

### SURFACE FIXING BEVEL HINGE BOLTS

If it is known at time of manufacture that steel doors will be fitted externally and open outwards, it is likely that security hinges with integral security studs (sometimes called dog bolts) will be used as shown on page 116. These improve door to frame security since one of the most common ways to compromise an outward opening external door is to hacksaw or knock out the hinge pins and then lever the door out of its frame.

However, not all doors in these vulnerable situations are hung on hinges with integral security studs so a separate independent hinge bolt may be required. For this reason we have developed the Z480 and Z490 independent bevel hinge bolts. They are an additional security product, designed for retro-fitting to existing external steel doors and frames, to combat the possibility of perimeter outward opening doors being levered out of the frames if hinge pins are tampered with. The bevel hinge bolt is surface mounted on the inside of the door and two slots cut in the frame to accommodate the bevel bolts as the door closes into the shut position. In this way the bevel bolts engage each time the door is closed and disengage when it is opened.

They are manufactured from zinc plated mild steel and powder coated silver grey. It is recommended to use two bevel hinge bolts on each door leaf, one high just below the top hinge, and one low just above the bottom hinge. It is not handed and will suit either hand of door.

It was originally designed for fitting to steel doors so the frame plate may not be necessary if two slots are cut in the metal door frame to receive the bevel bolts, each slot measuring 20mm wide x 12mm high. It can also be fitted to existing timber doors, in which case the 30mm wide x 100mm high frame plate will fit over the two holes made in the frame. For this reason, the bevel hinge bolt can be supplied with or without the frame plate.

The Z480 and Z490 are ideal for industrial applications, pumping stations, plant rooms, electrical sub-stations etc. Not to be used in public areas due to ligature risk. There is no advantage in using products like these on inward opening doors.

#### **Z480**

Bevel dog bolts with frame plates. 100x30mm. Fixings not included. Mild steel, silver grey. pack of 2 bolts and 2 frame plates (Box Qty 5)

#### Z490

Bevel dog bolts without frame plates. 100x30mm. Fixings not included. Mild steel, silver grey. pack of 2 bolts (Box Qty 5)







## YALE-CHUBB SECURITY HINGE BOLTS

These security hinge bolts provide added security on outward opening external doors with exposed hinge knuckles and deter intruder access through the door. Hinge bolts will help to reinforce the hinge side of the door, keeping the door in the frame when the door or hinges are forcibly attacked. Normally only used on external outward opening wooden doors. They are supplied in a pack of two bolts and two receivers which is suitable for one door leaf, and come complete with fixing screws for wooden doors. The bolt which fits in the door is 19mm diameter and 44mm deep while the receiver which fits in the frame is 25mm wide x 70mm high. The hinge bolts should be fitted 75mm below the top hinge and 75mm above the bottom hinge. Only available in WE white finish. Previously branded Chubb, now branded Yale.

#### ZWS12

Security hinge bolt. 44x19mm. White. pack of 2 bolts (Box Qty 6)



**MORTICE - FOR TIMBER DOORS** 

# INDEPENDENT HINGE BOLTS

Where additional security is required for external doors opening outwards, hinges are usually supplied with integral security studs. Please see page 116 for hinges with security studs for use on new build projects. The security studs help prevent forced entry by stopping doors being levered out of frames even if the hinge pins have been driven out.

Where doors have already been fitted with standard hinges without security studs, it is possible to fit independent hinge bolts - these are sometimes referred to as "dog bolts". These are designed for use on timber doors, but can also be used on steel doors. However on steel doors it will be necessary to weld the hinge bolts in place. The hinge bolts should be fitted 75mm below the top hinge and 75mm above the bottom hinge. The bolts should be fitted in the door and the receiver plates fitted to the frame. They are manufactured from mild steel which is then bright zinc plated. They are supplied in pairs with two hinge bolts and two receiver plates packed together with screws for timber doors.

### **Z470**

Independent hinge bolts. Bright zinc plated. (Box Qtv 10)



**FOR STEEL OR TIMBER DOORS**