



# **TECHNICAL SPECIFICATIONS**

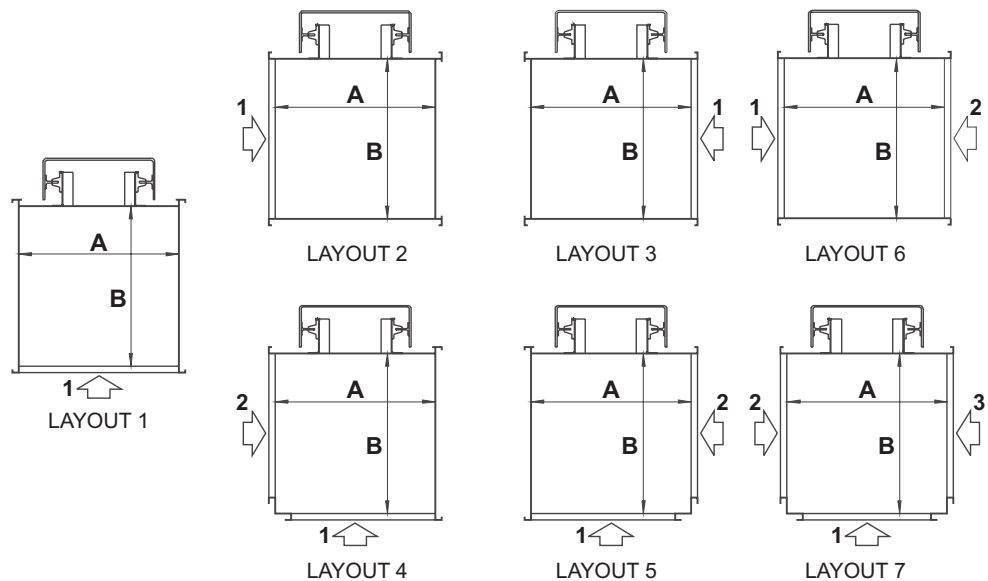
## **SERVICE LIFTS MODEL MH**

<b>APPLICATION</b>	Vertical transport of small loads in the Industry and Trade fields; specifically you can use it for: <ul style="list-style-type: none"> <li>- Dumbwaiter (in bars, cafeterias, restaurants, ...)</li> <li>- Documents-lift (in offices, banks, ...)</li> <li>- Books-lift (in libraries, bookshops, ...)</li> <li>- Instruments-lift (in clinics, hospitals, ...)</li> </ul>
<b>REGULATIONS</b>	The lift complies with Machine Directive 98/37/CE, which allows its commercialisation in any country of the European Community.
<b>CHARACTERISTICS</b>	
<b>MODEL MH</b>	
<i>LOAD</i>	50 Kg to 100 Kg
<i>SPEED</i>	0.35 m/s
<i>TRAVEL</i>	<p><b>Hydraulic</b>      <b>2:1</b> (2 suspension cables). Up to 8 metres.  <b>4:1</b> (1 suspension cable). Up to 16 metres.</p> <p><b>Electric</b> Up to 35 meters</p>
<i>STOPS</i>	Up to 12 stops
<i>TYPE OF DRIVE</i>	<p><b>Hydraulic</b>, Indirect acting lift 2:1 or 4:1  Cylinder with plunger by means of a deflection pulley system located in the head of the cylinder. A safety valve against pipe rupture may also be supplied (available on request).  Compact power unit made up of oil tank, motor-pump group and block with safety and control devices. Dimensions: 200x300x420</p> <p><b>Electric</b>, by traction, using pulley and counterweight  Geared motor in the top of the shaft .  Worm gear unit driving by electric motor with brake system.</p>
<i>GUIDES</i>	By 2 rails T40/A in accordance with ISO 7465.
<i>SUSPENSION</i>	<p><b>Hydraulic</b>, with one (4:1) or two (2:1) cables of 5 mm of diameter, format 6x37+1, break force 14.0 kN (1770 N/mm<sup>2</sup>)</p> <p><b>Electric</b>, by 2 ropes of 6 mm. diameter, format 6x19+1, breaking force 23.8 kN (1770 N/mm<sup>2</sup>).</p>
<i>FINISH</i>	<p><b>Stainless Steel.</b> AISI-304, AISI-316 available (food applications)</p> <p><b>Painted steel.</b> Baked enamel (epoxi-polyester) paint. Standard colour: Light grey. Enchased texture (rough).</p>

DIMENSIONS	Standard		Others cases			
	A, B	H	A, B min.	A, B max.	H min.	H max.
	x 50	800	350	700	500	900

**A, B** Car depth and wide  
**H** Car height.

**ENTRANCES LAYOUTS**  
Standard: Layouts 1, 2, 3, 4, 5 and 6.  
Special: Layout 7



**TRAYS** One detachable tray in the same finish as lift car as standard supply, any number of trays optionally on demand.

**CAR DOORS** Manual, with two vertical-aperture leaves. Available on request.  
20 mm door space, less than clear height of car  
For all 90° loading and unloading operations (see figures 4, 5 and 7), there are 100 mm doors, less than the width specified for the car.

**LANDING DOORS** Standard, manual, with two vertical aperture leaves. Collapsible doors also available.

**FINISH**  
**Stainless Steel.** AISI-304, AISI-316 available (food applications)  
**Painted steel.** Baked enamel (epoxi-polyester) paint.  
Standard colour: Light grey. Enchased texture (rough).

**DIMENSIONS** Clear opening according to entrances layout and car dimensions (See Figures 2, 3, 5 and 6).  
Clear height is the same as car height (H).

**FIRE RATED** All swing hinged doors are fire rated (PF-60).  
Fire rated vertical bi-parting doors available – optional, on demand -  
If the doors finish is painted steel they are supply with a fireproof priming paint.

**AUTOMATIC OPERATION** Optional, on demand.  
Automatic opening of doors when the lift car arrives. With pedal to call the lift car or open the door. The door is closed stepping on the pedal or pushing the button corresponding the stop where the lift car is.

**MACHINE ROOM DOOR** Access to hydraulic power unit or motor gear.  
Hinged door with unlocking triangle .  
Dimensions: 500x500 mm. Standard finish baked enamel paint.  
Minimum size in the shaft to install it according to Figure 1.

**POWER SUPPLY** 230 V ± 5% Single-phase, 50/60 Hz.  
230/400 V ± 5% Three-phase, 50/60 Hz.  
Other voltages available.

**CONTROL SYSTEM** Universal simplex by electrical control board with relays, delay current to 24 V.  
Buttons panel in the landing doors with push-buttons for calling and sending to all floors; Light indicating engaged, position of lift and landing door open.  
Acoustic signal on arrival.

**MOTOR POWER**

	50 Kg	100 Kg
Hydraulic, 230/400 V 3-phase	0.55 kW / 1.7 A	0.75 kW / 2.1 A
Hydraulic, 230 V Single phase	0.75 kW / 6.3 A	1.10 kW / 7.1 A
Electric, 230/400 V 3-phase	0.37 kW / 1.2 A	0.55 kW / 1.8 A
Electric, 230 V Single phase	0.37 kW / 3.1 A	0.55 kW / 4.5 A

**INSTALLACION**

**FIXING THE GUIDE RAILS** **Fastening on wall (Standard)**  
Everything necessary for bracket mounting to one of the lift shaft walls is supplied; guide rail brackets attached by bolts to concrete or solid brick wall.  
For hollow brick walls allowances should be made for built-in metal supports to weld the brackets to, or the use of through-wall pegs if the wall is accessible from both sides.  
The reaction forces on the guide rails supports are specified in the assembly instructions.

**With self supporting structure (Optional)**  
Steel structure, it is painted with waterproof paint. It makes easy the fitting up and allows the enclosures of lift well without masonry work.  
Horizontal anchorages to the building are required.

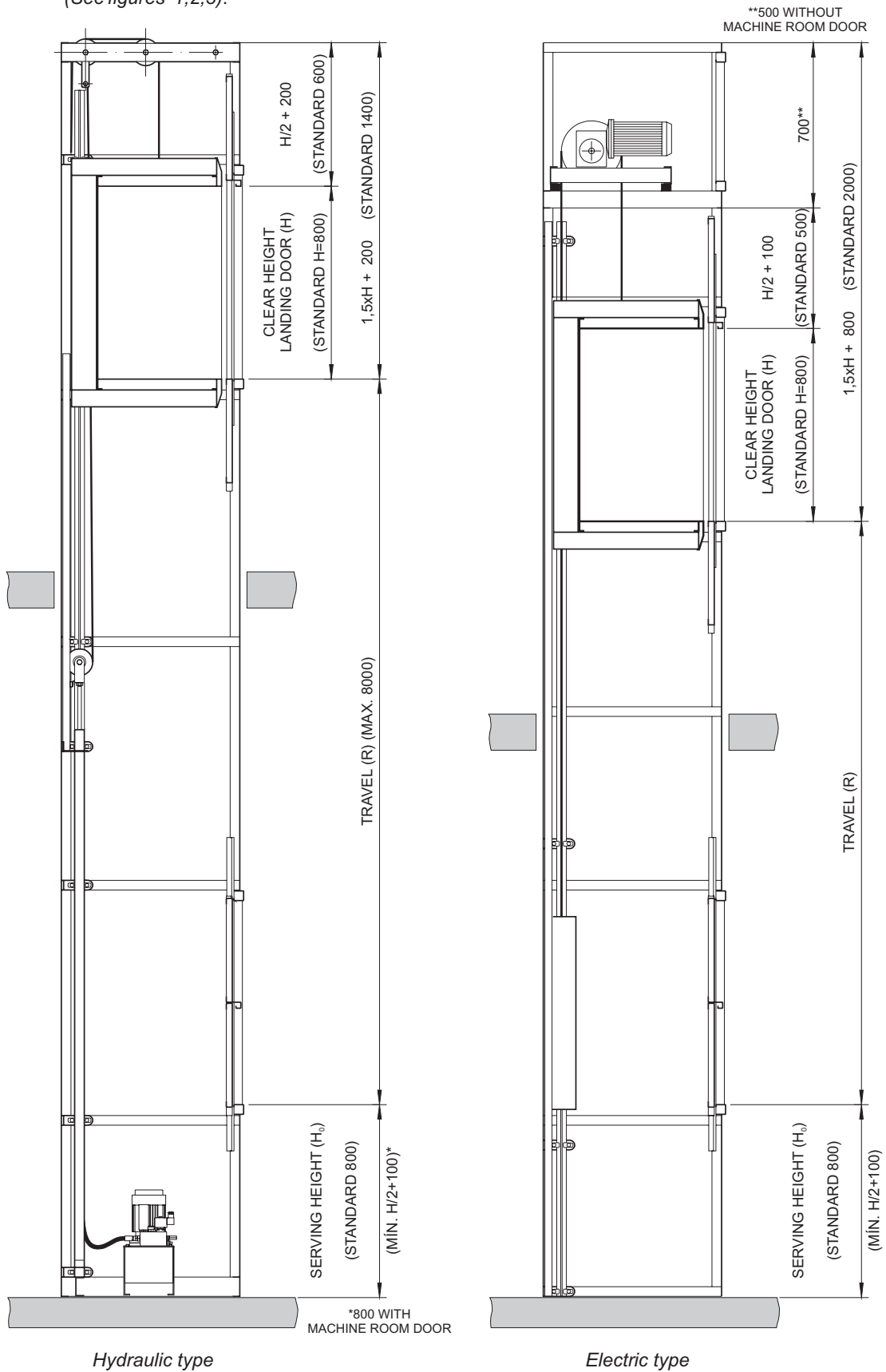
**ELECTRIC INSTALLATION** Button panels are supplied fitted in the landing doors frame.  
Pre-mounted and ready to plug in, interconnecting different floors by wires with connectors.

**HYDRAULIC INSTALLATION** All the necessary piping and couplings are supplied to carry out hydraulic installation. In the case of rigid pipes, this is maleable enough to form any necessary bends, which is why elbow couplings to connect tubes are not supplied

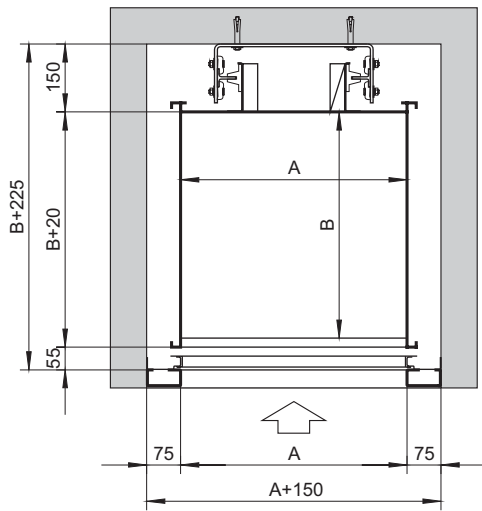
**MACHINE ROOM** **Hydraulic** : The power unit is envisaged to be placed into the shaft bellow the bottom level; to make a safety maintenance a door-trap should be fitted making easy the access to the power unit. If you do not order the machine room door-trap the power unit must be placed out the shaft and you should specify the required pipe lenght.  
Dimensions of central unit and control panel are 200x300x420mm and 300x400x150 mm respectively.

**Electric** : The motor gear is envisaged to be placed at the top into the shaft, in case of "fastening on wall" it will be supported by two proper beams. To make a safety maintenance a door-trap should be fitted making easy the access to the motor gear.

**SHAFT SIZE,** According to layout of entrances, car dimensions, type of drive, optional self supporting structure  
(See figures 1,2,3).



**Figure 1.** Minimum shaft size (side view).

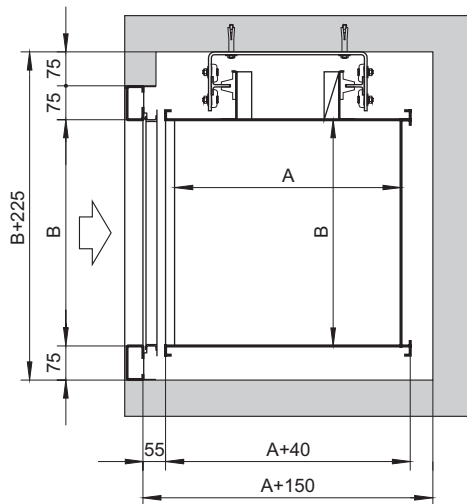


Layout 1

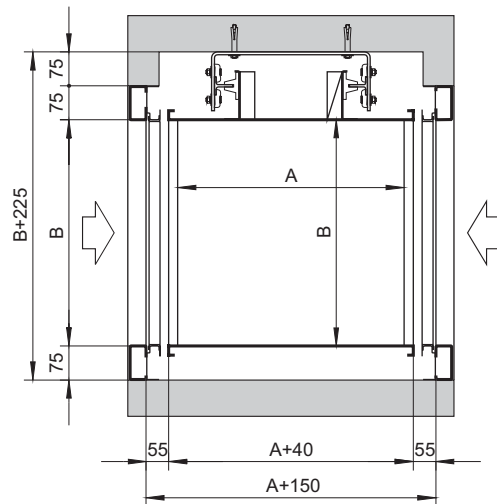
**Figure 2. Minimum shaft size (plan)**  
Without structure:Fastening on wall..

Layouts	Car Dimensions	Clear Car Dimensions	Minimum Shaft Size
1		A B+20	
2,3		A+20 B	
4,5	A B	A+20 B+20	A+150 B+225
6		A+40 B	
7		A+20 B+20	

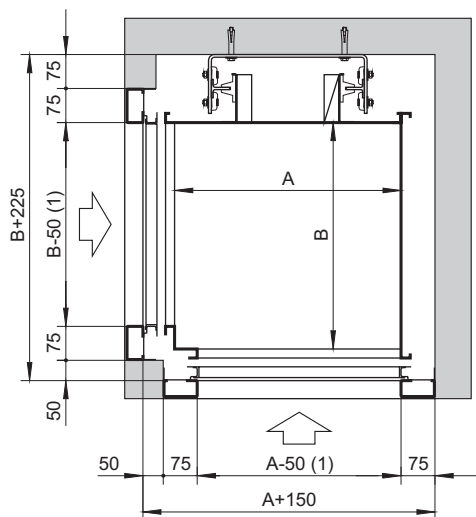
1. In case of car doors, B-100
2. In case of car doors, B-200



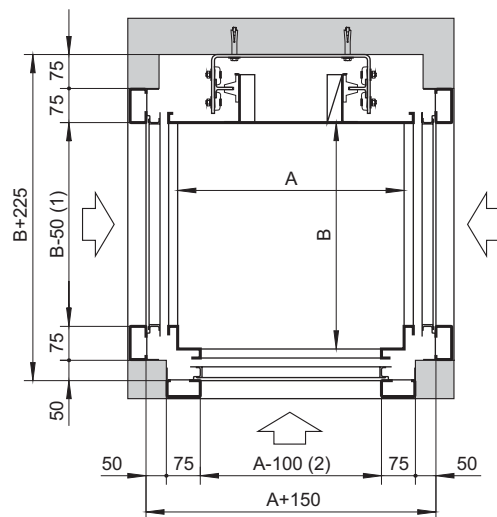
Layout 2-3



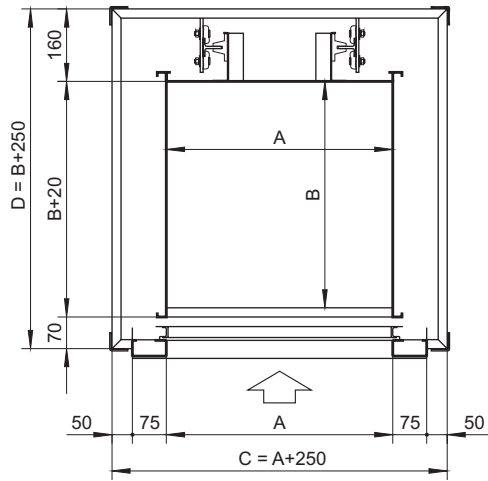
Layout 6



Layout 4-5



Layout 7

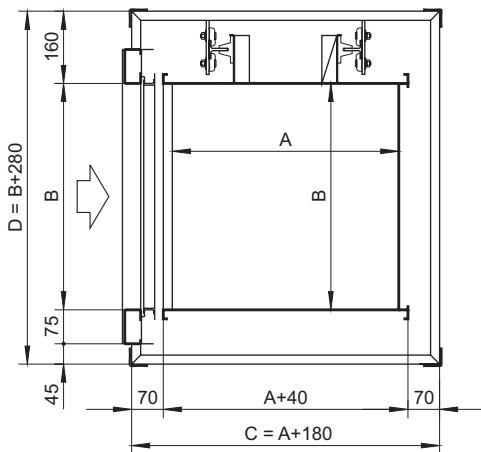


Layout 1

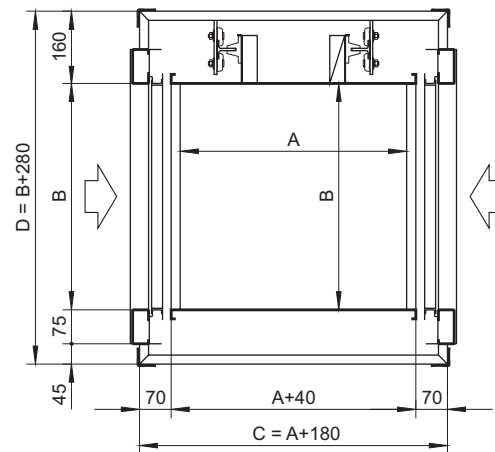
Figure 3. Minimum shaft size (Plan).  
With self-supporting structure.

Layouts	Car Dimensions	Clear Car Dimensions	Minimum Size of Shaft (C+30)x(D+30)
1		A B+20	A+280 B+280
2,3		A+20 B	A+210 B+310
4,5	A B	A+20 B+20	A+240 B+280
6		A+40 B	A+210 B+310
7		A+20 B+20	A+210 B+280

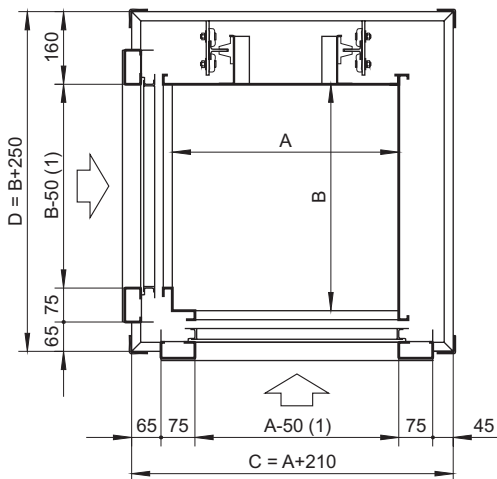
1. In case of car doors, B-100
2. In case of car doors, B-200



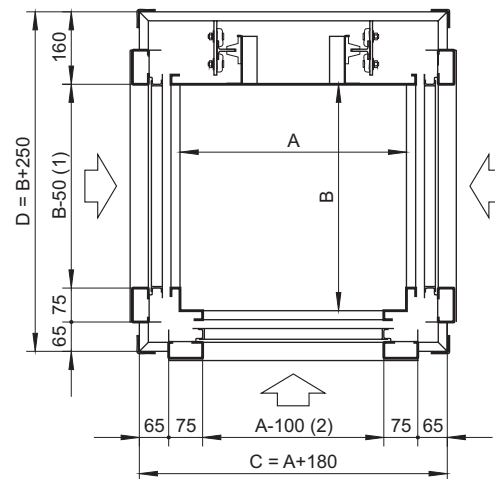
Layouts 2-3



Layouts 6



Layouts 4-5



Layouts 7