



# SOUTH AFRICAN ROTAX MAX CHALLENGE

## Supplementary Technical Regulations 2013

Version 1. 2013.01.25

### 1. Technical regulations

The 2013 Rotax International Technical regulations ([www.maxchallenge-rotax.com](http://www.maxchallenge-rotax.com)) apply with only the exceptions or additional regulations and clarifications specified herein.

### 2. Tyres

The only tyres permitted will be Mojo imported and distributed by Ed Murray racing cc. This, combined with the use of the unique Rotax Tyre Tracking System, ensures tyres of the same batch are used and excludes the "fresh special import" advantage.

Refer MSA 2013 Karting Regulations Art. 23.2 b)

Strictly no modifications or tyre treatment allowed. Refer MSA 2013 Karting Regulations Art. 23.2 h)

**NB: Please remember to always fit the tyres / wheels in such a way the direction of rotation arrow is correct.**

### 3. Weights, Numbers and Number plates

Competition numbers are issued by Motorsport South Africa.

Maxterino class: 110 kg (Yellow backing with black numbers)

Junior Max class: 145 kg (Green backing with white numbers)

Senior Max class: 165 kg (Black backing with white numbers)

DD2 class: 173 kg (Red backing with white numbers)

DD2 Master class: 180 kg (White backing with black numbers)

### 4. Chassis and brakes

MSA approved chassis only.

Front brakes are not allowed in any class except in the DD2.

Maxterino may use any MSA approved "junior" chassis.

**NB: Brake discs and brake pads** are exposed to high temperature and friction results often in the removal of identification markings. Despite any previous rulings by MSA, brake pads and brake discs need not display CIK markings and need only to conform to the technical drawings, measurements and other CIK requirements.

### 5. Engines, clutch, ignition, carburettor, intake silencer, exhaust pipe

Technical Specification of ROTAX engine type FR 125 MAX and DD2 for 2013 apply as published on the website [www.maxchallenge-rotax.com](http://www.maxchallenge-rotax.com). Because of the long periods between engine rebuilds it was possible to introduce a new sealing system for FR 125 MAX engines. Each engine is delivered with its

own engine passport. Only engines sealed by the "Authorized Southern African ROTAX Distributor" (Ed Murray Racing cc) and their Authorized ROTAX "Service Centres" are allowed to be used in SARMC events. These engines are sealed after carefully checking the engine according to the 'Technical Specification for the ROTAX FR 125 MAX' engine which you can find on our homepage [www.maxchallenge-rotax.com](http://www.maxchallenge-rotax.com). Special ROTAX seals (black anodized aluminium seal with "ROTAX" logo and a 6 digit number/barcode) with a steel cable must be used. At scrutineering the driver has to present the engine with undamaged seal and the engine passport, showing the matching engine serial number, seal number, stamp and signature of the company which sealed the engine. This procedure helps to reduce scrutineering times at races. Nevertheless it is possible to open and re-check the engines by Scrutineers before or after the race in case of a protest and reseal the engine after checking it step by step by staff of the "Authorized ROTAX Service Centre or Distributor" according to the "Technical Specification". Only the following spark plugs may be used Denso IW. Maxterino 60 engines must be raced sealed by an EMR authorized service centre in accordance with the MSA approved regulations as published on [www.kart.co.za](http://www.kart.co.za) or available from MSA. NB: Only engines imported by EMR and those registered by agreement with EMR before 1 January 2013 will be permitted.

**NB: The carburettor** must conform to the 2012 regulations until further notice. Only if and when notice has been given will the 2013 International specifications be allowed and become mandatory.

#### **6. Petrol and Oil**

Commercial quality petrol from a roadside petrol station only, maximum 95 Octane, mixed with synthetic Rotax XPS Kart tech 2-stroke lubricant at 40:1. Maxterino 25:1. Unless the organizers of an event stipulate otherwise, Rotax XPS kart tech synthetic 2 stroke oil mixed with 95 Octane unleaded fuel will be used to replace any competitors' fuel as directed by the organizers.

Rear Bumpers must be a current CIK and on DD2, only the Rotax specified model is permitted.

# CHECKLIST DELLORTO



DELLORTO Type VHSB 34 (cast in carburettor body) with the letters QD or QS stamped in the body. The entire air intake shows a cast surface.

The slide is a type 40 and the underside has a cast surface.

The following are prescribed components:

- ✍ Needle tube marked FN266
- ✍ Needle marked K98
- ✍ Starting jet marked 60
- ✍ Needle and seat 150 or on DD2 only a 200 needle and seat is optional
- ✍ Main jet size is free (unless prescribed in the event SR's)
- ✍ Float level adjustment is permitted by bending the lever
- ✍ New "spannerless" float bowl plug is optional
- ✍ Only the type of air shroud with the cut out is allowed (see photo)
- ✍ The air shroud must be mounted at the originally intended height (see photo)



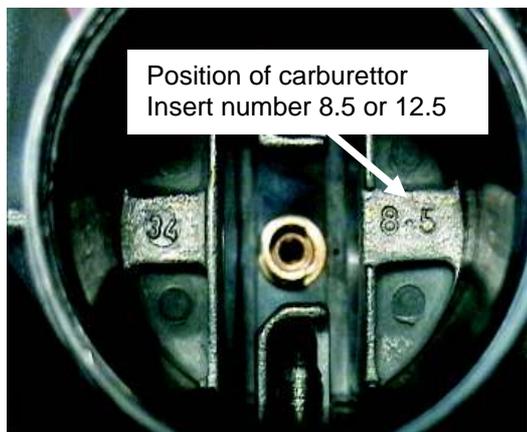
The following two combinations of inserts, low speed jets and floats are allowed:

**Combination 1 using 12.5 insert:**

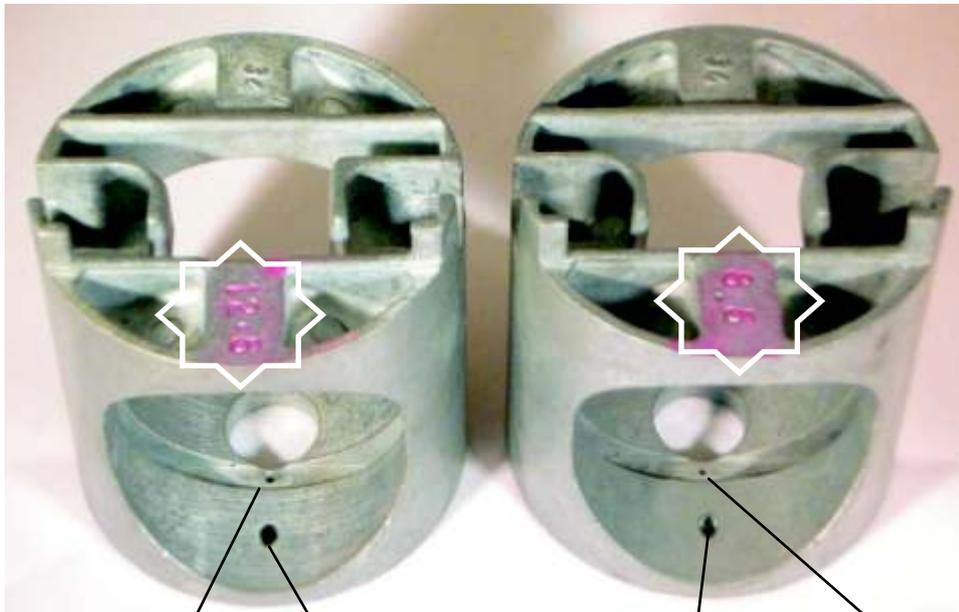
Floats marked 5.2 gram with low speed jet 30 and insert B30

**Combination 2 using 8.5 insert:**

Floats marked 3.6 gram with low speed jet 60 and insert B60



**CARBURETTOR INSERTS 8,5 & 12,5**



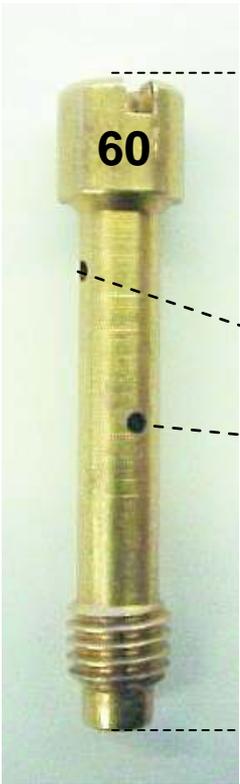
Drill size Ø 1,25mm / Drill size Ø 0,50mm

Drill size Ø 0,50mm / Drill size Ø 0,85mm

1.25-Gauge pin      Ø 1,30mm **X no Go**  
 0,50-Gauge pin      Ø 0,55mm **X no Go**

0,85-Gauge Pin      Ø 0,90 mm **X no Go**  
 0,50-Gauge pin      Ø 0,55 mm **X no Go**

**STARTING JET 60**



0,60 Gauge pin      Ø 0,65mm **X no Go**

Total length 30,50 mm +/- 0,2 mm

2x hole through Ø1,00mm

Gauge pin      Ø 1,05mm **X no Go**

### IDLE JET 30/60



Total Length 12,00 mm +/- 0,10 mm

0.30 Gauge pin  $\varnothing$  0.38mm **X no Go**  
0.60 Gauge pin  $\varnothing$  0,65mm **X no Go**

### IDLE INSERT JET 30/60



Total length 18,50 mm +/- 0,10 mm

Hole through  $\varnothing$  0,50mm

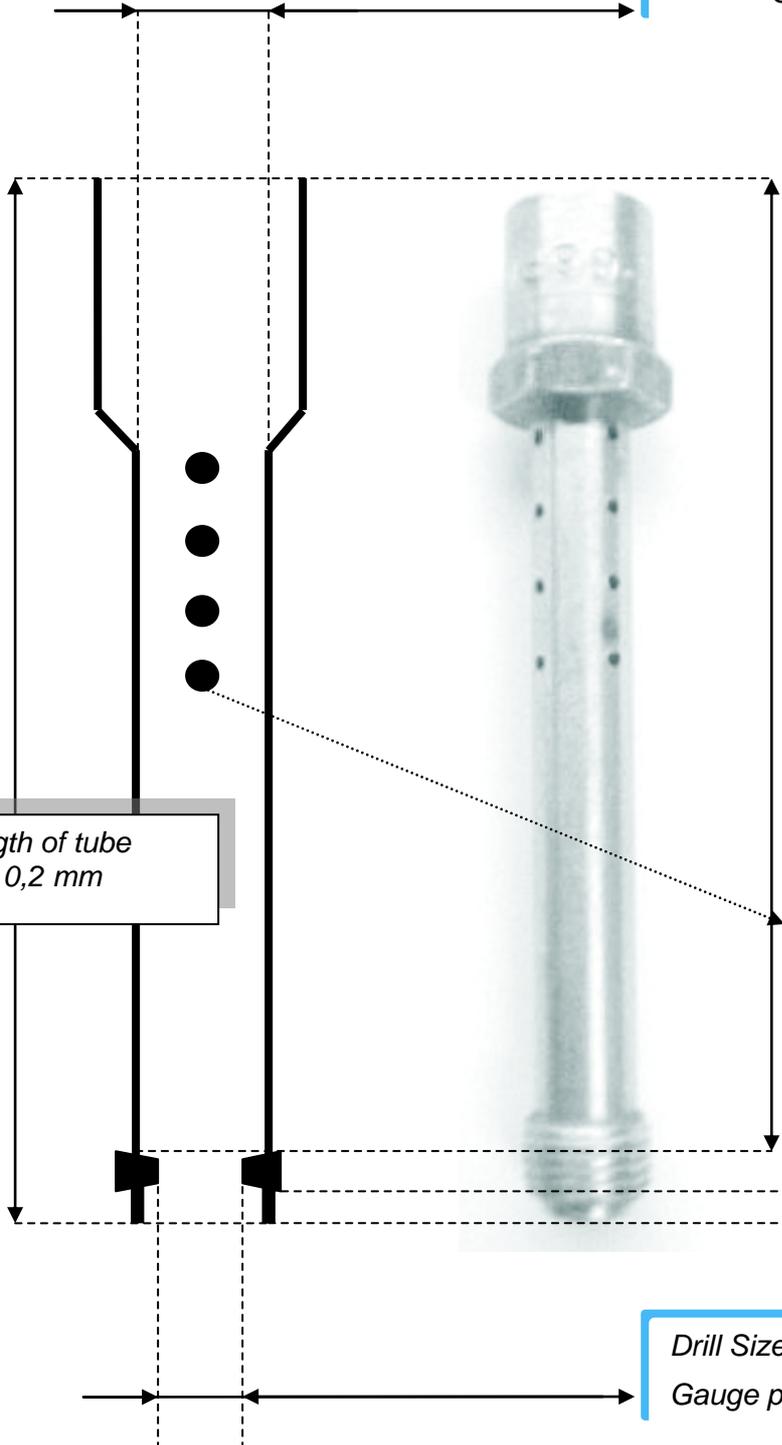
0,30 Gauge pin  $\varnothing$  0,35 **X no Fit**  
0,60 Gauge pin  $\varnothing$  0,65 **X no Fit**

Gauge pin  $\varnothing$  0,55mm **X no Go**

# Starting JET 266 FN

Hole size  $\varnothing$  3,00 mm

Gauge pin  $\varnothing$  3,15mm **X no Go**



Total length of tube  
54 mm ± 0,2 mm

Drill depth size

Gauge pin  $\varnothing$  2,95mm **O Fit**

Length of Gauge pin 70,00 mm

Size under 74,00 mm **X no Go**



4 Rows of holes

4 Holes per row

Drill size  $\varnothing$  0,80 mm

Gauge pin  $\varnothing$  0,85mm **X no Go**

Drill depth size 1,70 mm Maximum

Drill Size  $\varnothing$  2,66 mm

Gauge pin  $\varnothing$  2,68mm **X no Go**

# Air Shroud

