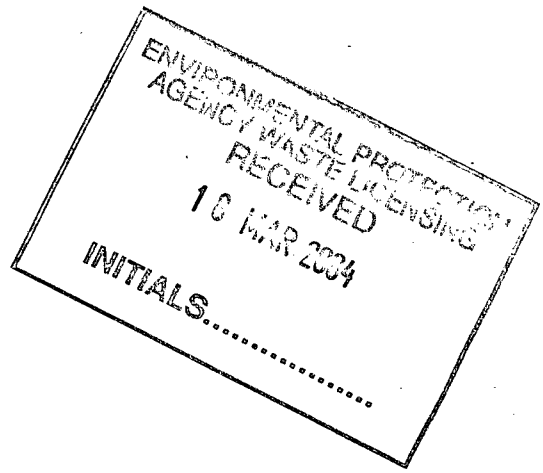


Appendix 2

Status of Planning

SIMON CLEAR & ASSOCIATES
PLANNING AND DEVELOPMENT
CONSULTANTS

Mr. Geoff Parker,
Environment & Resource
Management Ltd.,
3 Tara Court,
Naas,
Co. Kildare.

12th February 2004

Re: Research in relation to application Reg. Ref. 2492/78

Dear Geoff,

Further to my conversation with Conor Wall dated 5th February 2004, further research was undertaken at Wicklow County Council and An Bord Pleanala in relation to Wicklow Co. Co. planning application Reg. Ref. 2492/78.

On the 10th February 2004 Wicklow County Council were requested to produce a statement in writing indicating that they were unable to produce file 2492/78. This statement has not been made available by Wicklow County Council.

An Bord Pleanala contacted us today after searching their archives for appeal reference number PL 43504. (The appeal Ref. Re: 2492/78). They have informed us that the file has been culled, incinerated and is therefore no longer available.

If you would like to discuss this matter further please do not hesitate to contact me.

Regards,

P.P. Simon Clear.

3 TERENURE ROAD WEST,
TERENURE,
DUBLIN 6W.
IRELAND.

Phone: 00-353-1-492 5934
Fax: 00-353-1-492 7617
E-mail: admin@clearconsult.ie
Vat No. 6328240C

087 2500592.

SIMON CLEAR & ASSOCIATES
PLANNING AND DEVELOPMENT
CONSULTANTS

FAX COVER SHEET

To Company: E.R.M.	From: Simon Clear
Attn: Geoff Parker	Date: 9 Feb 04.
Copy:	Total number of pages incl. cover: 4
Fax No:	Re: Whitestown, Wicklow.

☐ Urgent ☐ Reply ASAP ☐ Please comment ☐ Please review ☐ For your info

COMMENTS

Decision attached. (poor quality)

Simon checked with Bord Pleanala again today. They are still trying to find further information for us.

We will copy you as soon as we receive it.

Dorothy O'Byrne.

3 TERENURE ROAD WEST,
TERENURE,
DUBLIN 6W.
IRELAND.

Phone: 00-353-1-492 5934
Fax: 00-353-1-492 7617
E-mail: admin@clearconsult.ie
Vat No. 6328240C

Simon Clear BA Dip. T.P. M.I.P.I.
Conall Newman B.A. M.R.U.P. M.I.P.I
Administration Manager: Dorothy O'Byrne B.A.

Pl. 27: 43504

AN BORD PLEANALA

LOCAL GOVERNMENT (PLANNING AND DEVELOPMENT ACTS, 1963 AND 1976

County Wicklow

Planning Register Reference Number: 2492/78

APPEAL by Edward and Mary Brady of Whitestown, Stratford - on - Slaney, County Wicklow and Thomas West, "Ravens", Castleruddery, Donard, County Wicklow against the decision made on the 19th day of September, 1978, the Council of the County of Wicklow deciding to grant subject to conditions a permission to Sand Gravel and Stone Limited for development comprising the provision of a portable gravel washing and granting plant on a site at Whitestown in accordance with plans and particulars lodged with the said council:

DECISION: Pursuant to the Local Government (Planning and Development), Acts, 1963 and 1976, it is hereby decided for the reason set out in the First Schedule hereto, to grant permission for the said development in accordance with the said plans and particulars, subject to the conditions specified in column 1 of the Second Schedule hereto, the reasons for the imposition of the said conditions being as set out in column 2 of the said Second Schedule and the said permission is hereby granted subject to the said conditions.

SCHEDULE

It is considered that the development carried out in accordance with the permission granted by this order would not be injurious to the amenity of residential property in the vicinity or of the area and would be consistent with the proper planning and development thereof

(Cont.)

SECOND SCHEDULE

Column 1 - Conditions	Column 2 - Reasons for Conditions
1. The access located at the south western corner of the site shall not be used as an access to the quarry and a wall 2 metres in height suitably rendered and capped shall be erected along the southern boundary for a distance of 10 metres from the said south western corner.	1. To protect the amenities of the adjoining house.
2. The inside of the walls and roof of the galvanised iron building surrounding the screen section of the grinder shall be lined with thin resin bonded fibre glass of thickness of 25mm and all silencers in the grading and washing unit shall be maintained in good working order.	2. To protect the amenities of residential properties in the vicinity from excessive noise.
3. The unauthorized access point approximately midway along the road frontage shall be permanently closed and the boundary reinstated.	3. Orderly planning
4. Before the plant is put into operation the following shall be submitted to and agreed with the planning authority or failing agreement shall be as determined by An Bord Pleanala.	4. (a) To minimise noise nuisance.
(a) A scheme for monitoring noise levels at such times, intervals and locations and maintaining such levels as the Planning Authority may determine.	(b) and (c) To secure satisfactory eventual rehabilitation of the site.

(Cont.)

Column 1 - Conditions	Column 2 - Reasons for Conditions
(b) A scheme for the landscaping and reinstatment of the lands showing proposals for the replacement of any waste materials, clay and soil so as to, make the land suitable for agricultural, recreational or other suitable use and consistent in appearance with surrounding land including any seeding, planning or landscaping considered necessary.	
(c) Security by way of a bond of an approved Assurance Company or similar guarentee or lodgement of a cash sum for the satisfactory completion of the reinstatement works necessary to rehabilitate the site when quarrying has ceased.	
(d) A scheme of tree planting along the western boundary of the site.	(d) to protect the visual amenities of the area.

A Denis Pringle

Member of An Bord Pleanala duly authorised to authenticate the seal of the Board.

Dated this 2nd day of March 1979

SIMON CLEAR
PLANNING AND DEVELOPMENT
CONSULTANT

Mr. Geoff Parker,
Environment & Resource
Management Ltd.,
3 Tara Court,
Naas,
Co. Kildare.

29th January 2004

Re: Research in relation to application reg. ref. 2492/78

Dear Geoff,

Further to your letter dated 9th January 2004 research was undertaken at Wicklow County Council and An Bord Pleanala in relation to Wicklow Co. Co. planning application Reg. Ref. 2492/78.

After a two day intensive search we were unable to uncover any further information upon the planning history/status of the site. Please find enclosed the report outlining the research undertaken and the problems encountered.

If you would like to discuss this matter further please do not hesitate to contact me.

Regards,

Simon Clear.

3 Terenure Road West,
Dublin 6W.
Tel: 00 353 1 492 5934
Fax: 00 353 1 492 7617
admin@clearconsult.ie

Vat No. 6328240C

Research Report

For

Geoff Parker,

Environment & Resource Management Ltd.

In Relation to:

Wicklow County Council,

Reg. Ref. No. 2492/78,

Whitestown, Stratford on Slaney, Wicklow.

An intensive two day search was undertaken on Tuesday 27th and Wednesday 28th January 2004 at the offices of Wicklow County Council and via public access in An Bord Pleanala, in order to ascertain the planning history/status of the site subject of planning application Reg. Ref. 2492/78, Whitestown, Stratford on Slaney, Co. Wicklow.

The relevant file was requested from Wicklow Co. Co. to be viewed. The Council have their older files archived in microfiche form at their offices in Wicklow Town. File 2492/78 was requested with the intention of viewing and printing the relevant documentation. The planning department searched for the relevant microfiche but was unable to find it at its correct location in the filing cabinet. An internal email was sent around the offices at Wicklow Co. Co. requesting information with regards the location of the microfiche. It is possible the slide has been removed for prosecution purposes.

Members of the Enforcement Department (Tim Walsh and Fiona Smith) and the Environment Department (Dave Connelly) were requested to provide information using their general knowledge with regard to the site. They all knew the location of the site but had no further knowledge with regard to the planning history or status of the site.

The following day there had been no response to the internal email and the microfiche had not been located. Another avenue of research was undertaken using the councils register reference maps. The location of every application to the council is plotted and recorded on their register reference maps. Planning history can be obtained by locating any applications that were plotted at the site. The old register reference maps were requested. We were informed that the maps that the council possessed only dated as far back as 1987. The application in question dates back to 1978. The maps they did have were viewed. These were in the form of A3 maps and GIS maps on the computer system. No application relating to the subject lands were located through this search.

During this time An Bord Pleanala were also attempting to obtain the appeal reference number in relation to the planning application from Wicklow Co. Co., with no success due to the same problems that we were encountering. Without an appeal reference number the Bord were unable to provide copies from their records. The Bord needed the help of Wicklow Co. Co. to obtain their archived appeal reference number.

We will continue to investigate through whatever channels that may become available.

Yours sincerely,

pp. Simon Clear.

Simon Clear.

LOCAL GOVERNMENT (PLANNING AND DEVELOPMENT) ACT, 1963

NOTIFICATION OF DECISION TO GRANT PERMISSION/APPROVAL

(SUBJECT TO CONDITIONS) UNDER SECTION 26 OF THE ACT

COUNCIL OF THE COUNTY OF WICKLOW

TO Mr. Colm G. Scallon,
C/o Sand Gravel & Stone Ltd.,
Whitestown,
Stratford-on-Slaney.

Ref. No. in Planning Reg. 2497/78

Application Received 19th April, 1978

P.I.R.R. 3rd August, 1978 &
14th August, 1978

In pursuance of the powers conferred upon them by the above mentioned Act, Wicklow County Council have by order dated 18 September, 1978 decided to grant a permission/an approval for the development of land, namely:-

Portable gravel washing and grading plant at Whitestown.

SUBJECT TO THE CONDITIONS SET OUT IN THE SCHEDULE ATTACHED HERETO.

If there is no Appeal against the said decision a grant of permission/approval in accordance with the decision will be issued after the expiration of the period within which an Appeal may be made to An Bord Pleanala (see footnote).

It should be noted that until a grant of permission/approval has been issued the development in question is NOT AUTHORISED.

Signed on behalf of Wicklow County Council:

COUNTY SECRETARY

Date: 19 September, 1978

NOTE: An Appeal against a decision of a Planning Authority under Section 26 of the Act of 1963 may be made to An Bord Pleanala. The applicant for permission may appeal within one month beginning on the day of receipt by him of the decision. Any other person may appeal to An Bord within three weeks beginning on the date of the decision.

Appeals should be addressed to An Bord Pleanala, Holbrook House, Holles St., Dublin 2. An Appeal by the applicant for permission should be accompanied by this form. An Appeal to An Bord will be invalid unless it is accompanied by a deposit of £10.00. In the case of An Appeal by any other person the name of the applicant, particulars of the proposed development and the date of the deicison of the Planning Authority should be stated.

LOCAL GOVERNMENT(PLANNING & DEVELOPMENT) ACT, 1963

Reference Number in Register: 2492/78

1. The inside of the galvanised iron building which surrounds the screen section of the grader shall be lined on walls and roof with 1" (25mm) thick resin Bonded Fibreglass Type 425.

REASON: In order to reduce noise contribution from this component of the plant.

2. Silencers shall be maintained in good working order on all plants.

REASON: To minimise noise levels in order to ensure that the proposals will not adversely effect the amenities of the area.

3. A barrier shall be constructed between the Brady residence and the path of trucks. This barrier shall consist of a wall or an earthen mound.

REASON: To minimise noise levels in order to ensure that the proposals will not adversely affect the amenities of the area.

4. Noise levels shall not exceed acceptable standards as decided by I.I.R.S. The developer shall make arrangements with the I.I.R.S. for the monitoring of noise levels as and when required by the Council.

REASON: To ensure that the noise level does not exceed acceptable standard.

5. During dry weather dust shall be controlled by water spraying.

REASON: To avoid the creation of any nuisance.

6. The developer shall ensure that no pollution arises or is caused to existing water sources or water supplies and adequate steps shall be taken as necessary to illuminate any such pollution source arising from the development.

REASON: In the interests of public health and amenity.

7. A rehabilitation and re-instatement programme shall be carried out to the satisfaction of Wicklow County Council including top soiling,screening, and any necessary planting. Within a period of one month from the date of grant of permission the applicant shall lodge security with the Council for the satisfactory completion of rehabilitation and rehabilitation works. This security shall be given by-
   (a) Lodgement with the Council of an approved Insurance Company Bond in the amount of £2,000 (two thousand pounds). If development has not commenced within one calendar year from the date of grant of this

permission, the Council may at its discretion require an increase in the amount of the bond corresponding with increases of estimated increases in the costs of provision of the services which may have occurred since that date.

(b) Lodgement with the Council of the sum of £2,000 (two thousand pounds). If development has not commenced within one calendar year from the date of grant of this permission, the Council may at its discretion require an increase in this amount corresponding with increases or estimated increases in the costs of provision of the services which may have occurred since that date.

REASON: To ensure satisfactory completion of the site development works.

Appendix 3

Composting Report

BROWNFIELD RESTORATION IRELAND LTD.

REPORT ON

CENTRALISED COMPOSTING FACILITY (CCF)
AT
WHITESTOWN LOWER, CO. WICKLOW.

Prepared By:
Environment & Resource Management Ltd.
No. 3 Tara Court,
Naas, Co. Kildare.

Tel.: (045) 874411
Fax: (045) 874549
Email: info@erml.biz

March 2004

TABLE OF CONTENTS

1. INTRODUCTION

A Centralised Composting Facility (CCF) is a component of the proposed waste management infrastructure to be established at the BRI Facility. The CCF is part of the Resource Recovery Building (RRB). The proposed composting technology and processes are described in the following sections.

2. OVERVIEW OF COMPOSTING PROCESS

The CCF will be designed to handle 10,000 tonnes per year of imported food wastes and green wastes from C&I and Household sources as well as possible wood wastes recovered from previously deposited wastes (i.e. for use as an amendment to the composting process).

2.1 Technology

An in-vessel composting technology has been selected (Wright Environmental Management Ltd. as distributed by SRS Sustainable Recycling Solutions to ensure appropriate composting is applied to the incoming feedstocks as well as to minimise potential nuisances associated with composting (e.g. odour, leachate). Green wastes will be used to amend the incoming food wastes. Wastes that have been composted in the in-vessel system will be cured (i.e. finished) in outdoor windrows at the site.

An area will be provided on the site to compost excess green wastes in windrows and to cure the in-vessel derived compost. The area will be a hardstand with a drainage system or on the surface of wastes deposited in lined areas.

A brochure and a number of photos describing the composting technology (Wright) are presented in Appendix 4. The location of the composting tunnels at the proposed facility (2 shown) is depicted in Drawing BRI/103 (see Volume III).

The composting process is described in the following sections.

2.2 Process Description

2.2.1 Phase 1 (Pre-processing and Feedstock Preparation)

It is proposed that wastes received for composting will have been collected in some type of container, as opposed to a bag, to minimise contamination (i.e. plastic). Wastes will be received at the Resource Recovery Building (RRB). They will include food wastes and green wastes.

2.2.1.1 Food Wastes

Depending on the quality of the incoming source separated food wastes they may be sent over a picking line to remove contaminants.

Food wastes will be loaded into a mixer. Amendment material (e.g. wood chips, sawdust) will be mixed with the feedstock material. Specific compost recipes that ensure the appropriate levels of nutrients, moisture content, pH etc. will be developed. Typically a ratio of 1 part feedstock to 1-2 parts amendment (on a volume basis) is utilised.

Any residual wastes removed from the incoming feedstock will be sent to an appropriate disposal facility.

It is estimated that up to 90% of incoming feedstocks will be compostable (i.e. up to 10 % contaminants).

2.2.1.2 Green Wastes

Green wastes, consisting of leaves and brush may be run through a shredder for size reduction purpose. An example of a possible shredder is presented in Appendix 4.

Some green wastes will be used as amendments for the composting process (i.e. mixed with food wastes).

2.2.2 Phase 2 (Composting)

Composting is a process of converting organic waste, utilising the various forms of microbes that are naturally occurring in organic waste. The products of this microbial activity are heat, carbon dioxide, water and organic matter.

The rate of composting of organic waste is positively correlated to the level of microbial activity. The level of microbial activity is dependent on the requirements of the microbes and the degree to which the composting system can satisfy these requirements.

To sustain a high rate of microbial activity, it is essential that water within the composting materials is maintained between 55% and 65% and that oxygen levels are maintained above 12%.

Proper blending of the feedstock will ensure that it has sufficient moisture when it enters.

Proper blending of the feedstock will also ensure that it has sufficient porosity to allow the air supply system to provide a generous amount of oxygen.

Temperatures are an indicator of the level of microbial activity and the rate of conversion of organic waste. After pathogen reduction experience

dictates that the optimum level for composting of organic waste is 55^0 C to 60^0 C. By controlling temperatures in this thermophilic range within the tunnel, maximum conversion is achieved.

3. Detailed Description of Composting Technology

3.1 Description of Composting System

For this project 2 No. ca. 36m Wright Environmental Management Inc. composting tunnels, capable of processing 10,000 tonnes per annum are proposed. The tunnel will have a waste retention time of 14 days. Details of the tunnels are provided in the enclosed Drawing prepared by SRS.

The infeeds of the composting tunnel will be within the RRB. Composting material is moved in a plug flow fashion through the Wright composting tunnel, in about fourteen days. Material is supported on a tray flooring, which is pushed forward as a continuous unit by an external hydraulic ram.

When the ram is moving an empty tray into the tunnel, all trays within the tunnel are moving forward. As an empty tray is being inserted, compost from a single tray is being unloaded at the tunnel end using a series of horizontal augers. The augers discharge the compost from the unloading tray onto a conveyor and the cleaned tray emerges from the tunnel ready for inspection and re-use.

Surges of waste can be accommodated simply by advancing more segments of tray flooring than on typical days.

Pathogen reduction requirements are met within the first 7 days of processing. After day 7 the organic waste is moved to the second half of the composting tunnel (for a further 7 days of processing) by specially engineered spinners. The incorporation of a mixing process in the tunnels is a unique aspect of this technology. It assists in the reduction of particle size and remixes the organic waste for further decomposition. Any required water can also be added at this time.

During the composting process supply fans provide additional air (fresh or re-circulated) to the composting process. Tunnel aeration is controlled via the collection of temperature and oxygen data. Exhaust fans remove off-gases and discharge them to a biofilter. Any leachate generated will be directed to the on-site leachate management system via underground piping.

The Wright system features full data-logging capabilities, including continuous temperature monitoring, to ensure that the various composting requirements are being consistently achieved.

3.2 Key Design Features

Key design features, which make the composting system efficient and cost-effective, are:

1) Proven technology
2) Rapid thermophilic composting allowing a limited retention time
3) Continuous tray loading operations
4) Mixing of wastes in tunnel
5) Sophisticated containment and treatment of all composting exhaust air
6) Corrosion resistant tunnel interior surface
7) Ease of operation of tunnel through automatic material and tray/floor advancement and automatic control of airflow, temperatures and oxygen
8) Control system flexibility through manual adjustments to supply air humidity and temperature
9) Maintenance of oxygen levels above 15%
10) Temperature levels within set point ranges
11) Continuous data monitoring and storage capabilities

3.3 Process Control Features

3.3.1 Animal By-Products Regulation Requirements

The Wright system has been designed with features that lend itself to efficiently address the requirements of the Animal By-Products Regulations 2003 (Statutory Instrument 2003 No. 248S).

The Wright system is capable of attaining the 60^0 C or 70^0 C time and temperature requirements. This is accomplished by setting temperature control set points at 62^0 C or 72^0 C respectively. Compost tunnels are fitted with an auxiliary heating system to ensure that all organic waste is subjected to pathogen reducing temperature requirements. Compost tunnels are fitted with temperature sensors that collect data internally and at the tunnel walls, to ensure that temperature requirements are met throughout the composting mass. After these temperatures have been attained the temperatures are maintained at $55\text{-}60^0$ C. Therefore, temperatures are controlled to facilitate high rate composting in the thermophilic regime for the duration of the composting process within the tunnel.

Within the composting tunnel waste that has attained temperature and time requirements is kept separate from wastes that have not attained these temperatures (i.e. two halves of tunnel).

Furthermore, distinct input and output ends of the tunnel will facilitate specific and distinct "unclean" and "clean" parts of the composting process.

3.3.2 Aeration and Odour Control

Aerobic composting is supported by aeration utilising a network of supply fans. Upon demand, through temperature control, air under positive pressure from a supply fan is supplied to the material via air plenums beneath the mass. These air plenums are used to equally distribute the air and the perforated tray flooring forces air to distribute evenly through the material. Compost tunnels include test ports for the collection of oxygen levels, using a manual probe.

Tunnels are fully enclosed and sealed by effectively maintaining negative pressure in each tunnel. Any odours, which may be produced within the tunnel, are captured through the continuous operation of the tunnel exhaust fans. Air exhausted from the tunnels will be passed through a biofilter, where naturally occurring bacteria remove any remaining odours before the air is released to the environment. In this manner, all potentially odorous air generated within the tunnel is collected, contained and treated.

The biofilter is a natural filtration system, which cleanses the air stream of organic and inorganic odorous compounds. Wright biofilters are carefully designed to ensure effective removal through proper mass loading, balanced air distribution and long air residence time. The biofilter medium is specially blended to sustain physical and biological activity through ideal organic content, surface properties, porosity, pH and moisture content. The biofilter is approximately one metre in depth constructed with piping laid in a base of water washed stones covered with a carefully selected mixture of organic materials.

3.3.3 Temperature Control

In composting processes, control of temperature using a temperature feedback system is an efficient means to supply oxygen. Temperatures are maintained to facilitate pathogen reduction requirements and to ensure optimum high rate composting conditions.

3.3.4 Moisture Control

Water is often cited as the limiting factor in a composting process. Optimum conditions for composting of organic waste at 60% moisture are met through feedstock blending and/or water addition during pre-processing. As there are no reliable moisture sensors, moisture samples will need to be manually collected and analysed.

3.3.5 Leachate Control

Any leachate generated in the composting tunnel will be directed by underground pipe to the on-site leachate management system.

3.3.6 Prevention and Mitigation of Potential Environmental Nuisances

The Wright system has the ability to prevent or mitigate all potential environmental nuisances that may emanate from the composting process.

Pathogen Reduction

Heat is a by-product of the microbial activity within the composting tunnels. This heat benefits compost quality by killing off pathogens, seeds and other elements, which are not desirable in the final compost product.

Temperatures to meet Animal By-products Regulations are discussed above.

Odours

Composting of organic wastes, by its very nature, entails management of putrescible materials, which are prone to degradation. If this conversion occurs without the presence of oxygen, anaerobic bacteria flourish producing a number of odorous compounds as by-products. Aerobic composting, if managed properly, does not produce unacceptable odours. A sufficient supply of air and water, and structural porosity ensures that aerobic microorganisms flourish.

Monitoring of temperatures within the tunnel and computerized operation of the air supply fan ensures that aerobic conditions are maintained and odours are not produced. Any odours, which may be produced within the tunnel, are captured through the continuous operation of the tunnel exhaust fan, which effectively maintains the tunnel under negative pressure. Air exhausted from the tunnel passes through the biofilter, where naturally occurring bacteria remove odours before the air is released to the environment.

Water Quality

The tunnels are fully enclosed and sealed. Any excess leachate generated in the tunnel will be directed by underground pipe to the on-site leachate management system.

Noise Levels

Equipment mounted on the tunnel includes auger motors and supply and exhaust fans. Noise levels associated with the operation the auger motor are rated at 75 dB(A) at source. Noise levels associated with supply and exhaust fans are rated at 91 dB(A) and 92 dB(A) 5' from the fan acoustic source with open inlets. With ductwork attached, these fans are rated at approximately 70 dB(A). In actual operating conditions at existing facilities, fans generate less noise than the auger motor.

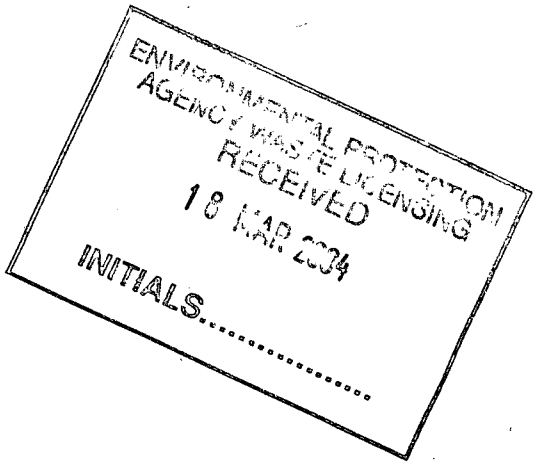
Wright provides enclosures for fans and motors where appropriate.

Dust

Composting takes place in enclosed tunnels. It is not expected that any dust will be generated.

Pests, Vermin and Vectors

As Wright composting tunnels are fully enclosed and pests, vermin and vectors are not attracted to the organic waste during the composting process. Processing equipment and tunnel loading systems are designed to facilitate good housekeeping procedures.



Appendix 4

Plant and Equipment

maintenance

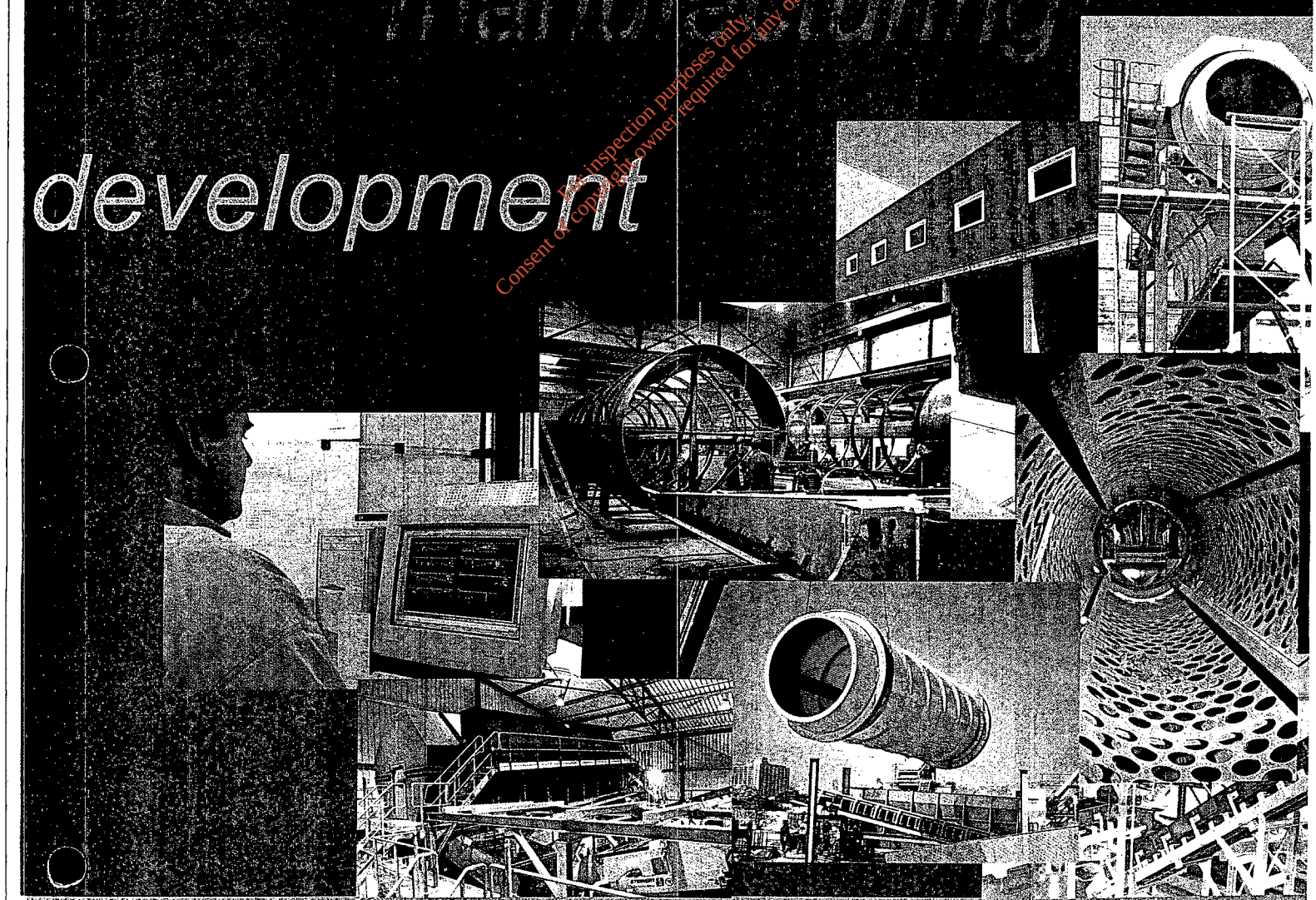
HIDDING

consultancy

mounting

manufacturing

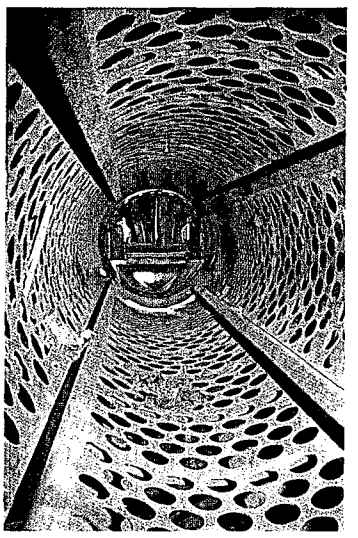
development



RECYCLING TECHNOLOGY

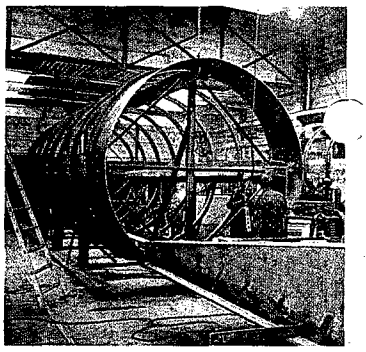
Afvalscheiding met een hoog rendement

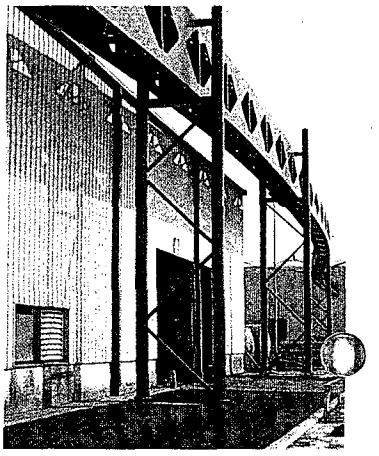
Afval heeft een economische waarde, mits het op een effectieve manier gescheiden wordt in bruikbare grondstoffen. Hidding Milieutechniek BV heeft de kennis, de ideeën, de ervaring en de middelen om dat te realiseren. Voor veel nationale en internationale klanten hebben we complete afvalscheidinginstallaties ontworpen en opgeleverd. Daarnaast leveren we ook componenten zoals zeeftrommels, magneetbanden, non-ferroscheiders, transportbanden, sterrenzeven, sorteercabines, bordessen en trappen. Alle installaties en componenten worden gemaakt voor zwaar industrieel gebruik.
On-geshredderd bouw- en sloopafval, industrieelafval en huisafval worden met zeer hoge rendementen gescheiden in verschillende fractie-afmetingen en afvalstromen. U mag dan ook rekenen op een bedrijfszekere werking, een minimum aan onderhoud, een lange levensduur en een hoog rendement.



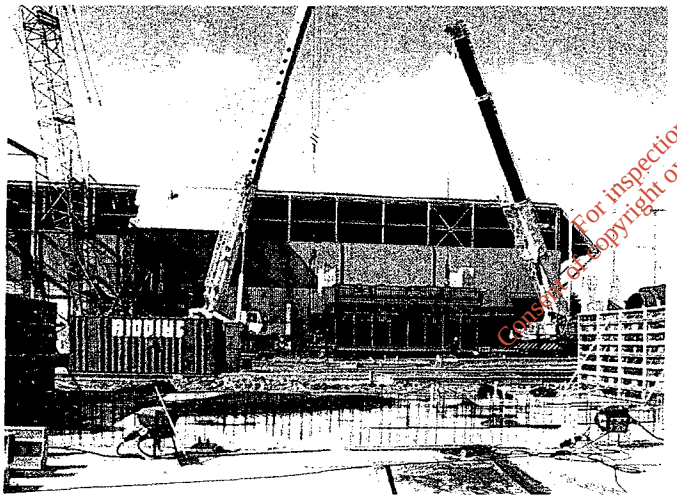
Drumscreen inside

Manufacturing drumscreen





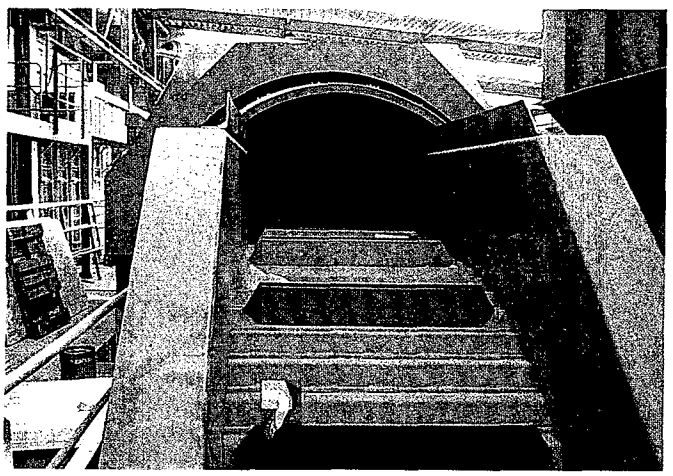
Pipe-conveyer



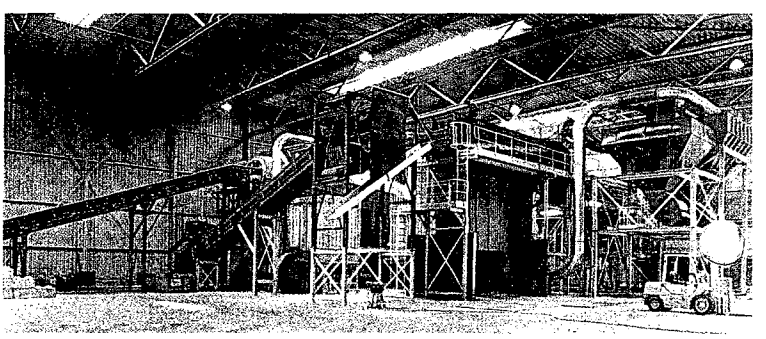
Mounting of drumscreens

High output waste separation.

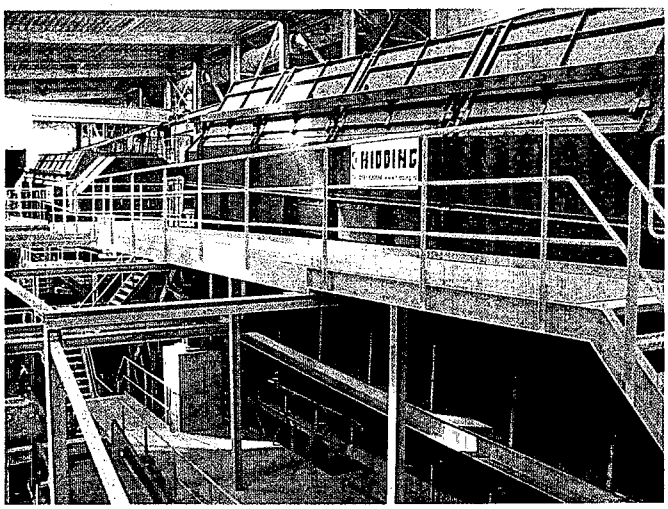
If waste is separated effectively, valuable components can be recovered. Hidding Recycling Technology has the knowledge, ideas, experience and the means to realise this. We have designed and constructed turn-key waste separation projects for many national- and international customers. Furthermore, we deliver components like, rotating drumscreens, overband magnets, Eddy Current belts, heavy duty conveyorbelts, starscreens, platforms and stairs. Installations and components are build for heavy industrial use.
Non-shredded construction- and demolition waste, industrial- and domestic waste are separated effectively into several fraction sizes and 'mono' wastestreams.
You may expect reliability, minimal maintenance, high lifetime and a high efficiency from our products.



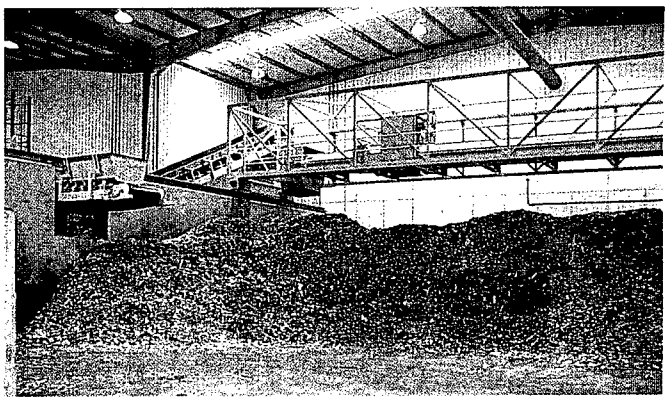
Steel apron conveyer at inlet drumscreen



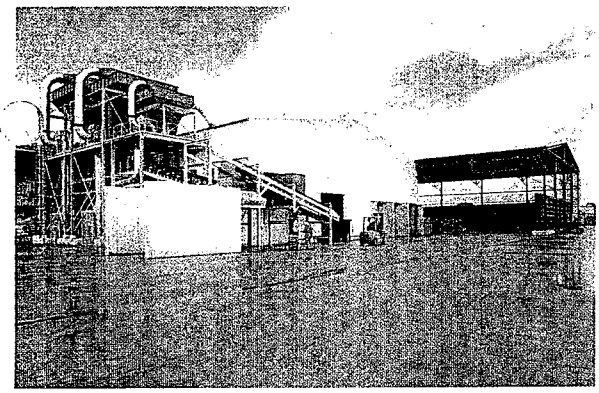
Separation plant for building waste



Drumsrceens



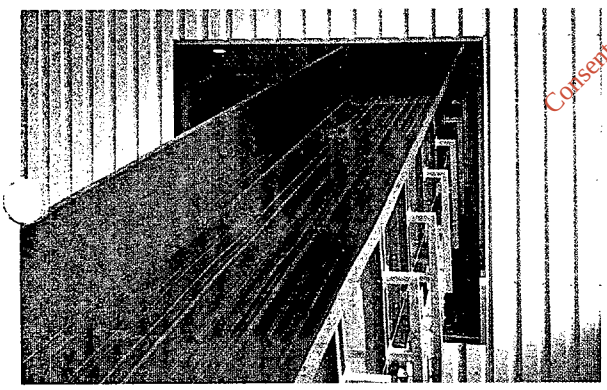
Conveyer belt with dividing bridge



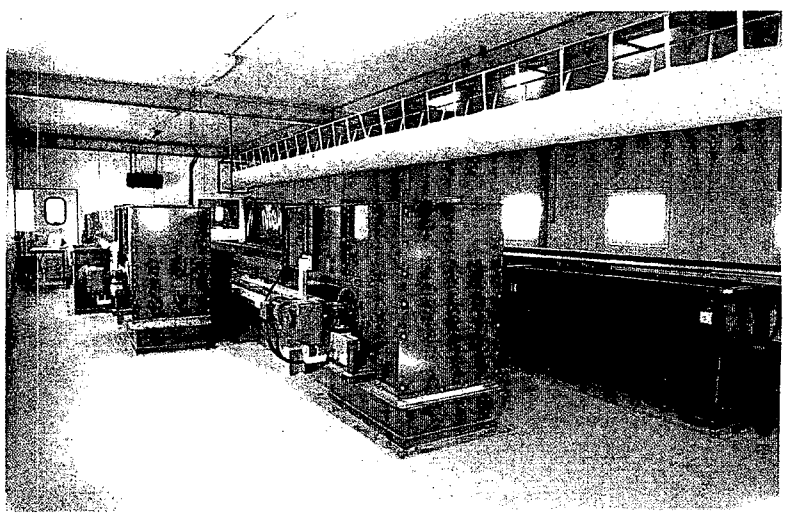
Separation plant for industrial waste

Abfalltrennung mit hohem Nutzeffekt

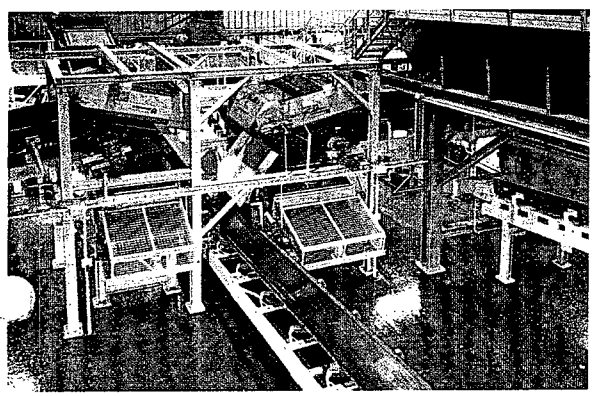
Abfall hat einen ökonimische Wert, wann es effektiv getrennt werden kann in verwendbaren Rohstoffen. Hidding Milieutechniek BV hat die Kenntnisse, die Ideen, die Erfahrung und Mittel zu realisieren. Für viele nationale und internationale Kunden haben wir Abfalltrennungsanlagen entwickelt und geliefert. Nächst komplette Trennungsanlagen, liefern wir auch einzelne Teile für Projekte von Dritten wie Siebtrommeln, Magnetbänder, Non-ferroscheider, Förderbänder, Sternsiebe, Freitreppen und Podeste.



Conveyer belt



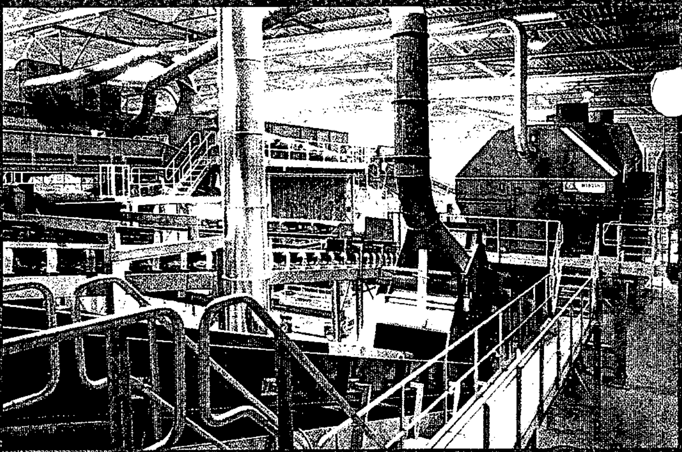
Waste sorting cabin

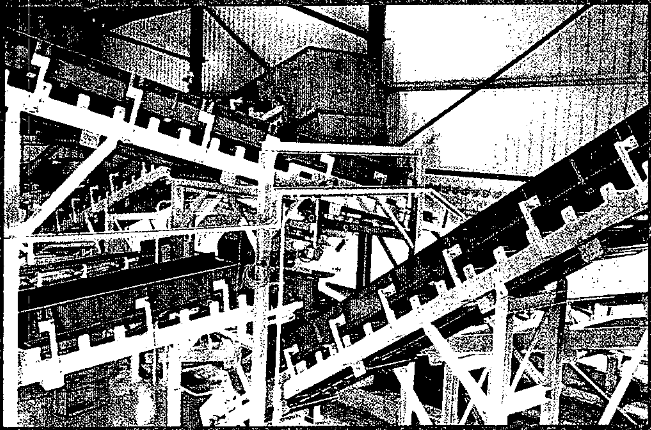


Magnet belts

Alle Anlagen und einzelne Teilen werden hergestellt für intensiv Gebrauch von langer Dauer, wobei hohe Nutzeffekten werden erreicht. Sie können rechnen auf eine betriebsichere Wirkung, einem Minimalen Stillstand und eine lange Lebensdauer.

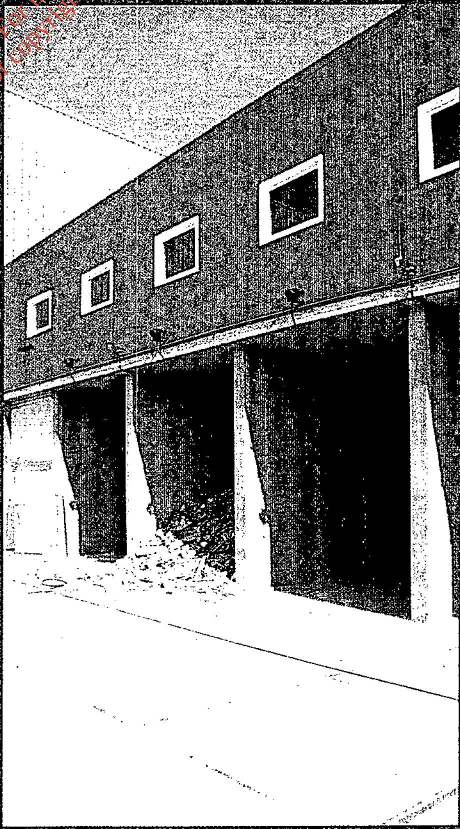
Heeft u vragen over het scheiden en/of opwerken van afvalstromen? Wij helpen u graag met het oplossen van uw probleem, door advisering, ontwerp, fabricage, levering, montage en onderhoud, zowel voor losse componenten als voor complete turnkey projecten. Een referentielijst is op verzoek beschikbaar. Ook laten we u graag een of meer gerealiseerde projecten zien.

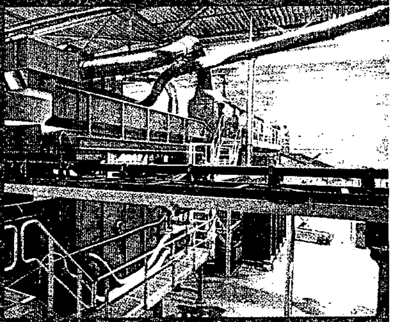


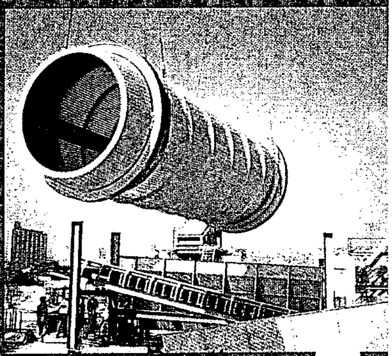


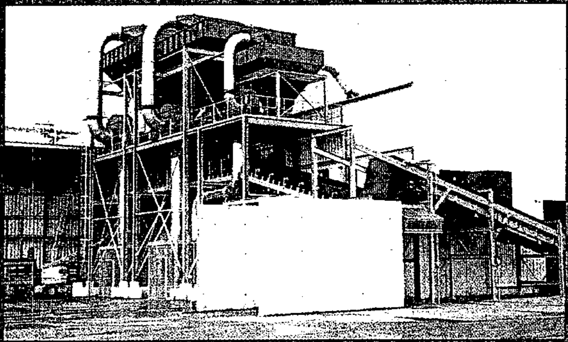
Wenn Sie Fragen haben über die Trennung oder das Hinaufarbeiten von Abfallströmen, bitte rufen Sie uns an. Wir helfen Sie gerne beim lösen von Problemen durch Empfehlung, Entwurf, Herstellung, Lieferung, Montage und Unterhalt für sowohl einzelne Teile und komplette Anlagen. Eine Referenzliste ist auf Antrag verfügbar. Es besteht für sie die möglichkeit, um zusammen mit uns, durch uns gebaute Anlagen zu besuchen.

Please don't hesitate to contact us for any questions about waste treatment and separation.
We would like to help you with advise, consulting, designing, delivery, mounting and maintenance, both for components and complete turnkey waste separation plants.
A reference list is available on request.
If you are interested there are possibilities to visit separation installations in operation.









HIDDING

Niro Industries A/S

WR2000 S

CRUSHINGLY RELIABLE

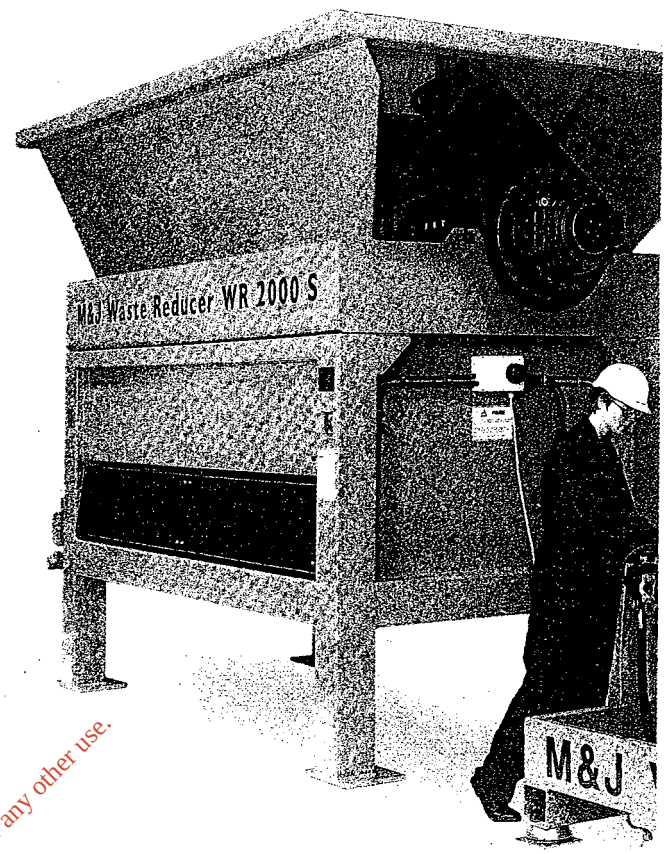
1-shaft stationary waste reducer

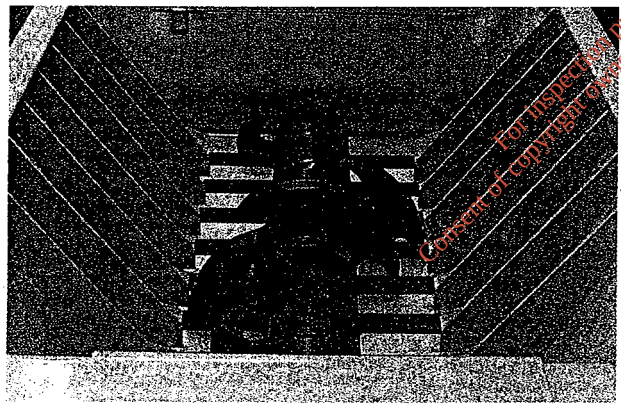
Powerful high-capacity shredder for:

- Household waste
- Demolition timber etc.
- Bulky waste, incl. carpets and mattresses
- Industrial waste
  – up to 55 tons of shredded waste per hour

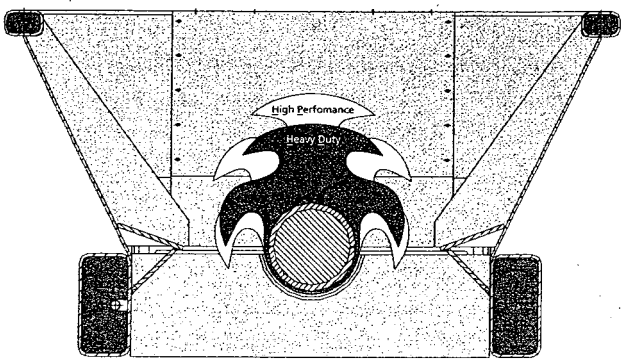
GB

M&J Industries' patented technology provides efficient shredding and a long life.





Shredders from M&J Industries are all supplied with our patented open cutting tables allowing metal fragments, stones and concrete parts to fall right through the cutting table without causing unnecessary wear to knives etc. This means less wear and longer lifetime.



The aggressive knives of the M&J shredders rotate in both directions, enabling them to re-distribute and shred the waste continually. Wear will be reduced and bridging avoided (all giving a higher shredding capacity).

With the M&J 2000 S M&J Industries is able to introduce, for the first time, a one-shaft shredder. With different cutting table designs the optimum shredding capacity can be obtained in light household waste as well as difficult bulky and industrial waste. The special design of the cutting table and the knives combine to give the perfect grain size and a high shredding capacity.

TESTED TECHNOLOGY

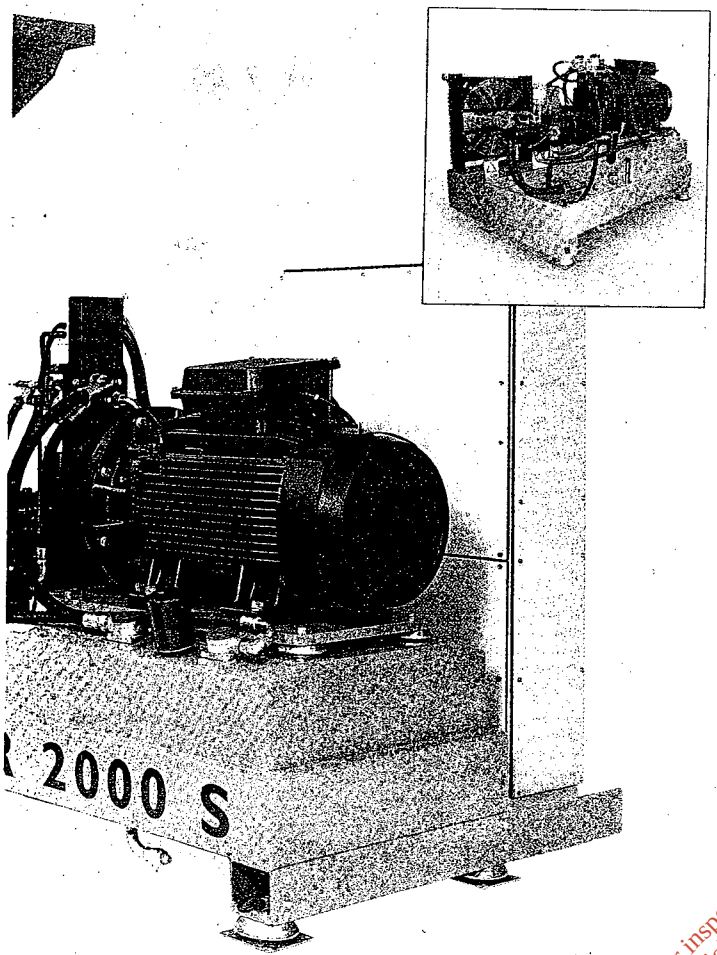
The entire M&J 2000 series is based on the well known and tested M&J solutions:

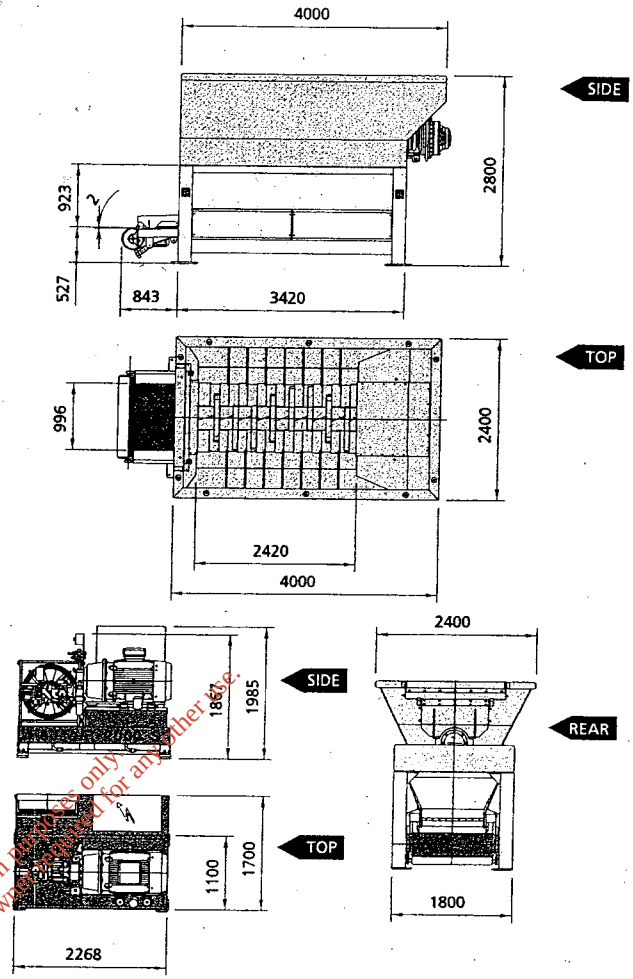
- Open cutting table (reduces wear)
- Shreds in both directions (increases capacity)
- Double aggressive knives in special wear-resistant steel
- High efficiency hydrostatic drive with low speed high torque oil motor
- Electronic PLC control and monitoring system with built-in overload protection

All this contributes to the high efficiency and capacity of the M&J 2000 shredder in light as well as in heavy waste.

HYDRAULIC SYSTEM

Like all other components of the M&J Industries shredders, the hydraulic system is of a simple and robust construction building on quality components:





- The power pack is a compact unit with electric motor, hydraulic pump, oil cooler, oil tank and electrical panel.
- The shaft, with 6, 8, or 10 welded on knives, is mounted directly onto the powerful, low speed high torque oil motor.
- Optional operation programmes, safety systems and the monitoring of all functions via advanced PLC controls (also including a black box function).

RELIABILITY AND SERVICE

Our experience from many years of shredding has shown us the importance of high reliability, low wear costs and long service intervals – our shredders prove their strength with the highest run-factor available.

Thanks to the chosen solutions, the M&J shredders are the preferred choice for users giving the highest priority to reliability and low wear costs.

- Open cutting table
- Shredding in both rotation directions
- Welded on knives in 80mm special steel
- No bearings in the cutting surface
- Direct hydrostatic shaft drive
- Electronic safety and control system

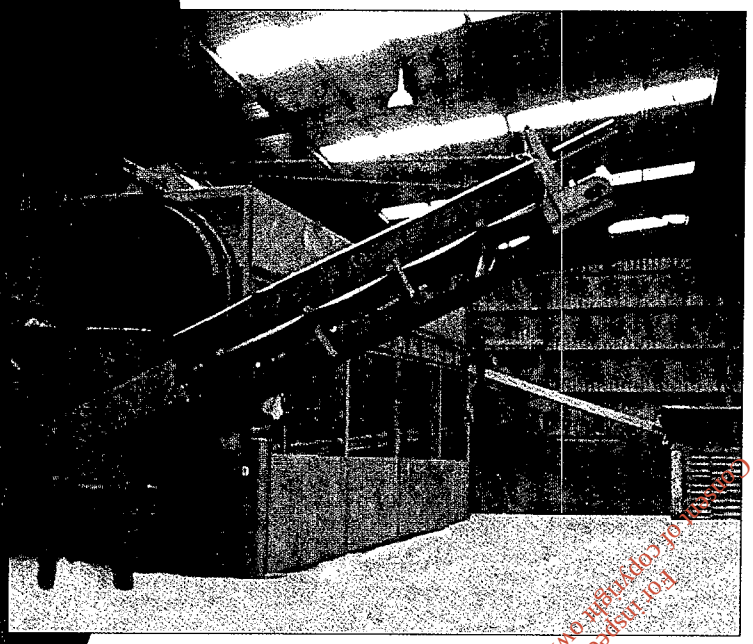
TECHNICAL SPECIFICATIONS	M&J 2000 S	
Overall dimension (L x W x H)	6000 x 2400 x 2800 mm	
Total weight	17 ton	
Colour	RAL 2011 – Orange	
POWER PACK		
Electric motor	WEG 110kW/149 HP	
Control/supervision	PLC	
Drive principle	Hydrostatic transmission	
Weight (Power Pack)	3.3 ton	
CUTTING TABLE		
No. of shafts	1 pcs.	
Rotation	40 rpm	
No. of rotating knives	6 pcs./8 pcs./10 pcs.	
No. of counter knives	12 pcs./16 pcs./20 pcs.	
Opening of hopper (L x W)	3700 x 2100 mm	
Height of hopper (std.)	920 mm	
Cutting table (L x W)	2400 x 1000 mm (HP 1230 mm)	
Volume of hopper	4 m³	
Loading height	2800 mm	
Weight (cutting table)	11 ton	
CHASSIS		
Belt conveyor (L x W)	3500 x 1200 mm	
Discharge height	626 mm	
Discharge width	1000 mm	
Dimensions (L x W x H)	3420 x 1800 x 1550 mm	
Weight (chassis)	3.3 ton	
CAPACITY	HD	HP
Household refuse	20-25 t/h	40-50 t/h
Demolition timber	15-20 t/h	30-40 t/h
Bulky waste with high content of carpets and mattresses	10-15 t/h	

SRS
sustainable recycling solutions

Separation & Sorting Equipment

Sustainable Recycling Solutions

Co-Mingled MSW • Entire Food Waste Stream • Biosolids • Soil Remediation • Pulp Sludge



SRS can offer Clients reliable cost effective systems designed solely for the purpose of removing organics and catering wastes from co mingled Municiple and commercial waste streams.

The systems are designed to meet your waste volume and achieve your diversion goals, Organic fines recovered in an SRS system will typically be 50% of the input volume by weight, the fines are ideal for composting in an SRS Tunnel system.

A Standard SRS 860 system comprises the following:

SHREDDER Acts as a bag opener and frees contents for conveying into screening Trommel.

OVERBAND MAGNETS To remove ferrous materials for recycling, Eddy current separators can also be fitted to remove non ferrous materials if required.

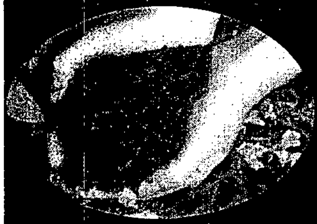
SRS 860 TROMMEL The screening area is 8' by 60' and is fitted with 50mm punched plate screens to recover organic fine for conveying into the SRS Tunnel System.

CONVEYOR SYSTEMS Are designed to suite clients needs and interface with clients existing equipment and composting facilities.

PICKING STATIONS Manual or automated picking stations can be incorporated into the design to allow recovery of the remaining recyclable material from the output stream now the organics have been removed. Contaminated card and paper can be fed into the composting tunnel as amendment.

Sustainable Recycling Solutions Trout Lane, Yiewsley, West Drayton, Middlesex, UB7 7SA
Tel: +44 (0) 1895 442958 Fax: +44 (0) 1895 450505 E-mail: info@srsltd.com

"The Natural Solution"



Sustainable Recycling Solutions

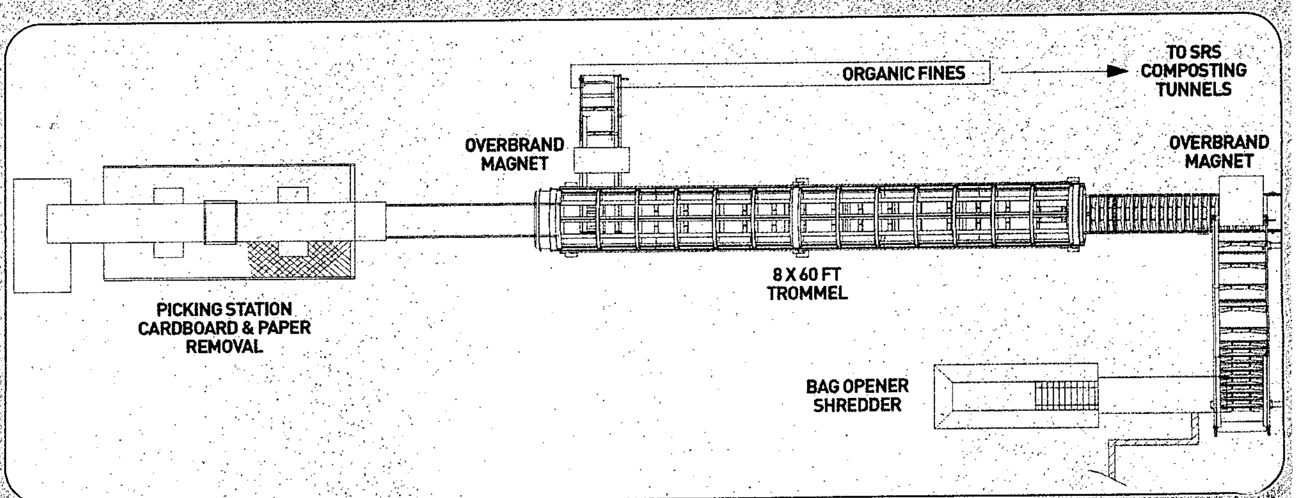
Co-Mingled MSW • Entire Food Waste Stream • Biosolids • Soil Remediation • Pulp Sludge

The sustainable alternative to source segregation

The SRS 860 system can process 60 tonnes of co mingled MSW per hour and requires only One operative to recover 30 tonnes per hour of organics suitable for composting.

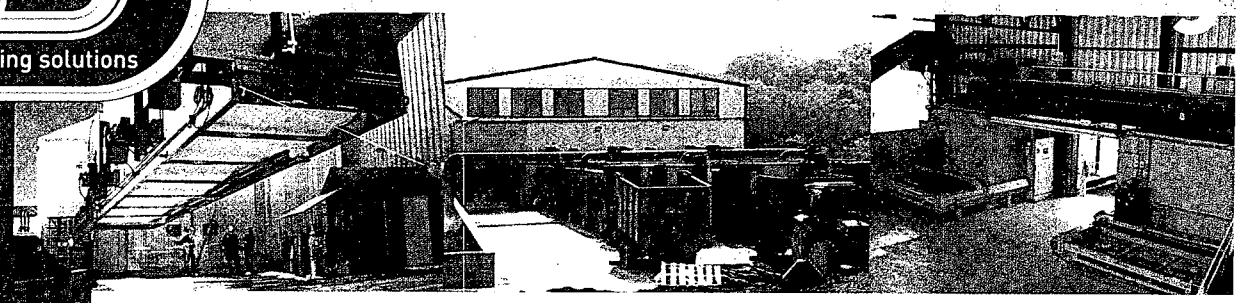
KEY FEATURES

- Eliminates the need for costly additional collections, of source segregated materials
- Not totally dependant on the Householder or Client participating in at source segregation schemes
- Improved recovery volumes
- Guaranteed to meet your obligations and Targets under the Landfill directive
- Low maintenance, High volume, Automated systems
- Engineered for long life
- Proven technology out there working and delivering now
- Engineered and Manufactured in the EU by a company with over 30 years waste recovery experience supported by local Service back up



Sustainable Recycling Solutions Trout Lane, Yiewsley, West Drayton, Middlesex, UB7 7SA
Tel: +44 (0) 1895 448258 Fax: +44 (0) 1895 448505 E-mail: info@srslimited.com

SRS
sustainable recycling solutions



Sustainable Recycling Solutions

Co-Mingled MSW • Entire Food Waste Stream • Biosolids • Soil Remediation • Pulp Sludge

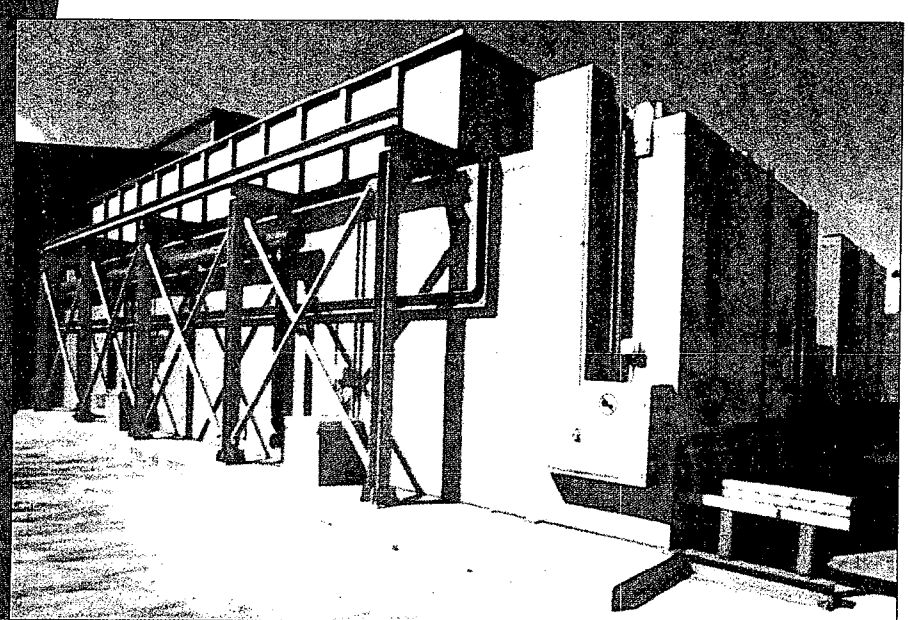
An economical method of diverting organic biowaste from landfill

SRS's composting system provides a sustainable and effective alternative to traditional methods of disposal.

With an SRS system, you can achieve your diversion goals, comply with government regulations and operate neighbour friendly composting facilities.

SRS's composting tunnels integrate the principles of mushroom industry composting, developed over decades, with modern air handling and engineering expertise. In this system, the common problems associated with composting technologies have been specifically and systematically addressed.

The design criteria that we have followed in developing our successful urban waste conversion system followed a philosophy of pure simplicity. The system itself had to be self-contained, flexible in size and adaptable to suit individual space and waste stream needs. It had to handle organic waste on site, eliminating its removal. It also had to leave clients knowing that their waste had been transformed into a useful end product ready to replenish a natural resource.



The result - an organic waste management system that works.

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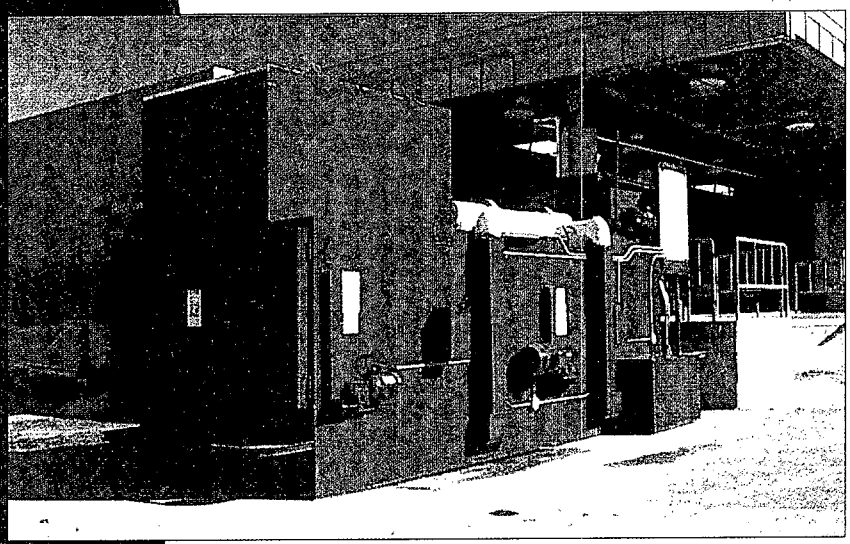
Sustainable Recycling Solutions

Co-Mingled MSW • Entire Food Waste Stream • Biosolids • Soil Remediation • Pulp Sludge

Cost effective treatment

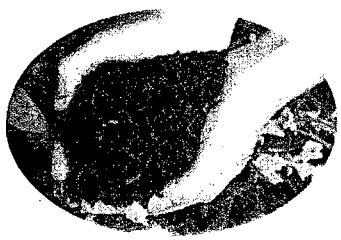


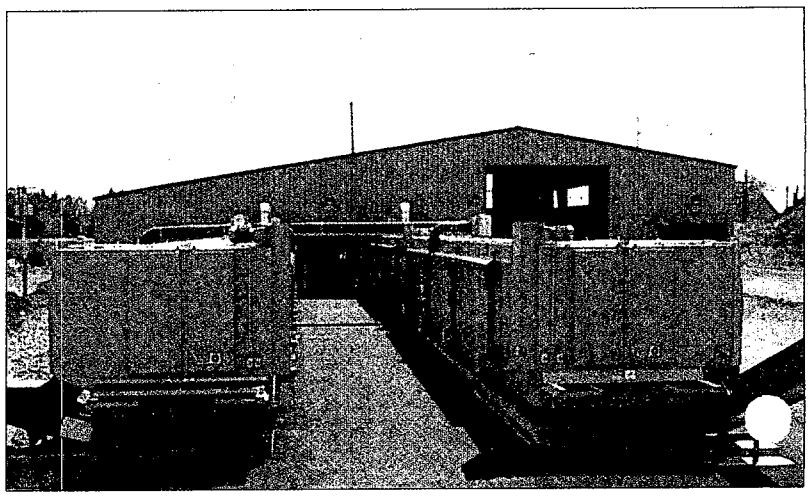
SRS composting tunnels can be designed for the quantity and characteristics of available wastes. The modular system provides maximum flexibility in siting tunnels and accommodating future waste quantities.

- Proven technology
- Rapid thermophilic and mesophilic composting
- Sequential loading and flow-through operation
- Zero leachate discharge
- Containment and treatment of all exhaust air
- Automatic material and tray/floor advancement
- Automatic control of airflow, temperatures, moisture and oxygen
- Maintenance of oxygen levels above 15% and temperature levels within set point ranges

The SRS composting system uses fully enclosed flow-through tunnels to transform organic wastes such as meats, fish, dairy products, fruits and vegetables, cooked foods, sewage biosolids and paper wastes into a soil-like material in a short period, by controlling oxygen and moisture levels, reusing leachate and filtering exhaust air.

"The Natural Solution"



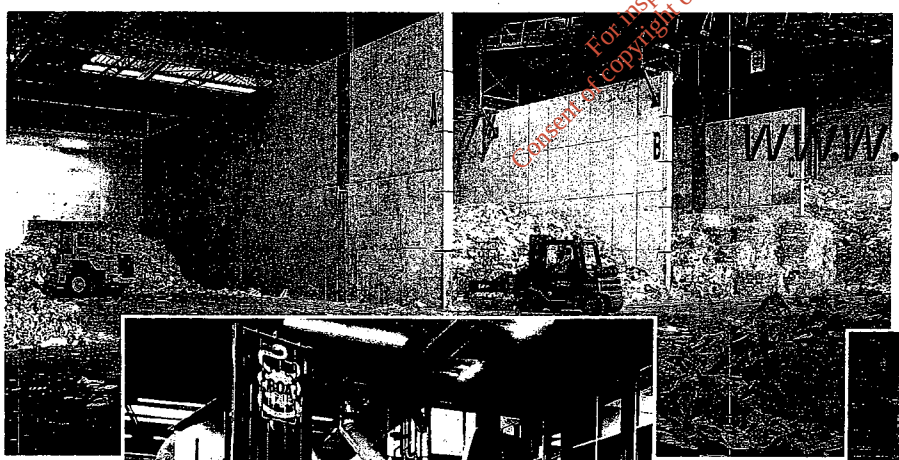


Sustainable Recycling Solutions ·Trout Lane, Yiewsley, West Drayton, Middlesex, UB7 7SA
Tel: +44 (0) 1895 448258 Fax: +44 (0) 1895 448505 E-mail: info@srslimited.com

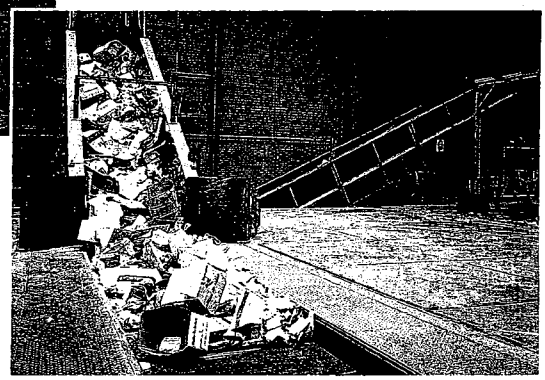
The group members

BOA

BOA is best known for her balers. The company is also known for her capability in providing integrated solutions in the field of domestic waste recycling and paper waste recycling.
BOA has an installed base of more than **3000 installations**, of which more than 300 in the United Kingdom.
The company has offices in the United Kingdom, The Netherlands, Germany, Switzerland, Belgium, France, Sweden, Norway and Israel.
BOA stands for quality in baling technologies, proven machinery and above all the ability to meet challenging demands for innovative products.
BOA has her headoffice in Enschede, The Netherlands.



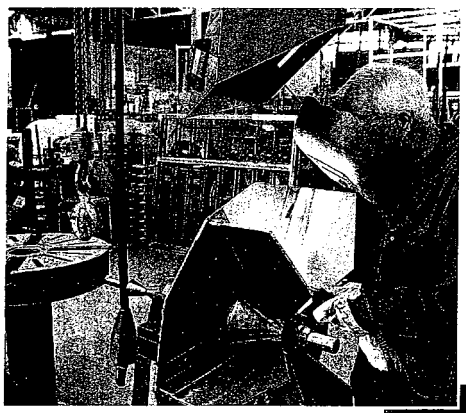
www.boasystems.nl



Synmet
International

NIHOT

Nihot



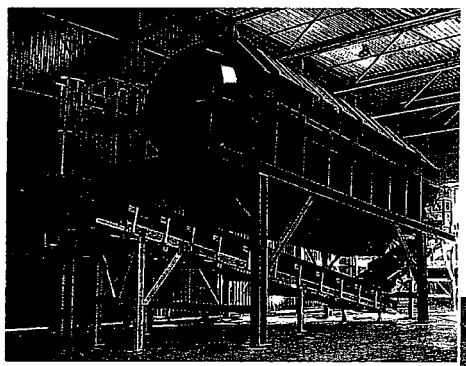
Nihot specializes in air technology. Within The Netherlands and Germany, Nihot is a recognized brand name.
Hundreds of air sieve systems and extraction systems are installed in Germany, the Netherlands, Italy, USA and other countries.
Nihot is known for the accuracy, capacity and power of her air sieve systems and extracting systems.
Nihot has her headoffice in Amsterdam, The Netherlands.

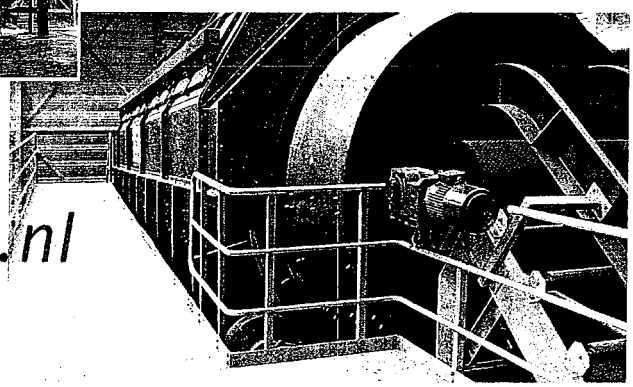
www.nihot.nl

HIDDING

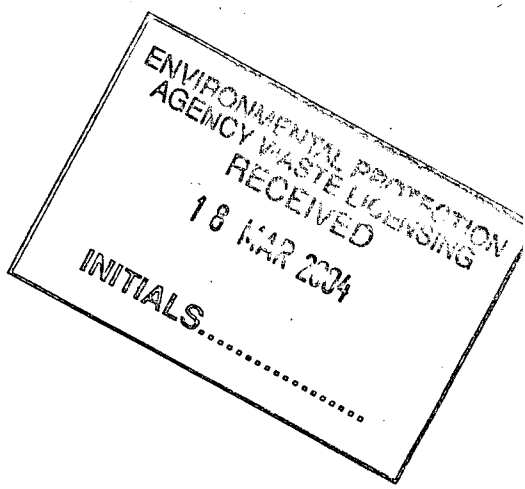
Hidding

Hidding is well known for her trommel screens, star screens, conveyor belts and for her ability to provide integrated solutions in the field of domestic waste, industrial waste and construction and demolition waste.
The trommel screens of Hidding are known for their rotation speed (22 turns per minute) and for their separation power.
Hidding was heavily involved in on international level approved and highly regarded installations such as
The Vagron in Groningen, SBI Oude Haske, VAM Wijster.
Hidding has her headoffice in Emmen, The Netherlands.





www.hidding.nl



Appendix 5

Dust Report
(GeoTesting Ltd)

GeoTesting Ltd.

Unit 21, Link Business Park, Kilcullen Co. Kildare

Tel. (045) 482248, Fax. (045) 482288, E-Mail. geotestingltd@eircom.net

Dust Monitoring Report Sheet

Client	ERML	Site	Whitestown
Ref	Brownfield	Job	03.116
Date Placed	09/12/03	Date Collected	06/01/04

Comments

Sample Jar No.	Number of Days	Reduction Method F/D	Mass 1 g	Mass 2 g	Mass Dust g	Sample Area cm^2	Final Result $mg/m^2/day$
1	29	F	0.999	1.004	0.005	62.2	27.7
2	29	F	0.993	0.999	0.006	62.2	33.3
3	29	F	0.969	0.973	0.004	62.2	22.2
4	29	F	0.969	0.971	0.002	62.2	11.1
5	29	F	0.981	0.984	0.003	62.2	16.6

Notes: F = Filtration; D = Direct Oven.

$$\text{Result} = \frac{\text{Mass Dust} \times 10{,}000}{\text{Area} \times \text{Days}} \quad mg/m^2/day$$

Tested	Date	Checked	Date	Signed	Signatory	Position	
A.C.	06/01/04	PC	07/01/04		D. Tutty	Lab Manager	*
					P. Corrigan	Eng Manager	

GeoTesting Ltd.

Unit 21, Link Business Park, Kilcullen Co. Kildare

Tel. (045) 482248, Fax. (045) 482288, E-Mail. Geotestingltd@eircom.net

Methodology:

The input of atmospheric matter is determined over 30 plus or minus 2 days by exposing the glass collecting pots. The collecting pots are domestic preserve jars having a nominal diameter of 9.5cm, nominal capacity of 1.5L, an opening of 8.9cm diameter, giving a collecting area of 62.2cm^2. The sample is then either evaporated down by direct oven method or passed through filter paper and then dried to produce a dry residue. This residue is then determined gravimetrically, the results being reported in mg/m^2/day.

Preparation:

The collecting pots were cleaned and rinsed with distilled water, and allowed to dry in a dust free environment.

Sampling:

The collecting pots were installed in the dust monitoring stands at the site and the rubber seal was removed allowing full exposure to atmospheric deposition. Each dust jar was collected and sealed after the required exposure time had elapsed. Prior to laboratory analysis, the pots were stored away from direct light sources to limit the growth of micro-organisms. The dust content of each pot was analysed gravimetrically as per the requirements of VDI 2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Institute).

Reduction Method:

The reduction method listed over as D, Direct Oven method refers to the method suggested in VDI 2119, for the reduction of the sample to a dry residue.
The method listed over as F, Filtration method is a method which GeoTesting has proven in the laboratory to be a method equivalent to the Direct Oven method described above.