



**atlas**  
automated  
synthesis system

**cryo reactor**  
ultra cold  $-80^{\circ}\text{C}$   
automated control



**Atlas simply does it all**

## What is the Atlas Cryo Reactor?

The Atlas Cryo Reactor is a high performance, ultra cold cooling module for round bottom flasks. This compact module requires only mains power to rapidly cool reactions to process temperatures as low as  $-80^{\circ}\text{C}$ . A range of clip on adaptors enable the use of regular 100ml or 500ml flasks. An integrated magnetic stirrer offers powerful stirring up to 1200rpm.

### Atlas Cryo Reactor benefits:

- **Ultra cold:** Cools a selection of round bottom flasks from  $10^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .
- **Accurate control:** An "in reactor" temperature probe enables excellent temperature control.
- **No tools required:** The module allows adaptors for 100ml or 500ml flasks to be attached or detached in seconds without tools. Ask for custom adaptors.
- **Mains power only:** Only regular mains supply needed for cooling. No dry ice, liquid  $\text{N}_2$ , running water or circulator required!
- **Easy to use on its own:** Turn the dial to select the desired process temperature.
- **Compact:** The Atlas Cryo Reactor is just 16cm (6.3") wide.
- **Easy automation:** The Atlas Cryo Reactor can connect to the Atlas PC Software along with the other Atlas modules to enable sophisticated process automation, graphing and data logging.

### Atlas Cryo Reactor features:

Designed specifically for chemistry, the Atlas Cryo Reactor offers the ultimate in compact, high performance, trouble free cooling of round bottom flasks. By using sophisticated proprietary cooling, the module only requires mains power to rapidly achieve temperatures as low as  $-80^{\circ}\text{C}$ .

The module allows one of two round bottom flask adaptors to be connected at any one time. The quick latch mechanism means that the adaptors can be changed in seconds without the need for tools.

### The Atlas Cryo Reactor can be upgraded with:

- » **Total process automation and data logging:** Choose from either the Atlas Base (profiles of temperature, stirring and additions) or full PC Software control.
- » **Automated dosing:** Automatic and chemically resistant temperature dependant reagent addition.
- » **Overhead Stirring:** Auto aligning overhead stirring from 0 to 800rpm.
- » **pH monitoring or control:** Accurate, logged pH data or (when combined with the pump), automatic pH control.

### Examples of Atlas Cryo Reactor applications:

- Grignard reactions
- Ortho metalations
- Friedel-crafts acylations
- Michael additions
- Diazotization reactions
- Birch reductions
- Aldol reactions

### A list of Atlas Cryo Reactor parts:

Name	Part no.
Atlas Cryo Reactor Unit	2200750
Atlas Cryo Reactor Adapter 100ml	2200752
Atlas Cryo Reactor Adapter 500ml	2200754



Left: The Atlas Cryo Reactor with Atlas base

Right: The Atlas Cryo Reactor with Atlas XL Pump

Below: The Atlas Cryo Reactor with magnetic stirrer



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