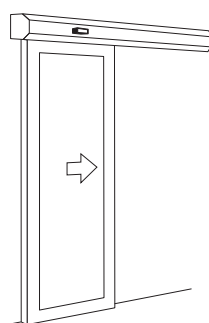


## Data Sheet

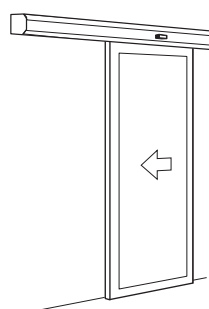
# HERMETIC SLIDING DOOR

## "CLEAR VIEW" H44 LEAF + ME40

### 1- DESCRIPTION



Single slide with  
Right Side Opening



Single slide with  
Left Side Opening

#### i

Single slide door, consisting of one moving leaf that slide sideways automatically or manually, leaving a large clear opening when the door is in open position, and to seal the opening when the door is closed.

This product has been designed to guarantee sealing of the opening, with the advantage of being total glazed door leaves to ease the monitoring of patients from outside the ICU room. With the door in close position, the leaves lean against the rubber gasket on the wall frame, while a rubber gasket at the bottom of the leaf seals the lower side of the opening. All this design is made to seal the complete opening and help keeping a positive pressure environment inside the clean room, to prevent dust and bacteria contaminating the clean area

The 44mm framed door leaves 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.

The **manusa** Bravo hermetic door operator will slide the leaves backwards against the wall frame and down against the floor to seal the full opening. The exclusive **manusa** hermetic system allows the doors to be opened manually in the event of a power failure, and with very low effort.

### 2- FINISHES

The product is designed and manufactured in aluminium, which allows using any kind of finish available for this material.

#### Anodized:

Anodizing consists of a protective layer, produced from an electrolytic process. The minimum anodize thickness is 15 microns. The entire QUALANOD\* anodized range is available.

#### Powder coating:

Powder coating is a protective cover of plastic paint polymerized in a stove. The minimum thickness for powder coating is 60 microns. The entire RAL range is available.



### 3.- OPERATOR

The **manusa** Hermetic Doors are operated by a Bravo Hermetic operator, which has unique kinematic features in the sector.

#### MECHANICAL FEATURES

Actuator measurements	<b>225x180</b>
Single side opening max. clear width	<b>1400 mm**</b>
Single side opening min. clear width	<b>700 mm**</b>
Maximum clear height	<b>2440 mm**</b>
Minimum clear height	<b>2000 mm**</b>
Maximum weight per door	<b>85 kg</b>

#### MOTOR FEATURES

Adjustable opening speed per leaf	<b>50 to 80 cm/s</b>
Adjustable closing speed per leaf	<b>15 to 40 cm/s.</b>
Adjustable closing force between	<b>40N to 150N</b>
Acceleration	<b>0,8 m/s<sup>2</sup></b>
Independent speed/force adjustment	<b>YES</b>

#### ELECTRICAL FEATURES

Standard power supply	<b>230v 50-60Hz±15%</b>
Power supply on request	<b>110v 50-60Hz±20%</b>
Motor	<b>2xAC. Three-phase</b>
Inverter technology (exc. to Manusa)	<b>VV-VF</b>
Direct coupling to drive pulley	<b>Without a gearbox</b>
Operating power consumption	<b>265 W</b>

#### SAFETY

Spontaneous safety reopening	<b>YES</b>
Connectable safety photocells	<b>1 or 2</b> (2 recommended)

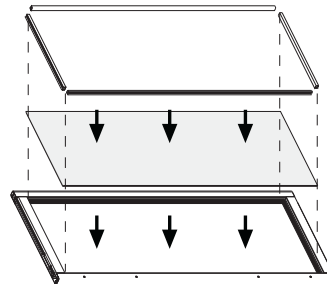
#### LEGISLATION IN FORCE PR-EN 12650 (ACTUATOR).

Low voltage	<b>2006/095/CEE</b>
Electromagnetic compatibility	<b>2004/108/CEE</b>
Building products	<b>89/106/CEE</b>
Safety of machinery	<b>2006/42/CE</b>

**\*\*General dimensions of the operator. Limitations apply depending on the materials used on the door leaf. Refer to section 10 in this manual.**

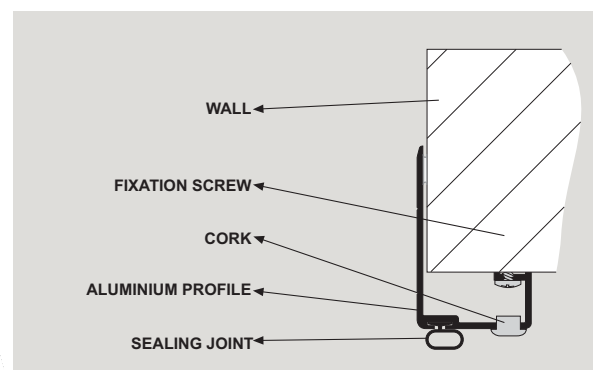
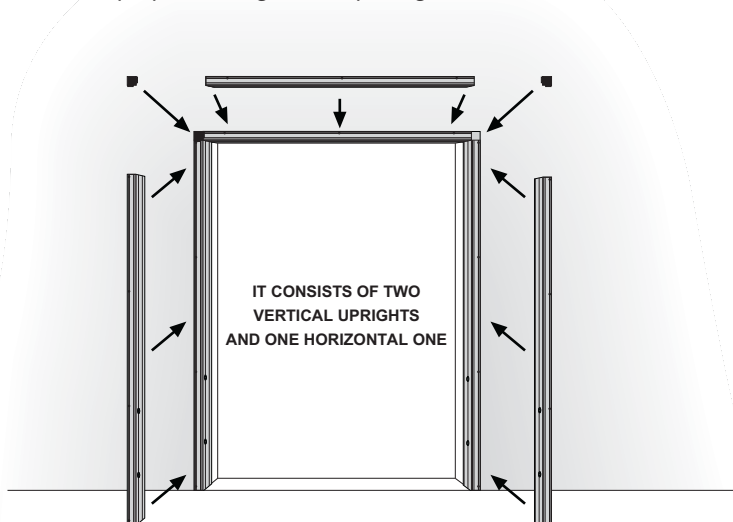
### 4- H-44 LEAF

All H44 door leaves are designed to ease the fitting of the glass by the installer.



### 5- ME40 FRAME

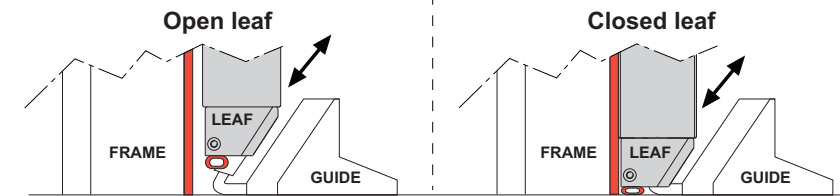
The ME40 frame has been designed to fit to any wall, and ensure a perfect sealing and good performance of the hermetic door. This frame incorporates a rubber gasket, and is fixed to the side of the opening on which the door is to be installed, to ensure a proper sealing of the opening.



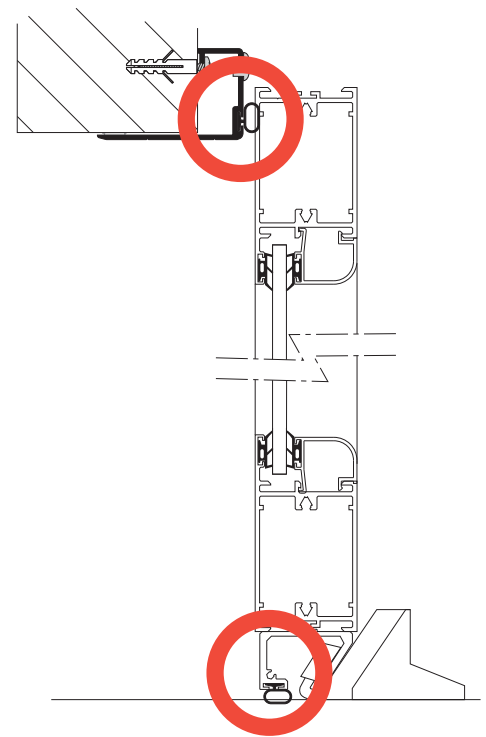
## 6- SEALING

P  
R  
O  
D  
U  
C  
T

When the H44 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.



Vertical Section



Horizontal Section

C  
E  
R  
T  
I  
F  
I  
C  
A  
T  
E  
S

The **manusa** Hermetic Sliding doors have been tested to evaluate the air leakage at low pressure.

## RESULTS OF THE AIR LEAKAGE TEST:

Total pressure		Total air permeation	Air permeation in terms of total surface	Air permeation in terms of length of joints
Nominal (Pa)	Real (Pa)	m <sup>3</sup> /h	m <sup>3</sup> /h · m <sup>2</sup>	m <sup>3</sup> /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

**manusa's** classification record number (Applus) is:

H44 Hermetic Sliding side opening Door Record n° 07/32304786

The tests were conducted at **APPLUS (LGA)** laboratories:

**Applus<sup>+</sup>**

7- GLASSES

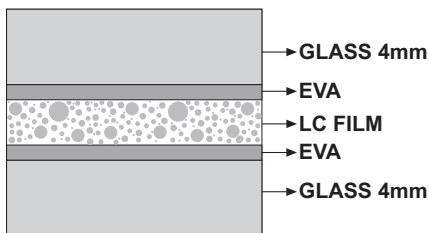
SECURITY

The H44 leaves admits all kind of conventional security glass: laminated, tempered... the standard thickness is between 6 and 10mm.

Refer to section 10 for size restrictions associated to the glass thickness.

ELECTROPOLARIZED

These self-dimming glass will change from transparent to translucent in reaction to an electrical impulse, to provide instant privacy when required.



The self-dimming glass is available in two versions:  
 - V1: offers more privacy in OFF (translucent)  
 - V2: allows more brightness in ON.

Glass thickness is always 10mm, and is composed of:  
 - 2 outside extra clear glass.  
 - 2 EVA inner layers  
 - 1 LC layer at the center

TECHNICAL FEATURES:

Model	Type V1		Type V2	
	ON	OFF	ON	OFF
Optical characteristics				
Total light transmission	75% ±3%	71% ±2%	79% ±2%	76% ±2%
Parallel light clear	73% ±2%	4% ±2%	70% ±2%	5% ±2%
Haze	7%	--	5%	--
Connection speed	off/on 40ms	on/off 100ms	off/on 30ms	on/off 90ms
Colour (1)	Clear	Milky white	Clear	Milky white
Electrical characteristics				
Operative voltage (2)	60 to 80 VAC		100 to 120 VAC	
Frequency level	50 - 60 Hz		50 - 60 Hz	
Consumption	10 W/m <sup>2</sup>		10 W/m <sup>2</sup>	
T <sup>a</sup> storage	0 to +40°C		0 to +40°C	
T <sup>a</sup> working	-10 to +50°C		0 to +65°C	
Leaf dimension				
Maximum height	2440 mm		2440 mm	
Maximum wide	1340 mm		1140 mm	

SCREEN GLASS



This special vision panel is composed of a double glaze framing an internal Venetian blind, which is completely insulated from the outside, while keeping dirt and humidity away to prevent damage.

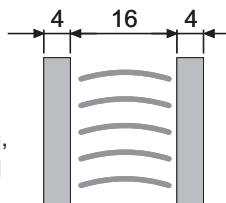
To keep the hermetic properties of the vision panel, the operation of the internal blind is controlled by a magnetic system, with a maintenance free side fix cursor with manual operation.

The camera is just 16mm wide, with external 4mm thick glass on both sides. It also includes an exclusive perimeter profile fitted without drills to helps increase darkness, and prevent the flow of light through the vision panel.

**Remark: to deliver Venetian blinds, the project must be submitted to our technical office for evaluation.**



Magnetic adjustable system, with a camera of 16mm and side fix cursor.



TECHNICAL FEATURES

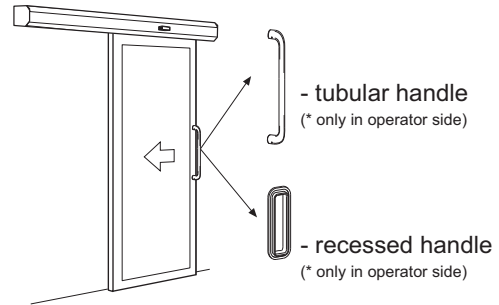
Leaf dimension	
Minimum height	490 mm
Maximum height	2440 mm
Minimum wide	390 mm
Maximum wide	1400 mm
Maximum surface	3 m <sup>2</sup>

**7- ACCESSORIES**

**manusa** hermetic sliding doors can be combined with the most common accessories for automatic doors, such as: radars, push button, touch-less switch, elbow switch...

Please ask our technicians about more specific components, such as: Interfaces, concentrators...

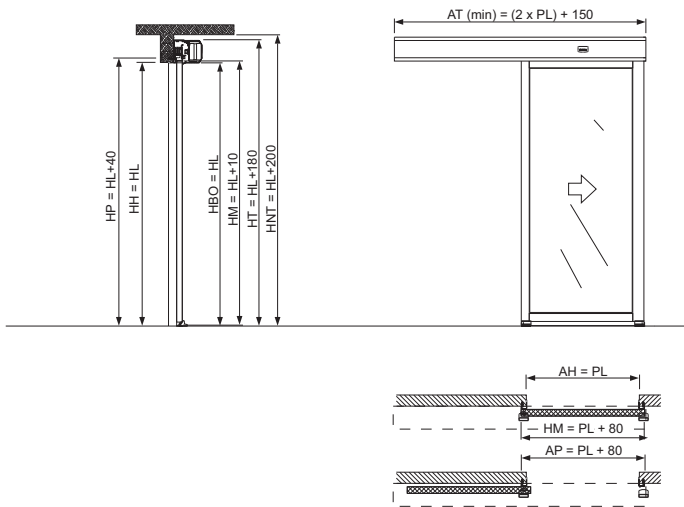
Other exclusive accessories for this type of door are the recessed and tubular handles. Both types can only be fixed to the door leaf facing the operator side.



**8- DOOR TYPES**



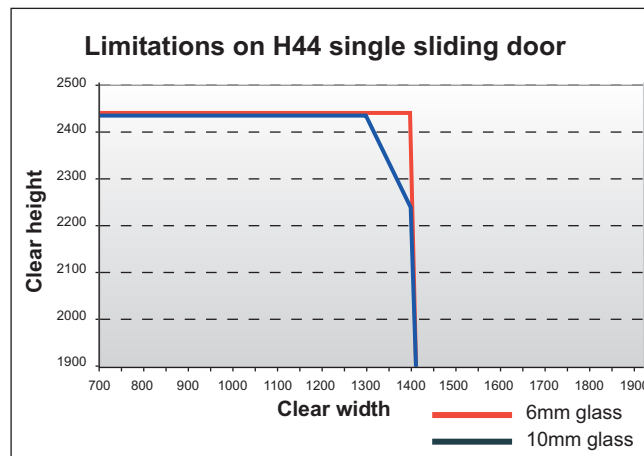
**SINGLE SLIDING DOOR**



**LEGEND**

PL	Clear width
AM	Width of moving leaf
AT	Operator Length
AH	Opening width
AP	Door width
EP	Wall thickness
HL	Clear Height
HH	Opening height
HT	Overall height
HNT	Necessary height
HBO	Height bellow cover
HM	Height of sliding leaf
HP	Door height

**9- LIMITATIONS**



**NOTE:** The features included in this document are given for information purposes only, and are not binding.

The manufacturer reserves the right to modify its products without prior notice.

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