

No. 10 The buyers' guide to screens and baggers

buyers' guide

CHOOSING the right screening and bagging equipment for your facility is not a simple task; there are a number of different machines available, new and reconditioned, all of which vary in capacity, size, feedstock suitability, and cost. Depending on the size and operating conditions of your facility, hiring or contracting services might be more economic than purchasing outright.

Many companies now offer screening and bagging services and they can provide good value for money, although it is worth planning ahead as peak season tends to arrive at the same time everywhere! Contracting, whereby the hire includes a machine operative, will remove the need for on-site trained operatives and thus reduce labour costs, similarly maintenance costs are also eliminated.

If you choose to purchase your own equipment there are several options, but first you should identify your requirements to ensure that the equipment's specifications meet your needs. The following checklist may help:

- Annual volume
- Peak demand
- Hourly capacity demand
- Input material type
- Input material size
- Range of product grades required
- Range of bag sizes

- Maintenance/running costs
- Equipment mobility

Compost screening equipment

Screening is the process of separating particles according to their size (similar to sifting flour). Some facilities screen their compost before maturation, some after; there are benefits to both approaches. Screens are basically machines that sieve material through a mesh and allow smaller material to pass through, usually to a conveyor.

Screening compost is the most common method of adding value. By screening you can remove large contaminants (like plastic bags) and produce compost of the right particle size for its intended use. Most of the compost sold as a soil improver in the UK is screened to a diameter of 10mm or less, most mulch to between 11 – 25 mm diameters. The particle size you need will depend upon your market's needs.

A variety of sizes and types of screening equipment are available, some with very sophisticated feeder mechanisms, variable speed motors and interchangeable components and accessories. When looking to purchase screening equipment it is important to give careful consideration to your processing efficiency requirements and to ensure your machinery meets these needs. In the UK, there are three common types of screening equipment: trommel screens, deck screens and star or finger screens.

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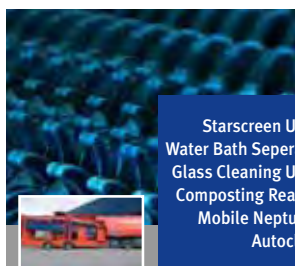
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Trommel screens

Trommels are the most popular type of screen used by the UK composting industry and consist of large rotating mesh drums, positioned at an angle. The material is deposited into the drum and as it rotates, the material passes through the drum with the required particle size passing through the mesh onto a conveyor. The oversize material remains in the drum and is discharged onto another conveyor once it reaches the end of the drum. The diameter of the holes in the mesh dictates the size of the screened fraction and the length of the drum dictates the throughput. A variety of mesh sizes are available and increasingly manufacturers are looking at making screens which enable the removal of more than one particle range.

Star/finger screens

Star screens use rubber star shaped components or discs, mounted on a series of rotating shafts. As the material passes over these, the smaller particles drop between the shafts onto a conveyor while the larger particles are carried forward. The speed at which the shaft rotates dictates the size of the screened fraction and throughput increases with the length of the star deck.

Deck screens

Deck screens are fitted with the desired mesh size and operate either on a horizontal plane or at an incline. The machine vibrates the compost across the mesh and particles of the desired size pass through leaving the oversize matter remaining on the mesh or discharged at the bottom of the incline. Finger screens are similar but utilise rubber fingers rather than a mesh.

There are a number of operational factors which need to be considered before investing in screening technology.

Markets and product grades

End markets, the type and the number of grades demanded will, to a certain extent, dictate what type of screening technology is appropriate for you. The grade of compost impacts on the productivity of the screen, as the smaller the grade, the longer it will take to screen a given amount of material and the greater the amount of oversize remaining at the end of the screening process.

As a rule of thumb, a 20 – 30 per cent drop in throughput is expected when screening 10 mm material compared to 20 mm. For instance, a trommel screen with a 5 m drum may screen 100 m³ per hour at 20 mm and around 65 m³ per hour at 10 mm. For this reason, always ensure that you specify what grade of compost is required when asking equipment suppliers for throughput figures.

All screening equipment can be adjusted to cater for varying end-product specifications, for example, changing the mesh size, or in the case of star screens, varying the speed at which the shaft rotates.

Feedstocks

The moisture content of the compost is extremely important during screening. If it is too high for the technology, the compost will form balls and stick to the mesh; this is often called 'blinding'. On the other hand, if the compost is too dry, the screening process can generate huge quantities of dust, a potential health risk to site workers. An optimum moisture range of below 40 per cent has been suggested.

To combat blinding, most trommels have brushes fitted to the outside of the drum so that as the drum rotates against the bristles, the holes are cleared. However, it is not always 100 per cent effective and brush effectiveness is one of the considerations to be taken into account when buying a screen.



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With finger screens and star screens, blinding is not a problem but the screening can be one dimensional if the operator does not select the appropriate shaft speed for the type of material being screened. This results in 'spiking', where material passes through which is the required size in one dimension but not in another i.e. 'pencils' of material which may be 10 mm in diameter but are 50 mm long.

Contamination considerations

Wood biodegrades very slowly and so it is often rejected during screening and results in what is known as 'oversize'. If it is badly contaminated it should be disposed of, otherwise it can be used to provide structure for the next batch of feedstock.

In addition to oversize, other non-compostable contaminants may need to be removed at the screening stage of the process. High levels of visible contaminants will have detrimental effects on the marketability of the product and need to be addressed. Ideally, contamination should be addressed prior to pre-composting shredding but some contamination may remain. It is possible to get bolt-on accessories for some types of screens, these include air separators for the removal of fine plastics, magnetic separators for extracting metals and vibrating belts for removing stones.

Flexibility

Whilst it is essential to choose the right screening equipment for your product needs, it is also important to choose equipment which meets your operational requirements and restrictions, including noise. If your facility has a dedicated screening area then you will probably prefer a semi/static machine with local circumstances determining whether it is electric or diesel. Alternatively, you might require a screen which can be easily moved from location to location.

Compost bagging equipment

Compost producers have traditionally sold in bulk. However, greater prices 'per unit' can be achieved by bagging the products and making it an attractive option. Moreover, it provides an opportunity to market the product further afield through dispersed outlet networks.

Increasingly, composts are being specially formulated with other materials for the growing media market which requires a high degree of technical knowledge. For this reason, producers may opt to sell compost in bulk to growing media manufacturers, which already have the production expertise and an established network for the sale of product through the retail or professional sectors. Alternatively, compost producers may wish to bag compost themselves, particularly if there is a local niche for a higher value product. After taking the decision to bag locally, there are several options which exist, including investing in new or used equipment and contract bagging.

Most small-medium size composters would be looking to exploit an opportunity locally, through selling the bagged compost to garden centres or landscapers, so are likely to use either 40 litre or 80 litre bags. The 40 litre bags generally retail at between £2 and £2.50. Bagging also provides the opportunity to create a brand image, conveying the quality of the product through the bag design and brand name, which may also help to promote the business as a whole.

The decision to bag the compost will undoubtedly require far more control in production as the quality promoted through the branding can only be sustained by a product that emanates quality. The material may have to be matured for longer and require less moisture than similar bulked products. Likewise, screening will require a greater degree of accuracy,

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and a clean product is essential. Once producers have followed the bagging route, it often makes more sense to produce a series of bagged products including potting mixes, soil conditioners and mulches, thus increasing the point of sale opportunities, without further capital outlay. It is important not to forget the potential benefits of using the design of the bag to develop strong branding and effective labelling.

Bagging options

There are three main types of bagging equipment which are available:

- pre-formed baggers – where the bags are pre-cut and bottom sealed, the bags are then loaded, filled and sealed automatically or manually.
- form-filled – where the bags automatically cut and

Deck screens

Company	Contact Number	Email	Website	Manufacturer	Model	Hopper capacity (cu m)
CGCS (Midlands) Ltd	01522869100	enquiries@countygrass.co.uk	www.countygrass.co.uk	Screen Machine	55D	N/A
CGCS (Midlands) Ltd	01522869100	enquiries@countygrass.co.uk	www.countygrass.co.uk	Screen Machine	55C	N/A
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Powertrack	
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Powergrid 1200	
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Turbo Chieftain 400	3.2
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Turbo Chieftain 600	4.6
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Turbo Chieftain 1400	8.75
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Turbo Chieftain 1800	9.5
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Turbo Chieftain 2100	8
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Turbo Chieftain 2100	8
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Turbo Chieftain 2400	8
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Warrior 1400	6.78
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Warrior 1800	6.78
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Warrior H3S	8.2

Star Screens

Company	Contact Number	Email	Website	Manufacturer	Model	Hopper capacity (cu m)	Throughput (tph)	Feedstock
Bollegraaf UK Ltd	0121 557 9700	ian@bollegraaf.co.uk	www.bollegraaf.com	Lubo	Mobile 'Neptunus'	5m³	Up to 100tph	Compost, peat, soil, (depending on material)
Bollegraaf UK Ltd	0121 557 9700	ian@bollegraaf.co.uk	www.bollegraaf.com	Lubo	Static system	5m³ / 10m³	Various - to suit	Aggregates, sludge,



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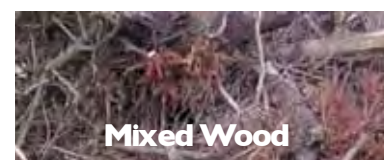


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bottom-sealed, filled and top sealed (akin to making a sausage), and

- baled – where material is seal wrapped from free (more commonly used for peat).

There are three main bagging equipment operations options available, ranging from manual to fully automated systems, depending upon the volumes that need to be processed.

Manual systems

Manual systems require a supply hopper, electronic scales and an impulse bag sealer that seals each bag one at a time. They require an operator to manually load each bag to the hopper; and then another operator to remove and seal it, and finally they are manually shrink-wrapped on pallets. These machines are capable of processing up to 10 bags per minute, but the

Throughput (tph)	Feedstock	Deck size	Perforation range (mm)	No. of decks	Power requirement (hp)	Engine type
40	Compost, inert material	1.5m x 1.5m	4mm - 75mm	2	5	Yanmar
60	Compost, inert material	1.5m x 1.5m	4mm - 75mm	2	10	Yanmar
600+	Aggregates, compost, soils	3.048m x 2.134m	Any	2	97	Deutz BF4M1012C
600+	Aggregates, compost, soils	3.048m x 2.134m	Any	2	78	Deutz BF4L1011F
up to 200	Aggregates, compost, soils	1.22m x 2.44m	Any	2	74	Deutz BF4L2011
up to 200	Aggregates, compost, soils	2.44m x 1.22m	Any	2	74	Deutz BF4L1011F
up to 500	Aggregates, biosolids, compost, soils	3.3m x 1.5m	Any	2	109	Deutz BF4M2012C
up to 500	Aggregates, biosolids, compost, soils	4.88m x 1.55m	Any	2 or 3	100	Cat 3045C DIT
up to 500	Aggregates, solids	6.1m x 1.55m	Any	2	109	Deutz BF4M2012
up to 500	Aggregates, solids	6.1m x 1.55m	Any	3	109	Deutz BF4M2012
up to 750	Aggregates, solids	6.1m x 1.83m	Any	2 or 3	174	Deutz BF6M2012C
up to 500	Aggregates, biosolids, compost, soils	3.6m x 1.5m	Any	2	109	Cat 3045 DIT
up to 500	Aggregates, biosolids, compost, soils	4.88m x 1.5m	Any	2	109	Cat 3045 DIT
up to 800	Aggregates, solids	6.1m x 1.93m	Any	3	174	Deutz BF6M2012C

Star size range (mm)	Star/finger speed variation fractions	Cleaning system	Additional separator? length	Mobile?	New/refurb/hire	Cost
165 / 235 / 330 / 660mm	Variable speed. 2-3 fraction	Patented 'cleaning finger'	Windsifter / magnet	Twin axle trailer or track	all 3	Starting at £170,000
165 / 235 / 330 / 660mm wood, C&D waste	(4mm - 500mm screening size)	Patented 'cleaning finger'	Windsifter / magnet	No	new	to suit

buyers' guide

involvement of manual labour means they are rarely going to work at the maximum level. In addition, larger bags will take longer to fill; likewise the time taken will be prolonged when using composts with higher moisture contents that are less friable.

Semi-automatic systems

Semi-automatic systems involve various parts of the system being automated and typically involve bags being manually loaded but automatically sealed with a continuous heated sealer. These machines are capable of producing up to 20 bags per minute but again labour will be the limiting factor.

Fully automated systems

Fully automated systems require an automatic in-feed conveyor, in-feed hopper, an upright bag conveyor and a sealer. The bags can then be palletised and shrink wrapped automatically.

It is implicit that such a diverse range of machinery will



result in large price variations. Brand new machines can range from approximately £25,000 for a manually operated machine to £100,000 for a fully automatic machine (which does not include the cost of palletising and wrapping). Most compost producers will not produce enough compost to invest in the fully automatic bagging lines which are used by the large growing media manufacturers and which operate daily at maximum production levels. They should look for a manual or semi-automatic machine, which are labour intensive but compost facilities employ labour for other tasks so their costs may not be unduly increased. It is possible to obtain a good quality second hand machine for approximately £10,000; however, it can be difficult to obtain second-hand heat sealers.

Contract bagging

Another option compost producers may consider is contract bagging. This is a highly specialised area carried out by few companies. It involves either transporting the compost to another site or setting the machinery up temporarily on site. This is likely to be a small machine and therefore the costs will have to include manual labour, particularly if carried out on-site. Scarcity of contract bagging companies results in widely varying costs, depending upon how far the equipment/compost need to travel.

Selling bagged composted products can be a highly effective mechanism for realising increases in sales revenue, especially from the retail and consumer markets. However, in order to realise the full potential of bagged products, compost producers and their sales teams should undertake intensive local market research. This research should identify what the local demand is likely to be for composts sold in bulk and bags and thus, whether investing in bagging technology or contract bagging is the best option. 🌱

Trommel Screens

Company	Contact Number	Email	Website	Manufacturer	Model	Hopper capacity (cu m)	Throughput (tph)	Feedstock
W H Bond & Sons Ltd	0800 298 36 32	matthew@whbond.co.uk	www.whbond.co.uk	Various			20-60	Compost
NexGen Composting Ltd	0064 3687 4437	skroening@nexgencomposting.com	www.nexgencomposting.com	NexGen	2TR00-206	6	60	Compost
CGCS (Midlands) Ltd	01522 869 100	enquiries@countygrass.co.uk	www.countygrass.co.uk	TIM Enviro	TS5220	5.7	150	Compost & inert material
CGCS (Midlands) Ltd	01522 869 100	enquiries@countygrass.co.uk	www.countygrass.co.uk	TIM Enviro	TS7020	5.7	170	Compost & inert material
Westcon Equipment (UK) Ltd	01258 859100	sales@westconuk.co.uk	www.westconuk.co.uk	Terra Select	T4	3.4	Up to 20	
Westcon Equipment (UK) Ltd	01258 859100	sales@westconuk.co.uk	www.westconuk.co.uk	Terra Select	T5	4.5	Up to 30	
Westcon Equipment (UK) Ltd	01258 859100	sales@westconuk.co.uk	www.westconuk.co.uk	Terra Select	T6	5	Up to 50	
Westcon Equipment (UK) Ltd	01258 859100	sales@westconuk.co.uk	www.westconuk.co.uk	Terra Select	T7	6	Up to 70	
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Trommel 511		Up to 80 TPH	Aggregatesolids, biosolids, compost, solids
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Orion 1400		Up to 100 TPH	Biosolids, compost solids
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Trommel 615		Up to 150 TPH	Aggregatesolids, biosolids, solids, compost
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Taurus 1800		Up to 200 TPH	Aggregatesolids, biosolids, solids, compost
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Trommel 830		Up to 250 TPH	Aggregatesolids, biosolids, solids, compost
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Phoenix 1200		Up to 100 TPH	Biosolids, solids, compost
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Phoenix 1600		Up to 150 TPH	Biosolids, solids, compost
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Galaxy 924		Up to 200 TPH	Aggregates, solids, biosolids, compost
Blue Machinery PLC	0845 230 4460	sales@bluemachinerycentral.com	www.bluemachinery.com	Powerscreen	Galaxy 933		Up to 250 TPH	Aggregates, solids, biosolids, compost
Menart	01252 658739	john.edstrom@ntlworld.com	www.menart-technology.com	Menart	TS-1535	15 - 40	25	Compost, green waste
Menart	01252 658739	john.edstrom@ntlworld.com	www.menart-technology.com	Menart	TS-1850	60 - 100	60	General waste
Menart	01252 658739	john.edstrom@ntlworld.com	www.menart-technology.com	Menart	TS-1860	80 - 120	70	General waste
Menart	01252 658739	john.edstrom@ntlworld.com	www.menart-technology.com	Menart	TR-1535	15 - 40	25	General waste
Menart	01252 658739	john.edstrom@ntlworld.com	www.menart-technology.com	Menart	TR-1850	60 - 100	60	General waste
Menart	01252 658739	john.edstrom@ntlworld.com	www.menart-technology.com	Menart	TR-1860	80 - 120	70	General waste
Menart	01252 658739	john.edstrom@ntlworld.com	www.menart-technology.com	Menart	TR-1535-T	15 - 40	25	General waste
Menart	01252 658739	john.edstrom@ntlworld.com	www.menart-technology.com	Menart	TRP-1535-E	15 - 40	25	General waste
Menart	01252 658739	john.edstrom@ntlworld.com	www.menart-technology.com	Menart	TRP-1535-D	15 - 40	25	General waste

Baggers

Company	Contact Number	Email	Website	Manufacturer	Model	Machine	Hopper load type
Firstgrade Recycling Systems	07771 818462	alan@first-grade.co.uk	www.first-grade.co.uk	Firstgrade		Volumetric bagger	Belt

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Working screen area (m ³)	Screen size (m ³)	Perforation range (mm)	No. of fractions	Discharge conveyor length	Additional separator?	Mobile?	Power requirement (hp)	Engine type	Cleaning system	New/ refurb/	Cost
		10-40	2		on request	Yes		Diesel	Brush	Hire	POA
35	38	8-100	Up to 3 + over	To suit	To suit	Stationary	35	Electric	Brush	New	POA
29		4-100	2	5m	yes	yes	100	Diesel	yes	both	POA
38		4-100	2 or 3	5m	yes	yes	100	Diesel	yes	both	POA
18.5	21	5 - 80	2/3	3400mm	Yes	Yes	51	Cummins Typ A 2300	Brush	New	POA
25	28	5 - 80	2/3	4900mm	Yes	Yes	81	Perkins Diesel Type 11140	Brush	New	POA
33	38	5 - 80	2/3	4900mm	Yes	Yes	122	Perkins Turbo Diesel Type 1104C-44TA	Brush	New	POA
47	52	5 - 80	2/3	4900mm	Yes	Yes	122	Perkins Diesel Type 1104	Brush	New	POA
		< 100mm	3	4.83m	Y	Y	74	Deutz BF4L201 IF	Brush		
		< 100mm	3	2.96m	Y	Y	82	Caterpillar 3054C DINA	Brush		
		< 100mm	3	3.33m		Y	84.5	Caterpillar 3054 C	Brush		
		<150mm	3	3.70m		Y	99	CAT 3054 DIT	Brush		
		<150mm	4	3.32m	Y	Y	135	Deutz BF6L913	Brush		
		< 100mm	3	5.47m	Y	Y	82	Caterpillar 3054C DINA	Brush		
		< 100mm	3	5.72m	Y	Y	125	Caterpillar 3054C ATTAC	Brush		
		<150mm	3	on request	Y	N	2 x 15Kw	Electric/Hydraulic	Brush		
		<150mm	3	on request	Y	N	4 x 15Kw	Electric/Hydraulic	Brush		
16.5	1.50 x 3.50	4 - 400	2 OR 3	N / A	Air Separator	Stationary	6 kW	Electric-driven	OH Brushes	New	Per Spec
30	1.80 x 5.00	4 - 400	2 OR 3	N / A	Air Separator	Stationary	22 kW	Electric-driven	OH Brushes	New	Per Spec
35	1.80 x 6.00	4 - 400	2 OR 3	N / A	Air Separator	Stationary	22 kW	Electric-driven	OH Brushes	New	Per Spec
16.5	1.50 x 3.50	8 - 100	2	3 or 5	2.7	Mobile	45 HP	Diesel	OH Brushes	New	Per Spec
30	1.80 x 5.00	8 - 100	2	3 or 5	2.7	Mobile	80 HP	Diesel	OH Brushes	New	Per Spec
35	1.80 x 6.00	8 - 100	2	3 or 5	2.7	Mobile	80 HP	Diesel	OH Brushes	New	Per Spec
16.5	1.50 x 3.50	8 - 100	2	3 or 5	2.7	Mobile	80 - 100	Tractor PTO	OH Brushes	New	Per Spec
16.5	1.50 x 3.50	8 - 100	2	N / A	N / A	both	6 kW	Electric-driven	OH Brushes	New	Approx. £18,000
16.5	1.50 x 3.50	8 - 100	2	N / A	N / A	Mobile	35 HP	Diesel	OH Brushes	New	Approx. £25,000

Hopper mechanism	Throughput capacity (cu m)	No. of (tpa)	Variable forming tubes	Bag rate dosing?	Bag feed output per min	Palletizer/ input	New/ wrapper?	Cost refurb/ hire
3.5	7.5	1	Yes	6	Manual	Optional	New	From £35 000

buyers' guide

Compost Certification update

The producers and compost products profiled below show-case some of the recent certifications within the Association's growing Compost Certification Scheme



Scottish Water Waste Services

Donald MacBrayne, Waste Services Manager



'Compliance and certification provides the independent seal of approval of the quality and care that we take in producing Pod. This has helped to build trust with prospective customers in an emerging market.'

Profile

Organisation:	Scottish Water Waste Services
Process location:	Deerdykes Composting & Organics Recycling Facility, Mollins Road, Cumbernauld, North Lanarkshire, G68 9AZ
Process type:	Open air turned windrow
Input materials:	Green, paper, wood, cardboard, fibre board, malt screenings source-segregated
Input quantity:	35,000 tonnes per annum
Certified product:	Soil improver
Particle size grade:	0 – 20 mm
Certification code:	SWWI-0020
Product quantity:	18,000 tonnes per annum
Product Type:	Pod Soil Booster
Sales enquiries:	Brian Pirie, 0131 4456874

Case Studies

Market sector:	Professional horticulture
Customer / Client:	Historic Scotland - Dirleton Castle
Application:	Dirleton Castle has boasted a garden since its earliest days as a medieval fortified residence. Today, there is a colourful blend of traditional formal gardens and more contemporary plantings including – as the Guinness Book of Records testifies – the world's longest herbaceous border. The castle attracts ten's of thousands of 'green' tourists from all over the world annually. Historic Scotland's Conservation and Gardens department actively uses peat-free compost product in line with their policies on sustainability and green tourism. Rate: a total of 50 tonnes of Pod used as a soil improver within Dirleton Castle's world famous herbaceous border. Method: Manually spread. Project date: April - May 2006
Description:	Peat free 20 mm Pod compost used as a soil booster, for existing herbaceous borders. Pod soil booster was manually applied and dug in giving numerous benefits; specifically it provided a source of organic matter rich in micro and macronutrients which gave the soil a more workable structure. This led to improved root growth and better plant establishment throughout the treated beds. Pod has provided a sustainable, green product that has enabled Historic Scotland to maintain its high gardening standards, while keeping loyal to its green credentials.
Outcomes:	Mark Allen Head Gardener at Dirleton Castle, commended Pod stating "We are really impressed with Pod's rich content and organic matter. We are applying Pod throughout the entire border as a well deserved soil booster" The plants took to the soil and benefited from the readily available nutrient content.

Worm Tech Ltd

Jackie Powell, Managing Director



'Achieving PAS100 compliance and certification means that we are able to promote our product to additional markets and increases the value of our compost. It also encourages the workforce to work to specific standards and targets and increases the awareness of all processes and procedures on the site. We feel that it is official recognition of the quality of the material we are producing.'

Profile

Organisation:	Worm Tech Ltd
Process location:	Caerwent Army Training Camp, Caerwent, Monmouthshire, NP26 5XL
Process type:	In-vessel and open air windrow process
Input materials:	Green waste (plant materials) & food wastes source-segregated
Input quantity:	6,300 tonnes per annum
Certified product:	Soil improver
Particle size grade:	0 – 25 mm
Certification code:	WTCI-0025
Product quantity:	3,000 tonnes per annum
Sales enquiries:	Jackie Powell, 02920 522561 / 07960 513721

Case Studies

Market sector:	Agriculture
Customer / Client:	OJ Stephens & Co. Limited – chose our compost soil improver because it is so good for his purposes
Application:	Location: Castle Farm Penhow, Newport, Gwent Currently taking approximately 200 tonnes per week – deliveries/collections began in May 2007.
Description:	Benefits will be increased water retention, a decrease in the need for fertilisers and improved nutrient values
Outcomes:	Customer is very pleased with the quality of the product but as yet it is too early to prove the benefits

Market sector:	Land restoration
Customer / Client:	Neal Soil Suppliers Limited
Application:	Used to mix with top soil to produce an excellent soil suitable for land restoration. Currently taking approximately 75 tonnes per week – collections began in 2006 and the customer is very pleased with the quality of the product.
Description:	Benefits – when mixed with top soil it produces a lighter and finer material which is easier for spreading.
Outcomes:	Customer is very pleased with the quality of the product and is continuing to collect loads on a regular basis



TJ Composting Services Ltd ~ Benimons Road

Simon Reed, Site Manager

PAS 100 encourages product uniformity across the composting industry and our agricultural customers are now beginning to look for certified compost products. Many of our consumers, trade-horticultural and retail customers are unaware of this standard but we anticipate that more will demand it as it becomes more widely enforced. Before adopting PAS 100, this company was following a regular testing programme and achieving excellent retail and agricultural quality compost. We are now more aware of control methods and critical temperature monitoring. Given the costs and time required and limited positive impact on sales to date, we believe there are advantages to industry that have yet to be realised.



Profile

Organisation:	TJ Composting Services Ltd, ex Beddingham Compost Company Limited	
Process location:	Benimons Road, A26, Lewes, East Sussex, BN8 6JX	
Process type:	Open air; turned windrows	
Input materials:	Green waste (plant materials), source-segregated Input quantity: 10,000 tonnes per annum	
Certified product:	Soil conditioner	Soil conditioner
Particle size grade:	0 – 10 mm	0 – 25 mm
Certification codes:	BCCI-0010	BCCI-0025
Product quantity:	2,000 tonnes per annum	8,000 tonnes per annum
Sales enquiries:	Simon Reed, 0273 858511	

Case Studies

Market sector:	Professional – Turf Growing and Laying
Customer / Client:	C.B. Winter and Sons
Application:	Soil blending using Southdowns Fine 10 mm. 50/50 mix rate. Mixed in customer yard. Continuous process.
Description:	Mix is with sandy loam giving a soil based product used for turf laying and ground levelling
Outcomes:	A fine finished product, giving excellent turf establishment and promoting ongoing grass growth

Market sector:	Agriculture
Customer / Client:	Mole End Farms Ltd
Application:	25 mm Sussex blend supplied to various farms in Kent. Spread rate selected by customer and soil report.
Description:	Mixed arable farming
Outcomes:	Positive outcome expected

Vital Earth Ltd

John Wakefield, Technical Director



'As our new Genie and Vitalizer ranges are sold to the retail market having the badge of quality the PAS100 offers is essential to differentiate our products from lesser composts.'

Profile

Organisation:	Vital Earth Ltd	
Process location:	Sutton Farm, Sutton, Market Drayton, Shropshire, TF9 2HZ	
Process type:	In-vessel system	
Input materials:	Paper & cardboard, wood, green & catering waste source-segregated	
Input quantity:	10,000 tonnes per annum	
Certified product:	Ingredient in growing media, soil improver & topsoils	
Particle size grade:	0 – 10 mm	
Certification code:	VE1-0010	
Product quantity:	2,900 tonnes per annum	
Sales enquiries:	Malcolm Rich, 07970 003801	

Case Studies

Market sector:	Nursery Garden
Customer / Client:	Designs in Green
Application:	Location: Kent Period: July 2006
Description:	Genie Vital Earth
Outcomes:	The nursery used Vital Earth's peat-free Genie compost, and was impressed not only by how easy it was to use, but also by how healthy the plants looked, grown in this ecologically sound medium. Recommendations were passed on to customers.

Market sector:	Nursery Garden
Customer / Client:	Jo Gardens
Application:	Location: Penarth Period: Chelsea Flower show 2006
Description:	Genie Vital Earth
Outcomes:	Jo Penn was amazed by how easy the compost was to work with because it was lightweight and friable. Three months later, the plants had doubled in size and looked magnificent and healthy. Plants used agapanthus, geranium maderense and palmatum, euphorbia, callistemon pallidus (yellow bottlebrush), fan palm and lots of succulents such as, aeonium, echeveria, agave.

Agricultural Supply Co. (Fairford) Ltd

John Clay, Managing Director

'The speed with which we achieved certification confirms our ability to produce a quality product, as opposed to just handling waste!'



Profile

Organisation:	Agricultural Supply Co. (Fairford) Ltd	
Process location:	Welsh Way, Sunhill, Cirencester, Gloucester, GL7 5SY	
Process type:	Open air; turned windrow	
Input materials:	'Green waste' (plant materials), source-segregated	
Input quantity:	10,000 tonnes per annum	
Certified products:	Soil improver for agriculture	
Particle size grade:	0 – 40 mm	
Certification code:	AGS1-0040	
Product quantity:	6,600 tonnes per annum	
Sales enquiries:	John Clay, 01285 850292	

Case Studies

Market sector:	Agriculture
Customer / Client:	Philip Gilder
Application:	Location: central Cotswolds Rate: 17 t/ha Method: agricultural manure spreader
Description:	Soil type: brash over limestone Plant species: oil seed rape Benefits: increased nutrients, water retention and trace elements
Outcomes:	The product seems very consistent. We anticipate yields will increase.

Market sector:	Agriculture
Customer / Client:	Furzey Farm
Application:	Location: Cotswolds Rate: 12 t/ha Method: muck spreader Approx date / period: May 2007
Description:	Maize grown as pheasant cover and habitat for other wild birds.
Outcomes:	Anticipates the compost will act as a useful soil improver.

Premier Waste Management ~ Joint Stocks

Den Blewitt, Compost Manager

'As a PAS 100 2005 supplier we are able to tender and supply for any work which stipulates the need for that type of product, which is becoming significantly more and more, which in turn opens up the market place for our product.'



Profile

Organisation:	Premier Waste Management
Process location:	Joint Stocks Recycling Centre, Coxhoe, County Durham, DH6 4RT
Process type:	Open air turned windrow
Input materials:	Green waste (plant materials), source-segregated Input quantity: 30,000 tonnes per annum
Certified product:	Soil improver
Particle size grade:	0 - 12 mm
Certification code:	PWM-JSI-0012
Product quantity:	20,000 tonnes per annum
Sales enquiries:	Colin Dickinson, 01913 844000

Case Studies

Market sector:	Land restoration
Customer / Client:	WRAP / Soil Environment Services Ltd / Faber Maunsell
Application:	Remediation of former coke works site.
Description:	Blending PAS 100 2005 material with colliery shale and paper crumble to construct a suitable growing media.
Outcomes:	Phase 1 of the Project is now nearing completion and early indications are that the use of the material has been a big success and will be used in Phase 2 next spring

Agrivert Limited

Alexander Maddan, Managing Director

'PAS 100 has installed increased confidence in many of our customers, particularly those producing organic products and those involved in the quality end of the market.'



Profile

Organisation:	Agrivert Limited
Process location:	Crowmarsh Compost Site, Benson Lane, Wallingford, Oxfordshire, OX10 6SL
Process type:	Open air, turned trapezoidal windrow
Input materials:	Green waste (plant materials), source-segregated
Input quantity:	25,000 tonnes per annum
Certified product:	Soil improver
Particle size grade:	0 - 40 mm
Certification code:	AGV2-0040
Product quantity:	15,000 tonnes per annum
Sales enquiries:	Harry Waters, 07977 997722

Case Studies

Market sector:	Agriculture
Customer / Client:	Crowmarsh Battle Farm
Application:	Location: Crowmarsh Gifford, Wallingford, Oxon Rate: 21 tonnes per hectare Method: surface spread followed by incorporation Approx date: July - October '07
Description:	Land use: wheat, rape and poppies
Outcomes:	Customer is very pleased with the benefits with a significant reduction in chemical fertiliser.

Premier Waste Management ~ Tyne Dock

Den Blewitt, Compost Manager

'Gaining PAS 100 2005 was always the goal from which we set out to achieve, and as we work in conjunction with the local authority it has given everyone the assurance of using a high quality product, which is produced locally and shows the benefits from recycling.'



Profile

Organisation:	Premier Waste Management
Process location:	Tyne Dock Recycling Centre, Jarrow Road, South Shields, Tyne & Wear, NE34 9PS
Process type:	Covered aerated static piles
Input materials:	Green waste (plant materials), source-segregated
Input quantity:	10,000 tonnes per annum
Certified product:	Soil improver
Particle size grade:	0 - 12 mm
Certification code:	PWM-TDI-0012
Product quantity:	5,000 tonnes per annum
Sales enquiries:	Colin Dickinson, 01913 844000

Case Studies

Market sector:	Professional / amateur horticulture, soft landscape construction / maintenance
Customer / Client:	South Tyneside MBC
Application:	Various local authority park beds
Description:	To ensure the continued growth and development of plants and shrubs after planting into flower beds throughout the councils parks & gardens
Outcomes:	Local awareness of the benefits from composting has greatly increased and the visual impact is also noticeable

TJ Composting Services Ltd ~ Cookham Road

Charlie Trousdell, Managing Director

'PAS 100 is crucial for us to maintain our high level of sales.'



Profile

Organisation:	T J Composting Services Ltd
Process location:	Cookham Road, Swanley, Kent
Process type:	Open air, turned windrows
Input materials:	Green waste (plant materials), source-segregated
Input quantity:	20,000 tonnes per annum
Certified product:	Soil conditioner
Particle size grade:	0 - 35 mm
Certification code:	TJCI-0035
Product quantity:	10,000 per annum
Product Type:	Agri blend
Sales enquiries:	Charlie Trousdell, 01273 858511

Case Studies

Market sector:	Agriculture
Customer / Client:	AV Produce
Application:	Location: Swanley Kent Rate: 30 tonnes ha Method: spreader
Period:	autumn
Outcomes:	Already the farm are seeing the benefit of the use of the compost in terms of stronger growth however it will probably be next year before benefits are full realised

Events Diary

International Society for Horticultural Science symposium

2 - 8 September 2007

Nottingham Trent University

For more information, visit

http://www.ntu.ac.uk/science/school_news/ishs/

RWM 2007

11 - 13 September 2007

NEC, Birmingham

For more information, visit

www.rwmexhibition.com

Growing with compost: how meeting landfill directive targets creates opportunities for economic, social and sustainable community regeneration

21 - 23 September

Lee Valley Youth Hostel, Cheshunt, Herts

For more information, visit

<http://www.communitycompost.org/events/index.htm>

ACR+ conference - Better Regulation - Waste

9 October 2007

Cultural Centre Wolubilis, 1200 Brussels

For more information, visit

<http://www.acrplus.org/betterregwastebxl>

Master Composter Schemes Seminar - promoting home composting through volunteer schemes

16 October

Bishops Wood Environmental Centre,

Stourport, Worcestershire

For more information, visit

<http://www.homecomposting.org.uk>

Waste Management '07 Seminar

23 October Barbican, London

Event Details -

<http://www.publicserviceevents.co.uk/main/overview.asp?ID=3 T>

Inaugural RWM conferences programme revealed

An impressive line-up of industry experts will be speaking at the new RWM 07 Conferences, taking place at the Recycling and Waste Management exhibition at the Birmingham NEC, from 11 to 13 September.



Introduced in response to visitor demand, the six sector-specific conferences will provide practical, in-depth information on specific waste sectors, as well as looking at the wider implications of waste strategies and new technologies.

Day one will focus on developments in plastics recycling, waste minimisation, composting and kitchen waste, and construction and demolition waste. The second day's programme analyses the future of waste management together with the emerging strategies, alternative technologies and vehicle and plant innovations that may be required to achieve them.

The scope of the conference will be broadened on day two, when the future of waste management will be explored. Day two's early afternoon alternative technologies session will feature presentations on new recycling technologies, an assessment of the environmental impacts of waste management options, using the latest lifecycle simulation software, developments in energy from waste and the pros and cons of advanced thermal technologies, biomass and energy from waste.

Finally, the Conferences will close with a practical session on the vehicle and plant technology needed to achieve the UK's strategic waste management targets. Talks will be given on kitchen waste collection options, construction waste site segregation techniques, multi-modal waste collection and disposal systems and new technologies in highway sweeping.

Each session costs £99 (all prices ex VAT), or you can save money by booking three sessions for £250, or all six sessions for £495. To book your place at one or more of our intensive Conference sessions, visit <http://www.rwmconferences.com>, or to register for the exhibition see <http://www.rwmexhibition.com/>

The Larac Conference 2007

www.larac2007.co.uk

New strategies - new directions

14 - 15 November 2007

Telford International Centre

The LARAC Conference 2007 is the Local Authority Recycling Advisory Committee's annual forum. It provides a platform for discussion of the most pressing and current issues in waste management and recycling for local authorities and their partner organisations. The two day residential event is taking place in Telford and features a keynote address from Ben Bradshaw MP, Minister of State at Defra as well as examples of Europe-wide best practice. The main topics for the conference and attached workshops tackle the UK's biggest waste challenges, including climate change, kitchen waste, commercial waste collections and waste minimisation.

Who should attend?

Recycling Manager, Recycling Officer, Waste Management Officer, Head of Waste Management, Waste Minimisation Officer, Waste Campaign Officer/Manager, Head of Environmental Services, Environmental Services Manager, Representatives of Recycling/Waste Management/Compost Companies, Environmental Consultants, Representatives of Waste/Recycling Machinery/Equipment Suppliers, Representatives of Environmental Charities.

Post to: LARAC Conference 2007

Conference Registration

Ground Floor 33-39 Bowling Green Lane
London EC1R 0DA UK

Tel: 0845 056 5626

Fax: 020 7505 6001

Email: laracconference@emap.com

Advance event information: Get your ROCs off with AD!

Hilton National Hotel, Coventry 25th September 2007

In Waste Strategy 2007, food waste collection is being mooted as the next move that local authorities take to achieve landfill diversion targets. How should this be done? Are there links with commercial waste? How do you process the material, dry or wet anaerobic digestion? Is there an outlet for the digestate, what can be done with the biogas? Should biogas be optimised and how do you claim for ROCs? These are just some of the issues that will be debated at this event. So if you are a local authority or commercial company considering taking the AD route or a provider looking to expand into AD and you need to find answers to some or all of these questions come along on 25th September 2007 at the Hilton National Coventry. For more information on attending the seminar, e-mail: events@ciwm.co.uk For more information at exhibiting at the seminar, e-mail jenni@compost.org.uk

The Composting Association

would like to welcome the following new members:

Mr Mike Simpson, Spaldington Compost Co Ltd
Mr Michael Reid, Environmental Resources Management
Mr Paul Van der Werf, Environmental Resources Management
Mr Robert McIntyre, PUT Community Co-operative
Mr Tony Heselton, Alpha Eco
Mr Douglas Backhurst, CP Backhurst & Co Ltd
Dr Philip Putwain
Mr Mark Caul, Marks & Spencers
Mr Mike Riby, Environment Agency - Bristol
Mr Michael Drury, Greenfields Greenwaste
Asef Basheer Farouque, Green Force (pvt) Ltd
Mr Neils Olesen, Crestmont Limited
Mrs Francine Pownier, J & F Pownier Limited
Mr Mike Hayward
Mr Nitin Deshpande, Trio-Chem Techno-Legal Services Pvt. Ltd