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JETMASTER **Second Generation** Servo Drive Large Series

650 - 3000 tons

Your Precision Energy Saver



SVP / 2 LARGE



Hand in Hand Over 50 Years

JETMASTER Second Generation Servo Drive Large Series

Driven by a revolutionary intelligent servo system, the second-generation SVP/2 power pack combines a fast-response gear pump with a high-precision servomotor, integrated with a proprietary servo-drive into an affordable package that guarantees the highest response, highest precision and lowest power consumption at the same time.



Exclusive Circular Platen (Patent No. ZL01 2 57876.2)

- Even stress distribution to moulds, improves production stability and quality
- Greatly reduces stress concentration, lengthens mould life
- Enhanced stress distribution*

Injection Unit

- High resolution potentiometer provides superior positional control precision
- Nitrided injection screw and barrel with supreme anti-wear properties and long useable life
- Compact twin injection cylinder design
- Back pressure control
- Balanced dual-cylinder design provides secure holding pressure for injection carriage and prevents drooling (except JM650 SVP/2)

- Screw and barrel maintenance are made easy with pivot cylinder to turn injection unit (except JM650 SVP/2)
- PID barrel and nozzle temperature control ensures high melt quality
- Radial piston-type hydraulic motor drives the screw directly.
The high torque is able to process a wide range of materials with optimal melt quality and mixing, effectively shortening recovery time
- Cold-start prevention ensures that the screw does not rotate until the preset temperature profile is reached



Clamping Unit

- T-slots (optional)
- Designed via finite element analysis with a focus on high structural integrity
- Adjustable slider supports movable platen
- High-tensile tie-bars, induction hardened, with chrome-plated surfaces
- Automatic mould height and clamping force adjustment
- Electrical, mechanical and hydraulic safety devices
- Regenerative hydraulic circuit shortens cycle time and enhances efficiency
- Multiple ejector system
- Core pulling devices
- Mould cooling water distributor
- Electrical / pneumatic automatic front guard door (on certain models)
- Low pressure mould protection feature effectively prevents mould damage
- Mould height adjustment by hydraulic motor combined with gear mechanism (Standard feature)

Multi-pump Combination Hydraulic Power System (Patent no.:ZL200910192111.6)

The patented Multi-pump Combination Hydraulic Power system, provide closed-loop control with single-pump pressure and rapid pressure relief. Highest energy efficiency is achieved while maintaining fast response, low-impact pressure and high control accuracy.



Ai-12 intelligent networkable computer controller

The *Ai*-12 is a high-performance, new-generation intelligent computer controller available exclusively from Chen Hsong. Designed in Japan and constructed with the latest SMT technology, it boasts fully compatibility with JIS standards, enhanced stability and ultimate reliability. This controller comes standard with multi-lingual interfaces, built-in networking, advanced intelligent diagnostics, and the ability to retain data for over five years without external power.



* Under correct use and normal circumstances, free maintenance up to ten years for first hand owner.

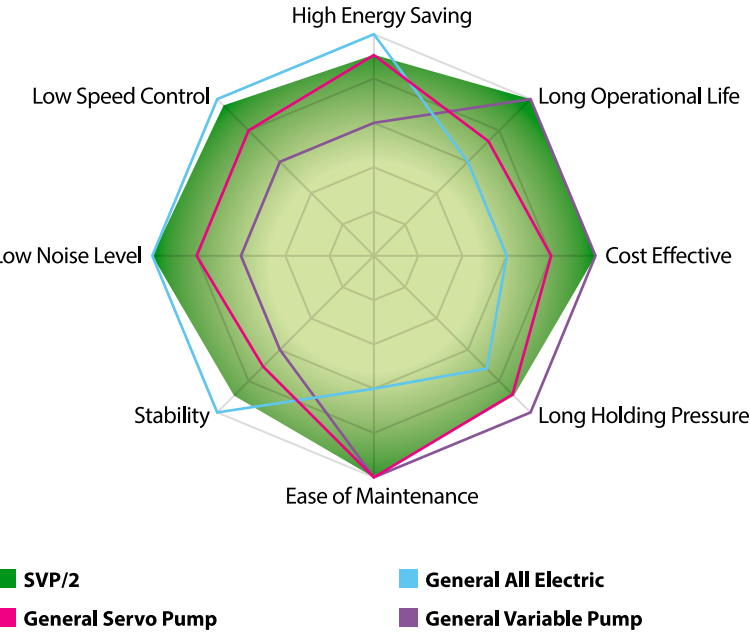
Product images are for reference only and subject to change without notice.

Second Generation Servo-Drive System

Saves up to 80% Electricity*

Energy Saving
Saves up to 80% of electricity compared to traditional fixed pump systems*

Ultimate Response
Response speed is more than double of a variable displacement pump



Ultimate Precision & Repeatability
Up to 0.5% repeatability even under extremely low speed & prolonged holding conditions

Long Operational Life
Low oil temperature conserves cooling water and reduces the need for hydraulic oil, thus extending the useable lives of hydraulic parts

Items	SVP/2	General Servo Pump	General All Electric	General Variable Pump
High Energy Saving	✓	✓	✓	●
High Precision	✓	●	✓	●
High Repeatability	✓	●	✓	●
Dynamic Response	✓	✗	✓	●
Low Speed Control	✓	●	✓	✗
Long Holding Pressure	✓	●	✗	✓
Low Noise Level	✓	✓	✓	✗
Low Cooling Water Consumption	✓	✓	✓	✗
Long Operational Life	✓	●	✗	✓
Ease of Maintenance	✓	✓	✗	✓

✓ Excellent ● OK ✗ Weak

Electricity Consumption*

Model	System	Cycle Time (s)	Injection Holding Time (s)	Time for Test (h)	Electricity Consumption (kWh)	Product (pcs)	Electricity Consumption for each piece (kWh)	Consumption (%)	Energy Saving (%)
CJ650MIII	Fixed Pump	52	4	8	167.6	554	0.3	100%	0%
JM650-C2	VDP	52	4	8	93.12	554	0.17	56%	44%
JM650-SVP/2	SVP/2 Servo Drive	50	4	8	42.4	576	0.07	24%	76%



Practical Example*
Resin: PP
Product: Exercise Bike

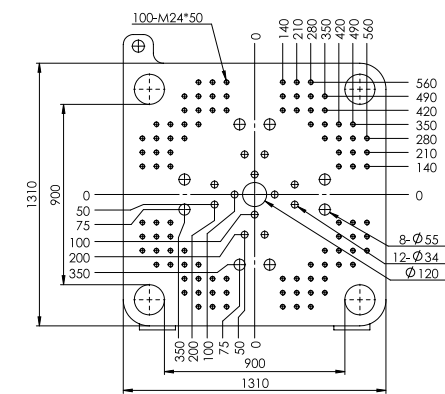
Energy Saving & Efficiency Consumption*
(For 500,000 pieces of product, roughly one year at 20 hours/day, 6 days/week, 52 weeks)

	CJ650MIII		JM650-C2		JM650-SVP/2	
	Fixed Pump		VDP		SVP/2 Servo System	
	kWh	USD	kWh	USD	kWh	USD
Production time (days)	421	-	421	-	405	-
Product (per pieces)	0.34	0.04	0.21	0.03	0.1	0.01
500,000 piece total:	169,953	21,583	102,700	13,042.3	52,083	6,614.3

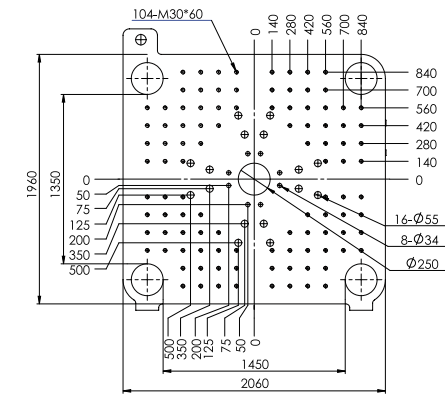
Based on USD 0.12/kWh

Time Savings per year: 16 days
Cost Savings per year: USD 14,968.8

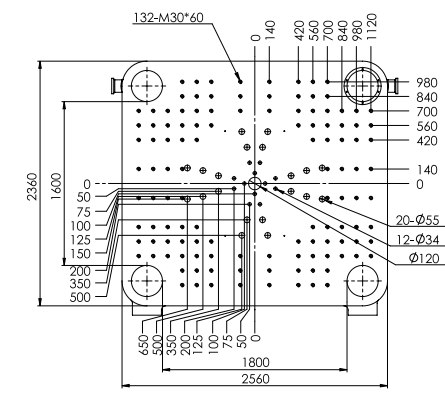
* subject to different product applications and cycle times



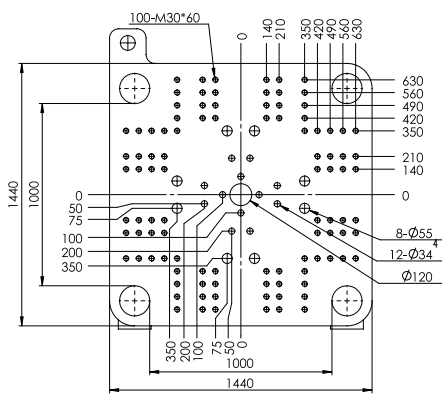
JM650-SVP/2



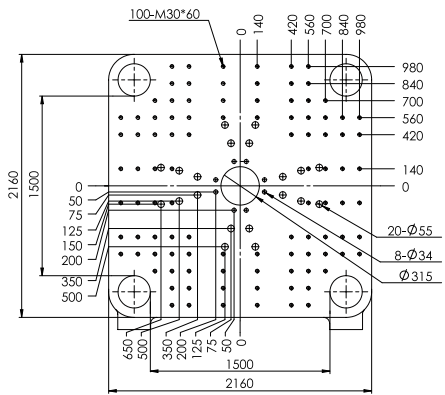
JM1400-SVP/2



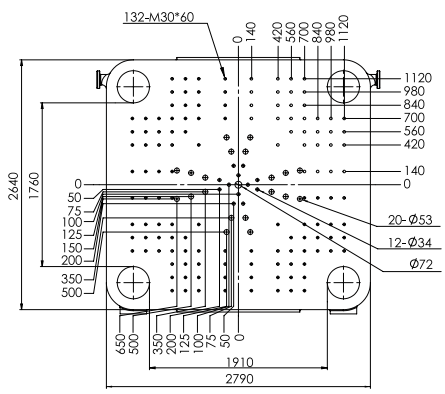
JM2200-SVP/2



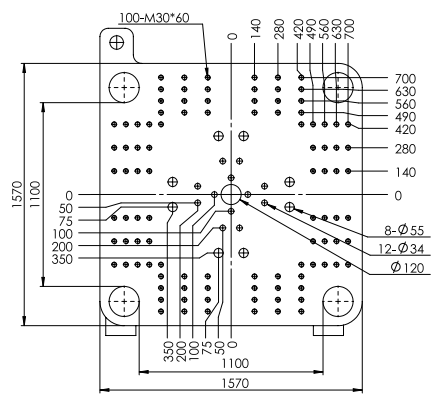
JM800-SVP/2



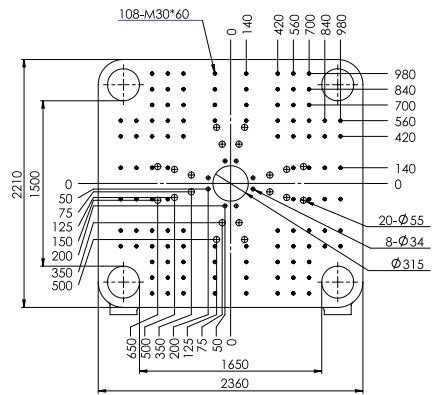
JM1600-SVP/2



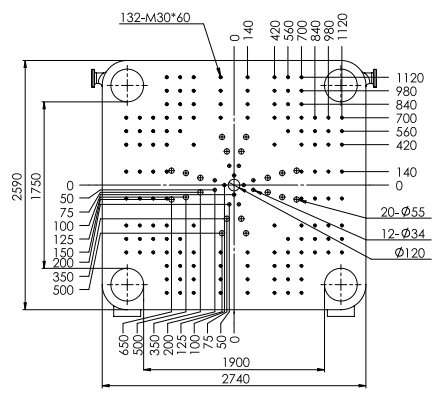
JM2600-SVP/2



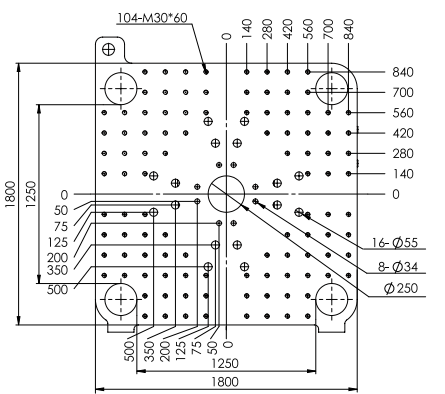
JM1000-SVP/2



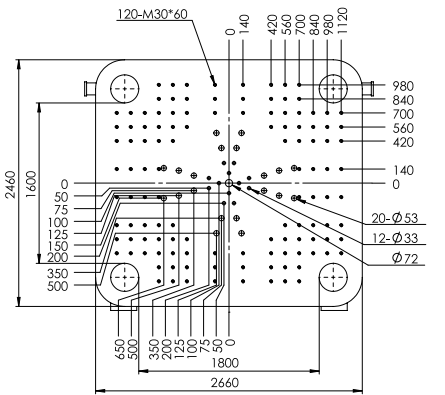
JM1850-SVP/2



JM3000-SVP/2



JM1200-SVP/2



JM2000-SVP/2

Injection Unit	Unit	JM650-SVP/2			JM800-SVP/2			JM1000-SVP/2			JM1200-SVP/2			JM1400-SVP/2			JM1600-SVP/2			JM1850-SVP/2			JM2000-SVP/2			JM2200-SVP/2			JM2600-SVP/2			JM3000-SVP/2					
Swept Volume	cm³	2300	2704	3206	2926	3469	4371	3922	4941	5881	5701	6785	7953	7351	8627	10005	9290	10776	12370	9290	10778	12370	11545	13253	16036	11545	13253	16036	14579	17640	20993	19244	22902	26878			
Shot Weight(ps)	g	2116	2488	2950	2692	3191	4021	3608	4546	5411	5244	6242	7325	6983	7936	9204	8547	9914	11380	8547	9914	11380	10621	12193	14753	10621	12193	14753	13413	16229	19314	17704	21069	24728			
	oz	75	88	104	95	113	142	127	160	191	185	221	259	247	281	328	301	350	438	301	350	438	375	430	520	375	430	520	473	572	681	624	743	930			
Screw Diameter	mm	83	90	98	90	98	110	98	110	120	110	120	130	120	130	140	130	140	150	130	140	150	140	150	165	140	150	165	150	165	180	165	180	195			
Injection Pressure(Max.)	Kgf/cm²	2160	1840	1550	2180	1840	1460	2140	1690	1420	1690	1420	1210	1830	1560	1350	1960	1690	1470	1960	1690	1470	1990	1735	1429	1990	1735	1429	2122	1755	1469	1726	1451	1236			
Screw L/D Ratio	mm/mm	24	22	20.3	24	22	20	24.7	22	20.2	24	22	20.3	23.8	22	20.4	23.7	22	20.4	23.7	22	20.4	23.6	22	20	23.6	22	20	24.2	22	20.2	24	22	20.3			
Plasticizing Rate	g/s	85	98	130	72	90	129	71	105	137	100	128	151	107	125	134	150	160	214	160	170	228	162	194	245	158	190	240	180	227	290	200	255	299			
Injection Rate	cm³/s	429	505	598	467	554	698	597	752	895	835	994	1167	769	903	1047	1084	1257	1443	1156	1341	1539	1152	1322	1600	1152	1322	1600	1353	1637	1948	1637	1948	2286			
Screw Stroke	mm	425			460			520			600			650			700			700			750			750			825			900					
Screw Rotation Speed (Max.)	rpm	160			110			98			90			75			90			95			90			88			86			75					
Clamping Unit																																					
Clamping Force(Max.)	t	650			800			1000			1200			1400			1600			1850			2000			2200			2600			3000					
Opening Stroke	mm	920			1025			1150			1320			1500			1600			1650			1700			1700			1900			2000					
Space Between Tie Bars(HxV)	mm	900 X 900			1000 X 1000			1100 X 1100			1250 X 1250			1450 X 1350			1500 X 1500			1650 X 1500			1800 X 1600			1800 X 1600			1910 X 1760			1900 X 1750					
Maximum Daylight	mm	1830			2100			2350			2620			2950			3200			3300			3500			3500			3750			4000					
Mould Thickness(Min.-Max.)	mm	350 - 910			400 - 1075			450 - 1200			500 - 1300			650 - 1450			700 - 1600			750 - 1650			900 - 1800			900 - 1800			950 - 1850			1000 - 2000					
Ejector Stroke	mm	265			300			350			350			380			400			420			420			420			420			460					
Ejector Force(Max.)	t	18.2			28.9			28.9			35			35			40			40			46			46			46			46					
Power/Heating Unit																																					
System Pressure	Kgf/cm²	178			178			178			178			178			178			178			178			178			178			178					
Servo Motor Power	kW	55			71			80			96			96			144			140			140			140			140			192			192		
Electrical Heating Power	kW	36			40.6			50.9			55.2			60			92.5			92.5			110			110			115			131					
Temperature Control Zone		6			8			8			8			8			8			8			8			8			8			8					
Others																																					
Oil Tank Capacity	liter	850			1050			1200			1600			2000			2400			2400			2500			2600			3500			3200					
Machine Dimensions(LxWxH)	m	10 X 2.1 X 2.3			11.2 X 2.4 X 2.3			11.8 X 2.4 X 2.5			13.2 X 2.8 X 2.7			14.1 X 3.1 X 3.1			15.2 X 3.3 X 3.2			15.4 X 3.4 X 3.2			18.2 X 3.7 X 3.4			16.9 X 3.8 X 3.4			19.4 X 3.9 X 3.8			18.8 X 3.8 X 3.7					

* The technical parameters above are for reference only and discrepancies may arise in different circumstances. The company keeps upgrading the products and reserves the right to change the product specifications and parameters without prior notice. The final interpretation to the above specifications and parameters belongs to the company.