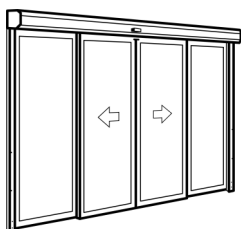


Data Sheet

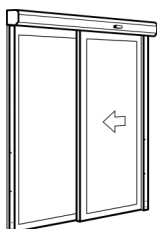
VISIO AUTOMATIC SLIDING DOOR



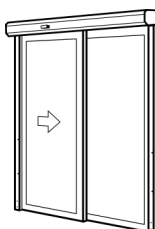
1 - DESCRIPCIÓN



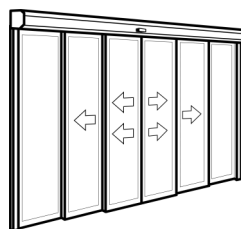
Bi-parting door



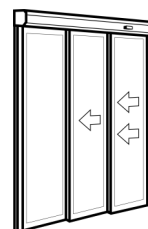
Left opening single sliding door



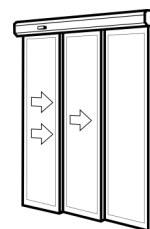
Right opening single sliding door



4-leaf telescopic door



Left opening 2-leaf telescopic door



Right opening 2-leaf telescopic door

i

Automatic single slide or bi-part automatic sliding door operator designed for high traffic conditions.

A telescopic version is also available, consisting of two or four sliding leaves that automatically slide sideways providing a larger clear opening.

The VISIO operator has been designed with a view to achieving:

- Greater integration of the operator and the leaves in the architectural setting.
- Less visual impact of the operator, thanks to its compact size (125mm).
- Greater transparency: 175mm cover to hide the top rail (optional).
- Greater functionality: new SMART selector, elegantly designed and user friendly.

New technological features such as:

- Fire alarm connection.
- Integrated buzzer.
- Emergency stop.
- Safety sensor on fixed leaves.

The product also includes new optional possibilities such as:

- People counter.
- Integrated illumination and audio.

2 - FINISH OPTIONS

The product is designed and made from aluminium, allowing all finish options available for this material.

Anodized:

The anodized finish consists of protective surface layer resulting from an electrolytic process. The minimum thickness of the anodized layer is 15 microns.

Powder coating:

Powder coating is a protective coating made of heat-polymerized plastic paint. The minimum thickness of powder coating is 60 microns. Entire RAL colour range available.

3 - TECHNICAL FEATURES

The **manusa** VISIO doors are activated by an operator that offers kinematic features unique in the industry.

ELECTRICAL FEATURES (APPLICABLE TO ALL TYPES)

Power supply (standard)	220-240V 50Hz+/- 6%
Power supply (optional)	100-120V 60Hz+/- 6%
Motor	2xAC. Three phase
Inverter technology (exclusive of	VV-VF
Direct drive:	No reduction gear
Fuse protection	4A
Operating temperature	-15°C a 50°C
Fail-safe batteries (open/close)	2x12v DC 700mA

SAFETY (APPLICABLE TO ALL TYPES)

Safety reopening on obstruction	Yes
Safety photocells connectivity	up to 3

APPLICABLE DIRECTIVES (APPLICABLE TO ALL TYPES)

Low voltage	2006/95/EC
Electromagnetic compatibility	2004/108/EC
Building products	89/106/EC
Safety of machinery	2006/42/EC
Detection devices	EN 12978



MECHANICAL FEATURES VISIO OPERATOR FOR BI-PARTING DOORS

MECHANICAL FEATURES VISIO BI-PART

Size of standard operator	180x125 (1)
Size of operator with suspension beam	230x125 (2)
Maximum length of operator	6000 mm (3)
Maximum clear width	2950 mm (4)
Minimum clear width	950 mm
Recommended maximum clear height	3000 mm (5)
Maximum leaf weight	2x120 kg

MOTOR FEATURES VISIO BI-PART

Opening speed (adjustable), per leaf	50 to 100 cm/s
Opening speed (bi-part)	100 to 200 cm/s
Closing speed (adjustable), per leaf	15 to 40 cm/s
Closing force adjustable from	40N to 140N
Maximum acceleration	2 m/s ²
Independent speed/force regulator	Yes



MECHANICAL FEATURES VISIO OPERATOR FOR SINGLE SLIDING DOOR

MECHANICAL FEATURES VISIO SINGLE SLIDE

Size of standard operator	180x125 (1)
Size of operator with suspension beam	230x125 (2)
Maximum length of operator	6000 mm
Maximum clear width	2500 mm
Minimum clear width	500 mm
Recommended maximum clear height	3000 mm (5)
Maximum leaf weight	1x160 kg

MOTOR FEATURES VISIO SINGLE SLIDE

Opening speed (adjustable), per leaf	50 to 100 cm/s
Opening speed (bi-part)	- -
Closing speed (adjustable), per leaf	15 to 40 cm/s
Closing force adjustable from	40N to 140N
Maximum acceleration	2 m/s ²
Independent speed /force regulator	Yes



MECHANICAL FEATURES VISIO OP. 4-LEAF TELESCOPIC DOOR

MECHANICAL FEATURES VISIO 4-LEAF TELESCOPIC

Size of standard operator	230x125 (6)
Size of operator with suspension beam	280x125 (7)
Maximum length of operator	6000 mm (3)
Maximum clear width	3900 mm (4)
Minimum clear width	1850 mm
Recommended maximum clear height	2800 mm (5)
Maximum leaf weight	4x75 kg

MOTOR FEATURES VISIO 4-LEAF TELESCOPIC

Opening speed (adjustable), per leaf	50 to 100 cm/s
Opening speed (bi-part)	100 to 200 cm/s
Closing speed (adjustable), per leaf	15 to 40 cm/s
Closing force adjustable from	40N to 140N
Maximum acceleration	2 m/s ²
Independent speed/force regulator	Yes



MECHANICAL FEATURES VISIO OP. 2-LEAF TELESCOPIC DOOR

MECHANICAL FEATURES VISIO 2-LEAF TELESCOPIC

Size of standard operator	230x125 (6)
Size of operator with suspension beam	280x125 (7)
Maximum length of operator	6000 mm
Maximum clear width	2500 mm
Minimum clear width	1050 mm
Recommended maximum clear height	2800 mm (5)
Maximum leaf weight	2x90 kg

MOTOR FEATURES VISIO 2-LEAF TELESCOPIC

Opening speed (adjustable), per leaf	50 to 100 cm/s
Opening speed (bi-part)	- -
Closing speed (adjustable), per leaf	15 to 40 cm/s
Closing force adjustable from	40N to 140N
Maximum acceleration	2 m/s ²
Independent speed/force regulator	Yes

(1) Dimensions 180 x175 in option
(2) Dimensions 230 x 180 in option

(3) Greater lengths available on request
(5) Greater Clear Height available on request after previous study

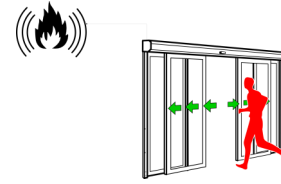
(4) Greater Clear Width available on request after previous study
(7) Dimensions 280 x 180 in option

(6) Dimensions 230 x 175 in option
(7) Dimensions 280 x 180 in option

4 - SAFETY FEATURES

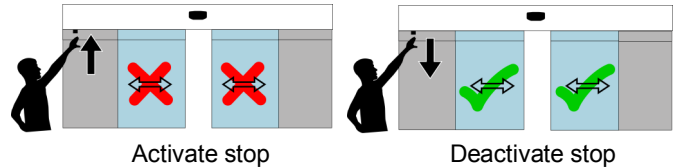
manusa VISIO operators have new technological features such as :

- Fire alarm connection



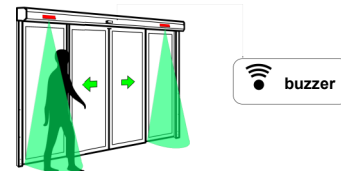
- In case of fire and in order to allow evacuation, the door will open even if closed, and disconnected from power supply.

- Emergency stop (optional)



- Although not stipulated by law given that it is a low risk machine, it is possible to stop the movement of the door leaves immediately by activating a push button.
- The leaves will stop when in motion, and will remain stopped until the button is released.

- Side screen protection (optional)



- The operator is ready to manage the signal of the presence sensors in the opening area.
- An intermittent acoustic signal warns the pedestrians, when the presence of slow moving or stationary traffic is detected in the path of a door.
- If the door is opening, it slows down.

Other important features of the **manusa** VISIO operator are:

- Closing force limitation:

- The force of the motors is regulated electronically so they don't exceed safe values for pedestrians.

- Detection of obstructions:

- The closing movement is reversed.
- The opening movement is stopped.

- Fail-safe batteries:

- Will open the door and keep it open in the event of a power failure (when the door is in Auto mode)
- Battery charging is monitored electronically.

- Panic break-out leaves (optional):

- The door leaves can be pushed manually in the direction of egress, to provide a large opening for evacuation.

- Up to 3 self-monitored photocells:

- A breakdown in a photocell will not cause the door to close.

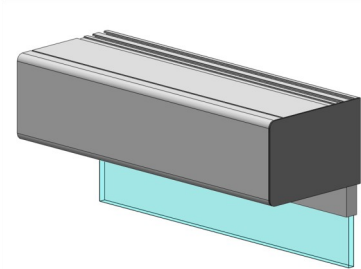
5 - AVAILABLE VERSIONS

The **manusa** VISIO operators are available in several versions to suit all requirements:

DEPENDING ON THE TYPE OF COVER

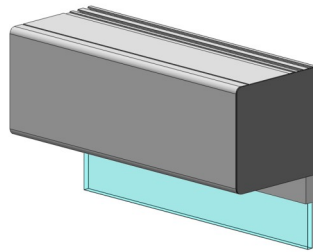
VISIO 125

- Operator height = 125 mm
- Standard size
- Allows side suspension with Beam Profile 125



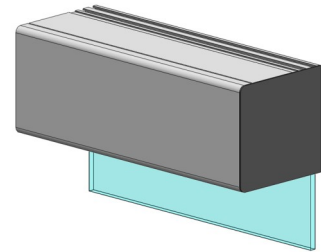
VISIO 175

- Operator height = 175 mm
- Allows side suspension with Beam Profile 175



VISIO 175 PO

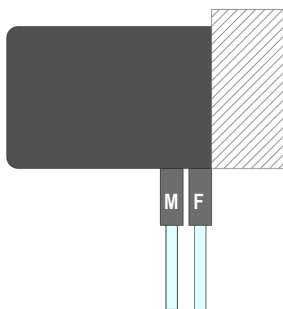
- Operator height = 175 mm
- Allows hiding the top rail for a better integration of full glass leaves.



DEPENDING ON THE POSITION OF THE FIXED LEAF

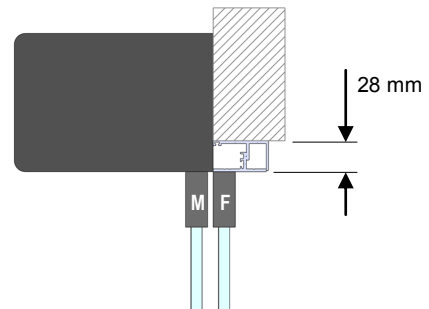
VISIO BO

- Assembly of the fixed leaves under the operator



VISIO BD

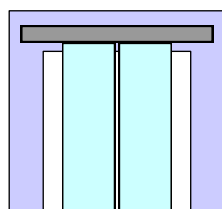
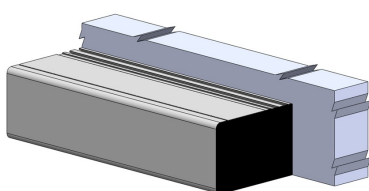
- Assembly of the fixed leaves under the lintel or the beam using a simple adaptor supplied by Manusa.



SUSPENSION OPTIONS

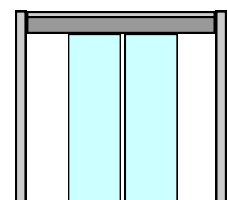
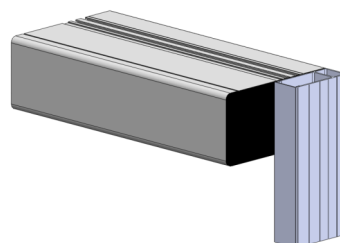
FRONT SUSPENSION

- Assembly on the existing structure.
- Additional suspension accessories are not required.



SIDE SUSPENSION

- A self-supporting structure is available, consisting of two goal posts and a horizontal suspension beam.



5 - COMPATIBILITY WITH DOOR FRAMES

The VISIO operator is compatible with the entire range of **manusa** door frames, and most of other commercial door frames with a thickness of up to 50mm, and without the need for intermediate hangers or adaptors.

The following chart shows all available door frames as well as the glass thickness compatible with each of them.

	TOP RAIL ONLY	3+3	4+4	8	5+5	10	6+6	12	16	18	20	22
	· R20 (50mm rail)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	· T20 (75mm rail)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	· T35 (easy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	TOP&BOTTOM RAIL	3+3	4+4	8	5+5	10	6+6	12	16	18	20	22
	· F20 (50mm rail)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	· D20 (75mm rail)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	· D35 (easy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	FULL FRAMED	3+3	4+4	8	5+5	10	6+6	12	16	18	20	22
	· E20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	· I30	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	· C44	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	PANIC BREAK-OUT SYSTEM	3+3	4+4	8	5+5	10	6+6	12	16	18	20	22
	· S40 (Easy-Sos)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	· S44 (Full framed)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		FULL PANEL										
		· P50 non hermetic										
		COMMERCIAL LEAVES										
		· FRAMES UP TO 50mm THICK										

		TYPES AVAILABLE	TYPE OF COVER	FIXED LEAF ASSEMBLY
C20	R20	Bi-parting sliding door, Single sliding door	125, 175, 175 PO	BD, BO
	T20	Bi-parting sliding door, Single sliding door	125, 175	BD, BO
	F20	Bi-parting sliding door, Single sliding door, 4-leaf telescopic door, 2-leaf telescopic door	125, 175, 175 PO (*)	BD, BO
	D20	Bi-parting sliding door, Single sliding door, 4-leaf telescopic door, 2-leaf telescopic door	125, 175 (*)	BD, BO
	E20	Bi-parting sliding door, Single sliding door, 4-leaf telescopic door, 2-leaf telescopic door	125, 175 (*)	BD, BO
I30		Bi-parting sliding door, Single sliding door, 4-leaf telescopic door, 2-leaf telescopic door	125, 175 (*)	BD
C35	T35	Bi-parting sliding door, Single sliding door	125, 175	BD, BO
	D35	Bi-parting sliding door, Single sliding door	125, 175	BD, BO
C44		Bi-parting sliding door, Single sliding door	125, 175	BD
S40		Bi-parting sliding door, Single sliding door	125, 175	BD, BO
S44		Bi-parting sliding door, Single sliding door	125, 175	BD

(*) Telescopic doors, only available with 125mm cover.

7 - ACCESORIES

All doors equipped with a VISIO operator are compatible with practically the entire range of **manusa** accessories.

CONTROL	DETECTION	SUSPENSION
<ul style="list-style-type: none"> - Opening push button - Elbow switch - Outside key-switch - Numeric keypad - Proximity switch - Emergency stop - Wireless components: <ul style="list-style-type: none"> · Opening push button · Elbow switch · Outside key-switch · Numeric keypad · Remote control 2/4 channels · Tag and RFID trigger 	<ul style="list-style-type: none"> - Planar radar - Infrared sensor - Recessed infrared sensor - Safety photocell - Safety sensor on side screens 	<ul style="list-style-type: none"> - 125mm suspension beam - 175mm suspension beam - Goal posts - Adaptors for commercial leaves

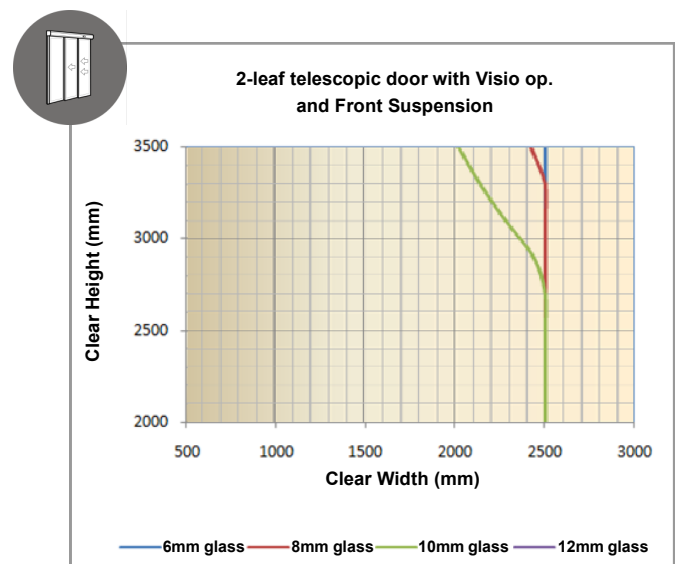
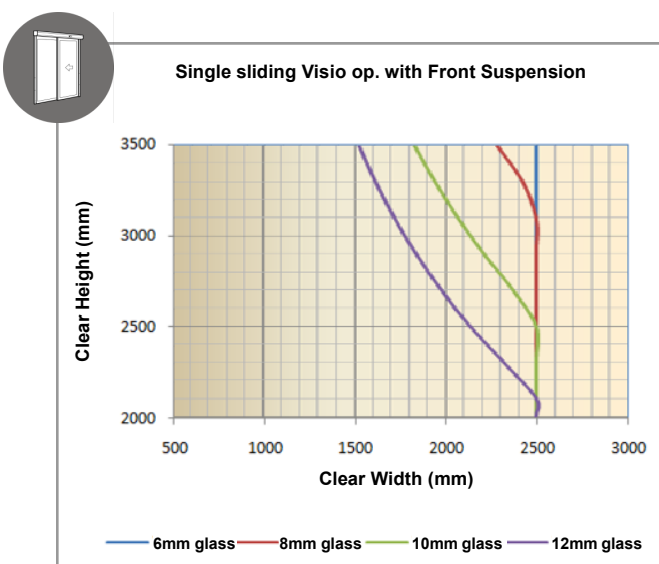
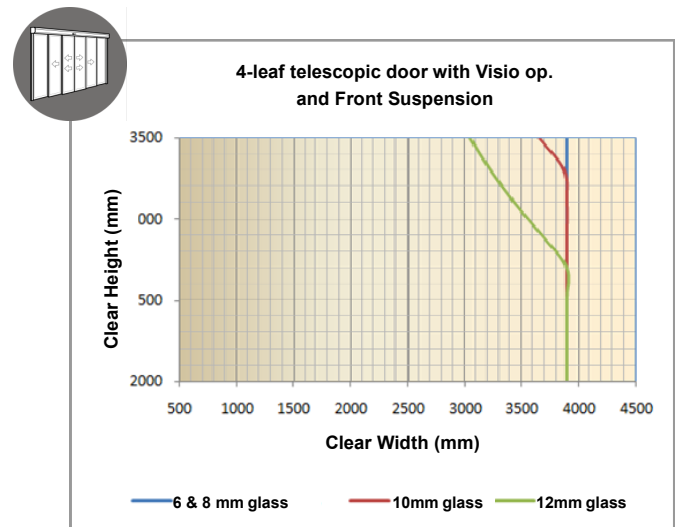
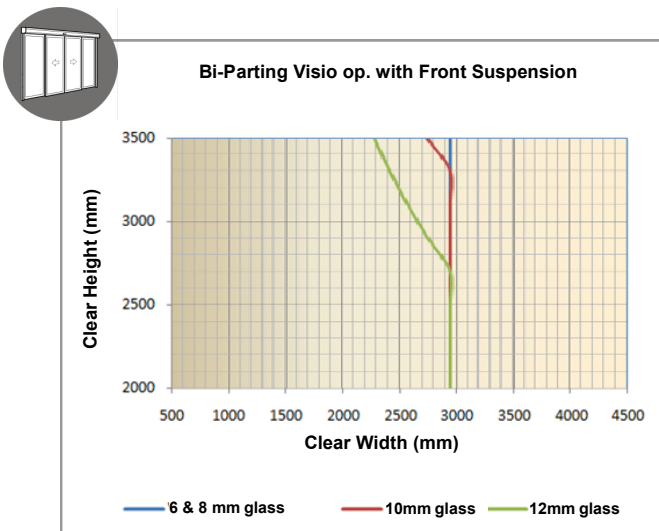
CONTROL	OTHER
<ul style="list-style-type: none"> - Smart selector - Optima selector (with optional remote control) - Ethernet Adapter (Gateway) - I/O interface: <ul style="list-style-type: none"> · basic · air lock · according to client specifications - Manulink software for remote control via PC 	<ul style="list-style-type: none"> - Mechanical fail-safe CO-48 - Electrically operated mechanical lock with release - Cover lock - Audio system - Integrated led display - Door leaves with LED lighting - Clear width illumination - People counter

8 - LIMITATIONS

The following chart shows how to calculate the minimum length of the operator, based on the Clear Width (PL) and type of door frame:

	Bi-Parting		Single sliding		4-leaf Telescopic		2-leaf Telescopic	
	Sliding	Sliding + Fixed	Sliding	Sliding + Fixed	Sliding	Sliding + Fixed	Sliding	Sliding + Fixed
C20	$AT=(2 \times PL)+100$	$AT=(2 \times PL)+100$	$AT=(2 \times PL)+50$	$AT=(2 \times PL)+50$	$AT=(1'5 \times PL)+100$	$AT=(1'5 \times PL)+100$	$AT=(1'5 \times PL)+50$	$AT=(1'5 \times PL)+50$
I30	$AT=(2 \times PL)+140$	$AT=(2 \times PL)+100$	$AT=(2 \times PL)+70$	$AT=(2 \times PL)+50$	$AT=(1'5 \times PL)+140$	$AT=(1'5 \times PL)+100$	$AT=(1'5 \times PL)+70$	$AT=(1'5 \times PL)+50$
C35	$AT=(2 \times PL)+100$	$AT=(2 \times PL)+100$	$AT=(2 \times PL)+50$	$AT=(2 \times PL)+50$	--	--	--	--
C44	$AT=(2 \times PL)+200$	$AT=(2 \times PL)+200$	$AT=(2 \times PL)+100$	$AT=(2 \times PL)+100$	--	--	--	--
S40	$AT=(2 \times PL)+100$	$AT=(2 \times PL)+100$	$AT=(2 \times PL)+50$	$AT=(2 \times PL)+50$	--	--	--	--
S44	$AT=(2 \times PL)+300$	$AT=(2 \times PL)+300$	$AT=(2 \times PL)+150$	$AT=(2 \times PL)+150$	--	--	--	--

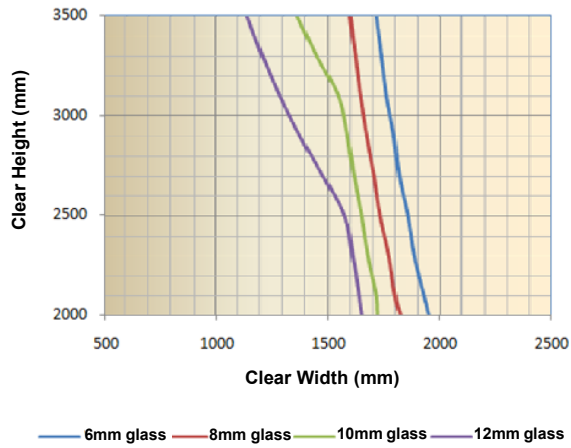
Guideline diagrams showing Clear Width (PL) and Clear Height (HL) restrictions, depending on glass thickness and door types (front suspension):



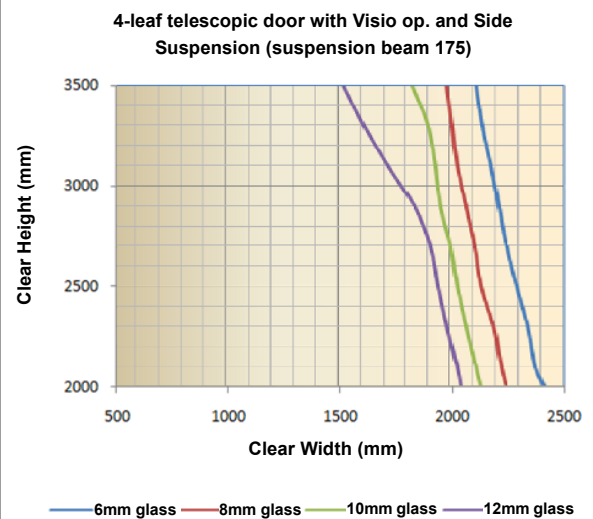
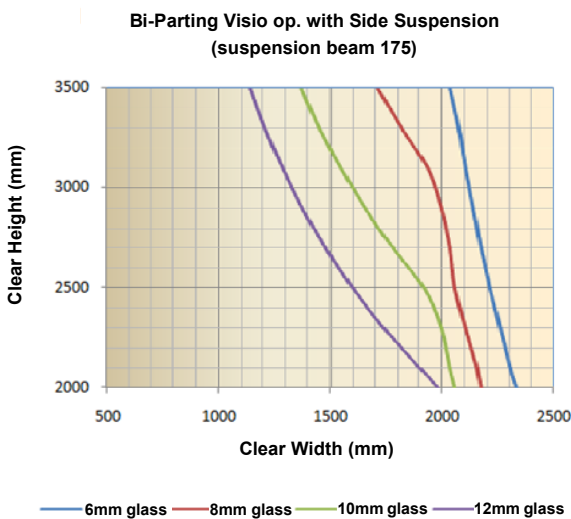
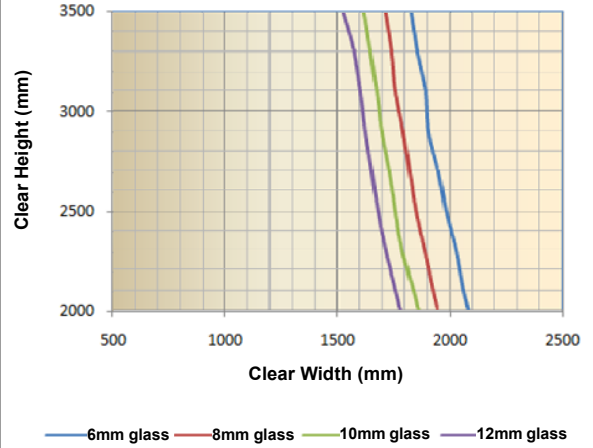
Guideline diagrams showing Clear Width (PL) and Clear Height (HL) restrictions for BI-PARTING doors, depending on glass thickness and door types with SIDE SUSPENSION:



Bi-Parting Visio op. with Side Suspension
(suspension beam 125)



4-leaf telescopic door with Visio op.
and Side Suspension (suspension beam 125)

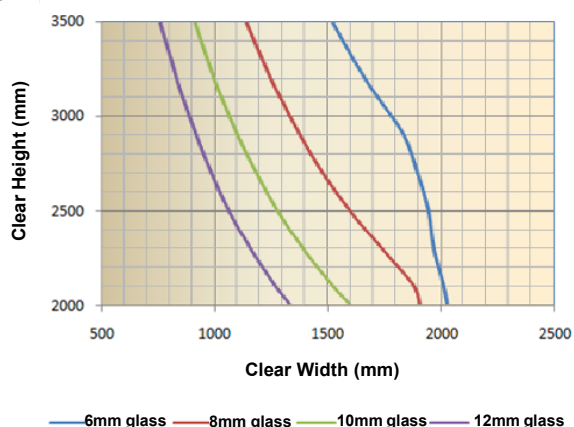


IMPORTANT: In the side suspension diagrams, **Maximum Operator Length = 2 x Maximum Clear Width**

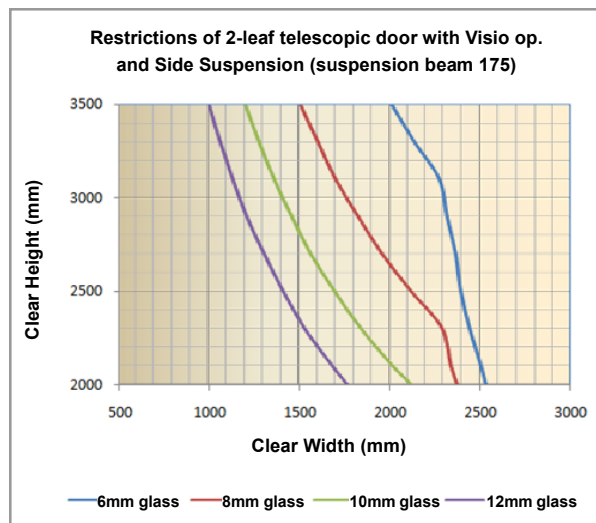
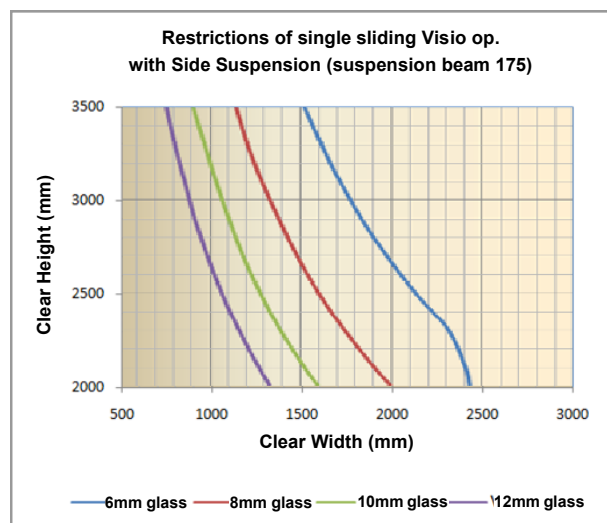
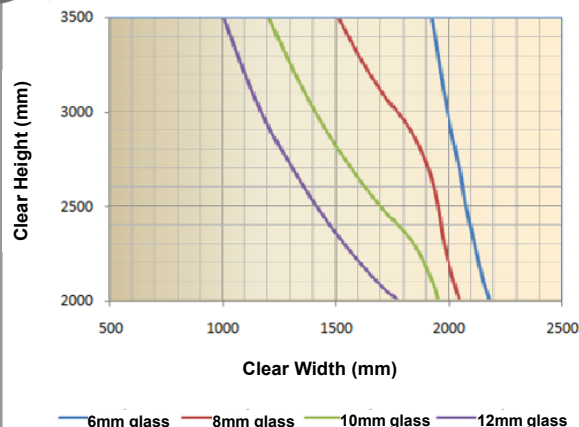
Guideline diagrams showing Clear Width (PL) and Clear Height (HL) restrictions for SINGLE SLIDING doors, depending on glass thickness and door types with SIDE SUSPENSION:



Restrictions of single sliding Visio op.
with Side Suspension (suspension beam 125)



Restrictions of 2-leaf telescopic door with Visio op.
and Side Suspension (suspension beam 125)



IMPORTANT: In the side suspension diagrams, **Maximum Operator Length = 2 x Maximum Clear Width**

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.

Last updated: May 2011

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