CLAUDIUS PETERS
AEROSPACE

Aircraft Stringer Production

We know how

about

The aerospace division of Claudius Peters has been producing the highest quality aircraft stringers from its facilities in northern Germany for over 40 years.

Since 1980 the company has supplied stringers for civil and military Airbus aircraft. From the very first A300's to the mighty A380, by the end of 2018 Claudius Peters has supplied stringers for over 11,500 Airbus aircraft.

Claudius Peters' experience and reputation for both quality and reliability in stringer production is quite simply, second to none.

Today the company continues to supply stringers for Airbus aircraft and now offers its services to other aircraft builders.

Contact us today at aerospace@claudiuspeters.com to discuss your requirement.

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aircraft stringer production

Manufacturing Preconditions

The importance Claudius Peters places on ensuring flawless production is evidenced by its many awards and accreditations, gained over almost 40 years of working for the aviation industry.

Claudius Peters currently manufactures stringers for aluminium aircraft produced by Airbus. From 1980 to 2018, the company supplied over 5 million stringers, with over 200 different geometric dimensions and lengths up to 10,000 mm.

The business's close compliance with individual and specialized customer regulations continues to enhance the development and drive the quality of its manufacturing processes. This is further demonstrated by its ISO 9001, EN 9100 and NADCAP accreditations.

- **Quality Accreditations**
  - **ISO 9001 since 1993**
  - **EN 9100 since 2007**
  - **NADCAP since 2018**
- **Impeccable record of delivery reliability**
- **Compliance with individual customer regulations**
- **Commitment to highest standards of safety**
- **Commitment to highest levels of employee training**

Over 5 million stringers, of over 200 different sizes supplied since 1980

Claudius Peters' 45,000m² site, Buxtehude, Hamburg, Germany.

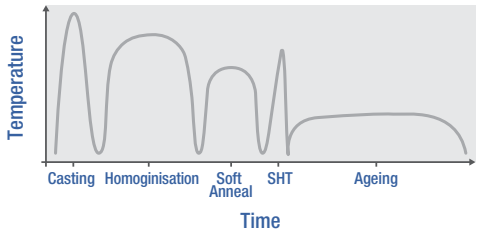
The 7000m² stringer production bay.

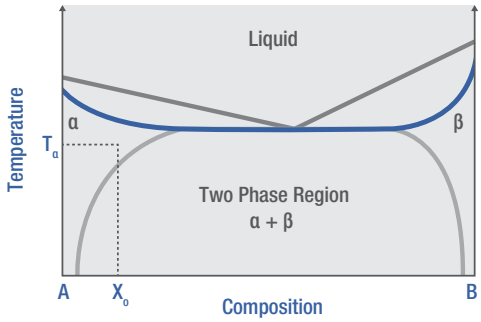
heat treatment

Treatment Process

Highly specialized processes for high-strength aluminium

Heat Treatment refers to any controlled heating or cooling operation carried out on a solid material with the purpose of modifying its microstructure and/or its properties. The microstructure of an alloy can be altered through a variety of heat treatments.





Main objectives:

- **Softening a material to enhance its formability**
- **Increasing a material's hardness or strength**
- **Increasing the toughness or breaking strength of a material**
- **Improving a material's mechanical or physical properties to protect against changes that may occur as a result of operating conditions**
- **Ensuring the dimensional stability of a particular component**
- **Reducing unwanted residual stresses produced during component manufacture**

Lifting from the salt bath and quenching in the tempering bath.

Cold Storage.

Plant & Machinery

Claudius Peters' modern aircraft production area totals more than 7,000m² and includes a wide range of innovative equipment to meet any conceivable heat treatment requirement.

Optimum heat distribution and short process times

Continuous drier.

Claudius Peters heat treatment plants and facilities:

- Salt baths for solution annealing
- Tempering baths
- Stretch forming equipment
- Cold storage room
- Fan oven for artificial ageing
- Continuous drier
- Process control system
- Process monitoring system
- SMS alarming system

NC Joggling Machine.

Heat treatment control panel.

forming

Transforming Shape and Retaining Mass

Mechanical processing and precise measurement ensure product quality

Forming is a process by which a solid body can be transformed from one shape to another, while retaining its original mass and composition. Forming processes, which take place at room temperature or higher, include compression, tension, bending and shear forming.

Claudius Peters uses several forming processes in its aluminium manufacturing:

- Stretching
- Shape stretching
- Roll forming
- Joggling
- Form rolling
- Straightening
- Contour straightening

This process can employ any of the following items of equipment:

- Hydraulic stretch drawing benches
- NC roll forming machines
- Mechanical forming rolls
- Hydraulic straightening presses
- Hydraulic presses
- NC joggling machines
- Stretching benches
- Straightening plates

Mechanical Processes

Alongside its core competencies of heat treatment and forming, Claudius Peters carries out a variety of mechanical processes at its 12,500m^2 combined production area, including:

- Milling
- Drilling
- Sawing
- Deburring
- Embossing

Testing for perfection

Our controllers check by means of geometry, hardness, conductivity and crack testing that all components are in perfect condition.

5-axis machining center.

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Forming Area.

NC Roll Forming.

HFEC Surface Crack Testing.

A330 image © Airbus Group 2018

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AIRCRAFT STRINGER PRODUCTION
ALUMINA HANDLING SYSTEMS
CALCINING
CONVEYING TECHNOLOGY
COOLING
DISPATCH
DOSING
DRY BLENDING
DRYING
GRINDING
PACKING
PALLETIZING
PNEUMATIC CONVEYING
PULVERIZED FUEL SUPPLY
SILO SYSTEMS
STOCKYARD SYSTEMS
MARINE POWDER HANDLING
TURNKEY PROJECTS

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WORLDWIDE REPRESENTATION

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