



NORGES BILSPORTFORBUND

HOMOLOGERINGSdokument VORTEX ROK TT

Homologeringsnr.
NBF-24/M/16

Utgave 01/2015

Produsent	OTK-KART-GROUP S.R.L (ITALY)	
Merke	VORTEX	
Modell	ROK TT	
Homologeringsperiode	1. Januar 2015 - 31. Desember 2016	10 Sider (+1+2)



VORTEX s.r.l. Via Scarpone, 39 I – 27100 PAVIA	HOMOLOGATION FORM for ENGINE cl. 125 cc.	Form.
		N. OMOL.
Manufacturer	VORTEX s.r.l.	
Make	VORTEX s.r.l.	
Model	ROK TT	
Inlet type	REED VALVE	
Number of pages	8	

PICTURE OF ENGINE

  FRONT / LEFT SIDE	  BACK / RIGHT SIDE
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Official federation signature and Stamp	Manufacturer Signature and Stamp
	





TECHNICAL INFORMATION		
A CHARACTERISTICS		
	Measurement	Tolerances
Volume of cylinder	123.9 cc	125cc MAX
Original bore	54.05 mm	±0.2
Theoretical maximum bore	54.28 mm	MAX
Stroke	54.00 mm.	± 0.2 mm
Cooling system	WATER-COOLED	
Number of carburation systems	1	
Number of transfer ports/ducts, cylinder/sump	3/3	
Number of exhaust ports/ducts	3	
Shape of combustion chamber	Spherical with squish	
Length between axes of the Connecting rod	102 mm	± 0.2 mm
Minimum weight of connecting rod	110 g	MIN
Volume of combustion chamber	7.5 cc	MIN
Type of bearings and size	Big End of Rod Bearing= 20x26x15 Little End of Rod Bearing= 14x18x17 Crankshaft Bearing= 25x52x15	

B OPENING ANGLES (all measurement done with 0.20mm feeler gauge)		
		Tolerances
Inlet	140°	Max
Exhaust	180°	Max

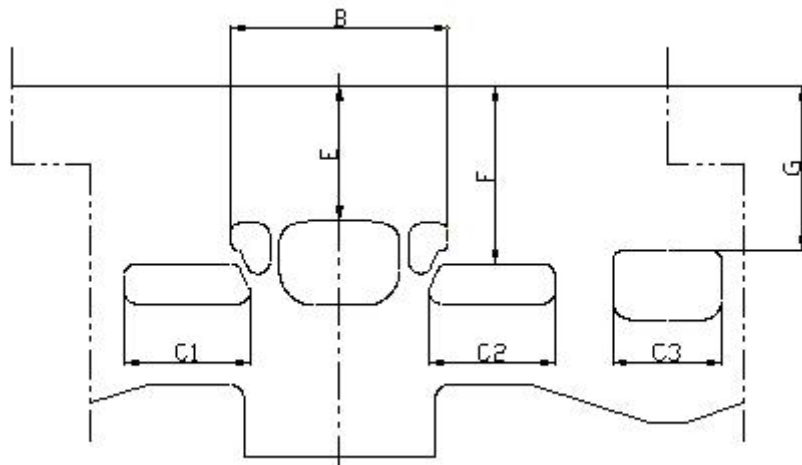
C LIST OF ACCESSORIES INCLUDED	
Carburetor	Carburetor ø24 with integrated fuel pump
Generator for battery charging	External battery charger
Electric starter	On board
Exhaust with flex	Exhaust with silencer

D MATERIAL	
Cylinder	AL – SI ALLOY
Connecting rod	NI – CR – MO STEEL
Crankshaft	NI – CR – MO STEEL
Head	AL – SI ALLOY
Liner	IRON
Crankcase	AL – SI ALLOY
Piston	AL – SI ALLOY
Piston Ring	STEEL OR IRON



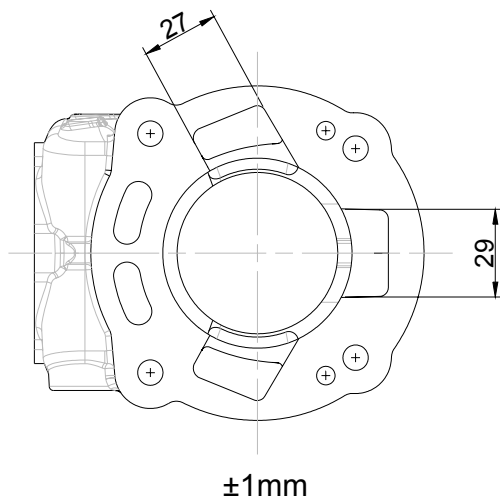
DRAWING OF THE CYLINDER DEVELOPMENT

B	$53.5 \pm 0.5\text{mm}$
C1=C2	$28 \pm 0.5\text{mm}$
C3	$27.5 \pm 0.5\text{mm}$
E	180° Max
F	$128.5^\circ \pm 2^\circ$
G	140° Max

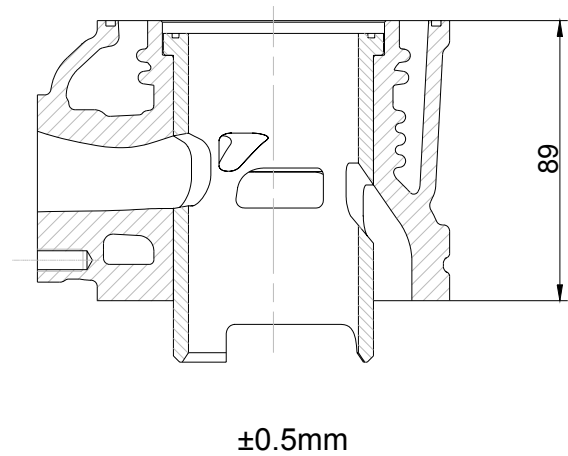


Angular reading by 0.2mm feeler gauge

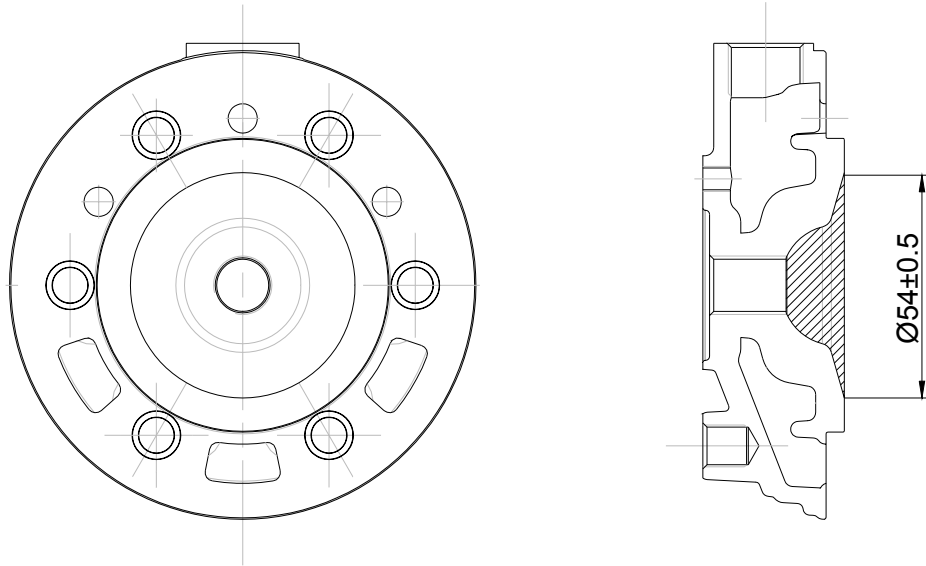
DRAWING OF THE CYLINDER BASE



CILINDER SECTION VIEW

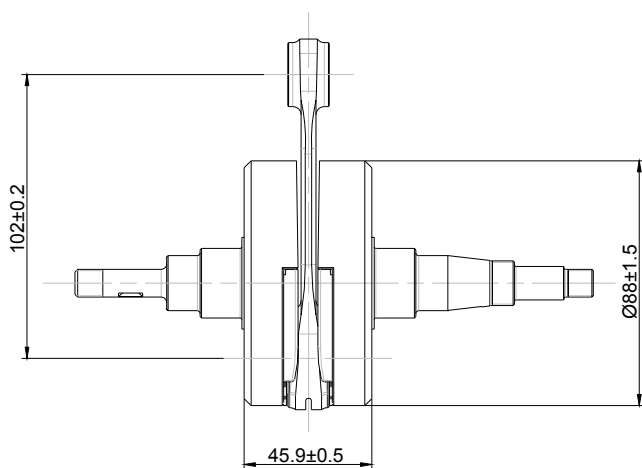


DRAWING OF THE CYLINDER HEAD AND COMBUSTION CHAMBER



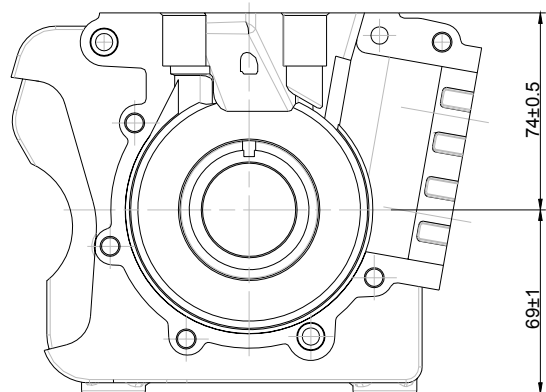
Combustion chamber volume = 7.5cc minimum

DRAWING OF THE CRANKSHAFT



Weight= 1860g ± 280g

DRAWING OF THE INSIDE SUMP



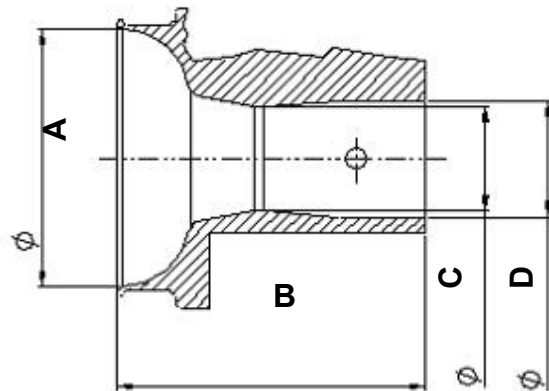


IGNITION	
Manufacturer	SELETTRA - PVL
Model Number	
Rotation	COUNTERCLOCKWISE
Description	

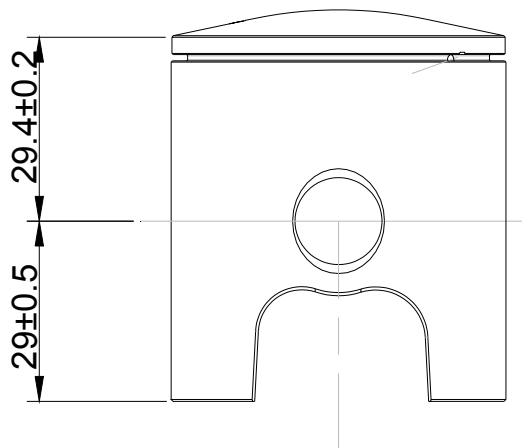
PHOTO OF IGNITION	PHOTO OF COIL
 	 
 	

CARBURETOR DIMENSION

Item	Measure	Tolerance
A	60mm	$\pm 1\text{mm}$
B	74mm	$\pm 1.5\text{mm}$
C	24mm	$\pm 0.3\text{mm}$
D	27.1mm	$\pm 0.5\text{mm}$

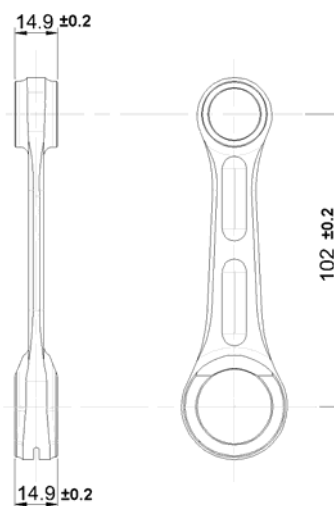


PISTON



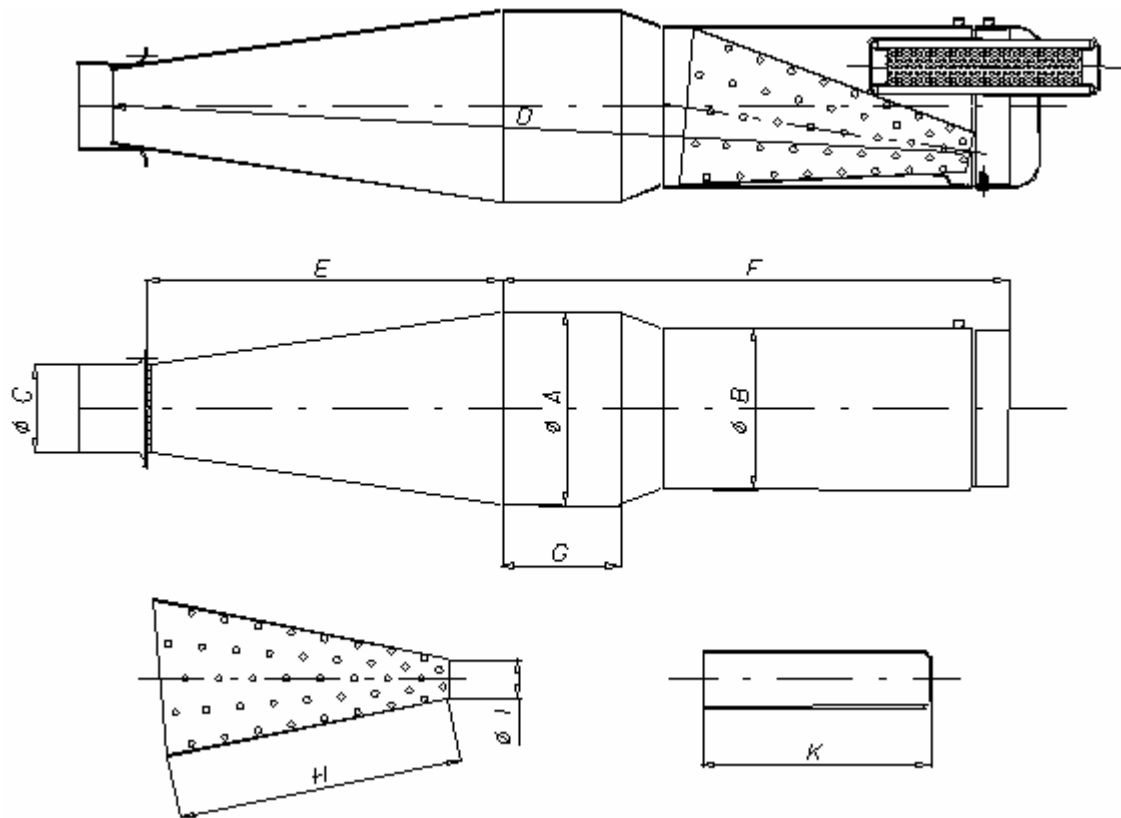
Weight = 125g $\pm$ 19g

CONNECTING ROD



Weight = 130g $\pm$ 20g

DRAWING OF THE SILENCER AND IT'S COMPONENTS

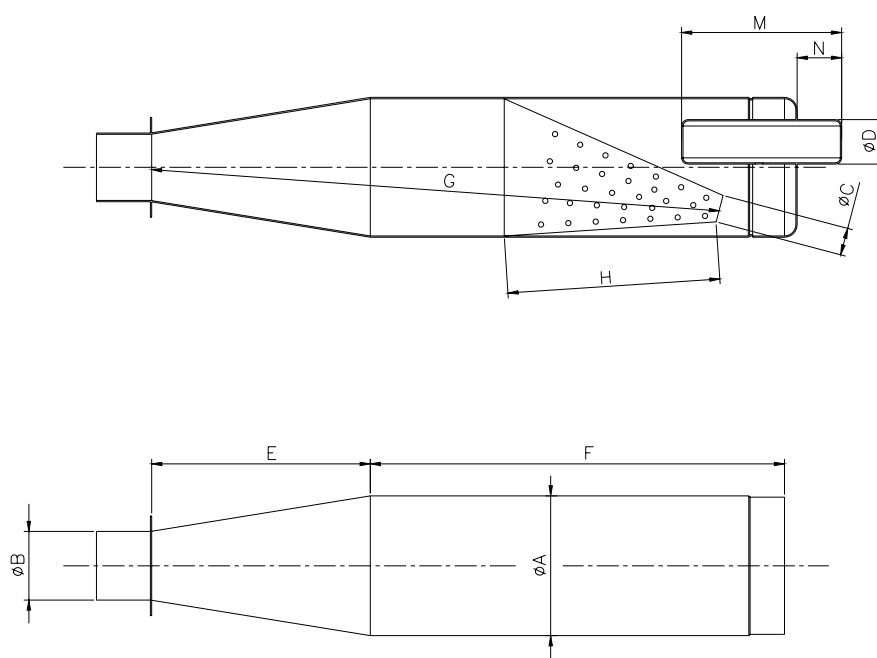


The end parts of the silencer must have two soldered pairs of lugs (one pair at the top and one pair at the bottom) to allow for fixing of seals by the Organizer so that the silencer may be opening during the competition.

Measurements:

A: 112 ±5mm
 B: 100 ±5mm
 C: 54 ±5mm
 D: 485 ±5mm
 E: 172 ±5mm
 F: 218 ±5mm
 G: 100 ±5mm
 H: 171 ±5mm
 I: 21 ±5mm
 K: 130 ±5mm

DRAWING OF THE SILENCER AND IT'S COMPONENTS



The end parts of the silencer must have two soldered pairs of lugs (one pair at the top and one pair at the bottom) to allow for fixing of seals by the Organizer so that the silencer may be opening during the competition.

Measurements:

A: $\varnothing 100 \pm 5\text{mm}$
 B: $\varnothing 54 \pm 5\text{mm}$
 C: $\varnothing 21 \pm 5\text{mm}$
 D: $\varnothing 35 \pm 5\text{mm}$
 E: $172 \pm 5\text{mm}$
 F: $315 \pm 5\text{mm}$
 G: $490 \pm 5\text{mm}$
 H: $171 \pm 5\text{mm}$
 M: $130 \pm 5\text{mm}$
 N: $35 \pm 5\text{mm}$



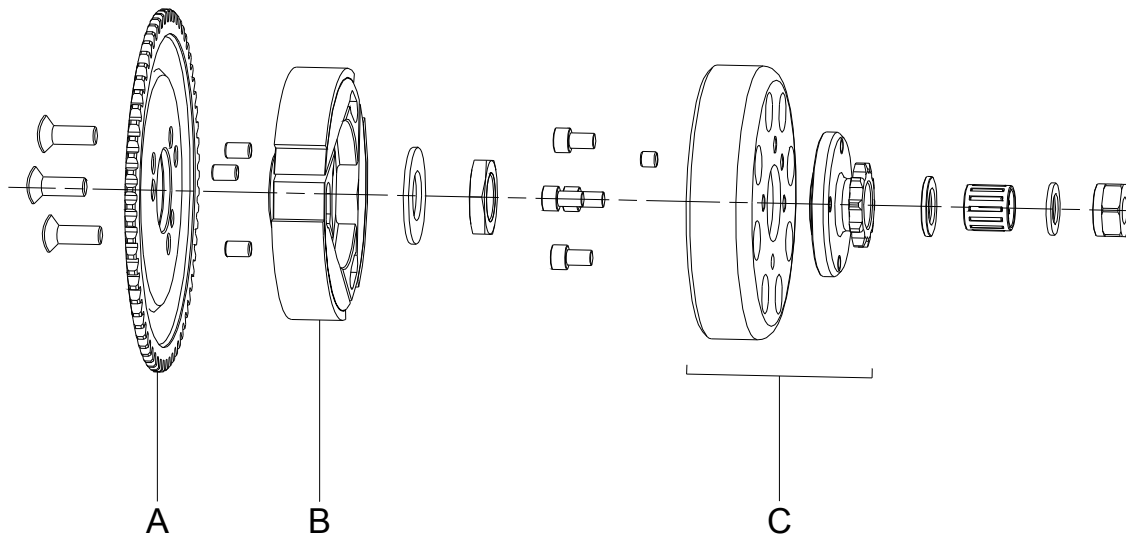
EXHAUST BEND



42MM MAX I.D. Must be OEM without modifications



DRAWING OF THE CLUTCH



Item weight and tolerance: A= 115g ; B= 420g Minimum ; C= 280g Minimum



VORTEX factory Via Scarpone, 39 I – 27100 PAVIA	HOMOLOGATION EXTENSION for ENGINE ROK TT		DATE . 31.03.12			
			N. OMOL.			
Manufacturer	OTK Kart Group s.r.l.					
Make	OTK Kart Group s.r.l.					
Model	ROK TT					
Inlet type	REED VALVE					
Number of pages	2					
DESCRIPTION OF NEW PART						
ITEMS CHANGED: Clutch, start alu sprocket, bolt (M8) to fix the sprocket.						
PURPOSE FOR CHANGE: Production Efficiency, Reliability						
OLD (Actual)		NEW (Optional)				
						



OLD (Actual)	NEW (Optional)
 ACTUAL weight= 571 gr	 OPTIONAL weight= 574gr
Official Federation Signature and Stamp	Manufacturer Signature and Stamp
	

