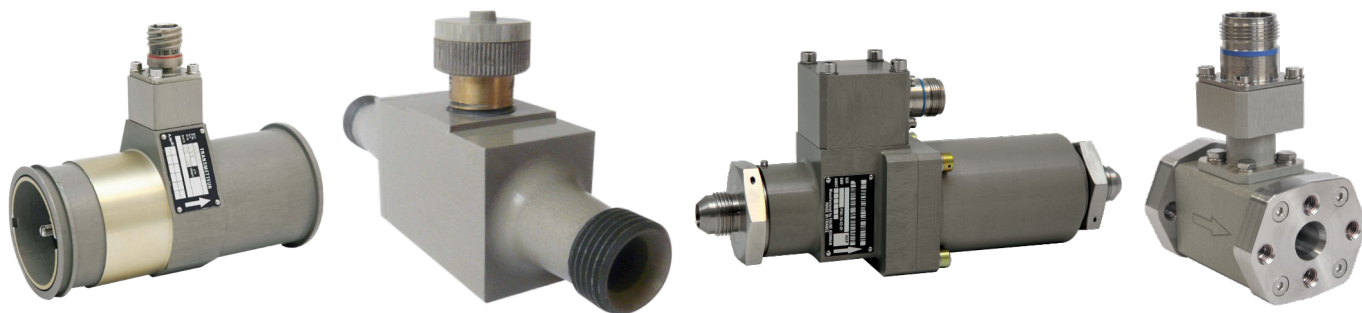


# AEROSPACE FLOWMETERS



Measuring the Flow Since 1925  
[www.faureherman.com](http://www.faureherman.com)

FUEL CONSUMPTION

An accurate fuel consumption measurement enables operators to extend their range or to increase the payload on board.

Used in association with fuel probes, turbine flowmeters provide redundant information and improve the management of fuel reserves. Our direct read flowmeters enable pilots / control unit (FADEC) to get real time information about fuel consumption. With the Faure Herman flowmeter installed, the measurement data is gathered at the engine with accuracy, not from the tanks. If any difference is noticed in between flowmeter and tank measurements, the fuel supervision will generate an alarm.



ENGINE REGULATION

Faure Herman flowmeters are used for precise measurement of jet fuel injection for power control on aircraft engines.

A quick response time of flowrate signal to the engine control unit is needed to update engine thrust with high frequency, aiming at improving aircraft performances. Faure Herman turbine flowmeters are qualified against most severe environmental conditions, allowing their installation in the engine compartment.



AIR-TO-AIR REFUELING

In order to optimally fulfil missions, military planners need to know the accurate quantity of fuel transferred from one aircraft to another one.

Faure Herman meters can handle large flowrates to allow in-flight refueling to occur in the quickest possible time, thanks to a low pressure drop. Moreover, whether integrated in wing refueling PODs or on central refueling booms, our meters are ITAR free and are operated in many of the major military tankers.



AVIONICS COOLING

Embedded electronics generate quite a lot of heat, therefore cooling devices are needed to control the environmental temperature required for optimal performance.

Faure Herman provides compact flowmeters that transmit information to identify potential coolant fluid leaks. We are proud to serve the most critical applications in this stringent sector for conventional electronics, radars, communication, etc...



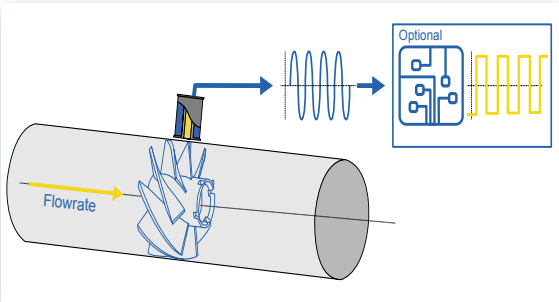
How does Faure Herman measure the flow ?

TECHNOLOGY

Fluid flowing through the flowmeter turns the rotor at a speed directly proportional to the flow. Each revolution corresponds to a precise and constant volume of liquid.

A frequency signal is created thanks to a solenoid that detects the presence of blades equipped with magnets. The conversion factor between the frequency and the flowrate is constant for a given Part Number thus ensuring perfect interchangeability.

The Faure Herman family of flowmeters (also called flow sensors or transmitters) enables fluid flow to be measured over a wide range: From a few litres per hour to more than 200 m³/h for aircraft applications. Typical accuracies for cruise flow are between ±0.1% to ±1% of reading.



ENGINEERING

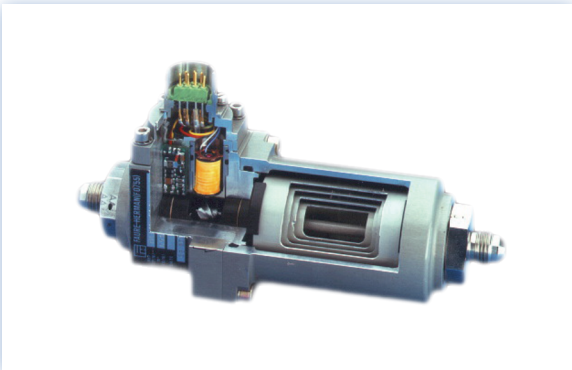
Our experienced engineering team covers all the development activities: design, finite element stresses and strains, reliability, intrinsic safety, qualification tests, maintenance, in service support.

The design office is able to propose a customized flowmeter in terms of:

- Hydraulic losses (also called pressure drop / delta pressure)
- Flow range
- Accuracy and repeatability
- Mechanical, hydraulic, and electronic interfaces
- Electronic signal conditioning

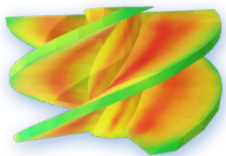
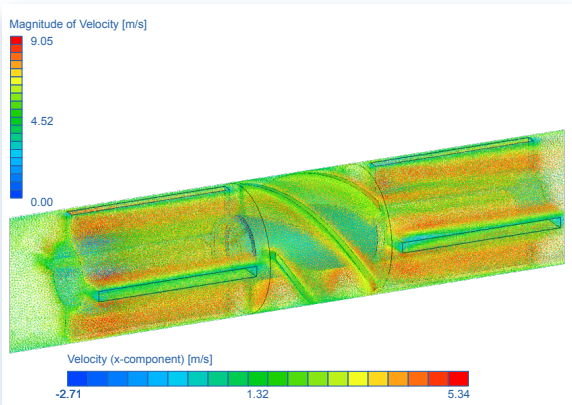
Faure Herman is working actively on several R&D projects aiming at developing a new generation of flowmeters that will participate in the aviation decarbonization: improved accuracy of fuel consumption, SAF compatibility, cooling of electrical engines systems ...

Faure Herman dedicates 12% of its turnover to R&D



PERFORMANCES

Fluid dynamics of flowmeters are studied by Faure Herman engineering team to find the best performances (accuracy, repeatability, insensitive to different fuel types including SAF) under all embedded conditions (temperature and pressure ranges, vibration, EMI/EMC, fuel pollution/additive, ...).







## Manufacturing

Faure Herman's Aerospace experience dates back to 1925 when a better knowledge of fuel consumption was requested by pioneers while attempting distance records.



Since then, Faure Herman has developed and manufactured fuel flowmeters (flow sensors), according to the specification of its customers, both in civil and military sectors: aircraft/helicopters/UAV manufacturers, engine manufacturers, fuel system suppliers or avionics manufacturers.

Our highly skilled and experienced staff allows a true precision work when performing manufacturing of components and assembly of flowmeters.

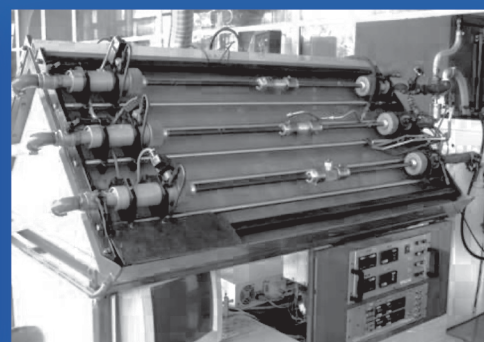
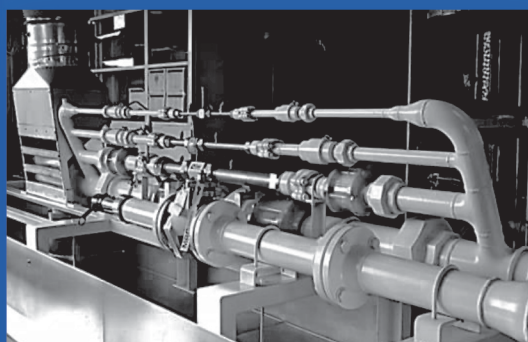


## Calibration

Faure Herman' facility has 11 test benches from 5 l/h to 4500 m³/h, including dedicated calibration benches with real aircraft fuel pipes and fuels, including SAF.

Calibration is performed for viscosities between 0,5 and 150 cSt.

Faure Herman calibrates itself 100% of its flowmeters.



## Services

We manage our own repair station and are able to perform all MRO tasks on Faure Herman P/N, keeping in mind that short Shop Processing Time and quality of work are key requirements to meet our customers' expectations.

In addition, Faure Herman is able to calibrate flowmeters from other manufacturers according to their specification.

## Performance, Reliability and Quality

High level of performance is reached thanks to know-how in helicoidal impeller designing, manufacturing and tuning.

Faure Herman meters, designed for a wide MTBF, meet the DO-160 or MIL-STD-810/461/464 requirements, related to conditions such as temperature, vibration, burst pressure, EMI / EMC ...

Faure Herman is AS/EN 9100 and EASA PART 21G approved.

ISO 9001  
EN 9100  
BUREAU VERITAS  
Certification

