

Varifuel 400 & 600 Power Jet Retention

This TSB addresses proper seating of the Power Jet in Varifuel 400 and 600 mixers/carburetors and supersedes TSB-111.

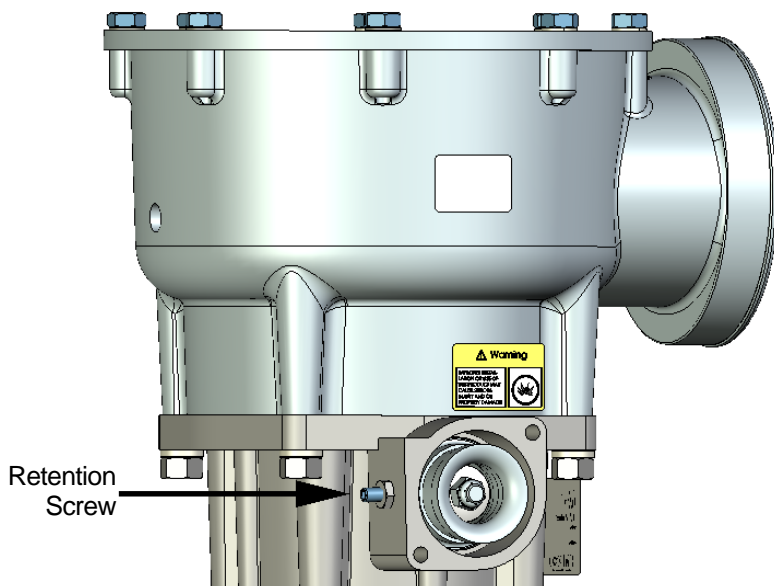
Both the Varifuel 400 and 600 mixer/carburetors were designed so the Power Jet is seated between the ASTM A 53 specified schedule 40 black iron Gas Inlet Pipe and the Gas Inlet of the mixer/carburetor.

Size	OD	ID	Wall Thickness
1 ¼" (Varifuel 400)	1.660"	1.380"	0.140"
1 ½" (Varifuel 600)	1.900"	1.610"	0.145"

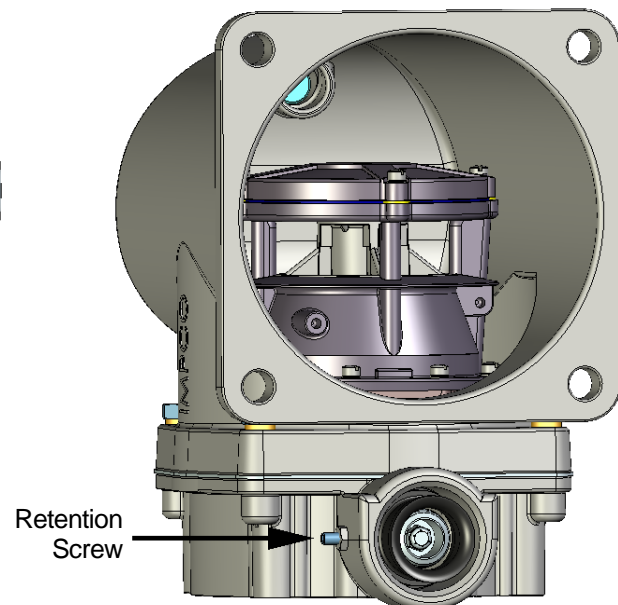
ASTM A 53 Schedule 40 Black Iron Pipe Specifications

Some schedule 40 Gas Inlet Pipes may not conform to the above specifications. The use of a Gas Inlet Pipe that does not meet the ASTM A 53 specifications may result in improper seating of the Power Jet.

Over the years, the 400 and 600 mixers/carburetors were produced both with and without Power Jet Retention Screws to hold the Power Jet in position. Regardless of whether the mixer/carburetor has the Power Jet Retention Screw, the proper pipe must be used for proper seating of the Power Jet.



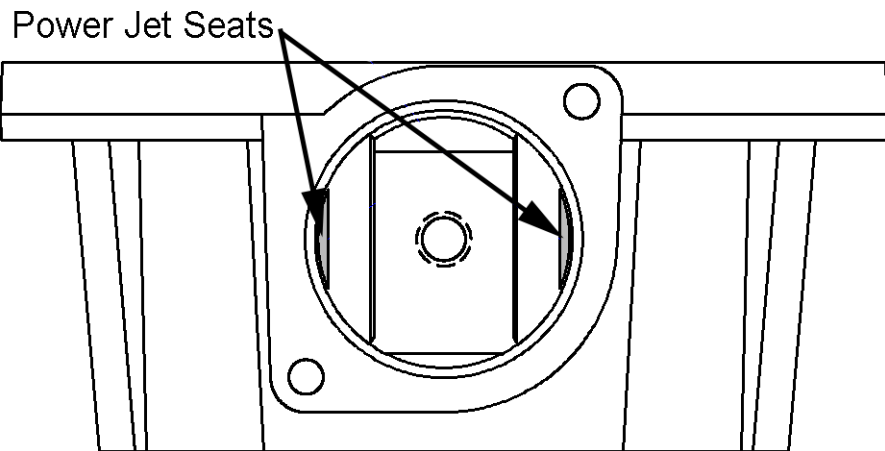
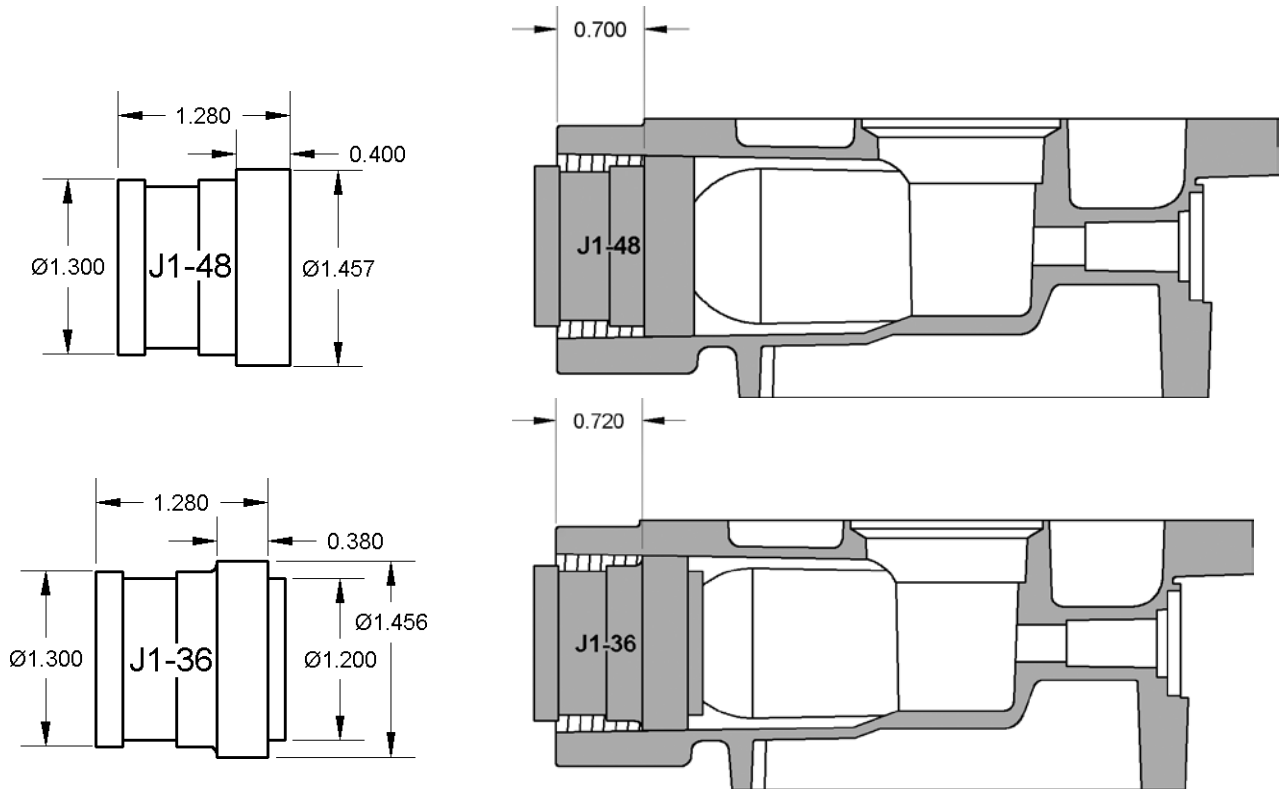
Varifuel 400



Varifuel 600

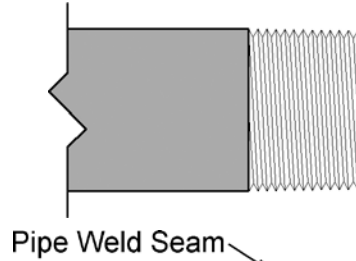
Varifuel 400 Gas Inlet & Power Jet Specifications

When the Gas Inlet Pipe is threaded to the required minimum depth (0.70" for the J1-48 or 0.72" for the J1-36 Power Jet), the end of the pipe should contact the Power Jet, locking it in place without the need of a retention screw.

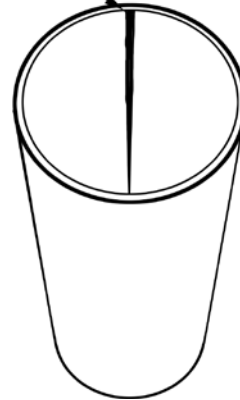


Varifuel 400 Gas Inlet Pipe Installation

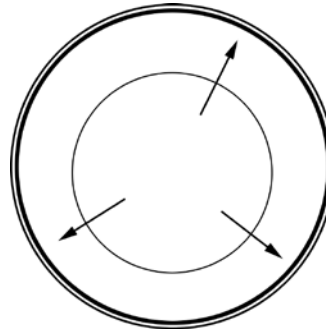
- 1) Inspect the pipe threads. Threads of marginal quality can be improved by running a pipe die over them.



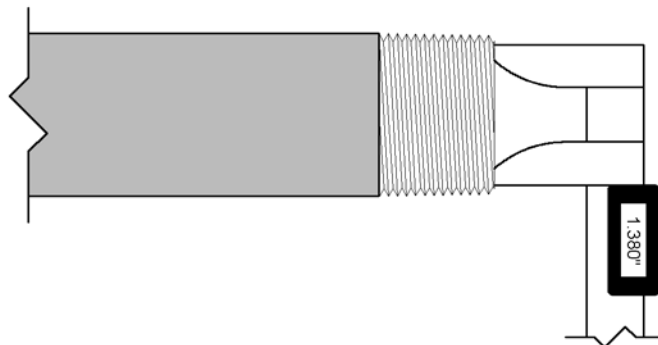
- 2) Inspect the inside of the pipe for burrs, debris or a significantly raised welding seam. Insert the Power Jet into the pipe to verify no interference exists.



- 3) Pipes that are not smooth inside and have any type of ridge, burr or excessive weld seam may create interference with the Power Jet and cannot be used.



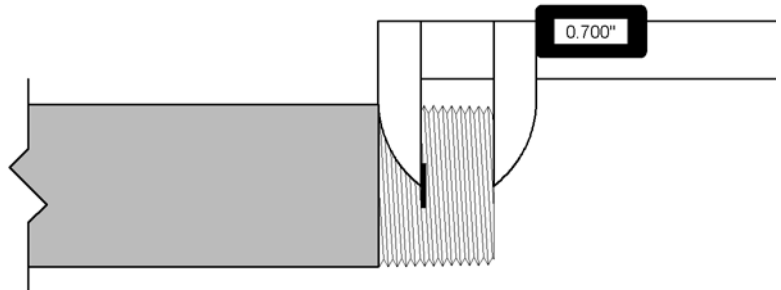
- 4) Verify that the pipe I.D. is between 1.380" to 1.440". Pipes that do not fall within this specification cannot be used.



- 5) Measuring from the end of the pipe, make a mark on the threads at:

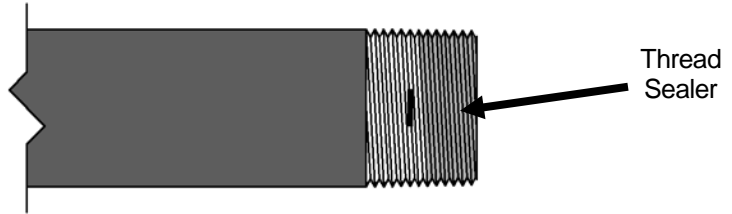
J1-48: 0.70"

J1-36: 0.72"

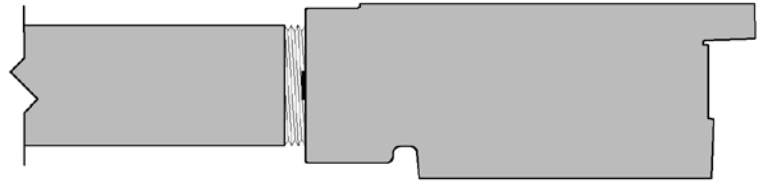


- 6) Coat the threads with Loctite 567™ (or equivalent) thread sealer.

Note: Do not apply to the end or lip of the pipe and be careful not to obscure your mark.



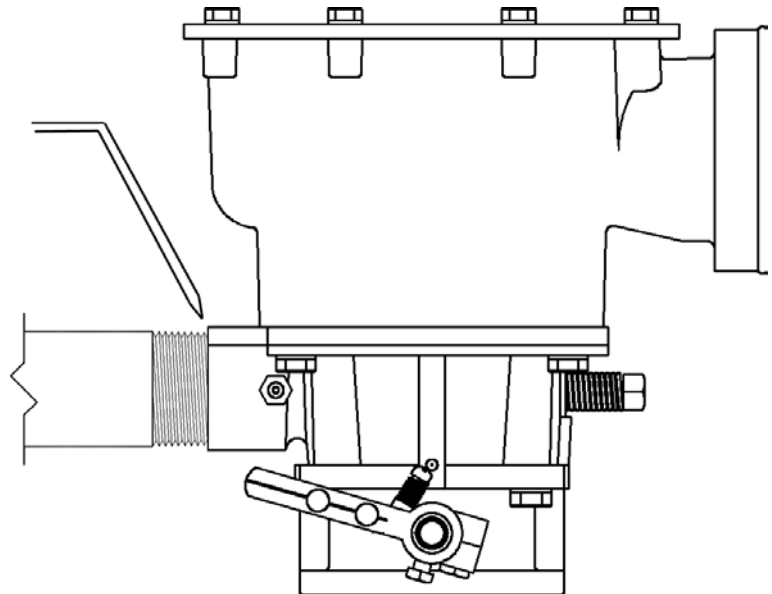
- 7) Thread the pipe into the Gas Inlet and securely tighten by hand. Tighten the pipe with a wrench until it “bottoms” against the Power Jet and can no longer be turned. The mark will now be even with the end of the Gas Inlet. If the pipe bottoms against the jet when threaded in by hand (does not “tighten-up” before bottoming against the jet) the pipe is too loose for the application and cannot be used. If the pipe cannot be advanced to the mark without over-tightening, remove the pipe and using a pipe die, undercut the threads (cut the threads slightly deeper), then repeat steps 5-7.



NOTE: Do not attempt to over torque the Gas Inlet pipe. The use of too much torque may result in permanent damage to the mixer/carburetor.

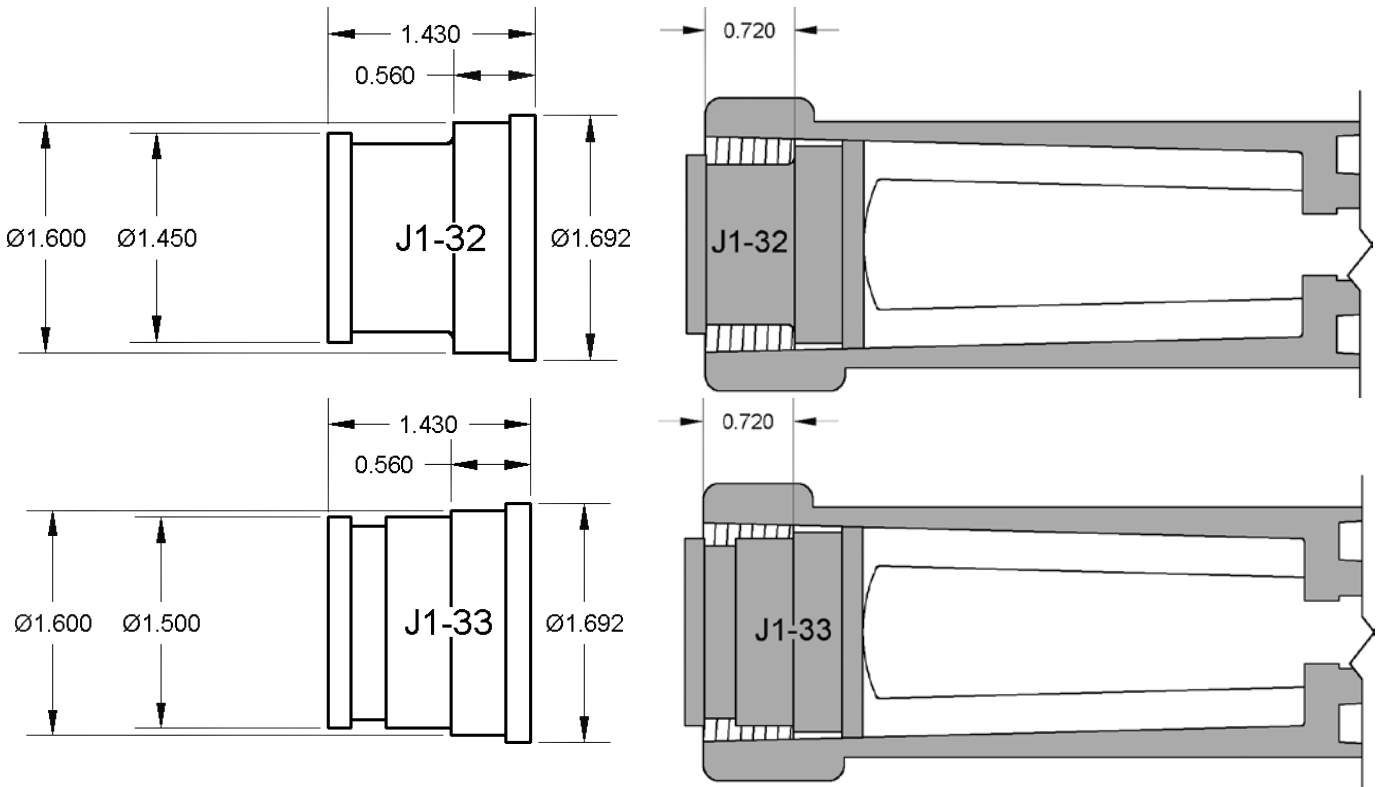
- 8) If equipped with the Retention Screw: Tighten the Retention Screw, tighten the locking nut and apply Loctite 242 to the nut to secure.

- 9) Install the Varifuel 400 and leak test the Gas Inlet Pipe connection and around the Retention Screw (if equipped) using a commercial leak detector.

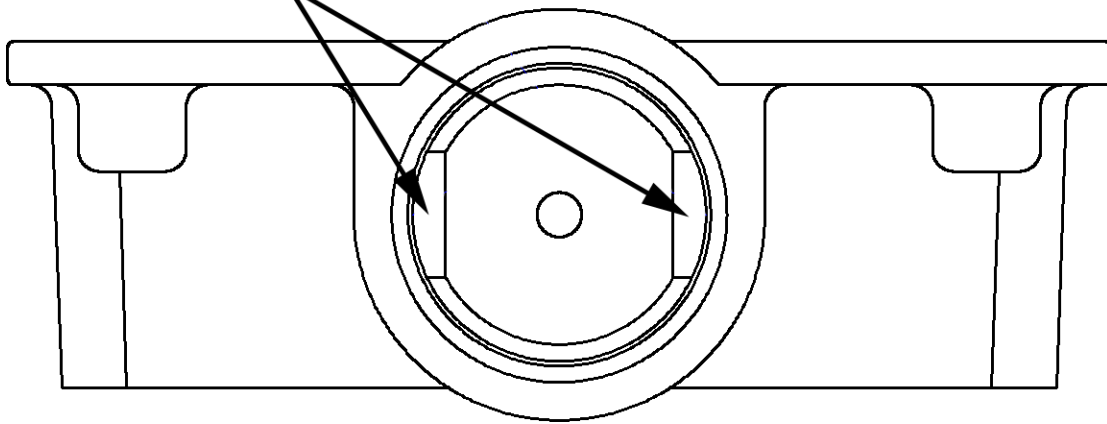


Varifuel 600 Gas Inlet & Power Jet Specifications

When the gas inlet pipe is threaded to the required minimum depth of 0.72", the end of the pipe should contact the Power Jet, locking it in place without the need of a retention screw.



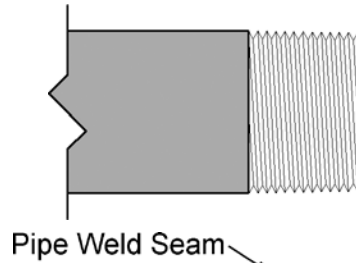
Power Jet Seats



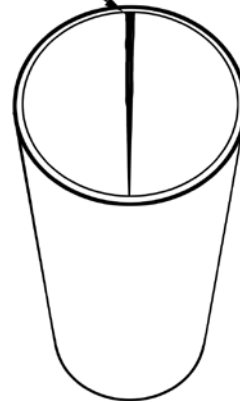
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Varifuel 600 Gas Inlet Pipe Installation

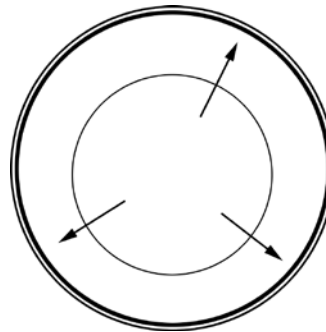
- 1) Inspect the pipe threads. Threads of marginal quality can be improved by running a pipe die over them.



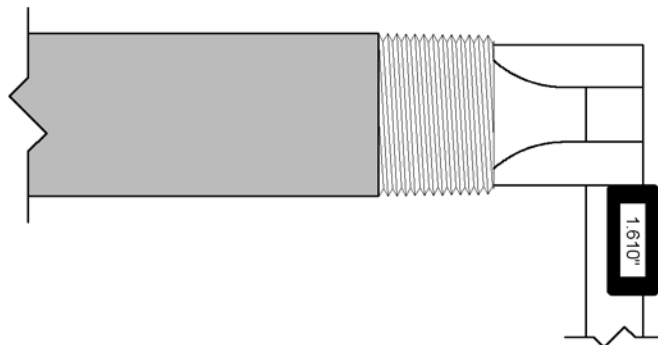
- 2) Inspect the inside of the pipe for burrs, debris or a significantly raised welding seam. Insert the Power Jet into the pipe to verify no interference exists.



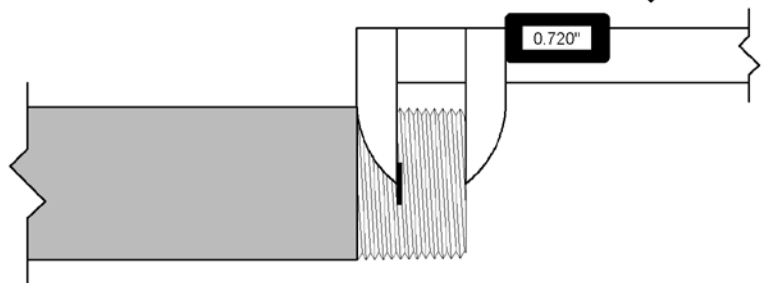
- 3) Pipes that are not smooth inside and have any type of ridge, burr or excessive weld seam may create interference with the Power Jet and cannot be used.



- 4) Verify that the pipe I.D. is 1.610". Pipes that do not fall within this specification cannot be used.

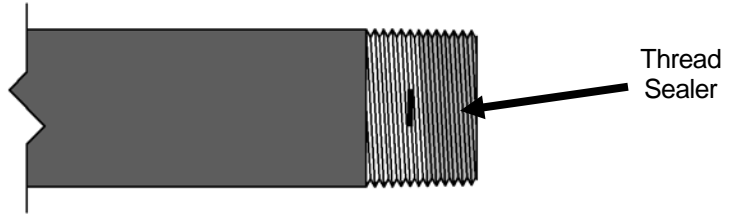


- 5) Measuring from the end of the pipe, make a mark on the threads at 0.72\"/>

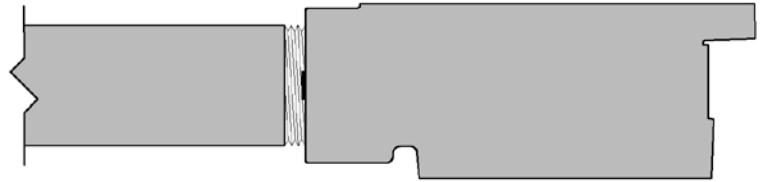


- 6) Coat the threads with Loctite 567™ (or equivalent) thread sealer.

Note: Do not apply to the end or lip of the pipe and be careful not to obscure your mark.



- 7) Thread the pipe into the Gas Inlet and securely tighten by hand. Tighten the pipe with a wrench until it “bottoms” against the Power Jet and can no longer be turned. The mark will now be even with the end of the Gas Inlet. If the pipe bottoms against the jet when threaded in by hand (does not “tighten-up” before bottoming against the jet) the pipe is too loose for the application and cannot be used. If the pipe cannot be advanced to the mark without over-tightening, remove the pipe and using a pipe die, undercut the threads (cut the threads slightly deeper), then repeat steps 5-7.



NOTE: Do not attempt to over torque the Gas Inlet pipe. The use of too much torque may result in permanent damage to the mixer/carburetor.

- 8) If equipped with the Retention Screw: Tighten the Retention Screw, tighten the locking nut and apply Loctite 242 to the nut to secure.

- 9) Install the Varifuel 600 and leak test the Gas Inlet Pipe connection and around the Retention Screw (if equipped) using a commercial leak detector.

