

# jaNaDeTect™ Technical Specifications

Application Scope	
Pipe Size Range	½" – 20"
Fitting Range	Electrofusion Socket & Saddle Fittings
Material	MDPE & HDPE (All generations)
Fitting Manufacturers	Frialen, Innogaz, GF Central Plastics, M.T. Deason, others upon request
Operating Temperature Range	-4 °F to 104 °F (-20 °C to 40 °C)

Performance Capabilities	
Pass/Fail Accuracy	96%
Void Sizing Accuracy	5% of fusion zone
Minimum Void Detection Size	1 mm*
Flaw Detection	· Non-Fused
	· Incomplete Fusion
	· Voids (various causes including moisture, hydrocarbon permeation, etc.)
	· Contamination (e.g., oil, dirt, mud)
	· Under-Insertion
	· Movement Before Cooldown
	· Misalignment
	· Over- or Under- Scraping
· Pipe Ovality	

jaNaDeTect™ Software	
Auto Configuration	Automated Setup upon Joint Selection
Automated Decision Making	Flaw Detection – Voids & Anomalies, Pass/Fail of Joint
Data Capture	Full Traceability
Report	Automated PDF Output
Customizable Fields	Yes

Equipment List	
jaNaDeTect™ UT-Cable	Instrumented Ultrasonic Cable with USB2/Female BNC connectors
jaNaDeTect™ Calibration Block	HDPE Staircase Block - Side Drilled
Ultrasonic Probe	2.25 MHz in 0.25", 0.375" and 0.5" Sizes
Probe Cable adapter	Female BNC to Male Microdot – 1'
Infrared Thermometer	-30 to 300 °C (-22 to 572 °F) Temp Range
UT Coupling Agent	Ultrasound Gel- Clear- 5L
Portable Coupling Containers	2 Empty Bottles, 257mL Capacity Each
Marker	Sharpie® Fine Tip, 3 Black and 3 Silver
Flexible Measuring Tape Set	1/2" - 12" Coupling Grid Measuring Tape Set
jaNaDeTect™ Carry Bag	Length: 11" (28 cm) Width: 5.5" (14 cm) Height: 8" (20 cm) Weight: 2.5 lbs. (1.1 kg)

Minimum Computer Requirements	
Model	Laptop/Tablet (ruggedized recommended)
Operating System	Windows 7 or Higher, 64 bit
Processor/CPU	Intel Pentium (1.6 GHz, Dual Core) or Equivalent
Graphics/GPU	Integrated Graphics
Display	Min. 1024 x 768 (touchscreen recommended)
Memory	4 GB
Storage	32 GB HDD
USB	USB 2.0 or Higher
Battery	Required for Field Mobility
Networking	None Required

Hardware Capabilities	
Non-Destructive Method	Single Transducer Ultrasound
Ultrasonic Method	Pulse-Echo Straight-Beam Contact
Scan Type	A-Scan
Working Environment	Ruggedized for Field Environment
Hardware Connection	USB
Transducer Connection	Microdot
Transducer Frequency Range	1-10MHz
Transducer Size Range	1/8" – 0.75"

\*Determined using a 2 IPS HDPE joint on MDPE pipe and 0.25", 2.25MHz transducer

\*\*Detection limits dependent on severity of flaw, size of joint and transducer used