

# KELSEY JIG J1300

The Kelsey Centrifugal Jig engineering concept comprises the application of all the parameters of a conventional jig plus centrifugal force. Spinning the unit at a controlled speed results in:

- > Increased apparent gravitational fields
- > Increased apparent difference in specific gravity between minerals
- > Increased particle acceleration selectivity
- > Improved fine mineral recovery and separation efficiency



## Applications

### Titanium Minerals

- Heavy minerals from quartz
- Zircon from kyanite or sillimanite
- Rutile and Zircon from non-magnetics

### Tin

- Recovery of tin from grinding circuits
- Replacement of cassiterite flotation
- Increasing final concentrate grade
- Tin recovery from tailings

### Gold

- Alluvial gold recovery
- Recovery of gold from grinding circuits
- Treatment of leach feed
- Processing of CIP tailings

### Nickel

- Removal of magnesium silicates from flotation feed
- Cleaning flotation concentrate
- Scavenging cleaner flotation tailings

### Iron Ore

- Hematite from silica
- Hematite from manganese carbonates
- Hematite from apatite

### Other Applications

- Chromite
- TiO<sub>2</sub> Pigments
- PGM's
- Base Metals (Cu/Pb/Zn/Co)

## Design Features

- Continuous production capability
- High capacity to space requirement
- Adaptability to feed variations
- High mechanical availability
- Automatic screen cleaning systems
- Integrated lubrication system
- Heavy duty, rubber and ceramic lined construction
- Inspection hatch
- PLC control compliant

## Design Data

|                        |                     |
|------------------------|---------------------|
| Feed Rate:             | Up to 25 t/h solids |
| Feed Sizing:           | <500 µm             |
| Optimum Feed Density:  | 3.5 - 40% solids    |
| Spin Speed:            | 150 - 250 rpm       |
| Pluse Rate:            | 1800 - 2400 pm      |
| Stroke Amplitude:      | 2 -3 mm             |
| Cut point:             | 3.0 - 6.0 s.g.      |
| Electriation Water:    | 300 - 600 l/min     |
| Internal Screen Sizes: | 200 - 600 µm        |

