STEELASTIC, the world leader in extrusion-based systems for manufacturing tyre reinforcing components, has introduced its new Combo Belt & Body Ply Machine. This combination machine, originally developed for STEELASTIC’s own Calenderless Manufacturing Cell, can switch from running steel belt/breaker material to textile or steel body ply in a matter of minutes. The combo machine shares a common extrusion, cooling and accumulation system, with separate cutting and splicing lines for belt/breaker and body ply. Material is produced in one, end-to-end process, from creel to wind-up, eliminating the need for expensive calendering and off-line processing operations.

“We wanted to make it easy for tire manufacturers to try our calenderless manufacturing process, using their own materials, with the finished product produced to their exact specifications,” said Ian Dennis, STEELASTIC President. “To achieve this, we invested in our groundbreaking Calenderless Manufacturing Cell incorporating our new generation of highly flexible Belt and Body Ply machines. This combination machine format is very attractive to tyre manufacturers, particularly for R&D facilities, where smaller batch sizes and regular SKU changes are the norm.”

The new STEELASTIC Combo Belt & Body Ply Machine is custom-designed for every application and can even be adapted to add extruded textile cap strip manufacture. The basic set-up includes creels for steel or textile reinforcement cords, which feed into a crosshead extrusion die where the cords are fully encapsulated in rubber. The material then passes through a cooling and accumulation unit, before being processed in either the belt/breaker or the body ply machines, and then wound with liner on an in-line wind-up system. In-line hot or cold gum edging of the steel belt can also be added if needed. The machine is operated by a single operator to minimise operational cost.