



HKS MSU S | RSP MSU S

## HKS MSU S | RSP MSU S

Warp knitting machines with parallel  
weft insertion

帶有平行鋪緯機構的經編機



**KARL MAYER**



# TEXTILE SOLUTIONS. TEXTILE PERFECTION.

## KARL MAYER'S textile machines.

### 纺织解决方案,让纺织尽善尽美

#### 卡尔迈耶的纺织机器

Something which began 70 years ago in Obertshausen has now become part of our everyday lives. Textiles produced on KARL MAYER's machines surround us in both our private and professional lives, providing comfort, security and safety.

The success story of KARL MAYER, the company set up by Mr. Karl Mayer in 1937, began 10 years later with the production of tricot machines. Nowadays, this family-run, German company leads the world in the warp knitting machine sector. For the section Warp Preparation for weaving and warp knitting, KARL MAYER offers innovative complete solutions for the weaving industry, especially with the brands KARL MAYER, BENNINGER, ROTAL, SUCKER and GRIFFIN.

The development of this textile world demands a global strategy: „Worldwide customer-oriented“ is one of KARL MAYER's most important objectives.

A keen awareness of quality, expert engineering and innovative products are at the heart of KARL MAYER – and this is what makes our customers all over the world trust us completely.

Our joint success is based on this trust, together with the dialogue and close cooperation which we foster with our customers. This is why KARL MAYER supplies machines tailor-made to very specific requirements. This makes our clients more and more successful, and better equipped to face the future – and it makes us experts in the textile chain.

To meet this responsibility, we have extended our operations to other areas of textile production.

Our strategy of developing other commercial segments in the textile chain gives our customers the opportunity to grow with us and, at the same time, prepares us for future challenges.

The concepts of 'future' and 'responsibility' go hand in hand at KARL MAYER. The development of new technologies, are just as important here as furthering the careers of our employees and providing training for our clients since, as far as we are concerned, the best future lies with people and their ideas.

KARL MAYER – we care about your future.

70年前始于奥博茨豪森的事情现在已成为我们日常生活的一部分,卡尔迈耶机器生产的纺织品就在我们的周围,无论是我们的私人生活还是职业场所,它们让我们的生活更加舒适、安全。

卡尔迈耶先生于1937年创办了卡尔迈耶公司,10年后生产特里科机器,成功故事由此展开。如今,这家德国家族企业引领着世界经编行业。在经纱准备领域,卡尔迈耶为纺织行业提供完备的创新型解决方案,拥有 KARL MAYER、BENNINGER、ROTAL、SUCKER 以及 GRIFFIN 这些知名品牌。

纺织世界的发展需要全球化的战略,“以全世界的客户为导向”是卡尔迈耶最重要的目标。

对质量、专业技术和创新产品的敏锐洞察力是卡尔迈耶的核心,也正是这些使我们取得了世界各地客户的完全信任。

我们的共赢正是基于这种信任,以及与客户的联系和紧密合作。正是因为这些,卡尔迈耶能按照客户的特殊需求量身定做机器,使我们的客户获得越来越大的成功,并且面向未来配备了更好的装备—它使我们在纺织链上更为专业化。

为了担负起这样的责任,我们的业务范围已经延伸到纺织生产的其他领域。

发展纺织链上其他商业领域的策略让我们的客户有机会跟我们一起成长,同时,让我们准备迎接未来的挑战。

在卡尔迈耶,“未来”和“责任”的概念是连在一起的。新技术的研发与促进员工事业、以及向客户提供技术培训同等重要,我们坚信,人类和他们的思想会开创最美好的未来。

卡尔迈耶—我们关注您的未来!

# HKS MSU S | RSP MSU S

Success means... To make the right choice!

成功意味着…做出正确的选择

When looking at the versatile demands to be met by warp knitted fabrics with parallel weft insertion, along with the huge variety of materials and the very specialized fields of application, it is quite obvious that one machine configuration alone cannot be the solution for top quality and flexibility.

From its extensive programme of weft-insertion machines, KARL MAYER offers two concepts of warp knitting machines with parallel weft insertion for the production of lightweight articles. Depending on their specific demands and market strategies, our clients can make the best possible choice between types HKS MSU S and RSP MSU S.

**Both machines offer the proven KARL MAYER quality combined with innovative solutions:**

当放眼于全幅衬纬经编织物所能满足的多种需求、多样化的材料和专业化的应用领域，我们发现单一的机器配置显然不能成为高品质和高度灵活性的解决方案。

从多款全幅衬纬经编机中，卡尔迈耶为轻薄织物的生产提供两种理念。根据客户的特殊需求和市场策略，他们可以在 HKS MSU S 和 RSP MSU S 两款机器中做出最佳选择。

这两款机器都拥有久经考验的卡尔迈耶品质以及创新型解决方案：



## Optimized drive elements and a new weft insertion system

High-tech materials and complex detailed solutions, especially for the drives and for the weft-insertion elements, provide for high machine speeds and ensure gentle yarn treatment.

## 优化的驱动元件和全新的辅纬系统

高科技材料和详尽复杂的解决方案（特别是在驱动和辅纬元件方面）实现了机器的高速运转，同时还确保了对纱线材料的温和和加工处理。

## Economical special features

Innovative solutions in the drive system and reduced friction which result in low heat emission represent a valuable contribution to low operating costs.

## 优异的经济性能

在驱动系统中采用了创新型解决方案，并减少了摩擦，这降低了热量排放，节约了生产成本。

## Direct link to the future

KAMCOS® offers a comprehensive package of benefits, such as: easy operation of all machines via touchscreen, monitoring and control of machines within the company's network as well as remote diagnostic service via Teleservice.

## 直接链接到未来

KAMCOS® 带来了一系列优点，例如：触摸屏使机器操控更加简便，通过公司网络以及网络远程诊断系统对机器实行可靠的监控。

## Solid and reliable

In spite of all the high-tech functions, our machines remain a typical KARL MAYER product, offering: highest operational reliability, long service life and a valuable piece of engineering work.

## 稳定可靠

除了各种高科技功能外，这款机器是卡尔迈耶的明星产品，它拥有高度的操作可靠性、较长的使用寿命，是机械工程学中的力作。



## HKS MSU S

### Warp knitting machines with parallel weft insertion

#### 帶有平行鋪緯機構的經編機

The high-performance warp knitting machine with parallel weft insertion HKS MSU S is available in a one-guide bar or two-guide bar execution. The parallel insertion of weft yarns guarantees the requested high dimensional stability of the warp knitted structure.

Offering the possibility to process a great variety of yarn materials and yarn counts, the HKS MSU S machines can manufacture a wide range of products for various application fields.

The HKS MSU S is just the right machine for the production of interlining articles ranging from delicate to thick and sturdy, using plain yarns, textured yarns and spun yarns. Even insect-repellent structures can be made of monofilament yarn.

The fabrics with parallel weft insertion are perfectly suited for making lightweight and yet dense coating substrates.

The HKS MSU S machine sets new standards in terms of high performance, top efficiency and first-class fabric quality.

<b>Interlining</b>	<b>Coating substrates</b>
<b>Insect-repellent structures</b>	<b>Net curtains</b>
<b>Bandages (sanitary fabrics)</b>	<b>Furnishing fabrics</b>
<b>Adhesive tapes</b>	<b>Outerwear</b>
<b>Printing substrates</b>	<b>Lingerie</b>

帶有平行鋪緯機構的高性能經編機 HKS MSU S 可以配置一把或兩把梳栉。平行鋪緯紗線保證了經編結構的高度尺寸穩定性。HKS MSU S 機器可以適應多種紗線材料和紗線細度，產品種類豐富，適合多個應用領域。

這款 HKS MSU S 是生產服裝襯里（從輕薄到厚實）的優質機型，可採用長絲、變形絲和短纖紗，甚至可利用單絲制成昆蟲防護網。

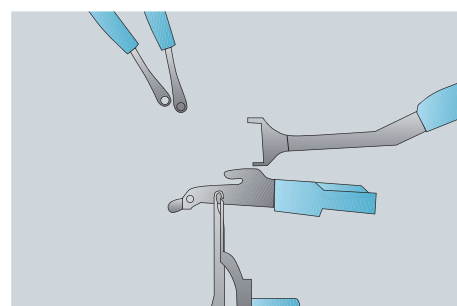
帶有平行鋪緯紗線的織物非常適合製成輕質且密實的塗層基底。

HKS MSU S 機器在高性能、高效率和一流的織物品質方面樹立了新的標準。

服裝襯里	塗層基底
昆蟲防護結構	網眼窗簾
綁帶（醫療織物）	裝飾織物
膠帶	外衣
印刷基布	內衣



Knitting area  
成圈區域





## RSP MSU S

### Warp knitting machines with parallel weft insertion

#### 带有平行铺纬机构的经编机

The RSP MSU S is a high-performance Raschel machine with parallel weft insertion which can be equipped with one guide bar, with two or with three guide bars. A special feature of this type is the specific construction of the knitting elements, offering the possibility to produce fabrics with low stitch density.

The processing of a very-wide range of yarns (in terms of material and yarn count) along with a huge patterning scope speak in favour of this machine type, which also offers the possibility to form stitches with all three guide bars, resulting in an enormous addition to the well-known application fields. The filler threads (0° threads) can be inserted by the rear guide bar and/or by the central guide bar (GB 2/GB 3). In this way, an outstanding variety of designs and articles can be produced.

The RSP MSU S machines stand out for their pattern diversity and high productivity for making specific, tailor-made fabrics.

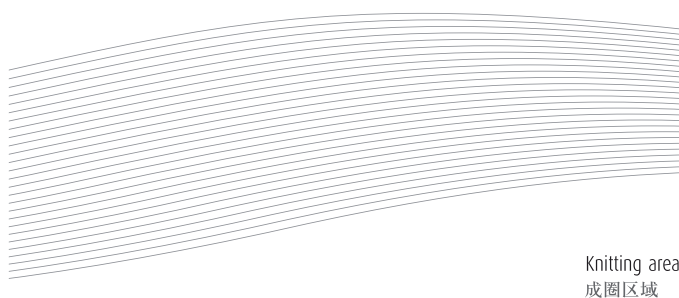
RSP MSU S 是一款带有平行辅纬机构的高性能拉舍尔经编机，可以配置一把、两把或者三把梳栉。成圈机件的特殊构造是这款设备的特色所在，它为生产低线圈密度的织物提供了可能。

适合加工各种纱线（包括不同的原料和粗细）以及多样化的花型生产能力是这款设备的特色，该机器的三把梳栉可进行成圈编织，为众所周知的应用领域添加了大量补充。衬经纱（0度）可以通过地梳和/或中梳（GB 2/GB 3）衬入。通过这种方式，我们可以生产出多种高品质的产品。

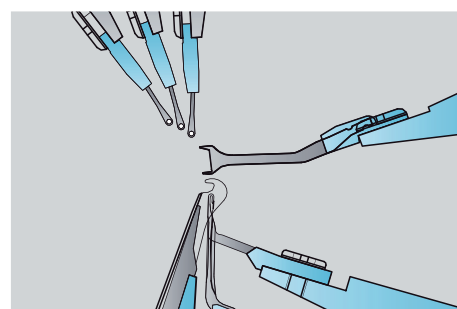
RSP MSU S 机器在生产特殊、定制的产品时，拥有杰出的花型生产能力和较高的产量。

<b>Interlining</b>	<b>Coating substrates</b>
<b>Insect-repellent structures</b>	<b>Net curtains</b>
<b>Bandages (sanitary fabrics)</b>	<b>Furnishing fabrics</b>
<b>Adhesive tapes</b>	<b>Outerwear</b>
<b>Printing substrates</b>	<b>Lingerie</b>

服装衬里	涂层基底
昆虫防护结构	网眼窗帘
绑带（医疗织物）	装饰织物
胶带	外衣
印刷基布	内衣



Knitting area  
成圈区域



# HKS MSU S

## Technical data

### 技术参数

#### Working widths

6220 mm = 245 inches  
(247 inches)\*

5410 mm = 213 inches  
(215 inches)\*

4470 mm = 176 inches  
(178 inches)\*

widths reducible  
by maximal 2540 mm  
(100") for 213 "+245"

by maximal 2030 mm  
(80") for 176"

\* Working width extension

#### Gauges

E18, E22, E24, E28

E18, E22, E24, E28, E32

E18, E22, E24, E28, E32

Other gauges upon request

#### 工作幅宽

6220 mm = 245 英寸  
(247 英寸)\*

5410 mm = 213 英寸  
(215 英寸)\*

4470 mm = 176 英寸  
(178 英寸)\*

幅宽可缩减

在 213 "+245" 的幅宽中最多 2540 mm (100")

在 176" 的幅宽中最多 2030 mm (80")

\* 拓宽的工作幅宽

#### 机号

E18, E22, E24, E28

E18, E22, E24, E28, E32

E18, E22, E24, E28, E32

其他机号根据需要

#### Bars/knitting elements

Individual needle bar, tongue bar,  
compound sinker bar,  
1 or 2 ground guide bar(s),  
weft insertion bar

#### Weft insertion system

MSUS with transfer unit, draw-off from the creel,  
optional variable weft repeat

#### Warp beam support

2 warp beam positions, free-standing, for sectional  
beams of 812 mm (32 inches) flange diameter

#### KAMCOS® (KARL MAYER COMMAND SYSTEM)

Touchscreen/Operator Interface-IPC  
Motion Control/Single Speed for the control  
of the basic functions, optional Multispeed  
Ethernet interface for interconnection of machines  
via network and connection to relevant  
MDE systems, patterning systems and Teleservice  
Integrated yarn inspection Laserstop

#### Yarn let-off device

For each completely mounted warp beam position:  
1 electronically controlled yarn let-off drive, driven  
by geared motor, controlled by Motion Control

#### Fabric take-up

Electronically controlled, continuous execution,  
4-roller system driven by geared motor, controlled  
by Motion Control

#### Batching device

Rising roll batcher with torque-regulated  
servodrive and dancing roller

#### Pattern drive

N-drive with pattern disks,  
integrated tempi change gear drive

#### Electrical equipment

Speed-regulated main drive, power-failure safe,  
including inching motion function, total connected  
load 35 kVA

#### Oil supply

Spray-immersion lubrication in the crankcase,  
filter with dirt-monitoring system

#### 梳栉/成圈机件

独立的针床, 针芯床, 复合沉降片床, 1  
到2把地梳, 铺纬小车。

#### 辅纬系统

带有传输单元的 MSUS 铺纬机构, 从纱架  
上引纱, 选配可变的铺纬循环。

#### 经轴架

2个经轴位置(独立式), 可用边盘直径  
为 812 mm (32英寸) 的盘头。

#### KAMCOS® (卡尔迈耶控制系统)

触摸屏/操作界面—终端  
单速运动控制系统用于控制基本功能, 选  
配多速运动控制。以太网接口可以实现机器的  
联网工作, 并连接到 MDE 系统、花型设计系统  
和网络远程服务。集成纱线扫描激光自停装置。

#### 送经装置

每个经轴位置配备一套电子送经装置, 通  
过马达驱动, 受运动控制系统控制。

#### 织物牵拉

电子牵拉, 连续工作, 4 罗拉系统通过马  
达驱动, 受运动控制系统控制。

#### 卷取装置

带有旋转伺服电机和松紧调节罗拉的升降  
卷布装置。

#### 花型驱动装置

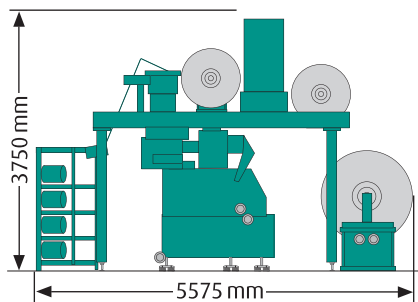
采用花盘的 N 型驱动机构, 配有行程变换  
齿轮。

#### 电子设备

调速主电机, 断电保护, 慢速传动功能,  
机器总连接负载为 35 千伏安。

#### 供油

曲柄箱浸入式喷射润滑, 配备防脏报警过  
滤器。



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# RSP MSU S

## Technical data

### 技术参数

#### Working widths

5410 mm = 213 inches  
(215 inches)\*

4470 mm = 176 inches  
(178 inches)\*

widths reducible  
by maximal 2540 mm  
(100") for 213 "

by maximal 2030 mm  
(80") for 176 "

\* Working width extension

#### Gauges

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E18, E22, E24, E28, E32

Other gauges upon request

#### 工作幅宽

5410 mm = 213 英寸  
(215 英寸)\*

4470 mm = 176 英寸  
(178 英寸)\*

幅宽可缩减  
在 213 "+245" 的幅宽中最多 2540 mm (100")

在 176 " 的幅宽中最多 2030 mm (80")

\* 拓宽的工作幅宽

#### 机号

E18, E22, E24, E28, E32

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其他机号根据需要

#### Bars/knitting elements

Individual needle bar, tongue bar,  
compound sinker bar,  
1, 2 or 3 ground guide bar(s),  
weft insertion bar  
knockover sinker

#### Weft insertion system

MSUS with transfer unit, draw-off from the creel,  
optional variable weft repeat

#### Warp beam support

3 warp beam positions, free-standing, for sectional  
beams of 812 mm (32 inches) flange diameter

#### KAMCOS® (KARL MAYER COMMAND SYSTEM)

Touchscreen/Operator Interface-IPC  
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including inching motion function, total connected  
load 35 kVA

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Spray-immersion lubrication in the crankcase,  
filter with dirt-monitoring system

#### 梳栉/成圈机件

独立的针床, 针芯床, 复合沉降片床,  
1, 2 或 3 把地梳, 全幅衬纬机构, 脱圈沉降片。

#### 辅纬系统

带有传输单元的 MSUS 辅纬机构, 从纱架  
上引纱, 选配可变的辅纬循环。

#### 经轴架

2 个经轴位置 (独立式), 可用边盘直径  
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联网工作, 并连接到 MDE 系统、花型设计系统  
和网络远程服务。集成纱线扫描激光自停装置。

#### 送经装置

每个经轴位置配备一套电子送经装置, 通  
过马达驱动, 受运动控制系统控制。

#### 织物牵拉

电子牵拉, 连续工作, 4 罗拉系统通过马  
达驱动, 受运动控制系统控制。

#### 卷取装置

带有旋转伺服电机和松紧调节罗拉的升降  
卷布装置。

#### 花型驱动装置

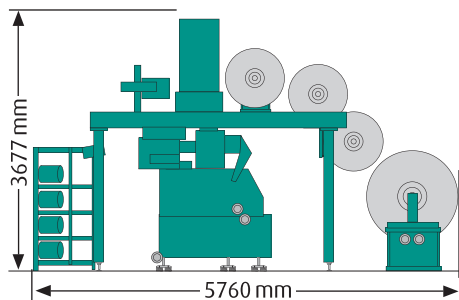
采用花盘的 N 型驱动机构, 配有行程变换  
齿轮。

#### 电子设备

调速主电机, 断电保护, 慢速传动功能,  
机器总连接负载为 35 千伏安。

#### 供油

曲柄箱浸入式喷射润滑, 配备防脏报警过  
滤器。



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