

## Tuning Selections for Rotax Max Carburetor Jet Kit

Tuning the Rotax Max Dellorto carburetor when using the TaG jet kit may become more beneficial for some competitors if the original TaG jetting components can be altered to fit specific requirements. Parameters for specific tuning can be: track configuration, kart/driver weight, acceleration etc.

The key to tuning for maximum carburetor performance is to understand the various jetting components and what each component does to affect overall performance.

Since the Dellorto carburetor is technically known as a needle carburetor we can start with the tapered needle as a tuning component. A brief comment here is, the taper portion of the needle allows less fuel at small throttle openings then gradually providing sufficient fuel, as throttle is opened, for WOT.

The needles shown in the chart are identical except for the taper length or C dimension. The A and B dimensions are the same.

A = straight section diameter – 2.50mm.

B = tip diameter – 1.80mm.

*The exception to this, the K98 needle, which has an A dimension of 2.52mm.*

When selecting a needle, the tuning feature is *taper length* shown on chart. The affect on carburetion is:

The longer taper length will allow fuel to get to the engine *sooner*.

The shorter taper will hold back fuel thereby getting to engine later.

Changing needle taper length allows tuner to experiment with fuel timing for individual preference. Since no other needle features are altered only fuel timing is changed.

The venturi nozzle besides containing the atomizer is also the source of vacuum at WOT. Since the TV is completely covered at WOT the shroud portion of the nozzle creates a impediment to the airflow and induces enough vacuum for proper fuel delivery. By changing the height in the venturi of the nozzle two things happen:

1. air flow restriction is increased by going taller, decreased by going shorter.
2. on the other hand going taller increases vacuum, shorter decreases vacuum