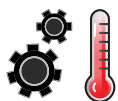


AT A GLANCE

- ▶ Temperature control up to 200 °C
- ▶ Sealed sample chamber for pressures up to 55 bar
- ▶ Optional in-chamber stirrer
- ▶ Automated angle of incidence selection
- ▶ 0.5 to 10-micron depth of penetration
- ▶ Multiple reflection ATR from 3 to 9 reflections



AUTOMATION OPTION
TEMPERATURE CONTROL



ReactorMAX is a research-grade, variable angle ATR, designed for demanding applications that require high temperature and pressure. With automated control of the variable angle, spectral data may be easily optimized.

TEMPERATURE-CONTROLLED PRESSURE VESSEL

The ReactorMAX is equipped with a temperature-controlled pressure vessel that may be heated up to 200 °C and operated up to 55 bar. Optional stirring is available. The material of the pressure vessel is Hastelloy, capable of withstanding extremely harsh chemicals under pressure/temperature conditions. Integrated into the bottom of the vessel is a multiple reflection AMTIR ATR crystal.

ATR ELEMENT

With a pH tolerance between 1-9, AMTIR offers a robust ATR crystal for a wide range of applications. ReactorMAX ATR element is a trapezoidal shape and 56-mm long, 10-mm wide and 4-mm thick. Standard bevel angles at each end of the AMTIR crystal are available in 45- and 60-degree versions. Coupling the variable angle of incidence of the ReactorMAX with the variable crystal face angles, one can select effective angle of incidence ranging from 35 to 65 degrees and the range in number of reflections from 3 to 9. Contact PIKE for other ATR crystal material options.

AUTOMATION

The control of angle selection, temperature and stirring speed is automated and integrated into PIKE software. Automation streamlines experimental protocols; the entire experiment can be programmed and executed by the computer. Advantages of the automated features include:

- ▶ Computer controlled precision, accuracy and repeatability
- ▶ Synchronization of mirror position changes with collection of sample spectra
- ▶ Full integration of the PIKE Technologies software with most FTIR spectrometer programs for data collection
- ▶ Tailor-made, predefined experiments
- ▶ "Hands-free" operation

SPECIFICATIONS

Max. Operating Pressure	55 bar
Max. Operating Temperature	200 °C
Spectral Range	4000 - 800 cm ⁻¹
Pathlength Range	5 - 20 µm with sample refractive index approx. 1.3 - 1.6
Reaction Chamber Construction	Hastelloy C276
Sealing O-rings	Kalrez
Dimensions (W X D X H)	229 x 152 x 610 mm
Total Weight	15.65 kg
Note: Contact PIKE Technologies for other crystal options.	

PART NUMBER	DESCRIPTION
023-13XX	ReactorMAX with Stirring Includes base optics, reactor vessel with stirring, 45-degree AMTIR ATR crystal, controller, cabling, and software.
023-14XX	ReactorMAX Includes base optics, reactor vessel, 45-degree AMTIR ATR crystal, controller, cabling, and software.

Notes: replace XX with your spectrometer's Instrument Code listed in the back of the catalog.

Replacement Parts

160-5566	Crystal 45°, Trap. 56 x 10 x 4 mm, AMTIR
160-5574	Crystal 60°, Trap. 56 x 10 x 4 mm, AMTIR

