



# Introduction of FRONTICS

## ■ What's FRONTICS

FRONTICS is a specialized company in “Material Properties Test Equipment” founded in September, 2000. Based on research results accumulated for a long time, we have developed and supplied assessment devices for property and residual stress of various structures and materials coping with the demand of industrial and public institutions.

## ■ History of FRONTICS

- 2000. 09 Company founded
- 2000.10 Released AIS2000 (Indenting nondestructive tensile property testing machine) and patent applied
- 2001. 04 AIS2000 obtained NT Certificate (Korean New Technology)
- 2004. 07 AIS3000 (Indenting nondestructive residual stress testing machine) and patent applied
- 2004. 08 Released AIS2100 (Upgraded version of AIS2000)
- 2005. 11 AIS3000 obtained NEP Certificate (Korean New Technology)
- 2006. 03 Completed the development of Nano / Micro Indenter
- 2007. 05 Founded Frontics West for North American market (California)
- 2007. 12 Obtained Award of Minister of Industry and Energy in commercialization of new technologies
- 2008. 04 Selected as Good Product from the Office of Supply
- 2008. 10 ISO/TR29381 approved
- 2009. 01 Released *Micro* –AIS and AIS3000 Compact
- 2009. 08 Organized ASME Code Case TG (Tasking Group) (ASME Sec. IX)
- 2009. 09 Company head office moved for expansion
- 2009. 10 Obtained Quality Management System standard (KSQ ISO9001:2009 / ISO9001:2008)
- 2010. 09 Registered Central Contractor Registration (CCR) vendor of U.S Federal Government
- 2010. 11 Released a new product, AIT-U





▲ Uses of AIS series equipment

- Industrial facilities such as power plant, railway, aviation and shipbuilding
- In-field diagnosis on material degradation and aging of the facilities
- Used as means of verification of PQR (Pre-qualification Record) such as CMTR, CC and WPS  
(Check defective material when receiving new material for new construction/ repair)
- Reliability verification of stress removal heat treatment before/after construction, and after repair
- Property test of weak part of power plant plumbing fixtures (welding part, expanding end, curved tube)
- Structure damage assessment (data providing for lifetime assessment)

▲ AIS series



- AIS2100 -



- AIS3000 -



- AIS3000 compact -



- Micro-AIS-



- AIT-U-

▲ Applications of the AIS series



Boryeong thermoelectric power plant



Sancheong pumping-up power plant






Youngheung thermoelectric power plant



Ulsan thermoelectric power plant

▲ Standard of Domestic and Foreign

D O M E S T I C		KS B0950 : Metallic materials – Instrumented indentation - Test for indentation tensile properties	2002. 11
		KS B0951 : Instrumented indentation tests on welds in steel - Measurement of residual stress on welded joints	2005. 05
F O R E I G N		KEPIC(Korea Electric Power Industry Code) proposal	2005. 12
		MDF A370 adoption - Nuclear power plant, thermoelectric power plant	2006. 05
F O R E I G N		Title: “Metallic material - Instrumented indentation test for tensile properties”	2003
		Title; ‘Instrumented Indentation test on weld in steel – Measurement of residual stress on weld joints’ ISO/TR29381 approved (2008 published)	2008