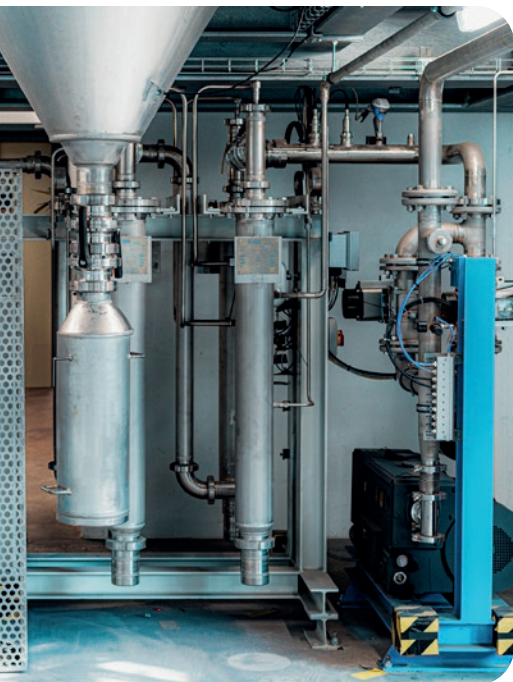




NANOVAL

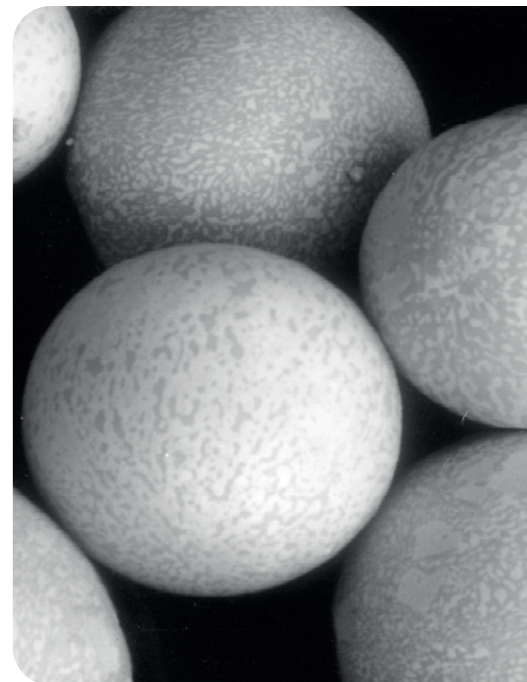
Powderful Solutions



**ATOMIZATION PLANT
ENGINEERING**



**CUSTOMIZED METAL
POWDER PRODUCTION**



R&D & EXPERIMENTAL

SUMMARY

Your partner for customized metal powders and atomization plants. Your requirements – our flexibility.




MADE IN
Germany

WWW.NANOVAL.DE



COMPANY PROFILE

Since 1987, NANOVAL has been a reliable partner for metal atomization. Our core advantage lies in our patented NANOVAL atomization process: molten metal is atomized by a highly accelerated, laminar gas flow in a Laval nozzle. This results in spherical powders with high flowability and a narrow particle size distribution for maximum yield. We serve as a single-source partner, offering both high-quality metal powders and complete atomization plants. From R&D to series production, we support industries like Additive Manufacturing, Aerospace, and Medical Technology with flexible batch sizes tailored to your specific needs.

PRODUCTS / SERVICES

Atomization Plant Engineering

- Complete Atomization Plants – Design and production of full systems from a single source.
- Versatile Melting Systems – Plants utilizing crucible, crucible-free, or hybrid systems depending on the material.
- Patented NANOVAL Process – Integration of the Laval nozzle technology where molten metal is surrounded by a highly accelerated, laminar gas flow.
- Energy Efficiency – Systems designed for efficient gas atomization using nitrogen or argon.
- Comprehensive Support – Individual assistance ranging from the initial idea and technical planning to successful commissioning.

Metal Powder Production

- Customized Metal Powders – Precisely atomized according to specific requirements and from nearly any alloy.
- Powder Quality – Production of spherical powders with high flowability for precise and reproducible results.
- High Production Efficiency – Narrow particle size distribution ensures a high yield.
- Flexible Batch Sizes – Supply of variable quantities

REFERENCES AND EXPORT ACTIVITIES

NANOVAL has built 11 atomization plants—9 for external customers and 2 for in-house use, including 1 crucible-free system. To date, we have atomized over 1,500 different alloys for domestic and international customers, demonstrating our experience and versatility in metal powder production.

TARGET GROUP

NANOVAL serves high-demand industries such as Additive Manufacturing, Aerospace, Medical Technology, Automotive, Corrosion Protection, and Consumer Goods. As a reliable R&D partner, NANOVAL provides high-quality metal powders and complete atomization plants, offering flexible batch sizes from prototyping to full series production.

COMPETITIVE ADVANTAGES

- Patented NANOVAL Process – Molten metal is atomized in a Laval nozzle by a high-speed, laminar gas flow.
- Superior Powder Quality – Nearly spherical powders with high flowability for precise, reproducible results.
- High Production Efficiency – Narrow particle size distribution ensures high yield.
- Energy Efficiency – Efficient nitrogen or argon atomization reduces energy and gas consumption.

IDEAL BUSINESS PARTNERS

Material & Technology Partners: Alloy developers and 3D printing system manufacturers get high-quality powders from NANOVAL's atomization of innovative materials.

Industrial End-Users: Aerospace, medical, and automotive benefit from lightweight, high-strength, biocompatible, or specialized alloys.

Engineering & Production Clients: Companies and R&D departments access flexible batches and in-house atomization plants.

BUSINESS DELEGATION TRIP | LIGHTWEIGHT TECHNOLOGIES | SPAIN

Carried out by:



In collaboration with:

