

## Technical Specifications

### I45 Frame

### 72/96/130 - 70mm

72/96/130 – 70mm		English			Metric			
<b>Injection Unit Specifications</b>								
Injection Capacity, Max GPPS*	oz	72	96	130	gm	2,041	2,722	3,685
Theoretical Disp	in <sup>3</sup>	134.1	178.6	243.1	cm <sup>3</sup>	2,198	2,927	3,984
Injection Performance								
Max Pressure @ Rate		30,000 psi @ 18.4 in <sup>3</sup> /sec	23,200 psi @ 24.5 in <sup>3</sup> /sec	17,000 psi @ 36.9 in <sup>3</sup> /sec	bar	2,069 bar @ 302 cm <sup>3</sup> /sec	1,600 bar @ 401 cm <sup>3</sup> /sec	1,172 bar @ 605 cm <sup>3</sup> /sec
Max Rate @ Pressure		48.5 in <sup>3</sup> /sec @ 15,200 psi	64.6 in <sup>3</sup> /sec @ 11,440 psi	87.9 in <sup>3</sup> /sec @ 8,400 psi	cm <sup>3</sup> /sec	795 cm <sup>3</sup> /sec @ 1,048 bar	1,059 cm <sup>3</sup> /sec @ 789 bar	1,440 cm <sup>3</sup> /sec @ 580 bar
Max Injection Speed	in/sec	14.75	14.75	14.75	mm/sec	375	375	375
Max Pack Pressure	psi	30,000	23,200	17,000	bar	2,069	1,600	1,172
Max Pull Back Force	lbf	25,000	25,000	25,000	N	111,205	111,205	111,205
Plunger Stroke	in	40.75	40.75	40.75	mm	1,035	1,035	1,035
Plunger Diameter	in	2.04	2.36	2.76	mm	52	60	70
Extruder L/d Ratio - 70mm						30		
Extruder RPM - Low Torque	rpm					265		
Extruder RPM - High Torque	rpm					265		
Barrel Heat								
No. of Pyrometers (barrel/nozzle)						10/1		
Total Heat Capacity	kw					65.26		
Sled Pull in Force	ton		4.1		tonf		3.7	
<b>Clamp Specifications</b>								
Tonnage	ton		750		tonf		680	
Maximum Daylight	in		78.74		mm		2,000	
Max/Min Mold Height	in		39.37/15.75		mm		1000/400	
Max Mold Weight	lb		26,700		kg		12,100	
Max Clamp Stroke	in		39.37		mm		1000	
Euromap Dry Cycle Time	sec					<3.8		
Platen Size	in		57.1 × 60.0		mm		1,450 × 1,525	
Tie Bar Spacing	in		40.16 × 40.16		mm		1020 × 1020	
Tie Rod Diameter	in		7.09		mm		180	
Ejector Stroke	in		9.84		mm		250	
Max Ejector Force**	ton		16.9		tonf		15.3	
Max Eject Speed**	in/sec		8.9		mm/sec		225	
<b>Machine Specifications***</b>								
Length, see note	in		458.1		mm		11,637	
Width	in		109.0		mm		2,768	
Height	in		105.1		mm		2,671	
Centerline Height	in		58.0		mm		1,474	
Shipping Weight (machine)	lb		70,000/31,000/101,000		kg		31,751/14,061/45,813	
<b>Electrical Specifications***</b>								
Input Power Source 460 VAC ± 10% 3 Ph 60 Hz					Std.			
Power Supply Capacity kVA					190			
<b>Machine Requirements</b>								
Water					6 gpm @ 50 psi			
Air					80 psi @ 20 cfm			

\*Note: Other capacities available. Please Consult Factory.

\*\*Note: Higher eject force and speed available. Please Consult Factory.

\*\*\*Note: All machine dimensions and specifications are subject to change. Values are for reference only.



## Technical Specifications

### I49 Frame

74/98/135/195 - 120mm

74/98/135/195 – 120mm		English				Metric				
<b>Injection Unit Specifications</b>										
Injection Capacity, Max GPPS*	oz	74	98	135	195	gm	2,098	2,778	3,827	5,528
Theoretical Disp	in <sup>3</sup>	133.2	178.3	243.8	357.0	cm <sup>3</sup>	2,183	2,922	3,995	5,850
Injection Performance										
Max Pressure @ Rate		35,000 psi @ 31 in <sup>3</sup> /sec	30,000 psi @ 41 in <sup>3</sup> /sec	23,200 psi @ 56 in <sup>3</sup> /sec	17,763 psi @ 73 in <sup>3</sup> /sec		2,414 bar @ 508 cm <sup>3</sup> /sec	2,069 bar @ 672 cm <sup>3</sup> /sec	1,600 bar @ 917 cm <sup>3</sup> /sec	1,225 bar @ 1,196 cm <sup>3</sup> /sec
Max Rate @ Pressure		62 in <sup>3</sup> /sec @ 24,726 psi	82 in <sup>3</sup> /sec @ 18,752 psi	112 in <sup>3</sup> /sec @ 13,645 psi	146 in <sup>3</sup> /sec @ 10,447 psi		1,105 cm <sup>3</sup> /sec @ 1,705 bar	1,343 cm <sup>3</sup> /sec @ 1,281 bar	1,834 cm <sup>3</sup> /sec @ 941 bar	2,392 cm <sup>3</sup> /sec @ 720 bar
Max Injection Speed	in/sec	19	19	19	19	mm/sec	482	482	482	482
Max Pack Pressure	psi	35,000	30,000	23,200	17,763	bar	2,414	2,069	1,600	1,225
Max Pull Back Force	lbf	25,000	25,000	25,000	25,000	N	111,205	111,205	111,205	111,205
Plunger Stroke	in	40.75	40.75	40.75	40.75	mm	1,035	1,035	1,035	1,035
Plunger Diameter	in	2.04	2.36	2.76	3.34	mm	52	60	70	85
Extruder L/d Ratio - 120mm*						25				
Extruder RPM - Low Torque	rpm					160				
Extruder RPM - High Torque	rpm					130				
Barrel Heat										
No. of Pyrometers (barrel/nozzle)						10/1				
Total Heat Capacity	kw					142.75				
Sled Pull in Force	ton	4.1				tonf	3.7			
<b>Clamp Specifications</b>										
Tonnage	ton	750				tonf	682			
Maximum Daylight	in	78.74				mm	2,000			
Max/Min Mold Height	in	39.37/15.75				mm	1000/400			
Max Mold Weight	lb	26,700				kg	12,100			
Max Clamp Stroke	in	39.37				mm	1000			
Euromap Dry Cycle Time	sec					<4,5				
Platen Size	in	57.1 × 60.0				mm	1,450 × 1,525			
Tie Bar Spacing	in	40.16 × 40.16				mm	1,020 × 1,020			
Tie Rod Diameter	in	7.09				mm	180			
Ejector Stroke	in	9.84				mm	250			
Max Ejector Force**	ton	16.9				tonf	15.3			
Max Eject Speed**	in/sec	8.9				mm/sec	225			
<b>Machine Specifications***</b>										
Length, see note	in	458.1				mm	11,636			
Width	in	109.0				mm	2,769			
Height	in	105.1				mm	2,670			
Centerline Height	in	58.0				mm	1,473			
Shipping Weight (machine)	lb	70,000/31,000/101,000				kg	31,751/14,061/45,813			
<b>Electrical Specifications***</b>										
Input Power Source 460 VAC ± 10% 3 Ph 60 Hz						Std.				
Power Supply Capacity kVA						190				
<b>Machine Requirements</b>										
Water						6 gpm @ 80 psi				
Air						80 psi @ 20 cfm				

\*Note: Other capacities available. Please Consult Factory.

\*\*Note: Higher eject force and speed available. Please Consult Factory.

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## Technical Specifications

### I78 Hybrid Frame

### 38/44/50 - 120mm

38/44/50 – 120mm		English				Metric		
Injection Unit Specifications		A	B	C		A	B	C
Injection Capacity, Max GPPS	oz	38	44	50	gm	1,077	1,247	1,417
Theoretical Disp	in <sup>3</sup>	68.9	80.1	91.5	cm <sup>3</sup>	1,129	1,313	1,500
Injection Performance								
Max Pressure	psi	34,800	30,000	27,500	bar	2,400	2,069	1,897
Max Rate	in <sup>3</sup> /sec	153	175	200	cm <sup>3</sup> /sec	2,500	2,868	3,278
Max Injection Speed	in/sec	30	30	30	mm/sec	762	762	762
Max Pack Pressure	psi	27,840	24,000	22,000	bar	1,920	1,655	1,518
Max Pull Back Force	lbf	22,000	22,000	22,000	N	97,860	97,860	97,860
Plunger Stroke	in	13.39	13.39	13.39	mm	340	340	340
Plunger Diameter	in	2.56	2.76	2.95	mm	65	70	75
Extruder L/d Ratio - 120mm*						25		
Extruder RPM - Low Torque	rpm					160		
Extruder RPM - High Torque	rpm					130		
Barrel Heat								
No. of Pyrometers (barrel/nozzle)						11/1		
Total Heat Capacity	kw					148.3		
Sled Pull in Force	ton		12		tonf		10.8	

Clamp Specifications					
Tonnage	ton		750	tonf	680
Maximum Daylight	in		78.74	mm	2,000
Max/Min Mold Height	in		39.37/15.75	mm	1000/400
Max Mold Weight	lb		26,700	kg	12,100
Max Clamp Stroke	in		39.37	mm	1000
Euromap Dry Cycle Time	sec				<3.8
Platen Size	in		57.1 × 60.0	mm	1,450 × 1,525
Tie Bar Spacing	in		40.16 × 40.16	mm	1020 × 1020
Tie Rod Diameter	in		7.09	mm	180
Ejector Stroke	in		9.84	mm	250
Max Ejector Force (hyd std)**	ton		16.9	tonf	15.3
Max Eject Speed**	in/sec		20	mm/sec	510

Machine Specifications***					
Length, see note	in		458.1	mm	11,637
Width	in		109.0	mm	2,768
Height	in		105.1	mm	2,671
Centerline Height	in		58.0	mm	1,474
Shipping Weight (machine)	lb		101,000	kg	45,813
Shipping Weight (power unit)	lb		3,800	kg	1,724

Electrical Specifications***			
Input Power Source 460 VAC ± 10% 3 Ph 60 Hz			Std.
Power Supply Capacity kVA			217

Machine Requirements			
Water			15 gpm @ 85 F
Air			80 psi @ 20 cfm

\*Note: 70mm 30:1 L/d extruder also available (consult factory)

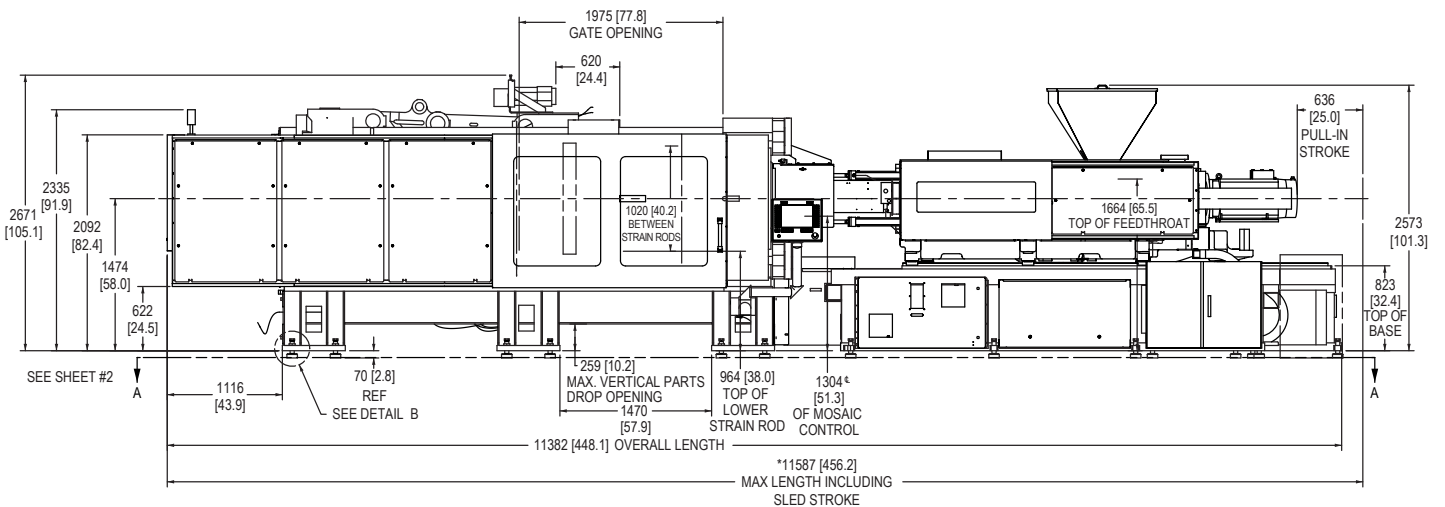
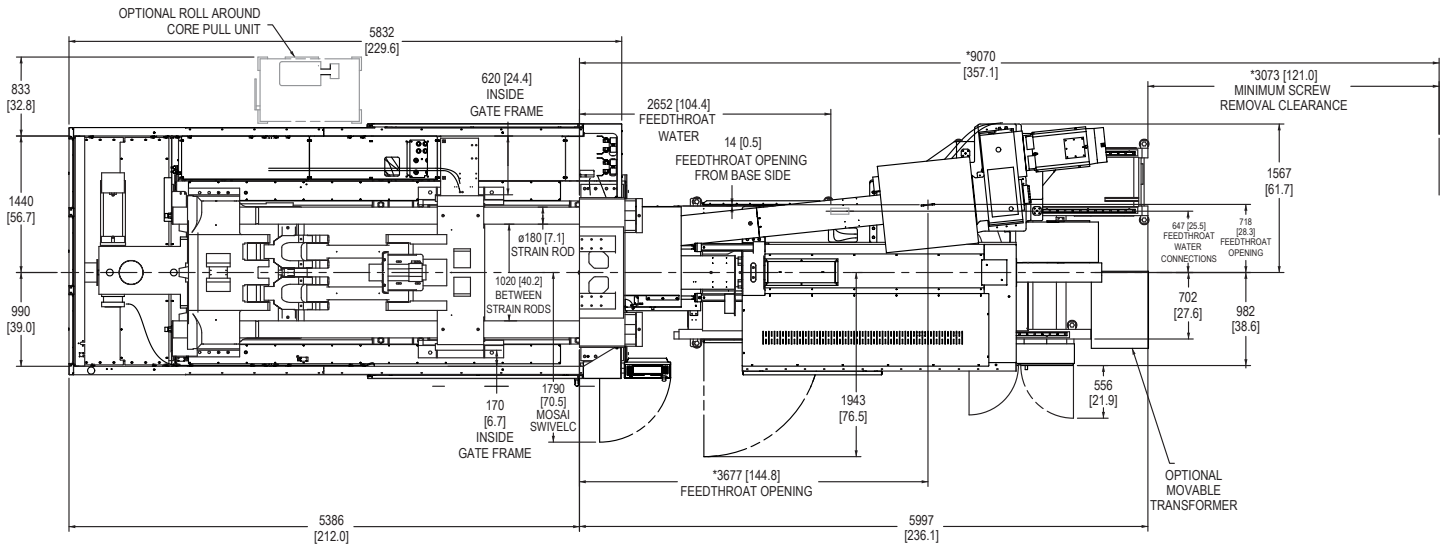
\*\*Note: Higher eject force and speed available (consult factory)

\*\*\*Note: All machine dimensions and specifications are subject to change. Values are for reference only.



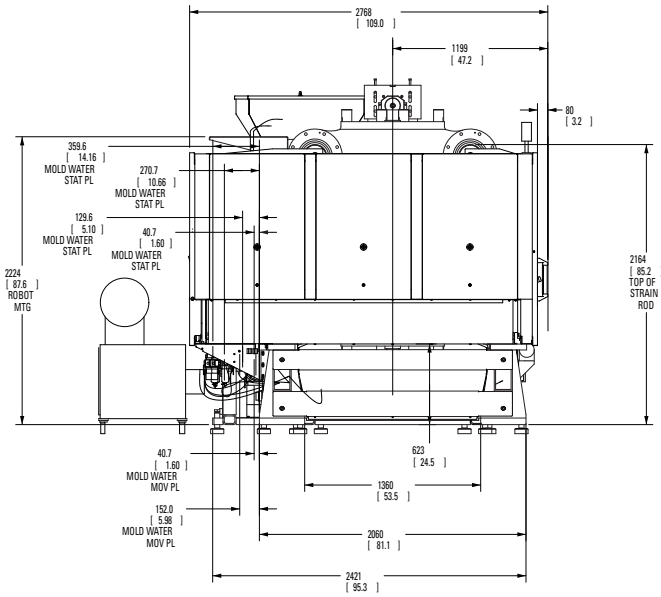
## Templates

### Top View

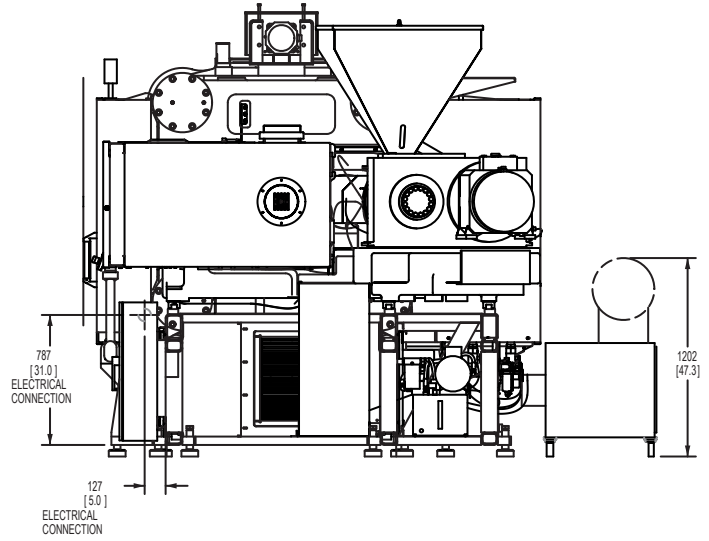


### Front View

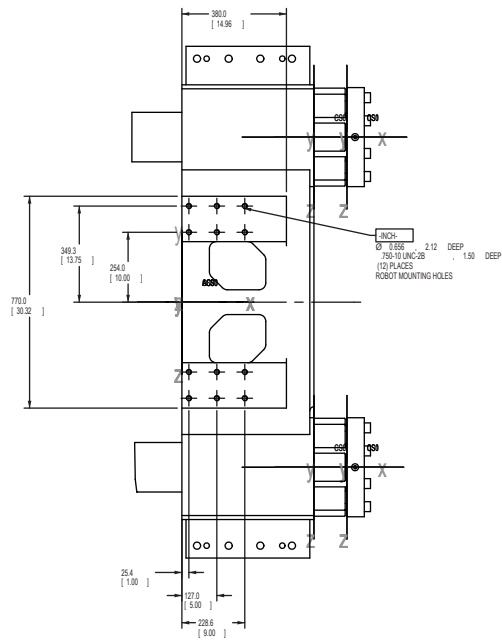
## Templates



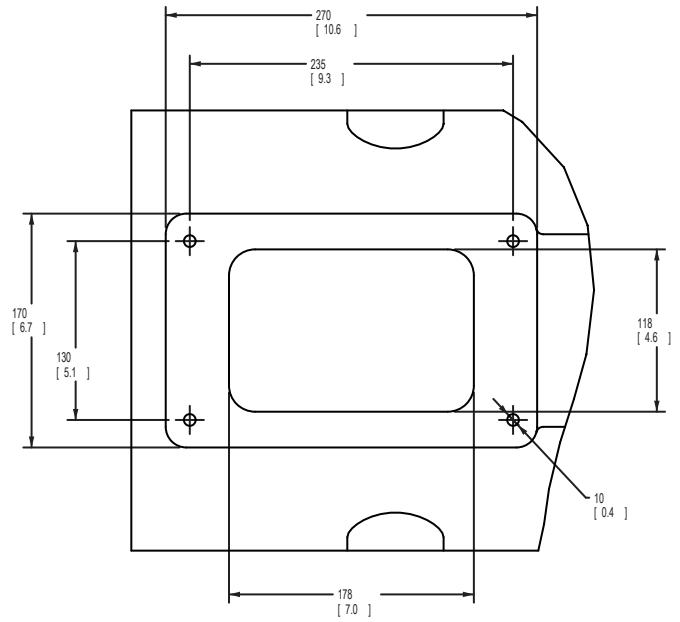
Clamp End



Injection End



Robot Mounting

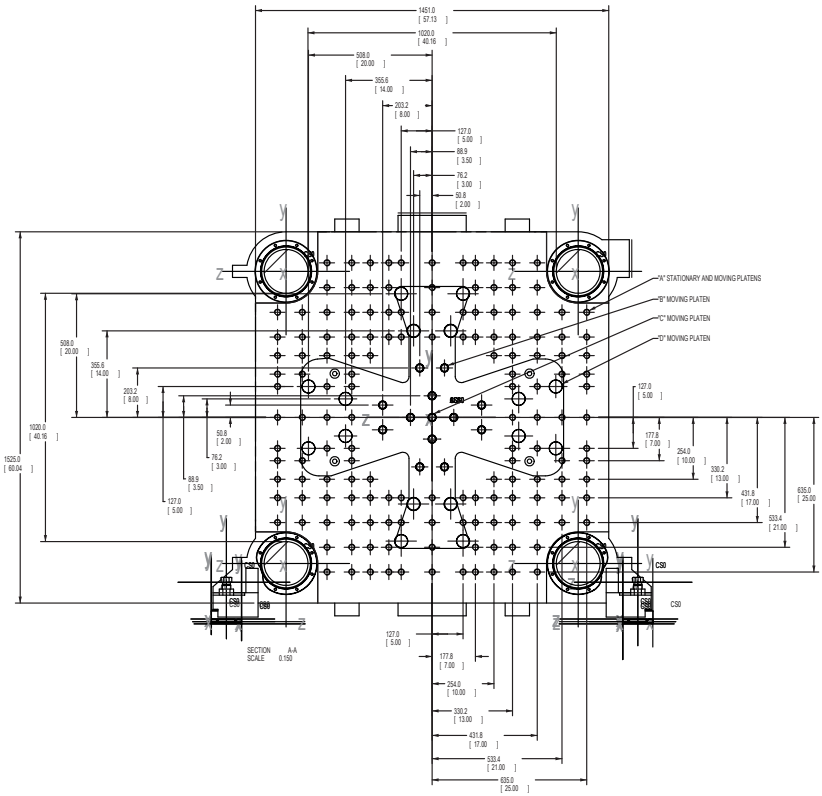


Feed Throat

Feed throat dimensions can change based on injection frame.  
Consult factory for specific details.



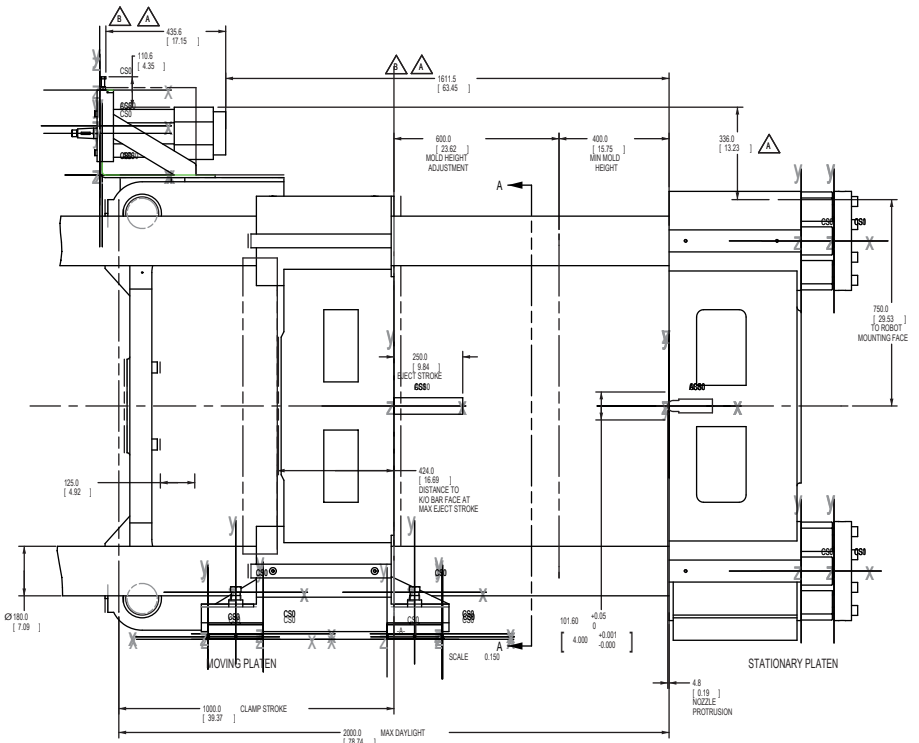
## Templates



### HOLE DESCRIPTION

- "A" 1.00-8 UNC-2B, 1.88" DP (132) PLACES EACH PLATEN
- "B" Ø27.0 THRU (12) HOLES  
CORRESPONDING HOLES IN K/O Ø.811" THRU
- "C" Ø27.0 THRU (1) HOLE  
CORRESPONDING HOLE IN K/O BAR Ø0.500-13 UNC-2B, 1.00" DP
- "D" Ø52.4 THRU (16) HOLES  
CORRESPONDING HOLES IN K/O Ø.811" THRU

Die Space



Platen Area