Lead Environmental Business in the Future
K-RIPRODUCT CATALOGUE 2012

Collection of Environmental • Energy product and service in Kyusyu area Selected by K-RIP

English ver.

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Kyusyu Recycle and Environmental Industry Plaza http://www.k-rip.gr.jp

Introduction

Kyusyu Recycle and Environmental Industry Plaza (K-RIP) is a network organization consisted by companies concerning the environment, research organizations such as universities, administrations, and financial institutions.

There are lots of companies contributing to local communities by their unique, innovative technologies and services among K-RIP members. We have made this introduction booklet to introduce their excellent products and services to more people.

Excellent technologies and services for environmental and energy field not only solves the environmental problem directly, but also strengthen competitiveness of product in various industries by applying it.

We hope the excellent products and services on this booklet would be a helper to solve local environmental problems and strengthen the international competitiveness.

We also have "Japanese version" and "Chinese version" of booklets in addition to this "English version" . Please use them as well.

<important notice>

We introduce ecological products and services in Kyusyu area considered as a solution of environmental, energy problems. We do not sell or transfer these products and services. In addition, the contents listing on this booklet have been made based on the materials from companies which applied for, and K-RIP (Kyusyu Recycle and Environmental Industry Plaza) does not ensure the achievements and effect of the contents.

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C=COMPANY Companies concerning the environment (19 companies) P=PRODUCT Ecological products & services (78 items)

Development of ecological products & services

Energy field

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- P03 SANIX recycling power generation system
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- 39 P28 Satsuma-Nakagirishima-Kabe
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- 40 P31 TOYO underwater disturbance sand pump
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- 4 P34 "TROLL®" UASB type anaerobiosis waste water treatment equipment
 - P35 "NS-process" Recovery of valuable resources
- P36 High capacity Micro-Nano-Bubble generator pump
- 42 P37 Haulling industrial waste, Recycling disposal
- P38 Specialty enzyme business (Study of genesis of bio-based fuel)
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Development of ecological products & services

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 - P42 Approved Recycling Products (Recycle granularly controlled of crushed-stone, Recycling Crusher-run)
- 44 P43 Amahada Skin Care Series
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 - P45 Fertilizer Sprayer "Rakurakumaku-chan MK03"
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 - P48 Organic Fertilizer "Green Supple"
- 46 P49 Use of compost fermentation heat with unused biomass(Unused waste)
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 - P51 Using "chloride volatile method" to recycle waste
- 47 P52 1-shaft crusher(SC series), and 2-shaft crusher(SET series)
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- P66 Jet type glidants formula water purification device "Jet Streamer"
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 - P68 Swiveling biomass combustion furnace
 - P69 Disassembly line of ELV (End of Life Vehicles)

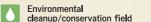
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- 53 P70 Promote International cooperation of technology for sustainable development
 - P71 M-one FIELDMASTER
 - P72 Unmanned transport system KE-SS200
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 - P77 The research and countermeasure of the soil groundwater pollution
- P78 Promotion of regional industries and supporting networks
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This booklet introduces the products and services in environmental, energy field offered by companies in Kyusyu area with the following "4 fields".









Resource circulation field



Related service field



KYUSHU RECYCLE AND ENVIRONMENTAL INDUSTRY PLAZA

Support the present and future environmental industry.

Since its foundation in November 1999, with the aim of establishing a recycling-based economy and society system model and stimulating the regional economy by developing and promoting the environmental and recycling industries in the Kyushu region, Kyushu Recycle and Environmental Industry Plaza (K-RIP) has been involved in various activities.pecifically, since K-RIP's project was selected as one of Japan's 19 projects of METI's Industry Cluster Program in fiscal 2001 (K-RIP received support for the project under the program until fiscal 2009), the organization has expanded its activities from network formation and development to support for companies in terms of business creation and market development both at home and abroad. So far, K-RIP has been successful in enhancing its activities and organizational structure every year since its foundation. As a horizontal collaborative organization comprising representatives from government, industry and academia aimed at building a sustainable economy and society, K-RIP will extend its activities to areas of energy conservation and new energy development, and strive further to promote the Kyushu region's technologies and services at home and abroad. I very much appreciate your continued understanding and cooperation for K-RIP's activities.



K-RIP's three sections

Providing a platform for information gathering, network-building and interaction

Information & Interaction Section

The section provides a platform for K-RIP members to obtain cutting-edge information. develop/secure human resources, and build their networks of personal contacts when they start their environmental business. Through the support from this section, members can establish management strategies to prepare for new business opportunities.

Provision of information

The section provides information about governmental policies as well as highly specialized information essential to the environmental business by organizing events such as seminars and symposiums with experts. It also publishes members' successful business practices and activities through media such as K-RIP's official website, thus helping create new business opportunities.

Human resources development

Since fiscal 2000, the section has held a human resources development program titled "Environmental Business Workshop." This workshop, which includes lectures, group study and company visits, is held for business entrepreneurs and mid-career human resources in a training camp style.

business goals

operations overseas.

Network-building

The section helps members receive financial and non-financial support and develop

their market, thus enabling them to start their environmental business. The section

ensures that members can take the most appropriate steps toward reaching their

Against the backdrop of fast-growing environmental business markets in emerging

nations such as China and the Republic of Korea, the section provides frameworks that allow Kyushu-based companies engaged in environmental business to expand their

The section holds a variety of interactive sessions as shown below to help create business opportunities: the "Environmental Business Interactive Session" held to enable companies to interact and find potential business partners; the "Environmental Innovation Forum," held to provide an opportunity for primary industries to employ environmental technology; and a monthly held event, the "Eco Seminar,"

Considering each member's business theme fully and helping them start their environmental business

Business Creation Section

Commercialization support

Under the K-RIP Project scheme, the section helps selected members start their business through financial support and professional advice. It also provides a wide variety of commercialization support for all members, helning them receive various subsidies for research and other purposes and assisting them with expert skills.



Market development support

Using K-RIP's extensive network, the section provides various support services for K-RIP members as follows: activities to help develop a market for their newly developed products: a commendation program that can help enhance the credibility of companies and their developed products; and a comprehensive support program for selected low-profile environmental products or services.



Striving to establish new frameworks, using expert skills and an extensive network

International Business Section

International market development support

In line with K-RIP's basic policies: "Contribute toward solving Asia's environmental issues through Kyushu's pollution control technology and other environmental technologies" and "Promote Kyushu's environ-

business opportunities, established frameworks for international environmental industry exchanges, and organized various other activities. Specifically, the section concluded environmental industry exchange agreements with organizations involved in environmental efforts such as Dalian Municipal People's offering a matching service for members mental business in Asia," the section has Government (China), the People's Governdeveloped a favorable environment for new ment of Shandong Province (China), and the

ECO Office of Korea Industrial Complex Corp. Moreover, the section helps members expand their business overseas by conducting market research, promoting international exchanges of environmental business missions, hosting business meetings, and wishing to find potential employees from abroad (international students, etc)



Business to promote K-RIPRODUCT

support

Market development In environmental and recycling industries, it is not uncommon that small and medium

companies and venture companies produce unique new products and services to create new markets. However, small-sized enterprises might lose the opportunities to create new markets. Because there are not enough management resources comparing to large companies, they cannot positively invest in research such as F/S research. Based on this background, K-RIP has created an own supporting tool "K-RIP Project" for the purpose of supporting to create new business in the field of environment and recycling in 13rd year of Heisei, 2001. While carrying out this "K-RIP project" continuously, innovative new products have been getting to be born, and the marketing expansion of these new products has become important.

As the next step, it was established a supporting tool "Projects to find markets" for the purpose of expanding market to create new in 20th year of Heisei, 2008. We are supporting strongly for expanding market of products and services by sending for experts, an exhibition of environmental industry's trade fair, and business matching by the coordinators, During advancing these efforts, the products spreading in the market and contributing to solving environmental issues are expected to expand the market further and improve their brand benefits.

K-RIP is supporting strongly for finding markets for the companies by establishing the award system "Kyusyu Environmental Business Award" and performed on a large scale PR.



(At the foreside) Representative director Mr. Murakami of Eco Factory Co.,Ltd. awarded the first prize.

(At the right) The scene of award ceremony (at ECO-TECHNO2011)

Sales expansion supports

It was selected that the first prize for 1 company, Award of excellence for 3 companies, and Encouragement award for 2 companies at "The 4th Kyusyu Environmental Business Award" in 23rd year of Heisei, 2011. Awarded companies attended the award ceremony and made presentations at "ECO-TECHNO2011" (West Japan General Exhibition Center) at Kita-kyusyu city.

The first prize Kyusyu Environmental Business Award in 2011

ECO Factory CO., Ltd

Radioactive heating and cooling system "ecowin"

Selected as a company for projects to find markets in 2011

Kenki Co., Ltd.

High moisture content biomass, Alternative fuel of organic waste

SEIHO KIKO Co.,Ltd.

Pruned branches, bamboo, grass grinder: "Rub machine"

Change-Value Co.,Ltd

Business control software "Eco-active"





Admission for K-RIP membership

K-RIP coordinators who familiar with environmental business have proposed a business plan that meeting the needs of you. We will also correspond to the contents of businesses and the way to join K-RIP. Please do not hesitate to

•Corporate member (company): 50,000 yen/ year •NPO member:10,000 yen/year • Academy/ individual member:5000 yen/year • Special member (such as local government): free

Contact Us

Kyushu Industrial Technology Center, 2-13-24, Hakata-ku, Fukuoka 812-0013 Japan

TEL 092-474-0042 FAX 092-472-6609 E-MAIL info@k-rip.gr.jp

Click here to get more information about our activities.

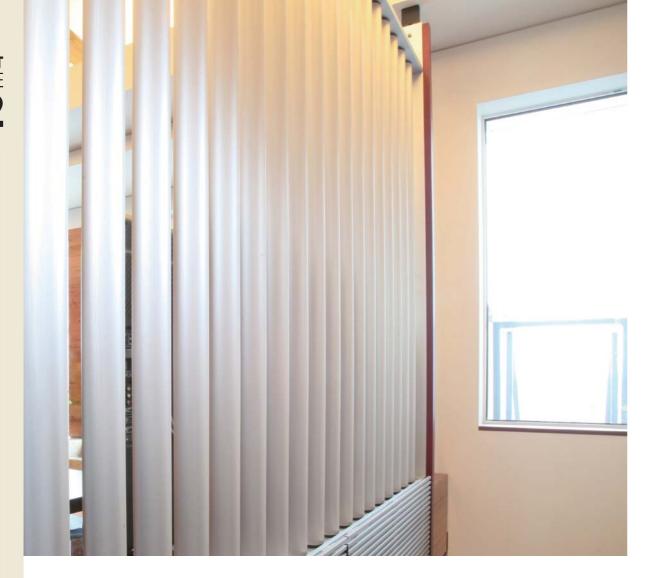
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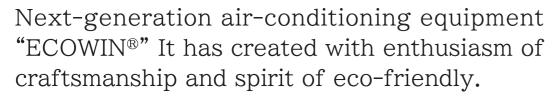
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PRODUCED BY ECO Factory CO., Ltd





Hybrid thermal system ECOWIN is an eco-friendly radiation air-conditioning (radiation formula) system developed by our own technology. It's heating and cooling the space by use of far infrared rays which radiate and endotherm by passing through cold and hot water to aluminum heat changer and Hybrid thermo element.

It is the next-generation air-conditioning system from technology know-how (trademark, design, patented) of deep feeling of manufacture and law of physicals.

ECO Factory CO., Ltd headquartered in Kumamoto city. They have been developing technology of housing construction which is environmentally friendly since this company is established in 1996. Their representative product is a radiating type air-conditioning system (hybrid thermo system) "ECOWIN" . It has been receiving a various award such as a minister prize, Minister of Land, Infrastructure, Transport and Tourism. In 2011, it received a grand prize of 4th Kyushu environmental industry award which was presented by K-RIP. We interviewed Mr. Takanobu Murakami who is the president of ECO Factory Co., Ltd which expands operations in overseas, about breakpoint and future of environmental engineering.

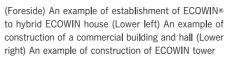


About Kyusyu Environmental Business Award

In K-RIP, we have established the Award system "Kyushu environment business Award" for products which are speared in the real market, and contribute to the solution of environmental issues, also we are strongly supporting to extent of their marketing. Please refers to page 04 and 05 for event of K-RIP.









The feature of ECOWIN Extreme infrared radiation to angle of 360 degrees (heating system)/ Action of endothermic (cooling system). Since the heat conducts to human body and objects directly, and affects to effective temperature, it is highly efficient. Because of low heat capacity, it has quick rise time How to use Timer function is available The temperature reaches to the preset temperature in about 15 minutes and you can feel the radioactive

heating and cooling system.(%Standard system)

a radioactive (Large) plus natural convection (Small) Comparing to forced-convection type, it cuts down 30% of energy efficiency.

It specializes extreme infrared radiation, and affect to human body, floor, wall, ceiling directly and Energy comfortably. It does not produce temperature difference with vertically and horizontally in the space.

Since ECOWIN itself is activated with powerless, there is no sound, no wind, and no noise. Since the heat part is a cylindrical shape, it has a low potential Safety injury and safe, even when you hit it. Because it is a

> low-temperature radioactive system, it is safe and never burns Comparing to convection type, it does not let the air dry and keeps moisture constantly About 70kg with Standard type, 1/2 weight of conventional

> > product (made from iron), suppressed delivery cost, the

seismic stress is small and low risk of falls. It is possible to set up on the spot. We consider the

uses of reform and renovation 1/4 water volume compare with conventional system

It is composed of parts and possible to be disassembled and separated completely. In addition, it has high radiation, small part of heat generation due to heat exchange, resource conservation. It can be replaced each parts when repairing.

Because ECOWIN is activated with powerless, the risk of failure is low. No need to worry about corrosion since it is made from aluminum. In addition, it uses an antifreeze added corrosion inhibitor as a heating and it has a longer Product life cycle.

Fulfill his ambitions with strong belief

Mr. Murakami had been worked at 1st Class Qualified architect office called "Limited liability company,LOCUS"as a president since 1996. He felt that we need to change attitude towards environment in this field and started to develop eco friendly housing construction. Then he met a thermal efficient heat pipe which is used for floor heating in 2000.

Mr. Murakami says; we had a strong belief that contribute to environmental protection through our construction business and had been searching what kind of technique the best for design and energy- saving is. We reviewed energy utilization and method of construction in order to create high is more efficient. Then we met heat pipe technique. We got idea that uses not only hot water for heating, but also cold water for cooling.

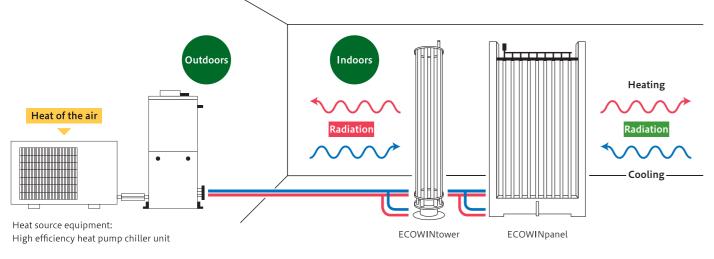
They inquired to manufacturer of heat pipe but their answer was; "It is possible but hard to commercialize." Mr. Murakami did not give up and determine to develop it by them. They started project in 2004 and established ECO Factory Co., Ltd in 2006 and went ahead with project. In 2007, finally they created

Mr. Murakami says; it was not easy to develop new technology but I knew this is necessary for housing construction in future, so decided to develop by ourselves. Our company was design office, but we believed that we can create spatial design and system even though we need to start from scratch. This belief became our motivation. Our ECOWIN use technology of radiating type. It emits or absorbs heat efficient eco-friendly house over and over. from hot place to cold. Normal air As a result of it, we came to think that we conditioning uses a technology of need a new air conditioning system which forced-convection type which needs lots of energy to heat or cool entire room. Compare to that, ECOWIN is energy saving efficient because it only needs energy to cool or heat where people are not entire room. Also it does not make noise or wind, so it is very comfortable."

ECOWIN won Minister's Prize, the Ministry

of Land, Infrastructure, Transport and Tourism at eco-products international fair in 2007, encouragement prize of Kumamoto industry award in 2009, Japan Manufacturing award of excellence, Kyushu new business award of excellence in 2010 and so on. Also it expands their network by using "Eco-juku" which is a study group for industrial ecology presented by Ministry of Economy, Trade and Industry Kyushu and K-RIP. They became a member of K-RIP in 2009, and establishing business relationships with Korea, China and Philippine. In November 2011, they received a grand prize of Kyushu environmental industry as a great environmental developer.

Mr. Murakami says; I was very delighted by the news of receiving grand prize of Kyushu environmental industry. Our company will keep contribute to energy savings. We are started relationship with company in overseas now. Technology is for human and this idea is other countries. The idea of "something good is good" will create trust. We should not only think of profit. But concerning creates something useful for customer first."



System of ECOWIN®

"ECOWIN*" is a comfortable "radioactive heating and cooling system" and economical "heat pump type". It is a product that can offer natural and comfortable indoor environment at various scenes.



An example of establishment of ECOWIN-panel



An example of establishment of ECOWIN-tower



Hot water hybrid heat source machine using waste heat

Expansion beginning in earnest in domestic/overseas

In recent years, especially 2010 and 2011 were two years that President Murakami made every effort to expanding of business of ECOWIN in China. We participated in Kyusyu/Liaoning Sheng province of China environmental business mission of K-RIP (Kyusyu Recycle and Environmental Industry Plaza), negotiation with and sign mutual business partnership with XiaoYu Log & 2X4 Homes co., Ltd in China. After concluding an agreement of joint enterprise with XiaoYu Log & 2X4 Homes co., Ltd, we established a joint corporation in October 2011. It is scheduled to complete a local factory in May 2012 and begin to manufacture of ECOWIN.

Mr. Murakami says; We expect approximately 1,000 units of production in China in the first year (FY 2012). The really important core of the product is produced in Japan and it is exported to China. Then it is completed in a local factory and sold by local distributor. We would like to get our business going and making 5,000 units, 10,000 units and more. We plan to sell our product to government office buildings and log houses such as a cottage whose demand has been growing rapidly in China in the first year (FY 2012). We would like to advance into a big market such as general housing eventually.

In Japan, ECOWIN has been introduced to public facilities such as ward offices and Indoor practice centers for sport and the number of the product is increasing gradually. Market development has also been performed with our environment-friendly products. We propose to install ECOWIN to such places as a listening room of high-end audio and a clean room for the development of precision equipment recently. We have a Joint development with companies in Hokkaido where is situated farthest north of Japan and sales activity in Okinawa Prefecture where is situated farthest south of Japan. Our business is a nationwide scale.

Mr. Murakami says; Our Introduction results of ECOWIN in domestic started with 4 units and it is more than 200 units at present. The introduction to detached houses are still less, but we assure prospect of success from the point that ECOWIN was favorably received by customers after trial. However, becoming more familiar product, we still have many problems to be solved such as improving the shape, weight saving, and per-use cost. Because we would like to propose products from the viewpoint of customers, we don't cut cost of our products. It might produce un-environmentally-friendly products and

poor products which don't perform as much as required. We don't take part in price competition as well. We are aiming to propose and offer good things which are really useful to society with reasonable price.

"We would like to build a good building. In addition, we would like to contribute to the environment" ECOWIN was born from the prospect of success of the construction industry. Currently, though the introduction to public facilities plays a central role, we make it possible to realize high performance eco-housing combines storage of solar energy and all-electric. He dreams that ECOWIN becomes more familiar to many people, is introduced to commercial buildings and general houses, and contribute to environmental conservation, President Murakami talked at last

Mr. Murakami says; Air conditioner is the main stream of heating and cooling system and has a trillion yen of scale in the domestic market, for example. It is possible that the technology of ECOWIN go into the market. As development progresses, to some extent, it will be able to produce in large quantities. For example, it is ideal that when you stop while walking in downtown, you find the installation of ECOWIN. In addition, there is an environmentally-friendly life there. I hope such a world comes true.

Development of companies concerning the environment

COMPANY 19

C01 IBUKI Co., Ltd.

K-RIP project(2011)

Medical equipment installation with focus on zero-emissions

"Happy Enterprises" addresses new concepts and diverse needs through leading edge logistic services, contributing to prosperous

Disassembly, carry out, take in, installation, as well as recycling of medical equipment in medical facilities

Our company provides the carrying in/out of advanced medical equipment such as X-ray, CT and MRI treatment machines.

In contrast to regular transport companies, our company provides precise installation work specifically for medical equipment.

In coordination with the leading medical equipment makers within the country, while taking into consideration the costs of transport, we draw up plans to disassemble, carry out, take in, and install the advanced equipment

As well, we support the medical industry through the accumulation of effort and experience to introduce useful tools that can be utilized by the medical scene by, for example, holding regular meetings and conferences.

The staff has many years of experience working in the field of medical equipment. In contrast to staff of regular transport companies, they have extensive knowledge of the equipment.

In particular we have an outstanding business track record with X-ray manufacturers, with whom we have gained their trust.

For us, with our focus on zero-emission systematic transport and specialization in dismantling, we continue to provide service until the equipment using on-site.

Environmentally, regardless of the complexity and function of advanced medical equipment, for every one that is introduced, it would have inevitably become industrial waste.

We recycle medical equipment containing aluminium, stainless steel, copper, and important rare metals

We have a goal to circulate within the country that would dismantle and separate of medical equipment for recycling. This would prevent the draining of valuable resources that are presently used. We also want to expend West Japan's I-ven recycling works.

Dismantling, unloading, and installation of X-Ray scanners, X-Ray equipment, gamma cameras, CT scanners, MRI scanners in medical centers within the Nagasaki prefecture such as the Nagasaki Medical Center and Nagasaki Memorial Hospital. We have also worked for many hospitals including the National Hospital Organization and the Kyushu National University Hospital.







▲ Special situation carrying out from backside of medical facilities

DATA IBUKI Co., Ltd.

Our company was established as IBUKI Transport in 1955. In recent years IBUKI changed its name. We provide services in construction, installation, dismantling and unloading of equipment for medical facilities. We mainly carry out installation work of medical equipment, and conduct a business that specializes in transportation. Through our logistics services, we would like to contribute to a prosperous society. "Happy Enterprises" would like to continue to address new concepts and diverse needs such as zero emissions.

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CO2 ECO WOOD Co., ltd.



■ Projects to find markets (2009), ■ Kyusyu Environmental Business Award (2008)

Friendly to Eco and safe. Strong and user-friendly new composite materials

Our company promotes to "recycle of limited resources" and realize a recycling-oriented society by research and development of recycling-based material made from waste wood and waste plastic.

Recycled Composite Materials of Wood and Plastic "ECO M WOOD"

The product recycled Composite Materials of Wood and plastic, "Eco M Wood" was developed and commercialized by our company and it has been retaining the product quality and safety performance which is supported by publicly recognized qualifications. It retains 90% of strength at an accelerated weathering test and maintains very low level of emission of hazardous substances and formaldehyde which is far lower than JIS (Japanese Industrial Stand). In addition, the skid resistance coefficient (CSR) of the product is $0.82 \sim 0.92$ and it exists with walking comfort and safety

"ECO M WOOD" is made from domestic timber. (Forest and Forestry Recycling Plan) The recycled material content is more than 90% (R90) and our 3 products are licensed to use the carbon footprint mark. While the product itself has a texture which is similar to tree, no splinter, hangnail, decay and termites occurs. It features that there is rather fading in the beginning, but the color doesn't change over the years compare with timber. It has been demonstrated that it is not seen much fading after 5000 hours (It is equivalent to approximately 10 years) by a weathering test, sun shine weather meter. Since the base material itself is colored scratches are less noticeable. It is easy to repair it with a niece of sandnaner also

No maintenance such as painting and preservative treatment is required. Since it only requires a regular cleaning and reduces LCC (life cycle cost). We recognize that using of this product, "ECO WOOD" itself is an environmental business for customers.

Moreover, it can be recycled that wood-based and resin systems waste wood discharged by the business as a raw material. (Recycling system of waste wood for customers). It is also possible to replace a dangerous wood deck by aging to a new recycled deck by using same recycled material without disposing.

It is also possible to forward approximately 3,000 t of our product in fiscal 2010 except for Chikugo Funagoya station and Marine Messe Fukuoka (multi-purpose facility). It evoked many responses as well.

<Prize winning work>

The First Time of Kyusyu Environmental Business Award "Outstanding Performance

The 12th Time of Fukuoka Design Association Award "Special Recognition Award" "encouragement award"

<authorization>

ISO9001 in 2008. JIS (Japanese Industrial Standards) (JISA5741). CFP mark (carbon footprint mark) for 3 products. Etc.





 An example of construction of deci at "MARINEMESSE FUKUOKA"



▲ An example of construction of deck at "Bayside Place"



▲ An example of construction of deck and bench at "KYLISYLLLINIVERSITY HOSPITAL

DATA ECO WOOD Co., Itd. Sales department marketing development section

Our company was founded to promote recycling and regeneration of limited resources in Kitakyushu city in 2002. We developed and sell recycling-based material "ECO M WOOD" which is made from waste wood and waste plastic.

We have been increasing sales, not only the sale of product, but also a beneficial proposal of new environmental business to customers. We would like you to use our product which combines both aspects. One is the thing that our product is renewable; the other is the quality of our product meets the severe criteria

1-12-1 Hibiki-machi, Wakamatsu-ku, Kitakyushu-shi, Fukuoka-ken, 808-0021 (TEL) 093-751-2424 (FAX) 093-751-2430 (URL) http://www.eco-wood.jp (mail) info@eco-wood.jp



Mr Ishimoto

K-RIPRODUCT CATALOGUE 2012 11

Research and development of "good for people" and "be pleased" technology

It was established taking an opportunity to start developing of Hybrid thermo system "ECOWIN". We aim to research, develop and commercialize heating and cooling system having everyone really smile.

Hybrid thermo system "ECOWIN"

Our Hybrid thermo system "ECOWIN" was developed by our own technology, and is a radioactive (radiating type) heating and cooling system which is as kind to globe as to people

It is a system that uses extreme infrared radiation, and it does not produce the local temperature difference that an air-conditioner of forced-convection type does. That is why, it is possible to affect to floor, wall, ceiling, object and human body directly and you can feel the heating and cooling temperature as an effective temperature. It also features to cut down 30% of energy efficiency compared to a multi-air-conditioner for building.

"ECOWIN" warms up and cool a room by extreme infrared radiation radiated cold water and hot water in a 6 cm (diameter) of aluminum tube (hybrid thermo element). It has a special coating developed by us on the tube to make it easier to radiate.It produces a comfortable space by extreme infrared radiation using technology which let our body cool and warm up from the core of the body.

It does not pollute the air of the room, and does not let it dry as well. It is major features of ECOWIN that there is no unpleasant smell and even it produces a clean air. Since there is no unpleasant sound and wind compared to usual air conditioners, it reduces
It adsorbs and resolves VOC (Volatile Organic the risk of air-borne infection.

In addition, because it is a radioactive heating system, the air does not dry in winter and it is gentle to your delicate skin and throat.

Radiating panel of "ECOWIN" is a powerless and non-filtered that traditional air conditioners have. so compared to traditional air conditioners, it has a product life cycle. It also reduces the maintenance costs.

Circulating fluid flowing inside of "ECOWIN" is up to 7 to 60 degrees, so it is low temperature and

In terms of reducing heat damage to a building. It is an environmentally friendly products.

<Main element and measure>

Timer function/Quietness-no sound with powerless/ Rise time-30 minutes (Standard system, at next generation's energy-saving house, 22 Tatami mats size)/ Weight-70kg without

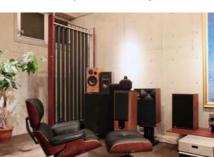
Can be moved with 2 people/ How to delivery-It is possible to assemble on the spot.

Can be replaced the repair parts/ Heating and cooling system- a radioactive (Big) plus free convection (Small)/ Thermal efficiency- extreme infrared radiation to angle of 360 degrees/ Thermo-coating- extreme infrared radiation rate

Compound) and cleans the air simultaneously as



▲ An example of establishment of hybrid ecowin house





▲ High efficiency heat pump equipment



▲ Very safe at facilities such as primary school

DATA Eco Factory Co., Ltd.

It was established in 2006 taking an opportunity to start developing of Hybrid thermo system "ECOWIN" in 2004.0ur "ECOWIN" is a heating and cooling system having everyone really smile. So far, we have appreciated a lot from everyone such as "Encouragement Award" at Kumamoto prefecture Industrial Award, "Excellence Award" at the 3rd Japan Manufacturing Award in 2009, and "Excellence Award" at New Business Kyushu Award in 2010. In recent years, it has been promoted the development in China and other countries as well as domestic. We aim to research and develop "good for people" and "be pleased" technology and commercialize good products.

2-17-7 Suizenji, Kumamoto-shi, Kumamoto, 862-0950 〈TEL〉0120-539-666 〈TEL〉096-381-7033 〈FAX〉050-5509-9395 \(\text{URL}\)\) http://www.ecofactory.jp \(\text{mail}\)\) ecowin@ecofactory.jp \(\text{URL}\)\) http://www.atelier-locus.jp(atelier-locus)



Mr. Murakami

C04 Eco-Works Co., Ltd.



■ Kyusyu Environmental Business Award (2009)

Pioneer way of building a house with full use of nature

Our company contributes to society ecologically and economically with our high technology and fine operation system.

Hybrid Eco House

Our Hybrid Eco House is a custom home which is built by the ideas of using natural materials and living there with natural energy. It allows us to create a low-carbon society because it uses natural materials, has good building performance and will last for long.

We suggest using equipment which can create energy from natural resources such as solar thermal, sunlight, ground temperature, wind power and rainwater. We research client's lifestyle and propose them to apply pioneer technology including the system which collects cold and heat from ground, and also have many plans for clients to choose.

Compare to iron or concrete, wood is more eco-friendly material. We only use wood which approved by Forest Stewardship Council and also reduce carbon dioxide emissions by air seasoning. Our technology allows the life of a house to extend dramatically and it also saves environment and reduce carbon dioxide emissions.

Building a house with bunch of those pioneer technologies cost a lot. Therefore it tends to be disliked by client but we reduce those cost of constructions by using various subsidiary aids and make it cheaper and we purpose to spear the hybrid eco-house.

Summary of Hybrid eco house + smart

HYBRID 🎉 ECO OS HOUSE

2010 September: sales volume 1.15 billion yen (total of 38 houses)

2011 September: sales volume 1.47 billion yen(total of 50houses have been scheduled)

2006: first place of fine OM use constructor from OM benevolent society.

2009: Kyushu environmental business award, prize for encouragement Ministry of Economy, Trade and Industry

2010: 3 years in a row Ministry of Land, Infrastructure and Transport/Ministry of Economy, Trade and Industry/2 years in a row Ministry of Land, Infrastructure and Transport

2011: 3 years in a row Ministry of Land, Infrastructure and Transport/Ministry of the Environment



▲ Bright and comfortable space by using natural material



▲ Hybrid Eco House

DATA Eco-Works Co., Ltd. Fukuoka Office

EcoWorks means environmental activity. We named our company with the purpose that not only to build house for customer but also to contribute to the society by ecologically and economically. 'W' from our logo stands for wood and works. Orange circle represents solar energy. Two leaves which grew from W represent ecology and economy. Overall, it represents our concept of living that live in a house which can use solar power as energy resource and save energy and create eco friendly society.



1-5-32 Takeoka-machi, Hakata-ku Fukuoka Japan, 812-0878 (Fukuoka Office) 2-3-25 Mawatari Kumamoto-City, Kumamoto Japan 862-0968 (Kumamoto Office) 〈TEL〉 092-404-9200 〈FAX〉 092-404-9201 〈URL〉 http://www.eco-works.jp 〈mail〉 info@eco-works.jp

Mr. Oyama

12 K-RIPRODUCT CATALOGUE 2012

C05 NPO Environmental Core

NPO finds the possibility of utilization of biomass.

We are a nonprofit organization proceeds with companies, administration, and the citizens to realize global environment conservation. We contribute to the development of local communities by supporting forming sustainable recycling-based low carbon society.

Research of business supporting construction at a biomass town

We research and extract some business challenges and needs to utilize biomass from a neutral stand for local governments in isolated islands and mountain villages having biomass in Kyusyu district. Various business models (business) suitable for each region will be suggested by specialists and advisors of biomass Town.

Our business is to aggregate service, technology, and know-how that is impossible to be done by a single company by cooperating with others such as K-RIP (Kyusyu Recycle and Environmental Industry

We offer suitable technology from a wide range of technology to a company that hope to utilize biomass, being neutral to manufacturer's specific

By cooperate with local governments, we offer a problem-solving proposal from a neutral stand.

We visited and sent out a questionnaire survey to biomass towns, isolated islands and mountain villages at 50 areas in Kyusyu district selected by K-RIP project in 22nd year of Heisei, 2010.

Moreover, the results were analyzed and the problems were classified.

In addition, we grasp the unique business challenges of local government, and advisors of biomass town and environmental specialists summarizes the solution of the business challenges (funding, business profitability, inlet and outlet problem) and give a suitable business advice to local

(I)Questionnaire, public hearing Technology, ervice. Knowin Kyusyu district Problem and deman Effective Biomass towns in (47 areas) 20 local governments i mountain villages Biomass Nippon general strategy The basic law of biomass applies promotio Sustainable recycling/low carbon society

▲ Cooperation scheme and a role of Environmental Core

Support business utilizing biomass

This organization has proposed a business model utilizing biomass based on research of business supporting construction.

This work is also based on "provision of concrete technology, services and know-how" and "an advice by each specialists"

We have various proposals of example of business model.

(I)New technology to obtain high-quality biomass fuel directly from various oils and fats, and unused, waste biomass.(2)Technology and system making livestock food and compost from food wastes.(3)Compost in a cardboard box.(4)Drying technology of food residue by a heat pump.(5)Livestock waste, making fertilizer from sewage sludge, biogas, and methane fermentation technology.(6)Biomass Plastic.(7)A system utilizing woody biomass etc.

We have visited 21biomass towns in Kyusyu district and carried out a public hearing there. We also proposed II of them to commercialize.





▲ An example of business model by technology cooperation

NPO Environmental Core Biomass Project bureau

Our organization is NPO (specified nonprofit organization) which was established in 17th year of Heisei, 2005 in consideration of realizing global environment conservation, to support forming sustainable recycling-based low carbon society with companies, administration, and the citizens, and to contribute to the development of local communities. In order to promote biomass utilization projects, we support to build a biomass business in biomass town in Kyushu district by utilizing Environmental Core's business mind. It is possible to build well-balanced business solution of economic efficiency (such as cost) and environmental (such as environmental impact) from a neutral stand which is as NPO.Please do not hesitate to consult us.

1-1-4, Takanobou, Kokurakita-ku, Kitakyushu-shi, Fukuoka, 8020053 (TEL) 093-752-5300 (FAX) 0-93-752-5303 (URL) http://www.env-core.jp (mail) ceres@fun-c.jp

C06 Environmental Technos Co., Ltd. K-RIP Project (2011, 2008, 2007, 2005)

From preservation to Creation of the future earth.

We aim to protect the global environment and make safer society by providing IT service.

Total environmental consult that scientifically investigate "the comfort, the safety, and the secureness'

We focuses on environmental problems and provide total consulting service.

Our former company has established in 1973, with aim to solve the pollution problems for small enterprises, In 1976, our company was listed as Kitakyushu Pollution Technology Center.

In the beginning, we focused on the typical 7 Pollutions, such as discharged water and emissions from factories, and provided analysis and measure service.

In 1980, environmental problems in ocean, rivers. seaports and railways became one of the main concerns in the public

Then we extended our service to environmental assesment to cope with these issues.

Moreover, after 1990, we started consulting business related with CO₂ problems, Recycling, energy saving, and reuseable energy.

We also provide the engineering service for environmental facilities, such as design, management, and maintenance

In the cooperation with industry-academic-government. we were able to announce the production of Constitutively environmental reference material and making use of Biomass.

In 1998, we changed our company name as Environmental Technology Service Co., Ltd.

Under our slogan. "Preservation to Creation", we started to expand our business in China.

In 1995, established Shanghai Kyushu Environmental Facility Company (engineering company)

In 2005, established Shanghai Green Circle Testing Company (product green test company)

In 2011, established Dalian Kyushu environment technology company (environmental monitoring

<Major business:

[Measure, Analysis Department]

Waterqualify/atmosphere/soil/noise,shaking/stren ch/industrial waste/dioxin/VOC/asbestos/RoHS etc. Related qualifications: Environmental measurement qualification office, Working environment measurement agency, construction cunsulting service, MLAP, Soil Contamination Countermeasures Designated Investigative Organization, ISO-17025

[Research Department]

Nature environment research: ecosystems animals, plants, bacterias, raptores, biotope space, mitigation. living environmental research: aerospace, waterspace, landspace, noise and shaking, trafic quantity, measuring, landscape, solar irradiation.

[Consulting Department]

Recycling system/ Environment and waste management/ecological assesment. simulation/energy saving, new energy, reducing CO₂/ environmental business FS/ market survay/ symposium/ planning, research.operation assesment services for ecological education.

[Engineering Department]

Water treatment, flue gas treatment, energy saving, wastes recycling, and soil pollution.









Business area



DATA Environmental Technos Co., Ltd. Business Department

Our company aim to fulfill the comfortable and safe society, that based on "Basic Environment Law" related to international ecological activities such as recycling system to provide eco-friendly society, and living with nature.

We are currently facing Environmental-related issues, such as global warming, toxic chemical substances, and resource circulation. We, Environmental Technology Service Co., Ltd, put our every effort to provide better environment for our earth.

2-4 Nakabaru-shinmachi Tobata-ku Kitakyushu-City Fukuoka (located in the Kitakyushu Techno-Park) ⟨TEL⟩ 093-883-0150 ⟨FAX⟩ 093-883-0701 ⟨URL⟩ http://www.kan-tec.co.jp/index.html ⟨mail⟩ kankyo@kan-tec.co.jp



Mr. Tsuruta

C07 Kenki Co., Ltd.

Make New Energy by Surplus Heat and Waste

We have been developing products with wealth of ideas to form an environmentally friendly, sustainable recycling society. We work from design, manufacture, construction, to maintenance service consistently.

an unused fire surplus steam continuous system dryer "Nandemo kawakun"

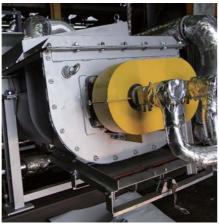
"Nandemo kawakun" is a dryer which dries from wooden solid to sludge adhere strongly. It can be used surplus steam ttraditionally emitted into the atmosphere from a factory to a source of heat of a dryer. It does not need new source of heat and uses unused energy. It leads the emission reduction of CO₂.

We developed an own screw wing does not adhere and made the dryer which dries various types of raw materials by a single dryer. We also have received proposals and cooperation from forestry technical center in Fukuoka Prefecture, Currently, we are engaged in a joint research with Kyushu University and have been improving it further.

We also cleared the drying of raw material with strong adhesion, such as sludge at low temperatures having been a challenge. Since low-temperature drying is not a direct heat drying and there is no change in the components of the raw material after drying, it becomes easy to

utilize as compost, fertilizer, livestock feed, and fuel after drying. This product can be done crushing and stirring while heating, giving hot air, and heat transfer drying at the same time. It performs 4 kinds of drying by a single dryer and we applied this structure of the dryer that other companies does not have for patent. It also features that the structure is safe, small, simple and easy to maintenance. We are currently developing a conversion of waste to fuel system including this product, and proposing an alternative fossil fuel after drying.

We have done business with three leading companies in domestic. We also have done business with Korea.



A.Nandemo kawakur

lintegrated a dryer and a biomass burner for the first time





High moisture content biomass, Alternative fuel of organic waste

It is a system that uses high moisture content biomass and organic waste that is not currently used as an alternative fuel.

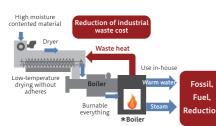
It was achieved by integrating a low-temperature dryer and a biomass burner with gas burning.

It has been progressed a dryer and a biomass burner individually, but the integrated system is nowhere except for it.

By integrating the low-temperature dryer with patent which dries from wooden solid to sludge adhere, and the biomass burner which burns various materials, it makes it possible to put raw materials with high moisture content to the drier Then, generated hot water and steam by a boiler is used in a factory. Since the source of heat of a dryer is from waste heat of a boiler, there is no need to generate new heat.

It saves the cost of industrial waste and petroleum fuel by generating steam and hot water from factory waste.

Since the fuel of this dryer is biomass and organic waste, it is carbon-neutral and leads to prevention of global warming.



DATA Kenki Co., Ltd.

We work from development, design, manufacture, construction, to maintenance consistently to offer you products which form an environmentally friendly, sustainable recycling society. In recent years, we are engaged in a joint research with Kyushu University and have been improving our product "Nandemo kawakun" further. It is a dryer which dries without fire but steam and received a support of market finding from K-RIP (Kyusyu Recycle and Environmental Industry Plaza) in 2010.In addition, we are also engaged in offering biomass fuel system which received a support of market finding from K-RIP (Kyusyu Recycle and Environmental Industry Plaza) in 2011.

3-9-7 Kamimuta, Hakata-ku, Fukuoka shi, Fukuoka, 812-0006 〈TEL〉 092-411-1203 〈FAX〉 092-411-1259 (LIRL) http://www.kenmori.biz (mail) info@kenmori.com



C08 Shitama Sekkai, Inc.



■ A.Kyusyu Environmental Business Award(2009), ■ B.Kyusyu Environmental Business Award(2009)

Contribute to agriculture with safe and secure recycling lime fertilizer.

Since it was founded in the Meiji era, under this corporate philosophy "the development of or company is with our business partners", we have manufactured and sold agricultural soil improvements such as inorganic/organic lime, organic fertilizer consistently.

Granulated slacked lime alkali 70

Agricultural soil improvements agent "Granulation slacked lime alkali 70" is a product that uses crashed and powdered lime which is from non-standard product of lime drying agent for food such as seaweed and returned used drying agent.

This product is mixed recycled and granulated quicklime as a binder and makes it easy to collapse after spraying. It remains good no less than alkali as a soil improvement.

Traditionally, it has been used powdered slacked lime mainly as sagricultural soil improvements and it caused health damage (such as visual loss and inflammation of the digestive organs) by its scattered dust. However, its scattered dust of slacked lime was widely decreased by replacing that to granulated slacked lime. Since we have contrived to let it collapse easily, it is scattered and penetrated to soil. So it does not cause any farm

products failure and improves its productivity and safety.

We have to build a new distribution and sales network to commercialize by tying up with JA Fukuren (Japan Agricultural Cooperatives of Fukuoka prefecture) since its product research and development stage.

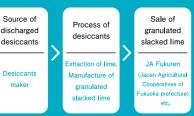
Award of a man promoted formation of recycling society by Fukuoka prefectural governor in October, 20th year of Heisei, 2008.

Award of a man promoted formation of recycling society by Minister for the Environment in October, 21st year of Heisei, 2009.

The 2nd Kyusyu Environment Business Award, Award of Excellence in October, 21st year of Heisei, 2009.



▲ A.Granulated slacked lime alkali 70



Sea lime

"Sea lime" is an organic lime fertilizer made from crushed natural oyster shells which is discharged from Itoshima area, Fukuoka Prefecture. Because it includes wealth of calcium, minerals and microelements, it is a high-quality, safe and secures fertilizer

In addition, the Granularity of the fertilizer is fine to be blended with soil quickly, it promotes the growth of agricultural products.

We have been able to establish a recycling society of waste which is based local production for local consumption in cooperation with Japan agricultural Cooperatives of Itoshima (JA Itoshima), Japan Fisheries Cooperatives of Itoshima(JF Itoshima) and Fukuoka Fisheries and Marine Technology Center through this product.

It uses oyster shells cultured and consumed in Itoshima area as a raw material. The organic lime fertilizers made by oyster shells sell and used by local farmers.

Traditionally, the oyster shells were dried with high temperature in order to remove the moisture of shells. With our own technology, the oyster shells need not to be dried with high temperature, and used heavy oil. It reduces the amount of carbon dioxide emissions during its production.

By inexpensive locally produced organic lime fertilizer, we also contribute to the managerial betterment of farmers.

It has been delivered all amounts of fertilizer to Japan agricultural Cooperatives of Itoshima (JA Itoshima)

The 3rd Kyusyu Environment Business Award, Encouragement award in October, 22nd year of



Recycling of oyster shell for saving land and sea

are recycled to a fertilizer and lime for line. We eturning the nutrition into the soils. Many safe

DATA Shitama Sekkai, Inc.

Since it was founded in the Meiji era, under this corporate philosophy "the development of or company is with our business partners", we have manufactured and sold agricultural soil improvements such as inorganic/ organic lime, organic fertilizer consistently. In recent years, by using our know-how we have accumulated, we analyze the problem of soil improvement that our business partners face and provide the best and environmentally-friendly solution. We develop new products to contribute to a recycling society. We will continue to meet the needs of the times, consider to giving a priority to our business partner's benefit, strive to research the best resolution for our business partners, and develop our business certainly and widely.



Mr. Shitama

547 Yubaru, Miyawaka-shi, Fukuoka, 822-0121 (TEL) 0949-54-0329 (FAX) 0949-54-0719 (URL) http://shitama.co.jp/ (mail) shitama-sekkai@mirror.ocn.ne.jp

All-in-one Vehicle for Recycle System

To neutralize Carbon, we put every effort for developing Portable carbonized thermal decomposition equipments.

Portable carbonized thermal decomposition equipment Carbon X-II

We developed this product for prevention of epidemics and sterilize for animal husbandry.

Introduced new technologies such as Carbonization gas control equipments and heat flow path heating chamber, without any dust or dioxin discharged. This equipment recycles carbonization gas, then increases thermal efficiency, that results reduction on burn-out fuel costs and running costs.

This product enables users process the pyrolysis carbonization on site. You can process and reuse the wastes on site and fulfill the communal recycle activities.

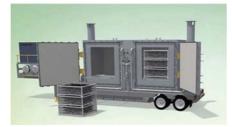
Additionally, All-in-one satisfies all necessary equipments required for recycling. The equipments for carbonization process are all loaded on trailer You don't need installation work nor construction permits. It doesn't discharge any dusts and soot, so there is no need to install bag filter. The design is very simple, so that you can cut the manufacturing costs, and easy to maintain. This product is considered as Vehicles,

and we offer the total lease contract, and this another attraction for expense processing. Our new technology, carbonized gas control equipment, reused all carbonized gas. You can save the costs for wastes disposal. Other new technology, heat flow path structure, enables to shorten the process time and save costs. This product. expected reduces the volume of wastes, and DE-toxify.

In 2012, it was selected as K-RIP Projects.



K-RIP Project (2011)



Feature of "Carbon XII" "Carbon XII" is a technology that does not burden environment and has been developed from the idea of recycling hydrocarbon waste on-site. Ocst for transportation of generated waste, reduction of processing cost Generated waste Reduction of processing running cost Process it directly at Deployment of environmental business Sale and commercialize of recycling hydrocarbon waste Contributing to recycling society by utilizing recycling hydrocarbon waste Contribute to the prevention of global warming by energy-saving operation **On-site** Recycling utilizing a dry distillation gas and non-emissions of air pollutants Achievement of Co-benefit, Simultaneous achievement of the prevention of global warming and pollution Reduced the cost of Realized Carbide=recycled transportation and method by batch processing Technology transfer to Asia area processing costs by In-vehicle

DATA Sumida Co., Ltd.

We focus on developing low carbon, recycling society to solve the environmental problems. To neutralize carbon, we made "recycling and DE-toxify organic substance using Biomass and carbonization" as concept, we put every effort for developing Portable carbonized thermal decomposition equipments. With consideration of traditional disposing method, such as landfill and incineration, we developed ecological method with enables you to dispose wastes on-site. We cooperate with companies and provide this recycling system for local community.

10-21 Koyo-machi Wakamatsu-ku Kitakyushu-City Fukuoka Japan 808-0002 (TEL) 093-701-8740 (FAX) 093-701-8741 (URL) http://sumida.main.jp (mail) sumida.info@sumida-eco.com

C10 SEIHO KIKO Co., Ltd.



Projects to find markets (2011)

Using hydraulic and pneumatic pressure skills for environmental recycling

We are committed to remaining a company that is indispensable to society through our untiring efforts and technological advancements. All our employees are devoted to constantly view things from the customer's viewpoint and to have a flexible and unrestricted way of thinking.

All-purpose one axis crusher SC-series

Through our unique control systems, our company's All-purpose one axis crusher SC-series is easily able to crush soft plastics such as flexible containers, tarps and PP band which are viewed to be relatively difficult to crush. There systems. (3) The availability of seven models which will not be a situation where the machine stops after biting into the material. It is able to crush materials which formerly were difficult to do so (NB. Metals, stone and concrete are not covered). The main points on the technology of the product are:(I)The ability to generate high torque

performance through the automatic reversing function incorporated through our unique control systems.(2) The ability to restrict the electricity usage of the motor through our unique control can handle between 5.5kW to I60kW.(4)Strong and durable design in the base and crushing room to withstand high torque performance.

The effects of the product include promoting thermal recycling and material recycling. We have to date supplied 360 machines domestically.



▲ A.All-purpose one axis crusher SC-series

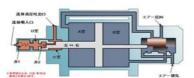
Air hydro (air drive booster)

This product is an air drive booster, which has used our superior technology and skills in hydraulic and pneumatic pressure equipment.

When the pneumatic pressure is activated, it can achieve a maximum of 800kgf/cm² in pressure and I30 ℓ /min in liquid flow.

The pressure levels can be freely adjusted. As the pressure is continually discharged, it does not generate pressure pulsation that is common in regular hoosters It automatically stops when it reaches the configured pressure level, operates with certainty even with miniscule operations, and is extremely quiet. Both water and oil can be used as

liquids.In terms of usage, it is light-weight (6.5kg) and compact, and therefore is portable by an adult. As it can easily generate high pressure oil and water by simply connecting to a compressor, it can improve your operation efficiency. We have to date supplied approximately 1450 machines both domestically and internationally.





Pruned branches, bamboo, grass grinder "Rub machine"

The "Rub Machine" is machinery that can grind plant biomass to a fibrous state through the strong power generated through the two screw type axis of rotations. Main merits and features include:(I)The ability to directly insert the processing product.(2)Lower malfunction levels through the use of two axis of rotations.(3)Low noise level due to the lower rotational speed.(4)Lower malfunction levels through the through special control systems.

In particular, the bamboo powder that is generated through processing moso bamboo displays exceptional usability and holds high expectations for future possibilities.

Bamboo powder is expected to have usability for: (I)Improving the fertility of soil on farmlands (2) Improving the taste of crops(3) Composting of organic waste matter such as food scraps (4) Silage

It can contribute to solving the problem of abandoned bamboo forests through recycling of bamboo matter.To automatic reversing function.(5)Lower electricity usage date we have supplied a total of 20 machines domestically, including 6 machines for the processing bamboo and 14 machines for uses such as biomass





Cross sectional shape of processed bamboo powder

DATA SEIHO KIKO Co., Ltd.

Our company was established in 1988 with the manufacture and sales of hydraulic and pneumatic pressure machinery. In 1998, we have entered into the environmental field of operation, have developed the hammer type wood scrap pulveriser, and through innovative technology started the manufacture and sales of the All-purpose one axis crusher which is mainly used to crush waste plastic. Currently we are designing and manufacturing our flagship "SC series", as well as the "SRM series" which is used to process bamboo and pruned branches. We are committed to remaining a company that is indispensable to society through our untiring efforts and technological advancements. All our employees are devoted to constantly view things from the customer's viewpoint and to have a flexible and unrestricted way of thinking.



Mr. Kadota

1-14-14 Nakahata Onojo-City Fukuoka Japan 816-0921 (TEL) 092-588-6216 (FAX) 092-588-6218 (URL) http://www.seiho-kiko.co.ip (mail) sc@seiho-k.com

High effective in soundproofing and insulation for gymnasium etc

Focusing attention on the noise problem since 39 years ago. "Full sun and green, crystal-clear air, and Living a quiet and cozy" are our philosophy. We are going to work on promotion of environmental soundproofing and thermal insulation which are modern society's issues.

Fully open mouth shape silencer (Resonance absorption shape silencer)

Regarding to placed our company's Fully open mouth shape silencer (Resonance absorption shape silencer) at the air vent it will reduce and prevent noise generated from the machine room and pump room, indoor of factories propagated to the outdoors. It will exert an effective silencing effect of 50dB at the maximum including the low-frequency band by "Expansion", "Resonance" and "Interference" which are characteristic of the soud. It is not required

large-scale construction; installation is easy and compact shape.

Not limited to new construction, you can also countermeasures in existing buildings with short-term. Also pressure loss is small and can be adapted for low-power blower so it is possible to reduce running cost. We already have experience in the delivery of 3500 units to the Ministry of land, Infrastructure and Transport and local governments.



Open shed type of exhaust muffler urban 80

Projects to find markets (2008)

Total-soundproof construction (Multiple layered panel of absorption and sound insulation, soundproof-wall, soundproof-box, ventilation mute machine)

Our company is getting high evaluation of construction for corresponding to the overall sound insulation which chooses most suitable way for each noise source from various noises generated from factories etc. Basically our process is "Diagnosis" \rightarrow "design" \rightarrow "construction" \rightarrow "measurement".

And to working on for measures with technology of "Multiple layered panel of absorption and sound insulation" and "soundproof wall"measures by construction to outside of existing. Air vent measures by using the silencer and soundproof-box measures which for stored equipments. It will be less than noise control standards (ex.50dB (A)) at the site boundaries by implementing. There are proven track record of more than 100 of construction for factory noise prevention including 3 case studies of small business improve pollution control were entered in





IL-Joiner

IL-joiner is a one-touch inset ceiling systems which can easily construction of insulating material and sound absorption material.

It is light in weight because made of aluminum; also it can finish in rich

variety according to the shape and color.

It is shock resistant and is optimal for construction of the gymnasium ceiling. Also available to existing buildings. This product has two peculiar construction methods.



▲ Detailed structure of

(I)Of insulation and radiant rays removal work (air laver construction method)

Will reduce the amount of 5~7°C radiant heat from the outside by to paste insulation material(glass wool) on the wall or ceiling surface from the indoor side. So cooling cost reduction is possible.

(2)djustment construction of room acoustics and reverberation time(IL system construction method) Do acoustic improvement by placed sound absorbing material on the ceiling, to improve phenomenon of difficult to hear sound cause of long reverberation time like multipurpose hall. You can maintenance a comfortable acoustic environment for such as a meeting or sporting event



▲ After establishment of "IL Joiner

DATA Daiya Kucho Co., Ltd. Business Technology Department

Our company is founding in 1970 and since then we are working on energy conservation and noise pollution solution through the insulation and soundproof. About noise field we have develop silencing technology in cooperation with industry, academia and governments. In recent years we have certification to "small performance superior technology" (registration number: QS-060014-V) at NETIS (New Technology Information System) of operational management at the Ministry of Land, Infrastructure and Transport. Daiya Kucho Co., Ltd will contribute to creating a great clean living in the future based on the respect for human beings and economic efficiency by working on with "environmental, soundproof and thermal insulation" which are modern society's issues.





Mr. Taiima

Providing services and products to aim for 15% cost cut

We are providing the know-how that is aiming to '15% cost cut' as a support of customer's 'cost reduction' and for 'energy saving measure'. We also providing the high effective business control software based on instruction achievements in each institution.

Selling Energy-saving lamp "Non-electrode discharge lamp"

Our company is selling the energy-saving lamps named "electrodeless discharge lamps" instead of mercury-vapor lamps or sodium lamps.

The electrodeless lamps mechanism is based on the principle of electromagnetic induction and radiation. Since it doesn't have a filament electrode in the luminous tube like a fluorescent light or mercury-vapor lamp, its life isn't influenced by consumption of the electrode and the lamp is able to spend light much longer than the other types.

For example, a 400W mercury-vapor lamp corresponds to a LOOW electrodeless lamp and the life of non-electrode lamp is about ten times of the fluorescent light and five times of the mercury-vapor lamp.

The lumen depreciation compared with a mercury-vapor lamp is also overwhelmingly less. After 2000 hours of operation the lumen depreciation of the electrodeless lamp is 5% and the mercury-vapor lamp ones is 45% (By our

The product is excelling as it lights immediately

and it is steadying with no flickering and glaring. Since the heat generation is also low, it decreases the air conditioning cost. The electrodeless lamp has a PSE (Electrical Appliance and Material Safety Law) mark.

The installation of the electrodeless lamp is advancing rapidly to commercial facilities that are requiring correspondence to new generation of energy-saving.



▲ (Left)mercury lamp 700W (Right)electrodeless lamp 250W



▲ (Foreside)base type (Below)square type

Aluminum fin cleaning services of air conditioning outdoor equipment

The fin of air conditioning outdoor equipment becomes dirty easily. Even when covered with as little as 0.25mm dirt the electricity cost will increase by up

Our company is using a special chemical cleaning agent by National Chemsearch (a company that is expanding to more than 60 countries in the world) to clean the fins which improves the heat exchange significantly. Which means it is able to shorter the time for the same amount of heat diffusion.

If the outdoor equipment is clean it is not only an improvement of the work environment, but also increases efficiency and leads to an extend service The average cost-down of electricity is 14.7% and it contributes to save the energy. (Conformity of

For example, when we cleaned an air conditioning unit of a company the power consumption decreased from I0.I5A to 8.00A. (By our investigation)

Cleaning saved 21% electric power consumption at

When we cleaned an ice-making refrigerating machine the high pressure decreased 0.2MPa and we could save about 8% of the costs. Our services have been introduced to hospitals, factories, offices, supermarkets, and so on.



Aluminum fin cleaning services

DATA Change-Value Co., Ltd

Our company supports cost reduction and energy saving strategies of the customers that are in prolonged recession. Since we started the business in 2009 we succeeded to instructed customers about energy-saving in more than 2,000 places.

And we are developing high-effectiveness business control software named "Eco-active" that systematizes our own know-how and our cost-cutting experience In addition, Please inquire to us regarding consulting of energy cost strategies or office cost, tax and insurance strategy



#508 1-1-1 Fukumaekihigashi, Fukutsu-city Fukuoka Japan, 811-3208 (TEL) 0940-36-9001 (FAX) 050-3488-4445 ⟨mail⟩ info@changevalue.co.jp

Mr. Sugimoto

C13 Nippon Steel Kankyo Engineering Co., Ltd.

■ A_•Kyusyu Environmental Business Award (2010), ■ K-RIP Project (2009)

Provide the Best Solution with Latest Technology

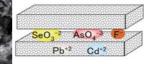
We, Nippon Steel Kankyo Engineering Co., Ltd., provide the latest technology to protect the environment, and solution to meet the needs of citizen .

Hydrotalcite heavy metal adsorbent

This new product introduced synthesis technology of dry hydrated layered clay mineral. It enables to produce at low cost and achieved high stability and efficiency of the absorptive treatment of heavy metals. (Patent pending)

We design the product with absorptive performance on your demand at reasonable price. It adsorbs number of pollutants as follow; arsenic, lead, fluorine, selenium (IV),zinc, and cadmium.





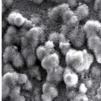
The adsorption of hydrotalcite (image picture)

Schwertmannite adsorbent

Schwertmannite adsorbent use the material adsorbed component and adsorption of composite material with the material of active hydroxide iron and active calcium silicate, it is the adsorption material was molded into a granular powder or granular. (Patent No.4344187 and No.4420634). We design the product with absorptive performance on your demand at

reasonable price. It has the effect of suppressing elution and re-adsorption of heavy metals, the sorption of contaminants by mixing with pollutants. When it's mixed with pollutants. adsorbs the pollutants.

It absorbs number of pollutants as follow: arsenic lead, fluorine, selenium (IV), hexavalent chromium, and cadmium.





▲ The image picture of

Bio Attack, Bio Diet

The combination of excess sludge reduction device of "Bio-diet" and "Bio Attack" high efficiency BOD removal equipment, it can be expect of reduction of industrial waste due to due to the treatment of excess sludge microbial BOD (industrial waste) in

In addition, the "Bio-diet" is a general target of excess sludge (regardless of the industry); you can also apply to the field of sewer.

For "Bio Attack", if it is 2 times of the amount of BOD processing load, not required for large expansion of the aeration tank, the sludge can be expected to affect weight loss of about 20 to 40%. "Bio-Diet", is only configured of the storage tank facilities and chemical reaction vessel, it is very easy to use. Sludge weight loss effect can be expected about 40 to 75%.





▲ (Left) The electron microscone photo of bacteria dealt with "BIOATTACK" (Right) The electron microscope photo

of bacteria dealt with "BIOADIET"







High efficiency aeration equipment "Triton" is uses for

High efficiency aeration equipment "Triton", Decompression condenser "Ecoprima"

activated sludge treatment, anaerobic denitrification process and aeration of adjustment tank. There is no need for liquid disconnect, since it is equip on the surface of water-tank. We have eight types of machine. from 7~52.5kW (multiple units installed by processing volume and tank capacity), power cost is $0.5 \sim 0.8$ Compare with existing products. Also, concentrated under reduced pressure device "Ecoprima" is able to

concentration reduction of industrial waste (plating waste, alkali waste, and other waste liquid). It is easy to equip since the package equipment, depending on water evaporation capacity, there are 19 models from 0.15~ 12 m³ per a day, concentration of 5 to 10 times, power is 100~150kW/ m³, which is cheap. It is possible to concentrated in a low price by using of heat pump. Also cost of industrial waste can be expected to reduce.

C14 Nippon Kanryu Industry Co., Ltd.

■ Kyusyu Environmental Business Award (2010)

Take Pride in an Excellent Water Permeability, Grass-proof from Natural Materials.

Under this management principle, "Continue endless challenge for the creation of environmentally friendly and safe society" we are developing products that contribute to a local community by recycling and cycle life.

Grass-proof from natural soil "Weed Attack"

"Weed Attack" is a grass-proof from natural soil and a paving material made from Natural Materials. It is premixed Fine decomposed granite soil and mountain sand Selected carefully with extremely safe mmagnesia soil solidification material (magnesium oxide) that originated in the sea and a It is used as a reinforcement by cutting bamboo hamboo short fiber.

In addition, it is an environmentally friendly product by adopting traditional Japanese culture and wisdom to make a mud wall and an earth floor. It has been developed as a material that does not use any kind of cement but only natural materials.

As a general use, put a thin layer of "Weed Attack" (about 3cm thick) on average, and sprinkle with water on it, then compact by a roller and a trowel. Simply solidify it with natural color of soil and make a grass-proof and a low cost pavement. Only by that process, it is solidified with natural soil and will not grow any weed there. It lightens you to to remove weeds.

It releases you from a troublesome weeding and has excellent water permeability. It is also effective to a depression effect of heat island.

We contribute to a local community by recycling and cycle life.



▲ The scene of volunteer clean-up activities

We use bamboos cut down at a left bamboo grove in Kitakyusyu city by volunteer s conservation activities of Satoyama (undeveloped woodland near populated area) and gained from bamboo shoot farmers in Fukuoka prefecture.

such as a cotton fiber.

We have been donating a portion of the proceeds glass-proof/ a paying soil and commercialized as a of the product to conservation activities of Satoyama (undeveloped woodland near populated area). Through volunteer activities such as clean-up activities, we aim to contribute to a local

Ministry of Land, Infrastructure, Transport and Tourism, Fukuoka prefecture, Saga prefecture, Nagasaki prefecture, Kumamoto prefecture, Kagoshima prefecture, Miyazaki prefecture, Oita prefecture, each municipality, Kyushu Electric Power Co., Inc. etc.

It was selected as an Eco-premium product in Kitakyushu in 21st year of Heisei, 2009.

The 3rd Kyusyu Environmental Business Award (award of excellence) in 2010.



▲ The scene of volunteer clean-up activities







DATA Nippon Steel Kankyo Engineering Co., Ltd. Environmental Consulting Department/Water Solution Operation Department

We, Nippon Steel Kankyo Engineering Co., Ltd., put "The Environmental Solution Company that inherits better environment to the future generation" as our slogan. We provide advanced ecological service and best solution with our comprehensive engineering force.

"Hydrotalcite heavy metal adsorbent" received "Honorable award" in "The 3rd Kyushu Environmental Business Award" "Schwertmannite adsorbent" is supplied in construction sites nationwide. "Bio Attack" and "Bio Diet" are supplied in more than 100 plants nationwide. We received many Awards, certificates, and great reputation from clients.

2-2-1 Nishi-honmachi Yahata-higashi-ku Kitakyushu City, Fukuoka, Japan 805-0061 (TEL) 093-661-1667

⟨FAX⟩ 093-662-3362 ⟨URL⟩ http://www.nske.co.jp ⟨mail⟩ m_haga@nske.co.jp



company

DATA Nippon Kanryu Industry Co., Ltd.

Our company was established for the purpose of manufacturing a pitch cokes for an electrode in Kurosaki, Yahata city at the time (Kita kyusyu city at present) in 1939. At present, under this management principle, "Continue endless challenge for the creation of environmentally friendly and safe society", we run a business in 3 fields. "Civil engineering and construction" (construction and sales of traffic safety facilities.) "Disaster prevention" (sales of emergency supplies.) "Chemicals" (manufacture insoluble sulfur and grass-proof soil.) In order to realize a

reliable securely established corporate entity in the future, each department will be independent and supply the deficiency each other to go



Mr. Sawai

1-11-11 Maidashi, Higashi-ku, Fukuoka-shi, Fukuoka-ken, 812-0054 (TEL) 092-632-1007 (FAX) 092-632-1027 (URL) http://www.kanrvu.co.ip/ (mail) hamashima@kanrvu.co.ip

22 K-RIPRODUCT CATALOGUE 2012

Expand the Possibilities of Limonite nurtured at a field of Mt.Aso

We research the possibility of "brown hematite, limonite" which is a rare natural materials natured from Mother Nature of Mt.Aso and develop technologies and products which correspond to various environmental problems.

Waste oil deodorant A.S.O

"Waste oil deodorant A.S.O" is a product made from natural limonite natured from Mt.Aso. The way to use is sprays A.S.O to places where oily and smells bad. It is effective to a clogging of piping and a stench caused by accumulated fat, food residue and a detergent flown into

in large quantities everyday from restaurants and food processing factories. It has a reducing effect on a grease trap, a stench in a septic tank, and hexane extracts which indicates oil content in water. Certainly it is an ecologically-friendly product does not tax drainage.

Limo carbonite

"Limo carbonite "was developed as a deodorant. It is a thing specially processed to natural limonite which exceeds an absorption effect of gas and has been mined at a caldera of Mt. Aso. It is an effective product which exceeds absorption of stench such as Ammonia. Methyl mercaptan.

Trimethylamine, and Hydrogen sulfide. In addition, because "Limo carbonite" can be varied the shape, it is available to deodorize at rooms, refrigerator, entrance by filling it up with a waste basket and a container. It is disposable safely as a general combustible as well.



▲ A.Waste oil deodorant A.S.O

Devulcanizing agent Limonic

"Limonic" was developed to eliminate Hydrogen sulfide. As a DE vulcanizing agent made from natural limonite natured from Mt.Aso, it is possible to remove Hydrogen sulfide including a biogas created at sewage treatment facility, wastewater treatment facility such as a factory, and biomass facility etc. It is also possible that used agents can

be recycled and regenerate raw materials. Our company has been working of filling up, collection, disposal and recycling consistently. We have been having the high effect at places such as an administrative organ, a food factory, and a biomass power plant.













▲ C.Devulcanizing agent Limonic

B.Limo carbonite

DATA JAPAN LIMONITE Co., Ltd. Kumamoto Business Office, Environmental Planning Division, Planning and Development Group

Iron ore and brown hematite, limonite spread under the ground of Mt.Aso, Kumamoto prefecture are precious assets. They have been nurtured for a long time by nature such as a volcanic eruption. Since it exceeds to absorb gas and toxic substances and contains a lot of iron and mineral balance such as calcium and magnesium, it is suitable for livestock feed and a soil conditioner.

Our company, JAPAN LIMONITE, research this rare naturally-derived material and develop technologies and products which contribute to





Mr. Kuriya

Fukuoka Institute of Bio industry and Development Co., Ltd

Selected actinomycete provide environmental-friendly and hygienic animal breeding

We provide recycling and DE-toxify of organic wastes system, through the composting technology for garbage, pruned branches, mowing and feces

Ecologically functional cattle shed material "Super Houzou"

It is a microbe materials that can improve the shed environment. After installation of actinomycete in the shed, the heat from fermentation of actinomycete prevents outbreak of virus. According to the research from health center, the number of colon bacillus are fewer than wooden chips. It enables you to manage the shed clean, also reduce the medicament in use. Moreover, there is no need of spreading materials. it enables you to decrease the heating cost and

Here is the special features for this product.

sewage disposal cost.

(I) Able to cut down the composting term, using the feces decompose-bacterias

- (2) Prevent the vermination or bad smel
- (3) Prevent the out break of coliform in piled feces
- (4) The warm floor increase the demand of baits, and reduce the gas charges.
- (5) Prevent the matter against compost diesease

Adopted in Y Company., A company., F poutry farming co-op., K hatching farm Co.,Ltd etc.



▲ A.Super Houzou 20 ℓ



▲ The scene of scattered "Super Treasure" at a henhous

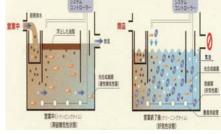
Grease trap sludge breakdown system "E-System"

This system break down the sludges produced in restaurants or food factory.

We especially use the AS(Acti soil bacilli, selected actinomycete, photosynthetic bacteria etc.) that can break down the sludge efficiently. It enables you to cut down the costs through the number of scouting, purify the air.

Aeration accelerates break down procedure that can only be done during night time, so it is much better than the traditional way.

Out system was chosen as part of "K-RIP Project", also selected as the first project in Kyushu by Industry/Academic cooperated organization. (It carried out by the cooperation with Kyushu University and



Organic wastes Recycle accerelator "Houzou"

This product contains the selected actinomycete that breaks down the organic wastes.

With its degradation ability, it break down the lower fatty acid that responsible of bad smell. Also it produces the high quality compost in shorter period of time.In paticular. it helps the recycling of organic wastes such as gabages, pruned branches. feces in short period of time, and produces high quality compost. "Treasure" make composts quickly, (in 3-4weeks), without strong smell or

Produced compost that contains rich of actinomycete, prevent crops from desease, also reduce agrichemicals in use.

Adopted in MLIT, Kyushu Regional Development Bureau, Cattle breeders in Fukuoka, Garbage Recycling Community in Kurume-City, Kurume municipal elementally school etc.





▲ C.10 ℓ bag of "Houzou"

PATA Fukuoka Institute of Bio industry and Development Co., Ltd Research and development department

Our company focus on Recycling and de-toxify of organic wastes. Especially in composting technology field, we have good reputations from many clients.

We will put every effort to encourage organic recycling society, and agriculture in Japan.



company

3138-7 Kitanomachinaka Kurume-city, Fukuoka, Japan 830-1113 〈TEL〉0942-78-6135 〈FAX〉0942-78-0201 (URL) http://www.fukuseiken.co.jp (mail) houzou@fukuseiken.co.jp

C17 MIYABO Co., Ltd.

Ecological Paint which blocks the heat. Simply Paint It on Buildings

We work on a business about a heat shield for the purpose of blocking the heat to buildings by utilizing our know-how and business result gained at waterproofing work for many years.

Ecological heat shield paint "FARM BARRIER"

"Farm barrier" was jointly developed with NIHON TOKUSYU TORYO Co., I TD. and is a heat shield paint to block the rise of temperature in the building. As a measure of heat at agriculture and livestock industry, it aims at alleviating a heat death of livestock in a barn in summer by temperature rise and breeding difficulties. In addition, our new product "FARM BARRIER Tio" is a product which is raised the heat shield effect to the maximum by adopting further demands and reviewing the contents.

It also utilized as a livestock feed tank and a drum part of a ready mixed concrete truck. It has been proceeding to develop a dedicated primer (adhesive) "FARM BARRIER heat primer W" and will be able to further amplify the heat shield effect by using it together. Regarding the primer, it is not only for gluing, but also it is a product added a heat shield effect to meet customer's needs. As the effect of the product, it is expected to gain 20 -30 degrees of heat shield effect on the surface temperature (on a metal roof) in the scorching heat of summer by applying an appropriate amount of coating (50 m2 /can).

In addition, this product can be blended with our original antimicrobial and alleviate to adhere such as mold to surface of paint film which is a vital of a heat shield effect. And what is more, we corresponded a toning of heat shield paint which has been said that it is difficult to do and now it is possible to represent with various colors



Heat shield coating for ready-mixed concrete truck

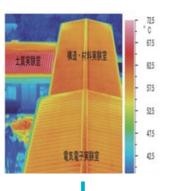
At present, we have delivered to producers such as Federation of Economic Organizations of Miyazaki Prefecture (JA Miyazaki) and other JA (Japan Agriculture).

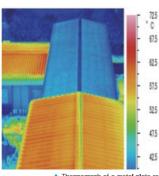
We had approximately 30,000m2 of construction area and there was not any complaint from customers after delivery last year. We retain a very high customer satisfaction. As for product sales we take orders from ready mixed concrete industrial associations and factories nationwide. It has been adopted in 25 prefectures and the total number of unit is exceeded 700 units all over Japan. The assistance of by granting a subsidy to small and medium - sized enterprises in Miyazaki prefecture in 21st and 23rd year of Heisei, 2009 and 2011. Support Project for reinforcement of management foundation in construction industry in Miyazaki prefecture in 21st and 22nd year of Heisei, 2009 and 2010. Find a market for cluster of new products in 22nd year of Heisei, 2010. Support Project at KIP (Kyusyu Recycle and Environmental Industry Plaza) in 22nd year of Heisei, 2010. Develop new markets and coordinate at The Organization for Small & Medium Enterprises and Regional Innovation in 22nd year of Heisei, 2010. "Frontier Program" at Ministry of Land, Infrastructure, Transport and Tourism in 23rd year of Heisei, 2010. The above is the evaluation that we have gained.





▲ The scene of "FARM BARRIER Tio



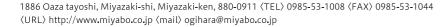


▲ Thermograph of a metal plate roof before /after heat shield coating

DATA MIYABO Co., Ltd. Environment business department

This is the 42 years since this waterproof contraction company was established. It is launched a new business in 20 year of Heisei, 2008 and we received an approval of the Management Improvement Plan in Miyazaki Prefecture. We call it a consulting service of temperature suppression in a building by using heat shield paint and construct to a variety of buildings.

In recent years, we are striving to create clean energy by using an ultra slim type of solar module while striving to a heat shield. This plan has also received an approval of the Management Improvement Plan in Miyazaki Prefecture in 24th year of Heisei, 2011. We will continue working on the development of "heat shield paint FARM BARRIER" and hope you will continue to patronize us.





Ryoko-Industry Co., Ltd.



Projects to find markets (2009)

The 'Technological skill 'acquired over the years established the No.1 system in the world

We established the technique of advanced composting plant that is rated as the 'No.1 system in the world' with more than 30 years efforts to produce good quality organic compost. (Fully matured compost)

High quality composting system for organic waste treatment plants

This product is a recycle system that produces high quality compost including fulvic acid iron from organic waste by means of a mixing device which employs a special scooping method. This method creates favorable conditions for microbes to process organic waste (garbage, farm animal' s feces, sewage, excreta, slime, pruned branch, and do on...) by strongly stirring the waste with a mixing device. The mixing device features a dedicated, abrasion and corrosion resistant stirring chain. This process produces good quality and fully matured compost

This product has designed for more than 20 years' service life with excellent function and super-rigid structure designed based on our long experience and achievement. We have been making our efforts to put the fermentation tank higher to reduce the ground space. The system itself has a high capacity and is able to operate automatically for 24 hours. In contrast to incineration of organic waste, this system doesn't create any CO2 emissions. In addition, it is able to operate at 1/10 of the cost by using this system. Groundwater contamination by corrupt gas or waste fluid is prevented by means of waste reclamation, and also able to create bio-fuel with a very low price. Selling the high quality compost made by this system, we would expect for additional income.

It is basis... The compost itself has great appeal. Compost is not only essential to increase production of safe agriculture products, it is also important for organic agriculture products since this compost has fulvic acid iron which is essential for farms. And it will help to recover original nature environment like purification of rivers and regeneration of maritime life.

Fulvic acid iron is in the final product material (humic substance) of plant resolved by microbe, iron complexes of fulvic acid amorphous polymer. which is an organic acid does not precipitate by acid and known by the effect of promoting the growth of plant

27 plants for domestic, and supplying to Indonesia, Republic of Palau and so on in overseas. The quality of compost was highly rated, the acknowledge receipt the Environmental performance verification in 2007.



Strong mixing with a scoop style crosscutting device







▲ 24 hours full automatic unmanned operation

DATA Ryoko-Industry Co., Ltd. Sales department

Our company has been striving for an environment project to make feed from food residues or make compost from feces of farm animals. We are pursuing research to make good quality organic compost (fully matured compost) for more than for 30 years for our health, Japanese stock rising and cultivation famers.

The machine failure is less and the techniques of the scoop compost equipment that can produce good quality compost at steady, highly rated as 'NoI system in the world', and getting many inquiries from Japan, also from overseas.



Mr. Ohta

2167-1 Saikaimachi Nagasaki-City, Nagasaki Japan 851-3101 〈TEL〉 095-884-1829 〈FAX〉 095-884-3255 $\label{eq:co.jp} $$ \URL$ http://www.a-ryoko.co.jp $$ \mail inform@a-ryoko.co.jp $$$

26 K-RIPRODUCT CATALOGUE 2012

C19 YBM Co., Ltd.

Projects to find markets (2009)

Making tomorrow's Earth beautiful through underground and water technology

Since establishment, we have as a research and development manufacturer delivered a diverse range of products into the world that reflect the needs of various time periods. In the 21st century, we are committed to the research and development of environmentally adaptable machinery.

FJ Plant System (High efficiency oxygen supply system for factory waste water processing facilities)

The FJ plant system pumps the drainage water from the flow adjustment tank, efficiently supplies high concentration oxygen (90%+ concentration) within the FJ vapour/liquid mixing device, and returns the processed water to the tank for circulation processing. It multiplies the microorganisms in the tank, and reduces the water purity load (BOD,SS,n-Hex). It also improves the anaerobic conditions by supplying high concentration oxygen,

and suppresses the foul odor from materials such as hydrogen sulfide. It has also reduced the occurrence of sludge and reduced the blower operation rate. As it is compactly designed, it is able to be established within existing facilities. It was developed as part of the 2009 fiscal year K-RIP new market entering project, and has been supplied to drainage water processing facilities in food and meat processing factories, paper mills, and commercial kitchen cleaning facilities.



Geothermal energy air conditioning system

Through the excavation of several deep drilled wells of 30-100m depth that satisfies the requirements for usage for air conditioning systems, this system extracts heat energy for heating during winter periods and releases the heat from cooling into the underground during summer periods.By using heat that is colder than the open air during summer and heat that is warmer than the open air during the winter to exchange heat for eight locations in the Kyushu area.

the air conditioning system in the underground, it achieves an energy saving of 30-50%. As the effect of electricity usage for air conditioning is large at approximately 50% during the summer, the geothermal energy air conditioning system is particularly suited to the Kyushu area where the demand for air conditioning is high during summer. We have achieved construction in





Soil contamination investigation equipment, and the VOC contamination purification system.

The "Soil contamination investigation equipment" achieves low noise and rapid drilling through the vibro-excavation system, and is able to conduct soil contamination examination without using water that could diffuse contamination. The work is made simple through the ease at which the machine can be controlled and set during excavation, and maintenance is also straightforward due to the simple structure of the machine It can conduct soil surveys within towns where noise can be a problem whilst avoiding the risk of further contamination. We have supplied 200 machines domestically in Japan.

Furthermore, the "Mighty-Eco" processing device which can remove Volatile Organic Compounds (VOC) from contaminated ground water to levels below those required by the environmental quality standard, has also displayed processing performance in a large number of situations.



Machines with low noise)

Jet stream water quality improvement device

The Jet stream water quality improvement device supplies high concentration (90 %+) oxygen and ozone gas using the high efficiency oxygen supply technology. It processes low oxygen concentration water and discharges them as high oxygen

concentration water. By returning the water to the bottom layer, it is expected to improve bottom quality at the same time as addressing the low oxygen concentration issue. Furthermore by supplying ozone gas, it will assist in improving the water quality and bottom layer low oxygen concentration in lakes and marshes through killing algae blooms, improving odor from anaerobic gas, and improving transparency of water. We have already installed the device at more than 200 locations. including for the Isahaya Bay where low oxygen concentration is a problem, dealing with algae bloom problems in lakes and marshes, and also at live fish centers, fishing ponds and pre-stressed concrete tanks in water purification plants.



▲Jet stream water quality



▲ Device for water bloom of

YBM Co., Ltd. A Technology Business Department/B,C,D Technology Development Department

Since establishing as the former Yoshida Ironworks in 1946, we have as a research development manufacturer delivered a diverse range of products, such as bowling equipment's, excavation tools, and high pressure jet pumps for pouring concrete into steel sheet piling and steel pipe pile, to reflect the needs of various time periods. In the 21st century, we are committed to the research and development of environmentally adaptable machinery. Our products have been adopted and consulted by large domestic water processing companies and multiple engineering companies. We have advance evaluation tests, so please feel free to contact us.



1534 Hara Karatsu-City Saga Japan 847-1211 〈TEL〉 0955-77-1121 〈FAX〉 0955-70-6010 (URL) http://www.vbm.ip/ (mail) vbm@vbm.ip

Development of ecological products & services

PRODUCTS

Itochu Corporation, Kyushu

Mist shade unit

Achievement of efficiency improvement and energy saving of air conditioner and freezer

which are made from reed.

air-chilled freezer outdoor unit, it causes the heat usage during such periods of high power use. of vaporization and will cool the air around it. Also When the temperature around the outdoor unit efficiency and energy saving of the air conditioner

 μ from nozzle by increasing the water pressure places such as convenience stores, supermarkets, with IMPA pump. At that point, shade will prevent golf club. mist from blow away by wind.

"Mist shade unit" takes advantage of the principles

By collaborating with our high technology, we could of "uchimizu" which is sprinkling water to keep dust adopt "Daelman Shock" which prevent water stain and cool down pavement and "yoshizu", a sunshade to this product, and also systematized "Demand Controller Equipment" which monitoring power use By spraying the mist to inlet of air conditioner and and control power use by turning off non-essential

by sucking the mist into it it will help improving came to 40°C, this product can cool it down by 8°C. with using mist. Also it reduces power consumption by reducing the measured value of the current Spray fine mist which is about the micro-size of 20 value up to 40%. Our products are already used in

Itochu Corporation, Kyushu Project planning & Development Department 3-2-1 hakataekimae nihonseimei building 13F, Hakata-ku, fukuoka-shi, fukuoka-ken 812-8677 Japan 〈TEL〉092-471-3722 〈FAX〉092-471-3707 〈URL〉http://ww.itochu.co.jp/ja/〈mail〉satou-tetsus@itochu.co.jp





Knowledge Management Technology.co., Itd

Diamond Like Carbon (DLC) Coating

Superior technology of energy-savings and wear resistance

It is common to perform planting process to metal by using fields. By applying this technology to various parts of chemicals and electricity in order to have a corrosion machinery and equipment, their durability will be improved membrane which has a similar property to diamond without (Less than 30 percent compared to the metal) Because it using chemicals. Instead of chemicals, DLC uses industrial has many characteristics such as biocompatibility and gas which is ionized by plasma. It is more durable and corrosion resistance, UV resistance, infrared-transparent, energy-saving efficiency than plating because it can be this technology can also enhance the added value of parts. processed with almost no impact on the environment.

This technology has been commercialized PSII method which has been developed in Industrial technology center of Nagasaki. This technology is applicable from small parts to a large structure which is more than Im without being mottled. It is expected to be applied by various industrial

resistance and weather resistance. DLC is the technology dramatically. Also, it will be lowering coefficient of friction; which covers the surface of the metal and resin with the therefore it will reduce the amount of energy consumptions.

This technology has been applied to vacuum pump rotor (semiconductor factory use),roller for large printer (500 ϕ x I500 ℓ), micro-gear made of resin, Ball Valve, Food conveyor wire mesh , Wafer Wrapping Carrier

nowledge Management Technology.co., Itd Business development departme





DLC coated vacuum pump rotor

SANIX INCORPORATED

SANIX recycling power generation system

147-39 Masuragahara, omura-shi, nagasaki 856-0022 Japan 〈TEL〉 0957-48-5808 〈FAX〉 0957-48-5810 〈URL〉 http://www.kmtech.jp 〈mail〉 t-takata@kmtech.jp

To create a new energy from waste plastics

philosophies which contribute to the creation of cause less carbon dioxide and ash. Thus, it creates recycling-based society. Therefore we are less environmental impact and allows us to provide promoting the effective use and recycling of waste electrical energy with high added value. This plastics. We have 15 factories which has working system will suppress the use (or import) of coal on changing industrial waste plastics into fuel all about 240 million per year by using about 2 million over Japan. They are promoting thermal recycling tons of plastics per year as a fuel for power which means that creating an alternative fuel of generation. In addition, it will help reducing about petroleum and coal by crushing various sizes of 15 to 20% of CO2 emissions when it burns waste plastics into very small fragments.

Currently, recycling-based power generating system is the core. It means use plastic fuel energy which is created at recycle plastic source development factory to energy generating facilities.

In SANIX Incorporated, there are corporate It has higher calorific value compared to coal also compared to coal.





SANIX ENERGY INCORPORATED Tomakomai power station

SANIX INCORPORATED Corporate Planning Division Secretariat 2-1-23 hakataeki higashi, hakata-ku, fukuoka-shi, fukuoka 812-0013 Japan 〈TEL〉 092-436-8882 ⟨FAX⟩ 092-436-8883 ⟨URL⟩ http://sanix.jp ⟨mail⟩ postmaster@sanix.co.jp

Shingo Denzai Co,.Ltd.

LED Street lighting/road lighting/stage lighting

High quality LED lighting with energy-saving effect

Following 4 listings are the main modules which we lighting. currently designed.

(I)CLU-TECH -Adopt cluster LED, reflector, optical lens (2)LEVO -Adopt aluminum substrate which consider the life of the LED and optical lens which illuminates wide range, (3)Module360 -Increase the effect of heat dissipation by using Aluminum heat sink, and provides lighting without unevenness and glare. (4)cLED -Appearance of this modules and the warm colors of the light fits nostalgic atmosphere.

SD.Hess Lighting provides high-quality lighting Lighting takes up 20% in world power consumption. equipment with energy saving effect which brings By using LED lighting, we can reduce 30% of power magnificent atmosphere. We design various types of consumption compared to now. Also, glare-free LED such as suspension type and pole-top type. allow us to prevent a harm which caused by

> LED road lighting has been used in Kyushu area and more. Our street lighting and stage lighting have been used in Kansai and Chugoku area. Also, SD.Hess Lighting Headquarter in Germany provides our product to all over the world. Also they are involved in a number of LED lighting projects in Germany and their technology has been highly praised.







Shingo Denzai Co..Ltd.

Shingo Denzai Co,.Ltd. Light business development department

LED style energy conservation Anti-afternoon sun signal

Clearly visible even face to the afternoon sun, a safe signal with energy conservation

1-29 shinkomachi, omuta-shi, Fukuoka-ken 836-0061 Japan 〈TEL〉 0944-56-8285 〈FAX〉 0944-56-8399 〈URL〉 http://www.shingo-d.co.jp 〈mail〉 osiro@shingo-d.co.jp

This product cost less power, has long usage life the solution, we applied black print partly to the inner style product, thus each prefectural police is smoke color for the front cover to stand out the promoting of LED style. Our company has contrast of lighting condition. succeeded on reduced amount of LED units to 1/4 Due to the reduced of LED elements, reduced 24% of front and slightly downward of the person who sees the signal.

Moreover, the phenomenon (afternoon sun) of difficult to see the signal light by the reflection of the sunlight is mainly occurs in the morning and evening, when the sun at the lower position. For

and easy to replace compare with existing bulb lenses in order to reduce the reflect lights, and use of

from existing product with secured visibility; by use power usage compare with existing product, and I/I0 of the original lenses with concentrate the compared with bulb style, we have started to selling surrounding diverge light to the direction of the this product by approved of each prefectural police.

Double prize on "Award of Excellent" "Award of Environment contribution" of the 24th New technologies and products excellence Award for small business



Supported items and unsupported items for the setting sur

Shingo Denzai Co,.Ltd. Light business development department

1-29 shinkomachi, omuta-shi, Fukuoka-ken 836-0061 Japan 〈TEL〉 0944-56-8285 〈FAX〉 0944-56-8399 〈URL〉 http://www.shingo-d.co.jp 〈mail〉 osiro@shingo-d.co.jp

Shingo Denzai Co,.Ltd.

LED light source for road signs; Flat ring

Indicator light source with unnecessary regular maintenance

which are not emit light, causes hard to see and easy of LED light, as the equipment efficiency, it has I/4 to miss it. In order to secure the visibility

It uses fluorescent lamp as the light source.

display surface, uneasy for maintenance of the high installation to existing 40 form round sharped place on the road, thus in some cases they have been fluorescent lamp by easy work. neglected even they were broken.

lenses that able to irradiate evenly on the plate vears.

Most of existing road signs have the plate surface By use of the optimum special constant current type power usages compare with 40 form round sharped fluorescent lamp. The designed usage life is about 12 However, there is brightness unevenness on the years (70% lumen maintenance), and structured of

We have very pleased by each prefecture police as Our "Flat ring" has placed 12 high powers LED in both this product is able to over existing sign, as well as sides, we working on secure of brightness and power conservation and unnecessary for the reduction of power cost. We have put the special replacement of fluorescent lamps once every two



▲ Inside light source "Flat ring"

Shingo Denzai Co,.Ltd. Light business development department 1-29 shinkomachi, omuta-shi, Fukuoka-ken 836-0061 Japan (TEL) 0944-56-8285 (FAX) 0944-56-8399 (URL) http://www.shingo-d.co.jp (mail) osiro@shingo-d.co.jp

Nippon Steel Corporation, Yawata Iron & Steel

Eco Coat®- S

Steel plate for tank which corresponds to bio-fuel

prevention of fuel permeation, does not contain an evaluation from major automotive manufacturers. environmentally hazardous substances (for example lead and hexavalent chromium), also be able to use bio-fuel

Eco Coat®-S is a non-lead steel materials for automotive fuel tank. Corrosion resistance of steel plate will be greatly improved by controlling plating organizations. Also it has stronger corrosive than gasoline fuel and be able to use bio-fuel which require further strong corrosive. Thus, this fuel tank meets all above requirement. Furthermore, it is superior to fuel tank made of resin by fuel

Automotive fuel tank need to be environmentally permeation and easier to recycle. It is also easy to friendly ,from now, on such as be good for mold and weld, so it has been given good

Our high technology has been given good evaluation and won "The Third Product Making Prime Minister of Japan Grand Prix(2009) Award" and "The 41st City-Country Industrial Award -Contribution Award (2009)



Nippon Steel Corporation, Yawata Iron & Steel General Affairs Department 1-1, Tobihata-cho, Tobata-ku, Kitakyushu-shi, Fukuoka, 804-8501 (TEL) 093-872-6108 (FAX) 093-872-6849 (URL) http://www.nsc.co.jp/yawata/ (mail) Irisa.junichi@nsc.co.jp

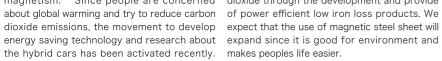
Nippon Steel Corporation, Yawata Iron & Steel

Magnetic steel sheet (non-oriented magnetic steel sheet, oriented magnetic steel sheet)

Important technology of high efficient low iron loss products

which utilizing the (magnetic) characteristics of downsize gadgets and long-lasting battery for the iron stick to the magnet. It has been used mobile device such as notebook computer, to generator in power plant, transformer for portable music player, and digital camera. transmission and power distribution, electrical We provide eco-products (low-environmental products which is for both industry and home. impact product) to the field such as precision motor for cutting edge electric car, hybrid car, motor and transformer. We have a significant and so on. This product plays a vital role as contribution to global environmental protection iron core which convert the electricity and such as energy-saving and reduction of carbon magnetism. Since people are concerned dioxide through the development and provide

Magnetic steel sheet is functional materials There is also a demand in IT industry to



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Nippon Steel Corporation, Yawata Iron & Steel **NS ECO-PILE®**

Next-generation Pile Method Corresponding to Ecology

and highway, with a pile reaches to firm ground.

surplus soils and slime, risk of collapsing of to our next-generation pile method. sidewalls, and decrease of end bearing capacity due to loosening of the ground. It has been required a new nile method of construction that matches with the environment in urban areas. NS ECO-PILE® is an environmentally-friendly

As is often the case with ground is Japan, the revolutionary new method adopting steel pipe pile surface layer is almost soft. Therefore, it needs to for civil engineering construction. Not only does it support a structure, such as a high-rise building reduce noise and vibration, but also it suppresses muddy water and earth removal by press-fitting Traditionally, it has used [impact pile], [cast in and rotating a spiral drilling blade installed the tip place pile], and [bored precast pile]. However, there of the steel pipe. It also achieves a high bearing have been many problems such as construction capacity, high quakeproof, low cost, moving up the noise and vibration, muddy water, removal of time schedule. We would like you to pay attention



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Seiko Electric Co., Ltd.

Stationary Storage System "Ene Pack α "

The safest system in Japan

16hours (if it is fully charged). It is also capable of "JEAC9701-2010") / Equipment protection:equip

electricity from power conditioner outlet. It is measurement(mm):WI439×HI300×D340 operated automatically all the time.

Maximum output: 3.0kVA / Total capacity of Storage battery:9.36kWh / Maximum available capacity of normal period:5.6kWh (60% of total

Stationary Storage System feature that it can storage) / Charge control method: PSOC multistep provide electricity to load equipment even we are constant current / Cooling system:Natural cooling / having a power outage. It will allow us to use 500W Protection system:islanding phenomenon protection load equipment (such as electric light) up to (comply with regulation of Grid-connected

"peak cut and peak shift" which allow us to use over-current and over-load protection / Battery charged electricity in the daytime when the protection:equip over-current and, voltage demand of electricity is high. If it attached to Solar reduction protection / Type of battery:Small-sized power system(PV), you can charge and use valve regulated lead-acid battery / External

We provide 1,300 sets of Stationary Storage System and it is the top sales in Japan.



Seiko Electric Co., Ltd. Sales department group of Kyushu solution 2-7-25 Toko, Fukuoka-shi Hakata-ku, Fukuoka 812-0008 Japan 〈TEL〉 092-473-8939 〈FAX〉 092-473-9065 〈URL〉 http://www.seiko-denki.co.jp 〈mail〉 sales@seiko-denki.co.jp





Takafuii Co..Ltd.

Lvi Lighting System "LED/LVI/Hybrid"

Unique, Next-Generation Eco-Friendly Lighting being Developed

At our company, with firm confidence in our manufactured in-house technological strength and product performance, Our company has designed, in cooperation from we are researching as well as manufacturing and the local university and industrial school, a selling Eco-friendly lighting.

Our products have the merit of being comparable to industry LVI standards. environmentally friendly, using less energy yet We have filed a patent for the "Hybrid", which having long life, and providing light that is not too aims to top even LED and LVI. bright but with which one can still clearly see.

that have no electricity, or providing order-made In the town of Hiji in the Oita Prefecture, a solutions to the ideas of the customer, our solar-style LED is being used for the seaside products answers that can satisfy all your needs. promanadde. The Nippon Steel Cooperation's site From output regulation to luminosity control, we in Oita uses LVI, and Sekisuijushi is using Hybrid. produce LEDs that are completely designed and

long-lasting electrode-less lighting system which is

As a result of our research and development, you Whether aiding in solar power generation in areas can choose three different types of Eco lighting.





Takatuji Co., Lub ubineso veekopinein Lepantinein 6-2-5 Misa Oits-shi, Oita, Japan 870-0108 (TEL) 097-523-2323 (FAX) 097-523-2355 (URL) http://www.takafuji-gr.co.jp/index.html (mail) kawabe@takafuji-gr.co.jp

Takafuji Co.,Ltd.

Indoor Agri Plant System

Energy Cost-saving Agricultural Plant

in Europe to grow plants that may be naturally unsuited "Using LED lights that are suitable for raising plants" are to an environment. In hydroponics, factors such as among various features which are being developed in the exposure time to sunlight as well as temperature can be agricultural facility. We are confident that using LEDs will adjusted and controlled by artificial means. Focused on result in a substantial reduction in energy costs, which is providing yield efficiency and crop safety, our company a huge bottleneck for closed-circuit plant factories. As has developed a small plant factory.

cultivation of paprika, research is being done in cultivation growth, which may increase the rate of harvest. with hydroponics as its base. "Safety regardless of the Currently, with the assistance of research funds from output through multi-step structures", Changeover of observation is possible.

well, promising research is also done in which LED light is At Yufu in Oita Prefecture, home to west Japan's largest used accommodate to a plant's wavelength to encourage

environment of the establishment - creating safe Mitsui Engineering and Shipbuilding Co., Ltd, data from vegetables", Using container-style structures at the second prototype is being collected. As the testing challenging locations", "Reducing crop cycles, increasing apparatus is located in our company premises, open

6-2-5 Misa Oits-shi, Oita, Japan 870-0108 (TEL) 097-523-2323 (FAX) 097-523-2355 (URL) http://www.takafuji-gr.co.jp/index.html (mail) kawabe@takafuji-gr.co.jp





▲ Indoor Agri Plant System(Prototype

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Seibu Giken Co.,Ltd.

High Panex Ion (Ion Adsorption Total enthalpy heat exchanger)

The ion technology which keeps comfortable and clean indoor air

moisture which has been attached to exhaust air to solved by Ion absorb technology. which created during ventilation.

generation of total enthalpy heat exchanger with it. ion absorption method in 1998.

Even though our heat exchanger has been praised, the former heat exchanger also absorb odor and it

Total enthalpy heat exchanger transfer heat and became a problem, and this problem has been

air supply from outside when you ventilate. It High \cdot Panex \cdot Ion adopt ion exchange resin allows us to succeed to save energy and reduce Polymer adsorbent which is difficult to absorb high carbon dioxide emissions by reducing the odor, as an absorbent of latent heat (moisture) burden on air conditioning with thermal energy exchanger for the first time in the world. Compared to former type which uses silica gel, it absorbs and Our company has succeeded in commercialize transfer less odor. Also, it will create further rotary type total enthalpy heat exchanger in 1875, cleaner and more comfortable indoor air by and then succeeded in commercialize 5th combining antibacterial and antifungal material with



▲ Total heat/sensible heat se

Seibu Giken Co.,Ltd. Sales department

3108-3 Aoyagi, koga-shi, Fukuoka-ken 811-3134 Japan (TEL) 092-942-5711 (FAX) 092-944-6811 (URL) http://www.seibu-giken.com (mail)info@seibu-giken.co.jp

Seibu Giken Co..Ltd. Dry Save (desiccant dehumidifier)

Succeeded to create low humidity air which is better than cooling method

power plant and shipbuilding factory where a various field where needs to control humidity. required to prevent rust and dew condensation.Dry For example, Dry Save has been used in quality Save (desiccant humidifier) will meet all needs retention of lithium battery manufacturing where above.

Dehumidification rotor will decide the performance of desiccant humidifier. The technology such as (Metal silicates humidification rotor which has been develop by us for the first time in the world. creates low humidity air which cooling method cannot achieve. It can be operated even in an environment with 100% relative humidity and also

It is really important to control humidity in a field in a low temperature condition. Even under those of food factory and medical plant where required to conditions, it will creates stable humidity keep ingredients fresh and good quality, and of andUltra-low dew point drying. It has been used in

requires sever humidity control.

We provide our product to food factory and medical plant, thermal power plant, nuclear power plant and so on.



Dehumidification uni

3108-3 Aoyagi, koga-shi, Fukuoka-ken 811-3134 Japan 〈TEL〉092-942-5711 〈FAX〉092-944-6811 〈URL〉http://www.seibu-giken.com 〈mail〉info@seibu-giken.co.jp

Seibu Giken Co..Ltd.

Sky Save

Cut the disposing cost and discharge of CO₂

VOC(Volatile Organic Compounds) causes the emissions. formation of suspended particulate matter and photochemical oxidant

large-scale equipment, also the running cost will be higher, as increases the air volume.

It is possible to rich low concentration and large amount of gas emissions by using our products. As the result, it causes the decrease in the facility cost

Enrichment of VOC reduces the load on combustion equipment. Moreover, make smaller the combustion equipment, which Jesser the CO₂

3108-3 Aoyagi, koga-shi, Fukuoka-ken 811-3134 Japan 〈TEL〉092-942-5711 〈FAX〉092-944-6811 〈URL〉http://www.seibu-giken.com 〈mail〉info@seibu-giken.co.jp

"Sky Save" is valued as great product for these features, "High Performance, High Efficiency", " Recovering and burning of low concentration High boiling point and High thermopolymerizationed emissions contains VOC needs not only extremely VOC", "Inactive", "Cleaning and Activator action".

Applied in Car factory, Printing factory and Semiconductor-making factory. Especially used in producer, who needs exhaust gas



▲ VOC concentrating ability se

Nishinippon Plant Engineering and Construction Co., Ltd. Solar power generation system

Proposed a mega solar power generation, and achieve it.

Our solar power generation system converts solar energy to using our technology developed from maintenance of electrical equipments with inverter.

Generally, you use electricity generated with sunlight in day construction to maintenance.

storage battery to supply as needed.

Solar power contributes to reduction of environmental impact (reduction of CO₂) and to spread of renewable energy. This is why solar power is very promising power. We offer you highly reliable solar power generation facilities by

DC current in the solar panels installed outdoors, and thermal and nuclear power generation facilities. We offer you converts the DC current to AC current for using of general consistent service from infrastructure planning and design of mega solar power generation facilities, procurement, and

time and buy electricity from Power Company in night time In addition to the advantage, we also offer you proposals of or time of insufficient amount of power. You can sell high efficiency power generation system, feasibility study, surplus amount of electricity to power company as well business affairs of application concerning the installation of It is also possible to accumulate generated electricity to power generation facilities, monitoring system and so on.

We have supplied our products to a mega solar power plant (3MW), five IOKW ~ 50KW solar power generation facilities in the Kyushu district.

 KYUSHU ELECTRIC POWER CO., INC Omuta mega solar power plant (3.000KW

Nishinippon Plant Engineering and Construction Co., Ltd. Engineering Department, Technical Management Group 1-10-1, Takasago, Fukuoka-shi, Fukuoka-ken, 810-8540 (TEL) 092-533-1725 (FAX) 092-533-1736 (URL) http://www.npc21.jp/ (mail) gijutukanri@npc21.jp

Nishinippon Plant Engineering and Construction Co., Ltd.

Wind Power Generation

Promoting Environmentally Friendly Wind Energy

monitoring system and so on. Wind power is a system that environmentally friendly wind energy in total. converts kinetic energy of wind into electrical energy.

It has been introduced more than 1,500 wind turbines as power generation facilities in Japan. Power generated by wind turbines is sold to power company, and it will be used as environmentally friendly energy. An environmentally friendly investigation is needed thoroughly where the

We offer you consistent service from site selection of wind infrastructure planning and design of the wind power power generation facilities, proposals of wind turbine, generation facilities is determined. The amount of power Infrastructure planning and design, procurement, generation will depend on the "wind conditions" of the construction to maintenance. In addition to the advantage, geographic location. It is needed to select the site of wind we also offer you wind conditions survey, environmental power generation facilities after considering wind speed, assessment, feasibility study, business affairs of application, wind direction (wind conditions survey), etc. and rigorous concerning the installation of power generation facilities, investigation of natural environment. We offer you

Company Achievements

We have supplied I300KW × I6 groups, 2000KW × I group,



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Amami Oshima wind power Co.,Ltd. (1,990kW

Nishinihon Environment Energy Co., Ltd

Biomass Power generation business

Effective utilization of eco-friendly energy

With the fundamental of biomass resources < Power business> on the customer needs, and implement of biomass the origin of the global-warming. power business with in the country and overseas. <Consulting>

Primary research on type, usages availability and property of biomass.

Implementation of consider the equipment scale of biomass energy effective utilization and equipment specifications, equipment design and business recommendation.

recyclling, we are working on research, propose, Implementation of biomass power business with in implementation of power projects of energy. Not the country and overseas. Biomass energy is the only proposed from primary research to business renewal energy that is possible to alternate from planning, but also operate partly consulting based fossil fuel and contribute to reduction CO2 which is

Company Achievements

Implementation the business planning, design and power business of Miyazaki biomass recycle power station. Implementation of biomass power business in India (during construction plan)



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Nishinihon Environment Energy Co,. Ltd

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Miyazaki Biomass recycled power generation plan

YASUKAWA Electric Corporation

Yasukawa inverter & High efficiency motor

Energy saving, state-of-the-art motor technology

easily control an induction motor as well as a high further (IE2) that also has a high efficiency motor. magnet.Considering global environment in the future, it has a performance which is equivalent to is possible to make progress with reducing of super-premium efficiency IE4. production costs and CO₂ emissions through energy In combination with inverter control, we achieve super conservation. It also corresponds to the situation required energy conservation such as RoHS (Restriction of hazardous substances).

Our product contributes to a significant reduction of power consumption in combination with a high-efficient, excellent energy saving motor.

Our ECOhIM series induction motor materialized a high-end-model (premium efficiency, equivalent to IE3)

Our product, Inverter "VI000" "AI000" series, can which further elevates the energy-saving effect of efficient, synchronous motor with a built-in. The high efficiency synchronous motor, ECOiPM series

energy conservation exceeded an induction motor.

We have 19.6% in domestic market share of the inverter, (less than 75kW, fiscal year 2010, estimated by JEMA) and I6.0% in global market share of the inverter. (Fiscal year 2010. estimated by YASUKAWA Electric Corporation)

YASUKAWA Electric Corporation Inverter Operations Department, Marketing Division 2-13-1, Nisimiyaichi, Yukuhashi-shi, Fukuoka-ken, 824-8511 〈TEL〉 0120-114-616 〈FAX〉 0120-114-537 (URL) http://www.e-mechatronics.com/













FCOhIM serie

Synchronous motor

YASUKAWA Electric Corporation

Power conditioner for solar power Generators Enewell-SOL

Conversion Efficiency of the Industry's Highest Level

Power conditioner is a device that converts AC power renewable energy, there is no carbon dioxide generated from solar panel to high-quality DC power. emission. Our technology also contributes to peak Not only it is used with general electrical equipments shaving but also supplies its power to power company.

efficiency by using our World's highest level of expand the possibility of our product. conversion technology developed with We meet the needs of our customers with a wide general-purpose inverters.

voltage DC100 ~ 600V (10kW) / DC250 ~ 600V use such as Megasora, 4.5/5.8kW for residential use. (100kW) / DC60 ~ 400V (4.5/5.8kW), and its rated output also be achieved in more than DC250V. We are proud of this wide range of input voltage.

In addition to the advantage, since our product uses

We investigate the demand of Enewell-SOL series in We produced the industry's highest level of conversion various markets and purposes, and are aiming to

range of selection. IOkW for general industrial and Our Power conditioner can be operated with input apartment building use, 100kW for medium to large

Currently, Enewell-SOL series that supplies power about I5MW power in total is running.



YASUKAWA Electric Corporation Inverter Operations Department, Marketing Division 2-13-1, Nisimiyaichi, Yukuhashi-shi, Fukuoka-ken, 824-8511 〈TEL〉 0120-114-616 〈FAX〉 0120-114-537 (URL) http://www.e-mechatronics.com/

YASUKAWA Electric Corporation

Rapid charger for electric vehicle Enewell-CEV

Charger for electric vehicle which based on the user's point of view

product which promote the spread of electric instruction and operating switch together vehicle. This product has been developed and commercialized by making use of the power conversion technology that we specialize in. It is possible to charge any CHAdeMo standard electric vehicle rapidly (possible to charge 80% in 20 to 30 min). It has a function as harmonic protection (Maximum output 50kW), so there is no problem installing in a residential area and commercial facility.

It is space-saving as the power source and plug-in station can be separated and up to two electric

We contribute to reducing carbon dioxide by vehicles can be charged at the same time. In order developing and commercializing technology and to make operation easier, we placed operating

We came up with the idea to use upper free space on plug-in station as ad space and that idea won "2011 good design award". This product corresponds to harmonic protection guideline which has been issued from Ministry of Economy, Trade and Industry.

YASUKAWA Electric Corporation Inverter Operations Department, Marketing Division 2-13-1, Nisimiyaichi, Yukuhashi-shi, Fukuoka-ken, 824-8511 〈TEL〉 0120-114-616 〈FAX〉 0120-114-537 (URL) http://www.e-mechatronics.com/



Asahi Organic Chemicals Industry Co., Ltd.

Aspirator Water-through Ozonizer

The possible safe use and handling of ozone

ozone and active species such as OH radical.

The biggest advantage of this device is it makes device. possible to generate ozone where next to use point

This Device form aspirator structure. There is (processed liquid) since it has been integrated glass-made double pipe and insert fluid(processed generating point and melting point of ozone. Even liquid) into inner pipe and insert gas (including oxygen) though it is small, but it allows us to handle ozone into a space between inner and outer pipe. When fluid safely without any gas leak. Also, ozone will melt very which is in inner pipe has been discharged, it creates efficiently by Venturi effect and no need to install air strong negative pressure between inner and outer diffuser. It is possible to melt generated ozone gas into pipe. It cause fluid cavitation and makes possible to fluid efficiently (or react ozone gas to processed mix fluid and gas. There is high voltage electrode on liquid) by controlling gas-to-liquid ratio inside of outside of the outer pipe and earth electrode on inner dielectric pipe. If processed liquid which goes through pipe or fluid. If the earth electrode is located on inner inner pipe has been discharged directly, it will make pipe, it creates ozone, and if it is on fluid, it creates possible to let advanced oxidation process (decomposing refractory organic) happen with single





Asahi Organic Chemicals Industry Co., Ltd. Valve & piping systems technology development center/ Water system group 2-5955 Nakanose-cho, Nobeoka-shi, Miyazaki-ken 882-8688 Japan (TEL) 0982-35-0900 (FAX) 0982-35-9352 (URL) http://www.asahi-yukizai.co.jp/ (mail) hideyuki.nakashima@asahi-yukizai.co.jp

Ohishi Construction Co..Ltd.

Submarine cleaner (SMC) method

"Under sea vacuum cleaner" which improve marine environment

thick as 10cm of material which includes earth and sand, It also cultivate bottom of the sea. Since it does not make also organic matter, floating mud and toxic substances, water muddy when it dredges, there is no chance of (TBT, dioxin, OCB, etc.) which accumulated on the bottom secondary pollution. It will reduce the volume of dredged of the sea, without making water muddy. It is effective for materials. Therefore, we do not need vast landfill site and removing floating mud in fishing harbor and port, also that will reduce construction cost. It can contribute to effective for cultivation of sea-bottom which will allow us to improvement of marine environment in semi-enclosed sea. reproduce a fishery. It is capable of executing job with the speed of 3,000 m² per day. This equipment creates jet stream and shoots out to see-bottom. And jet stream blows materials up then pumps them up. This method makes it possible to remove 10cm thick toxic material on the bottom of the sea where environmental hormone has been piled up, without making water muddy. It removes small silt (sulfide.

Submarine cleaner method is technology that remove as phosphorus, nitrogen) and leaves larger size of clean sand

We won The first best Award of fisheries Infrastructures in 2009

The Third Best Award Land, Infrastructures in 2011 (Awarded by Minister of Land, Infrastructure and Transport)



Ohishi Construction Co.,Ltd.

1-52 Hausutenbosu-cho, Sasebo-shi, Nagasaki-ken 859-3243 Japan (Nagasaki headquarters:6-1 Asahi-machi, Nagasaki-shi, Nagasaki-ken 852-8003 Japan) (TEL) 095-834-1200 (FAX) 095-834-1201 (URL) http://www.ohishi-net.co.jp (mail)s-suenaga@ohishi-net.co.jp

Kyowakiden Industry Co., Ltd.

Water provider box

It is capable to supply drinking water without power

"Water provider box" is a manual pump, portable is really simple. water purifier which you can secure your safe Since it is portable and manual pumping system, drinking water when disaster occurred.

It consists of pre-filter, activated charcoal filter, zeolite, microfilter membrane. It can create 200L per an hour of drinking water which is a total of about 2 0001 filtrate water from remaining bath water, water from water tank and receiving tank. even from swimming pool. If you use daily life water, it can create a total of 5,000L filtrate water. "Water provider box" comes with aluminium case and weight 13kg. It has small wheel on a bottom, so you can move it easily. It will take about only a minute to put it together by oneself and operation

you do not need power source. All you need is water source to create drinking water

We have provided this product all over in Japan and also in overseas such as China, Pakistan, and Haiti.



(yowakiden Industry Co., Ltd. Overseas division

376-5 Kururi-go, Nishisonogiguntogitsu-cho, Nagasaki-ken 851-2107 Japan 〈TEL〉 095-882-0088 (FAX) 095-882-7240 (URL) http://www.kyowa-kk.co.jp (mail) takatoshis@kyowa-kk.co.jp





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Marine Technology Institute Corporation

Aqua Fine

A system to protect water in dam from algae

oxygen concentration in water become poor. Aqua Fine collects the algae of the water surface and takes it to the bottom by creating "from-up-to-down" water stream. It kills the algae and prevent reservoir from overgrowth of algae. Agua Fine is consists of floating body which equip motor and propeller and water pipe which reaches to the bottom of the lake. It will absorb the water surface including algae with the stream which has been created by propeller and takes them to the

Algae cause offensive odor, water pollution, and bottom. The water surface contains oxygen as well, decreasing water temperature of water reservoir so it also solves poor oxygen concentration in the such as lake, swamp and dam. Algae on a water water. It consumes less energy to create stream. surface will shut out the lights and oxygen, and Also, structure is very simple, so easy to maintain.

It has been used in 15 dam since its release

 $\label{eq:marine_proposed_marine} \begin{tabular}{ll} Marine Technology Institute Corporation \\ 2269-53 Seto-cho, Imari-shi, Saga-ken 848-0043 Japan $$\langle DEL$ 0955-23-2266 $$\langle FAX$ 0955-23-2223 $$\langle URL$ http://www.felco.ne.jp/felco/mti $$\langle mail$ mti@felco.ne.jp $$\langle DEL$ 0955-23-2266 $$\langle FAX$ 0955-23-2223 $$\langle DEL$ 0955-23-2266 $$\langle FAX$ 0955-23-2266 $$\langle FAX$ 0955-23-2223 $$\langle DEL$ 0955-23-2266 $$\langle FAX$ 0955-23-2266 $$\langle FAX$ 0955-23-2223 $$\langle DEL$ 0955-23-2266 $$\langle FAX$ 0955-23-2266 $$



Marine Technology Institute Corporation Oil recovery unit "Erimina"

Protect ocean and coast

It is very important to collect spillage oil quickly the unit. Oil will be collected to tank and sucked by and efficiently when a marine accident occurred pump because oil is lighter than water. Then water because it might cause oil spill and damage to will be returned to ocean by propeller. This method costal fishing. "Erimina" is a device which collect makes it possible to collect oily water with less those spillage oil. It overcame the problems that water content and it will make other operation former type collect lots of water not only oil, and it (storage, transport, disposal) easier and more cannot collect high viscosity index oil.

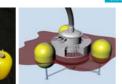
Former oil recovery unit adopt a method that In addition, it can collect high viscosity index oil by collect both oil and water which is on the water using movable weir which can move up and down surface. When oil spilled, it spread very thinly, so along with the height of water when former oil recovery unit operate, it collect mostly water. We installed round bowl shape tank where we hold oil, and connected tank and suction pump. Also we installed propeller at the bottom of

Marine Technology Institute Corporation

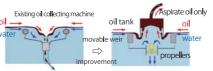
2269-53 Seto-cho, Imari-shi, Saga-ken 848-0043 Japan 〈TEL〉0955-23-2266 〈FAX〉0955-23-2223 〈URL〉http://www.felco.ne.jp/felco/mti 〈mail〉mti@felco.ne.jp

efficient.









Aspirate almost all water

Kiyomoto Co.,Ltd Resin sludge collector

Long lasting corrosion resistance

It was common to use steel (SS400) which has product because it only need annual paint repair to machine" use engineering plastic (FRP) which resist result in saving power consumption. acid and alkaline very good to most of the part. It will maintain high corrosion resistance for a long period of use. Also, it is very light. It has two types, one is suspension type which tank diameter is less than ϕ I0m and another is strut type which tank diameter is more than ϕ 10m.

FRP by itself has high corrosion resistance, so no need to coat it with paint. It will allow us to save more than 50% of running cost compared to former

coated with epoxy to round shape collector that bridge part. Also, it weight only a quarter of the use thickener and settling tank which is under former type, so it reduce burden of the structure corrosive environment. This "Resin scratching" and power requirement will be reduced as well and

This product has been used in over 20 Municipalities, mainly of sewage treatment

6-1633 Totoro-machi, Nobeoka-shi, Miyazaki-ken 889-0595 Japan (Tokyo branch:2-11-1 UchiKanda Shimada building 4F, Chiyoda-ku, Tokyo 101-0047 Japan) (TEL)03-5256-1181 (FAX)03-5256-1185 (URL)http://www.kiyomoto.co.jp (mail)nouno-ta@kiyomoto.co.jp, i@kiyomoto.co.jp





Center drive strut type

Takachiho Shirasu Corp.

Satsuma-Nakagirishima-Kabe

Create comfortable house with efficient humidity control and deodorization

keep house clean and comfortable without using mite. air-conditioner or air-purifier. It has ten different color variations and six patterns, so will fit any

If you use this material for your house, it will eliminate the smell of cigarettes, pets and food in a short time. Also it will absorb chemical which volatilized from furniture and will not release it. It will control humidity, so it will absorb moisture

Takachiho Shirasu Corp.

"Satsuma-Nakagirishima-Kabe" is finishing when inside of the house become humid. On the material for interior that is made of "Shirasu" which other hand, it will release moisture which was is volcanic product in south Kyushu. It is all natural stored in a wall, when inside of the house become and does not use chemical resin or glue. It can dry. In addition, it prevents condensation, so control humidity and eliminate odor, so you can reduce the chance of getting moldy or appear of

Our product used in all over Japan and total of 4million m has been sold. Also, it has been used in Korea, Taiwan and China.







Takachiho Shirasu Co., Ltd.

Super Shirasu Soton house wall W

1662 Yamada-cho nakagirishima, Miyakonojo-shi, Miyazaki-ken 889-4602 Japan (Sales department:2-2-1 Minatomirai Yokohama landmark tower 9F, Nishi-ku Yokohama-shi, Kanagawa-ken) (TEL)0120-011-535 (FAX) 0120-998-084 (URL) http://www.takachiho-shirasu.co.jp/ (mail) info@takachiho-shirasu.co.jp

100% Natural comfortable and eco friendly house wall

"Super Shirasu Soton house wall W" is 100% wall W" has one sixth of thermal conductivity. If Kyushu. Even though it is all natural material, it will 2~3°C. prevent house from rain without water resistant "Soton house wall W" consist of two layers which coat and also has moisture permeation effect. use different particle size distribution of Shirasu. Coating material has high water-holding capacity Primers which use fine Shirasu will let fine particle and long lasting the heat of vaporization effect, and such as water vapor through but not water it will prevent house temperature from getting high particles. It has been painted with inorganic

This character improve the efficiency of ray or wind and rain, so no need to re-paint or air-conditioners and contribute to energy saving re-covering. and reducing carbon dioxide emission. Compared to mortared frame house, house with "Soton house

natural material house wall which created from you spray water to the wall in a summer, it will cool mainly volcanic soil known as "Shirasu" in south down the temperature of inside of the house by

pigments which will not be affected by ultraviolet





Profound texture using magma

1662 Yamada-cho nakagirishima, Miyakonojo-shi, Miyazaki-ken 889-4602 Japan (Sales department2-2-1 Minatomirai Yokohama landmark tower 9F, Nishi-ku, Yokohama-shi, Kanagawa-ken) (TEL)0120-011-535 (FAX) 0120-998-084 (URL) http://www.takachiho-shirasu.co.jp/ (mail) info@takachiho-shirasu.co.jp

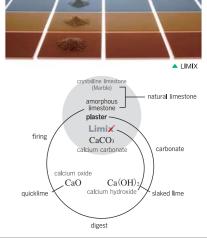
Tagawa Sangyo Co., Ltd. K-RIP Project (2007) Plaster ceramic "Limix"

Eco-friendly natural building material

under extremely high pressure by using vacuum high alkalinity. forming technique without any heat or binder. It achieved properties similar to marble by being reacted with carbon dioxide. This was an epoch-making invention in our history. Due to the non-baking technology, it allows us to save energy and reduce carbon dioxide emissions during manufacturing process. Compared to former baking method, it reduced 80% of them. This material controls humidity inside of the house and create a comfortable space. Also, it absorbs harmful chemicals such as formaldehyde which causes

"Limix" is a limestone-based building material that sick-building syndrome. It suppresses pathogenic is made of all natural materials. It was formed bacteria and swine flu viruses and molds due to

It has been used not only in houses but also in public places such as stations and large commercial complex and exported to United States and Malaysia for overseas.



Tagawa Sangyo Co., Ltd.

1924 Yugeta, Tagawa-shi, Fukuoka-ken, 826-0041 Japan 〈TEL〉 0947-44-2240 〈FAX〉 0947-44-8484 〈URL〉 http://www.shirokabe.co.jp 〈 mail〉 info@shirokabe.co.jp

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TOYO DENKI INDUSTRIAL COMPANY

TOYO underwater disturbance sand pump

Efficient discharge is made possible at high concentration

according to the churning effect of a disturbance shuttlecock. to large sized 900kW of pump outputs. Our company has the technology developed prior to the world, and discharge of the efficient solid mixed-solution is possible for it at high concentration. Because of an underwater type (deep sea operation type) this product has an unnecessary setting position in land, and it is safe at the time of water disasters, such as submersion under water, a flood, and so on. Moreover, since it is the design which specialized in durability, long-term continuous use can be performed only in a periodic maintenance. In result of the long-term usage, reduction of the equipment operation cost and the useless materials is possible.

The disturbance sand pump is a pump which can discharge The sand pump could be used for all kinds of diverse solid mixed-liquor efficiently, so that it can expect the cost situation, for example, adequated for amphibious, the reduction by the increase in efficiency and shortening of work high depth of 200 meters, and from small sized 0.75kW

We have been taking effect on both domestic and overseas fields both domestic and international technology scene. such us; Dredge of prevention-of-pollution processing equipment/A pollution processing plant/Device for improving soil quality/Dredge of a river, a harbor, and a dam/Recycle system for the rest of liquid concrete/Sewage disposal facility for Agenda sedimentation basin/Extraction of marine resources/Industrial waste disposal.





TOYO DENKI INDUSTRIAL COMPANY

1-7-10 Norimatsu Nishi-ku Yahata Kita yushu-shi Fukuoka 807-0831 〈TEL〉 093-691-2731 (FAX) 093-691-2728 (URL) http://www.toyopump.co.jp (mail) info@toyopump.co.jp

Nishinippon Environmental Engineering Co., Ltd. ■ Projects to find markets (2010) Solar SG system

Realize water purification by the catalyst of whitebait

Solar SG system was born from the research of the and released into the air catalyst and advanced technology. By collaboration The structure of this system is very simple. Since it decompose of toxic substances such as nitrogen, expected. dye and environmental hormone in the water, even Throughout the decomposition of harmful in a dark place.

Furthermore, as the amplified of catalyst reaction, securing water and water purification around the we greatly improved the level of purification by world. providing the electronic in contact with the catalyst tank for wastewater and contaminated which is energized. Decomposition has been accelerated and it is possible for even faster processing now.

For nitrate-nitrogen, it will convert to nitrogen gas

with the Faculty of Science, Kagoshima University, doesn't require chemicals or vast site, lower we have made clear that this catalyst is able to construction and management cost can be

substances in the water, we will contribute to



▲ Solar SG system



Nishinippon Environmental Engineering Co., Ltd.

2-3-2 Takashi Kagoshima-City, Kagoshima, Japan 890-0043/1637-31 Takarabe-cho Soga-City, Kagoshima, Japan 899-4103(Plant) (TEL) 090-3070-9503 (mail) nishikan.sata@gmail.com

FUKUYU RYOKUCHI Inc.

K-RIP Project (2005)

Technological development for a-tree planting and environmental loading reduction

A transplant and restoration of a natural forest including an ecological system

We take effect and propose the methods of which is not a weed killer and reproduction of a lawn, the restoration of ecological system, topsoil transplant, screw stake foundation, rooftop gardening, the biotope heavy-tree machine transplant, rooftop gardening, proposal of whether to be a firefly and a killifish etc. Proposal afforestation and environmental loading reduction. (I)Afforestation - A method of ecology unit construction: It is combined each technique are possible.

a construction method which transfers natural environment as it is. The topsoil in the state where ecosystems, such as a soil microbe are included is secured and it makes possible to port as a unit. Relocation (ecosystem transfer technology) of a lignose or a grassy place and waterside environmental creation (technology corresponding to a rationality plant) are possible. (2) Technical development for environmental impact reduction: Construction of permeable water retention soil system pavement, weeding out using natural bicarbonate of soda

and construction of the environmental impact reduction which

Company Achievements

Eco-box unit construction is adopted as a new technology practical use for pilot construction of the Ministry of Land, Infrastructure, Transport and Tourism. The rice terrace restoration construction in Akashi Kaikyo National Government Park, transplant construction of ancient wood inside of Yoshinogari historical park garden, a green-tract-of-land maintenance construction, development planting maintenance construction, etc.



2-27-24 Heiwa Minami-ku Fukuoka-shi Fukuoka-ken 815-0071 (TEL) 092-521-0620 (FAX) 092-521-0867 (URL) http://www.fukuyu.com (mail) info@fukuyu.com

Fujikasui Engineering Co., Ltd.

'TROLL®" UASB type anaerobiosis waste water treatment equipment

Energy recovery and cost are also reduced from waste water

soil purification, has been polished as an advanced sharply, and reduction of carbon dioxide emission can be company of environmental engineering since foundation aimed at simultaneously. Equipment itself is a compact in 1957. "TROLL" UASB type anaerobiosis waste water design and it can use it by space-saving. treatment equipment disassembles and processes the organic matter in the waste water discharged from a food factory etc. at methane and carbon dioxide using granule -like anaerobic bacteria

Rather than an activated sludge method, there are few sludge amounts of emergence of anaerobic bacteria, and they can reduce a waste sludge amount of emergence to I~I/I0. Furthermore, methane is recoverable from the process of liquid waste treatment as energy. Moreover, since the electric power for aeration is unnecessary, the

Fujikasui Engineering Co., Ltd. Kyushu Office 2404-1 Tsukure Kikuyomachi, Kikuchi-gun, Kumamoto Japan 869-1101 (TEL) 096-288-9953 (FAX) 096-288-9963 (URL) http://www.fkk.co.jp (mail) hpfkk@fkk.co.jp

Technology, such as water disposal, gas processing, and amount of the electric power used can be reduced

Hikari Miso Co., Ltd.

Within liquid-waste-treatment equipment. "TROLL" of our company is collecting energies from industrial waste water as methane.

2010 food-industry CO2 reduction grand-prix "Minister of Agriculture, Forestry and Fisheries prize" award

In addition to this, supply about 100 companies.



▲ TROLL mycobiont

▲ TROLL device

Fujikasui Engineering Co., Ltd.

"NS-process" Recovery of valuable resources

The system collects metal from the waste fluid.

NS-process is a system which can collect nickel, 10~20%. Moreover, since that moisture content is copper, zinc, tin, mercury, etc as metal sulfide by lowmetal content is high, a dewatering cake can be performing reaction-end point control using a gas sold off as mineral materials. sensor

As a feature when adding the sulfidating agent they can "prevention of excess input of sulfidating agent", "reduce occur odorous gas" and "prevent them to change to Colloid "by doing correct way to adding" by to manage the end of the chemical reaction using with hydrogen sulfide gas sensor.

As a feature when As a concrete effect, the amount of emergence of sludge is reducible to about about 1/3 of the conventional method, and when it is a nickel sulfide, moisture content will be

Already supplying three companies etc. is a product which can expect future.



Processing by NS Process

Fujikasui Engineering Co., Ltd. Kyushu Office

2404-1 Tsukure Kikuyomachi, Kikuchi-gun, Kumamoto Japan 869-1101 (TEL) 096-288-9953 (FAX) 096-288-9963 (URL) http://www.fkk.co.jp (mail) hpfkk@fkk.co.jp

HONDA KIKO CO., LTD.

High capacity Micro-Nano-Bubble generator pump

Small bubbles produce the big possibility

Micro-Nano-Bubble generator Pump. It makes is introduced to new markets such as COD/BOD finer air bubbles than hair and can adsorb and regulation measures which is remove sludge in wastewater.

saturation value and revives hypoxia lakes.

This product uses vortex pump, different from existing idea, adopts the way poring gas to the suction side. Firstly, it dissolves gas in liquid with pump pressure then makes fine bubbles (about 20-30 micron) with bubble generator. It offers not only domestically but also in Thailand India Singapore and other countries.

Generally use for pressure floatation device and

This product is the world's first high capacity Water oil separating equipment, other than these, it

global stringent environment regulation by using of Dissolved Oxygen level approaches to the Ozone, and pre-processing of seawater desalination

Year 2010, displayed at Yokohama APEC environmental zone

Won at The fourth Japan Manufacture Excellence Award



2055 Yamano Kama-shi Hukuoka-ken 820-0202 (TEL) 0948-42-3111 (FAX) 0948-42-3116 (URL) http://www.hondakiko.co.jp (mail) headguarter@hondakiko.co.jp

Fujisawa-eco Co.,Ltd.

Haulling industrial waste, Recycling disposal

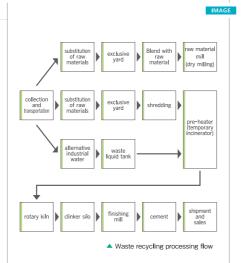
To make maximum use of the benefit of limited resources

In 21century, the recycling of various industrial wastes becomes more and more important to recycle. Through various recycling business partners, we would like to positively contribute to well-balanced corporate activity with environment to make a contribution to environmental society and take over the limited resources and great global environment to the next generations

We gather industrial waste mainly in Kansai to the west, western Japan and haul them to our business partners. In 2010, we gather and haul 94.847t.

Our recycling partners and Recycling

Cement factory: alternate of raw feedstock, alternate of industrial water, alternate of fuel. Yamamoto Reduction (smelting)- purified Zn, Pb, Cb, Cu by ash from steelmaking, molten fly ash, and waste glass, Fe2O3, CaO, SiO2 are sold as the source material of cement and roadbed material, RPF factory: Sell alternate fuel RPF for coral to paper companies.(In a year 25,000-30,000t) Civil engineering material: sand for fresh concrete, sand for plastering and Sand for backfilling. Other compost factories, incineration-fusion plants, etc.



藤澤環境開発株式会社 総務部

| TR370-0235 大分県大分市入原中央 4-7-1 〈TEL〉097-593-4211 〈FAX〉097-593-0094 | 〈URL〉http://www.fujisawa-eco.co.jp 〈mail〉yano@fujisawa-eco.co.jp

Fuiisawa-eco Co..Ltd.

Specialty enzyme business (Study of genesis of bio-based fuel)

Non harmful effect, generation of new bio-based fuel

We study bio-based fuel generation; it has no In addition, manufacturing residue of ethanol, conflict with Cellulose plant, and no use of any enzyme treatment again to create it to a safety medicals, and decomposition of Special enzyme feeds replacement "Enzymatic degradation feed", "MRE enzyme" "Symbiotic bacterial groups" and and it is possible to create strong individuals to MRE enzyme, concentrated the cause of alcohol, Pathogen or growth of livestock. we carried out the experiment of green energy with Enzyme is generally weak against heat but MRE harmless

By generate ethanol from waste plants like weed, it positive potency for future. can save waste weight.

To use bio ethanol from traditional plants and opens possibilities of bio-based fuel generation. grains is an effective technology but at the same time, it also causes of run up of raw feedstock and

Our technology resolved that point.

Fujisawa-eco Co.,Ltd. General Affairs Department

4-7-1 Kubaruchuou Oita-shi Oita-ken 870-0325 〈TEL〉097-593-4211 〈FAX〉097-593-0094 〈URL〉http://www.fujisawa-eco.co.jp 〈mail〉yano@fujisawa-eco.co.jp

unnecessary plant (Cellulose) Primary processing zymolysis Secondary processing Concentration of alcohol component Third processing Manufacturing enzyme has a good benefit to strong heat so it has of Bio-ethanol By using MRE enzyme and ferment and dissolve, it Forth processing Turning it into animal feed Use them all as resources

▲ Manufacturing process of bioethanol and the flow to make

Mitsubishi Nagasaki Machinery MFG. Co., Ltd.

Reducing System for Sewage Sludge

Latest Technology of recycle/reduce Sewage Sludge

This is a new technology which is the combination contains high concentrated radioactive substances. of hydrothermal and high temperature methane fermentation

acid.)

sludge, cattle excreta, kitchen garbage, slaughter management. (8) High operation rate remains, foods after expiry date, irregularly sized vegetables and also for sewage sludge that

<8 features for the product>

Place the continuance hydrothermal treatments (I)High speed of collecting methane gas. (2)Reduce into sewage sludge; hydrolyze them to increase the the final dehydrate sludge 5 times lesser than that concentration of carboxylic acid, (mainly acetic of existing system. (3)The remained sludge is able to reuse as fuel.(4)The remained sludge is able to Our system convert this liquid solution to Bio gas reuse as high quality fertilizer.(5)There are no (methane 65vol%, CO2 35vol%) only in 5days. This is needs of fossil fuel because the collection of 6times faster than the existing system. It also can methane gas is used as operation heat. be applied for organic slurry such as excreta (6)Space-saving design. (7)Easy operation and



Mitsubishi Nagasaki Machinery MFG. Co., Ltd. Environmental Plants Department Business Group 1-2-1 Fukahori-machi, Nagasaki City, Japan,851-0301 (TEL) 095-871-6102 (FAX) 095-871-3288 (URL) http://www.mnm.co.jp (mail) webmaster@mnm.co.jp



Astec irie Co., Ltd.

Recycle system of etching liquid wastes (iron chloride)

Waste acid treatment technology with high purity iron powder

Astec irie Co., Ltd. FM Operations Department, Business Group

This is the 1st product in Japan that equips contains extremely few impure substances. recycling function.

Control the Oxidation-reduction potential with the enables easy maintenances. following substances: the valuable metals such as flocculation agent for water treatment. nickel and copper, impure substances such as chromium. We sell these recovered nickel and copper as steel feedstock.

We defecate the iron dust and produce purity iron powder. It has high solidity from high carbon concentration, and high fluidity from its spherical shaped.

Moreover, these produced iron chloride liquids

It prevents etching spray nozzle to clog up, and

high purity iron powder, and provide them the Clients can adjust its concentration level, and this waste acid treatment in waste liquid that collects system deals not only with etching, but also with

Our products are widely used in SC makers, Steel Industries, public agencies and companies that deal sewage treatment, mainly in Western Japan. We also run business in Shanghai, China.





ARC Co., Ltd.

Concrete and asphalt recycling plant

1-1 Tobihata-cho, Tobata-ku, Kitakyushu-City, Fukuoka, Japan 804-0001 (located in Tobata Railway Center) (TEL) 093-872-6403 (FAX) 093-872-6575 (URL) http://www.astec-irie.co.jp (mail) h-udou@astec-irie.co.jp

Recycling facilities to promote recycle resources.

recycling of resources; we operate recycling plants second magnetic separator), removes the iron not only for lamps of concrete and asphalt, but also scraps from debris by strong magnetic power, operating for recycling plant such as brick scraps "Screen BSR-4102" separates the scraps depends and slags

We provide the appropriate recycling treatment as below...

The first fragmentation machine, "Jaw crasher S6N", this product break the large lamps into smaller pieces under 80m lamps, and separate the metals from it. With the second fragmentation machine, "Impact crasher NCF-2B', it breaks the pieces into constant granules.

Aim to protect natural resources to promote "Iron scrap separation machine (the first and on granularity and reuse them as crashed rocks.





(mail) arc62016@mint.ocn.ne.in

ARC Co., Ltd.

1279-9 Seita Izuka-City, Fukuoka, Japan 820-1111 〈TEL〉 09496-2-2023 〈FAX〉 09496-6-3032

$Approved\ Recycling\ Products ({\tt Recycle\ granularly\ controlled\ of\ crushed-stone}, {\tt Recycling\ Crusher-run})$

Contribute to reduction the usage of natural resources.

Since 1982, we have been working on developing These products have huge effect on protecting ecological business. In the 90s, we developed natural resources. Industrial-wastes-originated products such as

"Deodorant for animals (DAM-100)", "pet excrement disposal (WAM-3)", and "Moisture adsorbent (WAM-I)"

After 1993, we introduced and sold "Recycle granularly controlled of crushed-stone (RM-25)" as the regeneration of buildings byproducts certified products that is crashed in to pieces of maximum 25mm, and "Recycle Crasher Run(CR-40)", that is crashed below maximum of 40mm





▲ The full view of plant

1279-9 Seita Izuka-City, Fukuoka, Japan 820-1111 〈TEL〉 09496-2-2023 〈FAX〉 09496-6-3032 〈mail〉 arc62016@mint.ocn.ne.jp

K-RIPRODUCT CATALOGUE 2012 43

AMAMI Fashion Laboratory Co., Itd

Amahada Skin Care Series

Get a beautiful skin with the essence of Shochu residue

developed by project of cooperation among point of view. Shochu) in process.

such as Polyphenol from residue of brown suger care series. Shochu, and effective to inhibit the formation melanin which causes of blotches, and also has positive and highly safe findings for cells.

"Amahada skin care Series is our original product makes from this essence. (Patent No.4889048)

Amami Brownsuger Shochu, the local specialty in We produce this Series with the opinions of general Amami region is the product with high-value added women monitors and producing thorough user's

K-RIP Project (2007)

industry, academia, and government, which This product retains your skins moisturizing and production volume increases, and launched to solve also protects from dryness and you can always use the disposal problem of Moromi (residue of it with safety. To reuse of Shochu residue reduce environmental load.

It is the product which derives active substances. This is not just local cosmetics: it is the real skin.

Year 2011 Won the Incentive award at "New local specialty products in Kagoshima" Shiroyama Kanko Hotel

▲ Fermenting Moromi of brown sugar Jump Shochu



AMAMI Fashion Laboratory Co., Itd

269-3, Naseasado Amami-shi Kagosima-ken, 894-0773 〈TEL〉0997-54-9181 〈FAX〉0997-54-9182 〈URL〉http://www.facebook.com/amami.AMAHADA 〈mail〉amami@luc-group.co.jp



Chipper Shredder Green Shark GS400D

Enable to one crush for max 20cm diameter trees or bamboos

Chipper Shredder Green Shark."GS400D" is a significantly save cost and increase production, it unique shredding mechanism of our original can also be utilized widely for mulching in various shredding technology. With only one primary areas. shredding process, it can produce uniformly sized Crawler self-propelled travel system makes the wood chips of less than 5mm.

with a maximum capacity of up to 20cm in Multing material around the construction site, diameter, including its branches and leaves.

shredder knife that produces the uniformly foldable discharge conveyer, an easily maintained shreddered wooden chips, which can be efficiently engine circumference, and it comes with a good used for Multing materials, soil improvement size and weight to be loaded on 2t truck material pellet material and so on. Compared to the traditional Chipper Shredder, not only can it

crushing operation easy. It can strongly and smoothly handle bamboo trees. For example, if you adopt the wooden tips as

transportation cost can be reduced. It comes with a resizable screen and a detachable
It also has some specific functions such as, a



▲Chipper Shredder Green Shark GS400D

842-0065 401 Sakimura Chivoda-machi Kanzaki-shi Saga IAPAN (TEL) 0952-44-3135 (FAX) 0952-44-3137 (URL) http://www.ohashi-inc.com (mail) eco@ohashi-inc.com

OHASHI INC.

Fertilizer Sprayer "Rakurakumaku-chan MK03"

Man-powered Sprayer for Farming Communities

"Rakurakumaku-chan MK03" distributes fertilizer operability in mind. uniformly over a wide field area by means of rotary In the case of any further fertilizer distribution rotation. Customization according to the crop needs, many options are available as well. variety and season is also possible.

target areas can be configured easily.

As a chain drive is used, the driving force is Please consider with each different purpose. directly taken from the tires. By using of unicycle-tires, it is enable to plow through mud easily and provide reliable distribution

Other notable features include one-way clutch with durable wire, start/stop lever with lock, scalable

With the push of a hand, the fertilizer sprayer spreading adjustment lever- all designed with

For example: Multi-sheet roller "Mekuru-kun" With the guide plate, adjustments can be made in central furrow guide, extendable guide plate for range as well as inclination angle, such that the different seed bed heights, fertilizer quantity-increase hopper, fertilizer granularity net.



401 Sakimura Chiyoda-machi Kanzaki-shi Saga JAPAN, 842-0065 (TEL) 0952-44-3135 (FAX) 0952-44-3137 (URL) http://www.ohashi-inc.com (mail) eco@ohashi-inc.com

Rakurakumaku-chan MK03

Kagoshima Technology Licensing Organization Co., Ltd.

Calvo Board

Environmental-friendly Calvo Board

(for room structure).

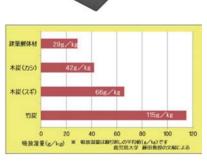
5years, in cooperate with Industry, academia and more than 50% of improvement bamboo charcoal and pulpwood as resources, and improve the indoor comfort never use any chemical material at all such as binder, this is an eco-friendly product. There are many minute holes in Bamboo charcoals that control humidity, and adsorb the bad smells.

This product uses Kyushu local bamboo charcoal as Compared to other products, we improved more main materials, sized: 303 m m × 606 m m × 6mm than 50% in decreasing humidity, and 20% in discharging humidity.

We had worked on this development for over As for electromagnet shield factor, we achieved

government, especially the honorable Professor in Moreover, it also adsorbs toxic chemical Kagoshima University, Mr. Shinsuke Fujita (current substances such as formaldehyde, and reliefs sick president of our company) played a main role in building syndromes. Through the brain waves developing this product.(for it). We only use measuring system proved that our products





Kagoshima Technology Licensing Organization Co., Ltd. Research and development Department 1-21-40 Kohrimoto Kagoshima-city, Kagoshima, Japan, 890-0065 (Located in Kagoshima University) (TEL) 099-284-1631 (FAX) 099-284-1632 (URL) http://www.ktlo.co.jp/ (mail) info@ktlo.co.jp

KUMASEI Co., Ltd.

Enviromental Food Product Recycle Plant "Bio Plaza"

Recycle the disposable food to 100% organic fertilizer

We did not have any other way but burning or landfill collected food waste before. It creates problems such as increasing disposal cost and shortage of landfill site as a result. Our "Bio plaza Okishin" and "Bio plaza Nagoya" allow us to reproduce fertilizer from food waste without burning or landfill. It will create a circle of recycling when the crops which grew on a field with this fertilize has harvested. Each building equipped with deodorizer, so there is no odor outside. Also, it used a system which increase temperature with solar heat and does not use any electric energy.

"Bio plaza Okishin" process 108 tons of food waste recycle and 215 tons in "Bio plaza



(Okishin-machi Nishi-ku Kumamoto city)



1000-5 lkegami-cho, Kumamoto City 860-0048 〈TEL〉096-325-5353 〈FAX〉096-322-1140 〈URL〉http://www.kumasei.com/ 〈mail〉info@kumasei.com

▲ BIO PLAZA NAGOYA

KUMASEI Co., Ltd.

Organic Fertilizer "Green Supple"

Organic Fertilizer makes Ideal Soil

environment friendly fertilizer which has been makes soil soft and fluffy, so root can grow easily. reproduced in our recycling system.

It contains various fertilizer components, also eco-friendly product. manganese (magnesia), zinc, iron, boric acid which are essential for growth of plants.

There are various effective microorganisms which will purify soil and make it richer. This will decrease the incidence of diseases and negative chain reactions.

It will take two to eight weeks to create ideal soil with green supple

"Organic fertilizer green supple" is eco and It will create a space between soil particles. That People who use organic fertilizer love our



▲ Commercialized GREEN SUPPLE



Popular pellet (granular)

1000-5 lkegami-cho, Kumamoto City 860-0048 〈TEL〉096-325-5353 〈FAX〉096-322-1140 〈URL〉http://www.kumasei.com/ 〈mail〉info@kumasei.com

K-RIPRODUCT CATALOGUE 2012 45

Kira SEISHO Co., Ltd.

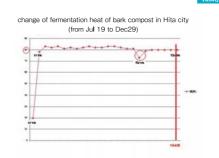
Use of compost fermentation heat with unused biomass (Unused waste)

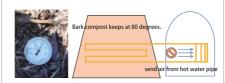
Create energy with intense heat of fermentation

We are researching about use of fermentation heat melting snow. fermentation heat as a heat source (energy).

By mixing particular bacterium with unused biomass (forestry waste, livestock waste, food waste) and piling them up, unused biomass will keep 80 ~ 100°C for a long period without stirring (usually you need to stir). We are trying to collect and use the heat for greenhouse, floor heating,

which has been generated when we composting
If we succeed in using this energy, we could reduce unused waste (bark, livestock waste, food waste, the use of fossil fuel. Also, after collected etc), as a heat source. When we composting waste, fermentation heat, we can use compost as a soil it creates over 80°C fermentation heat for over four improvement material for agriculture. In addition, if months (if it is bark, over six months) without we scatter it to soil, soil will be able to keep carbon stirring. We are studying how to use the for a long period and it will allow us to reduce carbon dioxide emission.





▲ Heating using warm water boiled by fermentation

Kira SEISHO Co., Ltd. 2-37-14-605 Ishimaru Nishi-ku Fukuoka City, Fukuoka JAPAN 〈TEL〉 080-3944-9981 〈FAX〉 092-882-3968

Knowledge Management Technology co., ltd ■ Kyusyu Environmental Business Award (2009)

Micro Eraser

Delete data, safe recycling

semiconductor plants such as toxic emission from collect the circuits so we can reuse themes the plants. We consider it is the most important materials for solar batteries. matter to save the environment

process of semiconductor production, can be solar batteries. reused as materials for Solar battery.

Silicon circuit contains certain data which is great evaluation of performance. difficult to reuse.

We used to break them into pieces and dispose as developing our products. metal scraps and cannot be reused.

We produced new product, "Micro Eraser" to solve this problem. This product enables to erase the whole data in circuits on site.

K.M Technology Co.,Ltd. Focus on the problems in After erasing the confidential data completely, we

Once the data has been completely deleted from Fault wafers and silicon scraps discharged from the the silicon circuit, we reuse them as materials for

We have great reputation in this industry and holds

We have 7 offices in Japan and put every effort on



Micro Erase

Knowledge Management Technology co.,Itd

147-39 Masuragahara-machi, Omura City, Nagasaki, Japan 856-0022 (TEL) 0957-48-5808 (FAX) 0957-48-5810 (URL) http://www.kmtech.jp (mail)t-takata@kmtech.jp

Kowa Seiko Co..Ltd.

Using "chloride volatile method" to recycle waste

Top-class chloric waste treatment technology in Japan

Zn, Pb, Au, Ag, etc.) as chloride gas, recover them chemicals, dioxin wastes, molten fly ash. by wet collecting.

Steel Blast Furnace. These series of process are objects for the treatments. our new technology, chloride volatile method.

We regard the industrial wastes recycle The pellets for steel blast furnace (steel materials); management as one of our main business, promote 20,000 t the recycling of resources, such as producing the The recovered nonferrous metals: 250t

Applying chloric agents in Oxidation roasting mine nonferrous metals. We deal 200,000t of industrial (pellets), after the process of kneading, granulation, wastes per year; we produced top-class results as and drying, Firing again up to I,250°C by rotary chloric waste treatment in Japan. We also deal the kiln. Volatilize the nonferrous metals in pellets (Cu, de-toxify of following; POP s waste agricultural

We approved by the authorization of minister for The pellets that isolated from nonferrous metals detoxification trace for PCB-contaminated waste are iron oxides; we reuse them as materials for electrical equipment, it enables us to deal further

<Products per month>

Kowa Seiko Co., Ltd. Development Department

46-93 Nakabaru Tobataku, Kitakyushu-City, Fukuoka, Japan 804-0002 (TEL) 093-872-5155 (FAX) 093-882-3500 (URL) http://www.kowa-seiko.co.jp





SANKEN Engineering Co., Ltd.

1-shaft crusher(SC series), and 2-shaft crusher(SET series)

Crushing with the latest Control Technology

The I-shaft crusher (SC series) and the 2-shaft hard combustible items can be crushed with great crusher (SET series) contains a unique inverter efficiency. The product boasts excellent which allows instant computerized detection of the performance in terms of operating and running load on the electric motor

With rotational speed decreased and torque cheaper energy costs. The product has been built increased, the fragmentation rate is increased. In with controls so that probability of mechanical addition, as the crusher surfaces move failure is greatly minimal. forwards/backwards in response to the load, mechanical breakdown is minimized. The I-shaft crusher is intended for crushing flexible container packs, or "soft-types". The 2-shaft crusher has been demonstrated to crush materials such as bedding and carpets.

A major feature is that difficult materials such as

SANKEN Engineering Co., Ltd. Environmental Department 501-1 Nanatoma Oaza Onaka Sasaguri-cho Kasuya-gun Fukuoka, Japan 811-2413 〈TEL〉 092-957-4380 ⟨FAX⟩ 092-947-1379 ⟨URL⟩ http://www.sanken-eng.co.jp ⟨mail⟩ Kankyo@sanken-eng.com

▲ Single axis crusher SC-100



▲ Double axes crusher SET-202

▲ BUB-machine SBM-50

SANKEN Engineering Co., Ltd.

Two-axle grinding pulverizer "RUB Machine"

It can even separate even bamboo fibers

The "RUB Machine" is a two-axle grinding pulverizer crushed to a degree such that the microbes within can The effect can especially seen in materials that are be used in silage making. fibrous such as bamboo, pruned trees, grass, water plants, and other raw waste- the processed material promotes rate of microbe growth considerably. The machine has an electric motor and will therefore need fewer repairs, is safe, and has reduced noise. It is an energy conserver.

Because the bamboo from the RUB Machine is

that processes products, with the force of the rotation multiply, the powder, a short time after the process of two screws, into fine fibrous powder. The and without the use of compost, can be used as a soil computer-controlled motor instantly corrects and conditioner. As well, it us also increasingly used as a counteracts to changes to the load, increasing base for raw recycling, as it has a deodorizing effect. processing efficiency and minimizing machine failure. As it also has excellent fermentation ability, it can also

costs. As well, the quiet electric motor allows for

Around 350 motors have been sold of all

models from 5.5KW to 90KW.

We supply to private enterprises and increasingly to local governments. We are suppliers for gas power generation in sheds from trees/grass from the outlying islands, and recently from radishes as well. You can expect many things from us in the future.



The enlarged photo of crushed bamboo

SANKEN Engineering Co., Ltd. Environmental Department S01-1 Nanatoma Oaza Onaka Sasaguri-cho Kasuya-gun Fukuoka, Japan 811-2413 (TEL) 092-957-4380 (FAX) 092-947-1379 (URL) http://www.sanken-eng.co.jp (mail) Kankyo@sanken-eng.com

SANKEN Engineering Co., Ltd. Living sensors "Killifish Eco-monitors" BS2010

Continuously monitoring water safety Killifish

automatically displayed through chemicals. In the toxins are also extensively supported. device, lavender jobfish are bred and raised and As well the care of the fish and the analysis can be their behaviour observed by camera. The camera performed by individuals that do not have technical images are then analyzed and in case of knowledge of this field. irregularities, an alarm is sounded.

Device specifications: External dimensions= length600xwidth600xheight1450 in a compact form. Data recording component, uninterrupted power source, network connection. A touch panel PC is included to allow the user to easily set and change

Living sensors "Killifish Eco-monitors" are environment conditions. The recorded data can be observation devices that can be used to monitor analyzed and displayed on PC and saved onto places such as factory drainage systems, whereby external memory. To complement the traditional negative influences in the environments are methods of analyzing specific chemicals, complex

Currently operating in around 80 public water purification plants around the country (includes the BS2000A pre-model change)



SANKEN Engineering Co., Ltd. Environmental Department

Son-1 Nanatoma Oaza Onaka Sasaguri-cho Kasuya-gun Fukuoka, Japan 811-2413 (TEL) 092-957-4380 (FAX) 092-947-1379 (URL) http://www.sanken-eng.co.jp \(\text{mail}\) Kankyo@sanken-eng.com







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Saimu Corporation

Plastic-raman recognition machine

Recognize the all component, color of waste plastic instantly

level (Raman Spectroscopy) applies to company and protect security. discrimination of waste plastic.

Comparing to old ways such as Specific gravity have two types, tabletop and on hand. ABS similar plastics, combined materials like PC · and white

As a big feature, it can judge kind, additionally inclusion of additive agent (including Brominated flame retardants) and degradation.

And also able to discern color like black · transparent, thin thing like a film.

Plastic-raman recognition machine is the first With these high-tech skills, you can discern plastics product which analytic principle at a laboratory of various kinds, color and shapes in your own

Our product is form as compact-shaped and we

method and Reflection absorption method, it can. You just hit a target with a laser beam so idiot accurately and quickly discriminate PS · AS · proof device. We have two colors, white and black





Saimu Corporation Head Office/Plant

430-42 Yoshikuma Keisen-mach Kama-gun Fukuoka, Japan, 820-0609 〈TEL〉 0948-20-2081 〈FAX〉 0948-65-3795 〈URL〉 http://akane.saimu-net.ne.jp/index.html 〈mail〉 yasuo@saimu-net.ne.jp

Saimu Corporation

Personal computer • OA device recycle

Data complete elimination, Safety recycle

information protection and confidential secrets, PC components and materials. recycle has a big problem to complete elimination And if we need to destroy disc itself, we do though of remaining data.

Our way of data erasing of PC is overwriting data breakdown" to achieve a perfect process. space in hard disc and unable to restore them with any mode of analysis by a special hard disc.

It has technical know-how and can erase data of 366 of PC at the same time

And we can sell operable computers as used ones after erasing data.

From the point of views such as personal We scrap unusable ones and recycle those

the process "Magnetic breakdown", "Physical



Sorting of plasti

Saimu Corporation Head Office/Plant 430-42 Yoshikuma Keisen-mach Kama-gun Fukuoka, Japan, 820-0609 〈TEL〉 0948-20-2081 (FAX) 0948-65-3795 (URL) http://akane.saimu-net.ne.jp/index.html (mail) yasuo@saimu-net.ne.jp

Takachiho Shirasu Co., Ltd.

Utilization System for Rainwater; "Mizugame"

Making use of natural resources in daily life

and contains less solute material.

purify, also no need of chemical treatments.

The purified rainwater is soft water with high Moreover, filtered water comes handy to use in used as daily life water.

Utilization System for Rainwater "Mizugame" collects the rainwater from roof top, run them from gutters to filter, and keep in a large water tank in

Clients can adjust the volume of water from 1,500-1,800L depends on the number of users and use.

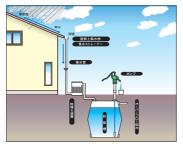
Rainwater doesn't affect by ground conditions, Filtered water can be used for out-door, such as car-washing, watering and gardening, also enable It is natural water that easy to process filtering and to use for toilet, and washing machine, and it helped users to save water expenses.

quality, that has good absorb-ability, and can be toilet or washing machine, in the case of water outage, or water supply restriction by disaster.

Through building construction offices, we provide products mainly in single-family houses



1662 Naka-Kirishima Yamada-machi. Miyakonojo City. Miyazaki. Japan 889-4602 (Sales Department: 9F Yokohama Land mark tower. 2-2-1 Minatomirai Nishi-ku okohama-City, Kanagawa, Japan)(TEL)0120-011-535(FAX)0120-998-084(URL)http://www.takachiho-shirasu.co.jp/〈mail〉info@takachiho-shirasu.co.jp





NPO The Jun-namaken FUKUOKA

Cardboard composter

Home Unit Happy Circulation Life

quality by using kitchen scraps.

spaces such as balcony.

lectures, step-up Lectures and also Consultation sprawling. meetings instructed by certified Instructors

According to our "Cardboard Composting Advisor Recognition System", since 2005 we have trained and certified Advisers who have appropriate coaching skills in the community.

NPO The Jun-namaken FUKUOKA

We have "A Qualification Certification System", including Beginner, Intermediate, Advanced and

Cardboard composting is a method to improve soil Trainer certifications, allowing the Advisers spread their know-how to the community.

You can easily make compost in your house Through the Local Regeneration Business Project without strong smells, and it can be used in narrow for the baby boom generation by METI, Vegetable Gardening Lecture "Half-farmer Urbanites We offer Composting Class for beginners, follow-up lecture", and Slow Food Class, our network is now





NPO The Jun-namaken FUKUOKA

VIF Julianakeri Josoba 4-4-27, Mitoma, Higashi-ku, Fukuoka-City, 811-0201 (TEL) 092-405-5217 (FAX) 092-405-5951 (URL) http://www.jun-namaken.com/index2.html (mail) jsk@jun-namaken.com

Kids KuruKuru Village

The Even for kids to learn the recycle society

Kids Kukuru Village is our own event that enables Kids who have enjoyed the event and attend to it Kids (4-12years old) to experience many different constantly, when they grow up, they attend it as jobs and help them understanding the society the event staff. mechanism and recycling.

office, super market, recycle plant and so on. Their and safely, shopping or playing games.

"products" "money" and the "importance of allowing kids to experience different kinds of work. recycling "with fun. We have holding this event since 2002

And now, more than 700 of kids attend to the event per a day. NPO The Jun-namaken FUKUOKA

During the event, there are hundreds of staffs to In KuruKuru Village, kids take on a job at village supervise the kids in order to let them play happily

wages earned through their work can be used for We now have cooperated with many different companies and associations, thus we have 20 They can learn the relationship between "people", different types of work places and each of them





NPO The Jun-namaken FUKUOKA

4-4-27, Mitoma, Higashi-ku, Fukuoka-City, 811-0201 (TEL) 092-405-5217 (FAX) 092-405-5951 (URL) http://www.jun-namaken.com/index2.html (mail) jsk@jun-namaken.com

Small Circulation Farm

Have a Good Circulation of Life at Where You Live

organization has begun since2009.

walking distance.

It is an attempt to make a circle with residents, vegetables". farmers, restaurant, shop, company, and Non-profit organization by offering their wisdom and skill to each other. The purpose of the circle is to offer everyone a place to participate in with smile and have them live straight (Jimichi) at bare earth (Jibeta) (Jimichi+Jibeta)Betta Life.We have started this activity Have a good life with small circulation since 2010 to

"Small circulation farm" is a commitment that our contribute to a recycling-oriented society by not let it end just a commitment. The compost made in a We expect the benefit of the good life having compost cardboard box is offered to farmers. And we can enjoy in a cardboard box to be extended to local community. the local vegetables at ease at a bakery and restaurant. In addition, we strive to circulate the benefit within The idea that local resources circulation leads to safe food spreads and produces sympathy with "the taste of

Small circulation farm has started at Mitoma, Higashi-ku, Fukuoka city where is the base of this organization, Miwadai (Yamazaki Shop), Otake (produce department), Wajirogaoka (Restaurant), Kasuga city (restaurant).





4-4-27, Mitoma, Higashi-ku, Fukuoka-City, 811-0201 〈TEL〉 092-405-5217 〈FAX〉 092-405-5951 (URL) http://www.jun-namaken.com/index2.html (mail) jsk@jun-namaken.com

TAKESHIMA CO.,LTD

Rainwater Utilization System "Ametto-kun"

Use Rainwater Effectively for Home Use

of low cost of water treatment, not taking any cost the stored rainwater is supplied to various places. storage tank is built-in a rainwater filter.

The stored rainwater can be used for sprinkling water over the garden, car washing and a wash room by using a conveying pump.

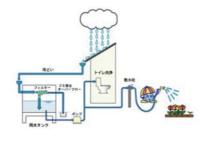
As the flow of rainwater, (I) The rainwater that fell on the roof goes through a gutter. (2) It also goes through a filter (garbage which is more than 0.4mm is removed in this process) and is stored to a rainwater tank. The conveying pump activates

Rainwater is a familiar superior resource in terms when you use a washroom and a lawn faucet and of transportation and storage because it is locally As a merit of our product, it plays a role as a available. "Ametto-kun" is an efficient rainwater "small dam" by storing rainwater at home and utilization system for home use and its rainwater reduces rainwater which goes to a sewage system. In addition, by using the water for miscellaneous to sprinkling water, it saves water

At present, it has been adopted by housing complex and it is provided with about 60 houses as standard equipment. It is adopted this rainwater utilization system in public facilities as well.

TAKESHIMA CO.,LTD 2nd Sales Department T-1-28, Tomachi, Nagasaki-shi, Nagasaki-ken, 850-0952 〈TEL〉 095-878-5323 〈FAX〉 095-879-0739 〈URL〉 http://www.takesima.co.jp / (mail〉 info@takesima.co.jp





TOTO Co., Ltd. Air-In Shower

"Water conservation" and "Comfort" with the Power of Air

As the top maker of water equipment, TOTO Co., Compared to the traditional shower, CO2 is reduced Ltd launched the the "TOTO GREEN CHALLENGE" by about 143kg, with an annual cost cut of about in April 2010 to dramatically accelerate traditional 13,200yen. Which include the water service fee is environmental practices towards a new vision.

products) while offering a comfortable bathing Source")

Our new technology saturates the water with air, such that each individual drop is increased in size. Such an environmentally friendly and great-feeling shower has never existed until now.

2-1-1 Nakashima Kita-ku Kokura Kitakyushu-shi Fukuoka, Japan 802-8601 (TEL) 093-951-2052 (FAX) 093-951-2718 (URL) http://www.toto.co.jp (mail) kaori.mukai@jp.toto.com

about 4,556 yen and the gas fee is about 8,705 yen. While corporate activities must be re-verified, we
Energy consumption calculated based "Standards are committed to strict targets until the year of Judgment for Residential Construction Clients" 2017. Among the targets, the "Air-In Shower" (Tokyo in reference to sections "Energy Reduction conserves 35% more water (compared to our other of Hot-Water Supply Systems as Primary Energy





TOTO Co., Ltd.

Neorest AH/RH

Stylish and Eco, a Toilet on the Cutting Edge

TOTO Co., Ltd, a company that shows initiative new tank-less toilet. through its products, is now promoting "Water" 99% bacteria eliminating "clean sterilized water", equipment with CO₂ reduction" and "Air purification clear up to the nano-level, long-lasting hygiene with Hydrotect"

Our vision of the future is simple - to be involved while providing thorough "tornado cleaning" - with in the entirety of the housing industry and spread our best knowledge and skills comes a product with our activities on a global scale.

The Neorest AH/RH is:

(I) Hygienic - Effortless sterilization with the power of bacterial-eliminating water. (2) Environmentally friendly - conserves water and electricity. (3)Comfortable - choose from four different wash options, (4)Effortless - easy cleaning and repair, The four characteristic features above describe our

with "Sefiontekt", minimal water consumption the utmost concern for the environment



(Back)NEOREST AH (This side) NEOREST RH

2-1-1 Nakashima Kita-ku Kokura Kitakyushu-shi Fukuoka, Japan 802-8601 〈TEL〉 093-951-2052 〈FAX〉 093-951-2718 〈URL〉 http://www.toto.co.jp 〈mail〉 kaori.mukai@jp.toto.com

Nishinihon Kaden Recycle Corporation

Remake Raw Material from Plastic Included in Household Electrical Appliances

Recycle necessary things from Waste Household Electrical Appliances

Our company was established as a recycling concentration. company for used products invested by 9 domestic
We make raw material of plastic which is equivalent Appliance Recycling Law] enforced in April 2001 for promote closed recycling of home appliances. the first time in the world. We play 2 parts in The process of sorting of single plastic and mixed [recycling plant] where dismantle home appliances plastic by dismantling is I.fragmentation (less than for recycling and [designated disposal place] of 50mm) 2. Trammel (removal of dust) 3.primary wet waste household electrical appliances.

To meet the needs of expanding recycling of of floating plastic (less than 20mm) 5.removal of plastics, we sort out the plastic discharged at the dust by dewatering and wind force 6.secondary wet recycling of waste household electrical appliances process of gravity concentration (dismantling by hand => crusher => wind force/ The amount of emission of PP (polypropylene) is magnetic force/ sorting of non-ferrous) by gravity 1,500 t per a year.

appliance makers. The purpose of the to single raw material. By supplying the raw establishment was to accommodate with [Home materials to manufacturers with low price, we

process of gravity concentration 4. Fragmentation



Nishinihon Kaden Recycle Corporation Engineering · Planning Group T-62, Hibiki-machi, Wakamatsu-ku, Kitakyusyu-shi, Fukuoka-ken, 808-0021 (TEL) 093-752-2424 (FAX) 093-752-2425 (URL) http://www.nkrc.co.jp/ (mail) atushi.hoshino@nkrc.co.jp

Nippon Magnetic Dressing Co.,Ltd.

Steel board rolling oil, solution recycling device "HIGAMS'

The realization of the removal of ferrous particles by high magnetic field and saving resources.

solutions in the cleaning line in iron works.

Separator. It has three particular features: (I)The media is made of iron ball, so no worry about high removal ratio and able to remove of fine deterioration or degeneration. It can be used ferrous particles, (2) Able to reduce the rolling oil maximum of three years. usage because of the efficient system, and (3)Fully automated and maintenance free. There are many orders from not only domestic but also overseas.

The process is that making a strong magnetic field into a tube having ferrous balls inside, after magnetization, removes the ferrous particles through the process liquid.

HIGAMS is the device to remove the ferrous Reducing consumption rate of oil and solution save particles from the used coolant and alkaline resources. Also reducing disposal volume can have small influence on environment. The maintenance HIGAMS stands for High Gauss Magnetic of filter is easy for automated cleaning. The filter

Domestic major steel makers 6 companies 17 machines. Overseas major steel makers 7 companies, 17 machines



Nippon Magnetic Dressing Co.,Ltd. General Planning and Policy Department 3-6-42 Bashaku Kokurakita-ku Kitakyushu-shi Fukuoka, Japan 802-0077 (TEL) 093-521-4400 (FAX) 093-521-4167 (URL) http://www.nmd.co.jp (mail) wakizono@nmd.co.jp

Marine Techno Research Co..Ltd.

Jet type glidants formula water purification device "Jet Streamer"

Promote the circulation in lakes and marshes; solve the oxygen deficient and water blooms problems.

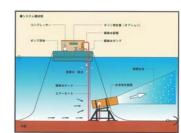
product is set on such area and promoting for fluent wide area. circulation of water. It solves the oxygen deficient and organic pollution by ozone aeration, also reduces COD and bad smells. It improve the sediment and increase creatures in water, also reduces water blooms by ultrasonic generator in the area that water bloom have been discovered. Let Streamer consists of water streamer and driving system that provides powered water, ozone air, and electricity.

The water pollution problems in closed areas, such as We don't use any chemicals. This product has great lakes and marshes, reservoir, regulating reservoir, durability because there is no rooter or mechanical estuary weir, and enclosed bay, are concerned. We sliding parts. It agitate a volume of water with low focus on water pollution issues in not circulated areas energy, can be installed from less than Im to more such as Jakes and marshes, reservoir. Our new than 10m under water and improve water condition in

It's already registered MLIT, NETIS, and ARIC, and used in public offices and water management company in Iwate, Ibaragi, Saitama, Tokyo, Kanagawa, Mie, Hyogo, Fukuoka, Nagasaki. In overseas, it's adopted in Mexico, the U.S.A, Korea China and countries in Southeast Asia

Marine Techno Research Co., Ltd. Business Technology Departmen 22 Furu-machi Nagasaki-City, Nagasaki, Japan 850-0026 (TEL) 095-821-8549 (FAX) 095-821-8671 (URL) http://www.marin-g.co.jp (mail) info@marin-g.co.jp





Mawatari Syokai, Inc.

Eco-slag Concrete

Achieving Zero emission with Eco-slag Concrete

in Saga prefecture.

with two companies in the same trade in Saga of fine aggregate for concrete prefecture for the efficient use of wastes in the L5th. It also conforms to the environmental quality standard Saga University and Saga Prefectural Industrial metals made and taken by Japanese Government. Technology Center to develop a concrete product The strength and durability of Eco-slag concrete is which is for local production for local consumption equivalent to ordinary concrete products.

Our product, "Eco-slag concrete" is a concrete products of Saga Prefecture in the 15th year of prefecture.

Our company manufactures and sales architectural, It is helpful in utilizing resources discharged in local civil engineering concrete products and roofing mainly area and becomes regional self-contained principle of zero emissions.

We established a society for the study of melted slag "Eco-slag concrete" conforms to the quality standards

year of Heisei, 2003. Moreover, we collaborated with and an examination of Inclusion and elution of heavy

Our product was registered as one of the recycled product manufactured by Eco-slag discharged in Saga Heisei, 2005 and it has been used at construction fields both public and private engineering work.

Mawatari Syokai, Inc. Concrete Products Department

Mawatari Syuka, inc. Contect Products Department 3498-2, Oaza amagu, Asahi-cho, Takeo-shi, Saga-ken, 843-0001 (TEL) 0954-23-4145 (FAX) 0954-23-1775 (URL) http://www.mawatari-s.co.jp/ (mail) saito-hide@mawatari-s.co.jp



Box culvert shaped side ditch



▲ RV adjustable inclination side ditch

Meiho Eco Techno Ltd.

Swiveling biomass combustion furnace

Consecutive combustion system for compost

This is a relatively small (same size as drum can), simple before combusted in inner cylinder and then fuels will be

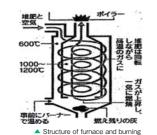
structured biomass combustion furnace.

after this starting up of furnace as it burns compost by decrease the cost and risk of epidemics. itself. We also have volumetric feeder which is able to correspond to various fuel.

The furnace is double layered with inner and outer cylinder. Inject the fuels into the furnace by air conveying and fuels rotating into a high temperature outer layer of inner cylinder. Even though the fuel contains moisture, it will be dried out in the process and Gas-phase ignition at the bottom of furnace, then thermally decomposed

exhausted. This product reuses the organic waste as The driving parts consist of a blower and auxiliary fuels on the site, and it enables to cut off the expense of burner. Heating-oil burner is needed only at beginning waste disposal and fuel. At the poultry farming and cattle where starting up the furnace, it is no longer needed breeding, it prevents the accumulated composition, and

Our products are installed in composting plants for SDR(Singeri Distillation Remaints) methane fermentation residue. It reuses composts as fuels and increases the temperature of composting process. Moreover, we are improving these products as a source of heat for coultry and cattle preeding management.



2375-3 Kamisababuchi, Izumi-City, Kagoshima, Japan 899-0203 (TEL)0996-62-5960 (FAX)0996-79-3185

(URL)http://meiho.main.jp (mail)info@meiho.main.jp

Yoshikawa Kogyo Co.,Ltd

Disassembly line of ELV (End of Life Vehicles)

95% recycling rate, achieve ASR zero incidence

dismantling of ELV from 1994.

From 1997 we have Expand the business and make
The effect is achieve a high recycling rate (more introducing same line of engineering is possible.

in a straight line we have realized these 5 which with excellent resource recycling process. has less amount of copper. (2) Preservation of the conservation type of process. environment by doing thorough recovery of environmental pollutants. (3) Ease of recycling of valuable metals by collect parts which dismantling

Our company has done established the process by hand. (4)To do process of ELV press without breaking down the traditional concept of occur ASR (Automobile Shredder Residue). (5)To technology's with working on proper technology of make efficient and reduce construction cost by arranged dismantling in a straight line.

than 95%) by thoroughly collect parts which can For example though the process which is arranged recycle and renewable and then recycling them

are (I)To collect Non-ferrous metal parts (like Also there is achieving occurrence of 0% ASP by wiring or motors) and make some iron scrap which doing shredder-less by using environmental



▲ ELV(End of Life Vehicle)

Yoshikawa Kogyo Co.,Ltd Sales Strategic Planning Division Ogura2-1-2 Kitakyusyu Yahatahigashi-ku Fukuoka JAPAN, 805-8501 (TEL) 093-671-8674 (FAX) 093-661-3220 (URL) http://www.ykc.co.jp (mail) honsya-eigyo@ykc.co.jp

Kitakyushu International Techno-cooperative Association

Promote International cooperation of technology for sustainable development

Harmony of industrial development and environmental conservation

Association" to promote cooperation of international related information etc. technology. We provide group or individual trainings of technology and environmental fields, such as accepted training, dispatch of specialists, providing research and information services, technology exchange, consulting, and international goodwill exchange etc.

We cooperate with "Kitakyushu Asian Center of for Low Carbon Society", and take the roll of human resource development, as well as through active moving over

In 1980, we started the antecedent company, "Kitakyushu" Asian district, in order to secure the social regulation of International Training Association", with aim to inherit the Environmental technology or Environmental preservation, industrial technology from Kitakyushu area to foreign and expand our support. In particular, research services countries. In 1992, we have changed our company name related in international technology cooperation, support as "Kitakyushu International Techno-cooperative service for development plan, collecting and providing

Our services has earned oppoerate with more than 200 of companies. University, and administrative organs. Especially in accepted training field, we have provided in 138countries, to 6207 people. At present, we are constructing global networks through returning training members.



Kitakyushu International Techno-cooperative Association KITA Environmental Cooperation Center 1-1-1 Hirano Yahatahigashi-ku, Kitakyushu-City, Fukuoka, Japan 805-0062 (TEL) 093-662-7770 (FAX) 093-662-7782 (URL) http://www.kita.or.jp (mail) tenso2f@kita.or.jp

Kyowakiden Industry Co.,Ltd

M-one FIELDMASTER

ASP server, cost reduction with packet communication

M-one FIELDMASTER is a remote monitoring our gained knowledge. system which can unified at a low price to Traditional expensive dedicated servers are

of monitored the facilities, to control and to communication easily to reduce line cost and to

mobile phone and PC via web. Our company have anxiety. proven the system was constructed which can manage facilities scattered throughout the wide area by centralized system for manhole pump M-ONE; we are expanding it to many fields with

communicate data of widely scattered monitored no-need any more, by adopting ASP server facilities to server by packet transmission system method. With the running cost you only, it is able and then deliver monitored data to the internet. to achieve high reliability and high-performance This proprietary controller achieved the unification operation of the facility. By using packet add monitoring target facilities. Also Information This system in able to monitored in the target usage fee is fixed so it is able to be deal with no





Kyowakiden Industry Co., Ltd Overseas business department 376-5 Kururigou Nishisonogigun Togitucho,Nagasaki JAPAN,851-2107 〈TEL〉 095-882-0088 〈FAX〉 095-882-7240 〈URL〉 http://www.kyowa-kk.co.jp 〈mail〉 takatoshis@kyowa-kk.co.jp

Kyowakiden Industry Co.,Ltd

Unmanned transport system KE-SS200

Unmanned carts which can travel on the best route

route changing is much easier.

real time from standard mark which pasted on the time. indoor ceiling of the factory and ware house, also it is able to travel unmanned on the route which made from this measurement system. Certainly, it is able to change the route based on the production line

"Crash avoidance system" which able to speed down for unexpected man or objects, "Remote

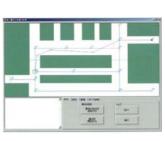
KE-SS200 is an automatic carry system which can calls" system which is able to call out by using of move carts by unmanned. Unlike conventional the specific remote control can be added in system, it is no need to marker or put the rail on optional. By place of small and compact lithium the floor, in order to secure the passage and also battery which is 80% smaller and lighter than existing lead-acid battery. With 2hours charging KE-SS200 is able to measure the absolute place on time they can keep 8hours continuous operating

This product was developed in 2011 and on sale from 2012. Now we are getting many



Kyowakiden Industry Co.,Ltd Overseas business department 376-5 Kururigou Nishisonogigun Togitucho,Nagasaki JAPAN,851-2107 (TEL) 095-882-0088 (FAX) 095-882-7240 (URL) http://www.kyowa-kk.co.jp (mail) takatoshis@kyowa-kk.co.jp





Water quality analysis

Provide safety and security with reliable analysis

Nodaichi Denshi Co.,Ltd.

Our company does wide range of business analysis by PDCA cycle. Also in order to respond to the such as

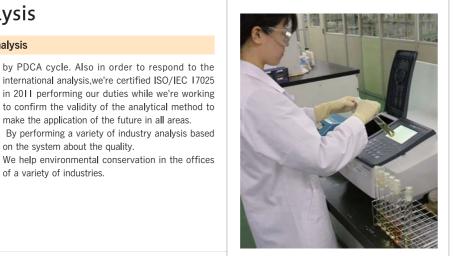
-industrial wastewater and environmental water in 2011 performing our duties while we're working including water quality tasting of tap water, exhaust to confirm the validity of the analytical method to gas, ambient air, odor measurement, soil, waste, make the application of the future in all areas. pesticide residue.

We also do measurement survey and prediction of on the system about the quality. noise and vibration, measure the work environment. We help environmental conservation in the offices to supports in order to guarantee safety and peace of a variety of industries. of mind in the industry.

In order to perform the operations like this as well as purpose of maintaining a precise analysis environment, we're certified by ISO9001.

We're implementing to improve our daily operations

Nodaichi Denshi Co.,Ltd. Environmental Analyzing Department



335 Yoyasu-machi, Chuou-ku Kumamoto-shi Kumamoto Japan 860-0823 (TEL) 096-322-0167 (FAX) 096-352-6003 (URL) http://www.nodaichig.jp/environment/ (mail) toiawasekankyo20101206@nodaichikankyo.co.jp

Nodaichi Denshi Co.,Ltd.

RoHS analysis in the resin(Cadmium, Lead, Chromium)

An internationally recognized analytical skills

Implement the regulations on hazardous substances electronic equipment in 2019. for a variety of products in many countries mainly Our company is ISO/IEC17025 certified laboratory from European region.

equipment such as electronics and home in electrical equipment. appliances (such as Cadmium, Lead, Hexavalent Similer support is also possible for resin to be Chromium, Mercury, Polybrominated diphenyl ethers treated as waste. We believe to be able to provide and Polybrominated biphenyls) in particular in the valid analysis in transactions with overseas. FU RoHS directive.

Also monitoring and control equipments and medical equipments were added as target devices in 2011

It will take same regulations for all electrical and

(received in 2011) to analysis of toxic metals in the There is a certification needed to prove it does not resin and we conduct a business analysis and contain hazardous substances for electrical RoHS regulatory compliance for many resins used



Nodaichi Denshi Co.,Ltd. Environmental Analyzing Department

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Nodaichi Denshi Co..Ltd.

Hazardous substances, valuable materials in the waste analysis

regulatory.

Proposal according to the purpose of analysis

It has been a concern that with the development of appropriate methods in analysis by overlaying the the industry, a lot of waste is discharged to the meeting with the each client about the analysis of environment and diffusion of toxic substances that such substances that may cause future could adversely affect not only us human but also environment risks even though there's no effect many organisms.

A matter of course, public environmental Also, we conduct analysis with confirmation of the conservation by correct way of waste disposal is process of waste generation and estimation of the gradually increasing, Processing methods are compound contained for research of valuable subdivided by the amount of hazardous substances resources content such as nickel. containing and states

In these days, our company is working on variety of waste analysis, and implements reliable analysis for containing hazardous substances.

We strive to evaluate the content and choosing

335 Yoyasu-machi, Chuou-ku Kumamoto-shi Kumamoto Japan 860-0823 (TEL) 096-322-0167 (FAX) 096-352-6003 (URL) http://www.nodaichig.jp/environment/ (mail) toiawasekankyo20101206@nodaichikankyo.co.jp



Fukuyama Consultants Co., Ltd.

Consulting which is based on data of environmental factor

A proposal of environmental harmony which is based on our research

It is become very important for company to consider environmental issue): measurement certification environmental impact now. It is an essential subject for business operation (density, sound pressure level, company in the field of risk management to keep harmony vibration acceleration level)/survey on the natural with surrounding area's environment. We will research, environment/designated investigation institution which analyze, simulate about various kinds of environmental is based on Soil Contamination Countermeasures issue such as global warming, air and water, soil pollutions. act/utilization of natural renewable energy/diagnosing noise and vibration problems and waste disposal issue and energy/research of natural environment ,etc. all the energy issues then suggest precisely the prediction Consulting achievement (excerpt): AEON Co., Ltd. of environmental impact and how to take measures to meet related Building offices, KajimaCorporation, Taisei the situation. We are familiar with the new environmental Corporation, Obayashi Corporation, SHIMIZU protection laws, so we would be able to provide help to CORPORATION, Takenaka Corporation, all construction follow the necessary procedures and promote those contractor and, Otsuka Chemical Co., Ltd., Oji Paper environmental activities to various related parties.

Technical overview (especially concerned to company, university, hospital, golf club, NPO, etc.

Fukuyama Consultants Co., Ltd. Main Office, Regional Planning Group Takuyana odisatahis ed., Ett. Main Ortner, Negoriar Franking Group
3-6-18 Hakataeki-Higashi, Hakata-ku, Fukuoka-City, Fukuoka, 812-0013 (TEL) 092-471-1417
(FAX) 092-477-2570 (URL) http://www.fukuyamaconsul.co.jp \mail\ m.takasaki@fukuyamaconsul.co.jp







Fujikasui Engineering Co., Ltd.

The research and countermeasure of the soil groundwater pollution

Offering consistent comprehensive solution

We prevent any tendencies of groundwater pollution and offer deadline, or contamination range. Doing the early research and the consistent comprehensive solution about the soil countermeasure, you can prevent the sudden discovery of the groundwater pollution; research, analysis, disposal plan, soil pollution in an estate agent. As a result, you also can save countermeasure, and monitoring. We have reliable and the decline of the market price and make better land use plans economical excellent skills of soil purify technology.

<4 steps of research and countermeasure>

(I)Soil history- We examine the possibility of soil contamination from documentary record. (2)General condition investigation- We grasp the range of a possible pollution land by two dimensionally. (3) Details (going into particulars) - We research the depth direction of pollution range. (4) Countermeasure-We take measures against the pollution after determining the contamination range.

We offer proper operations by the pollutant, money side, time

Fujikasui Engineering Co.,Ltd. Kyushu Office

in the future. Moreover, it is a good provision against ISO 14000.

Co., Ltd., factory facility, real estate company, PF

VOC purification (autoparts manufacture): Pouring construction method by Nano-iron (RNIP), VOC purification (Electronic device manufacture): stir mixture construction method. Original position purification by Nano-iron(RNIP), Heavy metal processing(IIIegal disposal spot): stir mixture construction method, Formation of heavy metal insoluble by inorganic system oxide(AMH)





Soil investigation

2404-1 Tsukure Kikuyomachi, Kikuchi-gun, Kumamoto Japan 869-1101 (TEL) 096-288-9953 (FAX) 096-288-9963 (URL) http://www.fkk.co.jp (mail) hpfkk@fkk.co.jp

MINAMATA ENVIRONMENTAL RESERCH&DEVELOP CENTER CO..LTD. Promotion of regional industries and supporting networks

Communication point for Industry, academia and government in Minamata city

and local industries to create a new environmental services from the country and prefecture. industry which promotes local development, controlling We will operate this facility to create a communication waste and promoting recycles.

Minamata Kankyo Techno Cente, which has consulting work in cooperate with administration. established as a ^rA model environment city_J in 1999, Please feel free to use our facility. has been set up as the communication point for promoting local industries and developing local industrial technologies by using the network between academia, public research organization and local industry. This facility has collaborative research room,

Minamata city has been approved as eco-friendly large and small laboratory and conference room. We town in 2001. Eco-town project means supporting a have been researching about regional problems and creation of city which keeps harmony with promoting local industry with environment. Local public cooperates with residents industry-academia-government by using promotion

place where people can visit freely, also reinforce



▲ A full view of Minamata Kankyo Techno Center

MINAMATA ENVIRONMENTAL RESERCH&DEVELOP CENTER CO.,LTD. 5-98 Hamamatsu-Cho, Minamata-shi, Kumamoto 867-0068 (TEL) 0966-62-0639 (FAX) 0966-68-9041 (URL) http://www11.ocn.ne.jp/-mktc (mail) honda@wing.ocn.ne.jp

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Yoshikawa Kogyo Co., Ltd.

Lead Environmental Business in the Future

K-RIPRODUCT CATALOGUE

Collection of Environmental • Energy product and service in Kyusyu area Selected by K-RIP

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