



TRI STAR®-NEEDLES

THE IDEAL SOLUTION FOR AN EFFICIENT NEEDLING



Intensive, even needling, careful treatment of fibres and optimum stability.

The demands imposed on modern felting needles are extreme.

Tri STAR® needles from Groz-Beckert are the result of further developments of the standard working part and barb styles and are characterized by a particularly even needling effect and a long service life.

The gentle action of the needles ensures

maximum protection of the fibres while enhancing product quality. The resulting reduction in machine downtime provides a guarantee of more reliable, more economical production.

Tri STAR®-Needles

Efficient at high production lines

EQUILATERAL WORKING PART PROFILE ENSURES EXCEPTIONAL DURABILITY

Tri STAR® needles offer all the advantages of a working part with a cross-section shaped like an equilateral triangle, i.e:

- Exceptional resistance to stress from any direction
- Uniform absorption of force under deflection
- Consistent fibre transport assured by working part edges angled at 120° to each other
- The combination of Groz-Beckert RF barbs with rounded edges and the Tri STAR® working part profile ensures efficient fibre entanglement without harming the fibres

Examples

607961

15 x 16 x 32 x 3 C222 G 73017

609471

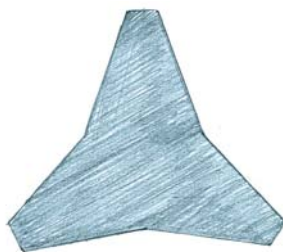
15 x 16 x 36 x 3 C222 G 73012

608581

15 x 16 x 38 x 3 C222 G 73017

Working part

The concave sides of the working part and more acutely angled edges provide better fibre transport due to enhanced grip of fibres in the barb. The improved needling efficiency thus achieved results in more intensive fibre entanglement and, in turn, close bonding of the fibres in the nonwoven. By comparison with a conventional working part, the cross-section area is reduced by around 8%.



TRI STAR® NEEDLE WITH IMPROVED TRIANGULAR WORKING PART PROFILE



THE REDUCED CROSS-SECTION AREA OF THE TRI STAR® NEEDLE COMPARED WITH A CONVENTIONAL TRIANGULAR-SECTION WORKING PART

Applications

Tri STAR® needles are primarily made in gauges from 32 to 38. They are particularly suitable for use with fibres ranging from 3.3 to 33 dtex.

Groz-Beckert Tri STAR® needles can be used with manmade fibres of every kind, e.g. PP, PET and CV, as well as special fibres and blends.

Tri STAR® needles represent the ideal solution to technical problems wherever there is a requirement for intensive needling, even at high production line speeds.

Typical products:

Construction and reinforcement, non-wovens for roadbuilding purposes, separating and filtering felts, backing and coating substrates, safety materials and geomembranes.

The advantages of a Groz-Beckert Tri STAR® needle by comparison with a standard needle are determined by type of application, the product characteristics required and the type of machine used:

- Higher material density
- Reduced material thickness for the same weight
- Cost benefits through greater run length of the rolls
- Faster line speeds
- Greater productivity
- Reduced stoppage times
- Efficient punching, even with a low needle density

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