





**Budi Habbegger and pilot Rogers Knobel prepare their AMT Olympus powered F-20. The model is 2.2m long with a 1.2m span, but weighs only 12kg. Flight performance is stunning!** ▶



▶ **This beautiful Rafale B 01 was designed & built by Franz Walti, our Swiss dealer. At a scale of 1:6.8, with a length of 2.32m, it weighs 16kg and is fitted with a single Olympus turbine. The kit of this model is now available from Bob Violett Models.**



▶ **Swiss pilot Urs Maylander with his AMT NL Pegasus powered F-15C Eagle, built from the kit by Philip Avonds Scale Jets (our Belgian dealer).**



**This large Mirage 2000 from Aviation Design, our French dealer, is 2.1m long, and the kit is available for both our Pegasus and Mercury HP turbines.**

## ■ Ordering, Service and Dealers

AMT Netherlands operates a world-wide network of authorised dealers and representatives, to ensure that their customers receive unrivalled back-up, service, and motor repairs when necessary.

Technical advice and assistance with motor installations, or the design and fabrication of fully ducted systems, can also be obtained from our main offices, or most dealers. Turbines & optional equipment should be ordered from your national dealer, or directly from our offices in Holland if there is no agent in your country. All dealers have order forms, or you can use the on-line ordering system on the website.

## AMT Netherlands Dealers

### Great Britain

AL'S HOBBIES. tel:(+44) 208 500 8884  
Email: ahe@amtjets.com  
www.alshobbies.com

MIKE'S MODELS. tel:(+44) 121 360 7350  
Email: mme@amtjets.com  
www.compage.com/mikes

### Switzerland

JET TECH/Franz WALTl. tel:(+41) 62 794 3154  
Email: jts@amtjets.com  
www.jettech.ch

### South Africa

AMTSA. tel:(+27) 82 800 8000  
Email: jro@amtjets.com  
JAN ROESTORF tel: (+27) 82 551 5899  
Email: rdo@amtjets.com  
RODNEY DONALDSON

### USA

BOB VIOLETT MODELS. tel:(+1) 407 327 6333  
Email: bvm@amtjets.com  
www.bvmjets.com

TURBINE CONNECTION. tel:(+1) 603 904 5075  
Email: tcu@amtjets.com  
www.planesplus.com

JET HANGAR HOBBIES. tel:(+1) 562 467 0260  
Email: jhu@amtjets.com  
www.jethangar.com

### Japan

SAGAMIDO CORPORATION. tel:(+81) 427 56 3477  
Email: scj@amtjets.com

### Thailand

SUPER HOBBY. tel:(+66) 1993 9133  
Email: sht@amtjets.com

### China, Hong Kong & Macau

SIMON To. tel:(+852) 252 61488  
Email: sto@amtjets.com

### France

AVIATION DESIGN/ERIC RANTET. tel:(+33) 1649 89393  
Email: adf@amtjets.com  
www.adjets.com

### Germany

TONY CLARK/PRACTICAL SCALE. tel:(+49) 574 15035  
Email: tcg@amtjets.com  
www.toni-clark.com

RC TRONICS. tel:(+49) 2371 972897  
Email: rtg@amtjets.com  
www.rc-tronics.de

### Australia & New Zealand

TRIM AIRCRAFT. tel:(+613) 9743 7161  
Email: taa@amtjets.com  
www.trimair.com.au

### Belgium

PHILIP AVONDS SCALE JETS. tel:(+32) 58 514451  
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*When only 'The Best' will do  
the choice is simple ...*

**AMT**  
*Netherlands*



### **MERCURY HP**

Introduced in the year 2000, this High Performance version of our original design, the smallest in it's class, now has 9 kg (20Lbs) of thrust and has proved extremely popular with new turbine modellers. On-board electric starting will soon be available for the Mercury HP.



### **PEGASUS**

In production since 1994, the *AMT Netherlands* Pegasus produces 13 kg of thrust and is still the most common choice for models in the 14 - 22 kg range. It is well known for its low fuel consumption, legendary reliability and high power-to-weight ratio.

### **OLYMPUS**

Used extensively in the commercial sector for target and surveillance drones, and for larger models, the *AMT Netherlands* Olympus has an unequalled world-wide reputation for long life and high power. The static thrust of 19kg produced by this turbine, which weighs only 2.3 kg and has a 130mm diameter, gives absolutely stunning performance.



Join the winning team . . . **AMT Netherlands !**

## Description

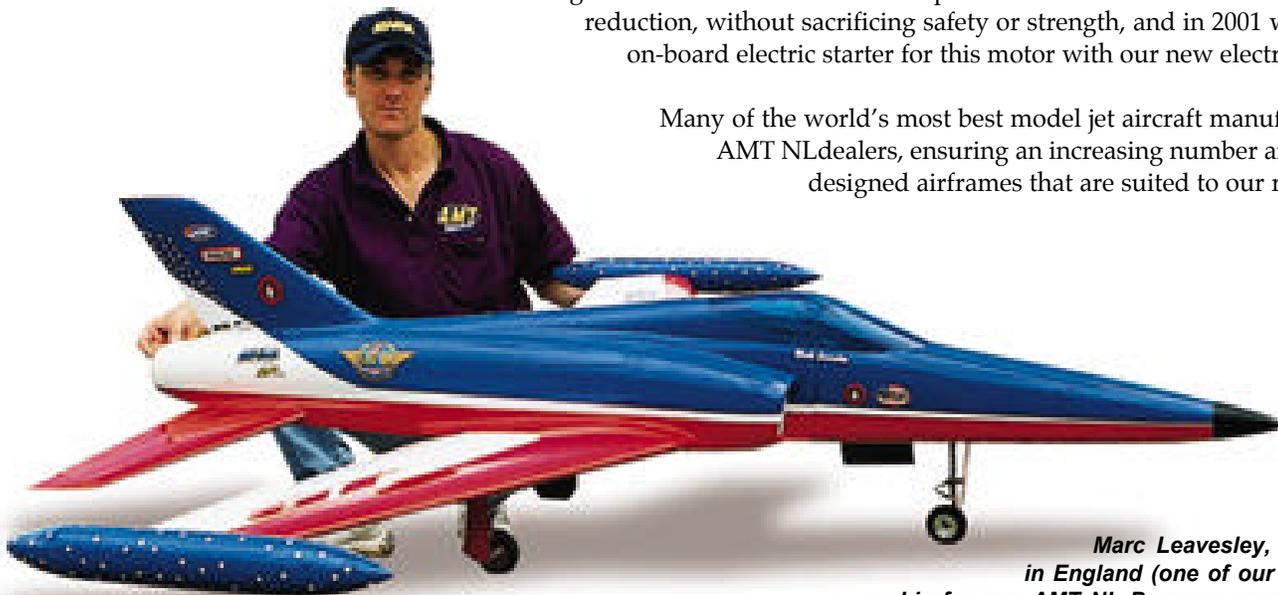
AMT Netherlands manufactures a range of three gas turbine motors, all based on a revolutionary design that was developed by us in 1992. They have a single shaft with an annular combustion chamber, a radial compressor and a unique single stage axial flow turbine, which was designed by us for our motors. This axial turbine wheel is the main reason for the exceptional thrust-to-weight ratio, low running temperatures, and the rapid acceleration time of only 4 - 5 seconds from idle to maximum power.

All our turbines run on liquid fuel, such as paraffin, kerosene or Jet A-1, and need no separate oil reservoir as the hybrid bearings are lubricated by a small percentage of oil added to the fuel, which has proved to give the maximum reliability. All our turbines use similar fuel pumps and Electronic Control Units, both designed by us, and the optional accessories, such as the EDT and ASU, are also fully cross-compatible. All components used are of the highest quality, the main parts being cast or CNC machined from the same materials used in full-size gas turbines. The unique ECU is microprocessor based, with pre-programmed software, and utilises surface-mount technology for maximum vibration protection. It offers several innovative features; including assisted start-up and shut-down programs, data display, retrieval and storage facilities, and a fail-safe system.



The Pegasus motor was first produced commercially by us in 1993, and its legendary reliability and performance quickly became a benchmark in the micro-turbine industry. Our Olympus and Mercury HP turbines are further developments of the Pegasus design, and utilise the same proven concepts and engineering principles. The Olympus was released in 1995 for large models and special applications, and offers a 50% thrust increase over the Pegasus with only slightly larger dimensions. The latest addition to our range, the Mercury HP (High Performance) is our redevelopment of the original Mercury turbine, now with almost 20% extra power and much greater fuel efficiency. Its very small size allows simple retro-fitting in many smaller models, or 'scale' twin-engine installations. Recent developments have resulted in a further slight weight reduction, without sacrificing safety or strength, and in 2001 we will release an on-board electric starter for this motor with our new electronics package.

Many of the world's most best model jet aircraft manufacturers are now AMT NL dealers, ensuring an increasing number and variety of well designed airframes that are suited to our range of turbines.



*Marc Leavesley, of Mike's Models in England (one of our UK dealers), with his famous AMT NL Pegasus powered BVM Bandit. One of the best jet show-pilots in the world, Marc also chooses to fly the best products. Watch out for him and his fabulous new F-16A Fighting Falcon in the 2001 season, built from the SpiderJets kit and powered by a Mercury HP . . . certain to be another awesome combination!*

## Specifications

	<b>Mercury HP</b>	<b>Pegasus</b>	<b>Olympus</b>
Diameter	100 mm	120 mm	130 mm
Length	220 mm	270 mm	270 mm
Turbine weight	1370 g	2050 g	2300 g
Airborne system weight	2005 g	2705 g	3100 g
Thrust	88 N @ 150,500 rpm	130 N @ 112,000 rpm	190 N @ 110,000 rpm
Maximum rpm	153,000	115,000	112,000
Thrust @ idle rpm	4 N	5 N	7 N
Idle rpm	47,600	33,000	30,000
Pressure ratio @ max. rpm	2.8:1	3:1	4:1
Mass flow @ max. rpm	250 g/sec	360 g/sec	400 g/sec
Normal/Maximum EGT	650 °C/700 °C	600 °C/675 °C	650 °C/700 °C
Fuel consumed @ max. rpm	290 g/min @ 88 N	400 g/min @ 130 N	550 g/min @ 190 N
Fuel	Kerosene - Paraffin - Jet A1 - White Spirit		

## AMT Netherlands

AMT Netherlands designs, develops and manufactures small gas turbines for the propulsion of radio-controlled aircraft, surveillance and target drones, remote power generators, and auxiliary power units. AMT NL is the most established micro-turbine manufacturing company in the world, having been in constant production since 1995. Based in Helmond, near Eindhoven, we are a privately owned Dutch company, and not associated with any other similar companies.

All our turbines and accessories are produced in Holland, and the design and development is done by our own engineers. Production of the castings and machined parts is carried out by specialist companies in Europe, using the latest CNC machinery, tooling & fabrication equipment, under our supervision. Quality control is strictly maintained, and every turbine is assembled by our skilled staff and stringently tested to ensure that it meets specifications and the reliability for which our products are renowned.

We are totally committed to the continual development of the efficiency and safety of the gas turbine motors, accessories and associated equipment that we supply, and offer a full 2 year warranty on all new turbines for the modelling industry. Prospective and existing customers are welcome to visit our offices by prior arrangement.

### Developments

In 2001 we will be releasing a new ECU which has several additional features including: fully automatic on-board electric starting for all our 3 turbines, and enhanced telemetry and data download facilities. In addition it will be possible to control our turbines using a single receiver channel, instead of two channels. Of course this new ECU will be fully compatible with all our existing and new turbines, and it is the same size as our existing ECU.

### Commercial & Military Sector

An increasing number of Universities and technical foundations throughout the world are operating our turbines, and a special version of our Olympus is now available for these Clients which features additional temperature and pressure measurement sensors for data accumulation. Much of our Olympus production is for the surveillance and target drone market, with customers in the United States, the Middle and Far East, Great Britain, France, Greece and central Europe. Various special versions are made for these customers, and we also supply motors to world-famous companies including British Aerospace, NASA, Dassault Aviation, and Meggit Defence Industries. We are also developing a larger turbine with over 60kg thrust, at the request of some of our commercial sector clients, and we expect to finalise the prototypes in 2001.



**Bennie van de Goor, company owner of AMT Netherlands, balancing a Mercury HP shaft and turbine wheel on our Heins balancer.**



**The AMT NL 'factory team' attends about 15 major events every year, world-wide, to support our customers. We also have Field Representatives & Demonstration pilots in many other countries, who will be pleased to help you. A full list of the Reprs' and shows we will attend is on our website.**

**Simon To (3rd from left), our dealer for China, Hong Kong and Macau, with the rest of the Hong Kong team at the 3rd Jet World Masters, held in Austria in 1999. Their large T-33 Shooting Star, built from a JMP/Tom Cook kit, is powered by a Pegasus turbine.**



### Website - [www.amtjets.com](http://www.amtjets.com)

The AMT NL web site ([www.amtjets.com](http://www.amtjets.com)), maintained by Netherlands personnel, is updated very regularly. It includes all the latest news, specifications, prices, optional equipment, world-wide dealer lists and an on-line ordering facility, together with a large picture gallery of many of our customers' aircraft.

## ■ Options and Accessories

### ■ Telemetry Software

This specially developed computer program permits the user to monitor turbine performance and other data in 'real-time' mode on a computer screen during start-up, running & shut-down. It requires a minimum 286PC or laptop computer. The data is output from the ECU's serial port and displayed in graphics form (see right), and includes: EGT & RPM, position of the throttle & switch channels, ECU status, error codes, R/C equipment pulse width, pump voltage and nicad voltage. All our ECUs automatically store the last 30 minutes of engine operation data in their own non-volatile memory chip, which can also be accessed with the Telemetry software, allowing it to be downloaded into a computer for future reference or fault diagnosis. This Telemetry Software is included free of charge with all complete motor sets ordered, and we can also supply the serial cable to connect the ECU to your PC.



### ■ Engine Data Terminal

The Engine Data Terminal is a small low-cost self-contained module with its own internal nicad. It offers a simple and effective method of monitoring all important data and functions during ground running, and allows users to ensure that everything is working correctly before flying. The EDT displays the same data as the Telemetry software in real-time mode, on a 4-row 20 character LCD screen, but has no data storage. It is either connected to the ECU with a single cable during motor starting or, if using our ASU, then the EDT can be plugged directly into this unit.



### ■ Automatic Start Unit

Permits fully automated starting and shutdown of all our turbines, controlled by a 3-position switch on the transmitter for start, shut-down & emergency stop options. The ASU is connected to a compressed air tank, a small propane canister for starting, and a 12 volt battery. To start the turbine the single service cable, which carries all three supplies, is connected to the socket in the aircraft and the 3-position switch set to 'start'. When the motor is running and has self-calibrated, the quick-release plug is disconnected. After the flight has ended the service cable is reconnected and the switch is set to 'shut-down', allowing the ASU to follow the optimum shutdown procedure and automatically cool the motor with short bursts of air. No separate glowplug battery is needed as the ASU contains its own voltage converter.



### ■ Analog Control System

The Analog Control Box and Analog ECU allow full operation of our Olympus turbine without using a radio-control system, which is especially useful for ground based installations. It is most commonly used by universities and technical institutions.

*This superb NF-5 Tiger of Leons Bimbergen is one of the large scale jet models built for the Dutch 'PHantasy in Blue' project, sponsored by AMT Netherlands. Built to a scale of 1:5, the Tiger is 2.87m long, spans 2.05m, and weighs just 17.5kg. Powered by one of our Olympus motors, the model has stunning performance, and has recorded over 350 Km/h. A kit of the F-5 will be available during 2001 from Toni Clark, one of our German dealers.*

