Comparison of Teledyne Leeman Labs ICP-OES Systems

	Profile Plus	Prodigy7	ProdigyPlus
Optical System	Variable Focal Length Echelle	500 mm Echelle	800 mm Echelle
Detector Type	Photomultiplier Tubes	CMOS Solid State Array	CMOS Solid State Array
Wavelength Range	170 – 850 nm	165 – 1100 nm	165 – 1100 nm 135 – 1100 nm (Halogen)
Data Collection	Sequential	Simultaneous	Simultaneous
View Configuration	Radial/Axial/Dual View	Radial/Axial/Dual View	Radial/Axial/Dual View
Data Recalculation Capability	No	Yes	Yes
Maximum Number of Calibration Standards	10	Limited Only by Autosampler Capacity	Limited Only by Autosampler Capacity
Maximum Number of Quality Control Standards	7	Limited Only by Autosampler Capacity	Limited Only by Autosampler Capacity
Autosampler Capacity	88 or 120	Up to 360	Up to 360
Torch Type	Single Piece Quartz	Demountable Quartz	Demountable Quartz
Torch Alignment and Gas Connections	Manual	Automatic	Automatic
Halogen Capability	No	No	Yes
PC Operating System	WinXP	Windows 7/10 32/64bit	Windows 7/10 32/64bit

1. Simultaneous Measurement with State of the Art Array Detection

- Improves laboratory productivity because simultaneous design allows measurement of multiple wavelengths at the same time without increasing the sample analysis time.
- Advanced array detector allows the operator to add or change the elements of interest directly from the instrument's software.

2. High Resolution Benchtop Instruments

- The Prodigy family ICPs provide superior resolution resulting in fewer spectral interferences resulting in increased accuracy.

3. Radial, Axial or Dual View configurations to meet the needs of any ICP-OES application

4. Large Format (28 mm x 28 mm), High Speed CMOS detector

- Measures the entire wavelength range ,165 – 1100 nm, with a single reading, increasing sample throughput.
- High readout speed results in a wide linear dynamic range, simplifying method development and increasing accuracy.

5. Twist Lock Demountable Torch System

- Reduced argon flow capability
- Automatic positioning of torch
- Automatic connection of coolant and auxiliary gases
- Designed to eliminate operator variability from sample introduction simplifying operator training