



MILACRON®

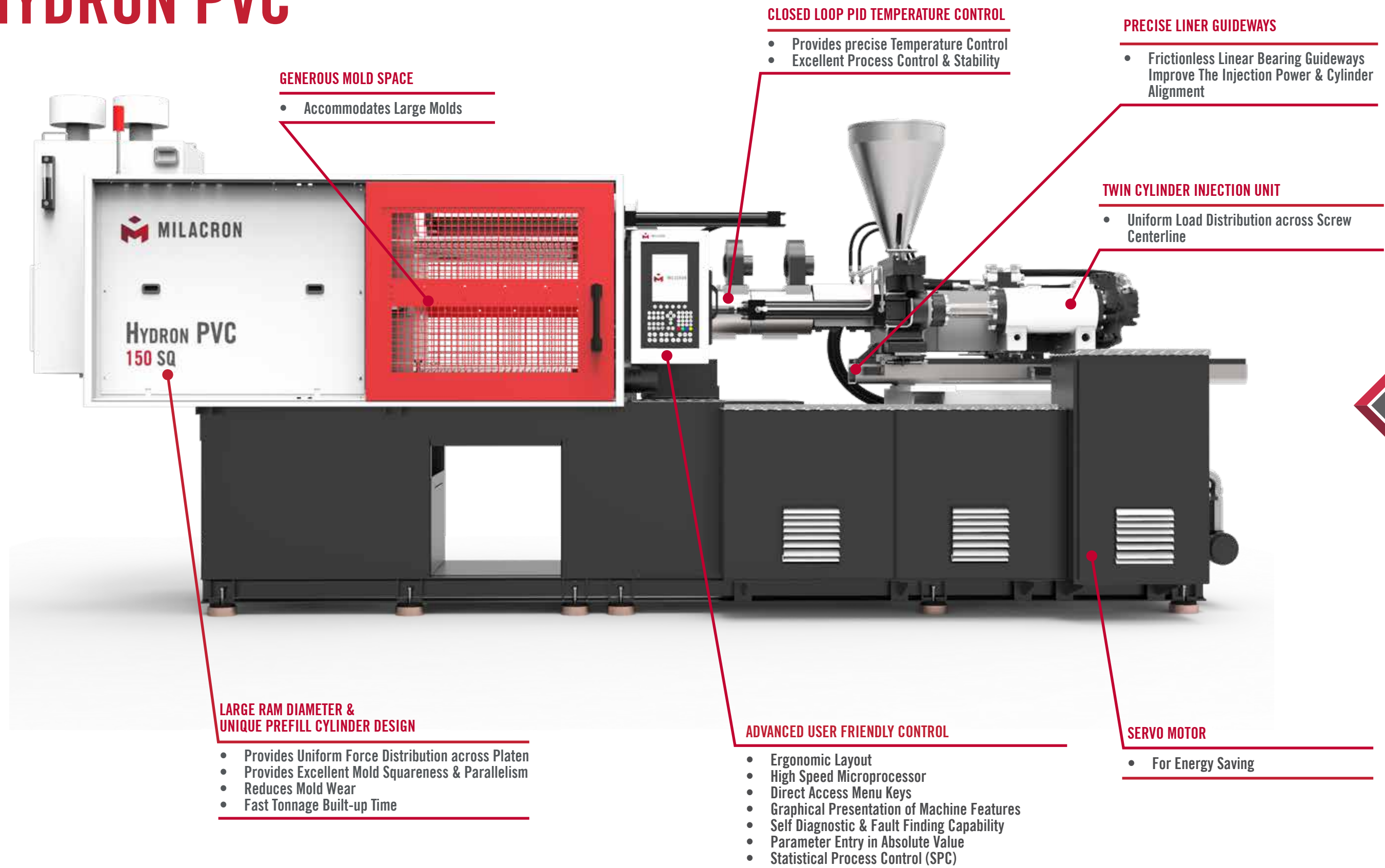


THE **HYDRON** PVC



100-450 TON

THE HYDRON PVC



GENEROUS MOLD SPACE

- Accommodates Large Molds

CLOSED LOOP PID TEMPERATURE CONTROL

- Provides precise Temperature Control
- Excellent Process Control & Stability

PRECISE LINER GUIDEWAYS

- Frictionless Linear Bearing Guideways Improve The Injection Power & Cylinder Alignment

TWIN CYLINDER INJECTION UNIT

- Uniform Load Distribution across Screw Centerline

LARGE RAM DIAMETER & UNIQUE PREFILL CYLINDER DESIGN

- Provides Uniform Force Distribution across Platen
- Provides Excellent Mold Squareness & Parallelism
- Reduces Mold Wear
- Fast Tonnage Built-up Time

ADVANCED 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
- Statistical Process Control (SPC)

SERVO MOTOR

- For Energy Saving

THE HYDRON PVC

Injection Unit Specifications

IU	450	630	970	1540	2290	3470	4880
HYDRON PVC 100							
HYDRON PVC 150							
HYDRON PVC 200							
HYDRON PVC 250							
HYDRON PVC 300							
HYDRON PVC 350							
HYDRON PVC 450							

Clamp Specifications

MODEL	TONNAGE	PLATEN SIZE (H X V)	TIE BAR SPACING (H X V)	MAX DAYLIGHT
	tons	mm	mm	mm
HYDRON PVC 100	100	610 X 610	410 X 410	760
HYDRON PVC 150	150	715 X 715	510 X 510	825
HYDRON PVC 200	200	820 X 820	560 X 560	950
HYDRON PVC 250	250	880 X 880	620 X 620	1080
HYDRON PVC 300	300	990 X 940	700 X 650	1225# / 1375
HYDRON PVC 350	350	1010 X 1010	710 X 710	1360# / 1660
HYDRON PVC 450	450	1200 X 1200	830 X 830	1500# / 1850

* WITH RAM SPACER

STANDARD 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	●
T-Slot Platens with Tapped Holes (350 & 450 Tons)	●
Adjustable Pressure setting of Closing & Opening Stage	●
Proportional Speed Control with 5 Closing & 5 Opening Speed	●
Adjustable 2 Stage Mold Safety Pressure & 1 Stage Speed	●
Position Based Ramping for Accurate Position Switching	●
Precise Speed & Pressure Control	●
Contactless Transducer for Accurate Clamp Position Control	●
Sensitive Mold Protection with Try Again Circuit	●
Stage Wise Actual Time Display	●
Insert Molding Program	●
Actual Tonnage Display on Screen	●
Auto Lubrication (300 T & Above)	●
Flash Chrome Plated Ram	●
Rear Door Handle	●
Top Cover on Ram	●
Jam Bar	○
Part Drop Detect for Single Cavity	○
Part Drop Chute	○
T-Slot Platens (100 - 300 Tons)	○
Extended Daylight with Ram Spacer	○

HYDRAULICS	
Servo Motor Operated Gear Pump	●
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 ShutDown	●
Continuous Oil Filtration with 10 Micron Filter	●
Audible Alarm for Filter Clogging	●
Hydraulic Valve On / Off Indication	●
Butter Fly Valve at Pump Suction Line	●
Y Strainer in Heat Exchanger Inlet	●
Gauge Port for all Major Functions	●
Filter Element IFR-2-06B-20-10B for Oil Filling	●

EJECTOR	
Knock-Out Bar for Multipoint Ejection	●
2 Stage Programmable Ejector Forward Profile with Soft Eject	●
Ejector Speed & Pressure adjustable on Screen	●
Linear Transducer for Ejector Position	●
Pulsating Ejector Strokes up to 9 Pulses	●
Intermediate Retract Set Point	●
Ejector Stay Forward & Forward Dwell Timer	●
Center Ejector Rod with Side Ejector Pins (4+1)	●
Pilot Operated Check Valve for Ejector	●
Freely Programmable Core Pull	●
Eject Retract Limit Switch Verification	●
Hydraulic Core Pull - 2 Stage	●
Pilot Operated Check Valve for Cores Pull - 2 Stage	●
Collapsible Core Sequence	●
Core Decompression Circuit	●
Check Valve in Drain Line of Core & Ejector	●
Air Ejection	○
Parallel Ejection - Ejector on Fly	○

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	●
Oil Temperature Control	●
Feed Throat Temperature Control	●
Extra Heating Zone	●

NOTES

CONTROLS	
18 out of 67 Freely Selectable Parameter Monitoring for last 1000 cycle with Graphs	●
10.4" LCD Color Display with Alpha - Numeric Keypad	●
Actual Injection Speed & Pressure Graph Display	●
120 Mold Data Storage	●
Graphical Presentation of Hourly Production	●
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	●
Process Mode: Functions with its Co-functions on a Single Key Press	●
Note Pad & Maintenance Scheduling	●
Freely Programmable Smart Outputs & Inputs	●
Over View Screen with Graphical Display of Machine Functions	●
Auto shut down	●
Visual & Audible Alarm	●
3000 Alarm History with Date & Time Log	●
Axis wise Graphical Cycle time Analysis	●
Batch Counter with option to turn off the Motor	●
Mold Data/ Process Data / Change log saving to External USB device	●
Quick Setup Menu for Easy access Axis Parameters	●
Energy Meter on Screen	●
Daily Production Data for a Year	●
Energy Consumption analysis for each axis	●
Progressive Start	●
Tonnage Drop After Injection	●
Different Auto Stand By Modes	●
Statistical Process Control (SPC) with Graphics	○
Choice of Multiple Languages	○

● - Standard Feature ○ - Optional Feature

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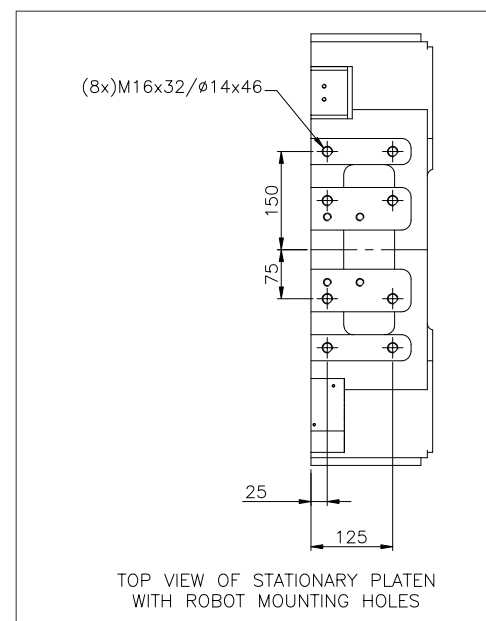
TECHNICAL SPECIFICATIONS



HYDRON PVC 100	UNIT	450			630		
	METRIC	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS							
INJECTION CAPACITY MAX. (RPVC)	gms	271	344	424	382	471	570
THEORETICAL DISPLACEMENT	cc	226	286	353	318	393	475
INJECTION PRESSURE MAX.	bar	1984	1568	1306	1969	1595	1318
INJECTION RATE *	cc/sec	105	133	164	106	130	158
INJECTION SCREW STROKE	mm	180	180	180	200	200	200
SCREW DIAMETER	mm	40	45	50	45	50	55
SCREW L/D RATIO		23.5	21	18.9	23.2	21	18.9
SCREW SPEED	rpm	143	127	115	127	115	104
SCREW TORQUE @ 172 BAR	Nm	1080	1080	1080	1460	1460	1460
PLASTICIZING RATE (RPVC)	gm/sec	17	19	22	19	22	24
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1			4+1		
TOTAL HEAT CAPACITY	kW	11.3			15.4		
CLAMP UNIT SPECIFICATIONS							
CLAMP FORCE	ton	100			100		
CLAMP STROKE	mm	560			560		
MAXIMUM DAYIGHT	mm	760			760		
MINIMUM MOULD HEIGHT	mm	200			200		
PLATEN SIZE (H X V)	mm	610 X 610			610 X 610		
DISTANCE BETWEEN TIE ROD	mm	410 X 410			410 X 410		
TIE ROD DIAMETER	mm	70			70		
EJECTOR STROKE	mm	125			125		
EJECTOR FORCE	ton	4.5			4.5		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	1060 (530 / 530)			1060 (530 / 530)		
GENERAL							
SERVO DRIVE	kW (HP)	9.9			9.9		
OIL TANK CAPACITY - MAIN	L	315			315		
OIL TANK CAPACITY - PREFILL	L	140			140		
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	50			50		
CONNECTED LOAD	kW	21.2			25.3		
MACHINE DIMENSION (L X W X H)	m	5.08 X 1.79 X 2.27			5.48 X 1.78 X 2.27		
MACHINE WEIGHT	kg	4800			5000		

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

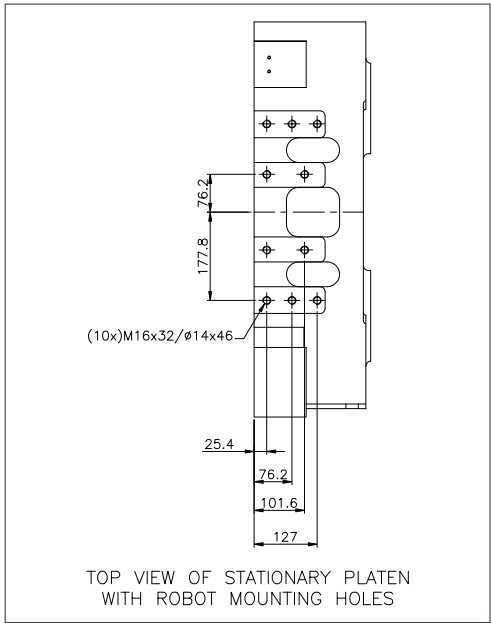
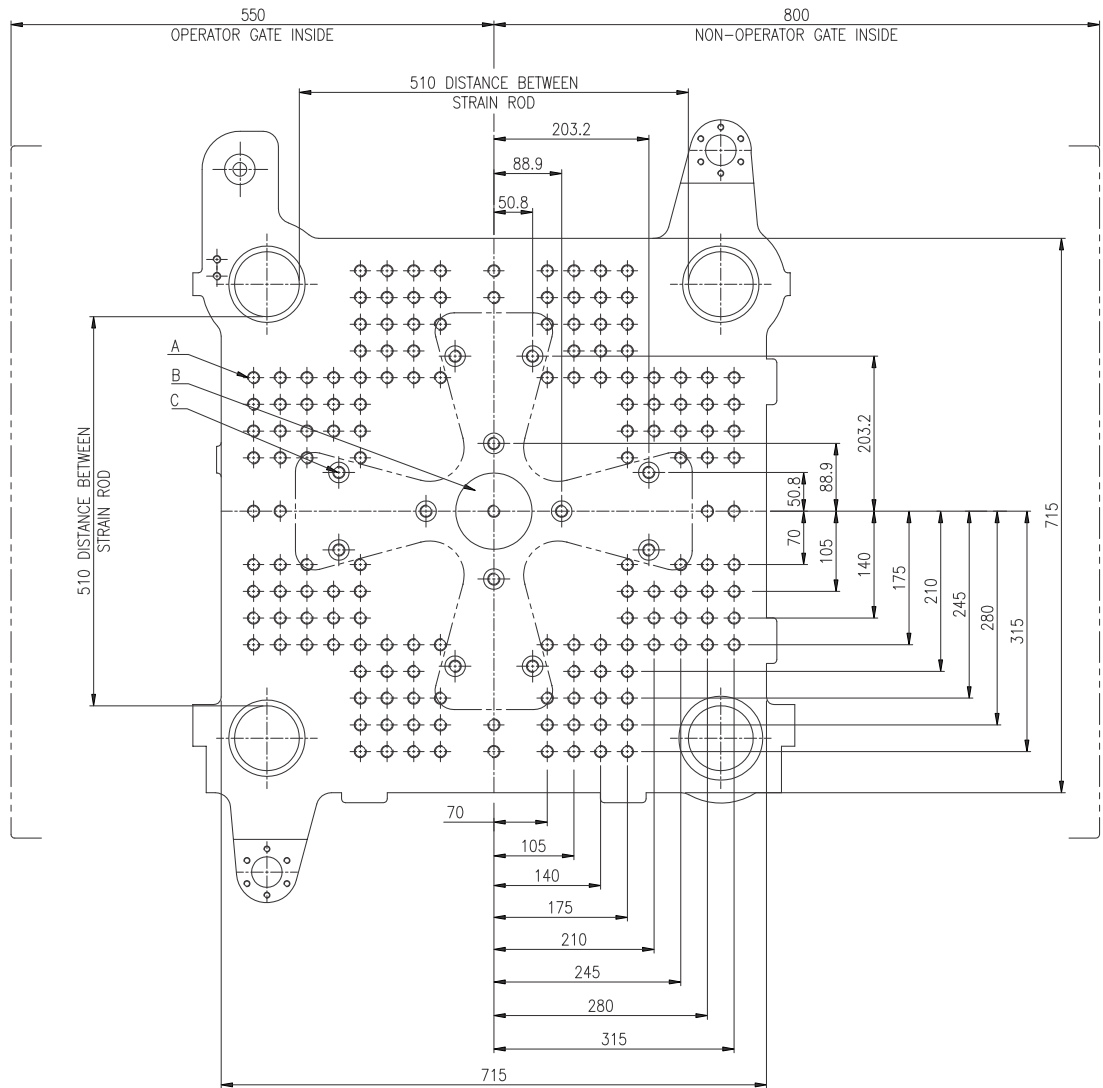
C Ø27 THRU, (4) HOLES & K/O BAR HOLES M12 THRU (4) NOS.



THE **HYDRON PVC**
TONNAGE: 150 SQ

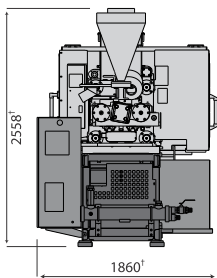
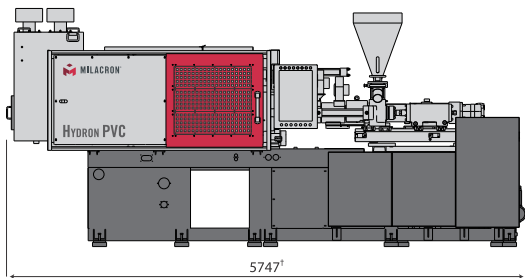
Injection Unit 450, 630, 970

TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A M16x40 DEEP (156 HOLES ON MOVING PLATEN)
M16x40 DEEP (176 HOLES ON STATIONARY PLATEN)
- B MOVING PLATEN:
Ø100 THRU BORE K/O BAR CENTER HOLE M16x40 MM DEEP
STATIONARY PLATEN:
Ø125(+0.040/0.00) WITH LOCATING RING
Ø160(+0.040/0.00) WITHOUT LOCATING RING
- C Ø27 THRU, (12) HOLES & K/O BAR HOLES M16x40 DEEP (12) NOS.



710 630

SEQUENTIAL OPERATION

HYDRON PVC 150	UNIT	450			630			970		
	METRIC	A	B	C	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (RPVC)	gms	271	344	424	382	471	570	565	814	955
THEORETICAL DISPLACEMENT	cc	226	286	353	318	393	475	471	679	796
INJECTION PRESSURE MAX.	bar	1984	1568	1306	1969	1595	1318	2057	1428	1321
INJECTION RATE *	cc/sec	105	133	164	106	130	158	101	145	171
INJECTION SCREW STROKE	mm	180	180	180	200	200	200	240	240	240
SCREW DIAMETER	mm	40	45	50	45	50	55	50	60	65
SCREW L/D RATIO		23.5	21	18.9	23.2	21	18.9	25	21	19.2
SCREW SPEED	rpm	143	127	115	127	115	104	90	90	88
SCREW TORQUE @ 172 BAR	Nm	1080	1080	1080	1460	1460	1460	2167	2167	2167
PLASTICIZING RATE (RPVC)	gm/sec	17	19	22	19	22	24	17	27	33
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1			4+1			4+1		
TOTAL HEAT CAPACITY	kW	11.3			15.4			16.9		
CLAMP UNIT SPECIFICATIONS										
CLAMP FORCE	ton	150			150			150		
CLAMP STROKE	mm	625			625			625		
MAXIMUM DAYIGHT	mm	825			825			825		
MINIMUM MOULD HEIGHT	mm	200			200			200		
PLATEN SIZE (H X V)	mm	715 X 715			715 X 715			715 X 715		
DISTANCE BETWEEN TIE ROD	mm	510 X 510			510 X 510			510 X 510		
TIE ROD DIAMETER	mm	85			85			85		
EJECTOR STROKE	mm	160			160			160		
EJECTOR FORCE	ton	4.5			4.5			4.5		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	2000 (1000 / 1000)			2000 (1000 / 1000)			2000 (1000 / 1000)		
GENERAL										
SERVO DRIVE	kW (HP)	9.9			9.9			9.9		
OIL TANK CAPACITY - MAIN	L	395			395			395		
OIL TANK CAPACITY - PREFILL	L	180			180			180		
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	50			50			50		
CONNECTED LOAD	kW	21.2			25.3			26.8		
MACHINE DIMENSION (L X W X H)	m	5.75 X 1.93 X 2.43			5.75 X 1.93 X 2.43			6.05 X 1.93 X 2.43		
MACHINE WEIGHT	kg	7300			7600			7800		

* WITH OPEN NOZZLE

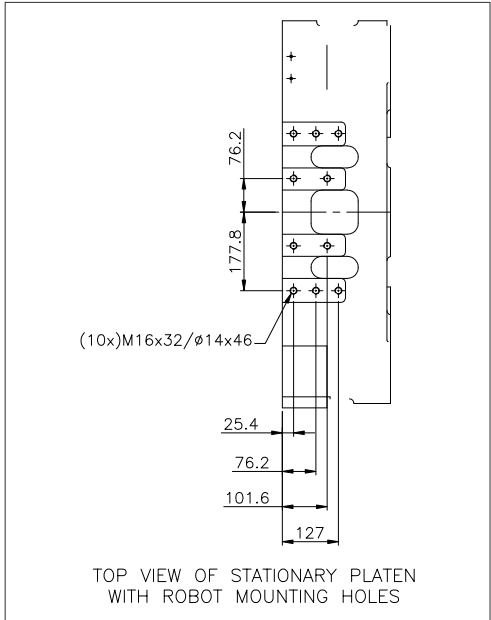
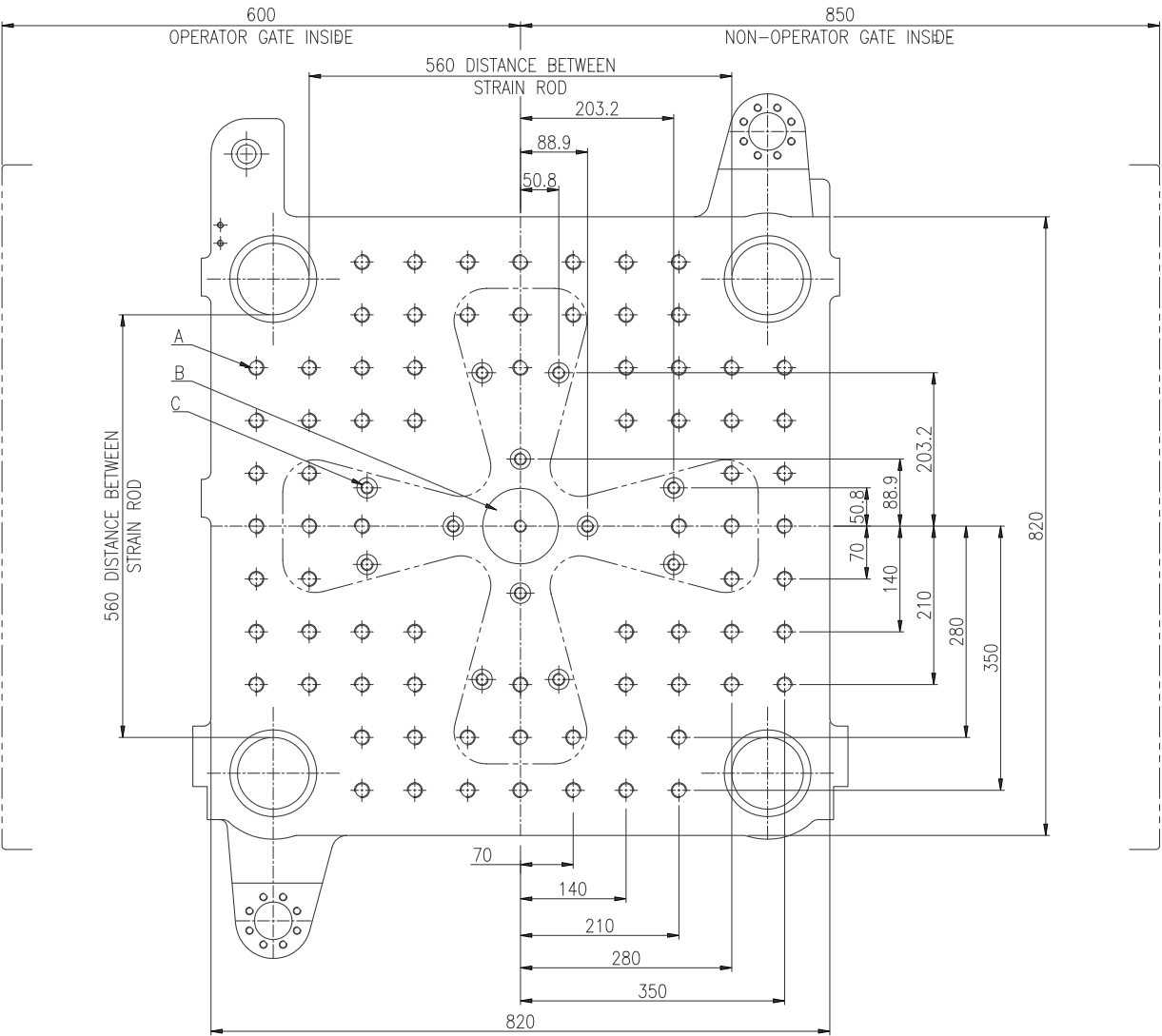
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THE HYDRON PVC

TONNAGE: 200 SQ

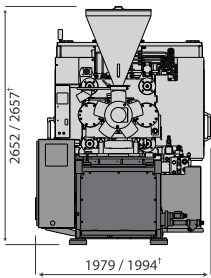
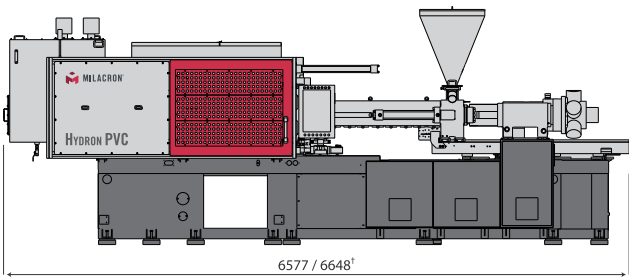
Injection Unit 630, 970, 1540

TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A M20x50 DEEP (76 HOLES ON MOVING PLATEN)
M20x50 DEEP (84 HOLES ON STATIONARY PLATEN)
- B MOVING PLATEN:
Ø100 THRU BORE K/O BAR CENTER HOLE M16x40 MM DEEP
STATIONARY PLATEN:
Ø125(+0.040/0.00) WITH LOCATING RING
Ø160(+0.040/0.00) WITHOUT LOCATING RING
- C Ø27 THRU, (12) HOLES & K/O BAR HOLES M16x40 DEEP (12) NOS.



1/10 970 / 1540

SEQUENTIAL OPERATION

HYDRON PVC 200	UNIT	630			970			1540		
	METRIC	A	B	C	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (RPVC)	gms	382	471	570	565	814	955	950	1293	1689
THEORETICAL DISPLACEMENT	cc	318	393	475	471	679	796	792	1078	1407
INJECTION PRESSURE MAX.	bar	1969	1595	1318	2057	1428	1321	1941	1426	1185
INJECTION RATE *	cc/sec	169	208	252	162	233	273	171	233	305
INJECTION SCREW STROKE	mm	200	200	200	240	240	240	280	280	280
SCREW DIAMETER	mm	45	50	55	50	60	65	60	70	80
SCREW L/D RATIO		23.2	21	18.9	25	21	19.2	24.3	21	18.2
SCREW SPEED	rpm	127	115	104	115	95	88	95	82	72
SCREW TORQUE @ 172 BAR	Nm	1460	1460	1460	2167	2167	2167	3234	3234	3234
PLASTICIZING RATE (RPVC)	gm/sec	19	22	24	22	28	33	28	38	47
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1			4+1			5+1		
TOTAL HEAT CAPACITY	kW	15.4			16.9			24.9		
CLAMP UNIT SPECIFICATIONS										
CLAMP FORCE	ton	200			200			200		
CLAMP STROKE	mm	750			750			750		
MAXIMUM DAYIGHT	mm	950			950			950		
MINIMUM MOULD HEIGHT	mm	200			200			200		
PLATEN SIZE (H X V)	mm	820 X 820			820 X 820			820 X 820		
DISTANCE BETWEEN TIE ROD	mm	560 X 560			560 X 560			560 X 560		
TIE ROD DIAMETER	mm	95			95			95		
EJECTOR STROKE	mm	160			160			160		
EJECTOR FORCE	ton	7.5			7.5			7.5		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	2540 (1270 / 1270)			2540 (1270 / 1270)			2540 (1270 / 1270)		
GENERAL										
SERVO DRIVE	kW (HP)	13.6			13.6			13.6		
OIL TANK CAPACITY - MAIN	L	565			565			565		
OIL TANK CAPACITY - PREFILL	L	345			345			345		
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	50			50			50		
CONNECTED LOAD	kW	29			30.5			38.5		
MACHINE DIMENSION (L X W X H)	m	6.58 X 2.06 X 2.59			6.68 X 2.06 X 2.59			7.07 X 2.06 X 2.59		
MACHINE WEIGHT	kg	8900			9200			9700		

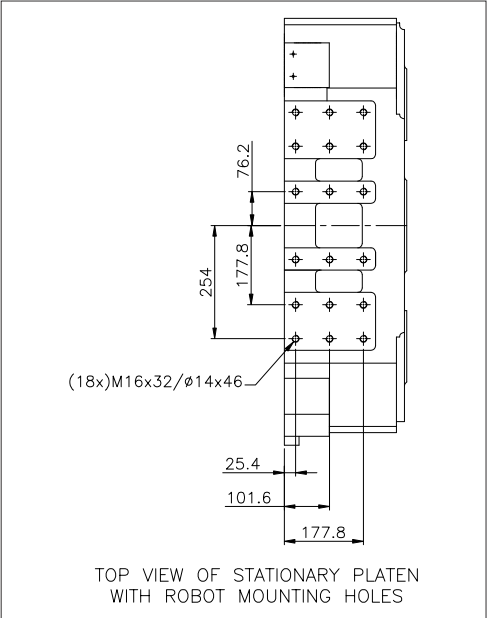
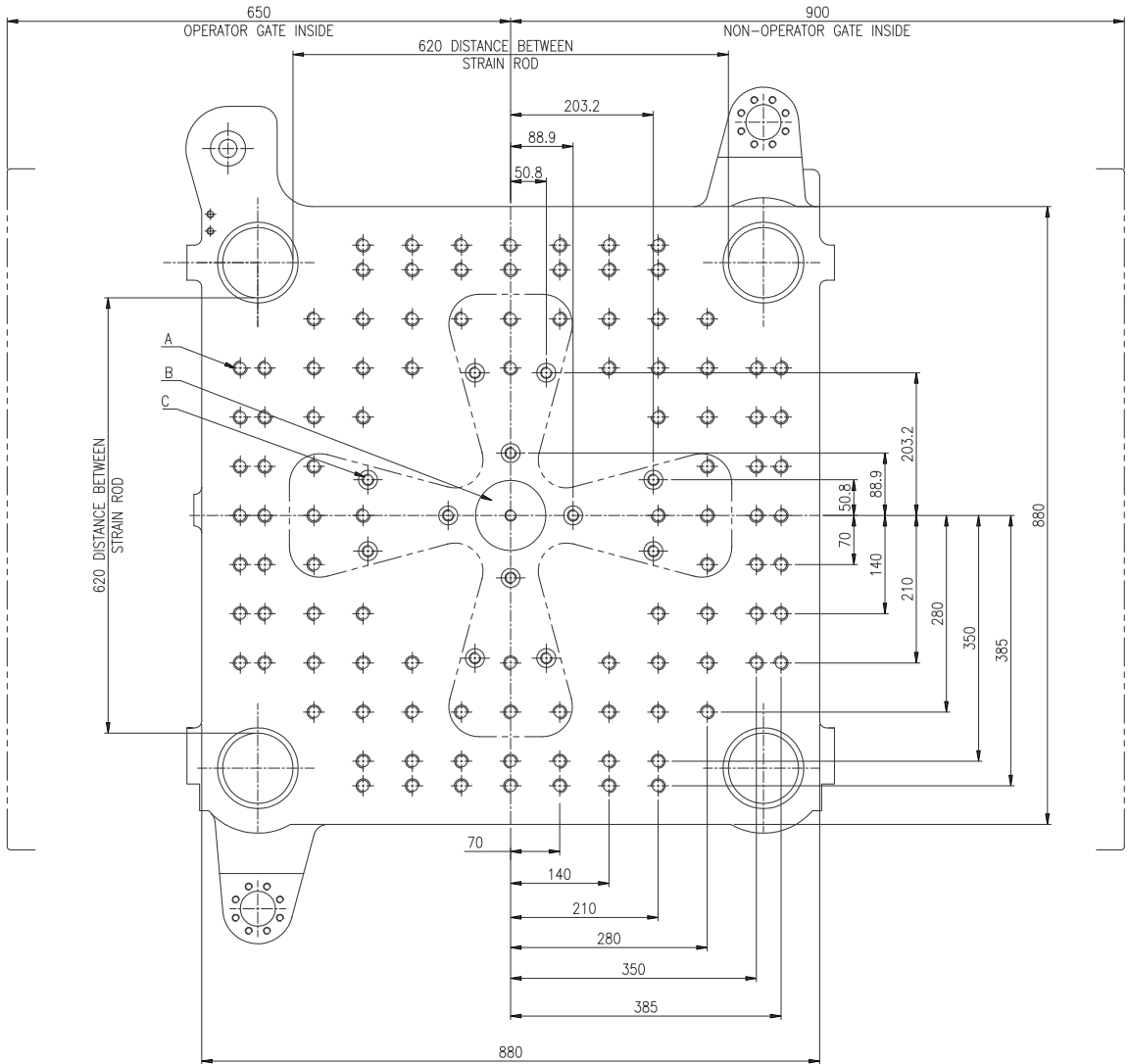
* WITH OPEN NOZZLE

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THE HYDRON PVC
TONNAGE: 250 SQ

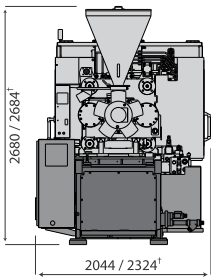
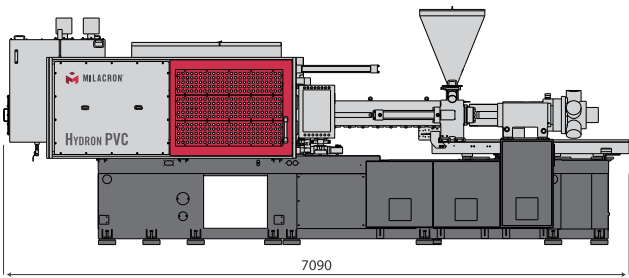
Injection Unit 970, 1540, 2290

TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A M20x50 DEEP (104 HOLES ON MOVING PLATEN)
M20x50 DEEP (112 HOLES ON STATIONARY PLATEN)
- B MOVING PLATEN:
Ø100 THRU BORE K/O BAR CENTER HOLE M16x40 MM DEEP
STATIONARY PLATEN:
Ø125(+0.040/0.00) WITH LOCATING RING
Ø160(+0.040/0.00) WITHOUT LOCATING RING
- C Ø27 THRU, (12) HOLES & K/O BAR HOLES M16x40 DEEP (12) NOS.



1/1U 970 / 1540

SEQUENTIAL OPERATION

HYDRON PVC 250	UNIT	970			1540			2290		
	METRIC	A	B	C	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (RPVC)	gms	565	814	955	950	1293	1689	1478	1930	2443
THEORETICAL DISPLACEMENT	cc	471	679	796	792	1078	1407	1232	1608	2036
INJECTION PRESSURE MAX.	bar	2057	1428	1321	1941	1426	1185	1856	1421	1219
INJECTION RATE *	cc/sec	162	233	273	171	233	305	224	292	370
INJECTION SCREW STROKE	mm	240	240	240	280	280	280	320	320	320
SCREW DIAMETER	mm	50	60	65	60	70	80	70	80	90
SCREW L/D RATIO		25	21	19.2	24.3	21	18.2	23.9	21	18.6
SCREW SPEED	rpm	115	95	88	95	82	72	82	72	64
SCREW TORQUE @ 172 BAR	Nm	2167	2167	2167	3234	3234	3234	4506	4506	4506
PLASTICIZING RATE (RPVC)	gm/sec	22	28	33	28	38	47	38	47	59
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1			5+1			5+1		
TOTAL HEAT CAPACITY	kW	16.9			24.9			29.5		
CLAMP UNIT SPECIFICATIONS										
CLAMP FORCE	ton	250			250			250		
CLAMP STROKE	mm	830			830			830		
MAXIMUM DAYIGHT	mm	1080			1080			1080		
MINIMUM MOULD HEIGHT	mm	250			250			250		
PLATEN SIZE (H X V)	mm	880 X 880			880 X 880			880 X 880		
DISTANCE BETWEEN TIE ROD	mm	620 X 620			620 X 620			620 X 620		
TIE ROD DIAMETER	mm	100			100			100		
EJECTOR STROKE	mm	160			160			160		
EJECTOR FORCE	ton	7.5			7.5			7.5		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	3530 (1765 / 1765)			3530 (1765 / 1765)			3530 (1765 / 1765)		
GENERAL										
SERVO DRIVE	kW (HP)	13.6			13.6			18.6		
OIL TANK CAPACITY - MAIN	L	730			730			730		
OIL TANK CAPACITY - PREFILL	L	435			435			435		
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	75			75			75		
CONNECTED LOAD	kW	30.5			38.5			48.1		
MACHINE DIMENSION (L X W X H)	m	7.09 X 2.11 X 2.67			7.30 X 2.11 X 2.67			7.85 X 2.11 X 2.70		
MACHINE WEIGHT	kg	10600			11000			12200		

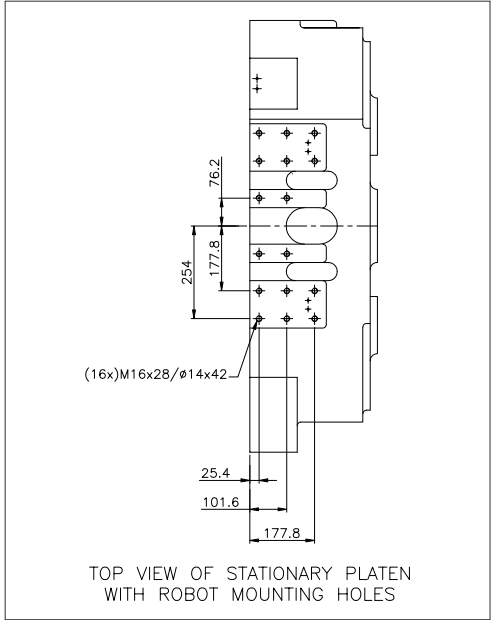
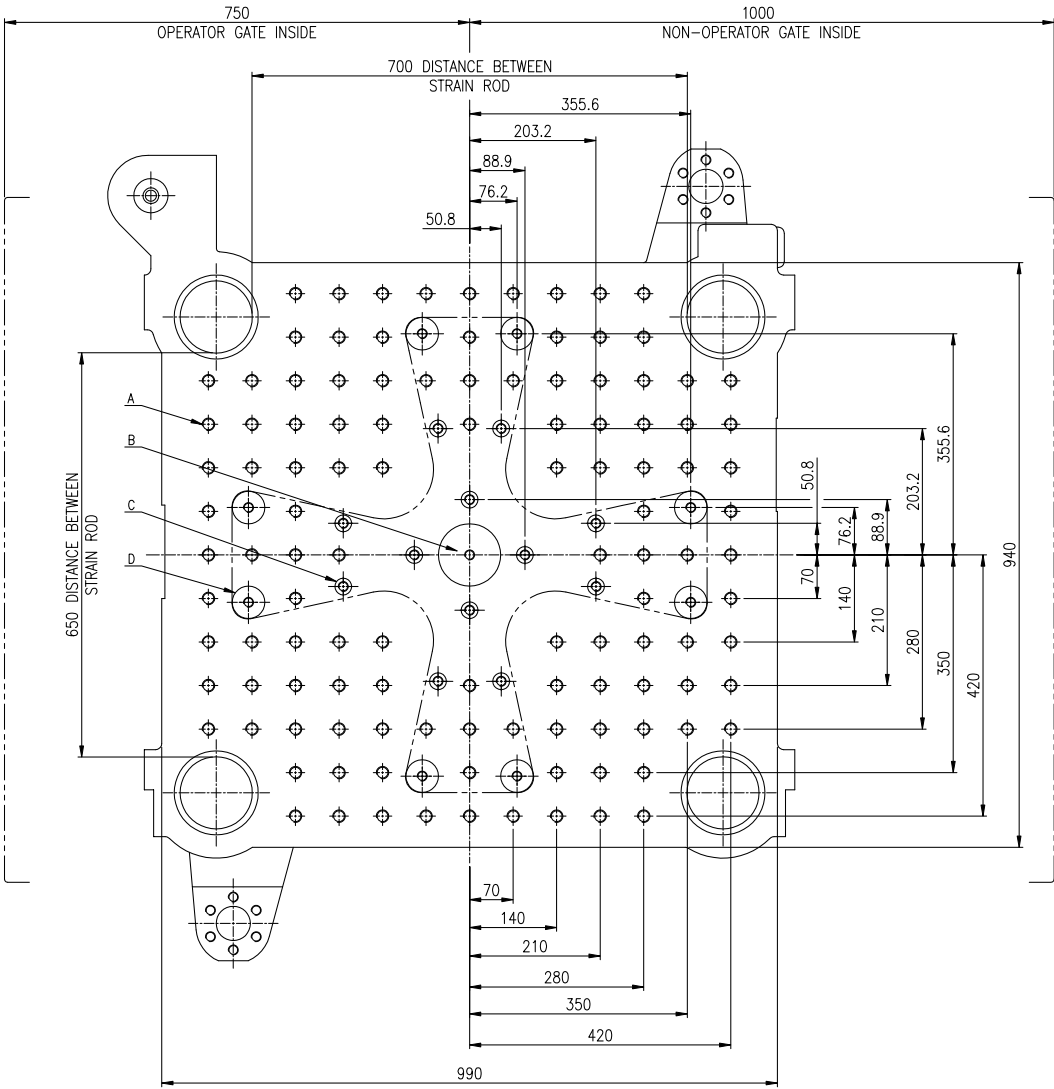
* WITH OPEN NOZZLE

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THE **HYDRON PVC**
TONNAGE: 300 SQ

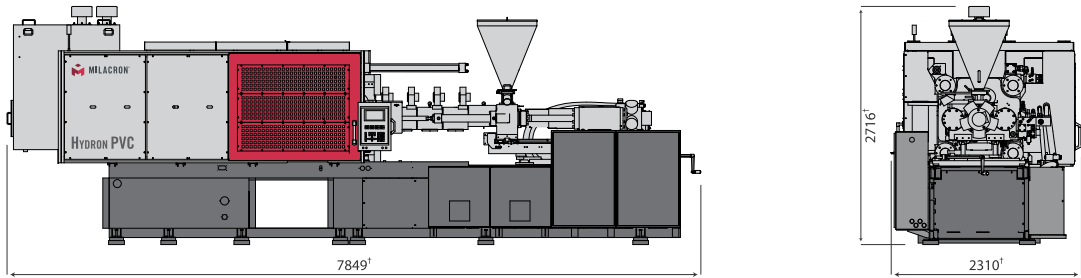
Injection Unit 970, 1540, 2290

TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A M20x50 DEEP (112 HOLES ON MOVING PLATEN)
M20x50 DEEP (120 HOLES ON STATIONARY PLATEN)
- B MOVING PLATEN:
Ø100 THRU BORE K/O BAR CENTER HOLE M16x40 MM DEEP
STATIONARY PLATEN:
Ø160(+0.040/0.00) WITH LOCATING RING
Ø200(+0.040/0.00) WITHOUT LOCATING RING
- C Ø27 THRU, (12) HOLES & K/O BAR HOLES M16x40 DEEP (20) NOS.
- D Ø52.40 THRU, (8) HOLES



1U 2290

SEQUENTIAL OPERATION

HYDRON PVC 300	UNIT	970			1540			2290		
	METRIC	A	B	C	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (RPVC)	gms	565	814	955	950	1293	1689	1478	1930	2443
THEORETICAL DISPLACEMENT	cc	471	679	796	792	1078	1407	1232	1608	2036
INJECTION PRESSURE MAX.	bar	2057	1428	1321	1941	1426	1185	1856	1421	1219
INJECTION RATE *	cc/sec	162	233	273	171	233	305	224	292	370
INJECTION SCREW STROKE	mm	240	240	240	280	280	280	320	320	320
SCREW DIAMETER	mm	50	60	65	60	70	80	70	80	90
SCREW L/D RATIO		25	21	19.2	24.3	21	18.2	23.9	21	18.6
SCREW SPEED	rpm	115	95	88	95	82	72	82	72	64
SCREW TORQUE @ 172 BAR	Nm	2167	2167	2167	3234	3234	3234	4506	4506	4506
PLASTICIZING RATE (RPVC)	gm/sec	22	28	33	28	38	47	38	47	59
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1			5+1			5+1		
TOTAL HEAT CAPACITY	kW	16.9			24.9			29.5		
CLAMP UNIT SPECIFICATIONS										
CLAMP FORCE	ton	300			300			300		
CLAMP STROKE	mm	975			975			975		
MAXIMUM DAYIGHT	mm	1225 º / 1375			1225 º / 1375			1225 º / 1375		
MINIMUM MOULD HEIGHT	mm	250 º / 400			250 º / 400			250 º / 400		
PLATEN SIZE (H X V)	mm	990 X 940			990 X 940			990 X 940		
DISTANCE BETWEEN TIE ROD	mm	700 X 650			700 X 650			700 X 650		
TIE ROD DIAMETER	mm	115			115			115		
EJECTOR STROKE	mm	200			200			200		
EJECTOR FORCE	ton	7.5			7.5			7.5		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	3900 (1950 / 1950)			3900 (1950 / 1950)			3900 (1950 / 1950)		
GENERAL										
SERVO DRIVE	kW (HP)	13.6			13.6			18.6		
OIL TANK CAPACITY - MAIN	L	740			740			740		
OIL TANK CAPACITY - PREFILL	L	555			555			555		
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	100			100			100		
CONNECTED LOAD	kW	30.5			38.5			48.1		
MACHINE DIMENSION (L X W X H)	m	7.68 X 2.31 X 2.80			7.94 X 2.31 X 2.80			8.39 X 2.31 X 2.80		
MACHINE WEIGHT	kg	14100			14500			15500		

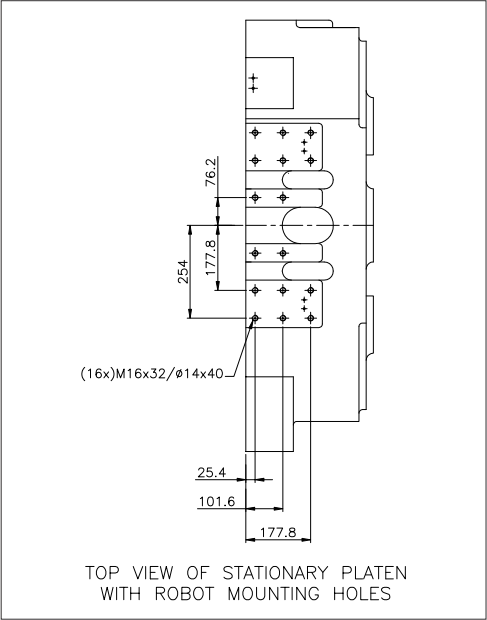
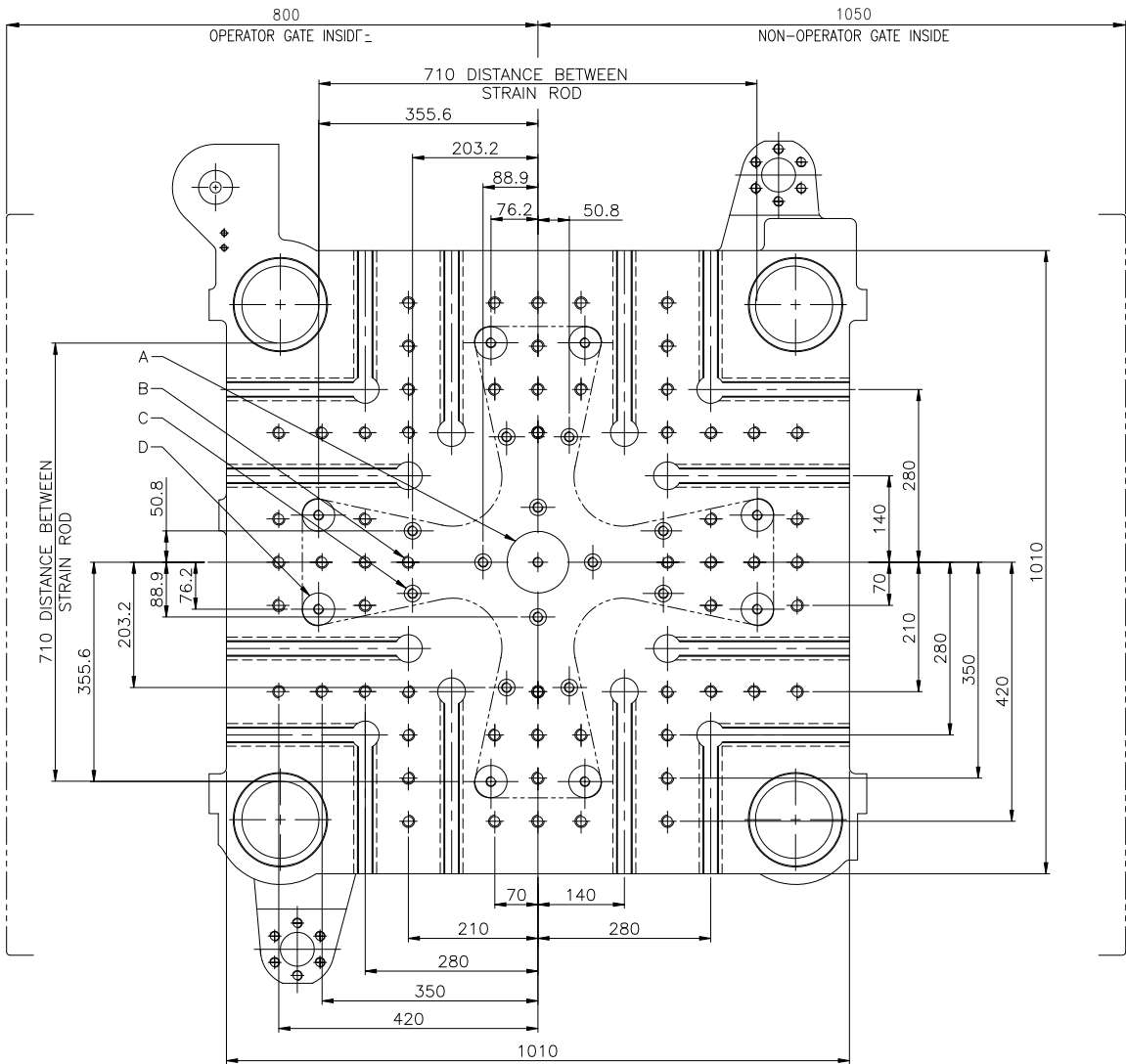
* WITH OPEN NOZZLE
WITH RAM SPACER

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

THE HYDRON PVC
TONNAGE: 350 SQ

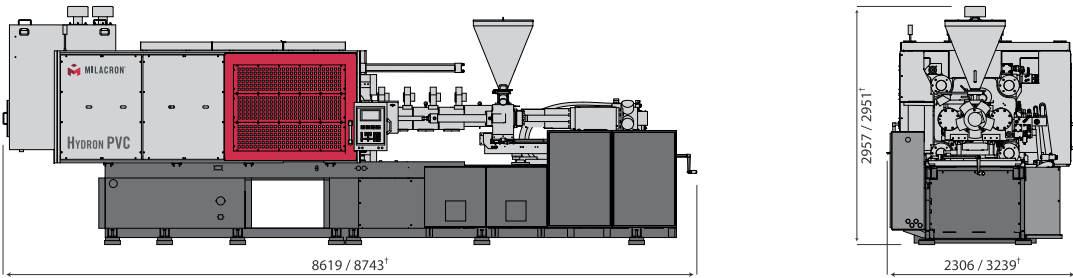
Injection Unit 2290, 3470

TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A MOVING PLATEN: Ø100 THRU BORE
K/O BAR CENTER HOLE M16x40 DEEP
STATIONARY PLATEN:
Ø160(+0.04/0.00) WITH LOCATING RING
Ø200(0.046/0.00) WITHOUT LOCATING RING
- B M20x40 DEEP (60 HOLES ON MOVING PLATEN)
M20x40 DEEP (68 HOLES ON STATIONARY PLATEN)
- C Ø27 THRU, (12) HOLES & K/O BAR HOLES M16x40 DEEP (20) NOS
- D Ø52.4 THRU, (8) HOLES



1U 2290 / 3470

SEQUENTIAL OPERATION

HYDRON PVC 350	UNIT	2290			3470		
	METRIC	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS							
INJECTION CAPACITY MAX. (RPVC)	gms	1478	1930	2443	2171	2748	3392
THEORETICAL DISPLACEMENT	cc	1232	1608	2036	1810	2290	2827
INJECTION PRESSURE MAX.	bar	1856	1421	1219	1917	1515	1332
INJECTION RATE *	cc/sec	224	292	370	273	346	427
INJECTION SCREW STROKE	mm	320	320	320	360	360	360
SCREW DIAMETER	mm	70	80	90	80	90	100
SCREW L/D RATIO		23.9	21	18.6	23.5	21	18.9
SCREW SPEED	rpm	82	72	64	72	64	57
SCREW TORQUE @ 172 BAR	Nm	4506	4506	4506	5659	5659	5659
PLASTICIZING RATE (RPVC)	gm/sec	38	47	59	47	59	70
NO.OF PYROMETERS (BARREL+NOZZLE)		5+1			5+1		
TOTAL HEAT CAPACITY	kW	29.5			45.8		
CLAMP UNIT SPECIFICATIONS							
CLAMP FORCE	ton	350			350		
CLAMP STROKE	mm	1060			1060		
MAXIMUM DAYIGHT	mm	1360 ¨ / 1660			1360 ¨ / 1660		
MINIMUM MOULD HEIGHT	mm	300 ¨ / 600			300 ¨ / 600		
PLATEN SIZE (H X V)	mm	1010 X 1010			1010 X 1010		
DISTANCE BETWEEN TIE ROD	mm	710 X 710			710 X 710		
TIE ROD DIAMETER	mm	125			125		
EJECTOR STROKE	mm	200			200		
EJECTOR FORCE	ton	7.5			7.5		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	4800 (2400 /2400)			4800 (2400 / 2400)		
GENERAL							
SERVO DRIVE	kW (HP)	18.6			26		
OIL TANK CAPACITY - MAIN	L	740			740		
OIL TANK CAPACITY - PREFILL	L	680			680		
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	100			100		
CONNECTED LOAD	kW	48.1			71.8		
MACHINE DIMENSION (L X W X H)	m	8.70 X 2.38 X 2.96			9.17 X 2.38 X 2.96		
MACHINE WEIGHT	kg	16000			17000		

* WITH OPEN NOZZLE
WITH RAM SPACER

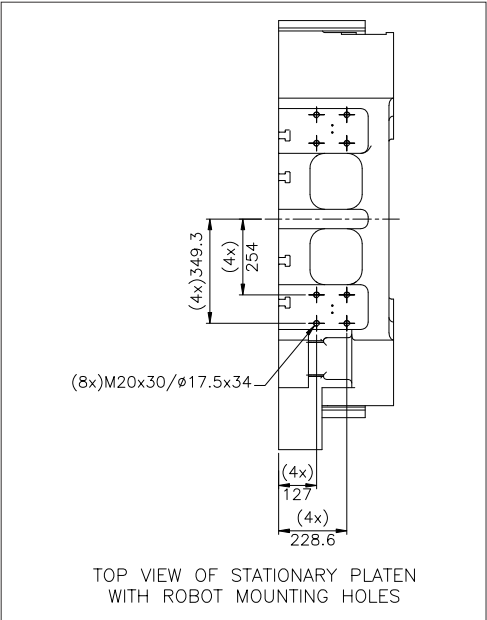
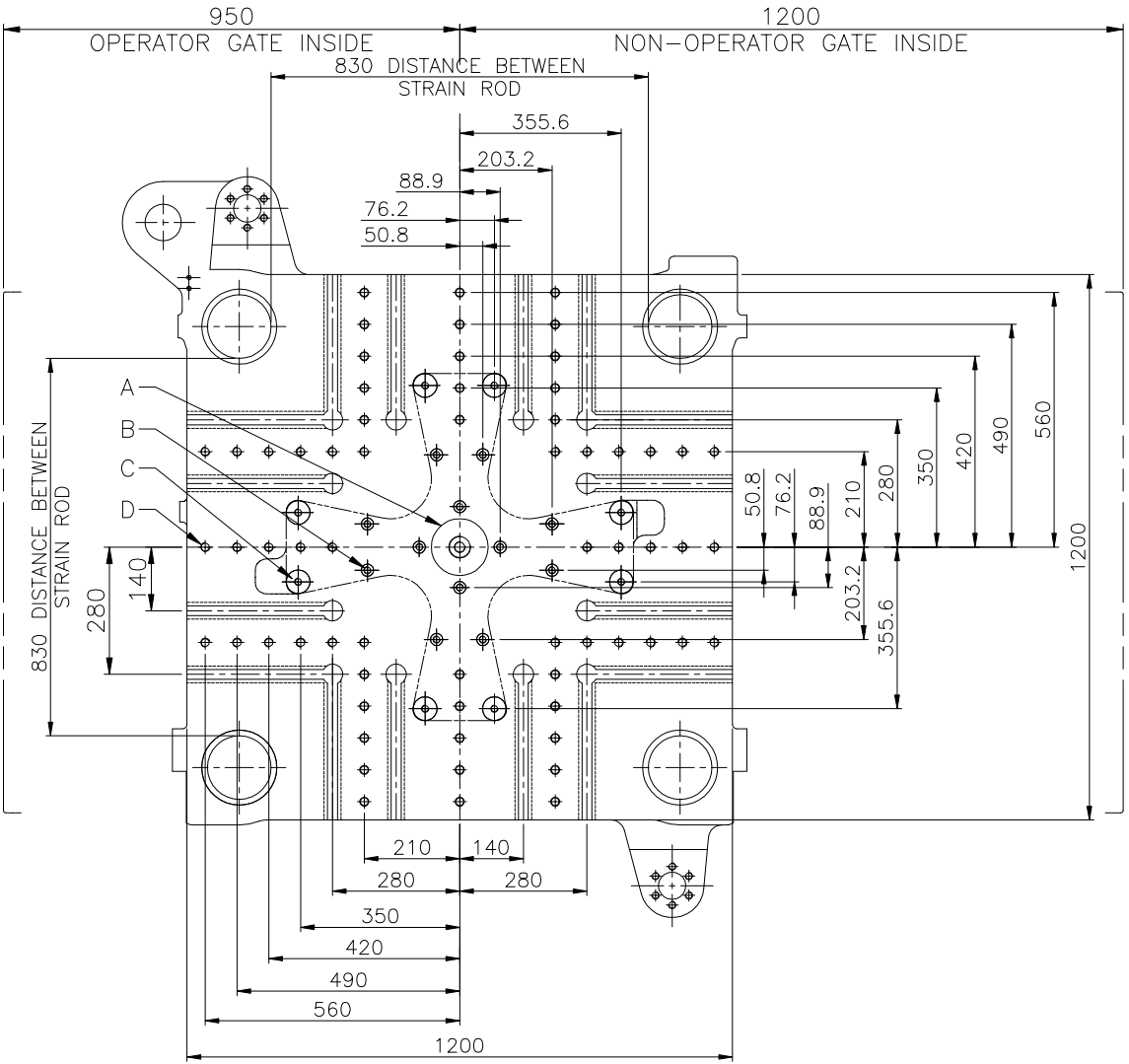
All machine dimensions and specifications are subject to change. Values are for reference only. These values are for standard machine power.

THE HYDRON PVC

TONNAGE: 450 SQ

Injection Unit 2290, 3470, 4880

TECHNICAL SPECIFICATIONS



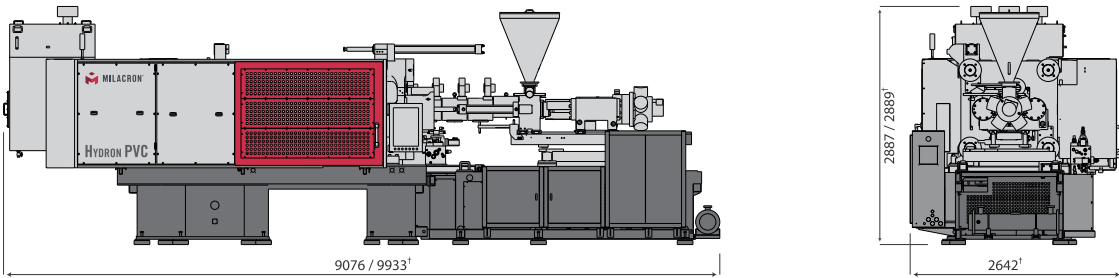
ALL DIMENSIONS ARE IN MM

A MOVING PLATEN: Ø125 THRU BORE
K/O BAR CENTER HOLE M24x40 MM DEEP
STATIONARY PLATEN:
Ø160(+0.040/0.00) WITH LOCATING RING
Ø200(+0.046/0.00) WITHOUT LOCATING RING

B Ø27 THRU, (12) HOLES & K/O BAR HOLES M16x40 DEEP (20) NOS.

C Ø52.40 THRU, (8) HOLES

D M20x40 DEEP (64) HOLES



1U 2290 / 4880

SEQUENTIAL OPERATION

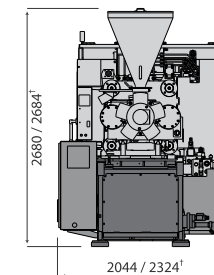
HYDRON PVC 450	UNIT	2290			3470			4880	
	METRIC	A	B	C	A	B	C	A	B
INJECTION UNIT SPECIFICATIONS									
INJECTION CAPACITY MAX. (RPVC)	gms	1478	1930	2443	2171	2748	3392	3054	3770
THEORETICAL DISPLACEMENT	cc	1232	1608	2036	1810	2290	2827	2545	3142
INJECTION PRESSURE MAX.	bar	1856	1421	1219	1917	1515	1332	1917	1553
INJECTION RATE *	cc/sec	282	368	466	273	346	427	347	428
INJECTION SCREW STROKE	mm	320	320	320	360	360	360	400	400
SCREW DIAMETER	mm	70	80	90	80	90	100	90	100
SCREW L/D RATIO		23.9	21	18.6	23.5	21	18.9	22.3	20
SCREW SPEED	rpm	82	72	64	72	64	57	64	57
SCREW TORQUE @ 172 BAR	Nm	4506	4506	4506	5659	5659	5659	7688	7688
PLASTICIZING RATE (RPVC)	gm/sec	38	47	59	47	59	70	59	70
NO.OF PYROMETERS (BARREL+NOZZLE)		5+1			5+1			6+1	
TOTAL HEAT CAPACITY	kW	29.5			45.8			53.9	
CLAMP UNIT SPECIFICATIONS									
CLAMP FORCE	ton	450			450			450	
CLAMP STROKE	mm	1100			1100			1100	
MAXIMUM DAYIGHT	mm	1500 # / 1850			1500 # / 1850			1500 # / 1850	
MINIMUM MOULD HEIGHT	mm	400 # / 750			400 # / 750			400 # / 750	
PLATEN SIZE (H X V)	mm	1200 X 1200			1200 X 1200			1200 X 1200	
DISTANCE BETWEEN TIE ROD	mm	830 X 830			830 X 830			830 X 830	
TIE ROD DIAMETER	mm	140			140			140	
EJECTOR STROKE	mm	200			200			200	
EJECTOR FORCE	ton	11.5			11.5			11.5	
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	6850 (3425 / 3425)			6850 (3425 / 3425)			6850 (3425 / 3425)	
GENERAL									
SERVO DRIVE	kW (HP)	26			26			27.2	
OIL TANK CAPACITY - MAIN	L	945			945			945	
OIL TANK CAPACITY - PREFILL	L	640			640			640	
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	100			100			100	
CONNECTED LOAD	kW	55.5			71.8			81.1	
MACHINE DIMENSION (L X W X H)	m	9.08 X 2.71 X 2.98			9.40 X 2.71 X 2.98			9.94 X 2.71 X 2.98	
MACHINE WEIGHT	kg	22400			23400			23700	

* WITH OPEN NOZZLE

* WITH RAM SPACER

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

TECHNICAL SPECIFICATIONS



†IU 970 / 1540

HYDRON PVC 250		UNIT	970			1540			2290		
	METRIC	A	B	C	A	B	C	A	B	C	
INJECTION UNIT SPECIFICATIONS											
INJECTION CAPACITY MAX. (RPVC)	gms	565	814	955	950	1293	1689	1478	1930	2443	
THEORETICAL DISPLACEMENT	cc	471	679	796	792	1078	1407	1232	1608	2036	
INJECTION PRESSURE MAX.	bar	2057	1428	1321	1941	1426	1185	1856	1421	1219	
INJECTION RATE *	cc/sec	323	466	546	343	466	609	448	585	740	
INJECTION SCREW STROKE	mm	240	240	240	280	280	280	320	320	320	
SCREW DIAMETER	mm	50	60	65	60	70	80	70	80	90	
SCREW L/D RATIO		25	21	19.2	24.3	21	18.2	23.9	21	18.6	
SCREW SPEED	rpm	115	95	88	95	82	72	82	72	64	
SCREW TORQUE @ 172 BAR	Nm	2167	2167	2167	3234	3234	3234	4506	4506	4506	
PLASTICIZING RATE (RPVC)	gm/sec	22	28	33	28	38	47	38	47	59	
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1			5+1			5+1			
TOTAL HEAT CAPACITY	kW	16.9			24.9			29.5			
CLAMP UNIT SPECIFICATIONS											
CLAMP FORCE	ton	250			250			250			
CLAMP STROKE	mm	830			830			830			
MAXIMUM DAYIGHT	mm	1080			1080			1080			
MINIMUM MOULD HEIGHT	mm	250			250			250			
PLATEN SIZE (H X V)	mm	880 X 880			880 X 880			880 X 880			
DISTANCE BETWEEN TIE ROD	mm	620 X 620			620 X 620			620 X 620			
TIE ROD DIAMETER	mm	100			100			100			
EJECTOR STROKE	mm	160			160			160			
EJECTOR FORCE	ton	7.5			7.5			7.5			
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	3530 (1765 / 1765)			3530 (1765 / 1765)			3530 (1765 / 1765)			
GENERAL											
SERVO DRIVE	kW (HP)	27.2			27.2			37.2			
OIL TANK CAPACITY - MAIN	L	730			730			730			
OIL TANK CAPACITY - PREFILL	L	435			435			435			
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	75			75			75			
CONNECTED LOAD	kW	44.1			52.1			66.7			
MACHINE DIMENSION (L X W X H)	m	7.32 X 2.10 X 2.66			7.32 X 2.10 X 2.66			7.75 X 2.10 X 2.70			
MACHINE WEIGHT	kg	10600			11000			12200			

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

Technical drawing showing the top view of a stationary platen with robot mounting holes. The drawing includes dimensions and a callout for the mounting holes.

Dimensions:

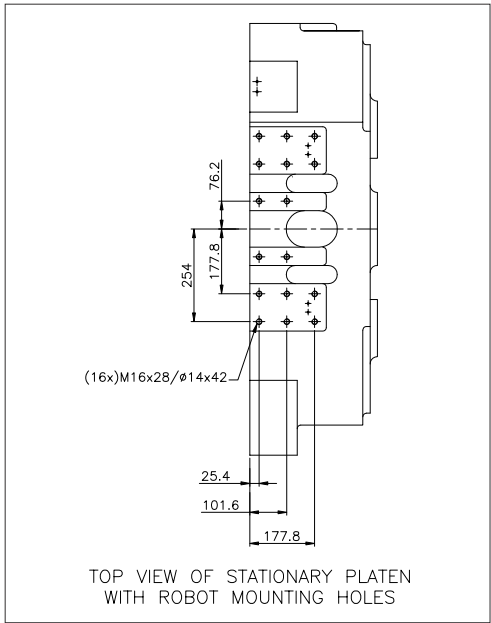
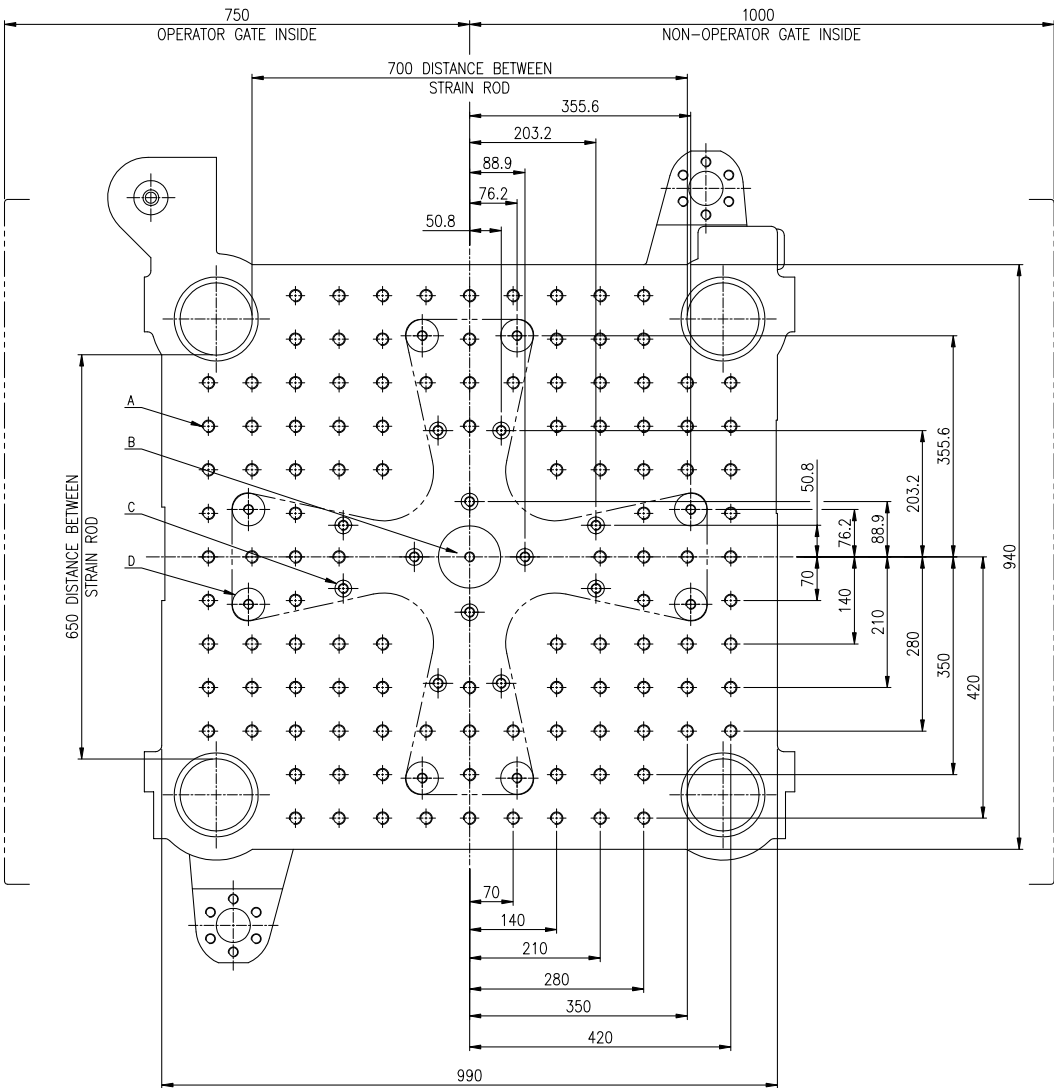
- Overall height: 254
- Overall width: 177.8
- Distance from top edge to first row of holes: 76.2
- Distance from bottom edge to last row of holes: 101.6
- Distance from left edge to first column of holes: 25.4
- Distance from right edge to last column of holes: 25.4
- Distance between first and last rows of holes: 177.8
- Distance between first and last columns of holes: 177.8

Callout: (18x)M16x32/ø14x46

THE **HYDRON PVC**
TONNAGE: 300 PL

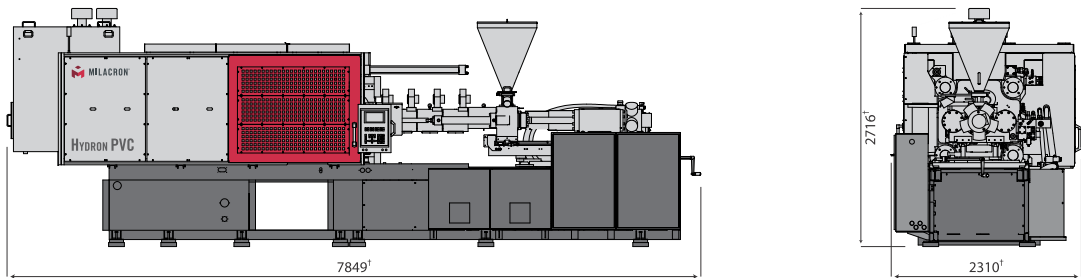
Injection Unit 970, 1540, 2290

TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A M20x50 DEEP (112 HOLES ON MOVING PLATEN)
M20x50 DEEP (120 HOLES ON STATIONARY PLATEN)
- B MOVING PLATEN:
Ø100 THRU BORE K/O BAR CENTER HOLE M16x40 MM DEEP
STATIONARY PLATEN:
Ø160(+0.040/0.00) WITH LOCATING RING
Ø200(+0.040/0.00) WITHOUT LOCATING RING
- C Ø27 THRU, (12) HOLES & K/O BAR HOLES M16x40 DEEP (20) NOS.
- D Ø52.40 THRU, (8) HOLES



1U 2290

PARALLEL OPERATION

HYDRON PVC 300	UNIT	970			1540			2290		
	METRIC	A	B	C	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (RPVC)	gms	565	814	955	950	1293	1689	1478	1930	2443
THEORETICAL DISPLACEMENT	cc	471	679	796	792	1078	1407	1232	1608	2036
INJECTION PRESSURE MAX.	bar	2057	1428	1321	1941	1426	1185	1856	1421	1219
INJECTION RATE *	cc/sec	323	466	546	343	466	609	448	585	740
INJECTION SCREW STROKE	mm	240	240	240	280	280	280	320	320	320
SCREW DIAMETER	mm	50	60	65	60	70	80	70	80	90
SCREW L/D RATIO		25	21	19.2	24.3	21	18.2	23.9	21	18.6
SCREW SPEED	rpm	115	95	88	95	82	72	82	72	64
SCREW TORQUE @ 172 BAR	Nm	2167	2167	2167	3234	3234	3234	4506	4506	4506
PLASTICIZING RATE (RPVC)	gm/sec	22	28	33	28	38	47	38	47	59
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1			5+1			5+1		
TOTAL HEAT CAPACITY	kW	16.9			24.9			29.5		
CLAMP UNIT SPECIFICATIONS										
CLAMP FORCE	ton	300			300			300		
CLAMP STROKE	mm	975			975			975		
MAXIMUM DAYIGHT	mm	1225 # / 1375			1225 # / 1375			1225 # / 1375		
MINIMUM MOULD HEIGHT	mm	250 # / 400			250 # / 400			250 # / 400		
PLATEN SIZE (H X V)	mm	990 X 940			990 X 940			990 X 940		
DISTANCE BETWEEN TIE ROD	mm	700 X 650			700 X 650			700 X 650		
TIE ROD DIAMETER	mm	115			115			115		
EJECTOR STROKE	mm	200			200			200		
EJECTOR FORCE	ton	7.5			7.5			7.5		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	3900 (1950 / 1950)			3900 (1950 / 1950)			3900 (1950 / 1950)		
GENERAL										
SERVO DRIVE	kW (HP)	27.2			27.2			37.2		
OIL TANK CAPACITY - MAIN	L	740			740			740		
OIL TANK CAPACITY - PREFILL	L	555			555			555		
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	100			100			100		
CONNECTED LOAD	kW	44.1			52.1			66.7		
MACHINE DIMENSION (L X W X H)	m	7.68 X 2.28 X 2.80			7.75 X 2.28 X 2.80			8.25 X 2.28 X 2.80		
MACHINE WEIGHT	kg	14100			14500			15500		

* WITH OPEN NOZZLE

WITH RAM SPACER

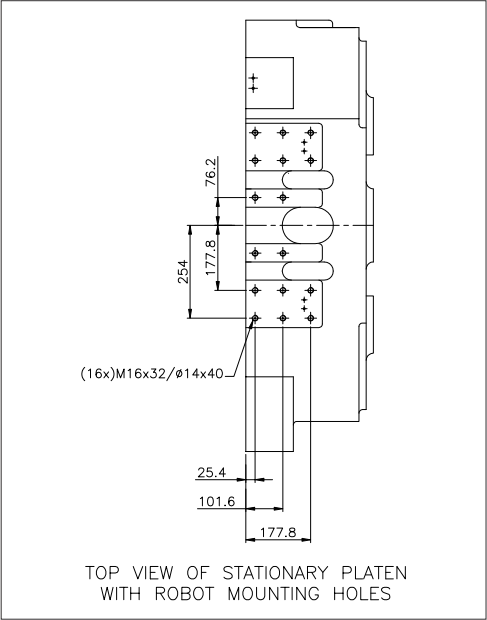
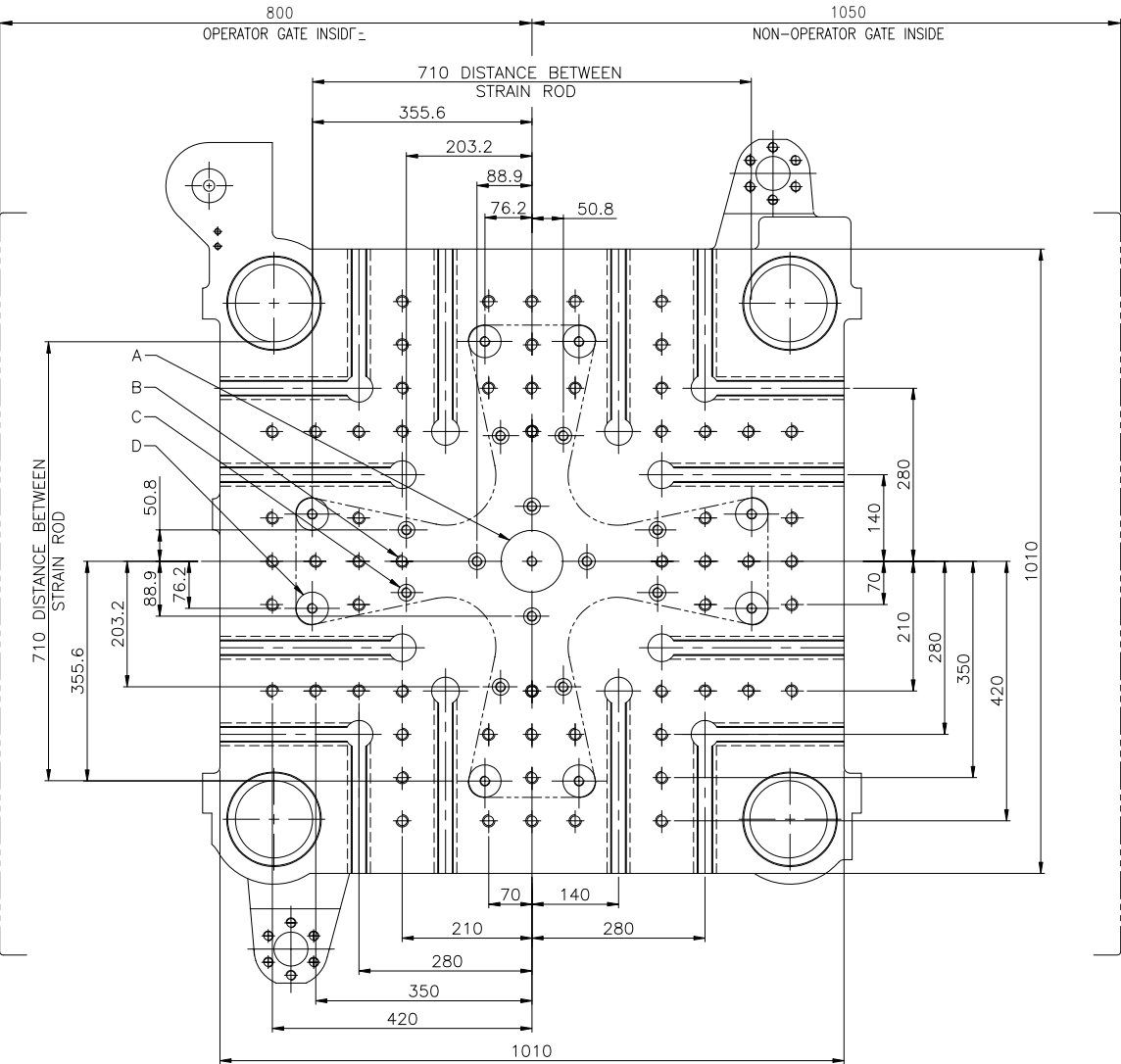
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THE HYDRON PVC

TONNAGE: 350 PL

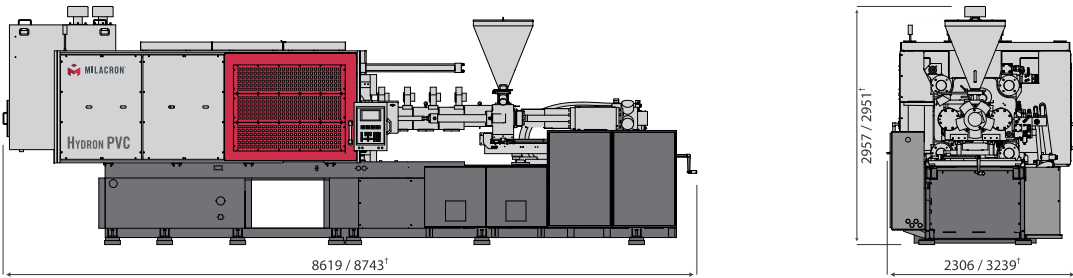
Injection Unit 2290, 3470

TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A MOVING PLATEN: Ø100 THRU BORE
K/O BAR CENTER HOLE M16x40 DEEP
STATIONARY PLATEN:
Ø160(+0.04/0.00) WITH LOCATING RING
Ø200(0.046/0.00) WITHOUT LOCATING RING
- B M20x40 DEEP (60 HOLES ON MOVING PLATEN)
M20x40 DEEP (68 HOLES ON STATIONARY PLATEN)
- C Ø27 THRU, (12) HOLES & K/O BAR HOLES M16x40 DEEP (20) NOS
- D Ø52.4 THRU, (8) HOLES



1U 2290 / 3470

PARALLEL OPERATION

HYDRON PVC 350	UNIT	2290			3470		
	METRIC	A	B	C	A	B	C
INJECTION UNIT SPECIFICATIONS							
INJECTION CAPACITY MAX. (RPVC)	gms	1478	1930	2443	2171	2748	3392
THEORETICAL DISPLACEMENT	cc	1232	1608	2036	1810	2290	2827
INJECTION PRESSURE MAX.	bar	1856	1421	1219	1917	1515	1332
INJECTION RATE *	cc/sec	448	585	740	490	620	766
INJECTION SCREW STROKE	mm	320	320	320	360	360	360
SCREW DIAMETER	mm	70	80	90	80	90	100
SCREW L/D RATIO		23.9	21	18.6	23.5	21	18.9
SCREW SPEED	rpm	82	72	64	69	64	57
SCREW TORQUE @ 172 BAR	Nm	4506	4506	4506	5659	5659	5659
PLASTICIZING RATE (RPVC)	gm/sec	38	47	59	45	59	70
NO.OF PYROMETERS (BARREL+NOZZLE)		5+1			5+1		
TOTAL HEAT CAPACITY	kW	29.5			45.8		
CLAMP UNIT SPECIFICATIONS							
CLAMP FORCE	ton	350			350		
CLAMP STROKE	mm	1060			1060		
MAXIMUM DAYIGHT	mm	1360 º / 1660			1360 º / 1660		
MINIMUM MOULD HEIGHT	mm	300 º / 600			300 º / 600		
PLATEN SIZE (H X V)	mm	1010 X 1010			1010 X 1010		
DISTANCE BETWEEN TIE ROD	mm	710 X 710			710 X 710		
TIE ROD DIAMETER	mm	125			125		
EJECTOR STROKE	mm	200			200		
EJECTOR FORCE	ton	7.5			7.5		
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	4800 (2400 /2400)			4800 (2400 / 2400)		
GENERAL							
SERVO DRIVE	kW (HP)	37.2			44.6		
OIL TANK CAPACITY - MAIN	L	740			740		
OIL TANK CAPACITY - PREFILL	L	680			680		
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	100			100		
CONNECTED LOAD	kW	66.7			90.4		
MACHINE DIMENSION (L X W X H)	m	8.56 X 2.33 X 2.95			9.14 X 2.33 X 2.95		
MACHINE WEIGHT	kg	16000			17000		

* WITH OPEN NOZZLE

WITH RAM SPACER

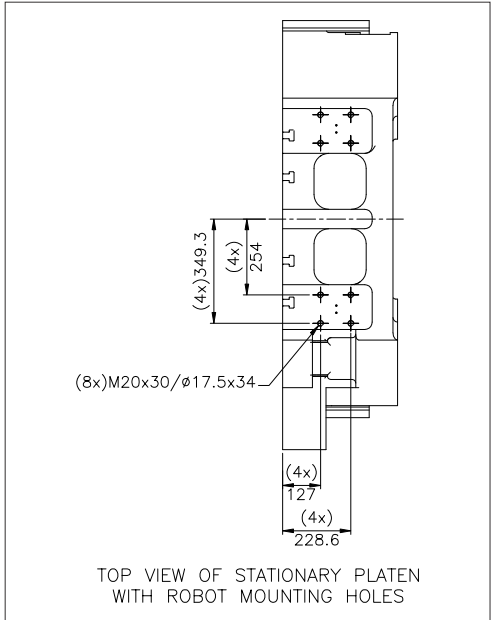
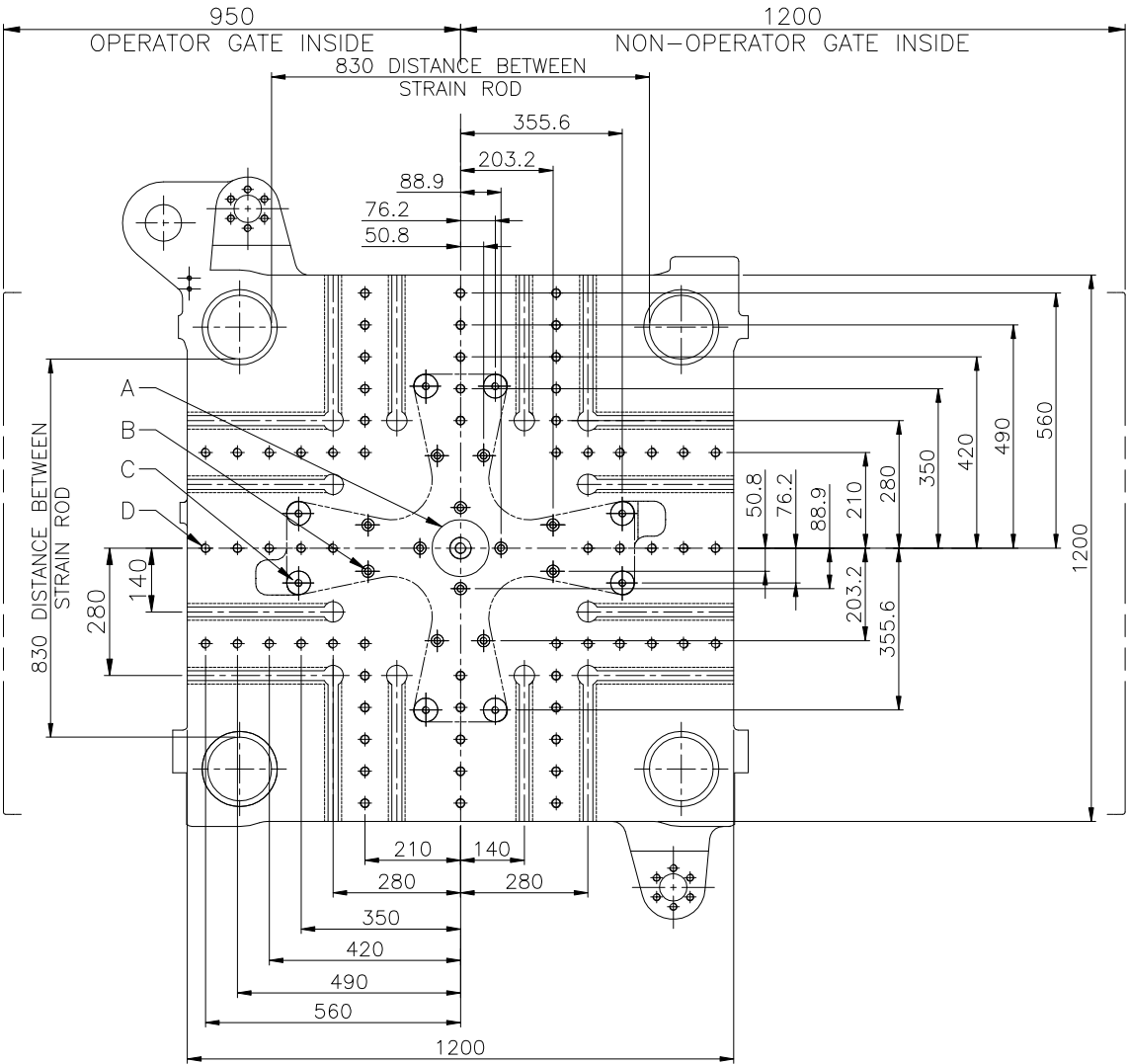
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THE HYDRON PVC

TONNAGE: 450 PL

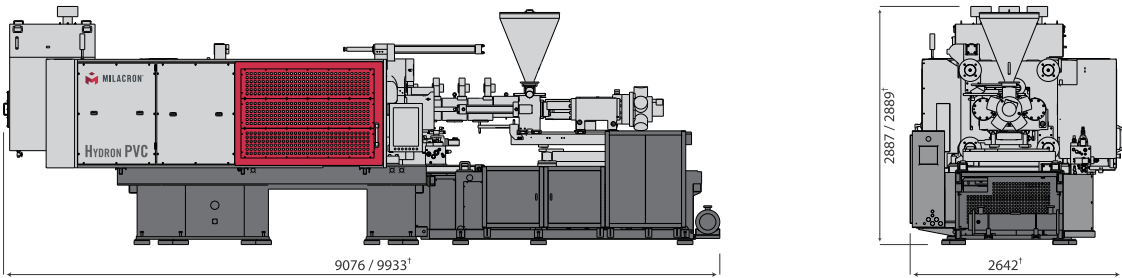
Injection Unit 2290, 3470, 4880

TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A MOVING PLATEN: Ø125 THRU BORE
K/O BAR CENTER HOLE M24x40 MM DEEP
STATIONARY PLATEN:
Ø160(+0.040/0.00) WITH LOCATING RING
Ø200(+0.046/0.00) WITHOUT LOCATING RING
- B Ø27 THRU, (12) HOLES & K/O BAR HOLES M16x40 DEEP (20) NOS.
- C Ø52.40 THRU, (8) HOLES
- D M20x40 DEEP (64) HOLES



1U 2290 / 4880

PARALLEL OPERATION

HYDRON PVC 450	UNIT	2290			3470			4880	
	METRIC	A	B	C	A	B	C	A	B
INJECTION UNIT SPECIFICATIONS									
INJECTION CAPACITY MAX. (RPVC)	gms	1478	1930	2443	2171	2748	3392	3054	3770
THEORETICAL DISPLACEMENT	cc	1232	1608	2036	1810	2290	2827	2545	3142
INJECTION PRESSURE MAX.	bar	1856	1421	1219	1917	1515	1332	1917	1553
INJECTION RATE *	cc/sec	506	661	836	490	620	766	546	675
INJECTION SCREW STROKE	mm	320	320	320	360	360	360	400	400
SCREW DIAMETER	mm	70	80	90	80	90	100	90	100
SCREW L/D RATIO		23.9	21	18.6	23.5	21	18.9	22.3	20
SCREW SPEED	rpm	82	72	64	69	64	57	64	57
SCREW TORQUE @ 172 BAR	Nm	4506	4506	4506	5659	5659	5659	7688	7688
PLASTICIZING RATE (RPVC)	gm/sec	38	47	59	45	59	70	59	70
NO.OF PYROMETERS (BARREL+NOZZLE)		5+1			5+1			6+1	
TOTAL HEAT CAPACITY	kW	29.5			45.8			53.9	
CLAMP UNIT SPECIFICATIONS									
CLAMP FORCE	ton	450			450			450	
CLAMP STROKE	mm	1100			1100			1100	
MAXIMUM DAYIGHT	mm	1500 # / 1850			1500 # / 1850			1500 # / 1850	
MINIMUM MOULD HEIGHT	mm	400 # / 750			400 # / 750			400 # / 750	
PLATEN SIZE (H X V)	mm	1200 X 1200			1200 X 1200			1200 X 1200	
DISTANCE BETWEEN TIE ROD	mm	830 X 830			830 X 830			830 X 830	
TIE ROD DIAMETER	mm	140			140			140	
EJECTOR STROKE	mm	200			200			200	
EJECTOR FORCE	ton	11.5			11.5			11.5	
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	6850 (3425 / 3425)			6850 (3425 / 3425)			6850 (3425 / 3425)	
GENERAL									
SERVO DRIVE	kW (HP)	44.6			44.6			52	
OIL TANK CAPACITY - MAIN	L	945			945			945	
OIL TANK CAPACITY - PREFILL	L	640			640			640	
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	100			100			100	
CONNECTED LOAD	kW	74.1			90.4			105.9	
MACHINE DIMENSION (L X W X H)	m	9.08 X 2.58 X 2.98			9.51 X 2.58 X 2.98			9.70 X 2.58 X 2.98	
MACHINE WEIGHT	kg	22400			23400			23700	

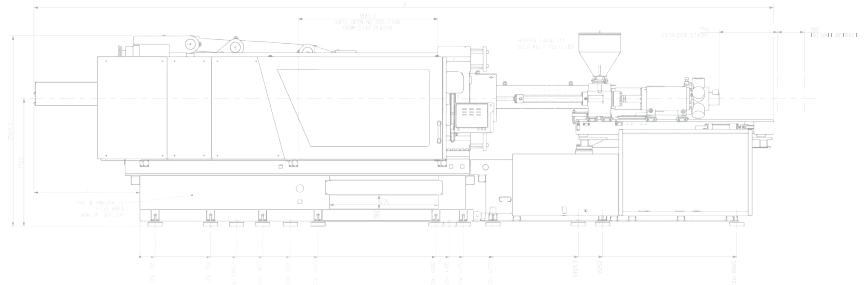
* WITH OPEN NOZZLE
* WITH RAM SPACER

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

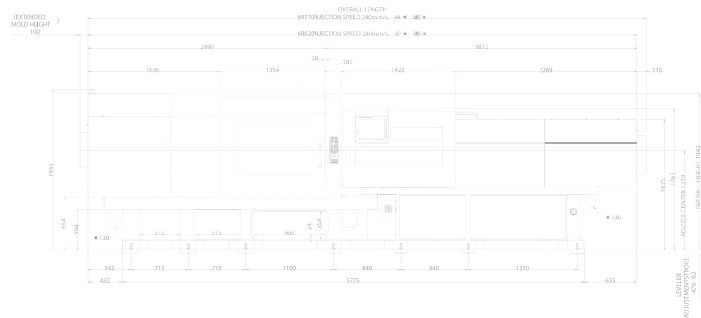
AVAILABLE IN

SEQUENTIAL OPERATION
100 TON - 450 TON

PARALLEL OPERATION
250 TON - 450 TON



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.



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