

## A<sup>2</sup> CARBON PROBE SERIES: PACKED WITH ALL THE BEST FEATURES

All the best features you've come to expect from the AccuCarb® and AtmoProbe™ are now combined into one new product series, the A<sup>2</sup>.

This solid zirconia electrolyte probe is the result of extensive research and developmental testing, and with its many patented innovations, the A<sup>2</sup> represents a major breakthrough in probe design.

The design of the A<sup>2</sup> has been field-proven for the past 40 years to provide the most robust and reliable atmosphere measurement solution available. In "side-by-side" trials in carburizing atmosphere applications, the A<sup>2</sup> has repeatedly shown to provide the most accurate measurement of true carbon potential over an extended period of time without any "process factor" adjustments necessary.

Available in a selection of sizes and configurations in either alloy or ceramic sheath materials, the A<sup>2</sup> is designed to meet most industrial atmosphere measurement applications over a wide range of operating temperatures.

### SPECIFICATIONS

MODEL	T/C TYPE				LENGTH	
A2-6-20	-	K	S	R	20"	508 mm
A2-6-26	-	K	S	R	26"	660 mm
A2-6-32	-	K	S	R	32"	812 mm
A2-6-38	-	K	S	R	38"	965 mm
CA2-6-20	-	K	S	R	20"	508 mm
CA2-6-26	-	K	S	R	26"	660 mm
CA2-6-32	-	K	S	R	32"	812 mm



### ACCESSORIES

A selection of accessories is also available, including probe conditioning systems, mounting flanges, reheat wells and redundant probe control solutions.

→ REFERENCE AIR & BURN-OFF SYSTEM



→ MOUNTING FLANGE



→ CERAMIC REHEAT WELL



→ HIGH TEMPERATURE CERAMIC SHEATH



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# UPC-MARATHON

A NITREX COMPANY

## A<sup>2</sup> CARBON PROBE SERIES FEATURES

### ACCURACY

In a multiple probe installation, the A<sup>2</sup> was determined to be more accurate, by carbon shim analysis, than other commercially available probes.

The accuracy of any carbon probe depends upon many factors. Three of the most important requirements are:

- The electrodes must not impede the flow of the atmosphere to the electrode-electrolyte interface
- The electrodes must act as reversible oxygen electrodes
- The electrodes must not alter the composition of the gas

Compare other probes to the A<sup>2</sup> and ask yourself, "How is this carburizing gas getting to the electrode-zirconia electrolyte interface?"

### TOUGHNESS

Accuracy is only good if a probe can withstand the toughest of environments. Frequent probe replacement or service simply costs the customer money. The advanced design of A<sup>2</sup> make it thermally and mechanically tougher than traditional first and second generation probes; meaning it can be installed and removed quickly.

### COMPATIBILITY

Designed to easily replace original AccuCarb® and AtmoProbe™ installations and other "first generation" probes in existing systems.

### SERVICE LIFE

In conventional probes the two most common modes of failure are electrode and leadwire failure. The A<sup>2</sup> uses a patented heat resistant alloy electrode welded to a metal sheath, which acts as a leadwire. Failure of these components is virtually eliminated.

## AWARDED MULTIPLE PATENTS

- U.S. Patent No.4,588,493
- European Patent Specification Number 0 176 313 B1 United Kingdom, Belgium, France, Germany, and Italy
- Japanese Letters Patent No. 2007432

### COST

By replacing precious metals used in conventional probes with heat resistant metal alloys, by simple and effective design, the purchase price is lowered and performance is significantly improved. Low initial purchase price, 1-year use warranty, and rugged construction result in significant savings.

#### Special Features

- Type K sheathed thermocouple standard at no charge.
- Adjustable insertion depth allows one probe to fit ALL furnaces. This reduces your replacement parts inventory.
- Any one-inch NPT pipe thread can be used to mount the probe in a furnace wall.
- The A<sup>2</sup> has a 12-month usage warranty.

### WARRANTY

- The A<sup>2</sup> probe series is warranted for a period of 12 months from the time of installation.
- Fast service turnaround is guaranteed for all warranty repairs.
- Probe failure analysis is available upon request.

### SCAN TO REGISTER

Probes are covered by Usage Warranty as indicated from date of installation. Usage Warranty is not effective until your probe is registered, and only if installation is made according to instructions supplied.



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