

### Product Highlights

- Strongest magnetic coupling for viscous solution
- Multiple stirring modes
- 100% wear and maintenance free
- Quiet operation
- Maintains constant speed
- Will not generate heat, even after hours of continuous use



# The Magnetic Induction Stirrer by Heathrow Scientific

is motor-less, using **advanced coil technology** that produces **the strongest magnetic coupling** and has no moving parts making this unit **100% wear-free and maintenance free**.

## Motor-less Stirring:

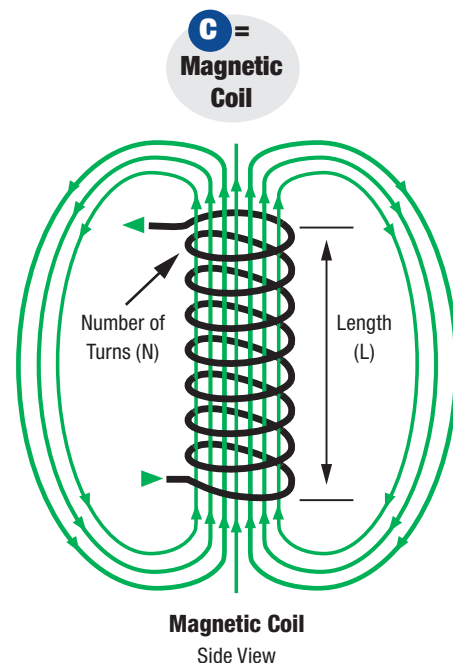
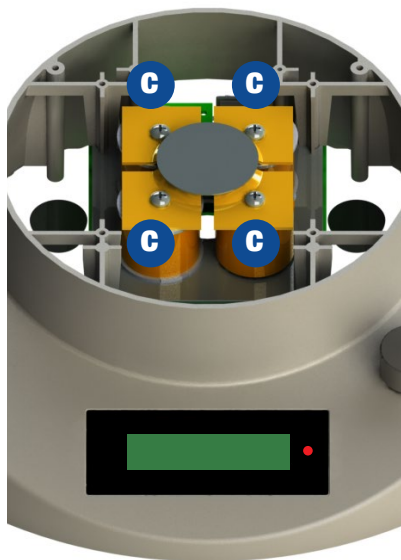
The magnetic coil technology works on the inductive principle with alternative current (AC) as its driving force. The generated moving magnetic field drives the spinning of the stir bar in the vessel.

Several advantages come with a motor-less magnetic stirrer versus a traditional magnetic stirrer.

- No heat is generated after hours of continuous use making this unit ideal for temperature sensitive samples and environments
- Quiet operation and low vibration helps users stay focused in the lab
- The magnetic field driving the stir bar maintains continuous constant speeds for reproducible results

With advanced coil technology the strength of the coupling between the unit and stir bar is controlled by the amount of electric current that flows through the coil. The more turns of the wire making up the coil, a stronger magnetic field is produced.

The Magnetic Induction Stirrer by Heathrow uses advanced coil technology resulting in the unit creating the strongest magnetic coupling, perfect for viscous solutions.



Protective silicone anti-skid plate cover for improved safety

- Capacity: 3 liter plus
- Rapid acceleration and braking (less than 10 seconds) to quickly meet stirring speed requirements
- Speed remains constant, even when load changes
- An easy to read digital display precisely controls time (30 seconds to 60 minutes) and speed (10 to 2,000 rpm)
- Durable ABS housing is corrosion resistant and easy to clean



**Two stir bars included**  
(35 mm x 12 mm) have PTFE coating for chemical resistance



## Precision, literally at the touch of one button!

The Magnetic Induction Stirrer offers an easy to use programmable, variable time and speed, digital display.

Multiple stirring modes and options are available to achieve the best possible stirring results for a wide range of protocols.

When ready to program a cycle, the set-up is easy.



With just one convenient rotating knob select:

- Mode: single clockwise, single counter-clockwise, or auto reverse rotation (1 to 99 cycles)
- Speed: 10 to 2,000 rpm, variable (1 rpm increments)
- Time: 30 seconds to 60 minutes or continuous (1 second increments)



Once a program has started, the speed, cycle and time can be monitored. The stirring speed can be adjusted while a program is running.



Speed Cycle Time

## ? FAQ

### How long can you use the stirrer in continuous mode?

For as long as you need! 24 hours, multiple days, whatever your protocol requires.

### How much heat does the stirrer generate?

Zero! With no moving parts, there is no heat generated by its operation.

### Can you use the stirrer in a cold room?

Yes. You can use the stirrer to temperatures down to 2°C.

### Can I use the stirrer in an incubator?

Yes, but only conventional fan assisted or convection incubators (not CO<sub>2</sub>) up to 40°C. The zero-heat output of the stirrer will not affect the incubators performance.

### Can you use the stirrer with sensitive cell lines?

Yes. The low stirring speeds are ideal for slow and controlled stirring.

### What is the auto reverse rotation mode?

In the auto reverse rotation mode you can program the stirrer to automatically stir one direction, then stop and stir in the other direction. The number of cycles can be set up to 99 times.

### Why would I use the auto reverse rotation mode?

The auto reverse rotation mode is ideal for helping to dissolve solids and stirring of more viscous solutions. By constantly changing the direction of the stirring, it ensures the most thorough of mixing and can help reduce mixing time.

### What happens if there is a spill on the stirrer?

The shape of the stirrer housing guides any spillages away from the electrical components, which are also protected by the seamless top shell.

### How can you clean the stirrer?

You can use any standard detergents or disinfectants that are compatible with Acrylonitrile Butadiene Styrene, more commonly known as ABS.

### What are the best magnets to use in a stir bar?

The best available are 'rare earth' magnets as they provide the strongest magnetic force for the longest period of time, providing excellent coupling under the most difficult of conditions. Stir bars made from ALINCO also have a very strong magnetic force and are more often used when cost is a factor.





### Did you know?

Heathrow Scientific has strict standards that include 3<sup>rd</sup> party plant reviews and 100% multi-level product inspections. These actions result in a 99.7% reliability on our equipment and 99.99% reliability on our laboratory supplies.

### Patent information

Community Design No: 003515337-0001-0002

Euro. Pat. App. 3 246 088

US Design Patent No. D814,045

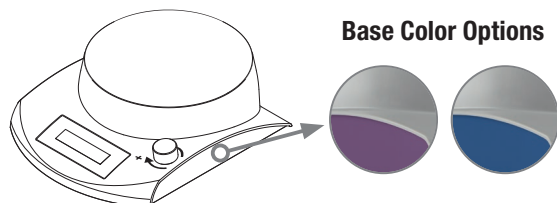
### Safety certified and approved

Meet international standards.



### Magnetic Induction Stirrer

| Item No. | Color       |  | L x W x H     |                   | UOM           |
|----------|-------------|--|---------------|-------------------|---------------|
|          |             |  | in            | cm                |               |
| 120584   | Gray/Purple |  | 9.7 x 7.7 x 3 | 24.5 x 19.5 x 7.5 | 1 ea, 2 ea/cs |
| 120585   | Gray/Blue   |  |               |                   |               |



### Specifications

|                        |                                                                                                                                                                                                                                                                                                                                                        |                           |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Speed Range            | 10 to 2,000 rpm variable, 1 rpm increments                                                                                                                                                                                                                                                                                                             |                           |
| Time Range             | 30 seconds to 60 minutes, variable, 1 second increments or continuous                                                                                                                                                                                                                                                                                  |                           |
| Stirrer Modes          | Single clockwise                                                                                                                                                                                                                                                                                                                                       |                           |
|                        | Single c. clockwise                                                                                                                                                                                                                                                                                                                                    |                           |
|                        | Auto reverse rotation                                                                                                                                                                                                                                                                                                                                  | 1 to 99 cycles 50% duty   |
| Capacity               | 3 liters plus                                                                                                                                                                                                                                                                                                                                          |                           |
| Mixing Surface         | 165 mm diameter, silicone mat 160 mm diameter                                                                                                                                                                                                                                                                                                          |                           |
| Operating Temp.        | Range 2°C to 40°C                                                                                                                                                                                                                                                                                                                                      |                           |
| Max. Relative Humidity | Non-condensing, 80% for temperatures up to 31°C decreasing linearly to 50% R.H. at 40°C                                                                                                                                                                                                                                                                |                           |
| Weight                 | 1.13 kg (2.50 lb)                                                                                                                                                                                                                                                                                                                                      |                           |
| Electrical             |                                                                                                                                                                                                                                                                                                                                                        |                           |
| Power Adapter Rating   | Level VI                                                                                                                                                                                                                                                                                                                                               |                           |
|                        | Input                                                                                                                                                                                                                                                                                                                                                  | 100-240 VAC 50/60 Hz 1.0A |
|                        | Output                                                                                                                                                                                                                                                                                                                                                 | 12 VDC 2.2A               |
| Stirrer Rating         |                                                                                                                                                                                                                                                                                                                                                        |                           |
|                        | Input                                                                                                                                                                                                                                                                                                                                                  | 12 VDC                    |
|                        | Current (Under load)                                                                                                                                                                                                                                                                                                                                   | Approx. 1.5 A             |
|                        | Power                                                                                                                                                                                                                                                                                                                                                  | Approx. 18W               |
| Warranty               | 5 years                                                                                                                                                                                                                                                                                                                                                |                           |
| Certifications         | CE, SGS, RoHS2, WEEE                                                                                                                                                                                                                                                                                                                                   |                           |
|                        |     |                           |

### Package Includes

|                                                                            |
|----------------------------------------------------------------------------|
| Magnetic Induction Stirrer                                                 |
| 2 Stir bars 35 mm x 12 mm Cylindrical Shape                                |
| 1 Silicone anti-skid plate cover                                           |
| 1 low voltage, double insulated power adapter with 4 interchangeable plugs |

