

Technic 24" x 12"Ø Automated, Modular, Barrel Plating Line - 28 Stations



Stock No	BAK400
Manufacturer	Technic
Year of Manufacture	2015
Condition	Brand New, Unused, Current Model
Work Envelope (WxDxH mm)	24" x 12"Ø Barrels (610mm x 300mmØ)
Process Stages	28 Process Stations
Other Info	Allen-Bradley PLC/HMI
Location	Connecticut, USA

Description

This complete automated plating line features 28 process stations, automated hoists, cyanide brass plating, counterflow rinsing, filtration, drying, exhaust and scrubbing, plus 15 B&P plating barrels and 10 independent 12V / 100A rectifiers.

Manufactured in 2015 and never installed or used, it offers a rare opportunity to acquire a modern, fully equipped plating system ready for worldwide deployment.

Stop!

Take a minute to read the detail.

These plating lines are the real deal. The features included are high quality, well thought out and ready now.
Even better these plants are modular so are installation friendly, reducing costs significantly.

Built by **Technic**, a **leading global specialist** in high quality plating, surface finishing equipment & process control systems, this advanced plating system benefits from decades of industry expertise across semiconductor, electronics, PCB, industrial finishing and decorative applications.

Currently located in the USA, the system was manufactured at Technic's facility and has been transported to the end user's site but remains unused and never installed. With Technic's established experience supporting installations across North America, Europe and Asia, the system offers the flexibility to be deployed worldwide.

The sale presents an opportunity to acquire a complete, modern plating system that has already been manufactured and packaged, with the original project no longer proceeding due to changes in the end user's production requirements.

Features & Benefits

- **Unused Plating Line** – Complete system manufactured by Technic and never installed or used in production.
- **Complete Automated Process** – 28 process stations with automated hoists, tanks, rectifiers, barrels, rinsing, filtration, drying and ventilation.
- **Factory Assembled Complete Package** – Modular tank sections supplied with pre-installed connections, plus DESCO dryers, Ritetemp chiller, water filtration and load/unload equipment.
- **Advanced Automation** – Allen-Bradley PLC, PC-based HMI and servo-driven hoists provide accurate handling and process control.
- **Robust Tank Construction** – 1" (25mm) thick polypropylene tanks with reinforced steel frames, stainless steel hardware and integrated heating, cooling and drainage.
- **Integrated Brass Plating** – Dedicated cyanide brass plating stations with filtration, heating, cooling, anodes and 100A bussing.
- **High Performance Power & Barrels** – Ten 12V / 100A American Plating Power rectifiers and fifteen B&P 24" x 12"Ø (610mm x 300mmØ) plating barrels, fully wired and production-ready.
- **Integrated Exhaust & Scrubbing** – Dedicated acid and cyanide ventilation with MAPCO hoods, PVC ductwork, high-efficiency scrubbers and pH control.

Tanks & Equipment

- **Engineered Tanks**– Purpose-built tanks manufactured by Technic to suit the specific process requirements.
- **Robust Polypropylene Construction**– Fusion welded using Technic's specialist hot-forming process for strong, durable construction with reduced welded seams.
- **Reinforced Design**– Structural steel girths are welded and fully encapsulated in polypropylene for added rigidity and long-term protection.
- **Stainless Steel Hardware**– T304 stainless steel fixings provide durable, corrosion-resistant tank support.
- **Optimised Rinsing**– Full-width overflow and counterflow designs promote effective rinsing and efficient water management.
- **Process Specific Heating**– Heating coils or elements are sized for a 2–4 hour heat-up from 65°F (18°C) using a 480V, 3-phase supply.
- **Front Side Connections**– Plumbing and electrical connections are positioned at the front for easier access and

maintenance.

- **Clear Level Monitoring**– Built-in visual fill scales provide easy identification of operating and low-level points.
- **Process Specific Equipment**– Tank drains, heating systems and construction materials are selected according to individual process requirements.

Automation

Hoists/Transporters

Two Technic MAC-250 cantilevered side-arm hoists, designed to travel behind and above the tank line, with only the work boom passing over the open tanks to help minimise bath contamination. Built for reliable, long-term operation, they feature 250lb (113kg) lifting capacity, 300lb (136kg) anode bar capacity, stainless steel lifting components, servo-driven rack-and-pinion travel, servo encoder positioning, positive roller-chain lifting and comprehensive anti-collision and bath-occupied safety systems.

E-Chain Cable System

Electrical cables are securely housed within a flexible E-Track system running the full length of the line, providing organised and protected cable management. The system includes entrance glands and terminal junction boxes, with individually marked cables at both ends for straightforward installation and connection.

Hoist Support Steel

Robust tubular steel floor support structure designed to carry the hoists and E-Chain cable systems. The approximately 80ft (25m) structure is shot blasted, primed and finished with two-part epoxy for long-term durability, while its sectional design allows easy transport, handling and on-site reassembly. The frame also provides approximately 3ft (1m) of additional travel for a future anode service station.

Hoist Control System

The Technic Series I Hoist Control System provides centralised control of the automated hoists, combining an **Allen-Bradley PLC**, servo drives, encoder positioning and PC-based HMI into a complete control package. The system is designed to provide accurate hoist movement, flexible operating modes and straightforward monitoring of the plating process.

- **Allen-Bradley PLC** – Industry-standard PLC with integrated I/O, CPU and power supply.
- **Servo Control** – Servo drives and encoder positioning for accurate hoist movement.
- **PC-Based HMI** – Displays hoist status, faults, bath temperature and rectifier information.
- **10 Timeways** – Stores and edits up to 10 programmable process sequences; one included.
- **Three Operating Modes** – Fully automated, semi-automated and manual/jog operation.
- **Power & Protection** – Lockable main disconnect, three-phase fuses, transformers and associated hardware.
- **Complete Control Package** – Includes PLC, servo drives, encoder system, HMI and operating software.

Factory Assembly – Tank Modules

Tanks are factory mounted onto robust, acid-resistant epoxy-coated structural steel frames, with flexible PVC protection helping prevent corrosion. T304 stainless steel hardware securely fixes the tanks in place, while drains, water feeds, push-air and temperature probe wiring are pre-installed and clearly labelled. Drip shields and stainless steel supports provide added protection and durability, with the modules arranged in convenient 10–20ft (3–6m) sections for efficient

shipping and straightforward on-site reassembly.

Exhaust & Ventilation System

The system incorporates dedicated corrosion-resistant PVC ventilation for both acid and cyanide processes, with push-pull extraction designed to provide effective fume capture and approximately 99% particulate removal down to 6 microns. The acid system serves five tanks at 5,348 CFM, (9,000 m³/h) while the cyanide system serves two tanks at 9,687 CFM (16,500 m³/h). Both systems feature MAPCO exhaust hoods, custom PVC ductwork and high-efficiency cross-flow fume scrubbers with polypropylene packing and mist elimination.

Scrubbing & Control Equipment

Integrated recirculation systems provide automatic freshwater make-up and controlled blowdown, with pH monitoring and chemical dosing to support consistent scrubber performance. Centrifugal exhaust fans and a high-pressure push blower provide reliable airflow, while a central NEC-compliant control panel coordinates the pumps, push and exhaust fans, level controllers and pH systems. Stainless steel supports and corrosion-resistant construction complete the comprehensive ventilation package.

Rectifiers - American Plating Power

A compact, high performance DC power supply featuring 10 independent 12V / 100A MS-Series switch-mode rectifiers within a robust NEMA 12 cabinet. Air-cooled and designed for continuous industrial operation, the modular plug-in configuration provides excellent accessibility, flexibility and simplified maintenance, with individual circuit breakers allowing each rectifier to be isolated independently. Advanced switch-mode technology delivers less than 1% ripple across the full output range, while integrated 4–20mA interfaces provide precise control and monitoring of voltage, current and system status.

Barrels

Fifteen B&P plating barrels, each measuring 24" x 12" (610mm x 300mm), supplied complete with DC motor assemblies, set-downs and automatic pickups. Fully wired and production-ready, providing a complete barrel handling solution with minimal setup required.

Ancillary Equipment Included

- **Dryers** - Three DESCO 12 x 12 electric heat dryers with 6kW electric heating, automatic reversing with adjustable cycle timer, horn & strobe indication and 6 heavy duty polypropylene baskets with stainless steel handles.
- **Brass Chiller** - One Ritetemp 1-ton chiller, providing reliable cooling capacity for the process system and supporting consistent operating temperatures.
- **Water Filter** - One stainless steel duplex water filter assembly providing reliable filtration at 15 GPM with 1-micron filtration.



Photographs taken prior refurbishment. Our refurbishment service is not available on all machines.