GENERAL DIRECTORATE OF MILITARY FACTORIES

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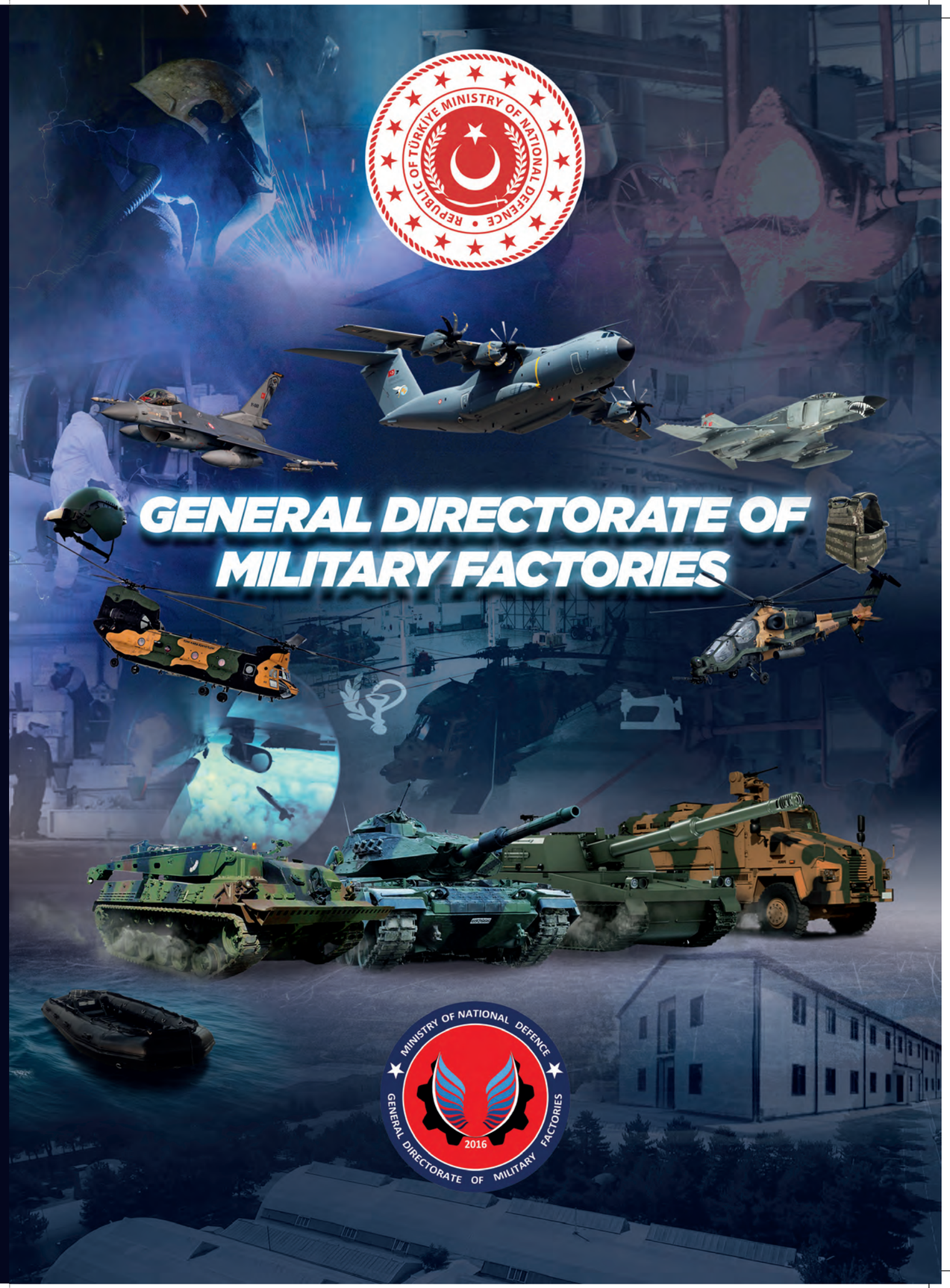


GENERAL DIRECTORATE OF MILITARY FACTORIES

GENERAL DIRECTORATE OF MILITARY FACTORIES

General Directorate of Military Factories which was established within the body of Turkish Ministry of National Defence in 2016 in order that the military factories are effectively managed by being united under one financial and administrative authority includes 3 Air Maintenance Factory Directorates, 7 Main Maintenance Factory Directorates, 12 Maintenance Factory Directorates, 3 Sewing and Tailoring Shop Directorates, 1 Pharmaceutical Factory Directorate and 1 Supply, Quality Assurance and Project Follow-up Directorate in its provincial organisation.

Our General Directorate with its central organisation and 27-unit provincial organisation in total including 26 Factory / Sewing & Tailoring Shop Directorates and 1 Supply, Quality Assurance and Project Follow-up Directorate conducts maintenance, repair, production, overhaul, modification and modernization activities for the weapons and systems of the Turkish Armed Forces by employing competent, qualified and expert staff with international experience and it takes indigenous and national procurement approaches as a basis in order to meet the needs to perform those activities.

When our experienced and competent maintenance personnel employed by our General Directorate render maintenance services for the military forces, institutions, organizations in Türkiye and in the friendly and allied nations, they always serve with the consciousness of their responsibility. Furthermore our Military Factories also carry out their activities in compliance with the national and international quality standards.

General Directorate of Military Factories intends that our national war industry is elevated to the higher and higher levels by producing primarily for the Turkish Armed Forces and then for the public organizations and institutions, friendly and allied nations in compliance with the international quality standards.

If there is any conflict between the Turkish version and translated version of the text included by the catalogue of General Directorate of Military Factories, Turkish version shall prevail.

CONTENTS

1ST AIR MAINTENANCE FACTORY DIRECTORATE 7
2ND AIR MAINTENANCE FACTORY DIRECTORATE 17
3RD AIR MAINTENANCE FACTORY DIRECTORATE 25
5TH MAIN MAINTENANCE FACTORY DIRECTORATE 39
2ND MAIN MAINTENANCE FACTORY DIRECTORATE 51
4TH MAIN MAINTENANCE FACTORY DIRECTORATE 57
6TH MAIN MAINTENANCE FACTORY DIRECTORATE 63
7TH MAIN MAINTENANCE FACTORY DIRECTORATE 69
8TH MAIN MAINTENANCE FACTORY DIRECTORATE 77
ELECTROOPTICAL SYSTEMS MAIN MAINTENANCE FACTORY DIRECTORATE 83
MAINTENANCE FACTORY DIRECTORATES 90
ARMY SEWING & TAILORING SHOP DIRECTORATE 93
NAVY SEWING & TAILORING SHOP DIRECTORATE 99
AIR SEWING & TAILORING SHOP DIRECTORATES 105
PHARMACEUTICAL FACTORY DIRECTORATE 111
QUALITY CERTIFICATES OF MILITARY FACTORIES 118
STRATEGIC COOPERATION AGREEMENTS AND APPROVED SUPPLIER ACTIVITIES 119

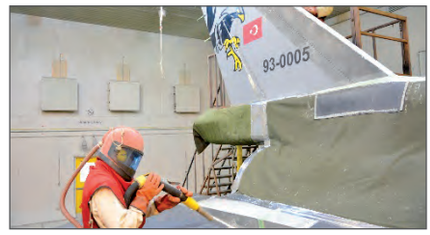
1ST AIR MAINTENANCE FACTORY DIRECTORATE

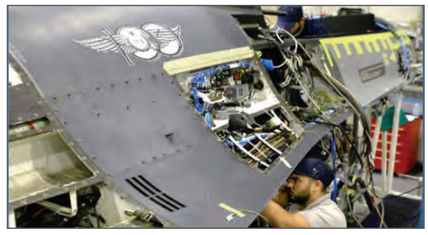
AIRCRAFT DEPOT LEVEL MAINTENANCE, REPAIR AND OVERHAUL (MRO&U) ACTIVITIES

It covers the repair and replacement of structural parts of aircrafts, which are under the responsibility of the 1st Air Maintenance Factory Directorate, as well as the maintenance, repair, testing and modification of electrical and avionics, mechanical, pneumatic, hydraulic systems.

TECHNOLOGICAL APPLICATIONS

- Depot Level Maintenance (F-4E, NF-5, T-38M)
- FS 341 Bulkhead Repair and Replacement (F-16)
- FS 479 Bulkhead Replacement (F-16)
- FS 161, 189 and 218 Longeron Repair, Replacement and Enforcement (F-16)
- Analytical Condition Inspections (F-16, T-38)
- Weapon and Avionic System Integration
- Avionic Integration Projects Application
- Avionic Modernization (F-4, F-5, F-16, T-38)
- Structural Upgrade/Enforcement (F-4, F-5,T-38M)
- Paint Removal (Chemical, Bead-Blasting)
- Painting Process
- Matrix, Panel, Cable and Harness Assy. Repair, Production and Test
- Non-Destructive Control
  - X-Ray, Real Time X-Ray
  - FPI, MPI, ECI, Ultrasonic Control
- Composite Repair and Production (F-16, F-4E, NF-5, T-38M, KT-1T)
- Weapon System Units Maintenance and Overhaul
- External Fuel Tank Maintenance
- Canopy Aft Arch Production and Replacement (F-16)
- Canopy / Windshield Maintenance (F-16, F-4E, NF-5, T-38M, KT-1T)
- Ejection Seat Depot Level Maintenance (F-4E, NF-5, T-38M, KT-1T)
- Composite Repair and Production (F-16, F-4E, NF-5, T-38M, KT-1T)





ACCESSORY UNITS DEPOT LEVEL MAINTENANCE

It includes the services of maintenance, overhaul, repair, upgrade and functional test of the accessories related to the aircraft engines and ground support systems with their power plants under the responsibility of 1st Air Maintenance Factory Directorate.

PRODUCT RANGE

HYDRAULIC AND LANDING GEAR SYSTEM ELEMENTS

- Pumps and Motors
- Servo and Solenoid Valves
- Cylinders
- Servo Actuators
- Hydraulic Reservoirs
- Filters
- Dampers
- Accumulators
- Brake Elements
- Rims
- Struts / Cylinders

ELECTRICITY POWER SYSTEM ELEMENTS

- AC/DC Generators
- Control Panels
- Illumination Elements
- Regulators
- Linear and Rotary Actuators
- Pilot Control Elements (Throttle Quadrant /Grip)
- Starters

PNEUMATIC SYSTEM ELEMENTS

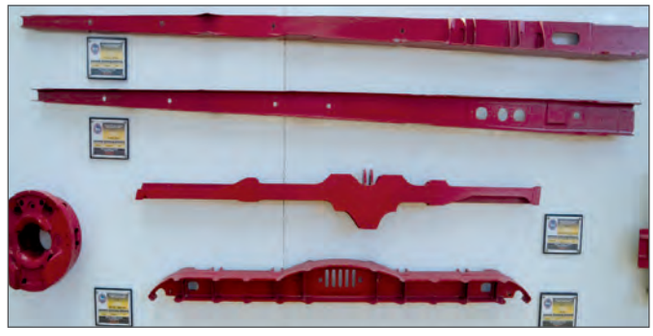
- Cooling Turbunes / Air Conditioning
- Cabin Pressurizing Units and Safety Valves
- Heat Exchangers / Seperators
- Anti-Icing Valves
- Oxygene Regulators/Convertors

MANUFACTURING CAPABILITIES

1st Air Maintenance Factory Directorate renders manufacturing services for aircraft, air and ground support systems and their structural parts, spare parts, special tools under its responsibility.

TECHNOLOGICAL APPLICATIONS

- 3D Modelling and design with NX CAD software program
- CNC machining programming with NX CAM software program
- Shaping of aluminium and steel sheets by rubber diagram and tension application
- Manufacturing honeycomb, sheet and structural parts of cure parts such as rudder and wing by autoclave method



MAIN MACHINING PRODUCTION METHODS

- 5-Axis Machining
- C-Y Axis Turning/Milling
- Grinding

MAIN COATING PROCESSES

- Black Oxide
- Hard Chrome
- Phosphate
- Copper
- Cadmium
- Silver
- Borazon
- Nickel, Currentless
- Cromic Acid, Anodized
- Sulphiric Acid, Anodized
- Chemical Abrassion

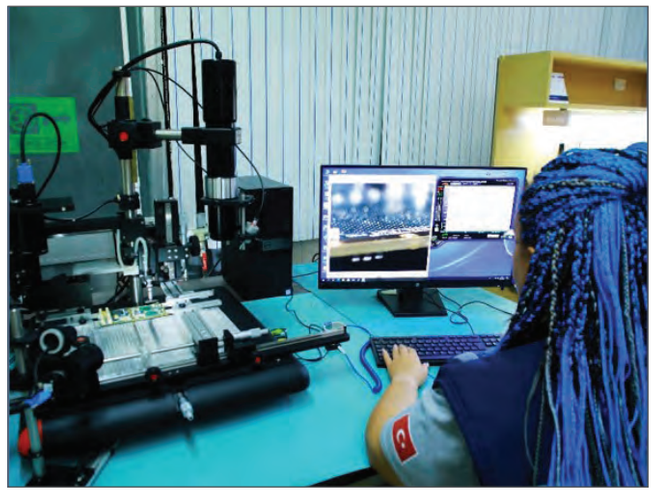
AVIONICS DEPOT LEVEL MAINTENANCE

Maintenance, repair, and rebuilt systems, functional testing and new capability acquisition operations are carried out for avionic systems & printed circuit cards/subcomponents of those avionic systems belonging to the aircraft itself and the aircraft engines for which the 1st Air Maintenance Factory Directorate is responsible.

FIRE CONTROL SYSTEMS

It carries out the maintanence, repair and overhaul activites for the radar units and ECM Pod units of F-4E/2020 aircrafts which are modernized.

- Radar Processor
- Magnetic Compass
- ECM POD Systems
- Mode Selector
- Compass Adapter Compensator
- Navigation Inlet
- Flight Director Computer
- Air Weapon Release Unit
- Electronic Compensator Adapter
- Gun Control
- Adapter Power Supply
- Radar Antenna
- Trim Control Unit



EGI SYSTEMS & PCB REPAIR

- F4-2020 / F-16 Radar/Avionic Units
- F4-2020 / Video Tape Recorder (VTR)
- F4-2020 / Cougar LN100GT Inertial Navigation System/ Global Positioning System
- F4-2020/ F1-16/T-38 Electronic Cards
- KT-1T / AWACS / UAV / SEA HAWK&BLACK HAWK Inertial Navigation System/Global Positioning System (INS/GPS)
- KT-1T / Airborne Video Solid State Recorder (AVSR)
- F-16 / Digital Video Recorder (DVR-MDR-80) and Digital Video Recorder (DVR)-Removable Memory Module
- T-38 / Digital Data Recorder
- F-16 / F-4 / F-5 MATRIX, Power Panel, LRU, Relay Board

JET ENGINE OVERHAUL

1st Air Maintenance Factory Directorate carries out the following activities for turbofan, turbojet, turboprop, aircraft engines, turboshaft helicopter engines, engine starters such as gas turbine compressors:

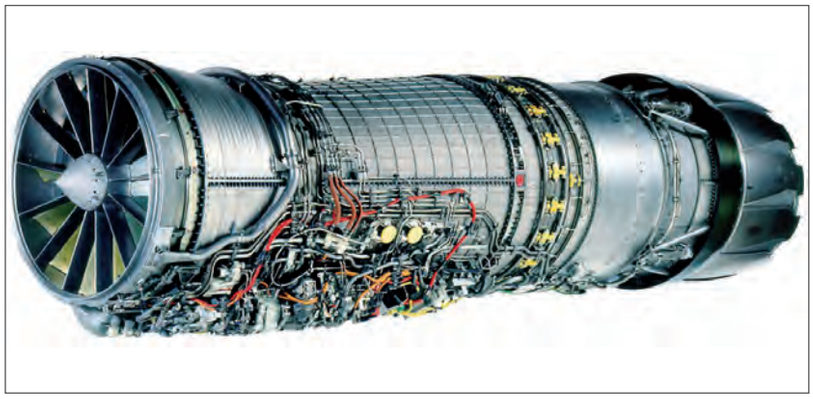
- Depot level maintenance and test
- Repair
- Modification
- Replacement
- Inspection and
- Upgrade of
  - Turbofan (F110-GE-100 /129, TF33-PW-100A)
  - Turbojet (J79-GE-17C, J85-GE-5H, J85-CAN-15N)
  - Turboprop (TYNE-MK-22, T56-A-15LFE, CT7-9C)
  - Turboshaft (T700-401/701)
  - Gas Turbine Compressor (GTC85-70A/71/160A/180)
  - Jet Fuel Starter (JFS) and
  - Replacement of repairable parts of those engines

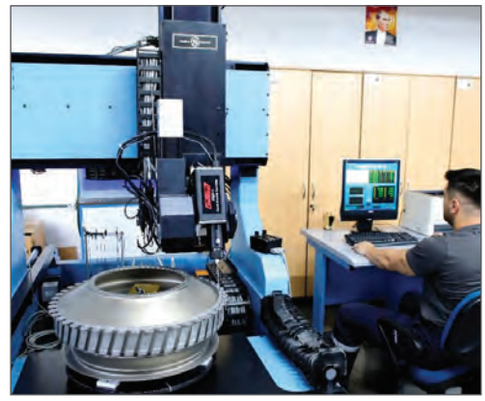
Non-Destructive Inspections

- Fluorescent Penetrant Inspection-FPI
- Ultrasonic Inspection-UI
- Magnetic Particle Inspection-MPI
- Eddy Current Inspection-ECI

Coating – Heat Treatment

- Atmosphere Controlled Heat Treatment
- CODEP Coating
- Plasma Spray
- Flame Spray
- HVOF Coating





TECHNOLOGY AND WEAPON SYSTEM DEVELOPMENT ACTIVITIES

Technology and Weapon Systems Development Directorate is responsible for integration and development projects that improve flight safety, economical usage and operational performance of aircrafts under the responsibility of 1st Air Maintenance Factory Directorate.

MECHANICAL CAPABILITIES

Mechanical Design

Mechanical parts designs which are required for integration and development projects are performed by using Computer Aided Design (CAD) tools.

Structural Analysis

Structural analyses are performed for validation of strength properties in new designs and existing structures.

ANSYS and MSC Software products which are finite elements method softwares are used for the structural analyses.

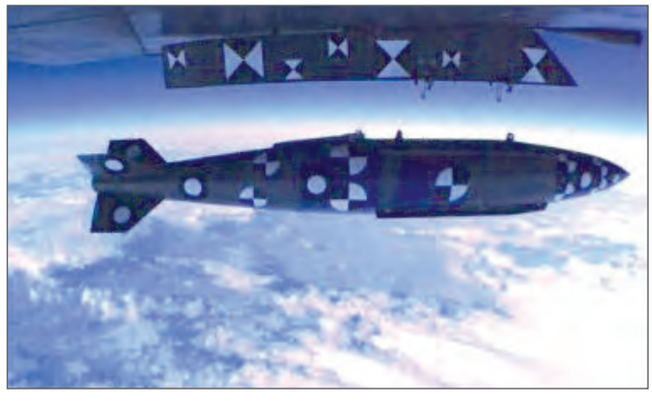
Aerodynamic Analysis

Computational Fluid Dynamics – (CFD) analyses are performed for flight performance, drag coefficients and safe separation characteristics for aircrafts and loads.

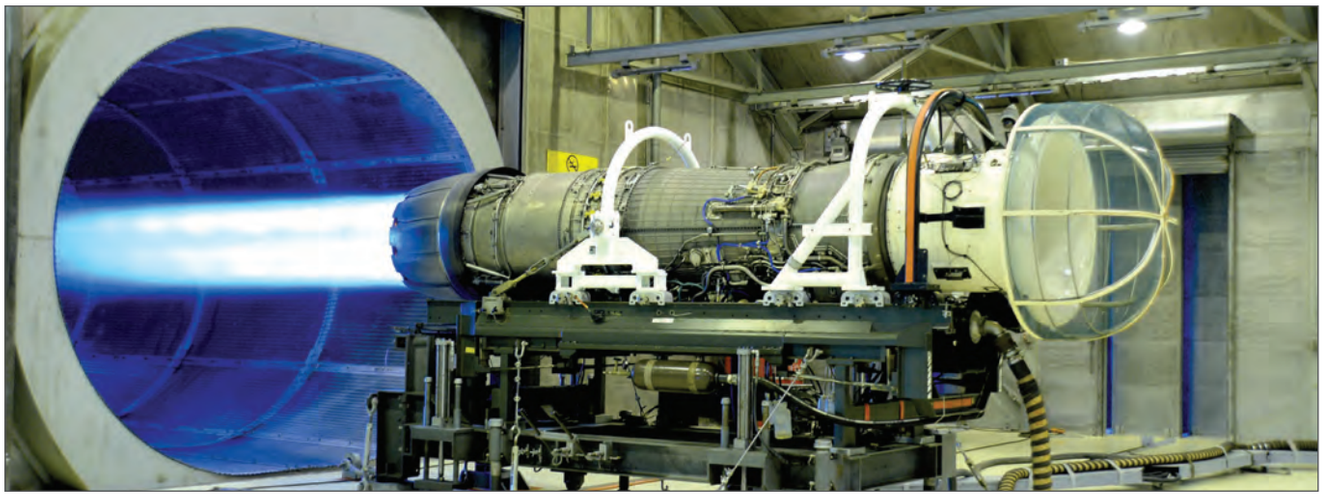
ANSYS Fluent software package is used for the analyses.

Integration and Certification Activities

Certification analyses and tests are carried out for integration of avionic systems and external stores (munition and pods). External stores certification and environmental conditions qualification activities are based on MIL-HDBK-1763 and MIL-STD-810 standards respectively.



TEST AND PRODUCTION SYSTEMS DEVELOPMENT ACTIVITIES



In the 1st Air Maintenance Factory Directorate, all kinds of test systems for the engines of land vehicles and air platforms and their auxiliary systems are designed, manufactured and software modernization activities for them are carried out.

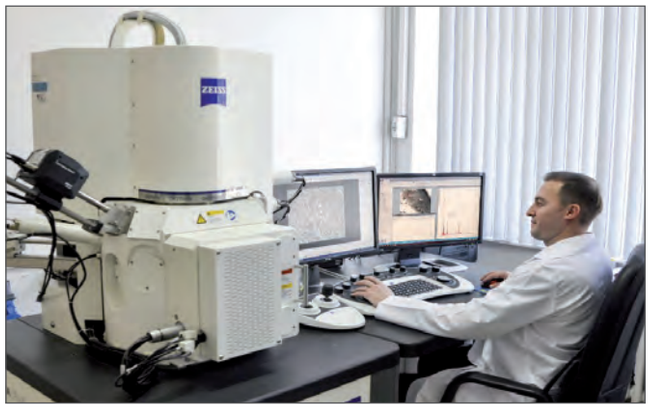
CAPABILITIES AND PRODUCTS

- Turbojet / Turbofan Engine Test Cell
- Turboprop / Turboshaft Engine Test Cell
- Tank Engine Test Cell
- Piston Engine Test Cell
- APU Engine Test Cell
- Engine Accessories Test Systems
- Aircraft Hydraulic Test Systems
- Aircraft Fuel-Oil Test Systems
- Aircraft Pneumatic Test Systems
- Aircraft Electric Test Systems
- F-16 ISA (Integrated Servo Actuator) Test System
- F-16 OBOGS (On Board Oxygen Generating System) Test Stand
- F-16 CRU-120/A Test Stand
- F-16 REOS (Regulated Emergency Oxygen System) Test Stand
- CT7 PGB (Propeller Gear Box) Test System Modernization
- Universal Pump Test Stand
- J-85 VEN (Variable Exhaust Nozzle) Test Stand
- Heat Treatment Workshop/Furnace Control System Design
- Tension-Compression Stand Design and Manufacture
- PLC (Programmable Logic Controller) Based Process Control System Design
- DAQ (Data Acquisition) System Design up to 3000 Channels
- Mobile Test System Designs
- Engine Throttle Control System Designs
- Fuel System Designs
- Lubrication System Designs
- Sound-Proof Control Rooms Design and Manufacture
- CFD (Computational Fluid Dynamics)

QUALITY MANAGEMENT ACTIVITIES

CHEMISTRY LABORATORY

- Aircraft Fluids Test and Analysis
- Aircraft Engine Oil
- Jet Fuel (JP-8), Hydraulic
- Aviator's Breathing Oxygen and Nitrogen
- Metal Analysis
- Shelf Life Material Control Tests and Analysis
- Process Control Test and Analysis
- Chemical Coating and Cleaning Baths
- Aircraft Paints, Plastic Media, Penetrant
- Water/Waste Water Test and Analysis



METALLURGICAL LABORATORY

- Failure Analysis
- Process Control Tests
- Certification Tests
- Reverse Engineering
- Metallurgical Investigation
- Scanning Electron Microscope (SEM) Inspections
- Elemental analysis of surfaces or cross section of B5 to U92 materials
- FOD (Foreign Object Damage) Investigation
- Image Analysis
- Image analysis is made to detect the fractured section surface by using various magnifications. The cause of the damage is found by examining the traces of damage mechanisms in the structure.

2ND AIR MAINTENANCE FACTORY DIRECTORATE

AIRCRAFT DEPOT LEVEL MAINTENANCE (DLM) AND REPAIR ACTIVITIES

Activities include the services of maintenance/test, overhaul, repair and modernization of aircraft, hydraulic, pneumatic, mechanic, electrical and avionic systems under the responsibility of 2nd Air Maintenance Factory Directorate (2nd AMFD) along with the repair and replacement of structural parts.

- Removal and installation procedures for the different types of aircraft heater boots
- Removal and installation procedures for the different types of aircraft heater boots
- Repair procedures for different types of aircraft radomes
- Inspection/repair and maintenance procedures for lifeboats and life vests
- Airframe sealing procedures for different types of aircraft
- Rebuilding damaged composite components (fiberglass and carbon composite laminates, honeycomb etc.) as similar to new ones
- Performing inspection/repair, maintenance and folding procedures on different types of aircraft liferafts
- Canopy and windshield installation procedures
- Bladder type cell repair procedures
- Maintenance and inspection procedures for aircraft tires

AIRCRAFT DEPOT LEVEL MAINTENANCE (DLM) AND REPAIR ACTIVITIES

1. **MAINTENANCE CAPABILITY FOR A400M AIRCRAFT;**
   - With the experience on aircraft maintenance, it is being performed the activities of the Level C and H Maintenance Retrofit.
   - As a result of success and experience obtained, the contract which allows A400M modification processes performed by AIRBUS D&S up to now to be accomplished by 2nd Air Maintenance Factory Directorate here after, was signed accordingly.
2. OVERHAUL OF AIRCRAFT ENGINES
3. AIRCRAFT PAINTING AND REPAIR
4. MAINTENANCE AND REPAIR OF AVIONICS SYSTEMS
5. MAINTENANCE AND REPAIR OF ELECTRONICAL SYSTEMS
6. RADOME REPAIR AND TESTING LABORATORY
7. MAINTENANCE, REPAIR AND OVERHAUL OF PROPELLER
8. MAINTENANCE AND REPAIR OF AIRCRAFT OIL-FUEL ACCESSORIES
9. MAINTENANCE AND REPAIR OF HYDRAULIC SYSTEMS
10. MAINTENANCE AND REPAIR OF ELECTRICAL SYSTEMS
11. MAINTENANCE AND REPAIR OF AIRCRAFT RUBBER/ PLASTIC AND COMPOSITE SYSTEMS
12. MAINTENANCE AND REPAIR OF AIRCRAFT INSULATION AND FURNITURE
13. PRECISION MEASUREMENT EQUIPMENT CALIBRATION
14. NDI (NON-DESTRUCTIVE INSPECTION)
15. ACTIVITIES MENTIONED ABOVE ARE CARRIED OUT FOR C-130, C-160, CN-235, KC-135R, T-41 AND SF-260 AIRCRAFTS.

MANUFACTURING ACTIVITIES

1. AIRCRAFT STRUCTURAL COMPONENTS MANUFACTURING
2. RUBBER TECHNOLOGY
3. COMPOSITE TECHNOLOGY
4. BALLISTIC PROTECTIVE VEST
5. UNDERWEAR VEST
6. SOLDIER VEST

MANUFACTURING TECHNOLOGY

- Milling
- Electrical Discharge
- CNC Wire Erosion
- Grinding
- Turning
- Computer Aided Design and Manufacturing (CAD-CAM)
- Rubber, Plastic, Composite

HOT WORKS TECHNOLOGY

- Forging
- Casting
- Welding
- Heat Treatment

FINISHING TECHNOLOGY

- Coating
- Painting

PARACHUTE MANUFACTURING

BALLISTIC PROTECTIVE IFANTRY HELMET

PROTECTIVE PILOT HELMET

ENGINE TRANSPORTATION

GAS OXYGEN TRANSPORTATION TRAILER

SHEET METAL FORMING TECHNOLOGY

HOSE/TUBE MANUFACTURING

1	Machining Tecnologies (Turning-Milling-Grinding)
2	Steel Plate Tecnologies (Cutting-Bending-Pressing-Assembling)
3	Hot Working Tecnologies (Welding-Heating Process-Casting-Forging)
4	Surface Preperation Technologies (Covering-Painting-Blasting)
5	Compozite Technologies (Tyre-Plastic-Vacuum)
6	Textile Technologies (Parachute-Polyester Based Fabrics)

GROUND SYSTEMS ACTIVITIES

HEAVY DUTY MACHINERY AND MOTOR VEHICLES

- Aircraft fire fighters
- Runway sweepers
- Cranes
- Shovels and snow plows
- Aircraft refuellers
- Tow Tractors
- Diesel and gasoline engines

GROUND SUPPORT EQUIPMENT

- Bomb loaders
- Aircraft starters
- Hydraulic test equipment
- Airport lightning equipment
- Compressors
- Aircraft air conditioners
- Trielectrons

GENERATORS

- Overhauling and renewing of stationary and mobile gensets

WEAPON SYSTEMS

- Infantry and long range rifles
- Guns
- Air gun and rifles
- Shotguns
- M-1 Ceremonial weapons
- Signal flares
- Oerlikon Anti-aircraft gun
- Modernized anti-aircraft gun

AIRCRAFT ARRESTING SYSTEMS

- Stationary/Mobile hook cable systems
- Net barrier systems

AIRCRAFT OXYGEN AND FIRE EXTINGUISHER SYSTEMS

Maintenance and overhauling;

- Aircraft oxygen cylinders
- Portable and engine fire extinguishers
- Breathing apparatus
- Life raft cylinders
- Aircraft crew masks

MANUFACTURING AND OVERHAUL OF

SEYİT ONBAŞI BOMB LOADER MAINTENANCE, REPAIR AND RENOVATION OF GROUND SUPPORT EQUIPMENT AND LIGHT WEAPONS

MAINTENANCE, REPAIR AND OVERHAUL OF MOTOR VEHICLES AND HEAVY DUTY VEHICLES

PRODUCTION OF AIRCRAFT TOW TRUCK, RAHVAN

SERVICES OF THE QUALITY LABORATORY

PHYSICS/CHEMISTRY LABORATORY
METALLURGY LABORATORY
OIL/FUEL LABORATORY
TEXTILE LABORATORY
RUBBER LABORATORY

3RD AIR MAINTENANCE FACTORY DIRECTORATE

MUNITION AND WEAPON SYSTEMS

WEAPON SYSTEMS, MAINTAINED AND REPAIRED

- D-VII B, L-70 Air Defence Fire Control Radar System
- D-IX, Oerlikon Air Defence Fire Control Radar System
- AGM-65A/B and TGM-65A/B MAVERICK Air to Ground Missile Guidance Unit
- GBU-10, GBU-12 (LGB) Air to Ground Laser Guided Bomb, Computer and Control Section
- Rapier Low Level SAM System, 2nd Line Level LRU, 3rd Line Level SRU
- HAWK SAM System
- AIM-120B and AIM-120C7 AMRAAM Air to Air Missile System (Weapon Systems, Maintained and Repaired at Intermediate Level)

WEAPON SYSTEM, MANUFACTURED

HGK-82 Precision Guidance Kit

- Can be used with 500 lbs MK-82 general purpose bomb
- Multiple release capability by using BRU 57 ejector rack
- Re-targeting during captive flight
- Jam resistant and operation in all weather conditions day and night
- CEP value: <10 m with INS/GPS, <25m CEP value with only INS
- Certified to F-16 PO-III and F-4E/2020 aircrafts
- MIL-STD 1760 compliance
- Range: 25 km

HGK – 84 Precision Guidance Kit

- Can be used with 2000 lbs MK-84 general purpose bomb and the Penetrating Bomb
- Aircraft Independent Firing System (AIFS) Integration option
- Re-targeting during captive flight
- Jam resistant and operation in all weather conditions day and night
- CEP value: <10 m with INS/GPS, <25m CEP value with only INS
- Certified to F-16 PO-III and F-4E/2020 aircrafts
- MIL-STD 1760 compliance
- Range: 28 km

ONUR-1 MOD-3 Bomb Fuze System

- Compatible with the most in-service general purpose bombs and weapon guidance kits (GBU-31 JDAM, GBU-38 JDAM, GBU-10 LGB, HGK (Precision Guidance Kit) series, LGK (Laser Guidance Kit) series).
- Arming time up to 18 sec, Impact "0" delay, Post Impact Delay-Short (up to 800 ms)
- Post Impact Delay-Long (up to 60 hours)
- Anti-Disturbance Function for long post impact delays
- High Altitude Release Capability
- Shelf Life: 10 year
- Service Life: 1 year
- Easily Dismountable Booster
- Qualified for requirements MIL-STD-331
- Operating Temperature: -40°C /+71°C
- Storage Temperature: -54°C /+85°C
- Interrupted Explosive Train
- Power Initiator: Safety Block without Battery (Lanyard activated air-driven turbine alternator)

ONUR-1 MOD-3K Bomb Fuze System

- Compatible with the most in-service general purpose bombs and weapon guidance kits (GBU-31 JDAM, GBU-38 JDAM, GBU-10 LGB, HGK (Precision Guidance Kit) series, LGK (Laser Guidance Kit) series).
- Arming time up to 18 sec, Impact "0" delay, Post Impact Delay-Short (up to 800 ms)
- High Altitude Release Capability
- Shelf Life: 10 year
- Service Life: 1 year
- Easily Dismountable Booster
- Qualified for requirements MIL-STD-331
- Operating Temperature: -40oC /+71oC
- Storage Temperature: -54oC /+85oC
- Interrupted Explosive Train
- Power Initiator: Safety Block without Battery (Lanyard activated air-driven turbine alternator)

ONUR-2 Bomb Fuze System

- Compatible with most in-service general purpose bombs and weapon guidance kits (GBU-31 JDAM, GBU-38 JDAM, GBU-10 LGB, GBU-12 LGB, HGK (Precision Guidance Kit-Hassas Güdüm Kiti) series, LGK (Laser Guidance Kit-Lazer Güdüm Kiti) series (Certification studies with penetrator bombs continue)
- Arming and Post Impact Delay can be manually set
- Arming Time up to 25 sec.
- Impact "0" delay
- Post Impact Delay-Short (up to 250 ms)
- Post Impact Delay-Long (up to 24 hours)
- Anti-Disturbance Function for long post impact delays
- High Altitude Release Capability
- Shelf Life: 11 years (Up to 20 years with battery replecament)
- Service Life: 1 year
- Easily Dismountable Booster.
- Qualified for requirements MIL-STD-331
- Operating Temperature: -40 °C /+71°C
- Storage Temperature : -54 °C / +71°C
- Uninterrupted Explosive Train
- Power Initiator: Safety Block without Battery (Lanyard activated air-driven turbine alternator

ONUR-1 MOD-4 Bomb Fuze System

- Developed for use with Penetrator Bomb as Augmenting Charge Fuze.
- Arming delay can be manually set up to 18 sec.
- High Altitude Release Capability
- Shelf Life: 10 years
- Service Life: 1 year
- Qualified for requirements of MIL-STD-331 and MIL-STD-810
- Operating Temperature: -40°C / +71°C
- Storage Temperature: -54°C / +85°C
- Interrupted Explosive Train
- Power Initiator: Safety Block without Battery (Lanyard activated air-driven turbine alternator)
- Ability to Function with External Crush Switch and Internal Impact Sensor

SAFETY BLOCK WITHOUT BATTERY

It is a cylindrical safety unit and initiator placed in the conduit between two hooks in MK Series General Purpose Bombs. It enables Onur Series Fuzes to start working and transmits the bomb's flight speed information to the fuze as an electrical signal.

When the bomb is dropped from the aircraft, the lanyard wire causes the cover of the BEB, which contains the generator, to open and lock. If the bomb has not been dropped from the aircraft, BEB can be used again.

- Operating Temperature: -40°C / +71°C
- Storage Temperature: -54°C / +71°C

MECHANIC SYSTEMS

MAINTENANCE AND REPAIR CAPABILITIES

- TRS 22XX, ANFPS-88/117 Radars Mechanical Overhaul,
- TRS-22XX RadarAntenna Repair and Transfer Capability,
- Air Defense and Navigation Systems Mechanical Units

MAINTENANCE AND REPAIR CAPABILITIES

- Machining,
  - 3D Modeling and Design
  - 5 axis Vertical Machining Center,
  - C- Y Axis Turning,
  - Automatic Lathe,
  - CNC Sliding Head Lathe,
- Plastic forming,
- Sheet Metal Forming, Drilling/Bending,
- Welding,
- Paint.

ELECTRICAL SYSTEMS

MAINTENANCE AND REPAIR CAPABILITIES

- Electrical motors,
- Static uninterruptable power supplies and frequency convertors,
- Invertors,
- Redressors,
- Voltage regulators,
- Airfield lighting units,
- Disconnectors and circuit breakers,
- Low/high voltage transformers and special type transformers,
- In addition to these, fault location detection of underground energy cables,
- Equipotential lightning protection system installation.

MANUFACTURING CAPABILITIES

- Remote control board for the airfield lighting,
- Internal/external main distribution,
- Compensation and special type panels, special purpose transformers/coils

Automatic Fire Detection and Warning System (AFDWS)

Automatic Fire Detection and Warning System (AFDWS); detects fire by detectors environmental changes associates with fire e.g. smoke and heat. AFDWS warns the occupants by sound, lights and phone to enable that they evacuate the building in case of fire. It also activates the extinguishing system when necessary.

Constant Current Regulator

Designed for supply and control of airport lighting systems.

- Select of power: 5, 7.5 kVA,
- Supply Voltage: 220V. ±% 5 50 Hz. 5 kVA, 380 V. ±%5 50 Hz. 7.5 kVA
- Output Nominal Current: max. 6,6 A (in five stages).
- Operating Temperature: -20 °C to +55 °C
- Operating Sellectable: Remote or Local Control

ELECTRONIC SYSTEMS

AVIONICS

We provide maintenance and repair services to the subsystems of all aircrafts and helicopters in TurAF inventory;

- Maintenance, repair and modernization of all types of Intercom and Wireless Communication Systems, Inertial Navigation Systems, Identification Friend or Foe Systems (IFF)
- Depot level maintenance, repair, modification and modernization of, Tactical Air Navigation (TACAN), Auto Pilot, Aircraft Radar Systems, Aircraft Image Group, Instrumental Landing System (ILS), Aircraft Landing Gear System, Air Combat Maneuvering Instrumentation,
- Maintenance and repairs of, Pilot Night Vision Goggles are executed. In addition to this, circuit boards of these avionic systems can be repaired, maintained and modernized and tested by automatic test stations.

Electronic Warfare Systems

It performs depot level maintenance and repair of totally 167 units for the Electronic Warfare Systems of C-130, F-4 and F-16 Aircrafts.

Aircraft Radio And Identification Systems

Maintenance and repair of Radios, Internal Communication Systems, Identification Friend or Foe Systems (IFF), F-16 CSFDR System (Black Box), F-16 Braking System, Thermal Camera Systems and Pilot Night Vision Goggles used in hunter, bombing, transport and training aircrafts in the inventory of TurAF.

Aircraft Navigation Systems

Aircraft INS (LTN 92), Aircraft TACAN (AN/ARN-153 and AN/ARN-118), VOR/ILS (KNR-634A), Auto Pilot (APC-65F), ACMI POD, F-16 Radar Antenna, Pilot Display Unit (HUD PDU), ANTI-SKID System and electronic cards of these systems are maintained and repaired.

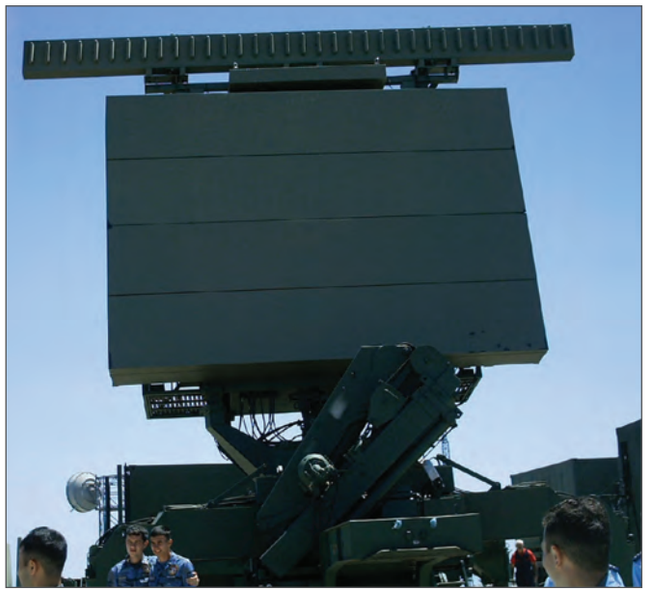
Controlled Cryptogragphic Items (CCI)

Distribution, accountancy, failure recording activities and failured items sending activities to foreign countries for 19 items of foreign Controlled Cryptographic Items (CCI) are made in the CCI Workshop.

GROUND SYSTEMS

Ground Radar and Navigation Systems

Maintenance and repair of Transmitter and Receiver units of Stationary and Mobile radars, Identification of Friend or Foe (IFF) Systems, Tactical Air Navigation Systems (TACAN, ILS), Radar Precision Control and Ground Control Approach (RAPCON-GCA), integration of modernized systems and repair of electronic circuit boards of these systems are carried out.



Ground Communication Systems

Maintenance, repair and modernization of Ground/Ground, Ground/Air Radios, Multiband Digital Joint Radio (MDJR), Communication systems in shelters, Telephone Switchboard, VAB Equipment, Radiolink Systems, Link-11 and Link-16 Systems, Air Defence Radio Network (ADRN) Systems, Voice Recording Systems, Air/Air, Air/Ground Target Detection Systems are carried out. Various electronic cards and ULAK Security Tracking System are manufactured. Electronic card assembly of ONUR-1 MOD-3K fuses is being carried out.

PRECISION MEASUREMENT EQUIPMENT CALIBRATION

Calibration services in 1000 m2 closed area with continuously controlled and monitored temperature, relative humidity, lighting, positive pressure. In addition to this, on Site calibration service is provided with Transportable Field Calibration Unit (TFCU) which are specially designed for the subsystems which are fixed or not transportable and have short calibration intervals.

MECHANICAL CALIBRATION

- Pressure and Dimesional Calibration,
- Autocollimator,
- Theodolites,
- Granite table surface with laser/planecator,
- Roundness, Parallelism and perpendicularity, Optical glass surface smoothness,
- Temperature and Force Calibration,
- Mass & Balance andTorque Calibration

ELECTRONIC CALIBRATION

AC/DC Voltage and AC/DC Current Calibration, Resistance, Inductance and Capacitance Calibration, Phase and Attenuator Calibration, Low/High Level Powermeter Calibration, Frequency Calibration, Analog/digital Oscilloscope Calibration, Microwave Instruments Calibration.

ON-SITE CALIBRATION CAPABILITIES

Electrical/Electronics Calibration

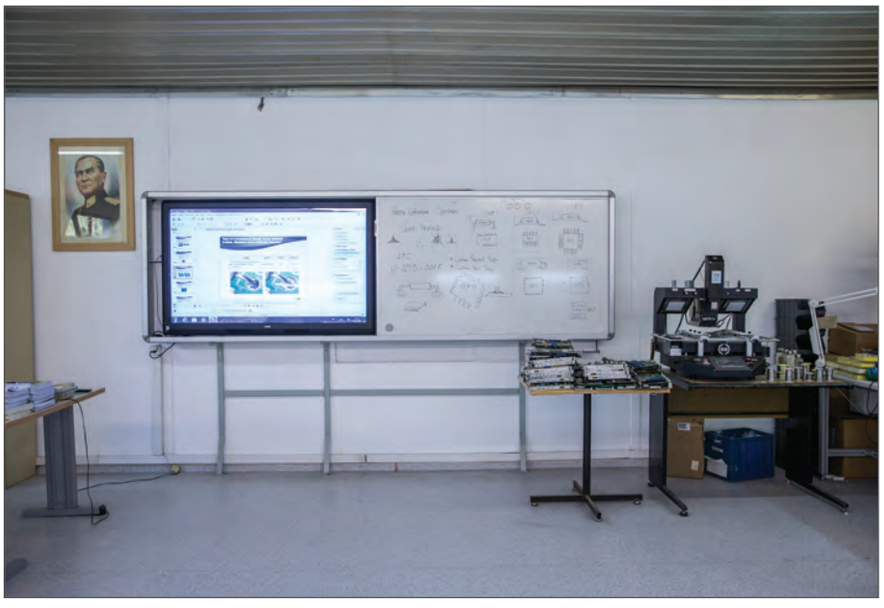
AC/DC Voltage, AC/DC Current, Capacitance

Mechanical Calibration

Pressure, Balance

ELECTRONIC/PRECISION SOLDERING LABORATORY

IPC Certified Technical Personnel (CIS) Training is offered to TurAF technical personnel in our Precision Soldering Laboratory established under our institution, by ICP Certified Instructors (CIT) as per recent technologies. Training demands of the Public and Private Sectors are met.



5TH MAIN MAINTENANCE FACTORY DIRECTORATE

DEPOT LEVEL MAINTENANCE AND REPAIR ACTIVITIES (DLM)

5th Main Maintenance Factory Directorate performs T-129 Atak, AH-1P Kobra / AH-1W Süper Kobra ,UH-1H/AB-205, AB-206, Sıkorsky S-70 (Black Hawk), Sıkorsky S-70B (SEA Hawk),CH-47F, AS-532 Cougar,B-200 / B-350, Cessna T-182T depot level maintenance/repair and overhaul activities for airframe, engine and parts of aircrafts/helicopters under its responsibility.

TECHNOLOGICAL APPLICATIONS

- Airframe overhaul & maintenance and repair of aircrafts
- Modernization and R&D Activities
- Maintenance, repair and overhaul for engines gear box, maintenance, repair and overhaul of main/tail rotor blades, propellers and components
- Maintenance, repair and overhaul for engines
- Avionic devices maintenance, mechanic and electronic calibrations
- Power train maintenance, repair and overhaul of accessories
- Periodic Maintenance (for T-129 Atak Helicopters)
- Manufacture
- Paint Removal (Chemical, Bead Blasting)
- Painting Activities
- Chemical Activities
- Surface Finishing Activities
- Nondestructive Inspection
- Machining and Production Activities
- Laboratory Activities
- Technical support (Engineering Support)

PRODUCT RANGE

- T-129 ATAK
- UH-1H
- AH-1P COBRA/AH-1W SUPER COBRA
- SIKORSKY S-70/SIKORSKY S-70B
- CH-47F
- AS-532 COUGAR
- AB-206
- CESSNA T182T
- B-200/B-350

MODERNIZATION PROGRAM

5th Main Maintenance Factory Directorate performs depot level maintenance/repair and overhaul activities for air-frame, engine and parts of aircrafts/helicopters under its responsibility.

MODERNIZATION ACTIVITIES

- Helicopter obstacle avoiding system integration includes:
  - Tablet Solution
  - Active obstacle avoiding system
  - Passive obstacle avoiding system
- Identification friend and foe systems (IFF MODE-5) integration
- Helicopter electronic warfare systems (HEWS) integration activities include
  - Infrared Exhaust Heat Suppression Systems (IEHSS)
  - Infrared Counter-Measure Systems (ICMS)
  - Missile Warning System (MWS)
  - Hews Radar Warning Receiver System (HRWRS)
  - Radar Frequency Jamming System (RFJS)
  - Laser Warning Receiver System (LWRS)
  - Suit Central Administration Unit (SCAU)
  - 5th Missile Warning System (MWS)
- Installation/Integration of Multi-Band Numerical Joint Radio (NBNJR)
- Emergency Locator Transmitter (ELT Device) Integration
- Satellite Phone Integration for Search and Rescue Helicopters
- Aircraft Cockpit Voice and Flight Data Recorder (CFDR) Integration
- Installation/Integration of Global Navigation Satellite Anti-Jamming / Deception System
- Installation/Integration of Aircraft Cockpit Voice and Flight Data Recorder (CFDR)

OVERHAUL / MAINTENANCE / REPAIR PROGRAMS

5th Main Maintenance Factory Directorate performs T-129 Atak, AH-1P Kobra / AH-1W Süper Kobra ,UH-1H/AB-205, AB-206, Sıkorsky S-70 (Black Hawk), Sıkorsky S-70B (SEA Hawk),CH-47F, AS-532 Cougar,B-200 / B-350, Cessna T-182T depot level maintenance/repair and overhaul activities for airframe, engine and parts of aircrafts/helicopters under its responsibility.

TECHNOLOGICAL APPLICATIONS

T-129 Atak Helicopters

Power Train and Weapon Systems Maintenance/Repair/ Overhaul, Periodic Maintenance Processes (engine, transmission, main rotor blades, tail rotor blades, landing gear and swashplate maintenance operations, lubrication, life parts operations, hydraulics, avionics

AH-1W and AH-1P Attack Helicopters

(Engine and accessories, powertrain, blade/ propeller, hydraulics, airframe installation, structural repair, Avionics)

UH-1H/ AB-205 Utility Helicopters

(Engine and accessories, powertrain, blade/ propeller, hydraulics, airframe installation, structural repair, avionics)

S70-A S-70 B Utility Helicopters

(Engine and accessories, powertrain, blade/ propeller, hydraulics, airframe installation, structural repair, avionics)

AS-532 Utility Helicopter

(Powertrain, blade/ propeller, hydraulics, airframe installation, structural repair, avionics)

AB-212, AB-412 Utility Helicopter

(Powertrain, blade/ propeller, hydraulics, airframe installation, structural repair, avionics)

AB-206 Training Helicopter

(Engine and accessories, powertrain, blade/ propeller, hydraulics, airframe installation, structural repair, avionics)

B-200 Aircraft

(Accessories, blade/ propeller, hydraulics, structural repair, avionics)

C-421B, T-182T and T-42A Training Aircraft

(Engine and accessories, blade/ propeller, airframe installation, structural repair, avionics)

DEPOT LEVEL MAINTENANCE OF HELICOPTER / AIRCRAFT ENGINES

5th Main Maintenance Factory Directorate performs T53 -L13B,T53-L703, T55-L714A Honeywell, 250-C20,-C20R4 Rolls Royce,T62T-40-1 (APU) Hamilton-Sundstrand,T700-701A/ T700-701C/ T700-401/ T700-401C General Electric Makila 1A-1 Turbomeca ,PT6T-3, -6, -9, PT6A-42/60 Pratt&Whitney Canada, CTS-800 4A Honeywell&Rolls Royce maintenance/ repair and overhaul activities for airframe, engine and parts of aircrafts/helicopters under its responsibility.

TECHNOLOGICAL APPLICATIONS

- Improved Field Level Maintenance
- Hot Section Inspection
- Power Turbine Drive Shaft Replacement
- Overhaul of GG Rotor Match Assy
- Overhaul of Accessory Gear Box
- Cold Section Maintenance and Repair
- Overhaul of 1st Stage Nozzle Assy
- Depot Level Engine Test

STRUCTURAL

ENGINE

AVIONIC

DEPOT LEVEL MAINTENANCE FOR AVIONIC UNITS

It performs depot level maintenance, repair and overhaul activities for electro-mechanic and warning systems; depot level maintenance, repair and overhaul activities for communication systems; depot level maintenance and repair activities for available navigation systems; depot level maintenance and repair activities for available flight instruments of TAF aircrafts.

It also performs maintenance, repair, overhaul and test activities for available 20 mm gun, M-65 tow missile systems, Helmet Sight System, TSU/NTS-LRF night vision binoculars and night aiming system, S-70 relay panels, laser pointers, mini UAVs night and day cameras.

TECHNOLOGICAL APPLICATIONS

Communication And Navigation Systems Applications

- VHF/AM radios
- Mxf radios
- Intercom systems
- RPM systems
- Positioning systems
- IFF systems
- Autopilot systems
- Navigation systems
- Radar Altimeter
- INS Systems
- Mini UAV Ground Control Unit

Weapon Electrooptic And Electro Protection Systems Applications

- M65 and Nts System
- 29 Mm Turret System
- Hss System
- Mini UAV Camera System
- Narcad System
- Afcs
- Cmsd
- Mws
- Ircm
- Glass cockpit system
- Hews
- Apr-39
- Bdi control system
- Engine control systems
- Warning and caution systems

DECU (Digital Electronic Control Unit)

The device tests DECU which controls Sikorsky engines electronically within Maintenance Repair Operations.

By the use of this device, test maintenance repair capability is obtained.

The device is repaired with local capabilities.

Avionic Test System (MOTI)

It is the Avionic Test System that is used for maintenance and repair operations of stabilization and autopilot systems that belong to Sikorksy helicopters. SCATS (Software Control Aviation Test System) is a system which is indigenous.

Air Navigation Units Test System (ANTS)

It is the test system of VOR, ADF and DATA Louder devices of Sikorsky helicopters.

Trim Actuator

It is the device that is used for functional tests of maintenance repair operations of Trim Actuator devices used on autopilot. It is the national device of Trim Actuator ATP Test Console that is produced by national means.

10 000 Class Clean Room

The tests operations are required to be made in dust free ambient, pressure controlled ambient or suitable temperature ambient.

Dust free ambient is provided with hepa filters of this cleaned room and test can be perfomed in pressure controlled and suitable temperature room.

Laser And Thermal Viewing Test System (Collimator)

It is a device that is used to align electro-optic and thermal systems and measure the test parameters.

It provides that malfunctioned devices which are sent to upper stage are localized and are sent to relevant units.

Helicopter Crane Test Stand

Functional test is done for removed cranes of helicopters.

Functional tests are completed at this device and final inspection is done.

QUALITY MANAGEMENT ACTIVITIES

LABORATORY ACTIVITIES

Various chemical and physical tests and experiments are made in the laboratory in order to ensure safety flights of air platforms and to make the required analysis.

PERIODICAL OIL ANALYSIS PROGRAM

- Spectrometrical Oil Analysis
- Ferrograph Analysis
- Hydraulic Contamination Analysis
- Water Content Determination

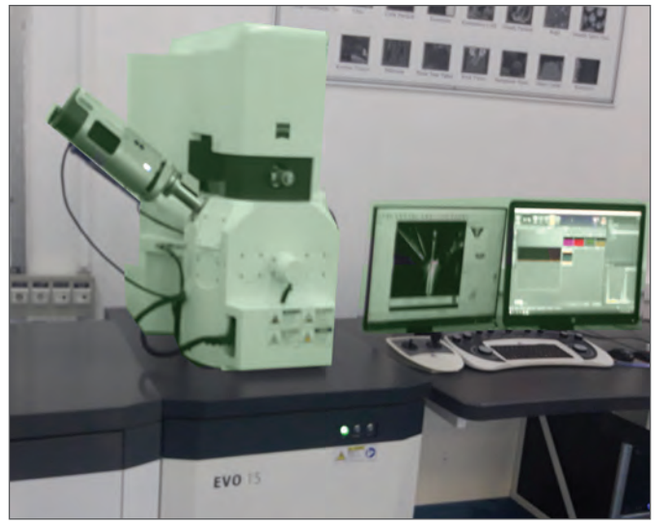
CHEMICAL ANALYSIS

- Coating Solutions Analysis
- Shelf Life Extension Tests

DESTRUCTIVE INSPECTION AND DAMAGE ANALYSIS ACTIVITIES

In the 5th Main Maintenance Factory Directorate, destructive inspection and damage analysis workshop applications are;

- Hardness Measurements (HBN, HRC, HRA, HRB, Vickers, Knoop)
- Strength Test (Tension, compression and bending tests at ambient temperature and high temperatures)
- Material Chemical Analysis (optical emission spectrometer)
- Metallographic Specimen Preparation
- Macrostructure and Microstructure Inspection with Digital Microscope
- Structural Analysis and Viewing (Digital microscope, SEM) Operations can be performed.



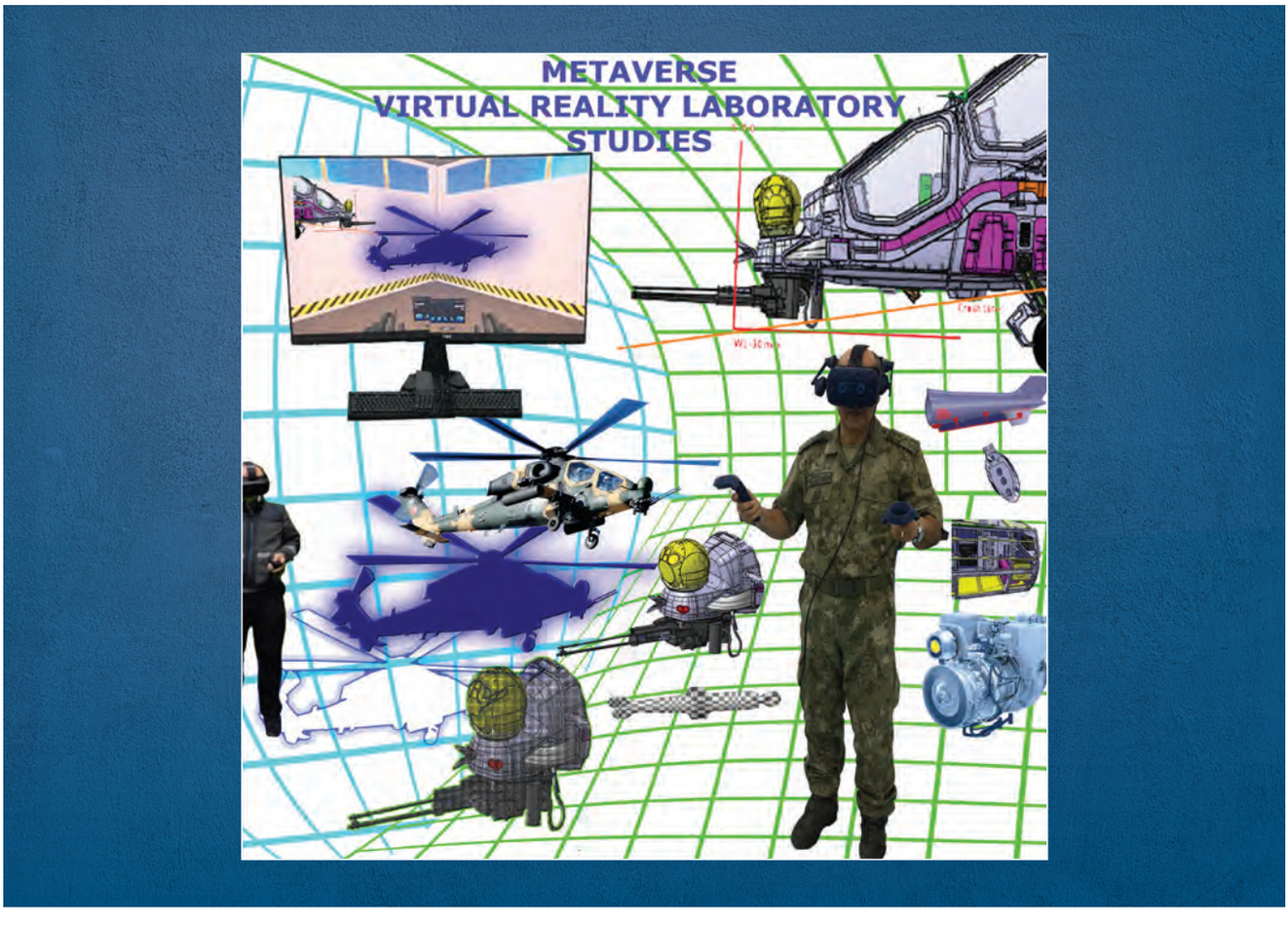
VIRTUAL REALITY LABORATORY (METAVERSE)

The Aim of The Virtual Reality Laboratory (METAVERSE):

The virtual twins of the factory and projects will be created by utilising current technology and using analysis software to transform in-house maintenance, repair, quality and engineering operations digitally from an individual memory into an organisational memory. The engineering processes can be tested on the computer thanks to the virtual twins; therefore, unintended consequences like unnecessary spare part expenditure in aircrafts, breakdowns of machinery and equipment, and waste of time will be minimized.

Benefits That The Virtual Reality Laboratory (METAVERSE) Will Provide For Our Factory:

1. The personnel on the field (aircraft, test bench, machinery and equipment, etc.) can learn their jobs before gaining experience; therefore, unintended consequences like work accidents stemming from inexperience, the unnecessary spare part expenditure, breakdowns of machinery and equipments, and waste of time will be minimized.
2. The engineering processes can be tested on the computer thanks to virtual twins; therefore, the final design and quality control operations will function better.
3. After the repaired / maintained aircraft is delivered to their bases, the tracking of them will be possible and the unexpected breakdowns will be prevented before it can happen thanks to the virtual twins.
4. The remote support will be provided for the base personnel having problems at their bases and needing factory-level technical information, thanks to the virtual and augmented reality.



FIRE FIGHTING KIT

Fire Fighting Kit, is designed to meet the domestic and national needs to be used in fire extinguishing due to the intense forest fires in our country.

It is designed to arrive the fire area as quickly as possible to carry out an effective extinguishing operation by using rotating-wing aircraft to take water from a fixed water source at the highest capacity with immersion method and to discharge the water to the are where it is transferred.

Fire Fighting Kit (The original design of 5th MMDF)

Test operations of Fire Fighting Kit at the 5th MMDF

TULUMBA

The Tulumba system has been designed and started to be manufactured to meet the need for combating forest fires in our country

The Tulumba system stores water in its tank from a fixes water source with the help of a hose. Using a rotary-wing aircraft, it is quickly deployed to the fire zone, where it discharges the stored water onto the affected area.

Localization efforts for this system have been initiated using the capabilities and facilities of 5th MMDF. Upon completion of the acceptance testing activities, the system will be put into use for combating forest fires.

Tulumba system (at the 5th MMDF)

Test operations of Tulumba system

Planned use of the Tulumba system

2ND MAIN MAINTENANCE FACTORY DIRECTORATE

DEPOT LEVEL MAINTENANCE AND REPAIR ACTIVITIES

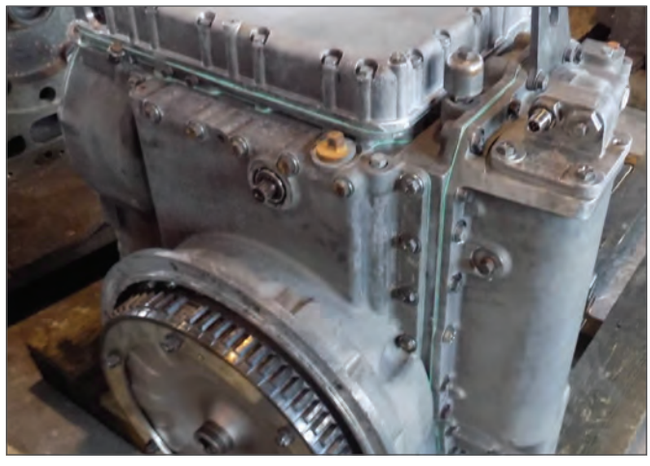
2nd Main Maintenance Factory Directorate provides sustainable and reliable high quality products and services for the tracked vehicles defense industry.

ENGINE AND TRANSMISSION DEPOT LEVEL MAINTENANCE

Overhaul of 4 and 2 stroke diesel engines of available tracked vehicles in the Turkish Armed Forces inventory.

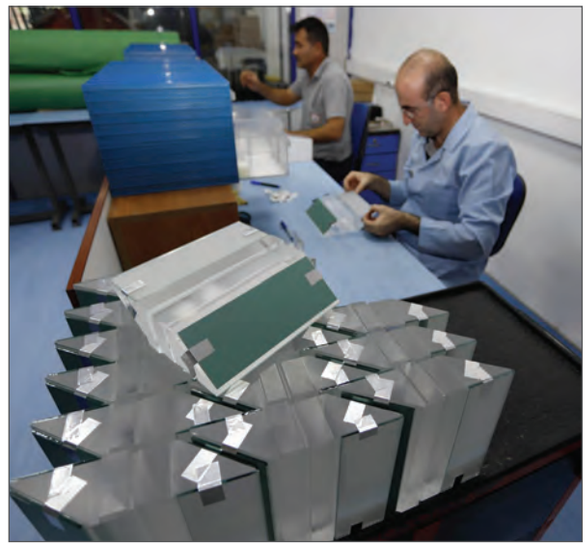
TECHNOLOGICAL APPLICATIONS

- Fuel pump adjustments
- Electric systems of diesel engines adjustments and controls
- Cylinder liner operations
- Cylinder honing operation
- Overhaul of transmission body
- Overhaul of transmission side covers
- Overhaul of torque converter
- Overhaul of differential
- Perfromance tests of overhauled engines and trasnmissions



FIRE CONTROL UNITS REFURBISHMENT, MAINTENANCE, REPAIR AND PRODUCTION

Maintenance, repair and refurbishment activities for tracked vehicles sight units such as M13, M17, M24, M27, M26, M37, M45, M336, Gepanzert 2A4 Driver's Periscope and Gepanzert 2A4 Gunner's Periscope and if necessary manufacturing activities for such sight units.



SPARE PARTS MANUFACTURING

Capability of manufacturing spare parts for tracked vehicles and other military equipment

TECHNOLOGICAL APPLICATIONS

- CNC 5-axes Machining
- Eccentric and Hydraulic Presses
- CNC Wire Erosion
- CNC Laser Cutting
- Plasma Cutting
- CMM Measuring
- Iron, Cat Iron, Steel, Aluminum, Bronze and Brass Casting
- MIG, MAG, TIG, Manual Arc, Resistance and Oxyacetylene Welding
- Hard Chrome, Manganese Phosphate, Zinc and Silver Plating, Aluminum Chromatizing
- Normalization, Stress Relieving, Hardening, Carburization, Tempering, Annealing and Aging
- Heat Controlled Painting, Static Painting
- Silicone, Neopren (EU), Styrene Butadiene Rubber (SBR) and Nitrile Butadien Rubber Sealing Element Manufacturing

INTERNATIONALLY CERTIFIED ARMOR WELDING CAPACITY

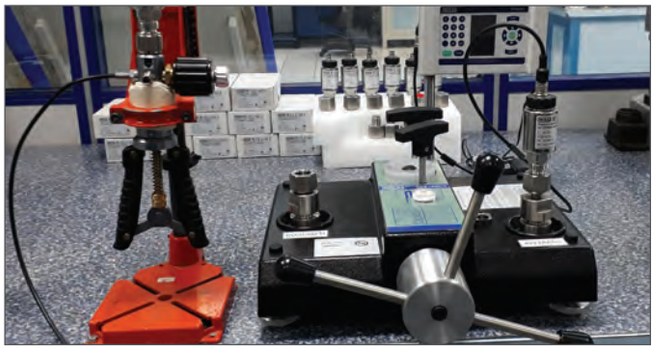
Hull repairs of all tracked vehicles and tactical wheeled armored vehicles made of steel and aluminum materials which have ballistics properties or require special welding procedures are performed by the internationally certified welding engineers (IWE) and welding staff serving in our factory.

TECHNOLOGICAL APPLICATIONS

- Armor steel appropriate for MIL-A-1356, 12560, 46100, 46177 standards
- Aluminum AA5083, having ballistic feature

QUALITY MANAGEMENT ACTIVITIES

- Metal Analysis Tests
- Engine and Hydrolic Oil Tests
- Metal and Rubber Material Tensile Strenght Tests
- Spring Tension and Compression Tests
- Determining of Surface Roughness Tests
- Metal Hardness Measurement Tests
- Non-Destructive Tests
- Mechanical and Electronic Calibration of Measuring and Test Instruments
- Braking and Acceleration, Vertical Obstacle Crossing, Trench Crossing, Water Crossing, %45-60 Steep Slope, %30 Side Slope, Slalom and Stabilization Tests within the scope of driving tests



4TH MAIN MAINTENANCE FACTORY DIRECTORATE

MANUFACTURING ACTIVITIES

4th Main Maintenance Factory Directorate performs design and manufacturing activities for light weapons, communication, electronic and information systems in its responsibility field.

Furthermore military paints which are used for painting military vehicles, equipment and weapons are manufactured.

Technological Applications

- Forming aluminium, steel sheet materials in molds with the pressing machine
- Manufacturing plastic parts by injection method
- Molding rubber paste in the pressing machines in order to obtain finished goods
- Mold and part manufacture in CNC wire and immersion erosion machines
- Spring winding up to 2,5 mm wire diameter in CNC machine
- Writing on metal with laser stand
- Processing in 5 axis-CNC machine
- Manufacturing with turning, milling, drilling, bending and grinding methods
- Welding activities for aluminum and steel materials with tig, mig, electrode and oxygen welding machine

Electronic Manufacturing Activities

- Radio Controlled and Moving Target Systems
- Wide Band Antenna (MARCONI)
- LEOPARD 2A4 Tank Fire Simulator
- Rapid Charge/Discharge Device (HŞDC-4)
- Under Vehicle Searching Device (AAAC-700)
- Unit Security Systems (BGS-700, BGS-4)

PAINT MANUFACTURING ACTIVITIES

IR Paint

- Concealment against night vision devices
- Appropriate for MIL-C-46168D standard
- Manufactured as polyurethane resin-based and binary component
- Brown 383,30051
- Green 383,34094
- Black 37030
- Earth Yellow 33245
- Skin 686,33440
- Aircraft 36300 coloured IR paints are produced.

Epoxy Primer

- It is used for polyurethane paint application.
- It is produced in compliance with MIL-PRF-23377J standards.

Polyurethane Paint

Its colors are gray, white, red, bright white, black and produced in compliance with MIL-PRF-85285 standard.

PVC Door and Window Manufacturing

In line with the objective of meeting the urgent structural requirements of the units affiliated with the Ministry of National Defense, door and window manufacturing activities are currently being carried out in the 4th Main Maintenance Factory Directorate, under the General Directorate of Military Factories. These activities are conducted within the scope of enhancing technical personnel competencies in the area of light steel construction systems (prefabricated buildings).

QUALITY MANAGEMENT ACTIVITIES

PHYSIC, CHEMISTRY AND METAL LABORATORY

- **Paint/Paint Raw Material Analysis**
  - Covering/Coating Strength, Brightness, Volatile Material Amount, Viscosity Determination with Brookfield and Kreps Devices, Touch/ Dryness/Dust Collection Determination, Density, pH Analysis etc.
- **Coating Chemicals and Solvents Analysis**
  - Density, Melting, Boiling Point Determination specified in the National and International Standards, pH Analysis etc.
- **Process Control Test and Analysis**
  - Chemical Coating Analysis (Phosphate, Chrome, Nickel, Anodized, Rust Elimination and Oil Elimination and Activation Bath)
- **Metal/Plastic Analysis**
  - Spark-OES, Elemental Analysis of Steel, Aluminum and Copper Alloys with Carbon-Sulphur Device
  - According to TS EN ISO 6507-1-2-3 and TS EN ISO 6508-1 Hardness Analysis with Rockwell Hardness Device and Vickers Micro-hardness Device
  - According to TS EN ISO 6892-1-2, Tensile & Rupture Strength of Metal Materials with 20 kN Tensile - Rupture Test Device
  - According to TS ISO 37, Tensile & Rupture Strength of Plastic Materials with 1kN Tensile – Rupture Test Device
  - Shore A Hardness Analysis of Plastic Materials with Durometer

REPAIR ACTIVITIES

Frequency Mode Radio Repair
- SK2 Radio Family (1st Generation, 2nd Generation)

Amplitude Mode Radio Repair
- MARCONI ans HARRIS Series Radios
- They are used as vehicle and base radio. They can provide safe ground and skywave communication.
- 9661 HF Software based Manpack/Vehicle and Base Radio Stations

Repair of Multi-Channel Communication Systems
- PRC 5114 Personal Communication Switchboard (225-400 MHz)
- Aselsan GRC 5520 Microwave Receiver Transmitter
- TASMUS G+ magn Mobile Subscriber Input Switchboard
- E-VOıP 2121 Safe Voıp Telephone
- VRC 5101, VRC 9661 mat/M Radio Mobile Subscriber Terminal M Radio (225-400 MHz)
- TASMUS (Tactical Field Communication Systems) MAGN Shelter

Switchboard and Telephone Repair

Radar Repair
- AN/TPQ-36 radar detects the location of enemy mortars, artillery and rockets.
- COBRA radar detects the location of enemy mortars, artillery and rockets.
- AN/MPQ-64 Radar tracks the aircrafts and sends their print information.
- First Speed Measurment Radar measures the first artillery speeds of heavy weapons.
- GPS device sends the coordinates and altitude information of its location.
- P-Star radar tracks the aircrafts and sends their print information.
- Retinar ground surveillance radars detect personnel,vehicles,and convoys.
- Acar UAV detection radars are capable of detecting and tracking both fixed-wing and rotary-wing unmanned aerial vehicles.

Electronic Warfare Systems
- AT-02 G, AT-11, AT-22A Manpack Snow/Blind Systems
- AT-03 Self Contained Jammer System for Vehicle Protection
- ELKAR Radio Frequency Jamming System
- KANGAL RF Jamming Attenuation (Jammer)
- MILKAR 5T5 Portable Jammer Attenuation System
- MILKAR (3A, 4, 5A2, 5A4) Jamming Systems
- MILKAR-5A5 Active/Passive Convoy Protection System
- MILKED (3A2,3T2,4A)Listening and Direction Finding Systems
- MILKED-3T4 Portable V/UHF Listening and Direction Finding System
- Radar Electronic Support and Attack (ED-ET) Systems
- SIRTKAR 2300 BO Manpack Jammer

Mine Detectors
- Vallon VMH3 Mine Detector
- Schiebel Mine Detector
- Portable Mine Detection System-2 (ETMTS-2, ETMTS-3)
- CEIA Mine Detector
- Ozan Mine Detector

LIGHT WEAPON REFURBISHMENT ACTIVITIES

4th Main Maintenance Factory Directorate performs refurbishment of light weapons in its responsibility area. Refurbishment activities include examination of weapons by disassembly of all parts even the smallest ones, making the failured parts operable or replace them with the new, refurbished or repaired ones and then re-assembling such parts and bring them into a good condition where they can be comparable to the new ones.

Refurbished Weapons

- Infantry Rifles
- Machine Guns
- Bomb Launchers
- Sniper Rifles
- Mortars
- Roket Launchers
- Pistols and Machine Pistols

Technological Applıcations

- Adjusting line of fire with aiming sight
- Changing barrel activities by using barrel pressing, fixing and drilling machines
- Adjusting headspace process
- Balancing weapons by balancing machine
- Fixing front sight operation by front sight fixing machine
- Oxygen and gas welding operations
- Making weapons ready by sanding machine before phosphate coating and lac-dye painting process
- Phosphate coating and lac-dye painting process
- In 25 mt polygon executing firing tests of rifles, machine guns and various pistols by fixing on gun rest. Firing tests of weapons like aircraft machines, machine guns which cannot be performed in the shooting range are done in open shooting areas that Turkish Land Forces have.

6TH MAIN MAINTENANCE FACTORY DIRECTORATE

ACTIVITIES

By using the automated technology, 6th Main Maintenance Factory Directorate performs maintenance, repair, overhaul, production and test activities of engines, powertrain of the Tactical Wheeled Vehicles and generators and sub-systems, which belong to Turkish Armed Forces inventory and in the 6th Main Maintenance Factory Directorate's responsibility area.

ENGINE OVERHAUL

It includes the overhaul, maintenance and test, repair and modernization of Tactical Wheeled Vehicle, Tactical Wheeled Armored Vehicle and heavy-duty vehicle engines and generator engines.

KIRPI ENGINE

HEAVY-DUTY VEHICLE ENGINE

POWERTRAIN OVERHAUL

It includes the renovation, maintenance and test, repair and modernization of transmissions, axels, transfers and cell connectors of Tactical Wheeled Vehicles and Construction Machines.

AUTOMATIC TRANSMISSION

TACTICAL WHEELED VEHICLE AXLE

GENERATOR OVERHAUL/PRODUCTION

It includes the production, refurbishment, performance test with charge banks, repair and modernization of various generators whose power range between over 5,5 kVA and 1500 kVA. Also, design and refurbishment of standardized control and power panels appropriate to generators power are performed.

DUAL GENERATOR

MANUAL GENERATOR

SUB-SYSTEM OVERHAUL

It includes the overhaul and test of sub-systems which belong to tactical wheeled vehicles and tactical wheeled armored vehicles.

ALTERNATOR

TURBOCHARGER

5-AXIS CNC MACHINE

MANUFACTURING ACTIVITIES

It includes the manufacturing of spare parts in CNC and conventional machines which are used for engine, power-train and generator overhaul activities.

5-AXIS CNC MACHINE

LABORATORY AND CALIBRATION ACTIVITIES

- Calibration possibility of Signal Sources and Analyzers, Multimeter, Time and Frequency Counter, Oscilloscope Devices and Power Resources
- Calibration possibility of Caliper, Comparator, Block Gauge, Height Gauge, Micrometer, Manometer, Protractor, Spirit Level and Torque Meter Devices
- In situ hardness measurement by PROCEQ Equotip 3 hardness measurement devices in the laboratory
- Determination of chemical composition of steel, iron and aluminum alloys by Optical Emission Spectrometer Device
- Micro structure examination and determination of cementation thickness, grain size, graphite form and size in the image analysis device; taking photos of micro structure
- Viscosity measurements of oils, analysis measurements of coating baths (chromium, zinc, nickel, manganese phosphate), pH values of hot degreasing baths, temperature and free alkalinity measurements.

UNIVERSAL MEASUREMENT DEVICE

7TH MAIN MAINTENANCE FACTORY DIRECTORATE

MOBILE HOSPITAL DESIGN AND PRODUCTION FACILITIES

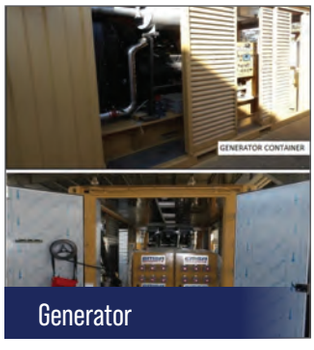
The production of the mobile field hospital system serving at Role 2 level, modular, lightweight, highly maneuverable, can be used in all kinds of operations, can be increased with additions and capabilities, mobile as much as the unit it supports, rapidly responding to the type and urgency of the given task, easily carried on vehicles, capable of life and limb-saving surgical intervention, designed in a structure that can be established and assebled in all kinds of areas in a very short time and can adapt to Technologies of today and future, was produced in 2021 and the Ministry predicted that additional hospital needs will be met by our factory in the following period.

Mobile Hospital

Laundry and Sterilization

Water Tank and Purification

Bathroom and WC

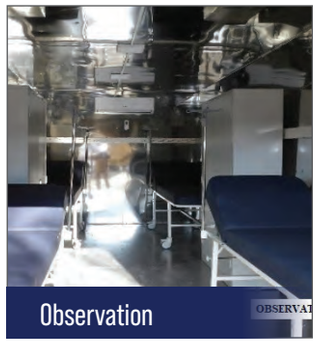


Generator

Operating Room

Intensive Care

Radiology


Observation

Pharmacy

Laboratory

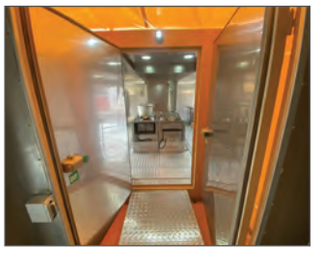
Emergency/Triage

Dental Clinic

EXPANDABLE CONTAINER KITCHEN UNIT

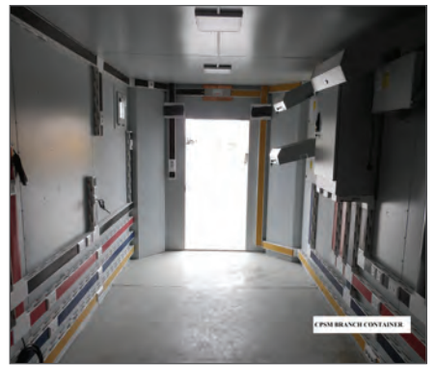
Kitchen Supply Preparation, Cooking and Cold Air Container Set :

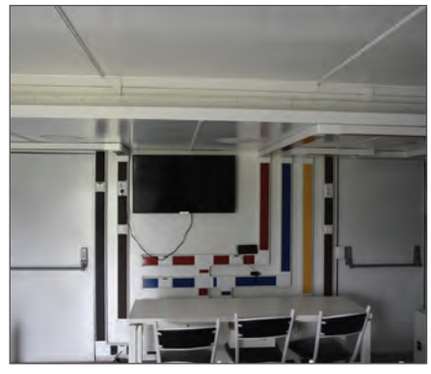
The mobile field kitchen consist of connecting the expandable cooking and expandable preparation containers on the trailer with an intermediate connection. Mobile field kitchen containers; it has an expandable container feature and can be easily seperated when necessary on a trailer with a carrying capacity of 10 tons. The closed state of container is 20ft. It is in standart container dimensions (width 2,44 x lenght 6,06 x height 2,60 meters), and can be opened to the sides by 1,65 meters when expanded. Trailer mounted cold air container which is used for the storage of food and beverage items, has a capacity of 18 m^3 (2 compartments, 9 m^3 of vegetables and 9 m^3 of meat) and a cooling capacity between -18 degrees to +4 degrees with a higher capacity to meet the needs of the unit, provides technological and long-lasting service.



COMMAND PLACE SYSTEMS

Command Post Systems, which are designed in a flexible, convenient and effective structure that can change according to the security environment and the types of operations to be carried out, in order to contribute to the conduct of the operative/tactical level operations planned and executed by the Army/Corps/Brigades in order to seize the military objective of the war. It can be produced as expandable and fixed container systems.

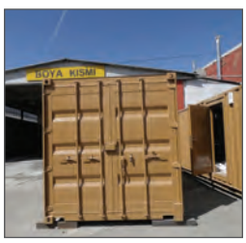




VARIOUS TYPES OF CONTAINER DESIGN AND MANUFACTURING CAPABILITIES

It has the ability to design and manufacture functional, expandable and fixed type containers that can meet all kinds of requirements for cntainer systems needed within the scope of operations and exercises carried out by TAF.

- Mobile Sanitary Systems
- Office Container
- Dining Hall Container
- Bathroom Container
- Warehouse Container
- Life Support Units
- Dormitory Container
- Operations Center Container
- Toilet Container
- Masjid Container



TENT MANUFACTURING ACTIVITIES

Besides tarpulin manufacturing activities for all vehicles, units and systems in the Turkish Armed Forces inventory, high-capacity tent manufacture shop of 7th Main Maintenance Factory Directorate performs manufacturing activities of tent canvas and their metal parts.

COLD CLIMATE TENT

STORAGE TENT

MILITARY ACADEMY STUDENT TENT

COMMAND PLACE TENT

GENERAL PURPOSE TENT

TANK MAINTENANCE TENT

8TH MAIN MAINTENANCE FACTORY DIRECTORATE

DEPOT LEVEL MAINTENANCE & REPAIR (DLM) ACTIVITIES

Activities include the manufacture, maintenance, repair, modernization and test of ballistic protective products (helmet, vest, helicopter floor armor etc.) and manufacture/ repair of inflatable rubber boats under the responsibility of 8th Main Maintenance Factory Directorate.

TECHNOLOGICAL APPLICATIONS

- Ballistic Protective Composite Helmet Manufacturing / Repair
- Ballistic Protective Vest (armor plate and vest) Manufacturing / Repair
- Mine Protective Equipment Manufacturing / Repair
- Helicopter Floor Armor Manufacturing / Repair
- Inflatable Rubber Boats Manufacturing / Repair
- Painting/Coating Activities
- Ballistic Test and Analysis

MANUFACTURING CAPABILITIES

BALLISTIC PROTECTIVE COMPOSITE HELMET (FULL-CUT MODEL)

Two main type of helmet can be produced: Polyethylene-based and Aramid-based Ballistic Protective Composite Helmet.

New type composite helmet manufactured by using polyethylene armour fabric for lightness. In the design of the helmet, a night vision mount accessory mount, fixing clamp and a new type interior equipment group that provides a more ergonomic structure during usage in order to mount accessories suitable for tactical operations. Different helmet colours and sizes can be produced.

Technical Features

Weight (M-L-XL) : Polyethylene-based 1319-1365-1423 ± 50 g
Aramid-based 1670-1715-1760 ± 50 g
Armor Material : UHMW-PE + Carbon / Aramid fabric
Ballistic Protection: NIJ 0101.04 Level IIIA
STANAG 2920, 17 grain FSP V_{50} min. 650 m/s

BALLISTIC PROTECTIVE COMPOSITE HELMET (HIGH-CUT MODEL)

The polyethylene based Modular Ear Protector-added High Cut Ballistic Composite Helmet ,manufactured for operations in line with the needs of the TAF personnel, provides the opportunity to be used with headphones, one of the communication systems that Commando Units need during operations.

Technical Features

Weight (M-L-XL) : Polyethylene-based 1190-1290-1330 g;
Aramid-based 1550-1600-1640 g
Armor Material : UHMW-PE + Carbon / Aramid fabric
Ballistic Protection: NIJ 0101.04 Level IIIA
STANAG 2920, 17 grain FSP
V_{50} min. 650 m/s

Ballistic Ear Protector Panels

Technical Features:

Weight : 210 ± 10 g
Armor Material : UHMW-PE
Ballistic Protection: NIJ 0101.04 Level IIIA
STANAG 2920, 17 grain FSP
V_{50} min. 650 m/s

MODULAR COMMANDO VEST

Designed for operation in line with the need of Commando Units, the Tactical Vest has more ergonomic, lighter and better abilities to fulfill the needs.

During the design phase of the vest and accessories, the opinions and suggestions of the personnel working in the Commando Units were received and the configuration was clarified in line with these opinions.

Technical Features

Vest Weight	: 1350 ± 50 g
Accessory Weight	: 1680 ± 50 g
Hard Armor Weight	: Max. 8450 g
Hard Armor Materials	: Ceramic + UHMWPE
Total Weight (Vest with accessories + Hard Armor)	: 11480 ± 100 g
Ballistic Protection	: NIJ 0101.06 Level IV

A-TYPE MODULAR VEST

The modular Ballistic Protective Composite Vest, produced for operations in line with the needs of the TAF personnel, provides ergonomics by mounting the desired accessories on the vest as desired.

Technical Features

Soft Armor Weight	: Max. 3200 g
Soft Armor Materials	: UHMWPE
Hard Armor Weight	: Max. 4500 g
Hard Armor Materials	: UHMW-PE
Vest Weight (with soft armor)	: 4200 - 5300 g
Total Weight (M-L-XL)	: 7900-8800-9800 ± 100 g
Ballistic Protection	: NIJ 0101.04 Level III + 7,62x39 mm MSC

MANUFACTURING CAPABILITIES

Z-TYPE MODULAR VEST

Designed for the used of armored vehicle crews, the vest's outer cover is made of flame retardant fabric. Thus, it is aimed to protect the crew inside the armored vehicle against flames in case of possible threats.

Technical Features

Soft Armor Weight	: Max. 1950 g
Soft Armor Materials	: Aramid
Hard Armor Weight	: Maks. 5200 g
Hard Armor Materials	: Ceramic+UHMW-PE
Vest Weight (with soft armor and accessories)	: 3750 g
Total Weight	: 9000 ± 100 g
Ballistic Protection	: NIJ 0101.06 Level IV

HELICOPTER FLOOR ARMOR

Helicopter Floor Armor is produced in order to protect various helicopter models against shooting by infantry rifles during air operations.

Technical Features/Total Weight

S-70	: 150 - 170 kg
Cougar	: 205 - 232 kg
Mi-17	: 210 - 230 kg
Armor Material	: UHMW-PE
Ballistic Protection	: NIJ 0101.04 Level III + 7,62x39 mm MSC

BASIC/ ADVANCE EMERGENCY BAG

Basic Emergency Bag and Basic/ Advance Emergency Bag to help Military Emergency personnel store, organize and transport important medical supplies and equipment.

G-410 / G 470 COMBAT BOAT

G-410 and G 470 are products of passing water, produced by 8th Main Maintenance Factory Directorate in line with the needs of the Commands.

Technical Features

Crew	: 8 / 10 People
Payload	: 1000 / 1250 kg
Number of Airtight Chambers	: 5+2+1
Material	: Hypalon/Neopren
Floorboard	: Roll-up (Aluminium)
Weight (Empty)	: 115 / 135 kg
Length	: 410 / 470 cm
Width	: 185 / 192 cm

MANUFACTURING CAPABILITIES

The production and quality control activities of the 8th Main Maintenance Factory Directorate are carried out in a modern manufacturing facility that meets the requirements of the contemporary era, comprising approximately 11,000 m^2 of production area and 2,000 m^2 of testing and analysis laboratories, with a total indoor area of 18,000 m^2 including auxiliary facilities.

TEST AND ANALYSIS ACTIVITIES

Ballistic Test and Analysis Laboratory of the 8th Main Maintenance Factory Directorate conducts ballistic tests for intermediate and final inspections of products and raw material controls. Additionally, ballistic test request from external institutions and organizations are also accepted.

Ballistic Test and Analysis Laboratory is an accredited laboratory according to TS EN ISO/IEC 17025 standard. With the recently established Textile Laboratory, textile-specific tests are also carried out in parallel with ballistic testing.

Test and Analysis Capabilities

- NIJ 0101.04 Ballistic Resistance of Personal Body Armor
- NIJ 0101.06 Ballistic Resistance of Body Armor
- NIJ 0108.01 Ballistic Resistant Protective Materials
- TS EN 1063 Glass In Building - Security Glazing - Testing and Classification Of Resistance Against Bullet Attack
- TS EN 1522-1523 Windows, Doors, Shutters And Blinds - Bullet Resistance - Requirements and Classification
- Determination of Personal Armor V_{50} Value and Classification According to STANAG 2920 Standard
- Material Type Determination (FT-IR Spectrometer)
- Material Type Determination (DSC)
- Material Density Determination
- Determination of Color Coordinates Using a Color Spectrophotometer
- Determination of Tensile Strength of Textile Materials
- Determination of Tear Strength of Textile Materials
- Determination of Fabric Mass per Unit Area
- Determination of Material Hardness (Shore D)
- Determination of Yarn Count
- pH Measurement
- Cold, Hot, Wet and Tumble Conditioning

ELECTROOPTICAL SYSTEMS MAIN MAINTENANCE FACTORY DIRECTORATE

AIR DEFENCE MISSILE SYSTEMS MAINTENANCE AND REPAIR

Depot/company level maintenance and repair of Portable Stinger Training Aids and ATILGAN/ZIPKIN weapon systems of pedestal mounted stinger in TAF inventory (Land Forces, Air Forces and Navy) are performed.

PORTABLE STINGER TRAINING AIDS

- Repair/Maintenance of Gas Charging Unit (GCU)
- Repair/Maintenance of Gas Pumping Unit (GPU)
- Repair/Maintenance of Power Supply Unit (PSU)
- Repair/Maintenance of Gas Charging Unit (GCU)
- Repair/Maintenence of M 160 Seeker Head Training Unit
- Pedestal mounted Stinger ("Zıpkın"/ "Atılgan") Subsystems Maintenance/Repair/Test

ARTILLERIES, MISSILES AND ROCKETS MAINTENANCE AND REPAIR

Depot/Company level maintenance and repair activities are carried out for 122mm SAKARYA, 302 mm KASIRGA multiple launch rocket system (MLRS) and K+, 600mm YILDIRIM, 610 mm BORA missiles and weapon systems in the Turkish Armed Forces inventory.

SUBSYSTEMS UNDER OUR MAINTENANCE/ REPAIR AND CALIBRATION RESPONSIBILITY

- Fire Control Systems
- Satellite and Navigation Systems
- Automatic Meteorology Station Systems
- Automation Control Systems
- Update and Loading of Software
- Missile/Rocket Fire Systems
- Ground Test Equipment

BARRELED AIR DEFENCE WEAPON SYSTEMS MAINTENANCE AND REPAIR

Depot/Company level maintenance and repair activities of 35mm Modernized Towed Gun (MTG) / Fire Control System (FCS) AND KORKUT Air Defence Weapon System (ADWS) in Turkish Armed Forces inventory are conducted.

REPAIR & MAINTENANCE ACTIVITIES FOR 35 MM MTG AND FCS

- Maintenance/Repair of Weapon Section
- Maintenance/Repair of Loader
- Maintenance/Repair/Test of Barrel
- Barrel Life Measurement
- Maintenance/Repair of Electronic Drawer
- Maintenance/Repair of FCS
- Maintenance/Repair of Mobile Search Radar
- Maintenance/Repair of Fire System Radar

REPAIR & MAINTENANCE ACTIVITIES FOR KORKUT AIR DEFENCE WEAPON SYSTEM

- Maintenance/Repair of Weapon Section
- Maintenance/Repair of Loader
- Maintenance/Repair/Test of Barrel
- Barrel Life Measurement
- Maintenance/Repair of Electronic Drawer
- Maintenance/Repair of Computer Section
- Maintenance/Repair of Tracking Section

ANTI-TANK MISSILE SYSTEMS MAINTENANCE AND REPAIR

Maintenance/repair, test, modification, structural parts repair and replacement of anti-tank systems, mechanical, electrical and electronic systems under Electro-optical Systems Main Maintenance Factory Directorate responsibility are performed.

REPAIR & MAINTENANCE ACTIVITIES

- Maintenance, repair and tests of trigger systems, missile guidance sets, optical sight, night vision and training sets of MILAN, ERYX and KORNET-E Anti-tank systems
- Maintenance, repair and tests of battery charger
- Maintenance, repair, tests and modification of anti-tanks systems batteries and cables
- Maintenance, repair and tests of mechanical systems of anti-tank systems
- Test/repair and maintenance of night vision, weapon trigger system, missile guidance set, training set, optic vision set of TOW weapon systems
- Side/elevation test, 2W1 cable test, training sets test and self-test of guidance electronic system of TOW weapon system

MECHATRONIC AND FIRE CONTROL SYSTEMS MAINTENANCE AND REPAIR

Maintenance, repair, sustainment activities for electronic cards, mechanical parts, mechatronic and fire control systems of Leopard and M-Series Tanks, armoured combat vehicles towers, tactical wheeled armoured vehicle towers under the responsibility of Electrooptic Systems Main Maintenance Factory Directorate are performed during their life cycles.

MECHATRONIC AND FIRE CONTROL SYSTEMS

- Leopard 2A4, Leopard 1T, Leopard 1A3T1, M60A3, M60T, M48A5T2 Main Combat Tanks fire conrol systems and tower hydraulic/pneumatic systems,
- Armoured combat vehicles (ZMA NEFER, ZMA DRAGAR), tactical wheel armoured vehicles (KOBRA) and Stabilized Advanced Remote Weapon Platform (SARP) fire conrol systems and tower hydraulic/pneumatic systems repairs and tests are in progress in the workshop.

LASER INTEGRATED SYSTEMS MAINTENANCE AND REPAIR

Maintenance, Repair and Sustainment activities for on-vehicle/on-platform laser systems are performed by the Electrooptical Systems Main Maintenance Factory Directorate during their life cycles.

REPAIR & MAINTENANCE ACTIVITIES FOR LASER INTEGRATED SYSTEMS

Maintenance, repair and test of the following systems are made:

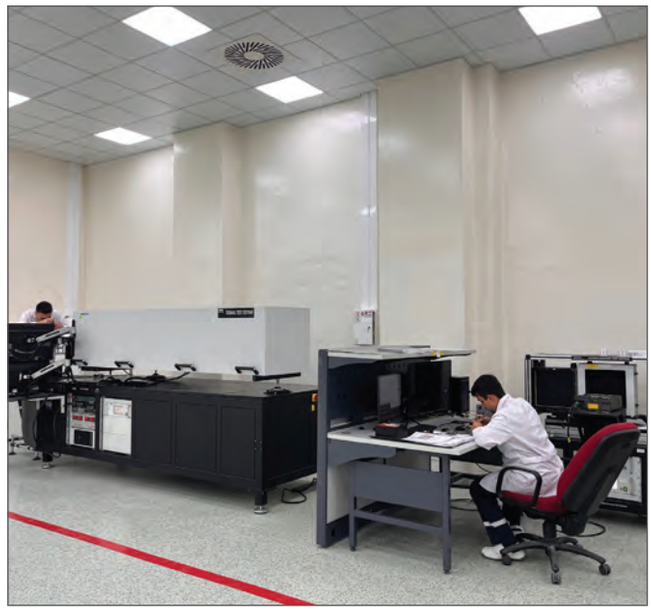
- Target Coordinate Positioning Systems
- Laser Distance Measurement Systems
- Goniometer
- Laser Distance Determination Systems
- Laser Target Pointing System
- Optical Sections and Electronic Cards

VISION SYSTEMS MAINTENANCE AND REPAIR

Depot/company level maintenance, repair, modernization and modification activities for surveillance systems, night vision goggles and their equipment are performed.

NOT ON-VEHICLE/ON-PLATFORM THERMAL VISION SYSTEMS WORKSHOP

- TV/MON3L Monocular Night Vision Googles
- TV/MAM 14.93 Binocular Night Vision
- DORUK Handheld Thermal Binoculars
- DORUK-2 Handheld Thermal Binoculars
- A600 Night Vision Attachment
- TSD35 Mini Thermal Weapon Sight
- TSD-E60 Mini Thermal Vision Sight
- 6X Sniper Night Vision Weapon Sight
- TV/NVS 4X Night Vision Weapon Sight
- TYPE-1 Thermal Light Weapon Sight
- M983 and M972 Night Vision Goggles
- AN/PVS-7B Night Vision Goggles
- M929 Pilot Night Vision Goggles
- AN/AVS-6 Pilot Night Vision Goggles
- PUHU A-500 Pilot Night Vision Goggles
- M930 Pilot Night Vision Goggles
- M995 Artillery Night Vision Binoculars
- M993 and M9866 Light Arm Night Vision Binoculars
- M9865 Artillery Night Vision Binoculars
- M9885 Long Distance Surveillance Binoculars
- M978 and M1505 Night Vision Hand Binoculars



ON-VEHICLE/ON-PLATFORM THERMAL VISION SYSTEMS WORKSHOP

- Thermal Monitoring Unit Gözcü
- Hawk Eye E/O Reconnaissance and Surveillance System
- Thermal Camera System ASIR-SH2K
- Hawk Eye OD E/O System
- M48A5T2 Tank Vision System
- M60A3 Tank Vision System
- M60T 120 mm Tank Vision System
- LEOPARD2A4 Tank Vision System
- LEOPARD1T Tank Vision System
- Armoured Combat Vehicle Vision System
- Strengthened APC Vision System
- TTZA COBRA Vision System
- SARP Tower Vision Systems (ATS 70, ATS 71)
- DRAGONEYE Electro-Optic Sensor System
- DRAGONEYE-2 Electro-Optic Sensor System
- PARS660 Thermal Weapon Sight
- ENGEREK-9 Electro-Optic Sensor System

CALIBRATION ACTIVITIES

Internationally-traceable calibration activities for the precise measurement instruments in the responsibility field of EOS MMFD are performed in compliance with the determined standards.

ELECTRONIC CALIBRATION

- AC/DC Voltage Calibration (AC 1100V /DC 0-10 KV)
- AC/DC Current Calibration (AC 11A /DC 11A)
- Resistance Calibration (0Ω-330 MΩ)
- Inductance Calibration (10µH-1H)
- Capacitance Calibration (1000pF-1,111µF)
- Phase/Angle Calibration (1Hz-200kHz)
- Digital/Analog Multimeter Calibration
- Calibrator Calibration
- Attenuator Calibration
- RF Power Calibration (DC-50GHz)
- Time/Frequency Calibration (DC-50GHz)
- Spektrum Analyser Calibration (DC-50GHz)
- Analog/Digital Oscilloscope Calibration (DC 10Hz-6GHz)

MECHANIC CALIBRATION

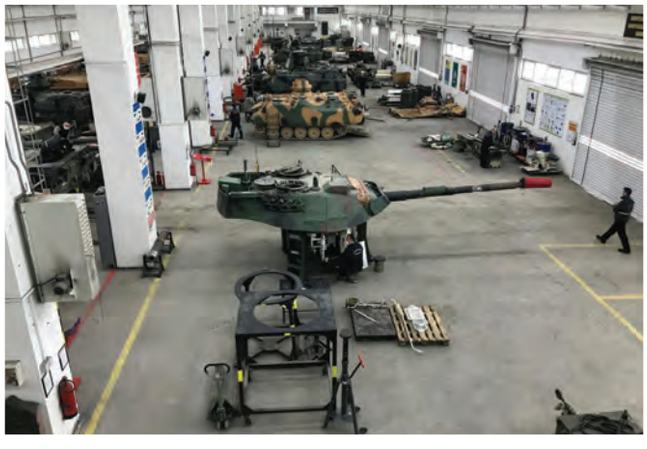
- Pressure ((-1) - (1200) Bar)
- Dimensional ((0-800) mm)
- Torque (0-1200) Nm)
- Angle (0-360) Derece)
- Temperature ((-40) ^{0}C - (1000) ^{0}C)
- Optic

MAINTENANCE FACTORY DIRECTORATES

MAINTENANCE FACTORY DIRECTORATES

Main activities performed by Maintenance Factory Directorates affiliated to the General Directorate of Military Factories are as follows:

- Repair, periodical maintenance and production activities for special weapons/vehicles as well as depot/company level maintenance, repair and overhaul activities for them.
- On-site maintenance and repair support by mobiles teams



- Additionally, 45th Maintenance Factory Directorate, one of the maintenance factory directorates affiliated to our General Directorate started producing light steel structures in 2023 after the approval of the Minister was obtained. Within the scope of light steel structure production activity, various structures are produced according to the demanded dimensions. Customized production is possible. Thus 45th Maintenance Factory Directorate has also acquired sandwich panel and light steel production capabilities.

SANDWICH PANEL PRODUCTION

The Sandwich Panel Machine has PIR-features, is 4-component,42-40 density, fire class B1, and has the capability to produce Wall panels with thicknesses of 40 mm, 60 mm, and 80 mm, as well as 5-ribbed roof panels withnesses of 40 mm and 50 mm.

LIGHT STEEL PRODUCTION

The Rollform Machines have the capability to produce U/C profiles with a width of 300 mm and thicknesses ranging from 0.8 mm to 2.5 mm.

PRODUCTION CAPABILITIES OF 45TH MAINTENANCE FACTORY DIRECTORATE:

Sandwich Panel Production Line

Sandwich Panel Production Line

Sandwich Panel Production Line

MF 1600 Rollforming Machine

MF 2500 Rollforming Machine

Type-1 Military Housing Unit, 54 m2

Type-1 Military Housing Unit, 54 m2

Type-1 Military Housing Unit, 54 m2

Type-2 Military Dining Unit 10X36m

Type-2 Military Dining Unit 10X36m

Type-2 Military Dining Unit 10X36m

Type-2 Military Dining Unit 10X36m

Type-3 One-storey Command Unit 14X36m

Type-3 One-storey Command Unit 14X36m

Type-3 One-storey Command Unit 14X36m

Type-3 One-storey Command Unit 14X36m

Type-4 Two-storey Command Unit 14X36m

Type-4 Two-storey Command Unit 14X36m

Type-4 Two-storey Command Unit 14X36m

Type-4 Two-storey Command Unit 14X36m

ARMY SEWING & TAILORING SHOP DIRECTORATE

DAILY UNIFORM FOR OFFICERS

- Material type is 66% wool with the tolerance of ± 3, 2% elastane with the tolerance of ±1, the rest parts contain polyamide.The weight of the fabric per square meter is 205 ± 10 g/m^2.

SHIRT FOR SUMMER

- Material type is 49% viskon, 49% PES and 2% elastane. The weight of the fabric per square meter is 150 g/m2.

KHAKI COAT

- Material type is 80% wool with the tolerance of ±3 and 20% polyamide. The weight of the fabric per square meter is 340±10 g/m^2.

HAT, OFFICER, KHAKI, SEASONAL

- It is used with uniform No 1

KHAKI JACKET

- Material type is 50% wool with the tolerance of ± 2 and 50% polyester. The weight of the fabric per square meter is 280 (-10 +20) g/m2.

TOPCOAT

- Material type is 50% wool with the tolerance of ± 2 and 50% polyester. The weight of the fabric per square meter is 280 (-10 +20) g/m2.

DRESS, MESDRESS, WHITE

- Material type is 60% wool, tolerance ±5 and the rest contains polyester. The weight of the fabric per square meter is 220 ± 10 g/m2.

DRESS, PRESIDENTIAL GUARD REGIMENT, JACKET TURQUOISE, TROUSERS NAVY BLUE

- Material type is 60% wool, tolerance ± 5 and the rest contains polyester. The weight of the fabric per square meter is 220 ± 10 g/m2.

CAMOUFLAGE COMBAT UNIFORM

- Material type is 65% cotton with the tolerance of ±3. The rest is a mixed yarn with a polyester fiber inside. The fabric per meter square weight is 220-235 g/m^2.

CAMOUFLAGE SHIRT COMBAT (AVAILABLE - DEVELOPED & APPROVED)

- Material type is 65% cotton with the tolerance of ±3. The rest is a mixed yarn with a polyester fiber inside. The fabric per meter square weight is 160 g/m^2.

WHITE CAMOUFLAGE SUIT FOR WINTER

- Outer part : Outer main is water repellent - %100 Poliamide ,
- Mid layer part : PU (Polyurethane) membrane
- Inner part: %100 Poliamide knitted

WHITE CAMOUFLAGE SUIT

- Outer part : Outer main is water repellent - %100 Poliamide ,
- Mid layer part : PU (Polyurethane) membrane
- Inner part: %100 Poliamide knitted

EMBROIDERY PRODUCTS

- Sword belt set, ranks, colors production is made in Army Sewing & Tailoring Shop Directorate.

NAVY SEWING & TAILORING SHOP DIRECTORATE

COAT, SERVICE DRESS, BLACK

- Made out of 50/50 polyester wool fabric.
- The fabric's pattern is 2/2 twill.
- The fabric's weight is 255 g/m2.
- The buttons are nickel-plated and gold-plated.
- Rank: Gold sleeve device/lace (officer), insignia of rank (chief/NCO).
- Worn with the black trousers which is made by the same fabric.

BRIDGECOAT (OVERCOAT), BLACK, SERVICE

- Made out of 15/85 polyester wool fabric.
- The fabric's pattern is 3/1 twill.
- The fabric's weight is 540 g/m2.
- The buttons are nickel-plated and gold-plated.
- Rank: Shoulder boards, hard (officer), insignia of rank (chief/NCO).

COAT, DINNER DRESS, WINTER, BLACK

- Made out of 40/60 polyester wool fabric.
- The fabric's weight is 220 g/m2.
- The buttons are nickel-plated and gold-plated.
- Worn with bow tie black and shirt white.
- Rank: Gold sleeve device/lace (officer), insignia of rank (chief/NCO).
- Worn with the black trousers which is made by the same fabric.

COAT, DINNER DRESS, SUMMER, WHITE

- Made out of 67/33 polyester viscose fabric.
- The fabric's weight is 280 g/m2.
- The buttons are nickel-plated and gold-plated.
- Worn with bow tie black and shirt white.
- Rank: Shoulder boards, hard (officer), insignia of rank (chief/NCO).
- Worn with the black trousers which is made by the black dinner dress coat's fabric.

COAT, SERVICE DRESS, WHITE

- Made out of polyester fabric.
- The fabric's pattern is ½ twill.
- The fabric's weight is 210 g/m2.
- The buttons are nickel-plated and gold-plated.
- Rank: Shoulder boards, hard (officer), insignia of rank (chief/NCO).
- Worn with the white trousers which is made by the same fabric.

SHIRT, WHITE, SUMMER

- Made out of polyester fabric.
- The fabric's pattern is ½ twill.
- The fabric's weight is 210 g/m2.
- The buttons are nickel-plated and gold-plated.
- Rank: Shoulder boards, hard (officer), insignia of rank (chief/NCO).
- Worn with the white trousers which is made by the same fabric.

COAT AND SKIRT, WOMAN, SERVICE DRESS, WHITE

- Made out of polyester fabric.
- The fabric's pattern is ½ twill.
- The fabric's weight is 210 g/m2.
- The buttons are nickel-plated and gold-plated.

SHOULDER BOARD, HARD, SERVICE

- Plastic material coated with black fabric embroidered gold lace
- For officers

SHOULDER BOARD, SERVICE/WORKING

- Black fabric embroidered gold lace
- For officers

INSIGNIA OF RANK, BLACK, SERVICE

- Black fabric embroidered gold lace
- For chiefs/NCOs

INSIGNIA OF RANK, WHITE, SERVICE

- White fabric embroidered gold lace
- For chiefs/NCOs

CAP, COMBINATION WHITE, WOMEN, OFFICER, SERVICE

- For female officers

CAP, COMBINATION WHITE, MEN, OFFICER, SERVICE

- For male officers

CAP, COMBINATION WHITE, MEN, CHIEF/NCO, SERVICE

- For chiefs/NCOs

AIR SEWING & TAILORING SHOP DIRECTORATE

SERVICE GROUP

DRESS NAVY BLUE SEASONAL

- Fabric contains 55% polyester and 45% wool fibres.
- The pattern of fabric is 2/1 twill.
- The fabric weight is 215 g/m^2.
- 100% polyester lining is used for the inside part of the jacket.
- The buttons used are embossed eagle motifs. The buttons are nickel-plated and gold-plated.
- The button holes are on the left, the buttons are on the right.

TROUSERS

- Fabric contains 55% polyester and 45% wool fibres.
- The pattern of fabric is 2/1 twill.
- The fabric weight is 215 g/m^2.
- There is an elastomer belt for shirt-keeper in the belt lining.
- An automatic locked cursor spiral zipper is used.

VEST

- Fabric contains 55% polyester and 45% wool fibres.
- The pattern of summer fabric is 2/2 twill.
- The fabric weight is 230 g/m^2.
- 100% polyester lining is used for the inside part of the vest.
- Vest with open “V” collar.
- On the front part there are two welt pockets, one is on the right side and the other is on the left side.
- The vest is closed by 5 buttons.
- Miniature rank mark of the vest is on left chest.

JACKET AND SKIRT SEASONAL NAVY BLUE OFFICER WOMAN

- Fabric contains 55% polyester and 45% wool fibres.
- The pattern of fabric is 2/1 twill.
- The fabric weight is 215 g/m^2.
- 100% polyester lining is used for the inside part of the jacket.
- The buttons used have embossed eagle motifs. The buttons are nickel-plated and gold-plated.
- There are no flaps on the upper pockets.
- The buttonholes are on the right, the buttons are on the left.
- Jacket dart stitches are available at various locations on the jacket to ensure proper fit of the jacket.
- The length is 1-2 cm lower from the knee-pans.
- There are two darts on the side part and front part and on the back. There is a 15 cm slit-closed with a zipper.
- The zipper is placed between stitch folds in order not to be seen from outside.

TOPCOAT

- Fabric contains 50% polyester and 50% wool fibres.
- The fabric weight is 280 g/m^2.
- The inside part of the coats is quilted.
- On the waist part of the garment there is a belt which has a plastic buckle at the end of it and is made of two-layer topcoat cloth.
- The front side of the topcoat is covered by 3 large size buttons on the right front part. The 3 large size buttons on the left front part are for decoration purpose.
- There is one side pocket on the right and left front parts of topcoat.

COAT NAVY BLUE

- Fabric contains 50% polyester and 50% wool fibres.
- The fabric weight is 280 g/m^2.
- The inside part of the coat is quilted.
- The collar type of the coat is straight collar and hardened by interlining.
- Bone zipper with automatic function is used on the front part.
- On the left front part there are a closure part covering the zipper part and a two-fold section fixed from the waist and collar.

SHIRTS

SHIRTS SKY COLOR METAL BUTTONED

- Fabric contains 50% polyester and 50% viscose.
- The fabric pattern is plain.
- The fabric weight is 160 g/m^2
- Front embossed eagle motif, nickel and gold plated metal buttons.
- There are two pockets on the chest, with no flaps.
- Inside the left pocket there is also a pen pocket.

SHIRT SKY COLOR LONG SLEEVE

- Fabric contains 50% polyester and 50% viscose fibers.
- The fabric's pattern is plain.
- The fabric weight is 160 g/m^2.
- There are plastic buttons on the front part.
- Front and rear lower ends are oval shaped.

FLIGHT GROUP

FLIGHT SUIT

- Fabric contains 99% Meta Aramid and 1% Anti Static fibres.
- The fabric pattern is plain.
- The fabric weight is 158 g/m2.
- The fabric is resistant to burning.
- Double key zipper with metal cursor is used in the front part.
- There are two chest pockets with zipper.

FLIGHT JACKET

- Fabric contains 99% Meta Aramid and 1% Anti Static fibres.
- The fabric weight is 158 g/m2.
- The fabric is resistant to burning.
- The fabric pattern is plain.
- Metal zipper is used in the front part.

FLIGHT SUIT RED (TURKISH STARS)

- Produced from 100% Aramid fibres.
- The fabric is resistent to burning.
- The fabric pattern is plain.
- The fabric weight is 145 g/m^2.
- The logo of the Turkish Stars is embroidered on the back with white thread.

FLIGHT JACKET RED (TURKISH STARS)

- Produced from 100% Aramid fibres.
- The fabric is resistent to burning.
- The fabric pattern is plain.
- The fabric weight is 145 g/m^2
- Metal zipper is used in the front part.
- An orange colored zipper and removable quilting are available in the inside part of jacket.
- The logo of the Turkish Stars is embroidered on the back with white thread.

FLIGHT SUIT (SOLOTURK)

- Produced from 100% Aramid fibres.
- The fabric is resistent to burning.
- The fabric pattern is plain.
- The fabric weight is 145 g/m^2.
- Double key zipper with metal cursor is used in the front part.
- There are two chest pockets with zipper.

FLIGHT JACKET BLACK (SOLOTURK)

- Produced from 100% Aramid fibres.
- The fabric is resistent to burning.
- The fabric pattern is plain.
- The fabric weight is 145 g/m^2.
- Metal zipper is used in the front part.

TRAINING GROUP

DRESS TRAINING

- The fabric is dyed on the ground and the face camouflage is printed.
- Fabric contains 50% Poliamid 6.6 and 50% cotton fibres.
- The pattern of the fabric is 1/1 twill.
- The fabric weight is 205 g/m^2.
- It is water repellant.

PARKA

- The fabric is dyed on the ground and the face camouflage is printed.
- Fabric contains 50% Poliamid 6.6 and 50% cotton fibres.
- The pattern of the fabric is 1/1 twill.
- The fabric weight is 225 g/m^2.
- It is water repellant.

HATS OVAL CAP

- Fabric contains 55% Polyester and 45% wool fibres.
- Cap keeps it's original form for a long time with a stiffening cloth in the inner part of it.
- The top part of cap is designed as having bellows.
- There is a 5 cm thick yellow piping glitter dust belt in the outer side part.
- A cockade is attached to the front left part of cap.

HAT/SUMMER – WINTER NAVY BLUE

- It is made from number 1 daily uniform fabric.
- It is composed of Sunshade, fabric and hilly parts.
- Sunshade is in oval shape and made of uniform fabric.

PHARMACEUTICAL FACTORY DIRECTORATE

Within the Pharmaceutical Factory Directorate primarily anidotes, (which are critically and strategically important against Chemical, Biological, Radiological and Nuclear weapons) medicine, bandage and dressing materials that our country may need in peace & war are produced and studies are carried out to develop formulations for new products.

PRODUCTION DEPARTMENTS

- Tablet, Capsule Production and Blister Packaging Department
- Injections Department
- Solution Department
- Pomade and Powder Production Department
- Bandage and Dressing Materials Production Department

PRODUCTS

CAMPAIGN AND EXERCISE EQUIPMENTS			
PRODUCT NAME	**PACKAGING**	**ACTIVE INGREDIENT**	**INTENDED USE**
Camouflage Paint 20g	20 g Tube	Activated Coal, Vaseline	Camouflage
Camouflage Paint Black 20 g	20 g Tube	Iron Oxide, Titanium Dioxide, Vaseline	Camouflage
Camouflage Paint Yellow 20 g	20 g Tube	Iron Oxide, Titanium Dioxide, Vaseline	Camouflage
Camouflage Paint Grey 20 g	20 g Tube	Iron Oxide, Titanium Dioxide, Vaseline	Camouflage
Camouflage Paint Brown 20 g	20 g Tube	Iron Oxide, Titanium Dioxide, Vaseline	Camouflage
Camouflage Paint Green 20 g	20 g Tube	Iron Oxide, Titanium Dioxide, Vaseline	Camouflage
Halazone Tablet	25 Tablets	Halazone	Water disinfectant
Sodium Chloride Tablet	10 Tablets	Sodium Chloride	Keeping electrolyte balance
Electrolyte Powder	10 g Powder	Sodium Chloride Potassium Chloride Magnesium Sulphate Zinc Sulphate Ascorbic Acid Glucose Monohydrate	Keeping electrolyte balance
Protecting Sun Cream	40 g Tube	Uv Filters	Protect skin from sunburn
Automatic Diazepam Injector	2 mL/ 1 Autoinjector	Diazepam	Anticonvulsant
Automatic Morphine Injector	2mL/1 Autoinjector	Morphine HCl	Opioid Analgesic
Automatic Epinephrine Injector	1mL/1 Autoinjector	Epinephrine	Sympathomimetic

GENERAL USE			
PRODUCT NAME	PACKAGING	ACTIVE INGREDIENT	INTENDED USE
Liquid Soap	3,6 L	Sodium Lauryl Ether Sulfate	Hygiene
Orgripal Capsule	16 Capsules	Paracetamol Oxolamine Citrate Chlorpheniramine Maleic	Antiflu
Orpermanganat Tablet	20 Tablets	Potassium Permanganate	Antiseptic
Hydroxychloroquine Tablet	20 Tablets	Hydroxychloroquine Sulphate	Antimalarial
Ortamol Tablet	20 Tablets	Paracetamol	Analgesic Antipyretic
Nova Tablet	20 Tablets	Metamizole Sodium	Anti-inflammatory Analgesic Antipyretic
Nova Ampoule	2 mL/ 1 Ampoule	Metamizole Sodium	Anti-inflammatory Analgesic Antipyretic
Antihistaminik Ampoule	1 mL / 1 Ampoule	Chlorphenamine maleate	Antihistaminic
Adrenalin Ampoule	1 mL/ 1 Ampoule	Epinephrine	Sympathomimetic
Morphine Ampoule	1mL/ 1 Ampoule	Morphine HCl	Opioid Analgesic
Etoksol Solution 100 ml	100 mL Bottle	Ethyl Alcohol, Hydrogen Peroxide, Glycerine	Disinfectant
Sineks Solution 100 ml	100 mL Bottle	N.N-dimethyl m-toluamide (DEET), ethyl alcohol	Insect Repellant
Ortikon Solution (Plastic Bottle) 1000 mL	1000 mL Bottle	Polyvinyl Pyrrolide iodine	Antiseptic
Ortikon Solution (Plastic Bottle) 100 mL	100 mL Bottle	Polyvinyl Pyrrolide iodine	Antiseptic
Ortikon Solution (Plastic Bottle) 50 mL	50 mL Bottle	Polyvinyl Pyrrolide iodine	Antiseptic
Hydrogen Peroxide 100 mL	100 mL Bottle	Hydrogen Peroxide	Antiseptic
Benzalkonium Solution 100 mL	100 mL Bottle	Benzalkonium Chloride	Disinfectant
Ayko Talc Powder 50 g	50 g Tube	Salicylic Acid Boric Acid Undecylenic Acid	Antimycotic
Baktrosin Pomade	15 g tube	Mupirosin Kalsiyum	Antibiotic
Ayko Pomade	20 g tube	Salicylic Acid Boric Acid Undecylenic Acid	Antimycotic

CBRN ANTIDOTES			
PRODUCT NAME	PACKAGING	ACTIVE INGREDIENT	INTENDED USE
Atropine Sulphate Ampoule (0,5 mg) 1 mL	1 mL / 1 Ampoule	Atropine Sulphate	Antidote against organophosphate gases
Atropine Sulphate Ampoule (1 mg) 1 mL	1 mlL/ 1 Ampoule	Atropine Sulphate	Antidote against organophosphate gases
Automatic Atropine Injector 2 mL	2 mL/ 1 Autoinjector	Atropine Sulphate, Obidoxime HCl	Antidote against organophosphate gases
Automatic Injector Training Aid Product	1 Autoinjector	-	Training Aid Product
Sodium Nitrite Ampoule 10 mL	10 mL/ 1 Ampoule	Sodium Nitrite	Antidote against cyanide gases
Sodium Thiosulphate Ampoule 10 mL	10 mL/ 1 Ampoule	Sodium Thiosulphate	Antidote against cyanide gases
Potassium Iodide Tablet	10 Tablets	Potassium Iodide	Against nuclear accidents and weapons
Pyridostigmine Bromide Tablet	21 Tablets	Pyridostigmine Bromide	Antidote against organophosphate gases
Decontamination Powder 50 g	50 g Tube	Aluminum Silicate	Used externally against chemical gases

BANDAGE AND DRESSING MATERIALS		
PRODUCT NAME	PACKAGING	INTENDED USE
Sterile Wound Dressing (20x20 cm)	1 item	Dressing
Sterile Wound Dressing (30x30 cm)	1 item	Dressing
Sterile Wound Dressing (20x20 cm)	10 item	Dressing
Sterile Wound Dressing (40x40 cm)	10 item	Dressing
Compressed Gauze (Z Folded)	1 item	Dressing
Non-sterile Wound Dressing (20x20 cm)	1 item	Dressing
Non-sterile Wound Dressing (30x30 cm)	1 item	Dressing
Non-sterile Wound Dressing (40x40 cm)	1 item	Dressing
Gauze Bandage (3x0,05 m)	1 item	Dressing and stabilizing
Gauze Bandage (3x0,1 m)	1 item	Dressing and stabilizing
Emergency Trauma Bandage	1 item	Stabilizing and antibleeding

TABLETS

ORPERMANGANAT TABLET

HYDROXYCHLOROQUINE TABLET

CAPSULES

ORGRIPAL CAPSULE

LIQUID SOAP

LIQUID SOAP

SOLUTIONS

ETOKSOL SOLUTION 1000ML

ETOKSOL SOLUTION 100ML

SINEKS SOLUTION 100ML

BENZALKON SOLUTION 100ML

HYDROGEN PEROXIDE 100ML

ORTIKON SOLUTION (PLASTIC BOTTLE)
1000 ML, 100ML AND 50ML

POWDER

AYKO TALC POWDER 50G

CAMPAIGN AND EXERCISE EQUIPMENTS

CAMOUFLAGE PAINT 20 g Black

CAMOUFLAGE PAINTS

HALAZONE TABLET

SODIUM CHLORIDE TABLET

CBRN ANTIDOTES

ATROPINE AUTOINJECTOR 2ML

AUTOMATIC INJECTOR TRAINING AID PRODUCT

DECONTAMINATION POWDER 50G

SODIUM THIOSULPHATE - SODIUM NITRITE AMPOULE 10ML

ATROPINE SULPHATE 1MG and 0,5MG AMPOULE 1ML

PYRIDOSTIGMINE BROMIDE TABLET

BANDAGE AND DRESSING MATERIALS

STERILE WOUND DRESSING
(20X20cm) AND (30X30cm)

STERILE WOUND DRESSING
(20X20 cm 10 item)

STERILE WOUND DRESSING
(40X40 cm 10 item)

VACUUMED WOUND DRESSING (Z FOLDED)

INDIVIDUAL WAR PACKAGE

GAUZE BANDAGE (3X0,05 m) AND (3X0,1 m)

NON-STERILE WOUND DRESSING
(40X40cm), (30X30cm) and (20X20cm)

QUALITY CERTIFICATES OF OUR MILITARY FACTORIES

AIR MAINTENANCE FACTORY DIRECTORATES:
S 9100 Quality Management System for Aviation, Space, and Defense Organizations Certificate AS 9110 Quality Management System for Aviation Maintenance Organizations Certificate AQAP 2110 NATO Quality Assurance Requirements for Design, Development and Manufacturing Certificate AQAP 2210 NATO Supplementary Software Quality Assurance Requirements To AQAP-2110 or AQAP-2310 (only 1st AMFD) AQAP 2310 NATO Quality Assurance Requirements for Aviation, Space and Defence Suppliers Certificate (only 1st AMFD) TS-EN-ISO 9001:2015 Quality Management System Certificate TS-EN-ISO 14001 Environmental Management System Certificate ISO 45001 Occupational Health and Safety Management System Certificate ISO 31000 Organizational Risk Management System Certificate (only 3rd AMFD) AFMETCAL (Air Force Metrology and Calibration Program) Certificate SHY-145 Approved Maintenance Organization Certificate (only 2nd AMFD) Nuclear Regulatory Authority Certificate (Only 1st AMFD) Zero Waste Certificate (Only 1st AMFD)
MAIN MAINTENANCE FACTORY DIRECTORATES:
AQAP 2110 NATO Quality Assurance Requirements for Design, Development and Manufacturing Certificate AQAP 2310 NATO Quality Assurance Requirements for Aviation, Space and Defence Suppliers Certificate (only 5th MMFD) SHY-145 Approved Maintenance Organization Certificate (only 5th MMFD) TS-EN-ISO 14001 Environmental Management System Certificate (only 2nd MMFD) ISO 45001 Occupational Health and Safety Management System Certificate (only 2nd MMFD and 5th MMFD) TS EN ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories (only 8th MMFD) Zero Waste Certificate (only 8th MMFD) Radiation Protection Responsibility Certificate (Only EOS MMFD) Radiacmeter Laboratory Certificate (Only EOS MMFD) Competency Certificate for Engine Overhaul In Compliance With TS 11954 Standard (Only 6th MMFD)
MAINTENANCE FACTORY DIRECTORATES:
AQAP 2110 NATO Quality Assurance Requirements for Design, Development and Manufacturing Certificate (only 41st, 42nd, 43rd, 44th, 45th, 51st, 52nd, 53rd, 54th, 55th, 56th MFD) TS 11827 Facility Competency Certificate for Recharge, Maintenance and Repair of Fire Extinguishers (Only 42nd, 43rd, 44th, 45th, 51st, 52nd, 54th, 55th MFD) TS 13168 Facility Competency Certificate for Maintenance and Repair of Buses and On-road Vehicles (Only 45th MFD)
ARMY SEWING AND TAILORING WORKSHOP DIRECTORATE:
AQAP 2110 NATO Quality Assurance Requirements for Design, Development and Manufacturing Certificate

STRATEGIC COOPERATION AGREEMENTS AND APPROVED SUPPLIER ACTIVITIES

STRATEGIC COOPERATION AGREEMENTS (SCA)

Strategic cooperation agreements (SCA) are entered into with relevant public or private sector institutions and organizations, with Ministerial approval, to establish domestic supply sources for raw materials, materials, spare parts, systems, and/or related services that are critical to the production, maintenance, repair, and modernization activities of military factories and are procured from abroad. If the SCA activities are successful, the relevant institutions and organizations are considered the sole source for the procurement of these strategic materials and services for a maximum of 10 (ten) years.
For detailed information: **https://www.msb.gov.tr/Afgm/icerik/stratejik-is-birligi**

APPROVED SUPPLIER ACTIVITIES

The Directive on the Procurement of Goods and Services to be Made Within the Scope of Article 3, Subparagraph (B) of Public Procurement Law No. 4734, approved by the General Directorate of Military Factories and the General Directorate of Shipyards on May 14, 2022, was published, enabling military factories to purchase from sustainable, high-quality, and technically competent companies. Applications are submitted to the General Directorate of Military Factories (AFGM) or the Military Factories affiliated with AFGM by completing the Supplier Candidate Application Form prepared in accordance with the Directive. Applications can be submitted by mail or in person.
For detailed information: **https://www.msb.gov.tr/Afgm/icerik/onayli-tedarikciler**

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