bearing connectors

0 Introduction

0.1 ISO 5356 comprises the following two parts :

Part 1 : Cones and sockets.

Part 2 : Screw-threaded weight-bearing connectors.

0.2 While the conical connectors specified in ISO 5356-1 are satisfactory for lightweight breathing attachments, there is also a need for more substantial connectors to support heavy or fragile components. Factors governing the design of these connectors include robustness, simplicity, ease of sterilization, and ease of engagement and disengagement by hand. They should also be compatible with connectors meeting the requirements laid down in ISO 5356-1 and should, if possible, eliminate the likelihood of inadvertent misconnection, although it has to remain the responsibility of the user to check that any system in which they are used is correctly assembled before use.

Screw-threaded weight-bearing connectors specified in this part of ISO 5356 may be used for attachments within the breathing system and at the common gas outlet.

1 Scope and field of application

This part of ISO 5356 specifies requirements for screw-threaded weight-bearing conical connectors intended for use with inhalation anaesthesia apparatus and ventilators; such connectors are intended for mounting heavy accessories.

2 References

ISO 262, *ISO general purpose metric screw threads — Selected sizes for screws, bolts and nuts.*

ISO 965-2, *ISO general purpose metric screw threads — Tolerances — Part 2 : Limits of sizes for general purpose bolt and nut threads — Medium quality.*

ISO 5356-1, *Anaesthetic and respiratory equipment — Conical connectors — Part 1 : Cones and sockets.*

3 Definitions

For the purposes of this part of ISO 5356, the following definitions apply.

NOTE — Definitions have been taken from ISO 4135.

3.1 inhalation anaesthesia apparatus : Equipment intended for dispensing and delivering anaesthetic gases and vapours into a breathing system for delivery to the patient.

3.2 breathing attachments : Components intended to make up or complete a breathing system.

3.3 breathing system : Those gas pathways continuously or intermittently in communication with the patient's respiratory tract during any form of ventilation.

NOTES

1 In practice a breathing system usually extends from

a) the point of supply[1)] of a controlled gas mixture, for example the common gas outlet of an anaesthetic machine, or

b) the fresh-gas inlet of a circle system, lung ventilator, T-piece, etc., or

c) the fresh-gas inlet of a manually-operated resuscitator.

2 It usually extends to the point at which gas mixture escapes to atmosphere or a gas scavenging system, for example from an APL valve, the open end of a T-piece, etc.

3 Gas pathways exclusively concerned with gas scavenging systems are not regarded as part of the breathing system.

4 Materials

Materials used in the manufacture of screw-threaded weight-bearing connectors shall be as specified in ISO 5356-1.

1) In some situations, particularly in lung ventilators, this point may be inside a piece of equipment and should not be confused with a connection port fitted elsewhere, for example on the casing of a ventilator.

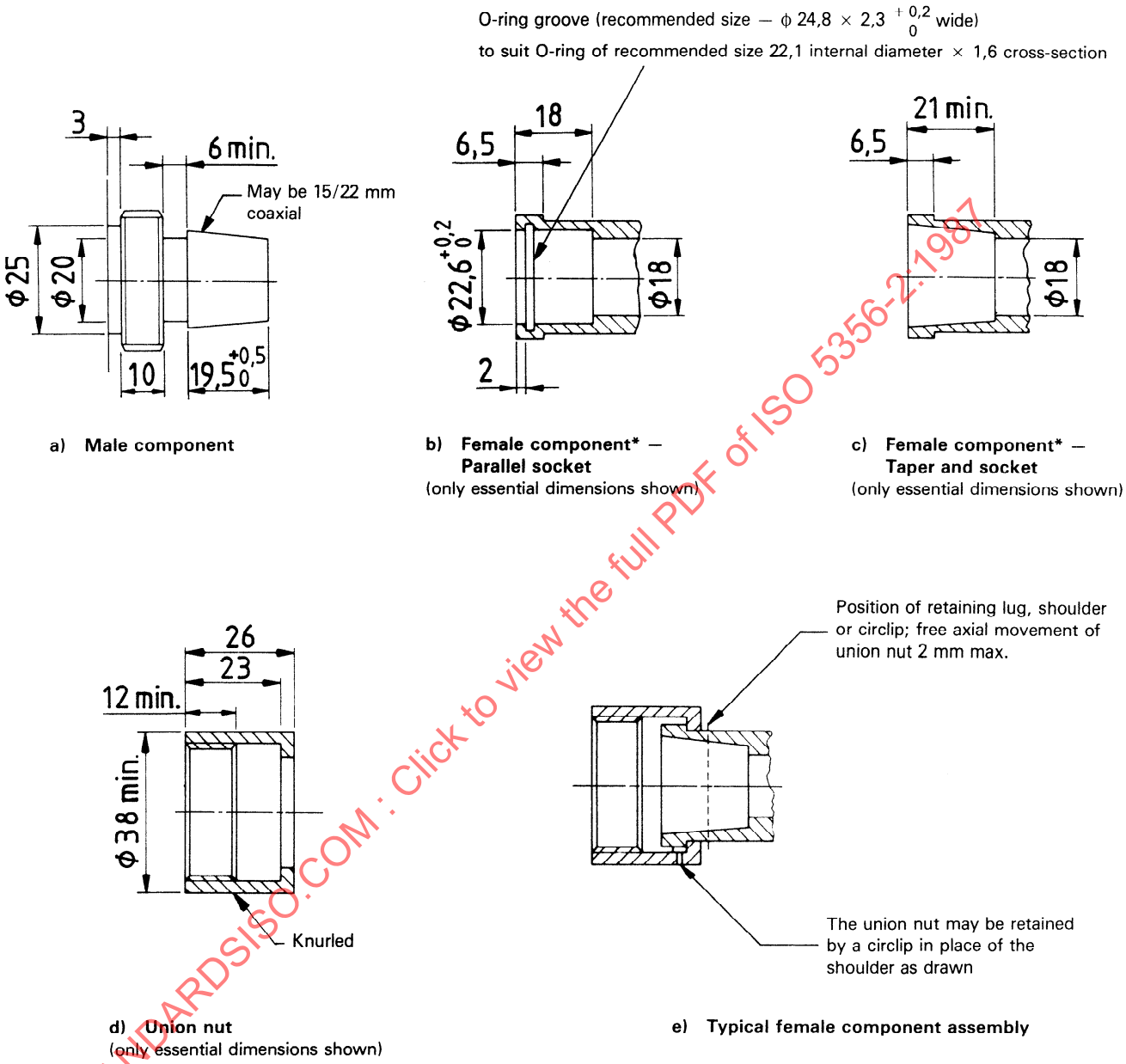
5 Design

The dimensions of the components of screw-threaded weight-bearing connectors shall be as shown in the figure.

The free axial movement of the union nut on the female component shall be not more than 2 mm in order that, when the connectors are unscrewed, the male and female components shall be forced apart.

All male screw threads shall be M33 × 2-6g and all female screw threads shall be M33 × 2-6H in accordance with ISO 262 and ISO 965-2.

Dimensions in millimetres



a) **Male component**

b) **Female component* — Parallel socket**
(only essential dimensions shown)

c) **Female component* — Taper and socket**
(only essential dimensions shown)

d) **Union nut**
(only essential dimensions shown)

e) **Typical female component assembly**

NOTES

1 All male screw threads : M33 × 2-6g
All female screw threads : M33 × 2-6H

2 All conical tapers as specified for 22 mm size connectors in ISO 5356-1.

Figure — Components for screw-threaded weight-bearing connectors

* 18 mm diameter intended for use within breathing systems.

This page intentionally left blank