

Case study

Plastic Granule Cleaner



Impact Air Systems were recently contacted by a well established metal recycling company who had installed a plastic recycling facility at their 32 acre site in Lincolnshire.

Blue Sky Plastics Ltd installed a plastic recycling system to recycle household rigid plastic material and plastic car components and needed to further improve the quality of the HDPE and PP granules by removing the lightweight fibres and debris.

The facility consists of a shredder, metal removal process, granulator and finally a plastic grade segregation process. The finished product is then collected into two tonne storage sacks for resale.

Impact Air Systems were called in to improve the quality of the final product by removing the light fibres and debris from the final material stream in order to boost its resale value.



A material stream of HDPE or PP granules is fed into the granule cleaner at a throughput rate of approximately 900kgs/hour via an existing cyclone.

As the material is fed into the granule cleaner unit it falls on to a motorised dissipation impeller. An upwards air draft is generated by a variable speed fan, mounted on the top of the unit. The combination of upwards travelling air and falling material causes separation of the lightweight fines and debris, leaving the heavier particles to fall into a collection hopper for storage. Meanwhile, the debris passes upwards through the fan and is conveyed into a separate waste bag via a cyclone separator.

The final result is a substantially more saleable and valuable plastic product, generated by removing the unwanted angel hair, debris and dust. The high levels of flexibility engineered into the Impact granule cleaner have allowed very high levels of cleanliness to be achieved, whilst minimising the loss of good material.

The Impact Plastic Granule Cleaner has proven to be an invaluable addition to any plastic recycling facility.

“The results achieved by the Impact granule cleaner far exceeded our expectations and I am more than pleased with the overall support offer by Impact Air Systems, throughout the project.”
(Chris Riddle, Director of Blue Sky Plastics Ltd)



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