

Hinges

A Guide to Hinge Selection

The introduction of BSEN1935:2001 has made selection of the most appropriate hinge for your specific project simpler and more accurate. It specifies the intended purpose and the capabilities of the specific hinge.

BSEN1935:2001 is used in conjunction with BSEN1634-1:2000 to form the basis of CE marking. All hinges which are used on fire doors or fire escape doors should be CE marked & the test standards stamped into the hinge for easy reference. This will assist in making accurate Statutory Fire Safety Risk Assessments.

To select the appropriate hinge for the job the following parameters should be known;

- | | |
|--|-----------------------------------|
| • the door leaf size and weight | Compare with weight table |
| • the intended use of the building or area of the building | Compare with number of operations |
| • How often will the door be used? | Select by number of operations |
| • Is the door fire rated? | Use CE marked hinges |
| • Is the door on an escape route? | Use CE marked hinges |
| • Is an overhead door closer being fitted? | Add 20% to the door weight |
| • Does the closer have a back check facility? | Add 80% to the door weight |
| • Is panic hardware being used? | Use CE marked hinges |

The table over clearly shows the different uses of hinges & their intended use.

Indicated weight loadings will need to be corrected for:

- door widths over 1000mm doors
- 2.1m high will require additional hinges
- door closer loadings
- back check loadings

For assistance with specifications please call us on 023 9286 3854

Hinges

Hinge Selection table

Digit 1			Digit 2		Digit 3		Digit 4	Digit 5	Digit 6	Digit 7	Digit 8
Category of Use			Endurance Test Cycles		Test Door Mass		Fire	Safety Resistance	Corrosion	Security resistance	Hinge grade
Duty	Grade	Use on	Grade		Grade	Mass Kg	Grades	Grade	Grade	Grade	Grade
Light	1	Window	3	10000	0	10	0 or 1	1	0,1,2,3,4,	0 or 1	1
Light	1	Window	3	10000	1	20	0 or 1	1	0,1,2,3,4,	0 or 1	2
Light	1	Door/Window	4	25000	1	20	0 or 1	1	0,1,2,3,4,	0 or 1	3
Medium	2	Door	7	200000	1	20	0 or 1	1	0,1,2,3,4,	0 or 1	4
Light	1	Window	3	10000	2	40	0 or 1	1	0,1,2,3,4,	0 or 1	5
Light	1	Door/Window	4	25000	2	40	0 or 1	1	0,1,2,3,4,	0 or 1	6
Medium	2	Door	7	200000	2	40	0 or 1	1	0,1,2,3,4,	0 or 1	7
Light	1	Window	3	10000	3	60	0 or 1	1	0,1,2,3,4,	0 or 1	8
Light	1	Door/Window	4	25000	3	60	0 or 1	1	0,1,2,3,4,	0 or 1	9
Medium	2	Door	7	200000	3	60	0 or 1	1	0,1,2,3,4,	0 or 1	10
Heavy	3	Door	7	200000	4	80	0 or 1	1	0,1,2,3,4,	0 or 1	11
Severe	4	Door	7	200000	5	100	0 or 1	1	0,1,2,3,4,	0 or 1	12
Severe	4	Door	7	200000	6	120	0 or 1	1	0,1,2,3,4,	0 or 1	13
Severe	4	Door	7	200000	7	160	0 or 1	1	0,1,2,3,4,	0 or 1	14

Hinges



SSH 10.1710.076 Ball bearing hinge

Size: 100x76mm 304 grade stainless steel

Type tested to BSEN1935:2002 grade 13

Included in fire tests to BSEN1634 part 1:2000

Full classification:

CE marked.

Suitable for use on 30 minute & 60 minute fire doors and fire escape Route doors

4	7	6	1	1	4	0	13
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Available in Satin or Polished stainless steel finishes

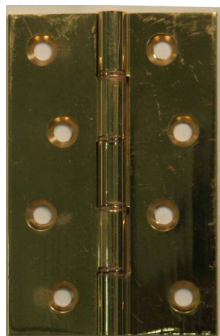


SSH 23.1390.020 Ball bearing hinge

Size: 76x50x2mm

Available in Satin or Polished stainless steel finishes

Ball bearing hinge PVD plated on stainless steel



SSH 87.105.948	102x76mm ball bearing hinge	PVD/PB
SSH 87.105.951	102x102mm ball bearing hinge	PVD/PB
SSH 87.105.957	102x76mm ball bearing hinge with dog bolts	PVD/PB

Miscellaneous Stainless steel hinges

SSH 23.1390.011	102x76x2mm washered stainless steel butt
SSH 23.1390.0102	102x76x2mm plain bearing stainless steel butt
SSH 23.1390.076	75x50x2mm plain bearing stainless steel butt
SSH 23.2239.016	100x76mm Rising butt Left hand stainless steel
SSH 23.2239.022	100x76mm Rising butt Right hand stainless steel

Hinges

SSHI 22.2412 .02 Triple knuckle hinge

Size: 100x88mm

Available in Grade 316 or 304 stainless steel
mild steel with plated finishes

Type tested to BSEN1935:2002 grade 13

Included in fire tests to BSEN1634 part 1:2000

Full classification stainless steel:

4	7	5	1	1	4	0	13
4	7	5	1	1	3	0	13

Full classification mild steel:

CE Certificate No. 1121 CPD-AC0063

Certifire Approved CF209

Maintenance free, guaranteed for 25 years

Maximum adjusted door weight 120kg



SSHI 22.2412.103 Triple knuckle hinge

Size: 100x86mm

Available in Grade 316 or 304 stainless steel
mild steel with plated finishes

Type tested to BSEN1935:2002 grade 12

Included in fire tests to BSEN1634 part 1:2000

Full classification stainless steel:

4	7	5	1	1	2	0	12
4	7	5	1	1	2	0	12

Full classification mild steel:

CE Certificate No. 1121 CPD-AC0046 (SS)

CE Certificate No. 1121 CPD-AC0044 (MS)

Certifire Approved CF209

Maintenance free, guaranteed for 25 years

Maximum adjusted door weight 100kg



SSHI 22.2412.104 Triple knuckle hinge

Size: 100x75mm

Available in Grade 316 or 304 stainless steel
mild steel with plated finishes

Type tested to BSEN1935:2002 grade 11

Included in fire tests to BSEN1634 part 1:2000

Full classification stainless steel:

3	7	4	1	1	4	0	11
3	7	4	1	1	1	0	11

Full classification mild steel:

CE Certificate No. 1121 CPD-AC0031 (SS)

CE Certificate No. 1121 CPD-AC0023 (MS)

Certifire Approved CF209

Maintenance free, guaranteed for 25 years

Maximum adjusted door weight 80 kg



Hinges



SSHI 22.2412.207 Triple knuckle hinge

Size: 100x75mm

Available in Grade 304 stainless steel or
Mild steel with plated finishes

Type tested to BSEN1935:2002 grade 11

Included in fire tests to BSEN1634 part 1:2000

Full classification stainless steel:

4	7	6	1	1	4	0	13
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CE Certificate No. 1121 CPD-AC0007 (SS)

CE Certificate No. 1121 CPD-AC0008 (MS)

Certifire Approved CF215

Maintenance free, guaranteed for 25 years

Maximum adjusted door weight 120 kg

SSHI 22.2412.208 Triple knuckle hinge

Size: 100x89mm

Available in Grade 304 stainless steel or
Mild steel with plated finishes

Type tested to BSEN1935:2002 grade 11

Included in fire tests to BSEN1634 part 1:2000

Full classification stainless steel:

4	7	6	1	1	4	0	13
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CE Certificate No. 1121 CPD-AC0007 (SS)

CE Certificate No. 1121 CPD-AC0008 (MS)

Certifire Approved CF215

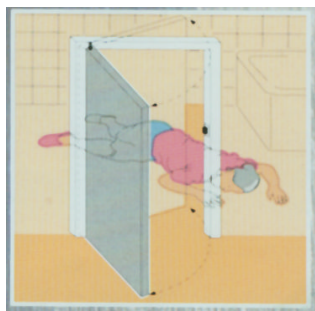
Maintenance free, guaranteed for 25 years

Maximum adjusted door weight 120 kg



Hinges

Pivot Sets



Pivot sets are the ideal solution when fitting toilet doors off restricted areas. The door can be normally opened inwards but in an emergency the door can be easily opened outward by releasing the emergency door stop to gain access.



Medium and Heavy duty Pivot sets

Built for hospital & commercial situations these pivots are intended for demanding situations. The medium duty set can be used for doors up to 80kg & the heavy duty sets for up to 120kg.

SSHI 22.24131.400	Medium duty pivot set
SSHI 22.24131.401	Heavy duty pivot set

Also available: adjustable pivots providing ± 5.5 mm adjustment.



Light Duty Pivot set

Intended for use in residential & sheltered housing situations where doors less than 40kg leaf weight are being used.

SSHI 22.24131.700	Light duty pivot set
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Emergency release door stops



SSHI 22.24131.105	Emergency release doorstop
SSHI 22.24131.106	Emergency release doorstop with holdback

Hinges

Light Steel butt



Catalogue No.	Size	Finish
SSHI 4000.41	100mm	Self colour
SSHI 4000.42	100mm	Bright Zinc plate
SSHI 4000.43	100mm	Electro-brass
SSHI 4000.31	75mm	Self colour
SSHI 4000.32	75mm	Bright Zinc plate
SSHI 4000.33	75mm	Electro-brass

Loose pin steel butt



Catalogue No.	Size	Finish
SSHI 4001.41	100mm	Self colour
SSHI 4001.42	100mm	Bright Zinc plate
SSHI 4001.43	100mm	Electro-brass
SSHI 4001.31	75mm	Self colour
SSHI 4001.32	75mm	Bright Zinc plate
SSHI 4001.33	75mm	Electro-brass

Storm proof Butt

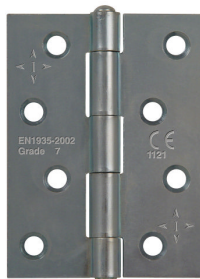


Catalogue No.	Size	Finish
SSHI 4001.252	65mm	Bright Zinc plate
SSHI 4001.253	65mm	Electro-brass

Hinges

Strong Steel butt CE marked

EN1935;2002 Grade 7

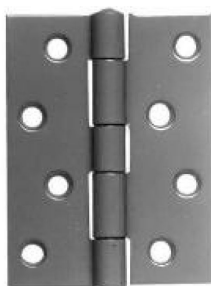


2	7	2	1	1	3	0	7
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Suitable for use on fire doors less than 40kg leaf weight

Catalogue No.	Size	Finish
SSH14042.42	100mm	Bright Zinc plate
SSH1 4042.43	100mm	Electro-brass

Strong steel butt



Catalogue No.	Size	Finish
SSH1 4002.41	100mm	Self colour
SSH1 4002.42	100mm	Bright Zinc plate
SSH1 4002.43	100mm	Electro-brass
SSH1 4002.31	75mm	Self colour
SSH1 4002.32	75mm	Bright Zinc plate
SSH1 4002.33	75mm	Electro-brass

Hinges

Solid Drawn Brass Butt

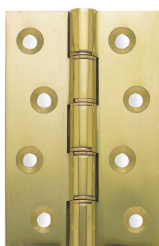
Solid drawn brass butts with brass pins



Catalogue No.	Size	Finish
SSHI 2093.31	76x41x1.6mm	Brass
SSHI 2093.41	102x76x3.2mm	Brass
SSHI 2093.42	102x76x3.2mm	Brass

DPBW brass pin brass butt

Solid drawn brass butt with double phosphor bronze washers

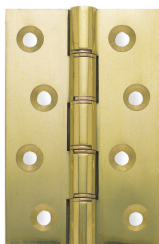


Catalogue No.	Size	Finish
SSHI 5093.31	76x41x2mm	Self colour
SSHI 5093.41	102x76x3.2mm	Self colour
SSHI 5093.42	102x76x3.2mm	Self colour

Polished Brass and chrome finishes also available

DPBW brass pin brass butt heavy duty

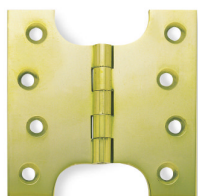
Solid drawn brass butt with double phosphor bronze washers



Catalogue No.	Size	Finish
SSHI 9093.41	102x67x3.5mm	Self colour
SSHI 9093.42	102x76x4.0mm	Self colour

Brass Parliament hinges

Solid drawn parliament hinge with brass pins



Catalogue No	Size	Finish
SSHI 6293.21	102X51x102mm	Self colour
SSHI 6293.31	102x76x125mm	Self colour
SSHI 6293.41	102x102x150mm	Self colour

Brass Counter flap hinges



Catalogue No.	Size	Finish
SSHI 7293.41	102x32mm	Self colour

Hinges

Double Action Spring Hinges



Suitable for double acting non-fire doors

These ball bearing double action hinges have been developed for heavy duty use and are available in silver lacquered finish.

The indicated working weights are based on two hinges per leaf. The use of a third hinge will increase capacity by approximately 50%.

		Max door width	Max Door Thickness mm	Max Door weight
SSHI 16.8506	Double action hinge 150mm	850mm	25-40mm	42kg
SSHI 16.8507	Double action hinge 175mm	920mm	33-50mm	54kg
SSHI 16.8508	Double action hinge 200mm	1000mm	35-55mm	66kg

Adjustable spring hinge



The adjustable spring hinge has been tested to 100,000 cycles and has been included in a fire test to BSEN1634 -1. Three hinges will support doors up to 40Kg.

SSHI 12.232.020	Adjustable spring hinge 100x75mm	PB
SSHI 12.232.023	Adjustable spring hinge 100x75mm	SC
SSHI 12.232.070	Adjustable spring hinge 100x75mm	CP