QUINN PROCESS EQUIPMENT CO.

16" x 48" QUINN BALL-ROD MILL
Sectionalized Construction
for
Pilot Plant and Commercial Applications
Bulletin QPEC M-002

16” Ball-Rod Mill 3-sectional x 32”, x 48”, x 64”

Applications

For use in primary or regrind circuits in mineral, chemical or industrial pilot plants or small commercial applications. Optional peripheral discharge is for coarse grinding with minimum production of fines or slimes.

Flexible for wet or dry grinding in open or closed circuit as a rod, ball, or pebble mill and as an overflow or peripheral discharge rod mill.

Typical grinding applications include: copper, lead-zinc, fluorspar, uranium, tin, tungsten, molybdenum, gold, silver, etc., ore processing pilot plants; high grade industrial materials to liberate values prior to recovery by subsequent processing; grinding of chemicals or material such as limestone for use as reagents.

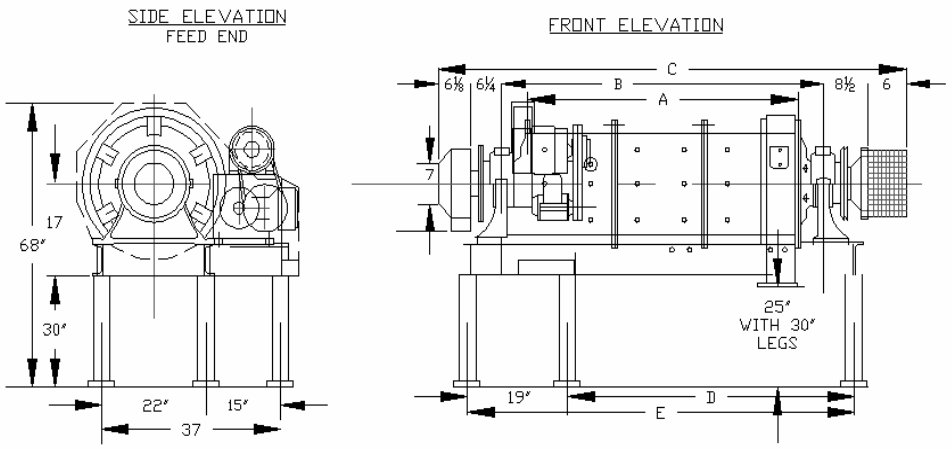
Advantages

Quinn grinding units are designed for 24-hour day continuous abrasive duty. They offer a great deal of flexibility for pilot plants. As standard the 16" x 48" sectionalized mill may be operated:

a. as a rod, ball, or pebble mill.
b. in open or closed circuit with cyclone or spiral classifier.
c. as a wet or dry mill.
d. as an overflow or peripheral discharge mill (optional).
e. with a length of either 16", 32", or 48" (provides 300% capacity range flexibility).
f. in a variable speed range of approximately 68% to 80% of critical speed.

(Dimensions and specifications on reverse side.)

3400 Brighton Blvd., Denver, Colorado 80216 Phone: (303) 295-2872 Fax (303) 295-2706
Email: quinnproc@aol.com Website: http://www.quinnprocess.com



General arrangement drawing of 16′ x 48″ Quinn overflow type ball-rod mill-sectionalized with optional peripheral discharge arrangement.

	Dimensions, inches						hp	Rod-Ball	*Approximate
	Diam x Length	A	B	C	D	E	H	Charge No.	Capacity lb/hr
1 section	16″x16″	17-½	28-⅝	55-½	20-¾	39-¾	2	250	100
2 section	16″x32″	33-½	44-⅝	71-½	36-¾	55-¾	3	500	200
3 section	16″x48″	49-½	60-⅝	87-½	52-¾	71-¾	5	750	300

*Capacity based on wet grinding medium ore to 65-mesh.

Specifications

Shell: 16-1/4" I.D. heavy rolled steel, bolted machined flanges template drilled with interlocking surface. Liner bolt holes and drain coupling. 48" length furnished as three 16" flanged section.
Liners: Replaceable lifter bars of 475 Brinnel white iron with recessed bolt holes. Shell liners of steel, rubber-faced, 3/8" thickness or of steel alone.
Liner bolts: Square head standard bolts; nuts, metal and fabric reinforced rubber washers.
Heads: High-grade ductile iron, bolted machined flanges template drilled, with interlocking surface. Trunnion surface ground and polished.
Head-trunnion liners: One-piece heavy castings protect head and inside of trunnions. Include forward or reverse spiral.
Trunnion bearings: Are of babbitted construction for waste-packed oil or brick grease lubrication.
Feeder: Drum type is standard. Combination drum or scoop is available for closed circuit with classifiers. Gear: Reversible cut-tooth of close-grained cast iron. Template drilled and bolted to head.
Pinion: Reversible, cut-tooth steel.
Gear guard: Solid steel, OSHA type.
Reducer: Enclosed running-in-oil with double reduction.
V-belt drive: Vari-pitch V-belt drive with speed range approximately 68% to 80% of critical.
Drive guard: Solid steel, OSHA type.
Motor: 5 hp, totally enclosed, fan cooled for 3 ph, 60 Hertz, 230/460 volt operation (or other standard electrical characteristics).
Structural base: Fabricated common steel base for mounting mill and motor drive. Support legs optional.
Mill discharge: Trunnion overflow type is standard. Overflow discharge is standard. Mills purchased with optional peripheral discharge may also be operated as overflow type.
Trommel screen: Available in mild steel or stainless steel.
Paint: Wire brush preparation, machinery green enamel.

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