



EUROCOPTER
AS350 B3



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thinking without limits





AS350 B3

A high-performance workhorse with hot and high capabilities

The high-performance variant of the AS350 Ecureuil (Squirrel/AStar) series, the single-engine B3 outclasses all other 6 seat helicopters for power, flexibility, safety and low acquisition and maintenance costs.

The AS350 B3 is made to measure for hot conditions and very high altitudes. In fact, a standard production model recently made history by landing on Mount Everest!

The 847 shp (632 kW) Turbomeca Arriel 2B 1 engine is equipped with a FADEC system for automatic start-up sequences and care-free engine handling.

The cockpit is equipped with state-of-the-art 3-axis auto-pilot and dual LCD-screen Vehicle and Engine Multifunction Display (VEMD). This allows the pilot to see at a glance the main vehicle and engine parameters, reducing his workload and enhancing safety.

The airframe, rotors and bearingless main rotor head use a maximum of composite materials to lighten and strengthen the aircraft, as well as reduce vibration, noise and maintenance.

The AS350 B3 is designed to handle any mission. Thanks to its wide cabin, it can be reconfigured quickly and easily for everything from utility and heavy load transport to medical evacuation, SAR, law enforcement, oil-rig transport and corporate passenger transport.

Utility missions

The powerful AS 350 B3 is everything the world has come to expect from Eurocopter-- dependable, comfortable, safe and cost-effective. But it has another singular advantage: It fits your mission as if it were made for it. Because it was designed with adaptability in mind.

The AS350 B3 can be configured, and easily reconfigured, with a long list of certified optional equipment for whatever utility mission you have in mind. With its lifting power, endurance, manoeuvrability and heavy-duty composite-materials construction the AS350 B3 is always up to the challenge of the most arduous hot and high missions and sling work (external load capability of the B3 is 1,400 kg).





Simplex

No job too big

The latest version of the AS350 B3 is a member of Eurocopter's rugged and proven Ecureuil (Squirrel/AStar) range. All told some 4,000 Ecureuils (incl. 726 twins) have flown over 17 million hours in 91 countries for some 1,600 operators. The B3 is the sum of that experience. With this latest version of the single-engine Ecureuil, Eurocopter offers operators more power, greater payload capacity over a broader temperature/altitude envelope, an augmented sling load capability and higher cruise speed.

The powerful Arriel 2B 1 engine offers state-of-the-art technology, with single-crystal turbine blades and a single power stage, for outstanding reliability and simplified maintenance.

Mission Capabilities

- Sling load operations
- Fire fighting
- Hoisting
- Power line inspection
- Crop spraying
- Liming
- News gathering
- Radio activity measurement
- Parachute dropping

(Optional equipment not displayed: Second battery kit, Sand prevention filter, Sliding doors, tail rotor arch, cabin floor window...).



Bambi bucket



Max. swing load 1,400 kg



Upper & lower cable cutters for wire strike protection



Long focus video camera



Sling load operations



Electrical external mirror



Energy absorbing seats



Emergency floatation system



Passenger Transport Mission

The AS350 B3 with its wide, unobstructed 5+1 cabin (6+1 in high density), and the highest cruising speed, range and payload can carry more passengers on more round-trips per day than any other helicopter in its class. In its 4+1 corporate or VIP configuration, the AS350 B3 offers all the amenities of an executive jet without the annoying need for a landing strip.

Access to the cabin is easy through 2 extra-wide doors with convenient boarding steps. All seats are forward-facing for comfort. The large baggage compartments are easily accessible to allow for quick loading of bulky luggage and parcels.





Room with a view

In addition to the low vibration level and great stability, passengers will appreciate the feeling of spaciousness and the panoramic view afforded by the large windows. They can enjoy the spectacular view. The aircraft has been designed to provide passengers with the highest level of comfort in its roomy air-conditioned cabin.

Even the pilot will be more comfortable. The AS350 B3 has state-of-the-art "glass cockpit" new avionics with digital displays that considerably reduce his workload.

This proven, technologically advanced helicopter carries thousands of tourists, businessmen and VIPs all over the world in optimum comfort and safety.



4 - 5 VIP executive configuration



Standard version: 1 pilot + 5 passengers (7th seat optional available)



Law Enforcement missions

The AS350 B3 is well adapted to a variety of law enforcement missions: surveillance, command and control, search and rescue, transporting small SWAT units, hoisting canine units, as well as flying border control missions in hot and high conditions.

The AS350 B3 offers excellent visibility, a pilot-friendly ergonomic cockpit and exceptional endurance and speed. The open cockpit concept and low vibration level permit the installation of all the equipment and avionics necessary to create fully integrated law enforcement instrument panels and tactical consoles.





Air Support

Eye in the sky

The proven AC350 B3 carries the latest flying technologies and can also be equipped with a wide range of certified optional law enforcement equipment. Police forces in 18 States across the world already employ the AS350 B3. It is capable of high-speed pursuits and offers excellent manoeuvrability. Thanks to the FADEC equipped motor, starting the B3 is as easy as throwing a switch and almost as fast, which ensures quick scramble mission capability. Its modular design makes it easy to maintain, increasing its rate of availability.

The AS350 B3 offers day and night VFR flight capability and can be customised with NVG compatible lighting source and instruments.

Optional equipment includes: broadcast quality day and low light video camera, infrared thermal imaging system (both modes can be recorded or transmitted via microwave downlink), moving map with zoom and GPS, tracker for following or locating stolen property or vehicles, upper and lower wire-strike protection, gyro-stabilised binoculars, simultaneous 4-channel police radio, pilot and co-pilot energy absorbing seats.



Surveillance



Search Light



Integrated Hailers



Breeze Electrical Hoist (204 kg / 450 lb)



Cable cutter for wire strike protections



Sliding doors



Emergency Medical Service kit



FLIR installation



Dedicated operator console

(Optional equipment not displayed above: Pilot & Co-pilot windshield wiper, Second battery kit, Air conditioning system, Sand prevention filter, Tail rotor arch, Energy absorbing seats, Electrical external mirror, Emergency floatation system, Cargo hook, Siren...).





Support and Services



Support as individual as you are

At Eurocopter our continually improving Support network has one goal: to get your aircraft back into the air quickly and cost effectively. We are particularly concerned with responding to your own unique business needs. This is why, in addition to our classic repair and overhaul services, we have developed a variety of innovative tailor-made service packages.

By choosing the package that fits your needs, you get a full spectrum of services at a fixed price.

This means on-going availability and top performance from your helicopter or fleet, on a predictable budget.

Wherever in the world you are there is always certified Eurocopter expertise nearby and available

24 hours a day, 7 days a week, at our facilities or at yours. Our field technicians are equipped with the latest diagnostic technology to provide on-site repairs and to offer a wide range of services:

- 1 Troubleshooting /fine-tuning
- 2 Optional equipment installation
- 3 On-the-job training
- 4 Inspections and consulting
- 5 Maintenance



Technology

The AS350 B3 has so many proven technologies, it practically knows what you need to accomplish before you do. The Full Authority Digital Engine Control (FADEC) automates the start-up sequence and optimises engine performance to suit outside conditions. Result? Improved reliability, lower fuel consumption and reduced maintenance. The ergonomic cockpit features a 3-axis auto-pilot and dual LCD-screen Vehicle and Engine Multifunction Display (VEMD). All these technologies go a long way to reducing pilot fatigue and enhancing safety.

The use of composite materials for airframe, rotors and main rotor head combine to give the AS350 B3 the best protection against corrosion and, consequently, reduce the maintenance costs.





A state-of-the-art workhorse

The VEMD gathers all the conventional electromechanical instruments for vehicle and engine control on two five-inch (12.7 cm) LCD screens. It provides several display modes: engine-starting sequence, normal flight operation, flight report and maintenance mode.

The VEMD considerably reduces the flight crew's workload and improves safety, as the pilot can concentrate better on his mission. It also improves maintenance thanks to the automation of such functions as recording flight duration, number of NG and NF cycles exceeding limitations. All limit-value overshoots are detected and recorded. They cannot be erased by the pilot.

The AS350 B3 is powered by a single Turbomeca Arriel 2B 1 engine of 847 shp (632 kW). The Arriel family of engines has over 15 million flight hours of experience. The B3's engine is the fruit of that accumulated know-how.

The engine is equipped with a dual channel Full Authority Digital Engine Control (FADEC) (and a third back-up control system) that greatly simplifies engine handling.



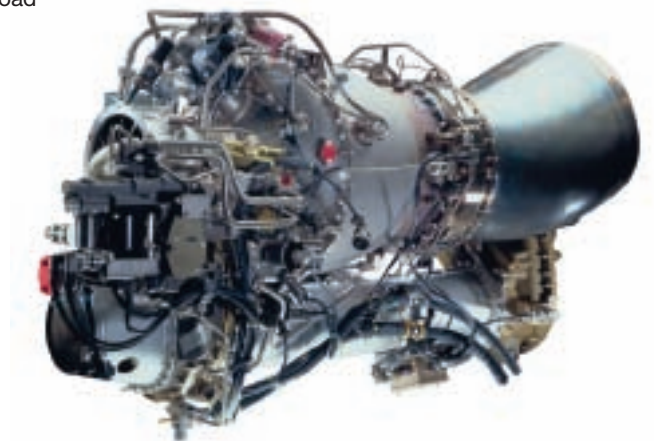
Fuel flow twist grip on pilot stick



Overhead control panel

In addition, it ensures power plant monitoring, providing it with the correct fuel, air and ignition ratios required for optimum performance with minimum fuel expenditure to suit any given exterior conditions.

With the new optional dual hydraulic system and structural reinforcements (same kit), the B3 can take off at 2,370 kg, allowing an increased payload of around 95kg.





Characteristics

Leader of the pack

The high-performance, powerful AS350 B3 is designed to carry out the most demanding missions in the most extreme weather and geographical conditions: from very hot to very high and everything in between.

Its exceptional lifting power, high endurance, extended range and fast cruise speed make virtually any job looks easy. The AS350 B3 can climb to 3,000 meters in 2 minutes 21 seconds and has more than proved its power with a record breaking landing on Mount Everest. More than 530 AS350 B3s are presently in operational service worldwide, mainly performing missions requiring high performance, including "hot and high" missions and sling work (external load capability of the B3 is 1,400 kg).

CAPACITY		
Passenger transport	1 pilot + 5 passengers (standard version)	
	1 pilot + 4 or 5 passengers (comfort version)	
	1 pilot + 6 passengers (high density version)	
Casualty evacuation	1 pilot + 1 stretcher patient + 2 doctors	
WEIGHTS		
Maximum take-off weight	2,250 kg	4,960 lb
Maximum take-off weight with external load	2,800 kg	6,172 lb
Empty weight, standard configuration	1,228 kg	2,707 lb
Useful load, standard configuration	1,022 kg	2,253 lb
Maximum cargo-swing load	1,400 kg	3,086 lb
Standard fuel capacity	426 kg	939 lb
POWER PLANT		
	1 TURBOMECA ARRIEL 2B 1 turbine engine	
Take-off power	632 kW	847 shp
PERFORMANCE AT MAX. GROSS WEIGHT		
Maximum speed (VNE)	287 km/hr	155 kts
Fast cruise speed (at MCP)	258 km/hr	140 kts
Recommended cruise speed	235 km/hr	127 kts
Rate of climb at SL (at MGW)	10 m/sec	1,979 ft/min
Service ceiling (at MGW)	5,070 m	16,630 ft
Hover ceiling OGE at take-off power (at MGW)	3,415 m	11,200 ft
Maximum range without reserve at Recommended Cruise Speed (RCS)	665 km	359 nm
Endurance without reserve at 100 km/hr-54 kts	4h14	
OPERATION LIMITATIONS		
Maximum altitude (PA)	7,010 m	23,000 ft
Minimum temperature	- 40°C	
Maximum temperature	ISA + 35°C limited to + 50°C	

The data set forth in this document is for information purposes only, and may vary with conditions.

For performance data and operating limitations, reference see approved flight manual and all appropriate documents. July 2007





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