DGE 德高机电

中 国 纺 织 工 业 数 码 印 花 机 行 业 标 准 定 标 单 位

Lead Organization for Formulating China National Textile Industry Standards on Digital Textile Printing Machines



DGE-M8 毛巾毛圈类数码直喷印花机

Towel Swirl Patterns Digital Printing Machine

高渗透 · 耐水洗 · 色彩稳定

High Penetration • Repeated Wash Resistant • Accurate Printing



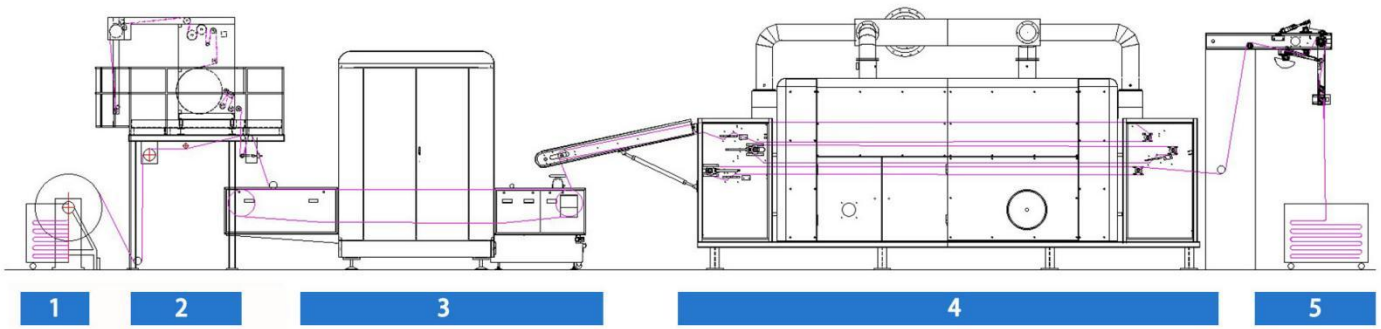
LISTEN 倾听 倾听客户需求

DEVOTE 倾心 倾心与客户共同思考解决方案

STRIVE 倾力 倾力为客户解决问题

西 安 德 高 印 染 自 动 化 工 程 有 限 公 司

Xi'an Degao Dye.& Pri. Auto Engineering Co., Ltd.





DGE-M8 毛巾毛圈类印花生产线 Towel Swirl Patterns Printing Production Line



❶ 喂入装置

对中驱动 A 型架开卷装置，带有同步控制系统（可选）

导布定位装置： 匹配不同面料的多种可选布局

Feeding Unit

•Centering-driven A-frame unwinding device with synchronous control system（Optional）

•Fabric guiding and positioning device：Multiple layout options available to adapt to various fabrics



❷ 纬编矫直装置（可选）

针轮、纬编校准系统，配有斜纬和弓辊，用于面料的机械校准

多种可选布局， 如：水平式喂路或垂直式喂路

Weft Straightening Device (Optional)

•Adopts pin wheel and weft correction system, equipped with skew roller and bow roller for mechanical fabric rectification

•Various optional layouts：e.g. horizontal feeding path or vertical feeding path



❸ DGE-M8 毛巾毛圈类数码印花

多数毛巾毛圈类面料使用 CMYK 模式即可

印花机可按 6 色或者 8 色对称色进行布局

DGE-M8 Towel Terry Digital Printing

•For most terry towel fabrics, CMYK mode is sufficient

•The printer can be configured in a symmetrical color layout with 6-color or 8-color options



烘箱

在线汽蒸固色烘干系统

印花产能决定固色隔室的数量

Oven

•Inline steaming, fixation and drying system

•The number of fixation compartments is determined by the printing capacity



落布

面料叠放在移动推车上。

留有空间方便预检、便于移至下一步的处理。

Fabric Doffing

•Fabrics are stacked on mobile trolleys.

•Sufficient space is reserved for pre-inspection and subsequent processing transfer.

适应不同褶边效果 Adapt to Different Ruffle Effects



纬向并幅平褶边，径向并幅卷边

Weft selvedge joining & flat folding edge，Warp selvedge joining & curling edge



经纬向并幅卷边

Warp & weft selvedge joining with edge curling



边经纬向并幅平褶边

Edge warp-weft selvedge joining & flat folding edge



修边

Edge trimming

应用领域 Application

印花毛巾品类丰富，广泛应用于浴巾、洗脸巾、厨用毛巾、沙滩巾、浴袍、婴儿浴巾、桑拿巾、宠物毛巾、文创毛巾等多元日用场景。

Printed towels come in a wide range of styles, widely used in diversified daily scenarios including bath towels, face towels, kitchen towels, beach towels, bathrobes, baby bath towels, sauna towels, pet towels and cultural creative towels.



婴儿浴巾 Baby bath towel



沙滩巾 Beach towel



桑拿巾 Sauna towel



宠物毛巾 Pet towel



厨用毛巾 Kitchen towel

毛巾纤维及染色类别 Towel Fiber and Dyeing Types

毛巾数码印花 Digital Towel Printing		天然纤维 Natural Fiber	合成纤维 Synthetic Fiber	混纺 Blended Fiber
		吸水性强 High water absorption 亲肤性好 Good skin-friendliness 透气性好 High air permeability 易上色 Easy to be dyed	强度高 High tensile strengt 弹性好 Good elasticity 快干 Quick-dry 价格便宜 Cost-effective	不易缩水 Low shrinkage 更耐用 High durability 印花保色性 Print color fastness 工艺简单，环保节水 Simple process, eco-friendly & water-saving 性价比高 High cost performance
特性与色牢度 Characteristics and Color Fastness	回弹性 Resilience	+	+ + +	+ +
	阻燃 Flame Retardant	+ + +	+	+ +
	防污 Stain Resistance	+	+ + +	+ +
	日晒牢度 Light Fastness	+ +	+ + +	+ + +
	水洗牢度 Washing Fastness	+ + +	+ + +	+ + +
	漂白牢度 Bleaching Fastness	+ + +	+	+ +
用途 Application		家用毛巾、婴儿浴巾 Household Towel、Baby Bath Towel	沙滩巾、运动毛巾、促销印花毛巾、厨房毛巾 Beach Towel 、Sports Towel 、Promotional Printed Towel 、Kitchen Towel	酒店毛巾、桑拿巾、定制类礼品毛巾 Hotel Towel 、Sauna Towel 、Custom Gift Towel
染料类别与工艺印花 Dye Category and Process Printing	涂料 Pigment			1.面料预处理 Fabric pre-treatment 2.数码直喷 Digital direct injection printing 3.烘干（100–120℃）Drying (100–120℃) 4.高温焙烘固色(150°C,3 分钟)High-temperature curing & fixation (150°C, 3min) 5.水洗去除浮色 Washing to remove loose color 6.烘干定型 Drying and Setting
	分散性 Dispersibility	—	1.面料预处理 Fabric pre-treatment 2.数码直喷 Digital direct injection printing 3.烘干 100–120℃ Drying 100–120℃ 4.高温焙烘固色 温度：180–200℃,3-6 分钟 High-temperature curing & fixation：180–200℃,3-6min 5.水洗 / 后处理（可选） Washing / Post-treatment (Optional) 6.烘干定型 Drying and Setting	
	活性 Reactive	1.面料预处理 Fabric pre-treatment 2.数码直喷 Digital direct injection printing 3.印后预烘 90–120℃ Pre-drying after printing: 90–120℃ 4.汽蒸固色(约 102°C,8-12 分钟) Steam fixation: approx. 102℃, 8–12 minutes 5.水洗去除浮色 Washing to remove loose color 6.烘干定型 Drying and Setting		—

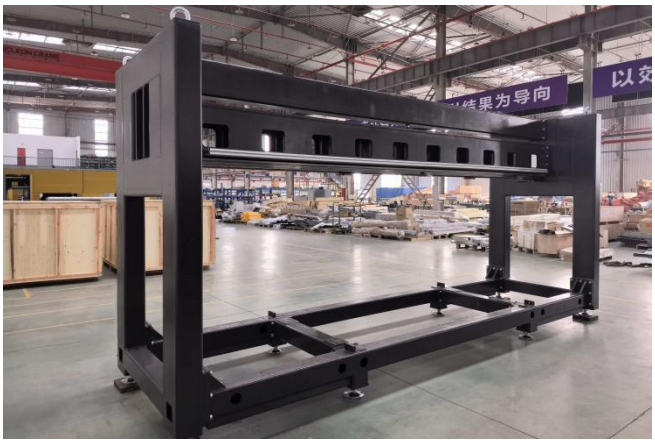
产品型号 Product model			DGE-M8-200	DGE-M8-260	DGE-M8-320
喷头 Print head	类型 Type		日本工业喷头，精工 RC1536 系列 / 星光 SG1024 系列 Japanese industrial printheads Seiko RC1536 Series / StarFire SG1024 Series		
	多种排列方式 Arrangement		精工 Seiko RC1536: 4×5 / 4×10 6×5 / 6×10 8×5 / 8×10		
			星光 StarFire SG1024: 7×5 / 7×10 10×5 / 10×10 13×5 / 13×10		
	颜色排列 Color Sequence		10 通道对称 / 20 通道对称 10-channel symmetric / 20-channel symmetric		
	精度 Precision		精工 Seiko RC1536 : 360dpi - 1440dpi		
			星光 StarFire SG1024 : 400dpi - 1600dpi		
	工作喷射距离（mm） Working Jet Distance		精工 Seiko RC1536 : 7 ~ 11 mm		
			星光 StarFire SG1024 : 3.5 ~ 5 mm		
导带 Guide belt			DGE 专用芳纶导带 DGE Specialized Aramid Conveyor Belt		
最大打印宽度 Max print width			2000mm	2600mm	3200mm
车速 Machine speed	DGE-M8-S	1 pass	800 m^2/h	900 m^2/h	1000 m^2/h
		2 pass	420 m^2/h	470 m^2/h	520 m^2/h
	DGE-M8-M	1 pass	1120 m^2/h	1300 m^2/h	1480 m^2/h
		2 pass	620 m^2/h	700 m^2/h	780 m^2/h
	DGE-M8-L	1 pass	1440 m^2/h	1700 m^2/h	1960 m^2/h
		2 pass	820 m^2/h	930 m^2/h	1040 m^2/h
适用墨水 Compatible ink	墨水类型 Ink type		高温分散、酸性 、涂料、活性 High-temperature dispersion, Acidity, Pigment Ink, Active ink		
	墨水颜色 Ink color		青 C、品红 M、黄 Y、黑 K、橙 O、大红 R、B 宝蓝、G 绿；可选 LM、LC、LK Cyan C,Magenta M,Yellow Y,Black K,Orange O,Bright red R,Sapphire blue B , Green G ;optional LM,LC,LK		
适用织物 Print media			毛巾、沙滩巾、毛巾被、毛圈布 Toilet towels, beach towels, towel blankets, circular wool fabric		
软件 Software			西班牙 RIP 软件 Spanish RIP software		
图像类型 Image Type			文件格式（file format）: TIF/JPG/EPS/PDF 色彩模式（color pattern）: RGB/CMYK		
数据传输 Data Transmission			千兆光纤（Gigabit fiber）/ USB3.0		
功能配置 Functional	导带烘干 Belt drying		热风烘干系统 Hot air drying system		
	供墨系统 ink supply system		工业级负压脱气供墨，喷头墨水内循环功能 Industrial-grade negative pressure degassing ink supply print head ink internal circulation function		
	智能清洗 Intelligent cleaning		自动清洗与自动保湿 Automatic cleaning and automatic moisture retention		
	水洗系统 Washing system		双毛刷辊 Double-brush roller 双洁净辊 Double clean roller 双海绵 Double-layer sponge 智能喷淋 Intelligent Sprinkler 除水风刀 Water-removing air knife 多重干燥 Multiple drying		
工作环境 Work Environment	电源 Power supply		380VAC±5%,三相五线 (Three-phase five-wire system) 50HZ		
	功率 Power		打印系统(Printing system)：20KW 加热系统(Heating system)：20-80KW		
	气压 Air pressure		0.6~0.8Mpa 手动调节(manual adjustment)		
	温湿度 Temperature and humidity		环境室温：推荐 25-30℃ 环境湿度：推荐 60-80% Ambient temperature:Recommended 25-30℃ Ambient humidity:Recommended 60-80%		

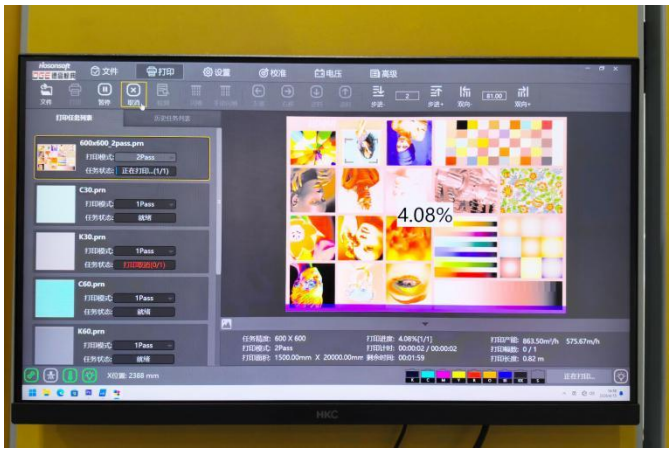
优势特点

高强度主梁 High-strength Main Beam

高强度主梁为打印小车核心承重导向结构，兼具工字梁高强抗弯与上下双梁优异抗扭性能，适配超长大跨度、高速运行与高精度打印定位需求。

The double I-beam main beam serves as the core load-bearing and guiding structure of the printing carriage. It features high bending rigidity of I-beams and excellent torsional resistance of upper and lower double beams, meeting the requirements of ultra-long span, high-speed operation and high-precision printing positioning.





仿真软件 Simulation Software

西班牙 RIP 软件，管控墨水、规划生产流程，精准控色、提升花型层次感，确保运行稳定高效.

Spanish RIP software realizes ink control and production scheduling, delivers accurate color reproduction and rich pattern layers, and ensures stable and efficient operation.

小车组件 Carriage Assembly

直线电机驱动扫描式打印小车，大距离高位喷射，安全可靠，可适配高速、高精度、高负载工况，精准锁定喷头位置，保证墨滴落点精准、供墨稳定，为工业喷墨打印提供稳固机械支撑。

The scanning printing carriage is driven by a linear motor, adapting to high-speed, high-precision and heavy-load working conditions. It keeps the printhead positioned stably, ensures accurate ink droplet placement and consistent ink supply, and provides a solid mechanical support for industrial inkjet printing.





墨路控制 Ink Path Control System

墨路控制系统通过恒温维持墨水粘度稳定，确保墨滴形态与轨迹可控，避免环境干扰及结晶沉淀，提升墨水适应性，保障喷墨稳定可靠与印刷质量。多级过滤系统可提升墨水纯净度，增强印花质量与设备稳定性，并延长墨路配件寿命。

The ink path control system maintains stable ink viscosity via constant temperature, ensuring controllable droplet shape and trajectory, preventing crystallization and environmental interference, improving ink adaptability, and ensuring reliable inkjet printing quality. The multi-stage filtration system enhances ink purity, printing quality, and equipment stability, while extending the life of ink path components.

质保与服务
Warranty and Service

售前服务承诺 Pre-sale Service Commitment

●提供专业咨询：我们在 12 小时之内回复您所提出的任何专业技术问题、

●Professional Consultation: We will respond to any professional technical questions you raise within 12 hours.

●提供详细资料：确认您的需求后，我们会发送给您技术配置资料

●Detailed Documentation: After confirming your requirements, we will send you the technical specification documents.

●提供合理报价：我们对您所要求的产品进行合理报价

●Reasonable Quotation: We will provide a fair and reasonable quotation for the products you request.

●提供考察接待：我们随时接待您到工厂考察，并为您提供各种便利条件

● Factory Visit Arrangement: We welcome you to visit our factory at any time and will provide all necessary arrangements for your convenience.

售后服务承诺 After sales Service Commitment

●保修服务：提供一年质保和终身跟踪维修服务

●Warranty Service: We provide 1 year warranty and lifetime after-sales service support

●安装服务：我司将派专业技术人员到现场进行安装，调试服务

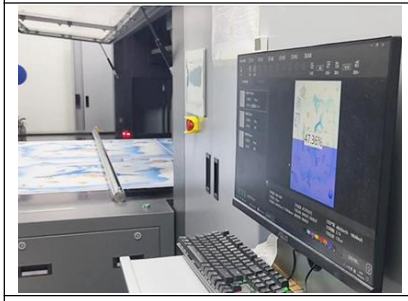
●Installation Service: We will send professional technicians to provide on-site installation and debugging services

●操作培训：我们将有专业的技术人员对贵司员工进行操作培训

●Operation Training:We will have professional technical personnel to provide operation training to your employees

●远程维护：如果设备在使用过程中出现问题，我们提供远程维护，维修服务指南

●Remote Maintenance: In case of any issues with the equipment during use, we provide remote guidance for maintenance services.

		
生产 Produce	组装 Assemble	总装调试 Production completed and debugged
		
现场安装调试 On site installation and debugging	1 年质保，终身跟踪服务 1 year warranty, lifetime service	远程维护，方便日常使用 Equipped with remote maintenance for daily use

品 质 为 先　　服 务 至 上

Quality First　　Service Foremost









西安德高机电企业集团始建于 1998 年，专业从事纺织品数码印花机、圆网印花机、印花智能装备和印染自动化新技术新设备的研究与制造，是集科研、制造、贸易为一体的纺织品印花成套装备专业制造商和印花生产管理系统服务商。

德高公司是国家高新技术企业，公司拥有专利 90 多项，是导带数码印花机、圆网印花机和平网印花机的国家行业标准定标单位之一。

德高 29 年专注于纺织印染行业，DGE-M8 系列数码印花机，专注毛巾毛圈数码印花全流程的高效生产整体解决方案，应用于毛巾毛圈的印花领域。

德高公司生产的所有机械设备及元器件均经过严格的检验测试后交付客户使用，以确保客户现场高效的安装、运行效果最佳，确保客户百分之百的满意度。

Xi'an Degao Electromechanical Enterprise Group was founded in 1998. It specializes in the research and manufacturing of digital textile printing machines, rotary screen printing machines, intelligent printing equipment and new technologies and equipment for automated printing and dyeing. It is a professional manufacturer of complete sets of textile printing equipment and a service provider of printing production management systems that integrates scientific research, manufacturing and trade.

DGE is a national high-tech enterprise with more than 90 patents. It is one of the national industry standard setting units for belt digital printing machines, rotary screen printing machines, and flat screen printing machines.

With 29 years of dedication to the textile printing and dyeing industry, DGE has developed the DGE-M8 Series Digital Printing Machines, focusing on integrated high-efficiency production solutions for the whole process of terry towel digital printing, applied to the terry fabric printing industry.

All mechanical equipment and components manufactured by DGE undergo strict inspection and testing before delivery to customers, ensuring efficient on-site installation, optimal operational performance, and 100% customer satisfaction.

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