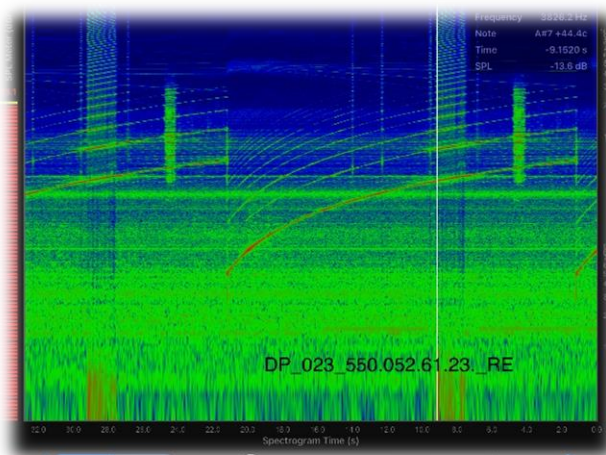


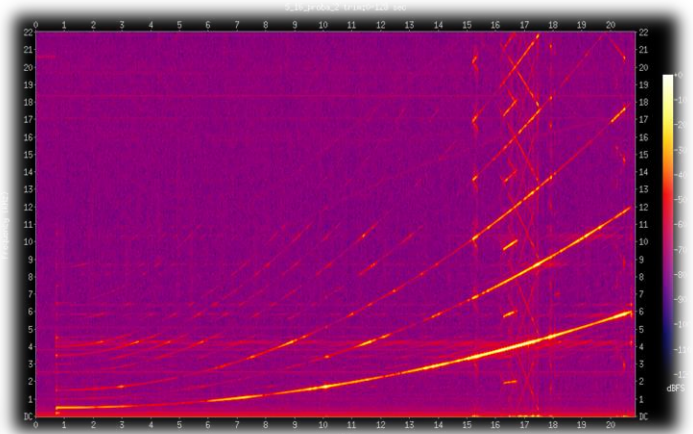
SHAKETT

diagnostics and vibratory stress relief

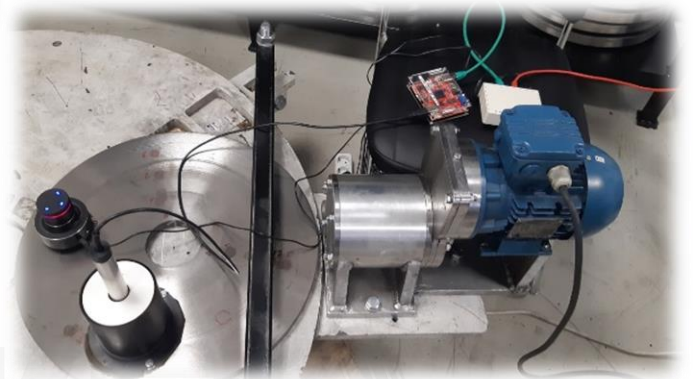
**FOR HIGH QUALITY
WORKPIECES WITH A LOW
LEVEL RESIDUAL STRESS**



**DIAGNOSTICS TO
DETERMINE TREATMENT TIME
AND EFFECTIVENESS**



**RESIDUAL STRESS RELIEF
FOR SMALL WORKPIECES (FEW
KILOGRAMS) TO LARGE METAL
STRUCTURES (SEVERAL
TONNES)**

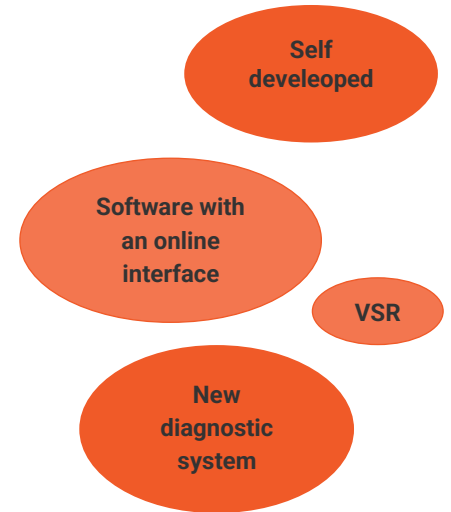


What is SHAKETT?

SHAKETT is a brand name created by T.E.T.T Engineering Ltd. which includes VSR (Vibration Stress Relief) equipment and software invented by the company.

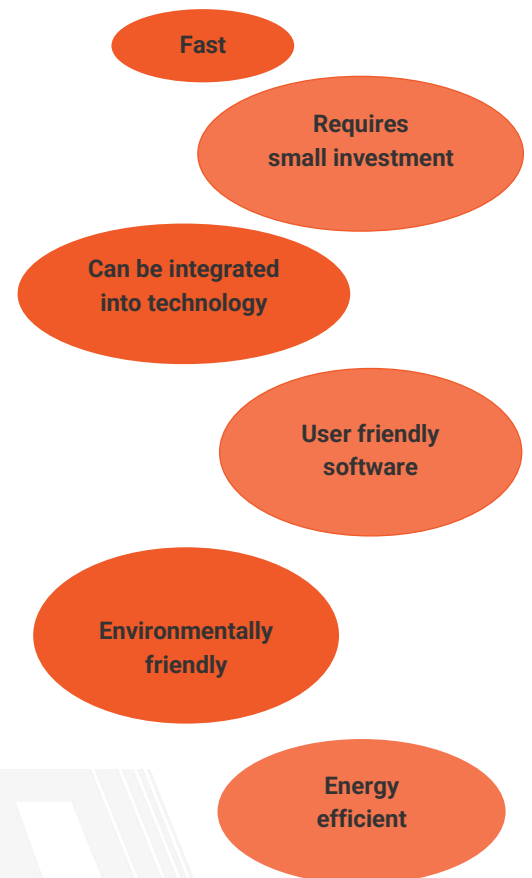
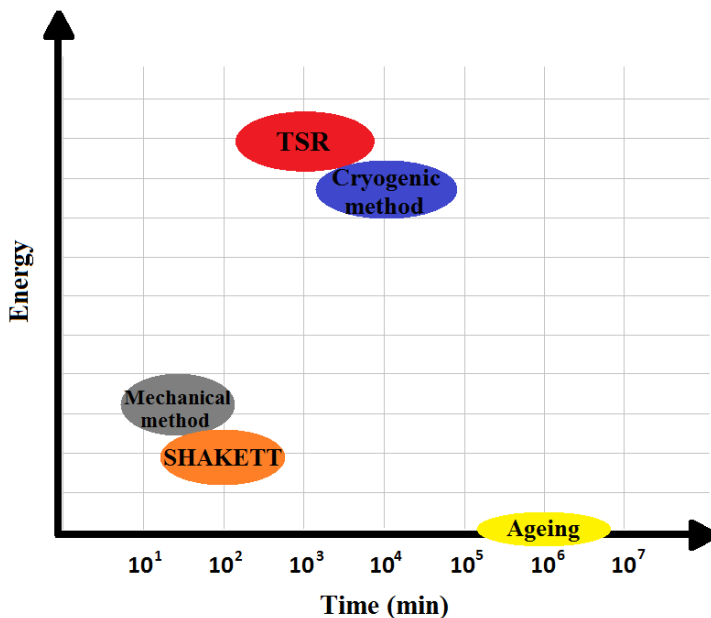
SHAKETT can be divided to two main units, diagnostic and treatment which can be used separately and can be completely automated with the help of the software.

With the diagnostics it can be determined whether residual stress in the workpiece causes deformation, thereby providing an estimate of the value of residual stress.



What are the advantages of SHAKETT?

Facing current industry challenges such as rising energy, raw material prices, tight deadlines, environmental pollution and recycling, every industrial member has to abreast of these challenges.



It is evident, that with using SHAKETT, a significant amount of energy and time can be saved with relatively low investment costs. Each unit of SHAKETT is easily integrable into technology and transportable.

Is VSR effective enough?

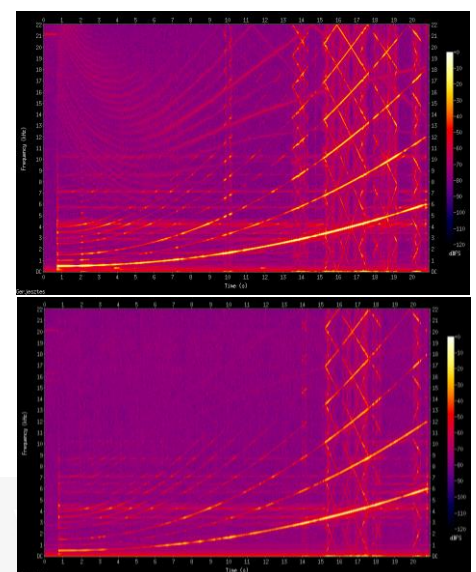
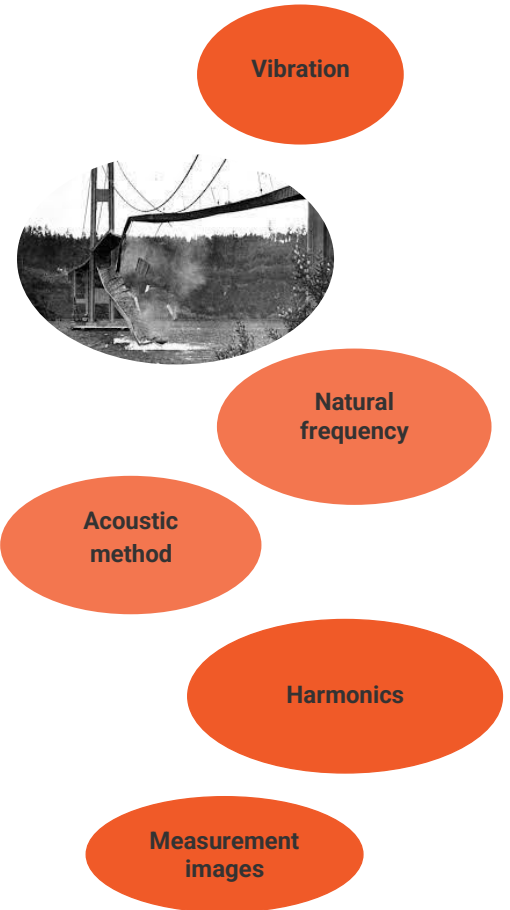
The energy conveyed through vibratory stress relief can be varied across wide ranges, allowing for excellent results after determining specific parameters with vibration. Thermal stress relief is a widely accepted method where energy transfer is achieved in the form of heat. In the case of VSR, this energy is introduced into the system in the form of vibration.

Throughout history, various resonance disasters are known, such as bridges collapsing due to vibrations matching the natural frequency of the bridge. One fundamental principle of our applied VSR procedure is to induce vibration in the frequency range close to the natural frequency, exerting a suitable effect on the workpiece.

How does the equipment work?

Traditionally, sensors such as accelerometers or dynamic strain gauges are used to determine the natural frequency. The technical advancement in computer science has allowed for the replacement of these sensors with an acoustic diagnostic system and its corresponding software, developed and implemented by T.E.T.T Engineering Ltd.

For diagnostics, preliminary data collection is necessary for each piece with different mass, geometry and material quality. This helps infer the magnitude of residual stress and most importantly the extent of deformation in each workpiece. The VRS treatment is adjusted to the natural frequency determined based on diagnostics and the treatment frequency is automatically determined by the software. The input frequencies of vibration are building up, so it may be sufficient to treat a workpiece with a lower frequency than its natural frequency. The stress relief procedure is considered successful and complete when the frequency peaks observed in the diagnostic measurement align with the expected quality, previously defined.



What type of parts can be used for?

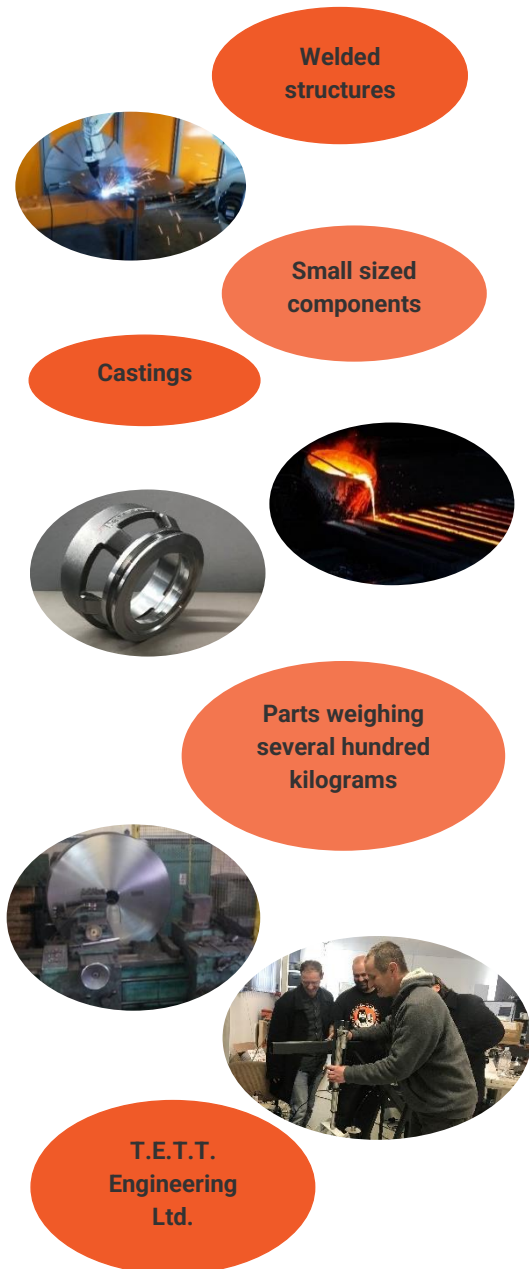
SHAKETT is suitable for measuring and treating both castings and welded structures, ranging from small pieces weighing a few kilograms to several hundred kilograms or even ton-sized components. The effectiveness is influenced by geometry, material quality and the entire manufacturing process, so knowledge of these factors is necessary in each case.

About us

T.E.T.T Engineering Ltd. started its operation in 1996 and in 2007 we expanded our activities to include machine and metal parts manufacturing at our site in Baja.

What we believe in:

- **KNOW-HOW:** Training, education and development of our employees
- **QUALITY:** Providing modern equipment and tools for efficient work
- **FLEXIBILITY:** Departments and workstations adapted to the needs of the market
- **INFRASTRUCTURE:** Provide suitable technical and comfortable facilities (production halls, laboratories, offices)
- **ENVIRONMENT:** Avoid of polluting activities
- **RESPONSIBILITY:** Use alternative energy



If you are interested or you have any question, please feel free to contact us for further information using any of the following contact details or visit our websites:

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