Heat on the Set

When the going got hot, Take One Productions went in with the Canon XL H1 to do a demanding steel mill shoot

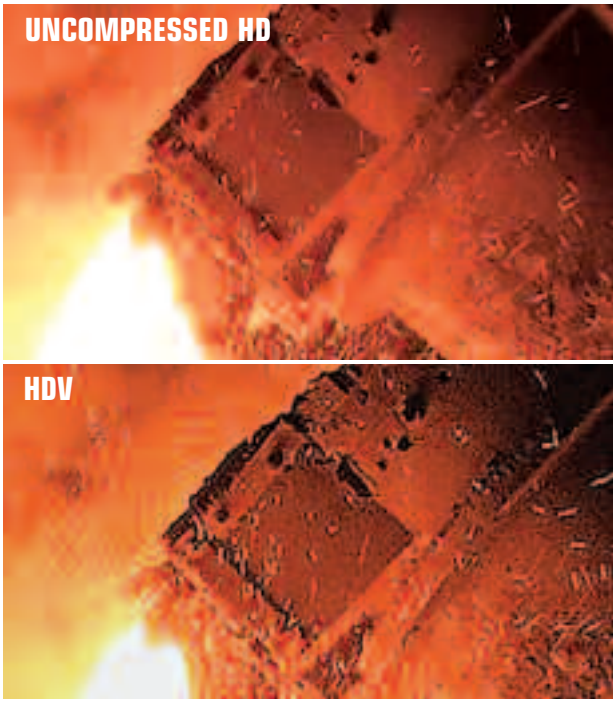
By Jeffrey Nielsen
Images By Take One Productions

There are a lot of hot videos out there, but a project at Take One Productions of Lancaster, Pa., took "hot" to a new level. The maiden voyage for their Canon XL H1 hi-def camcorder was a shoot at Latrobe Specialty Steel, outside of Pittsburgh. When we say hot, we're talking 2,900 degrees F, not to mention the blinding white light from molten metal and the air filled with grit and fumes.

Producer and company president Kevin Martorana explained that the request for a bid proposal came from their Website. "The client specified the shoot on HD, and we would have recommended that anyway. They wanted to have the newest thing, and I think they wanted to future-proof themselves as well. Having the HD footage, in a couple years if they want to do something else with it, they won't have to go do a reshoot."

The request didn't include nearly enough information, however. Says Martorana, "I looked at it and thought, 'No way, I have no idea what they want.' When I talked to them, I told them if anyone gives a quote based on what was sent out, they don't know what they're doing." So Martorana drove out to the steel mill for a tour before putting together a quote. Three companies were in the running for the project. "The other two were in Pittsburgh, much closer to the plant than we are, but I think they went with us because we had a better grasp on what they wanted, and we've done a lot of trade-show stuff."

For more about Take One Productions, visit www.takeoneprod.com



The ability to record uncompressed HD to a video deck on the Canon XL H1 was an added bonus to the production. Even so, the option of recording the compressed HDV format in difficult situations also garnered impressive results. Intercut footage held up exceptionally well in post.

The initial proposal was for a three-minute trade-show booth-display video. "They're one of the few companies that make specialty steel for the aerospace industry," says Martorana, "and they wanted something flashy for their booth at the Paris Air Show." After the shoot, the client asked about doing a second video—a longer, more low-key plant tour. "We had shot tons of video, and we didn't use a lot of it in the three-minute trade-show video, so, at that point, it was just additional editing." This one ended up running 18 minutes, showing the details of the steel-making process. "They show it to customers who are tech folks, who want to see the whole process, and to friends and families. A steel mill is a dangerous place, and you can't just bring people in on the family-day picnic."

Take One Productions had been shooting HD for several years, renting a CineAlta setup for high-end commercials. They'd shoot at 24p to get a film look and down-convert to SD for post. "It's good for agencies who want a film look, but don't have the budget to shoot on film."

The steel mill was to be Take One's first project to stay on HD all the way through post. They were looking around for an HD camera and came across the Canon at NAB. "We were blown away by what the XL was doing," Martorana says. "The quality was amazing, especially for a $9,000 camera." They had also looked at the Sony XDCAM and the Panasonic AG-HVX200. "We needed a camera that we could do a lot with, and the Canon was it. First, we could change lenses, which was very important for us."

"Another real plus with the Canon is you can take the raw 4:2:2 image right out of the camera and down the HD SDI port into a full-blown HD deck. That's a massive plus for the camera." The steel

The Canon XL H1 camcorder in action.

mill project was well budgeted, and when they looked at the rental costs of the CineAlta package, they decided it would make sense to outright buy the XL H1 instead. "If we hated it, we could sell it off after the shoot," Martorana recounts.

But they loved it. "We were shooting 2,900-degree molten steel in a dark factory, so we had black blacks and red-to-blazing-white steel with red-hot chroma levels through the roof. If this camera would fail, this would be the place." During the four-day shoot, they simultaneously used both the internal HDV tape deck, and sent the HD-SDI to a Panasonic HD DVC Pro deck. "We wanted to see what the camera could do, what the difference would be between a 25-megabyte image and a 100-megabyte. We knew there would be a difference. The question was, how much."

They added a matte box and rails, follow focus and an Anton/Bauer battery adapter to the camera. Otherwise, it was left at the factory settings; they just white-balanced. However, Martorana feels the camera has just as much setup capability as a CineAlta

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Recording 2,900-degree molten steel in a dark factory with bright red chroma levels was a difficult environment for the Canon XL H1. The image quality captured during the shoot—both 25-megabyte HDV and 100-megabyte HD footage—stood up to the challenge.

when it comes to the gamma, color matrix and so on. "You don't like that blue? What color blue do you want?"

Take One used a 4K HMI for fill on some shots, "In other places, we didn't use it," adds Martorana. "We didn't need it; we had the ratios. We saw exactly what we wanted to see, and the camera wasn't even working hard to make those contrast ratios. It blew us away."

In post, they fed the video into their AVID Adrenaline system. "We captured the 100- and the 25-megabyte footage, and as we began to look at them side by side, could we see a difference? Yes. Would the average consumer see it? No.

"We had places in the mill where we could not go with the HD Pro deck, so we just shot HDV, and in the show, we intercut the footage," continues Martorana. "They match really well—no color issues, no contrast issues. Where we see the difference is in the compression. If I had to go and do it again, knowing what I know now, I would shoot on HDV and not give it a second thought. That's how good the compression holds up."

It was in the edit that they found a downside to the XL H1. Take One was shooting in the 24F mode for the HDV tape (Canon's proprietary version of 24 frame progressive). However, 24F can only be played back out of the camcorder, not other stand-alone decks, so they had to tie up the camera in the edit suite for the ingesting process.

Another potential problem Martorana sees is that it's a relatively small camcorder, even with the matte box attached. "When clients are buying a high-end shoot, they expect to see a big camera." It might take some extra marketing to convince some clients the XL H1 can do the job. "If we have the budget, we can rent an HD Pro deck and even a set of prime lenses. If we don't, we can still shoot with the standard lens on HDV and still get a fantastic shot.

"The HDV format is perfect for certain clients and certain jobs, but when you're working with a higher level of client, then the Canon XL H1 HD camcorder makes a difference," Martorana offers. "It looks like a film camera now. It feels like a serious, 'big-format' camera on your shoulder. It doesn't look like what people normally think of when they hear you're using the HDV format. And when we feed the XL H1's HD-SDI output to our broadcast record deck, the image quality is unparalleled."

The steel mill shoot was demanding on both crew and equipment, but the results speak for themselves. As we move forward into an era with more and more demand for high-end HD content in a variety of venues, there will likely be more opportunities for production companies who are willing and able to take gear into such extreme situations. As cameras become more tolerant of these conditions, the need for having a huge crew on hand just to babysit the equipment will fade along, and it's easy to see how smaller companies will be well positioned to complete such a project. HDVP

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