

Element Technica



If I were a venture capitalist or vulturous investment banker, I'd be writing a report as wildly enthusiastic about Element Technica as...this Film and Digital Times article. Here's a company of really nice people who really get it. It was founded recently by Hector Ortega (above, left) and Stephen Pizzo (above, right).

Many of us have known Hector since he was working with his father Joe Ortega at Central Machining and SL Cine, where they made superb lightweight magnesium mags and modified ARRI Medical cameras. These were standard for Steadicam and lightweight handheld shooting. SL Cine's deep-water housings for their SL Cine camera as well as the Arriflex 235 were the antecedents of their new RED deep-water housing.

Stephen Pizzo worked as a freelance camera assistant and design engineer for over twelve years. He then worked at Wescam/Pictorvision. At Wescam/Pictorvision, Stephen was responsible for the electro-mechanical integration of the different cameras and lenses available at any given time into the company's various stabilized mounts. As a design engineer, he worked on projects ranging from the creation of 65mm cameras to 3D platforms to tools for general photography.

No doubt Hector, Stephen, and their growing staff of 24 people join the Alfreds, Ottos, Dennys, Howards and machine shops everywhere in a daily ritual of getting down on their knees to thank the camera manufacturers of the world for forgetting to do so many essential things, or to thank the cinematographers of the world for being such demanding retrofit syndrome sufferers.

With the introduction of Red, they recognized a big change in the way motion pictures might be made, and worked closely with filmmakers to bring light weight, clever accessories to the revolutionary workers of the digital brigade. At NAB this year, they will be introducing their new Micron line which brings professional camera support functionality to the new breed of video enabled DSLR & HDV cameras.

Element Technica has an open shop and there's an almost daily parade of cameramen, operators, ACs and other crew members coming by to evaluate and test their products. They've recently expanded to a new location adjacent to their manufacturing facility that includes a demo/prep area where customers can learn about new 3D and camera accessory product lines or come in to set their own systems up.



History repeats itself. There rarely was a camera, or car, ever produced that did not spawn a cottage industry of after-market retrofits. Like Penske, P+S Technik, and machine shops worldwide, the nice folks at Element Technica must get down on their knees each day, rejoicing, and wondering, "What were they thinking?"

Above: BNC output panel for Red.

Below: Element Technica's V-Dock is a lot sturdier than Velcro.



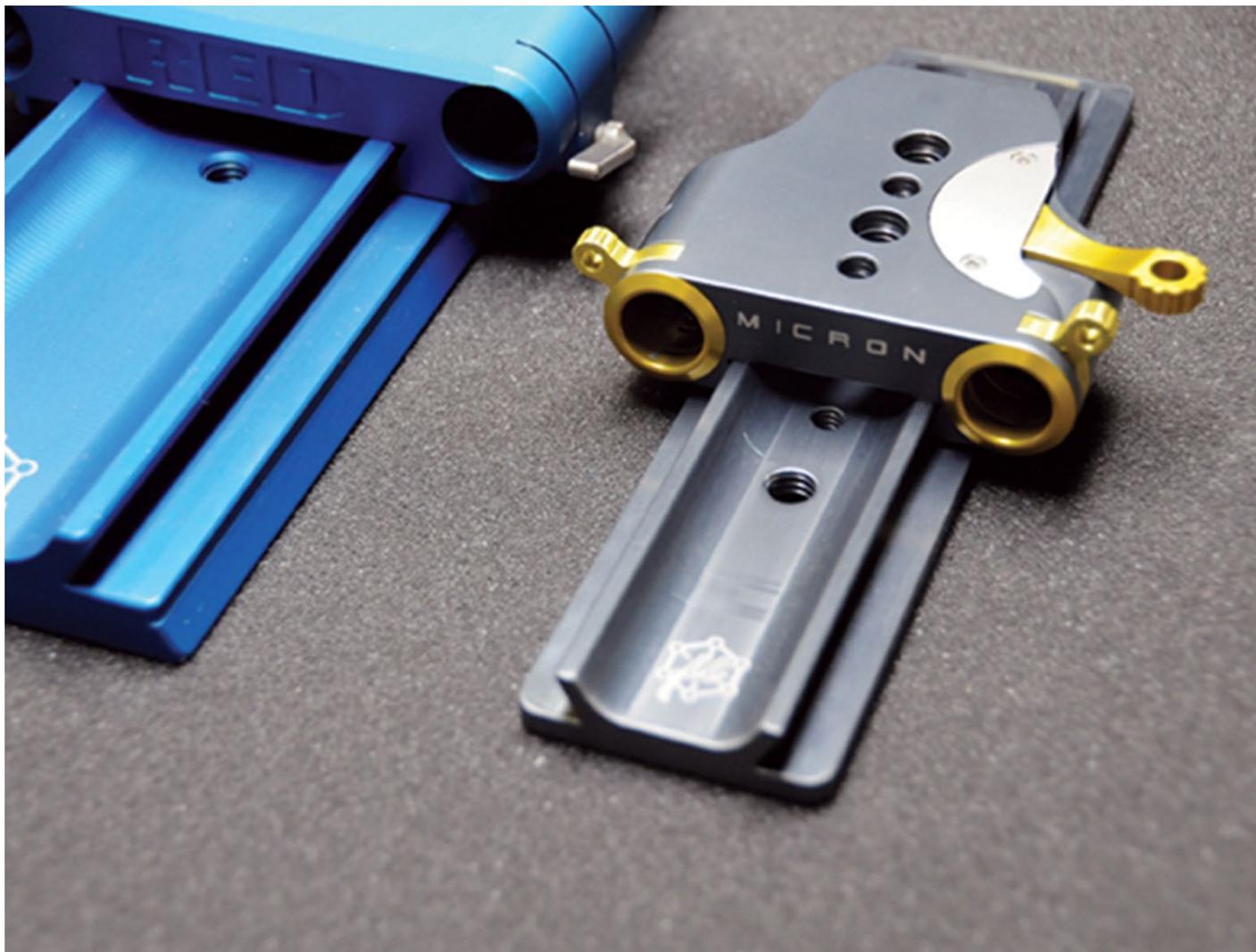
Element Technica



Left: The Torpedo Underwater Housing, to be unveiled at NAB, makes shooting 4K at 100 meters below sea level almost as easy as terrestrial photography.

Above: 3D Hand Controller

Below: Micron Line camera support for the new breed of DSLR and HDV cameras. Clever: why use big sliding baseplates on little cameras?



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Above: Design and Engineering Department.

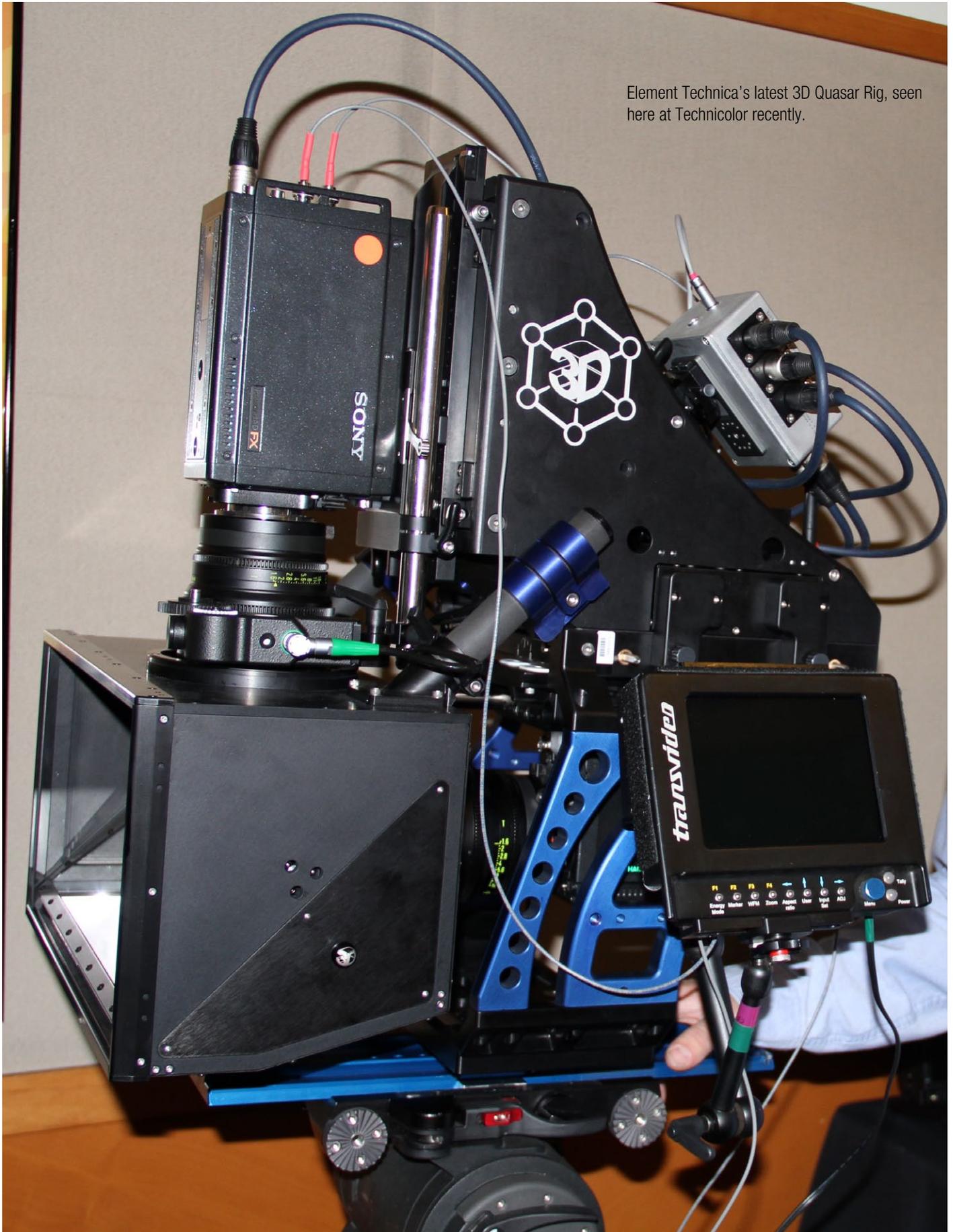
Below: Machining and CNC. Element Technica makes high-end V-Locks, V-Docks, rods, adapters, base plates, eyepiece levelers, hard drive mounts, 19mm to 15mm rod adapters, dovetails, quick-releases,

handles, Mantis shoulder mounts, handheld rigs, video break-out box, raincovers, monitor mounts, lens mounts, battery plates, risers, cheese plates and accessories for Reds and all other cameras. In fact, they make so many parts, you kind of wonder when they're going to build the entire camera.



(Element) Technica 3D

Element Technica's latest 3D Quasar Rig, seen here at Technicolor recently.



(Element) Technica 3D



It's been six months since we saw Element Technica's 3D rigs at Cine Gear, and in intervening time, they've been tested on productions worldwide and refined.

The production versions have significantly improved adjustment. The two cameras can be aligned quickly and easily. Adjustment time has been reduced thanks to the advanced alignment mechanism found in the production version of the Quasar full-sized 3D camera platform. Another advanced feature is integrated high torque motors and electronics along with a wired/wireless remote hand-unit to precisely control the interocular distance and convergence.

The Quasar's modularity allows it to be configured as either a beamsplitter system for close work with wide lenses or as a side-by-side system for use with longer focal lengths. The precision and refinement of a beamsplitter system is offered in a side-by-side rig utilizing the same electro-mechanical components and same user interface.

The Quasar is the largest in the Technica 3D family, and it was shown at IBC in Amsterdam. The Quasar is now available for sale through Element Technica, or rental through one of their regional rental partners like Keslow Camera in LA, Offhollywood in NYC, Panavision UK or Bmovie in Rome. There are also a number of stereo production houses offering complete 3D production services using the Quasar system.

The Quasar's younger and smaller siblings, the Pulsar and Neutron, medium and small, are scheduled to be born by NAB 2010. Both will have mini-me features similar to the Quasar, including adjustable/removable mirror boxes, integrated electronics/motors, the ability to convert from beamsplitter to side-by-side and easy-to-use alignment mechanisms.

Element Technica has built both beamsplitter and side-by-side rigs to accommodate cameras from the tiny Iconix or SI-2K to full-sized digital cameras like the Red, Sony, or upcoming ARRI Alexa. These systems represent the first of a new generation of 3D imaging tools with fully embedded control electronics.

Most systems will accommodate zoom lenses and offer synchronous control of focus, iris and zoom with the embedded electronics. The beamsplitter and side-by-side systems share



the same basic mechanism and electronics for interocular and convergence as well as the same user interface.

Element continues to refine its dedicated IO+C (interocular and convergence) controller and its wired/wireless remote handset. They are adding features and enabling it to work with other systems. In addition to handling metadata, the system can control other devices, including the internal servos in broadcast lenses. It will also receive IO+C commands from other 3D rigs, image processing systems, and calculating devices. As new pieces of the 3D imaging process fall into place, Element Technica plans to remain flexible to ensure future compatibility.

Specs

Quasar (Full Size - Available Now)

Camera and lens agnostic

Designed for full body digital imagers: RED, Sony F23/35 & 1500, D-21, Genesis

Beamsplitter: Compatible with prime lenses and small zoom lenses

Focal length range (S35 format): 15mm to 250mm

Side-by-Side:

Compatible with all primes and most ENG/Cine zooms

Focal length tested to 2200mm (S35 equivalent)

Rig weight without cameras: 36.6lbs. [16.6 kg]

Isolated mirror box provides exceptional rigidity and precise alignment

Integrated motors and electronics for I.O. and Conv. control

Wired/wireless remote hand unit for I.O. and Conv. control

Pulsar (Mid-Size - Available 2010)

Camera and lens agnostic

Designed for sensor block cameras: SI-2K, Sony 1500 T-Block, Scarlet, Epic

Beamsplitter: Compatible with prime lenses and small zoom lenses

Focal length range (S35 format): 15mm to 250mm

Side-by-Side:

Compatible with all primes and most ENG/Cine zooms

Focal length tested to 2200mm (S35 equivalent)

Rig weight without cameras: 19lbs. [8.6 kg] estimated

Isolated mirror box provides exceptional rigidity and precise alignment

Integrated motors and electronics for I.O. and Conv. control

Wired/wireless remote hand unit for I.O. and Conv. control

Neutron (Miniature - Available 2010)

coming soon

Element Technica 3D Rigs at Cine Gear

