

# Instructions to Calibrate Your FuelStik

There are two methods of calibrating your FuelStik. The first is to begin with a full tank, the other is to start with an empty tank. Our preference, and all of our "scales" were done by using the full tank method. We feel as though it is a more realistic reading. It measures the fuel in the same way your aircraft uses the fuel. Additionally it is easier to begin with a full tank than to figure how to empty a tank all the way safely. There are some advantages to starting with empty tanks though if you are comfortable with a method for completely emptying one. First we'll go through the process starting with full tanks.

*Hint: Either method requires a reasonably accurate way to measure fuel and the full tank methods requires a way to siphon the fuel out. Most plastic 5 gallon fuel tanks have quantity markings on them. You can check their accuracy by purchasing some fuel and checking each mark with the fuel pumps readings, or marking each gallon on the tank as you fill it.*

## The First Steps with Either Method

- 1 Have your included "Aircraft Specific Scale Calculator Worksheet" available. If you do not have one, you can download and print one from the website. [www.fuelstik.com](http://www.fuelstik.com) . Fill out the basic information on the top. You may find this information useful later.
- 2 Decide which tank you prefer to use to calibrate. In most aircraft both tanks are similar enough to use the same calibration on both tanks. *Hint; If your going to use the empty tank method, have one tank mostly empty, and fill the other. That way you can transfer fuel from one to the other during the calibration process.*
- 3 Make sure your fuel selector is in the **"Off"**, **"Left "** or **"Right"** position to **prevent cross feeding**. This step is mandatory for high wing aircraft.

## Calibrating your "FuelStik" using Full Tank Method

- 4A After filling the tank your going to use to its maximum capacity (Unable to add anymore) park your aircraft on a reasonably level area.
- 5A Insert your "FuelStik" into the tank until it rest on the bottom. Note the number on the "Universal Scale" that lines up with the top of the main tube and enter it in the top of the worksheet, and the box to the left of the gallon quantity that is closest to, but not greater than, the usable capacity of the fuel tank.
- 6A Scratch out the gallon number, if it is not the same as the usable capacity, and write in the appropriate gallon quantity in its place.
- 7A Remove the amount of fuel that brings the quantity remaining in the tank to the number above the "Full" number you wrote in. i.e.; If your tanks full capacity is 25.5 gallons, remove 1.5 gallons so there is 24 gallons remaining in that tank. Write that number next to the box that says "24".
- 8A Continue removing 2 gallons at a time noting each reading corresponding with the remaining gallons column.
- 9A When your FuelStik will no longer rise, scratch out the number above your last entry and write in the gallons remaining in that box. You will then know if your "FuelStik" does not rise, you have less than that amount of fuel remaining.
- 10A Jump Down to Step 11

## Calibrating your "FuelStik" using an Empty Tank

- 4B With one tank completely empty, position your aircraft on a reasonably level area where fuel can be added and measured. The best location is at the fuel pump, or with a fuel truck where the plane is usually parked.
- 5B Pump the published "unusable fuel" into the tank. *Hint: Reset the pump after this step so you will not have to add the unusable fuel quantity each time you add 2 gallons.*
- 6B After adding 2 additional gallons, insert your "FuelStik" into the tank until it rest on the bottom. If the "Float Tube" rises, write that number next to the "2" on the "Worksheet". It may not rise at 2 gallons, so add 2 more gallons and check if the tube rises. Repeat until you have your first reading , then write that number from the FuelStik "Universal Scale" next to the number on the worksheet that matches the amount of fuel you have added (minus unusable fuel if you did not reset after adding unusable amount).
- 7B Continue to add 2 gallons at a time and note the reading on the worksheet from the "Universal Scale" next to the corresponding gallon amount you have added at each 2 gallon increment.
- 8B When you have added the published "Usable Fuel" **plus** the "Unusable" fuel, the tank should be full. You will want to get the final reading from the "FuelStik". Write that reading next to the number that corresponds with the tanks "Usable Fuel" quantity.
- 9B If your aircrafts "Usable Fuel" quantity does not match the number on the worksheet, scratch it out and write the correct amount next to it. If your going to use the pounds column, make sure you correct that one too.
- 10B Continue to Step 11

### **Your task of filling out the "Aircraft Specific Scale Worksheet" is complete.**

Now you have a few options.

- 11 You can take the Universal Scale out of the "Float Tube" and write the quantities next to the numbers on the scale with pen or pencil.
- 12 You can take a blank piece of paper, cut it to the size of the "Universal Scale" and write the information on it in any way that you deem useful. Remember the weight of the paper is part of its calibration.
- 13 Mail or email the information to [info@fuelstik.com](mailto:info@fuelstik.com) and we will mail or email you a color coded "Aircraft Specific Scale" that you can slip into the float tube. *Hint; Using your smart phone, take a picture of the completed work sheet. After previewing it to make sure it is clear, email it right from your device.*

[www.fuelstik.com](http://www.fuelstik.com)