

**YIZUMI Rubber Injection Moulding Machine** 

Precise Rubber Parts Moulding Solutions

# YIZUMI RUBBER MACHINERY CO., LTD. Member Of Guangdong Yizumi Precision Machinery Co., Ltd.

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### **ABOUT US**

### **SINCE 2002**

Guangdong Yizumi Precision Machinery Co., Ltd. was founded in 2002, based in Guangdong, China, with a global perspective, focusing in the field of polymer and metal material moulding. As a comprehensive equipment and solution provider, the company has technological know-how and integrated R&D, production, sales and service, and has set up plastic injection machine division, die casting machine division, rubber injection machine division, high speed packaging system division, and robotic system division.

Yizumi Rubber Machinery Co., Ltd., a holding subsidiary of Yizumi Group, was founded in 2009 and has drafted two National Standards for rubber injection machine industry. Yizumi rubber injection moulding machine ranks among the forefront in China market with a wide range application for moulding all kinds of rubber parts in automobile, energy, electronics fields, as well as railway transportation, medical care, household appliances. With more than a decade of experience in rubber machinery manufacture, Yizumi is capable in providing customized solutions to meet the personalized needs for global customers.

# Yizumi Is Committed To Be A Technologically Leading Supplier Of The Best Cost-effective Solution

Yizumi has been deepening the transformation and upgrade of the company. Through the connection of advanced European moulding technology, and the establishment of R &D center and innovation center in China and abroad, Yizumi constantly introduces internationally advanced technology to strengthen customers' competitiveness.

ABOUT



# **Global Operation Capability**

### Create More Value for Global Customers

As the step of globalization, Yizumi has set up several technical and service centers, R&D centers and sales network worldwide to provide customers with leading rubber injection moulding machine solutions and services, so as to develop greater competitiveness for customers.

# 300,000m<sup>2</sup>

Three manufacturing bases in China, covering more than 300,000m<sup>2</sup>

>>

# 2,700+

Five divisions with more than 2,700 employees

### 60+

Business is extended to over 60 countries and regions

## 113个

YFO service network across 76 cities in China and 37 countries



→ Yizumi Germany GmbH i.G.

# **Standa**rdized Production, Strict Quality Management

Yizumi committed to creating globally advanced manufacturing platform, and providing solid guarantee for production.

- TPS concept integrated into production mode;
- Modular small batch continuous flow production and flexible single order production mode available to meet both conventional and customized machines production requirements; Process approach keeps continuous upgrade.
- Standardized production process.

### Strict Quality Management, Better Customer Satisfaction

Yizumi standardized production ensures the consistency of Yizumi machine quality. Both conventional mass production and small batch customization have the uniform high quality.

- Strict implementation of ISO 9001:2015 Quality Management System;
- PDCA is carried out under the product realization process;
- Process approach keeps continuous upgrade.













# Continuous R&D Innovation, Remarkable Achievements

### Increase Investment in R&D

Yizumi has set up several technical and service centers, R&D centers and sales network worldwide to provide customers with leading rubber injection moulding machine solutions and services, so as to develop greater competitiveness for customers.





## Innovative IPD Product Integrated R&D Pattern

Yizumi R&D team utilizes the in-depth functions of SolidWorks, Simulation, PLM design tools, and adopts the IPD model to help customers achieve greater differentiation at the lowest cost.

Market Research

Customer Needs Analysis rket-based velopment Iser Oriented Jesign User Applicability

Mass Production

# **Injection** Unit



1000-12000CC 3 Cylinder Injection, F.I.L.O

1 Cylinder Injection, F.I.L.O



3 Cylinder Injection, F.I.F.O





250-1000CC 1 Cylinder Injection, F.I.F.O



2 Cylinder Injection, F.I.F.O



Slab type, 2 step upstroke closing

4 tie bar, 2-step upstroke closing

**Clamping Unit** 



4 tie bar, 3-step upstroke closing



C-frame, 2 step downstroke closing



4 tie bar, 3-step downstroke closing



4 tie bar, 2 step horizontal closing

#### **Clamping & Injection Unit Table** Series Code L3-1000A1 L3-2000A1 L3-3000B1 L3-4000B1 L3-4000C1 L3-4000C2 L3-5000C1 L3-6000C1 L3-6500D1 L3-8000D1 L3-8000D2 L3-10000D1 L3-12000D1 F3-1500B1 F3-3000B1 F3-4000C1 F3-5000C1 2,600 2,200 2,000 1,900 2,100 2,500 2,500 2,100 2,500 2,000 2,500 2,000 1,700 2,200 2,100 2,500 2,000 Injection Pressure/bar Screw Diameter/mm 40 40 50 50 50 50 50 50 65 65 65 65 65 35 40 45 45 **Injection Unit** Piston Diameter/mm 60 65 83 86 98 90 90 98 98 110 98 110 120 80 82 90 100 65×20 Size of Rubber Inlet 50×20 50×20 65×20 65×20 65×20 65×20 65×20 65×20 80×35 80×35 80×35 80×35 80×35 50×20 50×20 65×20 0 YL2-V200 0 0 0 0 0 0 0 0 YL2-V250 0 0 0 0 0 0 YL2-V300 0 0 0 0 0 0 0 0 0 0 YL2-V350 -**Clamping Unit** 0 0 0 0 0 YL2-V280 0 0 0 0 • 0 0 0 0 0 0 0 0 0 YL2-V440 0 YL2-V630 0 0 0 lacktriangle0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 YL2-V800 \_ \_ \_ 0 YL2-V1200 0 0 0 0 0 0 0 0 0

<sup>\*</sup> Remark: 1. Injection unit code illustration: L(F.I.L.O.), F(F.I.F.O.), 3-three cylinder structure, 1000-injection volume 1000CC, A-injection cylinder type

2. Standard configuration

3. For the YL2-V200/YL 2-V300 with the injection units above, injection pressure will be lower by 10% than in the table.

# **Electrical & Control System**

### Various Brands Available



### **Siemens Control System**

- Program execution speed 4-10ms, 9" and 10" touch screen available for option;
- 100 sets of recipe memory & storage, available for upload and download with USB;
- Independent PID temperature control, real-time temperature curve, accessible with USB;
- Real-time curve display of clamping pressure and injection pressure, accessible with USB;
- Statistical records of process parameters for 3,000 cycles, accessible with USB;
- OPC DA data communication port (MES and remote monitoring can be realized), optional;
- Free editable machine sequence.



#### **B&R Control System**

- Program execution speed 1ms, 10" and 21" touch screen available for option;
- 50 sets of recipe memory & storage, accessible with USB;
- Independent PID temperature control, real-time temperature curve;
- The speed, pressure, position of plasticizing and injection, the holding pressure in curing process, the temperature., etc. 17 process parameters, historical curves and modification records can be checked and tracked. 1000 records can be saved and accessible with USB;
- Software closed loop control for clamping, injection and plasticizing process;
- OPC DA data communication port (MES and remote monitoring can be realized), optional;
- Free editable machine sequence.

## **Hydraulic System**

The 3<sup>rd</sup> generation energy-saving servo technology —Reliable and durable, energy-efficient, low noise, etc.

Equipped with variable displacement pump, excellent performance proportional pressure/flow valve, Japan/German high efficiency hydraulic valve; imported high-quality seals; more accurate flow/pressure control.



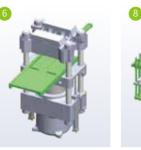
- With Rexroth variable displacement pump + servo motor for electric auto + inovance servo drive our system is more energy efficient with lower consumption while longer service life
- With closed loop control of flow and pressure, machine running is more accurate, stable, and faster
- Energy saving more than 50% compared to the vane pump dynamic system

# **Main Optional Devices**











Bottom hydraulic mold separator

Top hydraulic mold separator

Side open silicone stuffer

Lower mold sliding device

3RT ejector, single lifter + single ejector











2RT

3RT Double ejector

Downward ejecting device

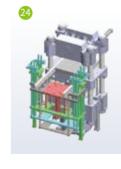
Side core pulling device

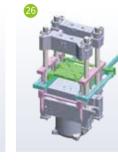
Double lower or middle mold synchronic exchange device











Double lower or middle mold exchange device (mold of big height)

Auto ejecting device for bushing

Manual double middle mold exchange device

4RT-double lifter with single ejector

Ejecting device in clamping area

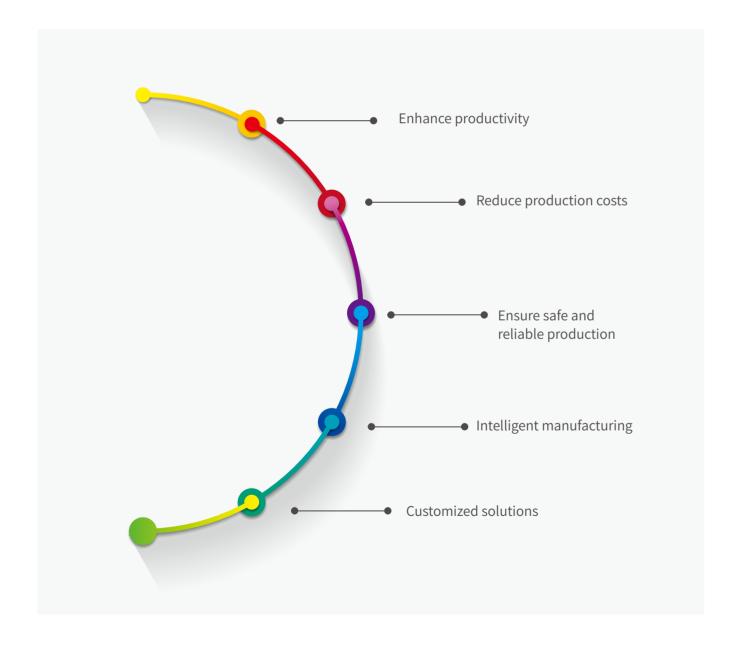
- (1) Bottom mechanical mold separator (2) Top mechanical mold separator
- (7) Middle mold sliding device (12) Mold tilting device
- (18) Compound temperature & pressure inspection function
- 19 Remote monitoring & diagnosis
- 20 Printing function

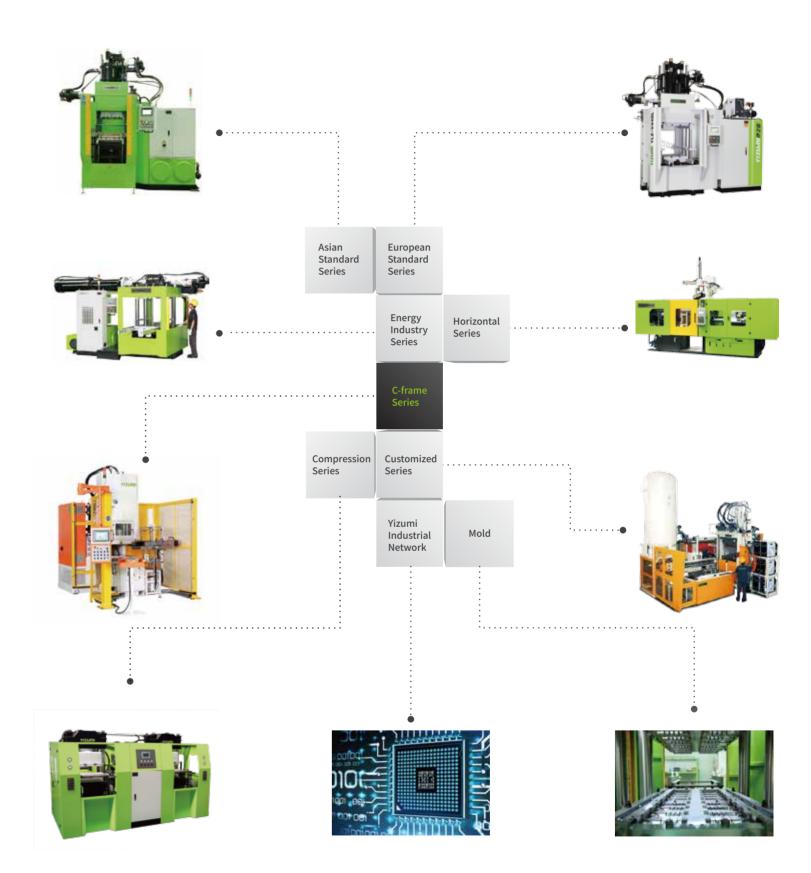
- 21) Hydraulic core fixing device
- 22 Pneumatic door
- 23 All-round safety guard/door
- 25 Mold plate clipping device

# **Diversified Machines**—To Meet Customers' Individual Requirements In Different Fields

Yizumi rubber injection moulding machines and solutions have been widely applied in automobile industry, energy industry, electronic industry, railway transportation, medical care, household appliances and other fields. Its rich practical experience ensures the safety, reliability and efficiency of each machine, and meets various high quality requirements from customers.

### We Can Help Customers





# **Asian S**tandard System

—In-depth Modular Design Application In Rubber Injection Machine Industry

#### YL2-VL/F Asian Standard Series Injection Moulding Machine

Following the high-bed structure of Asian conventional mold design, Yizumi implements a full set of forefront design concepts and methods. Combining with advanced machining process technology, we provide machines superior to conventional technology at lower cost to create greater value for customer.





### **Machine Specifications**

Asian Standard Series								
	Unit	YL2-V200L/F	YL2-V250L/F	YL2-V300L/F	YL2-V350L			
Clamping Force	kN	2000	2500	3000	3500			
Closing Stroke	mm	480	480	500	570/500			
Heating Plate Size	mm	550×550/550×650/550×	<750/600×650/600×750	600×650/600×800/650×	×650/650×750/700×750			
Heating Plate Heating Power	kW	14 14 1	8 16 18	16 20 1	8 20 22			
Standard Motor Power	kW	11	15	15	15			

### **Main Optional Devices**

① Bottom mechanical mold separator ② Top mechanical	al mold separator ③ Bottom hyd	Iraulic mold separator	4 Top hydraulic mold separator
(5) Side open silicone stuffer (6) Lower mold sliding devi	ce ⑦ Middle mold sliding devi	ce 8 3RT ejector, sir	ngle lifter + single ejector 9 2RT
① 3RT Double ejector ① Downward ejecting device	Mold tilting device	de core pulling device	Double lower or middle mold synchronic exchange device
Double lower or middle mold exchange device (mold of big height)      Auto ejecting	g device for bushing ① Manual mold ex	double middle schange device	(18) Compound temperature & pressure inspection function
Remote monitoring & diagnosis     Printing function	② Hydraulic core fixing device	22 Pneumatic door	② All-round safety guard/door
② 4RT-double lifter with single ejector	② Mold plate clipping device	26 Ejecting device in	n clamping area

## **European Standard Series**—First Choice For European Customers

#### YL2-VL/F European Standard Series Injection Moulding Machines

Bench-mark to the performance requirements and safety standards of European market, with in-depth modular design and pre-research, Yizumi can satisfy customers' high standard customized requirements with faster response, lower cost and zero risk. Focus on every details of heating and motion energy consumption, provide user friendly operation, Yizumi helps customers to achieve the lowest TCO and intelligent production.



- Clamping unit with high rigidity and long service life
- In line with European operation
- Heating plate design suitable for European customers
- Compatible with all kinds of product demoulding devices
- Support high-speed communication with MES system and control center
- Support remote wireless monitoring and data updating
- Machine preventive maintenance



### **Machine Specifications**

European Standard Series								
	Unit	YL2-V100F	YL2-V280L/F	YL2-V440L/F	YL2-V550/630L/F	YL2-V800L/F	YL2-V1200L/F	
Clamping Force	kN	1000	2800	4400	5500/6300	8000	12000	
Closing Stroke	mm	450	500	600	700	800	850	
Heating Plate Size	mm	320×410	560×630/670×630 560×780/670×780	700×800/810×1000	810×1000/900×1000	810×1000/900×1000	1200×1600/1300×1300	
Heating Plate Heating Power	kW	10	17 21 22 26	28 38	38 45	38 45	70 70	
Standard Motor Power	kW	7.5	15	22	30	30	30	

### **Main Optional Devices**

① Bottom mechanical n	nold separator ② Top mech	anical mold separator	③ Bottom hydraulic mold separator	4 Top hydraulic mold separator
(5) Side open silicone stu	uffer (6) Lower mo	ld sliding device	(7) Middle mold sliding device	① Downward ejecting device
(4) Double lower or midd	dle mold synchronic exchange device	15 Double lower or mic	ddle mold exchange device (mold of big height)	(6) Auto ejecting device for bushing
① Manual double middl	Manual double middle mold exchange device		ature & pressure inspection function	Remote monitoring & diagnosis
Printing function	② Hydraulic core fixing device	② Pneumatic door	② All-round safety guard/door	26 Ejecting device in clamping area

# Specialized Rubber Injection Machine For Energy Industry

Lead The Trend Of Composite Insulation Products Moulding Technologies

### YL2-ABL Series Silicone Injection Moulding Machine

- Upward closing structure, low working height, high rigidity clamping unit suitable for insulator molds
- Specialized plasticizing and injection system for silicone processing
- Safe and convenient silicone stuffer
- Low energy consumption design





### YL2-ATL Series Silicone Injection Moulding Machine

- Patented insulator moulding equipment
- Downward closing structure, injection from the bottom
- User friendly, ergonomic working height
- Insulator, FRP rod/tube not moving with movable platen
- Easy loading of silicone



### YL-H1000F Silicon Injection Machine

- Patent technology, specialized hollow core insulator moulding machine
- Horizontal two movable platen clamping structure
- Double "FIFO" injection system
- Servo motor system
- Full close-loop control injection moulding process
- Automatic production





#### LSR Moulding Machine

- Both horizontal and vertical structure available for different products
- Clamping force can be controlled in multiple stages according to time
- Patented horizontal clamping unit

### YL2-V360L Silicone Injection Moulding Machine

- Best choice for middle and low voltage insulator production
- Specialized plasticizing unit for silicone processing
- Safe and convenient silicone stuffer



### **Machine Specifications**

Specialized Rubber Injection Machine for Energy Industry										
	Unit	YL2-V360L	YL2-AB500L/550L	YL2-AB650L	YL2-AB900L	YL2-AT550L	YL2-AT660L	YL2-AT880L	YL2-AT1100L	YL2-AT1800L
Clamping Force	kN	3600	5000/5500	6500	9000	5500	6600	8800	11000	17600
Closing Stroke	mm	500	600	700	600	700	1100	1200	700	1300
Heating Plate Size	mm	630x1300	630x1500/630x1700	800x1700/800x2000	850x2000	630x1500/630x1700	650x1600	800x1600	800x2600	1000x2600
Heating Plate Heating Power	kW	33	36/44	53/60	82	36/44	45	55	80	120
Injection Volume	c.c.	4000/5000	10000/13000/15000	15000/20000	15000/20000	10000/15000	18000	25000	25000	50000
Injection Pressure	Bar	1260	1260	1260	1260	1260	1260	1260	1260	1260
Standard Motor Power	kW	15	22	30	30	22	30	37	44(=22x2)	60(=30x2)

# Horizontal Series—Clamping Unit Design Oriented From Europe

### YL-HF Series

- Two-step closing structure
- "F.I.F.O" plasticizing injection system
- Injection nozzle retractable, injection piston can pull back, easy for material changing









### **Machine Specifications**

Horizontal Series							
	Unit YL-H200F						
Clamping Force	kN	2000	3000				
Closing Stroke	mm	500	500				
Heating Plate Size	mm	550×550	600×600				
Heating Plate Heating Power	kW	14	17				
Injection Volume	c.c.	500	500/1000				
Injection Pressure	Bar	2000	2000				
Standard Motor Power	kW	18.5	18.5				

# C-frame Series—Small Size High Precision Rubber Injection Machine

• C-frame structure, downstroke closing

• "F.I.F.O" injection system with high injection pressure

 Rotary table, fast and stable exchange of two bottom molds

Auto demoulding system for moulded parts







### **Machine Specifications**

C-frame Series							
	Unit YL-C50F						
Clamping Force	kN	500	800				
Closing Stroke	mm	400	350				
Heating Plate Size	mm	600×400	300×400				
Heating Plate Heating Power	kW	9.6	9.2				
Injection Volume	c.c.	300	150				
Injection Pressure	Bar	1800	2200				
Standard Motor Power	kW	7.5	15				

# Compression Series—Simple Moulding Solution for Rubber Parts

- Machine overall design for low energy consumption, high strength environmental friendly insulation plate
- Heating plate sliding out, mold temperature maintained in whole process
- Fast running speed
- Siemens control system
- International well-known electrical, hydraulic and sealing components













### **Main Optional Devices**



6 Lower mold sliding device



9 2RT



(8) (10) 3RT



24) 4RT



25 Mold plate clipping device

### **Machine Specifications**

Compression Series								
	Unit	YL-V200	YL-V250	YL-V350	YL-VV200	YL-VV250	YL-VV350	
Clamping Force	kN	2000	2500	3500	2000	2500	3500	
Closing Stroke	mm	250	250	250	250	250	250	
Heating Plate Daylight	mm	300	300	300	300	300	300	
Heating Plate Size	kW	550x550	650x600	700x700	500x500	600x600	650x650/700x700	
Total Installed Power	kW	42.2	53.6	58.4	45.5	54.5	58.2/60.0	

## Customized Series—Tailor-made Solutions For Customers

### Slab Type Vacuum Compression Moulding Machine

- Close loop hydraulic system and control system
- Clamping area entire vacuum; fast vacuum speed
- Top heating plate tilting device and various ejectors for the demoulding of different oil seals with ribs









### Joint-free Rubber Track Moulding Machine

- E type clamping structure, two molds simultaneously curing
- Dynamic balanced steel belt fastening device
- Product auto conveyor device
- Close loop control system, movement of multiple devices are highly coordinated and controlled





### Air Spring Machine

- In line with the advanced moulding process and performance requirement of the European membrane-type air spring
- Patented technology, 4 tie-bar, two-step downward closing clamping structure
- Self-programming, users can freely edit the production process according to their needs





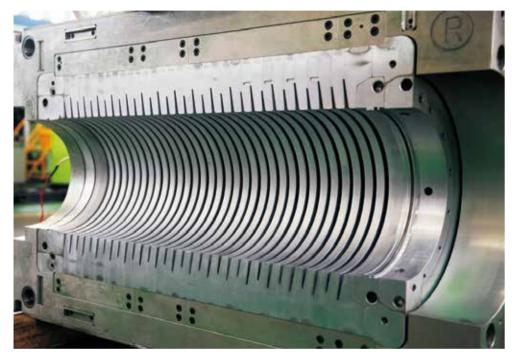
### Vertical Vacuum Chamber Injection Machine

- 4 tie-bar vertical clamping structure
- Vacuum chamber for mold vacuum
- Mold fast fixing



# Molds

Yizumi has an elite technical team to provide injection mold solutions, cold runner and mold solutions.





















### Yizumi Industrial Network

CMS(Condition Monitor System), as a new generation of information management system based on micro service technology and industrial Internet platform, users can check the status of equipment, process parameters, alarm information and other information in real time through mobile APP, PC and other terminals, and make statistical analysis of OEE, output and other information to significantly reduce the technical threshold, construction and operation costs for customers to realize intelligent production.



#### **Basic Function**

Factory modeling, organization structure, authority management, data acquisition...

#### **Workshop Monitoring**

Production monitoring, machine monitoring, production statistics, efficiency statistics, alarm record...

#### Maintenance Management

Maintenance plan, maintenance implementation, maintenance remind...

### **Fault Management**

Breakdown alarm, repair record, trouble shooting, expert system...

#### **Process Monitoring**

Parameter monitoring, fault alarm, tracking revise, parameter backup, parameter tracking...

#### E-service 24

One-click report for repairing, visual process, service evaluation