

# Battery Separator Film processing



## Downtime reduction and roll handling

- Easy and efficient positioning aid systems for time saving changeover procedures of slitting and winding equipment
- Integrated finished roll handling available for safe "no touch" unloading

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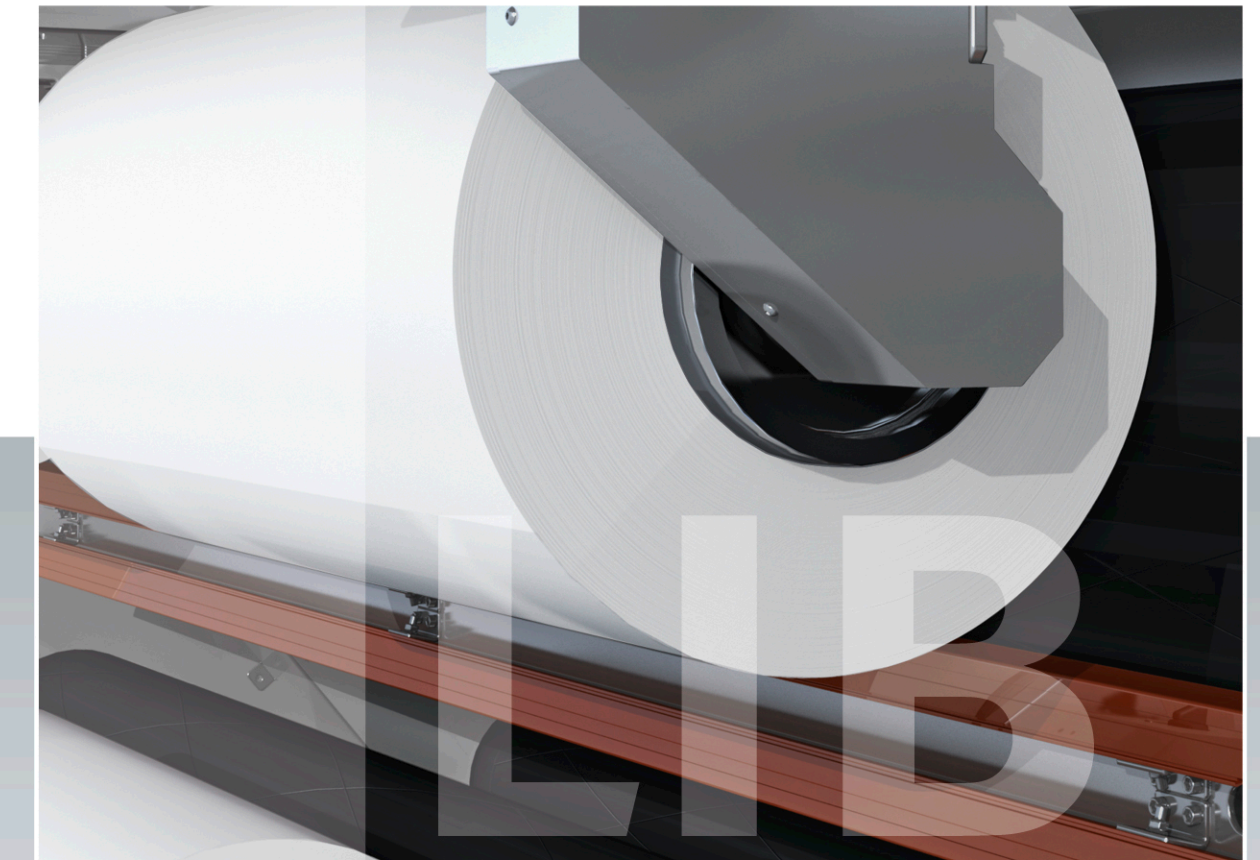


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## BSF Slitter



A step ahead for Lithium Ion Batteries

SLITTER. WINDER. KAMPF.

SLITTER. WINDER. KAMPF.



# New generation for Battery Separator Film processing



## Customized, solution-oriented, focused on quality and future viability

KAMPF offers a selected range of Battery Separator Film production equipment to satisfy the increasing demands of the highly innovative Lithium Ion Battery manufacturing industries.

Our highly reliable non-stop winders, efficient primary and secondary slitters produce to high quality standards all around the world and are the benchmark for success.

Together with our strong network of industry partners, research facilities and process engineering competence we support the fast development of this demanding business.

The KAMPF in-house technology center with individual machine arrangements offers professional material test runs.

## Your requirement

You are producing high valuable Battery Separator Films for the LIB production for a highly promising emerging and competitive market.

You need to increase your production throughput, roll quality as well as your production yield.

## The solution

### BSF Slitter

KAMPF's new generation of BSF Slitters are especially designed to significantly improve the comprehensive processing aspects of these complex key components and safety LIB.

## Your benefit

KAMPF uses its more than 10 years of expertise in slitting and winding of all types of Battery Separator Films to develop world's most efficient, productive and compact BSF slitters.

- Remarkable compactness and ultra-short overall web path
- Optimum web handling and latest digital tension control
- Latest slitting technologies considering highest quality aspects
- Advanced web control for every individual finished roll (Geometry/Tension/Nip/Torque)
- Smart design details for cleanest and most hygienic production conditions

Reliability  
 QUALITY FUTURE-ORIENTATION PRODUCTIVITY  
 Battery Separator Film  
 LIB  
 Find out more Reliability EXPERIENCE  
 FUTURE-ORIENTATION  
 Find out more  
 EXPERIENCE Quality

## Appropriate equipment for individual requirements

### Production flexibility

- The unwinder offers many opportunities for individual parent roll handling
- Open for the integration of various web inspection units
- Fully driven shear cut option
- Blade cut option
- Edge trim winding or suction possibilities
- Multiple electrostatic discharging possibilities

### Machine compactness

- Optimizes the production safety and operator overview
- Improves operator access and cleaning opportunities
- Integrated control cabinets
- Motorized material threading for reduced set up times and less film waste

### Downtime reduction and roll handling

- Easy and efficient positioning aid systems for time saving changeover procedures of slitting and winding equipment.
- Integrated finished roll handling available for safe "no touch" unloading

### Optimum web control

- Proven edge guiding and film oscillation
- Uncompromising ultrasensitive tension compensation roller
- Advanced digital 4-tension-sections-control and consequently individually driven rollers
- Wide range adaptable web spreading technologies
- Specialized rewind section for ultra-precise and ultra-sensitive web control

### Communication and operator convenience

- Intuitive HMI with 2-touch navigation for easy process control
- Industry 4.0 option with the advanced integrative platform by KAMPF for smart production integration, machine-to-machine communication, big data mining
- KAMPF Service Portal for secure real time trouble-shooting and availability increase

