

Autoclave Module

SKU: AVM-AC-12K · 12,000 L Magnetic-Driven Pressure Reactor

12,000 L VOLUME	3.5 MPa PRESSURE	230 °C TEMP	~20–30 t/day THROUGHPUT
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PRODUCT OVERVIEW

The AVM-AC-12K is a 12,000 L magnetic-driven pressure reactor for pressure oxidation (POX), HPAL, refractory gold leaching, and PGM digestion. N6 nickel-clad construction with zero-leak magnetic drive, external jacket/coil heating, and full SIL-2 safety instrumentation. Housed in a double-stacked 20-foot container frame.

MODULE OVERVIEW

Reactor Volume	12,000 L
Design Pressure	3.5 MPa
Design Temperature	230 °C
Wetted Material	N6 nickel / 316L stainless steel
Throughput (POX)	~20–30 tonnes/day
Agitator	3-layer axial-flow — magnetic drive (no shaft seal)
Safety	SIL-2 PLC · safety valve · rupture disc
Lead Time	150–180 days from PO

EQUIPMENT SPECIFICATION

SKU	Machine	Capacity / Power
AVM-AC-12K-ST	Slurry Feed Tank	3–5 m ³ · 5.5 kW agitator
AVM-AC-12K-FP	High-Pressure Feed Pump	5–10 m ³ /h @ 4 MPa · 15 kW VSD
AVM-AC-12K-RC	Reactor Core — 12,000 L	12 m ³ · 22 kW magnetic mixer
AVM-AC-12K-FT	Flash / Discharge Tank	8–10 m ³ · 3.0 kW
AVM-AC-12K-SH	Steam & Heating Skid	0.6–1.0 t/h at 4 MPa — fuel fired
AVM-AC-12K-CS	Control & Safety Skid (PLC + HMI)	SIL-2 · Siemens/AB

COMMERCIAL TERMS

Lead Time	150–180 days from PO — vessel is critical path; hydraulic FAT before shipment
Warranty	12 mo workmanship · 24 mo reactor shell & cladding · 10,000 hr magnetic bearings
Included	Engineering, GB/T 150 vessel design, FAT, install supervision, P&IDs, O&M manuals
Certifications	GB/T 150 · ASME U-stamp / PED CE on request · NB/T 47013 100% NDT welds
Payment Terms	30% PO · 50% vessel hydrotest · 15% shipment · 5% commissioning