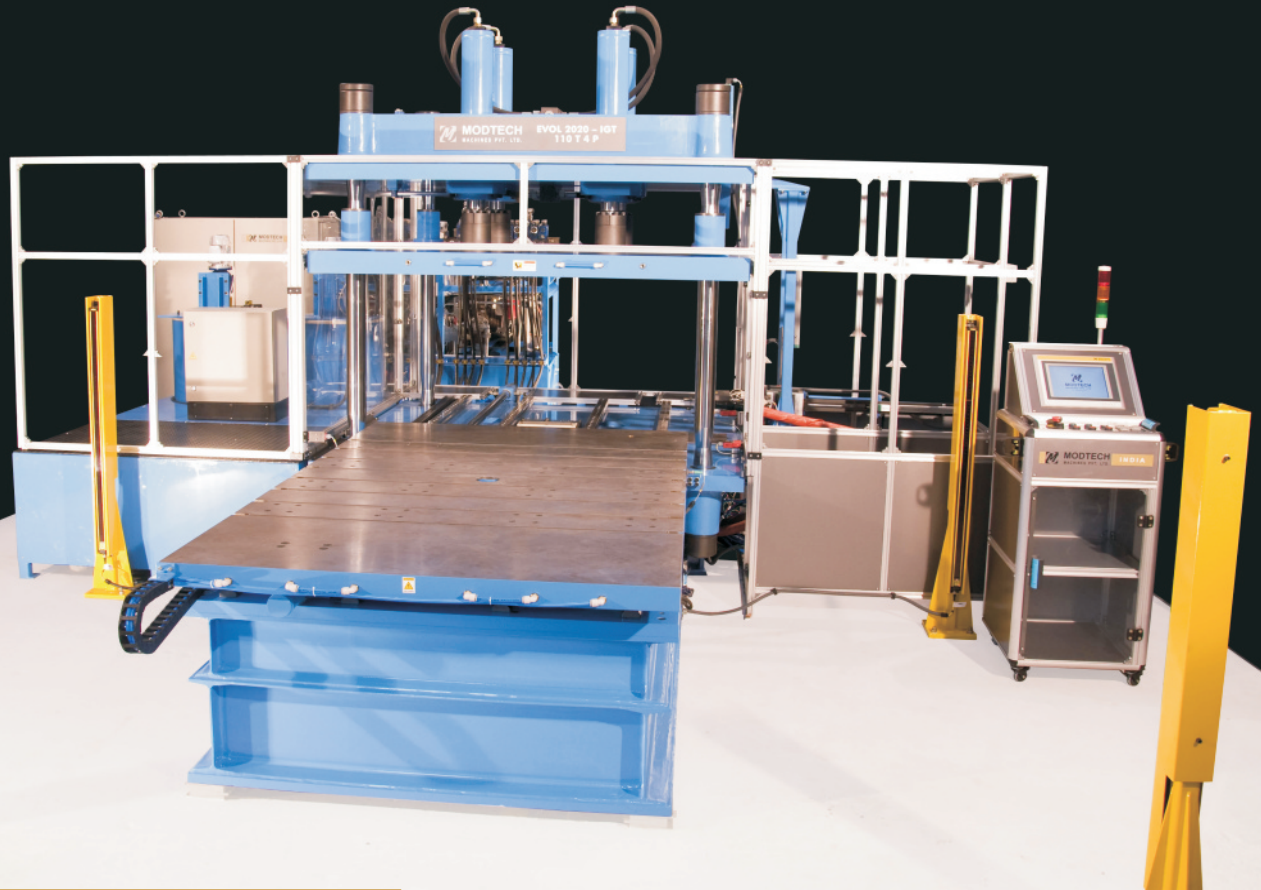


Modtech Unveils a Comprehensive Solution for the Worlds Most Demanding Investment Casting Industry

Advanced EVOL 2020 Series of Wax Injection Machines for the "Industrial Gas Turbine Industry" and Large Wax Pattern Production Foundries

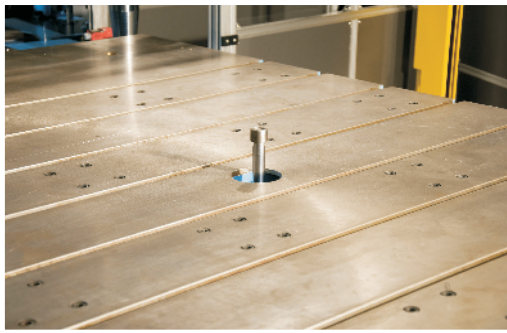
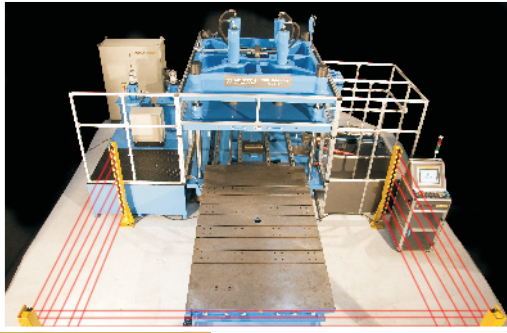


**MOULDED TO
PRECISION**



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Salient Features



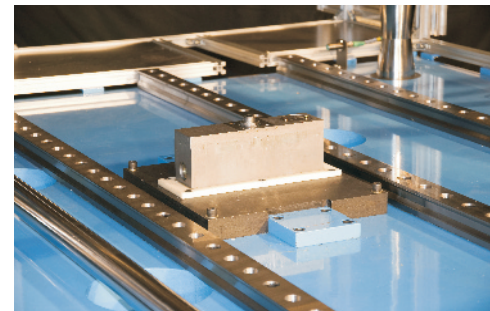
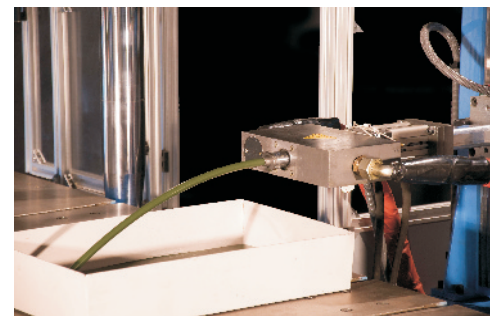
- Easy Access to Load & Operate Larger Tooling
 - Shuttle Table Positioned at an Ergonomic Working Height of 800 mm from Ground Level
 - Ample Distance Between the Machines Platen Tie Rods
 - Generous Open Daylight to Accept Cantilever Type Tooling
- Sophisticated Die Handling System: Shuttle Table with T Slots as per IS Standards
- Multiple Wax Types Capability
- Multiple Nozzles Capability
- Advanced Wax Re-circulation System from the Nozzle Tip and Back to the Wax Tank
- Simple Push Button Wax Purge for Wax Consistency Checking
- Ultra High Wax Injection Flow Rate of up to 1000cc of Conditioned Wax Per Second
- Multiple Clamping Cylinder Option for Uniform Die Closing Force
- Precise 5 Stage Wax Injection System for Wax Pressure and Flow
- Historical Wax Injection Pressure and Flow Graphical Mapping
- Single Point Ergonomic Multi Positional Central Control Station
- Wide Range of Fully Automatic Functions & Features
- Precise Multiple Zone PID Wax Temperature Control
- Compact Machine Size Designed for Logical Sectional Installation
- Modular Digital Servo Hydraulics
- Modular Hydraulic Power Pack
- Light Guard System in Operator Working Area
- Guards and Electrical confirms to CE and other global safety standards
- Clear Observation Panels in Hazard Areas with Interlocking Safety Switches
- Operator Definable Pattern Ejector
- Large Wax Injection Shot Size of up to 32 Liters in a Single Injection
- Large Wax Conditioning Tank Sizes of up to 200 Liters Capacity Per Wax Tank

Advanced Control System Featuring

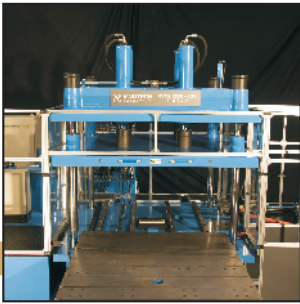
- Large Touch Screen with Icon Based Operating System
- Modtech M-ppek Enabled (For supply with the machine or fitment at a later date if required)
- LAN Enabled with Inbuilt Modem for Remote Access by Modtech Technicians
- Advanced Adaptable Die Recipe System
- Multi Password Access for Machine Operator- Machine Setter- Maintenance Personnel
- Automatic Control Diagnostic System for Machine Operation and Electrical/Hydraulic Systems
- Visual Wax Tank Level Indication on Machine Touch Screen
- Instant Machine Error Alarm Functions
- Visual Touch Screen Indication of Machine PLC Input - Output Status
- Visual Interactive Touch Screen Layout of Wax Injection Path Throughout Entire Machine
- Visual Touch Screen Indication of Wax Temperatures
- Touch Screen Facility for Operator to Define Machine Auto Cycle Settings
- Touch Screen Accessible Machine Cycle Records
- USB Die Recipe Back Up

Selectable Machine Operator Defined Optional Extras, Including

- 3 Axis Nozzle Positioning
- Platen Cooling
- Paste Wax Injection Capability
- PADS (Platen Anti Deflection System)
- PLCS (Platen Laser Centering System)
- ALS (Auto Lubrication System)
- Multiple Nozzle Configurations
- Multiple Wax Tanks
- Multiple Clamp Cylinders

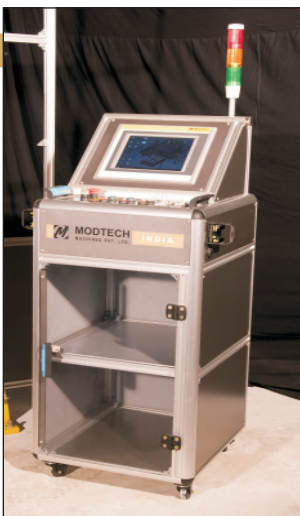


Key Features



CLAMPING UNIT

- New Improved Shuttle Table Design
- Larger Clamping Platens
- Adjustable Platen Velocity with Fast and Slow Speeds



CONTROL UNIT

- Moveable Control Console with Large HMI Touch Screen
- Remote Machine Access Capability
- Operator Accessible Die Recipe System
- Highly Precise Wax Injection Speed Control
- Highly Precise Wax Pressure Control
- Highly Precise Control Over Clamping Force and Speeds
- Visual Wax Level Indication
- Auto Fault Recognition System
- Confirms to CE and Other Global Standards

Why Modtech

- Consistent Product Development and Machine Evolution
- In House Multinational Development Experts with Proven Capabilities
- Unique Product Manufacturing & Outsourcing facilities in India Provides Cost Effective Solutions
- Focused Long Term Business Relationship Aligned with the End Results of Our Customers Goals
- Enhanced World Class Maintenance and Support Services.
- Three Tier 365 x 24 x 7 Factory Support
 - Manufacturing
 - After Sales
 - Management
- Three Tier Rapid Spare Parts Availability
 - Direct Customer Access to Modtech Suppliers of Widely Available Bought-Out Parts
 - Stock of Spares Held at the Modtech Factory
 - Optional Spares Kit Supplied with All New Modtech Machines



Modtech products are cost saving in nature and built with enhanced safety features, and designed on uniform procedure that confirms to CE and other global standards.

Detailed Specs Sheet of Evol 2020 Range of Machines

Specification	UNIT	EVOL 2020 110 T 4 P	EVOL 2020 160 T 4 P	EVOL 2020 300 T 4 P
Clamping Unit				
Clamping Force	Tons	110	160	300
Min Clamping Force Adjustment	Tons	11	15	30
Adjustment Thru' Controller Screen	-	Standard	Standard	Standard
Multiple Clamping Cylinders	Optional	Yes	Yes	Yes
(4 Cylinders as opposed to one central cylinder)				
Daylight (Maximum)	mm	750	1000	1500
Daylight (Minimum)	mm	100	200	300
Clamp Cylinder Stroke	mm	650	800	1200
Admit Between Pillars	mm	1500	1600	1800
Clamp Platen Speed				
Close Rapid (maximum)	mm/sec	30	30	30
Close Slow	mm/sec	10	10	10
Open (maximum)	mm/sec	30	30	30
Shuttle Table				
Height from Floor	mm	800	800	800
Size	mm	2300 X 1450	2400 X 1550	2600 X 1750
Maximum Die Weight	KG	5000	6500	8000
T Slots		As per IS Std	As per IS Std	As per IS Std
Direction of Movement	-	Single	Single	Single
Double Station Table	Optional	Yes	Yes	Yes
Platen Cooling (Moving & Shuttle Plate)	-	Standard	Standard	Standard
Pattern Ejector (100 mm from Shuttle Plate)	Optional	Yes	Yes	Yes
Wax Tank Assembly				
Wax Holding Tank Capacity	Liters	100	150	200
Multiple Wax Tanks (2 off)	Optional	Yes	Yes	Yes
Larger Wax Tank	Optional	200 Lit	200 Lit	300 Lit
Water Cooling (Paste Wax)	Optional	Yes	Yes	Yes
Injection Assembly				
Single Shot Capacity	CC	18000	25000	32000
Injection Pressure	Bar	5-70	5-70	5-100
Ultra Low Pressure Injection	Optional	0-5 Bar	0-5 Bar	0-5 Bar
Injection Speed	Standard	500 cc/sec	500 cc/sec	500 cc/sec
Ultra High Injection Flow Rate	Optional	1000 cc/sec	1000 cc/sec	1000 cc/sec
Twin Injection Rams when Two Wax Tanks Fitted (1 for Each Tank)	Optional	Yes	Yes	Yes
Nozzle Assembly				
Side Nozzle	-	Standard	Standard	Standard
Tip Size	-	10 mm Radius	10 mm Radius	10 mm Radius
Adjustment (UP-DOWN)	mm	50-405	50-530	50-780
Adjustment (IN-OUT)	mm	300	300	300
Adjustment(SIDE WISE)	Optional	±100 mm	±150 mm	±200 mm
Bottom Nozzle	Optional	Yes	Yes	Yes
Recirculation Till Nozzle Tip	Optional	Yes	Yes	Yes
Control System				
Touch Screen	-	Standard	Standard	Standard
M-ppck	Optional	Yes	Yes	Yes
Machine Diagnostics	Optional	Yes	Yes	Yes
Injection Graph	-	Standard	Standard	Standard
Die Recipe for 200 Dies	-	Standard	Standard	Standard
Control Language	Optional	Customer Specific	Customer Specific	Customer Specific
Remote Access	-	Standard	Standard	Standard
Electrical Load (Max.)	KVA	28	36	45
Rapid Slab Melter with Pallet Feed Unit	Optional	Yes	Yes	Yes
Platen Heating	Optional	Yes	Yes	Yes
Extensive Spares Kit	-	Standard	Standard	Standard
Safety Standards	-	CE & Global Std.	CE & Global Std.	CE & Global Std.



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