

Infinity Turbine LLC • Price List

Prices Valid Until November 30, 2013

201301030



All Prices U.S. Dollars unless otherwise noted. Shipping and crating is not included.

ORC Turbine Only • Working psi up to 200 psi • Magnets 140 C • Magnetic Coupling Shaft Bore (ITmini 10mm / ITxr 17 mm)

2013 Model	Mag Coupling Shaft Size - Max Power	Ports (NPT) Inlet/Outlet	Dimensions inches(metric)	Weight Lbs(kg)	Turbine - Coupling Assembled	With DC Gen
ITmicro 10mm	Up to 3 kW	3/8" -- 1.5"	3x3x3" (76x76x76 mm)	7lb (3 kg)	\$5,000	\$6,500
ITxr 17mm	Up to 12 kW	1"NPT -- 4" Flange	10x10x20" (254x254x508 mm)	120 lb (55 kg)	\$10,000	\$15,000
ITmini 10mm (CO2 Grade)		3/8" -- 1.5"	3x3x3" (76x76x76 mm)	15lb (6 kg)	\$15,000	-----



All 2013 Turbines include the new inflow radial turbine rotor.

IT250 SPECIAL OFFER: \$380,000 USD Until Nov. 30. ASME stamped heat exchangers and CE. 50/60 hz AC generator.
ORC Complete Systems • Uses R134a or R245fa not included • Working pressure up to 200 psi 80-140 C Temp

Model	Power Output (turbine-generator)	Heat Exchanger	BTU input (kWt)	Flow GPM(lpm)	Price
IT03	Using ITmicro	DC 600 - 3,000 watts	Flat Plate - IT10 size 200,000 (59 kWt)	8 gpm (30)	\$30,000
IT10xr	Using ITxr	DC up to 10 kW	Flat Plate 500,000 (147 kWt)	30 gpm (114)	\$50,000
Super CO2	Using ITmini	DC 3,000 watts+	Flat Plate (Up to 2,000 psi or 140 bar - Experimental)		\$100,000
IT50		AC Gen 50 kW	Shell / Tube 2.5 mmbtu (733 kWt)	140 gpm (530)	\$130,000
IT250	AC 250 kW Net	Shell / Tube	Shell / Tube 11 mmbtu (3,224 kWt)	500 gpm	\$500,000

ORC Consulting • Plans for ORC System only (no turbine blueprints) • One Month Continuous Consulting(up to 140 hours)

Model	Plans for ORC System	Consulting	Email/Skype Support	Additional Drawing	Price
ITmini	ITmicro	15 Day Continuous	Yes	\$60 /hr	\$2,500
IT01-IT10	IT01/ITmini/IT10/IT10xr	One Month Continuous	Yes	\$60 /hr	\$5,000
IT50	IT50	Consulting Add On	Optional	\$60 /hr	\$30,000
IT250	IT250	Consulting Add On	Optional	\$60 /hr	\$100,000

New Manufacturing Option with 3D Metal Printer - See Last Page for Details

ORC Testing Platforms (These systems provide hot water and cool water / condenser functions for ORC systems.)

Mobile Boiler: 1-30 gpm (10-115 liters/min) hot water. Max temperature 180 F (82 C). NG or LPG fuel. Price \$20,000

Mobile Air Cooled Condenser: Can be used for cooling water, or refrigerant. Price \$20,000

Feedpump (This is the C Face Beinlich Feedpump only. Can be used with ITmini or ITxr - ITmini ORC or IT10 System)Feedpump (pump head only): Price \$2,500 With ITmini DC Motor: \$4,500 With IT10 DC Motor: \$5,000
35 cc/rev. 1-10 gpm.

Feedpump (pump head only) for CO2: Price \$7,500 With ITmini DC Motor: \$10,500 Mounted with coupling and with IT10 DC Motor: \$12,500 This is a experimental pump. No warranty. 35 cc/rev. 1-10 gpm.

2013 Turbine Designs

ORC Turbine Only • Licensing • Blueprints Only (blue-copy) • Buy these blueprints to machine your own turbine
Can be used with most refrigerants (such as R134a, R245fa) and with modifications can be used with CO2.

2013 Model (shaft)	One-Time License Fee	Design Update Fee	Notes
ITmicro (10mm) This is the inflow radial turbine design. Smaller version of large commercial ORC units.	\$50,000 USD	\$15,000 USD	Consulting/Support Additional. 2013 Model. CO2 Capable.
ITmicro (10mm) This is the radial impulse turbine design. Smaller version of large commercial ORC units.	\$50,000 USD	\$15,000 USD	Consulting/Support Additional. 2013 Model. CO2 Capable.
ITxr (17mm) This is the inflow radial turbine design. Smaller version of large commercial ORC units.	\$60,000 USD	\$15,000 USD	Consulting/Support Additional. 2013 Model. CO2 Capable.
IT250 Turbine This is the inflow radial turbine design. Similar to large commercial ORC units.	\$100,000 USD	\$50,000 USD	Consulting/Support Additional. 2013 Model. Can be designed for CO2 use.
IT250 Turbine Impulse radial turbine design. For refrigerants, CO2 and steam. 3,600 RPM to direct drive AC generator or other equipment. Purchase includes free updates for one year from purchase. Turbine rotor diameter is 12-48 inches and 1-2 inches in thickness. Has stationary or variable nozzle stator design. This is the most efficient and newest design on the market.	\$500,000 USD	\$50,000 USD	Consulting/Support Additional. 2014 Model.

Note: We can custom design, build and test a turbine for your use, including PID and power curves in advance of final blueprint design.

1. Pre-Design Services: \$30,000. Includes PID, power curve and efficiency based on your input data of temperatures, type of refrigerant, heat exchangers, pump efficiency, etc. Time allotment is up to three weeks.

2. Turbine Design Services: \$60,000 - \$150,000. Includes design and blueprints. All files are in electronic format, including STEP files. Custom blueprints are provided with no restrictions of use. Since you contract for the blueprints, you own the design.

3. Turbine Prototype Services: \$20,000 - \$150,000. Includes materials, labor, assembly, and machine time for above blueprints. The prototype cost will depend on the size of the turbine.

4. Pressure Testing: Pressure testing using nitrogen. Leaks identified. Any problem areas identified. Testing costs depend on size of unit.

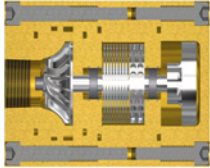
5. Refrigerant Testing: Pressure testing using the refrigerant you will use in the application. Leaks identified. Any problem areas identified. Testing costs depend on size of unit and type of refrigerant. Refrigerant cost will be a component of the pricing.

6. Operational Testing: Testing using one of our ORC or CO2 test rigs. Availability of test rigs will vary.

7. Application Testing: This type of testing uses the source of heated liquid to be provided for the system. Examples include liquid heated by solar thermal, geothermal, biomass boiler, compressor, and other sources. Please contact for a quotation.

8. Custom CAD/CAM Drawing Services: We have two professional draftsmen who are experienced in ORC turbine design and drawing. Depending on type of work, expect \$60 - \$100 per hour for services.

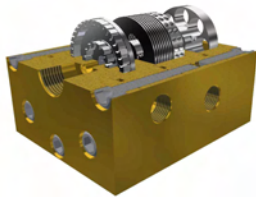
2013 Turbine Prototypes



Price: \$15,000

Inflow Radial TurboPump Turbine 2013 - Experimental

Designed for pressurized fluids and gases, including air, R134a, R245fa, steam, CO2. Experimental. Pressure tested to 2,000 psi (140 bar). Includes magnetic coupling. Assembly has multiple inlet and exit ports for both a turbine and pump. Modular Block aluminum construction with stainless steel assembly. Standard 3/8 inch bolts and 3/8 inch threaded mounting bores. 3/8" NPT inlet and 1" NPT exit port. 4 x 4 x 6 inches.



Price: \$15,000

Radial Impluse TurboPump Turbine 2013 - Experimental

Designed for pressurized fluids and gases, including air, R134a, R245fa, steam, CO2. Experimental. Pressure tested to 2,000 psi (140 bar). Includes magnetic coupling. Assembly has multiple inlet and exit ports for both a turbine and pump. Modular Block aluminum construction with stainless steel assembly. Standard 3/8 inch bolts and 3/8 inch threaded mounting bores. 3/8" NPT inlet and 1/2" NPT exit port. 4 x 4 x 6 inches.

Web Internet Listing on Our Website

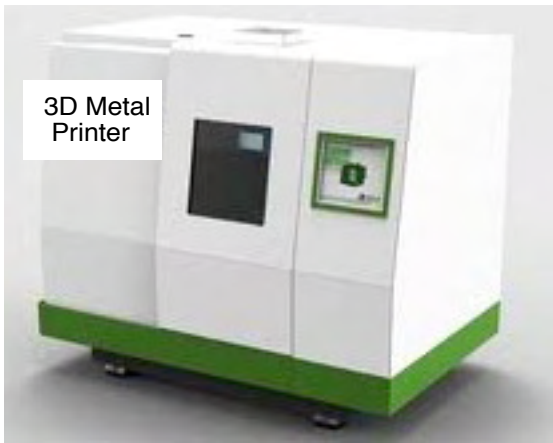
We will offer up to 10 pages with your company information, graphics, etc. for a monthly fee of \$30,000 USD. Minimum order is one month.

This gives you a internet presence that will allow customers to contact you directly or point to your own website.

We have had our site live since 2008 and have top ranking on Google and other search engines.

ORC Computer Solutions • Programs run on Filemaker (www.filemaker.com) • Buyer must have Filemaker to run solutions
All solutions will also run on FileMaker Go for iPhone and iPad

Item		Price		
ORC Design Solution	Specifically for ORC Cycle	\$500		
CO2 Brayton Solution	Specifically for Brayton Cycle	\$500		
ORC and CO2 Performance Charts PDF		\$100		
Consulting On Above Solutions Add On	Optional	\$200/hr	or	\$500 per month for up to 10 hours



Infinity Turbine Manufacturing Package and Build License

Infinity is now offering a manufacturing program which includes a metal 3D printer so you can make your own turbine rotors and parts. Larger parts can be contracted out to machine shops or larger production manufacturers. 3D printing is now the most advanced affordable manufacturing process which is now available through Infinity Turbine.

Price: \$4,500,000 USD

- Print size 400 x 250 x 250 mm (15.7 x 9.8 x 9.8 in.)

Optional CO2 Technology Add-on: \$800,000 USD

- ITmicro and IT10 CO2

Optional Large 3D Printer Add-on: \$2,000,000 USD

- Print size 780 x 400 x 400 mm (30.7 x 15.75 x 15.75 in.)
- Larger print area allows larger rotors for IT250 and IT500
- Larger print area allows to print ITmicro, IT10 and IT50 heat exchangers

Package Includes The Following Equipment, Licensing and Services

A. 3D Printer System

Includes metal 3D printer, curing oven, shipping of equipment and training at our shop.

B. ORC License

Includes ITmicro, IT10, IT50 and IT250 system and turbine blueprints. Bill of materials, suppliers, and basic PLC programming. License is for unlimited production. Updates to blueprints available as subscription fee.

C. ORC System Full Build Examples

Includes a full ITmicro ORC and IT10 ORC system, with crate and shipping.

D. Consulting / Training

Includes 12 months of consulting with our support technician via Skype and email. Up to 50 hours per month. Includes 3 days of training on system charging, installation and operation at our training facility in Ferndale, Washington, USA. Up to 5 people for training. Support is included for one primary contact (all support must go through one of your staff, not the entire staff).

E. PID and System Customer Sizing Application

Includes basic system sizing and application assessment computer solution. Using FileMaker running on Windows or Mac. Basic power information for both ORC and CO2 applications including estimated power and heat flows.

F. Parts

Set of 20 ITmicro turbine housing modular blocks and parts (no rotors). Set of 10 IT10 ITx turbine housing and parts (no rotors). Crate and shipping included.

G. Parts Buying Discount

Allows a 30 percent discount on buying any turbine housing parts from Infinity Turbine. Other parts on discount as available.

H. One Year Web Page Listing

Allows a page of your company listing on our website as a ORC manufacturer for one year.

I. One Year Country Exclusive

We'll not sell any manufacturing programs to any group in your country from time of purchase.

J. Terms: \$2,000,000 USD at order and balance before 3D equipment shipped. For optional large format printer 2,500,000 USD at order and balance before 3D equipment shipped. For optional CO2, full payment of optional add-on due with order.