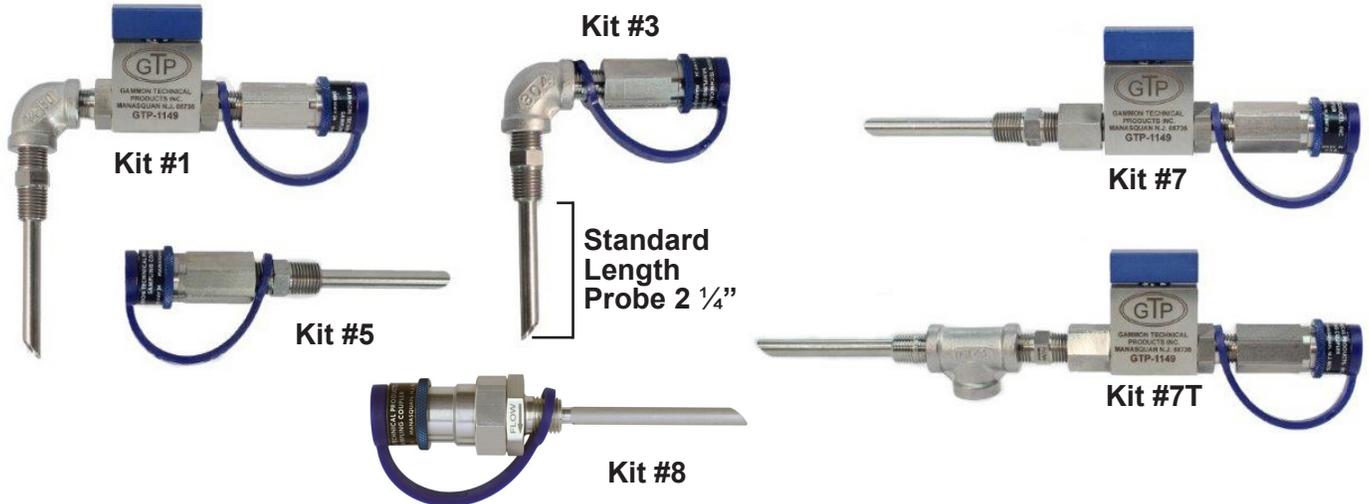




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**FUEL SAMPLING KITS**  
**BULLETIN 3**  
**(09-19)**

## FUEL SAMPLING KITS



Our fuel sampling kits have become standard in the industry for obtaining test samples of jet fuel. With more than a million in service, they have proved to pay for themselves by saving countless hours of downtime because accurate contamination test results are obtained the first time.

In the past, thousands of work hours have been wasted and fueling facilities have been shut down simply because the sampling tap was contributing dirt during the sampling period. Rusty pipe threads, steel gate valves and collections of reducing bushings that never are subjected to fuel flow, except when a contamination test is to be run, have been found to be a prime cause of poor color results when tests are performed to ASTM D2276. Flushing does not clean normally stagnant steel fittings.

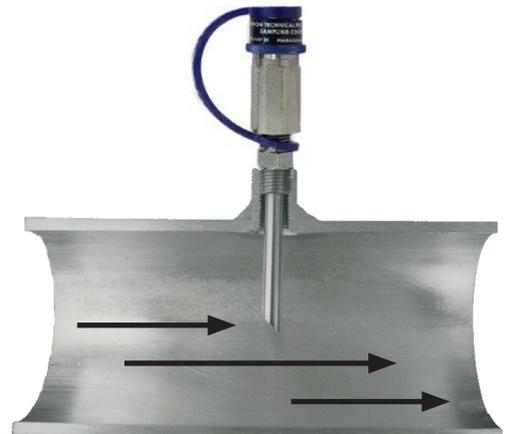
The probe penetrates through the pipe coupling that is welded to the pipe. There is no possibility of rust and dirt, that usually collects in stagnant pockets (such as welded couplings), reaching the test membrane.

Non-ferrous materials are used in our kits. All passages are small ( $\frac{1}{4}$ " pipe size) to insure that there will be enough velocity during the flushing cycle to carry away any sediment that may have collected.

**Kit No. 7T** allows pressure sensing and sampling independently through one pipe connection. Probe penetrates all the way through the tee. Sample never contacts the tee. Branch on tee is for pressure gauge connection; it senses pressure on the outside of probe tube.

**Kit No. 8** features our Self-Flushing QD, which eliminates the need to flush the connection before every test. It will only allow fuel from the center of the pipe to read the QD. This reduces the amount of time spent and the volume of fuel that has to be handled. For panel mounting, Kit No. 8RM includes Kit 8 plus a remote mount.

The GTP-144 Probe is made to reach the center of a 4" pipe but can be used in any pipe of 2" or more. The threads on the probe are both  $\frac{1}{4}$ " NPT male (use reducing bushing to come down to this size). We can also supply special probes of any specified length.



<p><b>STAINLESS STEEL BALL VALVES</b>  <b>MAXIMUM PRESSURE 300 PSI</b></p> <p>TWO-WAY</p>  <p>GTP-1149-4F 1/4" Female  GTP-1149-4M 1/4" Male  GTP-1149-4MF 1/4" Male x Female</p> <p>THREE-WAY:</p>  <p>GTP-2305  1/4" NPT</p>	<p><b>QUICK DISCONNECT COUPLER</b></p>   <p>GTP-992-2FA 1/8" Female NPT Aluminum  GTP-992-2FS 1/8" Female NPT Stainless Steel  GTP-992-4FA 1/4" Female NPT Aluminum  GTP-992-4FS 1/4" Female NPT Stainless Steel  GTP-992-2MA 1/8" Male NPT Aluminum  GTP-992-2MS 1/8" Male NPT Stainless Steel  GTP-992-4MA 1/4" Male NPT Aluminum  GTP-992-4MS 1/4" Male NPT Stainless Steel</p>	<p><b>ACTUATOR NIPPLES</b>  Stainless Steel</p>  <p>GTP-722 1/4" Female NPT  GTP-722-2 1/8" Female NPT</p>  <p>GTP-150-15 Dust Plug for quick disconnect coupler.</p>  <p>GTP-1232 Dust Cap for actuator nipple, AL.</p>
  <p>GTP-144 Sampling Probe, 1/4" Male NPT, Stainless Steel, standard 2 1/4" long tube.  GTP-144-X Same as above, indicate desired TUBE length at "X," up to 6"</p>		

### INSTRUCTIONS FOR SAMPLING PROBE KITS

#### 1. INSTALLATION

- Screw the GTP-144 probe in a 1/4" NPT female thread using 1 1/2 wraps of Teflon pipe thread sealant as a sealant and thread lube. Use reducing bushings if necessary. Wrap the tape tightly, so that it forms itself into the male thread. Do not let the tape extend beyond the open end of the fitting or fragments of the tape will get into the flow stream. *NEVER* screw stainless steel threads together without Teflon dope - they will gall.
- Adjust the position of the probe by tightening until the arrow on the flat of the hex is pointing downstream - in the direction of flow in the pipe.
- Install other components of the kit using Teflon pipe thread dope for each connection. Be certain that sample flow is in the direction of the arrow shaped handle of the ball valve.
- The sampling coupler is supplied with a dust plug that has a ball chain for attachment. Place the ring on the ball chain over the threaded end of the coupler before assembling.

**2. FLUSHING** - A new sampling connection requires extensive flushing. For best results, use the GTP-1110 Bonding and Grounding Hose (see Bull. #8) to obtain high velocity in the passages of the sampling kit components.

**3. CONTAMINATION TESTING** - Use Gammon MiniMonitor® Kit model GTP-172. Follow detailed instructions for best results. The sampling coupler can be connected without the risk of spraying fuel, if this procedure is followed:

- Slide the collar of the coupler as far as it will go toward its threaded end. Remember, the collar does not open the internal valve.
- Insert the connecting nipple in the open port of the coupler as far as it will go without depressing the internal valve, but continue to hold the collar.
- Then quickly press the nipple straight in with a force of about 25 lbs. and pull the collar back to its original position. This 25 lb. force causes the internal valve to open.
- A dry disconnection can be made simply by depressing the collar.

See also: GamGram #6.

<p align="center"><b>STAINLESS STEEL PIPE FITTINGS</b></p>		
 <p><b>ELBOW</b>  E-4 1/4" NPT  E-6 3/8" NPT  E-8 1/2" NPT</p>	 <p><b>COUPLING</b>  C-2 1/8" NPT  C-4 1/4" NPT  C-6 3/8" NPT  C-8 1/2" NPT</p>	 <p><b>REDUCING BUSHING</b>  RB4-2 1/4 to 1/8 NPT  RB6-4 3/8 to 1/4 NPT  RB8-4 1/2 to 1/4 NPT  RB12-4 3/4 to 1/4 NPT</p>
 <p><b>STREET ELBOW</b>  SE-4 1/4" NPT  SE-6 3/8" NPT  SE-8 1/2" NPT</p>	 <p><b>HEX NIPPLE</b>  HN-2 1/8" NPT  HN-4 1/4" NPT  HN-6 3/8" NPT  HN-8 1/2" NPT</p>	 <p><b>REDUCING COUPLING</b>  RC4-2 1/4 to 1/8 NPT  RC6-4 3/8 to 1/4 NPT  RC8-4 1/2 to 1/4 NPT</p>