



ALL POWER LABS

Personal-Scale Power

PP25 EU POWER PALLET

SPECIFICATIONS	PP25 EU	PP25 EU CHP
Max. Continuous Power Output ¹	25 kW	25 kW
Max. Continuous Operation Period	24 hr	24 hr
Sound Level @ 10 meters	65 db	65 db
Emissions - Meeting EU & US targets ²	✓	✓
CHP - Combined Heat & Power ³ Engine Cooling/Exhaust Heat Recovery	NA	~65 kWt >70%
Full Enclosure - Stainless Steel Panels	✓	✓
Site Requirements - Well-Ventilated Protected From Rain & Direct Sun	✓	✓
Installed Footprint Not including ash vessel & grid tie enclosure	136 x 136 cm	136 x 136 cm
Shipping Dimensions PP25 - Crated Accessories- Crated	178 x 178 x 157 cm 125 x 125 x 127 cm	178 x 178 x 165 cm 125 x 125 x 127 cm
Shipping Weight PP25 - Crated Accessories- Crated	1175 kg 210 kg	1250 kg 225 kg
CE Certified	✓	✓
List Price - FOB California	€49995	€59995
Equipment Cost per Watt - €/Watt	€2,00	€2,40

¹ Actual power may vary depending on fuel type, shape, energy density and moisture content. Biomass fuel is not standardized like petrol, diesel or LPG, so energy densities will be variable.
² Emissions: <200 mg/m³ CO, <650 mg/m³ NOx, both @ 5% O₂. Check your local emissions requirements.
³ PP25 CHP system uses all available waste heats in a high-efficiency architecture. CHP efficiency calculations vary widely depending on parameter definitions.



RENEWABLE
AFFORDABLE
ON-DEMAND
POWER

APL is pleased to announce a new 25 kW version of the Power Pallet, specifically designed for the European feed-in tariff market. The new machine is fully enclosed, regulation compliant, and available with an advanced CHP option—ready for quiet and continuous operation at your home, farm or business.

Our goal with the PP25 EU CHP Power Pallet is to offer a compact and fully automated biomass power and heat solution—requiring minimized installation space or onsite construction—and do so at a fraction of the cost of comparable systems on the market in Europe. We are moving the assumed cost of an expertly engineered CHP gasifier system in Europe from the current €4/watt and above, to around €2/watt. Our PP25 EU CHP system meets an important market need and will make the gasifier/engine CHP solution broadly relevant and regularly installed across the continent.

In conjunction with this new release, we're also pleased to announce the opening of our new European headquarters in Terni, Italy (near Rome). This new facility will enable us to give personal demonstrations, and directly install and service our machines from a local European site. Our first demonstrations will start in October, 2014 and continue regularly thereafter. Email sales@allpowerlabs.com for more details.

BIOMASS FEEDSTOCK

Size	12-40 mm.
Moisture Content	10-32% dry basis
Approved and Tested w/ normal operating procedures	Walnut Shells Softwood Chips (e.g. Fir, Pine) Hardwood Chips (e.g. Oak, Ash)
Approved and Tested w/ increased operating effort	Corn Cobs Coconut Shells Palm Kernel Shells
Not Approved Dangerous & Voids Warranty	Coal Tires Plastic Medical Waste Municipal Solid Waste

FUEL COST COMPARISON

FUEL	PRICE RANGE
Diesel	€0.50 - €1.00/kWh
Gasoline	€0.70 - €1.50/kWh
LPG/Propane	€0.40 - €0.75/kWh
Gasified Biomass	€0.00 - €0.25/kWh

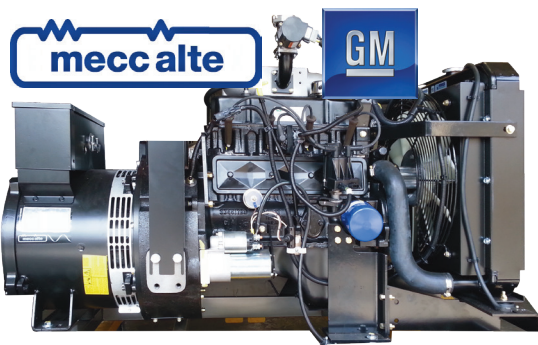
All specifications are subject to change without notice



v5 GEK TOTTI Gasifier

GASIFIER SYSTEM

FEATURES	PP25 EU	PP25 EU CHP
GEK TOTTI Gasifier - Multi-stage, Zone-Separated Heat-regenerating, High-Efficiency Architecture	v5	v5
Fuel Moisture Tolerance	32%	32%
Biomass Consumption	1.1 kg/kWh	1.1 kg/kWh
High Performance Neutral-Vane Cyclone	✓	✓
Centrifugal Rotary Filter with HEPA Media	✓	✓
Continuous Ash Removal 24hr. service period	✓	✓
Continuous Fuel Feed via Airlock including Hopper, Air Lock, Level Sensing & ECU	✓	✓
Fuel Conveyor to Hopper Airlock	Optional	Optional

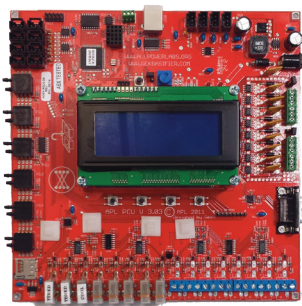


Meccalte NPE32 Genhead GM Vortec 3.0 IC Engine

ENGINE & GENERATOR

FEATURES	PP25 EU	PP25 EU CHP
GM Vortec 3.0 Liter, 4 cylinder engine	✓	✓
Electronic Woodward Governor	✓	✓
Automated Syngas Mixture Control	✓	✓
Turbocharger with Intercooler	✓	✓
Exhaust Cleanup ¹ Dual Catalytic Converter	✓	✓
Meccalte 12 wire genhead 3 phase, 50 Hz, all common voltages	✓	✓
Grid Tie System - including controls & contactor	✓	✓
Paralleling Capable	✓	✓

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APL Custom Process Control Unit

AUTOMATION SYSTEM

FEATURES	PP25 EU	PP25 EU CHP
Full Temperature & Pressure Instrumentation	✓	✓
Automated Grate, Fuel & Ash Auger	✓	✓
Diagnostic Messages for Error Recovery	✓	✓
User-Configurable Setpoints for all critical systems	✓	✓
Datalogging for Gasifier	✓	✓
Datalogging for Power Generation	✓	✓



Deep Sea Grid Tie Control Unit

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