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Description of the AMT Netherlands Nike gasturbine.

Aug 2012



The Nike is a "spin-off" of the AMT-NL Titan design and has been constructed from a single radial compressor and a axial flow turbine stage. The engine owns its excellent performance and superb power to weight ratio to a new diffuser stage.

This revolutionary type of diffuser also allows the relative small engine diameter.

Specifications

Engine diameter	201 mm	/	7,9 Inch
Engine length	524 mm	/	20,6 Inch
Engine weight	8770 gram	/	19,3 Lb
System airborne weight *	10580 gram	/	23,3 Lb
Thrust at max RPM at S.T.P.	784 N	/	176,2 Lbf
Maximum allowed RPM	60.000	/	60.000
Thrust at Idle RPM	40 N	/	9 Lbf
Pressure ratio at max RPM	4:1	/	4:1
Mass flow	1100 Gr/sec	/	2.42 Lb/Sec
Normal EGT (internal EGT probe)	760 Deg C	/	1400 Deg F
Max EGT	800 Deg C	/	1472 Deg F
Fuel consumption	1740 Gr/min	/	61,37 oz/min
Specific fuel consumption	36,9 gr/(Kn*sec)	/	1,30 lb/(lbf*hr)
Starting method	Direct kerosene starting system. (< 20seconds starting time)		

* Total weight of; Engine,ECU,pump,LiPo battery,thermosensor, valves, mounting straps.

Operating conditions

Min operation temperature *	- 25 Deg. Celcius	/	-13 Deg F
Maximum operating temperature	+ 50 Deg. Celcius	/	+122 Deg F
Maximum operating altitude	8000 Meter	/	26250 feet
Maximum operating speed	1000 Km / hour	/	620 Mile / hour

* With the use of LiPo batteries the minimum operation temperature is limited to -10 Deg Celsius.

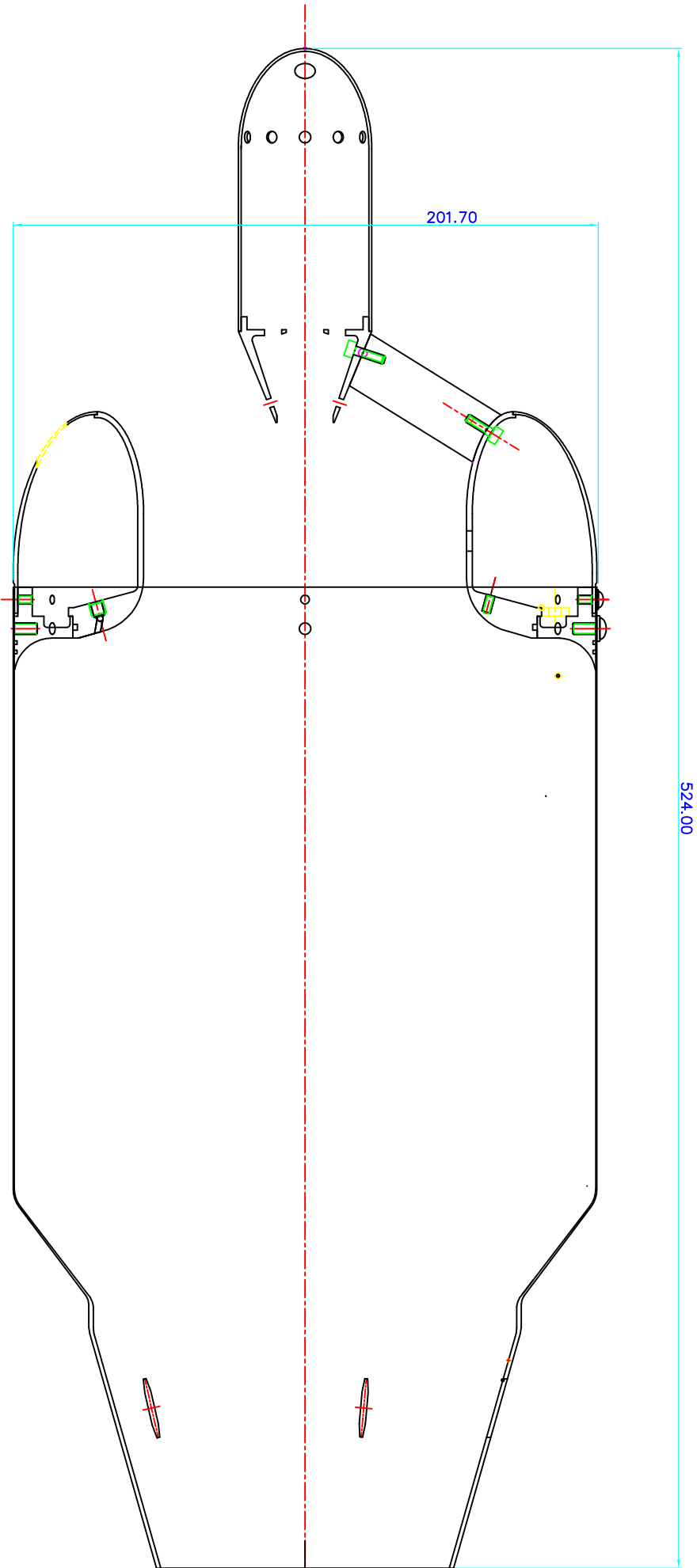
Engine control possibilities

1 x RS232	Throttle and switch settings including special functions *		
2 x PWM between 1-2 milliseconds **	Thottle and switch settings.	(special functions * with puch button)	
2 x Analog inputs 0-5 volt DC **	Throttle and switch settings.	(special functions * with puch button)	

* Activation of prime function, igniter function, starter function, speed cool.

** Specify ECU at ordering with PWM inputs or Analog inputs.

All inside radius 0.2 mm
 All outside radius 0.1 mm
 All tolerances +/- 0.05mm, unless specified
 Changes to last revision:



Item	QTY	Description	Material
1	1	overview	

Drawn by:	JBG	28-01-12	Scale:1:1
Approved by:	JBG	28-01-12	
Name	Date	REV.	

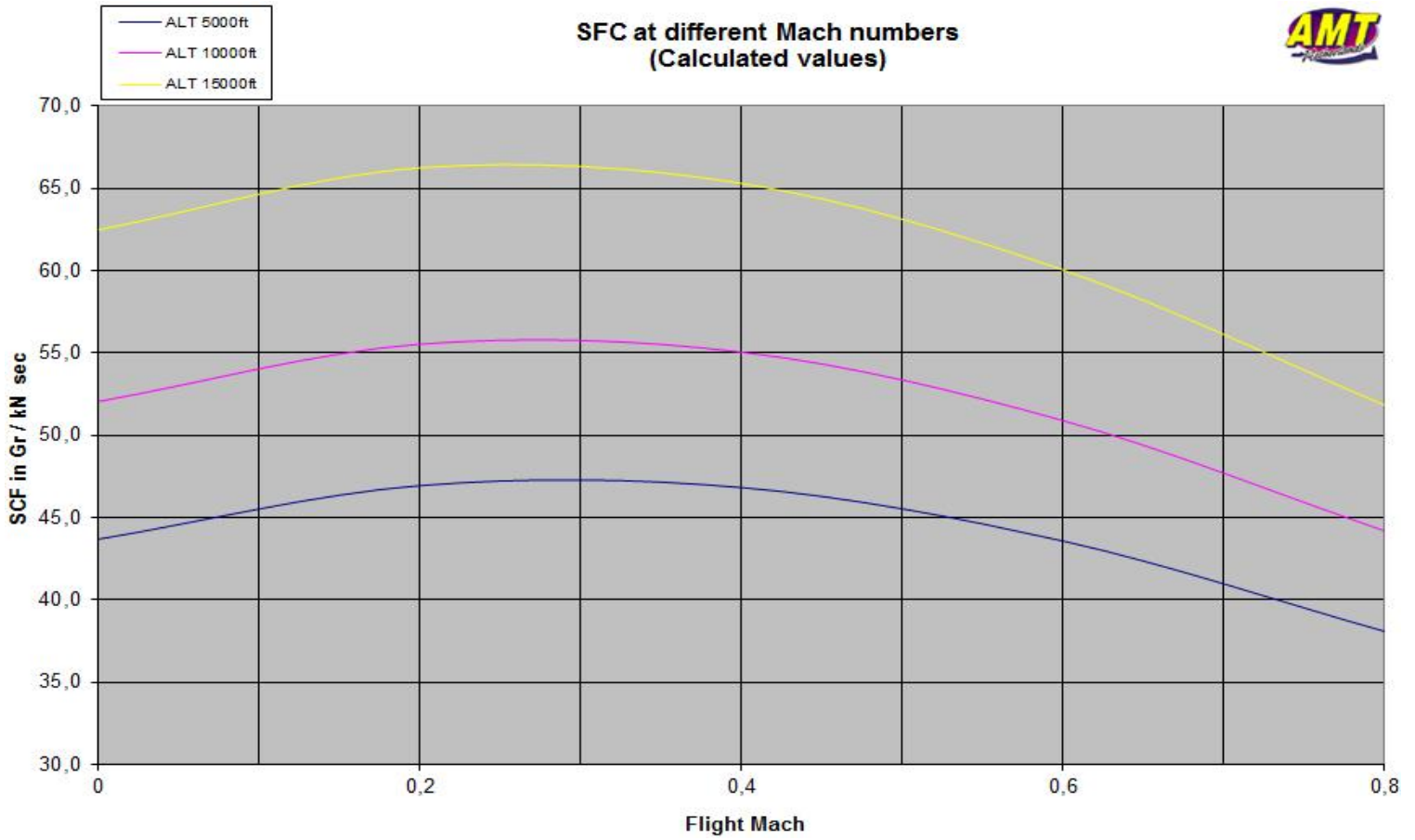
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PROJECTION: First angle projection	
Requirements according to F4130	
Dimension notation ISO 406 Geometric notation ISO 5469	
Tolerances unless otherwise stated DIN 2768-4K Roughness notation ISO 1302	
Drawing title: overview	
Revision: A	
Revision: A2	

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 Advanced Micro Turbines

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 Tolerances unless otherwise stated DIN 2768-4K Roughness notation ISO 1302
 Drawing title: overview
 Revision: A
 Revision: A2



SFC at different Mach numbers
(Calculated values)



Thrust at different Mach numbers.
(Calculated values)

