

Hydraulic Ground Power Unit - Regional Aircraft

>HGPU<

3000psi at 12USgpm



Hydraulic Ground Power Unit used for maintenance and testing of regional aircraft hydraulic systems (i. a. w. ATA Chapter 29).

Designed for all aircraft types with 3000psi systems and a flow rate of up to 12USgpm.

- > Single hydraulic system capable of open or closed circuit operation
- > Easy pressure control using "0psi" and "3000psi" push buttons
- > Ramp function ensures a controllable pressure build up
- > Pressure and flow rates are infinitely variable and limitable
- > The customer can choose whatever matches his requirements
 - e.g. pressure, single or dual system, hydraulic fluids, electric or diesel driven, accessories etc.
 - In addition, any customer special wishes will be respected.

RANGE OF APPLICATION

The HGPU family is designed for aircraft using Phospate-Ester Hydraulic Oil ("Skydrol" or "Hyjet") or Mineral Oil based Hydraulic Media ("MIL-H-5606", "MIL-H-83282", "MIL-H-87257")

ATR: 42/72	Bombardier: CRJ Series Dash 8 / Q 100-300	Embraer: ERJ135/145	Pilatus: PC-7MKII PC-9, PC-9M, PC-21
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GENERAL INFORMATION

- > The stainless steel hydraulic reservoir has a capacity of 19USgal (70l)
- > Open or closed circuit operation is selected electrically (Option P)
- > Easy draining and filling of the aircraft reservoirs is carried out by "Fill"/"Drain" push buttons (Option M)
- > A large fan operated oil-air cooler ensures optimum cooling
- > Easy access for maintenance is provided by a hinged cover which is fitted with gas spring struts
- > Maximum towing speed is 15mph (25km/h)
- > Designed to be used in an external environment

TECHNICAL DATA

> **Hydraulic Parameters:**

High pressure circuit:
 100 - 3000psi at max. 8 - 12USgpm
 (7 - 207bar at max. 30 - 45lpm)
 max. 3500psi (240bar) at reduced
 flow rate

Test medium (depending on type of equipment):
 Phosphate-Ester Hydraulic Oil ("Sky-
 drol" or "Hyjet") or Mineral Oil
 based Hydraulic Media
 ("MIL-H-5606", "MIL-H-83282",
 "MIL-H-87257")

Filter: 3 micron in filling and low
 pressure circuit
 ; 3 micron in high pressure circuit;
 25 micron in return (Option D)

> **Electrical parameters
(requirements):**

Supply: 3/N/PE AC 50-60Hz 400V
 3/N/PE AC 50-60Hz 230V
 Nominal current: 30A / 50A
 Power: approx. 20kVA

> **Dimensions and weight:**

Length: 6.2ft (1900mm)
 Length: 6.9ft (2100mm) (Option N)
 Width: 3.9ft (1200mm)
 Height: 4.9ft (1500mm)
 Weight: approx. 1.870lb (850kg)

> **Measurement range:**

Supply pressure (analog): 0 - 3600psi
 (0 - 250bar),
 cl. 1 (EN 837)
 Return pressure (analog): 0 - 145psi
 (0 - 10bar),
 cl. 1,6 (EN 837)
 Oil temperature indicator: 0 - 100°C
 Flow measurement (Option A): 0,05 - 12USgpm
 (0.2 - 46lpm), ±1% F.S.

> **Operating conditions:**

Operating temperature: -25 to +45°C
 (-13 to +113°F)
 Noise emission: max. 73dB(A) at 1m distance

HYDRAULIC GROUND POWER UNIT Cover open

- ① Filter (3 micron) in filling/low pressure circuit and in high pressure circuit
- ② Retaining brackets for electrical connection cable
- ③ Chassis with towing bar (Option N)
- ④ The large oil-air cooler
- ⑤ Gas spring struts enabling easy operation of the hinged cover
- ⑥ Electrical drive motor

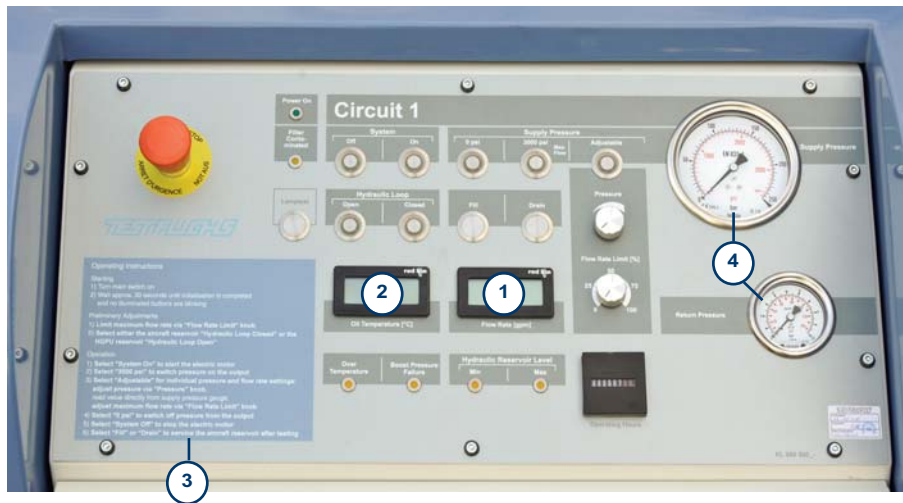


HYDRAULIC GROUND POWER UNIT Cover closed

- ① Hydraulic connection hoses
- ② Test sampling points (Option K)
- ③ Braked swivelling castors and steering arm <HGPU>
- ④ Forklift truck access points
- ⑤ Non-standard color (Option R)



CONTROL PANEL



1 Digital indicator for flow measurement (Option A)

3 Quick guide for operation of the ground power unit. The required language can be ordered (Option 5)

2 Digital indicator for oil temperature measurement

4 Pressure gauges for supply and return pressure

REAR VIEW OF AN <HGPU>

1 Locking screws for the switch cabinet access doors

2 Main switch of the <HGPU>

3 Grounding screw for potential equilization

4 Electrical connection cable

5 Hydraulic hoses for connecting the <HGPU> to the aircraft



3000psi Hydraulic Ground Power Unit >HGPU< Suitable for aircraft with 3000psi system

Type	System	Flow (USgpm)	Motor (kW)
HGPU8-30-1	Single	8	15
HGPU12-30-1	Single	12	22

OPTIONS

OPTION	DESCRIPTION
A	Flow measurement with digital indicator: 0,05 to 12USgpm (0,2 to 46lpm) ±1% of full scale
C	Flushing circuit with loading system
D	Filter (25 micron) in the return line
G	Required hose lengths differing from the standard 20ft (6 m) <u>must be specified by the customer.</u>
K	Test sampling points
M	Electrical filling pump
N	Chassis with steering axle and towing bar
P	Electrically selectable open/ closed hydraulic circuit operation
R	Cover color change from standard blue (RAL 5007)/ white (RAL 9003) <u>The required color combination must be specified by the customer including the RAL standard</u>
S	<u>Changes to the standard languages German, English, Russian, Spanish for front panel markings must be clearly defined by the customer as an additional requirement.</u>
T	Dual Output Kit

ORDERING INSTRUCTIONS

1) DEFINE THE REQUIRED TYPE OF >HGPU<

2) SELECT THE REQUIRED TYPE OF MEDIUM

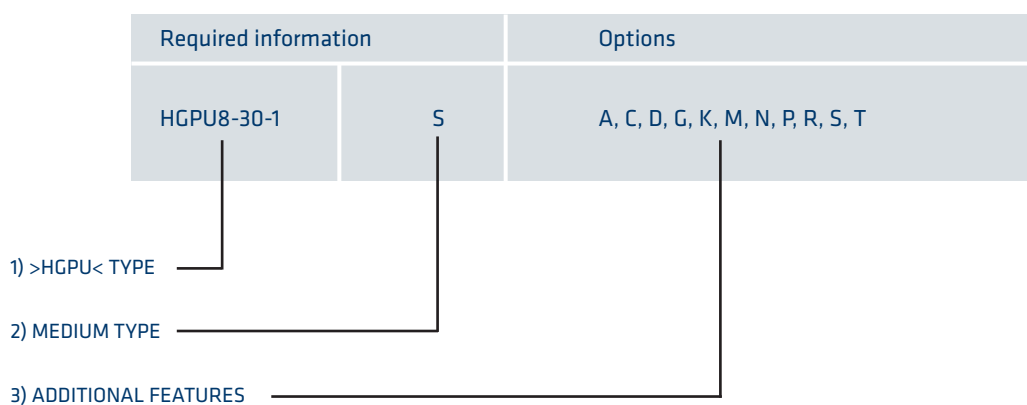
Phosphate Ester Hydraulic Oil ("Skydrol" or "Hyjet")

Specify the ID Letter "S"

Mineral Oil based Hydraulic Media ("MIL-H-5606", "MIL-H-83282", "MIL-H-87257")

Specify the ID Letter "M"

3) SELECT ADDITIONAL FEATURES AS REQUIRED



ACCESSORIES

The hydraulic couplings necessary for connection to the aircraft as well as the required hydraulic medium and the electrical connection plug are not included in the standard scope of delivery.

An extensive range of hydraulic couplings (Coupling Kits) and other accessories are in the brochure "Hydraulic Ground Power Unit <HGPU> - Accessories".

safety in test > safety in flight

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