

No,002211018

Nation-wide use of PICOPICA in Japan

PICOPICA visualizes the power generation of water flow

Kami-Yahagi
Primary School



Miyako City
Smart Community



Ohtani
Junior High School



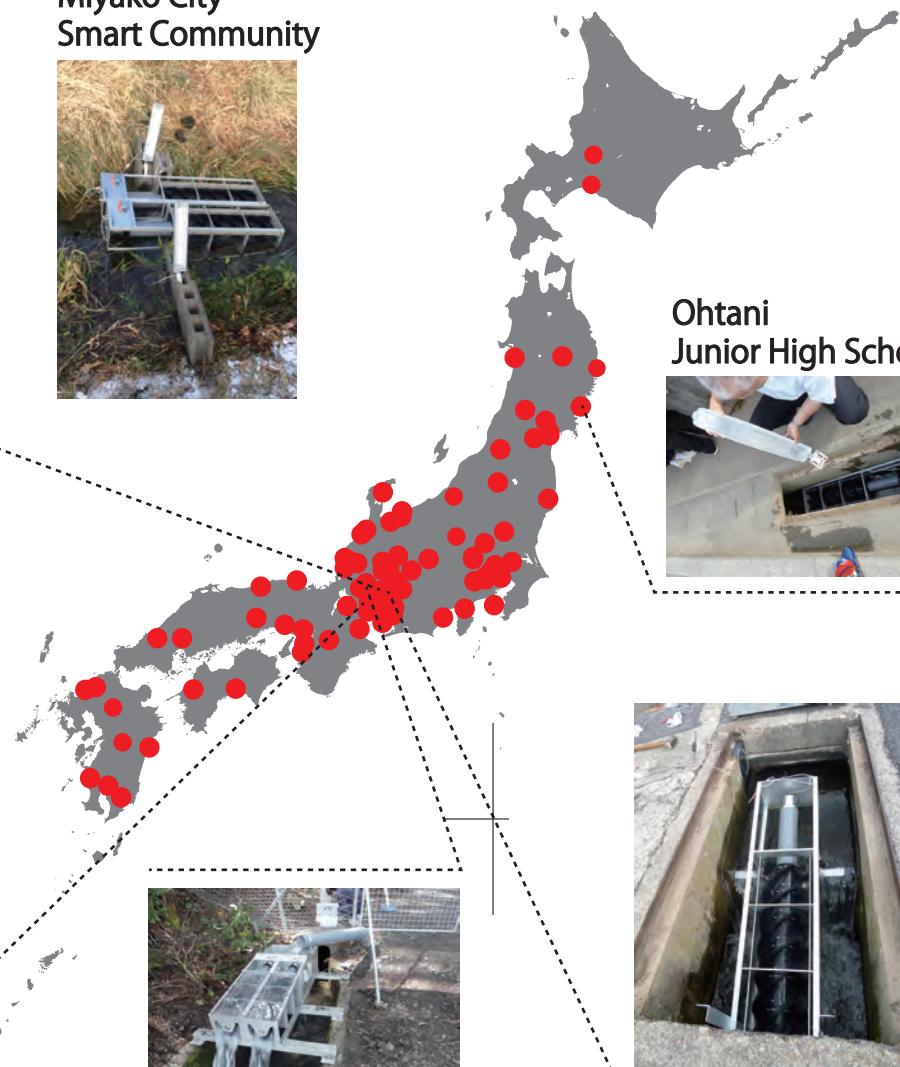
Osashima
Primary School



Ibigawa Township



Itoshiro Primary School



Spiral Pico Hydropower Generation Device

PICOPICA® 10



The Kit (picture left) includes the LED light

Parts are subject to change without notice

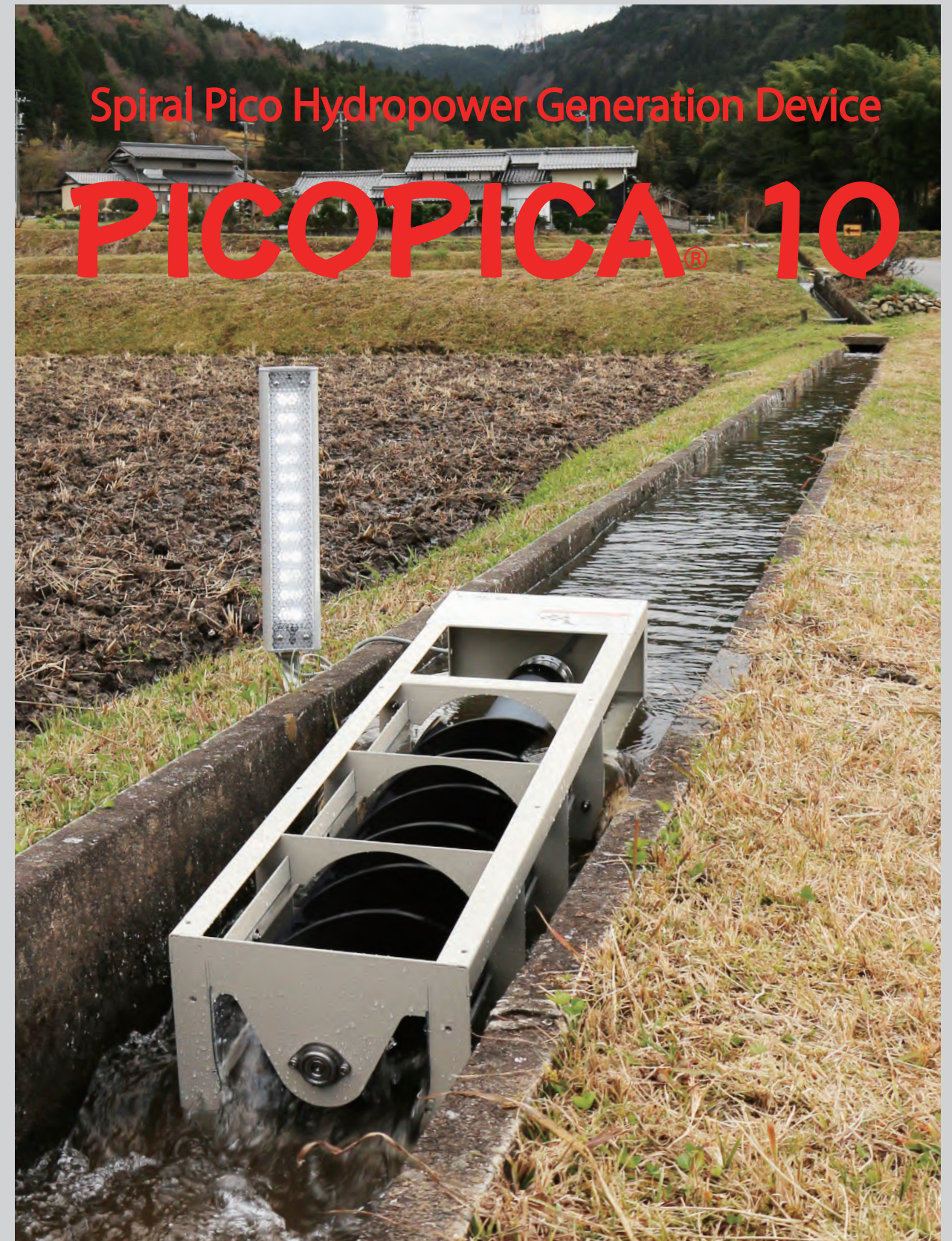
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Spiral Pico Hydropower Generation Device

PICOPICA® 10

Developer & Manufacturer: Sumino Co., Ltd
(A member of Non-Profit Organization for Regional Revitalization)

R&D of PICOPICA, a spiral pico hydropower generation device, was initiated as a project under official programs in Japan for "Support for Craftmanship in SMEs 2019" and "Independent Energy in Mountainous Areas for Regional De-warming and Symbiosis with Environment Targets".

Self-sufficiency of Regional Energy

Much of hydro-energy lies dormant in underdeveloped regions. PICOPICA, a spiral pico hydropower generation device, is an educational tool on environment and self-production & self-extinguishing energy. Continuous R&D and practical efforts have been made to spread the use of natural energy, especially that of pico hydro power generation among regional communities. PICOPICA provides a logical and reasonable solution to enhance such developments. There are many more hidden places where PICOPICA can become useful. Find them yourself!!

Notes: "pico hydro power" means hydropower below 1KW"
"mini hydro power" means hydropower below 1,000kW



Old spiral wheel at Itoshiro
This is where it all started

PET bottle caps that children collect can be used to light up the school-commuting trails and paths

Energy is one of the priority issues for the next generation. Assembling PICOPICA is a convincing method to inspire children to grasp the future concerns of its impact on the environment.



Kami-Yahagi Primary School

PICOPICA's spiral blades are made from recycled PET bottle caps that children collected. PICOPICA can be used as a tool for education on environment. We hold seminars on assembling the kit at primary schools in an effort to widespread its use. PICOPICA assembled by children are later used as outdoor security lights or as power generator for electric fences.

High performance generator capable of generation with minimal head and water flow volume

Placement conditions:
U-trench with width 30cm.
Water flow volume 10L/sec.



Osashima Primary School

Electricity at your elbow



Irrigation channel (left), Security lighting (right)

PICOPICA was developed to generate power from the flow of water in channels you can find anywhere with minimal head and water flow volume. Simply placing PICOPICA in irrigation channels (U trench) is enough to generate power. It is capable of generating 2.4W electricity and can be used for security lighting and electric fences.

[Generator] 2.4W
[Voltage] 6v
[Size] H380 x W280 x D1085
[Weight] 17.5kg

Spiral blades made of reused PET bottle caps
Water conduit & cover made of reused PET bottles

For Emergency Energy Supply



Kami-Yahagi Primary School

Where small water flow is available PICOPICA can be used to supplement energy shortage in disaster areas. It is not surprising to find evacuation sites holding PICOPICA kits in reserve.