

Tap Connections Into BOSS HDPE Pipe

Tap connections into BOSS HDPE pipe can be made using the Inserta Tee® service connection, a three piece system consisting of a PVC hub, rubber sleeve and stainless steel band. Diameters range from 100 mm to 250 mm (4 in to 10 in). Connections are compression fit into the cored wall of a mainline pipe. Connection hubs allow tap connection of HDPE pipe or PVC pipe to corrugated BOSS HDPE pipe.

Inserta Tee includes a watertight bell connection meeting the requirements of ASTM D3212. To ensure water tightness, field performance verification may be accomplished by testing in accordance with ASTM F2487, ASTM C969 or ASTM F1417. Appropriate safety precautions should be used when field-testing any pipe material. Contact the manufacturer for recommended leakage rates.

Installation should be in accordance with the manufacturer's recommended installation guidelines using manufacturer recommended hole saws. Corresponding hole saw sizes for Inserta Tee® tap connections are listed in **Table 1**. Backfill around the Inserta Tee® service connection should be of the same material type and compaction level as specified for the mainline pipe installation (see manufacturer's installation guidelines).

Installation Procedure

1. Perforate the pipe using the appropriate circular hole saw (**see Table 1**). Ensure the saw is perpendicular to the pipe. Clean the hole by removing residue.
2. Separate the three Inserta Tee sections. Insert the rubber sleeve into the perforation, keeping the golden line on the outside. Align the golden line parallel to the corrugations.
3. Lubricate the inside of the rubber sleeve and outside of the gasketed PVC hub, using soapy water or an appropriate solution (do not use an oil based lubricant).
4. Insert the hub in the rubber sleeve by aligning the small red line on the hub with the gold line on the sleeve. The red line on the hub circumference indicates the connection depth to follow.
5. Place a block of wood or a similar substitute on the end of the hub and use a hammer to pound the hub into the rubber sleeve.
6. Place the stainless steel clamp around the rubber sleeve and tighten firmly.

TABLE 1: Hole Saw Sizing

Inserta Tee Size	Hole Saw Size
100 mm / 4 in	114 mm / 4½ in
150 mm / 6 in	165 mm / 6½ in
200 mm / 8 in	222 mm / 8¾ in
250 mm / 10 in	276 mm / 10⅞ in

NOTE: For saddle connections greater than 250 mm (10 in) a welded connection is recommended.

Figure 1: Typical Inserta Tee components



Figure 2: Cross section of Inserta Tee for Polyethylene (PE) and PVC tap connections into BOSS HDPE pipe

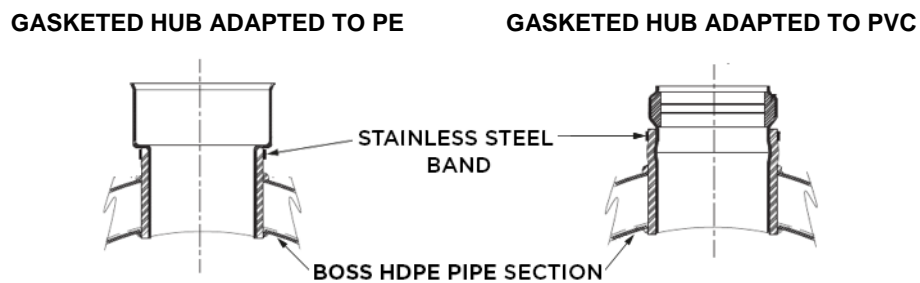


TABLE 2a: Inserta Tee (100 mm – 200 mm) sizing for BOSS pipe

		Nominal Diameter of BOSS pipe							
		300-375 mm (12-15 in)		450-525 mm (18-21 in)		600-750 mm (24-30 in)		900 mm (36 in)	
Inserta Tee Nominal Diameter	Hub Adapted to:	PVC	PE	PVC	PE	PVC	PE	PVC	PE
	100 mm (4 in)	✓	✓	✓	✓	✓	✓	✓	✓
	150 mm (6 in)	✓	✓	✓	✓	✓	✓	✓	✓
	200 mm (8 in)	✓	✓	✓	✓	✓	✓	✓	✓

TABLE 2b: Inserta Tee (250 mm) sizing for BOSS pipe

		Nominal Diameter of BOSS pipe							
		375 mm (15 in)		600 mm (18-24 in)		750 mm (30 in)		900 mm (36 in)	
Inserta Tee Nominal Diameter	Hub Adapted to:	PVC	PE	PVC	PE	PVC	PE	PVC	PE
	250 mm (10 in)		✓		✓		✓		✓