



ETP

ENERGIE TRASH PUMP



MODEL: TPS100

TRASH PUMP

Gasoline Powered Specification

16HP – 12kW Energie 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

APPLICATIONS

Industrial

Construction & Civil Engineering: Dewatering excavation sites, trenches and basements. Removing slurry, mud and sediment-laden water. Pumping water with gravel, sand or small stones from site runoff.

Mining & Quarrying: Handling mine tailings, slurry or sludge containing rocks and sediment. Moving water mixed with sand, grit or fine ore particles.

Wastewater & Sewage Management: Transferring sewage, sludge or industrial effluent with suspended solids. Temporary bypass pumping during maintenance of treatment plants.

Industrial Cleaning: Cleaning tanks, pits and sumps with debris-laden liquids. Pumping water mixed with waste materials in factories (metal chips, sawdust, etc.).

Agricultural

Irrigation: Pumping water from rivers, ponds or canals that contain leaves, algae or small debris. Filling irrigation canals or tanks for field watering.

Drainage & Dewatering: Removing excess water from flooded field after heavy rains. Draining ditches, ponds or low-lying farmland.

Livestock & Aquaculture: Moving pond water or slurry that may contain feed particles, manure or sediment. Maintaining water levels in fish or shrimp ponds with suspended solids.

Pesticide & Fertilizer Handling: Pumping water mixed with fertilizer or soil amendments that might contain sediment. Transferring liquid manure or compost tea to irrigation systems.

APPLICATIONS:

Industrial

Agricultural

énergier
power products
GASOLINE ENGINE

MD

MEDIUM DUTY

TECHNICAL INFORMATION

Engine

Make	Energie
Model	VPHL460
Power	16HP – 12kW / 3600 RPM
Type	Single-cylinder Four-Stroke Air cooled
Displacement	460cc / 0.46l
Fuel Type	Gasoline
Starter	Recoil Start
Consumption	370 g/kWh / 5.2 l/h
Noise	90dB at 7m
Fuel Tank Size	6.5
Oil Tank Size	1.2

Pump

Make	Energie
Model	HLS100
Inlet and Outlet (inch)	4" 100mm / 3" 100mm
Delivery Volume	1700 l/min
Max head	30m
Suction lift	8m
Driving Power	10kW
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
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	Water (fresh, salt, wastewater)
-------------------	--

Solid Handling

Pump	27mm
Restricted by Strainer	19mm

Fuels & Lubricants (Recommended)

Gasoline	95ppm or better
Oils	15W/40

Consumables (Service parts)

Engine Air Filter	3.01.1.02.04.0600
Engine Oil Dipstick Assembly	No Filter
Engine Fuel Tank Filter	No Filter

Dimensions & Weights

Length	770 mm
Width	550 mm
Height	640 mm
Dry & Wet Weight	74.3 kg / 82 kg

Policies

Warranty	1 Year Limited Warranty
----------	-------------------------

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.

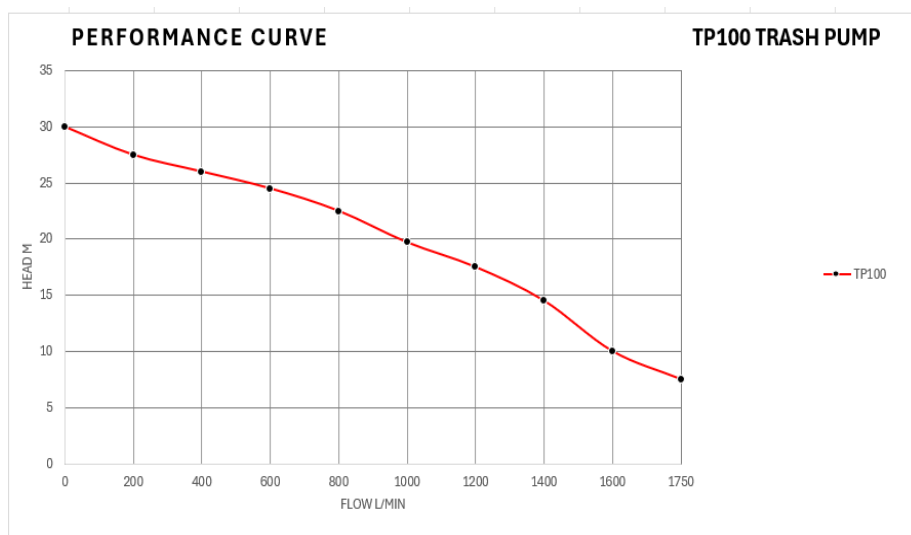
Ketones / Polar Solvents

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



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



ASSEMBLED & DISTRIBUTED BY:



Vert Energy Africa (Pty) Ltd
28A Cnr. Avalon & Private Roads,
Westlake View Ext 12, Modderfontein,
Johannesburg, Gauteng, South Africa
General Enquiries
+27 (0)11 453 9669
info@vertgroup.co.za
www.vertgroup.co.za

DEALER DETAILS
