# stobil machine











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AUTOMOTIVE TECHNOLOGY SPECIAL PRODUCTION TEST DEVICES AND INSPECTION STATIONS EQUIPMENT

www.otobilmachine.com



# About us

Otobil Makine Sanayi is a manufacturing company that has been registered by many users and companies in Turkey and abroad by leading the sector for 20 years. In 15 different countries, the equipment produced by Otobil Makine is actively used by the machine users. Main reference countries

around the world; Austria, Germany, Azerbaijan, Serbia, Kazakhstan, Bosnia-Herzegovina, Saudi Arabia, Cyprus, Iraq and Uzbekistan.

Otobil Makina has reached the pinnacle of expertise in the industry, becoming a brand that consistently performs its duties with dedication, placing customer satisfaction at the forefront throughout the years.

The expert team of Otobil Makina consists of experienced professionals equipped with years of experience. This professional team, each specialized in their own field, produces high quality test and diagnostic equipment using the latest technology. While producing according to the demands of the automotive sector and various types of vehicles, it also continuously conducts its activities and R&D efforts according to future technologies rather than just the needs of the present day.

Otobil Makina, which has been growing steadily for 20 years and progressing with the slogan "You dream it, we build it", continues to make a name for itself in the sector with its vehicle inspection devices produced in world standards and incorporating the latest technology.



### **Our Mission**

By providing the highest quality products and services to our customers, to ensure their trust and satisfaction, to provide a fair and supportive working environment for our employees, to operate in a socially and environmentally sensitive manner, and to continuously work to develop innovative and sustainable solutions. To maintain leadership in the sector with its customer- orientated approach and to continue to add value to its stakeholders.



### **Our Vision**

To become a globally recognized brand by offering innovative solutions in the automotive industry. To continuously invest in advanced technology to meet the needs of its customers and to shape the automotive industry of the future by maintaining its leadership in the sector.



# **Our Values**

Otobil Makina believes that it can exist as long as its country exists and trusts its country and its people to the end. With an unshakable belief in the power of domestic production, it works to contribute to the national economy and create added value in all its works.

#### Focus on the Customer::

Ensuring customer satisfaction under the best possible conditions by striving to fully meet their requests and expectations.

#### **Business Ethics:**

Being honest and open in business and social relationships.

#### **Respectful of the environment and society:**

To meet all legal requirements on the environment, to control, reduce and prevent factors that may cause environmental pollution.

#### **Resource Management and Efficiency:**

To bring efficiency to the forefront by optimizing the use of all kinds of resources in all processes and to ensure sustainable development.

#### Participatory management approach:

To maintain and develop a management approach that is based on respectful and open communication with its employees, prioritizing participation in decision-making mechanisms.

#### Teamwork:

To ensure employee participation at every stage of its activities, to continuously improve with team spirit by working with the awareness of "we" rather than "me".







# AUTOMOTIVE TECHNOLOGY SPECIALISED PRODUCTION TEST EQUIPMENT AND INSPECTION STATION EQUIPMENT





### **4X4 SYNCHRONISED SYSTEM** VEHICLE INSPECTION STATION TEST SET

Technology devices equipped with international standards provide the opportunity for detailed vehicle fault detection and reporting, **''particularly for electric and hybrid vehicles''** 

Included in the package are Brake Test Devices, Suspension Test Devices, Dynamometer Test Devices, Lateral Slip Test Devices, and additional equipment, allowing for the inspection and reporting of various vehicles, **including electric and hybrid vehicles**, as well as 4x2 and 4x4 passenger cars, SUVs, off-road vehicles, and commercial vehicles. Upon request, a synchronized 4x4 dyno test device can be produced without brake, suspension, and lateral slip test devices.

#### **Package Contents:**

- Brake Test Device
- Suspension Test Device
- Lateral Slip Test Device
- Dynamometer Test Device (Fixed)
- Dynamometer Test Device (Mobile)
- Synchronized Test System
- Cooling Fan 9700m3
- Connection Equipment
- Electronic Brain
- Compressor 47lt.
- Computer Stand
- V2 Software Support

#### **Optional Products and Services:**

- Floor Mounting
- Ramp
- Cooling Fan 27000m<sup>3</sup>
- Retarder System
- V3 Software Support
- ERP and API support
- Barcode Reading System
- Mobile Application





Below you can find the malfunctions that can be detected with the test devices included in this set.

#### Malfunctions that can be detected with 4x4 Synchronised Test Device:

- Instantaneous ECU brain checks and faults.
- Voltage checks and faults during electric movement.
- Acceleration and operating faults in hybrid electric and gas-powered vehicles.
- Parameter checks and faults while driving
- Vehicle front end assemblies.
- Turbo Intercooler
- Gear shifting.
- Transmission
- Clutches
- Clutch system
- Ignition system
- Fuel system
- Exhaust outlets
- Instrument panels
- OBD2 and ECU
- 4-drawer control
- Differential system control



#### Malfunctions that can be detected with Brake Test Device:

- Detection of brake drums or callipers with braking difference and loss of holding force.
- Detection of disc lining friction and failures in the holding efficiency of the wheel on the road in proportion to the weight of the vehicle with braking efficiency
- Ovality (curvature test) to detect oscillations that may be caused by the brake disc.
- Control of the handbrake assembly with the handbrake test.
- Detection of the reaction and oscillations of the cyclic movement in the graphics with pedal force measurement.

### Malfunctions that can be detected with Suspension Test Device:

- Springs
- Shock absorbers
- Suspension systems
- Balance bars
- Rotils

### Malfunctions that can be detected with the sideslip test Device:

- Gaps between tie rods and vehicle axle
- Wheel Alignment
- Axle Positions
- Irregularities in Vehicle Lateral Slip



### **4X4 STANDARD SYSTEM** VEHICLE INSPECTION STATION TEST SET

Within the scope of the vehicle inspection station, your business offers detailed vehicle fault detection and reporting capabilities with state-of-the-art equipment equipped with international standards.

Included in the package are Brake Test Machines, Suspension Test Machines, Dynamometer Test Devices, Lateral Slip Test Devices, and additional equipment, allowing for the inspection and reporting of various vehicles, including 4x2 and 4x4 passenger cars, SUVs, off-road vehicles, and commercial vehicles.

#### Package Contents:

- Brake testing machine
- Suspension testing machine
- Side slip tester
- Dynamometer tester (fixed)
- Dynamometer tester (mobile)
- 9700m<sup>3</sup> cooling fan
- Connection equipment
- Electronic brain
- Compressor 47lt.
- Computer support
- Software support V2
- V2 Yazılım Desteği

#### **Optional Products and Services:**

- Floor mounting
- Ramp
- Cooling fan 27000m<sup>3</sup>
- Slow-down system
- Synchronized system
- V3 software support
- Barcode reading system
- ERP and API support
- Mobile application





Below you can find the malfunctions that can be detected with the test devices included in this set.

#### Malfunctions that can be detected with 4x4 Dynamometer Test device:

- Vehicle front sets
- Turbo Intercooler
- Gear Shifts
- Power transmission
- Clutches
- Clutch System
- Ignition system
- Fuel system
- Exhaust gas outlets
- Dashboards
- OBD2 and ECU
- 4-drawer control
- Differential system control

#### Malfunctions that can be detected using a brake tester:

- Detection of brake drums or callipers showing a difference in braking and a loss of holding force.
- Detection of disc lining friction and deficiencies in wheel holding power on the road as a function of vehicle weight and braking power.
- Ovality (curvature test) to detect oscillations that may be caused by the brake disc.
- Checking the handbrake assembly with the handbrake test.
- Detection of the reaction and oscillations of the cyclic movement in the graphics with measurement of the pedal force.

### Malfunctions that can be detected with the Suspension Test Device:

- Springs
- Shock absorbers
- Suspension systems
- Balance bars

### Balance Rotils

### Malfunctions that can be detected with the Lateral Slip Test Device:

- Gaps between tie rods and vehicle axle
- Wheel Alignment
- Axle Positions
- Irregularities in Vehicle Lateral Slip





### **4X2 STANDARD SYSTEM** VEHICLE INSPECTION STATION TEST SET

Within the scope of the vehicle inspection station, your business offers the opportunity for detailed vehicle fault detection and reporting using state-of-the-art equipment equipped with international standards.

Included in the package are Brake Test Machines, Suspension Test Machines, Dynamometer Test Devices, Lateral Slip Test Devices, and additional equipment, allowing for the inspection and reporting of passenger cars (both 4x2 and SUVs), off-road vehicles, and commercial vehicles.

#### Package Contents:

- Brake Test Machine
- Suspension Test Machine
- Lateral Slip Test Machine
- Dynamometer Test Machine (Fixed)
- 9700m<sup>3</sup> Cooling fan
- Connection Equipment
- Electronic Brain
- Compressor 47 It
- Computer Stand
- V2 Software Support

#### **Optional Products and Services:**

- Floor mounting
- Ramp
- Cooling fan 27000m<sup>3</sup>
- Retarder System
- V3 Software support
- Barcode Reading system
- ERP and API support
- Mobile application





Below you can find the malfunctions that can be detected with the test devices included in this set.

#### The Malfunctions that can be detected with 4x2 Dynamometer Test Device:

- Vehicle front sets
- Turbo intercooler
- Gear change
- Power transmission
- Clutches
- Clutch System
- Ignition System
- Fuel System
- Exhaust gas outlets
- Dashboards
- OBD2 and ECU
- Differential system control

#### Malfunctions that can be detected with Brake Test Machine:

- Detection of brake drums or callipers with braking difference and loss of holding force.
- Detection of disc lining friction and failures in the holding efficiency of the wheel on the road in proportion to the weight of the vehicle with braking efficiency.
- Ovality (curvature test) to detect oscillations that may be caused by the brake disc.
- Control of the handbrake assembly with the handbrake test.
- Detection of the reaction and oscillations of the cyclic movement in the graphics with pedal force measurement.

### Malfunctions that can be detected with Suspension Test Machine:

- Springs
- Shock absorbers
- Balance Bars
- Rotils

# Malfunctions that can be detected with the Lateral Slip Tester:

- Gaps between tie rods and vehicle axle
- Wheel alignment
- Axle positions
- Defects in the lateral slip of the vehicle







# TRACTORS AND CONSTRUCTION MACHINERY

### **INSPECTION STATION TEST SET**

This test kit consists of a complete set of malfunction detection and calibration test devices designed to meet the requirements of tractor manufacturers or construction equipment vehicles for special requests, multi-functional production lines or repair services.

Special test scenarios prepared according to the main needs of tractors and construction equipment make it possible to accurately detect faults and determine capabilities.



#### **Contents of the Tractor Inspection Station Set:**

- **PTU Speed Measuring Device** is used to control the instantaneous speed values of the tractor.
- Damper Measuring Device is used for leakage test and maximum-minimum capacity test on the hydraulic unit. With the electronic lifting unit, the maximum and minimum capacities of the tractor are measured and the necessary parts can be checked, repaired or replaced if the reference values are up or down. The system can be fixed at the requested load tonnage and the potential leaks in the unit can be detected by calculating the percentage decrease from the reference value within the specified time.
- The dynamometer test device can be used to instantly measure and monitor the rotation speeds, acceleration times and acceleration differences of all wheels.





#### Package contents:

- Dynamometer Test Device (Fixed)
- Dynamometer Test Device (Mobile)
- Damper Test Measurement Device
   (Manometer hydraulic 0-250 bar)
- PTU Speed Measurement Device
- Damper Lifting Measurement Device (0-8000 Kg)
- Connection Equipment
- Electronic Brain
- Compressor 47 liters
- Computer Stand
- V2 Software Support

#### Opsiyonel Ürün ve Hizmetler:

- Above-Ground Installation Service
- Ramp
- Brake Testing Machine
- Suspension Testing Machine
- Lateral Slip Test Device
- Synchronized Testing System
- Cooler Fan 9700m<sup>3</sup>
- Cooler Fan 27000m<sup>3</sup>
- Retarder System
- V3 Software Support
- Barcode Reading System
- ERP and API Support
- Mobile Application

Below you can find the malfunctions that can be detected with the test devices included in this set.

## Malfunctions that can be detected with the dynamometer test device:

- Gear Shifts
- Transmission
- Clutches
- Clutch System
- Fuel System
- Exhaust Gas Outlets
- Instrument Panels
- OBD2 and ECU
- 4 Drawer Control
- Differential System Control

# Malfunctions that can be detected with the PTU Speed Measurement Device:

 Incompatibilities and malfunctions between the current brain and the speedometer.

#### Faults that can be detected with Damper Test Measuring Device:

- Possible leakage and leakage failures of hydraulic pistons in the hydraulic unit.
- Difference between reference values and capacity values of the hydraulic system at maximum power.





### **MOTORBIKE ROLL TEST** INSPECTION STATION TEST SET

The motorcycle inspection station offers detailed fault detection and reporting with the latest technology devices equipped with international standards.

Created with a test track for 3-wheeled motorcycles and 2-wheeled motorcycles, the set includes Brake Test Machine, Dynamometer Test Device and Lateral Slip Test Device.

#### Package content:

- Brake Test Machine
- Lateral Slip Test Machine
- Dynamometer Test Device (Fixed)
- Cooling Fan 9700m<sup>3</sup>
- Connection Equipment
- Electronic Brain
- Compressor 47lt.
- Computer Stand
- V2 Software Support



#### **Optional Products and Services:**

- Floor Mounting
- Ramp
- Cooling Fan 27000m<sup>3</sup>
- Suspension Test Machine
- Retarder System
- V3 Software Support
- Barcode Reading System
- ERP and API support
- Mobile Application
- Robotic Arm
- Safety Sensors





Below you can find the malfunctions that can be detected with the test devices included in this set.

#### Malfunctions that can be detected with the Dynamometer Test Device:

- Ovality in Wheel Rotation
- Turbo Intercooler
- Gear Shifts
- Transmission
- Clutches
- Clutch System
- Ignition System
- Fuel System
- Exhaust Gas Outlets
- Dashboards
- OBD2 and ECU



#### Malfunctions that can be detected with Brake Test Machine:

- Detection of brake calipers with braking difference and loss of holding force.
- Detection of disc lining friction and failures in the holding efficiency of the wheel on the road in proportion to the weight of the vehicle with braking efficiency.
- Detection of oscillations that may be caused by the brake disc with ovality (curvature test).
- Control of the handbrake assembly with the handbrake test.

#### Malfunctions that can be detected with Suspension Test Machine:

- Springs
- Shock Absorber
- Hanger Systems
- Balance Bars







### MOTORBIKE PERFORMANCE TEST (MOTORBIKE POWER MEASUREMENT DEVICE)

The Motorcycle Performance Test Set provides detailed vehicle fault detection and reporting with the latest technology devices equipped with international standards.

A test track has been created for high performance motorcycles and there is a Dynamometer Test Device with Magnetic Braking (Retarder System) in the set. With this test system, performance tests of your motorbike can be performed with the desired scenario and conditions.



#### Package contents:

- Dynamometer Test Device (Fixed)
- Retarder System
- Cooling Fan 9700m<sup>3</sup>
- Connection Equipment
- Electronic Brain
- Compressor 47It
- Computer Stand
- V2 Software Support

#### **Optional Products and Services:**

- Floor Mounting
- Cooling Fan 27000m<sup>3</sup>
- Suspension Test Machine
- Brake Test Machine
- lateral Slip Test Machine
- V3 Software Support
- Barcode Reading System
- ERP and API support
- Mobile Application

#### Malfunction that can be detected with the Dynamometer Tester:

- Ovals in the wheel rotation
- Turbo Intercooler
- Gear Shifts
- Transmission
- Clutches
- Clutch System

- Ignition System
- Fuel System
- Exhaust Gas Outlets
- Dashboards
- OBD2 and ECU











### **MOBILE VEHICLE - MOBILE LORRY** INSPECTION STATION TEST SET

The Mobile Vehicle Inspection Station offers detailed vehicle fault detection and reporting in a trailer equipped with the latest technology devices in international standards.

The Brake Test Machine, Suspension Test Machine, Dynamometer Test Equipment, Lateral Slip Tester and additional equipment included in the package, 4x2 and 4x4 passenger cars, SUVs, off-road vehicles and commercial vehicles are also checked and reported.

The mobile vehicle inspection station provides mobile vehicle inspection station services to the places where the fleet vehicles are located in the auto markets with on-site expertise service and in all regions of the world where there is the possibility of vehicle entry to be served.

#### Package contents:

- Dynamometer Test Device (Fized)
- Dynamometer Test Device (Movable)
- Brake Test Machine
- Suspension Test Machine
- Lateral Slip Test Machine
- Cooling fan 9700m<sup>3</sup>
- Connection Equipment
- Electronic Brain
- Compressor 47lt.
- Computer Stand
- V2 Software Support

#### **Optional Products and Services:**

- Floor Mounting
- Ramp
- Cooling fan 27000m<sup>3</sup>
- Synchronized System
- V3 Software Support
- ERP and API support
- Barcode Reading System
- Mobile Application





Below you can find the malfunctions that can be detected with the test devices included in this set.

#### Malfunctions that can be detected with 4x4 Dynamometer Test Device:

- Vehicle Front Sets
- Turbo Intercooler
- Gear Shifts
- Transmission
- Clutches
- Clutch System
- Ignition System
- Fuel System
- Exhaust Gas Outlets
- Dashboards
- OBD2 and ECU
- 4 Drawer Control
- Differential System Control

#### Malfunctions that can be detected with Brake Test Machine:

- Detection of brake drums or calipers with braking difference and loss of holding force.
- Detection of disc lining friction and failures in the holding efficiency of the wheel on the road in proportion to the weight of the vehicle with braking efficiency.
- Ovality (curvature test) to detect oscillations that may be caused by the brake disc.
- Control of the handbrake assembly with the handbrake test.
- Detection of the reaction and oscillations of the cyclic movement in the graphics with pedal force measurement.

#### Malfunctions that can be detected with Suspension Test Machine:

- Springs
- Shock absorbers
- Hanger Systems
- Balance Bars
- Balance
  Rotils

# Malfunctions that can be detected with the Lateral Slip Test Device:

- Gaps between tie rods and vehicle axle
- Adjustment of wheel arrangement
- Axle positions
- Vehicle sideslip disturbances











# OTOMOTIVE TECHNOLOGY TEST EQUIPMENT PRODUCTION

### DYNAMOMETER TEST MACHINE (ENGINE POWER AND PERFORMANCE TEST MACHINE)

The measurement of the circular motion that occurs as a result of the transmission of the power produced by the engine of the vehicle to the tires through the drivetrain is called dyno (dynamometer).

**The Dynamometer Test Device** is designed to measure the performance of the vehicle by providing sufficient air flow without causing any damage to the vehicle. Although it is generally referred to as a performance tester, its main purpose is to perform a road simulation that provides a safe driving environment. The basis of its usage areas, especially the performance values of the vehicle, is provided for fault detection.

# The following measurements are made with the Dynamometer Test Device:

#### • Min-Max Wheel Power (kw)

- Lost Power (kw)
- Total Horsepower (hp)
- Min-Max Torque (Nm)
- Acceleration Time
- Cycle Intervals
- Performance Percentage
- Acceleration

# Malfunctions that can be detected with the Dynamometer Test Device:

- Vehicle Front Sets
- Turbo Intercooler
- Gear Shifts
- Transmission
- Clutches
- Clutch System
- Ignition System
- Fuel System
- Exhaust gas outlets
- Dashboard
- OBD2 and ECU







Technical Specifications		
Driving Direction	Double Direction	
Measurement Accuracy	±%1	
Axle Weight	3.500 kg	
Weight	2.000 kg	
Maximum Measurement Speed	450 km/s	
Maximum Measurable Power (with Retarder)	>800 Hp	
Maximum Measurable Power	800 Hp	
Fixed Dynamometer Measure	2500x90x36 mm	
Movable Dynamometer Measure	2500x90x36 mm	
Cylinder Diameter	302 mm	
Cylinder Track Width	750-2500 mm	
Cylinder Set Rotary Mass	4 x 120 kg	
Supply Voltage	220 / 380 V	
Insurance	16A / 25A	
Air Pressure (Wheel Lift) min/max	6 Bar/10 Bar	
Axle Range min (Moving Mechanism)	2200 mm	
Axle Range max (Moving Mechanism)	3300 mm	
Remote Control	50m	
Electronic Control Unit Supply	220V	
Body Lighting	12V Led Strip	
Cylinder Surface	CNC Machining 2mm Diamond Pattern	
Moveable Dynamometer Feature	2.2 Kw Motor with Magnetic Brake Redu- cer Gear Motion System	
Air Compressor	50 It / 198 It min / 2,850 rpm min 8 Bar	
Safety Device	12 mm Transmit Hook / Chain	





### **BRAKE TEST DEVICE**

Brake Test Device checks the brake system elements that affect braking performance. Braking performance in the vehicle is of great importance in terms of revealing the condition of the brake system. The brake system, which is the most important part of the safety of the vehicle, does not accept any room for error.

# The following measurements are made with the Brake Test Device:

- Control of rear braking restriction
- Stability control by braking
- Measurement of pedal force
- Determination of brake force and balance
- Determination of friction caused by rolling
- Measurement of maximum braking force of all four wheels
- Values of front and rear left and right brakes
   Percentage calculation
- ABS front brake control
- Percentage Reference Control Measurement According to European Standards









# Malfunctions that can be detected with Brake Tester:

- Detection of brake drums or calipers with braking difference and holding force loss
- Detection of friction between disc pads and the road compared to the vehicle's weight and identification of faults in the wheel's grip efficiency on the road surface due to braking efficiency.
- Detection of oscillations that may arise from the brake disc through ovality (runout test).
- Control of the handbrake mechanism with the handbrake test.
- Detection of the response and oscillations of cyclic movement in graphs with pedal force measurement.

Technical Specifications		
Driving Direction	Double Direction	
Measurement Accuracy	± %1	
Axle Weight	3.500 kg	
Weight	580 kg	
Max Measurement Speed	5 km/s	
Brake Power	8 Kn	
Measure	2500x810x330 mm	
Cylinder Diameter	200 mm	
Cylinder Track Width	700-2500 mm	
Cylinder Set Rotary Mass	4 x 80 kg	
Supply Voltage	220 / 380 V	
Insurance	16A / 25A	
Body Lighting	12V Led Strip	
Cylinder Surface	CNC Machining 2mm Grooved Surface	
Engine Power	2 x 2.2 Kw	



### **SUSPENSION TEST DEVICE**

The suspension system, which is the main comfort element of vehicles, is one of the elements that provide driving comfort with the coordinated operation of many parts. The suspension test is calculated in accordance with EUSAMA criteria and literally measures the weight variations of the vehicle weight on the road while driving. You can check the entire suspension system in a closed and safe area and get clear results by detecting possible malfunctions.

# Measurements are made with the Suspension Tester:

- Minimum Tractive Force of Four Wheels
- Minimum Grasp Frequency
- Checking Coil Springs
- Checking Shock Absorber Shafts
- Shock Absorber Mounts Inspection
- Vehicle Weight
- Force Amount with the Principle of Vibration
- Criteria Test for EUSAMA



- Springs
- Shock absorbers
- Hanger System
- Balance Bars
- Rotils





Technical Specifications		
Axle Weight	3.500 kg	
Weight	380 kg	
Vibration Amplitude	6 mm	
Vibration Frequency	24 hz	
Measure	2500x550x330	
Medsure	mm	
Supply Voltage	220 / 380 V	
Insurance	16A / 25A	
Body Lighting	12V Led Strip	
Loadcell count	4 pieces	
Engine Powe	2 x 3 Kw	



### SIDE SLIP TESTING MACHINE

With the Lateral Slip Test Device, the compatibility of the front and rear tires of the car is measured. In this test, it is determined how much the car deviates when the steering wheel is released while the car is travelling along a one kilometer straight road. This test is completed with only 1 meter of movement of the device.

The Lateral Slip Test Device checks the tie rod adjustment, i.e. TOE angles, on the front and rear axles, which is one of the most important elements of safe driving.

#### Malfunctions that can be detected with Side Slip Test Device:

- Gaps between tie rods and vehicle axle
- Wheel Alignment Adjustment
- Axle Positions
- Disturbances in the lateral slip of the vehicle

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Technical Specifications		
Axle Weight	3.500 kg	
Weight	35 kg	
Test Range	± 50 mm	
Vibration Frequency	23 hz	
Dimension	62x62x14 mm	
Supply Voltage	5 V	

### **INDUSTRIAL TYPE FAN**

Industrial Type Fan is manufactured to provide fresh air during the dynamometer test of the vehicle. The main purpose of use is to provide the air flow required during the test and to keep the temperature in the power pack under control.

Technical Specifications		
Cooling Capacity	26.000m3	
Operating voltage	230-400V	
Maximum Power Output	2,2Kw	
Maximum Wind Speed	50Km/s - 90 Km/s	
Cranking Speed	1450Rpm	
Dimension	81cm * 78cm * 49cm	
Mobile and Transportable System		
Wheel Locking Safety System		
Period of Guarantee	1 year	









### **IN-VEHICLE VOICE CONTROL**

In-vehicle Sound Control Device is a device that applies movement to the wheels in the desired vibration range with the vibration feet placed under the vehicle. These movements are controlled by an adjustable control between OHz-50Hz. During the vibrations, the operator performs fault detection safely and securely under the vehicle.

It is used in the control of all parts in the vehicle sub-equipment and in the detection of malfunctions. External noises and defective parts seen in the vehicle are detected in the fastest and safest way.

Tech	nical Specificati	ons
Maximum out	Maximum output power	
Maximum ope frequency	erating	50Hz
Operating vo	Itage	230-400V
Course Mobil	ity	±20
Engine Opera	ating Speed	1450Rpm
Maximum Strength		3000Kg
Wheel Pressing Surface That Can Turn Right and Left		hat Can
Movable I	Drum Surface to Wheel Rotation	Provide
Dimensions 61cm * 50cm * 101cm		101cm
Portable Body and Side Step		
Wheel I	_ocking Safety S	System
Adjustm	nent of floor fixir	ng feet
Period of Guarantee 1 Year		1 Year





### ROBOTIC VEHICLE BODY IMAGING AND ANALYSIS DEVICE

The vehicle body imaging device is designed to assess the current condition of vehicle bodies, detect any damage or defects that may have occurred later on. With its technology, it can distinguish between the original micron values of the vehicle and those of subsequently applied paint processes. It has the capability to view in detail both repaired areas and the entire damaged area.

Production is carried out with two different installation options.

- 1. Vehicle body imaging machine mounted on the ceiling.
- 2. Vehicle body imaging machine mounted on a support..

Equipped with advanced technology, it offers both automatic automation and manual vehicle imaging options, providing measurement results with precise values and presenting reports on the vehicle's paint flaws and damaged areas.

























# SOFTWARE AND INTEGRATION

### **OTOBIL V2 PROGRAMME**

- The Otobil V2 program has been developed using the .net infrastructure.
- It is an independent test interface for end users.
- There is no API support in V2 system.
- In the V2 system, a distinction can be made between dealer users for device and test center formations.
- The V2 system offers device users special detailed settings (such as report design, usage with brand logos, etc.).
- It can be connected to electronic brains via 2 separate options: COM and Ethernet connection.
- Real-time data flow is provided from electronic brains.
- The data received in real-time is presented to the user after calculations made on the background algorithm.
- In addition to corporate companies, works have been carried out using the WPF-Blazor infrastructure.









### OTOBIL V3 PROGRAMME

- The Otobil V3 program has been prepared with the .Net infrastructure.
- It is specially designed for corporate users.
- DevExpress is used for visual purposes.
- The V3 system has Restful API support.
- JWT is used for connections in the V3 system.
- There is a mobile application available in the V3 system, and transactions can also be carried out through the mobile application.
- The web management system in the V3 system is more detailed and more secure.
- Vehicle inspection procedures can also be performed through the web interface in the V3 system.
- Accounting operations such as dealers and management, revenue, profit distinction, invoice sending, and invoice requesting services can be actively used in the V3 system.
- E-commerce can be conducted through the V3 system. (Custom products for the company)
- The mobile application offers the option of photo-based expert assessment.
- It can be connected to electronic brains via 2 separate options: COM and Ethernet connection.
- Instant data flow is provided from electronic brains.
- The data received in real-time is presented to the user after calculations made on the background algorithm.
- In addition to corporate companies, studies were carried out using WPF Blazor infrastructure.



1- LÜTFEN 3000RPM SABİTLEYİNİZ









### **OTOBIL VX PROGRAMME** SPECIAL PERFORMANCE TEST SOFTWARE



- The Otobil VX program has been developed using the .Net infrastructure.
- It is an independent test interface for the end user.
- The VX system does not have API support.
- Distinction can be made between dealer users for device and test center formations in the VX syste.
- Special detailed settings are available for device users in the VX system (such as report design, usage with brand logos, etc.).
- It can be connected to electronic brains via 2 separate options: COM and Ethernet connection.
- Instant data flow is provided from electronic brains.
- The data received in real-time is presented to the user after calculations made on the background algorithm.
- In addition to corporate companies, studies were carried out using WPF-Blazor infrastructure.







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Bitiş Yüzdesi : 🗧 0,02 %	<u>}</u> m g m g ∞ §	§ 1000				
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RPM : 3000 rpm	· · · · · · · · · · · ·					
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DENADT	Illuchararara Takaik Kantrol va Bakalandirme Ltd. Sti
İvedik OSB Melih Gökce	k Bulvari OSBTÜRK Plaza No:140/15 Yenimahalle/ANKARA/TÜRKİYE
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U	YGUNLUK SERTIFIKASI
CEF	TIFICATE OF CONFORMITY
Firma Ada Company Name	: OTOBIL MAKINA İMALAT OTOMOTİV İTHALAT İHRACAT VE TİCARET LİMİTED : ŞIRKETİ
Adres Address	: İVEDİKOSB MAH. 2239/1 CAD. NO: 9 YENIMAHALLE/ANKARA/TÜRKİYE
Orün Tanımı Product Description	ENDÜSTRIYEL TIP FAN INDUSTRIAL TYPE FAN
Orün Markası/Modeli/Tipi Product Brand/Model/Type	: DYNOBIL/ETF21, ETF25
Referans Yönetmelik(ler) Reference Directive(s)	2006/42/AT Makine Emniyet Yönetmeliği Ek-1. 2006/42/EC Machinery Directive Annex-1
Referans Standart(lar) Reference Standard(s)	: EN ISO 12100:2010, EN 60204-1:2018
Test Raporu Test Report	: Benart Uluslar arası Teknik Kontrol Ve Belgelendirme Ltd.Şti.: LVD-3192
Sertifika No Certificate No	: 3487
Yayın Tarihi Issue Date	: 20.12.2023 Gegerillik Tarihi Expiry Date : 19.12.2024
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standarda tabi olması daramında diğer yi Enrimbilir ve sonunluk herme dinanlışıdı	netnieklikerin ve standartiaren gartiaren da firma yerine getindiginde CCE oyganlak iyarviani bria ibarine Iri En urritien EFNART en Gaardinaam Vandan kindist almad Atandamentek Bartan Bartan and Bartan almatik
vitnass sebebt ve firma talebt Exertise dize BENART international Technical Control on the company whese name and address mon the directive and standards are under the re	themsight: If Holdston buckness mode hardward in programmer of product, trapported the documentation presented concerning the product of a solution doors according to the reference devolves and/or reference standards, Statisticity of product and documentation to sparsability of the company. Nonverse, in case the product is subject to snore than one of the directives and standards which
are mentioned above, when the company fu	this conditions of other directives and atomber 6, then it can attach $ce$ conformity marking and arrange conformity
declaration. This certificate has been issued a the request of the company that the passon to a high the company that the passon to	is per company request. This contificate has not been issued under Natified Body identity. This certificate has been assued open het the result of the examination is positive.
Cener Miner Ferneral Mar	
A HANDA OLOWAY	「国際調理制
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the second second processing the ac-	anness nows were per our ownerst tenes concerns, one reasony of anti-decisionic can be questioned by contacting &EXAR7.



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τ	JYGUNLUK SERTİFİKASI
CEH	RTIFICATE OF CONFORMITY
Firma Ada Company Name	OTOBİL MAKİNA İMALAT OTOMOTİV İTHALAT İHRACAT VE TİCARET LİMİTED İŞİRKETİ
Adres Address	: İVEDİKOSB MAH. 2239/1 CAD. NO: 9 YENIMAHALLE/ANKARA/TÜRKİYE
Orün Tanımı Product Description	MOTOSÍKLET FREN TEST CÍHAZI MOTORCYCLE BRAKE TESTING DEVICE
Ürün Markası/Modeli/Tipi Product Brand/Model/Type	: DYNOBIL/XMF 100, XMF 200
Referans Yönetmelik(ler) Reference Directive(s)	2006/42/AT Makine Emniyet Yönetmeliği Ek-1 2006/42/EC Machinery Directive Annex-1
Referans Standart(lar) Reference Standard(s)	: EN ISO 12100:2010, EN 60204-1:2018
Test Raporu Test Report	: Benart Uluslar arası Teknik Kontrol Ve Belgelendirme Ltd.Şti. : LVD-4093
Sertifica No Certificate No	: 435
Yayın Tarihi Issue Date	: 20.12.2023 Gecentilik Tarihi : 19.12.2024 Expiry Date : 19.12.2024
BENART Ubulararan Teknek Kontrol ve B doktimantasyons yukarda belirtilen refe doktimantasyonus uyguelaga firma sorus	higheadarine Lui, Yu, yakawaka adv wa adwak beliratina farmaana, kuria netekisia yapang, watne diplan washaga man yinetmelik we / weya neferama sitamiaen giere incolomajati. Yiontsmelige we stanolastiara giere Greinia we malagigendata: Aonak yakawaka berlarini e yiontsmelik we / weya neferana stanolastiara, giramia harden Euda yiontzmelige we
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L L	JYGUNLUK SERTIFIKASI
CEI	RTIFICATE OF CONFORMITY
Firma Adı Company Name	OTOBIL MAKINA IMALAT OTOMOTIV ITHALAT IHRACAT VE TICARET LIMITED SIRKETI
Adres Address	: IVEDIKOSB MAH. 2239/1 CAD. NO: 9 YENIMAHALLE/ANKARA/TÜRKİYE
Orün Tanımı Product Description	SUSPANSIYON TEST MARINASI SUSPENSION TESTING MACHINE
Örün Markası/Tipi Product Brand/Type	: DYNOBIL/SÜSPANSIYON TEST A (MOTOR GÜCÜ 3x2 KW)
Referans Yönetmelik(ler) Reference Directive(s)	2006/42/AT Makine Emniyet Yönetmeliği Ek-1 2006/42/EC Machinery Directive Annex-1
Referans Standart(lar) Reference Standard(s)	: EN ISO 12100:2010, EN 60204-1:2018
Test Raporu Test Report	: Benart Uluslar arası Teknik Kontrol Ve Belgelendirme Ltd.şti. : LVD-3156, ME.MR-473
Sertifika No Certificate No	: 3446
Yayın Tarihi Issue Date	: 20.12.2023 Geceriliik Tarihi : 19.12.2024 Expiry Date : 19.12.2024
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ve uyganlak beyan ditsenlepebilir. Bo set sebebi ve farma talebi (tzerine ditsenlenan &KK487 Insevnational Technical Control o the company whose nome and address mo derective and standards are under the resp	effia (EDXX37: ss Oraylesma; Kandog londig altendia disentenmentgtz: Bis sertifika teckis semacosan ohanka olman gat. di balaatin los: hei mude technical inspection of product, inspected the documentation presented renorming the product of entoned above eccenting to the enforce elevitive and/or reference standards, kanability of product and documentation in the above above eccenting to the enforce elevitive and/or reference standards, kanability of product and documentation in the above above entoned above elevitive and/or product in algot to more them and of documentation and the other which are
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BENART	Uluslararası Tekni	k Kontrol ve Belgelendira	ne Ltd. Şti.
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U	YGUNLU	K SERTİFİK	ASI
CER	TIFICATE	OF CONFOR	MITY
Firma Adı Company Name	: OTOBİL MAKİN. LİMİTED ŞİRKE	A İMALAT OTOMOTİV İTHA Tİ	LAT IHRACAT VE TICARET
Adres Address	: İVEDİKOSB MAR	4. 2239/1 CAD. NO: 9 YENI	MAHALLE/ANKARA/TÜRKİYE
Orün Tanımı Product Description	: YANAL KAYMA LATERAL SLIDIP	TEST CİHAZI IG TEST UNIT	
Ürün Markası/Modeli/Tipi Product Brand/Model/Type	: DYNOBIL/XYK	100	
Referans Standart(lar) Reference Standard(s)	: EN 60335-1:20	12	
Test Raporu Test Report	: Benart Uluslar a	rası Teknik Kontrol Ve Belg	elendirme Ltd.Şti. : LVD-4094
Sertifika No Certificate No	: LVD-1207		
Yayın Tarihi Issue Date	: 20.12.2023	Geçerlilik Tarihi Expiry Date	: 19.12.2024
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ditrenferminist. BENART International Technical Control an the company where name and address men the directive (2014/20/EV) and standards a	d Valuation Inc. has made to: tioned oboxe according to the re-ander the researchility of	Instal Impection of product, impected th reference directive and/or reference at the comments. Nameser, in case the result	ie discomentation presented concerning the product of inductor. Suitability of product and documentation to it is valided its more than one of the discrition and
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# OUR REFERENCES

- NERO Endüstri Savunma A.Ş.
- Erkunt Traktör Sanayi A.Ş
- Borusan Otomotiv
- Ford Otosan
- Otokoç Otomotiv
- Fiat Birmot Authorised Services
- Hyundai Authorised Services

- Doğuş Oto
- Auto Expertise Companies
- Sahibinden.com
- Volkswagen Authorised Services
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