

Lines for Production of Prepregs

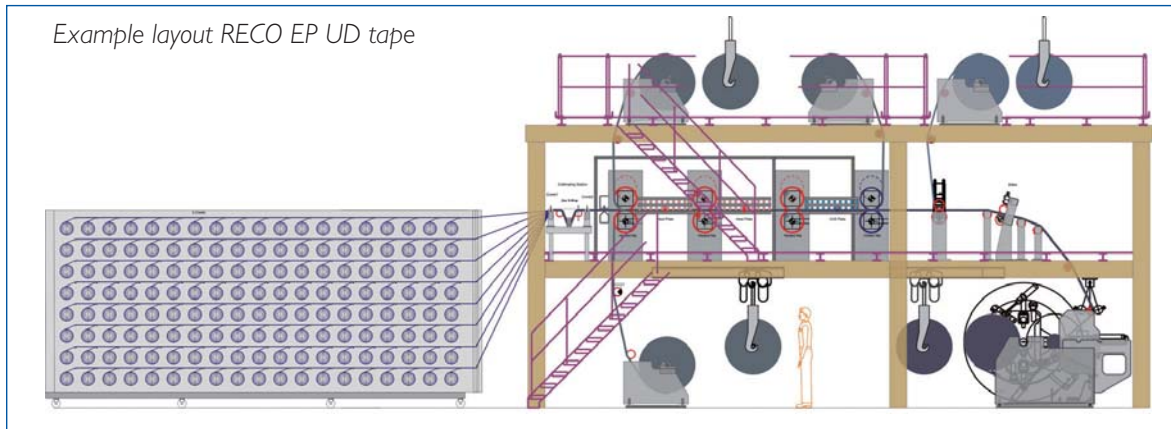
Naturally, as a worldwide player in the Coating and Laminating machine field, we are also completely at home in the composite market. In addition to machines for resin film coating (PAK 400 EP), innovative machines for the production of Prepregs (RECO EP) for the horizontal or vertical process are also manufactured. Prepregs, manufactured on our lines, are used in the aviation and space industry, wind energy plants, medical technology and as light weight

components in the automotive-, ship building- and sports equipment industry. The modular design allows individual line concepts in laboratory or production scale and the most stringent requirements are successfully achieved. All materials, e.g. carbon-, glass- or aramid fibers as tapes/rovings, but also mono-, bi- or multi-axial fabrics, can be processed in working widths from 300 to 2.000 mm at speeds of up to 50m/min on our lines.

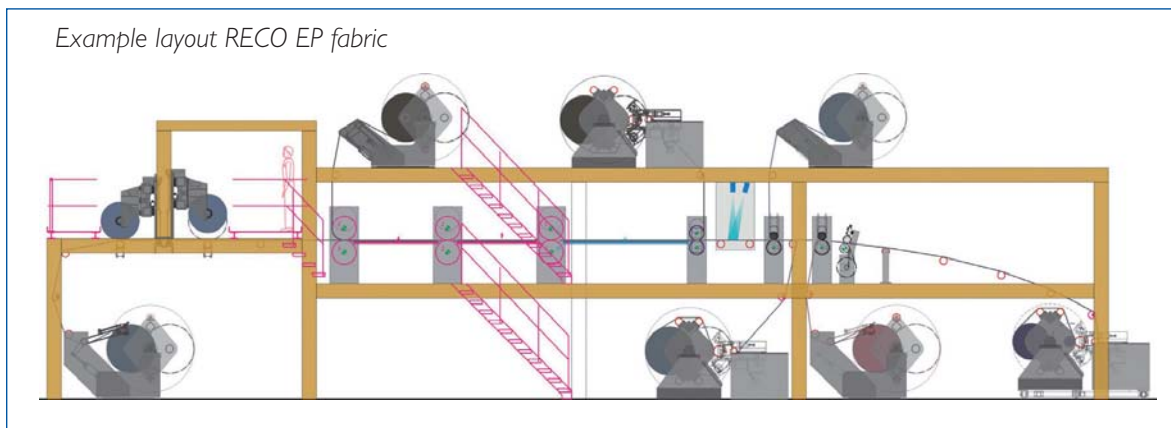


Horizontal Process

Impregnating Line for UD tapes (unidirectional arrangement of fibres)



Impregnating line for fabric



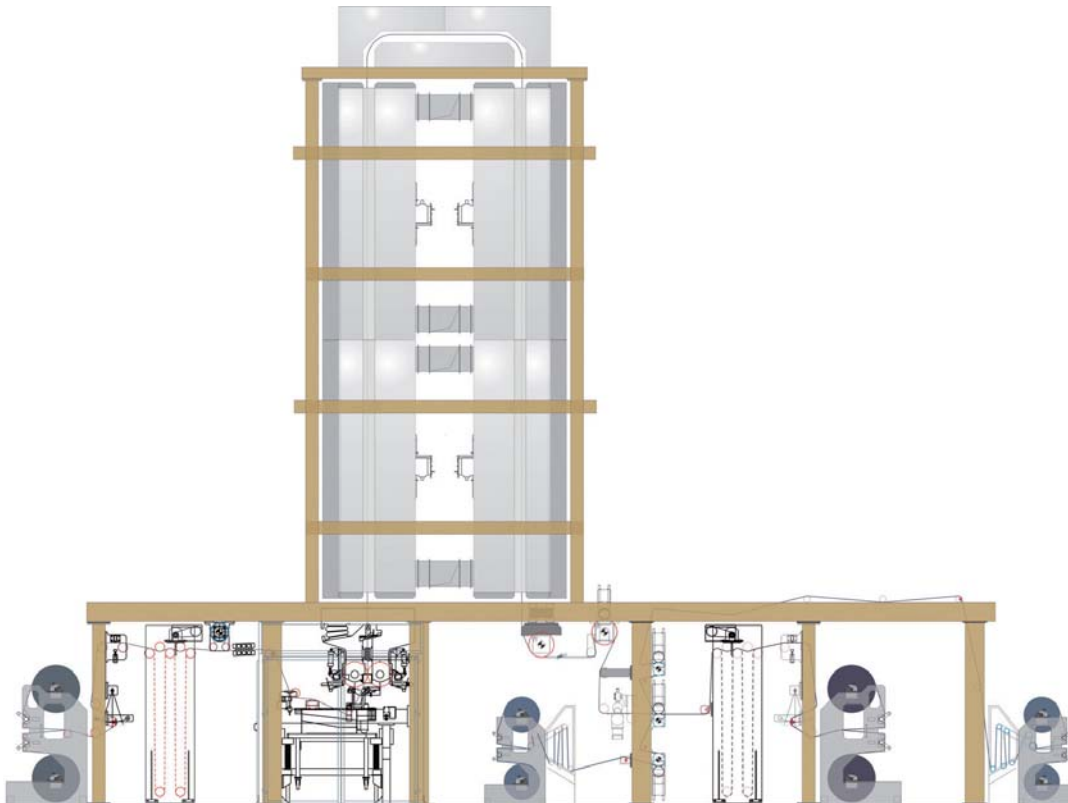
Main features of the RECO EP for the production of Prepregs (excerpt)

- Processing of all types of fabrics, tapes/rovings in varying quality and with different resin contents
- Controlled unwinding tension of spools or reels
- Optimized feeding of tapes/rovings and materials
- High precision rollers with minimal tolerances of $< 2\mu\text{m}$
- Bending compensation of rollers
- Coating weight tolerances of max. $\pm 1\%$ (depending on material)
- Accuracy of roller adjustment $\pm 1.5\mu\text{m}$ (hydraulic)
- Consistent and reproducible nip settings
- Precise temperature control of rollers, dryers, heating and cooling plates of $\pm 1^\circ\text{C}$
- Precise capture and control of web tension
- Various designs for single and turret winders with a turret winder splice rate of 99.5% or better

Vertical Process

Lines for direct impregnation including coating with vertical drying for evaporation of solvent

Example layout RECO EP vertical



Additional features for vertical lines

- Individual profiles for air circulation and temperature control in the dryers for the prevention of skin formation
- Systems for heat recovery and exhaust air treatment

Options (examples for horizontal – resp. vertical lines)

- Motorized setting of rollers
- Nip pressure and contactless gap measurement
- Edge and centre cut
- Closed-loop-control of coating weight combined with coating weight measurement
- Lifting tables and cranes for reel loading and unloading
- Turnkey Installation

Additional scope of supply of KROENERT-BMB-DRYTEC

- All machine components out of one hand, from the first contact to the handover of the line for production
- Competent and quick worldwide after-sales service including support of process technology experts
- Technology Centre for trials



Composites products from our machines



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