

Slogan:  
Expanding applications of advanced materials in the field of mechanical engineering for Aerospace and Energy industry

BANNER PHOTO COMBINATION: AIRPLANE/GAS  
TURBINE/ROCKET/PEOPLE AT WORK

## ||| EXPLORE OUR PRODUCTS AND SERVICES

HIGH-TEMPERATURE CUSTOM  
METAL ACCESSORIES  
*(photo)*

MANUFACTURING OF TEST SPECIMENS  
FOR DESTRUCTIVE TESTS FROM  
AEROSPACE GRADE MATERIALS  
*(photo)*

REUSABLE SILICONE  
MASKING/HARD MASKING  
*(photo)*

COMPLEX MACHINING OF DIFFICULT-  
TO-MACHINE MATERIALS



CERAMIC MATRIX COMPOSITES  
(CMC)



HYBRID MANUFACTURING



THERMAL AND COLD SPRAY  
CONSULTING SERVICES



NICKEL AND COBALT BASE  
SUPERALLOYS



DESIGN AND MANUFACTURE OF  
LABORATORY ACCESSORIES AND  
FIXTURES



DRILLING SMALL HOLES



QUALITY MANAGEMENT SERVICES



## ||| WHO WE ARE



Salloytech company was established in 2014. We are engineering office with a production facility. From the beginning of our operation, the company focuses on quality assurance of manufactured parts.

[Read more](#)

Salloytech around the world

Get to know our network of distributors around the world, contact them if you have questions

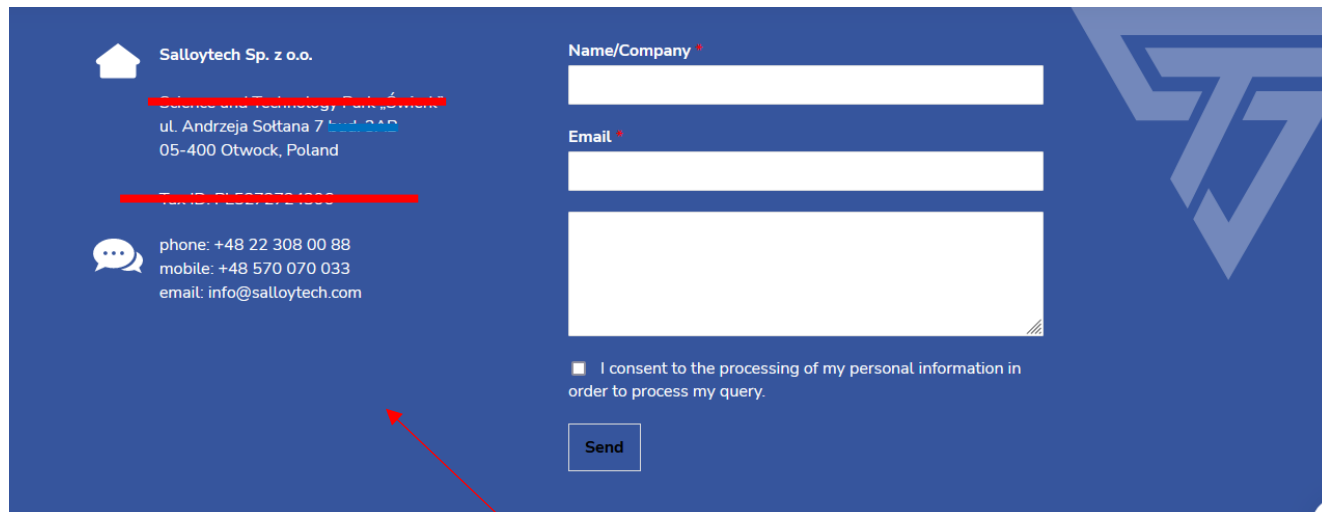
[Read more...](#)

## ||| NEWS AND EVENTS

Stay up to date with our LinkedIn page for upcoming events. [LINK TO SALLOYTECH LINKEDIN PAGE](#) (image for link).

## ||| JOIN US

Developing, retaining and recruiting the best talent is a cornerstone of our operating philosophy at Salloytech Sp. z o.o.



The image shows a contact form for Salloytech Sp. z o.o. on a blue background. On the left, there is a home icon, the company name, a redacted address, the address 'ul. Andrzeja Soltana 7', a redacted phone number, a speech bubble icon, and contact details: phone: +48 22 308 00 88, mobile: +48 570 070 033, and email: info@salloytech.com. On the right, there are three input fields labeled 'Name/Company', 'Email', and a larger text area. Below these is a checkbox for consent and a 'Send' button. A red arrow points from the 'Send' button to a separate box below.

Salloytech Sp. z o.o.

~~Science and Technology Park address~~  
ul. Andrzeja Soltana 7 [budynek 2AD](#)  
05-400 Otwock, Poland

~~TEL: +48 22 308 00 88~~

phone: +48 22 308 00 88  
mobile: +48 570 070 033  
email: info@salloytech.com

Name/Company \*

Email \*

☐ I consent to the processing of my personal information in order to process my query.

Send

Add an additional address:

**SALLOYTECH AERO GROUP**  
**R&D Division**  
Jasionka 954e,  
36-002 Jasionka, Poland

## HIGH-TEMPERATURE CUSTOM METAL ACCESSORIES

Custom Connection rods, couplings, grips, fixtures made of cast superalloys such as:

MAR M 246/247, Alloy 713C (or other on request)

### Threaded Pull Rods

- Custom thread on both ends, imperial or metric
- Custom lengths up to 40" / 1 meter
- Materials: Alloy 713C, MAR M246/247 or other on request

### Threaded Couplings

- Custom thread on both ends, imperial or metric
- Materials: Alloy 713C, MAR M 246/247 or other on request

### Clevis Couplings

- Custom threaded, imperial or metric
- Custom slot sizes, imperial or metric
- Materials: Alloy 713C, MAR M 246/247 or other on request

### Any Other Customized Couplings such as Button Head, Wedge

- Custom Buttonhead seat
- Custom specimen Thickness
- Custom threaded, imperial or metric
- Materials: Alloy 713C, MAR M 246/247 or other on request



DOWNLOAD LEAFLET

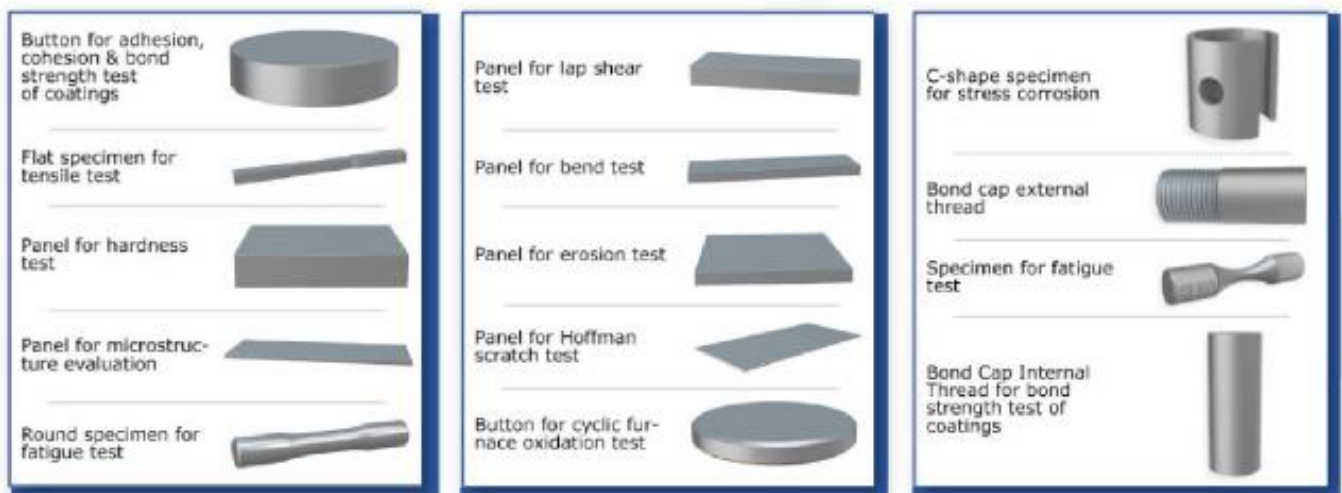


# MANUFACTURING OF TEST SPECIMENS FOR DESTRUCTIVE TESTS FROM AEROSPACE GRADE MATERIALS

A test coupon or simply a coupon is a small sample of the material used to obtain data of certain properties after testing. It is also commonly referred to as a specimen or simply a sample.

Salloytech is the one-stop source for high-quality test coupons, specimens, and samples machined from difficult-to-machine aerospace grade materials, such as nickel and cobalt base superalloys (wrought, cast- including single-crystal materials), titanium, and hardened steel.

## OUR EXPERIENCE INCLUDES MANUFACTURING THE SPECIMENS:



## Our Advantages

### Quality Assurance

We maintain Quality Management System in accordance with AS9100 standard by qualified staff of internal auditors

### Manufacturing processes

Using modern machining, loss and additive methods we ensure optimum price / performance ratio while meeting all requirements of the project.

### On time Delivery

Reliable processing from the design phase to the delivery to Customer through the Just-in-Time method.

Specimens manufactured by our developed technologies allow to:

- Obtain better test results for process qualification
- Improve a reduced testing and sampling plan
- Stabilise indicators for statistical process control
- Reduce inventory levels
- Obtain continuous and on-time deliveries

We guarantee the delivery of high quality and functional products as a result of:

- Years of experience in manufacturing and testing in the aerospace industry, especially in surface engineering, allow us to deliver specimens with the highest quality standards
- AS9100 certification for machining difficult-to-machine parts made of nickel and cobalt base superalloys, titanium, and hardened steel

- Proven machining processes of nickel and cobalt base superalloys, titanium, and hardened steel
- Fixed production lines for specimen preparation

Test coupons, also called "test buttons" for testing the tensile and bond strength of coatings are our flagship product. We know how many variables there are in testing and we do our best to minimise their impact on test results.

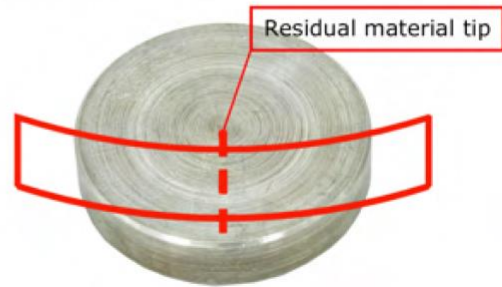
Our proprietary manufacturing process allows us to produce test buttons with tight tolerances down to 0.0004 inch or 0.01 mm TIR:



## TENSILE / BOND STRENGTH OF COATING TEST COUPON / BUTTON



Manufactured by Salloytech



Conventional machining by turning

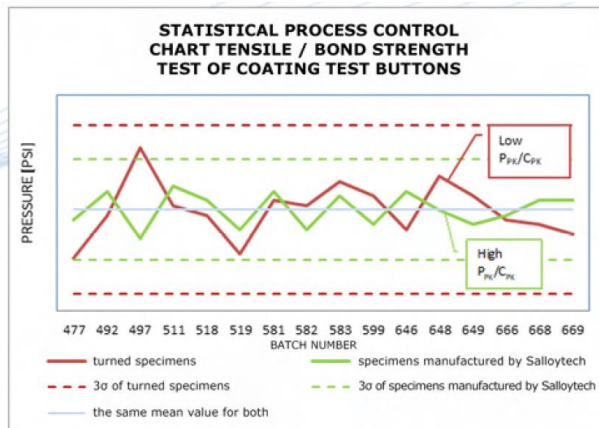
### Why use test coupons with tight tolerances?

Thermal Spray facilities, especially in the aerospace industry, often need to verify coating quality through destructive testing, such as tensile / bond strength testing. This is required for three primary reasons:

- To obtain approval for the coating as part of the qualification process,
- To continuously monitor the consistency of the coating,
- To reduce the frequency of testing in accordance with the Reduced Testing / Sampling procedure.

The acceptability of the above activities often depends on a process capability / performance index CPK / PPK calculated with test results in the Statistical Process Control; the more stable the test results, the higher test reductions can be achieved and maintained. There are many factors for variation in test results, but one of them is the quality of test specimens. But with the test buttons we manufacture, you can:

- achieve better test results for coating qualification,
- improve reduced tests and keep them at a high level. (You can see this in the graph below.)



**SALLOYTECH**



SPECIMEN & TEST SAMPLE MACHINING  
FROM AEROSPACE GRADE MATERIALS

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

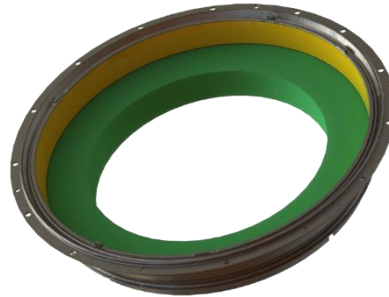
Download the leaflet

# REUSABLE SILICONE MASKING/HARD MASKING

Salloytech designs and manufactures silicone masking to protect aero and gas turbine engines parts during production through a special process. These masking products enhance productivity, lower costs and process stability.

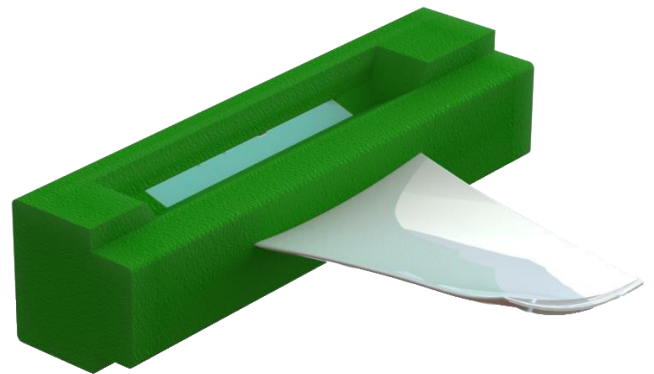
## Applicable for processes:

- Thermal spray (plasma, HVOF, flame, and other)
- Grit blasting
- Shot peening
- Chemical processing



## Advantages:

- Rapid design
- Tight masking tolerances
- Cost reduction comparing to the traditional tape masking due to multiple process cycles and significant assembly time reduction
- Design, validation and engineering support
- Proven Results with Major OEMs
- Global sales agents network



[Download the leaflet](#)



## COMPLEX MACHINING OF DIFFICULT-TO-MACHINE MATERIALS

Thanks to our well-equipped production facility and AS9100 certification, we are able to specialize in complex machining of superalloy (nickel, cobalt base) and titanium alloy parts using loss and additive processes. Cutting materials that are difficult-to-machine is our strength.

We also work with more common metal alloys such as aluminum and steel. Our machinery includes a range of machining processes such as CNC milling, turning, grinding, tumbling, WEDM, micro-impact marking, and sandblasting; and is constantly being expanded with manufacturing equipment. We can also offer other production processes, such as galvanic coatings, heat treatment provided by the network of qualified suppliers.



## HYBRID MANUFACTURING

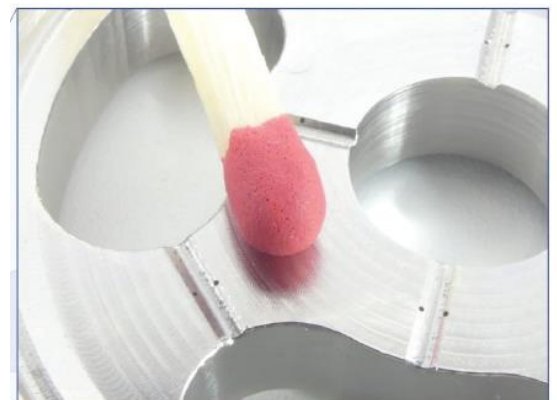
Salloytech supports its New Space customers with hybrid manufacturing. While „hybrid“ can be used for many combinations of subtractive and additive manufacturing, the „hybrid manufacturing“ offered by Salloytech is a combination of machining and 3D printing of metal parts

### **WHY IS HYBRID MANUFACTURING A GREAT SOLUTION FOR SPACE APPLICATIONS?**

In a nutshell, hybrid manufacturing combines the best features of traditional subtractive machining and 3D printing. Additive capability allows material to be added only where it is needed, reducing material costs. It also reduces the amount of subtractive machining by adding material only where it is needed and reducing the area that requires additional finishing. The real benefit, however, is the ability to design a metal part with sophisticated channels without having to weld multiple components. These value-added features open up new opportunities for high-tech sectors like New Space. Space propulsion engineers are able to design high-performance, cost-effective rocket parts with almost no limitations.

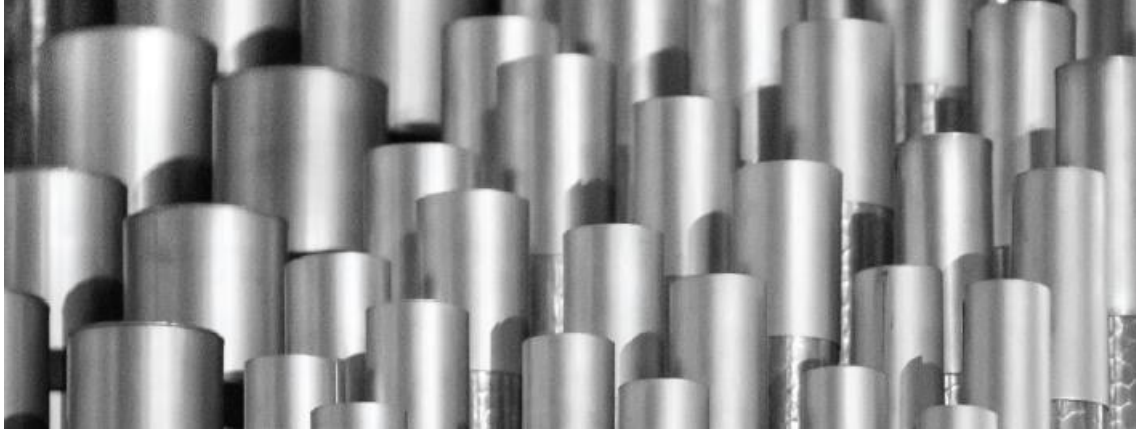
We are able to print metal parts with a state-of-the-art DMLS printer and maintain tight tolerances with a 5-axis milling machine. Our AS9100 certificate guarantees the high quality of the manufacturing process.

Our experience in manufacturing rocket engine parts and the ECSS Space Product Assurance Procedures entitled “Processing and Quality Assurance Requirements for b Metallic Powder Bed Fusion Technologies for Space Applications” can help your project move forward.



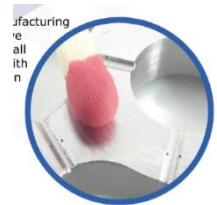
## NICKEL AND COBALT BASE SUPERALLOYS

Salloytech offers a comprehensive range of nickel and cobalt base superalloys (wrought and cast) including single crystals such as Inconel, Rene, MAR, GTD, PWA, CMSX, Haynes and many others. We are able to supply aerospace grade alloys even in small quantities and with a wide range of sizes.



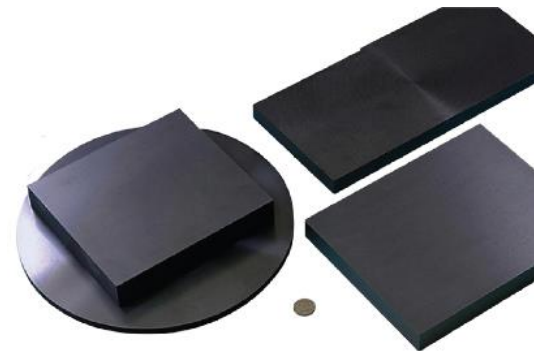
## DRILLING SMALL HOLES

Thanks to our experience in manufacturing injectors for rocket propulsion, we have developed the technology to make small holes. We are able to produce holes with diameter of less than 0.1 mm with an accuracy of a few micrometers.



## CERAMIC MATRIX COMPOSITES (CMC)

The successful replacement of metal alloys by ceramic matrix composites (CMC) in high-temperature engine components increased a worldwide interest in this type of material. Salloytech is a one-stop source for SiC-SiC CMC material, as well as test specimens and other elements for both OEM and R&D.



## THERMAL AND COLD SPRAY CONSULTING SERVICES

Thanks to our experience with thermal and cold spraying processes we can provide you with optimization and support in terms of:

- Design of technological equipment, e.g. fixtures,
- Selection of masking to protect the part from overspray and sandblasting,
- Solutions for coating quality assurance, consultations control and technical plans, implementation of first inspection (FAI) and pre-audit for NADCAP accreditation.



## DESIGN AND MANUFACTURE OF LABORATORY ACCESSORIES AND FIXTURES

Salloytech offers a wide range of test accessories for various purposes.

These accessories include grips, fixtures, and sample preparation items.

With these accessories, you can be sure that your specimens will be tested consistently and correctly, and provide ideal results.



## QUALITY MANAGEMENT SERVICES

consulting, audits, preparation for certifications, training for the implementation and maintenance of:

ISO9001 / AS9100 Quality Management System and PRI

AC7004 (NADCAP Aerospace Quality System),

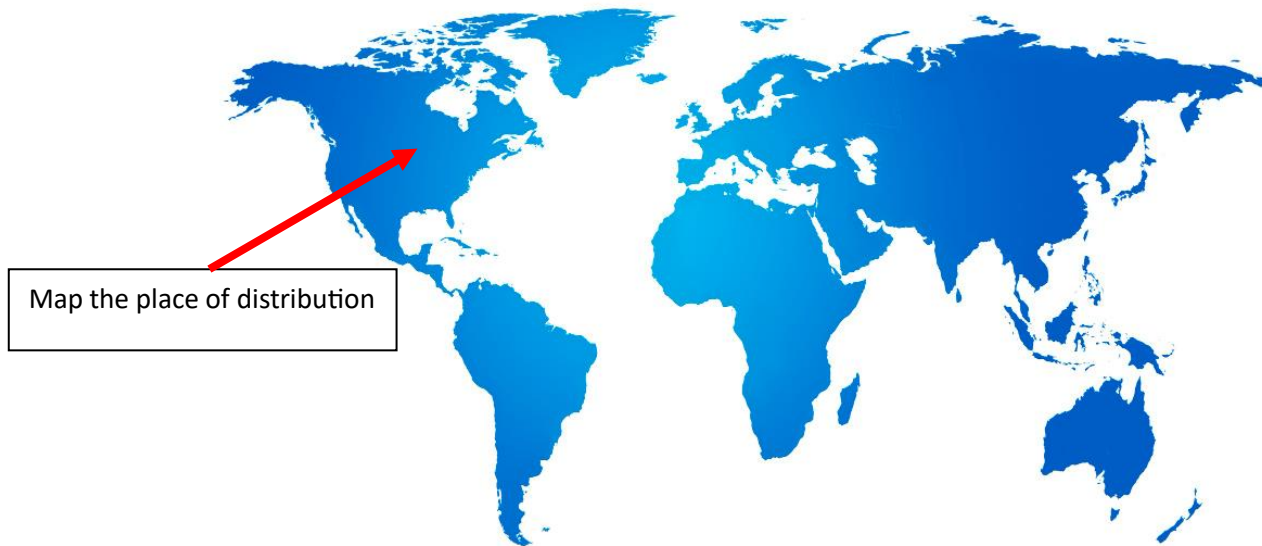
- NADCAP coatings PRI AC7109 – Thermal Spray, Coatings Evaluation Laboratory, Stripping of Coatings Do not hesitate to ask for other processes.
- Laboratories that meet NADCAP criteria (AC7101 list), as well as assistance in the preparation of control and technical plans for specific processes.
- 

## QUALITY ASSURANCE CERTIFIED 10 ASS100 AND MILITARY CONCESSION.

- Work with technology standards/specifications that describe the following
  - Production requirements for equipment, personnel, and the process itself,
  - Properties of the raw material
- CMM measurements
- First Article Inspection (FAI) in accordance with AS9102
- Control and technical plans for specific processes
- Technological validation for each manufacturing process
- Implementation of NADCAP best practices into manufacturing processes
- Testing of materials and coatings properties
- Statistical process control for production

## Salloytech around the world

Get to know our network of **DISTRIBUTORS** around the world, contact them if you have questions



### WORLDWIDE DISTRIBUTION

Country	Company	Telephone	e-mail
Germany USA	SST Schuefer Surface Technologies	+49 172 8904666 GER +1 239 935 8229 USA	office@schuefer.eu
Great Britain	Innov8 Surfaces	+44 (0)7483 881170	<a href="mailto:jamie@innov8surfaces.com">jamie@innov8surfaces.com</a>
Austria	Thermal Spray Innovations	+43 67050 59479	<a href="mailto:nicholas.curry@thermalsprayinnovations.com">nicholas.curry@thermalsprayinnovations.com</a>
Taiwan	Innovator Surface Technologies Co.	+886 (02) 8662 6788	otto_cheng@innovator.com.tw
Italy	Aerospace Lean Services	+39 34568 68925	<a href="mailto:f.siniscalchi@a-l-s.it">f.siniscalchi@a-l-s.it</a>
China	WEL TRADING	+86 7503892823	wel@welcn.com

Salloytech company was established in 2014. We are engineering office with a production facility. From the beginning of our operation, the company focuses on quality assurance of manufactured parts.

From January 2018, Salloytech headquarter is located at the science and Technology Park „Świerk” which is the part of the national center for nuclear research in Otwock near Warsaw. Whole area is strictly protected because of the direct neighbourhood of a nuclear reactor ‘maria’. Entrance to our office, warehouse and production floor is possible only via electronically controlled access zone. When working interdisciplinary projects we are able to take advantage of laboratories and experience of the engineers and scientists employed at the institute.

Thanks to a team of certified specialists, the aerospace industry is the main customer of our services. Main activity of company is mechanical engineering but the big part of our business is machining difficult-to-machine materials such as nickel-base superalloys and titanium. The company's activity also includes rapid prototyping, reverse engineering and non-destructive testing, work on development projects aimed at improving technological processes and consulting services in the field of quality assurance.

### Vision:

To be a recognizable brand in the thermal spray and aviation industry on the global market.

Be not only associated with the manufacturing of parts under the customers purchase orders but also with innovative solutions that will bring many benefits to the contractor.

### Mission:

Salloytech's mission is to meet the requirements of thermal spray and aviation industry customers by:

- new implementations of technological processes using developed know-how,
- machining of difficult-to-machine materials using modern and non-conventional manufacturing processes,
- continuous improvement of employees' qualifications.

### Our projects:



- Canada
- Germany
- Japan

## Quality Policy:

Company Quality Policy is focused on the mechanical engineering projects and manufacturing of parts as well as the implementation of the best quality services, meeting the requirements of our customers. Salloytech is also focused on building lasting relationships with clients thanks to trust and a sense of mutual benefit.

The main assumptions and objectives of the Quality Management System are:

- customer satisfaction, which we achieve by timely execution of orders, providing products and services of the highest quality,
- manufacture of products with assured quality materials while maintaining an advantageous price thanks to cooperation with qualified suppliers,
- continuous development of infrastructure and improving working conditions by modernizing the production floor,
- constant improvement of our employees' qualifications thanks to the internal and external training program,
- high capability manufacturing processes through the implementation of new technologies and modernization of the machine park,
- optimization of materials costs by extending the range of suppliers,
- ensuring financial stability of the company by acquiring foreign markets and increasing production on domestic markets.

