



**MODTECH**

# Modtech Ceramic Injection Machines Logical and Economical

## New Modtech Ensign Range of 4 Pillar & C Frame Ceramic Injectors



### SALIENT FEATURES

- Recirculation of Ceramic Material up to the Nozzle Tip
- Purpose Designed Injection System
- Machine Designed for Long Life and Constant Operation
- Easy and Fast Seal Changes
- Entire Ceramic Tank and Injection System Moves Together
- Ceramic Material Push Button Purge Facility
- Heavy Duty Tank and Agitator
- Hardened Wear Parts
- Unique Heat Zones Design to Minimize Heat Loss
- Modular Digital Servo Hydraulics
- CE marked Guards and Electrical
- Various Die Mounting Options
- Platen Cooling Passages Standard
- Optional PLCS Platen Laser Centering System
- Optional Ceramic Vacuum System to Remove Air from Material via Vacuum
- Worldwide Easily Available Spare Parts

### SPECIAL FEATURES

- Platens are turned 90° to enable the easy injection of lengthways cantilever tooling often used for ceramic core production
- **Optional Injection Type:** Conventional Piston Based Injection or Screw & Barrel Based Injection
- **Optional Nozzle Tip Closure:** Spring Checked Valve or Cylinder Driven Pin

### CONTROL SYSTEM

- Larger Touch Screen with Easy Program Upload Facility
- M-ppck Enabled
- Inbuilt Modem
- USB Connection
- Icon Based Control with Operator Friendly Interaction
- LAN enabled with Remote Machine Access
- 200 Die Recipe System
- Multi User Password Access
- Diagnostics for Electricals / Auto Cycle
- Historical and Dynamic Graphing
- Ceramic Level Control & Indication
- Alarm Systems Protection



## Detailed Specs Sheet of Ensign Range of 4-Pillar & C Frame Ceramic Injectors

Specification	UNIT	35 T C FRAME	50 T 4 PILLAR	75 T 4 PILLAR	100 T 4 PILLAR
<b>Clamping Unit</b>					
<b>Clamping Force</b>	Tons	35	50	75	100
Daylight (Maximum)	mm	600	600	750	1000
Clamp Cylinder Stroke	mm	500	500	650	800
Admit Between Pillars	mm	Not Applicable	700 x 1200	800 x 1300	900 x 1500
Platen Size	mm	720 x 550	1000 x 1500	1100 x 1600	1200 x 1800
<b>Clamp Platen Speed</b>					
Close Rapid / Slow / Open	mm/sec.	50 / 10 / 50	50 / 10 / 50	30 / 10 / 30	30 / 10 / 30
Shuttle Table	Optional	Yes	Yes	Yes	Yes
Height from Floor (Work Table)	mm	800	800	800	800
Size	mm	920 x 550	1150 x 1150	1250 x 1250	1450 x 1450
T Slots		As per IS Std.	As per IS Std.	As per IS Std.	As per IS Std.
Platen Cooling (Moving & Bottom / Shuttle Plate)	-	Standard	Standard	Standard	Standard
Pattern Ejector (100 mm from Bottom Plate)	Optional	Yes	Yes	Yes	Yes
<b>Ceramic Reservoir Assembly</b>					
Holding Tank Capacity	Liters	35	60	75	75
Multiple Ceramic Tanks (2 off)	Optional	Yes	Yes	Yes	Yes
<b>Injection Assembly</b>					
Single Shot Capacity	CC	1500	2000	2500	3500
Injection Pressure	Bar	5-100	5-100	5-100	5-200 Bar
Ultra Low Pressure Injection	Optional	0-5 Bar	0-5 Bar	0-5 Bar	0-5 Bar
Injection Speed	Standard	350 cc/sec.	350 cc/sec.	500 cc/sec.	500 cc/sec.
<b>Nozzle Assembly</b>					
Side Nozzle	-	Standard	Standard	Standard	Standard
Adjustment (UP-DOWN)	mm	50-330	50-350	50-405	0-530
Adjustment (IN-OUT)	mm	250	300	300	300
Adjustment (SIDE WISE)	Optional	± 100 mm	± 150 mm	± 200 mm	± 200 mm
<b>Control System</b>					
Touch Screen	-	Standard	Standard	Standard	Standard
M-ppck	Optional	Yes	Yes	Yes	Yes
Machine Diagnostics	Optional	Yes	Yes	Yes	Yes
Injection Graph	-	Standard	Standard	Standard	Standard
Die Recipe for 200 Dies	-	Standard	Standard	Standard	Standard
Control Language	Optional	Customer Specific	Customer Specific	Customer Specific	Customer Specific
Remote Access	-	Standard	Standard	Standard	Standard
Electrical Load	KVA	15	15	20	22
Platen Heating	Optional	Yes	Yes	Yes	Yes
Extensive Spares Kit	-	Standard	Standard	Standard	Standard
Safety Standards	-	CE Marked	CE Marked	CE Marked	CE Marked



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