

## ROAD TEST

MV AGUSTA F4 1000 VLTRO  
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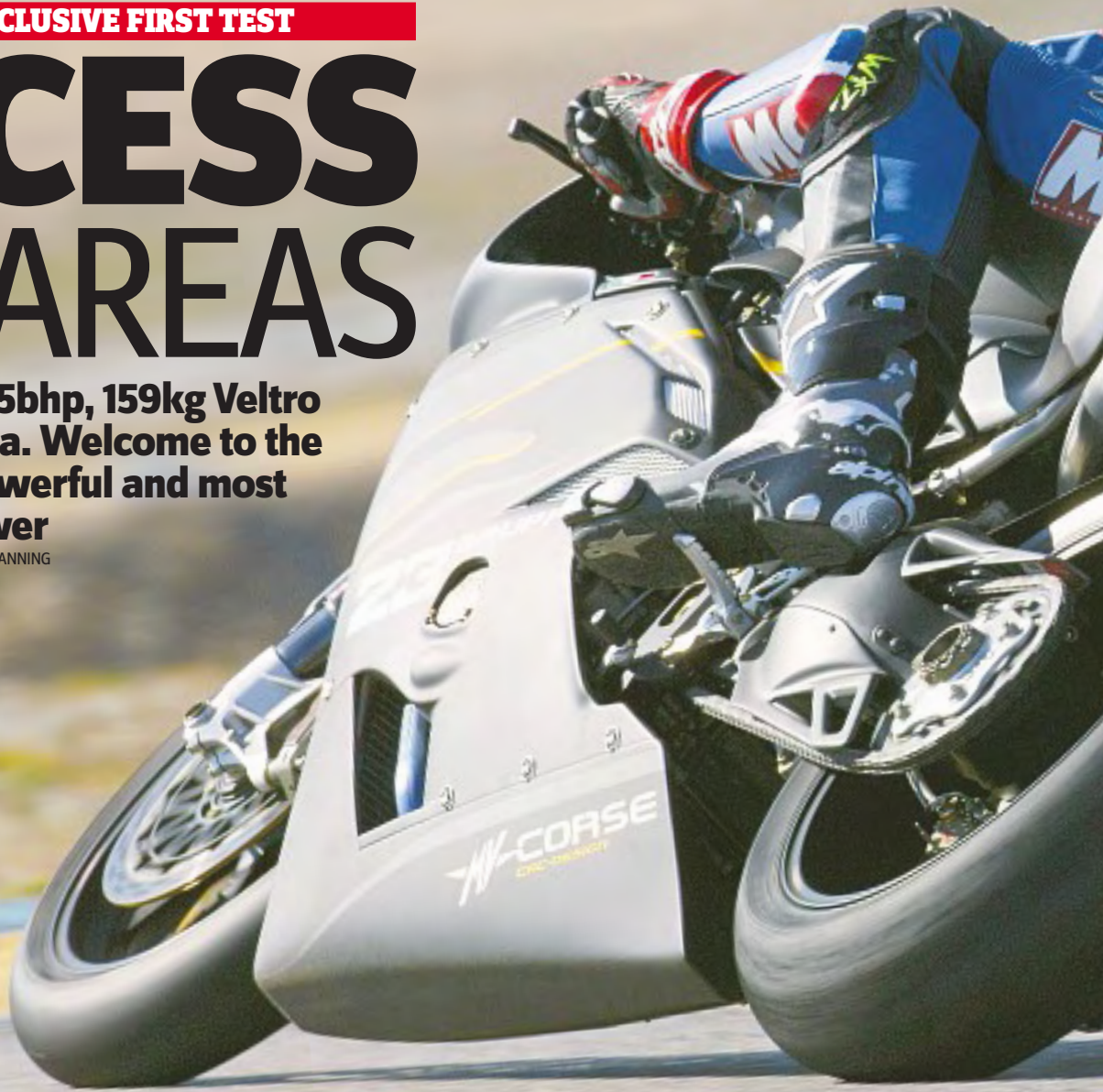
WORLD EXCLUSIVE FIRST TEST

# EXCESS ALL AREAS

The £45,000, 185bhp, 159kg Veltro redefines exotica. Welcome to the fastest, most powerful and most expensive MV ever

BY MICHAEL NEEVES PICTURES BY MARK MANNING

THE light weight and superb Pirelli slicks on the Veltro make it ridiculously confidence-inspiring



A 159kg bike that makes 185bhp will tend to do this

**T**HERE'S exotica, and then there's super-exotica like the MV F4 Veltro. The version we're riding around the Guadix circuit in Southern Spain is built solely for track use, hence the "Pista" name – Italian for track. It costs a whacking great £45,000, pumps out 185bhp and scorches to an authentic top speed of 190mph.

The only small numbers with this Italian masterpiece are its weight (at 159kg it's lighter than a supersport 600 or a World Superbike racer), and how many will be made, namely 23. Incredibly, despite the price, UK importers Three Cross Motorcycles have already sold two, so if you've got that sort of cash burning a hole in the back pocket of your Armani suit you'd better get a move on.

#### WHAT'S SO SPECIAL THEN?

IN short, everything – even where it's built. The Veltro doesn't come from the regular MV factory in Varese near Lake Como, instead it's hand-built in San Marino by the Cagiva Research Centre.

CRC could be described as the dream factory of the motorcycling

world; it's where 500cc Grand Prix Cagiva race bikes used to live, and where the MV Agusta F4 and Brutale were originally designed by co-owner Massimo Tamburini – the man who designed the Ducati 916.

The Veltro's tubular steel frame is standard F4 1000 fare, but this elegant structure now houses the engine from the 173bhp F4 Tamburini, complete with its variable height inlet trumpets which lift clear of the throttle bodies at 10,000rpm to unleash hell (allowing lairy camshafts without sacrificing any mid-range power). A titanium racing exhaust pushes things even further to an eye-watering 185bhp.

Elsewhere, if you can get close enough to it (a crowd comes as standard) you'll see more exotic materials than on the space shuttle. The fairing (complete with quick-release fasteners and an enclosed belly pan that doubles as an oil catch tank – as per racing rules), seat unit, heel guards, fairing and clock bracket, hugger and front mudguard are all carbon-fibre and the engine has a magnesium sump and rocker cover, helping to contain all the titanium bits inside it.

Tyres are Pirelli slicks with a taller 55-profile rear tyre for extra side grip and better turning agility, wrapped around lightweight Brembo wheels (the rear sprocket is quick-release). The swingarm is magnesium alloy. There's a racing quickshifter and a dash that gives you more information than a Sky Plus digibox, a racing fuel filler cap and an aluminium radiator big enough to cool a power station.

At the rear sits a fully-adjustable Sachs shock (with separate ride-height adjuster) of the same design used on Schumacher's Ferrari F1 car. Fully adjustable 50mm Marzocchi upside-down forks live up front with billet aluminum brackets for the radially-mounted four-piston Brembos.

It's all finished in exposed carbon-fibre and matt black (like MotoGP bikes look during their winter tests) and now I've got the serious horn.

#### THERE'S A ROAD BIKE, TOO

THERE'S a Veltro for the road called the Strada, which is 'only' £36,000, so you'll only need five numbers to come up on the National Lottery to buy one, not six. Only 99 Stradas are planned.

The Strada has the same power and

top speed as the track version, but its road kit (with lights and indicators) pushes the weight up 10kg; not a big problem when you think it will still be lighter than the less powerful Kawasaki ZX-10R! Its race exhaust comes in a separate box though, only for track day use, of course. The only thing missing from the road bike is the quickshifter and race dash.

#### IT'S NOT FOR THE NERVOUS

JUST summoning up the courage to take the Veltro around the track in the first place takes some doing; trashing 45 grand's worth of rare two-wheeled mentalism that doesn't belong to you isn't something even worth thinking about. But with a shaking hand on the starter (on the left bar, as there's no switchgear on the right) the titanium pipes burble into life and we're off down the pitlane.

With just the rider's mass stopping the waif-like Veltro from floating off into space there's little impression of weight when you flick from side to side to keep the tyre-warmer heat in the Pirellis; just like a full-on superbike racer. And with a few laps under our belts to get into the groove



**'It bludgeons you with gale-force, face-altering acceleration'**

it doesn't take long to figure out that it goes like a proper superbike too.

Blatting through the gears (road shifting, minus the quickshifter, which hadn't yet been fitted to this Veltro – No 1 of 23) and hunched over the matt black 21-litre fuel tank, arms curled around it like a scared child holding a teddy, the MV goes like nothing you'll ever find on the road.

It bludgeons you with a hammer blow of gale-force, ear-splitting, face-altering acceleration. It's all you can do to keep up with the relentless speed the Veltro is happy to dish up for your masochistic enjoyment.

The power at low rpm isn't great, not helped by the tall gearing, but once in its stride – at around 6000rpm – it takes off, all the way to 13,000rpm when a selection of lights flash at you to signal it's time to change gear.

Coming off the gas and on to the freight-train-strength four-piston Brembos, the mechanical slipper clutch does its thing. Bang, bang, down through the gears, popping and banging on the overrun, don't blip the throttle, and you glide serenely on to your chosen corner line.

Mid-corner and on a neutral throttle

the electronic air-bleed system kicks in, reducing the compression in two cylinders and keeping the throttle response nice and smooth, until the corner is finished and it's time to unleash the fury again.

After just five laps of Guadix (a sunny cross between Knockhill and Cadwell), my arms are already pumped and my brain is frazzled in the same way a pukka superbike racer likes to assault you.

#### IT LIKES TO TAUNT YOU

I HATE it when you ride a bike that has so much grip, so much composure and feedback from the chassis that it seems to laugh at your attempts to go fast through the corners. The Veltro is that bike.

The front Pirelli slick grips like bubble gum while the rear does its best to control 185bhp at the rear, which, as I'm writing this now and not sucking hospital food through a tube, tells us it's done its job.

The Veltro is very stable on the track and comfy, too – once the adjustable footrests have been dialled in to suit – which gives the rider lots of confidence; the only downside of this

is that it's very difficult to steer through a flip-flop chicane without hearing the sound of your biceps popping – it takes that much physical effort to haul it over. Also, this bike's rear spring is from the 26kg heavier Tamburini, so it's a bit stiff, even on the track.

#### VERDICT

THE Veltro is probably the ultimate boy's toy. Although it has been designed to be ready to race (which doesn't make it seem so expensive when you think how much you'd need to fully race-prep a GSX-R1000), most of the fortunate will either stroll them out on a track day or sit this piece of motorcycling art in their lounge; after all I can't imagine it really being competitive against a 200bhp-plus Crescent Suzuki, for example.

It is a thoroughly impressive piece of kit though and really is the closest thing you'll ever find to the full World or British Superbike experience, but without needing the necessary race licence.

● THANKS TO GUADIX CIRCUIT FOR TRACK TIME: [www.guadixcircuit.com](http://www.guadixcircuit.com)

## IN DETAIL



MV has taken lessons from the stealth bomber...



CARBON everywhere and a super-trick race dash



FOUR-POT radial Brembos could stop a train

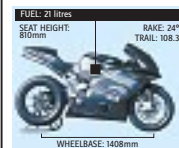


173BHP engine comes from the F4 Tamburini

### MV F4 1000 Veltro Pista (Strada)

★★★★★  
COST **£45,000 (£36,000)**  
POWER (claimed): **185bhp**  
TORQUE (claimed): **89ftlb**  
WEIGHT (claimed): **159kg (169)**

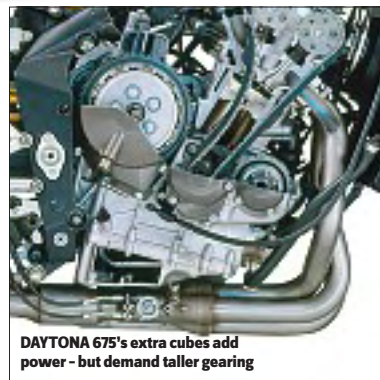
Availability: Now  
Colours: Black  
New for 2006: New model  
Insurance group: By special arrangement  
Info: Three Cross - 01202-823344



**TECHNICAL SPEC**  
Engine: Liquid-cooled 998cc (76 x 55mm) 16v dohc in-line four. Fuel injection. Six gears with electronic power shift.  
Chassis: Tubular steel trellis frame with magnesium alloy swingarm. 50mm Marzocchi upside-down forks, fully adjustable. Single Sachs shock, fully adjustable. Brakes: 2 x 320mm front discs with four-piston radially-mounted calipers. 218mm rear disc with four-piston caliper. Tyres: 120/70 x 17 front, 190/55 x 17 rear.

## TECHWATCH

BY KEVIN ASH



DAYTONA 675's extra cubes add power - but demand taller gearing

## The great cylinder debate

TRIUMPH will be forgiven for breaking through the 600cc class capacity ceiling by 75cc, because the new Daytona has only three cylinders instead of the usual four. It's allowed in supersport racing, and twins are given even more leeway, which is how Ducati completes with its 750 twins.

It's certainly true that the more cylinders an engine has, the greater its potential to make more power. But the frequently quoted formula to do with changes in piston area according to the number of cylinders disguises a much more complicated picture.

It's true that for a fixed engine capacity, more cylinders does mean more piston area, but this isn't directly relevant. The thinking behind this comes from the basic mechanical principle that force = pressure x area.

With more piston area, the pressure of combustion in the cylinder results in a greater force on the conrod. Well, it does, but for a shorter period of time. More important is how much work the piston is capable of doing, and as work = force x distance travelled, the extra force is countered by the fact the stroke decreases as the number of cylinders increases - the piston doesn't travel as far.

The size of the individual cylinders is important in terms of combustion efficiency - 400cc is considered by some engine designers as the optimum size in this respect, so a four-cylinder 600 with its 150cc cylinders will be worse off than the 225cc cylinders from a 675 triple.

On the other hand, the greater the number of cylinders, the greater the valve area (OK, total valve circumference is actually more important than area,

but this is complicated enough as it is...), and valve area certainly matters - the more you have, the more efficiently you can flow gas in and out of each cylinder.

Improved gas flow in a multi-cylinder engine is especially important, as the main advantage of having more cylinders is being able to rev higher (because piston speeds and internal engine loads are less).

If you can fill a cylinder and burn the gas inside more often per second, then naturally you get more power from an engine. The cylinders are smaller, but there are more of them, and with the larger valve area the gas flow is easier, too.

### 'One advantage of having more cylinders is being able to rev higher'

But there's a double whammy with getting an engine to rev higher. Not only does the engine produce more power, but because it's spinning faster you need lower gearing in the transmission. And in turn, that amplifies the torque at the back wheel, increasing your acceleration even further.

The Triumph Daytona with its bigger pistons and longer stroke than a rival four has a rev ceiling of around 14,000rpm, whereas Yamaha's R6 can spin to almost 18,000rpm. Both bikes have the same size rear wheel (and let's assume both have the same 160mph top speed) so the Yamaha revs higher at 160mph than the Triumph - and to do that it needs lower gearing.

In light of that, getting a triple to perform as well as a four, even with a 12.5% capacity advantage, is no mean feat.