### **Cutting Technology**



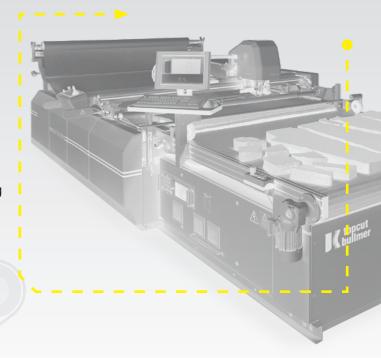
### Introduction of topcut-bullmer cutting technology

German engineering is known in the world for it's design combined with outstanding functional characteristics. The users benefit from high advantage in production, high efficiency and availability and low maintenance costs.

Equivalent to the product segment of the spreading machines topcut-bullmer tracks a strategy with their cutting systems which makes sure that a wide application area is covered. It goes for single ply cutting up to high ply cutting solutions. Special cutting tools were designed to meet the various applications. Certain machines are engineered to optimize speed if throughput is demanded.

Next to the cutting performance special attention was put on the material flow:

A cutting machine's productivity depends on the loading and unloading process. Therefore the interaction of the spreading and cutting technology is optimized by topcut-bullmer. In the automotive industry conveyorized cutting-windows up to 10 m combined with front and back end transportation systems perform presently an unrivalled productivity. Material logistics also implies an ongoing subject for further developments in the area of material handling systems, i.e. for robotic based material pick-up systems.



# Generic features and supplies of all topcut-bullmer cutting machines in the basic version

#### Hardware:

- · Reversible bristle conveyor
- X- and Y-axis driven by linear-modules
- · Brushless permanent-magnet-motor-drives for al axis
- Parameter driven stepless adjustable vaccum
- Filter for vacuum turbine
- Integrated sound absorber for exhaust
- · Integrated cleaning of the bristles
- Software:
- Windows operating system
- Operator guide with plausibility control and fault diagnoses
- Automatic adaptation of inclined ply position to marker

- Sharpening device with self adjusting diamond disc
- Automatic knife-frequency-dependent oil dosage
- · Right operator side
- Industrial PC on an actual performance level with flat screen
- Integrated high performance vacuum turbine, 15 kW
- Standard working widths: 1600/1800/2000/2200 mm
- Automatic start point optimization for single pieces
- · Elimination of common cut-lines
- Automatic chain up of markers (job queue)
- · Application for remote-service





## Generic options and supplies for all topcut-bullmer cutting machines

#### Hardware:

- Cold and heated drill marking machine in front of the cutting head
- · Foil unrolling device with bars and cones
- · Foil unrolling device with dancer bar control
- · Travelling conveyor version
- · Left operator side

#### Software:

- Operating data logging (data management)
- · Cut-path optimization and small pieces first
- · Adjustable speed at contours of contact
- Dry run simulation of cut-path
- · triggering of raw- and fine-cut contours
- · Referencing of several markers in job-queue
- Detection of end of fabric roll
- Programmable cross cut to isolate the waste-frame
- · Registration of recuts with nesting mode
- Matching with light-point support
- · Barcode read in of marker-ID and parameter set

