

raksha ANIRVEDA

PURSUING SELF RELIANCE IN DEFENCE



AERO INDIA
: Runway to a Billion Opportunities

**SPECIAL
COVERAGE**



DRONE SWARMS: THE NEXT EVOLUTION IN WARFARE

Are Drone Swarms Becoming
Part of a Mature Concept
of Operations Soon?

Relations Worldwide in the New Decadal Era

Geopolitical Order Coming out
of Turmoil with the Dawn of New
Year and the New Decade

Asian Subcontinent Military Diplomacy

With 40% of World GDP and
65% Population, Asia Drawing
Global Attention

Tejas for India's Atmanirbharta

Aggressive Export Strategy
Intertwined with the LCA to
Make the Nation Atmanirbhar

PBS INDIA: SOLUTIONS FOR AEROSPACE

PBS India to showcase its wide range of design and manufacturing solutions for Aerospace industry at Aero India 2021

PBS INDIA is an Indian 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 a part of 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, it belongs to the oldest engineering brands in the world.

The ability to design, construct, manufacture and test the entire product is a significant competitive advantage, as is the ability to adapt products to specific customer requirements. Complete in-house production is a guarantee of the highest quality and reliability of its products.

PBS has been developing and supplying small turbine drive units for the aerospace industry

for half a century. The company celebrated the 20th anniversary of cooperation with the manufacturers of Mil helicopters. PBS mainly supplies the Safir 5K/G MI auxiliary power unit (APU), which triggers 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

PBS has implemented thousands of APUs in total. Last year, the company celebrated the 20th anniversary of cooperation with the manufacturers of Mil helicopters for which it developed the Safir 5K/G MI APU. This APU has been designed for Russian Mi-8, Mi-17 and Mi-171 helicopters, which are among the most successful helicopters in the world in terms of both the number of units sold and the number of countries in which they fly. You can find the Mi-17 in more than 60 countries, including the Indian Air Force.

PRODUCTS FOR HELICOPTERS AND JET AIRCRAFT

PBS APUs are especially suitable for civil and military helicopters, training and light combat planes, and business jet planes. Applications in ground military forces or marine applications are also feasible. They are incorporated into various configurations not only in several types of helicopters, but also in training and combat planes. Currently, PBS is following up on previous cooperation with the development and supply of several systems for the new generation of this aircraft, designated for example as Czech aircraft as 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 corporation is the world's well-known turbojet engine supplier. The very high quality and reliability of PBS jet engines are reflected in the fact they have been installed in over 1,300 aircraft worldwide. With certification to the European Aviation Safety Agency (EASA) standards, their quality makes them stand out from competing engines in their category. Due to their reliability and weight-to-thrust ratio are suitable for use in the military industry and any UAV and UCAS projects. The worldwide recognized turbojet engine PBS TJ100 belongs to the 4th generation of this type of engine and PBS INDIA supplies the complete range of these engines throughout India.

DEVELOPMENT & INNOVATIONS

PBS continuously invests in development and has high-quality technical support and development and testing capacities available. The latest addition to the PBS turbojet engine family is TJ100P - an oil-free version of the famous PBS TJ100 engine. The company continually extends the time limits of overhauls for the Safir 5K/G MI, thus increasing its competitiveness.

The Mil Mi-171A2 has attained certification in India of the type for civilian use issued by the Civil Aviation Authority of India and PBS CS-M1V environmental control system for the new type of Mi-171A2 helicopter is another example of successful development. This system can heat and cool simultaneously, not only in the cockpit, but also in the cargo space of the helicopter.



CRYOGENICS AND INVESTMENT CASTING

PBS investment casting foundry with more than 50 years' 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 healthcare sector.

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.



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

PBS CONTINUOUSLY INVESTS IN DEVELOPMENT AND HAS HIGH QUALITY TECHNICAL SUPPORT AND DEVELOPMENT AND TESTING CAPACITIES AVAILABLE. THE LATEST ADDITION TO THE PBS TURBOJET ENGINE FAMILY IS TJ100P - AN OIL-FREE VERSION OF THE FAMOUS PBS TJ100 ENGINE