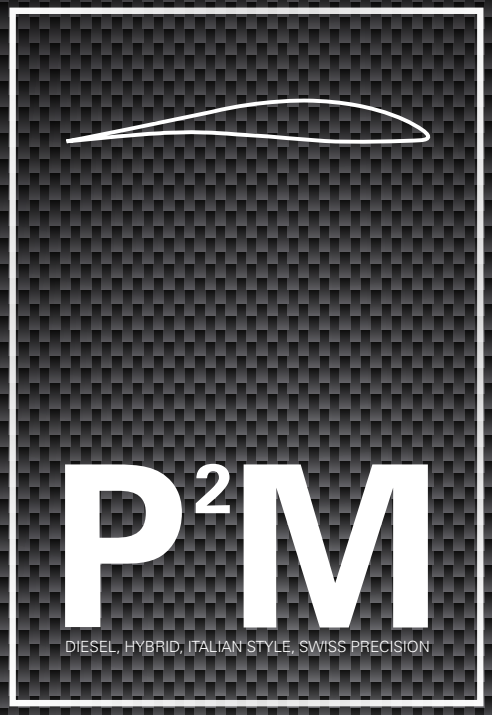

P²M
DIESEL, HYBRID, ITALIAN STYLE, SWISS PRECISION

P2M | FLY. ENERGY AND PASSION

Take off on the wings of a new vision, thanks to the power and elegance of an advanced technology, designed and manufactured in Italy, which looks towards sustainable development but that retains excellent performance.
P2M has TRANSFORMED a winning intuition into a team of revolutionary diesel-hybrid engines destinated to change the face of aviation, multiplying the opportunities. And that will give new impetus and efficiency for tomorrow's dreams.

POWERFUL AND FUNCTIONAL. EXCELLENCE MADE IN ITALY

P2M develops specially adapted diesel engines for use on general aviation and ultralight aircraft and assembles them with innovative electric motors, creating an advanced hybrid propulsion system. A new model of efficiency, power and functionality for the aerospace market: the plan of a start-up founded by the excellence of Made in Italy.

EMOTION

Turn on the new P2M engines and put yourself in command with the passion of an never as advanced energy. A world of technology at your service begins at the end of the track.

INNOVATION

The future of aviation finally takes flight, powered by a Diesel and hybrid engine: the P2M system ensures efficiency and high performance.

ENVIRONMENT

You are opening a new season of changes, reduced fuel consumption, less noise and lower costs. Bluer and more silent skies with technology at the service of the environment.

OBJECTIVE: EFFICIENCY

After many years of improving the details of traditional engines, aviation needed to make a real leap. With the diesel and the hybrid System developed by P2M the efficiency and environmental sustainability of aeronautical engines are now in hand.

REDUCED CONSUMPTION

Flying long routes has always required numerous stopovers for refueling and especially such high costs make aviation generally uncompetitive. Today, with the P2M engines, which reduce consumption by 30%, saving while flying becomes a reality.

FLYING IN SAFETY

Having a diesel engine coupled to an electric engine provides pilots with more guarantees of efficiency and peace of mind: not only extra power for take-off, but also a spare "motor" in case of an emergency and optimal management of the cruise consumption.

LIGHT AND POWERFUL

Despite developments in technology, aviation has always neglected the diesel engine considering it too heavy. But the model devised by P2M aims at overcoming the doubts and uncertainties due to a relationship between the weight and the supplied power of an authentic custom-build.

PROJECT LEADER

At the head of the P2M project is Marco Marotta, with a long experience in airplanes: first as an Air Force pilot, then as an airline pilot, he holds a degree in Nautical and Aeronautical Science, specializing in flight management and safety.

A GLOBAL MARKET

The P2M diesel-hybrid project is aimed at a global market from manufacturers to private pilots both in Europe and in the rest of the world. The company has already raised the interest of various companies and also plans to install the engines on larger aircraft.

MADE LIGHTER AND FULLY REDESIGNED

To develop the aviation diesel engine, P2M started from new generation aluminum made engine, which has good performance and low emissions. The engine has been further made lighter and optimized for installation and use on airplanes. It required a thorough redesign that has not neglected particular details: for example, all lubrication systems have been redesigned to allow even ithe Up Side Down flight.

RESEARCH BORN IN THE BOUTIQUE OF ENGINES

For the development of engines, P2M is using various collaborations with the greatest Italian experts in motor engineering. Much of the research and innovation activities in fact are carried out in partnership with some of the major Italian motor companies, concentrated in particular in the area of Parma and Modena, where there are genuine high technology workshops in which the magicians of MotoGP and Formula One operate. Here P2M introduces the changes and developments of the engines based on the needs of the aviation market.

TWO ENGINES MANAGED BY ONE MIND

Next to the solid diesel engine, P2M has adopted an electric motor produced by a Slovenian company to complete the original hybrid system. Both engines are then guided by a software application which continually evaluates the performance and, according to the particularities of the flight phase in place, determines the distribution of power. The motors work together, and are called at any time to supply the power required by following an efficiency curve that adheres best to the flight profile.

NEXT OBJECTIVE: CERTIFICATION

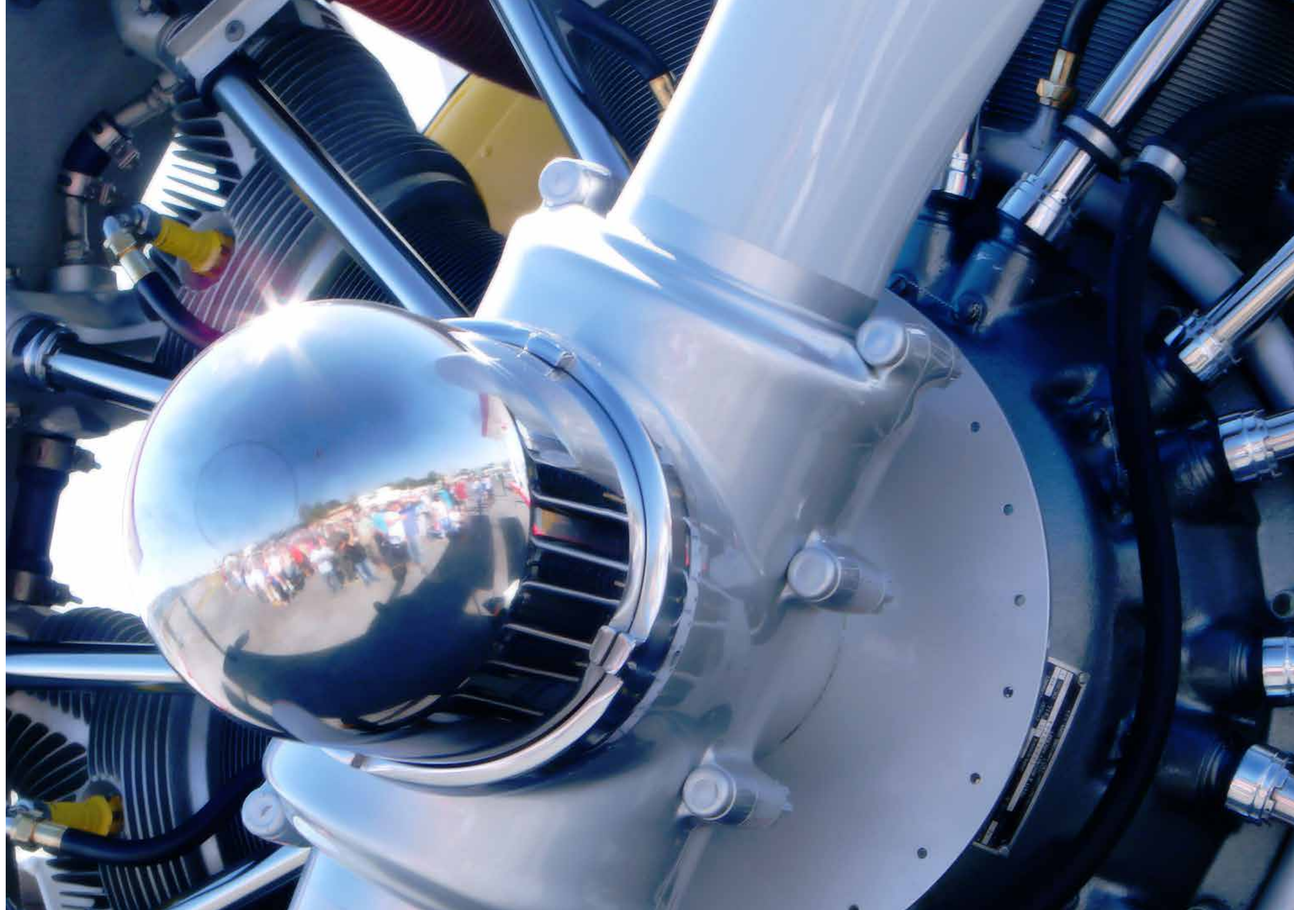
In its research into efficiency and innovation, P2M has developed a 1600 cc and a 1900 cc diesel engine to be used coupled to the electric motor in the hybrid version. The next goal will be to get the EASA certification for both engines, which will open new perspectives for both General Aviation planes and for larger aircraft.

TESTING CONTINUES FOR NEW DEVELOPMENTS

The diesel and hybrid engines are aimed at the private market and to builders who want to replace the standard engines or develop new models of helicopters and aircraft. Meanwhile P2M is currently field-testing the 150hp diesel engine on a specially reconfigured biplane; in the hybrid version the tests are taking advantage of a "Speed Canard".

GLOBAL WORLDWIDE PARTNERSHIP

The company is currently evaluating a number of partnerships that target the search for new innovative solutions, with the involvement of investors from the US, Britain, Australia and Germany. The interest of producers has increased with the presence of P2M at exhibitions and congresses of the aviation industry, with new contracts for the supply of engines.



AN OPTIMAL MANAGEMENT IN ANY FLIGHT PHASE

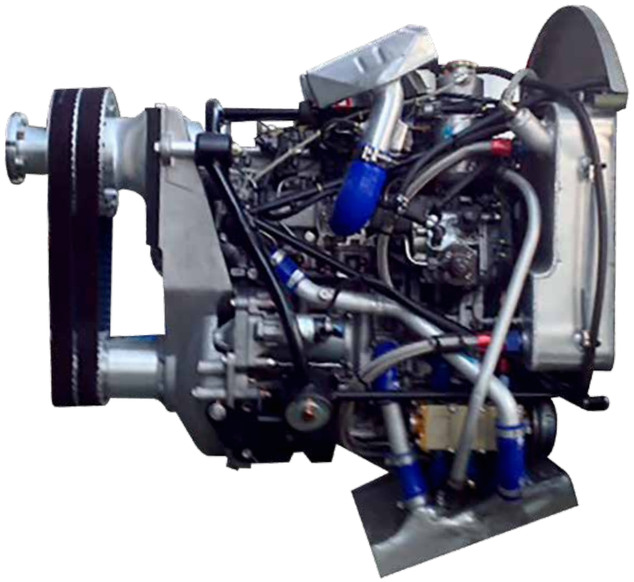
The diesel-hybrid system is able to optimally manage the engines during any flight phase, because the engine delivers maximum power under requert as in the moments of the take-off and climbing, while in cruise performance and consumption are balanced with the supply of lower power and landing requires a little above idle speed. The lower consumption leads to an economic saving, depending on the type of fuel used.

THE DIESEL-ELECTRIC DOUBLES AUTONOMY

If diesel fuel oil is used to power airplanes, the economy is much superior compared to aviation gasoline or Jet-A1: therefore filling up a medium-sized aircraft would allow savings of hundreds of Euros per flight. It also would increase the autonomy up to double: for example with diesel-hybrid engine developed by P2M instead of crossing Europe one way, you could also return without refueling.

IN CASE OF FAILURE: TWO ENGINES, A GUARANTEE

The adoption of a diesel-hybrid integrated system would also significantly increase the safety factor, of great importance for aviation. We hypothesize that if the combustion engine suffers a failure: you could continue navigation to reach a nearby airport by using the electric motor. A guarantee that within a few years could facilitate the spread of the mixed system proposed by P2M to the pilot community.



JPE01 1.6 CC COMMON RAIL DIESEL ENGINE

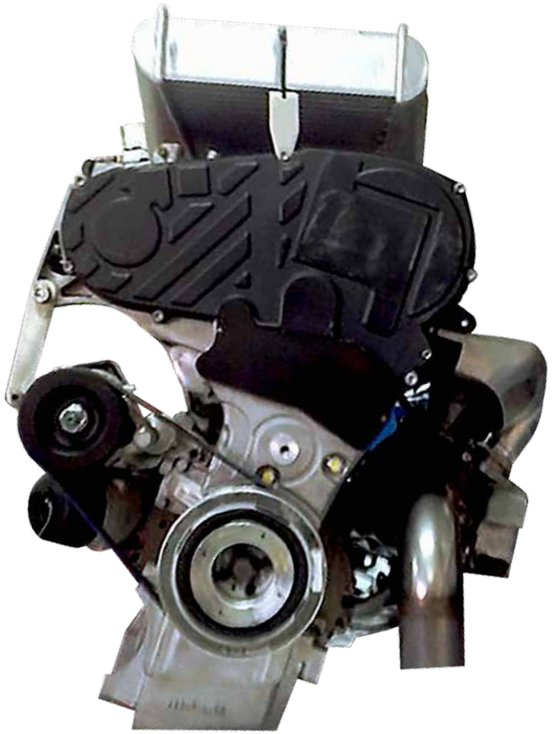
Characteristics:

Length	804 mm
Hight	650 mm
Width	570 mm
Weight	100 Kg
Specific Power	15 Kw (150 Hp)
Fuel Consumption	
Take off Power	14 L/hour
Cruise Power	9 L/hour

JPE02 1.6 CC COMMON RAIL HYBRID DIESEL ENGINE

Characteristics:

Length	860 mm
Hight	650 mm
Width	570 mm
Weight	140 Kg
Specific Power	177 Kw (230 Hp)
Fuel Consumption	
Take off Power	14 L/hour
Cruise Power	9 L/hour



JPE03 1.9 CC COMMON RAIL DIESEL ENGINE

Characteristics:

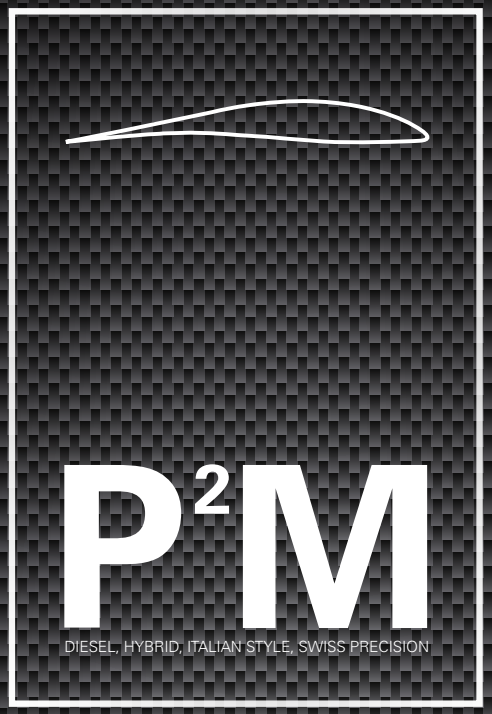
Length	820 mm
Hight	550 mm
Width	670 mm
Weight	157 Kg
Specific Power	169 Kw (220 Hp)
Fuel Consumption	
Take off Power	19 L/hour
Cruise Power	14 L/hour

JPE03 1.9 CC COMMON RAIL DIESEL ENGINE

Characteristics:

Length	820 mm
Hight	550 mm
Width	670 mm
Weight	192 Kg
Specific Power	231 Kw (300 Hp)
Fuel Consumption	
Take off Power	19 L/hour
Cruise Power	14 L/hour


SMOKING PROHIBITED
ON
ELT
AUTO
RESET
QUARTZ
TOTAL HOURS
24VDC
CABIN HT



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