



VORTEX FACTORY OTK KART GROUP s.r.l. Via E. Fermi, 5 I - 27040 PAVIA	HOMOLOGATION FORM for VLR ENGINE cl. 100 cc.	
Manufacturer	VORTEX FACTORY	
Make	VORTEX FACTORY	
Model	ROK VLR	
Inlet type	REED VALVE	
Number of pages	16	
PICTURES OF ENGINE		
		
		
FRONT / LEFT SIDE	BACK / RIGHT SIDE	

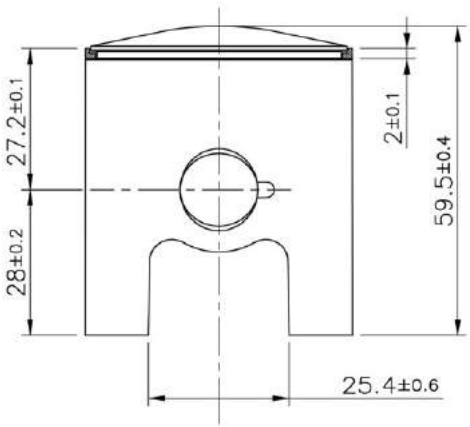

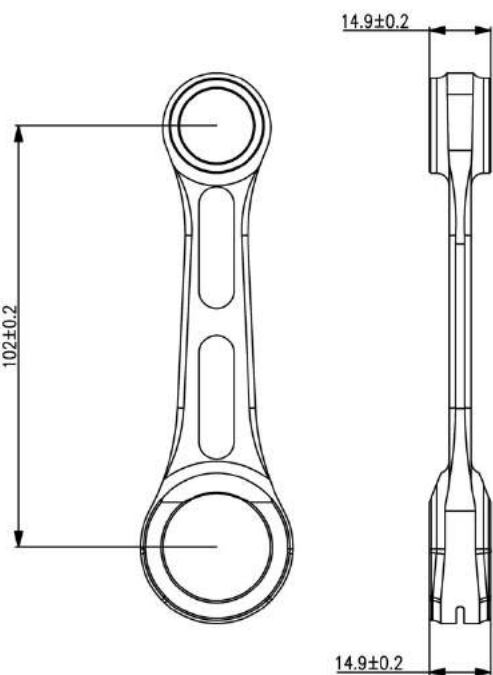



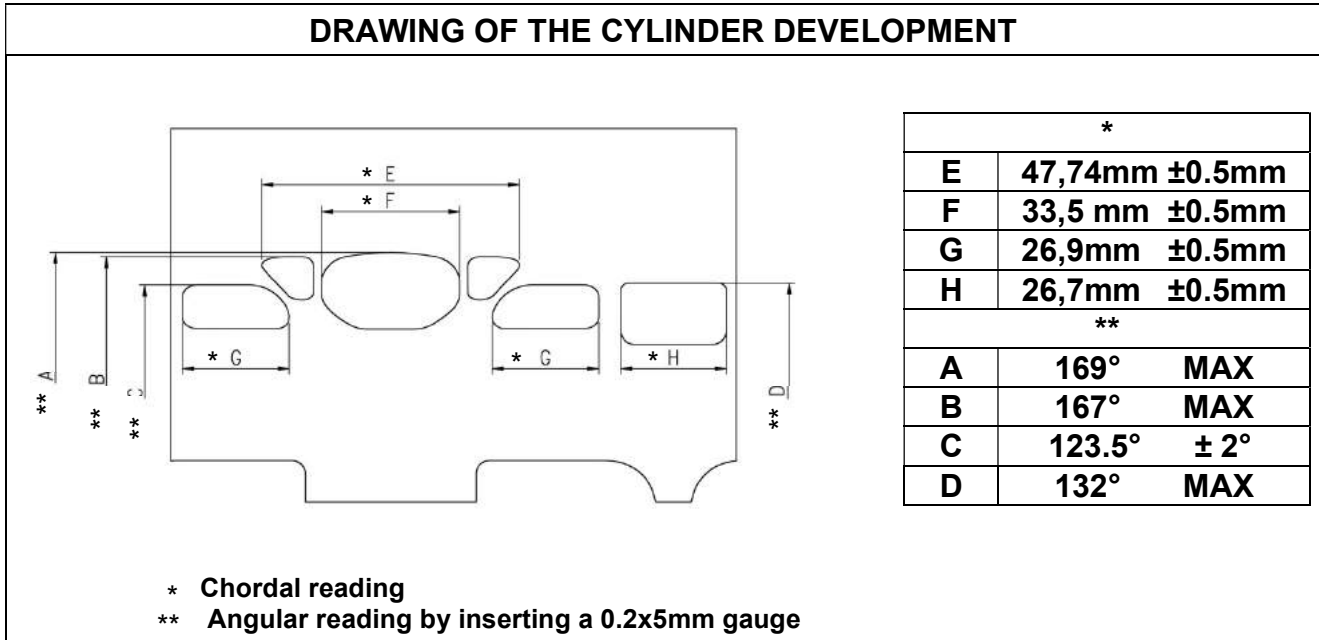
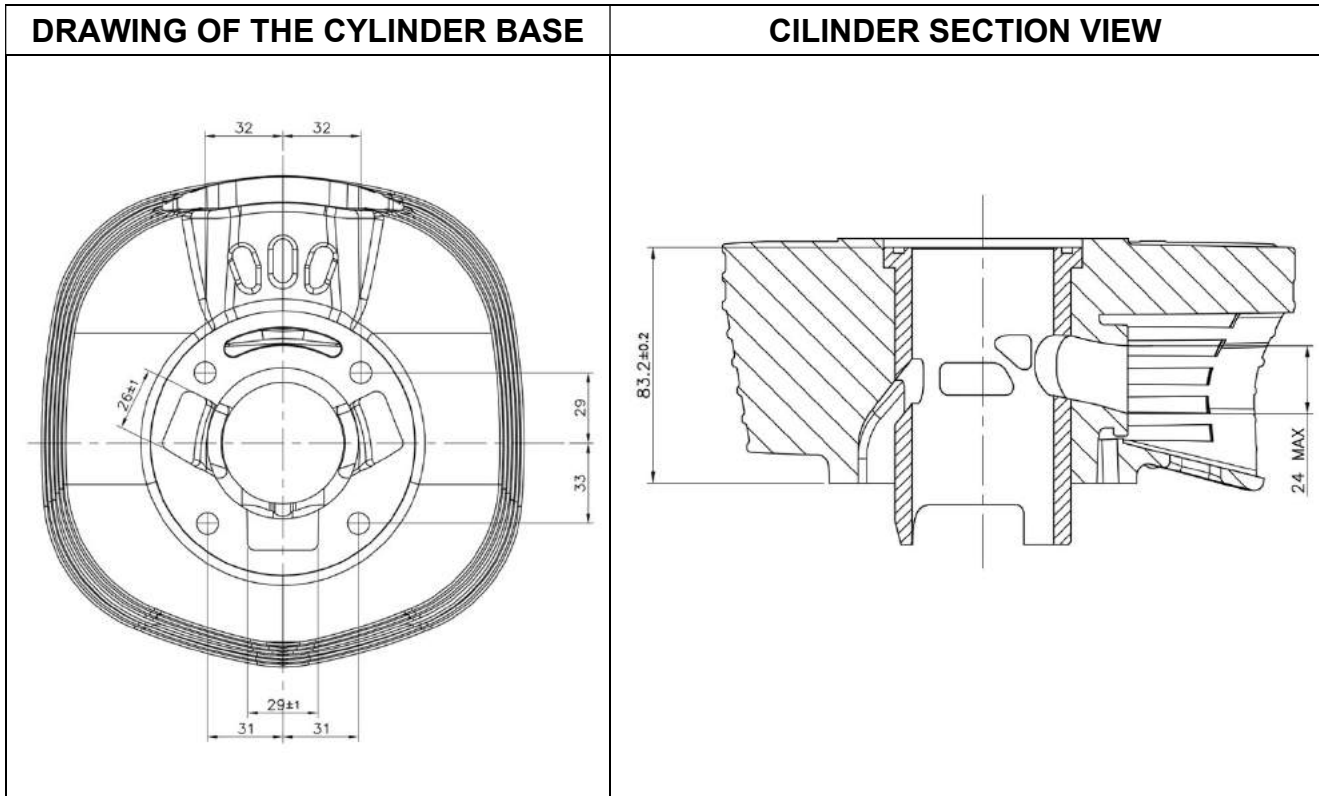


TECHNICAL INFORMATION		
CHARACTERISTICS		
	Measurement	Tolerances
Volume of cylinder	98.53 cc	100cc Max.
Original bore	48.20 mm	±0.2
Theoretical maximum bore	48.53 mm	Max.
Stroke	54.00 mm	± 0.2 mm
Cooling system	Air-cooled	
Carburettor typ.	Tillotson HW-38A	
Number of transfer ports/ducts, cylinder/sump	3	
Number of exhaust ports/ducts	1+2 (1 elliptical port plus 2 boosters)	
Shape of combustion chamber	Spherical with squish	
Length between axes of the Connecting rod	102 mm	± 0.2 mm
Number of piston rings	1	
Volume of combustion chamber	9.2 cc	Min.
Type of bearings and size	Conrod big end bearing = 20x26x15 Conrod small end bearing = 14x18x17 Crankshaft bearings = 25x52x15	

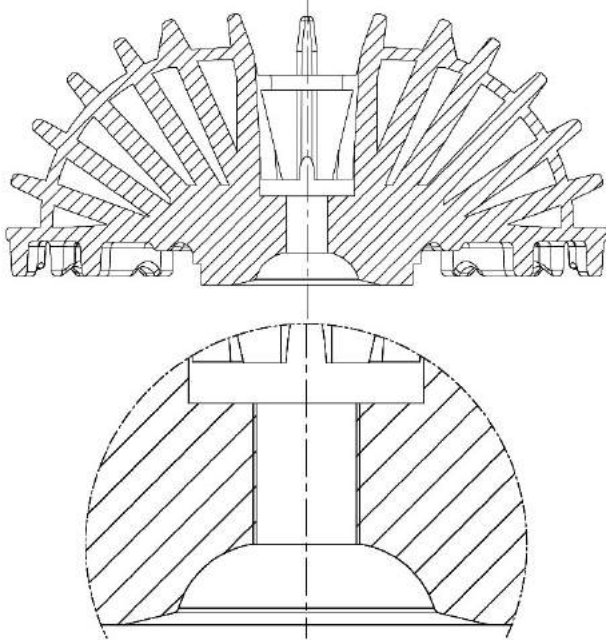
	MATERIAL	Weight	Tolerances
Cylinder	ALLOY		
Connecting rod	STEEL	102.5g	± 15g
Crankshaft	STEEL	1870g	Min.
Head	ALLOY		
Conrod	CAST IRON	127g	Min.
Crankcase	ALLOY		
Piston	ALLOY	95g (+Piston ring)	Min.
Piston Ring	CAST IRON		
Clutch		523g+273g	± 25g
Exhaust		1900g	Min.



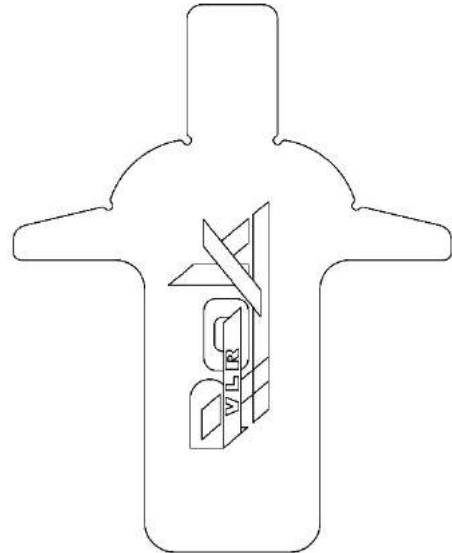
PISTON Min. weight 95g	PISTON PICTURE
	
CONROD Min. weight 127g	CONROD PICTURE AND MARKING
	



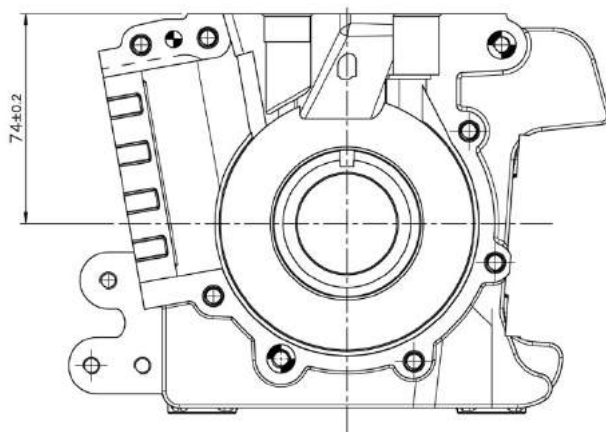
DRAWING OF COMBUSTION CAMBER



COMBUSTION CAMBER TECH TOOL

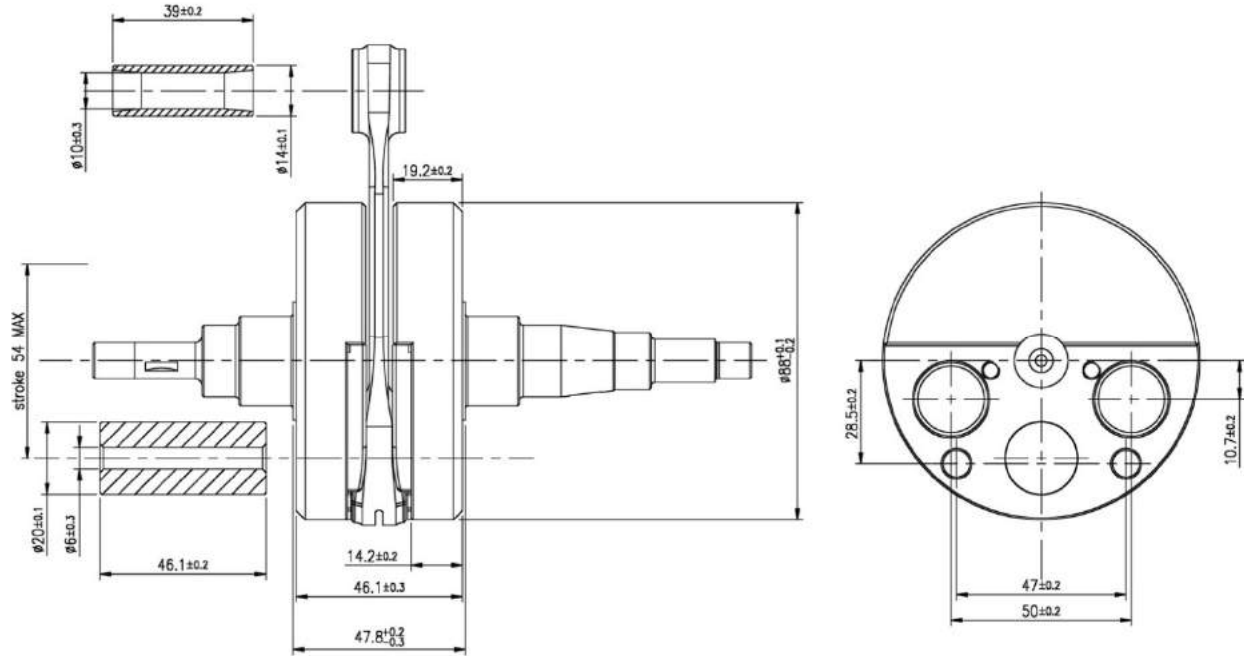


DRAWING OF THE INSIDE SUMP

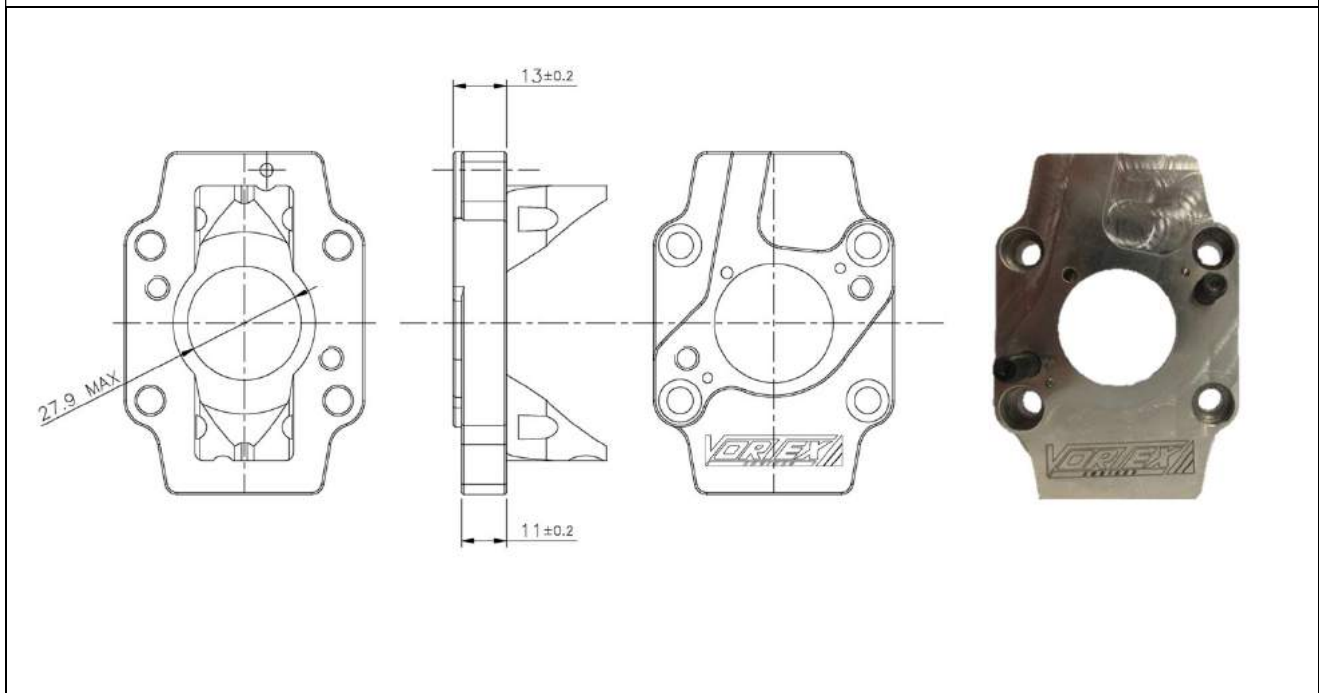


DRAWING OF THE CRANKSHAFT

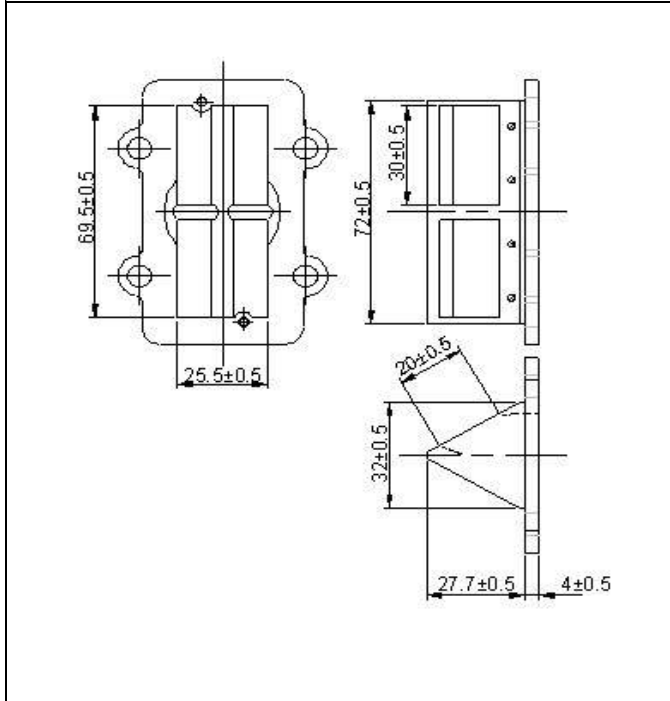
Piston pin Min. weight 19g



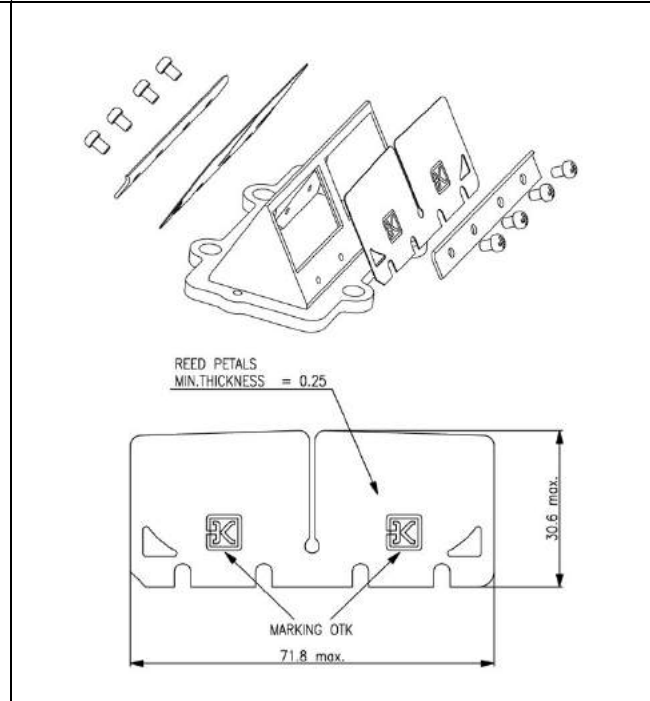
INTAKE MANIFOLD



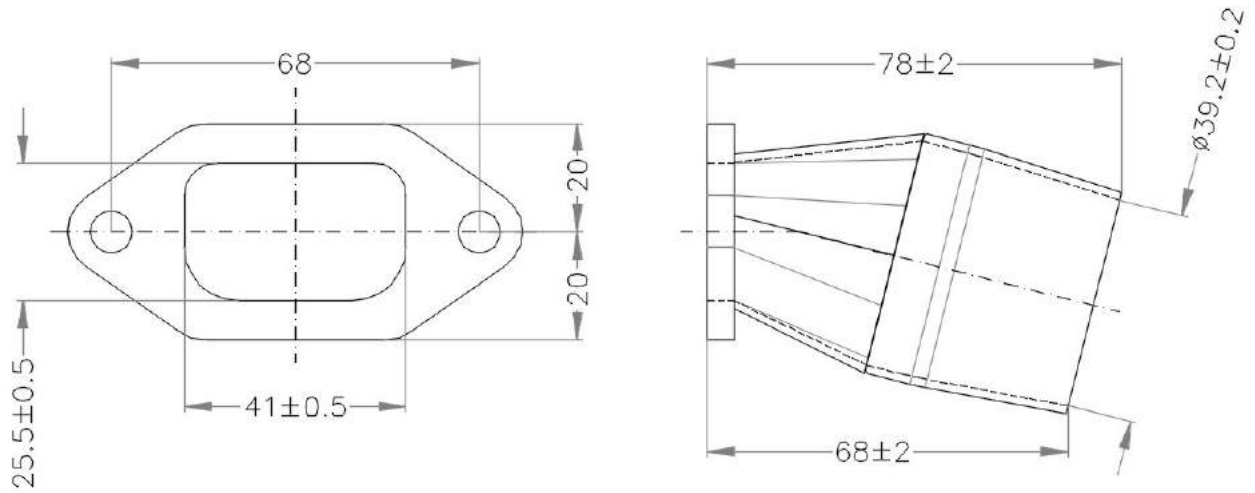
CONVEYOR



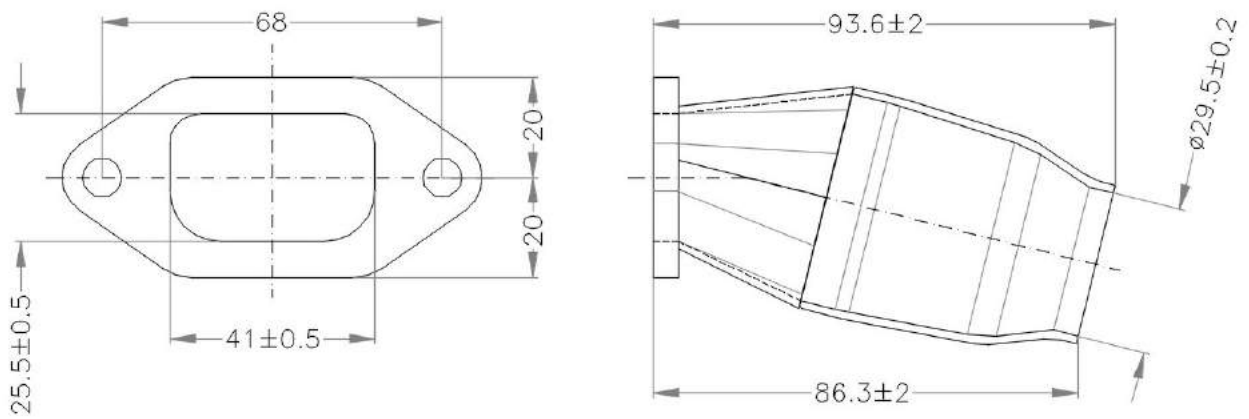
REED VALVE



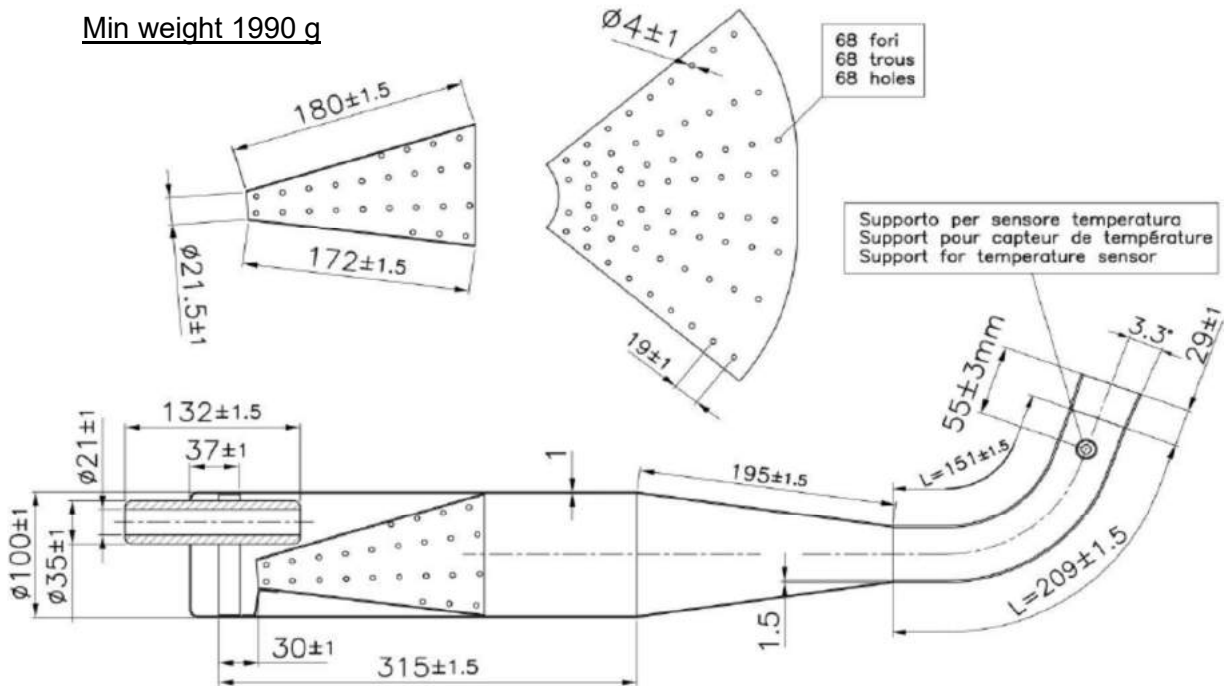
MANIFOLD



MANIFOLD JUNIOR (RESTRICTED)



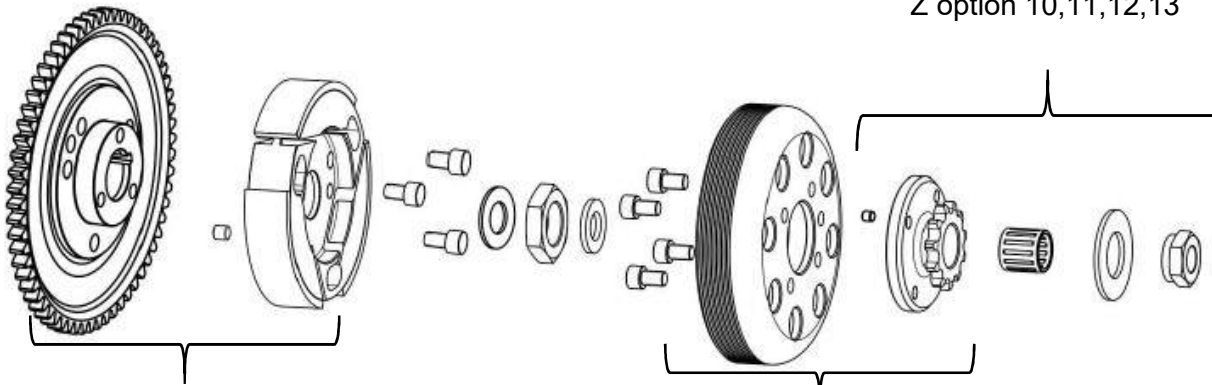
DRAWING OF THE SILENCER AND IT'S COMPONENTS



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.

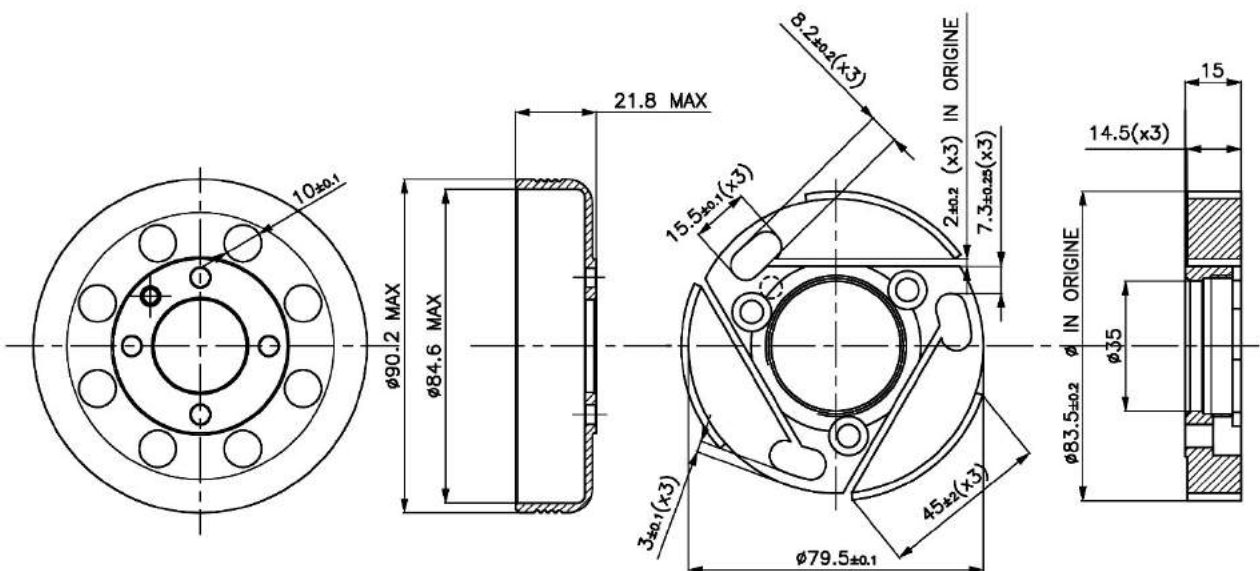


DRAWING OF THE CLUTCH



Weight of clutch rot and housing $523 \pm 25g$

Weight of drum clutch and pinion: $273g \pm 25g$

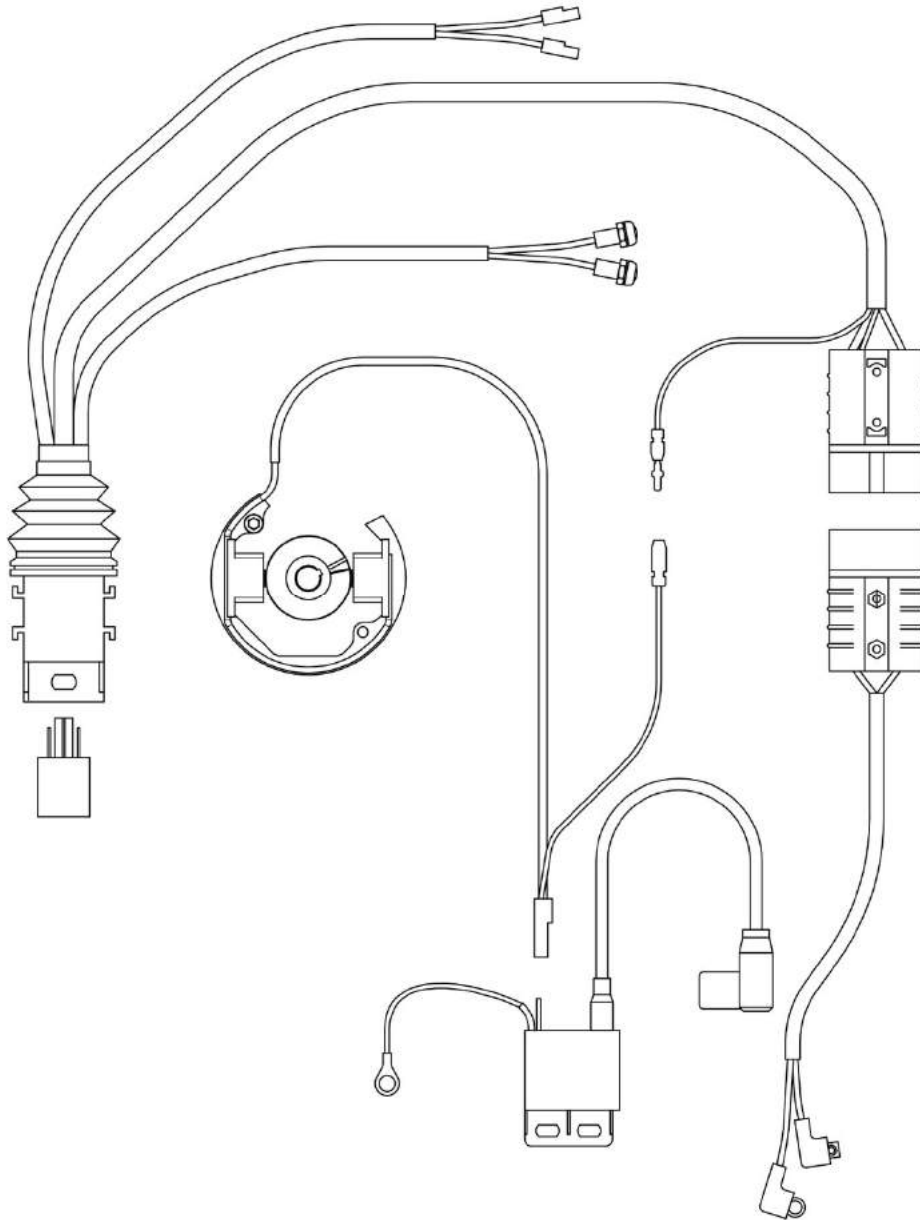


PESO TOTALE DEL ROTORE FRIZIONE COMPLETO CON INGRANAGGIO AVVIAMENTO E CAMPANA TOTAL WEIGHT OF COMPL. CLUTCH ROTOR WITH STARTING GEAR:AND CLUTCH HOUSING	815g +/- 25g
REGIME DI ATTACCO (MASSIMO) VERIFICABILE IN OGNI MOMENTO DELLA MANIFESTAZIONE ENGAGEMENT SPEED (MAXIMUM) CAN BE VERIFIED IN EVERY MOMENT OF THE EVENT	6000 RPM
PESO DEL ROTORE FRIZIONE WEIGHT OF CLUTCH ROTOR	345 g +/- 15g
PESO DELLA CAMPANA WEIGHT OF CLUTCH HOUSING	178 +/-10g
PESO TOTALE DEL GRUPPO ROTORE E CAMPANA FRIZIONE TOTAL WEIGHT OF CLUTCH ROTOR AND HOUSING	523 g +/- 25g

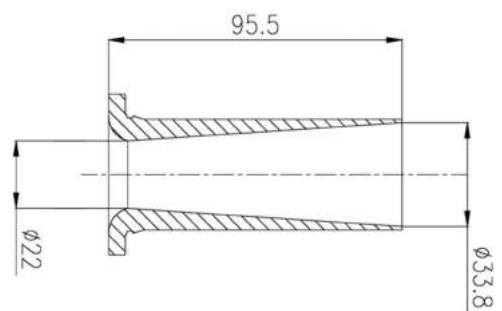
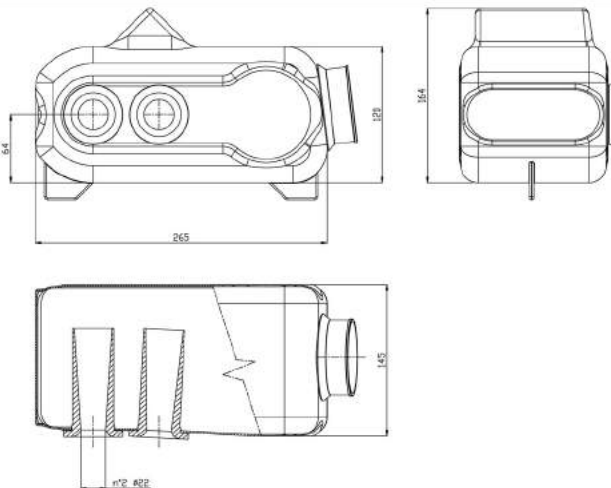
PHOTO OF IGNITION SYSTEM



ELECTRIC SYSTEM ROUTING



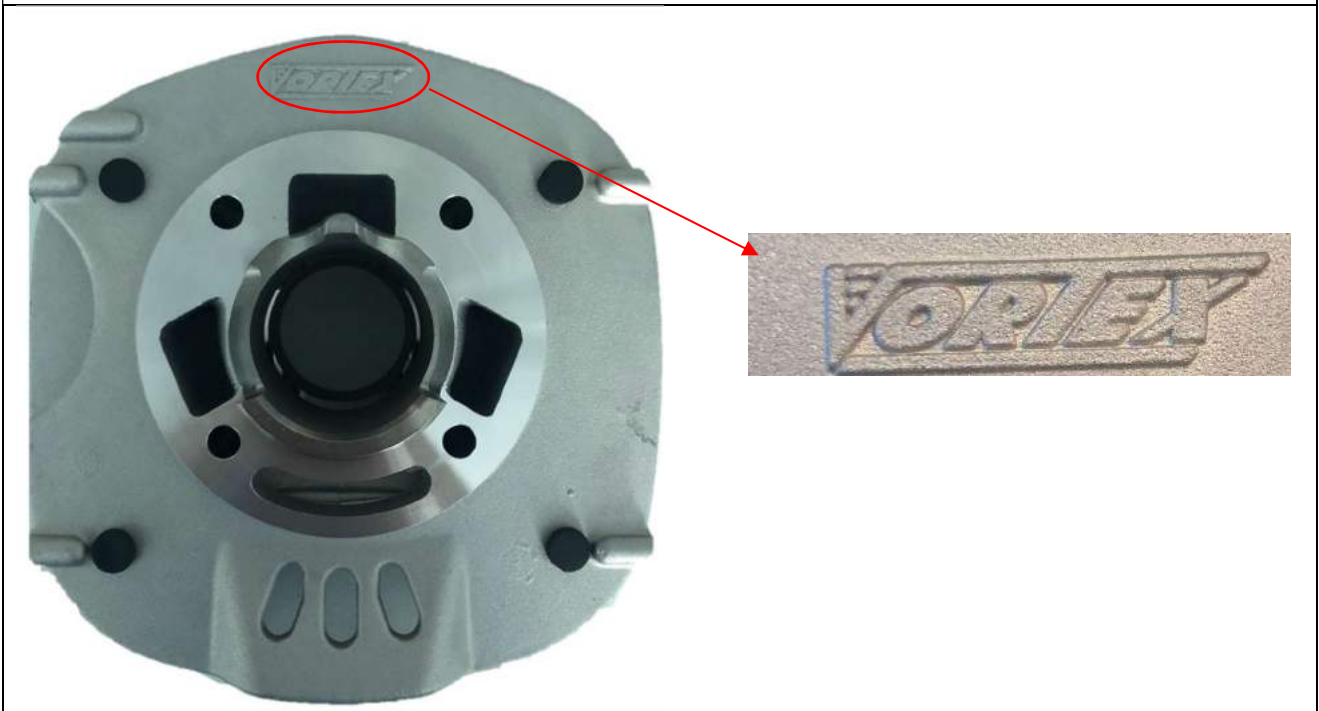
AIR BOX TYPE "C" 0225.GLA22



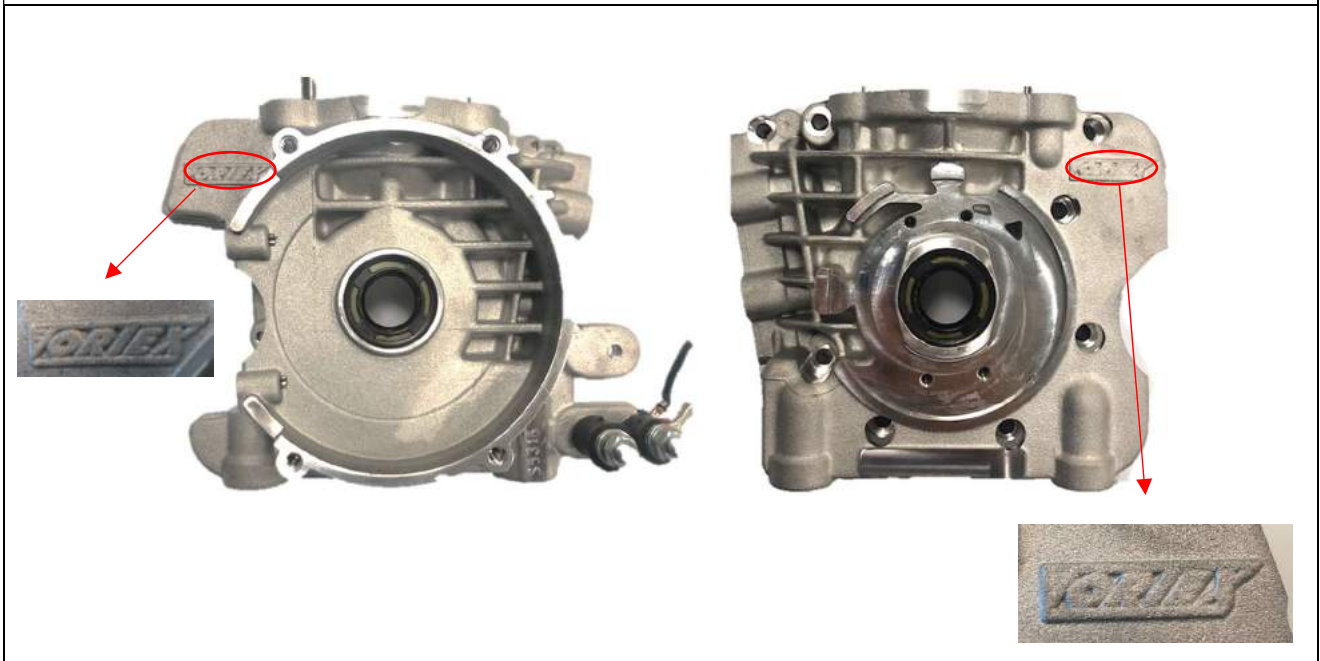
ENGINE HEAD IDENTIFICATION MARKING



CYLINDER IDENTIFICATION MARKING

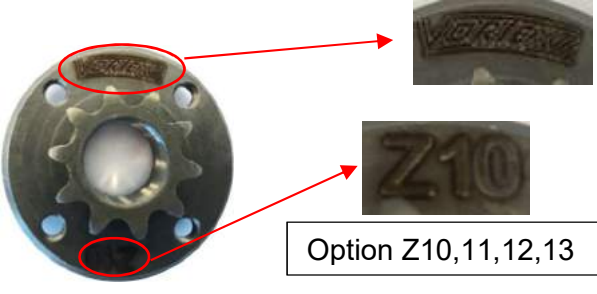
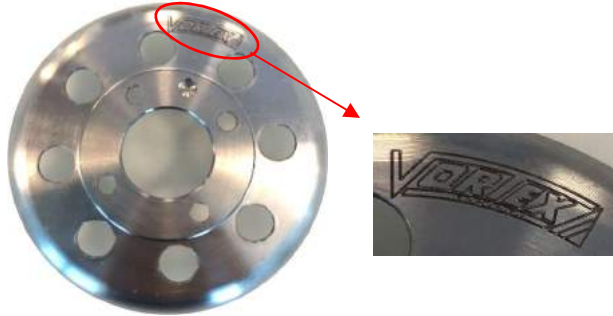




CRANKCASE IDENTIFICATION MARKING



CRANKSHAFT IDENTIFICATION MARKING



SPROKET IDENTIFICATION MARKING	CLUTCH DRUM ID. MARKING
 <p data-bbox="438 772 766 817">Option Z10,11,12,13</p>	
CLUTCH BODY ID. MARKING	STARTER RING ID. MARKING
 <p data-bbox="550 1512 774 1579">1751/1KF</p>	 <p data-bbox="1220 1534 1412 1601">1753/MR</p>