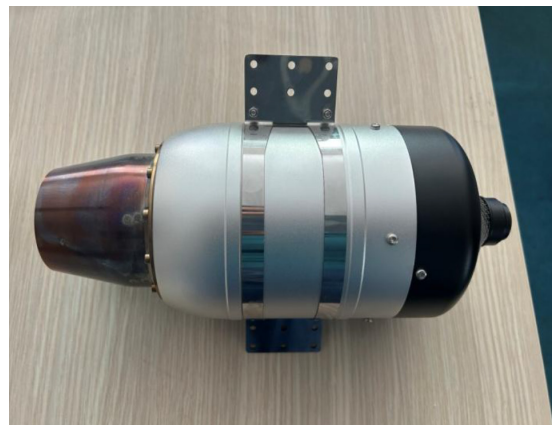


TURBO JET ENGINE MTJ 30

Jet engine

Specification of turbo jet engine MTJ 30 :

- Length of engine 332 mm
- Diameter of engine 134 mm
- Thrust 29 – 30 daN
- Weight 2.55 kg
- Specific fuel consumption 1.38 (kg/da N/h)
- Pressure ratio for compressor 3,6
- Max temperature in front of turbine 150 K
- Design point rpm of shaft 98000 rpm
- Max intake mach number 0,85 M
- Max operational height 10000 m
- Max starting height 4000 m
- Working hours 25h
- Number of starts 100
- Lubrication 3% combined with fuel
- Kerosene jet A1 or diesel used
- Automatic control of engine
- Control system STM32 cortex m4 based (bare metal)
- Defining the limiters from mathematical model (Temperature in front of turbine, flameout limit for combustion chamber, max and min rpm of the engine)
- GUI (STM32 based with 7inch monitor)
 - Manual mode
 - Automatic mode
 - Testing subsystems
 - Parameters settings
 - Procedures settings
 - Limiters and alerts settings
 - Monitoring of engine (how many starts, how many shut down, how many hours is working and etc.)
 - Data logging
 - Telemetry function
 - Error handlers
- Only fuel pump and battery outside of the engine
- Connectors for power, communication with GUI or autopilot and connector with fuel pump
- RS232 or RS485 hardware for communication



MTJ30

