CUTTER AND SPLICER SYSTEMS
FOR RADIAL TIRE COMPONENTS
SHAPING TECHNOLOGY

VMI is committed to supplying custom-engineered systems to the rubber and tire industry, including machinery for rubber compound handling, tire components, tire assembly, tire curing and tire testing for radial passenger, light truck and all steel radial truck, bus and off-road tires.

Since the company was founded in Epe, the Netherlands in 1945, VMI has established a sound reputation as a leading supplier to the rubber and tire industry, with customers worldwide. Our leading position is based on our capacity to provide custom-engineered solutions using cutting edge technology in precision workmanship to ensure accurate, reliable performance.

All systems are backed by the VMI worldwide service, 24 hours a day, seven days a week. Our service centers are strategically located in Epe (the Netherlands), Yantai, Shandong Province (China) and Stow, Ohio (USA). There is a full range of services throughout the lifetime of your machine including preventive maintenance, spare parts, and upgrades.
MORE KILOMETRES PER SHIFT, PER DAY

VMI is a leading supplier of cutting and splicing systems for radial tire components including breakers, steel body ply and textile body ply. All machines are designed and built using the very latest technology to give you faster, more reliable performance in producing a top quality end product.

FIVE VERY GOOD REASONS TO CHOOSE VMI TO SUPPLY ALL YOUR CUTTER/SPLICER MACHINES:

1. More kilometres per day
   Our robust machines have a higher output of finished material than any other machines currently available. All machines are designed for highly reliable and continuous operation with an absolute minimum of downtime for stock roll changes, feed snarl-ups and knife changes.

2. High accuracy
   Cutting and splicing is highly accurate with less scrap and wastage because the material is precision controlled by sensors, magnets and vacuum throughout the entire process, from let-off to wind-up.

3. Customized solutions
   The flexible, modular machine design allows us to customize solutions to your specific requirements and to incorporate additional features such as extra wind-up modules, slitters, and gum strip applicators.

4. Easy operation
   All machines have user friendly, touch controls and require only one operator. Material width and angle are easily adjusted, and let-off and wind-up reels/cartridges quickly replaced.

5. Lifetime service
   All machines are designed for easy maintenance, and are fully supported by the worldwide VMI service organization on call 24 hours a day, seven days a week.

VMI CUTTER/SPLICERS “NEVER LET GO!”

The high performance and accuracy of VMI cutting & splicing systems is based on the principle of total material control throughout the production cycle. VMI machines “never let go!”
TWINS CUTTER/SPLICER SYSTEMS FOR BREAKER MATERIAL

HIGH ACCURATE - HIGH PRODUCTIVITY

The fully automated TWINS cutting/splicing system processes calandered steel cord to produce breaker material for radial passenger and truck tires.

High cutting accuracy
- The machine’s servo feeding system with magnetic positioning control gives smooth, accurate feed of the calandered steel cord resulting in extremely accurate cutting, at a highly consistent angle and width.
- The VMI TWINS cutter/splicer is fitted with either a disk & bar or guillotine cutting system, both of which give an excellent quality cut and are specifically designed for extended life of the knife blade.

High productivity
- The robust TWINS breaker cutter/splicer has a very short cycle time because of the quick cutting action, efficient material feed and magnetic zones allowing high material acceleration and deceleration.
- The machine is designed specifically to minimize downtime and is fitted with easy, efficient changeover of both the let-off stock roll and wind-up breaker roll.
- The stock roll change system together with menu-drive, automated machine settings enable fast, accurate changeover of material width and angle, making the TWINS breaker cutter/splicer particularly suitable for small batch processing.
Reliable, accurate splicing
• State-of-the-art sensors together with the twin belt technology ensure a reliable splice each time, without a miss.
• The splice is highly accurate because the cut breaker strips are fully controlled throughout the splicing process by means of mechanical edge guide and magnetic zones in splice conveyor.
• Many options are available to customize the splicer to your specific requirements including active centre position control, a dual head splicer, pit support conveyor, and auto angle and width change.

Fully compatible with your production logistics
• The machine is supplied with fast-change single or dual let-off and wind-up systems to accommodate your tire building logistics. Choose reels, shells or cassettes to your specific requirements.
• All stock systems can be supplied with an optional constant width measurement with full statistical process control (SPC).

Customized solutions
• Highly accurate gum strip applicators are available and are customized to match your tire technology.
• The optional slitter is designed to enhance machine productivity, and is offered with a magnetic output conveyor and active camera guide to give high accuracy with minimum material pull-down.
FULLY AUTOMATED OPERATION – CONSISTENT UNIFORM SPLICE

VMI’s fully automated, 90 degree textile cutter/splicer produce highly accurate textile body ply with close-to-butt splices for passenger radial tires.

Fully automated operation
• Automated cutting and splicing of textile body ply produces highly uniform ply with a consistent splice overlap.
• More accuracy and uniformity mean less material waste leading to significant cost savings.

High cutting accuracy
• The fully automated dustless disk and bar cutter at cutting angles between 85 and 95 degrees gives a high quality cut every time.
• Electronic sensing together with Servo-drive belt feed give accurate length control without any angle variation to achieve a highly accurate cut, each time.

Consistent, uniform splice
• In one continuous operation, the leading edge of the cut material is spliced at rightangles to the trailing edge of the previous cut with an accurate overlap.
• The overlap can be set at choice between 1 and 3 mm and gives a close-to-butt splice.

High productivity
• The fully automated and continuous cutting and splicing operation results in a very short production cycle.
• The robust textile cutter/splicer is designed with quick and easy change stock let-off and material wind-up systems.
• Another important factor contributing to machine productivity is extended life of the knife blade and the quick knife change system.

Compatible with your production logistics
• The machine is supplied with let-off and wind-up systems to match your tire building logistics, for example, cartridges can be designed to fit your specific requirements.
• All systems can be fitted with optional constant width measurement with full statistical process control (SPC).
HIGHLY ACCURATE CUT – VERY STRONG SPLICE

The fully automatic steel body ply cutter/splicer system processes calendered steel to produce steel body ply for all steel radial and truck and bus tires.

High cutting accuracy
• The guillotine knife at fixed cutting angle of 90 degrees gives a high quality cut every time, even straight after knife change and adjustment.
• Full control of the material via the Servo-drive belt feed gives accurate length control without angle variation to achieve a consistent and highly accurate cut, each time.

Exceptional splicing strength and accuracy
• A very strong splice is achieved because splicing pressure is applied from both top and bottom of the material.
• Magnetic beam transfer system ensures highly accurate splicing of the steel body ply.

Minimum downtime
• The robust steel ply cutter/splicer is specifically designed for minimum downtime and is fitted with fast easy change stock let-off and material wind-up systems.
• Another factor contributing to higher machine productivity is the hydraulic knife clamping system which drastically reduces knife change and adjustment time.

Fully compatible with your production logistics
• The machine is supplied with let-off and wind-up systems to match your tire building logistics, for example, the cartridges are designed to fit your specific requirements.
• All systems are available with optional constant width measurement with full statistical process control (SPC).

Customized solutions
• Each machine is customized with flexible, accurate gum strip applicators for your specific production requirements.
• VMI steel ply cutter machines can be customized to accommodate the very latest industry trend for wider body ply materials.
VMI supplies a comprehensive range of machinery for rubber compound handling, manufacturing of tire components, tire assembly, tire curing and tire testing for the production of radial passenger, light truck, all steel radial truck and bus and off the road tires.

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