

# VORTEX

## OFF TO A FLYING START

Cameraman Matt Gladstone, the founder of Cammotion and inventor of the Vortex vertical tracking system, was delighted when his innovative product was recognised with a GTC Seal of Approval at the 2009 Awards. Picking up the story from the Spring 2008 issue of Zerb, which described the R&D years from concept to launch, Matt describes the exhilaration of working with his novel aerial camera mount system over its first two seasons.



▲ Nestled under a tree at Royal Ascot



▲ Glorious Goodwood with views to the Solent beyond



▲ A moment to sit down between races at Silverstone

### Course work

At the Grand Prix in Spa, as the F1 cars complete their warm-up lap, Vortex is fully extended on the first hairpin bend with the camera broadcasting a wide shot looking down the start-finish straight from 30m up in the air. It tracks down, zooming in to the tight end of the Cineflex 42x zoom lens to frame a close-up of the start line under the gantry. As the last car joins the grid and the lights change, Vortex creeps back up to build tension. The lights turn green and Vortex

accelerates as the cars race down the straight. By the time they've reached the hairpin with wheels screeching, smoke billowing off tyres, parts flying from the first collisions, Vortex has a bird's eye view down onto the action below.

Vortex instantly appealed to the world of racing, both F1 and horses. Positioned on the side of a racetrack, and combined with a powerful zoom lens, the system can provide incredibly versatile aerial to ground vertical tracking shots. It is low in

visual impact, making it ideal for multicamera events as it does not affect shots from other camera angles. Steve Docherty, director at Sunset and Vine, was an early fan: "Vortex brings film-style shots to our coverage of the Grand National." The 'Doc' uses it at the Grand National opposite the finish line in front of the grandstand and on slow-motion replays of the final moments of the race it is hardly noticeable in the background.

In contrast to the noise and excitement of the trackside, the Doc also uses Vortex in a much more sedate position just outside the parade ring at Royal Ascot. This is where one of the many automated features

the Doc. No other piece of equipment could fit in that position, nestled among the crowds, and produce such spectacular vertical tracking shots.

### Stable in the wind

Glorious Goodwood is one of the most exposed and testing racecourses. The racecourse at Goodwood is perched on a hill in the South Downs overlooking the Solent and the Isle of Wight. In the height of summer, there is never a still day but, combined with a Cineflex, the system copes with any weather. As flags flap wildly and trees bend in the wind in the foreground, Vortex still provides steady, broadcastable tracking aerial shots, while most other cameras,

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comes into its own. Fitted with a wheel drive, Vortex can be manoeuvred like an oversized remote control toy into tight spots. At Royal Ascot, it sits in the middle of the crowds in a highly sensitive location next to an old tree in between the fashion stage, the parade ring, the new building and the royal enclosure. In this position, it has actually been mistaken for a piece of modern art!

### By appointment

During the arrival of the royal party, Vortex starts low. The camera follows the Queen in her carriage as she arrives through the tunnel under the main building. As she moves through the crowds, top hats are tipped in the foreground as the camera pans left to right. At this point, the viewer could be forgiven for thinking this is a shot from a static camera. Vortex then tracks up – in the same way as a jib – to show the carriage advancing through the crowd. But it then keeps rising up and up, high above the trees, to reveal a wide shot of the royal party and large crowds surrounding the parade ring as they arrive there. As Vortex moves quietly up and down, it can be quite hypnotic. In fact, some racegoers at Royal Ascot have been so mesmerized by it they have completely missed the Queen!

The position at Ascot also allows Vortex to do a reverse shot down to a fashion parade and to link in to presenters in various positions. "At Royal Ascot, Vortex gives me a variety of great shots to choose from," says

even at ground level, are struggling against the elements. Denise Large, programme director at Channel 4 Racing and the first director to use Vortex in broadcast, recounts, "The Vortex camera system really brought a new dynamic to Channel 4's Glorious Goodwood coverage. The racecourse is nestled on top of the Sussex Downs and its beauty was enhanced by the superb pictures generated from different heights – it felt as though we had a helicopter just hovering over this spectacular venue for the duration of the broadcast – it was breathtaking."

Vortex can be rigged, derigged and relocated efficiently with most of the controls automated for one person to operate. This is one advantage of its being designed by a cameraman rather than an engineer. On many jobs, I have packed up Vortex and am already driving out while the jibs, hoists and Strada cranes are only part-way through their derigs. This means it can easily be used in more than one location on a job. At Hickstead Royal International Horse Show, Vortex is moved into a different position each day. Phil Murphy, event director at Sky Sports, says about its use at Hickstead: "Everyone has commented how fantastic it all looked. Vortex certainly enhanced the coverage."

The system is particularly unusual in being able to produce aerial shots from such a small footprint and this allows it to be used in tight spaces as well as in locations and positions that have perhaps not been previously considered. I work closely





▲ Vortex gives a bird's eye view of Hickstead



▲ Quick and simple set-up



with the productions to explore all the possibilities and to make sure the remote head is used to its full potential. The system works at its very best when there is something in the foreground, such as trees or a building, to put the shot into context, and this is why the position at Royal Ascot is one of my favourites as we can use both of these.

### Mix and match

I also try to match the remote head to the job. At Royal Ascot, Vortex is combined with a 3-axis gyro-stabilised head and a 13x lens. In contrast, the position at Spa needs the magnification power and sophistication of the Cineflex. Over the past few years, Cammotion has been working closely with Dynamic Mounts International on the development of a new 3-axis gyro-stabilised remote head and we believe it to be one of the most stable 3-axis gyro-stabilised remote heads available to date. Plus, it only weighs 15kg, making it one of the lightest around. This new head allows us to mount almost any camera on Vortex. (I have also used it on the back of my Land Rover Defender combined with a specially designed isolating arm to take out the large bumps. Teamed with our stabilised lens, it allows stable shooting with lens angles up to 75mm and at speeds up to 40mph on pothole-riddled roads).

### Other uses

Beyond the world of cars and horses, Vortex has also been used on music concerts, live events and film shoots. David Mallet hired Vortex for Nelson Mandela's 90th Birthday '46664' concert. Originally the idea was just to replace the hoist at the back of the crowd in Hyde Park, but once David realised how versatile the system was he started to use it like a 'giant ped'. Dione Orram, senior producer at Serpent Productions, said after the concert, "Vortex is amazing, everyone is thrilled with the results".

Vortex is increasingly being used for CGI sequences. It is still more cost-effective to film as much real footage as possible before applying CGI, and Vortex value-adds by providing suitable footage so that less time is needed in post-production. The title shot for the recent film of *Dorian Gray* was filmed in Greenwich. Vortex captured a panorama of London, sweeping down past buildings in the foreground and finishing low on a carriage arriving. Then CGI was used to replace the modern London skyline and to remove the top half of the existing buildings. On a more

recent film shoot, Vortex was used to film some tower blocks for a CGI shot involving invading aliens – I can't wait to see that one! On the same shoot we managed two locations in one night on opposite sides of London, providing even more value to the production.

The system has lived up to 'what it says on the tin'. After all the hard work, I was thrilled when last year Vortex was acknowledged through a nomination – and then awarded – the GTC Seal of Approval. The GTC Council awards the Seal to a manufacturer for a piece of equipment that "has significantly aided cameramen in the advancement of their craft" and felt that Vortex stood out above the rest of the nominations. Their citation said: "We were particularly impressed not only by the simplicity and speed of rigging, but also at the wide range of shots that can be offered by such a rig. Rather than coming from a large company, the system was designed by a cameraman."

Vortex has proved to be a popular new toy for innovative directors looking to freshen up established events. With awareness of its versatility, numerous unique features and potential growing, the system is being used more and more for creative shots. Even though this first system is a working prototype, it has done everything I have asked of it. I couldn't have wished for a better start.

## Fact file

Vortex can track on shot vertically from ground level to 30m in 15 seconds from a small footprint, and will support full-size broadcast and film cameras. The self-supporting system is compact in transport (no bigger than a 4x4) and can be used on uneven ground or slopes. Vortex takes about 30 minutes to set up and can easily be relocated several times in a day.

See showreels of the shots described in the feature at: [www.cammotion.co.uk](http://www.cammotion.co.uk)  
Follow Cammotion on Facebook and on Twitter at: [www.twitter.com/cammotionuk](http://www.twitter.com/cammotionuk)

Vortex and the new car rig are available to hire from Cammotion.  
Tel: 01628 477270  
Website: [www.cammotion.co.uk](http://www.cammotion.co.uk)



▲ Bird magnet!