

BASIC MACHINE DATA

Bead size range	: 14"-24"
Max Green tire diameter	: max. 1000 mm
Bodyply width	: max. 880 mm
Innerliner width	: max. 700 mm
Sidewall width	: max. 230 mm
Pre-assembly width	: max. 1200 mm
Breaker width	: max. 350 mm
Tread width	: max. 400 mm
Breaker angle	: 20° - 30°
Capstrip width (Spiral overlay)	: 5 - 25 mm

MODULE OVERVIEW

- Tire building machine
- B&T drum
 - Mech. shaping & building drum
 - Stitchers
 - Beadloader & setter
 - Transferring for B&T package
 - Transferring for tire removal
 - Green tire removal system

- Carcass servicer
- Innerliner
 - Sidewall
 - Bodyplies
 - Fabric chafers
 - Steel chafers
 - Flippers
 - Rubber strips
 - Run flat strips

- Breaker servicer
- Breaker 1
 - Breaker 2

- Capstrip servicer
- Dual or single let off
 - Tension control

- Tread servicer
- Tread out of reels
 - Pre-cut treads
 - CCD Camera controlled application



Transferrings on B&T side



Transferring

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 TIRE.

For more information see:

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VMI 348-S SYSTEMS

FOR RADIAL PASSENGER TIRE BUILDING SYSTEMS





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 TIRES PER DAY FOR ALL YOUR FUTURE REQUIREMENTS

FAST, FLEXIBLE SINGLE STAGE TIRE BUILDING SYSTEMS FOR RADIAL TIRE ASSEMBLY VMI 348-S

VMI is the leading supplier of single stage tire building systems for radial tires. All machines are designed and built using the very latest technology to give you faster, flexible and reliable performance in producing a top quality end product.

EIGHT VERY GOOD REASONS TO CHOOSE VMI TO SUPPLY ALL YOUR SINGLE STAGE TIRE BUILDING MACHINES:

1. More big tires per day

Our robust machines have a higher output of finished green tires than any other machines currently available. All machines are designed for highly reliable and continuous operation with an absolute minimum of downtime for size changes from High Speed low profile to SUV.

2. High accuracy

Cutting and application is highly accurate with a minimum of scrap and wastage because the material is precision controlled by sensors, magnets and CCD cameras throughout the entire process, from let-off to finished green tire.

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 applicators for run flat strips, chafers, flippers and other material.

4. Easy operation

All machines have a user friendly HMI (Human Machine interface), and require only one operator. Material width, length and angle are easily adjusted and are guided by the recipe. Materials can be quickly replaced with the aid of ergonomically designed cartridges or reel systems. Automatic material changes are possible.

5. High green tire uniformity

The result of the high fabrication standards of the machine, together with the controlled application of the materials on the drums, is a green tires with excellent uniformity figures in all aspects.

6. Flexibility

The demands of today ask for a highly flexible machine to produce very small batches of tires. This machine is designed for that, most of the settings are recipe controlled and a size change is completely guided via the recipe. Tooling is designed for quick change. After a size change the machine is immediately ready for producing the next lot of ultra high quality tires!

7. 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 348

VMI 348-S FOR RADIAL TIRE ASSEMBLY

HIGH ACCURATE - HIGH PRODUCTIVITY - BIG TIRES

The fully automated VMI 348-S processes different components with high precision on the building drums to achieve the best possible tire.

HIGH APPLICATION ACCURACY

- The machine's material centering, guiding and cutting system results in a very accurate application on the building drums and thus giving the basis for a good uniformity.
- The VMI 348-S is fitted with a mechanical carcass building and shaping drum with special features such as mechanical bead locks and mechanical turn-up arms and a bead-shoulder support system. The turn up length is also variable in order to reach the best possible turn-up for a given tire design, all resulting in the best possible base for assembling a tire.

HIGH PRODUCTIVITY

- The VMI 348-S has a short cycle time because of optimized concurrent build sequence utilizing 2 drums to reach the best possible cycle time taking in consideration the physical limits of the materials that are handled in the machine.
- Two transfer rings, one for B&T transfer and one for green tire removal from shaping drum, resulting in the best possible cycle time.
- The machine is designed specifically to minimize downtime and is fitted with easy, efficient changeover of both the let-off stock rolls and tire size depending tooling.
- Another factor contributing to high machine productivity is the mechanical building and shaping drum, without any bladders resulting in a consistent building sequence and no down time due to sudden bladder defects.
- The size change system together with the menu driven, automated machine settings enable fast, accurate changeover of material width, type and angle, making the VMI 348-S also suitable for small batches.

RELIABLE AND ACCURATE APPLICATION

- State-of-the-art sensor technology together with mechanical building drums ensures a reliable application and building cycle each time, without a miss.
- The material application is highly accurate because the materials are fully controlled throughout the let off, feeding, measurement, cutting and application on the drum. All by means of state-of-the-art guiding, CCD cameras and last but not least fixation on the drum during application.
- Many options are available to customize the TBM to your specific requirements including an automatic green tire removal systems, automatic stock roll changes and application measurement systems with feed back to the control system.

FULLY COMPATIBLE WITH YOUR PRODUCTION LOGISTICS

- The machine is supplied with fast-change single or dual let-off systems to accommodate your tire building logistics. Choose reels, shells or cassettes to your specific requirements.

CUSTOMIZED SOLUTIONS

- Servicers and applicators for fabric or steel chafers, flippers, gum strips (also for run flat tires) are available and can be customized to match your tire technology.
- The green tire remover is designed to make it possible to remove the tires automatically out of the TBM. The tires which can be produced with the machines could be so heavy that it is impossible for the operator to remove them. The tire removal system can be integrated in your factory's automatic tire transport system.



Bead loader



Beadloader greentire removal