### Coffee Cup Stirling Engine Educational Version

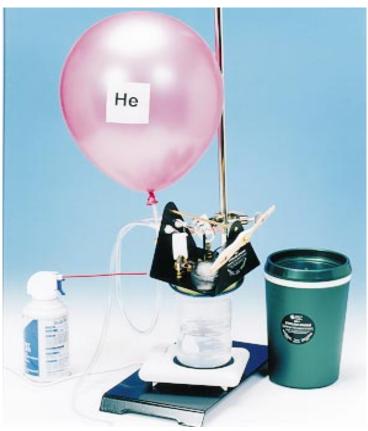
Model MM-4

\$229.00

The MM-4 is dedicated to the principle that, "Learning science should be fun." I think you'll agree that seeing our transparent engine run on a beaker of steaming hot water is a lot of fun, but it takes more than fun to make things work in the classroom.

Stirling engines such as the MM-4 are working examples of Boyles law. Air is heated, then it expands and pushes up on the piston. Next the air cools down, contracts, and pulls down on the piston. Students can see it all happening because the engine has a transparent cylinder, and the piston is a flexible diaphragm.

It's fun, its interesting, and its very basic to both Physics and Chemistry. Would your students benefit



The MM-4 comes with everything shown except the ring stand and helium.

Orders Call: 316-773-1952



From seeing how different gasses behave? Have them fill the MM-4 with environmentally friendly helium and watch this lighter gas make the MM-4 speed up almost instantly.

# Our Stirling engines have been purchased by the Air Force Academy, MIT, and some of the country's best primary and secondary schools!

The MM-4 is also a great way to teach environmental science. After all, zero pollution engines such as the MM-4 are possible today, even though they aren't yet practical. Students can conduct renewable energy experiments by squeezing peanuts, collecting the oil and fueling the MM-4 on a small renewable energy peanut oil lamp! The MM-4 includes a free spare diaphragm (regularly \$14.95)

Model MM-4 \$229.00

Two year warranty. Shipping \$12.00 domestic and 29.00 or less international.

# Coffee Cup Stirling Engine Our Original Version

Model MM-1 \$129.00

This is our original transparent Stirling engine, but of course I couldn't resist improving it. There is a new brass rod above the crankshaft to protect the crank, and the stainless steel has all been polished. The engine runs about 250 rpm on steaming hot coffee and I do mean steaming! This is not the place for lukewarm coffee.



Model MM-1 \$129.00
One year warranty. Shipping \$9.00 domestic and \$19.00 or less international.

# MM-2 engines are not always as pretty as this one (sorry).

# Coffee Cup Stirling Engine Economy Version

This is our simplest engine at the lowest price. The cylinder isn't transparent (so you can't see what's happening inside) and there is no thermometer on top. The stainless steel isn't polished and neither is the trim, but you can still run it on hot water and have fun showing it off. Sometimes these engines have a scratch here and there, but they are still an awful lot of fun for less than a hundred bucks.

Model MM-2 \$99.00 90 day warranty. Shipping \$9.00 domestic and \$19.00 or less International.

Orders Call: 316-773-1952

## **Coffee Cup Stirling Engine Educational Demo Version**Model MM-3 \$189.00

Everything shown comes with the MM-3. The insulated container lets you run the engine for over an hour on a cup of hot water, and when you spray "cold fuel" on the bottom of the engine you can make it look like it is running on nothing. To get the most power out of the MM-3, put ice cubes in the clear containers on top of the engine and set the engine on a mug of steaming hot water. What a great science demo!

Model MM-3 \$189.00 One year warranty. Shipping \$12.00 domestic and \$29.00 or less International.



# Build this engine with our kit!

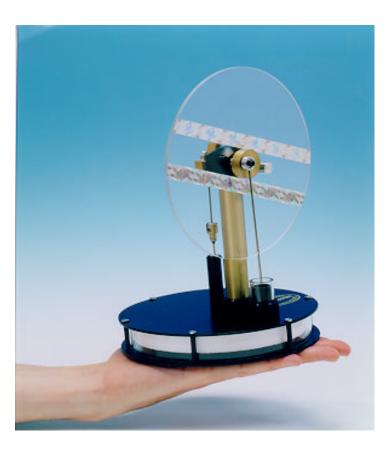
### Coffee Cup Engine Kit Model MM-5 \$89.00

Would you like to build your own engine? Sure it takes some time, but its' fun. This kit includes all the parts and instructions to build the original transparent engine (MM-1) which sells ready to run for \$129.00. It's a great way to save money and have fun! The instructions for the MM-5 are good, but I still don't recommend it for first time model builders.

If you think the kit is too complex after you open it, you can box it up and send it back for 100% credit towards a ready to run MM-1. The kit must be in original condition (untouched) when we get it back, but to make it almost painless, we'll even throw in free shipping for your ready to run engine.

Model MM-5 \$89.00
One year warranty. Shipping \$9.00 domestic and \$19.00 or less International.

Orders Call: 316-773-1952



#### Heat Of Your Hand Engine Model MM-6 \$299.00

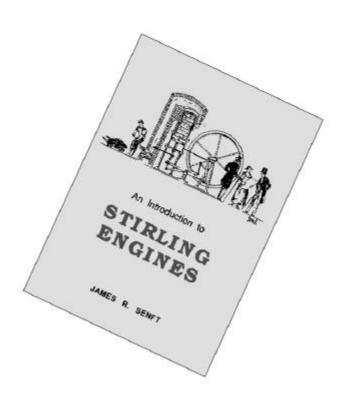
This lovely Stirling engine will run on the heat of your **warm** hand in a 72 degree F (23 deg. C) room. This engine has jewel like ball bearings, and an incredibly slick graphite piston in a glass cylinder. You can even run it on a computer monitor, fax machine, or bright sunlight shinning through a window. This engine comes the closest to magic of any of our engines.

Model MM-6 \$299.00

One year warranty. Shipping \$9.00 domestic and \$19.00 or less International.

The heat of your warm hand makes the MM-6 engine turn.

#### A good introductory book on Stirling Engines.



#### "Introduction to Stirling Engines" by James R. Senft \$12.00

Professor James Senft has written an excellent book on Stirling engines. Professor Senft has been researching heat engines for 20 years and he explains Stirling engines very well. This is probably the best introductory book on Stirling engines available anywhere in the world.

 $(5.5" \times 8", 80 \text{ pages} / 14 \text{ cm} \times 20.3 \text{ cm})$ 

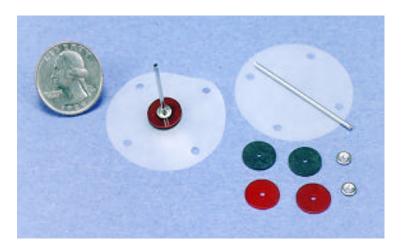
"Introduction to Stirling Engines" \$12.00
Free shipping with any order, otherwise \$2.00 domestic and \$5.00 International

# This is the only wear part on the MM-1 through MM-5 engines

#### **Spare Diaphragm** \$14.95

The diaphragm is the only wear part in the engine. It is made out of eight tiny parts, and six of those are custom made! When I first tried to buy the very thin silicone rubber in the diaphragm, it tookmethreedays of nearly constant phone calls to find the right material. You might want to have a spare.

Spare Diaphragm \$14.95 Free shipping with any order, otherwise \$2.00 domestic and \$5.00 International



#### **Ordering Instructions.**

Fill out the order form on the next page and fax it to us for immediate processing. Or, simply fold this page and mail it in. Remember to fill out the mailing label at the bottom of the order form. This helps us ship your order sooner. You can also order via the internet, just visit our web site at http://www.stirlingcycle.com. Make checks and money orders payable to:

#### **American Stirling Company**

1313 N. Maize Road, Suite 1602

Wichita, KS 67212 USA Phone: 316-773-1952

Fax: 316-773-4202

http://www.stirlingcycle.com brentvan@stirlingcycle.com



The MM-6 will run on very small

Place Stamp Here



1313 N. Maize Road Suite 1602 Wichita, KS 67212 U.S.A.

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Home Phone:	Work Phone	•		
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Engines  MM 1 Original Transparent Stirling Engine	Unit Price	Qty.	Shipping	Sub Total
MM-1 Original Transparent Stirling Engine MM-2 Economy Model Stirling Engine MM-3 Educational Demo Version MM-4 Educational Experiment Stirling Engi MM-5 Stirling Engine Kit MM-6 Heat of your hand engine	\$129.00 99.00 189.00 ine 229.00 89.00 299.00	X X X X X X	Shipping	Sub Total
MM-1 Original Transparent Stirling Engine MM-2 Economy Model Stirling Engine MM-3 Educational Demo Version MM-4 Educational Experiment Stirling Engine MM-5 Stirling Engine Kit MM-6 Heat of your hand engine MM-8 Solaris Stirling Engine	\$129.00 99.00 189.00 ine 229.00 89.00	X X X X X X	Shipping	Sub Total
MM-1 Original Transparent Stirling Engine MM-2 Economy Model Stirling Engine MM-3 Educational Demo Version MM-4 Educational Experiment Stirling Engi MM-5 Stirling Engine Kit MM-6 Heat of your hand engine	\$129.00 99.00 189.00 ine 229.00 89.00 299.00 329.00 \$14.95 12.00	X X X X X X X X X X X X X X X X X X X	Shipping  9% Sales Tax	Sub Total
MM-1 Original Transparent Stirling Engine MM-2 Economy Model Stirling Engine MM-3 Educational Demo Version MM-4 Educational Experiment Stirling Engine MM-5 Stirling Engine Kit MM-6 Heat of your hand engine MM-8 Solaris Stirling Engine  Recommended Options  Spare Diaphragm (for MM-1 to MM-5) "Introduction to Stirling Engines"	\$129.00 99.00 189.00 229.00 89.00 299.00 329.00 \$14.95 12.00 K\$ Resid	X X X X X X X X X X X X A A A A A A A A		Sub Total