

DRYING SYSTEMS

DRY ING SYS TEMS

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SHELL-O-MATIC

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INVESTMENT CASTING SHELL DRYING SYSTEM WITH MICROWAVE

ADVANTAGES & KEY FEATURES

- » Super fast dry
 - Drastic lead time reduction in lost wax shell production. (5 days to 4 hours - 96% reduction rate)
 - Wax temperature kept low - approximately 25 °C (77 °F).
- » No shell cracks.
- » Numeric dryness measurement with shell weight change. (PATPEND)
- » Both normal and special slurry applicable.
- » Flexible application.
- » Simple and easy operation.



Dry Shells in Short Time - Only 30 Minutes per Layer

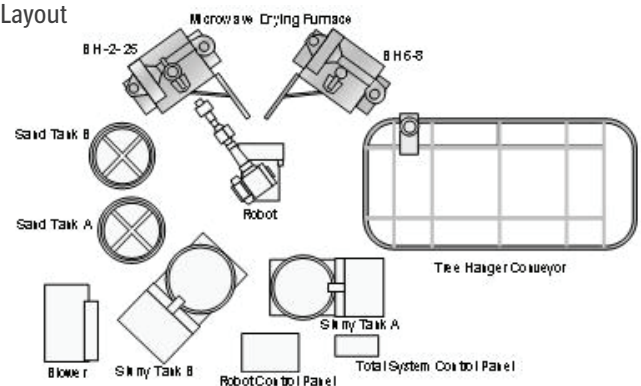
Whereas with conventional methods of shell drying it takes approximately 2 - 3 hours for the 1st and 2nd layer, 3 - 4 hours for 3rd - 5th layers, and 4 - 8 hours for the following layers, Japan High Comm Microwave furnace dries shells in only 30 minutes per layer.

Applications

Application example 1: Full automatic
- Suitable for large item small volume production -



Layout



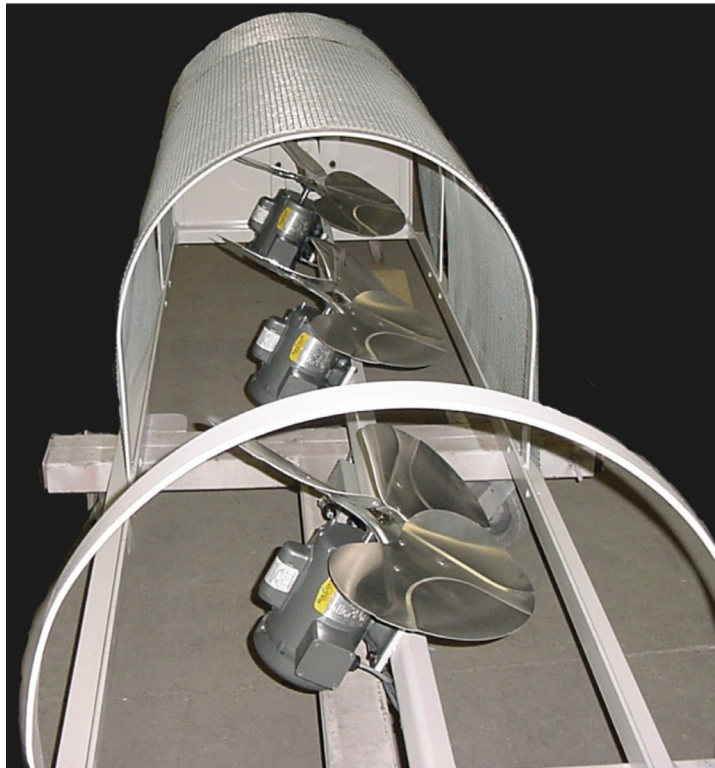
Operation Procedure

- » Unload mold tree from conveyor with robot.
- » Dip mold tree into slurry and coat sand.
- » Put mold tree into multiple microwave drying furnaces by turns.
- » Take out mold tree from microwave drying furnace.

THE DRYING SYSTEM IS A CRITICAL COMPONENT OF THE SHELL-BUILDING EQUIPMENT

Its design involves a fine line between shell fast drying to ensure maximum productivity and respecting a minimum shell drying time to avoid shell cracking while allowing the slurry polymers to properly reticulate.

Shell-O-Matic experts can assist you selecting the proper drying system for you from simple open air conveyors to enclosed conveyor tunnels with environmental control, rotating hangers, adjustable fan speed and position. We can also integrate advance drying techniques using infrared or microwaves as an example. We can provide you a turnkey solution from system engineering to installation and training.



OSCILLATING FAN MODULES WITH VERTICAL AIR FLOW

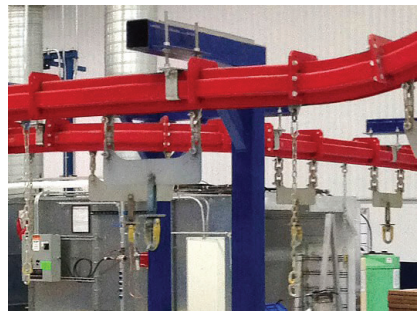
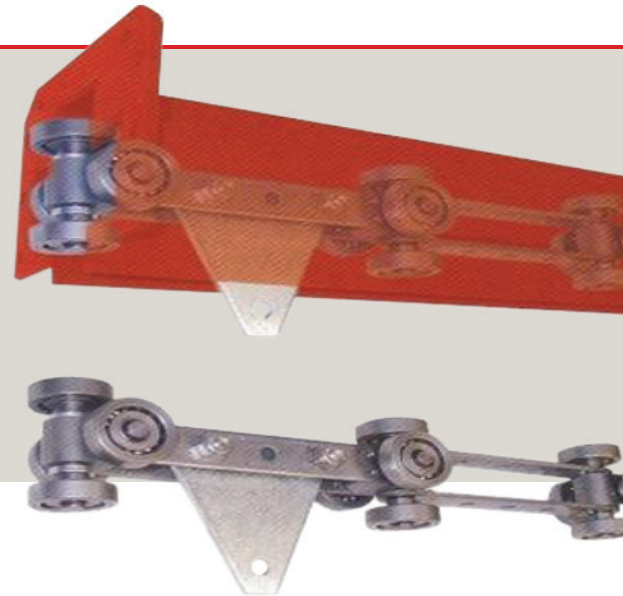
CONVEYOR SYSTEMS

SHELL-O-MATIC IS SPECIALIZED IN ENGINEERING CUSTOM CONVEYOR SOLUTIONS INTEGRATED WITH ROBOTS TO MEET YOUR PROCESS FLOW, FLOOR SPACE CONSTRAINTS AND MOVE PRODUCTS SAFELY FROM ONE STATION TO ANOTHER.

We have the expertise in automating entire foundries with these systems, allowing for a smooth and automated flow of product towards the factory.

We can provide custom conveyor solutions from engineering to installation. Our conveyor systems are proven in the foundry industry and deliver constant reliable performance at an affordable cost.

- » Many conveyor options to meet the customer load requirement.
- » Turnkey installation all over the world.
- » Customized to match your space constraint.



VERTICAL CONVEYOR



SIDE VIEW

