

1. Construct or reconstruct the manhole chimney to grade as required, allowing for a minimum 3/8 inch thick joint between the frame base flange and top adjusting ring or cone. The area of the cone where the bottom of the sleeve or extension compresses, must be a minimum 1 inch wide, reasonably smooth, vertical and circular surface and be free of any loose material or excessive voids. Non-shrink repair mortar must be used to repair and smooth out defects on this surface.
2. Place a thick bed of mortar on the horizontal surface of the cone or top adjusting ring and embed the provided spacers in it at equal spacing. Spacers are not required if the base flange of the casting is 1-1/2 inches or more larger in diameter than the chimney or cone. DO NOT use butyl rubber gasket material such as EZ Stik or Kent Seal in this joint.
3. Set the manhole frame on top of these spacers, center it on the chimney or cone, and embed in the mortar course. Rake the mortar free for a minimum depth of 1 inch under the outer edge of the casting base flange and smooth out the joint on the inner surface.
4. Grind or fill any imperfections on the edge of the manhole frame base flange and remove any loose rust or scale to provide a reasonably smooth, clean sealing surface. Cut or grind smooth any strengthening ribs that may interfere with the seal or top compression band.
5. If an extension is being used, position it first by placing it around the manhole frame and pull it down until the lower sealing band area is positioned on the vertical surface of the cone.
6. If only a seal is being used, place the sleeve around the manhole frame and chimney and pull down to fit the top section of the sleeve over and under the edge of the frame base flange and the lower sealing band area so it is positioned on the chimney or cone. Lubricate the top compression band area of the sleeve with the supplied gasket lube.
7. Place the top compression band around the sleeve and frame base flange with the gear nut to the right. Tighten the band securely using a 5/16 inch nut driver, socket with ratchet wrench or large flat blade screw driver. Check to insure that the band has been compressed and the sleeve is sealed around its entire perimeter.
8. Some surfaces may have irregularities that may require the use of a butyl rubber caulk as a filler material to obtain a watertight seal. In such cases, lift up the bottom of the sleeve or extension, apply the caulk in the area of the surface defect and return it to its normal position.
9. If only a seal is being used, lubricate the bottom band recess area, place the band around the sleeve and into the recess with the gear nut to the right and adjust the sleeve so that the top and bottom bands are parallel. Tighten the lower band using a 5/16 inch nut driver, socket with ratchet wrench or large flat blade screw driver. Check to insure that the sleeve is tight against the surface around its entire perimeter.
10. If an extension is being used, position it so the top of the extension is under the lower sealing band area of the seal and the bands are parallel.
11. Repeat step 9 to tighten the bands and seal the top of the extension/bottom of the seal and the bottom of the extension.
12. Backfill the area immediately around the manhole with selected material using care so as not to damage the installed seal and/or extension.