



High Performance Cables

BEIER™ High Performance Tool Cables

• DC Tool Cables • Swivel-Connectors • Flexi Cables • Tool Cable Repairs



High Performance Original Cables
for DC Tools from:

- **APEX Tool Group / CPT / CLECO**
- **AMT Alfing Montagetechnik**

High Performance Replacement
Cables for DC Tools from:

- **Atlas Copco**
- **Desoutter / CP Georges Renault**
- **Stanley**
- **Ingersoll Rand**
- **AIMCO / AcraDyne**
- **GSE Tech-Motive**
- **Bosch Rexroth**





High Performance Cables



THE TIME FOR IMPROVEMENT IS NOW.





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High Performance Cables

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BEIER™ High Performance Tool Cables for all considerable OEM nutrunners

High Performance Replacement Cables for DC Tools from **Atlas Copco**



High Performance Replacement Cables for DC Tools from **Desoutter / CP Georges Renault**



High Performance Replacement Cables for DC Tools from **Stanley**



High Performance Original Cables for DC Tools from **APEX Tool Group / Cooper Power Tools / CLECO**



High Performance Original Cables for DC Tools from **AMT Alfinng Montagetechnik**





From cable manufacturing to technology leadership

Only the highest quality will suffice for economic and process-reliable manufacturing.

We can replace your conventional OEM tool cables (OEM = Original Equipment Manufacturer) with BEIER™ High Performance Replacement Cables. On average, our replacement cables reach a product life of up to three-times higher than OEM tool cables. At the same time, our replacement cables are normally much more affordable than comparable OEM tool cables.

Today, BEIER is best known as developer, manufacturer, and the largest supplier of:

- Original tool cables **APEX Tool Group / Cooper Power Tools / CLECO**
- Original tool cables **AMT - Alfing Montagetechnik**
- High Performance Replacement Tool Cables for **Atlas Copco, Desoutter, Stanley, Ingersoll Rand, AIMCO / AcraDyne, Bosch, GSE Tech-Motive and others**
- **Cost savings:** Repairs including upgrading for OEM tool cables of all brand names

Made in Germany since 1994.



TECHNOLOGY LEADER. WORLD WIDE.



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High Performance Tool Cables - the innovation

Better performing than any OEM cable - yet longer lasting, more cost-efficient and essentially more sustainable than a battery tools:

- Optimized cable design
- Improved product life
- Improved ergonomics
- Swivel Cables for unrestricted movement
- Flexi Cables for ultimate operator comfort
- Improved safety through multiple-shielding
- Sustainable: long lasting & repeatedly repairable
- Extension of the maintenance intervals
- Cheaper prices
- Delivery times: ultra fast & flexible
- Less procurement expenses
- Less storage costs
- Lowered production downtimes
- Repair instead of expensive new purchase

High Performance Cables mean the most economic solution within the field of DC Assembly Tools: Unrivalled product life at cheapest prices, offering ultimate operator comfort thanks to our rotative Swivel Connectors and our ultra light Flexi Cables.

In contrast to battery tools, the combination of corded tools and BEIER™ High Performance Cables is unrivalled when it comes to sustainability, as it allows many years of maintenance-free operations thanks to the optimized cable design. In the event of mechanical damage, our cables can be easily serviced at very economical pricing for repeated long-term operations free of maintenance.



PIONEERING SPIRIT.



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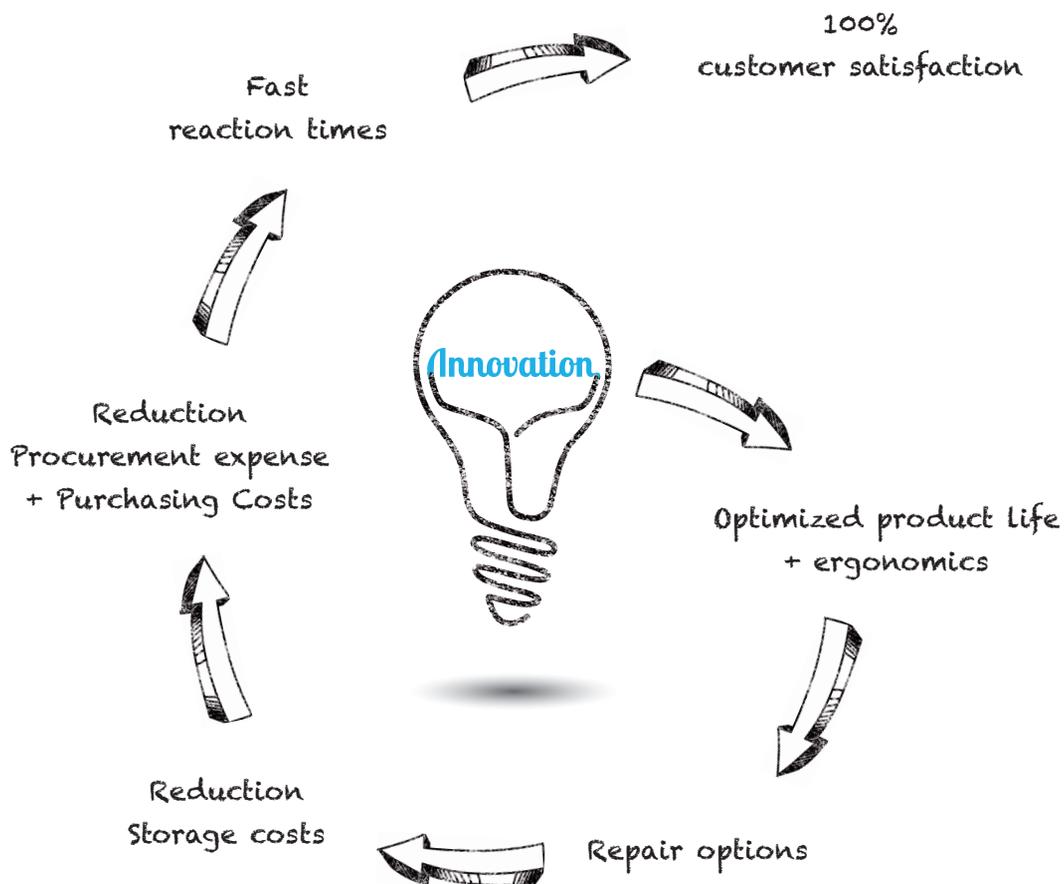
The idea

Our initial idea: We will consistently apply our knowledge and expertise in the area of tool cable manufacturing in order to provide our customers with a qualitatively unrivalled replacement product. However, even the best replacement product is not complete without **fast, reliable, and customer-oriented service**.

We provide service and consulting independent from the original manufacturer.

Furthermore, we will repair and upgrade your existing tool cables and, if needed, we can provide you with our BEIER™ High Performance Cables.

BEIER as your partner for tool cables - **Innovation** that works to **your advantage**.



GIVE US A TRY!

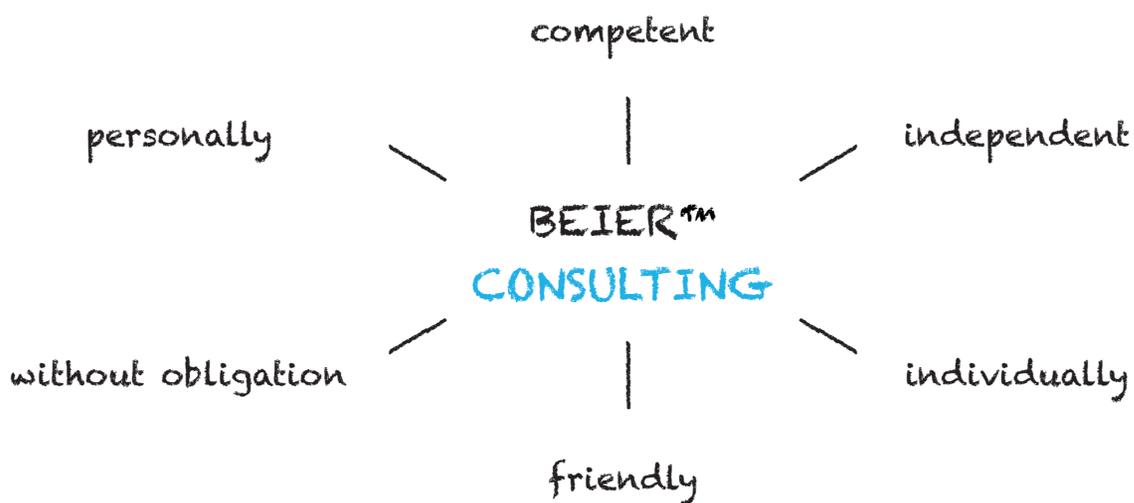


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The consulting

For us, service and consulting are not empty promises. Together, we will always try to achieve the most for our customers.

You can expect the following when consulting with us:



ENTHUSIASM



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Available tool cable versions

In contrast to an OEM cable, you will find the right version for all of your applications with us. Here, you can see the available BEIER™ cable versions compared to the OEM cable versions.

Version code		BEIER cable	OEM cable
R	= Regular: Connector - straight, non-rotatable	✓	✓
S	= Swivel: Connector - straight, +/- 170° rotatable	✓	✗
90S	= 90° Swivel: Connector at 90° angle, +/- 170° rotatable	✓	✗
120S	= 120° Swivel: Connector at 120° angle, +/- 170° rotatable	✓	✗
RF	= Regular Flexi: Connector - straight, non-rotatable, flexi cable	✓	✗
SF	= Swivel Flexi: Connector - straight, +/- 170° rotatable, flexi cable	✓	✗
90SF	= 90° Swivel Flexi: Connector at 90° angle, +/- 170° rotatable, flexi cable	✓	✗
120SF	= 120° Swivel Flexi: Connector at 120° angle, +/- 170° rotatable, flexi cable	✓	✗

The different versions are illustrated here based on a BEIER™ High Performance Replacement Cable 5 m for ATLAS COPCO Tensor ST tools.





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Technologies to your advantage: **the SWIVEL Cable**

There are applications in which the tool needs to be twisted in different directions. When twisting the tool, the cable will disturb the operator's freedom of movement as well as the continuous rotation will affect the lifetime of the cable.

We have developed our patented Swivel Technology to cope with this difficulty:

The Swivel Cable is equipped with a rotative tool connector, which absorbs the rotation of a connected tool in a turning radius of +/- 170 degrees. This enables to operator to twist the tool without perceiving the resistance of a non-rotative cable.

Benefits at a glance:

- +/- 170° Twisting capability meaning maximum freedom of movement
- Ergonomical: reduced stress for operator and material
- Diversity to meet all requirements: Swivel Cables are available with three different connector housings: Straight (Version Code: / **S**), 90° Angle (/ **90S**) and 120° Angle (/ **120S**)

Swivel Technology:
rotative tool connector

Connector housing
version **90° Angled**

Alternativ versions:
Straight or **120° Angled**

You can twist the tool in a turning radius of +/- 170° without twisting the cable itself. Maximized freedom of movement. Minimized stress on operator & material.



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Technologies to your advantage: **the FLEXI Cable**

Flexi Cables were developed especially for applications, in which flexibility and low weight are crucial. Thanks to the optimized design with halved wire diameters, a Flexi Cable is a product with outstanding operator-friendliness. A cable comparable to a skipping rope.

Flexi Cables are barely perceptible while operating, at the same time offering you the decisive advantage of long term maintenance-free operations.

Benefits at a glance:

- Light as a feather for ultimate operator comfort
- Ultra flexible for maximum freedom of movement
- Sustainable: minimized weight and less maintenance efforts compared to battery driven tools
- Lowest overall maintenance costs: BEIER™ round cable designed for maximized maintenance-free product life

BEIER™ Standard Cable

- ultra robust
- highly flexible

Cable diameter
13,5 mm

BEIER™ Flexi Cable

- ultra light
- ultra flexible

Cable diameter
10,5 mm



High Performance Tool Cables FEATURES AND BENEFITS

Technological

BEIER™ Round Cable Design

- maximum flexibility and durability
- 360° unrestricted movement
- reduced strain on the cable and tool

BEIER™ Bending Protection Technology

- integrated robust bending protection (form-fitting)
- optimal strain relief
- reduction of premature connector failures

Product Life / Reliability

- average product life up to three-times longer than an OEM cable

Optional cable versions

BEIER™ Swivel Technology

- +/- 170° rotation at the connection to the tool
- different connector angle options: straight / 90° angled / 120° angled
- absorbs continuous rotations on the cable

BEIER™ Flexi Cable Version

- ultra light
- extremely flexible
- cable diameter: 10.5 mm

Ergonomic

BEIER™ Round Cable Design

- reduced cable looping while working
- easier handling

BEIER™ Swivel Technology

- most ergonomic handling
- minimal strain on wrists
- increased safety
- minimized cable looping because connector absorbs rotation

BEIER™ Flexi Cable Version

- light as a skipping rope
- extremely flexible
- cable diameter: 10.5 mm
- maximized operator comfort

Economical

Purchasing Conditions

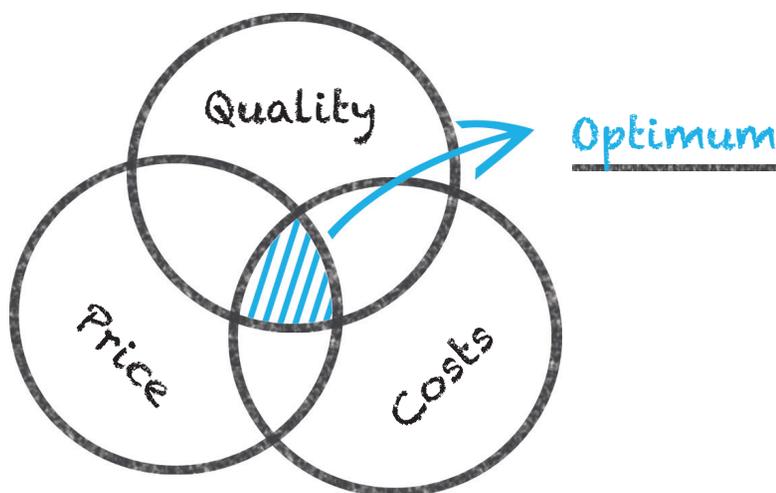
- on average, a BEIER tool cable is ~ 25% cheaper than a comparable OEM cable

Additional cost reduction possibilities

- reduction procurement expenses
- reduction servicing costs
- reduction manufacturing downtimes
- reduction warehousing costs

Sustainable: Cable Service

- repairable multiple times
- improved product life
- scrapping discounts for unrepairable OEM cables



Minimized operating costs for maximum sustainability.



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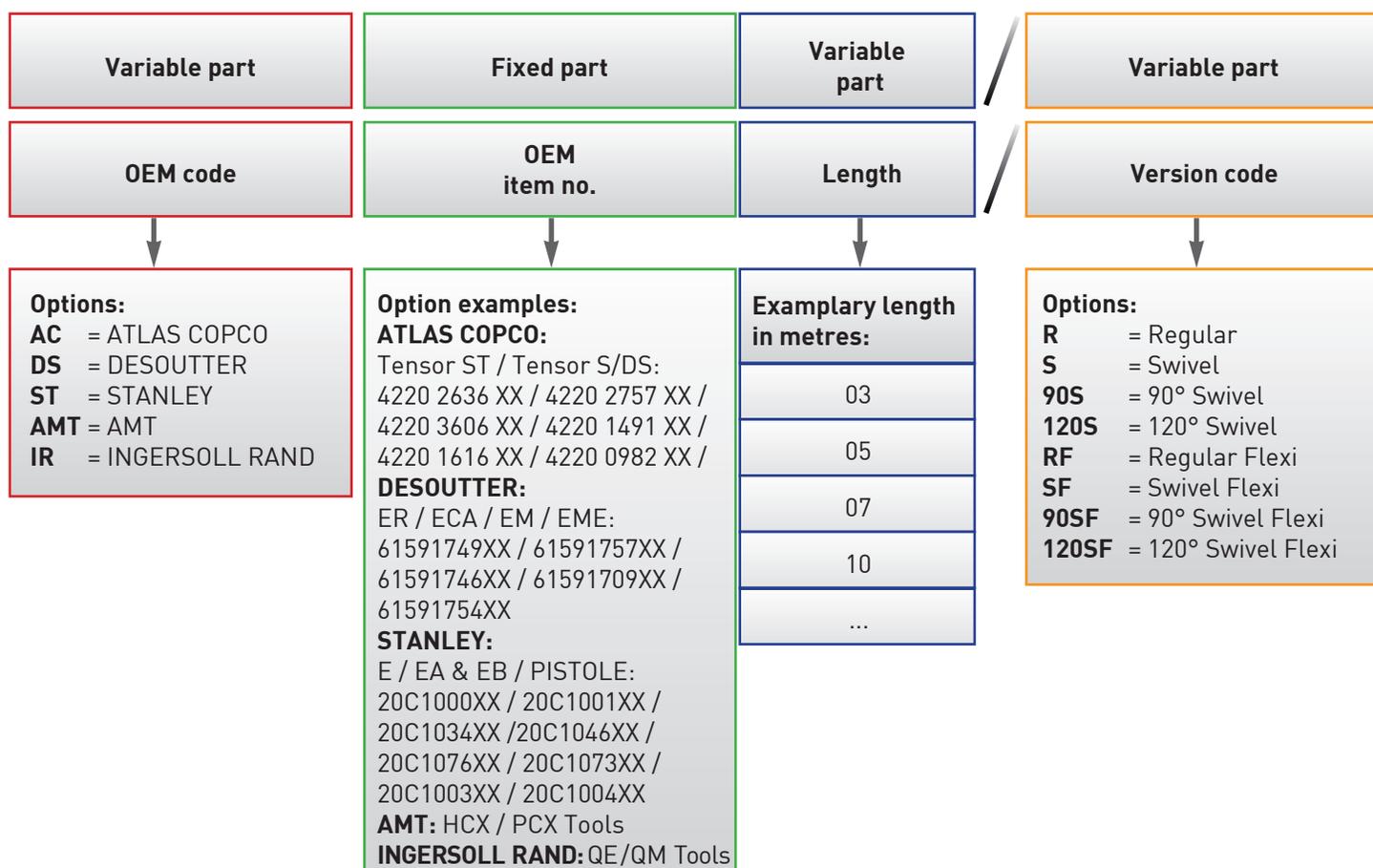
BEIER™ Designation Code

The BEIER™ Item Number always contains the OEM code and the OEM item number, as well as the variable parts length and version code.

E.g. for Atlas Copco Tensor ST replacement tool cable	E.g. for Desoutter ER replacement tool cable	E.g. for Stanley E replacement tool cable																		
<table border="1"> <tr> <td>OEM code</td> <td>Length</td> </tr> <tr> <td>OEM item no.</td> <td>Version code</td> </tr> <tr> <td>AC - 4220 2636</td> <td>05 / R</td> </tr> </table>	OEM code	Length	OEM item no.	Version code	AC - 4220 2636	05 / R	<table border="1"> <tr> <td>OEM code</td> <td>OEM length code</td> </tr> <tr> <td>OEM item no.</td> <td>Length Version code</td> </tr> <tr> <td>DS - 61591749</td> <td>XX / 05 / R</td> </tr> </table>	OEM code	OEM length code	OEM item no.	Length Version code	DS - 61591749	XX / 05 / R	<table border="1"> <tr> <td>OEM code</td> <td>Length</td> </tr> <tr> <td>OEM item no.</td> <td>Version code</td> </tr> <tr> <td>ST - 20C1000</td> <td>07 / R</td> </tr> </table>	OEM code	Length	OEM item no.	Version code	ST - 20C1000	07 / R
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OEM code	Length																			
OEM item no.	Version code																			
ST - 20C1000	07 / R																			

BEIER™ Item Number	Description	Replacement for OEM item no.
AC - 4220 2636 05 / R	Regular: Connector - straight, non-rotatable	4220 2636 05
DS - 61591749XX / 05 / R	Regular: Connector - straight, non-rotatable	6159174920
ST - 20C1000 07 / R	Regular: Connector - straight, non-rotatable	20C100007

General structure of the BEIER™ Designation Code:





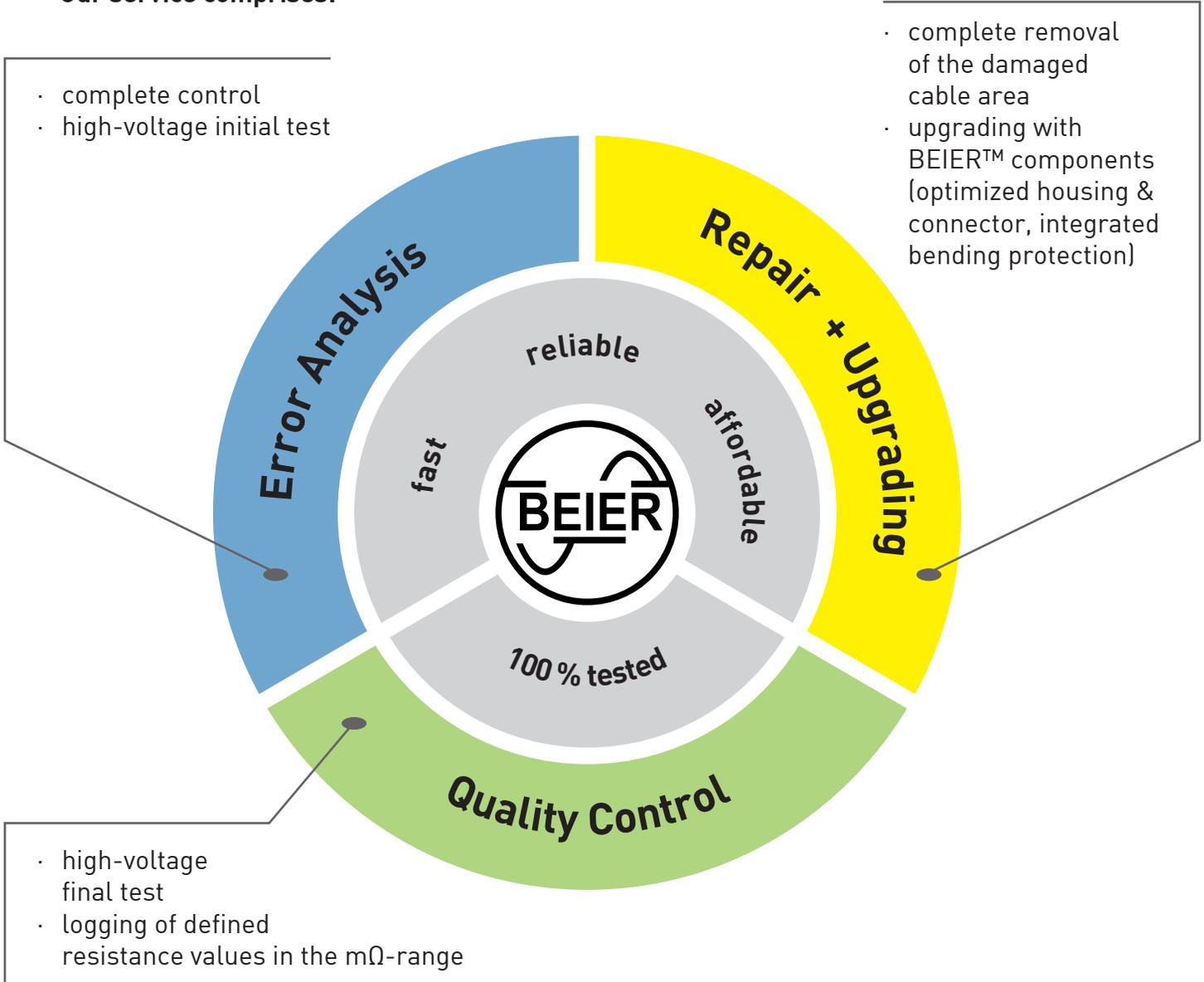
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BEIER™ Repair Service for tool cables

We do not only repair, we upgrade your tool cables: old connector parts are replaced with optimized BEIER™ components and achieve a much **longer product life**.

You will receive the repaired tool cable with consideration for your individual needs normally **within a few business days**.

Our service comprises:



If your old OEM cable can no longer be repaired, we will offer you an attractive **scrapping discount** for a BEIER™ High Performance Replacement Cable of your choice.



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BEIER™ Full Service: Repair & Upgrading

The full repair service for your damaged inventory cables comprises servicing & upgrading with BEIER™ High Performance components for improved product life after repair.

optimized connector & housing parts

complete control of the entire cable:
including high-voltage tests and logging of the resistance values in the mΩ-range



integrated bending protection / strain relief: robust, flexible, ergonomically optimized & form-fitting

✓ Cable repaired = ✓ Money saved



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BEIER™ Cost Reduction

Verified by many years of market experience at customers with highest demands:

- BEIER™ High Performance Replacement Cables reach a **product life of up to three times higher** than a conventional OEM cable while being normally **much more affordable**.
- Another cost reducing option is the reliable **BEIER™ Repair Service** for your damaged inventory tool cables:

Thanks to the utilization of our optimized components, an OEM cable repaired by BEIER reaches up to **double product life** compared to its new condition under the same working conditions. The BEIER™ Repair Service, including increased product life, is very economically priced and offers you the chance to achieve **enormous cost savings** within shortest time.



OUR DRIVE.



YOUR IMPROVEMENT.

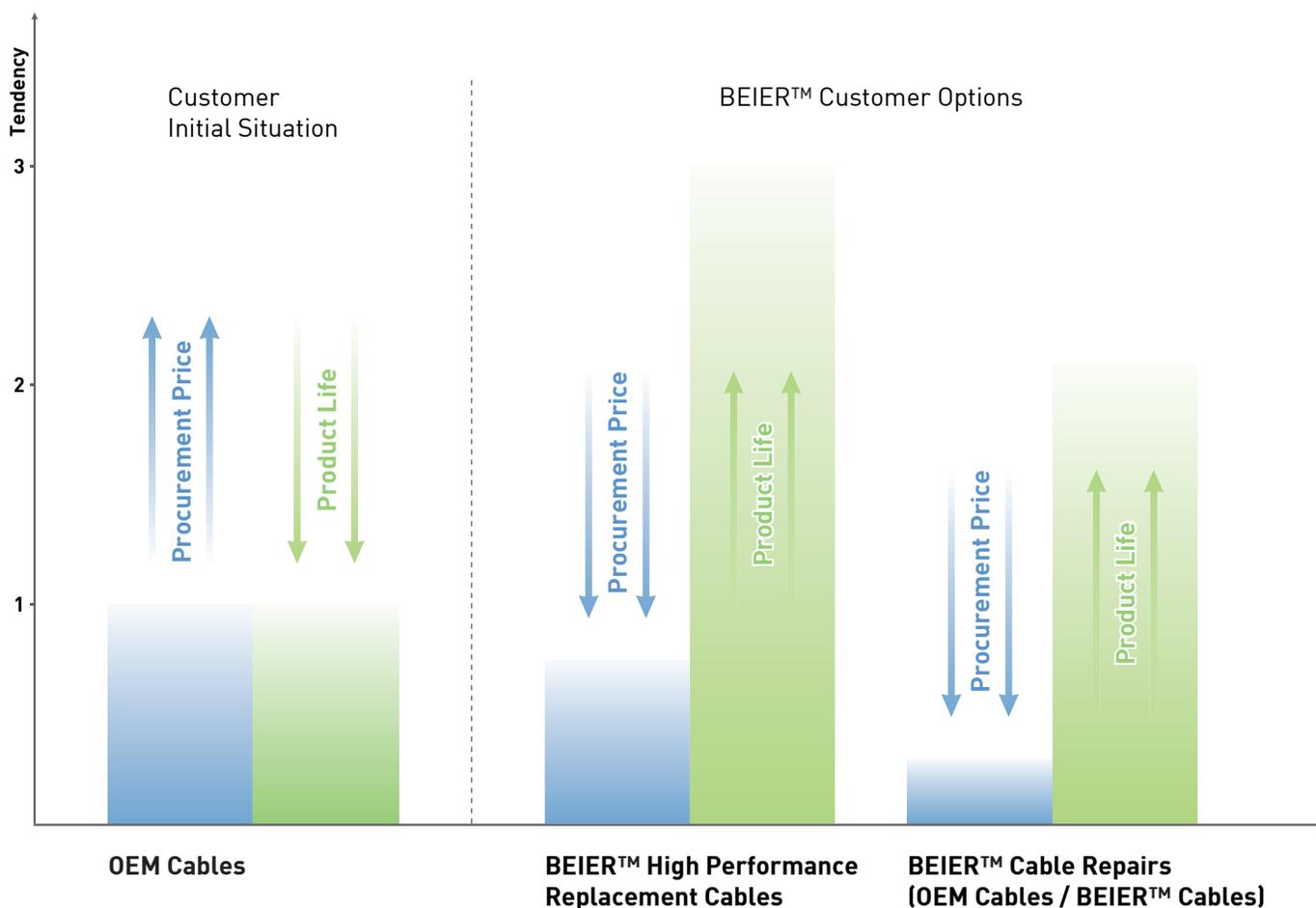




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Comparison of price-performance ratio

We offer customized solutions for quality improvement and highest possible cost-saving effects. According to our world wide market experience, the price-performance ratio can be compared as follows:



Maximized product life
+
Minimized operating costs





15.1

Warranty

- The use of our High Performance Replacement Cables **will in no way interfere with warranty claims**
- According to the European Antitrust Law, the OEM is **fundamentally** liable for the warranty of its products – even with the use of compatible non-original spare parts
- The OEM may only deny the warranty if the damage listed under the warranty obligation was verifiably caused as a direct result of the use of the spare part and this damage would not have been caused with the use of the original part
- Naturally, we are liable for our products pursuant to the **Product Liability Law (ProdHaftG)**

15.2

A strong partnership: BEIER & GORE

Only the best quality is good enough to meet highest requirements at our customers:

For production of BEIER™ High Performance Cables, we exclusively utilize **GORE™** High Flex bulk cable.

No other cable bulkware producer can offer a comparable quality to cope with the demands of applications within the field of DC Assembly Tools.

A strong, strategic partnership for best quality since more than 10 years.



Authorized Partner

*Featuring Gore™ High Flex Round Cable
for DC Tool Replacement Assemblies*



Extract from the reference customer list

Cable manufacturer & supplier for following OEM brands

- APEX Tool Group / Cooper Power Tools / CLECO (production of all cable types)
- AMT - Alfinng Montagetechnik (High Performance Cables for HCX / PCX Series)
- Atlas Copco (High Performance Cables & cable upgrading for Tensor ST / STR Series)

High Performance Cables & Cable Servicing for the Automotive Industry, among others:

- Volkswagen AG: VW, Audi, Seat, Skoda
- BMW Group
- Daimler AG
- Opel
- Fiat
- Jaguar, Land Rover
- Hyundai
- Renault
- Nissan
- Toyota
- PSA Group: Peugeot, Citroën
- Iveco
- MAN
- Veolia
- Adient / Johnsons Controls
- Magna
- Continental
- Benteler



CLEAR FIELD ADVANTAGE.





Our portfolio covers High Performance Cables and Cable Repairs for the following tool series:

Detailed product brochures are available at BEIER and authorized dealers.

Atlas Copco

- Tensor STR • Tensor ST • Tensor S • Tensor DS • Tensor STR / ST / S / DS Extension Cable
- Tensor DL • Tensor SL

Desoutter / CP Georges Renault

- ER • ECP / ECA / ECD • EM Spindle • EME Spindle • ER / EM / EME Extension Cable

Stanley

- EA / EB • E • E12 • E Pistol Tools • E Extension Cable

APEX / Cleco / Cooper

- all Series produced by BEIER

AMT Alfing Montagetechnik

- HCX / PCX • HCR / PCR

Ingersoll Rand

- QE / QM Series

AIMCO / AcraDyne

- Cables for tool generations 1 - 4 (on request)

BOSCH Rexroth

- ECH

GSE Tech-Motive

- 46 / 66 Series



High Performance Cables



Our formula for win - win situations:

MAXIMUM PERFORMANCE.

INVARIABLE.

RELIABLE.

SUSTAINABLE.



PASSION FOR PERFORMANCE



High Performance Cables

The time for improvement is now.



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