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International Standard



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Booths for simultaneous interpretation — Mobile booths — General characteristics and equipment

Cabines d'interprétation simultanée — Cabines transportables — Caractéristiques générales et équipement

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

International Standard ISO 4043 was drawn up by the ISO Central Secretariat in collaboration with the International Association of Conference Interpreters (AIIC), and circulated to the member bodies in February 1980.

It has been approved by the member bodies of the following countries :

Australia	Germany, F. R.	South Africa, Rep. of
Austria	India	Spain
Belgium	Israel	Switzerland
Canada	Italy	United Kingdom
Czechoslovakia	Netherlands	USA
Denmark	New Zealand	
Egypt, Arab Rep. of	Norway	

No member body expressed disapproval of the document.

Booths for simultaneous interpretation — Mobile booths — General characteristics and equipment

0 Introduction

The aim of this International Standard, prepared at the request of the International Association of Conference Interpreters (AIIC), is to provide optimal conditions for simultaneous interpretation using mobile booths.

The design of the booths is governed by three requirements :

- a) acoustically separating different languages spoken simultaneously;
- b) providing good two-way communication between the booths and the conference hall;
- c) placing the interpreters, whose booths are their workplace, in conditions of comfort that will enable them to continue to exert the intense effort of concentration required.

1 Scope and field of application

This International Standard lays down the basic requirements for mobile booths for simultaneous interpretation which are used ad hoc in halls not equipped with permanent facilities.

The main features of mobile booths, distinguishing them from permanent facilities, are that they can be disassembled, moved and be set up inside the conference room.

Booths that can be moved but are used on the premises and stored near conference rooms are not covered by this International Standard. They should be designed to conform as closely as possible to permanent booths as specified in ISO 2603.

An annex concerning public address and simultaneous interpretation systems is given for information only.

2 References

ISO 140/IV, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part IV: Field measurements of airborne sound insulation between rooms.*

ISO 717/1, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation in buildings and of interior building elements.*¹⁾

ISO 2603, *Booths for simultaneous interpretation — General characteristics and equipment.*

3 General requirements

3.1 General

Designed for temporary service in a variety of locations, mobile booths shall be flexible in use and of rugged construction. They should provide optimum sound-insulation properties and be of lightweight construction.

Table-mounted hoods are not acceptable as a working environment.

In selecting a hall in which to set up mobile booths and equipment, the user should seek advice from suppliers of such equipment, a conference technician and a consultant interpreter.

3.2 Suitability of conference halls

Halls should be of adequate size to house participants, booths and equipment (see 3.3) and be located away from all noise sources (for example outside traffic, noisy passages inside buildings, lifts and kitchens).

Satisfactory hall acoustics should be ensured.

Halls should be fitted with suitable heating and ventilation (air-conditioning), with a carbon dioxide level not exceeding 0,1 %.

3.3 Siting in relation to the conference hall

A sufficiently large area should be allowed to place the booths together in a position from which the rostrum, participants, blackboard and projection screen can be fully seen. The use of a platform for the booths should be considered to improve visibility.

Obstruction of view, such as pillars, beams, etc., should be avoided.

A free space (minimum : 2 m) should be provided between conference table, delegates' chairs and booths to avoid participants being disturbed by voices from the booths.

1) At present at the stage of draft. (Revision of ISO/R 717-1968.)

A passage behind the booths at least 1,50 m wide should be provided.

Access to the hall past the booths shall be avoided. Separate access to the booths should be provided where possible.

3.4 Size of booths

Each booth shall accommodate the required number of interpreters seated in comfort side by side (to cater for large teams with numerous language combinations requiring more than one outgoing language).

Each booth shall be sufficiently wide to allow occupants to enter and leave without disturbing one another, and high enough to provide adequate volume.

Internal dimensions for a standard mobile booth shall be not less than :

	Recommended	Minimum
— width : For up to two interpreters	1,60 m	1,50 m
— otherwise :	2,40 m	2,25 m
— height :	2,00 m	1,90 m
— depth :	1,60 m	1,50 m

It is understood that, for practical reasons, suppliers may not be able to implement the recommended dimensions. It is expected, however, that booths conforming approximately to these dimensions will be supplied where possible. The question of dimensional requirements will be reviewed at the next revision of this International Standard.

3.5 Doors

If booths are fitted with doors, these shall not open inwards and shall not be lockable from the outside.

Low-noise door fittings shall be used.

3.6 Cable passages

Where cable passages are necessary in the side or front panels of the booths, they should be of the smallest possible dimensions compatible with the equipment used and be closed with suitable sound-proofing materials after inserting the cables. In all cases, the opening shall be minimum 40 mm × 80 mm.

4 Windows

4.1 General

Each booth shall have front and side windows.

Any mullion posts that may be necessary shall be as narrow as possible and shall not be in the central field of view of any working positions.

Window panes shall be clean and free from scratches which may impair visibility.

4.2 Dimensions

Front and side windows shall have a height of 0,7 m. Side windows should extend from the front window over a minimum of 0,6 m along the side wall and over 0,1 m from the free edge of the working surface.

5 Acoustics

5.1 Sound insulation

Mobile booths shall be so designed as to provide reasonable sound insulation against speech transmitted from one booth to the adjacent booth(s) or the hall and against spurious noise from the hall.

The sound insulation shall be checked according to ISO 140/IV as a measure of the difference in sound pressure levels, D , using one of the booths as receiving room while the sound source fed with white or pink noise excites the source room, being the hall or the immediately adjacent booth.¹⁾

The sound pressure levels shall be measured in octave bands in the source and receiving room, and the difference between the two sets of sound pressure levels should at least equal :

frequency	250	500	1 000	2 000	4 000 Hz
D	12	15	18	20	20 dB

for the noise transmitted from the hall to a booth.

For the noise transmitted from booth to booth the differences between the two sets of sound pressure levels should at least equal :

frequency	250	500	1 000	2 000	4 000 Hz
D	18	21	24	26	26 dB

The measurement of D between booths and from outside into a booth shall be made with booths installed in a suitable hall, thus resembling practical conditions.

5.2 Sound absorption

Reverberation and sound reflection shall be reduced by using suitable anti-static sound-absorbing materials on inside surfaces.

A screen of absorbant material behind the booths may be used to attenuate the reflection of sound by the wall behind the booths.

1) For the measurement of booth sound insulation, reference may also be made to the method specified in ISO 717/1.

6 Ventilation

Booths shall be fitted with an effective ventilation system, ensuring complete renewal of the air at least seven times per hour.

The equivalent A-weighted sound pressure level inside the booth due to the ventilating system shall not exceed 40 dB. The ventilation system shall be such that mechanical vibration is reduced to a minimum.

7 Working surface

The working surface shall extend across the full width of the booth. Its height should be between 0,72 and 0,76 m from the floor. Its strength shall be sufficient to take the weight of control panels, documents and interpreters leaning on its surface. The useful depth, excluding any equipment, shall be 0,30 m and the total depth shall be not less than 0,45 m.

8 Lighting

In each booth at least two compact light sources shall be provided, preferably mounted on adjustable fittings. They shall provide a lighting intensity of between 300 and 600 lx over 0,2 m² of the working surface. It is, however, desirable that the light should be regulated in two steps, the lower range from 100 to 200 lx, the higher better than 300 lx.

9 Seating

Each interpreter requires a comfortable chair, adjustable as to height and capable of being easily and silently moved about.

The surface material of the seat should preferably be permeable.

Mobile booths are delivered by the booth supplier without chairs.

The supply of chairs shall be the responsibility of the hall operator or the client.

10 Materials

All materials employed should be easy to maintain, odourless, anti-static, fire retardant and not cause irritation to eyes, skin, or respiratory tract.

11 Booth audio equipment¹⁾

11.1 Controls and headphones

One set of controls and headphones, as defined in sub-clause 3.3 of ISO 2603, shall be provided for each interpreter. If the booth is occupied by two interpreters, the use of one dual-control panel is permissible.

As interpreters have individual preferences, it is desirable for the control panel to allow alternative connection of base-mounted microphones or headset combinations.

11.2 Microphones

Interpreters' microphones may be mounted on a movable base or combined with headsets. It is recommended to provide one microphone per interpreter for up to two interpreters and a minimum of two microphones for three interpreters.

1) Booth audio equipment will be covered in future IEC documents.

Annex

Public address and simultaneous interpretation systems

(for information only)

Acoustic feedback and echoes in the hall may impair simultaneous interpretation and, in extreme cases, block the memory processes of the interpreter.

Moreover, some of the audience depend on headset reception which may be rendered inaudible by loudspeakers when operated at their normal level. Therefore, public address systems should not be operated in combination with simultaneous interpretation.

When speech reinforcement cannot be dispensed with (for example majority of participants listening to conference proceedings in one language) public address systems should be operated at their lowest level and every endeavour should be

made to eliminate loudspeaker feedback into microphones placed in the hall.

In order to provide for effective control in such situations, multichannel (simultaneous) systems and public address (single-channel) systems shall have separate volume controls allowing individual level adjustment, independent of each other, whereby lowering the public address level will not reduce the signal strength available to interpreters; they shall also be fed from a single microphone installation.

Level controls of the two systems shall be located close to each other to enable both levels to be monitored in the same room, preferably by the same operator.

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