

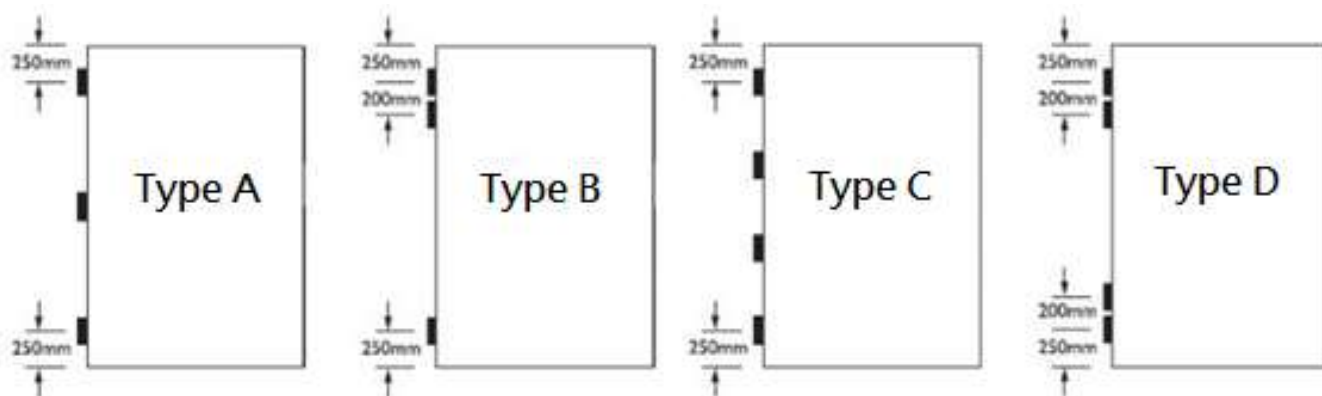
Architectural Hinges Installation Information

On standard commercial door sets 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 line, depending on the application of the door set it will define the position in which the central hinge is installed.

On standard Doors it is recommended that the third hinge should be fitted in the centre of the other two. Equally spaced hinges will minimise warping with extremes of temperature or humidity. *See illustration of Door Type A.*

If a door closer is being installed (especially if backcheck is also being used) it is recommended that the middle hinge is fitted approx. 200mm (Centre to Centre) from the top hinge. *See illustration of Door Type B.*

OVERVIEW OF HINGE INSTALLATION:



Door Type A – The standard practice and most common, providing maximum resistance to “warping”, hinges are spaced as shown.

Door Type B – Where overhead door closers are used, additional lateral forces are applied to the top hinge. Whilst this is taken into consideration within the design calculation, to reduce the lateral force on the top hinge, it is recommended that the hinges are spaced as shown.

Door Type C – Where the door width is more than 1000mm or the door mass exceeds that allowed for 3 hinges, additional hinges can be fitted. Equal spacing shown provides maximum resistance to “warping”. Based on 4 hinges, the design door mass can be calculated as per “Side Load Calculation” table before determining the suitable grade of the hinge.

Door Type D – where overhead closers are used within the example illustrated in Type B, due to the increased lateral forces created by the closer on the top hinge, it is recommended that the hinges are spaced as shown.

Note: The simulated maximum weight of door must be amended in accordance with the recommendations of BS EN 1935:2002 if the door set includes a door closer device and additional consideration must be given if backcheck is applied to the door closer.

If an overhead door closer is included in the door set an adjustment to the maximum door weight of 20%

If an overhead door closer with backcheck is included an adjustment to the maximum door weight of 75%.