



MATVEL

UT NODULARITY CONTROL

The MatVel is an inspection UT system up to 8 channel state of the art digital ultrasonic **nodularity control system** for industrial applications in the cast iron industry; **uniquely offering dry coupled ultrasonic measurement capability.**

The system is suitable for manual or in-line spot testing of components of known thickness. This is achieved by using a customised transducer and delay line.

The MatVel combines all the functionality of an outstanding flaw detector together with specific add-ons customised for the application. The system can therefore meet the requirements for any set up, with live A-scan signal presentation and direct reading of acoustic velocity.

I/O signals allow integration into a variety of in-line systems for automatic control through choice of different communication technologies.

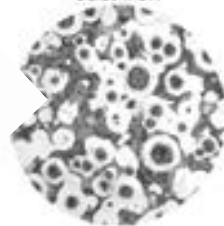


ADVANTAGES

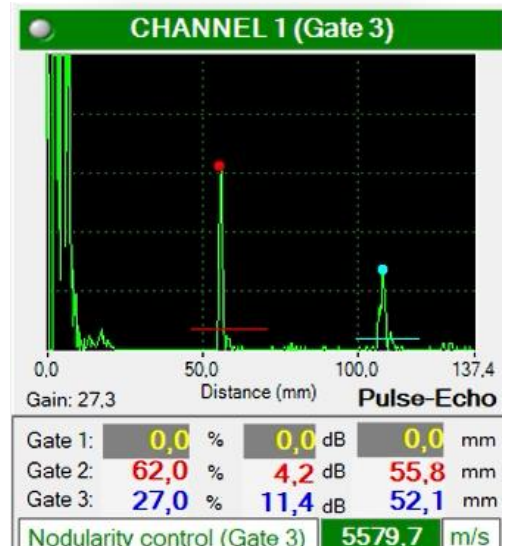
- Dry-coupled transducer avoids couplant/oil contamination of part.
- Direct read out of velocity, thickness and defects
- User programmable thresholds for acceptance criteria
- Customizable software with database for production reports
- Easily integrated in production lines for automatic nodularity control



Ductile (nodular) cast iron



Grey cast iron





STANDARD KIT

- UT Box with up to 8 channels.
- Communication Box for 24V I/O
- Set of 1-8 probes of different frequencies
- Dry coupling delay membranes kit of 10 units per probe.
- Optional balls for small thickness.
- Software license, for automated control acquisition and reporting, integrated on a Industrial Fanless PC
- Options:
- Immersion kit with probes in transmisión.
- Full inline integration by Tecnitest



US Technical Characteristics

Measurement Mode	Pulse Echo/Transmission
Channel Number	1 to 8
Channel mode	Sequential (Multiplexed)
PRF	20kHz divided by the number of active channels
Work Frequency	1 MHz to 20 MHz
Gain	0dB to 80dB (0.1dB step)

Automation Technical Characteristics Standard

Communication Type	5V/24V Inputs and Outputs
Inputs	1 per channel for taking the measure
Output	1 per channel for good or bad part 1 per channel for doubt part (Optional)
Automatic charge calibration with PLC	Binary codification with numbers.

Optional: Ethernet Automation Technical Characteristics

Communication Type	Ethernet.
PLC type	PLC Siemens, PLC with OPC-UA server, etc
Inputs	1 per channel for taking the measure
Outputs	1 per channel for good or bad part 1 per channel for doubt part (Optional)
Automatic charge calibration with PLC	Unlimited. Charge name with PLC connection.
Options	Different possibilities for customized automation.



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