



## MODEL: TPS100

TRASH PUMP

Petrol Powered Specification

11HP – 8.2kW Honda Engine

1700 l/min

### TECHNICAL DATA SHEET

FOR USE IN NON-REGULATED TERRITORIES ASIA MIDDLE EAST AND AFRICA

## TECHNICAL INFORMATION

### MODEL

TPS100-M-SF	Manual Recoil Start with Steel Frame
TPS100-M-SFW	Manual Recoil Start with Steel Frame and Wheels
TPS100-E-SF	Electric Start with Steel Frame
TPS100-E-SFW	Electric Start with Steel Frame and Wheels

### APPLICATIONS

<b>Industrial</b>	<b>Construction &amp; Civil Engineering:</b> Dewatering excavation sites, trenches and basements. Removing slurry, mud and sediment-laden water. Pumping water with gravel, sand or small stones from site runoff. <b>Mining &amp; Quarrying:</b> Handling mine tailings, slurry or sludge containing rocks and sediment. Moving water mixed with sand, grit or fine ore particles. <b>Wastewater &amp; Sewage Management:</b> Transferring sewage, sludge or industrial effluent with suspended solids. Temporary bypass pumping during maintenance of treatment plants. <b>Industrial Cleaning:</b> Cleaning tanks, pits and sumps with debris-laden liquids. Pumping water mixed with waste materials in factories (metal chips, sawdust, etc.).
<b>Agricultural</b>	<b>Irrigation:</b> Pumping water from rivers, ponds or canals that contain leaves, algae or small debris. Filling irrigation canals or tanks for field watering. <b>Drainage &amp; Dewatering:</b> Removing excess water from flooded field after heavy rains. Draining ditches, ponds or low-lying farmland. <b>Livestock &amp; Aquaculture:</b> Moving pond water or slurry that may contain feed particles, manure or sediment. Maintaining water levels in fish or shrimp ponds with suspended solids. <b>Pesticide &amp; Fertilizer Handling:</b> Pumping water mixed with fertilizer or soil amendments that might contain sediment. Transferring liquid manure or compost tea to irrigation systems.

### APPLICATIONS:

Industrial  
Agricultural

**HONDA**

GASOLINE ENGINE

**MD**

**MEDIUM DUTY**

## TECHNICAL INFORMATION

### Engine

Make	Honda
Model	GX390
Power	11HP – 8.2kW / 3600 RPM
Type	4-stroke air-cooled single-cylinder
Displacement	389cc / 0.389l
Fuel Type	Gasoline
Starter	Recoil Start / Electrical Start
Consumption	330 g/kwh / 3.5 l/h
Noise	90dB at 7m
Fuel Tank Size	6.1l
Oil Tank Size	1.1L

### Pump

Make	Energie
Model	TPS100
Inlet and Outlet	4" 100mm / 4" 100mm
Delivery Volume	1700 l/min
Max head	30m
Suction lift	8m
Driving Power	10.4kW
Pump Body	Aluminium Alloy
Impeller	Cast Iron
Mechanical Seal	Carbon Ceramic
Working Speed	3600 RPM

### Accessories Included



#### Pipe Connector Fittings

2 x 4 Inch Pipe Connecting Wrench

Rubber Gaskets



#### Suction Strainer

Inlet Size: 100mm / 4"

Material: Galvanized steel

Hose Clamps x 3

### Recommended Piping



#### Inlet Hose

Material: Rubber or Neoprene

Type: Reinforced synthetic rubber

Thickness: 3-6mm



#### Outlet Hose

Material: Rubber or Neoprene

Type: Reinforced synthetic rubber

Thickness: 3-6mm

### Permissible Pumping

Allowable Liquids	<b>Water</b> (fresh, salt, wastewater)
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### Solid Handling

Pump	27mm
Restricted by Strainer	19mm

### Fuels & Lubricants (Recommended)

Gasoline	95ppm or better
Oils	15W/40

### Consumables (Service parts)

Engine Air Filter	Contact Dealer Directly
Engine Oil Dipstick Assembly	Contact Dealer Directly
Engine Fuel Tank Filter	Contact Dealer Directly

### Dimensions & Weights

Length	800 mm
Width	505 mm
Height	760 mm
Dry & Wet Weight	106.8 kg / 114 kg

### Policies

Warranty	1 Year Limited Warranty
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## TECHNICAL INFORMATION

### Carbon Ceramic Seal Recommended Pumping Applications

#### Water & Wastewater

Fresh Water, River Water, Ponds, Lakes, Muddy Water / Slurry with Sand and Silt, Sewage (with solids up to 19mm if using the standard suction strainer)

#### Industrial Fluids

Mild chemicals compatible with the elastomer used:  
Can handle fluids with suspended solids (stones, leaves, debris) limited by strainer size

#### Slurry / Abrasive Fluids

Carbon-ceramic seals are abrasion-resistant, so you can pump:  
Sand-laden water  
Mud or sludge  
Slurry from construction or agricultural sites

### Carbon Ceramic Seal Not Recommended Pumping Applications

#### Strong Oxidizers

Hydrogen peroxide (>30%), Peracetic acid, Nitric acid concentrated (>30%), Free chlorine, ozone  
Reason: Can attack carbon/ceramic over time and degrade elastomer secondary seals.

#### Fluids Causing Thermal Shock

Hot concentrated acids poured into cold water, Rapidly changing temperature fluids  
Reason: Ceramic is brittle and can crack under sudden temperature changes.

#### Extremely Abrasive Solids (Beyond Design)

Large rocks, metal pieces, or debris bigger than impeller/strainer limits  
Reason: Even though carbon/ceramic is wear-resistant, extremely hard solids can chip the faces or damage the impeller.

### Silicon Carbide Seal Recommended Pumping Applications

#### Water & Wastewater

Fresh Water, River Water, Pond Water, Muddy Water, Silt, Sand-laden Water, Slurry or Sludge with Abrasive Solids (within strainer limits).  
SiC faces are highly resistant to abrasion, so ideal for dirty water or slurry.

#### Chemicals (depending on O-ring material)

NBR O-ring: mild water, light oils, some detergents  
Viton O-ring: fuels, hydrocarbons, light acids, alcohols  
EPDM O-ring: mild alkalis, some acids, detergents  
The SiC faces themselves are chemically inert, so the limitation comes from the O-ring.

#### Abrasive Fluids

Sand-laden water, slurry, wastewater with small solids  
SiC is extremely wear-resistant → much longer life than carbon/ceramic or tungsten carbide in abrasive applications

#### High Temperature Fluids

SiC can tolerate up to 250 °C, so hot water, steam (low-pressure) or warm chemicals are feasible  
Elastomer temperature limits still apply

### Silicon Carbide Seal Not Recommended Pumping Applications

#### Strong Oxidizers

Concentrated hydrogen peroxide (>30%), Peracetic acid, Aqua regia, Free chlorine, ozone  
Even though SiC is chemically resistant, these can attack the elastomer O-ring and sometimes corrode pump metals.

#### Strong Acids / Bases (Depending on O-ring)

Concentrated sulfuric acid (>50%), Concentrated nitric acid, Concentrated NaOH / KOH  
May attack the O-ring or cause corrosion elsewhere in the pump.

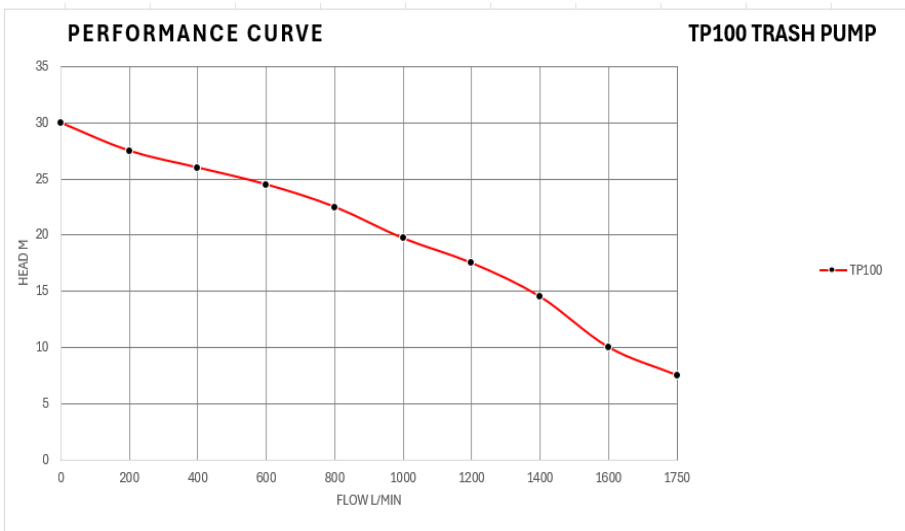
#### Ketones / Polar Solvents

Acetone, MEK, MIBK, Glycol ethers, esters  
Cause swelling or degradation of O-rings, even though SiC faces remain stable.

#### Extremely Abrasive or Oversized Solids

Rocks, metal chunks, sticks larger than impeller / strainer limit (19mm for HL80SPL standard strainer)  
Can damage the impeller and may eventually stress the seal faces.

## PUMP CURVE



Flow (L/min)	Head (M)
0	30
200	27,5
400	26
600	24,5
800	22,5
1000	19,7
1200	17,5
1400	14,5
1600	10
1750	7,5

## PRODUCT VIEWS

### SIDE VIEW



### BACK VIEW



### SIDE VIEW



### FRONT VIEW



## APPROVED DISTRIBUTOR



**HEAD OFFICE JOHANNESBURG**  
Tel: +27 (0)11 870 5000  
Fax to Mail: 086 676 6628  
Cnr Hubert & Marshall Streets,  
Marshalltown, Johannesburg 2001  
ehd@ehd.co.za

**BLOEMFONTEIN**  
Tel: +27 (0)51 430 5404  
17 Krause Street, Oranjesig  
Bloemfontein, 9301  
ehdbloem@ehd.co.za

**CAPE TOWN**  
Tel: +27 (0)21 510 0567  
25 Bellray Business Park  
Ampere Street, Stikland Industrial  
Cape Town, 7530  
ehdcapestown@ehd.co.za

**DURBAN**  
Tel: +27 (0)31 700 1160  
Unit 3, Hillmax  
31 Hillclimb Rd, Westmead 3610  
ehddurban@ehd.co.za