Guinault
AIRCRAFT GROUND ENERGY

PNEUMATIC AIR START UNIT FOR AIRCRAFT UP TO 400 PPM

APU OFF

GS

The Air Start Unit requires high reliability in order to avoid AOG (Aircraft on Ground) in case of failure of an APU (Auxiliary Power Unit). It must be able, at any time and for any type of aircraft, to provide the necessary compressed air (42PSI of pressure) to run the turbines and perform the start-up. GUINAULT designed the safest Air Start Unit in the world using components known for their reliability, such as Deutz, Scania, and MTU engines, coupled with GHH RAND screw compressors. The use of electronic regulation allows them to operate in the best conditions and thus improve their lifespan, to limit noise at airports, and significantly reduce fuel consumption.

GENERATING VALUE

- Drastically reduce the risk of AOG
- Reduce costs by covering a wide range of aircraft with just one model
- Fuel savings (variable engine speed operation 1300-2000 rpm)compared to conventional technologies
- Provide very low maintenance costs (diesel engine)
- Extend the lifespan of the product by an optimized operation (variable speed)
- Reduce the level of noise on the tarmac (by reducing engine speed)
- Extend the lifespan by the use of proprietary regulation technology (elimination of the risk of obsolescence of spare)

ADVANTAGES

- Sturdiness and reliability
- Optimized design
- Ease of use
- Electronic control
- Ease of maintenance
- No risk of obsolescence of the control system

Specifications

		GS180	GS280	GS400
ENGINE *(Stage 3A)*	Brand/Type Power* Emissions standards	DEUTZ TCD2015V06 360 kW at 2100 rpm STAGE III	DEUTZ TCD2015V08 DEUTZ TCD 16 - V8 > 500 kW at 2100 rpm STAGE III CE compliant	MTU DETROIT DIESEL 12V2000 783 kW at 2100 rpm STAGE II
ENGINE *(Stage 4)*		Scania DC13 331 kW	Scania DC16 493 kW	
COMPRESSOR	Flow/Pressure*	180 ppm / 42 psig	280 ppm / 42 psig	400 ppm / 42 psig
GHH RAND	Model	CD26S	CD42S	CD72S
DISTRIBUTION	Outputs	1 connector	2 connectors	3 connectors
		30 feet in length (9.15 m) with ISO 2026 coupling, optional length 50 feet (15 m)		
DIMENSIONS AND WEIGHTS	Weight (Kg) (Approx) L x W x H (mm)	4900 4730 x 1970 x 2480	5800 4730 x 1970 x 2480	9800 6080 x 2130 x 3100
DIESEL ENGINE	Type Fuel	Turbo Diesel - liquid cooling Diesel EN 590		
COMPRESSOR	Type	Screw compressor, dry type		
GHH RAND	Cooling Air flow regulation	Integrated oil tank and external oil cooler GUINAULT RS686 electronic pressure / flow regulator		

* Given at 15°C/sea level

SAFETY FEATURES

Engine
- High temperature and low oil pressure
- Clogged air filter
- Battery charge failure
- Overspeed

Compressor
- Air overpressure
- Clogged air filter
- Low oil pressure
- High oil temperature

ASSEMBLY

- Metal body with wide doors for maintenance access
- Tray for hoses storage
- Braking when tow-bar is raised or lowered
- Front axle with turnable steering
- Batteries: 4 x 12 V-125 Ah

OPTIONS

- Airpac Mode: regulated pressure at 36psi for aircraft air conditioning (Air pack air supply)
- Truck mounted
- Cold start kit at low temperatures (< - 25°C) including engine electrical preheating
- Cold start kit at extremly low temperatures (- 40°C) to maintain and control the temperature of the whole system in order to allow the operation at - 40°C