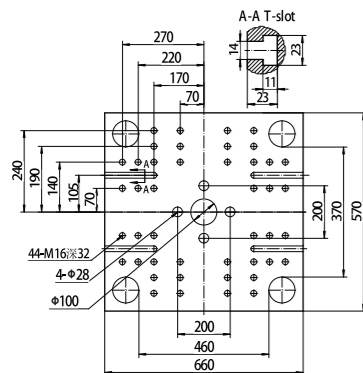


Standard/Optional Features

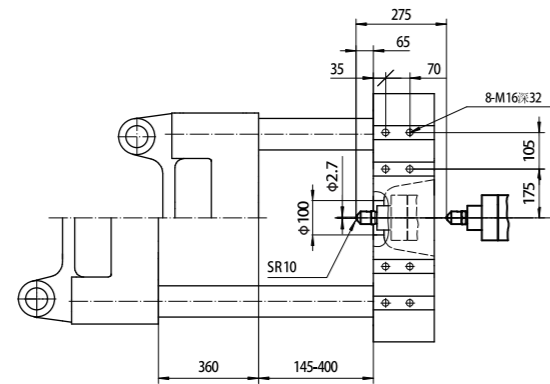
Note: ●: Standard; ○: Optional

Features	Standard	Optional
Lateral T-slotted widen platen (tie bar space 460x370)	●	
Three sets of electric heaters +three aviation connectors on the fixed platen	●	
Three sets of electric heaters +three aviation connectors on the movable platen	●	
Thermal insulation plates connector on fixed platen and movable platen	●	
Total of four sets of air blow units (three sets on the fixed platen and one on the movable platen)	●	
Mixing screw for silicone	●	
Water-cooled pneumatic injection nozzle	●	
Pneumatic 2-piece filter and air gun fittings	●	
Temperature control interface for fixed half and moving half	●	
Vacuum pumping procedure and interface	●	
D522 liquid silicone feeder		○
Control procedures for integrated silicone feeding device		○
Ejector unit (full set)		○
Mold thermal insulation plate on fixed platen and movable platen		○
Chiller		○

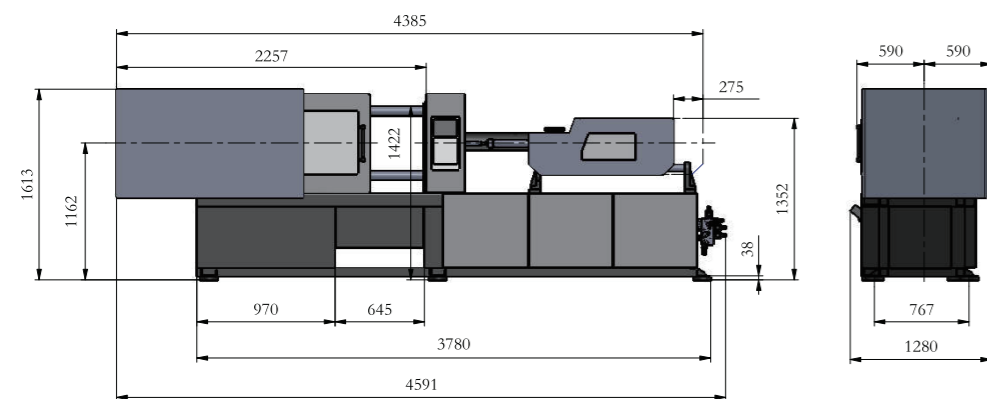
Platen dimensions (front view)



Platen dimensions (side view)



Machine dimensions



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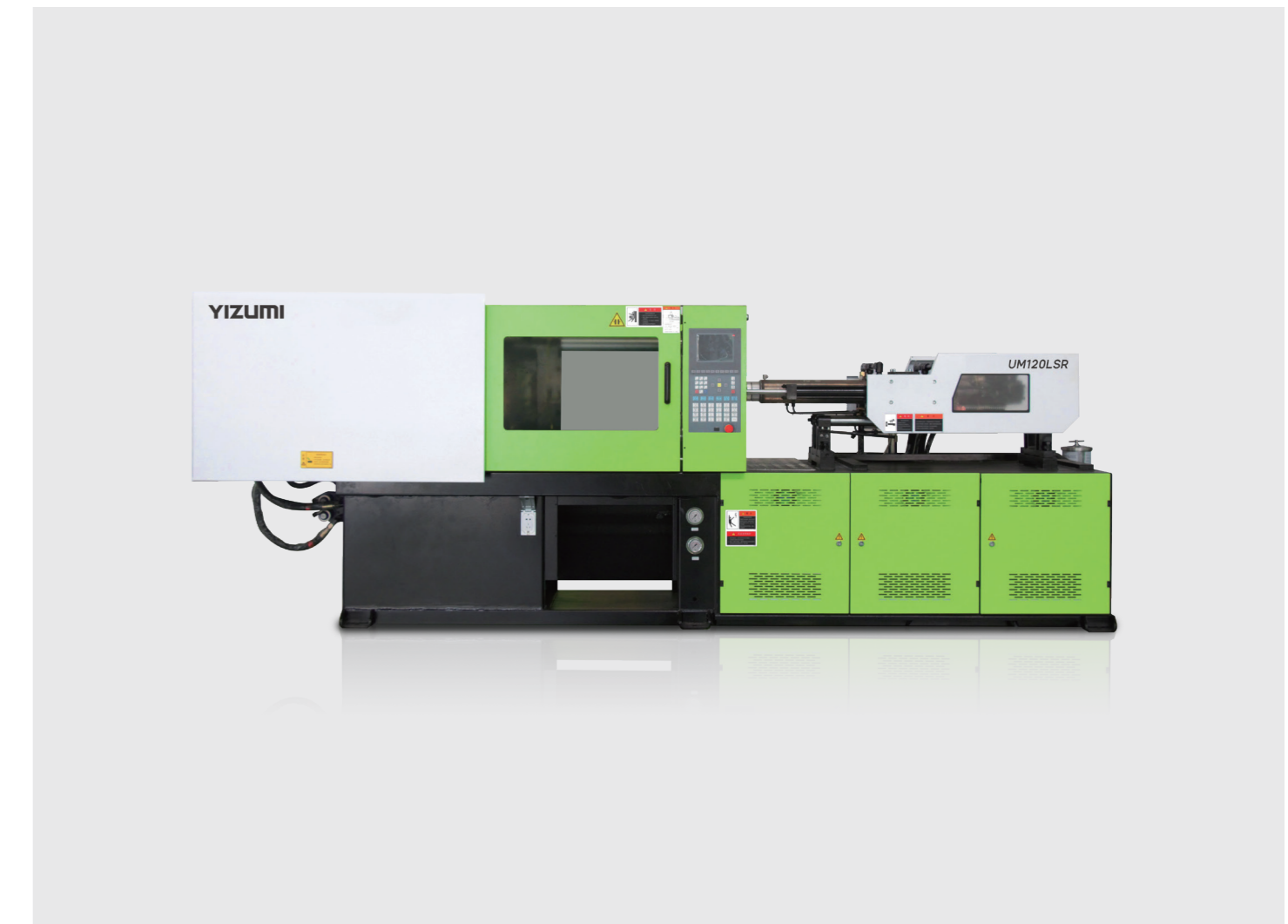
[DISCLAIMER]

- [1] YIZUMI reserves the right to modify the product description in the catalogue. Specification might be changed without prior notice.
- [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.

Designed by YIZUMI, March 2023

LSR

LSR LIQUID SILICONE  
 INJECTION MOLDING MACHINE



## About LSR Liquid Silicone Injection Molding Machine

With the continuous advancement in the industries worldwide, the requirements for the industrial and consumer products are on the rise, demanding product to be environmental friendly, impact resistant, heat resistant, and recyclable. As a result, the injection molding technology has also be upgraded. The evolution of technology has taken the injection molding process from the traditional thermoplastic to the thermoset plastic today, where the thermoset injection molding process is divided further into hard plastic and soft plastic. Hard plastic is also known as bakelite and uses BMC injection process while soft plastic refers to liquid silicone injection process.

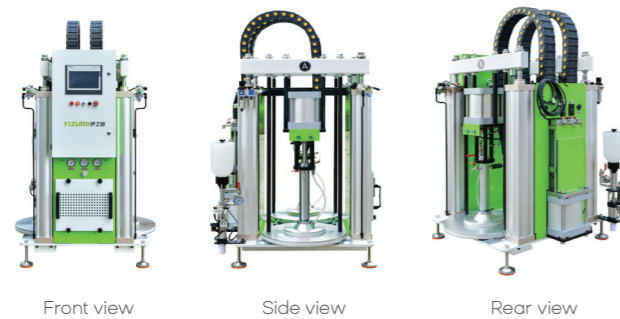
Liquid silicone resin (LSR) is characterized by good liquidity, low viscosity, fast solidification, and higher thermal expansion coefficient. Liquid silicone injection molding uses a two-part material delivery system which consists of an A component and a B component with a 1:1 ratio controlled by a quantitative device. After feeding the materials fully blended through the static blender into the barrel, they will be injected for molding production, heated in the mold for vulcanization and solidification.

YIZUMI LSR machine is a dedicated liquid silicone injection molding machine that integrates the professional LSR injection unit with the SK II platform. It offers high precision, stability, reliability, and repetition accuracy to meet customer needs with improved product yield.

### Auxiliary Equipment

#### YIZUMI liquid silicone feeder (technical features)

- ▶ Fully pneumatic secondary metering system, energy efficient and pollution free
- ▶ Manual correction of A/B material component ratio. Ratio error less than 3%
- ▶ Maintenance free design - silicone leakage free, less waste
- ▶ Uniform color mixing with no flow marks, high repetition accuracy



### Industrial Applications



## Technical Highlights

### Increased tie bar space

Space between tie bars is increased to 460, suitable for larger mold.

### Temperature control for mold heating

Visualized built-in mold temperature control to facilitate temperature adjusting ;

Separate connecting socket for each set of heating unit for the convenience of customers.

### Standard pneumatic injection nozzle

Water-cooled pneumatic injection nozzle - prevents liquid silicone leakage, and prevents the mold temperature from being transmitted to nozzle and resulting in curing reaction of mixed LSR in the nozzle.

### Mixing screw for silicone

Mixed compounds at the front end of the screw to ensure the fully blending of components A and B while eliminating phenomena such as adhesion, yellowing, or blackening ;

Sensitive seal rings are used as the adaptation to the high liquidity of silicone resin to reduce leakage during injection start-up and injection.

### Silicone leakage proof design

Add seal ring and wear ring at the tail end of screw to prevent silicone leakage at the rear end, material waste, and instability of injection.

### Standard vacuum pumping procedure and interface

The use of vacuum mold improves the gas discharge effect of the mold and prevents defects such as short shot and gas burn caused by air traps (Vacuum pumping devices are not included).

### Standard pneumatic 2-piece filter and air gun fittings

User friendly design for easy connection to the air gun and silicone feeder on site.



Temperature control interface for fixed half and moving half

Three sets of connecting sockets on the fixed platen

Three sets of connecting sockets on the movable platen



Mixing screw for silicone

Pneumatic injection nozzle



Vacuum pumping setting interface



Pneumatic 2-piece filter and air gun fittings

## Specifications

DESCRIPTION	UNIT	UN120LSR	
International standard specifications		295/900	
<b>Injection Unit</b>			
Theoretical injection volume	cm <sup>3</sup>	158.7	207.3
Actual injection volume (at 1.1g/cm <sup>3</sup> density)	g	174.6	228.0
	oz	6.2	8.0
Screw diameter	mm	35	40
Injection pressure	MPa	185.6	142.2
Injection rate	g/s	94.7	123.7
Screw L/D ratio		16:1	
Max. injection speed	mm/s	107	
Screw stroke	mm	165	
Screw rotary speed	r/min	0-215	
<b>Clamping Unit</b>			
Clamping force	kN	1200	
Opening stroke	mm	360	
Space between tie bars (WxH)	mmxmm	460x370	
Max. daylight	mm	760	
Mold thickness (Min.-Max.)	mm	145-400	
Ejector stroke	mm	120	
Number of ejectors		5	
Ejector force	kN	42	
<b>Power Unit</b>			
Hydraulic system pressure	Mpa	17.5	
Pump motor power	kW	11	
Heating power	kW	0	
Number of temperature control zones		0	
<b>General</b>			
Dry cycle time	s	1.9	
Oil tank capacity	L	165	
Machine dimensions (LxWxH)	mxm	4.59x1.28x1.62	
Design weight	kg	3500	

Note: Theoretical injection volume = Cross-sectional area of injection molding machine barrel X Injection stroke

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2. The product photos are for reference only, which are subject to the actual products.  
3. The data are obtained from YIZUMI's laboratory test, and the final interpretation right belongs to YIZUMI.