AJR NDT CO., LTD

AFD100 Digital Type Ultrasonic Flaw Detector

Introduction

AFD100 model portable ultrasonic flaw detector is an economical and practical UT testing machine. Based on ultrasonic principle, it can rapidly, easily and accurately inspect, locate, evaluate and diagnose various defects (crack, inclusion and pinhole, etc.) in a workpiece without destructing workpiece. It can be used in a lab or field. The instrument can be widely used in any fields that need defect inspection and quality controlling e.g. manufacturing industry, iron & steel metallurgical industry, metalworking, chemical industry, etc. This machine is also used broadly in the active safety inspection and service-life evaluation such as aerospace, railway transportation and boiler pressure vessels, etc. It is an essential instrument for non-destructive inspection industry.

Features

Automated calibration、Automated gain
DAC, AVG, TCG, B Scan, AWS
High-speed capture and very low noise
High contrast viewing of the waveform from bright
Powerful PC software and reports can be export to excel

Function

- Automated display precise flaw location(Depth d, level p, distance s, amplitude, sz dB, ϕ);
- Automated switch three staff gauge ((Depth d, level p, distance s);
- Automated calibration of transducer Zero-point, Angles, Front edge and material Velocity ;
- Convenient to make and use DAC \ TCG and AVG to evaluate the echo, the curve can be modified and compensated
- 6dB DAC functions;
- 500 independence setup, any criterion can be input freely, we can work in the scene without test block;
- Big memory of 500 A graph

Email: sale@ajr-ndt.com **Web: www.ajr-ndt.com**

- Automated gain and gain scan;
- Peak Hold and Peak Memory;
- B scan;
- AWS D1.1
- Automated make video of test process and play; use upan， the length of video is unlimited.
- Powerful pc software and reports can be export to excel;
- Lithium battery, continue working time up to 12 hours;
- The embeded software can be online updated;

Other assistant function

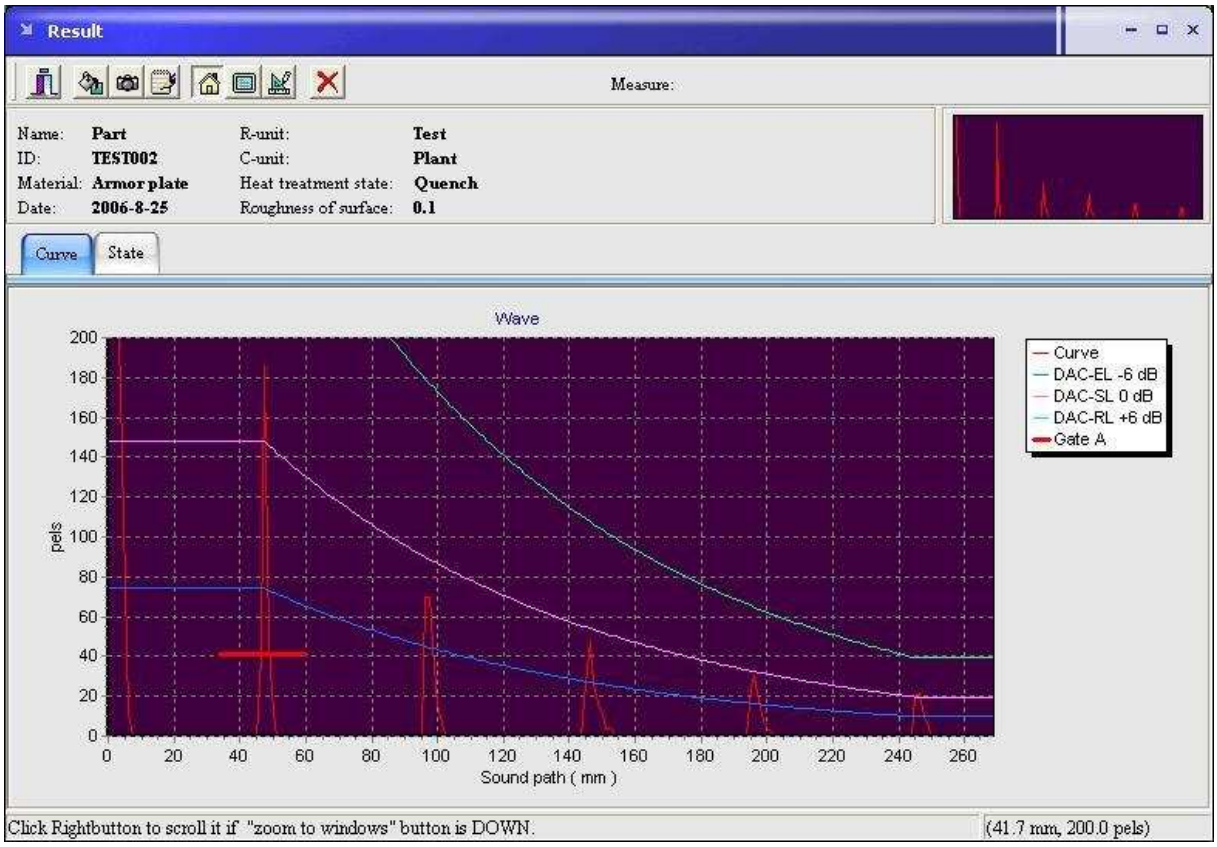
- Display freeze;
- Automated echo degree;
- Angles and K-value;
- Lock and unlock function of system parameters;
- Electronic clock calendar ;
- Two gates setting and alarm indication;
- Gate and DAC alarm;

Specifications

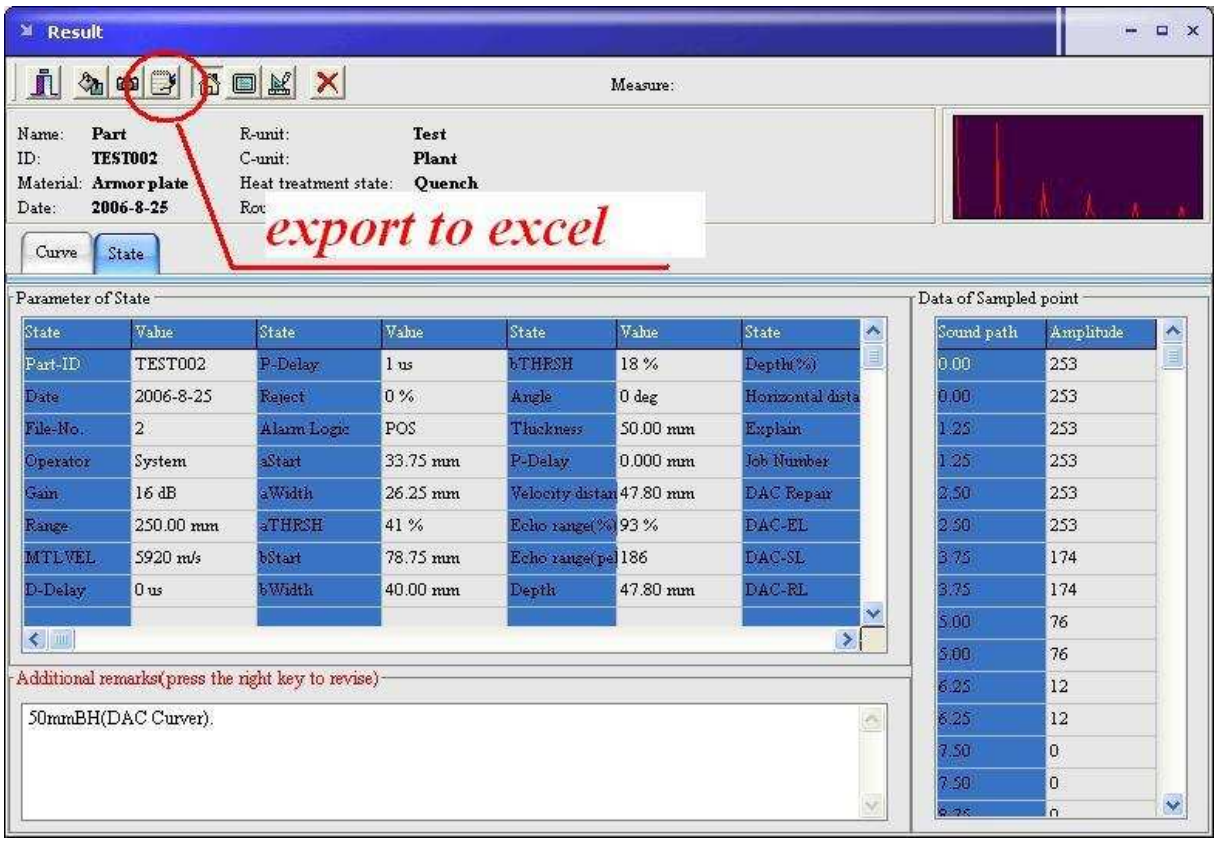
Measuring Range (mm)	0 - 6000
Channels	100
Frequency Range (MHz)	0.5 - 10
Material Velocity (m/s)	1000 - 16000
Vertical Linearity Error	≤3%
Horizontal Linearity Error	≤0.1%
Sensitivity Leavings	≥62dB
Dynamic range	≥32dB
Resolving Power	≥36dB
Gain (dB)	0 - 120
Measurement Mode	Single、Dual、Thru
Reject	0~80%
Pulse Displacement (μs)	-20 - +3400
Zero (μs)	0.0 - 99.99
Connector Type	BNC or Lemo 01
Operating Temperature （℃）	-20 - +50
H×W×D (mm)	240×156×48
Weight (kg)	1.0（with battery）




PC Software Analysis



Test Report in PC Software

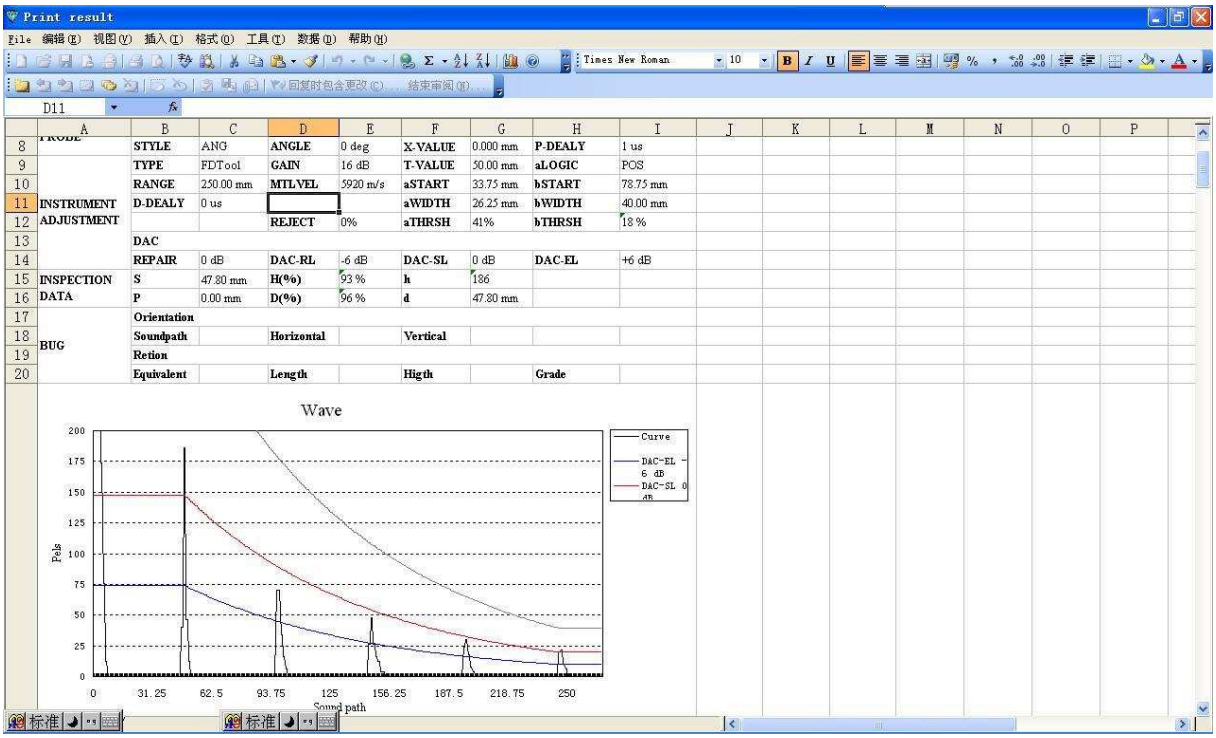


State	Value	State	Value	State	Value	State
Part-ID	TEST002	P-Delay	1 us	bTHRSH	18 %	Depth(%)
Date	2006-8-25	Reject	0 %	Angle	0 deg	Horizontal dista
File-No.	2	Alarm Logic	POS	Thickness	50.00 mm	Explain
Operator	System	aStart	33.75 mm	P-Delay	0.000 mm	Job Number
Gain	16 dB	aWidth	26.25 mm	Velocity distan	47.80 mm	DAC Repair
Range	250.00 mm	aTHRSH	41 %	Echo range(%)	93 %	DAC-EL
MTLVEL	5920 m/s	bStart	78.75 mm	Echo range(pel	186	DAC-SL
D-Delay	0 us	bWidth	40.00 mm	Depth	47.80 mm	DAC-RL

Sound path	Amplitude
0.00	253
0.00	253
1.25	253
1.25	253
2.50	253
2.50	253
3.75	174
3.75	174
5.00	76
5.00	76
6.25	12
6.25	12
7.50	0
7.50	0

AJR NDT CO., LTD

Test Report in EXCEL format after export from PC Software

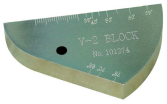


Standard Accessories:

No.	Item	Quantity
1	AFD100 Main Body	1
2	Straight Beam Probe	1
3	Angle Probe	1
4	Machine-probe Cable	2
5	Power Adapter (Charger)	1
6	Data Proceeding Software	1
7	USB Data Cable	1
8	Manual	1
9	Instrument Case	1
10	Guarantee Card	1
11	Packing List	1
12	Calibration Certificate	1

Optional Accessories:

V1 Block



V2 Block

Straight Probe

Angle Probe

TR / Dual / Twin Probe

Note: We can supply all kinds UT blocks and probes or transducers as customer requirement.

Email: sale@ajr-ndt.com **Web: www.ajr-ndt.com**