



LEONARDO AIRCRAFT

# AerMacchi M-345

The next generation trainer



## AERMACCHI M-345 | THE NEXT GENERATION TRAINER

The Aermacchi M-345 is the latest-generation tandem-seat jet trainer from Leonardo Aircraft, able to cover the entire training syllabus, from basic to advanced phases.

The M-345 leverages more than 60 years of full consolidated experience gained by Leonardo Aircraft in designing and manufacturing its wide family of highly successful trainers.



All of the M-345's essential systems are designed for maximum safety and reliability with minimum maintenance requirements. As a result, the M-345 is a turbofan powered **high efficiency trainer** with Life-Cycle Cost comparable to those of heavy turboprops but with higher performance. Compared with main jet competitors the more modern M-345 offers superior performance at lower LCC with higher teaching effectiveness.

No scheduled depot-level structural maintenance is required. Operators benefit from a two-level maintenance concept (Organisational and Intermediate) for aircraft, equipment and systems. An on-board Health & Usage

Monitoring System (HUMS) enables collection and monitoring of data for a more efficient maintenance.

The key training feature on the M-345 is the in-flight **Leonardo Embedded Training System (L-ETS)** suite, able to generate a virtual tactical scenario with realistic threats and targets, Computer Generated Forces, simulated on-board sensors (fire control radar; targeting pod; electronic warfare suite), stores management system and weapons.

The advanced **M-345 Integrated Training System (ITS)** is based on a comprehensive Ground Based Training System, which includes Full Mission Simulators, Flight Training Devices, Academics Training System and dedicated Mission Support System for planning, real-time monitoring and training management with effective Live, Virtual and Constructive (LVC) capabilities.

Thanks to its state-of-the-art Human-Machine Interface, digital avionics, high external load capacity and performance, the versatile M-345 is also suited for **operational roles**, with the capability to employ weapons like gun pod, rockets and 500 lb class bombs.



### CHARACTERISTICS

#### Weights

Take-Off (Trainer)	7,936 lb	3,600 kg
Take-Off (Maximum)	9,920 lb	4,500 kg
Max External Stores	2,650 lb	1,200 kg

#### Powerplant

Engine, turbofan	Williams FJ44-4M-34	
Max Thrust, SLS, ISA	3,400 lb	1,540 kg
Max Internal Fuel	1,587 lb	720 kg

#### Performance (Clean, ISA)

Max Level Speed (SL/30,000 ft)	362 KCAS/0,7 MN 670/764 km/h	
Limit Speed	400 KEAS/0.8 MN	741 km/h
Stall Speed (Landing, 20% fuel)	92 KCAS	170 km/h
Time to climb from SL to 20,000 ft	< 6 min	
Service Ceiling	40,000 ft	12190 m
Limit Load Factors	+7/-3.5 g	
Max Sustained Load Factor (50% fuel, SL)	3.6 g	
Take-off/Landing Ground Run (SL)	2,200/1,900 ft	670/580 m
Ferry Range, 10% reserve, Clean	700 nm	1,300 km
Ferry Range, 10% reserve, 2 Ext. Tanks	900 nm	1,670 km
Max endurance, 10% res. Clean/2 Ext. Tanks	150/200 min	

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