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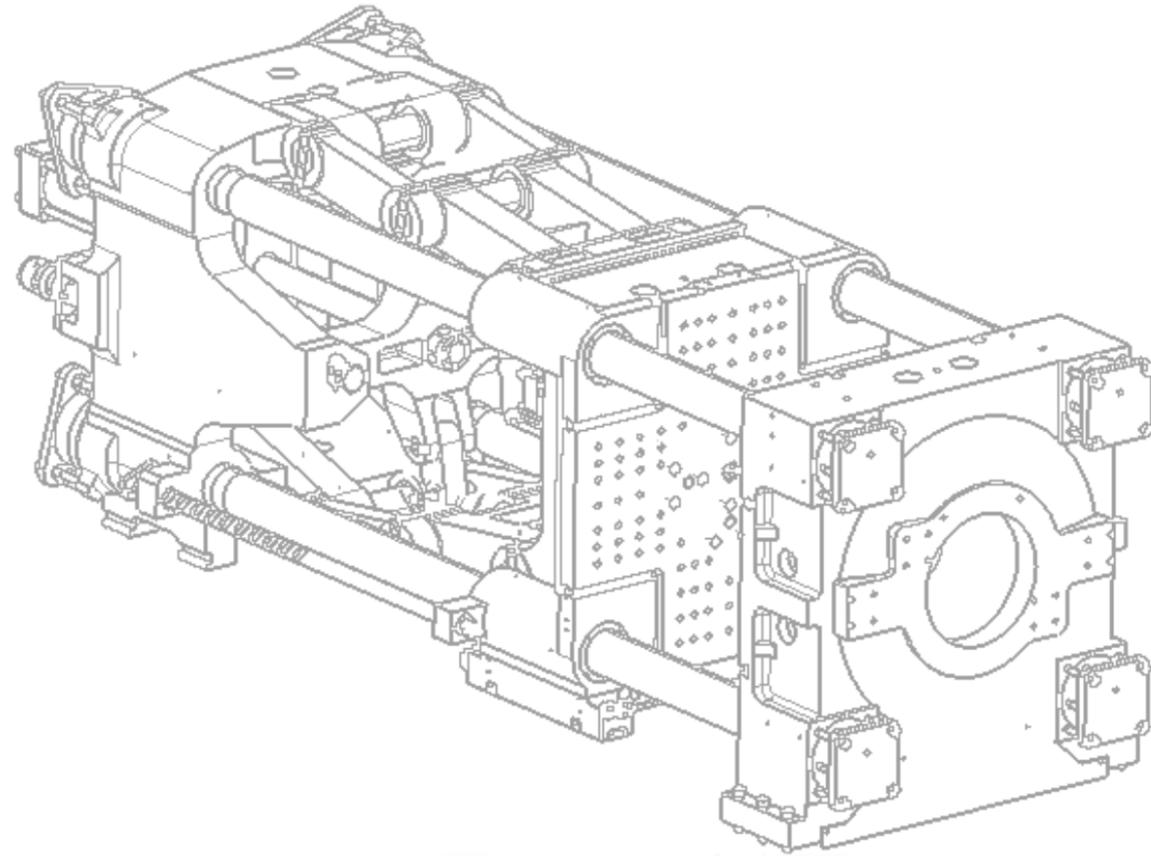
Global 24-hour service hotline

+86-576-84086666



DAKUMAR®

德库玛



油电复合高速机
DKM-5H Series
Hybrid hi-speed injection molding machine

伺服节能注塑机
DKM-SV Series
Servo energy saving injection molding machine



浙江德库玛机械有限公司
ZHEJIANG DAKUMAR MACHINERY CO.,LTD.

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浙江德库玛机械有限公司
ZHEJIANG DAKUMAR MACHINERY CO.,LTD.

COMPANY PROFILE

追求卓越品质，创造世界品牌

德库玛以先进的注塑机技术，配合高端的模具设计制造理念，成熟高效的注塑工艺，为客户提供全方位的解决方案

European Technology

浙江德库玛机械有限公司隶属于西诺股份旗下，公司以独特的5H理念引领注塑机的研发、制造、销售与服务，专注成为世界著名的注塑成型装备、技术、方案的供应商。德库玛技术研发团队专业从事数据分析与结构优化。通过有限元和运动仿真学技术，无论是曲轴式伺服注塑机还是欧标两板式注塑机，德库玛注塑机的结构和运行控制都拥有欧洲高端科技，极高展示了机器的运行可靠性与寿命，奠定了德库玛品质在中国注塑机品牌中的领先地位。公司引进奥地利，德国，瑞士，意大利等国家的高精密加工设备和检测设备，通过系统完善的检测标准，确保机器零部件的加工精度与无与伦比的质量水平。迄今为止德库玛®注册商标品牌已在全球几十个国家设有办事处和服务网络，拥有经验丰富的售后服务团队，确保提供客户及时、高效、专业的技术服务，通过生产线匹配度运行，确保提供客户性能可靠的机器。德库玛已为全球1600多家企业，100多个国家承接定制政府性、研发项目和高标高速精密生产线。

德库玛注塑机广泛用于食品包装行业，汽车行业，电子行业，家电行业，医疗，日用品等领域，客户遍布欧洲，美洲，东南亚以及非洲等地区。

DAKUMAR Machinery Co., Ltd, one member of Sino Holdings Group, is specialized in R&D, manufacture, sales and service of plastic injection machine with concept of 5H, focus on being world leading supplier of injection molding equipment, technology and solutions. Dakumar R & D team is professional in data analysis and structural optimization. With the help of the finite element and dynamic emulation technique, Dakumar is able to apply European high tech on injection machine structure, running control on both toggle servo injection machine and European standard two platen machine, which brings Dakumar machine stable performance, long life, and help Dakumar stand out among Chinese injection machine brands. Dakumar has advanced précising tooling equipment and inspection equipment from Austria, Germany, Switzerland, Italy... with strict QC system to make sure the tooling precision and part quality. As a world brand, Dakumar has already established distributor office and service center in over 50 countries, with experienced engineer service team, to ensure efficient and professional support for our customers. With simulation production before delivery, Dakumar offers high quality machinery for turnkey projects. Till now, Dakumar has provided high standard precise injection molding line, government project for over 1600 companies in over 100 countries. Our machinery is widely used in different fields like food packaging, automotive parts, home appliance, medical parts, household items for customers from European, American, Asia, Middle East...

5H - Series machine
油电复合高速机

SV - Series machine
伺服节能注塑机





WHAT'S 5H

DKM provides a new conception of injection molding

- 高速度 High speed
- 高效率 High efficiency
- 高安全 High safety
- 高精度 High precision
- 高节能 High energy saving

5TH H/ 注射部分 INJECTION UNIT

高节能：

- 配备高响应伺服系统，根据动作需要提供相应液压油输出流量，无溢流损耗，节省能源30-70%
- 可选配伺服马达加料，较传统油马达，可节省能源消耗且位置更精准

High Energy Saving:

- With high-response servo system, machine runs according to actual need, no overflow or waste; it can save power by 30%-70%.
- With servo-motor to charge, compared with hydraulic motor, it can save energy consumption and at the same time control the position more precisely.



4TH H/ 电控部分 ELECTRONICALLY CONTROLLED UNIT

高精度：

- 采用欧洲先进的电脑控制器，位置及温度控制精准
- 选配精密伺服阀全闭环射出系统，确保射出稳定
- 油路阀板直接安装在执行元件上，控制更精准、反应更快速
- 双射移平衡油缸确保射台受力均匀，高压射出不易漏胶，射出更稳定
- 射台采用线性滑轨设计，确保料管不下垂，射出平稳和精准
- 高刚性锁模机构模板低变形，且连杆支点靠近模板中心，实现锁模力均匀分布
- L/D=22-24, 双螺纹混炼螺杆确保塑料混炼均匀

High Injection Precision:

- Configure European advanced controller, to precisely control the temperature and location.
- In hydraulic unit, configure precision servo-valve, it runs with high precision, and response faster.
- In injection unit, configure linear slider, it avoids the barrel drop down, make sure the injection is stable and precise.
- Screw L/D=22-24, and screw with double thread mixing, to ensure full material mixture.



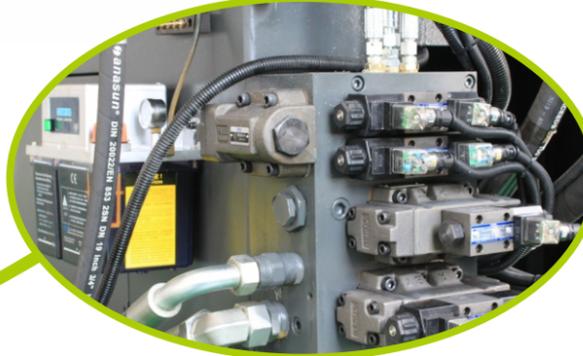
3RD H/ 液压系统 HYDRAULIC UNIT

高安全：

- 机械、液压、电器三重保护
- 安全模块独立控制关模、射出、加料、座进不会产生误动作而造成人体伤害
- 隐藏式机械安全机构，安全性高
- 全封闭式钣金

High Safety:

- Machine with mechanical, hydraulic, electrical triple protection.
- Security module independent control, it ensures safe machine closing, injection, charging, nozzle forward to machine to avoid any accident.
- Concealed Mechanical safety structure with high security
- Fully closed machine frame.



2ND H/ 锁模系统 CLAMPING UNIT

高效率：

- 全新曲手优化设计，速度与锁模力完美组合，锁模速度快10%-20%
- 标配边开模边托模，大幅节省成型时间

High efficiency

- Toggle with optimized design, perfect combination of speed and force, it is 10%-20% faster.
- Standard machine can realize mould opening and ejector at the same time, it saves cycle time.



1ST H/ 蓄能器辅助高速注射 High-speed response accumulator

高速度：

- 高精度单缸射出系统，适合高速射出，无射出不同步问题，惯量低，射出加、减响应快
- 搭配蓄能器射出，最大射出速度范围：300-450mm/sec (视机种而定)
- 射出加减速响应时间30ms

High Speed:

- Machine adopts high precision single cylinder injection system, especially suitable for high speed injection, with low-inertia and high response speed.
- Machine adopts accumulator to realize high speed injection, the max injection speed can reach 300-450 mm/sec (according to different machine model)
- Machine ACC/DEC response time can reach 30ms



5H-高速薄壁专用机

5H hybrid hi-speed injection molding machine

采用蓄能器辅助注射来实现高速注塑，此外通过三轴联动功能来实现储料、托模、开模同时进行，大幅缩短成型周期。

主要应用于机械手模内贴成型、薄壁容器成型。

例如：冰激凌杯盒、酸奶盒、一次性饭盒等；壁厚为0.40mm的四腔冰激凌盒，成型周期为2.9秒。

The machine is designed with accumulator to realize high speed injection. Besides, it has the function of 3 axis linkage to realize material charging, mould opening and ejection at the same time.

Main Application: IML molding with robot system, thinwall container molding, such as ice cream box, yogurt box, disposable food container etc, cycle time can reach 2.9s for 4 cavities ice cream box mould with 0.4mm thickness.



5H-高精度产品专用机

5H hybrid hi-precision injection molding machine

机器采用KEBA控制系统和Rexroth伺服阀，不仅能精确控制每一模的注射量以及位置，同时还可以降低成型误差，从而获得高精度成型。

主要应用于电子零部件，例如：手机壳、塑料机械齿轮、LED照明灯等。

Machine is applied with KEBA control system and Rexroth valve, it can control each shot precisely on weight and position. Molding tolerance is very small to get high precision molding.

Main Application: Electronic parts, such as mobile phone cover, plastic mechanical gear, LED light etc...

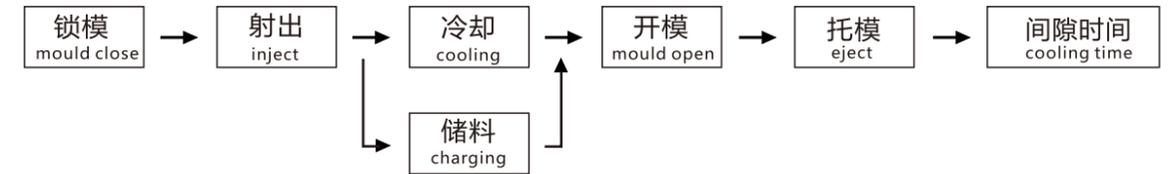


注塑工艺流程对比图

Injection molding flow comparison

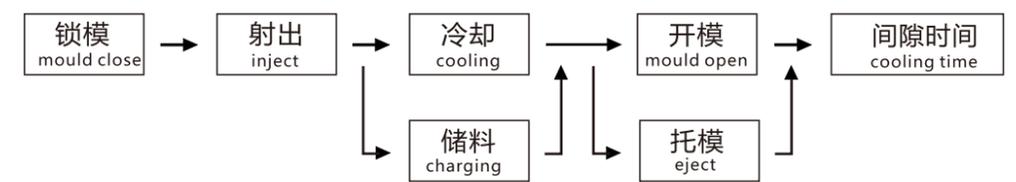
普通机一个成型周期的时间流程

common injection machine' s production cycle



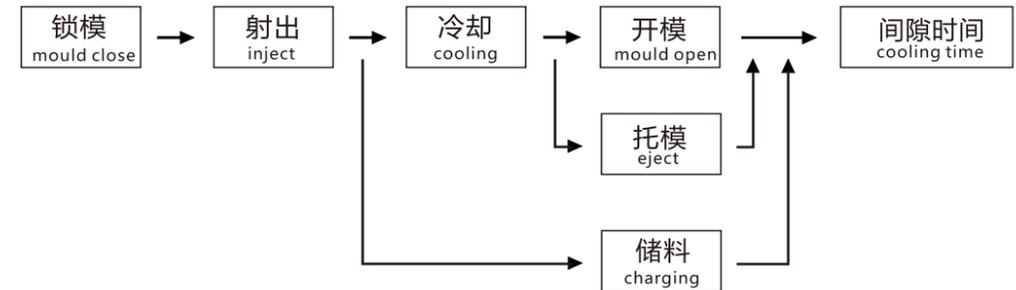
两轴联动一个成型周期的时间流程

two-parallel lines action injection machine' s production cycle



三轴联动一个成型周期的时间流程

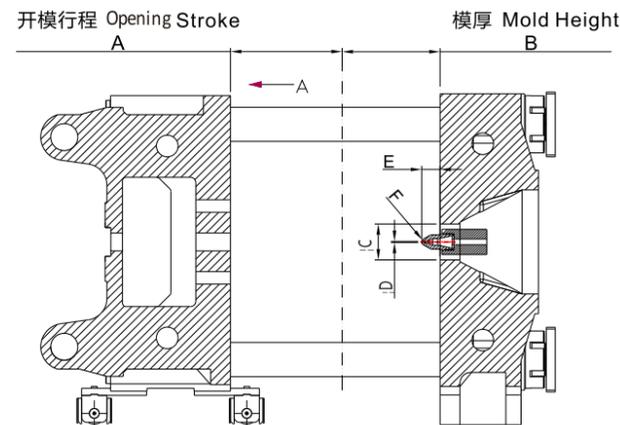
three-parallel lines action injection machine' s production cycle



高速机技术参数表

MACHINE SPECIFICATION

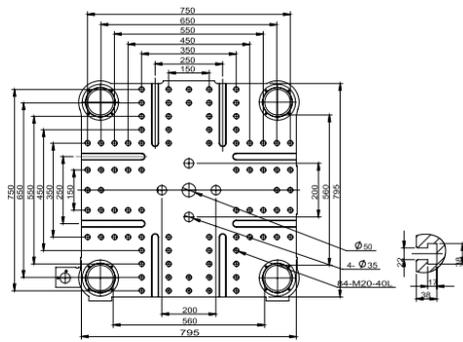
高速专用机规格表			DKM-200H/200HH			DKM-300H/300HH			DKM-400H/400HH			DKM-600H/600HH			DKM-800H/800HH				DKM-1100H/1100HH				DKM-1300H/1300HH			
			A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	D	A	B	C	D	A	B	C	D
射出单元	Injection Unit																									
螺杆直径	Screw Diameter	mm	Φ42	Φ48	Φ54	Φ50	Φ55	Φ62	Φ60	Φ65	Φ72	Φ60	Φ65	Φ72	Φ90	Φ95	1Φ0	Φ110	Φ100	Φ110	Φ120	Φ130	Φ110	Φ120	Φ130	Φ140
螺杆长径比	Screw L/D Ratio	(L/D)	24	24	24	24	24	24	24	24	24	24	24	24	24.8	23.6	22.4	20.4	26	24	22	20	26	24	22	20
理论射出容积	Theoretical Shot Volume	Cm3	332	434	549	559	677	860	890	1045	1282	890	1045	1282	2988	3330	3690	4464	4710	5699	6782	7960	6275	7470	8765	10170
射出量	Weight	gram	297	387	490	499	604	768	794	932	1144	794	932	1144	2690	2997	3321	4018	4239	5129	6104	7164	5648	6723	7889	9153
射胶压力	Injection Pressure	Mpa	253	193	153	265	219	172	243	200	163	234	200	163	207	185	167	137	211	174	146	125	201	169	144	124
射出速度	Injection Speed	mm/s	400			350			300			300			250				200				200			
射出率	Injection Rat	cm3/sec	554	723	916	687	831	1056	848	995	1121	848	995	1221	1590	1771	1963	2375	1570	1900	2261	2653	1900	2261	2653	3077
塑化率	Plasticizing rate	(PS g/s)	16.4	22.6	29	24	29.6	35	33.7	38.2	46.4	33.7	38.2	46.4	71.8	78.2	86.5	104	86.5	104	122	139	104	122	139	151
螺杆转速	Screw Rotate Speed	rpm	0-200			0-200			0-200			0-200			0-200				0-190				0-140			
合模力	Clamp Force	kN	2000			3000			4000			6000			8000				11000				13000			
移模行程	Toggle Stroke	mm	490			560			700			900			1040				1280				1410			
拉杆内距	SpaceBetweenTieBars	mm	560*560			660*660			760*760			900*900			1040*1040				1200*1200				1370*1320			
最大模厚	Max.Mold Height	mm	600			640			760			1000			1040				1250				1400			
最小模厚	Min.Mold Height	mm	200			220			250			300			420				500				500			
最小模具尺寸	Min.Mould size	mm	365*365			430*430			495*495			590*590			625*625				740*740				820*820			
顶出行程	Ejector Stroke	mm	140			165			195			240			300				350				350			
顶出力	Ejector Force	kN	61			79			125			210			210				246				246			
顶出杆数	Ejector Number	n	5			13			13			21			21				21				25			
最大油泵压力	Max.Pump Pressure	Mpa	16			16			16			16			16				16				16			
电机功率	Pump Motor Power	kw	57.4 / 83.8			68.1 / 109.7			85 / 137.4			107.5 / 159.9			200				270				300			
电热功率	Heater Power	kw	16			24			30			32			55.3				72				86			
外形尺寸	Machine Dimension	m	6.1*1.75*2.4			6.9*1.87*2.45			8.1*2.2*2.6			10.5*2.3*2.6			10.8*4.2*2.8				11.4*4.8*3.8				13.4*5.0*3.8			
机器重量	Machine Weight	ton	8			12			18			25.5			37				55				66			
油箱容积	Oil Tank Capacity	Litre	420			520			720			1000			2600				4000				4600			



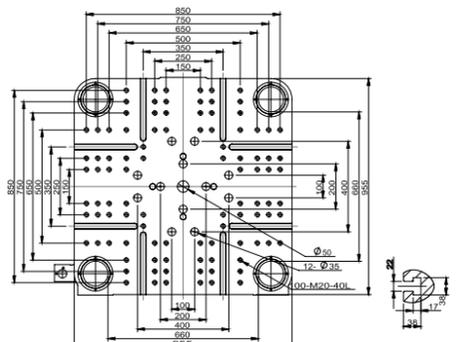
Model	A	B	C	D	E	F
DKM-200H	490	200-600	160	Φ3.5	50	SR10
DKM-300H	560	220-640	160	Φ3.5	50	SR10
DKM-400H	700	250-760	200	Φ5	75	SR15
DKM-600H	900	300-1000	200	Φ5	75	SR15
DKM-800H	1040	420-1040	250	Φ5	50	SR15
DKM-1100H	1280	500-1250	250	Φ6	50	SR20
DKM-1300H	1450	500-1400	250	Φ6	50	SR20

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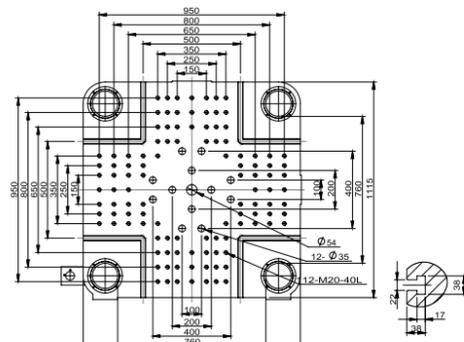
Plate Dimension



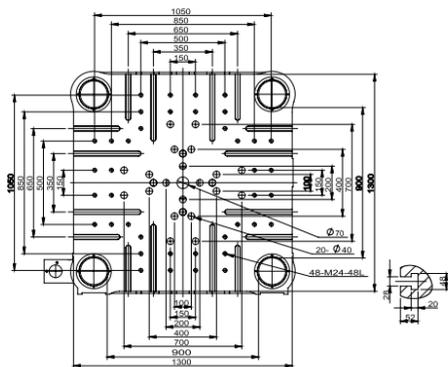
DKM200HH



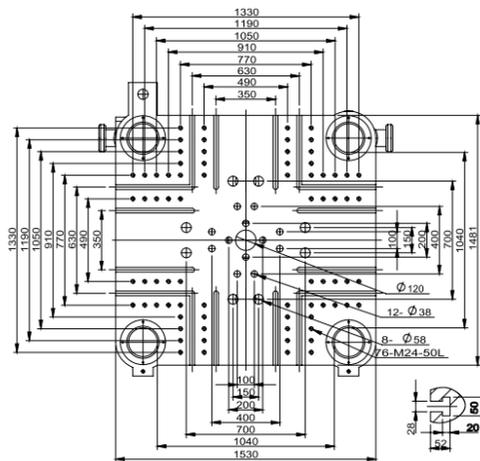
DKM300HH



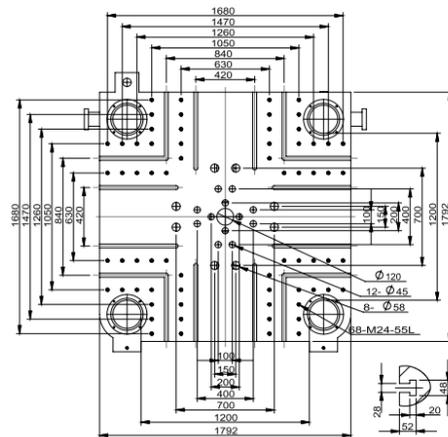
DKM400HH



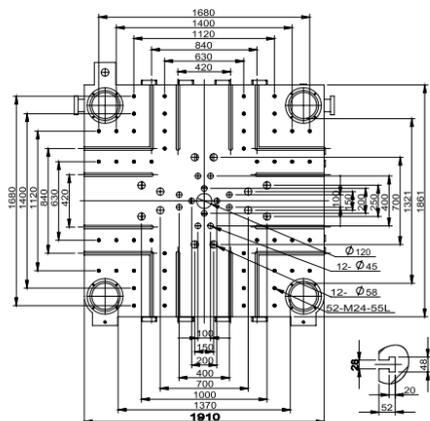
DKM600HH



DKM800HH

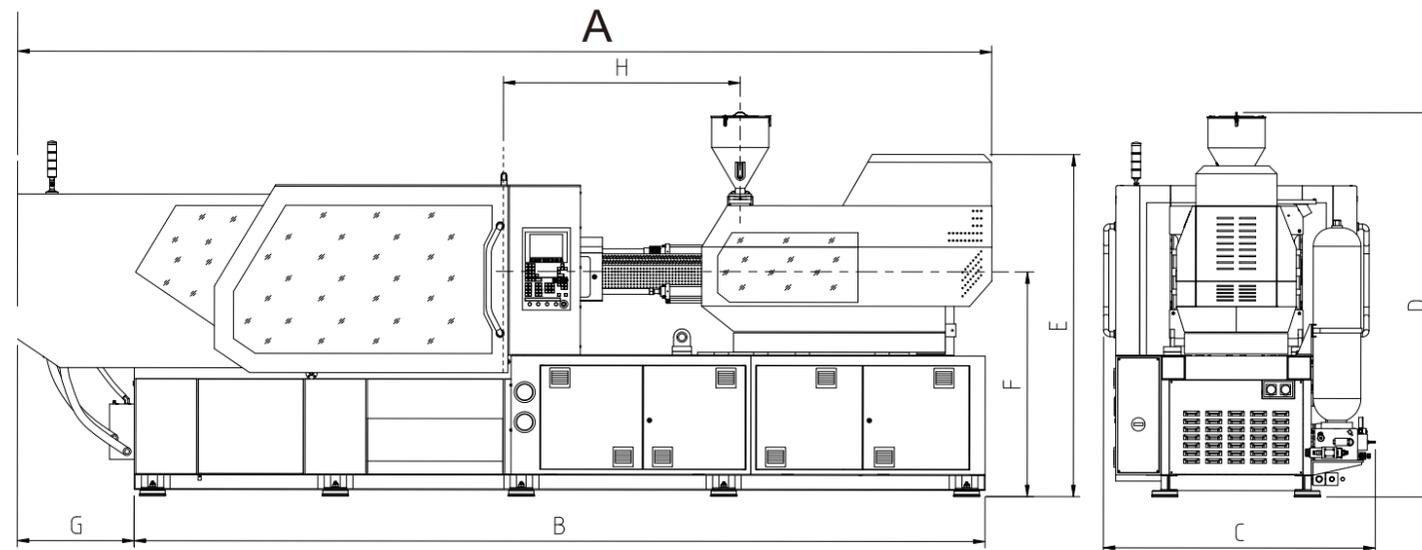


DKM1100HH



DKM1300HH

整机外廓尺寸 MACHINE DIMENSION



Model		A	B	C	D	E	F	G	H
DKM-200H	DKM-200HH	6110	5330	1750	2350	2000	1390	680	1484
DKM-200HP	DKM-200HHP								
DKM-300H	DKM-300HH	6950	6150	1872	2450	2120	1430	700	1804
DKM-300HP	DKM-300HHP								
DKM-400H	DKM-400HH	8100	6950	2200	2470	2056	1450	965	1966
DKM-400HP	DKM-400HHP								
DKM-600H	DKM-600HH	10200	8513	2280	2600	2150	1550	1443	1966
DKM-600HP	DKM-600HHP								
DKM-800H	DKM-800HH	11000	9600	4700	3100	1900	1400	1020	2878
DKM-800HP	DKM-800HHP								

★ 200吨注塑机通过调整安全门钣金位置可以整机装入20英尺集装箱。

★ DKM-200 can be loaded in 20 feet container by adjusting safety door.

-H: 开模与托模两个动作同步

Mold opening and ejecting parallel action

-HH: 开模、托模、储料三个动作同步

Mold opening, ejecting and charging parallel action

-P: 选装MOOG射出伺服阀

Optional MOOG injecting servo valve

德库玛伺服节能注塑机

Servo Power Save injection molding machine

We use high-performance servo dynamic control system, as the power source the oil pump, have the characteristics high speed response, energy saving, low noise, high-control precision, and a breakthrough in the perfect connection of the electrical servo and hydraulic drive system.

该系列机型采用高性能的伺服动力控制系统，驱动油泵作为整机的动力源，具有高响应，节能，低噪音，高控制精度等优点，突破性地实现了电动伺服与液压驱动技术的完美结合。



DKM-50~4000SV伺服节能型注塑机 50~4000ton servo energy saving machine

通用型注塑机，适合生产周转箱、托盘类，桌椅、家电类以及汽车保险杠、内饰类等广泛类产品，可根据客户特殊需求，定制特殊类型机器。

Suitable for industrial containers and pallets, chairs and tables, home appliances, automotive parts etc. We can offer customized machine according to customers' special requirements.

DKM-PET/PVC特殊定制类注塑机 PET/PVC customized injection molding machine

特殊型注塑机，针对PET管胚、PVC管接头等特殊行业的客户需求，提供定制类型机器。

Suitable for PET preform and PVC fitting injection molding.

DKM-SV Series 伺服节能注塑机

Servo energy saving injection molding machine

交钥匙工程生产线 Turnkey Plastic molding line



DKM伺服节能注塑机广泛应用于各种交钥匙生产线，结合高质量模具，高精度机械手以及各类辅机，我们能更好地为客户提供一站式的生产线服务。

DKM-SV series machine is widely applied in different turnkey plastic molding line, combining with the high quality mould, high precise robot and various types of auxiliary machine, Dakumar offers customers Turnkey project with prompt service and simulation run before shipping.



汽车配件 automotive parts



工业垃圾桶 Industrial garbage bins



周转箱和托盘 containers and pallets



Environmental protection -high energy saving.

High energy saving

● Under normal operating conditions, compared with conventional hydraulic injection molding machines, 20-80% energy can be reduced.

Molding stability

● Compared with conventional injection molding machines, repeatability is greatly improved due to servo motor closed-loop control.

Quick response

● Featuring a dynamic servo motor with a response time of only 0.05sec

Quiet operation

● The machine runs at a much lower noise level, particularly in low speed applications.

Reliable holding pressure

● Compared with traditional hydraulic machine the holding pressure is more stable and the dwell time has been much extended.

Better oil temperature stability

● The servo system only delivers hydraulic oil as it is needed for various functions, which prevents unnecessary generation of heat and substantially reduces oil cooling requirements.

超效节能

● 在同等工作状态下, 相较传统液压注塑机能实现20%-80%的节能率

超佳成型稳定性

● 伺服驱动系统, 闭环控制, 相较传统液压注塑机, 成型重复精度大幅提高

超灵敏响应性

● 灵敏伺服驱动系统响应迅速, 快速启动时间仅需0.05S

超性能环保

● 整机运行低噪音, 低速运行更宁静

超可靠保压性能

● 相较传统液压注塑机, 保压时间调整范围更广泛, 保压性能更稳定

超恒定油温

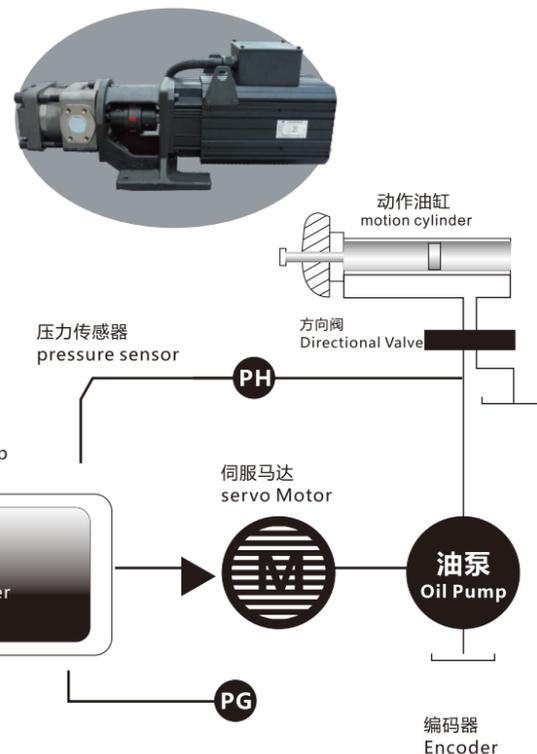
● 伺服电机比例输出液压油, 避免多余热量产生, 升温慢, 液压油甚至不需冷却, 实现大幅节水

伺服系统

servo system

- > High performance energy saving to reduce cost.
- > Not only save energy, but also realize the precise speed and pressure control.
- > High efficiency, lower oil temperature, making oil tank much smaller and the service life of hydraulic oil and elements much longer.

- > 高效的节能效果降低注塑机运转成本。
- > 不仅有高节能性, 更能实现高精度的速度和压力控制;
- > 高效率, 抑制油温上升, 实现油箱的小型化, 延长液压油和液压元件的使用寿命。



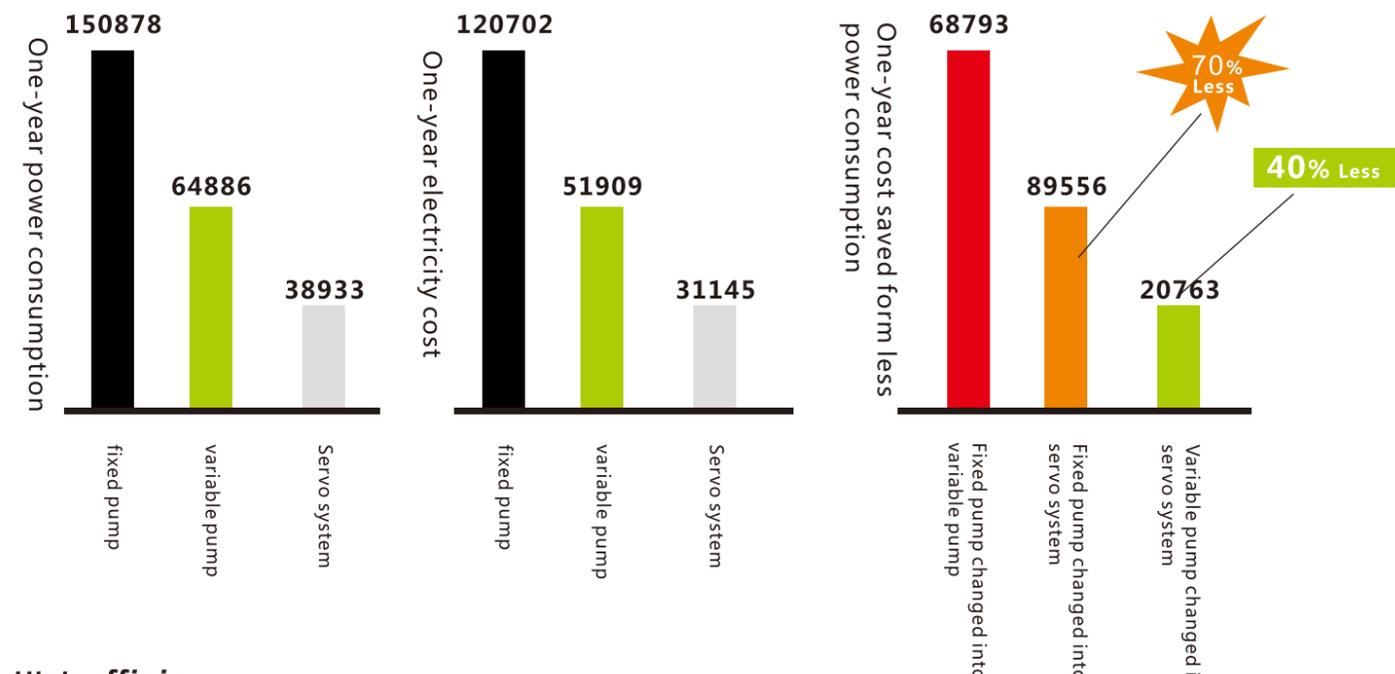
伺服系统工作原理

Servo System Principle



伺服电液系统与传统流量、压力系统的能耗比较

Energy Consumption comparison between Electro Hydraulic Servo System and Traditional Flow and Pressure System



High efficiency

DKM Electro-hydraulic servo system uses the slim motor design which the moment of inertia is small, coupled with the most advanced DSP computing device, to realize the oriented vector control of magnetic field. The system has fast response. Some types of the servo motor can reach the maximum speed 2,500 r/min, and the change of the speed from zero to maximum speed only needs 36 ms. Actions, such as the opening and closing of the mould, injection table movement, ejector pin moving forward and backward, obviously speed up, shortening the formation cycle time and improving productivity.

Precision

We take the high-precision rotary transformer which reach 4096 pulse/ras the feedback element of motor rotate speed (flow) and take the high-precision tension sensor as the feedback element of pressure. And control the pressure and flow with double-closed loop. Realize various control calculation using high-speed DSP which make it real to keep the average pressure inaccuracy within 0.5 bar and the inaccuracy of rotate speed control within 0.1%, and the hysteresis hoop is zero. Hence, the repeat accuracy of product weight is very high that meets customer's need to pursue high precision in production.

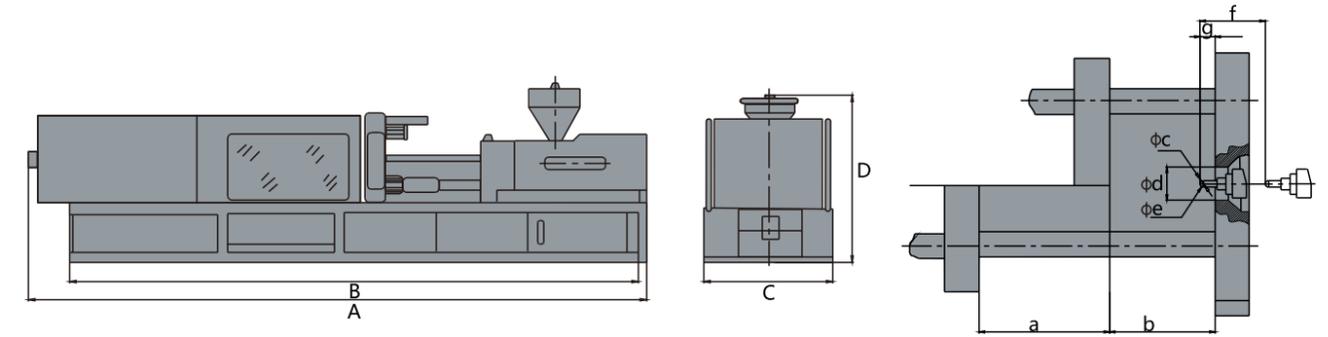
高效

德库玛伺服电液系统采用转动惯量较小的细长型电机设计, 配合以最先进的高速DSP运算器件, 实现磁场定向矢量控制策略。系统具备极快的响应速度, 部分伺服电机最高转速达到2500转/分, 并且从零转速到最高转速的时间仅36毫秒。注塑机的动作如开合模、射台移动、顶针进退等得以明显加快, 缩短了注塑机成型周期, 提高了生产效率。

精密

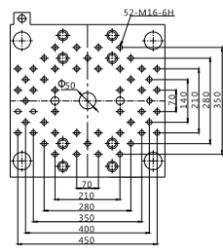
采用精度达4096脉冲/转的高精度旋转变压器作为电机转速(流量)反馈部件和高精度压力传感器作为压力反馈部件, 并对压力、流量进行双闭环控制, 运用高速DSP实现各种控制算法, 平均压力误差可达到0.5bar, 转速控制的误差为0.1%, 滞环为零。因此, 制品重量重复精度高, 满足了生产高精度产品的需要。

Machine Dimension

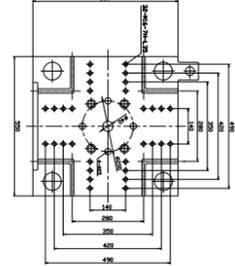


	A	a	B	b	C	c	D	d	e	f	g
DKM80	3720	295	2950	150~370	1170	3	1800	125	SR10	175	30
DKM110	4380	330	3170	150~380	1200	3	1800	125	SR10	196	30
DKM130	4730	343	3520	150~450	1200	3	1850	125	SR10	200	30
DKM180	4920	420	3850	180~520	1270	3	2100	125	SR10	234	30
DKM250	6240	490	5508	200~600	1559	3.5	2300	160	SR10	340	50
DKM350	6900	560	6150	220~640	1880	3.5	2500	160	SR10	390	50
DKM450	8000	700	6900	250~760	1850	4	2500	200	SR15	495	50
DKM550	8500	850	7315	300~810	1950	4	2550	200	SR15	490	50
DKM650	10200	900	8880	300~1000	2300	5	3150	200	SR15	495	50
DKM850	10000	1040	8950	420~1040	2250	5	3200	250	SR15	535	50
DKM1150	12050	1280	10300	500~1250	2500	6	3350	250	SR20	680	50
DKM1350	13400	1410	11400	500~1400	2650	6	3400	250	SR20	680	50
DKM1650	15000	1610	13000	700~1600	3210	8	3500	315	SR20	740	50
DKM2250	18100	1700	16000	900~1800	3800	8	3400	315	SR20	930	50
DKM2800	18500	2160	17000	1000~2000	4000	10	4900	350	SR25	1100	100
DKM4000	19500	2260	18500	1100~2110	4200	10	5250	350	SR25	1100	100

DKM80



DKM110



DKM伺服机技术参数表

DKM Servo Energy Saving Injection Molding Machine Specification

Dakumar machinery spec.		DKM-80SV			DKM-110SV			DKM-130SV			DKM-180SV			DKM-250SV			DKM-350SV			DKM-450SV			DKM-550SV								
INJECTION UNIT		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	D					
螺杆直径	Screw Diameter	32	35	38	34	36	40	38	42	45	40	45	50	45	50	55	60	65	70	70	75	80	85	75	80	85	90				
螺杆长径比	Screw L/D Ratio	22	20.1	18.5	22.4	21.2	19	22	20	18.5	23.2	20.6	18.5	24	21.6	19.4	23	21	20	24	22	20	18	23.7	22	20.7	19.5				
理论注射容量	Shot Volume (Theoretical)	133	158	187	168	188	232	195	235	270	312	395	488	421	520	629	989	1160	1345	1500	1722	1960	2212	1926	2191	2473	2773				
注射重量	Injection Weight	g	121	144	170	152	171	210	216	248	281	356	439	379	468	566	890	1044	1211	1350	1550	1764	1991	1733	1972	2226	2496				
注射压力	Injection Pressure	Mpa	203	170	144	179	160	129	200	163	143	215	169	137	219	178	147	213	182	156	219	191	168	149	191	168	148	132			
塑化率	Plasticizing rate	(PS g/s)	11.7	14.2	16.9	11.7	14.1	19.4	14.1	19.4	26.4	16.7	22.8	29.6	20	24	29.6	22.6	33.7	38.2	44.9	51.4	58.7	65.4	51.4	58.7	65.4	71.8			
螺杆转速	Screw Speed	rpm	0-240	0-220			0-200			0-190			0-170			0-130			0-130			0-130			0-130						
合格装置																															
合模力		Clamp Tonnage	KN	800	1100			1300			1800			2500			3500			4500			5500			5500					
移模行程		Toggle Stroke	mm	320	330			390			435			536			560			700			850			850					
拉杆内距		Distance Between Tie-Bars	mm	360x360	375x375			420x420			470x470			570x570			660x660			760x760			830x830			830x830					
最大模厚		Max. Mold Height	mm	370	450			460			550			600			640			760			850			850					
最小模厚		Min. Mold Height	mm	150	200			160			180			200			220			250			280			280					
最小模具尺寸		Min. Mould size	mm	230x200	240x240			260x260			290x290			365x365			430x430			495x495			510x510			510x510					
顶出行程		Ejector Stroke	mm	90	100			120			140			155			165			195			240			240					
顶出力		Ejector Tonnage	KN	30	33			46			53			61			79			125			150			150					
顶出杆数		Ejector Number	n	1	5			5			5			5			13			13			17			17					
其他																															
最大油泵压力		Max. Pump Pressure	Mpa	16	14			16			16			16			16			16			16			16			16		
电机功率		Pump Motor Power	KW	11	11			18			18.8			30.6			35.9			39.4			60			60					
电热功率		Heater Power	KW	7.55	7			7.4			9.3			13.7			22			27.4			33.9			33.9					
外形尺寸		Machine Dimension (LxWxH)	m	3.9x1.26x1.87	4.38x1.2x1.8			4.7x1.3x1.86			5.1x1.5x1.9			6.0x1.6x2.3			6.9x1.87x2.45			8x2.2x2.6			8.2x1.9x2.6			8.2x1.9x2.6					
机器重量		Machine Weight	t	2.9	2.8			4.5			4.6			8.3			12.5			17			23			23					
油箱容积		Oil Tank Capacity	L	140	200			190			230			420			520			720			950			950					

Dakumar machinery spec.		DKM-650SV			DKM-850SV			DKM-1150SV			DKM-1350SV			DKM-1650SV			DKM-2250SV			DKM-2800SV			DKM-3350SV			DKM-4000SV								
INJECTION UNIT		A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D					
螺杆直径	Screw Diameter	85	90	95	100	95	100	110	100	110	120	130	110	120	130	140	120	130	140	150	140	150	165	170	185	200	225	265	265					
螺杆长径比	Screw L/D Ratio	22.7	21.5	19.3	18.4	24.8	23.6	22.4	20.4	26	24	22	20	26	24	22	20	26	24	22.3	20.8	23.6	22	20	25.8	23.7	22	20	20					
理论注射容量	Shot Volume (Theoretical)	cm³	2439	2734	3046	3376	2980	3325	3685	4460	4710	5699	6782	7960	6275	7470	8765	10770	7924	9299	10785	12380	14571	16579	22687	26867	31400	47688	80209					
注射重量	Injection Weight	g	2195	2461	2741	3038	2682	2993	3317	4014	4239	5129	6104	7164	5648	6723	7889	9153	7132	8369	9707	11142	11424	13114	14921	20418	24180	28260	42919	72188				
注射压力	Injection Pressure	Mpa	232	207	185	167	207	185	167	137	211	174	146	125	201	169	144	124	193	164	142	123	199	173	142	188	159	136	130	130				
塑化率	Plasticizing rate	(PS g/s)	65.4	71.8	78.2	86.5	71.8	78.2	86.5	104	86.5	104	122	139	104	122	139	151	122	139	151	165	151	165	181.4	188	201	230	346	346				
螺杆转速	Screw Speed	rpm	0-130	0-110			0-100			0-120			0-110			0-80			0-60			0-55			0-40			0-40						
合格装置																																		
合模力		Clamp Tonnage	KN	6500	8500			11500			13500			16500			22500			28000			33500			40000			40000					
移模行程		Toggle Stroke	mm	900	1040			1280			1410			1520			1700			1940			2160			2260			2260					
拉杆内距		Distance Between Tie-Bars	mm	900x900	1040x1040			1200x1200			1370x1320			1570x1510			1800x1600			2160x1900			2420x2020			2420x2020								
最大模厚		Max. Mold Height	mm	1000	1040			1250			1400			1500			1800			1900			4660			4870			4870					
最小模厚		Min. Mold Height	mm	300	420			500			500			700			900			900			1000			1000			1000					
最小模具尺寸		Min. Mould size	mm	590x590	625x625			625x740			820x820			960x860			1150x1020			1220x1120			1510x1330			1695x1415			1695x1415					
顶出行程		Ejector Stroke	mm	240	300			350			350			420			450			450			550			550			550					
顶出力		Ejector Tonnage	KN	210	210			246			246			318			400			430			618			618			618					
顶出杆数		Ejector Number	n	21	21			21			25			29			29			29			29			29			29			29		
其他																																		
最大油泵压力		Max. Pump Pressure	Mpa	16	16			16			16			16			16			16			16			16			16			16		
电机功率		Pump Motor Power	KW	75.3	112.6			118.2			168.9			168.9			225.2			281.5			336			385			385					
电热功率		Heater Power	KW	44.9	55.3			76			82			103			110			170			190			265			265					
外形尺寸		Machine Dimension (LxWxH)	m	9.5x2.3x2.8	10.8x2.21x3.1			11.4x2.3x3.8			13.4x2.5x3.8			15x3x4			18.4x3.8x3.4			22x4.4x5.4			24x4.8x5.6			24x4.8x5.6								
机器重量		Machine Weight	t	26	33			51			62			100			124			185			250			300			300					
油箱容积		Oil Tank Capacity	L	1000	1300			2000			2300			3000			4000			4000			5000			5000			5000					

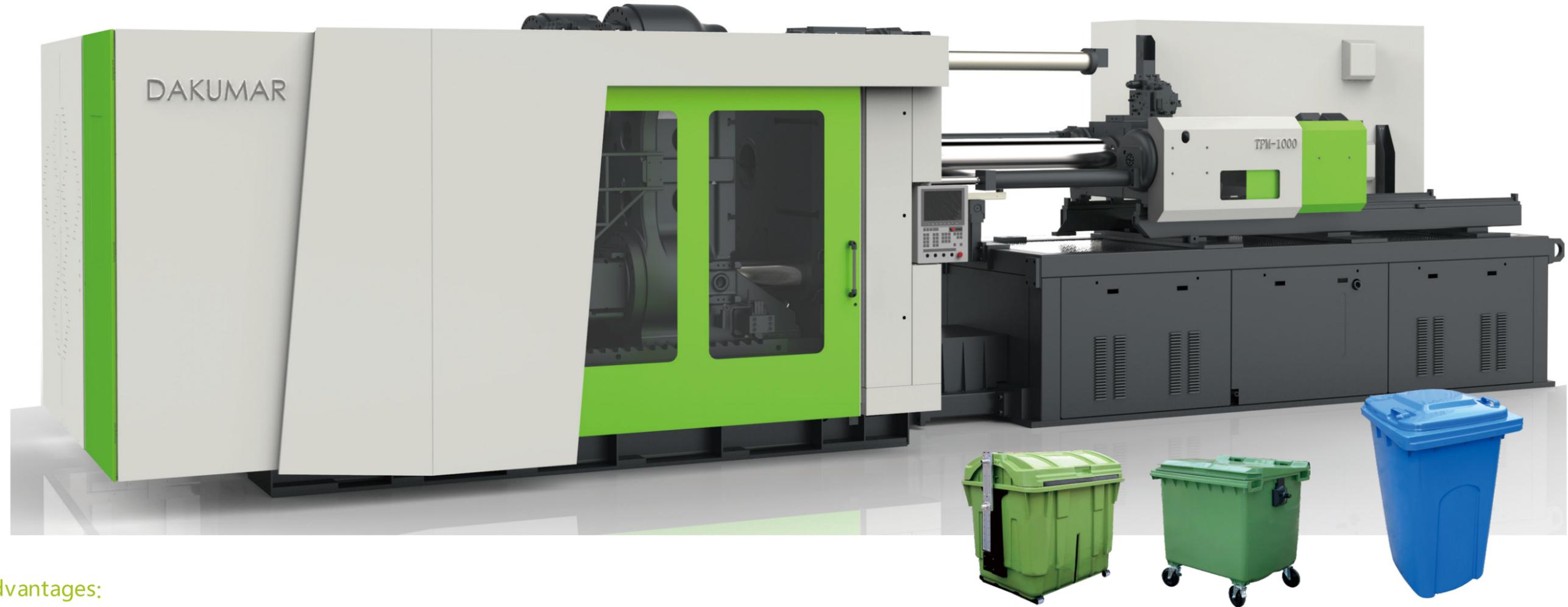
德库玛提供高品质的上料机、干燥机、粉碎机、混色机、机械手等全自动生产线设备和配件。

Dakumar offers customers high quality automatic devices and auxiliary equipment, including auto loader, hopper dryer, water chiller, crusher, color doser, robot etc.

德库玛二板式注塑机1000T-4000T DKM 1000T-4000T Two Plate Injection Molding Machine

德库玛的TP系列二板式注塑机由我司意大利籍技术总工程师主持研发，为迎合大型塑件生产的市场需求，简约的机器设计不仅具有无限的容模量和取件空间，而且相对同等吨位的三板机具有独特的占地空间和锁模成型力优势。尤其适合生产大规格尺寸的塑料产品，如垃圾桶，家用电器，汽车零部件，物流箱，和大型托盘。

Dakumar TP series two plate injection machine is developed by our CTO from Italy, the machine is made to meet customers' requirement to produce large size plastic parts, such as industrial dustbin, household appliances, auto parts, logistics container and large pallets. The two plate injection machine has the advantages of high mould thickness capacity and space for robot pick-up, with 30% less land space required and big clamping force.



特点Advantages:

高稳定性:

- 关键零部件都经过长时间的有限元分析及再优化过程，突破传统的技术工艺瓶颈，大幅提高机器强度及刚性。
- 合模机身采用整体的H型钢，最大限度地避免焊缝对精度的影响。
- 整体二板滑脚机构，动定模板能保持绝对平行。动板由机身底面和侧面导向消除任何倾斜扭矩，模具承重能力大幅度提升。

High stability:

- The key parts has been inspected by long time finite element analysis and re-optimization procedure, so the strength and the rigidity has been enhanced.
- The clamping part adopt complete H type steel to keep the precision.
- Complete double slide structure assure the moving and fixed plate remain parallel even for large size mould. The moving plate is guided by machine bottom and side to eliminate any tilting torque, the mold bearing capacity has been increased greatly.

高精度:

- 锁模油路封闭式设计，泄漏量少，保压性能好。
- 并行锁紧螺母的操作，具有快速和准确的反应。
- 动模板上的短程锁模油缸，可快速建立锁模力，模具受力均匀，锁模力通过压力传感器可实时监控，锁模力重复再现性好。

High Precision:

- Clamping unit was adopted with fully closed hydraulic system for less leakage and good pressure holding.
- Operating with locknut with rapid and accurate reaction.
- Four short stroke clamping hydraulic cylinders installed on moving plate to create clamping force rapidly, balanced mould pressure. The clamping force can be monitored by pressure sensor with good clamping force reproducibility.

高灵活性:

- 倒置式顶出装置，顶出行程可根据产品的需求自由设定。

High Flexibility:

- Inversion type ejection system, the ejection stroke could be set up as per particular production requirement.

高可靠性:

- 定模板拉杆固定结构便捷装大型模具，提高装卸效率和工作质量。拉杆螺母及锁模活塞的悬置结构，在抱闸部分充分保护拉杆，加倍提高机器寿命。

High Reliability:

- Tie bars are fixed to the stationary plate for convenient installation for large size mold. Tie bar nut and clamping piston are suspension structure to fully protect tie bar in band-type brake unit, this greatly increase machine life with high reliability and good performance.

高容量:

- 开模行程、模具厚度等各项参数较传统注塑机大50%以上，机器使用和选择更自由。

High Mould Thickness Capacity:

- More than 50% opening stroke, mould thickness capacity etc. compared with three plate machine. The operation, installation and production is full of humanization.

高节能性:

- 伺服控制系统，且机身占地面积较传统注塑机减少30%。

High Energy Saving

- European brand servo system for low energy consumption. Machine size is 30% smaller than three plate machine.

高安全性:

- 严格按照欧洲CE标准执行，保证人员操作高安全。

High Safety

- European brand servo system for low energy consumption. European CE standard for safe operation.

PET瓶胚专用注塑机 PET preform Injection Molding Machine II Series

		DKM250II			DKM350II			DKM450II			DKM550II			DKM650II		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
注射装置																
螺杆直径	Injection Unit															
长径比	Screw Diameter	60	65	70	75	80	85	90	95	100	90	95	100	95	100	110
理论注射容积	L/D	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
注射重量	Shot Volume	989	1160	1345	1722	1960	2212	2191	2473	2773	2734	3046	3376	3325	3685	4460
注射压力	Injection Weight(PET)	1088	1276	1480	1894	2156	2433	2410	2720	3050	3007	3350	3713	3657	4053	4906
螺杆转速	Injection Pressure	213	182	156	191	168	149	168	148	132	207	185	167	185	167	137
	Screw Speed	0~210														
合模装置																
合模力	Clamp Tonnage	2500														
移模行程	Toggle Stroke	536														
拉杆内距	Distance Between Tie-Bars	571x571														
最大模厚	Max. Mold Height	600														
最小模厚	Min. Mold Height	200														
最小模具尺寸	Min.Mould size	365x365														
顶出行程	Ejector Stroke	155														
顶出力	Ejector Tonnage	61														
顶出杆数	Ejector Number	5														
其他																
最大油泵压力	Max. Pump Pressure	16														
电机功率	Motor Power	39.4														
电热功率	Heater Power	19.65														
外形尺寸	Machine Dimension	6.1x1.75x2.4														
机器重量	Machine Weight	11														
油箱容积	Oil Tank Capacity	420														



PET伺服注塑机 PET Injection Molding Machine I Series

		DKM-110I			DKM-130I			DKM-180I			DKM-250I			DKM-350I			DKM-450I			DKM-550I			DKM-650I				
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C		
注射装置																											
螺杆直径	Screw Diameter	36	40	38	42	45	40	45	50	45	50	55	60	65	70	75	80	85	85	90	85	90	85	90	95	100	
螺杆长径比	Screw L/D Ratio	24.5	23.5	22	20	18.5	23.2	20.6	18.5	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
理论注射容积	Shot Volume (Theoretical)	188	232	195	235	270	312	395	488	421	520	629	989	1160	1345	1500	1722	1960	2212	1926	2191	2473	2773	2439	3046	3376	
注射重量	Injection Weight	207	255	177	216	248	281	356	439	463	572	692	1088	1276	1480	1650	1894	2156	2433	2118	2410	2720	3050	2683	3007	3350	3713
注射压力	Injection Pressure	160	129	200	163	143	215	169	137	219	178	147	213	182	156	219	191	168	149	191	168	148	132	232	207	185	167
螺杆转速	Screw Speed	0-190																									
	Screw Speed	0-200																									
	Screw Speed	0-210																									
合模装置																											
合模力	Clamp Tonnage	1100																									
移模行程	Toggle Stroke	330																									
拉杆内距	Distance Between Tie-Bars	375*375																									
最大模厚	Max. Mold Height	380																									
最小模厚	Min. Mold Height	150																									
最小模具尺寸	Min. Mould size	240x240																									
顶出行程	Ejector Stroke	100																									
顶出力	Ejector Tonnage	33																									
顶出杆数	Ejector Number	5																									
其他																											
最大油泵压力	Max. Pump Pressure	14																									
电机功率	Pump Motor Power	11																									
电热功率	Heater Power	7																									
外形尺寸	Machine Dimension (LxWxH)	4.5*1.2*1.8																									
机器重量	Machine Weight	2.8																									
油箱容积	Oil Tank Capacity	200																									

PVC注塑机 PVC Injection Machine Specification

Dakumar machinery spec.	DKM110			DKM130			DKM180			DKM250			DKM350			DKM450			DKM550			DKM650																									
	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	A	B	C	A	B	C	A	B
注射装置																																															
螺杆直径	mm																																														
长度/Diameter Ratio	L/D																																														
理论注射容量	cm ³																																														
注射重量	g																																														
注射压力	kg/cm ²																																														
螺杆转速	rpm																																														
合模装置																																															
合模力	KN																																														
移模行程	mm																																														
拉杆内距	mm																																														
最小模具尺寸	mm																																														
模厚范围	mm																																														
顶出力	KN																																														
顶出行程	mm																																														
顶针数	unit																																														
其他																																															
马达功率	hp/kw																																														
系统压力	kg/cm ²																																														
电热功率	kw																																														
机器重量	Ton																																														
油箱容积	L																																														
外形尺寸	m																																														



PVC专用机钣金宽度较标准机单侧增加200mm
Extra 200mm each side for PVC machine door distance.

角式机技术参数表 Angle Injection Machine Specification

	DKM-110			DKM-180			DKM-250			DKM-450			DKM-550		
	主射台 Master injection	副射台 Assistant injection		主射台 Master injection	副射台 Assistant injection		主射台 Master injection	副射台 Assistant injection		主射台 Master injection	副射台 Assistant injection		主射台 Master injection	副射台 Assistant injection	
注射装置															
螺杆直径	mm														
螺杆长径比	L/D														
理论注射容量	cm ³														
注射重量	g			g			g			g			g		
注射压力	Mpa														
螺杆转速	rpm														
合模装置															
合模力	kN														
移模行程	mm														
拉杆内距	mm														
最大模厚	mm														
最小模厚	mm														
顶出行程	mm														
顶出力	kN														
顶出杆数	n			n			n			n			n		
其他															
系统压力	Mpa														
电机功率	kw														
电热功率	kw														
外形尺寸	m			m			m			m			m		
机器重量(L*W*H)	ton														
油箱容积	L			L			L			L			L		



角式伺服节能注塑机 Angle Injection Machine

角式注塑机配合西诺特殊模具，能广泛用于生产双色或多色塑料产品，与传统标准双色机比较，能够为客户节省设备初期投资，单个产品的生产成本更低廉；该机型也可以作为标准单色注塑机使用；适用性广泛，生产效率高。

Angle type injection molding machine can cooperate with special designed injection molds, so as to manufacture all types of bi-color, multi-color, multi-components plastic parts. Compare to the traditional standard two color injection molding machine, it can serve both the lower budget and also the production cost for unit plastic components. This model also can comply with widely international brand standard and single color injection molding machines in various tonnages with special advantages of wide application and high performance.



角式伺服节能注塑机部分制品 Angle Injection Machine Molding samples



双色注塑机 Double-color Injection Machine Specification

Dakumar machinery spec.			DKM-D140			DKM-D260				DKM-D450		DKM-D1000		
注射装置 INJECTION UNIT														
螺杆类型 Screw Type			A	B	C	A	B	C	D	A	B	A	B	
螺杆直径 Screw Diameter	mm	26	28	30	32	36	40	45	50	50	70	50		
注射压力 Injection Pressure	kgf/cm ²	2787	2403	2094	2530	1997	1618	1300	2048	2048	1622	2329		
理论注射容量 Theoretical Shot Volume	cm ³	71.6	83	95.4	132.6	162	200	253	534	534	1539	589		
实际注射容量 Shot Weight Of Injection(PS)	gram	65.8	76.3	87.6	111	148	186	232	491	491	1414	564		
	ozs	2.3	2.6	3	3.9	5.2	6.5	8.1	17.3	17.3	49.7	19.8		
注射速率 Injection Rate	cm ³ /sec	53	61	70	80	101	125	158	205	205	248	180		
塑化能力 Plasticizing Capacity(PS)	kg/hr	21.8	25.4	29	27.5	34.8	43	54	68	68	160	68		
螺杆转速 Screw Speed	rpm	180			150				100		100			
合模装置 MOULD CLAMPING UNIT														
合模力 Clamping Tonnage	metric ton	140			260				450		1000			
移模行程 Clamping Strokes	mm	300			400				600		1100			
模厚 Mould Thickness	mm	120-460			200-500				200-600		700-1300			
拉杆内距 Distance Between Tie Bars(HxV)	mm	710x340			925x420				1100x610		1130x1130			
模板尺寸 Mould Platen(HxV)	mm	940x570			1190x685				1450x930		1700x1700			
顶出行程 Ejector Stroke	mm	70			110				110		150			
转盘直径 Rotary Table Diameter	mm	750			980				1200		1600			
料筒中心距离 Distance Between Barrel Centers	mm	400			500				550		710			
模具最小间距 Min. Distance Between Molds	mm	80			80				80		80			
模具套数 Mold Sets	set	2			2				2		2			
电热设备 ELECTRICAL EQUIPMENT														
油泵马达功率 Pump Drving Motor	HP(KW)	30(22.38)			40(29.84)				2x40(59.7)		30+50(59.7)			
温度控制器 Temperature Controller	RANGE)EST	2-(0-400°C)x3			2-(0-400°C)x4				2-(0-400°C)x5		2-(0-400°C)x5			
电热量 Heating Capacity	KW	4x2			8x2				13x2		29.35x2			
其他 Others														
外形尺寸 Machine Dimensions(LxWxH)	mm	5300x1350x1924			6500x1750x2100				7500x2000x2100		11200x2300x2500			
油箱容积 Oil Tank Capacity	liter	260			800				1500		1500			
机器重量 Machine Weight	metric ton	5.5			17				20		25			
最大系统压力 Max.System Pressure	kgf/cm ²	140			140				140		140			

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伺服机配置

Servo energy saving injection molding machine features introduction

锁模单元特点

Clamping unit

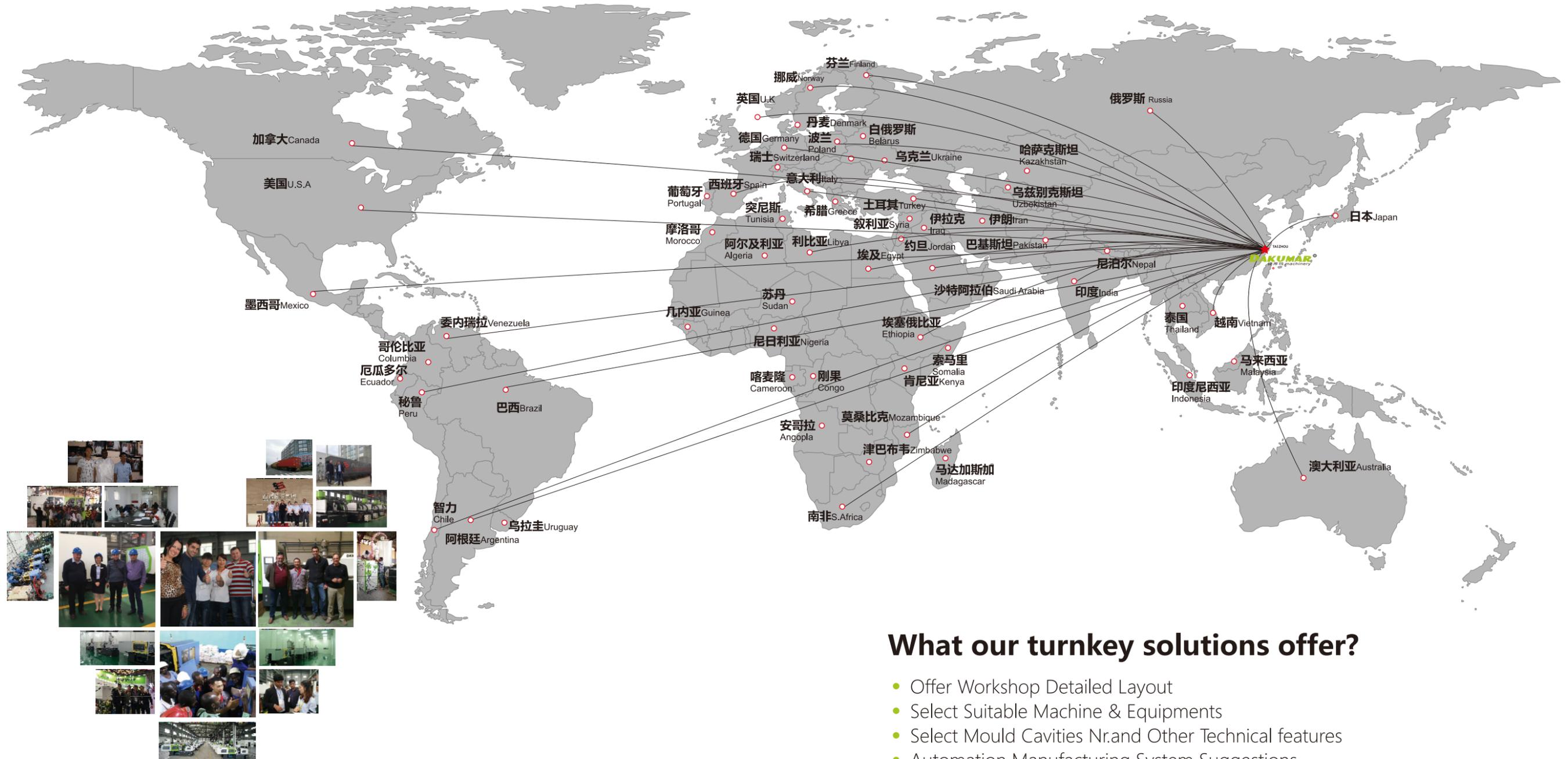
- | | |
|-------------------|---|
| ● 高精度高强度锁模板 | ● High-precision & high-strength locking template |
| ● T型槽标配 | ● T-slot platen |
| ● 精准锁模力设定 | ● Accurate clamping force setting |
| ● 油润滑钢套 | ● Oil lubrication steel sleeve |
| ● 多段开模程序控制 | ● Multi-stage mold opening control |
| ● 加强的机铰结构设计 | ● Reinforced hinge structure design |
| ● 高平行度模板稳定维护拉杆寿命 | ● High parallel plate for longer tie bar life |
| ● 低压模保 | ● Low-pressure mould protection |
| ● 保压泄压功能 | ● Pressure holding and relief function |
| ● 机械安全与液压安全双安全装置 | ● Mechanical and hry draulic double safety device equipped |
| ● 650T以上含开模顶出同步 | ● Parallel movement for Mould opening and ejection for machine above 650T |
| ● 机械手安装螺纹孔预设 | ● Robot installation hole |
| ● 液压中子2组以上（多组可选配） | ● Core pulling 2 sets as standard (more sets optional) |
| ● 吹气装置2组（多组可选配） | ● Air blowing 2 sets as standard (more sets optional) |
| ● 玻璃管流量计(选) | ● Glass high precision water distributor (optional) |
| ● 快速插头分水器 | ● Standard Water distributor with fast water nozzle connection |
| ● 550以上欧规机械手安装装置 | ● Euormap socket for Robot for machine above 550T |
| ● 动模板移动高硬度钢带 | ● High hardness steel strip for moving platen |
| ● 高刚性5铰链锁模机构 | ● High rigidity 5 hinge clamping mechanism |
| ● 自动调模功能 | ● Automatic mold thickness adjustment function |
| ● 开关模、脱模电子尺控制 | ● Mould opening/closing and ejection controlled by electronic ruler |
| ● 检知式自动集中润滑系统 | ● Automatic centralized lubrication system |
| ● 合模区移动安全顶盖板 | ● Top Cover for clamping unit |

控制单元	Controller unit
● KEBA 电脑系统彩色显示屏 (触摸式可选)	● KEBA colorful screen (touch screen optional)
● 模具成型工艺数据库 300项以上	● Mold setting database 300sets record
● 10国语言切换	● 10 language available
● I/O检测显示	● I/O data detecting
● 成型数据记录及可视化图标分析	● Molding record data and visual report
● 设备保养提醒检测	● Equipment maintenance remind
● 模内检测功能 (可选装置)	● In-mold-monitor (optional)
● 高稳定国际名牌电器零件	● International famous brand electrical components
● 各动作工况实时监视功能	● Real-time monitoring for molding process
● 生产资料检测功能	● Production data detection
● 故障报警显示功能	● Fault Alarm function
● 注射压力转保压功能	● Injection pressure/ holding pressure convert function
● 三色报警灯	● Three color alarming
● 电机过载保护	● Motor overload protection
● 前、后门紧急停止按钮	● Front and back door emergency stop button
● 变频节能	● Frequency energy saving(servo motor)
● 欧规12机械手接口	● Euromap 12 robot interface
● 欧规67机械手接口(选)	● Euromaps 67 robot interface (optional)
● 加热固态继电器控制	● Heating SSR control
● 计算机网络集中控制系统	● Computer network centralized control system
液压单元	Hydraulic unit
● 伺服油泵	● Servo motor system
● 加大油泵电机功率	● Enlarged servo motor power
● 多组顺序注射功能 (选)	● Multi-injection function
● 低噪音高效能油路系统	● Low-noise and high efficient hydraulic system
● 液压油位报警	● Hydraulic oil level alarm
● 冷水阀 (选)	● Cold Water valve (optional)
● 无焊接刚性一体油管油路	● No welding rigid one hydraulic piping system
● 高压油管锁链保护	● High-pressure pipe-chain protection

注塑单元特点	Injection unit
● 加长喷嘴	● Prolong nozzle
● 耐磨螺杆组件	● Wear-resistant screw unit
● 螺杆位置精准设定	● Screw position accurate setting
● 螺杆转速显示	● Screw speed display
● 双金属螺杆料筒(选)	● Bimetallic screw barrel (optional)
● 红外加热圈(选)	● infrared heater (optional)
● 料筒隔热防护	● Heat Insulation protection for barrel
● 注射喷嘴安全罩	● Injection nozzle safety cover
● 自封式喷嘴(选)	● Self shut-off nozzle (optional)
● 螺杆冷启动自制功能	● Cold start screw alarm and self protect
● 喷嘴中心简易调节	● Easy adjustment of the nozzle center
● 座台电子尺控制	● Carriage position controlled by electronic ruler
● 油马达预塑	● Oil motor for plasticizing
● 上料平台	● Equipped with Material feeding platform
● 座台自动集中润滑装置	● Automatic centralized lubrication system for injection unit
● 料筒温度闭环控制 , 各段智能独立控温	● Closed-loop temperature control for barrel, separate control for each heating section
● 标准型料斗、不锈钢料斗(选)	● Standard hopper/stainless steel hopper (optional)
其它	Others
● 德库玛品牌专利外观	● Dakumar patent appearance design
● 欧标CE安全防护结构	● CE standard safety cover design
● CE标准机(选)	● CE standard machine optional
● 可调防震垫脚	● Adjustable machine shorkproof mat
● 常用工具箱 (交钥匙项目工具箱可选配)	● tool box
● 预留USB,电插座	● USB and Aviation plug
● 550以下产品下料斜板	● Inclined slop for product dropping area for machinebelow 550T
● 加高机架(选)	● heightened machine base optional

德库玛服务网络

Dakumar Service Network



Turnkey Solution

for African and South American countries to start new plastic molding factories

德库玛公司为非洲、南美等各个地区的塑胶生产线提供交钥匙工程

What our turnkey solutions offer?

- Offer Workshop Detailed Layout
- Select Suitable Machine & Equipments
- Select Mould Cavities Nr.and Other Technical features
- Automation Manufacturing System Suggestions
- Machine Assembling Foundation Layout
- Operator Training Before Machine and Moulds shipment.
- Hunting Chinese Engineer or Management Officers
- Machine & Mould Installation & Running
- Offer On Site & Online Training
- Offer TOP Automation Manufacturing Software