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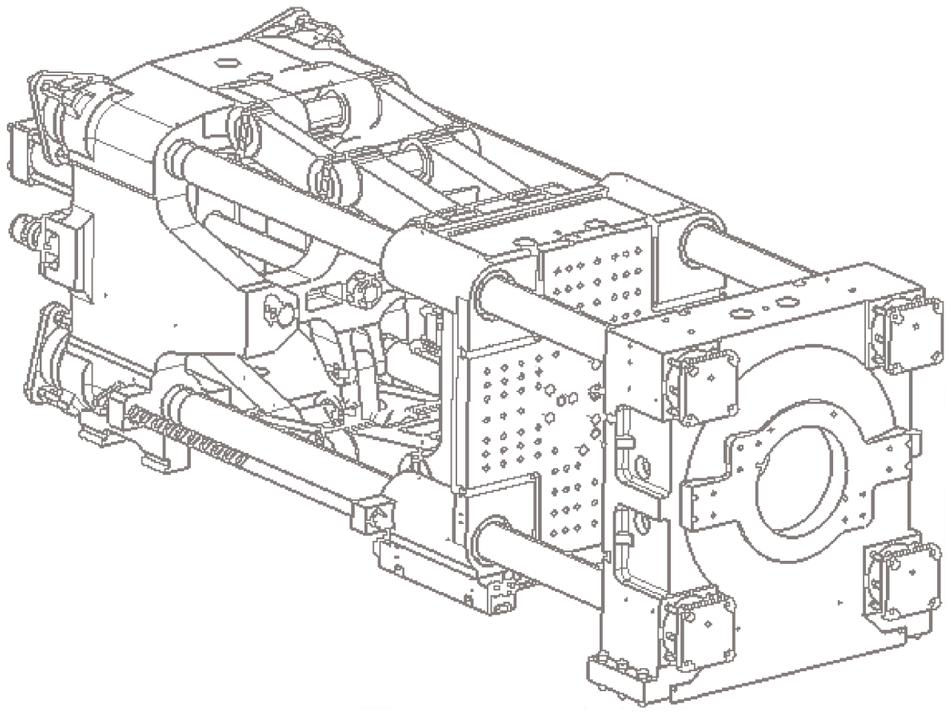

西诺控股集团有限公司

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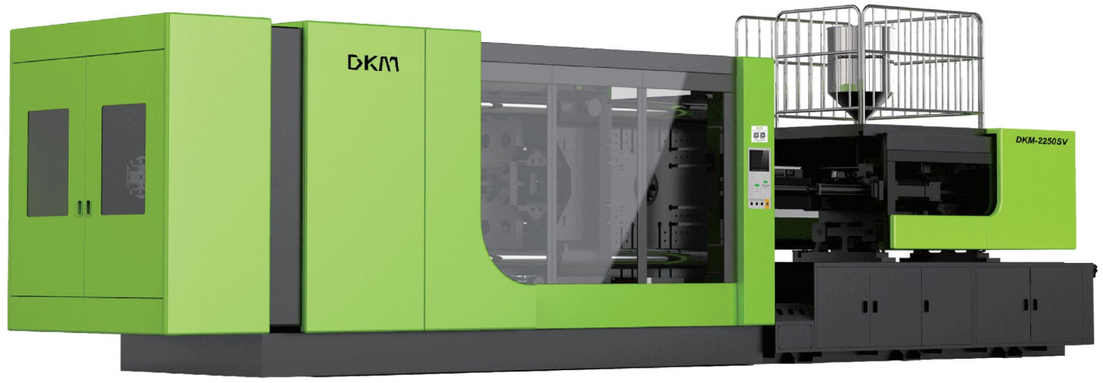
2024年2月修订

DKM®

Discover Key of Molding

德库玛



伺服节能注塑机

DKM-SV Series

Energy Saving Injection Molding Machine

二板式注塑机

DKM Two Platen

Injection Molding Machine

西诺控股集团有限公司

SINO HOLDINGS GROUP CO.,LTD

企业介绍
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

西诺控股集团成立于2007年，助力于为世界提供智能注塑成型系统（注塑机、注塑模具、智能制造系统），是集软硬件的研发、生产、销售、服务于一体的组织。西诺品牌始终站在技术革命和时代发展的前列，并致力于引领中国乃至世界注塑成型产业的发展潮流。

集团拥有30余名科学研究人员，160余名行业资深工程师。此外，西诺还设立了三大研发中心，一处位于德国慕尼黑，两处位于中国本土。西诺成功研发的43种项目顺利投产，其中包括智能注塑成型系统、智能无纺熔喷系统、智能制造运管软体系统等，都获得了业内的高度认可及政府项目创新奖。

随着集团全球化品牌战略的实施，依托高质量产品和服务体系，西诺已建立了覆盖全球的庞大销售网，以便于为用户提供更及时、完善、便利的服务。

在中国2025制造业强国目标的推进下，作为行业注塑成型系统的引领者，西诺从为用户提供有竞争力的注塑装备以及注塑成型方案，迭代到向用户提供成套的智能注塑装备。在现代化制造业转型升级的时代，西诺将以智慧注塑成型系统引领全球制造业高质量发展。

Sino Holdings Group Co., Ltd., established in 2007, is engaged in manufacturing and providing intelligent plastic injection molding system - plastic injection molding machine, plastic injection mould and intelligent plastic molding system, integrating software and hardware R&D, supplying, sales and service. SINO brand has always been at the forefront of technological revolution and the development of the times, and is committed to leading the development trend of China and the world's injection molding industry.

There is an outstanding R&D team with more than 30 scientific experts, more than 160 senior engineers. And SINO owns 3 R&D centers: 1 in Munich, Germany, and 2 in Mainland China. Currently, 43 projects have been developed and put into production successfully, including intelligent injection molding system, intelligent non-woven melt blown system and intelligent automation management software system, which have been highly recognized by the industry and government (project innovation awards).

With the implementation of the Group's global brand strategy and relying on high-quality products and service systems, SINO has established global sales, service and on-site support covering the world in order to provide users with more timely, complete and convenient services.

With the promotion of China's goal of being manufacturing power in 2025, as a leader in the industry's injection molding system, SINO transform into providing users with a complete set of intelligent injection molding equipment from providing users with competitive injection molding equipment and injection molding solutions. In the era of transformation and upgrading of modern manufacturing, SINO will lead the high-quality development of global manufacturing with intelligent injection molding systems.

目 录

CONTENTS

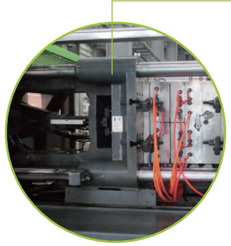
高速注射伺服机 (DKM200-1300HH)
High Speed Injection Molding Machine

高精密(控制与结构)

- 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，确保注射精度和稳定性
- 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
- 600HH及以下采用线性滑轨设计，确保料管不下垂，射出平稳和精准
- 800HH及以上采用导柱设计，承重好
- 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 PRECISION INJECTION (controller & structure)

- 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, DKM 200HH to 600HH configures linear slider avoids the barrel drop down and ensures the injection stable and precise; DKM 800HH to 1300HH applies guide pillar design for good load bearing.
- High rigidity clamping mechanism platen for even clamping.
- Screw L/D=22-24, and screw with double thread mixing, that ensure full material mixture.



高效率(锁模系统)

- 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%
- 可选配伺服马达加料，较传统油马达，位置更精准且可节省能源消耗
- 标配边开模边顶出，大幅节省成型时间

HIGH EFFICIENCY (clamping unit)

- Toggle with optimized design, perfect combination of speed and force, it is 10%-20% faster.
- With servo-motor for material charging, compared with hydraulic motor, it can save energy consumption and control the position more precisely at the same time.
- Standard machine can realize material charging, mould opening and ejector at the same time, saving cycle time.

高安全(液压系统)

- 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 (hydraulic unit)

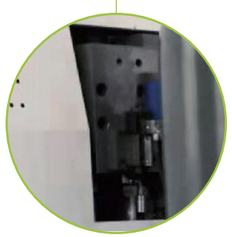
- Mechanical, hydraulic, electrical triple protection.
- Security module independent control, it ensures safe machine closing, injection, charging, nozzle forward to machine to avoid any accident.
- Concealed mechanical safety structure for high security.
- Fully closed machine frame.

高速度 (蓄能器辅助高速注射)

- 高精度射出系统，适合高速射出，无射出不同步问题，惯量低，射出加、减应答快
- 搭配蓄能器射出，最大射出速度范围：300−600mm/sec (视机种而定)
- 射出加减速应答性30ms

HIGH SPEED (high-speed response accumulator)

- 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 300-600 mm/sec (according to different machine model).
- Machine ACC/DEC response time can reach 30 ms.



高节能(注射部分)

- 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%
- 选配红外纳米加热圈，散热少，更节能

HIGH ENERGY SAVING (injection unit)

- With high-response servo system, machine runs according to actual need, no overflow or waste, saving power 30%-70%.
- Optional infrared Nano heating ring, less heat dissipation, more energy saving.

5H–高速薄壁专用机

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0.38mm的四腔冰激凌盒，成型周期为2.9秒。

5H hybrid high speed injection molding machine

The machine is designed with accumulator to realize high speed injection. Besides, it has the function of three-parallel lines to realize material charging, mould opening and ejection at the same time.
Main application: IML thin-wall containers, such as ice cream cup or box, yogurt box, disposable lunch container, etc. (4-cavity 0.38mm thickness ice cream box molding with cycle 2.9s.)

5H–高精密产品专用机

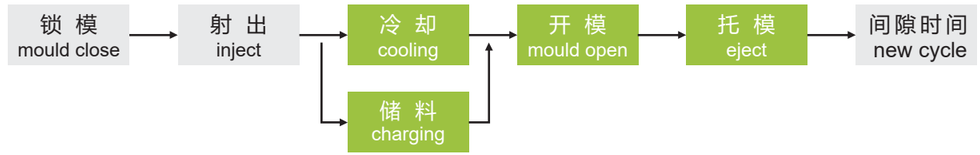
机器采用KEBA控制系统和Rexroth伺服阀，不仅能精确控制每一模的注射量以及位置，同时还可以降低成型误差，从而获得高精密成型。主要应用于电子零部件，例如：手机壳、塑料机械齿轮、LED照明灯等。

5H hybrid hi-precision injection molding machine

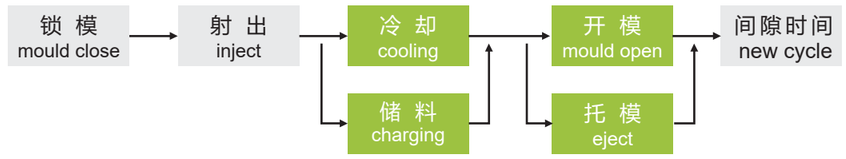
Machine is applied with KEBA control system and Rexroth valve, it can control each shot precisely on weight and position, injection speed can reach 500 mm/sec. Molding tolerance is very small to get high precision molding.
Main application: electronic parts, such as mobile phone cover, plastic mechanical gear, LED light, etc.

注塑工艺流程对比图
INJECTION MOLDING CYCLE COMPARISON

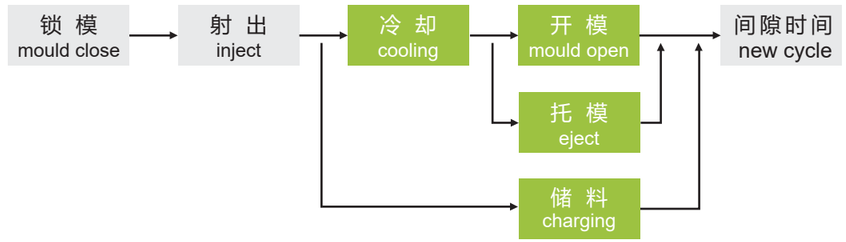
普通机一个成型周期的时间流程
Normal injection machine’s production cycle

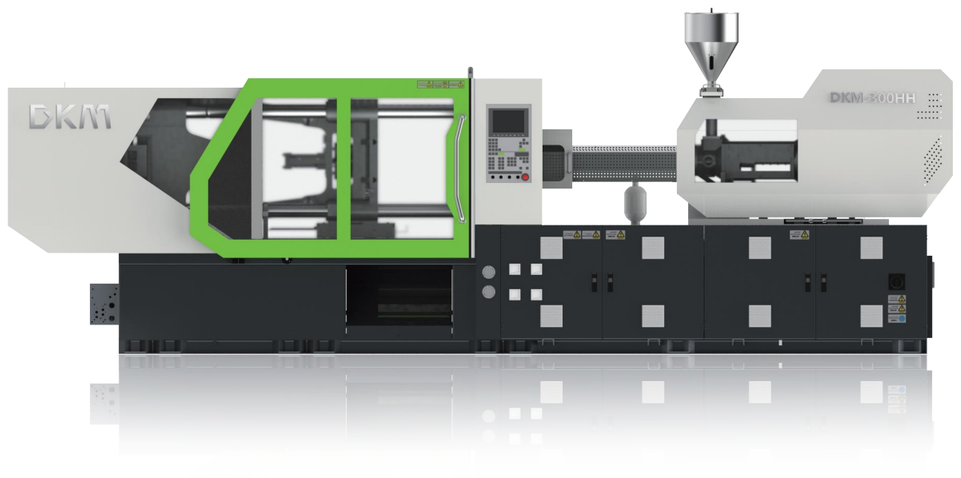


两轴联动一个成型周期的时间流程
Two-parallel actions injection machine’s production cycle (DKM-DH, DKM-SH)



三轴联动一个成型周期的时间流程
Three-parallel actions injection machine’s production cycle (DKM-HH, DKM-EH)



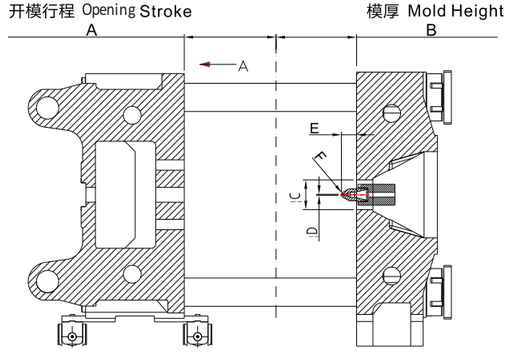


高速机技术参数表
MACHINE SPECIFICATION

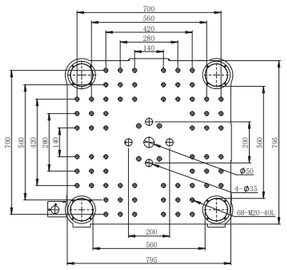
DKM Machine Spec.			DKM-200H/HH			DKM-300H/HH			DKM-400H/HH		
注塑装置	INJECTIONUNIT		A	B	C	A	B	C	A	B	C
螺杆直径	Screw Diameter	mm	42	48	54	50	55	62	60	65	72
螺杆长径比	Screw L/D Ratio	(L/D)	24	24	24	24	24	24	24	24	24
理论注射容积	Shot Volume	cm^3	332	434	549	559	677	860	890	1045	1282
射出量	Weight	gram	297	387	490	499	604	768	794	932	1144
射胶压力	Injection Pressure	Mpa	253	193	153	265	219	172	243	200	163
射出速度	Injection Speed	mm/s	600			500			400		
射出率	Injection Rate	cm^3/sec	554	723	916	687	831	1056	848	995	1121
塑化率	Plasticizing Rate	(PSg/s)	16.4	22.6	29	24	29.6	35	33.7	38.2	46.4
螺杆转速	Screw Speed	rpm	0-200			0-200			0-200		
合模装置	CLAMPINGUNIT										
合模力	Clamping Tonnage	KN	2000			3000			4000		
移模行程	Toggle Stroke	mm	490			560			700		
拉杆内距	Tie Bar Distance	mm	560*560			660*660			760*760		
最大模厚	Max.Mold Height	mm	600			640			760		
最小模厚	Min.Mold Height	mm	200			220			250		
最小模具尺寸	Min.Mould Size	mm	400*400			460*460			530*530		
顶出行程	Ejector Stroke	mm	140			165			195		
顶出力	Ejector Tonnage	KN	61			79			125		
顶出杆数	Ejector Number	n	5			13			13		
其他	OTHERS										
最大油泵压力	Max.Pump Pressure	Mpa	16			16			16		
电机功率	Pump Motor Power	kw	2×28.7/2×28.7+26.4			39.4+28.7/39.4+28.7+41.6			60+28.7/60+28.7+52.4		
电热功率	Heater Power	kw	16			24			25		
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		
机器重量	Machine Weight	t	8			12			18		
油箱容积	Oil Tank Capacity	L	420			520			720		

DKM-600H/HH			DKM-800H/HH				DKM-1100H/HH				DKM-1300H/HH			
A	B	C	A	B	C	D	A	B	C	D	A	B	C	D
60	65	72	90	95	100	110	100	110	120	130	110	120	130	140
24	24	24	24.8	23.6	22.4	20.4	26	24	22	20	26	24	22	20
890	1045	1282	2988	3330	3690	4464	4710	5699	6782	7960	6275	7470	8765	10170
794	932	1144	2690	2997	3321	4018	4239	5129	6104	7164	5648	6723	7889	9153
234	200	163	207	185	167	137	211	174	146	125	201	169	144	124
400			100				100				100			
848	995	1221	585	650	720	830	705	850	1015	1190	904	1075	1260	1465
33.7	38.2	46.4	71.8	78.2	86.5	104	86.5	104	122	139	104	122	139	151
0-200			0-200				0-200				0-200			
6000			8000				11000				13000			
900			1040				1280				1410			
900*900			1040*1040				1200*1200				1370*1320			
1000			1040				1250				1400			
300			420				500				500			
630*630			730*730				840*840				960*920			
240			300				350				350			
210			210				246				246			
21			21				21				25			
16			16				16				16			
107.8/161.6			200				270				300			
31.6			55.3				72				86			
10.5*2.3*2.6			10.8*2.3*3.2				12.8*2.5*2.8				13.5*2.6*3.2			
25.5			37				55				66			
1200			1000				1200				1500			

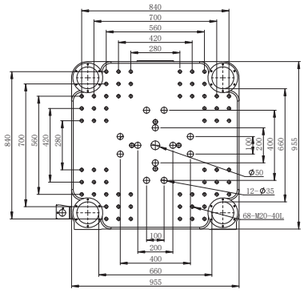
Model	A	B	C	D	E	F
DKM-200H	490	200-600	160	Φ3.5	50	SR10
DKM-300H	560	220-640	160	Φ3.5	50	SR10
DKM-400H	700	250-760	200	Φ5	75	SR15
DKM-600H	900	300-1000	200	Φ5	75	SR15
DKM-800H	1040	450-1040	250	Φ5	50	SR15
DKM-1100H	1280	500-1250	250	Φ6	50	SR20
DKM-1300H	1450	500-1400	250	Φ6	50	SR20



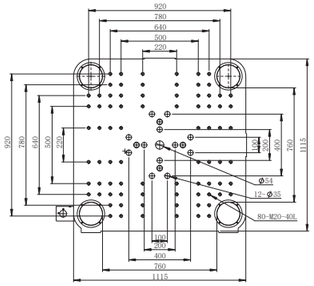
DKM200HH



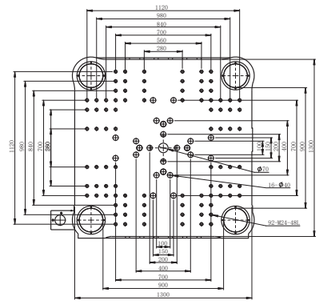
DKM300HH



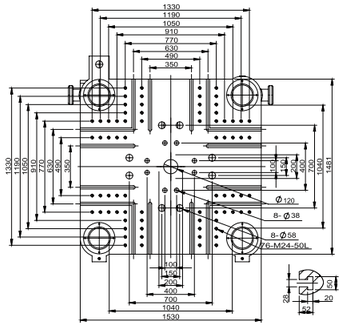
DKM400HH



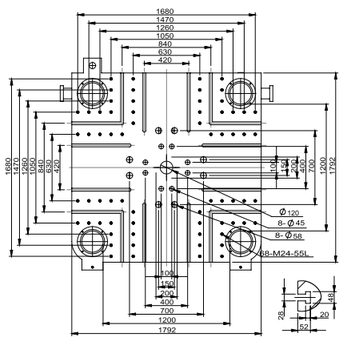
DKM600HH



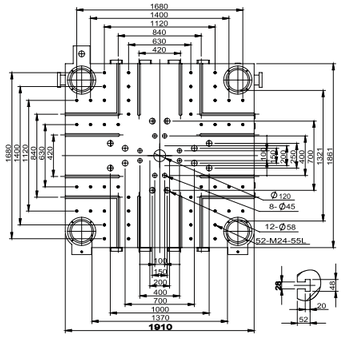
DKM800HH



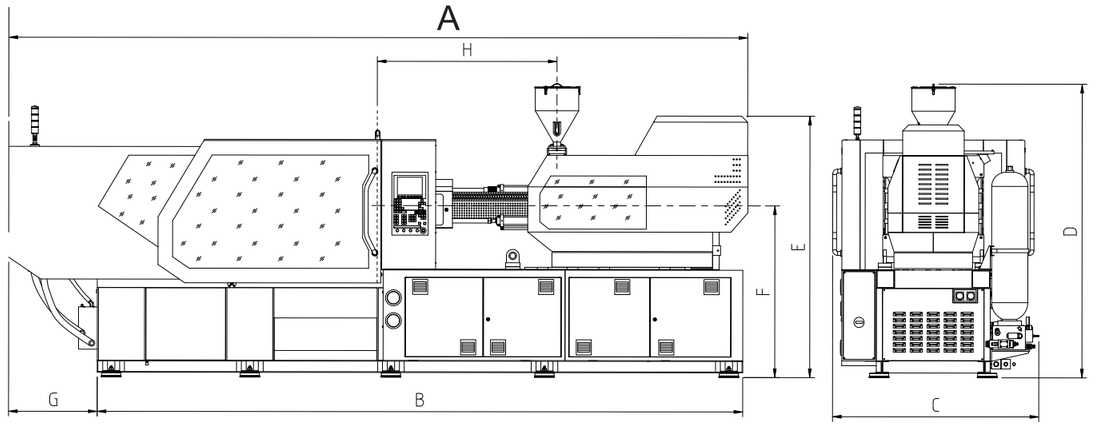
DKM1100HH



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	2400	2000	1390	680	1484
DKM-300H	DKM-300HH	6950	6150	1872	2450	2120	1430	700	1804
DKM-400H	DKM-400HH	8100	6950	2200	2470	2056	1450	965	1966
DKM-600H	DKM-600HH	10500	8513	2280	2600	2150	1550	1443	1966
DKM-800H	DKM-800HH	10800	9600	2300	3200	1900	1400	1020	2878

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：开模和托模两个动作同步
HH：开模、托模、储料三个动作同步
P：选装MOOG射出伺服阀

H: Mold opening and ejecting parallel action
HH: Mold opening,ejecting and charging parallel action
P: Optional MOOG injecting servova

德库玛低惯量高精度射出技术

DKM Low Inertia Injection Technology

与传统注塑机不同的是，低惯量注塑机将储料马达（或液压马达）与射台的移动板分离。低惯量注塑机将电预塑系统固定在射台后板上，因此注射动作只带动移动板的运动，减轻了射台的重量，从而减少了注射过程中的惯性。

Differing from traditional injection molding machines, low inertia injection molding machines separate the material storage motor (or hydraulic motor) from the movable platen. The low inertia injection molding machine fixes the electric pre-plasticizing system on the rear plate of the movable platen, so the injection action only drives the movement of the movable platen, reducing the weight of the platen and consequently minimizing inertia during the injection process.

低惯量高精度射出技术是DKM为提高生产效率、降低能耗而自主研发的一项型新技术突破。

Low inertia and high precision injection technology is a new technological breakthrough independently developed by DKM to improve production efficiency and reduce energy consumption.

高精度

- 储料伺服电机（或液压马达）与射台移动板分开，减少注射时产生的惯性
- 注射惯性小，射出重复精度控制在±2‰误差内，提升制品的重复精度

高节能

- 发热小，效率高，过载能力大，响应快
- 能耗较常规机型降低15%-20%，打破了国家一级能耗的要求

应用广

- 应用于小吨位到大吨位的不同规格的注塑机
- 应用于全电型、液压型、高速型各类注塑机，应用范围广泛

高速度

- 高耐磨的花键传动机构，直接传递螺杆转动扭力
- 响应时间因惯量降低，较常规机型增加50%以上
- 射出油缸上创新设计，射出速度提高，有效缩短循环周期

High precision

- The storage servo motor (or hydraulic motor) is separated from the moving plate of the shooting table to reduce the inertia generated during injection.
- Small injection inertia, injection repetition accuracy control within ±2‰ error, improve product repetition accuracy.

High energy saving

- Low heat, high efficiency, large overload capacity, fast response.
- Energy consumption is reduced by 15%-20% compared with conventional models, breaking the requirements of national level energy consumption.

Be widely used

- Used for injection molding machines of different specifications from small tonnage to large tonnage.
- Used in all electric, hydraulic, high-speed injection molding machine, a wide range of applications.

High speed

- High wear-resistant spline drive mechanism, directly transfer the screw rotation torque.
- Response time is more than 50% higher than conventional models due to reduced inertia.
- Injection cylinder innovative design, injection speed, effectively shorten the cycle.

低惯量注塑机与传统注塑机的比较

Comparison between Low Inertia Injection Molding Machine and Traditional Injection Molding Machine

- 在锁模力相同的情况下，低惯量注塑机的注射系统(惯性)远小于传统注塑机和电预塑注塑机。以DKM250为例，传统注塑机的注射系统为265KG，是低惯量注塑机的2倍；电预塑注塑机的注射系统为432KG，是低惯量机的3倍以上。
- 由于惯量小，注塑机将具有更高的停止精度，更快的响应速度和更低的能耗。
- 传统注塑机需要75ms才能达到75mm/s的注射速度，而低惯量注塑机只需要30ms。
- 同一副模具传统注塑机每小时生产136件产品，耗电17.4KW，低惯量注塑机每小时生产139件产品，耗电14.75KW，降低15%-20%的能耗。

- For equal clamping force, the low inertia injection molding machine exhibits significantly smaller injection weight than traditional and electric pre-plasticizing counterparts. Using DKM250 as an example, the traditional machine has a 265g injection weight (twice the low inertia machine), and the electric pre-plasticizing machine has 432g (over three times).
- The low inertia design yields higher precision
- Taster response (30ms vs. 75ms for traditional at 75mm/s), and lower energy consumption. In terms of production
- The traditional machine produces 136 pieces/hour at 17.4KW, while the low inertia machine produces 139 pieces/hour at 14.75KW, achieving a 15%-20% energy consumption reduction.

证书号第5258353号

发明专利证书

发明名称：注塑机的注塑装置

发　明　人：张贤宝;张雄;宋文中;李君

专　　利　号：ZL 2021 1 0088342.3

专利申请日：2021年01月22日

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局长
申长雨

2022年06月24日

第1页(共2页)

其他事项参见续页

低惯量高精度射出技术专利证书

Low Inertia High-Precision Injection Technology Patent

德库玛全球首创的低惯量高精度射出技术,是德库玛在研发创新上不断向纵深推进的成果。已获得发明专利1项，PT发明专利检索3项，实用新型专利3项，受理中发明专利4项，参与行业标准制订2项，起草企业标准制订1 项。

DKM's globally pioneering "Low Inertia High-Precision Injection Technology" is an outcome of DKM's continuous progress in research and development innovation. It has obtained 1 granted invention patent, undergone searches for 3 PCT invention patents, received 3 utility model patents, with 4 invention patents currently under review. Additionally, DKM has actively participated in the formulation of 2 industry standards and drafted 1 corporate standard.

德库玛第六代低惯量高速机

DKM sixth generation low inertia high speed machine

模锁

- 加强中心顶板,减少锁模应力。
- 半中心锁膜，锁模受力更均匀。
- 模板整体加强。中模板厚度相对普通注塑机厚度增加160%。通过应力分析，增加更合理加强筋布局，使锁模更牢固。
- 半球体前模板蜂巢式结构，减小中心孔设计变形,能承受更大的锁模力。
- 加大哥林柱，同时增加应力槽。兼具强度与耐疲劳度，寿命更长。

射台

- 注射惯性小，射出重复精度控制在±2‰误差内，提升制品的重复精度。
- 单缸注射、同心度更高、螺杆组件寿命更长。
- 独立中空活塞杆，避开储料旋转、活塞密封寿命更长。
- **低惯量专利应用**。注、塑分离、响应速度更快，注射精度更高，标配电预塑使用更节能。

人性化设计

- 双水排设计、使用更便捷
- 后钣金独立开合，检修更方便
- 润滑合理布局，操作更方便
- 利用热力学原理，科学布局，电箱散热。
- 独立外接电源，开关使用更安全
- 红外加热圈、安全更节能

系统

- 标配12寸触摸控制屏、使用更便捷。
- 弘讯与德库玛专项研发的控制系统运行控制更丝滑。
- 多轴联动。产品生产周期更短。

Clamping

- Strengthen the center top plate to reduce clamping stress.
- Semi-center clamping, the clamping force is more even.
- The overall template has been strengthened. The thickness of the medium template is 160% higher than that of ordinary injection molding machines. Through stress analysis, a more reasonable reinforcement layout is added to make the mold clamping stronger.
- Hemispherical front template honeycomb structure, reduced center hole design can withstand more Large clamping force.
- Enlarge the tie bar and increase the stress groove. It has both strength and fatigue resistance and longer life.

Injection Unit

- Low injection inertia and high injection repeatability within ±2‰, improving the quality of products.
- Single cylinder injection, higher concentricity and longer service life of screw.
- Screw rotation and advance with independent spline drive, to avoid the reciprocating screw movement of the piston rod, to eliminate the possibility of oil leakage.
  Low inertia patented application. Injection and storage are separated.
- High response speed and high injection precision, and the standard electric is more energy-saving.

Humanized design

- Double drain design, more convenient to use
- The rear sheet metal opens and closes independently, making maintenance more convenient
- Reasonable lubrication layout makes operation more convenient
- Utilize the principle of thermodynamics and scientific layout to dissipate heat from the electrical box.
- Independent external power supply, switch is safer to use
- Infrared heating circle, safer and more energy-saving

system

- The control system specially developed by Hongxun and DKM has smoother operation control.
- Multi-axis linkage. Product production cycle is shorter.
- The standard 12-inch touch control screen is more convenient to use
- The mold clamping is equipped with a non-contact electronic ruler as standard, which has higher accuracy and longer life.

DFS低惯量技术参数表

DFS LOW INERTIA SERIES MACHINE PARAMETER

参数表			DKM-250DF^S	
			A	B
注塑装置	INJECTION UNIT	单位		
螺杆直径	Screw Diameter	mm	50	52
螺杆长径比	Screw L/D Ratio	(L/D)	26	25
理论射出容量	Shot Volume	cm^3	470	509
注射重量(PS)	Weight	gram	423	458
注射压力	Injection Pressure	Mpa	185	171
射出速度	Injection Speed	mm/s	435	
螺杆最高转速	Screw speed	rpm	0-300	
螺杆行程	Screw stroke	mm	240	
合模装置	CLAMPING UNIT			
合模力	Clamping Tonnage	kN	2500	
开模行程	Toggle Stroke	mm	535	
最小模具尺寸	Min. Mold size	mm	400X400	
拉杆内距	Tie Bar Distance	mm	540X540	
最大模厚	Max. Mold Height	mm	600	
最小模厚	Min. Mold Height	mm	200	
顶出行程	Ejector Stroke	mm	155	
顶出力	Ejector Tonnage	kN	70	
顶针数量	Ejector Number	Unit	5	
其他	OTHERS			
最大油泵压力	Max.Pump Pressure	Mpa	19	
电机功率	Pump Motor Power	kW	34X2+26.7	
电热功率	Heater Power	kW	25	
外形尺寸(LXWXH)	Machine Dimension	m	6550X1680X2300	
机器重量	Machine Weight	t	9.2	
油箱容积	Oil Tank Capacity	L	350	

DKM-310DF^S		DKM-360DF^S		DKM-460DF^S	
A	B	B	C	A	B
50	52	52	55	55	60
26	25	25.4	24	27.3	25.1
470	509	509	569	676	800
423	458	458	512	618	736
185	171	196	175	216	182
435		450		500	
0-300		0-300		0-300	
240		240		285	
3100		3600		4600	
610		640		700	
420X420		460X460		530X530	
620x600		680x680		760X730	
650		680		750	
250		220		250	
165		165		195	
79		79		138	
5		5		13	
19		19		19	
34X2+26.7		39.9X2+31.1		53X2+38	
25		30		35	
7520X1755X2300		7615X1755X2300		8280X1810X2435	
14.3		17.2		24.6	
450		450		550	

低惯量伺服注塑机

Low inertia servo injection molding machine

低惯量注塑机是由我司自主研发的全新机型，低惯量技术的发明是将储料伺服电机（或液压马达）与射台移动板分开，实现“注”和“塑”再次分离，减少注射时产生的惯性，从而满足了注塑机在精度、速度、节能上面的跨越发展。

高速度

- 高耐磨的花键传动机构，传递螺杆转动扭力
- 润滑油自循环免维护系统，降低螺杆转动摩擦力
- 响应时间因惯量降低，较常规机型增加50%以上
- 射出油缸上创新设计，射出速度提高，有效缩短循环周期

高精度

- 储料伺服电机（或液压马达）与射台移动板分开，
- 减少注射时产生的惯性
- 注射惯性小，射出重复精度控制在±2‰误差内，
- 提升制品的重复精度

高节能

- 结构优化整机长度增加5D（D螺杆直径）
- 发热小，效率高，过载能力大，响应快
- 能耗较常规机型降低15%-20%，打破了国家一级能耗的要求

应用广

- 应用于小吨位到大吨位的不同规格的注塑机
- 应用于全电型、液压型、高速型各类注塑机，应用范围广泛

Low inertia injection molding machine is a new model independently developed by our company. It’s a technology separating the moving plate of the injection unit from storage servo motor (or hydraulic motor) to realize the separation of “injection” and “molding” again and reduce the inertia generated during injection molding so as to make a breakthrough in injection molding machine for precision, speed and energy saving.

High Energy-saving

- Optimized structure with increased machine length by 5D (D screw diameter)
- Low heat, high efficiency, large overload capacity and fast response
- Energy consumption is reduced by 15%-20% compared with conventional models and reaches the national level of energy consumption requirements

High Speed

- Spline transmission mechanism with high precision and wear resistance to reduce the transmission force of screw rotation
- Lubricating oil self-circulating maintenance-free system, reduce the screw rotation friction
- The response time is more than 50% faster than that of conventional models due to the reduction of inertia
- Innovated injection cylinder design increase injection speed and effectively shorten the cycle

High Precision

- Separate the moving plate of the injection unit from storage servo motor (or hydraulic motor) to reduce inertia in injection molding
- Low injection inertia controls products repeated accuracy within ±2.64‰ and improves products’ repeat accuracy

Wide Application

- Applied to injection molding machines from small to large tonnage in different specifications
- Widely used in electric, hydraulic, high-speed injection molding machine from small tonnage to large tonnage to improve productivity.

DKM低惯量技术参数表

DKM Low Inertia Injection Molding Machine Technical Sheet

			DKM-90DH^T			DKM-130DH^T			DKM-180DH^T			DKM-250DH^T			DKM-350DH^T			DKM-450DH^T				DKM-550DH^T				DKM-650DH^T			
			A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	D	A	B	C	D	A	B	C	D
注塑装置	**INJECTION UNIT**																												
螺杆直径	Screw Diameter	mm	32	36	40	38	42	45	40	45	50	45	50	55	60	65	70	70	75	80	85	75	80	85	90	85	90	95	100
螺杆长径比	Screw L/D Ratio	(L/D)	22.5	20	18	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	22.7	21.5	19.3	18.4
理论注射容积	Shot Volume	cm^3	133	168	207	195	235	270	312	395	488	421	520	629	989	1160	1345	1500	1722	1960	2212	1926	2191	2473	2773	2439	2734	3046	3376
理论注射重量(ps)	Injection Weight	g	121	153	188	177	216	248	284	358	444	379	468	566	890	1044	1211	1350	1550	1764	1991	1733	1972	2226	2496	2195	2461	2742	3038
注射压力	Injection Pressure	Mpa	232	183	149	200	163	142	214	169	137	219	178	147	204	174	150	204	177	156	138	204	180	159	142	210	188	168	152
塑化率(ps)	Plasticizing Rate	(g/s)	11.7	14.2	16.9	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	65.4	71.8	78.2	86.5
射出速率	Injection rate	(g/s)	79	101	124	96	118	135	111	141	174	137	170	205	234	275	319	296	340	387	437	374	426	481	539	428	480	534	592
螺杆转速	Screw Speed	rpm	0-220			0-200			0-200			0-200			0-200			0-200				0-150				0-130			
合模装置	**CLAMPING UNIT**																												
合模力	Clamping Tonnage	kN	900			1300			1800			2500			3500			4500				5500				6500			
移模行程	Toggle Stroke	mm	320			390			440			535			640			700				850				900			
拉杆内距	Tie Bar Distance	mm	360×360			417*417			470*470			570*570			680*680			760*760				830*830				900*900			
最大模厚	Max.Mold Height	mm	390			460			550			600			680			760				850				1000			
最小模厚	Min.Mold Height	mm	150			160			180			200			220			250				290				300			
最小模具尺寸	Min.Mould Size	mm	230×200			295*295			330*330			400*400			460*460			530*530				580*580				630*630			
顶出行程	Ejector Stroke	mm	100			120			135			155			165			195				240				240			
顶出力	Ejector Tonnage	kN	53			46			53			70			79			138				150				210			
顶出杆数	Ejector Number	n	5			5			5			5			5			5				9				9			
其他	**OTHERS**																												
最大油泵压力	Max.Pump Pressure	Mpa	16			16			16			16			16			16				16				16			
电机功率	Pump Motor Power	kW	11+6.7			13.4+8.9			16.4+8.9		16.4 +13.4	20.5+13.4			30.2 +16.4	30.2+20.5		2×20.5+26.7		2×20.5+30.2		2×26.7+40.9				2×20.5+26.7+40.9			
电热功率	Heater Power	kW	5.99			8.9			11.4			13.7			22			27.2				33.9				44.9			
外形尺寸	Machine Dimension	m	5.08*1.3*1.89			5.4*1.3*1.9			5.8*1.5*1.95			6.5*1.6*2.3			7.6*1.7*2.35			8.5*1.9*2.5				9.3*2*2.5				11.1*2.3*3.15			
机器重量	Machine Weight	t	3.9			4.5			5.36			8.3			13.3			17				20				30			
油箱容积	Oil Tank Capacity	L	140			190			230			260			400			500				750				1000			

DKM低惯量技术参数表

DKM Low Inertia Injection Molding Machine Technical Sheet

			DKM-850DH^T				DKM-1150DH^T				DKM-1350DH^T				DKM-1650DH^T				DKM-2250DH^T			DKM-2800DH^T			DKM-3350DH^T
			A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	A	B	C	A
注塑装置	**INJECTION UNIT**																								
螺杆直径	Screw Diameter	mm	90	95	100	110	100	110	120	130	110	120	130	140	120	130	140	150	140	150	165	170	185	200	225
螺杆长径比	Screw L/D Ratio	(L/D)	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
理论注射容积	Shot Volume	cm^3	2980	3325	3685	4460	4710	5699	6782	7960	6275	7470	8765	10170	7924	9299	10785	12380	12693	14571	16579	22687	26867	31400	47688
理论注射重量(ps)	Injection Weight	g	2682	2993	3317	4014	4239	5129	6104	7164	5648	6723	7889	9153	7132	8369	9707	11142	11424	13114	14921	20418	24180	28260	42919
注射压力	Injection Pressure	Mpa	207	185	167	137	206	170	143	122	201	169	144	124	193	164	142	123	199	173	142	188	159	136	132
塑化率(ps)	Plasticizing Rate	(g/s)	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	263
射出速率	Injection rate	(g/s)	516	575	637	770	705	853	1015	1191	913	1087	1276	1480	953	1119	1298	1490	1214	1394	1686	1630	1931	2257	2530
螺杆转速	Screw Speed	rpm	0-130				0-120				0-120				0-110				0-80			0-60			0-55
合模装置	**CLAMPING UNIT**																								
合模力	Clamping Tonnage	kN	8500				11500				13500				16500				22500			28000			33500
移模行程	Toggle Stroke	mm	1040				1280				1410				1520				1700			1940			2160
拉杆内距	Tie Bar Distance	mm	1040*1040				1200*1200				1370*1320				1570*1510				1800*1600			1865*1715			2160*1900
最大模厚	Max.Mold Height	mm	1040				1250				1400				1500				1800			1900			2000
最小模厚	Min.Mold Height	mm	420				500				500				700				900			900			1000
最小模具尺寸	Min.Mould Size	mm	720*720				840*840				960*920				1100*1050				1260*1120			1300*1200			1510*1330
顶出行程	Ejector Stroke	mm	300				350				350				350				420			450			550
顶出力	Ejector Tonnage	kN	210				246				246				318				400			430			618
顶出杆数	Ejector Number	n	9				9				9				15				15			17			17
其他	**OTHERS**																								
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	2×26.7+20.5+40.9			2×26.7+ 20.5+50.7	3×30.2+ 26.7+60.5			3×30.2+ 26.7+78.3	4×30.2+ 26.7+78.3			4×30.2+ 26.7+80.1	4×30.2+ 26.7+80.1			4×30.2+ 26.7+133.5	5×40.9+133.5			8×30.2+160.2			336+240.3
电热功率	Heater Power	kW	55.4				76.1				82.2				102.9				125			170			190
外形尺寸	Machine Dimension	m	11.7*2.4*3.25				13.7*2.63*3.2				14.4*2.8*3.25				15.8*3.22*3.38				17.8*3.72*3.82			20.5*3.8*4			22.7*4.9*4.2
机器重量	Machine Weight	t	35.5				54				62				100				141			185			250
油箱容积	Oil Tank Capacity	L	1000				1300				1500				1500				2500			2500			3000

洁净MX注塑机130T-450T

Clean MX Injection Molding Machine 130T-450T

洁净成型MX注塑机是EH医疗专用机的全新升级，优化锁模系统，提升锁模进精度，进一步迎合了医疗器械高精密、高稳定、高结净的生产需求，满足医疗产品的无尘无油的高要求，未来DKM将把MX系列推广应用到光学、封装应用利于，填补相关领域的国产空白。

高洁净

- 纯净二板结构，无任何铰机润滑油污染
- 电动顶出油缸，无液压动力油和全电机丝杆润滑油污染
- 采用分离式码模板，避免了铸件生锈污染以及表面防锈油污染
- 线性导轨支撑，降低移动摩擦力，保证了锁模区洁净度

高精密

- 四油缸直接锁模，模具受力完全均匀，锁模力精确到0.1%内
- 双丝杆伺服电机移模，速度稳定无震动
- 实现模具精确定位，实现二次锁模（模内压缩功能）
- 注射系统闭环控制，重复定位精度小于0.01mm

高节能

- 伺服动力系统与智能化控制结合，降低能源消耗，绿色节能

Clean MX injection molding machine is a new upgrade of EH medical special machine. It optimizes clamping unit and improves the accuracy of mold locking, further meets the production demand of high precision, high stability and high purity of medical instruments, and meets the high requirements of dust-free and oil-free medical products. In the future, DKM will promote MX series to optics and packaging applications and fill the domestic blank in related fields.

High Energy-saving

- Servo system combined with intelligent control reduce energy consumption and realize green energy saving

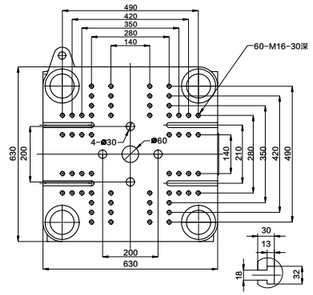
High Cleanness

- Pure two plate structure brings no hydraulic machine hinge lubricant pollution
- Electric ejector cylinder has no hydraulic power oil pollution and screw rod lubricating grease pollution
- Adopt split code template to avoid casting rust pollution and surface rust oil pollution
- Linear guide for improved moving accuracy, decreased friction and keeping clamping unit clean.

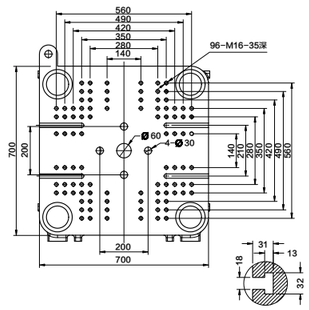
High Precision

- Four cylinders direct mold clamping to completely uniform the mold force with an accurate clamping force within 0.1%
- Double screw rod servo motor open stroke directly to realize stable mould moving speed without vibration
- Achieve accurate mold positioning and secondary mold clamping (in - mold compression function)
- Closed-loop control injection system control repeated positioning accuracy less than 0.01mm

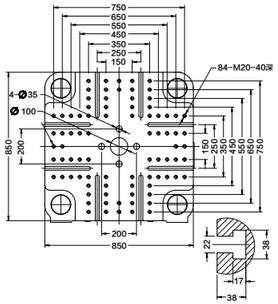
DKM-130MX



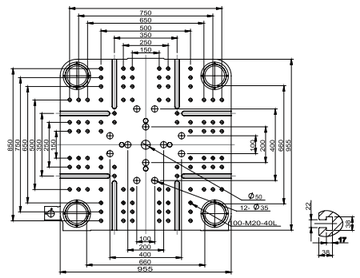
DKM-180MX



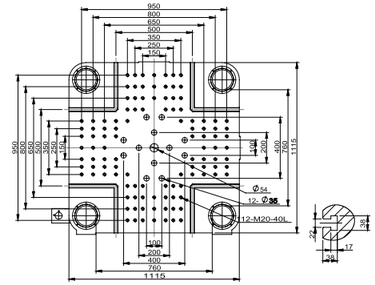
DKM-250MX



DKM-350MX



DKM-450MX



DKM油电混合技术参数表			DKM-130MX			DKM-180MX		
			A	B	C	A	B	C
注塑装置	INJECTION UNIT							
螺杆直径	Screw Diameter	mm	25	28	32	28	32	36
螺杆长径比	Screw L/D Ratio	(L/D)	26.8	24	21	27.4	24	21.3
理论注射容积	Shot Volume	cm^3	69	86	113	111	145	183
理论注射重量（ps）	Injection Weight	g	62	78	101	100	130	165
射出速度	Injection Speed	mm/s	500			500		
注射压力	Injection Pressure	Mpa	350	280	214	327	250	198
螺杆转速	Screw Speed	rpm	0-200			0-200		
合模装置	CLAMPING UNIT							
合模力	Clamping Tonnage	kN	1300			1800		
移模行程	Toggle Stroke	mm	390			750		
拉杆内距	Tie Bar Distance	mm	420*420			570*570		
最大模厚	Max.Mold Height	mm	460			700		
最小模厚	Min.Mold Height	mm	160			330		
最小模具尺寸	Min.Mould Size	mm	295*295			400*400		
顶出行程	Ejector Stroke	mm	120			200		
顶出力	Ejector Tonnage	kN	53			70		
顶出杆数	Ejector Number	n	5			5		
其他	OTHERS							
最大油泵压力	Max.Pump Pressure	Mpa	22			22		
电机功率	Pump Motor Power	kW	13.4			20.5		
电热功率	Heater Power	kW	8.9			11.4		
外形尺寸	Machine Dimension	m	5.7*1.45*2.2			6.1*1.5*2.2		
机器重量	Machine Weight	t	4.5			5.36		
油箱容积	Oil Tank Capacity	L	140			230		

DKM-250MX			DKM-350MX			DKM-450MX		
A	B	C	A	B	C	A	B	C
36	40	45	36	40	45	40	45	50
26.6	24	21.3	26.6	24	21.3	27	24	21.6
213	264	333	219	270	342	270	342	422
192	237	300	197	243	308	243	308	380
500			500			300		
283	230	182	309	250	198	291	230	186
0-200			0-200			0-200		
2500			3500			4500		
850			560			700		
660*660			660*660			760*760		
820			640			760		
330			220			250		
460*460			460*460			530*530		
200			165			195		
30			79			138		
5			13			13		
22			22			22		
30.2			30.2			2×20.5		
13.7			22			27.2		
6.3*1.6*2.3			6.9*1.7*2.35			7.8*1.9*2.5		
8.3			13.3			17		
260			400			500		

洁净EH注塑机130T-450T

随着DKM德库玛塑机在软硬件研究的不断深入，为了迎合注塑成型行业某些高精度射出的要求，同时又能够降低用户的投入，EH系列电液混合注塑机经过长达2年的稳定性测试，现已进入量产。DKM发明的高驱力伺服动力系统与智能化控制系统结合，实现注射系统闭环控制，使重复定位精度达到小于0.01mm,这一出色特点，使EH系列注塑机可广泛应用于医疗器件，精密IT零件等具有高精度要求的精密器件成型上。

精密 +

伺服全电射出，高精密丝杆运动控制，使射出位移精密无比，高速射出使成型产品应力均衡不变形，是精密医疗器件射出的不二之选。

洁净 +

EH系列射出单元，没有液压系统不存在漏油滴油现象，锁模单元铰链润滑用采用特殊自润滑材质，局部用固体润滑油脂，无油无尘，不污染净化车间。

高效 +

分布式动力源，可实现多个动作同时工作，大大缩短产品成型周期，从而提升生产效率。

节能 +

配套伺服系统的优异性能及效率使注塑机的每一动作都更加节能，相较液压伺服节能型注塑机及采用伺服阀的电液混合机再节能20-50%

- 分布式动力源，每一个动力源(含液压伺服)都精确匹配动力；
- 伺服驱动射胶和融胶，无油泵及液压系统的泄漏能耗；
- 分布式动力结构可以减少液压油路的管路长度及油路的泄漏。

Clean EH Injection Molding Machine 130T-450T

In order to meet the requirements of high-precision injection molding and reduce the user's investment,DKMEH series electro-hydraulic hybrid injection molding machine has the most economical solution for precisionand high speed injection molding.The high servo drive power system invented by DKM is combined with theintelligent control system to realize the closed-loop control of the injection system and make the repeatedpositioning accuracy<0.01mm.This excellent feature enables EH series being widely used in the compo-nents molding with high precision requirements such as medical devices and precision IT parts.

Precise +

Full electric injection unit with servo motor system,precise screw motion control leads to the precise injec-tion displacement.High injection speed makes the balanced products stress without deformation.It's theperfect choice of medical device injection molding.

Clean +

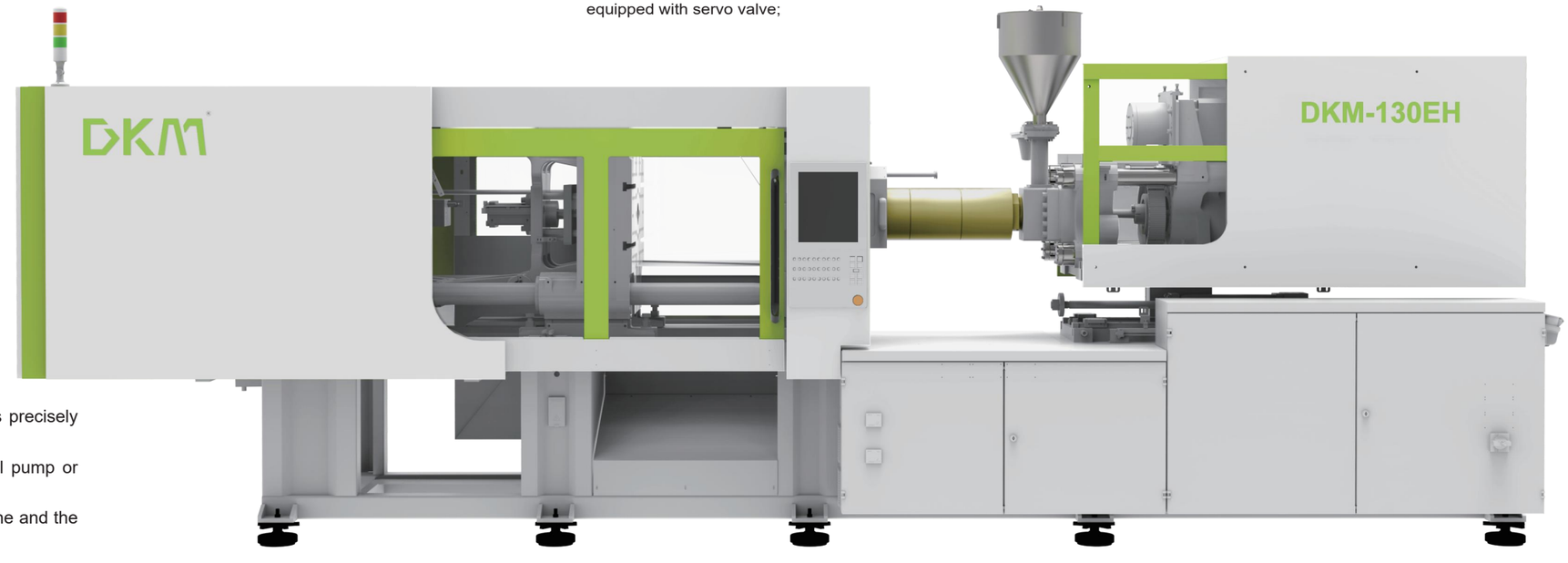
There is no hydraulic system in EH series injection unit,clamping unit hinge lubrication with special self-lu-bricating design,guaranteed there will be no pollution in purification workshop.

Efficient +

Distributed power source,EH can realize parallel actions at the same time,greatly shorten the productioncycle time,thus improving production efficiency.

Energy saving +

The excellent performance and efficiency of the supporting servo system make every action being ener-gy-saving.-Compared with the hydraulic servo machine,the electro-hydraulic mixer using enable 20-50%energy saving by equipped with servo valve;



- Distributed power source,each power source (including hydraulic servo)is precisely matched power;
- Servo-Driven injection and melting.No energy consumption caused by oil pump or hydraulic returning.
- Distributed dynamic structure can reduce the length of the hydraulic pipeline and the leakage of the oil pipeline.

德库玛伺服节能注塑机

Servo Energy Saving Injection Molding Machine

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，高控制精度等特点，突破性地实现了电动伺服与液压驱动技术的完美结合。

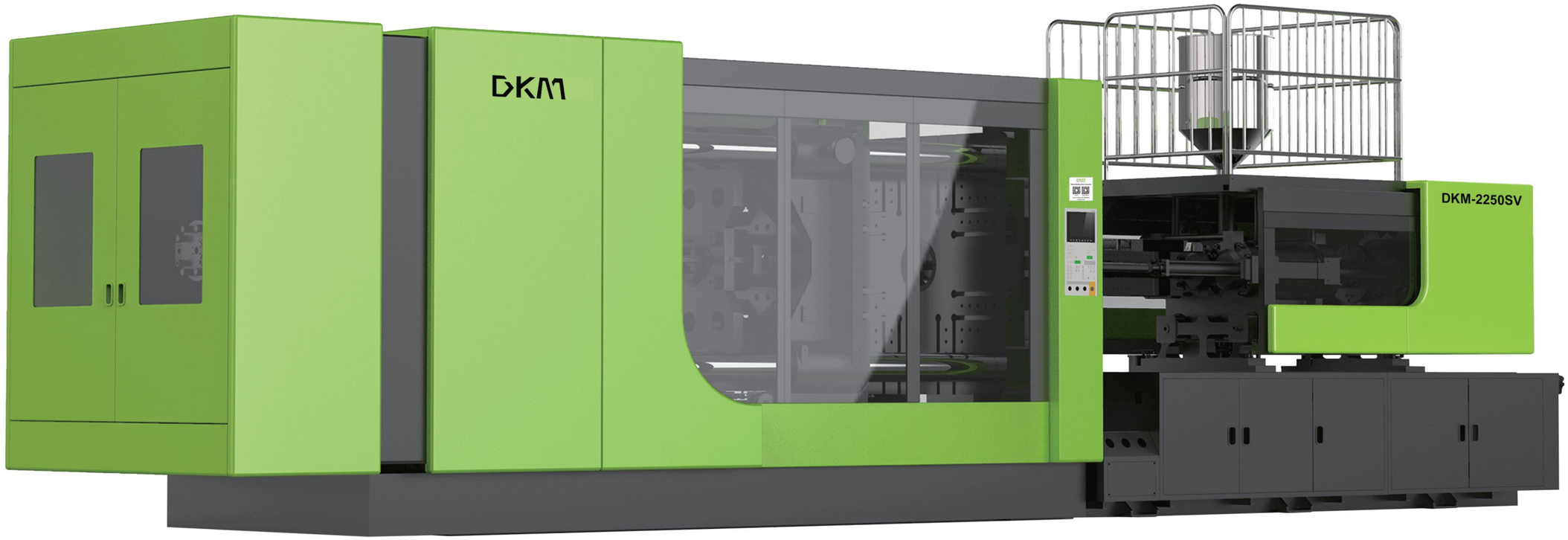
DKM use high-performance servo dynamic control system, as the power source the oil pump, have the characteristics high speed response, energy saving, low noise, high-control precision, and a breakthrough in the perfect connection of the electrical servo and hydraulic drive system.

DKM-130SV —— DKM-3350SV 伺服节能型注塑机

通用型伺服注塑机适用于各类塑料产品，如塑料日用品、周转箱、桌椅、托盘、工业垃圾桶以及汽车零件的生产。并且可以根据客户的产品需求，特别定制专用机器，为客户创造更大的价值。

DKM-130SV——DKM-3350SV SERVO ENERGY SAVING MACHINE

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

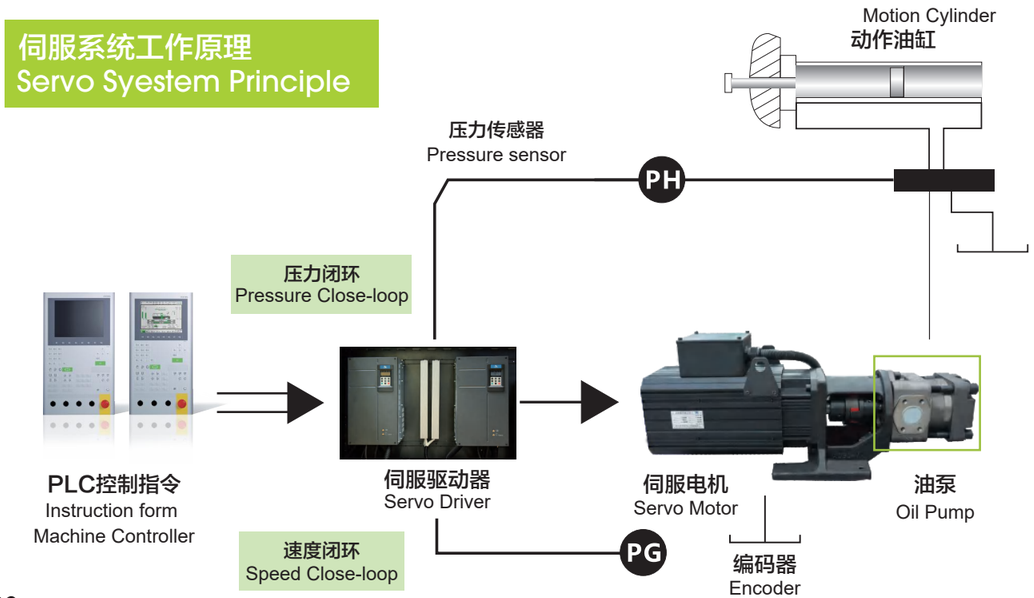


高节能，更环保，驱动绿色未来
Environmental Protection - High Energy Saving

■ **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宽泛，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

■ **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,repeat-ability 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.

伺服系统工作原理
Servo Syestem Principle



伺服系统 Servo System

■ 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。

■ 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.

伺服电液系统与传统流量、压力系统的能耗比较
Energy Consumption Compare between Electro Hydraulic Servo System and Traditional Flow and Pressure System

下图为您展示在相同功率运行环境下，DKM伺服注塑机采用伺服系统后耗电量与节省用电量的对比示意图:
There are comparison diagrams of power consumption and energy saving between fixed pump, variable pump and servo system, based on the same power.

■ **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DPS运算器件，实现磁场定向失量控制策略。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。

■ **High efficiency**
DKM servo electro-hydraulic system adopts the design of motor with less space and small rotation inertia, combined with the most advanced high-speed DPS operation device, to realize the vector control strategy of magnetic field orientation.

■ **Precision**
We take the high-precision rotary transformer which reach 4096 pulse/ras the feedback element of motor rotate speed (flow) and take 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.

DKM伺服机技术参数表

DKM Servo Energy Saving Injection Machine Specification

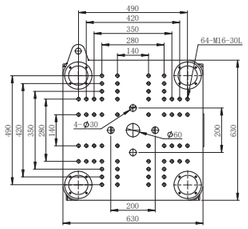
			DKM-90SV			DKM-130SV			DKM-180SV			DKM-250SV			DKM-350SV			DKM-450SV				DKM-550SV				DKM-650SV			
			A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	D	A	B	C	D	A	B	C	D
注塑装置	INJECTION UNIT																											
螺杆直径	Screw Diameter	mm	32	36	40	38	42	45	40	45	50	45	50	55	60	65	70	70	75	80	85	75	80	85	90	85	90	95	100
螺杆长径比	Screw L/D Ratio	(L/D)	22.5	20	18	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	22.7	21.5	19.3	18.4
理论注射容积	Shot Volume	cm^3	133	168	207	195	235	270	312	395	488	421	520	629	989	1160	1345	1500	1722	1960	2212	1926	2191	2473	2773	2439	2734	3046	3376
理论注射重量(ps)	Injection Weight	g	121	154	190	177	216	248	284	358	444	379	468	566	890	1044	1211	1350	1550	1764	1991	1733	1972	2226	2496	2195	2461	2742	3038
注射压力	Injection Pressure	Mpa	232	183	149	200	163	142	214	169	137	219	178	147	204	174	150	204	177	156	138	204	180	159	142	210	188	168	152
塑化率(ps)	Plasticizing Rate	(g/s)	11.7	14.2	16.9	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	65.4	71.8	78.2	86.5
螺杆转速	Screw Speed	rpm	0-200			0-200			0-200			0-200			0-200			0-150				0-200				0-200			
合模装置	CLAMPING UNIT																											
合模力	Clamping Tonnage	kN	900			1300			1800			2500			3500			4500				5500				6500			
移模行程	Toggle Stroke	mm	320			390			440			535			640			700				850				900			
拉杆内距	Tie Bar Distance	mm	360×360			417×417			470×470			570×570			680*680			760×760				830×830				900×900			
最大模厚	Max.Mold Height	mm	390			460			550			600			680			760				850				1000			
最小模厚	Min.Mold Height	mm	150			160			180			200			220			250				290				300			
最小模具尺寸	Min.Mould Size	mm	230×200			295×295			330×330			400×400			460×460			530×530				580×580				630×630			
顶出行程	Ejector Stroke	mm	95			120			135			155			165			195				240				240			
顶出力	Ejector Force	kN	53			46			53			70			79			138				150				210			
顶出杆数	Ejector Number	n	5			5			5			5			13			13				17				21			
其他	OTHERS																											
最大油泵压力	Max.Pump Pressure	Mpa	16			16			16			16			16			16				16				16			
电机功率	Pump Motor Power	kW	13.4			13.4			16.4			20.5			30.2			2×20.5				2×26.7				2×20.5+26.7			
电热功率	Heater Power	kW	5.99			8.9			11.4			13.7			22			27.2				33.9				44.9			
外形尺寸	Machine Dimension	m	4.38×1.3×1.89			4.7×1.3×1.9			5.1×1.5×1.95			5.8×1.6×2.3			6.9×1.7×2.35			7.8×1.9×2.5				8.6×2×2.5				10.2×2.3×3.15			
机器重量	Machine Weight	t	3.9			4.5			5.36			8.3			13.3			17				20				30			
油箱容积	Oil Tank Capacity	L	140			190			230			260			400			500				750				1000			

			DKM-850SV				DKM-1150SV				DKM-1350SV				DKM-1650SV				DKM-2250SV			DKM-2800SV			DKM-3350SV
			A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	A	B	C	A
注塑装置	INJECTION UNIT																								
螺杆直径	Screw Diameter	mm	90	95	100	110	100	110	120	130	110	120	130	140	120	130	140	150	140	150	165	170	185	200	225
螺杆长径比	Screw L/D Ratio	(L/D)	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
理论注射容积	Shot Volume	cm^3	2980	3325	3685	4460	4710	5699	6782	7960	6275	7470	8765	10170	7924	9299	10785	12380	12693	14571	16579	22687	26867	31400	47688
理论注射重量(ps)	Injection Weight	g	2682	2993	3317	4014	4239	5129	6104	7164	5648	6723	7889	9153	7132	8369	9707	11142	11424	13114	14921	20418	24180	28260	42919
注射压力	Injection Pressure	Mpa	207	185	167	137	206	170	143	122	201	169	144	124	193	164	142	123	199	173	142	188	159	136	132
塑化率(ps)	Plasticizing Rate	(g/s)	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	263
螺杆转速	Screw Speed	rpm	0-130				0-120				0-120				0-110				0-80			0-60			0-55
合模装置	CLAMPING UNIT																								
合模力	Clamping Tonnage	kN	8500				11500				13500				16500				22500			28000			33500
移模行程	Toggle Stroke	mm	1040				1280				1410				1520				1700			1940			2160
拉杆内距	Tie Bar Distance	mm	1040*1040				1200*1200				1370*1320				1570*1510				1800*1600			1865*1715			2160*1900
最大模厚	Max.Mold Height	mm	1040				1250				1400				1500				1800			1900			2000
最小模厚	Min.Mold Height	mm	420				500				500				700				900			900			1000
最小模具尺寸	Min.Mould Size	mm	720*720				840*840				960*920				1100*1050				1260*1120			1300*1200			1510*1330
顶出行程	Ejector Stroke	mm	300				350				350				350				420			450			550
顶出力	Ejector Force	kN	210				246				246				318				400			430			618
顶出杆数	Ejector Number	n	21				21				25				29				29			29			29
其他	OTHERS																								
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	2×26.7+20.5				3×30.2+26.7				4×30.2+26.7				4×30.2+26.7				5×40.9			8×30.2			336
电热功率	Heater Power	kW	55.4				76.1				82.2				102.9				125			170			190
外形尺寸	Machine Dimension	m	10.8*2.4*3.25				12.8*2.63*3.2				13.5*2.8*3.25				14.9*3.22*3.38				16.9*3.72*3.82			19.8*3.8*4			21.8*4.9*4.2
机器重量	Machine Weight	t	35.5				54				62				100				141			185			250
油箱容积	Oil Tank Capacity	L	1000				1300				1500				1500				2500			2500			3000

德库玛提供高品质的上料机、干燥机、冷水机、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.

DKM130



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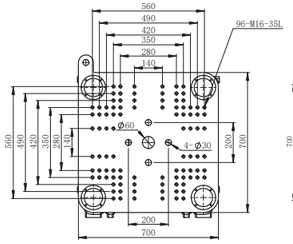
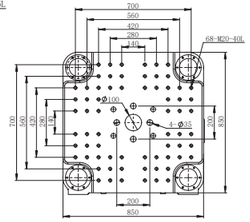


DKM250



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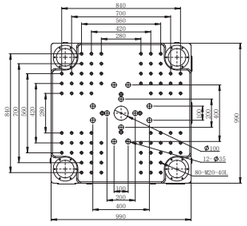

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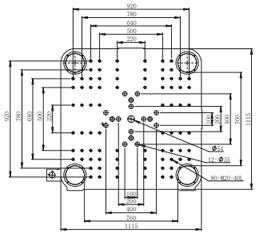

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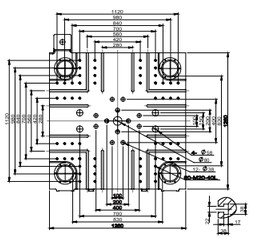

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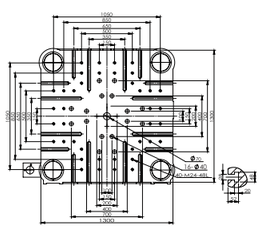

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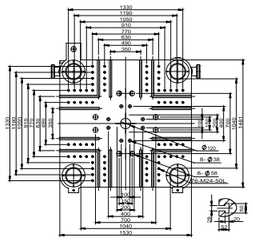

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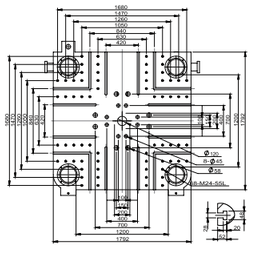

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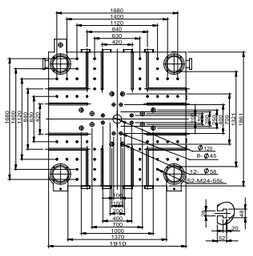

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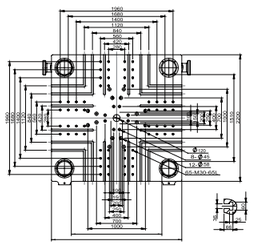

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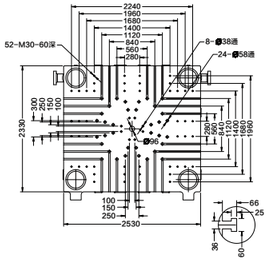

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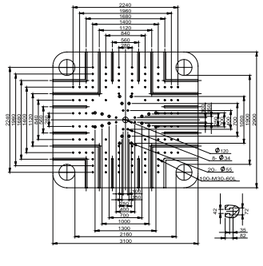

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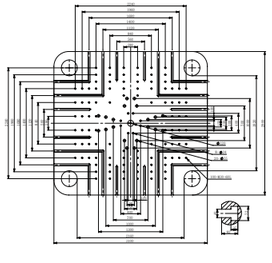
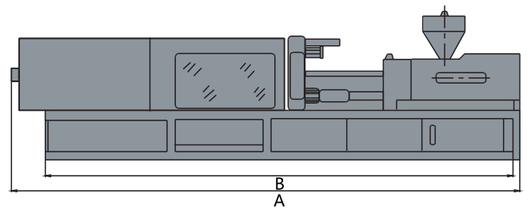
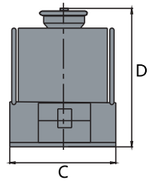
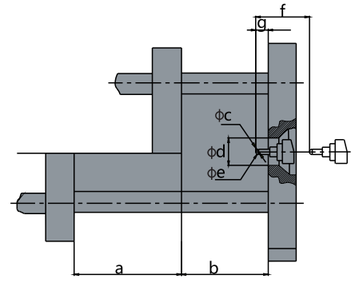


整机外廓尺寸
MACHINE DIMENSION







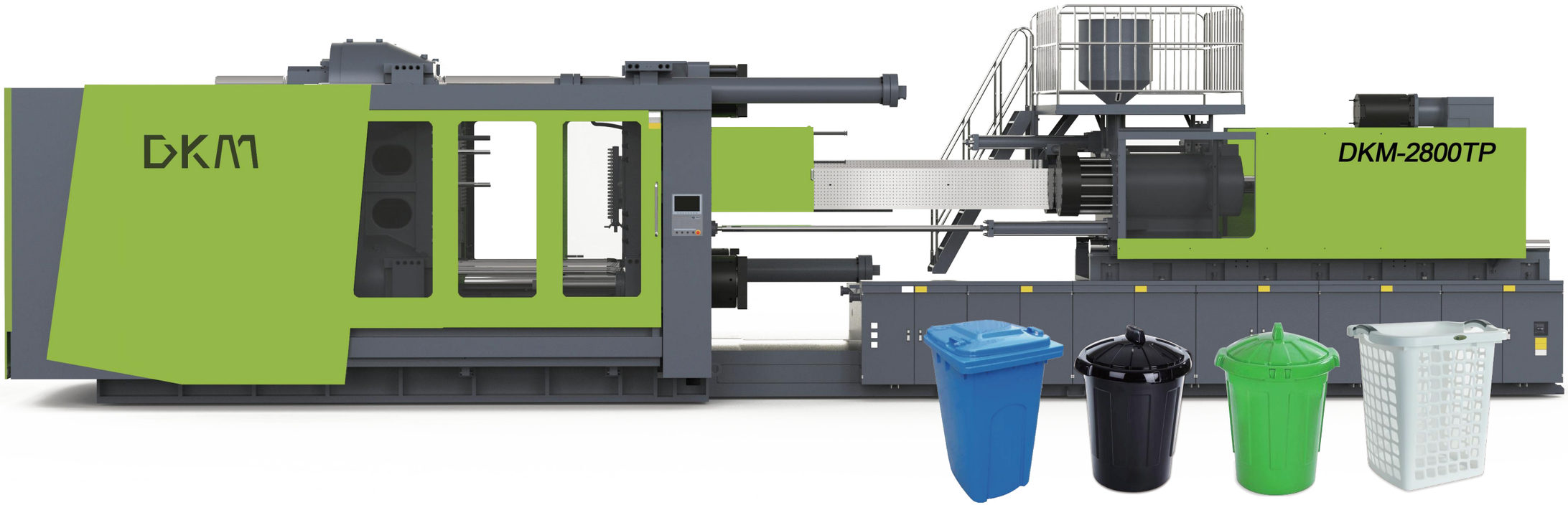
Model	A	a	B	b	C	c	D	d	e	f	g
DKM130	4700	343	4430	162-460	1313	Φ3.5	1900	125	SR10	270	30
DKM180	5380	435	4055	180-550	1563	Φ3.5	1950	125	SR10	285	30
DKM250	5760	535	4700	200-600	1563	Φ3.5	2300	160	SR10	340	40
DKM350	6900	560	5820	220-640	1746	Φ4.5	2200	160	SR15	390	40
DKM450	7800	700	1350	250-760	1900	Φ4.5	2480	200	SR15	445	50
DKM550	8585	850	7315	290-850	2011	Φ4.5	2475	200	SR15	490	50
DKM650	10205	900	8505	300-1000	2230	Φ6	3147	200	SR15	495	50
DKM850	10766	1040	9430	420-1040	2350	Φ6	3220	250	SR15	535	50
DKM1150	12800	1280	11360	500-1250	2628	Φ6	3103	250	SR20	680	50
DKM1350	13518	1410	11966	500-1400	2708	Φ6	3200	250	SR20	680	50
DKM1650	14915	1520	13000	700-1500	3218	Φ6	3500	315	SR20	740	50
DKM2250	18935	1700	16905	900-1800	3716	Φ8	3818	315	SR20	930	50
DKM2800	19760	1940	17608	900-1900	3784	Φ10	4036	350	SR20	1000	100
DKM4000	19500	2260	18500	1100-2110	4200	Φ10	5250	350	SR25	1100	100

德库玛二板式注塑机600T-4000T

德库玛二板机系列由我司欧洲技术总工程师组织研发，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超大的容模量和取件空间，而且相对同等吨位的三板机而言具有独特的占地空间少，机械手取件空间大的优势，尤其适合生产大规格尺寸的塑料制品，如垃圾桶、家用电器、汽车零部件、物流箱和大型托盘。

DKM TWO PLATEN INJECTION MOLDING MACHINE 600-4000T

DKM TP series two platen injection machine is developed by our technical team from Europe. The machine is designed for large size parts like industrial dustbins, auto parts, logistic container and large pallets. Two platen machine has the advantage of bigger mould opening stroke capacity and space for robot, 30% less floor space. DKM Two platen machines were designed with higher molding speed and more precision injection.



高稳定性

- 借助有限元分析，突破传统的技术工艺瓶颈，大幅提高机器零件的强度和刚性
- 高精度的H型夹板
- 移动固定板双滑动结构，使大型模具的平行度均匀
- 通过机器底部移动板导轨，滑动以消除倾斜扭矩，提高模具承载能力

高可靠性

- 拉杆固定在定模板上的结构便于安装大型模具，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，提高机器寿命。

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

高精度

- 采用全封闭液压系统，泄漏量少，保压性能好
- 使用锁紧螺母进行操作，具有快速准确地反应
- 安装在移动台板上的四个液压缸，在平衡压力下快速产生锁模力
- 用于监测锁模力的压力传感器

高容模量

- 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

高节能性

- 伺服控制系统，降低能源消耗，且机身占地面积较传统注塑机减少30%

高安全

- 严格按照欧洲CE标准执行 保证操作安全

HIGH STABILITY

- Enhanced strength and rigidity of mechanical parts, with the help of finite element analysis.
- H type clamping plate for high precision.
- Double sliding structure for moving and fixed plate to make the parallelism even for large size mould.
- Moving plate guide by machine bottom and slide to eliminate any titling torque and increase mould bearing capacity.

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.

HIGH FLEXIBILITY

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

HIGH PRECISION

- Fully closed hydraulic system for less leakage was adopted for less leakage and better pressure holding.
- Operation with locknut for rapid and accurate reaction.
- Four hydraulic cylinders installed on moving platen to create clamping force fast with balanced pressure.
- Pressure sensor used to monitor the clamping force.

HIGH MOULD THICKNESS CAPACITY

- More than 50% opening stroke, mould thickness capacity etc.
- The operation, installation and production are full of humanization.

HIGH ENERGY SAVING

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

HIGH SAFETY

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

二板式注塑机参数表

PLATEN INJECTION MOLDING MACHINE SPECIFICATION

Dakumarmachineryspec.			DKM-600TP				DKM-800TP				DKM-1000TP		
			A	B	C	D	A	B	C	D	A	B	C
注塑装置	**INJECTIONUNIT**												
螺杆直径	ScrewDiameter	mm	85	90	95	100	90	95	100	110	100	120	135
螺杆长径比	ScrewL/DRatio	L/D	22.7	21.5	19.3	18.4	24.8	23.6	22.4	20.4	25.3	21.1	18.7
理论射出容量	TheoreticalShotVolume	cm^3	2439	2734	3046	3376	2980	3325	3685	4460	5102	7350	9300
注射重量(PS)	InjectionWeight(PS)	gram	2195	2461	2742	3038	2682	2993	3317	4014	4591	6615	8370
注射压力	InjectionPressure	Mpa	232	207	186	168	207	185	167	137	270	188	148
螺杆最高转速	ScrewSpeed	rpm	130				130				125		
螺杆行程	ScrewStroke	mm	430				468				650		
合模装置	**CLAMPINGUNIT**												
合模力	ClampForce	kN	6000				8000				10000		
开模行程	Moldopeningstroke	mm	1350-800				1400-900				1920-1180		
墙板尺寸(LxW)	PlatenDimension	mm	1400x1350				1540x1515				1845x1645		
拉杆内距	DistanceBetweenTiebars	mm	1040×910				1180×1000				1300×1100		
最大模厚	Max.MoldHeight	mm	950				950				1240		
最小模厚	Min.MoldHeight	mm	400				450				500		
最大墙板间距	Max.daylight	mm	1750				1850				2420		
模具最大重量	Max.moldweight	t	9				11				13		
顶出行程	EjectorStroke	mm	250				300				300		
顶出力	EjectorForce	kN	150				260				260		
顶针数量	EjectorNumbers	unit	21				21				25		
其他	**OTHERS**												
最大油泵压力	Max.PumpPressure	Mpa	22				22				23		
电机功率	PumpMotorPower	kW	2x20.5+26.7				3x26.7				3x56		
电热功率	HeaterPower	kW	44.9				55.4				55		
加热段数	HeatingZonesNumber	unit	7				7				7		
外形尺寸(L/W/H)	MachineDimension(L/W/H)	mm	8300×2750×3300				8700×3000×3300				10800×3100×2800		
机械重量	MachineWeight	tons	28				32				45		
油箱容积	OilTankCapacity	liter	1150				1150				900		

DKM-1600TP				DKM-2200TP			DKM-2600TP			DKM-3300TP			DKM-4000TP	
A	B	C	D	A	B	C	A	B	C	A	B	C	A	B
120	130	140	150	140	150	165	170	185	200	180	200	220	240	260
26	24	22.3	20.8	23.6	22	20	25.8	23.7	22	24.4	22	20	23.8	22
7924	9299	10785	12380	12700	14579	17632	22687	26867	31400	27977	34540	41793	58781	68986
7131.6	8369.1	9707	11142	11429	13121	15868	20418	24180	28260	25180	31086	37614	52903	62087
193	164	142	123	197	172	142	188	159	136	194	157	130	160	136
110				80			60			55			40	
700				825			1150			1100			1300	
16000				22000			26000			33000			40000	
2550-1700				3000-2000			3300-2100			3160-2160			3460-2360	
2200x2100				2640x2400			2900x2700			3050x2800			3350x2950	
1580×1480				2020×1620			2185×1800			2200×1950			2450×2050	
1550				1800			2000			2000			2100	
700				800			800			1000			1000	
3250				3800			4100			4160			4460	
30				50			66			75			85	
400				500			500			600			600	
447				447			447			620			620	
33				33			33			33			33	
22				22			22			19.5			19.5	
5x40.9				5x48.2			4x40.9+4x30.2			237			385	
102.9				125			170			200			240	
7				8			9			15			15	
12800×3800×4100				14500×5200×4500			15500×5650×5000			17000×4500×5500			18000×5000×6500	
88				129			160			230			290	
1700				2500			2500			5000			6000	

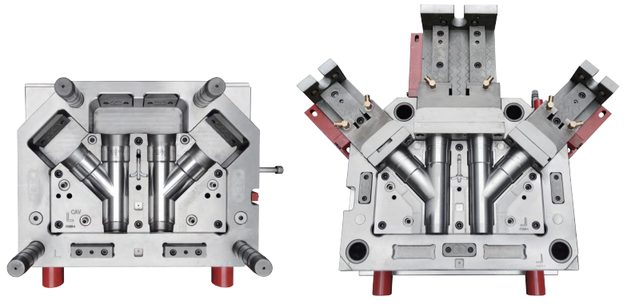
DKM PVC管件专用注塑机(130-650T)

DKM PVC Injection Molding Machine

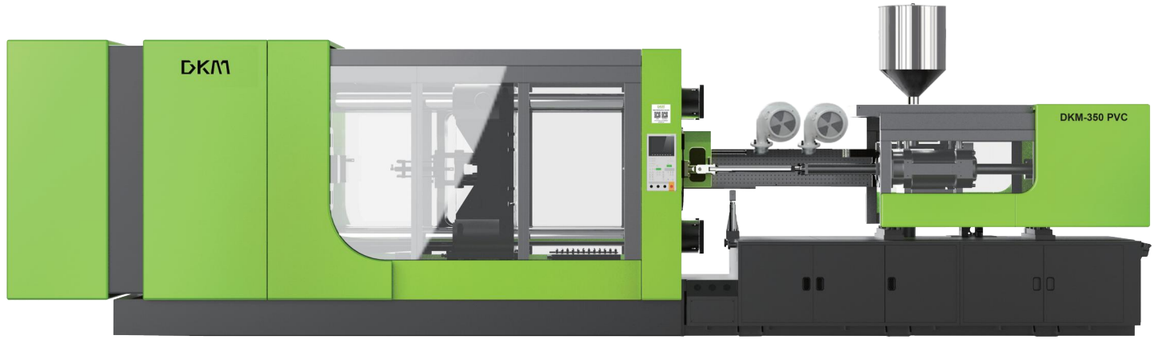
DKM德库玛PVC专用注塑机,针对PVC聚氯乙烯的物料特性，在通用型产品的基础上所改进的PVC专用机能实现客户更高的生产要求。

DKM-PVC machine ,according to the characteristics of the PVC molding process,has all the advantages of the standard model,and mature
improvements have been made to ensure the excellent molding of PVC products.

- PVC专用塑化元件，采用硬镀铬螺杆，镀铬射嘴（加大孔径）和镀铬喷嘴法兰耐腐蚀性强。
- 所有型号标配液压抽芯装置（两个输入和两个输出）。
- 选配加宽机门设计。
- 严格温度控制，可选多段风机或压缩空气冷却。
- 分段式料筒护罩设计，单独鼓风机散热，料筒温度控制更精准
- 镀硬铬射嘴（加大孔径），以确保PVC产品品质。
- 加大油压马达适应PVC塑化时超高螺杆扭力的要求。
- 加大型液压马达，实现高效优质量化。
- 大机器螺杆料筒内设有油冷、水冷系统。
- 采用一体式螺杆设计，提高注射效果
- plus锁模钣金，可安装更多类型模具
- 全数字闭环控制，高速度，高响应
- 低压模具保护功能
- PID温度控制
- 双缸平衡注射
- 低噪音液控系统
- 独立数控背压
- 自动调模功能
- 射移线性导轨



- Hard chrome plated screw,nozzle (with enlarged nozzle hole),and nozzle flange are adopted to ensure the quality of PVC production and extend the life of the mechanical parts
- Multi sets core pulling design
- Enlarged machine frame as optional
- Precision temperature control,multi-stage fan or compressed air cooling as optional
- Segmented barrel guard design,separate blower for heat dissipation,more accurate barrel temperature control
- Enlarge hydraulic mator to fit the high torque requirement for PVC plasticization
- Enlarge hydraulic motor to achieve high efficiency and quality quantfication
- Oil cooling and water cooling systems are installed in the screw barrel of the large machine
- One-piece screw design for improving the injection effect
- PVC enlarged machine frame for flexible mould work
- Closed loop CNC,high speed,high response
- Low-pressure mould protection
- PID temperature control
- Balanced injection by double cylinder
- Low noise hydraulic control system
- Independent CNC back pressure
- Automatic mold adjustment function
- Linear guide for injection unit moving



PVC注塑机

PVC Injection Machine Specification

			DKM-130 PVC		DKM-180 PVC		DKM-250 PVC			DKM-350 PVC		
			A	B	A	B	A	B	C	A	B	C
注塑装置	**INJECTION UNIT**											
螺杆直径	Screw Diameter	mm	42	45	45	50	45	50	55	60	65	70
理论注射容积	Shot Volume	cm^3	235	270	395	488	421	520	629	989	1160	1345
注射重量	Injection Weight	g	282	324	474	537	505	624	755	1187	1392	1614
螺杆长径比	Screw L/D Ratio	(L/D)	20	18.5	20.6	18.5	24	21.6	19.4	23	21	20
注射压力	Injection Pressure	Mpa	163	142	169	137	219	178	147	204	174	150
螺杆转速	Screw Speed	rpm	0-200		0-200		0-200			0-200		
合模装置	**CLAMPING UNIT**											
合模力	Clamping Tonnage	KN	1300		1800		2500			3500		
移模行程	Toggle Stroke	mm	390		435		535			640		
拉杆内距	Tie Bar Distance	mm	417*417		470*470		570*570			680*680		
最大模厚	Max.Mold Height	mm	460		550		600			680		
最小模厚	Min.Mold Height	mm	160		180		200			220		
最小模具尺寸	Min.Mould Size	mm	295*295		330*330		400*400			460*460		
顶出行程	Ejector Stroke	mm	120		135		155			165		
顶出力	Ejector Tonnage	KN	46		53		70			79		
顶出杆数	Ejector Number	n	5		5		5			13		
其他	**OTHERS**											
马达功率	Major Motor	kW	13.4		16.4		20.5			30.2		
系统压力	System Pressure	Mpa	16		16		16			16		
电热功率	Heater Power	kW	7		11.4		11			18		
机器重量	Machine Weight	Ton	4.5		5.36		8.3			13.3		
油箱容积	Oil Tank Capacity	L	190		230		260			400		
外形尺寸	Machine Dimension	m	4.7*1.3*1.9		5.1*1.5*1.95		5.8*1.6*2.3			6.9*1.7*2.35		

DKM-450 PVC				DKM-550 PVC				DKM-650 PVC			
A	B	C	D	A	B	C	D	A	B	C	D
70	75	80	85	75	80	85	90	85	90	95	100
1500	1722	1960	2212	1926	2191	2473	2773	2439	2734	3046	3376
1800	2066	2352	2654	2311	2629	2968	3328	2927	3281	3655	4051
24	22	20	18	23.7	22	20.7	19.5	22.7	21.5	19.3	18.4
204	177	156	138	204	180	159	142	210	188	168	152
0-200				0-200				0-130			
4500				5500				6500			
700				850				900			
760*760				830*830				900*900			
760				850				1000			
250				290				300			
530*530				580*580				630*630			
195				240				240			
138				150				210			
13				17				21			
2×20.5				2×26.7				2×20.5+26.7			
16				16				16			
27.2				27				36			
17				20				30			
500				750				1000			
7.8*1.9*2.5				8.6*2*2.5				10.2*2.2*3.15			

PVC专用机钣金宽度较标准机单侧增加200mm

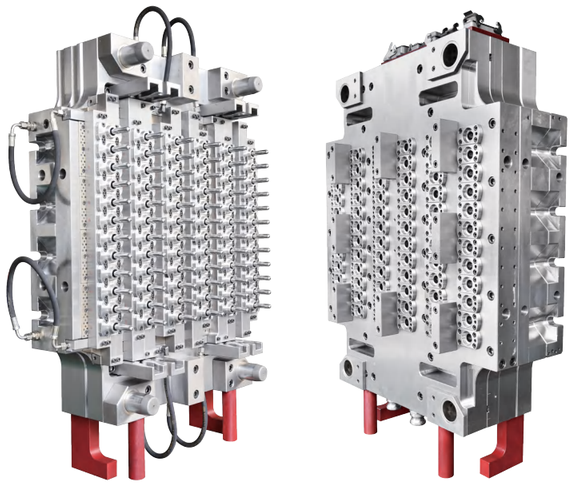
Extra 200mm each side for PVC machine door distance.

DKM德库玛PET瓶胚专用注塑机

DKM PET Preform Injection Molding Machine

DKM开发有两大系列PET瓶胚专用注塑机，分别为：DKM-PETI系列130-650吨和DKM-PETII系列250-650吨，两种机型可广泛适用于水瓶胚、油瓶胚、碳酸瓶胚、广口瓶胚及各款单色、多色、混色等瓶胚生产。

There are two series of DKM machines designed for quality PET preform molding:DKM-PETI(130Ton-650Ton)&D-KM-PET II(250Ton -650Ton),with muli applications of water preforms,oll preforms,carbonate preforms,wide-mouth preforms and various types of single-color,mult-color,and mixed-color preforms.



DKM德库玛第二代PET瓶胚专用注塑机系列高速、稳定、节能，机器零部件均采购自国内外一线品牌，其在重复精度、塑化速度、功率消耗等多项技术参数方面均达到了优质水平。

DKM-PET ll preform injection molding machine series -high-speed,stable,and energy-saving -thanks to its excel-lent level on technical parameters such as repeatability,plasticization speed,and power consumption.

- 多组抽芯装置
- 高刚性锁模机构
- 高刚性机架设计
- PET专用料筒螺杆，大长径比，低剪切、高混炼，混炼、塑化效果好
- 模块化注射机构
- 电、液双重安全保护
- 组合油路设计，高效节能
- 低压模具保护功能
- PID温度控制
- 双缸平衡注射
- 低噪音液控系统
- 独立数控背压
- 自动调模功能
- 射移线性导轨
- 全数字闭环控制，高速度，高响应
- plus油泵、电机，动力更大
- plus储料马达，增加螺杆扭矩

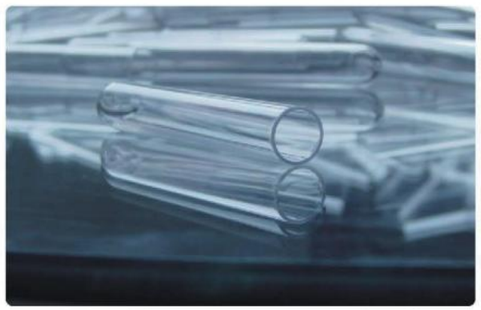
- Multiple sets of core-pulling devices
- High-rigidity clamping mechanism
- High-rigidity frame design
- PET-specific barrel screw, large L/D ratio, low shear, high mixing, good mixing and plasticizing effects
- Modular injection mechanism
- Electric and hydraulic double safety protection
- Combined oil circuit design, high efficiency and energy saving
- Low pressure mold protection function
- PID temperature control
- Dual-cylinder balanced injection
- Low noise hydraulic control system
- Independent CNC back pressure
- Automatic mold adjustment function
- Injection shift linear guide
- Fully digital closed-loop control, high speed, high response
- Plus oil pump and motor, more power
- Plus storage motor, increase screw torque

PET瓶胚专用注塑机

PET Preform Injection Molding Machine II Series

			DKM-250IIPET			DKM-350IIPET		
			A	B	C	A	B	C
注塑装置	**INJECTION UNIT**							
螺杆直径	Screw Diameter	mm	60	65	70	75	80	85
螺杆长径比	Screw L/D Ratio	(L/D)	24	24	24	24	24	24
理论注射容积	Shot Volume	cm^3	989	1160	1345	1722	1960	2212
注射重量	Injection Weight	g	1187	1392	1614	2066	2352	2654
注射压力	Injection Pressure	Mpa	204	174	150	177	156	138
螺杆转速	Screw Speed	rpm	0-125			0-120		
合模装置	**CLAMPING UNIT**							
合模力	Clamping Tonnage	KN	2500			3500		
移模行程	Toggle Stroke	mm	535			640		
拉杆内距	Tie Bar Distance	mm	570*570			680*680		
最大模厚	Max.Mold Height	mm	600			680		
最小模厚	Min.Mold Height	mm	200			220		
最小模具尺寸	Min.Mould Size	mm	400*400			460*460		
顶出行程	Ejector Stroke	mm	155			165		
顶出力	Ejector Tonnage	KN	70			79		
顶出杆数	Ejector Number	n	5			13		
其他	**OTHERS**							
最大油泵压力	Max.Pump Pressure	Mpa	16			16		
电机功率	Pump Motor Power	KW	39.4			2×26.7		
电热功率	Heater Power	KW	27.5			35.7		
外形尺寸	Machine Dimension	m	6.7*1.75*2.4			7.48*1.75*2.48		
机器重量	Machine Weight	t	11			14.5		
油箱容积	Oil Tank Capacity	L	400			500		

DKM-450IIPET			DKM-550IIPET			DKM-650IIPET		
A	B	C	A	B	C	A	B	C
80	85	90	90	95	100	95	100	110
24	24	24	24	24	24	24	24	24
2191	2473	2773	2734	3046	3376	3325	3685	4460
2629	2968	3328	3281	3655	4051	3990	4422	5352
180	159	142	188	168	152	185	167	137
0-107			0-105			0-100		
4500			5500			6500		
700			850			900		
760*760			830*830			900*900		
760			850			1000		
250			290			300		
530*530			580*580			630*630		
195			240			240		
138			150			210		
13			17			21		
16			16			16		
2x35.6			2×26.7+35.6			2×35.6+26.7		
40			55.3			70		
8.2*1.9*2.5			9.15*2*3.15			10.6*2.23*3.22		
18			24			32		
750			1000			1000		



PET伺服注塑机

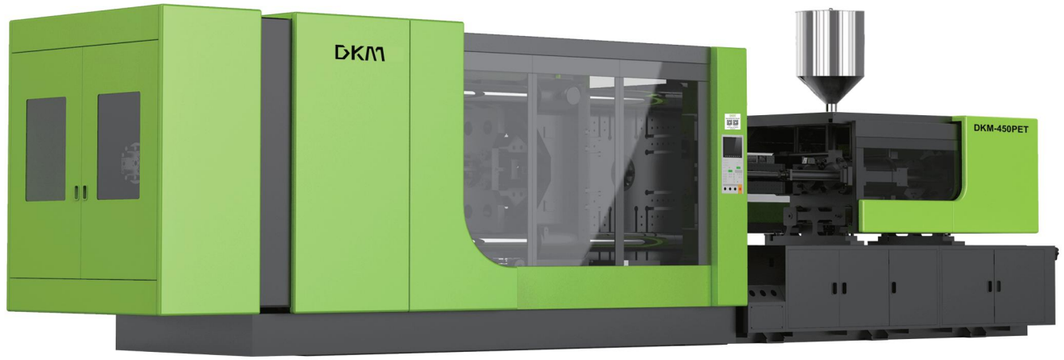
PET Injection Molding Machine

根据PET成型工艺的特性，本公司推出的PET专用机型具有标准机型的所有优点之外，另做出成熟改进，保证PET产品成型优良。

According to the characteristics of the PET molding process,the PET machine has all the advantages ofthe standard model,and mature improvements have been made to ensure the excellent molding of PETproducts.

- 另可特别定制成型加玻纤PET专用料管组，片料PET专用料管组。
- 四段及以上进料筒PID温度精确控制。
- PET专用料筒螺杆，大长径比，低剪切、高混炼，混炼、塑化效果好
- 弹簧喷嘴供650T以下机器选配，液压喷嘴供650T机器选配，满足客户的特殊需求，有效防止溢流。大直径螺杆设计，以及大长径比。
- 塑化耐力优。
- 加长机架，超大四柱空间、加大容模及加专顶针行程。
- 为满足PET原料除湿要求特殊选配的除湿干燥机。
- 变量泵和定量泵均适用。
- 低压模具保护功能
- PID温度控制
- 双缸平衡注射
- 低噪音液控系统
- 独立数控背压
- 自动调模功能
- 射移线性导轨
- 全数字闭环控制，高速度，高响应
- 加大一级油泵、电机
- 加大一级储料马达
- 多组抽芯装置

- Special barrel and screw for glass fiber PET or sheet material PET is available
- Dehumidification dryer could be selected to meet the dehumidification requirements of PET raw materials.
- The PID temperature of the four-stage and above feed barrel is accurately controlled
- Screw designed for PET,large L/D ratio,high plasticization capacity
- Spring nozzle for the machine below 650T,hydraulic nozzle for 650T,meeting customers'special requirements by effectively avoiding overflow
- Extend machine frame and enlarge space between tie bars,mold opening stroke,mold thickness,and ejection stroke
- Both variable pumps and fixed pumps are applicable
- Low-pressure mould protection
- PID temperature control
- Balanced injection by double cylinder
- Low noise hydraulic control system
- Independent CNC back pressure
- Automatic mold adjustment function
- Linear guide for injection unit moving
- Closed loop CNC,high speed,high response
- Enhance oil pump and motor
- Enhance plastic charging motor
- Multi sets core pulling



PET伺服注塑机

PET Injection Molding Machine I Series

			DKM-130 I PET		DKM-180 I PET		DKM-250 I PET		
			A	B	A	B	A	B	C
注塑装置	**INJECTION UNIT**								
螺杆直径	Screw Diameter	mm	42	45	45	50	45	50	55
螺杆长径比	Screw L/D Ratio	(L/D)	24.9	23.4	24	22.5	24	24	24
理论注射容积	Shot Volume	cm^3	235	270	395	488	421	520	629
注射重量	Injection Weight	g	282	324	474	586	505	624	755
注射压力	Injection Pressure	Mpa	163	142	169	137	219	178	147
螺杆转速	Screw Speed	rpm	0-200		0-170		0-160		
合模装置	**CLAMPING UNIT**								
合模力	Clamping Tonnage	KN	1300		1800		2500		
移模行程	Toggle Stroke	mm	390		435		535		
拉杆内距	Tie Bar Distance	mm	417*417		470*470		570*570		
最大模厚	Max.Mold Height	mm	460		550		600		
最小模厚	Min.Mold Height	mm	160		180		200		
最小模具尺寸	Min.Mould Size	mm	295*295		330*330		400*400		
顶出行程	Ejector Stroke	mm	120		135		155		
顶出力	Ejector Tonnage	KN	46		53		70		
顶出杆数	Ejector Number	n	5		5		5		
其他	**OTHERS**								
最大油泵压力	Max.Pump Pressure	Mpa	16		16		16		
电机功率	Pump Motor Power	KW	16.4		20.5		26.7		
电热功率	Heater Power	KW	7.7		9.3		18		
外形尺寸	Machine Dimension	m	4.7*1.3*1.9		5.29*1.6*1.95		6.7*1.75*2.15		
机器重量	Machine Weight	t	4.7		5.7		8.6		
油箱容积	Oil Tank Capacity	L	230		260		400		

DKM-350 I PET			DKM-450 I PET				DKM-550 I PET				DKM-650 I PET			
A	B	C	A	B	C	D	A	B	C	D	A	B	C	D
60	65	70	70	75	80	85	75	80	85	90	85	90	95	100
24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
989	1160	1345	1500	1722	1960	2212	1926	2191	2473	2773	2439	2734	3046	3376
1187	1392	1614	1800	2066	2352	2654	2311	2629	2968	3328	2927	3281	3656	4051
204	174	150	204	177	156	138	204	180	159	142	210	188	168	152
0-125			0-100				0-107				0-100			
3500			4500				5500				6500			
640			700				850				900			
680*680			760*760				830*830				900*900			
680			760				850				1000			
220			250				290				300			
460*460			530*530				580*580				630*630			
165			195				240				240			
79			138				150				210			
13			13				17				21			
16			16				16				16			
40.9			2x26.7				2×35.6				2×26.7+35.6			
24.9			30				40				55.3			
7.48*1.75*2.2			8.2*1.9*2.48				9.15*2*2.48				10.6*2.23*3.2			
14			18				22				33			
500			750				1000				1000			

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.

角式机技术参数表 Angle Injection Machine Specification

			DKM-130					DKM-180				
			主射台 Master injection			副射台 Assistant injection		主射台 Master injection			副射台 Assistant injection	
			A	B	C	A	B	A	B	C	A	B
螺杆直径	Screw Diameter	mm	38	42	45	20	22	40	45	50	24	26
螺杆长径比	Screw L/D Ratio	(L/D)	22	20	18.5	22	20	23.2	20.6	18.5	22	20.6
理论注射容积	Shot Volume	cm^3	195	238	274	30	36	312	395	488	50	58
注射重量	Injection Weight	g	178	217	249	27	32	284	358	444	45	53
注射压力	Injection Pressure	Mpa	200	163	143	239	198	196	176	125	224	191
螺杆转速	Screw Speed	rpm	0-200			0-100		0-190			0-100	
合模力	Clamping Tonnage	KN	1300					1800				
移模行程	Toggle Stroke	mm	390					435				
拉杆内距	Tie Bar Distance	mm	710*340					470*470				
最大模厚	Max.Mold Height	mm	460					550				
最小模厚	Min.Mold Height	mm	160					180				
顶出行程	Ejector Stroke	mm	120					135				
顶出力	Ejector Tonnage	KN	46					53				
顶出杆数	Ejector Number	n	5					5				
系统压力	Max.Pump Pressure	Mpa	16					16				
电机功率	Pump Motor Power	KW	18			6		18.8			6	
电热功率	Heater Power	KW	7.4			3.2		9.3			3.2	
外形尺寸	Machine Dimension	m	4.7*2.5*1.78					5.41*2.53*1.8				
机器重量	Machine Weight	ton	4.7					5.2				
油箱容积	Oil Tank Capacity	L	190					230				

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	
A	B	C	A	B	A	B	C	A	B	A	B	C	A	B
45	50	55	28	30	70	75	80	32	35	75	80	85	40	45
23.8	21.5	19.5	22	20.5	24	22	20	22	20	23.7	22	20.7	22	19.5
424	524	634	80	91.9	1500	1722	1960	161	192	1926	2191	2473	377	477
382	472	571	72	83	1350	1550	1764	145	173	1733	1972	2225	339	429
219	178	147	229	200	219	191	168	234	196	191	168	148	228	180
0-210			0-100		0-150			0-135		0-170			0-140	
2500					4500					5500				
530					700					850				
571*571					760*760					830*830				
600					760					850				
200					250					280				
155					195					240				
70					125					152				
5					13					17				
16					16					16				
30.6		12			42.4		14			60.5		23		
13.7		6			27.2		10			33.5		18		
6.2*2.8*1.86					8*3.5*2.1					8.5*3.92*2.15				
11.5					21					24				
280					680+250					920+400				

清双色系列伺服注塑机参数表

CLEAR DUAL COLOR SERIES SERVO INJECTION MOLDING MACHINE SPECIFICATIONS

			DKM220DC						DKM260DC					
			280			160			570			280		
注塑装置	INJECTION UNIT													
螺杆直径	Screw Diameter	mm	32	36	40	26	30	34	40	45	50	32	36	40
长径比	Screw L/D Ratio	L/D	22.5	20	18	24	21	19	22.5	20	18	22.5	20	18
理论注射容积	Shot Volume	cm^3	122	155	191	66	88	113	251	318	393	122	155	191
注射重量	Injection Weight(PS)	g	111	141	174	60	80	103	228	289	358	111	141	174
注射压力	Injection Pressure	Mpa	236	187	151	240	180	140	228	180	146	236	187	151
注射速率	Injection Rate	cm^3/s	83	106	130	52	69	89	125	158	195	83	106	130
注射速度	Injection Speed	mm/s	103			98			100			103		
塑化能力	Plasticizing Capacity	g/s	10.1	13.3	16.1	6.1	8.3	11.2	17.8	23.7	29.7	10.1	13.3	16.1
螺杆转速	Screw Speed	rpm	0~220			0~245			0~220			0~240		
合模装置	CLAMPING UNIT													
合模力	Clamp Tonnage	KN	2200						2600					
移模行程	Toggle Stroke	mm	410						460					
拉杆内距	Space Between Tie-Bars	mm	825*505						910*570					
转盘直径	Diameter of rotary platen	mm	φ 870						φ 1000					
最大容模直径	Max. mold install diameter	mm	φ 1000						φ 1100					
转盘承重	Bearing Capacity of Rotary Platen	ton	1						1.5					
最大模厚	Max. Mold Height	mm	520						560					
最小模厚	Min. Mold Height	mm	180						200					
顶出行程	Ejector Stroke	mm	130						140					
顶出力	Ejector Tonnage	KN	33*2						33*2					
顶出杆数	Ejector Number	Piece	5*2						5*2					
喷嘴中心距	Nozzle center distance	mm	450						500					
其他	OTHERS													
最大油泵压力	Max. Pump Pressure	Mpa	20						20					
电机功率	Motor Power	KW	13			11			18			13		
电热功率	Heater Power	KW	10.5			6.9			12.4			10.5		
外形尺寸	Machine Dimension	m	5.4*1.9*2.4						6.3*2.1*2.6					
机器重量	Machine Weight	ton	9.6						12.1					
油箱容积	Oil Tank Capacity	L	250						380					

		DKM380DC						DKM550DC					
		720			280			1300			380		
注塑装置	INJECTION UNIT												
螺杆直径	Screw Diameter	45	50	55	32	36	40	55	60	65	36	40	45
长径比	Screw L/D Ratio	22.2	20	18.2	22.5	20	18	21.8	20	18.5	23.3	21	18.7
理论注射容积	Shot Volume	334	412	499	122	155	191	618	735	863	173	214	270
注射重量	Injection Weight(PS)	304	375	454	111	141	174	562	669	785	157	195	246
注射压力	Injection Pressure	222	180	149	236	187	151	214	180	153	222	180	142
注射速率	Injection Rate	156	193	234	83	106	130	304	362	424	103	127	161
注射速度	Injection Speed	99			103			128			101		
塑化能力	Plasticizing Capacity	21.4	27	33.1	10.1	13.3	16.1	45.6	54.1	60.1	14.9	18.2	24.1
螺杆转速	Screw Speed	0~180			0~240			0~255			0~240		
合模装置	CLAMPING UNIT												
合模力	Clamp Tonnage	3800						5500					
移模行程	Toggle Stroke	530						600					
拉杆内距	Space Between Tie-Bars	1010*630						1170*700					
转盘直径	Diameter of rotary platen	φ 1120						φ 1250					
最大容模直径	Max. mold install diameter	φ 1230						φ 1415					
转盘承重	Bearing Capacity of Rotary Platen	2.2						3.3					
最大模厚	Max. Mold Height	620						710					
最小模厚	Min. Mold Height	220						250					
顶出行程	Ejector Stroke	150						170					
顶出力	Ejector Tonnage	62*2						110*2					
顶出杆数	Ejector Number	5*2						5*2					
喷嘴中心距	Nozzle center distance	550						650					
其他	OTHERS							12.4					
最大油泵压力	Max. Pump Pressure	20						20					
电机功率	Motor Power	22			13			45			15		
电热功率	Heater Power	16.3			10.5			25.5					
外形尺寸	Machine Dimension	6.9*2.2*2.6						8.8*2.5*2.7					
机器重量	Machine Weight	15.7						29.5					
油箱容积	Oil Tank Capacity	450						720					

以上资料仅供参考，本公司保留修改资料的权利，恕不另行通知。

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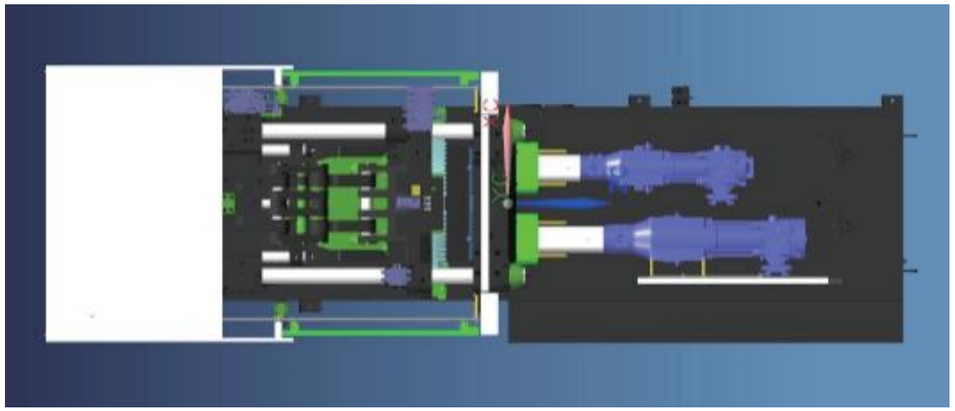


清双色

德库玛清双色系列可以为让注射成型更加稳定，使产品更加美观，且注射系统可以按照需求灵活定制，节省成本。

DKM clear dual color series can offer you a more stable injection with a better finishing, plus the injection units can be flexibly arranged for the purpose of saving the budget.

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
精准锁模力设定	Accurate damping force setting
油润滑钢套	Oil lubrication steel sleeve
多段开模程序控制	Multi-stage mold opening control
加强的机较结构设计	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 hydraulic double safety device equipped
650T以上合开模顶出同步	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	Euromap 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较链锁模机构	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

控制单元特点	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）	Muti-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
料簡温度闭环控制	Closed-loop temperature control for barrel
各段智能独立控温	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	DKM 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（交胡點项目工具箱可选配）	Tool box
预留USB,电插座	USB and Aviation plug
550以下产品下料斜板	Indined slop for product dropping area for machine below 550T
加高机架(选)	Heightened machine base optional

DKM智能自动化生产线

DKM Automatic Plastic Molding Line

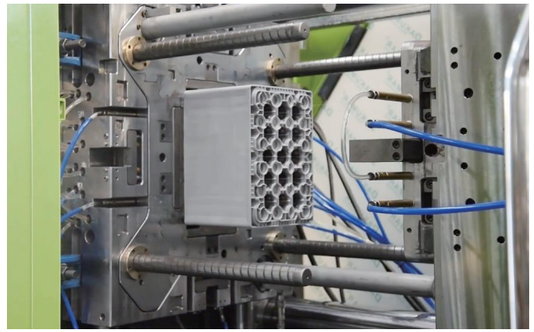
DKM注塑机广泛应用于各种交钥匙生产线，结合高质量模具，高精密机械手以及各类辅机，我们能更好地为客户提供一站式的生产线服务。

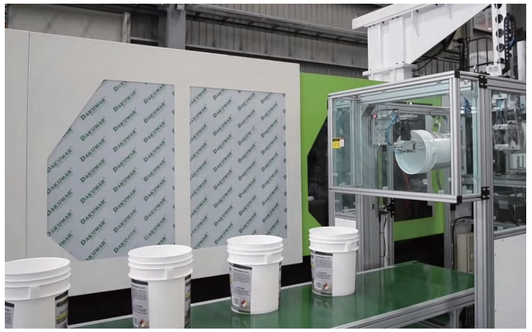
DKM machine is widely applied in different turnkey plastic molding line,combining with the high quality mould, high precise robot and various types of auxiliary machine, DKM offers customers turnkey project with prompt service and simulation run before shipping.

项 目 LINES	周 期CYCLE	机器吨位 MACHINE
20L漆桶生产线 20L Paint Pail Production Line	15s	DKM-550DH
552*367*296mm 1.5kg周转箱生产线 541*359*290mm 1.5kg Plastic Crate Production Line	45s	DKM-550SV
72腔PET瓶胚生产线 72-cavity PET Preform Production Line	20s	DKM-550SVPET
1.2*1M托盘生产线 1.2*1M Pallet Production Line	70s	DKM-2800SV
椅子生产线 Plastic Chair Production Line	50s	DKM-650SV
超薄餐盒生产线（包括PLA全降解超薄盒生产线） Plastic Thin-wall Containers Production Line(PLA Biodegradable Containers)	4s	DKM-200HH
32腔采血试管生产线 32-cavity Blood Collection Tube Production Line	15s	DKM-200EH
64腔1ml针筒生产线 64-cavity Syringe Production Line	15s	DKM-450SV
2腔110弯管生产线 2 cavities 110° Collapsible Core Elbow Production Line	45s	DKM-350PVC

同时，DKM可提供生产自动化智能化解决方案，包括机械手、上料机、干燥机、冷水机、粉碎机、混色机、原料输送系统、传送带、自动化联网监控等自动化解决方案，省钱、省心、省力，以最短的交付周期，让客户实现更大的投资收益。

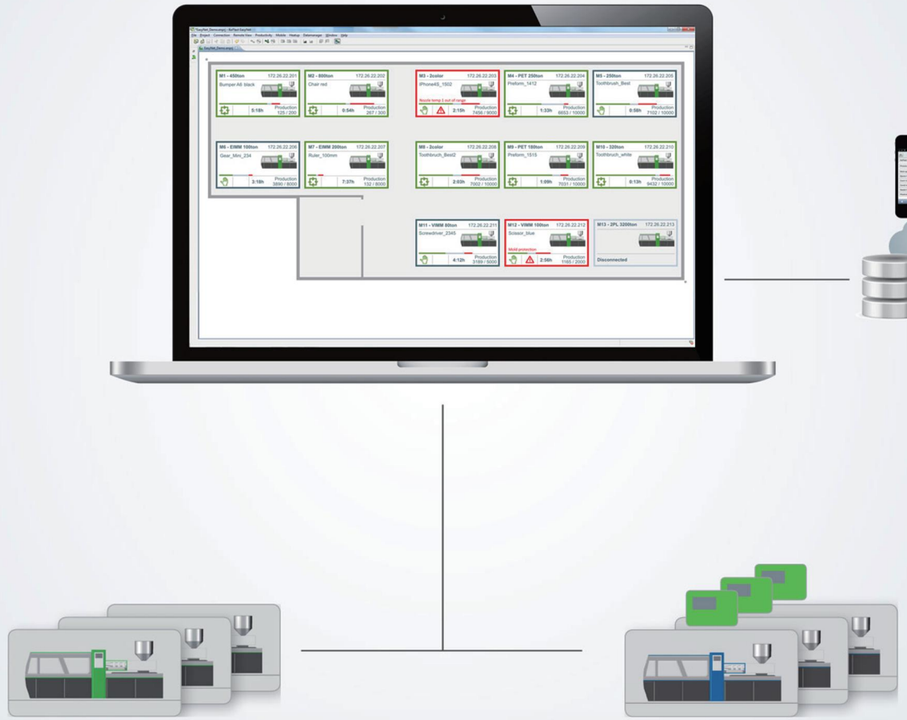
DKM offers customers high quality automatic devices and auxiliary equipment,including auto loader, hopper dryer, water chiller, crusher, color doser, robot etc.





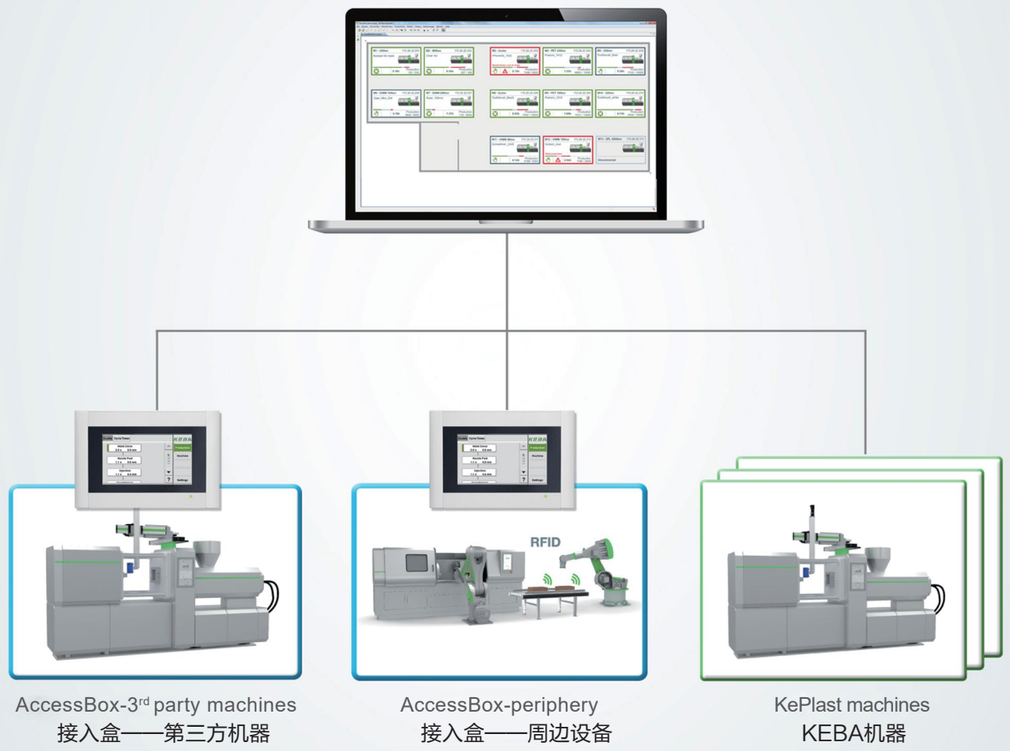
注塑机生产过程监控
KePlast EasyNet

1 Monitor production with PC, Tablet and Smart Phone
个人电脑、平板电脑和智能手机监控注塑机生产过程



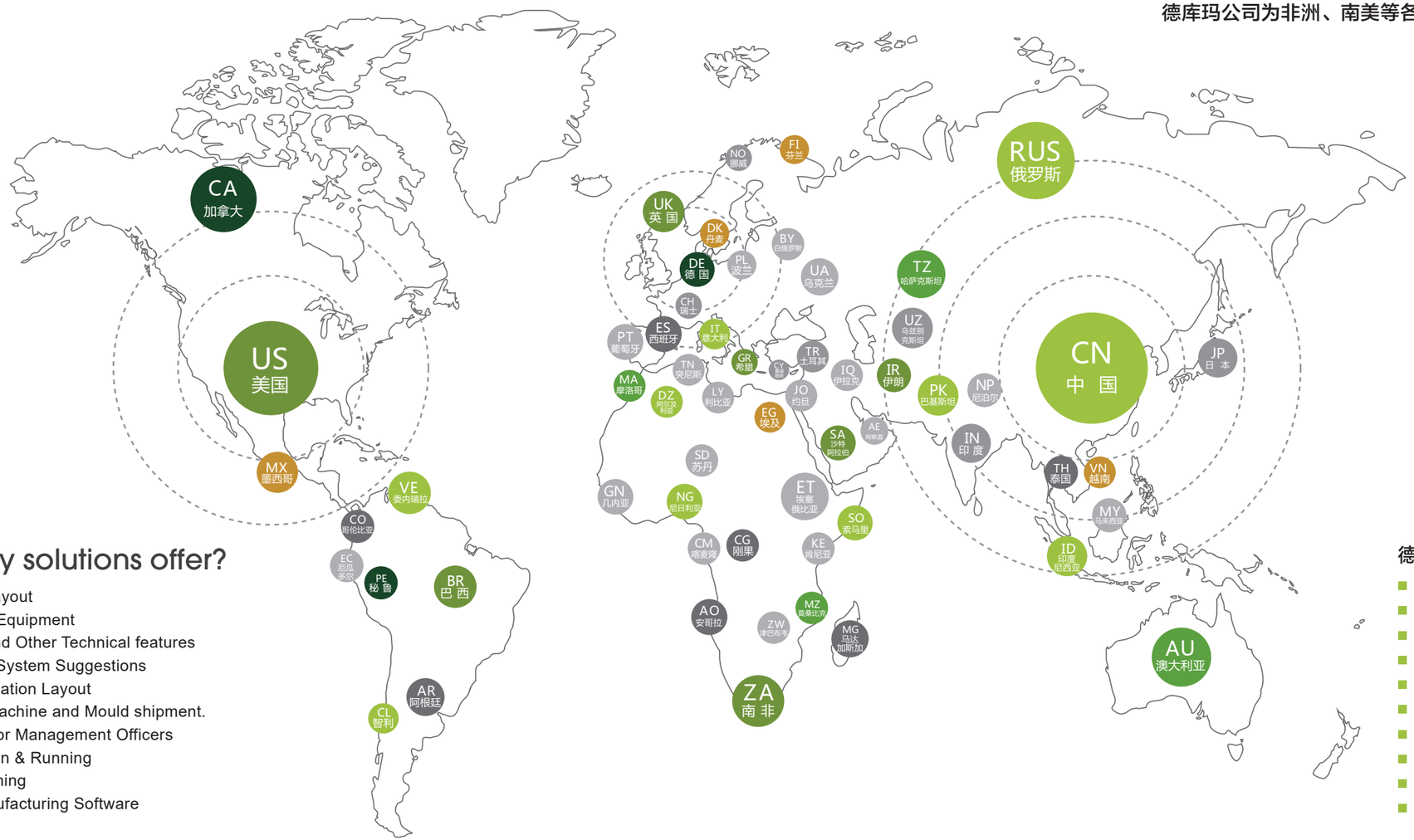
2 Easy Data anaylisis for quality and productivity
质量和产能的整体总览

3 Easy acccess to machine data at any time by Tablet and Smart Phone
通过智能手机和平板电脑获取机器最新状态的最新数据



德库玛服务网络
DKM Service

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

德库玛交钥匙解决方案能为您提供什么?

- 提供注塑车间布局设计方案
- 推荐机器和设备的最佳搭配方案
- 合理选择模具型腔编号和其他技术要点
- 合理选配自动化生产系统
- 机器装配基础布局图
- 生产线出运前为客户员工提供操作、维护培训
- 代为招聘中国工程师或管理人员
- 生产线设备上门安装服务
- 工程师提供生产线现场和在线培训
- 提供顶级自动化制造软件实景图