

Kontinuum 3DTechnology – innovative manufacturing technology for production of electric power measurement equipment for various applications.

Project description

We are creating a new generation of manufacturing technology for the electric power equipment production, including voltage and current instrument transformers.

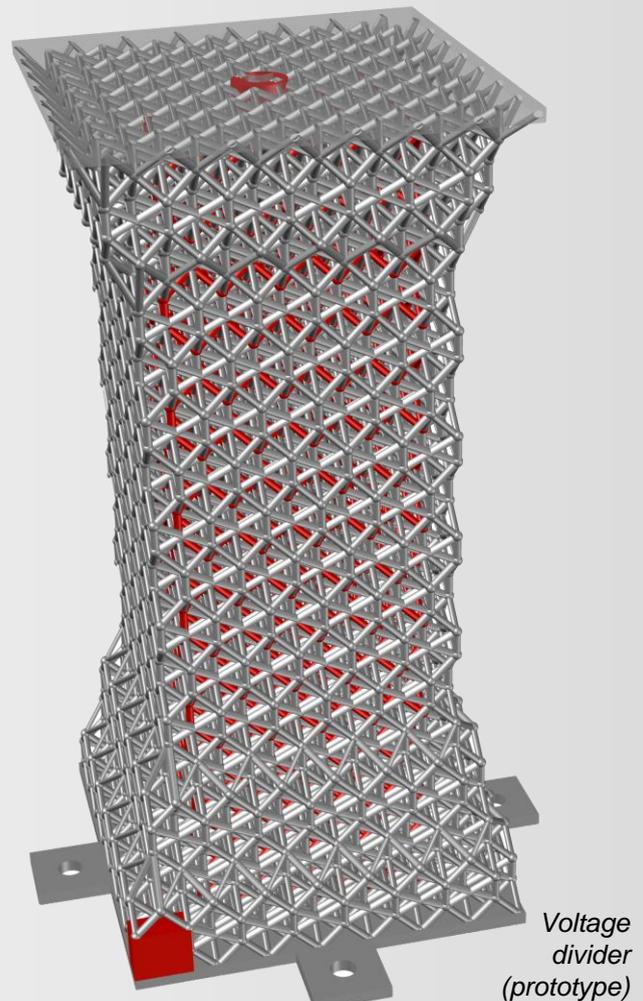
We suggest manufacturing power equipment using unified 3D printing technology. It invokes different types of conductive and insulating materials in the 3D printing process.

Existing technology requires complex and numerous equipment, rare materials (e.g. precious metals, which price is continuously rising), various specialists, expensive machine or hand labor. Our technology allows to create small and medium scale “on-demand” manufacturing. It does not require much capital investment and can easily be re-oriented for production of another equipment types. It can be used for on-site production to eliminate the transport costs. In general it is expected to reduce the prime cost for about 15-20%.

The technology provides rapid access to manufacturing of new line of products or customized products with special characteristics. A large field of applications for this technology is production of current and voltage instrument transformers .

Main effects for end user

1. For power company which uses the technology - minimize stocks of the reserve parts, add the ability for rapid on-site production, vendor independence.
2. For manufacturer of equipment - minimization the stock, the ability to make individual/specific orders, simplification of production (no assembly operations), unified equipment and materials for manufacture various types of products.

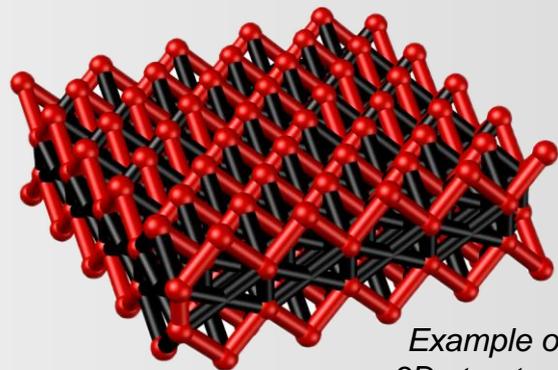


KEY BENEFITS

- ❑ Low prime cost of manufacturing, even for small scale production.
- ❑ Unique technical characteristics: weight, durability, accuracy, reliability, fault tolerance, heat dissipation and etc.
- ❑ Fine and rapid tuning according to customer's demands.
- ❑ Allows "on-demand" emergency manufacturing (for example on sites of application - electrical substations, oil platforms, ships, etc.).
- ❑ Modern design and usage of innovative 3d printing methods.

Complex Layered Structure

New 3D structures for instrument transformers are designed to improve target accuracy, reliability, fault-tolerance, durability and vibration resistance. We have developed the special topology of the conducting layers to compensate for the parasitic inductive currents.



Example of new 3D structure

Project status

We are working on the improvement of technology, materials, new structures and fields of application. We have investigated the available third-party technology, identified its limitations and capabilities, and protected our intellectual property. Our main focus are the solutions for manufacturing of the instrument transformers. We have fully formed the project team which can successfully finalize and carry out the project up to commercialization stage.

ABOUT US

EC Continuum is working on Scientific and Research & Advanced Development projects in electronics for power and telecommunications fields.

Our experts possess the essential experience and qualification to execute complicated research works, while meeting the prescribed time and providing the highest quality results.

Main fields of activity:

- ❑ **Smart Grid** solutions;
- ❑ **Innovative** hardware design;
- ❑ **Novel** electronic devices development;
- ❑ **Specialized** embedded software development.