

VAYU

VI/2020

Aerospace & Defence Review



The Maritime Muscle

Project 75 India

Third aircraft carrier

Flying the MiG-35

Year of the Heron TP

Fulcrum of the Karakoram



PBS INDIA: Solutions for Aerospace

PBS INDIA, is an Indian company and designer and manufacturer of aircraft engines, auxiliary power units (APU), environmental control systems (ECS), specific custom-made aircraft solutions, cryogenics and investment casting products. PBS INDIA is part of the PBS GROUP, a Czech engineering manufacturer that operates globally in aerospace, precision casting, precision engineering, cryogenics and energy. With more than 200 years of history, this is arguably one of the oldest engineering brands in the world.

The ability to design, construct, manufacture and test an entire product is a significant competitive advantage, as is the ability to adapt products to specific customer requirements. Thanks to in-house production, the highest quality and reliability of its products is guaranteed. PBS is a certified company and holder of design authorisation (DOA), manufacturing

authorisation (POA) and maintenance authorisation (MOA) issued by the European Union Aviation Safety Agency (EASA). The PBS quality management system is ISO 9001, AS 9100, ISO 14001 and is Nadcap certified.

PBS has been developing and supplying small turbine drive units for the aerospace industry for half a century, the company celebrating the 20th anniversary of cooperation with manufacturers of MIL

Learn more about our products and solutions on www.pbsindia.com and come to visit us in our Bengaluru office (No. 303, 'Pushpak, MES Ring Road, Jahallli Village). We will be pleased to meet you at our booth at **Aero India 2021** exhibition to discuss our products and services for aerospace.

helicopters. PBS essentially supplies the Safir 5K/G MI auxiliary power unit (APU), for the main engines of a significant number of Mi-17 helicopters. PBS continually works on modifications of existing products, but the company also develops other devices for new types of helicopters as well as jet aircraft and UAVs.

20 years of cooperation with MIL

Over the decades, PBS has been involved with thousands of APUs and last year celebrated the 20th anniversary of cooperation with the manufacturers of MIL helicopters for which it developed the Safir 5K/G MI APU, designed for Russian Mi-8, Mi-17 and Mi-171 helicopters, which are considered as the most successful helicopters in the world in terms of both numbers sold and the number of countries in which they operate. Mi-17s have operated in more than 60 countries, including with the Indian Air Force.

Products for helicopters and jet aircraft

PBS APUs are especially suitable for civil and military helicopters, training and light combat aircraft and business jets. Applications in ground military forces or marine applications are also feasible, incorporated in several types of helicopters, but also in training and combat aircraft. PBS is currently following up on previous cooperation with the development



PBS is a specialised manufacturer of castings made of superalloys based on nickel and cobalt for the power engineering, aerospace, marine, healthcare and transport industries worldwide

and supply of several systems for new generation of this aircraft, for example the Czech L-39NG, L-159 and others. This includes the environmental control system, some fuel system instruments, the EMG-200 starter generator and other devices.

Turbine engines

PBS is a well-known supplier of turbojet engines, their high quality and reliability reflected in the fact that they are installed in over 1,300 aircraft worldwide. With certification from European Aviation Safety Agency (EASA) their quality makes them distinct in their category. The main advantage of PBS India's turbojet engines is their reliability and weight-to-thrust ratio and these engines are suitable for use in UAV and UCAS projects. The worldwide recognised turbojet engine PBS TJ100, is of the 4th generation and PBS India supplies of these engines in India.

Development and innovations

PBS continuously invests in development and has high-quality technical support and development plus testing capacities available. Latest addition to the PBS turbojet engine family is the TJ100P, an oil-free version of the well known PBS TJ100 engine. The company continually extends the time limits of overhauls for the Safrir 5K/G MI, thus increasing its competitiveness. The company has also developed the relatively new EMG-200 starter generator for the Ansat

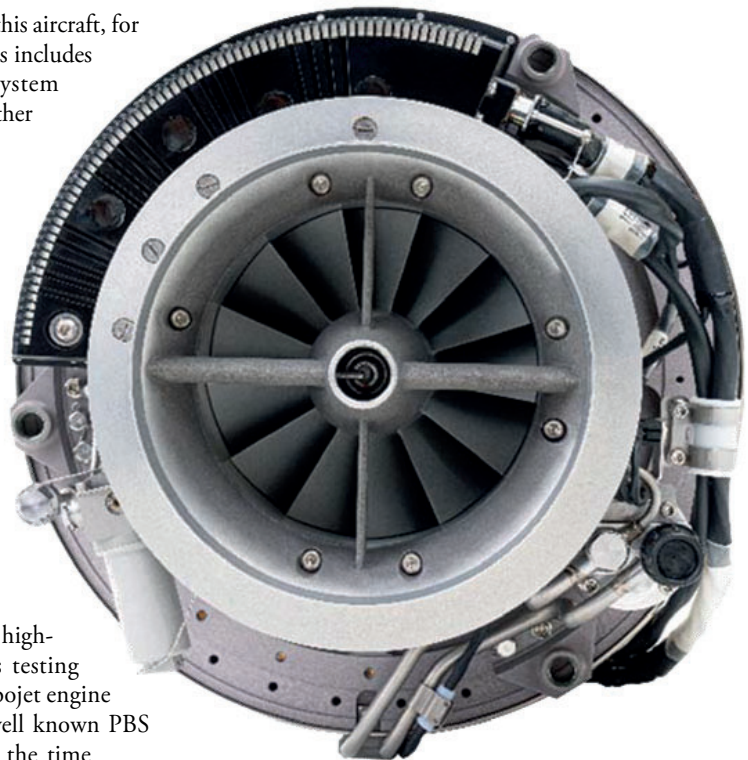
helicopter, with several dozen units sold annually.

The MIL Mi-171A2 has received type certification in India for civilian use issued by the Civil Aviation Authority of India. The PBS CS-M1V environmental control system for the Mi-171A2 helicopter is another example of successful development, this system heating and cooling simultaneously, not only in the cockpit, but also in the cargo space of the helicopter.

Cryogenics and investment casting

The PBS investment casting foundry, with more than 50 years of experience, focuses mainly on blades and segments of stationary gas turbines, turbocharger wheels for automotive, impellers and guide wheels for aircraft engines, spinner discs for the glass industry and femoral components for the health sector. PBS is responsible for everything from the design, casting and machining to the final product to guarantee the highest quality at a reasonable price.

PBS is also a reliable supplier of compressors, pumps and helium expansion turbines for the cryogenic industry and very low temperatures from 4 to 150 K. 🦋



The latest addition to PBS turbojet engines family is PBS TJ100P. Oil-free version of the proven TJ100 brings many new interesting features and can be fitted into any modern UAV or UCAV system.



PBS INDIA



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TURBINE ENGINES
FOR TARGET DRONES, MISSILES,
UAV AND UCAV SYSTEMS



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