

WATERAX



BB-4[®]-23V Vehicle mount vertical drive

DATA SHEET

HIGH PRESSURE 4-STAGE FIRE PUMP

The **WATERAX BB-4 -23** pump pairs a reliable high performance 4-stage pump end with a powerful **Briggs & Stratton 4-stroke 23 HP** engine to achieve pressures of up to **440 PSI (30.3 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. You can also quickly install a mid-range **B2X[™]** pump end as needed for supply or structure firefighting.

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

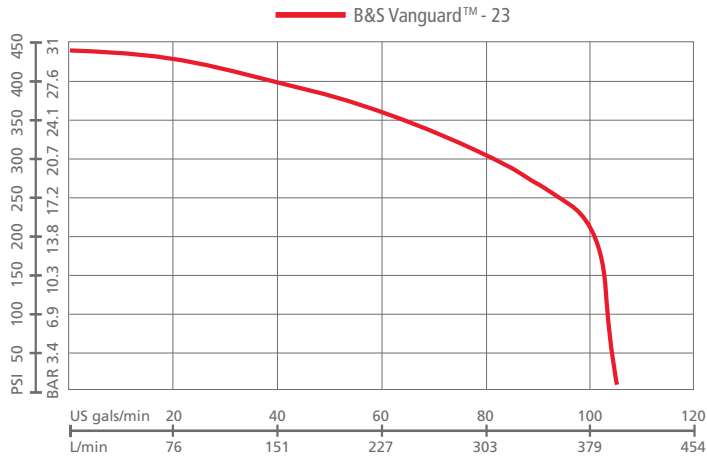
Features and Benefits

- 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



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SPECIFICATIONS



Flow rate at specified pressure

Maximum Pressure: 440 PSI (30.3 bar)
 Free flow: 106 US gals/min (401 L/min)
 Maximum Head: 1016' (310 m)

Flow Rate			Pressure	
US GPM	(LPM)		PSI	(BAR)
105	(397)	@	150	(10.3)
95	(360)	@	250	(17.2)
65	(246)	@	350	(24.1)

Engine: Briggs & Stratton® Vanguard™ - 23 hp



Pump Specifications:

Type:	Detachable 4 stage Centrifugal
Ratings:	ISO 9 and NFPA 1906 Medium Pressure Rating of 50 GPM
Description:	High Pressure, Medium Flow, Foam Compatible
Maximum Allowable Pressure:	600 PSI (41.4 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:	Heat resistant, Maintenance Free
Clamp:	Hand tight quick release clamp (no tools needed)
Drive Unit:	Timing Belt and Pulley; Speed Inserter
Speed Inserter Position:	Horizontal
Drive Ratio:	1.88: 1
Color:	Red
Special Feature:	The entire pump separates completely from the engine/speed inserter.

Engine Specifications:

Model & Type:	Briggs and Stratton Vanguard 4-cycle, horizontal shaft, twin cylinder, OHV
Maximum Power:	23 HP (17.2 kW) @ 3600 RPM
Maximum Torque:	32.75 lb-ft (44.4 Nm) @ 2600 RPM
Bore & Stroke:	2.97 x 2.76 inches (72 x 70 mm)
Displacement:	38.26 cubic inches (627 cc)
Starting System:	12 VDC electric start with recoil start
Ignition:	Magnatron
Charging:	16 AMP regulating alternator
Wiring:	Pre-wired for FastWire panel connections (panels purchased separately).
Governor:	Mechanical
Cooling:	Air Cooled
Lubrication:	Oil, Full pressure
Oil Capacity:	1.8 quarts (1.7 liters)
Fuel Pump:	18 inch lift.
Emissions:	Meets current CARB, EPA, and CE requirements.
Fuel Type:	Gasoline [unleaded, 86 minimum octane, 10% maximum ethanol]
Fuel Consumption:	2.1 US gals/hr (7.9 liters/hr)
Muffler:	Forestry approved spark arrestor

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



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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)

Shipped loose with connection hardware and 6 feet of hose

Exhaust Primer Option:

	Venturi Type (when selected mounted to exhaust primer muffler)
Venturi Construction:	Brass
Exhaust Valve Construction:	Aluminum with stainless shaft and disc
Operation:	Remote mount push/pull cable.
Vacuum:	Minimum of 17 in-Hg

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:	Black flat base with tubular horizontal legs. (Provided with industrial grade stud isolators - shipped loose)
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Controls Specifications:

Engine supplied controls:	Choke & Throttle levers.
Remote exhaust:	Pull cable
FastWire quick connect:	Loomed engine wire harness (pre-wired to engine) with 8 pin Molex MX150L Industrial Sealed Male Connector. All Vehicle Mounted BB-4 pumps are equipped with FastWire quick connect engine wire harness for plug & play ease in connecting pump engine, power, and control components such as the WATERAX Control Panels MCP, PMSCP, WCP* Series.
WATERAX Control Panels:	MCP, PMSCP, WCP* Series * Water and/or foam level monitors, electric primer, work light options available.

Note: Refer to the WATERAX Control Panel data sheet and specifications to select a remote mount panel and/or call your WATERAX dealer to customize your own control panel with water and/or foam level monitors, and toggle switches for optional electric primer and work light.



PRODUCT SELECTION

PRODUCT SELECTION MATRIX

		BB-4-23V	BB-4-23VX
STANDARD INCLUSIONS	Primer	Guzzler Hand Primer	-
		Remote Exhaust Primer w/Control Cable PART-763	-
		Exhaust Primer	-
		Electric Package - Electric Primer, LED work light, & Battery	-
	Muffler	B&S horizontal low tone	-
		Dual B&S low tone	S
		Exhaust primer muffler	-
	Fuel Tank	Integral / 7 US qts (6.6 L)	-
		Integral / 4 US qts (3.8 L) w/ 3-way valve	-
	Controls	Engine Mount Control Panel	-
	Discharge Gauge	0-600 psi, 2-1/2" dial	-
	Check Valve Manifold	1-1/2" NPSH	-
FastWire CTRL Cable	B&S 3' CTRL Cable with 8 pin connector (FWC-B-3)	0	
Weight		153 lbs (69 kg)	153 lbs (69 kg)

OPTIONS & ACCESSORIES

Sold Separately

Controls



VCBLKIT
Vernier Throttle Cable










PMSCP
Panel Mount Standard Control Panel
w/ FastWire CTRL connector.



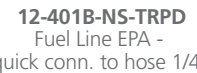



MCP
Mini Control Panel
w/ FastWire CTRL connector.



WCP
WATERAX Control Panel
w/ FastWire PWR & CTRL connectors.

Primer	Electric Kit	FastWire Cables
 <p>GZPRIMERKIT Guzzler Hand Primer with hose & valve</p>	 <p>BATKIT-66 Deep Cycle Battery Kit w/ FWP-9 cable</p>	 <p>FWC-B-3 3' B&S CTRL Cable w/ lugs & 8 pin conn.</p>
 <p>EPRIMERKIT Electric Primer w/ plate, 5' harness & switch</p>	 <p>WLIGHTKIT LED Work Light w/ 5' harness & toggle switch</p>	 <p>FWX-3 3' CTRL Cable Extension w/ two 8 pin connectors</p>
		 <p>FWP-20 20' PWR Cable with lugs & Anderson conn.</p> <p>FWP-9 9' PWR Cable w/ lugs & Anderson conn.</p> <p>FWP-3 3' PWR Cable w/ lugs & Anderson conn.</p>

Fuel Tank	Pump Intake & Discharge Adapters
 <p>FA-452 Remote Fuel Tank 6.6 US Gallons w/ quick conn.</p>	 <p>ADP-A-FM20S Adapter 2" NPSH Female to NPSH Male ADP-A-FM20SP Adapter 2" NPSH Female to NPT Male ADP-A-FM20SV Adapter 2" NPSH Female to Victaulic ADP-A-FM15SN Adapter 1-1/2" NPSH Female to NH Male ADP-A-FM15S Adapter 1-1/2" NPSH Female to NPSH Male ADP-A-FM15SP Adapter 1-1/2" NPSH Female to NPT Male ADP-A-FM15SV Adapter 1-1/2" NPSH Female to Victaulic</p>
 <p>FA-452-3 Remote Fuel Tank 3.2 US Gallons w/ quick conn.</p>	 <p>B-6365 Check valve manifold 1-1/2 NPSH</p>
<p>12-401B-NS-TRPD Fuel Line EPA - quick conn. to hose 1/4"</p>	<p>12-401B-NS-TRPD Fuel Line - quick conn. to SAE 45 Flare</p>



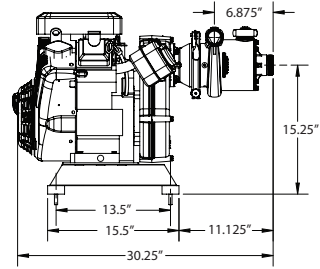
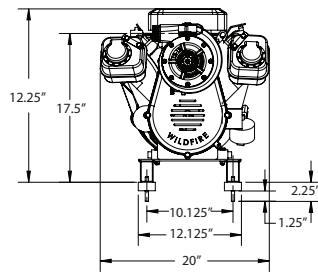
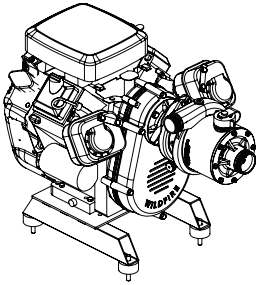
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TECHNICAL DRAWINGS

BB-4-23V

Length 30.25" (76.8 cm) Width 20" (50.8 cm)

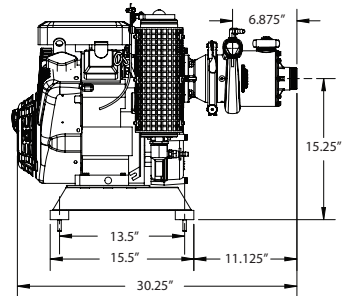
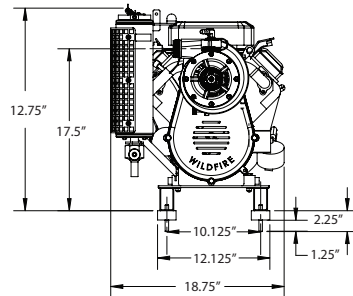
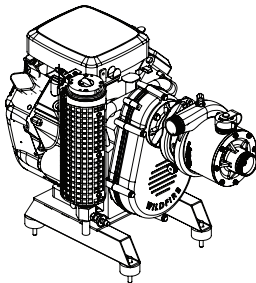
Height 20.25" (51.43 cm) Weight 154 lbs (70 kg)



BB-4-23VX

Length 30.25" (76.8 cm) Width 18.75" (47.62 cm)

Height 20.75" (52.70 cm) Weight 162 lbs (73 kg)



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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.

BB-4® is a trademark of Waterax.



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