



VERTICAL INJECTION MOLDING MACHINE

# KING'S

Solution Corp.  
Green Solution  
Machine Soulmate



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## KING'S Solution Corp.

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# Company Culture



Support to Customer



Innovation to Success



Total Quality Control



Valued Employee



Think Green

King's Solution Corp., (King's Machinery & Engineering Corp.) founded in 1983, which dedicated in injection molding solutions for more than 3 decades. Based on the experience of over 1000 sets of customized machines with automation and turn-key solutions, our team specializes in self-developed automation construction, pneumatic & hydraulic circuit, servo control, AOI, and IPC programming.

We are committed to manufacturing the smart machine as the front line of industrial 4.0. with a reliable, sustainable innovative system application, King's Solution Corp. is the Best partner to support customers stands out as the leader in the market.

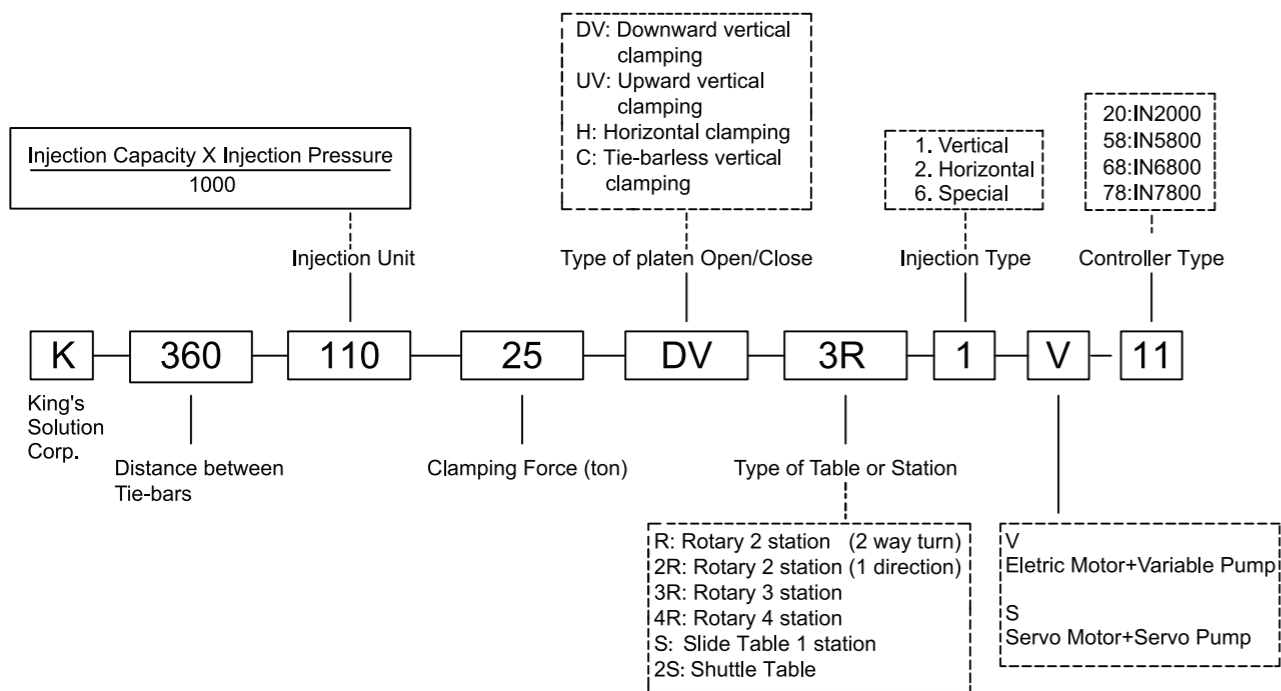
King's Create Solutions with :

- SMART CONTROL
- GREEN DESIGN

King's Create Value for Customers:

- LEAN PRODUCTION
- INDUSTRY 4.0

## Model Number Structure



## Smart Factory - Industry 4.0

With 40 years of injection molding experience, KING'S smart machines have built-in smart control program and sensing system, which can drive and monitor the machines throughout the whole plant. It can also communicate with each other to produce by controller command, avoid human errors, achieve "Smart Factory for Industry 4.0"

### Real-time Linux PC-Based Technology

- Flexible & Comprehensive Hardware
- 7" / 8" / 10.4" / 15" TFT / Touch LCD
- Graphic Interface
- Multi-language display
- Built in USB/Ethernet/Printer Port/Com Port/SD card
- Support EtherCAT communication protocol.



IN5800



IN6800



IN7800

### Powerful Management System

- Supervisory of User Access Control up to 99 levels.
- Historical data eg.operation settings, alarms can easily to be maintain and backup.
- Up to 1000 sets of mold data can be exported.
- Mold info up to 1000 cycles, exported file to read in PC.
- Real-time curves display of injection, temperature, back pressure and so on.
- Remote monitoring via internet.

### Customized & Open Interface

- Fastest trouble shooting. real-time feed back.
- All settings can be revised according to your request and in different language.
- Com Port/Controller function: Fast customization service for additional accessories eg. robot arm, conveyor, auto-insert system, mold pressure sensor, hot runner, etc..



# Vertical Injection Molding Machine

## Fixed Platen (V) / Slide Table (1S/2S) / Rotary Table (R)

- Vertical direct hydraulic clamping system is designed for accurate, safe operation, especially suitable for insert molding.
- Precision vertical clamping system (parallelism / flatness :0.02/100mm), and low-pressure mold clamping work together to greatly extend machine & mold life.
- Full Series equipped with variable pump which can save 30%~50% of the energy. Servo-pump is optional to reduce 50%~70% power consumption.
- With shuttle table or rotary design, put in, takeout products and molding finish at the same time, which is more safe and secure, productivity efficiency improved, thus reduce the cost of production.
- Nitride and NIP/ Nitroflon coated screws and barrels are long-lasting, robust and provide superior acid/alkaline resistance.



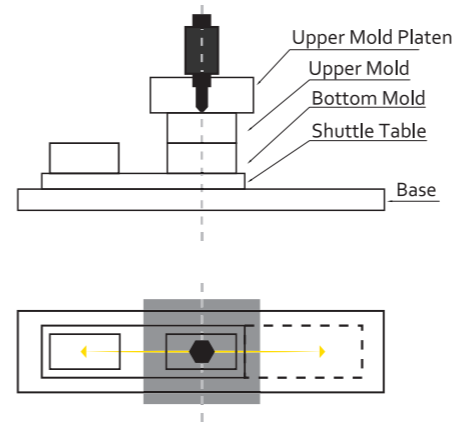
MODEL	K360-110-25DV-1				K410-180-40DV-1				K460-250-55DV-1			K520-360-80DV-1			K560-460-120DV-1			K660-760-160DV-1				
<b>Injection Unit</b>																						
Screw Diameter	mm	22	28	34	26	32	40	31	38	44	35	40	45	40	45	50	45	50	55			
Injection Pressure	kgf/cm <sup>2</sup>	2329	1438	975	2330	1538	984	2447	1629	1215	2286	1750	1383	2226	1759	1425	2191	1775	1467			
Injection Capacity	cm <sup>3</sup>	46	74	109	74	113	176	106	159	213	173	226	286	226	286	353	350	432	522			
Injection Weight (PS)	oz	1.5	2.5	3.6	2.5	3.8	5.9	3.5	5.3	7.1	5.8	7.5	9.5	7.5	9.5	11.8	11.7	14.4	17.4			
	gram	43	70	103	70	106	166	100	150	201	164	214	270	214	270	334	330	408	494			
Injection Rate	cc/s.	37	60	89	61	92	144	74	111	149	99	130	164	154	195	241	158	195	236			
Screw Stroke	mm	120				140				140			140			140			140			
Nozzle Stroke	mm	180				180				180			180			180			180			
Nozzle Contact Force	tf	3.8				3.8				3.8			3.8			3.8			3.8			
Injection Speed	mm/sec	98				115				98			103			123			99			
Screw Rotation Speed	rpm	0 ~ 180				0 ~ 180				0 ~ 180			0 ~ 180			0~150			0~150			
<b>Clamping Unit</b>																						
Clamping Force	tf	25				40				55			80			120			160			
Clamping Stroke	mm	200				200				200			200			250			250			
Max. Mould Space	mm	400				400				400			400			500			500			
Min. Mold Height	mm	200				200				200			200			250			250			
Overall Size of Platens(H*V)	mm	500x290				560x300				620x400			700x570			790x590			920x720			
Space Between Columns(H*V)	mm	360x150				410x150				460x240			520x385			560x360			660x460			
Ejector Force	tf	0.7(2.7)				0.9(2.7)				1.7(2.7)			1.7(2.7)			2.7(2.7)			2.7(2.7)			
Ejector Stroke	mm	25(60)				35(60)				40(100)			50(100)			60(100)			60(100)			
<b>Mold Transfer Unit</b>																						
Type*		V	1S	2S	R	V	1S	2S	R	V	1S	2S	R	V	1S	2S	R	V	1S	2S	R	
Moving Table Stroke	mm		300	310			300	320			400	410			540	550			570	580		
Size of Moving Table(H*V / DIA)	mm		350x290	350x600	Ø780		400x300	400x620	Ø880		450x400	450x810	Ø980		510x540	510x1100	Ø1200		550x570	550x1150	Ø1400	
<b>Others</b>																						
Drive Motor (with Variable pump)	kw(HP)	3.7(5HP)				5.5(7.5HP)				7.5(10HP)			7.5(10HP)			11.25(15HP)			11.25(15HP)			
Heater	kw	3.4				5.6				6			7.5			9			11			
System Pressure	kgf/cm <sup>2</sup>	140				140				140			140			140			140			
Oil Tank Capacity	L	140				160				200			200			300			300			
Dimension of Machine( L*W*H )	m	1.5x1.0x2.7	1.7x1.0x2.7	1.7x1.3x2.7	1.7x1.1x 2.9	1.8x1.1x2.9	1.8x1.4x2.9	1.8x1.2x3.1	1.9x1.2x3.1	2.0x1.6x3.1	2.0x1.4x3.8	2.5x1.4x3.8	2.7x1.7x3.8	2.8x1.6x4.2	2.9x1.6x4.2	3.2x1.9x4.2	3.0x1.8x4.6	3.2x1.8x4.6	3.8x2.2x4.6			
Weight of Machine	ton	1	1.2	1.4	1.6	1.7	2	2	2.3	2.7	4	4.2	5	5	5.5	6.5	6.5	7	8			

Type\*: V = Fixed Platen; 1S = Single Slide Table; 2S = Shuttle Table; R = Rotary Table



# Vertical Injection Molding Machine

## Fixed Platen (V) / Slide Table (1S/2S)



Pick and Place While Molding



Output Promotion



Safety Design For Operator

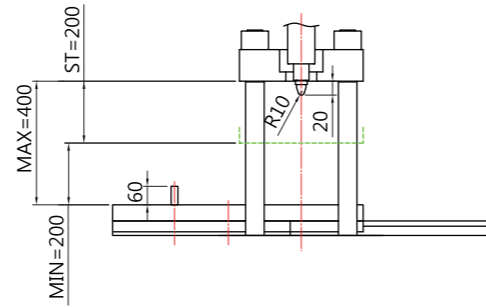
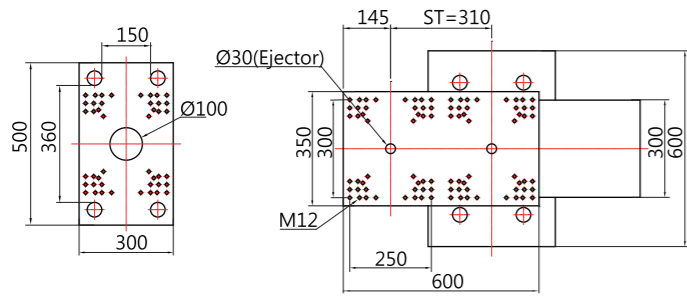


Vertical Hydraulic Clamping System

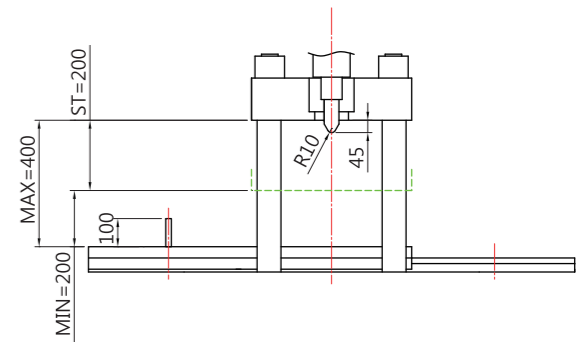
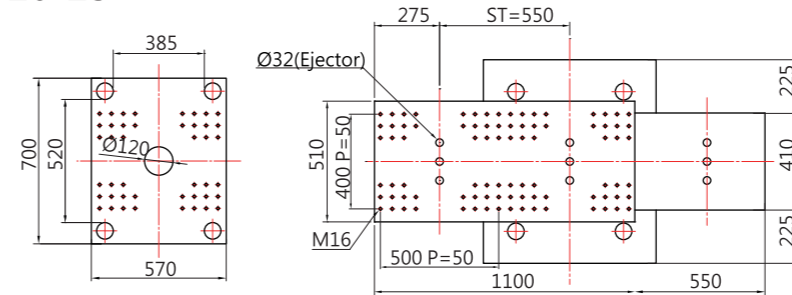


Energy Saving

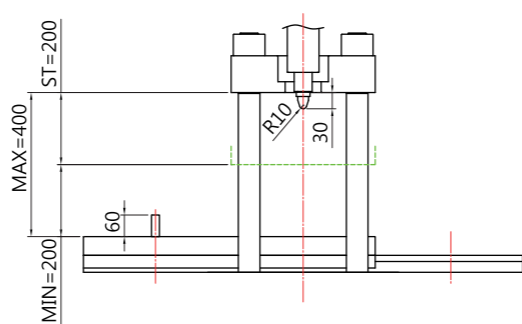
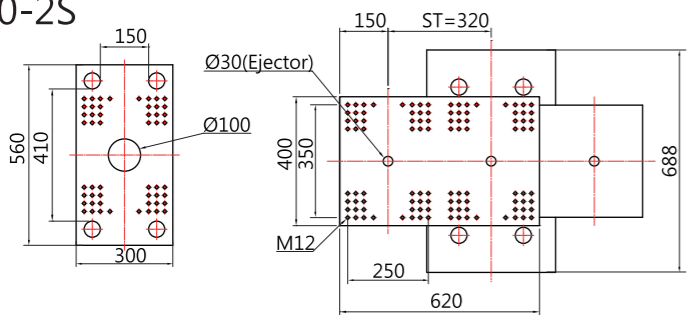
K360-2S



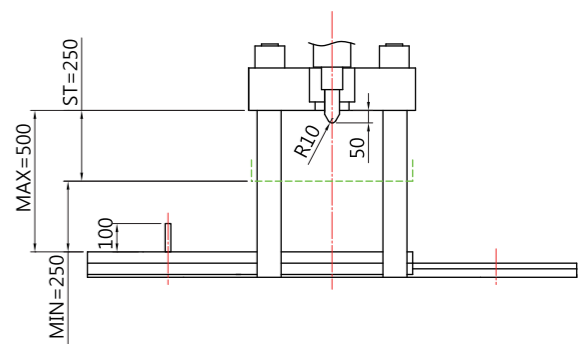
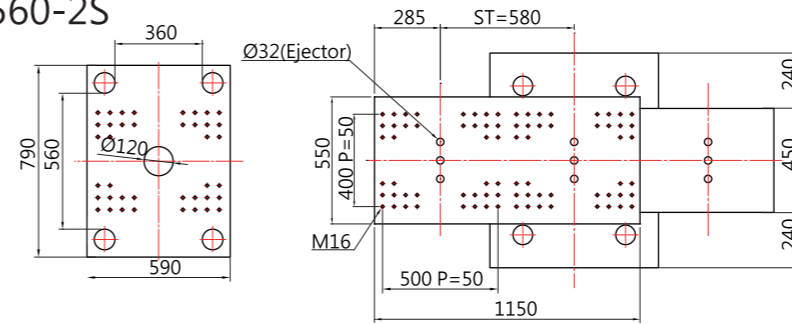
K520-2S



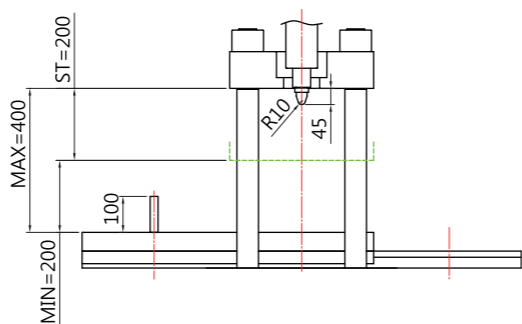
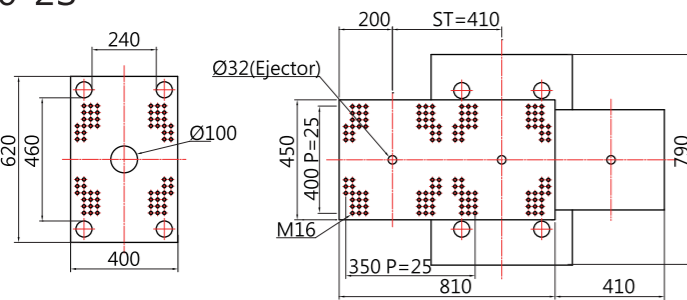
K410-2S



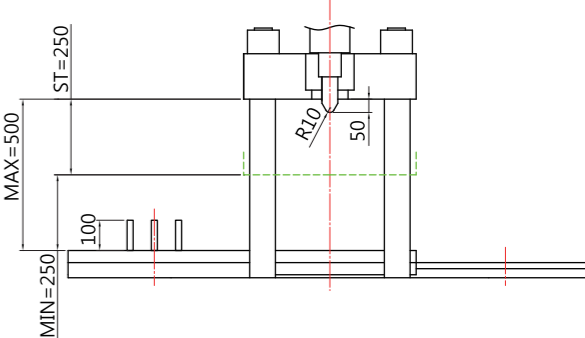
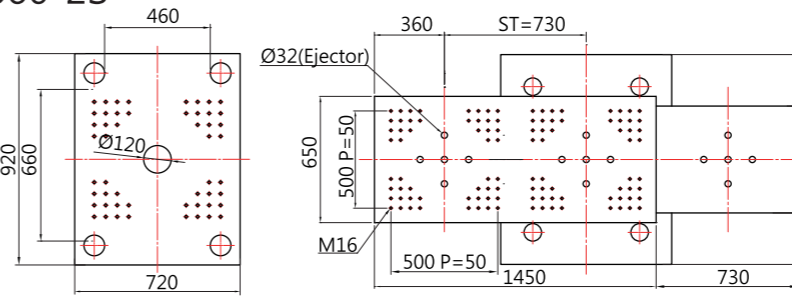
K560-2S



K460-2S

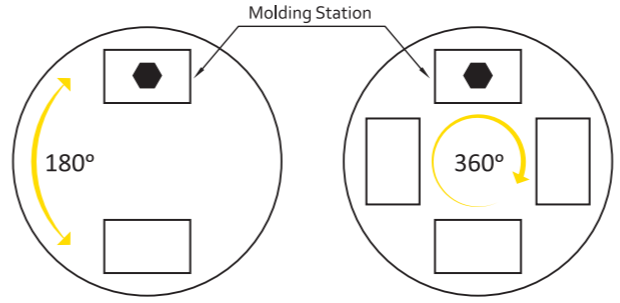


K660-2S





# Vertical Injection Molding Machine Rotary Table (R)



2 Stations

Multi-station



Suitable With Automation



Output Promotion



Multitask

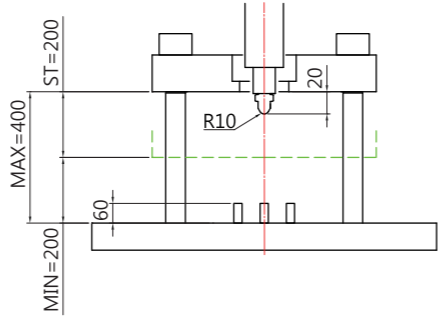
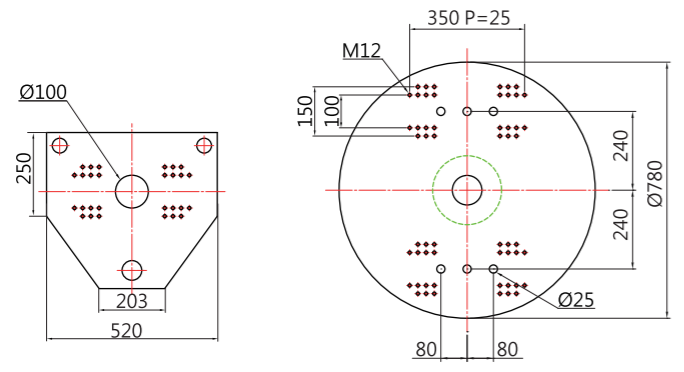


Pick and Place While Molding

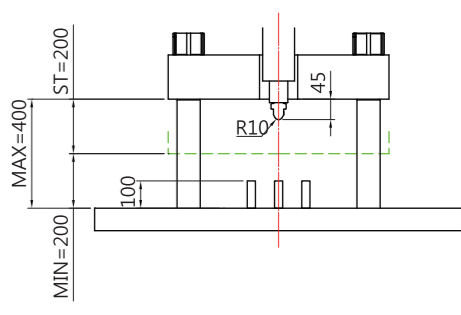
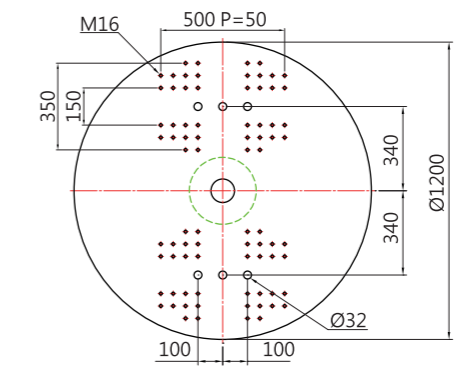
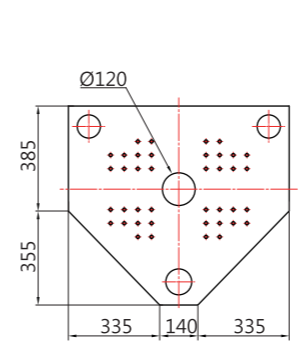


Safety Design For Operator

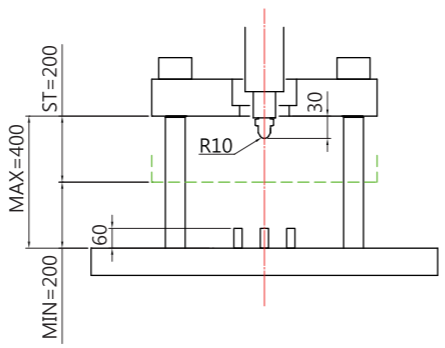
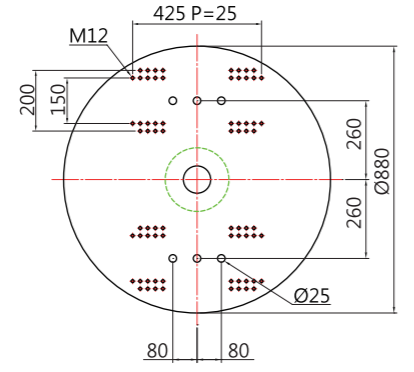
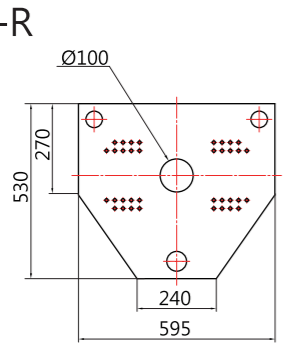
K360-R



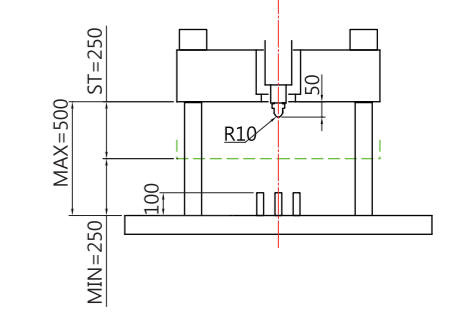
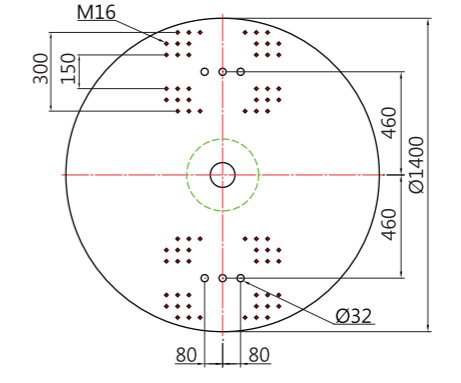
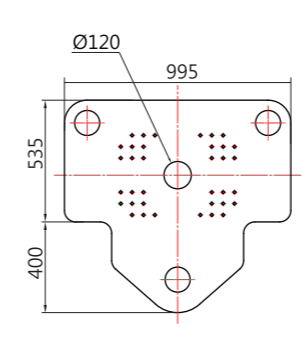
K520-R



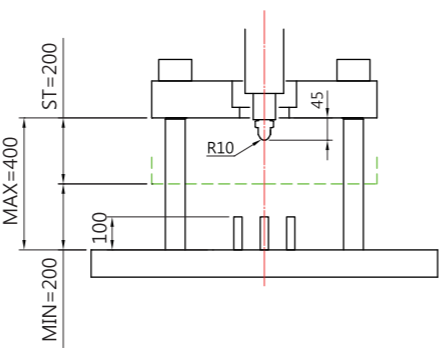
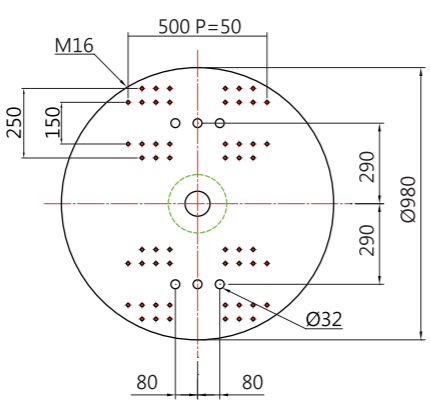
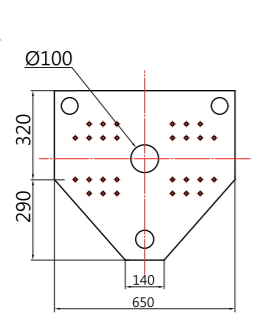
K410-R



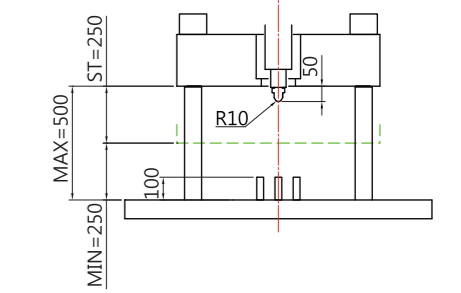
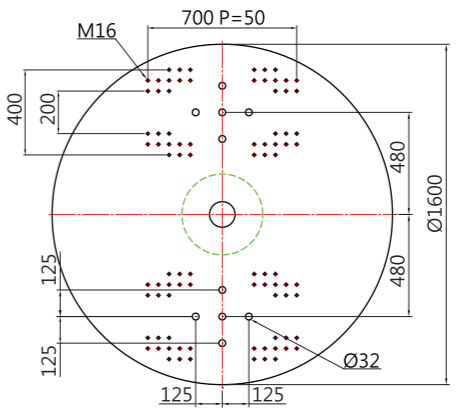
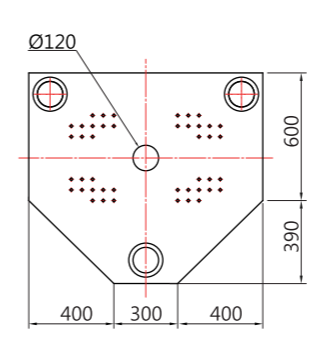
K560-R



K460-R



K660-R





# K75 2 Tie-bar Vertical Injection Machine

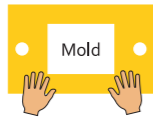
## Fixed Platen / Slide Table (1S) / Rotary Table (R)



Vertical Hydraulic Clamping System



Energy Saving



More Working Space



Small-volume Large-variety Production

- Vertical direct hydraulic clamping system is designed for accurate, safe operation, especially suitable for insert molding.
- Nitride/ NIP/ Nitroflon coated screws and barrels are long-lasting, robust and provide superior acid/alkaline resistance.

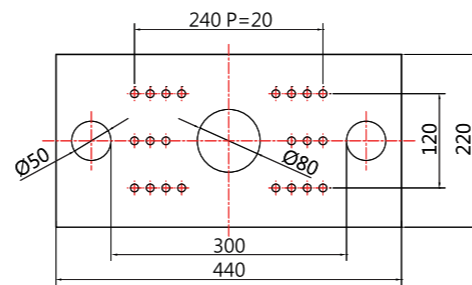
- Precision vertical mold clamping system (parallelism/flatness: 0.02/100mm), heavy-duty tie-bars, and low-pressure mold clamping work together to greatly extend machine & mold life.



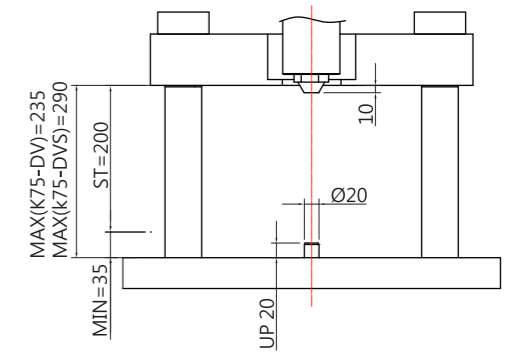
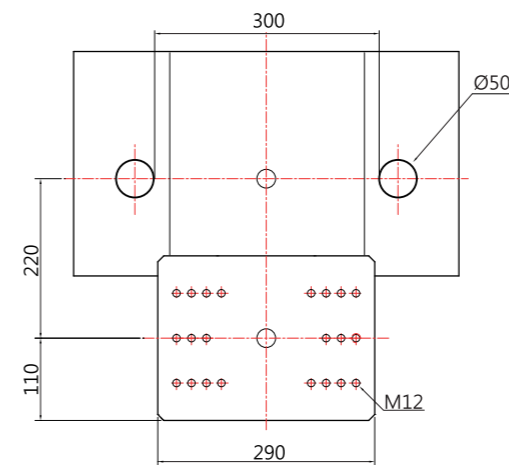
MODEL	K75-10DV-1			
<b>Injection Unit</b>				
Screw Diameter	mm	24	28	30
Injection Pressure	kgf/cm <sup>2</sup>	1957	1438	1252
Injection Capacity	cm <sup>3</sup>	38	52	60
Injection Weight (PS)	oz	1.3	1.7	2
	gram	36	49	57
Injection Rate	cc/s.	32	44	50
Screw Stroke	mm	85		
Nozzle Stroke	mm	160		
Nozzle Contact Force	tf	4		
Injection Speed	mm/sec	71		
Screw Rotation Speed	rpm	0 ~ 180		
<b>Clamping Unit</b>				
Clamping Force	tf	10		
Clamping Stroke	mm	200		
Max. Mould Space	mm	235	290	315
Min. Mold Height	mm	35	90	115
Overall Size of Platens(H*V)	mm	440x220		
Space Between Columns(H*V)	mm	300		
Ejector Force	tf	1.7(2.7)		
Ejector Stroke	mm	21(40)		
<b>Mold Transfer Unit</b>				
Type*		1S	R	
Moving Table Stroke	mm	220		
Size of Moving Table(H*V / DIA)	mm	300x220	Ø600	
<b>Others</b>				
Drive Motor (with Variable pump)	kw(HP)	3(4HP)		
Heater	kw	3.4		
System Pressure	kgf/cm <sup>2</sup>	140		
Oil Tank Capacity	L	90		
Dimension of Machine( L*W*H )	m	1.1x0.9x2.3	1.2x0.9x2.3	1.3x1.2x2.3
Weight of Machine	ton	0.6	0.8	1

Type\*: 1S = Single Slide Table; R = Rotary Table

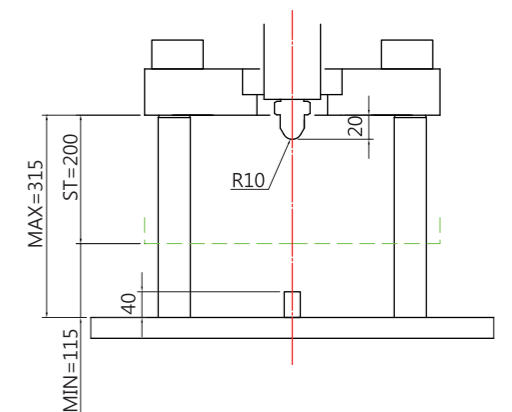
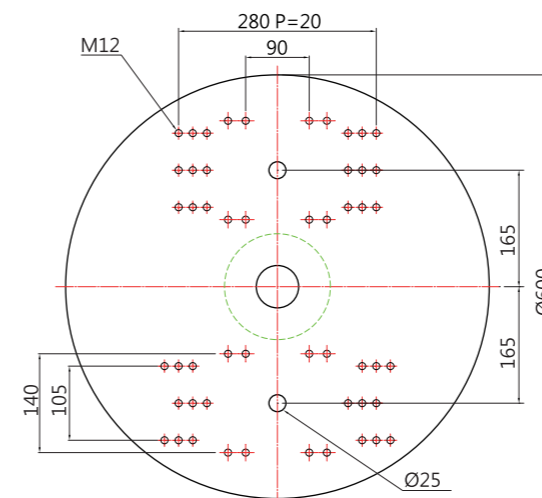
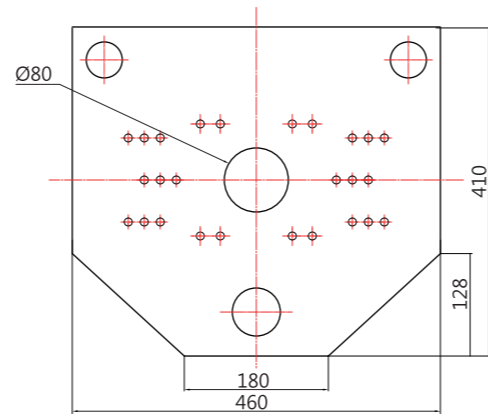
K75-S Fixed Platen



K75 Slide Table



K75-R





# K40 C Type Vertical Injection Molding Machine

## Fixed Platen / Shuttle Table (2S) / Rotary Table (R) Tie-barless series



High Speed



More Working Space



Vertical Hydraulic Clamping System



Energy Saving

- Customize Multi-stations and Multi-injection units, using shuttle or rotary platen, we can use two stations and double injection units machine for the production.
- Production of two color (even more color) product, we can use more stations and more injection units molding machine with continuously rotary table(180 degrees back & forth).

- Precision vertical clamping system (parallelism/ flatness : 0.02/100mm), and low-pressure mold clamping work together to greatly extend machine & mold life.

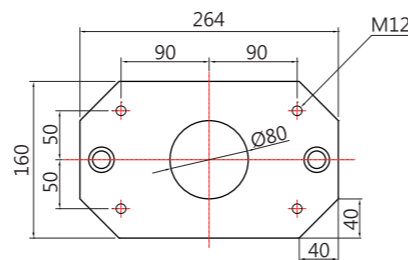


Dual Injection

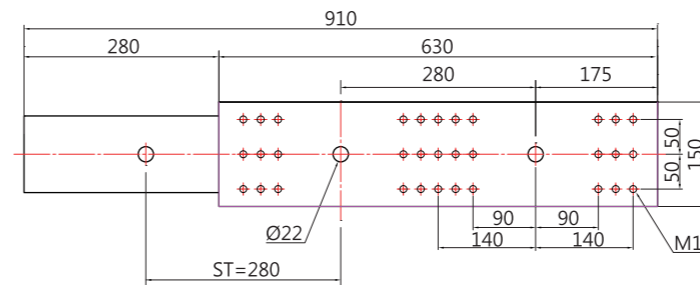
MODEL	K40-6DC-1			
<b>Injection Unit</b>				
Screw Diameter	mm	18	22	26
Injection Pressure	kgf/cm <sup>2</sup>	1836	1229	880
Injection Capacity	cm <sup>3</sup>	20	30	41
Injection Weight (PS)	oz	0.7	1	1.4
	gram	19	28	39
Injection Rate	cc/s.	34	51	72
Screw Stroke	mm	78		
Nozzle Stroke	mm	160		
Nozzle Contact Force	tf	3.7		
Injection Speed	mm/sec	135		
Screw Rotation Speed	rpm	0~180		
<b>Clamping Unit</b>				
Clamping Force	tf	6		
Clamping Stroke	mm	100		
Max. Mould Space	mm	240		
Min. Mold Height	mm	140		
Overall Size of Platens(H*V)	mm	260x160		
Space Between Columns(H*V)	mm	*		
Ejector Force	tf	1.7		
Ejector Stroke	mm	40		
<b>Mold Transfer Unit</b>				
Type*		2S	R	
Moving Table Stroke	mm	280		
Size of Moving Table(H*V / DIA)	mm	630x150	Ø500	
<b>Moving</b>				
Drive Motor (with Variable pump)	kw(HP)	2.25(3HP)		
Heater	kw	2.6		
System Pressure	kgf/cm <sup>2</sup>	140		
Oil Tank Capacity	L	80		
Dimension of Machine [ L*W*H ]	m	1.1x1.0x1.9	1.1x1.0x1.9	1.2x1.0x1.9
Weight of Machine	ton	0.5	0.6	0.8

Type\*: V = Fixed Platen; 2S = Shuttle Table; R = Rotary Table

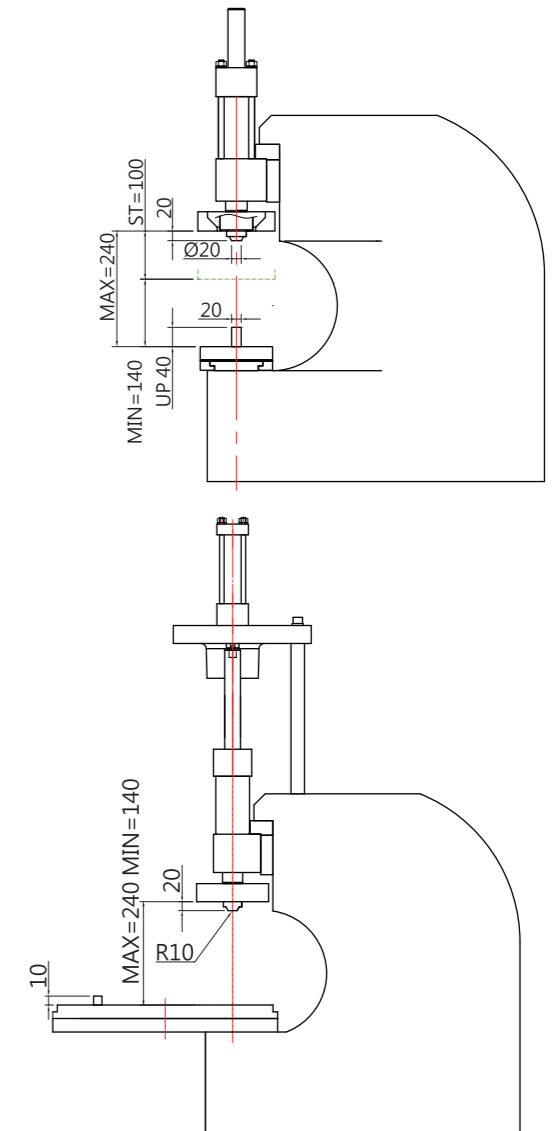
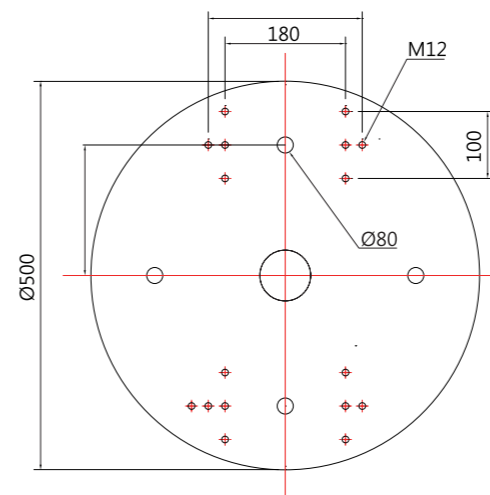
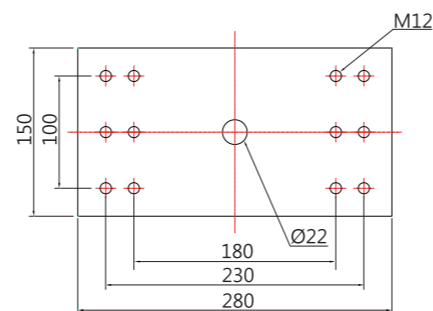
K40 Upper Platen



K40-2S



K40 Fixed Platen

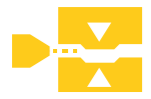




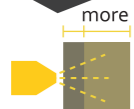
# C Type Horizontal Injection Molding Machine

## Fixed Platen / Shuttle Table (2S) / Rotary Table (R)

### Tie-barless series



Horizontal Injection  
Vertical Clamping



Suitable For  
Thickwall



Suitable For High  
Injection Capacity



Safety Design  
For Operator



Energy Saving

- Tie-barless (C type) design gives more space for operation. Especially suitable for the power cord and connector with wire.
- Precision vertical clamping system (parallelism/flatness : 0.02/100mm), and low-pressure mold clamping work together to greatly extend machine & mold life.

- With shuttle table or rotary design, put in, takeout products and molding finish at the same time, which is more safe and secure, productivity efficiency improved, thus reduce the cost of production.
- Material injected through parting line to cavities.



MODEL		K110-20DC-2			K170-28DC-2			K250-40DC-2			K500-60DC-2			K500-80DC-2		
<b>Injection Unit</b>																
Screw Diameter	mm	24	28	34	28	32	38	31	38	44	36	44	50	36	44	50
Injection Pressure	kgf/cm <sup>2</sup>	2333	1714	1163	2321	1777	1260	2447	1629	1215	2463	1649	1277	2463	1649	1277
Injection Capacity	cm <sup>3</sup>	50	68	100	74	96	136	106	159	213	203	304	393	203	304	393
Injection Weight (PS)	oz	1.7	2.3	3.3	2.5	3.2	4.5	3.5	5.3	7.1	6.8	10.1	13.1	6.8	10.1	13.1
	gram	47	64	94	70	91	129	100	150	201	192	287	371	192	287	371
Injection Rate	cc/s.	37	51	75	61	80	113	58	87	117	74	110	142	74	110	142
Screw Stroke	mm	110			120			140			200			200		
Nozzle Stroke	mm	150			150			150			150			150		
Nozzle Contact Force	tf	2			2			2			3.3			3.3		
Injection Speed	mm/sec	82			99			77			72			72		
Screw Rotation Speed	rpm	0 ~ 180			0 ~ 180			0 ~ 180			0 ~ 150			0~150		
<b>Clamping Unit</b>																
Clamping Force	tf	20			28			40			60			80		
Clamping Stroke	mm	155			155			155			175			175		
Max. Mould Space	mm	305			353			367			372			372		
Min. Mold Height	mm	150			198			212			197			197		
Overall Size of Platens(H*V)	mm	340x230			400x230			400x250			450x280			550x300		
Space Between Columns(H*V)	mm	*			*			*			*			*		
Ejector Force	tf	2.7			2.7			2.7			2.7			2.7		
Ejector Stroke	mm	40			40			40(100)			40			40		
<b>Mold Transfer Unit</b>																
Type*		2S		R	2S		R	2S		R	2S		R	2S		R
Moving Table Stroke	mm	400			510			510			550			650		
Size of Moving Table(H*V / DIA)	mm	750x230		Ø600	920x230		Ø780	920x230		Ø880	1000x280		Ø980	1200x300		Ø1200
<b>Moving</b>																
Drive Motor (with Variable pump)	kw(HP)	3.7(5HP)			5.5(7.5HP)			6.8(8HP)			9(12HP)			9(12HP)		
Heater	kw	4.9			5.5			6			10.4			10.4		
System Pressure	kgf/cm <sup>2</sup>	140			140			140			140			140		
Oil Tank Capacity	L	100			150			150			200			200		
Dimension of Machine[ L*W*H ]	m	1.8x0.8x1.6	1.8x1.0x1.6	2.0x1.0x1.6	2.1x0.9x1.6	2.1x1.1x1.6	2.6x1.7x1.6	2.4x1.0x1.7	2.4x1.5x1.7	2.7x1.2x1.7	2.6x1.1x1.9	2.6x1.3x1.9	3.0x1.4x1.9	2.7x1.2x2.0	2.7x1.4x2.0	3.4x1.5x2.0
Weight of Machine	ton	2	2.2	2.4	2.4	2.6	3	2.6	2.9	3.5	3.5	3.8	4.5	4	4.5	6

Type\*: 2S = Shuttle Table; R = Rotary Table

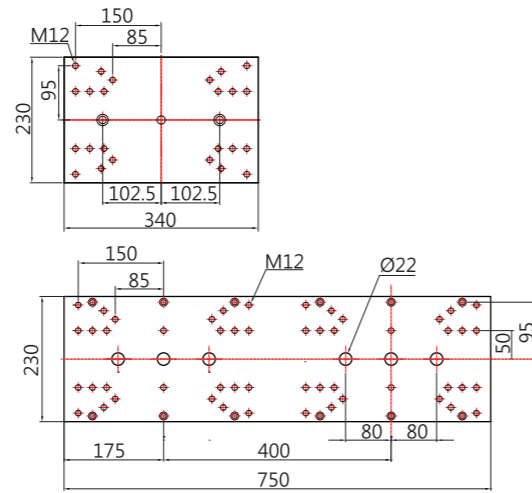
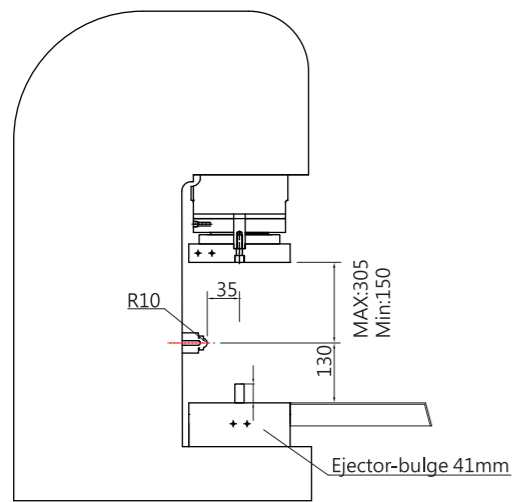




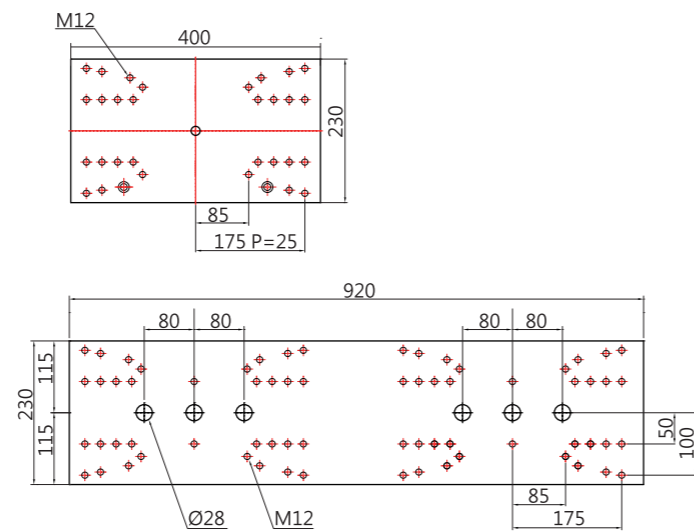
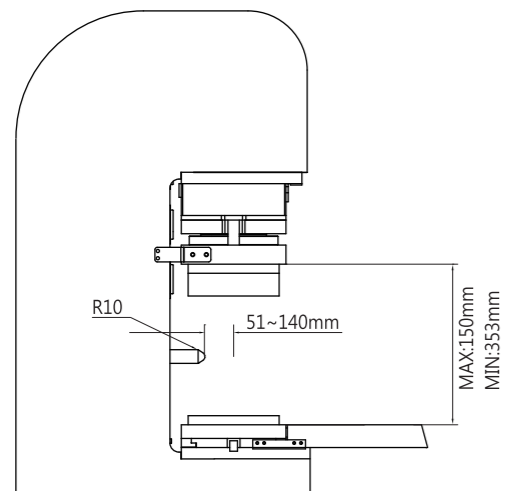
# C Type Horizontal Injection Molding Machine

## Fixed Platen / Shuttle Table(2S) Tie-barless series

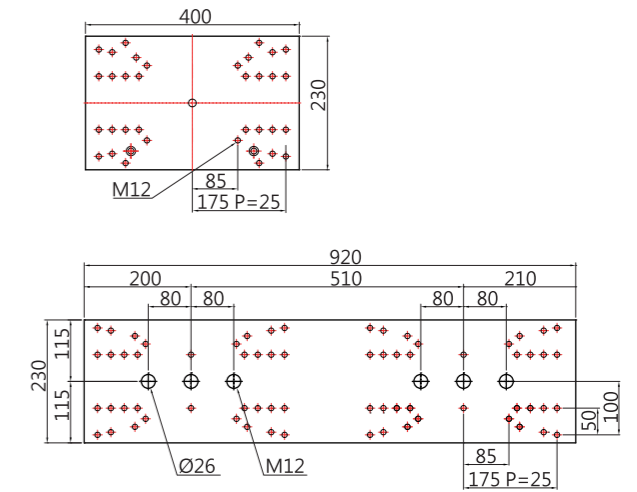
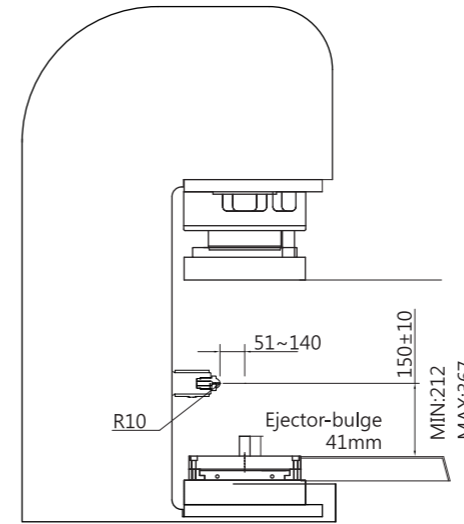
20DC-2S



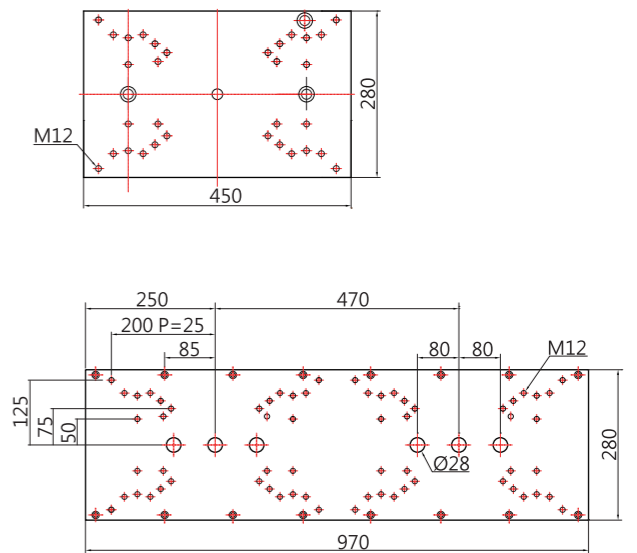
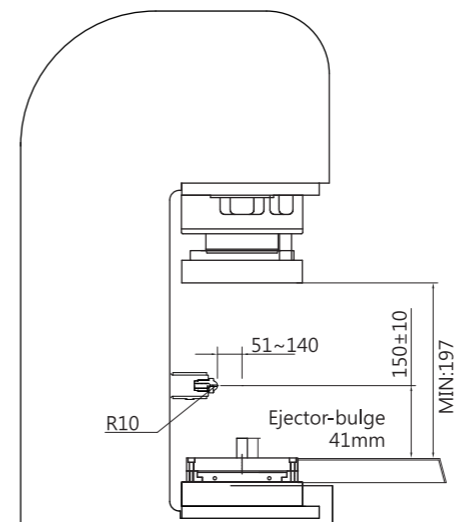
28DC-2S



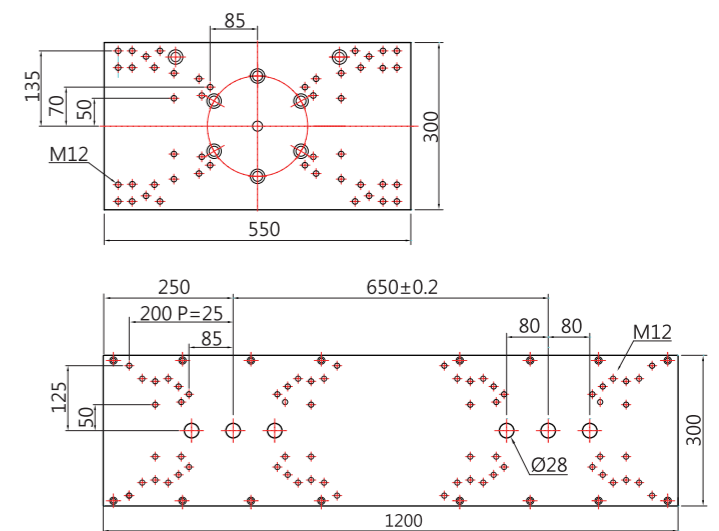
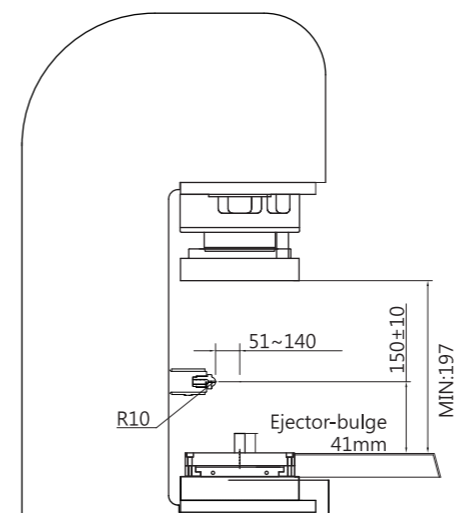
40DC-2S



60DC-2S



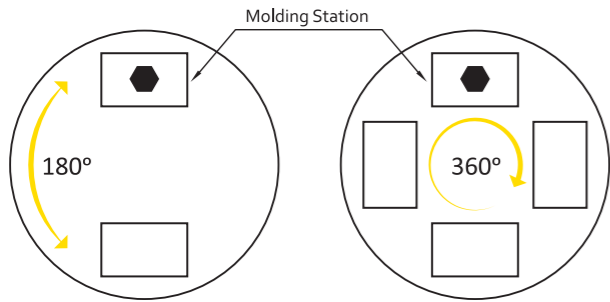
80DC-2S





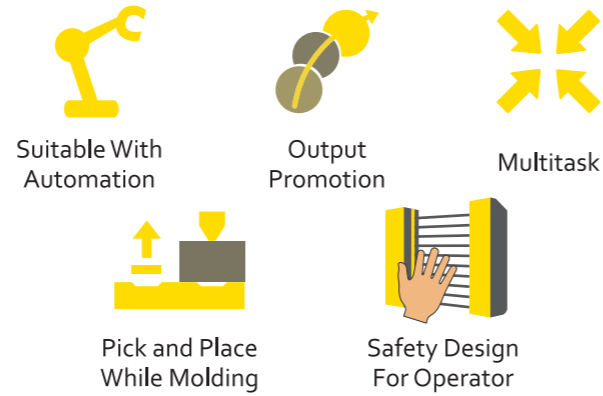
# C Type Horizontal Injection Molding Machine

Rotary Table (R)  
Tie-barless series

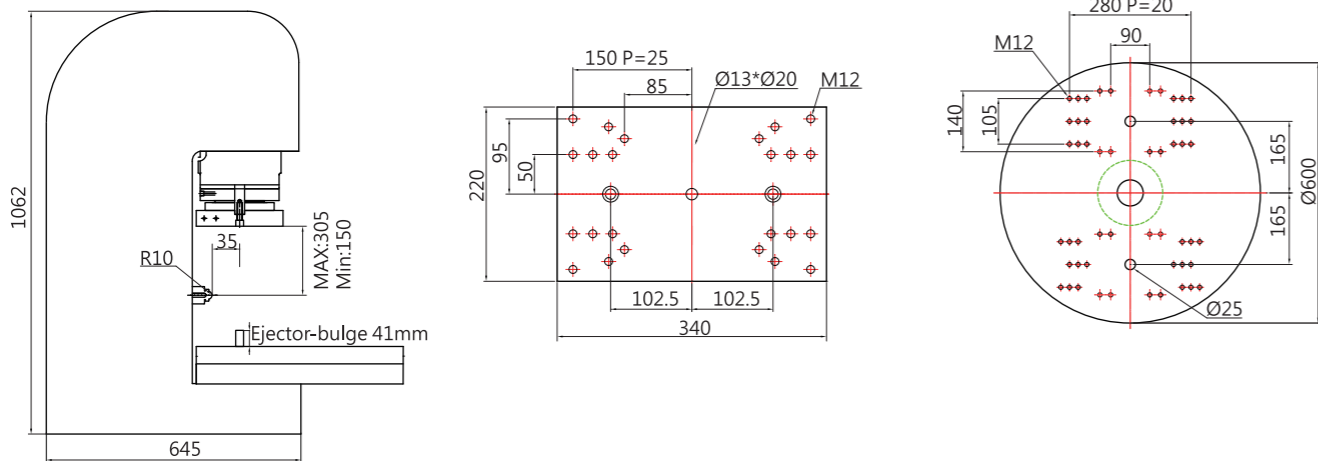


2 Stations

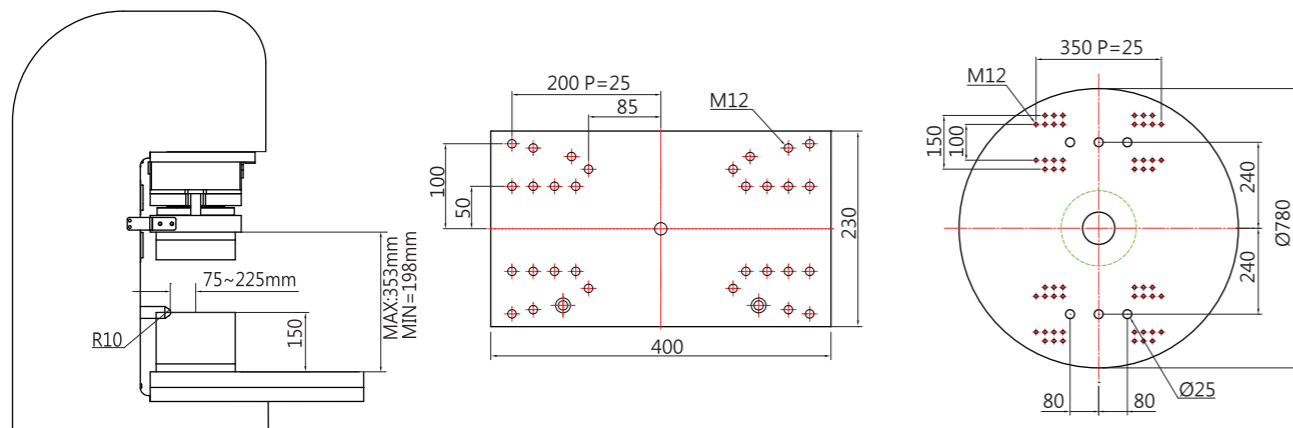
Multi-station



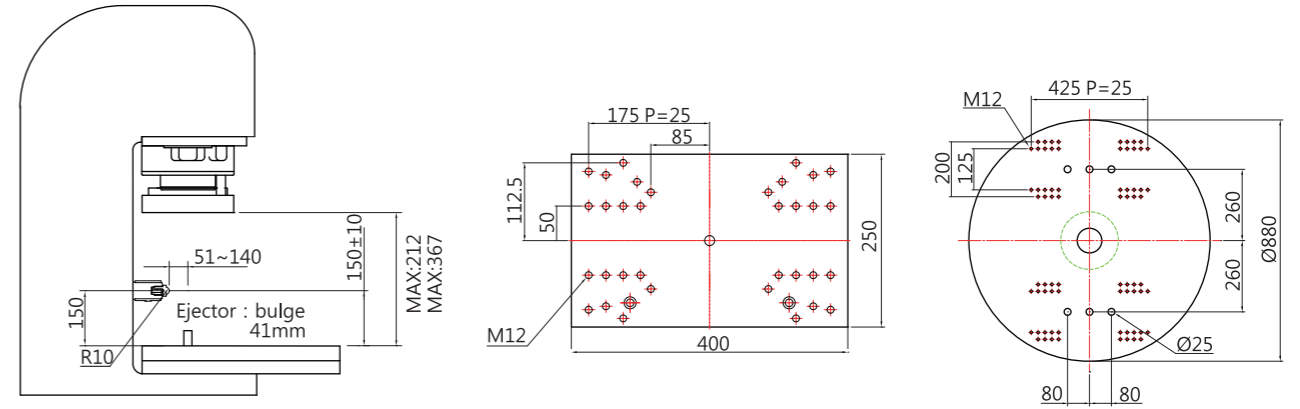
20DC-R



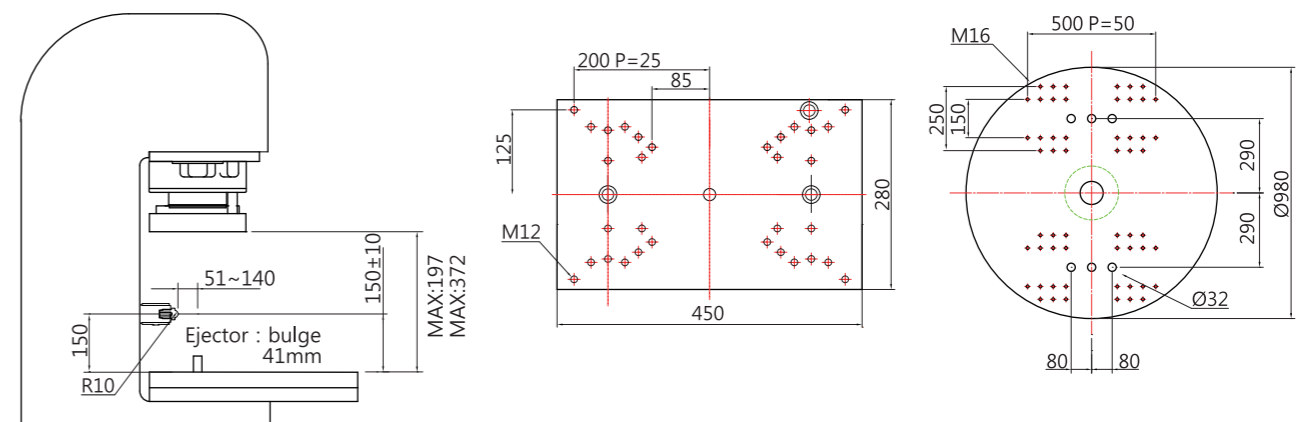
28DC-R



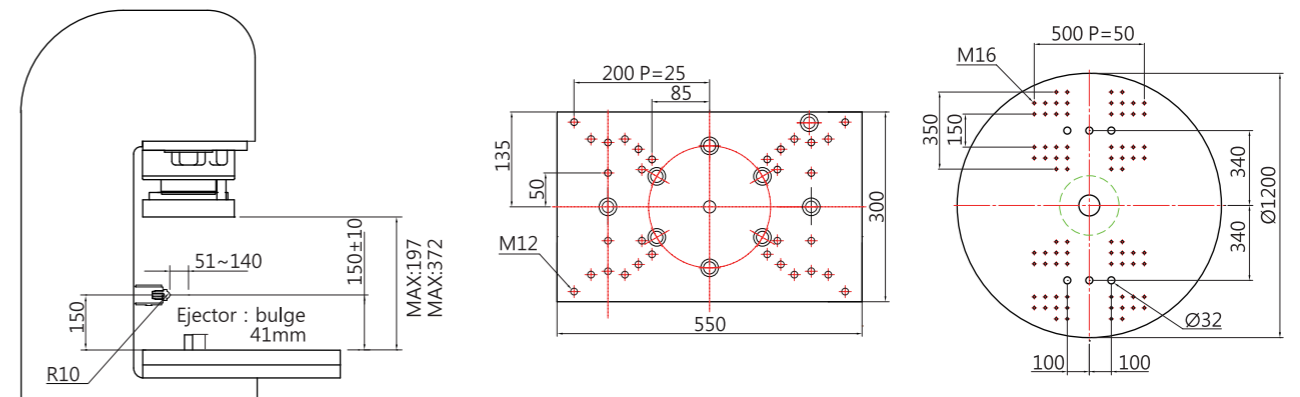
40DC-R



60DC-R



80DC-R





# Customized Molding Solution

## Packaging

5 Gallon PET Preform KPET-3200  
8+8 Cavity Vertical Injection With Robot



5 Gallon PET Preform KPET-1600  
4 Cavity Injection Molding with Robot



Three Injection Double Slide  
CUP Frame Molding Machine



## Medical

LSR Injection Molding Machine &  
Liquid Silicone Rubber Dozing System



Multi-color Dual Injection  
Rotary Table Injection  
Molding Machine



## Livelihood

Laser Cutting  
& Mesh Frame  
Molding Machine



Heel Injection Molding-High Speed  
Auto-Pin-Loading



## Automotive



Metal Insert Molding And  
Crimping Automatic Machine



LSR+Plastic Injection Molding



3 Injection & In-molding Assembly  
& Testing(Fully Auto)

## Electronics



Reel to Reel  
Injection Molding Machine



Low Pressure Molding Machine  
All-Electric Rotary  
- Sealing Encapsulate Waterproof



In-Mold Decoration  
Full automation



**Memo**

**Your Best Partner  
In Insert Molding Solution**