

CI/SfB

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 **simonswerk**

High Performance Hinges



Overview

Simonswerk UK Ltd, formerly Hinges & Things Ltd, has been producing top quality brass, aluminium and stainless steel hinges for over 25 years. The Group are now Europe's leading supplier of door and window hinge systems to the Architectural Ironmongery and Builders Hardware industry.

This catalogue illustrates our UK recommended selection of high performance hinges and hardware together with a concise guide to specification and use.

Contents	Page
HINGES	
● Unwashed - Brass Butt	3
● Unwashed - Brass Projection	4
● High Performance	5
● Double Stainless Steel Washered	6
● Double Phosphor Bronze Washered	7
● Ball Race	8
● Unwashed - Brass Parliament	9
● Unwashed - Brass Finial	10
● 2D Adjustable Concealed	11
● 3D Adjustable Concealed	12
● 2D Adjustable	13
● 3D Adjustable	14
● Double Phosphor Bronze Washered Brass Finial	15
● Ball Race Finial	16
● Unwashed - Brass Finial	17
● Phosphor Bronze Washered Brass Finial	18
● Ball Race Finial Projection	19
● Special Purpose	20
● Security Butt	22
● Ball Race Conductor	24
● Rising and Falling	25
● Aluminium Butt	26
● Nylon Butt	26
● Spring	27
● Hardware	28
TECHNICAL SECTION	
● Projection Hinges	29
● Woodscrews	30
● British Standards	31
- Table A: Hinge Grades	32
● Hinge Installation	33
- Table B: Frequency of Use	34
- Table C: Door Weights	34
- Table D: Side Loadings	34
- Table E: Adjustable Door Weight Calculations	34



Member of the
Guild of Architectural
Ironmongers



Certificate N°. FS60430
BS EN ISO 9001: 2000

Specification Guide

INTRODUCTION

Simonswerk UK manufacture high performance, quality hinges and hardware for doors, windows cabinets and conservatories. Our experience enables us to provide the following specification information to assist with the selection of the correct hinge for the right function. Further technical information and tables can be found at the end of this catalogue.

UK GUARANTEES

All our hinges are given a weight loading based on three hinges per door leaf. Where we give a recommendation of 10 kilos and above, we will guarantee the performance of the hinge for 10 years, subject to compliance with fitting instructions provided in every box of hinges. Selected hinges specify a 25 year guarantee where stated.

HINGE TYPES

- Brass - produced to precise standards, in a wide range of anti-bacterial quality finishes for trouble free use. Suitable for fire doors where indicated.
- Aluminium - high standard hinges in a variety of finishes. Not suitable for fire doors.
- Stainless Steel - "Rolled Joint" method of manufacture, with good durable surface finish, which performs well when fitted with Ball Races.
- Projection - The **P** symbol shown next to various hinge reference numbers throughout the catalogue identifies projection hinges which are drilled with holes towards the edge of a broad hinge leaf enabling the hinge to clear obstructions when fully opened beyond 90°.

SELECTION - Refer to Technical Section

When deciding on finish and the best hinge for each application take into account adjusted door weight; appearance to match both the environment and product; position of doors or windows within a building and direction of opening; type of building use e.g. hospital and its location e.g. coastal situation; frequency of use; security and fire resistance requirements.

SPECIFICATION

C E Marking - To comply with the new UK Construction Products Regulations CE marking is required for hinges used on fire, smoke and escape route doors. Hinges marked in the catalogue with a CE Reference have been successfully performance tested and fire tested up to 30 minutes and 1hr respectively.

European Standards - Hinges detailed in this catalogue comply as required to the new European Standard BS/EN 1935 : 2002 which replaced the previous standard BS 7352 : 1990. The standard covers Building Hardware - Single-Axis Hinges - Requirements and Test Methods as detailed in table A shown in the Technical Section.

Building Regulations - Approved Document B to the Building Regulations (England and Wales) recognises the importance of independent product conformity certification. It states: 'Third party conformity certification schemes not only provide a means of identifying materials and designs of systems, products or structures which have demonstrated that they have the requisite performance in fire, but additionally provide confidence that the systems, materials, products or structures actually supplied are provided to the same specification or design as that tested/assessed.'

The estimated frequency of operation of doors is shown in table B in our technical section.

Corrosion - Hinges are tested in a laboratory controlled environment for corrosion resistance as specified in BS EN 1670:1998.

Strength & Durability - Specification for hinges detailed in this catalogue meet European Standard BS/EN 1935 : 2002.

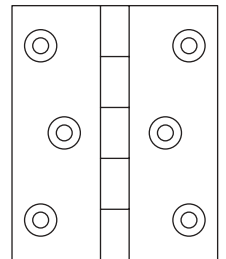
Unwashed Brass Butt Hinges

0920 • 0940 • 0950 • 0955 • 0960 • 0965 • 0970 • 1010 • 1020 • 1030 • 1040 • 1050 • 1070 • 1080

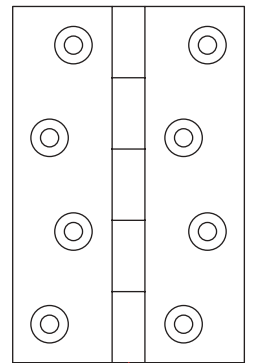
- Unwashed plain brass butt hinges with 10 year performance guarantee
- Suitable for cabinets and lightweight flush doors and windows
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required



0970



1020



1040

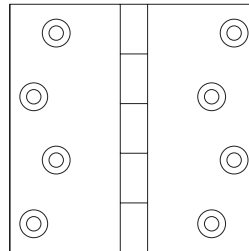
Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
0920	-	38	23	4	1.6	4g
0940	-	51	28.5	5	1.7	4g
0950	-	51	38	6	2.3	6g
0955	-	63	28.5	5.5	1.7	4g
0960	-	63	35	5.5	2	6g
0965	10kg	75	35	5.5	2	6g
0970	10kg	75	42	6	2	8g
1010	20kg	75	50	7.8	2.9	8g
1020	20kg	75	60	8.5	3	8g
1030	20kg	100	60	8.5	3.1	8g
1040	20kg	100	65	9.2	3.5	10g
1050	20kg	100	75	11	4	10g
1070	20kg	125	75	11	4.7	12g
1080	20kg	150	75	11	4.7	12g



Unwashed Brass Projection Hinges

P1025 • P1060 • P1085 • P1090 • P1095



P1060

P1025

- Unwashed plain brass projection hinges with 10 year performance guarantee
- Suitable for lightweight flush doors & French windows
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size	Amount of Projection (mm)
P1025	20kg	75	75	11	4	10g	32
P1060	20kg	100	100	11	4	12g	50
P1085	20kg	150	100	11	4	12g	50
P1090	40kg	125	125	12.7	4.7	12g	68
P1095	40kg	150	125	12.7	4.7	12g	86

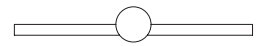
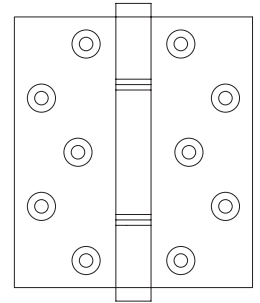


High Performance Hinges

SAMSON 1880

Samson

- High performance bearing brass hinge with **25 year performance guarantee**
- Suitable for heavy weight flush doors tested to BS EN 1935 **Grade 12**
- Maintenance free
- Security dog bolt, radius corner and designer finial options available
- **CE marked** version suitable for use on 1 hour and 1/2 hour fire and escape doorsets - supplied complete with intumescent pads
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Additional Special Finishes:
 - Antique bronze
 - Copper bronze
 - Pewter
 - Black chrome
- Supplied complete with fixing screws if required



1880

1880

Designer Finial Options



Star

Basic

Cross

Planet

Soft

Top

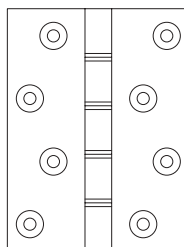
Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
1880	100kg	100	88	13	3	10g
1880CE	100kg	100	88	13	3	10g



Double Stainless Steel Washered Brass Butt & Projection Hinges

1210 • 1230 • 1240 • 1250 • P1225 • P1260



1250

1210

- Double stainless steel tab washed brass butt & projection hinges with 10 year performance guarantee
- Suitable for medium to heavy weight flush doors
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required

Technical Data

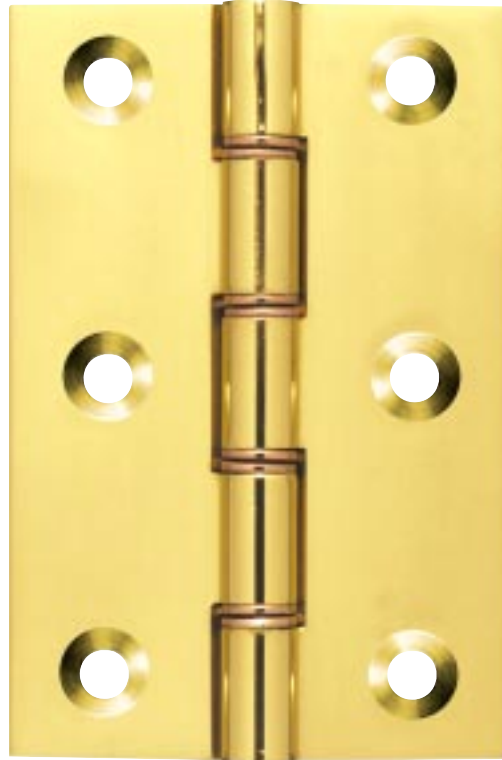
Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size	Amount of Projection (mm)
Butt Hinges							
1210	20kg	75	50	7.8	3	8g	-
1230	20kg	100	60	8.5	3.1	10g	-
1240	40kg	100	65	9.2	3.5	10g	-
1250	40kg	100	75	11	4	10g	-
Projection Hinges							
P1225	20kg	75	75	11	4	10g	32
P1260	40kg	100	100	11	4	12g	50



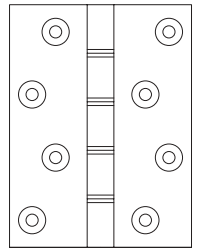
Double Phosphor Bronze Washered Brass Butt & Projection Hinges

1210 • 1240 • 1250 • 1270 • 1280 • P1260 • P1262 • P1264 • P1266 • P1285

- Double phosphor bronze tab washed brass butt & projection hinges with 10 year performance guarantee
- Suitable for medium to heavy weight flush doors **Grade 7**
- **CE marked** versions suitable for use on 1/2 hour fire and escape doorsets
 - supplied complete with intumescent pads
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required



1210



1250

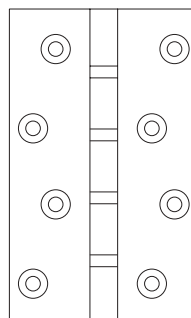
Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size	Amount of Projection (mm)
Butt Hinges							
1210	20kg	75	50	7.8	3	8g	-
1240	40kg	100	65	9.2	3.5	10g	-
1240CE	40kg	100	65	9.2	3.5	10g	-
1250	40kg	100	75	11	4	10g	-
1250CE	40kg	100	75	11	4	10g	-
1270	40kg	125	75	11	4.7	12g	-
1270CE	40kg	125	75	11	4.7	12g	-
1280	40kg	150	75	11	4.7	12g	-
1280CE	40kg	150	75	11	4.7	12g	-
Projection Hinges							
P1260	40kg	100	100	11	4	12g	50
P1260CE	40kg	100	100	11	4	12g	50
P1262	80kg	100	125	12.5	5	12g	75
P1264	80kg	100	150	12.5	5	12g	85
P1266	80kg	100	200	12.5	5	12g	120
P1285	40kg	150	100	11	4	12g	50
P1285CE	40kg	150	100	11	4	12g	50



Ball Race Brass Butt & Projection Hinges

1540 • 1550 • 1570 • 1580 • P1560 • P1585 • P1590 • P1595



1570

1550

- Ball race brass butt & projection hinges with 10 year performance guarantee
- Suitable for heavy weight flush doors **Grade 11**
- **CE marked** versions suitable for use on 1/2 hour fire and escape doorsets
 - supplied complete with intumescent pads
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size	Amount of Projection (mm)
Butt Hinges							
1540	60kg	100	65	9.2	3.5	10g	-
1540CE	60kg	100	65	9.2	3.5	10g	-
1550	80kg	100	75	11	4	10g	-
1550CE	80kg	100	75	11	4	10g	-
1570	80kg	125	75	11	4.7	12g	-
1570CE	80kg	125	75	11	4.7	12g	-
1580	80kg	150	75	11	4.7	12g	-
1580CE	80kg	150	75	11	4.7	12g	-
Projection Hinges							
P1560	80kg	100	100	11	4	12g	50
P1560CE	80kg	100	100	11	4	12g	50
P1585	80kg	150	100	11	4	12g	50
P1585CE	80kg	150	100	11	4	12g	50
P1590	80kg	125	125	12.7	4.7	12g	68
P1590CE	80kg	125	125	12.7	4.7	12g	68
P1595	80kg	150	125	12.7	4.7	12g	68
P1595CE	80kg	150	125	12.7	4.7	12g	68



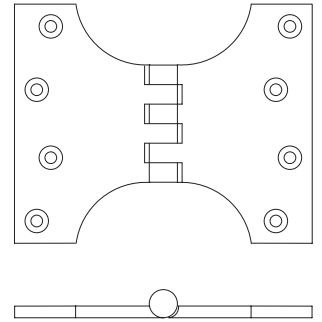
Unwashed Brass Parliament Hinges

P0550 • P0560 • P0570

- Brass parliament hinges with 10 year performance guarantee
- Suitable for lightweight flush doors & french windows
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required



P0560



P0560

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size	Amount of Projection (mm)
P0550	-	102	102	11	4	10g	64
P0560	-	102	127	12.7	5	10g	75
P0570	-	102	152	12.7	5	12g	100

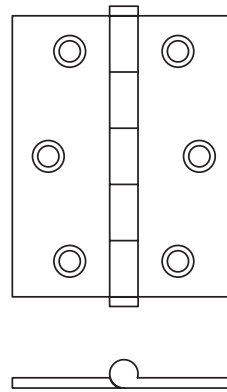


Unwashed Finial Brass Butt Hinges

0300 • 0305 • 0310 • 0315 • 0320 • 0325



0305



0315

- Unwashed brass cabinet hinges with detachable decorative finials
- Suitable for cabinet doors
- Supplied as standard with detachable button tip ends, ball or steeple finials sold separately
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
0300	20kg	38	38	6.3	2.2	6g
0305	20kg	50	38	6.3	2.2	6g
0310	20kg	50	50	6.3	2.2	6g
0315	20kg	63	50	6.3	2.2	6g
0320	20kg	63	63	6.3	2.2	6g
0325	20kg	75	50	6.3	2.2	6g

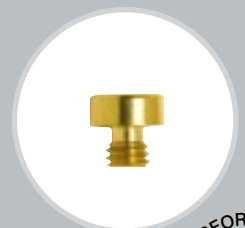
Ball



Steeple



Button Tip

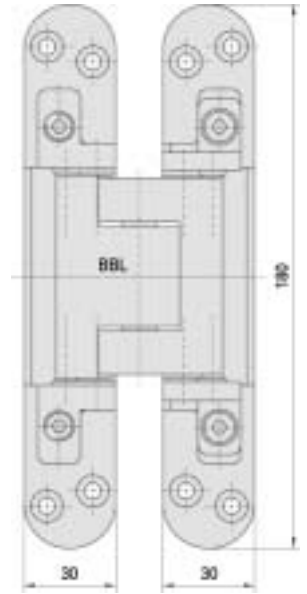


2D Adjustable Concealed Hinges

TECTUS TE 510 HU

Tectus

- Concealed adjustable hinges
- Suitable for heavy weight flush doors
- Slide bearing maintenance free
- Two dimensionally adjustable
 - Vertical +/- 3mm
 - Horizontal +/- 3mm
- Opening angle of 180°
- Standard Finishes:
 - Stainless steel look
 - coloured powder coated
 - F1 matt chrome
 - F2 matt nickel
- Fire tested to BS EN 1634
 - 30 minutes - supplied with intumescent kit
- 3D Version available in 3 sizes
 - 140mm for door weights upto 60kg
 - 180mm for doors upto 100kg and 210mm for doors weighing upto 180kgs.



TE 510 HU



TE 510 3D

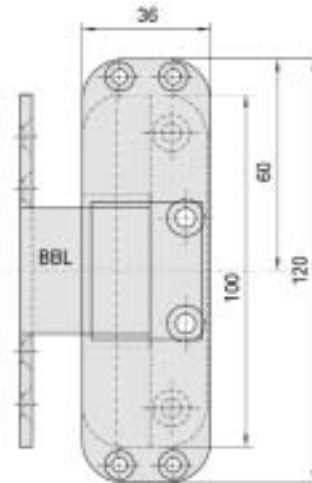


Technical Data

Hinge Ref N°	Load Capacity (2 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
TE 510 HU	100kg	180	30	-	34	5g

3D Adjustable Concealed Hinges

GLOBUS STG 3D 100.3,5.46VB



Globus

- Concealed adjustable hinges
- Suitable for heavy weight flush doors
- Used with UK3D receiver in the mounted sash allowing three dimensional adjustment
 - Vertical +/- 1mm
 - Horizontal +/- 2.5mm
 - Depth +/- 3mm
- Maintenance free bearing
- Opening angle of 115°
- Non handed application
- Quick release action to dismount sash
- Standard Finish:
 - Stainless steel



UK 3D Receiver



Technical Data

Hinge Ref N°	Load Capacity (2 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
STG 3D 100	60kg	120	36	-	-	5g

2D Adjustable Hinges

Columbus 2D/Ultimate 2D/Columbus Millennium 2D

Columbus/Ultimate

- Two way adjustable hinges allow easy adjustment to doors horizontally and vertically with the turn of a screw
- Adjustment:
Height +/- 2.5mm
Side +/- 2mm
- Millennium version benefits from concealed bearings
- Quick and easy mounting
- Maintenance free
- Optional security device for outward opening doors
- Finishes include:
Brassed
Polished Chromed
Antique
Gilded
Stainless Steel
Satin
Nickel
- Powder Coated Colours:
Silver
White
Black
Brown
Gold
- Other finishes available to special order
- Doors should be mounted using 2 guide and 1 set hinges



Ultimate 2D



Set Hinge



Guide Hinge

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
Columbus 2D/Ultimate 2D						
Guide	70kg	92	32	13	-	-
Set	70kg	92	32	13	-	-
Columbus Millennium 2D						
Guide	70kg	101	33	15	-	-
Set	70kg	101	33	15	-	-

3D Adjustable Hinges

Columbus 3D/Columbus Millennium 3D



Columbus Millennium 3D



Allen Key Adjustment

Columbus

- Easy adjustment to door position in all three directions
- Adjustment:
Height +/- 3mm
Side +/- 2mm
Depth +/- 4mm
- Millennium version benefits from concealed bearings
- Quick and easy mounting
- Maintenance free
- Optional security device for outward opening doors
- Finishes include:
Brassed
Polished Chromed
Antique
Gilded
Stainless Steel
Satin
Nickel
- Powder Coated Colours:
Silver
White
Black
Brown
Gold
- Other finishes available to special order

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
Columbus 3D						
-	70kg	92	32	15	-	-
Columbus Millennium 3D						
-	70kg	101.5	32	15	-	-

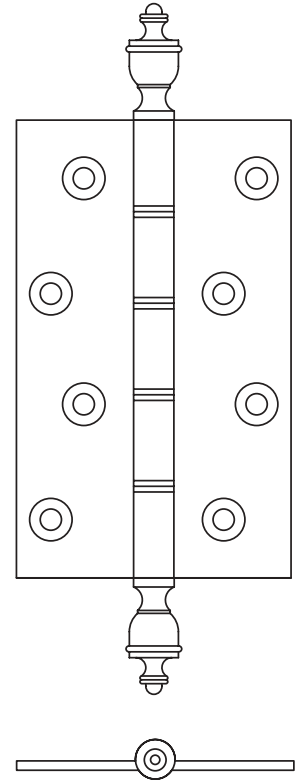
Double Phosphor Bronze Washered Brass Finial Butt & Projection Hinges

1410 • 1440 • 1450 • 1470 • 1480 • P1460 • P1462 • P1464 • P1466 • P1485

- Double phosphor bronze tab washed brass finial hinges with 10 year performance guarantee
- Available with urn or ball type decorative finials
- Suitable for medium to heavy flush doors **Grade 7**
- **CE marked** versions suitable for use on 1/2 hour fire and escape doorsets - supplied complete with intumescent pads
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required



1450



1470

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size	Amount of Projection (mm)
Butt Hinges							
1410	20kg	75	50	7.8	3	8g	-
1440	40kg	100	65	9.2	3.5	10g	-
1440CE	40kg	100	65	9.2	3.5	10g	-
1450	40kg	100	75	11	4	10g	-
1450CE	40kg	100	75	11	4	10g	-
1470	40kg	125	75	11	4.7	12g	-
1470CE	40kg	125	75	11	4.7	12g	-
1480	40kg	150	75	11	4.7	12g	-
1480CE	40kg	150	75	11	4.7	12g	-
Projection Hinges							
P1460	40kg	100	100	11	4	12g	50
P1460CE	40kg	100	100	11	4	12g	50
P1462	80kg	100	125	12.5	5	12g	75
P1464	80kg	100	150	12.5	5	12g	85
P1466	80kg	100	200	12.5	5	12g	120
P1485	40kg	150	100	11	4	12g	50
P1485CE	40kg	150	100	11	4	12g	50



Ball



Urn

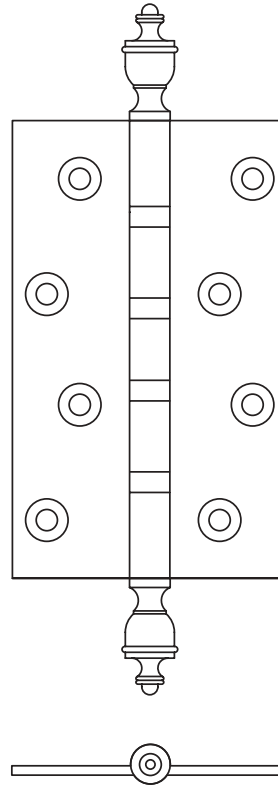


Ball Race Finial Brass Butt & Projection Hinges

1640 • 1650 • 1670 • 1680 • P1660 • P1685



1650



1670

- Ball race brass finial & projection finial hinges with 10 year performance guarantee
- Available with urn or ball type decorative finials
- Suitable for medium to heavy weight flush doors **Grade 11**
- **CE marked** versions suitable for use on 1/2 hour fire and escape doorsets
 - supplied complete with intumescent pads
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size	Amount of Projection (mm)
Butt Hinges							
1640	60kg	100	65	9.2	3.5	10g	-
1640CE	60kg	100	65	9.2	3.5	10g	-
1650	80kg	100	75	11	4	10g	-
1650CE	80kg	100	75	11	4	10g	-
1670	80kg	125	75	11	4.7	12g	-
1670CE	80kg	125	75	11	4.7	12g	-
1680	80kg	150	75	11	4.7	12g	-
1680CE	80kg	150	75	11	4.7	12g	-
Projection Hinges							
P1660	80kg	100	100	11	4	12g	50
P1660CE	80kg	100	100	11	4	12g	50
P1685	80kg	150	100	11	4	12g	50
P1685CE	80kg	150	100	11	4	12g	50

Ball



Urn



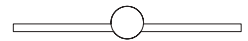
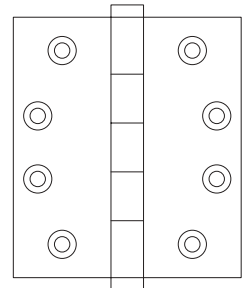
Unwashed Brass Finial Projection Hinges

P4020 • P4030 • P4040 • P4060 • P4075

- Unwashed brass finial projection hinges with 10 year performance guarantee
- Available with threaded detachable button, urn or ball decorative feature finials
- Suitable for medium to light weight flush doors
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required
- Drilled to ANSI pattern



P4060



P4060



Ball



Urn



Button Tip

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size	Amount of Projection (mm)
P4020	20kg	76	76	12.7	3	10g	32
P4030	40kg	89	89	12.7	3	10g	38
P4040	40kg	100	89	12.7	3.3	10g	38
P4060	40kg	102	102	12.7	3.3	12g	48
P4075	40kg	114	114	12.7	3.3	12g	48

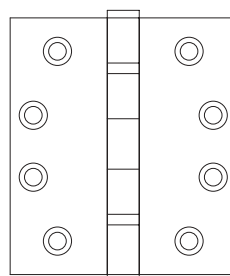


Phosphor Bronze Washered Brass Finial Projection Hinges

P4220 • P4230 • P4240 • P4260 • P4275



P4260



P4260

- Phosphor bronze washed brass projection hinges with 10 year performance guarantee
- Available with threaded detachable button, urn or ball decorative feature finials
- Suitable for medium to light weight flush doors
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required
- Drilled to ANSI pattern

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size	Amount of Projection (mm)
P4220	20kg	76	76	12.7	3	10g	38
P4230	40kg	89	89	12.7	3	10g	38
P4240	40kg	100	89	12.7	3.3	10g	38
P4260	40kg	102	102	12.7	3.3	12g	48
P4275	40kg	114	114	12.7	3.3	12g	48

Ball



Urn



Button Tip



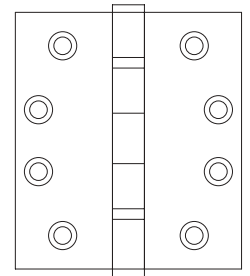
Ball Race Brass Finial Projection Hinges

P4620 • P4630 • P4640 • P4660 • P4675

- Ball race brass finial projection hinges with 10 year performance guarantee
- Available with threaded detachable button, urn or ball decorative feature finials
- Suitable for medium to light weight flush doors
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required
- Drilled to ANSI pattern



P4660



P4660



Ball



Urn



Button Tip

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size	Amount of Projection (mm)
P4620	40kg	76	76	12.7	3	10g	38
P4630	60kg	89	89	12.7	3	10g	38
P4640	80kg	100	89	12.7	3.3	10g	38
P4660	80kg	102	102	12.7	3.3	12g	48
P4675	80kg	114	114	12.7	3.3	12g	48

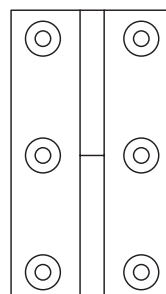


Brass Special Purpose Hinges

0901 • 0902 • 0400 • 0410 • 0420 • 0430



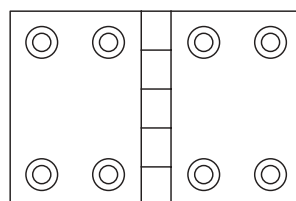
0901 Brass Lift Off Hinge



0901



0420 Brass Back Flap Hinge



0420

- Brass lift off hinges for easy removal of the door
- Suitable for use on cabinets and lightweight doors
- Lift off hinges are handed, see fig 2 Page 33
- Brass back flap hinges for face fixing
- Suitable for use on wooden box lids, wooden chests etc
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required

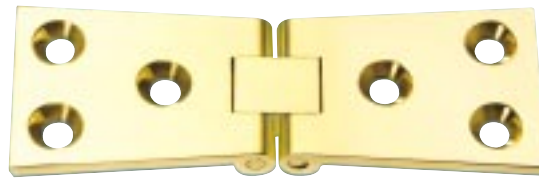
Technical Data

Hinge Ref N°	Load Capacity (2 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
Brass Lift Off Hinges						
0901	10kg	75	42	6	2	8g
0902	20kg	75	50	7.8	2.9	8g
Brass Back Flap Hinges						
0400	5kg	32	48	5.5	1.9	6g
0410	10kg	38	60	6.3	2.1	6g
0420	15kg	51	76	7.8	2.9	8g
0430	20kg	76	127	9.3	4	12g

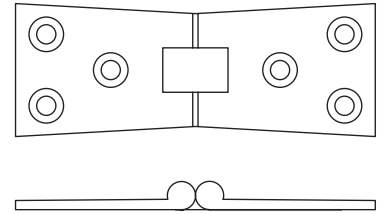
Brass Special Purpose Hinges

0500 • 0510 • 0520 • 0600 • 0610

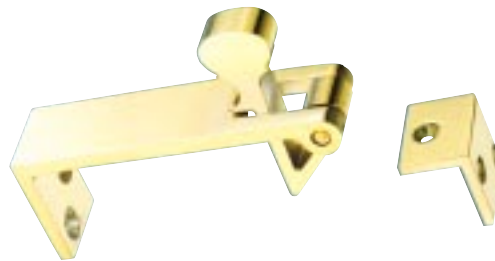
- Brass counterflap hinges for setting in flush on wooden counters
- Suitable for bar and shop counters
- Also available with straight edge and radius corners.
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required



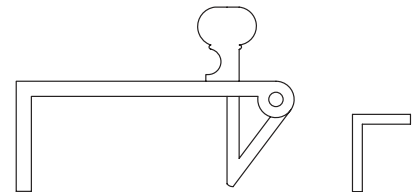
0510 Brass Counter Flap Dovetail Hinge



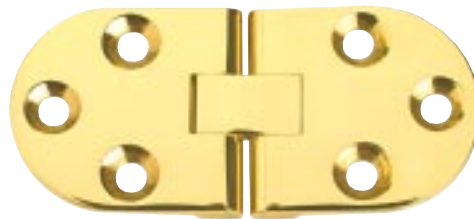
0510



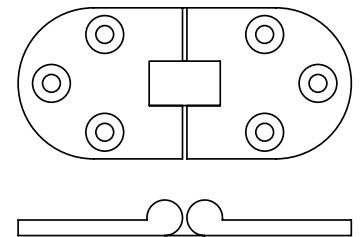
0600 - Counterflap Catch



0600



0610 Brass Counter Flap Hinge



0610

Technical Data

Hinge Ref N°	Load Capacity (2 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
Brass Counter Flap Dovetail Hinges						
0500	5kg	25	76	-	2.6	8g
0510	10kg	32	101	-	3.2	10g
0520	10kg	38	114	-	4	10g
Counter Flap Catch						
0600	-	36	92	-	4	6g
Brass Counter Flap Radius Cornered Hinges						
0610	-	34	76	-	4	10g

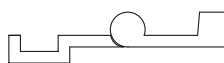
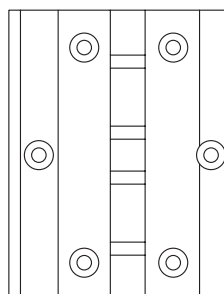


Brass Security Butt Hinges

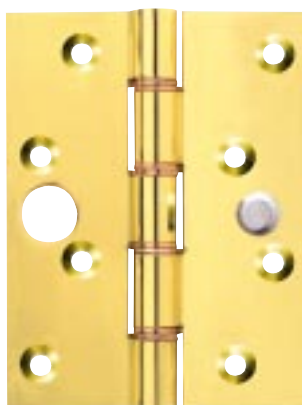
1750 • 1240s • 1250s • P1260s



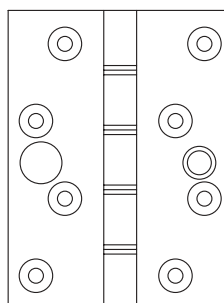
1750



1750



1250s



1250s

Security hinge made from Manganese bronze

- Prevents access by removal of hinge pins
- Retains the two hinge leaves together even when pin is taken out, by using specially shaped extrusions
- Hardened rollers prevent attack by hacksaw blades
- Suitable for heavy weight outward opening flush doors.

Security bolt double phosphor bronze washered brass hinges

- Prevents access by removal of hinge pins
- Retains the two hinge leaves together even when pin is taken out, by using bolt in one leaf & hole in corresponding hinge leaf.
- Rotating bolts prevent attack by hacksaw blades
- Suitable for heavy weight outward opening flush doors.

Standard Finishes:

- Self Colour
- Polished & lacquered
- Satin brass & lacquered
- Satin chromium plate
- Polished chromium plate
- Satin nickel plate
- Polished nickel plate
- Imitation bronze metal antique

- Special finishes available upon request
- Supplied complete with fixing screws if required

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
4 Ball Race Brass Security Butt Hinges						
1750	80kg	100	75	-	-	10g
Security Bolt Double Phosphor Bronze Washered Brass Security Hinges						
1240s	40kg	100	65	9.2	3.5	10g
1250s	40kg	100	75	11	4	10g
P1260s	40kg	100	100	11	4	12g



Brass Security Butt Hinges

1540s • 1550s • P1560s • 0020

Security bolt ball race brass hinges

- Prevents access by removal of hinge pins
- Retains the two hinge leaves together even when pin is taken out, by using bolt in one leaf & hole in corresponding hinge leaf.
- Rotating bolts prevent attack by hacksaw blades
- Suitable for heavy weight outward opening flush doors.

Standard Finishes:

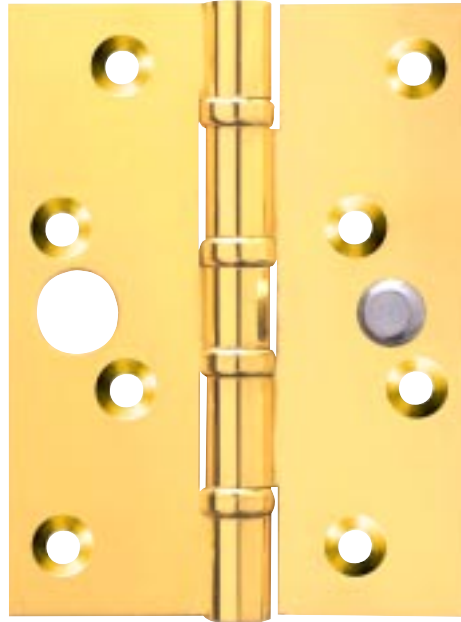
- Self Colour
- Polished & lacquered
- Satin brass & lacquered
- Satin chromium plate
- Polished chromium plate
- Satin nickel plate
- Polished nickel plate
- Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required

Security hinge bolt and receiver

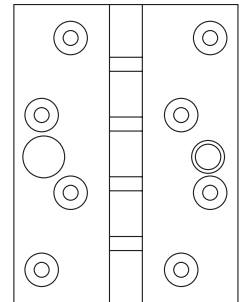
- Prevents access by removal of hinge pins
- Bolts the door & frame together even when pin is taken out, by fixing a bolt into the hinge side of the door & receiver into the frame these engage when the door is in the closed position
- Suitable for outward opening doors

Standard Finish:

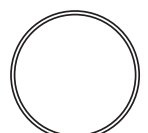
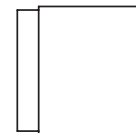
- Yellow Galvanised



1550s



1550s



0020

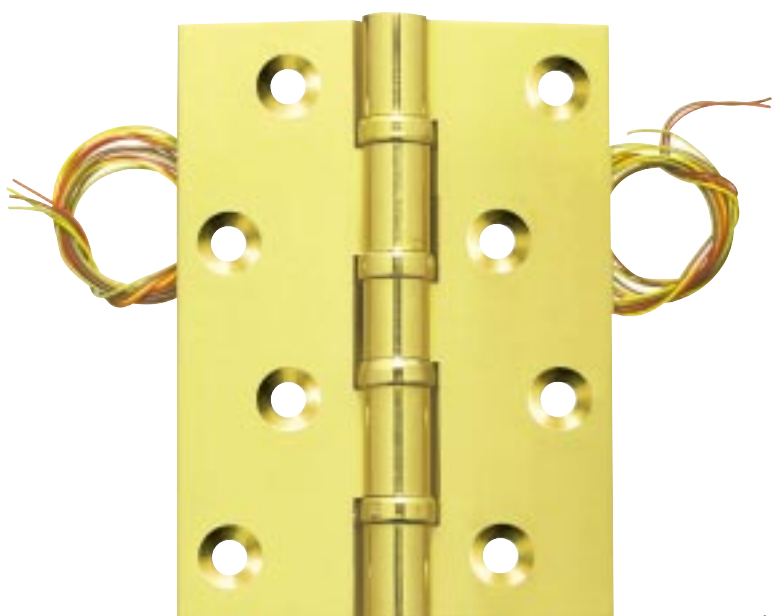
Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
Security Bolt Ball Race Brass Hinges						
1540s	60kg	100	65	9.2	3.5	10g
1550s	80kg	100	75	11	4	10g
P1560s	80kg	100	100	11	4	12g
Security Hinge Bolt and Receiver						
0020	-	50	11	-	-	-

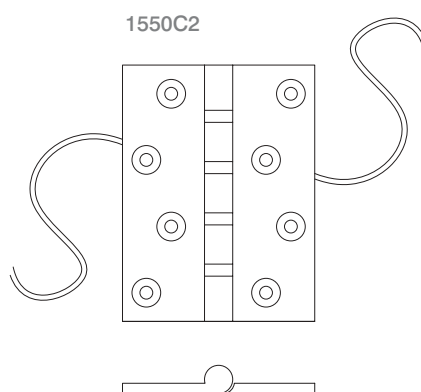


Ball Race Brass Conductor Butt Hinges

1550C2 • 1550C4 • 1550C6 • 1550C8



1550C8



- Hidden transfer of wires from door to frame
- Eliminates the need for an armoured loop, which are usually exposed to vandals.
- Capacity 2 wire 24V 5 Amps
- 2, 4 ,6 or 8 wire options
- Suitable for heavy weight flush doors
- Standard Finishes:
 - Self Colour
 - Polished & lacquered
 - Satin brass & lacquered
 - Satin chromium plate
 - Polished chromium plate
 - Satin nickel plate
 - Polished nickel plate
 - Imitation bronze metal antique
- Special finishes available upon request
- Supplied complete with fixing screws if required

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
1550C2	80kg	100	75	11	4	10g
1550C4	80kg	100	75	11	4	10g
1550C6	80kg	100	75	11	4	10g
1550C8	80kg	100	75	11	4	10g



Rising & Falling Hinges

2810 • 2840 • 2811 • 2841 • 0200 • 1810 • 1840 • 1811 • 1841 • 0100

Brass rise & fall hinges

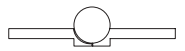
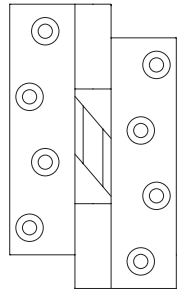
- Rise or fall of 13mm at 180°
- Brass Pin
- Fitted with heavy duty bronze skewers for long life & high resistance to corrosion
- Radius corners optional
- Handed left or right see fig 2 page 33
- Suitable for medium weight toilet cubicle & internal flush doors
- Supplied complete with fixing screws if required



1840



1841



1840

Brass support hinge

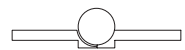
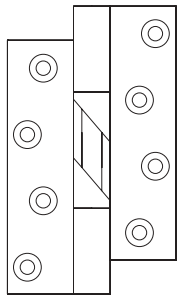
- Fitted with one pair of normal brass rising hinges
- Increases weight carrying capacity up to 65 kilos
- Supports the top of the door preventing any leverage problems
- Handed left or right see fig 2 page 33
- Supplied complete with fixing screws if required



2840



2841



2840

Standard Finishes:

- Self Colour
- Polished & lacquered
- Satin brass & lacquered
- Satin chromium plate
- Polished chromium plate
- Satin nickel plate
- Polished nickel plate
- Imitation bronze metal antique
- Special finishes available upon request

Aluminium rise & fall hinges

- Rise or fall of 13mm at 180°
- Galvanised steel pin
- Fitted with medium duty galvanised steel skewers
- Radius corners optional
- Handed left or right see fig 2 page 33
- Suitable for medium weight toilet cubicle & internal flush doors
- Supplied complete with fixing screws if required
- Finishes:
 - Etched & Anodised
 - Polished & Anodised

Technical Data

Hinge Ref N°	Load Capacity (2 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
Aluminium Rising Hinges						
2810	20kg	75	65	14.5	4	10g
2840	25kg	100	65	14.5	4	10g
Aluminium Falling Hinges						
2811	20kg	75	65	14.5	4	10g
2841	25kg	100	65	14.5	4	10g
Brass Rising Hinges						
1810	40kg	75	65	14.5	4	10g
1840	45kg	100	65	14.5	4	10g
Brass Falling Hinges						
1811	40kg	75	65	14.5	4	10g
1841	45kg	100	65	14.5	4	10g
Brass Support Hinge for Rising Hinges						
0100	65kg	100	65	14.5	4	10g
Aluminium Support Hinge for Rising Hinges						
0200	45kg	100	65	14.5	4	10g

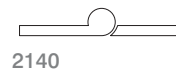
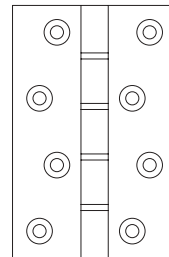


Aluminium/Nylon Butt Hinges

2110 • P2120 • 2140 • 2150 • 2010 • 2040 • 2050 • 2550 • 3205



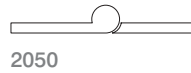
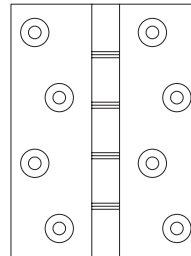
2140



2140



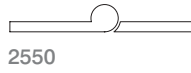
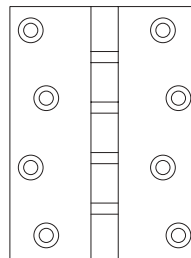
2050



2050



2550



2550

Single derlin washed aluminium butt hinges

- 10 year performance guarantee
- Aluminium pin
- Suitable for medium weight flush doors

Double stainless steel tab washed aluminium butt hinges

- 10 year performance guarantee
- Stainless steel pin
- Suitable for medium to heavy weight flush doors

Ball race aluminium butt hinges

- 10 year performance guarantee
- Stainless steel pin

Finishes:

- Etched & Anodised
- Polished & Anodised

- Special finishes available upon request
- Supplied complete with fixing screws if required

Nylon Butt Hinges

- Zinc Plated Steel Pin
- 10 year guarantee does not apply

Finishes:

- Bronze
- Natural

Technical Data

Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	Leaf Thickness (mm)	Screw Size
Single Delrin Washered Aluminium Butt Hinges						
2110	20kg	75	50	10	3	8g
P2120	20kg	75	75	10.8	4	8g
2140	20kg	100	65	10.8	4	10g
2150	20kg	100	75	10.8	4	10g
Double Stainless Steel Washered Aluminium Butt Hinges						
2010	20kg	75	50	10	3	8g
2040	40kg	100	65	10.8	4	10g
2050	40kg	100	75	10.8	4	10g
Ball Race Aluminium Butt Hinges						
2550	40kg	100	75	10.8	4	10g
Nylon Butt Hinge						
3205	10kg	75	50	8	3	7g



Spring Hinges

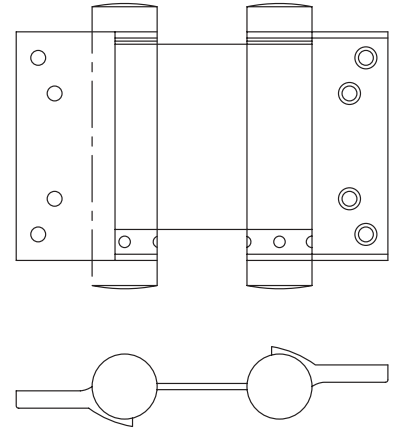
0103 • 0101

Steel single action spring hinges

- Adjustable spring tension
- Finishes:
 - Zinc Plated
 - Brass plated



0101



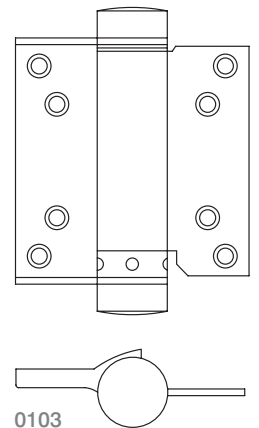
0101

Brass single action spring hinges

- Adjustable spring tension
- Finishes:
 - Polished Brass



0103



0103

Steel double action spring hinges

- Supplied with complete set of fitting instructions
- Adjustable spring tension
- Finishes:
 - Zinc Plated
 - Brass plated

Brass double action spring hinges

- Supplied with complete set of fitting instructions
- Adjustable spring tension
- Finishes:
 - Polished Brass
- 10 year guarantee does not apply to spring hinges

Technical Data

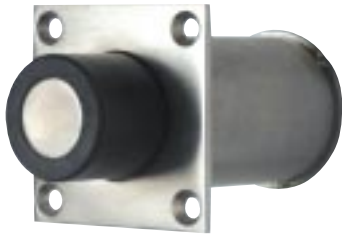
Hinge Ref N°	Load Capacity (3 Hinges)	Height (mm)	Width (mm)	Knuckle Diameter (mm)	To Suit Maximum Door Thickness (mm)	Screw Size
Steel Single Action Spring Hinges						
0103	18kg	75	-	21	-	6g
0103	25kg	100	-	21	-	6g
0103	30kg	125	-	21	-	8g
0103	45kg	150	-	21	-	8g
Brass Single Action Spring Hinges						
0103	18kg	75	-	21	-	6g
0103	25kg	100	-	21	-	6g
0103	30kg	125	-	21	-	8g
0103	45kg	150	-	21	-	8g
Steel Double Action Spring Hinges						
0101	18kg	75	-	21	28	6g
0101	25kg	100	-	21	34	6g
0101	30kg	125	-	21	45	8g
0101	45kg	150	-	21	45	8g
Brass Double Action Spring Hinges						
0101	18kg	75	-	21	28	6g
0101	25kg	100	-	21	34	6g
0101	30kg	125	-	21	45	8g
0101	45kg	150	-	21	45	8g

Hardware

Stainless Steel Flush Bolts



Floor Stop Hold Open Device



Aluminium B/Fix Cupboard Knob



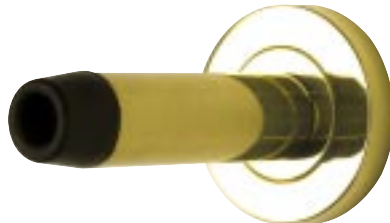
Aluminium Face Fix Door Stop on Round Rose



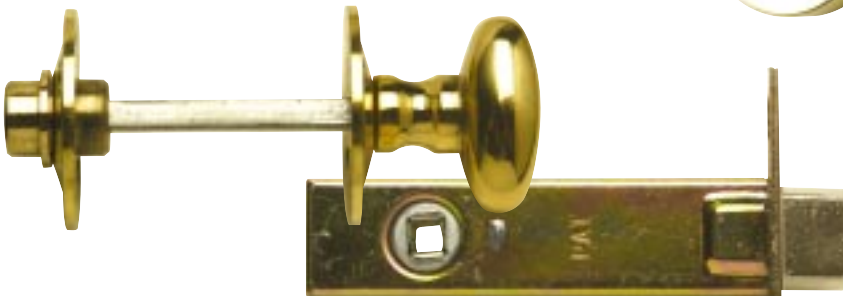
Brass Oval Door Stop



Brass Door Stop on Brass Concealed Fix Round Rose



Security Mortice Bolt and Oval Turn



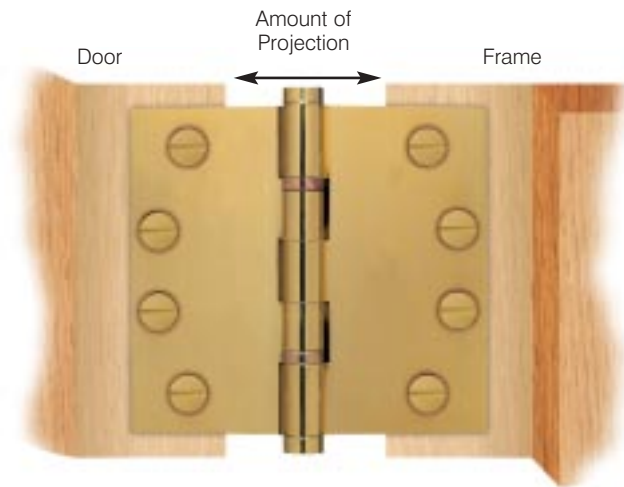
Aluminium Commercial Letter Plate

A wide range of hardware is also available including:

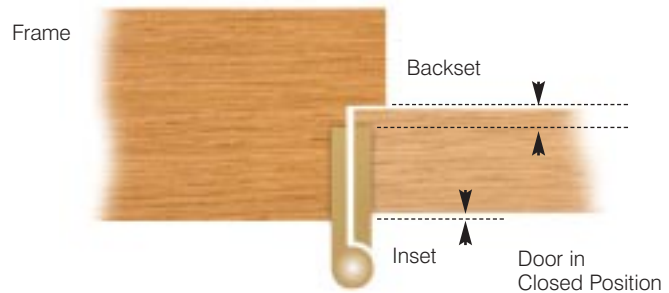
- Floor Stops
- Floor Hold Open Devices
- Mortice Bolts
- Stainless Steel Flush Bolts
- Door Stops
- Domestic Letter Plates
- Commercial Letter Plates
- Handles and Knobs
- Hat and Coat Hooks
- Cylinder Pulls

For information on these products please refer to our price list.

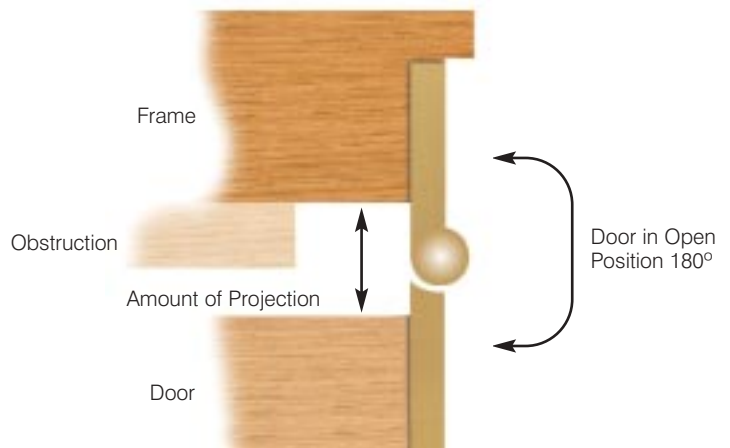
Hinges Drilled for Projection



The 'P' symbol shown next to various hinges throughout the price list highlights our Projection Hinges. These are drilled with holes towards the edge of a broad hinge leaf enabling the hinge to clear obstructions when fully open beyond 90°.



It is recommended that the backset should not be less than 12mm (14mm if using an intumescent strip).



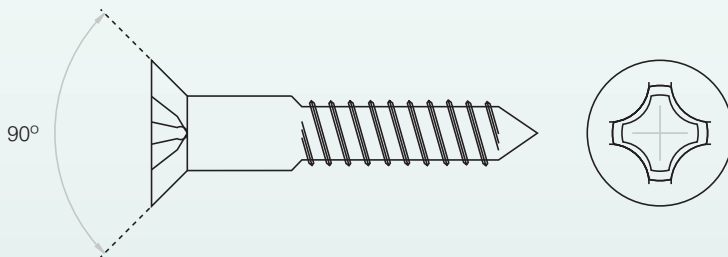
When a door is to be opened beyond 90° the width of a hinge can be calculated as follows:
 Door thickness plus inset (Normally 1/8" 3.2mm) less backset.
 Double this and add clearance required.

Woodscrews

Customers have the option of buying brass and aluminium hinges complete with the appropriate size and finish of woodscrews. These screws are made by a leading international manufacturer of woodscrews and are all recessed head type (Phillips Head).

The screws are approximate matching finishes for the hinges, and although not a perfect match, are the nearest finish available.

Details are as follows:-



Gauge/Size				
N°4 x 1/2 " (12.7mm)	N°6 x 1/2 " (12.7mm)	N°8 x 1" (24mm)	N°10 x 1.1/4 " (32mm)	N°12 x 1.1/4 " (32mm)

Finish of Hinge	Finish of Screws
Brass: Self Colour	Brass: Self Colour
Polished Brass	Brass: Bright Brass Plated and Lacquered
Satin Chrome	Brass: White Imitation Chrome. Bright Tin Plated on Bright Nickel
Polished Chrome	Brass: Blue Imitation Chrome. Bright Zinc Plated on Bright Nickel.
B.M.A. Finish on Brass Hinges	Brass: Copper Plated and Oxidisation to Bronze Colour
Bronze Nylon Hinges	Steel: Copper Plated and Oxidisation to Bronze Colour
Silver Anodised Aluminium Hinges and Natural Nylon Hinges	Steel: Copper Plated and Oxidisation to Bronze Colour
Stainless Steel	Stainless Steel: Self Colour

Woodscrews can also be bought separately in box quantities of 200.

The standard provides details on product types, classification by use, test cycles, door mass, corrosion resistance, as well as definitions, product performance requirements, test apparatus, test methods and making of products. In addition, the published standards include annexes illustrating the various points made through diagrams and supplementary text.

This European Standard has replaced the previous national product performance standard BS 7352: 1990 Strength and durability performance of metal hinges for side hanging applications and dimensional requirements for template drilled hinges.

SCOPE

The standard includes a wide range of hinges and includes single axis hinges and lift off hinges for use on windows and doors.



DIGIT 1 - *Category of use*

For all internal or external doors for use by the public or others, with little or no incentive to take care. i.e. where there is chance of misuse of the door.

- Grade 1 : Light duty. Example: Domestic or office situation, areas with no access to general public.
- Grade 2 : Medium duty. Example: Domestic and office situation where limited access is allowed to the general public.
- Grade 3 : Heavy duty. Example: Public and institutional buildings such as libraries, hospitals and schools.
- Grade 4 : Severe duty. Example: Hinges for use on doors, which are subject to frequent violent usage.



DIGIT 2 - *Number of test cycles*

When deciding on finish and the best hinge for each application take into account; appearance to match both the environment and product; position of doors or windows within building and direction of opening; type of building use e.g. hospital and its location, coastal situation; frequency of use; (see tables A&B) security and fire resistance requirements.

TESTING - *Refer to Table A*

There are three categories identified for hinges manufactured to this standard.

- Grade 3 : 10,000 test cycles
- Grade 4 : 25,000 test cycles
- Grade 7 : 200,000 test cycles



DIGIT 3 - *Test door mass*

Eight test door mass grades are identified according to table 1 of this standard.



DIGIT 4 - *Fire Behaviour*

Two grades of fire behaviour are identified for hinges manufactured to this standard.

- Grade 0 : Not Suitable for use on fire resistant and / or smoke control door assemblies
- Grade 1 : Suitable for use on fire / smoke resistant door assemblies subject to satisfactory assessment of the contribution of the hinges to the fire resistance of the specified fire / door assemblies.



DIGIT 5 - *Safety*

All hinges are required to satisfy the essential requirement of safety in use. Therefore only grade 1 is identified.



DIGIT 6 - Corrosion resistance

Five grades of corrosion resistance are identified according to BS EN1670:

- Grade 0 : No defined corrosion resistance
- Grade 1 : Mild resistance
- Grade 2 : Moderate resistance
- Grade 3 : High resistance
- Grade 4 : Very high resistance



DIGIT 7 - Security - Burglar-resistance (seventh digit)

Two grades of security are identified for hinges manufactured to this European Standard:

- Grade 0 : Not suitable for use on burglar –resistant door assemblies;
- Grade 1 : Suitable for use on burglar resistant door assemblies, subject to satisfactory assessment of the contribution of the hinges to the burglar resistance of specified burglar-resistant door assemblies.



DIGIT 8 - Hinge grade

Fourteen grades of hinge are identified in this European Standard as detailed in Table A.

Table A

Grade	Max. mass of hinged door leaf kgs	Max.annual number of operations (cycles)
1	10	10,000
2	20	10,000
3	20	25,000
4	20	200,000
5	40	10,000
6	40	25,000
7	40	200,000
8	60	10,000
9	60	25,000
10	60	200,000
11	80	200,000
12	100	200,000
13	120	200,000
14	160	200,000



MARKING

The standard requires that single axis hinges manufactured in accordance with this standard for use on fire –resistant and or/ smoke control doors or locked doors on escape routes, shall be marked as follows:

- a) The manufacturers name or trademark or other means of identification
- b) The hinge grade according to Table A
- c) The number of the European Standard (BS EN 1935)

FIRE RATED HINGES

Hinges supplied for use on fire and escape door sets will be supplied complete with intumescent pads, which must be fitted behind each hinge flap, between the timber door and frame and the metal hinge leaves.

Hinge Installation

NUMBER OF HINGES

Normally three hinges are fitted to each door leaf in accordance with BS 4787 part 1. For doors exceeding 2100mm in height a fourth hinge should be used.

HINGE INSTALLATION

Hinges should be installed in accordance with the door manufacturer's recommendations and instructions. Where no such instructions are available care must be taken to ensure that the hinges are correctly aligned and fixed securely to door and frame. The screw holes should be piloted and screwheads must be flush with the hinge face to ensure that the door closes properly.

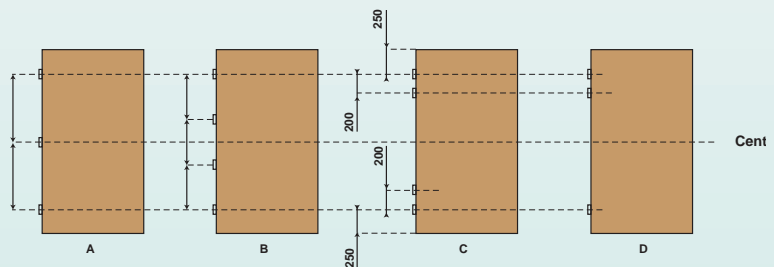
HINGE POSITIONING

It is usually acceptable to line up the centre hinge with the door handle.

Equally spaced hinges will minimise warping which may occur in environments 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 has a high frequency of use.

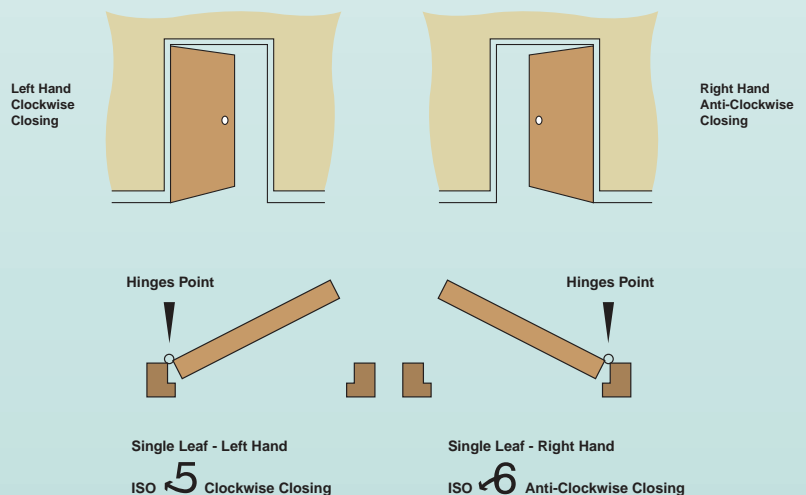
FIGURE 1



LIFT-OFF AND RISING/FALLING HINGES

Lift-off, rising and falling hinges are handed and must be specified to operate in either a clockwise closing or an anti-clockwise closing direction. The leaf with the pin in the upwards position must be fitted to the frame. Hinge operation is either clockwise closing or anti-clockwise closing and should be specified using the ISO 5 clockwise closing and ISO 6 anti-clockwise closing convention.

FIGURE 2



Hinge Installation

Table B

DOOR SITUATION AND ESTIMATED NUMBER OF OPERATIONS		
	Daily	Annually
High frequency heavy duty situations:		
Large departmental store entrances	5,000	1,500,00
Large office building entrance	4,000	920,00
Cinema or theatre entrance	1,300	455,000
School entrance	1,250	225,00
Entrance door to school toilets	1,250	225,00
City centre shop entrance	1,000	300,000
Large city bank entrance	1,000	250,000
School corridor fire door	600	108,000
Town bank entrance	500	125,000
City centre restaurant entrance	500	150,000
Large office corridor fire door	450	120,000
Large office or factory toilet entrance	400	92,000
Hospital ward door	350	128,000
Medium frequency medium duty situations:		
School classroom door	80	15,000
Office door	75	18,000
Store toilet door	60	18,000
Dwelling rear or side entrance	15	5,400
Dwelling front entrance	12	4,400
Low frequency light duty situations:		
Dwelling living room communications doors	30	10,800
Dwelling bathroom/toilet door	20	7,200
Dwelling cupboard door	12	4,300
Dwelling bedroom door	9	3,200
Dwelling wardrobe/closet door	6	2,200
Dwelling cabinet furniture door	5	1,800

Table C

MASS RANGES OF TYPICAL DOORS			
	Size (mm)	Mass (kg)	Duty
Cupboard, wardrobe, cabinet, louvered doors and shutters	2040 x 626 x 40	3 to 10	Light
Light internal large wardrobe and large louvered doors	2040 x 926 x 40	10 to 17.5	Light
Medium internal doors	2040 x 1012 x 40	17.5 to 25	Medium
Heavy internal doors	2040 x 1012 x 40	25 to 37.5	Medium
Half hour fire doors	2040 x 826 x 44	25 to 37.5	Heavy
Light external doors	2040 x 907 x 40	20 to 37.5	Heavy
Heavy external doors	2040 x 1002 x 44	37.5 to 55	Heavy
One hour fire doors	2040 x 826 x 54	37.5 to 72.5	Heavy
Oversize or special external doors	2040 x 1200	55 to 110	Heavy

Table D

SIDE LOADING CALCULATIONS			
Door Size		Factor	Normal Increase of mass of door leaf %
Door Height mm	Door Width mm		
2000	1000	2	0
2000	1050	1.9	10
2000	1100	1.82	18
2000	1150	1.74	26
2000	1200	1.66	33
2000	1250	1.6	40

Table E

ADJUSTED DOOR WEIGHT CALCULATIONS			
Actual Door Weight	Doors of excess width, please refer to Side Loading Calculation table		= Adjusted Door Weight
	Door Closer	+ 20%	
	Door Closer (Backcheck)	+ 75%	
	Extra Heavy Use Light Use	+ 10% - 10%	