



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	

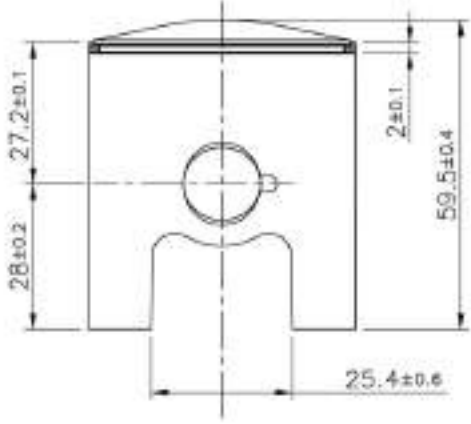

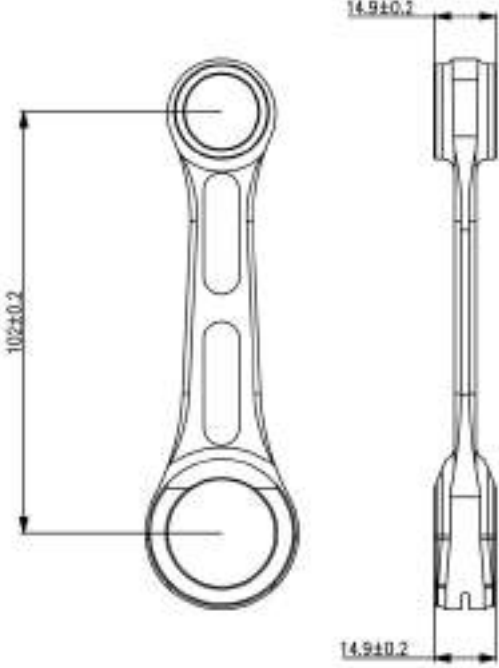



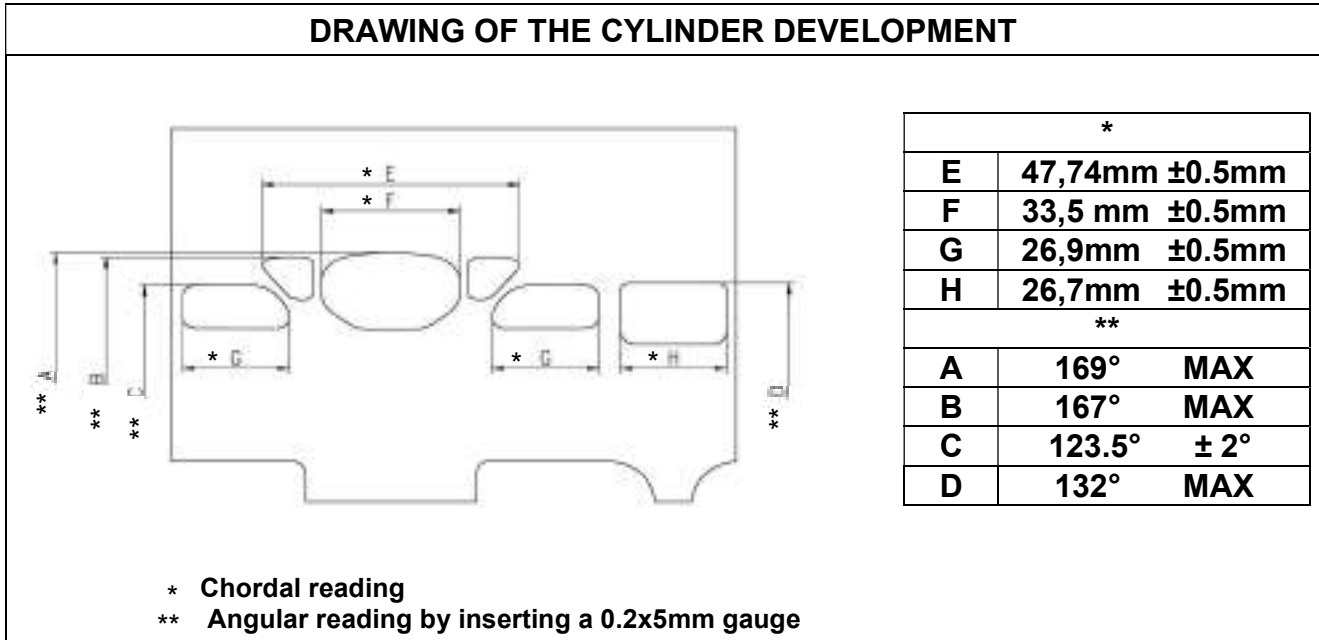
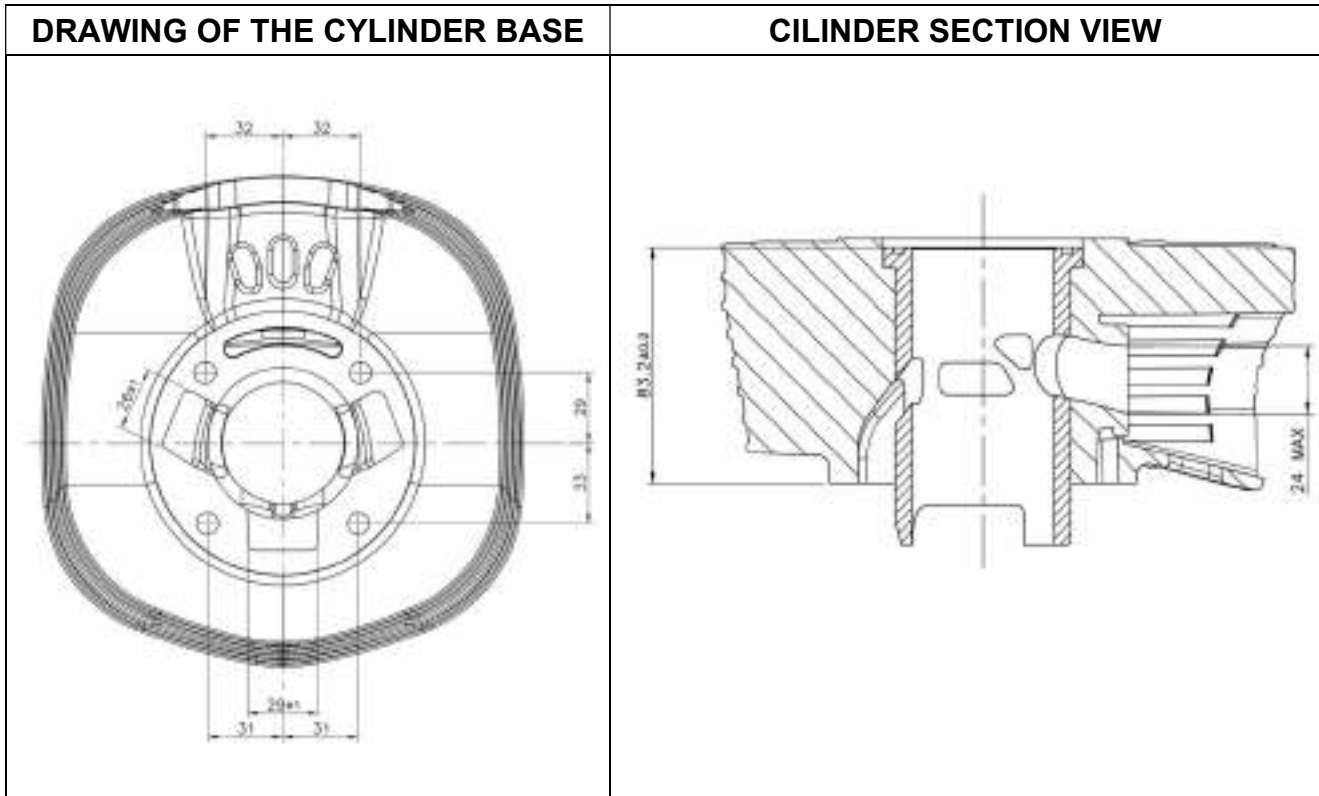


TECHNICAL INFORMATION		
CHARACTERISTICS		
	Measurement	Tolerances
Volume of cylinder	98.53 cc	100cc Max.
Original bore	48.20 mm	±0.2
Theoretical maximum bore	48.53 mm	Max.
Stroke	54.00 mm	± 0.2 mm
Cooling system	Air-cooled	
Carburettor typ.	Tillotson HW-38A	
Number of transfer ports/ducts, cylinder/sump	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	

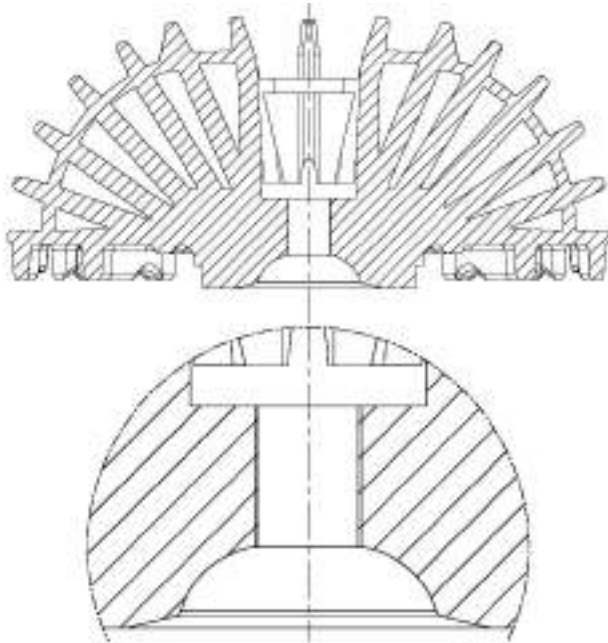
	MATERIAL	Weight	Tolerances
Cylinder	ALLOY		
Connecting rod	STEEL	102.5g	± 15g
Crankshaft	STEEL	1870g	Min.
Head	ALLOY		
Conrod	CAST IRON	127g	Min.
Crankcase	ALLOY		
Piston	ALLOY	95g (+Piston ring)	Min.
Piston Ring	CAST IRON		
Clutch		523g+273g	± 25g
Exhaust		1900g	Min.



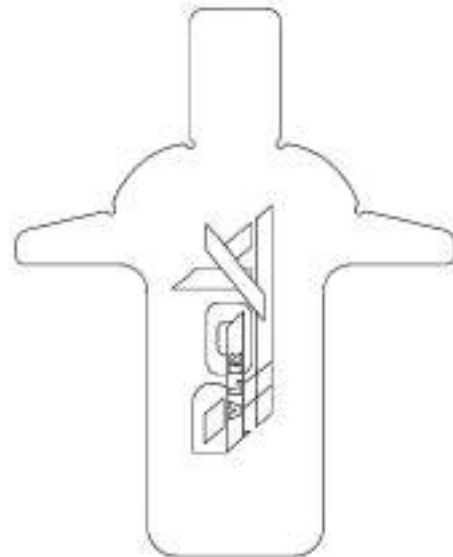
PISTON Min. weight 95g	PISTON PICTURE
	
CONROD Min. weight 127g	CONROD PICTURE AND MARKING
	



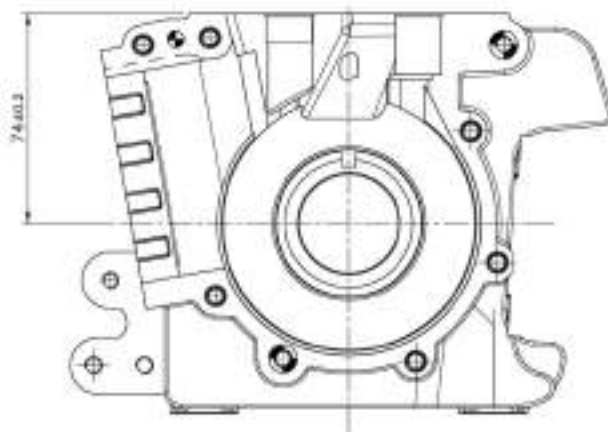
DRAWING OF COMBUSTION CAMBER



COMBUSTION CAMBER TECH TOOL

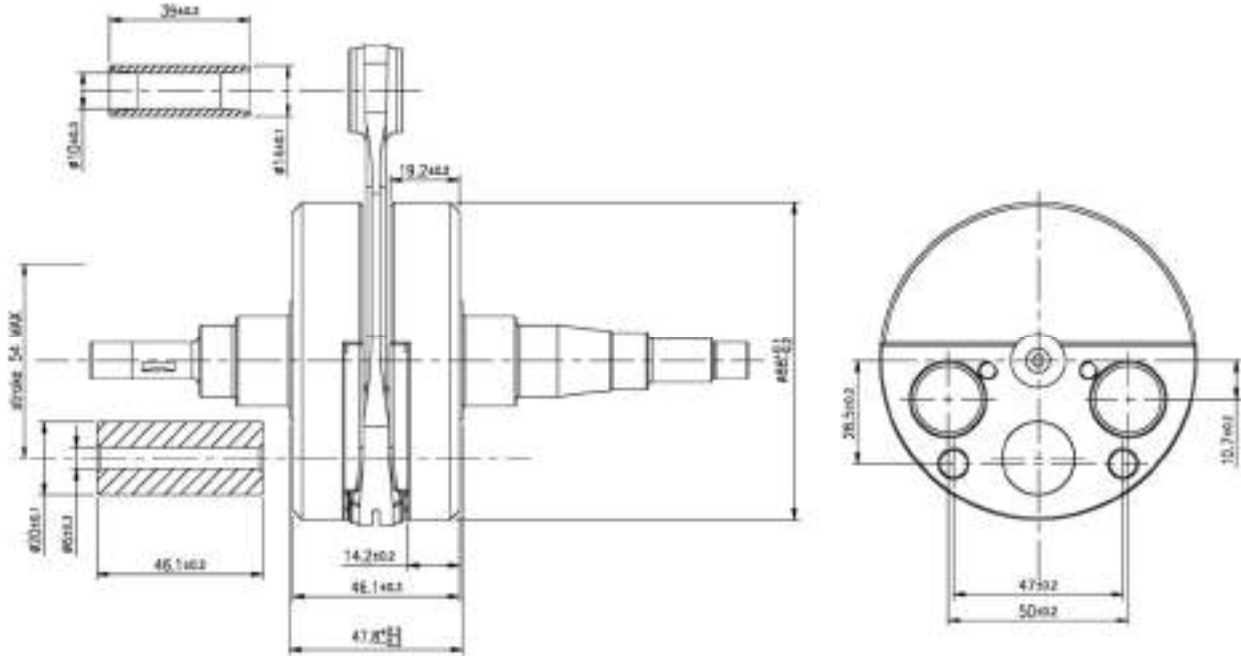


DRAWING OF THE INSIDE SUMP

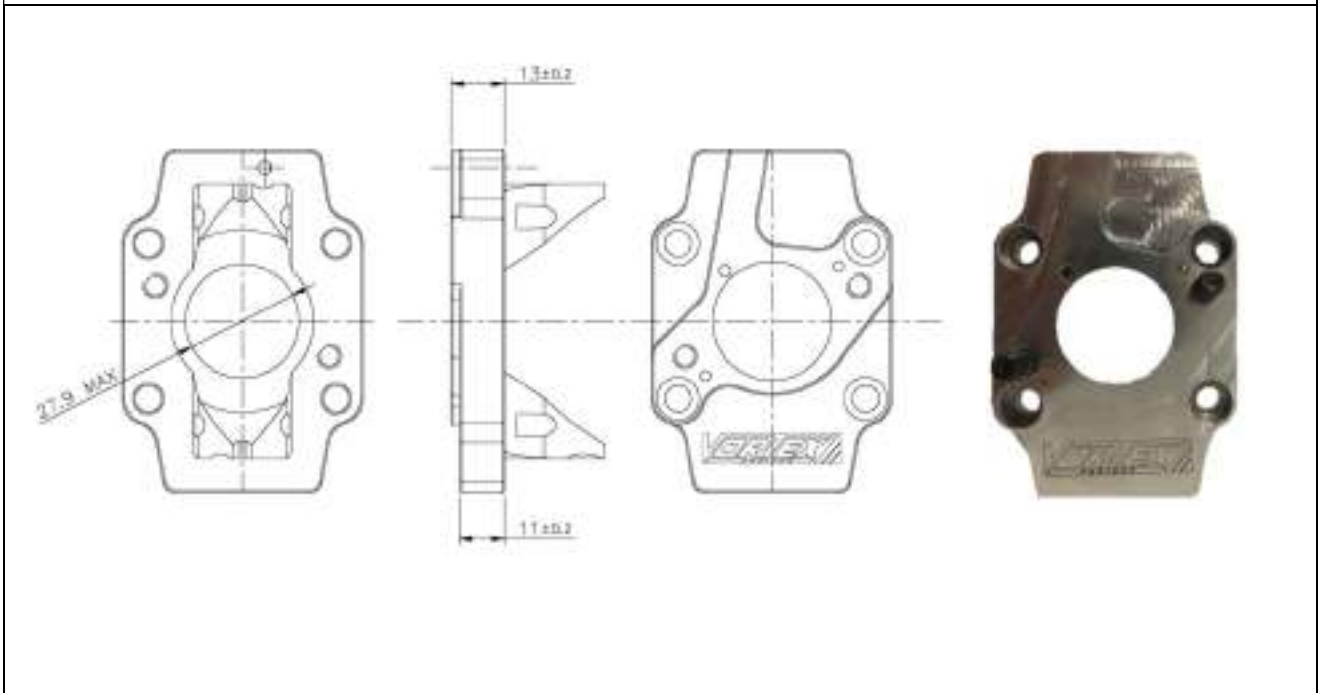


DRAWING OF THE CRANKSHAFT

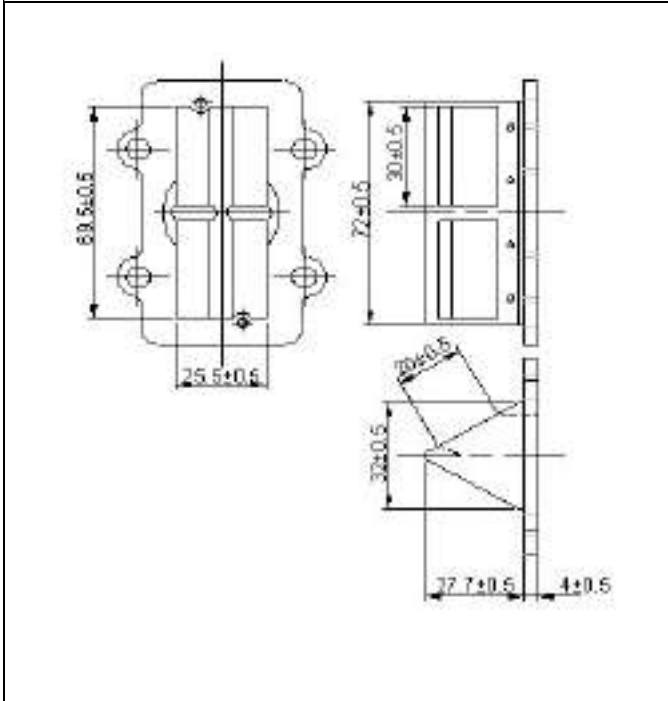
Piston pin Min. weight 19g



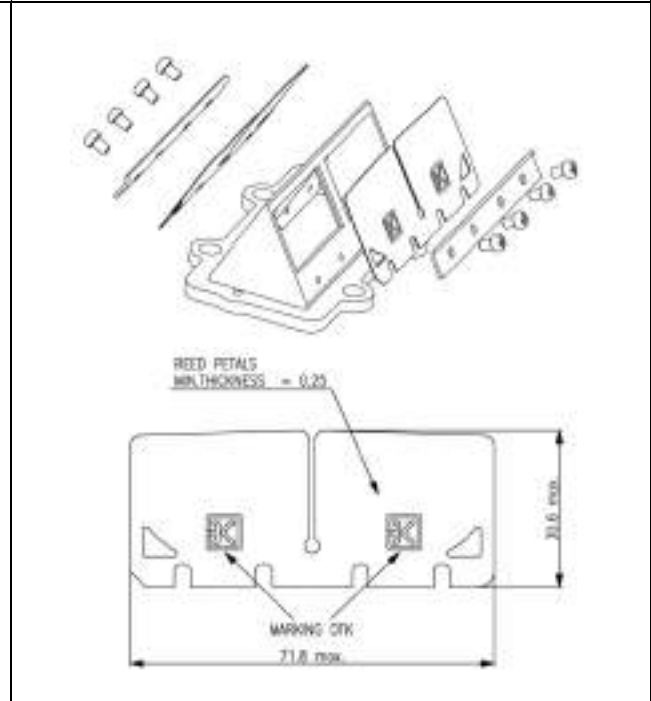
INTAKE MANIFOLD



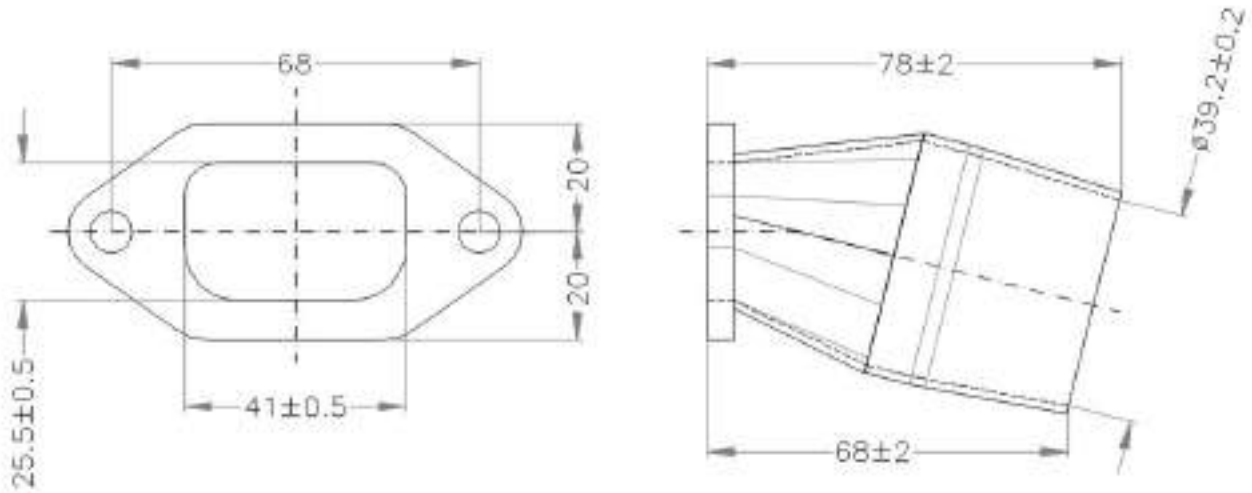
CONVEYOR



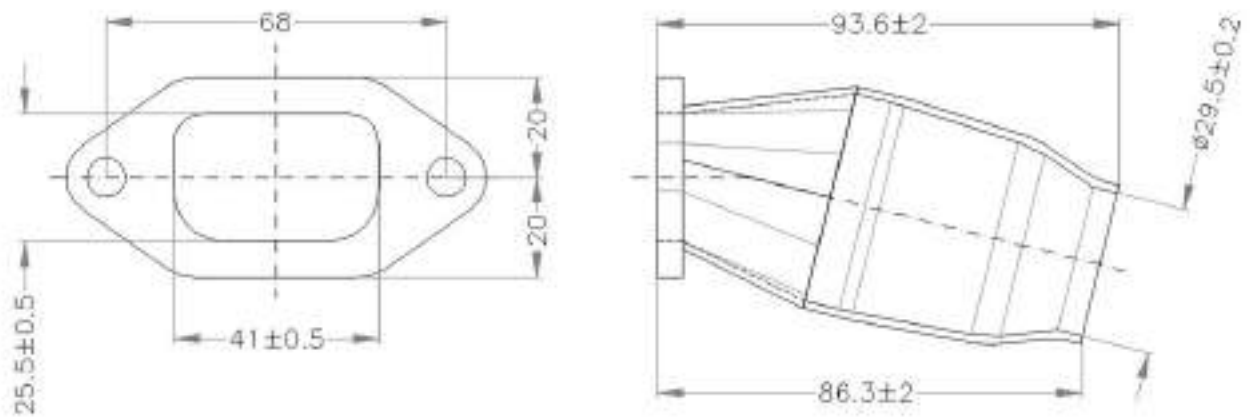
REED VALVE



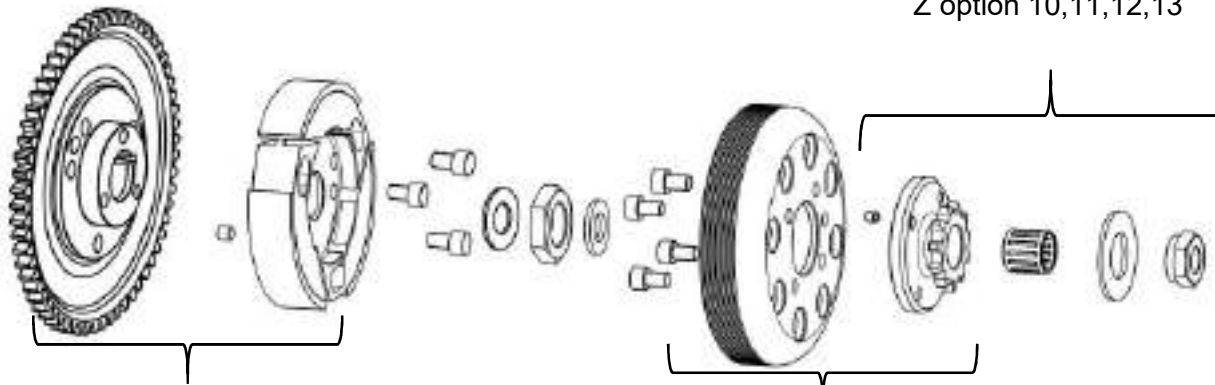
MANIFOLD



MANIFOLD JUNIOR (RESTRICTED)

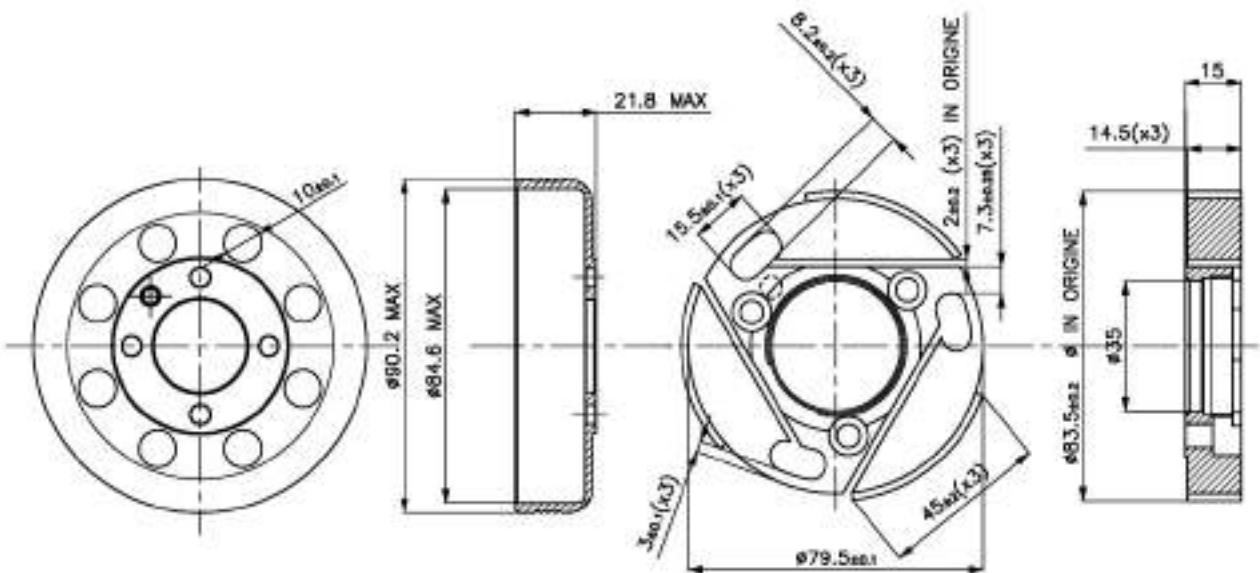


DRAWING OF THE CLUTCH



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

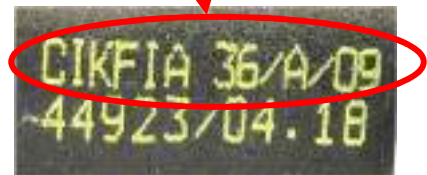
PESO DELLA CAMPANA
WEIGHT OF CLUTCH HOUSING

178 +/-10g

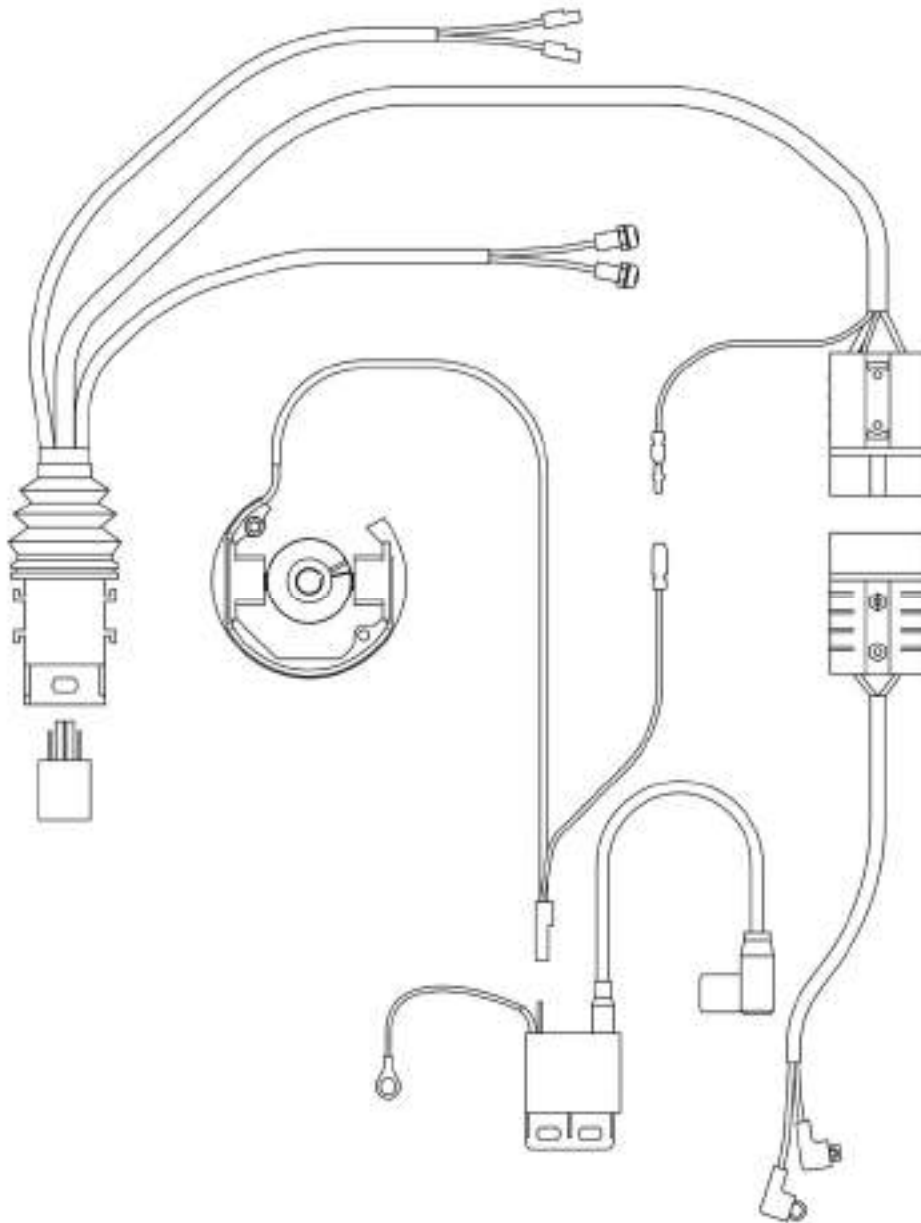
PESO TOTALE DEL GRUPPO ROTORE E CAMPANA FRIZIONE
TOTAL WEIGHT OF CLUTCH ROTOR AND HOUSING

523 g +/- 25g

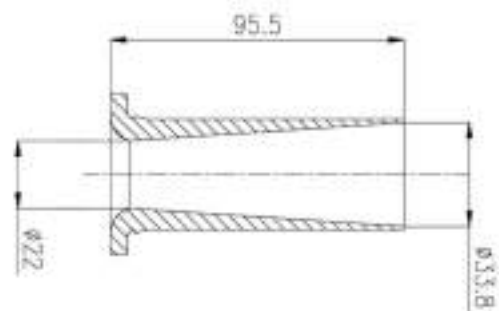
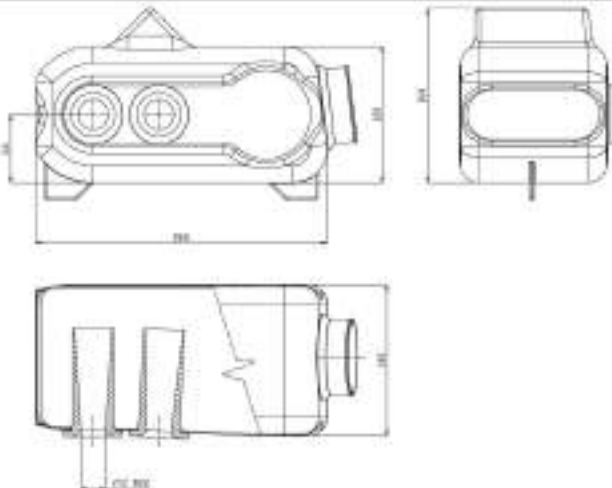
PHOTO OF IGNITION SYSTEM



ELECTRIC SYSTEM ROUTING



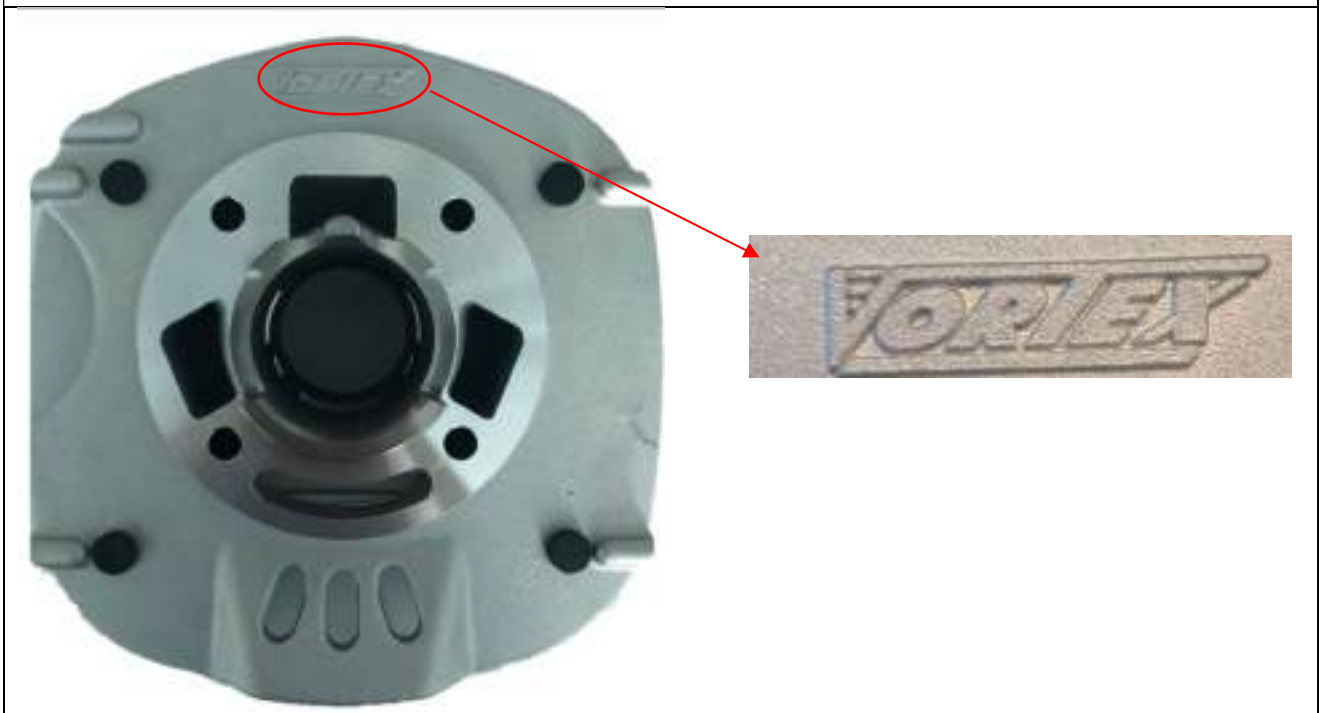
AIR BOX TYPE "C" 0225.GLA22



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>