

# BB-4<sup>®</sup>

## SERIES

### BB-4-18P

PORTABLE



#### 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<sup>™</sup> pump end as needed for supply or structure firefighting.

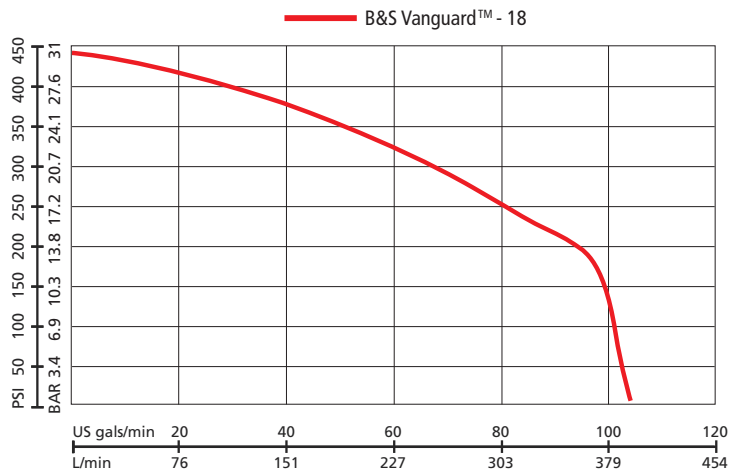
#### Applications

- 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: Check Valve: 1-1/2" male NPSH thread (meets US Forest Service Specification 5100-382)  
 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: Re-coil start with 12 VDC electric start option  
 Ignition: Magnatron  
 Charging: 16 AMP regulating alternator  
 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:

Color:	Black
Finish:	Powder Coat
Handles:	Tubular U-shaped integrated into the base frame

### Controls Specifications:

#### Briggs & Stratton Standard Engine Controls:

Start/Stop:	Turn-key rotary switch
Throttle:	Lever control on left side of blower housing
Choke:	Push/pull ring pin located on starter side of the engine below the air filter housing.

#### Engine Mount Control Panel:

On/Off Switch:	Weather resistant chrome toggle switch
Start:	Weather resistant push button switch (with battery kit option only)
Throttle:	Vernier with red push button emergency throttle idle
Low Oil Pressure Warning:	Red LED (with battery kit option only)
Choke:	Push/pull ring pin located on starter side of the engine below the air filter housing.

### Discharge Gauge Specifications:

0 to 600 PSI Dual unit (PSI/kilopascals) liquid filled; Pump mounted.

**PRODUCT SELECTION**

**PRODUCT SELECTION MATRIX**

			BB-4-18P	BB-4-18PTC	BB-4-18PXTC	BB-4-18PETC
<b>STANDARD INCLUSIONS</b>	Primer	Guzzler Hand Primer	S	S	-	-
		Remote Exhaust Primer w/Control Cable PART-763	-	-	-	-
		Exhaust Primer	-	-	-	S
		Electric Package - Electric Primer, LED work light, & Battery	-	-	-	S
	Muffler	B&S horizontal low tone	-	-	-	-
		Dual B&S low tone	S	S	S	-
		Exhaust primer muffler	-	-	-	S
	Fuel Tank	Integral / 7 US qts (6.6 L)	-	S	S	S
		Integral / 4 US qts (3.8 L) w/ 3-way valve	-	-	-	-
	Controls	Engine Mount Control Panel	-	S	S	S
	Discharge Gauge	0-600 psi, 2-1/2" dial	S	S	S	S
	Check Valve Manifold	1-1/2" NPSH	S	S	S	S
	FastWire CTRL Cable	B&S 3' CTRL Cable with 8 pin connector (FWC-B-3)	-	-	-	-
Weight		167 lbs (76 kg)	172 lbs (78 kg)	176 lbs (80 kg)	194 lbs (88 kg)	

**OPTIONS & ACCESSORIES**

**Sold Separately**

**Electric Kit**



**BATKIT-20-P**  
Battery Kit 12V 20ah, Portable



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

**Fuel Tank & Fuel Line**



**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

**Pump Intake & Discharge Adapters**



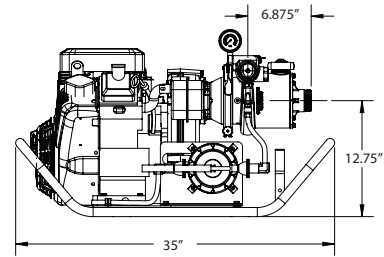
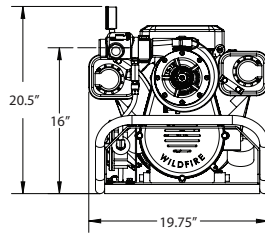
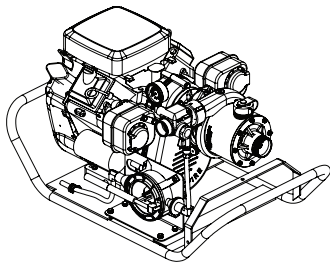
- ADP-A-FM20S** Adapter 2" NPSH Female to NPSH Male
- ADP-A-FM20SP** Adapter 2" NPSH Female to NPT Male
- ADP-A-FM20SV** Adapter 2" NPSH Female to Victaulic
- ADP-A-FM15SN** Adapter 1-1/2" NPSH Female to NH Male
- ADP-A-FM15S** Adapter 1-1/2" NPSH Female to NPSH Male
- ADP-A-FM15SP** Adapter 1-1/2" NPSH Female to NPT Male
- ADP-A-FM15SV** Adapter 1-1/2" NPSH Female to Victaulic



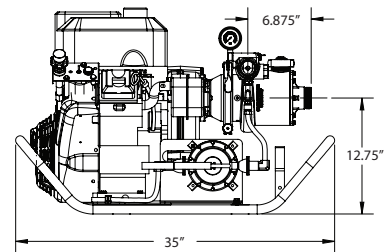
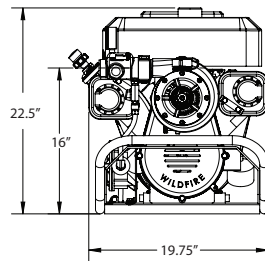
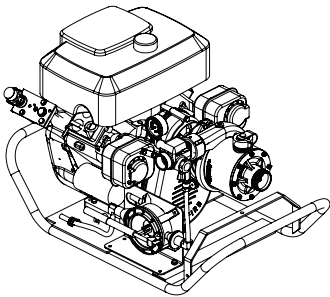
**B-6365**  
Check valve manifold 1-1/2" NPSH

### TECHNICAL DRAWINGS

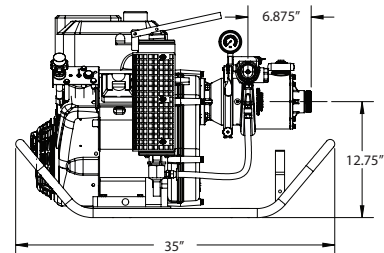
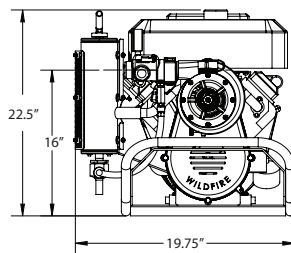
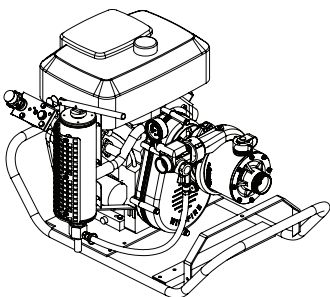
**BB-4-18P** Length 35" (88.9 cm) Width 19.75" (50.16 cm) Height 20.5" (52.07 cm) Weight 167 lbs (76 kg)



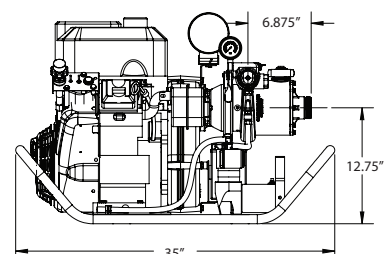
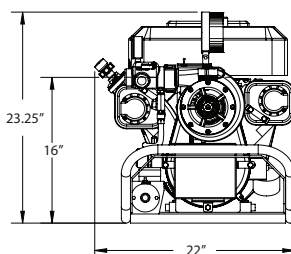
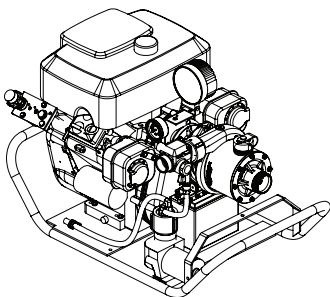
**BB-4-18PTC** Length 35" (88.9 cm) Width 19.75" (50.16 cm) Height 22.5" (57.15 cm) Weight 172 lbs (78 kg)



**BB-4-18PXTC** Length 35" (88.9 cm) Width 24" (60.96 cm) Height 22.5" (57.15 cm) Weight 176 lbs (80 kg)



**BB-4-18PETC** Length 35" (88.9 cm) Width 22" (55.88 cm) Height 23.25" (59.05 cm) Weight 194 lbs (88 kg)





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