High Speed Doors
Cost effective and energy efficient
## High Speed Doors

**Cost effective and energy efficient – a fast payback on your investment**

Our range of high speed doors are a flexible door, designed for intensive usage, and which thanks to its high operating speed diminishes air drafts, work place temperature losses and at the same time optimises traffic flow. This type of door is a valuable investment because it improves working conditions and reduces energy costs.

Within seconds they open allowing an efficient flow of materials and close automatically.

Our comprehensive range provides a door for all applications.

We also have doors with ‘anti-crash’ and self-repairing facilities to further minimise down time and repair costs if the door is hit.

## Opening Systems

To provide the best solution all our doors are available with a range of opening systems.

Standard operation is by IP55 control panel mounted IP65 rated push buttons.

## Curtain

The standard curtain material is strong trevira type twin moulded polyester fabric, which is available in a range of colours.

### Trevira Curtain Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>DIN/Value</th>
<th>Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>750 g/m²</td>
<td></td>
</tr>
<tr>
<td>Fabric Type</td>
<td>Extra strong fabric, PVC twin moulded</td>
<td></td>
</tr>
<tr>
<td>Fabric Strength</td>
<td>30 kg/5 cm in warp and weft</td>
<td></td>
</tr>
<tr>
<td>Tear Resistance</td>
<td>40 kg ca. in warp and weft</td>
<td></td>
</tr>
<tr>
<td>Stock Temperature</td>
<td>-30/+70 °C</td>
<td></td>
</tr>
<tr>
<td>Fire Reaction</td>
<td>Self-Extinguishing Class 2</td>
<td></td>
</tr>
<tr>
<td>Inflammability</td>
<td>Not subject to spontaneous combustion</td>
<td></td>
</tr>
</tbody>
</table>

### Trevira Insulated Curtain Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>DIN/Value</th>
<th>Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>850 g/m²</td>
<td></td>
</tr>
<tr>
<td>Thickness</td>
<td>3 mm</td>
<td></td>
</tr>
<tr>
<td>Hole Size</td>
<td>3 mm x 3 mm</td>
<td></td>
</tr>
<tr>
<td>Fabric Type</td>
<td>PES HT 1100Dtex, PVC twin moulded</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>Cream White only</td>
<td></td>
</tr>
<tr>
<td>Fabric Strength</td>
<td>300 Kg/5cm in warp and weft</td>
<td></td>
</tr>
<tr>
<td>Tear Resistance</td>
<td>60 Kg ca. in warp and weft</td>
<td></td>
</tr>
<tr>
<td>Temperature Resistance</td>
<td>-30/+70 °C</td>
<td></td>
</tr>
<tr>
<td>Fire Reaction</td>
<td>Self extinguishing</td>
<td></td>
</tr>
<tr>
<td>Inflammability</td>
<td>Not subject to spontaneous combustion</td>
<td></td>
</tr>
</tbody>
</table>

### Trevis Insulated Curtain Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>DIN/Value</th>
<th>Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>850 g/m²</td>
<td></td>
</tr>
<tr>
<td>Thickness</td>
<td>3 mm</td>
<td></td>
</tr>
<tr>
<td>Hole Size</td>
<td>3 mm x 3 mm</td>
<td></td>
</tr>
<tr>
<td>Fabric Type</td>
<td>PES HT 1100Dtex, PVC twin moulded</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
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<td></td>
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<td>Tear Resistance</td>
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</tr>
<tr>
<td>Fire Reaction</td>
<td>Self extinguishing</td>
<td></td>
</tr>
<tr>
<td>Inflammability</td>
<td>Not subject to spontaneous combustion</td>
<td></td>
</tr>
</tbody>
</table>

We can also supply doors with a perforated curtain. This may be considered useful when areas need segregating rather than totally sealing.
Anti-panic Device

STAR 250, PAL 200 and Rekord 600 doors include a counterbalance spring which in the event of an emergency allows the manual release of the motor brake and automatic raising of the door. This system is particularly recommended for rooms in which an additional emergency escape route is required for people or vehicles in the event of electrical power failure, noxious emissions (detected by sensors) from machines containing chemicals, or smoke (detected by fire/smoke detection systems). For these situations a special anti-panic version of the doors has been designed. In this system an electronic circuit controls the motor brake. When the door is powered up the brake normally remains closed; on the start command, the brake is opened by the control circuit, which then closes it gradually when the upper and lower limits have been tripped. In the event of power failure the brake opens and the door rises automatically. The door can also be opened when it is powered up by pressing the ‘emergency’ button, or by connection to a centralised control system (e.g. fire detection system).

Main Features by Product Type (automatic vertical roll-up and folding doors)

<table>
<thead>
<tr>
<th></th>
<th>Rekord</th>
<th>STAR</th>
<th>PAT</th>
<th>PAL</th>
<th>PIC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions (mm)</strong></td>
<td>3000 W x 3000 H</td>
<td>4000 W x 5000 H</td>
<td>4000 W x 5000 H</td>
<td>6000 W x 5500 H</td>
<td>7000 W x 6000 H</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Internal</td>
<td>Internal/External</td>
<td>Internal/External</td>
<td>Internal/External</td>
<td>Internal/External</td>
</tr>
<tr>
<td><strong>Wind resistance (pressure)</strong></td>
<td>-</td>
<td>60 Km/h</td>
<td>60 Km/h</td>
<td>60 Km/h up to 100Km/h</td>
<td>50 Km/h up to 120Km/h</td>
</tr>
<tr>
<td><strong>Automatic Emergency Opening</strong></td>
<td>Option with model Rekord600 by counterbalance spring</td>
<td>Standard by counterbalance spring</td>
<td>No</td>
<td>Option with model PAL200 by counterbalance spring</td>
<td>No</td>
</tr>
<tr>
<td><strong>Fully automatic emergency</strong></td>
<td>Option with Rekord600 Anti-panic device</td>
<td>Option with Anti-panic device</td>
<td>No</td>
<td>Option with Anti-panic device</td>
<td>No</td>
</tr>
<tr>
<td><strong>Dedicated control box with fail-open test for safety device (photocells etc)</strong></td>
<td>Standard</td>
<td>Standard</td>
<td>Standard</td>
<td>Standard</td>
<td>Standard</td>
</tr>
<tr>
<td><strong>Curtain with interchangeable sections for easy replacement</strong></td>
<td>Self repairing anti-crash curtain</td>
<td>Standard</td>
<td>Standard - Optional Self repairing anti-crash curtain on PAT AR model</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Full cover for mechanical parts</strong></td>
<td>Standard</td>
<td>Standard with internal motor and control box (optional)</td>
<td>Standard</td>
<td>Standard</td>
<td>Standard</td>
</tr>
<tr>
<td><strong>IP degree for external application</strong></td>
<td>-</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Opening / Closing speed</strong></td>
<td>Up to 1m/s</td>
<td>Up to 1.0 m/s</td>
<td>Up to 0.7 m/s</td>
<td>Up to 0.7 m/s</td>
<td>Up to 1.0 m/s</td>
</tr>
</tbody>
</table>

The RAL number is only indicative because the PVC will look different to painted metal.

We can also supply the doors with an insulated curtain, which is available in white, green, blue and grey.

**Standard Colours**

- White 907
- Cream White 184
- Yellow 181
- Dark Yellow 119
- Orange 205
- Red 379
- Medium Blue 543
- Green 636
- Pale Grey 729
- Light Grey 717
- Pastel Grey 795
- Black 905
- Brown 830

The RAL number is only indicative because the PVC will look different to painted metal.

We can also supply the doors with an insulated curtain, which is available in white, green, blue and grey.
**PIC 50 and PIC 75**

The PIC 50/75 High Speed Fold Up Door is the answer where large openings are subject to windy conditions. Vertical movement is actuated by lift belts, which progressively pack the sections at the top of the door. The PIC 75 is a modified PIC 50 with a forward facing motor where side room at high level is limited.

PIC 50 available up to 7000mm wide x 6000mm high  
PIC 75 available up to 6000mm wide x 5000mm high  
(Larger openings can be catered for on application)

Opening speed of up to 1m/second

The curtain is made from trevira type twin moulded polyester fabric, self extinguishing Class 2, with pockets for strengthening tubes. Available in a range of colours.

The PIC range of Fold Up Doors is in fact the original type of fast action door which has been sold for many years in preference to roll up doors. They still remain the most popular model for external openings.
Standard features of the PIC 50 and PIC 75:

- Self-supporting structure in galvanised steel
- Full width canopy and motor cover
- Ultra silent sliding mechanism, featuring lateral guides with twin rubber seals
- One row of vision panels
- Wind bars made from tubular steel which guarantee perfect closing even in the event of wind speeds up to 50 km/h (Calculated on MAXIMUM opening dimensions). Optional wind resistance up to 120 km/h available at extra cost.
- Safety photocell to stop door and return to open position should an obstacle be detected.
- Standard control panel mounted push buttons.
- Emergency manual override

Options available: (at extra cost)

- Stainless steel frame (AISI 304)
- Powder coated frame to standard RAL colour
- Logo on curtain (max. 2 colours)
- Additional rows of vision panels
- Additional safety photocell
- Safety bottom edge
- Operation by pushbuttons, induction loop, radio control, radar (motion sensor), pull cord, etc.
- Interlocking doors to other doors.
- Partial opening function
PAL 150/200 N

The PAL 150/200 High Speed Roll Up door is recommended for transit areas on large industrial and commercial sites.

PAL 100 N available up to 6000mm wide x 5000mm high

Opening speed of up to 0.8m/second

All PAL doors can include an optional breakaway bottom bar.

The curtain is made from Trevira type twin moulded polyester fabric, self extinguishing Class 2, with pockets for strengthening tubes. Available in a range of colours.

**Standard features of the PAL 100 N:**

- Self-supporting structure in galvanised steel
- Full width canopy and motor cover
- Ultra silent sliding mechanism, featuring lateral guides with twin rubber seals
- One row of vision panels
- Wind bars made from tubular steel which guarantee perfect closing even in the event of wind speeds up to 60 km/h (Calculated on MAXIMUM opening dimensions).
- Safety photocell to stop door and return to open position should an obstacle be detected.
- Standard control panel mounted push buttons.
- Emergency manual override

**Options available: (at extra cost)**

- Stainless steel frame (AISI 304)
- Powder coated frame to standard RAL colour
- Logo on curtain (max. 2 colours)
- Wind resistance up to 80 km/h (max. opening size 4500mm wide x 5000mm high)
- Wind resistance up to 100 km/h (max. opening size 3500mm wide x 5000mm high)
- Additional rows of vision panels
- Additional safety photocell
- Safety bottom edge
- Operation by pushbuttons, induction loop, radio control, radar (motion sensor), pull cord, etc.
- Interlocking doors to other doors.
- Partial opening function
**Standard features of the PAL 200:**
The PAL 200 includes all the features of the PAL 100 N but also includes a counterbalance spring in one of the uprights. In the event of power failure this releases the motor brake and causes the door to rise automatically or by means of a push button at user height.

The door can also be integrated into a fire alarm system to open on a fire alarm signal. (No connections into fire alarm included by Syston Doors)

**PAL 150 Stainless**
Using an AISI 304 Stainless Steel frame the PAL 150 Stainless is designed to ensure the highest hygiene standards for applications in the food, chemical and pharmaceutical industries.

It is similar in design to the PAL 150 and can include the same options.

**PAL 150 Pneumatic**
PAL 150 is also available with a pneumatic motor for use in explosive atmospheres.

The basic door construction is as the standard PAL 100 but with an operating speed of 0.5 m/sec.

The operator is a reversible pneumatic motor with 1.1 kW at 3000 rpm, pressure supply of 7 bar.
The PAT 100 is recommended for use as a reliable general-purpose internal door for traffic flow areas on busy sites.

The PAT 100 is robust, and comes with interchangeable sections, which in the event of curtain damage can be easily replaced. It is available in a range with basic construction being the same.

The curtain is made from trevira type twin moulded polyester fabric, self extinguishing Class 2. Door panels are interchangeable for rapid, easy replacement in the event of damage. Anodised aluminium joints connect the panels. Available in a range of colours. Opening speed of up to 0.8m/second (PAT 100 I up to 1m/second)

**Standard features of the PAT100:**
- Self-supporting structure in galvanised steel
- Full width canopy and motor cover
- One 750mm PVC vision panel
- Wind bars made from anodised aluminium which guarantee perfect closing even in the event of wind speeds up to 60 km/h (Calculated on MAXIMUM opening dimensions). (Except on PAT 100 i with anti-crash lower section which is designed for internal use only)
- Safety photocell to stop door and return to open position should an obstacle be detected.
- Standard control panel mounted push buttons.
- Emergency manual override

**Options available: (at extra cost)**
- Stainless steel frame (AISI 304)
- Powder coated frame to standard RAL colour
- Logo on curtain (max. 2 colours)
- Additional vision panels
- Fully transparent curtain up to 3000mm wide x 3000mm high
- Additional safety photocell
- Safety bottom edge (not on Anti-Crash or Self-Repairing models)
- Operation by pushbuttons, induction loop, radio control, radar (motion sensor), pull cord, etc.
- Interlocking doors to other doors.
- Partial opening function
**PAT 100 N**
The standard door for use in most areas.

**PAT 100 Stainless**
Using an AISI 304 Stainless Steel frame the PAT 100 Stainless is designed to ensure the highest hygiene standards for applications in the food, chemical and pharmaceutical industries.

It is similar in design to the PAT 100 and can include the same options.

**PAT 100 i**
Designed for internal use only with a maximum width of 3000mm. This model is equipped with an anti-crash lower section. In the case of accidental damage the lower section flows out of the uprights and can be easily inserted again by the user.

**PAT 100 Anti-Crash**
Similar to the PAT 100 i, this model is suitable for both internal and external use up to 4000mm wide x 5000mm high.

**PAT 100 Pneumatic**
The basic door construction is as the standard PAT 100 N but with an operating speed of 0.5 m/sec.

The operator is a reversible pneumatic motor with 1.1 kW at 3000 rpm, pressure supply of 7 bar.
**STAR 250 N**

The STAR range boasts removable uprights, canopy and roller for inspection, replacement and general cleaning.

The motor is totally enclosed within the structure of the door.

The Star 250 Roll Up door with its compact structure, high-speed performance and wide range of options, is the ideal door for rapid transport areas. Its design also makes it particularly suited to installation ‘within’ structural openings.

The Star range includes guides with twin rubber seal to create a door with a very low level of noise during operation.

Opening speed of up 1m/second
Standard features of the Star 250 range:

- Self-supporting structure in galvanised steel
- Full width canopy and motor cover
- One 750mm PVC vision panel
- Wind bars made from anodised aluminium which guarantee perfect closing even in the event of wind speeds up to 60 km/h (Calculated on MAXIMUM opening dimensions).
- Safety photocell to stop door and return to open position should an obstacle be detected.
- Standard control panel mounted push buttons.
- Emergency manual override

Options available: (at extra cost)

- Stainless steel frame (AISI 304)
- Powder coated frame to standard RAL colour
- Control panel mounted within the door frame
- Logo on curtain (max. 2 colours)
- Additional vision panels
- Fully transparent curtain up to 3000mm wide x 3000mm high
- Additional safety photocell
- Safety bottom edge (not on Anti-Crash model)
- Operation by pushbuttons, induction loop, radio control, radar (motion sensor), pull cord, etc.
- Interlocking doors to other doors.
- Partial opening function

STAR 250 Plus (Stainless)
Manufactured to meet FDA regulations for food storage/processing applications. This door offers the same options as the Star 250 N model, except that it always has a stainless steel AISI 304 frame and completely transparent PVC curtain. It also includes the control box mounted within the structure.

Available up to 3000mm wide x 3000mm high.

STAR 250 i
Designed for internal use only with a maximum width of 3000mm this model is equipped with an anti crash break through lower section. In case of accidental damage the lower section flows outside the uprights and can be easily inserted again by the user.

STAR 250 Anti-Crash
Designed for both external and internal openings this model is equipped with an anti crash break through lower section as the STAR 250 i but is available up to 4000mm wide x 5000mm high.
PAT AR, REKORD 400 & REKORD 600 with Auto Reset facility

Our innovative range of doors with an Auto Reset facility has been designed to minimise downtime and total ownership costs of your high-speed door.

PAT AR is the solution to doors subject to internal & external wind forces and is suitable for all industrial environments with openings up to 4000mm wide x 5000mm high.

Rekord 400 and Rekord 600 are designed for internal use only in both industrial and commercial situations such as retail shops, and the food, chemical and pharmaceutical industries.

Rekord 400 and Rekord 600 are reliable Auto Resetting high-speed doors for openings up to 3000mm wide x 3000mm high.

To accommodate the Auto Reset feature the door has to be set into the opening. See technical details.

Opening speed up to 1 m/second.

The Auto Reset feature delivers a door with almost zero service costs.
Standard features of the PAT AR, Rekord 400 & 600:

- Self-supporting structure in galvanised steel
- Full width canopy and motor cover
- Ultra silent sliding mechanism, featuring lateral guides with twin rubber seals
- One vision panel
- Strengthening bars within the curtain.
- Auto Reset facility
- Safety photocell to stop door and return to open position should an obstacle be detected.
- Standard control panel mounted push buttons.
- Emergency manual override
- The Rekord 600 includes a front mounted motor to allow ‘corridor’ installation.

Options available: (at extra cost)

- Stainless steel frame (AISI 304)
- Powder coated frame to standard RAL colour
- Logo on curtain (max. 2 colours)
- Additional safety photocell
- Operation by pushbuttons, induction loop, radio control, radar (motion sensor), pull cord, etc.
- Interlocking doors to other doors.
- Partial opening function

Anti Crash and Auto Reset roll-up doors main features by model

To select the right door for the right situation, the following table shows the possible standard and custom configuration:

<table>
<thead>
<tr>
<th></th>
<th>PAT 100/STAR 250 Anti-crash</th>
<th>PAT 100 AR</th>
<th>Rekord 400/600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max free passage dimension (mm)</td>
<td>4000 W x 5000 H</td>
<td>4000 W x 5000 H</td>
<td>3000 W x 3000 H</td>
</tr>
<tr>
<td>Installation</td>
<td>Internal and External</td>
<td>Internal</td>
<td>Internal</td>
</tr>
<tr>
<td>Interchangeable sections curtain with transparent section h750</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Additional transparent section</td>
<td>Yes (Optional)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Curtain with internal flexible bars and transparent window</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bottom Aluminium Bar</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Safety Contact Bar</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Anti-crash lower section manual repairing)</td>
<td>Yes</td>
<td>Yes (Auto Reset)</td>
<td>Yes (Auto Reset)</td>
</tr>
<tr>
<td>Auto Reset break through curtain</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Opening/closing speed</td>
<td>Up to 1 m/sec</td>
<td>Up to 0.7 m/sec</td>
<td>Up to 1 m/sec</td>
</tr>
</tbody>
</table>
To accommodate the Auto Reset facility the door has to be mounted within the opening as shown.
Special Applications

We can offer the following when larger openings are being considered for high-speed doors or when security is also required.

**PIC 50 AluTube**
Designed for very large openings the PIC 50 AluTube is designed for external openings up to 15 metres wide with a pressure rating of Class 2 under EN 12424.

This model as standard includes low and high level photo safety beams.

**Novoferm ISH2 and ISH2+ Rapid Opening Sectional Door**
Designed for openings where operating speed and thermal insulation is important both models offer an opening speed of up to 0.8 m/s with a closing speed of up to 0.4 m/s.

ISH2 operates without balancing springs and is available up to a maximum door area of 25 m². (Maximum door width 8000mm, maximum door height 8000mm)

ISH2+ is spring assisted and is available up to a maximum door area of 16m². (Maximum door width 4000mm, maximum door height 4000mm).

Pass doors and low headroom tracks are not available with either model.

Both models include safety features in line with current legislation, can be activated by all the usual methods of operating switch, and are available in a range of RAL colours.

Further information is available on our website and in a separate colour leaflet.

**Thermaroll 550 Fast Action Insulated Rolling Shutter**
Thermaroll 550 is an economical way of securing an opening with a tough insulated rolling shutter but with the benefit of an operating speed up to 550mm/second.

Thermaroll 550 has an insulation rating of 1.4 w/m²OK for the complete door.

For safety the door includes a safety edge and photocell safety beam.

It can be activated by push button, radar, induction loop, radio control or pull cord.

Standard finish in abrasion resistant ARS White or Goosewing Grey (BS 10A05) to both sides of the curtain with the guides in galvanised finish. Guides and optional coil casing (hood) can be powder coated at extra cost.

3 rows of 200 x 45mm vision panel are included as standard.

Further information is available on our website and in a separate colour leaflet.
Syston Doors is a leading manufacturer and supplier of industrial doors, rolling shutters and associated products and has developed a comprehensive range to meet the requirements of the specifier, designer and end user.

Established since 1920 and with a wealth of experience, Syston Doors is based in Syston, near Leicester at the heart of the motorway network, offering nationwide service.

**Our range includes:**
- Rolling Shutters & Grilles in Steel, Aluminium and Timber
- Fire Resisting Rolling Shutters
- Rapid Action Doors
- Steel Doorsets
- Folding Shutter Doors
- Dock Shelters, Seals & Dock Levellers
- Insulated Rolling Shutters
- Insulated Sectional Doors
- Transparent Rolling Door Systems
- Sliding Folding Closures
- PVC Strip Curtains & Rubber Crash Doors
- Collapsible Grilles for Windows & Doorways
- Window Rolling Shutters
- Moveable Walls & Concertina Screens
- Domestic Garage Doors & Rolling Shutters
- Retractable Awnings & Shading Systems

Nationwide Repair & Service to all makes & types of Industrial Door

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email: sales@syston.com
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