

# SOLID NDT

PROFESSIONAL MANUFACTURER

**WE MAKE NDT MORE EASIER!**





硕德检测®  
SOLID NDT

*Nondestructive testing expert*



**HARDNESS TESTER**  
**WE MAKE NDT MORE EASIER**



SOLID NDT---YOUR TRUSTWORTHY FRIEND

## LPAD Series Hardness Tester

- ⊙ Smallest dimension, easy to take it
- ⊙ High accuracy  $\pm 0.5\%$
- ⊙ USB connection for data storage
- ⊙ Wifi output function
- ⊙ Finger touch screen



## LPAD Series Technical Specification

Feature	Lpad H110	Lpad H120	Lpad H200	Lpad H210	Lpad H300
Color display	√	√	×	√	√
USB storage	×	×	√	√	√
Wifi Function	×	×	×	×	√
Finger Touch	×	×	×	×	√
Power Supply	Rechargeable lithium battery	Rechargeable lithium battery	battery	battery	battery

Testing direction	Highly accurate in any impact direction (360 degree)
Testing Range	(170-960)HLD,(17.9-69.5)HRC,(19-683)HB,(80-1042)HV,(30.6-102.6)HS, (59.1-88)HRA, (13.5-101.7)HRB
Hardness Standards	HL、HV、HRA、HRC、HRB、HB、HV、HS
Accuracy	HLD:±0.5% (800HLD)
Repeatability Value	HLD:0.8% (800HLD)
Data browser	YES
Language	Chinese/English/support custom
Working Conditions	Operating temperature: 10-50 c; Storage temperature: -30 °C -60 °C; Humidity: 90% max;
Data Storage	Data Group standard 140/ support custom

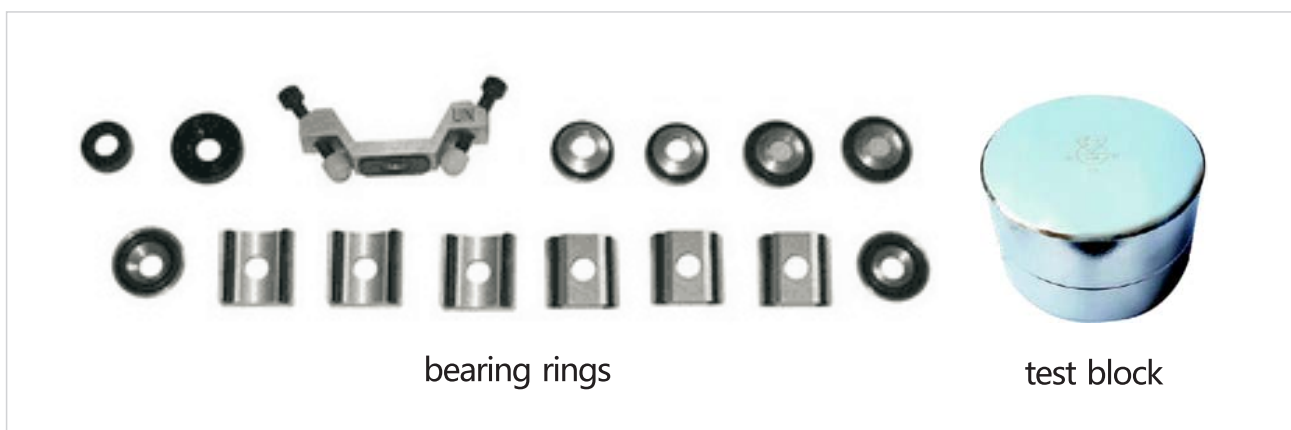
## Standard Equipped

Number	Name	Quantity
1	The instrument host	1
2	The nylon brush	1
3	Small bearing rings (H110、H120)	1
4	The ABS instrument	1
5	Operating manual	1
6	Quality Card/Test Report	1



## Optional configuration

Number	Name	Quantity	Remarks
1	Shaped impact device	7	
2	Shaped support ring	12	
3	Shock Ball	2	
4	Nylon brush B	1	G type impact device use
5	Replace the impact of the ball head tool	1	
6	WiFi output software	1	



## Common material hardness values

Materials	HL	HRA	HRB	HRC	HB	HV	HS
Steel and cast steel	300-900	59.1-85.8	59.6-99.6	17.9-68.5	127-651	83-976	32.2-99.5
Forged	300-900				143-650		
Alloy tool steel	300-840			20.4-67.1		80-898	
Stainless steel	300-800		46.5-101.7		85-655	85-802	
Grey cast iron	360-650				93-334		
Ductile	400-660				131-387		
Cast aluminum alloy	174-560		23.8-84.6		19-164		
Copper-zinc alloys (brass)	200-550		13.5-95.3		40-173		
Copper-tin alloy (bronze)	300-700				60-290		
Copper	200-690				45-315		

# Shore Hardness Tester

Digital shore hardness tester



A



B



C

LX shore hardness tester



LX-A



LX-C



LX-D

Main technical parameters

Types	Type A	Type C	Type D
Calibration Value	0-100HA	0-100HC	0-100HD
Resolution	1HA	1HC	1HD
Pressure Head Size	Φ0.79mm	SR2.5mm	SR0.1mm
End Pressure Head Size	0.55N-8.05N	0.55N-8.05N	0-44.5N
Pressure Needle Range		0-2.5mm	
Apparatus Weight		0.3kg	



硕德检测®  
SOLID NDT

*Nondestructive testing expert*



**ULTRASONIC THICKNESS GAUGE  
WE MAKE NDT MORE EASIER**



**SOLID NDT---YOUR TRUSTWORTHY FRIEND**

## >>UPAD Series Ultrasonic Thickness Gauge

High Accuracy:0.1/0.01mm or 0.01/0.001 inch

Extra-long standby time:200 hours

Massive Data Memory:100000 data sets

Probe Connection/Coupling Indicator

USB connection for data storage

Echo to Echo mode



## >> UPAD Series Technical Specification

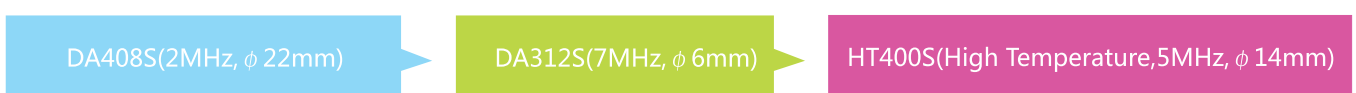
Feature	Upad X100	Upad X200	Upad X300	Upad X400	Upad X410
Automatic zero	√	√	√	√	√
Penetrate the coating	×	×	√	√	√
Statistical function	Online statistics	Online statistics / data statistics	Online statistics / data statistics	Online statistics / data statistics	Online statistics / data statistics
Storage Capacity	100 Groups	500 Groups	1000 Groups	1000 Groups	1000 Groups
New Housing	×	×	×	√	√
Screen Display	LCD	LCD	LCD	LCD	OLED
USB storage	×	√	√	√	√

Working Principle	Ultrasonic(ultrasonic pulse echo/echo echo)
Detection range	P-E mode:0.75-500mm E-E mode:Coat:1-2mm Under Coat:2-25mm
Velocity	1000~9999m/s, Preset 5 commonly used material velocity
Resolution	0.1mm(> 100mm)/0.01mm(<100mm)
Indicator	± (0.5%H+0.01) mm
Velocity route correction	Auto
Appearance size	165*82*30mm
Weight	250g(Including battery)
Gain	High/Low/Automatic
Refresh rate	Single point mode 5 times/second,Scan mode 25 times/second
Statistical data	Statistical data
Measured value display	3 custom measurement display area, can choose online statistics or sound

## >> Standard Configuration

No.	Name	Quantity
1	Host	1
2	Probe Cable	1
3	Tool Box	1
4	Probe(DA301S,5MHz φ10mm)	1
5	Operating Manual	1

## >> Optional Configuration



## >> Probe of Our Thickness Gauge

Application	Mode	Rate	Probe Diameter	Measuring range	Minimum diameter
Standard application	DA301S	5MHz	10mm	0.75mm~400.0mm (Steel)	Φ20mm×3.0mm
Standard application	DA301S/90	5MHz	10mm	0.75mm~400.0mm (Steel)	Φ20mm×3.0mm
Thick Wall	DA303S	2MHz	22mm	3.0mm~300.0mm (Steel)	20mm
Thin wall	DA312S	7MHz	6mm	0.75mm~80.0mm (Steel)	Φ15mm×2.0mm
High temperature	HT400S	5MHz	14mm	3~200mm (Steel)	30mm
High attenuation	DA408S	2MHZ	22mm	40mm↓(Grey cast iron HT200)	20mm

## >> Commonly used material velocity

Material type		Sound velocity	
		inch/us	m/s
Aluminum	Aluminum	0.250	6340-6400
Steel, common	Steel, common	0.233	5920
Steel, stainless	Steel, stainless	0.226	5740
Brass	Brass	0.173	4399
Copper	Copper	0.186	4720
Iron	Iron	0.233	5930
Cast Iron	Cast Iron	0.173-0.229	4400—5820
Lead	Lead	0.094	2400
Silver	Silver	0.142	3607
Gold	Gold	0.128	3251
Titanium	Titanium	0.236	5990
Tin	Tin	0.117	2960
Nickel	Nickel	0.222	5639
Porcelain	Porcelain	0.230	5842
Rubber, vulcanized	Rubber, vulcanized	0.091	2311
Water	Water	0.058	1473

### Solid(Beijing)Technology Co.,Ltd

Office: +86 010 56023046 MOB: +86 13717746555

Email: Sales@solidndt.com Sabrina@solidnde.com

Adress: Buliding B, No.31 Wangfu Street, Changping District, Beijing 102200, China





硕德检测®  
SOLID NDT

*Nondestructive testing expert*



**COATING THICKNESS GAUGE  
WE MAKE NDT MORE EASIER**



**SOLID NDT---YOUR TRUSTWORTHY FRIEND**

## >>Coating Thickness Gauge Series

High accuracy (1%+1)

Split design,Strong applicability, measured value stability

Short response time, fast measurement speed

USB connection for data storage



## ■ Cpad Series Technical Specification

Model \ Feature	USB Storage	New Housing	F probe	N probe
Cpad T200	√	×	√	×
Cpad T210	√	×	×	√
Cpad T220	√	×	√	√
Cpad T300	√	√	√	×
Cpad T310	√	√	×	√
Cpad T320	√	√	√	√
Cpad T400	√	√	√	√

<b>Measuring Range</b>	F400: 0~400μm N400: 0~400μm F1 : 0~1250μm F1/90 : 0~1250μm N1 : 0~1250μm F10 : 0~10000μm m CN02: 10~200μm
<b>Accuracy</b>	1%+1
<b>Calibration method</b>	One point/two point
<b>Resolution</b>	0.1m(0-99.9μm) 1m(over 100μm)
<b>Temperature</b>	0°C~50°C
<b>Humidity</b>	20%~90%
<b>Operation mode</b>	Unit Testing & Group testing
<b>Measuring mode</b>	Continuous measurement/single measurement
<b>Data storage</b>	500 data
<b>USB connection</b>	USB connection support U disk and read out by PC

No.	Name	Quantity	Remarks
1	The instrument host	1	
2	Standard Pieces	4	
3	Tool Box	1	
4	Aluminum Block	1	
5	Operating manual	1	
6	Ferro Block	1	
7	N1 probe	1	Cpad T210, Cpad T220, Cpad T310, Cpad T320, Cpad T400
8	F1 probe	1	Cpad T200, Cpad T220, Cpad T300, Cpad T320, Cpad T400
9	Quality Card/Test Report	1	

# ■ Cpad Series Technical Specification

## Testing Probe Reference(1)

Coating		Organic materials and other non metallic coating (such as: paint, paint, enamel,etc)	
		Cover thickness < 100μm	Cover thickness > 100μm
Magnetic metal iron, steel etc.	Measuring Area > 30mm	F400: 0~400μm F1 : 0~1250μm	F400:0~400μm    F1:0~1250μm F10:0~10mm
	Measuring Area < 30mm	F400: 0~400μm	F1: 0~1250μm F400: 0~400μm
Copper, aluminum, tin etc.	Measuring Area > 10mm	N400 :0~400μm N1 :0~1250μm	N400 0~400μm N1 : 0~10mm
	Measuring Area < 10mm	N400 :0~400μm	N1 : 0~1250μm N400: 0~400μm

## Testing Probe Reference(2)

Coating		Non magnetic metal layer (such as: chromium, zinc, aluminum,copper, tin, silver, etc.)	
		Cover thickness < 100μm	Cover thickness < 100μm
Magnetic metal iron, steel etc.	Measuring Area > 30mm	F400: 0~400μm F1: 0~1250μm	F400: 0~400μm F1: 0~1250μm F10: 0~10mm
	Measuring Area < 30mm	F400: 0~400μm	F400:0~400μm F1: 0~1250μm
Copper, aluminum, tin etc.	Measuring Area > 10mm	Only for copper plating N400: 0~40μm	-----
	Measuring Area < 10mm	-----	-----
Plastic, non metal base	Measuring Area > 7mm	Cn02: 10~200μm	Cn02: 10~200μm

### Solid(Beijing)Technology Co.,Ltd

Office:+86 010 56023046    Cell:+86 13717746555  
 Email:Sales@solidndt.com    Sabrina@solidnde.com  
 Adress: Buliding B, No.31 Wangfu Street, Changping District, Beijing 102200, China



硕德检测®  
SOLID NDT

*Nondestructive testing expert*



## ULTRASONIC VELOCITY TESTER UPAD VX

Upad VX Series ultrasonic non-destructive measurement of sound velocity meter will rate the ball to the limit; provide rapid rate of detection of ultrasound to determine the rate of automobile ball safety components.

Taking into account the reliability, performance and durability, no matter where you detect, VX Series ball rate meter is your most trusted, most hard working partner. This innovative ball rate instrument will provide a superior user experience. In case there is the next test block, also applies to the creep rate measurement.

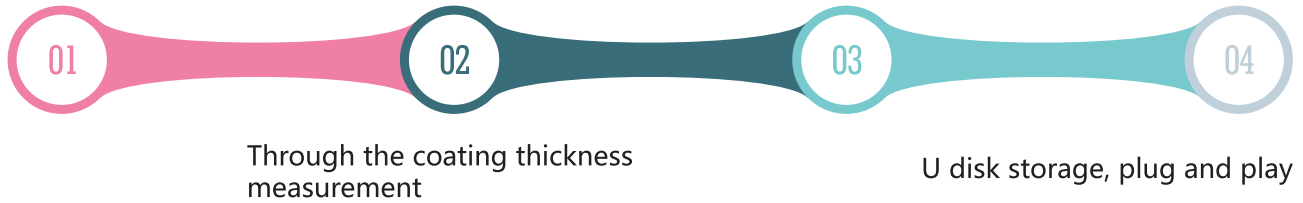


**SOLID NDT---YOUR TRUSTWORTHY FRIEND**

## ▶ Feature

Non-destructive measurement of ball

Without standard test block, the probe zero automatic calibration



## ▶ Performance indicators

Working Principle	Ultrasonic (Pulse - Echo / Echo -Echo)
Speed of sound	4000-6000m/s
Nodularity	Percentage: 50~100% Rating: 1-6 degree
Detection range	0.75-50mm (According to the grain and the surface condition )
measurement resolution	0.1mm(> 100mm)/0.01mm(<100mm)
Indication accuracy	1%
Language	Chinese/English/support custom
Automatic zero calibration	Achieve real-time calibration of the probe zero zero through a unique automatic calibration technology
V-path correction	Auto
Probe connection status indication	Yes
Coupling state judge	Tipssignalcouplingstrength;measured value display solid / hollow change, a visual indication of whether the normal measurement
Dimensions	165×82×30 mm
Weight	250g (Including batteries)
Work environment	Temperature: -20°C~70°C Humidity: 5%~90%
Excitation pulse	150 Negative spikes
Frequency band with	0.05-15MHz
LCD Dot matrix display	High contrast 128x64 dot matrix LCD,beautifully printed text, numbers and symbols, high brightness EL back
USB	Breaking the traditional storage model, thickness measurement reports stored anywhere without communication software, to get rid of the shackles of cable

**Solid(Beijing)Technology Co.,Ltd**

Office: +86 010 56023046 Cell: +86 13717746555  
 Email: Sales@solidndt.com Sabrina@solidnde.com  
 Address: Buliding B, No.31 Wangfu Street, Changping District, Beijing 102200, China



# DIGITAL TORQUE WRENCH



Digital torque wrench is different from general torque wrench, it has strong operation function including torque setting, time setting, mode setting, data storage, data clear, data output and user calibration function. It is easy to operate, it reduce the requirements for the operator by install the digital display. It is widely used for the automotive industry, machinery industry, such as bolt fastening and control.

## ► Product features:

Numeric display

Accuracy: Clockwise  $\pm 2\%$ , Counterclockwise  $\pm 2.5\%$  (within the maximum operating range of 20 ~ 100%)

Both clockwise and counterclockwise can be operated

Peak maintenance and real-time mode

Buzzer and LCD indicator (when the predetermined torque value is reached)

Four engineering units (ft. lb, in. lb, N. m, kgf. cm)

## ► Parameters:

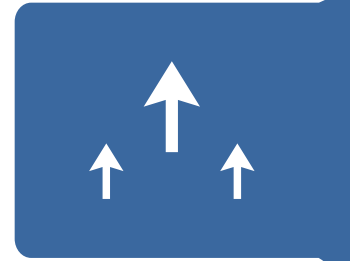
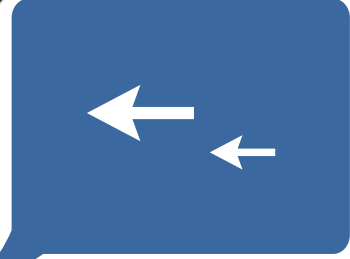
Model	AWG2-030	AWG3-135	AWG4-135	AWG4-200	AWG4-340	AWG6-500	AWG8-850
Max. Operation Range (N.m)	30	135	135	200	340	500	850
Square Drive (inches)	1/4	3/8	1/2	1/2	1/2	3/4	3/4
Measured Torque Range (N.m)	1.5~30	6.8~135	6.8~135	10~200	17~340	25~500	42.5~850
Length	390	423	650	650	650		
Accuracy	AN	AR	BN	BR		BN	BR
	Clockwise: $\pm 1\%$ counterclockwise: $\pm 2\%$		Clockwise: $\pm 2.5\%$ counterclockwise: $\pm 3.5\%$			Clockwise: $\pm 2.5\%$ counterclockwise: $\pm 3.5\%$	
Communication function	No	Yes	No	Yes		No	Yes
Data storage capacity	100						
Operation mode	Peak hold mode ( P ) /Real-time mode ( T )						
Unit	N.m, in.lb, ft.lb, kgf.cm						
Ratchet head type	Double-side ratchet head						
Number of ratchet gear	36					48	
Button	5						
Battery	AA battery $\times 2$ ( No. 5 battery )						
Operation temperature	$-10^{\circ}\text{C}\sim 60^{\circ}\text{C}$						
Storage temperature	$-20^{\circ}\text{C}\sim 70^{\circ}\text{C}$						
humidity	No condensation to 90%						
Drop test height	1 meter						
Vibration test condition	10G						
Life time test	10000 times						

### Solid(Beijing)Technology Co.,Ltd

Office: +86 010 56023046 Cell: +86 13717746555

Email: Sales@solidndt.com Sabrina@solidnde.com

Address: Buliding B, No.31 Wangfu Street, Changping District, Beijing 102200, China



硕德检测®  
SOLID NDT



*Nondestructive testing expert*

## ► X-ray Flaw Detector



Power supply:	220±10%VAC 50Hz
Tube current:	5mA
Beam angle:	40+5°
Photo condition:	Focus 600mm,exposed time 5 minutes Double-face lead intensifying
Transmission sensitivity:	<1.5%
Film density:	>1.5
Dimension and weight:	
Generator:	285*285*665mm/23kg
Controller:	365*300*165mm/12.6kg

### ► large screen:high-brightness 5.7 inch color TFT- LCD

Independent testing frequency number : 2;  
Frequency range : 10Hz-10mHz;

### ► The frequency of excellent conditioning properties;

Gain : 0dB-99dB,a wide gain adjustment  
Phase : 0-359° , a flexible phase rotation  
Smart mixing unit number: 2  
Detection speed : >60m/min  
Detection the smallest defects : 0.01mm,with a high-precision detection capabilities  
Lift-off height >3mm,no need to process the surface covering layer  
Probe Drive : 1~8,to meet different probe structures

### ► Independent X and Y gain adjustment

Digital Filtering:High-pass frequency,low-pass frequency ( 0Hz~2000Hz )  
USB 2.0(Host) the capacity of connection.  
Eddy current testing signal playback,analysis,save,print features;  
Charging power supply : 110V-220V

## Eddy current flaw detector ◀



## ► Magnetic yoke flaw detector



Type	Sd220	SD220AC/DC
Power supply	/	220V 50Hz 12V
Charging power supply	220V 50Hz	220V 50Hz
Using battery	/	MF12-7.2AH
Operating current	AC1.4A	AC1.4A DC1.7A
Working interval	I minute switch on 1minute off	I minute switch on 1minute off
Magnetic electrode distance	0-200mm	0-200mm
Lifting power	AC>5.5KG	AC>5.5KG DC>26KG
Probe weight	3.1KG	3.1KG
Dimension	Probe 208*52*146	Probe 208*52*146 Battery pack160*70*100 Charger 75*50*40

## Concrete test hammer H225 ◀

model	HT-225
Measuring range	10- 60MPa
Impact energy	2.207±0.1 J(0.225Kgf.m)
Length of spring stretch	75±0.3mm
The static friction of pointer slider	0.65N±0.15N
Radius of spherical tip T	25mm±1mm
average rebound values on steel anvil Rm	80±2
Housing dimension	Φ54*280mm
weight	1KG



## ▶ Concrete test hammer H225W+



model	HT225—W+
Measuring ranges	10- 60MPa
Impact energy	2.207±0.1 J(0.225Kgf.m)
Spring constant	75±0.3mm
Spring tension	0.65N±0.15N
The average rebound values on steel anvil	80±2
Data storage	480000 testing results,20 special test strength curves could also be planted into
Size	L280*D54mm
NW	1.2KG

model	GW50/GW50+	
Bar diameter application range ( mm )	Φ6-Φ50	
Maximum value permissible error of Bar diameter	≤±1	
Protective layer thickness measuring range	75±0.3mm	
The first measuring range ( mm )	6 - 90	
The second measuring range ( mm )	7-180	
The maximum error of reinforced protective layer thickness test value		
The first measuring range(mm)	The second measuring range (mm)	
6 - 59	7 - 79	≤±1
60 - 69	80 - 119	≤±2
70 -90	120 - 180	≤±4

## Rebar locator GW 50+ ◀



## ► Product features:

	Sr100	SR110
Testing parameters	Ra,Rz	Ra,Rz,Rq,Rt
Measuring range(um)	Ra:0.05-15.0 Rz:0.1-50.0	Ra,Rq:0.05-15.0 Rz,Rt:0.1-50.0
Sample length(mm)	0.25	0.80 2.50
Evaluation length ( mm )	1.25	4.0 5.0
Stroke length ( mm )	6	
Value accuracy	0.01	
Variability	±(7~10)%	
variation of indication	<12%	
Power supply	Rechargeable lithium battery	
Stylus static force	<0.016N	
Range of change	<800N/m	
Working temperature	-20°C—40°C	
Relative humidity	<90%	
Weight of host	200g	
Dimension	106*70*24mm	



## ► Surface roughness tester Sr220

Parameters	Ra,Rz,Rq,Rt,Rp,Rv,R3z,R3y, RzJIS,Rsk,Rku,Rsm,Rmr,Rx
Measuring range(um)	Ra:0.005—16.000 Rz:0.02—160.00
Sample length(mm)	0.25 0.80 2.50 (1-5) L
Maximum drive stroke	17.5mm/0.7inch
	0.001
Indication error	±(7~10)% <6%
Data storage	100 groups Rechargeable lithium battery
Stylus static force	<0.016N -20°C— 40°C
Relative humidity	<90%
	300g
Dimension	158*63.5*46mm



### Solid(Beijing)Technology Co.,Ltd

Office:+86 010 56023046 MOB: +86 13717746555

Email:Sales@solidndt.com Sabrina@solidnde.com

Address: Buliding B, No.31 Wangfu Street, Changping District, Beijing 102200, China





**Solid**

硕德检测®  
SOLID NDT

*Nondestructive testing expert*



UFD-Mini



UFD-Z6E



UFD-X5



UFD-Z6W



UFD-Z6S



UFD-Z6S



UFD-Z6C



UFD-Z6W



SOLID NDT---YOUR TRUSTWORTHY FRIEND

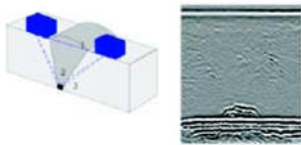
# Ultrasonic Flaw Detector

## UFD-Z6W

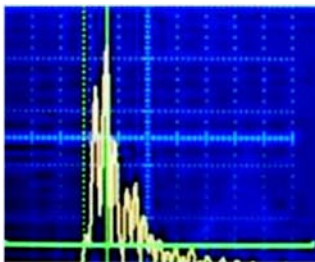
### Z series-Free Feeling

Z series Ultrasonic Flaw Detector is a superior, rapid, professional and portable detector.

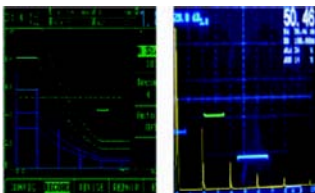
UFD-Z series apply square technique, it could meet any demand. Superior performance combined with our own characteristic perfectly, response fast, digital content simulated experience, comfortable sense of avoiding to clutter disturb. it will detect flaw follows your idea, just like your sixth feelings, Z series is a portable detecting work station.



time-of-flight diffraction technique(TOFD)



typical indication



A-scan normal mode A-scan zoom mode

### Function

- ⊙ TOFD(Time of Flight Diffraction), showing two-dimensional image, measuring height and depth of flaw.
- ⊙ Comply to USA GB11345/JB4730 standard.
- ⊙ AWS: the American welding society standard AWS D1.1 / D1.5
- ⊙ echo coding techniques can be intuitive to obtain the position of the defect in multiple echo
- ⊙ Showing intuitive analysis for welds profile

### Operation

- ⊙ A key to the menu, operate easily.
- ⊙ Reasonable menu structure, international standard.
- ⊙ structure of menu is three-dimensional interference

### Features

- ⊙ Narrow band filters group, which avoid disturb better.
- ⊙ High resolution when detect thin sheet work piece and composite materials.
- ⊙ Advanced 10 places AD samples.

## SPECIFICATIONS

**Measuring Range** 1.0~15000mm

### Resolution

0.01mm(<100mm) 1mm(>100mm)

### Velocity

500~20000m/s 20fixed velocities

### Delay

-20~3400us /resolution : 0.1us

### Probe Delay

0~99us /resolution: 0.01us

### Auto Calibration

Velocity Calibration &Probe Delay

Calibration

### Linear Error

Horizontal error≤0.1%

Vertical error≤3%

**Dynamic Range** ≥36dB

### Sensitivity

≥64dB 200mmΦ2 flat-bottomed hole

**Dimension (mm)** 240×180×50mm

### Weight

1.9Kg (including battery pack)

### Working Environment

Temperature: -20°C~70°C

Humidity: 5%~90%

## Pulse

**Pulse Width** 50~2000ns

**Pulse Amplitude** 50~500v

### Launch Repetition Frequency

PPulse repetition frequency PRF could be adjusted, range:4-1000Hz

**Matched Damp** 50/150/250/400Ω

## Receiver

**Measuring mode** Peak/Verge

**Bandwidth** 0.3~1 / 0.5~4 /2~15MHz

broad band filter 1/2.5/5/10/15 MHz

narrow band filter

### Detector Pattern

0 to 110dB Customers define steps

0/0.2/0.5/1/2/6/12

### Detector Pattern

RF/Full-Wave/Positive/Negative half-wave

## Display

### LCD

TFT Color Display .5 options for

variable brightness

### GUI Theme

Simple/Classical/Gray/Bright

**Screen Update Rate** ≥60Hz

## Gate

**Gate** Two Separated Gate A/B

### Measured value display

5 measured value display area,

SA/SB/DA/DB/PA/PB/A%A/A%B/dB

tA/dBtB/dBrA/dBrB/SBA/DBA/PBA/LA/LB

### Alarm

Independent logic gate alarm, alarm

threshold thickness measurement

## Storage

**Channel Parameters** 20

**A Scan** 2000

**Thickness values** 200,00 data

**Wave video** 5 min

**Reference wave** 4

## Input / Output

**Probe connector** LEMO or BNC

## Regional

### Clock

Real-time display date and time

**Language** English & Chinese

**Unit** mm/inch

## Battery

High-energy lithium batteries, has

excellent overcharge and

over-discharge protection

### Battery Monitoring

Coulomb energy measurement based

on battery monitoring,percentage /

time display the remaining battery life

### Working Hours

Can work continuously for more than

10 hours

### Battery Adapter

Input : 100~240V/50~60Hz

Output : 9VDC/4A

## High ranking

### U disk storage

Storage screen shots /waveform

/thickness three data report

### Gate broadening

Gate area of concern for the details

of observation and analysis

### B-scan two-dimensional coding

Thickness / contour scanning;

grayscale / color palette settings

**Curve freeze** YES

### Characteristic indicator

Sound path measurement wave front

and amplitude measurement position

indicator

### CSC Surface Correction

According probe angle, diameter of

the work-piece thickness and curvature

correction for the measured values

### Lock

data set can be locked to avoid

accidental deletion of data

**Screen Saver Standby / Text / off**

## Equivalent curve

### DAC curve

Can record 30 calibration points;

Automatic Gain; any order calibration;

calibration / edit two modified methods;

consider the material attenuation and

surface compensation factor;

five adjustable gain curve to assess

compliance with JIS and API Standards

### DGS curve

large flat-bottomed, flat-bottomed

hole, through-hole

## Standard

Main engine 1

Straight / angle probe 1

Probe line 1

Chargers 1

Battery 1

### Interface Gate

Intermediate medium for flooding

situation testing

### Printer

TP serial printer,print directly

screen shots/waveform/ thickness of the

three data report

### Large capacity battery

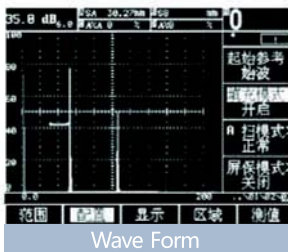
More than 20 hours

# Ultrasonic Flaw Detector

## UFD-MINI

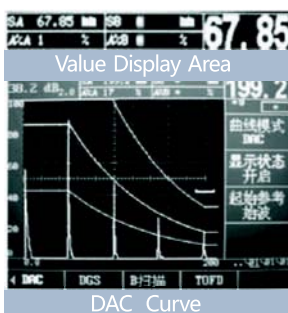
### MINI:High performance and portability

UFD-Mini is not only a simple and compact ultrasonic flaw detector with the ultimate lightweight design, long battery life, it is also designed for motion detection ,which perfectly combined the high performance and portability.



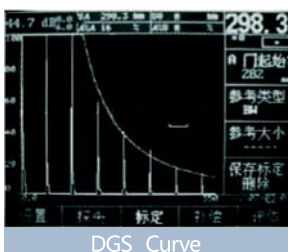
### FEATURES

- One Function Key, Easily Operate
- Ideal Menu Style
- Auto Calibration : Velocity, Probe Delay, Angle/K Value



### FUNCTION

- B Scan-Display Flaws Directly  
Reducing analysis difficulty , missing detector
- Massive Data Memory  
100,000 values
- Electronic Choice : Flaw detector together with high accurate thickness measured
- 5 Intelligent DAC curves , comply to JIS and API standard



### OPERATION

- High Accuracy: 10 places for AD samples
- Extra-long Standby Time : 20 hours, getting rid of trouble from battery
- Display screen could be adjusted to provide 5 optimum brightness
- Magnesium alloy case, AP65 encapsulation, strong and durable , avoiding electronic-magnetic interference

## SPECIFICATIONS

### Measuring Range

1.0~6000mm

### Resolution

0.01mm(<100mm)

1mm(>100mm)

### Velocity

500~20000m/s

20 fixed velocity

### Delay

-20~3400us /resolution : 0.1us

### Probe Delay

0~99us /resolution: 0.01us

### Auto Calibration

Velocity Calibration & Probe Delay Calibration

### Linear Error

Horizontal error≤0.1% Vertical error≤3%

### Dynamic Range

≥36dB

### Sensitivity

≥64dB 200mmΦ2 flat-bottomed hole

Dimension (mm)

180×150×50mm

### Weight

1.0 Kg (including battery pack)

### Working Environment

Temperature: -20°C~70°C

Humidity: 5%~90%

## Pulse

### Dive Pulse

Negative spikes, high energy/low adjustable

### Matched Damp

50/150/400Ω

## Receiver

### Detection mode

Pulse echo/transmitting & receiving/transmission

### Measuring mode

Peak/Verge

**Detector Pattern** 0~110dB

0/0.1/0.2/0.5/1/2/6/12/

### Detector Pattern

RF/Full-Wave/Positive/Negative/  
half-wave

### Bandwidth

0.3~1/0.5~4/2~15MHZ

## Display

LCD

TFT Color Display 5 options for variable brightness

**Screen Update Rate** ≥60Hz

### GUI Theme

Strong/weak light 2, the user can through the set text A,

background color, sweep waveform

coordinate free custom theme

## Gate / measuring value / alarm

### Sluice gate

Two Separated Gate A/B

### Measured value display

5 measured value display area, where a main display area,

Selectable measurement value content

SA/SB/DA/DB/PA/PB/A%A/A%B/dBtA/dBtB

/dBrA/dBrB/SBA/DBA/PBA/LA/LB

### Alarm

Independent logic gate alarm, alarm

threshold thickness measurement

## Storage

**Channel Parameters** 20 groups

**Scan A** 1000 groups

### Thickness values

100,000 data, liner

**Reference wave** 4

## Input / Output

**Probe connector** LEMO or BNC

## Regional

**Clock** date and time

**Language** English

**Unit** mm/inch

## Battery

### Battery

High-energy lithium batteries, excellent overcharge and over-discharge protection

### Battery Monitoring

Coulomb energy measurement based on battery monitoring, the percentage / time display the remaining battery life

### Working Hours

work continuously for more than 10 hours

### Battery Adapter

Input : 100~240V/50~60Hz

Output : 9VDC/4A

## High ranking

### B-scan two-dimensional coding

Thickness / contour scanning; grayscale / color palette settings

**Curve freeze** YES

**Data Storage** U disk

### Characteristic indicator

Sound path measurement wave front and amplitude measurement position indicator

### CSC Surface Correction

According probe angle, diameter of the work piece thickness and curvature correction for the measured values

### Screen Saver

Standby / Text / off

## Equivalent curve

### DAC curve

Can record 30 calibration points; Automatic Gain; any order calibration; calibration / edit two modified methods; consider the material attenuation and surface compensation factor; five adjustable gain curve to assess compliance with JIS and API Standards

### DGS curve

For large flat-bottomed, flat-bottomed hole via three reference types, consider a reference attenuation, attenuation and surface material compensation factors, defect assessment methods: equivalent size/ equivalent gain / percentage

## Standard

Main engine	1	Instructions	1
Straight /		Box	1
angle probe	2	Coupling paste	1
Probe line	1		
Charger	1		
Battery	1		

## Optional

### Printer

TP serial printer, you can print directly screenshots / waveform / thickness of the three data report

### Communication

USB



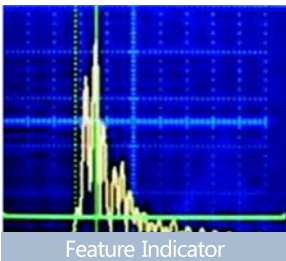
# Ultrasonic Flow Detector

## UFD-X5

### X Series : High Performance

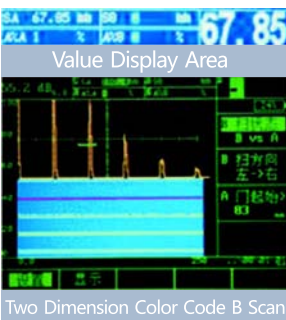
UFD X series Ultrasonic Flow Detector could meet a variety of demands with superior features , which include portable, flexible, rapid and accurate.

As universal type, X5 flaw detector is popular by its high accuracy, effective and Multi-function,attractive housing and conveniently operation.



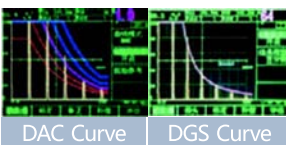
### FEATURES

- ⊙ One Function Key, Easily Operation
- ⊙ Ideal Menu Style
- ⊙ Auto Calibration : Velocity, Probe Delay, Angle/K Value



### FUNCTION

- ⊙ USB for storage Plug and play  
Convenient to read thickness values
- ⊙ B Scan-Display Flaw Directly  
Reducing analysis difficulty , missing detector
- ⊙ Massive Data Memory  
200,000 values/5 min video
- ⊙ Multi-function : Flaw detect with High Accurate Thickness Measured
- ⊙ 5 Intelligent DAC curves , comply to JIS and API standard



### OPERATION

- ⊙ High Accuracy: 10 places for AD samples
- ⊙ Extra-long Standby Time:  
20 hours, getting rid of trouble from battery
- ⊙ Display screen could be adjusted to provide 5 optimum
- ⊙ Magnetic Aluminum alloy coated, AP65 encapsulation, strong and durable , avoiding elector-magnetic interference



## SPECIFICATIONS

**Measuring Range** 1.0~12000mm

**Resolution**

0.01mm(<100mm) 1mm(>100mm)

**Velocity**

500~20000m/s 20fixed velocities

**Delay**

-20~3400us /resolution : 0.1us

**Probe Delay**

0~99us /resolution: 0.01us

**Auto Calibration**

Velocity Calibration &Probe Delay

Calibration

**Linear Error**

Horizontal error≤0.1%

Vertical error≤3%

**Dynamic Range** ≥36dB

**Sensitivity**

≥64dB 200mmΦ2 flat-bottomed hole

**Dimension (mm)** 240×180×50mm

**Weight**

1.9Kg (including battery pack)

**Working Environment**

Temperature: -20°C~70°C

Humidity: 5%~90%

## Pulse

**Dive Pulse**

Negative spikes,high energy/low adjustable

**Launch Repetition Frequency**

PFR transmit pulse continuously adjustable

**Matched Damp**

50/150/400Ω

## Receiver

**Measuring mode** Peak/Verge

**Bandwidth** 0.3~1/0.5~4/2~15MHZ

**Detector Pattern**

0~110dB 0/0.1/0.2/0.5/1/2/6/12/

**Detector Pattern**

RF/Full-Wave/Positive/Negative half-wave

## Display

## LCD

TFT Color Display .5 options for variable brightness

**GUI Theme**

Simple/Classical/Gray/Bright

**Screen Update Rate** ≥60Hz

## Gate

**Gate** Two Separated Gate A/B

**Measured value display**

5 measured value display area,  
SA/SB/DA/DB/PA/PB/A%A/A%B/dBtA/  
dBtB/dBrA/dBrB/SBA/DBA/PBA/LA/LB

**Alarm**

Independent logic gate alarm, alarm  
hreshold thickness measurement

## Storage

**Channel Parameters** 20

**A Scan** 2000

**Thickness values** 200,00 data

**Wave video** 5 min

**Reference wave** 4

## Input / Output

**Probe connector** LEMO or BNC

## Regional

**Clock** Real-time display date/time

**Language** English & Chinese

**Unit** mm/inch

## Battery

High-energy lithium batteries, has excellent overcharge and over-discharge protection

**Battery Monitoring**

Coulomb energy measurement based on battery monitoring,percentage / time display the remaining battery life

**Working Hours**

Can work continuously for more than 10 hours

**Battery Adapter**

Input : 100~240V/50~60Hz

Output : 9VDC/4A

## High ranking

## U disk storage

Storage screen

shots/waveform/thickness three data report

**Gate broadening**

Gate area of concern for the details of observation and analysis

**B-scan two-dimensional coding**

Thickness / contour scanning; grayscale / color palette settings

**Curve freeze** YES

**Characteristic indicator**

Sound path measurement wave front and amplitude measurement position indicator

**CSC Surface Correction**

According probe angle, diameter of the work-piece thickness and curvature correction for the measured values

**Lock**

data set can be locked to avoid accidental deletion of data

**Screen Saver** Standby/Text/off

## Equivalent curve

**DAC curve**

Can record 30 calibration points; Automatic Gain; any order calibration; calibration / edit two modified methods; consider the material attenuation and surface compensation factor; five adjustable gain curve to assess compliance with JIS and API Standards

**DGS curve**

large flat-bottomed, flat-bottomed hole, through-hole

## Standard

Main engine 1

Straight / angle probe 1

Probe line 1

Chargers 1

Battery 1

**Interface Gate**

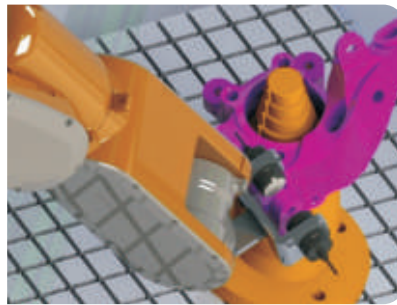
Intermediate medium for flooding situation testing

**Printer**

TP serial printer,print directly screen shots/waveform/ thickness of the three data report

**Large capacity battery**

More than 20 hours



# ULTRASONIC TESTING MACHINE

WE MAKE NDT EASIER



硕德检测®  
SOLID NDT

*Nondestructive testing expert*

[www.solidnde.com](http://www.solidnde.com)

# STANDARD C SCAN TANK



## Function



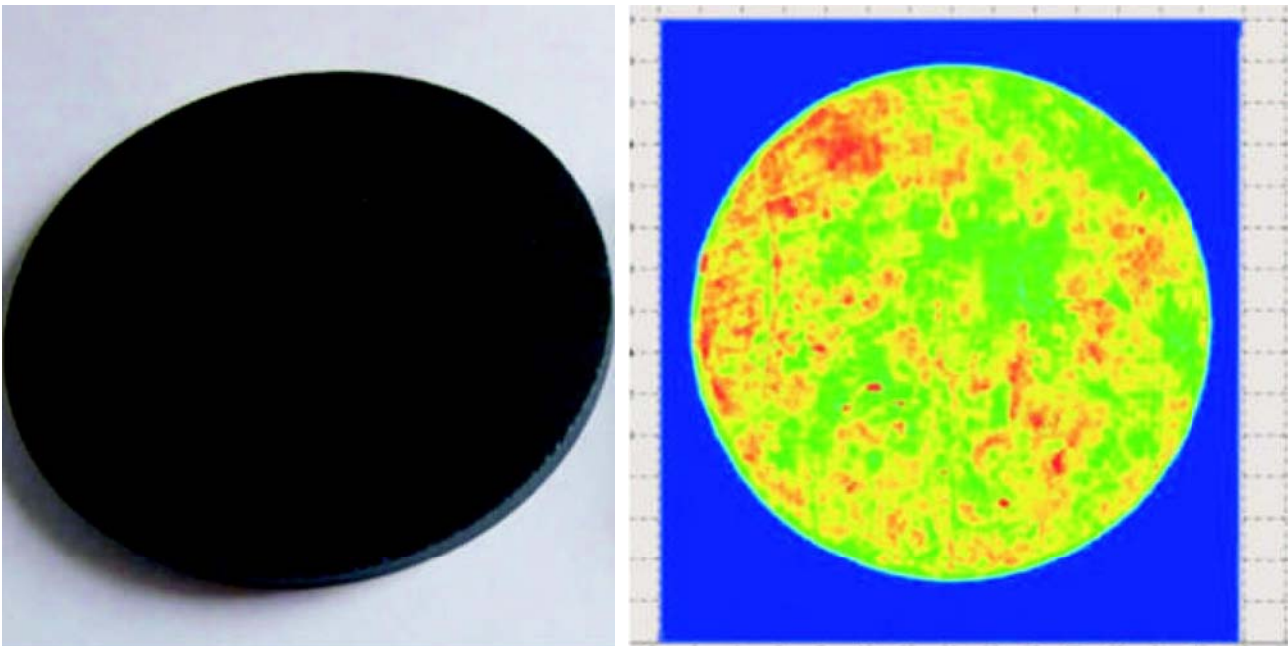
Standardized Ultrasonic C scan system is a standardized testing equipment. Based on the detection performance of a customized ultrasound C-scan system, combined with the needs of the user, a standardized ultrasound C-scan system was designed. The standardized design idea can greatly reduce the cost and delivery time of the product under the premise of the same configuration and the same testing effect. As a result of miniaturization, there is also a wider range of adaptation.

The equipment relies on the accumulation of customized R&D large-scale ultrasound C-scanning system, and adopts mature technologies to ensure the stability of the equipment. The standardized design concept enables the same configuration and the same detection effect. Greatly reduce the cost and delivery time of the product, and even realize the small-batch stock supply; The equipment is miniaturized, it is convenient to move and carry, and adapt to a variety of demand scenarios. Model

UTS-SCT 400 UTS-SCT 1000

## Feature

- C scan can detect workpiece intuitively and conveniently  
Against old system which high cost, long-term, non-standard customization. Now the standardized system can save cost and be used by testing institutions and research institutes conveniently;
- Relying on the customized R&D experience of large-scale ultrasound C-scanning equipment which ensure it has extremely high stability;
- Standardized production design ideas greatly reduce product delivery time;
- Miniaturization of equipment, easy to carry to each applicable scene, improve the adaptability of the equipment
- With the same performance, standardized equipment has an extremely high price advantage.
- The design idea of standardization and modulation is adopted, and the improved space is reserved for the later installation of tube target material detection.
- Achieve A, B, C scan three imaging methods, intuitive and convenient to understand the defect distribution
- Suitable for <0.4/1m plate/disc/ring detection, optional pipe/bar detection module



## Parameters

Name	Parameter
Inspection workpiece	Metal specimens and targets
Dimensions	1200×800×800mm
scanning speed	100 mm/s
scanning area	800×400mm
Scan limit protection	Mechanical limit switch
Probe frequency	15M Focusing probe
Weight	50 kg
Land wheel load	30×4 kg
Position control accuracy	Accuracy ± 1mm
Scanning imaging	A、 B、 C scan
voltage	220V

# C-SCAN SPIDER SYSTEM



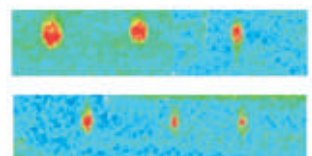
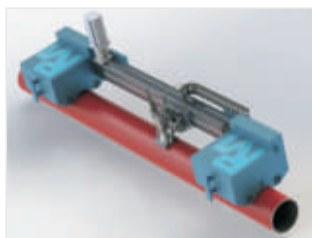
## Overview

The C-scan spider system is a high-speed, high-precision remote C-scan device for detecting the internal corrosion of self-propagating ceramic tubes. Its effective evaluation of the corrosion of petroleum pipelines supports efficient inspection plans, and its complete management process can ensure the safe and effective operation of oil pipelines.

The system automatically detects the tube within a 300-mm wide range, which has ability to perform in-service testing without damaging the pipeline or affecting normal transmission tasks; it's adapting to a wide range of pipe diameters, and the minimum pipe diameter of detecting is 70mm. Model UTS-PSC 300 UTS-PSC 500 UTS-PSC 1000



## Feature



- Apply to detect corrosion thinning , porosity, looseness, penetrating cracks, poor combination of ceramic layers in composite steel pipes in petroleum, natural gas, municipal water supply pipes/composite pipes, tanks, ships, and plates;
- The creeping robot body is close to the workpiece. 85mm space is enough for it to detect.
- Innovative use of magnetic adsorption wheel, and wheel body use neodymium iron boron magnet, so that the system can be operated in all surface directions;
- Remote automatic detection, which can reducing the error of manual operation;
- The system can be applied to scan various kinds of pipe , and the minimum pipe diameter is 70mm.

## Parameters

Content	Parameter
Detecting workpiece	Tubes, rods, plates and other ferromagnetic materials
Product size	720/920/1450x140x169mm
Stepping shaft speed	100 mm/s
Stepping shaft torque(single axis)	4.7 N.M
Scanning speed	200 mm/s
Scan shaft torque	0.7 N.M
Scan width	300/500/1000mm
Probe frequency	15M focusing probe( other optional probe)
Mini detection OD	70mm
Overall weight(without cable)	10kg
Position control accuracy	Accuracy + - 1mm
Scanning imaging	A、 C scan
Cable length	5m (customize 30m)



# MINI C SCANNER



## Description

Spot welding ultrasound scanning system is a kind of quick and efficient detection of modern auto spot welding quality of equipment, fool-style operation on the one hand to the detection of spot welding at the same time will also be able to determine its size, location, and distribution. On the other hand, there is a high level of miniaturization and automation. It can also be applied to high-speed rail car body spot welding, laser welding, Arplas welding, annular welding nuts, welding rivets, stamping rivets and so on.

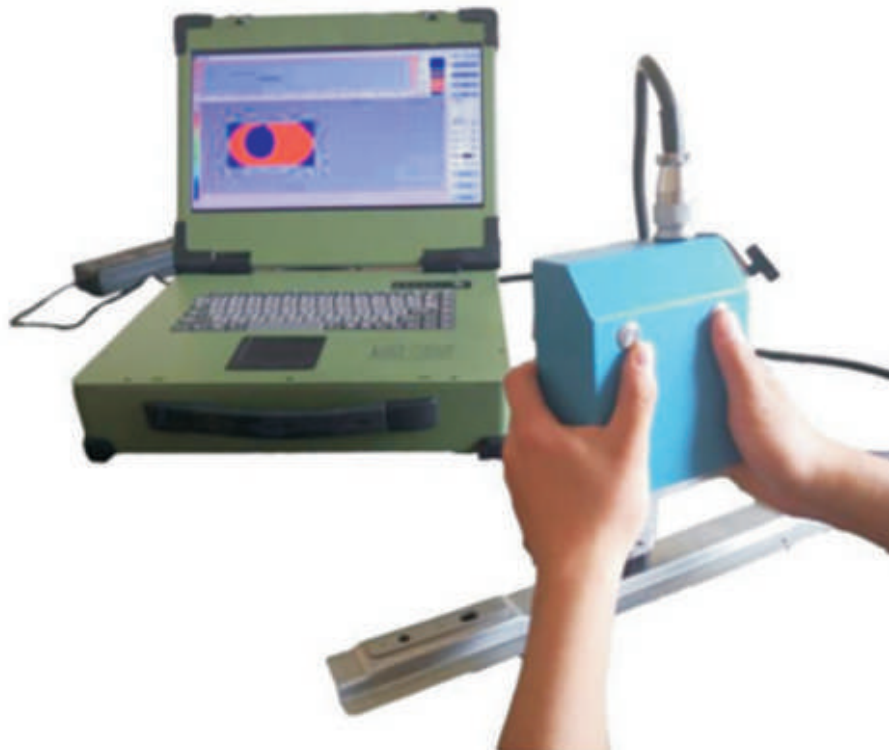
The inconvenient operation of the traditional large water immersion ultrasonic C-scanning system, and innovates the handheld detection equipment; It can be used for spot welding quick detection on site and measurement results can be obtained in 5 seconds, and the size and position of possible defects can be calibrated; One key operation can complete the test, which is easy and convenient, and also avoids the influence of manual operation detection on the test results.

## Function

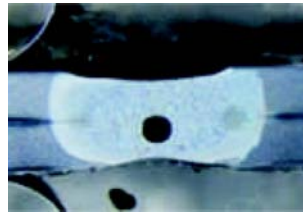
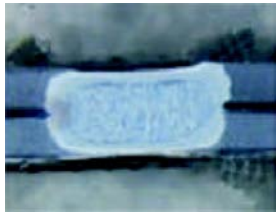
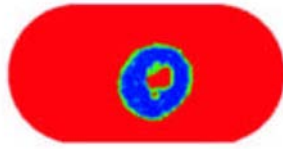
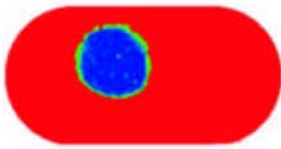
- C-scan two-dimensional imaging is intuitive and reliable which is easier to analyze and interpret than A-scan waveform;
- It can be used in field, not only in lab
- Using a small handheld portable ultrasound C scan design concept; 4. It can determine the size, position and distribution of spot welding while detecting spot welding.
- Fool-style operation, just press the button to automatically scan to complete the test;

Spot welding rapid detection, 5 seconds to get the measurement results;

It can detect weld nugget size, position, distribution status and indentation depth etc. which also can analyze joint materials layer by layer.



## Spot Welding Defect Comparison



VS



A scan wave



C scan image

More convenient  
More easy  
More reliable

### Parameters

Item	Parameter
Scanning area :	10 x 20 mm ;
Scanning resolution :	0.12 x 0.12 mm ;
Scanning time :	5秒。
Ultrasound probe :	Frequency 35 MHz , 25 mm focal length focusing probe ;
Sound focal diameter	+/- 0.1mm。
Operation environment :	
Operation temperature :	15°C -- 40°C ;
Recommend temperature :	15°C-- 35°C ;
Humility :	10% -- 90% 。

### Standard Configuration

Host	1 set
Host	1 set
Scanner head	1set
Probe	1 set (15MHz focusing probe inside)
Probe cable	2 cable
Power Adapter	1set
Li-battery	1 group ( Non-detachable )
Operation manual	1 book
ABS toolbox	1 case
Coupling paste	1 bottle



# BOLT ULTRASONIC STRESS TESTER



## Introduce

The height of wind turbine towers, steel bridges and buildings, roller coasters and other large devices is generally more than few tens of meters. For the working environment is extremely complex able and changeable. Therefore, the bolted joints are complex and difficult to handle, meanwhile the tower connection part becomes the most vulnerable place. It is also the direct cause of various accidents. Therefore, measuring the connecting bolts is obvious. Particularly important.

In the state of not dismantling, this system can provide rapid detection methods to determine the bolt stress. The device shall be small and easy to carry which also shall be easy for workers to carry on the fan to measure; The system designed by storage battery which can quickly measure the internal stress of the bolt, which can pre-emptively detect for possible problems.



## Feature

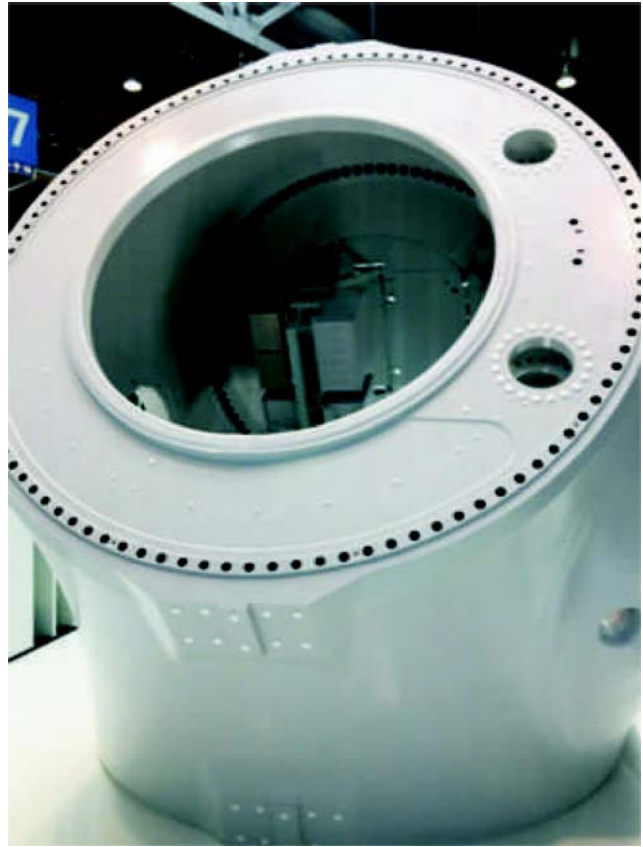
- The in-service bolt stress is measured under the condition of not dismantling;
- Widely used in wind power, steel bridges and buildings, roller coaster rides, cranes and other large facilities safety status assessment;
- The device is small and portable which can easily be carried to the top of the fan;
- Coupling paste can support portable measurement
- Highly automated operating platform can complete measurement immediately after fixed position
- Internal stress and defects of the bolt during the inspection can be measured simultaneously
- Use a variety of automatic adjustment devices to ensure that the probe is always perpendicular to the bolt.

### Solid(Beijing)Technology Co.,Ltd

Office: +86 010 56023046 Cell: +86 13717746555

Email: Sales@solidndt.com Sabrina@solidnde.com

Address: Building B, No.31 Wangfu Street, Changping District, Beijing 102200, China



## Parameters

Content	Parameter
Application range :	Diameter:M16-M30; Length:40-200 mm
Measurement accuracy :	10% , at least 10MPa
coupling method	coupling paste
inspection purpose	fan bolt stress inspection
inspection speed	30s/pcs
probe frequency	15M focusing probe
inspection method	Single probe coupling detection

# ULTRASONIC NODULARITY DETECTION SYSTEM



## Summary

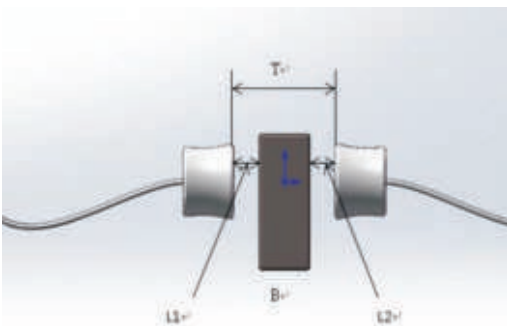
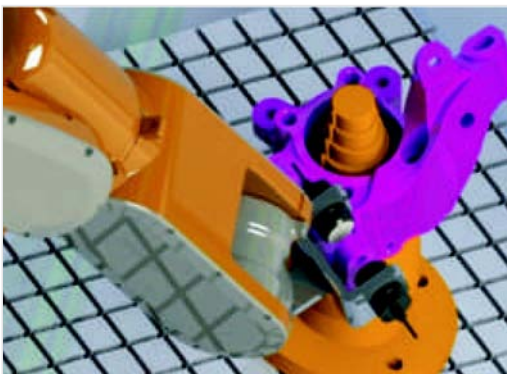
Our detection system opt water spray coupling detection. According to the relationship between ultrasound and nodularity, our system can automatically calculate the value & level for your nodular cast iron then output data in visual in your production line. As a result, the assessment is performed automatically on the production line.

With high efficiency in calculate auto steering knuckle, it connect to

PC & high-performance software so that our client can enjoy easy & simple & reliable usage experience. In the case of reference blocks, it also applies to measure vermiculite.



## Function

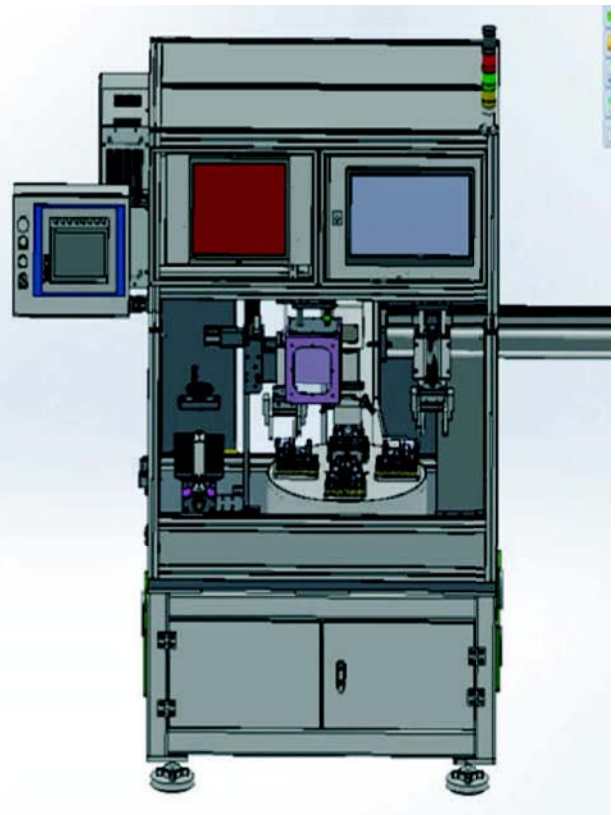
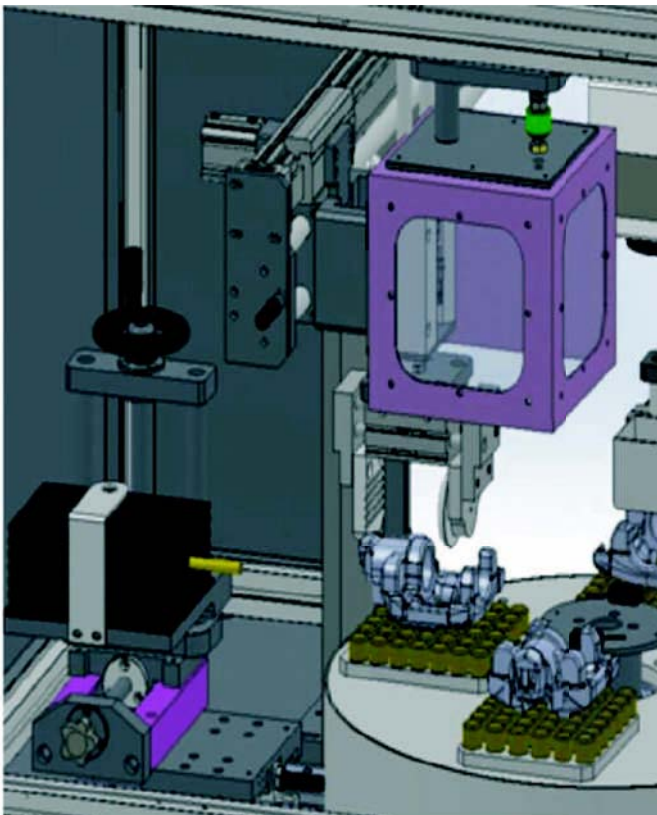


- Our company first clearly modified and standardized NDT methods in testing nodularity in China. And we get the patent for that from MOST.
- Many years of application in nodularity testing projects, especially in auto modules, it helps us build so broad audience;
- Integrated with ray and magnetic real-time imaging, our system can make inspection process more efficient, lower cost,
- Our patented algorithm is applied to evaluate the function between ultrasound and nodularity. You will see nodularity value directly.
- High-accuracy measurement circuit, revised by ultrasound characteristics of the material, we can keep 1% resolution within testing range;
- Mechanical drive and workpiece flatness have a serious impact on coupling and analysis during the inspection process. To avoid that, we adopt interface tracking technology to eliminate its influence.
- Adopt highly automated detection, without technical involved people, our system greatly improve detection efficiency and test synchronously with production line;



## Parameters

Item	Parameter
Operation Model	Pipeline automation
Coupling Method	Spray coupling
Testing target	Cast iron nodularity
Display method	Nodularity percent
Detection Speed	<10s/pcs
Conveyor running Speed	200mm/s
Probe frequency	15M focusing probe
Detection method	Dual probe coupling detection
Channels	1-8
Pulse voltage	200-1000V square wave
Sound speed	500-20000m/s
Gain	110dB,
Operating frequency range	0.2-15MHz





**Solid(Beijing)Technology Co.,Ltd**

Office:+86 010 56023046 MOB: +86 13717746555

Email:Sales@solidndt.com Sabrina@solidnde.com

Adress: Buliding B, No.31 Wangfu Street, Changping District, Beijing 102200, China