

Instrument Specifications

Power Output	600 Watt magnetron
Pressure	Monitor 0 -35 Bar, Control 0 - 20 Bar
Temperature	-80 to 300 °C control range
Stirring	In situ electromagnetic variable speed

	<u>Overall Dimensions</u>	<u>Weight</u>
Discover System w/ S-Class Technology	14.2"W x 16.9"D x 11.2"H (36.1 cm x 42.9 cm x 28.4 cm)	40 lbs (18.14 kg)
Explorer₁₂ Hybrid System	14.2" W x 19.7" D x 28.6" H (fully retracted Z top) (36.1 cm x 50 cm x 72.6 cm)	69.5 lbs (31.53 kg)

Explorer₁₂ Hybrid

*All the benefits of an autosampler
in the footprint of the world's smallest manual reactor.*

Drug Discovery

Medicinal Chemistry

Traditional Organic Chemistry

Polymer Chemistry

Materials Development

Nanotechnology

CEM *Innovators in
Microwave Technology*

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Small and Powerful

Explorer₁₂ Hybrid gives you the flexibility of closed or open vessel microwave synthesis combined with a small footprint autosampler.

Now you can perform both atmospheric and pressurized reactions with all of the convenience of a 12-position autosampler in the world's best-selling microwave synthesis system! The Explorer₁₂ Hybrid is built on the Discover S-Class platform, giving you all of the features and flexibility of this proven technology and the best value of any microwave synthesis system with an autosampler.

Versatility & Value

With its introduction, Discover S-Class System reset the benchmark in versatility and made everything else seem so limited.

Only Discover...

- supports atmospheric and elevated pressure reaction conditions.
- accommodates reaction scales from 0.1 to 125 mL with the industry's largest single mode cavity.
- features a complete line of modular accessories that allow the reactor to easily adapt to your needs. Do your chemistry your way.
 - ❖ perform peptide synthesis, low temperature reactions ($T < 0^{\circ}\text{C}$), and reactions with gaseous reagents all in the same microwave cavity!
 - ❖ watch your reactions as they take place with the optional integrated camera.
- offers multiple options for reaction control including infrared and fiber-optic temperature sensors.
- conserves your budget with the lowest total cost of ownership of any microwave synthesis system on the market.

Start with an autosampler and add other options later.

Explorer₁₂ Hybrid



Unique Features

Now the world's most flexible microwave system is the world's most flexible automated microwave system.

Intelligent Pressure Management – Use the first and only system to offer fully automated pressure management for elevated reaction conditions with the patent-pending IntelliVent™ technology. Nothing could be simpler or safer!

Optional Integrated Camera – See the changes occurring in your reaction in situ! Combine a digital camera with your autosampler to monitor your chemistry during the irradiation cycle. A perfect tool for documentation and publication support!

Vessel Flexibility – Switch seamlessly between 10- and 35-mL vials. Larger scale reactions can be accomplished in an optional 80-mL vessel. Add gaseous reagents to your chemistry using the Gas Addition option, or perform open vessel reactions with all the benefits of microwave energy!

Variable Speed Stirring – Discover is the only system on the market that allows you to choose the speed of agitation and to change it during the method.

More Connectivity – Easily monitor your reactions while freeing your time for other projects! Options such as wireless or remote viewing allow you to observe your reactions from another PC with your web browser. **Ethernet, USB & Wireless!** Watch your samples process automatically from the comfort of your desk.

Timed start allows samples to start late in the day maximizing sample runs during the day.

Open Vessel Chemistry

All the benefits of microwave energy without having to use a pressurized reaction vessel!

Ease of translation: Don't change a thing! Place your round bottom flask and condenser in a microwave to perform reactions at reflux.

Eliminate gaseous byproducts: Don't need the byproduct gas? Allow it to escape, just as you would when using an oil bath or hot plate. Need an inert gas flow? Use a condenser to aid in the reflux process and set up an inert gas flow at the top.

Perform larger scale reactions: The Discover cavity accommodates up to a 125-mL round bottom flask. Perform reactions down to 10's of milliliters or up to 75 milliliters.

Numerous studies have proven that microwave energy will not only accelerate reactions performed in pressurized vessels, but also reactions performed at atmospheric pressures. Try yours and see!

