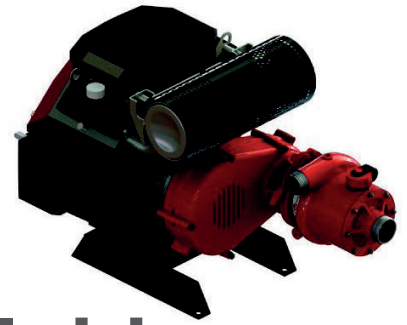


# WATERAX



## BB-4<sup>®</sup>-21H

### Vehicle mount horizontal drive

#### DATA SHEET

## HIGH PRESSURE 4-STAGE FIRE PUMP

The **WATERAX BB-4 -21** pump pairs a reliable high performance 4-stage pump end with a powerful **Honda 4-stroke 21 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<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

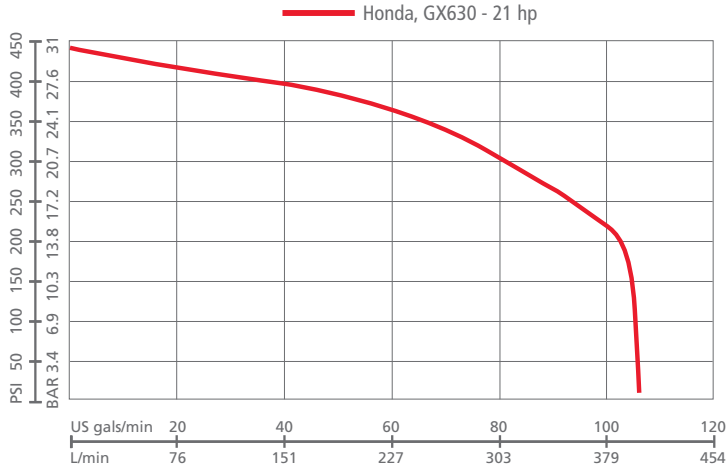
### Features and Benefits

- 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



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WATER**

# 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 )
103	( 390 )	@	150	( 10.3 )
94	( 356 )	@	250	( 17.2 )
65	( 246 )	@	350	( 24.1 )

Engine: Honda, GX630 - 21 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 and sintered bronze sleeve
Pump Seal:	Maintenance Free; 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 Increaser
Speed Increaser Position:	Horizontal
Drive Ratio:	1.88: 1
Color:	Red
Special Feature:	The entire pump separates completely from the engine/speed increaser.

## Engine Specifications:

Model & Type:	Honda, GX630 Series 4-cycle, horizontal shaft, twin cylinder, OHV
Maximum Power:	20.8 HP (15.5 kW) @ 3600 RPM
Maximum Torque:	35.6 lb-ft (48.3 Nm) @ 2500 RPM
Bore & Stroke:	3.07 x 2.83 inches (78 x 72 mm)
Displacement:	41.98 cubic inches (688 cc)
Starting System:	12 VDC electric start
Ignition:	Digital CDI with variable ignition timing
Charging:	17 AMP regulating alternator
Wiring:	Pre-wired for Fast Wire panel connections (panels purchased separately).
Governor:	Mechanical
Cooling:	Air Cooled
Lubrication:	Oil, Full pressure
Oil Capacity:	2.1 quarts (2.0 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:	1.8 US gals/hr (6.8 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)
	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:	Black flat base with tubular horizontal legs. (Provided with industrial grade stud isolators - shipped loose)
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## Controls Specifications:

Engine supplied controls:	Push/Pull Choke & Throttle lever.
FastWire quick connect:	Loomed engine wire harness (pre-wired to engine) with 8 pin Molex MX150L Industrial Sealed Male Connector. All Vehicle Mounted B2X 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-4-21H	
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	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	B&S 3' CTRL Cable with 8 pin connector (FWC-B-3)	-	
FastWire CTRL Cable	Honda GX630 3' CTRL Cable with 8 pin connector (FWC-H-3)	S	
Weight		169 lbs (77 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><b>GZPRIMERKIT</b> Guzzler Hand Primer with hose &amp; valve</p>	 <p><b>BATKIT-66</b> Deep Cycle Battery Kit w/ FWP-9 cable</p>	 <p><b>FWC-B-3</b> 3' B&amp;S CTRL Cable w/ lugs &amp; 8 pin conn.</p>
 <p><b>EPRIMERKIT</b> Electric Primer w/ plate, 5' harness &amp; switch</p>	 <p><b>WLIGHTKIT</b> LED Work Light w/ 5' harness &amp; toggle switch</p>	 <p><b>FWX-3</b> 3' CTRL Cable Extension w/ two 8 pin connectors</p>
		<p><b>FWP-20</b> 20' PWR Cable with lugs &amp; Anderson conn.</p> <p><b>FWP-9</b> 9' PWR Cable w/ lugs &amp; Anderson conn.</p> <p><b>FWP-3</b> 3' PWR Cable w/ lugs &amp; Anderson conn.</p>

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



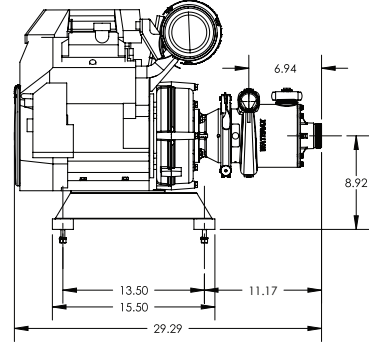
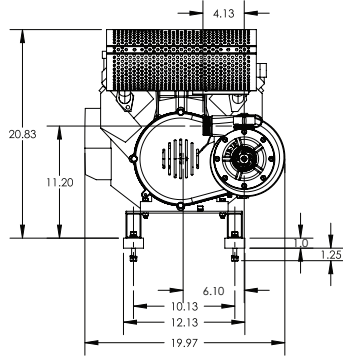
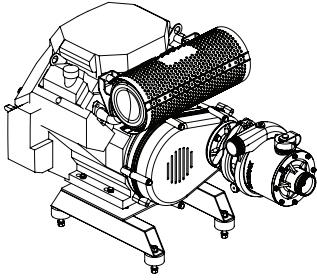
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# TECHNICAL DRAWINGS

**BB-4-21H**

Length 29.29" (74.3 cm) Width 19.97" (50.7 cm)

Height 20.83" (52.9 cm) Weight 169 lbs (77 kg)



# **WATERAX**

All information contained in this document including drawings is proprietary to *WATERAX* and may not be copied, reproduced or used in whole or in part without our prior written permission. The information in this document is subject to change without notice. Model displayed with multiple options. Weight and dimensions are approximated and may vary depending on options.

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**waterax.com**

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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