## ASK THE EXPERTS

MRF SORTING SYSTEMS



ADAM LOVEWELL PROCESS ENGINEER Van Dyk Recycling Solutions

## QUESTIONS ABOUT MRESORTING SYSTEMS

How can plants increase uptime and improve quality without having to invest in major equipment upgrades?

Incentivizing sorters. Manual sorting is the first and last line of defense in a MRF. Sorters remove objects that cause jams and downtime and remove prohibitives from final product streams. Setting targets and providing incentives to sorters can stimulate productivity, increase uptime and improve product quality. They win when you win.

## 2 How can MRFs improve fiber quality?

Nonwrapping screens create cleaner fiber streams and are being used to target larger grades of paper, while optical sorters are now being installed to target smaller fiber using a positive sort to achieve the highest quality.

#### • How can MRFs best • deal with the rising percentage of film and decreasing percentage of fiber?

The quantity of newspaper in the stream still requires the use of traditional screening; however, the use of optical sorters to target the smaller fractions of fiber, including small OCC (old corrugated containers), is becoming increasingly popular. Positive removal of fiber from the system leaves the film in the negative fraction, which can be cleaned up using ballistic separators.



#### Are ballistic separators the future replacement of star screens?

Ballistics are currently utilized for the final cleanup of the container stream to remove any remaining 2D items and small fines. The limited capacity of these machines inhibits them from completely replacing disc screening, but as the percentage of large fiber continues to drop, ballistics (in conjunction with optical sorting) will gain a stronger presence in single stream MRFs.

## **5** How should recyclers consider using robots?

Robot technology never caught on in Europe after a decade of R&D, so why would it make a significant impact in the U.S.? Currently, robots are not being developed for presort, fiber QC or container separation. Their role is limited to plastic container QC. My suggestion: invest in quality optical sorting. Why do 60 ppm (picks per minute) with a robot when you can do 600 ppm with an optical sorter?



# NON WRAPPING SCREENS

"The new 440 screen makes film wrapping a **non-issue**." - J.P. Mascaro, Total Recycle

"We've had **no downtime** due to wrapping. Our team spends **maybe 10 minutes** per shift cleaning." - Andrea Rodríguez, FCC Environmental

## Kiss wrapping goodbye.

Get cleaner fiber while reducing cleaning time and maintenance costs.



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