



The Mini Pilot Plant is an advanced and powerful mineral processing system. It puts the capability of a conventional full scale pilot plant in your hands, for a fraction of the cost.

Proven repeatable results allow you to design and test flotation circuits with confidence. Extract the maximum amount of metallurgical information from as little as 150 kg of ore sample

Save Time - accurately determine mineral processing grade and recovery outcomes much quicker and earlier in the deposit evaluation process

and Money - low sample acquisition costs, low sample disposal costs, low operating costs, low processing costs

While testing the entire ore property - You already have drill core from the ore zone, use it to confidently evaluate

the economic potential of the entire ore body, not just one deposit.

With the MPP and using drill core samples a process metallurgist can:

- Run continuous flotation test campaigns including re-circulating streams
- Simulate the continuous operation of rougher/scavenger/cleaner circuits
- Develop full circuit flow sheet designs
- Derive mass balances and circulating loads
- Produce full grade and recovery curves
- Test for ore zone variability



MINI PILOT PLANT

BATCH ROD/BALL MILL



Powder coated steel construction with 10-15 kg capacity stainless steel drum featuring:

- variable speed drive with digital speed indication
- electronic countdown timer
- electro-hydraulic tilt system
- stainless steel discharge hopper

SLURRY HOLDING TANK

Powder coated steel construction with 60 L stainless steel tank includes:

- Variable speed agitator drive
- Variable speed recirculation pump
- Slurry temperature and pH measurement

SLURRY FEED TANK

Powder coated steel construction with 60 L stainless steel tank includes:

- Variable speed agitator drive
- Variable speed recirculation pump
- Slurry temperature and pH measurement
- Automated slurry stream sampler system

CFM-12 BASE UNIT

Processing 10-15 kg/h of ore slurry the continuous flotation machine features heavy duty construction and includes:

- Twelve 1.7 liter flotation cells each with Denver D-12 type agitators; variable speed control, digital air flow indication and control
- Eight variable speed peristaltic pumps, each with three pump heads, for concentrate and tails transfer
- Launder spray water with flow measurement
- Electro-hydraulic lift to raise flotation agitators from cells
- pH/ORP measurement and control systems
- Automatic lime addition system (optional)
- Adjustable overflow weirs on each cell

Numerous interactive flotation circuit layouts can be readily tested simply by re-arranging the launder and transfer pump configurations.



FLOTATION COLUMN



The frame is heavy duty steel with a clear PVC column body 75 mm in diameter, approximately 2700 mm in overall height and features:

- Adjustable column height
- Variable speed feed and tailings pump
- Automatic level control
- Digital air flow control
- Wash water system with digital flow meter

REGRIND PIN MILL

Constructed in heavy duty powder coated steel includes:

- Continuous stirred mill attritor
- Two stainless steel grinding chambers and shafts
- Three hp motor with variable frequency drive
- Digital speed display
- Stainless steel grinding media

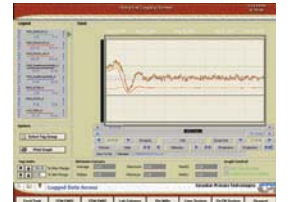
REAGENT DISPENSING SYSTEM

The reagent dispensing cart is constructed in stainless steel and includes:

- Eight or sixteen precision metering pumps each with 0-50 ml/min flow range
- Variable speed control for each pump
- Forward and reverse pump control
- Remote control via optional PLC based supervisory system

PLC-DATA ACQUISITION SYSTEM

Each individual MPP module can be connected to a pre-programmed and configured PLC-Data acquisition system. The separate PC based work station is HMI configured allowing the operator to monitor, control, trend and display important operational parameters.



Technical Specifications

Batch Rod/Ball Mill

Height: 1625 mm
Depth: 1700 mm
Width: 1215 mm
Weight: 550 kg
Power: 230 V, 50/60 Hz



Slurry Holding Tank

Height: 2215 mm
Depth: 915 mm
Width: 1775 mm
Weight: 350 kg
Power: 230 V, 50/60 Hz



Slurry Feed Tank

Height: 2215 mm
Depth: 915 mm
Width: 1775 mm
Weight: 360 kg
Power: 230 V, 50/60 Hz



CFM-12 Base Unit

Height: 2010 mm
Depth: 1080 mm
Width: 3025 mm
Weight: 1300 kg
Power: 400 VAC, 3 phase



Flotation Column

Height: 2665 mm
Depth: 890 mm
Width: 1225 mm
Weight: 190 kg
Power: 230 V, 50/60 Hz



Regrind Pin Mill

Height: 2090 mm
Depth: 850 mm
Width: 1270 mm
Weight: 480 kg
Power: 400 VAC, 3 phase



Reagent Dispensing System

Height: 1240 mm
Depth: 812 mm
Width: 1450 mm
Weight: 240 kg
Power: 230 V, 50/60 Hz

