

KUNZ GmbH aircraft equipment

WWW.PSGINDUSTRIAL.COM



KUNZ GMBH AIRCRAFT EQUIPMENT

A family owned business since its establishment in 1987, KUNZ is the leading supplier of aircraft recovery equipment and aircraft wheel and brake servicing equipment.

KUNZ sets standards with leading edge technology for aircraft wheel and brake service and overhaul. KUNZ Aircraft Wheel and Brake Shop Equipment is in use with all major airlines and MRO's.

KUNZ is committed to technical excellence and continuous progress and development in order to reduce operational costs in component service and overhaul and to manufacture durable, solid and user efficient equipment.

KUNZ has the expertise to plan, design and deliver complete production lines for Wheel and Brake service and overhaul, based on a lean work flow concept.

The use of KUNZ Aircraft Recovery Equipment has proven many times to reduce the downtime of an entire airport or parts thereof in case of incidents and it also diminishes the risk of secondary damage to recoverable aircraft to a minimum. KUNZ offers the widest range of aircraft recovery equipment, carefully designed and engineered to meet airport and aircraft operator's requirements.

KUNZ Aircraft Recovery School's main focus is providing customers with a advanced training in Aircraft Recovery. Due to close cooperation with KUNZ GmbH, we are able to cover all conceivable recovery scenarios by means of KUNZ leading edge equipment.

WHEELS

KUNZ AIRCRAFT WHEEL SHOP EQUIPMENT

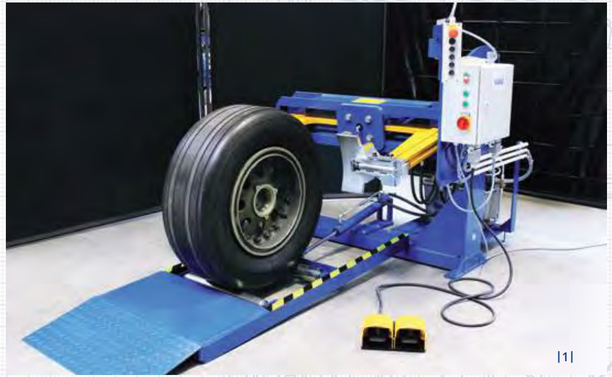
KUNZ provides a wide range of equipment for aircraft wheel maintenance. Our equipment is suitable for wheels and tires from all OEM brands.

Why **KUNZ**?

70+ wheel **PRODUCTS**

up to **50 %** **HIGHER THROUGHPUT**

+100% **RELIABLE**



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more about our products, further information and videos on:
www.KUNZ.aero

EQUIPMENT FOR TIRE BEAD BREAKING

|1| KUNZ UBB® Universal BeadBreaker

|2| KUNZ SBB BeadBreaker for smaller aircraft tires

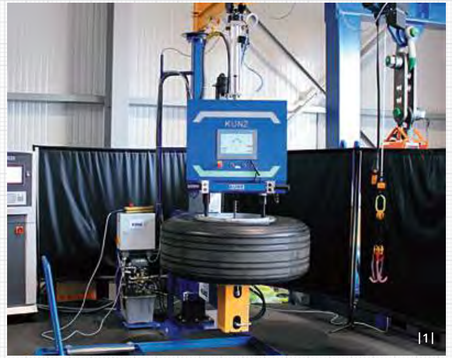
|3| KUNZ DUBB® Dynamic Universal BeadBreaker

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EQUIPMENT FOR WHEEL TORQUING / NUT LOOSENING

|1| KUNZ UTS NGtronic® Universal Torquing System Next Generation |2| KUNZ UTT Universal Torque Tool
|3| KUNZ UTT-L Loosening Tool |4| KUNZ ULT Universal Loosening Tool



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EQUIPMENT FOR **WHEEL ASSEMBLY / DISASSEMBLY**

|5| KUNZ Wheel Adapter Rings |6| KUNZ RimPull
|7| KUNZ UAS Universal Assembly / Disassembly Stand

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EQUIPMENT FOR **WHEEL / RIM HANDLING**

|1| KUNZ WheelLift |2| KUNZ Wheel Inspection Stand |3| KUNZ LogMove®
|4| KUNZ RLT Rim Lifting Tool |5| KUNZ RTR Rim Tilting Robot


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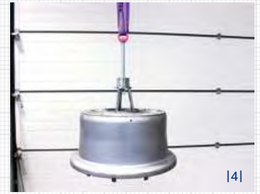

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more about our products,
further information and videos on:
www.KUNZ.aero


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EQUIPMENT FOR WHEEL ASSEMBLY TESTING

|6| KUNZ TTS Tire Test System


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BRAKES

KUNZ AIRCRAFT BRAKE SHOP EQUIPMENT

KUNZ provides a wide range of equipment for aircraft brake maintenance. Our equipment is suitable for brakes from all OEM brands.

Why **KUNZ**?

35+ brake **PRODUCTS**

30% faster brake **MAINTENANCE**

100% **SAFE** brake **TESTING**



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EQUIPMENT FOR BRAKE ASSEMBLY / DISASSEMBLY

|1| KUNZ UTT Universal Torque Tool
|2| KUNZ BDU Brake Drain Unit
|3| KUNZ BBS Brake Build-Up Stand


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more about our products, further information and videos on:
www.KUNZ.aero



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EQUIPMENT FOR BRAKE HYDRAULIC TESTING

|5| KUNZ BTS NGtronic® C Brake Test Stand
|6| KUNZ BTS NEOtronic® Brake Test Stand
|7| KUNZ BTS NGtronic® T Brake Test Stand
|8| KUNZ BTS NG Trolley

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ENGINEERING

LEAN WORKFLOW AND TURN-KEY SOLUTIONS FOR WHEEL & BRAKE SHOPS

Benefit from our experience. We can help you achieve a higher level of efficiency with a new design/redesign of workflow and workshop according to lean principles.

why **KUNZ**?

KUNZ IS A ONE-STOP SOLUTION

- World-market leader for Wheel & Brake Shop equipment
- Massive customer base (over 250) including OEMs and aircraft manufacturers
- Unique experience in delivering turnkey solutions for Wheel & Brake Shop all over the World for legacy carriers as well as third party MROs
- In-house workshop design capabilities
- Largest own product line for Wheel & Brake Shop equipment in the market
- Known for durable quality
- Huge network of renown suppliers to complement our existing range of equipment

KUNZ scope of **Services**

IDENTIFY
with the client

> Existing issues

> Final goals

REVIEW

> Space requirements

> Existing machinery

> Required machinery

> Actual procedures & cycle times

DESIGN

> Which equipment

> Where to locate it

In order to:

DEFINE SPACES for best SUITING WORKFLOWS

LEAN WORKFLOW DESIGN according to CMM and FAA / EASA compliance standards.

RESULTS in the workshop

> **DECREASE COMPLEXITY**

> Achieve maximum **OVERVIEW & TRANSPARENCY**

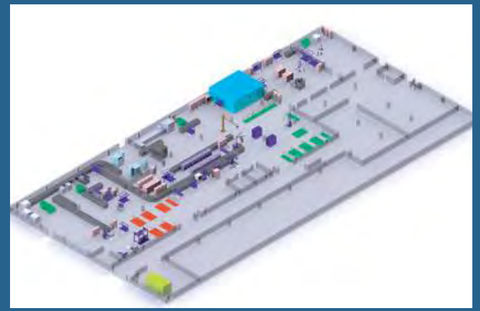
> Reduce human factor influence by **IMPLEMENTING NEW TECHNOLOGY** (automatization, RFID monitoring)

> Improve **EFFICIENCY & CAPACITY**

> **MEASURE SUCCESS**



Wheel & Brake Shop example 1



Wheel & Brake Shop example 2

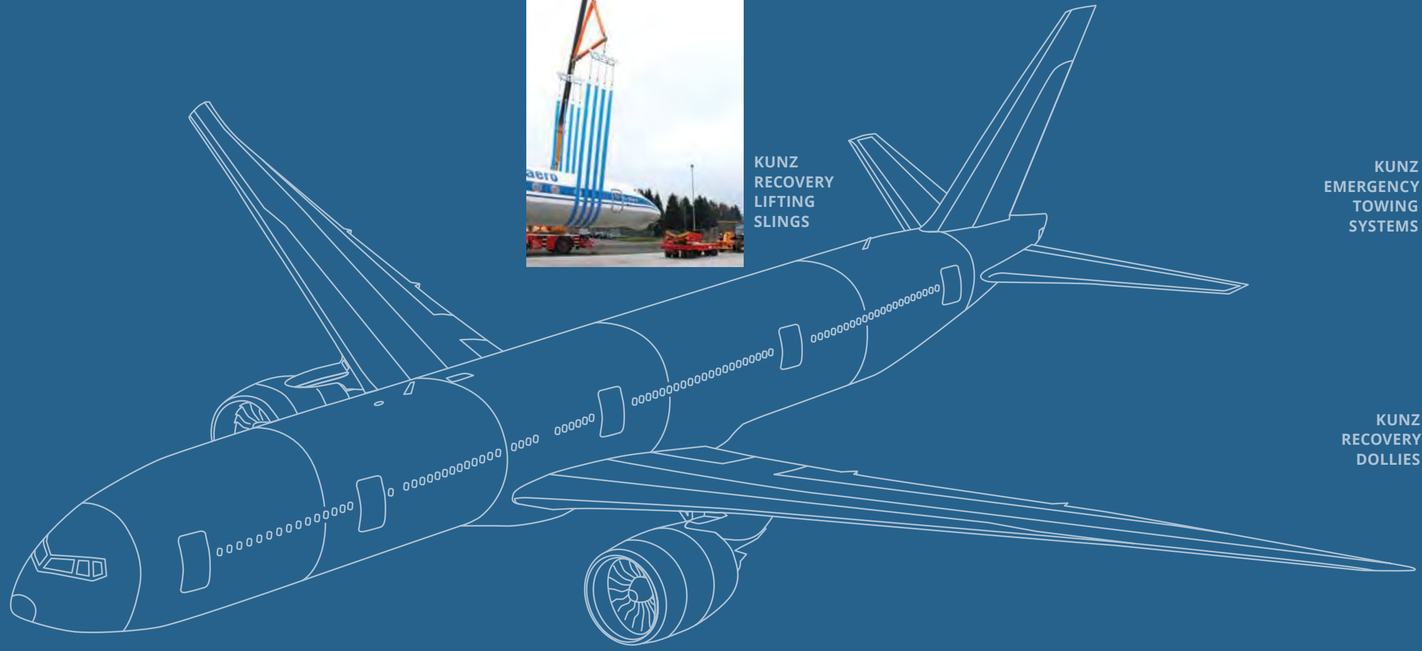
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AIRCRAFT RECOVERY

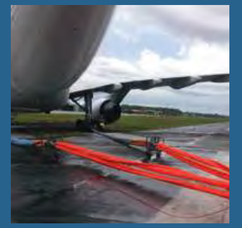
KUNZ AIRCRAFT RECOVERY EQUIPMENT

KUNZ provides a wide range of aircraft recovery equipment, such as Recovery Lifting Slings and Recovery Lifting Bags for aircraft lifting, Recovery Trailer and Recovery Dollies for aircraft movement in "damaged wheel" or "collapsed landing gear" scenarios, as well as De-Bogging Kits and Soft Ground Reinforcement Mats.The design of KUNZ aircraft recovery equipment meets international standards and recommendations.



KUNZ RECOVERY LIFTING SLINGS

KUNZ EMERGENCY TOWING SYSTEMS



KUNZ RECOVERY DOLLIES





KUNZ SOFT GROUND REINFORCEMENT MATS

KUNZ TETHERING EQUIPMENT



KUNZ RECOVERY LIFTING BAGS





KUNZ RECOVERY TRAILERS

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AIRCRAFT RECOVERY TRAINING



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KUNZ AIRCRAFT RECOVERY SCHOOL GMBH

Founded in 2016 and based on 30 years of experience, KUNZ Aircraft Recovery School's main focus is providing customers with a well-funded training in Aircraft Recovery.

The Recovery School is situated in Hahn am See, Germany, close to KUNZ GmbH's headquarters and 35 minutes driving distance from Frankfurt Airport.

KUNZ Aircraft Recovery School's trainings are performed by recovery trainers with many years of experience, who will convey both theoretical and practical knowledge. Our customers will receive an official certificate after the training.

THEORETICAL TRAINING

In theoretical training, customers are introduced to the recovery scenario. Experienced aircraft recovery trainers will provide them with the crucial knowledge required for a successful recovery.

PRACTICAL TRAINING

In practical training, the customer learns the right way to solve recovery situations using KUNZ leading edge aircraft recovery equipment on a TU-134A, with a functional undercarriage.

TRAINING AT CUSTOMER'S SITE

KUNZ also offers training with supervisor on site according to your requirements.


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|1| FULL LIFTING WITH LIFTING BAGS
|2| TETHERING
|3| DEBOGGING
|4| FLAT TIRE SCENARIO
|5| GROUND REINFORCEMENT
|6| NLG COLLAPSED SCENARIO

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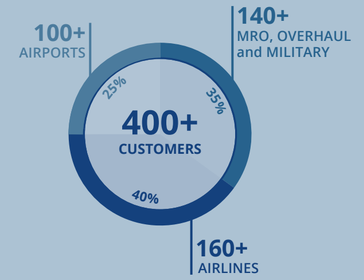
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KUNZ
WORLDWIDE

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EGYPT
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RUSSIA
INDIA
JAPAN
TAIWAN
VIETNAM
PHILIPPINES
SINGAPORE
BRUNEI
INDONESIA

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Our valued **CUSTOMERS**



around the **WORLD**



in **100+** **COUTRIES**

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KUNZ - OUR VALUED CUSTOMERS

Airports
AENA (several locations)
Almaty Airport
Ankara Airport
Antalya Airport
Aosta Airport
Athens Airport
Bahrain Airport
Barcelona Airport
Beijing Capital Airport
Berlin Airport Tempelhof
Berlin Airport (TXL, SXF)
Bologna Airport
Borispol Airport
Bremen Airport
Cancun Airport
Chengdu Shuangliu Airport
Chicago Midway Airport - Signature Flight Support
Chicago O'Hare Airport - Signature Flight Support
Cochin Airport
Cologne-Bonn Airport
Copenhagen Airport
Curacao Airport
Dalian Airport
Dresden Airport
Dubai International
Dushanbe Int'l Airport
Düsseldorf Airport
Emilianovo Airport
Erfurt Airport
Frankfurt/Main Airport
Funchal Airport
Fuerteventura Airport
Geneva Airport
Graz Airport
Guangzhou Bai Yun Airport
Guilin Liangjiang Airport
Hamburg Airport
Hannover Airport
Hong Kong KaiTak Airport
Hong Kong International Airport
Istanbul, Atatürk Airport
Istanbul Sabiha Gökcen Airport
Jayapura Airport
Kassel Calden Airport
Krasnodar Airport
Lehigh Valley Airport, Allentown, PA
Leipzig Airport
Linz Airport
Ljubljana Airport
Luxembourg Airport
Lviv Airport
Madrid Airport
Manila Airport
Melilla Airport
Moscow Sheremetyevo Airport
Moscow Vnukovo Airport
Munich Airport
Ninoy Aquino International Airport
Nuremberg Airport
Oslo Airport
Palma de Mallorca Airport
Pontianak Airport
PT Angkasa Pura
Rome FCO Airport
Sabiha Gokcen Airport
Saransk Airport
Sentani Airport, Jayapura
Shanghai Hong Qiao Airport
Sheremetyevo Airport
Simferopol Airport
Sofia Airport
Sochi Airport
Stuttgart Airport
Tbilisi Airport
Tenerife Norte Airport
Tenerife Sur Airport
Tianjin Xingang Airport
Tokyo (NRT) Airport
Venice Airport
Vienna Airport
Warsaw Frederic Chopin Airport
Yakutzk Airport

Airlines
ACES
Aeroflot
Aero Mexico
Air Algérie
Air Arabia / HS-AECO
Air Astana
Air Atlanta Icelandic
Air Baltic
Air Berlin
Air Caledonie
Air Canada
Air China
Air Corsica
Air Dolomiti
Air France
Air Iceland
Air India
Air Macao
Air Madagascar
Air Mauritius
Air New Zealand
Air Tanzania
Aircompany Polet
Airphil Express
Alsaqer Aviation
American Airlines
Angola Airlines
Antonov Salis GmbH
Arkia Israeli Airlines
Asiana Airlines
ATA Airlines
Aurora Airlines
Austrian Airlines
Avianca Airlines
Aviadynamics
Azerbaijan Airlines
Azul Linhas Aereas Brasileiras S.A.
Aviation Partnership Phils Corp
Belavia Belarussian Airlines
Biman Bangladesh Airlines
bmi British Midland
British Airways
Canadian Airlines
Cargolux
Carpatair
Cemair
Chautauqua Airlines
China Airlines
China Eastern Airlines
China Southern Airlines (several locations)
China Southwest Airlines
Comair Airlines
Corsair
Czech Airlines
Delta Air Lines
DHL Aviation, Bahrain
Don Avia
Eastar Jet
Egypt Air
EL AL
Emirates Airline
Estonian Air
Ethiopian Airlines
Etihad Airways
Eural Air
Eurowings
Eznis Airways
Far Eastern Air Transport
Felix Airways
Finnair
Flydubai
Garuda Indonesia
GOL Linhas Aereas
Gulf Air
Hainan Airlines
Iberia
Icelandair
Iran Aseman Airlines
Jamal Aviation
JAMCO
Japan Airlines
Jeju Air
Jet Aviation
Job Air Logistics
Jordan Aviation
Kallitta Air
KD Avia
Kenya Airways
KLM
Korean Air
Kunming Airlines
Kuwait Airways
LAN Chile
LATAM Airlines
Lauda Air
Libyan Arab Airlines
Lion Airlines
Luxair
Mahan Air
Malaysian Airlines
Malev Hungarian Airlines
Middle East Airlines
MNG Airlines
Monarch Aircraft Engineering
Mongolian Airlines
Middle East Airlines
Northwest Airlines
Olympic Airways
Oman Air
Onur Air
Oren Air
Presidential Air Fleet Nigeria
Pal Express
Qantas Airways
Qatar Airways
Rossiya Russian Airlines
Royal Brunei Airlines
Royal Flight Bahrain
Royal Jordanian
SAS Copenhagen, Oslo, Stockholm
Saudi Arabian Airlines
Shaheen Air International Ltd.
Shanghai Airlines
Shanghai Hute Airlines
Shenzhen Airlines
Shenzen Donghai Airlines
Siberia Airlines
Sichuan Airlines
Singapore Airlines
SmartLynx Airlines
South African Airways
Spanair
Sri Lankan Airlines
Sriwijaya Air
SunExpress Airlines
Syrian Arab Airlines
TACA Airlines
TAM Linhas Aereas S.A.
TAP Air Portugal
TAROM
Tassili Airlines, Algeria
TEAM Aer Lingus
Thai Airways
Tianjin Airlines
Travel Service
TUIfly
Tunis Air
Turkish Airlines Technic Inc
Turkmenistan Airlines
T'way Air
Ukraine International Airlines
United Airlines
Ural Airlines
UPS
UT Air
Vietnam Airlines
Vladivostok Airlines
Widerøe Airlines
Xiamen Airlines
Yakutia Airlines
Yangon Myanmar
Yemen Airways
Yunnan Airlines

Companies, Manufacturers and Military Organizations
AAA Aerospace USA Inc.
Abu Dhabi Aircraft Technologies
ACE Aeroplex of Central Europe
Aermeccanica S.R.L.
Aero Wheel & Brake Service Corporation
Aerocontractors Nigeria
Aero-Dienst GmbH
Aerohelice Lda.
AeroRepair Corp.
AIRBUS
Airbus Defence and Space
Aircraft Technical Services
Aviadynamics
Aviall Services
Aviation Australia / Riyadh College of Excellence
Avior Tech Services
ALROSA, Russia
AMAC Aerospace
AMECO Beijing
Amiri Fleet Kuwait
AMMROC
Antavia SAS
Apella S.A.
Austrian Air Force
Aviadynamics
AviaServices
Aviation Component Rep. Serv.
BAE Systems
Baimtec Material Co.
Balashikha BLMZ
Beijing Andawell Science and Technology Co., Ltd.
Beijing Cronda New Technology Co., Ltd.
Beijing Kailan Av. Tech.
Beijing KeRongDa Tech.
Beijing Kunlun High Tech Co., Ltd.
Belgian Air Force
BF Goodrich, (several locations)
BOEING
Bower Aero
Canadian Air Force
Civil Aviation Authority Bahrain
Cobham Aviation Services
Collins Aerospace
Czech Air Force
Daher Aerospace
Domodedovo Technique
EADS
EADS CASA
EAN Jet Center Nigeria
Egypt Air Force
Embraer Executive Jet Service
Falcon Aviation Services
Finnish Air Force
Flybe Aviation Services
French Air Force
GAMECO
Gazprom Avia
German Air Force
GOAM Ace Air
Goodrich Asia-Pacific Ltd.
Gulf Air Technical Services
Haveus Aerotech India
Hellenic Aerospace Industry
Honeywell
Horizon Aerospace Ltd.
Hua Cheng Auto Repair
Indian Air Force
Indian Navy
Irkut Corporation
Israel Aerospace Industries
Israel Air Force
Italian Air Force
Japan Air Self Defence Force
Jet Aviation (several locations)
JAMCO
JorAMCo
Jordan Aeronautical Systems Company
Kanchan Enterprises
Kearsley Airways
Kiev Aircraft Repair Plant 410
Kuwait Air Force
LAO Airlines Engineering
Leonardo Company
LOT Aircraft Maintenance Services
Lufthansa Technik (several locations)
Magnetic MRO
Magnum Aviation
Max Air
Mazeres Aero Equipment
M.C.M. – Maintenance Center Malta
M.C.M. – Maintenance Center Munich
Meggitt Aerospace
MyTechnic Aircraft MRO Services
NATO AWACS E3A
Nayak Aircraft Services
Northrop Grumman
Ogma Industries
Oman Air Force
Oman Aviation Services
Pakistan Air Force
Polish Air Force
PT Anekasa Pura II
RIX Mro
Rotable Repairs Ltd
Royal Air Force of Oman
Royal Air Force of UK
Royal Brunei Flight
Royal Netherlands Air Force
Royal Saudi Air Force
Royal Thai Air Force
Royal Thai Navy
Röder Präzision
RUAG Aviation
Sabena Aerospace
Safran Landing Systems
SAS (several locations)
Saudi Arabian Air Force
Shanghai Hute Aviation
Sibir Technics Ltd.
Silk Way Technics
Simpherol
Sky Wheels UK
Spanish Air Force
S-Pro
SR Technics (several locations)
ST Aerospace Solutions
Sukhoi Civil Aircraft
TAE Aerospace
TAMPA Cargo S.A.
Tasman Aviation Enterprises
Technic Aviation
TP Aerospace Technics (several loca-tions)
TS Aircraft Shop
Turkish Airlines Technic
Turkish Air Force
United Space Alliance
US Air Force (several locations)
US Navy (several locations)
UTG Maintenance & Engineering
Volga-Dnepr Technics
Vertical Force

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Committed to technical **excellence**

KUNZ GmbH aircraft equipment

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