# Maximising the Value of Scrap Plastic

Your guide to the correct segregation, storage and cleanliness of post-industrial plastic scrap and the importance of employee engagement and training.

Vanden



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#### Foreword.

Time and time again, I find myself saying 'plastic scrap is a valuable commodity' — and this continues to ring true, but I'm forced to question if this statement is being taken on board by everyone who generates it.

If its value is understood, are companies striving to collect their scrap in a quality minded way that enables it to be recycled at the highest possible value? Or are they continuing to view it as 'waste'? Sending it to landfill or incineration where it may not only cause environmental damage, but doesn't reduce the use of prime plastics and fails to generate a revenue stream that can be pushed down the supply chain.

Generating scrap, offcuts and redundant stock is a natural part of business operations, but rarely do we converse with businesses that proactively question what happens to their scrap material after it is hauled away, what the impact might be, what it ends up as and if they can make inhouse improvements to increase recyclability and value.

It is not only a case of seeking out reputable plastic recyclers that will be transparent with what happens to your plastics. Firms must also accept that in order to obtain the best value for plastic scrap, it has be to be treated like a commodity. Implementing processes that focus on quality, building a culture around recycling and engaging their staff to ensure consistency.

In short –correct handling of scrap plastic can aid firms in being part of the circular economy and recouping raw–material cost. This is an area in which I am proud to say that Vanden continue to excel.

With our team of experts, Vanden have carved a reputation for partnering with businesses who have transformed their operations and implemented sustainable recycling solutions at the same time.

This whitepaper will provide you with valuable insights on dealing with plastic scrap, end of life plastics and redundant stock. You'll be able to take this knowledge forward and contribute towards creating a circular economy by maximising the value of your plastics and allowing them to re-enter the supply chain



#### **Damien van Leuven**

CEO - Vanden Recycling in





### Who is Vanden?

We have become one of the leading names when it comes to plastic reprocessing and recycling. We started in 2005 with a view to have a profound impact on plastic waste and we continue to do so.

From humble beginnings, we now operate on a global scale, with offices in Australia, Hong Kong, Ireland, Turkey, UAE and boast our own dedicated plastic reprocessing plant in the UK too.

Our history within the industry means that we have extensive, often unrivalled knowledge and experience when it comes to plastic recycling and recovery methods. This expertise coupled with our innovative, service-focussed approach means that we develop long-lasting and trusted partnerships with our customers.

In an industry that has a legacy of being shrouded in secrecy and misinformation, we provide increased traceability and transparency – our clients know exactly where their plastic scrap is going. This enables businesses to report accurately for compliance or accreditation purposes and ensure they're meeting their sustainability and environmental targets.

Our reputation is an indication of the difference we make. We continue to change the face of the industry by taking a responsible and sustainable approach when reprocessing plastic scrap into quality feedstock.

To learn more about who Vanden is, take a look here.





# The correct separation of plastics.

Now, more than ever brands and retailers want to know that the supply chain is dedicated to working in a sustainable way, and actively seek out suppliers that meet this objective. Working with Vanden to recycle your plastic will help you achieve this.

The beginning of the recycling journey starts with segregation. Segregating material at source is fundamental to securing its chance of being recycled.

Not only does this play a pivotal role when it comes to ensuring the material is processed in the correct way, but it means you have the best chance of receiving the highest rebate possible.

Using mixed material bins, or worse, skips might seem convenient, but it often isn't a responsible recycling solution. This drastically increases the chances of your material being used for energy recovery or tipped to landfill, instead of being part of the circular economy.

By placing balers and stillages (coupled with Vanden's education materials on quality segregation) at your production lines and other waste generating areas, you are dramatically improving the chance of the material being recycled, as well as making your general waste strategy far more efficient, by reducing scrap material flow around the workspace.

# Ensuring the cleanliness of plastic.

To put the state of plastic recycling into perspective, recyclable waste is stockpiling, and more plastic scrap is being treated as waste and sent off to landfill or incineration.

Soiled and contaminated waste is still an issue that we, as plastic recyclers are facing, as it has a far bigger impact on the cost of recycling and therefore the materials' ability to be recovered to the highest functional use.

There are instances in which cross contamination of materials can occur, for instance, it's not uncommon for PVC contamination to be removed from material such as PP. This will however impact material value and cost of recycling, but this is also why Vanden take time with our clients to develop systems on site to prevent this from happening.

However, contamination that includes clinical, mechanical and food waste can sometimes be found inside plastic that is bound for recycling. This can cause enormous disruption to a recycling facility, not to mention the impact on those handling the material.

In order for our clients to supply plastic that is ready to be recycled, the material should be segregated as soon as it leaves the production line to prevent outside contaminants.

If material leaves the line with food or other residues, cleaning it at source is the strategy we advise. This ensures that you receive the most value and it enhances its ability to integrate back into the supply chain.

If cleaning the material in-house is not something that can be executed, we can assist in arranging for the material to be processed via a wash line, however this does incur further monetary and environmental costs.

For reprocessed plastic to re-enter the supply chain, it needs to be of an extremely high quality, and free from contamination. To ensure that we maintain our reputation for reprocessing and trading in plastic of the highest quality, we have rigorous processes when it comes to quality control.



### Quality control at Vanden.

Once material has been processed via a dedicated production line, each bag is tested using various methods including MFI, oven and IV testing. This method allows us to identify the suitable application for the polymer and determine whether the material possess any contaminants or barrier layers.

Contaminated batches are rejected, and we will continue to work with the supplier to guide them through creating a material that is fully recyclable.

To learn more about the processes that we have implemented to ensure the quality of our reprocessed plastic, you can **read this article**.



## Consolidating the required volume of scrap.

And how the correct storage solution helps.

In order to make the collection of plastic scrap viable, weight and volume of the material is critical.

Typically, full trailer loads are the minimum requirement, but tailored collection plans can be designed if you're producing less than this on a regular basis.

The length of time it takes to generate full trailer loads will depend on current compaction methods, the polymer type and business operations.

Many firms that take more time to generate such volumes are actively choosing solutions that either don't provide for recycling or cannot report accurately on the recycling solution. The likely cause of this is fear that their core business space will be impacted if too much scrap material is kept on site, and perhaps productivity, or health and safety is compromised as a result.

In these instances, we often see material ending up in a skip bin, usually sent to landfill or incineration. This offers no traceability and has the potential to put producer responsibility at risk.

However, there are solutions to make plastic recycling work for all firms, enabling them to become part of the circular economy and generate a revenue stream from plastic waste.



#### > Stillages.

Uniform, stackable Metal Mesh Cages and Plastic Fold Down Dolavs in a variety of sizes.

Stillage options are available to suit the needs of all businesses, and some are suitable to be placed alongside the production lines, which makes the process of segregation far easier.

These space saving options means that businesses can reduce the time and storage space they devote to plastic scrap, while enabling them to implement an effective recycling solution.

Click here to watch our video on Stillages.

#### > Standing Trailers

To avoid having your scrap sitting on the yard, we can provide a trailer to stand on your site, so your material can be loaded in directly.

This reduces forklift movements on site, makes pick up logistics fast and keeps your yard looking neat and tidy when the curtains are closed.

#### > Balers.

Most polymers can be compacted in baling machines and there are a variety of sizes and specs available to suit different needs

For businesses that use different polymer types, using multiple traditional bins for segregation will take up an enormous amount of space. Switching from a bin to a baler will provide you with more floor space.

They can also be placed at locations where the waste material is being generated, changing the way that your employees move scrap around the business, increasing efficiency and productivity.

Click here to watch our video on Balers.



#### Saving Space.

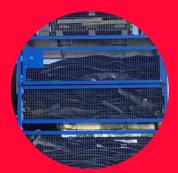
Using an industry standard 40-yard, roll on, roll off bin or mismatched cages will not make the best use of your core space.

Our space saving stillages can be moved individually next to the production line and are safely stackable for efficient storage in your yard or warehouse. It's the perfect solution that provides a combination of supporting at source separation that sits next to the production line and stores the material so efficiently that when stacked 4-high, the total floor space is only half a trailer load.

You're gaining yard space and a quality recyclable material that can be part of the circular economy and is revenue generating at the same time.

| Types of storage              | Dimensions         | Volume<br>of storage |
|-------------------------------|--------------------|----------------------|
| Large metal<br>mesh stillage  | 2100 x 1100 x 1250 | 9.24 m² of storage*  |
| Plastic fold<br>down stillage | 1200 x 100 x 975   | 4.8 m² of storage*   |

\* When stacked 4 x high



Large metal mesh stillage

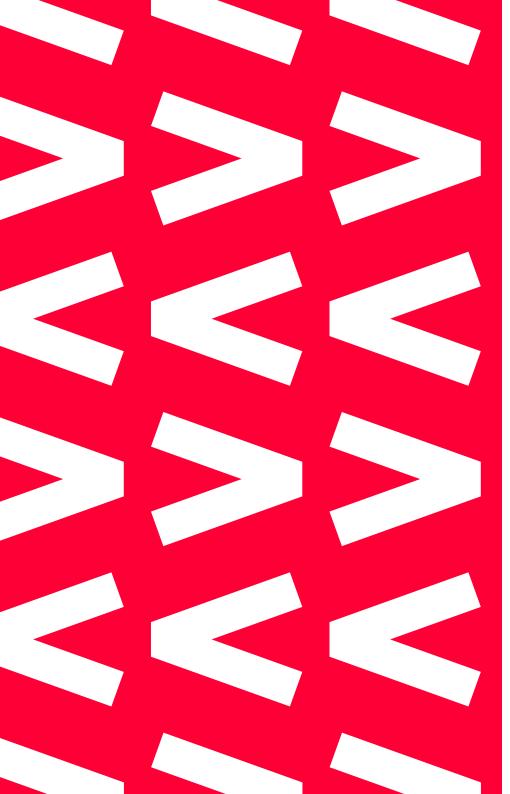


Plastic fold down stillages



Plastic fold down stillages





#### All Your Scrap Collected On One Load.

To offer a proactive and dynamic service, we offer a split-load collection, a service used by 80% of our customer base.

A split load is when a trailer is loaded with different types of plastic or cardboard.

By collecting split loads of multiple materials, customers are free from the pressure of having to fill a lorry load with one polymer type. This further maximises floor space and it will be freed from storing up trailer loads of different materials.

For compliance and reporting purposes, we provide detailed packing lists, weighbridge tickets and tare weights for stillages for each load that you supply.

Training your team to build a culture of first-class recycling.

Your recycling solution will only be as strong as your team allows it to be, and that is why employee training and engagement is paramount.

Through clear staff communication, well-thought out strategies and targets – your team can remain focussed not only on how their day-to-day role is part of the recycling solution, but also why it is integral to the future of the company.

Incorporating plastic recycling into your company sustainability policy or connecting it to your company values will serve to further embed its wider importance to the team. Induction, training and education is ingrained in our service offering and we take ownership for the role we play in helping you to achieve your desired outcomes.

We work alongside you to secure the total engagement of all staff, assist to meet recycling targets and create content to leverage your sustainability messaging. Dedicated videos and marketing content demonstrate your commitment to the circular economy to your customers and supply chain partners.



#### Checklist.

| Separation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Are segregation bins/stillages placed at source of scrap?                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Is your team trained on what must be segregated and why?                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Are there clear markings for Bins/Stillages/Bags with different material types?                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Is it segregated before it touches the ground (to avoid contamination)?                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Storing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Are you baling different material or polymer types together?                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Is your material clean and free from contaminants?                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Is your material stored in an environment that will preserve its value?                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Handling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Do you have the correct equipment to load material onto a trailer?                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Reporting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Reporting  Are you getting certified weight tickets?                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Are you getting certified weight tickets?                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Are you getting certified weight tickets?  Are you getting detailed packing lists?                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Are you getting certified weight tickets?  Are you getting detailed packing lists?  Do you know exactly what's happening to your material?                                                                                                                                                                                                                                                                                                                                                                           |
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| Are you getting certified weight tickets?  Are you getting detailed packing lists?  Do you know exactly what's happening to your material?  Dedicated Recycling Partner  Have you checked their accreditations?                                                                                                                                                                                                                                                                                                      |
| <ul> <li>☑ Are you getting certified weight tickets?</li> <li>☑ Are you getting detailed packing lists?</li> <li>☑ Do you know exactly what's happening to your material?</li> <li>☑ Dedicated Recycling Partner</li> <li>☑ Have you checked their accreditations?</li> <li>☑ Would a split load collection benefit your operation?</li> </ul>                                                                                                                                                                       |
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Vanden exists to make a real impact.

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