

In selecting a product, consideration is naturally given to its function, appearance, and application. However, it is equally important to evaluate wall conditions because an accessory is only as strong as its anchoring devices and the wall on which it mounted. After assessing wall conditions, use these guidelines to select the appropriate fastening system.

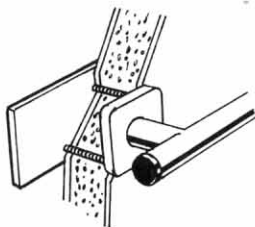
NEW CONSTRUCTION

TSM recommends attaching surface mounted accessories to in-wall wood backing fastened to building studs. Consult local building codes to assure compliance.

Screws—2" (51mm) or 3/4" (19mm) x #10 (5mm) Phillips head stainless steel sheet metal screws are provided for most items. Other lengths and tamper-resistant screws are available as options. Attach unit to wall and into backing with screws provided at locations marked with an "S" on the technical data sheet.

If wood backing is not permitted due to building code, attach in-wall metal backing plates to building studs:

BP-10A Metal Plate: 11 gauge (3.1mm) x 3/2" (89mm) cold rolled steel available in 30" (762mm) or 40" (1016mm) lengths. Weld plate to building studs or fasten with bolts and nuts. Drill and tap holes in plate through finish wall. Fasten product to metal plate with #10 (5mm) machine screws provided by TSM.

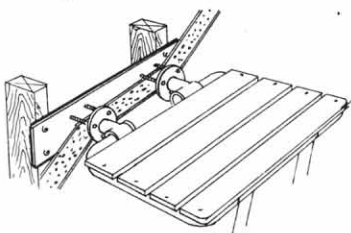


BP-10A shown with 875-C Towel Bar

BP-10B Metal Plate with Threaded Sleeves: 11 gauge (3.1mm) x 3/2" (89mm) cold rolled steel with welded threaded sleeves. BP-10B must be ordered with the product for correct length and so the threaded sleeves will match the mounting holes.

Attach product to BP-10B and fasten the plate to building studs, allowing for recommended mounting heights. Remove product. Insert marker screws through wood spacers into plate. Press drywall in place, as it will be installed, against the marker screws and drill through indentations.

When drywall is installed, marker screws will project through wall. Remove and discard them, then fasten product to BP-10B with stainless steel machine screws provided.



BP-10B shown with 703 Shower Seat

EXISTING WALLS

Installing surface mounted accessories on existing walls requires careful analysis of the wall system. Wherever possible, walls should be opened to add in-wall backing and the guidelines for New Construction followed.

TSM does not recommend mounting any accessory (towel bar, grab bar, shower seat, etc.) on a wall that is too weak to support it during use. That includes, but is not limited to, fiberglass/acrylic shower units and hollow walls (framed, stud, plastered, drywall, plasterboard, sheetrock, gypsum wall) without backing.

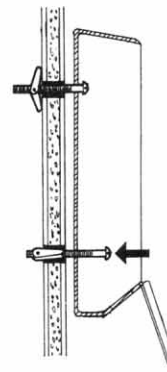
If access is possible behind a solid wall (concrete, block, brick), a

through-bolt is recommended. The TB-8 Through-Bolt Mounting Kit (see Partition Mounting Kits) can accommodate up to 7/2" (178mm) wall thickness.

When adding in-wall backing or using through-bolts is not possible, consider the following:

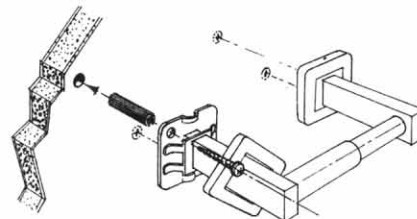
- For wood stud walls, fasten unit directly to studs with sheet metal screws.
- For metal studs, fasten unit to metal studs with sheet metal screws.
- For hollow walls, toggle bolts, Expandet® anchors or Toggles® may be the solution:

Toggle Bolts: Stainless steel or cadmium plated 3" (76mm) x 3/16" (5mm) #10-24 round head bolts with toggle wings. Drill 3/8" (9.5mm) or 7/16" (11mm) hole as required and insert bolt with wings attached through product to fasten to wall. Wings pop open inside hollow wall and, as bolt is tightened, they press against the wall securing product in place. For a faster installation, reverse the bolt. Insert it head first (with wings attached) inside wall, then secure the item to the wall with a jam nut. Excess bolt length may be cut off with bolt cutter.



Toggle Bolts shown with 5230 Paper Towel Dispenser

Expandet® Anchors: 2" (51mm) plastic expansion anchor. Drill 1/4" (6mm) or 3/8" (9.5mm) hole as required 2" (51mm) deep, tap anchor into hole, mount unit to wall with sheet metal screws. Anchor expands as the screw is inserted to pressure fit against wall.

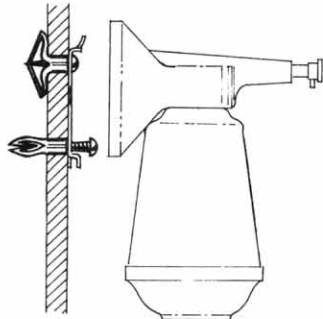


Expandet® Anchors shown with 801 Toilet Tissue Holder

Toggles®: Non-corrosive polypropylene plastic. Drill 1/4" (6mm) or 5/16" (8mm) hole, depending on model Toggler® being used, insert Toggler®, and mount unit to wall using sheet metal screws. Toggler® wings expand to open fully in a hollow wall or wedge tightly in a solid wall. TSM recommends the Toggler® because of these characteristics.

- It remains tough yet flexible at temperature extremes of -20°F. (-30°C.) to +250°F. (+120°C.)
- The anchor's translucence makes it nearly invisible under most conditions.
- It is electrically nonconductive, allowing safe anchoring of electrical accessories.
- Nonrusting and noncorrosive, the Toggler® is ideal in damp or corrosive conditions, especially when combined with stainless steel screws.

- It is ideal for anchoring dissimilar materials to prevent potential galvanic action problems.
- The anchor self-lubricates as the screw is installed.
- Model TA:** For 1/8" (3mm) wall thickness (doors, paneling, hardboard).
- Model TB:** For 3/8" (10mm) wall thickness (residential gypsum, drywall).
- Model TC:** For 5/8" (16mm) wall thickness (commercial gypsum, drywall, laminated walls).
- Model TD:** For double thick drywall.



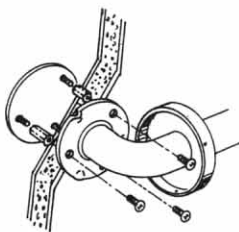
Togglers® shown with SD-2 Soap Dispenser

PARTITIONS

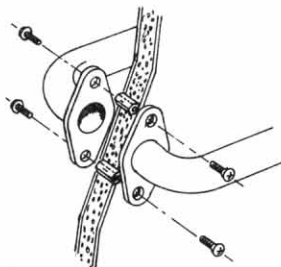
Solid Core Partitions—Secure unit to partition with 3/4" (19mm) screws.
Marble Partitions—Although partition mounting kits BP-2, BP-7 and BB-3 may be used, the TB-6 Through Bolt mounting kit is particularly recommended since only one hole is required, thus reducing the danger of cracking the partition.
Honeycomb Core Partitions—TSM recommends reinforcement of the partition. If this is not possible, a through-bolt mounting system should be used.

PARTITION MOUNTING KITS:

One-man installation tip: Insert the back plate studs through the partition and tape in place to temporarily secure it. Then go around and install the item to the studs on the other side.
BP-2 Back Plate: Stainless steel Type 304 (18-8) 14 gauge (1.9mm) 3" (76mm) diameter disk with satin finish and 1/2" (13mm) #10-24 studs welded in pattern of screw holes on grab bar flanges. The BP-2 kit comes complete with 3/4" (19mm) coupling nuts and 1/2" (13mm) #10 (5mm) machine screws and will accommodate panel thicknesses from 3/4" (19mm) to 1 1/2" (38mm).
 Note: The BP-2 is recommended for use with all grab bar flange styles except CS-5, which works better with the TB-6 mounting kit.



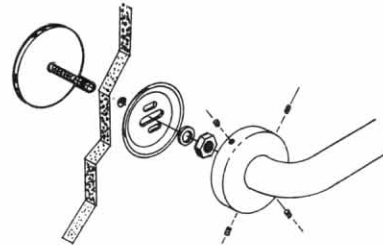
BP-2 shown with CS-1 Grab Bar Flange



BB-3 shown with D-3 Grab Bar Flange

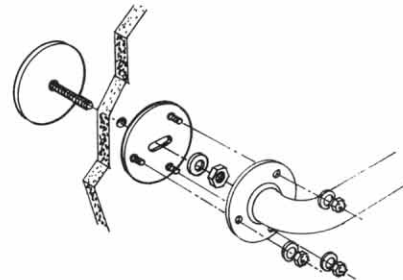
BB-3 Back-to-Back Mounting Kit: 3/4" (19mm) #10-24 coupling nuts and 1/2" (13mm) #10-24 pan head machine screws. The BB-3 kit mounts two grab bars back-to-back on toilet compartment partition from 3/4" (19mm) to 1 1/2" (38mm) thick.

TB-6 Through Bolt: Stainless steel Type 304 (18-8) 14 gauge (1.9mm) 3" (76mm) diameter disk with satin finish and 1/4" (6mm) x 1 1/2" (38mm) threaded rod welded to center. The rod is inserted through the partition and into an SP-4 sub-plate (or tenon plate, in the case of a grab bar with CS-5 flanges) and fastened with a 1/4" (6mm) hex nut and washer.
 Note: The TB-6 has the advantage of requiring only one hole drilled through a partition, but it does require a sub- or tenon plate. The BP-2 does not require an additional plate, but it requires 2 or more holes.
TB-8 Through Bolt: Same as TB-6 except rod is 8" long.



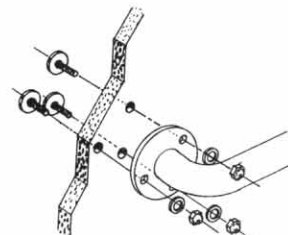
TB-6 shown with CS-5 Grab Bar Flange

SP-4 Sub-Plate (To be used in conjunction with TB-6): Stainless steel Type 304 14 gauge (1.9mm) 3" (76mm) diameter disk with 1/4" (6mm) acorn nuts for exposed screw products (including D-1, R-1, D-3, R-3 grab bars) or hex nuts for concealed screw products (including FS-1 and CS-1 grab bars.)

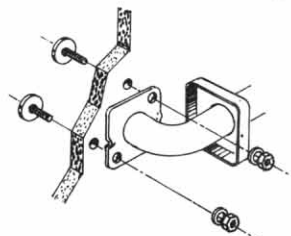


TB-6 and SP-4 shown with R-1 Grab Bar Flange

BP-7 Individual Flange Hole Units: Stainless steel Type 304 (18-8) 8 gauge (4.2mm) 1" (25mm) diameter disks with satin finish and 1/4" (6mm) x 1 1/2" (38mm) threaded rod welded to center. Kit comes complete with acorn nuts for exposed screw products (including D-1, R-1, D-3, R-3 grab bar flanges) or hex nuts for concealed screw products (including FS-1, CS-1, CS-5 grab bar flanges).



BP-7 shown with R-3 Grab Bar Flange



BP-7 shown with FS-1 Grab Bar Flange