



# GT RISE



## TECHNICAL DATA SHEETS



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# DIRECTORY



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# GT RISE

## RAPID RISE DOORS



Guardtech offer a range of rapid rise door solutions to best suit the needs of your application. Whether it's budget, lead time or performance that matters most, Guardtech provide a comprehensive choice of rapid rise door options to ensure your process requirements are achieved.

Whether it's a more economical industrial stacking door all the way up to a supremely air-tight, high-specification GMP grade solution, the Guardtech Group's Directors, Design Engineers and Installation team have worked together to carefully select four industry-leading ceiling options for your consideration.

Read on to discover the benefits and compromises of the different choices we have, then use this guide to make the most informed rapid rise door choice possible.

Let Guardtech take your operation to the next level.



### RISE MAX

GT Rise Pro is Guardtech's elite-level rapid rise door solution – a top-of-the-range, high-specification roller door suitable for the demands of ISO5 applications that require the most stringent control and conditions.



### RISE PRO

A premium rapid roll door for GMP-compliant cleanrooms, suitable for installation in environments up to ISO5 due to its shape and high level of air tightness, with ideal closure for rooms with different pressure ratios.



### RISE PLUS

GT Rise Plus is Guardtech's mid-level rapid roll door options – offering favourable noise operation levels, competitive opening speeds and a unique self-repairing feature which helps to reduce costs and maintenance.



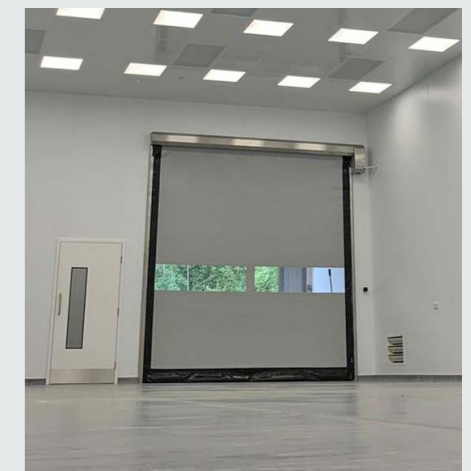
### RISE LITE

GT Rise Lite is Guardtech's entry-level rapid rise door solution – a high-quality door offering all the economical benefits of a rapid roll while retaining a competitive price point against other models.



### RISE FIRE

GT Rise Fire is Guardtech's fire-rated rapid rise door solution – one of the most robust, safety conscious options available, constructed from aluminium 40mm thick panels and filled with PS insulation foam.





# GT RISE MAX



GT Rise Pro is Guardtech's elite-level rapid rise door solution – a top-of-the-range, high-specification roller door suitable for the demands of ISO5 applications that require the most stringent control and conditions.

GT Rise Pro is a high-specification rapid rise door well suited to cleanroom isolation in accordance with DIN EN ISO 14644-1 Class 5, providing high air-tightness which keeps the pressure drop through the closed door at a minimum.

Fast opening and closing ensures very low air loss and minimises air exchange, resulting in a low filter burden and increased cleanroom cost-effectiveness.

Optional contactless actuators enable fast, hygienic opening with a simple hand motion, while integrated traffic lights are also available as optional extras.

Designed in accordance with GMP Class C Integrated cable guide for a smooth overall surface and easy cleaning.

The door is designed according to the Workplace Directive of the UVV regulations and the harmonized CE Guidelines including the EN 13241-1.



## TECHNICAL FEATURES

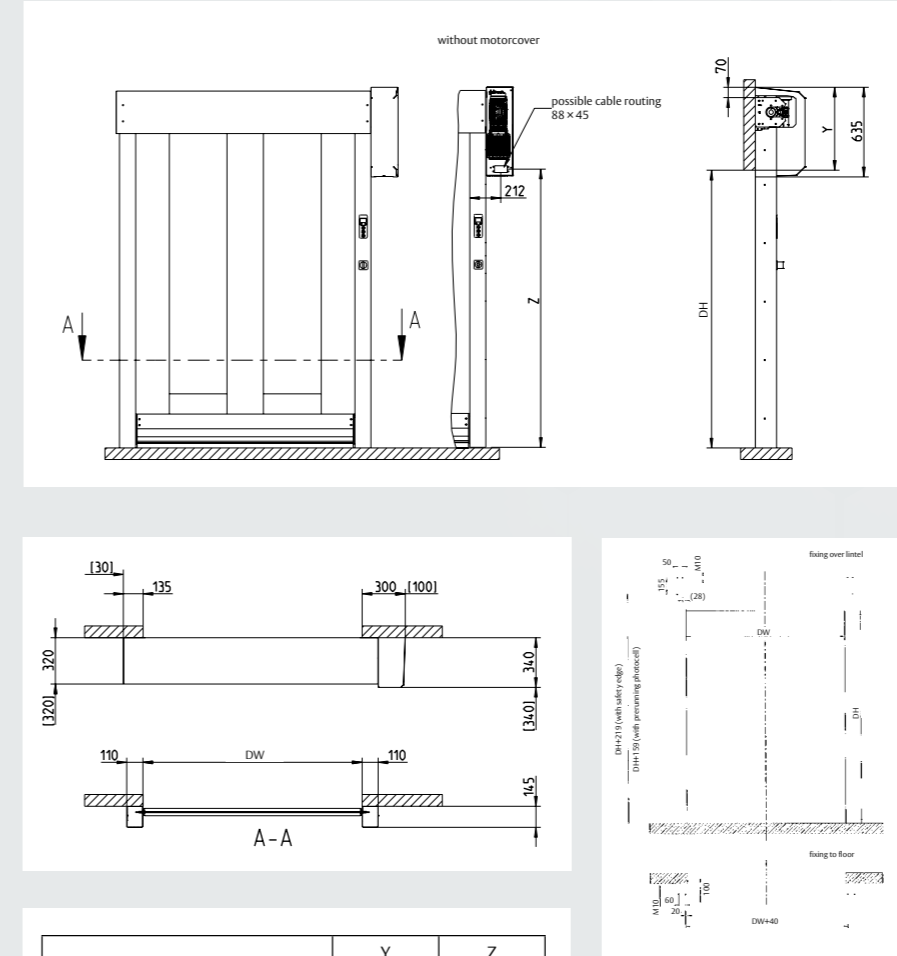
### TECHNICAL DATA

Application	EN 12425
Door dimensions (mm)	EN 12425
Open/Close max. (m/s) 2]	EN 12424
Wind resistance (EN 12424)	EN 12426
Leakage (EN 12426)	EN 12453
Temperature range max. 3]	EN 12604
Motor power	GfA 0,75 KW
Manual activation	Crank handle
MCC: Open/Close max. (m/s) 2]	2,0 / 1,0
ACS 50: Open/Close max. (m/s) 2]	1,0 / 1,0

Separate display / control	Only with MCC
Fuse protection by site MCC	10 – 16 A [B- and C-characteristics]
Fuse protection by site ACS 50	16 A [C-characteristics]
Potential-free contacts	ACS50
UL-Version	Only with MCC
AC mains connection for MCC	3L/(N)PE/380/400/415/440/480V
AC mains connection for ACS 50	3L/(N)PE/230/380/400/415V
Control voltage	24 V DC
Protection	IP 55

- Electrical safety contact edge ● Diagnostic display
- Door line photocell in side frame ● Lintel seal
- Traffic light with & without direction detection

## TECHNICAL DRAWINGS



	Y	Z
with safety edge	470	DH – 93
with pre-running photocell	410	DH – 153

Available Sizes		
	DW	DH
min. (mm)	1000	1000
max. (mm)	3500	3500
min. (mm) with UPS and MCC extension	1500	1000
min. (mm) with USV without MCC extension	1350	1000

[ ] = Space needed for installation

## BENEFITS & COMPROMISES

### Benefits

- Suitable for cGMP and ISO5 controlled environments
- Fast opening and closing ensures very low air loss and minimises air exchange, resulting in a low filter burden and increased cleanroom cost-effectiveness
- Optional contactless actuators – enabling fast, hygienic opening with a simple hand motion
- Integrated traffic light option
- Integrated cable guide for a smooth overall surface and easy cleaning

### Compromises

- Most expensive option in the GT Rise range
- Potentially longer lead times
- More complex maintenance requirements

### TOP ROLL COVER / MOTOR COVER / DRIVE UNIT

The door comes standard with top roll and motor covers. The drive unit is a geared brake motor. It can be fitted on the right or left.

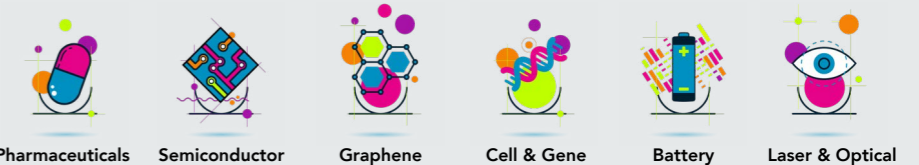


### CONTACTLESS ACTUATOR

An optional contactless actuator (Magic-Switch) is available for fast, hygienic opening.



## APPLICATIONS



GT Rise Max suits the most demanding of applications, typically where particulate needs to be controlled to extremely tight tolerances. This often includes cleanrooms with an ISO5 or 6 classification, as well as those required to comply with cGMP conditions outlined in EU GMP Annex 1, ISO 14644-1 and US FS209E.



# GT RISE PRO

A premium rapid roll door for GMP-compliant cleanrooms, suitable for installation in environments up to ISO5 due to its shape and high level of air tightness, with ideal closure for rooms with different pressure ratios.



GT Rise Pro is a specialist high-speed door designed for cleanrooms and other critical environments where hygienic design and low air permeability has to be at a premium level.

GT Rise Pro rapid roll doors are tested by Fraunhofer for suitability in cleanrooms up to ISO5 classification. This makes it a very popular choice for cleanrooms where segregation is required for hygiene or pressure control.

GT Rise Pro rapid roll doors can be supplied with a grade 304 or 316 stainless steel frame depending on the requirements of your application. Alternatively, the Guard-

tech Group can supply the doors in a powder-coated finish in a range of different colours. For maximum hygienic performance, the motor is integrated into the top cover of the door, giving a neat, compact look. The doors are tested at 50Pa for air permeability and are designed to open and close at pressures differences of less than 50Pa.

From the frame side the door will perform to ISO3 as defined by EN12425 and from the opposite side it will conform to ISO2.

Additionally, the patented HRS magnetic seal can be added to the door to offer ISO5 air permeability.



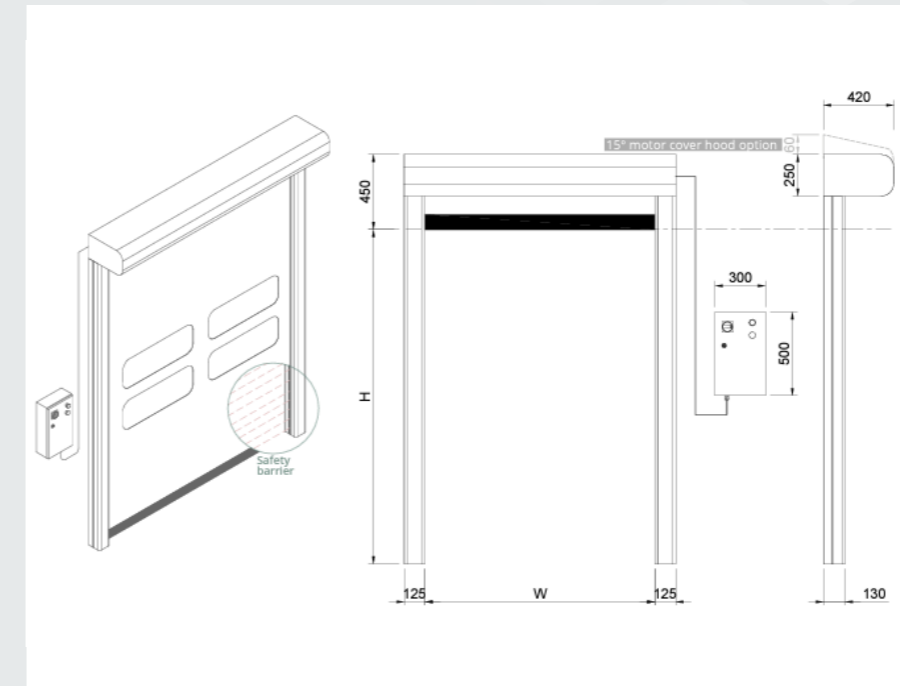
## TECHNICAL FEATURES

FUNCTION	STANDARD	OPTIONAL
Minimum width (mm)	4500mm	
Minimum height (mm)	4500mm	
Opening speed	2.5m/s	
Curtain thickness/weight	900 grams/m <sup>2</sup> 3mm	1300 grams/m <sup>2</sup> 7mm insulated, 3.3 W/m <sup>2</sup> K
Guide	Self-lubricating polyethylene	
Acoustic Value	15 dB Rw (ISO 717)	
Curtain colours	17 Standard colours	Translucent, FDA White Curtain, Custom logo digital print
Control panels	Stainless Steel (IP54), (300 x 500 x 150mm)	Optional: PVC (IP65)
Power supply	Inverter system - 50/60Hz with Digital Encoder Single-phase 230V (Max 16A) - for doors up to 9m <sup>2</sup> 3-phase 400V (Max 10A)	
Door frame	Stainless steel	Powder coated

<b>Operating temperature</b>	Operating till -10°C* with heating kit added - not apt to be installed in negative/positive temperature	
<b>Vision panels</b>	2 rows of 1200mm wide x 300mm high	No vision panels, 2 rows 1200mm wide x 500mm high
<b>Safety features</b>	Flashing light, 2500mm/2000mm Light Curtain (IP67)	Safety Edge / Anti-Roll Sensor / Photocells
<b>Sliding system</b>	Patented sliding system with high density Polyzone self-lubricant equipped of sliding zipper directly on curtain	
<b>Emergency opening</b>	Long lever crank	UPS Battery
<b>Controls</b>	Start/Stop button	Remote Fobs, Radar sensors, Pull Switch, Key switch
<b>Water permeability</b>	EN 12425 Class 1	
<b>Wind load</b>	EN12424 Class 3	< 20 m/s (60 km/h)
<b>Air permeability</b>	EN12426 Class 2	(Optional Class 5)
<b>Thermal transmittance</b>	EN12428 6.02 W/m <sup>2</sup> K	
<b>Performance (cycles)</b>	EN 12604	1,000,000
<b>Safe opening, Mechanical Resistance &amp; Unintended movements</b>	EN12453 & EN12604	Pass



## TECHNICAL DRAWINGS



GT Rise Pro boasts an industry-leading door-opening speed of 2.5m/s, enabling maximum productivity and improving hygiene. All doors have an innovative self-re-

pairing system which allows the curtain to automatically re-insert itself following an impact, helping to greatly reduce ongoing costs for our clients.

## BENEFITS & COMPROMISES

### Benefits

- Suitable for cGMP and ISO5 controlled environments
- Fraunhofer ISO5 certification
- Tested at 50Pa – HRS magnetic seal option
- Ideal closure performance for facilities with different pressure ratios
- Remote fobs, radar sensors, pull switch and key switch options

### Compromises

- More expensive solution than GT Plus and Lite
- More complex maintenance requirements than GT Plus and Lite

## PRODUCT FEATURES

• TESTED AT 50PA WITH UP TO ISO5 AIR PERMEABILITY

• FAST, VERTICAL, EFFICIENT ACTION

• SUITABLE FOR HIGH USAGE AREAS

• FRAUNHOFER ISO5 CERTIFICATION



## APPLICATIONS



GT Rise Pro cleanroom doors suit a wide variety of applications in a diverse range of sectors. GT Rise Pro offers many of the same performance requirements as GT Rise Max, only with fewer high-end components, finishes and optional extras.



# GT RISE PLUS

GT Rise Plus is Guardtech's mid-level rapid roll door options – offering favourable noise operation levels, competitive opening speeds and a unique self-repairing feature which helps to reduce costs and maintenance.



GT Rise Plus high-speed doors offer a solution for a wide range of applications with less stringent requirements.

High-speed doors minimise energy loss through frequently used openings, helping cut down the cost of energy wastage and lessening environmental impact.

GT Rise Plus has a unique self-repairing feature which helps to reduce the cost of damage and maintenance. The doors offer quiet

and reliable operation and are available with opening speeds up to 2.5metres/ second.

The doors roll to the head of the opening within a compact head-box. Frames can be constructed from galvanised steel or stainless steel, in self-finish or powder coated.

The curtains are constructed from tough PVC-coated fabric in a range of colours and with transparent vision panels to varying sizes.



## TECHNICAL FEATURES

FUNCTION	STANDARD	OPTIONAL
Maximum opening speed	2500mm/second	3000mm
Maximum closing speed	800mm/second	
Maximum width & height	8000mm	
Motor	230V single phase inverter	400V three phase inverter
Control panels	Inverter controls in galvanized steelcase	Inverter controls in plastic case Inverter controls in stainless steel case
Curtain weight	900 grams/m2 3mm	1300 grams/m2 7mm insulated
Curtain colours	12 standard colours	
Operating temperature	-30°C - +70°C	
Door frame	Galvanized steel	Powder-coat finish Stainless steel
Guide	Self-lubricating polyethylene	
Power supply	Single phase and earth, 240V	Three phase, 415V
Safety	Wireless resistive safety edge Transmitter/receiver photocell Flashing light	Heading sensor (suitable for wet environments) Light curtain Audio visual/Traffic light

Vision windows	300mm high rectangular-rounded	None 600mm high rectangular Round Full-height Bespoke
Timed close	0-200 Seconds	
Emergency opening	Hand-crank override	Counterweight system T-cut emergency exit
Controls	Push button	Remote control, Proximity sensors Motion sensor, Pull cord, Induction loop, Digital keypad, Proximity sensors
Wind resistance* differential pressure	Class EN 12424	
Wind speed during door opening	< 20 m/s (60 km/h)	
Air permeability	Class 5 - EN 12426:2001	
Operating temperature	-10°C to +70°C	
Water Resistance	Class 3 - EN12426, 0,11 kPa for door closed	
Acoustic value	15 dB Rw (ISO 717)	
Curtain design		Customer logo Digital print

## TECHNICAL FEATURES



GT Rise Plus impact doors have a zipper edge which results in a well-sealed door. This, combined with the door's soft bottom edge, also creates a door which is able to come out of the guides and then self-repair in the event of an impact.

A variety of safety features are available, such as photo beams, safety edges, light curtains and traffic lights to comply with all European standards. The doors can be operated by radar sensor, induction loop, remote control or push button and can be interlocked to suit your specific requirements.

## BENEFITS & COMPROMISES

### Benefits

- Unique self-repairing functionality
- Impact-resistant technology
- Energy efficient solution
- Quiet & reliable
- Comparatively competitive opening speeds
- Remote control, proximity sensors, motion sensor, pull cord, induction loop, digital keypad and proximity sensors all optional

### Compromises

- Not suitable for environments with a more stringent need for control
- Far more simplistic construction and functionality as standard compared to GT Rise Max and Pro

## PRODUCT FEATURES

- ENERGY EFFICIENT
- QUIET & RELIABLE OPERATION
- OPENING SPEEDS UP TO 2.5METRES/SECOND
- IMPACT-RESISTANT & SELF-REPAIRING

## APPLICATIONS



GT Rise Plus is a versatile cleanroom door solution suitable for a significant number of different industries using controlled environments as part of their process. Unlike GT Rise Max and Pro, this solution is not suitable for critical environments at the higher end of the classification spectrum.





# GT RISE LITE

GT Rise Lite is Guardtech's entry-level rapid rise door solution – a high-quality door offering all the economical benefits of a rapid roll while retaining a competitive price point against other models.



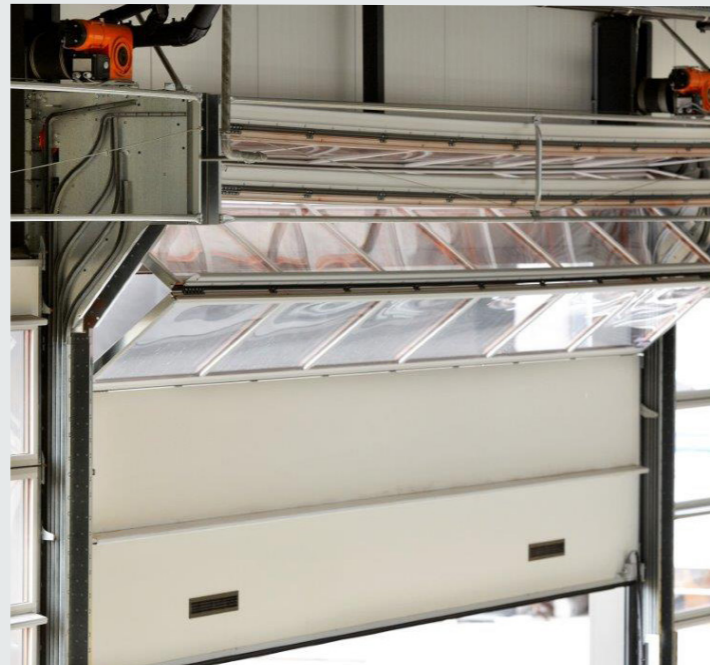
GT Rise Lite is a unique space-saving industrial door which combines the insulation and airtightness of a sectional door with the headroom requirements of a roller door.

The doors stack at the head of the opening with smooth and quiet operation and can be specified for high-use openings.

This also helps to overcome common issues with rolling and sliding doors. GT Rise Lite doors offer a high level of insu-

lation performance and security as well as being relatively straightforward to install in a wide range of building designs with minimum steelwork or structural requirements.

GT Rise Lite doors are quiet to operate and require less maintenance than more complex models. The doors are electrically operated via high-performance industrial motors and have a range of safety features including fall-safe devices and manual overrides.



## TECHNICAL FEATURES

FUNCTION	STANDARD	OPTIONAL
Maximum opening/closing speed	150mm to 200mm/second	Upgraded motor to provide speed of 310mm/second (maximum door weight of 240kg)
Maximum width	8000mm	
Maximum height	7750mm	
Curtain thickness/weight	40mm thick/4.5 kg/m <sup>2</sup>	
Internal colour	RAL 9002	
External colours	RAL 3002; RAL 5010; RAL 5017; RAL 6005; RAL 7016; RAL 7032; RAL 9002; RAL 9006	Painted to any RAL colour
Motor	60% switch duration, 400V motor with 5 pin plug, side mounted, IP-54 rated	100% switch duration Top mounted Front mounted Upgrade to IP-65
Control panels	Wall-mounted control panel with protective plastic cabinet and digital limit switches	LCD monitor allowing greater configurability including traffic lights, auto-timed-close, etc Upgrade to IP-65
Guides	Galvanized steel	Powder coated
Power Supply	400V, 3-phase supply terminating in a 5-pin commando socket 16 amp	

Hood cover	Not included	Optional, maximum width 5000mm
Safety features	Cable tension detection and cables with safety factor 6 Fall-safe device Automatic locking system Rails with finger protection and warning stripes	Bottom safety edge Safety photocell Light curtain Warning flashing beacon
Vision windows	Not included	Rectangular (680x370mm) Oval (725x325mm) windows Full width vision
Construction of windows		Double-glazed acrylic or Lexan panels (17mm) 4mm single-glazed safety glass Aluminium sandwich panel Single-glazed acrylic or Lexan panels (4mm)
Emergency opening	Manual hand crank	Manual hand chain
Controls	Deadman control with push buttons	Remote control Key switch Pull switch Summer/winter switch Radar motion sensor Pin code unit
Insulation value	U-value 0.76 W/m <sup>2</sup> K	Double-glazed windows 2.8 W/M <sup>2</sup> K
Sound reduction	20 decibel (dB)	
Wind Resistance	Class 3 (up to 5000mm wide)	Class 2 (up to 6500mm wide)
Conformity	Water Penetration: Class 2 Air Permeability: Class 2	

## TECHNICAL FEATURES



A wide range of control options can be specified to maximise the doors usability. The 40mm insulated panels offer a U-Value as low as 0.76 W/M<sup>2</sup>K and sound reduction of 20 dB as well as tested air permeability and water penetration of Class 2.

GT Rise Lite's security performance is excellent, with an automatic anti-lift locking device.

The composite insulated panels are available in eight standard colours or can be painted to a wider range of RAL colours to blend with the buildings architecture.

It is also possible to supply the doors with a range of vision panels including slim aluminium frames which provides an attractive choice for vehicle showrooms.

## BENEFITS & COMPROMISES

### Benefits

- Most cost-effective option in the GT Rise range
- Insulated and airtight
- Quite & reliable
- Remote control, key switch, pull switch, summer/winter switch, radar motion sensor and pin code unit all optional
- Automatic anti-lift locking device

### Compromises

- Only suitable for environments at the lower end of the classification spectrum
- Far more simplistic construction and functionality as standard compared to GT Rise Max and Pro

## PRODUCT FEATURES

- INSULATED & AIRTIGHT
- SPACE-SAVING DESIGN
- QUIET & RELIABLE
- AESTHETICALLY PLEASING



## APPLICATIONS



GT Rise Lite is a rapid roll cleanroom door solution which suits the least demanding of applications – most commonly laboratories or non-classified controlled environments.





# GT RISE FIRE

GT Rise Fire is Guardtech's fire-rated rapid rise door solution – one of the most robust, safety conscious options available, constructed from aluminium 40mm thick panels and filled with PS insulation foam.

GT Rise Fire doors are the Guardtech Group's fire-rated rapid rise solution – designed for both internal and external openings.

GT Rise Fire doors are constructed with a spiral headplate design to reduce wear and tear, as it prevents the slats rubbing together, resulting in a quiet, secure and low-maintenance door.

GT Rise Fire speed doors are constructed from aluminium 40mm thick panels, filled with PS insulation foam to

provide an excellent U-value. The door has an opening speed of up to 2m/s, which makes it a great door for minimising energy loss from factories or warehouses.

The doors also provide excellent air-tightness, making them a good choice for cleanrooms.

GT Rise Fire rapid rise doors can also be constructed with 80mm thick panels and a heating kit to make it an extremely effective energy-saving door for a variety of applications.



## TECHNICAL FEATURES

FUNCTION	STANDARD	OPTIONAL
Maximum width & height	6500mm (W)	6500mm (H)
Max Opening & Closing Speed	2.0 metres/second (D)	0.5 metres/second (C)
Spiral wrap and side guides	High density polyethylene PEHD 500	
Emergency Opening	Counterweight	Manual chain release / UPS battery
Curtain Construction	Pre-painted aluminium in standard RAL colours. 50mm thick	Outside: RAL pre-painted aluminium / steel
Curtain Colours	10 Standard Colours	
Vision Panels		Polycarbonate Windowed double walled, micro perforated
Motor / Power supply	Inverter 380 V with microprocessor -50/60Hz with Digital Encoder	
Control Panel	Inverter 380v / 400v 300 x 400 x 150 (mm)	Automatic operating logic and management of all the safeties in Low voltage. High capacity separate power supply 24v / Frequency 50 / 60 Hz
Door Frame	Galvanized Steel	Powder Coated Steel

Heating Kit	Airlock Heater: 3.7kW	Heat trace (guides and head section)
Vision panels	1 row, 850mm wide x 300mm high clear PVC windows	Extra rows Mesh windows (850x300mm)
Safety features	Light curtain 2000/2500mm (IP69) Emergency stop on control panel	Flashing warning light LED Traffic Light Anti-crushing sensor
Control Options	Push button	Heating system, magnetic detector, key switch, numeric keypad, pull chords
Other		Flexible bottom pocket Anti Rodent Barrier Sealing kit for guides
Safe Opening, Mechanical Resistance, Unintended Movements	Result: Pass	EN12453 EN12604 EN12604
Wind Resistance / Load	W x H 3000mm x 3000mm Class 4 W x H 5000mm x 5000mm Class 3 W x H 6000mm x 5000mm Class 3	DIN EN12424-44
Thermal Insulation	U = 1.5 W/m2K	EN12428
Operating temperature	-5 °C to 40 °C	
Wind & Water permeability	Class 3	
Acoustic value	22Db	



## TECHNICAL FEATURES



GT Rise Fire doors are operated by a three-phase motor with a multi-function control panel. This gives a wide choice of options for operating and controlling the door.

The door panels come as standard in anodised aluminium and the frame in galvanised steel – however both parts can also be supplied with powder coated to an RAL colour for improved aesthetics.

The door can also be supplied with clear vision panels for safety or, alternatively, with micro-perforated panels for ventilation.

GT Rise Fire is the ultimate speed door solution when insulation and security are required. Combining speeds normally associated with PVC fabric speed doors with insulated panels, they are the ultimate all-in-one door system.



## BENEFITS & COMPROMISES

### Benefits

- PS insulation foam
- Robust, secure construction
- Spiral headplate design reduces wear and tear
- Quiet & reliable
- Heating system, magnetic detector, key switch, numeric keypad and pull chords all optional

### Compromises

- Only suitable for environments at the lower end of the classification spectrum
- Far more simplistic construction and functionality as standard compared to GT Rise Max and Pro

## PRODUCT FEATURES

- SPIRAL DESIGN REDUCES WEAR & TEAR
- MINIMISES TEMPERATURE LOSS
- PROVIDES INSULATION & SECURITY
- QUIET & RELIABLE OPERATION

## APPLICATIONS



GT Rise Fire is a fire-rated cleanroom door solution that can be adopted throughout a number of different sectors where there is a concerted requirement for fire safety, either from a compliance perspective or as part of a business' wider policy and expectations.





# QUICK-LOOK COMPARISON GUIDE

## FEATURES



FEATURES	MAX	PRO	PLUS	LITE
Suitable for ISO5 environments	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suitable for GMP environments	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contactless actuator/remote opening option	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Integrated traffic light option	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Quiet operation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Rapid opening and closing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Self-repair functionality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Superior air tightness	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy efficient	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
IP55 Protection as standard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic display	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





Guardtech  

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