



# 910 BRUTALE



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## 1. Brutale 910: la diva.

For those real lovers of *élite* motorcycles, the arrival of the Brutale meant the fulfilment of a dream. The dream of having a machine capable of performing and handling like a *Hypersport* but as laid back and as much fun as a *Naked*. The recent success story of the Brutale shows how just such a dream was fulfilled. In just two years these bikes are now to be found in the garages that matter, the Brutale has won over 5,000 new customers and the critics have repeatedly acclaimed her as “Motorcycle of the



Photo 1: MV Agusta Brutale 910

Year” The fact that they are widely used by people involved in the worlds of sport, showbusiness and fashion as well as being an icon of desire, has contributed greatly towards making this MV Agusta a true phenomenon and symbol of all that is good about *Made in Italy*.

The 750cc Brutale had no equal for style and sophistication and offered performance that none of its rivals could match. Recently they have resorted to increasing their engine capacities in the vain hope of making up lost ground.

Now with a new 910cc engine, the MV Agusta once more leaves the opposition in her slipstream and goes back to her rightful position – leading the field. The engine unleashes 9.8 Kgm of torque at 7,900 rpm and then goes on up to the 11,000 rpm limit to deliver its full power load of 136 CV.




## PRODUCT INFORMATION NEW MODEL 2005



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### 1. Il design:

The Brutale 910 shares some of the 750 colour schemes but with the addition of the new 910 logo on the tank that is finished with a red centre stripe (silver version only). The graphics combinations are:

	FRAME	TANK	MUDGUARD	SIDE PANELS	SADDLE Rider - Passenger
	ANTHRACITE	RED	RED	RED	RED-BLACK
	RED	BLACK GLOSS	RED	RED	RED-BLACK
	RED	METALLIC SILVER	METALLIC SILVER	METALLIC SILVER	RED-SILVER

The Brutale 910 differs visually from the 750 as follows:

1. New 910 logo on tank
2. Rev counter with new numerical scale and Brutale logo

### 3. The finishing touches

Some new, mostly functional, details distinguish the Brutale 910 from her smaller sister. Some of these details are also shared with the F41000S version e.g.

1. Adjustable footpegs.
2. Quick-release rear sprocket 120/70 ZR 17 front tyre

Photo 3: Quick-release rear sprocket



Photo 2: Adjustable footpegs





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### 3. The frame:

The frame on the new Brutale 910 follows the same pattern as the 750 and is still the only frame in the four-cylinder production category to be made from chrome-molybdenum steel tubing. This offers a considerable advantage in terms of compactness, mechanical access and torsional rigidity. The tubular structure is made at the TELCA plant (Telai Cagiva) in Morazzone (VA) and unites the swingarm pivot plates where both the rear swingarm and the saddle support bracket are connected. The sculpted single swingarm, apart from its phenomenal style, was created as much for its beauty as for its unmistakable technical efficiency by the engineers from CRC (Centro Ricerche Cagiva).



Photo 4: frame trellis  
in CrMo

### 4. The suspension:

With a frame like that, how could the suspension be anything other than sensational? Front suspension is looked after by 50 mm Marzocchi Magnum hydraulic forks with rebound-compression damping and spring preload adjustment. These forks feature a quick-release mechanism for the wheel. The lower triple clamp is a delight to the eye and, thanks to its curvature, increases air-flow to the radiator. Rear suspension is looked after by a Sachs single shock absorber with rebound-compression damping and spring preload adjustment.

### 5. The brakes:



Braking at the front is via two specially made six-piston (opposed) "Nissin F4" calipers (with differentiated diameters) acting on 310 mm discs. The rear brake is also a Nissin F4 unit, equipped with a four-piston (opposed) caliper acting on a 210 mm disc. The Nissin-designed front brake and clutch levers are exclusive to MV Agusta and can be micrometrically adjusted.

The wonderful star shape of the 17" rims remains unchanged on the Brutale 910 and the tyres are either the new Pirelli "Super Corsa Pro" or equally high-performance Michelin Pilot Power.

Tyre sizes are 120/70 ZR 17 or 120/65 ZR 17 up front and 190/50 ZR 17 or 180/55 ZR 17 at the rear. A new 190/55/17 developed exclusively by Pirelli for MV Agusta is also possible.



**6. The engine:**

The new 909.1 cc engine follows the same pattern as the 750EV but also features up-dated characteristics from the F4 1000. Technically the engine owes its increased capacity to an increase in bore and stroke - from 73.8 mm to 76mm and from 43.8 mm to 50.1 mm respectively. The increase in capacity did not make the new engine any bigger externally than the 750 and thus, the same frame could be used.

Sharing some engine components developed for the F4 1000 not only meant an evolution in mechanical terms, but also a considerable saving in weight (2637 grammes) especially in relation to reciprocating mass.

This specifications comparison chart shows the following differences:

COMPONENT PARTS	WEIGHT SAVING (g)
Crankshaft	1050
Starter unit	750
Camshafts	400
Con-rods	40
D76 pistons	62
Primary drive and clutch	250
Gearbox and bearings	85

	BRUTALE 910S	BRUTALE 750S
Capacity	909,1 cm3	749,4 cm3
Compression ratio	13:1	12:1
Bore and Stroke	76.0 mm x 50.1 mm	73.8 mm x 43.8 mm
Max Power	100 Kw (136 CV) at 11,000 rpm - Limit 12,000 rpm	93.4 Kw (127 CV) at 12,500 rpm - Limit 13,100 rpm
Max Torque	96 Nm (9.8 Kgm) at 7,900 rpm	77.4 Nm (7.9 Kgm) at 10,500 rpm
Primary drive ratio	50/79	47/81
Final drive ratio	15x43	14/41
Speed ratio	16/34	14/31

As already learned from development work on the F4 1000, the increase in capacity underlined the effectiveness of the radial valves, i.e. they are not positioned in parallel but at a total angle of 4° (2° per valve). The 910 engine too is fitted with the sophisticated extractable gearbox system that comes directly from the same engines that powered the superb GP Cagivas. Apart from being extremely efficient, this engine meets the most recent anti-pollution legislation thanks to a catalytic converter housed in the exhaust compensator that features the characteristic double “sliced pipe” silencers.



Figura 6: The engine  
910



**7. The performance:**

From the performance point of view, the new 910 engine outstrips the previous version both in terms of delivery and maximum output. Superb tuning of the four-cylinder engine has created a substantial increase in the maximum torque available. This has increased from 7.9 Kgm at 10,500 rpm from the 750cc engine to 9.8 Kgm at 7,900 rpm.

The most impressive fact however when compared with the 750 is the increase in mid-range power. +21 CV at 5,000 rpm, +24 at 7,000 rpm and +29CV at 8,000 rpm where the 910 puts out its maximum torque.

The engine then goes on up to 11,000 rpm at which point the maximum power output of 136 CV is reached. Although the maximum speed for this type of machine is a rather secondary matter, it has increased by 7 kph. The increased *souplesse* in motion, provided by the extra capacity, means better fuel consumption than the 750 in both the urban and extra-urban cycles.

Photo 7: Torque curve 910 vs 750

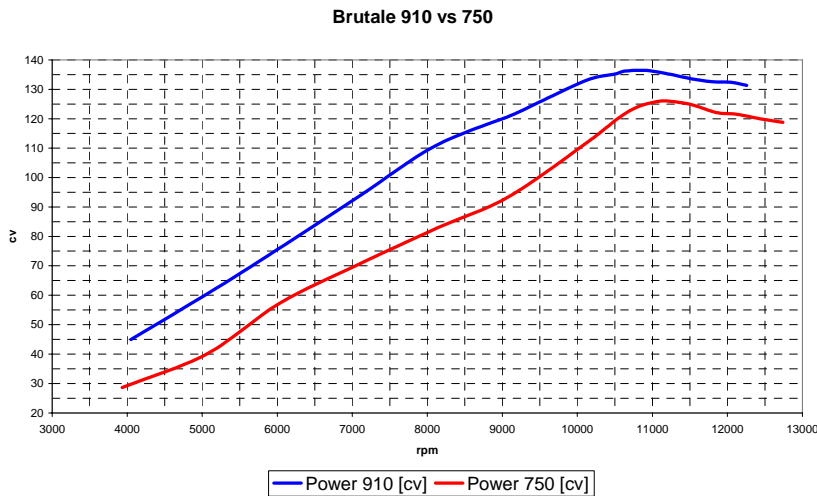
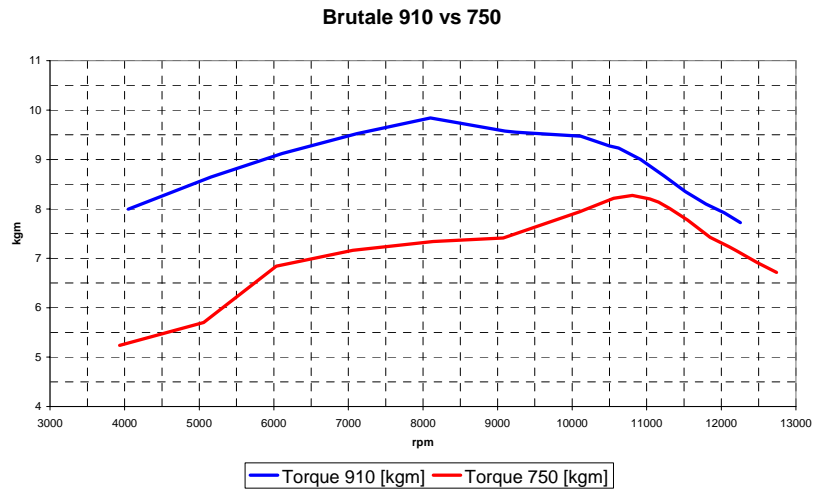


Photo 8: Power curve 910 vs 750

<b>F4 BRUTALE 910 S</b>	
<b>ENGINE</b>	
Type	Four cylinder, 4 stroke, 16 valve
Timing system	"D.O.H.C", radial valve
Total displacement	55.4 cu. in.
Compression ratio	13:1
Starting	Electric
Bore x stroke	2.99 in. x 1.97 in.
Max. horse power - r.p.m. (at the crankshaft)	100.0 Kw (136 HP) at 11000 - Lim. 12000 r.p.m.
Max. torque - r.p.m.	96.0 Nm (9.8 Kgm) at 7900 r.p.m.
Cooling system	Liquid cooled, oil cooler
Engine management system	"Weber Marelli" 1.6 M ignition - injection integrated system; induction discharge electronic ignition, "Multipoint" electronic injection
Clutch	Wet, multi - disc
Gear Box	Cassette gearbox; six speed, constant mesh
Primary drive	50/79
Gear ratio	
First gear: Speed*	13/38      65.5 mph at 12000 r.p.m.
Second gear: Speed*	16/34      90.1 mph at 12000 r.p.m.
Third gear: Speed*	18/32      107.7 mph at 12000 r.p.m.
Fourth gear: Speed*	20/30      127.6 mph at 12000 r.p.m.
Fifth gear: Speed*	22/29      145.2 mph at 12000 r.p.m.
Sixth gear: Speed*	19/23      159.6 mph at 12000 r.p.m.
Final velocity ratio    15x43	
<b>ELECTRICAL EQUIPMENT</b>	
Voltage	12V
Alternator	650 W at 5000 r.p.m.
Battery	12V - 9 Ah
<b>DIMENSIONS AND WEIGHT</b>	
Wheelbase	55.55 in.
Overall length	79.59 in.
Overall width	29.94 in.
Saddle height	31.72 in.
Min. ground clearance	5.32 in.
Trail	4.00 in.
Dry weight	407.9 lbs
Fuel tank capacity	4.16 Brit. gal. ( reserve fuel: 0.88 Brit. gal. )
<b>PERFORMANCE</b>	
Maximum speed*	159.6 mph
<b>FRAME</b>	
Type	CrMo Steel tubular trellis (TIG welded)
Rear swing arm pivot plates: material	Aluminium alloy
<b>FRONT SUSPENSION</b>	
Type	"UPSIDE - DOWN" telescopic hydraulic fork with rebound-compression damping and spring preload adjustment
Rod dia.	1.97 in.
Travel on leg axis	4.96 in.
<b>REAR SUSPENSION</b>	
Type	Progressive, single shock absorber with rebound and compression (High speed / Low speed) damping and spring preload
Single sided swing arm: materiale	Aluminium alloy
Wheel travel	4.72 in.
<b>BRAKE</b>	
Front brake	Double floating disc (Ø 12.2 in.) with steel braking band and steel flange
Front brake caliper	With 6 pistons (Ø 0.89 in.; Ø 1.00 in.; Ø 1.19 in.)
Rear brake	Single steel disc (Ø 8.27 in.)
Rear brake caliper	With 4 pistons (Ø 1.00 in.)
<b>RIM</b>	
Front: Material / size	Aluminium alloy 3.50 " x 17 "
Rear: Material / size	Aluminium alloy 6.00 " x 17 "
<b>TYRES</b>	
Front	120/65 - ZR 17 (56 W) or 120/70 - ZR 17 (56 W-58 W)
Rear	190/50 - ZR 17 (73 W) or 190/55 - ZR 17 (75 W)
<b>FAIRING</b>	
Material	Thermoplastic

\* = Top speed attained on closed course.

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