

# IsoTube® AutoLoader™ System

Collects gas samples for isotopic analysis

## Applications

- Collecting gas samples from the wellbore
- Determining the isotopic composition and the origin (biogenic or thermogenic) of sample gases, and identifying their association with oils

## Features

- The automated, embedded control system provides several options for triggering the device
- A user-defined hysteresis window helps prevent the device from triggering multiple times during total-gas sampling
- Tube-mounted RFID tags store the date, time, time zone UTC, depth, gas concentration, and serial numbers of the tube and device
- All job/well files are stored in the internal memory of the device and can be downloaded to a computer through the web-based interface. Downloadable job/well files include comprehensive data on each sample, including date, time, time zone UTC, tube and device serial numbers, trigger method, sample depth, and total gas concentration

## Benefits

- Offers several options for triggering loading: independent triggers by time, depth returns, and total gas; continuous triggering by depth intervals; and smart triggering using a peak-detection algorithm
- Enables the user to independently activate and disable triggers at any point using the web-based interface
- Provides downloadable job/well files in text and Excel formats, which enables the user to import all sample data, including isotopic analysis, into a single file
- Receives data from third-party devices in WITS0 via Serial RS-232 or Ethernet TCP/IP (active or passive WITS)

## Tool Description

The IsoTube AutoLoader system is an automated device that collects gas for isotopic analysis. The device loads durable aluminum tubes into a hopper and, when triggered, automatically captures and stores mud-gas stream samples. After taking a sample, the device automatically loads a new tube in preparation for collecting the next sample.

The device records data—including the depth, time, and gas concentration—for each sample and stores it in a job/well file. A radio-frequency identification (RFID) tag mounted directly on the tube stores the sample time and the serial



*The IsoTube AutoLoader efficiently collects gas samples and provides detailed job/well data that aids in isotopic analysis.*



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numbers of the tube and device. Users can activate and deactivate triggers, manage data connections to other devices, create new job/wells, and download job/well files through the web-based interface.

The IsoTube AutoLoader can be used in conjunction with other gas-sampling devices to collect isotopes. Isotopic analysis is available through Weatherford at IsoTech Laboratories.

### Safety Notice

The IsoTube AutoLoader is only intended for use in safe areas. All gas samples must be properly exhausted.

### Specifications

|  |                                       |
|--|---------------------------------------|
| Operating system   | Windows® 7*                           |
| Power requirements   | 100 to 240 Vac<br>47 to 63 Hz         |
| Operating temperature  | 50°F to 120°F (10°C to 50°C)          |
| Dimensions (L × W × H)   | 19 × 15 × 22 in. (483 × 381 × 559 mm) |
| Weight   | 35 lb (16 kg)                         |
| Communications   | TCP/IP, serial                        |
| *Windows is a registered trademark of the Microsoft Corporation. |                                       |

