Trust Gilgen

Gilgen aims to consistently exceed customer expectations in the delivery of its products and services and by offering a comprehensive range of technologically advanced automatic and industrial doors systems. Extensive experience and industry knowledge means you can trust Gilgen to give unbiased guidance and advice, working in partnership with customers to ensure individual needs are met and expectations exceeded.
Flexible, efficient, reliable access

Gilgen sectional overhead doors glide effortlessly up under the roof when opened, allowing free space around the door opening, providing the most efficient use of floor and door space. Excellent flexibility allows for a Sectional doors to be installed into any building and with options for insulated door leaves and glazing.

Quality guaranteed

Gilgen’s quality accreditation and industry association memberships give assurance of the high standards of service and workmanship you can expect to receive. Additionally, membership of bodies such as Constructionline, CHAS and SafeContractor give assurance of health and safety excellence.
Gilgen insulated sectional overhead doors are designed to offer safe, reliable and functional access together with excellent thermal qualities and smooth, quiet operation.

(Picture shows KOAX low level drive)

**Safe, reliable, secure access**
Sectional overhead doors maximise available space by parking the open door in the roof space. Ideal for industrial units, storage buildings, workshops, showrooms and fire and ambulance stations, the doors are easy to operate, strong and weatherproof. The composite door panel construction and internal sliding shoot bolt as standard provides a robust door with excellent security.

**Seals**
Weather seals are supplied as standard to the head, sidetracks, threshold and in between each insulated panel. As a result water penetration and air permeability are significantly reduced. A flexible seal is provided as standard to restrict water on a level threshold. If water penetration is an important factor, Gilgen recommend a secondary structural threshold be integrated into the floor.

**Energy efficient thermal panels**
Insulated door panels are constructed from a steel skin with an insulated foam injection core providing typical thermal transference of $1.44 \text{W/m}^2\text{K}$ dependant on width.

**Tested and approved to exceed current regulations**
Doors are tested to BS EN 13241-1 and feature
- Finger safe from both sides.
- Facing materials used on composite panels have a class 1 surface spread of flame to BS 476: part 7 1971 and class 0 as defined by Building Regulations 1985.
- Externally fitted doors meet the standard wind pressure specification BS EN 12424: class 2/3. Doors required to meet higher wind classes are also available dependant on size.
Operation, motor drives and controls
Doors can be operated either manually, by push to open and pull down with the door handle and pull cord on smaller doors or by geared hand chain system on larger doors and low frequency usage or by means of an electric drive. Electrically operated doors are driven by either the Gilgen KOAX springless motor drive or 3 phase direct drive motors with an extensive range of activation to suit individual requirements.

Options
- Vision panels
- Extensive range of external panel finishes
- Integral pass doors
- External locking facility
- Security window bars
- Infra red contact safety edge
- Activation and safety systems
**Security**
The glazed doors are also supplied with an internal sliding shoot bolt as standard. Whilst the glazing beads are mounted internally to prevent tampering, if security is important it is recommended that the glazed panels are specified above normal hand height with insulated panels at low level.

**Pass doors**
Pass doors can be incorporated into insulated and glazed doors dependant on size and application.

**Operation, motor drives and controls**
Doors can be operated either manually, by push to open and pull down with the door handle and pull cord on smaller doors or by geared hand chain system on larger doors and low frequency usage or by means of an electric drive. Electrically operated doors are driven by either the Gilgen KOAX springless motor drive or 3 phase direct drive motors with an extensive range of activation to suit individual requirements.

**Options**
- Extensive range of infill materials
- Colour finish on frame work
- Integral pass doors
- External locking facility
- Activation and safety systems
KOAX™; the future of door drive systems
Safe, environmentally friendly, sustainable, low energy and cost effective

**Revolutionary new drive system**
Developed by Gilgen, KOAX is a unique direct drive motor revolutionising the safety and operation of sectional overhead doors.

**Safer to install and operate**
Tested and approved by BSI Product Services, KOAX has been designed to eliminate the need for springs, gears, drive chains, haul chains etc making this system safer to install, operate and maintain. The main motor drive unit also incorporates a unique patented zero back drive high efficiency brake.

**Flexibility of design**
KOAX is suitable for internal or external sectional overhead doors and can be specified with new installations or retrofitted to existing doors.

**Features and benefits**
- Zero back drive safety coupling - Prevents unexpected movement of the door making it extremely safe
- Safety isolation transformer and separated extra low voltage - safer to use
- 45% less power consumption means reduced energy usage and more cost effective to run
- Intelligent fault monitoring system ensures fault identification and operator safety awareness
- 72% reusable parts making KOAX a more sustainable option
- Considerably reduced cost over lifetime

For further information, please ask for a KOAX brochure.

**KOAX driven sectional overhead door**
- KOAX single phase motor drive
- Reuse existing shafts and drums (retrofit applications if suitable)
- Drums

**Traditional sectional overhead door**
- 3 phase motor
- Brackets and bearings
- Springs, shafts and castings
- Motor bracket and haul chain
- Spring brake device
- Drums
Door panel glazing and

- Glazed door panels, transparent single glazing.
- Glazed door panels, transparent double glazing with lettering.
- Glazed door panels, infill material for ventilation.
- Glazed door panels, closed design using stucco embossed sandwich panels.
- Insulated door panels 665mm x 335mm rounded corners.
- Insulated door panels 680mm x 370mm rectangular.
- Insulated door panels 350mm diameter circular.
- Combination panels

The classic design - all fields, with the exception of the bottom section, are in filled with transparent double glazed panels. The bottom section is in filled with stucco sandwich panels.

Other combinations are possible in order to meet individual design specifications or to match existing architectural features such as window lines etc.

Perforated infill materials, usually fitted to the bottom section, are available to satisfy ventilation requirements. Glazed door leaves can also be combined with insulated panels.
Insulated panel construction and specification

Door leaves are constructed from an inherently strong steel twin skin laminated rigid door panel. Door skins are bonded to a CFC free polyurethane insulated foam injection core and feature integral joint seals. The insulated panels provide an excellent thermal barrier offering typical thermal transference values between 1.44-1.56W/(m².K) dependant on width. Vision panels can reduce thermal performance, values can be calculated taking into account the size and number of panels included.

Wicket doors have not been tested and therefore have no performance determined.

Substrate construction
0.45mm outer/0.45mm liner. Continuously hot dip zinc coated structural steel (95% zinc, 5% aluminium) S220GD + ZA to EN10326:2004

Liner face finishes
Bright white (RAL 9010) 25 micron smooth, thermosetting polyester paint, polyester stucco embossed finishes are available to order. Although the insulated panels can be painted on either one or both sides, the aluminium frame profiles are only available painted in the same colour on both sides.

Colour options

Glazed doors
Glazed doors are supplied in a standard silver anodised finish with optional polyester powder coating for colours within most BS or RAL codes to enable doors to be matched with existing building schemes.

Insulated doors
Insulated door panels are available in a standard range of Kingspan XL200 - 200 micron, leather grain embossed thermoplastic paint with excellent UV and abrasion resistance.

Optional architectural polyester stucco embossed
A range of architectural polyester stucco embossed finishes are available to order.
Glazed sectional overhead doors

Gilgen glazed sectional overhead doors offer safe reliable access whilst optimising available space. The addition of glazing gives excellent light transference and enhanced visibility.

Flexibility of design
Each door panel consists of a number of fields which can be either glazed or filled. Options include single or double glazing, branding manifestations, ventilation or solid panels giving customers the flexibility to individually customise their doors.

Strong, stable, safe construction
Tested to BS EN 13241-1:2003 sections consist of stable, twist resistant fabricated frames.
## Optional activation systems

<table>
<thead>
<tr>
<th>Activation controls</th>
<th>Slideover sectional overhead industrial doors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radar sensors</td>
<td><img src="image" alt="Radar sensors" /></td>
</tr>
<tr>
<td><em>Vehicle sensing ground induction loops</em></td>
<td><img src="image" alt="Vehicle sensing ground induction loops" /></td>
</tr>
<tr>
<td><em>Photo cell beam</em></td>
<td><img src="image" alt="Photo cell beam" /></td>
</tr>
<tr>
<td><em>Remote control</em></td>
<td><img src="image" alt="Remote control" /></td>
</tr>
<tr>
<td>Stand off active sensing devices</td>
<td><img src="image" alt="Stand off active sensing devices" /></td>
</tr>
<tr>
<td><em>Remote operation</em></td>
<td><img src="image" alt="Remote operation" /></td>
</tr>
<tr>
<td>Card reader</td>
<td><img src="image" alt="Card reader" /></td>
</tr>
<tr>
<td><em>Automatic time return</em></td>
<td><img src="image" alt="Automatic time return" /></td>
</tr>
<tr>
<td><em>Group command</em></td>
<td><img src="image" alt="Group command" /></td>
</tr>
</tbody>
</table>

- Standard option
- Special option

* Minimum levels of safeguarding are required to comply with BS EN 12453 (part 5.5.1) Primary contact safety edge for trained users, additional photocell safety beam with untrained/public users. The range of control options is versatile enough to meet most applications.
Operation options

<table>
<thead>
<tr>
<th>Method of operation</th>
<th>Application</th>
<th>Width</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual pull cord</td>
<td>Ideal for small openings and doors which are used infrequently. Push to open using lifting handle/pull cord.</td>
<td>3000</td>
<td>3000</td>
</tr>
<tr>
<td>Manual hand chain</td>
<td>For medium use applications. Open and close using geared hand chain.</td>
<td>5000</td>
<td>5000</td>
</tr>
<tr>
<td>KOAX motor drive and control system</td>
<td>For large frequently used doors. A range of automatic controls allows optimum efficiency.</td>
<td>5500</td>
<td>5500</td>
</tr>
<tr>
<td>Electric operation with manual hand chain override</td>
<td>For large frequently used doors. A range of automatic controls allows optimum efficiency.</td>
<td>8000</td>
<td>5000</td>
</tr>
</tbody>
</table>

* Refer to track arrangement details on page 13 - 15 or separate KOAX brochure for specific size limitations

Electrical requirements

Sectional overhead industrial door with standard direct motor drive

1. Tested 16 amp, 3 phase and neutral supply terminated to a 5 pin socket with optional lockable isolation switch. Breaker and cable size dependant on motor size. All by customer unless otherwise agreed.
2. 16amp, 5 pin CEE plug with phase reversing pins.
3. Low level door controller c/w low voltage controls.
4. Double insulated SY supply/control cables and clips.

Slideover with KOAX motor drive

1. 230 volt AC, 10 amp single phase supply terminated to KOAX safety isolating transformer (SIT). All by customers qualified electrician.
2. KOAX safety isolating transformer supplied free issue prior to door installation.
3. KOAX low level door controller c/w separated extra low voltage (S.E.L.V) controls.
4. Motor cables (factory supplied) contained within flexible 20mm black PVC conduit system.
5. Control panel and isolation cables (S.E.L.V) (Factory supplied) Contained within flexible 20mm black PVC conduit system.
Opening requirements and track arrangements

<table>
<thead>
<tr>
<th>Track arrangement</th>
<th>Maximum size (mm)</th>
<th>Typical head room requirements (HR mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Width</td>
<td>Height</td>
</tr>
<tr>
<td>Standard headroom</td>
<td>7000</td>
<td>6000</td>
</tr>
<tr>
<td>Low headroom</td>
<td>5000</td>
<td>4000</td>
</tr>
</tbody>
</table>

**Standard headroom**

- Opening height + 800mm
- Opening width
- Opening height + 1050mm
- Internal elevation structural frame
- Counterbalance spring assembly rear mounted on low headroom track arrangement only

**Low headroom**

- Opening height + 1050mm
- Opening width
- Opening height + 800mm
- Internal elevation structural frame
- Counterbalance spring assembly rear mounted on low headroom track arrangement only

**Headroom required**

- Standard headroom: 425mm - 600mm max
- Low headroom: 280mm

**Opening height (OH)**

- OH HR
  - 3700mm: 425mm
  - 5500mm: 500mm
  - 6000mm: 600mm

**Opening width**

- 75mm typ < 6000
- 125mm > 6000
Opening requirements and track arrangements

<table>
<thead>
<tr>
<th>Track arrangement</th>
<th>Maximum size (mm)</th>
<th>Maximum (m²)</th>
<th>Typical head room requirements (HR mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High lift</td>
<td>Width 7000</td>
<td>Height 6000</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full vertical lift</td>
<td>Width 7000</td>
<td>Height 6000</td>
<td>36</td>
</tr>
</tbody>
</table>
## Opening requirements and track arrangements

### Track arrangement

<table>
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<th>Height</th>
<th>Maximum (m²)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>High lift with low level counterbalance</td>
<td>4000</td>
<td>4000</td>
<td>16</td>
<td>1200 - 4200</td>
<td>16</td>
</tr>
<tr>
<td>Full vertical lift with low level counterbalance</td>
<td>4000</td>
<td>4000</td>
<td>16</td>
<td>Opening height + 200</td>
<td>16</td>
</tr>
</tbody>
</table>