

Ω OMEGA 2 Colour

*Two Colour Injection Moulding Machines
100 to 910 Ton*

Double Colour Marble Effect



Energy Saving
Upto **40%**



AC Drive
(Optional)

- ▶ *Special Screw for Fast Colour Change*
- ▶ *Precise Design & Pattern Formation*
- ▶ *Multi-Sequence Setting*
- ▶ *Auxiliary Unit Material fed at the Nozzle*

MODEL	OMEGA 100TC			OMEGA 150TC			OMEGA 200TC			OMEGA 250TC			OMEGA 350TC			OMEGA 450TC			
INTERNATIONAL INJECTION SIZE	430 120			610 120			940 120			1190 120			2350 220			3340 480			
POWER PACK	25 HP			30 HP			40 HP			50 HP			60 HP			75 HP			
	40 MM FRAME			45 MM FRAME			50 MM FRAME			55 MM FRAME			70 MM FRAME			80 MM FRAME			
INJECTION UNIT	UNIT	Main		Aux		Main		Aux		Main		Aux		Main		Aux			
		B	C	C28	B	C	C28	B	C	C28	B	C	C28	B	C	B32	B	C	C40
INJECTION CAPACITY MAX. (GPPS)	gm	272	336	68	374	452	68	565	789	68	821	952	68	1530	1937	126	2179	2690	280
THEORETICAL DISPLACEMENT	cc	286	353	71	393	475	71	594	830	71	863	1001	71	1608	2036	132	2290	2827	294
INJECTION PRESSURE	bar	1502	1217	1605	1539	1272	1605	1570	1124	1605	1373	1184	1605	1462	1155	1680	1456	1180	1610
INJECTION RATE	cc/sec	172	212	102	224	271	102	285	398	102	349	404	102	458	580	102	623	769	196
INJECTION SCREW STROKE	mm	180	180	70	200	200	70	250	250	70	260	260	70	320	320	130	360	360	150
SCREW DIAMETER	mm	45	50	36	50	55	36	55	65	36	65	70	36	80	90	36	90	100	50
SCREW L/D RATIO		20	18	17.7	20	18.2	17.7	20	16.9	17.7	20	18.6	17.7	20	17.8	20	20	18	18
SCREW SPEED	rpm	251	251	285	272	272	285	289	204	285	229	200	285	170	129	285	153	139	183
SCREW TORQUE *	Nm	876	876	375	1080	1080	375	1305	1852	375	1852	2126	375	3347	4386	375	4875	5388	1080
PLASTICIZING RATE (GPPS)	gm/sec	22	30	120	33	42	120	45	49	120	56	56	120	66	67	120	79	93	172
PLASTICIZING RATE (BARRIER SCREW)	gm/sec	27	36	14	39	49	14	52	58	14	65	69	14	80	81	16	96	111	27
NO. OF PYROMETER (BARREL+NOZZLE)		3+1	3+1		3+1	3+1		3+1	3+1		3+1	3+1		3+1	3+1		4+1	3+1	
TOTAL HEAT CAPACITY	kW	13.2	6.8		15	6.4		19.6	6.4		23.7	6.4		29.5	7.8		42.8	12.2	
CLAMP UNIT																			
CLAMP FORCE	ton	100			150			200			250			350			450		
CLAMP STROKE	mm	560			625			750			830			1060			1100		
MAXIMUM DAYLIGHT	mm	760			825			950			1080			1360*/1660			1500		
MINIMUM MOULD HEIGHT	mm	200			200			200			250			300*/600			400		
PLATEN SIZE (H x V)	mm	610 x 610			715 x 715			820 x 820			880 x 880			1010 x 1010			1200 x 1200		
DISTANCE BETWEEN TIE ROD	mm	410 x 410			510 x 510			560 x 560			620 x 620			710 x 710			830 x 830		
TIE ROD DIAMETER	mm	70			85			95			100			125			140		
EJECTOR STROKE	mm	125			160			160			160			200			200		
EJECTOR FORCE	ton	4.5			4.5			7.5			7.5			7.5			11.5		
GENERAL																			
ELECTRIC MOTOR	kW (HP)	18.5 (25)			22 (30)			30 (40)			37 (50)			45 (60)			55 (75)		
OIL TANK CAPACITY	ltr	315			405			425			655			905			1160		
WATER REQUIREMENT (Inlet temp. 29 deg.)	lpm	80			80			80			130			130			150		
CONNECTED LOAD	kW	38.5			43.4			56			67.1			82.3			110		
MACHINE DIMENSIONS (L x W x H)	m	4.9 x 1.36 x 2.45			5.32 x 1.54 x 2.7			6.01 x 1.62 x 2.8			6.53 x 1.73 x 2.9			8.15 x 1.93 x 3.2			8.81 x 2.28 x 3.14		
MACHINE WEIGHT	kg	5450			8300			11500			14500			18050			24500		

* At Specified Pressure * With Ram Spacer

MODEL	OMEGA 550TC						OMEGA 660TC						OMEGA 775TC				OMEGA 910TC						
INTERNATIONAL INJECTION SIZE	4850		1150		4850 1150		6440		1150		6440		1150		10070	1150	10070	1150	10070	1150			
POWER PACK	75 HP			100 HP			100 HP			150 HP			100 HP		150 HP		150 HP						
	90 MM FRAME						100 MM FRAME						110 MM FRAME				110 MM FRAME						
INJECTION UNIT	UNIT	Main		Aux		Main		Aux		Main		Aux		Main		Aux		Main		Aux			
		B	C	B50	B	C	B50	B	C	B50	B	C	B50	B	B50	B	B50	B	B50				
INJECTION CAPACITY MAX. (GPPS)	gm	2989	3617	565	2989	3617	565	3978	5137	565	3978	5137	565	6538	565	6538	565	6538	565				
THEORETICAL DISPLACEMENT	cc	3142	3801	594	3142	3801	594	4181	5400	594	4181	5400	594	6872	594	6872	594	6872	594				
INJECTION PRESSURE	bar	1544	1276	1938	1544	1276	1938	1540	1193	1938	1540	1193	1938	1465	1938	1465	1938	1465	1938				
INJECTION RATE	cc/sec	545	659	95	765	926	123	788	1018	123	1124	1451	123	699	123	997	123	997	123				
INJECTION SCREW STROKE	mm	400	400	250	400	400	250	440	440	250	440	440	250	560	250	560	250	560	250				
SCREW DIAMETER	mm	100	110	55	100	110	55	110	125	55	110	125	55	125	55	125	55	125	55				
SCREW L/D RATIO		20	18.2	20	20	18.2	20	20	20	20	20	20	20	20	20	20	20	20	20				
SCREW SPEED	rpm	108	108	122	151	151	158	121	121	158	173	153	158	121	158	153	158	153	158				
SCREW TORQUE *	Nm	6631	6631	1342	6631	6631	1342	8268	8268	1342	8268	8268	1342	8268	1342	8268	1342	8268	1342				
PLASTICIZING RATE (GPPS)	gm/sec	72	91	172	101	128	172	103	151	172	146	190	172	151	172	190	172	190	172				
PLASTICIZING RATE (BARRIER SCREW)	gm/sec	86	109	22	120	153	28	122	163	28	175	205	28	163	28	205	28	205	28				
NO. OF PYROMETER (BARREL+NOZZLE)		4+1	3+1		4+1	3+1		4+1	3+1		4+1	3+1		4+1	3+1	4+1	3+1	4+1	3+1				
TOTAL HEAT CAPACITY	kW	54	20.4		54	20.4		54	61.9	20.4	59.3	61.9	20.4	62	20.4	62	20.4	62	20.4				
CLAMP UNIT																							
CLAMP FORCE	ton	550		550		660		660		775		775		910									
CLAMP STROKE	mm	1140		1140		1320		1320		1320		1320		1600									
MAXIMUM DAYLIGHT	mm	1676		1676		1780		1780		1920		1920		2350									
MINIMUM MOULD HEIGHT	mm	536		536		460		460		600		600		750									
PLATEN SIZE (H x V)	mm	1245 x 1245		1245 x 1245		1400 x 1400		1400 x 1400		1680 x 1475		1680 x 1475		2000 x 1600									
DISTANCE BETWEEN TIE ROD	mm	870 x 870		870 x 870		950 x 950		950 x 950		1150 x 950		1150 x 950		1530 x 1120									
TIE ROD DIAMETER	mm	160		160		170		170		190		190		190									
EJECTOR STROKE	mm	200		200		200		200		200		200		210									
EJECTOR FORCE	ton	12		12		12		12		18.3		18.3		18.3									
GENERAL																							
ELECTRIC MOTOR	kW (HP)	55 (75)		75 (100)		75 (100)		112 (150)		75 (100)		112 (150)		112 (150)									
OIL TANK CAPACITY	ltr	1375		1375		1995		1995		1995		1995		2900									
WATER REQUIREMENT (Inlet temp. 29 deg.)	lpm	150		150		150		200		150		200		200									
CONNECTED LOAD	kW	129.4		149.4		149.4		157.3		-		191.7		194.3		-		157.4		194.4		194.4	
MACHINE DIMENSIONS (L x W x H)	m	9.60 x 2.48 x 3.25		9.60 x 2.48 x 3.25		10.95 x 2.56 x 3.09		10.95 x 2.56 x 3.09		11.44 x 2.93 x 3.1		11.44 x 2.93 x 3.1		12.87 x 3.36 x 3.2									
MACHINE WEIGHT	kg	34800		34800		34800		38500		42500		42500		63500									

* At Specified Pressure



Design Advantages & Features

CLAMP

- Hollow Headless Ram with Mono Seal & No Piston Rings
- Large Prefill Designed for Fast Tonnage Build-up
- Rapid Traverse Cylinders
- Conical Strain Rod Nuts & Controlled Stress on Tie Rods
- Adjustable moving Platen Skates
- Rigid Cast Platens with FEA
- Adjustable Pressure setting of Closing & Opening Stage
- Proportional Speed Control with 5 Closing & 5 Opening Speed
- Adjustable 2 Stage Mould Safety Pressure & 1 Stage Speed
- Position Based Ramping for Accurate Position Switching - Precise Speed & Pressure Control
- Linear Position Transducer for Accurate Clamp Position Control
- Sensitive Mould Protection with Try Again Circuit
- Stage Wise Actual Time Display
- Insert Moulding Program

EJECTOR

- Knock-Out Bar
- 2 Stage Programmable Ejector Forward Profile with Soft Eject
- Ejector Speed & Pressure adjustable on Screen (Omega 100 to 450TC)
- Linear Transducer for Ejector Position
- Pulsating Ejector Strokes upto 9 Pulses
- Intermediate Retract Set Point
- Ejector Stay Forward & Forward Dwell Timer

INJECTION

- Fully balanced & Proven MILACRON Auxiliary Injection Unit Design - Maintains Centre of Gravity
- Multi Sequence Setting of Patterns through Screen
- 6 Stage Injection Velocity & 15 Stage Injection Pressure Profile
- 5 Stage Screw Speed & 5 Stage Back Pressure Control (Setting) through Screen
- Digital setting of Extruder RPM & Digital Read out of Actual RPM
- Wide Choice of Injection Units with B-C Screw / Barrel Combinations
- Easy Injection Unit Swivelling
- Nozzle Contact Force by Pressure Switch
- Switch Over from Fill to Pack based on Position or Time
- Linear Transducer for both Injection Units for Precise Design & Pattern
- PID Temperature control of both Injection Units through Screen
- Injection Decompression Before / After Refilling or Both
- Semi-Auto Purge, Cold Slug removal & Intrusion Moulding Programs
- Chequered Plate below Purge Area
- Sprue Break with Timer
- Injection start, Suck-back & Melt Decompression - Delay Timer
- Graphically Adjustable Alarm Bands for Injection Pressure
- Sliding Hopper
- Actual Current Display of Heating Zones
- Heater Failure & Thermocouple Failure Detection

TEMPERATURE CONTROL

- Actual Current Display of Heating Zones
- Heater Failure & Thermocouple Failure Detection
- Accurate PID Temperature Control settable on Screen
- Feed Throat Temperature Indication

- Auto Heat Startup & Shutdown
- Heat Standby after set number of Cycles
- Soak Timer for Cold Start Protection
- High / Low Temperature Alarm
- Set & Actual Temperature Data with Bar Graph

CONTROLS

- 22 Parameter Monitoring for last 150 cycles with Graphics
- 10.4" TFT Color Display with Alpha - Numeric Keypad
- Actual Injection Speed & Pressure Graph Display
- 80 Mould Data Storage
- Configurable Multilevel Password with Operator's Name
- Graphically Presentation of Hourly Production
- Customized Setup Menu
- High / Low Limit Display for Each Adjustable Parameter
- I / O diagnosis - Analog & Digital
- Timer Precision in 0.01 Second
- Change Log Menu: logs last 100 Set Points Changes with Time & Date
- Statistical Process Control (SPC) with Graphics
- Process Mode: Functions with its Co-functions on a Single Key Press
- Note Pad & Maintenance Scheduling
- Freely Programmable Smart Outputs
- Over View Screen with Graphical Display of Machine Functions
- Soft Keys for Fast Access of Select Menus
- Auto shut down
- Visual & Audible Alarm
- 1000 Alarm History with Date & Time Log
- Printer Interface with USB Port

HYDRAULICS

- Multiple Pump with PQ circuit
- Pump & Motor slide out from Base for Ease of Maintenance
- Ergonomic Hydraulic Layout for Easy Approach
- Valves Placed near Actuators for Rapid Response
- Pre-Heating Circuit for Hydraulic Oil
- Low Oil Level Audible Alarm & Motor Shut Down
- Continuous Oil Filtration with 20 Micron Filter
- Audible Alarm for Filter Clogging

AVAILABLE OPTIONS

- Air Ejection
- Hydraulic Core pull
- Feed Throat Temperature Control
- PID Oil Temperature Control
- Part Drop Detect for Single Cavity
- Water Battery with Temperature Indicator
- Water Manifolds
- Robot Interface (SPI / EUROMAP)
- Ejector on Fly (Omega 100 to 450TC)
- T-slot Platens
- Extended Daylight with Ram Spacer
- Eject Retract Limit Switch Verification
- Insulated Heater Band
- Bimetallic Barrel & Hardened / Coated Screw
- AC Variable Frequency Drive (upto 100 HP Power Pack)
- Special Paint

All specifications reflect average values based on typical machine layouts. Actual figures will vary depending on final machine configuration. Performance specifications are based on theoretical data. Photograph may show attachments or accessories, which may not be part of the standard scope of supply. Due to continual improvements, specifications & some components are subject to change without notice.

FERROMATIK MILACRON INDIA LTD.

(Formerly known as Cincinnati Milacron Ltd.)

92, Phase-I,
G.I.D.C. Vatva,
Ahmedabad - 382 445,
India.

Phone : +91-79-2589 0081, 2589 0133, 2583 0063
Fax : +91-79-2583 0125
E-mail : salesfmi@milacron.com
Website : www.milacronindia.com



NEW DELHI +91-11-2983 9188 **MUMBAI** +91-22-4005 5459/60/61/62/66 **CHENNAI** +91-44-2361 3639/3319 **KOLKATA** +91-33-2282 2909/2593
HYDERABAD +91-40-2340 2159/60 **BANGALORE** +91-80-2340 8984/85 **CHANDIGARH** +91-172-3917 428 **PUNE** +91-20-2614 0200
DAMAN +91-260-246 5150 **COIMBATORE** +91-94449 04912 **KERALA** +91-94477 21221