

BB-4[®]

SERIES



BB-4-21H VEHICLE MOUNT HORIZONTAL DRIVE

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[®] 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.

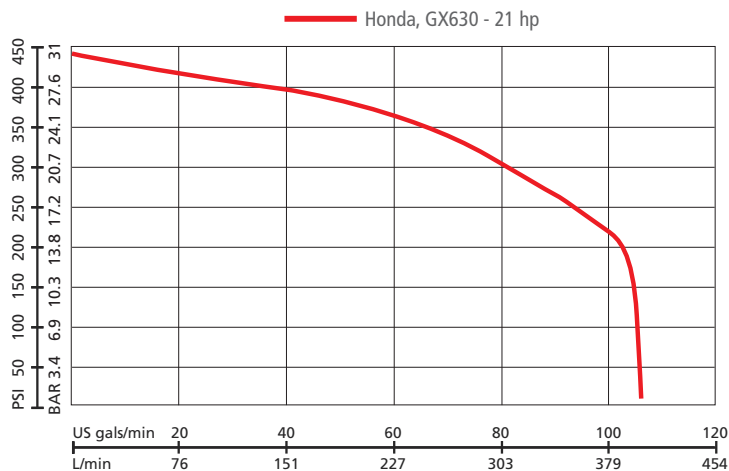
Applications

- 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) |
| 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) |
|----------------|--|

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 |
|--------|--------------|-----------------|
|--------|--------------|-----------------|



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 |
|-----------|----------------------------------|
|-----------|----------------------------------|



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



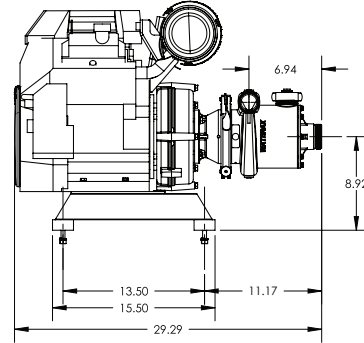
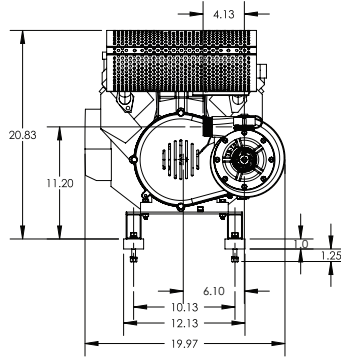
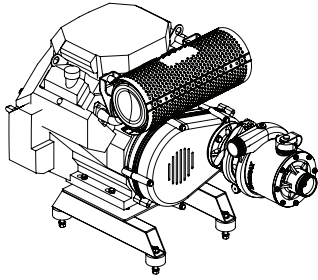
B-6365 Check valve manifold 1-1/2" NPSH

TECHNICAL DRAWINGS

BB-4-21H

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

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





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