

1. Radial-mounted Brembos work well and let you brake late and deep into corners  
2. As the sticker says, MV Agusta has won 37 world championships  
3. The Sachs shock only needs a couple of clicks to rebound and compression on the track

# F4PLAY

TEST RENNIE SCAYSBROOK PHOTOGRAPHY KEITH MUIR

After a couple of years in the wilderness, MV Agusta is back in Australia, and we've bagged the first ride on the new F4

**T**his is not a new bike, but it is new to Australia. The MV Agusta F4 is now one-year old but, since mid last year, we haven't had an importer to bring us the goods.

MV Agusta has undergone something of a transformation back home in Italy. The company is now back in Italian hands, co-owned by Giovanni and Claudio Castiglioni. Giovanni is the 29-year old son of off again/on again MV owner Claudio, the duo having recently re-purchased the brand (and the family Cagiva name) off Harley-Davidson, which the Americans acquired in 2008.

It is the third time in two decades the Castiglioni family has purchased MV Agusta – so it could be third time lucky as they begin the process of clawing back the brand's prestige and allure that once made it the most desirable motorcycle brand in the world.

The new F4 is part of the framework of MV Agusta's repatriation and will soon be joined by a little brother in the form of the utterly gorgeous F3 675, due for release later this year.

It feels like we've been waiting a lot longer than a year for this F4 machine – leaked documents started to flow during 2008/2009, and the finished product was seen in the early days of 2010 – yet there was no bike for the Aussie buyer.

However, with the newly-formed MV Agusta

Imports Australia now taking care of the import and sales duties, we are finally seeing what MV has described as one of its most important machines of the modern era.

The two things the MV Agusta F4 has on its side are style and heritage. It simply oozes a class and dignity that seem unreachable by any Japanese four-cylinder machine. It's almost impossibly good looking, like some divine god turned Scarlett Johansson into a motorcycle. But those spectacular good looks are a throwback to the original F4 750S of 1997, and are a continual evolution of a classic design penned by the legendary Massimo Tamburini. Then-owner (and now) of MV Agusta Claudio Castiglioni said in 2000, "We have no intention of making the mistake Ducati has by creating the 999 instead of evolving the 916 (also designed by Tamburini), which is a landmark design in motorcycle history." True to his word, 11 years later there is still a clear and defined design timeline present in the F4, which is also evident in the soon-to-be-released F3 675.

Those good looks are backed up by a stellar performance package that makes the out-going F4 312R and F4 312RR feel decidedly old. The 312RR was special in its own right, having snubbed the Superbike hierarchy with the arm-stretching, too-big-for-Superbike-racing 1078cc powerplant that went like a scalded cat and had a throttle response to match. The light-switch

throttle and dreadful fuelling of the 312RR was the major issue, not the increased power from the 1078cc engine, and thankfully this has largely been addressed in the new machine. Response is now smoother from a closed throttle, not requiring a finger hovering over the clutch to soften the initial delivery.

MV Agusta has fitted the F4 with the Marelli 7BM ECU (changed from the Marelli 5SM ECU on the 312RR) for control of the two injectors per cylinder, and upped the throttle-body diameter 9mm to 49mm to give this dramatically improved throttle response. The result is a less tiring ride, but not a slower one, as the MV still picks up revs with speed, although not as quickly as the lighter-flywheeled 312RR.

But whereas the 312RR was a monster up top, the new F4's power is concentrated further down the rev range, providing smoother, stronger initial power for getting out of slow- to medium-speed corners in a fashion that doesn't have the chassis tying itself in knots.

The low-down torque on this thing is fantastic – it pulls cleanly from about 3800rpm, but suffers a bit of a lull in forward drive at about 4500rpm before making a serious jump at 6500rpm. This is backed up by our dyno figures, with the jump in torque even more pronounced on the graph than it feels in the real world. Helping this low-down grunt is the fact the F4 is geared a fair bit shorter than the rest of the

Exhaust system is a similar design to every previous MV F4, but now sports square muffler outlets rather than round ones

Seat is perfectly designed for the tuck-in, racer-style riding position, but becomes uncomfortable after an hour on the road

The 'bars are at a flatter angle than before, resulting in greater leverage and a more comfortable tuck-in

The tubular steel frame is structured in such a way that you can clearly see the red valve cover peeking through



The 2011 MV Agusta F4 is powered by a four-cylinder, DOHC, 16 radial-valve engine with a bore and stroke ratio of 76 x 55mm for a displacement of 998cc. The bore and stroke is actually the same as the old F4 1000 but compression has been raised by a point to 13.1:1, one of the highest compression ratios of any current 1000cc superbike.

The F4 utilises the company's TSS (Torque Shift System) variable intake system, which was the first variable intake system on the market with the Tamburini F4 models of 2005. The TSS allows for the intake tracts to change length depending on engine revs. Below 10,000rpm, the intakes are at their longest, helping to achieve better low-down torque, and above 10,000rpm the intake tracts shorten to help boost top-end power. The intake tracts themselves have actually been shortened to help achieve the best possible cylinder filling on the new F4.

The intake system has new springs and lighter, 30mm intake valves which are made from titanium. The 25mm exhaust valves are made from steel.

The F4 uses 49mm throttle bodies, up from 40mm, and twin injectors per cylinder actuated by the Marelli 7BM ECU, which also operates the MKII traction control.

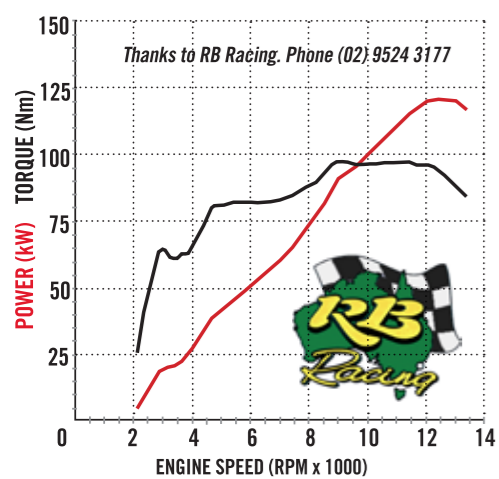
The engine internals themselves have been on a serious diet. Camshafts, pistons, rings and conrods were all redesigned to shed precious grams here and there, while the crankshaft inertia was increased by 50 percent over the old F4, and the crankcase has been redesigned and now weighs 600g less than before.

The cassette-type gearbox is extractable to allow fast ratio changes for racing and has been completely redesigned for the new F4. It incorporates a gear-switch sensor that allows the ECU to adopt different EFI maps depending on the gear selected and, as per the norm today, a slipper clutch is also employed.

The cooling circuit has been totally redesigned with a more compact and 60 gram lighter water pump and a new radiator. The new water-pump rotors have been credited with a 65 percent higher flow capacity at low to medium engine speeds. The oil pump has also been lightened and the oil pan is now deeper and means that, even under extremely heavy braking, it ensures the best possible feed to the oil pump.

The gorgeous four-into-one-into-four exhaust system remains, but the round mufflers have been replaced with four square outlets. The exhaust system houses a new exhaust valve and catalytic convertor to reduce emissions and exhaust noise, while maintaining the trademark MV Agusta growl.

## The trademark four-into-one-into-four exhaust system is a glorious piece of audio and mechanical engineering



1000cc competition. Cruising at 100km/h in sixth gear had the revs sitting at 4500rpm, around 500-700rpm higher than the Fireblade or GSX-R1000. With each of the corresponding ratios shorter than I expected, I found myself punching up and down the gearbox more than usual at Eastern Creek Raceway – but it's best to avoid the rev kick at 6500rpm by trying to keep the revs above this mark.

The transition from mid- to top-end power is noticeable but smooth, and the engine fair punches along at high speed with an exhaust and induction roar that is simply magic. That trademark four-into-one-into-four exhaust system is a glorious piece of audio and mechanical engineering, although it doesn't do the most stellar job of dissipating heat away from the rider's backside, which can become

agonising on a hot day – particularly in traffic. And don't even think about mentioning the heat to a potential pillion...

At high speed the engine retains its smooth power delivery, with the transition to top-end power not as harsh as I expected. An indicated 265km/h on the blue back-lit CAN-bus digital dash on Eastern Creek's front straight in sixth gear had power starting to trail off ever so slightly with the revs way up high. It's certainly not slow, but here it is not going to challenge a BMW S1000RR. It does, however, feel close to the Kawasaki ZX-10R in overall top-end power. We'll know for sure when we pit the superbikes against each other later in the year.

The hydraulically-operated slipper clutch is smooth in its action, allowing you to bang down three gears at a time and still keep the bike

settled for corner entry. The gearbox isn't the slickest, but it is noticeably better than the outgoing model's, with a smoother shift and lighter clutch action – I used the clutch on upshifts while riding on the road, but not at the racetrack, and I was pleasantly surprised with how smooth it was.

One of my favourite characteristics on the new F4 is the way the engine doesn't upset the chassis under hard acceleration. MV engineers have increased swingarm length by 20mm on the new bike without increasing the wheelbase, by repositioning the swingarm pivot, helping to give more stable acceleration and retain the agile tip-in characteristic of the old model. Get on the gas hard and the MV will dig its Pirelli Diablo Rosso into the tarmac and lurch ahead. But it's here that I have an issue.

The traction control system is somewhat confusing. There are eight stages of traction control available (nine, if you include off) and they have to be adjusted with the bike at a standstill via the buttons on the right side of the dash. But because this machine doesn't come with either a front or rear wheel-speed sensor (therefore no ABS), the TC varies the ignition map if the ECU detects a sudden spike in revs – but via sensors on the engine and a tilt sensor located in the airbox, not via wheel speed as most other systems on the market.

In the event of a slide, the ECU monitors throttle position, gear position, rpm, the selected map (Sport or Rain), plus the TC level, to determine how much torque reduction it will deliver. MV says the system benefits from using existing sensors, rather than having to



## BARE ESSENTIALS

Like its predecessors, the MV F4's chassis is a mixture of tubular steel and aluminium. Every component of the chassis came in for scrutiny, resulting in a much lighter, but stiffer, frame.

The steering stem has been redesigned and moved forward, resulting in the 52 percent front-end weight bias. The steering-head angle is adjustable by rotating the eccentric plate in the stem. The standard setting for rake is 23.5°.

The rear suspension linkage ratios have been redesigned for a more progressive rear shock action and the subframe has also been redesigned as well as lightened.

MV is particularly proud of the swingarm. The arm is a totally new design and has been extended by 20mm over its predecessor for better traction under hard acceleration and more stable handling.

The swingarm has shed an impressive 1.2kg, but still maintains the same level of torsional rigidity as before. The rear wheel has also been redesigned with a new hub to reduce unsprung weight, while retaining the trademark star design.

The front suspension consists of fully-adjustable, 50mm Marzocchi forks that weigh a total of 5kg, while the forged alloy axle, housed in an endurance-style quick-release system, has been developed especially for the F4.

The Sachs rear shock is fully-adjustable. The rear suspension unit also has a link that can raise or lower the rear end of the bike.

The braking package is a mixture of Brembo and Nissin. The front-end uses a conventional Nissin master-cylinder actuating a set of Brembo calipers. The front discs have been reduced by 5mm in thickness to reduce unsprung weight. The rear-end is an all-Nissin affair.

## You can carry huge amounts of corner speed on the F4 and huge amounts of lean

fit extra ones. The system doesn't cut spark completely, but its operation feels vague. Either the system works so well you can hardly tell, or it hardly works at all.

What got me confused was after setting off with the TC set to level four – which I thought would offer a fairly high level of intervention – I still managed to get some chronic slides without feeling like the ignition was being interrupted. Cranking the TC to the maximum level resulted in a noticeable difference in power delivery, and switching the TC off completely gave me a much more direct feeling with the rear tyre. Consequently, I went fastest with the traction control switched off.

The system doesn't transmit the kind of feel that traditional wheel-speed sensor systems give to the rider, and I found it hard to completely trust – the fact I was getting some highside-ish slides on level four didn't help.

There's a Rain mode available at the touch of the starter button, and this does go a long way to damping the MV's power. I hardly used it because once you're used to the bike in Sport mode, Rain mode makes the MV feel considerably castrated.

What isn't confusing is how stable the MV is under braking. Up front, the MV runs a conventional Nissin master cylinder that forces the fluid down braided lines to the Brembo

radial-mounted, four-piston Monobloc calipers. Feel and power at the lever is superb, but it's a little odd to see the brake line mounted so close to the front rim. The rear brake system is a Nissin 220mm disc and four-piston caliper set-up, which produces more power and feel than many other rear-brake systems currently available on sportsbikes.

Under brakes, the F4 turns with more fluidity and allows you to change direction much easier than before. You have to ride the MV with your legs clamping the tank in the same way you do a Ducati – the chassis responds better if you don't climb all over it – but it is still important to weight-up the front under braking to dig the front Pirelli into the tarmac and get the thing turned. Helping you here is the front weight bias of 52 percent and you can carry huge amounts of corner speed on the F4. And huge amounts of lean angle, too. The chassis keeps egging you on, making you lean further and harder than you did the previous lap, and never once on test did I have an "Oh, s\*\*\*!" moment where I thought the front was going to wash out.

The clip-on 'bars are set at a flatter angle than any of the Japanese superbikes, which give greater leverage for direction changes, as well as making it a little easier to tuck in due to the extra room your arms get. The Marzocchi forks were under-damped for me on standard

1. A Nissin-branded front master cylinder actuates the radial-mounted Brembo Monobloc calipers
2. The new dash is clear and easy to read





#### ENGINE

**Configuration** In-line four-cylinder  
**Cylinder head** DOHC, four radial valves per cylinder  
**Capacity** 998cc  
**Bore** 76mm  
**Stroke** 55mm  
**Compression ratio** 13.1:1  
**Ignition** Transistorised  
**Cooling** Liquid  
**Fueling** Magnetti Marelli EFI, 4 x 49mm Mikuni throttle bodies  
**Oil capacity** 2L

#### TRANSMISSION

**Type** Six-speed, constant mesh  
**Primary drive** Gear  
**Clutch** Wet  
**Final drive** Chain

#### CHASSIS

**Frame material** Tubular steel  
**Frame layout** Trellis  
**Rake** 23.5°  
**Trail** 100mm  
**Wheelbase** 1430mm

#### RUNNING GEAR

**Suspension** Marzocchi/Sachs  
 Front: 50mm, USD, fully adjustable, 120mm travel  
 Rear: Monoshock, fully adjustable, 120mm travel  
**Wheels** Five spoke, aluminium alloy  
 Front: 17 x 3.5 Rear: 17 x 6.0  
**Tyres** Pirelli Diablo Rosso  
 Front: 120/70ZR17 (58W)  
 Rear: 190/55ZR17 (75W)  
**Brakes** Brembo/Nissin  
 Front: Twin 320mm discs, four-piston calipers  
 Rear: 210mm disc, four-piston caliper

#### DIMENSIONS

**Weight** 216kg (wet, measured)  
**Seat height** 860mm  
**Max width** 750mm  
**Max height** NA  
**Fuel capacity** 17L

#### PERFORMANCE

**Power** 137kW @ 13,500rpm (measured)  
**Torque** 114Nm @ 9500rpm (measured)  
**Fuel consumption** 7.8L/100km  
**Top speed** 305km/h (est)

#### CONTACT & SALE INFO

**Testbike** Trooper Lu's Garage  
**Contact** www.mvagustaimports.com.au  
**Colour options** Red/Silver, Black, Silver Titanium  
 Grey with red frame  
**Warranty** 24 months, unlimited km  
**Price** \$24,300 (\$25,800 rideaway)

1. Integrated indicators look beautiful
2. The sound emitted by these four squared-off pipes is simply glorious



The engine punches along at high speed with an exhaust and induction roar that is just magic

settings and required three extra turns of preload. I also had the compression and rebound cranked up for the track.

The rear Sachs shock was the opposite – it's operation was fine for the road and only needed a couple of clicks of rebound and compression to make it feel at home at the track – another reason why the F4 feels so good under hard acceleration.

Unfortunately, the position of the 'pegs makes the ride pretty cramped if you've got long legs, despite the tall 860mm seat height. This can only be fixed with a set of aftermarket rearsets because the standard rearsets are not adjustable.

And here's the killer. As awesome as this thing is on the track, after an hour on the road it is hideously uncomfortable. The mirrors are almost useless and the riding position places too much weight on your wrists – over long, droning highway periods, this becomes a total bugger. As does the seat. The seat is perfectly designed for tuck in, behind-the-screen fangding, but you don't ride like that on the road (most of the time), and the seat frame below your thighs digs in and it feels like you don't have any padding at all after an hour or so. Couple that with the heat coming from the underseat exhaust and you get the drift.

But you wouldn't buy an F4 for comfort. You'd

buy it because of its exclusivity and the fact that it's one of the fastest and finest-looking superbikes ever made. MV Agusta Imports is retailing this weapon for \$25,800 on-road, which represents a very significant price drop from the outgoing model. Despite the reduction in price, the quality of kit remains exceptional and the quality of the ride has increased immensely, so the F4 can now be genuinely considered as a true contender for superbike supremacy.

It may not come with all the gizmos fitted to a Ducati 1198SP or BMW S1000RR, but the new generation of MV superbike is a huge improvement over the company's last few attempts. And with young blood now steering the company into the coming decade, both here and in Italy, MV Agusta is now well and truly back as a global player in the superbike market. 🏍️

#### CHEERS!

Thanks to Trooper Lu's Garage at Moorebank for organising the MV Agusta testbike at short notice. Justin and the crew at Trooper Lu's are a new MV dealer in Australia and they did a great job in getting the bike ready in time for this test. See [www.trooperlu.com.au](http://www.trooperlu.com.au) or phone Justin on (02) 9602 3773.

