

ENGINE RANGE OVERVIEW

AIRCRAFT ENGINE PORTFOLIO

Gasoline & Diesel UAV Propulsion Platforms

RELIABLE
EFFICIENT
VERSATILE
PROVEN
BUILT FOR
HIGHER POSSIBILITIES



TSB1-100

FUEL INJECTED
UAV ENGINE



TSB1-50

2-STROKE
UAV ENGINE



TSB1-160

TURBOCHARGED
UAV ENGINE

POWERING
AUTONOMY
BEYOND
TOMORROW

ENGINE RANGE OVERVIEW

TSB1 ENGINE FAMILY

Gasoline & Diesel UAV Propulsion Platforms

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GASOLINE SERIES



TSB1-50

50 HP / 37 kW



TSB1-100

100 HP / 74 kW



TSB1-130

130 HP / 96 kW



TSB1-160

160 HP / 118 kW



TSB1-230

230 HP / 169 kW

CONCEPT VISUAL

DIESEL SERIES



TSB1-360D

360 HP / 265 kW

CONCEPT VISUAL



TSB1-550D

550 HP / 405 kW

CONCEPT VISUAL

50 HP

100 HP

130 HP

160 HP

230 HP

360 HP

550 HP

INCREASING CAPABILITY > GREATER POSSIBILITIES

POWERING
AUTONOMY
BEYOND
TOMORROW

Product names shown under TSB1 portfolio naming.

LIGHT ENGINE SERIES

Compact gasoline UAV propulsion platforms

RELIABLE
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HIGHER POSSIBILITIES

TSB1-50

TSB1-50
FRONT VIEW

50 HP / 37 kW

Lightweight 2-stroke
UAV engine

TECHNICAL FACTS

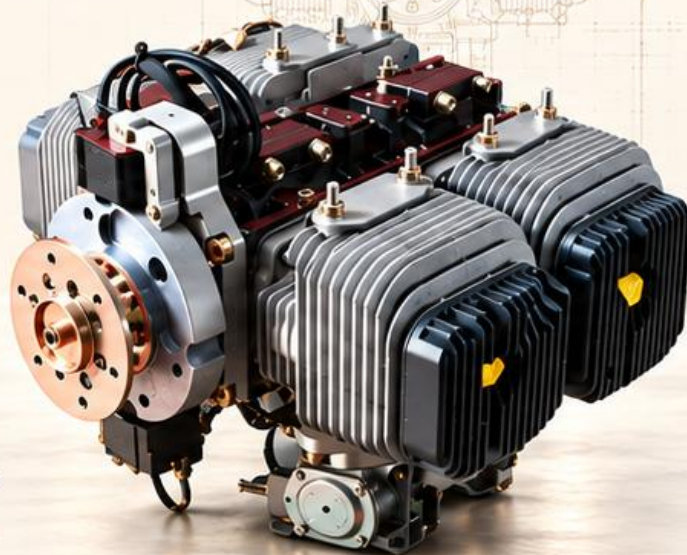
Displacement:	548 cm ³
Dry Weight:	Approx. 16 kg
Configuration:	4-Cylinder Boxer
Cooling:	Air-Cooled
Cycle:	2-Stroke

Best Fit Applications

Training UAVs, light tactical UAVs,
compact ISR platforms

- Low weight architecture
- Compact installation footprint
- Simple and reliable operation

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TSB1-100

TSB1-100
FRONT VIEW

100 HP / 74 kW

Fuel-injected gasoline
UAV engine

TECHNICAL FACTS

Displacement:	2424 cm ³
Dry Weight:	Approx. 76 kg
Configuration:	4-Cylinder Boxer
Fuel System:	EFI
Cooling:	Liquid-Cooled Heads

Best Fit Applications

Tactical UAVs, longer-endurance UAVs,
multi-mission surveillance platforms

- Higher power output
- Proven fuel-injection architecture
- Suitable for extended missions



PERFORMANCE ENGINE SERIES

Turbocharged gasoline UAV propulsion platforms

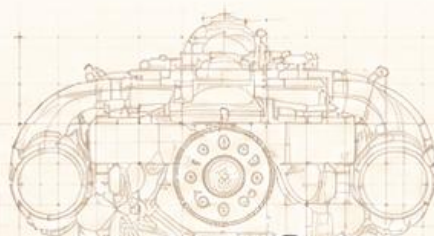
RELIABLE
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TSB1-130

130 HP / 96 kW

Turbocharged gasoline
UAV engine

TSB1-130
FRONT VIEW



TECHNICAL FACTS

Displacement:	2424 cm ³
Dry Weight:	86 kg + accessories
Configuration:	4-Cylinder Boxer
Fuel System:	EFI
Cooling:	Liquid-Cooled Heads
Induction:	Turbocharged

Best Fit Applications

Tactical UAVs, endurance UAVs,
ISR platforms, multi-role surveillance
missions

- Reliable turbocharged performance
- Altitude-compensated operation
- Well-suited for extended missions

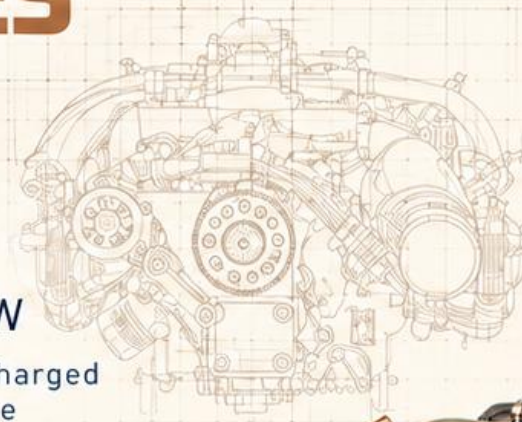
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TSB1-160

160 HP / 118 kW

High-output turbocharged
gasoline UAV engine

TSB1-160
FRONT VIEW



TECHNICAL FACTS

Displacement:	2424 cm ³
Dry Weight:	86 kg
Configuration:	4-Cylinder Boxer
Fuel System:	EFI
Cooling:	Liquid-Cooled Heads
Induction:	Turbocharged

Best Fit Applications

MALE-class UAVs, high-endurance
tactical platforms, ISR and strike-capable
missions

- Higher power for demanding payloads
- Strong performance in hot-and-high conditions
- Built for mission flexibility

ADVANCED ENGINE SERIES

High-output gasoline and diesel UAV propulsion platforms

RELIABLE
EFFICIENT
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TSB1-230

230 HP / 169 kW

High-output gasoline
UAV engine

TECHNICAL FACTS

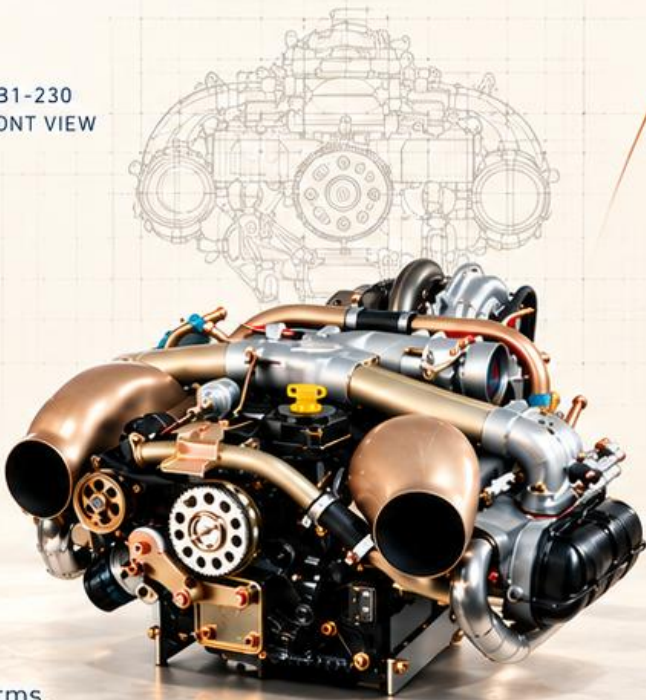
Fuel Type:	Gasoline
Configuration:	4-Cylinder Boxer
Fuel System:	EFI
Cooling:	Liquid-Cooled Heads
Induction:	Turbocharged
Status:	Preliminary

Best Fit Applications

MALE-class UAVs, tactical ISR platforms,
heavier-payload surveillance missions

- Extends the gasoline series into a higher power class
- Strong fit for heavier payload and endurance missions
- Designed for flexible multi-mission integration

TSB1-230
FRONT VIEW



CONCEPT VISUAL

PRELIMINARY SPEC

TSB1-360D

360 HP / 265 kW

High-efficiency diesel
UAV engine

TECHNICAL FACTS

Fuel Type:	Diesel
Configuration:	Heavy-duty Boxer Architecture
Fuel System:	Direct Injection
Cooling:	Liquid-Cooled
Induction:	Turbocharged
Status:	Preliminary

Best Fit Applications

Long-endurance UAVs, maritime ISR platforms,
heavy-duty special mission airframes

- Diesel efficiency for extended sortie duration
- Higher output for larger UAV platforms
- Built for demanding long-range mission profiles

TSB1-360D
FRONT VIEW



CONCEPT VISUAL

PRELIMINARY SPEC

FLAGSHIP DIESEL ENGINE

High-power diesel UAV Propulsion platform

TSB1-550D

550 HP / 405 KW

Flagship heavy-duty diesel UAV engine

TECHNICAL FACTS

Fuel Type:	Diesel
Configuration:	Heavy-duty Boxer Architecture
Fuel System:	Direct Injection
Cooling:	Liquid-Cooled
Induction:	Turbocharged
Status:	Preliminary

BEST FIT APPLICATIONS

Heavy UAVs, long-endurance ISR platforms, maritime surveillance, special mission airframes, and larger-payload unmanned aircraft.

- Flagship diesel power for larger UAV classes
- Optimized for long-range and high-payload missions
- Built for demanding endurance and mission flexibility

POWERING
AUTONOMY
BEYOND
TOMORROW

RELIABLE
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TSB1-550D
FRONT VIEW



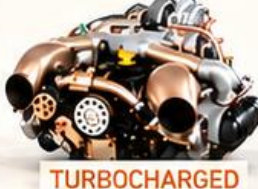
CONCEPT VISUAL

PRELIMINARY SPEC

TSB1 TECHNICAL COMPARISON

Seven engines. One scalable platform.

RELIABLE
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HIGHER POSSIBILITIES

	TSB1-50	TSB1-100	TSB1-130	TSB1-160	TSB1-230	TSB1-360D	TSB1-550D
SPECIFICATIONS			 TURBOCHARGED	 TURBOCHARGED			
Power (HP)	50 HP	100 HP	130 HP	160 HP	230 HP	360 HP	550 HP
Power (kW)	37 kW	74 kW	96 kW	118 kW	169 kW	265 kW	405 kW
Max Power Speed	7,500 rpm	3,000 rpm	3,000 rpm	3,000 rpm	-	-	-
Fuel Type	AVGAS 100LL / 90 RON	98 RON / AVGAS 100LL	98 RON / AVGAS 100LL	98 RON / AVGAS 100LL	Gasoline	Diesel	Diesel
Engine Configuration	4-Cylinder Boxer	4-Cylinder Boxer	4-Cylinder Boxer	4-Cylinder Boxer	4-Cylinder Boxer	6-Cylinder Boxer	8-Cylinder Boxer
Displacement	548 cm ³	2,424 cm ³	2,424 cm ³	2,424 cm ³	~ 3,300 cm ³	~ 4,200 cm ³	~ 6,000 cm ³
Target Dry Weight	~ 16 kg	~ 76 kg + accessories	86 kg + accessories	86 kg + accessories	~ 105 kg	~ 210 kg	~ 315 kg
Cooling	Air-Cooled	Liquid-Cooled Heads	Liquid-Cooled Heads	Liquid-Cooled Heads	Liquid-Cooled Heads	Liquid-Cooled	Liquid-Cooled
Fuel System	Carbureted	EFI	EFI	EFI	EFI	Common Rail (Diesel)	Common Rail (Diesel)

TSB1-50 / 100 / 130 / 160 specifications derived from reference engine technical data.
TSB1-230 / 360D / 550D are preliminary design targets subject to engineering validation.

SCALABLE POWER. REAL-WORLD IMPACT.

GLOBAL UAV ENGINE MARKET

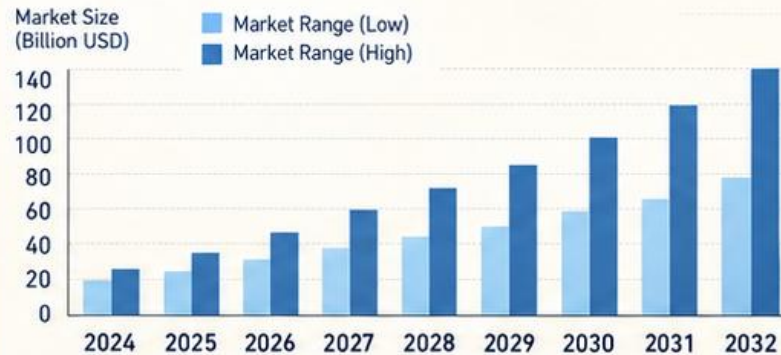
Growing demand. Expanding opportunities.



RELIABLE
EFFICIENT
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GLOBAL UAV MARKET OUTLOOK

The global UAV market continues to expand, driven by defense, security and commercial applications.



2024 ESTIMATES

~\$18 – 36 Billion

2032 FORECASTS

~\$54 – 126 Billion

INDICATIVE CAGR

~13 – 17%
(2024 – 2032)

Market estimates vary by report scope and UAV segment.

KEY APPLICATION AREAS

UAVs are transforming a wide range of civilian and defense sectors.



DEFENSE & SECURITY

- ISR
- Border Security
- Maritime Patrol
- Tactical UAVs



COMMERCIAL

- Mapping & Survey
- Agriculture
- Infrastructure
- Energy



MARITIME

- Coastal Monitoring
- Anti-Piracy
- Search & Rescue
- Environmental



HLS & DISASTER MANAGEMENT

- Disaster Response
- Forest Monitoring
- Humanitarian Aid
- Emergency Comms



HIGH-ALTITUDE & SPECIAL MISSION

- Long Endurance
- Stratospheric UAVs
- Scientific Research
- Communications

ENGINE POWER OPPORTUNITY

Growing demand across UAV classes creates significant opportunities for efficient, reliable and high-performance engines.



50 – 100 HP

Light / Tactical UAVs

- Short to medium endurance
- ISR and surveillance
- Cost-efficient platforms



130 – 230 HP

MALE / Long-Endurance UAVs

- Extended range and endurance
- Higher payload capacity
- Multi-role platforms



360 – 550 HP

Heavy UAVs / Special Mission

- Maximum endurance
- High payload capacity
- Maritime, HLS and strategic missions

OPPORTUNITIES FOR TSB1 ENGINES

TSB1 engine family is positioned to address key market needs with a scalable portfolio.



WIDE POWER RANGE

From 50 HP to 550 HP for various UAV classes



SCALABLE PORTFOLIO

A complete family addressing multiple mission profiles



GLOBAL MARKETS

Strong potential in defense and commercial UAV programs



STRATEGIC POSITION

Meeting the demand for reliable, efficient and mission-oriented UAV propulsion

TURKIYE UAV PLATFORM LANDSCAPE

Representative platforms and relevant TSB1 power classes.



RELIABLE
EFFICIENT
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HIGHER POSSIBILITIES



BAYRAKTAR TB2

Manufacturer: Baykar

Public benchmark: 100 HP internal-combustion engine

Class: Tactical UAV / ISR & strike

Relevant TSB1 Class: **TSB1-100**



BAYRAKTAR TB3

Manufacturer: Baykar

Public benchmark: 170 HP turbodiesel

Class: Naval UAV / medium-altitude long-endurance

Relevant TSB1 Band: **TSB1-160 / TSB1-230**



ANKA

Manufacturer: Turkish Aerospace

Public benchmark: 1,700 kg MTOW / 350+ kg payload

Class: MALE UAV

Comparable TSB1 Band: **TSB1-130 / TSB1-230**



AKSUNGUR

Manufacturer: Turkish Aerospace

Public benchmark: twin turbocharged diesel architecture

Class: Heavy MALE / long-endurance UAV

Relevant TSB1 Segment: **TSB1-360D**



KEY INSIGHT

TSB1 portfolio covers multiple Turkish UAV power classes from tactical platforms to high-endurance diesel applications.

GLOBAL UAV PLATFORM BENCHMARKS

Representative propulsion and mission classes across international UAV platforms

RELIABLE
EFFICIENT
VERSATILE
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BUILT FOR
HIGHER POSSIBILITIES



CAMCOPTER S-100

OEM: Schiebel / Austria
Type: VTOL UAV
Max Take-off Weight: 200 kg
Typical Payload: 50 kg
Endurance: 10 h
Public Engine Power: 40 kW (S1) / 44 kW (S2) (~54-59 HP)

Relevant TSB1 Class: TSB1-50



REACH-S Block 20

OEM: EDGE / ADASI / UAE
Type: Fixed-wing MALE UAV
Max Take-off Weight: 830 kg
Payload Capacity: 200 kg
Endurance: 22.5 h ISR
Public Engine Power: 115 HP @ 5,800 rpm

Relevant TSB1 Band: TSB1-100 / TSB1-130



GRAY EAGLE ER

OEM: GA-ASI / USA
Type: Extended-range MALE UAS
MGTOW: 1,905 kg
Payload Capacity: 181 kg internal / 227 kg centerline
Endurance: 42 h
Public Engine Power: 180 HP Heavy Fuel Engine

Relevant TSB1 Band: TSB1-160 / TSB1-230



FALCO EVO

OEM: Leonardo / Italy
Type: Surveillance RPAS
Max Take-off Weight: 650 kg
Payload Capacity: 100+ kg
Endurance: 20+ h
Propulsion: Heavy-fuel engine

Mission-Class Benchmark – Engine Power Not Publicly Disclosed



KEY INSIGHT

Publicly documented piston and heavy-fuel UAV platforms show strong demand in the ~50–200 HP range, while larger MALE/HALE platforms increasingly transition toward turboprop propulsion.

Platform and propulsion data compiled from publicly available manufacturer sources for market and power-class benchmarking.

COUNTRIES & OPERATOR MATRIX

Documented UAV operators, procurement cases and relevant TSB1 power-class benchmarks



RELIABLE
EFFICIENT
VERSATILE
PROVEN
BUILT FOR
HIGHER POSSIBILITIES

COUNTRY / REGION	OPERATOR / CUSTOMER	PLATFORM	DOCUMENTED STATUS	PUBLIC POWER DATA	POWER-CLASS BENCHMARK
Türkiye	Turkish Armed Forces / Gendarmerie / Police / MIT	Bayraktar TB2	In Turkish inventory since 2014; active domestic operator base	100 HP internal-combustion engine	TSB1-100
Poland	Polish Armed Forces	Bayraktar TB2	24 UAVs ordered; final 4th set delivered on 16 May 2024	100 HP public platform benchmark	TSB1-100
United States	U.S. Army	MQ-1C Gray Eagle ER	Operational extended-range MALE UAS	180 HP Heavy Fuel Engine	TSB1-160 / TSB1-230
UAE	UAE Armed Forces	REACH-S	100-aircraft order announced on 16 Nov 2023	110 HP; 640 kg MTOW; 120 kg payload; 24 h endurance	TSB1-100 / TSB1-130
United Kingdom	Royal Navy	Peregrine / CAMCOPTER S-100	Procured in 2023; operationally fielded by 2026	S-100 family power options: 40 kW S1 / 44 kW S2	TSB1-50 class
Greece	Hellenic Navy	CAMCOPTER S-100	Contract for 4 systems signed 13 Feb 2026; first two accepted Apr 2026	S-100 family power options: 40 kW / 44 kW	TSB1-50 class

 KEY INSIGHT

Documented procurement and operator cases show active demand across the ~50–180 HP UAV propulsion range, with tactical, MALE and naval ISR applications showing direct relevance to the TSB1 portfolio.

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Platform, operator and propulsion data compiled from publicly available manufacturer and government sources. TSB1 range shown as a power-class benchmark.

SCALABLE POWER. DOCUMENTED GLOBAL RELEVANCE.

STRATEGIC OPPORTUNITY

TSB1 STRATEGIC OPPORTUNITY

Scalable propulsion solutions across multiple UAV power classes.

RELIABLE
EFFICIENT
VERSATILE
PROVEN
BUILT FOR
HIGHER POSSIBILITIES



50 – 550 HP RANGE

From light tactical UAVs to heavy special-mission platforms.



GASOLINE + DIESEL

Two propulsion families covering multiple operational requirements.



GLOBAL POWER-CLASS RELEVANCE

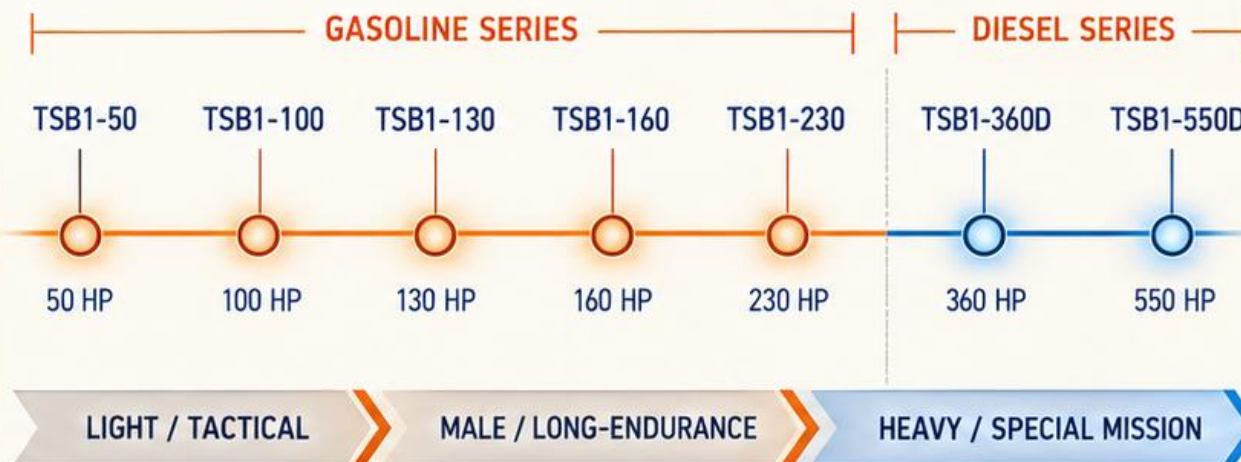
Aligned with documented international UAV propulsion benchmarks.



MISSION OPPORTUNITY

ISR • Maritime • Long-Endurance
• Special Mission

TSB1 POWER SCALE



KEY TAKEAWAY

The TSB1 portfolio spans documented UAV propulsion classes from tactical platforms to higher-power special-mission applications.

Positioning reflects portfolio structure and public power-class benchmarking.

SCALABLE POWER. REAL-WORLD RELEVANCE. GLOBAL OPPORTUNITY.

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CLOSING NOTE

THANK YOU

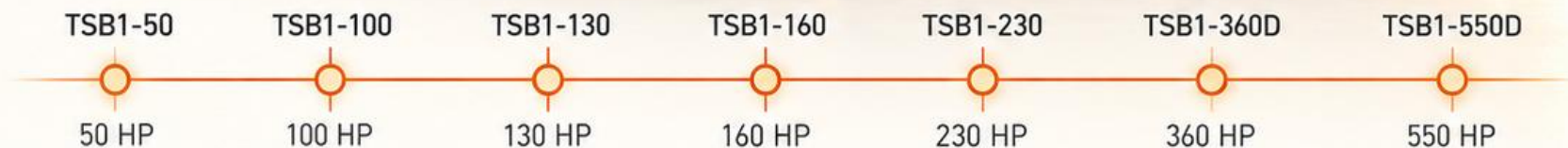
TSB1 ENGINE FAMILY

Gasoline & Diesel UAV Propulsion Platforms

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Thank you for your time and consideration.

Scalable propulsion solutions from 50 HP to 550 HP.



SCALABLE POWER. THANK YOU.

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