



Waste Nothing  
**Gain Everything**

## **Material Recovery Facilities**

Complete solutions for the Waste Management Industry

[www.bluemacmanufacturing.com](http://www.bluemacmanufacturing.com)





After extensively researching equipment from various suppliers, we decided on BlueMAC due to their build quality. We also found their installation engineers to be very professional.



**Jason McPolin,**  
**Managing Director, Irish Waste**





Our dedication to the customer and ongoing support throughout the entire life of our equipment, sets BlueMAC apart.

→ BlueMAC Support - page 27

## Convert costs to cash

Your complete solution for the design, build, installation and maintenance of robust Material Recovery Facilities (MRFs)

### BlueMAC guarantees you:

- **Innovative, bespoke designs to your exact requirements**
- **Experience and expertise in the field**
- **A single source for all design, manufacture and installation**
- **Robustly engineered equipment built at our extensive new facility**

→ Applications and BlueMAC Solutions - pages 6 to 11

→ BlueMAC complete product range - pages 12 to 26

**To discuss your requirements further with a member of our specialist team**

**Call: +44 (0)288 775 5139**

or email [sales@bluemacmanufacturing.com](mailto:sales@bluemacmanufacturing.com)

### Introducing BlueMAC

BlueMAC was formed when industry specialists Blue Group combined their expertise and customer focused ethos with one of Northern Ireland's leading engineering companies, DMAC.

DMAC Engineering has been supplying parts and equipment for the manufacture of heavy machinery and plants for over 20 years, specialising in the laser cutting, folding and welding of plate steel.

The coming together of these two market leading organisations means that BlueMAC can offer the most technologically advanced, heavy duty MRFs in the world at the most competitive prices.

We see this however as just the start of the relationship. What really sets BlueMAC apart is our dedication to the customer and ongoing support throughout the entire life of our equipment.

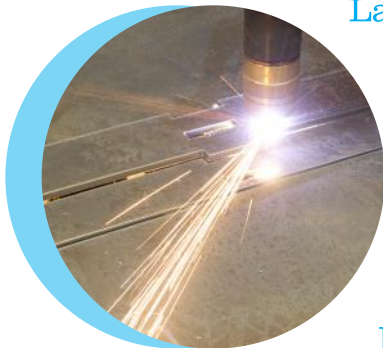


From the ground up  
**innovation and  
reliability is built in**

“ I recently visited the BlueMAC manufacturing facility to see some of our new plant during construction. I was thoroughly impressed by the quality of design and implementation of new ideas. ”

**Gary Short,  
Shorts Recycling**

## Robust precision engineering from our state-of-the-art facility in Ireland



Laser cutting is carried out on-site for optimum accuracy and finish.

Just one of the advanced measures we take to guarantee you stronger construction and plant longevity.

Our new 90,000sq feet state-of-the art manufacturing facility in Dungannon, Ireland, houses and operates some of the largest and most advanced steel cutting, bending and folding equipment in Europe. This means the manufacture of all elements of your plant is done in-house, giving us complete control throughout the entire process.

From concept to delivery, our focus is optimum engineering to ensure the highest possible profitability for your business - giving you maximum throughput and material quality with an equipment lifespan you can rely on.

### ■ Exacting quality control

From your initial enquiry through to design, development, fabrication, manufacture and finishing; everything is done within our facility under the guidance of our experienced qualified engineers. With our ISO 9001, 14001 & 18001 certifications you have complete assurance of quality.



### ■ Cutting edge innovation & technology

BlueMAC is able to drive down costs by reducing waste. This is achieved by investing in our manufacturing equipment, including a self loading laser machine which can run unmanned throughout the night and a specialised 4-way plate roller which provides increased circle accuracy when bending trommel drums. We also invest in the most talented personnel and ensure their continuous training and development.

### ■ Proven reliability

At BlueMAC we know how important it is to keep your machines running. That's why we place such emphasis on the quality of our raw materials and our manufacturing processes. Our plants have been installed throughout the UK and Ireland and we ensure that each is working to its maximum capacity, generating the greatest possible revenue from the sorted materials.

## Fines Clean Up

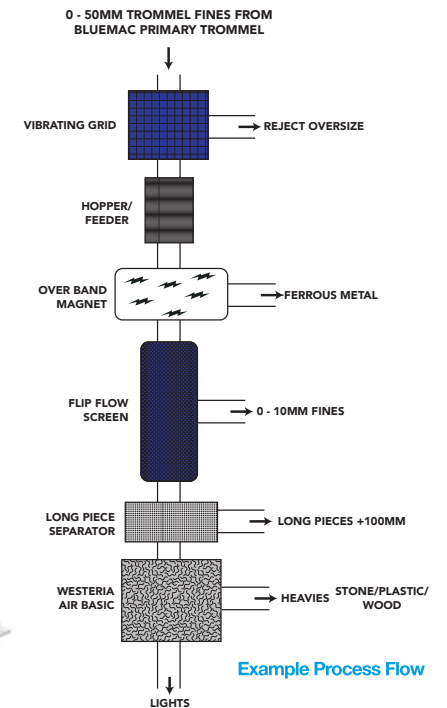
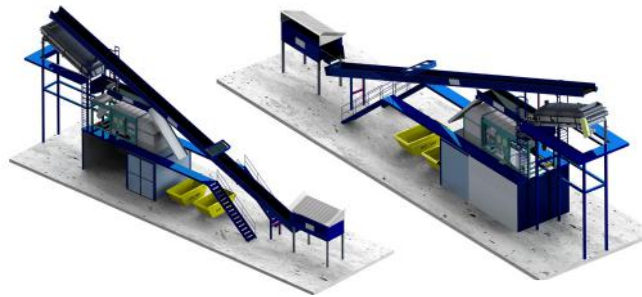
The introduction of the loss of ignition (LOI) test by the government, meaning fines containing more than 10% organic or combustible material will be subject to a considerably higher rate of landfill tax, is having a major impact on waste management companies. This legislation could mean an operator's landfill tax bill increasing from £20,000 to over £600,000.

Lower your landfill tax and create new revenue streams

## BlueMAC Equipment Solutions

A BlueMAC MRF can be designed to separate and 'clean up' the fines coming in to your site, removing calorific material which ignites under the government's LOI test. Examples of such components include:

- Vibrating and density separating equipment
- Mobile picking stations
- Optical separators
- Eddy Current separators



## Pre & Post Plant Equipment

The advantage of choosing BlueMAC, is we provide the industry's leading MRF components and offer world leading supporting equipment to ensure your site meets your specific objectives. Whether that be through the incorporation of air density separation equipment or a Doppstadt static pre-shredder, our experienced sales team can supply the solution and the equipment that best suits your business.

## Core Benefits

- ✓ Lower rate landfill tax increasing site profitability
- ✓ New revenue streams by recycling more separated material

# Waste to Energy

## RDF/SRF Production

Refuse Derived Fuel, (RDF) and Solid Recovered Fuel, (SRF) involves the process of creating fuel from waste. RDF is largely made up of municipal waste, consisting of combustible components such as biodegradable waste and plastic. This is then shredded and used within combined heat and power facilities where it can produce electricity. Solid Recovered Waste has a higher calorific value and is predominantly used within facilities such as cement kilns.



### BlueMAC Equipment Solutions

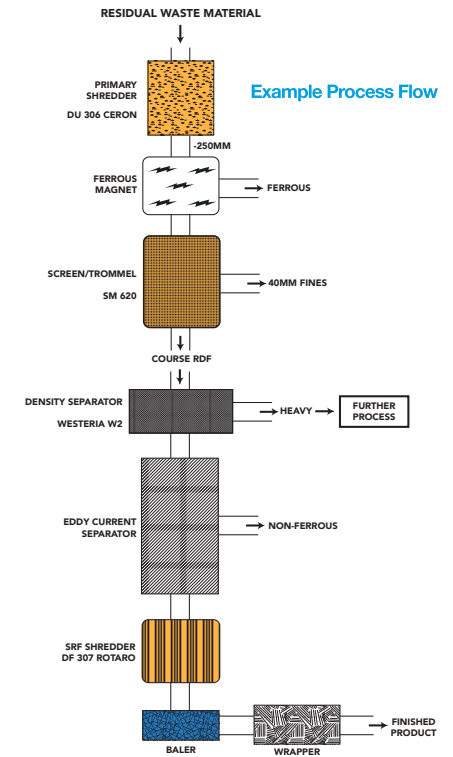
We offer a range of equipment that will allow your business to create RDF and SRF. These include:

- **Trommels**
- **Overband and cross-band magnets**
- **Hoppers/Feeders**
- **Ballistic separators**
- **De-stoners**

### Pre & Post Plant Equipment

One of the benefits of dealing with Blue is that we can create the perfect solution for your business by combining BlueMAC equipment with the world's leading machinery to support the process. For the production of RDF and SRF this can include:

- **Doppstadt static shredders**
- **Marathon balers**
- **Powerscreen screeners**



### Core Benefits

- ✓ **Reduces your landfill charges**
- ✓ **Creates an additional revenue stream**
- ✓ **Environmentally friendly by reducing reliance on fossil fuels**

## Construction and Demolition Waste

C&D waste consists of unwanted material created by the construction industry. It is largely made up of rubble, wood and concrete as well as nails, electrical wiring and even hazardous substances. Much of this material has a recyclable value which can again create a revenue stream and reduce a plants landfill volumes and therefore charges.

### BlueMAC Equipment Solutions

- Overband and crossband magnets
- Trommels
- Conveyors
- Vibrating pan feeders,
- Picking stations



### Pre-Post Plant Equipment

- Powerscreen screeners
- Westeria air density separators
- Fuchs material handlers



### Core Benefits

- ✓ Lower rate landfill tax & be more profitable
- ✓ New revenue streams by recycling more separated material

## Commercial and Industrial Waste

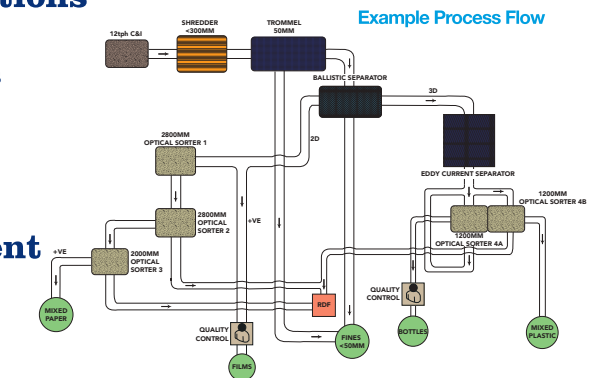
This type of waste is derived from premises which are used for the purpose of trade, education, health, sport or entertainment. As with other waste streams there are valuable materials contained within it which BlueMAC can separate out. This waste can also often contain a lot of light plastics which can be used for the production of RDF.

### BlueMAC Equipment Solutions

- Trommels
- Overband and crossband magnets
- Optical sorting technology
- De-stoner
- Eddy Current Separators

### Pre & Post Plant Equipment

- Air Density Separators
- Doppstadt Shredders
- Marathon Balers



### Core Benefits

- ✓ Less volume going to landfill
- ✓ RDF production





Extract light plastics for profitable RDF production via optical sorting technology

## Municipal Waste

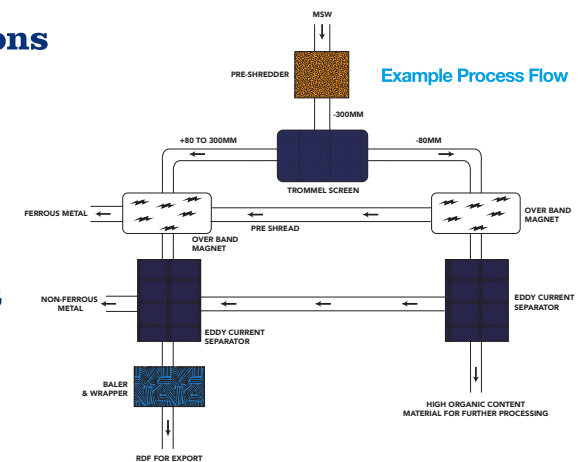
This is the general waste from residential properties, which is usually placed within black bags. A BlueMAC plant can separate out the diverse range of materials that can be found within this waste stream allowing for a large percentage to be recycled and the remainder to be converted into RDF to produce energy.

### BlueMAC Equipment Solutions

- Bag opening feeders
- Picking stations
- Trommels
- Ballistic separators
- Over-band and cross-band magnets

### Pre & Post Plant Equipment

- Doppstadt shredders
- Marathon balers
- Westeria air density separators



## Core Benefits

- ✓ Huge environmental benefits due to lower volumes going to landfill
- ✓ Lower landfill charges
- ✓ RDF energy production

## Dry Mixed Recyclables

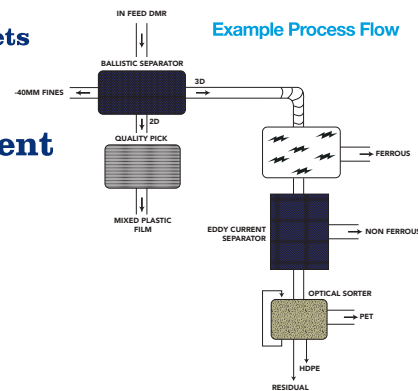
This particular stream is a mix of the recyclable elements of waste, such as paper, glass, plastic, cardboard and metals. Naturally this needs to be separated out so it can be baled and sold on.

### BlueMAC Equipment Solutions

- Optical sorters
- Eddie Current
- Over-band and cross-band magnets
- Blowers

### Pre & Post Plant Equipment

- Marathon balers
- Fuchs material handler



### Core Benefits

- ✓ Production of high value recyclables
- ✓ Low running cost machinery

## Green Waste

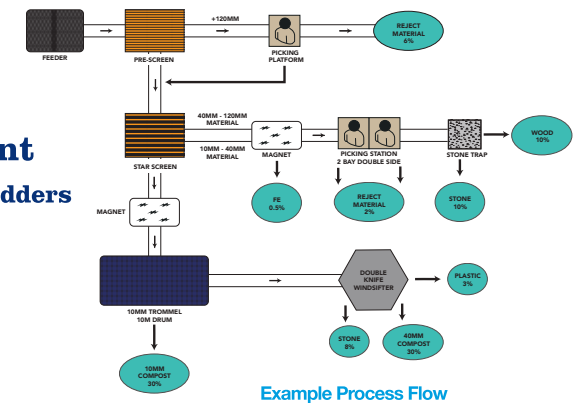
Green waste is that which is biodegradable, such as grass, branches, hedge trimming and flower cuttings as well as food waste. With the right equipment this waste can be converted into high grade compost.

### BlueMAC Equipment Solutions

- Trommel
- Belt feeder
- Picking station

### Pre & Post Plant Equipment

- Doppstadt high & slow speed shredders
- Fuchs material handler
- Doppstadt trommel screen



### Core Benefits

- ✓ High value revenue stream

# Scrap Metal

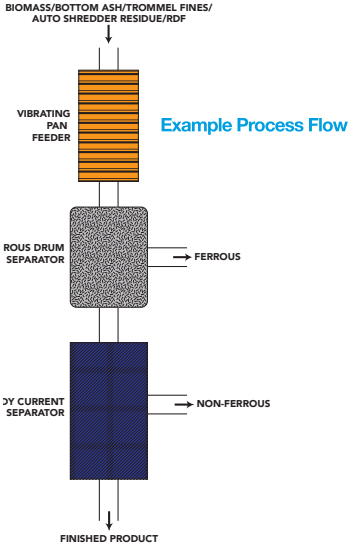
BlueMAC can implement the technology required to sort and separate both ferrous and non-ferrous material. This can be from pure scrap metal or from other types of waste streams.

## BlueMAC Equipment Solutions

- Eddy Current separators
- Mobile All Metal separator
- Over-band and cross-band magnets
- Picking stations

## Pre & Post Plant Equipment

- Fuchs material handler



Profit from waste ferrous and non-ferrous metal extraction

## Core Benefits

- ✓ High value revenue stream
- ✓ Creates end product free of metal contaminants



|| The decision to purchase a new MRF, as part of a £500,000 investment, was taken to make the business more efficient, safer and more profitable. We did look at other potential suppliers as well as BlueMAC but the final design and quality of build went in BlueMAC's favour, especially when combined with their vast experience and engineering capabilities. ||

**Williams and Williams  
Melin Plas Du Pwllheli**



## Feeders

BlueMAC specialises in all types of feeders for many industries. All can be built to any specification for even the most demanding applications.



### ■ Belt Feed Hopper

Our belt feeders ensure an efficient and consistent flow of material is fed into the plant to protect against surges. A tough and durable steel chassis offers life longevity.



Overspill discharge plates prevent material going underneath the hopper.

### ■ Pan Feeder

Our aggressive, heavy duty vibrating pan feeders are designed to deal with large quantities of the most challenging waste, including materials from the construction and demolition industries. Made to your exact specification our pan feeders deliver an even distribution of material to your MRF plant.

### ■ Bag Opening Feeders

Designed to penetrate and split the bags found in municipal waste, these feeders separate the material inside without shedding it into unmanageable pieces. This technology improves the efficiency of the recovery process in other areas of the plant.

### ■ Metering Drum

Our metering drum hopper incorporates a robust rotating drum that prevents material surges and ensures a consistent feed. This maximises the efficiency of the whole plant, producing material that is more easily sorted downstream, either by manual or automated processes.

[This is just a selection of feeders manufactured by BlueMAC. To discuss these and other potential options for your specific applications](#)

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# Screens

All BlueMAC screens are designed with maximum efficiency, throughput and serviceability in mind. As with all our plant components, we manufacture to the customer's exact specification.

## ■ Flip Flow Screens

Working with our partner Spalec, we can incorporate heavy duty Flip Flow screens within your MRF plant. The rigorous action of the screening frames allows for even the most difficult materials to be separated into a variety of sizes.


## ■ Trommel

Removing small fractions, commonly termed as fines, from the waste stream makes the remaining material easier to handle for both operatives and processing equipment.

The trommel drum holes determine the size of the fines extracted, with them usually being between 15mm and 40mm in diameter. Depending on your operation, waste stream and throughput volume, we design and manufacture the trommel and drum to meet your requirements, ensuring the effective removal of fines from the stream.



Maintenance friendly design on our screens and across the BlueMAC range.



What we saw and heard from the owners of the plants convinced us that a BlueMAC system was the best option, and of course our long relationship with Blue made the choice that much easier.

**James Brown, Murray Browns, Scarborough**

## ■ Ballistic Separators

Designed to separate out materials such as plastic film, paper, cardboard and fibres, as well as metal cans, plastic bottles, wood and stone. Light materials are pushed up the incline of the ballistic separator by paddles, with heavier materials bouncing or rolling down the separator's slope. Finer particles can also be collected with optional variable screen openings.

Our ballistic separators can handle a variety of different material types including municipal solid waste as well as commercial and industrial waste. Several separators can be configured to address various sorting challenges.

[For more information on these BlueMAC screens or to get a quote](#)

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“ What impressed us about BlueMAC was that they were focused on our requirements throughout the entire buying process, never trying guide us into what they wanted to sell. ”

**Robin Baird,  
Falkirk Council**

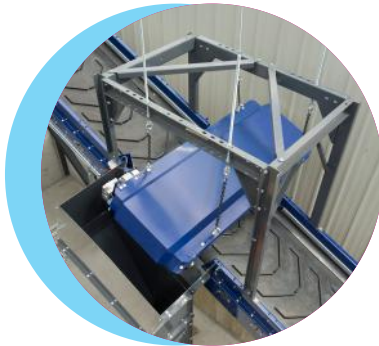


## Sorting

From picking stations to the high-tech sensor-based optical sorting technology, gain additional revenue streams via BlueMAC's reliable and cost effective sorting solutions.

### ■ Static Metal Separation

Metal - the most valuable recyclable material in any waste stream. BlueMAC offers a range of solutions for the safe removal of both ferrous and non-ferrous materials. Whether you are at the initial concept stage of a recycling system or require a retro fit to an existing plant.



Ferrous and non-ferrous metal - extract the most valuable material from your waste stream and increase your recycling plant's profit.

### Magnet for Ferrous Removal

By utilising various magnetic solutions, ferrous metals can easily be removed from the waste stream, significantly adding to the recycling plant's profitability in the process. Options include overband/crossband magnets as well as inline magnets.

These types of metal separators are suspended above the conveyors and as the waste passes underneath, the ferrous metal is pulled out. This is then moved to a release point and collected in a container.

### Eddy Current for Non Ferrous

BlueMAC Eddy Current solutions ensure efficient and effective recovery of non ferrous metal. Aluminium cans and copper recovery is a hugely profitable component in any plant and should be given serious consideration.

For further information about BlueMAC static metal separators or to get a quote

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## ■ Mobile Metal Separation

Our tracked, metal separators bring flexibility to a site. Naturally the ferrous and particularly the non-ferrous material can generate new revenue streams for your business. It is however also the quality of the remaining material, particularly wood for biomass, that is improved. Our customers often identify the opening of new markets due to the quality of their metal free biomass product, which also brings a higher price.



Our user-friendly control interface highlights, via an image of the machine, exactly what parts are being operated.

## ■ Mobile All Metal Separator

The Mobile AMS - All Metal Separator is a tracked self-propelled machine designed to separate ferrous and non-ferrous metals from the feed material. The machine consists of a vibratory pan feeder discharging onto a rare earth magnetic drum separator which in turn discharges onto the Eddy Current separator.

### Three conveyor discharge

Two conveyors discharge ferrous and non-ferrous material to the side of the machine and a third conveyor discharges the final screened product to the stockpile.

### Track mounted machines

All of the machine parts are mounted onto a chassis, which in turn is mounted onto a pair of tracks to allow for movement over uneven or unprepared surfaces.





## ■ Mobile Eddy Current Separator

The Mobile Eddy Current Separator is a self-propelled machine designed to separate non-ferrous metals from the feed material.

The machine consists of a vibratory pan feeder discharging onto a horizontal conveyor belt. The conveyor belt transports the material to the separating rotor at the head of the conveyor. As the material passes over the rotor Eddy Currents are induced in the non-ferrous metals. The Eddy Currents generate an electromagnetic force which repel the non-ferrous metal. This force affects the trajectory of the non-ferrous metals allowing a splitter plate to be positioned to separate the material streams. The splitter section of the machine includes three conveyors, two discharging to the front of the machine to stockpile the material screened from the non-ferrous metals. The third discharges to the side of the machine and conveys the non-ferrous metals to a suitable skip.



The mobility of the Eddy Current means that it can work in tandem with various shredders across a site.



Watch our All Metal Separator in action

Scan in the QR code to play the video on your mobile.



“ Their engineers and servicing department are of the highest standard. Blue’s back up is second to none as is their responsiveness. ”

**John Dennan,  
Alan Skips**

## ■ Picking Stations

BlueMAC picking stations or sorting cabins as they are also known, are designed with the safety and comfort of the operatives as a priority. Great consideration is given to lighting, dust suppression, emergency stops, shelter from the elements and working position throughout the design stage.

Although health and safety is primary in all our designs, BlueMAC also has to consider a number of other elements which are crucial to ensuring your picking station is right for you. The required throughput, waste stream to be handled, number of operatives and foot space available are crucial when considering the number of picking bays, belt width and length of cabin required for each specific project.

With our vast experience in the waste recycling sector, you can rely on BlueMAC to design and manufacture a picking station that allows your recyclables to be recovered efficiently in a safe environment for your staff.



Foot indentation to allow operative to work with correct body posture.

For further information about BlueMAC picking stations or to get a quote

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From innovative health and safety benefits to understanding our operational needs, the BlueMAC team understood our requirements throughout.

**R. Collard Ltd,  
London**



## Conveyors

BlueMAC manufactures solid, long-lasting conveyors to transfer all waste material throughout your plant.

The heavy duty, modular design features high impact, durable belts with energy absorbing bars, which can be altered in length at any time and retrofitted into existing sites. Our rollers can be changed quickly and easily to minimise downtime.



Extra wide stabilising supports for added strength and stability.

## Air Density Separator

Highly productive removal of contaminants from the waste material using controlled air. Our cost effective solution separates the material based on density, taking away the unwanted waste to leave a cleaner aggregate.

## De-stoner

Working closely with our partner General Kinematics, we install the most advanced DE-STONER® technology into our MRF plants. A de-stoner is a performance proven method of separation and classification for a wide range of recycled materials across a variety of industries.

Within the General Kinematics DE-STONER® models, the vibrating action and high velocity/low pressure air streams fluidise the material to remove the heavy items such as glass, metallics and stone.

## Optical sorting

Reduce sorting operatives and save costs. Optical sorting technology utilises a powerful light to identify material types. It calculates the volume of the light's wavelengths which are either absorbed or reflected back into a lens. Different types of material such as plastics, fibres, wood and rubble can then be classified and sorted using this method.

For further information about BlueMAC sorting equipment or to get a quote

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## Pre & Post Plant Components

**At BlueMAC we are delighted to be able to offer the world-leading range of Doppstadt equipment as part of our turnkey solutions.**

As a long standing Doppstadt customer we can supply the complete range of Doppstadt mobile and static machinery. From slow speed front end pre-shredders for volume reduction, to fine shredders and air density separators for RDF and SRF production, Doppstadt equipment can be integrated into new and existing plants.

Our teams work closely with you to ensure your Doppstadt shredder fully integrates within your process, with material input and output specifications thoroughly considered from the start.

### **Doppstadt Slow Speed Shredders**

Often used for volume reduction to prepare material prior to processing, the shredders ensure consistent piece size for the equipment and operatives to handle where necessary. Models in the range include the Doppstadt DW 206 Ceron, DW 2560E, DW 306 Ceron and the Doppstadt DW 4060E as well as the full range of mobile machines.

### **Doppstadt High Speed Shredders**

The world renowned high speed range utilises the free swinging flail principle combined with the grinding basket to reduce product down to exact sizes. Models in the range include the Doppstadt AK235E, NZ435E and the NZ180E.

### **Doppstadt Splitter technology**

This patented technology splits the material into three fractions. The small fractions fall through the gaps in the steel shafts, the light and long pieces will move in the direction of the conveyor and the cubical and heavy parts will be moved laterally.

### **Doppstadt mobile Windsifter technology**

Doppstadt mobile Windsifter technology separates the material into three fractions depending on the density of the material.



**Watch Doppstadt WS technology in action**

Scan in the QR code to play the video on your mobile.





## Powerscreen and Westeria

### ■ Powerscreen Screener

Powerscreen's mobile screening machines lead the way in technology, performance and reliability with the compact Warrior models being ideally suited to split your waste streams into more manageable fractions.

### ■ Westeria

The Westeria range of equipment works on the principle of using air density to separate the heavy inert stone material from the light RDF material. Initially the material is spread evenly onto a conveyor using patented disk technology. It is then presented to the initial separation area where a steel drum and air blower takes the lights over the top of the drum and the heavies fall to a conveyor below. The lights can then be further separated by density with the use of a suction chamber and further conveyor incorporated within the machine.



## Balers & Material Handlers

Need a solution for baling waste, cardboard, papers, plastics, metals, cans and other materials?

BlueMAC offers the complete range of Marathon balers including the renowned Gemini Xtreme, Galaxy twin ram and the high performance TIEger models.



### ■ Gemini Xtreme - Closed End Horizontal Baler

Marathon's medium volume baler with manual tie, the Gemini Xtreme allows you to process a variety of material such as PET, aluminium or steel cans, paper, plastics, OCC, newsprint and similar material.

### ■ Galaxy 2R - Twin RAM Baler

Large volume baler with a separate ram for compressing recyclable material against a fixed wall and a second ram for ejecting the finished bale. Galaxy 2R Two-Ram Balers are available in a wide variety of sizes to fit all baling applications and can easily be incorporated within your BlueMAC material recycling facility.

### ■ Auto Tie Balers - TIEger

Unique features and unrivalled performance gives 10% reduction in wire consumption and related costs. The patented gear twister is the most exciting technology to hit the baler industry in the past decade. This tier uses highly efficient gear twisters, which means there are no twisted hooks or pigtails. The significant amount saved will typically justify the initial purchase.



10% reduction in wire consumption and related costs from gear twister technology with the Marathon TIEger series.

### ■ Fuchs - Material Handler

Blue are able to offer the complete range of Terex Fuchs material handlers to ensure the efficient running of your facility. These machines have been specifically designed to help maximise the amount of material that is loaded into your BlueMAC MRF.

# Service & Support

**Our emphasis of working closely and developing lasting relationships with customers long after the initial sale sets BlueMAC apart from the competition.**

It is an ethos that has contributed significantly to the success and growth of the entire organisation and means our aftersales support is second to none. BlueMAC understands the importance of productivity and reliability and we appreciate the value in minimising downtime.



**Increase your uptime and maximise return on your investment - our engineers and OEM parts keep your BlueMAC equipment maintained and running throughout its lifetime.**

## **Our engineers**

Our network of fully trained OEM engineers are able to offer support whenever it's required. The team has over 50 years of collective experience in welding and fabrications with extensive, hands-on knowledge of machinery and equipment installation, meaning they are able to resolve most technical challenges quickly.



## **Installation - Peace of mind right from the start**

BlueMAC's engineers are fully trained to install all your machinery ensuring the equipment you have purchased is working to maximum capacity. Our team undertakes work in-line with the latest safety standards and manage the entire process, so your equipment is up and running in the shortest timeframe possible.

Our team are experienced, dedicated and highly motivated to work with you and your staff, offering training wherever it is required throughout the installation of your BlueMAC equipment. We will also carry out the installation at a time that is convenient to you, minimising disruption on your site.

## **OEM parts - Off the shelf and ready to go**

Increase your uptime and maximise return on your investment - all BlueMAC parts are manufactured to the highest standard and are available off the shelf for next day delivery.

[Contact BlueMAC for more details of our service and support](#)

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