

Water pump key features

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.

PERFORMANCE

 <p>OHV 4-Stroke Engine Powerful and efficient with trusted reliability. Easy starting in all conditions with automatic decompression to reduce the pull force required.</p>	 <p>Unique 360° Operation Allows the pump to operate or be stored at any incline without damage.</p>
 <p>Lightweight Super-compact and lightweight with integral carry handle for easy transporting and storage.</p>	 <p>Chemical Pump Suitable for pumping chemical products such as agricultural fertiliser or industrial chemicals.</p>
 <p>Oil Alert™ Prevents engine damage by automatically shutting the unit down if the oil drops below a safe operating level.</p>	 <p>Cast Iron Volute and Impeller Superior durability for long life performance, even when pumping abrasive silts.</p>
 <p>Conical Impeller Superb pumping and priming performance with reduced wear and clogging.</p>	 <p>High-Efficiency Impeller Unique Honda design results in optimal flow and efficiency.</p>
 <p>Anti-Vibration System Straight engine rubber mounts to reduce mechanical stress on the entire unit.</p>	 <p>Enhanced Anti-Vibration System 45° inclined rubber engine mounts for superior vibration damping at high engine rpm.</p>
 <p>Removable Inspection Cover Quick and simple access for making inspections and clearing debris for reduced downtime.</p>	



Type	Lightweight		High Pressure		High Flow		Chemical	Trash		
Model	WX 10	WX 15	WH 15	WH 20	WB 20	WB 30	WMP 20	WT 20	WT 30	WT 40
Clean water	•	•	•	•	•	•	•	•	•	•
Muddy water	•	•			•	•		•	•	•
Solids up to 3 mm	•	•	•	•	•	•	•	•	•	•
Solids up to 6 mm					•	•		•	•	•
Solids up to 24 mm								•	•	•
Solids up to 28 mm									•	•
Solids up to 31 mm										•
Chemicals							•			

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 0,098 x HEAD (in metres). If you attach a pressure gauge at the base of a 30m pipe filled with clear water, you would measure 2,94 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 0,098.

Impeller

An impeller is a rotating disk 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

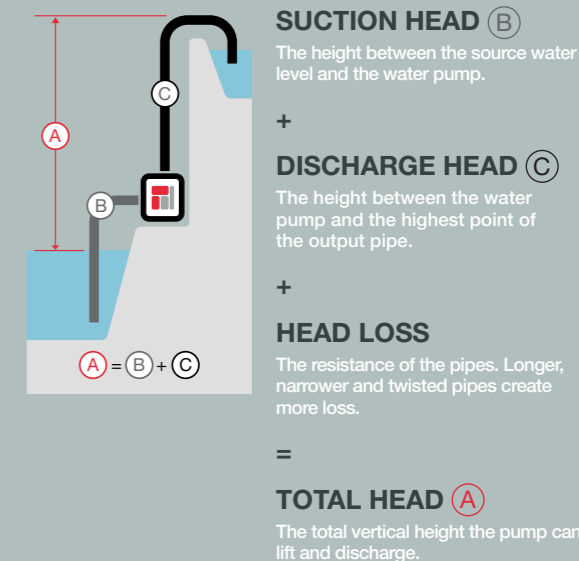
This is a spring-loaded seal consisting of several parts that seal the rotating impeller in the water pump case, preventing water from leaking into and damaging the engine. Mechanical seals are subject to wear when pumping water containing abrasives and will quickly overheat if the pump is run without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

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 WB 20 example below. 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.

Elevation Height

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



PUMP PERFORMANCE CURVE

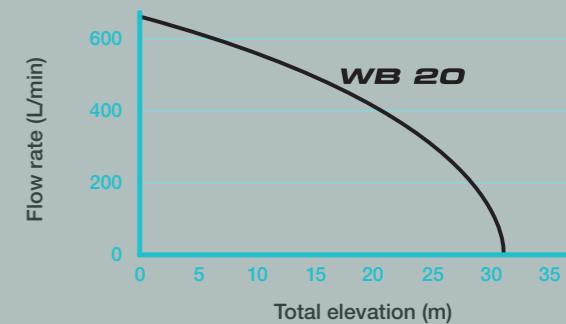


Image for illustration purposes only.

OHV
4-Stroke
Engine

Unique 360°
Operation*

Lightweight**

Oil Alert***

Cast Iron
Volute and
Impeller ▲

Enhanced
Anti-Vibration
System†



*WX 10 model only.

**WX 10 and WX 15 models only.

***WX 15T, WH 15 and WH 20 models only.

▲ WH 15 and WH 20 models only.

† WH 20 model only.

Water pumps
lightweight & high pressure
performance pumps



High pressure performance in a compact size

The lightweight WX and portable WH ranges are capable of generating impressive pressure, making them ideal for sprinkling, jetting, long-hose irrigation or firefighting applications.



Starting from 6.1kg, the WX range is very convenient to carry



The WH range offers up to 5 bars pressure, ideal to transport water long distances

Lightweight WX range

The WX range is lightweight (from 6.1kg), compact and easy to transport, with a convenient carry handle. The WX 10 has been designed to allow 360° operation making it ideal for sprinkling, jetting, long hose irrigation or firefighting applications. The durable Honda GX series commercial grade engine ensures easy starting and provides ample power for the toughest conditions.

WH range: Water cannons

They may be compact in size but they have an impressive high pressure capacity (up to 5 bars). The WH products are able to transport high quantities of water for long distances. The combination of rigid-mount cast iron volute, which reduces case wear, and the reliable Honda GX engines, ensures our products last a long time. The WH 20 is fitted with a frame and rubber mount to reduce mechanical stress absorbing vibration.

WX 10



WX 15



WH 15



WH 20



SPECIFICATION

WX 10	WX 15	WH 15	WH 20
MAX OUTPUT	MAX OUTPUT	MAX OUTPUT	MAX OUTPUT
7.2m ³ /h	16.8m ³ /h	22.2m ³ /h	27.0m ³ /h
PRESSURE	PRESSURE	PRESSURE	PRESSURE
3.7 bar	4.0 bar	4.0 bar	5.0 bar
DEBRIS SIZE	DEBRIS SIZE	DEBRIS SIZE	DEBRIS SIZE
5.7mm	5.7mm	3.0mm	3.0mm
WEIGHT	WEIGHT	WEIGHT	WEIGHT
6.1kg	9.1kg	22.0kg	27.0kg

*WB 20 and WB 30 models only.
**WMP 20 only.

Water pumps high flow rate & chemical pumps



Fast pumping machines

These water pumps excel in discharging large amounts of water quickly and easily, specially designed to work with salted water, agricultural fertiliser or industrial waste.

High flow rate water pumps

Designed with an abrasion-resistant cast iron volute and impeller, WB units have specially designed vanes for a larger discharge capacity, they can move up to 1100 litres a minute. That's enough capacity to clear a medium size swimming pool in an hour and a half. The debris size capacity allows them to deal with gravel and other suspended debris.

Performance

Featuring the incredibly reliable Honda 4-Stroke engine, this model provides easy starting in all conditions with automatic decompression to reduce the pull-force needed. It's also very efficient, emitting fewer emissions than a regular 2-Stroke engine and provides lower noise levels.

WMP built for strength

Our chemical pump's housing, volute and impeller are all made of reinforced thermoplastic which gives top-class chemical resistance. Seals are made of very specific rubber materials, resistant to a wide range of abrasive materials and ensures a long working life.



The WMP 20 can deal with abrasive chemical liquids through very special pump casing

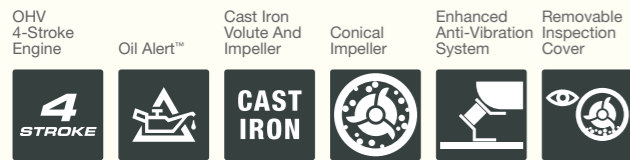


The WB range are fitted with a 4 vane high efficiency impeller



SPECIFICATION

WMP 20	WB 20	WB 30
MAX OUTPUT	MAX OUTPUT	MAX OUTPUT
50.0m ³ /h	37.2m ³ /h	66.0m ³ /h
PRESSURE	PRESSURE	PRESSURE
2.5 bar	3.2 bar	2.3 bar
DEBRIS SIZE	DEBRIS SIZE	DEBRIS SIZE
5.7mm	6.0mm	6.0mm
WEIGHT	WEIGHT	WEIGHT
25.5kg	20.0kg	26.0kg



Water pumps trash pumps

The tough choice

Our trash pumps range is ideal for messy jobs and dirty water. It has been developed to handle high volumes of water filled with solids.



The removable inspection cover allows quick simple access

High debris size absorption

The Honda WT trash range water pump has been designed to allow solids such as sticks, gravel and other suspended debris to flow through the 31mm diameter pump, without clogging or causing damage. This makes them the ideal water pump for heavy duty construction and waste work.

Superior durability

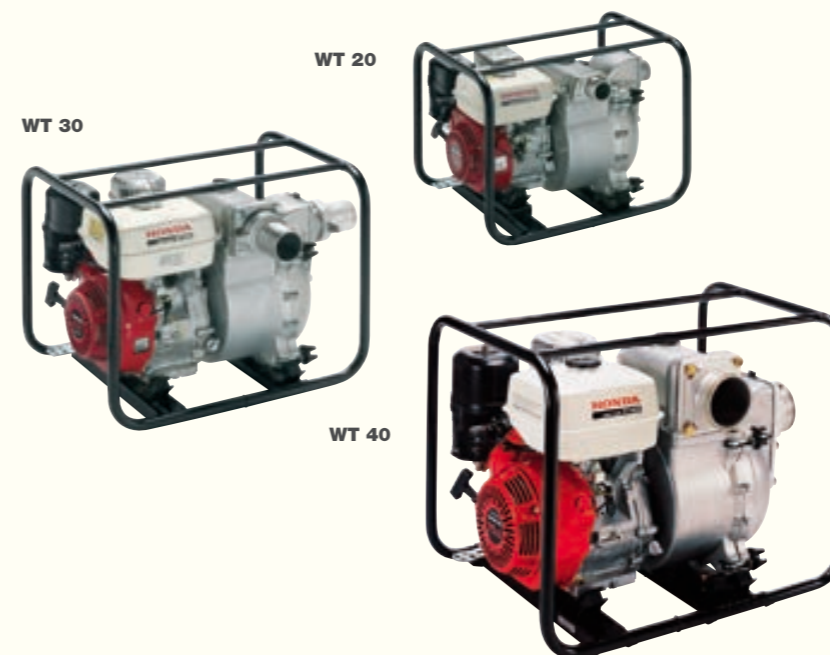
To cope with highly abrasive sands and aggregates, this pump also features a super-durable silicon carbide seal and cast iron impeller and volute. Our unique anti-vibration, 45° inclined rubber engine mounts extend durability further still, reducing vibration and stress to the frame and of course, cutting down on noise levels.

Outstanding output capacity

Our trash pumps are fitted with powerful Honda GX engines, which are robust and efficient and have been built to take on the most demanding jobs. They also feature a unique conical shape impeller design, offering a strong maximum output capacity of up to 1600 l/min for the WT 40 model.



High output capacity means the WT 40 can clear up to 1600 l/min



SPECIFICATION

WT 20	WT 30	WT 40
MAX OUTPUT	MAX OUTPUT	MAX OUTPUT
42.0m ³ /h	72.0m ³ /h	96.0m ³ /h
PRESSURE	PRESSURE	PRESSURE
2.5 bar	2.5 bar	2.5 bar
DEBRIS SIZE	DEBRIS SIZE	DEBRIS SIZE
24.0mm	28.0mm	31.0mm
WEIGHT	WEIGHT	WEIGHT
47.0kg	61.0kg	78.0kg



Water pump specification

Use our handy table to compare our water pumps to choose the right one for you.

LIGHTWEIGHT AND HIGH PRESSURE PUMPS



	WX 10	WX 15	WH 15°	WH 20°*
Maximum discharge capacity (L/min)	120	280	370	450
Maximum output (m³/h)	7.2	16.8	22.2	27.0
Inlet/outlet diameter mm/inches - thread type	25/1.0-PF	40/1.5-PF	40/1.5-PF	50/2.0-PF
Maximum total head (m)	37	40	40	50
Maximum suction head (m)	8.0	8.0	8.0	8.0
Pressure (bars)	3.7	4.0	4.0	5.0
Debris size capacity (mm)***	5.7	5.7	3.0	3.0
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 (cm³)	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	1.60	2.60	3.60
Cooling system	Forced air	Forced air	Forced air	Forced air
Ignition system	Transistor	Transistor	Transistor	Transistor
Oil capacity (L)	0.08	0.25	0.56	0.58
Fuel tank capacity (L)	0.53	0.77	2.00	3.10
Operating time at maximum discharge	54m	54m	1h 30	1h 30
Starter system	Recoil	Recoil	Recoil	Recoil
Length (mm)	340	355	415	520
Width (mm)	220	275	360	400
Height (mm)	295	375	415	460
Dry weight (kg)	6.1	9.1	22.0	27.0
Sound pressure level at operator's ears – dB(A) (98/37/EC, 2006/42/EC)	87	90	87	91
Guaranteed sound power level – dB(A) (2000/14/EC, 2005/88/EC)	100	104	104	106

HIGH FLOW RATE, TRASH AND CHEMICAL PUMPS

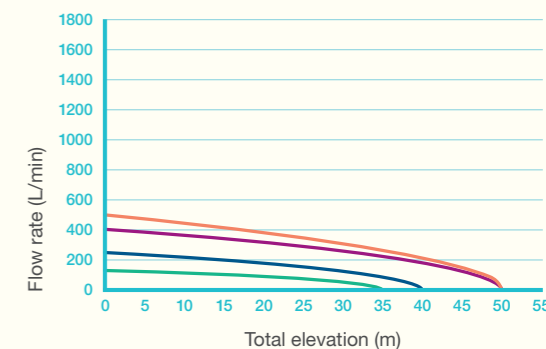


	WMP 20	WB 20°	WB 30°	WT 20°	WT 30°	WT 40°
Maximum discharge capacity (L/min)	833	620	1100	700	1200	1600
Maximum output (m³/h)	50.0	37.2	66.0	42.0	72.0	96.0
Inlet/outlet diameter mm/inches - thread type	50/2.0-NPT	50/2.0-PF	80/3.0-PF	50/2.0-PF	80/3.0-PF	100/4.0-PF
Maximum total head (m)	25	32	23	26	25	25
Maximum suction head (m)	8.0	7.5	7.5	8.0	8.0	8.0
Pressure (bars)	2.5	3.2	2.3	2.6	2.5	2.5
Debris size capacity (mm)***	5.7	6.0	6.0	24.0	28.0	31.0
Engine model	GX160	GX120	GX160	GX160	GX270	GX390
Engine type	4-Stroke, OHV**, 1 cylinder	4-Stroke, OHV**, 1 cylinder	4-Stroke, OHV**, 1 cylinder	4-Stroke, OHV**, 1 cylinder	4-Stroke, OHV**, 1 cylinder	4-Stroke, OHV**, 1 cylinder
Displacement (cm³)	163	118	163	163	270	389
Bore x stroke (mm)	68.0 x 45.0	60.0 x 42.0	68.0 x 45.0	68.0 x 45.0	77.0 x 58.0	88.0 x 64.0
Engine speed (rpm)	3600 max	3600 max	3600 max	3600 max	3600 max	3600 max
Engine net power (kW) (SAE J1349)	3.60	2.60	3.60	3.60	6.30	8.70
Cooling system	Forced air	Forced air	Forced air	Forced air	Forced air	Forced air
Ignition system	Transistor	Transistor	Transistor	Transistor Magneto	Digital CDI	Digital CDI
Oil capacity (L)	0.58	0.56	0.58	0.58	1.10	1.10
Fuel tank capacity (L)	3.10	2.00	3.10	3.10	5.30	6.10
Operating time at maximum discharge	1h 30	1h 42	1h 54	1h 30	1h 30	1h 30
Starter system	Recoil	Recoil	Recoil	Recoil	Recoil	Recoil
Length (mm)	520	490	510	620	660	735
Width (mm)	400	365	385	460	495	535
Height (mm)	450	420	455	465	515	565
Dry weight (kg)	25.5	20.0	26.0	47.0	61.0	78.0
Sound pressure level at operator's ears – dB(A) (98/37/EC, 2006/42/EC)	89	88	89	92	95	96
Guaranteed sound power level – dB(A) (2000/14/EC, 2005/88/EC)	105	102	103	106	110	112

WATER PUMP PERFORMANCE

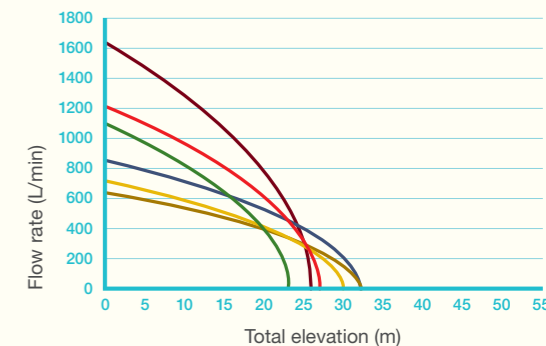
The colour-coded performance curves below show a direct comparison between the different water pumps. Each individual curve represents the flow rate vs. total elevation performance for each water pump.

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°**

Note: all Honda water pumps run on unleaded petrol.
 *PF threads are functionally interchangeable with BSPP.
 **Frameless option available.
 **OHV – Overhead Valve.
 ***Debris size shown is guide only. Pumps are not designed to pump debris continuously, take caution when pumping water that may include solids.