

# INVESTMENT CASTING



 **PBS AEROSPACE**

AEROSPACE • INVESTMENT CASTING • CRYOGENICS • SURFACE TREATMENT

# INVESTMENT CASTING

We are one of the leading European foundries focusing predominantly on investment casting with more than 50 years of experience.

At present our production program mainly consists of: blades and segments of stationary gas

turbines, turbocharger wheels for the automotive industry, impellers and guide wheels for aircraft engines and spinner discs for the glass industry. We also produce femoral components for the health sector.

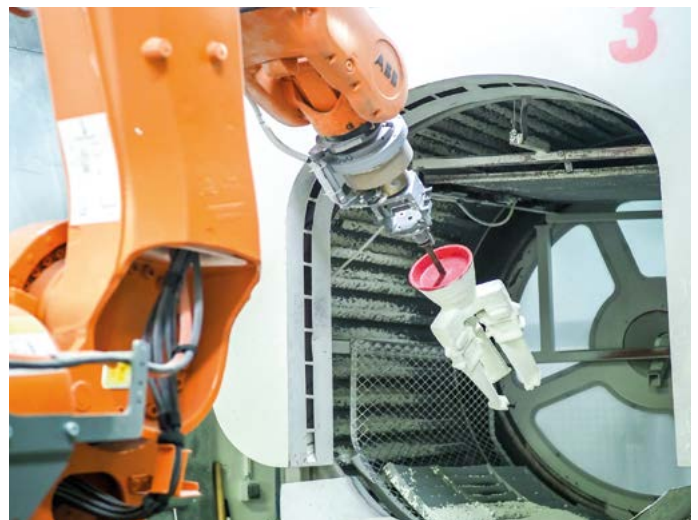


## OUR CONTRIBUTION TO MUTUAL COOPERATION

- › More than 50 years of experience in investment casting
- › Internal research and development capabilities
- › In-house testing laboratory
- › More than 100,000 highly precise complex investment castings per year

## WHY PBS

- › 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
- › Dimension range of casts: 2-20.5 in
- › Weight range of casts: 0.33-110.2 lb
- › Technically advanced products with high durability
- › Reverse engineering and rapid prototyping



# PRODUCT PORTFOLIO

For several decades we cooperate with leading world manufacturers of turbochargers, combustion turbines, aviation components and insulation materials based on glass wool. An individual approach to each customer is important to us.

AEROSPACE	POWER INDUSTRY	TRANSPORTATION	INSULATING MATERIALS	HEALTHCARE
<b>Impeller and guide wheels</b> for aircraft engines, APU and casting parts for ECS	<b>Gas turbine buckets and nozzles</b>	<b>Turbocharger wheels and blades</b>	<b>Spinner discs</b>	<b>Knee replacements</b>
Impellers diameter: 2.36-10.24 in	Blades lengths: 2-16 in	Wheel diameter: 2-16 in	Spinner discs diameter: 11.8-20.5 in	Shape: Anatomically-shaped component, L and R version
Impellers weight: max. 5.5 lb	Blades weight: max. 77 lb	Wheels weight: 0.33-97 lb	Spinner discs weight: 19.8-66.1 lb	Size: Wide size range (six sizes)
Material used: IN 713LC, MAR M247, IN 792-5A	Material used: EEQ 111, FSX 414, IN 939, IN 738LC, MAR M247	Material used: IN 713C, IN 713LC, B1914, MAR M247	Material used: Ni and Co based superalloys for glass industry: 141I, 141J, 2.4879, Co Stellite	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

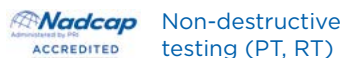
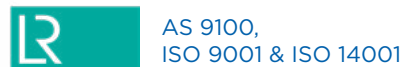
- › Special types of heat treatment
  - In a protective atmosphere of argon, nitrogen or vacuum
  - Hot isostatic pressing (HIP)
- › Machining and balancing
- › Production of model equipment
- › Removing ceramic cores in a leaching autoclave
- › 3D measurement
- › Testing in our own or independent laboratories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

# ABOUT US

PBS is a globally recognized engineering brand with a history of over two hundred years.

The company specializes in the R&D and manufacturing of turbine engines, APUs, and ECS systems designed for unmanned aerial vehicles, medium helicopters, and airplanes.

PBS also develops and produces cryogenic equipment for the world's largest manufacturers of gas liquefaction systems. PBS Foundry is one of the leading suppliers of nickel and cobalt-based superalloy castings in Europe.



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