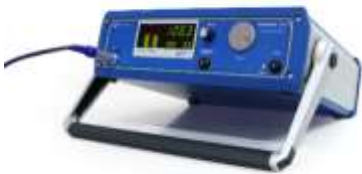




	<p>The StressTech RollScan Barkhausen noise signal analyzer instruments are designed for surface quality control and testing of near-surface defects such as grinding burns, heat treatment defects, as well as changes in stress and microstructure in a wide variety of ferritic steel and other ferromagnetic materials.</p> <p><i>Avoid failures, find cracks before they become cracks</i></p>
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ROLLSCAN 250	ROLLSCAN 350	ROLLSCAN 320
		
<p>Rollscan 250 is a full-featured, self-contained unit which is portable for on-site measurements while also providing advanced capabilities for in-line and laboratory use.</p> <ul style="list-style-type: none"> • LED display with sensor feedback for real-time measurement diagnostics • 2 measurement channels. • Robust design 	<p>Rollscan 350 is a full-featured, self-contained unit which is portable for on-site measurements while also providing advanced capabilities for in-line and laboratory use.</p> <ul style="list-style-type: none"> • Measurement parameters adjustable via graphic user interface and front panel controls – No PC necessary • Oscilloscope display with sensor feedback for real-time measurement diagnostics. User interface in several languages 	<p>Rollscan 320 is a compact unit with low power consumption. It is designed for deployment in automated systems and production environments.</p> <ul style="list-style-type: none"> • A DIN rail mount attached to the backside of the unit. Can be placed in electric cabinet • 2 measurement channels, with 8 parallel analyzers up to 16 channels



Standard Features	Standard Features	Standard Features
<ul style="list-style-type: none"> • LED bar graph for measurement value visualization setup pages for: <ul style="list-style-type: none"> ○ Magnetization settings ○ Measurement settings ○ Communication settings ○ Miscellaneous functions • Two measurement channels • Magnetizing frequencies ranges: <ul style="list-style-type: none"> ○ Sine wave 1–1000 Hz ○ Triangle wave 1–150 Hz • Analyzing filter ranges: <ul style="list-style-type: none"> ○ 70–200 kHz • Connector for auxiliary devices • Rollscan250 accessory cable set 	<ul style="list-style-type: none"> • Control panel with six function keys for selecting windows and functions • Control wheel with a push button for adjusting different parameter values • Setup pages for: <ul style="list-style-type: none"> ○ Magnetization settings ○ Measurement settings ○ Communication settings ○ Miscellaneous functions ○ Diagnostics • Automatic magnetizing voltage and frequency sweeps to find optimal measurement parameters • Single measurement channel • Magnetizing frequencies ranges: <ul style="list-style-type: none"> ○ Sine wave 1–1000 Hz ○ Triangle wave 1–150 Hz • Analyzing filter ranges: <ul style="list-style-type: none"> ○ 10–70 kHz ○ 70–200 kHz ○ 200–450 kHz 	<ul style="list-style-type: none"> • Four functional led lights on the front panel: <ul style="list-style-type: none"> ○ Power on/off ○ Measurement on/off ○ LAN connection on/off ○ Error • Two measurement channels • Magnetizing frequencies ranges: <ul style="list-style-type: none"> ○ Sine wave 1–1000 Hz ○ Triangle wave 1–150 Hz • Analyzing filter ranges: <ul style="list-style-type: none"> ○ 70–200 kHz • Connector for auxiliary devices

Barkhausen Noise Analysis

Barkhausen noise analysis is a non-destructive method involving the measurement of a noise like signal induced in a ferromagnetic material by an applied magnetic field.

There are two main material characteristics that will directly affect the intensity of the Barkhausen noise signal: hardness and stress.



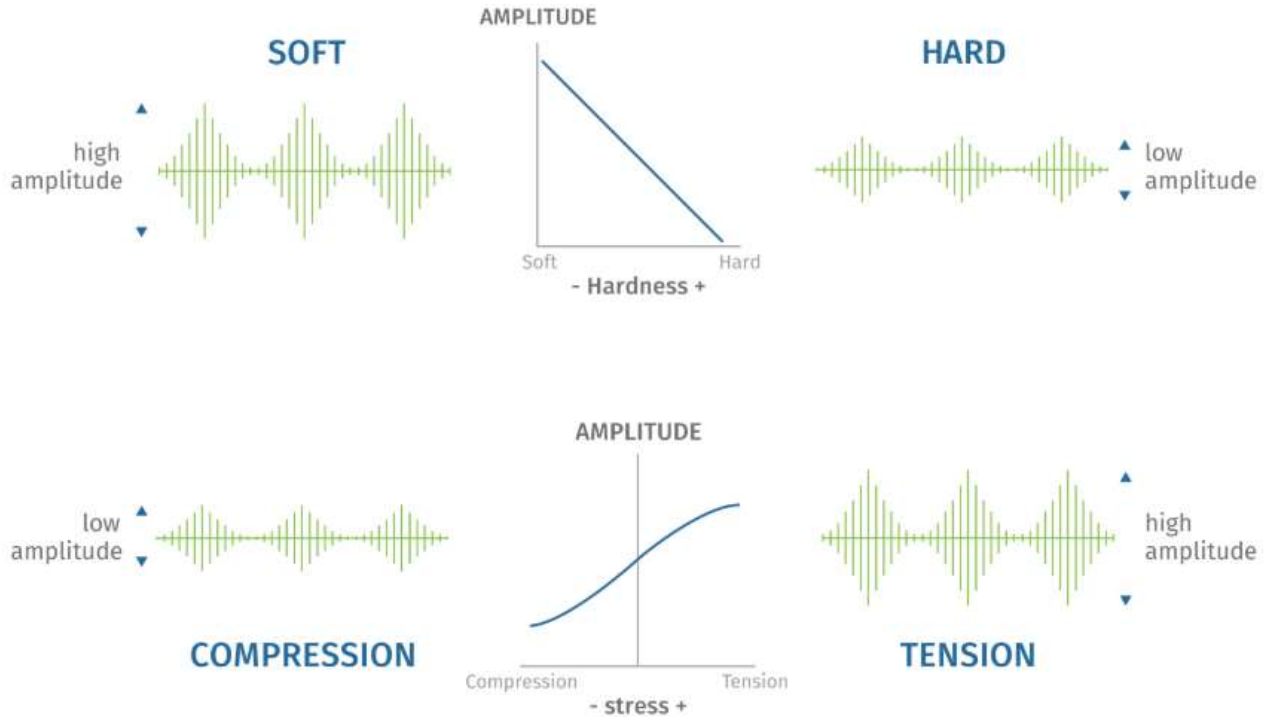
BARKHAUSEN NOISE ANALYSIS (BNA)

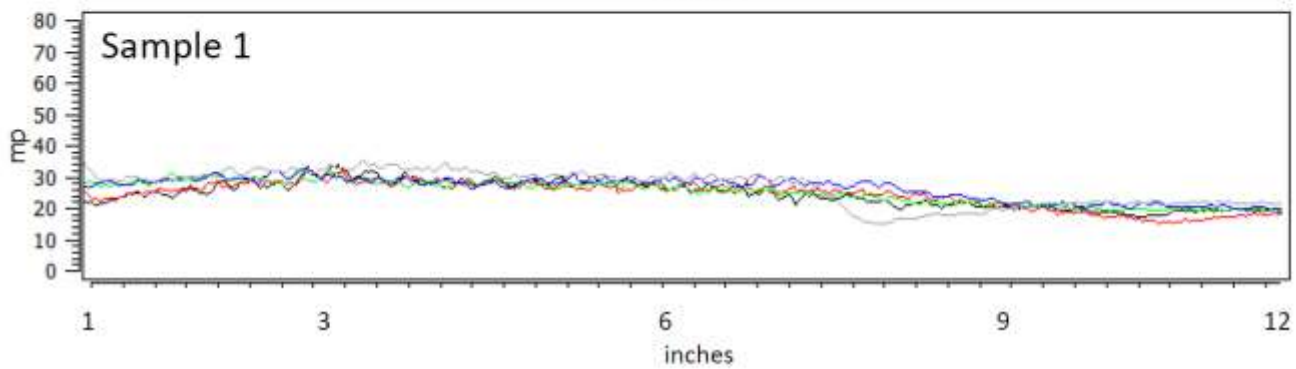
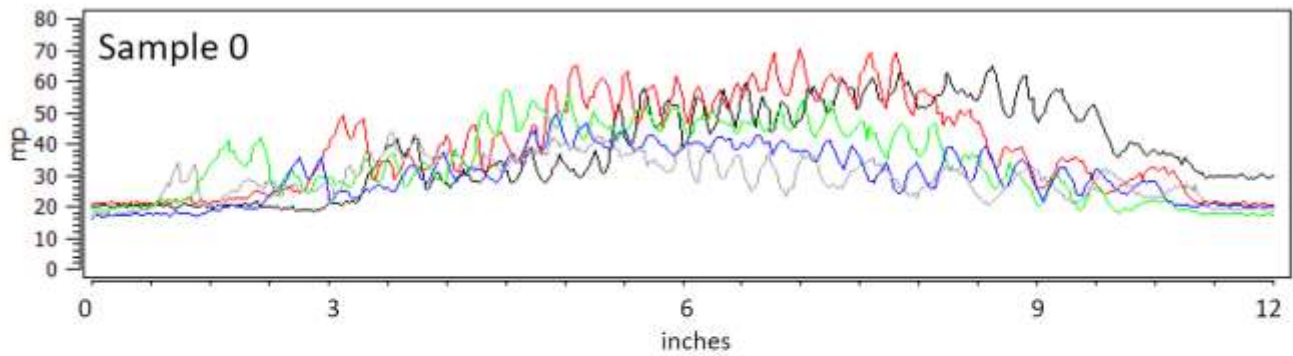
Barkhausen noise analysis (BNA) also referred to as the micromagnetic method is based on a concept of inductive measurement of a noise-like signal, generated when a magnetic field is applied to a ferromagnetic sample.

The nature of Barkhausen noise was explained already in 1919 by Prof. Heinrich Barkhausen. However, the method drew the attention for industrial applications in the beginning of 1980s by Dr. Seppo Tiitto and Dr. Kirsti Tiitto who are also the founder of Stresstech. Today, it is a recognized non-destructive method for materials characterization and heat treatment defect testing.



Barkhausen Noise Analysis





Shaft sample with and without grinder burn damage