

X-CONTACT

The new generation of contact sleeves



X-CONTACT

IT'S WHAT'S INSIDE THAT COUNTS ...

As a specialist for plugs and sockets MENNEKES is known worldwide for setting standards. In the past few years, we dealt intensively with current requirements of the electric mobility and automotive sectors. We used the know-how gained to develop a completely new contact sleeve solution for industrial connectors and receptacles: X-CONTACT

MORE CONTACT ...

It is important to achieve the best possible balance between a safe contact closure and ease of insertion. We have successfully implemented this with X-CONTACT in an entirely new way.

Due to a completely new manufacturing process, the X-CONTACT sleeve obtains resilient properties based solely on its material characteristics, without the need to use any additional spring elements. Thanks to the shape of the X-CONTACT sleeve, a particularly safe contact closure can be achieved.

... LESS EFFORT!

The special design of the X-CONTACT reduces the effort of insertion and withdrawal by up to 50%. An advantage that simplifies work processes and improves safety especially with high electrical currents. With X-CONTACT, MENNEKES creates a safe contact closure and easy handling at a new, equally high level.

But how does X-CONTACT achieve these benefits even with currents of 63 A or 125 A? A glance into the opening of an X-CONTACT sleeve reveals the intelligent functional principle: the X-shaped slot and groove in the inner wall provides four advantages of the new design: innovative, simple, durable and safe. We call it the X principle.

X-CONTACT 



THE X PRINCIPLE

Due to the slotted sleeves with their resilient material properties, X-CONTACT is the simplest possible mechanical solution: the plug pin simply opens the opening in the resilient contact sleeve, which reduces the force needed to connect and disconnect the plug by up to 50%.

X-CONTACT - intelligently innovative!

In practice, X-CONTACT simplifies work processes. The connection can now be handled by one person even with a current of 125 A, while conventional contact sleeves required two persons to connect and disconnect.

X-CONTACT - simply brilliant!

INNOVATIVE

SIMPLE

DURABLE

SAFE

Even in cases when the plug is connected and disconnected frequently, there are no signs of wear and the sleeve material remains fatigue-proof in the long term even after rough handling. Due to the quality of the new sleeves, contamination and surface corrosion is automatically removed by connecting and disconnecting.

X-CONTACT – lasting solution!

A higher degree of safety of handling is provided by the easier connection and disconnection. The groove within the inner wall in connection with the resilient material of the contact sleeves provides for a safe contact closure.

X-CONTACT – double safety!



PRACTICE CHECK 01: EASY TO USE

Particularly with currents of 125 A or 63 A, the forces required to connect and disconnect a conventional plug are very high. The plugs are often so stiff that two persons are needed to disconnect the connection. This not only disturbs the work process but is also a potential hazard.

Particularly in industrial applications, plugs and sockets have to be robust, but at the same time also help to simplify all processes and to make them as practical as they are safe.

X-CONTACT is perfectly suited for these requirements. The slotted X-CONTACT sleeves ensure noticeably smooth handling of the connector pins, without the need to overcome high resistance. The required insertion and pulling forces are reduced by up to 50% compared to conventional contact sleeves.

At the same time, the simplicity of the X-CONTACT sleeve is stable due to its design and withstands rough handling. This ensures easy handling of X-CONTACT and you do not need to worry about a safe, constant contact closure for a long time, because these X-CONTACT advantages are sustainable due to the wear resistance of the sleeves.

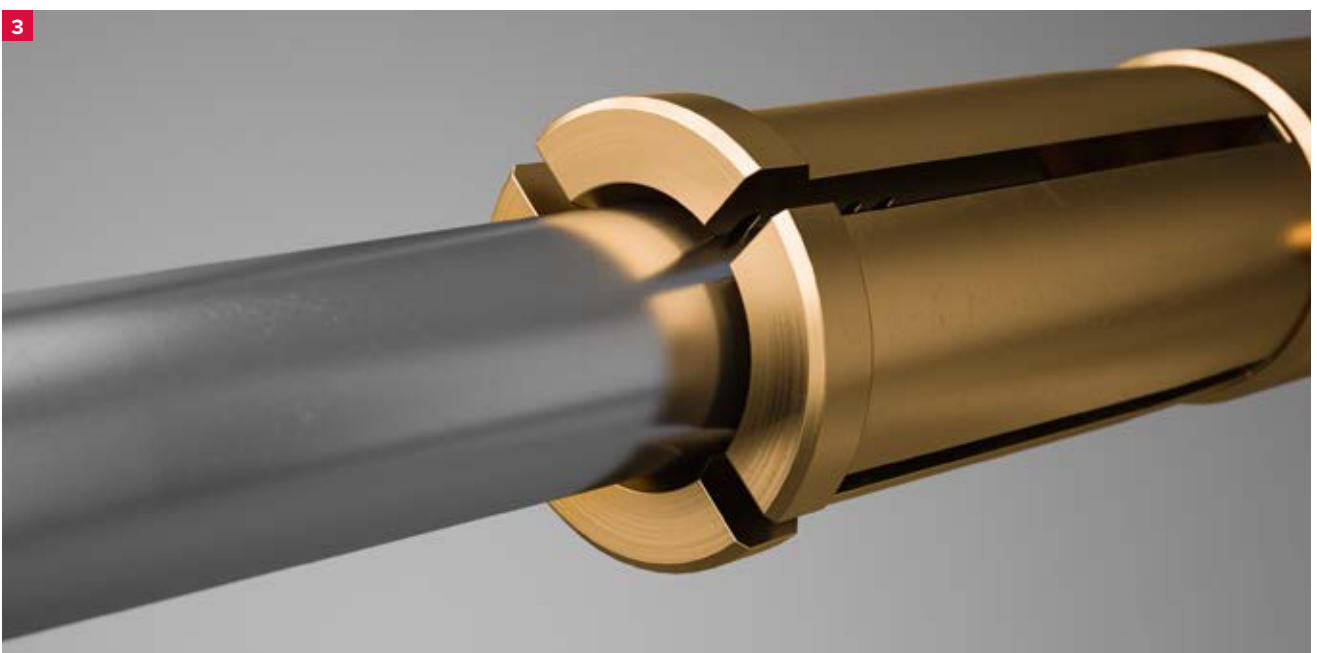


X-CONTACT

1 Less force. The innovative manufacturing process and the material used ensure the elasticity of the sleeve. As a result, the force needed to connect and disconnect the plug is reduced by up to 50%. This can be done by one person – even with a current of 125 A!

2 Slot. The top view of the sleeve shows the opening, which due to the slot can be opened by the plug pin. An effect that is only possible with this new MENNEKES innovation.

3 Resilient material. The plug pin opens the resilient sleeve opening when it is inserted.



PRACTICE CHECK 02: STRONG CONTACT AND DURABLE

Conventional connectors for currents of 63 A or 125 A have always been a compromise between simple handling and contact quality. Easy handling was only possible where contact quality was compromised, and vice versa. Due to the physical conditions, this dilemma seemed to be inevitable.

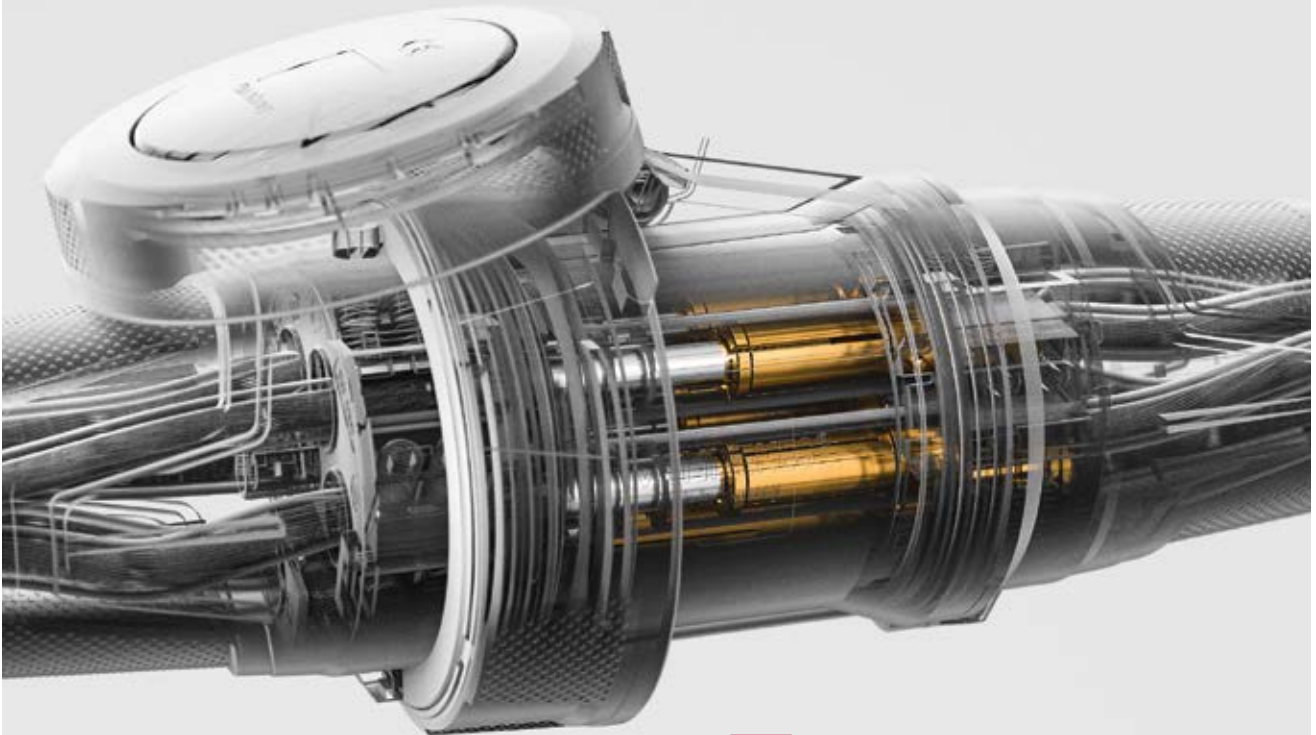
Due to the high requirements on the temperature resistance and the smooth insertion process in the automotive sector, we have achieved a higher quality of contact, and transfer it now from our automotive development to industrial applications. What is already established in the e-mobility industry, is now used also in our industrial plugs and sockets. In addition to the high-quality manufacturing technology, which allows the production of the resilient material, there is also a second important shape factor:


The inner walls of the slotted X-CONTACT sleeves have grooves perpendicular to the connection direction. The resilient material connects with this internal groove to form a highly flexible contact closure. Even with rough handling – in practice, the rule rather than the exception – slot, resilient material and groove together provide a safe contact in every situation.

A slight angle, which is almost always present in the connection of plug and connector, thanks to the X-CONTACT design, can in no way damage the sleeves. In addition, the connection of the resilient material and the grooved inner wall always forms a row of contact points. Even insertion and pulling of the plug under load does not reduce contact quality in connectors with X-CONTACT.

1

 high resistance against damage



 optimum contact closure due to internal groove

X-CONTACT

1 Groove in the sleeve inner wall. It optimally complements the resilient material to achieve more contact and less force at the same time. Always – even when connecting and disconnecting the plug under load.

2 At the second glance. If you look into the connector or the receptacle from the outside, you will see that they are provided with X-CONTACT sleeves.

3 Grooves and slots. The groove in the inner wall also ensures the optimal contact closure because the slanted angles of the plug always form row of contact points.



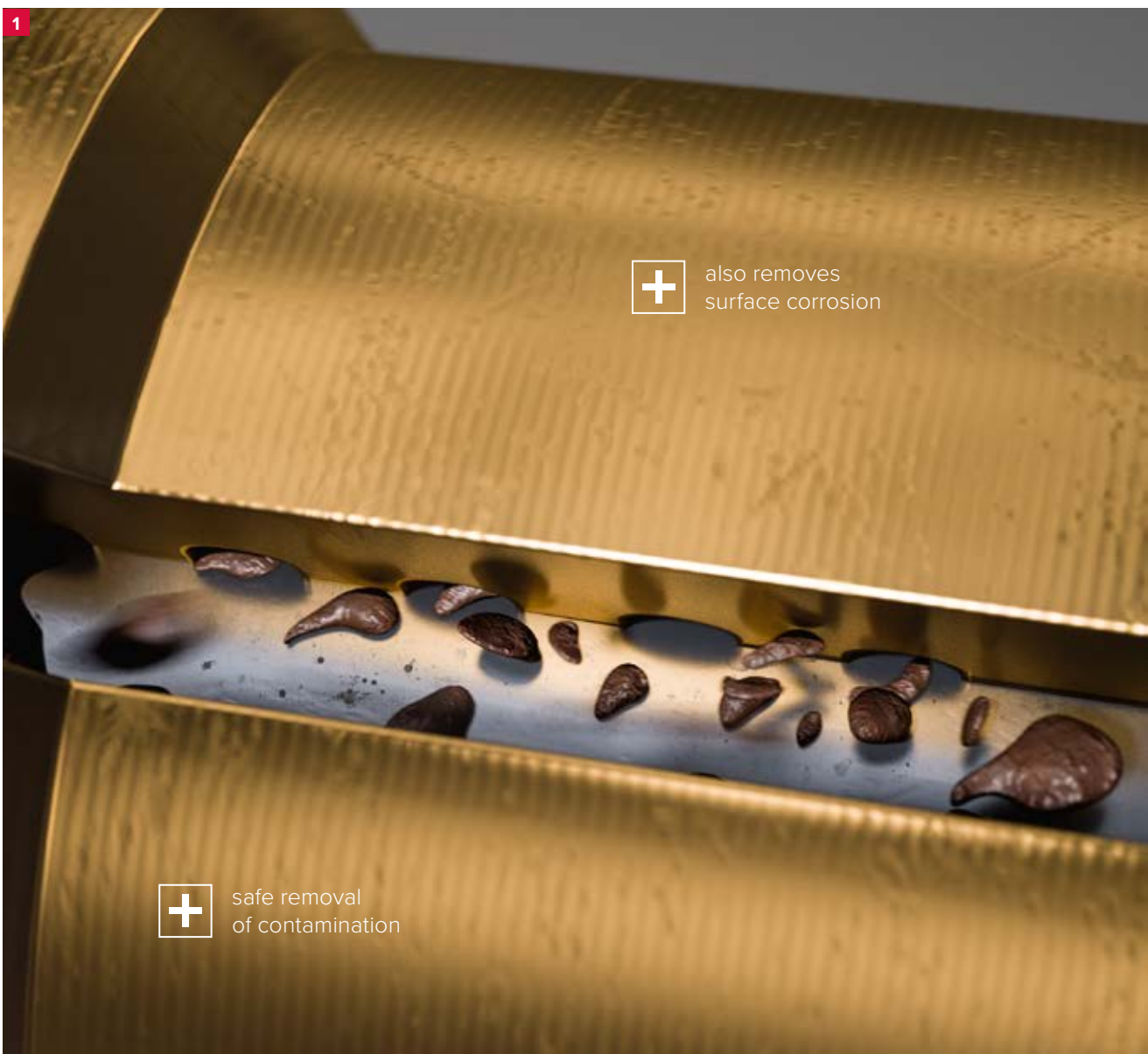
PRACTICE CHECK 03: RELIABLE EVEN UNDER THE TOUGHEST CONDITIONS

Innovative, simple, durable and safe – the X principle is not a promise, it's a fact. But it is even better because X-CONTACT sleeves withstand the toughest conditions due to their simple, brilliant functional principle.

The interaction of the resilient material and groove is not only the guarantee for a secure contact closure, it also has the practical side effect that any contamination is removed when connecting and

disconnecting the plug. Even surface corrosion is removed by the spring effect of the X-CONTACT sleeves.

For particularly corrosive environments – such as irritant chemical substances like ammonia – we offer the nickel-plated contact sleeves with all their advantages.



X-CONTACT

1 Contamination. All deposits are removed from the pin by the grooves of the contact sleeve. This ensures a sustainable smooth operation under the toughest conditions.

2 Nickel plating. Connectors and receptacles with nickel-plated contact sleeves ensure maximum resistance in aggressive environments. They withstand humidity, salty or acidic air and aggressive gases and vapours.

3 Resistant. The cleaning effect of the grooves ensures reliable operational safety due to low contact heating even with high currents and strong contamination.



X-CONTACT INSIDE

With X-CONTACT we set the standard for all industrial connectors and receptacles. For this reason we have implemented this new technological design in our entire product range. In future, all MENNEKES connectors and receptacles for currents of 63 A and 125 A will have an X-CONTACT, this means that you will benefit from the advantages of the X-CONTACT in all applications. This applies to all versions of the following product groups:

CONNECTORS



WALL MOUNTED RECEPTACLES



PANEL MOUNTED RECEPTACLES



APPLICATION EXAMPLES



AMAXX® receptacle combinations
with 63 A panel mounted receptacles



Mobile distributors with 63 A and
125 A panel mounted receptacles

APPLICATION EXAMPLES FOR THE NORTH AMERICAN MARKET



Connectors and panel mounted receptacles
in 60 A and 100 A



AMAXX® receptacle combinations
with 60 A panel mounted receptacles



Get more information on the new generation of contact sleeves at:
www.MENNEKES.com

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