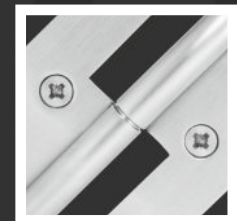
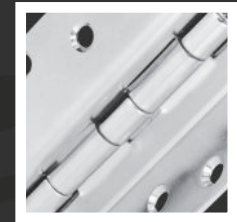




# Architectural Hinges Product Selector & Special Options Guide



## Introduction

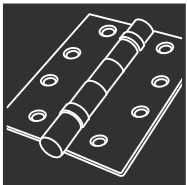
Phoenix Architectural Hinges are designed to meet the requirements of any project, ranging from lightweight interior doors to high-traffic, heavy-duty installations that demand strength, reliability, and minimal maintenance.

This guide outlines the seven Phoenix hinge ranges and provides clear recommendations for selecting the most appropriate product for each application. It enables architectural ironmongers, contractors, and end users to specify hinges accurately and consistently, at any level.

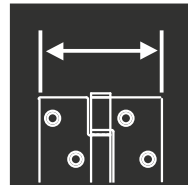
## Contents

|   |    |
|---|----|
| The seven steps to choosing the right hinge | 4  |
| A selection chart                           | 12 |
| Optional features                           | 14 |
| Technical information                       | 23 |
| The seven hinge ranges                      | 29 |

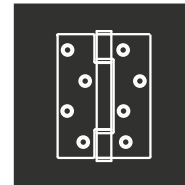
## Standard features



**Type**  
Butt hinge, Lift-off hinge,  
Twin pin hinge or Routed  
hinge designs



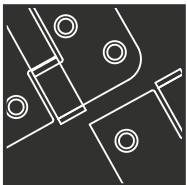
**Hinge Widths**  
For different door  
thicknesses



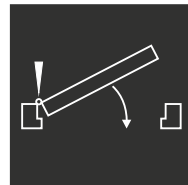
**Fastenings hole pattern**  
Staggered, ANSI or  
W hole



**Materials**  
Main material options



**Profile**  
Square or 10mm  
radiused corners



**Handing**  
For lift-off hinges



**Fasteners**  
Standard woodscrews  
and machine screws



**Finish**  
Standard mechanical and  
applied finish options

## Seven hinge ranges

Further details of the Phoenix Architectural Hinge ranges are provided on the data sheets from page 29 onwards. Understanding the characteristics of each range helps in choosing the most suitable hinge for any door size, weight, or configuration. Additional data sheets with full product codes, dimensions, and certification are available from the Cooke Brothers website.

[www.cookebrothers.co.uk](http://www.cookebrothers.co.uk)



**Loadmaster Plus**  
Hinge Range



**Loadmaster**  
Hinge Range



**Concealed Bearing**  
Hinge Range



**Slimline**  
Hinge Range



**Shrouded Bearing**  
Hinge Range



**Double Washered**  
Hinge Range



**Plain Knuckle**  
Hinge Range

## Seven steps to the perfect hinge spec

- 1 **Confirm doorset dynamics:** determine the type of hinge that best suits how the door operates, eg single-axis, continuous, pivot, floor spring, concealed.
- 2 **Establish the hinge performance requirements:** consider door weight, size, frequency of use, and whether a door closer is fitted.
- 3 **Determine the hinge grade:** identify the correct BS EN 1935 hinge grade based on weight, usage, and door type.
- 4 **Choose the hinge model:** select the most suitable hinge range using the Phoenix selection chart and project-specific factors like aesthetics or environment.
- 5 **Select additional features required:** review optional attributes such as security, safety, and decorative or specialist functions.
- 6 **Materials and finish:** Specify hinge material and surface finish for performance, durability, and appearance.
- 7 **Order requirements and guarantee:** finalise the order, confirm technical compliance, and summarise product guarantees.

# 1

step

## The Hinge Selection Process - 7 Easy Steps

### Doorset Dynamics

The correct hinge selection begins with understanding how the door operates because this determines the type of hinge that will suit it best.

Single-axis hinges, like butt or lift-off hinges, are the most often commonly used and straightforward solution. They can be factory-fitted to pre-machined doors or installed on site and are available in a wide range of styles and finishes.

#### Other options

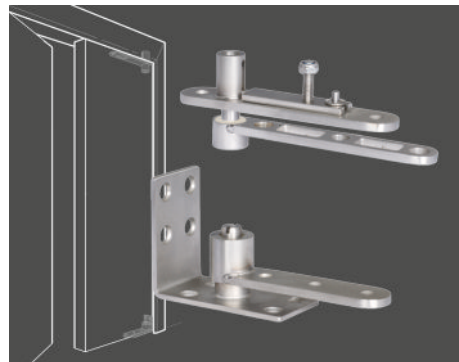
##### Continuous hinge

Continuous hinges provide a full-length solution for doors requiring strength, security, and durability. They are particularly suitable for high-security, vandal-resistant, or blast-proof installations. Visit the website for more information.



##### Pivot sets

Pivot sets position the rotation point at the top and bottom of the door rather than along the hinge edge. This configuration increases the door to frame opening at the pivot end but can provide less central door support. Visit the website for more information.



##### Floor springs

Floor springs combine a pivot mechanism with an integrated door closer and are typically used on heavy doors or in areas with high footfall, and can usually pivot in either direction. Not currently offered by Cooke Brothers.



##### Concealed hinges

Concealed hinges, often adjustable, are designed for non-rebated flush doors. Suitable for timber, steel, and aluminium systems, they allow opening angles up to 180 degrees and can support door weights up to 300 kg per pair.



# 2

step

## Establish the hinge performance requirements

Selecting the right hinge depends on door weight, size, usage, and whether a door closer is fitted. Phoenix high-performance architectural hinges are tested and marked to BS EN 1935 with the appropriate grade.

### Establish the door mass

---

The door mass must include all fitted ironmongery. This can be established by weighing the complete assembly or by reference to the manufacturer's technical data. When no door closer is used, the unadjusted door weight may be used for selection. Even when three or more hinges are fitted, the unadjusted door weight must remain below the maximum rating of the selected EN 1935 grade.

### Effect of a door closer

---

If the door is fitted with a closer, the weight of the door needs to be adjusted to compensate for the increased stresses on hinges and fixings:

- When a standard door closer is fitted, add 20 % to the total door weight.
- When a backcheck closer is fitted, add 75 %.

### Measure the door dimensions - oversize doors.

---

If the door is wider than 1000 mm, further adjustments should be made as detailed in the technical section. Doors taller than 2100 mm need four or more hinges. The door thickness determines the hinge width, as covered in Step 5.

### Frequency of use

---

Frequency of use is defined in BS EN 1935 as light, medium, heavy, or severe duty, and selecting the right hinge grade depends on the adjusted door weight and its usage category. Make sure that hinges are maintained according to the manufacturer's guidance for optimal performance over time.

# 3

step

## Check for further certification and performance requirements

As well as establishing the EN 1935 performance grade, other objectives may need to be met.

Conformity marking to allow for use on fire doors.

CERTIFIRE certification to ensure compatibility when fitted on fire doors with a wide range of other door ironmongery and doorsets.

Typical opening force (torque) per hinge, beneficial in meeting Building Regulations and accessibility requirements.

Level of corrosion resistance.

Answers to these questions are contained within the technical section and shown against each hinge range on the selection chart.



certifire

# 4

step

## Choose the hinge model

Once the required performance grade is known, select the hinge range using our selection chart. When several ranges offer equivalent grades, the choice may depend on aesthetics or other practical considerations.

Different parts of a building may justify different hinge ranges. For example, choose premium options for main entrances and standard models for secondary or utility areas while maintaining consistent performance across the whole project.

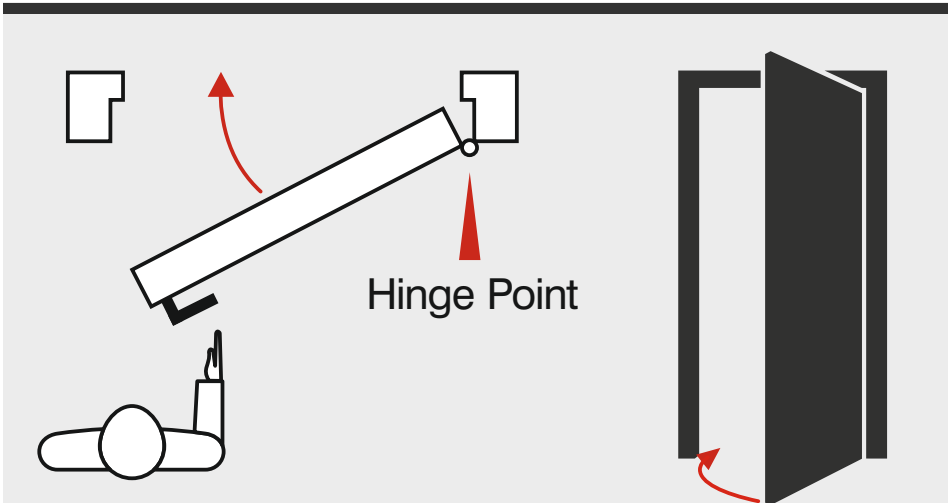


**5**  
step

Select additional features required

Once performance and size are established, additional hinge features can be selected. The Cooke Brothers Hinge Selection Chart lists the options available across each Phoenix range.

Clockwise Closing

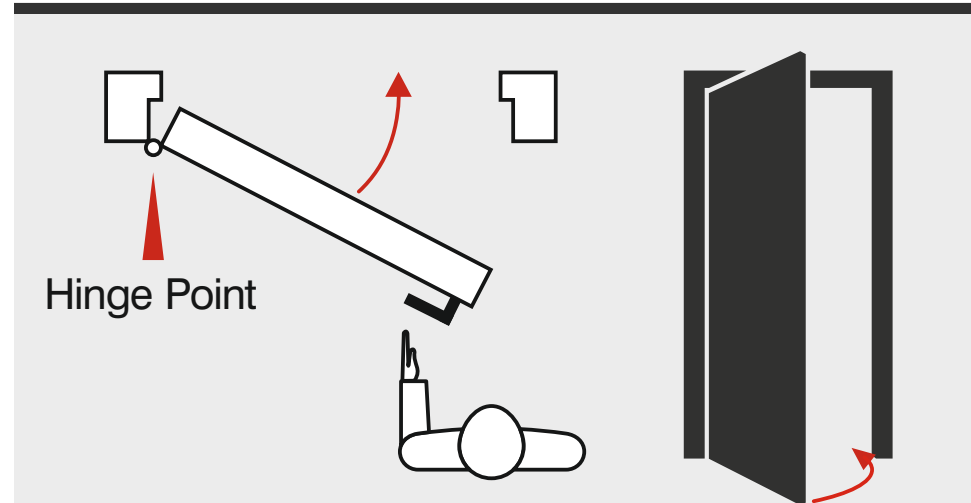


**Clockwise Handing**

When viewed from above the door, if the door closes by rotating clockwise when facing it, it's considered clockwise handed.

Phoenix lift off hinge codes end in 5.  
(As per EN12519 this would be a right handed door.)

Anti-Clockwise Closing



**Anti-Clockwise Handing**

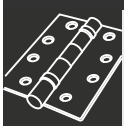
When viewed from above the door, if the door closes by rotating anti-clockwise when facing it, it's considered anti-clockwise handed.

Phoenix lift off hinge codes end in 6.  
(As per EN12519 this would be a left handed door.)

## 5a step

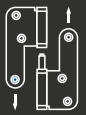
### Product options

#### Butt hinges



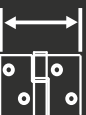
Three- or five-knuckle configuration butt hinges have the pin captive in the end knuckles, making them suitable for doors that are not routinely removed.

#### Lift-off hinges



Lift-off hinges allow doors to be removed quickly during manufacture, installation, or maintenance. Fully routed lift-off versions are often specified for factory-prepared doors.

#### Hinge width



For both appearance and fire-safety reasons, hinges should be rebated so that the space between the hinge edge and opposite door face is minimal, typically 7 mm on 30-minute and 12 mm on 60-minute fire doors. Always follow the door manufacturer's fitting instructions. Our selection guide indicates the minimum door thickness for each range.

#### Fasteners



Use Posidrive woodscrews for timber doors and frames, and machine screws for metal doorsets.

#### Hinge corners



Square corners are the preferred choice for hand-cut work; 10 mm radiused corners suit factory-routed doors.

### Fixing hole patterns

#### Staggered hole pattern



Traditional fit for timber doors, sometimes called zig-zag.

#### ANSI hole pattern



Standard for steel doorsets, but also suitable for timber. Also sometimes known as a template drilled hole pattern.

#### W hole pattern



Five-hole variant of the staggered layout, often used by doorset manufacturers.



## Additional product options

It is not possible to include within a general guide a full description of the various additional options that are available within the Phoenix architectural hinge range. A separate brochure, entitled Phoenix Architectural Hinges Special Options, is available through your supplier, or through the web site [www.cookebrothers.co.uk](http://www.cookebrothers.co.uk)

### Security features

Options include security bolts, pinned pins, welded knuckles and security screws for enhanced protection.

### Safety features

Reduced-ligature ends (hospital tips) provide safer solutions in environments with a risk of self-harm.

### Decorative features

Finials and decorative end caps add traditional detailing where required.

### Special usage features

|                                |  |
|--------------------------------|--|
| <b>Flush hinge</b>             | These hinges do not require rebating. The outer leaf is fitted to the frame surface, the inner leaf to the door surface. |
| <b>Rising hinge</b>            | Fitted in situations like cloakrooms where the door needs to fall naturally to the closed position.                      |
| <b>Falling hinge</b>           | Used where the door needs to fall naturally to the open position under gravity.  |
| <b>Projection hinge</b>        | An over-width hinge that allows a door to open fully past an architrave or other projection.                             |
| <b>Parliament hinge</b>        | A scalloped decorative version of a projection hinge.  |
| <b>Swing clear hinge</b>       | A cranked hinge that allows a door to open fully clear of the frame opening.   |
| <b>Conductor hinge</b>         | An electrically wired hinge that is used when fitting electronic lock devices to the door.                               |
| <b>Fire door hinge pack</b>    | A pre-prepared pack of fire door hinges, complete with intumescent backing material (ordered and supplied separately).   |
| <b>Glass door hinge</b>        | Specially adapted hinges for installation on glass doors.  |
| <b>Bespoke hinges</b>          | Custom configurations such as odd leaf, cranked, or offset designs.  |
| <b>Special material hinges</b> | Includes solid brass, bronze and aluminium hinges.   |
| <b>Special finish hinges</b>   | Additional finishes not covered in our standard range.   |

## 6

step

### Materials and finish

Establish the preferred material the hinges should be made from

---

Material and finish should be selected together to balance performance, appearance and durability. Stainless steel generally offers the best corrosion resistance; plated or coated mild steel may be suitable for interior use. Solid brass, bronze and aluminium versions are offered for specialist applications, with additional plated or coated finishes available to order.

#### Material options

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##### **SS316 Stainless steel**

Marine-grade for coastal or high-corrosion areas.

##### **SS304 Stainless steel**

Standard grade for most internal and external settings.

##### **SS201/430 Stainless steel**

Lower grades with limited corrosion resistance.

##### **MS Mild steel**

Strong base material that relies on surface finish for protection.

##### **Br Brass**

Soft alloy used only for non-fire-door applications

##### **Al Aluminium**

Not offered within the Phoenix architectural hinge range.

#### Finish options

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Whilst Phoenix architectural hinges can be finished in a wide variety of mechanical, plated, or applied finishes, the following represent the main finishes in which the hinges are available.

##### **Finish options on stainless steel**

Mechanical (direct surface) finishes

**SSS** - Satin polished

**PSS** - Bright polished

##### **Chemically bonded dyed lacquer finishes**

**SSBr** - Satin brass

**PSBr** - Polished brass

**SSBro** - Satin antique bronze

**PSBro** - Polished antique bronze

**PVD** - Durable vapor-deposited finish that offers high wear and corrosion resistance.

##### **Finish options on mild steel**

A wide range of plated and coated finishes are listed in the Selection Chart.

##### **Other finish types**

**RAL colours** - A basic range of RAL colours as used in the architectural ironmongery trade, plus others to special order.

Not all finishes are held in stock. Please speak to our Sales Team for availability.

Please visit the Cooke Brothers website for more information.

[www.cookebrothers.co.uk/standard-finishes](http://www.cookebrothers.co.uk/standard-finishes)

7

step

## Order requirements and Guarantee

### Order requirements

---

By this stage, the appropriate hinge type, grade, and finish will have been identified. Now, collate the specification details for each doorset and prepare the order summary form on the website for Cooke Brothers to prepare a full quotation.

For any complex or unusual applications, get technical advice from a qualified architect or architectural ironmonger.

This Product Selection Guide provides a handy, quick reference to the Cooke Brothers hinge range for quick comparison between the various hinge ranges on offer. After that, it covers each Phoenix Architectural range in more detail, including data sheets with full product codes, dimensions, and certifications.

All Phoenix Architectural Hinges are manufactured to exceed the relevant BS EN 1935 standards and are supplied with long-term performance guarantees as indicated within each product range.

### Guarantee

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#### **Phoenix Architectural Hinges - Guarantee**

All Phoenix architectural hinge ranges come with a performance guarantee up to 25 years. Replacement contribution will be based on the equivalent current hinges supplied to the distributor's UK base, in proportion to the remaining guarantee period or usage. This is subject to proof that the hinges have been correctly specified, installed, and maintained as outlined in this brochure and the fitting instructions supplied with the products. The guarantee also requires that the hinges are used properly, without damage from tampering or misuse.

## Hinge Selection Chart

|  |  |  |  |  |  |  |
|---|---|--|---|---|---|---|
| Loadmaster Plus Range - 7980  | Loadmaster Range - 7900   | Concealed Bearing Range - 7700   | Slimline Range - 7500   | Shrouded Bearing Range - 7200   | Double Washered Range - 7100  | Plain Knuckle Range - 7000  |

| <b>1 Quick Check Guide</b>                  |  |  |  |  |  |   |                            |
|---|--|--|--|--|--|---|----------------------------|
| 1.1 Overall performance                     | *****  | ****   | *****  | ***  | ***  | **  | *                          |
| 1.2 Maintenance rating                      | *****  | ****   | *****  | ***  | ****   | **  | *                          |
| 1.3 Suitability for use with door closers   | All Types inc. back check d/c.   | All Types inc. back check d/c.   | All Types inc. back check d/c.   | All Types inc. back check d/c.   | All Types inc. back check d/c.   | Standard d/c.   | Not Suitable               |
| 1.4 Hinge performance guarantee period      | 25 Years   | 25 Years   | 25 Years   | 25 Years   | 25 Years   | 10 Years  | 5 Years                    |
| 1.5 Recommended usage - Max cycles per year | 80,000   | 80,000   | 100,000  | 80,000   | 60,000   | 25,000  | 5,000                      |
| <b>2 Doorset Data</b>                       |  |  |  |  |  |   |                            |
| 2.1 Max door weight - Inc. ironmongery      | 160kg  | 160kg  | 160kg  | 120kg  | 120kg  | 60kg  | Up to 40kg                 |
| 2.2 Door to frame gap                       | 3mm  | 3mm  | 3mm  | 1.5mm & 3mm  | 3mm  | 1.5mm & 2mm   | 1.5mm                      |
| 2.3 Recommended door thickness              | 57mm   | 44mm - 68mm  | 44mm - 54mm  | 35mm - 54mm  | 35mm - 54mm  | 29mm - 44mm   | 15mm - 44mm                |
| <b>3 Technical Information</b>              |  |  |  |  |  |   |                            |
| 3.1 Industry accreditations                 | CE EN1935 14   | CE EN1935 13-14  | CE EN1935 13-14  | CE EN1935 13   | CE EN1935 13   | EN1935 10   | EN1935 1-7                 |
| 3.2 Fire rating                             |  FD 60 (ITT)<br>FD 120 (IMM/MM) |  FD30 (ITT)<br>FD60 (ITT)<br>FD120 (IMM/MM) |  FD30 (ITT)<br>FD60 (ITT)<br>FD120 (IMM/MM) |  FD30 (ITT)<br>FD120 (IMM/MM) |  FD60 (ITT)<br>FD120 (IMM/MM) |  FD 30 (W) | N/A                        |
| 3.3 Opening force (torque) - Refer to key   | <2nm   | <2nm   | <1.5nm   | <2nm   | <1.5nm   | <1.5nm  | <1.5nm                     |
| 3.4 Corrosion resistance                    | 1-4  | 1-4  | 1-4  | 1-3  | 1-3  | 1-3   | 1-3                        |
| <b>4 Range Information</b>                  |  |  |  |  |  |   |                            |
| 4.1 Material thickness                      | 4mm  | 3mm  | 3mm  | 2.5mm  | 2.5mm  | 2mm   | 2mm                        |
| 4.2 Hinge barrel diameter                   | 19mm   | 16mm   | 13mm   | 10mm   | 12mm   | 10mm  | 7mm, 8mm & 10mm            |
| 4.3 Standard hinge size options H x W       | 114 x 114  | 102 x 89   | 102 x 76 / 89 / 102  | 102 x 76 / 89 / 102  | 102 x 76 / 89  | 102 x 64 / 73   | 64 x 38, 76 x 50, 102 x 73 |
| 4.4 Material options                        | S316   | S316, S304, M, Br  | S316, S304, Br, M  | S304   | S304, M, S200/400  | S304, M, S200/400   | S304, M, S200/400          |

## Hinge Selection Chart

|                       |  |
|-----------------------|--|
| Chart Identification: | <span style="color: green;">■</span> Standard option |
|                       | <span style="color: orange;">■</span> Limited option |
|                       | <span style="color: brown;">■</span> Special         |



**Loadmaster Plus  
Range - 7980**

**Loadmaster  
Range - 7900**

**Concealed Bearing  
Range - 7700**

**Slimline  
Range - 7500**

**Shrouded Bearing  
Range - 7200**

**Double Washered  
Range - 7100**

**Plain Knuckle  
Range - 7000**

### 5 Product Options

|   |   |  |  |  |  |   |   |
|---|---|--|--|--|--|---|---|
| <b>5a</b> Barrel model - Refer to key               | 3 Knuckle butt  | 3 Knuckle butt<br>Standard lift off  | 3 Knuckle butt<br>Routed lift off<br>Standard lift off   | 5 Knuckle butt<br>Twin pin lift off  | 3 Knuckle butt   | 5 Knuckle butt  | 5 Knuckle butt  |
| <b>5b</b> Basic product options - Refer to key      | ANSI fixing holes<br>Button tip pin<br>Machine screws<br>Radiused corners<br>Square corners<br>Staggered fixing holes<br>Wood screws  | ANSI fixing holes<br>Button tip pin<br>Machine screws<br>Radiused corners<br>Square corners<br>Staggered fixing holes<br>Wood screws   | ANSI fixing holes<br>Button tip pin<br>Machine screws<br>Radiused corners<br>Square corners<br>Staggered fixing holes<br>W fixing holes<br>Wood screws   | ANSI fixing holes<br>Button tip pin<br>Machine screws<br>Radiused corners<br>Square corners<br>Staggered fixing holes<br>Wood screws | ANSI fixing holes<br>Button tip pin<br>Machine screws<br>Radiused corners<br>Square corners<br>Wood screws | Radiused corners<br>Spin riveted pin<br>Square corners<br>Staggered fixing holes<br>Wood screws | Radiused corners<br>Spin riveted pin<br>Square corners<br>Staggered fixing holes<br>Wood screws |
| <b>5c</b> Additional product options - Refer to key | Bespoke hinges<br>Conductor hinge<br>Decorative end caps<br>Fire door hinge set<br>Flush hinge<br>Glass door hinge<br>Parliament hinge<br>Pinned hinge pin<br>Projection hinge<br>Reduced ligature ends<br>Security dog bolt<br>Security screws<br>Welded knuckles<br>Wood screws | Bespoke hinges<br>Conductor hinge<br>Decorative end caps<br>Falling hinge<br>Fire door hinge set<br>Flush hinge<br>Glass door hinge<br>Parliament hinge<br>Pinned hinge pin<br>Reduced ligature ends<br>Rising hinge<br>Security dog bolt<br>Security screws<br>Welded knuckles<br>Wood screws | Bespoke hinges<br>Conductor hinge<br>Decorative end caps<br>Fire door hinge set<br>Glass door hinge<br>Parliament hinge<br>Pinned hinge pin<br>Projection hinge<br>Reduced ligature ends<br>Security dog bolt<br>Security screws<br>Swing clear hinge<br>Wood screws | Bespoke hinges<br>Fire door hinge set<br>Glass door hinge<br>Projection hinge<br>Security dog bolt<br>Security screws                | Pinned hinge pin<br>Reduced ligature ends<br>Security dog bolt<br>Security screws                          | Security screws   | Bespoke hinges  |

### 6 Finish Options

|                            |  |  |  |  |                                   |   |                                   |
|----------------------------|--|--|--|--|-----------------------------------|---|-----------------------------------|
| <b>6.1</b> Stainless Steel | Satin polished<br>Bright polished<br>Polished brass<br>Satin brass<br>Satin antique bronze<br>Polished antique bronze<br>Colours | Satin polished<br>Bright polished<br>Polished brass<br>Satin brass<br>Satin antique bronze<br>Polished antique bronze<br>Colours | Satin polished<br>Bright polished<br>Polished brass<br>Satin brass<br>Satin antique bronze<br>Polished antique bronze<br>PVD Black<br>PVD Bright Brass<br>PVD Bronze<br>PVD Gunmetal<br>PVD Satin Brass<br>Colours | Satin polished<br>Bright polished<br>Polished Brass<br>Satin Brass<br>Satin antique bronze<br>Polished antique bronze<br>Colours | Satin polished<br>Bright polished | Satin polished<br>Bright polished<br>Black            | Satin polished<br>Bright polished |
| Mild Steel                 |  |  | Satin zinc on satin polished<br>Simulated stainless steel (satin nickel plate)<br>Simulated polished brass (brass lacquer)<br>Bright chrome<br>Polished electro brass plate<br>Polished nickel plate<br>Colours    |  |                                   | Polished electro brass plate<br>Polished nickel plate | Clear zinc                        |

### 7 Supply Information

|   |            |             |             |             |             |             |                 |
|---|------------|-------------|-------------|-------------|-------------|-------------|-----------------|
| <b>7.1</b> Product Weight:<br>3 hinges + fasteners - Kg | 1.7kg      | 1.0kg       | 0.8kg       | 0.6kg       | 0.7kg       | 0.5kg       | Various options |
| <b>7.2</b> Pack/Box/Carton<br>packed qty.               | 3 / 6 / 24 | 3 / 12 / 60 | 3 / 12 / 60 | 3 / 12 / 60 | 3 / 12 / 96 | 3 / 12 / 96 | Various options |

All hinges are supplied with fixings as standard.

## Safety and security options

Safety and security can be enhanced through a range of specialist Phoenix hinge options designed to protect both the door user and the integrity of the doorset.

### Reduced-ligature or institution hinges

Also known as hospital or prison safety hinges, these are designed for environments where there is a risk of self-inflicted injury. The hinge pin and end knuckles are radiused to eliminate sharp edges and reduce ligature points.

Available on ranges:  
**7900LM+, 7900LM, 7700CB, 56015, 56016, 56135**



### Hinge cover plates

Hinge leaf cover plates conceal fixing screws, improving safety and security. They also offer anti-ligature protection and can be supplied in matching or contrasting finishes.

Available on ranges:  
**7900LM, 7700CB**



### Security dog-bolted hinges

Hinges fitted with integral dog bolts prevent a door from being opened even if the hinge pin is removed or the knuckle is cut away, providing a simple but highly effective layer of protection.

Available on ranges:  
**7900LM, 7900LM+, 7700CB, 7500SL, 7200SB, 56015, 56016**



### Security welded hinges

Welding the hinge pin flush to the end knuckles increases resistance to attack, with additional weld fillets that prevent the knuckles from being forced open.

Available on ranges:  
**7900LM, 7900LM+, 7700CB, 56015, 56016**



## Safety and security options

### Security pinned hinges

As an alternative to welding, the hinge pin can be secured in place using either spin riveting or mechanical pinning. The pin may be fixed through the hinge tip or fastened to the knuckle on one leaf using a dowel or threaded insert. This provides strong tamper resistance while maintaining a tidy appearance.

Available on ranges:

**7900LM+, 7900LM, 7700CB**



### Finger protection devices

Our finger protection devices are based on a proven roller system that prevents fingers from being trapped on the hinge side of the door. Robust enough to be specified for schools, hospitals, nurseries, and other public buildings, they can be used on most single- and double-action doors, including automatic swing doors. The finger protection devices come in 1925 mm and 2015 mm lengths as in Satin Anodised Aluminium, Dark Bronze Anodised, and White finishes. Other lengths and finishes are available to order.



### Electrical conductor hinges

Concealed wire conductor hinges are designed for doors with electronic locking or monitoring systems. They are available with 2, 4, 6, 8 or 12 wires capable of carrying 48V at two amps, for a discreet and reliable method of transferring power between the frame and the door.

Available on ranges:

**7900LM+, 7900LM, 7700CB**



### Security fasteners

We supply all Phoenix hinges as standard with Posidrive or machine screws. For applications that need to be tamper-resistant, alternative fasteners are available, including hex, Torx, Pin Torx, twin-hole (pig nose), clutch head and snap-off designs.



Available across all Phoenix hinge ranges, including continuous hinges.

## Special applications

Certain hinge options are designed for specific applications that require enhanced performance or unique functionality. The main categories are summarised below.

### Fire door hinge packs

All Phoenix hinge ranges, except plain knuckle hinges, have been fire tested and CERTIFIRE-approved for compatibility with a wide variety of timber and steel doorsets. Selected ranges are also supplied with pre-cut intumescent pads and fitting instructions to support compliant installation.



Available on ranges:  
**7900LM, 7700CB, 7500SL, 7200SB**

### Swing clear hinges

Swing clear hinges maximise the clear opening width of a doorway by moving the door completely clear of the frame when opened just beyond 90°. This feature supports accessibility compliance with Building Regulations and Approved Document M.



Available on ranges:  
**7900LM+, 7900LM, 7700CB, 7500SL**

### Projection and parliament hinges

Projection hinges feature an extended pivot point that allows the door or shutter to open through 180°, clearing projections such as architraves, skirtings or cladding. Parliament hinges perform the same function but include decorative scalloped edges and a shorter knuckle profile for a more traditional appearance.



Available on ranges:  
**7900LM+, 7900LM, 7700CB, 7500SL**

## Special applications

### Glass door hinges

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Designed for 10 mm and 12 mm glass doors, these hinges include door preparation details and fitting instructions to ensure correct installation and secure fixing.

Available on ranges:  
**7900LM, 7700CB, 7500SL**



### Custom hole patterns

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Fixing holes can be supplied in plain, countersunk, slotted, or tapped formats, arranged in bespoke patterns to suit specific project requirements. We can also provide cut-outs to accommodate complementary hardware or specialist fittings.

Available on ranges:  
**7900LM+, 7900LM, 7700CB, 7500SL, 7000PK**



### Rising and falling hinges

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Rising hinges are often fitted in applications such as cloakrooms, where the door needs to return naturally to the closed position. Falling hinges operate in reverse, allowing the door to open automatically under gravity.

Available on ranges:  
**7900LM, 7700CB**



## Bespoke and specialist hinge designs

Some projects need custom-engineered hinges to meet unique design, performance, or environmental conditions. The following hinge types represent the most common specialist categories:

### Cranked and Stormproof hinges

Used where the hinge pivot point needs to be positioned at a specific angle, such as 90°. Phoenix stormproof hinges feature multiple cranks for timber casements that require total weatherproof performance, in grade 316 stainless steel.

Available on ranges:  
**7900LM, 7700CB, 7000PK**



### Profiled hinges for uPVC and composite frames

Are purpose-designed to match common uPVC and composite door profiles, providing precise fit and long-term reliability.

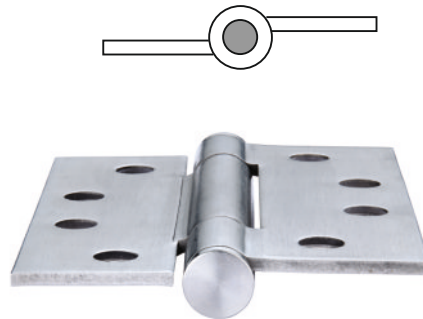
Available on ranges:  
**7000PK, 7700CB**



### Part-centred and offset leaf hinges

Used where door design, frame type, or the inclusion of smoke and acoustic seals requires a different part-swaged parallel closed hinge gap (or joggle). The part-centring is applied to only one hinge leaf.

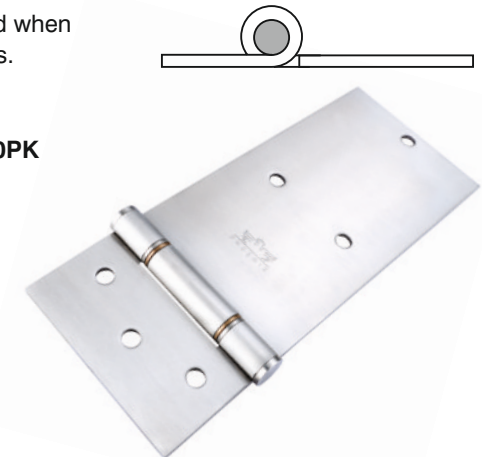
Available on ranges:  
**7900LM, 7700CB, 7500SL, 7200SB, 7000PK**



### Odd flap hinges

Are hinges with unequal leaf sizes, often used when the door and frame have different thicknesses.

Available on ranges:  
**7900LM+, 7900LM, 7700CB, 7500SL, 7000PK**



## Bespoke and specialist hinge designs

### Twin pin lift-off hinges

Feature two load-bearing surfaces per hinge, delivering improved strength and stability compared to traditional lift-off designs.

Available on ranges:  
**7500SL\***



### Journal-supported hinges

A variation of a standard lift-off hinge where the top of the hinge pin against the captive top-end stud supports the door's weight. Some models include vertical adjustment for precise door alignment.

Available on ranges:  
**7700CB\***



### Loose pin hinges

Have a removable hinge pin, allowing the frame and door leaves of the hinge to be pre-fitted and assembled on site.

Available on ranges:  
**7000PK\***



### Decorative hinges

Are fitted with decorative finials or shaped leaves, including acorn, ball, crown, steeple, and urn designs, to complement traditional or feature doors.

Available on ranges:  
**7900LM+, 7900LM, 7700CB**



## Bespoke and specialist hinge designs

### Custom designed hinges

Phoenix Architectural Hinges across the full range can be fully customised to meet project-specific requirements, from modified countersinks to completely bespoke designs.

Available across all Phoenix ranges.



## Special materials and finishes

While our hinges are manufactured in mild steel and stainless steel as standard, we offer a huge range of mechanical, plated, powder-coated, and colour finishes across the entire Phoenix range.

### Solid brass hinges

We can make solid brass hinges for applications that need a true brass construction. Although we do not recommend brass hinges for fire doors, they are available in several Phoenix ranges or as bespoke items.

Available on ranges:  
**7900LM, 7700CB, 7000PK**



### Special finishes

As well as standard finishes, Phoenix hinges can be produced in custom-plated, PVD, or living finishes to match a project's other hardware. Engraving can also be added for identification or branding.

Available on ranges:  
**7900LM, 7700CB, 7000PK**



## Special materials and finishes

### Anti-microbial finishes

Are for hygiene-critical environments like food manufacturing or medical settings. Phoenix hinges can be finished with anti-microbial coatings or copper plating to inhibit the growth of bacteria and viruses.

Available on ranges:  
**7900LM, 7700CB**



### Custom engraved hinges

Phoenix hinges can be engraved with decorative designs, monograms, or logos for project branding or distributor identification.



### Customised packaging

We can supply products in branded or distributor-specific packaging while retaining the unique Phoenix performance guarantees and technologies.



## Continuous hinges

Phoenix Continuous Hinges provide a robust full-length solution for architectural doors, offering high security, strength, and durability. Designed for the most demanding environments, they are ideal for timber or steel doors in high-traffic or high-security settings.

The hinges extend the full length of the door and are available with straight-line or staggered fixing patterns. A versatile interleaf version is also now available. They can be fitted with wood screws, machine screws, or a range of tamper-resistant fasteners, depending on the application.

Features include:

- Multiple bearing surfaces for superior load-carrying capacity
- Visually secure and tamper-resistant design
- Available in mild or stainless steel with optional dog bolts, welded pins, or reduced-ligature ends

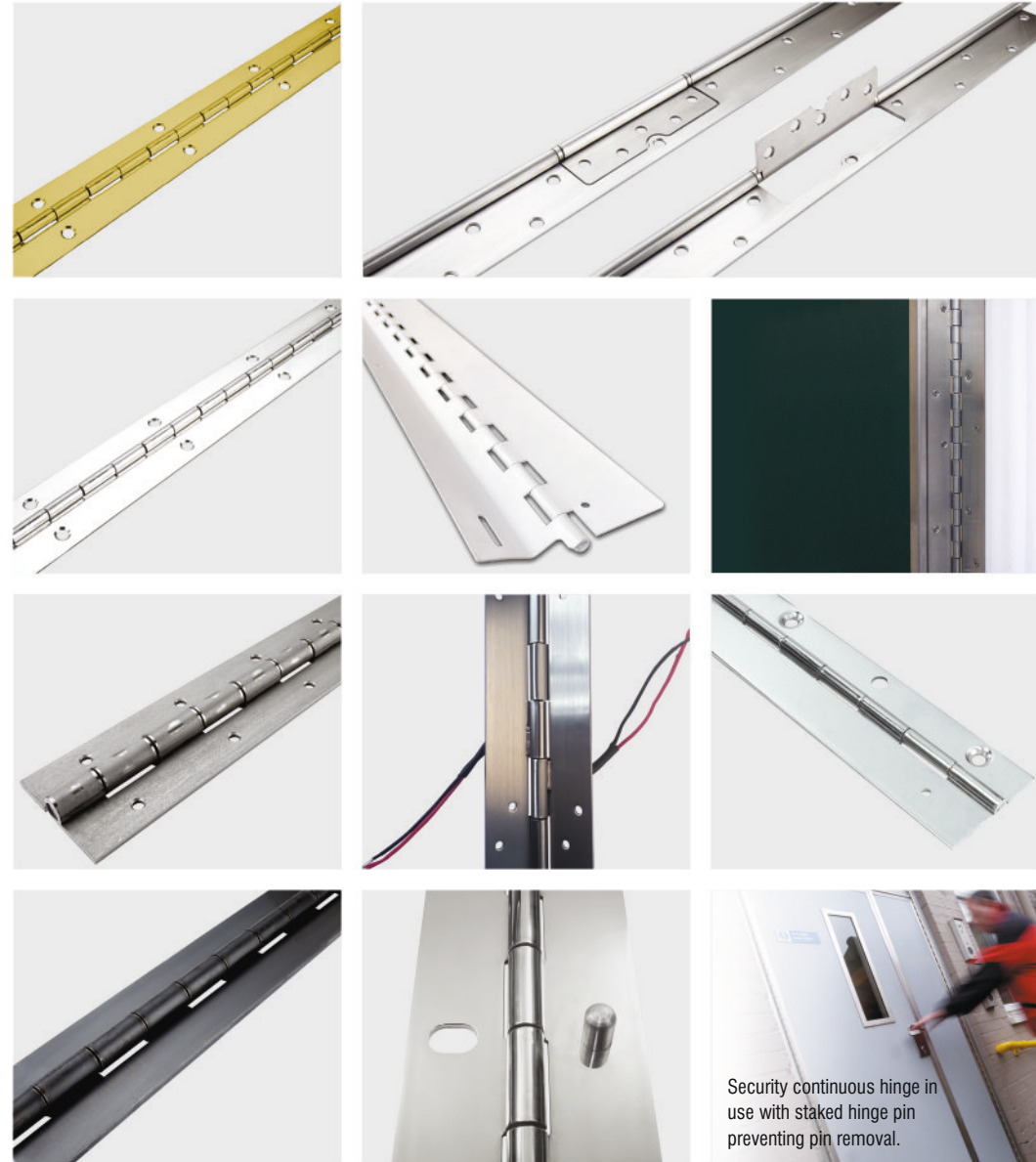
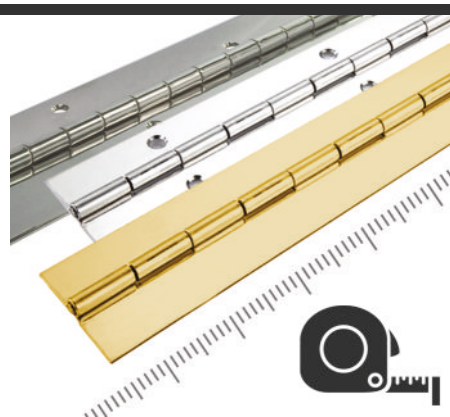
Phoenix Continuous Hinges are supplied with fixing options for both timber and metal doorsets.

For further information visit [www.cookebrothers.co.uk](http://www.cookebrothers.co.uk)

### Cut to Length Service

Cooke Brothers offers a unique cut-to-length service allowing you to order the exact size you need easily and conveniently online.

Visit [www.cookebrothers.co.uk](http://www.cookebrothers.co.uk) and navigate to the product pages for continuous hinges, select the desired product and enter the lengths and quantities required for an instant online quote. Then add the items to your basket and proceed with the order.



## Further Technical Information

The following pages provide further explanation about the terms used in the hinge selection steps and selector chart.

### BS EN 1935

This is the European standard for the classification of the strength and durability of side hung metal hinges. Hinges are tested against a standard door and number of cycles to achieve certification. A single hinge is tested, whereas in reality a minimum of three hinges will support the door. The chart below shows the various grades.

| Hinge Grade | Usage       | Test Cycles | Door Mass |
|-------------|-------------|-------------|-----------|
| 1           | Window      | 10,000      | 10kg      |
| 2           | Window      | 10,000      | 20kg      |
| 3           | Window/Door | 25,000      | 20kg      |
| 4           | Door        | 200,000     | 20kg      |
| 5           | Window      | 10,000      | 40kg      |
| 6           | Window/Door | 25,000      | 40kg      |
| 7           | Door        | 200,000     | 40kg      |
| 8           | Window      | 10,000      | 60kg      |
| 9           | Window/Door | 25,000      | 60kg      |
| 10          | Door        | 200,000     | 60kg      |
| 11          | Door        | 200,000     | 80kg      |
| 12          | Door        | 200,000     | 100kg     |
| 13          | Door        | 200,000     | 120kg     |
| 14          | Door        | 200,000     | 160kg     |



Conformity marking, such as the CE or UKCA mark, indicates that a product complies with the relevant safety and regulatory requirements set out in the Construction Products Regulation (CPR). The CPR ensures that those placing construction products on the market, including suppliers of hinges for fire doors, meet essential standards.

As BS EN 1935 is a designated standard (one recognised by the government), hinges must bear the appropriate conformity mark to demonstrate compliance. This helps to ensure the product's durability and performance, and is further supported by a Declaration of Performance (DoP) issued by the manufacturer to confirm the performance characteristics of the product.



CERTIFIRE is voluntary third party certification for fire protection products, operated by Warrington Certification

CERTIFIRE tests a huge range of hardware products. CERTIFIRE approved products will all work together on the door assembly to ensure maximum safety against spread of fire. CE marked products do not have the same rigorous certification requirements as CERTIFIRE approved products so to remove any doubt of your chosen hinge and door closer working together on your door assembly make sure that they are both CERTIFIRE approved.

## Equality & Accessibility

The Disability Discrimination Act (DDA) of 1995 was designed to ensure access for people with disabilities to buildings and services. However, it was superseded by the Equality Act 2010, which consolidated and strengthened various anti-discrimination laws, including the DDA. When it comes to design, considerations include ensuring that buildings, services, and facilities are accessible to everyone. This may mean making specific provisions, such as ensuring doors are easy to open, or have clear opening widths.

While fire safety regulations still require that fire doors close automatically to prevent the spread of fire, this can sometimes conflict with accessibility needs. To address both concerns, the use of high-performance hinges with minimal opening resistance, along with the selection of other accessibility-enhancing components, can provide a solution that meets both safety and accessibility standards.

## Adjusted door weights

The reliability of the hinges depends on several factors, door width and type of door closer being two important factors. Adjusted door weights for doors fitted with door closers are covered by Step 2 earlier in this guide. For doors of excessive width (1000mm or more) further adjustments need to be made to allow for the increased bending moment acting on the hinges.

| Door Width mm | Theoretical Increase in door mass % |
|---------------|-------------------------------------|
| 1000          | 0                                   |
| 1050          | 10                                  |
| 1100          | 18                                  |
| 1150          | 26                                  |
| 1200          | 33                                  |
| 1250          | 40                                  |

## Door weight

The chart below provides the mass ranges of typical doors. Doorset manufacturers data or weighing scales should be used to accurately assess the door weight.

| Mass ranges of typical doors                              | Size (mm)        | Mass (kg)    |
|---|------------------|--------------|
| Cupboard, wardrobe, cabinet<br>Louvred doors and shutters | 2040 x 626 x 40  | 3 to 10      |
| Light internal large wardrobe<br>and large louvred doors  | 2040 x 926 x 40  | 10 to 17.5   |
| Medium internal doors                                     | 2040 x 1012 x 40 | 17.5 to 25   |
| Heavy internal doors                                      | 2040 x 1012 x 40 | 25 to 37.5   |
| Half hour fire doors                                      | 2040 x 826 x 44  | 25 to 37.4   |
| Light external doors                                      | 2040 x 907 x 40  | 20 to 37.5   |
| Heavy external doors                                      | 2040 x 1002 x 44 | 37.5 to 55   |
| One hour fire doors                                       | 2040 x 826 x 54  | 37.5 to 72.5 |
| Oversize or special external doors                        | 2400 x 1200      | 55 to 110    |

## Ironmongery

The weight of the ironmongery also places a load on the hinges. The allowances are shown in the table below.

| Typical weight of ironmongery (kgs) | Typical weight of ironmongery (kgs) |           |           |
|-------------------------------------|-------------------------------------|-----------|-----------|
|                                     | General                             | Aluminium | Stainless |
| Pair of Lever handles               | 0.7                                 | 0.4       | 1         |
| Kickplate 900 x 200 x 1.5 (pair)    | 3                                   | 1.5       | 4         |
| Heavy duty door closer              | 3                                   | x         | x         |
| Economy door closer                 | 2                                   | x         | x         |
| Euro pattern lock 72mm ctrs         | 1                                   | x         | x         |
| English pattern lock 57mm ctrs      | 0.5                                 | x         | x         |

Select the hinge grade to suit the total loading.

## BS EN 1935 classification in detail

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### First digit – Category of use:

There are four categories 1-4

#### Light duty

Low frequency of use by people with a high incentive to exercise care and with only a small chance of accidents occurring or of misuse.

#### Medium duty

Medium frequency of use by people with some incentive to exercise care but where there is some chance of accidents occurring or of misuse.

#### Heavy duty

High frequency of use by public and others with little incentive to exercise care and with a high chance of accidents occurring or of misuse.

#### Severe duty

For use on doors that are subject to frequent violent usage.

**Second digit – Durability of hinges** is determined by both the frequency of use and the maximum mass of the element they are installed on. Hinges designed for use on windows are tested to 10,000 cycles (Grade 3) and 25,000 cycles (Grade 4). Hinges intended for use on doors are tested to 25,000 cycles (Grade 4) and 200,000 cycles (Grade 7).

### Third digit – Test door mass:

Currently there are eight weight grades. The grades start at 10kg and go up to the maximum of 160kg.

### Fourth digit – Fire behaviour:

Grade 0: not approved for use on fire/smoke resisting door assemblies, Grade 1 is suitable for use on fire/smoke resisting door assemblies. All fire tests must be carried out to EN1634.

### Fifth digit – Safety:

Only grade 1 hinges are acceptable.

### Sixth digit – Corrosion resistance:

There are five grades of corrosion resistance ranging from 0 to 4.

Grade 0 no corrosion resistance

Grade 1 mild resistance

Grade 2 moderate resistance

Grade 3 high resistance

Grade 4 very high resistance

Corrosion testing is carried out in accordance with the test methods outlined in EN 1670

Grade 0 No defined corrosion resistance

Grade 1 24 hours salt spray resistance

Grade 2 48 hours salt spray resistance

Grade 3 96 hours salt spray resistance

Grade 4 240 hours salt spray resistance

### Seventh digit – Security:

Two grades are identified. Grade 0 is not suitable and Grade 1 is suitable for security doors.

### Eighth digit:

Fourteen grades are identified within the standard, which are shown earlier under the BS EN 1935 classification.

\* These figures are for illustration purposes only. As actual door and ironmongery weights can vary significantly, always contact the product manufacturers directly for product weights.

| Frequency of door operation   |                     |           |                 |            |
|-------------------------------|---------------------|-----------|-----------------|------------|
| Type of building and door     | Estimated frequency |           | Category of use | Durability |
|                               | Daily               | Yearly    |                 |            |
| Entrance to department store  | 5,000               | 1,500,000 | S               | 7          |
| Entrance to large office      | 4,000               | 1,200,000 | S               | 7          |
| Entrance to school            | 1,250               | 225,000   | S               | 7          |
| School toilet                 | 1,250               | 225,000   | S               | 7          |
| Entrance to Bank              | 500                 | 150,000   | H               | 7          |
| Office toilet                 | 400                 | 120,000   | H               | 7          |
| School corridor               | 80                  | 24,000    | M               | 7          |
| Office building corridor door | 75                  | 22,500    | M               | 7          |
| Department store toilet       | 75                  | 22,500    | M               | 4          |
| House entrance                | 40                  | 14,000    | M               | 4          |
| House toilet                  | 25                  | 7,500     | L               | 4          |
| House corridor                | 10                  | 3,000     | L               | 4          |

Figures are for illustration purposes only - actual usage can vary depending on many factors.

## Fire doors

Fire doors are identified by type, FD (Fire Door) E (Integrity) and EI (Integrity and insulation), and fire resistance (20 - 240 minutes). Phoenix hinge CERTIFIRE certification ensures that the higher performance hinges can be used on fire doors in accordance with the matrix of acceptable door types below.

| Class             | Approved door type |    |    |     |   |     |    |
|-------------------|--------------------|----|----|-----|---|-----|----|
|                   | IMM                | MM | TT | ITT | ITM   | ITC | TM |
| FD20              | ✓                  | ✓  | ✓  | ✓   | Consult technical sales for advice on all options not covered by a tick within the matrix |     |    |
| FD30              | ✓                  | ✓  |    | ✓   |   |     |    |
| FD60 FD120 FD240  | ✓                  | ✓  |    |     |   |     |    |
| E20 E120          | ✓                  | ✓  | ✓  | ✓   |   |     |    |
| E30 E130          | ✓                  | ✓  |    | ✓   |   |     |    |
| E60 E160 E90      | ✓                  | ✓  |    |     |   |     |    |
| EI 90 EI120 EI120 | ✓                  | ✓  |    |     |   |     |    |
| E240 EI240        | ✓                  | ✓  |    |     |   |     |    |

## Abbreviations

|            |  |
|------------|--|
| <b>IMM</b> | Metal leaf, Metal frame and intumescent seals      |
| <b>MM</b>  | Metal leaf, Metal frame                            |
| <b>TT</b>  | Timber leaf, Timber frame                          |
| <b>ITT</b> | Timber leaf, Timber frame and intumescent seals    |
| <b>ITM</b> | Timber leaf, Metal frame and intumescent seals     |
| <b>ITC</b> | Timber leaf, Composite frame and intumescent seals |
| <b>TM</b>  | Timber leaf, Metal frame                           |

## Door to frame clearances

The majority of architectural hinges are designed to be rebated flush into the door and frame. The gap when the hinge is closed to the parallel leaf position should therefore match the recommended clearance between door and frame. On steel doorsets this is usually set by the manufacturer. On timber doorsets the following sizes are common:

3mm for doors fitted with a combined intumescent and smoke seal.

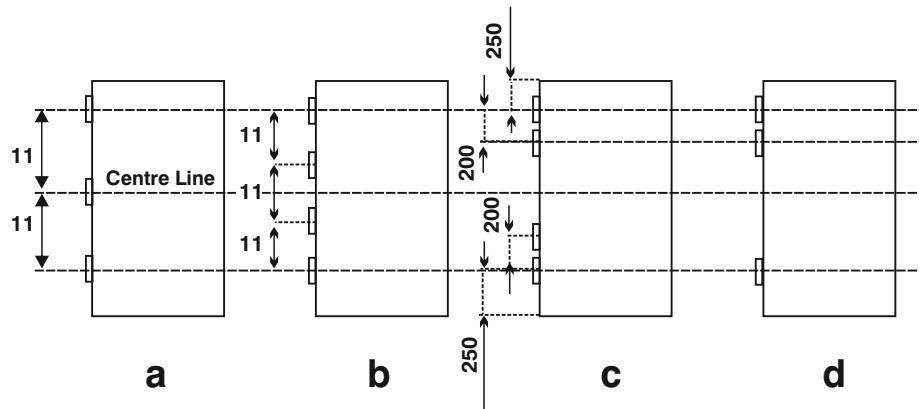
2.5 - 3mm for doors fitted with intumescent only.

For doors which are not fire doors the recommendation is for a consistent clearance between door and frame within the range of 1.5 to 3mm. However, always check with the door manufacturer for specific requirements.

## Hinge positioning and quantity

Always check with the door manufacturer for specific requirements, as these may vary based on the supporting certification and evidence. On doors without door closers it is usually recommended to use three hinges, the top and bottom hinges being fitted approximately 250mm from the door end to the hinge centre, with the third hinge being positioned in the centre of the other two. Equally spaced hinges will minimise warping which may occur with extremes of temperature or humidity on either side of the door, Fig.1, a and b.

Unequally spaced hinges Fig.1, c and d, improve load bearing. This is recommended where the hinges are operating near their load bearing maximum or where door closers, particularly back check door closers, are in operation and the door is in high frequency use.



## Care and maintenance

Architectural hinges play an important part in the overall performance of any building. All the Phoenix architectural hinge ranges are designed to give many years trouble free use with only the minimum of routine maintenance when selected in accordance with the guidelines in this product selection brochure and as stated on the fitting instructions leaflet. In order that hinges continue to operate at maximum efficiency they should be checked annually. Annual inspections are recommended for guarantee purposes. However, more frequent checks may be required to meet regulatory obligations or as identified in risk assessments, particularly for fire doors and escape doors:-

- Ensure all fasteners are secure.
- Where necessary wipe clean with a solution of mild detergent applied with a soft damp cloth. Do not use abrasives or bleach as this may permanently damage the hinge surface and its components.
- Where regular lubrication is recommended, relubricate the hinge pin with a light oil, ideally in aerosol form, such as a PTFE-based lubricant.
- Check that no additional strains are present upon the door caused by building movement or due to warping of the door or frame. This can result in the hinges being put under severe additional loadings. Where problems of this nature occur then the cause of the problem needs to be eliminated, and the hinges re-fitted.

### Certifire SKU's

Hinges are certificated with both square and radiused corners.

| Ref           | Range             | Type                           | Security         | Knuckle Size | Size (mm)         | Material        | Grade | Permitted Use                 |
|---------------|-------------------|--------------------------------|------------------|--------------|-------------------|-----------------|-------|-------------------------------|
| 7230          | Shrouded Bearing  | High Performance               |                  | 12           | 102 x 76 x 2.5    | Stainless steel | 13    | ITT60, IMM/MM120              |
| 7235          |                   |                                | 102 x 89 x 2.5   |              | 13                |                 |       |                               |
| 7230DB        |                   |                                | Dog Bolt         |              | 102 x 76 x 2.5    |                 | 13    |                               |
| 7530          | Slimline          | High Performance Slimline Butt |                  | 10           | 102 x 76 x 2.5    | Stainless steel | 13    | ITT30, IMM/MM120              |
| 7535          |                   |                                | 102 x 89 x 2.5   |              | 13                |                 |       |                               |
| 7540          |                   |                                | 102 x 102 x 2.5  |              | 13                |                 |       |                               |
| 7730          | Concealed Bearing | High Performance               |                  | 13           | 102 x 76 x 3      | Mild steel      | 13    | ITT30, ITT60, IMM/MM120       |
|               |                   |                                | Stainless steel  |              |                   | 14              |       |                               |
| 7735          |                   |                                | 102 x 89 x 3     |              | Mild steel        | 13              |       |                               |
|               |                   |                                |                  |              | Stainless steel   | 14              |       |                               |
| 7740          |                   |                                | 102 x 102 x 3    |              | Mild steel        | 13              |       |                               |
|               | Stainless steel   | 14                             |                  |              |                   |                 |       |                               |
| 7745          | 114 x 102 x 3     | Stainless steel                | 13               |              |                   |                 |       |                               |
| 7729AL        | Concealed Bearing | High Performance               | Reduced-Ligature | 13           | 102 x 70 x 3      | Stainless steel | 14    | ITT60, IMM/MM120              |
| 7730AL        |                   |                                |                  |              | 102 x 76 x 3      |                 | 14    | ITT30, ITT60, IMM/MM120       |
| 7735AL        |                   |                                |                  |              | 102 x 89 x 3      |                 | 14    |                               |
| 7730DB        | Concealed Bearing | High Performance               | Dog Bolt         | 13           | 102 x 76 x 3      | Stainless steel | 14    | ITT30, ITT60, IMM/MM120       |
| 7735DB        |                   |                                |                  |              | 102 x 89 x 3      |                 | 14    |                               |
| 7740DB        |                   |                                |                  |              | 102 x 102 x 3     |                 | 14    |                               |
| 7730T2 to T12 | Concealed Bearing | Conductor                      |                  | 13           | 102 x 76 x 3      | Stainless steel | 14    | ITT30, ITT60, IMM/MM120       |
| 7735T2 to T12 |                   |                                | 102 x 89 x 3     |              | 14                |                 |       |                               |
| 7740T2 to T12 |                   |                                | 102 x 102 x 3    |              | 14                |                 |       |                               |
| 7745T2 to T12 |                   |                                | 114 x 102 x 3    |              | 13                |                 |       |                               |
| 7755 / 7756   | Concealed Bearing | Lift Off                       |                  | 13           | 102 x 76 x 3      | Mild steel      | 13    | ITT30, IMM/MM120              |
|               |                   |                                | Stainless steel  |              |                   | 13              |       |                               |
| 7765 / 7766   |                   |                                | 102 x 89 x 3     |              | Mild steel        | 13              |       |                               |
|               |                   |                                |                  |              | Stainless steel   | 13              |       |                               |
| 7775 / 7776   |                   |                                | 102 x 102 x 3    |              | Mild steel        | 13              |       |                               |
|               | Stainless steel   | 13                             |                  |              |                   |                 |       |                               |
| 7935          | Loadmaster        | High Performance               |                  | 16           | 102 x 89 x 3      | Stainless steel | 14    | ITT30, ITT60, IMM/MM120       |
| 7980          |                   |                                | Dog Bolt         | 19           | 114.3 x 114.3 x 4 | Stainless steel | 14    | ITT60 (57mm thick). IMM/MM120 |

## Loadmaster Plus Hinge Range - 7980



- Maintenance-free bearing design
- Available in 316 stainless steel
- Heavy-duty construction and appearance
- Tested to EN 1935: 2002 Grade 14
- CERTIFIRE approved
- Holes countersunk to suit No. 12 woodscrews or M6 machine screws
- Full range of custom options and finishes available
- 25-year guarantee

### Bearing Technology

The Phoenix Loadmaster Plus hinge uses an oilite bearing system, a long-proven engineering solution. Each bearing consists of a sintered bronze bush impregnated for life with high-performance lubricant, running against a precision-machined metal surface. The two halves are pressed into recesses within the hinge body, giving full vertical and lateral wear protection and a distinctive engineered appearance.

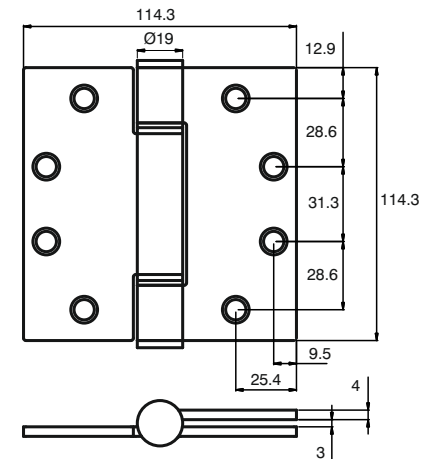
### Performance

Designed for strength, durability, and a refined visual presence, the 7980 Loadmaster Plus hinge provides a maintenance-free solution for prestige buildings.

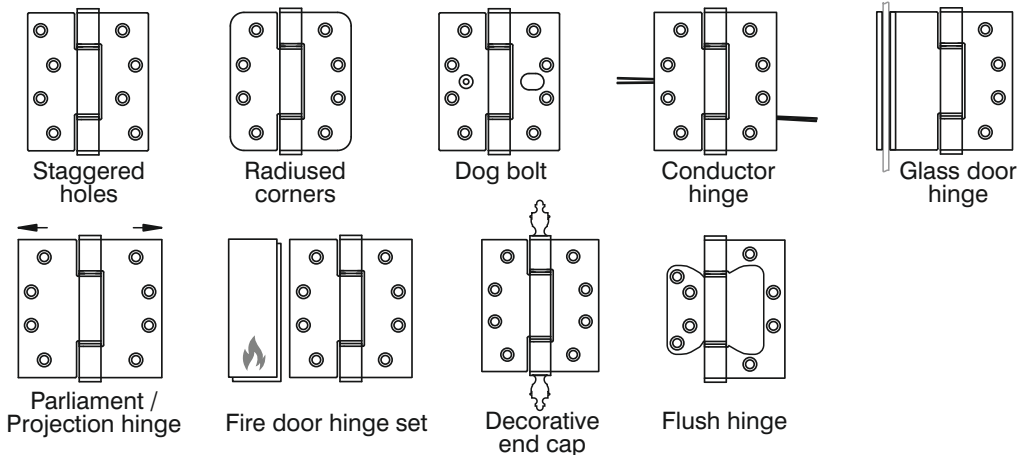
Suitable for adjusted door weights up to 200 kg and for doors with or without closers that operate at high frequency. Available in both fixed-pin and lift-off variants for doors 44–68 mm thick. They are tested to EN 1935:2002, CERTIFIRE-approved, and backed by a 25-year guarantee.

### Specification

#### Fixed Pin



### Further options:



### Product codes

| H x W x T     | Butt | Dog bolt |
|---------------|------|----------|
| 114 x 114 x 4 | 7980 | 7980     |

## Loadmaster Hinge Range - 7900



- Maintenance-free bearing design
- Available in 316 stainless steel
- Heavy-duty construction and appearance
- Tested to EN 1935: 2002 Grade 14
- CERTIFIRE-approved
- Holes countersunk to suit No. 12 woodscrews or M6 machine screws
- Full range of options and finishes available
- 25-year guarantee

### Bearing Technology

The Phoenix Loadmaster hinge features the same proven oilite bearing system used for over 70 years in industrial design. The sintered bronze bush, permanently lubricated, runs against a machined metal surface to ensure smooth, maintenance-free operation. The bushes are securely pressed into each hinge leaf to provide both vertical and lateral wear resistance, delivering strength and a robust, engineered look.

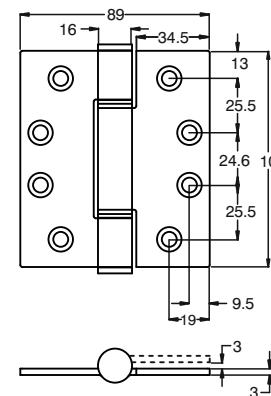
### Performance

Designed to combine load capacity with visual solidity, the 7900 Loadmaster Range offers long-term reliability and smooth, maintenance-free function.

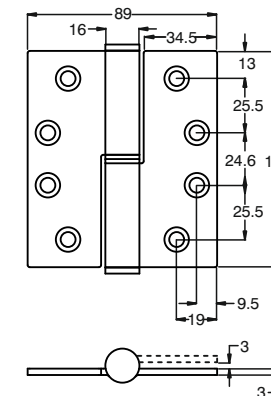
Recommended for adjusted door weights up to 160 kg and for doors with or without closers in heavy-duty environments. Available in both fixed-pin and lift-off variants for 44–68 mm thick doors, these hinges are tested to EN 1935: 2002, CERTIFIRE approved, and supplied with a 25-year guarantee.

### Specification

#### Fixed Pin

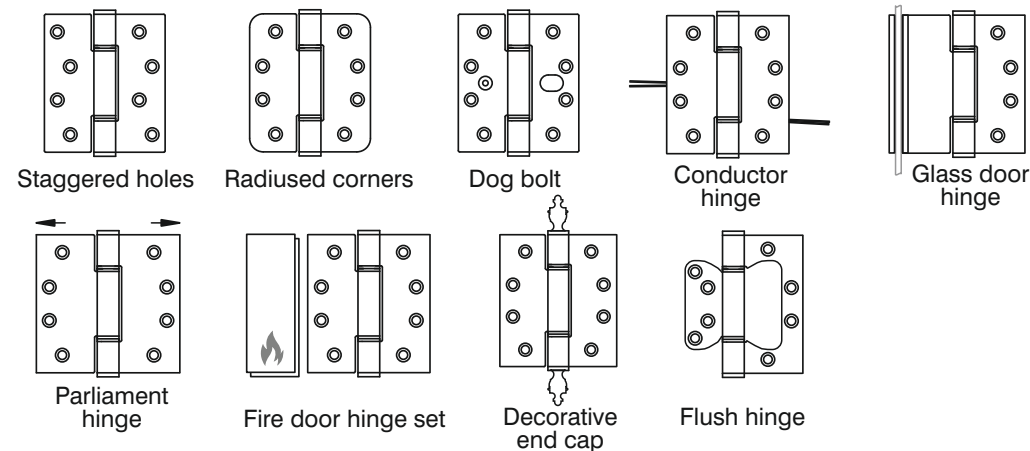


#### Lift-Off





Lift-off is available in all options except Dog bolt and Conductor

### Further options:



### Product codes

| H x W x T    | Butt | Lift off  |   |
|--------------|------|---|---|
|              |      |  |  |
| 102 x 89 x 3 | 7935 | 7955  | 7956  |

## Concealed Bearing Hinge Range - 7700



- Fully concealed bearing design
- Integrated high-performance polymer bearings
- Maintenance-free, low-friction operation
- Available in mild steel, 304, or 316 stainless steel
- Three standard hinge widths available
- Tested to EN 1935: 2002 Grades 13-14
- Independently tested to 1,000,000 cycles; in-house to 10 million cycles
- CERTIFIRE-approved (where indicated)
- Holes countersunk to suit No.12 woodscrews / M6 machine screws or No.10 woodscrews / M5 machine screws, depending on hole pattern
- Full range of options and finishes available
- 25-year guarantee

### Bearing Technology

The Phoenix 7700 Concealed Bearing Hinge is the maintenance-free top spec bearing and hinge design solution. combines clean design with high performance. Its three-knuckle configuration completely hides the bearing components, maintaining a refined, uninterrupted appearance.

### Performance

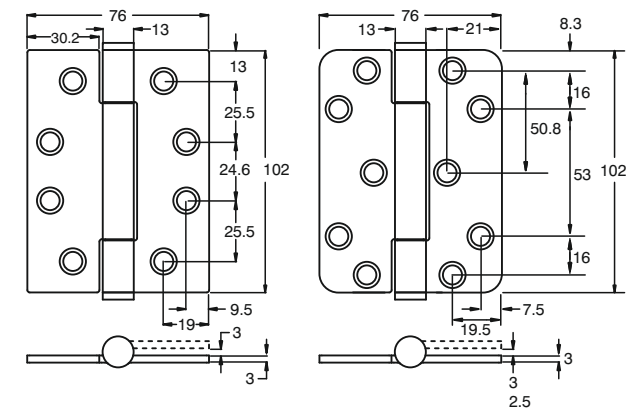
Each central knuckle contains a stepped, high-performance polymer bush that requires no lubrication and provides both vertical and lateral stability with minimal friction or wear. This design delivers a totally maintenance-free hinge with long life, smooth action, and exceptional strength, ideal for demanding architectural applications.

Recommended for adjusted door weights up to 160 kg, for doors with or without any type of door closer, and suitable for all duty levels from light to severe use.

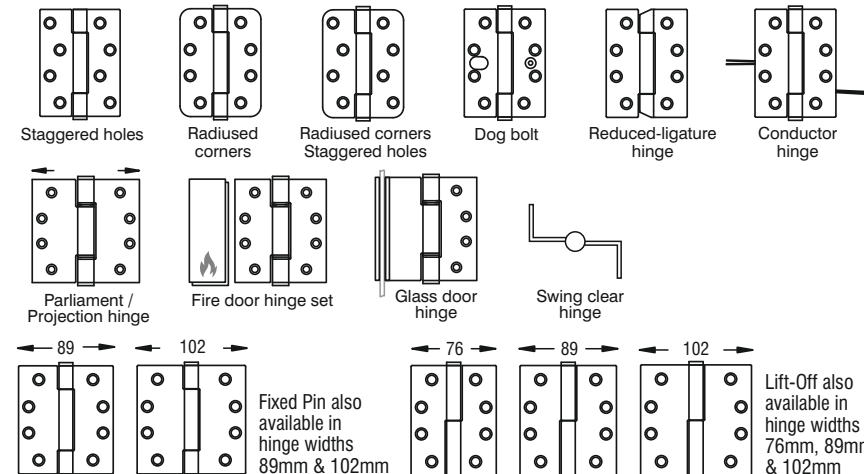
### Specification

Available in 3 hinge widths (76mm, 89mm & 102mm) in both Fixed Pin and Lift Off variants the 7700 CB series offers the specifier an extensive range of options to suit every door situation.



### Fixed Pin



### Further options:



### Product codes

| H x W x T     | Butt | Lift off  |   |
|---------------|------|---|---|
|               |      |  |  |
| 102 x 76 x 3  | 7730 | 7755  | 7756  |
| 102 x 89 x 3  | 7735 | 7765  | 7766  |
| 102 x 102 x 3 | 7740 | 7775  | 7776  |

## Slimline Hinge Range - 7500



- Slim barrel design for minimal visual impact
- Deep thrust washers for high loading and durability
- Tested to EN 1935: 2002 Grade 13
- CERTIFIRE approved (where indicated)
- Optional twin-pin lift-off design
- Three hinge widths available
- Holes countersunk to suit No. 10 woodscrews or M5 machine screws
- Limited range of options and finishes available
- 25-year guarantee

### Bearing Technology

The Phoenix 7500 Slimline Hinge offers a refined, contemporary appearance with exceptional performance. Its slim barrel profile is combined with extra-deep phosphor bronze thrust washers for superior load capacity and long service life.

The turned washers are lightly nickel-plated to match the hinge finish and pre-lubricated for smooth operation. The result is a compact hinge that performs well under heavy use while maintaining a discreet, elegant look that is ideal for high-quality office and commercial doors.

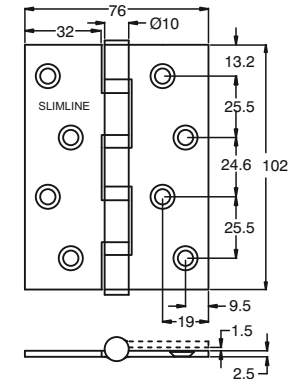
### Performance

Recommended for adjusted door weights up to 120 kg, suitable for all types of door closer, and for severe-duty frequency of use. For door thicknesses between 35 and 54 mm (see CERTIFIRE certificate for minimum thickness on fire doors).

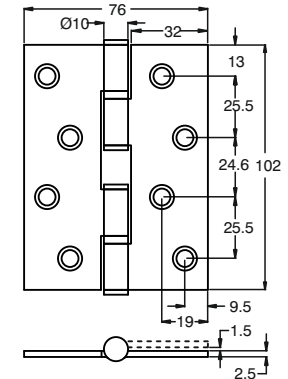
### Specification

Available in 3 hinge widths (76mm, 89mm & 102mm) and also as a twin pin lift-off, the Slimline Range gives the specifier the capability to choose the correct hinge for almost every application.

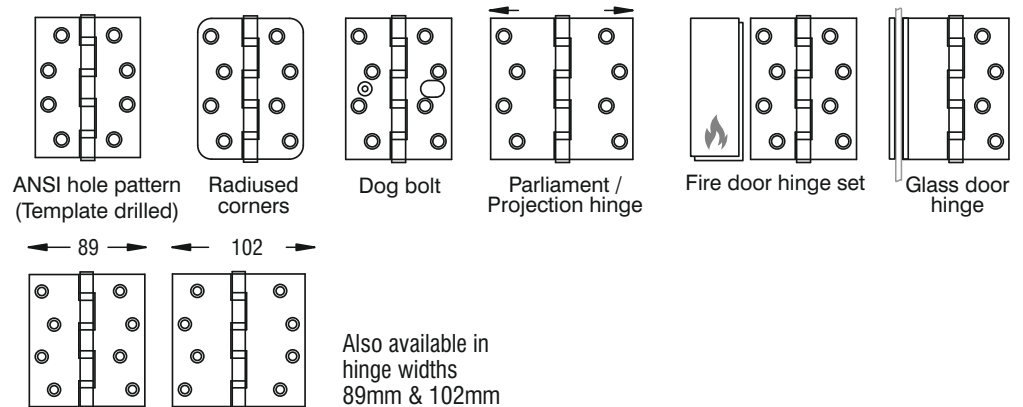
### Fixed Pin





### Twin Pin Lift-Off



### Further options:



### Product codes

| H x W x T       | Butt | Lift off - Twin Pin   |   |
|-----------------|------|---|---|
|                 |      |  |  |
| 102 x 76 x 2.5  | 7530 | 7585  | 7586  |
| 102 x 89 x 2.5  | 7535 |   |   |
| 102 x 102 x 2.5 | 7540 |   |   |

## Shrouded Bearing Hinge Range - 7200



- Shrouded bearing design with concealed polymer bushes
- Maintenance-free, low-friction operation
- Available in stainless steel
- Tested to EN 1935: 2002 Grade 13
- CERTIFIRE approved
- Holes countersunk to suit No. 12 woodscrews or M6 machine screws
- Limited range of options and finishes available
- 25-year guarantee

### Bearing Technology

The Phoenix 7200 Shrouded Bearing Hinge combines strong performance with a clean, modern design. While it follows the familiar shrouded-ball style seen in many bearing hinges, its superior internal mechanism ensures smoother, maintenance-free operation.

Instead of point-loaded steel bearings, the 7200 uses a high-performance polymer bush working against a stainless-steel washer face. This lubrication-free system provides low friction, reduced wear, and consistent performance even in demanding environments.

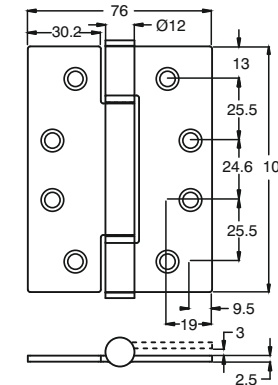
### Performance

Recommended for adjusted door weights up to 120 kg, for doors with or without door closers, and suitable for severe-duty use. For door thicknesses between 35 and 54 mm (see CERTIFIRE certificate for minimum thickness on fire doors).

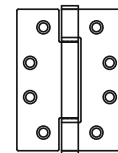
### Specification

The 7200 SB series offers the specifier an extensive range of options to suit every door application.

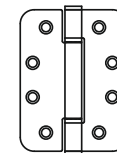
### Fixed Pin



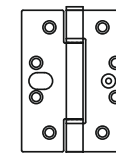
### Further options:



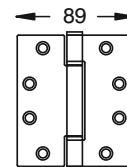
ANSI hole pattern



Radiused corners



Dog bolt



Fixed Pin available in hinge widths 76mm & 89mm

### Product codes

| H x W x T      | Butt |
|----------------|------|
| 102 x 76 x 2.5 | 7230 |
| 102 x 89 x 2.5 | 7235 |

### Double Washered Hinge Range - 7100



- Double-washed knuckles for greater load capacity
- Spun hinge pin for added security
- Tested to BS EN 1935: 2002 Grade 10
- Pozidrive steel or stainless-steel screws included
- Range of finishes and options available
- Available in mild or stainless steel
- 10-year guarantee

#### Bearing Technology

The Phoenix 7100 Double Washered Hinge is designed for medium-duty applications, offering improved performance compared to a standard plain knuckle design. Stainless-steel washers between each knuckle reduce friction and wear, allowing smoother movement and longer service life.

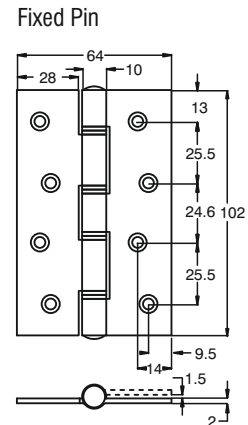
Although periodic lubrication is still recommended, the washed design significantly lowers opening and closing forces and enhances durability. This makes the 7100 range ideal for apartments, offices, and communal doors that need to demonstrate both reliability and value.

#### Performance

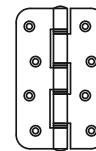
Recommended for door weights up to 60 kg and for medium-duty use with light or no door closer. Suitable for doors 29-44 mm thick.

#### Specification

Available in narrow hinge widths to suit doors from 29mm upwards.



#### Further options:



Radiused corners

#### Product codes

| H x W x T    | Butt |
|--------------|------|
| 102 x 64 x 2 | 7125 |

## Plain Knuckle Hinge Range - 7000



- Plain knuckle design with continuous hinge pin
- Spun pin for added security
- Pozidrive steel or stainless-steel screws included
- Non-handed design for universal fitting
- Wide range of sizes available
- Available in stainless steel for more demanding environments
- Limited range of finishes available
- 5-year guarantee

### Bearing Technology

The Phoenix 7000 Plain Knuckle Hinge is a simple, reliable solution for light-duty applications. It uses the rolled end faces of the knuckles as the vertical bearing surfaces and the internal hinge bore against the pin for lateral wear resistance.

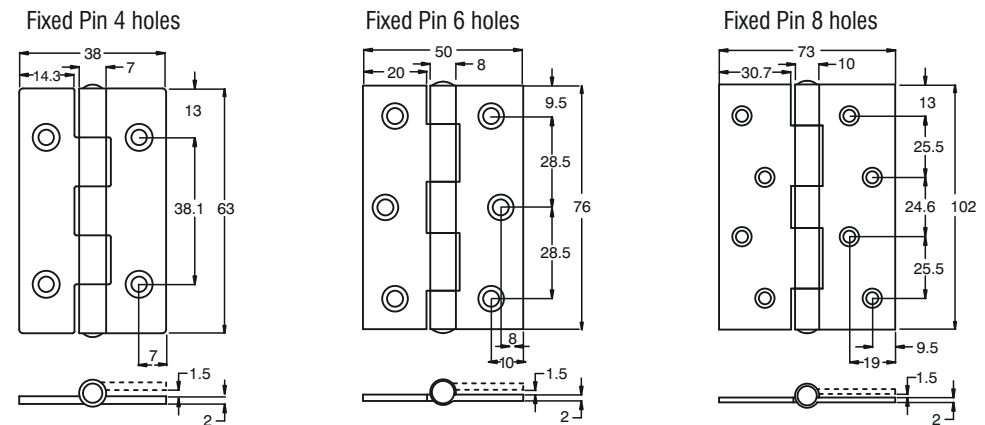
While this basic design offers lower resistance to wear than bearing or washered types, it provides long-lasting service when used on lighter doors and maintained with regular lubrication. The five-knuckle configuration, with a continuous riveted hinge pin, ensures security and dependable function.

### Performance

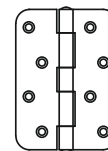
Recommended for door weights up to 40 kg and for light-duty applications without door closers. Suitable for joinery, cupboards, wardrobes, louvre doors, and low-frequency domestic doors.

### Specification

Recommended for cupboards, wardrobes and louvre doors, together with domestic doors with relatively low usage.



### Further options:



Radiused corners

### Product codes

| H x W x T    | Butt |
|--------------|------|
| 64 x 38 x 2  | 7035 |
| 76 x 50 x 2  | 7040 |
| 102 x 73 x 2 | 7050 |



## High Performance Ironmongery

Cooke Brothers is one of the UK's leading manufacturers and suppliers of architectural hinges under the Phoenix brand.

Founded in 1872 in Birmingham's Jewellery Quarter by brothers William and Edward Cooke, the business specialised initially in hinges and fittings for British cabinet makers. More than 150 years later, the company remains family-run by the fourth and fifth generations and is based within 20 miles of its original site. The company is focused on manufacturing high-quality hinges, architectural hardware and specialist pressings for both the architectural, joinery and engineering sectors.

Today, Cooke Brothers utilises advanced engineering with the latest production equipment, supplying a comprehensive range of hinges that meet modern demands for strength, reliability, and long-term performance; products built to perform and made to last.

**Cooke Brothers Ltd**  
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West Midlands, WS9 8TL  
United Kingdom  
Phone +44 (0)1922 740011  
Email [sales@cookebrothers.co.uk](mailto:sales@cookebrothers.co.uk)  
Web [www.cookebrothers.co.uk](http://www.cookebrothers.co.uk)

Please complete the form and omit any questions where you are unsure of the information. Please email the completed form to sales@cookebrothers.co.uk

|                      |                    |                  |                 |
|----------------------|--------------------|------------------|-----------------|
| <b>Enquiry date:</b> | <b>Enquiry no:</b> | <b>Your ref:</b> | <b>Our ref:</b> |
|----------------------|--------------------|------------------|-----------------|

## Contact Details

|                   |  |                          |  |
|-------------------|--|--------------------------|--|
| <b>First name</b> |  |                          |  |
| <b>Surname</b>    |  |                          |  |
| <b>Telephone</b>  |  |                          |  |
| <b>Email</b>      |  |                          |  |
| <b>Job title</b>  |  |                          |  |
| <b>Company</b>    |  | <b>Business activity</b> |  |
| <b>Address</b>    |  |                          |  |

## Doorset Details

|                                |                                  |                      |       |                        |       |
|--------------------------------|----------------------------------|----------------------|-------|------------------------|-------|
| <b>Door thickness</b>          | 35mm                             | 44mm                 | 54mm  | 65mm                   | Other |
| <b>Door size (H x W)</b>       | Standard (1900-2100 x 800 - 950) |                      | Other |                        |       |
| <b>Unadjusted door weight</b>  | (Including ironmongery in kg)    |                      |       |                        |       |
| <b>Door closer</b>             | None                             | Standard door closer |       | Back-check door closer |       |
| <b>Adjusted door weight</b>    | (kg)                             |                      |       |                        |       |
| <b>Estimated annual cycles</b> |                                  |                      |       |                        |       |
| <b>Other requirements</b>      | EN 1935 Grade                    |                      |       |                        |       |
|                                | CE marked (for fire doors)       |                      |       |                        |       |
|                                | CERTIFIRE                        |                      |       |                        |       |

## Product Details

|                    |                               |                              |
|--------------------|-------------------------------|------------------------------|
| <b>Hinge range</b> | Loadmaster Plus hinge range   | Other (Please enter details) |
|                    | Loadmaster hinge range        |                              |
|                    | Concealed bearing hinge range |                              |
|                    | Slimline hinge range          |                              |
|                    | Shrouded bearing hinge range  |                              |
|                    | Double washered hinge range   |                              |
|                    | Plain knuckle hinge range     |                              |

|   |                                |  |         |
|---|--------------------------------|--|---------|
| <b>Basic options</b>  | Butt hinge - 3 knuckle         |  |         |
|   | Butt hinge - 5 knuckle         |  |         |
|   | Lift-off hinge - Standard      |  |         |
|   | Lift-off hinge - Routed        |  |         |
|   | Lift-off hinge - Twin Pin      |  |         |
| <b>Hinge size</b> (H x W x T in mm)   |                                |  |         |
| <b>Hinge code</b> (if known)  |                                |  |         |
| <b>Fixing hole pattern</b>  | Staggered hole pattern         |  |         |
|   | ANSI hole pattern              |  |         |
|   | W hole pattern                 |  |         |
| <b>Hinge corners</b>  | Square corner                  |  |         |
|   | 10mm Radius corner             |  |         |
| <b>Fasteners</b>  | Wood screws                    |  |         |
|   | Machine screws                 |  |         |
| <b>Additional features</b><br>Security, safety, special usage.<br>See selection chart |                                |  |         |
| <b>Material</b>   | Stainless steel 316            |  |         |
|   | Stainless steel 304            |  |         |
|   | Stainless steel other          |  |         |
|   | Mild steel                     |  |         |
|   | Other                          |  |         |
| <b>Finish</b>   |                                |  |         |
| <b>Quantity required</b> (singles)  |                                |  |         |
| <b>Fasteners required</b>   | Yes                            |  | No      |
| <b>Packaging required</b>   | Standard                       |  | Special |
| <b>Other Information</b>  |                                |  |         |
| <b>Is this</b>  | The only hinge requirement     |  |         |
|   | Alternative to earlier enquiry |  |         |
|   | Additional item                |  |         |
| <b>Quote required by</b> (date)   |                                |  |         |

Please email the completed form to [sales@cookebrothers.co.uk](mailto:sales@cookebrothers.co.uk)