

On Site Implementation of Scorpions Technology FAQ

What equipment do I need to run the Scorpion technology?

These are the minimum requirements to use the kit:

- Supported Real-time thermocycler system
 - Consumable supplies for thermocycler, tubes, plates etc.
- Microcentrifuge with rotor capacity for 2 mL centrifuge tubes
 - Nuclease free 2 mL centrifuge tubes
- Two heating blocks, water baths, or incubators capable of heating from 37-55°C
- Adjustable pipettes with disposable tips capable of accurately measuring from 1000 to 5 µL
 - Nuclease-free, aerosol resistant tips for pipette
- 96-well plate vacuum manifold assembly
- Vacuum source
- Freezer (-20C)
- Refrigerator

Additional equipment to facilitate high-throughput analysis

- Robotic system for DNA extraction
 - Consumable supplies for robotic system
- Robotic system for setting up Scorpion reactions
 - Consumable supplies for robotic system
- Multi-tube vortexer

Is everything I need to run the analysis in the kit?

No, you will need to purchase some additional items in order to run the analyses. ETS will provide recommendations on vendors and products.

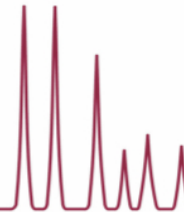
- DNA Polymerase
- 100% ethanol
- DNA Extraction Kit
- Molecular Biology Grade water

Do I need a special room or facility to run the Scorpions?

The Scorpions technology can be run in a standard laboratory setting.

What level of technical expertise is required?

- The Scorpions assay has been successfully run by individuals with no formal scientific background. Most technicians currently running the assay have an Associates or Bachelors degree.
- In order to ensure satisfactory results, ETS laboratories provides a complementary 3-4 day training session at the facility in St. Helena, California. Although not mandatory, it



is strongly encouraged that the technician(s) using the technology attend the training session prior to use at their facility. There is no charge for the actual training session.

- ETS provides full support of the Scorpions Kit technology via e-mail and telephone. An onsite visit, usually in conjunction with instrument installation, is available to ensure successful implementation of the technology.

How do I get started?

- Check the on site laboratory and order any equipment that is necessary to implement the technology.
- Schedule a training session, preferably the week before your equipment will be installed. Place the kit(s) order so that the kit(s) will arrive prior to equipment installation.
- Implement Scorpions Technology once equipment is installed.

Is the Scorpions technology licensed for the biofuel industry?

ETS Laboratories has the exclusive, world-wide license to use the Scorpions technology for diagnostics in the biofuel industry. This license is transferable with the purchase of each kit.

How much does it cost?

- The supported real-time thermocycler systems range from \$40-\$55,000 US.
- Microcentrifuge, heating blocks, adjustable pipettes and 96-well vacuum manifold, approximately \$6-8000 US.
- The current Scorpions Fermentation Contamination Kit contains sufficient reagents to run 50 bacteria and 50 yeast detection assays. The cost per assay is \$25.
- Additional reagents and consumables required for the assay, approximately \$3-6 per assay
- Two robotic instruments, used for DNA extraction and assay setup, can be purchased for approximately \$35-40,000 each to facilitate high-throughput analysis.