

# FT-IR Purge Gas Generators

**The Parker Balston FT-IR Purge Gas Generator** is specifically designed for use with FT-IR Spectrometers to provide a purified purge and air bearing gas from compressed air. The generator supplies carbon dioxide-free air at less than -100°F (-73°C) dew point with no suspended impurities larger than 0.01 µm. The unit is designed to operate continuously 24 hours/day, 7 days/week. The Parker Balston Purge Gas Generator completely eliminates the inconvenience and the high costs of nitrogen cylinders and dewars, and significantly reduces the costs of operating FT-IR

instrumentation. The Parker Balston unit offers cleaner background spectra in a shorter period of time and more accurate analysis by improving the signal-to-noise ratio. The typical payback period is less than one year. The generator is also ideally suited for use with CO<sub>2</sub> Analyzers and Matrix GC's in addition to supplying gas to other laboratory instruments.

The generators are quiet, reliable, and easy to install - simply attach the inlet and outlet air lines (at least 60 psig and 1/4 inch pipe), plug the power cord into a wall outlet, and enjoy trouble-free operation.



Model 75-52, 75-62, and 75-45



## Features and Benefits

- Eliminates the need for costly, dangerous, inconvenient nitrogen cylinders in the laboratory
- Compact design frees up valuable laboratory floor space
- Improves signal-to-noise ratio even on non-purge systems
- Increases FT-IR sample thru-put and maximizes up-time
- Recommended and used by all major FT-IR manufacturers



## Here's what your colleagues say:

*"A Parker Balston FT-IR Purge Gas Generator and Self Contained Lab Gas Generator were used in conjunction with the Society for Applied Spectroscopy Fourier Transform Infrared Spectrometry Workshop at the University of Georgia, June 2000 (organized by Dr. James A de Haseth and Dr. Peter R. Griffiths). The Self-Contained Lab Gas Generator provided excellent purge for six spectrometers. The organizers were so pleased with the performance of the Parker Balston systems, they have requested that Parker Hannifin Corporation, Inc. participate in future workshops."*

*Dr. James A. de Haseth and  
Dr. Peter R. Griffiths*

# FT-IR Purge Gas Generators

## Principal Specifications

Model Number	75-45	75-52	75-62
Flow Rate for Specified Dew Point			
Inlet Pressure 125 psig	36 scfh (17 lpm)	72 scfh (34 lpm)	216 scfh (102 lpm)
Inlet Pressure 60 psig	18 scfh (9 lpm)	36 scfh (17 lpm)	120 scfh (57 lpm)
CO <sub>2</sub> Concentration	< 1 ppm	< 1 ppm	< 1 ppm
Dew Point	-100°F (-73°C)	-100°F (-73°C)	-100°F (-73°C)
Min/Max Inlet Air Pressure	60 psig/125 psig	60 psig/125 psig	60 psig/125 psig
Max Inlet Air Temperature (1)	78°F (25°C)	78°F (25°C)	78°F (25°C)
Air Consumption for regeneration (2)	30 scfh (14 lpm)	60 scfh (28 lpm)	120 scfh (57 lpm)
Inlet/Outlet Port Size	1/4" NPT (female)	1/4" NPT (female)	1/4" NPT (female)
Electrical Requirements (3)	100-230 VAC, 50/60 Hz	100-230 VAC, 50/60 Hz	100-230 VAC, 50/60 Hz
Dimensions	7" w x 13" h x 6" d (18cm x 33cm x 15cm)	13" w x 28" h x 9" d (32cm x 71cm x 23cm)	13" w x 42" h x 9" d (32cm x 102cm x 23cm)
Shipping Weight	26 lbs (12 kg)	60 lbs (27 kg)	88 lbs (40 kg)

### NOTES

- 1 Outlet dew point will increase at higher inlet compressed air temperatures.
- 2 Total air consumption = regeneration flow + flow demand.
- 3 Units provided with universal power supply.

## Ordering Information

for assistance, call 800-343-4048, 8 to 5 Eastern Time

Model Number	75-45	75-52	75-62
Annual Maintenance Kit	MK7505	MK7552	MK7520
Installation Kit for All Models	IK-0001*	IK-0001*	IK-0002*
Preventive Maintenance Plan	75-45-PM	75-52-PM	75-62-PM
Extended Support with 24 Month Warranty	75-45-DN2	75-52-DN2	75-62-DN2

\*Consult factory for tubing needs.

## Comparative Spectral Analysis in Purging an FT-IR Sample Chamber

The spectrum collected without purge gas is extremely noisy in several regions. When the sample is purged with nitrogen for two minutes, water vapor and CO<sub>2</sub> are removed and the noise in the spectrum is removed so that important features in the spectrum can be observed.

