



EDUCATION

Maximum Efficiency

Casio LampFree projectors help this technical college dramatically reduce wasted staff time.

It's all about the man-hours.

Jim Stepp, Multimedia Coordinator for the Milwaukee Area Technical College (MATC), calculates that he's saving about 1,000 man-hours per year given his switch to low maintenance, Casio LampFree® projectors.

He has saved so much time because he and his staff have never had to change a lamp or filter, and their need to perform any other type of service has dramatically declined. In fact, Stepp has seen no need for service—in the nearly four years MATC has been using Casio projectors, they have had only one unit fail, and that was an out-of-box problem covered by integrator AV Design Group during the initial installation.

Given the dramatic savings, Stepp has decided to standardize on LampFree projectors, which use a laser and LED light source instead of a projection lamp. So far he's replaced 128 projectors, and the 1,000-hour savings estimate is based on that number only, roughly eight hours per projector per year. When MATC finishes updating all 600 of their multimedia classrooms, Stepp's annual savings will be closer to 5,000 man-hours.

Three major advantages.

Stepp says there are three main reasons why he has standardized on Casio LampFree projectors.

"First, they're LED and draw less power, so they are more energy efficient," he explains. "Because the LEDs draw so much less power, I have an energy savings over the life of the projector that will exceed its initial cost."

"Second, there's no need for an air filter, so we don't have to worry about changing or cleaning filters every month or two."

"Third, there are no lamps. Typically we have had to replace a lamp every 2,000 – 3,000 hours, while our original Casio projectors have more than 10,000 hours and still look like the day we put them in."

JIM STEPP

The hours devoted to maintenance are a crucial issue at MATC and many other colleges and universities, Stepp believes, because of a society-wide trend toward tightened budgets and thinner staffing. MATC is one of the nation's largest technical colleges, with four campuses and more than 56,000 students. Yet Stepp must support all of its technology with just one full-time and four part-time technicians.

Stepp adds that "We had some projectors with lamps that had a life expectancy of 3,000 hours, which was extraordinary, but at 1,500 hours you could start seeing the roll off. If you tried to stretch them out to their rated life, they got dimmer and dimmer, but the LampFree keep looking good."



Advanced Series: XJ-F100W

Casio avoids the problems of other manufacturers by using a hybrid laser/LED light source instead of a mercury lamp. The optical block is sealed, avoiding the need for a dust filter or any kind of maintenance, and the hybrid source is rated for 20,000 hours, which translates to 10 years or more of classroom use. Unlike projection lamps, the brightness of the Casio light source is reduced very slowly, so units in the field at 20,000 hours still produce a good-looking, very usable picture.

Avoiding multiple problems

Stepp says during his 28-year tenure at MATC, he's tried a number of different projector brands using traditional mercury lamp technology, but he ended up frustrated and discouraged with all of them.

"We had one set of projectors with a three-year warranty. They were great in the beginning, but as the warranties expired the lamp housing leaked and we got speckles all over the image. We were throwing away projectors that were just three years old.

"We had another where we couldn't change the lamp when it was connected to the ceiling bracket." They lasted longer but were a tremendous pain to maintain.

A third manufacturer "said they would guarantee a lamp for three years, but only if we would clean the filters every 100 hours. We tried for a while, but it cost us more for the labor than the lamps were worth."

Most recently Stepp bought a brand with automatic filter cleaning. "After three years they wouldn't rotate anymore," he says. "The LCDs would burn out because the filters clogged and they would not get the proper ventilation." Of course by that point, they were out of warranty.

Fred Williamson, President of Thiensville, WI-based AV Design Group says he, too, was frustrated with the poor performance. "About four years ago, our local Casio rep came in and showed us their newest LampFree model. I thought it would be perfect for MATC and brought it to Jim's attention."

"I had Fred bring one in and do a side by side comparison with the projectors we had been buying," Stepp recalls. "The Casio looked very, very good. It was as bright or brighter and had better contrast, with similar quality color." The Casio projectors had a five year warranty on the light source, with three years on all other components.

He bought his first LampFree units shortly afterwards, 52 3,000-lumen WXGA Signature models, then moved on to its replacements as they became available, including the new 3,500-lumen XJ-F100W.

"The nicest thing about the new Casio projector is that it comes on instantly, and that's a real advantage," Stepp says. LampFree projectors have always powered up rapidly, but now there's no waiting time at all. "I used to have to train my instructors, if they'd turn their projectors off and right back on again, we'd blow up lamps. Consequently they'd leave them on the whole class period, even if they didn't use them." But with LampFree, there's no problem, and MATC saves power as well as replacement lamps.

"They have been remarkably reliable," adds Williamson. "I approached Jim with the idea that he'd have something that would eliminate his main issues over a five-year life cycle, but it looks like they're going to go quite a bit longer than that."