



## Data Sheet

Form No.	Issue Date	Rev. Date
DS-4002	04/19/96	4/10/24

### WATEROUS PRIMING SYSTEM

#### Waterous offers two types of Priming Systems

System Type	See Section	Component	Type	Model	Furnished	Dimensional Drawing
Priming Pump	1	Priming Pump	Rotary Vane driven by an Electric Motor	VPO	Factory Mounted on Pump Transmission or P.T.O.	DPL83928
				VPOS	Shipped Loose for Mounting by OEM	
		Priming Valve	Vacuum Activated	VAP	Factory Mounted or Shipped Loose for Mounting by OEM	DPL82908
		Priming Tank	5 Quart	-	Shipped Loose for Mounting by OEM	DPL83928
Venturis Air Primer	2	Air Primer	Venturi Type	Venturis	Factory Mounted or Shipped Loose for Mounting by OEM	DPL83902
		Priming Valve	Vacuum Activated	VAP	Factory Mounted or Shipped Loose for Mounting by OEM	

#### ORDER A COMPLETE PRIMING SYSTEM AS FOLLOWS:

### Section 1 – Priming Pump Systems

#### PRIMING PUMP:

##### System and Model:

##### **Single Priming Pump Systems** (Available for all Pump Models):

Model VPO, Transmission or P.T.O. Mounted at Factory (Available only on Transmission Models C22, C23, QC and PTO Models TC22, TC23, TQC)

Model VPOS, Separately Mounted (Mounted by OEM) (Available for all Transmission and PTO Models)

##### **Dual Priming Pump Systems** (Only Available for Pump Models CR, CRU-1, CRU-1, CZ and CZU):

Model VPOS, Separately Mounted (Mounted by OEM) (Model VPO not available)

Dual Priming Pumps consists of two VPOS primers operated by one panel switch. Each is connected to a VAP priming valve which is plumbed into one priming port.

##### Motor Voltage:

12 or 24

#### PRIMING VALVE:

##### Main Priming Valve:

Single Priming Pump Systems:

One Valve is furnished

Dual Priming Pump Systems:

Two VAP valves are furnished. The OEM must furnish the fittings for installing valves on a single priming port.

##### Panel Switch Push Button:

Single Priming Pump Systems:

Standard (.75 in./19 mm Diameter) (English or Chinese Language available)

Oversize (1.57 in./40 mm Diameter) (Not available with Chinese Language)

Dual Priming Pump Systems:

Standard (.75 in./19 mm Diameter) (English or Chinese Language available)

Oversize (1.57 in./40 mm Diameter) (Not available with Chinese Language)

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## WATEROUS PRIMING SYSTEM

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### **PRIMING VALVE: (Cont'd)**

#### **Additional Valves for Multiple Valve Systems (Optional):**

##### **Availability:**

##### **Priming Pump System:**

Single Priming Pump Systems: Available

Dual Priming Pump Systems: Not Available

##### **Panel Switch Push Button:**

Standard Panel Switch Push Button must be ordered *(Not available with Chinese Language)*

Not available with Oversize Panel Switch Push Button

##### **Quantity:**

One to five additional valves may be ordered. Valves include a solenoid which when activated, allows the valve to open.

Note: Each additional valve will be shipped loose and include a push button panel switch which will open the valve and activate the priming pump.

### **HOSE FOR CONNECTION OF PRIMING VALVE TO PRIMING PUMP:**

The Hose will be installed at the factory for the following pumps:

Pump Model	Transmission Model	Priming Pump Model Ordered	Priming Valve Ordered
CM, CMU, CMCGV, CMUCGV CS, CSU CGVG, CXS, S101	C22B, C22C, C22D C22E, C22F	VPO	VAP

For all other pump and transmissions, the OEM must furnish a hose or order the hose individually from Waterous:

##### **Length:**

4'-0"/1220 mm

##### **Order Part Number:**

L 1160 *(Includes hose, two compression fittings and one street elbow)*

### **AUTO-PRIME FEATURE:**

Use is optional.

Consists of a Pressure Switch which is installed in the pump and connected to the priming pump motor.

When the switch detects a drop of 10 psi in pressure, the priming pump is activated.

##### **Use requires the following:**

##### **Priming Pump:**

Model VPO or VPOS

##### **Priming Valve:**

One VAP Valve, Standard or Oversize Push-Button Switch

Additional Valves for Multiple Valve Systems may not be used

*Note that the Push-Button Panel Switch furnished with the VAP valve may be discarded or used to manually override the pressure switch and activate the priming pump motor.*

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### WATEROUS PRIMING SYSTEM

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#### ***USE OF LUBRICANT WITH THE PRIMING PUMP:***

Use is optional.

##### **Waterous offers Prime-Safe™ Lubricant for these applications:**

Biodegradable and non-toxic. Meets 1996 NFPA 1901, Section 12-10-10.

A check valve and fittings for connecting a 1/4 in. lubricant line to the priming pump are shipped loose with all priming pumps.

The lubrication line from the tank to the priming pump is not furnished by Waterous.

##### **Specify Container Size:**

One Gallon Container, Order Part No. 72800-1

Five Gallon Container, Order Part No. 72800-5

Fifty-Five Gallon Container, Order Part No. 72800-55

#### ***5 QUART LUBRICANT TANK:***

Use is optional.

Includes a siphon tube with fittings for connection of a 1/4 in. lubrication line to the priming pump.

A check valve and fittings for connecting the line to the priming pump are shipped loose with all priming pumps.

The lubrication line from the tank to the priming pump is not furnished by Waterous.

#### ***MISCELLANIOUS ITEMS:***

Item	Use	Order Part No.
Hand Primer, Separately Mounted	For Priming Water Pump in place of a VPO or VPOS	L 1120
Pipe Nipple, 3/8 NPT x 3 in. Long	For installing Priming Valve when 1-1/2 in. long nipple furnished with valve is not sufficient	L 1138-3
Solenoid Valve Wire, 120 in. Long	For extending VAP solenoid wire on Multiple VAP valve installations	73176

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## WATEROUS PRIMING SYSTEM

### Section 2 – Venturis Air Primer

#### VENTURIS AIR PRIMER:

**Voltage:**

12 or 24 Volt

#### AUTO PRIME FEATURE (Optional):

Consists of a Pressure Switch which is installed on the pump discharge which activates the Venturis Air Primer when pump pressure drops below 10 psi.

**With:**

Components:

Operator's panel which allows the Auto Prime feature to be turned on or off. Available with English language only.

Pressure Switch which is installed in the pump discharge and is connected to the Auto Prime panel.

**Without:**

Components:

Push Button operator's panel which activates the Venturis Air Primer. Available with English or Chinese language.

#### ADDITIONAL VAP PRIMING VALVES FOR MULTIPLE VALVE SYSTEM (Optional):

**Quantity:**

One to Five Additional Valves may be ordered. Valves include a solenoid which when activated, allows the valve to open.

Note: Each additional valve will be shipped loose and include a push button switch which will open the valve and activate the Venturis Primer.

#### HOSE FOR CONNECTION OF VAP PRIMING VALVE TO VENTURIS AIR PRIMER:

The Hose will be installed at the factory for the following pumps:

Pump Model	Transmission Model
CM, CMU, CMCGV, CMUCGV CS, CSU CGVG, CXS, S101	C22B, C22C, C22D C22E, C22F

For all other pump and transmissions, the OEM must furnish a hose or order the hose individually from Waterous:

**Length:**

4'-0"/1220 mm

**Order Part Number:**

L 1160 (Includes hose, two compression fittings and one street elbow)

#### MISCELLANEOUS ITEMS:

Item	Use	Order Part No.
Pressure Protection Valve	Prevents complete pressure loss from vehicle's air tanks.	83897-8C
Optional Cables Extensions	Panel to Solenoid Cable, 70 in. Long	83897-8A
	Panel to Pressure Switch Cable, 70 in. Long	83897-8B
Pipe Nipple, 3/8 NPT x 3 in. Long	For installing Priming Valve when 1-1/2 in. long nipple furnished with valve is not sufficient	L 1138-3
Solenoid Valve Wire, 120 in. Long	For extending VAP solenoid wire on Multiple VAP valve installations	73176