



FALCON™

NEW GENERATION OPTICAL SORTER

FALCON SYSTEM
Powered by Entsorga

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CREATED BY COMBINING THE BEST NIR IDENTIFICATION TECHNOLOGY WITH ENTSORGA'S LONG TIME EXPERIENCE IN WASTE TREATMENT, THE FALCON IS A TOP LEVEL NIR OPTICAL SEPARATOR, CAPABLE OF IDENTIFYING DIFFERENT MATERIALS TO EASILY MEET ALL CUSTOMERS REAL NECESSITIES.



INITIALLY DESIGNED TO REMOVE PVC FROM SRF AND KEEP CHLORINE CONTENT LOW, THE FALCON™ HAS BEEN FURTHER IMPROVED THANKS TO THE ENTSORGA EXPERIENCE IN THE MANAGEMENT OF WASTE PLANTS.

THIS IS THE RESULT OF THIS LATEST GENERATION NIR SEPARATOR WHICH GUARANTEES A **PRECISE SEPARATION OF THE PLASTICS**, TO BETTER SATISFY THE NEEDS OF ANY CUSTOMER.

WHAT IS A NIR SEPARATOR?

All materials have **their own fingerprint**: subjected to the light, according to their chemical-physical characteristics, they reflect a **specific spectrum**.

The Falcon™ exploits this phenomenon to identify materials that travel on the conveyor belt thanks to a **near Infra Red (NIR) hyperspectral camera** with a higher resolution than the traditional NIR separators.

The true strength of the Falcon™ system, this detection technology allows a **more detailed visualization of the spectrum** and hence the **even more precise identification of the different materials**.

According to the information gathered by the camera, a **compressed air ejection system**, located at the end of the conveyor, blows away the objects of the targeted material.

Entsorga Falcon™ detection unit is the best technology in NIR spectrography.

ADVANTAGES

- **High-speed and low-cost ejection system:** unwanted objects are ejected from nozzles located at the conveyor end. These are powered by special speed-up boards that guarantee the quickest opening rate (~1-2 ms), but also allow the saving of 75% of the energy consumed by traditional electrovalves.
- **Maximum safety during operation and maintenance:** a series of safety interlocks allows the operator to always work in safe conditions, both during normal functioning and during maintenance.
- **Automatic cleaning:** the hyperspectral camera and deflector mirror are equipped with a compressed air automatic cleaning system that greatly reduces the need for maintenance.
- **100% integrated and connected:** the Falcon™ can be easily installed on any line and remotely controlled by the **system control**.



PROCESS APPLICATION

- **PVC Removal for SRF production**
- **Plastic Recycling** (PE, PET, PP, PS, PC, PVC and others)
- **Paper Recycling**

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