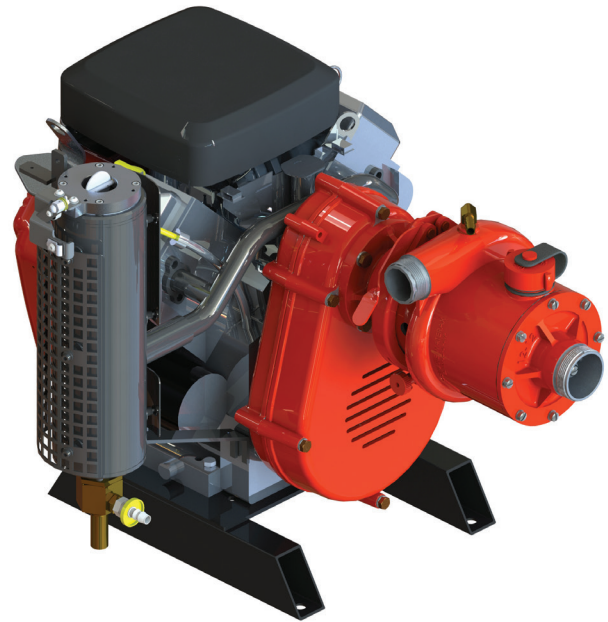


# BB-4<sup>®</sup>

## SERIES

### BB-4-18V VEHICLE MOUNT VERTICAL DRIVE



### HIGH PRESSURE 4-STAGE FIRE PUMP

The **WATERAX** BB-4-18 pump pairs a reliable high performance 4-stage pump end with a powerful Briggs & Stratton 4-stroke 18 HP engine to achieve pressures of up to **440 PSI (30.3 BAR)** and flow rates reaching **104 GPM (394 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<sup>®</sup> pump lets you replace a damaged pump end in the field with minimal equipment downtime. The 4-stage pump end on the BB-4<sup>®</sup> is identical to the pump end on the **MARK-3<sup>®</sup>** 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.

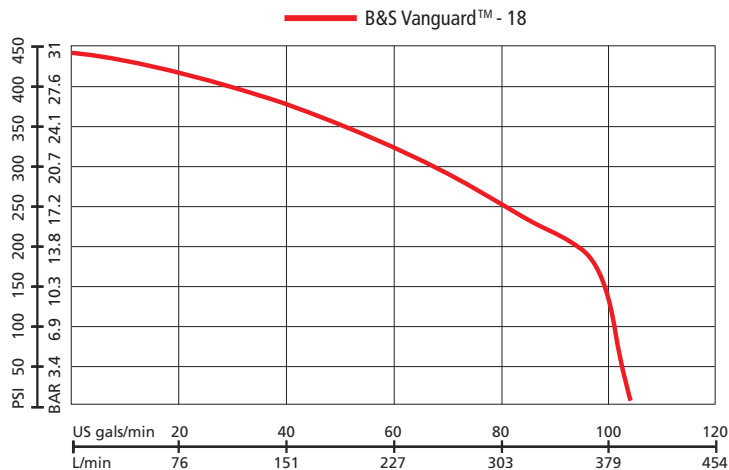
#### Applications

- 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

### SPECIFICATIONS



### Flow rate at specified pressure

Maximum Pressure: 440 PSI (30.3 bar)  
 Free flow: 104 US gals/min (394 L/min)  
 Maximum Head: 1016' (310 m)

Flow Rate			Pressure	
US GPM	( LPM )	@	PSI	( BAR )
100	( 379 )	@	150	( 10.3 )
80	( 303 )	@	250	( 17.2 )
50	( 189 )	@	350	( 24.1 )

Engine: Briggs & Stratton® Vanguard™ - 18 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 Increaser
Speed Increaser Position:	Vertical
Drive Ratio:	1.88: 1
Color:	Red
Special Feature:	The entire pump separates completely from the engine/speed increaser.

### Engine Specifications:

Model & Type:	Briggs and Stratton Vanguard 4-cycle, horizontal shaft, twin cylinder, OHV
Maximum Power:	18 HP (13.4 kW) @ 4000 RPM
Maximum Torque:	26.9 lb-ft (36.5 Nm) @ 2800 RPM
Bore & Stroke:	2.83 x 2.76 inches (72 x 70 mm)
Displacement:	34.78 cubic inches (570 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:	1.6 US gals/hr (6.1 liters/hr)
Optional Integrated Fuel Tank Option:	7 US quarts (6.6 liters) with manual shut off valve
Muffler:	Forestry approved spark arrestor

## 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):	12-¾" x 4-½" 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:	¾" 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-4-18V	BB-4-18VT	BB-4-18VX	BB-4-18VXT	
<b>STANDARD INCLUSIONS</b>	Primer	Guzzler Hand Primer	-	-	-	-
		Remote Exhaust Primer w/Control Cable PART-763	-	-	S	S
		Exhaust Primer	-	-	-	-
		Electric Package - Electric Primer, LED work light, & Battery	-	-	-	-
	Muffler	B&S horizontal low tone	-	-	-	-
		Dual B&S low tone	S	S	-	-
		Exhaust primer muffler	-	-	S	S
	Fuel Tank	Integral / 7 US qts (6.6 L)	-	S	-	S
		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)	S	S	S	S	
Weight		153 lbs (69 kg)	157 lbs (71 kg)	161 lbs (73 kg)	165 lbs (75 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
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**GZPRIMERKIT**  
Guzzler Hand Primer  
with hose & valve



**BATKIT-66**  
Deep Cycle Battery Kit  
w/ FWP-9 cable



**FWC-B-3**  
3' B&S CTRL Cable  
w/ lugs & 8 pin conn.



**FWP-20**  
20' PWR Cable with lugs  
& Anderson conn.



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



**WLIGHTKIT**  
LED Work Light w/ 5'  
harness & toggle switch

**FWX-3**  
3' CTRL Cable Extension  
w/ two 8 pin connectors

**FWP-9**  
9' PWR Cable w/ lugs  
& Anderson conn.

**FWP-3**  
3' PWR Cable w/ lugs  
& Anderson conn.

Fuel Tank	Pump Intake & Discharge Adapters
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**FA-452**  
Remote Fuel Tank  
6.6 US Gallons w/ quick conn.

**FA-452-3**  
Remote Fuel Tank  
3.2 US Gallons w/ quick conn.

**12-401B-NS-TRPD**  
Fuel Line EPA -  
quick conn. to hose 1/4"

**12-401B-NS-TRPD**  
Fuel Line -  
quick conn. to SAE 45 Flare



**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

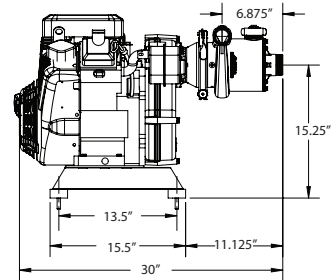
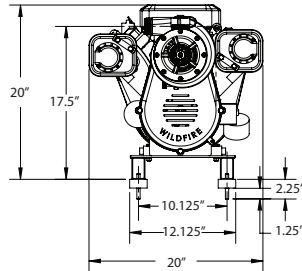
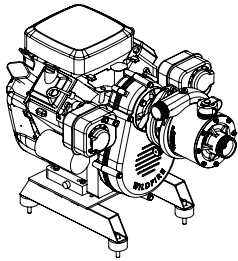


**B-6365** Check valve manifold 1-1/2" NPSH

**TECHNICAL DRAWINGS**

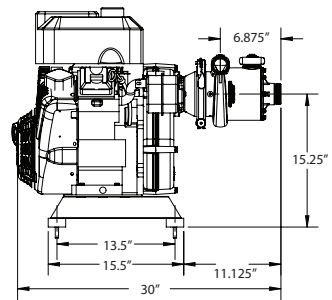
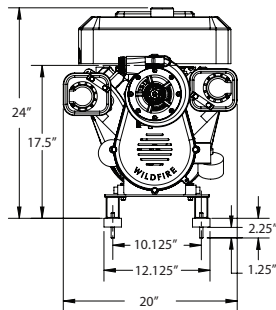
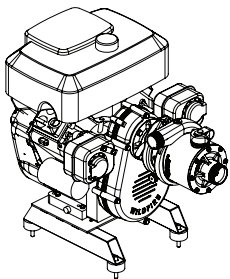
**BB-4-18V**

Length 30" (77.5 cm) Width 20" (45.75 cm) Height 20" (51 cm) Weight 153 lbs (69 kg)



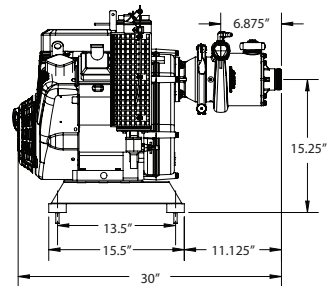
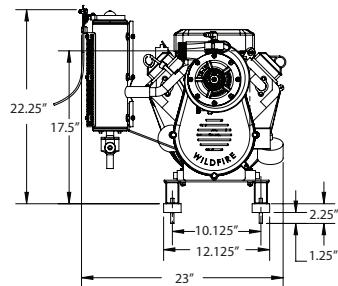
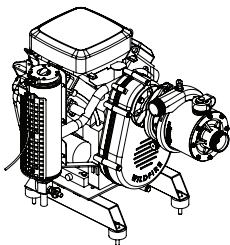
**BB-4-18VT**

Length 30" (77.5 cm) Width 20" (48.25 cm) Height 24" (61 cm) Weight 157 lbs (71 kg)



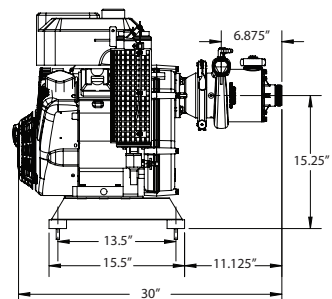
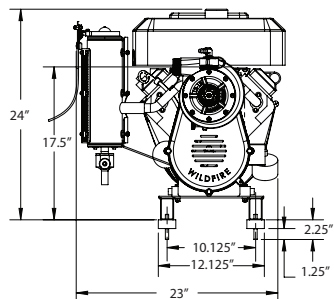
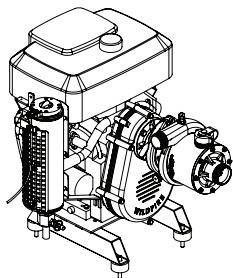
**BB-4-18VX**

Length 30" (77.5 cm) Width 23" (63.5 cm) Height 22.25" (56.5 cm) Weight 161 lbs (73 kg)



**BB-4-18VXT**

Length 30" (77.5 cm) Width 23" (63.5 cm) Height 24" (61 cm) Weight 165 lbs (75 kg)





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