

QPEC 15" x 72" Strake Belt Concentrator



QPEC Strake Belt Concentrator Top View

Design - Applications

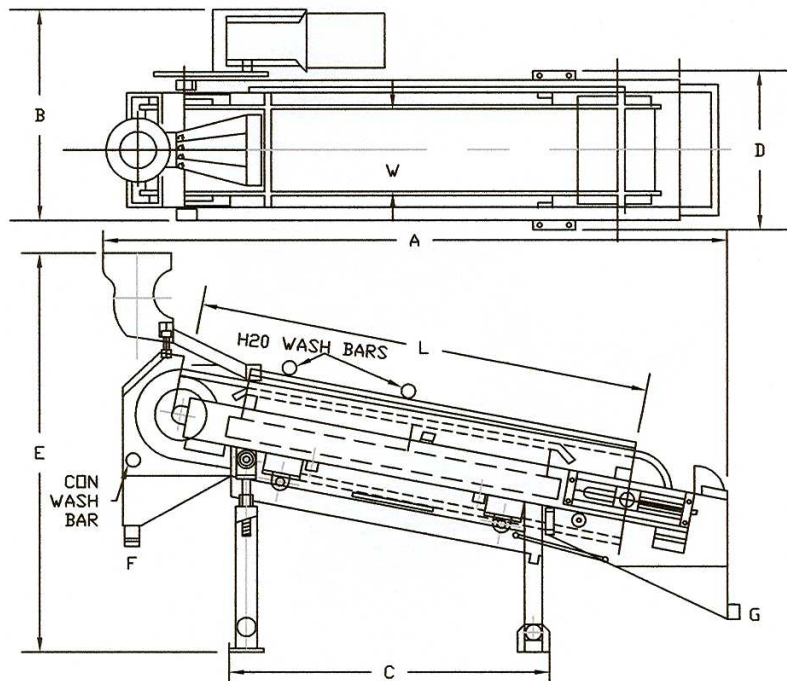
For heavy mineral recovery and concentrate "clean-up" operations. This unit employs the basic, proven, inexpensive law of gravity to effect concentration. The Quinn Stole Belt Concentrator operates on the principle of a slow moving continuous belt moving "up-hill" counter to the feed flow. Operating variables include wash water, slope adjustment and belt speed which move the lighter gravity materials "down-hill" while the heavier particles are trapped in the riffles of the belt and carried to the concentrate hopper to be washed off. Typical applications are the recovery of gold, silver, and other heavy minerals from placer or hard rock deposits with a sized feed.

Ideal for treatment of ground or alluvial primary ore feeds or for "cleaning up" concentrates such as produced by Quinn or other types of jigs typical for treatment of minus 10 mesh feed material with estimated capacities as shown on table on reverse side (capacity will vary with specific gravity, size, shape of feed particles, etc. and whether the material is a mill discharge or a concentrate).

Advantages

1. Designed to treat -10 mesh feed material.
2. Variable speed drive provides for control of concentrate removal rate and/or retention time on the belt for cleaning.
3. Adjustable slope of the complete unit allows for control of the retention time, size and specific gravity of the particles being trapped in the riffles of the belt.
4. Wash water lines are adjustable for control of the position of wash and the amount of wash water necessary to obtain optimum concentration.
5. Unit is self-contained and requires virtually no maintenance or operator attention. Belt life is high due to very low belt speed.
6. Unit is completely self-supporting and requires no additional support for drive, launders, etc.
7. Complete security enclosures are available for precious metal operations.
8. Available in 3 sizes to suit capacity requirements,

(Dimensions and specifications on reverse side.)



SIZE W x L	CAPACITY (tph)			DIMENSIONS								WT.
	MILL	DIS.	CONC.	hp	A	B	C	D	E	F	G	
15 x 72	3-4	1-1-1/2	1/4	1/4	8'-2"	34"	51-1/2"	26-1/2"	62"	2"	2"	1200#
30 x 120	9-10	4-5	1/2	1/2	16'-11"	78"	68-1/2"	46"	90"	3"	4"	3800#
60 x 120	18-20	8-9	1/2	1/2	16'-11"	78"	68-1/2"	76"	90"	4"	6"	5700#

Specifications

(NOTE: Rubber lining and security screen do not apply to 15" x 72' unit.)

Frame: Structural steel support frame with belt support rods and drainage troughs to tails hopper. Adjustable position water spray bars (2) are mounted to the top of the frame.

Legs: Front legs adjustable for 7° to 13° slope of machine, heavy Acme thread adjusting rods with lockouts. Rear legs are structural steel with pivot points.

Belt: One piece molded belt with integral ruffles and side rails. Bell splice is vulcanized or mechanical.

Pulleys: Head and tail pulley are of heavy steel, the head pulley is lagged with rubber.

Bearings: Head and tail bearings are sealed double row spherical roller bearings. Idler bearings are sealed pillow block ball bearings. Tail bearings are mounted in heavy duty take-up frames.

Hoppers: Concentrate and tails hoppers are bolted directly to the frame. Tails hopper includes rubber lining in high wear areas. Both hoppers include rubber lined victaulic discharge nozzles. Concentrate hopper includes lockable security screen, tails hopper includes hinged cover for access. Concentrate hopper includes water spray bar for cleaning of the concentrate from the belt

Drive: As shown in table, 30" and 60" have variable speed gearmotor, roller chain drive and OSHA type drive guard. The 15" unit has a 1/4 hp, 90VDC motor with variable speed controller in NEMA 4 enclosure.

Feed Hopper: Hopper is of heavy steel plate with rubber lining for abrasion resistance. Hopper is mounted directly to the frame of the machine with adjustable height rods to match slope of the machine. Feed hopper includes rubber lined feed distribution plate to evenly spread feed across the width of the belt.