



**ROTAX MOJO MAX Challenge  
Technical Regulations 2016**

**Appendix for 125 Mini MAX and 125 Micro MAX – U.S.A.**

(The Technical Regulations 2016 replace the Technical Regulations 2015)

Version February 15<sup>th</sup>, 2017

## **1. Rotax Mini-Max**

### **1.1 Chassis**

- 1.1.1 Only Cadet chassis type are authorized;
- 1.1.2 Maximum wheelbase: 950 mm +/- 20 mm;
- 1.1.3 Maximum over all width including all bodywork: 1270 mm;
- 1.1.4 CIK axle wall thickness requirements are not applicable;
- 1.1.5 Front brakes are forbidden;
- 1.1.6 Rear protection mandatory;
- 1.1.7 The highest point at the center of the seat back shall be no lower than 30.5 cm for the tracks surface.

### **1.2 Rear Protection**

Rear protection must be made of plastic or magnetic steel and must not present any danger as regards safety.

The unit must be attached to the frame in at least 2 points by supports made of plastic, steel or aluminum (possibly by a supplemental system) on the 2 main tubes of the chassis, or on the currently used bumper (upper bar and anti-interlocking bar, Article 2.5.2 or the CIK-FIA technical regulation).

Steel industry standard is also accepted, with closed loop “elephant ear” design also accepted. In this case, Bottom bar between frame rails is required, Top Bar may not be located lower than the height of the rear axle, nor higher than the plane of the rear tires minimum bar outside diameter is 16 mm.

Rear protection must cover at least 50% of each wheel/tire assembly at all times measured at the center-line of the tire.

Rear protection must have an overall width not exceeding the rear width of the kart at any time, measured outside the rear wheels or tires, whichever is the greater.

### **1.3 Tires**

- 1.3.1 Slicks: Mojo D2: Front and Rear Slicks: 4.5 x 10.0 – 5;

- 1.3.2 Wet : Mojo W2 : 4.5 x 10.0 – 5;
- 1.3.3 Rim dimensions (slick & wet) : Minimum width: 128 mm; maximum width : 135 mm;
- 1.3.4 Maximum mounted tire width of 145 mm;
- 1.3.5 No bead locks required.

**1.4 Bodywork**

- 1.4.1 Side pod protection must be used as supplied from chassis manufacturer and may not be modified to allow “narrow track width”. Extension devices may be used, no other modification of factory design is accepted.
- 1.4.2 Side pods may not protrude past the outer edge of the rear wheels in all conditions, including “Wet Conditions”.
- 1.4.3 Cadet nose cone may be of full design with maximum outboard protrusion of 40 mm per side.

**1.5 Gearing**

Gearing ratio (front and rear sprockets) is open.

The supplemental regulations of the event or Championship regulations may specify a unique gearing ratio (front and rear sprockets) for all participants.

**1.6 Section 5 of the Rotax MAX Challenge Technical Regulation 2016 applies with the exception below:**

**5.1. Squish gap**

125 Mini-MAX/Evo = 2,40 mm

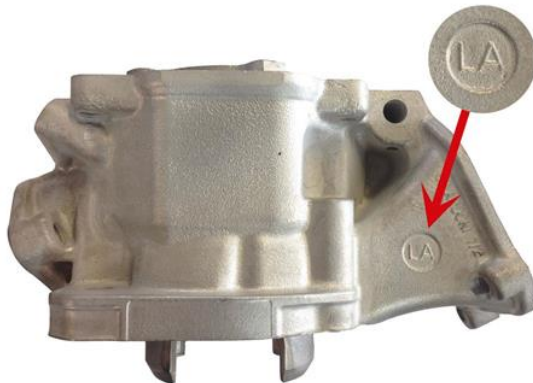
To achieve the defined minimum squish gap, a spacer (ROTAX part no. 626 420, same shape as a cylinder base gasket) in combination with at least two cylinder base gaskets (one below the spacer and one above the spacer) must be used.

The squish gap must be measured with a certified slide gauge and by using a 3 mm tin wire (Rotax part no. 580 132).

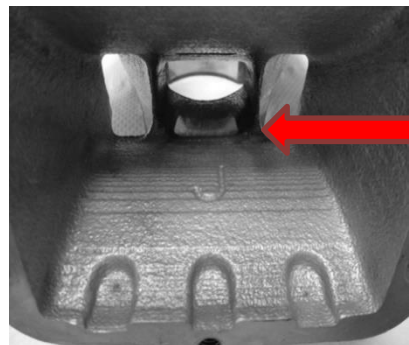
**5.5 Cylinder**

**5.5.1. EVO Engines**

Evo engines must use a cylinder marked with lettered production code. Letters are different from one production batch to another or a cylinder marked 223 994 and showing a cast letter mark (e.g. “J”) in the inlet port.



or



**1.7. Section 6 of the Rotax MAX Challenge Technical Regulation 2016 applies with the exception below:**

## 6.7. Ignition system

### Version 2, Dellorto ignition system

The electronic control unit (ECU) are labeled with stickers and are still legal even if the sticker is unreadable or disappeared.

125 Mini MAX must use the electronic box "666814" or "666815".

**The ECU tester must show, for the 125 Mini MAX, the following result:**

666814MAX or 666815MAX

!! Test OK !!

## 6.10. Carburetor:

Regulations for QD and QS carburetors apply for Junior and Senior Max engines apply excepted:

- Only idle jets stamped 30 or 60 are allowed.
- Only Idle emulsion tubes stamped 30 or 60 are allowed
- It is not mandatory that idle jet and idle emulsion tube show the same size.
- The intake restrictor (Rotax part no. 267 535) must be fitted between the carburetor flange and the carburetor.

The intake restrictor must show an inner diameter of  $19,0 +0,0/-1,2$  mm.

The intake restrictor must show a blue anodized surface.

**Regulation for XS carburetor: Section 6.10 of the 2016 RMC Technical Regulations apply.**

**Note: The intake restrictor is not used with the XS carburetor.**

## 6.13. Exhaust system

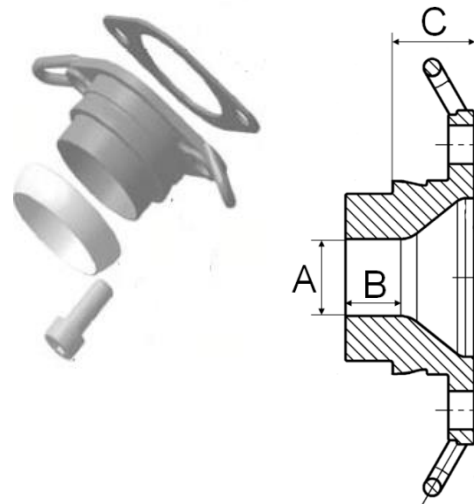
Only exhaust socket (ROTAX part no.273194) with gasket ring is legal to be used.

Diameter (A) must apply for a length (B) of at least 12 mm.

Maximum inner diameter (A) of exhaust socket is:

**125 Mini MAX: 20,20 mm**

The measurement (C) must be at least 18,5 mm.



## 2. Rotax Micro-Max

### 2.1 Chassis

- 2.1.1 Only Cadet chassis type are authorized;
- 2.1.2 Maximum wheelbase: 950 mm +/- 20 mm;
- 2.1.3 Maximum overall width including all bodywork 1270 mm;
- 2.1.4 (...);
- 2.1.5 CIK axle wall thickness requirements are not applicable;
- 2.1.6 Front brakes are forbidden;
- 2.1.7 Rear protection mandatory;
- 2.1.8 The highest point at the center of the seat back shall be no lower than 30.5 cm for the tracks surface.

### 2.2 Rear protection

Rear protection must be made of plastic or magnetic steel and must not present any danger as regards safety.

The unit must be attached to the frame in at least 2 points by supports made of plastic, steel or aluminum (possibly by a supplemental system) on the 2 main tubes of the chassis, or on the currently used bumper (upper bar and anti-interlocking bar, Article 2.5.2 or the CIK-FIA technical regulation).

Steel industry standard is also accepted, with closed loop “elephant ear” design also accepted. In this case, Bottom bar between frame rails is required, Top Bar may not be located lower than the height of the rear axle, nor higher than the plane of the rear tires minimum bar outside diameter is 16 mm.

Rear protection must cover at least 50% of each wheel/tire assembly at all times measured at the center-line of the tire.

Rear protection must have an overall width not exceeding the rear width of the kart at any time, measured outside the rear wheels or tires, whichever is the greater.

Event Technical Director is final acceptance of rear bumper and side protection.

### 2.3 Tires

- a) Micro MAX (Dry) Mojo D2: Front and Rear Slicks: 4.5 x 10.0 – 5
- b) Micro MAX (Wet) Mojo W2 : 4.5 x 10.0 – 5
- c) Rim dimensions (slick & wet) : Minimum width: 128 mm; maximum width : 135 mm
- d) Maximum mounted tire width of 145 mm
- e) No bead locks required

### 2.4 Bodywork

- a) Side pod protection must be used as supplied from chassis manufacturer and may not be modified to allow “narrow track width”. Extension devices may be used, no other modification of factory design is accepted.
- b) Side pods may not protrude (...) past the outer edge of the rear wheels in all conditions, including “Wet Conditions”.
- c) Cadet nose cone may be of full design with maximum outboard protrusion of 40 mm per side.

## 2.5 Gearing

All participants must use an original 14 tooth front sprocket with a 73 tooth rear sprocket.

The supplemental regulations of the event or Championship regulations may specify a unique gearing ratio (front and rear sprockets) for all participants.

## 2.6 Section 5 of the Rotax MAX Challenge Technical Regulation 2016 applies with the exception below:

### 5.1. Squish gap

125 Micro-MAX/Evo = 2,40 mm

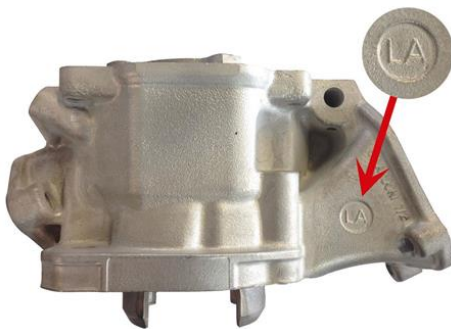
To achieve the defined minimum squish gap, a spacer (ROTAX part no. 626 420, same shape as a cylinder base gasket) in combination with at least two cylinder base gaskets (one below the spacer and one above the spacer) must be used.

The squish gap must be measured with a certified slide gauge and by using a 3 mm tin wire (Rotax part no. 580 132).

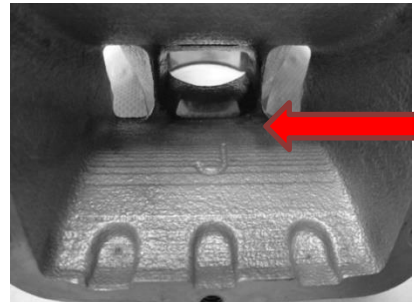
### 5.5 Cylinder

#### 5.5.1. EVO Engines

Evo engines must use a cylinder marked with lettered production code. Letters are different from one production batch to another or a cylinder marked 223 994 and showing a cast letter mark (e.g. "J") in the inlet port.



or



## 2.7. Section 6 of the Rotax MAX Challenge Technical Regulation 2016 applies with the exception below:

### 6.7. Ignition system

The electronic control unit (ECU) are labeled with stickers and are still legal even if the sticker is unreadable or disappeared.

125 Micro MAX must use the electronic box "666 814" or "666815".

**The ECU tester, for the 125 Micro MAX, must show the following result:**

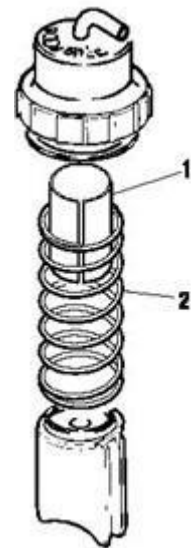
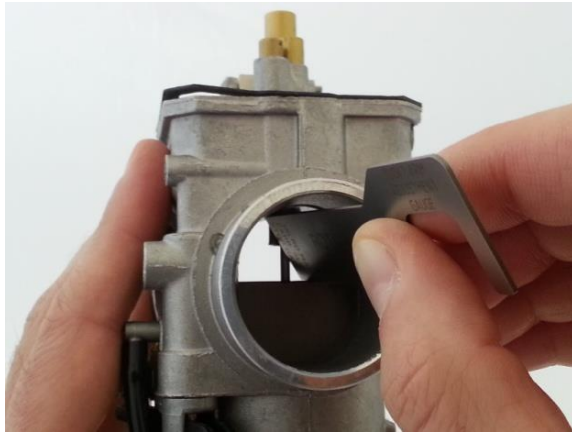
666814MAX or 666815MAX

!! Test OK !!

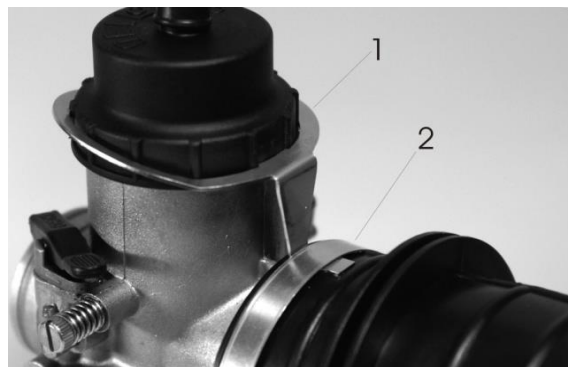
## 6.10. Carburetor:

### For QD and QS carburetors only:

- a) The spacer (pos. 1, see illustration beside, ROTAX part no 251 730) must be fitted in the carburetor to limit the opening of the throttle.
- b) The length of the spacer has to be 38,0 +/- 0,2 mm
- c) The tolerance gauge (ROTAX part no. 277 400) must **not** be able to turn around (opening limit of carburetor slide)!



- d) The position of the cap of the carburetor must be fixed by means of the fixation plate (pos. 1 see illustration below, ROTAX part no. 251 790).
- e) The cap of the carburetor must be screwed completely on to the carburetor body and hand tightened. Enough force must be used to bottom and compress the rubber gasket between the cap and the carburetor body. Minimal relocation of the cap for the purpose of aligning and locking the fixation plate is allowed.

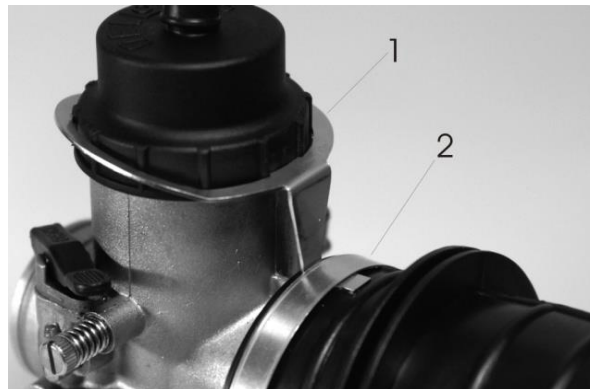
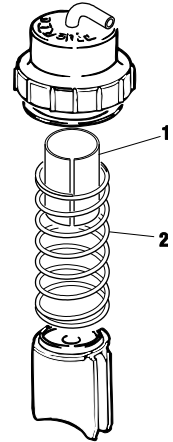


- f) Only one rubber gasket is allowed to be used in the carburetor cap.
- g) Only floats marked 3.6 gr are allowed.
- h) Only idle emulsion tube stamped 60 is allowed.
- i) Only idle jet stamped 60 is allowed.

- j) Main jet is free but limited to those supplied in the Rotax Micro MAX jet package (ROTAX part 281476, which includes main jets: 115-118-120-122-125-128-130).

**Regulation for XS carburetor: Section 6.10 of the 2016 RMC Technical Regulations apply with the following specifications:**

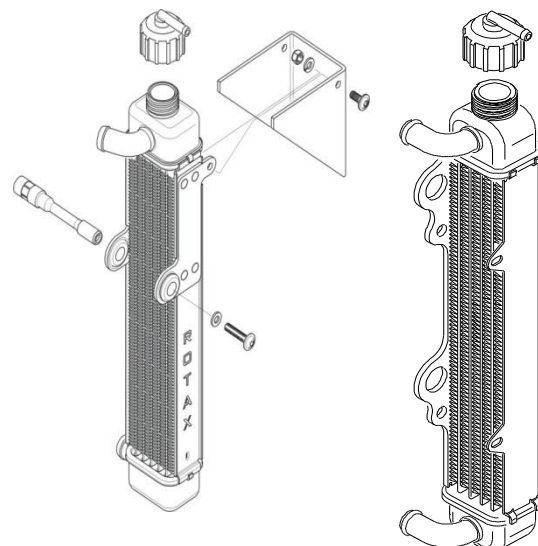
- a) The spacer (pos. 1, see illustration below, ROTAX part no.251 731) must be fitted in the carburetor to limit the opening of the throttle.  
**Note:** This spacer is not the same as used for the QD and QS carburetors.
- b) The length of the spacer has to be 33,05 mm +/-0,1 mm.
- c) The position of the cap of the carburetor must be fixed by means of the fixation plate (pos. 1 see illustration below, ROTAX part no. 251 790, see picture below).
- d) The cap of the carburetor must be screwed completely on to the carburetor body and hand tightened. Enough force must be used to bottom and compress the rubber gasket between the cap and the carburetor body. Minimal relocation of the cap for the purpose of aligning and locking the fixation plate is allowed.



- e) Only one rubber gasket is allowed to be used in the carburetor cap.

**6.12 Radiator:**

- a) A specific "Micro MAX" radiator (ROTAX part no. 295 924-version 1 or 295 923-version 2) must be used instead of the original radiator.
- b) Radiator must be mounted with all components similar to the illustration version 2 or 3 for the 125 MAX engine.
- c) Cooling area:  
height = 280 - 300 mm  
width = 58 - 62 mm  
thickness of radiator = 30 - 34 mm



- d) No additional non-original-cooling-device is allowed.

For version 1, tape applied around the radiator is the only allowed air flow control. Tape may not be removed from the radiator during operation on the track. All other means of air flow control through the radiator are prohibited (except of the original plastic flap for version 2). Only non-printed tape (no advertising) is allowed. Removal of the original flap is an acceptable configuration.

### 6.13. Exhaust system

Only exhaust socket (ROTAX part no.273192) with gasket ring is legal to be used.

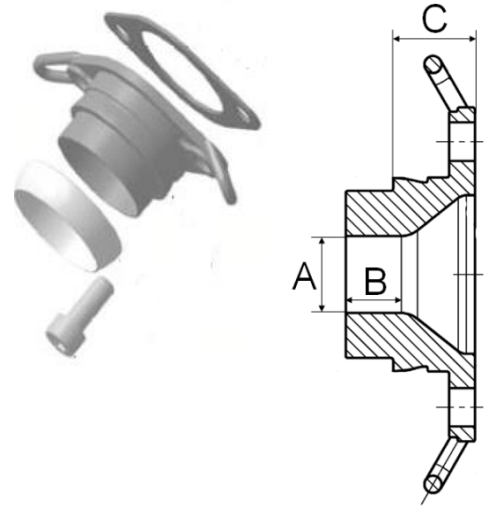
Diameter (A) must apply for a length (B) of at least 12 mm.

Maximum inner diameter (A) of exhaust socket is:

**125 Micro MAX:** 18,20 mm

The measurement (C) must be at least 18,5 mm.

Exhaust leakage between socket and cylinder is not allowed.



#### Exhaust silencer:

- a) The specific "Micro MAX" exhaust system must be used instead of the original exhaust system (see illustration below).
- b) The inner diameter of the elbow outlet at the silencer end cover has to have a minimum of 21 mm.



- c) The exhaust cover outlet (Rotax part no. 273098) must be installed as supplied by ROTAX. The exhaust cover can be turned that the 90 elbow outlet of the silencer shows wither downwards towards the asphalt (preferred version for lowest noise emissions) or towards the back.

- d) Exhaust must be installed firmly to the chassis using a rigid pipe mount. The exhaust pipe must be mounted to the rigid pipe mount using 2 ROTAX silent blocks. (part no. 660920 and or 260657 allowed). The deflection of the 2 silent blocks is the only pipe movement allowed. The pipe must be mounted in a neutral position with no stress on the 2 silent blocks.

