

THE HYDRON CPVC

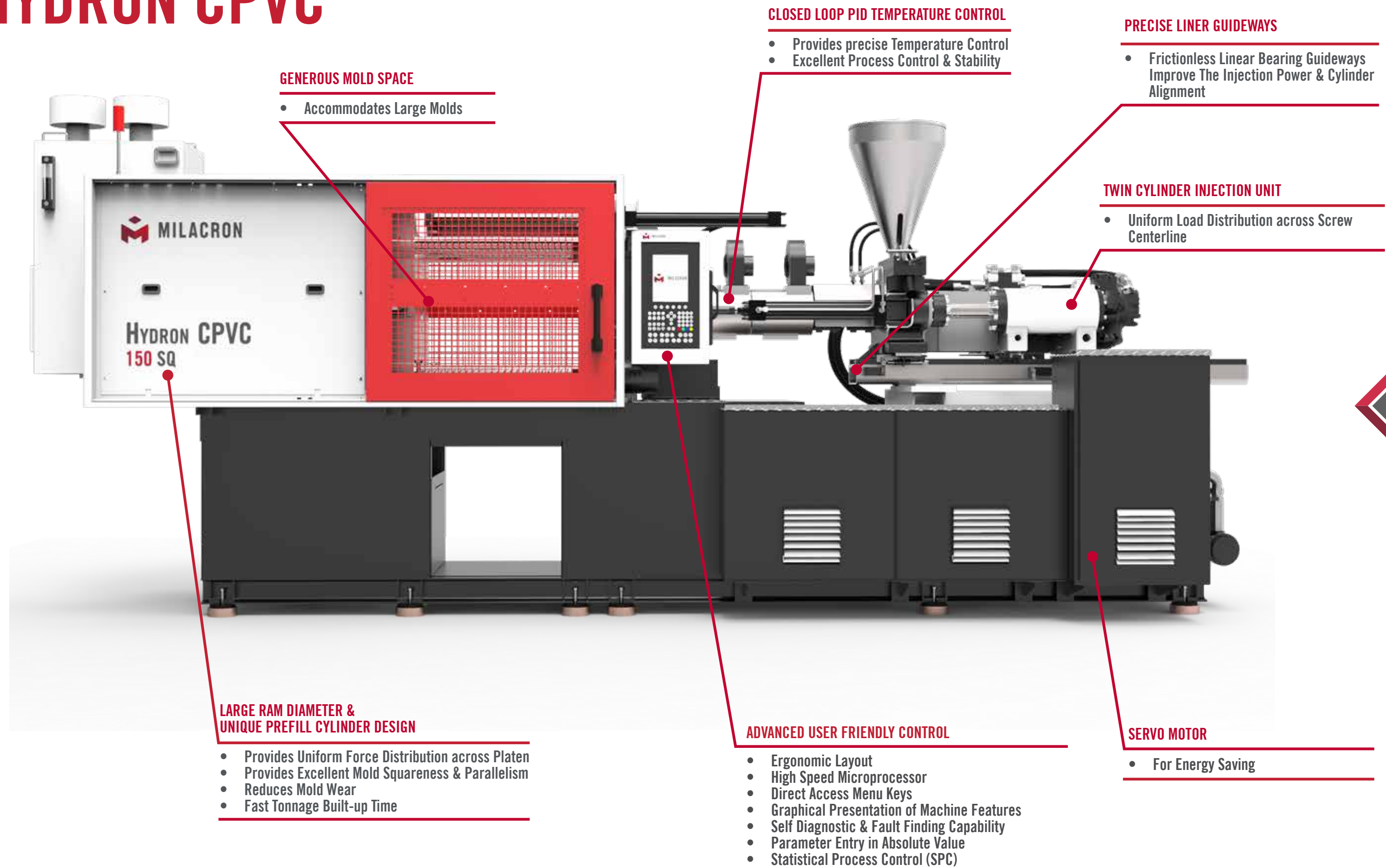


100-450 TON



MILACRON®

THE HYDRON CPVC



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 CPVC

Injection Unit Specifications

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

Clamp Specifications

MODEL	TONNAGE	PLATEN SIZE (H X V)	TIE BAR SPACING (H X V)	MAX DAYLIGHT
	tons	mm	mm	mm
HYDRON CPVC 100	100	610 X 610	410 X 410	760
HYDRON CPVC 150	150	715 X 715	510 X 510	825
HYDRON CPVC 200	200	820 X 820	560 X 560	950
HYDRON CPVC 250	250	880 X 880	620 X 620	1080
HYDRON CPVC 300	300	990 X 940	700 X 650	1225# / 1375
HYDRON CPVC 350	350	1010 X 1010	710 X 710	1360# / 1660
HYDRON CPVC 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 Shut Down	●
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 Open Detection	●
Accurate PID Temperature Control Setting 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 for Heat Exchanger	●
Feed Throat Temperature Control	●
Extra Heating Zone	●

● - Standard Feature ○ - Optional Feature

NOTES

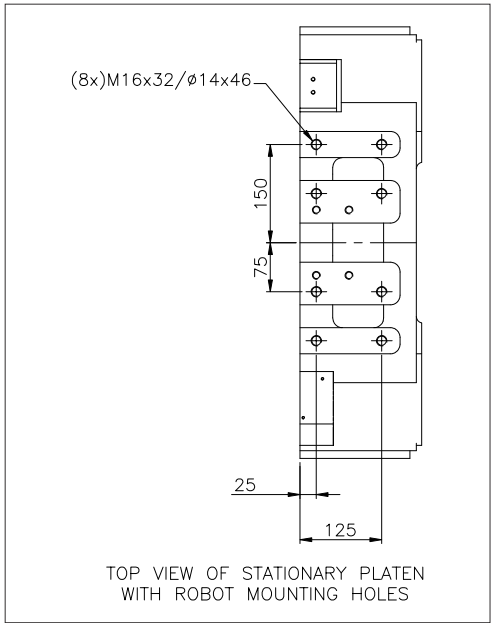
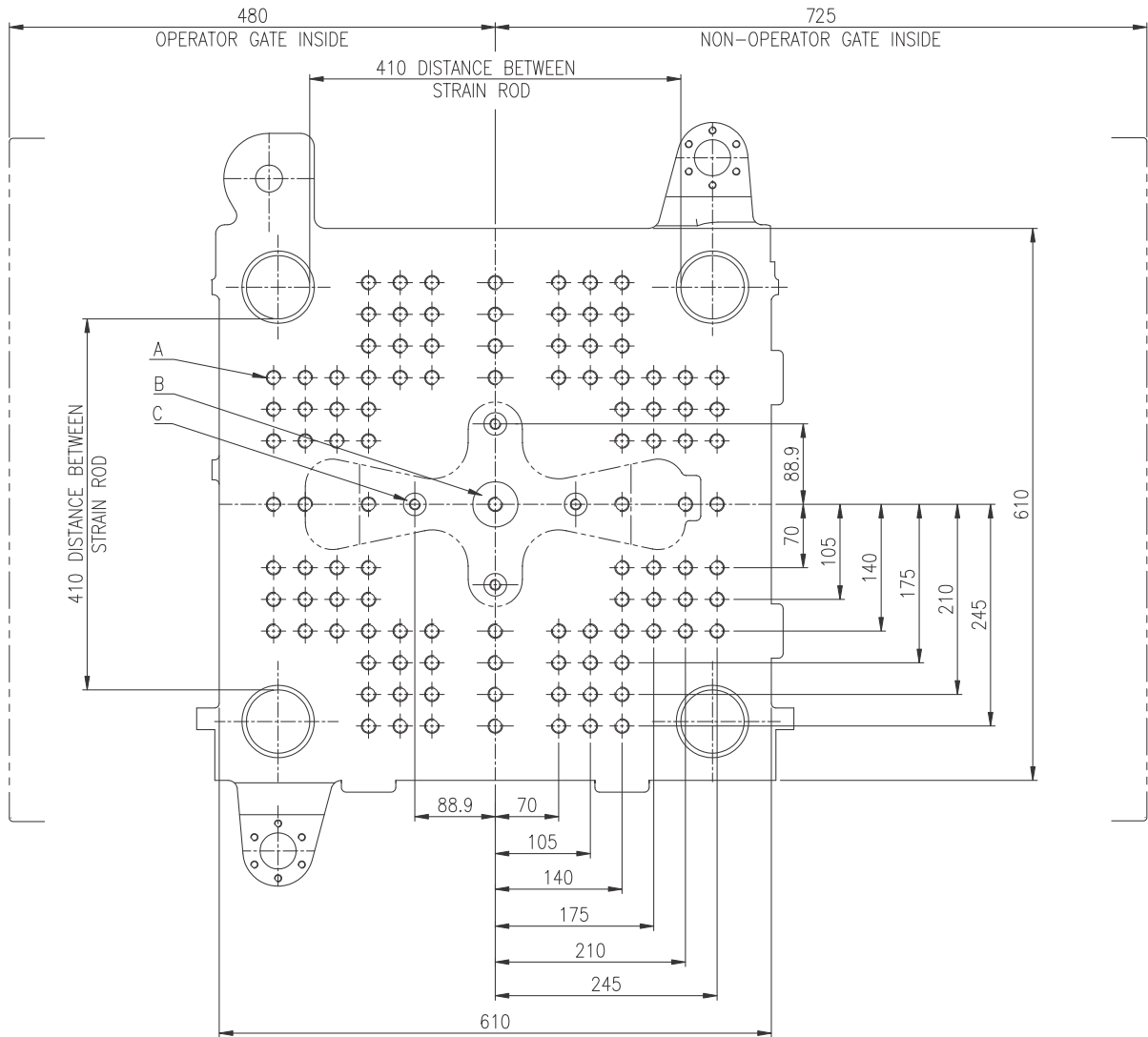
CONTROLS	
18 out of 67 Freely Selectable Parameter Monitoring for last 1000 cycle with Graphs	●
10.4" LCD Color Display with Alpha - Numeric Keypad	●
Actual Injection Speed & Pressure Graph Display	●
120 Mold Data Storage	●
Graphical Presentation of Hourly Production	●
High/ Low Limit Display for Each 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

THE **HYDRON CPVC**
TONNAGE: 100 SQ

Injection Unit 450, 630

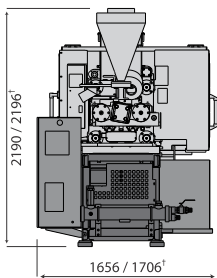
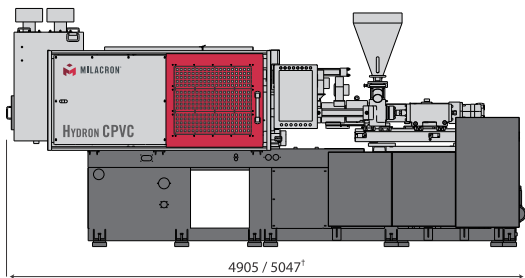
TECHNICAL SPECIFICATIONS



TOP VIEW OF STATIONARY PLATEN
WITH ROBOT MOUNTING HOLES

ALL DIMENSIONS ARE IN MM

- A M16x40 DEEP (106 HOLES ON MOVING PLATEN)
M16x40 DEEP (108 HOLES ON STATIONARY PLATEN)
- B MOVING PLATEN:
Ø50 THRU BORE K/O BAR CENTER HOLE M16 THRU
STATIONARY PLATEN:
Ø100(+0.035/0.00) WITH LOCATING RING
Ø125(+0.040/0.00) WITHOUT LOCATING RING
- C Ø27 THRU, (4) HOLES & K/O BAR HOLES M12 THRU (4) NOS.



1U 450 / 630

SEQUENTIAL OPERATION

HYDRON CPVC 100	UNIT	450		630	
	METRIC	A	B	A	B
INJECTION UNIT SPECIFICATIONS					
INJECTION CAPACITY MAX. (CPVC)	gms	294	372	414	511
THEORETICAL DISPLACEMENT	cc	226	286	318	393
INJECTION PRESSURE MAX.	bar	1984	1568	1969	1595
INJECTION RATE *	cc/sec	105	133	106	130
INJECTION SCREW STROKE	mm	180	180	200	200
SCREW DIAMETER	mm	40	45	45	50
SCREW L/D RATIO		23.5	21	23.2	21
SCREW SPEED	rpm	143	127	113	113
SCREW TORQUE @ 172 BAR	Nm	1460	1460	1660	1660
PLASTICIZING RATE (CPVC)	gm/sec	18	20	18	23
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1		4+1	
TOTAL HEAT CAPACITY	kW	11.4		15.6	
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	21.3		25.5	
MACHINE DIMENSION (L X W X H)	m	5.02 X 1.74 X 2.27		5.27 X 1.74 X 2.27	
MACHINE WEIGHT	kg	4800		5000	

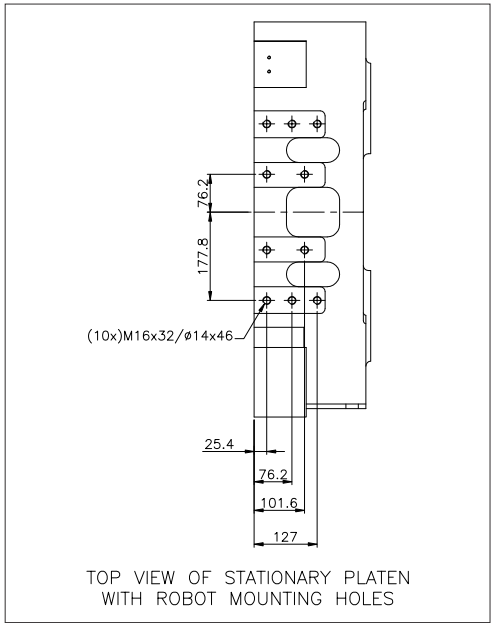
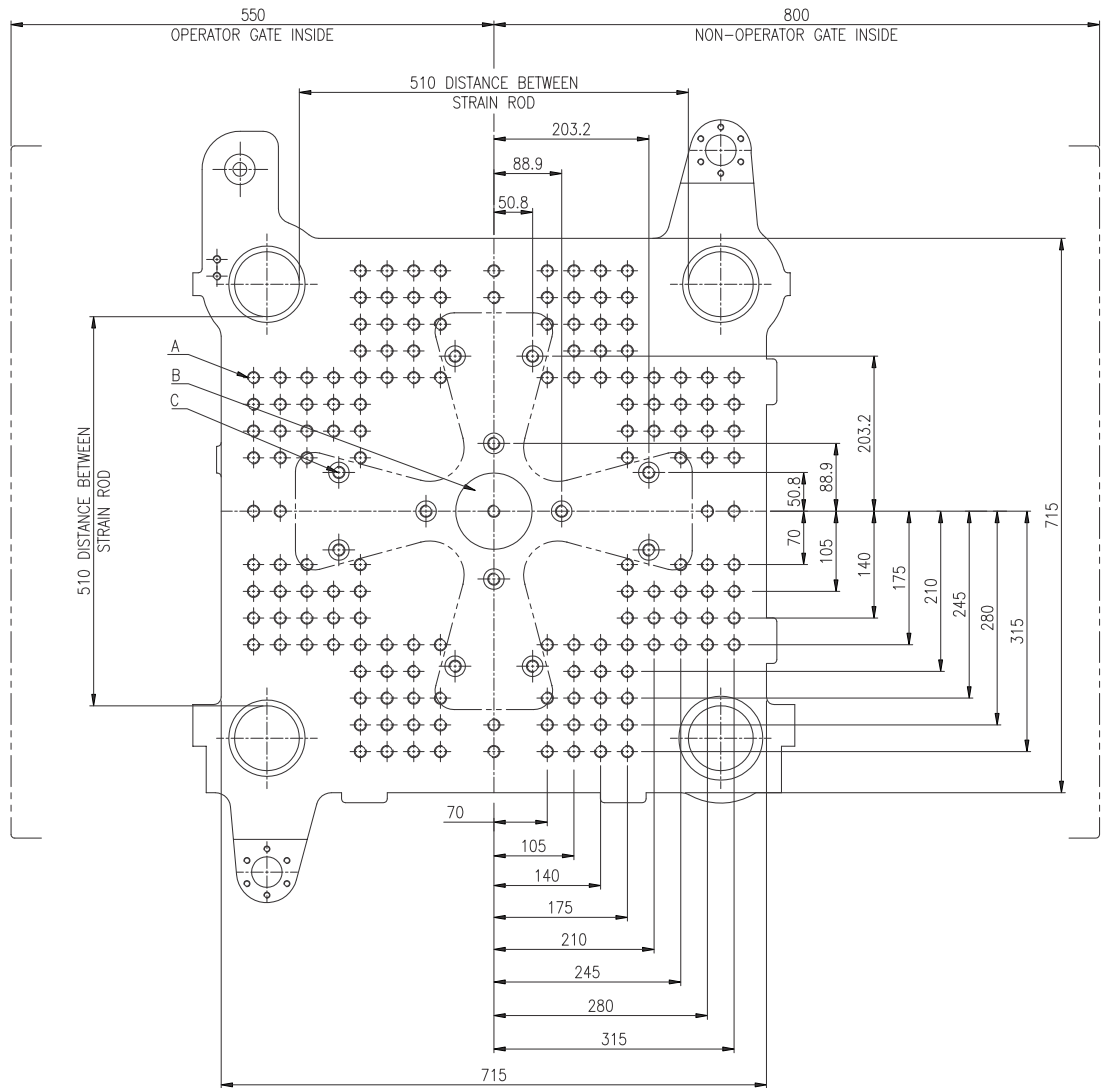
* WITH OPEN NOZZLE

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THE **HYDRON CPVC**
TONNAGE: 150 SQ

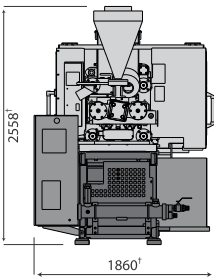
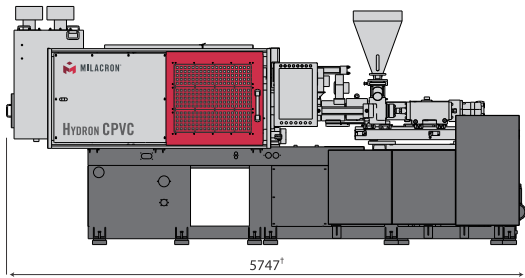
Injection Unit 450, 630, 970

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 CPVC 150	UNIT	450		630		970	
	METRIC	A	B	A	B	A	B
INJECTION UNIT SPECIFICATIONS							
INJECTION CAPACITY MAX. (CPVC)	gms	294	372	414	511	613	882
THEORETICAL DISPLACEMENT	cc	226	286	318	393	471	679
INJECTION PRESSURE MAX.	bar	1984	1568	1969	1595	2057	1428
INJECTION RATE *	cc/sec	105	133	106	130	101	145
INJECTION SCREW STROKE	mm	180	180	200	200	240	240
SCREW DIAMETER	mm	40	45	45	50	50	60
SCREW L/D RATIO		23.5	21	23.2	21	25	21
SCREW SPEED	rpm	143	127	113	113	60	60
SCREW TORQUE @ 172 BAR	Nm	1460	1460	1660	1660	3234	3234
PLASTICIZING RATE (CPVC)	gm/sec	18	20	18	23	12	19
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1		4+1		4+1	
TOTAL HEAT CAPACITY	kW	11.4		15.6		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	21.3		25.5		26.8	
MACHINE DIMENSION (L X W X H)	m	5.73 X 1.86 X 2.43		5.73 X 1.86 X 2.43		6.04 X 1.86 X 2.43	
MACHINE WEIGHT	kg	7300		7600		7800	

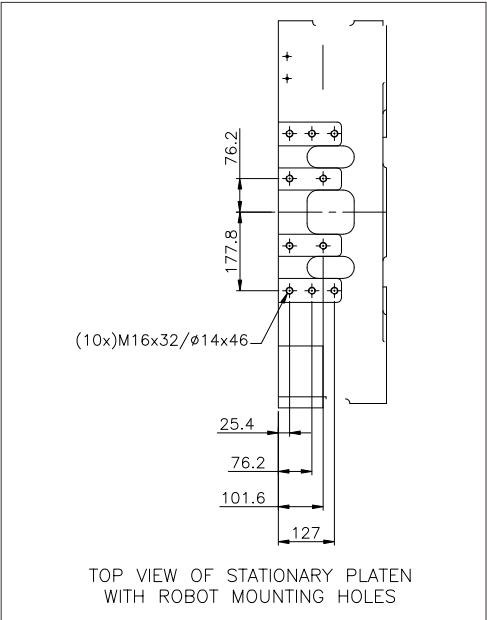
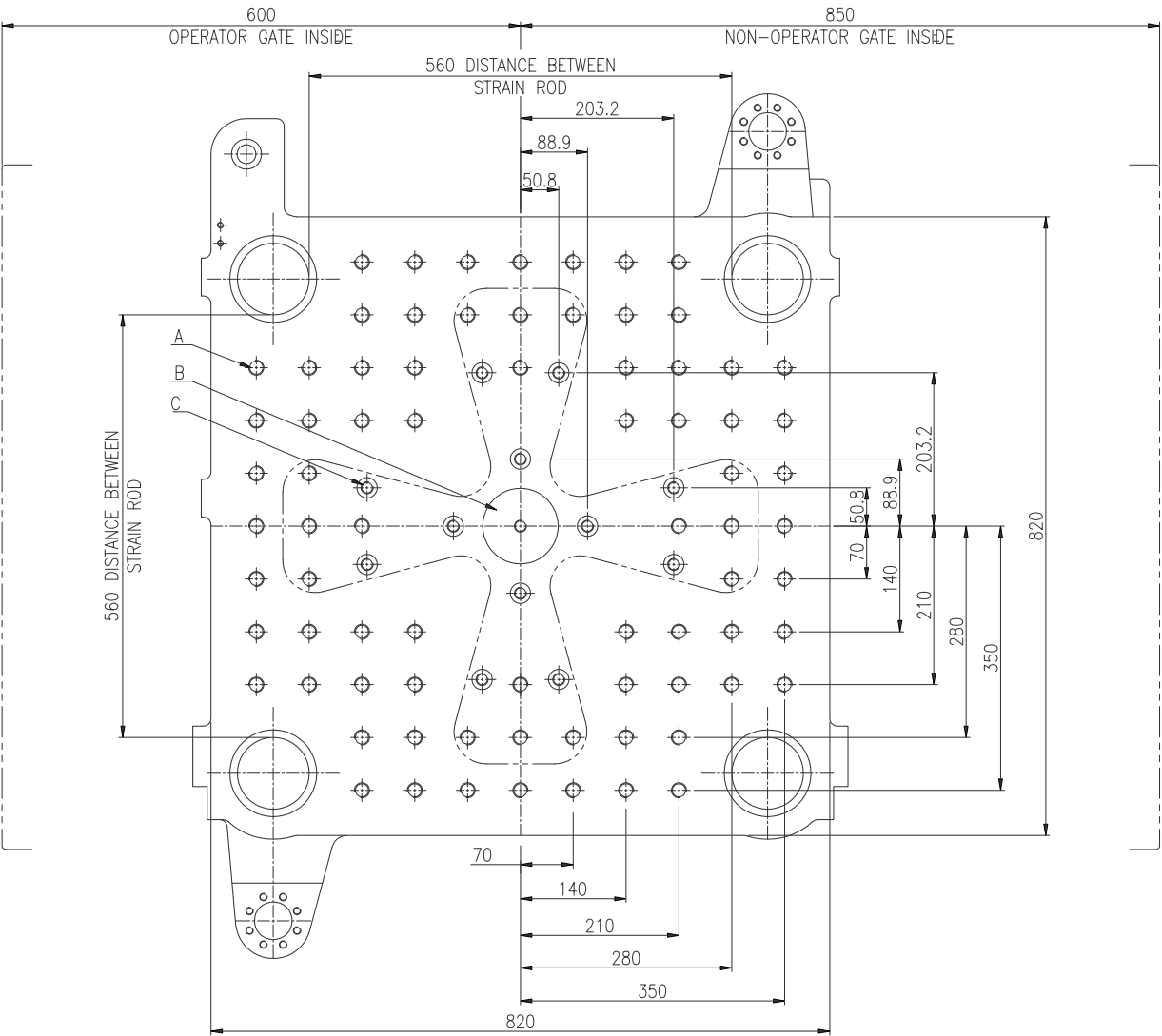
* WITH OPEN NOZZLE

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THE **HYDRON CPVC**
TONNAGE: 200 SQ

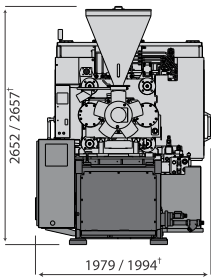
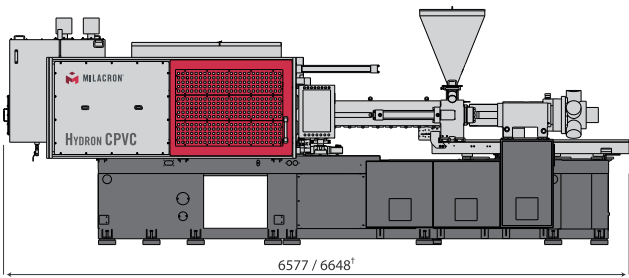
Injection Unit 630, 970, 1540

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 CPVC 200	UNIT	630		970		1540	
	METRIC	A	B	A	B	A	B
INJECTION UNIT SPECIFICATIONS							
INJECTION CAPACITY MAX. (CPVC)	gms	413	511	613	882	1029	1401
THEORETICAL DISPLACEMENT	cc	318	393	471	679	792	1078
INJECTION PRESSURE MAX.	bar	1969	1595	2057	1428	1941	1426
INJECTION RATE *	cc/sec	169	208	162	233	199	271
INJECTION SCREW STROKE	mm	200	200	240	240	280	280
SCREW DIAMETER	mm	45	50	50	60	60	70
SCREW L/D RATIO		23.2	21	25	21	24.3	21
SCREW SPEED	rpm	127	115	95	95	82	82
SCREW TORQUE @ 172 BAR	Nm	1660	1660	3234	3234	3767	3767
PLASTICIZING RATE (CPVC)	gm/sec	20	24	20	31	26	41
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1		4+1		5+1	
TOTAL HEAT CAPACITY	kW	15.6		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	29.2		30.5		38.5	
MACHINE DIMENSION (L X W X H)	m	6.50 X 2.02 X 2.58		6.64 X 2.02 X 2.58		7.03 X 2.02 X 2.58	
MACHINE WEIGHT	kg	8900		9200		9700	

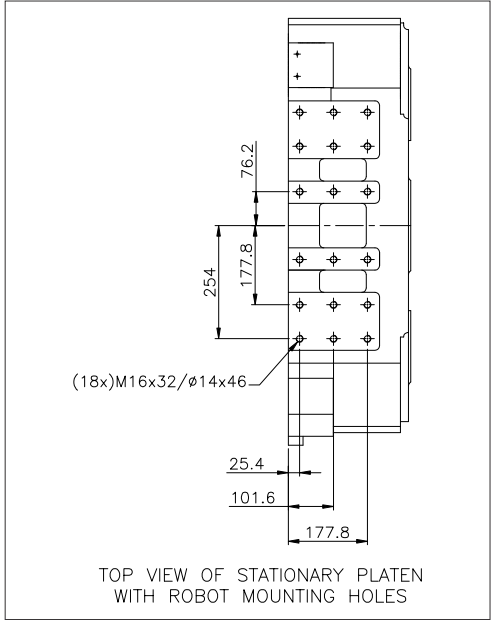
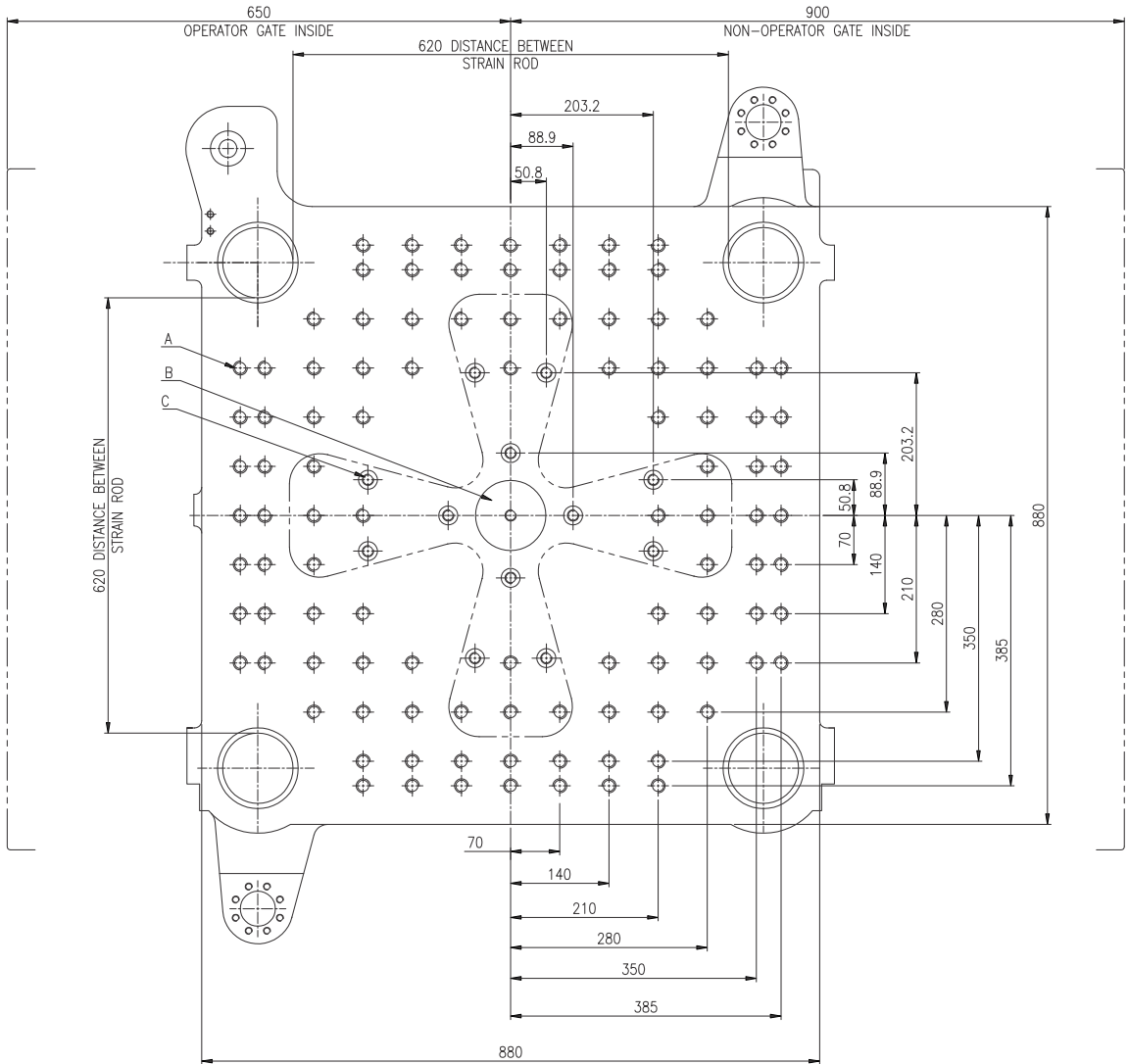
* WITH OPEN NOZZLE

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THE **HYDRON CPVC**
TONNAGE: 250 SQ

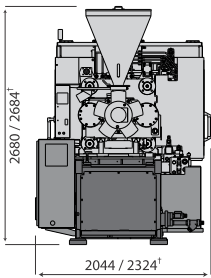
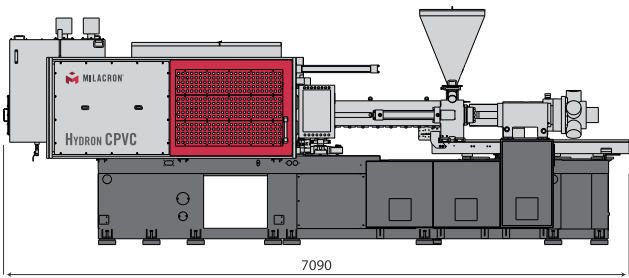
Injection Unit 970, 1540, 2290

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.



1U 970 / 1540

SEQUENTIAL OPERATION

HYDRON CPVC 250	UNIT	970		1540		2290	
	METRIC	A	B	A	B	A	B
INJECTION UNIT SPECIFICATIONS							
INJECTION CAPACITY MAX. (CPVC)	gms	613	882	1029	1401	1601	2091
THEORETICAL DISPLACEMENT	cc	471	679	792	1078	1232	1608
INJECTION PRESSURE MAX.	bar	2057	1428	1941	1426	1856	1421
INJECTION RATE *	cc/sec	162	233	199	271	224	292
INJECTION SCREW STROKE	mm	240	240	280	280	320	320
SCREW DIAMETER	mm	50	60	60	70	70	80
SCREW L/D RATIO		25	21	24.3	21	23.9	21
SCREW SPEED	rpm	95	95	82	82	69	69
SCREW TORQUE @ 172 BAR	Nm	3234	3234	3767	3767	5659	5659
PLASTICIZING RATE (CPVC)	gm/sec	20	31	26	41	34	49
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	7.32 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	

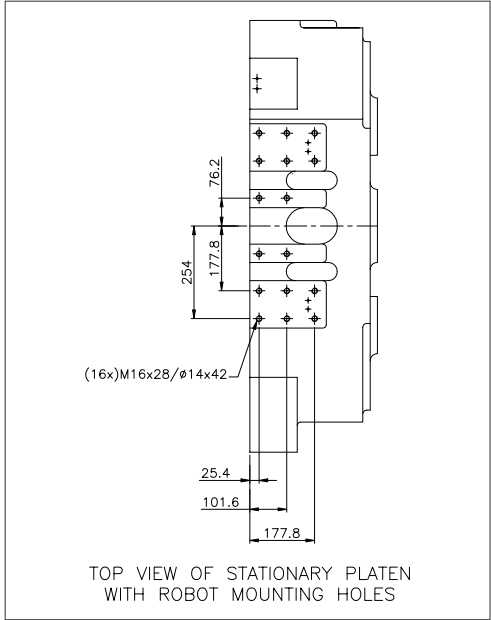
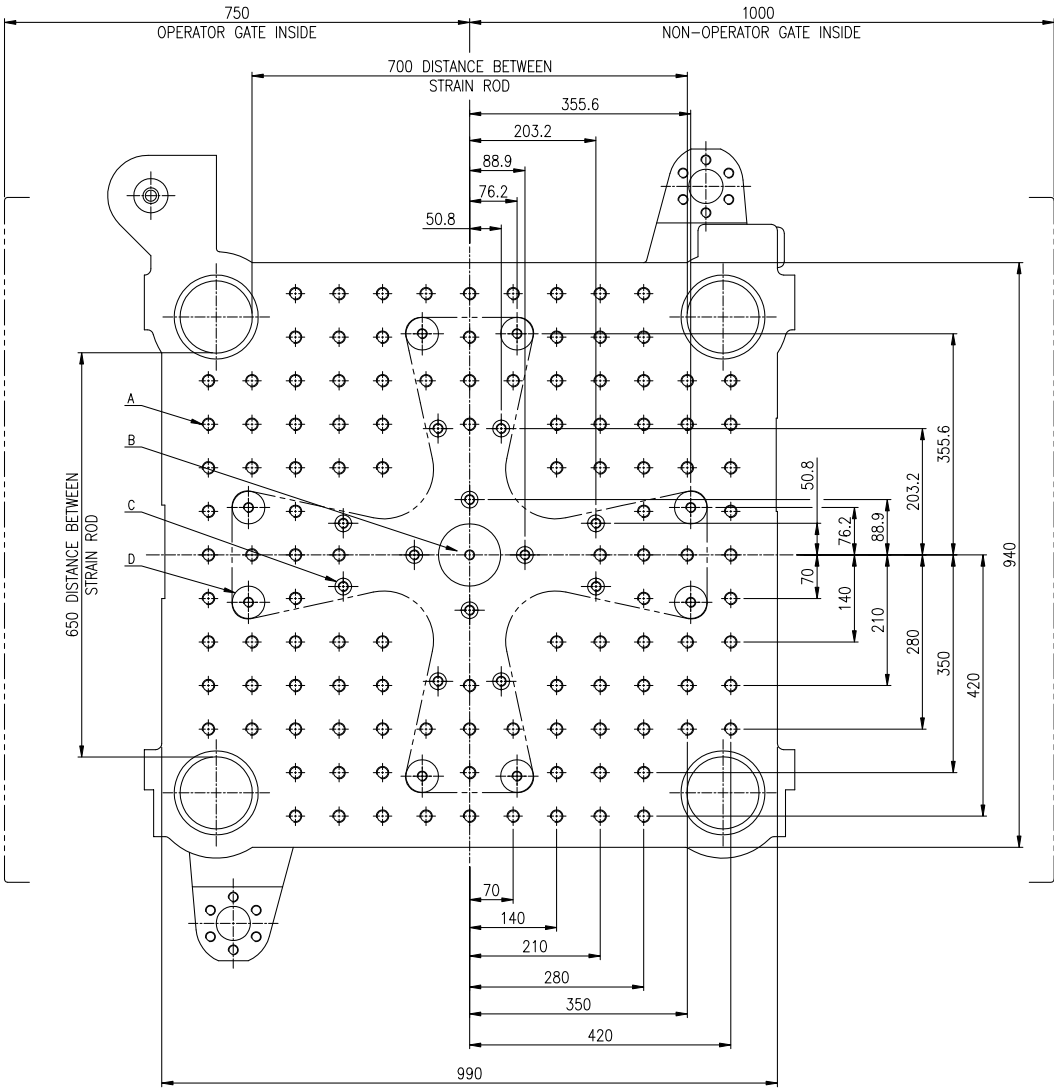
* WITH OPEN NOZZLE

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THE **HYDRON CPVC**
TONNAGE: 300 SQ

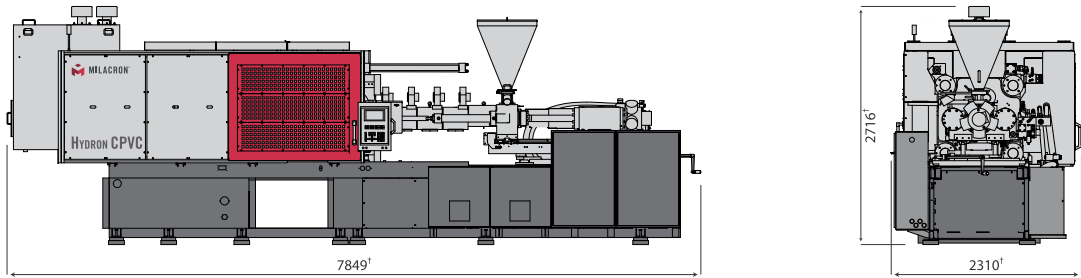
Injection Unit 970, 1540, 2290

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 CPVC 300	UNIT	970		1540		2290	
	METRIC	A	B	A	B	A	B
INJECTION UNIT SPECIFICATIONS							
INJECTION CAPACITY MAX. (CPVC)	gms	613	882	1029	1401	1601	2091
THEORETICAL DISPLACEMENT	cc	471	679	792	1078	1232	1608
INJECTION PRESSURE MAX.	bar	2057	1428	1941	1426	1856	1421
INJECTION RATE *	cc/sec	162	233	199	271	224	292
INJECTION SCREW STROKE	mm	240	240	280	280	320	320
SCREW DIAMETER	mm	50	60	60	70	70	80
SCREW L/D RATIO		25	21	24.3	21	23.9	21
SCREW SPEED	rpm	95	95	82	82	69	69
SCREW TORQUE @ 172 BAR	Nm	3234	3234	3767	3767	5659	5659
PLASTICIZING RATE (CPVC)	gm/sec	20	31	26	41	34	49
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)	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 2.28 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	

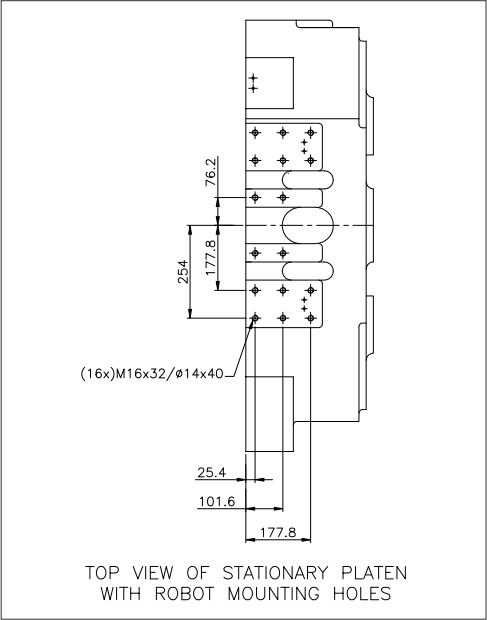
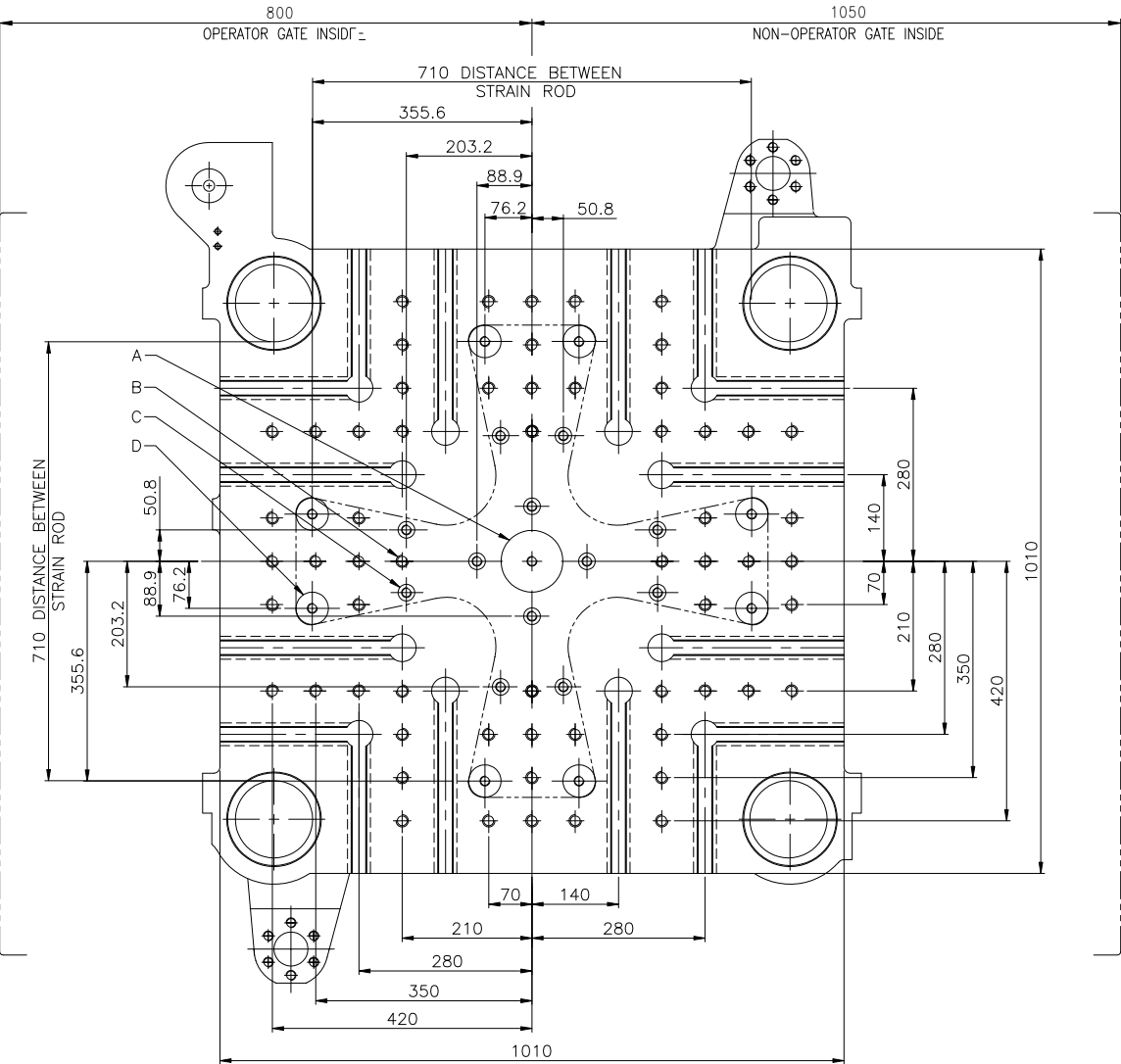
* WITH OPEN NOZZLE
WITH RAM SPACER

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

THE **HYDRON CPVC**
TONNAGE: 350 SQ

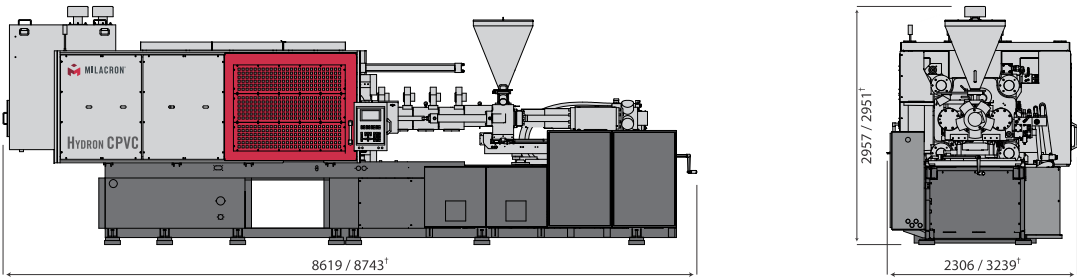
Injection Unit 2290, 3470

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 CPVC 350	UNIT	2290		3470	
	METRIC	A	B	A	B
INJECTION UNIT SPECIFICATIONS					
INJECTION CAPACITY MAX. (CPVC)	gms	1601	2091	2352	2977
THEORETICAL DISPLACEMENT	cc	1232	1608	1810	2290
INJECTION PRESSURE MAX.	bar	1856	1421	1917	1515
INJECTION RATE *	cc/sec	224	292	273	346
INJECTION SCREW STROKE	mm	320	320	360	360
SCREW DIAMETER	mm	70	80	80	90
SCREW L/D RATIO		23.9	21	23.5	21
SCREW SPEED	rpm	69	69	58	58
SCREW TORQUE @ 172 BAR	Nm	5659	5659	7924	7924
PLASTICIZING RATE (CPVC)	gm/sec	34	49	41	59
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	8.56 X 2.33 X 2.95		9.14 X 2.33 X 2.95	
MACHINE WEIGHT	kg	16000		17000	

* WITH OPEN NOZZLE

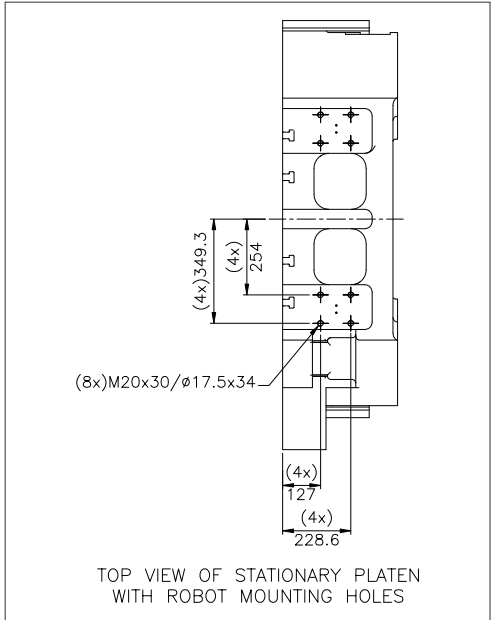
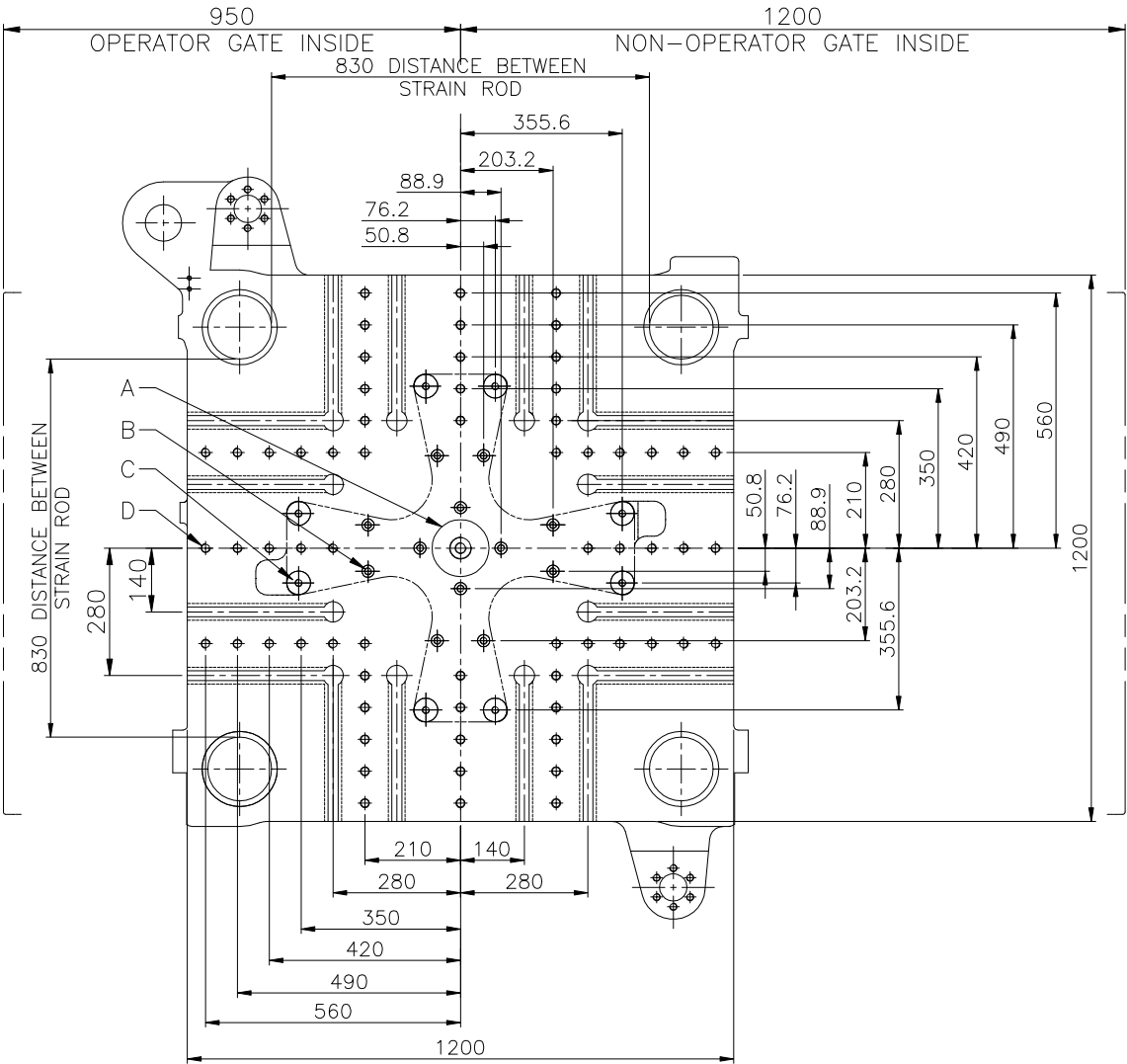
WITH RAM SPACER

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THE **HYDRON CPVC**
TONNAGE: 450 SQ

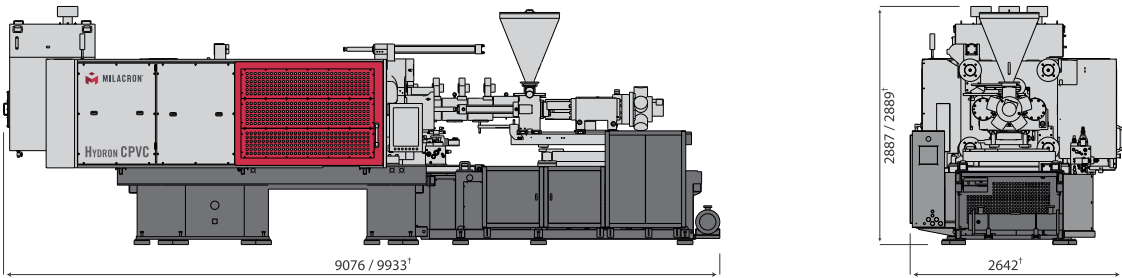
Injection Unit 2290, 3470, 4880

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 CPVC 450	UNIT	2290		3470		4880	
	METRIC	A	B	A	B	A	B
INJECTION UNIT SPECIFICATIONS							
INJECTION CAPACITY MAX. (CPVC)	gms	1601	2091	2352	2977	3309	4085
THEORETICAL DISPLACEMENT	cc	1232	1608	1810	2290	2545	3142
INJECTION PRESSURE MAX.	bar	1856	1421	1917	1515	1917	1553
INJECTION RATE *	cc/sec	282	368	273	346	347	428
INJECTION SCREW STROKE	mm	320	320	360	360	400	400
SCREW DIAMETER	mm	70	80	80	90	90	100
SCREW L/D RATIO		23.9	21	23.5	21	22.3	20
SCREW SPEED	rpm	82	72	58	58	53	53
SCREW TORQUE @ 172 BAR	Nm	5659	5659	7924	7924	10972	10972
PLASTICIZING RATE (CPVC)	gm/sec	41	51	41	59	53	71
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 2.58 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	

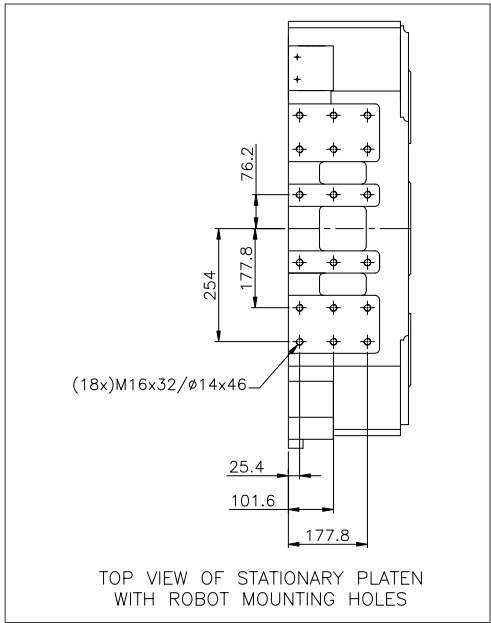
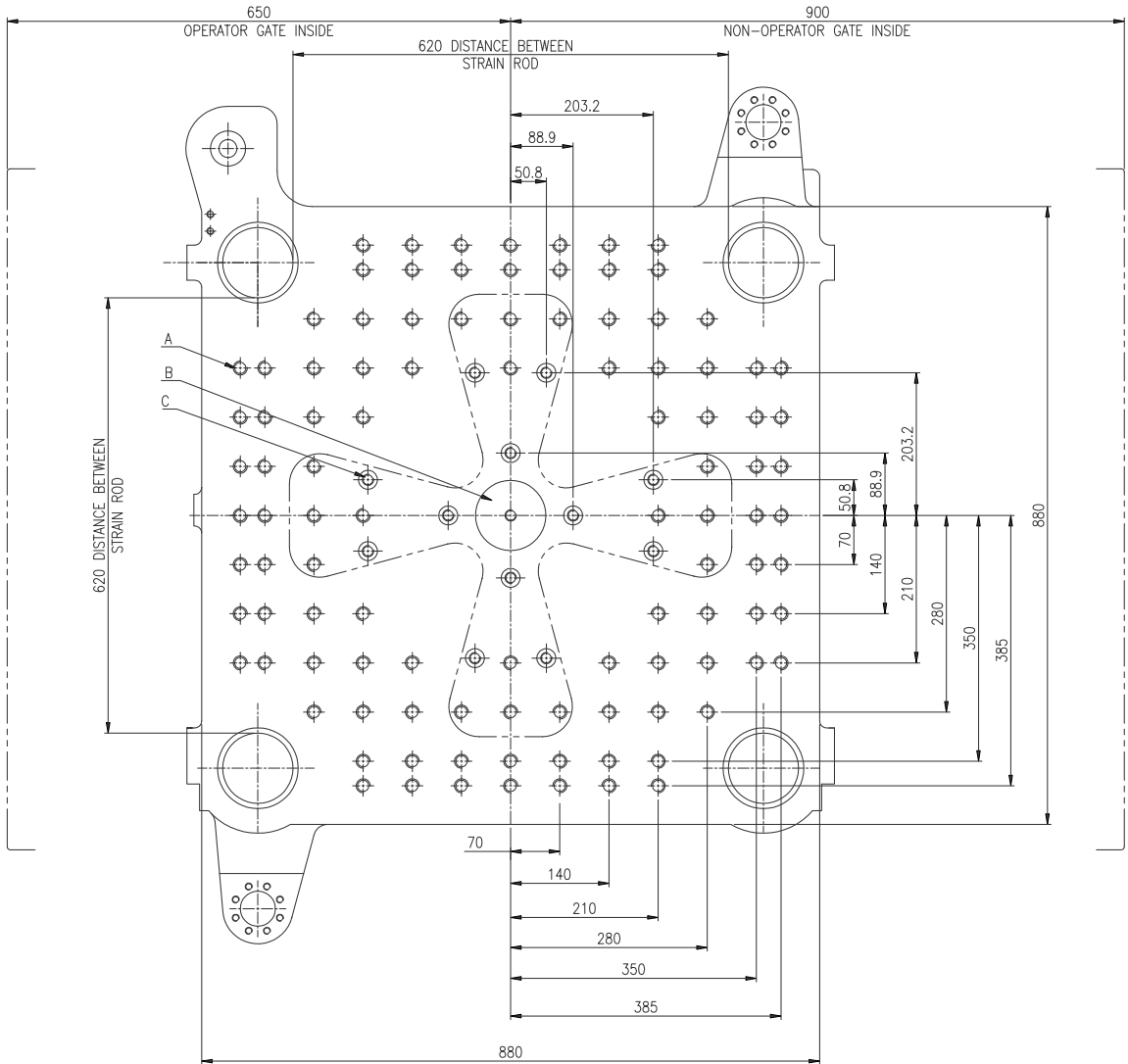
* WITH OPEN NOZZLE
WITH RAM SPACER

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THE **HYDRON CPVC**
TONNAGE: 250 PL

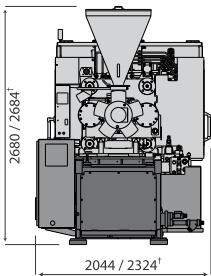
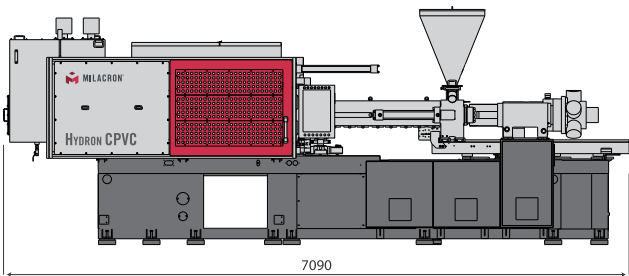
Injection Unit 970, 1540, 2290

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.



1U 970 / 1540

PARALLEL OPERATION

HYDRON CPVC 250	UNIT	970		1540		2290	
	METRIC	A	B	A	B	A	B
INJECTION UNIT SPECIFICATIONS							
INJECTION CAPACITY MAX. (CPVC)	gms	613	882	1029	1401	1601	2091
THEORETICAL DISPLACEMENT	cc	471	679	792	1078	1232	1608
INJECTION PRESSURE MAX.	bar	2057	1428	1941	1426	1856	1421
INJECTION RATE *	cc/sec	323	466	343	466	448	585
INJECTION SCREW STROKE	mm	240	240	280	280	320	320
SCREW DIAMETER	mm	50	60	60	70	70	80
SCREW L/D RATIO		25	21	24.3	21	23.9	21
SCREW SPEED	rpm	95	95	82	82	69	69
SCREW TORQUE @ 172 BAR	Nm	3234	3234	3767	3767	5659	5659
PLASTICIZING RATE (CPVC)	gm/sec	20	31	26	41	34	49
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	

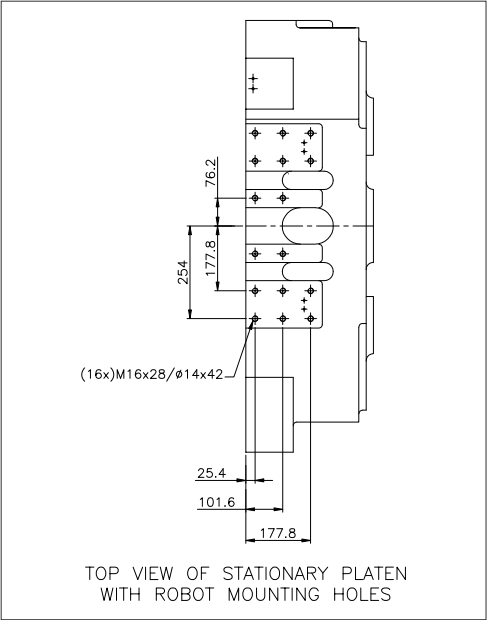
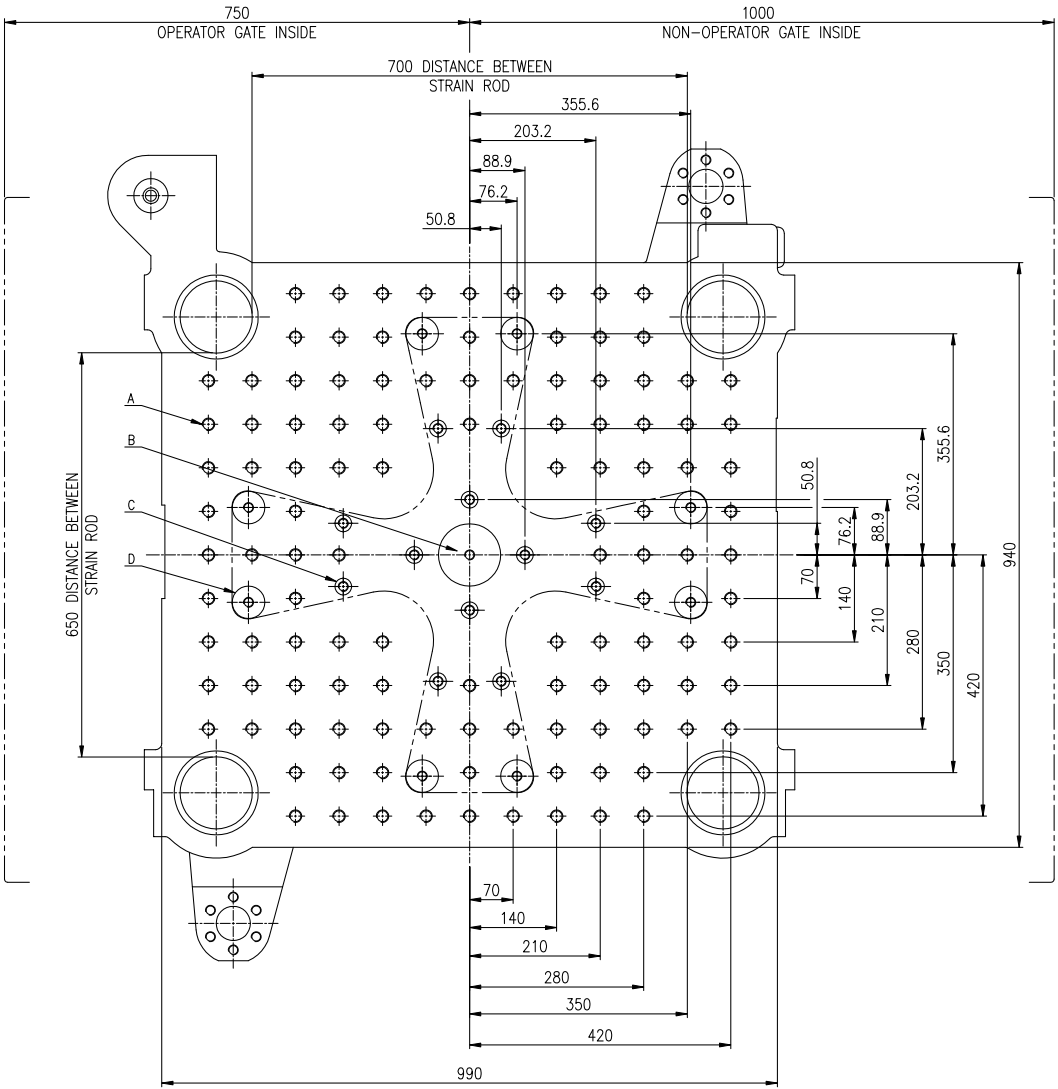
* WITH OPEN NOZZLE

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THE **HYDRON CPVC**
TONNAGE: 300 PL

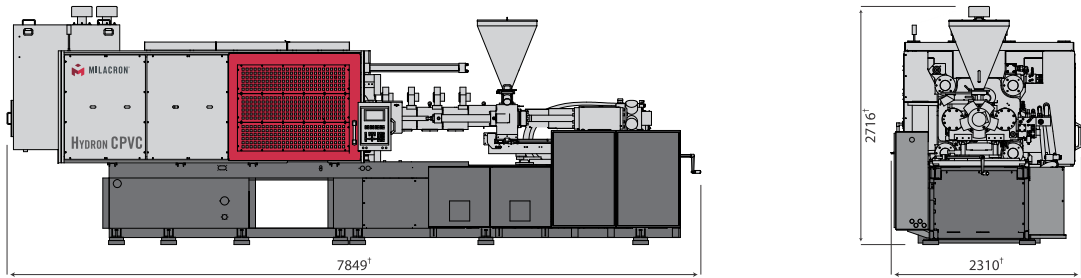
Injection Unit 970, 1540, 2290

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 CPVC 300	UNIT	970		1540		2290	
	METRIC	A	B	A	B	A	B
INJECTION UNIT SPECIFICATIONS							
INJECTION CAPACITY MAX. (CPVC)	gms	613	882	1029	1401	1601	2091
THEORETICAL DISPLACEMENT	cc	471	679	792	1078	1232	1608
INJECTION PRESSURE MAX.	bar	2057	1428	1941	1426	1856	1421
INJECTION RATE *	cc/sec	323	466	343	466	448	585
INJECTION SCREW STROKE	mm	240	240	280	280	320	320
SCREW DIAMETER	mm	50	60	60	70	70	80
SCREW L/D RATIO		25	21	24.3	21	23.9	21
SCREW SPEED	rpm	95	95	82	82	69	69
SCREW TORQUE @ 172 BAR	Nm	3234	3234	3767	3767	5659	5659
PLASTICIZING RATE (CPVC)	gm/sec	20	31	26	41	34	49
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)	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	

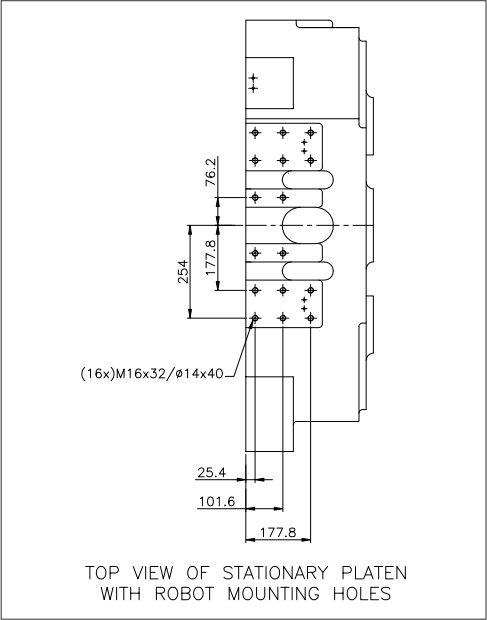
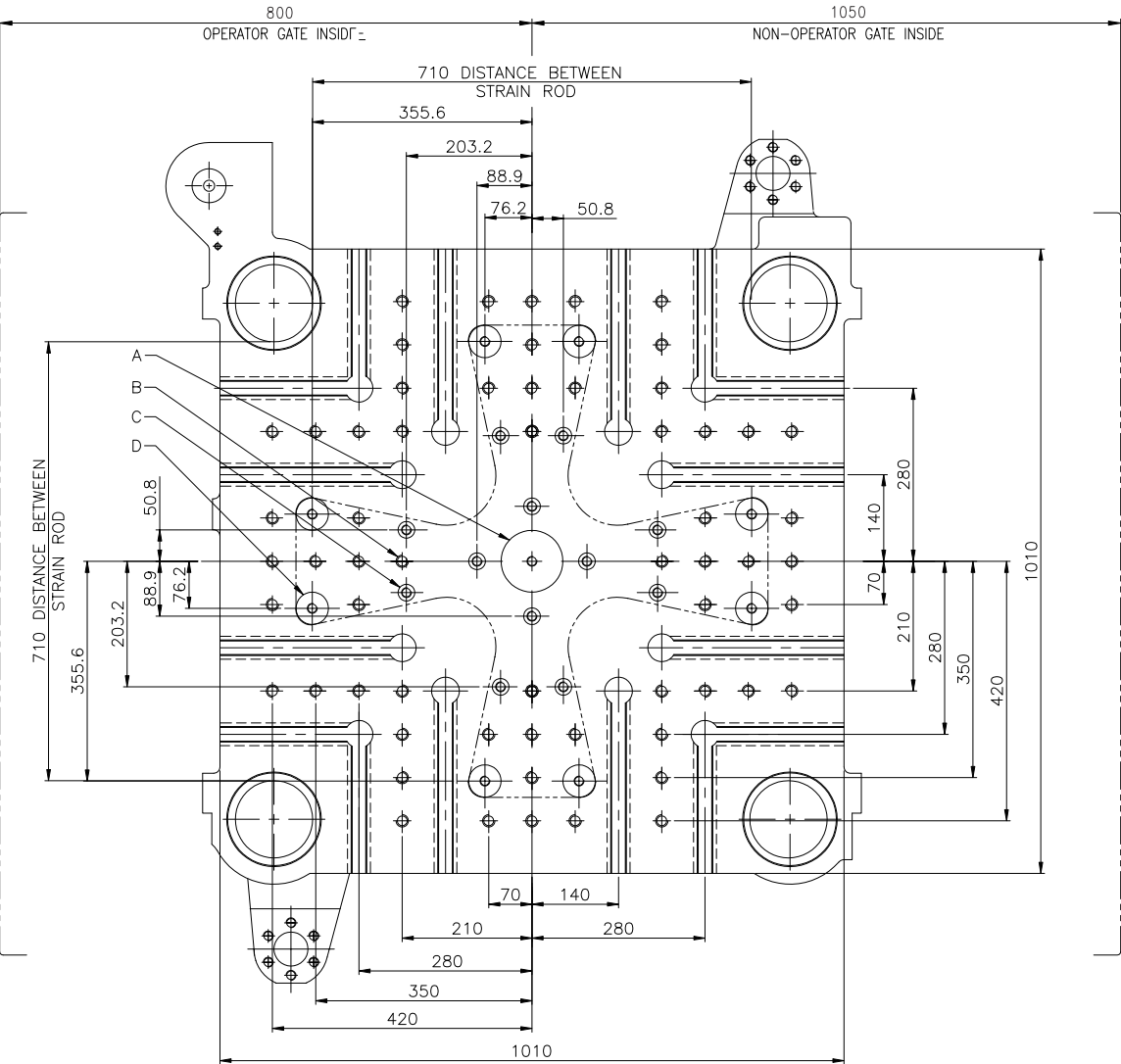
* WITH OPEN NOZZLE
WITH RAM SPACER

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THE **HYDRON CPVC**
TONNAGE: 350 PL

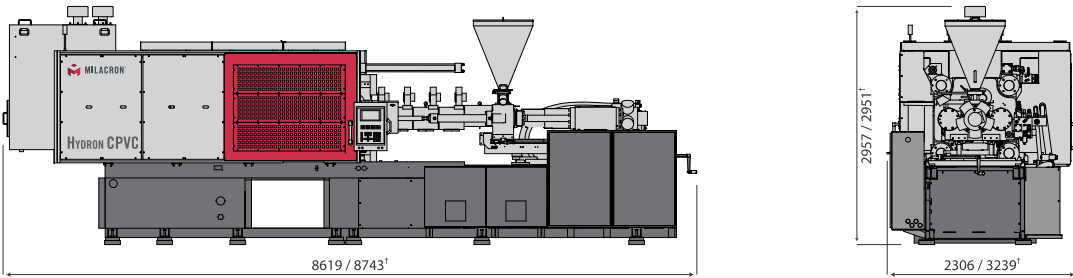
Injection Unit 2290, 3470

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 CPVC 350	UNIT	2290		3470	
	METRIC	A	B	A	B
INJECTION UNIT SPECIFICATIONS					
INJECTION CAPACITY MAX. (CPVC)	gms	1601	2091	2352	2977
THEORETICAL DISPLACEMENT	cc	1232	1608	1810	2290
INJECTION PRESSURE MAX.	bar	1856	1421	1917	1515
INJECTION RATE *	cc/sec	448	585	490	620
INJECTION SCREW STROKE	mm	320	320	360	360
SCREW DIAMETER	mm	70	80	80	90
SCREW L/D RATIO		23.9	21	23.5	21
SCREW SPEED	rpm	69	69	46	46
SCREW TORQUE @ 172 BAR	Nm	5659	5659	7924	7924
PLASTICIZING RATE (CPVC)	gm/sec	34	49	33	47
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)	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

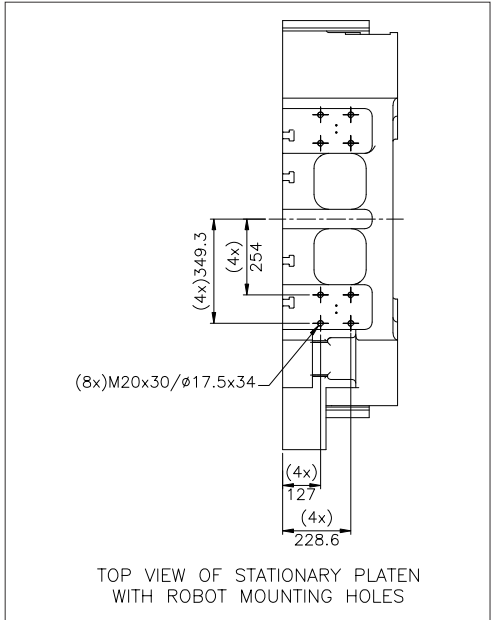
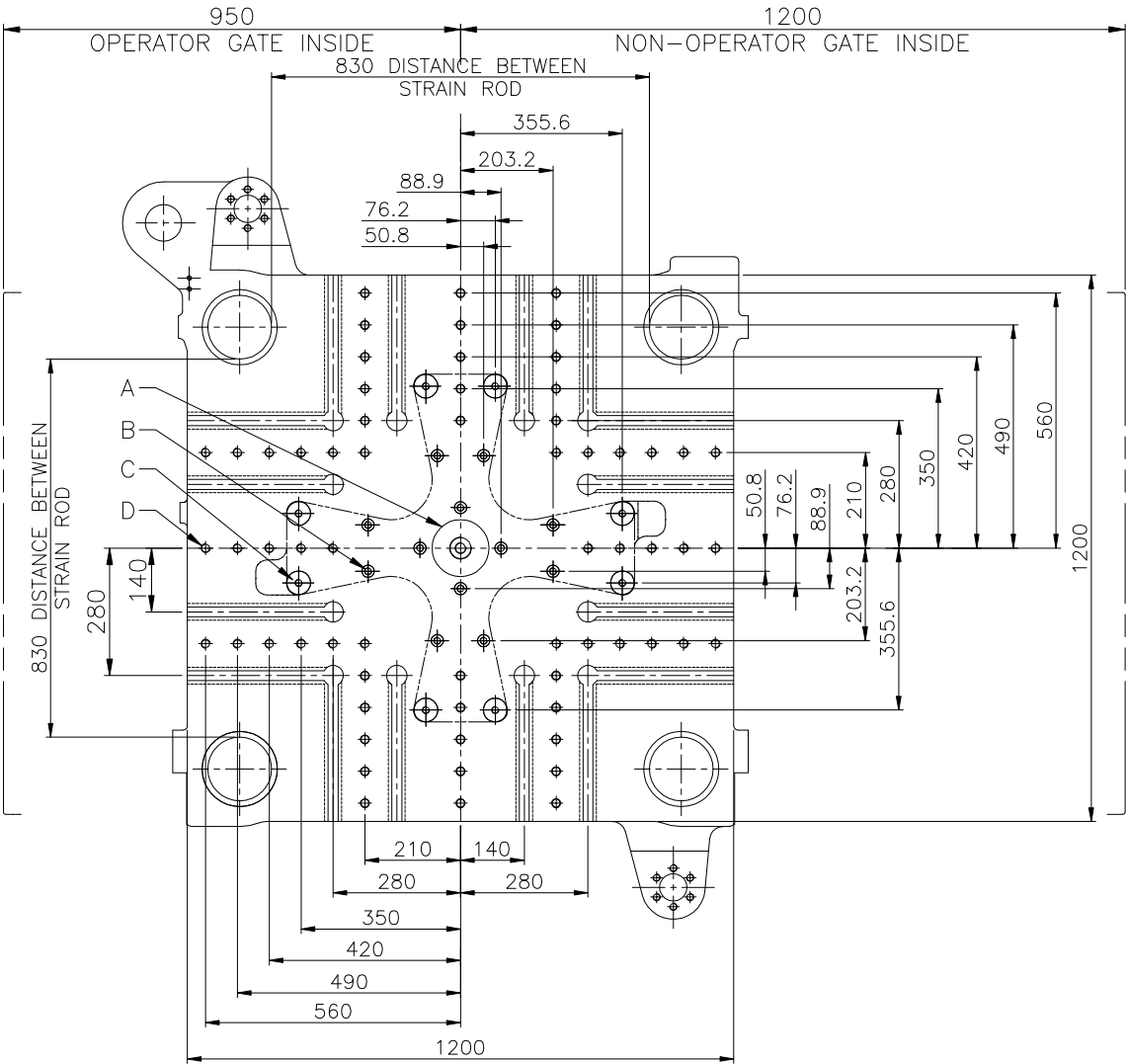
* WITH RAM SPACER

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THE **HYDRON CPVC**
TONNAGE: 450 PL

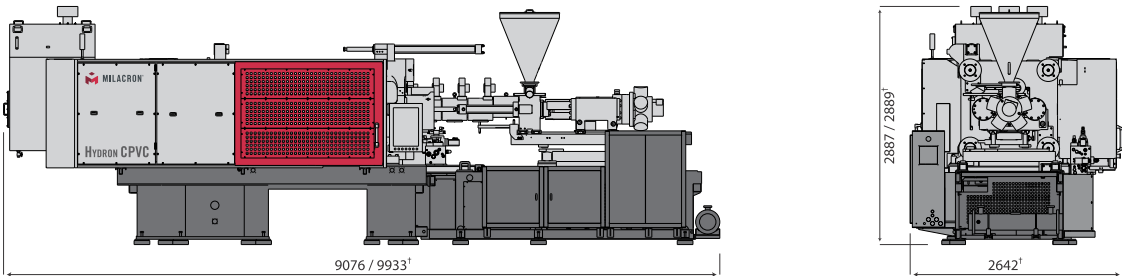
Injection Unit 2290, 3470, 4880

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 CPVC 450	UNIT	2290		3470		4880	
	METRIC	A	B	A	B	A	B
INJECTION UNIT SPECIFICATIONS							
INJECTION CAPACITY MAX. (CPVC)	gms	1601	2091	2352	2977	3309	4085
THEORETICAL DISPLACEMENT	cc	1232	1608	1810	2290	2545	3142
INJECTION PRESSURE MAX.	bar	1856	1421	1917	1515	1917	1553
INJECTION RATE *	cc/sec	506	661	490	620	546	675
INJECTION SCREW STROKE	mm	320	320	360	360	400	400
SCREW DIAMETER	mm	70	80	80	90	90	100
SCREW L/D RATIO		23.9	21	23.5	21	22.3	20
SCREW SPEED	rpm	55	48	46	46	42	42
SCREW TORQUE @ 172 BAR	Nm	5659	5659	7924	7924	10972	10972
PLASTICIZING RATE (CPVC)	gm/sec	27	34	33	47	42	56
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	

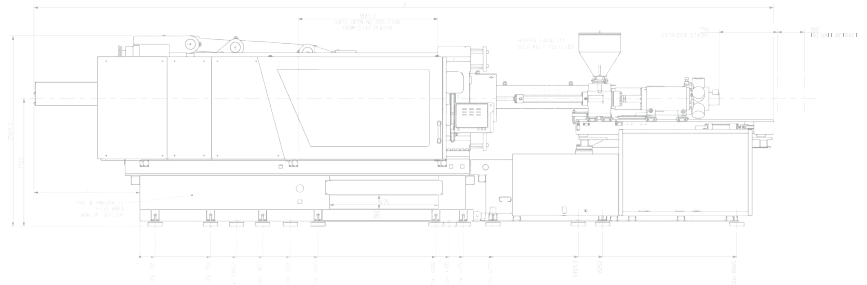
* WITH OPEN NOZZLE
WITH RAM SPACER

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

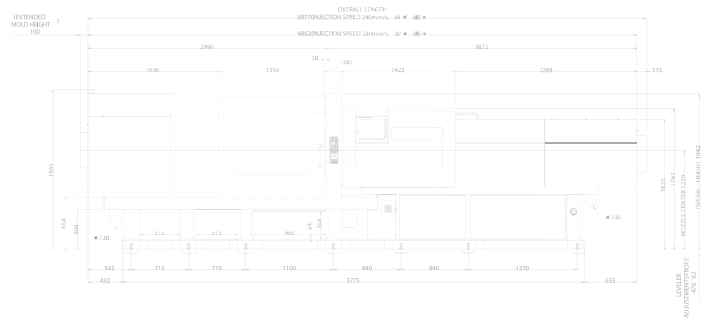
AVAILABLE IN

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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