

# TF SERIES *MARINE GAS TURBINE ENGINES*

The TF series for ship propulsion and integrated power offers the ideal solution for marine power where compact size and light weight can be translated to faster vessel speed, greater payload or simply more power per foot of machinery space. The design of the TF series allows direct mounting to the reduction gear, resulting in the lightest possible installed weight for the package and the most efficient design.

## Proven Benefits

### FUEL FLEXIBILITY

Operates on marine diesel and LNG.

### LIGHT WEIGHT

The lightest installed weight of a 4 MW gas turbine.

### HIGH DEGREE OF SYSTEM FLEXIBILITY

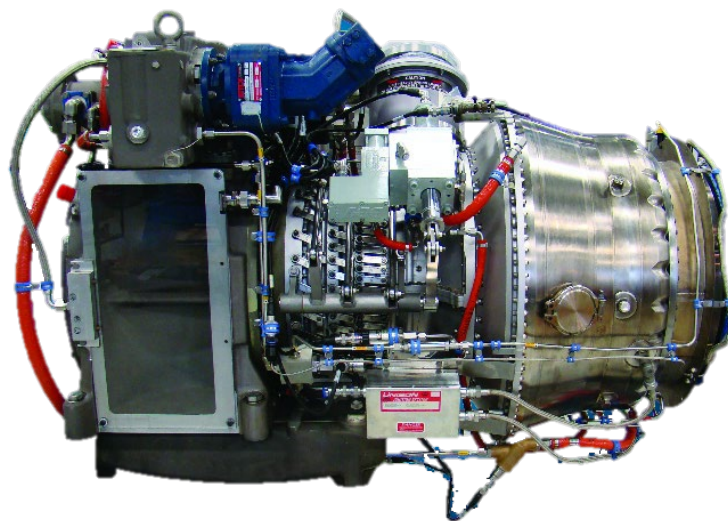
The TF series are used in single engine and twin- engine packages and can be combined with diesel engines in a variety of propulsion systems, COGAG, CODOG and CODAG.

### DIRECT MOUNTING

Direct mounting to the reduction gear allows the lightest overall package weight.

### PROVEN IN NAVAL PROPULSION SERVICE

There have been more TF series marine gas turbines installed in navel service than any other engine in its class.



## Applications

### Propulsion

- Fast Attack Craft, Corvettes, High Speed Petrol Vessels
- Air Cushion Vehicles, Surface Effect Ships
- High Performance Mega Yachts
- Fast Ferries, Platform Supply Vessels

### Power Generation

- Integrated Electrical Power Systems
- Ship Service Generators
- Hybrid Systems

# Features and Capabilities



## LIGHTEST WEIGHT

GT package weights 25% of the weight of diesel engines



## HIGHER SPEED

Allows vessel speed not achievable with diesel only propulsion systems



## VERSATILE

4 MW building block for combined and hybrid systems



## COMPACT SIZE

Allows configurations not available with diesels or even other gas turbines



## UNIQUE DESIGN

Create a "Single Machine Package"



## COLD START

No required warm-up time



## LOWER NOISE

Lower structure borne noise signature with gas turbines



## MORE PAYLOAD

Compared to a diesel, allows payload and space to be allocated to other priorities

# Turbines Specifications

		ETF40B	TF50B
Continuous power (MCR) <sup>1</sup>	shp	5,031	5,100
	kW	3,752	3,803
Boost power (MIP) <sup>1</sup>	shp	5,850	5,600
	kW	4,362	4,176
Weight <sup>2</sup>	lb	1,425	1,440
	kg	647	654
Specific fuel consumption	lb/shp-hr	0.465	0.461
	SFC at MCR <sup>1</sup> gr/kW-hr	282	280
Length flange to flange	in	52	52
	mm	1,321	1,321
Height	in	41	41
	mm	1,041	1,041
Width	in	35	35
	mm	889	889
Fuel		Marine Diesel, Jet Fuel, Kerosene, LNG	



<sup>1</sup>Average engine performance at ISO condition, 15 deg C, no inlet, exhaust or gear losses  
Boost rating available for intermittent duty. Military ratings may vary with application

<sup>2</sup>Engine weight is complete with engine inlet, accessories and lube system