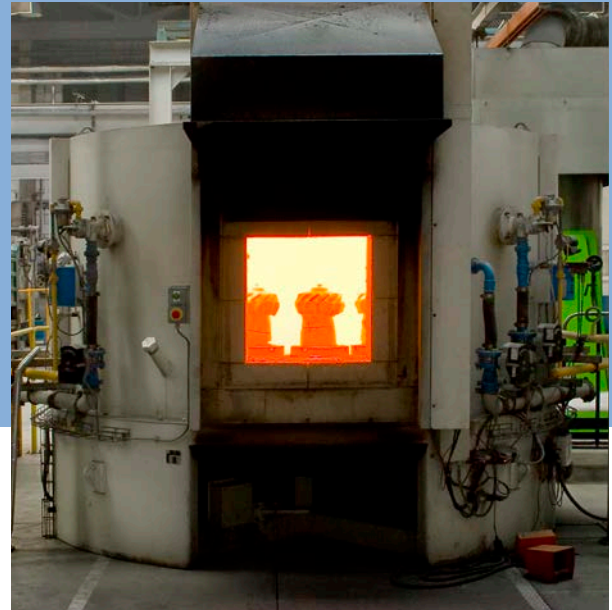


# INVESTMENT CASTING



The PBS brand is built on **200 years of history and a global reputation** for high quality engineering and production.



## 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

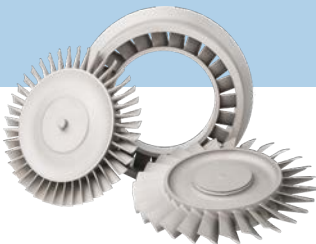

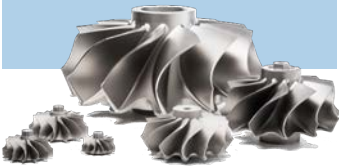
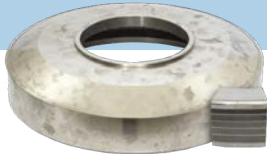
We are one of the leading European foundries focusing predominantly on investment casting with more than 50 years of experience. Currently, the production program consists mainly of: blades and segments of stationary gas turbines, turbocharger wheels for automotive, impellers and guide wheels for aircraft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



### HIGHLIGHTS

- 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 max. durability.
- Reverse engineering and rapid prototyping.
- We provide everything from the design, casting and machining to the final product.

# PRODUCTION PROGRAM

<b>AEROSPACE</b>  <b>Impellers and guide wheels for aircraft engines, APU and casting parts for ECS</b>	<b>POWER INDUSTRY</b>  <b>Gas turbine buckets and nozzles</b>	<b>TRANSPORTATION</b>  <b>Turbocharger wheels and blades</b>	<b>INSULATING MATERIALS MANUFACTURERS</b>  <b>Spinner disks</b>
<p>Impellers diameter: 60 - 260 mm</p> <p>Impellers weight: max. 2.5 kg</p> <p>Material used: IN 713LC, MAR M247, IN 792-5A</p>	<p>Blades lengths: 50 - 400 mm</p> <p>Blades weight: 0.1 - 30 kg</p> <p>Material used: EEQ 111, FSX 414, IN 939, IN 738LC, MAR M247</p>	<p>Wheel diameter: 50 - 400 mm</p> <p>Wheel weight: 0.15 - 44 kg</p> <p>Material used: IN 713C, IN 713LC, B1914, MAR M247</p>	<p>Spinner disk diameter: 300 - 520 mm</p> <p>Spinner disk weight: 9 - 30 kg</p> <p>Material used: Ni and Co based superalloys for glass industry:  141I, 141J, 2.4879, Co Stellite</p>
			

## EQUIPMENT

Thanks to the state-of-the-art machinery we are able to provide our clients with top-quality castings and their subsequent processing into final products.

### Technology available in our foundry:

- 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 of ceramic cores

Leaching of ceramic cores

3D measurement

Testing in our own or independent laboratories

Non-destructive tests certified by NADCAP

# WHY PBS

**500+**  
Tons annual  
production of castings



## Structural design and manufacture of our own molds

A specialized team of experts enables us to provide the entire casting process, from the design and manufacture of our own molds to the final product.

**30+**  
Export countries



## Great variability of castings

Our precision castings are used in many industries, including power engineering, transport industry, glass industry, aviation industry and healthcare industry.

**50+**  
New products developed  
per year



## Reverse engineering and our own development center

If there are no available technical drawings, we can scan the supplied casting and produce a corresponding final product in our own development center.



## Precision castings for demanding uses under extreme conditions

The most challenging process of our production includes precision castings for PBS TJ100 jet engine impellers and guide wheels designed for highly demanding applications in extreme conditions - temp. up to 950 °C.



## Utilization of the rapid prototyping method

To accelerate the prototyping stage of precision casting, we offer our customers the rapid prototyping method. This method enables customers to test castings in their development facilities much sooner, saving their time and development costs.



## Challenging castings from cobalt and nickel based superalloys

Thanks to many years of experience and team of specialized experts, we are able to handle even the most challenging castings from nickel and cobalt-based alloys, including their machining.

## Contact us:

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[www.pbsindia.com](http://www.pbsindia.com)