

pbsindia.com



### **PRODUCTS & SERVICES**



#### **AEROSPACE**

We develop and manufacture turbine engines, APUs and ECS for the manufacturers of aerospace products from more than 30 countries around the world.



#### **PRECISION CASTING**

We cooperate with leading world manufacturers of turbochargers, combustion turbines, aviation components etc. We produce the most technically advanced products with maximum durability.



#### **CRYOGENICS**

We are a major supplier of cryogenic compressors and pumps for the world's leading manufacturers of cryogenic systems.



#### **SERVICES & MAINTENANCE**

We provide first-class service performed by experienced teams of our experts. We offer our customers maximum technical support.



#### POWER ENGINEERING

We have a long-standing tradition in the development, construction and implementation of turbine and industrial boiler deliveries. We provide comprehensive service and device reconstruction.



#### PRECISION MACHINING

We offer precision machining of both rotating and non-rotating castings, forgings and weldments. We supply heavyweight weldments including the provision of material, heat treatment and surface treatment.



#### **SURFACE TREATMENTS**

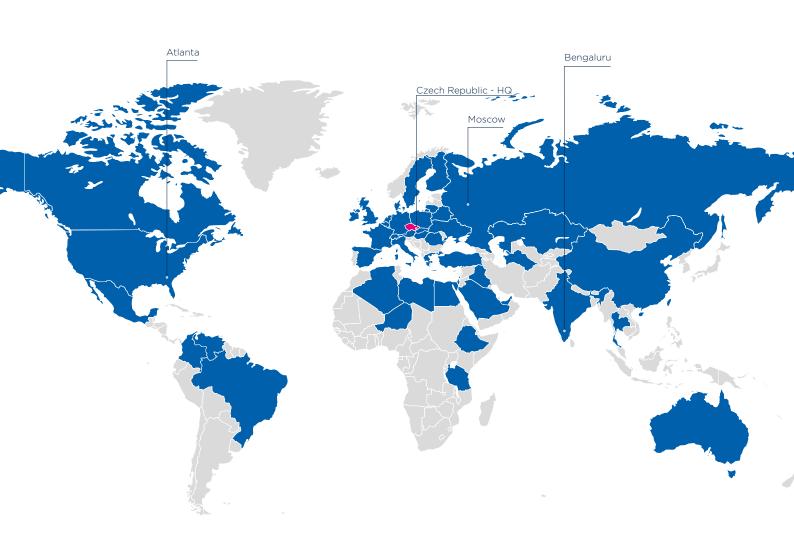
We are a leading supplier of galvanic surface finishes with a comprehensive range of services.



# **ABOUT PBS INDIA**

**PBS INDIA** is a part of **PBS GROUP**, an engineering manufacturer that operates globally in aerospace, foundry, precision engineering, cryogenics and energy with production located in the Czech Republic, Europe.

**PBS** has been in the Aerospace industry for over 50 years as a designer and manufacturer of aircraft engines, auxiliary power units, environmental control systems and specific custom-made aircraft solutions.



### **AEROSPACE PRODUCTS**

PBS HAS DESIGNED AND SUCCESSFULLY LAUNCHED A SERIES OF HIGH-QUALITY AND RELIABLE AEROSPACE PRODUCTS:

#### Small turbine engines

are designed for UAVs, target drones, missiles, experimental aircraft and ultralight helicopters.

#### **Auxiliary Power Units (APU)**

are designed to delivery compressed air for starting the main engines and to supply electrical power for aircraft and helicopters.

#### **Environmental Control Systems (ECS)**

are designed to maintain a comfortable thermal environment in the cockpit, passenger cabin and cargo holds of aircraft and helicopters during ground operations and all flight modes.

#### **ADVANTAGES** CIVIL & COMMERCIAL → Excellent weight/thrust ratio UAV **TURBOJET ENGINES** → Compact design → Micro-jets → Low fuel consumption → Transport 1000+ → Electric starting system → Surveillance, Research flying worldwide → Ground or in-flight restart → Short starting sequence → High variability in starting positions/client requirements → Thrust: 52-337 lbf → Weight: 4.4-43.2 lbf TURBOPROP, TURBOSHAFT → Light & compact design UAV **ENGINES 241 hP** → High static thrust **EXPERIMENTAL** → High performance, low vibrations and low noise → Small personal aircraft → Both tractor/push configurations → Small helicopters → Stable operation in high altitudes and temperatures → Ability to start in very cold conditions without preheating → Power: 180 kW → Weight: 135.8 lbf **AUXILIARY POWER UNITS** → Supply of power + compressed air Fixed-wing aircraft: → Unlimited number of main L-39 Albatros (APU) engine starts L-159 ALCA → Continuous operation for 5500+ up to 6 hours Helicopters: installed and → Easy maintenance MI-8, MI-17 → Nominal power: 40 kVA operating → Max. bleed air quantity: 62.4 lb/ **ENVIRONMENTAL** → All-in-one cooling and heating Fixed-wing aircraft: L-39 Albatros **CONTROL SYSTEMS** → Low weight, compact design → No electricity requirements L-159 ALCA (ECS) → Ecological - no refrigerant → Variability according client needs Helicopters: 7000+ → Cooling power: 36,900 BTU/hr MI-8, MI-17 installed and → Heating power: 211,800 BTU/hr operating

### PRECISION CASTING PRODUCTS

WE COOPERATE WITH LEADING WORLD MANUFACTURERS OF TURBOCHARGERS, COMBUSTION TURBINES, AVIATION COMPONENTS AND INSULATION MATERIALS BASED ON GLASS WOOL

We are one of the leading European foundries focusing on precision casting with more than 40 years of experience. Currently, the production program consists mainly of blades and segments of stationary gas turbines, impellers turbochargers, blades and integrally-cast turbocharger wheels, castings of impellers and guide wheels for aircraft engines and castings for glass spinning. We also deliver femoral components for the health sector.

- Air or vacuum casting
- From carbon steels to nickel or cobalt superalloys
- Range of casts dimensions: 2-20.5 in
- Weight range of casts: 0.33-176 lb
- Most technically advanced products with maximum durability

## MILITARY & DEFENCE UAV → Target drones → Missiles → Tactical → Transport UAV TRAINER & COMBAT → Small aircraft → Small helicopters Trainer aircraft: L-159 ALCA L-39 Albatros Military helicopters: Mi 8, Mi 17 Fixed-wing aircraft: L-39 Albatros L-159 ALCA Helicopters:

MI-8, MI-17

## AEROSPACE & AUTOMOTIVE

Impellers and guide wheels for aircraft engines, APU and casting parts for ECS

#### **POWER INDUSTRY**

Turbine blades and gas turbine segments





#### **TRANSPORTATION**

Turbocharger wheels and blades

### INSULATING MATERIALS MANUFACTURERS

Spinner disks







### **HIGHLIGHTS**

OFFICES

**75%** <sup>10</sup> **30+** 

200+

50+

WORLDWIDE

OF PRODUCTION **EXPORTED** 

COUNTRIES

YEARS OF HISTORY

YEARS IN **AEROSPACE** 

800 **EMPLOYEES** 

90% DEVELOPED. MANUFACTURED AND TESTED **IN-HOUSE** 

5+ MIL. EUR PER YEAR IN RESEARCH & **DEVELOPMENT** 

7000+ AIRCRAFT ENGINES, APU, ECS SOLD







#### **TRADITIONAL**

engineering manufacturer with long term experience in the Aerospace industry



#### **INDEPENDENT OEM**

with a complete range of in-house capabilities



#### **HIGH FLEXIBILITY**

product customization and production



#### **CERTIFICATED**

by EASA to design, produce and maintain turbine products for civil aviation



#### **OFFICE IN BENGALURU**

with experienced local team



#### **COMMITTED**

to provide service and life cycle support around the world



## RESEARCH & DEVELOPMENT

in-house capabilities



#### **INVESTING HEAVILY**

in progress & further expansion



### **MAJOR LICENCES AND CERTIFICATES**



- → EASA approval to design, manufacture and maintain turbine engines and equipment -DOA, POA, MOA
- → Certificate for manufacturing and maintaining the military aerospace products MAA 056 and MAA 076 from the Czech Ministry of Defence
- → Certificate of Conformity of the quality system with the requirements of ČSN EN ISO 9001:2009 and ČOS 051622 (AQAP 2110) from the Defence Standardisation, Codification, and Government Quality Assurance Authority
- → Civil certificates from ARMAK and CAAC
- → NADCAP for non-destructive testing (PT, RT) and chemical processes
- → Certificates: AS 9100, ISO 9001, ISO 14001

### **FACILITIES**

Large Production Plant
Various Advanced Technology Equipment
Development and Testing Laboratories
Precision Casting Foundry
Centre for Practical Education
Surface Treatment Facilities



#### **PBS INDIA PRIVATE LIMITED**

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