



MEAL SERVICES GROUP

www.metalservices.it

www.labmet.it

www.ndtservices.it



Your Business Partner In Testing And Inspection

info@metalservices.it

info@labmet.it

info@metalservices.cn

www.metalservices.it

www.labmet.it

www.ndtservices.it



WWW.METALSERVICES.IT



[METAL SERVICES GROUP](#)



[#METAL_SERVICES](#)

METAL SERVICES GROUP – COMPANY PROFILE



2

Laboratories

Headquarter: **ITALY**

1

Laboratory

Headquarter: **CHINA**

1

Non Destructive Testing

Expediting, Services and Inspection

We Cooperate With Customer In Order To Achieve Its Targets.

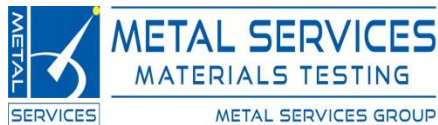
The materials testing laboratories managed by METAL SERVICES GROUP are strategically located in areas either concentrating key industries, like the largest European shipyard, world wide players of structural carpentry, steel mills machinery, power plants core components and a key booming plant like the Suzhou Industrial Park in **CHINA** among the ShangHai – Nanjing – NingBo industrial zones.

In **North East of ITALY**, we are located in FRIULI VENEZIA GIULIA in two different plants: Ronchi Dei Legionari (GO) and Maniago (PN).

METAL SERVICES GROUP

Partner for **testing activities (In/On Site)**, **control and inspection** on the entire production chain from raw material to the final product. Testing manned by inspectors Thirds Part. Heat treatments simulated and **sampling and machining shop**. **Training Courses**.

METAL SERVICES MATERIALS TESTING



Standard ISO/IEC 17025
Accreditation Number
ACCREDIA 1476

Laboratory Recognized by
Friuli Venezia Giulia
ISO 9001:2008 Certified

Mechanical Testing
Chemical Analysis
Corrosion Testing
Metallography
Sampling & Machining Shop

LAB.MET.



Standard ISO/IEC 17025
Accreditation Number
ACCREDIA 1224

Laboratory Recognized by
Friuli Venezia Giulia

Mechanical Testing
Chemical Analysis
Corrosion Testing
Metallography
Sampling & Machining Shop

NDT SERVICES



Certified & Qualified
Personnel
ISO 9712 ed SNT-TC1A

Non Destructive Testing
Inspection

Visual Testing
Dye/Fluorescent Penetrant
Magnetic Particle Inspection
Ultrasonic Testing + Xray
Metallography, Hardness And
Chemical Analysis On Site
Leak Test

SUZHOU METAL SERVICES CO., LTD. : Expediting, Suppliers Monitoring, Test Laboratory

**SUZHOU METAL
SERVICES CO., LTD.**



Accredited Laboratory
Registration Nr. **CNAS L5095**

Mechanical Testing
Chemical Analysis
Corrosion Testing
Metallography
Sampling & Machining Shop

Expediting
Suppliers Monitoring

SUZHOU METAL SERVICES CO., LTD.

33 A-2 MinSheng Road, ShengPu

Industrial Park

Suzhou 215126 Jiangsu CHINA

Phone +86 0512 69361963

Fax +86 0512 69361969

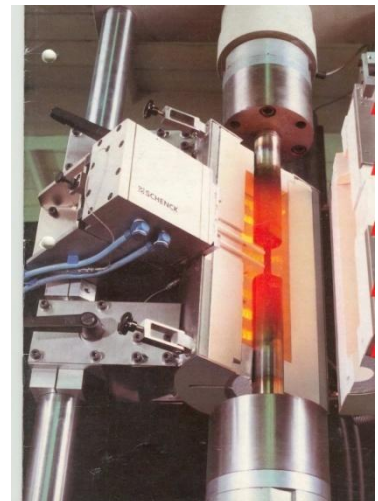
Mail: info@metalservices.it

MECHANICAL TESTING

- **Classification Of Materials**
- Assess Result Of **Heat Treat Processes**
- Test To Check The Performance Of WELD JOINTS
- **TENSILE TEST** On Standard Specimen (Room And Hot Temperature)
- **IMPACT TEST** According To Charpy (ISO) and ASME Standards (ASTM), From Room Temperature To -196°C
- **HARDNESS TEST** According To Rockwell, Brinell, Vickers And Micro-Vickers Standards
- **BEND TEST** And Compression Test

CHEMICAL ANALYSIS

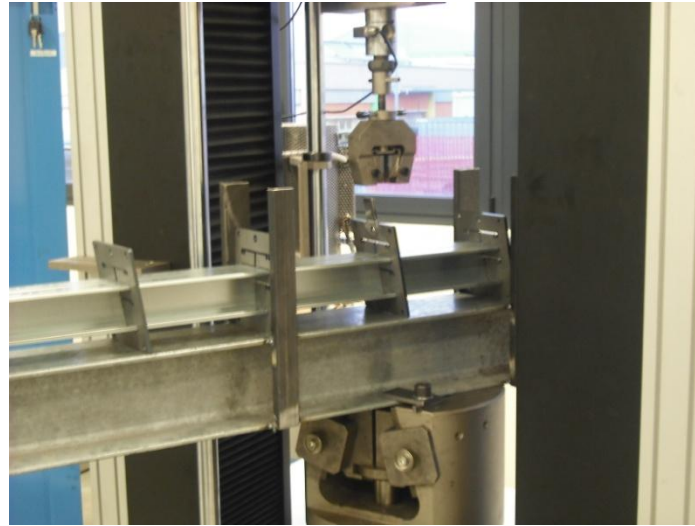
- Chemical Analysis On The Following Materials:
 - Carbon Steels, low, medium and high alloyed steels, stainless steels, tool steels, powder metal steels
 - Irons
 - Aluminium alloys
 - Copper alloys
 - Nickel alloys
 - Titanium alloys
 - Zinc alloys
 - Minerals, Mineral Slags
- ICP
- Gas: O, N, H
- Spectrometer OES



Trazioni a caldo fino a 900°C

MECHANICAL TESTING

- Mechanical Tests On Specific Customer / Customer's Specification:
 - Compression tests and Crushing,
 - Simple cycles of tension
 - Compression artifacts finished or unfinished.



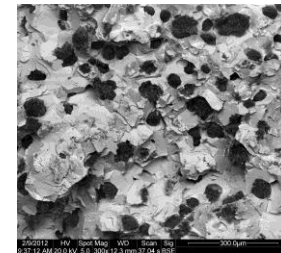
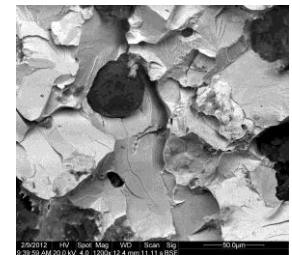
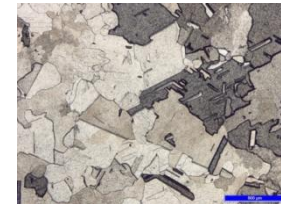
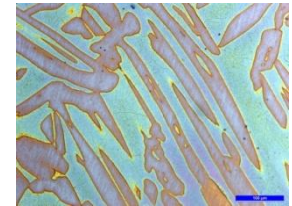
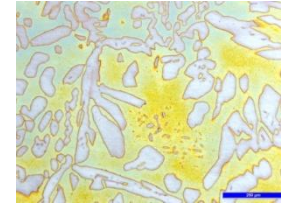
Simulation Of Compression Cycle

METALLOGRAPHY

- **Macrographic Examination**
 - Baumann sulphur print
 - Wraggee lead segregation print
 - Welded joints examination
 - Forgings and castings macro examination
 - Fractography
- **Micrographic Examination**
 - Austenitic/Ferritic grain size
 - Retained austenite
 - Non metallic inclusion determination
 - Graphite examination on irons
 - Delta ferrite, Sigma phase, other micro phases examination
 - Surface layer defects
 - Case hardening depth measure
 - Plated layers measure
 - Failure analysis
 - Metallographic replica

FAILURE ANALISYS

- This is the process of collecting failed components and the related history, analyzing the available data and testing not failed parts with the purpose to determine the causes of a failure and how to prevent it from recurring. Failure analysis relies on the use of a wide array of laboratory methods such as microscopy and macroscopy, spectrometry, NDT, static and dynamic design review, design of experiments and a deep technological experience.



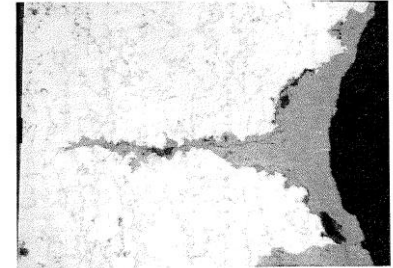
CORROSION TEST & ENVIRONMENTAL SIMULATIONS

• Environmental Simulations:

- Salt spray fog test (DIN 50021, ASTM B117, ISO 9227)
 - NSS - AASS - CASS
- Kesternik chamber tests (DIN 50018, ISO 6988)
- Humidostatic chamber tests (DIN 50017, UNI 8744)
- Cyclic tests (VDA 621 – 415)
- Prohesion tests
- Climatic chamber tests
- Testing on electronic components, electrical components, plastics
- Non standard corrosion tests

• Corrosion Tests:

- Intergranular corrosion (ASTM – A262, ASTM – G28, ASTM – A708, ASTM – G67)
- Localized corrosion tests, esfoliation tests, string corrosion tests
- H₂S exposure tests according to NACE standards (TM 0175, TM 0177, TM 0284)
- Stress corrosion tests according to ASTM standards
- Electrochemical tests
- Immersion tests



Particolare corrosivo e documentazione micrografica a corredo dell' indagine failuire



Metal Services has been classified as a R&D competent structure on corrosion processes and related protection

SAMPLING SHOP

- The capability to sample and machine internally the testing specimen is a strategic advantage for a metallurgic Lab for at least three different reason : first of all, the clear concept of Quality awareness of the technicians working in a Lab, second the minimization of the sampling related risks compared to a common machining shop, third the possibility to reduce drastically the lead time.
- Our Labs are equipped to sample and machine almost any kind and size of material/product

Key machinery includes:

- Large band saws
- Traditional and CNC turning machines
- Milling machines and nc working centers
- Grinding machines for planes
- Broaching machines

WELDING QUALIFICATION & NON DESTRUCTIVE TESTING (ON/IN SITE)

WELDING QUALIFICATIONS

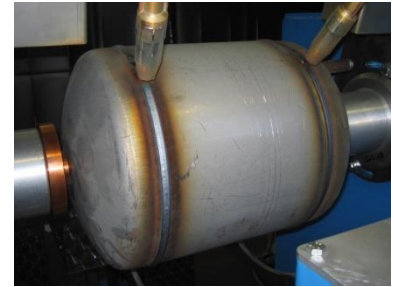
- Target of this activity is to offer a complete service to the Customers involved on relevant welding operations, according to the most common international standards like EN, ASME, AWS, API, NACE.

- **Personnel training**
- **Process Qualification**
- **Operators Qualification**

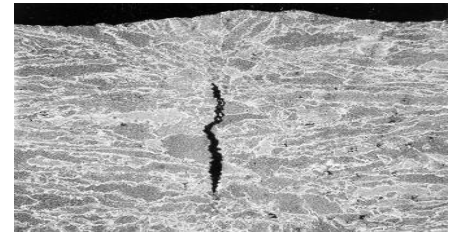


NON DESTRUCTIVE TESTING

- Performing of **Non Destructive Testing** in the industrial & civil sectors, using cutting edge technologies:
 - VT – Visual / Video Inspection
 - PT – Dye/Fluorescent Penetrant
 - MT – Magnetic Particle
 - UT – Ultrasonic Testing
 - RT – Radiographic T
 - LT – Leak Test
- **On Site Chemical Analysis**
- **On Site Thickness Gauging**
- **On Site Hardness Testing**
- **On Site Metallographic Test (Metallographic Replicas)**



Welding Qualification



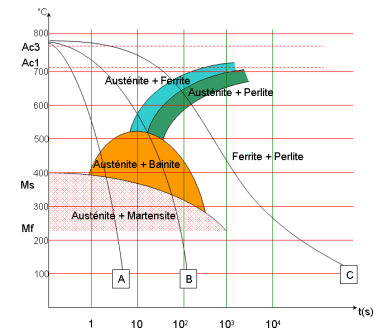
NDT- Metallographic Replicas

CONSULTING & TRAINING

Training classes cover most part of the traditional arguments managed by a metallurgic laboratory:

- basics about the materials, classification, key properties
- Fe-C alloys, phase diagrams, properties, hardenability
- Heat treating, equipment, atmospheres
- Laboratory practices
- Quality Control and Quality Systems
- Industrial Organization

- New product design, development of new technologies, new processes and applications are crucial factors in the survival of a company; this is linked to the market changing expectations, need to react to competitors moves, need to replace products at the end of their lives.
- A more aggressive scenario is easily identified in the intensified transfer of technology between the industrial countries and the low cost emerging ones: to survive, the developed countries do have only the alternative to develop more innovative products and processes.
- Services has the competence (the Italian Company has been classified as "R&D competent body for the metallurgy and related matters") either to develop directly R&D projects or to support third parties.



METAL SERVICES MATERIAL TESTING SRL

Via J. Srebernic, 14
34077 Ronchi Dei Legionari (GO)
T: +39 0481 47 48 49
F: +39 0481 47 48 25
info@metalservices.it



LAB.MET. SRL

Viale Venezia, 22
33085 Maniago (PN)
T: +39 0427 70 93 14
F: +39 0427 73 75 22
info@labmet.it

NDT SERVICES SRL

Via Bugatto, 6
34077 Ronchi Dei Legionari (GO)
T: +39 0481 47 48 49
F: +39 0481 47 48 25
info@metalservices.it

SUZHOU METAL SERVICES CO., LTD.

33 A-2 MinSheng Road, ShengPu
Industrial Park Suzhou 215126 Jiangsu CHINA
P: +86 0512 69361963
F: +86 0512 69361969
info@metalservices.cn

T:

info@metalservices.it

info@labmet.it

info@metalservices.cn

www.metalservices.it

www.labmet.it

www.ndtservices.it



WWW.METALSERVICES.IT



[METAL SERVICES GROUP](#)



[#METAL_SERVICES](#)