



Vertical  
Injection Molding Machine



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[2] The picture in the catalogue is for reference only. The real object should be considered as final.  
[3] The data in the catalogue is obtained from internal testing in YIZUMI laboratory.  
Please refer to the actual machine for the final data. YIZUMI reserves the right of final interpretation upon disputes and ambiguities.



THINK TECH FORWARD



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# VM Series

## YIZUMI Vertical Injection Molding Machine

### Application



Automotive industry



Appliance industry



3C industry



Electric tool industry



Energy storage industry



Medical industry

■ Standard Series



■ Single Slide Plate Series



■ Double Slide Plates Series



■ Rotary Table Series





## Control System



### Upgraded KEBA system

- ▶ Expandable with multiple modules including AO, AI, DO, DI, and TM to meet more requirements.
- ▶ Real-time monitoring of machine configuration and sensor signals allows for precise action matching, enhancing safety.
- ▶ Support common RS232/485 communication interface, CANOPEN, Ethernet port, temperature compensation sensor connector, and USB port.



### Oil level detection

Automatic low oil level alarm prevents gas from being sucked in due to low oil level, avoiding consequent instability of hydraulic circuit.

## Injection Unit



### Optimized plasticizing screw

The plasticizing efficiency is increased by 10% to 30% and the quality of plasticizing and color mixing is also improved. Four sets of standard screw and barrel components are available, providing the machine with wider applicability.



### Standard feature of proportional control for plasticizing back pressure

Proportional control for plasticizing back pressure facilitates accurate control of industrial controller and enhances the stability of injection.

## Hydraulic System



### YIZUMI's fourth-generation energy-saving servo technology

The all-new servo drive system adopts one-piece air duct technology, offering high speed and low noise.



### Faster response

Injection/plasticizing response speed within 150ms for wider range of process applications.

### Stronger power

Enhanced power and performance deliver increase in injection speed.

### Low friction oil seal

Reduce frictional heat and energy loss.



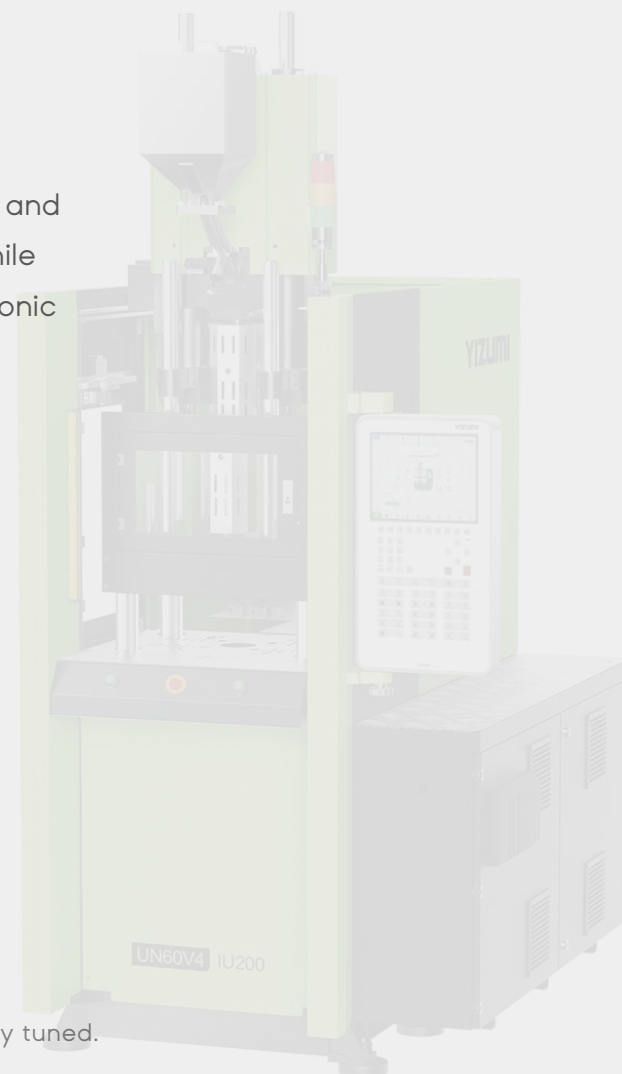
### All-new hydraulic circuit design

Optimized oil circuit design for lower pressure loss and more energy-saving: optimized hydraulic principle and valve plate pipeline design to reduce oil pressure loss and improve energy-saving.

## Standard Series

# V4 Standard Series (20-225T)

With simple structure, high cost-effectiveness, and a compact footprint, it saves factory space while supporting the automated production of electronic connectors.



\* UN225V4 is currently under development, please stay tuned.

## Highlights

- ▶ Vertical clamping and injection molding, with short cycle. Equipped with emergency mold opening function and safety light curtain electrical interlock.
- ▶ Injection pressure is equipped with pressure sensors and numerical control proportional back pressure, with weight repeatability accuracy of 0.3%.
- ▶ Suitable for continuous metal sheet automatic collection and overmolding, plug connectors, and easy handling of molded parts.
- ▶ Energy-saving servo hydraulic system for main pump.
- ▶ Austria's KEBA controller.

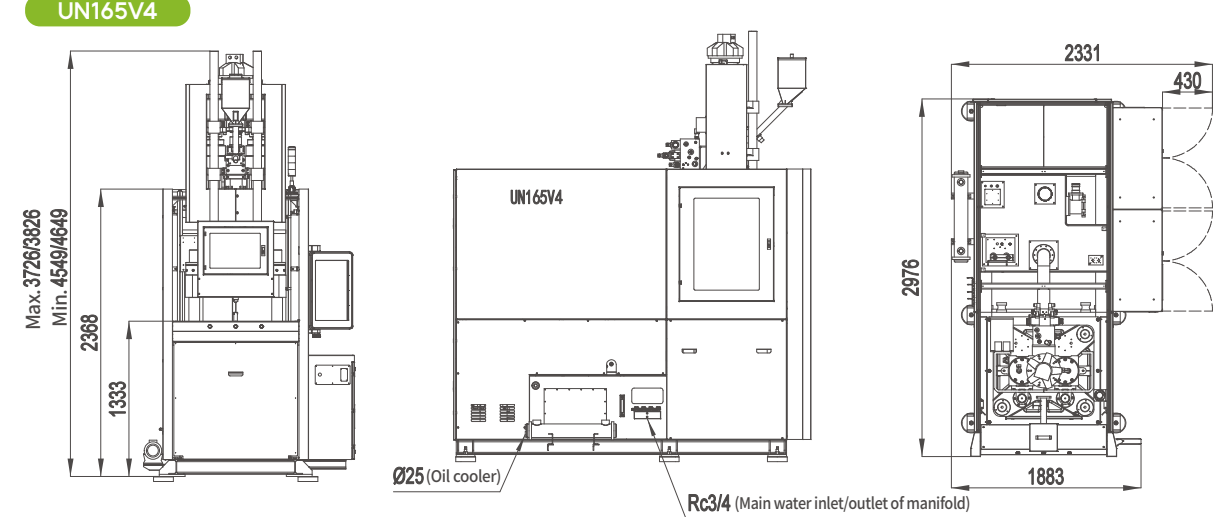
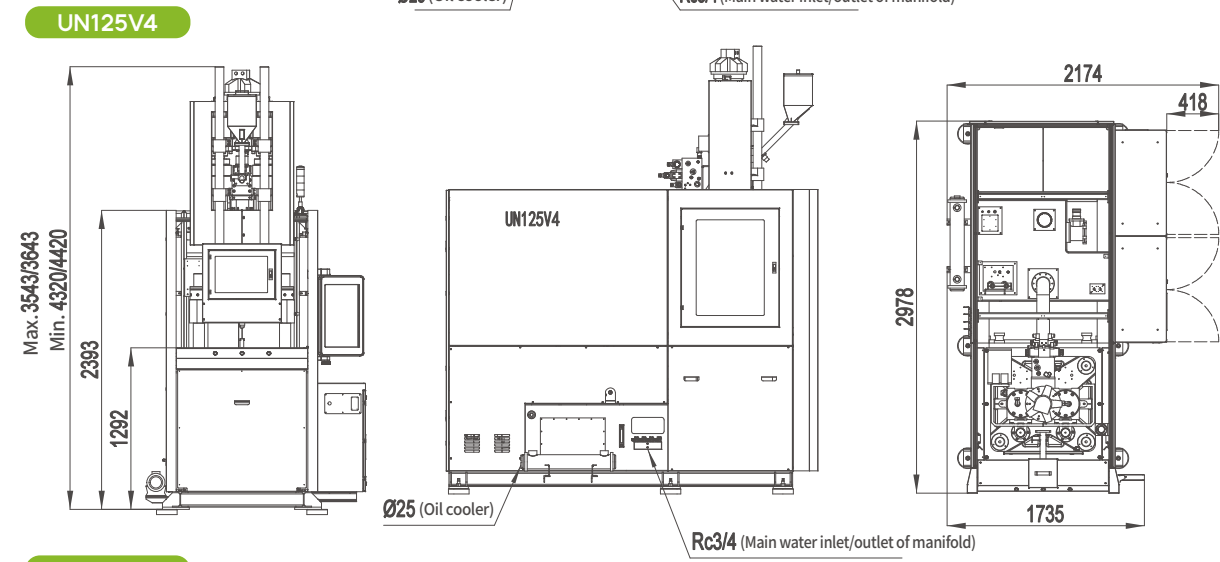
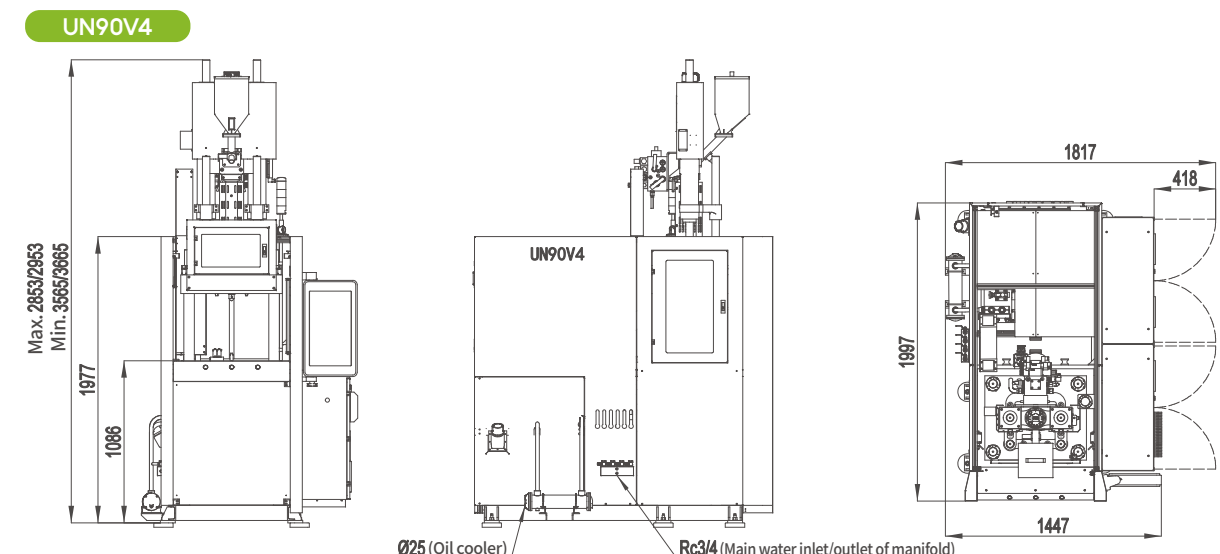
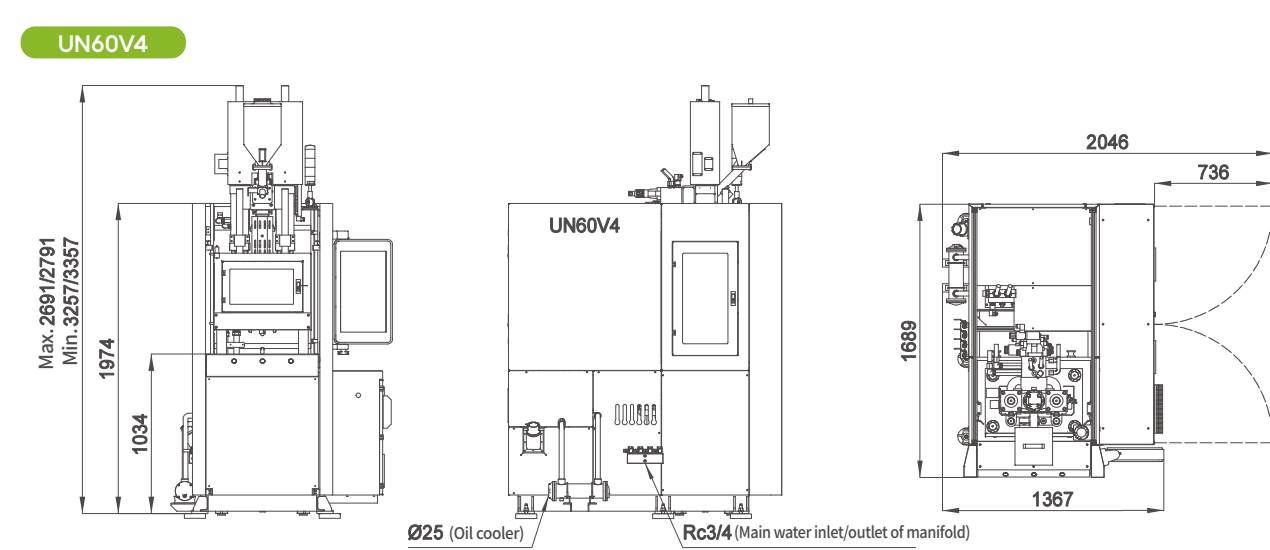
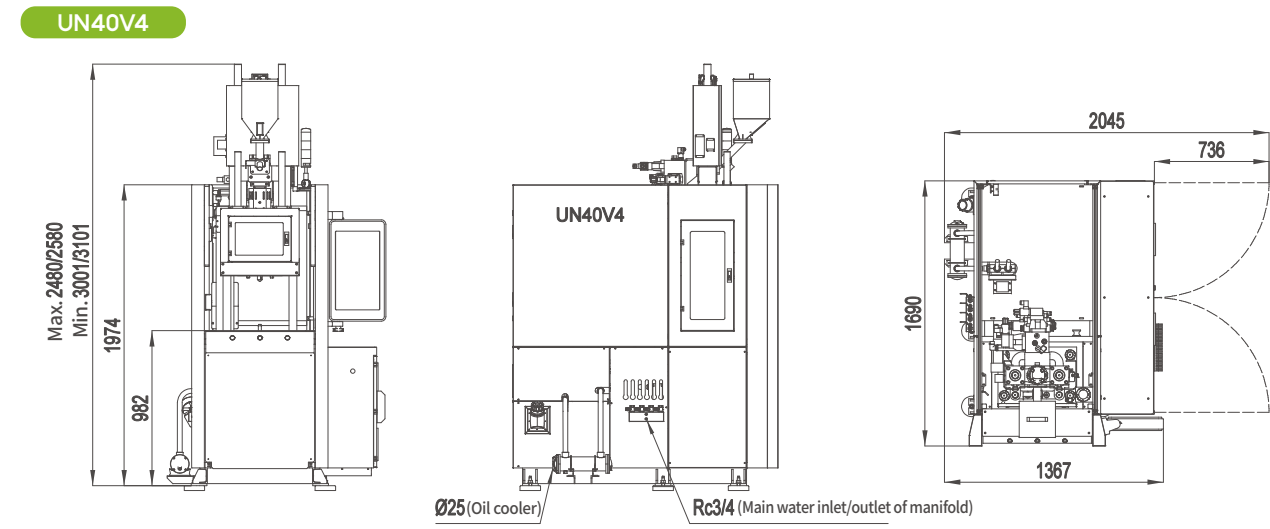
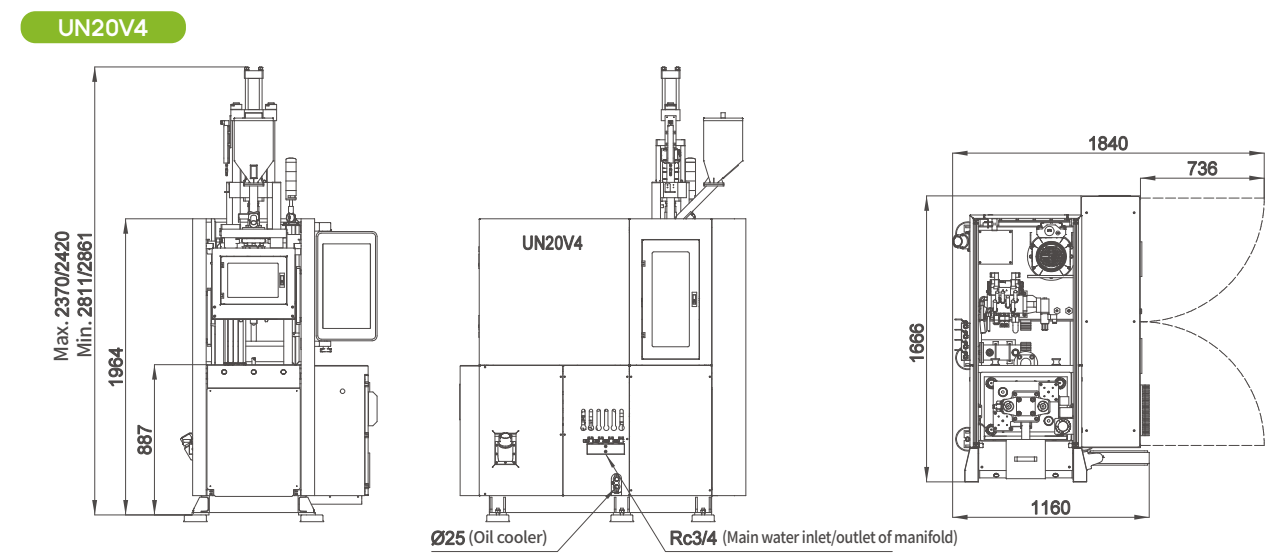


V4 Series Specifications

Description	UNIT	UN20V4			UN40V4			UN60V4						UN90V4						UN125V4						UN165V4					
Injection Unit																															
Injection model		IU85			IU120			IU120			IU200			IU200			IU250			IU250			IU405			IU405			IU650		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Screw diameter	mm	18	22	26	22	26	30	22	26	30	26	30	35	26	30	35	30	35	40	30	35	40	35	43	48	35	43	48	43	48	53
Theoretical shot volume	cm³	25	38	53	46	64	85	46	64	85	74	99	135	74	99	135	99	135	176	99	135	176	154	232	290	154	232	290	290	362	441
Shot weight	g	23	35	49	42	59	78	42	59	78	68	91	124	68	91	124	91	124	162	91	124	162	142	214	266	142	214	266	267	333	406
Injection pressure	MPa	346	231	166	260	186	140	260	186	140	269	202	149	269	202	149	254	186	143	254	186	143	264	175	140	264	175	140	224	180	147
Screw L:D ratio	L/D	22	21.1	22.8	21.1	22.8	22.0	21.1	22.8	22.0	22.8	22	20.6	22.8	22	20.6	24	20.6	19.9	24	20.6	19.9	22.3	22.3	20	22.3	22.3	20	22.3	20	20
Injection rate	cm³/s	25	38	53	45	63	83	45	63	83	49	65	88	49	65	88	69	94	123	69	94	123	89	134	167	89	134	167	143	179	218
Max. injection speed	mm/s	100			118			118			92			92			98			98			92			92			99		
Screw stroke	mm	100			120			120			140			140			140			140			160			160			200		
Max. screw speed	r/min	188			205			205			184			184			190			190			225			225			275		
Number of temp. control zones	PCS	4			4			4			4			4			5			5			5			5			5		
Clamping Unit																															
Clamping force	kN	200			400			600						900						1250						1650					
Movable platen opening force	kN	34			48			59						95						140						140					
Space between tie bars	mm	355*225			370*210			445*255						500*385						600*520						660*630					
Min. mold thickness	mm	100/150			150/250			150/250						200/300						200/300						300/400					
Max. opening stroke	mm	280/330			350/450			400/500						450/550						500/600						600/700					
Locating ring diameter	mm	100			100			100						120						120						120					
Ejector force	kN	67			67			67						67						67						67					
Ejector stroke	mm	40			40			40						50						75						75					
Power Unit																															
Heating power	kW	2.9			3.7			3.7			4.6			4.6			6.9			6.9			10.1			10.1			10.9		
System pressure	MPa	17.5			17.5			17.5						17.5/21						17.5/21						17.5/21					
Pump motor	kW	7.1			11.0			11						17.8						25.2						29.3					
General																															
Max. mold moving weight	t	0.7			1.5			2						1.5						2.3						3					
Oil tank capacity	L	96			130			130						270						261						266					
Machine dimensions (L*W*H)	m	1.7*1.2*2.85			1.7*1.4*3.1			1.7*1.4*3.27						2*1.45*3.57						3*1.74*4.35						3*1.9*4.6					
Machine weight	t	1.5			1.8			2.3						3						5.7						9					

1. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.  
2. The screw in the medium is standard on the machine.  
3. The injection unit data are in international units and calculated as follows: theoretical shot volume [cm~] × injection pressure (MPa)/100  
4. The green figures are standard specifications of clamping unit and injection unit.  
5. Because of constant technical improvement, the machine specifications are subject to change without notice.

# V4 Series Machine Dimensions

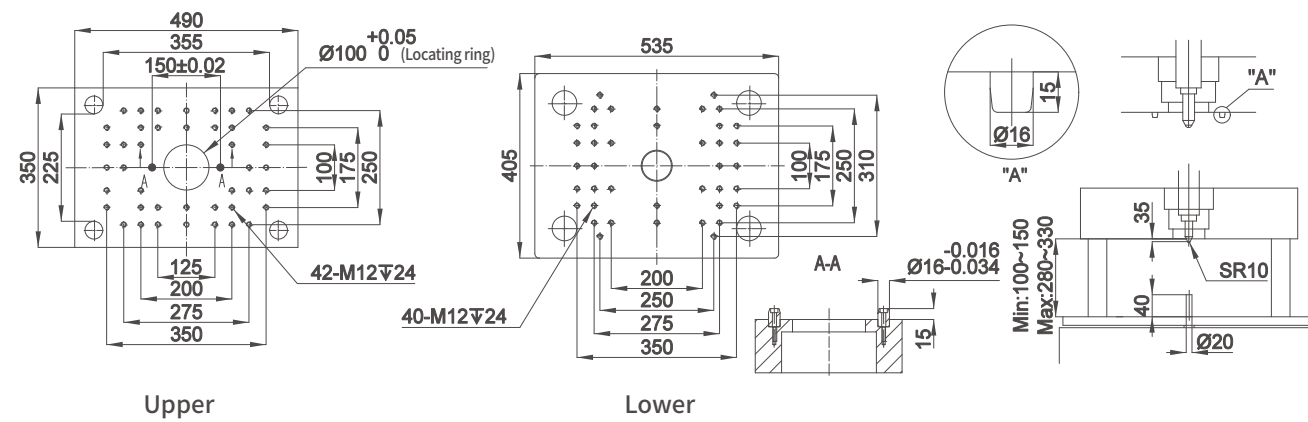


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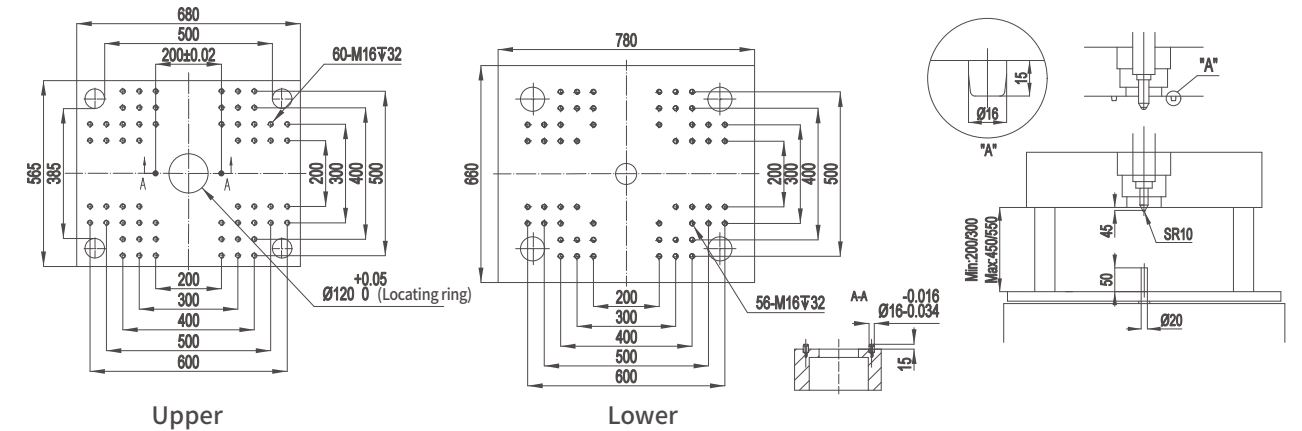
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# V4 Series Platen Dimensions

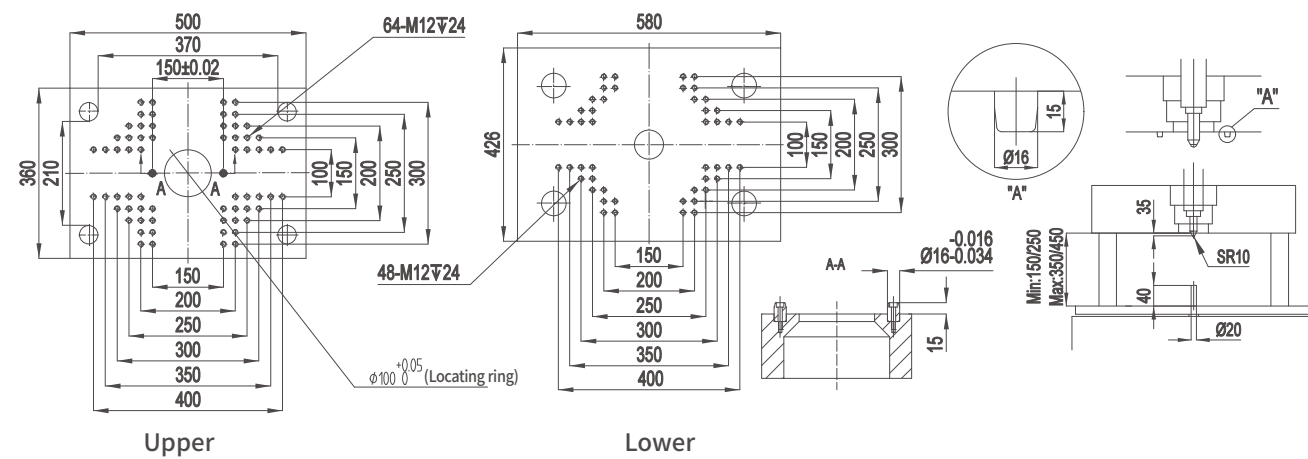
UN20V4



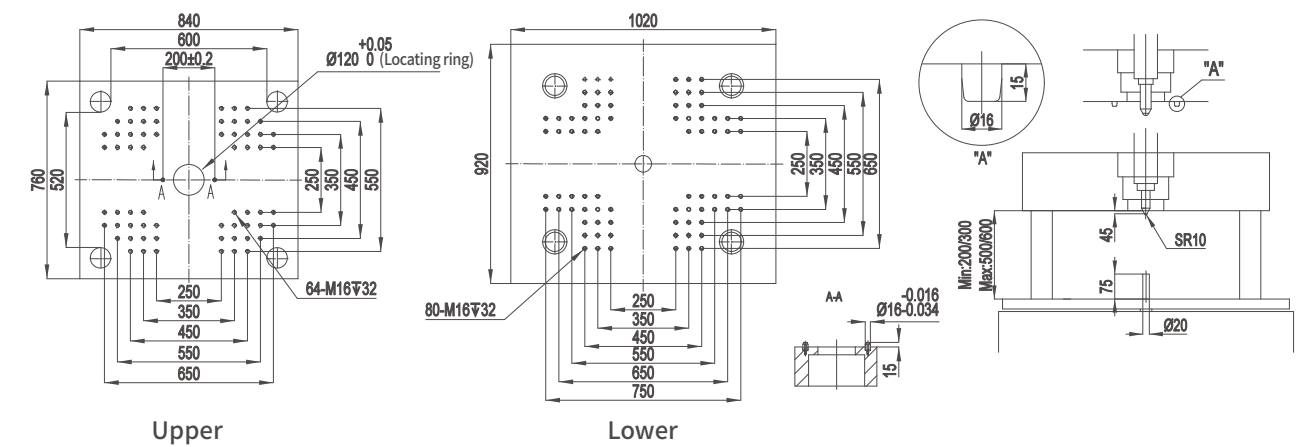
UN90V4



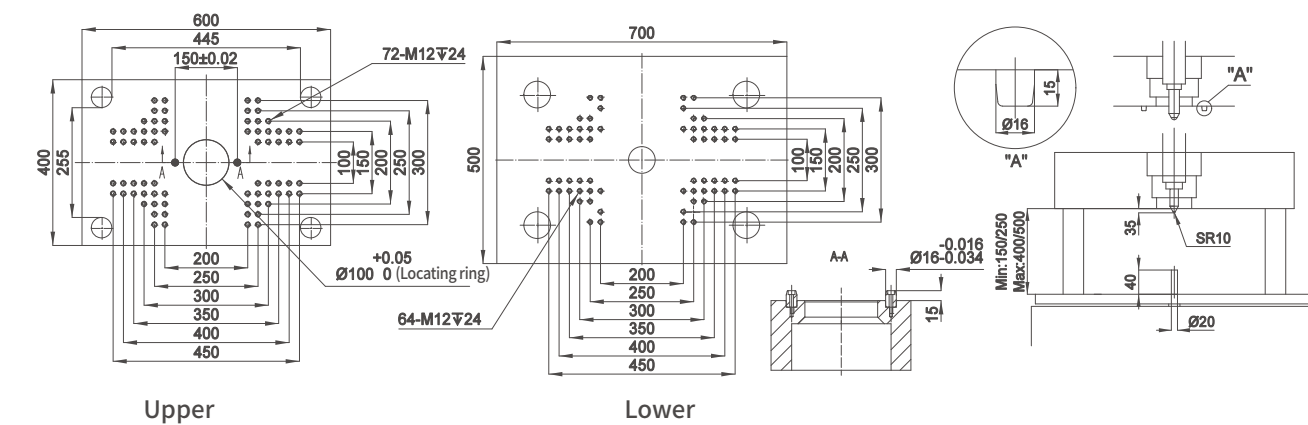
UN40V4



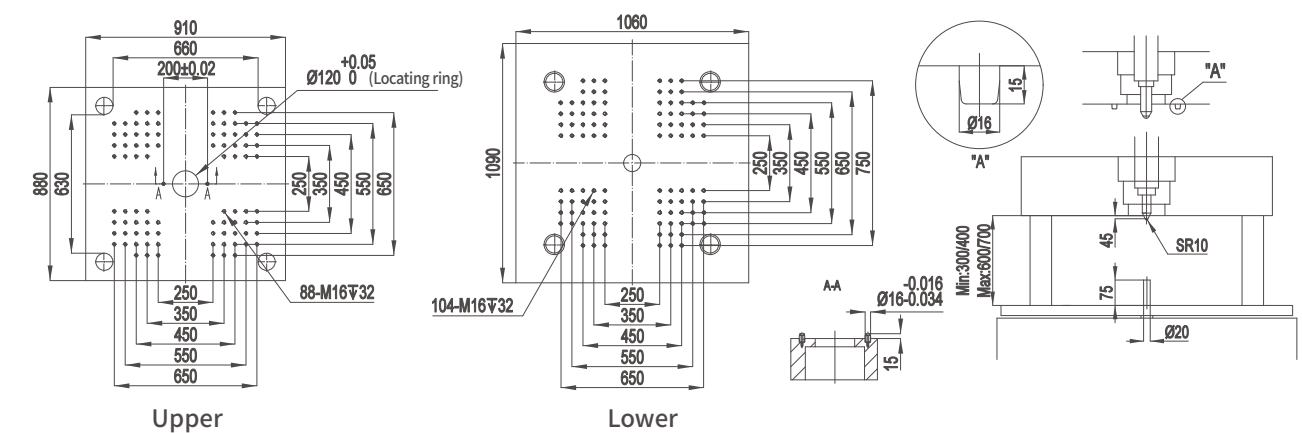
UN125V4



UN60V4



UN165V4



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# V4 Series

## Standard & Optional Features

Features	Standard	Optional
Clamping Unit		
Direct pressure clamping unit with four tie bars	●	
Low pressure mold protection	●	
Adjustable clamping force as required	●	
Safety light curtain on operation panel	●	
Side safety doors	●	
Electrical protection device (electrical safety module for standard feature)	●	
Anti-slip pedal in rear clamping area	●	
Displacement sensor for mold opening and closing	●	
Secondary mold closing		○
Increased mold thickness		○
Increased ejector stroke		○
Mold thermal insulation plate		○
Special mold mounting hole		○
Increased opening stroke		○
Increased ejector force		○
Mechanical safety locking rod		○
Electrical Control System		
Manual, semi-auto and fully-auto operating mode	●	
Closed-loop PID barrel temperature control	●	
Input and output inspection interface	●	
Automatic alarm messaging/ audible and visual alarm system	●	
Built-in software with oscilloscope function (injection curve, clamping curve)	●	
Process parameter storage>200	●	
Automatic mold height adjustment	●	
Chinese and English operating system	●	
Online cycle monitoring	●	
12" TFT color display	●	
PDP interface	●	
Injection monitoring protection	●	
Mold-close monitoring protection	●	
Statistical process control (SPC) interface	●	
IP54 electrical cabinet	●	
Screw speed detecting device	●	
Optional control modes of switchover to holding ( time / position / time + position)	●	
Multi-level of user access	●	
Automatic heat-retaining and heating function	●	
380V 32A socket		○
380V 16A socket		○
Reserved SPI/ Euromap 12 robot interfaces		○
Servo injection		○
Hot runner interface		○
Auxiliary emergency stop button		○
Air blowing in fixed mold		○
Special power supply		○
Central (networked) monitoring system		○
Protective light curtain of rear safety gates		○

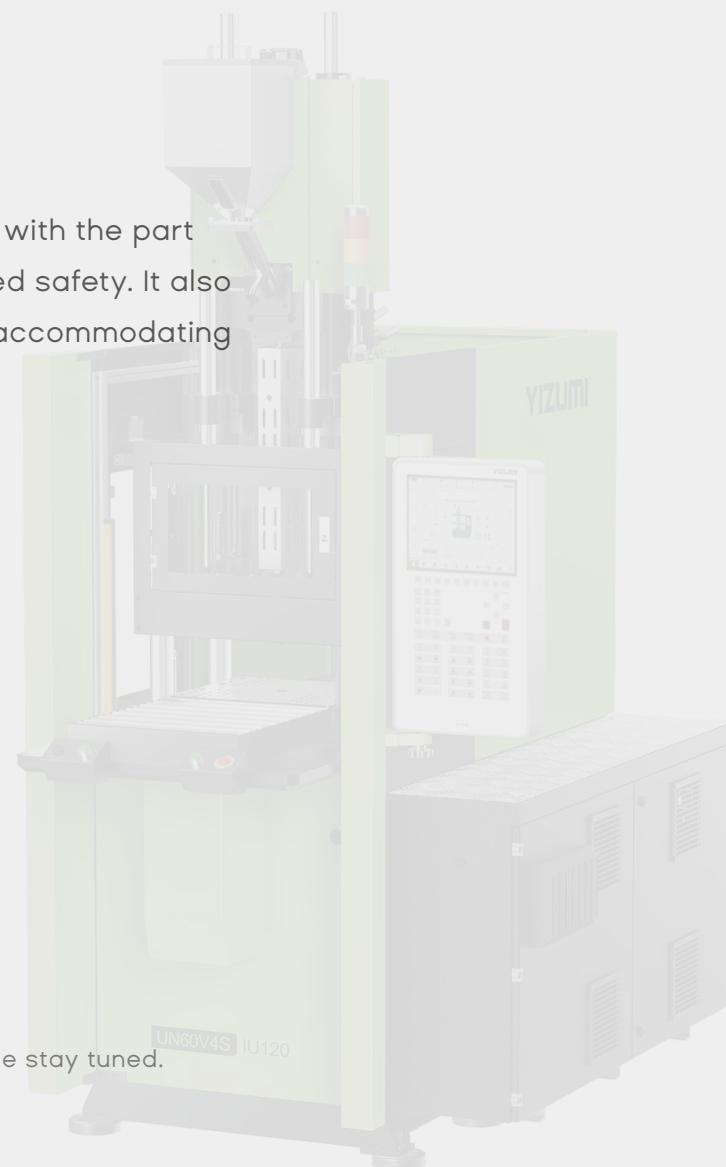
	Standard	Optional
Injection Unit		
Nitrided screw and barrel	●	
Displacement sensor for injection position	●	
Barrel heat-retaining guard	●	
Barrel heating controlled by SSR	●	
Optional suck-back before or after plasticizing	●	
6-stage injection speed/ pressure/ position control	●	
5-stage holding speed/ pressure/ position/ time control	●	
3-stage plasticizing speed/ pressure/ position/ time control	●	
Cold start protection	●	
Manual central lubrication system of injection unit	●	
Automatic purging	●	
Screw rotation measuring device	●	
Nozzle temperature control with SCR		○
Injection carriage transducer		○
Mixing screw		○
Bi-metallic screw barrel		○
Extended nozzle (50, 100, 150, 200)		○
Special screw and barrel component		○
Heat-retaining and energy-saving barrel (silicone cover)		○
Spring shut-off nozzle		○
Increased injection stroke		○
Closed-loop temperature detection of feeding port		○
Hydraulic System		
Proportional control for plasticizing back pressure	●	
One set of water circuit for both upper and lower mold	●	
Automatic calibration of system pressure and flow	●	
Oil temperature and oil level detection	●	
High-performance servo pump system	●	
Sequential gate valve control interfaces		○
Variable displacement pump system		○
Closed-loop proportional variable displacement pump system		○
High-response servo injection system with accumulator		○
Enhanced oil cooler		○
Multi-level enhanced pump motor		○
Multi-level enhanced plasticizing motor		○
Servo injection (closed-loop control of injection, plasticizing, holding pressure, back pressure)		○
Multiple sets of core pulling and unscrewing devices with electrical interfaces		○
General		
Adjustable leveling pad	●	
User manual	●	
Nozzle wrench	●	
Mold clamp	●	
Hydraulic oil		○
Mold temperature controller		○
Auto loader		○
Dehumidifier		○

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## Single Slide Plate Series

### V4S Series with Single Slide Plate (20-225T)

Simple structure, high cost-effectiveness, with the part pick-up outside clamping area for improved safety. It also provides a larger space for part pick-up, accommodating both manual and automated operations.



\* UN225V4S is currently under development, please stay tuned.

#### Highlights

- ▶ Vertical clamping and injection molding. Movable lower mold and safety light curtain electrical interlock for increased safety.
- ▶ Injection pressure is equipped with pressure sensors and numerical control proportional back pressure, with weight repeatability accuracy of 0.3%.
- ▶ Suitable for fast cycle time and products that are difficult to pick and place.
- ▶ Energy-saving servo hydraulic system for main pump.
- ▶ Austria's KEBA controller.



#### Application

##### Wire harness clip

IMM: UN165V4UR+UN40V4S

Cavity: 4

Material: PA66 + 30% self-adhesive silicone

Size (D×H):  $\phi 40 \times 20$ mm

Weight: 45g/pc

Cycle time: 100s



# V4S Series Specifications

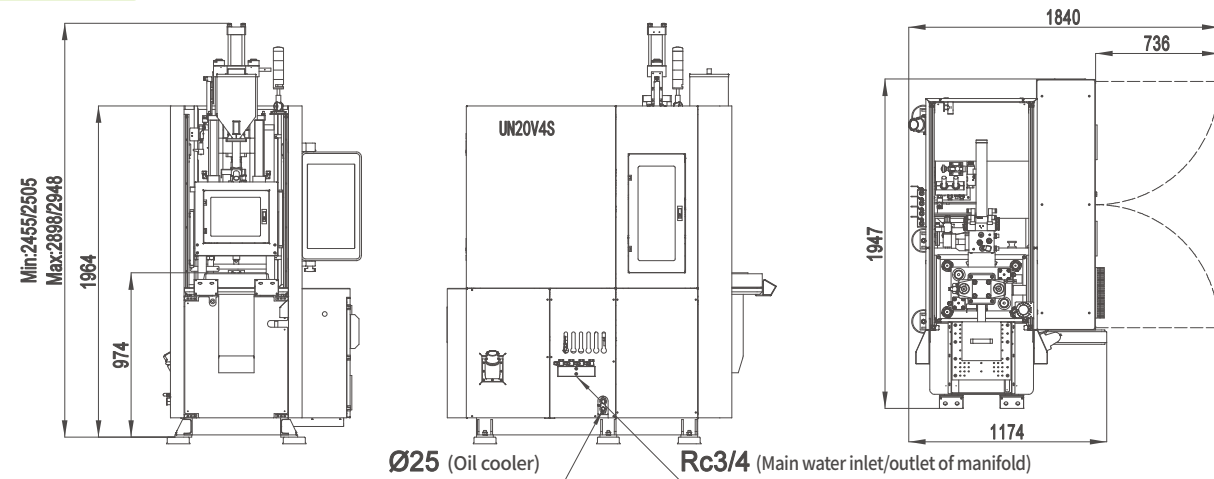
Description	UNIT	UN20V4S			UN40V4S			UN60V4S			UN90V4S			UN125V4S			UN165V4S														
Injection Unit																															
Injection model		IU85			IU120			IU120			IU200			IU200			IU250			IU250			IU405			IU405			IU650		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Screw diameter	mm	18	22	26	22	26	30	22	26	30	26	30	35	26	30	35	30	35	40	30	35	40	35	43	48	35	43	48	43	48	53
Theoretical shot volume	cm³	25	38	53	46	64	85	46	64	85	74	99	135	74	99	135	99	135	176	99	135	176	154	232	290	154	232	290	290	362	441
Shot weight	g	23	35	49	42	59	78	42	59	78	68	91	124	68	91	124	91	124	162	91	124	162	142	214	266	142	214	266	267	333	406
Injection pressure	MPa	346	231	166	260	186	140	260	186	140	269	202	149	269	202	149	254	186	143	254	186	143	264	175	140	264	175	140	224	180	147
Screw L:D ratio	L/D	22	21.1	22.8	21.1	22.8	22	21.1	22.8	22.0	22.8	22	20.6	22.8	22	20.6	24	20.6	19.9	24	20.6	19.9	22.3	22.3	20	22.3	22.3	20	22.3	20	20
Injection rate	cm³/s	25	38	53	45	63	83	45	63	83	49	65	88	49	65	88	69	94	123	69	94	123	89	134	167	89	134	167	143	179	218
Max. injection speed	mm/s	100			118			118			91.8			91.8			97.6			97.6			92.0			92.0			98.7		
Screw stroke	mm	100			120			120			140			140			140			140			160			160			200		
Max. screw speed	r/min	188			205			205			184			184			190			190			225			225			275		
Number of temp. control zones	PCS	4			4			4			4			4			5			5			5			5			5		
Clamping Unit																															
Clamping force	kN	200			400			600			900			900			1250			1250			1650								
Movable platen opening force	kN	34			48			59			95			95			140			140			140								
Space between tie bars	mm	355*225			370*210			445*255			500*385			500*385			600*520			600*520			660*630								
Min. mold thickness	mm	100/150			150/250			150/250			200/300			200/300			200/300			200/300			300/400								
Max. opening stroke	mm	280/330			350/450			400/500			450/550			450/550			500/600			500/600			600/700								
Locating ring diameter	mm	100			100			100			120			120			120			120			120								
Slide plate dimensions	mm	350*350			350*350			435*390			490*540			490*540			590*700			590*700			640*800								
Slide plate stroke	mm	365			365			410			570			570			740			740			850								
Ejector force	kN	27			27			27			27			27			27			67			67			67					
Ejector stroke	mm	60			60			60			100			100			105			105			115								
Power Unit																															
Heating power	kW	2.9			3.7			3.7			4.6			4.6			6.9			6.9			10.1			10.1			10.9		
System pressure	MPa	17.5			17.5			17.5			17.5/21			17.5/21			17.5/21			17.5/21			17.5/21			17.5/21					
Pump motor	kW	7.1			11.0			11.0			17.8			17.8			25.2			25.2			29.3								
General																															
Max. mold moving weight	t	0.7			1.5			1.5			1.5			1.5			2.3			2.3			3								
Oil tank capacity	L	96			130			130			270			270			261			261			266								
Machine dimensions (L*W*H)	m	1.95*1.2*2.9			1.95*1.4*3.1			2.05*1.4*3.35			2.5*1.5*3.6			2.5*1.5*3.6			2.9*1.75*4.5			2.9*1.75*4.5			3.7*1.9*4.7								
Machine weight	t	1.6			1.9			2.5			3.3			3.3			6.7			6.7			8.4								

1. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.  
2. The screw in the medium is standard on the machine.  
3. The injection unit data are in international units and calculated as follows: theoretical shot volume [cm³] × injection pressure (MPa)/100  
4. The green figures are standard specifications of clamping unit and injection unit.  
5. Because of constant technical improvement, the machine specifications are subject to change without notice.

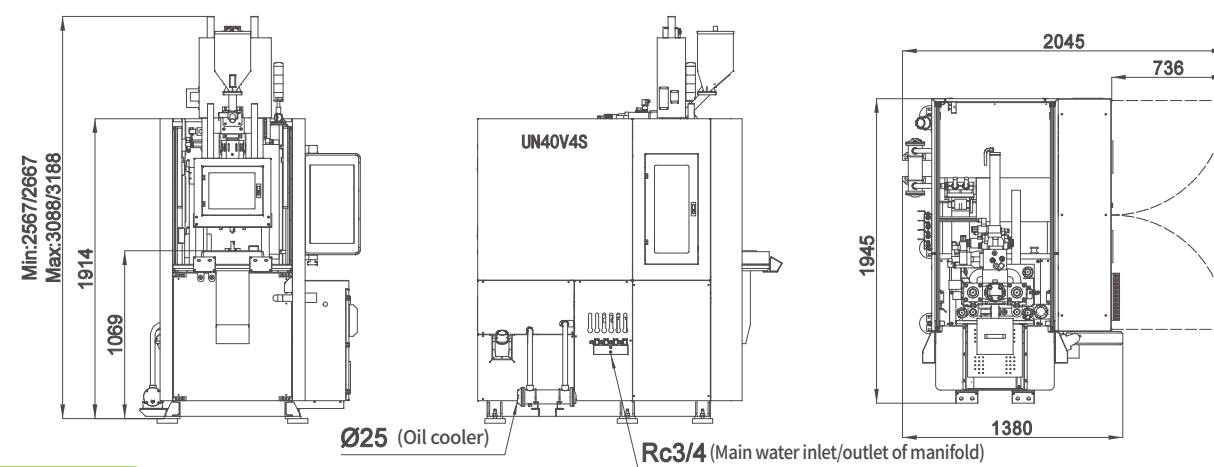


# V4S Series Machine Dimensions

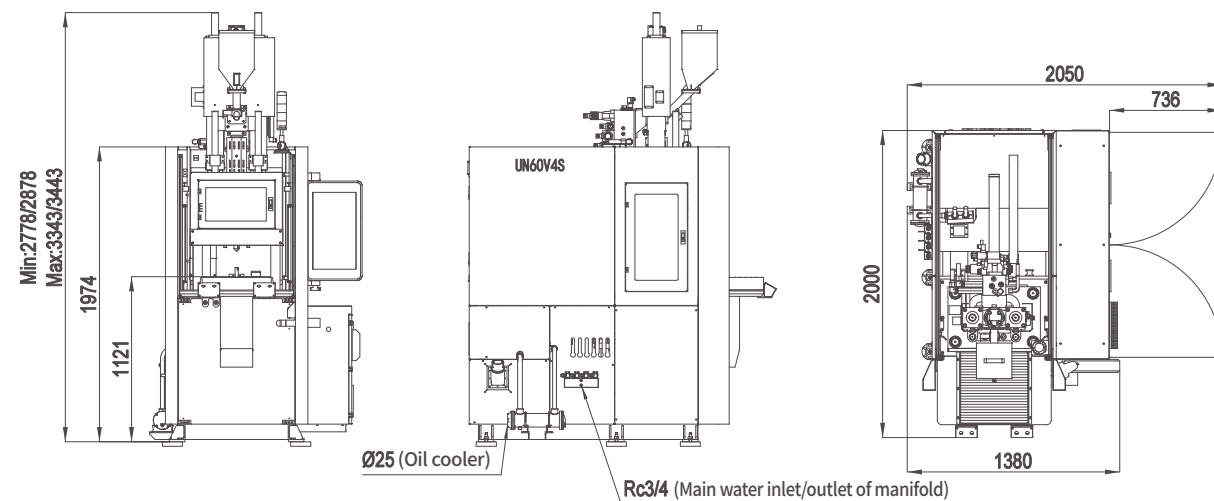
UN20V4S



UN40V4S

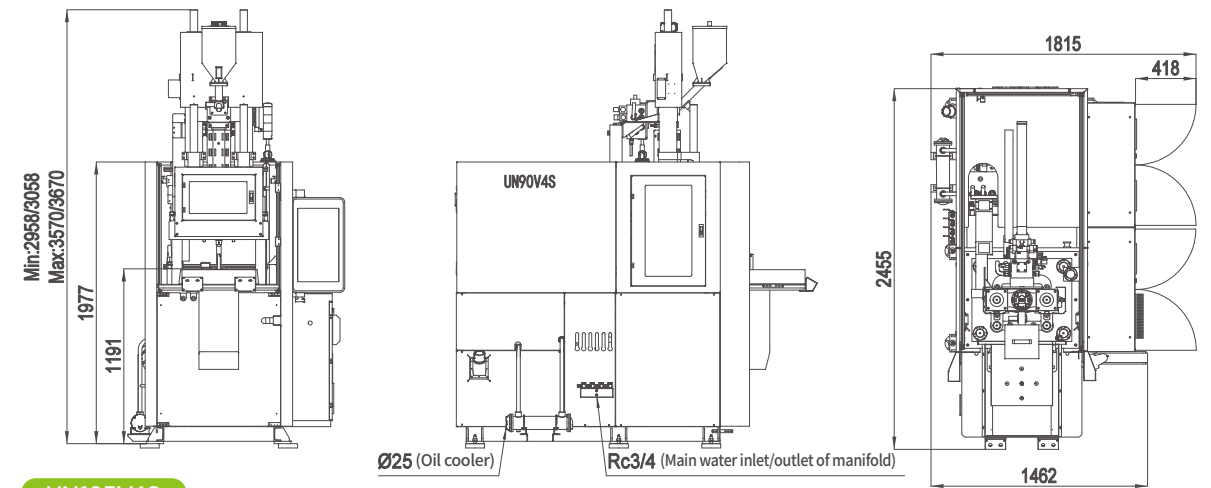


UN60V4S

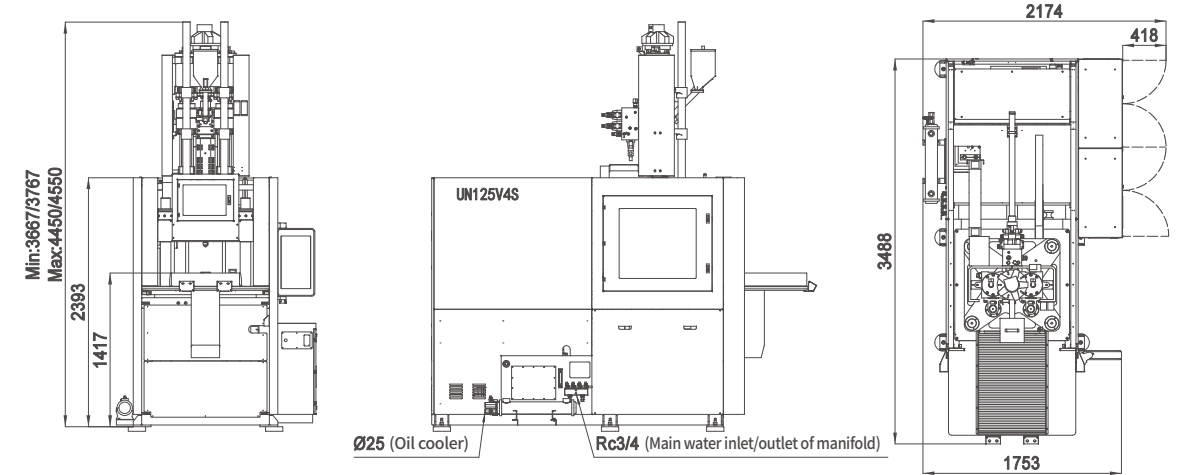


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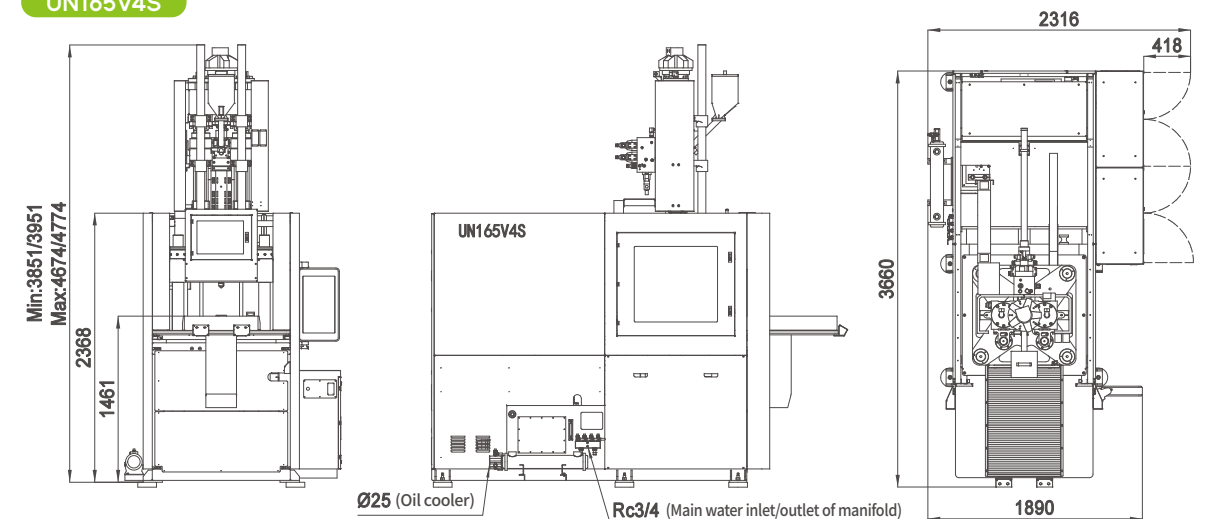
UN90V4S



UN125V4S

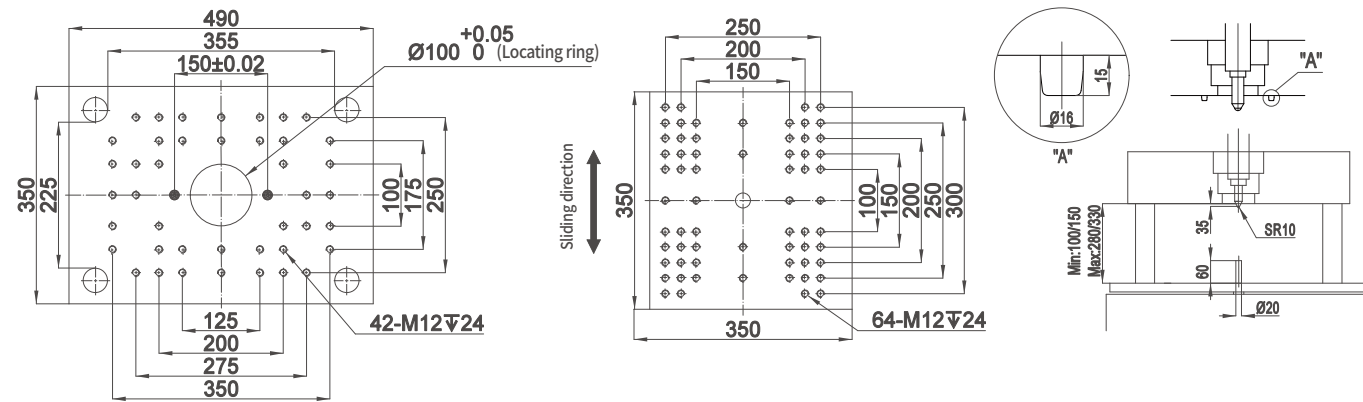
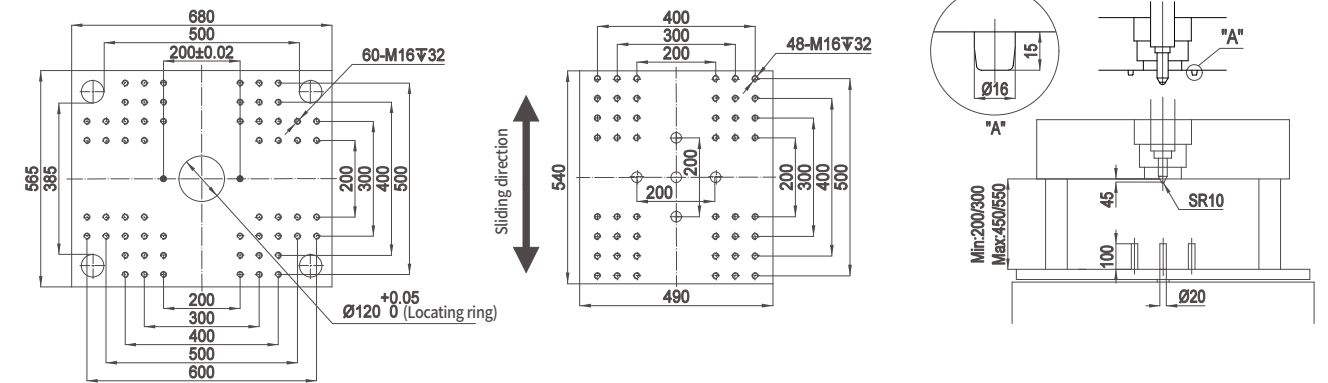
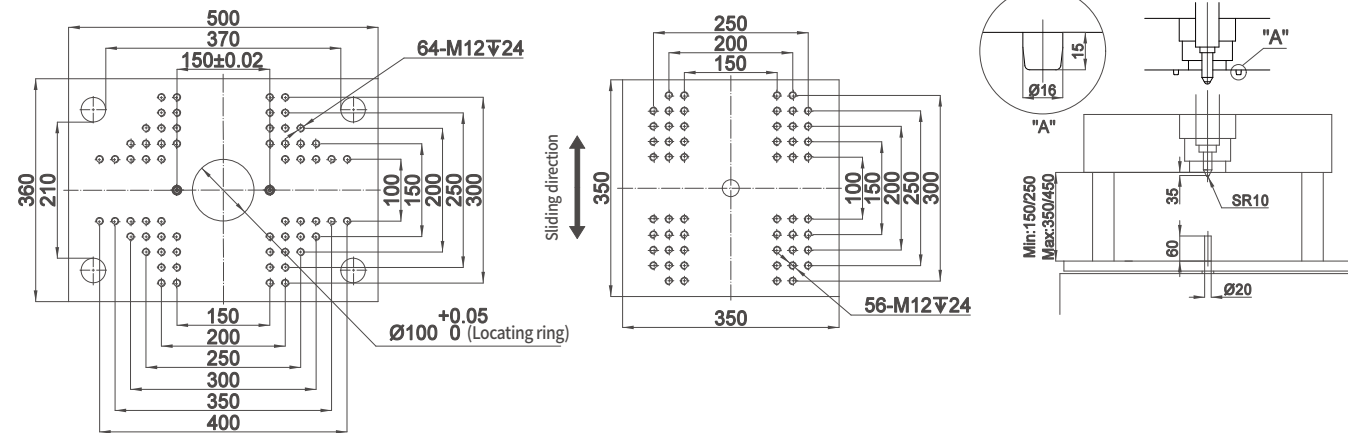
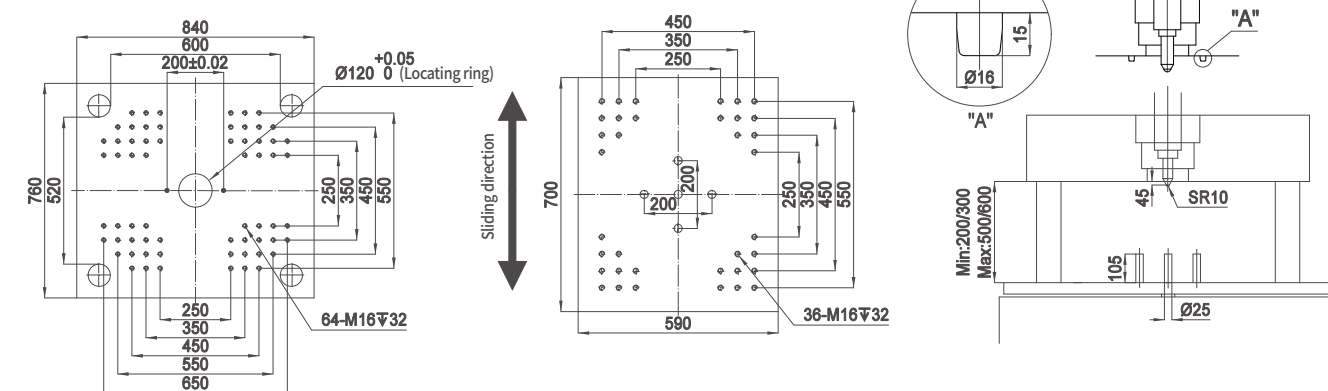
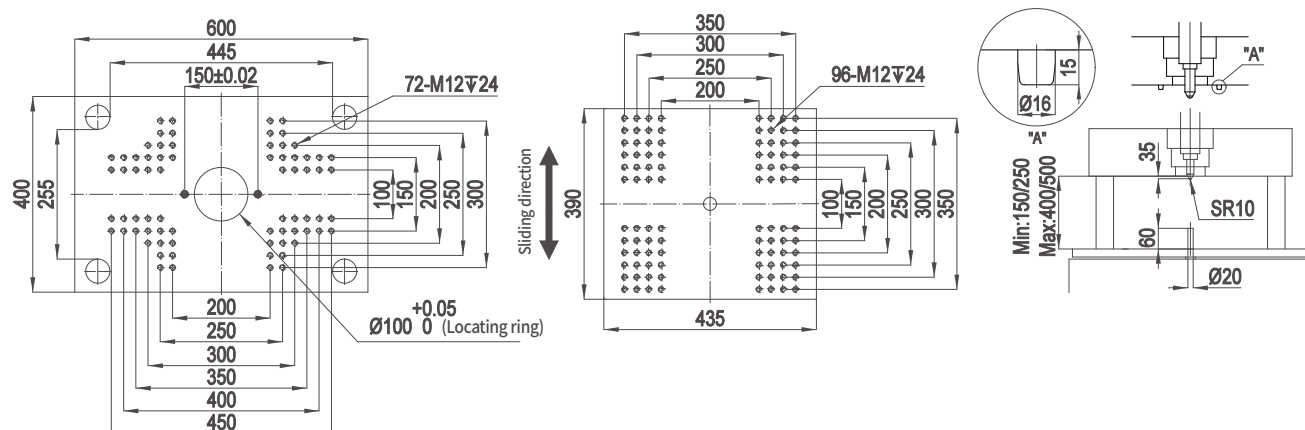
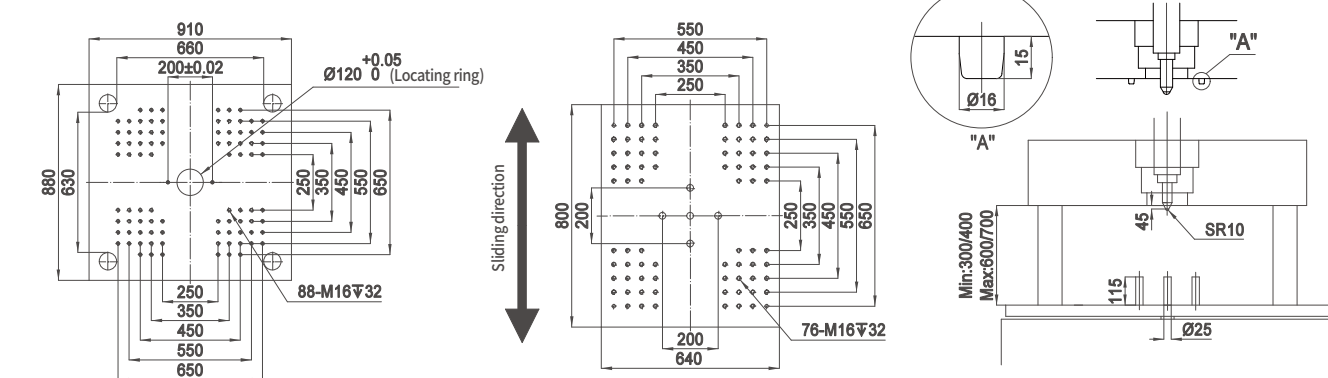


UN165V4S



\* The data above were acquired by testing in the factory, only for your reference.

# V4S Series Platen Dimensions

**UN20V4S**

**UN90V4S**

**UN40V4S**

**UN125V4S**

**UN60V4S**

**UN165V4S**


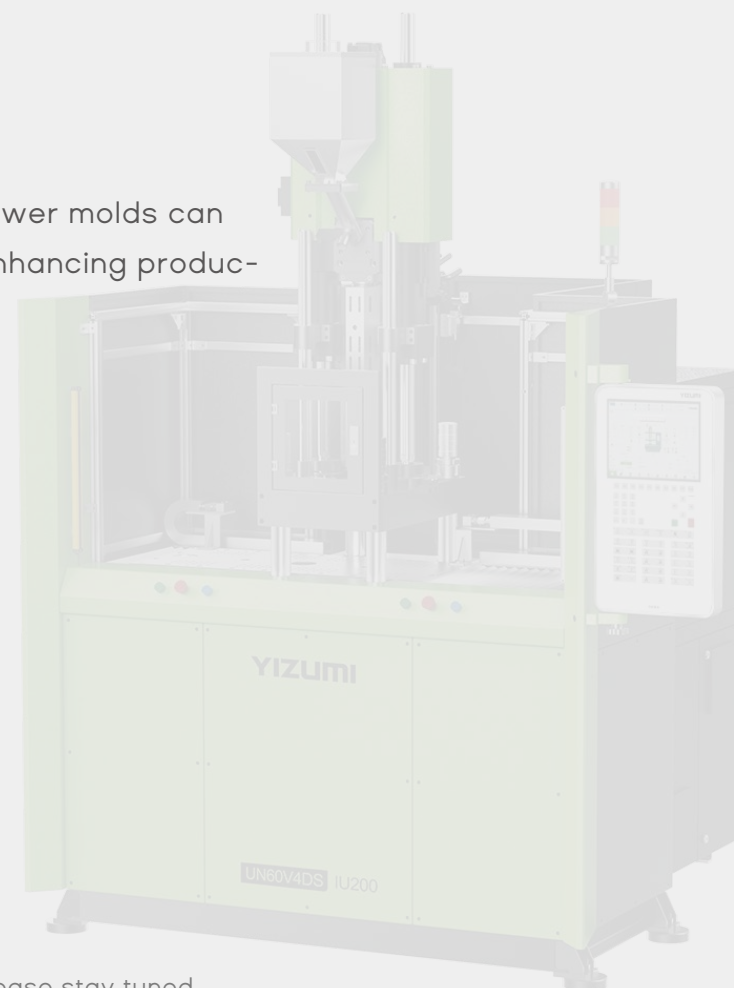
\* The data above were acquired by testing in the factory, only for your reference.

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## Double Slide Plates Series

### V4DS Series with Double Slide Plates (40-225T)

One upper and two lower molds. Two lower molds can slide alternately for injection molding, enhancing production efficiency.



\* UN225V4DS is currently under development, please stay tuned.

#### Highlights

- ▶ Dual-side workstations with one upper and two lower molds boosts molding efficiency by over 30%.
- ▶ Mold moving driven by hydraulic cylinders with precise mechanical positioning.
- ▶ Ejector powered by independent system, controlled via displacement sensors for synchronized operation, ensuring enhanced stability and efficiency with unique ejector mode.
- ▶ Hardened and nitrided movable platen for durability.
- ▶ Energy-saving servo hydraulic system for main pump.
- ▶ Austria's KEBA controller



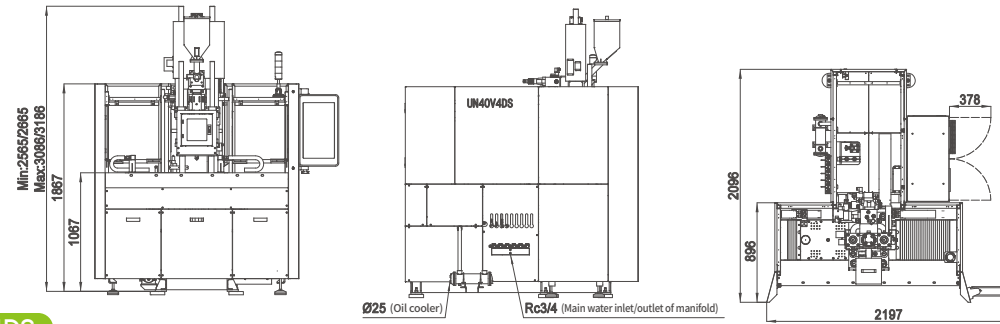
# V4DS Series Specifications

Description	UNIT	UN40V4DS			UN60V4DS			UN90V4DS			UN125V4DS			UN165V4DS														
Injection Unit																												
Injection model		IU120			IU120			IU200			IU200			IU250			IU250			IU405			IU405			IU650		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Screw diameter	mm	22	26	30	22	26	30	26	30	35	26	30	35	30	35	40	30	35	40	35	43	48	35	43	48	43	48	53
Theoretical shot volume	cm³	46	64	85	46	64	85	74	99	135	74	99	135	99	135	176	99	135	176	154	232	290	154	232	290	290	362	441
Shot weight	g	42	59	78	42	59	78	68	91	124	68	91	124	91	124	162	91	124	162	142	214	266	142	214	266	267	333	406
Injection pressure	MPa	260	186	140	260	186	140	269	202	149	269	202	149	254	186	143	254	186	143	264	175	140	264	175	140	224	180	147
Screw L:D ratio	L/D	21.1	22.8	22.0	21.1	22.8	22.0	22.8	22	20.6	22.8	22	20.6	24	20.6	19.9	24	20.6	19.9	22.3	22.3	20	22.3	22.3	20	22.3	20	20
Injection rate	cm³/s	45	63	83	45	63	83	49	65	88	49	65	88	69	94	123	69	94	123	89	134	167	89	134	167	143	179	218
Max. injection speed	mm/s	118			118			91.8			91.8			97.6			97.6			92			92			98.7		
Screw stroke	mm	120			120			140			140			140			140			160			160			200		
Max. screw speed	r/min	205			205			184			184			190			190			225			225			275		
Number of temp. control zones	PCS	4			4			4			4			5			5			5			5			5		
Clamping Unit																												
Clamping force	kN	400			600			900			1250			1650														
Movable platen opening force	kN	48			59			95			140			140														
Space between tie bars	mm	370*210			445*255			500*385			600*520			660*630														
Min. mold thickness	mm	150/250			150/250			200/300			200/300			300/400														
Max. opening stroke	mm	350/450			400/500			450/550			500/600			600/700														
Locating ring diameter	mm	100			100			120			120			120														
Slide plate dimensions	mm	360*860			435*920			1130*490			590*1460			640*1660														
Slide plate stroke	mm	365			410			570			740			852														
Ejector force	kN	11			11			11			27			27														
Ejector stroke	mm	60			60			100			105			115														
Power Unit																												
Heating power	kW	3.7			3.7			4.6			4.6			6.9			6.9			10.1			10.1			10.9		
System pressure	MPa	17.5			17.5			17.5/21			17.5/21			17.5/21			17.5/21			17.5/21			17.5/21			17.5/21		
Pump motor	kW	11+4			11+4			17.8+4			17.8+4			25.2+4			25.2+4			29.3+4			29.3+4			29.3+4		
General																												
Max. mold moving weight	t	1.5			1.5			2			2.3			3														
Oil tank capacity	L	180			180			280			309			325														
Machine dimensions (L*W*H)	m	2.1*2.2*3.2			2.1*2.25*3.5			2.05*2.75*3.85			3.05*3.3*4.55			3.15*3.8*4.8														
Machine weight	t	2.1			2.9			3.9			7			9.2														

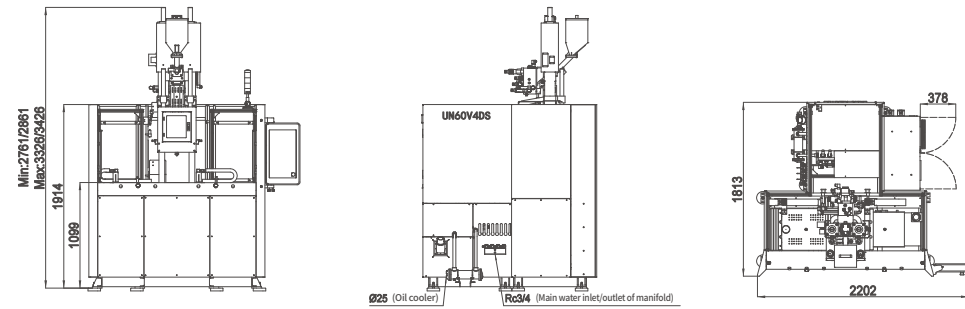
1. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.  
2. The screw in the medium is standard on the machine.  
3. The injection unit data are in international units and calculated as follows: theoretical shot volume [cm³] × injection pressure (MPa)/100  
4. The green figures are standard specifications of clamping unit and injection unit.  
5. Because of constant technical improvement, the machine specifications are subject to change without notice.

## V4DS Series Machine Dimensions

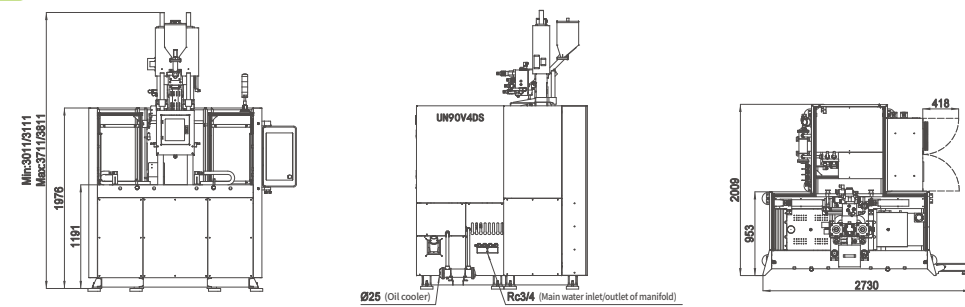
UN40V4DS



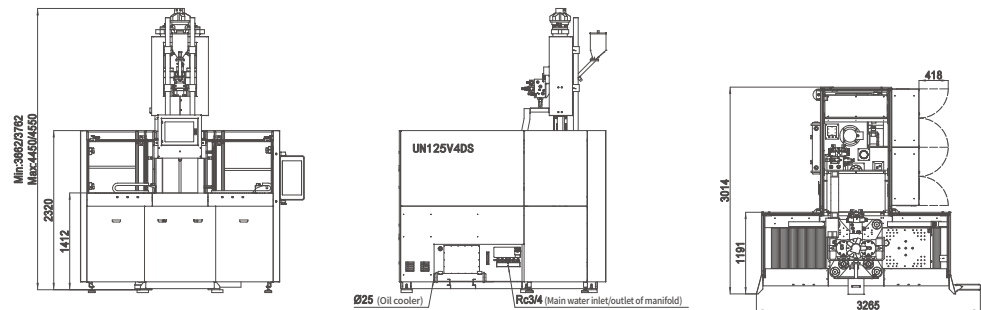
UN60V4DS



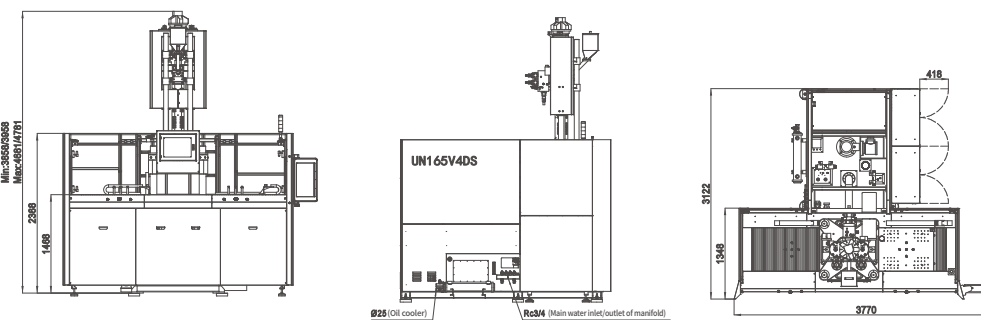
UN90V4DS



UN125V4DS



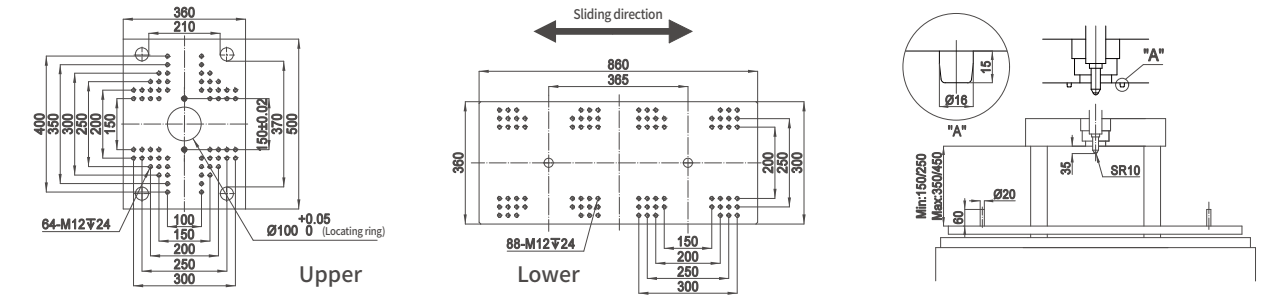
UN165V4DS



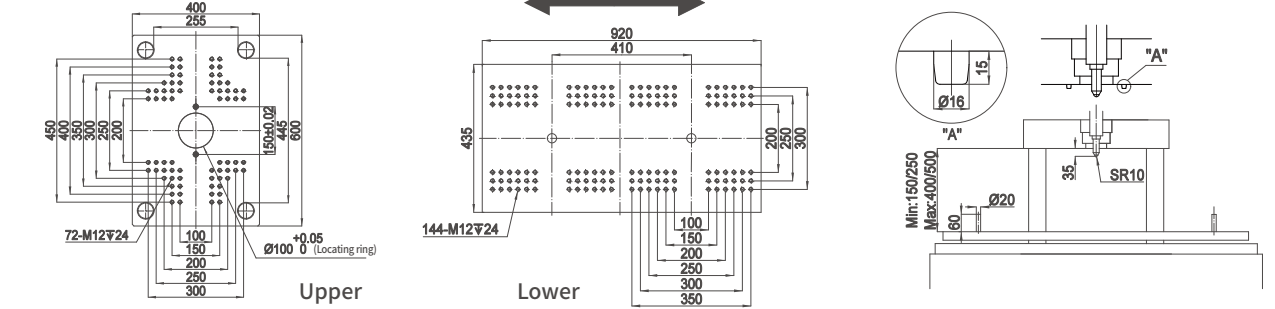
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## V4DS Series Platen Dimensions

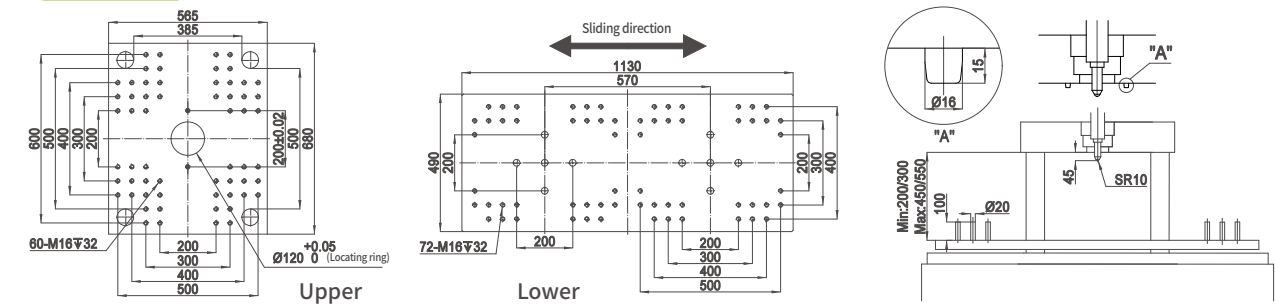
UN40V4DS



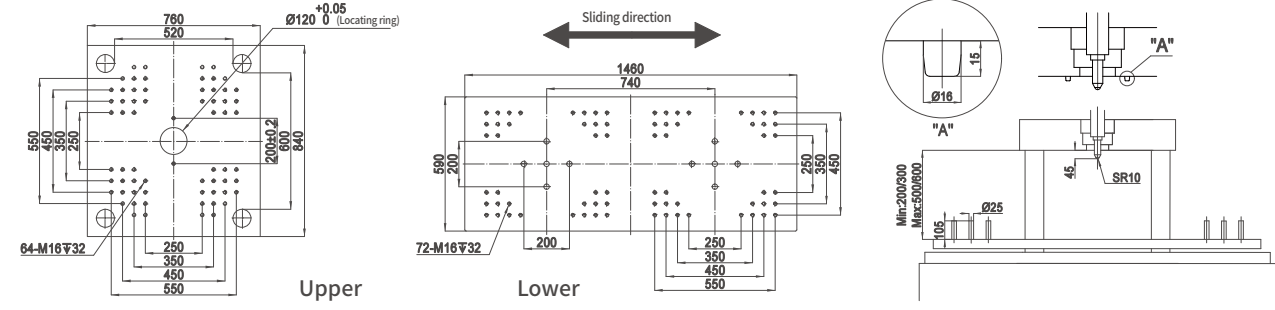
UN60V4DS



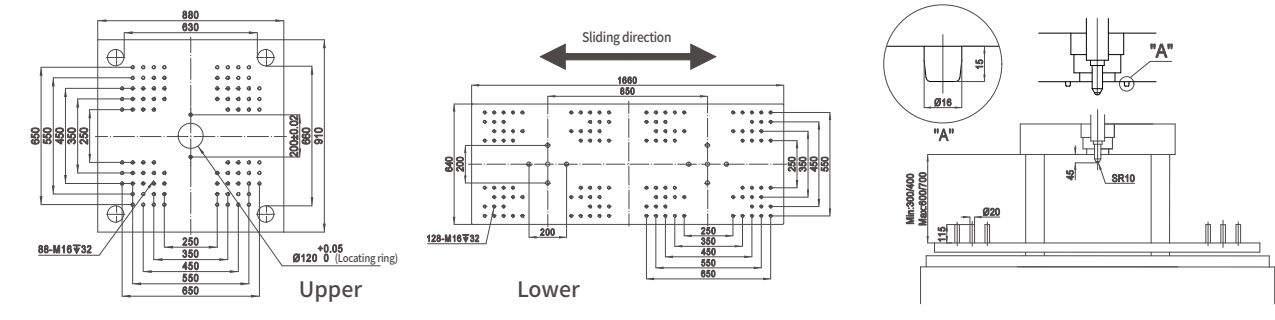
UN90V4DS



UN125V4DS



UN165V4DS



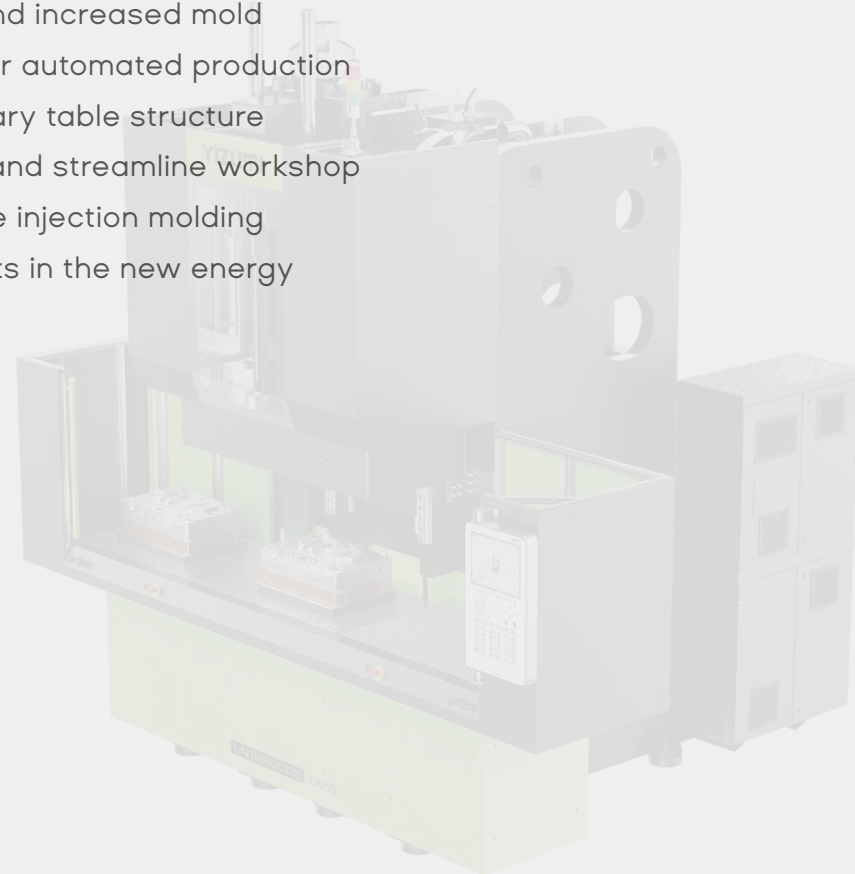
\* The data above were acquired by testing in the factory, only for your reference.



## Double Slide Plates Series

### V2CDS Series C-type with Double Slide Plates (60-165T)

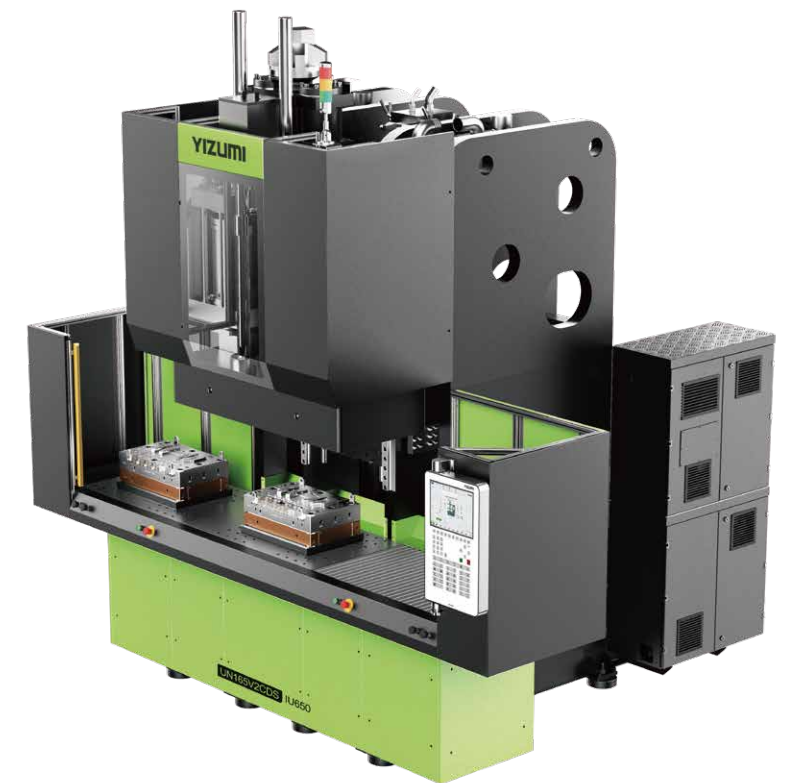
A more open operating space and increased mold capacity make it better suited for automated production lines. The low worktable and rotary table structure enhance operator accessibility and streamline workshop workflow, effectively meeting the injection molding requirements for embedded parts in the new energy vehicle industry.



\* V2CDS series can be customized to meet specific requirements.

#### Highlights

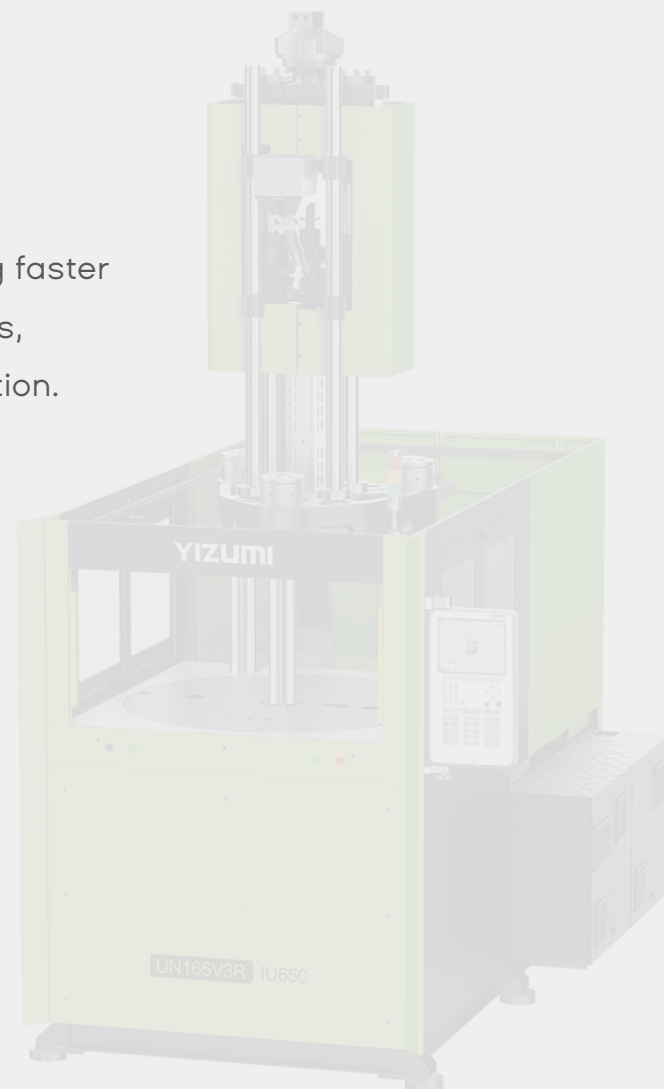
- ▶ Vertical clamping and injection.
- ▶ Ultra-low worktable.
- ▶ Integrated steel plate welded machine frame.
- ▶ Tie-bar-free in mold area, different from traditional vertical clamping structure.



## Rotary Table Series

### V3R Series with Rotary Table (40-300T)

Adaptable to one-over-two mold, enabling faster product picking and placing, shorter cycles, increased efficiency, and effortless operation.



#### Highlights

- ▶ Vertical clamping and injection, rotary table structure with 3 tie bars.
- ▶ Single upper mold with multiple lower mold options for high production efficiency.
- ▶ Two-station 0-180° rotation, picking and placing on the same station, convenient for manual operation and automation design. More precise mechanical positioning.
- ▶ Optional servo-driven rotary table.
- ▶ Ejector powered by independent system, controlled via displacement sensors for synchronized operation, ensuring enhanced stability and efficiency with unique ejector mode.
- ▶ Energy-saving servo hydraulic system for main pump.
- ▶ Austria's KEBA controller.



#### Application

##### Automotive connector

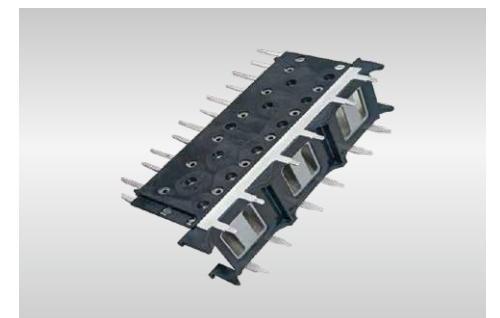
IMM: UN125V3R

Cavity: 2

Material: PPS 1140A6

Weight: 45g/pc

Cycle time: about 30s



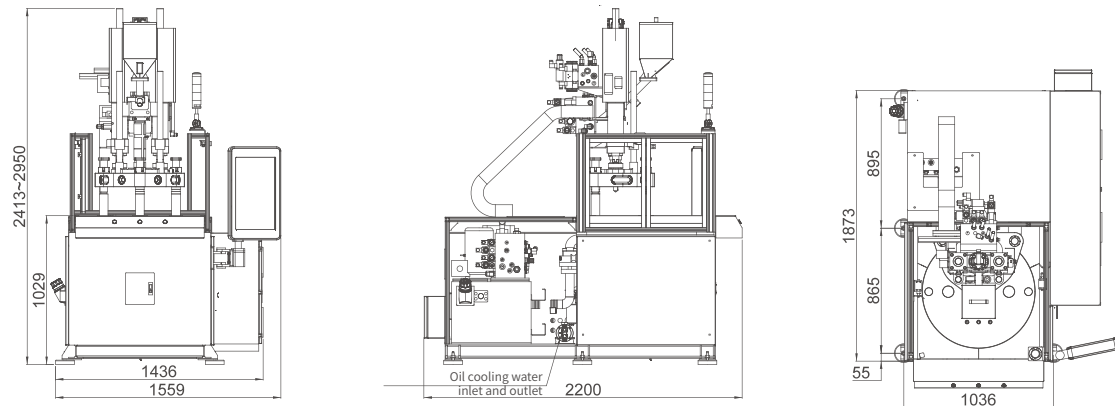
# V3R Series Specifications

Description	Unit	UN40V3R						UN60V3R						UN90V3R						UN125V3R						UN165V3R						UN225V3R						UN300V3R					
Injection Unit																																											
Injection model		IU120			IU200			IU120			IU200			IU200			IU250			IU250			IU405			IU405			IU650			IU650			IU925			IU925			IU1270		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C			
Screw diameter	mm	22	26	30	26	30	35	22	26	30	26	30	35	26	30	35	30	35	40	30	35	40	35	43	48	35	43	48	43	48	53	43	48	53	60	48	53	60	53	60	68		
Theoretical shot volume	cm³	46	64	85	74	99	135	46	64	85	74	99	135	74	99	135	99	135	176	99	135	176	154	232	290	154	232	290	290	362	441	290	362	441	425	518	664	425	518	664	585	749	962
Shot weight	g	42	59	78	68	91	124	42	59	78	68	91	124	68	91	124	91	124	162	91	124	162	142	214	266	142	214	266	267	333	406	267	333	406	391	477	611	391	477	611	538	689	885
Injection pressure	MPa	260	186	140	269	202	149	260	186	140	269	202	149	269	202	149	254	186	143	254	186	143	264	175	140	264	175	140	224	180	147	224	180	147	219	179	140	219	179	140	218	170	132
Screw L:D ratio	L/D	21.1	22.8	22	22.8	22	20.6	21.1	22.8	22	22.8	22	20.6	22.8	22	20.6	24	20.6	19.9	24	20.6	19.9	22.3	22.3	20	22.3	22.3	20	20	22.3	20	20	22	20	20	22	20	20	20	20	20	20	
Injection rate	cm³/s	45	63	83	49	65	88	45	63	83	49	65	88	49	65	88	69	94	123	69	94	123	89	134	167	89	134	167	143	179	218	143	179	218	173	211	271	173	211	271	201	257	330
Max. injection speed	mm/s	117.9			91.8			117.9			91.8			91.8			97.6			97.6			92			92			98.7			98.7			95.8			95.8			90.9		
Screw stroke	mm	120			140			120			140			140			140			140			160			160			200			200			235			235			265		
Max. screw speed	r/min	200			180			200			180			180			190			190			225			225			275			275			217			217			188		
Number of temp. control zones	PCS	4			4			4			4			4			5			5			5			5			5			5			5			5			5		
Clamping Unit																																											
Clamping force	kN	400						600						900						1250						1650						2250						3000					
Movable platen opening force	kN	48						59						95						140						140						241						241					
Min. mold thickness (to mold surface of rotary table)	mm	150+50						200+100						200+100						200+100						250+100						300+100						400+100					
Max. opening stroke	mm	350+50						450+100						450+100						500+100						550+100						700+100						800+100					
Locating ring diameter	mm	100						100						120						120						120						120						120					
Rotary table diameter	mm	780						880						980						1170						1370						1800						2000					
Ejector force	kN	11						11						11						23						23						23						23					
Ejector stroke (from rotary table)	mm	60						100						100						100						125						200						200					
Worktable height	mm	1029						1180						1264						1402						1458						1916						2050					
Power Unit																																											
Heating power	kW	3.7			4.6			3.7			4.6			4.6			6.9			6.9			10.1			10.1			10.9			10.9			14.4			14.4			16.6		
System pressure	MPa	17.5						17.5						17.5/21						17.5/21						17.5/21						17.5/21						17.5/21					
Pump motor	kW	11						11						17.8						25.2						29.3						41.4						41.4					
General																																											
Max. mold moving weight	t	1						1						1						1.5						2						3						4					
Oil tank capacity	L	180						300						340						400						450						500						550					
Machine dimensions (L*W*H)	m	2.2*1.56*2.95(Max. machine height)						2.95*1.8*3.34(Max. machine height)						3.11*1.9*3.7(Max. machine height)						3.2*1.98*4.35(Max. machine height)						3.4*2.15*4.5(Max. machine height)						3.72*2.62*5.78(Max. machine height)						3.92*2.84*6.2(Max. machine height)					
Machine weight	t	2						2.8						4.6						7						9						12						15					

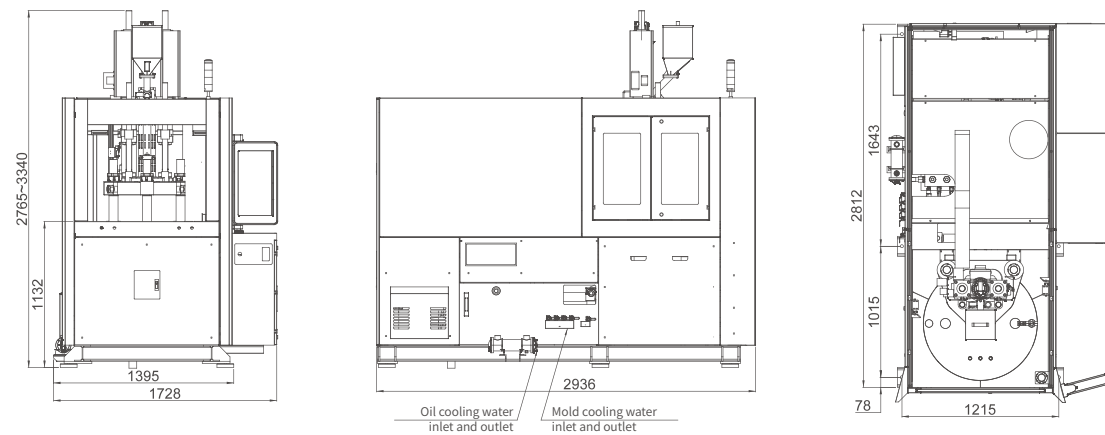


# V3R Series Machine Dimensions

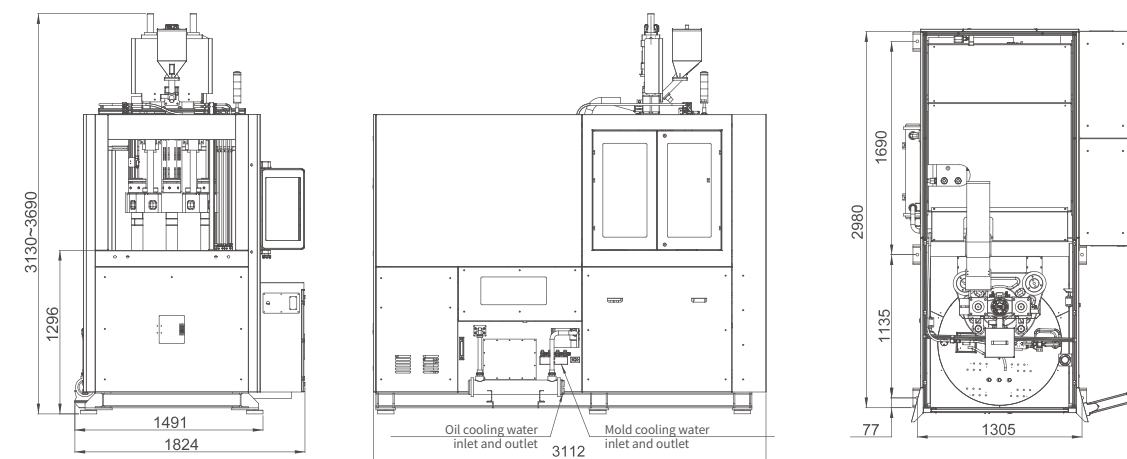
UN40V3R



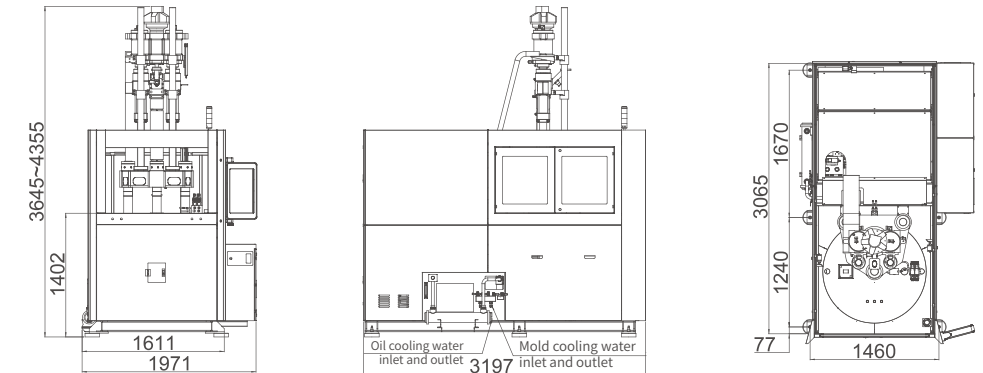
UN60V3R



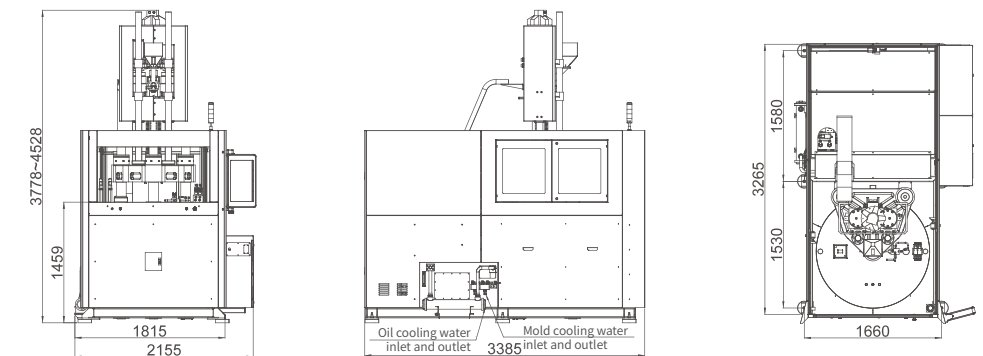
UN90V3R



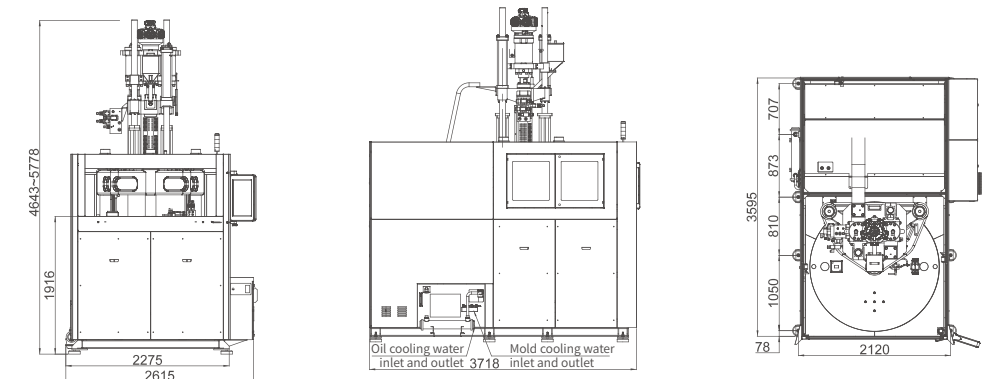
UN125V3R



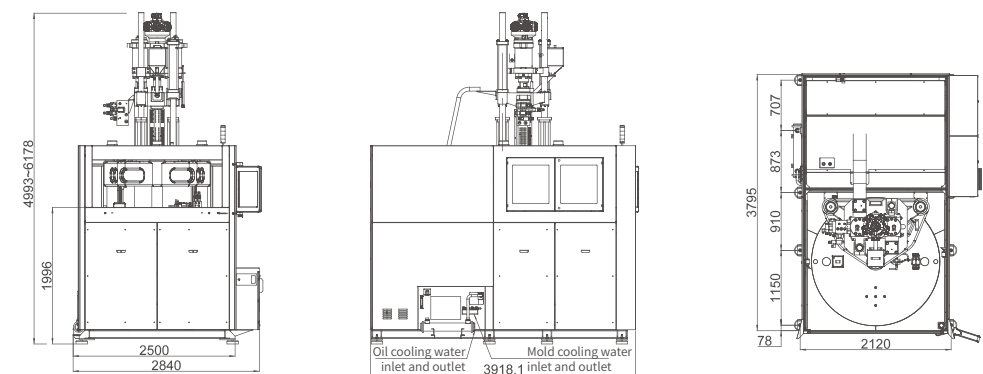
UN165V3R



UN225V3R



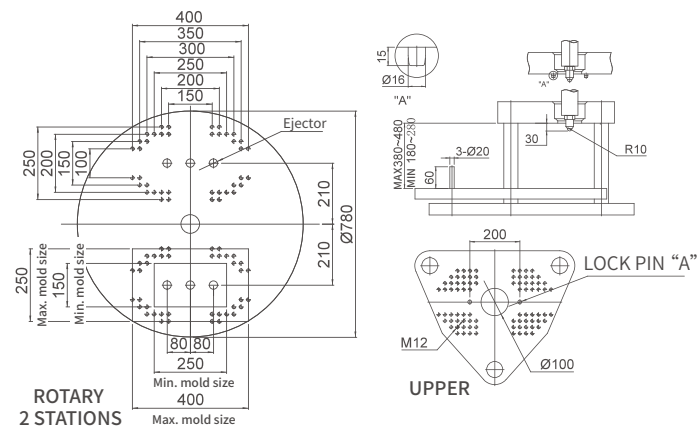
UN300V3R



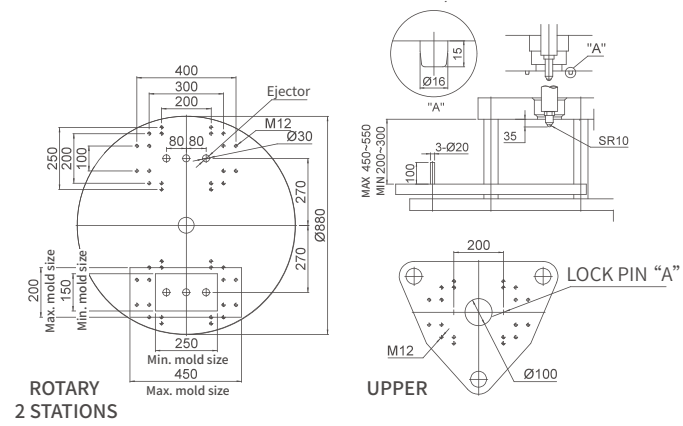
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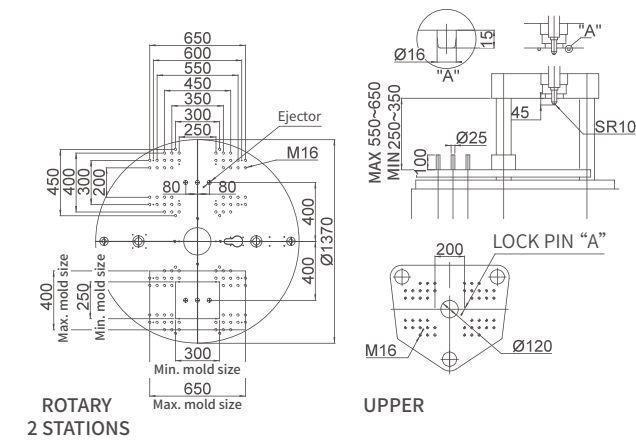
## V3R Series Platen Dimensions



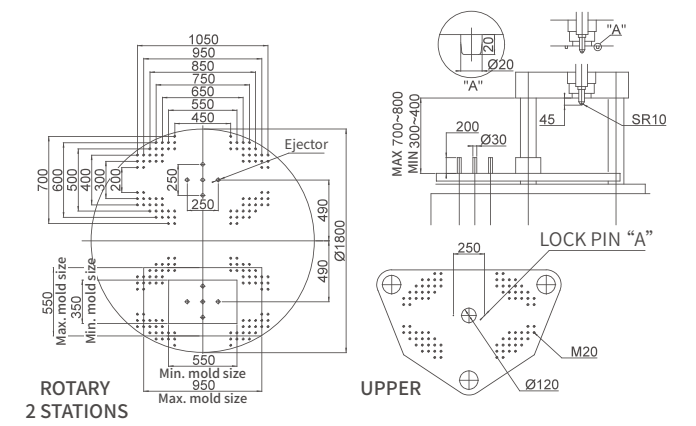
UN40V3R



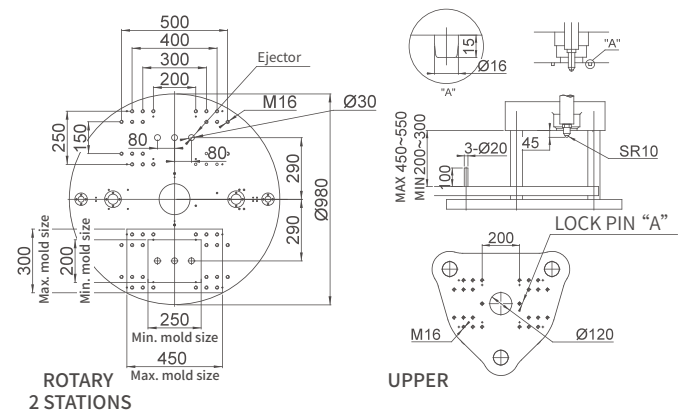
UN60V3R



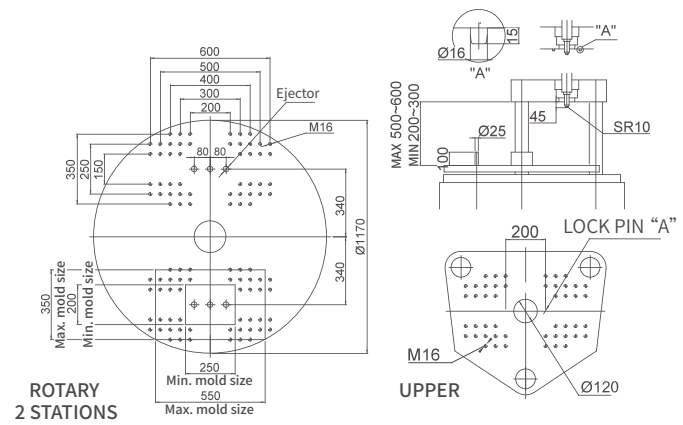
UN165V3R



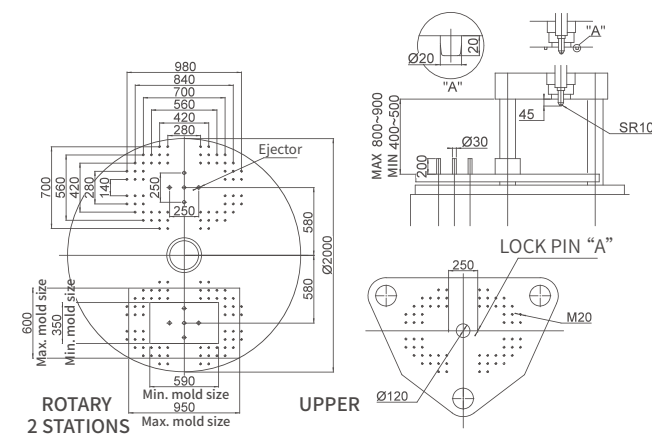
UN225V3R



UN90V3R



UN125V3R



UN300V3R

# V3R Series

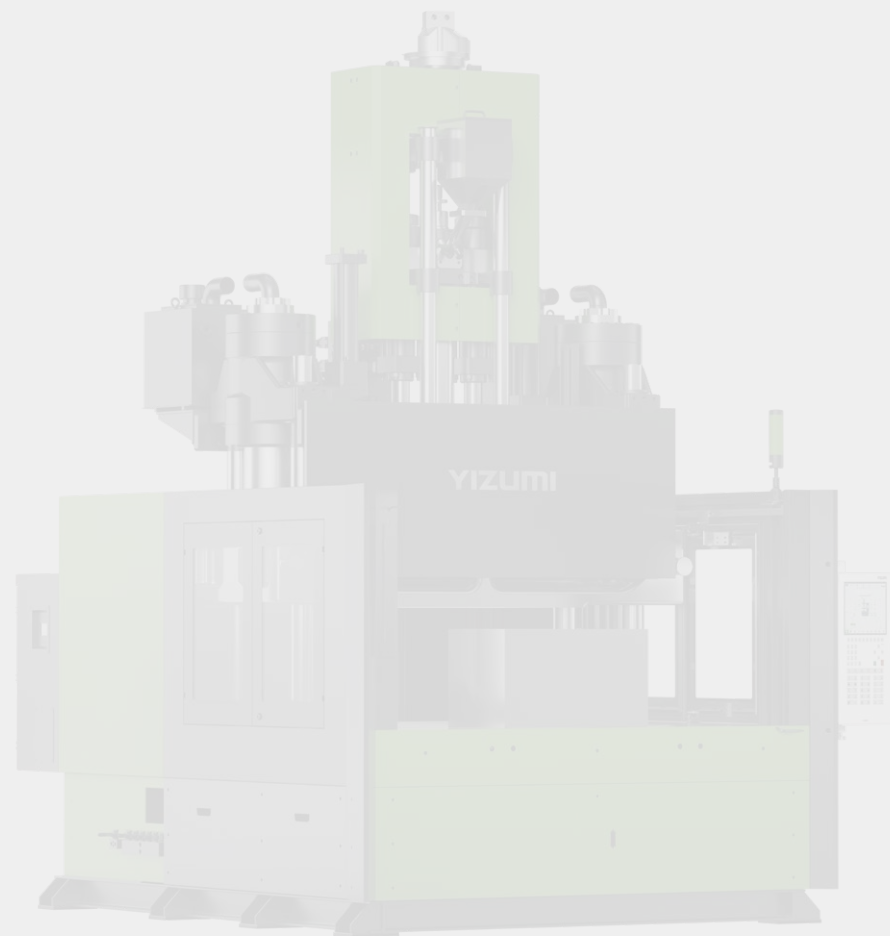
## Standard & Optional Features

Features	Standard	Optional
Clamping Unit		
Direct pressure clamping unit with three tie bars	●	
Rotary table with 2 stations, 180° reversible rotation (single-position mode can be selected via program)	●	
Hydraulic rotary table	●	
Hydraulic ejection system	●	
Low pressure mold protection	●	
Adjustable clamping force as required	●	
Ejector backward end detection	●	
Safety light curtain on operation panel	●	
Side safety doors	●	
High rigidity ductile iron / 45# steel for platen and injection base	●	
Electrical protection device (electrical safety module for standard feature)	●	
Anti-slip pedal in rear clamping area	●	
Displacement sensor for mold opening and closing	●	
Synchronized ejector and core pulling	●	
Adjustable ejector pressure, speed, position on screen (standard for 125T and above models)	●	
Secondary mold closing		○
Increased mold thickness		○
Increased ejector stroke		○
Mold thermal insulation plate		○
Special mold mounting hole		○
Increased opening stroke		○
Increased ejector force		○
Rotary table driven by hydraulic motor		○
Mechanical safety locking rod		○
Electrical Control System		
Manual, semi-auto and fully-auto operating mode	●	
Closed-loop PID barrel temperature control	●	
Input and output inspection interface	●	
Automatic alarm messaging/ audible and visual alarm system	●	
Built-in software with oscilloscope function (injection curve, clamping curve)	●	
Process parameter storage>200	●	
Automatic mold height adjustment	●	
Chinese and English operating system	●	
Online cycle monitoring	●	
12" TFT color display	●	
PDP interface	●	
Injection monitoring protection	●	
Mold-close monitoring protection	●	
Statistical process control (SPC) interface	●	
IP54 electrical cabinet	●	
Screw speed detecting device	●	
Optional control modes of switchover to holding ( time / position / time + position)	●	
Multi-level of user access	●	
Automatic heat-retaining and heating function	●	
380V 32A socket		○
380V 16A socket		○
Reserved SPI/ Euromap 12 robot interfaces		○
Servo injection		○
Hot runner interface		○
Auxiliary emergency stop button		○
Air blowing in fixed molds		○

	Standard	Optional
Special power supply		○
Central (networked) monitoring system		○
Protective light curtain of rear safety gates		○
Injection Unit		
Nitrided screw and barrel	●	
Displacement sensor for injection position	●	
Barrel heat-retaining guard	●	
Barrel heating controlled by SSR	●	
Independent temperature control for nozzle	●	
Optional suck-back before or after plasticizing	●	
6-stage injection speed/ pressure/ position control	●	
5-stage holding speed/ pressure/ position/ time control	●	
3-stage plasticizing speed/ pressure/ position/ time control	●	
Cold start protection	●	
Manual central lubrication system of injection unit	●	
Automatic purging	●	
Screw rotation measuring device	●	
Nozzle temperature control with SCR		○
Injection carriage transducer		○
Mixing screw		○
Bi-metallic screw barrel		○
Extended nozzle (50, 100)		○
Special screw and barrel component		○
Heat-retaining and energy-saving barrel (silicone cover)		○
Spring shut-off nozzle		○
Increased injection stroke		○
Closed-loop temperature detection of feeding port		○
Hydraulic System		
Proportional control for plasticizing back pressure	●	
Oil pre-heating system	●	
Two sets of water circuits for rotary table and one set for upper mold	●	
Automatic calibration of system pressure and flow	●	
Oil temperature and oil level detection	●	
High-performance servo pump system	●	
Sequential gate valve control interfaces		○
Variable displacement pump system		○
Closed-loop proportional variable displacement pump system		○
High-response servo injection system with accumulator		○
Enhanced oil cooler		○
Multi-level enhanced pump motor		○
Multi-level enhanced plasticizing motor		○
Servo injection (closed-loop control of injection, plasticizing, holding pressure, back pressure)		○
Multiple sets of core pulling and unscrewing devices with electrical interfaces		○
General		
Adjustable leveling pad	●	
User manual	●	
Nozzle wrench	●	
Mold clamp	●	
Hydraulic oil		○
Mold temperature controller		○
Auto loader		○
Dehumidifier		○

## Rotary Table Series

### V4UR Series with Low Worktable and Rotary Table (125-500T)



#### Highlights

- ▶ Double-cylinder clamping, ensuring more stable clamping.
- ▶ Lower worktable height, making it easier to pick and place parts, enhancing safety for manual operations and convenience for automation.
- ▶ Machine height significantly reduced, lowering the requirements for workshop height and making it suitable for layout of more machines.
- ▶ Austria's KEBA controller



#### Application

##### Wire harness clip

IMM: UN165V4UR+UN40V4S

Cavity: 4

Material: PA66 + 30% self-adhesive silicone

Size (D\*H):  $\phi 40 \times 20$ mm

Weight: 45g/pc

Cycle time: 100s



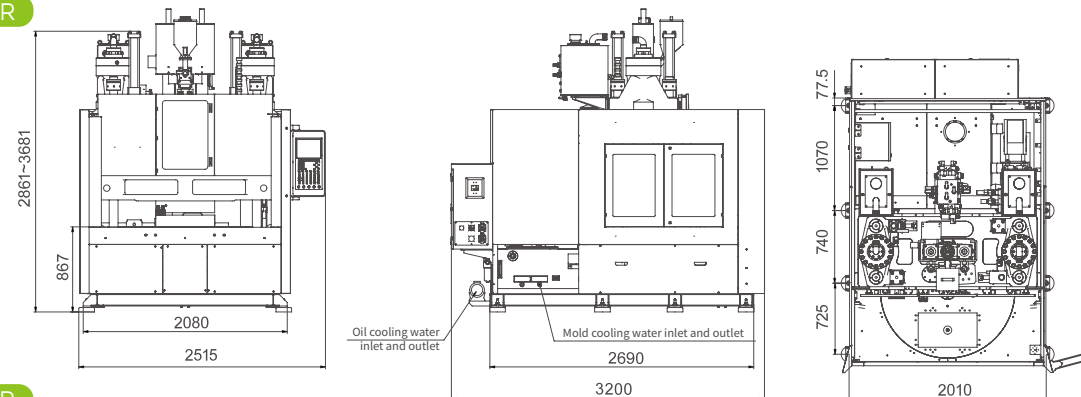
# V4UR Series Specifications

Description	UNIT	UN125V4UR						UN165V4UR						UN225V4UR						UN300V4UR					
Injection Unit																									
Injection model		IU250			IU405			IU405			IU650			IU650			IU925			IU925			IU1270		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Screw diameter	mm	30	35	40	35	43	48	35	43	48	43	48	53	43	48	53	48	53	60	48	53	60	53	60	68
Theoretical shot volume	cm³	99	135	176	154	232	290	154	232	290	290	362	441	290	362	441	425	518	664	425	518	664	585	749	962
Shot weight	g	91	124	162	142	214	266	142	214	266	267	333	406	267	333	406	391	477	611	391	477	611	538	689	885
Injection pressure	MPa	254	186	143	264	175	140	264	175	140	224	180	147	224	180	147	219	179	140	219	179	140	218	170	132
Screw L:D ratio	L/D	24	20.6	19.9	22.3	22.3	20	22.3	22.3	20	22.3	20	20	22.3	20	20	22	20	20	22	20	20	20	20	20
Injection rate	cm³/s	69	94	123	89	134	167	89	134	167	143	179	218	143	179	218	173	211	271	173	211	271	201	257	330
Max. injection speed	mm/s	97.6			92			92			98.7			98.7			95.8			95.8			90.9		
Screw stroke	mm	140			160			160			200			200			235			235			265		
Max. screw speed	r/min	190			200			200			200			200			200			200			200		
Number of temp. control zones	PCS	5			5			5			5			5			5			5			5		
Clamping Unit																									
Clamping force	kN	1250						1650						2250						3000					
Movable platen opening force	kN	140						140						241						241					
Min. mold thickness (to mold surface of rotary table)	mm	250						300						300						400					
Max. opening stroke	mm	650						700						700						900					
Locating ring diameter	mm	120						120						120						120					
Rotary table diameter	mm	1370						1500						1800						2000					
Ejector force	kN	23						23						23						23					
Ejector stroke (from rotary table)	mm	125						125						200						200					
Power Unit																									
Heating power	kW	6.9			10.1			10.1			10.9			10.9			14.4			14.4			16.6		
System pressure	MPa	17.5/21						17.5/21						17.5/21						17.5/21					
Pump motor	kW	25.2						29.3						29.3						41.4					
General																									
Max. mold moving weight	T	2						2						2						4					
Oil tank capacity	L	400						400						510						560					
Machine dimensions (L*W*H)	m	3.2*2.5*3.7(Max. machine height)						3.2*2.7*4.2(Max. machine height)						3.6*3.1*4.6(Max. machine height)						4*3.3*5.3(Max. machine height)					
Machine weight	T	16						16						23						29					

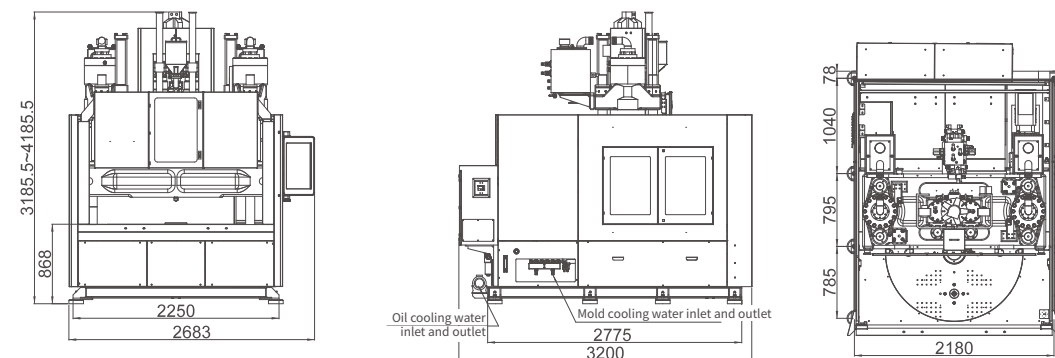
1. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.  
2. The screw in the medium is standard on the machine.  
3. The injection unit data are in international units and calculated as follows: theoretical shot volume [cm³] × injection pressure (MPa)/100  
4. The green figures are standard specifications of clamping unit and injection unit.  
5. Because of constant technical improvement, the machine specifications are subject to change without notice.

## V4UR Series Machine Dimensions

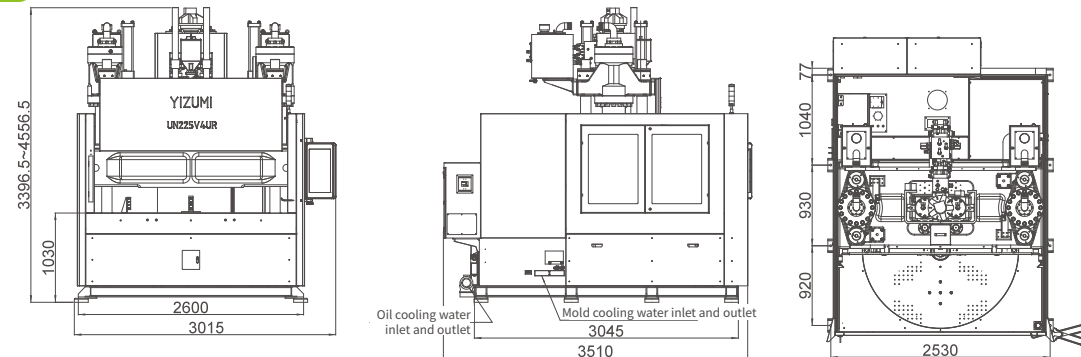
UN125V4UR



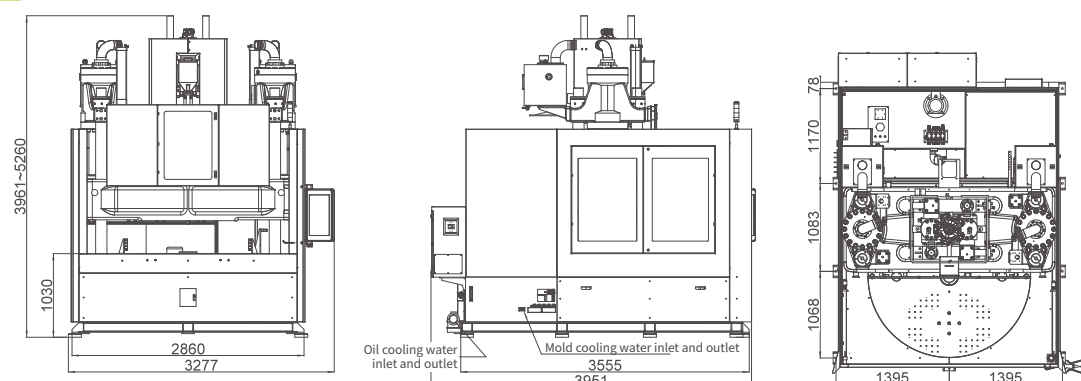
UN165V4UR



UN225V4UR

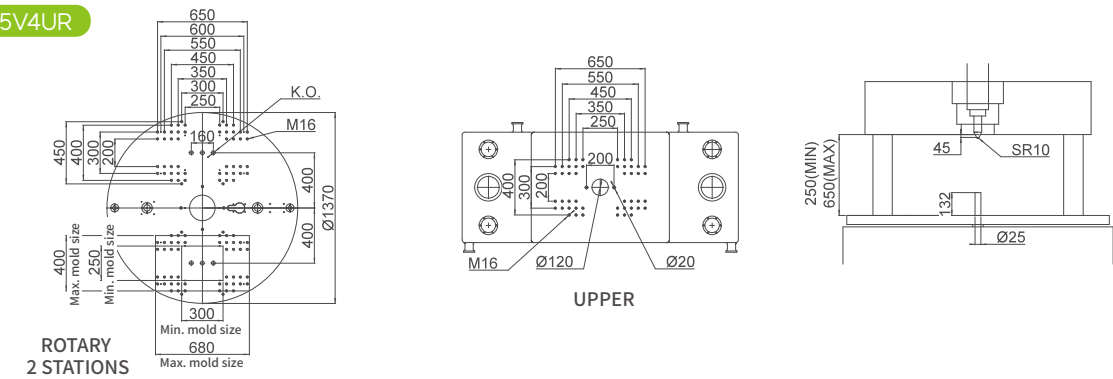


UN300V4UR

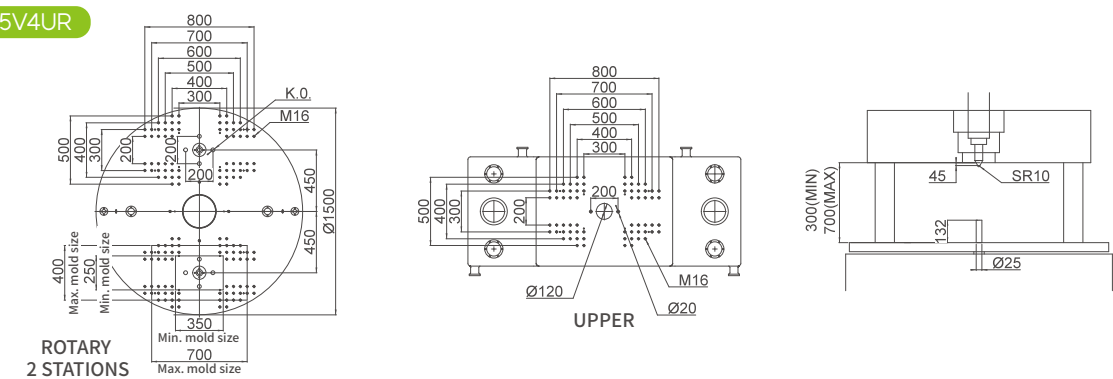


## V4UR Series Platen Dimensions

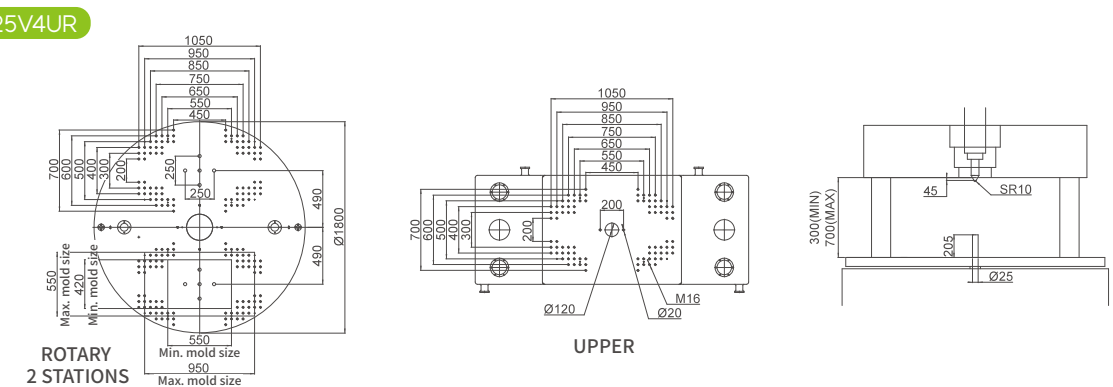
UN125V4UR



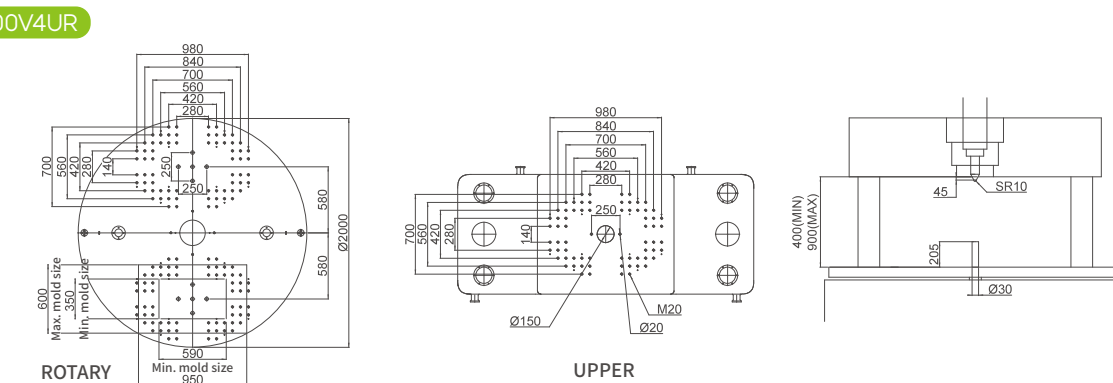
UN165V4UR



UN225V4UR



UN300V4UR



\* The data above were acquired by testing in the factory, only for your reference.

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# V4UR Series

## Standard & Optional Features

Features	Standard	Optional
Clamping Unit		
Direct pressure clamping unit with four tie bars	●	
Rotary table with 2 stations, 180° reversible rotation (single-position mode can be selected via program)	●	
Servo rotary table	●	
Hydraulic ejection system	●	
Low pressure mold protection	●	
Adjustable clamping force as required	●	
Ejector backward end detection	●	
Safety light curtain on operation panel	●	
Side safety doors	●	
High rigidity ductile iron / 45# steel for platen and injection base	●	
Electrical protection device (electrical safety module for standard feature)	●	
Anti-slip pedal in rear clamping area	●	
Displacement sensor for mold opening and closing	●	
Synchronized ejector and core pulling	●	
Adjustable ejector pressure, speed, position on screen	●	
Secondary mold closing		○
Increased mold thickness		○
Increased ejector stroke		○
Mold thermal insulation plate		○
Special mold mounting hole		○
Increased opening stroke		○
Increased ejector force		○
Rotary table driven by hydraulic motor		○
Mechanical safety locking rod		○
Electrical Control System		
Manual, semi-auto and fully-auto operating mode	●	
Closed-loop PID barrel temperature control	●	
Input and output inspection interface	●	
Automatic alarm messaging/ audible and visual alarm system	●	
Built-in software with oscilloscope function (injection curve, clamping curve)	●	
Process parameter storage >200	●	
Automatic mold height adjustment	●	
Chinese and English operating system	●	
Online cycle monitoring	●	
12" TFT color display	●	
PDP interface	●	
Injection monitoring protection	●	
Mold-close monitoring protection	●	
Statistical process control (SPC) interface	●	
IP54 electrical cabinet	●	
Screw speed detecting device	●	
Optional control modes of switchover to holding ( time / position / time + position)	●	
Multi-level of user access	●	
Automatic heat-retaining and heating function	●	
380V 32A socket	●	
380V 16A socket	●	
Reserved SPI/ Euromap 12 robot interfaces	●	
Servo injection		○
Hot runner interface		○
Auxiliary emergency stop button		○

	Standard	Optional
Air blowing in fixed mold		○
Special power supply		○
Central (networked) monitoring system		○
Protective light curtain of rear safety gates		○
Injection Unit		
Nitrided screw and barrel	●	
Displacement sensor for injection position	●	
Barrel heat-retaining guard	●	
Barrel heating controlled by SSR	●	
Optional suck-back before or after plasticizing	●	
6-stage injection speed/ pressure/ position control	●	
5-stage holding speed/ pressure/ position/ time control	●	
3-stage plasticizing speed/ pressure/ position/ time control	●	
Cold start protection	●	
Manual central lubrication system of injection unit	●	
Automatic purging	●	
Screw rotation measuring device	●	
Nozzle temperature control with SCR		○
Injection carriage transducer		○
Mixing screw		○
Bi-metallic screw barrel		○
Extended nozzle (50, 100)		○
Special screw and barrel component		○
Heat-retaining and energy-saving barrel (silicone cover)		○
Spring shut-off nozzle		○
Increased injection stroke		○
Closed-loop temperature detection of feeding port		○
Hydraulic System		
Proportional control for plasticizing back pressure	●	
Oil pre-heating system	●	
One set of water channels for each of upper and lower molds	●	
Automatic calibration of system pressure and flow	●	
Oil temperature and oil level detection	●	
High-performance servo pump system	●	
Sequential gate valve control interfaces		○
Variable displacement pump system		○
Closed-loop proportional variable displacement pump system		○
High-response servo injection system with accumulator		○
Enhanced oil cooler		○
Multi-level enhanced pump motor		○
Multi-level enhanced plasticizing motor		○
Servo injection (closed-loop control of injection, plasticizing, holding pressure, back pressure)		○
Multiple sets of core pulling and unscrewing devices with electrical interfaces		○
General		
Adjustable leveling pad	●	
User manual	●	
Nozzle wrench	●	
Mold clamp	●	
Hydraulic oil		○
Mold temperature controller		○
Auto loader		○
Dehumidifier		○

\* The data above were acquired by testing in the factory, only for your reference.

## Rotary Table Series

### V4UKR Series with Vertical Clamping and Horizontal Injection (125-500T)



#### Highlights

- ▶ Servo system, fast response, strong power and low energy consumption.
- ▶ Accurate control, humanized design, reliable and stable.
- ▶ Direct clamping + High-rigidity platen.
- ▶ Vertical clamping, horizontal injection.
- ▶ Suitable for molding of plastic products with inserts and multi-purpose injection molding process.
- ▶ Low pressure and slow mold closing for mold protection.
- ▶ Ultra-low worktable.





# V4UKR Series Specifications

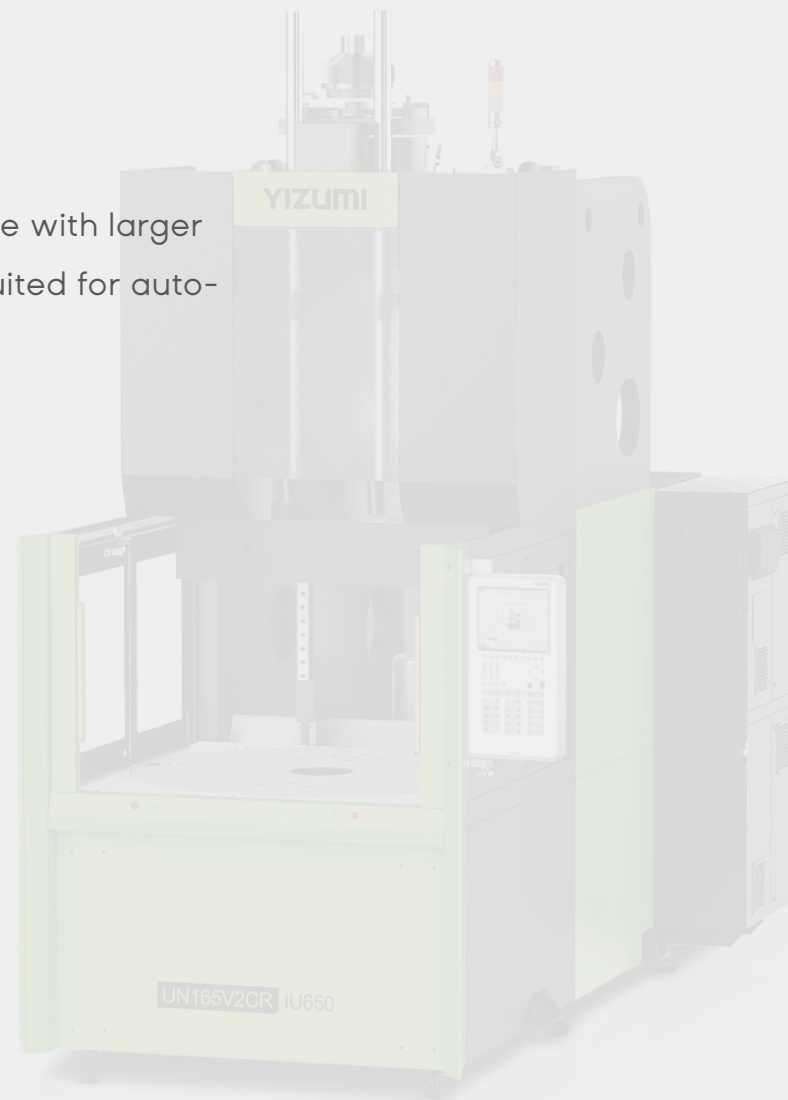
Description	UNIT	UN125V4UKR			UN165V4UKR			UN225V4UKR			UN300V4UKR			UN500V4UKR		
Injection Unit																
Injection model		IU604			IU895			IU1269			IU1885			IU2695		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Screw diameter	mm	43	48	53	48	53	60	53	60	68	60	68	76	68	76	84
Theoretical shot volume	cm³	297	371	452	425	518	664	584.6	749.3	962.4	834	1071	1338	1198	1497	1828
Shot weight	g	274	341	416	391	477	611	537.9	689.3	885.4	767	986	1231	1102	1377	1682
Injection pressure	MPa	203	162	133	210	172	134	217	169	131	226	176	141	224	179	147
Screw L:D ratio	L/D	22.3	20	20	22	20	20	22.6	20	20	22.6	20	20	22.3	20	20
Injection rate	cm³/s	143	178	217	160	195	251	174	223	287	231	297	972	322	403	492
Max. injection speed	mm/s	99			89			79			82			89		
Screw stroke	mm	205			235			265			295			295		
Max. screw speed	r/min	250			194			200			200			200		
Number of temp. control zones	PCS	5			5			5			5			5		
Clamping Unit																
Clamping force	kN	1250			1650			2250			3000			5000		
Movable platen opening force	kN	140			140			241			241			241		
Min. mold thickness (to mold surface of rotary table)	mm	300			300			300			400			400		
Max. opening stroke	mm	700			700			700			900			1000		
Locating ring diameter	mm	120			120			120			120			120		
Rotary table diameter	mm	1370			1500			1800			2000			2000		
Nozzle height adjustment range	mm	165~265			175~275			300~400			330~430			330~430		
Distance from nozzle to mold center	mm	100			135			200			200			200		
Carriage stroke	mm	350			350			400			400			400		
Ejector force	kN	23			23			23			23			23		
Ejector stroke (from rotary table)	mm	125			125			200			200			200		
Power Unit																
System pressure	MPa	17.5/21			17.5/21			17.5/21			17.5/21			17.5/21		
Pump motor	kW	29.3			29.3			41.4			55.6			60		
General																
Max. mold moving weight	t	2			2			2			4			4		
Machine dimensions (L*W*H)	m	6.6*2.4*2.9 (Max. machine height)			6.8*2.5*3 (Max. machine height)			7.3*2.9*3.3 (Max. machine height)			7.5*3.4*3.7 (Max. machine height)			7.5*3.4*4.4 (Max. machine height)		
Machine weight	t	12			15			18			25			31		

1. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.  
2. The screw in the medium is standard on the machine.  
3. The injection unit data are in international units and calculated as follows: theoretical shot volume [cm³] × injection pressure [MPa]/100  
4. The green figures are standard specifications of clamping unit and injection unit.  
5. Because of constant technical improvement, the machine specifications are subject to change without notice.

## Rotary Table Series

### V2CR Series C-type with Rotary Table (60-165T)

Enhanced open operating space with larger mold accommodation, better suited for automated production lines.



#### Highlights

- ▶ Vertical clamping and injection.
- ▶ Ultra-low worktable.
- ▶ Large diameter rotary table.
- ▶ Integrated steel plate welded machine frame.
- ▶ Tie-bar-free in mold area, different from traditional vertical clamping structure.



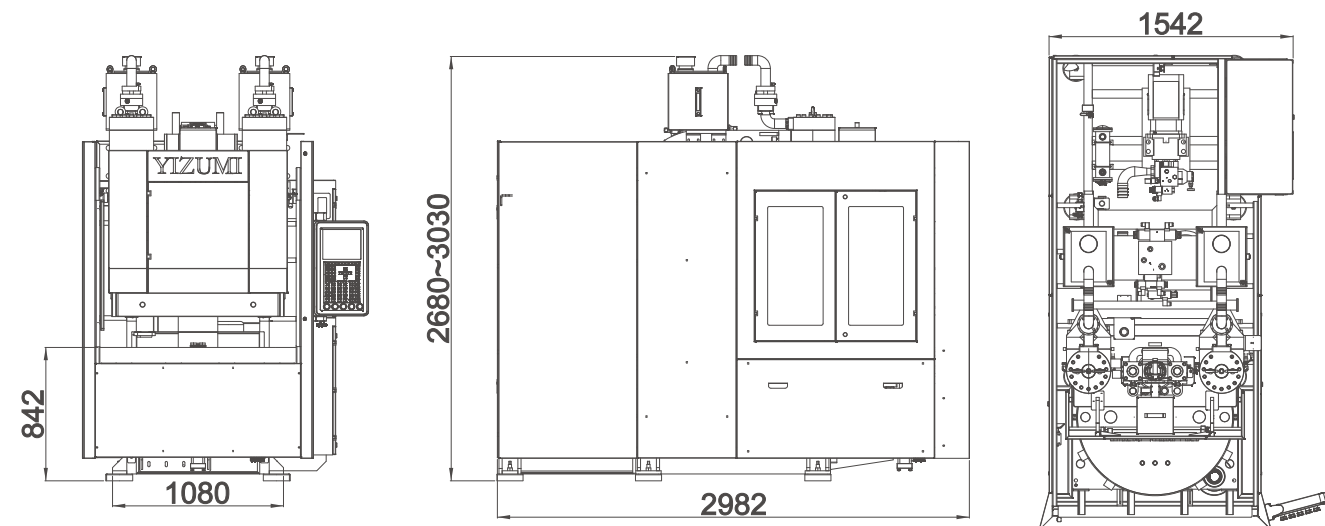
# V2CR Series Specifications

Description	UNIT	UN60V2CR						UN90V2CR						UN125V2CR						UN165V2CR					
Injection Unit																									
Injection model		IU120			IU200			IU200			IU250			IU250			IU405			IU405			IU650		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Screw diameter	mm	22	26	30	26	30	35	26	30	35	30	35	40	30	35	40	35	43	48	35	43	48	43	48	53
Theoretical shot volume	cm³	46	64	85	74	99	135	74	99	135	99	135	176	99	135	176	154	232	290	154	232	290	290	362	441
Shot weight	g	42	59	78	68	91	124	68	91	124	91	124	162	91	124	162	142	214	266	142	214	266	267	333	406
Injection pressure	MPa	260	186	140	269	202	149	269	202	149	254	186	143	254	186	143	264	175	140	264	175	140	224	180	147
Screw L:D ratio	L/D	21.1	22.8	22	22.8	22	20.6	22.8	22	20.6	24	20.6	19.9	24	20.6	19.9	22.3	22.3	20	22.3	22.3	20	22.3	20	20
Injection rate	cm³/s	45	63	83	49	65	88	49	65	88	69	94	123	69	94	123	89	134	167	89	134	167	143	179	218
Max. injection speed	mm/s	117.9			91.8			91.8			97.6			97.6			92			92			98.7		
Screw stroke	mm	120			140			140			140			140			160			160			200		
Max. screw speed	r/min	200			180			180			190			190			225			225			200		
Number of temp. control zones	PCS	4			4			4			5			5			5			5			5		
Clamping Unit																									
Clamping force	kN	600						900						1250						1650					
Movable platen opening force	kN	103						103						140						140					
Min. mold thickness (to mold surface of rotary table)	mm	200						200						250						300					
Max. opening stroke	mm	550						600						650						700					
Locating ring diameter	mm	100						120						120						120					
Rotary table diameter	mm	980						1200						1370						1500					
Ejector force	kN	23						23						35						35					
Ejector stroke (from rotary table)	mm	105						105						105						125					
Worktable height	mm	830						830						900						980					
Power Unit																									
Heating power	kW	3.7			4.6			4.6			6.9			6.9			10.1			10.1			10.9		
System pressure	MPa	17.5						17.5						17.5/21						17.5/21					
Pump motor	kW	11						17.8						25.2						29.3					
General																									
Max. mold moving weight	t	1						1.5						1.5						2					
Oil tank capacity	L	230						300						400						450					
Machine dimensions (L*W*H)	m	3.0*1.6*3.0(Max. machine height)						3.1*1.6*3.2(Max. machine height)						3.61*2.1*3.5(Max. machine height)						3.84*2.2*4.2(Max. machine height)					
Machine weight	t	6.5						9						14						21					

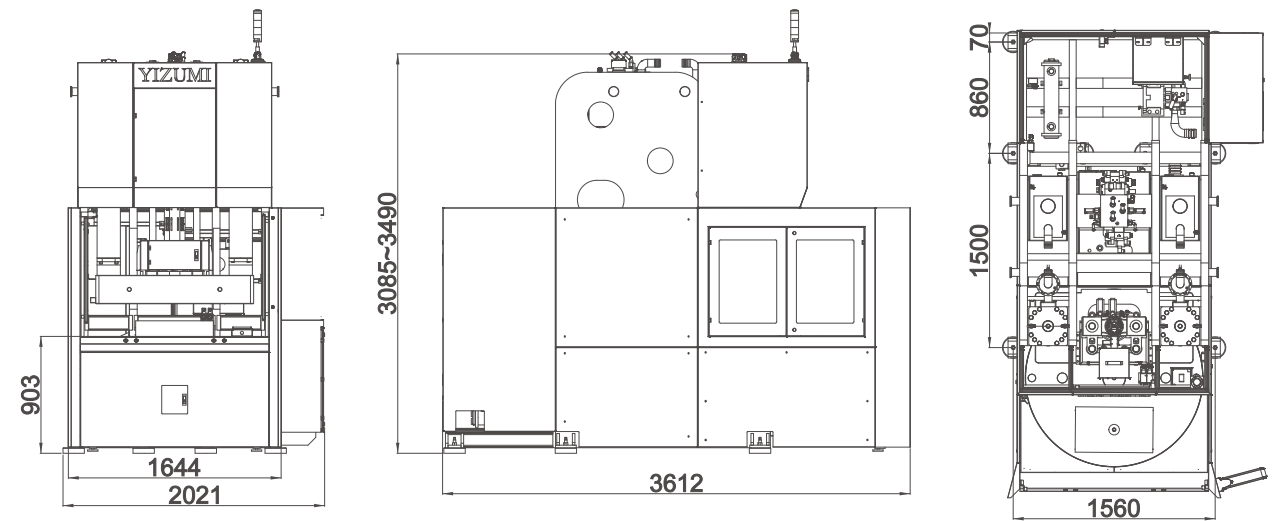
1. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.  
2. The screw in the medium is standard on the machine.  
3. The injection unit data are in international units and calculated as follows: theoretical shot volume [cm³] × injection pressure (MPa)/100  
4. The green figures are standard specifications of clamping unit and injection unit.  
5. Because of constant technical improvement, the machine specifications are subject to change without notice.

# V2CR Series Machine Dimensions

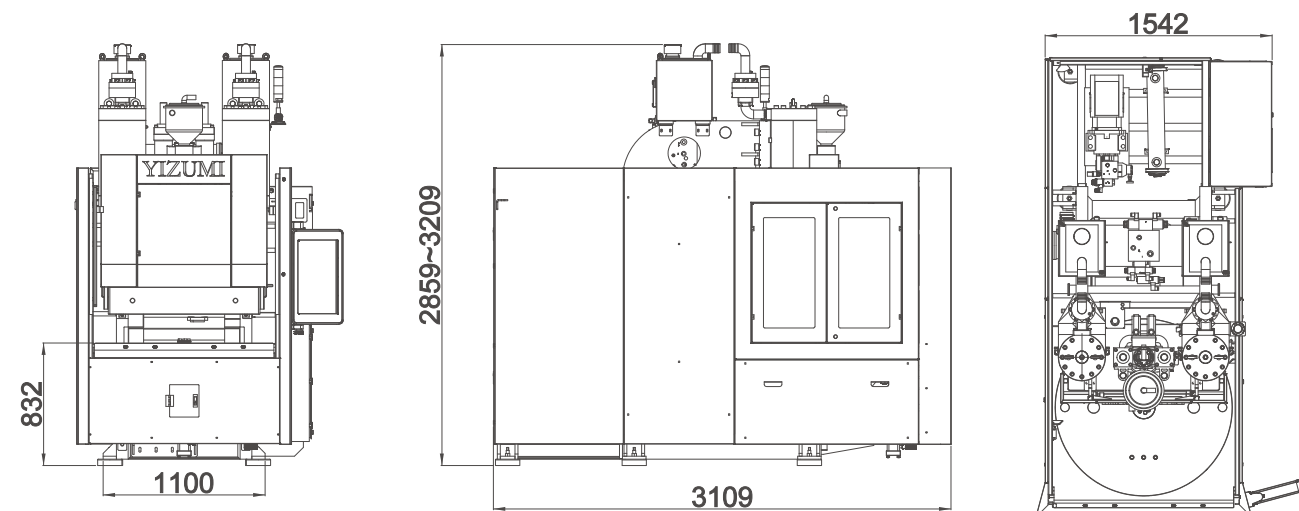
UN60V2CR



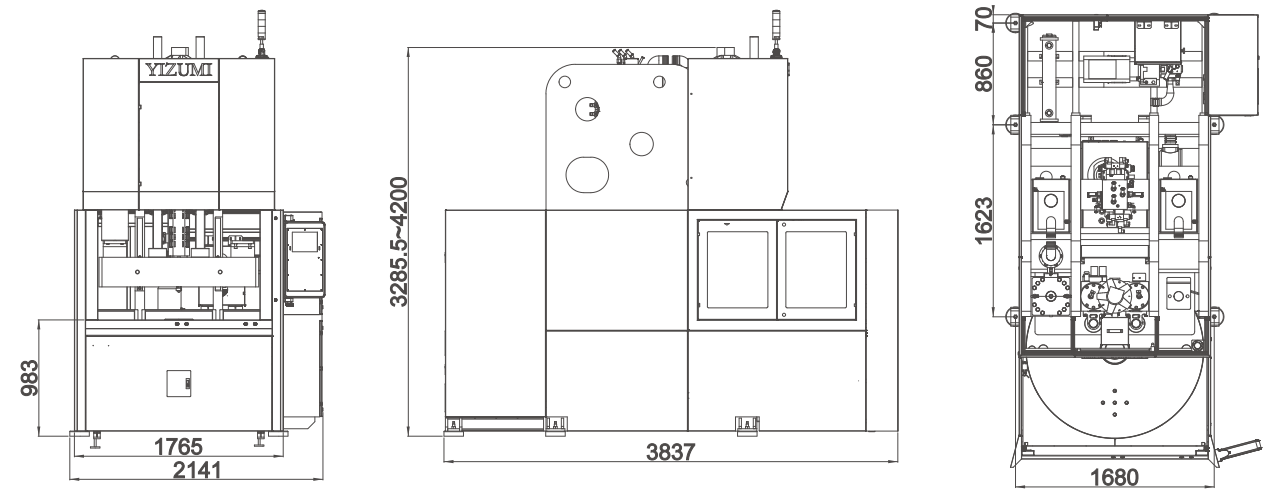
UN125V2CR



UN90V2CR



UN165V2CR



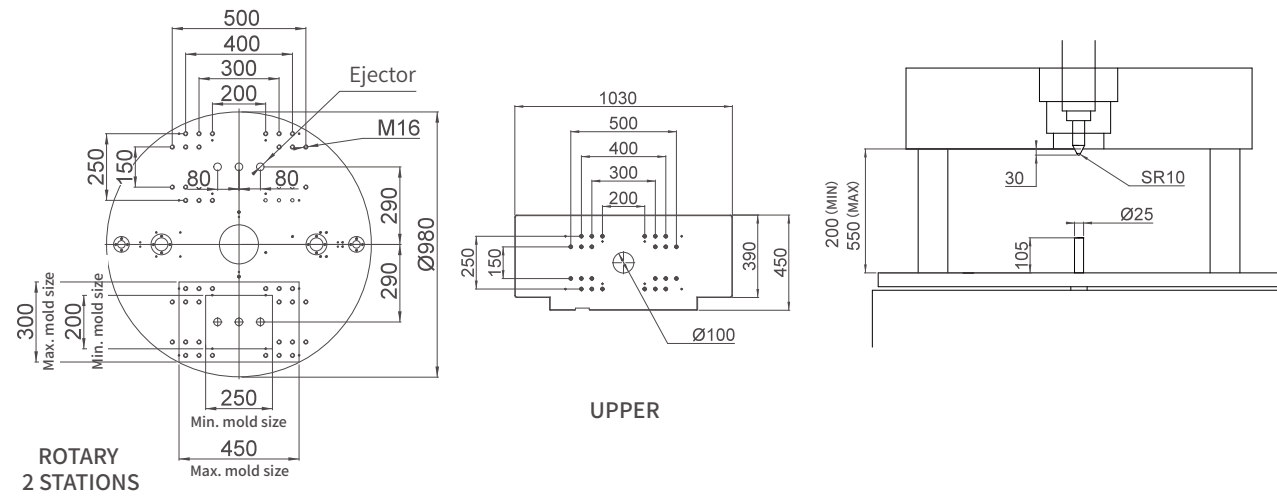
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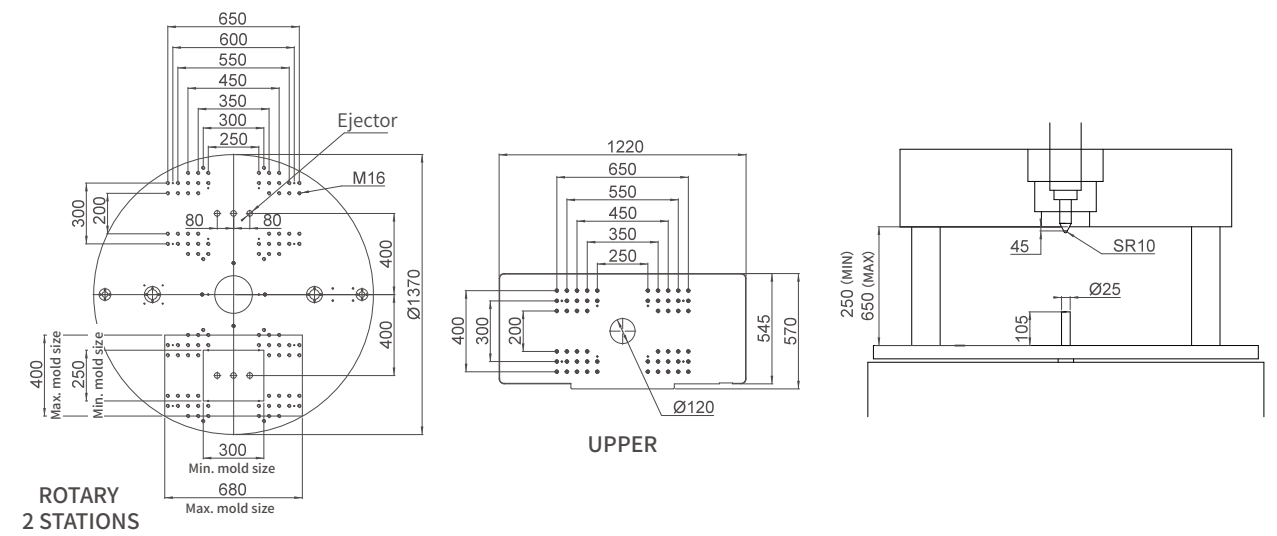
# V2CR Series

## Platen Dimensions

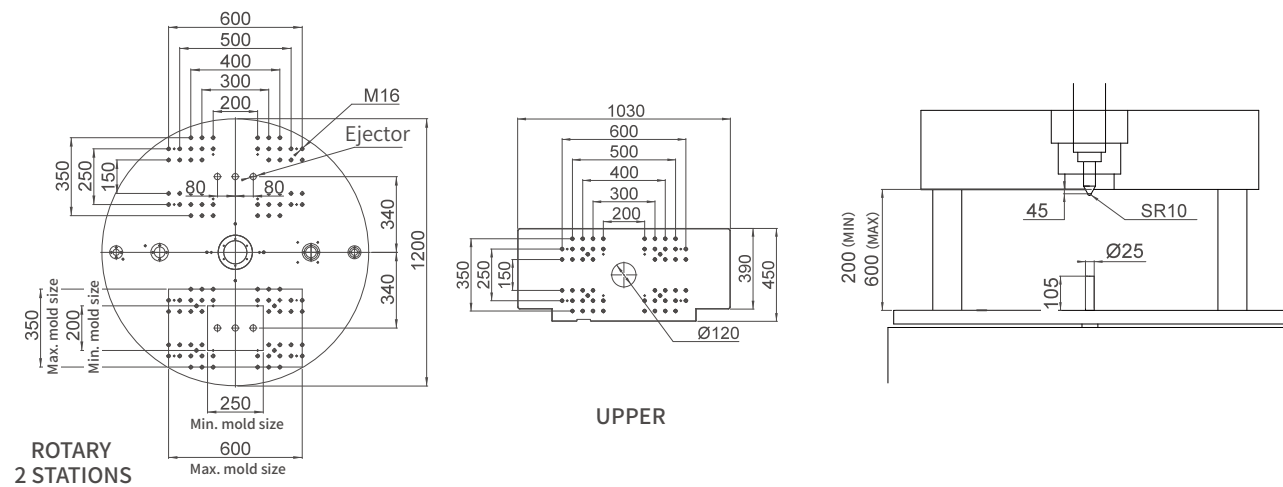
UN60V2CR



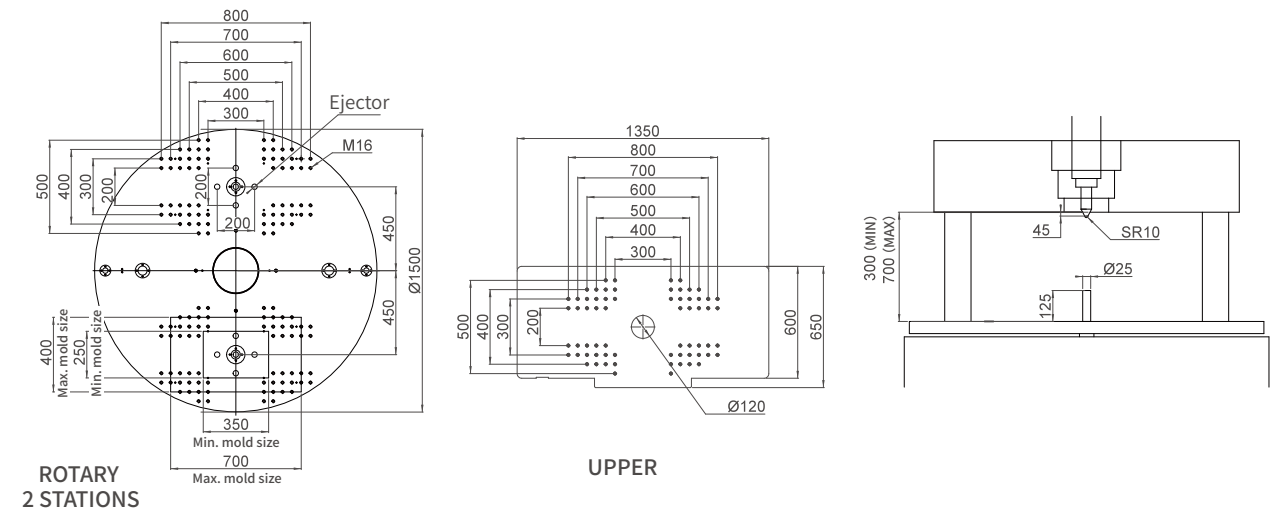
UN125V2CR



UN90V2CR



UN165V2CR



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# V2CR Series

## Standard & Optional Features

Features	Standard	Optional
Clamping Unit		
C-type direct pressure clamping unit	●	
Rotary table with 2 stations, 180° reversible rotation (single-position mode can be selected via program)	●	
Servo-driven rotary table	●	
Hydraulic ejection system	●	
Low-pressure mold protection function	●	
Adjustable clamping force as required	●	
Ejector backward end detection	●	
Safety light curtain on operation panel	●	
Side safety doors	●	
High rigidity ductile iron / 45# steel for platen and injection base	●	
Electrical protection device (electrical safety module for standard feature)	●	
Anti-slip pedal in rear clamping area	●	
Displacement sensor for mold opening and closing	●	
Synchronized ejector and core pulling	●	
Adjustable ejector pressure, speed, position on screen	●	
Secondary mold closing		○
Increased mold thickness		○
Increased ejector stroke		○
Mold thermal insulation plate		○
Special mold mounting hole		○
Increased opening stroke		○
Increased ejector force		○
Rotary table driven by hydraulic motor		○
Mechanical safety locking rod		○
Electrical Control System		
Manual, semi-auto and fully-auto operating mode	●	
Closed-loop PID barrel temperature control	●	
Input and output inspection interface	●	
Automatic alarm messaging/ audible and visual alarm system	●	
Built-in software with oscilloscope function (injection curve, clamping curve)	●	
Process parameter storage>200	●	
Automatic mold height adjustment	●	
Chinese and English operating system	●	
Online cycle monitoring	●	
12" TFT color display	●	
PDP interface	●	
Injection monitoring protection	●	
Mold-close monitoring protection	●	
Statistical process control (SPC) interface	●	
IP54 electrical cabinet	●	
Screw speed detecting device	●	
Optional control modes of switchover to holding ( time / position / time + position)	●	
Multi-level of user access	●	
Automatic heat-retaining and heating function	●	
380V 32A socket	●	
380V 16A socket	●	
Reserved SPI/ Euromap 12 robot interfaces	●	
Servo injection		○
Hot runner interface		○
Auxiliary emergency stop button		○

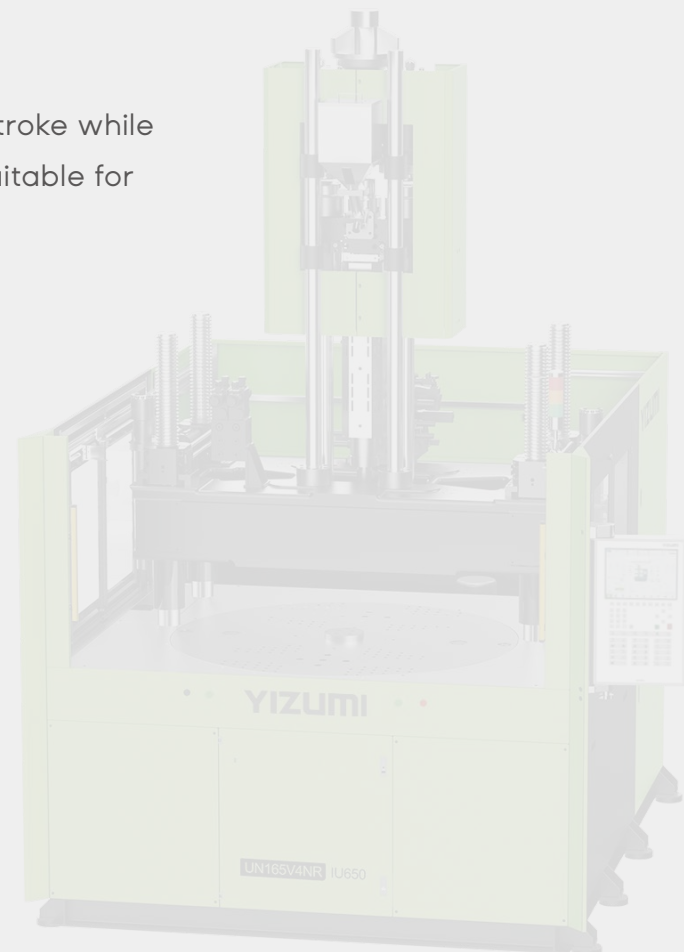
	Standard	Optional
Air blowing in fixed mold		○
Special power supply		○
Central (networked) monitoring system		○
Protective light curtain of rear safety gates		○
Injection Unit		
Nitrided screw and barrel	●	
Displacement sensor for injection position	●	
Barrel heat-retaining guard	●	
Barrel heating controlled by SSR	●	
Optional suck-back before or after plasticizing	●	
6-stage injection speed/ pressure/ position control	●	
5-stage holding speeds/ pressure/ position/ time control	●	
3-stage plasticizing speed/ pressure/ position/ time control	●	
Cold start protection	●	
Manual central lubrication system of injection unit	●	
Automatic purging	●	
Screw rotation measuring device	●	
Nozzle temperature control with SCR		○
Injection carriage transducer		○
Mixing screw		○
Bi-metallic screw barrel		○
Extended nozzle (50, 100)		○
Special screw and barrel component		○
Heat-retaining and energy-saving barrel (silicone cover)		○
Spring shut-off nozzle		○
Increased injection stroke		○
Closed-loop temperature detection of feeding port		○
Hydraulic System		
Proportional control for plasticizing back pressure	●	
Oil pre-heating system	●	
Two sets of water circuits for rotary table and one set for upper mold	●	
Automatic calibration of system pressure and flow	●	
Oil temperature and oil level detection	●	
High-performance servo pump system	●	
Sequential gate valve control interfaces		○
Variable displacement pump system		○
Closed-loop proportional variable displacement pump system		○
High-response servo injection system with accumulator		○
Enhanced oil cooler		○
Multi-level enhanced pump motor		○
Multi-level enhanced plasticizing motor		○
Servo injection (closed-loop control of injection, plasticizing, holding pressure, back pressure)		○
Multiple sets of core pulling and unscrewing devices with electrical interfaces		○
General		
Adjustable leveling pad	●	
User manual	●	
Nozzle wrench	●	
Mold clamp	●	
Hydraulic oil		○
Mold temperature controller		○
Auto loader		○
Dehumidifier		○

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## Rotary Table Series

### V4NR Series Two-Platen with Lock Nut and Rotary Table (165-1000T)

Two-plate structure offers larger opening stroke while also providing leveling function, making it suitable for wider range of processes.



#### Highlights

- ▶ Two-platen vertical injection molding machine with lock nut, independent control via four proportional valves
- ▶ One upper mold with the option of multiple mold enhances production efficiency. Dual-station 0-180° rotation and pick-and-place process at a single workstation facilitate manual operations and an automation-friendly design.
- ▶ Servo rotary table drive with precise mechanical positioning.
- ▶ Ejector powered by independent system, controlled via displacement sensors for synchronized operation, ensuring enhanced stability and efficiency with unique ejector mode.
- ▶ Energy-saving servo hydraulic system for main pump.
- ▶ Austria's KEBA controller.
- ▶ Clamping force range from 165-1000T, designed for composite material molding processes.



\*V4NR series is currently under development, please stay tuned.



## Silicone Rubber Two-Color Vertical Injection Molding Machine

### Highlight

- ▶ Vertical clamping and injection, with dual hydraulic systems independently controlled.
- ▶ Multi-position turntable is servo-driven, ensuring smooth operation and precise positioning.
- ▶ Ideal for one-shot molding of multi-color, multi-component products with inserts.



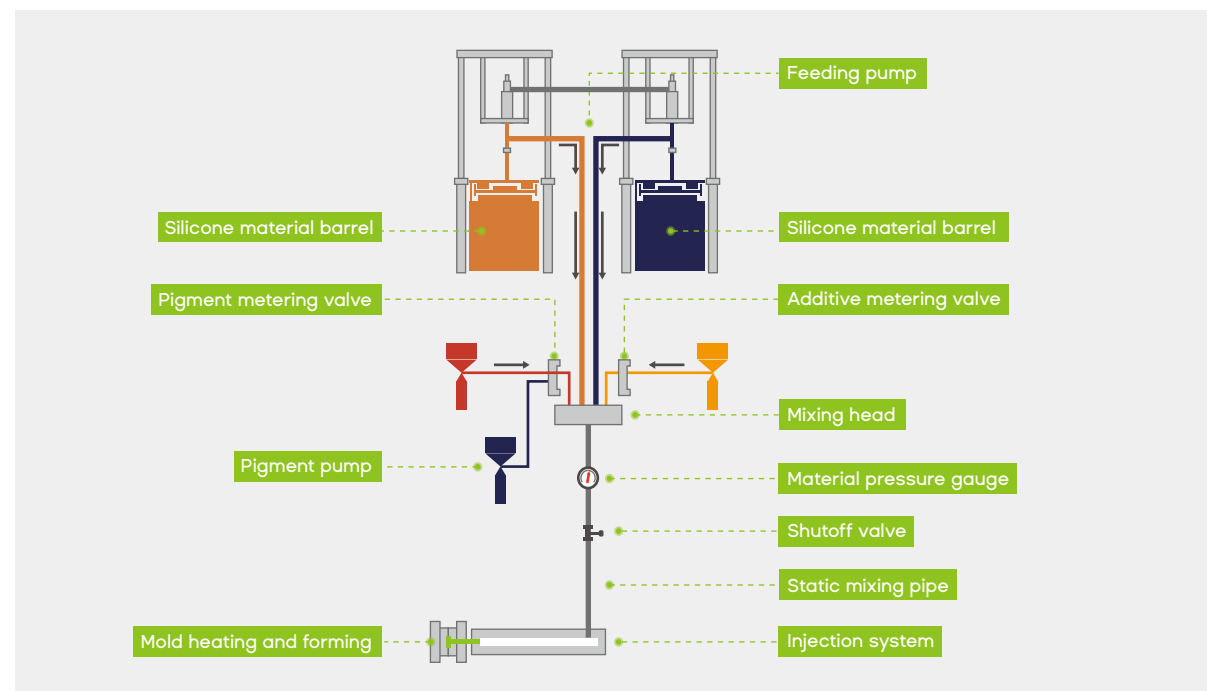
2012C



PGM500



### LSR Molding Equipment Principle Diagram



\* The data above were acquired by testing in the factory, only for your reference.

## V3R-E Series Hybrid Vertical Injection Molding Machine

High precision, multiple injection base specifications, with screw diameter range of  $\phi 18$ - $\phi 84$ mm for flexible selection. Fast injection speed, wide coverage, and broad applicability. Modular combination, flexible selection.

### Flexible Combination for Free Choice

90T~400T clamping force, 7 clamping modes

Cover injection speeds of 160/200/300/350 mm/s

9 injection unit configurations, screws range  $\phi 18$ - $\phi 84$ mm

Each clamping mode has the option to select 3 injection units and 9 types of barrel units



### Electric Injection Unit Combination

Injection unit Clamping force	IU170	IU200	IU320	IU430	IU670	IU930	IU1350	IU1930	IU2700
	IU170h	IU200h	IU320h	IU430h	IU670h				
90	18, 22, 26, 30	26, 30, 35	30, 35, 40						
125		26, 30, 35	30, 35, 40	35, 40, 43					
165			30, 35, 40	35, 40, 43	40, 48, 53				
225				35, 40, 43	40, 48, 53	48, 53, 60			
300					43, 48, 53	48, 53, 60	53, 60, 68		
350						48, 53, 60	53, 60, 68	60, 68, 76	
400							53, 60, 68	60, 68, 76	68, 76, 84

\* The data above were acquired by testing in the factory, only for your reference.



# V3R-E Series Specifications

Description	UNIT	UN60V3R-E						UN90V3R-E						UN125V3R-E						UN165V3R-E						UN225V3R-E						UN300V3R-E					
Injection Unit																																					
Injection model (standard/optional)		IU170/IU170h			IU200/IU200h			IU200/IU200h			IU320/IU320h			IU320/IU320h			IU430/IU430h			IU430/IU430h			IU670/IU670h			IU670/IU670h			IU930			IU930			IU1350		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C			
Screw diameter	mm	22	26	30	26	30	35	26	30	35	30	35	40	30	35	40	35	40	43	35	40	43	40	48	53	40	48	53	48	53	60	48	53	60	53	60	68
Screw L:D ratio	-	22	22	22	22	22	20	22	22	20	24	20	20	24	20	20	24	20	20	24	20	20	22.3	20	20	22.3	20	20	22	20	20	22	20	20	22.6	20	20
Screw stroke	mm	115			140			140			165			165			170			170			205			205			235			235			265		
Stoke L:D ratio	-	5.23	4.42	3.83	5.4	4.7	4.0	5.4	4.7	4.0	5.5	4.7	4.1	5.5	4.7	4.1	4.9	4.3	4.0	4.9	4.3	4.0	5.1	4.3	3.9	5.1	4.3	3.9	4.9	4.4	3.9	4.9	4.4	3.9	5.0	4.4	3.9
Shot volume	cm³	44	61	81	74	99	135	74	99	135	117	159	207	117	159	207	164	214	247	164	214	247	258	371	452	258	371	452	425	518	664	425	518	664	585	749	962
Shot weight (PS)	g	40	56	75	68	91	124	68	91	124	107	146	191	107	146	191	150	197	227	150	197	227	237	341	416	237	341	416	391	477	611	391	477	611	538	689	885
Injection pressure	MPa	377	270	203	266	200	147	266	200	147	272	200	153	272	200	153	261	200	173	261	200	173	259	180	148	259	180	148	219	180	140	219	180	140	231	180	140
Holding pressure	MPa	302	216	162	213	160	118	213	160	118	218	160	123	218	160	123	209	160	138	209	160	138	207	144	118	207	144	118	176	144	112	176	144	112	185	144	112
Injection rate (standard/optional)	mm/s	200/350			200/350			200/350			200/350			200/350			200/300			200/300			160/250			160/250			160			160			160		
Max. injection speed (standard)	cm3/s	76	106	141	106	141	192	106	141	192	141	192	251	141	192	251	192	251	290	192	251	290	201	290	353	201	290	353	290	353	452	290	353	452	353	452	581
Screw speed	rpm	400			400			400			400			400			400			400			350			350			320			320			300		
Heating power	kW	4.9	5.9	7.5	5.9	7.5	7.9	5.9	7.5	7.9	7.3	7.3	7.9	7.3	7.3	7.9	8.9			8.9			10.6	10.9	12.1	10.6	10.9	12.1	13.6	13.6	16.7	13.6	13.6	16.7	16.4	16.4	18.8
Total power	kW	35.5/36.7			35.5/37.9			35.5/37.9			36.4/52.4			36.4/52.4			48/56.9			48/56.9			55.1/61			55.1/61			68.1			68.1			72.9		
Total current	A	59.9/61.9			60/64			60/64			61.4/88.4			61.4/88.4			81/96			81/96			93/103			93/103			114.9			114.9			123		
Clamping Unit																																					
Clamping force	kN	600						900						1250						1650						2250						3000					
Movable platen opening force	kN	59						95						140						140						241						241					
Min. mold thickness	mm	200+100						200+100						200+100						250+100						300+100						400+100					
Opening stroke	mm	250						250						300						300						400						400					
Locating ring diameter	mm	100						120						120						120						120						120					
Rotary table diameter	mm	880						980						1170						1370						1800						2000					
Ejector force	kN	11						11						23						23						23						23					
Ejector stroke (from rotary table)	mm	100						100						100						125						200						200					
Power Unit																																					
Heating power	kW	3.7			4.6			4.6			6.9			6.9			10.1			10.1			10.9			10.9			14.4			14.4			16.6		
System pressure	MPa	17.5						17.5/21						17.5/21						17.5/21						17.5/21						17.5/21					
Pump motor	kW	11						17.8						25.2						29.3						29.3						41.4					
General																																					
Max. mold moving weight	t	1						1						1.5						2						3						4					
Machine weight	t	5						5.5						7.5						9.5						13						16					

1. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.  
2. The screw in the medium is standard on

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