

BB-4[®]

DIESEL



BB-4-D902

VEHICLE MOUNT

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.

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 on the **MARK-3[®]** unit, which greatly reduces your spare parts inventory and improves your ability to respond to unforeseen equipment damage.

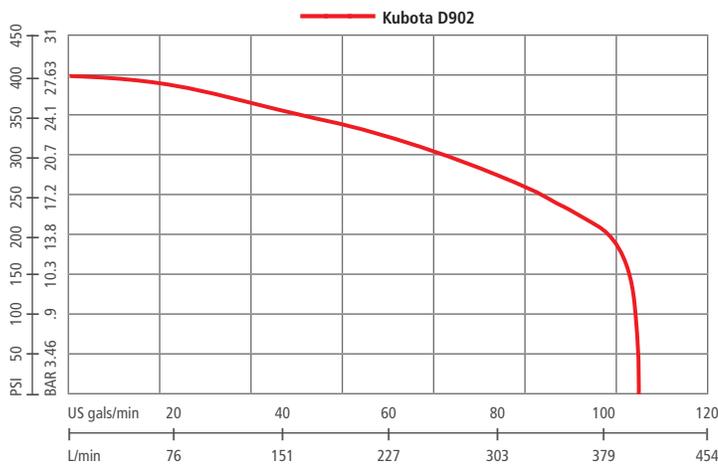
Applications

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

Features and Benefits

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

SPECIFICATIONS



Flow rate at specified pressure

Maximum Pressure: 395 PSI (27.2 bar)

Free flow: 106 GPM (401 lpm)

Maximum Head: 911' (278 m)

Flow Rate		Pressure		
US GPM	(LPM)	@	PSI	(BAR)
103	(390)	@	150	(10.3)
95	(360)	@	250	(17.2)
55	(208)	@	350	(24.1)

Engine: Kubota D902-E4B - 25 hp



Pump Specifications:

Type	Detachable 4 stage Centrifugal
Ratings	NFPA 1906 Medium Pressure Rating of 50 GPM
Description	High Pressure, Medium Flow, Foam Compatible
Maximum Allowable Pressure	600 PSI (41.4 bar)
Maximum Discharge Pressure	395 PSI (27.2 bar)
Intake	2" Male NPSH Thread
Discharge	1-1/2" 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
Pump Shaft	Stainless Steel
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 In increaser
Speed In creaser	
Position	Horizontal or Vertical
Drive Ratio	1.88: 1
Color	Red
Special Feature	The entire pump separates completely from the engine/speed increaser.

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.

All features are not available on every model. Please refer to the product selection matrix to select the proper model.

SPECIFICATIONS

Primer Specifications

Hand Primer Option

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)
	Shipped loose with connection hardware and 6 feet of hose

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.
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Controls Specifications

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).
G1 PANEL	Rotary OFF/RUN/Start Switch; LED Indicators for glow plug preheat, alternator charge failure, low oil pressure, and high engine temperature. Tachometer, Hourmeter, and low oil pressure and high engine temperature shut down.
DUAL CONTROL PANELS	Two individual panels each having a rotary OFF/RUN/Start Switch; LED Indicators for glow plug preheat, alternator charge failure, low oil pressure, and high engine temperature. Tachometer, Hourmeter, and low oil pressure and high engine temperature shut down.

NOTE: All panels come with FastWire Connections for ease in installation and maintenance.
A 3 foot extension is also available.

All features are not available on every model. Please refer to the product selection matrix to select the proper model.

PRODUCT SELECTION

PRODUCT SELECTION MATRIX

			BB-4-D902V	BB-4-D902H
STANDARD INCLUSIONS	Primer	Guzzler Hand Primer	0	0
		Electric Primer	0	0
	Muffler	Rain Cap	S	S
		Forestry Approved Spark Arrestor	0	0
	Drive Orientation	Vertical	S	-
		Horizontal	-	S
	Controls	PMSCP-DIESEL	0	0
		G1 PANEL	0	0
		Dual Control Panels	0	0
	Fastwire	FWX-D902-3 3' Extension Harness	0	0
Dimensions	L x W x H	39.8" x 20.6" x 33"	39.8" x 21.9" x 33"	
Weight		280 lbs (127 kg)	280 lbs (127 kg)	

Standard **S** Option **0** Not applicable **-**

OPTIONS AND ACCESSORIES

Sold Separately

CONTROLS



PMSCP-DIESEL

(Part Number 250278)

Panel Mount Standard Control Panel
w/ FastWire CTRL connector.



G1 PANEL

(Part Number 250287)

Engine OFF/RUN/START,
Glow Plug LED Indicator,
Battery Low Voltage
Warning LED Indicator,
Low Oil Pressure LED
Indicator and Shutdown,
High Water Temperature
LED Indicator and
Shutdown, Hourmeter,
and Analog Tachometer.



DUAL CONTROLS

(Part Number 600609)

ELECTRIC KIT

FASTWIRE CABLES



BATKIT-66

(Part Number 250239)
Deep Cycle Battery Kit
w/ FWP-9 cable



WLIGHTKIT

(Part Number 250244)
LED Work Light w/ 5'
harness & toggle switch



FWX-D902-3

(Part Number 600584)
3' CTRL Cable extension
w/ two 14pin connectors



FWP-20

(Part Number 600071)
20' PWR Cable with lugs
& Anderson conn.

FWP-9

(Part Number 600144)
9' PWR Cable w/ lugs
& Anderson conn.

FWP-3

(Part Number 600129)
3' PWR Cable w/ lugs
& Anderson conn.

PRODUCT SELECTION

OPTIONS AND ACCESSORIES

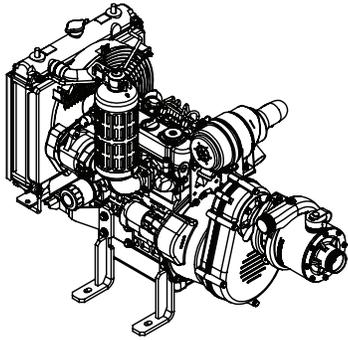
Sold Separately

PRIMER	PUMP INTAKE & DISCHARGE ADAPTER	
		 <p>300770 ADAPTER 2" NPSH FEMALE TO VICTAULIC 300771 ADAPTER 1-1/2" NPSH FEMALE TO VICTAULIC</p>
<p>GZPRIMERKIT (Part Number 250237) Guzzler Hand Primer with hose & valve</p>	<p>EPRIMERKIT (Part Number 250238) Electric Primer w/ plate, 5' harness & switch</p>	 <p>600428 CHECK VALVE MANIFOLD 1-1/2 NPSH</p>

ENGINE ACCESSORIES

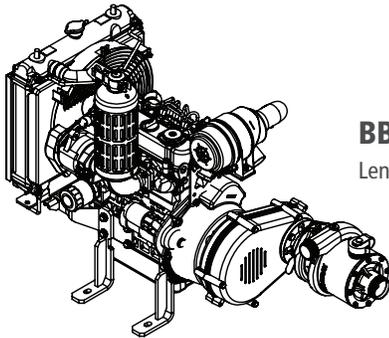
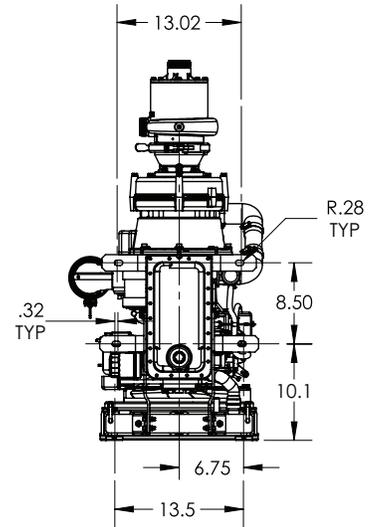
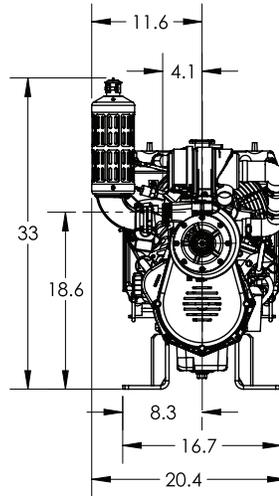
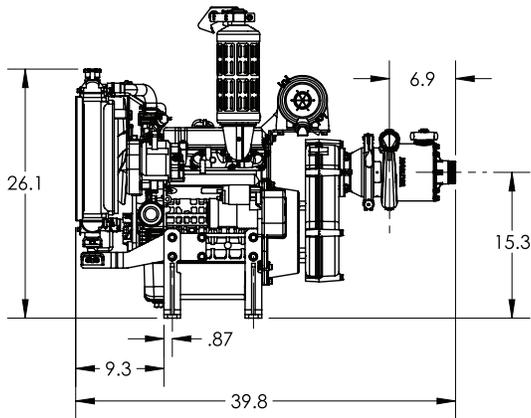
			
<p>SPARK ARRESTOR (Part Number 701421) (Need to order 701422 with arrestor)</p>	<p>AUXILIARY FUEL PUMP KIT (Part Number 701419) *Required for installations where the fuel tank sits more than 8 inches below the bottom of the engine.</p>	<p>FUEL LINE CHECK (Part Number 701466) *Reduces engine start up time by keeping fuel in the fuel line to the engine.</p>	<p>ISOLATORS (Part Number 701420) (Need to order 4)</p>

TECHNICAL DRAWINGS



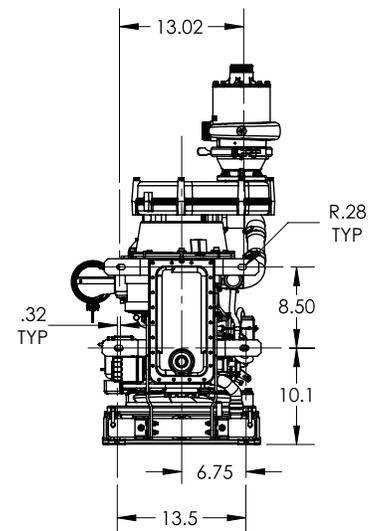
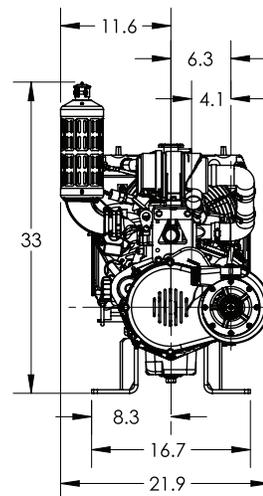
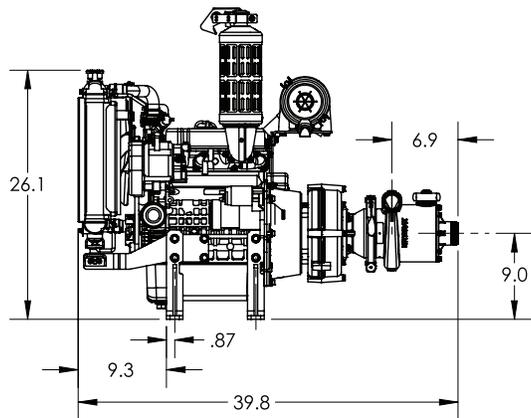
BB-4-D902V

Length 39.8" (101 cm) Width 20.6" (52.32 cm) Height 33" (83.8 cm) Weight 280 lbs (127 kg)



BB-4-D902H

Length 39.8" (101 cm) Width 21.9" (52.32 cm) Height 33" (83.8 cm) Weight 280 lbs (127 kg)





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