

RMS-ROSS CORPORATION

presents high efficiency...

'RMS CIRCULAR JIGS'



JIGS are one of the most widely applied gravity concentrating devices used in the world, and are the major concentrators for tin, diamonds and gold.

The development of the circular jigs for tin in the 1960's has led to the development of one of the most significant advances in modern high capacity gravity concentration equipment.

NOW...

RMS-ROSS CORPORATION has taken the concept of the circular jig and redesigned all elements to produce one of the most efficient, high capacity jigs available in the world today.

- **Reliable and cost effective**
- **High capacity, surge resistant**
- **Excellent recovery**
- **Electronic frequency control**
- **Easy stroke adjustment**
- **Greater particulate retention time**

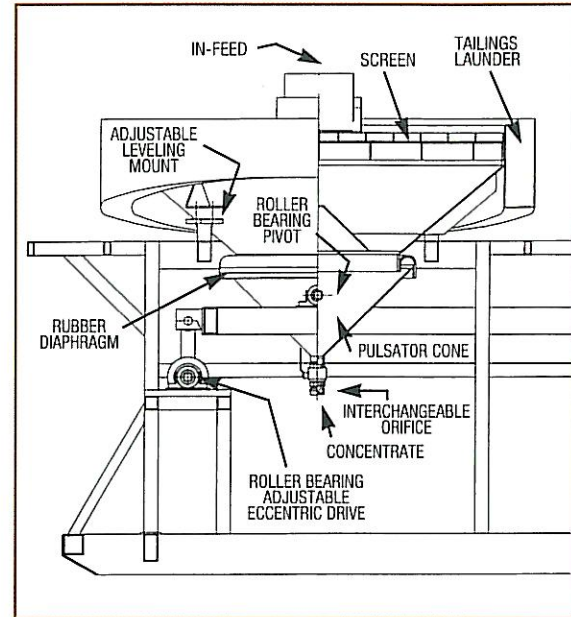
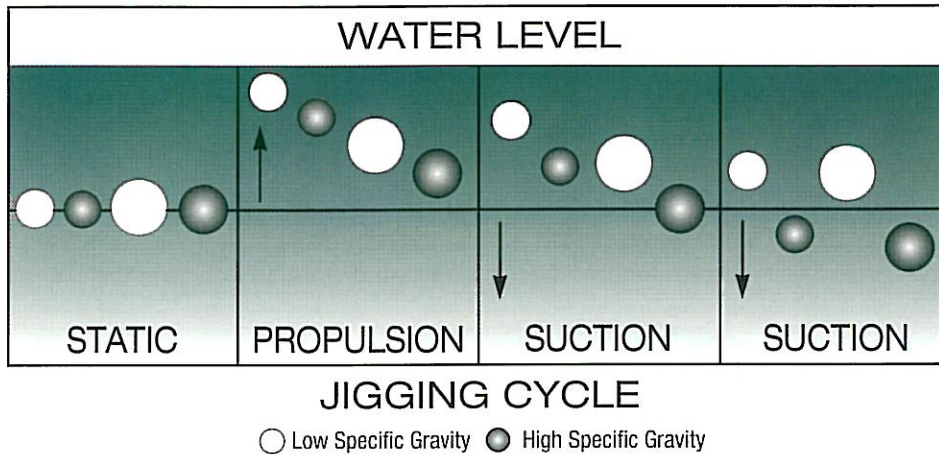
In conventional square jigs, the feed **accelerates** toward the discharge. However, in circular jigs the feed **decelerates** as it approaches the discharge because the cross sectional area of the flow channel increases dramatically as the feed approaches the discharge. Therefore the particulate retention time is substantially longer in the **RMS CIRCULAR JIG** compared to any traditional jig, enhancing the capture of fine gold.



Two 9' Circular
Jigs and two
3' Circular Jigs
operating in a 400
yard per hour
operation

RMS CIRCULAR JIGS

The primary function of the RMS Circular Jigs is **stratification** and the secondary function is the **separation** of the stratified layers into two discrete products - tailings and concentrate. The stratification and separation are affected by the **jig cycle**...



CIRCULAR JIG CROSS SECTION

The jig cycle consists of an upstroke, or 'propulsion stroke', and a downstroke, or 'suction stroke'. The upstroke results in the creation of a very 'soft' bed (dilation) where the lighter particles are lifted into the tailings stream and the heavier particles can readily sink and be sucked through the screen in the downstroke or the suction stroke. The inflow of water is restricted to the downstroke so that the suction in the bed can be modified to suit the highly variable conditions on site.

Circular jigs are more efficient than trapezoidal or square configurations where interference patterns result in zones of pulse disruption, negatively affecting feed flow. Whereas, pulsations occurring in a concentric round chamber, working at a tuned frequency will give rise to balanced nodal pulse patterns, providing even vertical sorting of the jig bed. Therefore, the **RMS Circular Jigs are more efficient** by inherent physical design.

The **RMS Circular Jig** has a simple harmonic motion cycle where the up and down strokes are of equal duration and intensity, but both length of stroke and frequency are independent and easily adjustable.

The same is true of hutch water; there are individual tanks and adequate valving for absolute control of water pressure. The higher the hutch water pressure, the less the suction, the higher the grade of concentrate. Inversely, the lower the hutch water pressure, the greater the suction, resulting in more concentrate but lesser grade.

SPECIFICATIONS

DESCRIPTION	JIG BED DIAMETER/ft		
	3	6	9
Area of Bed (sq ft)	7	28.3	63.6
Feed Rate (cy/hr)	10	42	95
Lip Length (ft)	9.4	18.8	28.3
Hutch Water Consumption (gal)	30	90+	300+

Manufactured by:

RMS-ROSS CORPORATION

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