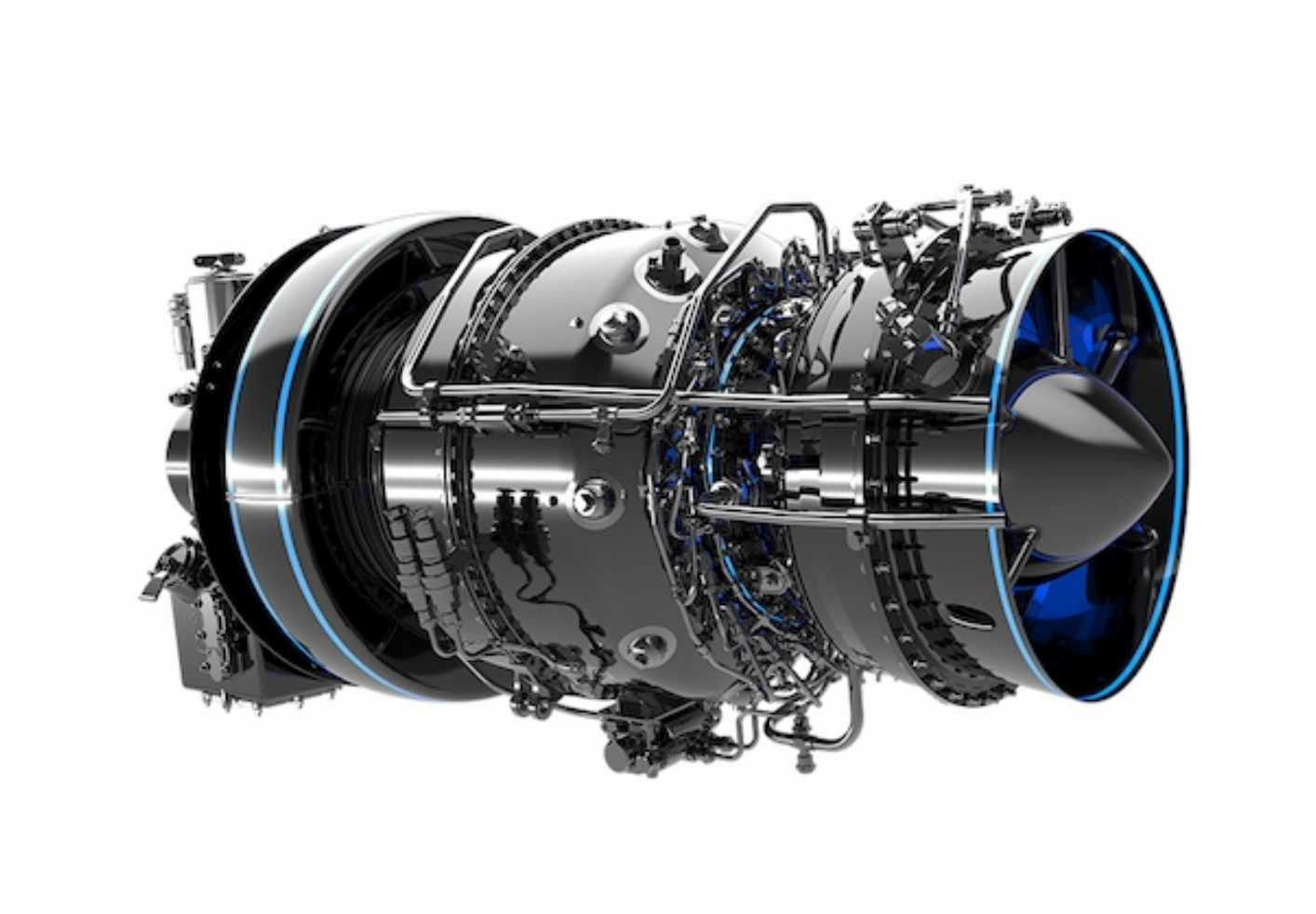
UEC CREATES FIRST RUSSIAN HELICOPTER ENGINE DESIGNED COMPLETELY IN 3D

News / Manufacturer



United Engine Corporation of Rostec has created a new helicopter engine design, designated VK-1600V, completely using 3D modeling software for the first time in Russian history. All design documentation for the engine demonstrator created at UEC-Klimov has been released in electronic form.

3D models provide significant advantages: they are easy to read and can be used to create models with annotations as design documentation and full review of all adjacent nodes.

“VK-1600V is the first engine in Russian history that was designed without any paper drawings. All work is carried out in digital format, which allows to simultaneously observe all necessary contextual design data. Working with 3D models allows to design the engine directly ‘inside’ the helicopter and easily control the layout of objects both in the power plant itself and in the housing nacelle,” said the Deputy Chief Designer of VK-1600 at UEC-Klimov, Anton Kolosov.

When creating the VK-1600V demonstrator, up to 70% of the casting will be replaced with parts created using 3D printing. Additive technology will be also used to manufacture

© 2015-2016 50SKYSHADES.COM | Reproduction, copying, or redistribution for commercial purposes is prohibited.

elements in the ‘hot’ part of the power plant.

As announced earlier, demonstrator of the VK-1600V engine will be completed during Q3 2021. Initial tests of the demonstrator will concentrate on confirming the characteristics stated in design requirement specifications. Issue of type certificate is planned in 2023, and launch of mass production in 2024.

The new engine is designed for installation on multipurpose Ka-62 helicopters with 5-8 tons of takeoff weight. The power output of the VK-1600V in takeoff mode is 1,400 hp. The engine will be operated together with a modern automatic regulation and control unit BARK-15V, also developed by JSC UEC-Klimov.

31 MAY 2021

ARTICLE LINK:
https://ut.50skyshades.com/news/manufacturer/uec-creates-first-russian-helicopter-engine-designed-completely-in-3d

© 2015-2026 50SKYSHADES.COM — Reproduction, copying, or redistribution for commercial purposes is prohibited.