

## Comparison of Flue Gas Path Temperature Monitoring Methods

<b>Optical</b>	<b>AccuTemp™</b>	<b>Thermoprobe</b>	<b>HVT</b>
Precision +/- 50°F	Precision +/- 25°F	Precision +/-20°F	Precision +/-20°F
Single point measurement	Line of sight average	Along path of travel	Along path of travel
Reach < 20 feet	Full width, reach > 100 feet	Along path of travel, maximum length 25 feet	Along path of insertion, maximum 20 feet
No ability to determine combustion hot spots	Matrix configuration provides accurate hot spot localization	Start-up only	Can determine hot-spots when used
Continuous cooling air required often causing slag accumulation at opening	Integrated solenoid only actuates port cleaning on reading	Cooling air required during operation	Cooling air required during operation
Permanent	Permanent	Start-up	Spot Check
Single point cost circa \$15k	Single point cost circa \$25k	Single point cost \$30k	2-3 days \$20k
6-point matrix cost: \$90k	6-point matrix cost: \$60k	Not applicable	Not applicable