

### **ABOUT PBS**

PBS is an engineering manufacturer which operates globally in aerospace, foundry, precision engineering, cryogenics and energetics with production located in the Czech Republic, Europe.

#### **INVESTMENT CASTING**

We are one of the leading European foundries focusing predominantly on investment casting with more than 50 years of experience. Currently, the production program consists mainly of: blades and segments of stationary gas turbines, turbocharger wheels for automotive, impellers and guide wheels for aircraft engines and spinner discs for glass industry. We also deliver femoral components for the health sector.



WHY PBS?

- → More than 50 years of investment casting production
- → Internal research and development capabilities
- → In-house testing laboratory
- → More than 100,000 highly demanding investment castings annually



#### **HIGHLIGHTS**

- We provide everything from the design, casting and machining to the final product
- Air or vacuum casting
- From carbon steels to nickel or cobalt superalloys
- Range of casts dimensions: 50.8 520.7 mm
- Weight range of casts: 0.15 80 kg
- Technically advanced products with high durability
- Reverse engineering and rapid prototyping
- Internal research and development capabilities

# PRODUCT PORTFOLIO

AEROSPACE	POWER INDUSTRY	TRANSPORTATION	INSULATING MATERIALS MANUFACTURERS	HEALTHCARE
Impellers and guide wheels for aircraft engines, APU and casting parts for ECS	Gas turbine buckets and nozzles	Turbocharger wheels and blades	Spinner discs	Knee replacements
Impellers diameter: 60 - 260 mm Impellers weight: max. 2.5 kg	Blades lengths: 50 - 400 mm Blades weight: 0.1 - 30 kg	Wheel diameter: 50 - 400 mm Wheel weight: 0.15 - 44 kg	Spinner discs diameter: 300 - 520 mm Spinner discs weight: 9 - 30 kg	Shape: Anatomically - shaped component, L and R version
<b>Material</b> used: IN 713LC, MAR M247, IN 792-5A	<b>Material</b> used: EEQ 111, FSX 414, IN 939, IN 738LC, MAR M247	<b>Material</b> used: IN 713C, IN 713LC, B1914, MAR M247	Material used: Ni and Co based superalloys for glass industry: 1411, 141J, 2.4879, Co Stellite	Size: Wide size range (six sizes)  Material used: Cobalt alloy CoCrMo (ISO 5832-4)



### **FOUNDRY** technology

- 10 injection moulding machines
- 2 robotic coating lines
- 2 boilerclaves for smelting
- 4 carousel gas annealing furnaces
- 2 electronic resistance annealing furnaces
- 7 vacuum furnaces
- 9 blasting machines

### **Additional SERVICES**

- Special types of heat treatment
  - In a protective atmosphere of argon, nitrogen or vacuum
  - Hot isostatic pressing (HIP)
- Machining and balancing
- Production of model equipment
- Manufacture and leaching of ceramic cores
- 3D measurement
- Testing in our own or independent laboratories
- Non-destructive tests certified by NADCAP

## **Licences and Certificates**



- → NADCAP for non-destructive testing (PT, RT) and chemical processes
- → ABS Steel Casting and Other components for marine applications
- → Certificate for casting in high nickel alloy steel
- → Certificate for the manufacturing and maintenance of military aerospace products MAA 056 and MAA 076 from the Ministry of Defence
- → Certificates: **AS 9100**, **ISO 9001**, **ISO 14001**

