

Rosia Montana Gold Mill Project, 36' x 20.5' SAG Mill, Metso Serial # 72927 Mill Data Sheet

MILL SIZE:	36' x 20.5'
TYPE:	SAG Mill

**DRIVE MOTOR:** A.B.B. Wrap-Around (By customer) **kW:** 15000 kW @ 9.57 RPM Speed Range

Constant Torque - 7.1 RPM (55% C.S.) to 9.57 RPM (74% C.S.) Constant Power - 9.57 RPM (74% C.S.) to 11.00 (85% C.S.)

INCHING DRIVE:Not ApplicableMILL BRAKE SYSTEM:Twiflex Hydraulic Brake

TRUNNION BEARINGS SIZE: 132"TYPE: Hydrostatic Pad BearingsTRUNNION BEARING LUBE SYSTEM: Hydrostatic Pad Lubrication SystemMILL LINING: Chrome Moly Metal LinersFEED ARRANGEMENT: Feed Trunnion Liner & Wheeled, Lined, Self-propelledFeed ChuteDISCHARGE ARRGT: Discharge Trunnion Liner & TrommelGRINDING MEDIA: Steel Grinding Balls

## RECOMMENDED BALL CHARGE SIZE AND WEIGHT DISTRIBUTION:

(At Nominal 12% Ball Charge) Total Ball Charge Weight: 351930 kg (775,875 #)

Ball Size (in.)	Ball Size (mm)	% Initial Charge	Weight (lbs)	Weight (kg)
5.0 "	125 mm	21	162935	73900
4.5 "	115 mm	33	256040	116135
4.0"	100 mm	23	178450	80950
3.5 "	90 mm	15	116380	52790
3.0 "	75 mm	8	62070	28155



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**Process Description:** SAG Mill with pulp discharger and grate overflow.

## **Design Calculations**

**Note**: These specifications are provided for reference only. They were used as design criteria for the engineering of the grinding system. They do not represent any guaranteed or warranted outputs or capacities.

## Design Conditions

Material Processed:	Gold
Capacity:	1635 t/h (nominal), 1300 t/h (harder ore), 1950 t/h (soft ore)
Feed Size:	Not available
Product Size	Not available
Ball Charge ( by Vol.)	12% nominal 15 % maximum

## **Recommended Ball Charge:**

Ball size and weight distribution for the nominal 12% volume ball charge. See the Mill Data Sheet for the ball charge size and weight distribution.

NOTE: It is important to maintain the load in the SAG Mill no lower than 24 percent and no higher than 30 percent total charge volume during operation. Low volumetric charges will result in broken balls and liners, high volumetric loads will result in overloads and possible damage to the mill feed chute, seals, etc.. It is typical and usual to start the mill with a low ball charge and gradually increase to the maximum permissible ball charge during initial operation. This is to allow the operator time to familiarize himself with the equipment, controls, instrumentation, etc., along with allowing for a gradual run-in of the gear set and drive train.

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