

Company name : TBR Co., Ltd.

Representative name: HIROMI FUKUI / Mr.

Business Field: Manufacture & sales of braided ropes, manufacture & sales of environmental materials

Area of Specialty: Water purification

Technology / Product / Service PR Item No.1

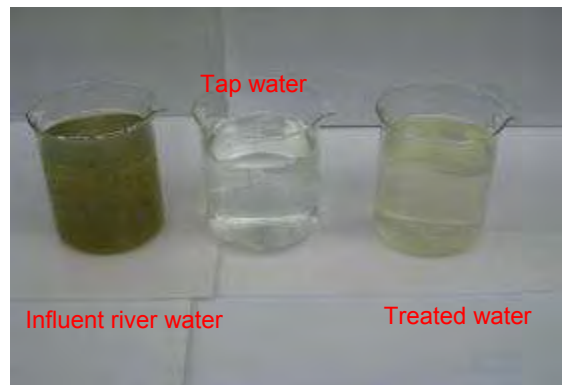
【Category / name】 Purification of river water using Bio-Cord

【Characteristics, performance and applicable areas】

1. When Bio-Cords are installed in a river, river's self-cleaning function is improved.
2. A Bio-Cord is a rope in which fine fibers are woven into a 3-dimensional form, helping a large amount of microorganisms to be immobilized in spaces within it.
3. Since this is a rope-shaped product, it will not interfere with river streams.
4. Since this is a light-weight product, installation and maintenance work for it can be carried out easily.
No other equipment are needed when installing Bio-Cords in a river directly, making it possible to purify river water economically.



Bio-Cord



Influent river water and treated water



Installation examples

【Appeal Points】

Introduce this product when dirty river water is creating public hygiene hazards.

It is a common problem in a developing country that its sightseeing spots cannot attract sightseers because rivers in them are dirty and create foul odors and unseemly sights due to lack of widely implemented sewer facilities or septic tanks.

Even if a sewer implementation plan is in place, it would take 20 to 30 years more to actually complete the installation of sewer pipelines. If this is the situation in your city, a river purification system where Bio-Cords are used to treat domestic wastewater can be introduced inexpensively and immediately for the interim period until the time when sewer facilities are widely implemented.

This product was actually introduced in the Pluit district in Jakarta City.

At present, introduction of a water purification facility is planned for the Kota district in Jakarta City.

Any company that has installed the product can expect continued business demand for its maintenance.

An installation example can also be used by local residents as a facility for environmental education.



Installation example in Jakarta City
Installation work completed in 1 day



Inspection by JICA and Tata Air in progress

【Types of businesses interested in Indonesia in the future】

A: Export and sale of products B: Local manufacturing of products (at its own factory, factory of cooperating company or other)

C: Seeking business partners for technical matters, etc. (including joint research)

D: Seeking information sources (local business coordinator/advisor) E: Other (description required)

【Detailed description of business expecting to the potentials in Indonesia】

【Business type/line of company/organization that are targeted as possible business partner(s)】

Since local governments are main clients, consulting companies are sought for technical cooperation, and sales agents that can actually serve as a sales entity are sought.

【Record of Installation / Actual Performance】 (Use Application) For river water purification

【In Japan】 More than 300 locations

【Overseas】 China, Malaysia, Indonesia, Vietnam and South Korea

Main proprietary patents 11 patents on Bio-Cord, 2 of these are with regard to river purification, 1 with regard to manufacturing method, 2 with regard to filtration and 6 with regard to others

Main awards received 1996 New Business Grand Prix (an award of the Ministry of the Environment), 1997 Science and Technology Agency Award, 1999 Grand Prize of Techno-Frontier Aichi, 2011 Environment Award of Aichi Prefecture (bronze medal), Listing in 2016 300 Outstanding Medium to Small-Scale Companies and Small Enterprises

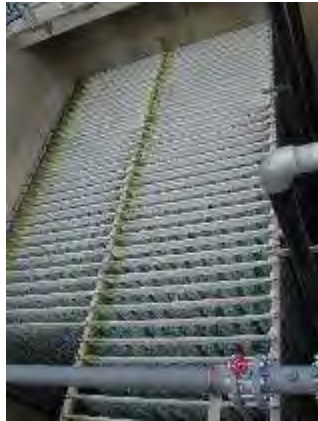
【Category / name】 Treatment of industrial wastewater using Bio-Cord

【Characteristics, performance and applicable areas】

1. Bio-Cord can double the density of microorganism or higher when used with activated sludge. Because of this fact, it can increase the treatment capability of a biological treatment tank used in wastewater treatment.
2. Bio-Cord can cut the generated amount of residual sludge in half or less compared to that generated in an activated sludge method.
3. Since Bio-Cord immobilizes microorganisms, complicated operational procedures are no longer required.
4. Bio-Cord can be used in such areas as food, chemical, semiconductor, auto and paper manufacturing industries and in treatment of domestic wastewater.



Bio-Cord SP-100



Treatment of wastewater at automotive plant



Treatment of wastewater at food plant

【Appeal Points】

1. Since complicated operations are no longer required, personnel cost in wastewater treatment can be reduced.
2. Since reliable treatment is realized through an increased number of microorganisms, possible occurrences of problems with wastewater treatment can be reduced.
3. Since the amount of residual sludge may be cut in half or less, the cost of disposing of sludge can be reduced
4. Bio-Cord can reduce nitrogen in wastewater.

【Types of businesses interested in Indonesia in the future】

- A: Export and sale of products B: Local manufacturing of products (at its own factory, factory of cooperating company or other)
 C: Seeking business partners for technical matters, etc. (including joint research)
 D: Seeking information sources (local business coordinator/advisor) E: Other (description required)

【Detailed description of business expecting to the potentials in Indonesia】

【Business type/line of company/organization that are targeted as possible business partner(s)】

Plant maker, trading company

【Record of Installation / Actual Performance】 (Use Application) Food plants, plating plants, auto part plants, dyeing plants, paper manufacturing plants, restaurants, land-fill disposal sites

【In Japan】 More than 300 locations **【Overseas】** China, South Korea, Taiwan, Vietnam, Indonesia, Thailand, Bangladesh, USA, Canada, India, Israel, Rwanda, etc.

Main proprietary patents 11 patents on Bio-Cord, 2 of these are with regard to river purification, 1 with regard to manufacturing method, 2 with regard to filtration and 6 with regard to others

Main awards received 1996 New Business Grand Prix (an award of the Ministry of the Environment), 1997 Science and Technology Agency Award, 1999 Grand Prize of Techno-Frontier Aichi, 2011 Environment Award of Aichi Prefecture (bronze medal), Listing in 2016 300 Outstanding Medium to Small-Scale Companies and Small Enterprises

Other Special Mentions

At present, river water purification business is being conducted as requested by JICA. We are planning to carry out a verification test with Dinas Tata Air in Bekasi acting as our counterpart.

Corporate Information

Company name (in English): TBR Co., Ltd.

(in Japanese): ティビーアール株式会社

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Whether direct contacts from Indonesian companies can be made or not:

Tel : Yes (language to be used Japanese · English · Bahasa Indonesia · Other(specify)) · No

Mail : Yes (language to be used Japanese · English · Bahasa Indonesia · Other(specify)) · No

Department to contact	(Title)	(Name)
	Environmental Business Dept. Acting Dept. Head	TOSHIHISA KINOSHITA / Mr.
	Shanghai Branch Deputy Head	WANG WENHUI / Mr.

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Fax: +81- 533 - 88 – 6219

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Business activities that have been conducted in Indonesia: (Launching Date: Nov, 2014)

A: Export and sale of products B: Local manufacturing of products (at its own factory, factory of cooperating company or other)

C: Seeking a business partner for technological matters, etc. (including joint research)

D: Seeking an information source (local business coordinator/advisor) E: Other (description required) F: None

Space for describing other business:

Industrialization of water purification at rivers in Jakarta City is being conducted as a JICA's Extension and Verification Project