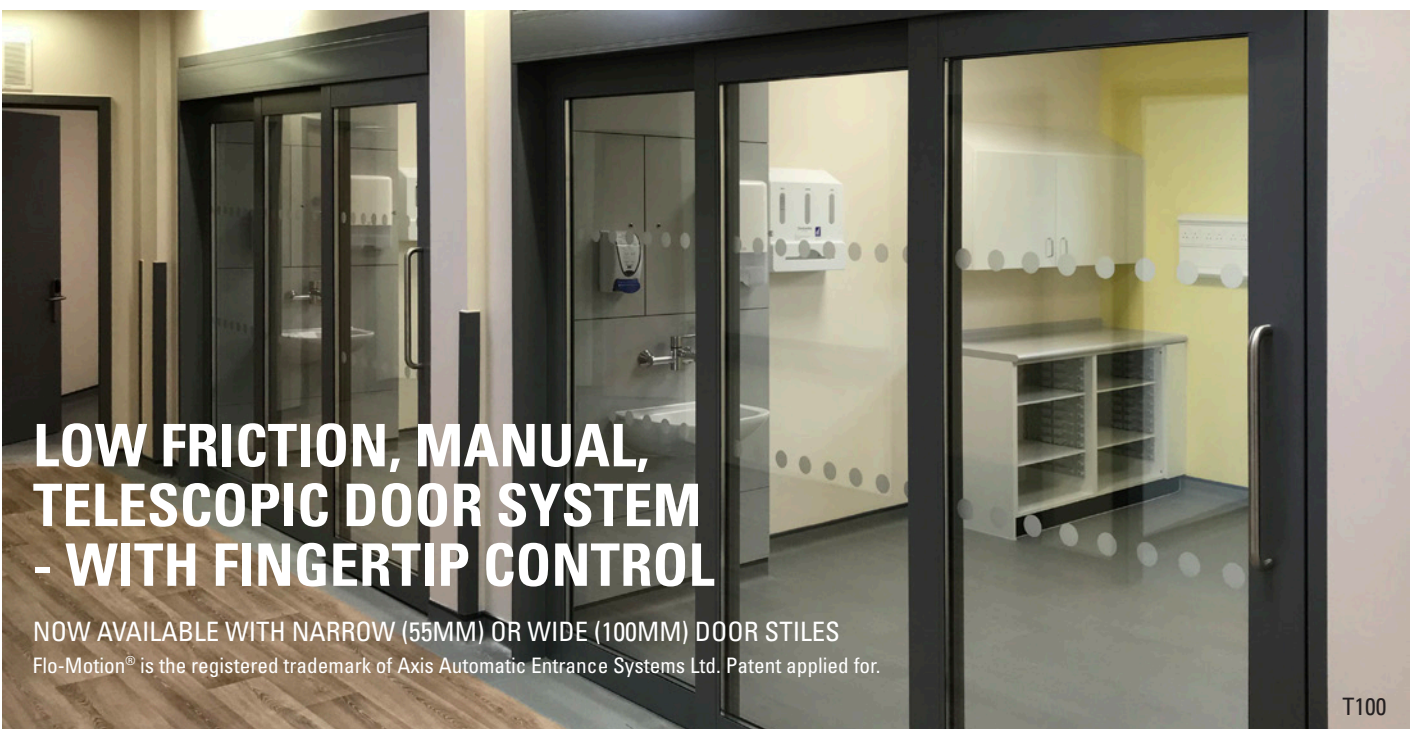


*axis*

## Automatic Entrance Systems

***flo·motion***<sup>®</sup>  
Telescopic

NEW TO  
FLO-MOTION<sup>®</sup>  
RANGE



**LOW FRICTION, MANUAL,  
TELESCOPIC DOOR SYSTEM  
- WITH FINGERTIP CONTROL**

NOW AVAILABLE WITH NARROW (55MM) OR WIDE (100MM) DOOR STILES  
Flo-Motion<sup>®</sup> is the registered trademark of Axis Automatic Entrance Systems Ltd. Patent applied for.

T100

## THE FLO-MOTION® STORY

The first Flo-Motion® sliding and bi-parting doors were specifically designed for the new Alder Hey Children's Hospital to provide child friendly, full width, glazed bedroom and ward doors. David Houghton, Project Manager, Children's Health Park Project, Alder Hey Children's NHS Foundation Trust said "The extra-large, easy opening, glazed sliding doors have transformed the way single rooms work to deliver healthcare with a choice of privacy or social interaction when required without the loss of clinical observation." The average opening force of the 200+ Flo-Motion® doors installed at Alder Hey was 10N - less than 50% of the original specified force requirement.

All Flo-Motion® doors feature re-circulating ball guides on a special low resistance linear track with a damper mechanism. The door sets are fabricated using extruded aluminium profiles and include a self-supporting "goal post" frame.

### MULTI AWARD WINNING

Flo-Motion® doors have won 4 prestigious awards. Firstly Laing O'Rourke's 2015 Construction North Award for Innovation followed by the IHEEM 2015 Product Innovation Award. This was followed by the Building Better Healthcare Best Internal Building Product 2015 and in 2016 the European Healthcare Design Award for Innovation for Quality Improvement.

### MEETING CLIENT NEEDS

Whilst our standard sliding doors offer excellent light transfer, privacy, ease of use and more importantly, a better overall patient experience, the existing formats are not always suitable for every application. Where space is limited, it became evident that there was a demand for another door format in the Flo-Motion® portfolio – a telescopic version.



The telescopic door was primarily designed as an "in-line" package to fit entirely within the structural reveal depending on the wall thickness. The pre-assembled frame incorporating the support bar can be installed at the first fix stage allowing other trades to complete the walls and floors before the panels are fitted.

The two sliding leaves are connected by a sequencing device so that the primary leaf (fast door) reaches the fully opened or closed position at the same time as the secondary leaf (slow door) reaches its pre-set position.

- Unique support bar for ease of installation
- Hinged pelmet for ease of access
- Offset track system for ease of maintenance
- Variety of glazing options available
- Option of narrow or wide door stiles

The original doorset was designed with 100mm stiles to compliment the other doors within the Flo-Motion® range. The 55mm stile was introduced where space is limited and a larger clear opening and a more slim-line design is required.



## SLIDING MECHANISM

The Recirculating Ball slides contain precision balls which move in a loop within the cassettes. This means that a high number of balls are continuously in contact with the bearing surfaces, not just a single roller, increasing the contact area which increases the slide load rate capability and decreases the movement force.

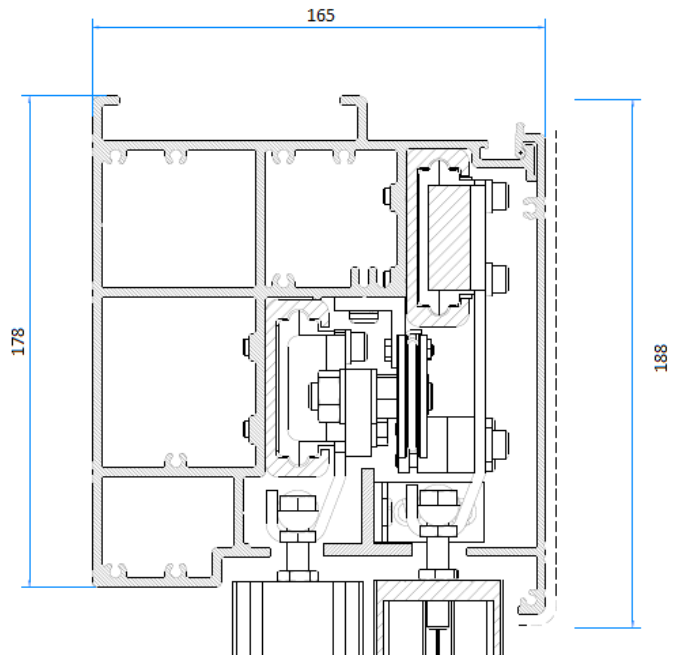
Weight limits and cassettes required per door leaf	
Number of cassettes with steel ball bearings	kg
2	290
3	360
Number of cassettes with Delrin ball bearings	kg
2	180
3	240

The cassettes used with our standard single sliding door that weighs 135kg, completed a 1 million cycle test (1.2 metres in each direction = 2.4 million metres).

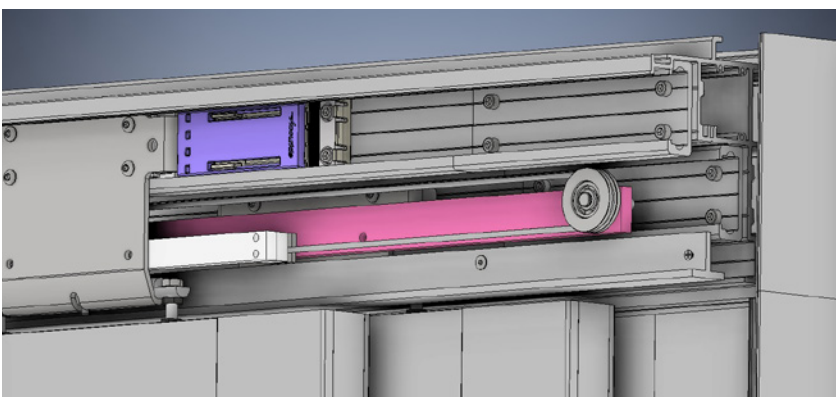
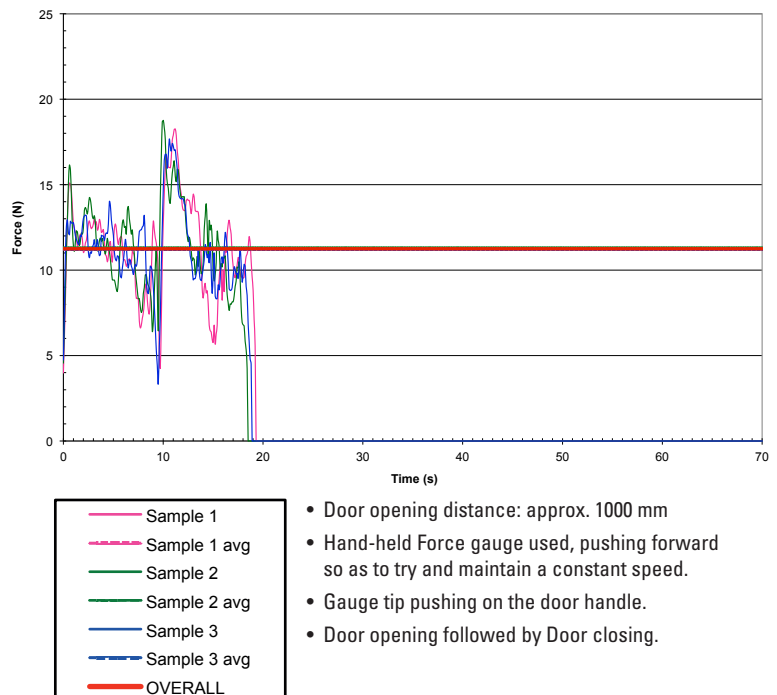
The original test produced an average opening and closing force of 9.9N and when re-measured after one million cycles, an average opening and closing force of 8.6N was recorded.

The telescopic doorset was force tested producing an average opening and closing force of 11.2N. The forces will vary depending on the door mass and the type of glass fitted.

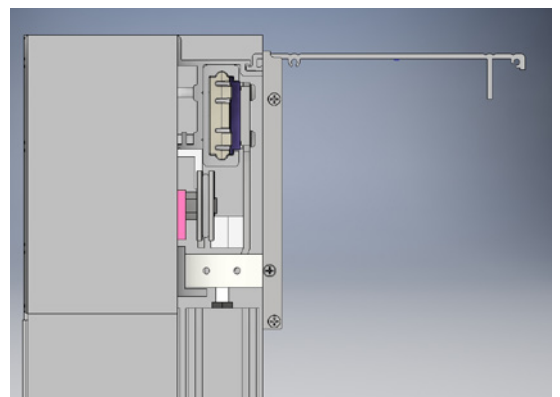
The telescopic door is offered with an anticipated force of 15N (+/-5N).



AXIS - Door Opening Force : Flo-Motion Telescopic - 3000mm wide x 2400mm high with 28mm DGU



Telescopic extended bracket and sequencing device



Side profile of system when fitted into 152mm frame and with pelmet open



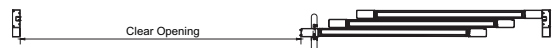
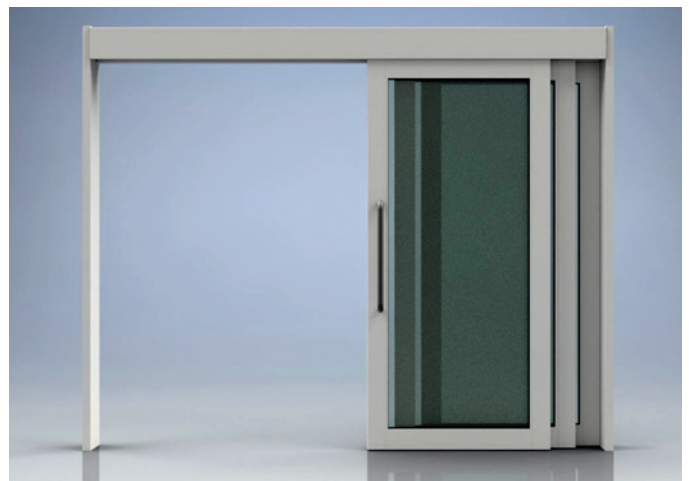
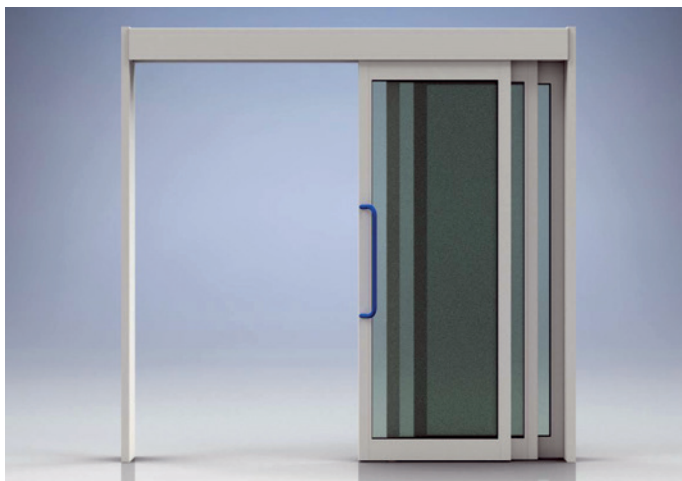
## TECHNICAL SPECIFICATION

### STANDARD INLINE TELESCOPIC DOORSET WITH EQUAL PANELS

**T55 (with 55mm stiles)**



**T100 (with 100mm stiles)**



**Structural Opening Dimensions** – Refer to door parameters on page 5.

**Clear Opening Width** – Approximate distance between frame and leading edge of door when in the fully open position

**Clear Opening Height** - Approximate distance between bottom of pelmet & FFL.

**Handing** - For example and as shown above - viewed from the pelmet side, door opening is on the left.

Standard telescopic doorsets normally consist of two sliding doors and one fixed panel, all of equal widths.

With certain applications, it is possible to achieve an even greater clear opening width by increasing the width of the “fast” door and reducing the width of the “slow” door and fixed panel. This is a “be-spoke” item and is only offered with clear or obscure double glazed units.

Suitable reinforcement (structural steels) will be required to accept the load and this will be discussed at the design stage.

## DOOR PARAMETERS

	T55		T100	
	Min	Max	Min	Max
Structural Opening Width	2200mm	3000mm	2500mm	3000mm
Clear Opening Width	1060mm	1590mm	1230mm	1565mm
Structural Opening Height	2200mm	2700mm	2200mm	2700mm
Clear Opening Height	2012mm	2512mm	2012mm	2512mm

## DOORSET WEIGHTS & PANEL TYPES

(depends on overall dimensions & glass type used)

Estimated Door Doorset Weight	250kg	390kg	290kg	400kg
Estimated Opening Forces (+/-5N)	10N	15N	10N	15N
Top & Bottom Rail Dimensions	100mm x 45mm		100mm x 45mm	
Leading & Rear Edge Stile Dimensions	55mm x 47mm		100mm x 47mm	
Equal Panel Sizes	●		●	
Variable Fixed Panel	○		○	

## GLASS & INFILLS FOR PANELS

(db ratings apply to glass only)

DGU – 28mm clear (35db)	○	○
DGU – 32.8mm c/w with integral blind (35db) (magnet operated & lift only)	○	○
Single Glazed - 8.8mm clear laminated glass (34db)	○	○
Single Glazed - 10.8mm clear laminated glass (35db)	○	○
Other Glass Types	○	○
Insulated Solid Infill panels	○	○
Midrails	○	○

## DOOR FRAME

Integral Transom Bar - 165mm x 178mm	●	●
Jambs - 152mm x 45mm	●	●
Jambs - 200mm x 45mm (100x 45mm x 2)	○	○
Other Jamb Types	○	○
Threshold	○	○

## DOORSET FINISH

Satin Anodised Aluminium (SAA)	●	●
Polyester Powder Coat (PPC)	○	○

## DOOR HANDLES

600mm Offset (PPC steel -back to back)	●	
600mm Straight (nylon - back to back)		●
Other handle types	○	○

## LOCKS

Manual – cylinder operated euro-profile deadlock	○	○
Electro-magnetic Shearlock (12/24vdc) fail unlocked	○	○

## STANDARD DOORSET SPECIFICATION

The standard doorset will be fixed to suitable and solid supports or structural steels installed by the Building Contractor. The doorset is fabricated using non-thermally broken aluminium profiles and includes a self-supporting "goal post" frame consisting of two 152 x 45mm jambs and an integral transom bar with reinforced fixing points. Material finish is Satin Anodised Aluminium (SAA).

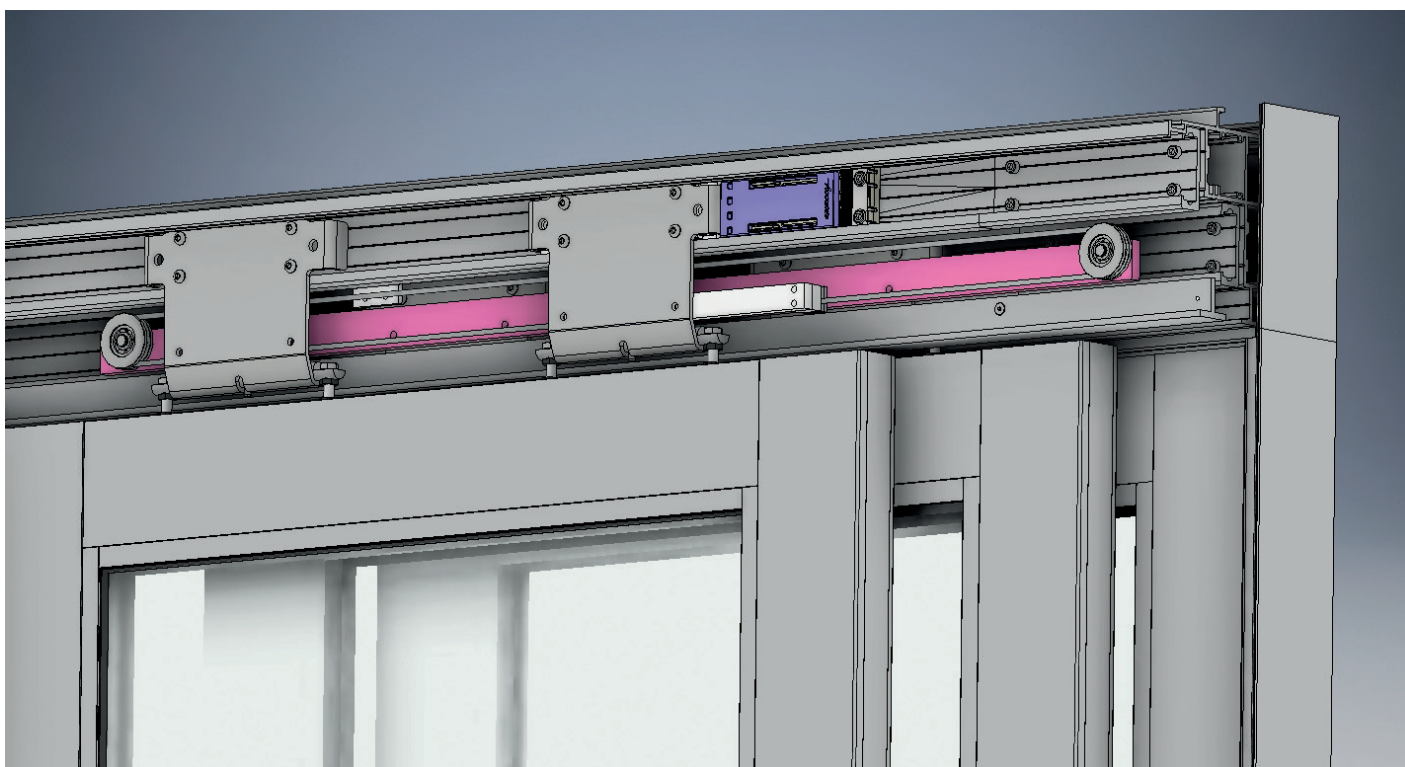
The doors (fast & slow) and fixed screens are fabricated using various profiles for the rails and stiles. The secondary door to be prepared with a bottom channel to operate with a floor mounted nylon guide. The primary door to be prepared to accept a floating bottom guide connected to the secondary panel. The fixed screen offers support to the frame and is secured within the frame structure by two aluminium channels.

The sliding doors will employ a recirculating bearing system and track offering a minimum clear opening width as stated. A "stop" mechanism (Damper not self or soft closing) will be

installed when the doors are closing and at their fully open position. A pelmet will conceal the track and is complete with a "hold open" lid for ease of maintenance.

All panels will incorporate double glazed units secured using a 3mm bead and appropriate gaskets. Neoprene seals are included for the leading edge of the sliding doors and the rear stiles internal face. One pair of 600mm "back to back" handles are fitted to the primary sliding door leaf.

The sliding door panels, which are connected by a sequencing device, can easily be operated by hand. Once installed, every sliding door panel will be digitally force tested three times as specified and a certificate to be issued showing the mean average opening & closing force with test data in graph format.



**Axis Automatic Entrance Systems Ltd**  
Unit 6, Queens Park Industrial Estate, Studland Road,  
Northampton, NN2 6NA.  
Tel: 01604 212500 · Fax 01604 212495  
Email: sales@axisautomatic.com  
www.axisautomatic.com

