

# HPM.II HighPower Mangel

The New Standard for the Ironing Process

**Kannegiesser®**  
PARTNER IN LAUNDRY TECHNOLOGY



# HPM.II

The New Standard for the Ironing Process

## New Manufacturing Techniques for Ironer Construction

The market for flatwork linen processing is continually developing. New textiles are constantly being introduced which create new challenges for all laundries.

However one thing remains the same – an ever increasing demand for efficiency in laundry processing as well as improvements in quality and flexibility in operation.

This is where the ironer plays an essential role. An excellent finishing quality combined with high, productive capacity and ever-increasing efficiency are the ideal bases for the successful and economic processing of flatwork linen.

Modern manufacturing techniques and new roll-spring technologies allow for the optimization of the Kannegiesser – heating band ironer. The HPM.II by Kannegiesser is the result of the continuous development of an ironer with a strong productive performance and represents a simple solution to the many and various demands of the modern ironing process.



# The Flexible Stainless Steel Heating Band

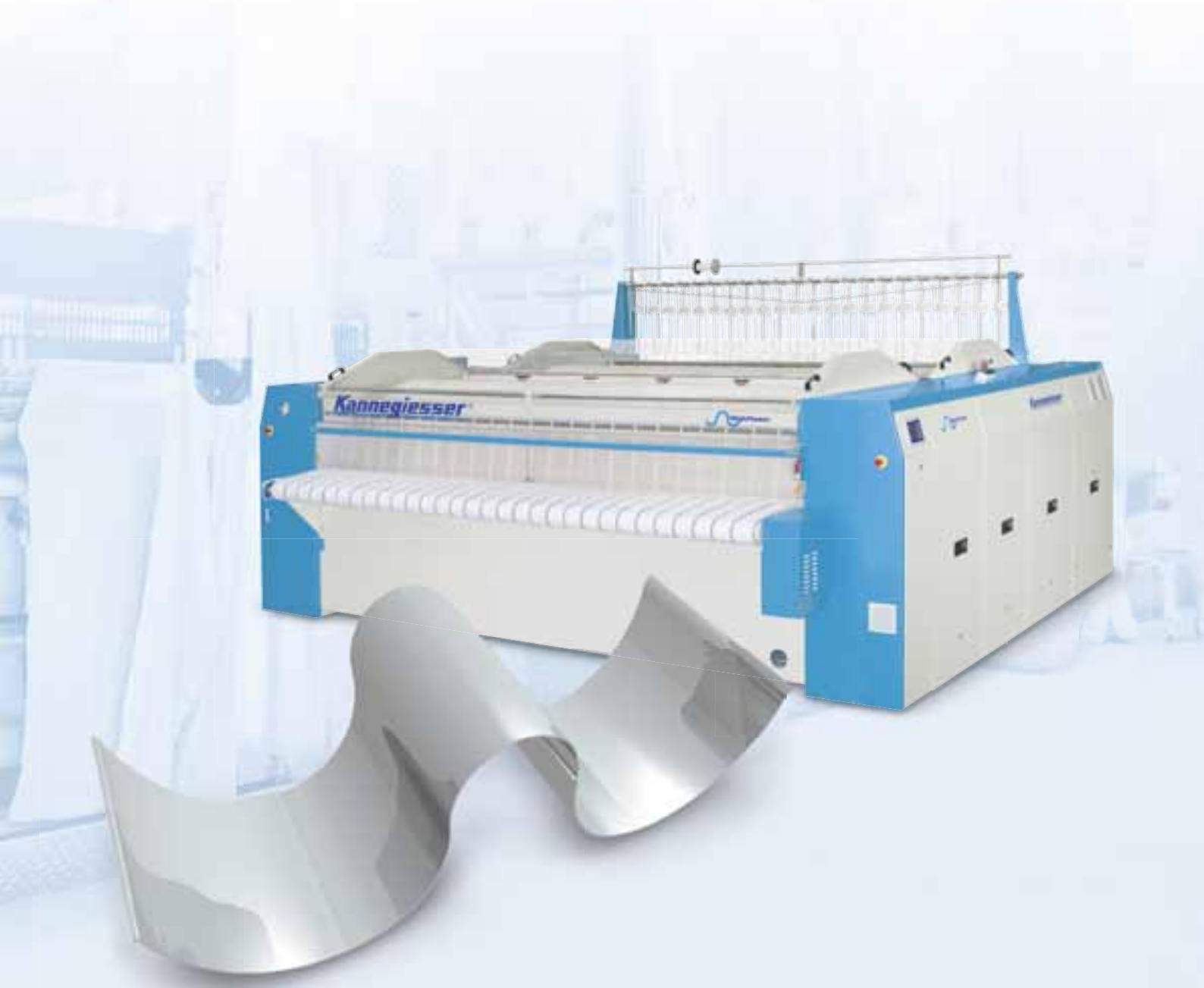
A Milestone in Ironer Construction

The ironer is the core of flatwork linen processing in professional laundries as such it has had a very long history. Many recent developments have focused on increasing performance, quality and flexibility of the ironing process.

From the very beginning – and still today, conventional steel beds had and still have a substantial disadvantage: Their design causes a difference between the diameters of the bed and the padded roll which lead to an uneven pressure along the ironing path. As a consequence, the evaporation capacity is substantially decreased.

Kannegiesser successfully introduced the HighPower Ironer HPM, setting new standards for innovation and efficiency by abolishing the conventional concept of rigid steel beds. The HighPower Ironer HPM uses a heating band made of stainless steel. Its highly flexible adaptation to the roll diameter ensures a consistent alignment and enhanced efficiency. This step marked a revolution in the construction of ironers, as the Kannegiesser solution allows higher productive capacity in a smaller machine 'footprint'.

This development was possible due to application of the best manufacturing processes and materials. Kannegiesser made use of high quality stainless steel, which, with its excellent thermal conductivity, has proved to be the perfect choice for heating band ironer technology with high pressure steam.



# Optimized Ironing Area

Perfect Quality of the Heating Band Surface

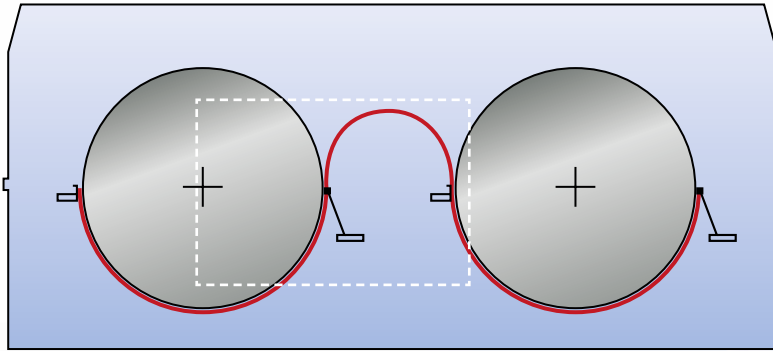
A smooth, even surface of the ironing area is an essential feature for achieving optimum performance and quality in the ironing process.

The use of the modern manufacturing methods is applied to the production of the heating band of the HPM.II and avoids the disadvantages of conventional grinding techniques.

The result is a much smoother surface of the heating band with outstanding qualities of thermal conductivity and textile guidance as well as delivering an excellent finishing for the ironed laundry. The smooth surface thus created enables a gentle, high-quality ironing process.



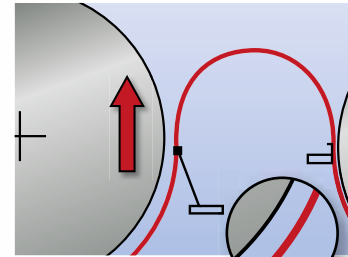
# Design of the Roller Heating Band System



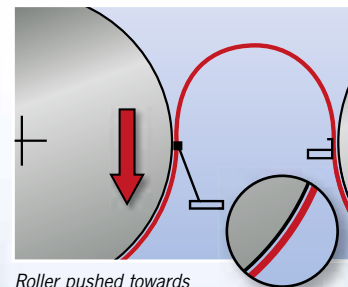
*Principle sketch of roller heating band system*

The specially suspended Kannegiesser heating band possess elasticity and wraps themselves continuously around the roll and its padding. This suspended support is responsible for an even ironing pressure.

With the ironer roll pressed into the heating band from above, the highly flexible heating band aligns perfectly with the roll diameter resulting in an even ironing pressure on the textiles. This even ironing pressure, ensures ideal heat transfer and efficient and highly productive processing of the laundry.



*Roller lifted up*



*Roller pushed towards heating band*

A constant geometry at the inlet of the heating band is essential to a reliable textile in-feed to the roll heating band system. For this reason the design includes a fixed inlet support. Therefore the adaption of the heating band to the roll does not influence the inlet geometry. Thus the heating band is ideal for articles of different thicknesses leading to a reliable ironing process and high process stability.





# KannPress PLUS

The Innovative Spring for the Ironer Roll Padding

The flexible heating band is a basis for the achievement of an even ironing pressure on the roll surface. However, the padding of a roll is significant as it has to create an equal counter pressure. This is as necessary for large-area, one-layer items, as well as for multi-layer items with varying thicknesses (e.g. duvet covers). Both represent particular challenges for the spring.

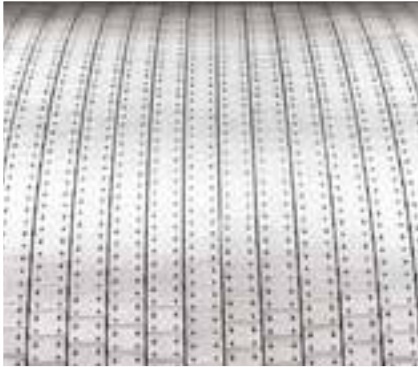
Kannegiesser therefore, developed the KannPress PLUS spring. This design ensures an even ironing pressure over the whole area neatly adapting to locally varying thicknesses. The KannPress PLUS spring interacts directly with the flexible heating band and forms an important part of the heating band-roller system. The KannPress PLUS spring combines several advantages from the different kinds of springs previously available in the market, such as the spiral spring and the lamellar spring.

The upper parts of neighbouring springs overlap on the longitudinal axis and form a homogeneous area so roll marks on the ironing laundry can be avoided. Condensate is transferred quickly and effectively through channels next to the springs and through small openings in the surface of the springs. Small hooks on the upper part of the springs fix the ironer clothing to the roll and offer a secure grip against movement when in motion.

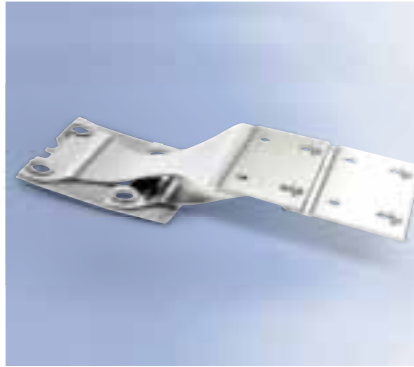
The spring itself is made from corrosion-resistant stainless steel and demonstrates outstanding endurance in use. It has a large reflex area and allows for processing a very wide range of articles.

# Optimal Guidance of the Linen

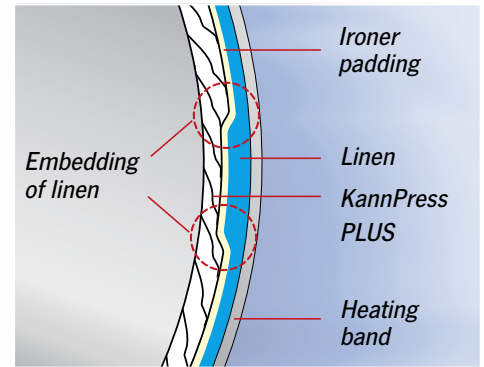
The Interaction between Heating Band and Spring



*Even pressure by spring carpet*



*Spring elements made of high grade stainless steel*



*Large spring range for optimal local embedding of multi-layer articles (hems, closing pockets)*



*KannPress PLUS*

Quality and efficiency are the result of an optimal guidance of the linen during the ironing process

Due to the suspended pendulum-like support at the outlet of the heating band module, the stainless steel heating band aligns perfectly with the roll diameter and ensures a large-scale, even, ironing pressure. All even parts of the textiles being processed are dried efficiently.

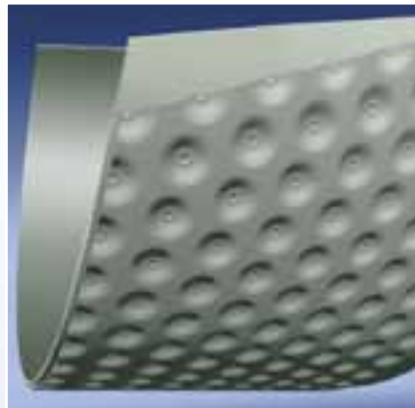
Transitions at the edges of the laundry or at points of varying thickness require special guidance. The particular characteristics of the KannPress PLUS spring ensure an exact contact of these points of varying thickness permitting a constant overall ironer pressure across the whole area of the roll.

The double-sided control of the textiles along the ironing path ensures evenly applied and highly-efficient drying of the complete textile item. The even surface of the KannPress PLUS spring combined with the smooth surface of the heating band, deliver an excellent finishing quality over a wide range of textile articles.

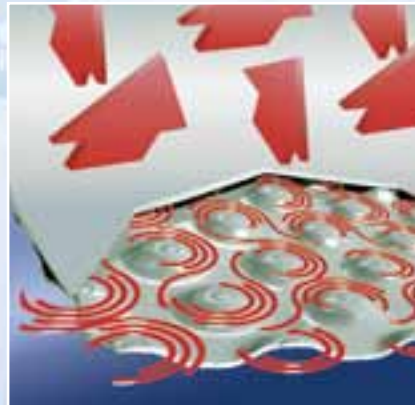
# The Optimized Steam Heating

Stainless Steel Heating Band with Excellent Thermal Conductivity

The heat supply for the heating band works with the injection of high-pressure steam into the stainless steel steam vessels. The excellent thermal conductivity of the stainless steel transfers the heat of the direct steam through the heating band and to the ironing surface, thus to the moist textile.



*Stainless steel heating band design*



*Steam turbulences inside heating band*

The special geometry of the heating band internal structure leads to increased turbulence when associated with high steam velocity. While the condensate is channelled quickly away, new hot steam reaches the ironing area.

In this way it is ensured that even at high load processing the necessary heat energy is always made available.



# Heating the Complete Bridge

Fully Heated Bridge for Increase of Evaporation and Space Savings

Besides the adaption to the flexible heating band the fully heated bridge features additional evaporation capacity. The flexible heating band and the heating of the complete bridge combine to lead to a considerably higher performance of the HPM.II ironers compared to conventional ironers.

**Example:** A Kannegiesser ironer of the HPM.II type with 2 rolls achieves the same productive capacity as a conventional ironer with 3 rolls of the same diameter.



Fully heated bridge



Performance comparison by ironer types



HPM.II

## Compact design and small foot-print – the result of increased efficiency

An important goal of the ironing process is the reduction of the use of energy and related costs. The application of the modern heating band technology in the HPM.II ironers is an important step forward.

The special construction of the heating band roll – system optimizes the heat transfer, from the high pressure steam via the heating band to the heating of the moisture in the textiles.

As a result, the new ironers are more efficient than conventional ironers, and this is reflected in the compact design of the machines right up to a reduction of rolls required to achieve equivalent output.

A compact design of the ironer combined with a high quality thermal insulation reduces the heat radiation significantly. The transparent ISO Concept hood insulates the ironing space above the rolls and allows for a visual inspection of the ironing process.

# FlexiCare Package



Modern textiles represent new challenges for the ironing process. Dependent on the different types of textiles it might be necessary to change the temperature of the ironing area and/or the roller pressure.

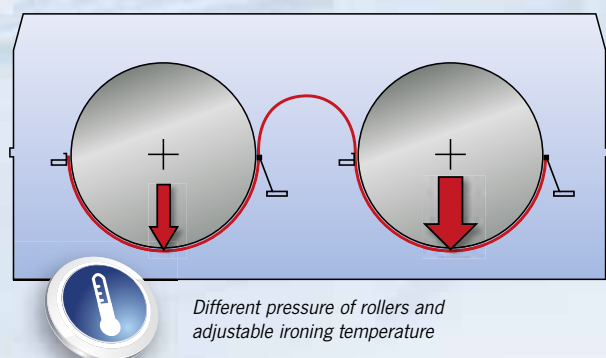
For different articles the FlexiCare package allows a quick and infinitive adjustment of the heating band temperature and supports a better consistency in degree of linen whiteness and colour.

In addition it offers ideal conditions for processing of temperature sensitive materials like e.g. polyester table linen.

During production of particularly light articles a reduction of the ironing temperature helps to avoid over-drying, save energy and increase life time of the linen.

The machine can be applied for normal ironing temperatures as well as low temperature ironing.

By choosing selective roller pressures thicker and thinner articles will be processed in an optimal way. Set in the programs all rollers can be driven at higher or lower pressure. Alternatively the first roller is set to lower pressure and all other rollers to higher pressure. This way the ironing process can be adjusted to a wide range of articles.



# Practical Machine Design



*Vertical roll lifting*



## Vertical roll lifting

The construction of the roll guide ensures precise linear lifting and exact positioning of the roll in the heating band. The geometry for the textile inlet remains constant and is independent from the ironing pressure.

A larger lift of 400 mm is available for facilitating service requirements. The rolls can be turned with the help of a service control panel.

## Combi control panel

Graphic control panel has a combination of robust keypad and clearly designed touch-screen.



*Control panel*



## Quiet belt drive

The ironer rolls are driven quietly by a spur gear with a well-proven belt drive.



# HPM.II

All Advantages at a Glance



## High efficiency

For on schedule processing of large amounts of linen



## Reduction of energy costs

Resulting from a reduction of energy use during the ironing process



## High processing quality

Helping to keep customers satisfied



## High flexibility

To enable processing of different items with different demands to the ironing process



## Gentle treatment of the linen

To give an extended textile lifespan



## High process stability

For reliable, continuous processing



## Endurance

Robust, practical machine design



## Space saving

Resulting from a high evaporation capacity delivered in a small foot print



## Low operating costs

Resulting from savings in energy use, consumption and maintenance

## Technical data

Model	Working width mm (inch)					
Roll Ø 1200 mm	2700 (106")	3000 (118")	3300 (130")	3500 (138")	4000 (158")	4200 (165")
HPM.II 12-1	•	•	•	•	•	—
HPM.II 12-2	•	•	•	•	•	•
HPM.II 12-3	—	•	•	•	•	—

*Subject to changes by development  
Brochure shows optional equipment*