

RUAG



Do 228NG - Benefit from a New Generation

Best-in-class performance

The Do 228 New Generation is currently the most productive, most reliable and – with more than 350 improvements and innovations – the most up-to-date 19 seat aircraft in the skies. Particular highlights include the high-quality glass cockpit with its cutting-edge avionics, the five-bladed propeller made of fiber composite materials, and the optimized twin TPE 331-10 engines with improved hot and high performance. All these innovations make for unique performance. No other aircraft in its class can transport as many passengers or as much cargo over a comparable distance as fast as the Do 228NG.

Key features

The Do 228NG is specifically designed for take-off and landing on short runways, and for operation in high temperatures and at high altitudes. The aircraft's outstanding STOL capability is due to its unrivalled technology wing design. Another prominent feature of the Do 228NG is its ability to combine a high payload, high cruising speed and long range with low operating costs.

What is more, even the standard aircraft is equipped for IFR flight (instrument flight rules), making it an attractive choice for customers to whom cost efficiency and constant availability are crucial. The aircraft's versatility makes it suitable both for commuter operation and special missions. It can be configured individually to meet specific customer requirements.

Best-in-class performance – At a glance

More than 350 improvements e.g. glass-cockpit, 5-bladed propellers, TPE 331-10 engines
Low direct operational costs, low break-even point
Combination of high cruise speed, long range and high payload
Operation from short and unpaved runways, in hot climate and at high altitude
Rugged airframe: service life of 53,500 flights
High dispatch reliability allowing high utilization rates



A Swiss product – made in Germany

The Do 228NG is manufactured by RUAG in Oberpfaffenhofen (Germany) combining Swiss precision and German quality. The location can boast more than 40 years' experience in the production of modern aircraft and a high level of engineering expertise. In order to maintain excellent quality in both the production and servicing of the Do 228NG in the long term, the work processes at RUAG have been certified. Above and beyond this, the RUAG employees are highly qualified and exceptionally well trained. After all, precision is our business.



Do 228NG assembly line at Oberpfaffenhofen, Germany.

Greenest aircraft in its class

As befits a new-generation aircraft, the Do 228NG sets a new benchmark in environmental protection, thus meeting the high expectations of airlines and passengers alike. Its fuel consumption of 5.41 liters per 100 passenger kilometers is the lowest in its class, ensuring correspondingly low CO₂ emissions. Along with it, the new five-bladed propellers substantially cut noise emissions. In line with EU-wide standards, all the paints RUAG uses in its surface finishing have a low solvent content.



New benchmark in environmental protection.

Most advanced aircraft

The success of the Do 228 New Generation owes much to the experience gained in more than four million flying hours with the previous models of the legendary Dornier 228. Based on its predecessors, of which over 200 are still in operation, RUAG retained what has proved its worth – and made even better what was already good. While, for instance, structure and aerodynamics of the wing and fuselage were left unchanged, the 350 improvements and innovations make the „Do 228 for the 21st century“ the most advanced aircraft in its class.



All key flight data at the pilot's fingertips: the innovative glass cockpit and avionics of the Do 228NG.

Sensors	Communication Features	Navigation
Air Data Computer	VHF Radios	VOR/ILS, DME, ADF
Attitude Heading Reference System	HF Radio (Option)	Global Positioning System (GPS)
Radar Altimeter	Intercom	Flight Management System (FMS)
Weather Radar (Option)	Emergency Locator Transmitter	3-Axis Autopilot (Option)

Glass cockpit and avionics

One major improvement is the new glass cockpit which also enhances flight safety. The digital cockpit instruments form part of a cutting-edge, fully integrated avionics suite. The Do 228NG is the first aircraft in its class that has been certified with innovative electronics of this kind.

On four large displays (two primary flight displays, and two multifunction displays including engine indication) they have all key flight data at their fingertips at all times. In combination with the optional autopilot system, the digital cockpit is also certified for single-pilot IFR flights.



Newly developed five-bladed propellers.

Propellers and engines

The Do 228NG takes to the skies with newly developed five-bladed propellers. They combine a wooden core and a surface consisting of multiple fiber composite layers. This makes them especially light, allowing a quicker start of the engines.

In addition, the five narrow diameter blades make the propellers low in vibration and even quieter. Driven by two Garrett TPE 331-10 engines, they provide best hot

and high performance in its class. They are flat-rated to 776 of their potential 1,000 shaft horsepower, leaving them with crucial power reserves for high-temperature or high-altitude regimes.

Thanks to the advanced technology of its engines, the Do 228NG has the longest time between overhaul (TBO) of all 19 seat aircraft – up to 7,000 hours.

Best in safety and reliability

Unique among its competitors, the Do 228 New Generation offers a high level of safety even in its standard version, with its state-of-the-art electronics and huge power reserves being just two of the key features in point. The Do 228NG is also one of the most reliable aircraft in the world with its perfect mix of a mature design and innovative technologies.

Safety comes first at RUAG

When it comes to on-board safety of passengers and crew members there is no room for compromises at RUAG. All the innovations making the Do 228NG the most advanced 19-seater are directed towards achieving this goal. It goes without saying that the Do 228NG meets all the legal and official requirements for operation worldwide.

This aircraft type complies with the regulations of both the European Aviation Safety Agency (EASA) and the U.S. Federal Aviation Administration (FAA). That is why both the Do 228NG and its predecessors meet the strict safety regulations of the FAA's FAR part 23 standard. What is more, the optional safety equipment available in the Do 228NG is comparable with that of much larger passenger aircraft.

Safety Equipment (sample)
Engine Indicating and Crew Alerting System (EICAS)
Autopilot (Option)
Airborne Collision Avoidance System (ACAS) (Option)
Terrain Awareness System (TAWS) (Option)



More than 99% dispatch reliability

Operators can rely on the Do 228NG at all times. The aircraft has a dispatch reliability of over 99%, a peak value that goes hand in hand with low maintenance costs. Consequently, operators of this aircraft can concentrate on their core activities because the Do 228NG is always ready to fly when needed. This high degree of reliability is unmatched in this aircraft class.

Best-in-class versatility

In terms of equipment and application range, the Do 228 New Generation offers the highest level of versatility and flexibility in its class. This continues the tradition of its justly famous predecessors. Depending entirely on the individual customer's needs, RUAG can supply the Do 228NG as a special mission aircraft, a military transporter or as a commuter aircraft for passengers or cargo.

Special mission aircraft

The Do 228NG is an ideal platform for special missions such as maritime surveillance, border patrol, fishing control, maritime/environmental protection, or environmental research. Public authorities all over the world have long been trusting the qualities of the Do 228 Special Mission and its predecessors.

Thanks to its years of experience as a general contractor working successfully in cooperation with its partners, RUAG is able to fit any sensors and electronic systems to fulfil customers requirements.

As examples the Finnish Frontier Guard deploys aircraft of this type for its air border patrol, while the Dutch coast guard uses them for maritime patrol purposes. Germany has special mission versions in operation to locate environmental offenders in the North Sea and the Baltic. The German Aerospace Center (DLR) deploys the aircraft for research purposes, and the Royal Thai Navy in its maritime patrol fleet.

The worldwide success of the Do 228 Special Mission is based on the aircraft's wide operating range, its ability to stay in the air for up to ten hours, and its speed range of between 67 and 234 KTAS. Even in its standard version, the aircraft has provided

sions for additional fuel capacity. Above and beyond all these advantages, the Do 228NG Special Mission is highly economical, exceptionally reliable and offers a high degree of dispatch availability.



The Finnish Frontier Guard successfully uses Do 228 aircraft for air border patrol purposes.



Special Mission / Military Optional Equipment (Sample)

Side Looking Airborne Radar (SLAR)	Real Time Data Downlink
360° Surveillance Radar	Enlarged Fuel Tanks
Forward Looking Infrared (FLIR)	Stretchers
Satellite Communication	Medical Evacuation
Ergonomic Operator Station	Air-Openable Roller Door
Search Light	IR / UV Sensor Equipment

Military aircraft / MedEvac

Thanks to its versatility, the Do 228NG is equally suited to general military transportation duties or for paratropping, with room for up to two metric tons of cargo or 20 troopers. The Do 228NG can also be configured for medical evacuation applications, then offering room for up to six stretchers and nine foldable seats.



Do 228NG provides room for up to 20 troopers.

Commuter and utility aircraft

Its high productivity and economy, attractive price-performance ratio, outstanding performance, and high levels of safety and comfort make the Do 228NG an ideal commuter aircraft. The aircraft's STOL capability, robust design and high-quality technical equipment predestine it virtually for operation in areas with limited airport infrastructure.

The Do 228NG thus enables airlines to tap into new routes and markets. In its commuter version, the aircraft offers comfortable space for up to 19 passengers and two crew members. Even more so with the VIP configuration, which boasts higher-quality, more comfortable seating among its many additional features.



The Do 228NG offers the highest level of versatility in its class.

The cargo version of the Do 228NG is another preferred configuration. It not only has a payload capacity of up to 4,410 lb or 2,000 kg, but is also equipped with a special roller door system. This facilitates loading and unloading of freight as well as devices for securing the cargo in its spacious hold.

Commuter Optional Equipment (Sample)	
Autopilot	Mode-S Transponder System
De-Icing System	Logo/Strobe Lights
Flight Data Recorder	Airborne Collision Avoidance System
Cockpit Voice Recorder	Terrain Awareness System
Weather Radar	Lavatory
Air Condition	

Every one's a winner

The Do 228 New Generation is a leader not only in terms of productivity, safety, reliability and up-to-date technology, but also comfort. As virtually every seat in the commuter version of the aircraft is located next to a window and the aisle, every passenger on the Do 228NG is a winner. In addition, passengers enjoy lots of head and shoulder room thanks to the aircraft's unique cabin cross-section, which also facilitates the integration of additional systems and consoles in Special Mission versions of the Do 228NG. These are benefits conventional oval cross-sections cannot offer.



In the Do 228NG cabin every seat is located next to a window and the aisle.

Comfort and space



Do 228NG VIP configuration.

The Do 228NG is the only aircraft in its class that offers air-conditioning as standard equipment. Large windows create a light-filled, welcoming atmosphere in the cabin. RUAG is ready to equip the cabin to meet every client's wishes, and the spacious interior offers a wide range of possibilities. In this

way passengers will have every comfort they need. Further options for the Do 228NG include a VIP configuration offering additional wellbeing. The aircraft's low noise and low vibration five-bladed propellers make the cabin of the Do 228NG the quietest in its class.

Customer support and maintenance

As manufacturer of the Do 228NG, RUAG also offers comprehensive support services, ensuring that the aircraft can be operated safely, economically, and in accordance with the customer's requirements.

Customer support services

RUAG's international customer support services comprise technical support, supply of spare parts, documentation, field service and training. In addition, RUAG offers operators of special versions and small fleets of the Do 228NG its Total Aircraft Care service, which provides full technical support and guaranteed availability for a fixed price per flight hour.

Continuous improvement

In order to continue improving its services, RUAG maintains close contact with the operators of the Do 228NG and its predecessors, inviting them, for example, to take part in an operators conference every two years. RUAG uses the results of these meetings to optimize its customer support services constantly.

MRO services

RUAG also offers MRO services on a 24/7 basis. RUAG is an EASA and FAA Part 145 certified maintenance organization and can also boast decades of MRO experience with other aircraft types.

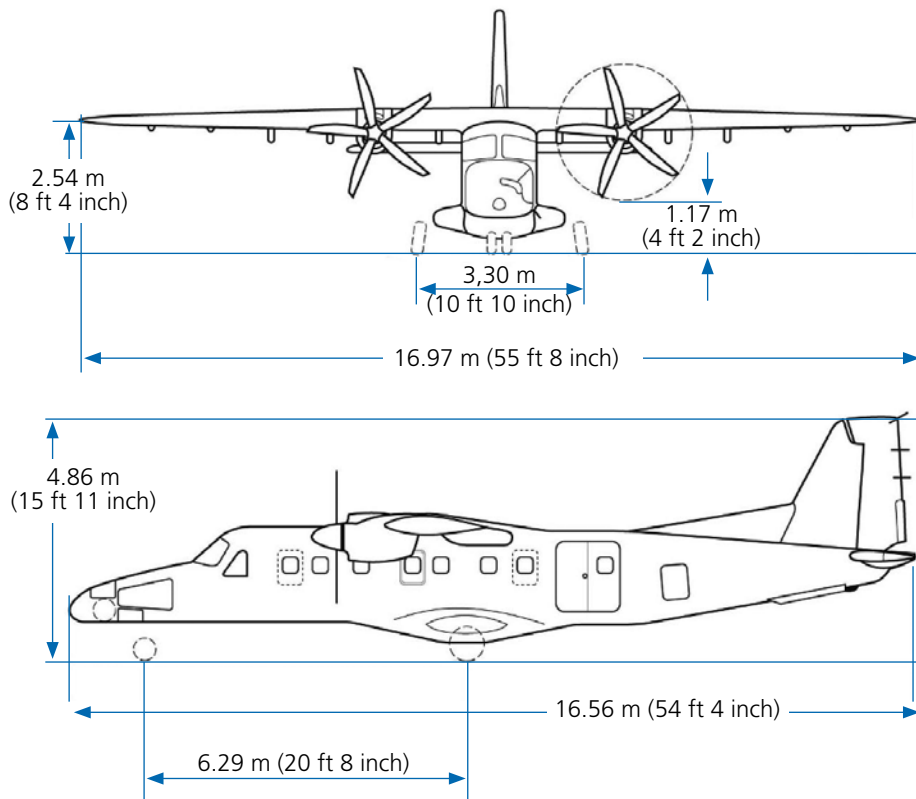


Total Aircraft Care for Do 228 fleets is one of RUAG's customer support services.



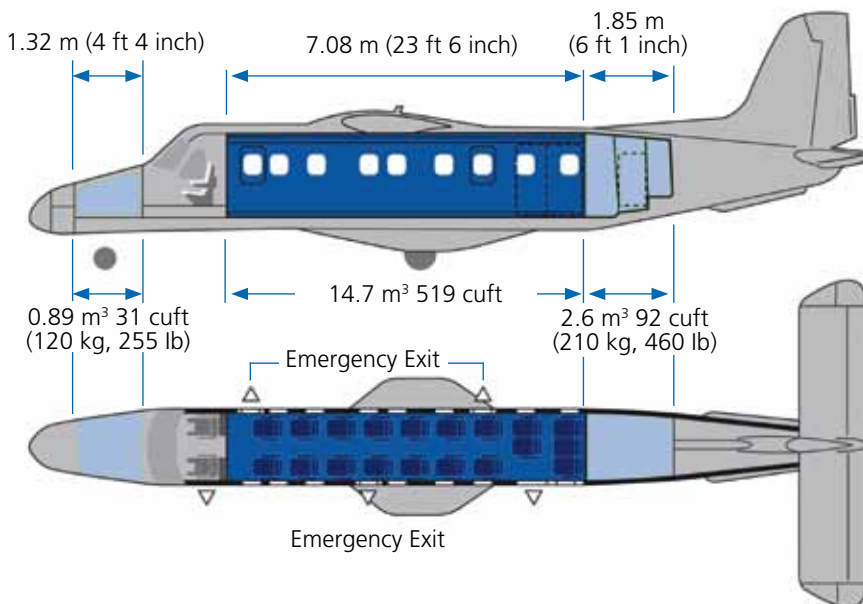
Customer Support
Technical Support
Material Support
Technical Documentation
Field Service
Flight Operations Support
Training
Fleet Management

Do 228NG product information



Performance		
Take-off Distance*	2,600 ft	793 m
Take-off Distance to 50 ft (STOL)	1,686 ft	514 m
Landing Distance**	1,480 ft	450 m
Climb, 2 engines*	1,870 ft/min	
Climb, 1 engine*	440 ft/min	
Max. Cruise Speed*	234 KTAS	433 km/h
Range (at MCS)***	450 NM	833 km
Fuel Consumption	5,41 l/100 Paxkm	

* Max. Take-off Weight, ISA, Sea Level
 ** Max. Landing Weight, ISA, Sea Level
 *** 19 Pax (187 lbs / 85 kg each), 45 min hold, ISA, 10.000 ft; alternate 100 NM



Weights	lb	kg
Max. Take-off Weight	14,109	6,400
Optional	14,550	6,600
Max. Landing Weight	13,448	6,100
Max. Zero Fuel Weight	13,095	5,940
Operating Weight Empty	8,395	3,808
Max. Structural Payload	4,700	2,132
Typical Payload (19 Pax)	3,560	1,615
Fuel at max. Pax	2,153	977

Baggage Compartment
 Cabin

Entrance Door 0.64 m x 1.34 m
 2 ft 1 inch x 4 ft 5 inch
 Cargo Door 1.28 m x 1.34 m
 4 ft 2 inch x 4 ft 5 inch
 Baggage Door 0.76 m x 0.54 m
 2 ft 6 inch x 1 ft 9 inch



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