



## Corporate Profile

Axiom Analytical, Inc. was founded in 1988 by Dr. Mike Doyle and Norm Jennings, pioneers in the field of process FTIR spectroscopy. The company's mission is to develop and manufacture robust sample interfacing equipment required to fully realize the potential of FTIR and NIR spectroscopy for industrial near-line and on-line chemical analysis.

Several of Axiom's sampling devices are, in effect, "key-stone" products - making it possible to monitor chemical composition at locations, or under conditions, previously thought impossible. Our broad line of optical transfer and multiplexing equipment enable these products to be linked into comprehensive sampling systems to meet the diverse requirements of the chemical process industries. Axiom's customer base includes general and specialty chemical producers, the petrochemical industry, producers and users of high purity gases, and the polymer and environmental industries.

### Innovative Yet Solid Technology

In pioneering the application of infrared spectroscopy to chemical processing, Axiom and its founders have often been at the forefront in applying novel optical concepts to practical real-world tasks. This has resulted in a number of significant commercial advances, including the first ATR immersion probes; the first ATR flow cells; the first sparging-IR water analysis system; the first diamond ATR cells; the first high temperature, high pressure NIR transmission probes; and the first bi-directional fiber-optic multiplexer.

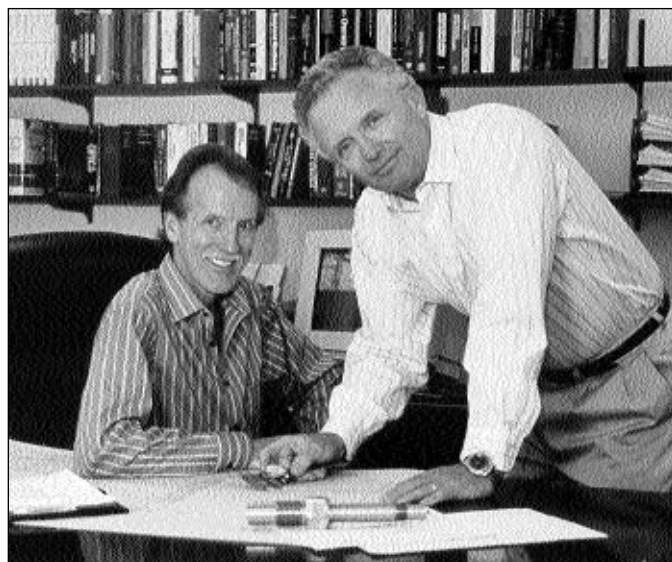
A further result of Axiom's pioneering efforts has been a series of patents (granted and pending) many of which are proving to be basic to the development of process IR. (Please see Table). In addition, Axiom has obtained licenses to a number of related patents further expanding the company's technology base. This large body of proprietary technology enables the company to provide highly dependable products, fast response, and a high level of applications support and service for its customers.

At Axiom, innovation is never an end in itself but rather a by-product of the company's continuing drive to find the best and most universal approach to each measurement task. A key element in this program is the use of common

modular building blocks and compatible design standards wherever possible so that a minimum number of hardware items can be employed to perform a maximum number of tasks. Combined with this is a design philosophy which stresses both robust reliability and the engineering elegance and precision required to eliminate virtually all adjustments. The result is a high degree of stability, accuracy, and performance under virtually any process and environmental conditions.

### Management Depth

Axiom Analytical's founders, President Mike Doyle and Executive Vice President Norm Jennings, brought to the company a firm understanding of the requirements of both laboratory and process analysis. They were formerly the President and Executive Vice President, respectively, of Laser Precision Corp., a successful, mid size manufacturer of fiber-optic, radiometric, and spectroscopic instruments. Dr. Doyle and Mr. Jennings both contributed significantly to Laser Precision's product development activities while, at the same time, managing the company's growth at a compound rate of 40% from \$1 million per year to a profitable \$25+ million per year.



*Axiom Analytical President and Executive Vice President, Mike Doyle and Norm Jennings*

Dr. Doyle is widely regarded as a world leader in infrared design. Among his many achievements in this field was the development of the Transept™ or “Doyle” interferometer, the first commercial interferometer to exhibit the temperature and vibration resistance required by most process applications. He has authored numerous scientific papers and journal articles and has over 50 patents to his credit in such fields as laser instrumentation, optical system design and FTIR spectroscopy.

Mr. Jennings provides Axiom with over 20 years of experience in manufacturing, product development, and finance. In addition to his management duties at Axiom, he serves as the resident expert in designing products for operation at extreme temperatures and pressures and in highly aggressive chemical environments.

### Customer Focus

We at Axiom take pride in our ability to respond rapidly and effectively to our customers’ needs - whether for standard products, modifications of these products, or fully customized sampling systems. In developing the

optimum approaches to particular sampling tasks, we work closely with both end-users and system integrators - often providing theoretical analysis, application laboratory support, and chemometric calibrations during planning stages.

The members of Axiom’s technical staff maintain close working relationships with their counterparts at spectrometer manufacturers and system integrators as well as the process analytical and engineering groups at the world’s major chemical companies. Our frequent communication with these groups provides in-depth knowledge of current real-world problems, allowing us to apply our solutions where they are most needed. We are firmly convinced that the future growth of Axiom will be assured by further strengthening these ties through provision of the highest possible levels of technical assistance, responsiveness, product quality and performance.

### AXIOM ANALYTICAL’S PRODUCT LINES AND RELATED PATENTS

<b>ATR Immersion Probes:</b>	<b>4,812,041</b>	<b>4,835,389</b>	<b>5,051,551</b>	<b>5,459,359</b>	<b>5,773,825</b>
	<b>5,991,029</b>				
<b>ATR Flow Cells:</b>	<b>4,418,615</b>	<b>5,054,920</b>			
<b>Mid-IR Optical Transfer and Multiplexing Systems:</b>	<b>5,054,869</b>	<b>4,810,093</b>	<b>4,784,488</b>	<b>4,657,390</b>	<b>4,812,041</b>
<b>Fiber-Optic Multiplexers:</b>	<b>6,009,219</b>				
<b>Linear Flow IR Gas Cells:</b>	<b>5,065,025</b>				
<b>Near-IR Transmission Probes:</b>	<b>5,418,615</b>	<b>6,587,195 B1</b>			
<b>Diffuse Reflectance Probes:</b>	<b>5,818,996</b>	<b>6,563,992 B1</b>	<b>6,587,195 B1</b>		
<b>Polymer Melt Cells and Probes:</b>	<b>6,587,195 B1</b>				
<b>Sparging-IR Water Analysis Systems:</b>	<b>5,421,194</b>	<b>5,218,856</b>	<b>5,566,086</b>		
<b>Surface Analysis Systems:</b>	<b>5,015,100</b>				
<b>Web Process Monitoring Systems:</b>	<b>4,129,781</b>	<b>4,207,467</b>			
<b>Raman Probes:</b>	<b>6,587,195 B1</b>	<b>6,876,801 B2</b>	<b>6,795,177 B2</b>		