TOGGLE INJECTION MOULDING MACHINES

Intro

DT SERIES TOGGLE INJECTION MOULDING MACHINE

We keep continuous improving, upgrading to a new transformation.

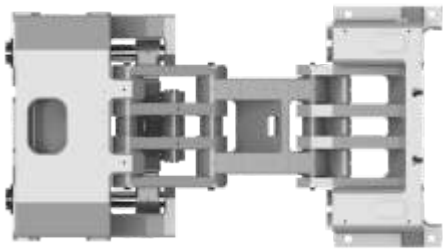
DT series, among STM Dream family, has obtained good market reputation and shares since its launch in the market.

Improved Material Technology based on collection of customer's feedback, Analysis and developed by R&D department.

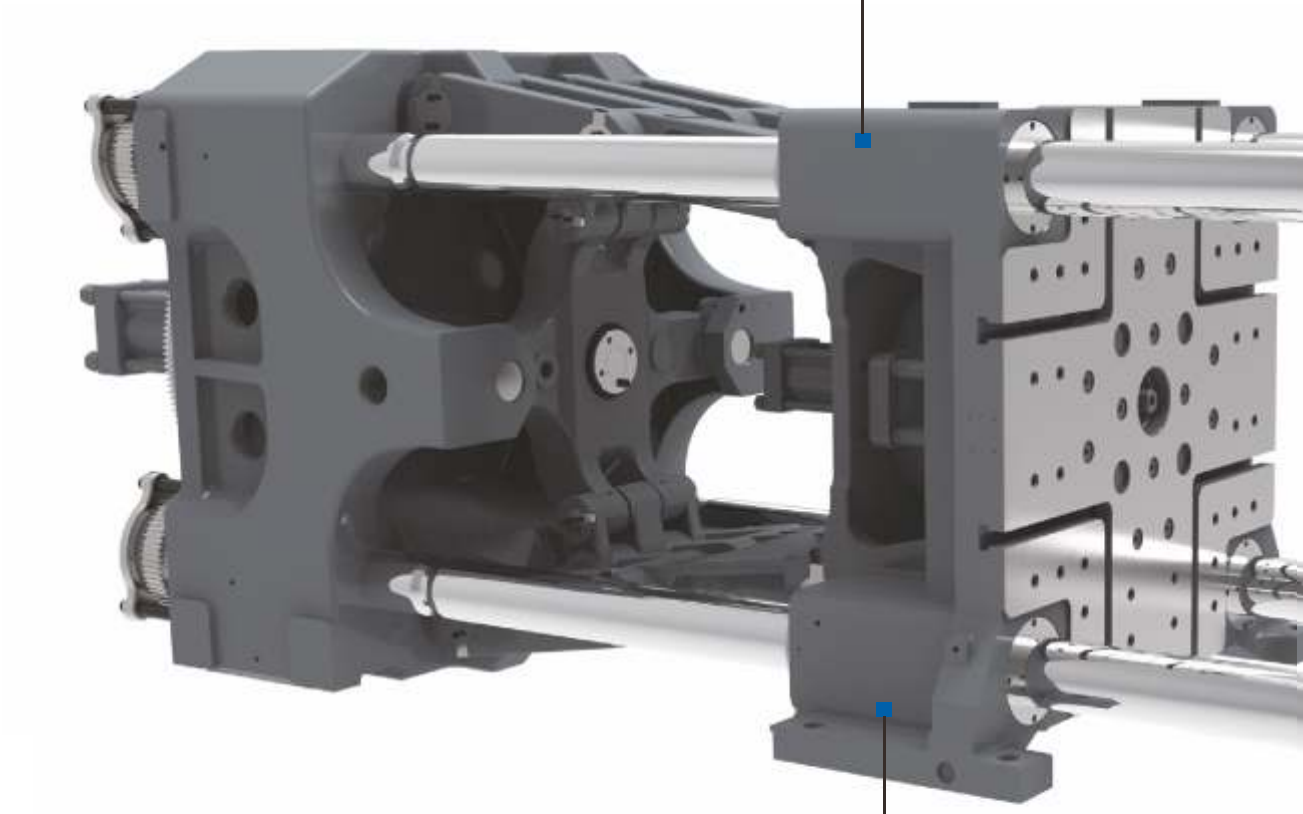
The improvement of DT series is still ongoing process .....

Clamping

Robust H Type Latest Technology Toggle System



Wider Moving Platen with large skates area



Groove for the tie bar stress relieving

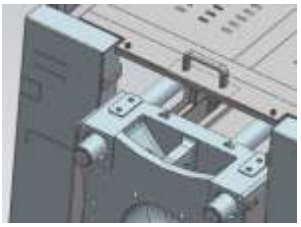
Enlarged support for better platen movement stability

Running of open-close mold more stable, bearing ability enlarged, avoiding leaning of the molds to protect molds, improve lifetime of molds.

Box Type structure design

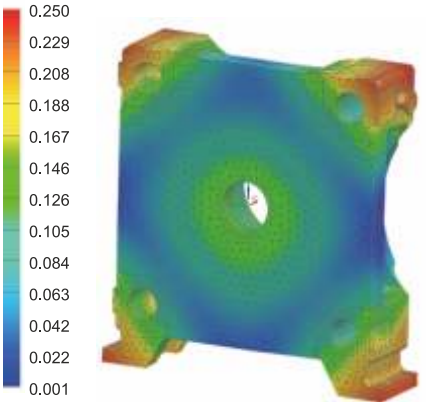
Box type structure more uniform stresses low deformation.

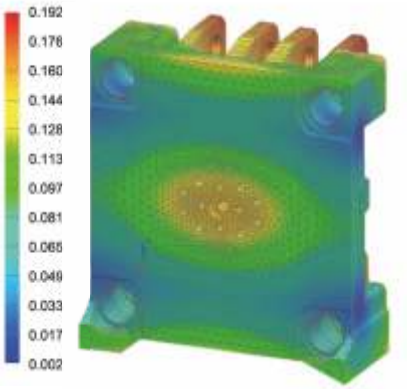
Mechanical Robot Installation holes



Finite Element Analysis

Deformation reduces, rigidity of platen enhanced, effectively protect the mold and ensure precision of products.



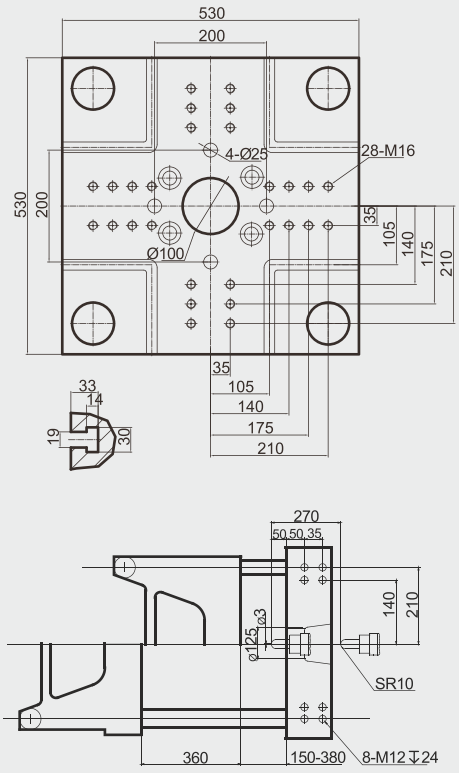


High Response, Injection Unit on Lm Guides For More Stability

Parameter

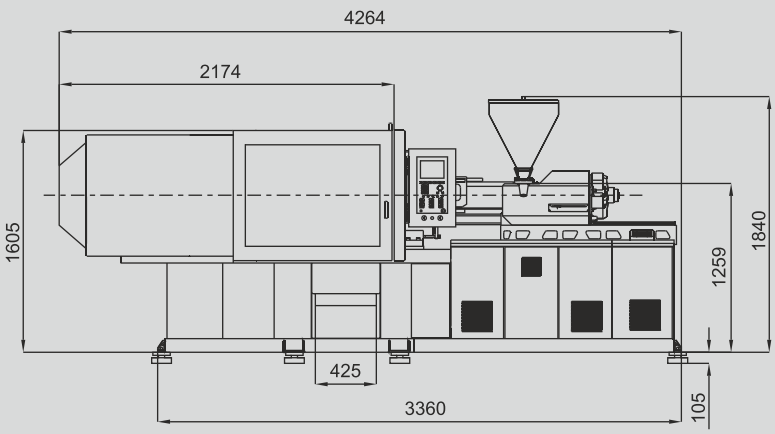
Clamping Unit	Unit	D100		
Clamping force	kN	1000		
Clamping stroke	mm	360		
Tie bar distance	mm	360×360		
Max.mold height	mm	380		
Min.mold height	mm	150		
Ejector stroke	mm	120		
Ejector force	kN	34		
Ejector quantity	Pcs	5		
Injection unit	**Unit**	**i380**		
		A	B	C
Screw diameter	mm	35	38	42
Screw L/D ratio	L/D	21.7	20.0	18.1
Shot size(Theoretical)	cm^3	168	199	243
Injection weight(PS)	g	153	181	221
Injection pressure	Mpa	228.0	193.0	158.0
Injection rate into air(PS)	g/s	86/106	102/125	124/153
Injection stroke	mm	175		
Injection speed	mm/s	99/121		
Screw rotation spee	rpm	225/277		
Other	**Unit**	**i380**		
Max. pump pressure	Mpa	17.5		
Pump motor power	kW	13/16		
Heat power	kW	6.6/8.2		
Hopper capacity	kg	25		
Oil tank capacity	L	150		

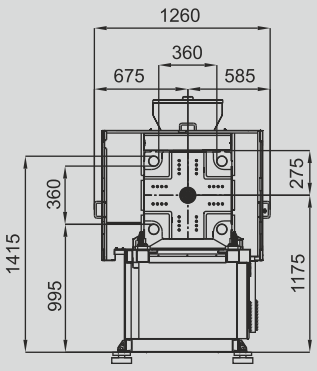
Platen Dimension



Unit:mm

Machine Dimension





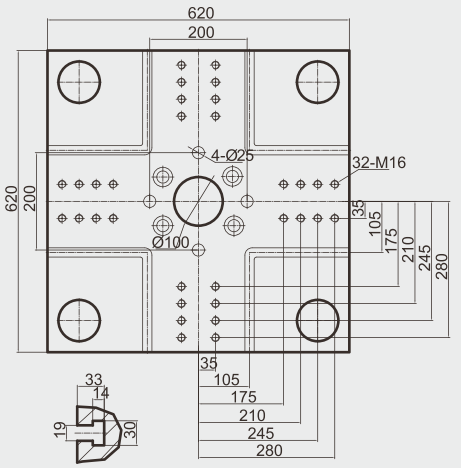
Unit:mm

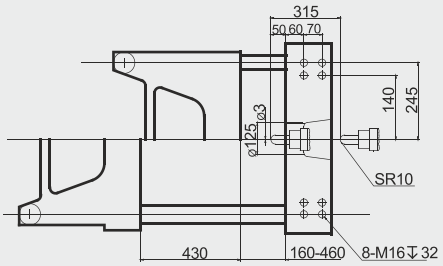
Clamping Unit	Unit	D130
Clamping force	kN	1300
Clamping stroke	mm	430
Tie bar distance	mm	420×420
Max.mold height	mm	460
Min.mold height	mm	160
Ejector stroke	mm	120
Ejector force	kN	34
Ejector quantity	Pcs	5

Injection unit	Unit	i510		
		A	B	C
Screw diameter	mm	38	42	45
Screw L/D ratio	L/D	22.1	20.0	18.7
Shot size(Theoretical)	cm^3	222	270	310
Injection weight(PS)	g	202	246	282
Injection pressure	Mpa	233.0	190.0	166.0
Injection rate into air(PS)	g/s	104/130	127/159	146/182
Injection stroke	mm	195		
Injection speed	mm/s	101/126		
Screw rotation spee	rpm	237/296		

Other	Unit	i510
Max. pump pressure	Mpa	17.5
Pump motor power	kW	16/20
Heat power	kW	9.5/12
Hopper capacity	kg	25
Oil tank capacity	L	200

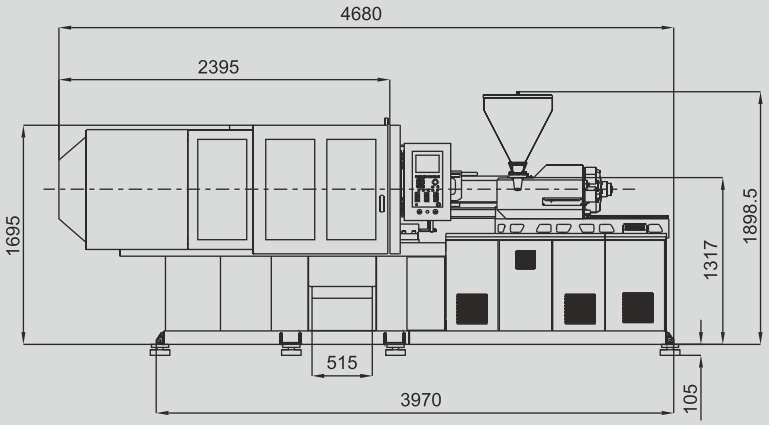
Platen Dimension

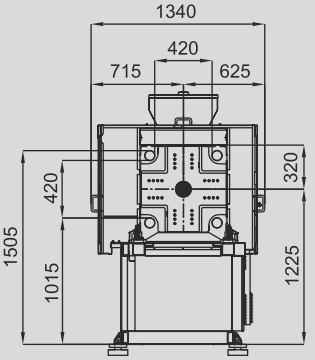




Unit:mm

Machine Dimension



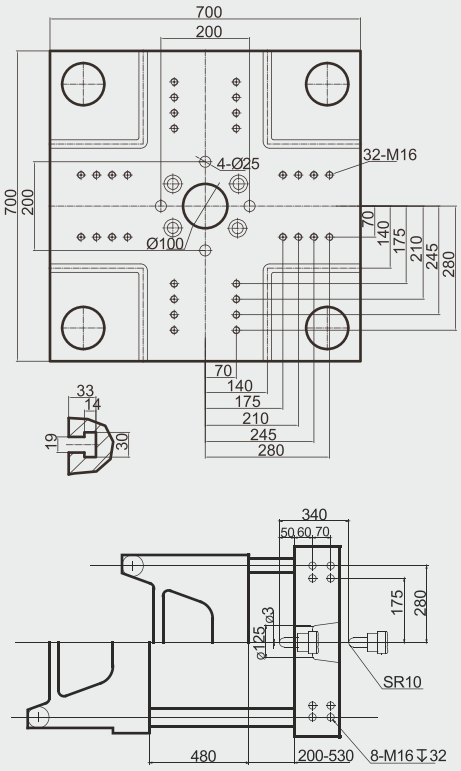


Unit:mm

Parameter

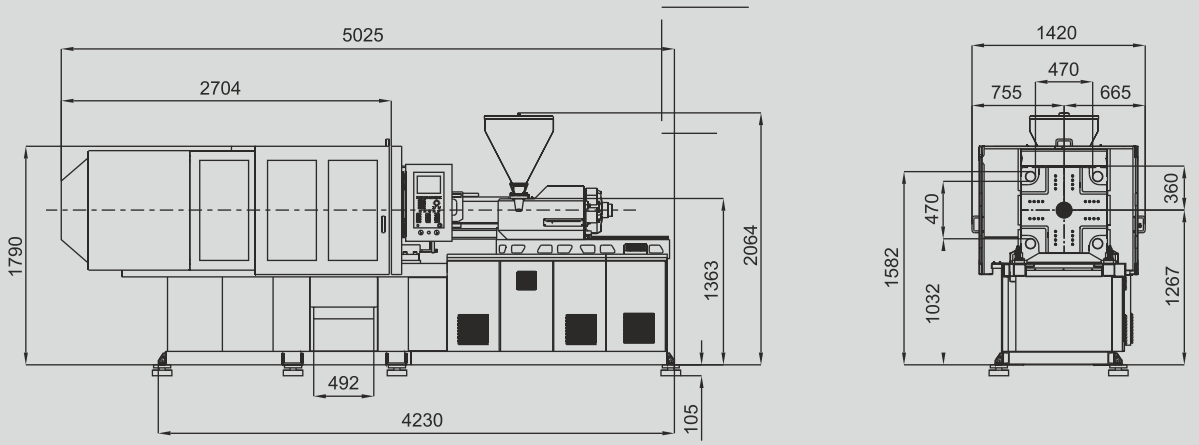
Clamping Unit	Unit	D160		
Clamping force	kN	1600		
Clamping stroke	mm	480		
Tie bar distance	mm	470×470		
Max.mold height	mm	530		
Min.mold height	mm	200		
Ejector stroke	mm	150		
Ejector force	kN	45		
Ejector quantity	Pcs	5		
Injection unit	**Unit**	**i600**		
		A	B	C
Screw diameter	mm	42	45	50
Screw L/D ratio	L/D	21.4	20.0	18.0
Shot size(Theoretical)	cm^3	287	329	406
Injection weight(PS)	g	261	300	370
Injection pressure	Mpa	213.0	185.0	150.0
Injection rate into air(PS)	g/s	142/177	163/203	202/252
Injection stroke	mm	207		
Injection speed	mm/s	113/141		
Screw rotation spee	rpm	260/310		
Other	**Unit**	**i600**		
Max. pump pressure	Mpa	17.5		
Pump motor power	kW	20/25		
Heat power	kW	10/13		
Hopper capacity	kg	25		
Oil tank capacity	L	220		

Platen Dimension



Unit:mm

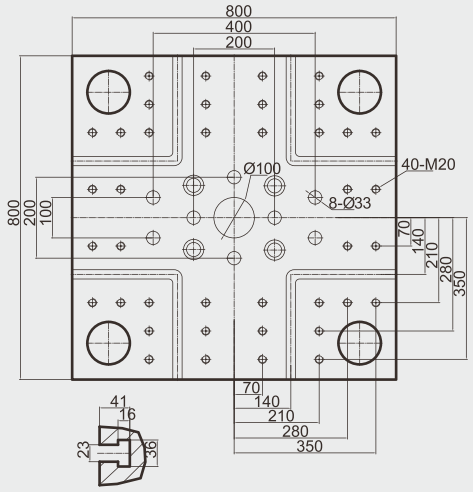
Machine Dimension

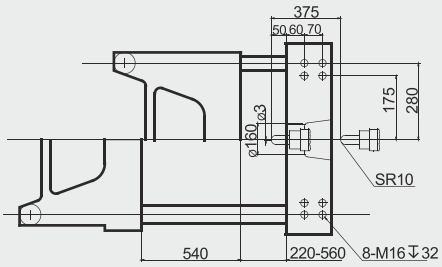


Unit:mm

Clamping Unit	Unit	D200		
Clamping force	kN	2000		
Clamping stroke	mm	540		
Tie bar distance	mm	530×530		
Max.mold height	mm	560		
Min.mold height	mm	220		
Ejector stroke	mm	150		
Ejector force	kN	67		
Ejector quantity	Pcs	9		
Injection unit	**Unit**	**i850**		
		A	B	C
Screw diameter	mm	45	50	55
Screw L/D ratio	L/D	22.2	20.0	18.2
Shot size(Theoretical)	cm^3	358	442	535
Injection weight(PS)	g	326	402	486
Injection pressure	Mpa	238.0	193.0	159.0
Injection rate into air(PS)	g/s	127/159	157/196	190/237
Injection stroke	mm	225		
Injection speed	mm/s	88/110		
Screw rotation spee	rpm	198/247		
Other	**Unit**	**i850**		
Max. pump pressure	Mpa	17.5		
Pump motor power	kW	20/25		
Heat power	kW	13/16		
Hopper capacity	kg	50		
Oil tank capacity	L	300		

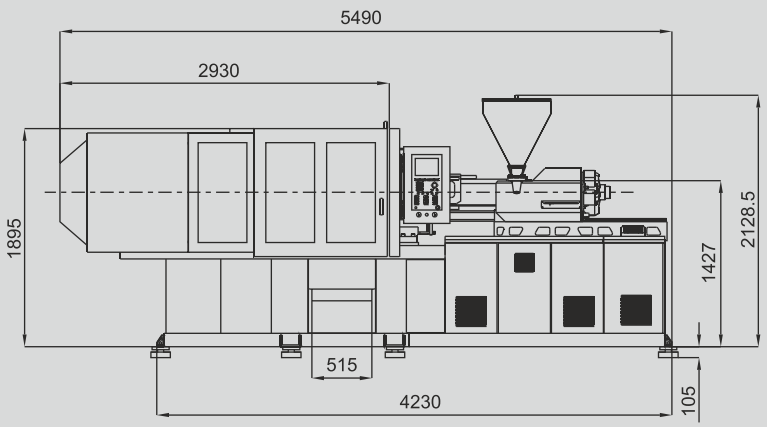
Platen Dimension

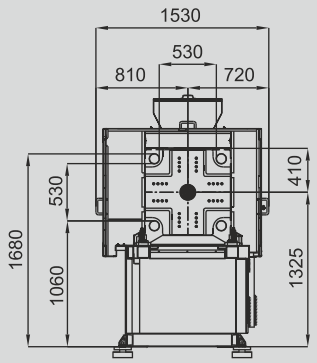




Unit:mm

Machine Dimension



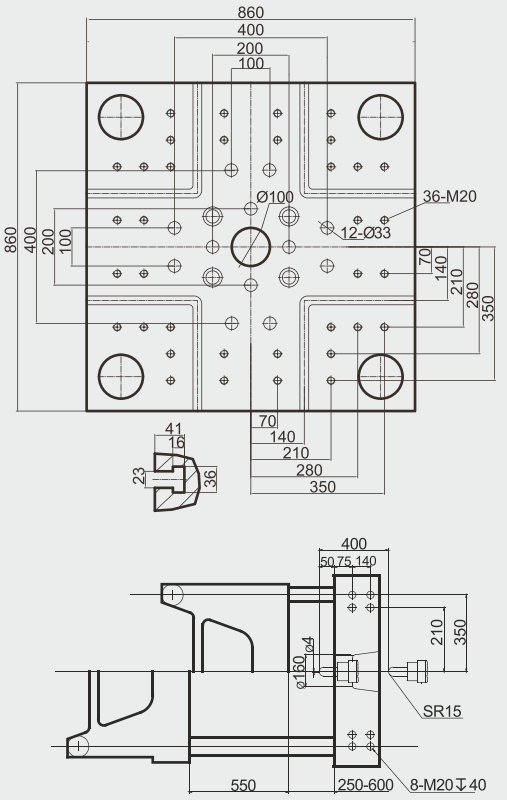


Unit:mm

Parameter

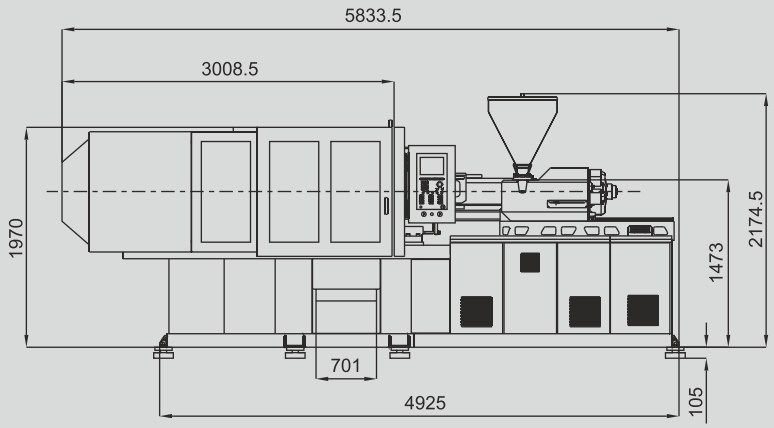
Clamping Unit	Unit	D250		
Clamping force	kN	2500		
Clamping stroke	mm	550		
Tie bar distance	mm	580×580		
Max.mold height	mm	600		
Min.mold height	mm	250		
Ejector stroke	mm	160		
Ejector force	kN	67		
Ejector quantity	Pcs	13		
Injection unit	**Unit**	**i1100**		
		A	B	C
Screw diameter	mm	50	55	60
Screw L/D ratio	L/D	22.0	20.0	18.3
Shot size(Theoretical)	cm^3	497	601	715
Injection weight(PS)	g	452	547	651
Injection pressure	Mpa	224.0	185.0	156.0
Injection rate into air(PS)	g/s	169/207	204/251	243/298
Injection stroke	mm	253		
Injection speed	mm/s	95/116		
Screw rotation spee	rpm	195/239		
Other	**Unit**	**i1100**		
Max. pump pressure	Mpa	17.5		
Pump motor power	kW	25/31		
Heat power	kW	16/20		
Hopper capacity	kg	50		
Oil tank capacity	L	350		

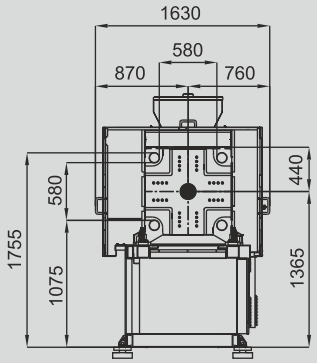
Platen Dimension



Unit:mm

Machine Dimension

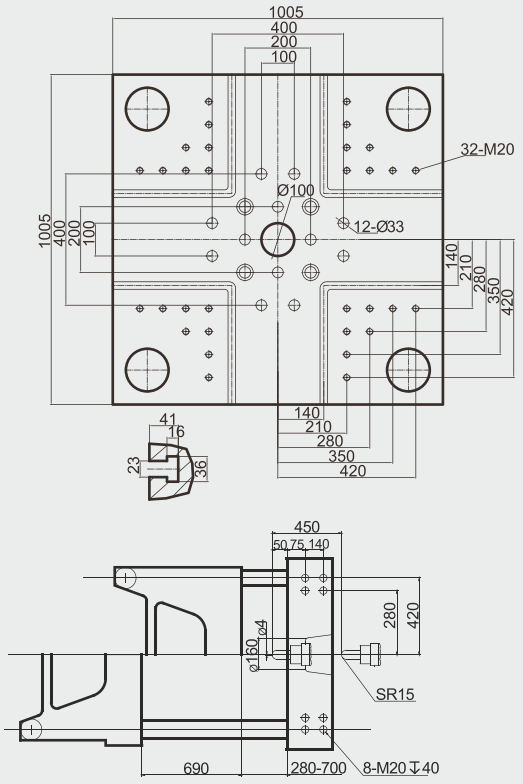




Unit:mm

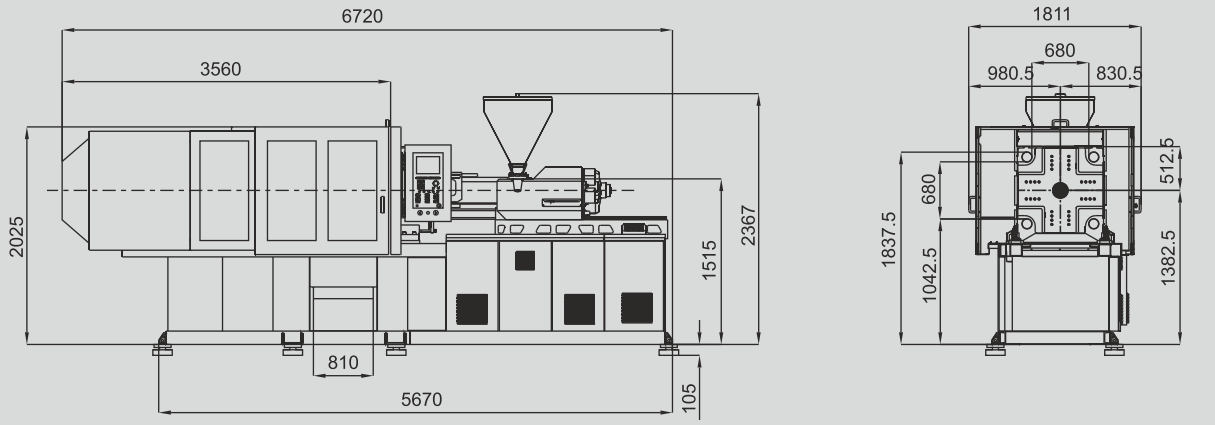
Clamping Unit	Unit	D350		
Clamping force	kN	3500		
Clamping stroke	mm	690		
Tie bar distance	mm	680×680		
Max.mold height	mm	700		
Min.mold height	mm	280		
Ejector stroke	mm	160		
Ejector force	kN	67		
Ejector quantity	Pcs	13		
Injection unit	**Unit**	**¿1900**		
		A	B	C
Screw diameter	mm	60	65	70
Screw L/D ratio	L/D	21.7	20.0	18.6
Shot size(Theoretical)	cm^3	845	992	1151
Injection weight(PS)	g	769	903	1047
Injection pressure	Mpa	226.0	193.0	166.0
Injection rate into air(PS)	g/s	245/284	288/334	334/387
Injection stroke	mm	299		
Injection speed	mm/s	95/110		
Screw rotation spee	rpm	195/225		
Other	**Unit**	**¿1900**		
Max. pump pressure	Mpa	17.5		
Pump motor power	kW	37/43		
Heat power	kW	25/31		
Hopper capacity	kg	50		
Oil tank capacity	L	550		

Platen Dimension



Unit:mm

Machine Dimension

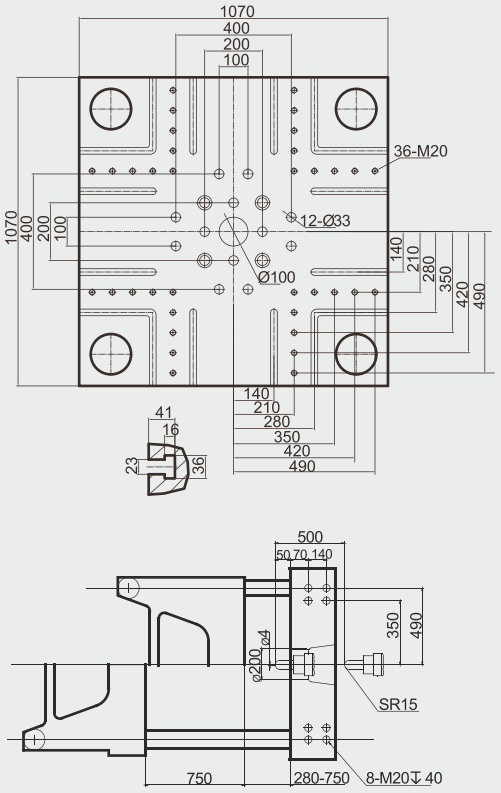


Unit:mm

Parameter

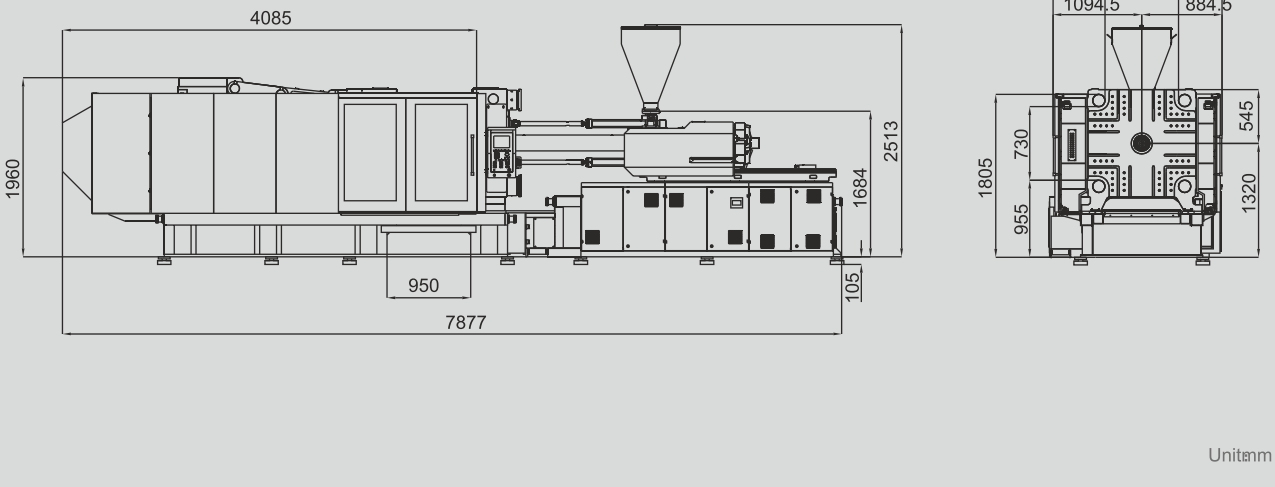
Clamping Unit	Unit	D400		
Clamping force	kN	4000		
Clamping stroke	mm	750		
Tie bar distance	mm	730×730		
Max.mold height	mm	750		
Min.mold height	mm	280		
Ejector stroke	mm	200		
Ejector force	kN	124		
Ejector quantity	Pcs	13		
Injection unit	**Unit**	**i2500**		
		A	B	C
Screw diameter	mm	65	70	75
Screw L/D ratio	L/D	23.7	22.0	20.5
Shot size(Theoretical)	cm^3	1161	1347	1546
Injection weight(PS)	g	1057	1226	1407
Injection pressure	Mpa	222.0	191.0	167.0
Injection rate into air(PS)	g/s	250/296	290/343	333/394
Injection stroke	mm	350		
Injection speed	mm/s	83/98		
Screw rotation spee	rpm	169/200		
Other	**Unit**	**i2500**		
Max. pump pressure	Mpa	17.5		
Pump motor power	kW	37/43		
Heat power	kW	26/33		
Hopper capacity	kg	50		
Oil tank capacity	L	740		

Platen Dimension



Unit:mm

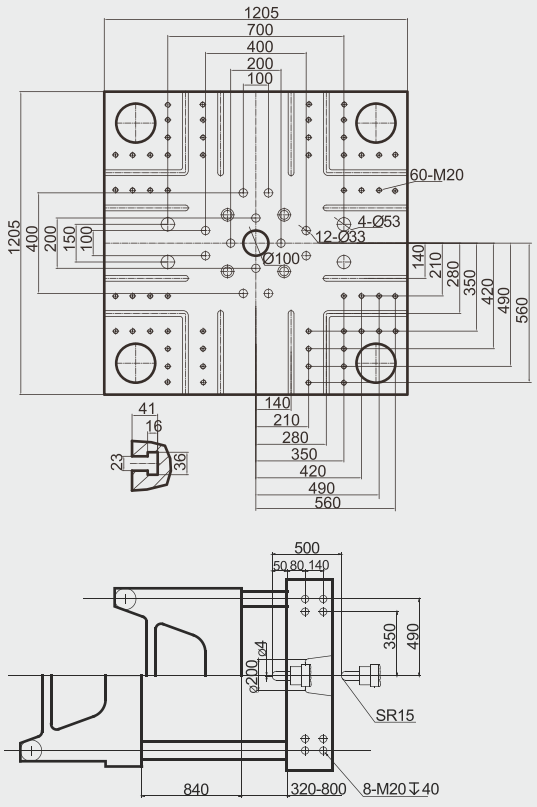
Machine Dimension



Unit:mm

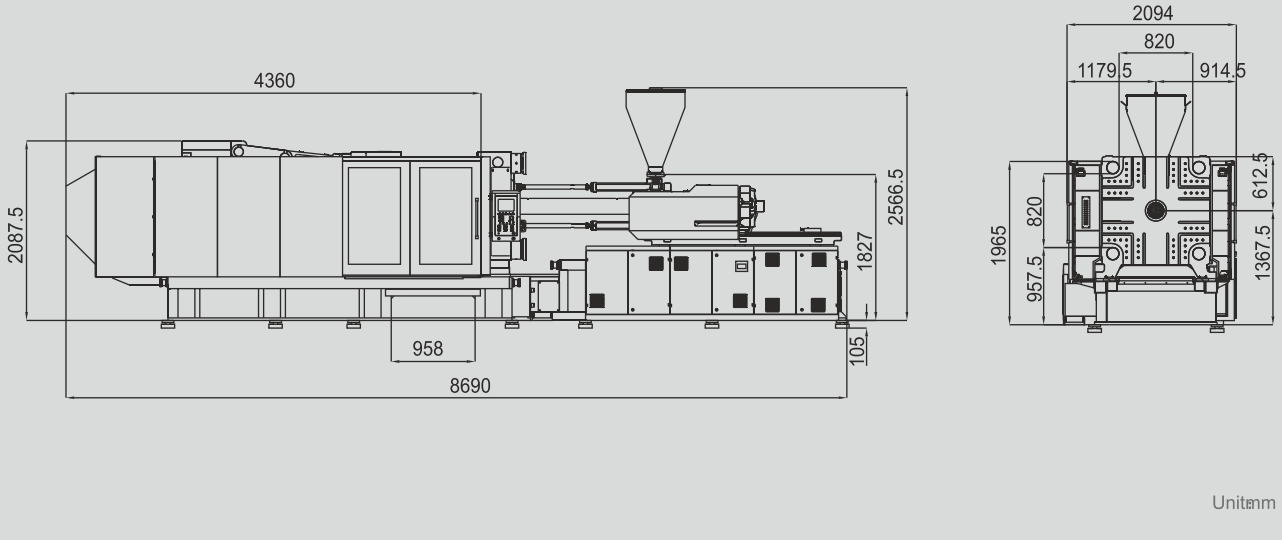
Clamping Unit	Unit	D500		
Clamping force	kN	5000		
Clamping stroke	mm	840		
Tie bar distance	mm	820×820		
Max.mold height	mm	800		
Min.mold height	mm	320		
Ejector stroke	mm	200		
Ejector force	kN	124		
Ejector quantity	Pcs	17		
Injection unit	**Unit**	**i3800**		
		A	B	C
Screw diameter	mm	75	80	85
Screw L/D ratio	L/D	23.5	22.0	20.7
Shot size(Theoretical)	cm^3	1785	2031	2293
Injection weight(PS)	g	1624	1848	2086
Injection pressure	Mpa	217.0	190.0	169.0
Injection rate into air(PS)	g/s	373/429	424/488	479/550
Injection stroke	mm	404		
Injection speed	mm/s	93/107		
Screw rotation spee	rpm	167/193		
Other	**Unit**	**i3800**		
Max. pump pressure	Mpa	17.5		
Pump motor power	kW	53/61		
Heat power	kW	37/46		
Hopper capacity	kg	50		
Oil tank capacity	L	900		

Platen Dimension



Unit:mm

Machine Dimension

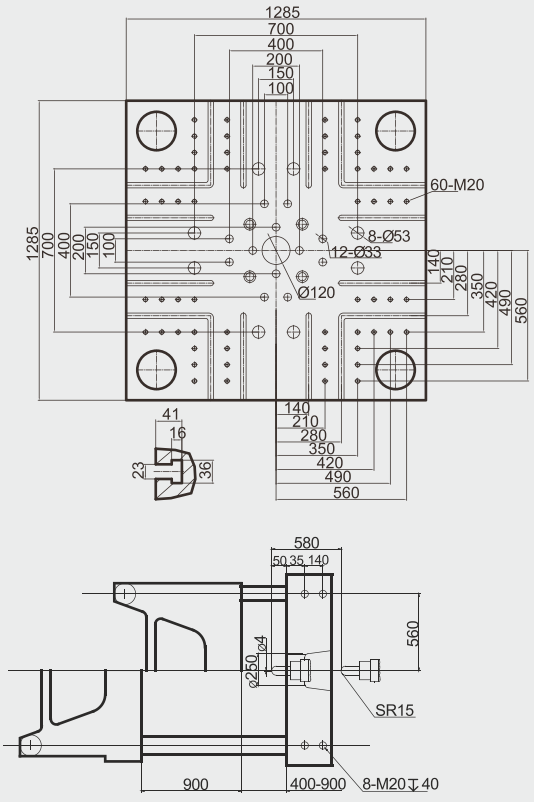


Unit:mm

Parameter

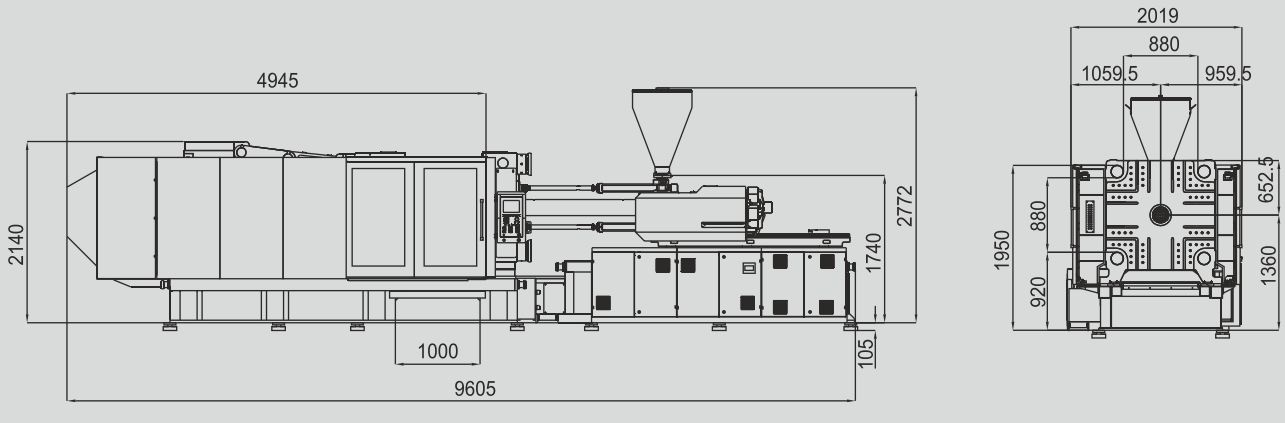
Clamping Unit	Unit	D600		
Clamping force	kN	6000		
Clamping stroke	mm	900		
Tie bar distance	mm	880×880		
Max.mold height	mm	900		
Min.mold height	mm	400		
Ejector stroke	mm	260		
Ejector force	kN	182		
Ejector quantity	Pcs	21		
Injection unit	**Unit**	**i4800**		
		A	B	C
Screw diameter	mm	80	85	90
Screw L/D ratio	L/D	23.4	22.0	20.8
Shot size(Theoretical)	cm^3	2242	2531	2837
Injection weight(PS)	g	2040	2303	2582
Injection pressure	Mpa	220.4	195.2	174.1
Injection rate into air(PS)	g/s	382/462	431/522	484/585
Injection stroke	mm	446		
Injection speed	mm/s	84/101		
Screw rotation spee	rpm	156/189		
Other	**Unit**	**i4800**		
Max. pump pressure	Mpa	17.5		
Pump motor power	kW	56/67		
Heat power	kW	39/48		
Hopper capacity	kg	100		
Oil tank capacity	L	950		

Platen Dimension



Unit:mm

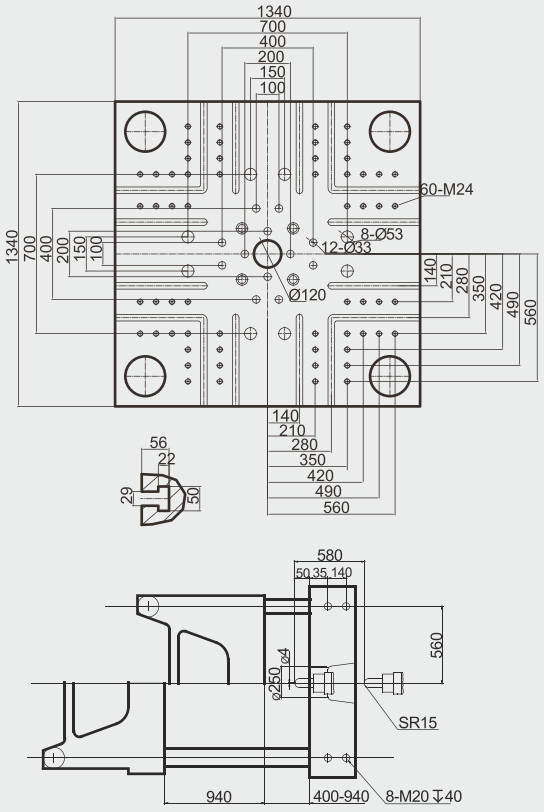
Machine Dimension



Unit:mm

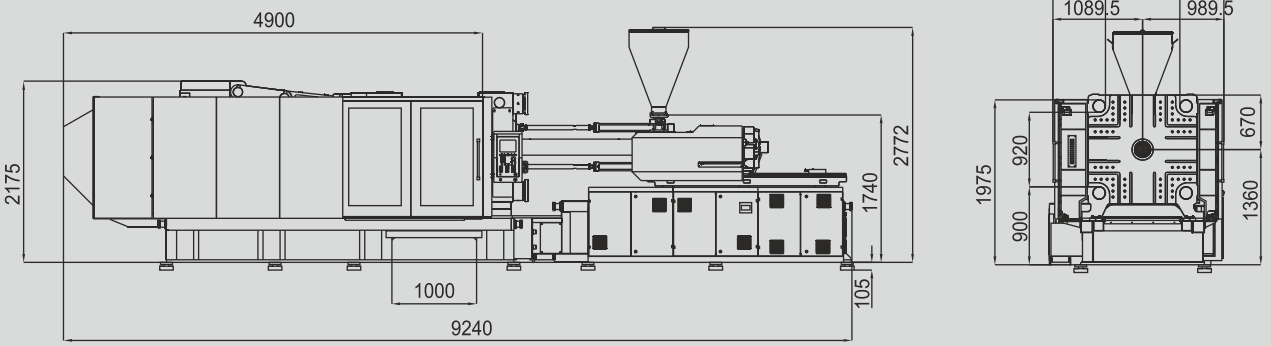
Clamping Unit	Unit	D650		
Clamping force	kN	6500		
Clamping stroke	mm	940		
Tie bar distance	mm	920×920		
Max.mold height	mm	940		
Min.mold height	mm	400		
Ejector stroke	mm	260		
Ejector force	kN	182		
Ejector quantity	Pcs	21		
Injection unit	**Unit**	**¿4800**		
		A	B	C
Screw diameter	mm	80	85	90
Screw L/D ratio	L/D	23.4	22.0	20.8
Shot size(Theoretical)	cm^3	2242	2531	2837
Injection weight(PS)	g	2040	2303	2582
Injection pressure	Mpa	220.4	195.2	174.1
Injection rate into air(PS)	g/s	382/462	431/522	484/585
Injection stroke	mm	446		
Injection speed	mm/s	84/101		
Screw rotation spee	rpm	156/189		
Other	**Unit**	**¿4800**		
Max. pump pressure	Mpa	17.5		
Pump motor power	kW	56/67		
Heat power	kW	39/48		
Hopper capacity	kg	100		
Oil tank capacity	L	950		

Platen Dimension



Unit:mm

Machine Dimension

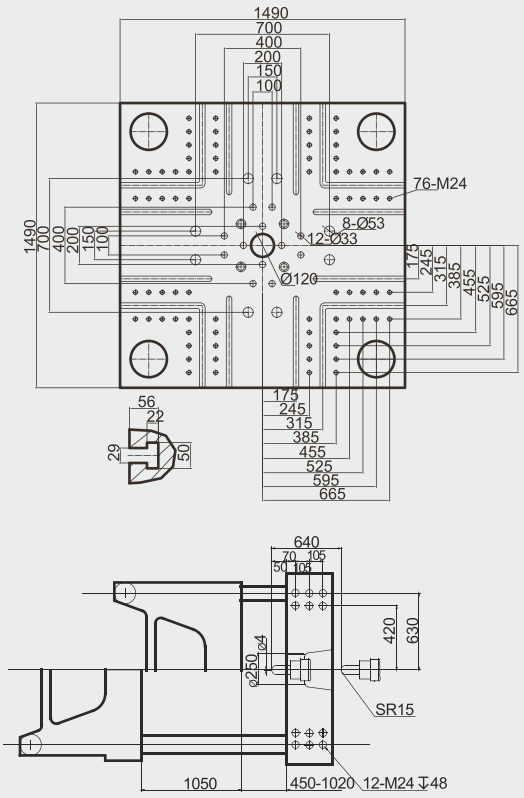


Unit:mm

Parameter

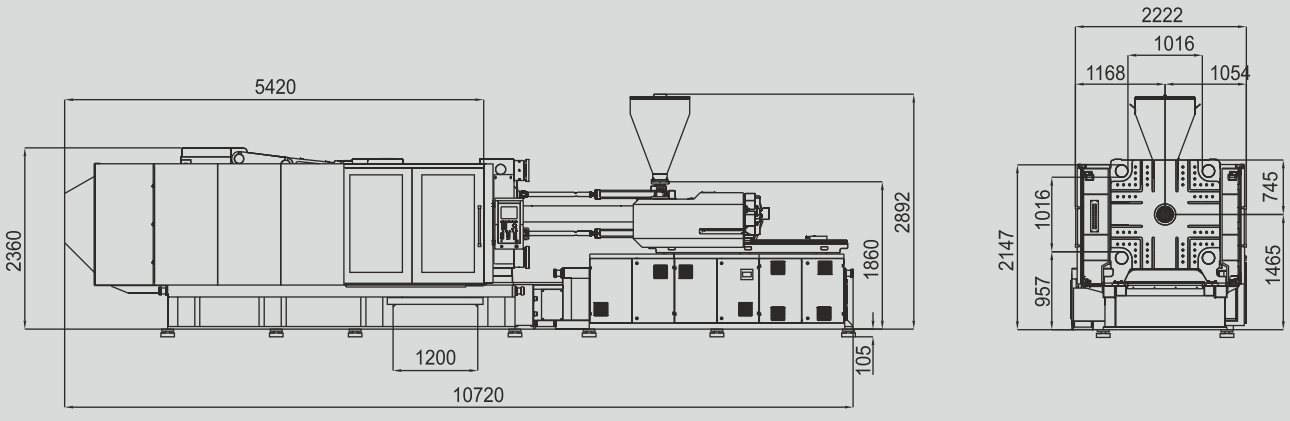
Clamping Unit	Unit	D800		
Clamping force	kN	8000		
Clamping stroke	mm	1050		
Tie bar distance	mm	1020×1020		
Max.mold height	mm	1020		
Min.mold height	mm	450		
Ejector stroke	mm	300		
Ejector force	kN	182		
Ejector quantity	Pcs	21		
Injection unit	**Unit**	**i7500**		
		A	B	C
Screw diameter	mm	90	100	110
Screw L/D ratio	L/D	24.4	22.0	20.0
Shot size(Theoretical)	cm^3	3276	4045	4894
Injection weight(PS)	g	2981	3681	4454
Injection pressure	Mpa	231.1	187.2	154.7
Injection rate into air(PS)	g/s	513/633	633/781	766/945
Injection stroke	mm	515		
Injection speed	mm/s	89/109		
Screw rotation spee	rpm	108/133		
Other	**Unit**	**i7500**		
Max. pump pressure	Mpa	17.5		
Pump motor power	kW	78/97		
Heat power	kW	56/69		
Hopper capacity	kg	100		
Oil tank capacity	L	1300		

Platen Dimension



Unit:mm

Machine Dimension



Unit:mm

TOGGLE INJECTION MOULDING

CLAMPING UNIT

- Five Point Twin Toggle System for Smooth Mold Close/open Operation
- Moving Platen well supported on base by anti wear Plates
- Mold safety Precise speed, pressure & position control
- High Speed Mold Close to Reduce Cycle Time
- Box Type T slots Platen
- Euro- Map Standard Ejector holes
  Mechanical Safety
- Five Stage mold open/Close speed ,pressure and position control
- Mold height adjustment through sun and planetary gears
- Multi Point ejector with speed pressure & position control
- Anti Wear-supporting tracks for moving platen(Lubricated)
- Water flow battery for mold cooling
- Auto lubrication system with Monitoring sensor
- Adjustable Moving Platen Support
- Alloy Steel Chrome Plated Tie Bars
- Automatic Mold Height Adjustment with proximity switch
- Check Valve for Mould Height Adjustment
- Low Pressure Mold Safety
- Auto Tonnage Through controller
- Hydraulic core pull - 1no Standard
- Air blast (Pneumatic ejector) - 1 no Standard
- Rigid SG iron platens and toggles

INJECTION UNIT

- Nitrided Screw & Barrel with SKD 61 Screw Tip
- Purge Guard for Operator Protection
- Stainless Steel Hopper
- Nozzle Contact Force Through Non-Return Valve for
  Carriage Forward
- Multi stages Speed, Pressure and Position for Injection
- Multi stages Speed, Pressure and Time for Hold on
- Multi stages Speed, Pressure and Time for Refilling
- Position, Time based Switchovers, hold on Pressure
- Cushion Monitoring by Time/pressure and speed
- Linear Transducers for Injection Unit
- Cold Start Protection for Screw
- Linear Transducers for Injection Unit
- Barrel Insulation Cover
- Automatic Purging
- Anti-slip cover over panel
- Hydro motor with High Torque
- Suck Back before and after charging
- Modular Selection of Injection Unit
- Injection Unit Speed, pressure and Position control Two Stages
- Ceramic heater band for Cylinder
- Bimetallic Screw barrel Optional for High abrasive Materials
- Screw Speed , Pressure and back pressure control 5 stages
- Speed Moulding (Intrusion) & Cold Slug Removal
- Nozzle Thermocouple Failure mode-Machine operation.
- RPVC/CPVC package Optional
- Nozzle Guard for Operator Safety
- Reduction in Temperature Setting while machine not in operation
- Injection Speed and Control precise control
- Water cooling for feed throat
- Proportional Back pressure control through screen
- Screw speed display on screen through sensor

HYDRAULICS

- Oil temperature sensor value displayed on screen
  along with alarm interface
- Oil level sensor
- Suction filter for Pump unit
- Return Line Filter
- high quality Gear pump
- Plated Hydraulic blocks
- Quick response Servo hydraulics
- Oil Tank with cover for easy access to clean
  fully closed tank ensure dust free oil.

ELECTRONICS

- Preset- Technical Parameter
- Auto lock Screen Saver function
- Multicolour display with graphic
- Mold Parameter Memory of 200 Moulds
- Moulding condition monitoring with alarm
- Air Filter for Control Panel
- Barrel temperature control monitoring and
  precise Fuzzy control
- thermocouple break alarm
- System hardware I/O testing function
- Emergency stop safe guard device
- Multi colour alarm lamp
- Motor Over Load Protection
- Display for various Alarm
- Front & Back Door Emergency Switch
- 2 Nos of SMPS one each for Controller & Output
- Safety Relay Monitoring for Front safety Door
- Hourly Production Monitoring
- Heater control through SSR
- Usb interface for data storage
- Process data display (Graphical)
- Multi level password protection
- Hardware key lock as standard

GENERAL

- Set of Spares
- High quality Ant vibration pads
- Standard Colour
- Mould Clamps
- Part drop sensor with Photocell assembly
- Separate drive cabinet for Controls and Drive
- Set of outlet for 3 phase -1 no

NOTES

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