# Recycling Online

## Video trekking for MRF tech – Part 2

*by Roger Guttentag*

In my July 2013 column, I presented the results of a survey on YouTube videos that highlighted virtual tours of materials recovery facilities (MRFs) that have become operational within the last five years. I am continuing my safari through YouTube this month for the purpose of locating videos that illustrate various new technologies that can be employed in MRFs or in facilities downstream of them that process specific material streams such as mixed plastic containers.

The principal focus of this particular video survey is on technologies that either facilitate the disaggregation of municipal single-stream collections into fiber and non-fiber processing streams or reduce labor costs while significantly increasing sorting throughputs since this seems to be where a lot of innovative competition is occurring. The videos that illustrate some of these technologies are listed alphabetically in the Web Address Directory as well as categorized by technology below:

*Infeed Processing*
MetalTech Systems

*Mechanical Screening*
General Kinematics
MetalTech Systems
Morris County Utilities Authority
Redwave

*Optical Sorting – Fiber*
Absolurecycling (Pellenc)
Green Machines
Redwave

*Optical Sorting – Plastics*
Absolurecycling (Pellenc)
Green Machines
National Recovery Technologies
Redwave
Steinert

*Glass*
Mogensen
Redwave

As I said in last month's column, this listing only represents a small fraction of the recycling technology content that can be found online. Its purpose is to help you to understand the potential value of doing online video searches, especially if they are being done for competitive marketing assessment or professional continuing education purposes.

## The good

In order for a video on any particular recycling technology to be effective, it should accomplish three main objectives:

- It must show what the technology can do.
- It must explain in general terms how the technology works.
- Finally, it needs to give reasons why the technical approach being demonstrated makes sense.

The videos I've listed all make an effort to address these objectives, though some do it better than others. There are three examples I will discuss below that do a reasonably good job of addressing the first two presentation objectives listed earlier with some mixed results with respect to the third objective.

*Mogensen glass sorting plant* – This video shows a graphic layout of a complete turnkey glass sorting and processing system. The camera then zooms in on a specific location of the layout starting with the infeed icon and then switches to actual video footage to show what would be happening at that point of the system. The video systematically proceeds through each step in the processing system by first showing a graphic of the processing step being profiled and then changing over to video footage showing its operation. The viewer is provided a clear understanding of how the system is designed and what happens at each operating stage. There is no narrative to further explain any of the video content that is shown.

*MetalTech Systems single-stream ballistic separator* – This video is a good example of integrating labeled static graphics with video imagery to explain a specific technology. A graphic of the ballistic separator is shown with narrative labeling. The labeling changes as the viewer is walked through the process of how materials are processed through this screening system. Later in the video there is a discussion of the different advantages offered by this particular technology.

*National Recovery Technologies (NRT) optical sorting* – This short video by NRT on the advantages of off-the-belt scanning and sorting (called in-flight sorting) combines three techniques effectively to enhance the clarity of their presentation. First, it shows an animation of how the process works. This is followed-up with actual operational footage of in-flight sorting being accomplished. Finally, this operating footage is then slowed down so the viewer can see more clearly how in flight sorting works in practice.

## And the bad

It is an understatement to say there are a lot of poorly executed videos on YouTube. Here is a short list of some annoying problems I have seen:

*No video description* – When you upload a video to YouTube you have the opportunity to write a brief description of what the video is about. The description is especially important when the video has no audio narrative to explain what the viewer

is seeing. Often the description box is left blank and you are left to guess what the video is all about.

*Irrelevant content* – I have seen too many videos lovingly linger over scenes showing the outside of buildings, stairs, platforms and the areas around the actual technology being profiled. Maybe this was somehow meaningful to the person shooting the video but it is a big yawner for anyone else.

*Poorly-spaced transitions* – Sometimes the video footage stays much too long on a particular aspect of the technology being shown. I would say that spending four minutes, for example, on a particular operating sequence that can be grasped quite well in 30 seconds is a bit excessive.

*Out of sequence presentation* – I have seen videos where the decision was made to start at the end of the processing sequence and work backwards or start at some other point (like the middle) and then jump around. Starting at the beginning is always a good idea.

## Web Address Directory

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|---|---|
| Absolurecycling – Plastic and paper sorting (Pellenc) | http://tinyurl.com/EquipVideo-Absolu |
| General Kinematics – OCC separation | http://tinyurl.com/EquipVideo-GenKin |
| Green Machines – Baled plastic optical sorting system | http://tinyurl.com/EquipVideo-Green1 |
| Green Machines – Aspetic container sorting | http://tinyurl.com/EquipVideo-Green2 |
| MetalTech Systems – Bag opening system | http://tinyurl.com/EquipVideo-MetalTech1 |
| MetalTech Systems – Single-stream ballistic separator | http://tinyurl.com/EquipVideo-MetalTech2 |
| Mogensen Glass Sorting Plant | http://tinyurl.com/EquipVideo-Mogensen |
| Morris County Utilities Authority (New Jersey) – Single-stream recycling rotary screens | http://tinyurl.com/EquipVideo-Morris |
| National Recovery Technologies – In flight sorting | http://tinyurl.com/EquipVideo-NRT |
| Pennsylvania Recycling Markets Center Technology Webinar – Advanced optical sorting technologies | http://tinyurl.com/EquipVideo-PRMC |
| Redwave – Sorting dry recyclables (MRF) | http://tinyurl.com/EquipVideo-Redwave |
| Steinert mixed plastics sorting | http://tinyurl.com/EquipVideo-Steinert |

## Webinars

A terrific application for videos is for presenting the full audio-visual presentation of a webinar. One example that I was able to find is a 2012 webinar, "Advanced Optical Sorting Technologies for MRFs" that was sponsored by the Pennsylvania Recycling Markets Center and presented by MSS, Inc. The webinar first briefly summarizes the various types of sorting technologies used by MRFs, then goes into a history of optical sorting technology and proceeds to show how optical sorters are currently used in MRFs. However, I was not able to find comparable examples of webinars that covered other types of MRF recycling technologies like disk screens.

## Some final thoughts

The use of online videos as a communications channel for information sharing is still relatively new. Certainly, there can be a lot of improvement in the way video can be used to market new recycling technologies. But there are other applications that should be considered. One example would be to use video to provide a portfolio of best practices for materials processing (and for that matter other operational areas like collection, public education and marketing). Another would be for users to provide video reviews of technologies they have used as well as contribute solutions to common technical problems that other programs could try. Finally, the posting of more webinars like the one that was created for optical sorting technologies would be invaluable.

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