



# 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

## ADAM-series

Hangar movable hydraulic ground test unit



Phosphate-ester Analysing Depollution automatic machine (ADAM) purpose is to measure aircraft fluid properties as per AMM and proceed to cleaning up if necessary.

- ✈ Carrying out ATA29 maintenance and overhaul tests the on aircraft hydraulic system
- ✈ Measuring physical and chemical properties of aircraft oil:
  - Water content
  - Acidity
  - Viscosity
  - Conductivity
  - Chlorine content
  - Density
- ✈ Filtering the aircraft hydraulic oil for solid particles decontamination
- ✈ Removing water and air from aircraft oil
- ✈ Measuring of aircraft hydraulic oil solid particles contamination as per NAS 1638 or ISO

Two versions are available according to aircraft applications:

ADAM Models	Flow	Pressure	Analysis Duration	Water removal		Particle removal
AD30	30 gpm	3000 psi	60 minutes	Free water	Up to 80%	< Class 5
	115 lpm	210 bar		Free gases	Up to 80%	
AD50	20 gpm	5000 psi		Dissolved water	100%	
	75 lpm	345 bar		Dissolved air	100%	

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

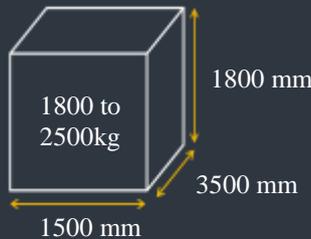


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## OVERALL DIMENSIONS



### Hydraulic hoses:

- 10 meters (without aircraft quick-disconnect)

### Power supply cable:

- 12 meters (without plug)

## OPERATING CONDITIONS

- Operating temperature:
  - o from +10 to +45°C
- Operating altitude:
  - o up to 1500m
- Indoor/outdoor use (rainproof)
- Easy access for quicker cart maintenance
- Sound level : less than 78 dbA
- Forkliftable
- Hourmeter
- Power supply:
  - o 3x400V, 50Hz, + ground
  - o Power 75 kVA
- Commands circuit upon 24V (safety voltage)

Directly connected to the aircraft hydraulic system by quick-disconnect couplings, ADAM automatically samples in the aircraft and analyses both physical/chemical and particular contents without any human intervention. Once analysis is done ADAM is able to clean-up aircraft fluid upon operator request or automatically. A status report is displayed on a large screen and saved.

Therefore ADAM is shortening aircraft hydraulic maintenance and is a money saver.

## 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.

## Hydraulic parameters

- ✦ Esther phosphate oil based HGPU such as HYJET, SKYDROL standards type IV and V
- ✦ Single hydraulic system
- ✦ Non-stop fluid decontamination level in class 5 (or better) upon NAS 1638 Air/oil heat exchanger with low noise level

## Options available (other upon request)

- ✦ 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

## Profitable benefits

### Multi purpose use:

- On line fluid analyser
- On line fluid cleaner
- HGPU for all commercial aircraft

### Optimization of aircraft hydraulic system maintenance

- Extension of fluid lifecycle
- Better planning for ATA29 maintenance
- Better flight safety by supervising aircraft contamination per hydraulic circuit

### Time saving for aircraft hydraulic system analysis

- Analysis and result in one hour
- On line equipment = no logistic samples
- Better aircraft availability

### Cost reduction of hydraulic maintenance

- Less laboratory analysis
- Less hydraulic fluid consumption
- Less unscheduled hydraulic maintenance



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