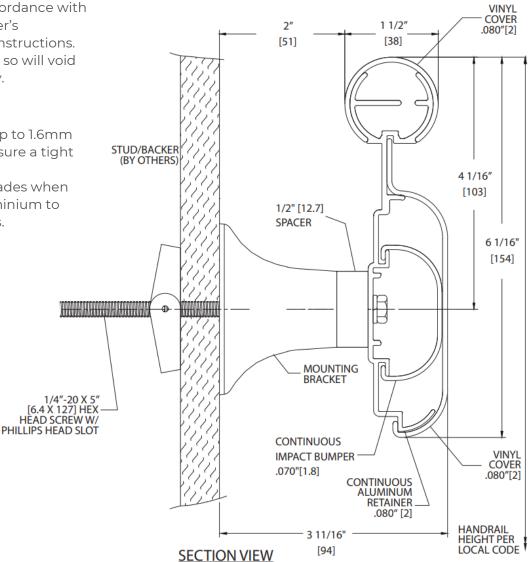
3100 Series Handrail

Important

- Acclimate materials 24
 hrs before installation.
 Maintain temperaturecontrolled environment
 after installation
- Install in accordance with manufacturer's installation instructions. Failure to do so will void the warranty.

Installation tips

- Cut covers up to 1.6mm longer to ensure a tight fit.
- Lubricate blades when cutting aluminium to reduce burrs.

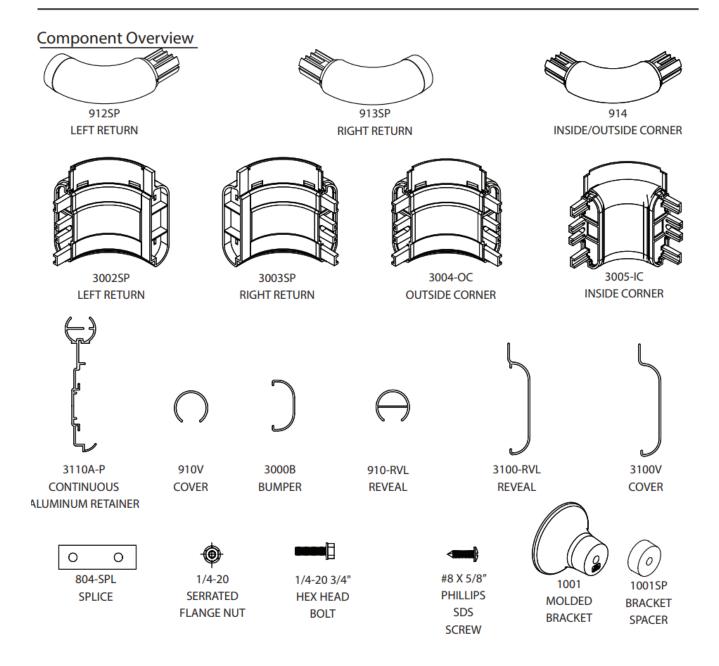


Recommended Tools

Safety Glasses, Tape Measure, 9mm socket for machine screw hex bolt, 11mm socket for wood screw hex bolt, Level, Phillips and Flat head Screwdrivers, Power Drill, Drill Bits – 6mm masonry (concrete/concrete block), Power Miter Saw, 254mm Blade with 60-80 Carbide Tipped Teeth.



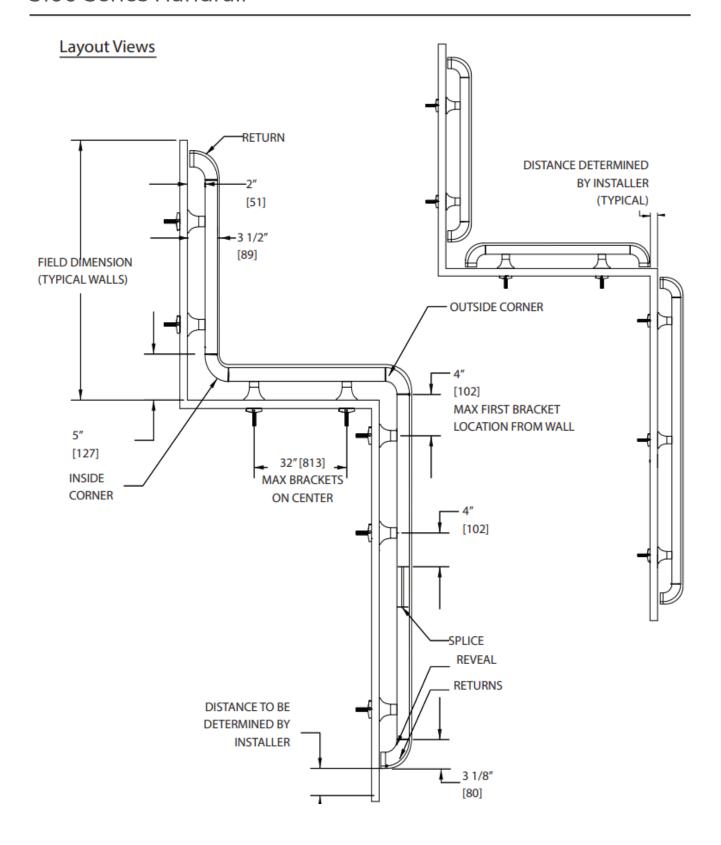
3100 Series Handrail



Wall Condition	Specified Fasteners
Steel Stud/Gypsum Wall	1/4-20 x 5" Phillips hex head bolt with toggle wing and lock washer
Concrete/Concrete Block	1/4-20 x 5" Phillips hex head bolt with lead anchor and lock washer
Wood Stud/Gypsum Wall	1/4" x 5" Hex Head Wood Screw and lock washer
16 gauge steel Backer/Gypsum wall	#14 x 4" Indented hex washer, zink-plated TEK screw
Steel Stud or Metal Backer/Drywall (OSHPD)	1/4-20 x 5" Phillips hex head Bolt with lock washer and 1/4" Hilit Toggler
Concrete/Concrete Block (OSHPD)	1/4" x 4" Torx Hex Washer Head Screw (Hilti Kwik-Con II) and lock washer
Wood Stud or Wood Backer/Gypsum Wall (OSHPD)	1/4" x 5" Hex Head Wood Screw and lock washer

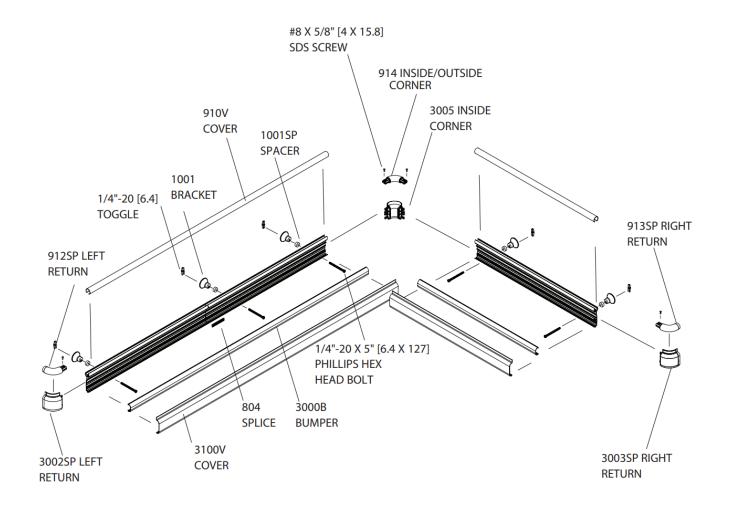


3100 Series Handrail

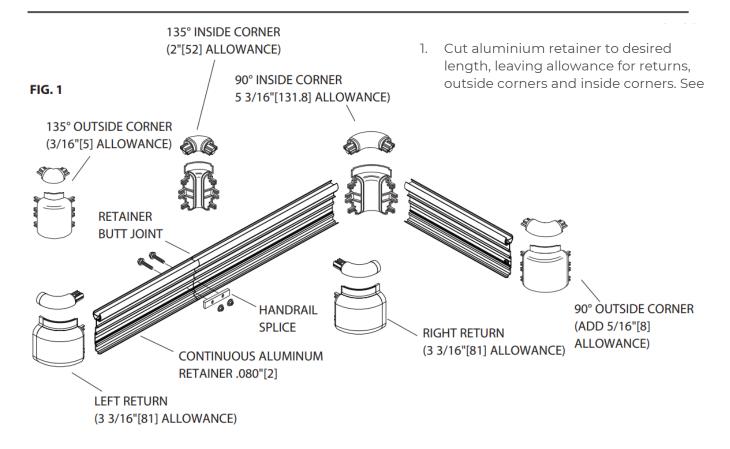


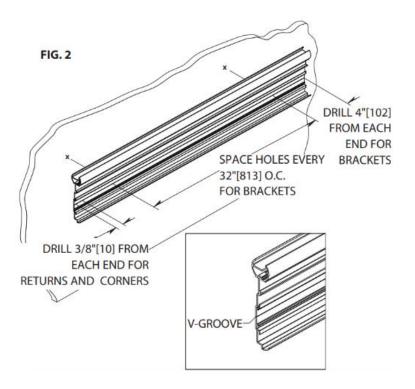


3100 Series Handrail



3100 Series Handrail

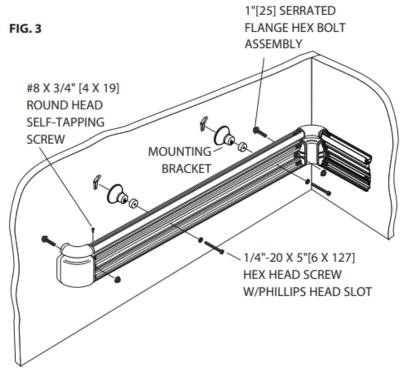




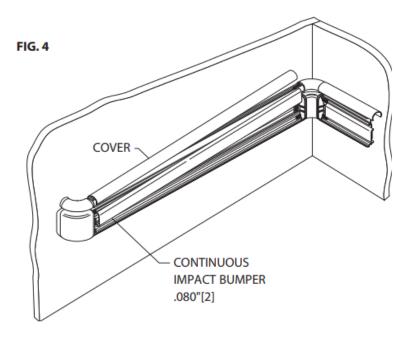
2. Drill holes in the "V-groove" of the aluminium retainer for brackets, returns and corners using a 6mm drill bit. Position retainer against wall at desired height allowing for returns and corners. When assembled, the top of the handrail is 103mm above the "V-groove." Level and mark bracket holes on wall. Drill marked holes with 19mm drill bit for toggle bolts (drywall installation) or 13mm drill bit for lead anchor (concrete wall application). See Figure 2.



3100 Series Handrail



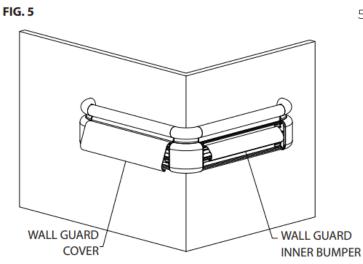
3. Using a 6mm drill bit, drill hole through the tab on the returns/corners for the top portion of the handrail Slide tabs onto top portion of retainer and fasten. For the lower portion of the handrail slip optional reveal onto returns/corners, slide tabs of returns/corners onto retainer and fasten. Loosely attach brackets to retainer. Mount on wall, level retainer and tighten screws to secure. See Figure 3.



4. Cut the inner bumper to the length between the tabs on the returns/corners. Position and snap inner bumper in place. Cut cover for top portion of handrail to length between returns and/or corners. (Note: Trim factory edges square before installation) Position cover on retainer at one end and work to the other end by snapping the cover over the retainer. See Figure 4.



3100 Series Handrail



5. Cut the cover for lower portion of handrail to the length between reveals on returns and/or corners. (Note: Trim all factory edges square before installation.) Position cover on retainer. Starting with top edge of cover, slip cover under handrail and snap cover on retainer by pivoting bottom of cover over retainer. See Figure 5.



