

# INNOVATION AT WORK.



**ENGINEERED FOR THE PIPELINE INDUSTRY**

# VANGUARD

**CPW 125 - 4**  
SERIES 2

**CONTINUOUSLY POWERED WELDING**

Distributed Exclusively by:

**PipeLine  
Machinery**



Your Global Partner for Pipeline Solutions

# CPW 125-4 Series 2 Weld Deck - An outstanding choice for Productivity & Versatility

Utilizing substantial research with industry leaders and technicians, Vanguard Equipment, Inc. developed the CPW 125 welding package. Building on the success of this proven approach, Vanguard has updated the concept to series 2, and incorporated a Tier 3/ Stage IIIA engine that is in compliance with both US EPA and EU non-road mobile machinery emissions regulations.

**PipeLine Machinery International (PLM)** is proud to be the exclusive distributor of this state-of-the-art unit that will continue to revolutionize the quality and efficiency of on-site pipeline welding around the world.



## ▶ CONTINUOUSLY POWERED WELDING

Unique features of this package include:

- The power generation is independent of the carrier allowing the unit to be moved without shutting down the power which results in a faster cycle time for welding a joint of pipe.
- A closely governed genset results in tighter frequency control creating higher quality welds and fewer weld repairs.
- The cycling time of line-up clamps is much quicker with the CPW 125-4 Series 2 welding package. The air compressor delivers the air at both a higher volume [90 cfm (2548.5 liters/min.)] and pressure [250 psi (17.2 bar)]. The fact that there is no down time for the compressor while moving the unit adds to its ability to replenish the air much faster than other designs.
- The CPW 125-4 Series 2 unit is ergonomically designed and safety engineered to CSA/UL/SAE and European Certification (CE)\*.

## ▶ FUEL EFFICIENCY

A direct-coupled diesel engine provides zero mechanical loss to the AC generator resulting in excellent fuel efficiency (20 to 44 gallons per shift, depending on welding operation).

## ▶ COOLING SYSTEM

A heavy-duty, three-piece radiator is mounted on isolators for tough construction jobs and long life.

\*A CE certified air tank is required with CE units.

## ► INSTALLATION

The welding module can be both installed and removed quickly. The module is bolted to the carrier and the fuel line is connected to the carrier's fuel tank. The front platform module, if required, is pinned to the carrier using existing tractor pins for easy installation and removal. Both of these modules can be easily removed when not in use to free machine for other work.

## ► VERSATILITY

The CPW 125-4 Series 2 welding package is designed and built for flexibility. Interchangeable adapter plates allow for mounting onto whichever carrier is desired (for example: D6M/N, D6D/E, 571G/F, 572G/R, 71H, 72H, or Challenger units) via its winch mounts. The unit can also be supplied in a flat-deck arrangement that can be mounted onto a skid, the PANTHER T8/T12, or other carriers.

## ► DUAL FREQUENCY

The CPW 125-4 Series 2 comes standard with 50/60 dual frequency operation for easy conversion between 50 and 60 cycle applications at the flick of a switch. For maximum versatility, optional quick-connect front receptacle panels are available to suit any plug standard throughout the world.

## ► AIR SYSTEM

Improved high-pressure air system offers continuous operation, delivering 50% more air over previous industry standard.



## GENERATOR MODULE ▶

### DESIGN

The Tier 3/EU Stage IIIA engine is in compliance with current US EPA non-road emissions regulations under the TPEM program and with current EU non-road mobile machinery emissions regulations.

170 hp 6 cylinder engine equipped with 24 volt starting system, idle control, ether starting aid, block heater, pan heater, heavy duty radiator, primary and secondary fuel filters, and a 156 kVA generator. The complete generator is mounted on rugged isolator mounts, and housed in a lockable enclosure.

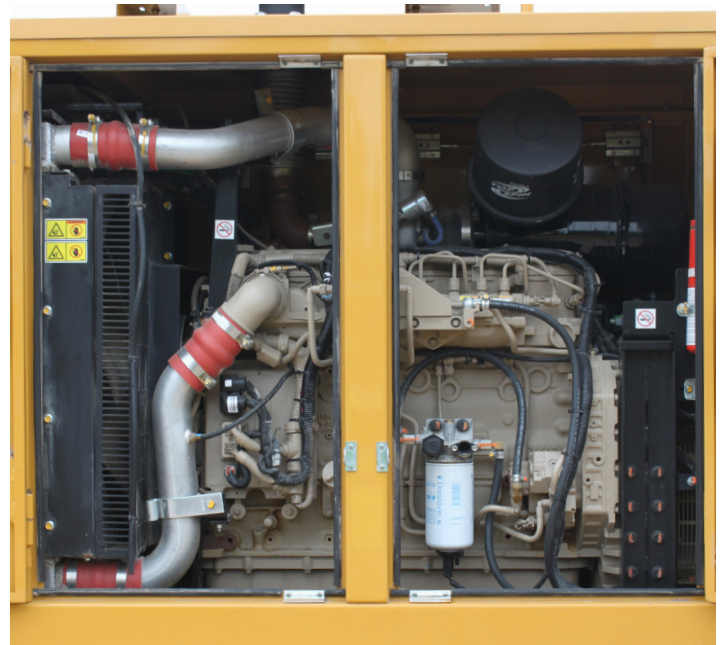
### RATING

156 kVA @ 60 Hz, 125 kVA @ 50 Hz

### VOLTAGE

120/240/480/60 Hz or 240/415/50 Hz

Arctic winter package optional.



## ◀ CONTROL DISTRIBUTION MODULE

### DESIGN

Control Box Nema 3 with Nema 4 enhancements mounted on isolators with 2 lockable doors CSA/UL/CE Approved.

### RATING

200 AMP

### CONTROLS

- Engine Digital Display unit shows genset engine's operating parameters and any stored trouble codes to assist troubleshooting.
- Engine Oil Pressure, water temperature, DC volt and hour meter gauges.
- Engine start/stop control, cold weather ether assist and idle/run throttle control.
- Engine operating parameters monitored and controlled by the Engine Control Module (ECM) for safe and reliable operation.
- Emergency shut down button.

### AIR COMPRESSOR

- Start/stop control.
- Air pressure gauge.

### ELECTRICAL

- 200 AMP main breaker and sub power circuits.
- Supply frequency protection.
- Main power supply gauges.
- 5-230 volt/50 Hz or 5-120 volt and 2-230 volt/60 Hz receptacles, plus 5-480 volt welding receptacle.

### OPTIONS

For maximum versatility, optional quick-connect front receptacle panels are available to suit any plug standard throughout the world.





## ◀ AIR COMPRESSOR MODULE

### DESIGN

Gardner-Denver/Champion with four opposing cylinders, pressure lubricated for off-level operations, vibration mounted. The compressor is equipped with an aftercooler that removes up to 65% of the moisture from the compressed air.

### RATING OPTIONS

- 90 cfm (2548.5 litre/min) delivery @ 250 psi (17.2 bar) with 30 hp (22 kW) electric motor @ 60 Hz.
- 75 cfm (2123.8 litre/min) delivery @ 250 psi (17.2 bar) with 30 hp (22 kW) electric motor @ 50 Hz.

### DUTY CYCLE

70% at 250 psi (17.2 bar), or continuous with synthetic oils.

### CONTROLS

A hydraulic unloader system provides loadless starting for longer motor life, and has the added feature of preventing the compression of air should the oil pump fail.



## AIR TANK MODULE ▶

### DESIGN

Low profile vertical air receiver certified to ASME code

### RATING

115 US gal. (435.3 liters) at 250 psi (17.2 bar)

### CONTROLS

- Manual drip drain
- Safety relief valve

### OPTIONS

ASME/CE certified. A CE certified air tank is required with CE units.



## ◀ WELDER MODULE

### DESIGN

4 welders of customer's choice, mounted in lockable box and vibration mounted, with sliding shelves for ease of servicing.

### WELDERS

- Miller XMT 350.
- Lincoln Invertec V350-PRO Invertors 50/60 Hz.

### OPTIONS

- Additional welders.
- Other welders available: Fronius, Lincoln, Miller, etc.
- Service leads as required.
- Hoosier pole.

## FRONT PLATFORM ▶ MODULE

### DESIGN

Welded fabrication that pins onto machine with universal bolting patterns for various optional equipment and appropriate counterweight.

### OPTIONS

- Lockable toolbox.
- Various racks available to accommodate various gas bottles.
- Various cranes available as per customer request.



## ◀ ENGINEERED HYDRAULIC SLEWING CANOPY

A front-mounted, fully hydraulic slewing canopy is now available from Vanguard Equipment, Inc. The slewing canopy can be mounted to a D6M/N or any large dozer. A self-locking hydraulic slewing ring removes any manual effort to rotate and lock the canopy into position. The fully integrated hydraulic components and European Certification (CE) fully address the relevant safety aspects.





## Features of the CPW 125-4 Series 2 welding package include:

### ALTITUDE:

At 60 Hz operation the unit will work up to an altitude of 2926 m (9600 ft) without power derate.

At 50 Hz operation the unit will work up to an altitude of 2380 m (7810 ft) without power derate.

### GRADEABILITY:

Maximum slope should not exceed a grade of 119% (50°) up and down angularity, and should not exceed 93% (43°) side-to-side angularity.

### SECURITY:

All compartments lockable.

### TEMPERATURE:

-40° F to 122° F (-4° C to 50° C)

### SOUND LEVEL:

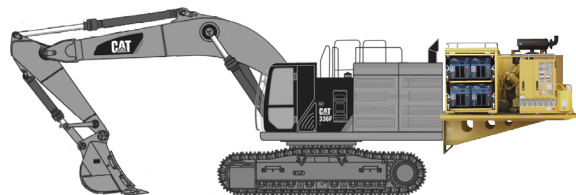
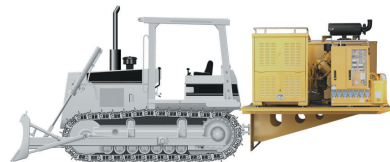
Per European CE requirements under the Noise in the Environment Directive 2000/14/EC, 2005/88/EC, Reg. 219/2009, the maximum guaranteed sound power level has been calculated and the CPW 125-4 Series 2 is marked LWA 114dB(A).

### VISION:

The unit has a line of sight to the rear of the machine.

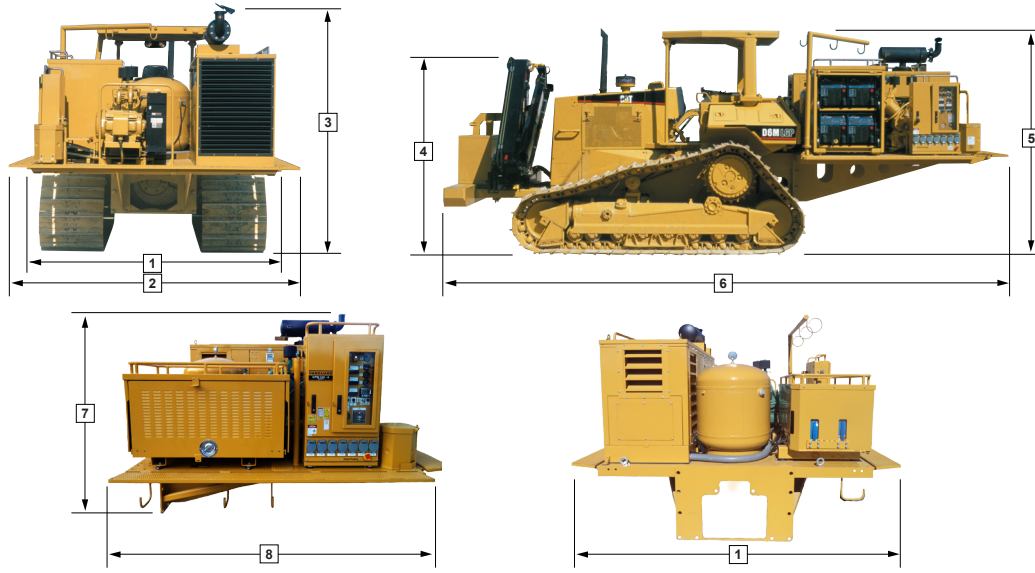
### SERVICEABILITY:

Welders are mounted on slide out trays for ease of servicing. All major components, filters, and lube points are easily accessible for operation and service.



Materials and specifications are subject to change without notice. Machines featured in photos may include additional equipment. Contact PLM for available options.

# DIMENSIONS



## ▼ CPW 125 SERIES 2 MOUNTED WELDER PACKAGE

<b>1</b> Transport width (catwalks stowed)	2 743 mm	108 in.
<b>2</b> Working width (catwalks extended)	3 232 mm	127.25 in.
<b>3</b> Machine height from tip of D6M/N grouser to ROPS cab	3 020 mm	126 in.
Welding package height exhaust installed (working) to ground (typical installation, D6N LGP tractor carrier vehicle)	3 229 mm	127.14 in.
Additional height to ground, typical carrier installation	492.8 mm	19.4 in.
<b>4</b> Crane height (stowed) from tip of D6M/N grouser	2 863 mm	112.7 in.
Slewing Canopy (stowed) from tip of D6M/N grouser	3 423 mm	134.75 in.
<b>5</b> Height Welding package alone	2 680 mm	105.5 in.
<b>6</b> Overall length D6M/N LGP Tack Rig package		
Transport (catwalks stowed)	7 480 mm	294.5 in.
Working (catwalks extended)	7 714 mm	303.7 in.
<b>7</b> Height Welding package alone	2 680 mm	105.5 in.
<b>8</b> Overall length Welding package alone (catwalks stowed)	2 642 mm	104 in.
Overall length Welding package alone (catwalks extended)	2 875 mm	113.2 in.
Additional length Welding package bolt-on front bridging catwalks	+358 mm	+14.1 in.

## ▼ WEIGHTS

Weight Welding package alone (includes 4 x 456MP welders, whoser pole, Compressed air system, D6M/N adapter plate)	4,468 kg	9,850 lb.
D6M/N Slewing Canopy additional weight	+1 055 kg	+2,325 lb.
Less air system (air compressor and tank)	-708 kg	-1,560 lb.

*Dimensions are approximate.*



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