

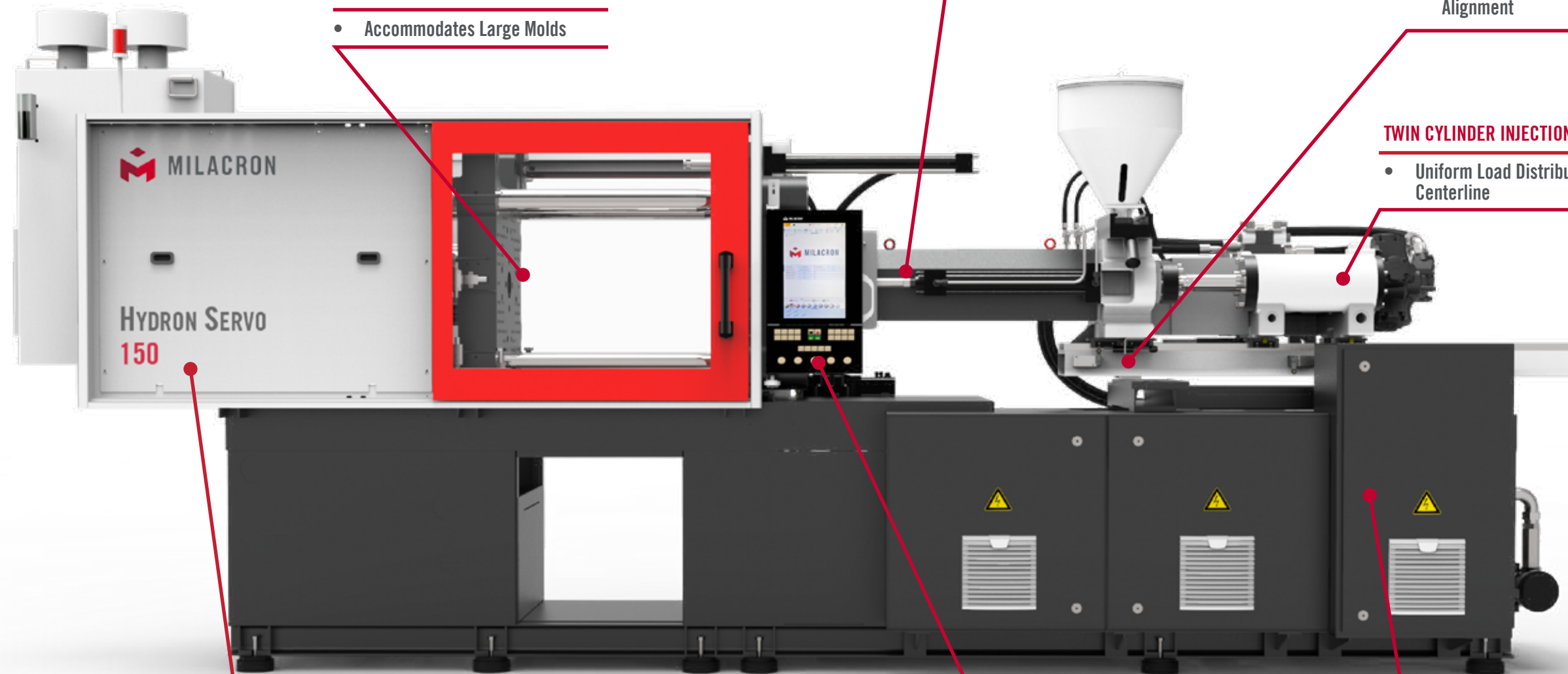


THE HYDRON SERVO



80-450 TON

THE HYDRON SERVO



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

SERVO MOTOR

- Outstanding Energy Saving
- Faster Response towards Hydraulic System
- Excellent Shot Weight Consistency
- Reduced Noise Level

EDGE – ADVANCED USER-FRIENDLY HMI CONTROLLER

- 15.6-Inch Full High Definition (FHD) Multi-Touch Capacitive Display
- Faster Processor for Efficiently Handling Critical Applications
- Graphical Representation of Machine Features
- Diagnostic and Fault-Finding Assistance
- Parameter Entry in Absolute Value
- Direct Access Menu Keys
- Ergonomic Layout

HYDRON SERVO

Injection Unit Specifications

IU	300	450	630	970	1540	2290	3470	4880
HYDRON SERVO 80								
HYDRON SERVO 100								
HYDRON SERVO 150								
HYDRON SERVO 200								
HYDRON SERVO 250								
HYDRON SERVO 300								
HYDRON SERVO 350								
HYDRON SERVO 450								

Clamp Specifications

MODEL	TONNAGE	PLATEN SIZE (H X V)	TIE BAR SPACING (H X V)	MAX DAYLIGHT
	tons	mm	mm	mm
HYDRON SERVO 80	80	610 X 570	410 X 370	700
HYDRON SERVO 100	100	610 X 610	410 X 410	760
HYDRON SERVO 150	150	715 X 715	510 X 510	825
HYDRON SERVO 200	200	820 X 820	560 X 560	950
HYDRON SERVO 250	250	880 X 880	620 X 620	1080
HYDRON SERVO 300	300	990 X 940	700 X 650	1225# / 1375
HYDRON SERVO 350	350	1010 X 1010	710 X 710	1360# / 1660
HYDRON SERVO 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 & 2 Stage Speed	●
Position Based Ramping for Accurate Position Switching	●
Precise Speed & Pressure Control	●
Linear Position 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 (80 - 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 (Pulse)	●
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	○
Air Ejection	○
Parallel Ejection - Ejector on Fly	○
Hydraulic & Pneumatic Core Pull	○

TEMPERATURE CONTROL	
Actual Current Display of Heating Zones	●
Heater Failure & Thermocouple Open Detection	●
Accurate PID Temperature Control Setting on Screen	●
Feed Throat Temperature Indication	●
Weekday Timer for heat on/off	●
Heat Standby	●
Soak Timer for Cold Start Protection	●
High / Low Temperature Alarm	●
Set & Actual Temperature Data with Bar Graph	●
Insulated Heater Band	●
Oil Temperature Control for Heat Exchanger	●
Feed Throat Temperature Control	○
Extra Heating Zone	○

INJECTION	
20 Stage Injection Velocity & 20 Stage Injection Pressure Profile	●
5 Stage Screw Speed & 5 Stage Back Pressure Control (Setting) through Screen	●
Digital setting of Extruder RPM & Digital Read out of Actual RPM	●
Wide Choice of Injection Units with A'-A-B Screw/Barrel Combinations	●
Easy Injection Unit Swivelling	●
Switch Over from Fill to Pack based on Position or Time or Pressure	●
Injection Unit on Linear Guideways for Reduced Frictional Losses	●
Linear Position Transducer for Accurate Injection Position Control	●
Injection Decompression Before / After Refilling or Both	●
Semi-Auto Purge	●
Intrusion / Flow Mould	●
Cold Slug Removal by Extruder / Injection	●
Aluminum Chequered Plate below Purge Area	●
Different Sprure Bearnk Options (5 Selections)	●
Injection Start, Suck-back & Melt Decompression - Delay Timer	●
Graphically Adjustable Alarm Bands for Injection Pressure	●
Nozzle Contact Force by Pressure Switch	●
Sliding Hopper	●
Auto Screw Protection	●
Gas Assisted Injection Interface	○
Bimetallic Barrel / Screw	○
Nozzle Shut Off Valve	○

● - Standard Feature ○ - Optional Feature

NOTES

CONTROLS	
More than 80 parameter Monitoring for last 512 cycle with Graphics	●
15.6" FHD Touch Display with function Keys	●
Actual Injection Speed & Pressure Graph Display	●
200 Mold Data Storage	●
Configurable Multilevel Password with Operator's Name	●
Graphical Representation of last 48 Hours 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 512 Set Points Changes with Time & Date	●
Process Mode: Functions with its Co-functions on a Single Key Press	●
Maintenance Scheduling	●
Freely Programmable Smart Outputs & Inputs	●
Over View Screen with Graphical Display of Machine Functions	●
Soft Keys for Fast Access of Select Menus	●
Auto shut down	●
Visual & Audible Alarm	●
512 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	●
Customized Setup Menu / Set point overview	●
Energy Meter on Screen	●
Statistical Process Control (SPC) with Graphics	●
20 function keys with LEDs	●
Unit Selection (Metric or English)	●
Daily Production Data of last 1 Year	●
Energy Consumption analysis for each axis (Energy display in KWH for every cycle on MMI)	●
Favorite Page - Select frequently used pages & operate from single page	●
Graphical adjustment of Clamp & Extruder Speeds & Pressure	●
Filtering of Alarm - Helps in quick analysis of specific alarm	●
Filtering & sort of Changelog - Helps in quick review / analysis of parameter changes	●
Configurable FlyOut area for viewing frequently used Monitoring Pages	●
No Page more than two click away	●
Set point and actual values shown as absolute values	●
Pausability check on values entered	●
Shift wise Production Counter	●
Alarm help Information	●
Manual in HTML format for help	●
Choice of Multiple Languages	○

● - Standard Feature ○ - Optional Feature

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APPLICATIONS

• HOUSEWARE AND APPLIANCES

• WRITING INSTRUMENTS

• GENERAL ENGINEERING



APPLICATIONS

• PAINT CONTAINERS

• CAPS & CLOSURES

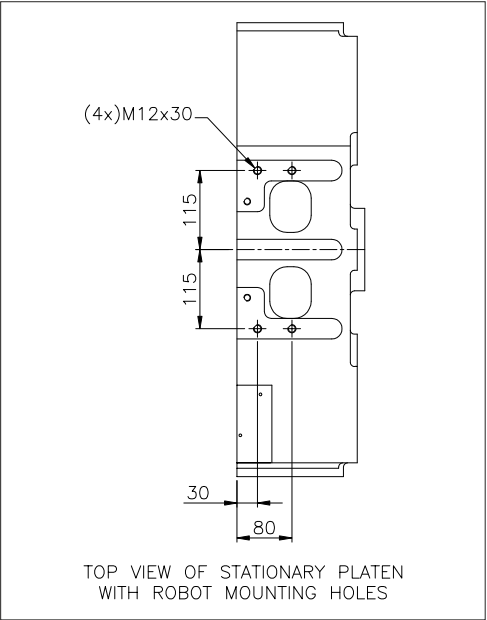
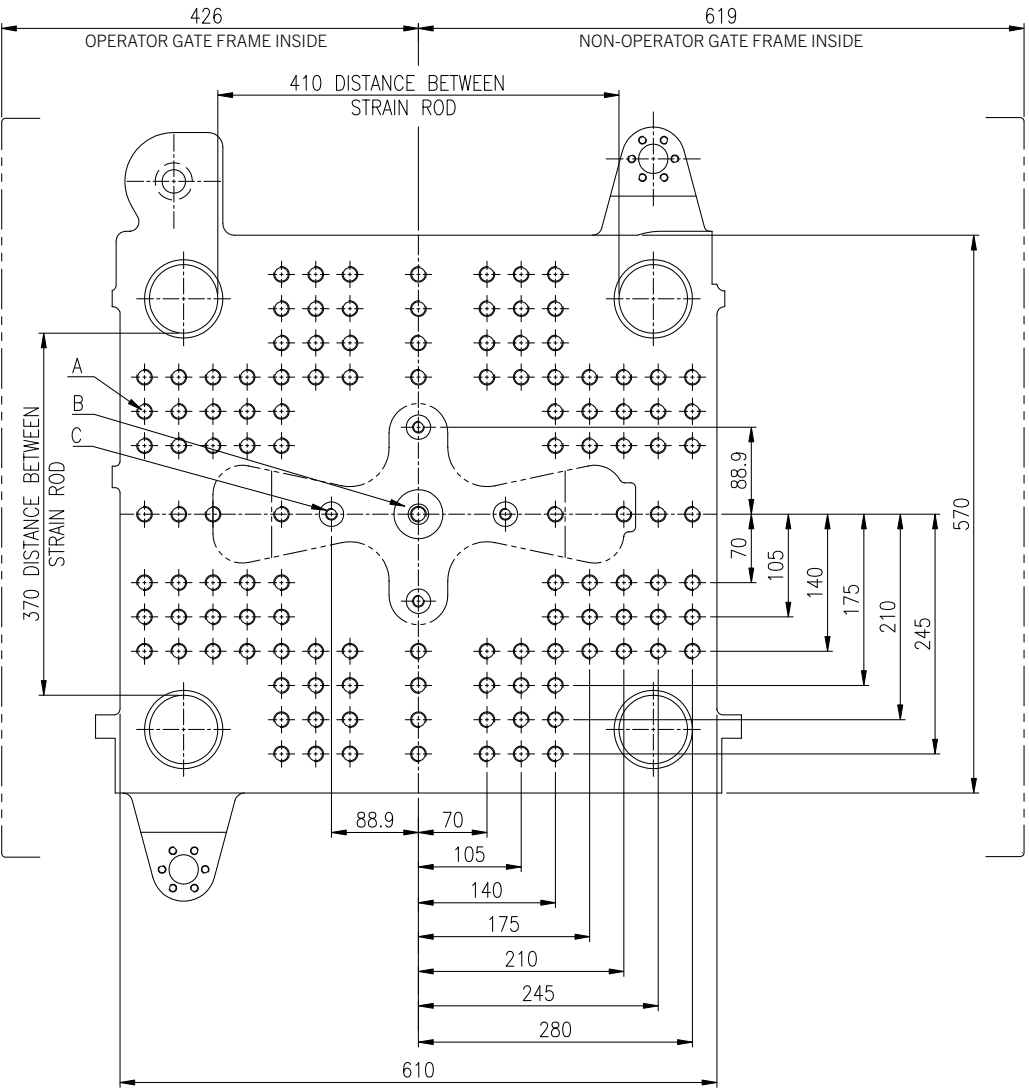
• STORAGE CONTAINERS

• AUTOMOTIVE



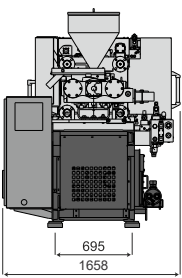
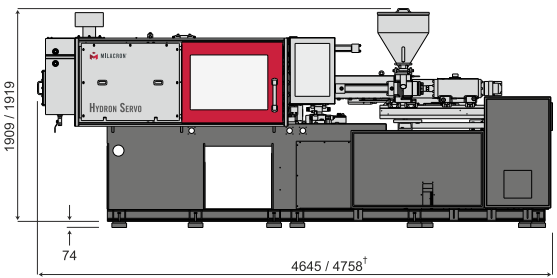
THE HYDRON SERVO
TONNAGE: 80

Injection Unit 300, 450
TECHNICAL SPECIFICATIONS



ALL DIMENSIONS ARE IN MM

- A M16x32 DEEP (120 HOLES ON MOVING PLATEN)
M16x32 DEEP (122 HOLES ON STATIONARY PLATEN)
- B MOVING PLATEN:
Ø50 THRU BORE K/O BAR CENTER HOLE M12 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 300 / 450

HYDRON SERVO 80	UNIT	300			450			
	METRIC	A'	A	B	A'	A	B	C
INJECTION UNIT SPECIFICATIONS								
INJECTION CAPACITY MAX. (GPPS)	gms	108	146	191	165	215	272	336
THEORETICAL DISPLACEMENT	cc	113	154	201	173	226	286	353
INJECTION PRESSURE MAX.	bar	2510	1958	1499	2443	1984	1568	1270
INJECTION RATE *	cc/sec	98	134	174	103	134	170	209
INJECTION SCREW STROKE	mm	160	160	160	180	180	180	180
SCREW DIAMETER	mm	30	35	40	35	40	45	50
SCREW L/D RATIO		26.6	22.9	20	25.7	22.5	20	18
SCREW SPEED	rpm	362	362	362	279	279	279	279
SCREW TORQUE @ 172 BAR	Nm	676	676	676	876	876	876	876
PLASTICIZING RATE (GPPS) *	gm/sec	11	16	22	13	17	24	32
PLASTICIZING RATE (GPPS BARRIER) *	gm/sec	NA	22	29	17	23	31	42
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1			4+1			
TOTAL HEAT CAPACITY	kW	9.2			11.3			
HOPPER CAPACITY	kg	30			30			
CLAMP UNIT SPECIFICATIONS								
CLAMP FORCE	ton	80			80			
CLAMP STROKE	mm	500			500			
MAXIMUM DAYLIGHT	mm	700			700			
MINIMUM MOULD HEIGHT	mm	200			200			
PLATEN SIZE (H X V)	mm	610 X 570			610 X 570			
DISTANCE BETWEEN TIE ROD	mm	410 X 370			410 X 370			
TIE ROD DIAMETER	mm	70			70			
EJECTOR STROKE	mm	125			125			
EJECTOR FORCE	ton	3.0			3.0			
MOULD WEIGHT CAPACITY	kg	500			500			
GENERAL								
SERVO DRIVE **	kW	11.5			11.5			
OIL TANK CAPACITY - MAIN	L	270			270			
OIL TANK CAPACITY - PREFILL	L	80			80			
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	53			53			
CONNECTED LOAD	kW	20.7			22.8			
MACHINE DIMENSION (L X W X H)	m	4.65 X 1.66 X 1.98			4.76 X 1.66 X 2.00			
MACHINE WEIGHT	kg	3950			4250			

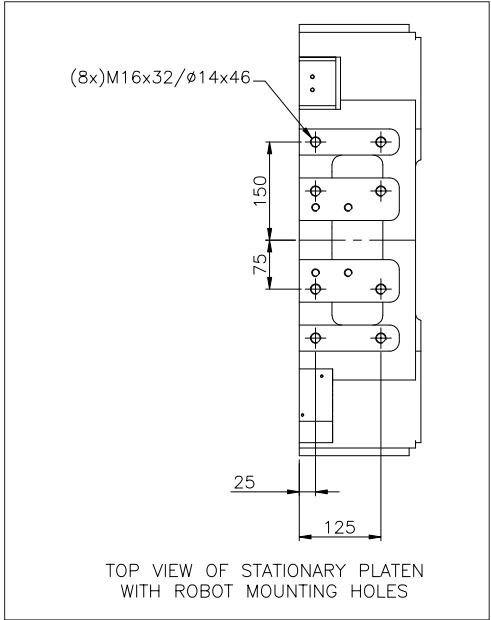
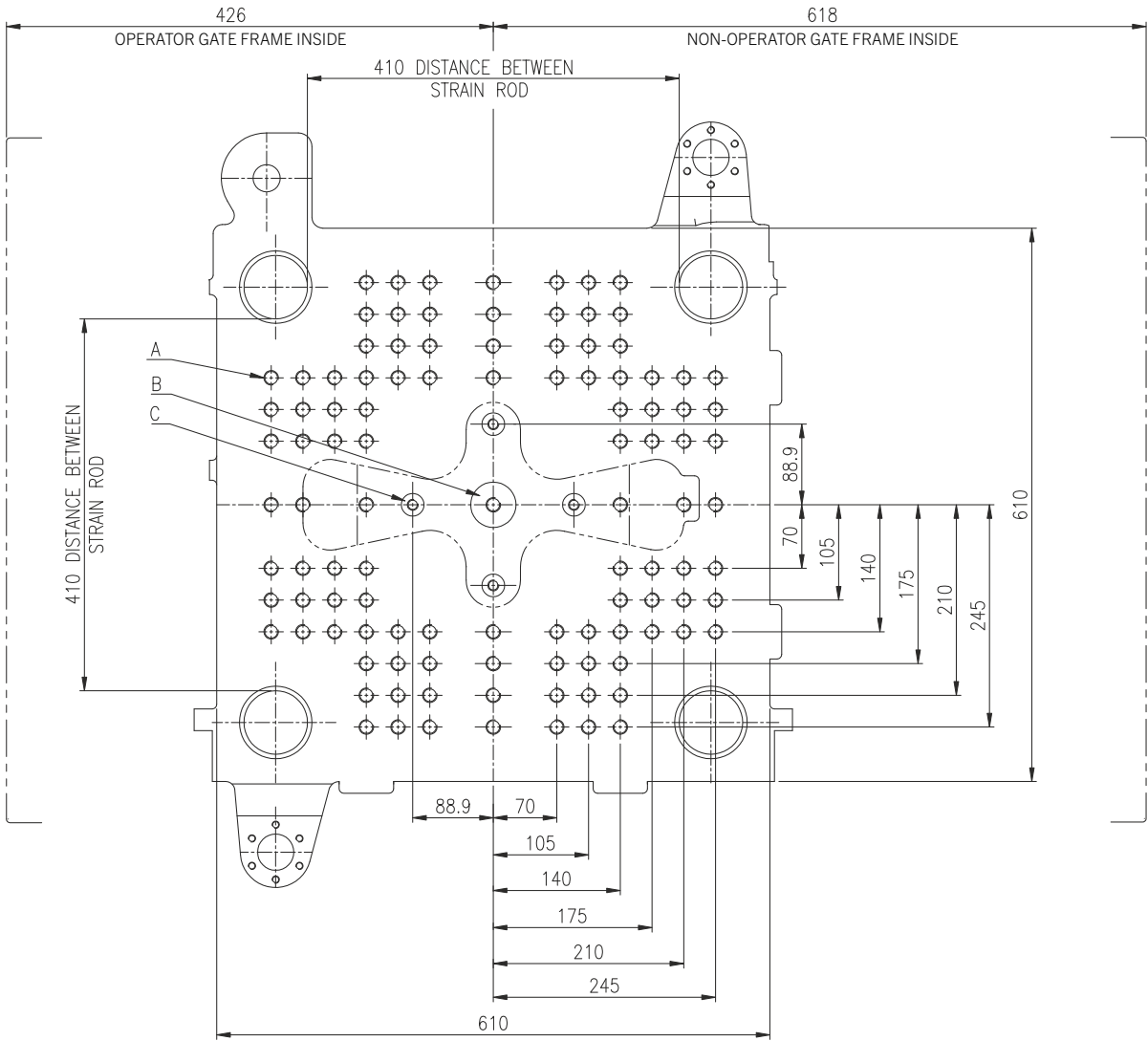
* WITH OPEN NOZZLE
** UNDER SPECIFIED CONDITION

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

THE **HYDRON SERVO**
TONNAGE: 100

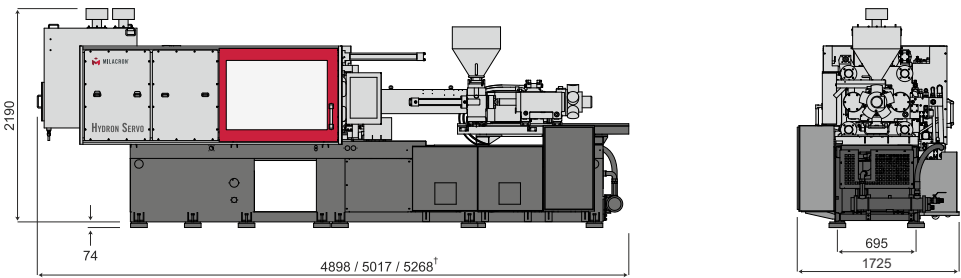
Injection Unit 300, 450, 630

TECHNICAL SPECIFICATIONS



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 300 / 450 / 630

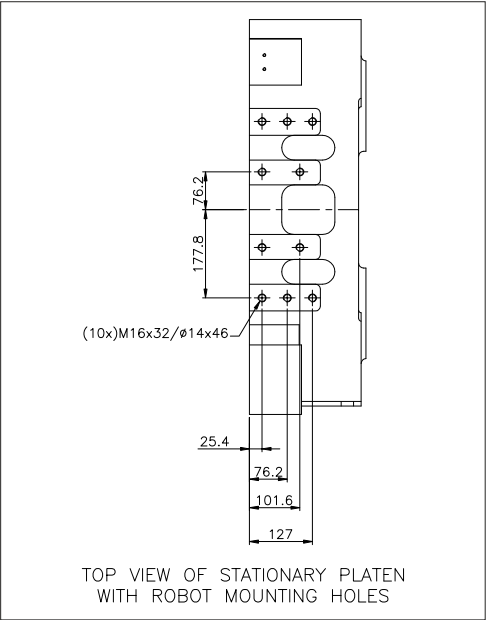
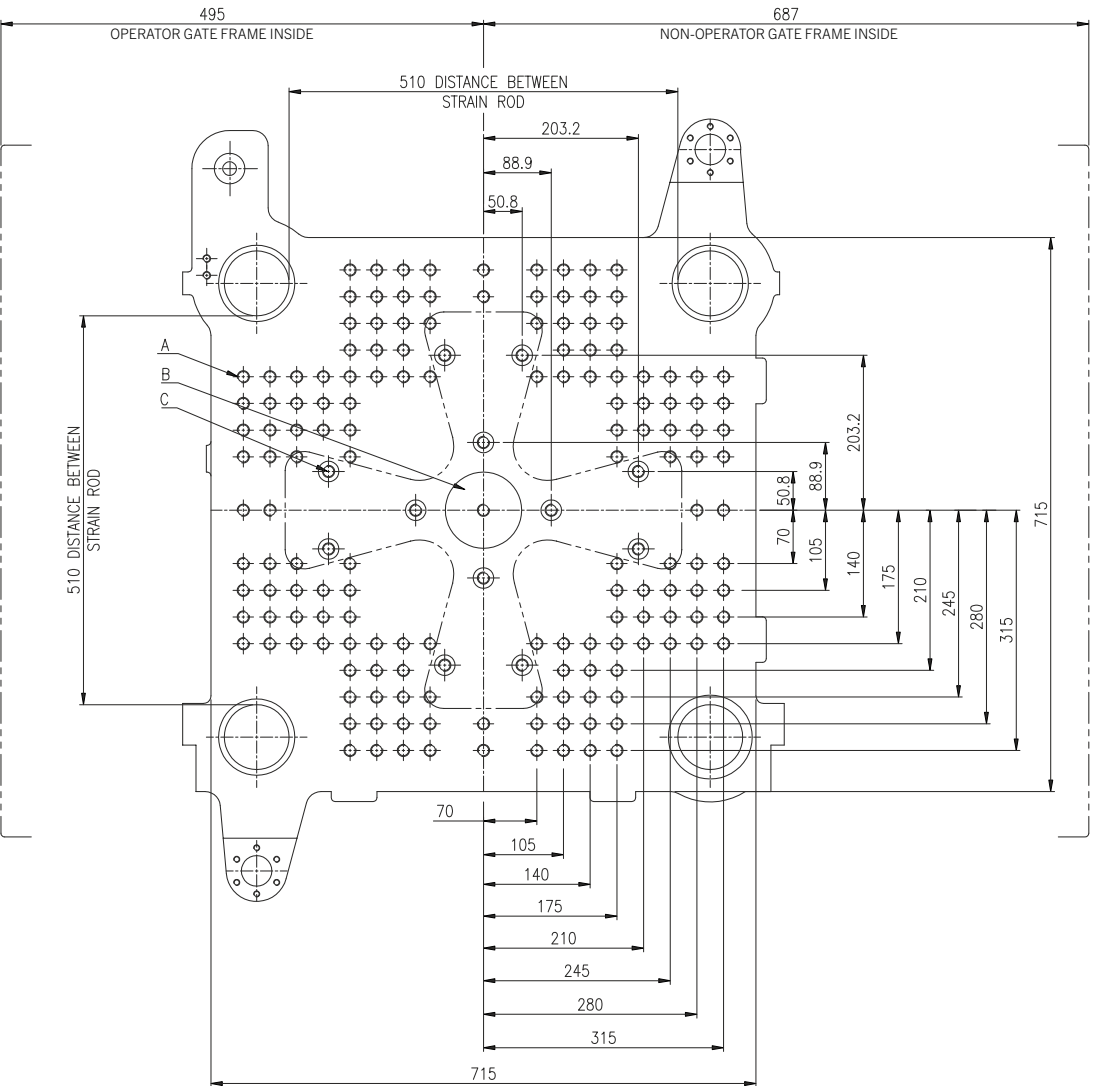
HYDRON SERVO 100	UNIT	300			450				630			
	METRIC	A'	A	B	A'	A	B	C	A'	A	B	C
INJECTION UNIT SPECIFICATIONS												
INJECTION CAPACITY MAX. (GPPS)	gms	108	146	191	165	215	272	336	239	303	374	452
THEORETICAL DISPLACEMENT	cc	113	154	201	173	226	286	353	251	318	393	475
INJECTION PRESSURE MAX.	bar	2510	1958	1499	2443	1984	1568	1270	2492	1969	1595	1318
INJECTION RATE *	cc/sec	98	134	174	103	134	170	209	107	135	167	202
INJECTION SCREW STROKE	mm	160	160	160	180	180	180	180	200	200	200	200
SCREW DIAMETER	mm	30	35	40	35	40	45	50	40	45	50	55
SCREW L/D RATIO		26.6	22.9	20	25.7	22.5	20	18	25	22.2	20	18
SCREW SPEED	rpm	362	362	362	279	279	279	279	222	222	222	222
SCREW TORQUE @ 172 BAR	Nm	676	676	676	876	876	876	876	1080	1080	1080	1080
PLASTICIZING RATE (GPPS) *	gm/sec	11	16	22	13	17	24	32	14	19	25	32
PLASTICIZING RATE (GPPS BARRIER) *	gm/sec	NA	22	29	17	23	31	42	18	25	33	42
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1			4+1				4+1			
TOTAL HEAT CAPACITY	kW	9.2			11.3				15.4			
HOPPER CAPACITY	kg	30			30				30			
CLAMP UNIT SPECIFICATIONS												
CLAMP FORCE	ton	100			100				100			
CLAMP STROKE	mm	560			560				560			
MAXIMUM DAYIGHT	mm	760			760				760			
MINIMUM MOULD HEIGHT	mm	200			200				200			
PLATEN SIZE (H X V)	mm	610 X 610			610 X 610				610 X 610			
DISTANCE BETWEEN TIE ROD	mm	410 X 410			410 X 410				410 X 410			
TIE ROD DIAMETER	mm	70			70				70			
EJECTOR STROKE	mm	125			125				125			
EJECTOR FORCE	ton	4.5			4.5				4.5			
MOULD WEIGHT CAPACITY (STAT. / MOVING)	kg	1060 (530 / 530)			1060 (530 / 530)				1060 (530 / 530)			
GENERAL												
SERVO DRIVE **	kW	11.5			11.5				11.5			
OIL TANK CAPACITY - MAIN	L	315			315				315			
OIL TANK CAPACITY - PREFILL	L	140			140				140			
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	53			53				53			
CONNECTED LOAD	kW	20.7			22.8				26.9			
MACHINE DIMENSION (L X W X H)	m	4.90 X 1.73 X 2.27			5.02 X 1.73 X 2.27				5.27 X 1.73 X 2.27			
MACHINE WEIGHT	kg	4500			4800				5000			

* WITH OPEN NOZZLE
** UNDER SPECIFIED CONDITION

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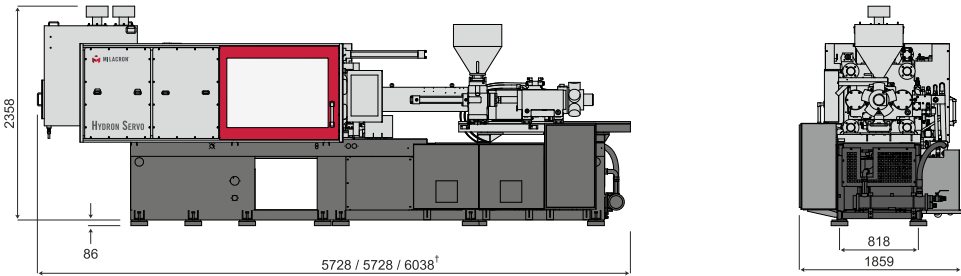
THE HYDRON SERVO
TONNAGE: 150

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.



1U 450 / 630 / 970

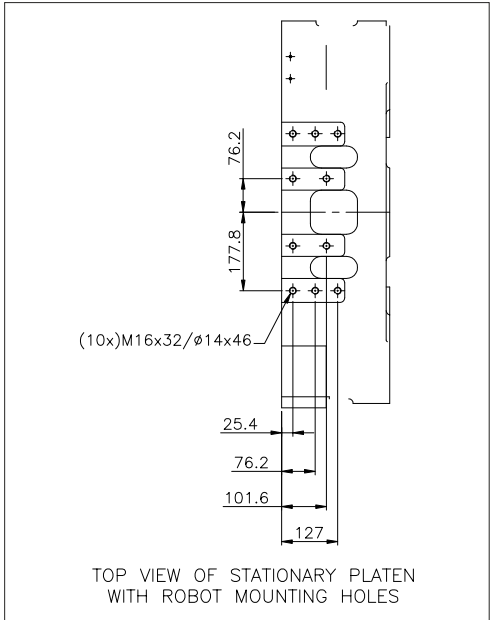
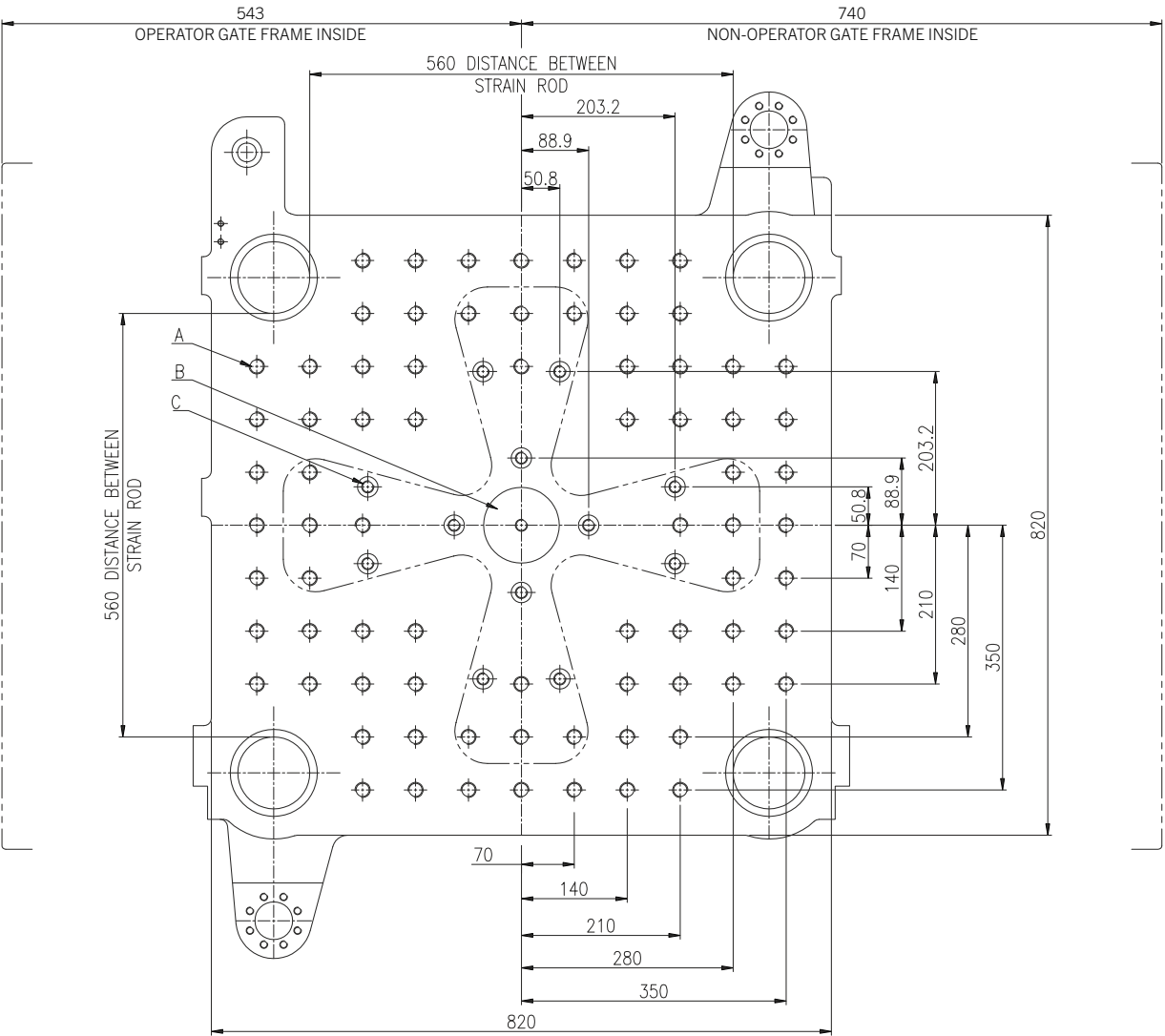
HYDRON SERVO 150	UNIT	450				630				970		
	METRIC	A'	A	B	C	A'	A	B	C	A'	A	B
INJECTION UNIT SPECIFICATIONS												
INJECTION CAPACITY MAX. (GPPS)	gms	165	215	272	336	239	303	374	452	363	448	646
THEORETICAL DISPLACEMENT	cc	173	226	286	353	251	318	393	475	382	471	679
INJECTION PRESSURE MAX.	bar	2443	1984	1568	1270	2492	1969	1595	1318	2249	2057	1428
INJECTION RATE *	cc/sec	103	134	170	209	107	135	167	202	105	129	186
INJECTION SCREW STROKE	mm	180	180	180	180	200	200	200	200	240	240	240
SCREW DIAMETER	mm	35	40	45	50	40	45	50	55	45	50	60
SCREW L/D RATIO		25.7	22.5	20	18	25	22.2	20	18	26.7	24	20
SCREW SPEED	rpm	279	279	279	279	222	222	222	222	188	188	188
SCREW TORQUE @ 172 BAR	Nm	876	876	876	876	1080	1080	1080	1080	1305	1305	1305
PLASTICIZING RATE (GPPS) *	gm/sec	13	17	24	32	14	19	25	32	16	21	34
PLASTICIZING RATE (GPPS BARRIER) *	gm/sec	17	23	31	42	18	25	33	42	21	28	43
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1				4+1				4+1		
TOTAL HEAT CAPACITY	kW	11.3				15.4				16.9		
HOPPER CAPACITY	kg	30				30				30		
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	11.5				11.5				11.5		
OIL TANK CAPACITY - MAIN	L	395				395				395		
OIL TANK CAPACITY - PREFILL	L	180				180				180		
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	53				53				53		
CONNECTED LOAD	kW	22.8				26.9				28.4		
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
** UNDER SPECIFIED CONDITION

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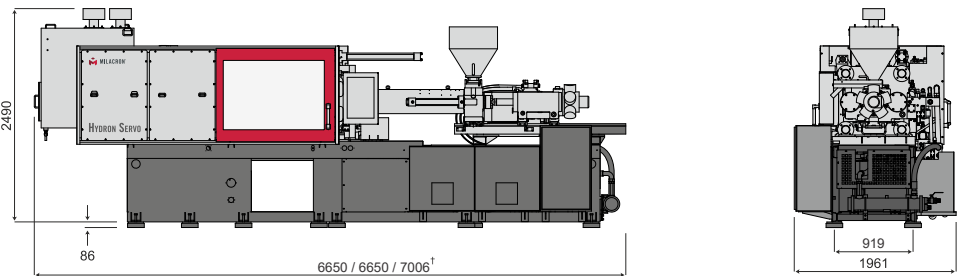
THE HYDRON SERVO
TONNAGE: 200

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.



¹IU 630 / 970 / 1540

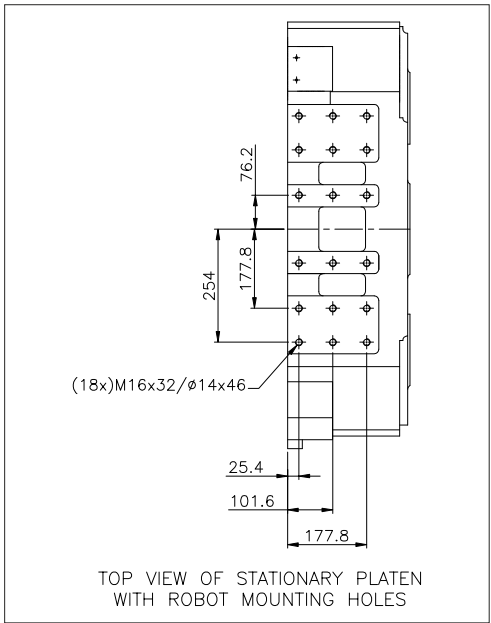
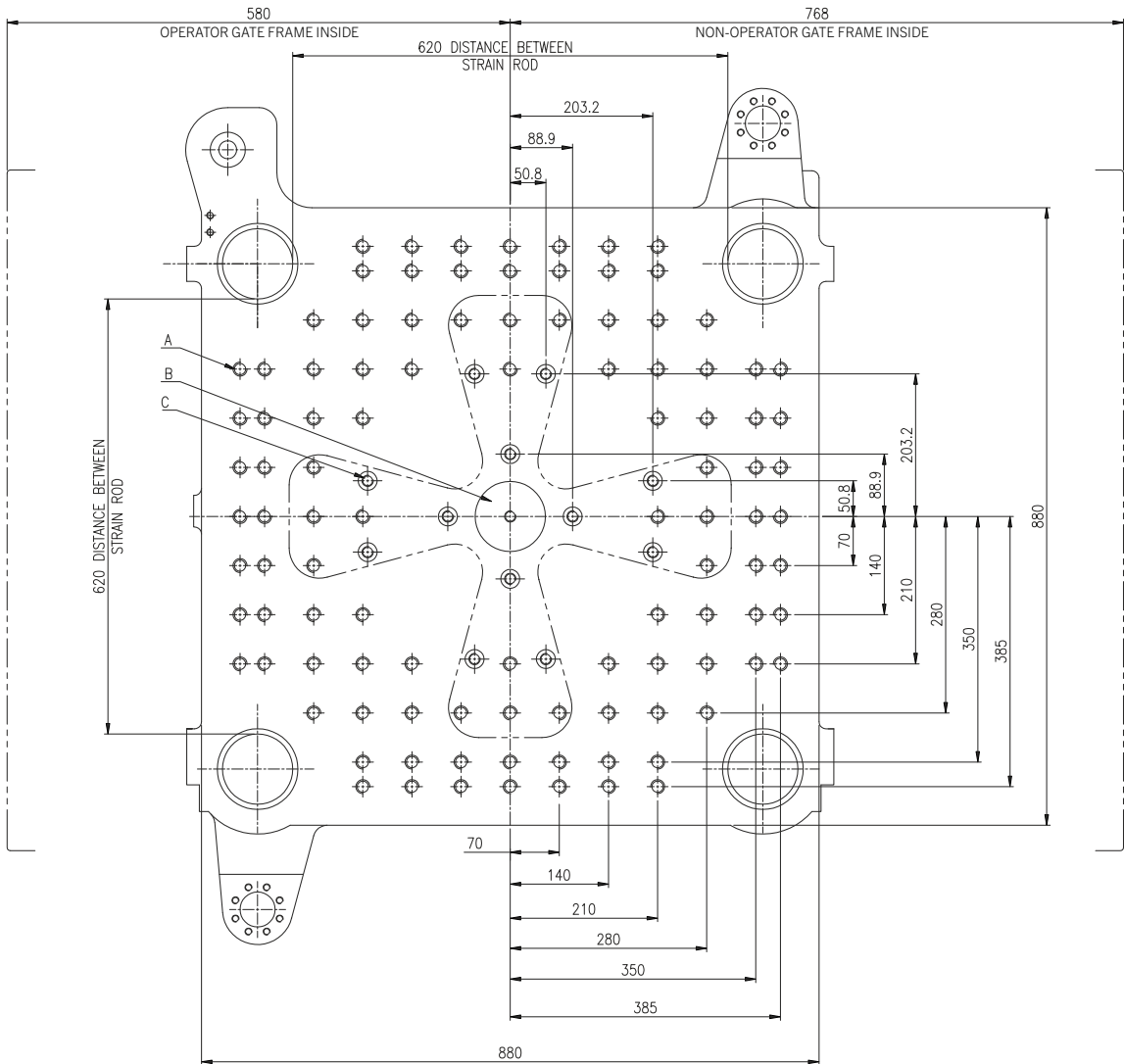
HYDRON SERVO 200	UNIT	630				970			1540		
	METRIC	A'	A	B	C	A'	A	B	A'	A	B
INJECTION UNIT SPECIFICATIONS											
INJECTION CAPACITY MAX. (GPPS)	gms	239	303	374	452	363	448	646	523	753	1025
THEORETICAL DISPLACEMENT	cc	251	318	393	475	382	471	679	550	792	1078
INJECTION PRESSURE MAX.	bar	2492	1969	1595	1318	2249	2057	1428	2236	1941	1426
INJECTION RATE *	cc/sec	167	211	261	315	164	202	291	149	214	291
INJECTION SCREW STROKE	mm	200	200	200	200	240	240	240	280	280	280
SCREW DIAMETER	mm	40	45	50	55	45	50	60	50	60	70
SCREW L/D RATIO		25	22.2	20	18	26.7	24	20	28	23.3	20
SCREW SPEED	rpm	305	305	305	305	293	293	293	180	180	180
SCREW TORQUE @ 172 BAR	Nm	1080	1080	1080	1080	1305	1305	1305	2126	2126	2126
PLASTICIZING RATE (GPPS) *	gm/sec	19	26	35	43	25	33	53	20	33	50
PLASTICIZING RATE (GPPS BARRIER) *	gm/sec	25	34	46	57	33	44	68	27	41	66
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1				4+1			5+1		
TOTAL HEAT CAPACITY	kW	15.4				16.9			24.9		
HOPPER CAPACITY	kg	30				30			60		
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	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	130				130			130		
CONNECTED LOAD	kW	29				30.5			38.5		
MACHINE DIMENSION (L X W X H)	m	6.65 X 1.96 X 2.58				6.65 X 1.96 X 2.58			7.01 X 1.96 X 2.58		
MACHINE WEIGHT	kg	8900				9200			9700		

* WITH OPEN NOZZLE
** UNDER SPECIFIED CONDITION

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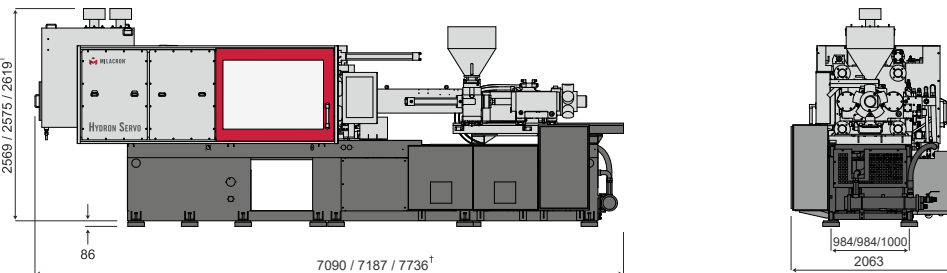
THE **HYDRON SERVO**
TONNAGE: 250

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 / 2290

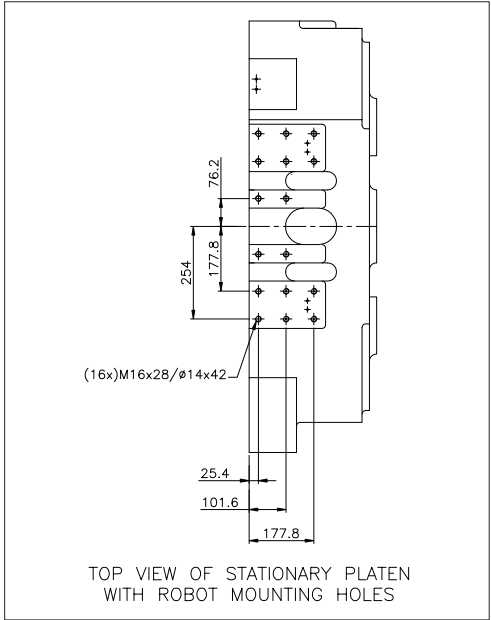
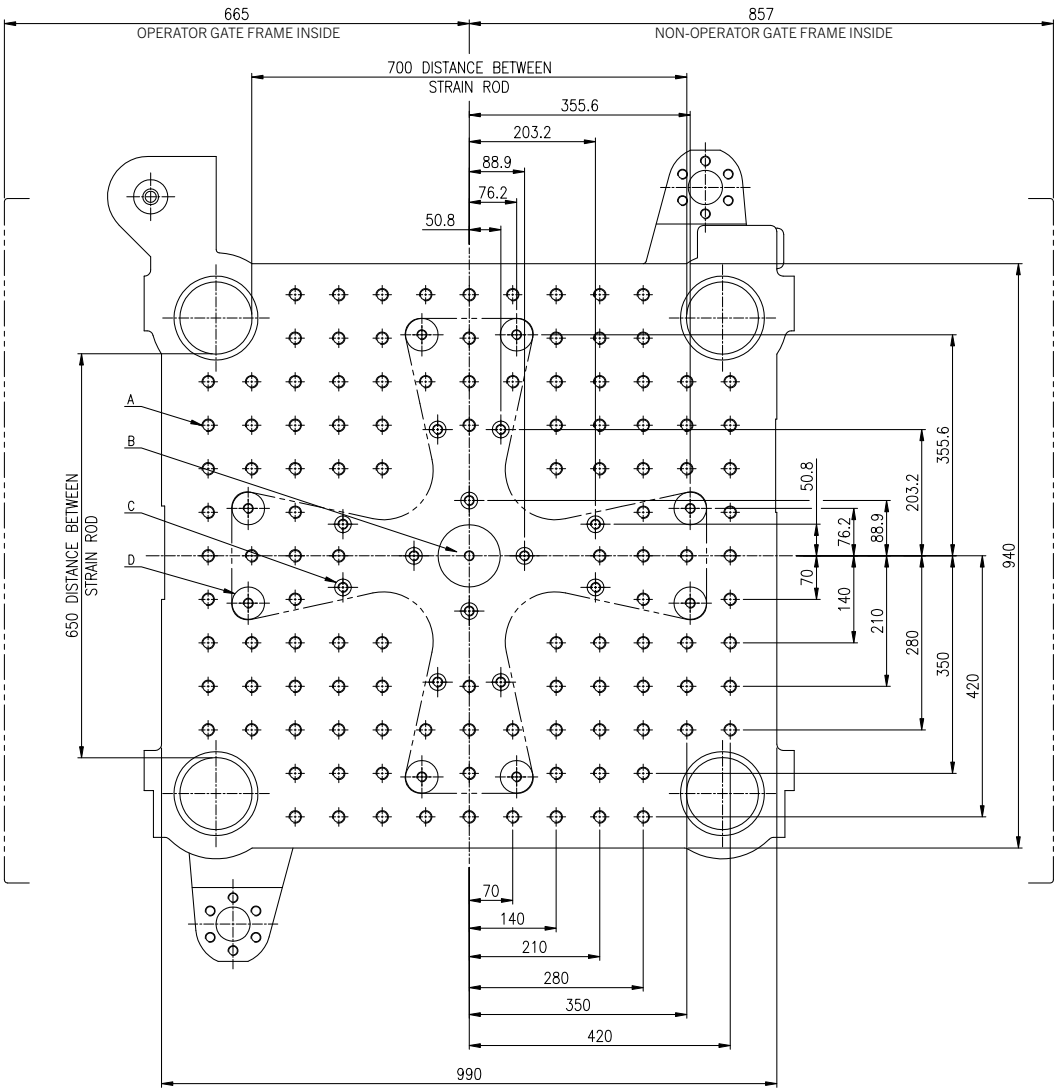
HYDRON SERVO 250	UNIT	970			1540			2290		
	METRIC	A'	A	B	A'	A	B	A'	A	B
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (GPPS)	gms	363	448	646	523	753	1025	861	1172	1530
THEORETICAL DISPLACEMENT	cc	382	471	679	550	792	1078	905	1232	1608
INJECTION PRESSURE MAX.	bar	2249	2057	1428	2236	1941	1426	2238	1856	1421
INJECTION RATE *	cc/sec	164	202	291	149	214	291	270	367	480
INJECTION SCREW STROKE	mm	240	240	240	280	280	280	320	320	320
SCREW DIAMETER	mm	45	50	60	50	60	70	60	70	80
SCREW L/D RATIO		26.7	24	20	28	23.3	20	26.7	22.9	20
SCREW SPEED	rpm	293	293	293	180	180	180	187	187	187
SCREW TORQUE @ 172 BAR	Nm	1305	1305	1305	2126	2126	2126	3347	3347	3347
PLASTICIZING RATE (GPPS) *	gm/sec	25	33	53	20	33	50	34	52	72
PLASTICIZING RATE (GPPS BARRIER) *	gm/sec	33	44	68	27	41	66	43	69	93
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1			5+1			5+1		
TOTAL HEAT CAPACITY	kW	16.9			24.9			39.6		
HOPPER CAPACITY	kg	30			60			143		
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	13.6			13.6			25.1		
OIL TANK CAPACITY - MAIN	L	730			730			730		
OIL TANK CAPACITY - PREFILL	L	355			355			355		
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	130			130			220		
CONNECTED LOAD	kW	30.5			38.5			64.7		
MACHINE DIMENSION (L X W X H)	m	7.10 X 2.06 X 2.66			7.19 X 2.06 X 2.66			7.74 X 2.06 X 2.70		
MACHINE WEIGHT	kg	10600			11000			12200		

* WITH OPEN NOZZLE
** UNDER SPECIFIED CONDITION

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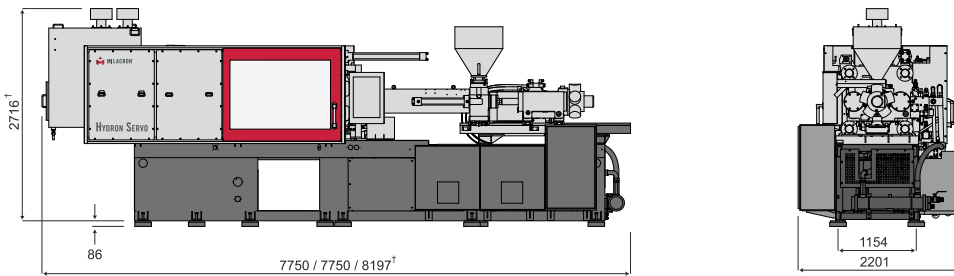
THE HYDRON SERVO
TONNAGE: 300

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



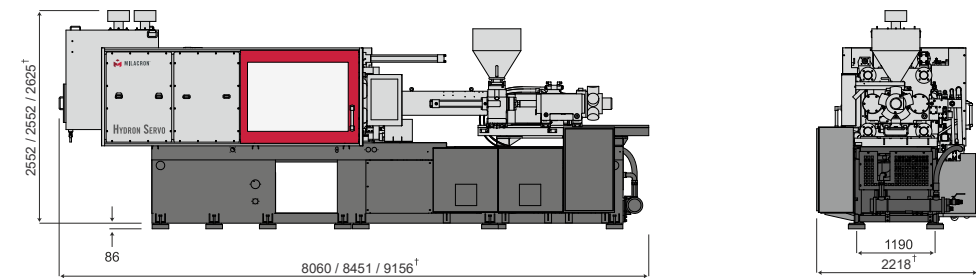
1U 970 / 1540 / 2290

HYDRON SERVO 300	UNIT	970			1540			2290		
	METRIC	A'	A	B	A'	A	B	A'	A	B
INJECTION UNIT SPECIFICATIONS										
INJECTION CAPACITY MAX. (GPPS)	gms	363	448	646	523	753	1025	861	1172	1530
THEORETICAL DISPLACEMENT	cc	382	471	679	550	792	1078	905	1232	1608
INJECTION PRESSURE MAX.	bar	2249	2057	1428	2236	1941	1426	2238	1856	1421
INJECTION RATE *	cc/sec	268	331	477	244	351	478	270	367	480
INJECTION SCREW STROKE	mm	240	240	240	280	280	280	320	320	320
SCREW DIAMETER	mm	45	50	60	50	60	70	60	70	80
SCREW L/D RATIO		26.7	24	20	28	23.3	20	26.7	22.9	20
SCREW SPEED	rpm	382	382	318	295	295	273	187	187	187
SCREW TORQUE @ 172 BAR	Nm	1305	1305	1305	2126	2126	2126	3347	3347	3347
PLASTICIZING RATE (GPPS) *	gm/sec	32	43	58	34	54	76	34	52	72
PLASTICIZING RATE (GPPS BARRIER) *	gm/sec	43	57	73	44	68	100	43	69	93
NO.OF PYROMETERS (BARREL+NOZZLE)		4+1			5+1			5+1		
TOTAL HEAT CAPACITY	kW	16.9			24.9			39.6		
HOPPER CAPACITY	kg	30			60			143		
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	25.1			25.1			25.1		
OIL TANK CAPACITY - MAIN	L	740			740			740		
OIL TANK CAPACITY - PREFILL	L	420			420			420		
WATER REQUIREMENT (INLET TEMP. 29°C)	lpm	220			220			220		
CONNECTED LOAD	kW	42			50			64.7		
MACHINE DIMENSION (L X W X H)	m	7.75 X 2.20 X 2.80			7.75 X 2.20 X 2.80			8.20 X 2.20 X 2.80		
MACHINE WEIGHT	kg	14100			14500			15500		

* WITH OPEN NOZZLE
** UNDER SPECIFIED CONDITION
WITH 150 MM RAM SPACER

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

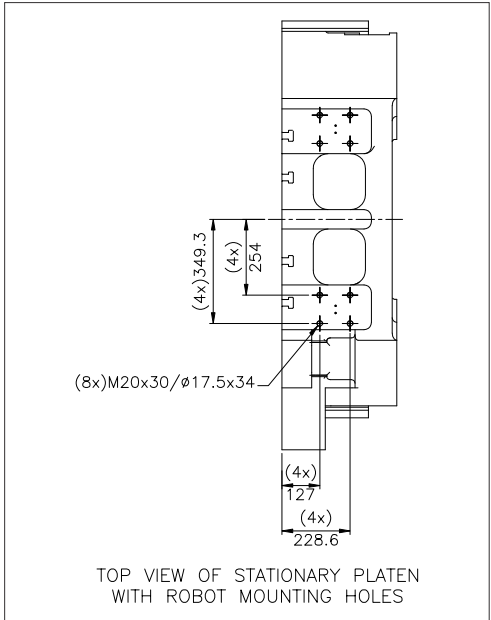
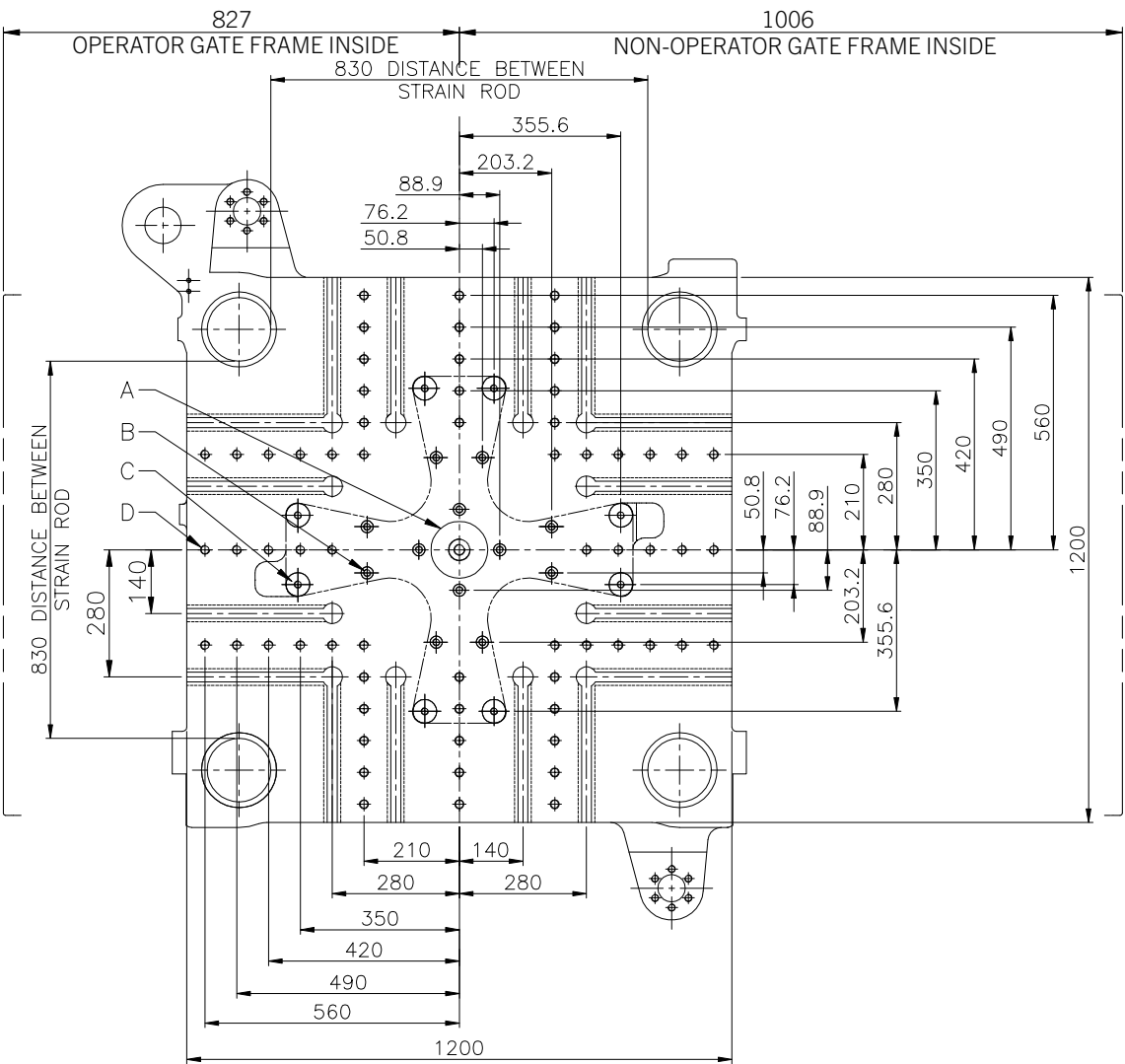
TECHNICAL SPECIFICATIONS



THE **HYDRON SERVO**
TONNAGE: 450

Injection Unit 2290, 3470, 4880

TECHNICAL SPECIFICATIONS



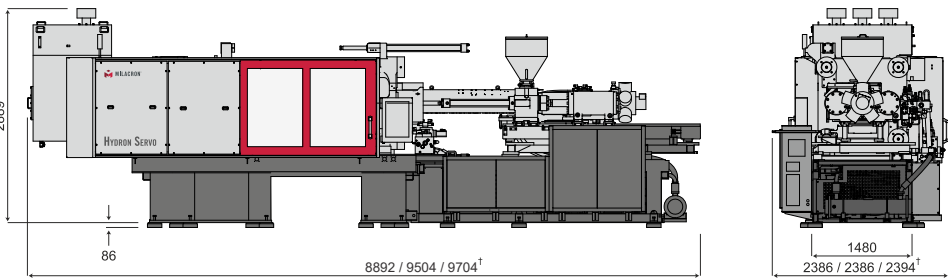
ALL DIMENSIONS ARE IN MM

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



¹IU 2290 / 3470 / 4880

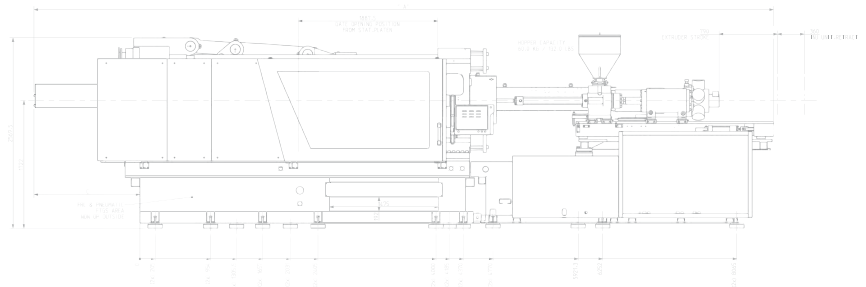
HYDRON SERVO 450	UNIT	2290			3470			4880	
	METRIC	A'	A	B	A'	A	B	A	B
INJECTION UNIT SPECIFICATIONS									
INJECTION CAPACITY MAX. (GPPS)	gms	861	1172	1530	1318	1722	2179	2421	2989
THEORETICAL DISPLACEMENT	cc	905	1232	1608	1385	1810	2290	2545	3142
INJECTION PRESSURE MAX.	bar	2238	1856	1421	2289	1917	1515	1896	1553
INJECTION RATE *	cc/sec	270	367	480	272	356	450	434	535
INJECTION SCREW STROKE	mm	320	320	320	360	360	360	400	400
SCREW DIAMETER	mm	60	70	80	70	80	90	90	100
SCREW L/D RATIO		26.7	22.9	20	25.7	22.5	20	22.2	20
SCREW SPEED	rpm	187	187	187	142	142	142	119	119
SCREW TORQUE @ 172 BAR	Nm	3347	3347	3347	4424	4424	4424	6443	6443
PLASTICIZING RATE (GPPS) *	gm/sec	34	52	72	40	55	73	62	80
PLASTICIZING RATE (GPPS BARRIER) *	gm/sec	43	69	93	52	70	94	79	100
NO.OF PYROMETERS (BARREL+NOZZLE)		5+1			5+1			6+1	
TOTAL HEAT CAPACITY	kW	39.6			57.9			53.9	
HOPPER CAPACITY	kg	143			143			143	
CLAMP UNIT SPECIFICATIONS									
CLAMP FORCE	ton	450			450			450	
CLAMP STROKE	mm	1100			1100			1100	
MAXIMUM DAYIGHT	mm	1500 ¹ / 1850			1500 ¹ / 1850			1500 ¹ / 1850	
MINIMUM MOULD HEIGHT	mm	400 ¹ / 750			400 ¹ / 750			400 ¹ / 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	25.1			25.1			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	220			220			220	
CONNECTED LOAD	kW	64.7			83			81.1	
MACHINE DIMENSION (L X W X H)	m	9.00 X 2.36 X 2.98			9.51 X 2.39 X 2.98			9.70 X 2.40 X 2.98	
MACHINE WEIGHT	kg	22400			23400			23800	

* WITH OPEN NOZZLE

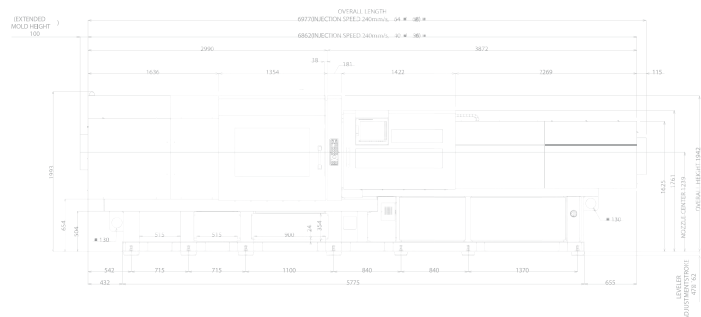
** UNDER SPECIFIED CONDITION

¹ WITH 350 MM RAM SPACER

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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.



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