

Signs and Symbols

Anthropometric Data

Ergonomic Data

Signs and Symbols



Fig. 46

- The international symbol of accessibility; the setting out of the symbol should be based on a square tile as shown.

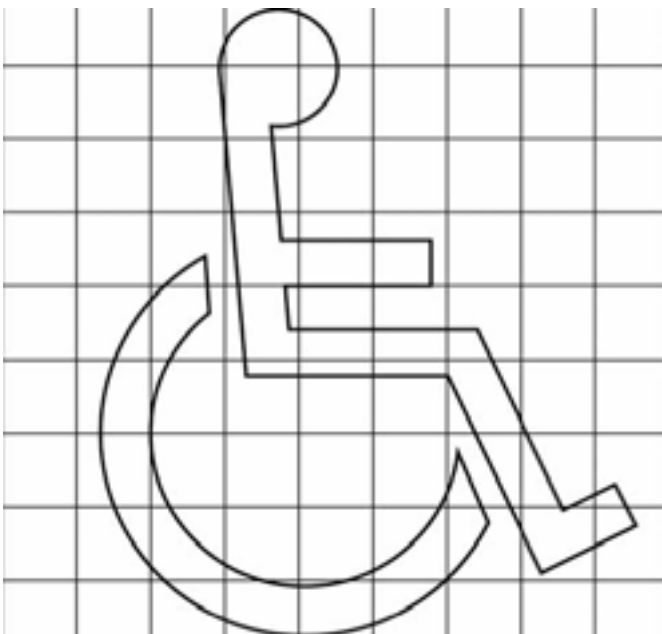


Fig. 47

- Signs should be consistent, thorough and continuous along routes and should take account of the need for reassurance.

- Ensure legibility of signs and lettering by attention to size and style and by use of strong colours, good immediate background and non-distracting general background and by good lighting without glare.
- Lettering should be within visual range and provide good contrast against the background.

Waiting room

- Raised letters are helpful to blind people particularly. They should be within hand reach at a reasonable level. Ensure the background surface is comfortable to touch. Confine to single letters, numeral, symbols and keep to standard positions in a building.
- Symbols should be as near pictorial as possible. Standard symbols should indicate specific facilities, i.e. induction loop information, communications, assistance available if required.



Fig. 48

Anthropometric Data

- The formulation of design criteria for buildings depends to a considerable extent on the dimensional characteristics of people at rest and moving and on their range of physical capabilities. In the case of people with disabilities, these criteria may be modified by the use of aids such as sticks, artificial limbs and wheelchairs.
- For example, for the head-height of chairbound men's, the value of 1:235 for the fifth percentile means that five per cent of chairbound men's head height when in a wheelchair is at 1:235 or less; The value 1:435 for the 95th percentile means that 95 per cent at 1:435 high or shorter.

The figures below show the relevant dimensions.

- To determine appropriate limits for the range of the population to be accommodated, the statistical technique of percentile distribution is used.

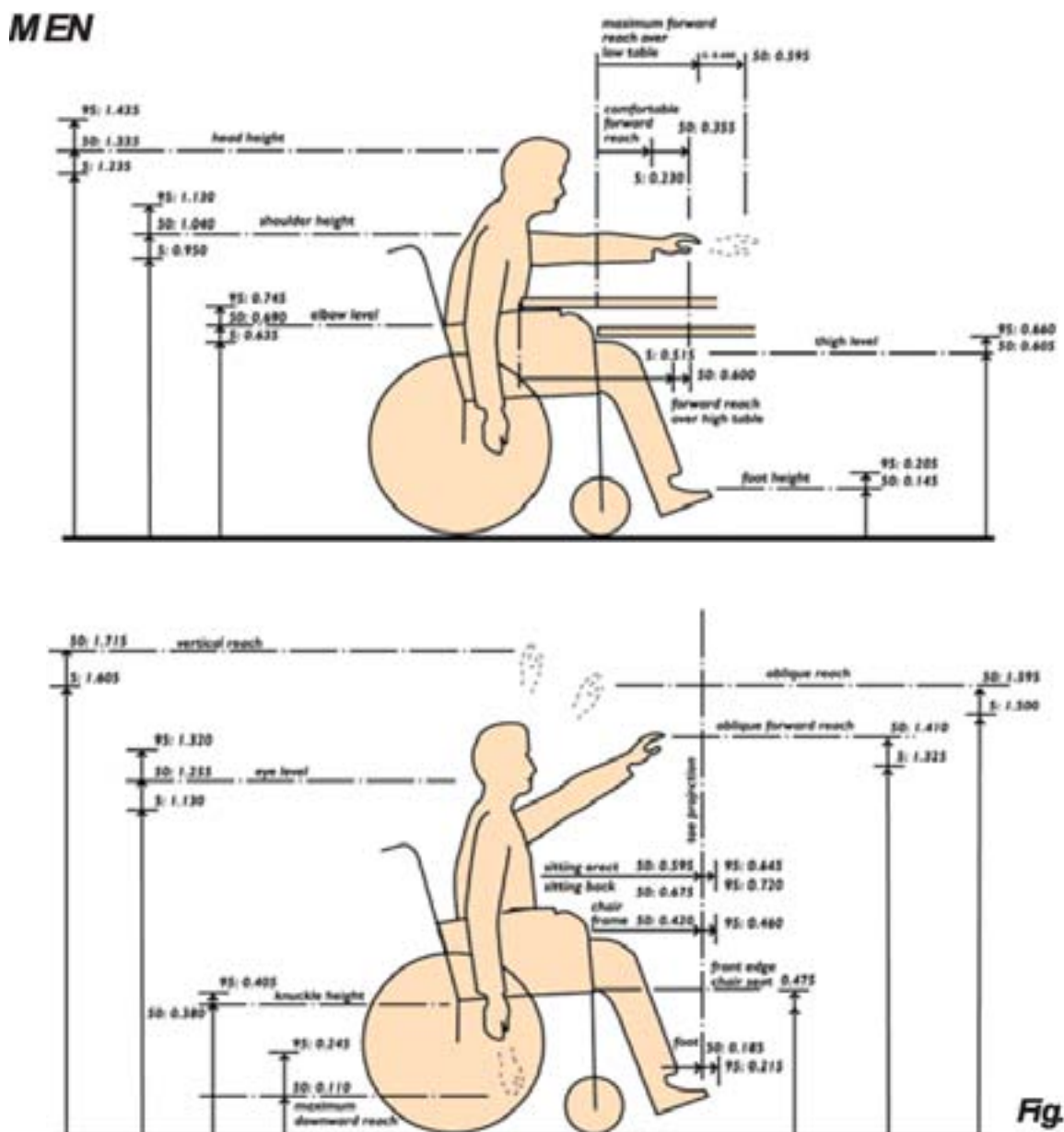


Fig. 49

Anthropometric Data

- Although in certain situations, it is appropriate to use the average as a criteria, it must be emphasised that averages should be treated with caution. It is hazardous to make decisions on the basis of catering for the average man or woman. In a

representative sample of population, 50 per cent of measurements will be greater than the average and 50 per cent will be less. Dimensions based on the average will therefore at best satisfy only 50 per cent of potential users.

WOMEN

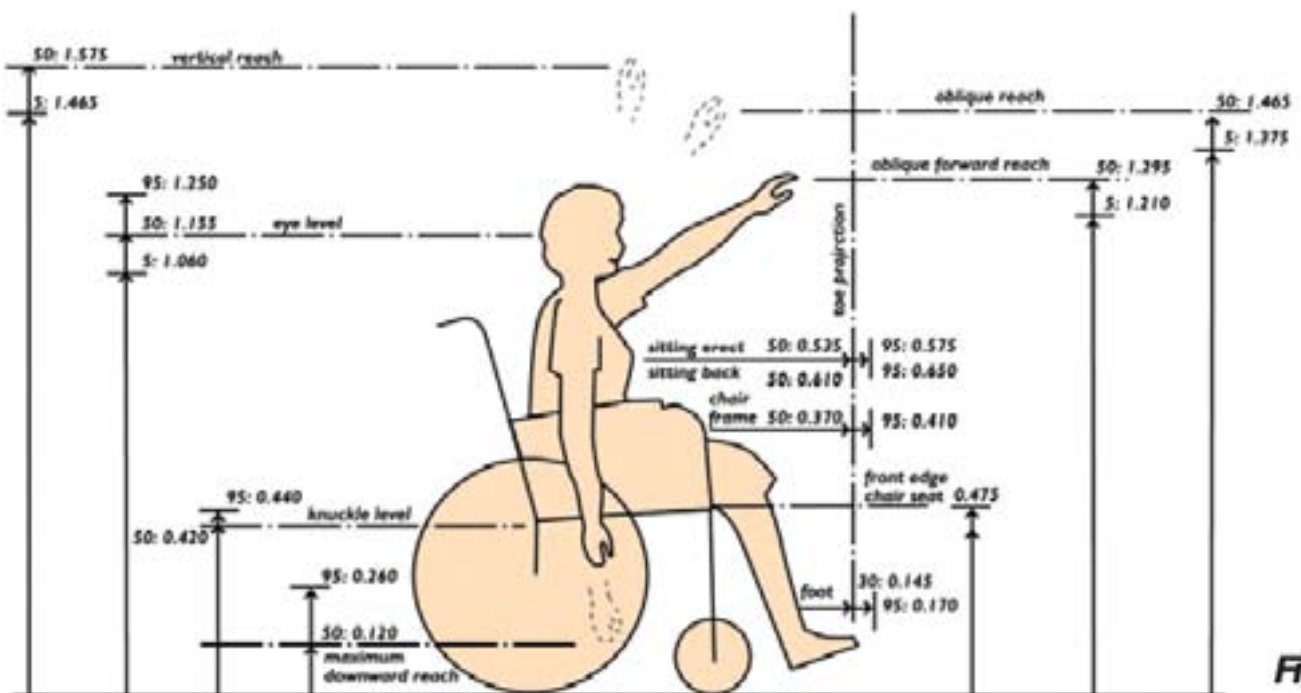
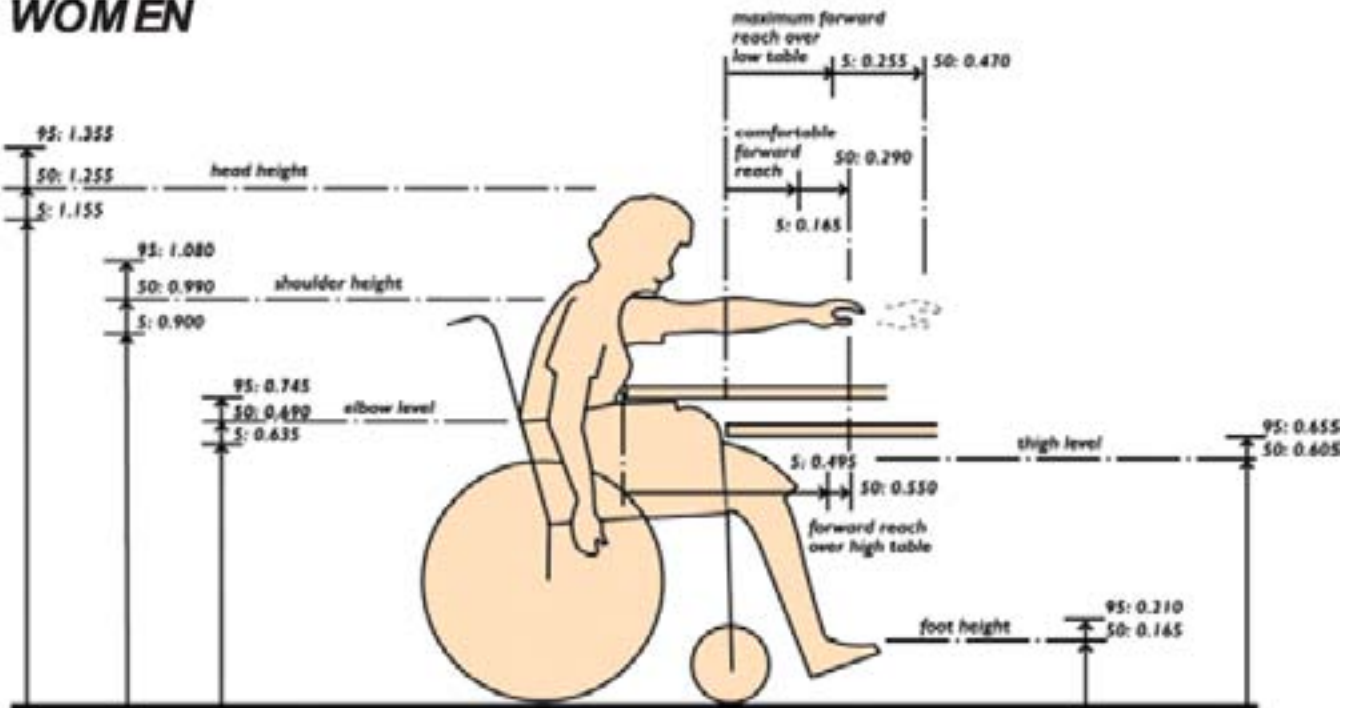
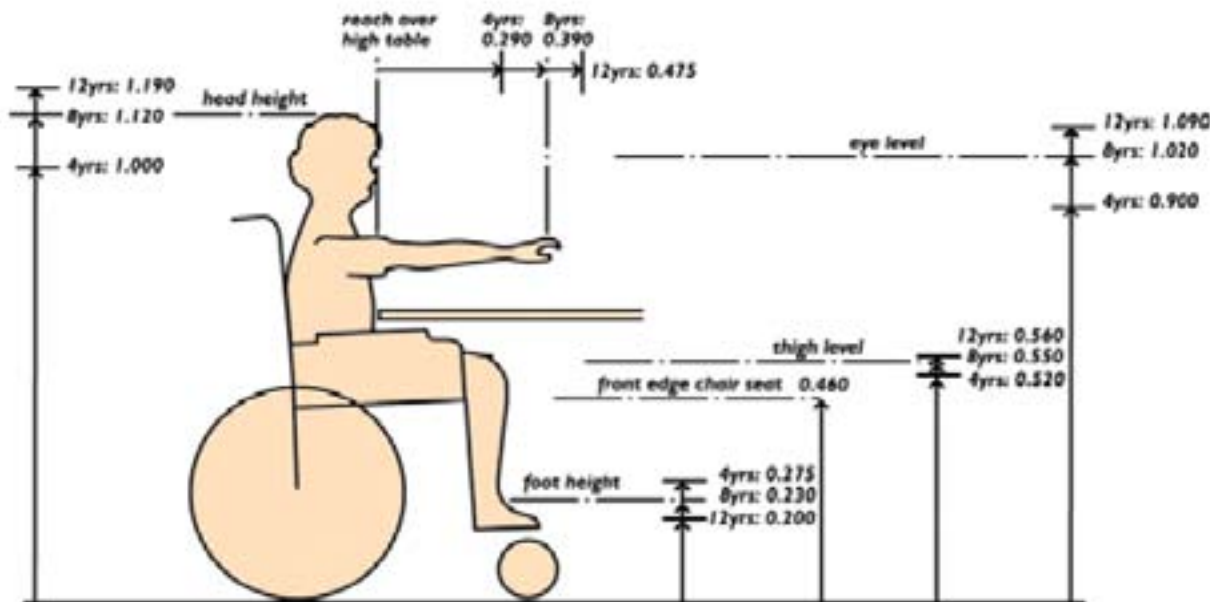


Fig 50

Anthropometric Data

- When data is applied to design problems, it is usually found that there is a limiting factor in one direction only, e.g. if the problem relates to obstructions at head-height, the measures of short people are not significant. In applying data, the designer should enquire which dimension is critical.
- It is not the case that whenever the value for the 95th percentile is observed, 95 per cent of the population will be accommodated; if the critical dimension is in the opposite direction, only five per cent will be accommodated and the correct course is to apply the 5th percentile instead.

GIRLS AGED 4, 8 AND 12



BOYS AGED 4, 8 AND 12

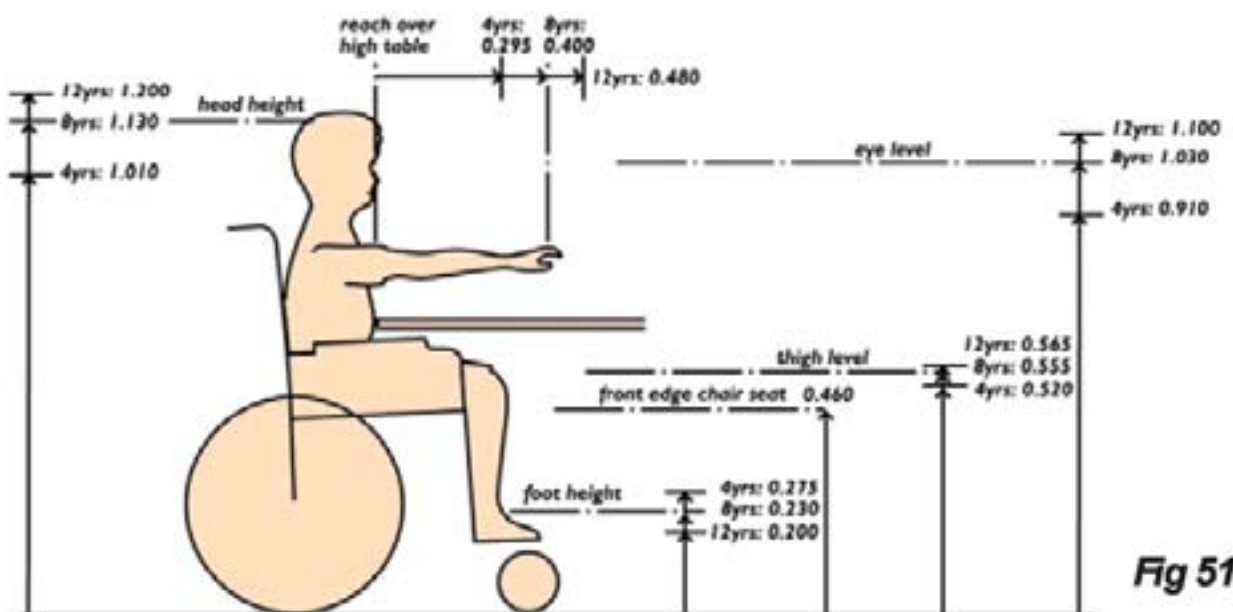
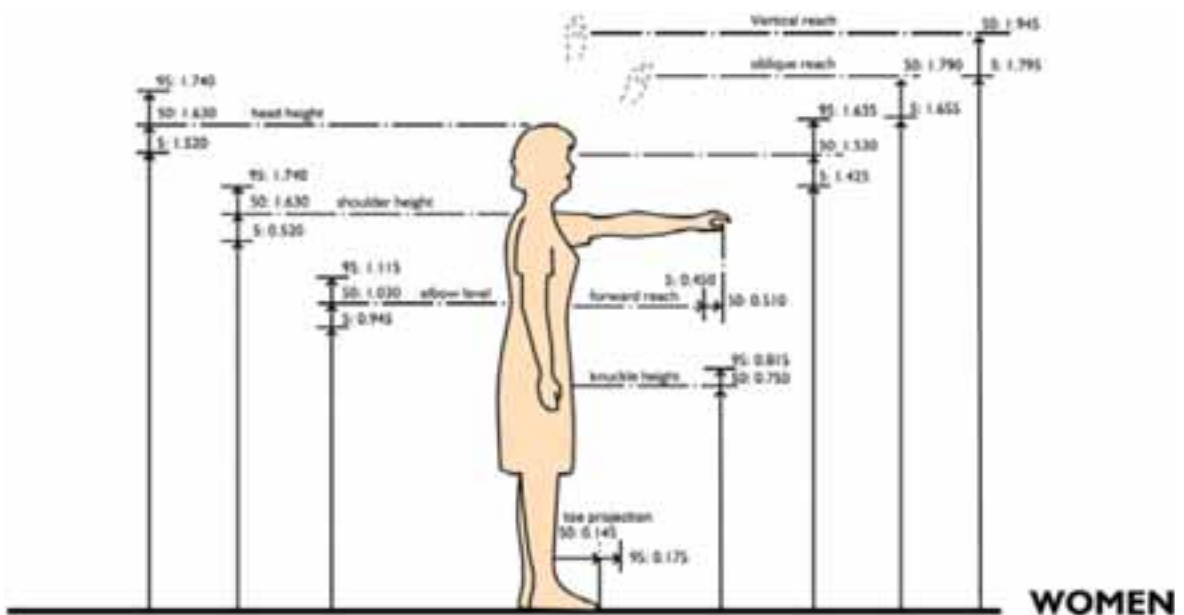
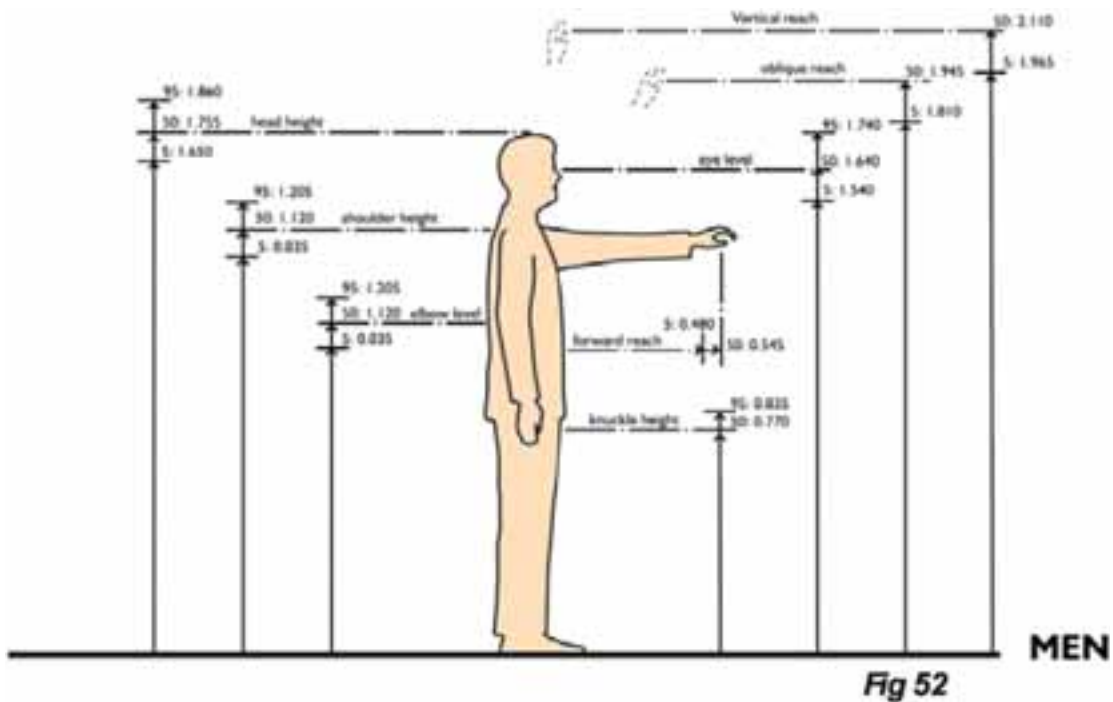


Fig 51

Anthropometric Data

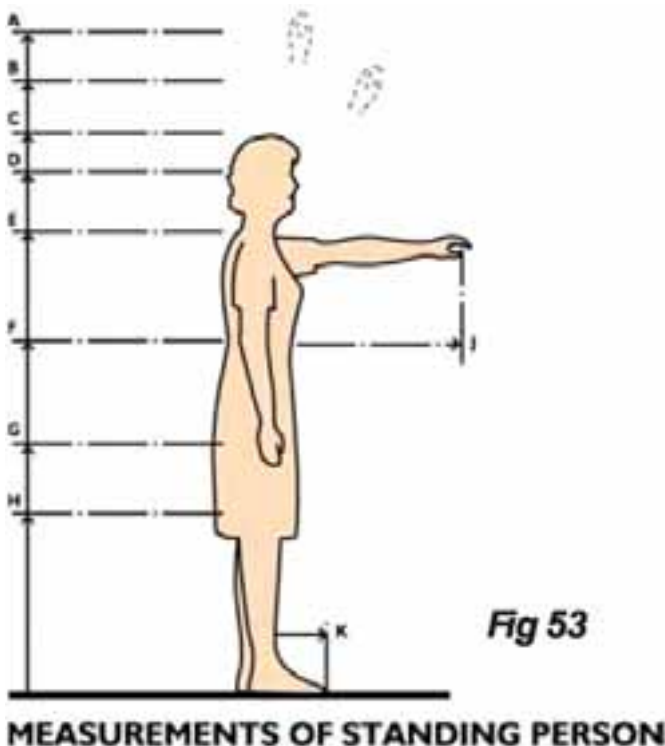
AMBULANT PEOPLE

- It is not always economic or practicable to cover 100 per cent of the population by catering for people at the extremes. It may not be possible to obtain a solution to a specific design problem, which is equally efficient for a typical ambulant person and a person in a wheelchair.



AMBULANT PEOPLE

- The convenient positioning of fittings and equipment is governed by body and reach dimensions. The general application of the recommendations should ensure that fittings and equipment are suitably located.



A. Comfortable vertical reach

A: minus 0.070: maximum height of storage shelves, allowing access to front of shelf.

A: minus 0.150: maximum height of 0.300 deep storage shelves over 0.600 floor units, allowing access to front of shelf.

B. Oblique vertical reach

B: maximum height of window and blind controls.

B: minus 0.060: maximum height of 0.200 deep storage shelves over 0.600 floor units, allowing access to front of shelf.

B: minus 0.080: maximum height of unobstructed storage shelves, allowing reach to back of shelf.

C. Head height

C: relate to fixed mirror heights and position of shower fittings.

D. Eye level

D: avoid window transoms at this level.

D: related to fixed mirror heights.

E. Shoulder level

E: preferred maximum height of switches and controls.

F. Elbow level

F: minus 0.130: preferred level of kitchen surfaces where sink rim and general work surfaces are at the same height.

F: minus 0.100: preferred level of sink rim.

F: minus 0.150: preferred level of general work surfaces.

F: minus 0.100: preferred level of wash basin rim.

F: minus 0.250: preferred level of fixed ironing board.

G. Knuckle height (comfortable downward reach)

G: lower level of preferred zone for most-used articles stored in kitchen.

G: preferred minimum height of socket outlets and other controls.

G: preferred height of letter basket and delivery shelves adjacent to entrance door.

H. Effective downward reach

H: minimum height of storage shelves, socket outlets, heater controls and oven floor.

J. Comfortable forward reach

J: plus 0.100: maximum depth of kitchen work surfaces.

J: preferred maximum dimension, sink fascia to sink tops.

K. Toe projection

K: preferred minimum depth, toe recesses to kitchen units.

Anthropometric Data

WHEELCHAIR USERS

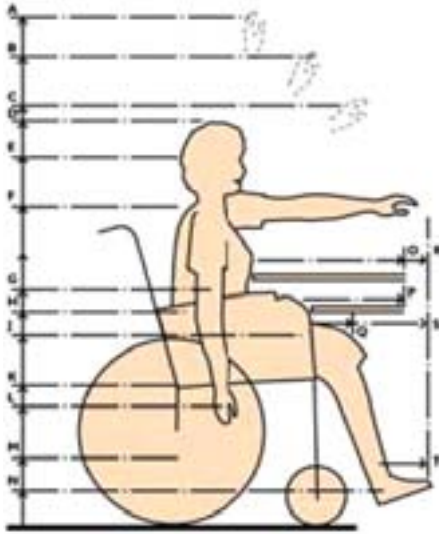


Fig. 54

A. Comfortable vertical reach

A: minus 0.070: maximum height of unobstructed storage shelves with lateral approach, reach to front of shelf.

B. Oblique vertical reach

B: maximum height of window and blind controls. B: minus 0.120: maximum height of 0.300 deep storage shelves over 0.600 floor units, allowing reach to front of shelf. B: minus 0.160: maximum height of unobstructed storage shelves with frontal approach, allowing reach to back of shelves.

C. Comfortable forward vertical reach

C: preferred maximum height of window and other controls.
C: maximum height of electric switches.

D. Head height

D: related to height of shower fittings.

E. Eye level

E: avoid window transoms at this level; relate to sill heights.
E: relate to fixed mirror heights.

F. Shoulder level

F: plus 0.100: upper level of preferred zone for most-used articles stored in kitchen.
F: preferred maximum height of electric switches.

G. Chair armrest level

G: maximum unobstructed dimension below work surfaces or tables to permit close approach.

H. Elbow level

H: plus 0.020: preferred height of letter basket and delivery shelves adjacent to

entrance door.

H: minus 0.030: preferred height of pull-out for food preparation.

H: minus 0.040: preferred height of fixed ironing board.

J. Thigh level

J: minimum unobstructed vertical dimension for knee recesses to tables, desks, kitchen sink, preparation centre and wash hand basin.

J: plus 0.160: preferred height of kitchen work surfaces at consistent level assuming 0.150 deep sink bowl.

K. Chair seat level, centre front edge (with cushion if used)

K: preferred level of w.c. seat, platform at head end of bath and shower seat.

L. Knuckle height

L: plus 0.100: minimum height of heater controls.

L: plus 0.050: lower level of preferred zone for most-used articles stored in kitchen.

L: minimum level of oven floor.

M. Comfortable downward reach

M: minimum height of storage shelves.

N. Foot height

N: minimum height of toe recesses to kitchen units.

O. Effective forward reach

O: maximum depth of kitchen work surfaces.

P. Forward reach beyond face of chair arm

P: comfortable reach over low-level tables, etc.

P: preferred maximum dimension, sink fascia to sink taps.

Q. Knee projection beyond face of chair arm

Q: minimum dimension sink fascia to waste pipe and wash basin fascia to waste pipe.

R. Toe projection from front to waist

R: preferred minimum depth of tables and knee recesses to permit close approach.

S. Toe projection beyond face of chair arm

S: minimum depth of knee recesses to kitchen sink, preparation centre, wash basin, etc.

T. Toe projection at lower leg level

T: minimum depth of toe recesses to kitchen units.