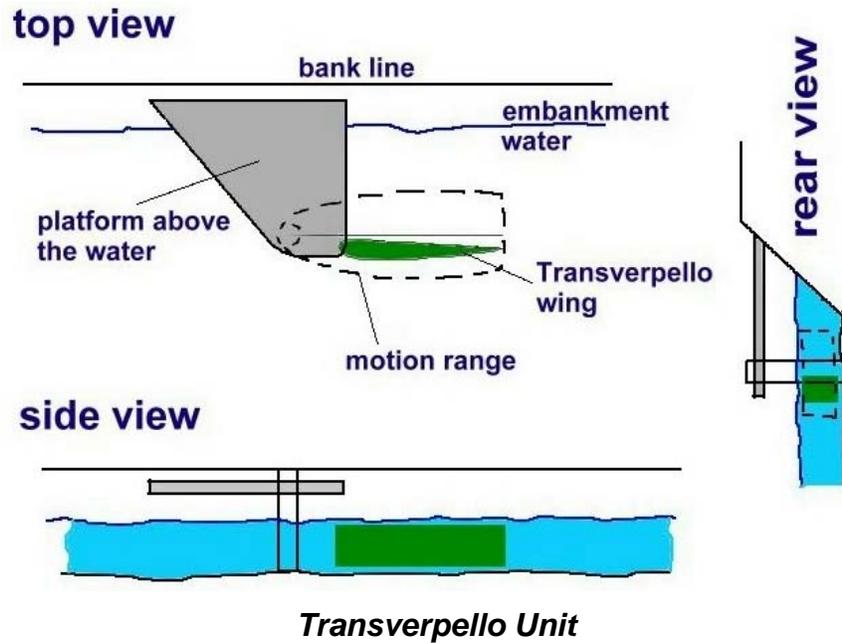


# Transverpello

*Development Stage: Engineering scale*



## Product Description

To harness the immense energy of the rivers in lowlands would be to get hold of far and away the biggest, cheapest and most neutral environmental source of energy on planet Earth. It wasn't feasible so far, due to geometrically caused economic reasons: with the circular face of the turbine rotation the very narrow cross-section of a river can't be viably held, it requires a head of water, and for it valley slopes. It will become completely different if the converter is not a rotator and its motion doesn't slip over a circular face but over a narrow rectangle. To visualize, it means the technical transformation of something of aquatic plants waving in the current to and fro. A pendulum wing like a flag on the staff.

*(continued on next page)*

Product Highlights	
<b>Standard Unit Design Capacity</b>	25 kW
<b>Other sizes currently available</b>	Yes
<b>Characteristic Dimension</b>	25 m
<b>Rotational Axis Orientation</b>	Vertical
<b>Design Working Environment</b> <input checked="" type="checkbox"/> Natural waterways <input type="checkbox"/> Water transmission systems <input type="checkbox"/> Effluent streams <input type="checkbox"/> Tidal estuaries <input checked="" type="checkbox"/> Near shore ocean <input type="checkbox"/> Off-shore ocean <input type="checkbox"/> Deep ocean <input type="checkbox"/> Other	

*Product Description continued*

Such a machine has been built and tested at the Institute of Water Resources of the University of the German Federal Armed Forces, Munich, and the measuring results for checking the calculation hypothesis were greater than the expectations. The measuring report can be found at [www.transverpello.de](http://www.transverpello.de).

The cost degression which is usual with the increase in engine size is far more significant with this application, the constellation is unique. The wing should be trimmed as weightless, it is carried by the water. The single wing modules of a complete plant should be installed into line only in an area near the bank, not in the shipping lane; the shipping will be unimpeded. And in winter the constant motion with its big force, equivalent to draw-loads of many tons, will prevent ice from forming. Down days because of high water will be less than with the turbine plant because here no relative rise of the tailwater level is of importance, nor the smaller driftwood; for bigger things the rough type of rake is possible.

*Product Specifications/Details (Standard Unit)*

- **Performance Specifications:**

<i>Category</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Units</i>
Velocity range	1.5	—	<i>m/sec</i>
Hydraulic head range	—	—	<i>m</i>
Power output range	—	—	<i>kW</i>
Waterway depth	2.5	—	<i>m</i>
Waterway width	20	—	<i>m</i>

- **Efficiency:** Turbine: — Total System: 50%

- **Deployment Locations:**

- The pilot plant will probably start this year in the Rhine near Koblenz, river kilometer 602.

- **System Dimensions (meters):** 30 (L) × 20 (W) × 2.5 (D)

- **Unit Price (U.S. dollars):** \$180,000

### *Company Contact Information*

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### *Company Profile*

Years in Business	30 or more years
Number of Employees	6-20 employees
Annual Equipment Sales	less than \$1000