

BB-4[®]

SERIES

BB-4-23P

PORTABLE



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.

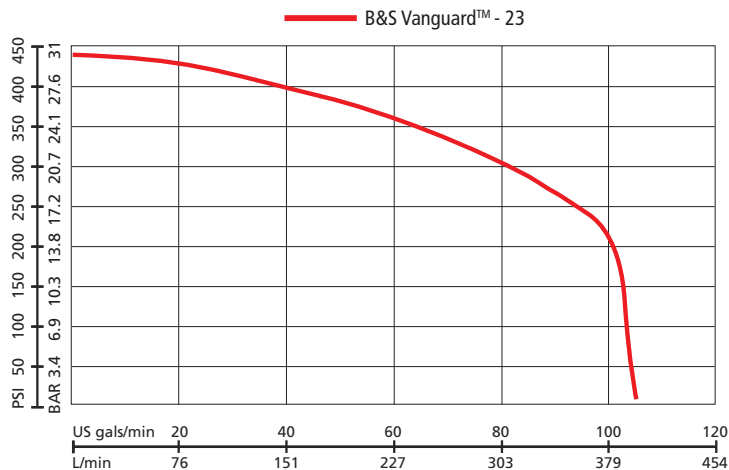
Applications

- 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

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:	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 Inserter
Speed Inserter Position:	Vertical
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:	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:	2.1 US gals/hr (7.9 liters/hr)
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):	12-3/4" x 4-1/2" x 4-5/16" (324 x 114 x 110 mm)
Weight:	1.70 lbs (0.77 kg)
Location:	Mounted on starter side of engine

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
Location:	Mounted on the vertical exhaust muffler; starter side of engine.

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)
Location:	Mounted on starter side of engine

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-4-23P	BB-4-23PC	BB-4-23PXTC	BB-4-23PETC	
STANDARD INCLUSIONS	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	-	-
		Exhaust primer muffler	-	-	S	S
	Fuel Tank	Integral / 7 US qts (6.6 L)	-	-	-	-
		Integral / 4 US qts (3.8 L) w/ 3-way valve	-	-	S	-
	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		164 lbs (69 kg)	165 lbs (75 kg)	170 lbs (77 kg)	195 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

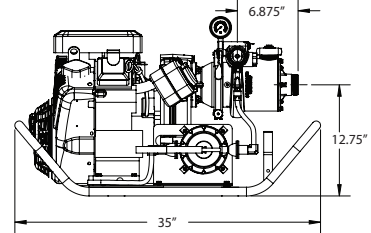
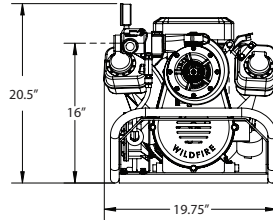
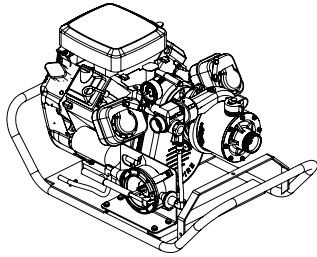


B-6365
Check valve manifold 1-1/2" NPSH

TECHNICAL DRAWINGS

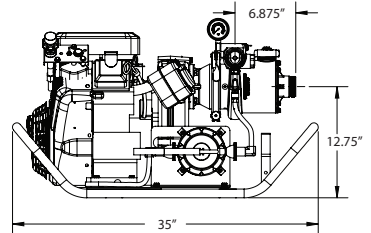
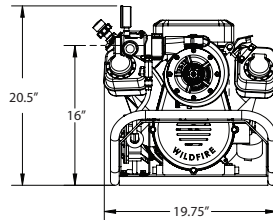
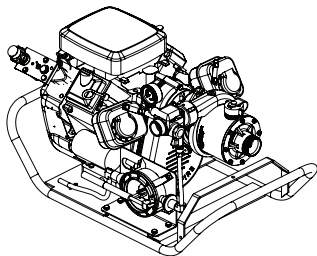
BB-4-23P

Length 35" (88.9 cm) Width 19.75" (50.16 cm) Height 20.5" (52.07 cm) Weight 164 lbs (74 kg)



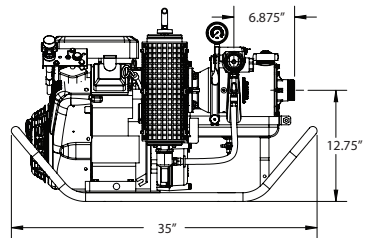
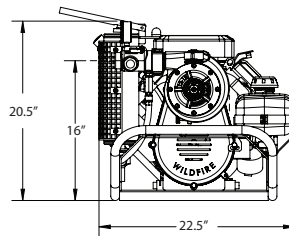
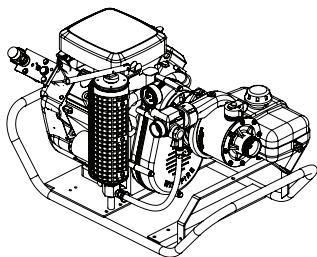
BB-4-23PC

Length 35" (88.9 cm) Width 19.75" (50.16 cm) Height 20.5" (52.07 cm) Weight 165 lbs (75 kg)



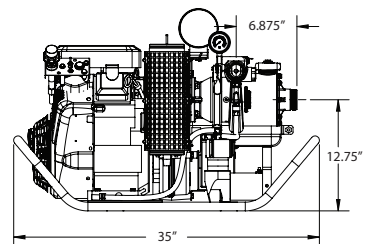
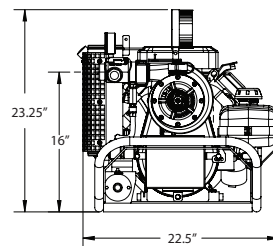
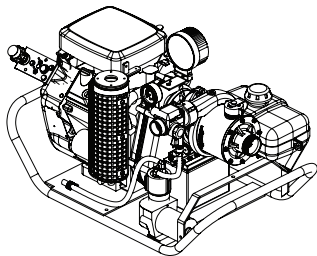
BB-4-23PXC

Length 35" (88.9 cm) Width 22.5" (57.15 cm) Height 20.5" (52.07 cm) Weight 170 lbs (77 kg)



BB-4-23PETC

Length 35" (88.9 cm) Width 22.5" (57.15 cm) Height 23.25" (59.05 cm) Weight 195 lbs (88 kg)





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