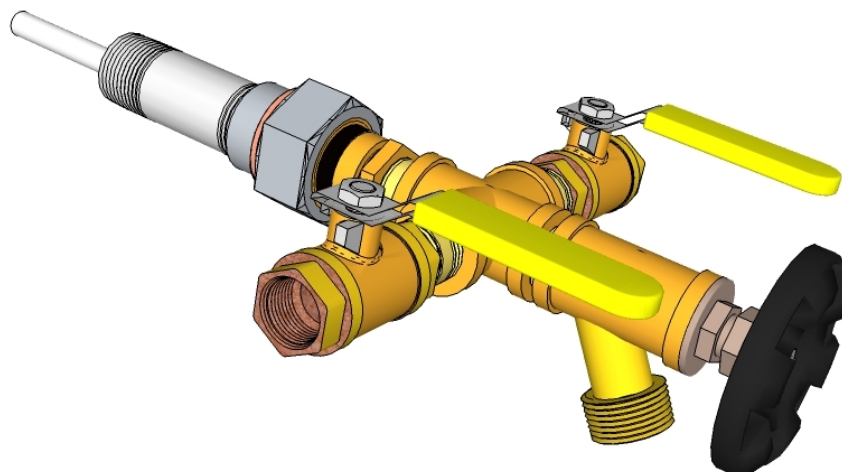


Data Sheet: Bottom Feed Connector



General Information:

The Bottom Feed Connector is a specially designed adapter that allows the connection of any solar water heating system to a standard residential water heater. This adapter can be used on standard gas and electric water heaters except non-metallic units (Rheem Marathon Heaters). The only requirement is that the water heater has a 3/4" threaded removable drain connection near the bottom.

The unit has an integral dielectric union to electrically separate the steel portion which is meant to thread into the steel water heater tank from the brass portion which connects to the solar water heater brass fittings. The electrical separation is essential to the prevention of galvanic corrosion in the water heater tank. Included are two full port ball valves that allow shutting off the solar water heating system for installation, maintenance, and repair. Also included is a boiler drain with standard garden hose connection to allow draining the water heater.

Materials:

The steel portion is made of galvanized steel pipe. The brass portion is "lead free" (conforms to California Lead Free Law AB-1953) brass for the body of the adapter. The valves contain stainless steel balls.

The concentric hot water return tube is Aquapex by Uponor and the internal flow guides are made of CPVC.

All materials are rated for potable water use including in California and Vermont.

Data Sheet: Bottom Feed Connector



Physical:

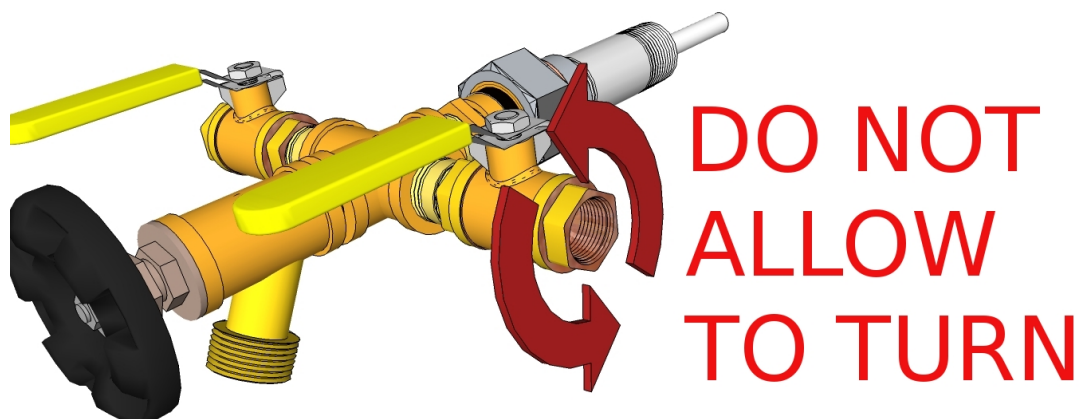
Overall Length excluding Hot Water Discharge Tube	11"
Overall Height including Ball Valve Handles	4"
Overall Width	7"
Thread to Water Heater	3/4" MPT (US Standard)
Drain Thread	3/4" Male Hose Thread

Maximum Ratings:

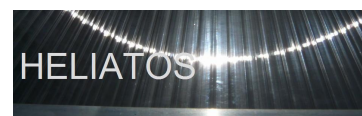
Pressure	150	Psi
Water Temperature	220	°F

Installation Warning:

When tightening threaded fittings and adapters to the ball valve on the hot side of the Bottom Feed Connector DO NOT allow the ball valve to rotate. It is important to prevent rotation of the ball valve with a wrench while tightening fittings to it.



Data Sheet: Bottom Feed Connector



Functional Description:

This adapter is designed to withdraw water from the bottom of the water heater and after being heated circulate it back into the water heater tank. The outlet for the heated water is approximately 2" towards the interior of the tank. The heated water will therefore rise away from the outlet and also the cold water inlet preventing direct recirculation ("short circuit circulation").

Functional Drawing:

