

Avincis
Every mission matters



SUPER PUMA L2

Specifications

www.avincis.com

ABOUT US

Avincis is one of the **world's leading emergency aerial services operators**. The environment we work in is challenging and complex, but our purpose is clear - we exist to save lives and protect communities wherever we serve.

As the largest provider of emergency aerial services in Europe - with additional operations in Africa and South America - governments trust us to deliver safe, reliable, and efficient services when their people are most in need.

Our areas of focus are: helicopter emergency medical services, air ambulance services, search and rescue, aerial firefighting, as well as dedicated emergency aerial transport for oil and gas platforms.

If you haven't heard of us that's because although we have been doing this vital work for decades, we often operate invisibly on behalf of our customers who are predominantly government organisations.

In total, we operate from more than 180 bases across Spain, Portugal, Italy, Norway, Sweden, Finland, Mozambique and Chile.

We oversee our global operations, from our headquarters in Lisboa, Portugal where we moved in 2023.

With a fleet of approximately **220 helicopters (180) and aeroplanes (40)**, Avincis counts on a team of more than **2,400 courageous and talented professionals**, including experienced pilots, crews, technicians, and support teams to deliver its unique service.

We are extremely proud of our diverse and multi-cultural workforce.

Our mixed fleet and global network of bases, means we can mobilise aircraft between countries, which not only provides us with efficiency gains, but also demonstrates the size, capacity and resources of the company as a group. These factors mean we can offer our customers more cost-effective solutions and distinguish us from other operators in the market.

We don't just fly amazing aircraft, we also maintain and fix them in our facilities where our on-site engineers and technicians have the capability to carry out complex repairs, rebuilds and modifications.

We also have an awesome in-house R&D team who focus on developing new innovative technologies as well as new training capabilities for the next generation of pilots, technical crew and engineers.

Our experienced pilots are trained to fly in the most challenging environments - they are there when lives are at risk and time is of the essence.

With a unique combination of cutting-edge technology and highly skilled personnel we can run emergency operations with the world's best safety standards wherever we fly.



Our mission is to save lives and protect communities wherever we serve.

OUR NETWORK

55,000

WE COMPLETE APPROXIMATELY
55,000 LIFESAVING MISSIONS A YEAR

73,000

WE FLY APPROXIMATELY
73,000 HOURS A YEAR





SUPER PUMA L2

OEM

AIRBUS

TYPE

SA330/AS332/EC225

VARIANT

AS332 L2

TYPE

Rotary-Wing

CRUISE SPEED

140 KNTS

MISSION PROFILE TYPE

Fire fighting

ENGINE TYPE

2 x Safran Makila 1A2

STANDARD FUEL TANK CAPACITY

1870 kgs

FUEL CONSUMPTION

495kgs/h

AGE

19 YEARS

MAXIMUM TAKE-OFF WEIGHT (MTOW)

9300 kgs

EMPTY WEIGHT (AVERAGE)

5700 kgs

MAXIMUM RANGE, STANDARD TANKS

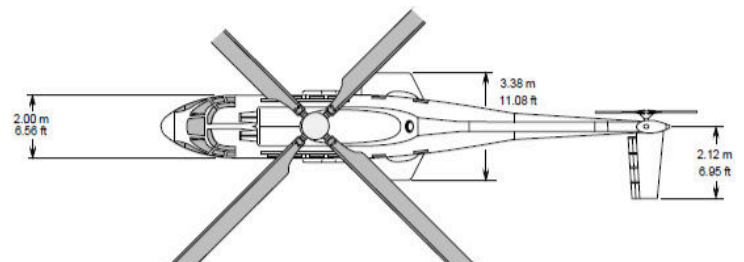
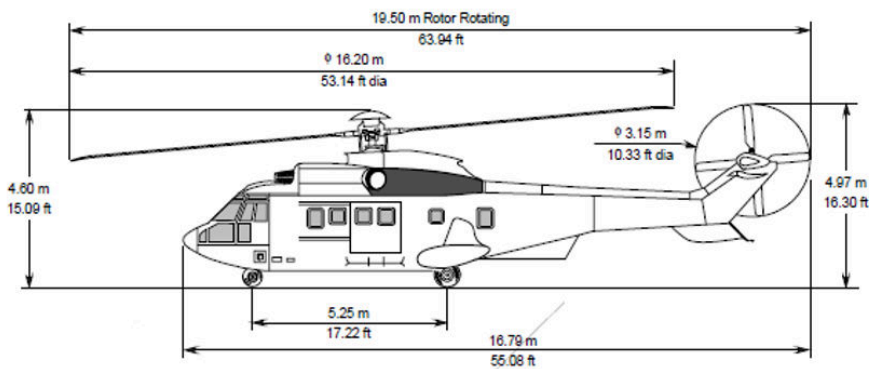
490nm

MAXIMUM HOOK LOAD

3800 kgs (optional 5000 kgs)

GENERAL FEATURES

MAIN DIMENSIONS

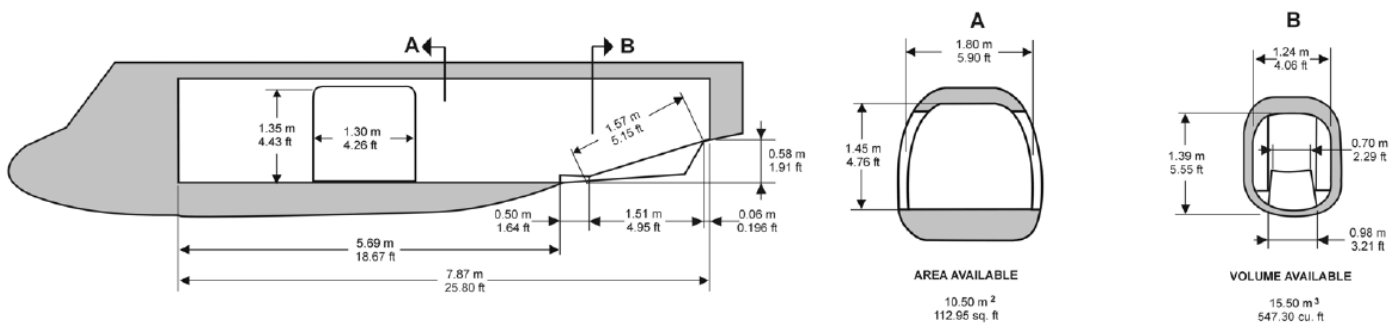




SUPER PUMA L2

GENERAL FEATURES

CABIN MAIN DIMENSIONS



STANDARD SPECIFICATIONS

GENERAL

- Crashworthy design fuselage including cockpit and cabin
- Composite material intermediate structure
- Polyurethane white paint anti-corrosion treatment
- Monocoque tail boom with prop for tail rotor protection and stabilizer
- Front part of the tail boom arranged as a luggage compartment
- Fuselage upper part used as transmission deck
- Fuselage lower part fittable with the following optional equipment:
 - crashworthy fuel tanks
 - multipurpose sponsons
- Engine cowlings serving as a work platform when in the open position
- High energy absorption, retractable, tricycle landing gear with trailing-arm main landing gear and castoring nose wheel unit
- Footsteps for climbing to the transmission deck, the cockpit and the cabin
- Built-in jacking and towing points
- Provisions for attaching gripping points
- Interior paint: light beige
- Exterior paint: the fuselage is painted following customer paint scheme (gloss or dull polyurethane finish); the landing gears are grey and unless otherwise specified, the optional equipments keep their original colors.



SUPER PUMA L2

STANDARD SPECIFICATIONS

COCKPIT

- 2 Pilot and copilot seats adjustable in height and fore-and-aft, complete with safety belts and extensive shoulder harnesses
- 3 run vizors
- Dual flight control
- Steadying rods at pilot station
- Engine controls
- Master cut-offs switches
- Rotor brake control
- Landing gear control
- Differential wheel brakes at pilot and copilot stations
- 2 map cases on pilot and copilot doors
- 1 Flight manual
- 1 ash-tray
- 1 hand fire extinguisher
- De-iced pilot and copilot windshield panes with wiper
- 2 hot air diffusers
- 3 windshield pane demisting ramps
- 4 adjustable ventilation outlets
- Windshield washer
- 2 jettisonable doors with door-stops
- Access to cabin with partitioning curtain

CABIN

- Floor fitted with 15 cargo tie-down rings, capable of accommodating various types of seat and cabin additional fuel tanks available on option
- 2 jettisonable sliding plug doors
- 12 jettisonable windows (including 4 on the sliding doors)
- 1 rear step door
- 2 hand fire-extinguisher
- Upholstery (light beige padded cloth)
- Heating and ventilation (upper outlets adjustable for direction and flow, plus bottom adjustable for flow)



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STANDARD SPECIFICATIONS

INSTRUMENTS

- 4 multifunction CRT displays
- 1 airspeed indicator
- 1 altimeter
- 2 stop watches
- 1 self-contained gyro-horizon
- 1 stand-by magnetic compass
- 1 RMI
- 1 thermometer
- 1 dual torquemeter indicator
- 2 fuel pressure indicators
- 1 hydraulic circuit control panel including MGB oil pressure indicator and MGB oil temperature indicator
- 2 gas generator RPM deviation indicators
- 2 exhaust temperature indicators
- 2 dual engine oil pressure and temperature indicators
- 1 self-contained rotor tachometer
- 1 rotor and free turbines 1 and 2 triple tachometer
- 1 warning panel
- 2 autopilot control boxes
- 2 display control panels
- 1 fuel circuit control and monitoring panel with 2 fuel contents displays
- 1 AC/DC control panel
- 1 engine starting panel
- 1 landing gear position control and monitoring panel
- 2 heated pilot static and total heads
- 1 ventilation/heating system control and monitoring panel

POWER PLANT

- 2 TURBOMECA MAKILA 1 A2 1573 kW (2139 ch - 2109 shp) maximum emergency power turbine engines in two separate groups with own starting, feeding, lubricating, cooling and governing systems including a O.E.I. Training module
- 1 fuel system of 2020 litres (535 US gal.) usable capacity comprising 6 tanks, arranged in 2 groups, 4 booster pumps
- 1 transfer pump and a low/high fuel warning system
- Provisions for ferrying, central auxiliary and external tanks
- 2 engine bay fire-detection systems
- 1 two-cylinder selective fire-extinguishing system
- 2 chip detectors
- Engine air intakes protected against icing by grids and heating mats on the air intakes stub frames
- 1 engine flushing device without removal of cowlings
- 1 cycle counting system



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STANDARD SPECIFICATIONS

TRANSMISSION SYSTEM

- 1 main gearbox on flexible mountings with 3 chip detectors, one of which with fuse burner, oil sight gauge, oil temperature and pressure sensors and torquemeter pick-ups, 2 lubrication pumps and independent circuits
- 1 intermediate gearbox with magnetic plug, oil sight gauge and temperature sensor
- 1 tail gearbox with magnetic plug, oil sight gauge and temperature sensor
- 1 main gearbox oil cooling system
- 1 rotor brake
- 2 MGB bay fire detection circuits

ROTOR AND FLYING CONTROLS

- 1 articulated main rotor with 4 composite-material blades equipped with gust and droop stops
- 1 anti-torque rotor with 4 composite-material blades
- 1 flying control system, fitted with 4 dual-body servo-units (3 on the cyclic and collective pitch channels and 1 on the anti-torque rotor pitch control channel) with 2 chambers per body
- 1 dual/duplex digital autopilot associated with 2 flight data computers
- 1 stand-by vertical gyro unit SFIM GV 76
- 1 THALES AHV16 radio altimeter

HYDRAULIC GENERATION

- 2 independent hydraulic systems:
 - the LH system feeds one of the servo-unit bodies, the autopilot, the landing gear control, the rotor brake and wheel brakes
 - the RH system feeds the other body of the servo-units
- Hydraulic ground couplings
- 1 DC auxiliary electropump on stand-by for the LH system and for supplying sufficient hydraulic pressure for movement of the controls on the ground before starting in high winds
- 1 stand-by electropump for complete lowering of the landing gear
- Provisions for hydro-electric group installation



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STANDARD SPECIFICATIONS

ELECTRICAL INSTALLATION

- 2 20/30 kVA, 115/200 V, 400 Hz alternators
- 1 43 amp.-hr cadmium-nickel battery
- 2 transformer-rectifiers
- 1 4 amp.-hr stand-by battery
- 1 26 V, 400Hz transformer
- 1 cockpit lighting system including:
 - white/blue pedestal instrument and overhead panel lighting (normal/stand-by)
 - white general lighting
 - 1 white extension light
- 2 white map lights
- 1 cabin lighting system made up of two-lighting strips, plus signs: "Emergency Exit", "No smoking" and "Fasten Seat Belts"
- 6 receptacles for ancillaries (28 V, 15 amp.)
- 1 receptacle for ancillaries (28 V, 25 amp.)
- 2 external power receptacles (AC and DC)
- 1 600 W landing light
- 3 position lights
- 1 anti-collision light

ADVANCED FEATURES

- Fully coupled 4 axis digital duplicated AFCs and flight data computers
- Digital engine control unit
- Emergency engine power rating
- Duplicated integrated flight display system
- Fail-safe design 'Spheriflex' rotor head system
- Strengthened fuselage
- 'Smart multifunction display' screens
- TCAS II



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PASSENGER AND FREIGHT FEATURES

- Ventilation system
- Cabin heating (separate cockpit and cabin)
- Enlarged windows front and rear of cabin
- Sponson baggage/freight pods (400kgs)

FIREFIGHTING FEATURES

- Cable cutter
- Dual rear view mirrors
- External cargo basket
- Bambi bucket water release system
- External siren and rotating light
- Provisions for saksfoam bladder

SAFETY FEATURES

- Strong wind kit (rotors engage up to 50kts for routine operations)
- Full windshield and fuel de-icing system
- Ice detection system
- Emergency locator beacon
- Icing protection
- Helicopter emergency egress lighting (HEEL)
- High visibility white strobe collision avoidance lights
- Cockpit voice flight data recorder (CVFDR/IHUMS)