

Saddle Outlet — Installation, Operation & Maintenance Manual

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1. Overview

This manual covers Baoshuo saddle outlets (threaded, flanged, quick-connect tee and cross). A saddle outlet taps a branch connection onto a plastic, steel or ductile iron main without cutting or welding the main pipe. The saddle body wraps the main and carries a threaded or flanged outlet for the branch line. Suitable for UPVC, PVC-M, HDPE, PPR and steel pipelines.

2. Safety Precautions

- Depressurize the line before drilling; wear eye protection and gloves.
- Never tap a line carrying hazardous or flammable media without a safe-work permit.
- Match the drill / hole-saw to the pipe material to avoid cracking.

3. Tools Required

Wrenches (torque wrench recommended), pipe drill / hole-saw set appropriate to pipe material, reamer, thread tap or adaptor (threaded outlets), gasket and bolts (flanged outlets), measuring tape.

4. Installation Steps

1. **Select the correct saddle.** Choose the saddle that matches the main pipe OD and the required branch size and outlet type (threaded or flanged).
2. **Prepare the main.** Clean the main pipe surface at the tapping location and mark the branch outlet position.
3. **Position the saddle.** Place the saddle on the main with the outlet centered at the marked position and aligned to the required branch orientation.
4. **Secure the saddle.** Tighten the saddle bolts evenly so the seal compresses evenly against the pipe.
5. **Tap the main.** Threaded outlets: drill through the outlet using a bit correct for the pipe material, ream, then cut the thread or install a threaded adaptor. Flanged outlets: fit the branch valve/fitting to the flange with a gasket and bolt evenly.
6. **Install the branch and test.** Complete the branch connection, then pressurize to working pressure and inspect the saddle seal and branch joint for leaks.

5. Pressure Testing

Hold the line at working pressure and check the saddle perimeter and the branch connection. Re-torque the saddle bolts if any weep is observed.

6. Maintenance & Storage

- Periodically check saddle bolt torque and the branch joint.
- Inspect the rubber seal for ageing; replace if hardened or cracked.