

HPC-10 Specifications

Applications	Exploration, Bulk Sampling, Artisanal mining, Recreational use
Capacity	<p>The HPC machines are all rated according to nominal capacity based on bank-run material. This is material typical of Placer deposits which contains large and small rocks, gravel, stones and sandy material. The capacity of the HPC's spiral concentrator belt is designed to deal only with the undersize material scrubbed and screened from this bank-run feed. Accordingly, should you feed the HPC machine with material which is already undersize (or the deposit you are processing consists mostly of fine/sandy material), all of this material will pass directly to the concentrator belt and the effective operating capacity of the machine will be based on this. Also, recovery rate will depend on the particle size of the mineral being extracted – lower feed rates are required to ensure recovery of particles in the -150 mesh (-100 micron) range.</p> <p>Safe/Conservative capacity calculations for the HPC-10 can be done as follows:</p> <ul style="list-style-type: none"> • Maximum approx. 1-2 tons/hour of fine material (~ 1/3" minus or 8 mm minus) feed onto the concentrator belt • Feed to the scrubbing/screening trommel can be up to 10 tons/hour, provided the fine fraction component is kept at or below the maximum. • For example: if 20% of your feed is fine material with gold particles above 150mesh / 100 microns and remainder is rock/gravel/coarse fraction, then expected feed rate will be 7-10 tons/hour.
Drive System	<ul style="list-style-type: none"> • Digital Variable Frequency Controller housed within a waterproof enclosure • 1.1kW (1.5HP) 3-phase Drive Motor • Reduction Gearbox <p>Note: Single phase power supplied to the HPC-10 is supplied directly to the Variable Frequency Controller which converts the power to 3-phase power required by the Drive Motor. The Variable Frequency Controller can be adjusted to set the speed of the Concentrator Belt and Scrubbing / Screening Trommel.</p>
Electrical Supply Requirements	Electrical Supply must be Single Phase 220V - 240V and 60Hz / 50Hz. The motor on the HPC-10 is rated at 1.1kW so any generator or power supply capable of delivering this power will be adequate (excludes power required if electric water pump is used). HPC-10 is supplied with Electrical Supply cable. Note: Electrical Generator is not supplied with the HPC-10.
Water Supply Requirements	<p>The HPC-10 requires water supply of approximately 30-40 gallons/minute (120-160 liters/minute) at a pressure of approximately 45psi (310 kPa). Any electrical, petrol or diesel powered pump capable of providing this water flow may be used. The Water Supply must be connected via a 2" hose ("lay-flat" or discharge hose) clamped onto the inlet nipple on the Water Manifold. Note: Water Pump and connection hose are not supplied with the HPC-10.</p> <p>Water Recirculation is possible provided settling time is allowed to avoid clogging of water nozzles.</p>
Feed material	Maximum: 6 inch (150 mm) minus material. Recommended: 2" (50mm) minus.
Trommel	Scrubbing & Screening Trommel is 92" (2.34 m) long with 15" (0.4m) diameter and 48" (1.22 m) 2-stage Scrubber. Screen is 1/3" (8 mm).
Feed Hopper	Manually adjustable, gravity fed
Dimensions	
- Length	154" (3.91 m) with Hopper folded back and Tail Sluice stowed / 200" (5.08 m) with Hopper and Tail Sluice extended
- Width	71" (1.80 m)
- Height	73" (1.85 m) with Hopper folded back / 69" (1.75 m) with Hopper extended
- Weight	2,200 lbs (1,000 kg)
Shipping info	Optimal shipping configuration: 2 HPC-10 machines in 20' container. International customs code: HS #: 8474.10.90.30. (Machinery: separating machines for earth stones, ores or other mineral substances)
Trailer	Single axle trailer with standard tow-hitch (2" ball receiver)
Manning	1 equipment operator or team of 2-6 for manual operation Note: for safety reasons, it is always best to have at least 2 people present when operating machinery.