



MILACRON®

THE N-SERIES



25-220 TON

THE N-SERIES

ENERGY SAVING TECHNOLOGY

Enhanced Specifications & Features with Higher Performance & Productivity are all part of The New N-SERIES Package

ROBUST & RUGGED TOGGLE MECHANISM

- Mono Toggle for 50-80 Ton & Double Toggle for 110-200 Ton
- Toggle Mechanism Optimized for Fast Cycling & Reduced Platen Deflection
- Higher Mold Weight Carrying Capacity

CLOSED LOOP PID TEMPERATURE CONTROL

- Provides precise Temperature Control
- Excellent Process Control & Stability

INSULATED HEATER

- Saves Energy

MULTI STAGE EJECTION

- Smooth & Fast Ejection
- Easy Access to Ejector Area
- Knock Out Bar for Multi Point Ejection
- Pulsating Ejector

WIDE SKATES FOR PLATEN SUPPORTS

- Reduced Platen Deflection
- Enhanced Life of Tie-bars
- Higher Mold Carrying Capacity

GENEROUS MOLD SPACE

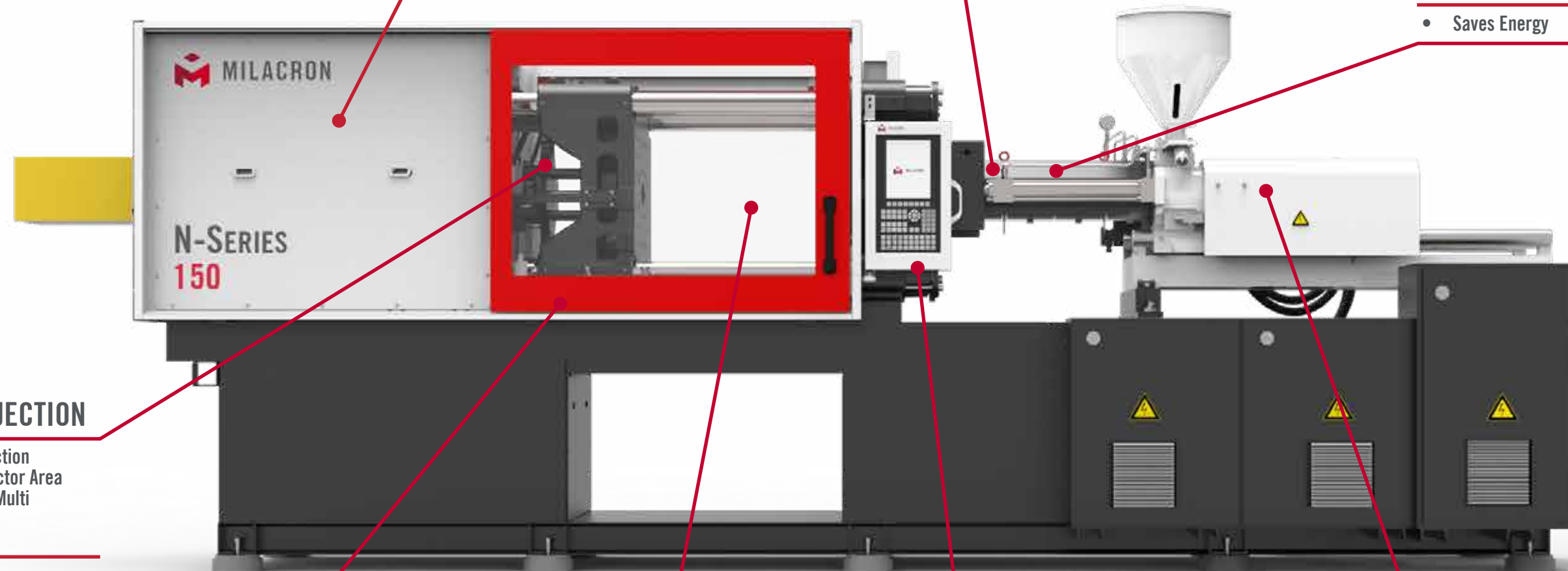
- Accommodates Large Molds

USER FRIENDLY CONTROL

- Ergonomic Layout
- High Speed Microprocessor
- Direct Access Menu Keys
- Graphical Presentation of Machine Features
- Self Diagnostic & Fault Finding Capability
- Parameter Entry in Absolute Value

TWIN CYLINDER INJECTION UNIT

- Uniform Load Distribution across Screw Centerline



THE N-SERIES

Injection Unit Specifications

IU	20	70	140	220	310	460	610	870	1000
N-SERIES 25									
N-SERIES 50									
N-SERIES 80									
N-SERIES 110									
N-SERIES 125									
N-SERIES 150									
N-SERIES 200									
N-SERIES 220									

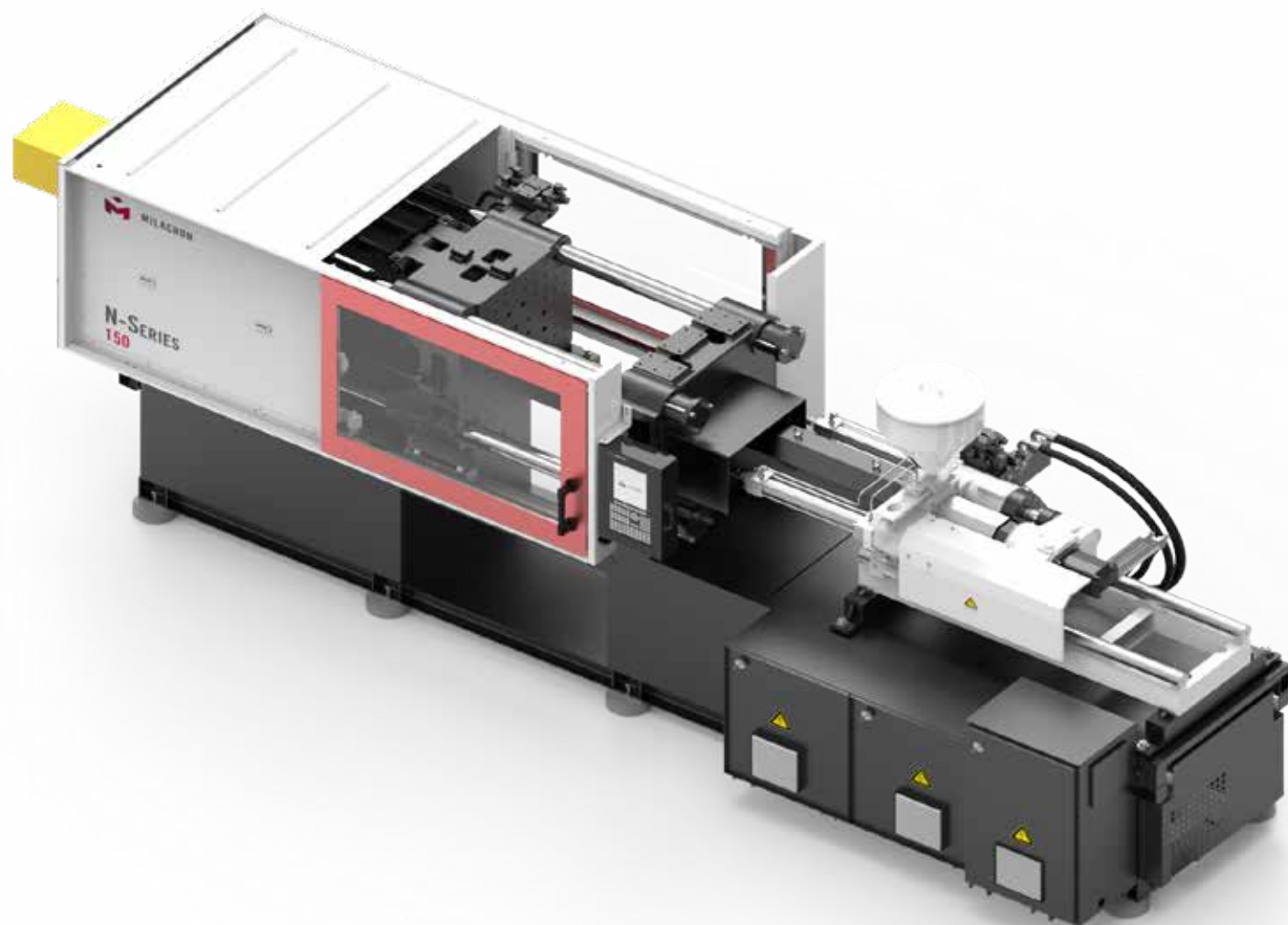
Clamp Specifications

MODEL	TONNAGE	PLATEN SIZE (H X V)	TIE BAR SPACING (H X V)	MAX DAYLIGHT	MIN/MAX MOLD THICKNESS
	tons	mm	mm	mm	mm
N-SERIES 25	25	395 x 395	260 x 260	550	120 / 300
N-SERIES 50	50	500 x 485	325 x 310	630	150 / 350
N-SERIES 80	80	610 x 565	405 x 360	710	150 / 400
N-SERIES 110	110	655 x 655	435 x 435	830	150 / 480
N-SERIES 125	125	655 x 655	435 x 435	830	150 / 480
N-SERIES 150	150	740 x 740	510 x 510	1050	150 / 610
N-SERIES 200	200	810 x 810	570 x 570	1320	200 / 810
N-SERIES 220	220	810 x 810	570 x 570	1320	200 / 810

SERVO TECHNOLOGY MAKES THE DIFFERENCE

N-SERIES's movements are entirely controlled by servo drives. This not only results in maximized acceleration, but it ensures ultimate accuracy and exceptional reliability across all processes as well as highly precise motion, position, and pressure control.

- Improved Repeatability - Closed Loop System
- Reduced Energy Consumption - Servo Motor RPM can vary from 0 to 3000
- Increased Accuracy & Precision - Rotation can be Controlled to a Fraction of a Degree
- High Response - Reduced System Inertia
- Noise Reduction - Quiet Gear Pump
- Variable Speed Operations when Required



NOTES

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STANDARD FEATURES

CLAMP	
Insert Molding Program	●
Sensitive Mold Protection with Try Again Circuit	●
Automatic Grease Lubrication (110 Ton & above)	●
Quick Automatic Mold Height	●
Proportional Speed Control with 5 Closing & 5 Opening Speed	●
Tonnage Display on Screen	●
Auto Tonnage Setting	●
Linear Position Transducer for Accurate Clamp Position Control	●
Position Based Ramping for Accurate Position Switching, Precise Speed & Pressure Control	●
Robust Toggle Clamp Mechanism (Mono Toggle for 25-80 Ton & Double Toggle for 110-220 Ton)	●
Grease Collection Tray below Toggle Area (110T & Above)	●
Clamp try again	●
Repetitive Auto Tonnage	●
Jam Bar	○
T-slot Platens	○
Auto Lubrication (25-80 Ton)	○
Part Drop Detect for Single Cavity	○
Part Drop Chute	○
Extended Daylight	○
Rear Door Handle	○

INJECTION	
Nozzle Contact Force by Pressure Switch	●
Injection Decompression Before / After Refilling or Both	●
Digital setting of Extruder RPM & Digital Read out of Actual RPM	●
Linear Position Transducer for Accurate Injection Position Control	●
Semi-Auto Purge	●
Intrusion / Flow Mould	●
Cold Slug Removal by Extruder / Injection	●
Wide Choice of Injection Units with A-B-C Screw/Barrel Combinations	●
5 Stage Screw Speed & 5 Stage Back Pressure Control (Setting) through Screen	●
Different Sprure Beark Options (5 Selections)	●
Bimetallic Barrel / Screw	○
Extra Heating Zone	○
Nozzle Shut Off Valve	○

● - Standard Feature ○ - Optional Feature

EJECTOR / CORE	
Knock-Out Bar	●
Intermediate Retract Set Point	●
Linear Transducer for Ejector Position	●
Pulsating Ejector Strokes up to 9 Pulses	●
Ejector Stay Forward & Retract Dwell Timer	●
Ejector Speed & Pressure adjustable on Screen	●
2 Stage Programmable Forward & Retract Speeds	●
Central Ejector Rod	●
Pilot Operated Check Valve for Ejector	●
Multipoint Ejector Rods	○
Air Ejection - up to 3 Stage	○
Ejector Retract Verification by Limit Switch	○
Hydraulic Core Pull	○
Parallel Ejection - Ejector on Fly	○

TEMPERATURE CONTROL	
Insulated Heater Band	●
PID Oil Temperature Control	●
High / Low Temperature Alarm	●
Auto Heat Startup & Shutdown	●
Soak Timer for Cold Start Protection	●
Feed Throat Temperature Indication	●
Actual Current Display of Heating Zones	●
Heat Standby after set number of Cycles	●
Set & Actual Temperature Data with Bar Graph	●
Heater Failure & Thermocouple Open Detection	●
Accurate PID Temperature Control settable on Screen	●
Feed Throat Temperature Control	○

HYDRAULICS	
Low Oil Level Audible Alarm	●
Audible Alarm for Filter Clogging	●
Pre-Heating Circuit for Hydraulic Oil	●
Energy Efficient Servo Motor & Pump	●
Hydraulic Valve On / Off Indication with LED	●
Continuous Oil Filtration with 10 Micron Filter	●
Ergonomic Hydraulic Layout for Easy Approach	●

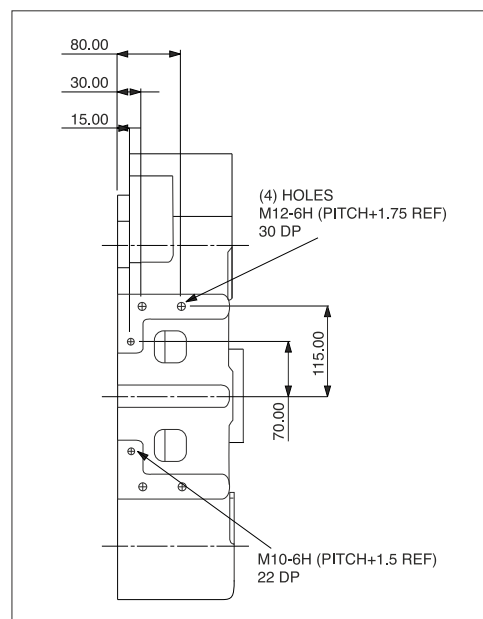
STANDARD FEATURES

CONTROLLER	
Daily Production Data for a Year	●
120 Mold Data Storage	●
Visual & Audible Alarm	●
Tonnage setting on Screen	●
Timer Precision in 0.01 Second	●
I/O diagnosis - Analog & Digital	●
Freely Programmable Smart Outputs	●
Note Pad & Maintenance Scheduling	●
Graphical Presentation of Hourly Production	●
10.4" LCD Color Display with Alpha - Numeric Keypad	●
Mold data / Process data / Change log saving to External USB device	●
Change Log Menu: logs last 100 Set Points Changes with Time & Date	●
18 out of 67 Freely Selectable Parameter Monitoring for last 1000 cycle with Graphs	●
Progressive Start	●
Tonnage Drop After Injection	●
Different Auto Stand By Modes	●
Auto Screw Protection	●
Actual Injection Speed & Pressure Graph Display	●
High / Low Limit Display for Each Adjustable Parameter	●
Quick Setup Menu for Easy access Axis Parameters	●
Graphical Representation of Cycle Analysis	●
Energy Consumption analysis for each axis	●
3000 Alarms History with Date & Time Log	●
Process Mode:Functions with its Co-functions on a Single Key Press	●
Choice of Multiple Languages	○

ADDITIONAL FEATURES	
Levelling Pads	●
Surge Suppressor Device at Incoming Supply	●
Dome Lamp 3-Tier	●
Y Strainer in Heat Exchanger Inlet	●
Filter Element IFR-2-06B-20-10B for Oil Filling	●
Digital Energy Meter on Panel	●
UV/OV Monitoring Relay-Voltage Monitor Relay	●
Hour Meter on Electrical Panel	●
Power on Push Button for Control	●
Gauge Port for all Major Functions	●
Servo Motor Operated Gear Pump	●
Hydraulic Solenoid Valve Connector with ON/OFF LED Indicator	●
Water Manifolds	○
Water Battery with Temperature Indicator	○
M-Powered - IoT Solution	○
OPC-UA Interface	○
Statistical Process Control (SPC) with Graphics	○
Electrical Unscrewing	○
Hydraulic Unscrewing	○
Electric UPS for Control	○
Good / Defective Part Signal	○
Dome Lamp 4-Tier	○
Gas Assist Injection Interface	○
Latch & Blender Unit Interface	○
Mold Gate - Hydraulic / Pneumatic	○
Stand Alone Hot Runner Controller	○
Robot Interface (SPI & Euromap -12 & -67)	○
Water Saver Valve for Mold / Pulse Cooling	○
Extra Power Supply Outlets with Available Combination	○
Safety Interlock Between Hot Runner & Water Saver Valve through Flow Switch	○
Tubelight in Clamp Area	○

● - Standard Feature ○ - Optional Feature

TECHNICAL SPECIFICATIONS

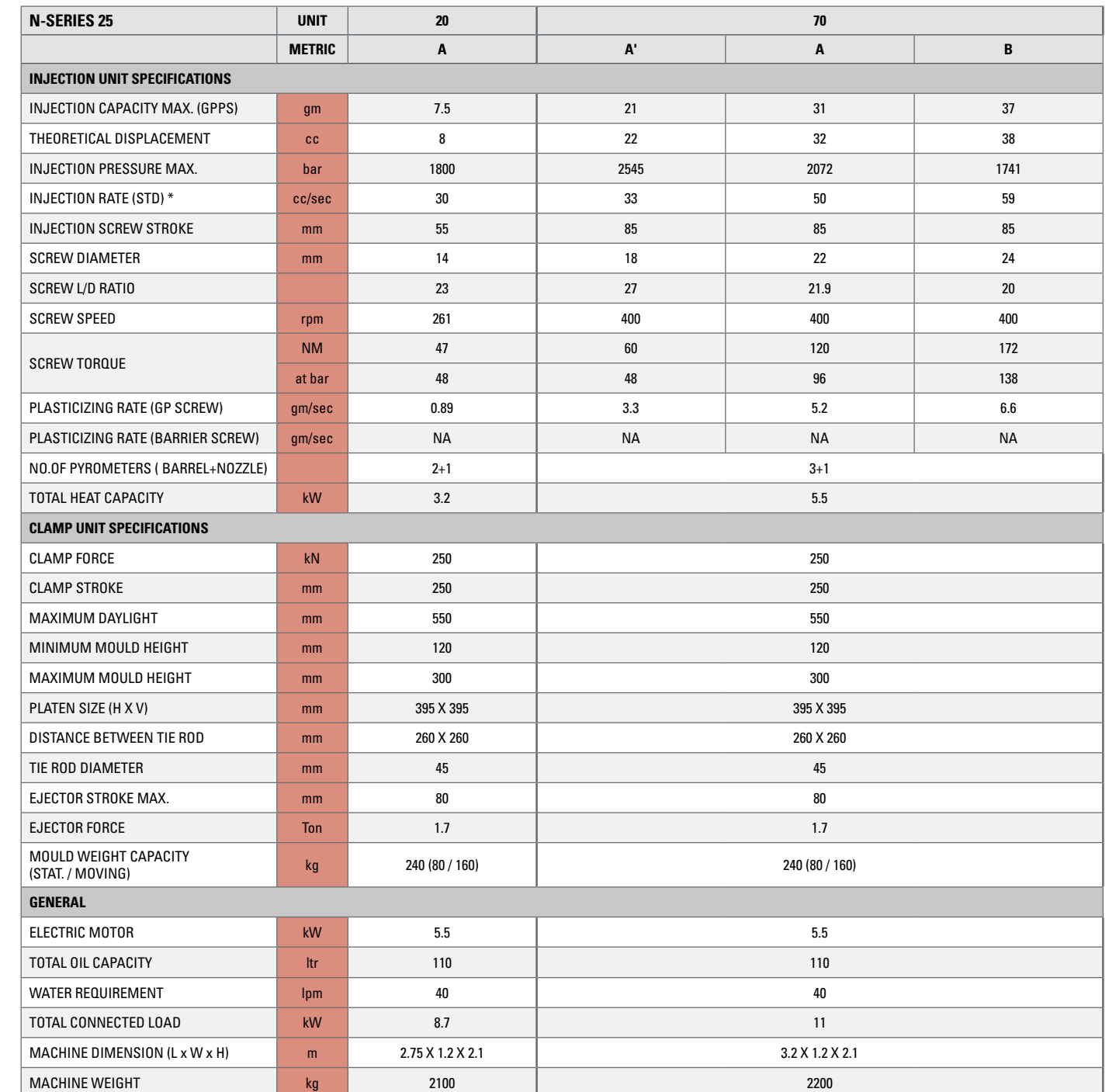


A M16x35 DP, 72 PLACES ON BOTH PLATEN

B MOVING PLATEN : Ø100(+0.035/-0.0) THRU BORE,
K/O BAR CENTER HOLE M16 THRU
STATIONARY PLATEN : Ø100 (+0.035/-0.0) WITH LOCATING RING
Ø125 (+0.04/-0.0) X 10(0.15/-0.0) DEEP, WITHOUT LOCATING RING

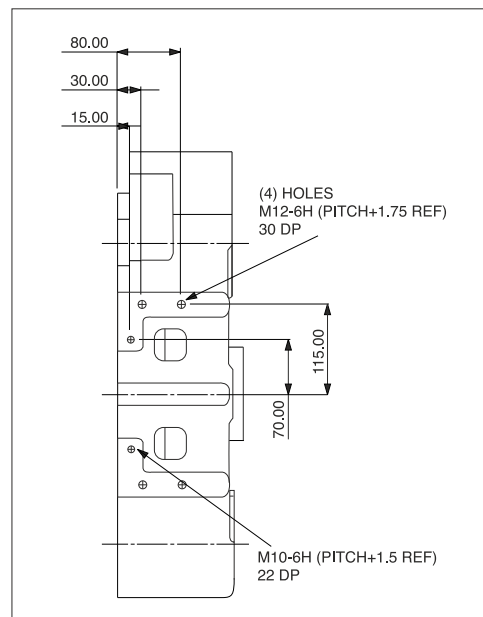
C Ø27 THRU 4 PLACES IN MOVING PLATEN,
M16 THRU 4 PLACES IN K/O BAR

Not applicable for T-Slot Platens



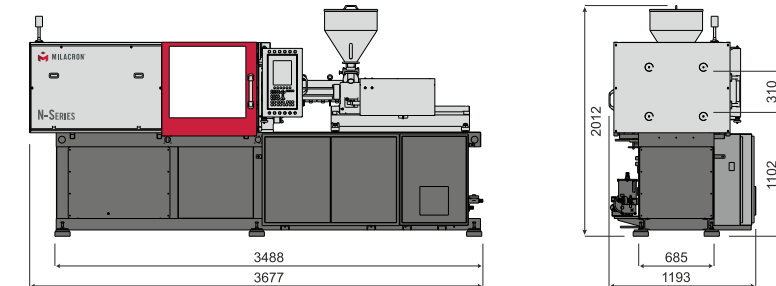
All machine dimensions and specifications are subject to change. Values are for reference only. These values are for standard machine power.

TECHNICAL SPECIFICATIONS



C Ø27 THRU 4 PLACES IN MOVING PLATEN,
M16 THRU 4 PLACES IN K/O BAR

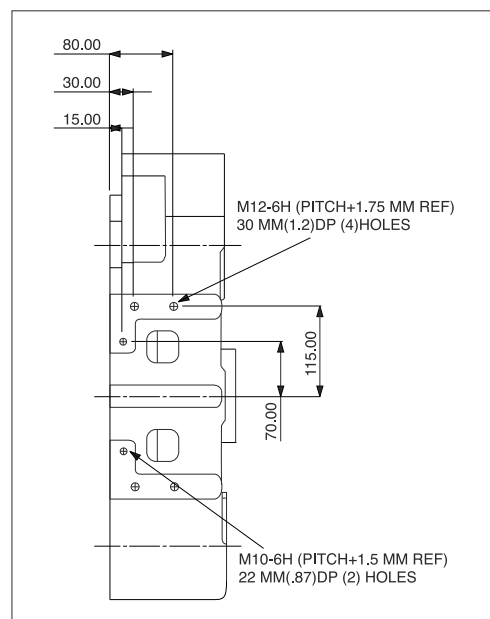
Not applicable for T-Slot Platens



N-SERIES 50	UNIT	70				140				220			
	METRIC	A'	A	B	C	A'	A	B	C	A'	A	B	C
INJECTION UNIT SPECIFICATIONS													
INJECTION CAPACITY MAX. (GPPS)	gm	21	31	37	50	47	64	84	107	76	99	126	171
THEORETICAL DISPLACEMENT	cc	22	32	38	52	50	68	88	112	80	105	132	180
INJECTION PRESSURE MAX.	bar	2545	2072	1741	1279	2500	2068	1584	1251	2500	2074	1639	1204
INJECTION RATE (STD) *	cc/sec	55	82	98	134	67	92	120	152	69	90	114	155
INJECTION SCREW STROKE	mm	85	85	85	85	110	110	110	110	130	130	130	130
SCREW DIAMETER	mm	18	22	24	28	24	28	32	36	28	32	36	42
SCREW L/D RATIO		27	21.9	20	17	26.8	23	20	17.7	25.8	22.6	20	17
SCREW SPEED	rpm	400	400	400	400	400	400	400	400	285	285	285	285
SCREW TORQUE	NM	60	120	172	172	344	425	425	425	665	665	671	671
	at bar	48	96	138	138	138	170	170	170	170	170	172	172
PLASTICIZING RATE (GP SCREW)	gm/sec	3.3	5.2	6.6	9.5	7	9	14	19	7	10	14	19
PLASTICIZING RATE (BARRIER SCREW)	gm/sec	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19	27
NO.OF PYROMETERS (BARREL+NOZZLE)		3+1				3+1				3+1			
TOTAL HEAT CAPACITY	kW	5.5				6.6				7.4			
CLAMP UNIT SPECIFICATIONS													
CLAMP FORCE	kN	500				500				500			
CLAMP STROKE	mm	280				280				280			
MAXIMUM DAYLIGHT	mm	630				630				630			
MINIMUM MOULD HEIGHT	mm	150				150				150			
MAXIMUM MOULD HEIGHT	mm	350				350				350			
PLATEN SIZE (H X V)	mm	500 X 485				500 X 485				500 X 485			
DISTANCE BETWEEN TIE ROD	mm	325 X 310				325 X 310				325 X 310			
TIE ROD DIAMETER	mm	55				55				55			
EJECTOR STROKE MAX.	mm	100				100				100			
EJECTOR FORCE	Ton	3.2				3.2				3.2			
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	420 (140 / 280)				420 (140 / 280)				420 (140 / 280)			
GENERAL													
ELECTRIC MOTOR	kW	8.7				8.7				8.7			
TOTAL OIL CAPACITY	ltr	160				160				160			
WATER REQUIREMENT	lpm	43				43				43			
TOTAL CONNECTED LOAD	kW	14.2				15.3				16.1			
MACHINE DIMENSION (L x W x H)	m	3.7 X 1.2 X 2.1				3.7 X 1.2 X 2.1				3.7 X 1.2 X 2.1			
MACHINE WEIGHT	kg	2800				3000				3300			

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TECHNICAL SPECIFICATIONS

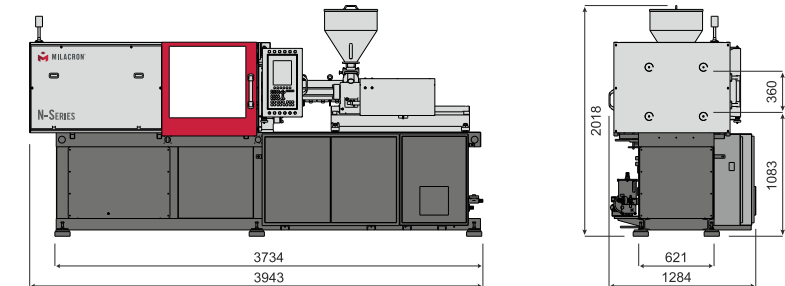


A M16x40/50 DP, 124 PLACES ON BOTH PLATEN

B MOVING PLATEN : Ø100(+0.035/-0.0) THRU BORE,
K/O BAR CENTER HOLE M16 THRU
STATIONARY PLATEN : Ø100(+0.035/-0.0) WITH LOCATING RING
Ø125(+0.04/-0.0) X 10(0.15/-0.0) DEEP, WITHOUT LOCATING RING

C Ø27 THRU 4 PLACES IN MOVING PLATEN,
M16 THRU 4 PLACES IN K/O BAR

Not applicable for T-Slot Platens



J 140 / 220

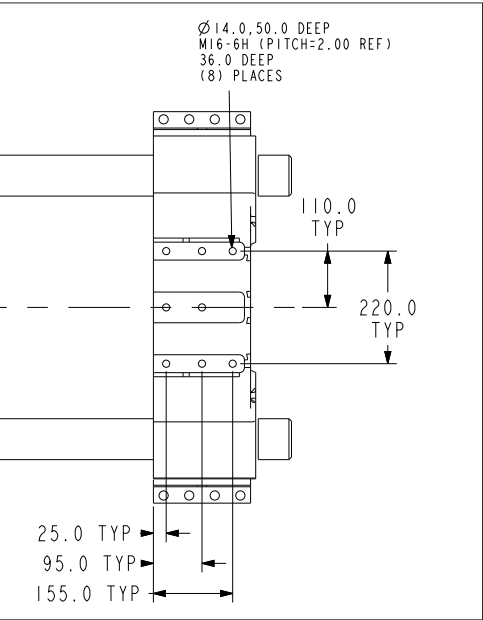
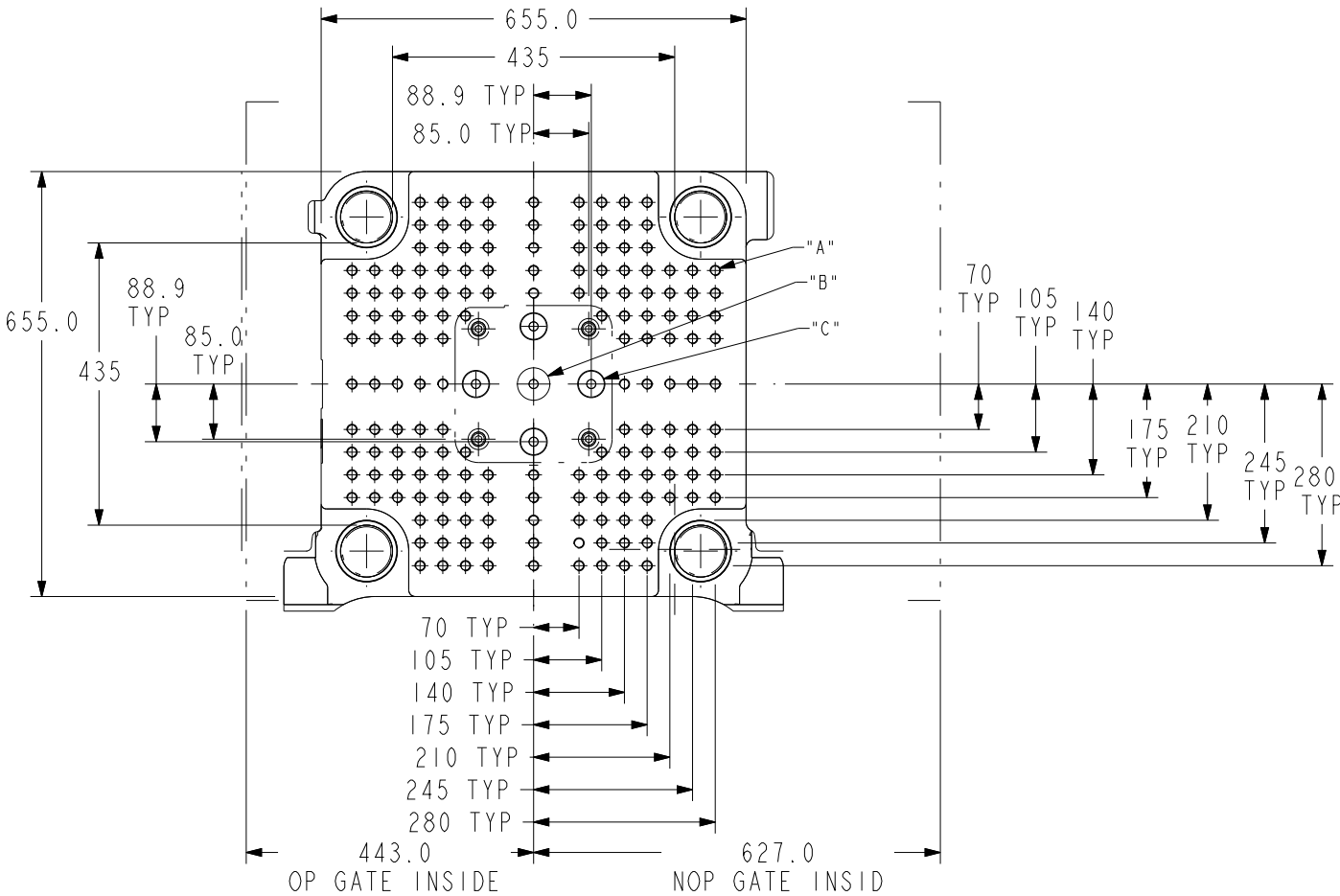
N-SERIES 80	UNIT	140				220			
	METRIC	A'	A	B	C	A'	A	B	C
INJECTION UNIT SPECIFICATIONS									
INJECTION CAPACITY MAX. (GPPS)	gm	47	64	84	107	76	99	126	171
THEORETICAL DISPLACEMENT	cc	50	68	88	112	80	105	132	180
INJECTION PRESSURE MAX.	bar	2500	2068	1584	1251	2500	2074	1639	1204
INJECTION RATE (STD) *	cc/sec	67	92	120	152	69	90	114	155
INJECTION SCREW STROKE	mm	110	110	110	110	130	130	130	130
SCREW DIAMETER	mm	24	28	32	36	28	32	36	42
SCREW L/D RATIO		26.8	23	20	17.7	25.8	22.6	20	17
SCREW SPEED	rpm	400	400	400	400	285	285	285	285
SCREW TORQUE	NM	344	425	425	425	665	665	671	671
	at bar	138	170	170	170	170	170	172	172
PLASTICIZING RATE (GP SCREW)	gm/sec	7	9	14	19	7	10	14	19
PLASTICIZING RATE (BARRIER SCREW)	gm/sec	NA	NA	NA	NA	NA	NA	19	27
NO.OF PYROMETERS (BARREL+NOZZLE)		3+1				3+1			
TOTAL HEAT CAPACITY	kW	6.6				7.4			
CLAMP UNIT SPECIFICATIONS									
CLAMP FORCE	kN	800				800			
CLAMP STROKE	mm	310				310			
MAXIMUM DAYLIGHT	mm	710				710			
MINIMUM MOULD HEIGHT	mm	150				150			
MAXIMUM MOULD HEIGHT	mm	400				400			
PLATEN SIZE (H X V)	mm	610 X 565				610 X 565			
DISTANCE BETWEEN TIE ROD	mm	405 X 360				405 X 360			
TIE ROD DIAMETER	mm	70				70			
EJECTOR STROKE MAX.	mm	120				120			
EJECTOR FORCE	Ton	3.4				3.4			
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	693 (231 / 462)				693 (231 / 462)			
GENERAL									
ELECTRIC MOTOR	kW	8.7				8.7			
TOTAL OIL CAPACITY	ltr	160				160			
WATER REQUIREMENT	lpm	43				43			
TOTAL CONNECTED LOAD	kW	15.3				16.1			
MACHINE DIMENSION (L x W x H)	m	4.0 x 1.3 x 2.0				4.0 x 1.3 x 2.02			
MACHINE WEIGHT	kg	3300				3600			

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THE N-SERIES
TONNAGE: 110

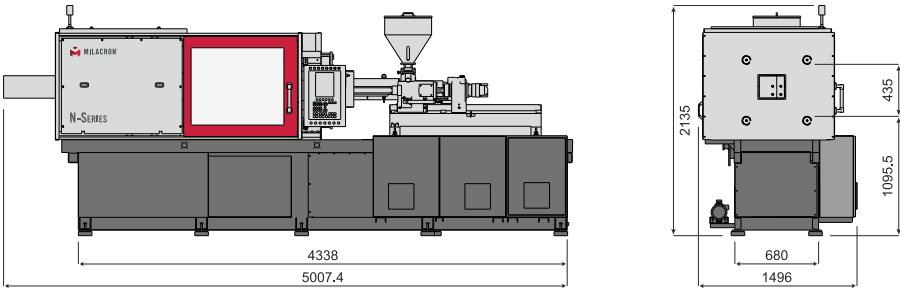
Injection Unit 310, 460, 610

TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A M16x40 DEEP, 168 PLACES ON BOTH PLATEN
- B MOVING PLATEN:
Ø50(+0.025/-) THRU,
K/O BAR CENTER HOLE M16 THRU
STATIONARY PLATEN:
Ø100(+0.035/-0.0) WITH LOCATING RING,
Ø125(+0.04/-0.0) X 10(0.15/-0.0) DEEP, WITHOUT LOCATING RING
- C Ø27 THRU 4 PLACES, K/O BAR HOLES Ø14.0 THRU 4 PLACES



N-SERIES 110	UNIT	310			460			610		
	METRIC	A	B	C	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (GPPS)	gm	119	150	185	174	215	272	272	336	407
THEORETICAL DISPLACEMENT	cc	125	158	195	183	226	286	286	353	428
INJECTION PRESSURE MAX.	bar	2451	1937	1569	2450	2041	1613	2137	1731	1430
INJECTION RATE (STD) *	cc/sec	112	141	174	109	134	170	128	158	191
INJECTION SCREW STROKE	mm	155	155	155	180	180	180	180	180	180
SCREW DIAMETER	mm	32	36	40	36	40	45	45	50	55
SCREW L/D RATIO		25	22	20	22	20	20	22	20	20
SCREW SPEED	rpm	300	300	300	279	279	279	222	222	222
SCREW TORQUE @ 172 BAR	NM	671	671	671	876	876	876	1080	1080	1080
PLASTICIZING RATE (GP SCREW)	gm/sec	10	14	19	13	17	24	19	25	32
PLASTICIZING RATE (BARRIER SCREW)	gm/sec	NA	20	24	18	23	31	25	34	42
NO.OF PYROMETERS (BARREL+NOZZLE)		3+1			3+1			3+1		
TOTAL HEAT CAPACITY	kW	9			9		10	15		16
CLAMP UNIT SPECIFICATIONS										
CLAMP FORCE	kN	1100			1100			1100		
CLAMP STROKE	mm	350			350			350		
MAXIMUM DAYLIGHT	mm	830			830			830		
MINIMUM MOULD HEIGHT	mm	150			150			150		
MAXIMUM MOULD HEIGHT	mm	480			480			480		
PLATEN SIZE (H X V)	mm	655 X 655			655 X 655			655 X 655		
DISTANCE BETWEEN TIE ROD	mm	435 X 435			435 X 435			435 X 435		
TIE ROD DIAMETER	mm	80			80			80		
EJECTOR STROKE MAX.	mm	120			120			120		
EJECTOR FORCE	Ton	5.2			5.2			5.2		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	1030 (345 / 685)			1030 (345 / 685)			1030 (345 / 685)		
GENERAL										
ELECTRIC MOTOR	kW	11.5			11.5			11.5		
TOTAL OIL CAPACITY	ltr	280			280			280		
WATER REQUIREMENT	lpm	50			50			50		
TOTAL CONNECTED LOAD	kW	20.5			20.5		21.5	26.5		27.5
MACHINE DIMENSION (L x W x H)	m	5.2 X 1.5 X 2.2			5.5 X 1.6 X 2.5			5.5 X 1.6 X 2.5		
MACHINE WEIGHT	kg	4800			5000			5200		

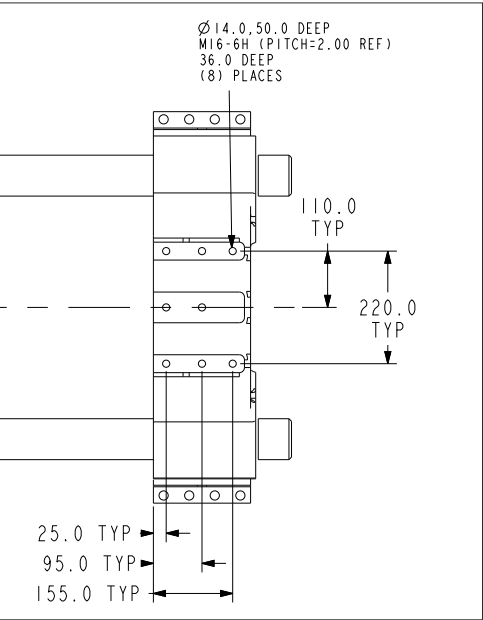
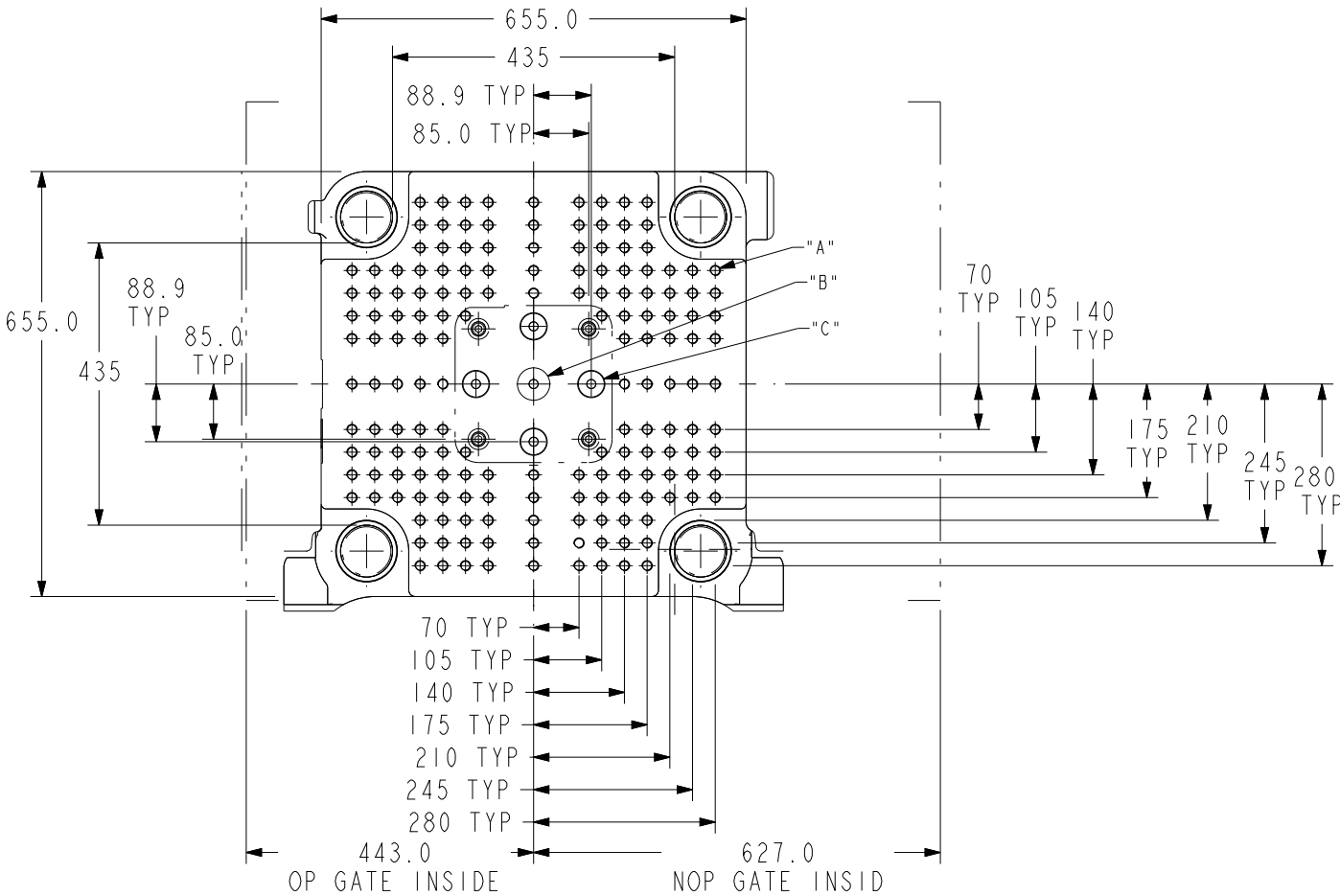
*WITH OPEN NOZZLE

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THE N-SERIES
TONNAGE: 125

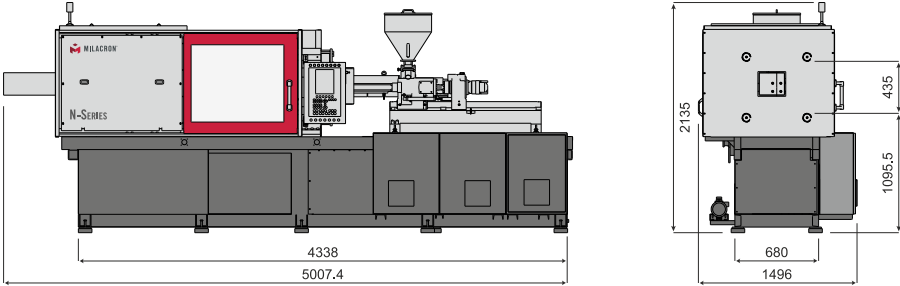
Injection Unit 310, 460, 610

TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A M16x40 DEEP, 168 PLACES ON BOTH PLATEN
- B MOVING PLATEN:
Ø50(+0.025/-) THRU,
K/O BAR CENTER HOLE M16 THRU
STATIONARY PLATEN:
Ø100(+0.035/-0.0) WITH LOCATING RING,
Ø125(+0.04/-0.0) X 10(0.15/-0.0) DEEP, WITHOUT LOCATING RING
- C Ø27 THRU 4 PLACES, K/O BAR HOLES Ø14.0 THRU 4 PLACES



N-SERIES 125	UNIT	310			460			610		
	METRIC	A	B	C	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (GPPS)	gm	119	150	185	174	215	272	272	336	407
THEORETICAL DISPLACEMENT	cc	125	158	195	183	226	286	286	353	428
INJECTION PRESSURE MAX.	bar	2451	1937	1569	2450	2041	1613	2137	1731	1430
INJECTION RATE (STD) *	cc/sec	112	141	174	109	134	170	128	158	191
INJECTION SCREW STROKE	mm	155	155	155	180	180	180	180	180	180
SCREW DIAMETER	mm	32	36	40	36	40	45	45	50	55
SCREW L/D RATIO		25	22	20	22	20	20	22	20	20
SCREW SPEED	rpm	300	300	300	279	279	279	222	222	222
SCREW TORQUE @ 172 BAR	NM	671	671	671	876	876	876	1080	1080	1080
PLASTICIZING RATE (GP SCREW)	gm/sec	10	14	19	13	17	24	19	25	32
PLASTICIZING RATE (BARRIER SCREW)	gm/sec	NA	20	24	18	23	31	25	34	42
NO.OF PYROMETERS (BARREL+NOZZLE)		3+1			3+1			3+1		
TOTAL HEAT CAPACITY	kW	9			9		10	15		16
CLAMP UNIT SPECIFICATIONS										
CLAMP FORCE	kN	1250			1250			1250		
CLAMP STROKE	mm	350			350			350		
MAXIMUM DAYLIGHT	mm	830			830			830		
MINIMUM MOULD HEIGHT	mm	150			150			150		
MAXIMUM MOULD HEIGHT	mm	480			480			480		
PLATEN SIZE (H X V)	mm	655 X 655			655 X 655			655 X 655		
DISTANCE BETWEEN TIE ROD	mm	435 X 435			435 X 435			435 X 435		
TIE ROD DIAMETER	mm	80			80			80		
EJECTOR STROKE MAX.	mm	120			120			120		
EJECTOR FORCE	Ton	5.2			5.2			5.2		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	1030 (345 / 685)			1030 (345 / 685)			1030 (345 / 685)		
GENERAL										
ELECTRIC MOTOR	kW	11.5			11.5			11.5		
TOTAL OIL CAPACITY	ltr	280			280			280		
WATER REQUIREMENT	lpm	50			50			50		
TOTAL CONNECTED LOAD	kW	20.5			20.5		21.5	26.5		27.5
MACHINE DIMENSION (L x W x H)	m	5.2 X 1.5 X 2.2			5.5 X 1.6 X 2.5			5.5 X 1.6 X 2.5		
MACHINE WEIGHT	kg	4800			5000			5200		

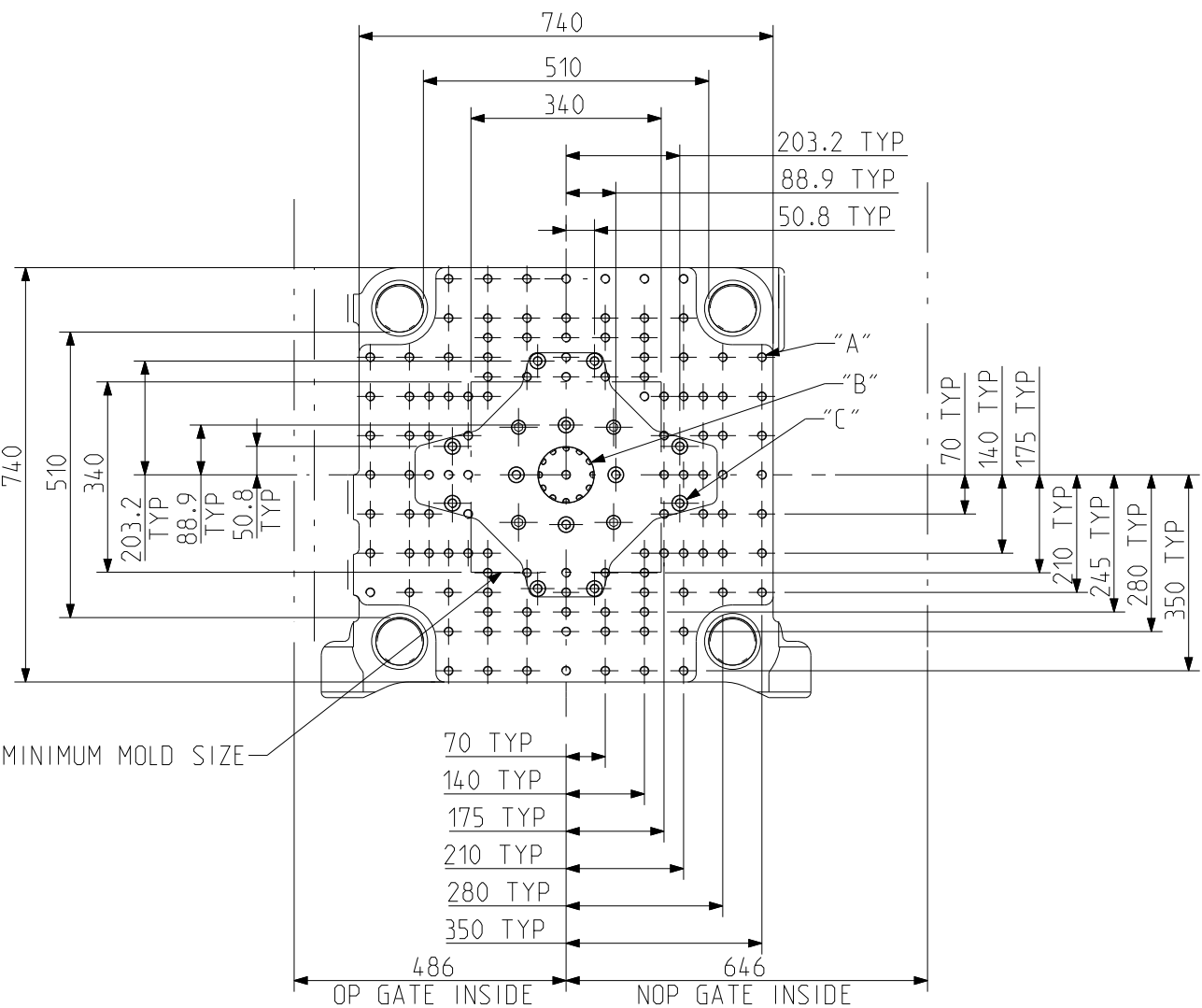
*WITH OPEN NOZZLE

All machine dimensions and specifications are subject to change. Values are for reference only. These values are for standard machine power.

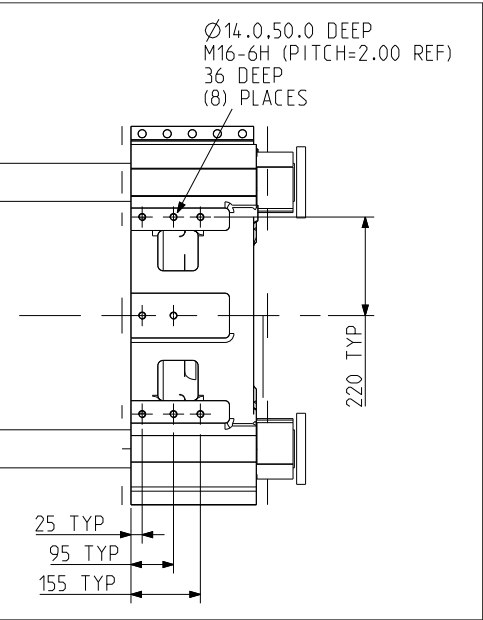
THE N-SERIES
TONNAGE: 150

Injection Unit 460, 610, 870

TECHNICAL SPECIFICATIONS



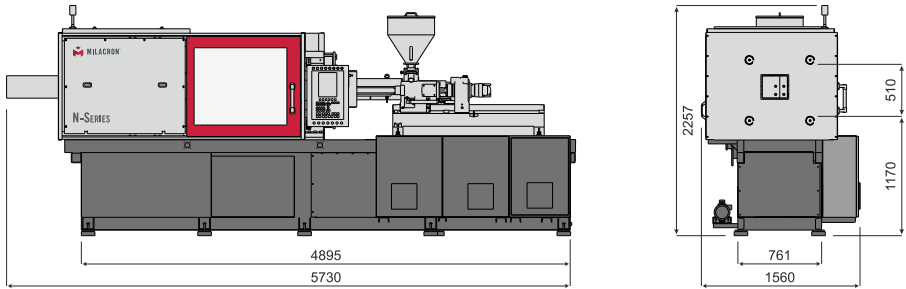
MINIMUM MOLD SIZE



ALL DIMENSIONS ARE IN MM

- A M16x40 DEEP (116 X ON BOTH PLATEN)
- B MOVING PLATEN:
Ø100(+0.035/-0.0) THRU BORE,
K/O BAR CENTER HOLE M16X40 THRU
STATIONARY PLATEN:
Ø125(+0.04/-0.0) WITH LOCATING RING,
Ø160(+0.04/-0.0) X 10(0.15/-0.0) DEEP, WITHOUT LOCATING RING
- C Ø27 THRU, (12) HOLES, K/O BAR HOLES M16X40 DEEP 12 HOLES

Not applicable for T-Slot Platens



N-SERIES 150	UNIT	460			610			870		
	METRIC	A	B	C	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (GPPS)	gm	174	215	272	272	336	407	374	452	538
THEORETICAL DISPLACEMENT	cc	183	226	286	286	353	428	393	475	565
INJECTION PRESSURE MAX.	bar	2450	2041	1613	2137	1731	1430	2213	1829	1537
INJECTION RATE (STD) *	cc/sec	109	134	170	128	158	191	124	150	178
INJECTION SCREW STROKE	mm	180	180	180	180	180	180	200	200	200
SCREW DIAMETER	mm	36	40	45	45	50	55	50	55	60
SCREW L/D RATIO		22	20	20	22	20	20	22	20	20
SCREW SPEED	rpm	279	279	279	222	222	222	183	183	183
SCREW TORQUE @ 172 BAR	NM	876	876	876	1080	1080	1080	1341	1341	1341
PLASTICIZING RATE (GP SCREW)	gm/sec	13	17	24	19	25	32	21	26	33
PLASTICIZING RATE (BARRIER SCREW)	gm/sec	18	23	31	25	34	42	28	34	42
NO.OF PYROMETERS (BARREL+NOZZLE)		3+1			3+1			3+1		
TOTAL HEAT CAPACITY	kW	9		10	15		16	18.9		20
CLAMP UNIT SPECIFICATIONS										
CLAMP FORCE	kN	1500			1500			1500		
CLAMP STROKE	mm	440			440			440		
MAXIMUM DAYLIGHT	mm	1050			1050			1050		
MINIMUM MOULD HEIGHT	mm	150			150			150		
MAXIMUM MOULD HEIGHT	mm	610			610			610		
PLATEN SIZE (H X V)	mm	740 X 740			740 X 740			740 X 740		
DISTANCE BETWEEN TIE ROD	mm	510 X 510			510 X 510			510 X 510		
TIE ROD DIAMETER	mm	85			85			85		
EJECTOR STROKE MAX.	mm	130			130			130		
EJECTOR FORCE	Ton	5.4			5.4			5.4		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	1500 (500 / 1000)			1500 (500 / 1000)			1500 (500 / 1000)		
GENERAL										
ELECTRIC MOTOR	kW	11.5			11.5			11.5		
TOTAL OIL CAPACITY	ltr	365			365			365		
WATER REQUIREMENT	lpm	50			50			50		
TOTAL CONNECTED LOAD	kW	20.5		21.5	26.5		27.5	30.4		31.5
MACHINE DIMENSION (L x W x H)	m	5.8 X 1.6 X 2.5			5.8 X 1.6 X 2.5			5.8 X 1.6 X 2.5		
MACHINE WEIGHT	kg	6300			6500			6900		

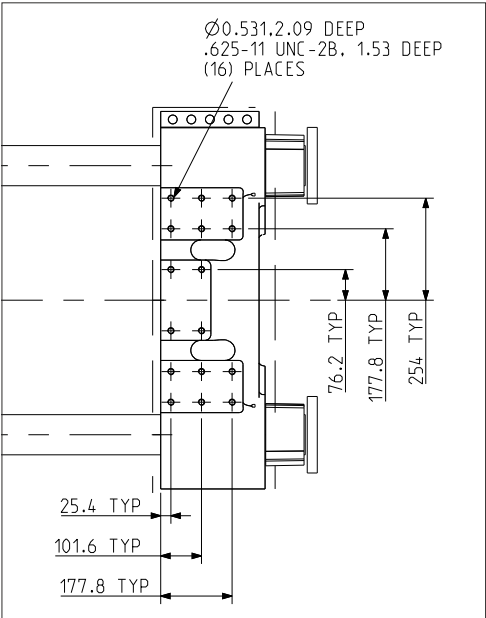
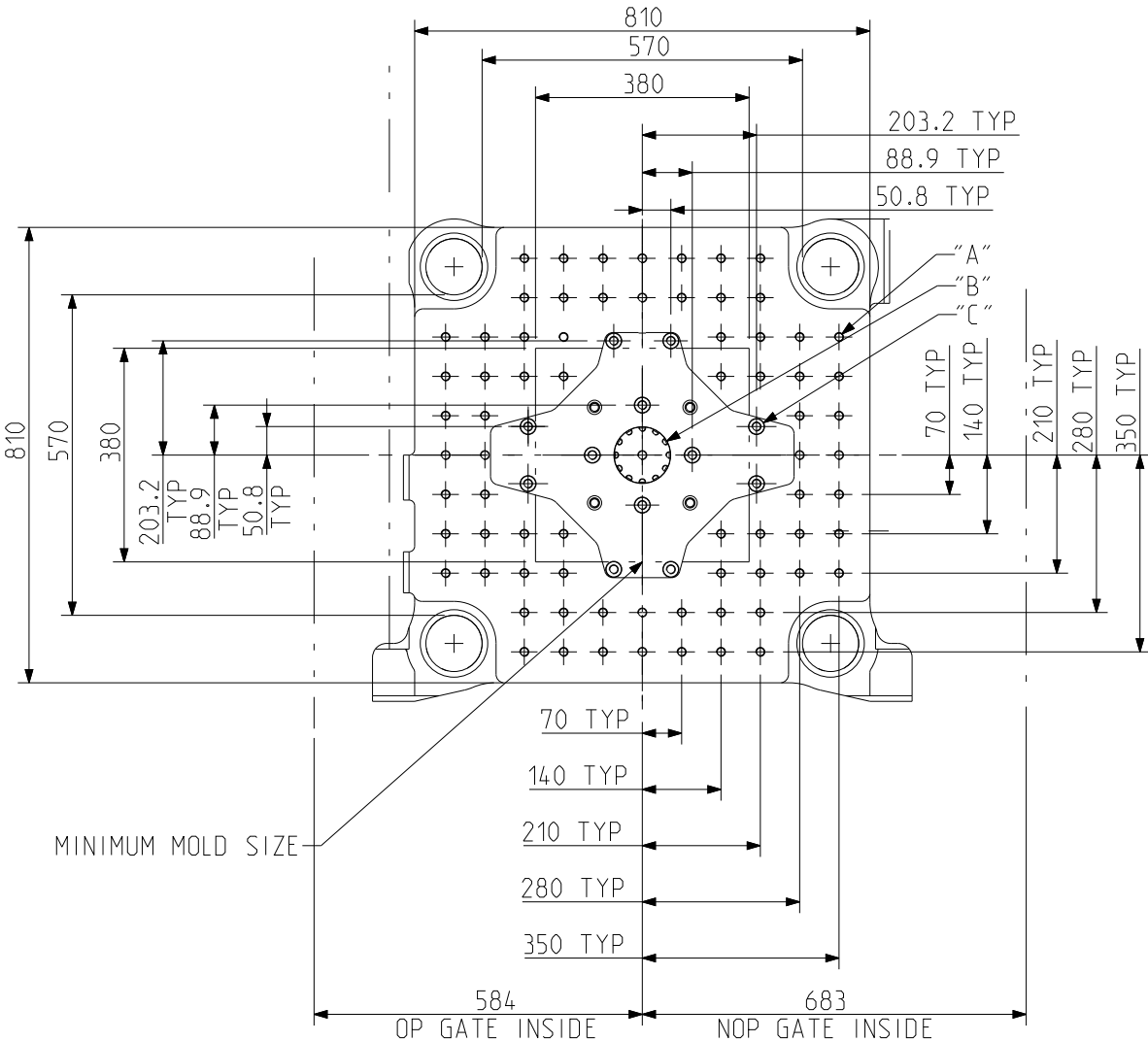
*WITH OPEN NOZZLE

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THE N-SERIES
TONNAGE: 200

Injection Unit 610, 870, 1000

TECHNICAL SPECIFICATIONS



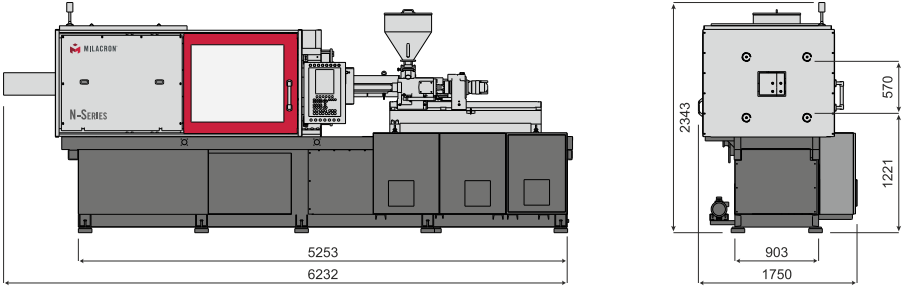
ALL DIMENSIONS ARE IN MM

A MOVING PLATEN: M16x40 DEEP (72) PLACES
STATIONARY PLATEN: M16x40 DEEP (84) PLACES

B MOVING PLATEN:
Ø100(+0.035/-0.0) THRU BORE,
K/O BAR CENTER HOLE M16X40 THRU
STATIONARY PLATEN:
Ø125(+0.04/-0.0) WITH LOCATING RING,
Ø160(+0.04/-0.0) X 10(0.15/-0.0) DEEP, WITHOUT LOCATING RING

C Ø27 THRU, (12) HOLES, K/O BAR HOLES M16X40 DEEP (12) HOLES

Not applicable for T-Slot Platens



N-SERIES 200	UNIT	610			870			1000		
	METRIC	A	B	C	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (GPPS)	gm	272	336	407	374	452	538	430	520	619
THEORETICAL DISPLACEMENT	cc	286	353	428	393	475	565	452	546	650
INJECTION PRESSURE MAX.	bar	2137	1731	1430	2213	1829	1537	2213	1829	1537
INJECTION RATE (STD) *	cc/sec	200	247	299	193	234	278	193	234	278
INJECTION SCREW STROKE	mm	180	180	180	200	200	200	230	230	230
SCREW DIAMETER	mm	45	50	55	50	55	60	50	55	60
SCREW L/D RATIO		22	20	20	22	20	20	22	20	20
SCREW SPEED	rpm	305	305	305	285	285	285	285	285	285
SCREW TORQUE @ 172 BAR	NM	1080	1080	1080	1341	1341	1341	1341	1341	1341
PLASTICIZING RATE (GP SCREW)	gm/sec	26	35	43	32	41	52	32	41	52
PLASTICIZING RATE (BARRIER SCREW)	gm/sec	34	46	57	43	54	66	43	54	66
NO.OF PYROMETERS (BARREL+NOZZLE)		3+1			3+1			3+1		
TOTAL HEAT CAPACITY	kW	15		16	18.9		20	18.9		20
CLAMP UNIT SPECIFICATIONS										
CLAMP FORCE	kN	2000			2000			2000		
CLAMP STROKE	mm	510			510			510		
MAXIMUM DAYLIGHT	mm	1320			1320			1320		
MINIMUM MOULD HEIGHT	mm	200			200			200		
MAXIMUM MOULD HEIGHT	mm	810			810			810		
PLATEN SIZE (H X V)	mm	810 X 810			810 X 810			810 X 810		
DISTANCE BETWEEN TIE ROD	mm	570 X 570			570 X 570			570 X 570		
TIE ROD DIAMETER	mm	100			100			100		
EJECTOR STROKE MAX.	mm	150			150			150		
EJECTOR FORCE	Ton	5.4			5.4			5.4		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	1905 (635 / 1270)			1905 (635 / 1270)			1905 (635 / 1270)		
GENERAL										
ELECTRIC MOTOR	kW	13.6			13.6			13.6		
TOTAL OIL CAPACITY	ltr	525			525			525		
WATER REQUIREMENT	lpm	55			55			55		
TOTAL CONNECTED LOAD	kW	28.6		29.6	32.5		33.6	32.5		33.6
MACHINE DIMENSION (L x W x H)	m	6.6 X 1.8 X 2.6			6.6 X 1.8 X 2.7			6.6 X 1.8 X 2.7		
MACHINE WEIGHT	kg	9850			10200			10200		

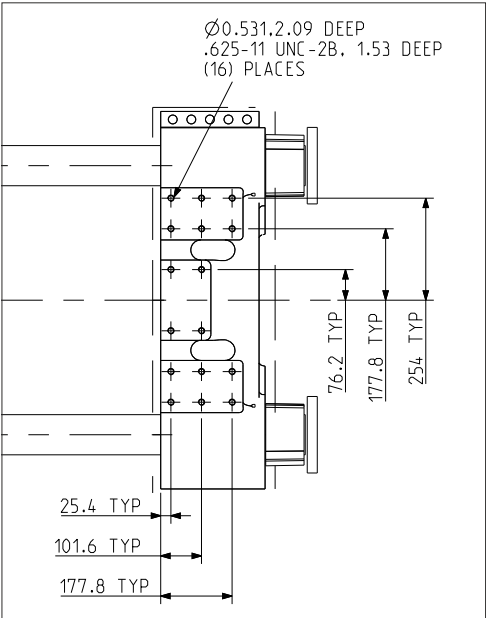
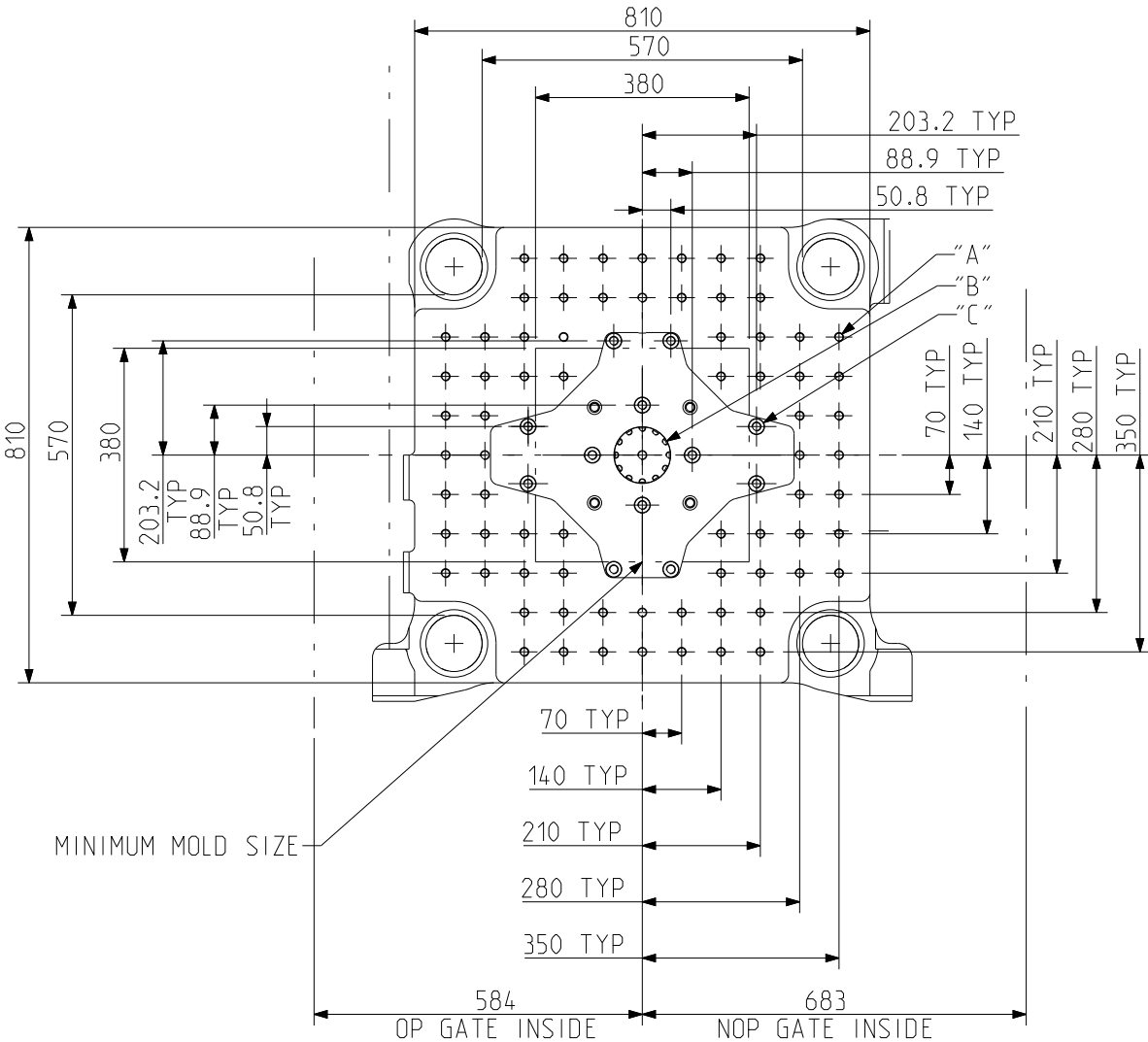
*WITH OPEN NOZZLE

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THE N-SERIES
TONNAGE: 220

Injection Unit 610, 870, 1000

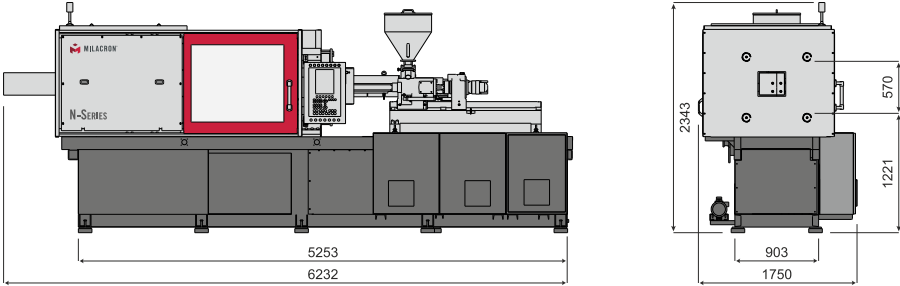
TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A MOVING PLATEN: M16x40 DEEP (72) PLACES
STATIONARY PLATEN: M16x40 DEEP (84) PLACES
- B MOVING PLATEN:
Ø100(+0.035/-0.0) THRU BORE,
K/O BAR CENTER HOLE M16X40 THRU
STATIONARY PLATEN:
Ø125(+0.04/-0.0) WITH LOCATING RING,
Ø160(+0.04/-0.0) X 10(0.15/-0.0) DEEP, WITHOUT LOCATING RING
- C Ø27 THRU, (12) HOLES, K/O BAR HOLES M16X40 DEEP (12) HOLES

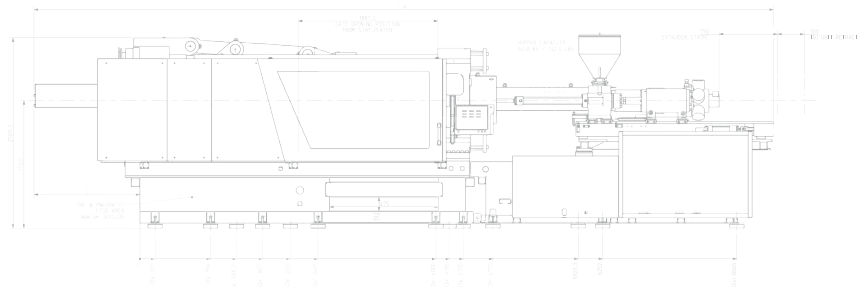
Not applicable for T-Slot Platens



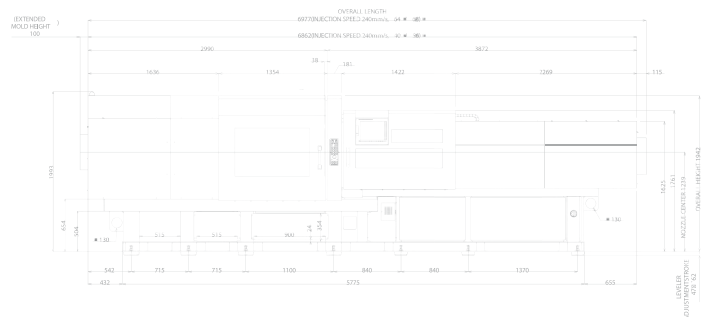
N-SERIES 220	UNIT	610			870			1000		
	METRIC	A	B	C	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (GPPS)	gm	272	336	407	374	452	538	430	520	619
THEORETICAL DISPLACEMENT	cc	286	353	428	393	475	565	452	546	650
INJECTION PRESSURE MAX.	bar	2137	1731	1430	2213	1829	1537	2213	1829	1537
INJECTION RATE (STD) *	cc/sec	200	247	299	193	234	278	193	234	278
INJECTION SCREW STROKE	mm	180	180	180	200	200	200	230	230	230
SCREW DIAMETER	mm	45	50	55	50	55	60	50	55	60
SCREW L/D RATIO		22	20	20	22	20	20	22	20	20
SCREW SPEED	rpm	305	305	305	285	285	285	285	285	285
SCREW TORQUE @ 172 BAR	NM	1080	1080	1080	1341	1341	1341	1341	1341	1341
PLASTICIZING RATE (GP SCREW)	gm/sec	26	35	43	32	41	52	32	41	52
PLASTICIZING RATE (BARRIER SCREW)	gm/sec	34	46	57	43	54	66	43	54	66
NO.OF PYROMETERS (BARREL+NOZZLE)		3+1			3+1			3+1		
TOTAL HEAT CAPACITY	kW	15		16	18.9		20	18.9		20
CLAMP UNIT SPECIFICATIONS										
CLAMP FORCE	kN	2200			2200			2200		
CLAMP STROKE	mm	510			510			510		
MAXIMUM DAYLIGHT	mm	1320			1320			1320		
MINIMUM MOULD HEIGHT	mm	200			200			200		
MAXIMUM MOULD HEIGHT	mm	810			810			810		
PLATEN SIZE (H X V)	mm	810 X 810			810 X 810			810 X 810		
DISTANCE BETWEEN TIE ROD	mm	570 X 570			570 X 570			570 X 570		
TIE ROD DIAMETER	mm	100			100			100		
EJECTOR STROKE MAX.	mm	150			150			150		
EJECTOR FORCE	Ton	5.4			5.4			5.4		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	1905 (635 / 1270)			1905 (635 / 1270)			1905 (635 / 1270)		
GENERAL										
ELECTRIC MOTOR	kW	13.6			13.6			13.6		
TOTAL OIL CAPACITY	ltr	525			525			525		
WATER REQUIREMENT	lpm	55			55			55		
TOTAL CONNECTED LOAD	kW	28.6		29.6	32.5		33.6	32.5		33.6
MACHINE DIMENSION (L x W x H)	m	6.6 X 1.8 X 2.6			6.6 X 1.8 X 2.7			6.6 X 1.8 X 2.7		
MACHINE WEIGHT	kg	9850			10200			10200		

*WITH OPEN NOZZLE

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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.



OFFICE	PHONE NUMBER
BENGALURU	+91 99169 51333
PANCHKULA	+91-172-415 5955
CHENNAI	+91-44-2378 3648/0456/3318
HYDERABAD	+91-40-4539 2595
KOLKATA	+91-33-4601 7768
MUMBAI	+91-22-4005 5459/65
NEW DELHI	+91-11-4630 1114/5/6
PUNE	+91-20-4861 5001/02
VAPI	+91-75674 11133



Milacron India Pvt. Ltd.
93/2 & 94/1, Phase-I, G.I.D.C. Vatva,
Ahmedabad - 382445, Gujarat, India.

+91-79-61341700
enquiry@milacron.com
www.milacron.com

