



Specac Pearl - Horizontal Transmission Accessory

FTIR Liquid Analysis Made Easy

Target

Current Customers:

- Looking to simplify their liquid FTIR analysis
- Currently using a traditional, vertical liquid cell
- Requiring multiple pathlengths or window materials
- Analyzing viscous or greasy samples

Markets and applications:

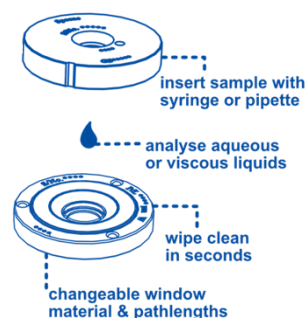
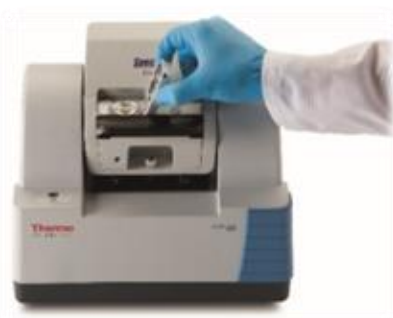
- Oil analysis
 - In-service engine oil
 - Adulterated edible oil
- Biodiesel mixtures
- Highly viscous samples (greases)
- Quantitative and qualitative analysis

Accessory Description

The Pearl horizontal transmission accessory puts a new spin on the classic transmission technique. Designed to simplify FTIR liquid analysis, the Pearl includes an innovative Oyster cell assembly that holds the sample in a horizontal plane. This simple, 90° rotation allows users to assemble and disassemble their liquid cell in seconds. Two wedged windows, made of ZnSe or CaF₂, minimize spectral fringing commonly seen with traditional liquid cells. The top Oyster plate is easily lifted out of the way for fast and easy sample application and cleaning. The lower Oyster cell is quickly interchanged to alter liquid cell pathlengths. The Oyster cell contains a volatile sample injection port, which allows users to analyze volatile samples without opening the Oyster cell. Users can also view their sample through the two spectral windows, ensuring no bubble have been trapped before data collection begins.

Key Accessory Benefits :

- **Easy of Use:** The easiest and fastest FTIR liquid sampling accessory available
- **Flexibility:** Pathlengths and window materials changed quickly by replacing Oyster cells
- **Confidence:** Improved pathlength reproducibility; wedged windows minimize spectral fringing





Product Configuration Details

Spectrometer Configuration

Table 1 illustrates the part numbers needed to provide a complete Pearl accessory for a given FTIR spectrometer. Each configuration requires a Pearl base unit and Oyster cell part number. The Nicolet iS10 and iS50 require additional part numbers as well, such as the standard 8 x 10" sample compartment baseplate. Commonly owned legacy instruments, such as the Nexus or Nicolet 6700, should follow the Nicolet iS50 column on the right side of the table.

	Nicolet iS5	Nicolet iS10	Nicolet iS50
Pearl Base Unit	869-182500	869-182600	869-182600
Oyster Cell Assembly	Choose Below	Choose Below	Choose Below
Standard Baseplate	✗	840-062600	840-062600
Purge Adapters (optional)	✗	470-089700	470-089700
Sample Compart. Ext.	✗	840-192100	✗

Oyster Cells

Table 2 lists the complete Oyster cell part numbers. A complete Oyster cell includes a top and bottom sample plate. The bottom sample plate controls the pathlength of the liquid cell.

	25µm	50µm	100µm	200µm	500µm	1000µm
ZnSe (Wedged)	869-182700	869-182800	869-182900	869-183000	869-183100	869-183200
CaF₂ (Wedged)	869-183300	869-183400	869-183500	869-183600	869-183700	869-183800