## 2-Perf Aaton Penelope

1.85:1 4-perf

1.85:1 3-perf

2.35:1 2-perf Penelope for DI 4-perf release



1. When you shoot Normal35, 4-perf Academy, 1.85:1, the picture area on the negative is 21 x 11.3mm, which is a tiny and wasteful 237mm<sup>2</sup>.



2. When you shoot 3-perf Super35, 1.85:1, the picture area is 24 x 13mm, which is a respectable 312mm<sup>2</sup>. Note: apertures may vary by rental house.



3. 2-perf spherical centered can be used for almost any aspect ratio. Here it is with 2.35:1 for anamorphic release: 22 x 9.3mm, or 204mm<sup>2</sup>



4. After scanning 2-perf negative, we go to Digital Intermediate, 4-perf optically "squeezed" internegative and anamorphic projection release prints.

## LOWELL, MASSACHUSETTS - 401 YEARS LATER.

Hoyte van Hoytema, born in Holland, educated at the Polish Film School in Lodz, current resident of Stockholm, has just finished shooting the first 2-Perf Penelope production in the United States. The Fighter, with Christian Bale and Mark Wahlberg, directed by David Russell, is about "Irish" Micky Ward's "Rocky"-like road to the world light welterweight title. It was the first 2-Perf Aaton Penelope job in the United States. The initial idea was to shoot on digital because the director wanted to let the camera roll as long as possible and shoot 360 degrees on locations whose contrast ratios while scouting made cinematographer Hoyte van Hoytema "break out in a cold sweat."

Shooting "traditionally" on film had been deemed too expensive, but after testing 16mm and 3-Perf, Hoyte suggested shooting on 2-Perf 35mm. Shooting on 2-Perf would save enough money to make it possible. They rented the first two Aaton Penelopes in the United States from Abel Cine Tech. Hoyte said, "The USA is known as this country of pioneers, but few people wanted to be pioneers in shipping obscure equipment from Europe and shooting in a format with cameras never tried in the US—they were very skeptical."

The shooting style was performance driven, with lots of movement. About 90% of the show was handheld or Steadicam, 12 hours a day. The Steadicam /Camera Operator was Geoff Haley (below, left). First Camera Assistant was Gregory Irwin (with FIZ). "It was 2 takes, move on," he said. "The Penelope camera is smaller and lighter than any other silent studio package. In 2-Perf, we could get around 9 minutes of film on a 400 foot mag. Early on, everyone agreed not to redo a scene if there was a hair in the gate because it would be easier and less expensive to paint it out in the DI post production suite."

They shot a 70 day schedule in 33 days, with 1193 setups. That's an average of 36 setups a day. About Penelope, Hoyte said, "The camera is thoughtfully designed, quiet and light. It has a human touch. Making the camera do 2 and 3- Perf shows a very smart assessment of the real production world. We liked the on-board batteries. We had a few growing pains, but they were addressed.

The two Penelopes were outfitted with all the "Hollywood" accessories: Preston MDR and FIZ, Cinematography Electronics CINE TAPE on mattebox, and on-board mini-monitor. They'd like to see a Steadicam mag that doesn't require rebalancing.

Camera equipment, technical support and lenses were supplied by Abel Cine Tech: Angénieux Lightweight Optimos 15-40 T2.6 and 28-76 T2.6, Optimo 24-290 and ZEISS Master Primes. They shot about 8,000' of Fujifilm Eterna 250D and 250T a day (that would be over 400,000' total in 4-Perf). Technicolor NY did the processing and HD dailies on disk. For release in 2010, selected scenes will be rescanned, and Hoyte will supervise grading of the 2K for DI at Technicolor Hollywood. From the DI, the 2K files will be digitally blown up to traditional 4-Perf anamorphic for theatrical print release (See examples top. Complete story online in Articles section at www.fdtimes.com).



