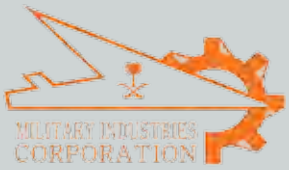
Military Industries Corporation (MIC)



Military Industries Corporation (MIC)

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History

The idea of establishing national military industries in the Kingdom of Saudi Arabia was first introduced by the founder late King Abdul Aziz bin Abdul Rahman Al Saud in 1949. ARoyal Decree was issued stipulating the establishment of military plants at Al-Kharj. The initial step was taken on 08/09/1950, when late HRH Prince Mansour bin Abdul Aziz, the then Minister of Defense, signed the infrastructure contracts for the military factories and supply of equipment for construction of an ammunition plant. The foundation stone of the factory was laid down on 24/06/1954. Inauguration of the military factories had taken place on 15/07/1951 by late King Saud bin Abdul Aziz, marking the beginning of production of the ammunition factories. Such phase of cited factories were featured by hard work to gain experience and train Saudi national.

Planning and Development Phase

Indications of success appeared at the foundation phase and that expanded theambitionsto build an advance and versatile base of weaponry and ammunition factories through a five-year plan. The purpose was to improve and expand the military factories to include new types of ammunition, bombs and weaponry; and also to construct the infrastructure of factories, industrial and support facilities including maintenance workshops, educational centers and necessary utilities. This is aside from accommodation, , medical and recreational services for the convenience of the Saudi personnel.

milestones of developments were as follows:

- Recruiting, developing and retaining a national workforce in all product lines of the military factories in 1970.
- signing a contract for construction of (G3 rifle) in 1972, pursuant to the instructions of late HRH Prince Sultan bin Abdul Aziz Al Saud, Minister of Defense, Aviation and Inspector General.
- Inaugurating the first weaponfactory in Saudi Arabia and industrial training center in 1974, under the care of late King Faisal bin Abdul Aziz.
- Completing the infrastructure for some necessary facilities such as the general administration building in Al-Kharj, production, maintenance and logistics facilities along with the warehouses, sports playgrounds, hospitality building, hospital, water and communications networks, roads, transportation terminal, desalination and cooling plants and a power plant.
- Inaugurating the grenade factory, 20mm caliber aircraft ammunition, tool and spare parts factory, and the primer and capsule filling factory in 1983 under the direction and care of late HRH Prince Sultan bin Abdul Aziz Al Saud, Minister of Defense, Aviation and Inspector General.

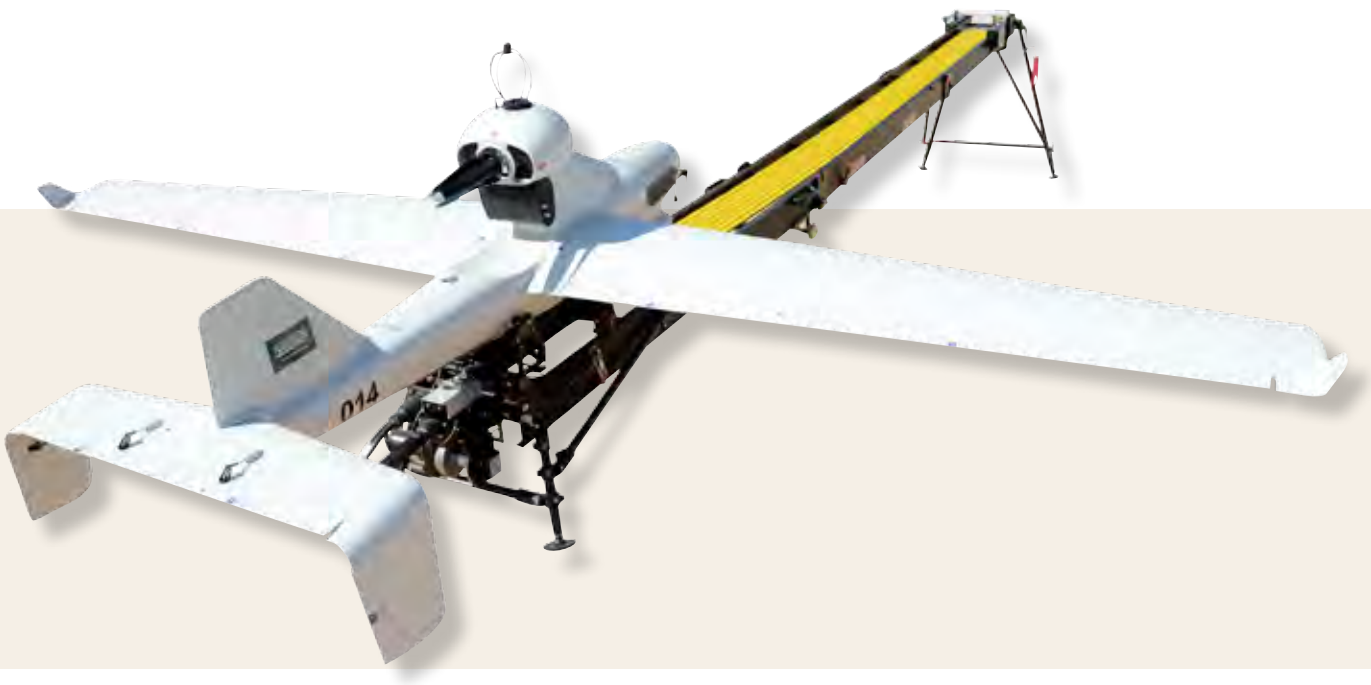
- Inaugurating the industrial secondary institute in 1984 for education and training of technical staff.
- Inaugurating the industrial research and developmentcenter.
- Establishingthe (MP5 semi-automatic rifle) factory on 29/03/1987.
- launchingthe (81mm mortars shells) factory afterbeing renovatedin 1987 and developing process is ongoing.
- Establishing the cooperation between (MIC) and the private sector represented bysome national companies and establishments. Such cooperation resulted in the establishment of a factory for military uniforms and accessories on 01/06/1995 and the foundationof another factory for armored vehicles and heavy equipment.
- Establishing the partnership and cooperation between (MIC) and the military sectors including the Royal Saudi Air Forces by establishing training aircraft bombs factory (25 pounds) in 1998 .
- Upgrading the industrial secondary institute in 2008/2009, from an entity enrolling intermediate school graduates and supply (MIC) with the required personnel, to an advanced higher institute named Prince Sultan Industrial College. The aim of such college is to graduate qualified manpower to meet (MIC) requirements in line with upgrading of the product lines by enrolling graduates of the higher secondary school (scientific section) only and train them in the various sections of the institute (mechanical, electrical, electronic and chemical technology).
- Inaugurating production line of (G36 Rifle) in 2009.

Strategic Building Phase:

When the military factories were prepared to enter into more advanced fields to initiate a new phase of strategic military industries, a Royal Decree Approval was released on 03/12/1985 to transform the military factories into a military industries corporation as an independent entity headed by late HRH Prince Sultan bin Abdul Aziz Al Saud, Minister of Defense, Aviation and Inspector General. Such approval came in preparation for a new phase featuring the following:
- Flexibility in dealing with sources of global military industries to ensure localization of the military industries and keep pace with the latest world's developments in the industry.
- Integrated technical and industrial frame with the national private sector to cement the mutual cooperation to serve the military industries and invest the potentials of the national industries to support the existing industries and enter new industries.
- Commencement of a new phase citing trust in the future. It is an explicit invitation for all efforts to work jointly in order to promotethe military industries into more advanced fields.

MostImportant milestonesof this phase:

- Establishing (9mm MP5 Semi-automatic Rifle) factory on 28/04/1987.
- Establishing (9 mm 13 caliber M7P Pistol) on 15/03/1990.
- Inaugurating (G36 Rifle) factory and female section at theMilitaryUniform and Accessories Factory on 28/05/2013.
- Laying the foundation stone for Unmanned Air Vehicle(Luna) project, Armored Vehicle and Heavy Equipment project, and heavy artillery ammunition project on 28/05/2013.
- Release of Council of Ministers decision on 1/7/2013 approving the new organizationcharterof corporation and changing its name to Military Industries Corporation (MIC) to have its own independent character.



Objectives

The Military Industries Corporation (MIC) aims to:

- Building a military industrial base in the Kingdom that ensures the setting up, growth and development of military industries to cope up with the scientific advancement on proper economic basis.
- Qualifying the local technical and administrative staff to develop this industry.
- Conducting researches and studies in the fields related to MIC objectives for the sake of establishing specialized departments in collaboration with Saudi and international expertise, universities and research centers.
- Developing scientific and practical plans to utilize the resources and the human resources in the Kingdom in the field of military industries.
- Meeting the requirements of the armed forces and their needs alongside with the other military sectors.
- technology transfer and setting up the research centers to maximize the weapon performance and efficiency.

Factories:

1. Weapon factories.
2. Light ammunition factories.
3. Heavy ammunition factory.
4. Medium ammunition factories; (30mm.25 mm).
5. Aircraft ammunition (20 mm caliber).
6. Training aircraft bombs factory; (25 pounds).
7. Mortars shells factory; (81 mm) caliber.
8. Spare parts and tools factory.
9. Primer and filling factory.
10. Armored Vehicle and heavy Equipment factory.
11. Military Uniform and Accessory factory.
12. Military communications systems factory « SDR»

Products

Ammunition:

1- Light Ammunition:
- 7.62 mm caliber of various types (live – illuminating training)
- 9 mm caliber.
- 12.7 mm caliber (piercing – reagent – incendiary).
- 5.56x45 mm caliber of various types (live 109SS - training DM18).

2- Medium ammunition:
- Aircraft ammunition (20 mm) caliber of three types (M55 s training ammunition – M56 High explosive incendiary – M53 Armor Penetration).
- 25mm and 30mm factories.

3- Bombs:
- Mortars shells (81 mm).
- Training aircraft bombs (25 pounds).
- Heavy artillery of 155 mm caliber.

36G Rifle
5.56 x 45mmcaliber, basic (v)

Technical Specifications

Caliber	5.56 x 45mm
Firing rate	750 rounds / minute
Initial speed	920 meter / second
Lengths	
Overall length with extended butt	998 mm
Overall length with folded butt	758 mm
Barrel length	480 mm
Weights	
Weapon weight with empty magazine	3300 g
Magazine loaded with 30 rounds	490 g
Butt strap	110 g

36G Rifle
5.56 x 45mmcaliber, light (c)

Technical Specifications

Caliber	5.56 x 45mm
Firing rate	750 rounds / minute
Initial speed	750 meter /second
Lengths	
Overall length with extended butt	720 mm
Overall length with folded butt	500 mm
Barrel length	228 mm
Weights	
Weapon weight with empty magazine	2.8 kg
Magazine loaded with 30 rounds	490 g
Butt strap	110 g

36G Rifle
5.56 x 45mmcaliber, short (k)

Technical Specifications

Caliber	5.56 x 45mm
Firing rate	750 rounds / minute
Initial speed	850 meter / second
Lengths	
Overall length with extended butt	858 mm
Overall length with folded butt	613 mm
Barrel length	320 mm
Weights	
Weapon weight with empty magazine	3 kg
Magazine loaded with 30 rounds	480 g
Butt strap	110 g

36G Rifle (Transparent)
5.56 x 45mm caliber for training purposes

Technical Specifications

Overall length	998 mm
Overall length with folded butt	755 mm
Height	250 mm
Weight	2300 g

MP5 sub machine gun with retractable butt 9 x 19mmcaliber

Technical Specifications

Firing rate	800 rounds / minute
Initial speed	400 meter / second
Lengths	
Overall length withextended butt	680 mm
Overall length with folded butt	490 mm
Barrel length	225 mm
Weights	
Without magazine	2880 g
Magazine with capacity of 15 rounds	120 g
Magazine with capacity of 30 rounds	170 g
Bullet weight	12 g

MP5 sub machine gunwith fixed butt 9 x 19mm caliber Basic

Technical Specifications

Caliber	9x19mm
Firing rate	800 rounds / minute
Initial speed	400 meter / second
Lengths	
Overall length with extended butt	660 mm
Overall length with folded butt	490 mm
Barrel length	225 mm
Weights	
Weapon weight with empty magazine	2.88 g
Magazine loaded with 30 rounds	525 g
Butt strap	147 g

G3 caliber Rifle with retractable butt

Technical Specifications

Caliber	7.62 x 51mm
Firing rate	650 rounds / minute
Initial speed	800 meter / second
Lengths	
Overall length with extended butt	1020 mm
Overall length with folded butt	840 mm
Barrel length	450 mm
Weights	
Weapon weight with empty magazine	4.535 g
Magazine loaded with 30 rounds	771 g
Butt strap	110 g

G3 (7.62 x 51mm) caliber Rifle For Parades & Ceremonies

Technical Specifications

Lengths	
Overall length	1020 mm
Overall length with bayonet	1180 mm
Height	211 mm
Width	60 mm
Weight	3000 g
Body coated with chrome	

GR7 (7.62 x 51mm) caliber NATO Rifle with retractable butt

Technical Specifications

Caliber	7.62 x 51mm
Firing rate	600 rounds per minute
Initial speed	800 meter per second
Lengths	
Overall length with extended butt	1020 mm
Overall length with folded butt	845 mm
Barrel length	455 mm
Weights	
Weapon weight with empty magazine	5.41 g
Magazine loaded with 30 rounds	771 g
Butt strap	110g

GR7 (7.62 x 51mm)caliber short NATO Rifle with fixed butt

Technical Specifications

Caliber	7.62 x 51mm
Firing rate	600 rounds per minute
Initial speed	800 meter per second
Lengths	
Overall length with extended butt	1030 mm
Barrel length	480 mm
Weights	
Weapon weight with empty magazine	5.16 g
Magazine loaded with 30 rounds	771 g
Butt strap	110g

G36 Rifle Factory

Due to the need of the armed forces for advanced military weapons , personal combat weapons, and to meet the requirements of all military sectors, this rifle has been selected, out of several weapons, featuring its light weight since most of its parts are made of carbon fibers. This is aside from capacity of the rifle, its efficiency in combat under different conditions; and its firing density which reaches 750 rounds per minutes (as described in the specifications in page 13).

The factory includes an administrative and industrial building with modern machines, firing fields, raw material warehouse as well as industrial water treatment and water refining station.

The factory is witnessing a unique experience and a quantum leap in the manufacturing systems in the Middle through the implementation of enterprise resource planning system (ERP-SAP), being one of the largest and most powerful ERP systems in the international market on the basis of which the factory has been awarded four (4) international quality certificates.

C36 Rifle (5.56 mm x 45), with its three types (basic - short - light) is produced and manufactured by competent Saudi personnel who have received in kingdom and out of kingdom training.

Factory of Communication System "SDR"

This includes SDR Family (Handheld, Man pack, Vehicular and Base Station SDRs) are designed to provide seamless communications among tactical users through secure voice, data and video. These Software Defined Radios ensure increased survivability against Electronic Warfare threat by providing alternative communication means over a wideband ranging from 30 MHz to 512 MHz. Software configurable architecture enables supporting of various tactical radio waveforms and advanced EPM techniques on the same platform.

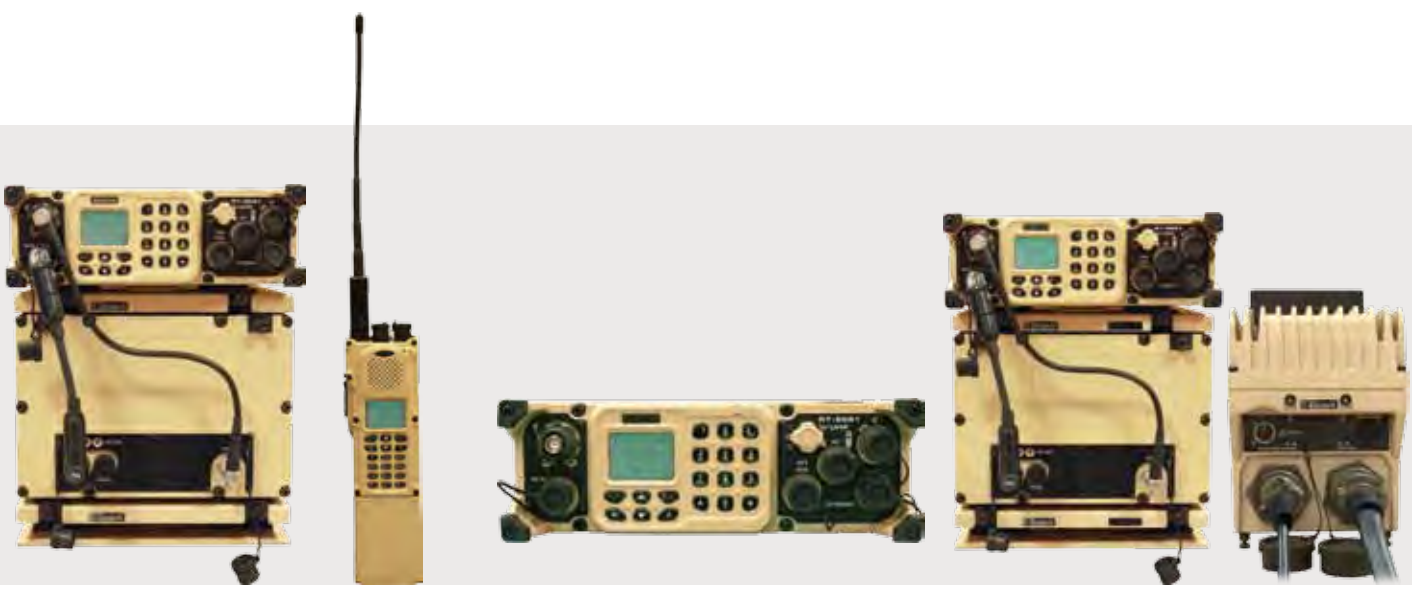
Devices Properties

- Multiband 30-512 MHz
- Multimode, multi mission
- Software programmable architecture
- Advanced EPM Technique:

1- Frequency Hopping

2- Direct sequence spread spectrum

- High data rate up to 112 kbps throughput
- Reliable Radio Networking
- IP packet data service
- Simultaneous voice and data
- Near-real time data transfer (for sensor to weapon applications)
- 1300 presetchannels



Military Uniforms and Accessory Factory

The (military) office uniforms includes:

- Parades and celebrations uniform (1).
- Graduation uniform.

Military work uniform includes:

- Summer uniform (3).
- Winter uniform (3).
- «Digital» field uniform (4).

Winter coats includes:

- Long winter coat.
- «Digital» winter coat.
- Short winter coat.

Other individual field accessories includes:

- Military combat belt.
- Beret.
- Cap.
- Embroidery of Military ranks and logos.
- Military shawl and pajamas.
- Gun holster.
- Combat helmet and protection plates.
- Backpack.

Armored Vehicle and Heavy Equipment Factory

It produces the following:

- Shibl 1 and Shibl 2: light armored four wheel drive vehicle with various sizes and specifications.
- Guard, patrol and special task vehicles: Originally they were civilian vehicles partially armored and fitted with special accessoriesto meet the tasks and requirements of the end users.
- Hydraulic bumper: It's a flexible bumper which is electrically controlled and hydraulically operated It can be used several times in case of power outage.
- Maintenance, renovation and customization of Ben hard armored vehicle.
- Extra armoring of Hummer vehicle.
- Tuwaiq armored vehicle.
- Armored guard rooms.

Spare Parts and Tools Factory

The Military Industries Corporation (MIC) manufactures different types of tools, especially that for which no drawings or technical specifications are available, for all military , government andthe private sector. This is done through the reverse engineering techniques and digital control machines using the latest designing programs and industrial drawing and manufacturing methods along with central milling and turning machines, electric wire cutting machines and forming machines using the Electro-excitation.

Heavy Artillery Ammunition Factories:

In this factory most of the parts of the heavy artillery ammunition is made beginning with loading, assembling and packing. The factory includes a comprehensive loading laboratory that combines the personnel safety regulations compliance and the ability to pack various types of bombs and projectiles such as:

1- Mortars shells of various types.

2- Artillery projectiles of 155mm caliber.

3- Artillery projectiles of 105mm caliber.

The laboratory is capable to load the aircraft bombs (MKS 80-84) up to 2000 pounds.

Military Transport Vehicles Factory

- Objective: To manufacture and localize military transport vehicles of high quality to suit the environmental and climatic conditions of the Kingdom and meet the requirements of the various military sectors locally and regionally in the near future; and also supply professional highly trained Saudi manpower in the future.
- Facilities Area: The total space area of the project is 98000thousand square meters.
- Production capacity: 500 – 1000 vehicle per annum of the following types:
  a-T810Military vehicle 5 ton payload ,6x6 drive.
  b-T815-7military vehicle with 4x4up to 12x12wheel drive with a payload ranges between 8 to 34 tons.
  c-T158 civilian vehicle with 4x4 up to 12x12wheel drivevehicle with a pay load ranges between 8 and 34 tons.

Production, of (Luna) Unmanned Aircraft System

Objective:

To own advanced and highly precise strategic technologies that predict the` danger before it happens to defend the homeland and its properties.

Execution phases:

The phases include the establishment and setting up of manufacturing and production lines of (Luna) system, integrated logistic support center, research and development laboratory and trainingcenter for Saudi engineers and technicians in this field.

Aircraft Features:

- It is easy to operate, light weight, powerful drone system for real time reconnaissance and surveillance and can accommodates multi payloads.
- Light weight, able to evade radar systems and can accommodate multiple loads.

Medium Ammunition (25mm, 30mm) caliber Project

Objective: Enabling the MIC to produce medium caliber ammunition.

Upon completion of the project, the MIC shall be able to produce 25mm caliber ammunition used in (M242) Canon and also produce 30mm caliber ammunition used in the (M230) Canon to satisfy the needs of the military sectors of medium ammunition currently and in the future. The project also aims to transfer and localize the 25mm and 30mm caliber ammunition manufacturing technology to MIC.

Phases of Execution:

1- loading, assembling and packagingphase includes installation of the loading, assembling and packaging product line for 25mm and 30mm caliber medium ammunition and setting up of the firing fields.

2- The phase for manufacturing of the metal parts including the product line for the manufacturing of the metal parts of the ammunition.

- The 25mm caliber medium ammunition used for Bradley tank, and light armored vehicle (LAV) fitted with M242 Bushmaster machine gun.
- The 30mm caliber medium ammunition used for Apache helicopters fitted with M230 machine gun.

Project Buildings:

The project consists of eight industrial buildings as follows:

1- loading , assembling and packaging building with a total space area of 2300 square meters.

2- Four (4) buildings for parts manufacturing with a total space area of 3860 square meters.

3- Two depots with a total space area of 1200 square meters.

4- Firing field building with a total space area of 9768 square meters.

Pilot lot production has completed and theactual production shall begin in the first quarter of 2017.

Technology Transfer Project for Design and Production of Electronic Printed Circuit Boards

The potentials of the technology transfer project for the design and production of electronic boards are divided into:

1- Design and development of printed circuit boards.

2- Production and testing of electronic systems and boards.

The technology transfer project team for the design and production of electronic printed circuitboards follows a mechanism to understand the requirements of the customer and produce a product capable of serving its purpose efficiently through the best technological solutions.

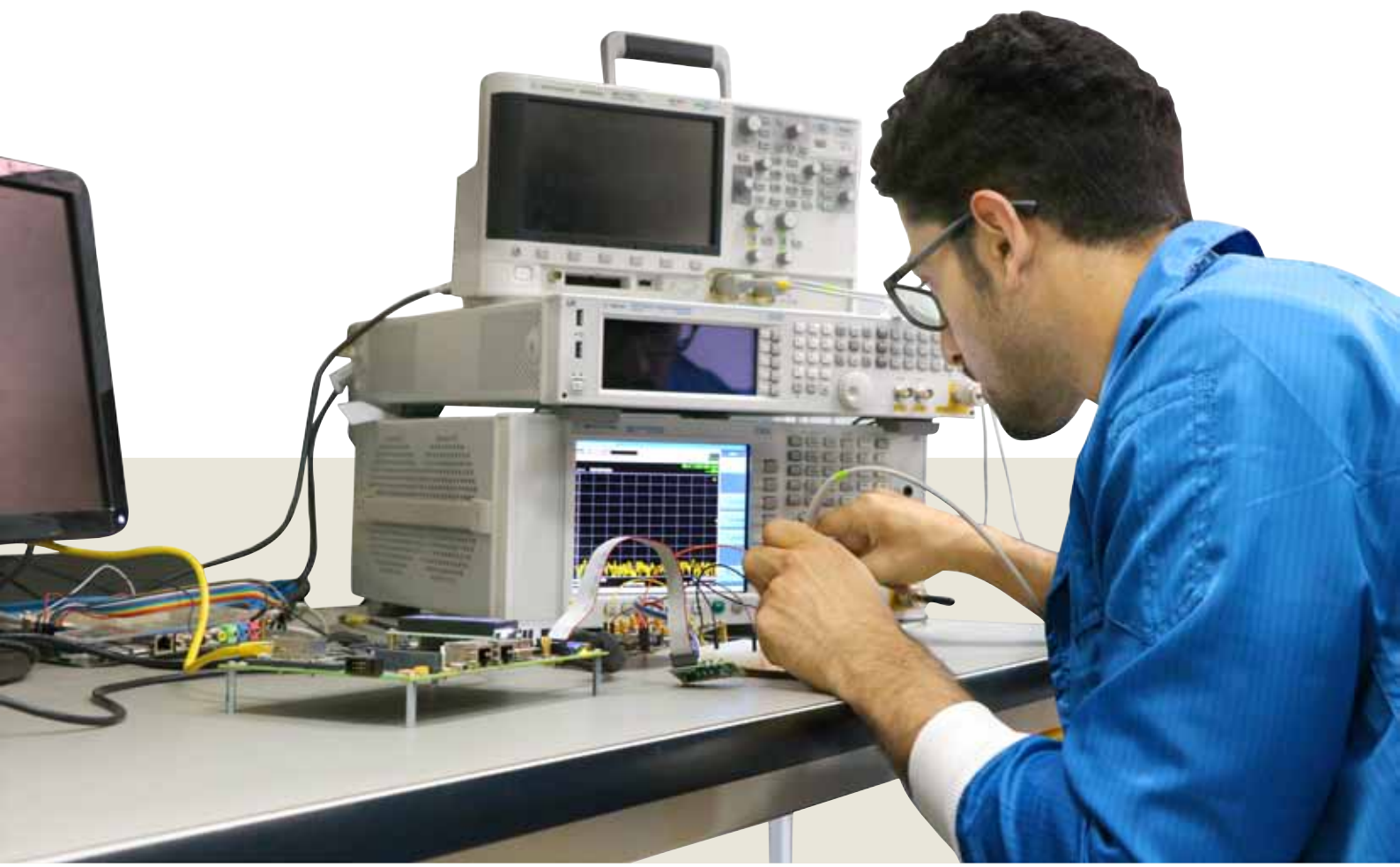
The electronic printed circuit boards are designed and developed at the project laboratory through quality design and testing tools.

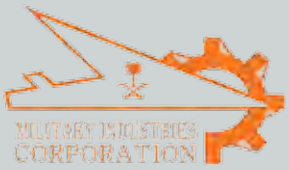
Production:

The project contains electronic printed circuit boards assembly line operated by a qualified crew capable of providing high quality products.

The project also includes advanced operation and welding testing devices including X-ray machine.

The production crew can also carry out the complicated welding works with high efficiency according to the standards designated for each part.





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