Guarding quality and creating value!

Automatic Non-destructive Testing System

NDT Equipment Division

Contact us

Website: www.ncs-ndtchina.com
Tel.: +86-10-62182492/+86-10-62182833
Mobile: +86-18701560969 Zhao Zitian(Aspen), Marketing manager
Fax: +86-10-62185240
E-mail: ndt@ncschina.com zhaozitian@ncschina.com

WEBSITE

NCS Testing Technology CO., Ltd.

Company Profile

The NCS Testing Technology Co., Ltd. (Securities Code:300797) (NCS) is a wholly-owned subsidiary of China Iron & Steel Research Institute Group (CISRI), established as a high-tech enterprise through integration of the functions of the National Analysis Center for Iron and Steel, China National Center for Quality Supervision and Testing of Iron and Steel, Analysis and Testing Institute under the Central Iron & Steel Research Institute, National NDT Center for Steel Products, Analysis and Test Training Center of Central Iron & Steel Research Institute and CISRI Qingdao Marine Corrosion Institute, Beijing NCS Analytical Instruments Co., Ltd. The main business of NCS includes third-party testing services (including chemical composition testing, mechanical property testing, material failure analysis, nondestructive testing and measurement calibration), development and sale of analysis and testing instruments, NDT equipment, anti-corrosion products and related engineering projects, certified reference materials, proficiency testing and other fields. The Company possesses many qualifications, such as ISO9001, NADCAP, Royce, RMP, ISO/IEC 17025 accreditation, CMA, CAL, CMC and PTP. It is also a "National-level Testing Organization for Appraisal of Science and Technology Achievements of the People's Republic of China" and "Personnel Training Center for Analysis Technology Research and Arbitration Analysis" authorized by the Ministry of Science and Technology, a nationally certified laboratory, a designated organization for production license examination for bearing steel products of the National Industrial Production License Office under the General Administration for Quality Supervision and Inspection and Quarantine (AQSIQ), and an open laboratory authorized by the Zhongguancun High-tech Park. NCS also provides technical support for nuclear power, commercial aircraft, China emergency analysis and production safety accident investigation in Beijing. NCS is a pioneer and leader for metallurgical analysis, material testing and development of related products in China. The Company is also the location of the Secretariat of the International Committee for Analysis of the Steel and Iron Industry, and the Secretariat of the Steel and Alloy Chemical Composition Testing Committee under the National Steel Standardization Committee. NCS has undertaken many projects of the National Development and Reform Committee and the Ministry of Science and Technology of the People's Republic of China. NCS has a team of more than 300 researchers, led by Wang Haizhou, the academician of the Chinese Academy of Engineering (CAE). Who are engaged in the exploration and development of leading technologies and products in the industry. In addition, NCS has undertaken many key projects in sectors such as aerospace engineering, nuclear power, rapid transit railway, commercial aircraft and Beijing Olympic Games. NCS has been certified as a Beijing key laboratory for characterization of metal materials, Beijing enterprise technology center, and Beijing engineering laboratory for new metal materials testing and equipment. Headquartered in Haidian District of Beijing, NCS has several R&D and production centers in Beijing, Shanghai, Hebei,Shandong,Jiangsu,Sichuan and Germany. For perfect and convenient service.

NCS is dedicated to promoting the overall quality of products and services, maximizing value, and becoming a leader and promoter in the metal material testing field.

Looking ahead, NCS is ready to take firmer steps from a new starting point toward a beautiful future.

Certificate qualifications

Awards

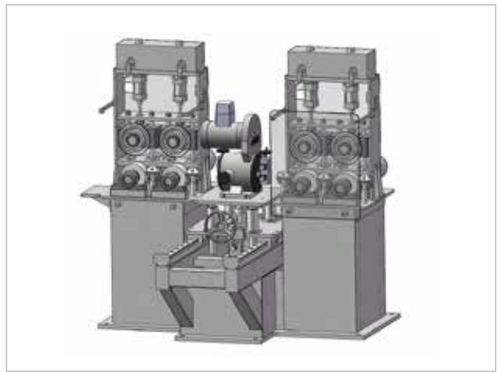
4 national awards, 36 provincial and ministerial awards, more than 60 other awards, 136 patents, 41 software copyrights, more than 100 national projects, more than 170 national standards and 27 international standards have been formulated.

Contents

1.ET system

1.1 Rotating probe ET system

Rotating probe ET system



3D layout

Application:

ET of subsurface and near-surface of steel, aluminum, copper, titanium and other metal materials in metallurgy, machinery, electric power, aerospace, nuclear and other industries. Conform to standards of GB/T7735(IDT ISO10893-2), YB/T4083, GB/T5248, GB/T5126, GB/T12969.2, GB/T29997, GB/T11260(IDT ISO10893-3), etc.

Features:

- High sensitivity for silver bright, peeled or polished materials
- Fully automatic, digitized, versatile and easy to adjust
- Fast testing speed, non-contact testing
- Routine testing speed: 0-120m / min
- Applications: pipes, bars, wires, etc

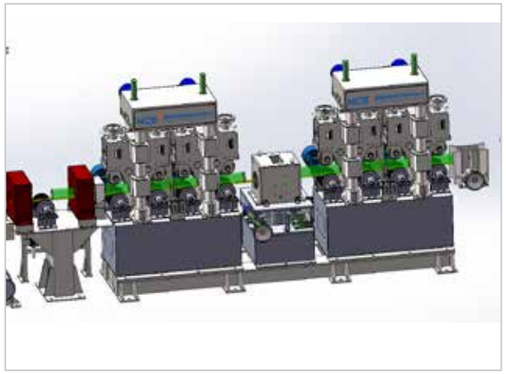
Models:

Equipment model	Size range
NCS--RET20	Φ2--Φ20mm
NCS--RET35	Φ5--Φ35mm
NCS--RET65	Φ10--Φ65mm
NCS--RET130	Φ20--Φ130mm
Can Be customized according to customer requirements	

1.ET system

1.2 Through-type ET system

Through-type ET system



3D layout

Application:

ET of surface and subsurface of steel, aluminum, copper, titanium and other metal materials in metallurgy, machinery, electric power, aerospace, nuclear and other industries. Conform to standards of GB/T7735(IDT ISO10893-2), YB/T4083, GB/T5248, GB/T5126, GB/T12969.2, GB/T29997, GB/T11260 (IDT ISO10893-3), etc.

Features:

- High-speed detection of pipes, bars and wires in cold drawn, cold rolled, hot rolled and other status
- Highly automatic, sturdy, durable, fast detection
- Non-contact detection, versatile, easy to adjust
- Routine testing speed: 0-240m / min
- Applications: pipes, bars, wires, etc

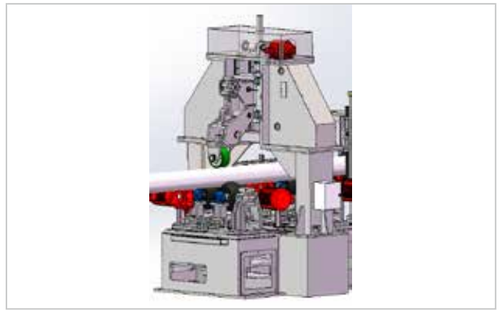
Models:

Equipment model	Size range
NCS--PET25	Φ3--Φ25mm
NCS--PET114	Φ16--Φ114mm
NCS--PET180	Φ32--Φ180mm
NCS--PET245	Φ60--Φ245mm
Can Be customized according to customer requirements	

1.ET system

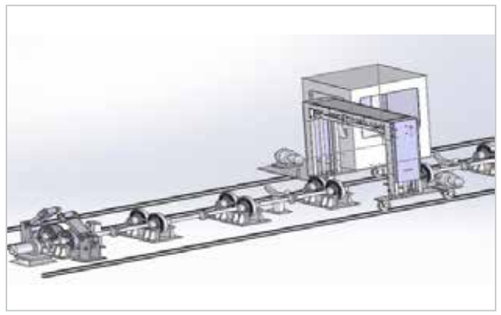
1.3 Detected object spiral forward / In-situ rotation ET system

Detected object spiral forward ET system



3D layout

Detected object in-situ rotation ET system



3D layout

Application:

ET of surface and subsurface of large scale metal materials in metallurgical steel, machinery, electric power, aerospace, nuclear and other industries.It possesses a high detection sensitivity for various defects. Conform to standards of GB/T7735(IDT ISO10893-2), YB/T4083, GB/T5248, GB/T5126, GB/T12969.2, GB/T29997, GB/T11260(IDT ISO10893-3), etc.

Features:

- Surface detection for large scale pipes, bars and nonstandard materials
- Fully automated, digitized, versatile and easy to adjust
- Multi-channel point-type probe
- Routine testing speed: 0-10m / min
- Applications: pipes, bars, non-standard metal materials, etc

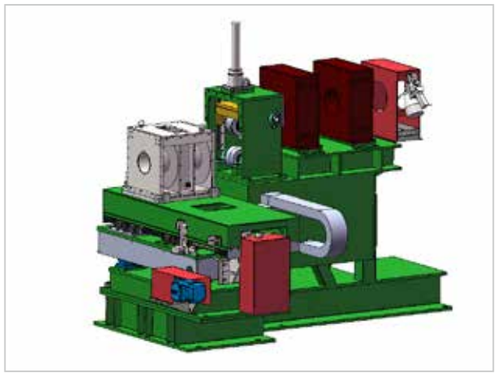
Models:

Equipment model	Size range
NCS--SET245	Φ78--Φ245mm
NCS--SET365	Φ114--Φ365mm
NCS--SET720	Φ219--Φ720mm
NCS--SET1400	Φ365--Φ1400mm
Can Be customized according to customer requirements	

1.ET system

1.4 Welded pipe ET system

Welded pipe ET system



3D layout

Application:

ET of surface and subsurface of welded pips in metallurgy, machinery, electric power, aerospace, nuclear and other industries. It possesses a high detection sensitivity for various defects. Conform to standards of GB/ T7735(IDT ISO10893-2), YB / T4083, GB/ T3092, etc.

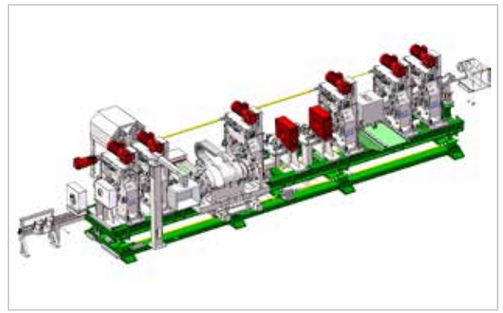
Features:

- Full coverage detection of high temperature welded pipes and welding seams can be achieved with a fast detection speed
- Good applicability and easy adjustment
- Short time of changing specifications and short commissioning time
- Routine testing speed: 0-120m / min
- Application object: Straight welded pipes, etc.

2.UT system

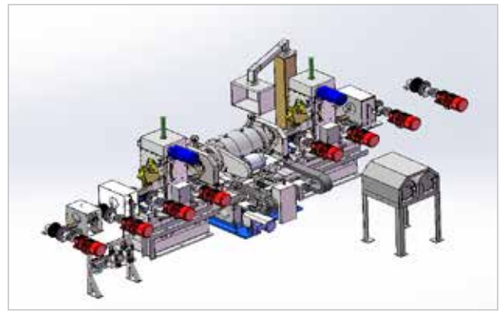
2.1 Rotating probe UT system

Wireless transmission NCSRo detection system



3D layout

Capacitive NCSRo detection system



3D layout

Application:

Detection of products in metallurgy, machinery, electric power, aerospace, nuclear industry, oil and natural gas, boiler and other industries. Conform to standards of GB/T5777, YB/T4082, API SPEC 5L, API SPEC 5CT, ASTM213M, ASTMA106, ASTMA519, GB/4162, YB/T3310, GB/T6402, etc.

Features:

- Detection of longitudinal, transverse, oblique, wall thickness measurement/lamination (longitudinal wave, transverse wave) in one flaw detection
- High speed, high sensitivity, high precision, and less dead zone
- Non-contact water-immersed and wear-free probe
- There are two transmission methods available: capacitive transmission and wireless transmission
- Fast testing speed, detection speed: 0-50m / min, customizable
- Applications: boiler pipes, nuclear power pipes, upset oil pipes, various types of bars, etc.

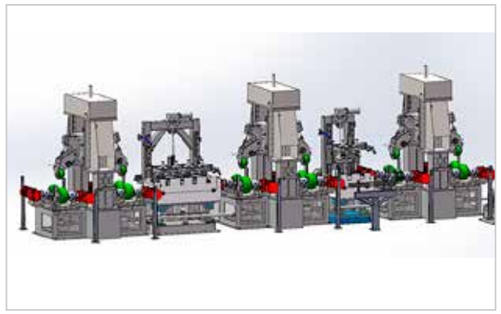
Models:

Equipment model	Size range
NCS--RUT40	Φ8--Φ40mm
NCS--RUT114	Φ16--Φ114mm
NCS--RUT219	Φ60--Φ219mm
NCS--RUT273	Φ89--Φ273mm
NCS--RUT370	Φ114--Φ370mm
Can Be customized according to customer requirements	

2.UT system

2.2 Partial immersion UT system

Partial immersion UT system



3D layout

Partial immersion UT system

3D layout

Application:

Detection of seamless pipes in metallurgy, machinery, electric power, aerospace, nuclear industry, oil and natural gas, boiler and other industries. Conform to standards of GB/T5777, YB/T4082, API SPEC 5L, API SPEC 5CT, ASTM213M, ASTMA106, ASTMA519, GB/4162, YB/T3310, GB/T6402, etc.

Features:

- Low requirements for workpiece flatness and surface condition, suitable for both hot-rolled black leather surface and cold-drawn surface
- High acoustic coupling efficiency and stable detection
- Easy maintenance and quick adjustment
- Detection of longitudinal, transverse, oblique, wall thickness measurement/lamination (longitudinal wave, transverse wave) in one detection
- Routine testing speed: 0-15m / min
- Applications: boiler pipes, nuclear power pipes, upset oil pipes, various types of bars, etc.

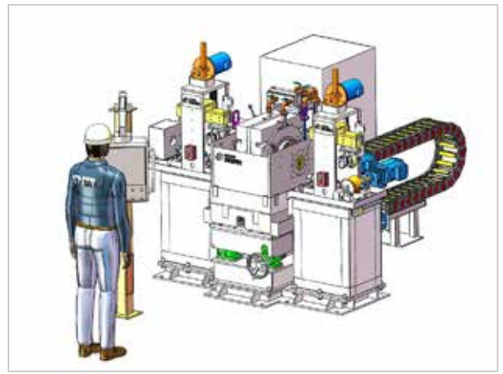
Models:

Equipment model	Size range
NC--SUT114	Φ48--Φ114mm
NC--SUT180	Φ60--Φ180mm
NC--SUT273	Φ89--Φ273mm
NC--SUT365	Φ114--Φ365mm
Can Be customized according to customer requirements	

2.UT system

2.3 Phased-Array UT system

Phased-Array UT system



3D layout

Application:

Applied to the automatic detection of high value-added small and medium-sized diameter pipe bars, the use of electronic scanning instead of mechanical action, reduce the disturbance factors in the detection process, improve the detection stability and accuracy, instead of conventional ultrasonic detection methods, in line with GB/T 4162, GB/T 3310, GB/T 8361, GB/T6402 and other relevant standards.

Functions and Features:

- Each element of the Ultrasonic phased array probe can be controlled individually
- For the testing, it can be achieved the sound beams deflection, focus and scan through virtual channel that consisted of the multiple of elements
- Fast testing speed and high sensitivity
- It reduced the requirements for machining accuracy
- Simple and conveniently for maintenance

Parameters:

SNR :≥10dB
Circumferential sensitivity difference : ≤3dB
Stability: Fluctuation≤4dB in 4 hours
Fluctuation : ≤2dB
False alarm rate: 0
Missing alarm rate: 0

3.Multiple technology systems in NDT

Through-type ET+Rotating probe UT multi-test system

Fixed-probe type ET+Water film UT multi-test system

Fixed-probe type ET+Partial immersion UT multi-test system

Through-type ET+Rotating probe ET multi-test system

Application:

According to the actual needs, choosing the appropriate detection methods among ultrasonic detection, eddy current, magnetic leakage and others for simultaneous joint detection. For the detection of various specifications of pipes, bars and other work pieces. It can realize detection of longitudinal, transverse, oblique, wall thickness/lamination measurement by ultrasonic wave, and eddy current or magnetic flux leakage flaw detection for full pipe body detection. At the same time, it is also suitable for flaw detection of flat bottom holes, horizontal grooves and vertical grooves of steel bars.

Equipment features:

- Two types of flaw detection done at once
- Application of anti-interference technology
- Using PROFIBUS-DP for all digital accurate measurement and control of inverters, servo motors, encoders, etc
- Human-machine interaction implemented on OP panel or host computer for fully automatic detection
- Ultrasonic, eddy current, magnetic flux leakage detection results are transferred to host computer to produce comprehensive ratio statistics and report

Field	Typical Customer					
Large Metallurgy	Baoshan Iron & Steel Co., Ltd.	Shougang Group	Ansteel Group Corporation Limited	Wuhan Iron and Steel (Group) Company	Jiangsu Shagang Group Co., Ltd.	TAIYUAN IRON & STEEL(GROUP) Co.,Ltd.
Pipes and tubes	Tianjin Pipe Corporation	China Baowu Steel Group Corporation Limited	PANGANG GROUP CO., LTD	Hubei Xinyegang Steel.Co.,Ltd.	Hengyang Valin Steel Tube Co.,Ltd.	Baogang Group
Stainless steel	Jiuli Group Co., Ltd.	Changshu Walsin Specialty Steel Co., Ltd.	Tsingshan Holding Group Company Limited	Jiangsu Wujin Stainless Steel Pipe Group Co., Ltd.	Zte Energy Company Limited	Yinhuan Holding Group Co., Ltd.
Special Steel Enterprise	JANGYIN XINGCHENG SPECIAL STEEL WORKS CO., LTD	DAYE SPECIAL STEEL CO., LTD	DONGBEI SPECIAL STEEL GROUP CO., LTD	Magang (Group) Holding Co., Ltd.	Xining Special Steel Co., Ltd.	Nanjing Iron and Steel Group Co., Ltd.
International customers	JR Seamless Pvt. Ltd.(India)		Lalbaba engineering group(India)		Boly Pipe Co.,Ltd (Thailand)	
	THAI OIL PIPE CO.,LTD(Thailand)		Korea Metals Engineering System Corp		PT. Servotech Indonesia	