

HyImpulse

Paraffin Propulsion

HyImpulse Technologies

Germany · founded 2018 · hyimpulse.de

6

PRODUCTS

newspacemarket.com/companies/hyimpulse/

as of 20 August 2026

HyImpulse Technologies

HyImpulse Technologies designs and manufactures launcher and spacecraft technology, including hybrid rocket technology. The company develops suborbital and orbital launch vehicles and in-space mobility solutions. Their propulsion systems are paraffin-based hybrid propulsion. They offer launch, satellite-as-a-service, and space-data-as-a-service. Customers include those requiring access to low-Earth orbit. The company was co-founded in 2018 by Christian Schmierer, who serves as CEO. Other key personnel include Mario Kobald (propulsion and rocket development), Konstantin Stepanov (COO, managing testing, launch, and production operations), and Ulrich Scheithauer (CTO, leading technical development). The company has conducted a successful suborbital flight, which set a student world record for hybrid and liquid rockets and was the first launch using paraffin with nitrous oxide as an oxidizer. They also successfully launched a Suborbital Rocket SR75 with a 75kN motor based on paraffin and LOX.

This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

Product catalogue



HYIMPULSE TECHNOLOGIES

Hybrid Propulsion Systems

HyImpulse's hybrid motor family powers suborbital and orbital vehicles with lightweight composite casings, thrust vector control, and modular interfaces, providing liquid-like perf

Thrust (SL1 orbital launcher)	90 kN
Thrust (SR75 sounding rocket)	75 kN
Thrust (scalable architecture)	10 kN
Propellant	Nitrous oxide hybrid
Casing	Full composite
Features	Throttling, Shutdown & restart, Customizable, Mission-ready & Scalable, ITAR Free, Re-igni
Feed System	Pressure or pump-fed

price on request



HYIMPULSE TECHNOLOGIES

HyMOVE

HyMOVE is HyImpulse's next-generation Orbital Transfer Vehicle (OTV) designed to provide flexible and efficient in-space transportation services.

Payload Capacity	Up to 400 kg
Hybrid Engine	N ₂ O/HTPB, 4 kN thrust class (combined with N ₂ O/C ₂ H ₆ bi-propellant thrusters)
Oxidizer Tanks	Type 3 COPV
Core and Thrust Structure	Laminated CFRP
Payload Plate	Composite sandwich panel
Payload volume	cylindrical 3m
Target orbit precision	+ - 4 km

price on request



HYIMPULSE TECHNOLOGIES

SL1

The SL1 is a revolutionary three-stage smallsat launch vehicle powered by hybrid rocket technology, designed to provide affordable and responsive orbital launch services for payloa

Diameter	2.2m
Payload to LEO	600kg
Lift-off mass	54t
Thrust	90kN
Stages	3
Turbopump-fed engine	90kN

price on request



HYIMPULSE TECHNOLOGIES

SL1 Suborbital Small Launch Vehicle

HyImpulse Technologies' SL1 — a hybrid-propellant suborbital small launch vehicle for technology demonstration and scientific payloads reaching 150 km apogee.

Vehicle Type	Suborbital hybrid-propellant launch vehicle
Propellants	N2O oxidizer / HTPB solid fuel (hybrid)
Apogee	~150 km (above Kármán line)
Payload	Technology demonstration and scientific payloads
Predecessor	SR75 sounding rocket (tested at Koonibba, Australia)
Founded	2018, Sindelfingen, Germany (University of Stuttgart spin-off)

price on request



HYIMPULSE TECHNOLOGIES

SR75

SR75 offers suborbital launch services capable of deploying payloads up to 250kg to an altitude of 200km, utilizing a hybrid propulsion system.

Thrust	75kN
Propulsion	Paraffin/LOX
Length	11m
Diameter	0.64m
Recovery Capability	700kg
Performance Apogee	40km
Performance Downrange	50km

price on request



HYIMPULSE TECHNOLOGIES

SR75 Hybrid Sounding Rocket

HyImpulse Technologies' SR75 — Germany's first privately-operated hybrid-propulsion sounding rocket, tested to over 100 km altitude from Australia.

Propulsion Type	Hybrid (N2O oxidizer / paraffin wax fuel)
Engine	Bimodal Hybrid Engine (BHE)
Apogee	>100 km (above Kármán line)
Launch Site	Koonibba Test Range, South Australia (Southern Launch)
First Launch	2023 (first German private hybrid rocket to reach space)
Origin	University of Stuttgart IRS spin-off, Sindelfingen, Germany

price on request

Contact HyImpulse Technologies

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

<https://newspacemarket.com/companies/hyimpulse/>

<https://www.hyimpulse.de/>

© 2026 HyImpulse Technologies — product data. Document compiled by NewSpace Market from the live catalogue on 20 August 2026. May be shared freely.