



AIRCRAFT HYDRAULIC GROUND SUPPORT EQUIPMENT

AIRCRAFT MODEL

Wide-body aircraft
Regional aircraft
Business jet

AIRBUS A380
AIRBUS A350
BOEING B787

AIRBUS A300
AIRBUS A310
AIRBUS A318
AIRBUS A319
AIRBUS A320
AIRBUS A321
AIRBUS A330/A340

BOEING B707
BOEING B717
BOEING B727
BOEING B737
BOEING B747
BOEING B757
BOEING B767
BOEING B777
BOEING DC-8

LOCKHEED L-1011

Mc DOUGLAS DC-10
Mc DOUGLAS MD-11

ATR 42 / 72

BOMBARDIER Dash 8-400

EMBRAER ERJ-170
EMBRAER ERJ-175
EMBRAER ERJ-190
EMBRAER ERJ-195

FOKKER 28
FOKKER 70

GULFSTREAM G450
GULFSTREAM G500
GULFSTREAM G550
GULFSTREAM V

And all aircraft using the hydraulic characteristics complying of the HGPU capacities

Minus Series

Hangar movable hydraulic ground servicing unit



ABC hydraulic ground servicing units (HGSU) are suitable for:

- ✦ Testing aircraft landing gear doors with easy monitoring of the actuators.
- ✦ Positioning aircraft landing gears doors and keeping them into position.
- ✦ Supplying hydraulic power to any other equipment compatible with the unit capabilities.

**2 Usqpm
8 l/min**

**Mineral
Or
Ester Phosphate**

The HGSU model Minus-series replaces the aircraft hydraulic power unit and it enables to perform on ground maintenance operations. It is designed for hangar applications with focus on simplicity to operate and maintain.

Three versions are available:

HGSU Models	Flow	Pressure	Max pressure
Minus 23	2 usqpm	3000 psig	3500 psig
	8 lpm	210 bar	250 bar
Minus 25	2 usqpm	5000 psi	5000 psig
	8 lpm	345 bar	345 bar

*Indicated measurements may vary by +/-2%



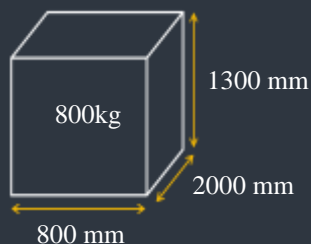
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Main Characteristics

OVERALL DIMENSIONS



Hydraulic hoses :

- 8 meters (without aircraft quick-disconnect)

- Power supply cable : 10 meters (without plug)

OPERATING CONDITIONS

Operation temperature:
from +10°C to +45°C

Indoor use (Maintenance hangar)

Easily movable by one operator

Forkliftable

Power supply: 3 x 400V, 50Hz,
+Ground (other upon request)

Power: 6kVA

Commands circuit upon 24V
(Safety voltage)



The front wheels are swivel with brakes and dedicated points are available for a forklift. The test unit is mainly composed of a quiet motor-pump unit with high efficiency filter and an equipped reservoir. The hydraulic test unit is a manual technology system monitored by the operator directly on the control panel. The control panel is placed on the upper part for easy access to all monitoring devices and measurements displays. The operator can use a fluid-proof 4-way valve to reverse the flow.

Standard accuracy (other upon request)

- ✦ Pressure gauge: +0.5% FS
- ✦ Pressure transducer: +0.5%FS
- ✦ Flowmeter display in %
- ✦ Sound level : less than 70 dbA
- ✦ Hourmeter
- ✦ Temperature: Class 2
- ✦ Time counter

Hydraulic parameters

- ✦ Esther phosphate oil based HGPU such as HYJET, SKYDROL standards type IV and V
- ✦ Mineral oil based HGSU such as MIL-PRF-5606, MIL-PRF-83282, MIL-PRF-87257 standards (other upon request)
- ✦ Single power system with one supply line
- ✦ Pressure range: adjustable up to 3000 psi / max 5000psi
- ✦ Flow range: up to 8 usgpm upon visual flow indicator
- ✦ Non-stop fluid decontamination level in class 5 (or better) upon NAS 1638 standards using filter with clogging indicator
- ✦ 16 usgallon (60 liter) reservoir capacity

Options available (other upon request)

- ✦ **BR** : A flushing unit for cleaning the hydraulic cart (maintenance purpose)
- ✦ **QD** : Aircraft quick-disconnect
- ✦ **TY** : Hydraulic hose length 12 meters
- ✦ **EC** : Electrical cable length 12 meters
- ✦ **CP** : Connectors for connecting an external particle counter
- ✦ **PP** : Sampling port
- ✦ **CD** : Integration of a flowmeter – range 8 lpm – Accuracy 2%MV
- ✦ **PS** : Polyamide pads mounted on hoses for coupling protection
- ✦ **EC** : Electrical cable 12 meters
- ✦ **GY** : Flashing beacon during operation (orange)
- ✦ **SR** : Cooling system by air/oil heat exchanger
- ✦ **CF** : Electrical clogging indicator for filters
- ✦ **PM** : integration of a handpump 13cm³/stroke

To order:

MINUS - M - 25 - TY - QD

Option

"M" Mineral
"ES" Ester Phosphate
25 : 5000PSI
23 : 3000PSI



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