

HELICOPTERS

Offshore Wind Energy



AIRBUS

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HELICOPTERS

TO HELP MASTER
THE EVERYDAY
INDUSTRY
CHALLENGES

The offshore wind energy industry is forecasted to experience significant growth over the coming years. With a predicted rise in the number and size of offshore turbines, and the distances of these sites from land, wind farm operators are increasingly faced with important challenges concerning transportation, rescue and maintenance operations.

To meet these new requirements, more and more wind farm operators are turning to helicopters, which offer a reliable, cost-effective and safe solution.



With more than 25 years of experience in providing mission-ready, fully-equipped helicopters around the world, Airbus understands the distinct needs of its customers for a wide array of missions, with notable success in hoisting, rescue and crew transfer operations.

THE HELICOPTER ADVANTAGE



THE HELICOPTER ADVANTAGE

SAFE AND EASY ACCESS TO WIND TURBINES

A safe and reliable solution

All Airbus helicopters employ the very latest technologies to ensure optimal safety levels.

Helicopters can go above (literally) and beyond maritime conditions

Accessing wind turbines is quick and efficient, allowing for more operational availability in conditions ranging from rough to calm seas.

Strategically position crew members where you need them most

The accuracy, stability and precision of hover flights are truly unique to helicopters and allow you to strategically position crew members in any circumstance.

RAPID RESPONSE TIME

Reduced transfer time

With the capability to cover more than 40 nautical miles in approximately 20 minutes, a helicopter ride is by far the quickest way to reach your destination.

Faster maintenance and repair

For wind farm companies, being able to reach the turbines for maintenance or repair as quickly as possible is essential to avoid loss of earnings.

Quick take-off capabilities

In the case of an emergency evacuation, the quick take-off capability and fast cruise speed of a helicopter can make all the difference by reaching the concerned party within «The Golden Hour.» This critical window of time is of the utmost importance when a crew member's health is at stake.

AVAILABILITY

Airbus' worldwide network of helicopter service centers

Helicopter operators will be ready to fly at a moment's notice, 24/7 no matter their location.

High Time Between Overhaul (TBO)

With the highest TBO figures in the industry, Airbus helicopters benefit from an exceptional availability rate.

COST-EFFECTIVENESS
VERSATILITY
AND FLEXIBILITY



AN ECONOMICAL SOLUTION FOR ALL YOUR OPERATIONS

Aircraft chartering services with various helicopter operators

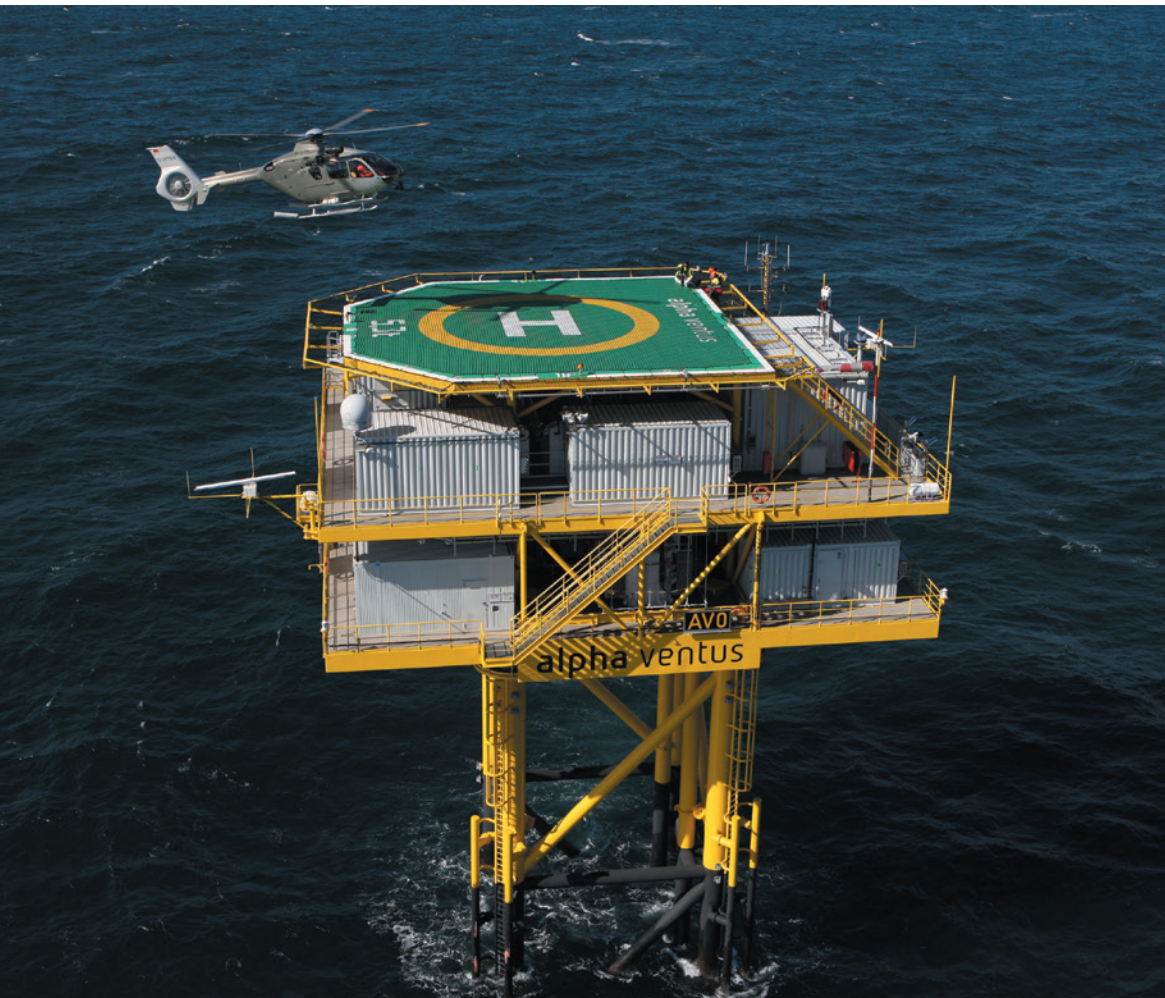
No need to purchase your own helicopter to reap the benefits – many helicopter leasing companies specialize in this kind of operation. This allows the wind power energy to invest in its core business.

Greater earnings during winter months

Using helicopters can result in significant savings when the sea is at its roughest. While a complete wind farm may be inaccessible for personnel and equipment by vessel, a helicopter can continue operations during rough sea conditions, thus avoiding a significant loss of revenue.

A five-hour helicopter charter service to conduct wind turbine maintenance is the same cost as 24 hours downtime on a 6 megawatt turbine.

COST-EFFECTIVENESS VERSATILITY AND FLEXIBILITY





Lowest operating and maintenance cost

Design simplicity, easy access to main components, the use of composite materials and the technological reliability of Airbus helicopters contribute to ensuring low operating cost.

Capability to quickly change roles

Make the most out of your fleet. Switch back and forth from crew change to Search and Rescue (SAR) configurations quickly and easily, while keeping the flexibility you need in case of simple maintenance duties or emergency situations.

A complementary asset

Helicopters can efficiently work alongside the more traditional means of transportation when it comes to crew transport and servicing vessels. But for “winch to work” and SAR, helicopters hold a number of advantages over marine transportation including an increased frequency of passenger operations and lower down time.

MISSION-EFFICIENT HELICOPTERS FOR ALL OPERATIONAL NEEDS



CREW TRANSFER: THE WORLD'S MOST COMPREHENSIVE RANGE OF HELICOPTERS AT YOUR SERVICE

One of the quickest and surest personnel transportation options for offshore missions.

Increased access to wind turbines

Technicians can be airlifted to perform service anywhere in the park (directly on the platform itself or on offshore substations) even when high waves might prevent a vessel from reaching those areas.

Shorter-distance transfers

Airbus H135 and H145 light-twin helicopters are well-suited to transport from 3 to 8 technicians to closer-range turbines/offshore substations and can also provide support as feeder aircraft between turbines out at sea.

Transfer farther offshore

Airbus medium, super medium and heavy helicopters have established themselves as a major asset for the oil and gas industry, with a strong track record worldwide. The medium H160 and super medium H175 can transport respectively up to 12 or 16 passengers, while the heavy H225 can hold up to 19 passengers.



In rescue missions, every second counts. Helicopters can transfer patients to the nearest hospital in the shortest amount of time, while emergency medical service personnel provide immediate first aid during the journey.

RESCUE CAPABILITIES



Quicker emergency rescue response time

Fast and reliable emergency response is more important than ever with an increasing number of personnel servicing a growing number of wind farms – which are located farther offshore.

Sure option in difficult conditions

Helicopters are the fastest and most reliable option for rescue missions in remote locations and in unfavorable conditions.





Our helicopters have proven their ability to transfer crews to wind farms more than 90% of the time across a varied range of weather conditions.

Offshore wind operators have already carried out some 100,000 hoisting cycles without any reported incidents.

HOIST OPERATIONS

When helicopters are unable to land, they hoist! A Helicopter Hoist Operation (HHO) is the transfer of personnel or loads by means of a hoist cable to or from an aircraft in stable hover flight. The helicopter's ability to hover with loads hoisted beneath allows it to reach inaccessible places, conduct a variety of operations and save lives.

Passenger and cargo hoisting

Airbus helicopters are easily adaptable to your operations, hoisting both workers and cargo to the platform or vessel below.

Safety during rescues hoists

The stable and precise hover capabilities of Airbus helicopters allow pilots to strategically position rescuers on hoist in a wide range of conditions, with the twin engines offering an added safety margin during extended hovering operations.

Airbus helicopters have proven experience in stretcher-hoist missions to and from ships and offshore wind farms. If a person is injured, the helicopter may be the only sure method of evacuation available.

In the offshore wind energy sector, the most challenging operational aspect is contending with difficult weather conditions. Airbus helicopters are developed with these constraints in mind, proposing a wide range of rotorcraft solutions focused on the highest levels of safety and performance.

REACHING THE MOST DEMANDING **STANDARDS**



FLOATS



HOIST SYSTEM



HIGH VISIBILITY PAINT ON BLADES



EMS EQUIPMENT



FIRE EXTINGUISHER



AVIONICS



EQUIPMENT***ENHANCED SAFETY****ENHANCED PERFORMANCE**

ANTI-CORROSION PROTECTION KIT		
3/4 AXIS DIGITAL AUTOPILOT		•
COCKPIT VOICE AND FLIGHT DATA RECORDER (CVFDR)	•	
DE-ICING SYSTEM		•
ICING DETECTOR	•	
DUAL FADEC	•	
EMERGENCY FLOATATION SYSTEM AND LIFE RAFTS	•	
ENHANCED GROUND PROXIMITY WARNING SYSTEM (EGPWS)	•	
FIRE EXTINGUISHING SYSTEM	•	
FUEL MANAGEMENT SYSTEM		•
GLASS COCKPIT		•
EMERGENCY MEDICAL SYSTEM (EMS)		•
HIGH VISIBILITY BLADES	•	
HELICOPTER EMERGENCY EGRESS LIGHTING (HEEL) SYSTEM	•	
JETTISONABLE DOORS	•	
MOVING MAP		•
PUSH-OUT WINDOWS	•	
RETRACTABLE CLASS 1 ELECTRICAL HOIST		•
TIE-DOWN KIT TRAFFIC COLLISION AVOIDANCE SYSTEM (TCAS)	•	
WEATHER RADAR OFFSHORE WIND FARMS		•

*depending





Innovation you can rely on

Airbus helicopters – in all classes – are known industry-wide for their high performance levels, which result from a combination of proven engineering solutions and cutting-edge technologies. You can count on having the right equipment to carry out your mission safely and successfully.

Safety is Airbus top priority. The company is committed to providing world-class training to pilots and mechanics, so they can master the skills to work in the most severe conditions. Missions involving offshore hoist operations require a highly-qualified helicopter crew, which must continuously undergo intensive training

The Airbus helicopters training offer focuses on real-life situations and decision-making procedures. The use of Level-D Full Flight Simulators enables trainees to operate in realistic conditions for mission scenarios in full security, while allowing the helicopter fleet to remain operationally available.

QUALITY TRAINING TO IMPROVE SAFETY



AIRBUS CUSTOMERS
ARE LEADING THE WAY IN OFFSHORE
WIND OPERATIONS, AND AIRBUS HELICOPTERS
IS SETTING THE STANDARD IN THIS MARKET

NHV (Noordzee
Helikopters
Vlaanderen) - **AS365**,
H145 - Windfarm
Belwind/ Bligh -
Bank and Thronton Bank

NHV - **H175** -
Beatrice Offshore
Wind farm

Babcock - **H135** -
Greater Gabbard
Wind farm

HTM (Heli Travel
Munich) - **H135**,
H145- Windfarm
Alpha Ventus

Wiking
HelicoptersService
with **H145**, Galloper
offshore wind farm

NHC (Northern
Helicopter) - **AS365**,
H155 - Merkur,
Wiking offshore
Wind farm

Uni -Fly- **H135** -
KN Helicopters -
H135 - DanTysk,
Horns Rev I,
Horns Rev II
Wind farm

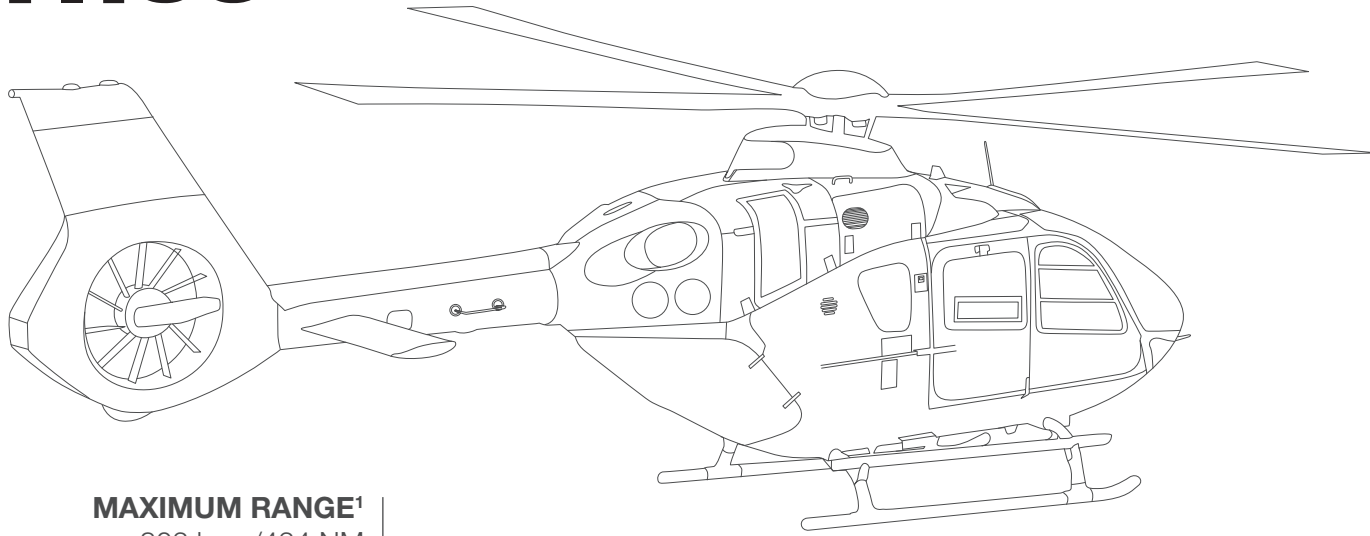


Airbus helicopters product line includes all types of rotorcraft, from light twin-engine to heavier 11-ton helicopters.

A HELICOPTER FOR EVERY **MISSION**



H135



MAIN ROLES

The light, multipurpose twin-engine helicopter is the reference for EMS⁴, public services and offshore missions thanks to its:

- Outstanding performances,
- Cabin flexibility and capabilities,
- Comfort,
- Versatility.

MAXIMUM RANGE¹

803 k m /434 NM

FAST CRUISE SPEED¹

252 km/h - 136 kts

MAXIMUM CARGO SLING LOAD

1,300 kg/2,866 lb

MAX. WEIGHT²

2,980 kg/6,570 lb

USEFUL LOAD

1,498 kg/3,302 lb

ENGINE

2 Turbomeca ARRIUS 2B2^{plus}
or 2 Pratt&Whitney PW206B3
Both with FADEC

CAPACITY

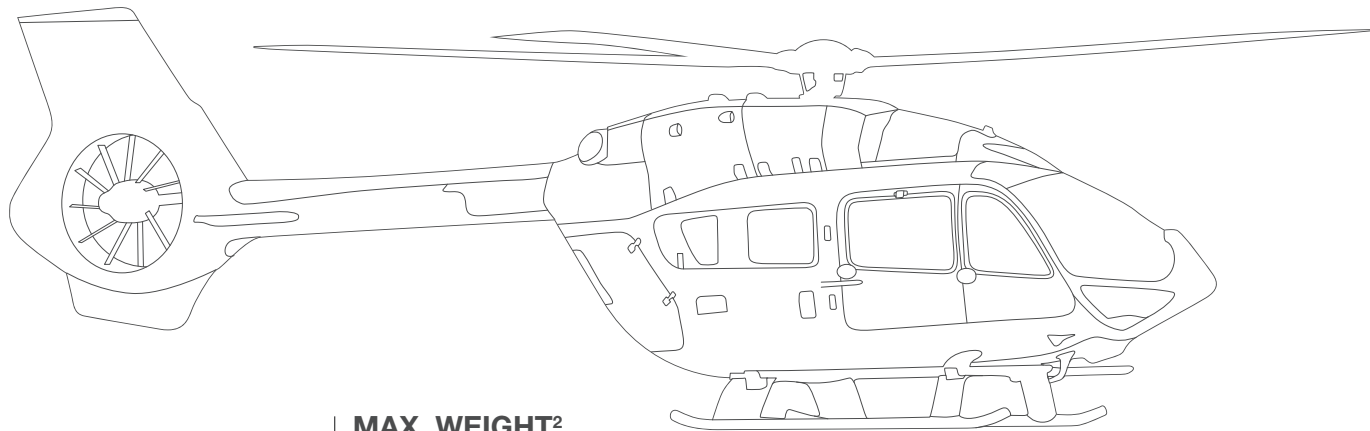
pilot + 6/7 passengers,
or 2 pilots + 5/6 passengers

OPERATIONAL WIND LIMITS

Hoisting: 60 kts

Rotor start and stop: 50 kts

H145



MAIN ROLES

A powerful, multi-role helicopter, the EC145 T2 is the latest evolution of the EC145. It combines Airbus Helicopters' breakthrough technologies, such as advanced cockpit design, modern avionics, 4-axis autopilot and the Fenestron tail rotor.

MAXIMUM RANGE¹

812 km/438 NM

FAST CRUISE SPEED¹

248 km/h - 134 kts

MAX. WEIGHT²

3,650 kg/8,047 lb

USEFUL LOAD

1,731 kg/3,816 lb

MAXIMUM CARGO SLING LOAD

1,500 kg/3,307 lb

OPERATIONAL WIND LIMITS

Hoisting: 70 kts

Rotor start and stop: 50 kts

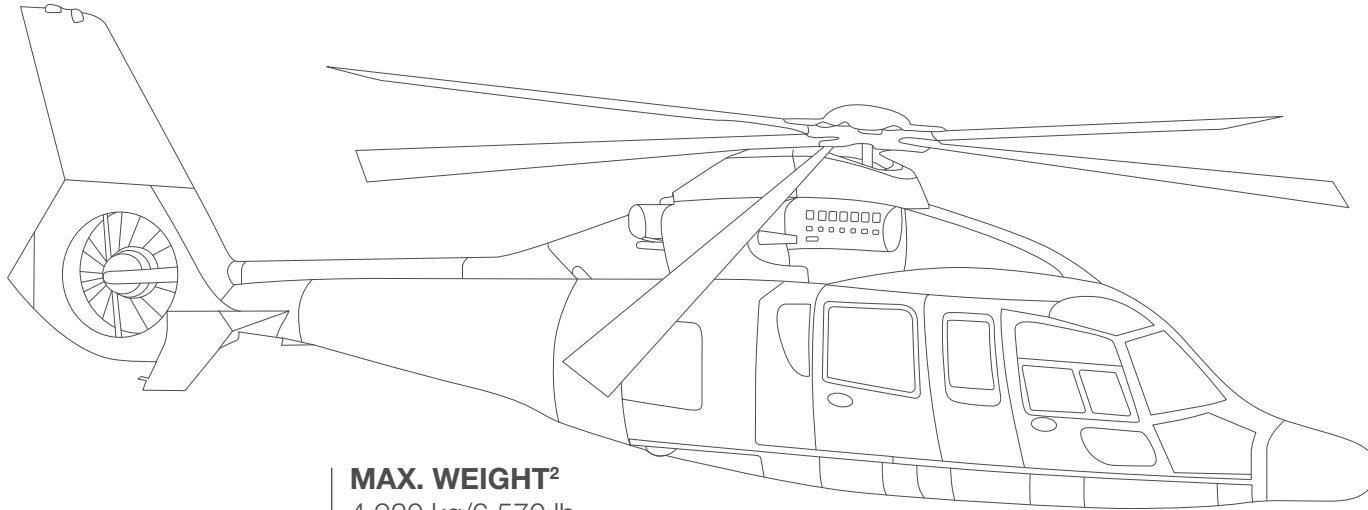
CAPACITY

1 pilot + 9/10 passengers
or 2 pilots + 8/9 passengers

ENGINE

2 Turbomeca ARRIEL 2E
with FADEC
OEI3: 800 kW/1,072 shp

H155



MAIN ROLES

The H155 features the 5-blade Spheriflex main rotor and an outstanding 4-axis autopilot to provide the highest level of safety and comfort. With the lowest external sound level in its category, it is the reference for business aviation transportation.

MAXIMUM RANGE¹
905 km/489 NM

MAX. WEIGHT²
4,920 kg/6,570 lb

ENGINE
2 Turbomeca ARRIEL 2C2
with FADEC
OEI3: 785 kW/1,053 shp

FAST CRUISE SPEED¹
278 km/h - 150 kts

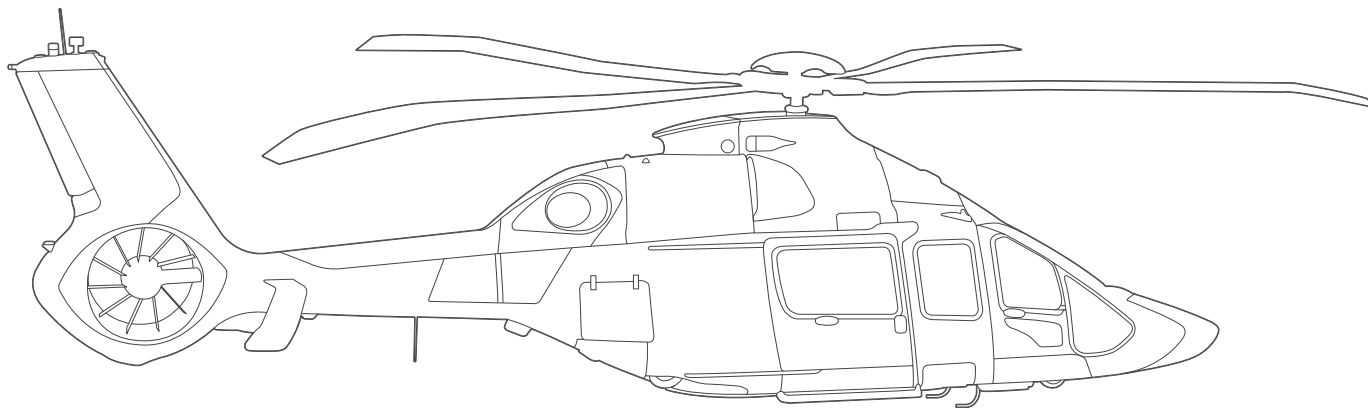
CAPACITY
2 pilots + 13 passengers

**MAXIMUM CARGO
SLING LOAD**
1,600 kg/3,527 lb

OPERATIONAL WIND LIMITS
Hoisting: 70 kts
Rotor start and stop: 55 kts

USEFUL LOAD
2,301 kg/5,073 lb

H160



MAIN ROLES

This innovative medium helicopter is planned for an EIS in 2019. Ideally suited for maritime role, it can perform both crew transfer and hoisting.

MAXIMUM RANGE¹
861 km/460 NM

MAX. WEIGHT²
5 670 kg/12,500 lb

FAST CRUISE SPEED¹
Up to 287 km/h / 155 kts

ENGINE
2 Turbomeca Arrano
With New Generation FADEC
OEI 30": 1064 kW / 1426 shp
OEI 2' : 1014 kW / 1359 shp

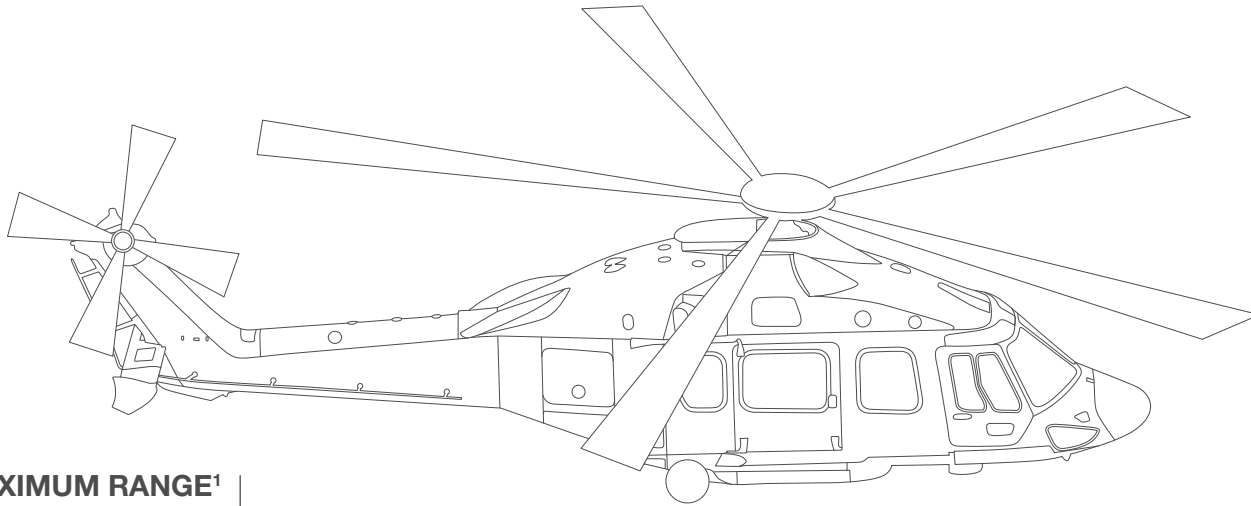
CAPACITY
2 pilots + 12 passengers
or 1 pilot + 1 hoist operator
+ 10 passengers

USEFUL LOAD
Up to 1750 kg/3,637 lb

OPERATIONAL WIND LIMITS
Hoisting: up to 166 km/h / 90 kts
Rotor start and stop: 102 km/h /
55 kts (TBC)

**MAXIMUM CARGO
SLING LOAD**
1600 kg / 3,527 lb

H175


MAXIMUM RANGE¹

1,133 km/612 NM

USEFUL LOAD

2,897 kg/7,271 lb

FAST CRUISE SPEED¹

276 km/h - 149 kts

MAX. WEIGHT²

7,500 kg/16,535 lb

MAXIMUM CARGO
SLING LOAD

2,100 kg/4,630 lb

CAPACITY

2 pilot + 16/18 passengers

OPERATIONAL WIND LIMITS

Hoisting: 55 kts

Rotor start and stop: 55 kts

ENGINE

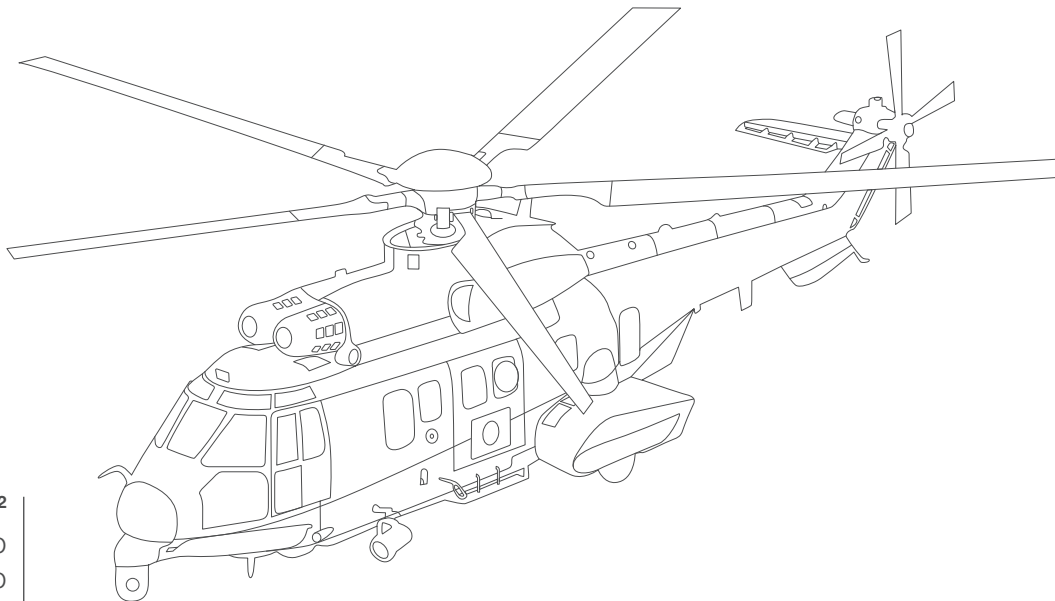
 2 Pratt&Whitney PT6C-67E
with FADEC

OEI3: 1,541 kW/2,067 shp

MAIN ROLES

A versatile, fully-equipped helicopter, capable of fulfilling missions in various segments, such as oil and gas, SAR5, public services, homeland security, police, EMS4 and business aviation transportation. Oil and gas crew changes and SAR configurations have been carefully studied and optimized with operators and end-users.

H225


MAX. WEIGHT²

11,000 kg/24,251 lb

11,200 kg/24,690 lb

(with external load)

USEFUL LOAD

5,457 kg/12,030 lb

FAST CRUISE SPEED¹

262 km/h - 142 kts

MAXIMUM RANGE¹

1,135 km/613 NM

MAXIMUM CARGO
SLING LOAD

4,750 kg/10,474 lb

ENGINE

 2 Turbomeca MAKILA 2A1
with FADEC

OEI3: 1,776 kW/2,382 shp

CAPACITY

 2 pilots
+ 19 passengers

OPERATIONAL WIND LIMITS

Hoisting: 65 kts

Rotor start and stop: 50 kts

MAIN ROLES

Thanks to its modern avionics and unrivalled autopilot capability, the H225 has become the reference aircraft for long range SAR5 missions in any weather condition. Its high useful load, five-blade main rotor and low vibration level, results in the most efficient solution for oil and gas missions and business aviation transportation.



THE WORLD'S LEADING HELICOPTER MANUFACTURER

The world's leading helicopter manufacturer.

To date, Airbus has delivered some 18,850 helicopters in 158 countries. With more than 8,500 civil and parapublic helicopters in service, Airbus helicopters make up nearly one-third of the world's turbine-engine rotorcraft fleet.

From single and twin-engine light and medium helicopters to eleven-ton-class rotorcraft, Airbus has the right aircraft to handle any and all of your civil missions.



AIRBUS

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The printing inks use organic pigments or minerals. There are no uses of basic dyes or dangerous metals from the cadmium, lead, mercury or hexavalent chromium group.

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