

# Case Study

## Bearings



### Summary



<b>Industry:</b>	Renewable Energy
<b>Application:</b>	Water Wheel at 2 star Michelin Restaurant
<b>Actual Saving:</b>	£N/A
<b>Payback Period:</b>	<6 months



## Efficient and Functional Revolve Split Roller Bearings

Easy maintenance and superior sealing provide the solution for renewable energy application

### ISSUE

A 2 Star Michelin restaurant based in the south of Belgium recently undertook a project to change out the existing steel water wheel for a more efficient glass reinforced nylon design. The wheel was intended for use to produce electricity for the restaurant to make it self sufficient. The system would allow surplus electricity generated to be introduced back into the Belgian grid, thus generating an additional source of income to the business.

The main issue was supporting the wheel with a bearing that would be as efficient as the wheel and as easy to maintain. With the bearing units being close to the main water source the issue of a suitable sealing arrangement to prolong the life of the bearing selected was also of concern.

### SOLUTION

A visit to site with the designer of the renewable energy system we were able to demonstrate that the Revolve SRB bearing arrangement would be more than adequate for the system being designed.

The wheel was designed with the Revolve SRB supported bearing using a Walker Seal arrangement with single garter lock spring and retaining plate to give the highest water ingress protection. This design was proposed to the customer who agreed that the reduced maintenance of the Revolve SRB unit was their preferred route.

Since the commissioning of the bearing units, adverse weather conditions have increased the level of water in the river which, on occasion, has meant the bearings have been partially submerged on occasion and performed without issue.

### OTHER BENEFITS

- Reduced Downtime
- Increased Efficiency
- Superior Sealing Arrangement

### FURTHER COMMENTS...

Since the commissioning of the units the customer has been very pleased with performance within the application. The designer of the renewable energy system is now looking at further projects and applications where SRB units will prove to be a success.

### MORE INFORMATION

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