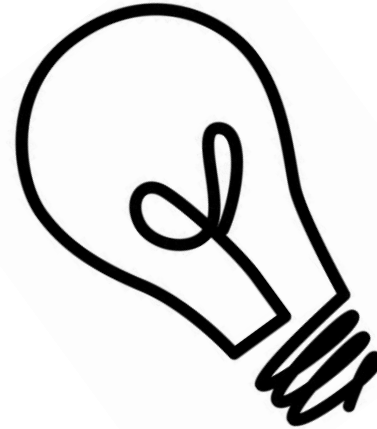


Slitter Rewinder for Special Applications

Tailor-made slitter rewinder for advanced substrates

Sebastian Lange @ AIMCAL R2R 2017

- ⦿ During the manufacturing process most value on a product is being added
- ⦿ Each downstream process (**slitting**, coating, laminating...) should be treated with equal respect in order to maintain or increase the products value
- ⦿ Defects or poor quality as a result of each process has the same or greater value than waste during manufacturing!



Introduction

Slitting Process

- A slitter rewinder converts a roll of web material into several narrow rolls
- Working steps:
 - Unwinding mother roll / jumbo roll
 - Guiding web through the machine
 - Slitting unwound material into several strips
 - Rewind individual strips onto appropriate cores



Slitting and Winding Technology

Challenges

- ❶ The slitting process is often considered as simple and low technological process
- ❷ Different applications, materials, demands always require specific features of the slitter rewinder
 - each slitter rewinder is a tailor made solution
specifically designed for your application
- ❸ Premium slitter rewinder design requires comprehensive technology and process knowledge as well as experience of the machine manufacturer




Challenges

Slitting and Winding Technology

Challenges



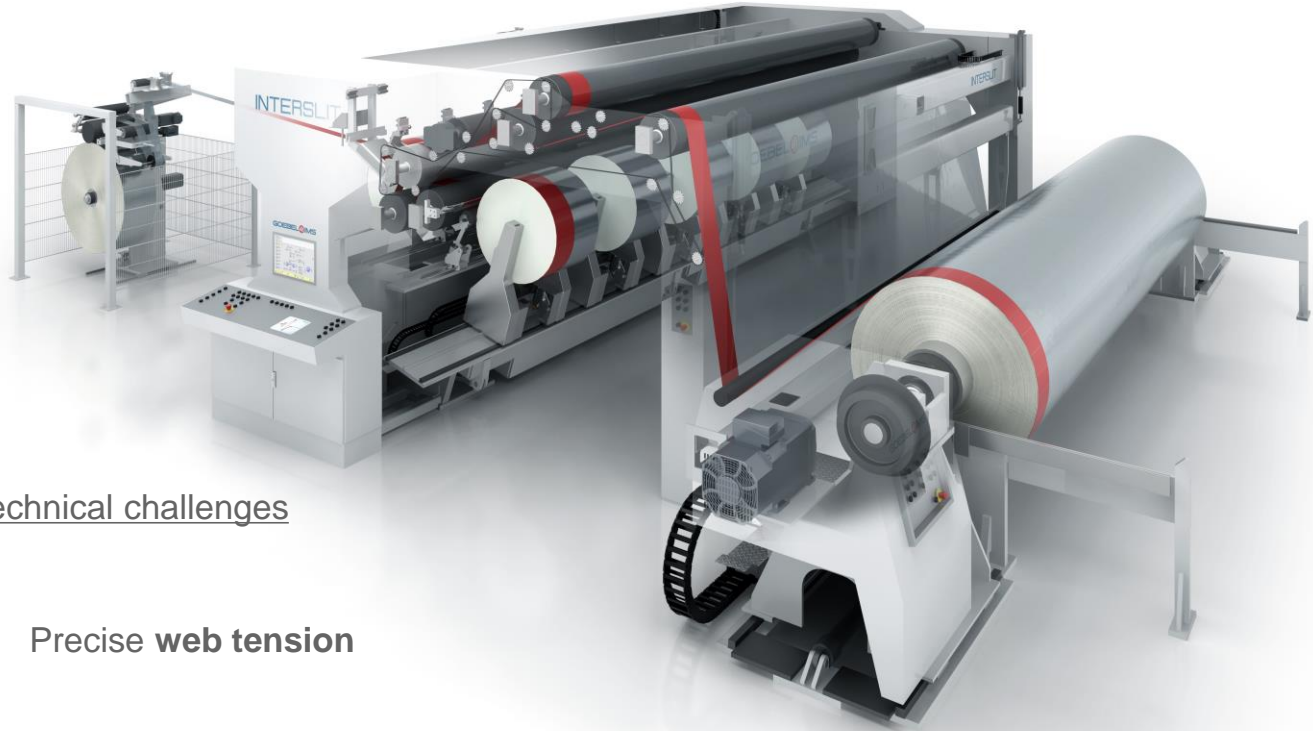
Technical challenges

-  Compensate eccentricity of mother roll whilst maintaining highest **speed and precision**



Slitting and Winding Technology

Challenges



Technical challenges

-  Precise **web tension**

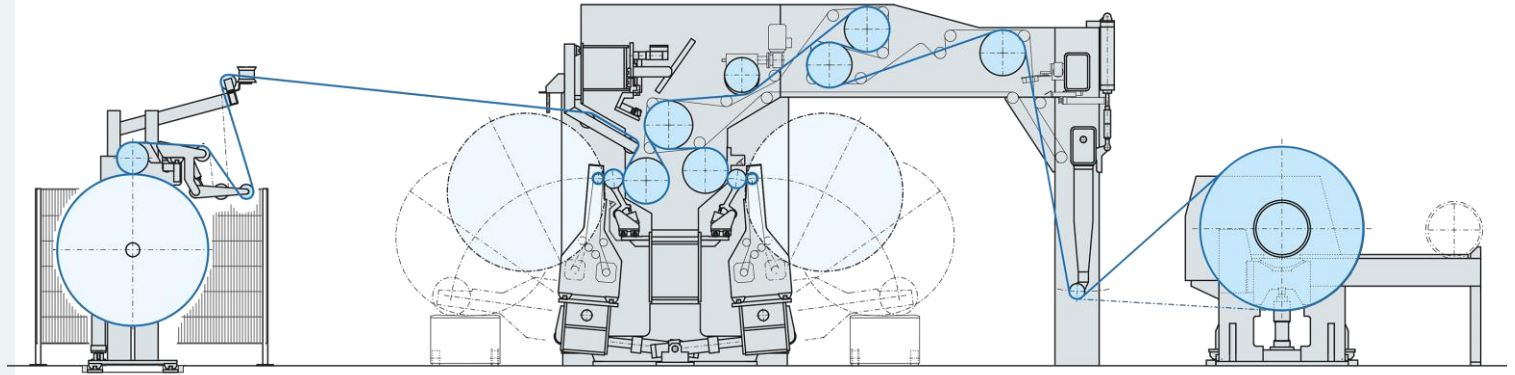


Slitting and Winding Technology

Challenges

Technical challenges

- ① Proper **guide roller** arrangement and execution



Slitting and Winding Technology

Challenges

Technical challenges

-  Appropriate **slitting unit**

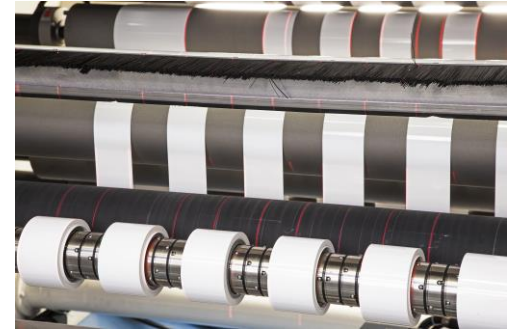


Slitting and Winding Technology

Challenges

Technical challenges

-  Execution of **rewind unit** for excellent roll quality



Slitting and Winding Technology

Challenges

Consequences of poor slitting and rewinding

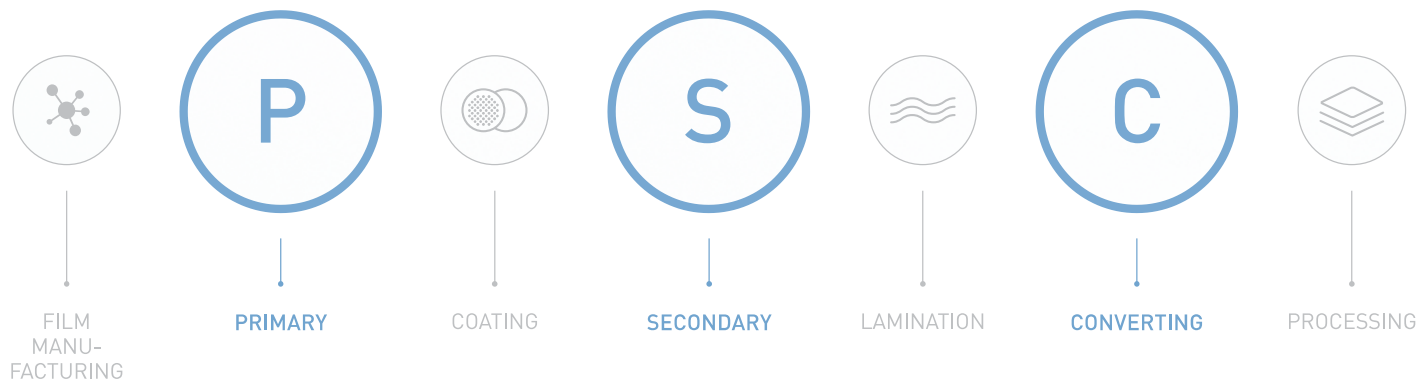
- ❶ Waste due to web breaks
- ❷ Damage to the web surface (e.g. scratches, wrinkles, etc.)
- ❸ Waste due to poor slitting (e.g. rough edges resp. side surface, flying edges, cracks, etc.)
- ❹ Waste due to poor rewinding (e.g. unround rolls, starry creases, telescoping, air pockets, start-stop problems, creasing during winding start etc.)
- ❺ Waste due to dust on web surface
- ❻ Partial or total loss of mechanical, chemical and/or physical product characteristics



Solutions

Supply chain

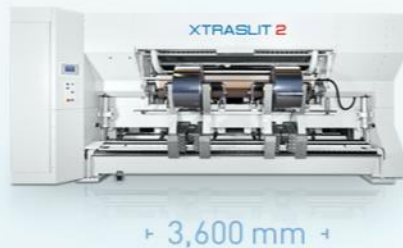
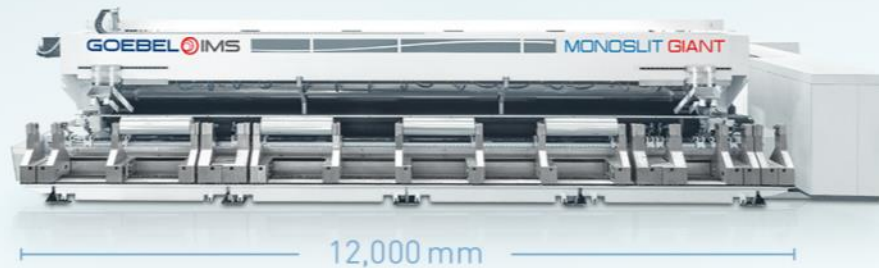
from primary slitting to converting



Machine	Working width*	Unwind diameter	Rewind diameter*	Speed*
» MONOSLIT GIANT	12,000 mm // 480 inch	1.800 mm // 70 inch	1.300 mm // 50 inch	1,500 m/min // 5,000 ft/min
» MONOSLIT	9.000 mm // 350 inch	1.800 mm // 70 inch	1.300 mm // 50 inch	1.500 m/min // 5,000 ft/min
» INTERSLIT Series	7.000 mm // 300 inch	1.550 mm // 60 inch	1.300 mm // 50 inch	1.200 m/min // 4,000 ft/min
» XTRASLIT 2	3.600 mm // 140 inch	1.500 mm // 60 inch	1.300 mm // 50 inch	1.200 m/min // 4,000 ft/min



Station Rewinder Portfolio

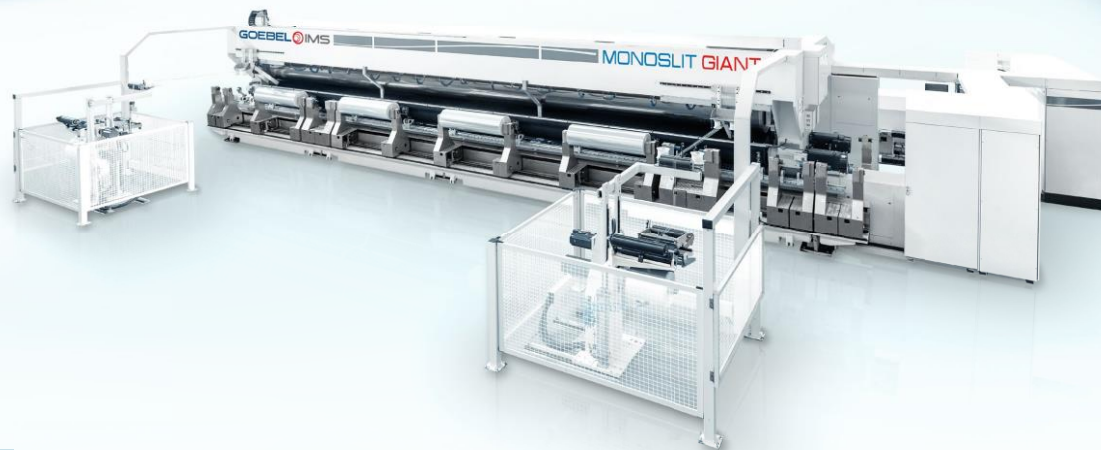


Superlative Slitter Rewinders for the Film Industry

GOEBEL  **IMS**
CONVERTING IDEAS

Applications:

Packaging films, capacitor films, battery separator films, optical films and others, BOPP, CPP, OPP, BOPET, OPET, BOPA, BOPLA, PE



MONOSLIT

MONOSLIT GIANT



Machine	Working width up to	Unwind diameter up to	Rewind diameter up to	Running speed up to
MONOSLIT	9,000 mm // 350 inch	1,800 mm // 70 inch	1,550 mm // 50 inch	1,500 m/min // 5,000 ft/min
MONOSLIT GIANT	12,000 mm // 480 inch	1,800 mm // 70 inch	1,550 mm // 50 inch	1,500 m/min // 5,000 ft/min

www.goebel-ims.com

The Highly Versatile Slitter Rewinder for the Film Industry

GOEBEL  **IMS**
CONVERTING IDEAS

Applications:

Packaging films, capacitor films, battery separator films, thermal transfer films, metallized films, thick film for packaging and industrial applications, optical films, BOPP, CPP, OPP, BOPET, OPET, PET, BOPA, BOPLA, PE, BOPE



INTERSLIT



Working width up to	Unwind diameter up to	Rewind diameter up to	Running speed up to
7,000 mm // 300 inch	1,550 mm // 60 inch	1,300 mm // 50 inch	1,200 m/min // 4,000 ft/min

www.goebel-ims.com

Compact Slitter Rewinder for Converting Film and Paper

GOEBEL  **IMS**
CONVERTING IDEAS

Applications:

Packaging films, metallized films and others, BOPP, CPP, OPP, BOPET, OPET, PET, BOPA, BOPLA, PE, PVC, coated papers, SD/inkjet/thermal papers, technical papers, self-adhesive laminates, flexible packaging materials



XTRASLIT 2



Working width up to	Unwind diameter up to	Rewind diameter up to	Running speed up to
3,600 mm // 140 inch	1,500 mm // 60 inch	1,300 mm // 50 inch	1,200 m/min // 4,000 ft/min

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Slitter Rewinder Dedicated for Battery Separator Films

GOEBEL  **IMS**
CONVERTING IDEAS

Applications:

Battery separator films, wet processed
BOPE-based battery separator films



INTERSLIT **BSF**



Working width up to	Unwind diameter up to	Rewind diameter up to	Running speed up to
---------------------	-----------------------	-----------------------	---------------------

7,000 mm // 300 inch

All other details upon request.

www.goebel-ims.com



- ① **Founded in 1851** – we convince our customers by longterm know-how, powerful innovations and highest quality standards
- ① Leading **manufacturer and supplier** of customized **slitter rewinders**, inspection and embossing machines
- ① We deliver **top technologies** tailored to the needs of the various industries
- ① More than **11,000 machines** sold
- ① Worldwide **first class service** and competent consulting



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Automotive and Specials
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Thank you.

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