





single high impact door



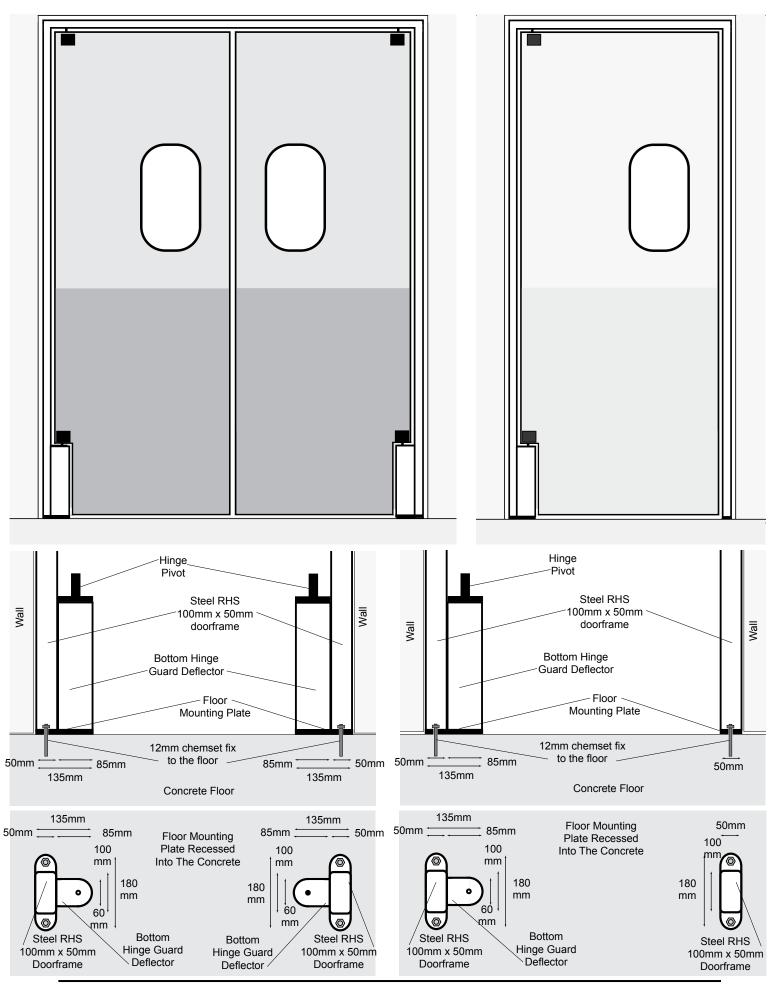
Factory A 22 Humeside Drive Campbellfield Victoria 3061 Ph 03 9357 5858 Fax 03 9357 5855 Email rnewton@nbeaustralia.com.au Website www.nbeaustralia.com.au



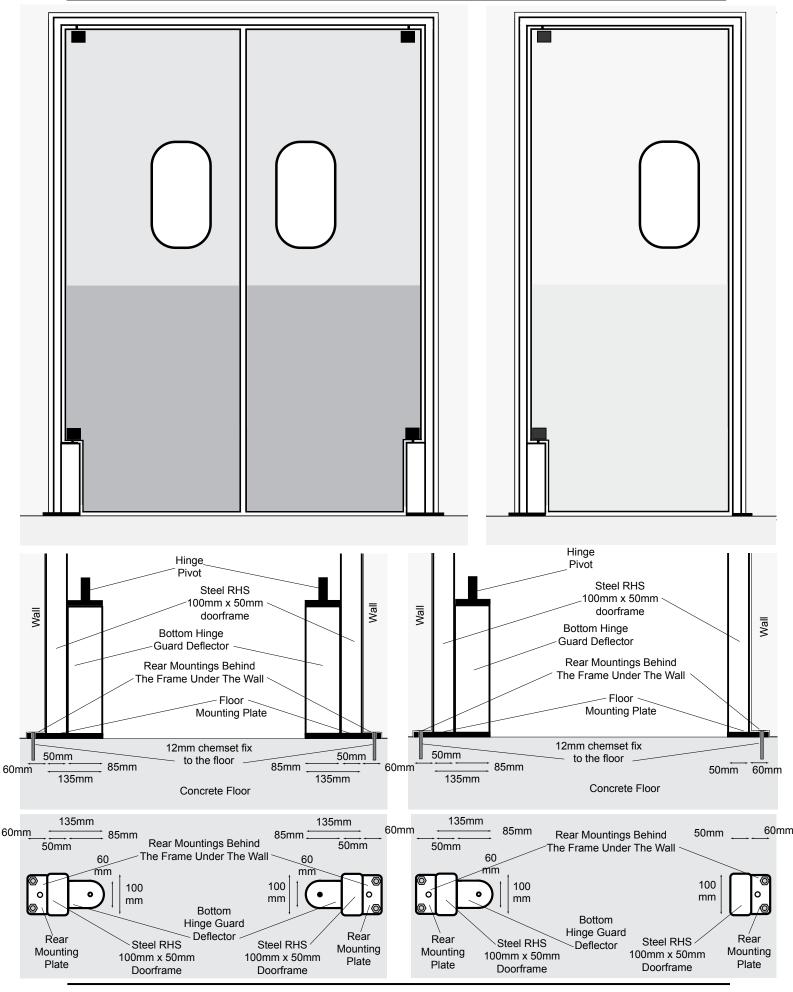
Revised 20/11/09





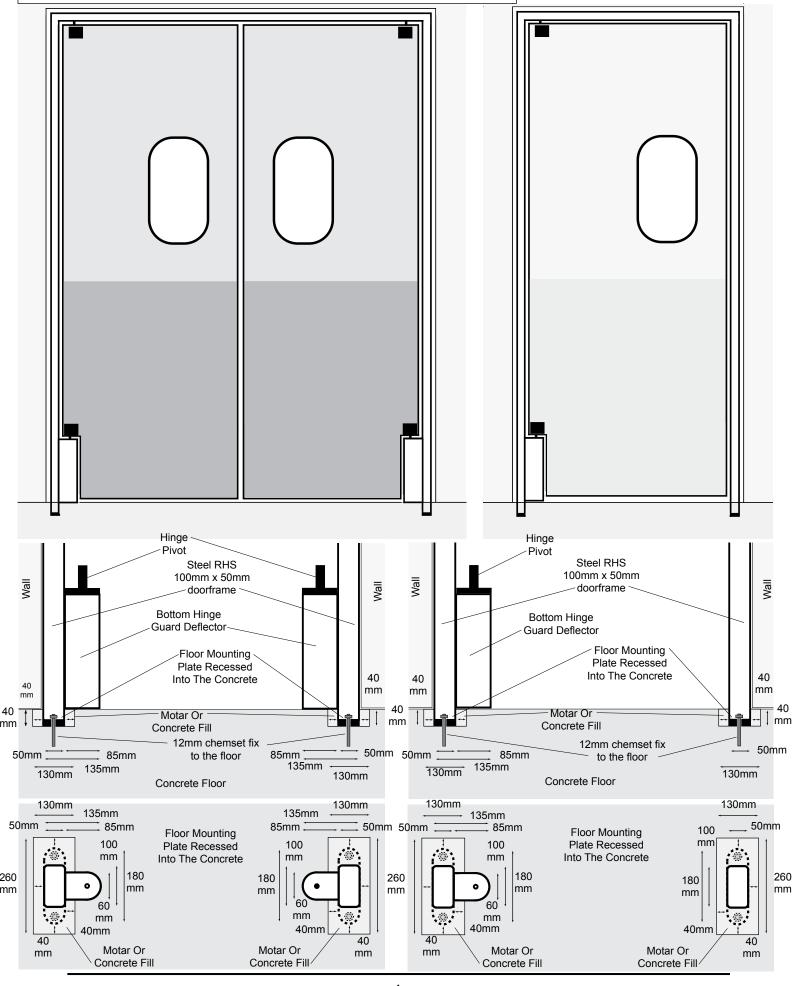






Installation Manual









Door Pivot & Brush Frame Guard Seal Align the fur seal to the hinge side of the door frame. Fix the seal to door frame using the pop revits provided



Pop Revit Seal / To Door Frame ∖ Door Frame

Align the dome seal to the non hinge side of the door frame (single doors only). Fix the dome seal to door frame using the pop revits provided

Seal



Lift the door panel and place the bottom hinge over the pivot pin on the bottom of the door frame



Door Top Top Hinge Panel Hinge Pivot Plate

Lift the door panel and place the top hinge over the top pivot plate. Ensure the top hinge components and holes are centralised and aligned



Attach Bolt Nut^{1/} Top Top Hinge & Washers Hinge Pivot Plate

Insert the bolts through the holes in the top hinge and the pivot plate. Screw the nuts onto to bolts but do not tighten to allow for door adjustment. Ensure that washers are used under the bolt heads and nuts



Tighten Up Nuts & Bolts Centre & Align Door Panel

Ensure the door panel close in a central position and there is proper clearance on all sides of the door panel. Tighten the nuts and bolts progressively making sure the door alignment is not distributed



Door Attach Cover Plate Over Panel Hinge With Screws Place the cover plate over the top hinge and attache to the door panel with screws ensuring clearance to door frame



Attach Brush Seals With Screws

Attach the brush seal to the bottom on the door panel with the screws provided. Ensure that the brush seal does not bind on the floor and impedes the doors operation

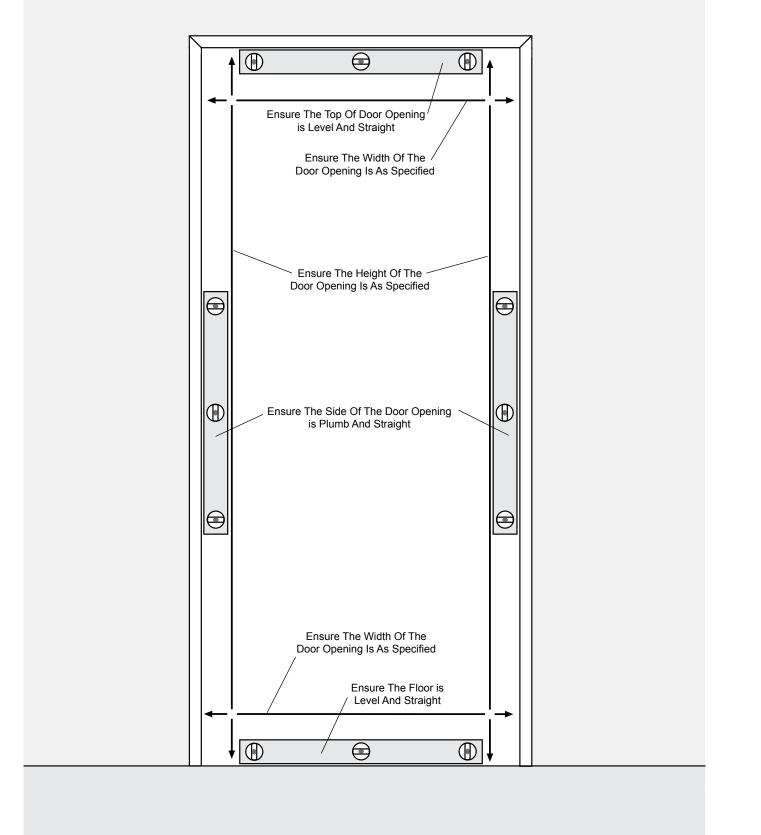
Seals



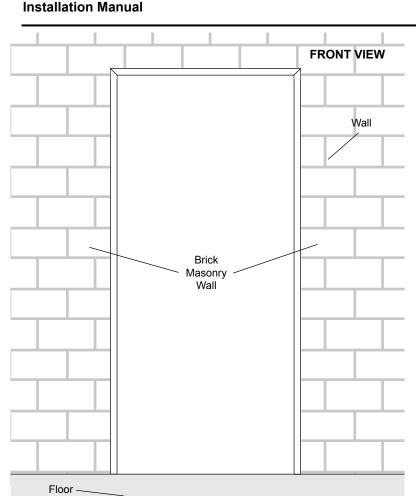
Door Fix The Bottom Hinge Panel With Screws Secure the bottom hinge to the door panel. Fix through the spare holes in the hinge with large screws provided



FRONT VIEW



Before installing the high impact door it is important to assess the construction of the door opening and hard points. The door opening should be measured at three points in the horizontal and vertical planes to ensure the door opening is consistent (level and plumb). To evaluate the flatness of the sides and top of the door opening a straight edge should be laid along the surface. If there are dips or rises (exceeding 2 mm) these should be corrected before installation of the HID. Using a level, the sides and top of the door opening should be checked to ensure they are plumb and level respectively (within.25 Deg or 2mm). A large square should be placed in all four corners of the door opening to assess the squareness of the corners.



Brick Masonry Wall Masonry Wall And Hard Points

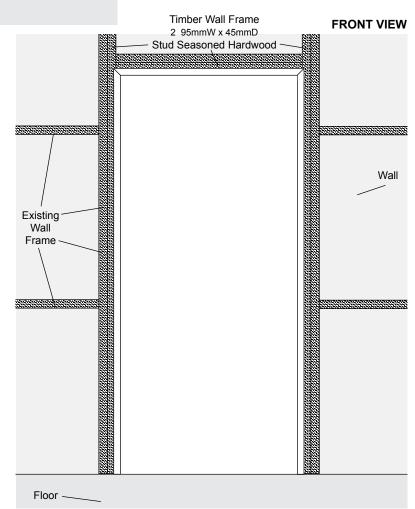
High impact doors are often used in situations of continual high stress. These doors are often subjected to collisions from motorised conveyancing equipment and various types of trolleys. For these doors to provide durable trouble free service it is essential that the mountings are strong and robust. A solid brick or masonry wall can provide an ideal foundation on which the door jamb will be fixed. As the doorjamb will be attached to the door opening with dyna bolts or other appropriate fittings particular care should be taken to ensure the wall has strong sound fixing points (hard points) to which the HID doorjamb may be attached. The wall frame should be constructed to a size that will allow a 5mm clearance to the HID doorjamb/frame.

Timber Wall Frame Timber Wall Frame And Hard Points

High impact doors are most commonly used in situations of high stress. The doors are often subjected to continual impact from motorised conveyancing equipment and various trolleys. For these doors to provide durable trouble free service the wall frame must be very strong and durable.

The timber wall frame should be constructed from twin studs (made from seasoned hardwood timber 95mmW x 45mmD). The timber wall frame should be fixed together using screws nails or staples ensuring the whole frame is locked together and securely fixed to the floor.

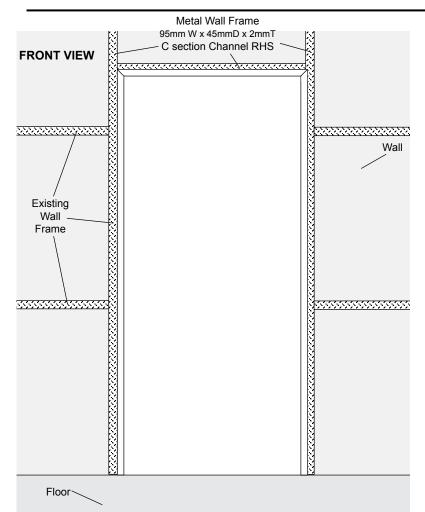
To further enhance the strength and rigidity of the timber wall frame it should be fixed to the existing wall frame. Ensure that the wall frame is constructed with robust fixing points (hard points) to which the HID doorjamb will be attached. The wall frame should be constructed to a size 5mm larger than the HID doorjamb/frame.





Installation Manual





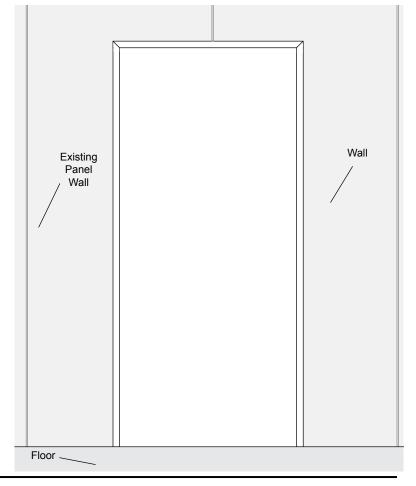
Metal Wall Frame Metal Wall Frame And Hard Points

High impact doors are generally used in situations of high stress and impact. The doors are often subjected to continual impact from motorised conveyancing equipment and various types of trolleys. For these doors to provide durable trouble free service the wall frame must be very strong and durable. The metal wall frame should be constructed from a single heavy duty C section, channel or RHS (95mmW x 45mmDx 2mmT or similar appropriate profile). The metal wall frame should be fixed together using screws, bolts or else welded ensuring the whole frame is locked together and securely fixed to the floor.

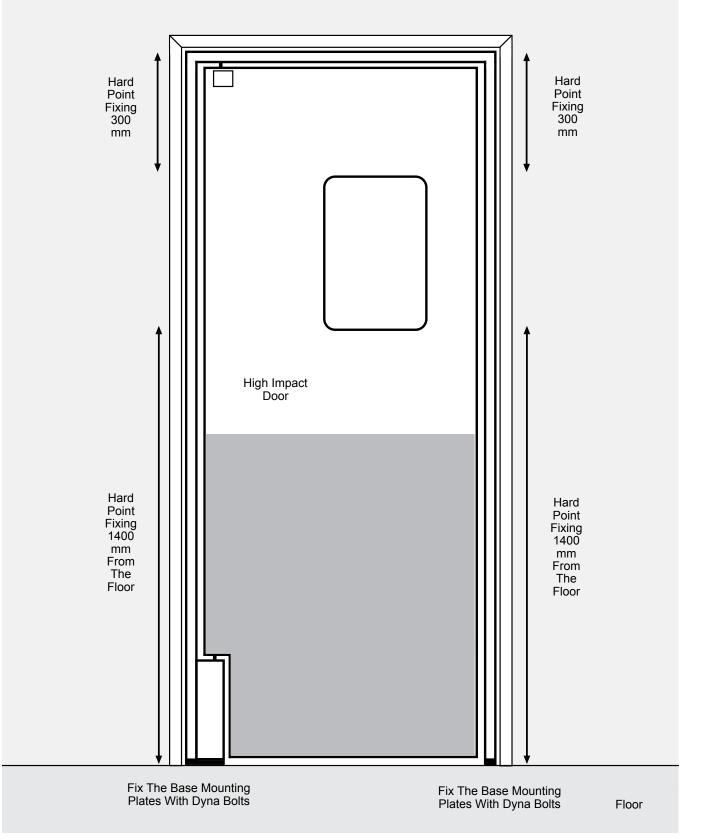
To further enhance the strength and rigidity of the metal wall frame it should fixed to the existing wall frame. Ensure the wall frame is constructed with strong robust fixing points (hard points) to which the HID doorjamb will be attached. The wall frame should be constructed to a size 5mm larger than the HID doorjamb/frame.

Panel Wall Panel Wall And Hard Points

High impact doors are often used in situations of continual high stress. These doors are often subjected to collisions from motorised conveyancing equipment and various types of trolleys. For these doors to provide durable trouble free service it is essential that the mountings are strong and robust. With panel walls it is essential that hard points be installed as fixing points for the doorjamb. Hard points of either timber, metal or structural plastic should be installed in cavities in the panel wall. These hard points should be fixed the panel wall with the appropriate fasteners. The panel wall should be trimmed off with an aluminum coving (or the normal way) ensuring it secure and strong. The doorjamb should be attached to the door opening with appropriate fittings. The wall frame should be constructed to a size that will allow a 5mm clearance to the HID doorjamb/frame.

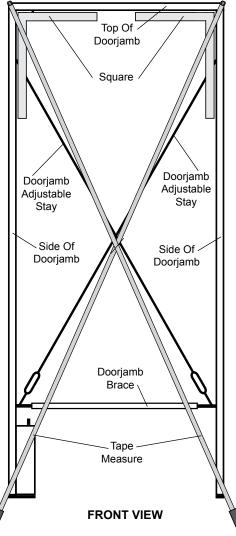






As the high impact door is subjected to constant traffic the correct installation is critical to the performance of the door. The doorjamb take its primary strength by fixing the floor mounting plates to the floor (generally by dyna bolts). The doorjamb is designed with side fixing points into the walls to help stabilize the frame and prevent movement. The walls should have appropriate hard points a heights which aligned with the fixing points on the doorjamb. The doorjamb requires a minimum of one secure fixing to the wall on each side of the door jamb, but preferably two.





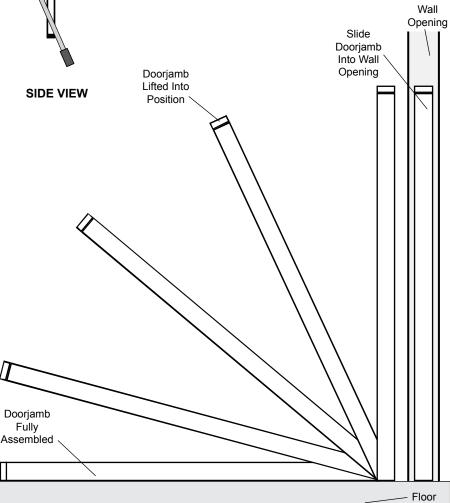
Stand-up And Position Stand-up And Position Doorjamb

Position the base of the door jamb beside the wall opening. Lift the doorjamb from its horizontal to a vertical position beside the door opening. Slide the doorjamb into the door opening ready for fixing. After the doorjamb has been positioned in the door opening it should be temporarily secured before fixing. It is important that the doorjamb is held securely to prevent it from falling and creating a safety hazard. Temporarily place a clamp (G) over (around) the doorjamb and secure by tightening the clamp onto the outside edges of the door wall opening.

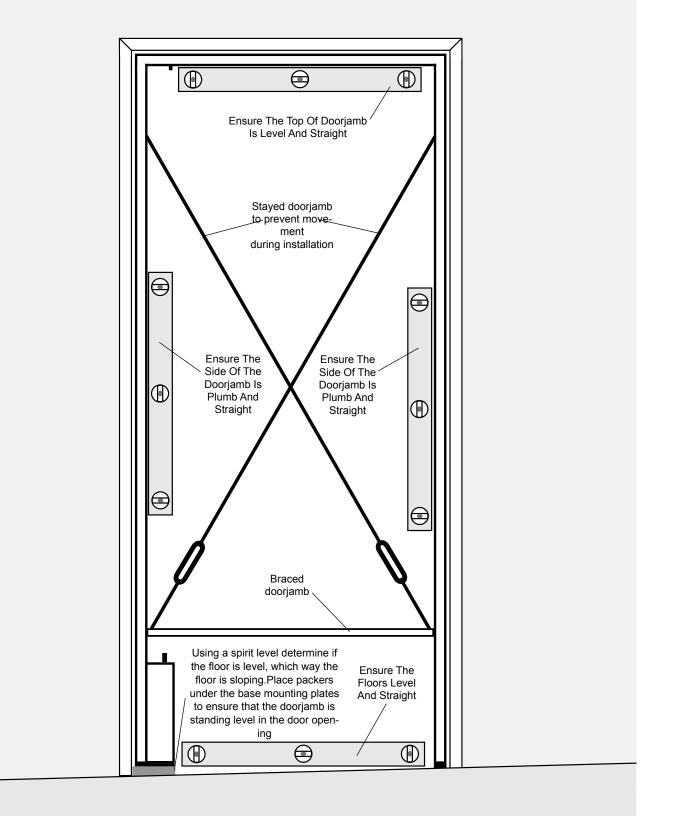
Check And Adjust Doorjamb Ensure The Doorjamb Is Squarel

After unpacking the doorjamb it should be checked before installation. The single piece metal doorjamb is designed as a structural member for strength and durability. It is critical the doorjamb is square before installation commences.

The squareness (alignment) of the doorjamb can be adjusted by adjusting the stays. To assess the sqaureness of the doorjamb take diagonal measurements from the top corner to the opposite floor mounting plate. Take a similar measurement on the opposite diagonal. If both the diagonal measurements are identical the doorjamb is square and ready for installation. To further confirm the squareness place a "square" in the internal top corners of the doorframe. If the doorjamb is not totally square undo the lock nuts on the diagonal stays. Adjust both the turnbuckles until the doorjamb is square, check by taking diagonal measurements and then re tighten the lock nuts.

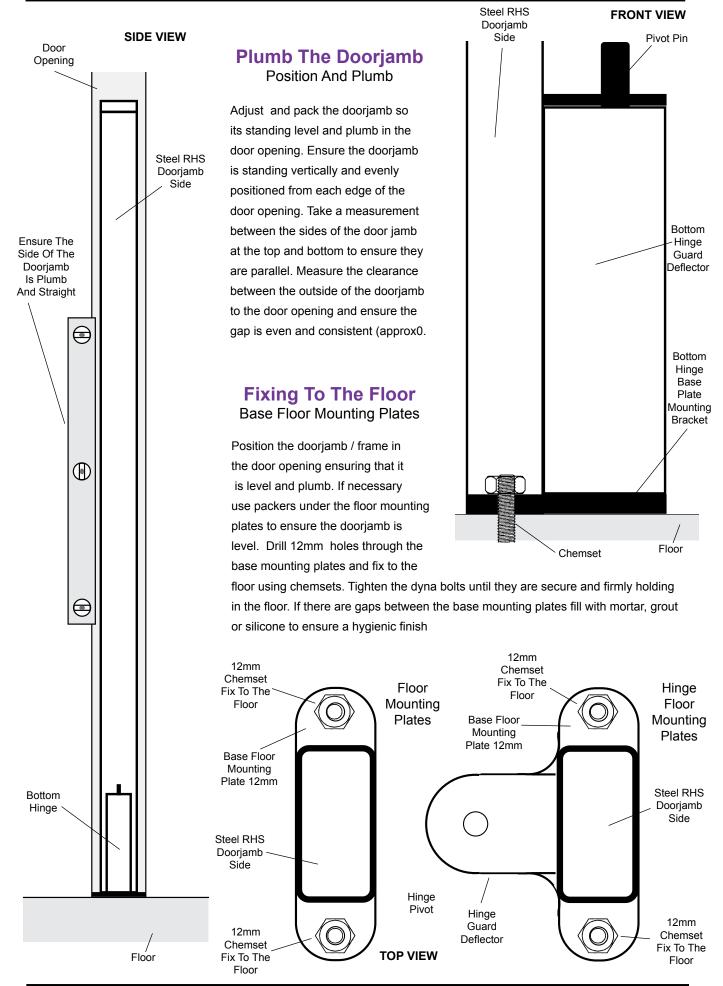






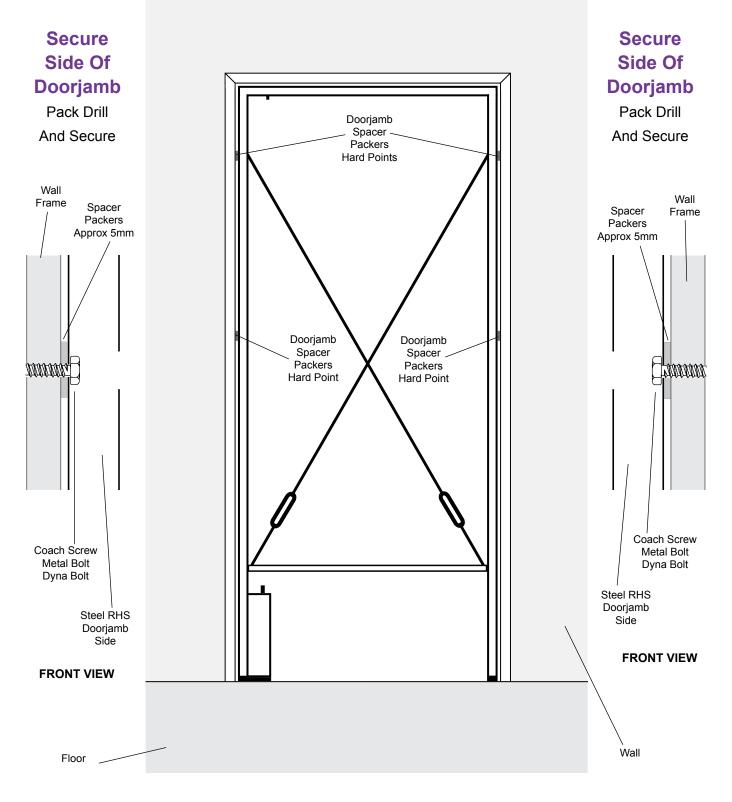
Adjust and pack the doorjamb so its standing level and plumb in the door opening. Ensure the doorjamb is standing vertically and evenly positioned from each edge of the door opening. Take a measurement between the sides of the door jamb at the top and bottom to ensure they are parallel. Measure the clearance between the outside of the doorjamb to the door opening and ensure the gap is even and consistent (approx 5mm).





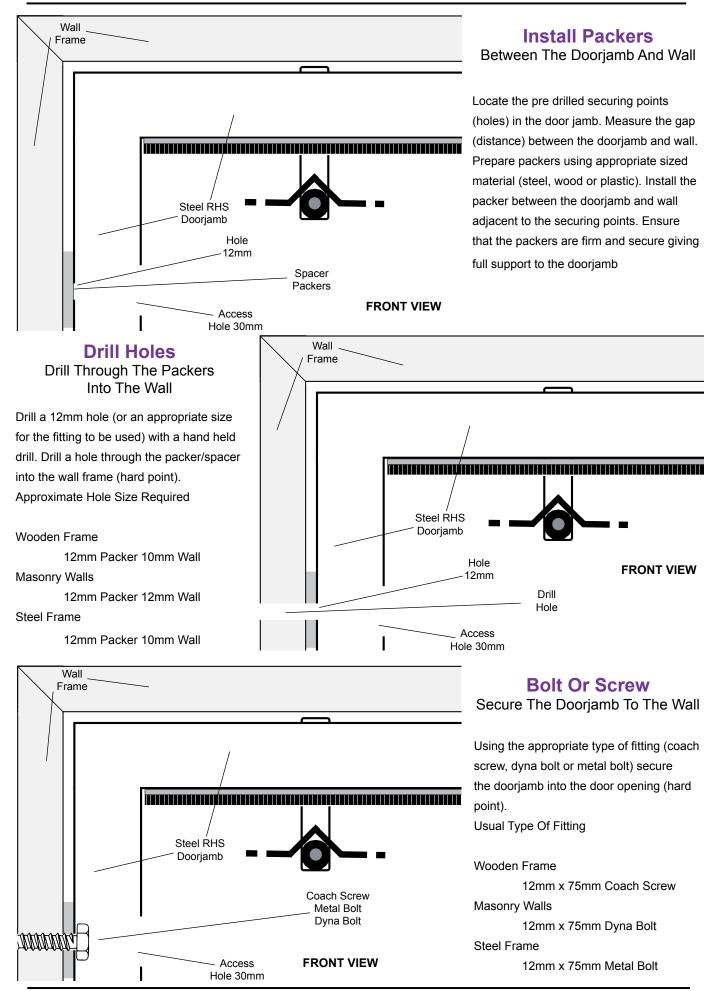


FRONT VIEW



Select appropriate sized material (steel, wood or plastic) for use as packer/spacer (usually approximately 5mm) between the doorjamb and wall door opening. Fit the packers adjacent to the pre drilled holes between the door jamb and door opening. Ensure the packers are firm and secure, drill the appropriate sized hole through the packer into the wall frame (usually 12mm in dia 75mm into the wall). Using the appropriate type of fitting (coach bolt, dyna bolt or metal bolt) secure the door jamb to wall opening (frame). Romove brace and stays from the doorjamb after fixing to floor and wall.







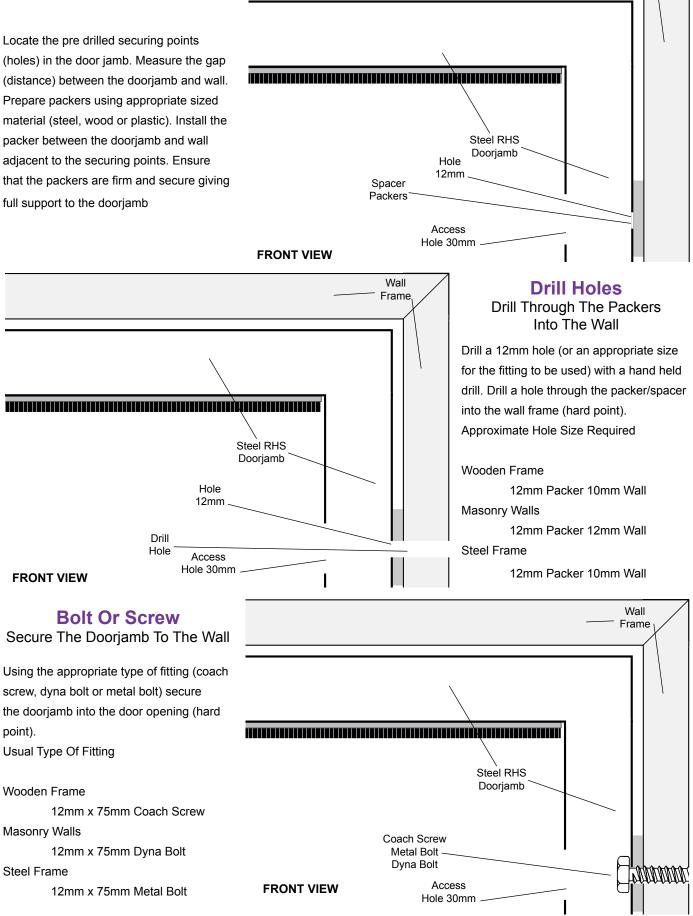
Wall

Frame

Install Packers

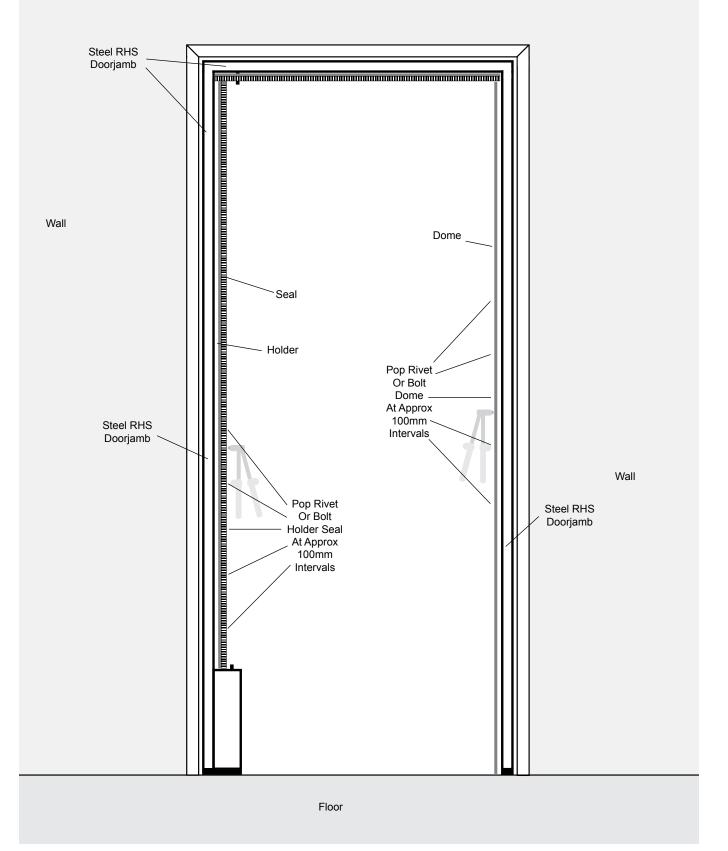
Between The Doorjamb And Wall

Locate the pre drilled securing points (holes) in the door jamb. Measure the gap (distance) between the doorjamb and wall. Prepare packers using appropriate sized material (steel, wood or plastic). Install the packer between the doorjamb and wall adjacent to the securing points. Ensure that the packers are firm and secure giving



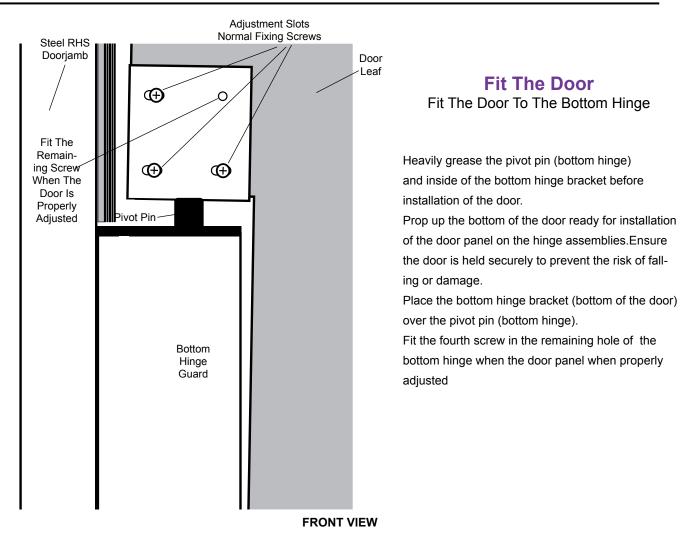


FRONT VIEW



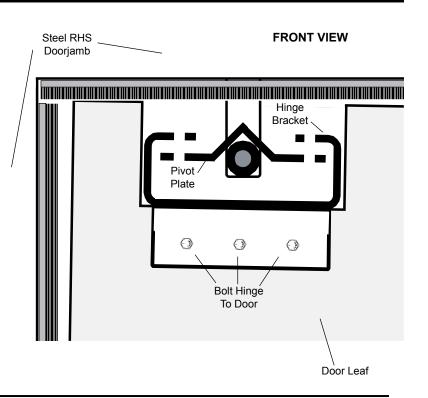
When the doorjamb has been fixed to the wall the seals must be fitted prior to installation of the door. The seal holder and doorjamb are predrilled for easy fitting. Position the top aluminum holder/seal over the hinge pivot on the top RHS steel doorjamb. Align the mounting holes and secure by pop riveting the aluminum holder to the doorjamb. Fit the aluminum holder/seal and dome on the side of the doorjamb. Align the mounting holes and fix the aluminum holder with pop rivets to the inside of the doorjamb.



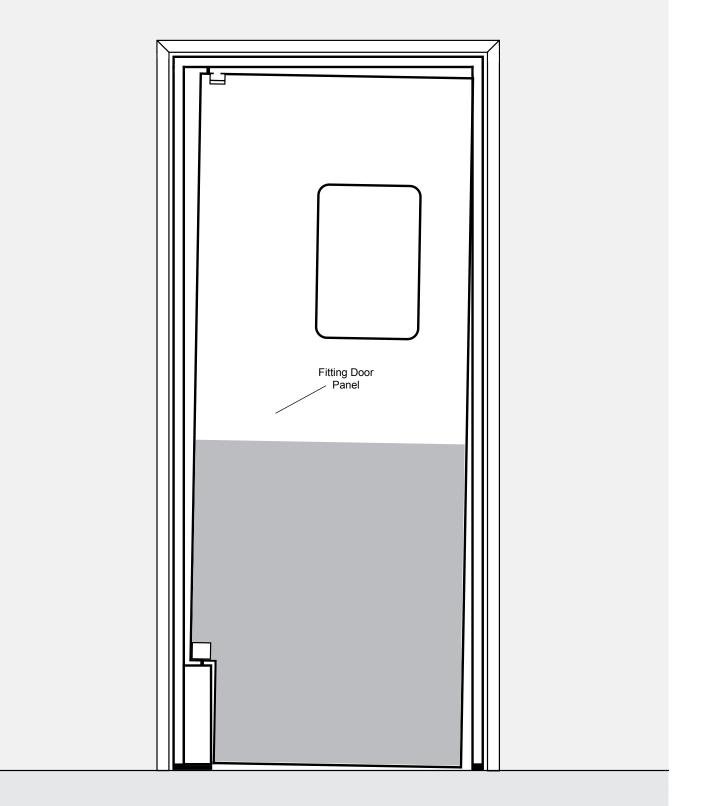


Fit The Door Fit The Door To The Top Hinge

Lift or prop up the door to a height that will allow it to be easily fitted to the top hinge. Ensure the door is held securely to prevent the risk of falling or damage.Position the pivot plate in the hinge bracket (attached to the door). Ensure that the edges and holes of the pivot plate and hinge bracket are properly aligned. Allow the door to drop into position with its full weight resting on the top hinge assembly

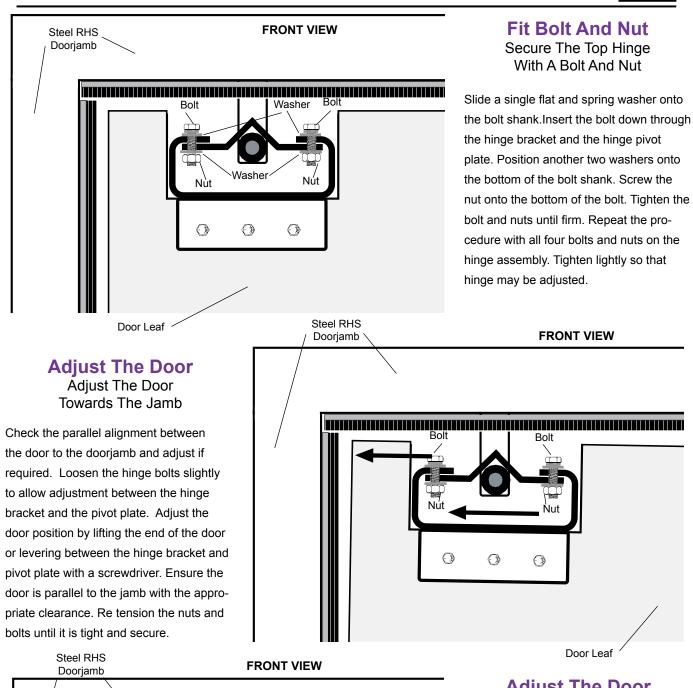






As the high impact door panels can be large it takes two people to lift and position the door panels on the hinge assembly. The door panels are installed by lifting and placing the hinge bracket on the bottom of the door over the pivot pin. With one person on a ladder and other on the floor the door panel should be lifted with the top hinge bracket been placed over the pivot plate. The top hinge bracket should be secured using two using diagonal bolts lightly tensioned. Care should be taken while lifting and position-ing the door panel due to their weight and size.







Check the parallel alignment between the door to the doorjamb and adjust if required. Loosen the hinge bolts slightly to allow adjustment between the hinge bracket and the pivot plate. Adjust the door position by pulling down on the end of the door or levering between the hinge bracket and pivot plate with a scewdriver. Ensure the door is parallel to the jamb with the appropriate clearance. Re tension the nuts and bolts until it is tight and secure.

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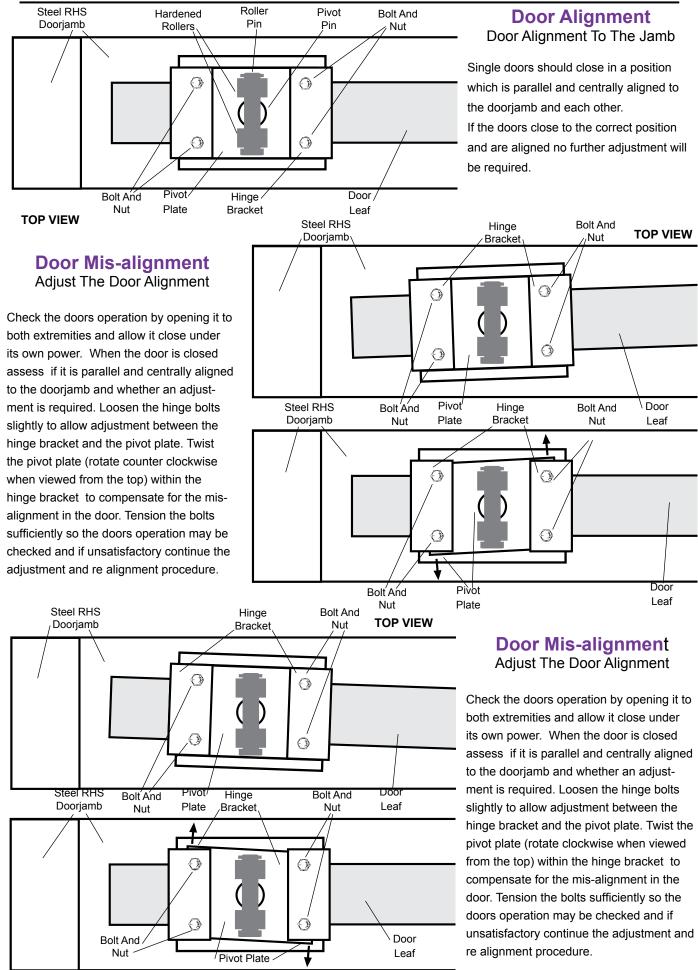
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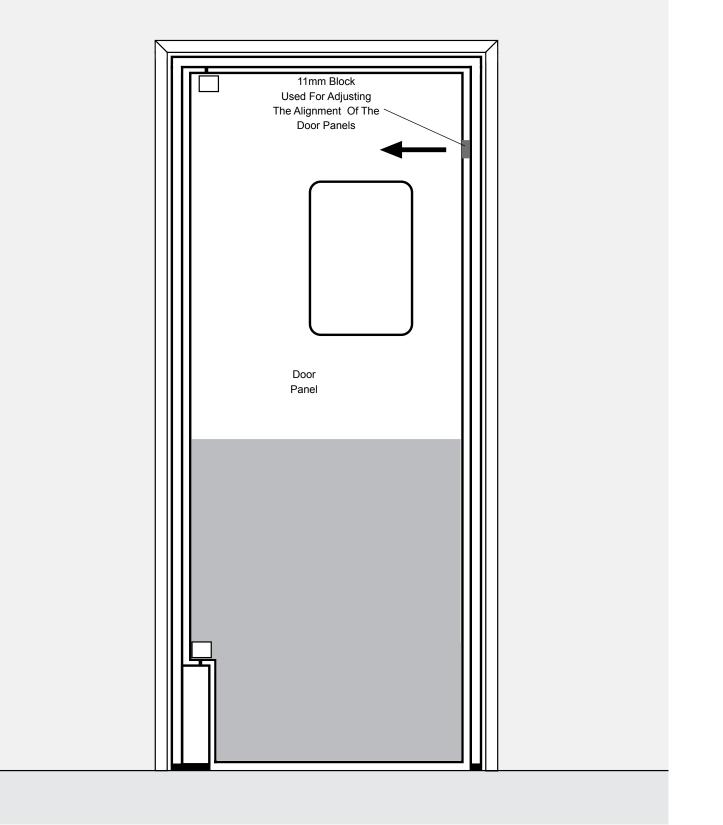
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Installation Manual









After the initial alignment of the door panel has been completed the alignment and clearance of the seals should be checked. Generally the door panels and seal tend to be closer at the top of the door and need adjusting. Open the door and place a 11mm block between the door panel and doorjamb. Close the door panels slowly and allowing the block to force the door panel into its correct alignment. Check that the door panel is parallel to the doorjamb and the seals are properly aligned



Steel RHS Doorjamb Bolt Wit Nut Nut Nut Door Leaf

Tighten Nuts And Bolts

Tighten Nuts And Bolts And Lock The Hinge

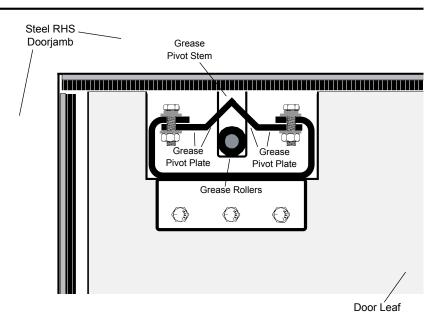
Check that the door is level, plumb and aligned to the doorjamb. Ensure that each hinge is secured with bolts, nuts and washers. Ensure that each of the fittings have a spring washer fitted below the bolt head or on top of the securing nut. Using one spanner on the nut and another to turn the bolt, tension until they are tight and secure.

FRONT VIEW

Lubricate Top Hinge Grease All Working Wearing Parts

Place an object under the bottom of the door to prop it up and assist in lubricating the hinge.

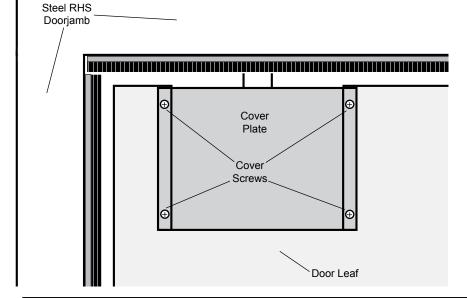
Smear grease on the roller pin and inside the hardened rollers before assembling. Heavily grease the outer surface of the hardened rollers. Thoroughly grease the under side of the pivot plate but especially the cam mechanism. Apply grease to the main pivot stem on which the pivot plate rotates. Ensure that all the working/wearing surfaces are thoroughly lubricated.



FRONT VIEW

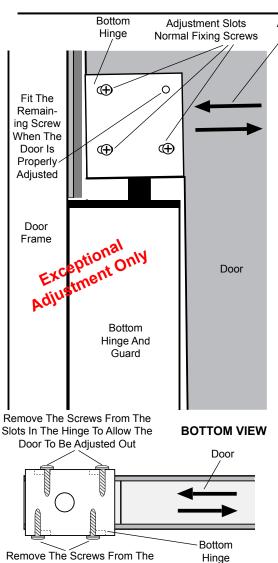
Install Cover Plates Fix Cover Plates To The Top Hinge

Clean any excess grease from the door using a gentle cleaning agent and cloth. Position the cover plate over the top hinge and ensure that the fixing holes align. Screw the cover plate to the door panel. Ensure the cover plate sits square and fully covers the hinge mechanism.



Installation Manual





Remove The Screws From The Slots In The Hinge To Allow The Door To Be Adjusted In

Adjust The Doors Insert A Chock Adjust The Door Alignment

As the door frames and doors are made precisely, any miss alignment at the bottom of the doors is generally caused by the incorrect installation of the door frame. As the tolerances and clearances in the high impact door are relatively close it is essential the door frame is both square or plumb when installed and before adjusting the bottom hinge. The adjustment of the door panel (in the bottom hinge assembly) is achieved by removing the screw in the non slotted holes and loosening the others in the slotted holes. The door should be opened and the chock inserted opposite the bottom hinges (approx 22mm). Slowly close the door on the chock which will force the door panel to move towards the bottom hinges. Assess that the alignment and clearance of the doors is correct and then re affix to the bottom hinge with the large screws.

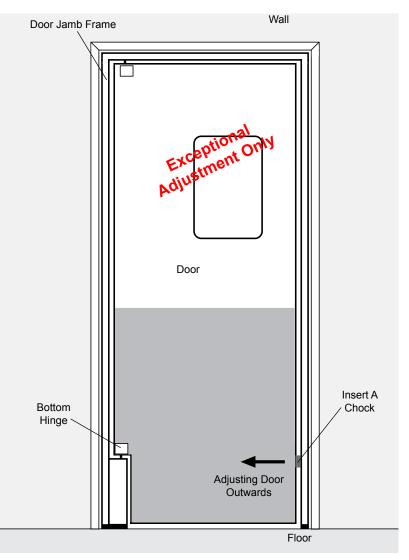
Adjusting Door / Outwards

FRONT VIEW

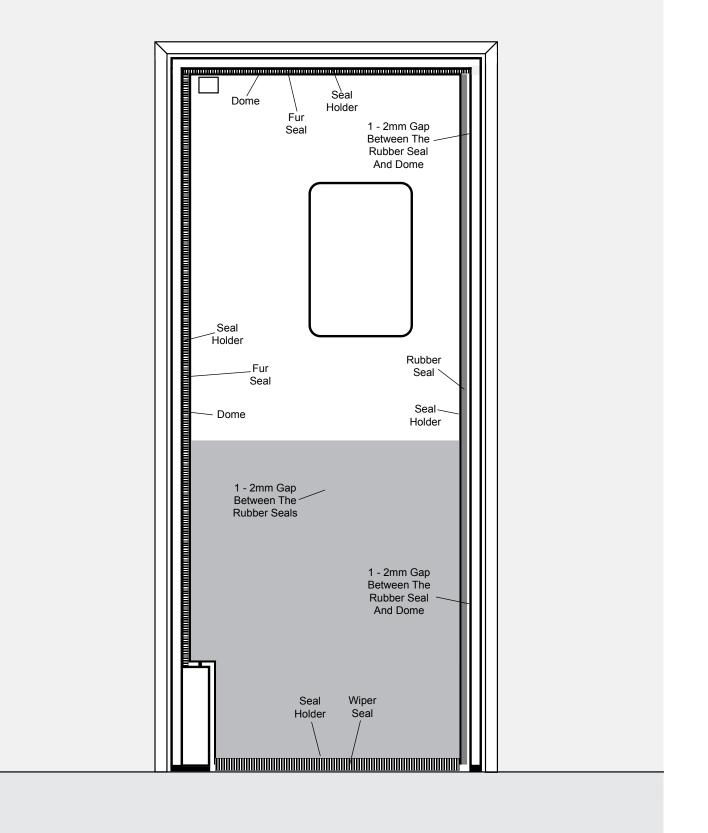
Adjust The Hinge Adjust The Hinge And Door Secure With A Screws

The door panel can be adjusted in or out in the bottom hinge. The hinge is fixed to the door by three screws on each side in the slotted holes. The screws are set to the inside of the slot on one side and the outside of the slot on the other side if hinge. To realign the door remove the screws on the inside or outside of the slots depending on which way the door needs to be adjusted. The adjustment of the door panel is achieved by using a chock between the door panel and door jamb. The bottom hinge has slots that will generally allow the door to move by up to 2-3mm. When the door panel is correctly aligned first fit the screws in the non slotted holes to secure the doors position. Then refit the screws that were removed from the slotted holes of the hinge assembly.

On rare occasions where greater adjustment is required it may be required remove the door from the door frame. Remove all the screws from the bottom hinge assembly (on each side). Drill or file a larger hole in the bottom of the door panel to allow a greater adjustment of the bottom hinge assembly. Refit the bottom hinge and re install the door panel on the door frame. When the door panel is correctly aligned fit the screws in the non slotted holes (on each side) to secure the doors position. Fit the screws in the slotted holes on each side of the hinge assembly.

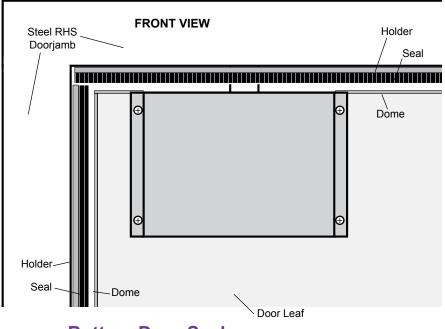






Correct door alignment is important as it can affect the clearance on the seals and the operation of the doors. The rubber seal and dome on the doorjamb should be evenly spaced with a clearance of between 1-2mm. If the seal contact the dome it may affect the operation of the doors not allowing them to close properly. The clearance between the side and top of the door should be checked for excessive dragging on the fur seals. When the bottom wiper seals are installed there should be a slight clearance to floor to prevent dragging and effect the operation of the doors





Bottom Door Seals Fully Sealed Door To Doorjamb And Floor

The bottom and sides of the door are fully sealed to the doorjamb and floor respectively. When the door is installed careful note should be taken of the clearance between the door edge and doorjamb. There should be a consistent and reliable contact between the seal material and door edge (but not over tight). To test the effectiveness of the seal or friction, the door should be opened to either extreme and allowed to close. Excessive friction or binding denotes a incorrect adjustment or non alignment. The brush seal mounted on the base of the door is designed to provide a reliable and robust seal to the floor. Depending on the flatness and level of the floor this will affect the seal and friction to the floor. If the floor is uneven or out of level it may be necessary to adjust the height of the wiper seal.

Seals

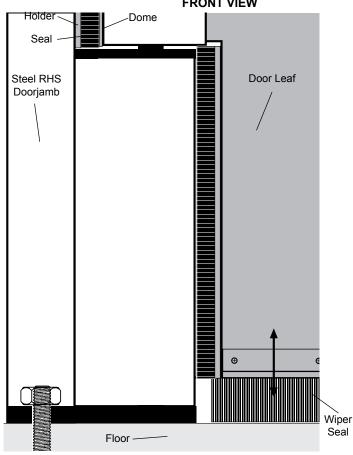
Single And Double Doors Seals

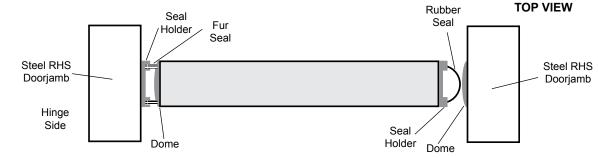
Both the single and double high impact doors use similar seal configurations. In both cases care should be taken to ensure that there is a consistent seal without binding or undue pressure. The double high impact door uses twin rubber Dseals between the doors which should have a 2-3mm clearance (when first installed). Uneven clearance between thedoor seals may indicate mis alignment of the door.

Top Door Seals Fully Sealed Door To Doorjamb

The high impact door provides a full seal from the doorjamb to the door. When the door is installed careful note should be taken of the clearance between the door edge and doorjamb. There should be a consistent and reliable contact between the seal material and door edge (but not over tight). To test the effectiveness of the seal and friction to the door it should be opened to either extreme and allowed to close. Excessive friction or binding denotes incorrect adjustment or non alignment.

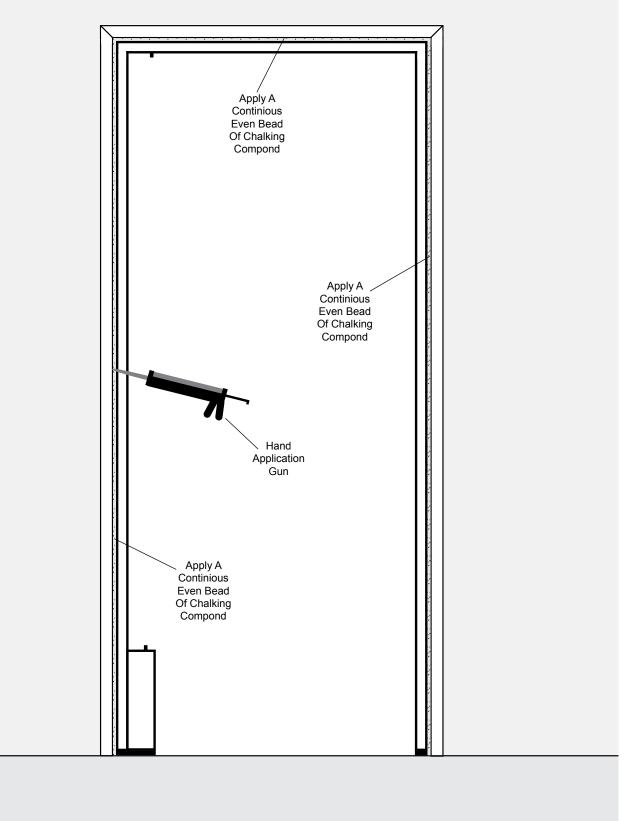
FRONT VIEW







FRONT VIEW



The appearance and finish of the high impact door is important as it is often used in retail applications. When the doorjamb is installed in the door opening there is usually a 5mm gap (clearance). To ensure the door conveys a professional and presentable image this gap should be filled with a silicone or a chalking compound. Before the silicone or chalking compound is applied the junction of the wall opening and doorjamb should be cleaned with a general purpose cleaner. The silicone or chalking compound is squeezed from the tube and applied to the doorjamb using a hand held gun. The silicone or chalking compound should be applied in a continuous and even bead the entire length of the door jamb (sides or top). Press the sealing compound into the gap between the doorjamb and the wall opening ensuring the finish is smooth and even. Any excess sealing compound should be quickly wiped off using a clean cloth



Check And Test All Vital Aspects Of Door

Check that all fittings (nuts, bolts, dyna bolts, screws) are secure and tight. Check that all the working/wearing components of the hinge assemblies are well lubricated Check that the door leafs are parallel and square to each other, doorjamb and wall opening Check that all the seals are working correctly and the clearance is correct.

Check the adjustment and the friction between the wiper seal and the floor.

Check the operation of all the hinges

Test the door/s by opening them to either extremity and allow them to close under their own power.

Test to ensure the door/s fully close and are square and fully aligned to the doorjamb.

Test the door in the full range of normal operating condition (fans on, other door open etc)

Test the door with standard trolleys and conveyancing equipment used in the facility.

Painting

Doorframe And Other Fittings

Even with the best of care it is not unusual for the metal work or fittings will get scratched during transportation or installation. Any such imperfection on a newly commissioned door gives a poor impression of the product and the workmanship. If the doorframes have been powder coated usual colours are satin black or bond merino and may be touched up with hand held spray packs of a similar colour. If the doorframes have a prime finish they must be painted in accordance with the customer colour scheme. Care should be take to ensure that the doorframe is protected from corrosion and paint applied is durable and hard wearing.

Clean The Door

Clean The Door Doorjamb And Fittings

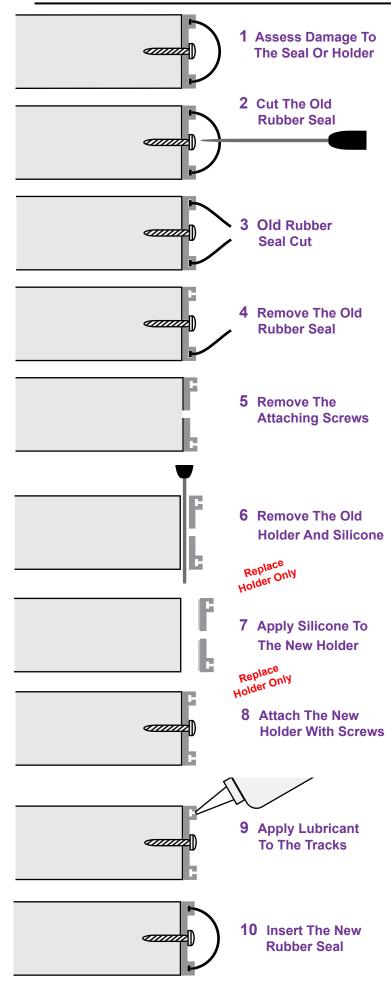
During the process of installing, commissioning and testing the high impact door it is inevitable that the door will become marked and dirty. As the door is often used in retail situations a dirty or scratched appearance gives a poor impression of the door and the workmanship. It is recommended when cleaning plastic type materials (door facing etc) that liquid abrasive cleaning compounds (eg jiff) be used avoiding aggressive solvent based cleaners. Metal coated components should preferably also be cleaned with liquid abrasive cleaning compounds. If the metal based components are particularly dirty or marked they may be cleaned with a moderate potency solvent based cleaning compound. Ensure that the doors, doorjamb and all other components are thoroughly cleaned and presents the door in a professional manner.

Consultation And Safety

Consult And Implement Safe Working Practices

Before any installation or maintenance work is undertaken the installer should introduce them self to the site manager, maintenance manager or the store manager according to who is most appropriate person. Care should taken to understand the clients requirements, facilitate a cooperative and friendly environment and ensure the minimum inconvenience is caused to the business and its customers. The safety of yourself, other workers, staff and customers are of paramount importance and every care should be taken. It is recommended the appropriate signage and guards are used to advise and prevent accidents. As high impact door are often used in retail and food preparation areas care should be taken not to use chemicals which may spoil or contaminate food or other products.





Assess the level of damage to the rubber seal and the aluminum holder. If the aluminum holder is bent, damaged it must be replaced along with the rubber seal, by following steps 2 to 10. If the aluminum holder is sound and securely attached to the door, replace the rubber seal only by following steps 2,3,4,9 and 10. Before the seal can be replaced the door must be taken off its hinges and dome removed from the top and bottom of the door.

The quickest and easiest way to remove the damaged seal from the aluminum holder is to cut the seal in half along its length. Using a sharp knife or scissors cut the rubber seal for its entire length to assist in its removal

With the rubber seal cut in half it can be easily removed by pulling it out from the aluminum holder. Using a pair of broad nosed pliers pull each side of the rubber seal out from the aluminum holder. If the rubber seal is difficult to remove, apply a lubricant to the tracks

Using a battery powered drill with the appropriate tip (straight or phillips head) remove all the screws that hold the aluminum holder to the side of the door panel. Unscrew the screws from the entire length of the aluminum holder ready for removal

Insert a sharp knife between the aluminum holder and the side of the door panel. Progressively slide the knife down the door cutting the silicone bond, been careful not to damage the side of the door panel. Remove the aluminum holder from the door panel by cutting the silicone bond and gently lifting. Clean and prepare the edge of the door panel by scraping off any residual silicone. If the edge of the door panel has been damaged during the removal of the aluminum holder repair with a high performance filler

Cut the new aluminum holder to the correct length to suit the door panel. Ensure that the holes in the new aluminum holder do not align with the previously used holes to maximize the holding strength. Apply silicone to the back of the new aluminum holder and then position of the edge of the door panel

Screw the new aluminum holder to the door panel using all available holes (at intervals of approx 100mm). Ensure that the ends of the aluminum holder are securely fixed to the door panel. The aluminum holder must be particularly well secured at each end of the door panel. Use additional screws 25mm at each end of the door panel if necessary.

The new rubber seal are often quite difficult to install in the aluminum holder and lubrication is generally required. Apply a lubricant (oil or any other lubricant which does not effect the rubber material) along both tracks of the aluminum holder before commencing the installation.

Bend the new rubber seal into a C shape and insert it into both the tracks of the aluminum holder. One person should feed (push) the rubber seal into the holder while another person should pull the rubber seal with pair of broad nosed pliers. The seal should be pulled into the holder with a firm and constant pressure to avoid over stretching the rubber seal. As the seal will tend to retract and it should be pulled through the holder so that there is approx 100mm excess on both ends. The rubber seal should compressed by pushing from both ends towards the center compensating for any stretching of the seal which occurred during installation. Allow the seal to settle and attain its normal length before trimming to length.