



YOUR RELIABLE PARTNER FOR NDT SOLUTION



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CEO MESSAGE

NDT Engineering & Aerospace Co., Ltd. is a manufacturing company for non-destructive testing system, aviation parts and eco-friendly energy system. With many years of experience and know-how, we have made customer satisfaction by offering the best product and service.

Non-destructive testing business group provides the state of the art technologies that fulfill productivity, quality and safety requirements for customer needs. We perform a comprehensive process including engineering, design, manufacturing, installation and supervision service for non-destructive inspection system in the field of ultrasonic test [UT], eddy current test [ECT], radiographic test [RT] and magnetic particle test [MT] and offer specialized solutions for application in metal, automobile, aerospace and so on. We also provide total solution for factory automation system and handling mechanism.

Aviation business group produces various parts related to aviation industry and assembles aircraft modules. We provide the best quality products by Quality Management System and an advanced CAD/CAM technology.

Eco-friendly energy business group produces waste management system such as industrial waste burner & boiler with steam generator and industrial dryer system. In addition, we are expanding into the industry including smart security & street light disaster prevention system, nano PTC heating film and heat insulation Aerogel, to challenge the future.

SMF business group supplies Steel Mill Facilities to produce high quality round bar, reinforcement bar and so on. We have equipped total solution, for not only new rolling mill but also revamping of existing mill to increase productivity and quality, with integration of European engineering technology. We can also supply any kinds of factory automation system to meet customer special requirements.

엔디티엔지니어링(주)는 우수한 기술력과 고객신뢰를 바탕으로 자동 비파괴 검사설비, 항공 정밀부품, 친환경 에너지 시스템을 제조/공급해 왔습니다. 우수한 인력과 최신 생산 인프라를 바탕으로 최고의 제품과 최상의 서비스를 제공함으로써, 고객의 만족을 실현하고 있습니다.

비파괴 사업부에서는 국내 유일의 자동 비파괴 검사설비 종합제작 업체로서, 고객 제품의 품질과 안정성 및 생산성 확보에 있어 최상의 솔루션을 제공하고 있습니다. 저희는 검사설비의 설계, 제작, 설치/시운전과 관련된 일련의 프로세스를 종합적으로 수행함으로써, 납품된 설비의 품질과 성능을 보증하고 있습니다. 또한 초음파 검사[UT], 와전류 검사[ECT], 방사선 검사[RT], 그리고 자분탐상 검사[MT]에 이르기까지 다양한 솔루션을 제공하고 있으며, 검사설비와 더불어 검사와 관련된 자동화 설비를 동시에 공급함으로써, 고객들에게 종합 솔루션을 제공하고 있습니다.

항공 사업부에서는 항공 분야의 다양한 부품들을 공급하고 있으며, 항공기 모듈 조립사업을 수행하고 있습니다. 우수한 품질 경영 시스템과 최신 CAD/CAM 기술이 접목되어, 최고의 제품을 공급하고 있습니다.

친환경 에너지 사업부에서는 산업용 보일러와 건조기술을 융합한 폐기물 처리시스템을 공급하고 있습니다. 또한 스마트 보안 및 가로등 방재 시스템, 나노 PTC 필름 및 단열 에어로겔 분야에 이르기까지 사업영역을 확대하여 미래를 향해 도전하고 있습니다.

제철산업설비 사업부에서는 고품질 봉강 및 철근 등을 생산하기 위한 생산설비를 공급합니다. 최고의 기술력을 자랑하는 유럽 기술을 접목하여, 신규 압연설비의 공급뿐만 아니라, 생산성 및 품질 향상을 위한 기존 설비의 개조에 이르기까지 관련 분야에 종합솔루션을 제공하고 있습니다. 또한 고객 요구사항을 만족하기 위한 각종 공장자동화 설비를 공급하고 있습니다.



HISTORY

1990's	1991	Established NDT Engineering & Aerospace Co., Ltd.	엔디티엔지니어링(주) 설립
2000's	2002	Moved to Changwon Namsan factory Extended Factory Automation business	창원 남산공장 신축이전 FA 사업영역 확대
	2004	Obtained ISO 9001/2000 certification	ISO 9001/2000 인증
	2005	Established research institute	기업부설연구소 설립
	2006	Extended Aviation/Defense business Acquired certificate of venture business	항공/방산 사업영역 확대 벤처기업인증
	2007	Obtained AS 9100/2004 certification	AS 9100/2004 인증
2010's	2008	Relocated Head office to Changwon Bongam factory Obtained INNO_BIZ certification	본사 이전(창원 봉암공장) 기술혁신형 중소기업(이노비즈) 인증
	2010	Extended Aviation assembly business	항공조립 사업영역 확대
	2011	Extended GoodHeat business Expanded Changwon Bongam factory	발열필름 사업영역 확대 창원 봉암공장 증축
	2012	Extended ECO-friendly energy business	친환경 에너지 사업영역 확대
	2015	Awarded \$10 Million Export prize by KITA	천만불 수출의 탑 수상
	2016	Jangyoungsil international science culture prize	장영실 국제과학 문화상 수상
	2017	Extended Steel Mill Facility business A model executive award by Ministry of knowledge Economy	제철설비 사업영역 확대 모범경영인 수상
	2019	Extended Smart security system & Aerogel business	스마트 보안, 에어로겔 사업영역 확대



ERW PIPE INSPECTION



Off-line inspection systems are installed next to hydro testing machine to inspect final quality of the products. The weld seam UT system is applied for longitudinal flaw inspection in weld seam. The full body UT system is applied for laminar flow inspection in parent material of the pipes. The off-line ECT is applied for surface flaw inspection of the pipes.

Off-line weld seam UT



Single head & probe moving type



Double heads & probe moving type



Fixed probe & pipe moving type

Off-line full body UT



Single head (25/50/100% Coverage)



Single head (100% Coverage)



Double heads (25/50/100% Coverage)

Off-line ECT



Surface crack inspection

On-line inspection systems are installed directly after welding process to monitor production condition.

On-line weld seam UT



Conventional or phased array UT



Bead profile monitoring

On-line strip UT



Body & edge UT

On-line ECT



Segment coil or encircling coil type

Off-line pipe-end UT



Internal/External crack inspection

Off-line pipe-end MT



Surface crack inspection

SAW PIPE INSPECTION

Spiral & longitudinal SAW pipes are inspected by ultrasonic and radiographic inspection system. NDT system can be used for primary inspection before expanding and/or final inspection after expanding. Multi-channel ultrasonic inspection system with automatic seam-tracking device inspects the longitudinal & transverse flaws in weld seam and laminar flaws in HAZ for LSAW and SSAW pipes. High performance RT tube and digital flat panel detector are applied for real time RT inspection.

Ultrasonic inspection system



Pipe moving type (LSAW)



Probe moving type (LSAW)



Weld seam & full body UT (SSAW)

Digital RT system



Full length RT



Pipe-end RT

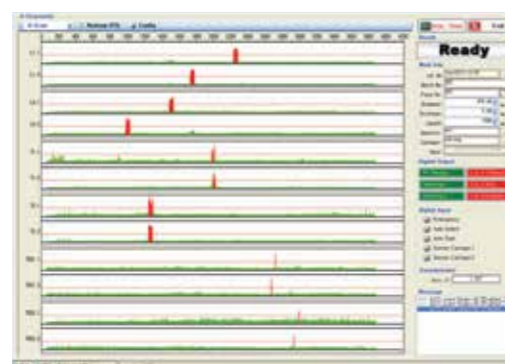


RT bunker & lead door with safety system

Control system & application software



Operation desk



Operation & evaluation software

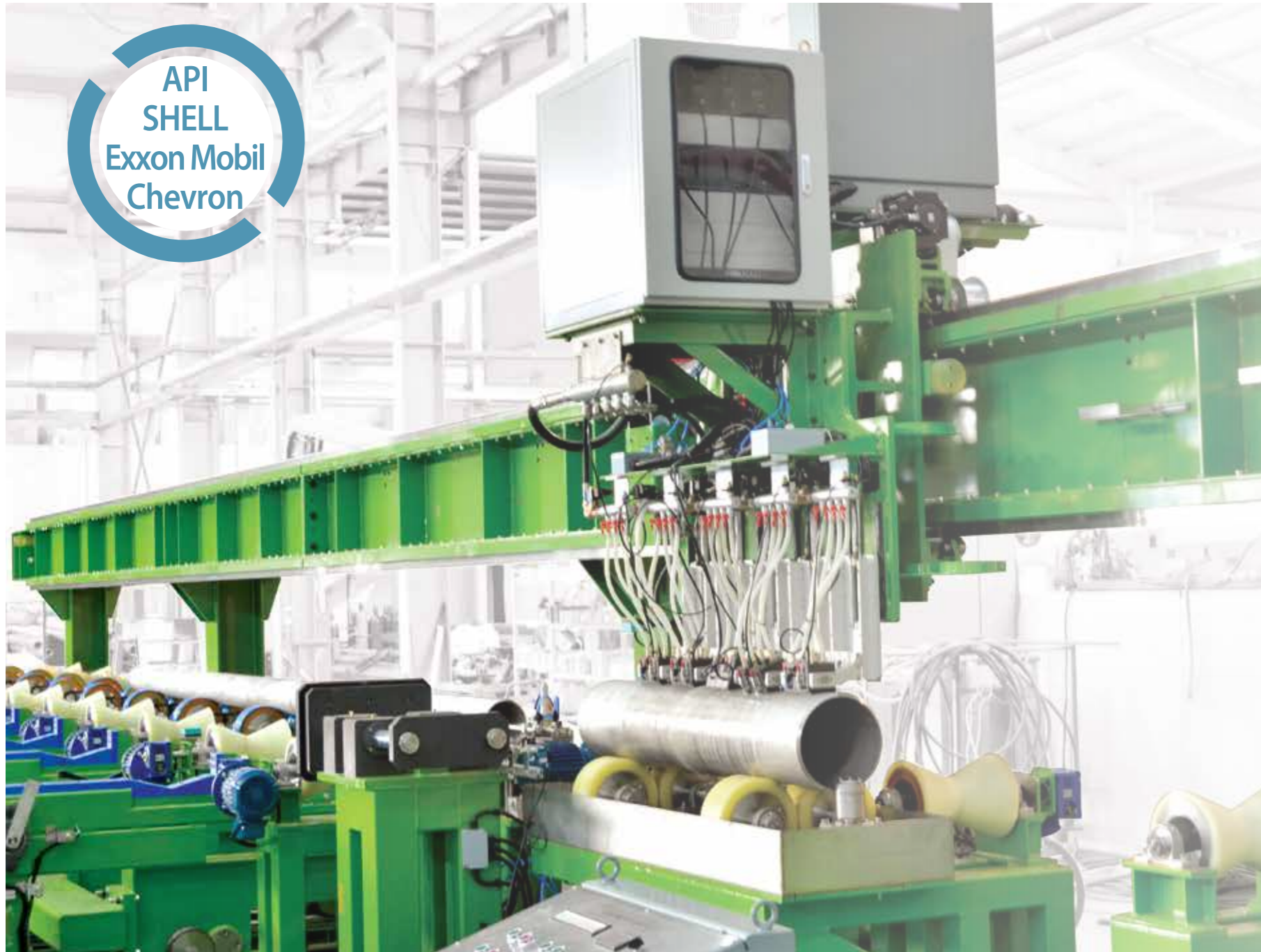
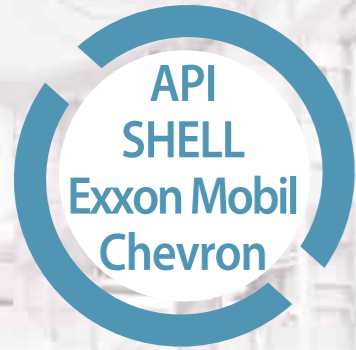


COMPLETE TURN-KEY SOLUTION FOR VARIOUS LSAW PIPE MANUFACTURING FACILITIES

We supply the optimized LSAW pipe manufacturing facilities.

- Edge milling machine
- Tack welding machine
- Outside welding machine
- Ultrasonic inspection system
- Pre bending machine
- Inside welding machine
- Calibration press
- X-ray inspection system
- JCO forming press
- Cleaning machine
- End facing machine
- Heat treatment facilities
- Gap forming press
- Long seam milling machine
- Hydro testing machine

SEAMLESS PIPE INSPECTION



Full body crack inspection is required for seamless pipe using helical scanning mechanism. Conventional multi-channel or advanced phased array UT technique can be applied according to customer requirements. Encircling and rotating ECT/MFLT technique can be applied also for surface inspection.

Ultrasonic inspection system



Single head conventional UT



Triple heads conventional UT



Phased array UT



Half immersion UT (Large dia. pipe)



Half immersion UT (Special tube)

Magnetic flux leakage inspection system



Rotating MFLT

Eddy current inspection system



Encircling ECT

Rotating ECT



*Perfect solution
for your quality*

PROFILE INSPECTION

Core, surface and subsurface flaw in the billet, bar and wire can be inspected by combined NDT system. We provide precise test bench and handling mechanism to guarantee the best performance of providing system.

Round bar inspection system



Round bar MFLT (Black bar)



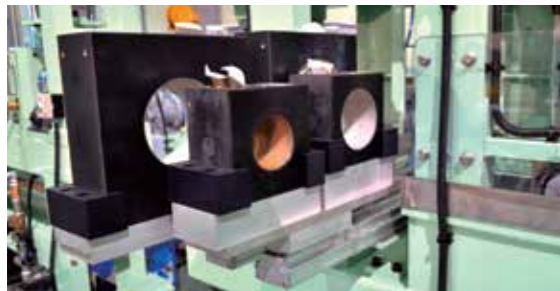
Immersion phased array UT



Round bar ECT (Bright bar)



Round bar MT



Material sorting



Dimension measuring



The best product & the best service

Billet inspection system



Billet UT



Billet MT

Wire inspection system



Wire ECT



Hot wire ECT

Rail inspection system

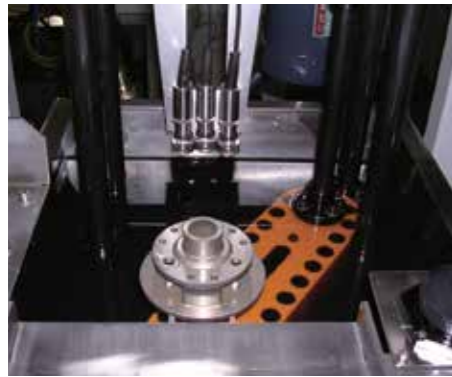


Rail UT

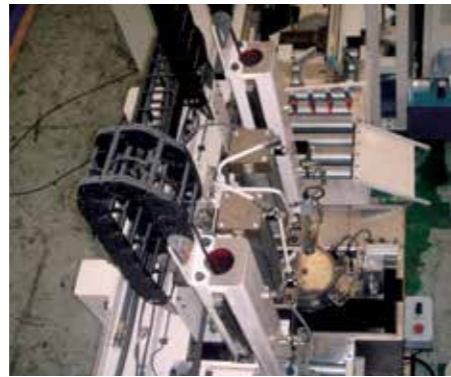
AUTOMOBILE PARTS INSPECTION

We provide the best solution for components inspection related to automobile industry. Customized systems are designed for each product's characteristics with various NDT method. Automatic evaluation software is installed to fulfill customer requirements.

Ultrasonic inspection system



Transmission gear UT



Ring gear UT



Cylinder rod UT

Eddy current inspection system



Bearing shaft ECT



Cylinder rod rotating ECT



Small component ECT

Magnetic particle & RT inspection system



Bearing housing MT



Torsion bar MT



AL wheel RT

OTHER APPLICATIONS



Non-contact air coupled UT



Train wheel & axle inspection



Mobile scanner



Roll tester



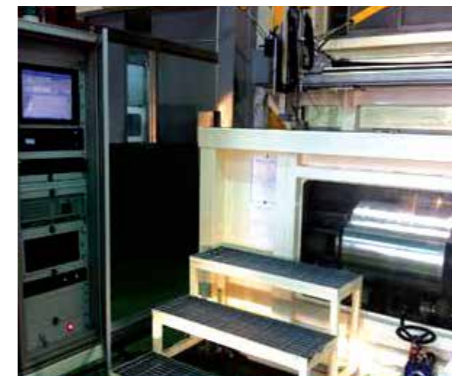
STS pipe digital RT (Triple FPD's)



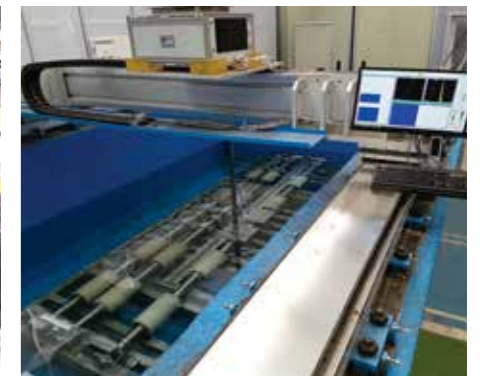
Gas cylinder UT



Immersion C-scan (HIC & cleanliness)



Immersion C-scan (Defense application)



Immersion C-scan (Aerospace application)

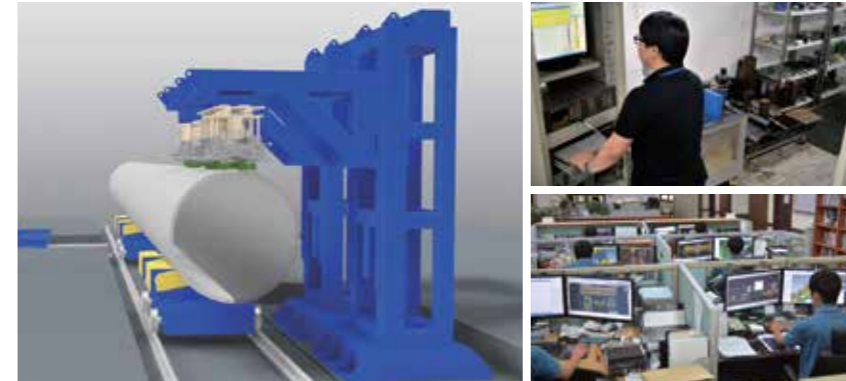
FACTORY AUTOMATION

- Material handling system
- Conveyor system & transfer car
- Level 2 communication with host system
- Smart factory support
- Design based on customer demands
- Optimized handling system for stable inspection condition
- Development corresponding to special application



CUSTOMER SATISFACTION

R&D CENTER



- 비파괴검사 신기술 개발
- 산업현장의 검사기술 난제 해결
- 특수 검사기 설계
- Development of new NDT technology
- Development of optimized inspection method
- Design of special inspection system

TRAINING CENTER



- 초음파, 와전류 검사 기초교육 및 ASNT Level II 교육
- 현장 장비작동 및 유지보수 교육
- Education programs for UT & ECT (ASNT Level I & II)
- Operation & Maintenance training by ASNT Level III specialist

CUSTOMER SERVICE



- 전문 서비스 엔지니어를 통한 최상의 서비스
- 신속한 대응, 완벽한 조치
- 연간 유지보수 계약에 의한 예방정비
- Complete customer service by professional engineers
- Prompt and perfect service for customer satisfaction
- Maintenance service by regular service program