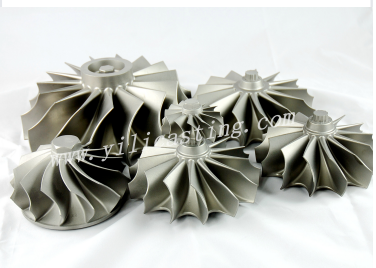
Nickel Alloy Turbine Wheel for Turbochargers

This turbine wheel is made from a nickel-based alloy using a vacuum casting process. It is designed for use in automotive turbochargers.



Product Overview

High-Performance Vacuum Cast Turbine Wheel

This nickel-based alloy turbine wheel is engineered for high-temperature resistance and optimal aerodynamic efficiency in turbocharger applications. Manufactured using precision vacuum investment casting, the component ensures minimal porosity and superior structural integrity. It is designed to maximize energy extraction from exhaust gases, significantly enhancing turbocharger performance and overall engine power output.

Technical Specifications

Compatible Materials	Stainless Steel (SS310S, SS304), Super Alloy (IN713LC, IN718, IN738C), Aluminum Alloy (6061, 7075, 2A70, C355, ZL101A)
Surface Finishing Degree	1.6 μm

Application Areas

Supported Industries

- Marine and Locomotive Turbochargers
- Gas and Steam Turbines
- Aviation Turbojet Engines
- Automotive Turbochargers

Component Types

- Nozzle Ring
- Nozzle Guide Vane
- Axial Turbine Wheel
- Radial Turbine Wheel
- Air Compressor Wheel
- Isometric Turbine Blade

Quality Assurance

Non-Destructive Testing (NDT)

- Visual Inspection
- Fluorescent Penetrant Testing (FPT)
- Radiography Testing (Internal Defects)
- Size Testing (ZEISS CMM)

Destructive Testing

- Tensile Strength Test (Room/High Temp)
- Creep Strength Test
- Hardness Testing (Rockwell)
- Surface Grain Size Testing (Metallography)
- Chemical Composition (Spectrograph)

Manufacturing Standards

Production Process Highlights

Vacuum Investment Casting • Pure Silica Sol Processing • Australian Zircon Powder/Sand • 10 Years Experience