

Cables, connectors & junction boxes

# Tunnel & Infrastructure



# The cable professionals

As a specialist wholesaler for cables and wires, the product portfolio we can offer our customers has great width and depth. We keep approx. 75,000 kilometres of cables and wires on 160,000 m<sup>2</sup>. This makes us one of the largest cable distributors in Europe. You too can rely on Faber as a strong partner for supplies during tunnel work.

## Cables for the tunnel shell and the infrastructure

### System solutions for tunnel construction

Klaus Faber AG provides you with cables and connectivity solutions for construction site power distribution, temporary cabling for large equipment and tunnel cables for the infrastructure.



## Your industry experts

### Faber 'Tunnel construction' task force – specialists for your tunnel construction project

From cables and connectivity solutions for construction site power distribution, temporary cabling for your large equipment such as conveyor belts and tunnel boring machines to tunnel cables for the infrastructure – we supply you with everything from a single source as a turnkey solution on the construction site and support you throughout the entire project. Regardless of whether your project involves modernisation or starting from scratch.

## Applications under the spotlight

### Flexible tunnel construction solutions

From construction site power distribution to ready-to-connect custom trailing cables for tunnel construction – our tunnel cables reliably meet your needs.



#### Construction site equipment and portal opening

Right from the project start, we support you and supply from stock to your construction site all the common cables such as H07RN-F, NSSHÖU, H07BQ-F or our new flexible Class 5 aluminium cable 07BN4-AF, depending on project requirements.



#### Reeling wires for tunnelling and shotcrete machinery

To meet your ongoing repair requirements, we supply from stock our FABER® Reelingflex, with compatible cross-sections between 35 and 240 mm<sup>2</sup> for your drilling and shotcrete machineries.



#### Ready-to-connect tunnel cabling up to 20 kV

We supply from stock our FABER® (N)3GHSSY-CY, FABER® (N)3GHSSHCH and FABER® TBM (N) TSCGECWHXÖU cables to your construction site with cross-sections from 35 to 95 mm<sup>2</sup>, in project-specific cut lengths and, on request, fully preassembled for connection boxes or plug-in systems.



#### Financing through buyback option

Due to the durability of the semi-fixed tunnel cables FABER® (N)3GHSSYCY and FABER® (N)3GHSSHCH, we offer tailor-made buyback options for your major project. This ensures you have calculable planning reliability from start to finish. For more information get in direct contact with us.

## Tunnel construction cables (low voltage)

### Rubber cable H07RN-F



**APPLICATION:** Cables of the type H07RN-F are flexible rubber cables, which are used as connection cables and control cables. Faber offers you H07RN-F cables in different models, which you can order by the metre for a wide range of applications.

### Aluminium rubber cable 07BN4-AF



**APPLICATION:** For installation in dry and wet rooms as well as outdoors at medium mechanical stress. For fixed and flexible connection of electrical tools and appliances. Also suitable for application in wind power generators at medium mechanical stress. A Dekra certificate are available on request.

### PUR cable H07BQ-F



**APPLICATION:** The polyurethane wire H07BQ-F excels in a particularly high level of oil resistance, abrasion resistance and notch toughness. This is why it is also used as an industrial cable and construction site cable in the most challenging ambient conditions.

### Power cable NAYY-J/-O



**APPLICATION:** For fixed installation indoors, outdoors, in the ground, in water and in concrete.

### Rubber cable NSSHÖU



**APPLICATION:** Designed to withstand high mechanical stress. For the connection of heavy duty underground mining, industrial and construction equipment, in dry and damp areas and outdoors. The cable is largely flame- and oil-resistant.

### Rubber cable NSSHÖU/3E



**APPLICATION:** Designed to withstand high mechanical stress. For the connection of heavy duty underground mining, industrial and construction equipment, in dry and damp areas and outdoors. The cable is largely flame- and oil-resistant. For applications with specific requirements to EMC

### EMV connecting cable 2YSL(St)CYv



**APPLICATION:** This cable was specifically developed for the EMC-compliant connection of frequency converters. For uses with medium mechanical strain with permanent installation and occasional motion indoors and outdoors, but not in the ground. The version with the three-stranded protective conductor is thinner, lighter and distinguished by improved EMC-properties. The cable is largely oil-resistant.

### EMV connecting cable 2XSL(St)CHv DB



**APPLICATION:** Halogen-free and flame-retardant cable connecting motors to inverse rectifiers under consideration of EMC-requirements. It may be used under medium mechanical stress for fixed installations and temporary movement. Suitable for indoor and outdoor installation as well as for direct ground burial.

# Tunnel construction cables (low and medium voltage)

## Reeling cable

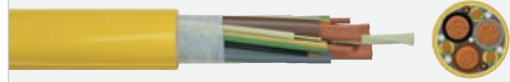
Faber® Reelingflex



**APPLICATION:** Reeling cables are designed for power supply connections to all types of mobile equipment and vehicles used in quarrying, open-cast mining and other large scale civil engineering operations. For applications in mining and milling sites, construction plants, industry etc. The cable can also be used as a festoon cable.

## Heavy Duty PUR cable

POLYFLEX MINE



**APPLICATION:** POLYFLEX MINE cables are designed for power supply connections to all types of mobile equipment and vehicles used in quarrying, open-cast mining and other large scale civil engineering operations. For applications in mining and milling sites, construction plants, industry etc.

## Flexible medium voltage cable (tunnel construction)

Faber® (N)3GHSSYCY 12/20 kV



**APPLICATION:** As power supply cable for mobile MV equipment in mining and tunnel applications.

## Flexible medium voltage cable (tunnel construction)

Faber® (N)3GHSSHCH 12/20 kV



**APPLICATION:** As power supply cable for shiftable MV equipment in mining and tunnel applications.

## Flexible medium voltage cable (drumable)

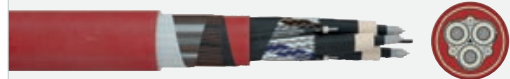
Faber® (N)TSCGECWÖEU TBM



**APPLICATION:** Flexible cable suitable for reeling drum of tunnel boring machines (TBM) and generally for tunnel application. Other applications have to be agreed with Faber Kabel, otherwise warranty may get lost. Bending radius: acc. to DIN VDE 0298-3

## Flexible medium voltage cable (drumable)

Faber® TBM (N)TSCGECWHXÖÜ



**APPLICATION:** Flexible cable suitable for reeling drum of tunnel boring machines (TBM) and generally for tunnel application. Other applications have to be agreed with Faber Kabel, otherwise warranty may get lost. Bending radius: acc. to DIN VDE 0298-3

## Aluminium rope

AAC-(AL1)



**APPLICATION:** Bare overhead line made of the material EN AW 1350. The current carrying capacity is based on: up to 60 Hz at maximum permissible cable temperature: 80 °C, ambient temperature: 35 °C, solar radiation: 900 W/m<sup>2</sup>, wind speed: from 0.6 m/s.

## Copper rope

Cu soft, annealed



**APPLICATION:** Annealed cables are used for earthing purposes in electrical installations. They have a mathematical tensile strength of 200 N/sqmm.

## Tunnel infrastructure cables (fixed installation)

### FRNC power cable

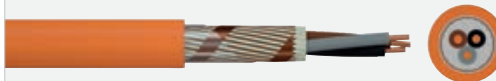
(N)HXH FE180/E90



**APPLICATION:** For installation in dry and wet rooms, also for direct bedding in concrete, but not for direct burial in ground and not for use in water. The cable has improved flame retardant and may be used in public buildings with high safety requirements. This cables are halogen free, low smoke density and are fire resistant according to VDE 0472 part 814 (180 min.). Furthermore the cable passed the test of 90 min. circuit integrity according to DIN 4102 part 12 (E90).

### FRNC power cable

(N)HXCH FE180/E90



**APPLICATION:** Cable with concentric conductor for installation in dry and wet rooms, also for direct bedding in concrete, but not direct burial in ground and not use in water.

### Medium voltage cable

N2XSY



**APPLICATION:** For installation in the ground, in water, outdoors, indoors and in cable ducts for power stations, industrial applications and distribution networks. The good installation properties of this cable make installation easy, even on difficult routes. According to VDE 0276-603 cables must be protected from sunlight.

### FRNC power cable (halogen free)

(N)2XH-J/-O (B2ca)



**APPLICATION:** Low-smoke, zero-halogen, flame-retardant power cable. For fixed indoor installation as well as in concrete, but not for direct burial in ground or application in water.

### Power cable

NYJ-J/-O



**APPLICATION:** In Faber's range of cables, you can find NYJ-J cables and NYJ-O cables by the metre. The NYJ power cables are used as underground cables for power distribution in a wide range of applications. Depending on the application, underground cables are available in different models with one to five cores and a conductor cross-section of 1.5 mm<sup>2</sup> to 800 mm<sup>2</sup>.

### Power cable

NYCWY



**APPLICATION:** The NYCWY cable is a low voltage cable. It belongs to the group of underground cables and is suitable for installation indoors, underground, in water and in concrete.

### Optical fibre cables - standard - outdoor

A-DQ(ZN)B2Y 3,0 kN



**APPLICATION:** Outdoor cable for universal use.

### Subscriber line cable

A-2YF(L)2Y St III Bd



**APPLICATION:** For fixed installation indoors, outdoors, in the ground, in water and in concrete.

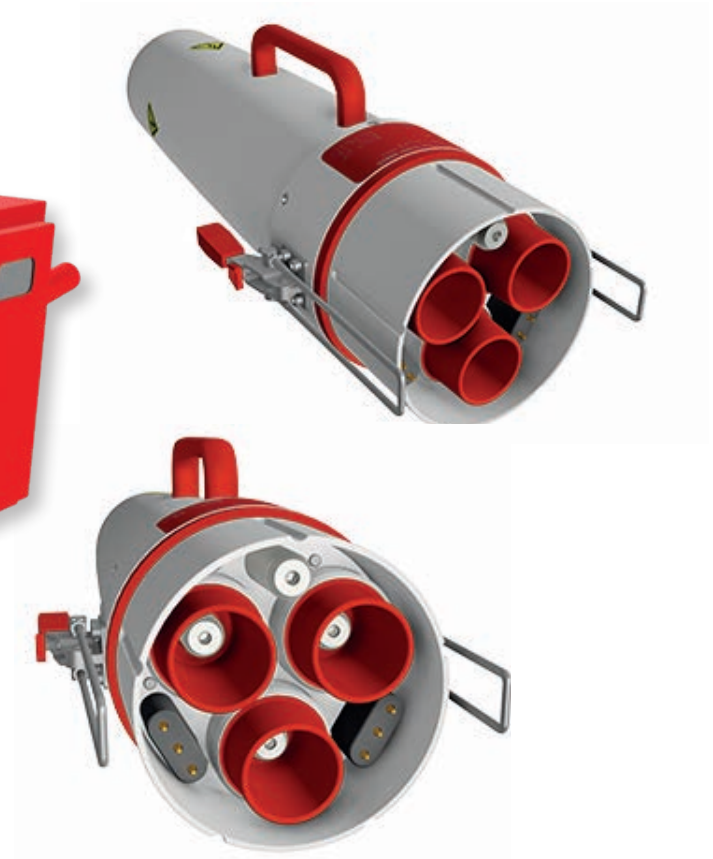
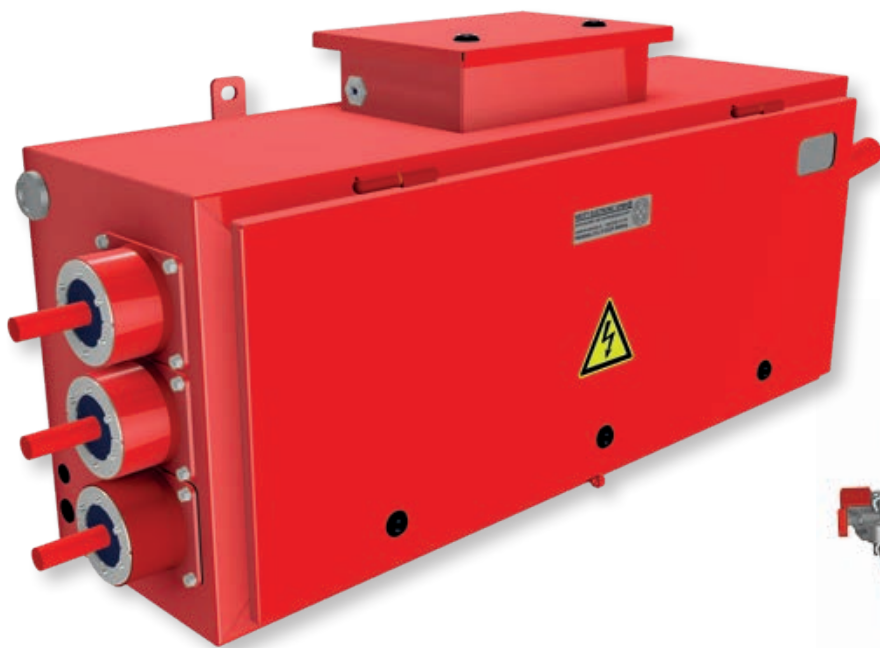
## Connectors. Couplings. Junction boxes.

Faber serves since 1950 with its customer-oriented logistics and services, a wide range of products, high product availability and the technical know-how a great variety of different market sectors. And even for customized solutions Faber is the right partner to contact.

With the expansion of the „Tunneling“ division, we can offer our strengths as detailed above in combination with our technical expertise in a market sector where the short-term availability of cables and wires and fast response times are indispensable.

KROTT ELECTRONIC develops, produces and supplies customized plug-coupling systems and connection housings up to 24 kV for the mobile connection of tunnel boring machines and large-scale equipment in the traffic and utility sector made in Germany. In various European projects, Faber is increasingly relying on the SMV-24 connector system and the G-MV connection housing series in order to live up to its reputation as a system supplier – true to the motto “your turnkey solution provider – we energize your tunneling construction site.

Further information: [www.krott-electronic.de](http://www.krott-electronic.de)



**KROTT**ELECTRONIC GMBH®

ENTWICKLUNGS- UND VERTRIEBSGESELLSCHAFT  
DEVELOPMENT AND SALES COMPANY





## Assembly. Repair. Installation.

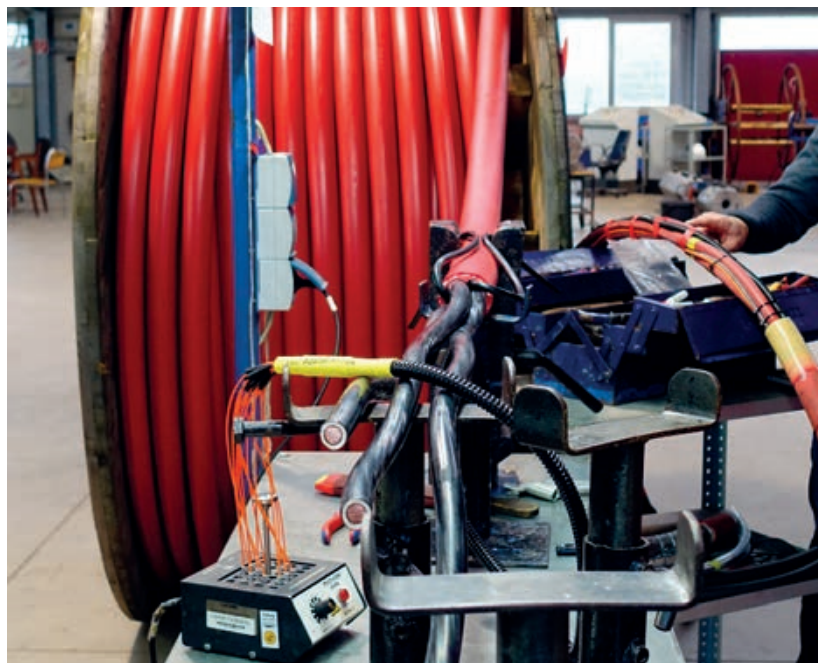
**BECKER & HÜSER** assembles cables in the low and medium voltage range and hybrid cables with power, control and FO supply for a huge range of different applications on order. From ropes for gravel quarries via floating dredger applications through to reelable systems in a great variety of crane applications – together with our partner, we will always find the perfect solution for your requirements here at Faber.

Thanks to the additional cooperation between Becker & Hüser and KROTT Electronic, we are also able to design customized hybrid connector system solutions for you to order.

If defective external supply cables bring a crane to a standstill, the bills can be huge. Thanks to the many years of experience and always perfectly trained team of our cooperation partner, Becker & Hüser in Sonsbeck, we can offer you a 24/7 emergency service, which is also available on-site around the world if push comes to shove.

A trained service and installation team is always available to you to support you locally in the installation of new low- and medium-voltage equipment.

*Further information: [www.kabelreparatur.eu](http://www.kabelreparatur.eu)*



# BECKER & HÜSER GmbH



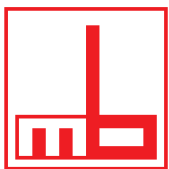
## Our references

The best advertising  
is done by satisfied  
customers.

We view the business through the eyes of the client, and base our actions on this principle. Which is why we always take care of our clients and unfailingly pursue the aim of consistently providing the best service. We want our clients to be successful. That is the key to our success and also the reason why companies remain loyal to us. These and many other clients place their trust in Faber.



**HEIDELBERGCEMENT**



**MAX BÖGL**

Fortschritt baut man aus Ideen.



Construction Swiss GmbH



Further information about our  
references can be found here:



**references**



Faber

## Construction electricity equipment

 **MENNEKES**  
MY POWER CONNECTION









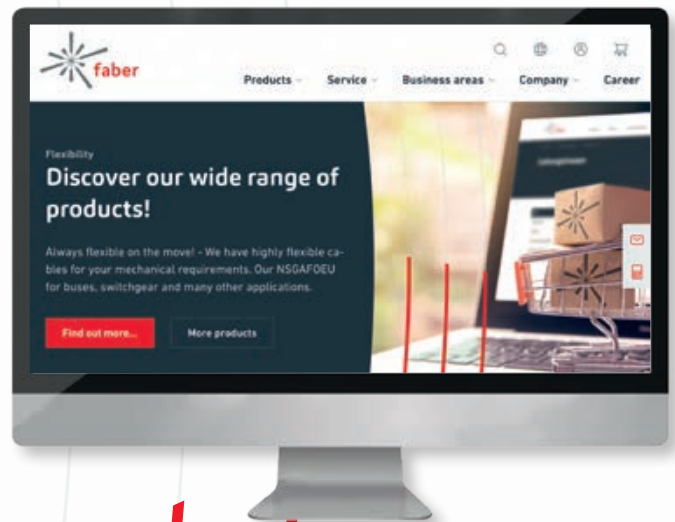
## Faber-B2B-Webshop!

- more extensive product portfolio with all new products at a glance
- live stock and price check
- online document archive
- cable calculator
- and many other benefits:
  - drum availability notification online
  - discounted overview of remaining lengths
  - Excel order list upload

Connect your ERP system directly over the **Open Catalog Interface (OCI)**!



You can also visit us on our YouTube channel!



SCAN ME!



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We are looking forward to hearing from you





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