

SOSS Hinges

SOSS Hinges & accurate fitting

Fitting your SOSS hinges with a template will ensure that a perfectly routed shape is easily achieved, mortice dimensions **MUST NOT** be taken from the hinge body itself. The aluminium routing jig is designed to act as an almost universal base-plate into which precision templates for most SOSS hinges can be slotted and changed as required saving fitting time while allowing an accurate, professional installation. Alternatively, separate dedicated templates are available for both standard and E30/60 variants which require allowance in the mortice for the intumescent hinge pads.

The spacing of hinges is critical to the correct functioning of the door (see diagram). As with traditional hinges, fitting a doorstop too close to the hinge face can cause excessive leverage and damage may result.

Care should be taken when specifying concealed hinges in general to ensure that the door leaf does NOT engage on any architrave or door frame, thereby creating a fulcrum and so likely damaging not only the hinge but also the door and frame. In addition as concealed hinges have a travelling pivot point advice should be sought from manufacturers regards suitability when being used with door closers as many door closers are designed to perform optimally when used in conjunction with single axis hinges where the pivot point is offset to the door leaf.

Selecting the appropriate hinge

The number of SOSS hinges required for a door are simply calculated from the tables (right).

Given the weight, width and thickness of a door, the tables combine to identify the number of hinges required. When used in conjunction with a spring-loaded door closer (Type 218 hinge only), the number of hinges required is reduced by one, replaced with the closer hinge.

Step-by-step guide to calculating how many hinges you need:

- Determine the width, thickness and weight of the door.
- Starting with the door width on the left hand side of Table 1, draw a line through the appropriate weight on the right hand side.
- Continue the line up towards Table 2.
- Where the diagonal intersects with Table 2, draw a horizontal line across to the shaded columns, which indicates the door thickness.
- The number of hinges (either 2, 3 or 4) is shown in the shaded areas and, at the foot of the column, the relevant hinge type. At the top is shown the minimum door thickness for each hinge size. Thicker doors are not a problem, the hinge is positioned relative to the door face.

Table 1

| Door Width mm | Door Weight kg |
|---------------|----------------|
| 100 | 225 |
| 200 | 180 |
| 300 | 135 |
| 500 | 90 |
| 700 | 45 |
| 900 | 35 |
| 1250 | 25 |
| 1750 | 15 |
| | 10 |
| | 7 |
| | 5 |

Table 2

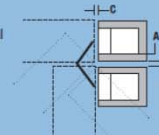
| | Minimum Door Thickness (mm) | | | |
|------------|-----------------------------|-----|-----|-----|
| | 28 | 35 | 41 | 48 |
| 4 x hinges | | | 4x | |
| 3 x hinges | | | 3x | |
| 2 x hinges | | | 2x | |
| | 212 | 216 | 218 | 220 |

In this example a 760mm wide door which weighs 90kg and has a thickness of 41mm would require 4 x Type 218 hinges



PATHS & CLEARANCES OF DOORS

The diagram on the right shows the typical path of SOSS hinged door. The table shows the door clearance when fully opened for each SOSS hinge.



| HINGE No. | A mm | B mm | C mm |
|-----------|------|------|------|
| 212 | 4.8 | 4.0 | 1.2 |
| 216 | 6.4 | 5.5 | 1.6 |
| 218 | 6.4 | 9.5 | 1.6 |
| 220 | 7.2 | 12.7 | 1.6 |

NB:
Hinge may be offset in mounting but dimension A must not be exceeded
Mortice dimensions above do NOT include for the HP218 intumescent hinge pad pack (required for E30/E60 installations)

| SPECIFICATIONS | MEDIUM DUTY | | HEAVY DUTY | |
|---|-------------|--------------|------------|------------|
| | 212 | 216 | 218 | 220 |
| HINGE No. | 212 | 216 | 218 | 220 |
| | mm | mm | mm | mm |
| LENGTH | 95.3 | 117.5 | 117.5 | 140 |
| WIDTH | 19 | 25.4 | 28.6 | 35 |
| DEPTH OF PLATE | 9.5 | 12 | 10.3 | 11.9 |
| MINIMUM THICKNESS OF WOOD METAL SELECTION | 28 | 35 | 46.5 | 51 |
| DEPTH OF MORTICE | 28 | 36.5 | 42 | 49.5 |
| CLEARANCE WHEN OPEN | 13.5 | 18.3 | 22.2 | 27 |
| SIZE OF WOOD SCREWS | 4.5 x 30mm | No. 6 x 40mm | 4.5 x 40mm | 5.5 x 50mm |

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SOSS Hinges

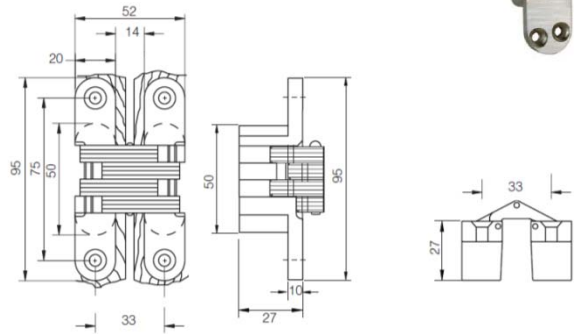
Hinge dimensions as shown should NOT be used for morticing, please see paths of clearance or installation instructions for mortice details



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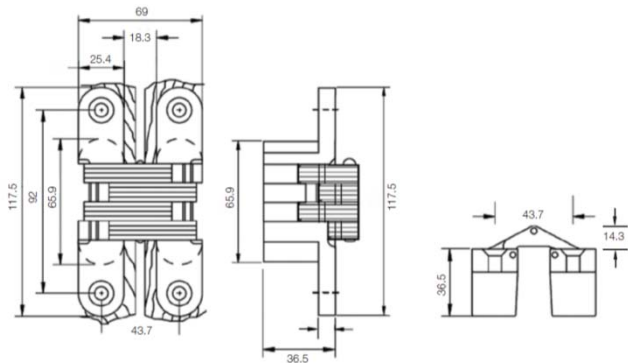
212

212-STD-BP Standard - Brass Plated
212-STD-NP Standard - Nickel Plated
95.3 x 19 x 27mm concealed hinge
Minimum door thickness 28mm
Maximum adjusted door weight (see chart previous)
Radiused forends for easier door/frame preparation
180° opening
Installation jig and template: 212 TEMPLATE & HINGE JIG
Available in Satin Brass or Satin Nickel



216

216-STD-BP Standard - Brass Plated
216-STD-NP Standard - Nickel Plated
117.5 x 25.4 x 36.5mm concealed hinge
Minimum door thickness 40mm
Maximum adjusted door weight (see chart previous)
Radiused forends for easier door/frame preparation
180° opening
Installation jig and template: 216 TEMPLATE & HINGE JIG
Available in Satin Brass or Satin Nickel

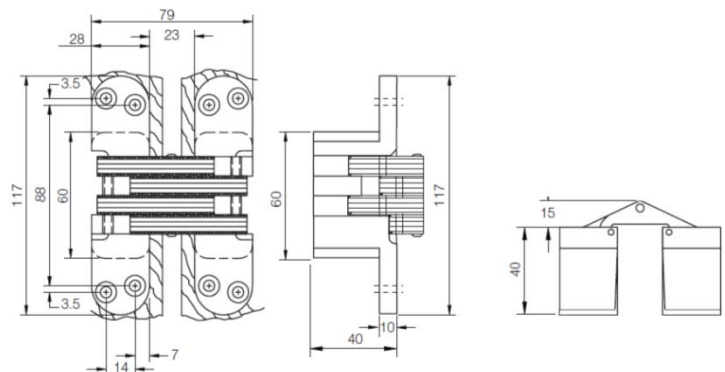


218

Fire Rated (E30) to BS EN 1634-1
RT-218-FIRE-BP 30 Minute Fire Rated - Brass Plated
RT-218-FIRE-NP 30 Minute Fire Rated - Nickel Plated
RT-218-SSL-NP Stainless Steel Link and Pins Standard
Body - Nickel Plated

Fire Rated (E60) to BS EN 1634-1
RT- 218-FIRE-SS 60 Minute Fire Rated - Stainless Steel

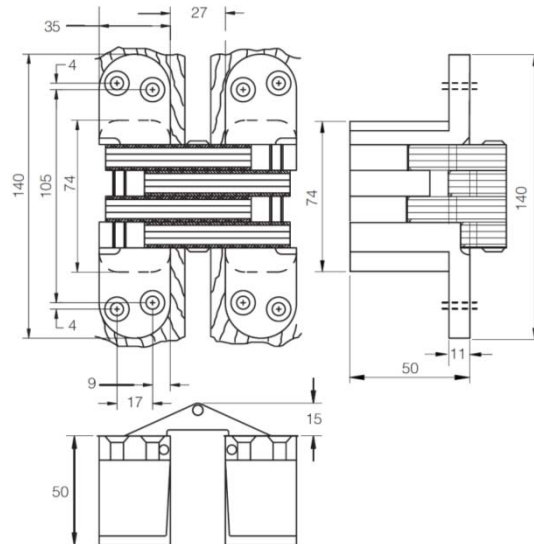
218-STD-BP Standard - Brass Plated
218-STD-NP Standard - Nickel Plated
117.5 x 28.5 x 42mm concealed hinge
Minimum door thickness 44mm
Maximum adjusted door weight (see chart previous)
If being installed to EN1634-1 (for 30 or 60 minutes) please request either
intumescent hinge pad pack 30 or 60min pad pack HP218
Radiused forends for easier door/frame preparation
180° opening
Installation jig and template: 218 TEMPLATE & HINGE JIG
Available in Satin Brass, Satin Nickel or Stainless Steel



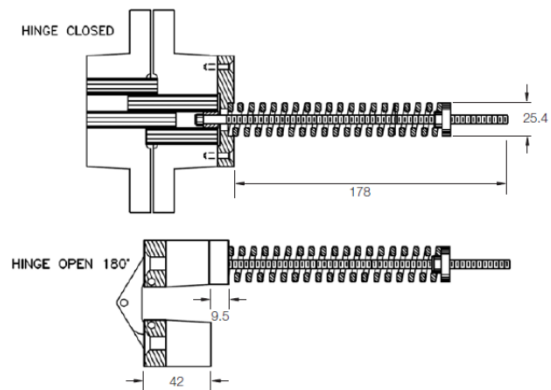
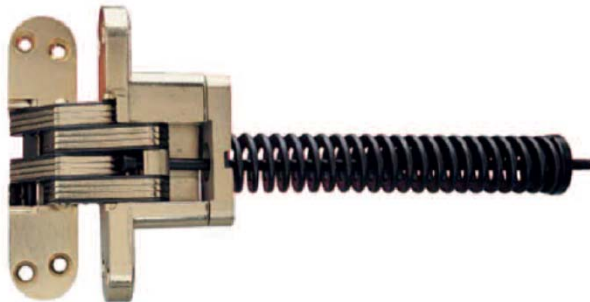
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220-STD-BP Standard - Brass Plated
220-STD-NP Standard - Nickel Plated
140 x 35 x 50mm concealed hinge
Minimum door thickness 54mm
Maximum adjusted door weight (see chart previous)
Radiused forends for easier door/frame preparation
180° opening
Installation jig and template: 220 TEMPLATE & HINGE JIG
Available in Satin Brass or Satin Nickel



218-CLOSER-BP Integral Closer NON Fire Rated - Brass Plated
218-CLOSER-NP Integral Closer NON Fire Rated - Nickel Plated
218-FCLOSER-BP Integral Closer 30 Minute Fire Rated - Brass Plated
218-FCLOSER-NP Integral Closer 30 Minute Fire Rated - Nickel Plated



ROUTING JIGS AND TEMPLATES FOR HIRE/PURCHASE

JIG-TEMPLATE Aluminium Routing Jig
212-TEMPLATE 212 Hinge Template
216-TEMPLATE 216 Hinge Template
218-TEMPLATE 218 Hinge Template
220-TEMPLATE 220 Hinge Template

To hire: the purchase price less 15% will be credited on return of jigs and templates in good condition

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