

# 1. Description

Sliding door with lateral or central opening, consisting of one or two mobile leaves that move laterally automatically or manually, freeing up a wide passage area.

It is a product specifically designed to guarantee **low air permeability**: when the leaf/leaves are closed, they are close to the frame and the floor, sealing the perimeter of the opening, allowing a positive pressure to be maintained inside the clean room and with the added advantage of being fully glazed leaves.

A characteristic application is the ICU wards, in which these sheets allow the surveillance and supervision of the patient from outside the ward.

The **Visio+** Hermético operator offers unique kinematic performance in the industry. The exclusive **Manusa** sealing system allows manual opening of the leaf's, in the event of a power failure, without the need to incorporate release handles on the leaf.

The 44mm framed door leave are composed of 44mm wide aluminium profiles with a 2,5mm thickness, which frame the glass by means of a rubber gasket. Admits 6 and 10mm thick glass.

A wall frame made of aluminium profiles and a rubber gasket is located on one side of the opening. This frame can easily be adapted to any wall and ensuring a flat surface in contact with the leaf to guarantee airtightness.

Single slide with right slide opening	Single slide with left slide opening	Right slide opening with a fixed leaf	Left slide opening with a fixed leaf	Central sliding opening without fixed leaf	Central sliding opening with fixed leaf
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# 2. Technical Specifications

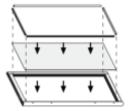
### 2.1. Operator

The Manusa hermetic doors are operated by a Visio+ hermetic operator, which has unique kinematic features in the sector. For more information on the performance of the door, as well as the compatibility with other accessories, consult the technical sheet of the Visio + hermetic operator.

Mechanical features			
Actuator measurements	175x220		
Single side opening max. clear width	1800mm		
Single side opening min. clear width	495mm		
Central opening max. clear width	2660mm		
Central opening min. clear width	1070mm		
Maximum clear height	2600mm		
Minimum clear height	2000mm		

#### 2.2. A44-H4 Leaf

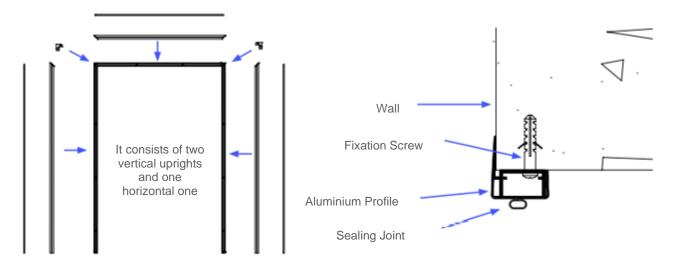
All A44-H4 door leaves are designed to ease the fitting of the glass by the installer.



#### 2.3. MK40-J Frame

The MK40-J frame has been designed to fit to any wall, and ensure a perfect sealing and good performance of the hermetic door. This frame incorporates a rubber gasket and is fixed to the side of the opening on which the door is to be installed, to ensure a proper sealing of the opening.

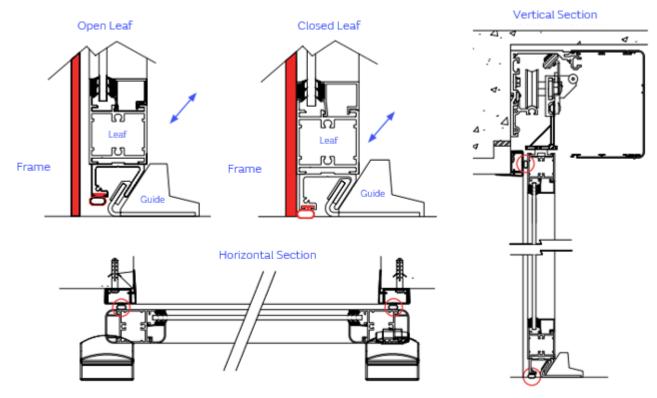
It is possible to install the opening frame on both sides of the wall, covering the complete lintel of the opening in typologies without fixed leaves. For types with fixed leaves, the **MK40-J** can only be installed covering one side of the wall.





## 2.4. Sealing

When the A44-H4 door moves to close position, the leaf slides down and backwards towards the floor and wall frame, at the end of the closing cycle. The rubber gaskets on the wall frame and at the bottom rail of the door leaf, guarantee a perfect sealing of the opening, to keep the room in optimum hygienic and climatic conditions.



The Manusa hermetic sliding doors have been tested to evaluate the air leakage at low pressure.

THE Manusa Her	metic stiding do	ors have been tested to evalue	ate the all leakage at low pressure.	
Total pressure	9	Total aire permeation	Air permeation in terms of total surface	Air permation in terms of length of joints
Nominal (Pa)	Real (Pa)	m³/h	m³/h⋅m²	m³/h⋅m
15	15	3.10	0.99	0.43
20	17	3.20	1.02	0.44
30	27	4.22	1.35	0.58
40	37	5.20	1.66	0.72
50	46	6.13	1.96	0.85
75	72	8.56	2.74	1.19
100	99	13.78	4.41	1.91
-15	-15	2.70	0.86	0.37
-20	-21	3.31	1.09	0.46
-30	-29	4.20	1.34	0.58
-40	-40	5.13	1.64	0.71
-50	-50	5.80	1.85	0.80
-75	-75	7.48	2.39	1.04
-100	-99	8.68	2.77	1.20

The file number (Applus) of the classification obtained by Manusa is as follows:

Lateral Sliding Door C44 Hermetic File No. 07/32304786.

The tests have been carried out at APPLUS laboratories (LGAI).





#### 2.5. Glasses

#### Security

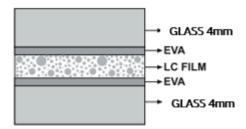
The A44-H4 sheets allow the incorporation of all types of conventional safety glass as standard: laminated, tempered ... with thicknesses between 6 and 10 mm. For other thicknesses, contact the Manusa Technical Department.

#### Electropolarized

Glasses that change their state from opaque to transparent with the passage of electric current. Its greatest utility is the separation of environments, providing them with instant privacy.

The thickness of the electropolished glass is 10mm, and it is made up of:

- 2 outer sheets of glass.
- 2 EVA sheets for lamination, between the glasses.
- 1 LC sheet in the center of the piece.



Atmosphere				
Storage		-20°C a70°C		
Operation		-10°C a 60°C		
Electrical properties				
Operating Voltage		60 a 65V AC		
Frequency range		50 a 60 Hz		
Consumption		<10W / m2		
Connection time		<0.1 seconds		
Optical properties				
Total transmission		62% +/- 2%		
Total transmission Off mode		0.4%		
Direct drive Off mode		>78%		
Haze modo On		<4.5%		
Sound control data				
Thickness	Standard c	onstruction	Classification DB (RW)	
4+4 mm	4mm glass + 0.4nn	EVA + 4mm glass	36	

### Screen glass

The screen glass is liftable and adjustable for most of the available dimensions and consists of a double glazing that includes a Venetian blind inside, which, completely isolated from the outside, prevents dirt, as well as deterioration due to humidity or contact.

In order not to lose the hermetism of the chamber, the shutter is activated by an automatic motorized system activated by push buttons or touchless proximity detectors located on the wall.

The display glass has a 20 mm chamber using a 3 + 3 mm thick laminated safety glass.

Note: Motorized adjustable and liftable system with 20 mm chamber.





## 3. Finishes

The product is designed and manufactured in aluminium, which allows us all possible finishes for this material.

#### Anodized:

Anodizing consists of a protective surface layer, generated from an electrolytic process. The nominal thickness of the anodizing is 15 microns. Available the entire range of anodized recognized by Qualanod.

#### Powder coating:

Powder coating is a protective coating of oven-cured plastic paint. The nominal thickness of the lacquer is 60 microns. Available in the full range of RAL, Pantone and any other possible color or texture in this finish. Possibility of Qualicoat or Qualicoat SeaSide certification at the customer's request.









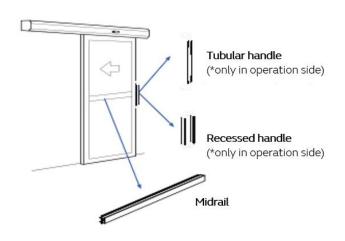
## 4. Accessories

Manusa hermetic sliding doors allow the use of the most common accessories in automatic doors: Radars, photocells, maneuver selector, pushbuttons ...

For more specific elements it is necessary to consult our technicians, components such as: Interfaces, concentrators ...

Other exclusive accessories for this type of door are the handle and handle handles. Both handles can only be placed on the operator's side.

Likewise, the dividing strip is also available as an accessory.



The characteristics indicated in this manual are purely informative and are in no way binding. The manufacturer reserves the right to make modifications without prior notice.







