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it-mini-turbine-orc-expander-experimenters-kit-by-infinity-turbine

**Infinity Turbine
LLC**

**IT Mini Turbine ORC Expander
Experimenters Kit**



This webpage QR code

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Company Name: Infinity Turbine LLC
 Product: IT Mini Experimenters Kit
 Applications: Water or Low Pressure High Density Flow
 Construction: Metal, 3D Metal, or cast composites
 Uses: Experimental water flow and other high density fluids

PDF Version of the webpage (first pages)

<https://infinityturbine.com/it-mini-turbine-orc-expander-experimenters-kit-by-infinity-turbine.html>

IT Mini Experimenters Kit

The IT Mini Experimenters Kit is designed for modular block rapid prototyping of turbine (expander) blades. We have all the parts for this kit for purchase, or you may purchase the plans and build yourself. We have these in aluminum and HDPE, but you can use any material determinant on the working pressure needed. We have successfully used these using R-245fa, R-134, Compressed Air, pressurized water, and a Stainless Steel version with CO₂. See our YouTube videos for examples.

Modular Block Assembly: Used since 2008, our Modular Block concept has been used in hundreds of turbine prototypes and production assemblies. These 2.5 inch hexagonal blocks (3 inch overall width) have a interior bore for expanders which measures 2 inches. 10/32 standardized threaded bores and passthrough bores for 10/32 bolts.

Purpose: The purpose of the kit is to allow rapid prototyping and experimentation of your turbine or expander design in a bolt-together format.

Rapid-Configuration: This strategy allows you to quickly assemble turbines and test various expanders on air and water. The basic design is for 300 psi or less, which is determinant on the back magnetic coupling block which is made from HDPE. If you can make from nonmagnetic metal or composite fiber for a thicker (stronger) back, then you can use fluids with greater pressure.

Magnetic Coupling: The design has a basic 2 inch diameter magnetic coupling and follower, which allows you to have a generator or drive unit mounted exterior.

Plans and licensing available.

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IT Mini Experimenters Kit Assembly

The block assembly design and strategy allow you to easily incorporate any changes to the design for your application, whether it be a turbine, a compressor, a expander, a pump, or any combination of the above.

Plans and licensing available.

IT Mini Experimenters Kit Magnetic Coupling

Magnetic Coupling: The design has a basic 2 inch diameter magnetic coupling and follower, which allows you to have a generator or drive unit mounted exterior.

IT Mini Experimenters Kit Modular Block Format

The modular block format allows quick connect using 10/32 fasteners.

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IT Mini Experimenters Kit Turbine Blade

Rapid-Configuration: This strategy allows you to quickly assemble turbines and test various expanders on air and water. The basic design is for 300 psi or less, which is determinant on the back magnetic coupling block which is made from HDPE. If you can make from nonmagnetic metal or composite fiber for a thicker (stronger) back, then you can use fluids with greater pressure.

Magnetic Coupling: The design has a basic 2 inch diameter magnetic coupling and follower, which allows you to have a generator or drive unit mounted exterior.

Modular Block Tesla Disc Experimenters Kit

Infinity has long been promoting building small prototypes and then numbering up to scale up, thereby eliminating most larger to-scale issues. The modular block experimenters kit allows entrepreneurs a gateway to verify development and then provide a methodology to evolve concepts to commercialized products.

The experimenters kit provides multiple Tesla pump and turbine discs (stamped out of steel) which can be stacked on a common shaft for experiments.
