

INGOT STRAPPING MACHINE WITH ROBOTIC STACKING SYSTEM



INGOT STRAPPING MACHINE WITH ROBOTIC STACKING SYSTEM

Features

- Fully integrated Robotic Ingot Stacking and Strapping Workcell with Fanuc Robot and Fromm MH600 Strapping Head
- Automatic strapper with bayonet, lifting device, and integrated weigh-scale
- MH600 strapping head feed and take up functions controlled with variable frequency drive and analog tension control
- Fanuc Model M-410iB/450 Robot with Samuel-designed and built end-of-arm tooling to stack hot ingots at high speed
- Machine can be equipped with MH600 head friction seal and VK-30M head for heat seal joints for polyester strap. Machine can also be equipped with VS series heads for steel strapping
- Comprehensive safety system for robotic cell and strapping system
- Temperatures at stacking cell of greater than 180 degrees C (355 degrees F)
- CD12SJ dispensers for 300lbs polyester coils

The Ingot Strapping Machine with Robot Stacker from Samuel Strapping Systems is a custom solution developed specifically for the smelting industry. We combine the best in strapping and robotics technology to provide a fast, efficient, and reliable solution that will drastically reduce your production time and improve your throughput. This no-touch system requires no operator, which frees up manpower for other vital tasks on the factory floor.



INGOT STRAPPING MACHINE WITH ROBOTIC STACKING SYSTEM

Standard Equipment

Fanuc Model M-410iB/450 Robot

- Fastest cycle times and highest payload rating of any robot in its class
- Repeatability of $\pm 0.5\text{mm}$ at full speed and full payload
- Custom grip for securely handling multiple ingots
- Vertical articulation eliminates “elbow” interference
- Direct-coupled drives result in higher reliability and reduced maintenance costs
- Sturdy construction allows it to operate in harsh factory floor environments
- Proven, reliable FANUC servo drives provide highest uptime and productivity
- Fast boot time at less than 30 seconds

MH600 Strapping Head

- Compact and modular design
- High strap tension up to 1570 lbs adjustable
- Wide strap width range without changing parts
- Reliable friction-weld joint

CD12SJ Dispenser

- Large capacity tower
- Quick take-up response
- Linear bearing carriage travel
- Self-contained controls for independent operation or system integration
- “Out of strap” switch

Optional Equipment

VS12 Steel Strapping Head

- High-performance electric steel strapping head
- Fully automated strapping heads
- Available in sealless and spot weld joint configurations
- Tungsten Inert Gas (TIG) spot welder provides 90% joint efficiency
- Feed and take-up rate up to 8.2 fps (2.0mps)

VK30 Plastic Strapping Head

- Heavy Duty Performance
- High Tension Capability
- Heavy Duty Heater Delivers up to 90% joint efficiency
- PLC-Controlled
- Direct Drive System
- Powered Track Assembly

Specifications

Operation	Robot arm automatically gathers and stacks ingots into multiple layers. Conveyor system brings stacked load to strapping component where load is unitized for transport and storage
Strapping Size	Plastic Strapping: $1/2"$ – $3/4"$ width and $0.016"$ – $0.060"$ thickness Steel Strapping: $1/2"$, $5/8"$ and $3/4"$ width and $0.017"$ – $0.031"$ thickness
Strap Joint	Up to 85% of strap strength (PET) Up to 90% of strap strength (Steel)

