

JONWAI

Optimizing for Industry Demands

SET series



High Speed Thin Wall Molding Machine

www.jonwai.com

Optimization for Industry Demanding



Thin Wall Package
& IML Production



Thin Wall
Package



Disposable
Cups



Disposable
Cutlery

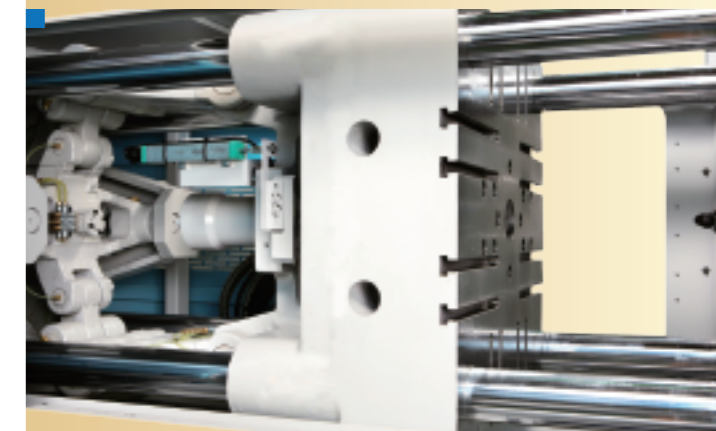
The Evolution of Thin Wall Molding

Jonwai TW model has been introduced successfully to global thin wall package industry for past decade. Up to now there are more than 2000 sets of TW machines in global service, providing customers high quality & economical thin wall molding solution.

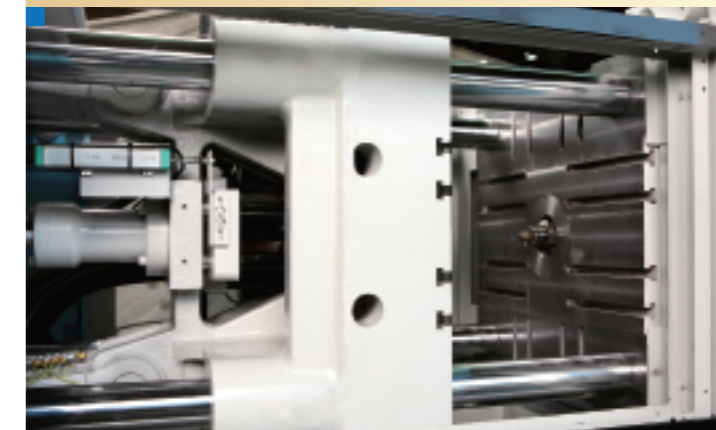
The update SET model inherited the advantages of TW model & further enhanced functions to make it more suitable for thin wall industry.

Special Feature:

- New KEBA I-1000 Computer Control , High response , & execution Speed
- Injection Speed Increased to 500~550 mm./sec.
- Ejection Speed Increased
- High RPM/Low Torque Hydraulic Motor reduced material charging time
- Machine Base reinforced
- Increase caliber of cooling water distributor
- Increase caliber of air blow
- Safety door lever removable more convenient for robot in/out.



Fast Movement & Short Dry Cycle
Fast Movement due to 5-Point internal clamping system.



Solid Mould Closing Unit
Solid Box-Like structure mould closing unit with reinforce palleten



User Friendly KEBA Control
Window based operation panel clear overview monitoring page.
Modularized PLC design with widely function expandability.

Speed

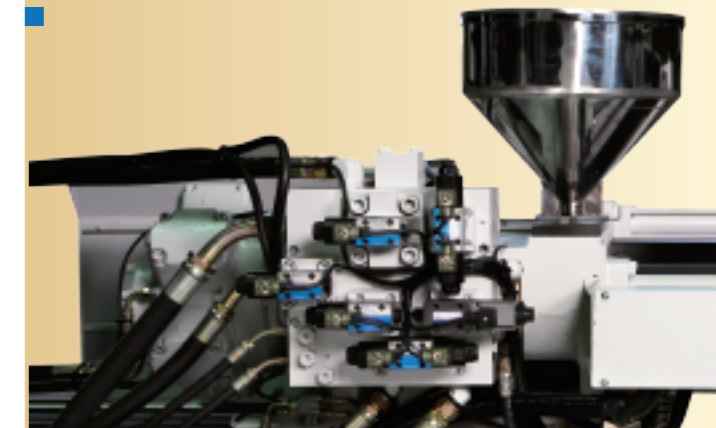
- Fast Movement due to the 5-Point internal clamping system
- High injection speed and capacity
- High response of computer & hydraulic
- Fast Material Charging
- Short Dry cycle , Low cost per piece achieved

Precision

- High Repeatability Sequences
- Unique & Intelligent Close-loop control of process
- Mold open/close controlled by Pressure & Flow
- Proportional Valve achieved

SET Series

High Speed Thin Wall Molding Machine



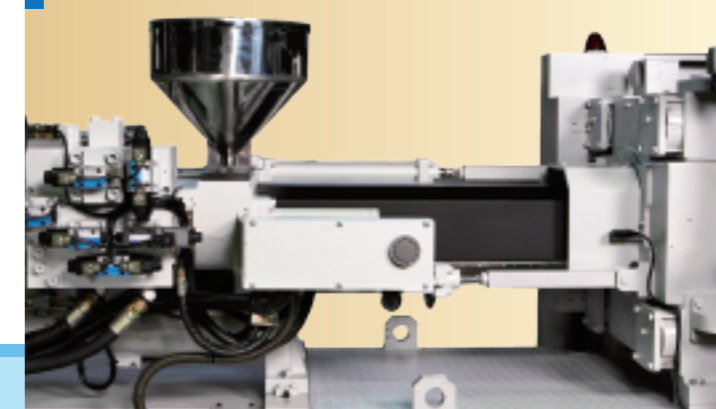
Quick Response Hydraulic System

Quick response hydraulic system coordinate with Jonwai unique servo power unit, response time only at 50 ms.
Very applicable to long flow length, thin wall molding at multi cavities.



Excellent Stable Injection Unit

Holding pressure changeover position setting by time & screw position to cope with accumulator booster high speed injection.



Nozzle Center on Line & Linear injection movement

2 cylinders sliding guide bar ensure nozzle center on line.
Injection position with twin-end support enhance the linear injection movement.

User Friendly

- Window Based simple operation panel
- Easy Programming & Clear Overview
- Modularized PLC design for widely function expandability. achieved

Reliability

- Reinforce Platen
- Reinforce Machine Base
- Stable Mechanical Sequence
- Solid IQC system before machine assembly and delivery

SETS Series :with AC Synchronous Servo Power System

AC Synchronous Servo Power System

Unlike other companies outsourcing the servo system then equipped to machine, Jonwai integrate the entire system in house.

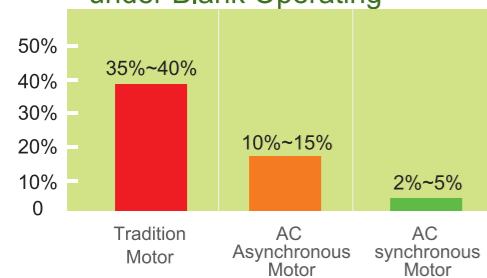
We fully grasp the key technologies of the servo power system & perfectly matching the mechanical, hydraulic system, PLC system & servo power system.

Advantages

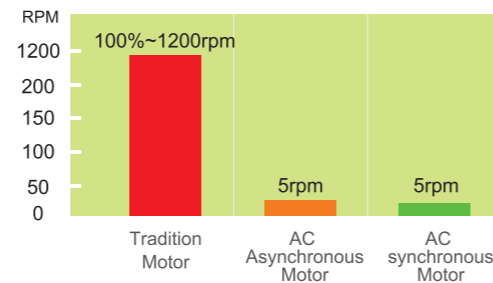
- **Water Saving** - The servo system only delivers hydraulic oil as it is needed. This prevents unnecessary generation of heat and substantiall minimises oil cooling requirements. Under normal operating conditions, compared with conventional motor machines, machine cooling water savings 85% can be achieved.

- **Electricity savings** - Under normal operating conditions, compared with conventional motor machines, energy savings from 60%-85% can be achieved.
- **Hydraulic Oil Saving** - The servo system only delivers hydraulic oil as it is needed. This prevents unnecessary oil operation. Under normal operating conditions, compared with conventional motor machines, Hydraulic Oil savings 30% can be achieved.
- **Quick response** - Featuring a dynamic servo motor with a response time of only 50ms.
- **Moulding stability** - Due to the quick response of the servo motor and the closed-loop control. Compared with conventional motor machines, repeatability is greatly improved
- **Quiet operation** - The machine runs at much lower noise levels, particularly in low speed applications.
- **Reliable holding pressure** - Compared with traditional motor machine the holding pressure is more stable.
- **Unique Motor Control Design** - More Precise to command the motor pause & continue.
- **Flow Speed transmitted by Resolver** - PID logic and push-pull signal ,The close loop corresponding flow and pressure adjustment ensures the highest quality and precision of the plastic parts produced.

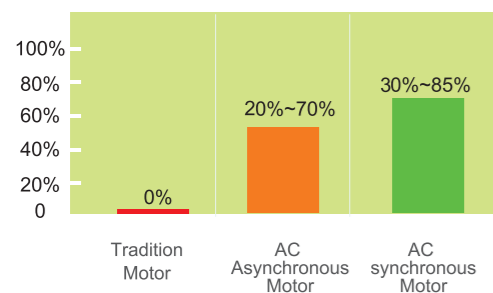
1. Motor Current Consumption under Blank Operating



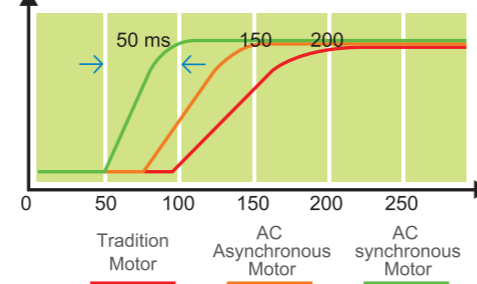
2. Motor Stand-by RPM



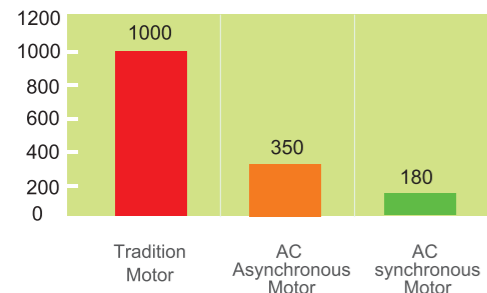
3. Power Saving



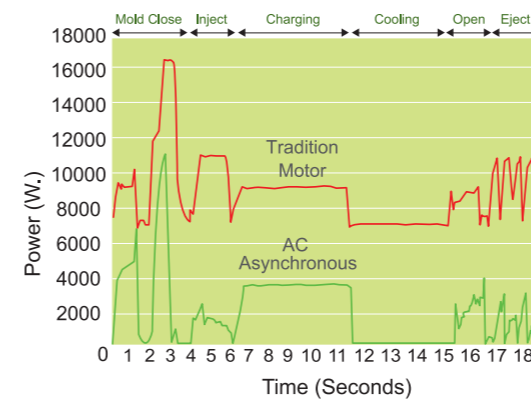
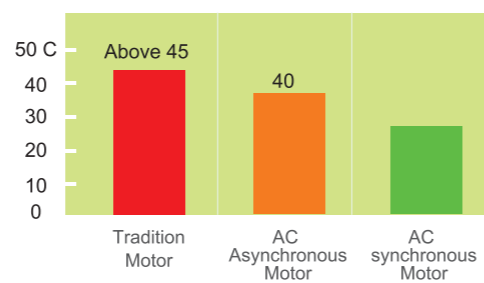
4. Response Time



5. Machine Cooling Water Consumption



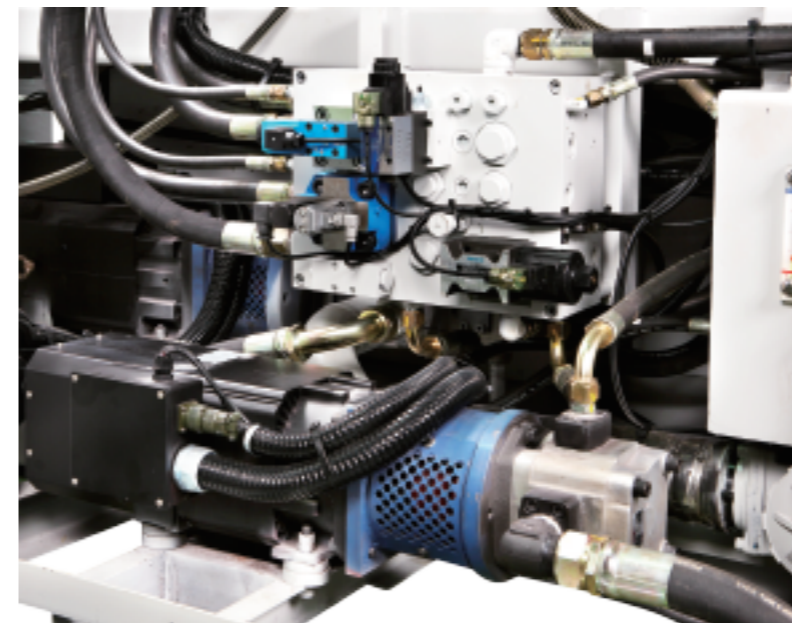
6. Hydraulic Oil Temp. Level



Test Product
Total Cycle time: 18 sec.
Cooling time: 5 sec.
Chargin time: 5.3 sec.

The power consumption of AC Asynchronous Motor is 78% less than traditional motor.

In Case of thick wall products or longer holding time or longer time products, power consumption could reach 80%~85%.



SET & SETS Specification

SET

MODELS		JW-60SET (JW-60SETS)			JW-100SET (JW-100SETS)			JW-120SET (JW-120SETS)			JW-150SET (JW-150SETS)			JW-180SET (JW-180SETS)			JW-220SET (JW-220SETS)		
SCREW DIMETER	mm	32	35	38	35	38	42	38	42	45	42	45	50	50	55	60	55	60	65
SHOT SIZE	gr	106	127	150	136	160	195	170	208	238	244	281	347	416	503	599	546	649	730
INJECTION PRESSURE	kg/cm ²	2490	2082	1766	2280	1935	1584	2402	1966	1713	2318	2019	1635	2394	1978	1662	2428	2040	1738
CLAMPING FORCE	ton	50			80			110			130			160			200		
CLAMP STROKE	mm	270			310			360			400			450			500		
MOLD HEIGHT	mm	100~320			150~350			150~400			150~450			150~550			150~550		
DISTANCE BETWEEN TIE-RODS	mm	310×310			370×370			410×410			430×430			480×480			520×520		
MOTOR RATED	HP	25 (15+15)			30 (20+15)			40 (25+15)			40 (30+15)			50 (40+15)			60 (50+20)		
MACHINE DIMENSIONS	M	3.95×1.13×1.6			4.22×1.23×1.67			4.62×1.28×1.73			5.08×1.32×1.79			5.67×1.42×1.86			6.07×1.5×1.93		

MODELS		JW-250SET (JW-250SETS)			JW-300SET (JW-300SETS)			JW-400SET (JW-400SETS)			JW-500SET (JW-500SETS)		
SCREW DIMETER	mm	60	65	70	65	70	75	70	75	80	75	85	95
SHOT SIZE	gr	699	821	952	908	1054	1210	1224	1405	1599	1601	2056	2569
INJECTION PRESSURE	kg/cm ²	2288	1949	1681	2173	1873	1632	2213	1928	1695	2321	1807	1447
CLAMPING FORCE	ton	230			280			380			480		
CLAMP STROKE	mm	550			600			700			800		
MOLD HEIGHT	mm	220~650			220~700			280~760			300~900		
DISTANCE BETWEEN TIE-RODS	mm	580×580			630×630			720×720			820×820		
MOTOR RATED	HP	60 (50+20)			60+25			60+30			75+30		
MACHINE DIMENSIONS	M	6.57×1.58×2.06			7.48×2.1×2.1			8.24×2.12×2.3			9.17×2.21×2.5		

SET series



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