## **MOVIEtube: Better Lenses for DV**

The German company Kinomatik introduced its MOVIEtube product to the U.S. market at the 2006 National Association of Broadcasters show in Las Vegas. This modular lens-adapter system docks with compatible prosumer DV, HDV and HD fixed-lens cameras and provides a mount for 35mm cine lenses. I recently had the opportunity to test a MOVIEtube with a Panasonic AG-DVX100 and a Zeiss 35mm T1.3 prime lens.







Most lens adapters of this type, such as the P+S Technik, use a spinning ground glass. This is required in order to prevent the taking camera from picking up the ground glass as part of the recorded image. MOVIEtube uses a patented microcrystalline technology to create a ground glass so fine that it does not need to spin.

This patented design provides several additional benefits: it produces no mechanical noise or vibration; doesn't require batteries; is less susceptible to mechanical failure; and has no issues with variable-frame-rate cameras such as Panasonic's AG-HVX200. High shutter-speed settings are also not an issue, as they can be with spinning configurations. The spin-free ground glass also means the image in the viewfinder is correctly oriented and not upside-down.

With the MT bayonet adapter and the appropriate mount, the MOVIEtube can be fitted to many different film lenses, including Arri PL, Panavision PV and Mitchell BNC-R. MOVIEtube also can be adapted to work with photo lenses such as Nikon, Canon FD, Leica-R, Zeiss-Contax and Olympus OM. These lenses allow the taking camera to achieve 35mm-equivalent depth of field and creative effects. The MOVIEtube can be shifted on its docking sled to achieve special frame and vignette effects, if desired. Care must be taken in low-light situations, however, as the unit reduces the sensitivity of each lens by approximately 1 1/2 stops. This forces you to add a bit more light than you might be accustomed to using with prosumer cameras.

MOVIEtube has been tested with many of the current prosumer cameras: the Sony FX1, HVR-Z1U and PD-150; the Panasonic DVX100 and HVX200; and the JVC HD10U. The manual offers specific guidelines and tips for docking with some of the more popular cameras. When docked, the recording camera rides at an angle. This helps the system maintain a balanced weight and streamlined horizontal profile. The modular system can be fitted with Sony batteries on its shoulder mount in order to better counterbalance the weight of heavier lenses. I found the MOVIEtube reasonably comfortable to operate, and the camera's angle put the viewfinder at a perfect eye level when handholding. The overall heft of the unit made it more stable when handheld than what I've encountered with the DVX100 by itself. Because MOVIEtube couples two separate lenses into a single docking system, extra preparations are recommended for optimal performance. Kinomatik calls these guidelines its "12 Golden Rules." For example, occasional "gate checking" is essential and involves confirming that the small gap between the fixed camera's lens and the cine lens is clear of debris. Careful use of a production monitor with an underscan mode is also highly recommended to ensure there is no unintentional vignetting on the edges of the frame. The use of the taking camera's built-in image stabilization system is not recommended. The frame should also be carefully inspected for grain on a good monitor. Though the ground glass is very fine, appearance of its grain is possible when the film lens is stopped down too far past T3, and/or when there is a bright background in the shot. These situations should therefore be approached with caution, according to Kinomatik. I was unable to see any grain on the monitor during my tests.

MOVIEtube is available in two versions, the Light Tube (LT) and Super Tube (ST). The ST is the top-of-the-line model (retail price: \$14,500) and includes an integrated Sony/Panasonic Tripod Plate, WalterGrip handles for low-angle and handheld operation, and an integrated shoulder pad. It also includes video output and power for use with a standard Sony or Panasonic professional viewfinder. This allows the operator to more accurately gauge critical focus. The ST comes equipped with standard Arri connectors to allow for wireless follow focus, wireless image transmitters, focus control monitor, etc.

The LT removes most of the pro accessories and drops the price down to \$9,500, allowing the use of film lenses at lower cost. Both the ST and LT feature the docking bridge and standard 15mm rods. The LT provides a good option for a B camera in tandem with an ST A camera.

The LT version can be upgraded to the ST; this process can be accomplished by an operator with Allen wrenches and takes about 10 minutes. The fully loaded ST weighs 11.9 pounds (5.4 kg) and measures 12.4 in. x 6.7 in. x 9.8 in. (315mm x 170mm x 250mm). The LT shaves down to 6.4 pounds (2.9 kg) and loses about an inch in length and height. The docked camera adds additional weight and size, but because most prosumer cameras in this arena are small and light, the integrated system remains relatively lightweight and comfortable to use. I used an LT version and felt a monitor was essential for critical focus. Most prosumer cameras just do not have enough resolution in their LCD viewfinders and swing-out screens to gauge focus when you have this little depth of field.

Although the MOVIEtube is new to the U.S. market, it has been used professionally in Europe for a few years on commercials, music videos and features. (Sample footage can be viewed at www.MOVIEtube.com.) With only the 35mm Zeiss and the DVX100, I shot footage with very shallow depth of field. Coupled with the camera's 24p frame rate, I was able to capture highly cinematic material. MOVIEtube is an excellent addition to the cinematographer's arsenal on DV projects.

Abel CineTech is the exclusive reseller for MOVIEtube in the United States and also rents both the LT and ST models.

by Noah Kadner