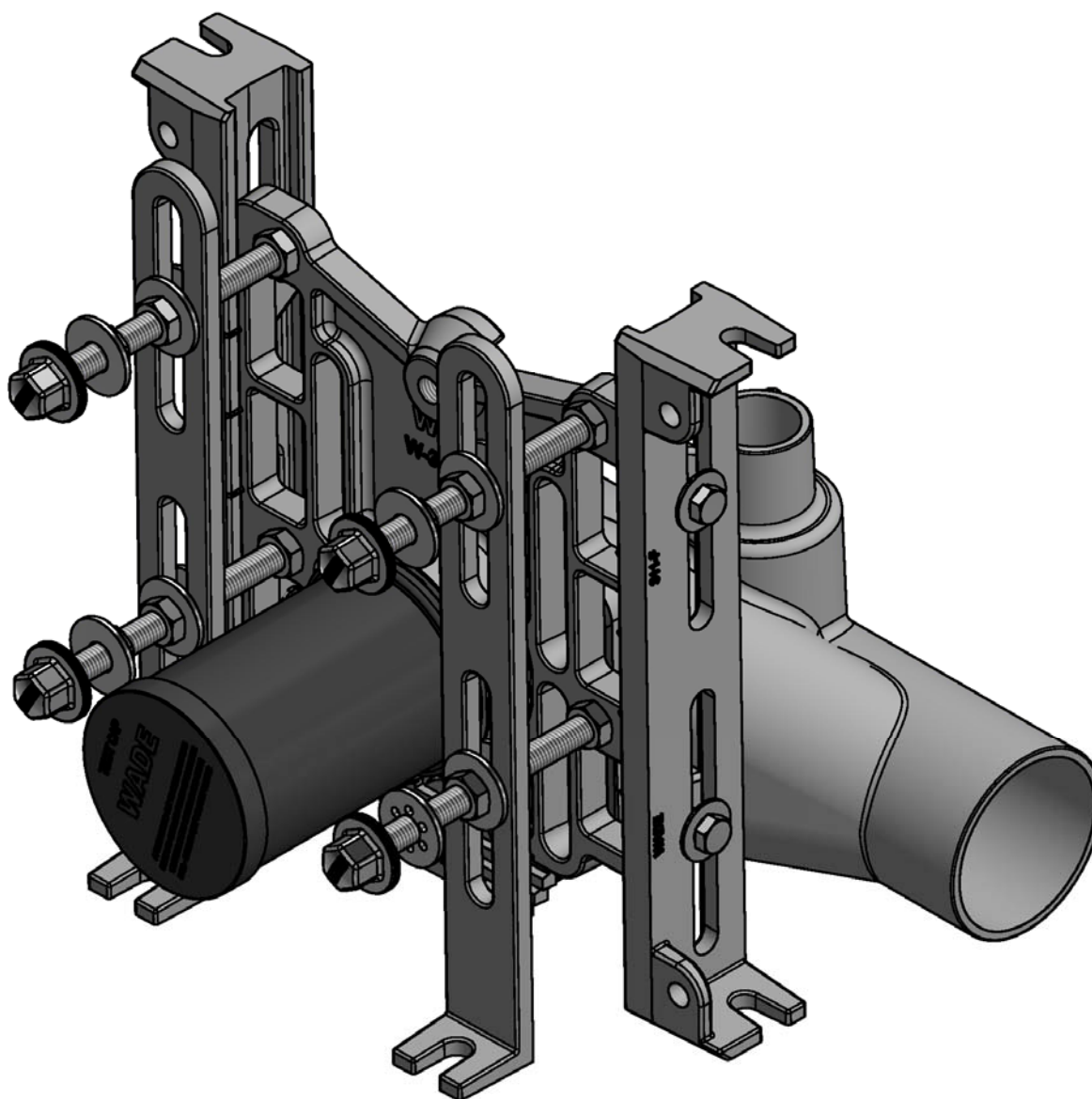


INSTALLATION, OPERATION & MAINTENANCE

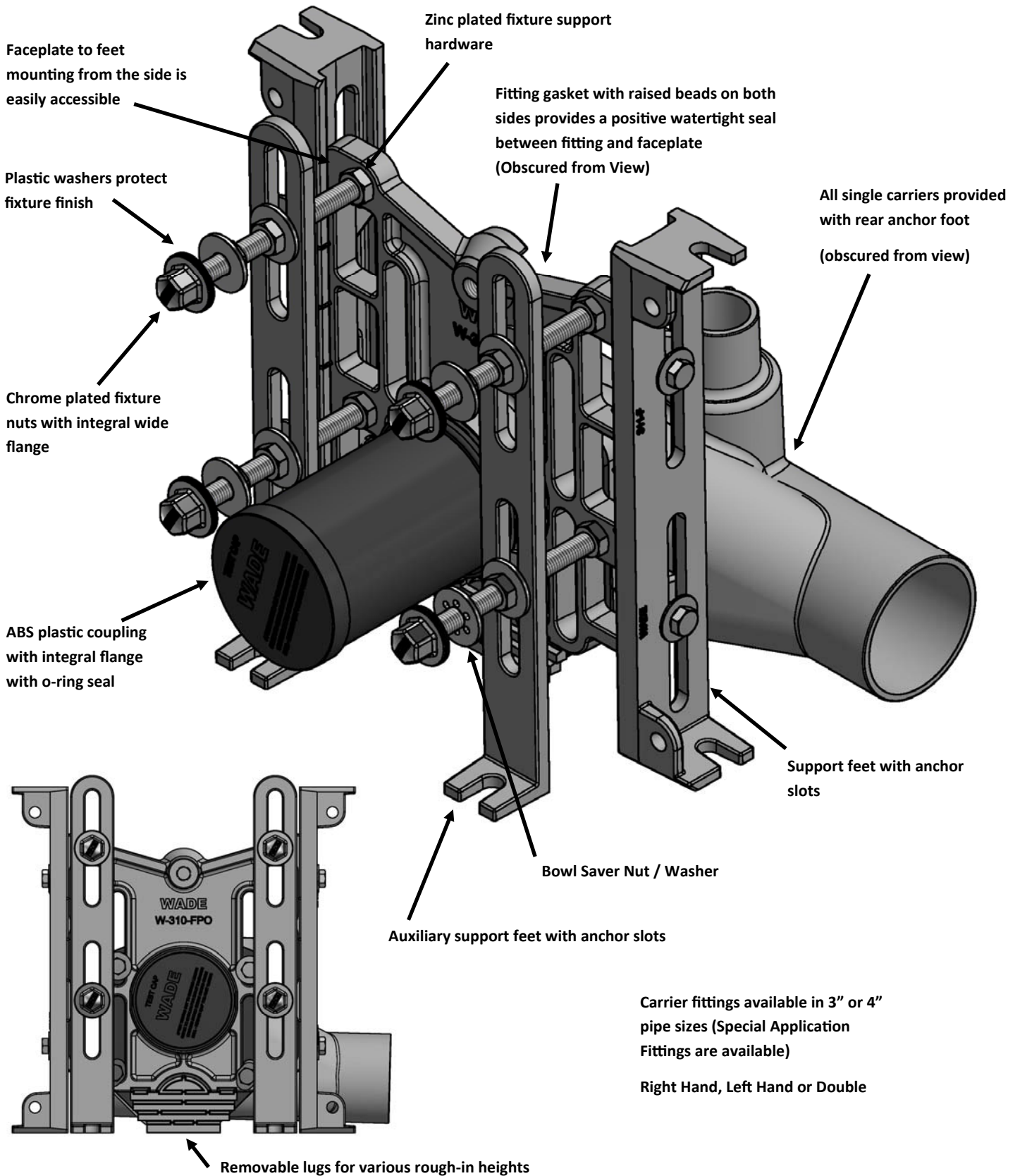
311-HD

Adjustable Horizontal Water Closet Carrier



311-HD Adjustable Horizontal Water Closet Carrier (500 Lb. Load Rating)

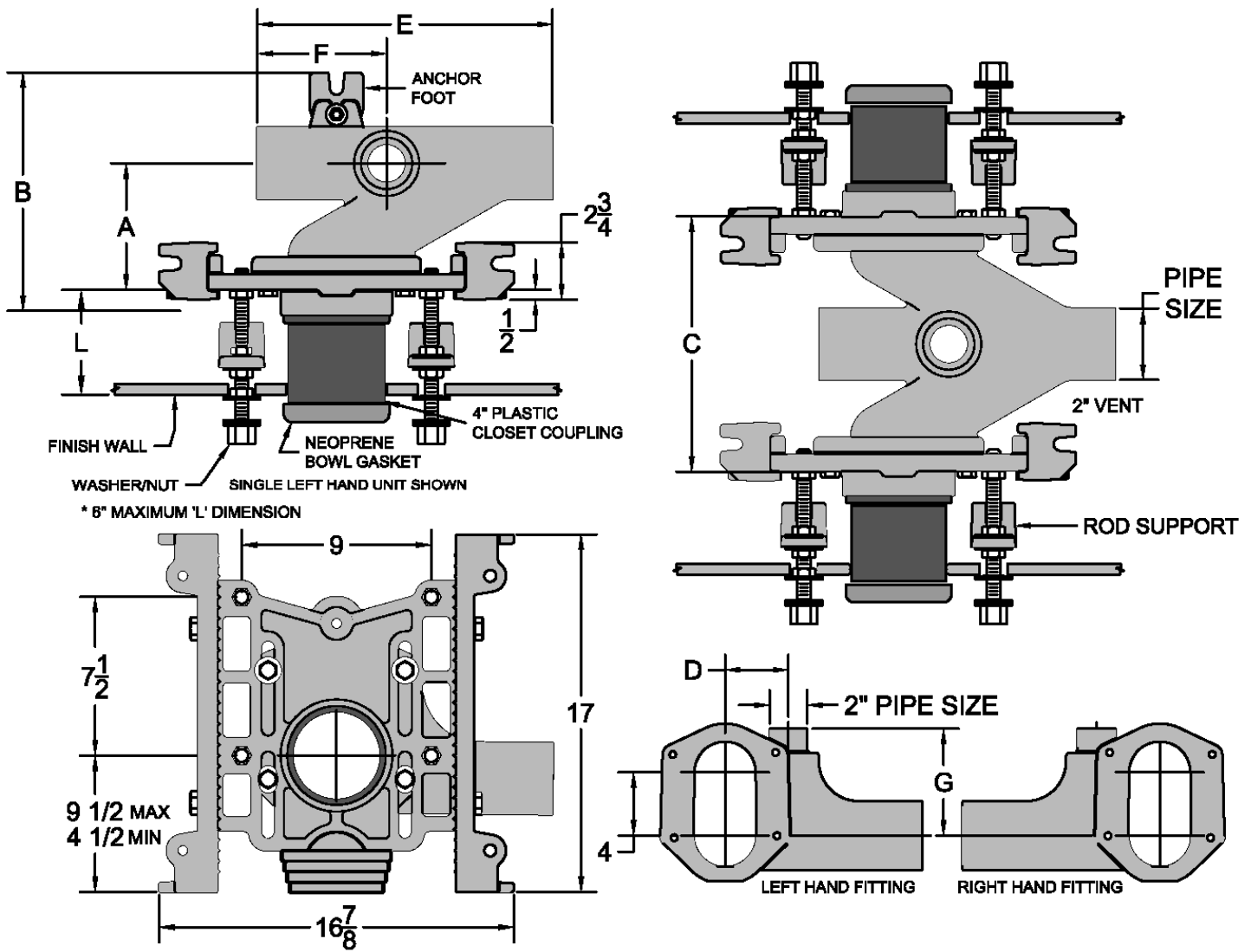
Regularly Furnished: Horizontal water closet carrier with floor mounted foot support, rear anchor, 7" ABS coupling, & adjustable faceplate.



Carrier fittings available in 3" or 4" pipe sizes (Special Application Fittings are available)

Right Hand, Left Hand or Double

311-HD Adjustable Horizontal Water Closet Carrier (500 Lb. Load Rating)

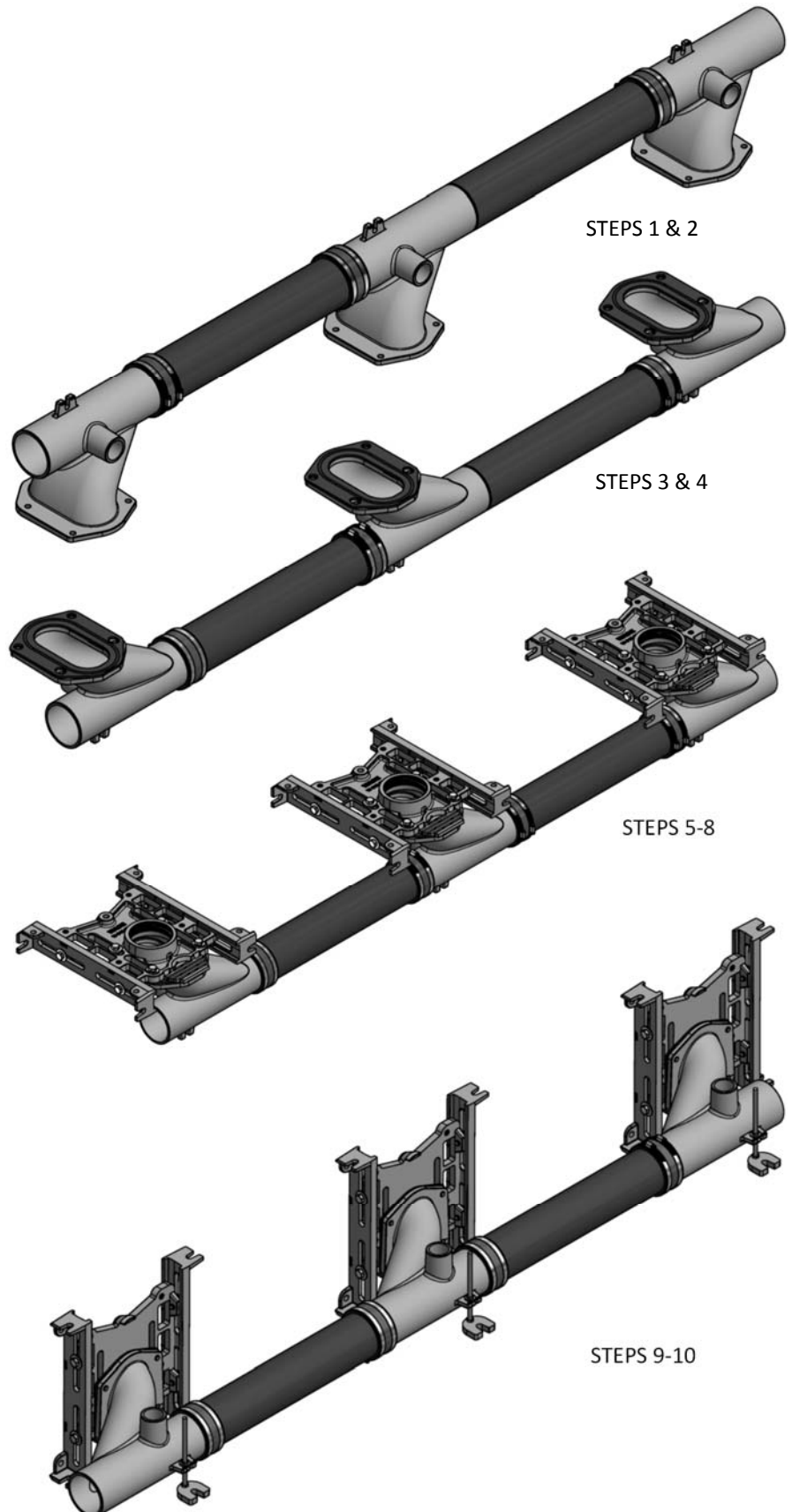


Model	Wt. Lbs.	Style	Connection Type	Dimensions						
				A	B	C	D	E	F	G
311-CL4-HD *	90.1	Left	Hub/Spigot	6-1/2"	11-3/8"	-	4"	17"	8-1/2"	8"
311-CR4-HD *	90.1	Right				-				
311-CD4-HD *	150.5	Double				13"				
311-NL3-HD	83.1	Left	No-Hub	6"	10-3/8"	-	2-3/8"	14"	6-1/8"	6-1/4"
311-NR3-HD	83.1	Right				-				
311-ND3-HD	140.2	Double				13"				
311-NL4-HD	88.1	Left				-				
311-NR4-HD	88.1	Right				-				
311-ND4-HD	145.2	Double	6-1/2"	11-3/8"	13"					

311 Adjustable Horizontal Water Closet Carrier

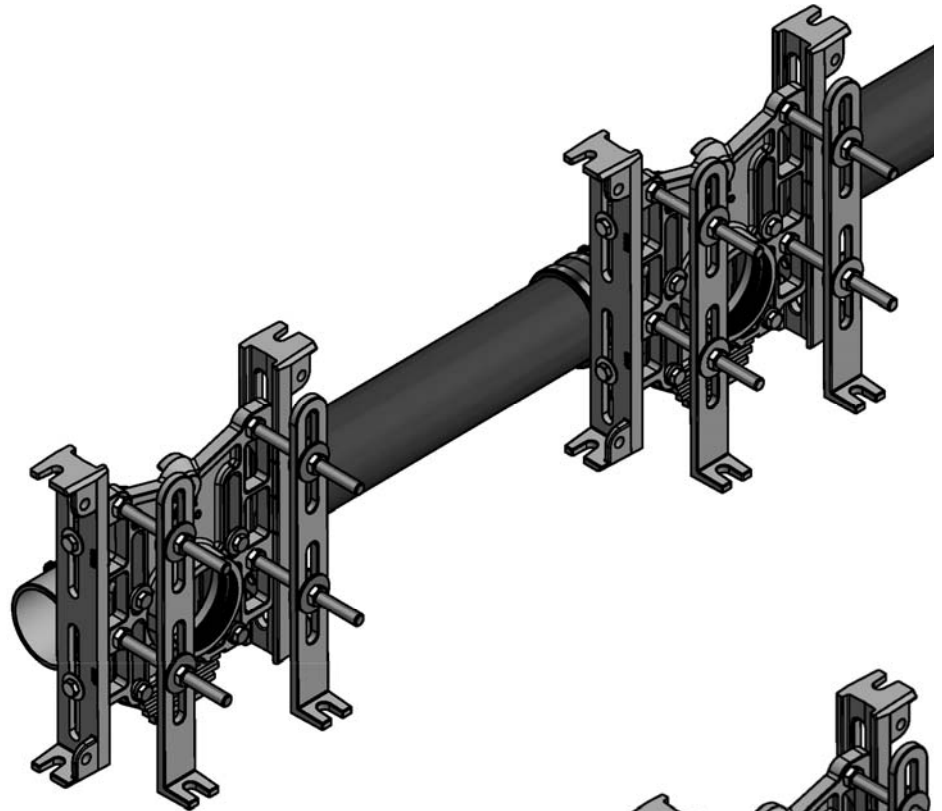
Installation

1. Lay out all closet carrier fittings on floor. To obtain spacing, place the proper lengths of pipe between adjoining fittings.
2. Lift Lengths of pipe into place between the carrier fittings and make up joints with couplings (by others). Make sure all faces of fittings are parallel.
3. Roll entire assembly of connected carrier fittings and pipe 180° so that the flange faces are up.
4. Place faceplate gaskets onto each fitting, insuring the gasket lugs contact the oblong opening side walls.
5. Establish faceplate rough-in height and remove the proper lugs on the bottom of the faceplate. Adjust feet to align the bottom of each foot parallel with the bottom of the faceplate.
6. Install faceplates onto the fittings, making certain to hand-tighten the four bolts.
7. Beginning with the first fitting which will be furthest from the stack fitting locate the 4" threaded opening on the faceplate to coincide with the top of the oblong waterway opening in the fitting. Tighten bolts with wrench alternating between bolts uniformly until gasket is sufficiently compressed.
8. The openings on successive faceplates should be located on adjacent fittings at successively lower positions to maintain proper drainage pitch.
9. Roll entire assembly 90° forward onto feet, move into position, level, align and make stack connection. Make sure all closet outlets are in correct position and have proper drainage pitch. Secure feet to floor structure with 1/2" anchors (by others).
10. If single carrier fittings are utilized, install the rear anchor foot assemblies and anchor to the floor structure with 1/2" anchors.



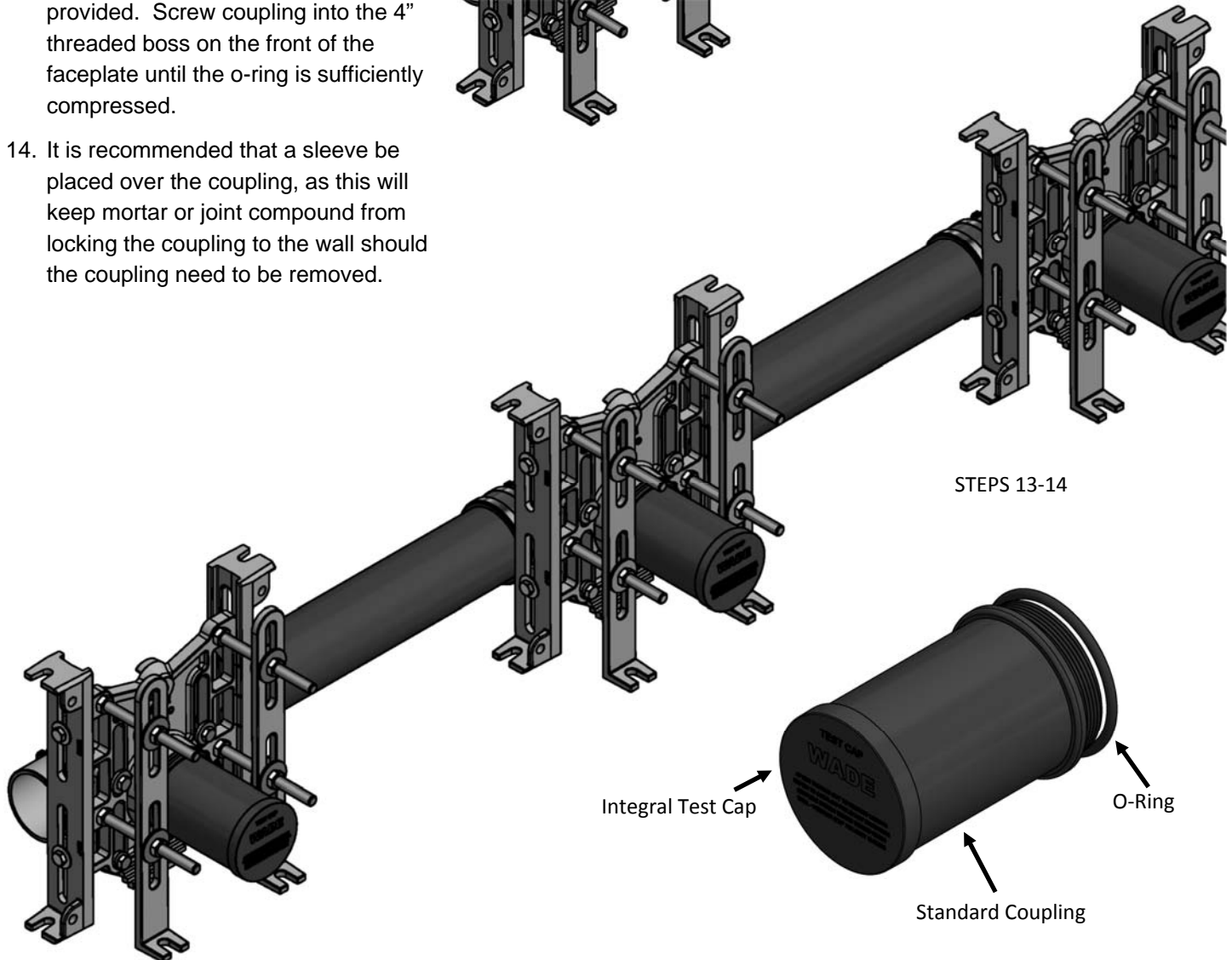
311 Adjustable Horizontal Water Closet Carrier

11. Install fixture support studs and back-up nuts into four 5/8-11NC threaded holes on faceplate. Tighten back-up nuts snugly against faceplate face. Sleeves are provided to protect the threaded studs.
12. Install rod support feet as close as possible to the anticipated finished wall using the flat washers and hex jam nuts—Tighten the nuts on both sides of the rod support feet. Anchor the feet with 1/2" anchors.
13. Coupling installation—Make sure the faceplate face is clean and free of debris. Insert O-Ring seal over threaded end of the coupling and lubricate with white petroleum jelly provided. Screw coupling into the 4" threaded boss on the front of the faceplate until the o-ring is sufficiently compressed.
14. It is recommended that a sleeve be placed over the coupling, as this will keep mortar or joint compound from locking the coupling to the wall should the coupling need to be removed.



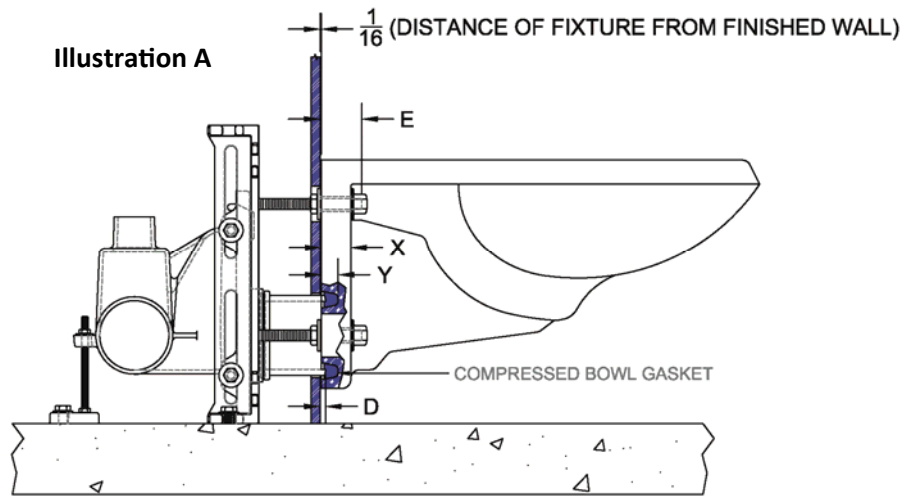
14. It is recommended that a sleeve be placed over the coupling, as this will keep mortar or joint compound from locking the coupling to the wall should the coupling need to be removed.

STEPS 13-14



311 Adjustable Horizontal Water Closet Carrier

15. After the finish wall is completed, place three back-up nuts and washers onto the top two and one bottom threaded stud 1/16" from finished wall. Install the Bowl Saver Nut on the other bottom threaded stud.
16. Cut the threaded studs per Dimension 'E' shown in Illustration A.
17. Cut coupling per Dimension 'D' shown in illustration A.
18. Fixture can be installed using the provided chrome plated hex cap nuts and plastic washers.



Formula for Dimension 'D'

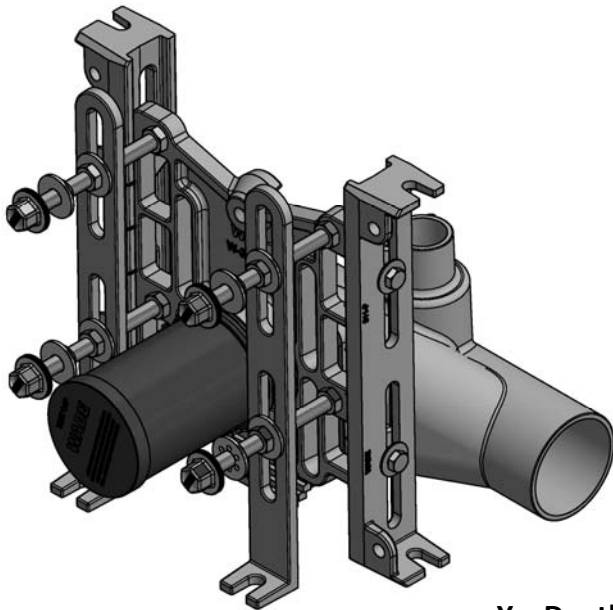
(Distance the closet coupling should extend beyond the finished wall)

$$D = Y + 1/16 - 1/2$$

Formula for Dimension 'E'

(Distance the fixture support studs should extend beyond finished wall)

$$E = X + 1/16 + 5/8$$



Bowl Saver Nut is provided to eliminate fixture flange damage. After three of the fixture nuts are tightened, use a nail or punch to screw the bowl saver nut into contact with the back of the fixture flange, then install the remaining chrome plated fixture nut and plastic washer.

Y = Depth of Recess of the Fixture Horn

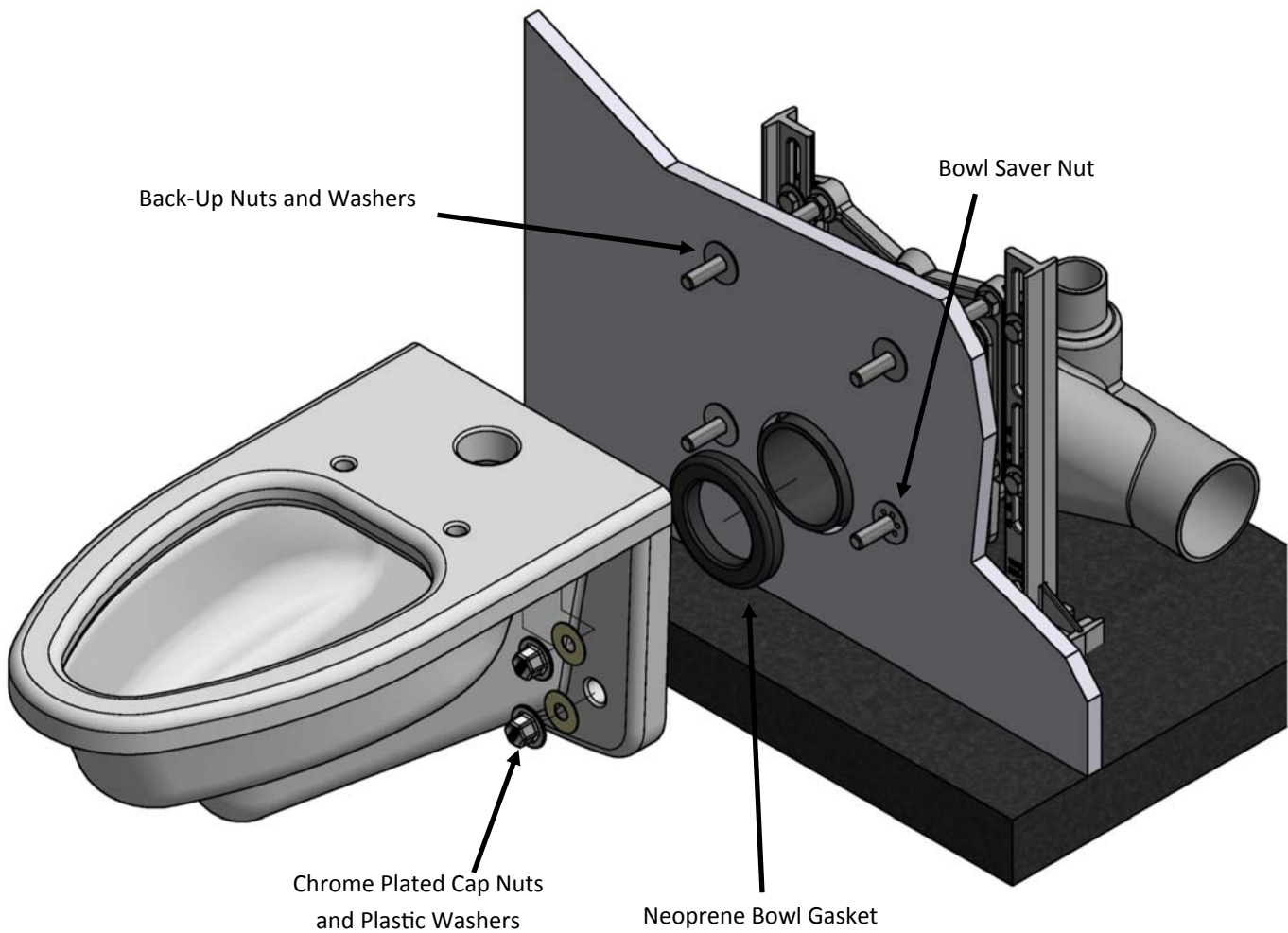
X = Thickness of Fixture Wall Flange

1/16" = Distance Fixture Should Be Located From Finished Wall

(This allows for a bead of flexible sealant around the fixture flange)

311 Adjustable Horizontal Water Closet Carrier

19. When installed correctly, the fixture will be supported by the carrier system only—the fixture should not contact the finished wall.



311 Adjustable Horizontal Water Closet Carrier

20. Apply a flexible sealant around the perimeter of the fixture adjacent to the wall.

