



Razi Metallurgical Research Center was established in 1982 with the purpose of doing scientific, technical and engineering research, developing professional software and offering laboratory and information services in the field of engineering and materials science. The main activities of this center revolves around materials, metallurgy, chemical, polymer, ceramics, new materials, nanomaterial engineering; designing the production process of metallic and nonmetallic materials, simulation of the design and production process of materials.

This center is known as the first research center in the private sector with 4500 m², 170 expert staff and near 40 industrial and academic advisors. RMRC has productive cooperation with a wide variety of Iranian industries and has 12 agencies in Tehran and other cities of the country.

RMRC was selected as the first peer lab by the Institute of Standards and Industrial Research of Iran (ISIRI) and is accredited by this institute. RMRC also was certified by the German institute DAKKS in 1999 and is an ISO 9001 certified laboratory and is accredited by Saudi Arabian Standard Organization (SASO). Since 2004 RMRC has been offering engineering and laboratory services to the countries which accept SASO such as Kuwait, Syria, Lebanon, UAE, Bahrain, Qatar and Persian Gulf states. RMRC has joined Iran Nanotechnology Laboratory Network with the intention of helping developing modern technologies since 2005 and has won first place 11 times in the nanolaboratories of the country.

Our scope of activities consists of 2 parts:

- Laboratory services
- Research projects

Laboratory services

RMRC consists of 13 laboratories which offer a wide variety of physical, mechanical and chemical analysis as well as product failure analysis of metals, polymers and ceramic materials. We have the ability to test metallic, polymer, mineral, composite and ceramic samples.

With respect to our advanced equipment, different agencies in different cities, mechanized systems and expert staff, the test results usually are delivered in 1 or 2 days.

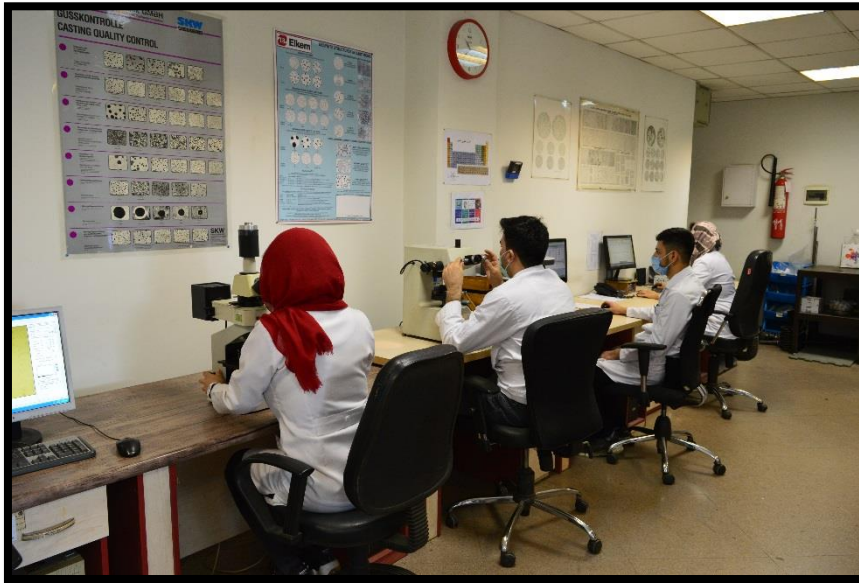
Our laboratories include:

SEM lab



RMRC material testing laboratory has access to two Scanning Electron Microscopes (SEM) and a Field Emission Scanning Electron Microscope (FESEM) which has made RMRC the most modern and equipped SEM laboratory in Iran.

Metallography lab



With nearly 40 years of experience and using modern equipment, this lab is one of the most credible laboratories in the field of analyzing metallographic structures.

Mechanical testing lab



Our Mechanical Testing Services include:

Tensile testing, impact test, weldability, bend test, compression, hardness testing, flattening, proof load, fasteners, component testing, fatigue testing, creep testing, nick break by drop weight and hydraulic/ pneumatic testing and more.

Chemical analysis lab



With using a variety of materials analysis techniques, RMRC has the potential to offer a wide range of research services in the field of chemical analysis. Our different labs in this section are:

- Quantometer
- XRF/XRD (X-ray Florescence and X-ray Diffraction)
- Chemistry: equipped with ICP, atomic absorption, HPLC, Carbon and Sulfur measuring device and a modern device for measuring the properties of water and wastewater.

Mineralogy laboratory (XRF / X-Ray Diffraction Laboratory)



Corrosion lab



This lab is currently known as the leading corrosion lab in Iran, especially in oil, gas and petrochemical industries and performs SSCC, HIS, Salt Spray and UV tests.

Polymer lab



RMRC operates several advanced polymer and plastic tests on polymers such as plastics, rubbers, elastomers, paints and coatings. Some of RMRC's specific testing capabilities and methods testing are described below:

Tensile, compression, deflection, compression stability, hardness (shore A&D), impact test, abrasion, absorption, flammability, melt flow, density, resilience, ozone, FTIR, and polymer analysis.

Performance testing



Thermal and mechanical cycling, environmental effect, evaluation of product features and overall performance, evaluation of product's durability, construction and workmanship, independent verification of product performance claims, evaluation of product's physical, chemical and mechanical characteristics are part of services offered to our customers.

Optical Emission Spectrometry



Non destructive tests

We offer a wide variety of NDT tests such as PT, MT, RT, UT and phased Array.



Sample preparation



In this section, various types of samples such as metallic, polymeric, mineral, composite, ceramic, and others are prepared for different tests in accordance with international standards.

Portable tests



RMRC offers a variety of portable metallurgical tests for a wide range of materials. Determination of chemical analysis and material designation, hardness testing, microstructure evaluation, nondestructive testing for both metals and polymers are part of the available tests at RMRC.

Reference Materials Laboratory



Reference materials (RM) are samples that are used to set up and calibrate optical emission spectrometers. RM samples should be completely homogeneous in terms of chemical composition and have the least amount of alloying element segregation.

Razi Metallurgical Research Center (RMRC) has been the first and the only manufacturer of reference materials to produce these samples inside the country since 2003 and in 2017 and 2018, it also succeeded in registering patents for the production of steel and non-ferrous reference materials.

At present, the range of alloys produced is much wider and includes a wide range of industrial alloys such as carbon steels and stainless steel, manganese steel, grey and ductile cast irons, Ni -resist and Ni-hard cast irons, Brass and bronzes, aluminum alloys, zinc based alloys and super alloys.

For more information about our tests and laboratories please visit our website:



www.RAZI-CENTER.NET

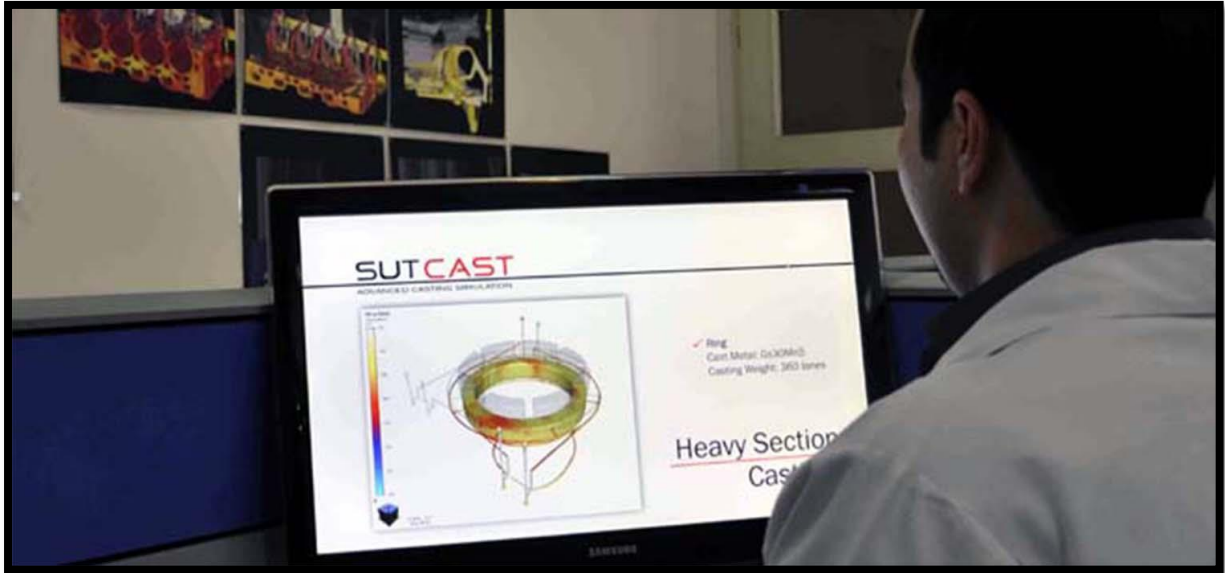
RMRC's Research Division:

Our performance and activities represent 38 years of experience in RMRC. In this division in addition to training and information services, we provide services such as; doing research and industrial projects like developing technical knowledge, developing technical specifications of industrial parts, material replacement, reverse engineering, failure analysis and life assessment of industrial parts and improvement projects of production processes. We have also successfully accomplished hundreds of research and industrial projects.

This department consists of this research departments:

Casting Department:

Design and engineering and Simulation unit



Production



Producing standard reference materials



Materials identification and selection department:

[Failure analysis and life assessment of industrial parts](#)

[Advanced materials and nonmaterial](#)

Corrosion department:

[Industrial coating](#)

[Corrosion](#)

RMRC is certified as a "Research Center" by the "Ministry of Science, Research and Technology" and the "Ministry of Industry, Mine and Trade".

Our customers:

RMRS currently has over 8000 customers. Our biggest customers are:

Oil, Gas and petrochemical industries

Standard institutes and customs

Engineering Inspection companies

Power industry

Universities and research centers

Cement and building materials industries

Casting and metallurgical industries

Environment, water and wastewater industries

Machinery industries

Polymer and plastic industries

Heating and cooling industries

Aerospace industries

Mine industries

Transportation industries

Rolling, forging and forming industries