



# AIRCRAFT HYDRAULIC GROUND SUPPORT EQUIPMENT

## AIRCRAFT MODEL

Wide and narrow body commercial aircraft

AIRBUS A350, A380

BOEING 787

AIRBUS A330, A340

BOEING B747, B757, B767, B777

LOCKHEED L-1011

Mc DOUGLAS DC-10, MD-11

AIRBUS A300, A310, A318, A319,

A320, A321

BOEING B707, B717, B727, B737

BOEING DC-8 series 60

BOMBARDIER Dash-8-400

EMBRAER ERJ-170, ERJ-175,

ERJ-190, ERJ-195

FOKKER 28, 70

GULFSTREAM G450, G500, G550

GULFSTREAM V

Mc DOUGLAS DC-8

BOEING DC-9

BOEING MD-80

BAE 146

BOMBARDIER:

Challenger 300, 850, 870, 890,

CRJ 100, 200, 700, 705, 900, 1000

GLOBAL EXPRESS

CESSNA Citation X750

FOKKER 100

GULFSTREAM:

G100, G150, G200, G350, II, III, IV

And all other aircraft with hydraulic characteristics complying with this

HGPU

## TYPHON-series

Hangar movable hydraulic ground test unit



ABC hydraulic ground power units (HGPU) are suitable for:

- ✈ AMM/ATA29 maintenance and overhaul tests on the aircraft hydraulic system
  - Checking and operating various hydraulic systems: landing gear, flaps, servo-controls, doors, brakes, nose-wheel steering, etc.
  - Checking of locking/unlocking devices,
  - Filling and draining of aircraft hydraulic reservoir,
  - Checking of internal leaks of the aircraft equipment,
- ✈ Filtering the aircraft hydraulic system for particles decontamination

HGPU Models	Flow	Pressure	Max pressure	Max hyd. power
<b>TY-65</b>	50 usgpm	5000 psig	5000 psig	250 000 usgpm * psig
	190 lpm	345 bar	345 bar	65500 lpm * bar
<b>TY-63</b>	60 usgpm	3000 psi	5000 psi	180 000 usgpm * psig
	230 lpm	210 bar	345 bar	48 300 lpm * bar

\*Indicated measurements may vary by +/-2%

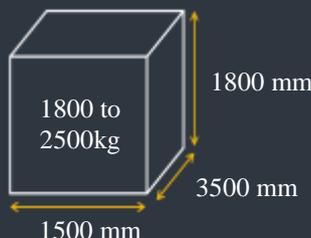


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## OVERALL DIMENSIONS



### Hydraulic hoses :

- 10 meters (without aircraft quick-disconnect)

### Power supply cable:

- 12 meters (without plug)



On the control panel, the monitoring screen give an access to all controls and displays of the HGPU authorizing two modes: user & maintenance

- Pressure setting and read out
- Flow setting and read out
- Temperature
- Defects
- Calibration
- Adjustments of all parameters
- And so on...

## OPERATING CONDITIONS

- Operating temperature:
  - o from -20 to +50°C
- Operating altitude:
  - o up to 1500m
- Indoor/outdoor use (rainproof)
- Easy access for quicker cart maintenance
- Flowmeter :
  - o Class 5 of the reading value
- Sound level : less than 75 dbA
- Forkliftable
- Hourmeter
- Power supply:
  - o 3x400V, 50Hz, + ground
  - o Power 250A Max 170KVA
- Commands circuit upon 24V (safety voltage)

The HGPU model TYPHON-series replaces the aircraft hydraulic power unit and it enables to perform on ground maintenance operations. It is designed for outdoor/indoor applications with focus on simplicity to operate and maintain. The HGPU can perform preliminary tests by supplying an adjusted hydraulic power

## Main Characteristics

The chassis consists of a welded stainless steel structure movable thanks to four wheels with a tow bar for towing and braking. The cart can be towed up to 25 km/h (15 mph) on surface road. The complete hydraulic system is mounted on a special tray to collect possible leaks and thus help preserve the environment. A rainproof polyester material canopy protects the internal system. A manual reel allows the storage of hydraulic hoses.

A stainless steel control panel integrates all the commands and lights for the monitoring of the hydraulic cart. Pressure pre-settings are operated by a large monitoring screen. A selector valve allows the operator to work on aircraft reservoir mode or on HGPU reservoir mode for fluid transfer. Aircraft reservoir filling and draining function. Cart braking by lowering / raising the draw bar; tow bar orientable +/- 90°

## Hydraulic parameters Options available

(other upon request)

- ✦ Esther phosphate oil based HGPU such as HYJET, SKYDROL standards type IV and V
- ✦ Single power
- ✦ Axial piston pumps with variable delivery
- ✦ Pressure range adjustable up to 3000/5000 psi
- ✦ Flow range : up to 60 usgpm
- ✦ Non-stop fluid decontamination level in class 5 (or better) upon NAS 1638 standards using 5µβ1000 filter with clogging indicator
- ✦ Air/oil heat exchanger with low noise level
- ✦ 55 usgal (200l) reservoir capacity
- ✦ CP: ports to connect a particle counter
- ✦ PP: sampling port for fluid analysis (PP1: HP line / PP2: LP line)
- ✦ MR: display of the return pressure
- ✦ BR: a flushing unit to clean the cart (without aircraft quick disconnect)
- ✦ RD: controls for flow adjustment
- ✦ PS: polyamide protectors of QD mounted on hydraulic hose end fittings
- ✦ TY: extra length 14m hydraulic hoses
- ✦ EC: extra length 20m electrical cable
- ✦ KX: operator warning klaxon in case of defects
- ✦ GY: light beacon on the canopy, illuminated during operation
- ✦ QD: aircraft quick disconnect
- ✦ RT: Rat test
- ✦ OT: extend operating temperature -40 °C to +50°C

	Model TY-65	Model TY-63
AIRBUS A380 / A350	X	
AIRBUS A330 / A340	X	X
AIRBUS A320 series	X	X
BOEING B787	X	
BOEING B747 / B757 / B767 / B777	X	X
BOEING B707 / B717 / B727 / B737	X	X
EMBRAER ERJ series	X	X
FOKKER 28 / 70 / 100	X	X
GULFSTREAM G450 / G500 / G550 / V	X	X



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