

**TURBOMED**

TURBO • TECHNOLOGY • WORLD CARE

Together for a sustainable future!

Worldwide  
Patented

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**THE ONLY ONE  
IN THE WORLD**  
with Portable  
Dynamic Balancing  
on board

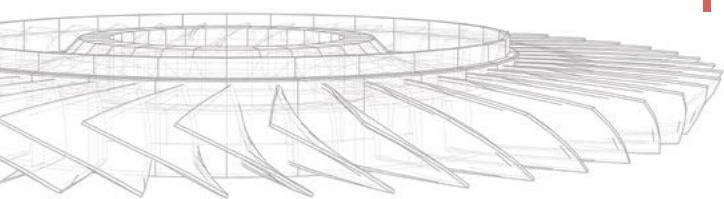
**UNIQUE  
SERVICE PACKAGE**  
for Radial  
Turbocharger



## NEW INNOVATIVE SERVICES

**WORLDWIDE PATENTED -  
PORTABLE DYNAMIC BALANCING  
ON BOARD**

**UNIQUE SERVICE PACKAGE  
FOR RADIAL TURBOCHARGER**



## Turbocharger Spare Parts

Our warehouse holds a wide range of turbocharger spare parts for all brands and types.

New and reconditioned spare parts, as well as **turbocharger complete and cartridge** units are provided on direct sale or on exchange basis at highly competitive prices always using safe packing.

**TURBOMED SA** provides marine turbocharger services since 1976, holding a leading position in the domestic and international market. Experience, high expertise, professionalism, consistency and accountability are some of the principles that permit our company to offer high quality products and value-added services to customers.

In **TURBOMED SA**, we believe in sustainable development and combine profitability with the common good and protection of the environment. Our actions both on land and sea are harmonised with the ecological needs of our times.

## Turbocharger Services

### **24/7** Worldwide technical support

Our highly trained and experienced service engineers, overcome adverse circumstances, give solutions and are available to travel on call around the world, offering fast and professional services to any turbocharger need.

- **Dynamic Balancing of Rotor Shaft on site and on board**
- **Radial Turbochargers - Cartridge Exchange Services**
- T/C Inspections - Overhauling - Maintenance
- Emergency Service - Troubleshooting - Fast Restoration
- Modification - Retrofit Upgrades
- Turbo Repairs - Parts Reconditioning - Machining - Welding Repairs
- Reverse Engineering - Special Works

Worldwide  
Patented

# Portable Dynamic Balancing on board

TURBOMED, is equipped with the innovative solution of **flexible portable dynamic balancing devices**, designed to respond effectively in high vibration environments such as that of the ship's engine room.

**This exclusive service solves the major integrated repair problem of Rotor, offering complete repair - balancing service directly on board and covers the total range of turbocharger's balancing requirements of Main & Auxiliary engines.**

A complete service package is performed directly and efficiently on the ship, without having to take the rotor off board – a time consuming and costly service. Especially, in cases of remote ports, where there is no infrastructure or specialized workshops suitable for balancing, this **exclusive service is a great added value for the ship-owners & charterers as they save valuable time and money.**

**Therefore, our well trained and experienced engineers** can support the balancing needs for both scheduled overhauls, as well as emergency service anywhere in the world 24/7.







## Using the Portable Balancing Machine, we contribute to sustainable development

- Complete service package of repair and maintenance
- Turbocharger's lifecycle extending
- Reduction of pollutant emissions
- Best time management and financial resources
- Safety - time - money



# Radial Flow Turbochargers for Power Plants & Marine Applications

The maintenance of Radial turbochargers according to each manufacturer's intervals is essential and gives the opportunity to prevent costly damages, due to their high operating temperatures - speeds/rpm they require a precise scheduling in order to keep efficiency and increase their lifecycle.

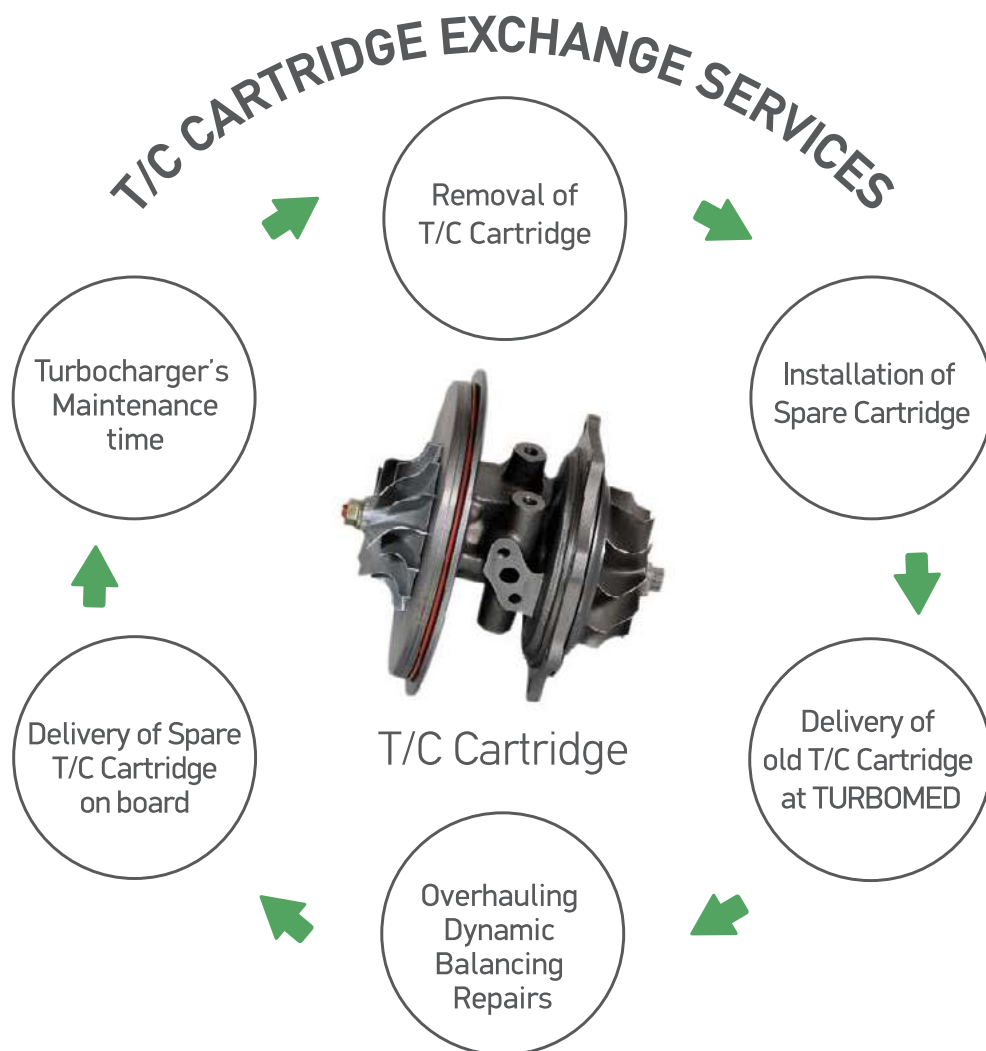




In TURBOMED we are specialized in maintenance, repairs and spare parts' supply for all radial turbocharger brands and types for all applications.

Since the maintenance of radial turbocharger is often a financial issue for operators, we have developed many service options in order to support our clients.







# Cartridge Rotation Program

The safe solution

**This service refers to operators who keep for their fleet spare T/C cartridges. When time comes for turbocharger maintenance, the available spare cartridge is being installed and the used one delivered to Turbomed's workshop for overhaul and repairs. Afterwards, the overhauled cartridge returns on board ready for installation to the next turbocharger that reaches the overhauling hours and the beginning of next cycle.**

## Benefits

- All the inspection-maintenance can be performed without disrupting vessel's operation.
- Proper maintenance-overhauling of T/C cartridge in our workshop by specialized staff.
- Risk elimination of performing the overhauling job on board by untrained crew.
- Crew can immediately act and replace T/C cartridge avoiding costly damages on the turbo.
- Compliance with manufacturer's instructions to keep a spare cartridge on board.
- Minimizing recovery time of damage, saving time and money.
- Dynamic Balancing of Rotor Shaft can be performed at workshop.

# Turbochargers Cartridge Exchange Program

The economic solution

**TURBOMED offers reliable exchange T/C cartridge units for the most popular turbocharger brands and types, new or reconditioned, ready to fit.**

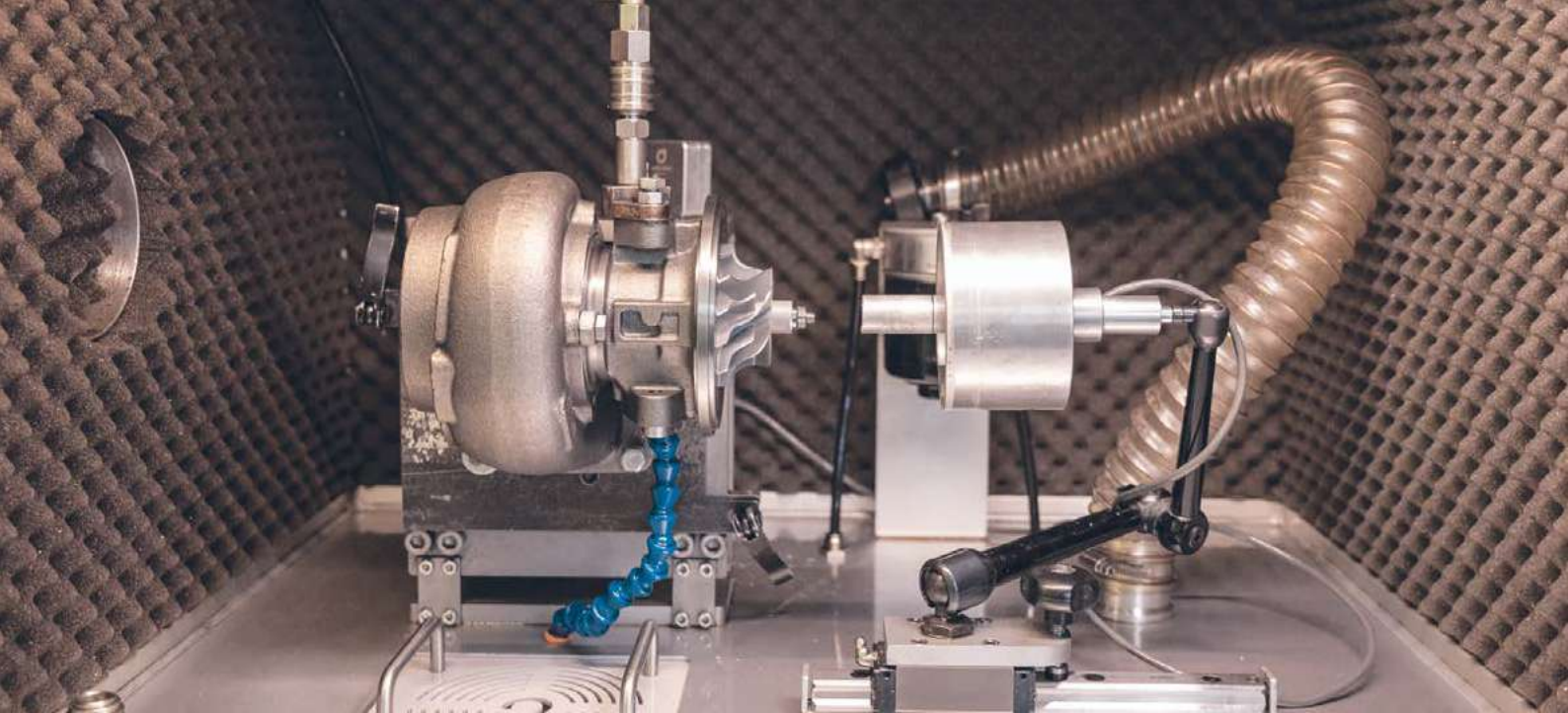
## Benefits

- **Reliable Exchange Units**
- **Up to 50% savings of the direct sale price**
- **Cost-effective process**
- **Higher turbocharger efficiency**
- **Quick Turnaround**
- **Stocked T/C cartridge for prompt delivery**

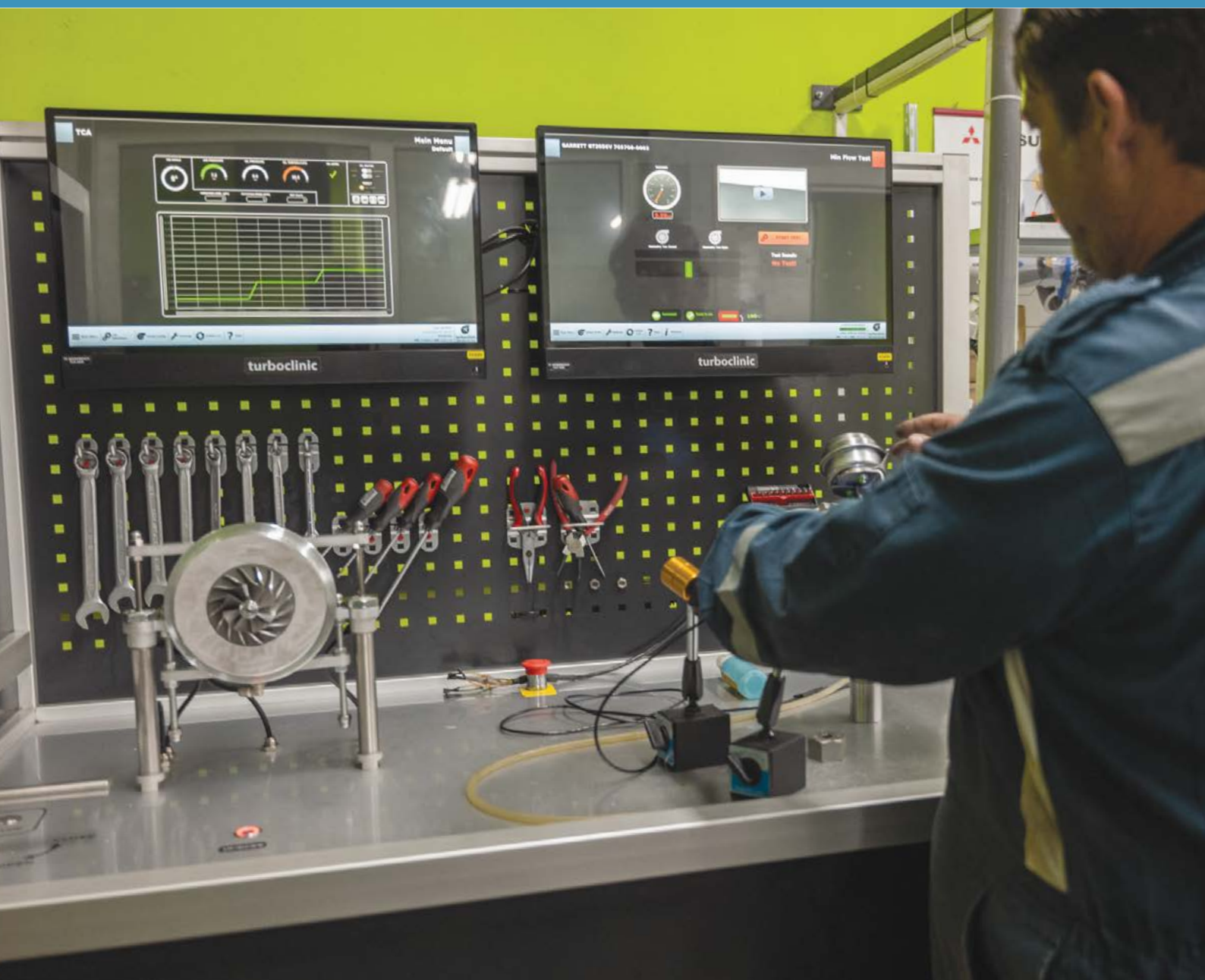
All stocked units can be shipped on the same day or the next. Non-stocked units are prepared the soonest possible.







## Simulation Work Station







# Radial Flow Turbochargers

for Diesel Generators, Yachts & Cars







## Turbocharger Reconditioning

**TURBOMED** as an experienced turbocharger service provider-repairer in the framework of Sustainability principles and cost saving philosophy can responsibly suggest repair solutions according to the latest technological developments.

- Complete T/C units
- T/C cartridges
- Rotor Shafts
- Bearings and Oil Pumps
- Air Filter-Silencers
- Nozzle Ring
- Casings





## Inspections and Repair Procedures

Prior to the repair our experienced technical team will inspect and report the condition of the part following the below process:

- **Chemical Cleaning - Sand Blasting**
- **Non-Destructive Testing (Vibration Analysis - Deflection Test - Ultrasonic Test Pressure Test - Hardness Test etc.)**
- **Reporting - Repair Proposal**



## Rotor Shaft Repairs

- **Rebuilding of Turbine Blades by TIG welding method**
- **TIG Welding Repairs of Compressor Wheels, Turbine Wheels**
- **Shaft Chrome Plating / Laser Cladding**
- **Replacement of seal strips**
- **Repair of shaft ends**
- **Rotor Static and Dynamic Balancing**



Before



After

“All repaired parts are accompanied with 1 year warranty”

## Dynamic Balancing in workshop

Our workshop is equipped with state-of-the-art precision “Schenck” Balancing Machines with a capacity from 0.5 kg to 3000 kgs.

### Static and Dynamic balancing of T/C Rotor Shafts are critical for turbocharger’s lifetime.

Rotor Shaft is a high-speed rotating part of the turbocharger. High rpms that the turbocharger reaches at its normal operation, results to heavy vibration and the unbalance of Rotor Shaft.



## Precision works - Reverse Engineering

Using sophisticated 3D measuring equipment, a part can be fully modeled to a high degree of accuracy. Subsequently the model is used to generate manufacturing drawings for the new part. Parts may be machined or cast. One of the key advantages of this technology for the end user is the ability to incorporate changes as part of the process.

Combining repair methodology with the use of multi-axis CNC machines offer additional sustainability and countless repair/production options.



Manufacturing methods: CAD / CAM Systems,  
CNC Milling / CNC Lathe works / Conventional Lathe works



## Turbocharger Retrofit solutions

Turbocharger Retrofit is mainly concerning the owners of older diesel engines who want to extend the useful life time of their vessel and increase its value.

The retrofit of the engine with a latest technology turbocharger model improves the performance and has many technical, economic and environmental Benefits. **TURBOMED**, having big experience in turbocharger's retrofit and modification works can responsibly recommend a successful solution.



## Authorized service agent for KBB

TURBOMED SA is an Authorized service agent for KBB Turbochargers in Greece since 1995 providing turbocharger services for the full range of KBB turbochargers. Well trained and certified technicians are ready to respond to any turbocharger need and to provide technical support 24/7.

### KBB turbocharger services

- **Original KBB spare parts supply**
- **24 Hour emergency service**  
**and standard turbocharger overhauls at**  
**any place of the world**
- **T/C complete and cartridge overhauling**  
**and reconditioning services on board or at**  
**our state-of-the-art turbocharger workshop**



Authorized service station  
for KBB Turbochargers

## Quality

**TURBOMED SA** has been recognized by the General Secretariat of Research and Technology of the Ministry of Development as a company of advanced technology. Certified by Lloyd's Register of Shipping with ISO 9001:2015 certificate can successfully meet the standards of even the strictest quality controls.

Furthermore the quality of the offered services is based on the continuous training of our employees as well as their devotion and consistency.



## Service network

**TURBOMED** also provides high quality turbocharger services and Rotor Dynamic Balancing at the most **critical ports** through its **Worldwide Network** of Service Stations & Local Service Partners.

### Service Stations

**Greece**, Piraeus,  
Kyllini, Syros  
**Romania**, Constanta  
**Turkey**, Istanbul  
**Italy**, Napoli  
**Cyprus**, Limassol  
**Africa**, Lagos  
**Egypt**, Port Said  
**Russia**, Novorossiysk

### Local Partners

<b>Netherlands</b> , Dordrecht	<b>Korea</b> , Busan
<b>Spain</b> , Tarragona	<b>Malaysia</b> , Klang
<b>UK</b> , Cornwall	<b>Russia</b> , St. Petersburg
<b>Brazil</b> , Rio de Janeiro	<b>Singapore</b> , Singapore
<b>Canada</b> , Québec	<b>Vietnam</b> , Vung Tau City
<b>Chile</b> , Talcahuano	<b>China</b> , Shanghai
<b>Mexico</b> , Veracruz	<b>South Africa</b> , Cape Town
<b>India</b> , Mumbai, Bhavnagar	<b>UAE</b> , Fujairah
<b>Indonesia</b> , Jakarta	<b>Saudi Arabia</b> , Jeddah

**Mobile Workshop** | Three Service teams with fully equipped Vans are available to travel and support any complete overhauling - balancing around the Mediterranean & Black Sea area.



no matter where



- ★ Service Stations
- Local Service Partners



Worldwide  
Patented

# NEW INNOVATIVE SERVICES

# MOBILE & PORTABLE TURBO SOLUTIONS





## Portable Dynamic Balancing on board

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**Therefore, our well trained and experienced engineers** can support the balancing needs for both scheduled overhauls, as well as emergency service anywhere in the world 24/7.



## Mobile workshop

**Anywhere - any time - any condition is our mission!**

The mobile workshop is the best solution to provide complete and exceptional turbocharger services to our valued customers at any location. It's uniquely designed and equipped for flexible operation in various applications and conditions.

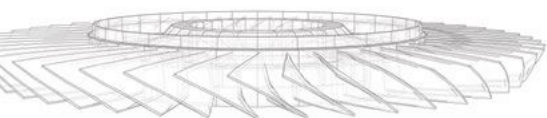
**Three Service teams with fully equipped Vans are available to travel and support any complete T/C overhauling and balancing around the neighboring countries of the Mediterranean & Black Sea area.**



### Functionality - Efficiency - Velocity - Safety

These self-contained, mobile workshops provide our technical team with the required mobility and the quick action to perform professional and high standard turbocharger's maintenance anywhere you need. All the works are carried out according to the vessel's schedule, achieving immediately and effectively the superior engine's performance.

Each mobile workshop is fully equipped with high-quality machines, maintenance special tools and portable dynamic balancing devices, covering the total range of turbocharger's repair and balancing requirements of Main & Auxiliary engines.







**Turbocharger Spare Parts**





SERVICE STATIONS

**TURBOMED**  
*Black Sea s.r.l.*  
Romania, Bulgaria

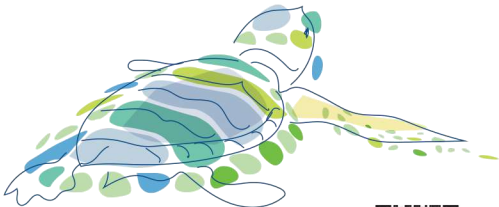
**AFRICAN  
TURBOMED LTD.**  
WORLD WIDE SERVICES AND SPARE PARTS  
Africa, Lagos

**TURBO CYPRUS**  
*Engineering Ltd*  
Cyprus, Limassol

**TURBOSUEZ CANAL**  
Overhauling-Maintenance-Retrofit For All Types Of Turbocharger  
Egypt, Port Said

**TURBO  
MEDITERRANEO**  
MAKINE İTHALAT İHRACAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ  
Turkey, Tuzla

**TURBO  
COLOMBO**  
Sri Lanka, Colombo



Our philosophy for sustainable development



**TURBOMED**  
TURBO • TECHNOLOGY • WORLD CARE  
Together for a sustainable future!

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