

From cotton to polymer

VALUE
ADDING
TECHNOLOGY

Optimise your currency destruction process



Switching to polymer banknote destruction

Required and recommended system updates

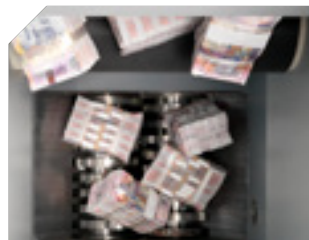
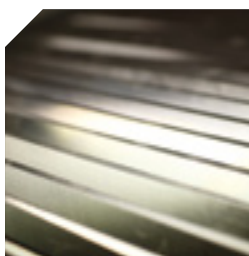
Switching the denominations' substrate has consequences for the banknote destruction process and requires certain adjustments.

Optimise heat transfer during shredding

Polymer tends to release more heat during shredding by nature which has consequences for the knives used and the desired output size of the polymer banknote shreds.

In Kusters equipment, the pre-crusher (first stage) prepares the right size of strips for the granulator (second stage). To achieve optimal destruction of polymer banknotes, the knife schedule of the pre-crusher should be updated to optimise the output size of the polymer banknote strips. Kusters calls this the tuning between the pre-crusher and the granulator.

These strips can then be safely destroyed by the granulator into unrestoreable shreds. As the granulator used in the Kusters systems originates from granulating plastics, no further changes are needed. The knives used have always been one piece to facilitate good heat transfer and easy cooling by air.



Neutralise static charge

Another natural aspect of polymer is its staticity. Polymer banknotes are, therefore, more likely to get stuck due to the build-up of static charge. These left-behind banknotes or shreds cause, in turn, security and operational issues.

That is why it is highly recommended to neutralise this charge by installing anti-static features on evident places in the destruction process. Likewise, the filter bags in any present briquetting or shred collection system have to be replaced by anti-static filter bags.

Do not briquette but collect polymer shreds

As with shredding, briquetting polymer banknotes releases a lot of heat. Such heat, the polymer shreds will melt during the briquetting.

Instead of reducing the volume of the polymer shreds as with cotton, it is recommended to collect loose and recycle them. Kusters has various systems and models accordingly to handle loose shreds.

Kusters has already upgraded numerous systems to handle polymer.

When an Online Briquetting System (OBS) is present, the system can be rebuilt into an Online Polymer Collection System (OPCS). The OBS can also be upgraded to a multifunctional collection system that collects various substrates separate from each other for recycling purposes.

Update software, ductwork, and other related components

Besides the systems' parts, changes to related components such as the software and ductwork are required.

Moreover, the actual updates to the systems themselves largely depend on the set requirements for the destruction process and the current model and age of the systems.

In general, Royal Dutch Kusters Engineering can provide all changes in an **upgrade**, saving time-consuming tender processes and facilitating a smooth transition to polymer.

