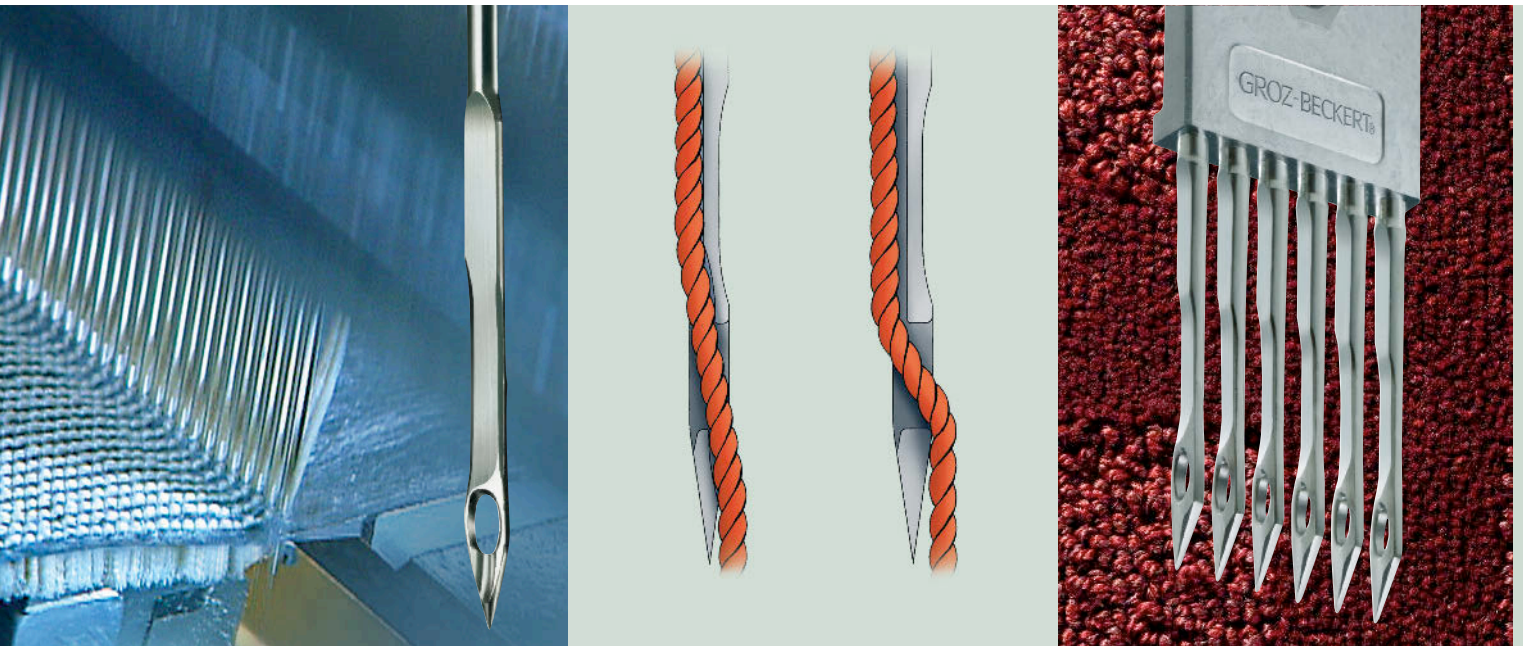




GROZ-BECKERT®

TUFTING NEEDLE



Tufting needles from Groz-Beckert

Its many years of experience in the manufacture of needles for textile application place Groz-Beckert in an ideal position to comply with the most stringent quality requirements.

Groz-Beckert tufting needles offer impressive application-optimized geometries, dimensional stability and repeat accuracy. Using state-of-the-art technologies such as the CAD-supported finite element method and laboratory testing, production processes are subjected to continuous monitoring and regularly improved.

This ensures that customer-specific requirements and the needs of specific applications are implemented from the initial idea to the finished product. A team of experienced and well-qualified experts offers advice on both standard and custom applications, ensuring that ideally coordinated components are available in the shortest possible time.

Special yarn protection WRONZ option

Needles with the deeper yarn protection (WRONZ option) provide a straighter yarn path on the upstroke of the needle. The result is a minimal deflection of the yarn and a higher process reliability.

The WRONZ feature reduces the problem created on a standard needle on the upstroke of the needle bar. The yarn, which is pulled very tight at this point, is deflected far into the eye of a standard needle. This deflection creates twist between the needle and yarn with every relative movement, which means the yarn is either twisted or untwisted, and can cause faults in the loop catching process. Yarn faults and splices (especially on wool,) which are connected with knots or glue, are a major reason for machine stoppage and quality faults as they attempt to pass through the needle eye. The deeper yarn protection (WRONZ option), in combination with the incorporated point groove, also greatly improves process reliability, since these thicker areas can pass through the eye with fewer problems or break outs.

Needle modules

Because it offers a complete range of tufting products, Groz-Beckert is able to utilize synergies between the different article groups. Tufting needle modules open up enormous potential for saving in terms of tufting machine set-up times. This is only possible if the components can be freely exchanged on a batch-independent basis. The quality of the end product hinges on the properties of the modules used. For this reason, the reliability of the production processes is a major factor in determining which modules can be used. Groz-Beckert complies with these requirements across the whole of the product range.

SAN®-S

TUNGSTEN INSERT (TI)

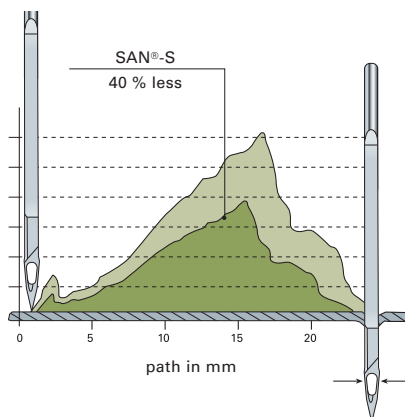


SAN®-S

Special sports applications

The consistent further development of the SAN®-S needle testifies to Groz-Beckert's innovative drive. The SAN®-S needle is the culmination of development work to comply with application-specific needs. Its benefits include up to 40 % lower penetration force and the resulting energy savings. The slender design of the point also ensures more gentle treatment of the backing. Its characteristic feature is the teardrop-shaped eye.

SAN®-S is gathering growing importance for the manufacture of textile sports surfaces such as artificial turf.



Cut Pile Looper Tungsten Insert

CPL TI

Product improvements of all individual tufting components are designed to optimize the lifetime of all gauge parts in the tufting process. The use of hard metal components as well as the combination of particular materials have resulted in the development of the Schlemp by Groz-Beckert Cut Pile Looper with tungsten insert, or in abbreviated form CPL TI.

Benefits and features:

- Higher looper rigidity
- Accurate and uniform cutting
- Significantly improved product lifetime

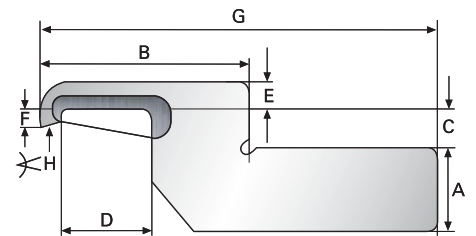


FIG. DIAGRAM OF A TUNGSTEN INSERT CUT PILE LOOPER (DIMENSIONS A-H DESCRIBED IN THE CATALOGUE)

CPL TI/Example (article number CPL0160 1,30 RTIG 104)

Article	System name	Thickness in mm	Design	Material	G-number
CPL	0160	1.30	R	TI	G 104

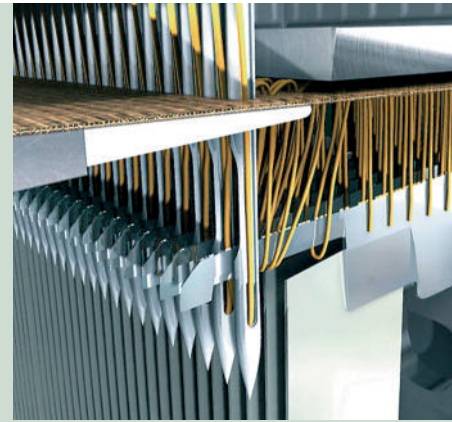
CPLM TI/Example

(article number CPLM 1/10L GTISTD PP0352G 401)

Article	Gauge	Design	Positioning	Material	Body	System name	G-number
CPLM	1/10	L	G	TI	STD PP	0352	G 401

CONSECUTIVE NUMBER FOR
VARIOUS OPTIONS

CUT PILE LOOPER DESIGN



Cut Pile Looper Module Tungsten Insert CPLMTI

This special technology results from the demands of very difficult applications with a high wear and tear as well as high demands on the carpet product quality. Due to the cost benefits gained from the longer lifetime of this Schlemper by Groz-Beckert tungsten insert product, market penetration has now expanded beyond the field of automotive carpets and into wall-to-wall carpeting.

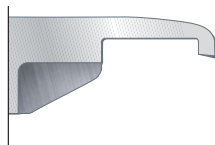
Various Schlemper loopers are available with tungsten insert, as single loopers or in modular form. In addition, Level Cut Loop Looper Modules with TI design have recently been introduced to the market.

CPL Options

Different options are available either individually or in combination for different tufting applications.

The options are selected according to machine type, needle set, yarn qualities and specific application parameters.

OPTION TKC



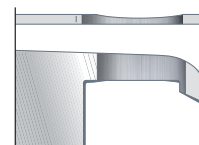
Tufting knife chamfer
More clearance for the tufting knife.

OPTION AJC



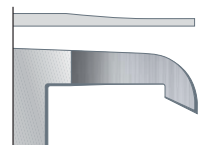
Anti-J cut
Creates a more uniform cut.

OPTION NC



Needle clearance
Allows more space for the needle on return stroke.

OPTION TP



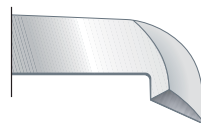
Thin point
Creates more space for needle and yarn.

OPTION R ODER L



Chamfered point
Improved yarn pick-up by the looper.

OPTION TC



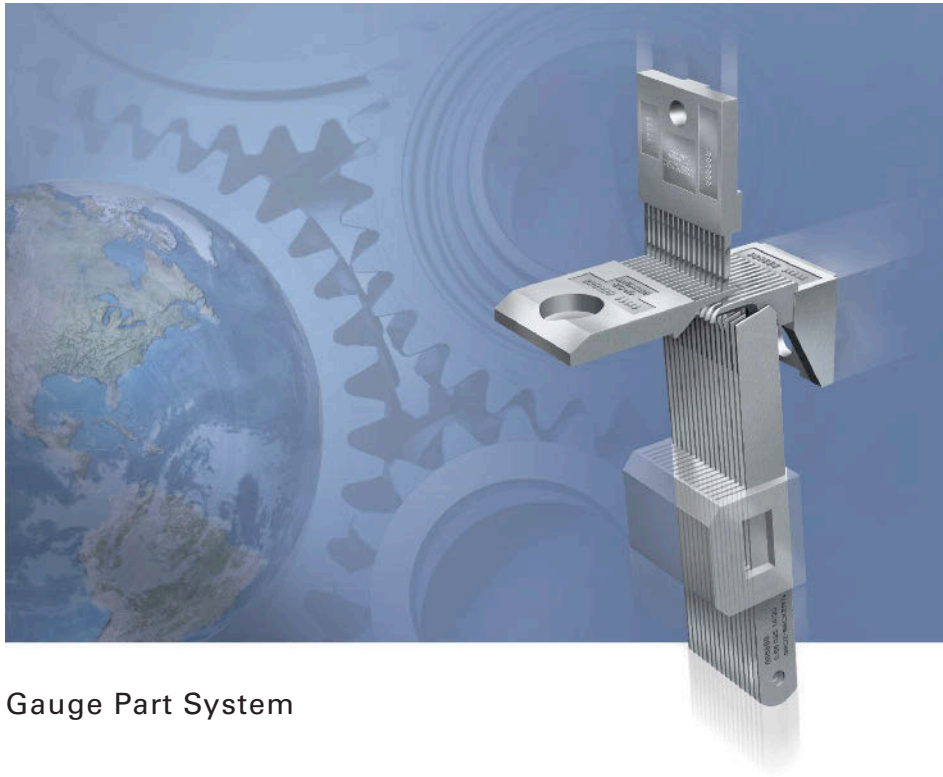
Triangle chamfer
Improved yarn movement over the looper barb for looper sizes of 1.4 mm thickness and more.

OPTION RS



Rounded Scarf
Improved protection of the needle point.

THE GROZ-BECKERT GAUGE PART SYSTEM PROCESS RELIABILITY THROUGH FUNCTIONAL INTERACTION



Gauge Part System

The Groz-Beckert system concept for the deployment of gauge parts, in all relevant tufting applications, is a consistent development which addresses the growing demands of the industry for precision and process reliability.

The use of Groz-Beckert tufting gauge part systems offers tangible benefits in the manufacture of tufted floor coverings by ensuring the controlled and coordinated combination of materials and the functional interaction of all tool components – for a tufting result which is truly impressive in terms of both its quality and economy.

As a full range supplier, Groz-Beckert is able to provide every conceivable tool required for the tufting process. Systems from a single source which are both highly precise, process-reliable and coordinated for perfect interaction.

Development competence

Alongside an extensive fund of experience gathered over decades spent in the manufacture of needles and gauge parts for producing tufted floor coverings, we also profit from Groz-Beckert's acknowledged expertise and technological market leadership in every area of textile and fabric production. Ultramodern design methods such as CAD and FEM guarantee the development of top-quality tufting gauge parts taking into account the specific needs of the relevant industry (engineered products).

Groz-Beckert works closely together with tufting machine manufacturers and raw material suppliers, as well as consulting with its customers around the globe, taking on board their requirements and their valuable experience.

Process competence

Our continuous endeavours to improve our products are aimed at minimizing production risks during the tufting process. We attach particular importance to the selection,

application and combination of top-quality materials to ensure a progressive production process in compliance with the very strictest quality guidelines. Groz-Beckert is able to call upon ultramodern laboratory and analytical processes in the achievement of this goal.

Production competence

Groz-Beckert produces all needles and tufting gauge parts in its own fully integrated and certified production facility, in compliance with the most stringent environmental standards using internally developed production machines and highly qualified workforce.

We aspire to guarantee our customers around the globe security of supply with our tufting gauge parts. With this pledge, we offer the guarantee of fast, reliable and sustainable quality deliveries.



Application competence

The continuously updated and successful Groz-Beckert gauge part range is the culmination of many years of close cooperation with customers, machine manufacturers and our own in-house development work.

We apply our technical expert knowledge and our application-specific know-how to all kinds of tufting applications. With the aid of a production facility in the Groz-Beckert Technology Centre, this fund of expertise allows us to test and verify the process reliable interaction of a gauge part system solution under different conditions.

We supply solutions.

KNITTING , WEAVING , FELTING , TUFTING , SEWING

EN | 09.2012



The Groz-Beckert online tufting catalogue

Our online product catalogue contains types and designs,
as well as the whole range of tufting gauge parts.

www.tufting.groz-beckert.com

Schmeing GmbH & Co. KG

Ostring 26

46348 Raesfeld, Germany

Phone +49 2865 909-200

Fax +49 2865 909-5200

contact_tn@schmeing.com

www.groz-beckert.com

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