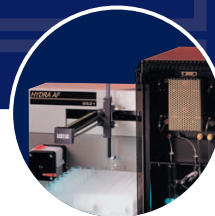


# GLOVEBOX & CONTAINMENT HOOD ICP — OES INSTRUMENTS

from Leeman Labs



## INTRODUCTION

Whether you are handling radioactive material, biohazards or ultra high purity chemicals, a controlled atmosphere may be essential for your application, and your safety.

At Leeman Labs, we offer a wide variety of containment options for our family of ICP – OES products. Whether you require an ICP interfaced to a plutonium standard glovebox or a HEPA filtered laminar flow hood, Leeman Labs has the products, knowledge and experience needed to provide you with a truly exceptional solution.

## ICP – OES PRODUCTS

For over 20 years Leeman Labs has been a leading innovator in Echelle-based ICP-OES instruments. Modern Echelle spectrometers provide very high optical resolution, low limits of detection and excellent dynamic measurement range; in a space efficient bench top package.

In an effort to provide analytical solutions to the widest range of elemental analysis challenges, Leeman Labs offers both Array detector and PMT based ICP instrumentation. Our latest simultaneous ICP instrument, the **Prodigy<sup>high dispersion</sup> ICP**, brings together a state-of-the-art, large format, programmable array detector (L-PAD) with an advance high dispersion Echelle spectrometer to provide unexcelled analytical performance. This configuration allows the user to access any wavelength, or group of wavelengths, or to capture the full spectrum for any analyses. Our latest PMT based ICP, the **Profile<sup>high dispersion</sup> ICP**, offers the highest dispersion of any commercially available ICP and as a result is ideally suited to analysis involving complex sample matrices. Both Prodigy and Profile feature many of the conveniences that we've come to expect from Leeman ICP's – such as full automation, Axial, Radial and Dual Viewing options, long-life 40 MHz RF generators and remote diagnostic capabilities.

## ENCLOSURE ICP INSTRUMENT DESCRIPTION

Leeman Labs Enclosure ICP-OES systems provide the same high level of analytical performance as our standard instruments, but are designed specifically to accept a containment envelope (glovebox, fume hood, clean microenvironment, etc.). Some of the principal design features of these systems include:

- **Isolation electronics** – all electronics are isolated from the contained environment to facilitate service access
- **Interface** – a custom enclosure interface provides a hermetic seal between sample introduction area and the analyzer.
- **Failsafe Interlock system** – safety is always a prime concern for sites involved in the analysis of potentially hazardous samples. Leeman ICP provide hardware (not software) based interlocks to protect the instrument and the user from a wide variety of failure modes including, loss of cooling water, argon flow, RF power, etc.



Mn

Fe

Co

Ni

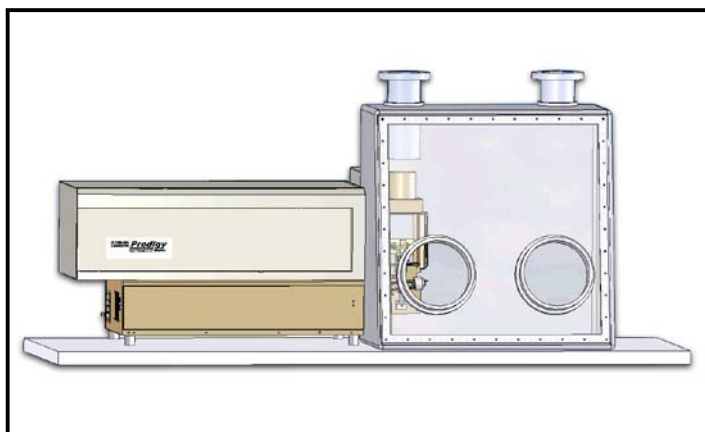
Cu



LEEMAN LABS ICP PRIOR TO BEING  
INTERFACED TO HOOD



LEEMAN LABS ICP PRIOR TO BEING  
INTERFACED TO HOOD



SCHEMATIC OF GLOVEBOX INTERFACE

## GLOVEBOX / CONTAINMENT HOOD OPTIONS

Leeman Labs can provide ICP-OES systems ready to interface to your enclosure, or complete with an enclosure tailored to meet the needs of your application.

## ENCLOSURE/CONTAINMENT OPTIONS

### Plutonium Standard Glovebox

- Stainless Steel Construction
- Radius corners for easier cleaning
- Full view safety glass with glove ports
- Bag-in, Bag-out access ports
- Full system leak testing
- Custom sizing and configurations

### Chemical fume hoods

- Vertical or horizontal sash
- Custom sizing and configurations

### Clean microenvironments or contamination control

- HEPA filtered laminar flow hood with integral ICP exhaust.

### Other custom configurations available upon request

For additional information on Leeman Labs' elemental analysis product please contact us at:

