



Management
System
ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
www.tuv.com
ID: 9091003197

VR Series

Hybrid High-Performance Medium tonnage plastic injection molding machine to satisfy your energy saving and repeatability requirement.



VR Series

350-1300 Tons Precision built, high speed PIM machinery

Victor Taichung VR Series injection molding machine has been developed by fusing of merits of hydraulic injection machines (low maintenance-free operation, long life, and low cost) and electric molding machines (energy-saving, high-velocity injection, quick response, high repeatability, and low operation noise)

The innovative new servo motor with high-effect pump system, achieves energy-saving (Option) operation and quick response equivalent to all electric molding machines.



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OHSAS 18001:2007
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NATIONAL QUALITY AWARD



- Injection screw ACM2 German material
- Surface hardness: 900~1100 HV
- Processed by Nitride (500~520° C for 72hrs)
- Nitrided thickness: 0.4~0.5 mm
- Piston rod uses S45C steel which has excellent strength
- Piston seal uses German make Merkel to reduce the leakage and extend piston life.

Energy saving advantage (ES Option)

- Energy saving - Almost equivalent to all electric molding machines.
- Quick response - Injection response time (Standard mode).
- Stability in low-velocity/low-pressure & wide range - Injection velocity: From ultra-low to high velocity range.
- Linearity - Excellent linearity in both injection velocity and injection pressure.
- Excellent injection holding pressure performance - Capability in sustaining high injection holding pressure longer (as compared with all electric types).
- Reduction in the amount of hydraulic oil.
- Silent! (Low noise) Almost equivalent to all electric molding machine.

Bi-metallic material (optional) - SKD 61 base material. Excellent wear-resistant, corrosion resistant screw & barrel for the processing of materials with fiber additives and also fire retardant materials. Victor general purpose screw and barrels can process any kind of material like PE, PP, PA, ABS, AS. We also supply an optional screw & barrel for engineering materials like PC, PBT, PET, with an L/D ratio from 18, 20, 22.

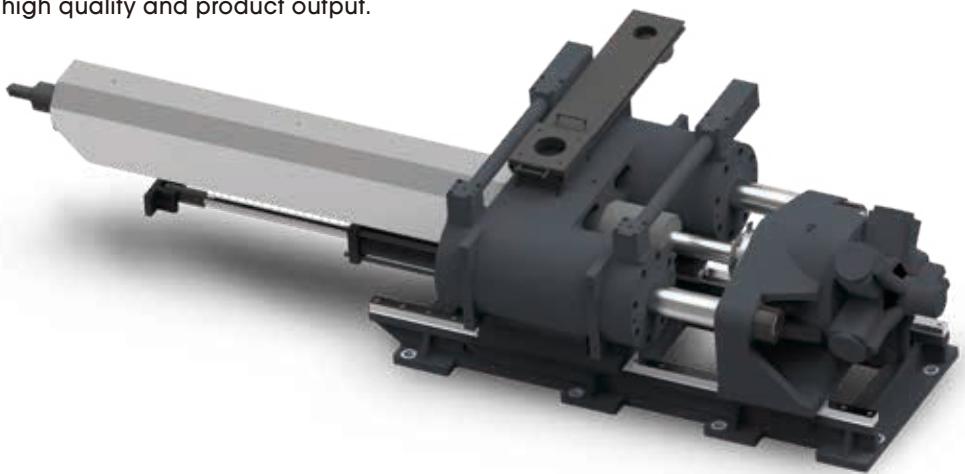


This multi-notch non-return valve offers improved reaction times and high flow rates. Also improves cycle times and increases product precision.

The VR Series injection unit, utilizing the high wear and corrosion resistant ion-nitrided screw and barrel, provides the injection volumes and plasticizing capacities necessary for the manufacture of precision products. With high injection stability and excellent mixing capabilities, this newly developed injection unit allows for the use of a wider range of materials. It all adds up to a unit that will stay the course, giving consistently high quality and product output.



High precision injection unit with a screw and barrel, which is used on the Victor machines has the following properties.

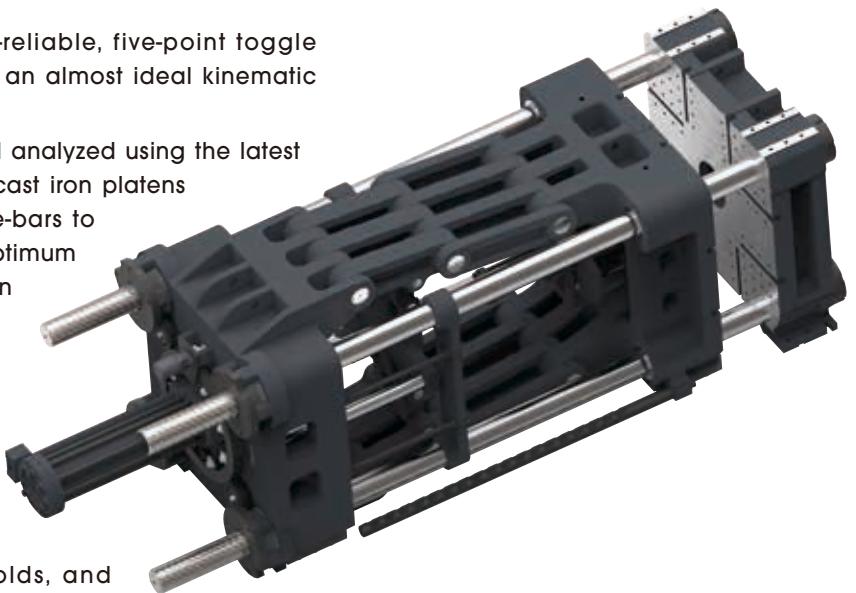


Heavy Duty, Rigid, Clamping Unit

All VR Series machines feature a unique, ultra-reliable, five-point toggle clamping mechanism which is characterized by an almost ideal kinematic velocity feature.

This high precision clamping unit is designed and analyzed using the latest in computer software, i.e. CAD & CAE. The large cast iron platens are extremely robust and with widely spaced tie-bars to accommodate the largest of molds. They have optimum rigidity that matches the current need in precision molding and which minimizes mold deflection caused by clamping force and cavity pressure.

The large, square cast iron platens virtually eliminate deflection. The bushings are manufactured from graphite impregnated phosphor bronze. Designed to run totally oil-free, there's no chance of contaminating molds, and maintenance is limited to long periodic greasing.

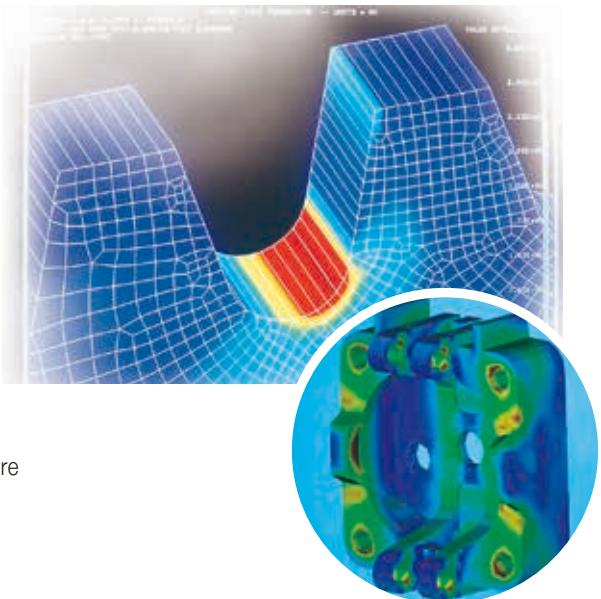


Material:

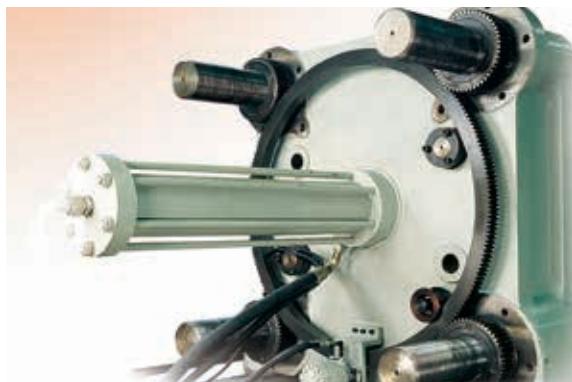
Platen: Meehanite casting FCD 55
Tie bar: NH48MV (from Japan)
Toggle pin: SCM21 (hard chrome plating)

Advantage:

- * Machine life = 15 years more
- * Eliminates the oil pollution
- * Saves maintenance time



Mold height adjustment, which is the bull gear system, is operated by a hydraulic motor and when co-ordinated with a monitoring program proceeds to prevent the possibility of overloading by force and cause machine damage.



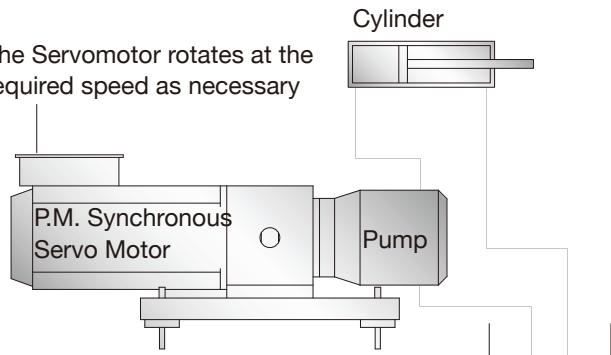
Hybrid Hydraulic Control

(Option - servomotor pump)

VR Series injection molding machine every moving steps require pressure and flow control by high-effect pump collocating with powerful permanent-magnet synchronous servo motor. This series machine is availability of energy saving up to 60% as compared with general hydraulic machine.



The Servomotor rotates at the required speed as necessary



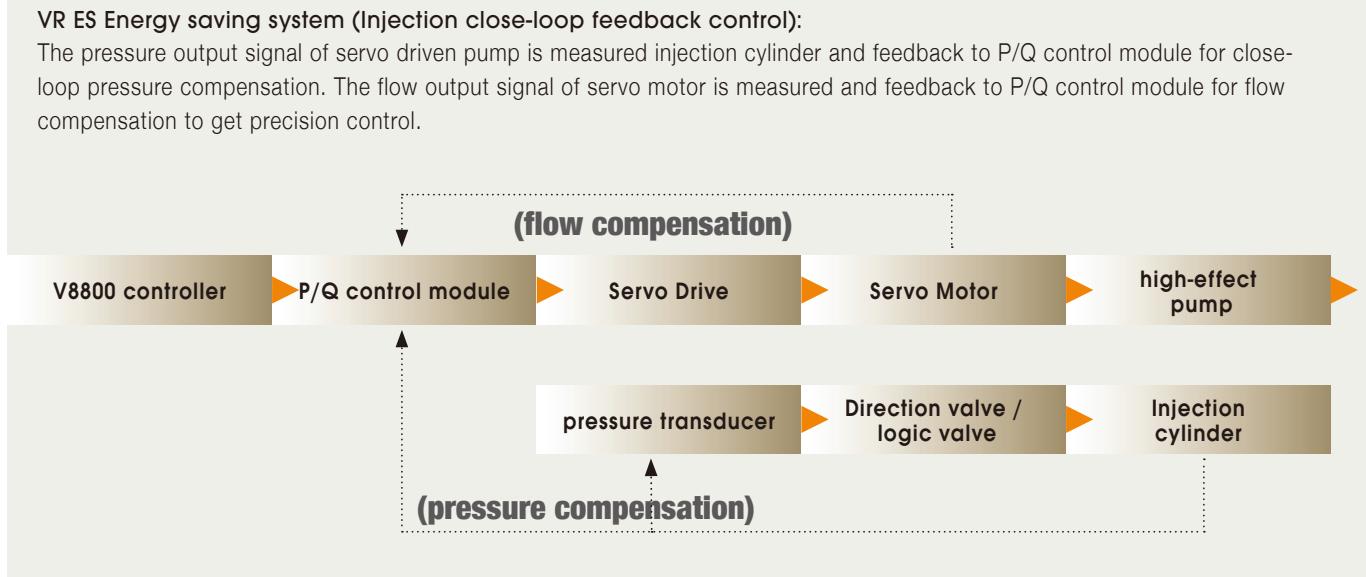
Pressure: Torque of Servomotor / Pressure transducer.
 Flow: Revolution speed of Servomotor

Piston seal:	Merkel (German)
Cylinder seal:	NOK (Japan)
O-Ring:	NOK (Japan)
Back-up Ring:	NOK (Japan)

The VR Series adopts logic valves in its hydraulic system circuits. The logic valves give high response performance in injection and mould travelling stages and offers 5% energy reduction due to low-pressure loss, and can guarantee a long service life. Less energy loss means lower heat build-up in addition to a substantial reduction in the requirement of cooling water. This is further help automatic regulation of the hydraulic oil temperature.

VR ES Energy saving system (Injection close-loop feedback control):

The pressure output signal of servo driven pump is measured injection cylinder and feedback to P/Q control module for close-loop pressure compensation. The flow output signal of servo motor is measured and feedback to P/Q control module for flow compensation to get precision control.



Energy Saving system (Option)

Servo driven pump with variable speed drives for injection moulding machine.

Cost reduction by energy efficiency in Plastic Machinery.



Request on drive system

- Reduced energy cost.
- Reduced installed power.
- Less secondary measures for reduction of noise.
- Reduced cost for oil cooling.

Comparison with traditional fixed pump with constant speed.

Example: Load sensing

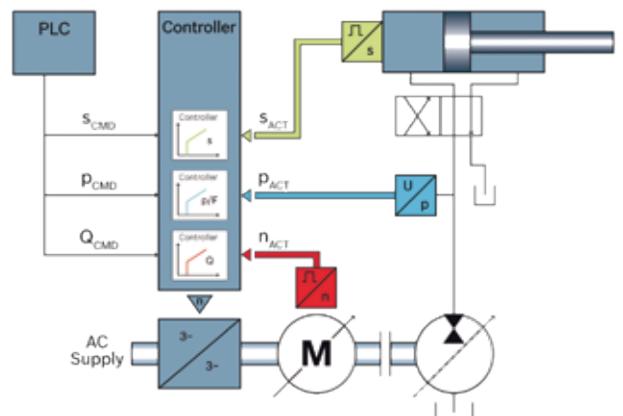
72.3% energy saving

Model: VsES-50T

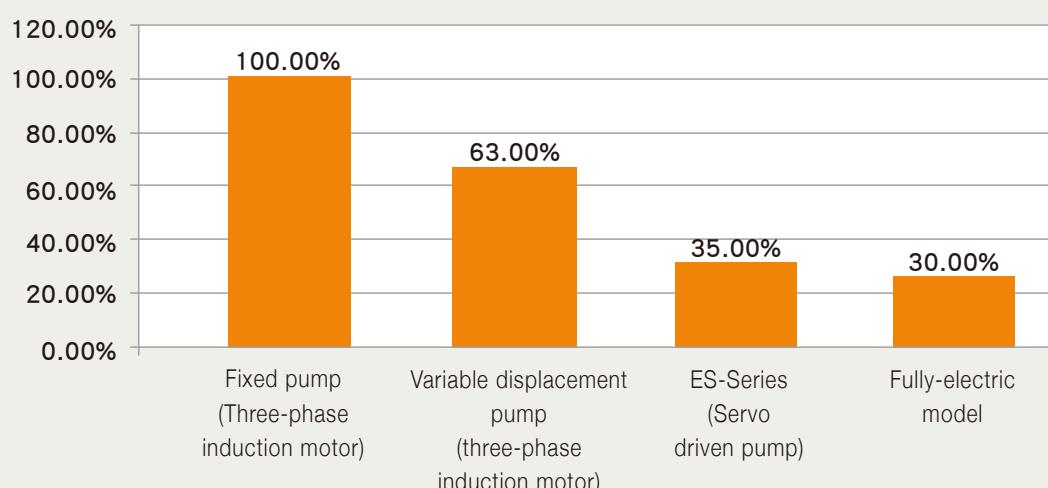
75s cycle times

const. speed (15kW): 2.9 kW

SVP: 0.8 kW



Power consumption



New Generation V8800 Control

Intuitive 15 inch touch screen framed with keyboard

The swivel mounted 15" LCD high resolution touch screen, graphical user interface, can be optimally positioned for each operator, allowing an easy setting position and easy access to the mould area.

Lighted on/off manual movement buttons for each axis.



Simple Friendly Operation interface

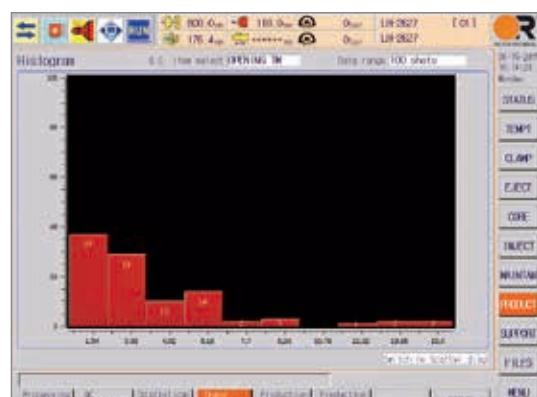
Mold settings can be transferred using a USB drive

The internal memory allows for up to 1000 set to be stored, the USB port enables molding condition files to be stored to an external USB memory stick.



Overall setting screen

- Single screen for setting clamp, ejector, injection, temperature, air-blast and charging etc.
- Great for quick setups and adjustments.
- Improves operator setup efficiency.



Pop-up keyboards for data and text entry

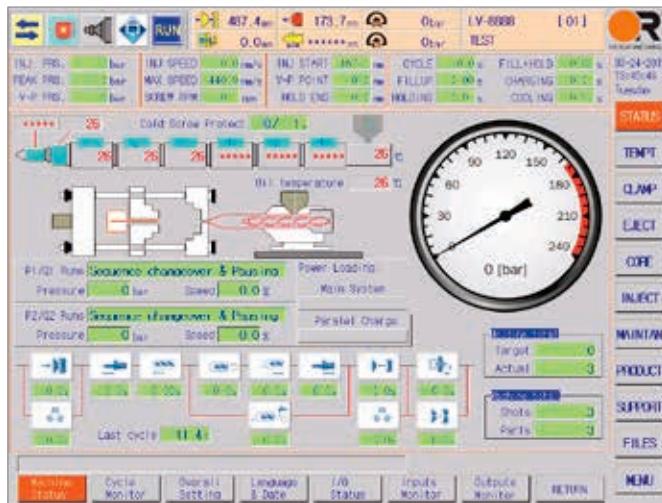
Touch screen panel/Pop-up keyboard for data and text entry. Drop down selection boxes for choosing items from a list.

SPC/SQC Production management - quality control

Process cycle data maintains information over the last 10,000 cycles allowing for quick analysis of process history. This data can be printed, and save to USB sticker, for off line Excel analyzing.

The Setting Page Of Controller V8800 Series

Machine Status



WeekTime & Auto Tuning



Charge & Suckback



Inject & Holding



Clamp Setting



Barrel Temperature



Corepull on Ejection



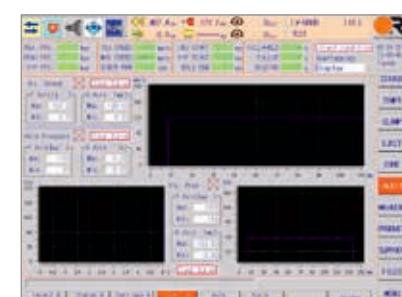
Mold Setup



Cycle Monitor



Injection Curve



Injection Unit

	VR-350	VR-450	VR-550	VR-700	VR-850	VR-1000	VR-1300
Power driven pivoting injection unit	O	O	O	O	S	S	S
Cold start protection	S	S	S	S	S	S	S
Five injection speed & pressure steps	S	S	S	S	S	S	S
Four holding pressures stages	S	S	S	S	S	S	S
Holding pressure, time dependent	S	S	S	S	S	S	S
Closed loop control for the complete injection profile and back pressure	O	O	O	O	O	O	O
Control for intrusion injection	S	S	S	S	S	S	S
PID temperatures control	S	S	S	S	S	S	S
Thermocouple controlled nozzle zone	S	S	S	S	S	S	S
Screw suck back with open nozzle	S	S	S	S	S	S	S
Pneumatic actuated needle shut-off nozzle	O	O	O	O	O	O	O
Slide-away hopper for quick material change	S	S	S	S	S	S	S
Rigid PVC processing unit	O	O	O	O	O	O	O
Hydraulic accumulator for increased injection speed	O	O	O	O	O	O	O
Stainless steel barrel cover	S	S	S	S	S	S	S
Nozzle guarding	S	S	S	S	S	S	S
Automatic heating and pre-heating	S	S	S	S	S	S	S
Additional temperature zones	O	O	O	O	O	O	O
RPM display	S	S	S	S	S	S	S
Control for automatic purging	S	S	S	S	S	S	S
Low torque / High speed hydraulic screw motor	O	O	O	O	O	O	O
Screw speed adjustable via screen	S	S	S	S	S	S	S
Bimetallic screw and barrel	O	O	O	O	O	O	O
Plug-in ceramic heaters	O	O	O	O	O	O	O
Water-cooled throat & temperature display	S	S	S	S	S	S	S
Hopper (+ magnet)	O	O	O	O	O	O	O
Auto loader	O	O	O	O	O	O	O
Vented screw and barrel	O	O	O	O	O	O	O
Injection unit guided on linear rails	S	S	S	S	S	S	S
Barrel temperature display with set value and deviation	S	S	S	S	S	S	S
Plasticizing time monitor	S	S	S	S	S	S	S
Injection unit forward / back speeds adjustable	S	S	S	S	S	S	S
Suck-back before or after metering	S	S	S	S	S	S	S
Thermocouple breakage alarm	S	S	S	S	S	S	S
Injection endpoint control	S	S	S	S	S	S	S
Insulated barrel cover	O	O	O	O	O	O	O
Long nozzle	S	S	S	S	S	S	S

Injection controlled by linear transducer	S	S	S	S	S	S	S	S
Carriage controlled by linear transducer	O	O	O	O	O	O	O	O
Oil heated barrel (some thermoset materials)	O	O	O	O	O	O	O	O
Heater bands up to 450° C	O	O	O	O	O	O	O	O
Braided heater bands	O	O	O	O	O	O	O	O

Clamping Unit

	VR-350	VR-450	VR-550	VR-700	VR-850	VR-1000	VR-1300
Four mold closing / open speed ranges with four adjustable speeds	S	S	S	S	S	S	S
Mold height adjustment by hydraulic motor	S	S	S	S	S	S	S
Hydraulic ejector with adjustable speed, pressure and position and no. strokes	S	S	S	S	S	S	S
Hydraulic unscrew device	O	O	O	O	O	O	O
Core pull x 1, Air blow x 1	S	S	S	S	S	S	S
Core pull x 2, Air blow x 2	O	O	O	O	O	O	O
Core pull x 3, Air blow x 3	O	O	O	O	O	O	O
Mechanical scotch bar	S	S	S	S	S	-	-
Pneumatic operated safety gate	S	S	S	S	S	S	S
Ejection during mold open	O	O	O	O	O	O	O
Phosphor bronze, graphite impregnated toggle bushings	S	S	S	S	S	S	S
Chromium plated tie bars	S	S	S	S	S	S	S
Phosphor bronze, graphite impregnated platen sliding shoes	S	S	S	S	S	S	S
Clamping measurement by linear transducer	S	S	S	S	S	S	S
Mold safety devices (Low pressure protection)	S	S	S	S	S	S	S
Platen holes and locating ring to Euromap or SPI specifications	S	S	S	S	S	S	S
Additional mold height	O	O	O	O	O	O	O
Mold safety gate operator and rear side	S	S	S	S	S	S	S
Robot fixing holes on top of moving platen	S	S	S	S	S	S	S
Auto lubrication system	S	S	S	S	S	S	S
Auto clamping force set-up	S	S	S	S	S	S	S
Ejector stroke controller by linear transducer	S	S	S	S	S	S	S
Ejector retract confirmed	O	O	O	O	O	O	O
FCD 55 casted platens	S	S	S	S	S	S	S
Ejector forward when safety door open	S	S	S	S	S	S	S
Mold insulation plate	O	O	O	O	O	O	O

Hydraulic System

	VR-350	VR-450	VR-550	VR-700	VR-850	VR-1000	VR-1300
Servo motor pump system	O	O	O	O	O	O	O
Pressure gauges for system monitoring	S	S	S	S	S	S	S
Oil temperature gauge	S	S	S	S	S	S	S
Oil level sight glass	S	S	S	S	S	S	S
Optical oil filter contamination monitor	S	S	S	S	S	S	S
Maintenance hatch for cleaning and checking oil tank	S	S	S	S	S	S	S
Integral tube nest heat exchanger	S	S	S	S	S	S	S
High performance oil seals	S	S	S	S	S	S	S
Proportional valve control for charge back-pressure	S	S	S	S	S	S	S
Precision manifold logic valve control	S	S	S	S	S	S	S
Water / Air chiller	O	O	O	O	O	O	O
High precision directional / flow valves	S	S	S	S	S	S	S
Steel braided hydraulic pipe	S	S	S	S	S	S	S

Control & Electrical Unit

	VR-350	VR-450	VR-550	VR-700	VR-850	VR-1000	VR-1300
Modular assembly, compact microprocessor with 1000 mold data storage	S	S	S	S	S	S	S
Data interface for printer (Softcopy & printout via USB memory stick)	S	S	S	S	S	S	S
Data interface for computer connection (RS 232 and RJ45)	S	S	S	S	S	S	S
Reference hints and problem indicators in clear text	S	S	S	S	S	S	S
Hour, minute, second counter	S	S	S	S	S	S	S
Cycle counter	S	S	S	S	S	S	S
Part piece counter	S	S	S	S	S	S	S
Preselectable cycle counter with auto stopping	S	S	S	S	S	S	S
Air eject programmable start and blow time	S	S	S	S	S	S	S
Tolerance monitoring of parameters	S	S	S	S	S	S	S
Standard SPC / SQC program	S	S	S	S	S	S	S
7-day timer for auto heating and preheating	S	S	S	S	S	S	S
Additional temperature control zones	O	O	O	O	O	O	O
Interface for temperature control devices	O	O	O	O	O	O	O
Alarm log	S	S	S	S	S	S	S
Multi language choice	S	S	S	S	S	S	S
Cycle, Filling & metering time indicator	S	S	S	S	S	S	S
Parts counter	S	S	S	S	S	S	S
Reject counter	S	S	S	S	S	S	S
Cushion control	S	S	S	S	S	S	S

General Features

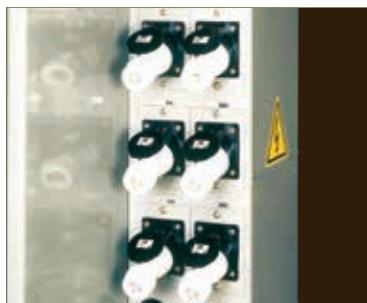
	VR-350	VR-450	VR-550	VR-700	VR-850	VR-1000	VR-1300
3 phase socket 220 / 380 / 460 × 1	S	S	S	S	S	S	S
Victor way standarized interface for handling device	S	S	S	S	S	S	S
Heating and motor power are on separate circuits, switchable on or off	S	S	S	S	S	S	S
Solid state heat contacts for plasticizing units	S	S	S	S	S	S	S
Part chute with sensor indicator cycle restart	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Parts removal from both sides	O	O	O	O	O	O	O
Anti-vibration leveling pads	S	S	S	S	S	S	S
Pneumatic core pulls	O	O	O	O	O	O	O
Mold water manifold	O	O	O	O	O	O	O
Mold heating regulators	O	O	O	O	O	O	O
Hot runner regulators	O	O	O	O	O	O	O
Euromap 12/67 for robot interface	O	O	O	O	O	O	O
Conveyor belt	O	O	O	O	O	O	O
Masterbatch color dosing unit	O	O	O	O	O	O	O
Tool kit	S	S	S	S	S	S	S
Spare part packages	O	O	O	O	O	O	O

S=Standard O=Option N/A=Not Available

Example of standard/ optional equipment

Accessory	Stand	Option
Tool/ fuse kit	●	
Part drop chute		●
Conveyor belt		●
Standard 5-in's/ 5-out's water regulator without flow indicator	●	
4 or extra zones water regulator with the flow indicator		●
Anti-vibration leveling pads	●	
220V/ 380VAC outlet x 1 for auto loader	●	
110VAC outlet receptacle (power sourced by customer)		●
110VAC outlet receptacle (power sourced via machine)		●
AC 220V/ 380VAC outlet receptacle (power sourced by customer)		●
AC 220V/ 380VAC outlet receptacle (power sourced via machine)		●

AC 220V/ 380VAC outlet receptacle



110VAC outlet receptacle



Hydraulic unscrewing motor



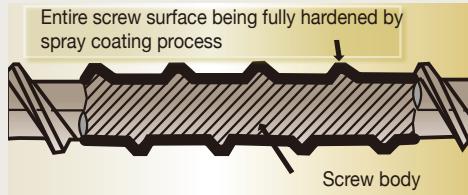
Notes:

- There are A, B and C three grades of bimetallic screw & barrel available, which can be selected by customer depending on what abrasive/corrosive engineering resin & additives used for molding application.
- For further information details, please contact Victor's sales.

A Grade bimetallic barrel and screw set- with 40% tungsten carbide composition included in the barrel's bimetallic content, coupled with a screw which entire surface is fully hardened through HP/HVOF coating treatment process.

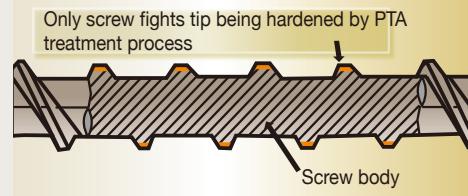
B Grade bimetallic barrel and screw set- with 25% tungsten carbide composition included in the barrel's bimetallic content, coupled with a screw which entire surface is fully hardened through HP/HVOF coating treatment process.

Sectional drawing of screw spindle with HP/HVOF treatment (A & B Grade Screw Spindle)



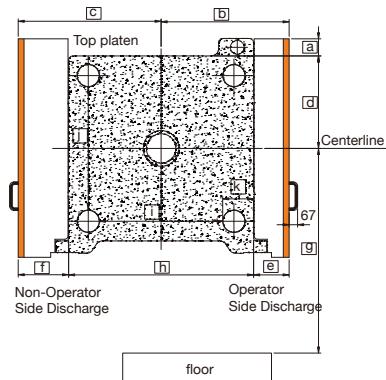
C Grade bimetallic barrel and screw set- with 9.5% tungsten carbide composition included in the barrel's bimetallic content, coupled with a screw which only the flights-tip is hardened through PTA Bimetallic alloy treatment process.

Sectional drawing of screw spindle with PTA treatment (C Grade Screw Spindle)



Various Measurement Relations

350~550 tons

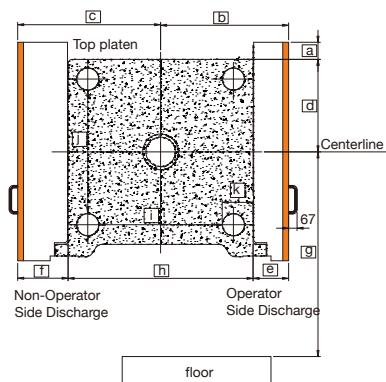


Various Measurement Relations (Euromap)

Model	a	b	c	d	e	f	g	h	i	j	k
VR-350	98	721	786	525	230	295	1578	1080	680	680	200
VR-450	106	850	850	600	294	284	1470	1200	780	780	216
VR-550	122.5	951	951	612.5	240	342	1505	1260	830	830	215
VR-700	0	1020	1230	715	305	515	1340	1430	960	960	240
VR-850	0	1135	1260	780	305	430	1380	1660	1100	1000	280
VR-1000	-67	1224	1304	823	284	364	1535	1880	1250	1100	315
VR-1300	-190	1360	1430	995	330	400	1625	2060	1320	1280	355

Units: mm

700~1300 tons



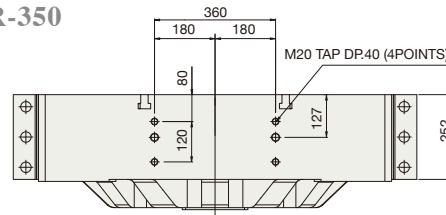
Various Measurement Relations (SPI)

Model	a	b	c	d	e	f	g	h	i	j	k
VR-350	3.85	28.38	30.94	20.66	9.05	11.61	62.12	42.52	26.77	26.77	7.87
VR-450	4.17	33.46	33.46	23.62	11.57	11.18	57.87	47.24	30.71	30.71	8.5
VR-550	4.82	37.44	37.44	24.11	9.45	13.46	59.25	49.61	32.67	32.67	8.46
VR-700	0	40.2	48.4	28.15	12	20.3	52.75	56.3	37.79	37.79	9.45
VR-850	0	44.7	49.6	30.7	12	16.9	54.3	65.4	43.31	39.37	11
VR-1000	-2.63	48.2	51.35	32.4	11.19	14.34	60.4	74.01	49.21	43.3	12.4
VR-1300	-7.5	53.54	56.29	39.17	12.99	15.74	63.9	81.1	51.96	50.3	13.97

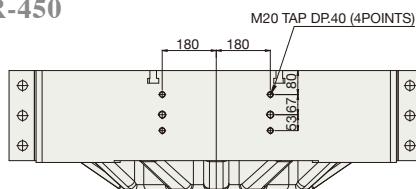
Units: inch

Robot Installation Measurement Stationary Platen top View part

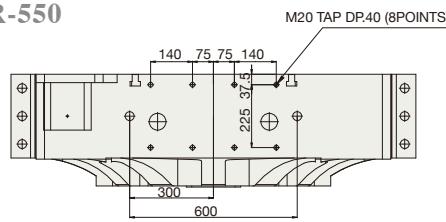
VR-350



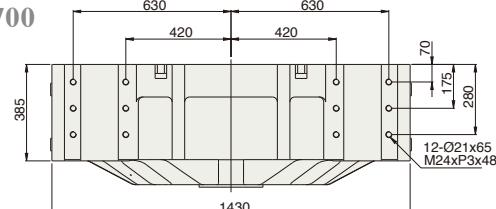
VR-450



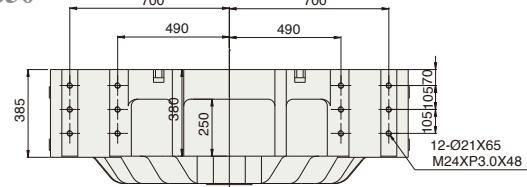
VR-550



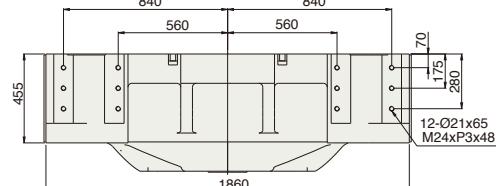
VR-700



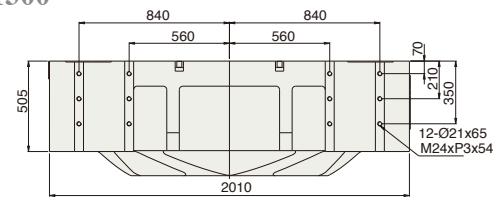
VR-850



VR-1000



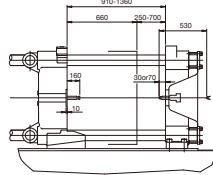
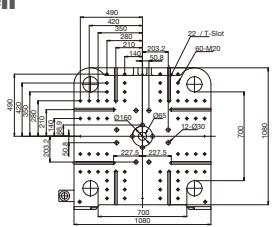
VR-1300



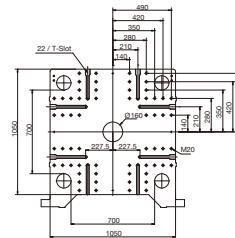
Euromap Platen Information

Moving platen

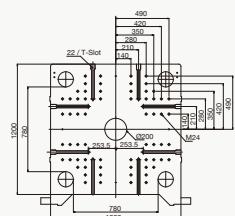
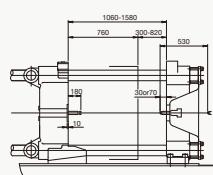
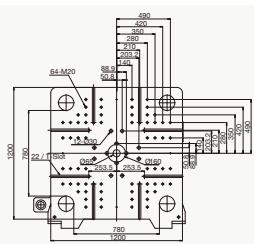
VR-350



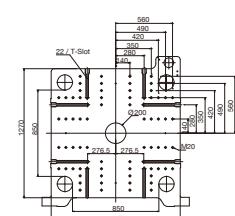
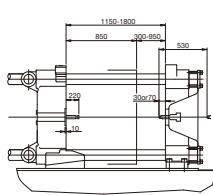
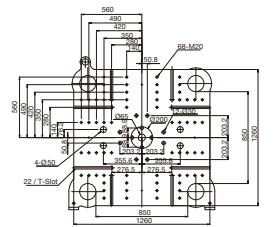
Fixed platen



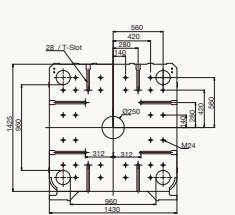
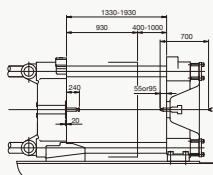
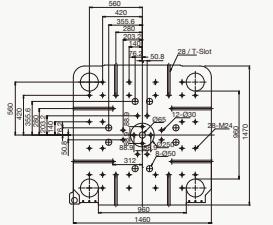
VR-450



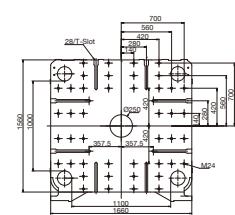
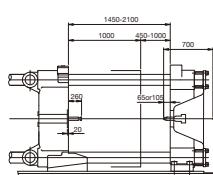
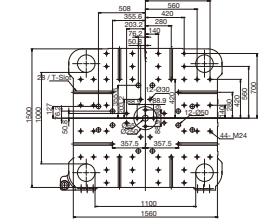
VR-550



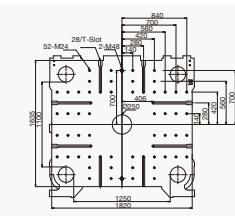
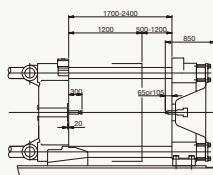
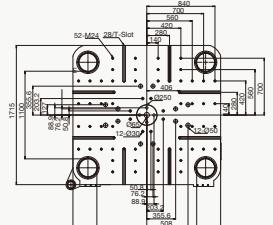
VR-700



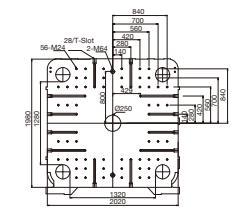
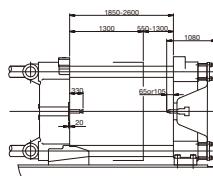
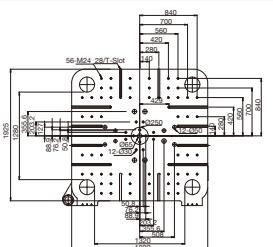
VR-850



VR-1000



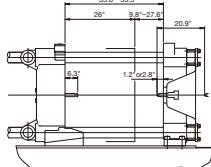
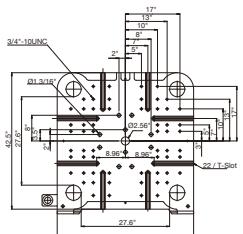
VR-1300



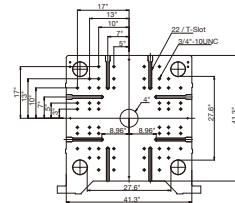
SPI Platen Information

Moving platen

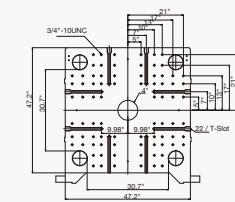
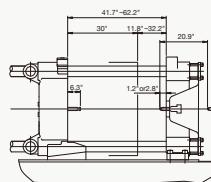
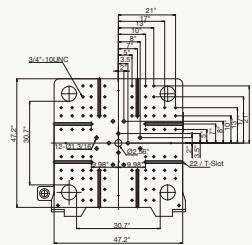
VR-350



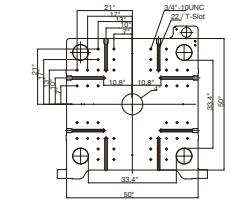
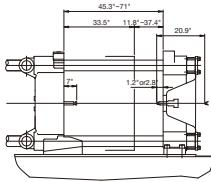
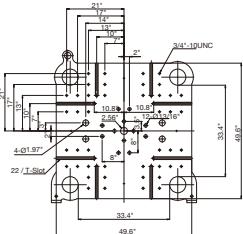
Fixed platen



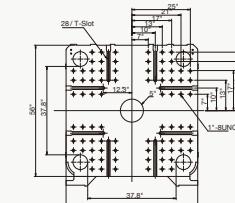
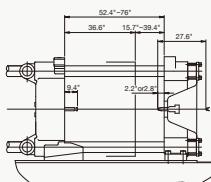
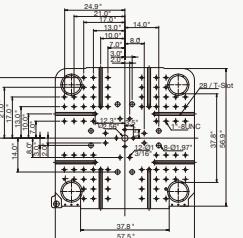
VR-450



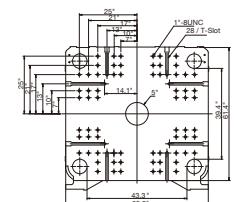
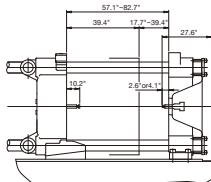
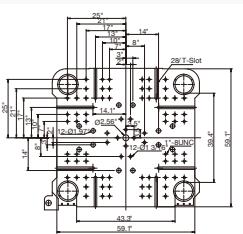
VR-550



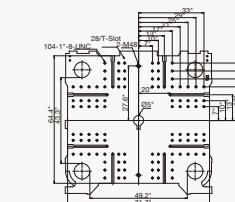
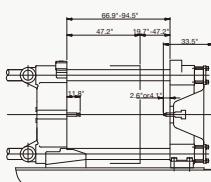
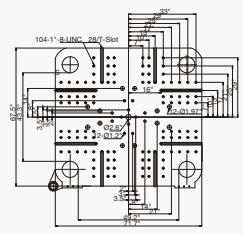
VR-700



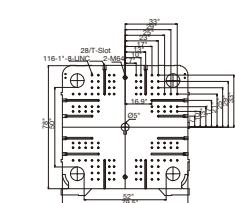
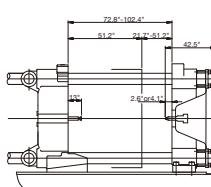
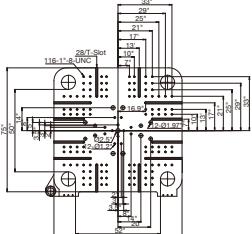
VR-850



VR-1000



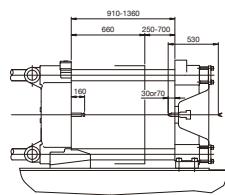
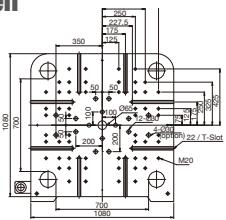
VR-1300



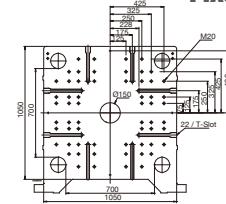
JIS Platen Information

Moving platen

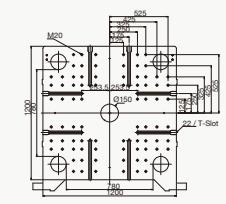
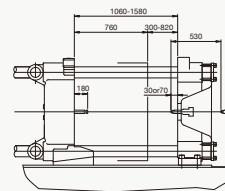
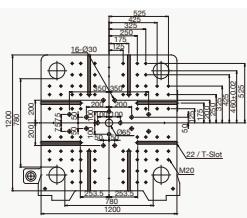
VR-350



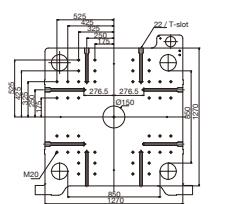
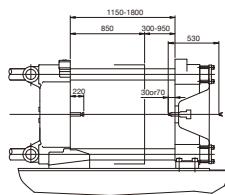
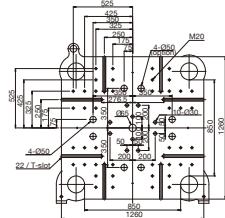
Fixed platen



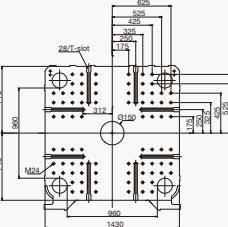
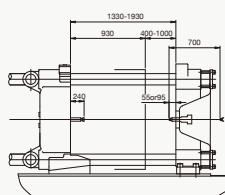
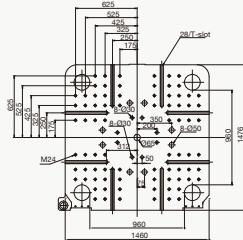
VR-450



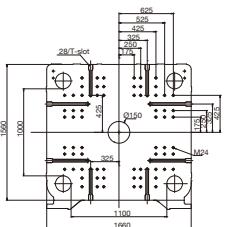
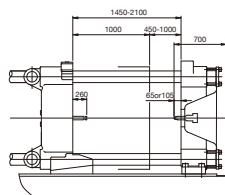
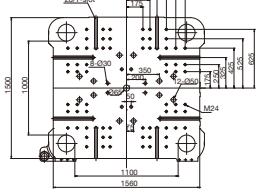
VR-550



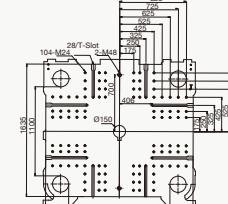
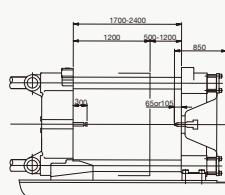
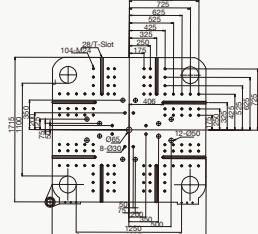
VR-700



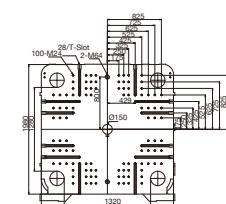
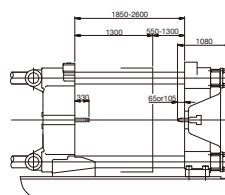
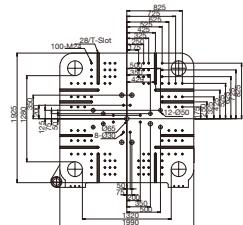
VR-850



VR-1000



VR-1300



Euromap Specifications

	VR-350								VR-450								VR-550											
Injection Unit	F		E		N		E		N		P		N		P		R											
Calculated injection capacity	cm ³	332	393	475	570	679	872	946	1160	1433	570	679	872	946	1160	1433	1344	1659	2099	946	1160	1433	1344	1659	2099	2011	2545	3142
Actual shot weight - PS	grams	312	368	445	534	636	817	886	1088	1343	534	636	817	886	1088	1343	1259	1555	1968	886	1088	1343	1259	1555	1968	1885	2385	2945
Actual shot weight - PS	oz	11	13	16	19	22	29	31	38	47	19	22	29	31	38	47	44	55	69	31	38	47	44	55	69	66	84	104
Calculated Plasticizing Capacity - PS	g/s	40.5	50.2	62.7	41.9	52.2	70	36.9	45.2	60	41.9	52.2	70	36.9	45.2	60	43.6	56.6	77.2	50.5	62.2	82.2	59.7	77.7	105.8	66.6	91.1	125
Injection pressure-Max.	kgf/cm ²	2117	1792	1481	1944	1633	1272	1988	1620	1313	1944	1633	1272	1988	1620	1313	2019	1635	1292	1988	1620	1313	2019	1635	1292	2252	1779	1441
Injection Rate	cm ³ /sec	330	390	472	359	428	549	307	377	466	359	428	549	307	377	466	303	303	473	421	517	638	415	512	648	415	555	686
Injection speed	mm/sec	198		151		93		151		93		74		127		102		85										
Screw diameter	mm	46	50	55	55	60	68	65	72	80	55	60	68	65	72	80	72	80	90	65	72	80	72	80	90	80	90	100
Screw L/D ratio *(1)		22	20	18	22	20	18	22	20	18	22	20	18	22	20	18	22	20	18	22	20	18	22	20	18	23	20	18
Max. Theoretical screw torque	N.m	1504		2212		3668		2212		3668		4536		3668		4536		4942										
Screw speed	rpm	400		267		159		267		159		144		218		198		176										
Screw stroke	mm	200		240		285		240		285		330		285		330		400										
Nozzle stroke	mm	380		450		530		450		530		530		530		530		530										
Nozzle contact force	ton	4.7		7.4		11.1		7.4		11.1		11.1		11.1		11.1		11.1										
Temperature control zones	no.	4		4		5		4		5		5		5		5		6										
Total heating wattage	kw	12.95		18.6		26		18.6		26		30		26		30		32										
Clamping Unit																												
Clamping force	ton	350		450		550		760		850		1580		1800		300 - 820		300 - 950										
Clamp stroke- Max.	mm	710		1360		1080 × 1080		1200 × 1200		1260 × 1260		780 × 780		850 × 850		160		220										
Open daylight- Max.	mm	1080 × 1080		700 × 700		780 × 780		850 × 850		700 × 700		780 × 780		850 × 850		160		220										
Mold thickness (Min. - Max.)	mm	250 - 700		300 - 820		300 - 950		11.3		9.9		9.9		11		3.6		4.1		4.5								
Tie-bar distance (H × V)	mm	1080 × 1080		700 × 700		780 × 780		850 × 850		850 × 850		850 × 850		850 × 850		850 × 850		850 × 850										
Ejector stroke	mm	160		180		220		220		220		220		220		220		220										
Ejector force	ton	10.2		10.2		8.9		11.3		9.9		9.9		11		10.2		10.2										
Dry cycle time	sec	3.6		4.1		4.5		4.5		4.5		4.5		4.5		4.5		4.5										
General																												
Motor power (Standard)	HP (Kw)	60 (44.4)		60 (44.4)		75 (55.9)		75 (55.9)		53.4		53.4		930		600		600										
Servo motor power (ES Option) Max. Flow	kw	18 + 22.5		44		53.4		53.4		9290 × 2150 × 2596		9290 × 2150 × 2596		9650 × 2150 × 2596		9650 × 2150 × 2596		9650 × 2150 × 2596										
Oil tank capacity (Standard)	L	700		880		930		490		680		600		160		140		140										
Oil tank capacity (ES system Option)	L	490		680		600		160		140		140		140		140		140										
Hydraulic sys. pressure	kg/cm ²	160		160		140		160		140		140		140		140		140										
Machine Weight	ton	17		21		27.5		27.5		27.5		27.5		27.5		27.5		27.5										
Machine dimensions (Standard)	mm	7475 × 1900 × 2440		8385 × 2050 × 2353		9290 × 2150 × 2596		9290 × 2150 × 2596		9650 × 2150 × 2596		9650 × 2150 × 2596		9650 × 2150 × 2596		9650 × 2150 × 2596		9650 × 2150 × 2596										
Machine dimensions (ES System option)	mm	7835 × 1950 × 2440		8745 × 2050 × 2353		9650 × 2150 × 2596		9650 × 2150 × 2596		9650 × 2150 × 2596		9650 × 2150 × 2596		9650 × 2150 × 2596		9650 × 2150 × 2596		9650 × 2150 × 2596										

Notes: Due to continual improvements, specifications technical information and dimensions are subject to change without prior notice.

*(1) Screw L/D rate [18(*20), 20(*22), 22(*24)] Optional special for household produce.



700	850	1000	1300
930	1000	1200	1300
1930	2100	2400	2600
400 - 1000	450 - 1100	500 - 1200	550 - 1300
1460 × 1460	1560 × 1495	1820 × 1720	1970 × 1935
960 × 960	1100 × 1000	1250 × 1100	1320 × 1280
260	260	300	330
15	18.6	24.7	28.1
5.5	6.1	7.3	8.1

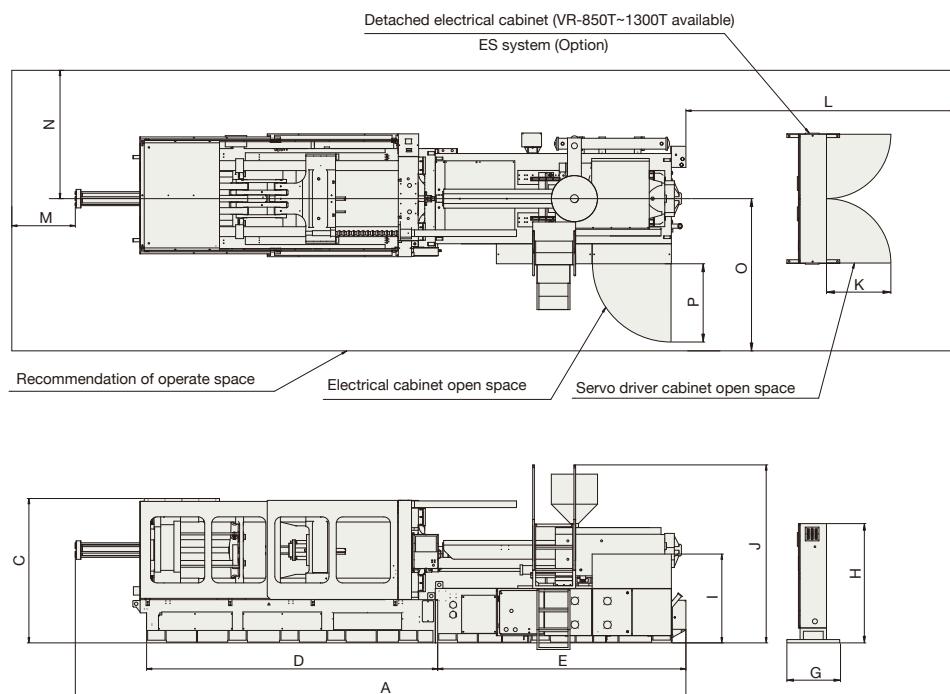
75 (55.9)	100 (74.6)	120 (89.5)	150 (111.9)								
53.4	44+44	53.4+53.4	44+44+44								
620	1010	1510	1810								
640	920	1300	1600								
140	140	140	140								
32.5	33.3	33.9	35.6	37.3	40.8	56.3	57	58.8	71.9	73.6	76.4
9936 × 2290 × 2600			10812 × 2500 × 2703			12890 × 3505 × 3090			14550 × 3905 × 3242		
9936 × 2290 × 2600			10812 × 2500 × 2703			12890 × 3505 × 3090			14550 × 3905 × 3242		

SPI Specifications

VR-350																		VR-450												VR-550																			
Injection Unit		F				E				N				E				N				P				N				P				R															
Calculated injection capacity	in ³	20.26	23.98	28.98	34.78	41.43	53.21	57.73	70.79	87.45	34.78	41.43	53.21	57.73	70.79	87.45	82.02	101.24	128.09	57.73	70.79	87.45	82.02	101.24	128.09	122.72	155.31	191.74																					
Actual shot weight - PS	grams	312	368	445	534	636	817	886	1088	1343	534	636	817	886	1088	1343	1259	1555	1968	886	1088	1343	1259	1555	1968	1885	2385	1945																					
Actual shot weight - PS	oz	11	13	16	19	22	29	31	38	47	19	22	29	31	38	47	44	55	69	31	38	47	44	55	69	66	84	104																					
Calculated Plasticizing Capacity - PS	g/s	40.5	50.2	62.7	41.9	52.2	70	36.9	45.2	60	41.9	52.2	70	36.9	45.2	60	43.6	56.6	77.2	50.5	62.2	82.2	59.7	77.7	105.8	66.6	91.1	125																					
Injection pressure- Max.	Psi	30110	25487	21064	27649	23226	18091	28275	23041	18674	27649	23226	18091	28275	23041	18674	28716	23254	18376	28275	23041	18674	28716	23254	18376	32030	25302	20495																					
Injection Rate	in ³ /sec	20.13	23.8	28.8	21.9	26.11	33.5	18.73	23	28.43	21.9	26.11	33.5	18.73	23	28.43	18.49	22.82	28.86	25.69	31.55	38.93	25.32	31.24	39.54	25.93	32.83	40.52																					
Injection speed	in/sec	7.79				5.94				3.66				5.94				3.66				2.91				4.99				4.01				3.34															
Screw diameter	in	1.81	1.96	2.16	2.16	2.36	2.67	2.56	2.83	3.15	2.16	2.36	2.67	2.56	2.83	3.15	2.83	3.15	3.54	2.56	2.83	3.15	2.83	3.15	3.54	3.15	3.53	3.94																					
Screw L/D ratio *(1)		22	20	18	22	20	18	22	20	18	22	20	18	22	20	18	22	20	18	22	20	18	22	20	18	23	20	18																					
Max. Theoretical screw torque	N.m	1504				2212				3668				2212				3668				4536				3668				4536				4942															
Screw speed	rpm	400				267				159				267				159				144				218				198				176															
Screw stroke	in	7.87				9.44				11.22				9.44				11.22				12.99				11.22				12.99				15.74															
Nozzle stroke	in	14.96				17.71				20.86				17.71				20.86				20.86				20.86				20.86				20.86															
Nozzle contact force	U.S ton	5.18				8.15				12.23				8.15				12.23				12.23				12.23				12.23				12.23															
Temperature control zones	No.	4				4				5				4				5				5				5				6																			
Total heating wattage	Kw	12.95				18.6				26				18.6				26				30				30				32																			
Clamping Unit																																																	
Clamping force	U.S ton	385								496								606																															
Clamp stroke- Max.	in	27.95								29.92								33.46																															
Open daylight- Max.	in	53.54								62.2								70.86																															
Mold thickness (Min. - Max.)	in	9.8 - 27.5								11.8 - 32.2								11.8 - 37.4																															
Platen dimension (H × V)	in	42.5 × 42.5								47.2 × 47.2								49.6 × 49.6																															
Tie-bar distance (H × V)	in	27.6 × 27.6								30.7 × 30.7								33.4 × 33.4																															
Ejector stroke	in	6.2								7								8.6																															
Ejector force	U.S ton	11.24				11.24				9.8				12.45				10.9				10.9				12.1																							
Dry cycle time	sec	3.6								4.1																																							

VR-700						VR-850						VR-1000						VR-1300																	
N	P	R	P	R	S	R	S	J	S	J	B	N	P	R	P	R	S	R	S	J	S	J	B	N	P	R	P	R	S	R	S	J	S	J	B
57.73	70.79	87.45	82.02	101.24	128.09	122.72	155.31	191.74	82.02	101.24	128.09	122.72	155.31	191.74	182.47	225.25	272.61	122.72	155.31	191.74	182.47	225.25	272.61	263.63	318.99	379.59	182.47	225.25	272.61	263.63	318.99	379.59	347.97	414.13	486.02
886	1088	1343	1259	1555	1968	1885	2385	2945	1259	1555	1968	1885	2385	2945	2803	3460	4187	1885	2385	2945	2803	3460	4187	4049	4899	5830	2803	3460	4187	4049	4899	5830	5344	6360	7465
31	38	47	44	55	69	66	84	104	44	55	69	66	84	104	99	122	147	66	84	104	99	122	147	143	173	205	99	122	147	143	173	205	188	224	263
50.5	62.2	82.2	59.7	77.7	105.8	66.6	91.1	125	75.8	98.6	134.4	84.7	115.5	158.6	76.1	90.5	115.8	108	147.5	202.5	87.5	87.5	147.7	83.3	106.3	146.6	103.6	136.9	175	98.6	125.8	173.6	120.2	148.8	184.7
28275	23041	18674	28716	23254	18376	32030	25302	20495	28716	23254	18376	32030	25032	20495	29982	24278	20068	28033	22145	17949	29982	24278	20068	30579	25274	21234	29982	24278	20068	30579	25274	21234	29654	24918	21234
25.69	31.55	38.93	25.32	31.24	39.54	25.93	32.83	40.52	32.16	39.72	50.22	32.95	41.68	51.44	30.81	38.02	46.01	42.04	53.21	65.66	39.3	48.51	58.7	38.56	46.62	55.47	46.5	57.42	69.51	45.58	55.16	65.66	47.05	55.96	65.66
4.99	4.01	3.34	5.07	4.21	3.11	5.39	3.97	3.14	4.72	3.74	3.18	4.99	4.01	3.34	5.07	4.21	3.11	5.39	3.97	3.14	4.72	3.74	3.18	4.99	4.01	3.34	5.07	4.21	3.11	5.39	3.97	3.14	4.72	3.74	3.18
2.56	2.83	3.15	2.83	3.15	3.54	3.15	3.54	3.94	2.83	3.15	3.54	3.15	3.54	3.94	3.54	3.94	4.33	3.14	3.54	3.93	3.54	3.93	4.33	4.33	4.72	3.54	3.93	4.33	4.33	4.72	4.33	4.72	5.11		
22	20	18	22	20	18	22	20	18	22	20	18	23	20	18	22	20	18	22	20	18	22	20	18	22	20	18	22	20	18	22	20	18			
3668	4536	4942	4536	4942	7140	4942	7140	8649	7140	8694	10290	218	198	176	251	224	128	286	163	118	193	139	126	11.22	12.99	15.74	12.99	15.74	18.5	15.7	18.5	21.6	18.5	21.6	23.6
20.86	20.86	20.86	20.86	20.86	27.55	20.86	27.55	27.55	20.86	27.55	33.46	27.55	33.46	27.55	33.46	33.46	33.46	33.46	33.46	33.46	33.46	42.52	12.23	12.23	12.23	12.23	11.68	12.23	11.68	14.55	11.68	14.55	14.55		
5	5	6	5	6	7	6	7	6	7	7	8	26	30	32	30	32	52	32	52	65	52	65	77	3668	4536	4942	4536	4942	7140	4942	7140	8649	7140	8694	10290
771			936									1102.3												1432.99											
36.61			39.37									47.24												51.18											
75.98			82.68									94.48												102.36											
15.7 - 39.3			17.7 - 43.3									19.68 - 47.24												21.65 - 51.18											
57.5 × 56.9			62.99 × 58.85									71.65 × 67.71												77.55 × 76.18											
37.8 × 37.8			43.3 × 39.4									49.21 × 43.3												52 × 50											
10.23			10.23									11.81												12.99											
16.5			20.5									27.22												30.97											
5.5			6.1									7.3												8.1											
75 (55.9)			100 (74.6)									120 (89.5)												150 (111.9)											
53.4			44 + 44									53.4 + 53.4												44 + 44 + 44											
620			1010									1510												1810											
640			920									1300												1600											
1991			1991									1991												1991											
35.8	36.7	37.3	39.2	41.1	44.9	61.7	62.8	64.8	61.7	62.8	64.8	79.3	81.2	84.2																					
391.2 × 90.2 × 102.4			425.7 × 98.4 × 106.4									507 × 138 × 121												572 × 153 × 127											
391.2 × 90.2 × 102.4			425.7 × 98.4 × 106.4									507 × 138 × 121												572 × 153 × 127											

Machine Layout (excl. Transformer)



ITEM \ MODEL	Standard												ES (Option)				stairs (Option)	
	A	B	C	D	E	L	M	N	O	P	K	G	H	I	F	J		
VR-350	7500	1950	2100	3840	3000	1000	1000	1975	2450	975	X	X	X	1450	700	2768		
VR-450	8400	2050	2080	4445	3270	1000	1000	2025	2500	975	X	X	X	1450	700	2572		
VR-550	9300	2150	2200	4580	3570	1000	1000	2075	2550	975	X	X	X	1450	700	2700		
VR-700	9950	2950	2400	5255	4280	1000	1000	2475	2950	615	X	X	X	1450	700	2695		
VR-850	10850	2500	2445	5320	4890	3600	1000	2250	2725	630	975	800	1800	X	700	2376		
VR-1000	12595	2595	2568	6575	5456	3347	763	1860	2370	750	1202	820	1653	X	700	3042		
VR-1300	13561	2856	2773	7035	5700	3131	522	2720	2300	750	1202	820	1653	X	700	3130		



THE VICTOR-TAICHUNG COMPANIES



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