WATERAX

BB-4-D902 DIESEL

DATA SHEET

HIGH-PRESSURE 4-STAGE FIRE PUMP

The ***WATERAX*** **BB-4-D902** pump pairs a reliable high performance 4-stage pump end with a powerful **Kubota D902-E4B** 3-Cylinder Fuel Injected Liquid Cooled **25 HP** Diesel Engine to achieve pressures of up to **395 PSI (27.2 bar)** and flow rates reaching **106 GPM (401 L/Min)**. Strong enough to operate as a source pump for tandem and parallel pumping, it is also optimal for direct attack firefighting, remote watering, sprinkler systems, and is a popular choice for slip-on units.

It is fully compatible with the **DCP**, supporting both **single** and **dual control panel** configurations. The engine speed can be controlled via the **DCP** using a linear throttle actuator.

The ***WATERAX*** quick release clamp provided on the **BB-4®** pump lets you replace a damaged pump end in the field with minimal equipment downtime. The 4-stage pump end on the **BB-4®** is identical to the pump end in the **MARK-3®** unit, which greatly reduces your spare parts inventory and improves your ability to respond to unforeseen equipment damage.

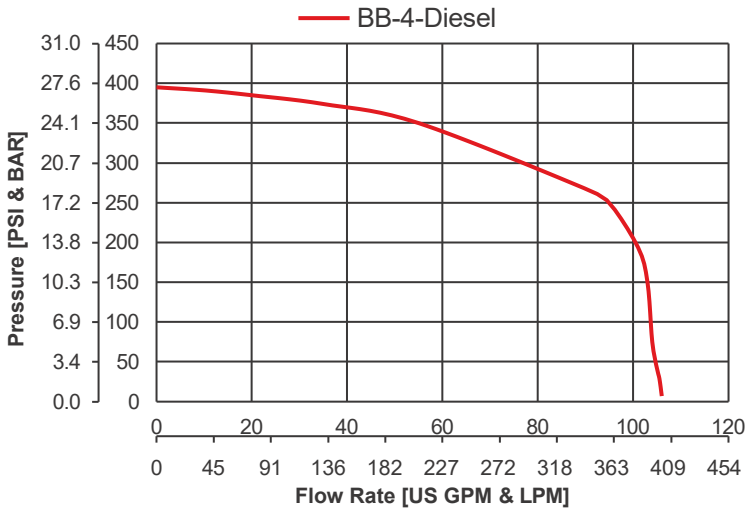
Applications

- Slip-on units
- Pump-and-roll
- Attack line firefighting
- Long hose lay for remote watering during firefighting operations
- High elevation firefighting in mountainous areas
- Accuracy in flow trajectory when structure fire fighting
- Tandem pumping over long distances
- Parallel pumping for higher volumes

Features and Benefits

- Quick release clamp and swappable pump end for minimal equipment downtime and inventory
- Sealed bearing to eliminate pump end greasing in the field
- Belt drive system for reliable, low maintenance performance
- Aluminum alloy pump components and anodized parts for lighter weight and greater resistance to corrosion
- Comprehensive user and service manuals
- Single or Dual control panel with remote throttle control
- EPA Certified

SPECIFICATIONS



Flow rate at specified pressure

Maximum Pressure: 395 PSI (27.2bar)
Free flow: 105 US gals/min (397 L/min)
Maximum Head: 911' (278 m)

Flow Rate			Pressure	
US GPM	(LPM)		PSI	(BAR)
105	(397)	@	150	(10.3)
95	(360)	@	250	(17.2)
55	(208)	@	350	(24.1)

Engine: Kubota D902-E4B - 25 hp

Engine Specifications

Model & Type	Kubota D902-E4B 3-Cylinder Fuel Injected Liquid Cooled Diesel Engine
Net Power	24.8 HP (18.5 kW) @ 3600 RPM
Net Torque	40.6 lb-ft (55 Nm) @ 2600 RPM
Max. Bare Idle Speed	900 to 1000 RPM
Bore & Stroke	2.83 x 2.9 inches (72 x 73.6 mm)
Displacement	54.80 cubic inches (898 cc)
Electric Starting System	12 VDC, 1.0 kW Starter (with glow plug)
Charging	12 Volt, 40 Amp
Battery Capacity (5Hr Capacity)	12 Volt, 52 Amp-Hour or equivalent
Intake System	Naturally Aspirated
Cooling	Liquid Cooled
Compression Ratio	24:1
Oil Capacity	3.9 quarts (3.7 liters)
Oil Type (API Classification)	API CJ-4
Emissions	Meets current CARB, EPA, and CE requirements.
Fuel Type	Ultra Low Sulfur (15 ppm or less)
Muffler	Rain Cap Standard, Forestry Approved Spark Arrestor Optional.

Pump Specifications

Type	Detachable, 4-stage, centrifugal pump
Ratings	ISO 9 and NFPA 1906 Medium Pressure Rating of 50 GPM
Color	Red
Description	High Pressure, Medium Flow, Foam Compatible
Maximum Allowable Pressure	600 PSI (41.4 bar)
Maximum Discharge Pressure	395 PSI (27.2 bar)
Discharge	Check Valve: 1-1/2" male NPSH thread (meets US Forest Service Specification 5100-382)
Intake	2" Male NPSH Thread
Priming Port	1-1/2" Male NPSH Thread
Body & Diffusers	Anodized corrosive resistant aluminum
Impellers	3.67" Diameter; Anodized corrosive resistant aluminum
Special feature	The entire pump separates completely from the engine/speed increaser.
Bearings	Maintenance Free; sealed ball bearing
Pump Seal	Blister-resistant carbon seal face, silicon carbide seat, and fully integrated drive bushing.
Clamp	Hand tight quick release clamp (no tools needed)
Drive Unit	Timing Belt and Pulley; Speed Increaser
Pump Shaft	Stainless Steel
Speed Increaser	Horizontal or Vertical
Drive Ratio	1.88: 1

SPECIFICATIONS

Primer Specifications:

Hand Primer Option	Guzzler, Diaphragm Type; Reliable, Lightweight and Rugged
Intake and Discharge Port Size	½" Female NPT
Construction	Aluminum Handle, composite body, buna-n reinforced diaphragm and flapper valves
Lift	12 feet (3.7 m) [up to approximately 16 feet (4.8 m) with suction hose footvalve]
Head Capacity	30 ft (9.1 m)
Maximum Pressure	15 PSI (1.03 bar)
Maximum Service Temp	150° F (66° C)
Volume per Stroke	0.44 quart (0.42 liter)
Dimensions (L x W x H)	12-3/4" x 4-1/2" x 4-5/16" (324 x 114 x 110 mm)
Weight	1.70 lbs (0.77 kg)

Electric Primer Option	12 VDC Piston Type Vacuum Pump
Intake and Discharge Port Size	3/8" Female NPT
Construction	Corrosion Resistant Aluminum with Bronze Sleeve and Composite Piston
Max. Current Draw	105 amps
Lift	25 feet (7.6 m)
Vacuum	22 in-Hg
Dimensions	9" x 4-1/8" x 7-1/2" (229 x 105 x 191 mm)
Weight	8.1 lbs (3.7 kg)
Vehicle Units	Shipped loose with mounting plate, hardware, and 6 feet of hose

Frame Specifications:

Vehicle Mount	4 Leg Mounts

Controls Specifications:

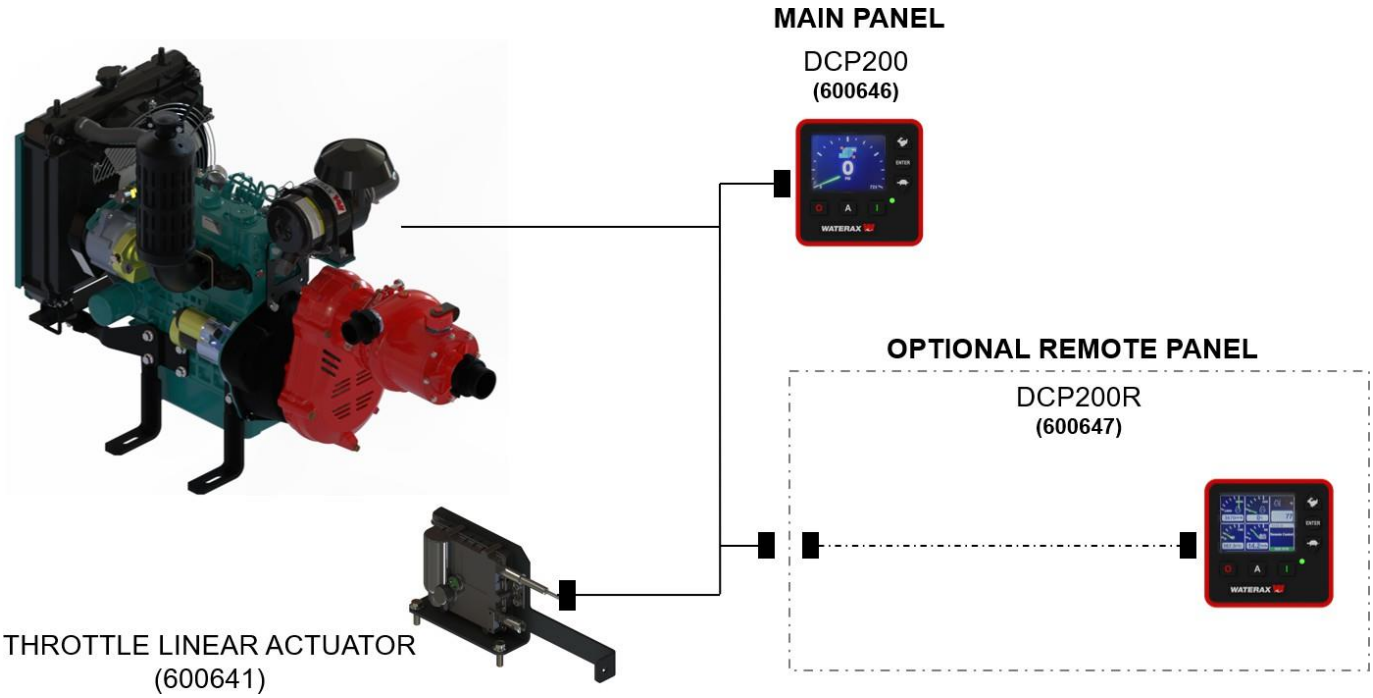
Digital Control Panel (Standard)	Digital Control Panel DCP200 with push buttons (*OFF* to turn Off Engine, *Enter* to cycle display screen menu, *Armed* to enables RUN Function, *Run* to start the engine, *Rabbit* and *Turtle* to move the throttle up and down), a LED indicator (becomes red when there is an error) and a screen displaying parameters; RPM, Throttle Position, Pressure Gauge, Coolant Temp, Battery Voltage and, Current Status. Low Water Pressure Protection, Low Oil Warning and High Coolant Temperature safety features are integrated in the panel.
PMSCP-Diesel	Push Button On/Off Switch (lit when on), Low Pressure Protection Switch (lit when on), Push Button Engine Start, Glow Plug Timer, Low Oil Pressure, Warning Light, High Water Temperature Warning Light, Vernier Throttle, Pump Discharge Pressure Gage and mounting for optional electric primer momentary control toggle switch (comes in electric primer kit).
CONTROL PANEL DIESEL G1	Rotary OFF/RUN/Start Switch; LED Indicators for glow plug preheat, alternator charge failure, Low oil pressure, and high Low Pump Pressure Protection Override Switch; Oil Pressure Gage; Voltage Gage; Tachometer and Hour meters.

NOTE: All panels come with FastWire Connections for ease in installation and maintenance. Standard FastWire is for the DCP. Special FastWire models are available for PMSCP-Diesel and G1 panel.

CONTROL PANEL

Digital Control Panel – DCP200

Single or Dual Control Panel Configuration



PRODUCT SELECTION

Product Selection Matrix

			BB-4-D902V	BB-4-D902H
STANDARD INCLUSIONS	Primer	Guzzler Hand Primer	o	o
		Electric Primer	o	o
	Muffler	Rain Cap	o	o
		Forestry Approved Spark Arrestor	o	o
	Drive Orientation	Vertical	s	-
		Horizontal	-	s
	Controls	DCP	o	o
		PMSCP-DIESEL	o	o
		CONTROL PANEL DIESEL G1	o	o
	FastWire	FWX-D902-3 3' Extension Harness	o	o
	Dimensions	L x W x H	39.8"x 20.6" x 37"	39.8"x 21.9" x 37"
	Weight		280 lbs (127 kg)	280 lbs (127 kg)

Standard **s** Option **o** Not applicable **-**

Options & Accessories

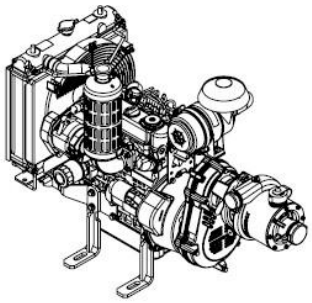
Sold Separately

GZPRIMERKIT
Guzzler Hand Primer with hose & valve

EPRIMERKIT
Electric Primer w/ plate, 5' harness & switch

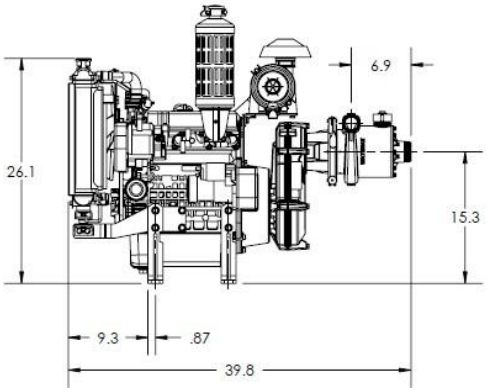
B-6365
CHECK VALVE MANIFOLD 1-1/2 NPSH

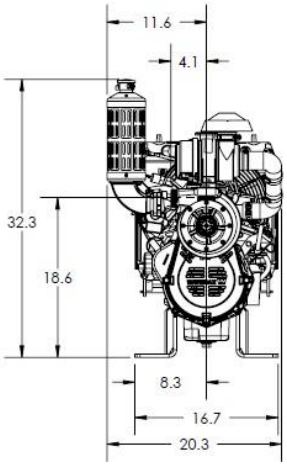
TECHNICAL DRAWINGS

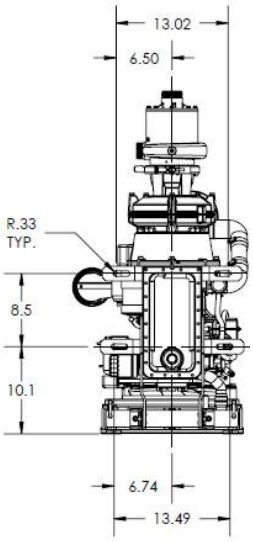


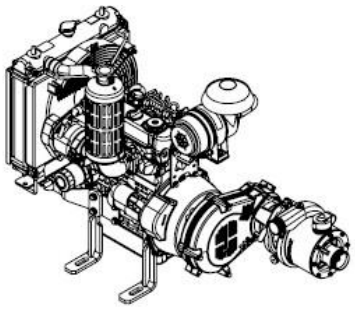
BB-4-D902V

Length 39.8" (101cm) **Width** 20.6" (52.3cm) **Height** 32.3" (82cm) **Weight** 280 lbs (127kg)



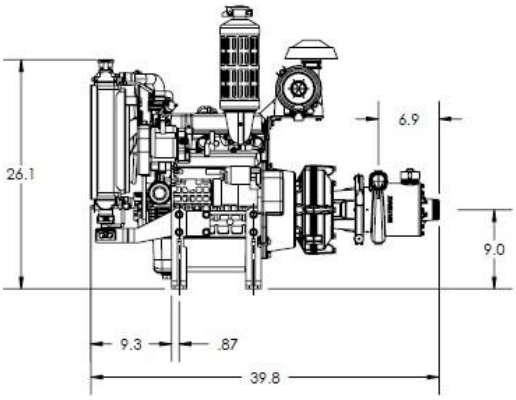


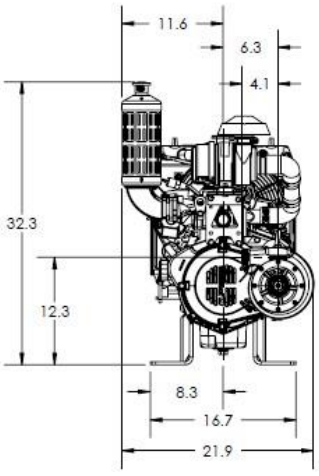


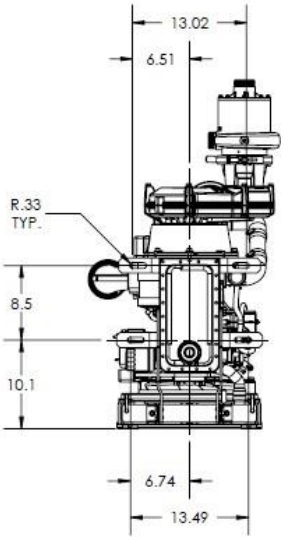


BB-4-D902H

Length 39.8" (101cm) **Width** 21.9" (55.6) **Height** 32.3" (82cm) **Weight** 280 lbs (127kg)

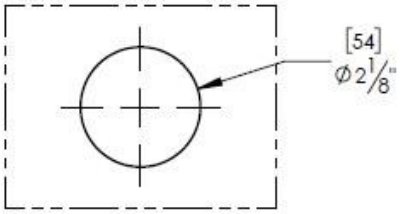


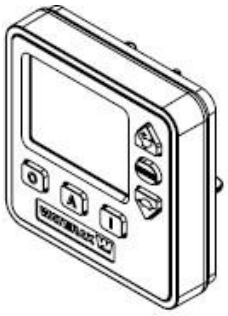


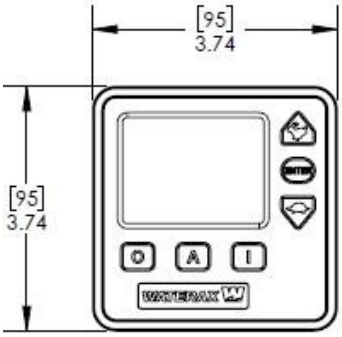


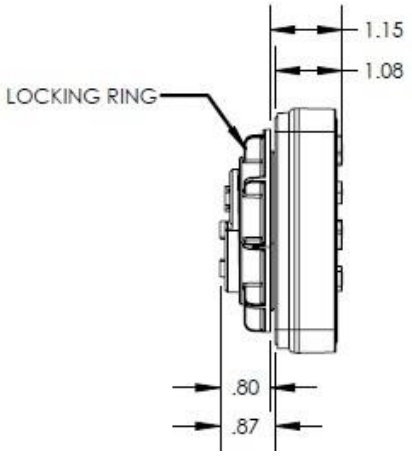
DCP200

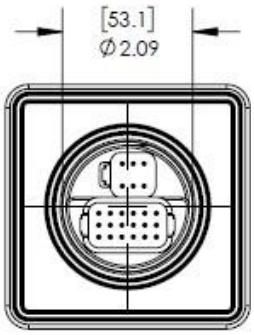
REQUIRED PANEL CUT OUT:











WATERAX

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To help you stay **#ReadyForWildfires**, we've made a few changes, placing 100% of our focus on manufacturing our core products, portable fire pumps. To do so, we've established a network of trusted supply and distribution partners that can help us provide *WATERAX* pumps quickly in addition to water-handling equipment and accessories.

For immediate assistance when it comes to pumps and water-handling accessories, please contact your local dealer.

For genuine spare parts, visit our online store.