



## OUR RANGE OF WATER PUMPS

From small portable pumps to large trash pumps, Honda has a range designed for a variety of uses. Perfect for those who require efficient and quiet operation and that all-important Honda 4-stroke dependability.

## WATER PUMP TYPE

Typically water pumps fall into five categories:

### LIGHTWEIGHT PUMPS

Compact, lightweight and portable, our WX water pumps are an excellent choice for homeowners, gardeners, boat owners and recreational users.

### HIGH PRESSURE PUMPS

Our WH water pumps are perfect for applications needing high pressure, such as sprinklers or nozzles. Ideal for displacing average quality water, applications include irrigation and fire fighting, as well as pumping water over long distances.

### CHEMICAL PUMPS

Our WMP20 pump is designed to pump products such as agricultural fertiliser or industrial chemicals.

### HIGH FLOW RATE PUMPS

For general water pumping needs, our popular WB water pumps offer the best features, with commercial grade components like anti-vibration mounts, silicon carbide seals, and a fixed-mount cast iron volute and impeller.

### TRASH PUMPS

Trash pumps are the ultimate choice for contractors and rental applications. The WT series can handle solids up to 24mm in diameter and are capable of moving a lot of water – up to 1640 litres per minute (WT40). A quick clean-out port and easy maintenance features help to ensure long service life.

## ELEVATION HEIGHT

The relevance of elevation height depends on the application itself. Elevation height is calculated by:

### SUCTION HEAD

The height between the source water level and the water pump.

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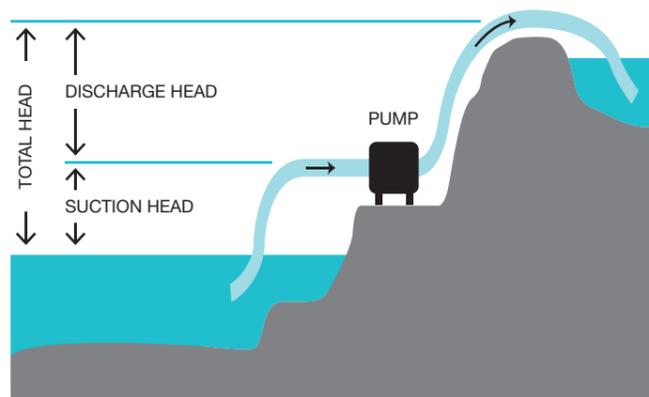
### DISCHARGE HEAD

The height between the water pump and the highest point of the output pipe.

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### HEAD LOSS

The resistance of the pipes. Longer, narrower and twisted pipes create more loss.



## WATER PUMP USAGE

The wide range of Honda water pumps means there is a pump for all manner of applications. Use the chart below to select the right pump for your specific needs.



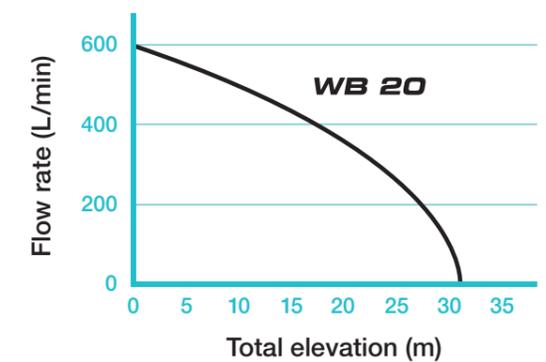
## WATER QUALITY EXAMPLES AND SUITABLE WATER PUMPS

										
	WX 10	WX 15	WH 15	WH 20	WB 20	WB 30	WT 20	WT 30	WT 40	WMP 20
Clean water	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Muddy water	✓	✓			✓	✓	✓	✓	✓	
Solids up to 3mm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Solids up to 6mm	✓	✓			✓	✓	✓	✓	✓	
Solids up to 24mm							✓	✓	✓	
Solids up to 28mm								✓	✓	
Solids up to 31mm									✓	
Chemicals										✓

## FLOW RATE

The flow rate is the maximum amount of water that can be pumped to a given height. A pump's flow rate can be calculated by using a pump performance curve, as shown in the WB20 example on the right. If you know the maximum elevation you will be pumping to, you can plot the value on the curve and determine if the pump has a sufficient flow rate for your requirements.

### PUMP PERFORMANCE CURVE



## WATER PUMP TERMINOLOGY

Below is more information on some of the additional terminology used in the description of water pump specifications, technology and operation:

### PRESSURE

Pressure is force per unit area, usually listed in bar, and is often included in pump performance curves. Pressure and head are directly related when referring to water pump performance. The pressure exerted (in bar) at the base of a column of water is  $0.433 \times \text{HEAD}$  (in metres). If you attach a pressure gauge at the base of a 30m pipe filled with clear water, you would measure 2.99 bar. Notice how the diameter of the pipe doesn't affect the pressure value. The maximum pressure (at zero discharge) of any water pump can be determined by multiplying the maximum head by 0.433.

### IMPELLER

An impeller is a rotating disc containing vanes coupled to the engine's crankshaft. All centrifugal pumps contain an impeller. The impeller vanes sling liquid outward through centrifugal force, causing a pressure change. This pressure change results in liquid flowing through the pump.

### VOLUTE

The volute is the stationary housing enclosing the impeller. The volute collects and directs the flow of liquid from the impeller and increases the pressure of the high velocity water flowing from the vanes of the impeller.

### MECHANICAL SEAL

This is a spring-loaded seal consisting of several parts that seals the rotating impeller in the water pump case, preventing water from leaking into and damaging the engine. Mechanical seals are subject to wear when pumping water containing abrasives and will quickly overheat if the pump is run without filling the pump chamber with water before starting the engine. Honda trash pumps contain silicone carbide mechanical seals, designed to withstand abrasive conditions.



## HONDA FEATURES AND TECHNOLOGIES

Honda water pumps have many innovative features and technologies. The following icons have been carefully considered to support you in choosing the right water pump for your needs. Look for these symbols on the following model pages.



#### OHV 4-STROKE ENGINE

Powerful and efficient with trusted reliability. Easy starting in all conditions with automatic decompression to reduce the pull force required.



#### UNIQUE 360° OPERATION

Allows the pump to operate or be stored at any incline without damage.



#### LIGHTWEIGHT AND PORTABLE

Super-compact and lightweight with integral carry handle for easy transporting and storage.



#### CHEMICAL PUMP

Suitable for pumping chemical products such as agricultural fertiliser or industrial chemicals.



#### OIL ALERT™

Prevents engine damage by automatically shutting the unit down if the oil drops below a safe operating level.



#### CAST IRON VOLUTE AND IMPELLER

Superior durability for long life performance, even when pumping abrasive silts.



#### CONICAL IMPELLER

Superb pumping and priming performance with reduced wear and clogging.



#### REMOVABLE INSPECTION COVER

Quick and simple access for making inspections and clearing debris for reduced down-time.



#### ANTI-VIBRATION SYSTEM

Straight engine rubber mounts to reduce mechanical stress on the entire unit.



#### ENHANCED ANTI-VIBRATION SYSTEM

45° inclined rubber engine mounts for superior vibration damping at high engine rpm.





## LIGHTWEIGHT & HIGH PRESSURE PERFORMANCE PUMPS

Lightweight portability and high pressure are the key attributes of the WX and WH range respectively. Despite their diminutive size they are all capable of an 8m suction head, generating impressive pressure and use tool-free, quick-release hose couplings.

Superbly portable, the WX models are particularly compact and lightweight for easy transfer to where ever they are needed. A unique 360° lubrication system allows the WX10 to carry on working at virtually any angle without spilling oil or affecting the pump's optimal lubrication, as well as ensuring trouble-free operation after storage or transportation.

A powerful GX160 engine, together with a strong cast iron impeller for high abrasion resistance, are at the heart of the WH range. Producing exceptionally high pressure and head lift, the self-priming pumps are ideal for sprinkling, jetting, long-hose irrigation or fire fighting applications.



**WX 10**



**WX 15\***



**WH 15\***



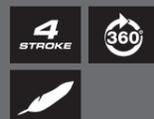
**WH 20**

For feature and technology symbol glossary see page 30

For full water pump model specifications see page 35-36

**Max output capacity**

Inlet/outlet diameter - thread type	25mm (1")-PF
Total head	36m
Suction head	8m
Pressure	3.6bar
Debris size capacity	5.7mm
Fuel tank capacity	0.55L
Operating time	1h30 approx
Dry weight	6.1kg
Dimensions (mm)	L 325 × W 220 × H 300



**140 litres/min**

Inlet/outlet diameter - thread type	25mm (1")-PF
Total head	36m
Suction head	8m
Pressure	3.6bar
Debris size capacity	5.7mm
Fuel tank capacity	0.55L
Operating time	1h30 approx
Dry weight	6.1kg
Dimensions (mm)	L 325 × W 220 × H 300



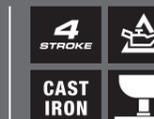
**240 litres/min**

Inlet/outlet diameter - thread type	40mm (1.5")-PF
Total head	40m
Suction head	8m
Pressure	4bar
Debris size capacity	5.7mm
Fuel tank capacity	0.77L
Operating time	1h30 approx
Dry weight	9kg
Dimensions (mm)	L 325 × W 275 × H 375



**400 litres/min**

Inlet/outlet diameter - thread type	40mm (1.5")-PF
Total head	50m
Suction head	8m
Pressure	5.0bar
Debris size capacity	3mm
Fuel tank capacity	2L
Operating time	2h approx
Dry weight	22kg
Dimensions (mm)	L 415 × W 360 × H 405



**500 litres/min**

Inlet/outlet diameter - thread type	50mm (2")-PF
Total head	50m
Suction head	8m
Pressure	5.0bar
Debris size capacity	3mm
Fuel tank capacity	3.1L
Operating time	2h30 approx
Dry weight	27kg
Dimensions (mm)	L 520 × W 400 × H 450

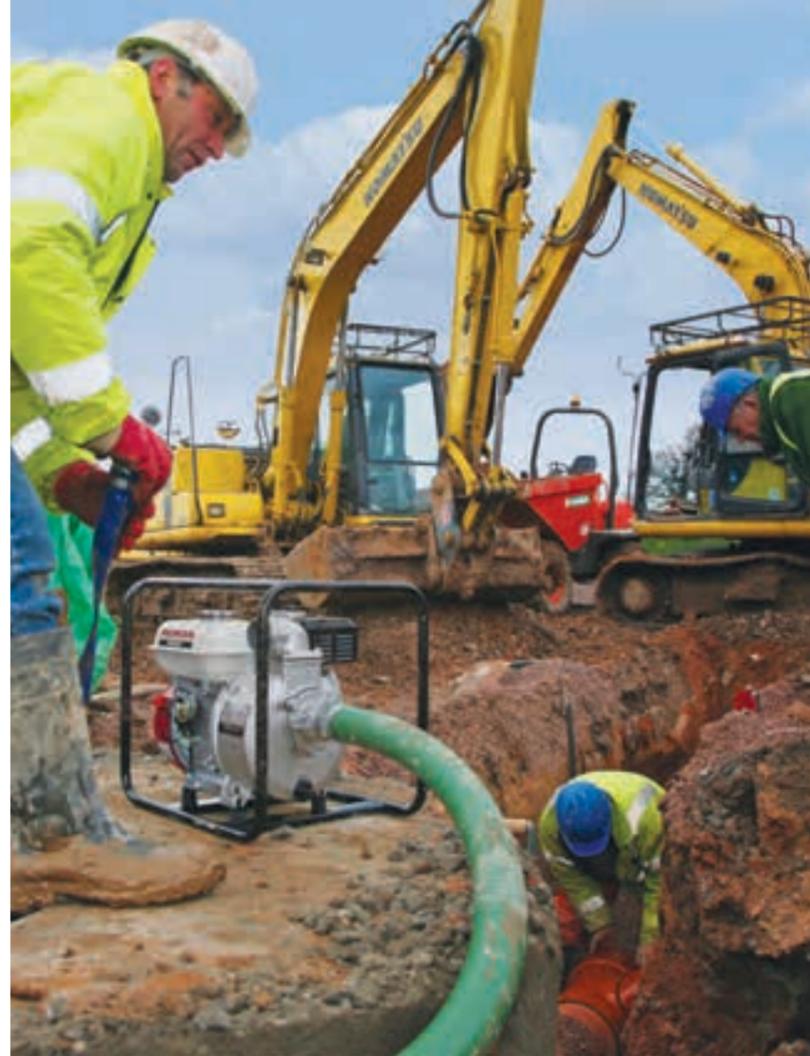
\*Not available in the UK.  
\*\*Oil Alert™ option available.

## HIGH FLOW RATE TRASH & CHEMICAL PUMPS

Designed for dealing with large volumes of water and moving it quickly, our general purpose and trash pumps are the professional choice. Robust and durable, thanks to a heavy-duty protective frame, they are powered by our commercial grade GX engine, renowned for its high performance and fuel efficiency.

The general-purpose WB range is built with an abrasion-resistant cast iron volute and impeller, providing extra durability for handling water containing a certain amount of silt and sand, such as on construction sites or in floodwater. Rubber engine mounts reduce mechanical stress through vibration.

Taking on the most demanding jobs, our range of trash pumps are designed to allow gravel and other suspended debris to flow through the pump without clogging or causing damage. Built around durability and wear resistance, they feature a silicon carbide seal and a unique conical cast iron impeller design which reduces wear. 45° inclined rubber mounts ensure minimal vibration at high engine rpm. Quick-release bolts on the removable inspection cover make maintenance and clearing debris quick and simple.



**WB 20**

**WB 30**

**WT 20**

**WT 30\***

**WT 40\***

**WMP 20**

For feature and technology symbol glossary see page 30

For full water pump model specifications see page 35-36

### Max output capacity

Inlet/outlet diameter - thread type  
Total head  
Suction head  
Pressure  
Debris size capacity  
Fuel tank capacity  
Operating time  
Dry weight  
Dimensions (mm)



### 600 litres/min

50mm (2")-PF  
32m  
8m  
3.2bar  
6mm  
1.9L  
2h50 approx  
21kg  
L 455 x W 365 x H 420



### 1100 litres/min

80mm (3")-PF  
28m  
8m  
2.8bar  
6mm  
3.1L  
2h50 approx  
27kg  
L 510 x W 385 x H 455



### 710 litres/min

50mm (2")-PF  
30m  
8m  
3bar  
24mm  
3.1L  
2h50 approx  
47kg  
L 620 x W 460 x H 465



### 1210 litres/min

80mm (3")-PF  
27m  
8m  
2.7bar  
28mm  
5.3L  
2h10 approx  
61kg  
L 660 x W 495 x H 515



### 1640 litres/min

100mm (4")-PF  
26m  
8m  
2.6bar  
31mm  
6.1L  
2h approx  
78kg  
L 735 x W 535 x H 565



### 833 litres/min

50mm (2")-NPT  
32m  
8m  
3.2bar  
5mm  
3.1L  
2h15 approx  
26kg  
L 520 x W 400 x H 450

\*Not available in the UK.

**LIGHTWEIGHT AND HIGH PRESSURE PUMPS**



Model

	WX 10	WX 15*	WH 15*	WH 20
Maximum output capacity (L/min)	140	240	400	500
Inlet/outlet diameter (mm) - thread type	25 (1") -PF	40 (1.5") -PF	40 (1.5") -PF	50 (2") -PF
Total head (m)	36	40	50	50
Suction head (m)	8	8	8	8
Pressure (bars)	3.6	4	5.0	5.0
Debris size capacity (mm)	5.7	5.7	3	3

	GX25	GXH50	GX120	GX160
Engine model	GX25	GXH50	GX120	GX160
Engine type	4-stroke, OHV,** 1 cylinder	4-stroke, OHV,** 1 cylinder	4-stroke, OHV,** 1 cylinder	4-stroke, OHV,** 1 cylinder
Displacement (cm <sup>3</sup> )	25	49	118	163
Bore x stroke (mm)	35.0 x 26.0	41.8 x 36.0	60.0 x 42.0	68.0 x 45.0
Engine speed (rpm)	7000 max	7000 max	3600 max	3600 max
Engine net power (kW) (SAE J1349)	0.72	1.6	2.6	3.6
Cooling system	Forced air	Forced air	Forced air	Forced air
Ignition system	Transistor	Transistor	Transistor	Transistor
Oil capacity (L)	0.1	0.25	0.6	0.6
Fuel tank capacity (L)	0.55	0.77	2	3.1
Operating time	1h20 approx	1h30 approx	2h approx	2h30 approx
Starter system	Recoil	Recoil	Recoil	Recoil

Length (mm)	325	325	415	520
Width (mm)	220	275	360	400
Height (mm)	300	375	405	450
Dry weight (kg)	6.1	9	22	27

Sound pressure level at workstation – dB(A) (98/37/EC, 2006/42/EC)	86	88	87	91
Guaranteed sound power level – dB(A) (2000/14/EC, 2005/88/EC)	102	103	104	106

**HIGH FLOW RATE, TRASH AND CHEMICAL PUMPS**



	WB 20	WB 30	WT 20	WT 30*	WT 40*	WMP 20
Maximum output capacity (L/min)	600	1100	710	1210	1640	833
Inlet/outlet diameter (mm) - thread type	50 (2") -PF	80 (3") -PF	50 (2") -PF	80 (3") -PF	100 (4") -PF	50 (2") -NPT
Total head (m)	32	28	30	27	26	32
Suction head (m)	8	8	8	8	8	8
Pressure (bars)	3.2	2.8	3	2.7	2.6	3.2
Debris size capacity (mm)	6	6	24	28	31	5

	GX120	GX160	GX160	GX240	GX340	GX160
Engine model	GX120	GX160	GX160	GX240	GX340	GX160
Engine type	4-stroke, OHV,** 1 cylinder					
Displacement (cm <sup>3</sup> )	118	163	163	242	337	163
Bore x stroke (mm)	60.0 x 42.0	68.0 x 45.0	68.0 x 45.0	74.0 x 58.0	82.0 x 64.0	68.0 x 45.0
Engine speed (rpm)	3600 max					
Engine net power (kW) (SAE J1349)	2.6	3.6	3.6	5.3	7.1	3.6
Cooling system	Forced air					
Ignition system	Transistor	Transistor	Transistor	Transistor	Transistor	Transistor
Oil capacity (L)	0.6	0.6	0.6	1.1	1.1	0.6
Fuel tank capacity (L)	1.9	3.1	3.1	5.3	6.1	3.1
Operating time	2h50 approx	2h50 approx	2h50 approx	2h10 approx	2h approx	2h15 approx
Starter system	Recoil	Recoil	Recoil	Recoil	Recoil	Recoil

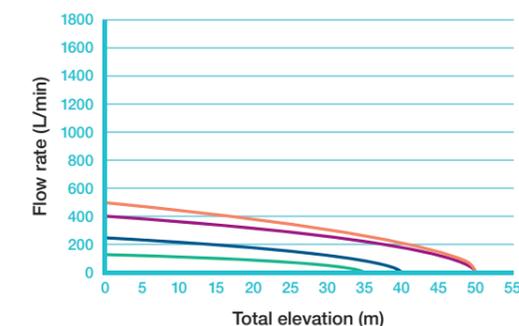
Length (mm)	455	510	620	660	735	520
Width (mm)	365	385	460	495	535	400
Height (mm)	420	455	465	515	565	450
Dry weight (kg)	21	27	47	60	78	26

Sound pressure level at workstation – dB(A) (98/37/EC, 2006/42/EC)	85	88	92	93	96	92
Guaranteed sound power level – dB(A) (2000/14/EC, 2005/88/EC)	101	106	106	110	110	106

**WATER PUMP PERFORMANCE**

The colour-coded performance curves below show a direct comparison between the different water pumps. Each individual curve represents the flow rate vs. total elevation performance for each water pump.

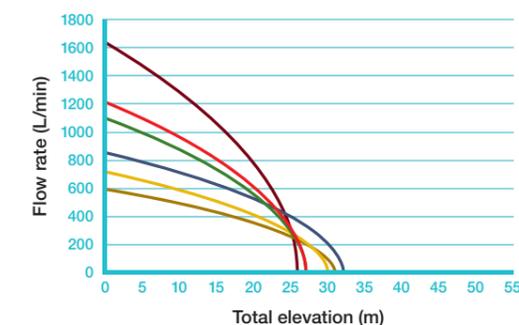
**LIGHTWEIGHT AND HIGH PRESSURE PUMP PERFORMANCE CURVES**



Product key:

**WX 10** **WX 15** **WH 15** **WH 20**

**HIGH FLOW RATE, TRASH AND CHEMICAL PUMP PERFORMANCE CURVES**



Product key:

**WB 20** **WB 30** **WMP 20**  
**WT 20** **WT 30** **WT 40**

\*Not available in the UK.  
\*\*OHV – Overhead Valve.  
Note: all Honda water pumps run on Unleaded Petrol.