

New technology with OnV PaperVision camera system

LED lighting saves energy

Investment in an efficient camera system pays off in the paper industry within a few months. Thanks to a new lighting technology, OnV PaperVision is also attractive due to noticeably lower operating costs than comparable competitors' systems. It is a development that also saves costs over the long term.

It is well known in the paper industry that with a fully integrated camera system, 50% or more of the costs associated with web breaks and undetected defects can be lowered. The purchase costs of such a system are thus quickly recuperated.

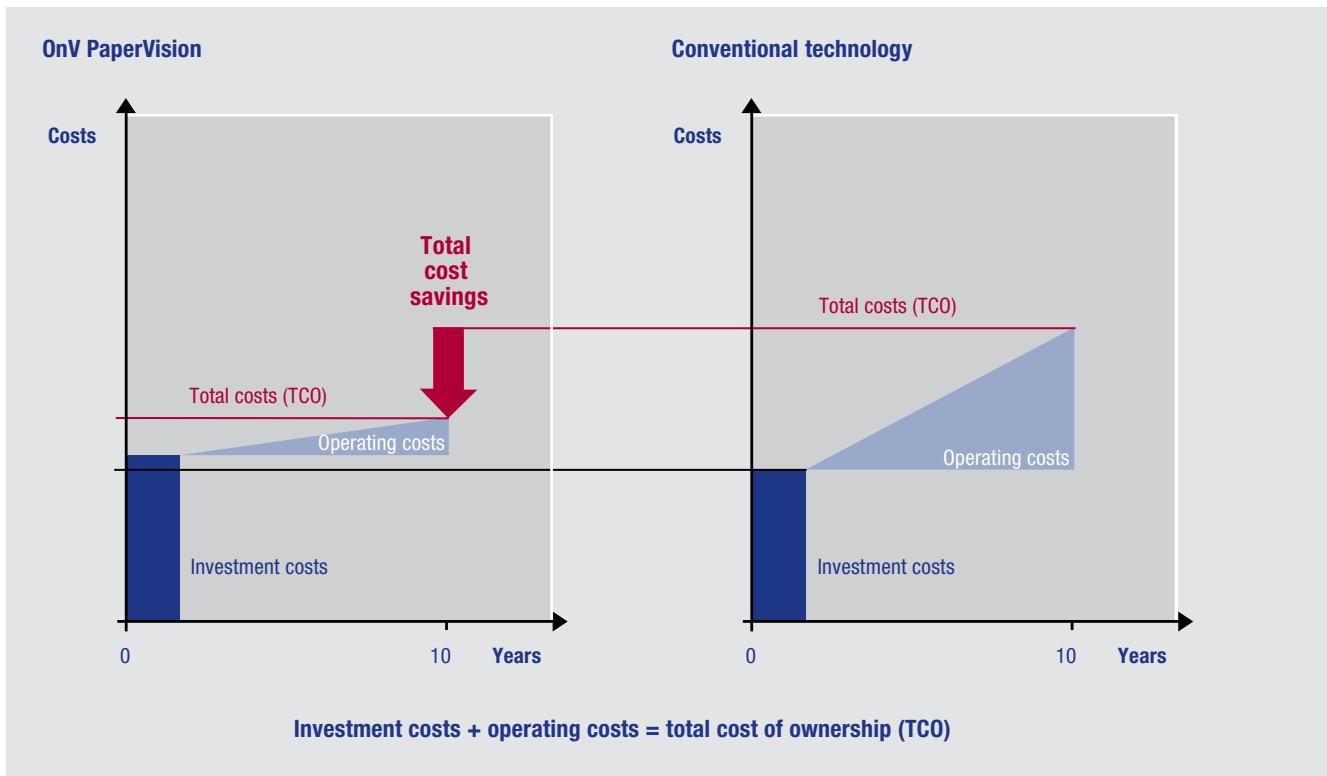
In addition to the investment, if you now consider the operating

costs over the service life of a camera system (so-called total cost of ownership, TCO), then there are substantial differences between the various providers.

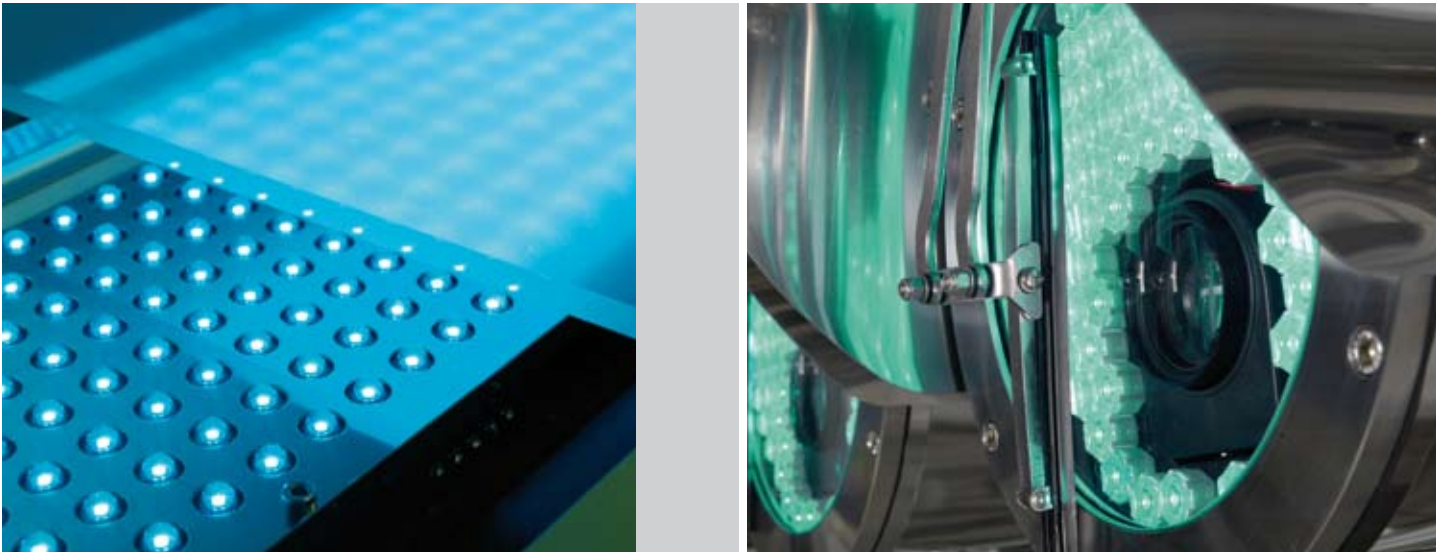
Technology reduces costs

The OnV PaperVision system from Voith is attractive due to use of the latest technology resulting

in the lowest operating costs. The system, which combines web inspection (WIS) and web break analysis (WBA), uses LEDs. They are pulsed, i.e., the light is not permanently on, but instead is flashed in very short intervals. In comparison to conventional illumination, the operating costs are minimized by means of this method.



OnV PaperVision is also attractive over the long term: In the case of a web break analysis system with 20 cameras, the operator saves 140,000 euros operating costs over ten years - only by the lower energy consumption.



The new pulsed LED lighting of OnV PaperVision saves energy both during web inspection and also during web break analysis.

With a selected pulse duration of 100 microseconds and a pulse sequence of 100 Hz, the light is switched on only 1% of the time. Due to the high frequency, the human eye admittedly has the impression that the light is on for the entire duration. In this example, illumination of one LED-Cam thus requires only about 1% of the 712 W nominal power. Including the additional losses in the electronic system, altogether only ca. 23 W are consumed.

In the case of a web break analysis system with twenty cameras, about 140,000 euros in energy costs can thus be saved over a service life of ten years.

Image sharpness thanks to light flash

The short flashes of light are of very high light intensity, so that

the cameras produce brilliant images in previously uncommon resolution of all details – including formation.

However, since the light is switched on only briefly, the surface of the LEDs remains lukewarm. The danger of fire, e.g., under the dryer section, and the burning in of dirt are thus avoided. A further advantage is the noticeably longer service life of LEDs as compared to current industrial lamps, which leads to lower maintenance costs. In addition, the combination of cameras, electronic system and LEDs in an enclosure reduces the installation outlay, so that fewer costs accrue in this area as well.

Moreover, the LEDs can be equipped with different lenses and delivered in movable modules. Both the type and also

the intensity of illumination can thus be adapted to the need – a characteristic that is only insufficiently or not at all available with conventional technology.

On Focus: OnV PaperVision

ProSafety	+ □ □ □
ProRunnability	+ + □ □
ProQuality	+ + + +
ProSpeed	+ + □ □
ProSpace	+ □ □ □

Section: total paper machine

Width: all

Paper grade: all

Contact



Günther Jordan
guenther.jordan@voith.com