

# Ball Bearing Hinge

## FITTING INSTRUCTIONS

**PLEASE READ INSTRUCTIONS CAREFULLY BEFORE BEGINNING INSTALLATION**

Tools Required:

- Mallet
- Chisel
- Pozidriv Screwdriver
- Pencil/Marker
- Masking Tape

1. Identify the required fixing positions of the hinges on the door using the following guidance:

Fig 1.

To BS EN 1935:2002

The hinge grades detailed in this standard are based on 3 hinges being fitted to the door set. The standard practice and the most common, providing maximum resistance to warping

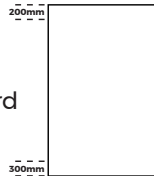


Fig 2.

When overhead door closers are used additional lateral force are applied to the top hinge. To reduce these forces, it is recommended that the hinges are spaced as shown



Fig 3.

Where the door width is more than 1000mm and/or the door mass exceeds that allowed for 3 hinges, additional hinges can be fitted. Equal spacing provides maximum resistance to warping

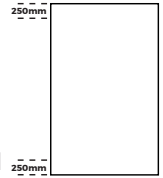
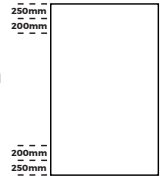


Fig 4.

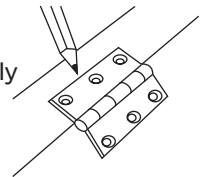
When overhead door closers are used within the example shown in Fig 3. due to the increased lateral forces created by the door closer on the top hinge, it is recommended that the hinges are spaced as shown.



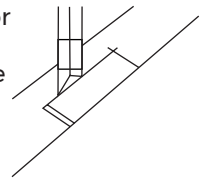
**Every 3 months, check hinge screws are tight and hinge knuckle is lubricated. Wipe off any excess grease.**

2. For the fire door applications use intumescent packs (1 pack per hinge – 1mm for 30 mins and 2mm for 60 mins)

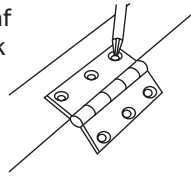
3. Position the leaf so that the knuckle (crank line) is slightly proud of the door frame and mark around the hinge leaf



4. Mortise out the door to a depth equal to the thickness of the hinge leaf and intumescent. This will provide optimum clearance between door and frame in compliance with BS 4787.



5. Locate the hinge leaf in the mortise, mark hole positions and pilot drill to suit the fixing screws. This is particularly important when fixing to hardwood.



6. The leaf with the two knuckles is fitted to the door. Use the screws provided and repeat for the other hinges.

7. When all hinges are fitted to the door, place into the frame. Pack under the door to provide the necessary clearance and mark the hinge positions.

8. With the door in the open position, open the hinge leaves flat against the door jamb ensuring they align with the positions previously marked on the frame. Once in the position, mark out and mortise as instruction 3-6 above.

9. Final installation check. Ensure all screws are fully tightened. If required, the hinges may be lubricated using fine machine oil ensuring that any floor finishes are protected, and any excess oil is wiped off on completion.

**MAINTENANCE:**

Door maintenance, particularly on fire doors, fire exit routes and high traffic routes is an integral part of any well planned and scheduled maintenance program within a building. Included within this schedule should be a regular minimum annual check on fixing screw, replacing any that are loose, and lubrication of the hinges using a fine machine oil ensuring that any floor finishes are protected, and any excess oil is wiped off on completion.

**Grade 7 Hinge**

CE	1121-CPR	Sparka UK Ltd, Unit 11 Redwood Court, Campbell Way, Sheffield, S25 3NQ						20
	BS EN 1935:2002				For DOP: <a href="http://www.sparkauk.com">www.sparkauk.com</a>			
	2	7	2	1	1	2	0	7

**Grade 13 Hinge**

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	BS EN 1935:2002				For DOP: <a href="http://www.sparkauk.com">www.sparkauk.com</a>			
	4	7	6	1	1	4	0	13

Products may be fitted on previously tested single-acting, door and frame assemblies with relevant intumescent as required. For particular conditions feel free to visit our website [www.sparkauk.com](http://www.sparkauk.com) or contact our dedicated technical support team on: 0114 350 3414 if you have any further questions.