



Make the Difference



## Hipro Metallic Card Clothings for Roller Cards

Maximized throughput and unique web uniformity  
in any nonwoven application





## Differentiation Thanks to the Market Leader's Competencies



An exemplary application of hygiene products



**Nonwoven producers using Graf's card clothings benefit from more than 100 years of experience and the resulting innovative power. We understand our business partners' needs in the daily challenges they face, and they motivate us to offer solutions that make them successful.**

One of the daily challenges of a nonwoven manufacturer is to achieve consistent quality and the highest machine uptime. In a constant effort to achieve higher throughput, metallic card clothings must be ideally matched.

Nonwoven producers using Graf technology components benefit from card clothings that produce webs of equal quality for a wide range of raw materials without compromising on throughput and process stability. Optimized configurations can be achieved for any application regardless of fiber type, web weight and end product.

The comprehensive product range consisting of technology components for spinning and nonwoven, as well as a network of technical consultants and service engineers enable our partners to be successful.

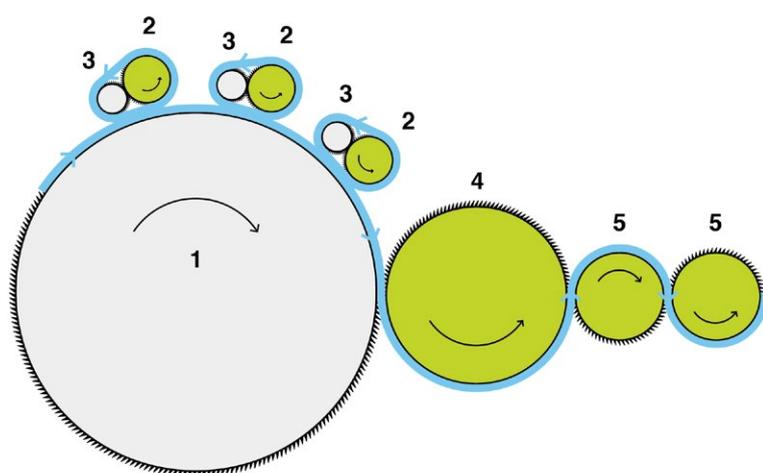
### Benefits of Hipro

- 10% to 15% higher throughput compared to conventional clothings thanks to optimized web transfer from the cylinder to the doffer
- Up to 10% maximized machine uptime by reducing fiber fly on the workers
- A significant 20% fewer failures in the web thanks to precise fiber transfer to and from the cylinder
- Constantly high process stability provides reproducible web quality throughout the entire lifetime of the clothing

### Why Hipro?

**Significantly increased fiber retention thanks to specially designed hump at the front side of the teeth.**

## Product Applications and Specifications at a Glance



- 1 Cylinder
- 2 Worker
- 3 Stripper
- 4 Doffer
- 5 Condenser
- Hipro

### Applications

End products for segments such as hygiene, medical, automotive, floor coverings and artificial leather require a high web uniformity. The unique geometry of Hipro is especially recommended for sensitive applications such as these.

Besides conventional cards, high-performance cards can also be equipped with the Hipro card clothings.

Furthermore, all variations of web weights can be achieved.

Hipro can be used for all fiber types except brittle fibers.

Main Use	Geometry	Points Per Square Inch (PPSI)	Type
<b>Worker</b> The aggressive tooth shape provides the best carding effects and a safe fiber transport from cylinder to stripper.		95	MCC V F 5045 16 G6
		147	MCC H 5045 SPE X1,4 G6
		206	MCC H 5045 SPE X1,0 G3
		258	MCC K 5045 X1,0 G3
<b>Doffer</b> The arched tooth shape allows the best fiber placement between the doffer teeth.		258	MCC K 4045 X1,0 G3
		286	MCC K 4045 SPE X0,9 G3
		338	MCC M 4045 X0,9 G3
<b>Condenser</b> Additional humps improve the fibers' compression to optimize their orientation on the web.		147	MCC H 5045 SPE X1,4 G6
		258	MCC K 5045 SPE X1,0 G3
		338	MCC V M 4040 SPE 28 G3



## Partnership Built on Best Value for Money



### Ensured Success

Hipro metallic card clothings applied on designated rollers will not only result in a production increase of 10% to 15%, but will also achieve up to 20% fewer failures in the web.

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