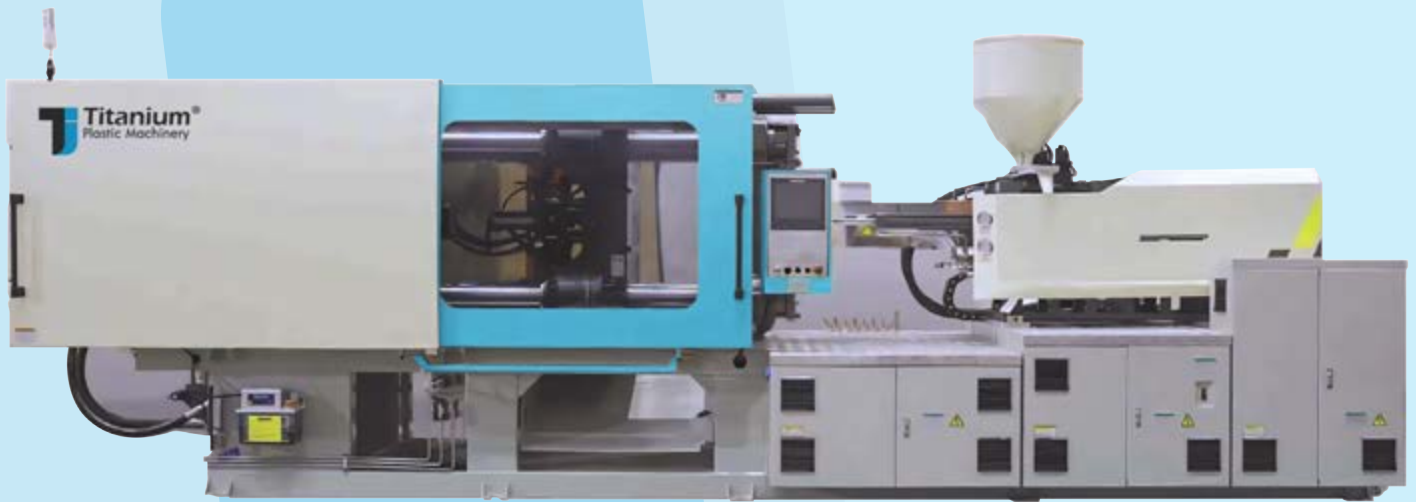




MOLDING MACHINE SERIES 2025



The background of the image is a factory floor with workers in green uniforms and blue caps. They are surrounded by numerous blue and white plastic crates, some of which are stacked. The scene is brightly lit, and the overall color palette is dominated by blue and green tones. A large, semi-transparent blue circle is overlaid on the right side of the image, partially obscuring the crates and workers.

Titanium[®]
Plastic Machinery

**TITANIUM
SERIES TSV**

TITANIUM SERIES TSV



PERFORMANCE

1. With special high-efficiency screw, the injection amount is increased, with the injection rate and plasticization time higher than that of ordinary machines.
2. The operating efficiency of the whole machine is greatly improved when compared with ordinary machines (optional) by using synchronous control of storage while opening the mold.
3. The mature and reliable clamping mechanism is durable, and the pin shaft and sliding part are designed for self-lubricating to ensure good lubrication for long-term operation.
4. The motor oil pump is designed to be enlarged, the power source is fully configured, the overload capacity is strong, and the motor heat is reduced to improve the service life.
5. It is suitable for recycling and processing of recycled plastics. With low cost and short molding cycle, it greatly reduces the material cost of the plastic basket, so it is especially suitable for the operation and production of small and medium-sized entrepreneurs.

INJECTION PART

1. High-efficiency screw, enlarged barrel screw diameter, length-diameter ratio of 21 :1, special motor drive, fast plasticizing speed and short molding cycle.
2. Screw barrel made of double alloy material for wear-resistant and corrosion-resistant properties to improve the service life by 3-5 times longer than that of ordinary screw barrel.

MOLD CLAMPING PART

1. Synchronous operation of storage while opening the mold, shortened the product cycle, significantly improved production efficiency.
2. Increase of specification of the standard cooling water distributor to 12-12 groups, which is more suitable for the cooling of large molds.

CONTROL SYSTEM

1. Fast precision injection technology, injection speed and precision are guaranteed.
2. With automatic positioning function of mold opening, the mold is opened accurately.
3. Intelligent injection system can realize debugging free and rapid product formation.
4. Program update, user configuration data update and porting can be easily realized through the panel USB, and all models of the user can be directly integrated into the panel to realize the automatic configuration of parameters of different models.

SAFE & RELIABLE

1. The barrel heating shield, hopper slide roller structure, ejection shield, centralized lubrication controller and other optimized designs can reduce labor intensity and improve operation and maintenance convenience while protecting operation safety.
2. With mechanical, electrical and hydraulic safety protection, the mold protection with high sensitivity can sense very small obstacles and thus effectively protect the mold.

PRODUCT APPLICATION

This series of models, suitable for processing disposable black fruit baskets (used for placing apples, grapes, strawberries and other seasonal fruits), can also be used to process various vegetable baskets (bean sprouts basket, oyster mushrooms basket, etc.), various turnover boxes, beer baskets and various plastic flower pots and other plastic products.

MODELS

Model		TSV 308	TSV 358	TSV 408
INJECTION DEVICE		1420	1615	2650
Screw model		Fruit basket	Fruit basket	Fruit basket
Screw model	[mm]	75	80	90
Screw diameter	[L/D]	19.5	21.0	21.0
Screw ratio	[cm³]	1435	1608	2524
Injection capacity	[g]	1306	1463	2297
Shot weight	[g/s]	478	521	637
Injection rate	[cm³/s]	525	573	700
Injection rate	[MPa]	127	116	117
Injection pressure	[mm]	325	320	397
Injection stroke	[rpm/min]	185	175	185
Screw speed	[mm]	SR18	SR18	SR18
Sphere diameter of nozzle				
Clamping force	[kN]	3080	3580	4080
Max. opening stroke	[mm]	600	660	730
Space between tie bar(W×H)	[mm]	680x630	730x680	780x730
Min. mould size	[mm]	475x440	510x475	545x510
Min. mould height	[mm]	230	250	250
Max. mould height	[mm]	650	700	780
Dia of mould location hole	[mm]	Ø160H7	Ø160H7	Ø160H7
Ejector stroke	[mm]	170	180	200
Ejector force forward	[kN]	70	70	110
Number of ejector bar	[PC]	13	13	13
Number of ejector bar				
Rated pressure of oil pump	[MPa]	16	16	16
Pump motor power	[KW]	50.7	50.7	60.5
Heating capacity of screw cylinder	[KW]	26.5	33	41
Heating section		4+1	5+1	5+1
Oil tank capacity	[L]	600	640	720
Dimensions of machine (LxWxH)	[m]	6.20x2.03x2.16	6.64x2.09x2.30	7.48x2.17x2.38
Machine weight	[t]	11.0	12.7	15.2

MODELS

Model		TSV 488	TSV 568	TSV 658
INJECTION DEVICE		3350	4100	5300
Screw model		Fruit basket	Fruit basket	Fruit basket
Screw model	[mm]	95	100	110
Screw diameter	[L/D]	21.0	21.0	20.0
Screw ratio	[cm³]	3117	3807	4749
Injection capacity	[g]	2837	3465	4322
Shot weight	[g/s]	839	847	1103
Injection rate	[cm³/s]	922	931	1212
Injection rate	[MPa]	119	118	120
Injection pressure	[mm]	440	485	500
Injection stroke	[rpm/min]	160	150	120
Screw speed	[mm]	SR18	SR18	SR18
Sphere diameter of nozzle				
Clamping force	[kN]	4880	5680	6580
Max. opening stroke	[mm]	800	850	930
Space between tie bar(W×H)	[mm]	830x780	880x830	690x880
Min. mould size	[mm]	580x545	615x580	670x615
Min. mould height	[mm]	320	350	350
Max. mould height	[mm]	800	850	900
Dia of mould location hole	[mm]	Ø200H7	Ø200H7	Ø200H7
Ejector stroke	[mm]	220	240	250
Ejector force forward	[kN]	110	158	158
Number of ejector bar	[PC]	13	17	21
Number of ejector bar				
Rated pressure of oil pump	[MPa]	16	16	17.5
Pump motor power	[KW]	40.9+40.9	40.9+40.9	50.7+50.7
Heating capacity of screw cylinder	[KW]	45	49	52
Heating section		5+1	5+1	5+1
Oil tank capacity	[L]	850	950	1000
Dimensions of machine (LxWxH)	[m]	8.11x2.18x2.58	8.81x2.26x2.77	9.80x2.38x2.35
Machine weight	[t]	18.9	21.7	27.5



TITANIUM SERIES TSV•PET

TITANIUM SERIES TSV•PET

PET bottle embryo special machine series



The PET specialized screw design is designed for the low shear high mixing characteristics of PET resin materials. A length to diameter ratio of 25:1 is selected, and a special material treatment is used to divide the single melt groove into high and low pressure zones, forming a wavy structure to replace the solid-liquid phase groove, allowing the melt to flow independently in this area without hindering the travel time, thus obtaining a good energy efficiency ratio. Effectively improve plasticization efficiency and shorten molding cycle. (The specific screw model shall be provided by the screw unit).



The hydraulic power part adopts a servo motor to drive a large displacement oil pump, combined with a high-speed hydraulic motor (PET specialized motor) to effectively increase the rated torque, ensure smooth and reliable screw operation, and achieve high-speed production. (Optional electric glue melting solution, synchronous mold opening and plasticizing function, further improving production efficiency).



The heating is controlled by Solid-state relay. Compared with ordinary AC contactor, Solid-state relay has the advantages of Good sensitivity, small control power, good Electromagnetic compatibility, fast conversion speed, etc., and is highly praised by industry professionals.



The main components such as templates have undergone multiple optimization designs, and based on the analysis of finite element software Strengthen the design of the template to ensure its longevity Life also protects the mold.



Equipped with a high-performance Hongxun computer as standard, equipped with a PET specialized needle valve control program, it can easily achieve process adjustment, meet the control requirements of PET specialized machines, support expansion of I/O groups, and support CAN/ETHER CAT communication.



In response to the difficult problems of PET bottle embryo molds, such as a large number of mold cavities, high ejection stress, and long plastic products, our machine is equipped with oversized ejection cylinders to effectively improve ejection force and ejection stroke, meeting various bottle embryo production requirements.



The double cylinder balanced injection mechanism adopts a line rail scheme at the foot of the injection seat, which runs smoothly, efficiently, and energy-efficient. It strengthens the rigidity and strength of the guide pillar support structure, and is matched with a high-precision electronic ruler to control the injection stroke, adapting to the requirements of high-precision product molding.

MODELS

Model	TSV 158 II-PET	TSV 178 II-PET					
International specification	620H		620H		850H		
Injection unit	A	B	A	B	A	B	
Screw diameter	[mm]	53	58	53	58	60	65
Screw L/D ratio	[L/D]	25.0	25.0	25.0	25.0	25.	25.0
Cylinder head volume	[cm³]	485	581	485	581	763	895
Shot weight	[g]	524	627	524	627	824	967
Injection rate	[oz]	234	280	234	280	390	457
Injection pressure	[g/s]	135	112	135	112	129	110
Injection stroke	[MPa]	220		220		270	
Shot speed	[mm]	98.3		98.3		127.7	
Screw speed	[r/min]	140		140		160	
Sphere diameter of nozzle	[mm]	SR15		SR15		SR15	
Clamping unit							
Clamping force	[kN]	1580			1780		
Max.mould opening stroke	[mm]	410		435			
Space between tie bars	[mm]	440x440			470x470		
Min.Mould size	[mm]	310x310		325x325			
Min.Mould height	[mm]	150			180		
Max.Mould height	[mm]	470		520			
Dia of mould location hole	[mm]	Ø125H7			Ø125H7		
Eject stroke	[mm]	130		140			
Eject force	[kN]	49			53		
Eject number	[PC]	5		5			
Others							
Rated pressure of oil pump	[MPa]	17.5		17.5		17.5	
Oil pump motor power	[KW]	17.6		20.5		26.7	
Heater power	[KW]	14.6		14.3		22.7	
Heating section		5+1		5+1		5+1	
Oil tank capacity	[L]	232		250		250	
Machine dimension	[m]	5.62x1.26x2.15		5.8x1.31x2.15		6.05x1.31x2.17	
Machine weight	[t]	4.8		5.3		5.6	

MODELS

Model		TSV 208 II-PET				TSV 268 II-PET			
International specification		850H		1300H		1300H		1450H	
Injection unit		A	B	A	B	A	B	A	B
Screw diameter	[mm]	60	65	67	70	67	70	76	80
Screw L/D ratio	[L/D]	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Cylinder head volume	[cm³]	763	895	1057	1154	1057	1154	1451	1608
Shot weight	[g]	824	967	1142	1246	1142	1246	1567	1736
Injection rate	[oz]	390	457	420	459	420	459	520	577
Injection pressure	[g/s]	129	110	120	110	120	110	121	109
Injection stroke	[MPa]	270		300		300		320	
Shot speed	[mm]	127.7		110.5		110.5		106.3	
Screw speed	[r/min]	160		130		130		125	
Sphere diameter of nozzle	[mm]	SR15		SR15		SR15		SR15	
Clamping unit									
Clamping force	[kN]	2080				2680			
Max.mould opening stroke	[mm]	485				550			
Space between tie bars	[mm]	520x520				580x580			
Min.Mould size	[mm]	360x360				420x420			
Min.Mould height	[mm]	200				220			
Max.Mould height	[mm]	550				580			
Dia of mould location hole	[mm]	Ø160H7				Ø160H7			
Eject stroke	[mm]	145				155			
Eject force	[kN]	99				99			
Eject number	[PC]	9				9			
Others									
Rated pressure of oil pump	[MPa]	17.5		17.5		17.5		17.5	
Oil pump motor power	[KW]	31.1		31.1		31.1		40.9	
Heater power	[KW]	22.7		24.2		24.3		32.5	
Heating section		5+1		5+1		5+1		5+1	
Oil tank capacity	[L]	300		300		400		400	
Machine dimension	[m]	6.29x1.39x2.17		6.55x1.39x2.26		6.16x1.47x2.26		7.19x1.47x2.26	
Machine weight	[t]	6.5		6.7		7.7		7.9	

MODELS

Model		TSV 308 II-PET				TSV 358 II-PET			
International specification		1450H		1800H		1800H		2700H	
Injection unit		A	B	A	B	A	B	A	B
Screw diameter	[mm]	76	80	82	85	82	85	90	95
Screw L/D ratio	[L/D]	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Cylinder head volume	[cm³]	1451	1608	1837	1974	1837	1974	2524	2813
Shot weight	[g]	1567	1736	1984	2132	1984	2132	2726	3038
Injection rate	[oz]	520	577	650	698	650	698	808	900
Injection pressure	[g/s]	121	109	121	113	121	113	125	112
Injection stroke	[MPa]	320		348		348		397	
Shot speed	[mm]	106.3		114.0		114.0		117.6	
Screw speed	[r/min]	125		110		110		115	
Sphere diameter of nozzle	[mm]	SR15		SR15		SR15		SR15	
Clamping unit									
Clamping force	[kN]	3080				3580			
Max.mould opening stroke	[mm]	600				660			
Space between tie bars	[mm]	680×630				730×680			
Min.Mould size	[mm]	475×440				510×475			
Min.Mould height	[mm]	230				250			
Max.Mould height	[mm]	650				700			
Dia of mould location hole	[mm]	Ø125H7				Ø125H7			
Eject stroke	[mm]	190				200			
Eject force	[kN]	124				124			
Eject number	[PC]	13				13			
Others									
Rated pressure of oil pump	[MPa]	17.5		17.5		17.5		17.5	
Oil pump motor power	[KW]	40.9		50.7		50.7		60.5	
Heater power	[KW]	32.5		34.4		34.4		56	
Heating section		5+1		5+1		5+1		5+1	
Oil tank capacity	[L]	600		600		640		640	
Machine dimension	[m]	7.46×2.03×2.16		7.76×2.03×2.3		7.93×2.09×2.3		8.47×2.1×2.42	
Machine weight	[t]	11.3		11.7		13		13.6	

MODELS

Model	TSV 408 II-PET	TSV 488 II-PET					
International specification	2700H		3600H		3600H		
Injection unit	A	B	A	B	A	B	
Screw diameter	[mm]	90	95	95	100	95	100
Screw L/D ratio	[L/D]	25.0	25.0	25.0	25.0	25.	25.0
Cylinder head volume	[cm³]	2524	2813	3401	3768	3401	3768
Shot weight	[g]	2726	3038	3673	4069	3736	4069
Injection rate	[oz]	808	900	834	924	834	924
Injection pressure	[g/s]	125	112	132	119	132	119
Injection stroke	[MPa]	397		480			
Shot speed	[mm]	117.6			109.0		
Screw speed	[r/min]	115		110			
Sphere diameter of nozzle	[mm]	SR15			SR15		
Clamping unit							
Clamping force	[kN]	4080			4480		
Max.mould opening stroke	[mm]	730		800			
Space between tie bars	[mm]	780x730			830x780		
Min.Mould size	[mm]	545x510		580x545			
Min.Mould height	[mm]	250			320		
Max.Mould height	[mm]	780		800			
Dia of mould location hole	[mm]	Ø160H7			Ø160H7		
Eject stroke	[mm]	210		250			
Eject force	[kN]	182			182		
Eject number	[PC]	13		13			
Others							
Rated pressure of oil pump	[MPa]	17.5		17.5		17.5	
Oil pump motor power	[KW]	60.5		31.1+31.1		31.1+31.1	
Heater power	[KW]	56		60		60	
Heating section		5+1		6+1		6+1	
Oil tank capacity	[L]	720		720		850	
Machine dimension	[m]	8.82x.2.15x2.42		8.95x2.15x2.55		9.26x2.18x2.58	
Machine weight	[t]	15.6		16.6		19.5	



TITANIUM SERIES TSV TWO PLATE INJECTION MOLDING MACHINE

TITANIUM SERIES TSV

Two plate injection molding machine



Highly-rigid box-type template design, good flatness, large spacing between guide pillars, large mold capacity and large mold opening stroke.

Rapid mold transfer cylinder with diagonally balanced force distribution, faster mold opening and clamping and effectively shortened cycle time. Synchronized band-type brake mechanism with four short-stroke high-pressure cylinders to quickly establish clamping force.

Double-cylinder parallel injection structure, injection Linear guide rail design, more stable machine operation. higher injection precision and injection response. Full closed-loop control with high-response proportional directional valve for mold opening and clamping, fast response speed, stable operation and high precision.

Two-platen mold clamping mechanism, optimized template structure, synchronous band-type brake with four short-stroke high-pressure cylinders, quickly established clamping force, effectively shortening the mold opening and clamping cycle.

Real-time monitoring of magnetostrictive electronic ruler, high flatness control accuracy of template, high repeatability of mold opening and closing position.

Fast mold movement, slow high-pressure mold locking, short dry cycle and effective mold protection.

Synchronous band-type brake mechanism, fast and reliable band-brake type.

Multilingual support, LCD color panel, real-time animation display of machine operation, Euro 12 robot interface, Parameter data protection lock.

Automatic PID temperature control to realize self-correction of barrel temperature, shutdown memory function. 100 sets of mold data can be stored randomly.

100 sets of abnormal alarms and 100 sets of modification records storage, mMulti-level password protection, changed and set according to different authorization levels, to prevent incorrect modification of molding parameters

Standard front and rear door emergency stop buttons, spare aviation socket (5-pin three-phase 380V), USB interface for easy panel program update and mold parameter backup.

Oil temperature detection and automatic alarm of oil temperature deviation

High-precision closed-loop technology of opening and closing die

Independent cooling and filtering system

Efficient servo energy saving system

Hydraulic core extraction configuration, standard 4 groups

20 groups of mold cooling water discharge

Motor overload protection function

Melt proportional back pressure device

TSV series injection table is designed with integral linear guide rail. Together with double-cylinder dynamic balance injection and high-precision digital position sensor, it effectively improves the injection response speed and positional accuracy, and the product molding repeatability is high.

Integral linear guide, low friction loss, fast response and high precision.

Adjustable barrel support structure, convenient and reliable fine height adjustment.

Injection platform, optimized injection seat casting structure strength, small deformation and more stable injection.

Model	TSV 1080				TSV 1450			
International specification	9700H				12000H			
Injection unit	A	B	A	B	A	B	A	B
Screw diameter [mm]	100	110	120	130	110	120	130	140
Screw L/D ratio [L/D]	24.2	22.0	20.2	25.0	24.0	22.0	20.3	18.9
Cylinder head volume [cm³]	4595	5559	6616	1974	6044	7193	8441	9790
Shot weight [g]	4181	5059	6021	7066	5500	6545	7682	8909
Injection rate [oz]	716	867	1031	1210	938	1116	1310	1519
Injection pressure [g/s]	211	175	147	125	198	116	142	122
Injection stroke [MPa]	585.3				636.3			
Shot speed [mm]	100.3				108.5			
Screw speed [r/min]	115				100			
Sphere diameter of nozzle [mm]	SR20				SR20			
Clamping unit								
Clamping force [kN]	11039				15103			
Mold transfer stroke [mm]	2000/1350				2400/1550			
Maximum template spacing [mm]	2550				3100			
Internal spacing of pull rod [mm]	1280x1100				1480x1380			
Min.Mould height [mm]	5550				700			
Max.Mould height [mm]	1200				1550			
Dia of mould location hole [mm]	Ø200H7				Ø200H7			
Eject stroke [mm]	350				400			
Eject force [kN]	260				330			
Eject number [PC]	21				25			
Others								
Rated pressure of oil pump [MPa]	17.5				17.5			
Oil pump motor power [KW]	6.5+60.5+1.5				60.5+40.9+50.7+1.5			
Heater power [KW]	66.5				77.5			
Heating section	5+2				5+2			
Oil tank capacity [L]	1300				1700			
Machine dimension [m]	10.20x3.33x3.10				12.50x3.60x3.38			
Machine weight [t]	46				70			

Model	TSV 1700				TSV 1900				
International specification	16900H				12000H				
Injection unit	A	B	A	B	A	B	A	B	
Screw diameter	[mm]	130	140	150	160	130	140	150	160
Screw L/D ratio	[L/D]	23.7	22.0	20.5	19.3	23.7	22.0	20.5	19.3
Cylinder head volume	[cm³]	9158	10621	12192	13872	9158	10621	12192	13872
Shot weight	[g]	8334	9665	11095	12624	8334	6545	11095	12624
Injection rate	[oz]	1148	1332	1529	1739	1148	1332	1529	1739
Injection pressure	[g/s]	185	159	139	122	185	159	139	122
Injection stroke	[MPa]	690.3				690.3			
Shot speed	[mm]	95.1				95.1			
Screw speed	[r/min]	95				95			
Sphere diameter of nozzle	[mm]	SR20				SR20			
Clamping unit									
Clamping force	[kN]	17584				19568			
Mold transfer stroke	[mm]	2600/1700				2700/1750			
Maximum template spacing	[mm]	3300				3450			
Internal spacing of pull rod	[mm]	1680x1480				1780x1580			
Min.Mould height	[mm]	700				750			
Max.Mould height	[mm]	1600				1700			
Dia of mould location hole	[mm]	Ø250H7				Ø250H7			
Eject stroke	[mm]	400				450			
Eject force	[kN]	330				450			
Eject number	[PC]	25				25			
Others									
Rated pressure of oil pump	[MPa]	17.5				17.5			
Oil pump motor power	[KW]	50.7+50.7+60.5+1.5				50.7+50.7+60.5+1.5			
Heater power	[KW]	98.4				98.4			
Heating section		6+2				6+2			
Oil tank capacity	[L]	2500				2500			
Machine dimension	[m]	13.00x3.90x4.90				13.50x4.10x5.10			
Machine weight	[t]	88				98			

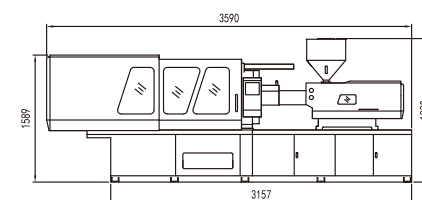


TITANIUM SERIES TSV INJECTION MOLDING MACHINE

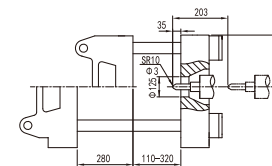
Model		TSV 80 II			TSV 98 II			TSV 138 II		
International specification		200H			330H			380H		
Injection unit		A	B	C	A	B	C	A	B	C
Screw diameter	[mm]	30	32	35	35	38	40	36	40	43
Screw ratio	[L/D]	22.4	21.0	19.2	22.8	21.0	20.0	20.0	21.0	19.5
Theoretical injection capacity	[cm³]	95	109	130	152	179	198	198	221	255
Shot weight (PS)	[g]	87	99	118	138	163	181	181	201	232
Shot weight (PS)	[oz]	3.1	75	4.2	4.9	5.7	6.4	6.4	7.1	8.2
Injection rate into Air	[g/s]	66	192	90	93	110	122	122	114	132
Injection pressure	[MPa]	219	135	161	228	193	174	174	186	161
Injection stroke	[mm]	135			158			176		
Screw speed	[r/min]	170			216			216		
Sphere diameter of nozzle	[mm]	SR10			SR10			SR10		
Clamping unit										
Clamping force	[kN]	800			980			1380		
Opening stroke	[mm]	280			345			400		
Space between tie bar(WxH)	[mm]	325X310			380X370			410X410		
Min. mould size	[mm]	225X215			260X260			300X300		
Min. mould height	[mm]	110			150			150		
Max. mould height	[mm]	320			380			450		
Dia of mould location hole	[mm]	Ø125H7			Ø125H7			Ø125H7		
Ejector stroke	[mm]	80			100			100		
Ejector force forward	[kN]	45			38			38		
Number of ejector bar	[PC]	1			5			5		
Others										
Sys. Pressure	[MPa]	17.5			17.5			17.5		
Pump Motor	[KW]	9			14			14		
Heater power	[KW]	5.4			9.15			9.15		
Number of temp. control zones		3+1			4+1			4+1		
Oil tank capacity	[L]	165			170			200		
Machine dimensions(LxWxH)	[m]	3.59X1.11X1.83			4.33X1.16X1.92			4.59X1.20X2.0		
Machine weight	[t]	2.7			3.3			4.0		

TSV 80 II

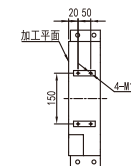
DIMENSION OF EXTERIOR



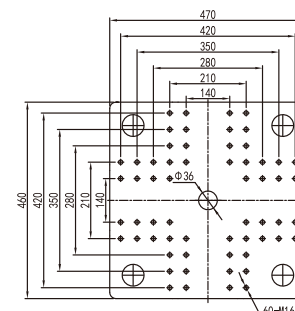
MOULD SPACE DIMENSION



ROBOT INSTALLATION DIMENSION

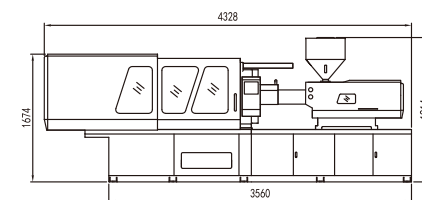


DIMENSION OF TEMPLET

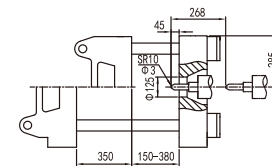


TSV 98 II

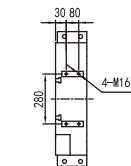
DIMENSION OF EXTERIOR



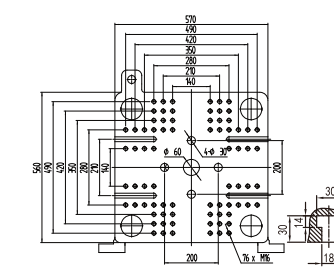
MOULD SPACE DIMENSION



ROBOT INSTALLATION DIMENSION

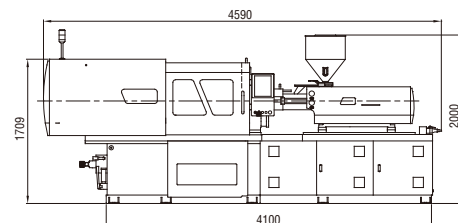


DIMENSION OF TEMPLET

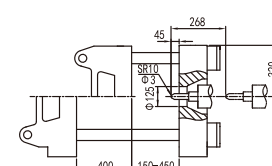


TSV 138 II

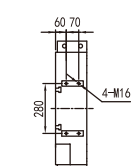
DIMENSION OF EXTERIOR



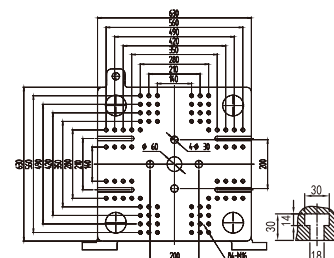
MOULD SPACE DIMENSION



ROBOT INSTALLATION DIMENSION



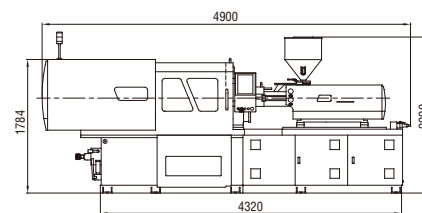
DIMENSION OF TEMPLET



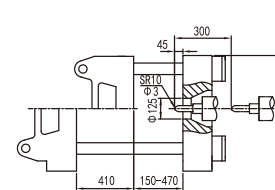
Model		TSV 168 II			TSV 188 II			TSV 228 II		
International specification		530H			620H			850H		
Injection unit		A	B	C	A	B	C	A	B	C
Screw diameter	[mm]	42	45	50	42	45	50	45	50	55
Screw ratio	[L/D]	23.1	21.6	19.4	23.1	21.6	19.4	23.3	21.0	19.1
Theoretical injection capacity	[cm³]	263	302	373	291	334	412	382	471	570
Shot weight (PS)	[g]	239	175	339	265	304	375	347	429	519
Shot weight (PS)	[oz]	8.4	9.7	11.9	9.3	10.7	13.2	12.2	15.1	18.3
Injection rate into Air	[g/s]	131	151	186	136	156	193	153	188	228
Injection pressure	[MPa]	202	176	143	214	187	151	219	177	147
Injection stroke	[mm]	190			210			240		
Screw speed	[r/min]	185			180			162		
Sphere diameter of nozzle	[mm]	SR10			SR10			SR15		
Clamping unit										
Clamping force	[kN]	1680			1880			2280		
Opening stroke	[mm]	410			435			485		
Space between tie bar(WxH)	[mm]	470X440			510X470			560X520		
Min. mould size	[mm]	330X300			355X325			390X360		
Min. mould height	[mm]	150			180			200		
Max. mould height	[mm]	470			520			550		
Dia of mould location hole	[mm]	Ø125H7			Ø125H7			Ø125H7		
Ejector stroke	[mm]	120			140			140		
Ejector force forward	[kN]	38			53			70		
Number of ejector bar	[PC]	5			5			9		
Others										
Sys. Pressure	[MPa]	17.5			17.5			17.5		
Pump Motor	[KW]	17.6			18.7			20.5		
Heater power	[KW]	12.45			12.45			16.2		
Number of temp. control zones		4+1			4+1			4+1		
Oil tank capacity	[L]	232			250			300		
Machine dimensions(LxWxH)	[m]	4.90X1.23X2.09			5.17X1.30X2.12			5.58X1.37X2.12		
Machine weight	[t]	4.7			5.4			6.6		

TSV 168 II

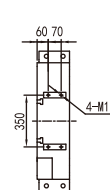
DIMENSION OF EXTERIOR



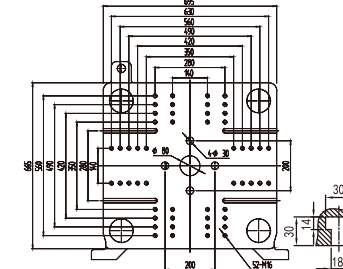
MOULD SPACE DIMENSION



ROBOT INSTALLATION DIMENSION

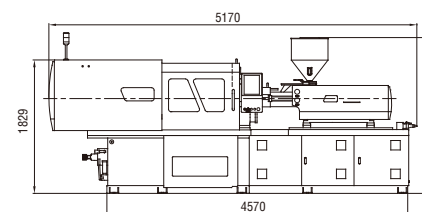


DIMENSION OF TEMPLET

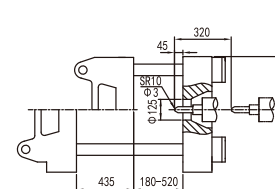


TSV 188 II

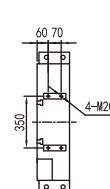
DIMENSION OF EXTERIOR



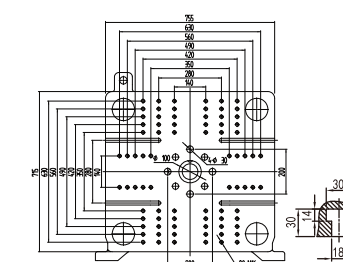
MOULD SPACE DIMENSION



ROBOT INSTALLATION DIMENSION

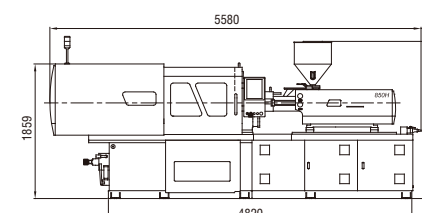


DIMENSION OF TEMPLET

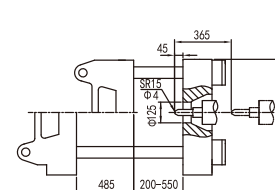


TSV 228 II

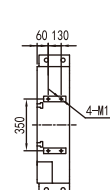
DIMENSION OF EXTERIOR



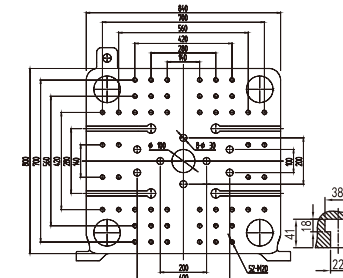
MOULD SPACE DIMENSION



ROBOT INSTALLATION DIMENSION



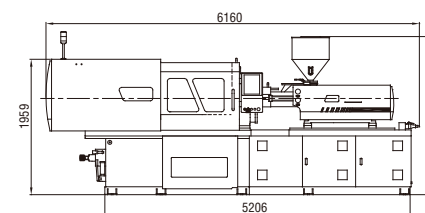
DIMENSION OF TEMPLET



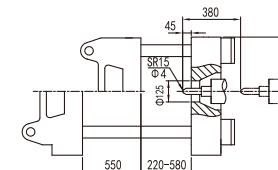
Model		TSV 288 II			TSV 308 II			TSV 358 II		
International specification		1300H			1450H			1800H		
Injection unit		A	B	C	A	B	C	A	B	C
Screw diameter	[mm]	55	60	64	55	60	64	60	65	70
Screw ratio	[L/D]	22.9	21.0	19.7	22.9	21	19.7	22.8	21	19.5
Theoretical injection capacity	[cm³]	641	763	868	653	777	884	848	995	1154
Shot weight (PS)	[g]	583	694	790	594	707	805	771	905	1050
Shot weight (PS)	[oz]	20.5	24.5	27.8	20.9	24.9	28.3	27.2	31.9	37.0
Injection rate into Air	[g/s]	189	225	256	249	297	338	262	308	357
Injection pressure	[MPa]	194	163	144	213	179	157	202	173	149
Injection stroke	[mm]	270			275			300		
Screw speed	[r/min]	170			230			150		
Sphere diameter of nozzle	[mm]	SR15			SR15			SR15		
Clamping unit										
Clamping force	[kN]	2880			3080			3580		
Opening stroke	[mm]	550			600			660		
Space between tie bar(WxH)	[mm]	610X580			680X630			730X680		
Min. mould size	[mm]	425X405			475X440			510X475		
Min. mould height	[mm]	220			230			252		
Max. mould height	[mm]	580			650			700		
Dia of mould location hole	[mm]	Ø125H7			Ø125H7			Ø125H7		
Ejector stroke	[mm]	150			170			180		
Ejector force forward	[kN]	70			77			77		
Number of ejector bar	[PC]	13			13			13		
Others										
Sys. Pressure	[MPa]	17.5			17.5			17.5		
Pump Motor	[KW]	31.1			40.9			40.9		
Heater power	[KW]	19.8			19.8			18.8		
Number of temp. control zones		4+1			4+1			4+1		
Oil tank capacity	[L]	400			600			640		
Machine dimensions(LxWxH)	[m]	6.16X1.45X2.17			6.70X2.03X2.25			6.94X2.05X2.38		
Machine weight	[t]	7.7			11			12.7		

TSV 288 II

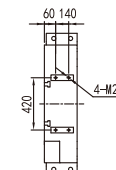
DIMENSION OF EXTERIOR



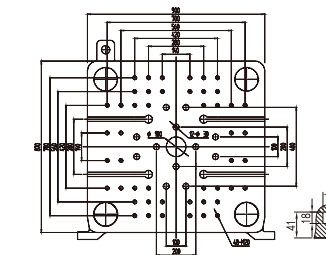
MOULD SPACE DIMENSION



ROBOT INSTALLATION DIMENSION

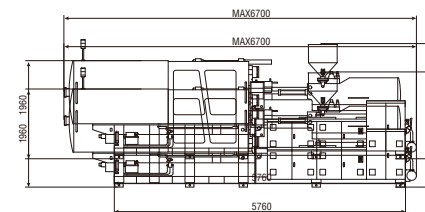


DIMENSION OF TEMPLAT

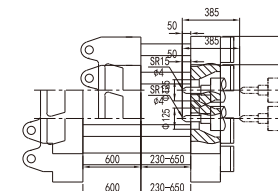


TSV 308 II

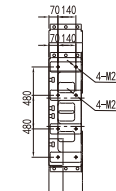
DIMENSION OF EXTERIOR



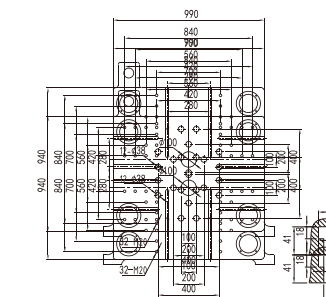
MOULD SPACE DIMENSION



ROBOT INSTALLATION DIMENSION

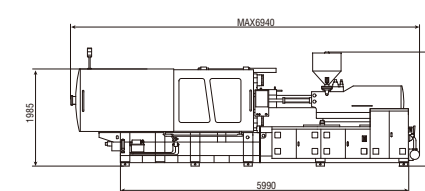


DIMENSION OF TEMPLAT

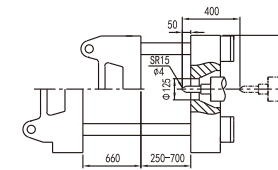


TSV 358 II

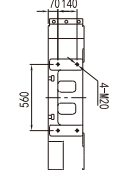
DIMENSION OF EXTERIOR



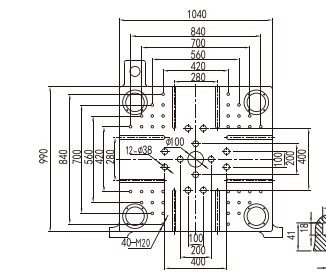
MOULD SPACE DIMENSION



ROBOT INSTALLATION DIMENSION



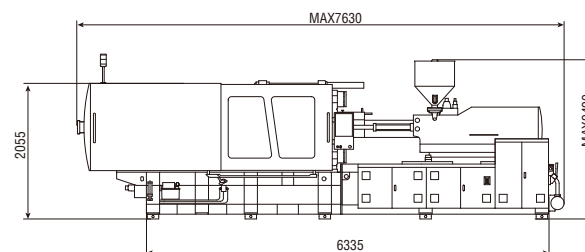
DIMENSION OF TEMPLAT



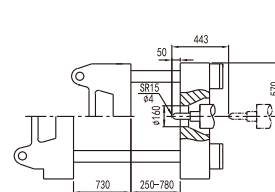
Model	TSV 408 II				TSV 488 II	
International specification	2700H				3600H	
Injection unit	A	B	C	D	A	B
Screw diameter [mm]	70	75	80	75	80	85
Screw ratio [L/D]	22.5	21	19.7	22.4	21	19.8
Theoretical injection capacity [cm ³]	1346	1545	1758	1722	1959	2212
Shot weight (PS) [g]	1225	1406	1600	1567	1763	2013
Shot weight (PS) [oz]	43.1	49.5	56.3	55.2	62.8	70.9
Injection rate into Air [g/s]	344	395	449	441	501	566
Injection pressure [MPa]	193	168	148	193	169	150
Injection stroke [mm]	350				390	
Screw speed [r/min]	160				160	
Sphere diameter of nozzle [mm]	SR15				SR15	
Clamping unit						
Clamping force [kN]	4080				980	
Opening stroke [mm]	730				800	
Space between tie bar(WxH) [mm]	780X730				830X780	
Min. mould size [mm]	545X510				580X545	
Min. mould height [mm]	250				320	
Max. mould height [mm]	780				800	
Dia of mould location hole [mm]	Ø160H7				Ø160H7	
Ejector stroke [mm]	200				220	
Ejector force forward [kN]	120				110	
Number of ejector bar [PC]	13				13	
Others						
Sys. Pressure [MPa]	17.5				17.5	
Pump Motor [KW]	50.7				31.1+31.1	
Heater power [KW]	26.2				31.2	
Number of temp. control zones	4+1				4+1	
Oil tank capacity [L]	720				850	
Machine dimensions(LxWxH) [m]	7.63X2.15X2.42				8.20X2.08X2.75	
Machine weight [t]	15.2				18.9	

TSV 408 II

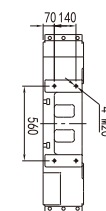
DIMENSION OF EXTERIOR



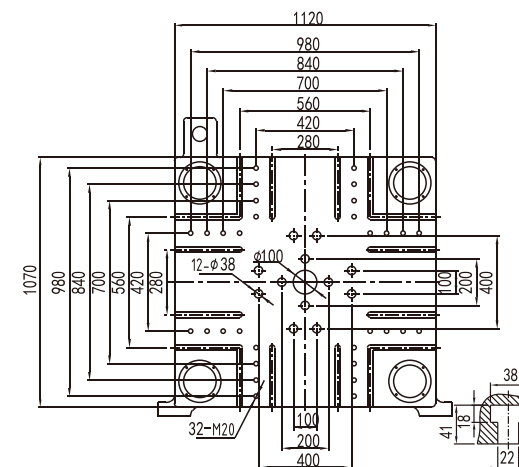
MOULD SPACE DIMENSION



ROBOT INSTALLATION DIMENSION

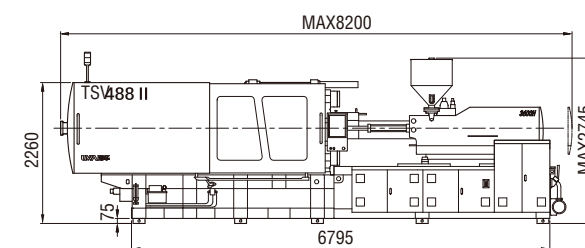


DIMENSION OF TEMPLET

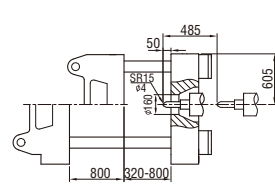


TSV 488 II

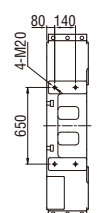
DIMENSION OF EXTERIOR



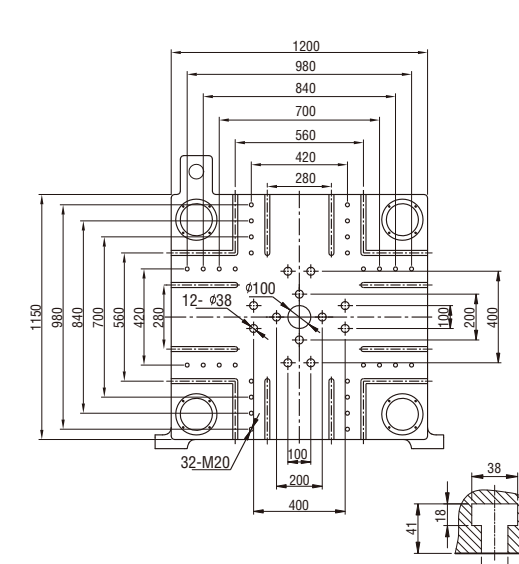
MOULD SPACE DIMENSION



ROBOT INSTALLATION DIMENSION



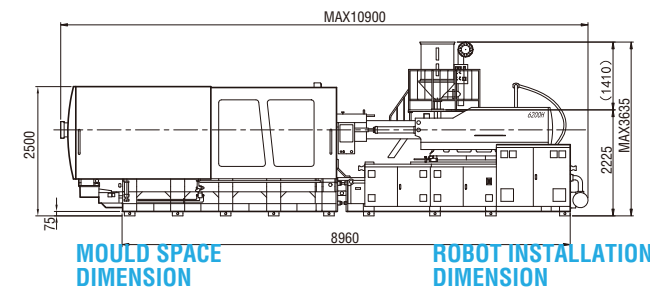
DIMENSION OF TEMPLET



Model	TSV 788 II				TSV 968 II			
International specification	6000H				6900H			
Injection unit	A	B	C	D	A	B	C	D
Screw diameter [mm]	90	95	105	110	90	100	110	120
Screw ratio [L/D]	23.2	22.0	19.9	19.0	24.4	22.0	20.0	18.3
Theoretical injection capacity [cm ³]	3052	3401	4154	4559	3181	3927	4752	5655
Shot weight (PS) [g]	2777	3095	3780	4149	2895	3574	4324	5146
Shot weight (PS) [oz]	97.8	109.0	133.1	146.1	101.9	125.8	152.2	181.1
Injection rate into Air [g/s]	608	677	827	908	609	752	910	1083
Injection pressure [MPa]	197	176	144	132	218	218	146	123
Injection stroke [mm]	480				500			
Screw speed [r/min]	103				80			
Sphere diameter of nozzle [mm]	SR15				SR20			
Clamping unit								
Clamping force [kN]	7880				9680			
Opening stroke [mm]	1030				1150			
Space between tie bar(WxH) [mm]	1060X980				1160X1080			
Min. mould size [mm]	740X685				810X755			
Min. mould height [mm]	400				400			
Max. mould height [mm]	1000				1100			
Dia of mould location hole [mm]	Ø200H7				Ø200H7			
Ejector stroke [mm]	280				300			
Ejector force forward [kN]	215				215			
Number of ejector bar [PC]	21				21			
Others								
Sys. Pressure [MPa]	17.5				17.5			
Pump Motor [KW]	50.7+40.9				50.7+50.7			
Heater power [KW]	45.1				55.2			
Number of temp. control zones	5+1				5+1			
Oil tank capacity [L]	1100				1250			
Machine dimensions(LxWxH) [m]	10.90X2.55X3.64				12.00X2.74X3.84			
Machine weight [t]	34				44			

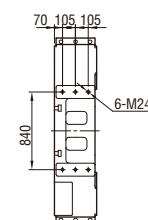
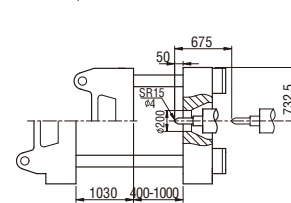
TSV 788 II

DIMENSION OF EXTERIOR

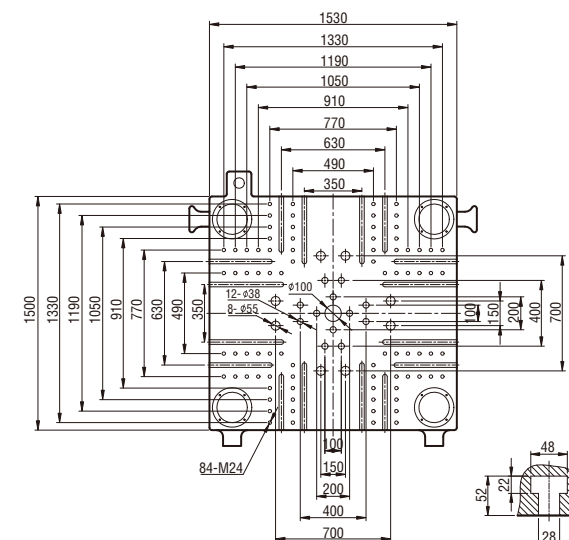


Mould space dimension

Robot Installation dimension

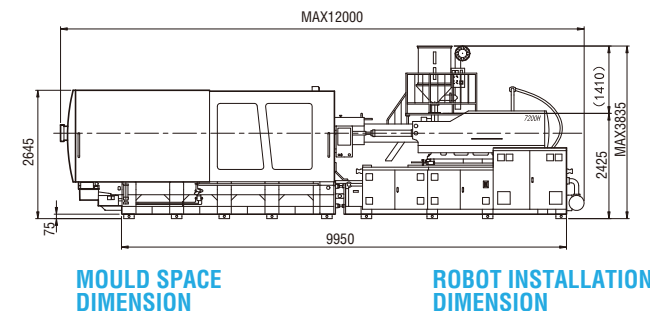


DIMENSION OF TEMPLET



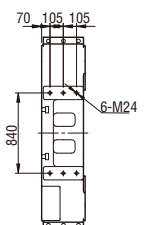
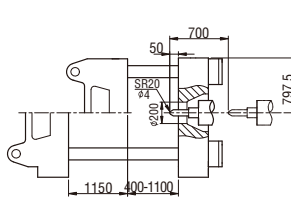
TSV 968 II

DIMENSION OF EXTERIOR

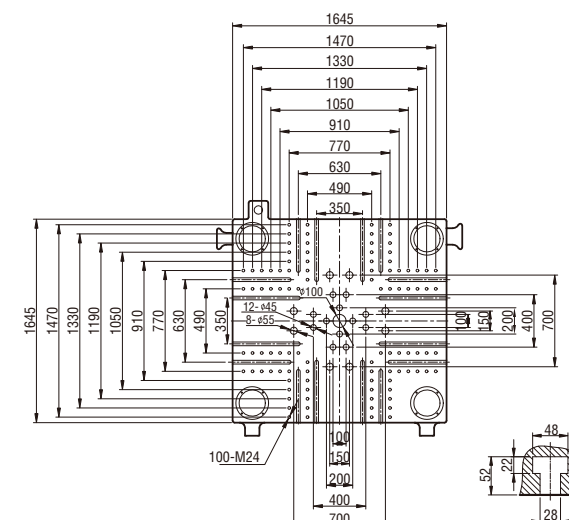


MOULD SPACE DIMENSION

ROBOT INSTALLATION DIMENSION



DIMENSION OF TEMPLET

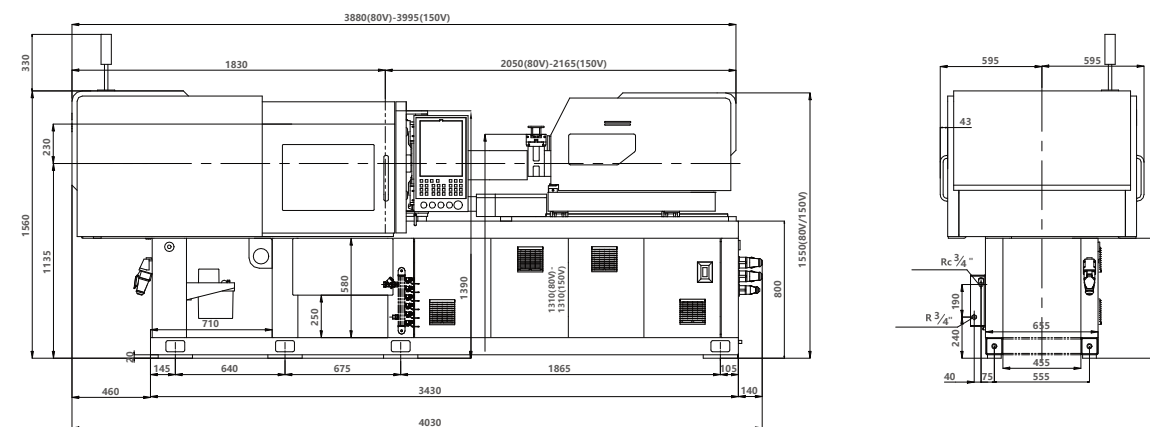




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ALL-ELECTRIC
INJECTION
MOLDING MACHINE**


Titanium[®]
 Plastic Machinery

MACHINE DIMENSIONS

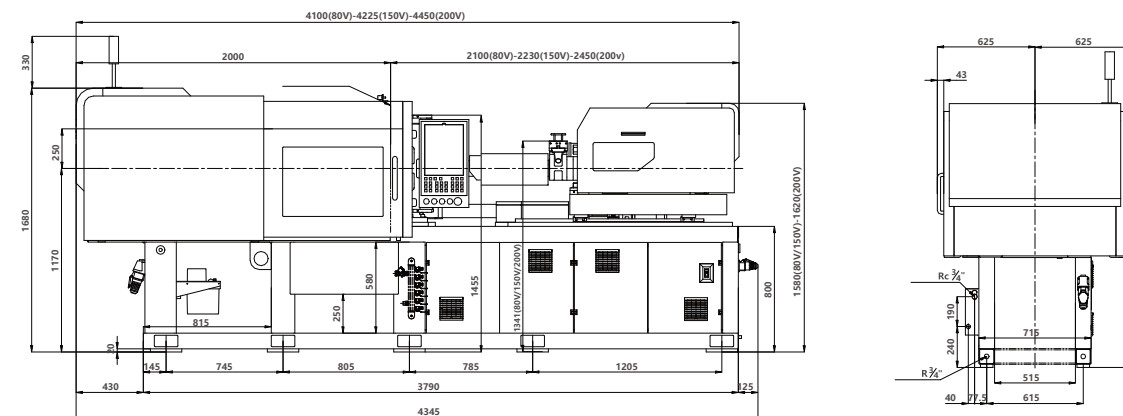


TSV 90W

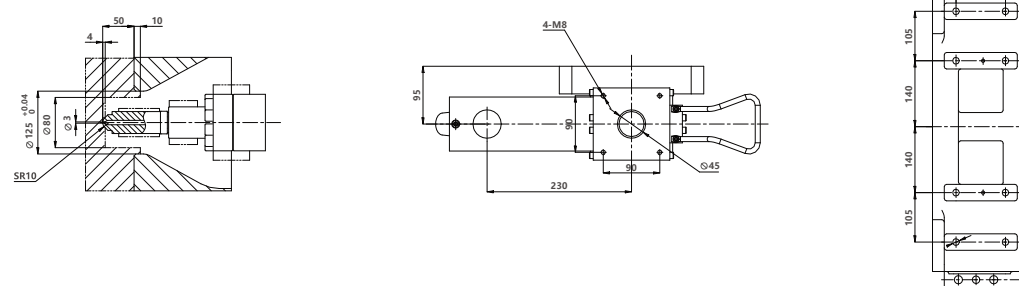
TSV 90W										
Specification		80VE/80V			150VE/150V			200VE/200V		
Injection unit		A	B	C	A	B	C	A	B	C
Screw diameter	[mm]	20	22	26	26	28	32	28	32	36
Screw ratio	[L/D]	20	20	18	21	21	19	22	21	18.7
Theoretical injection capacity	[cm³]	28	34	47	58	67	88	77	100	127
Shot weight (PS)	[g]	25	31	43	53	61	80	70	91	116
Shot weight (PS)	[Mpa]	270	223	160	255	200	168	261	200	158
Injection rate into Air	[g/s]	57/100	69/121	256	97/169	112/196	146/256	112/196	146/256	185/324
Injection pressure	[mm/s]	200/350			200/350			200/350		
Injection stroke	[mm]	90			110			125		
Injection pressure	[mm/s]	400			400			400		
Screw speed	[KN]	14.8			14.8			14.8		
Sphere diameter of nozzle	[mm]	SR10			SR10			SR10		
Clamping unit										
Clamping force	[kN]	900								
Opening stroke	[mm]	320								
Space between tie bar(WxH)	[mm]	420X370								
Min. mould size	[mm]	270X240								
Min. mould height	[mm]	150								
Max. mould height	[mm]	420								
Dia of mould location hole	[mm]	Ø125H7								
Ejector stroke	[mm]	80								
Ejector force forward	[kN]	32.4								
Number of ejector bar	[PC]	5								
Others										
Motor power	[KW]	8.9/9.5			11.8/11			14.5/5		
Heating power	[KW]	5.25			7.95			9.25		
Heating section		3+2			3+2			3+2		
Machine dimension	[m]	4.35X1.25X1.68			4.35X1.25X1.68			4.45X1.25X1.68		
Machine weight	[t]	3.8			3.6			4.2		

TSV 90W

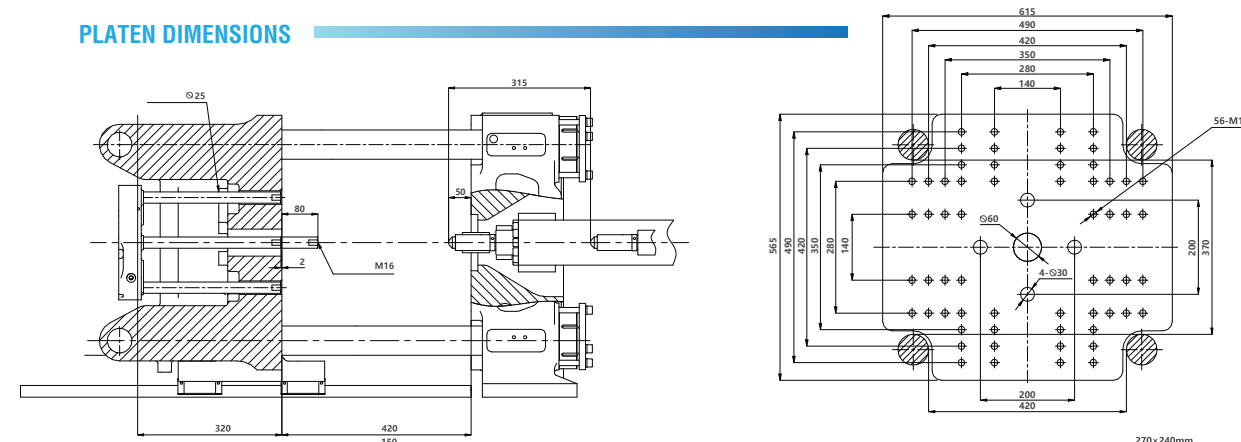
MACHINE DIMENSIONS



OTHERS DIMENSIONS



PLATEN DIMENSIONS



TSV 120W										
Specification		150VE/150V			200VE/200V			300VE/300V		
Injection unit		A	B	C	A	B	C	A	B	C
Screw diameter	[mm]	26	28	32	28	32	36	32	36	40
Screw ratio	[L/D]	21	21	19	22	21	18.7	23.6	21	19
Theoretical injection capacity	[cm³]	58	67	88	77	100	127	116	147	182
Shot weight (PS)	[g]	53	51	80	70	91	116	106	134	166
Shot weight (PS)	[Mpa]	255	220	168	261	200	158	253	200	162
Injection rate into Air	[g/s]	97/169	112/196	146/256	112/196	146/256	185/324	146/256	185/324	229/400
Injection pressure	[mm/s]	200/350			200/350			200/350		
Injection stroke	[mm]	110				125		125		
Injection pressure	[mm/s]	400			400			400		
Screw speed	[KN]	19.7				19.7		19.7		
Sphere diameter of nozzle	[mm]	SR10			SR10			SR10		
Clamping unit										
Clamping force	[kN]	1200								
Opening stroke	[mm]	360								
Space between tie bar(WxH)	[mm]	470X420								
Min. mould size	[mm]	305X270								
Min. mould height	[mm]	180								
Max. mould height	[mm]	480								
Dia of mould location hole	[mm]	Ø125H7								
Ejector stroke	[mm]	100								
Ejector force forward	[kN]	32.4								
Number of ejector bar	[PC]	5								
Others										
Motor power	[KW]	13/13				15/15		23.6/22		
Heating power	[KW]	7.95			9.25			13		
Heating section		3+2				3+2		3+2		
Machine dimension	[m]	4.8X1.31X1.75			4.8X1.31X1.75			4.8X1.31X1.75		
Machine weight	[t]	4.3			4.3			4.7		

Technical drawing of the 4760 (300V) machine, showing front and side views with dimensions.

Front View Dimensions:

- Overall width: 2028
- Overall height: 1750
- Top section height: 330
- Lower section height: 1215
- Base height: 800
- Internal height: 1285
- Base width segments: 320, 145, 830, 880, 4320, 1145, 1215, 125
- Internal width segments: 250, 580
- Internal height segments: 1530 (150V) - 1670 (200V) - 1700 (300V)
- Internal width segments: 1420 (150V) - 1550 (200V) - 1580 (300V)
- Internal height segments: 1540
- Internal width segments: 1540

Side View Dimensions:

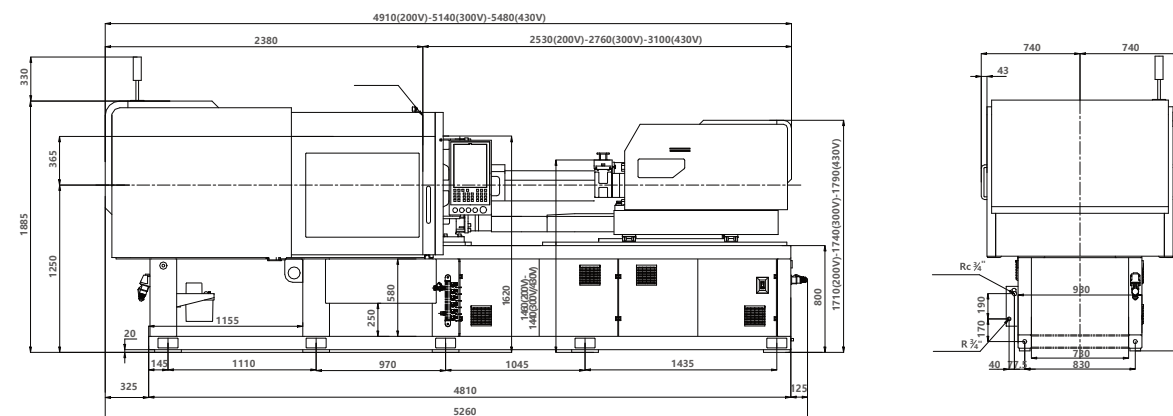
- Overall width: 655
- Overall height: 655
- Top section height: 43
- Base height: 800
- Internal height: 1215
- Base width segments: 40, 74.5, 680
- Internal width segments: 190, 780, 580
- Internal height segments: 1530 (150V) - 1670 (200V) - 1700 (300V)
- Internal width segments: 1420 (150V) - 1550 (200V) - 1580 (300V)
- Internal height segments: 1540
- Internal width segments: 1540

TSV 150W

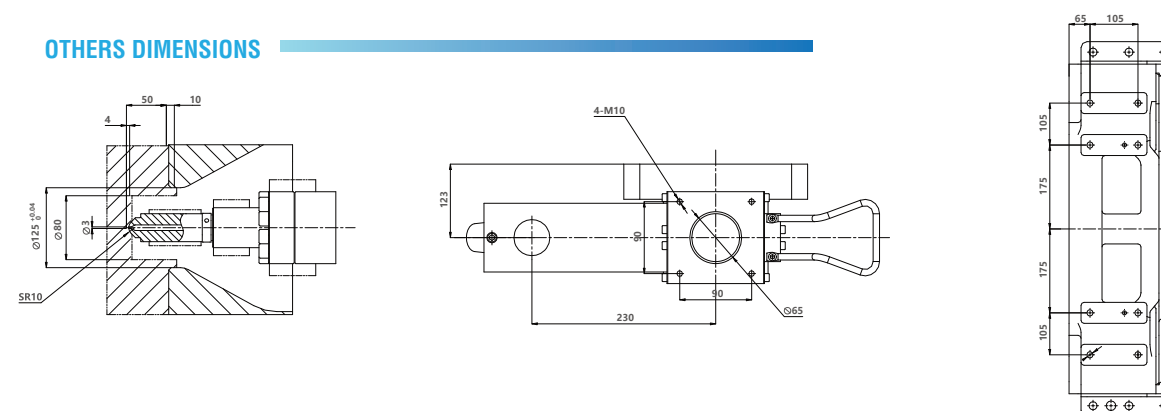
Specification		150VE/150V			200VE/200V			300VE/300V		
Injection unit		A	B	C	A	B	C	A	B	C
Screw diameter	[mm]	28	32	36	32	36	40	36	40	45
Screw ratio	[L/D]	22	21	18.7	23.6	21	19	23.3	21	19
Theoretical injection capacity	[cm³]	77	100	127	116	147	182	173	213	270
Shot weight (PS)	[g]	70	91	116	106	134	166	157	194	246
Shot weight (PS)	[Mpa]	261	200	158	253	200	162	247	200	158
Injection rate into Air	[g/s]	112/196	146/256	185/324	146/256	185/324	229/400	185/324	229/400	290/507
Injection pressure	[mm/s]	200/350			200/350			200/350		
Injection stroke	[mm]	125			145			170		
Injection pressure	[mm/s]	400			400			400		
Screw speed	[KN]	19.7			19.7			19.7		
Sphere diameter of nozzle	[mm]	SR10			SR10			SR10		
Clamping unit										
Clamping force	[kN]	1500								
Opening stroke	[mm]	420								
Space between tie bar(WxH)	[mm]	530X470								
Min. mould size	[mm]	335X305								
Min. mould height	[mm]	200								
Max. mould height	[mm]	520								
Dia of mould location hole	[mm]	Ø125H7								
Ejector stroke	[mm]	120								
Ejector force forward	[kN]	32.4								
Number of ejector bar	[PC]	5								
Others										
Motor power	[KW]	19.3/19.3			23.6/22			25.2/30		
Heating power	[KW]	9.25			13			14.2		
Heating section		3+3			3+3			3+3		
Machine dimension	[m]	5.26X1.48X1.89			5.26X1.48X1.89			5.48X1.48X1.89		
Machine weight	[t]	6			6.5			6.8		

TSV 150W

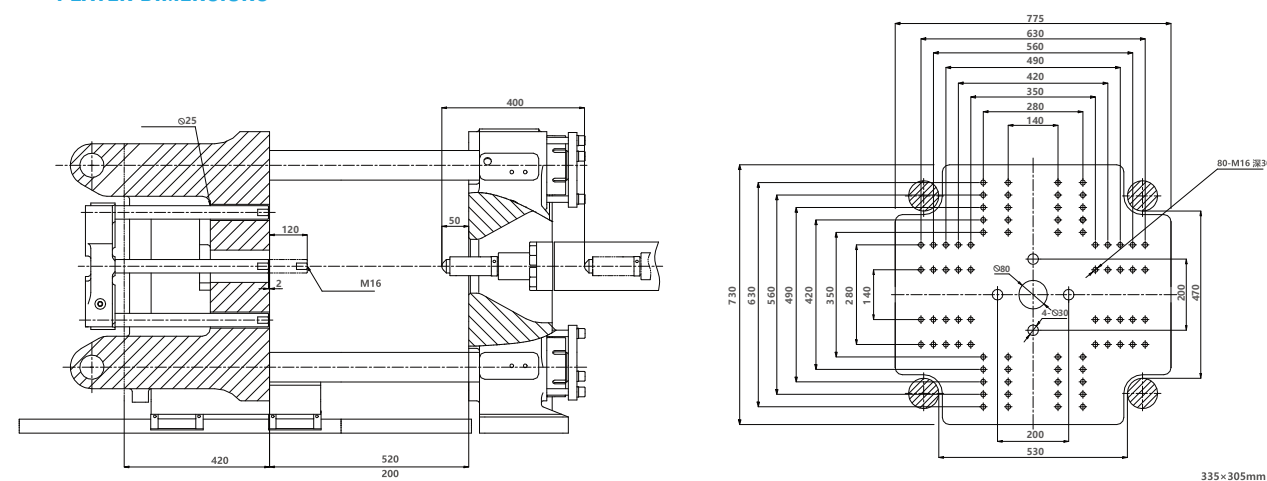
MACHINE DIMENSIONS



OTHERS DIMENSIONS



PLATEN DIMENSIONS

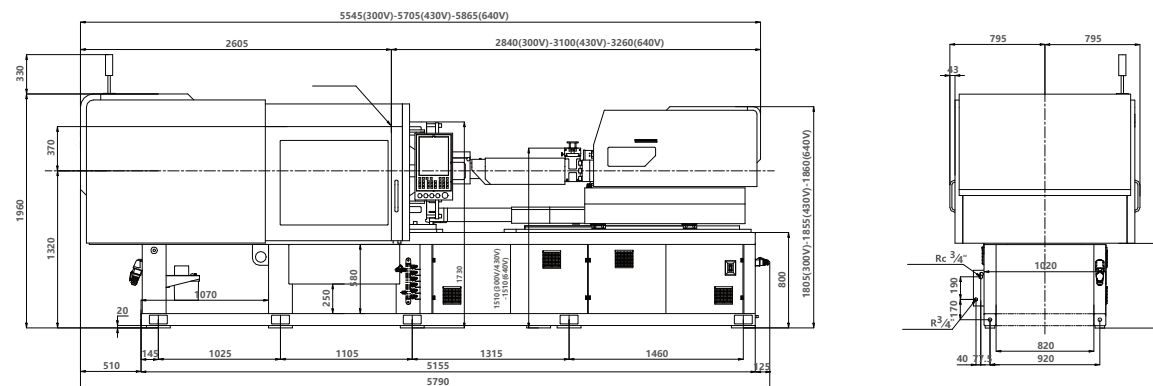


335x305mm

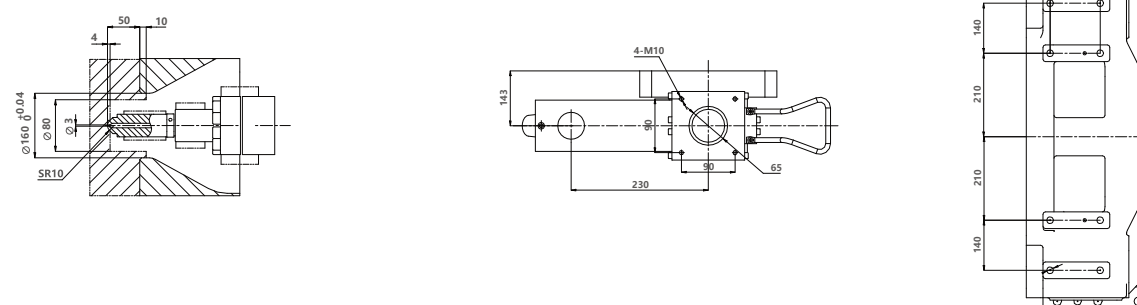
TSV 190W										
Specification		300VE/300V			430VE/430V			640VE/640V		
Injection unit		A	B	C	A	B	C	A	B	C
Screw diameter	[mm]	32	36	40	36	40	45	40	45	50
Screw ratio	[L/D]	23.6	21	19	23.3	21	19	23.3	21	19
Theoretical injection capacity	[cm³]	116	100	182	173	213	270	252	319	395
Shot weight (PS)	[g]	106	91	166	157	194	246	229	290	358
Shot weight (PS)	[Mpa]	253	200	162	247	200	158	253	200	162
Injection rate into Air	[g/s]	145/256	146/256	229/400	185/324	229/400	290/507	183/343	231/434	286/536
Injection pressure	[mm/s]	200/350			200/350			200/350		
Injection stroke	[mm]	125				170			200	
Injection pressure	[mm/s]	400			400			350		
Screw speed	[KN]	19.7				19.7			19.7	
Sphere diameter of nozzle	[mm]	SR10			SR10			SR10		
Clamping unit										
Clamping force	[kN]	1900								
Opening stroke	[mm]	470								
Space between tie bar(WxH)	[mm]	590X530								
Min. mould size	[mm]	355X335								
Min. mould height	[mm]	200								
Max. mould height	[mm]	520								
Dia of mould location hole	[mm]	Ø160H7								
Ejector stroke	[mm]	130								
Ejector force forward	[kN]	44.1								
Number of ejector bar	[PC]	5								
Others										
Motor power	[KW]	23.6/23.4				27.9/30			29/30	
Heating power	[KW]	13			14.2			16.6		
Heating section		3+2				3+3			3+3	
Machine dimension	[m]	5.8X1.6X1.96			5.8X1.6X1.96			5.87X1.6X1.96		
Machine weight	[t]	8.1			8.1			8.6		

TSV 190W

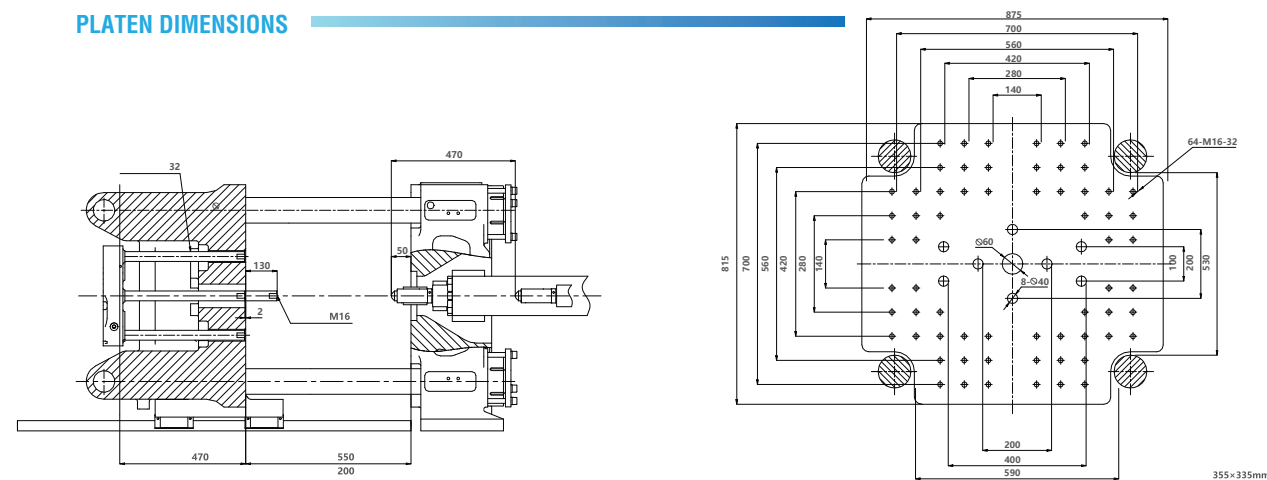
MACHINE DIMENSIONS



OTHERS DIMENSIONS



PLATEN DIMENSIONS

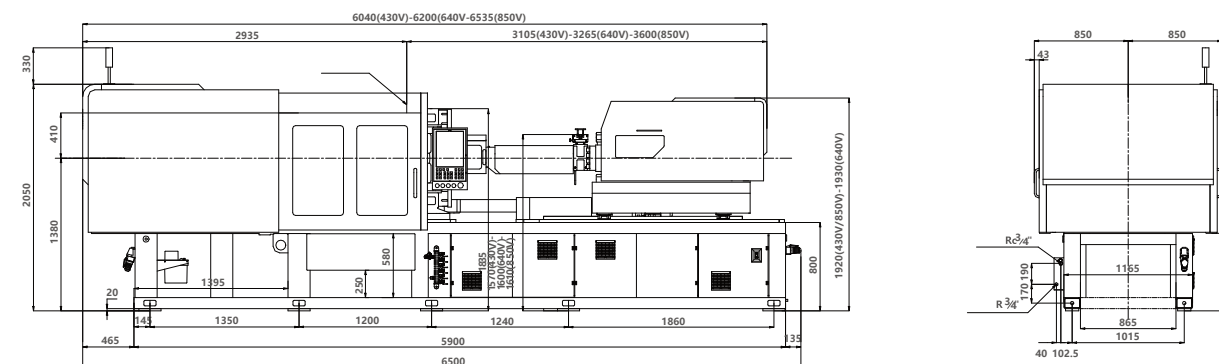


TSV 230W

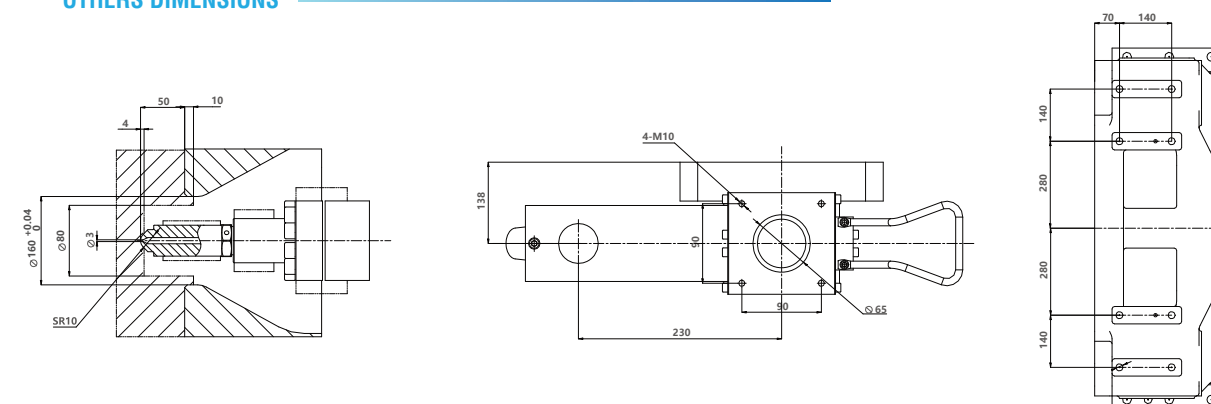
TSV 230W										
Specification		430VE/430V			640VE/640V			850VE/850V		
Injection unit		A	B	C	A	B	C	A	B	C
Screw diameter	[mm]	36	40	45	40	45	50	45	50	55
Screw ratio	[L/D]	23.3	21	19	23.5	21	19	23.2	21	19
Theoretical injection capacity	[cm³]	173	213	270	252	319	395	342	422	511
Shot weight (PS)	[g]	157	194	246	229	290	358	311	384	465
Shot weight (PS)	[Mpa]	247	200	158	253	200	162	247	200	165
Injection rate into Air	[g/s]	185/324	229/400	290/507	183/323	231/434	286/536	231/434	286/536	346/649
Injection pressure	[mm/s]	200/350			160/300			160/300		
Injection stroke	[mm]	170			200			215		
Injection pressure	[mm/s]	400			350			350		
Screw speed	[KN]	39.3			39.3			39.3		
Sphere diameter of nozzle	[mm]	SR10			SR10			SR10		
Clamping unit										
Clamping force	[kN]	2300								
Opening stroke	[mm]	550								
Space between tie bar(WxH)	[mm]	650X590								
Min. mould size	[mm]	425X385								
Min. mould height	[mm]	230								
Max. mould height	[mm]	680								
Dia of mould location hole	[mm]	Ø160H7								
Ejector stroke	[mm]	150								
Ejector force forward	[kN]	44.1								
Number of ejector bar	[PC]	13								
Others										
Motor power	[KW]	33.9/33.9			35/35			36.9/41		
Heating power	[KW]	14.2			16.6			20.2		
Heating section		3+2			3+2			4+2		
Machine dimension	[m]	6.5X1.7X2.05			6.5x1.7x2.05			6.55x1.7x2.05		
Machine weight	[t]	11.1			11.5			11.9		

TSV 230W

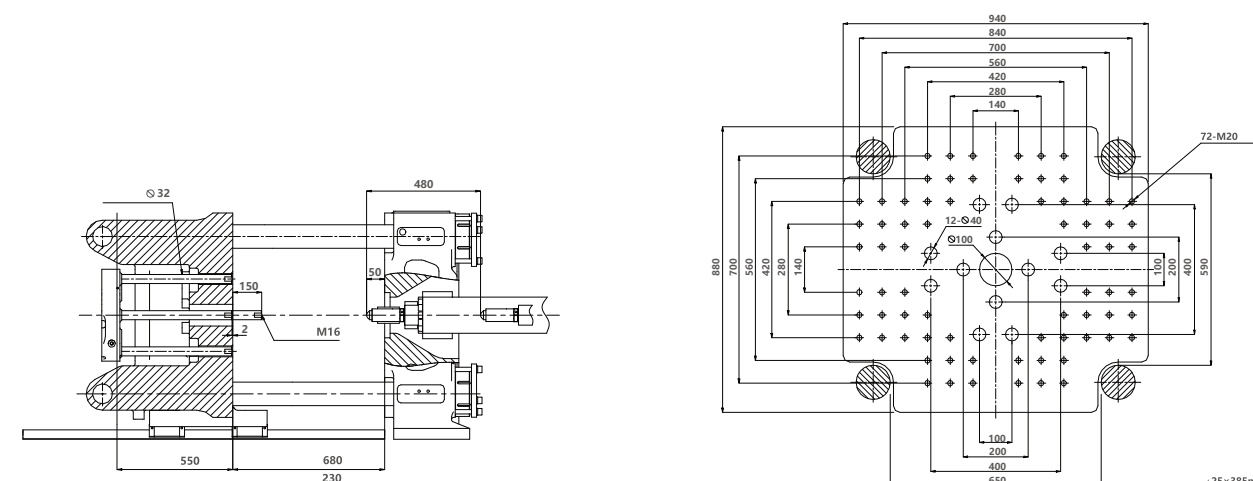
MACHINE DIMENSIONS



OTHERS DIMENSIONS



PLATEN DIMENSIONS



TSV 300W

MACHINE DIMENSIONS

7055(850V)-7485(1100V)

3395

3660(850V)-4090(1100V)

2420

715

1390

1925

1925(850V)-2000(1100V)

820

645

825

825

1138

94

1218

1837

35

6260

7040

920

25

920

660

910

1210

OTHERS DIMENSIONS

50

10

4

170

360

110

170

4-M12

80

70

160

140

325

325

140

170

PLATEN DIMENSIONS

32

150

2

M16

535

50

600

720

250

1060

980

840

700

560

420

280

12-Ø40

Ø100

36-M20

175

100

200

400

730

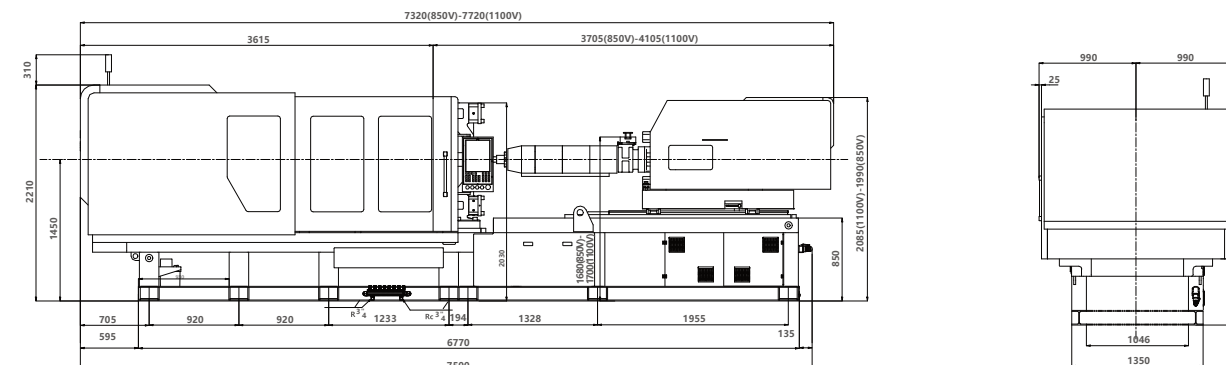
470x470

32

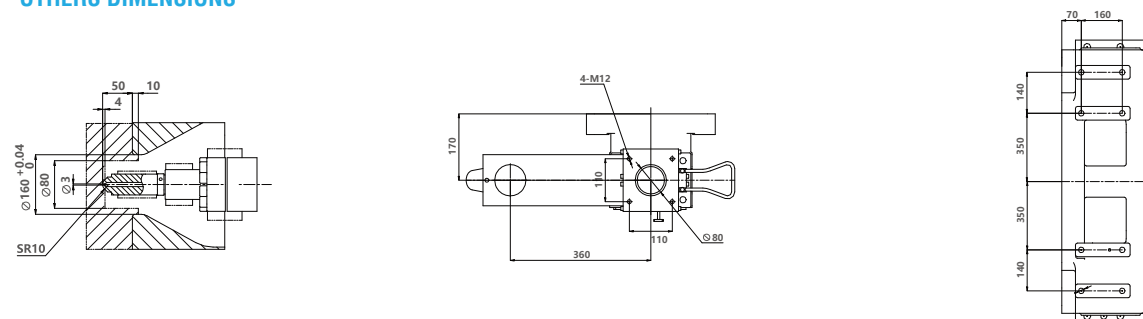
TSV 360W							
Specification		850VE/850V			1100VE/1100V		
Injection unit		A	B	C	A	B	C
Screw diameter	[mm]	40	50	55	50	55	60
Screw ratio	[L/D]	23.2	21	19	23.1	21	19.3
Theoretical injection capacity	[cm³]	342	422	511	471	570	678
Shot weight (PS)	[g]	311	384	465	428	518	617
Shot weight (PS)	[Mpa]	247	200	165	236	195	167
Injection rate into Air	[g/s]	231/434	286/536	346/649	286/447	346/541	412/643
Injection pressure	[mm/s]	160/300			160/250		
Injection stroke	[mm]	215			240		
Injection pressure	[mm/s]	350			320		
Screw speed	[KN]	39.3			54		
Sphere diameter of nozzle	[mm]	SR10			SR10		
Clamping unit							
Clamping force	[kN]	3600					
Opening stroke	[mm]	700					
Space between tie bar(WxH)	[mm]	820x820					
Min. mould size	[mm]	540x540					
Min. mould height	[mm]	300					
Max. mould height	[mm]	770					
Dia of mould location hole	[mm]	Ø160H7					
Ejector stroke	[mm]	160					
Ejector force forward	[kN]	59					
Number of ejector bar	[PC]	17					
Others							
Motor power	[KW]	43.1/47.2			47.2/50.3		
Heating power	[KW]	20.2			26.8		
Heating section		4+3			4+3		
Machine dimension	[m]	7.65x2.15x2.35			4.65x2.15x2.35		
Machine weight	[t]	17.8			18.3		

TSV 360W

MACHINE DIMENSIONS



OTHERS DIMENSIONS



PLATEN DIMENSIONS

