

MAGAZINE
SPECIAL RAIL



**TRACK MAINTENANCE
OVERHEAD & ELECTRIFICATION**

RAIL MAINTENANCE



**ROLLING STOCK CONNECTION
AND IDENTIFICATION SOLUTIONS**

ROLLING STOCK

MAGAZINE
SPECIAL RAIL



EN 45545-3

**SPLIT CABLE ENTRY SYSTEMS
EWO SERIES**



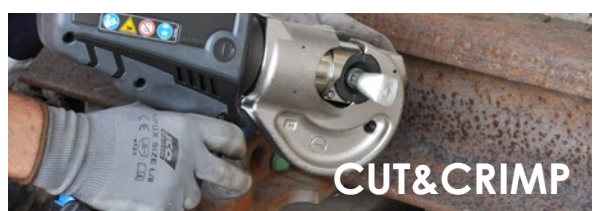
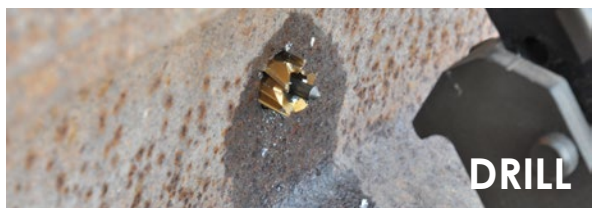
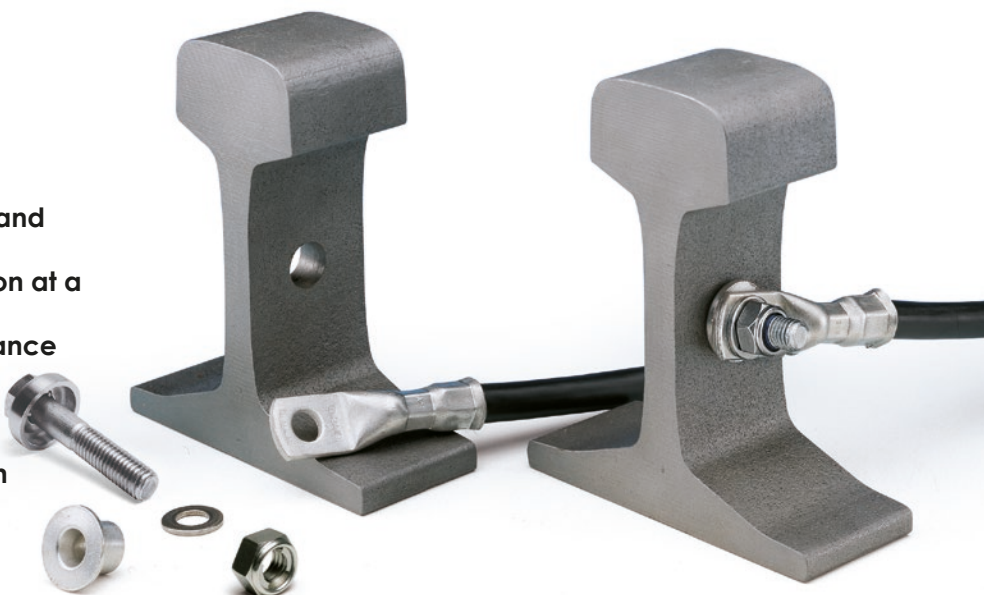
EWO
EASY WIRE ORGANIZER

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RAIL BONDS

MOST RELIABLE SOLUTION FOR TRACK CONTACT AR SYSTEM

- Quick and easy to be installed
- Easy to connect/disconnect
- Can be installed in all weather and environmental conditions
- Can do the electrical connection at a later time
- Low and stable electrical resistance
- Double connections option
- No chemicals need
- No toxic gases produced
- No need for special preparation
- No heat generated during the AR installation



CONNECTION SYSTEM

BONDING SYSTEMS SERVICE

Thanks to the know-how, CEMBRE established a competence center able to support customers in preparing cables ready for the installations.

The company produces a huge variety of connectors and has a rich stock of cables, available in different dimensions.

Competence and know-how of the CEMBRE staff completes the service for bonding and marking.



TEMPORAIL

The Temporail system is ideal for temporary signaling applications and earthing between the line and adjacent track side structures. CEMBRE Temporail system applies to most rail types with 125, 140 and 150 mm foot



RTC1AL10-2000



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CUT, CRIMP, PRINT AND LIGHT WITH UNIQUE BATTERY PLATFORM

ONE BATTERY
PLATFORM
18V

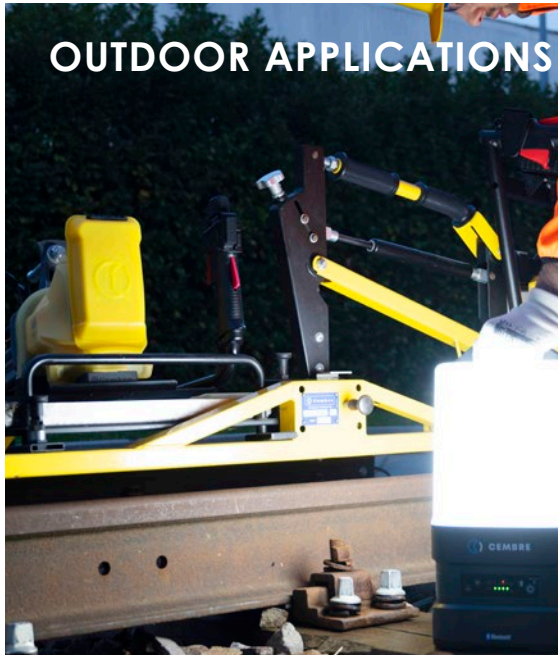


MG4

MARKINGENIUS® MG4 Thermal transfer printer



MARKINGENIUS®MG4 is the new CEMBRE solution for industrial marking. Designed to offer a very high and long-lasting print quality of text, logos, electrical symbols, QR codes and any type of vector image. It is equipped with a ribbon save system, a useful function that allows you to consume only the ribbon necessary for printing.



CBLIGHT

CBLIGHT HD Portable LED Lights



The new **CEMBRE SERIES CBLIGHT HD** includes a wide range of work lights and lamps that are **built to work and last**. **CBLIGHT HD** work lamps are designed to ensure **extreme durability and performance**. All products in the range are robust and **capable of operating reliably in very harsh working environments**, in which both professional operators, their tools are exposed to extreme conditions, in presence of moisture and contamination. The lamps have **high IP protection class**, to ensure adequate resistance even in case of outdoor use in any climate.

CONNECTION SYSTEM

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RAINPROOF ECODRILL
COMPACT AND POWERFUL SOLUTION
FOR RAIL DRILLING
LD-16B-RP

TRACK MAINTENANCE



QUICK FIT CLAMP

Quick fastening and unfastening system integrated in the over rail clamp device.



ERGONOMIC DESIGN

Weighing less than 40 lbs with the over rail clamp attached, Cembre LD-16B-RPE rail drills are easily transported via the balanced carrying handle and are compact in design allowing operation in narrow spaces.



COOLING SYSTEM

The drills are provided with a coolant system consisting of a reservoir and pump for use with suitable cooling lubricants.



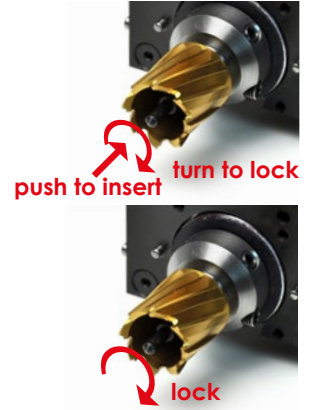
ADVANCE LEVER

The starting point of the advance lever can be easily adjusted for either left hand or right hand drilling operations.



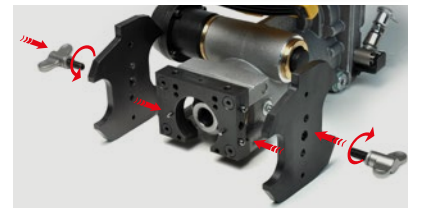
FAST-FIT CHUCK

Faster drilling when using CY broach cutters with FAST-FIT shanks; quicker cutter replacement without tooling.



DOUBLE-SIDED TEMPLATE KITS

KPAF template kits are equipped with a double profile that enables quick positioning of the drill on two different rail types by simply loosening the wing nuts and inverting the inserts.



ONE BATTERY PLATFORM
36V

LD-16B-RP - ECODRILL RAINPROOF

NR-25B - IMPACT WRENCH RAINPROOF

TW-18B - TORQUE CONTROL WRENCH RAINPROOF

SD-36B - SLEEPER DRILL RAINPROOF

B70M-PSLR - PORTABLE ELECTRO-HYDRAULIC PUMP RAINPROOF

ONE BATTERY PLATFORM
CUT PUNCH DRILL PRINT CRIMP
WRENCH

RAINPROOF ECODRILL

PROFESSIONAL SOLUTION FOR ALL TYPES OF SLEEPERS

SD-36B


ERGONOMIC DESIGN

ergonomic, balanced handles for a firm grip during movements


CS-EU TROLLEY

equipped with an interface for attachment to the CS-EU trolley. Can also be used as a handle during transport


RETURN SPRINGS

to make it easier to lift the machine when drilling is complete


EMERGENCY RELEASE

lever for the emergency release of the drill bit to disengage from the rail safely

LIMITER

drilling depth limiter on a graduated scale, easy to set without the use of tools


ATTACHMENT PAWLS

to quickly attach the guard


INTERCHANGEABLE TERMINALS

interface with the elements of the rail fasteners to ensure that the hole is aligned perfectly in the system



EN 60529
RAINPROOF



COMPOSITE SLEEPER DRILL

Sleepers made of composite are the new trend in rail construction. They are considered more sustainable and durable and the market big players are going to replace the conventional wooden with the composite sleepers.

CEMBRE technical department has developed a specific kit for its SD-36B sleeper drill. The main idea is to provide customers with a unique machine that can be used with both wooden and composite sleepers using the kit.

The kit is composed of a drill bit, fixed and moveable guard and a centering device.



TORQUE CONTROL WRENCH

A FOCAL POINT OF TECHNOLOGY

TW-18B

TRACK MAINTENANCE



ERGONOMIC AND COMPACT

Designed to allow the user to work in a comfortable position, ideal for intensive operation



VERTICAL APPLICATIONS

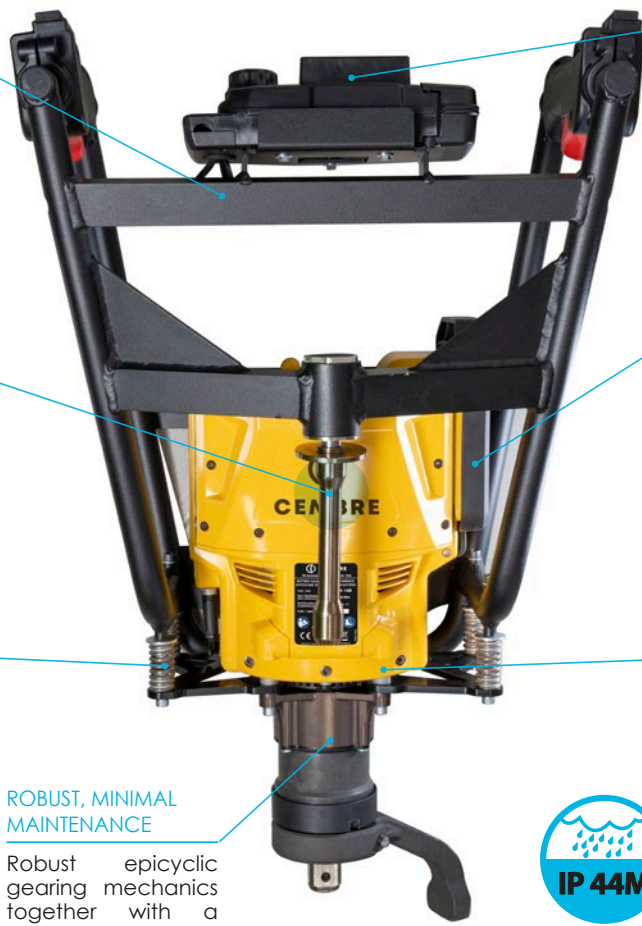
Specifically designed for railway fixings up to 250 Nm, equipped with handles for transport which act as an interface for use on CS-EU trolleys



LOW VIBRATION

Extremely low vibration and noise impact; the dampers act as a rollbar and are mounted on spring bearings to reduce vibrations transmitted from the machine to the operator.

The yellow colour complies with standard EN13977



WORK CERTIFICATION

Colour display, complete with pre-set programs and internal memory so the user can certify work carried out without needing to install software



RAINPROOF

The high IP44M protection makes it suitable for working in the rain



NIGHT LIGHT

Equipped with powerful LED lights for night or low light level illumination



ROBUST, MINIMAL MAINTENANCE

Robust epicyclic gearing mechanics together with a brushless motor mean that very little maintenance is required compared with other impact wrenches



Data can be stored on a removeable USB stick and sent via Bluetooth to make it easier to print work certificates.

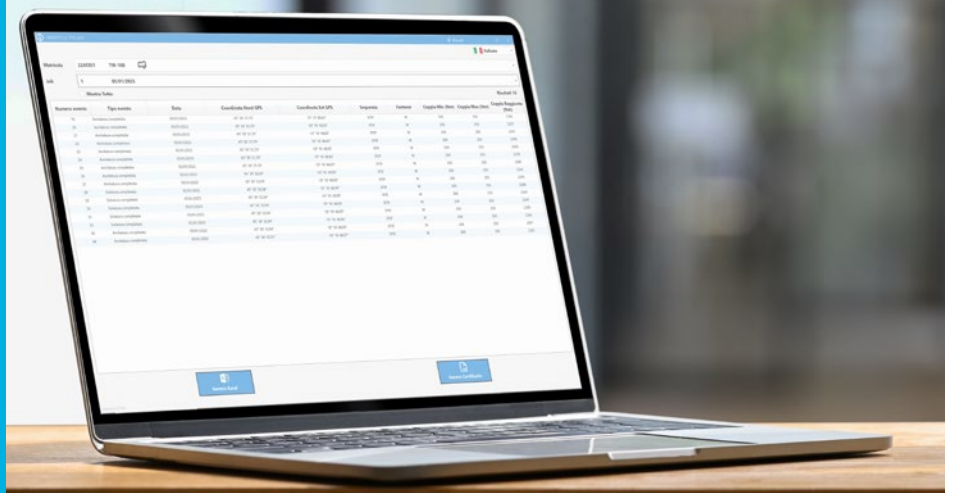
Optional GPS function.

PROCESS UNDER CONTROL



INTEGRATED SOFTWARE

The software comes pre-installed on the USB stick and allows the user to view data on their PC immediately, export it in Excel format, and generate protected PDF certificates.



RAIL IMPACT WRENCH MOST POWERFUL AND LONG LASTING NR-25B



RAINPROOF

The high IP44M degree of protection makes it suitable for working in the rain



VERTICAL AND HORIZONTAL APPLICATIONS

Single version with double safety trigger for improved working in vertical and horizontal orientations



HEAVY-DUTY APPLICATIONS

Suitable for heavy-duty applications thanks to the forced-air cooling system. That keeps the internal temperature within safety limits

2700 Nm MAXIMUM TORQUE

Obtained with a special impact mechanism that optimizes inertia and life expectancy

WITHOUT MAINTENANCE

The brushless motor is maintenance free. Small footprint, maximum torque and power available.

SIMPLE

Easily visible and intuitive front control panel with display and 5-levels torque selector and inversion movement push button



EASY TO TRANSPORT

Thanks to the ergonomic design, the CEMBRE impact wrenches are balanced and easy to transport



LOW VIBRATIONS

Low-impact vibrations for operator hand/arm protection, using dampers between the handles and motor unit



EN 60529
RAINPROOF



NIGHT LIGHT

Equipped with powerful LED lights, operators will be able to work more efficiently at night and in tunnels.



TWO BATTERIES LIHD

Powered by 2 batteries 36V - 6.2 Ah Li-Ion in parallel to ensure an optimal power-autonomy ratio

CS-EU SUPPORT TROLLEY

Designed to offer maximum support to operators when drilling sleepers and/or tightening or loosening mechanical elements such as screws or bolts. The **CS-EU** trolley safely supports NR battery powered impact wrenches and SD drills during their use or transport.

ONE BATTERY PLATFORM 36V

ONE BATTERY PLATFORM
CUT PUNCH DRILL PRINT
WRENCH CRIMP

- LD-16B-RP - ECODRILL RAINPROOF
- NR-25B - IMPACT WRENCH RAINPROOF
- TW-18B - TORQUE CONTROL WRENCH RAINPROOF
- SD-36B - SLEEPER DRILL RAINPROOF
- B70M-P36R - PORTABLE ELECTRO-HYDRAULIC PUMP RAINPROOF

TRACK MAINTENANCE

AUTOMATIC RAIL DISC SAW

REMOTE CUTTING SYSTEM TO MEET THE HIGHEST SAFETY STANDARDS

RDS-14PN-AA

TRACK MAINTENANCE



ROBUSTNESS, RIGIDITY AND DURABILITY

are the strengths of the automatic arm on CEMBRE cut-off machines and ensure high cutting precision



RAIL VICE

Rail vice with 8 contact points ensures particularly effective clamping even on worn rails



MANUAL VERSION

Available in the CUT-OFF version with manual arm **RDSC-20PN-SA**



DUAL AIR FILTRATION SYSTEM

to limit the ingress of micro-dust and keep the engine running efficiently at all times



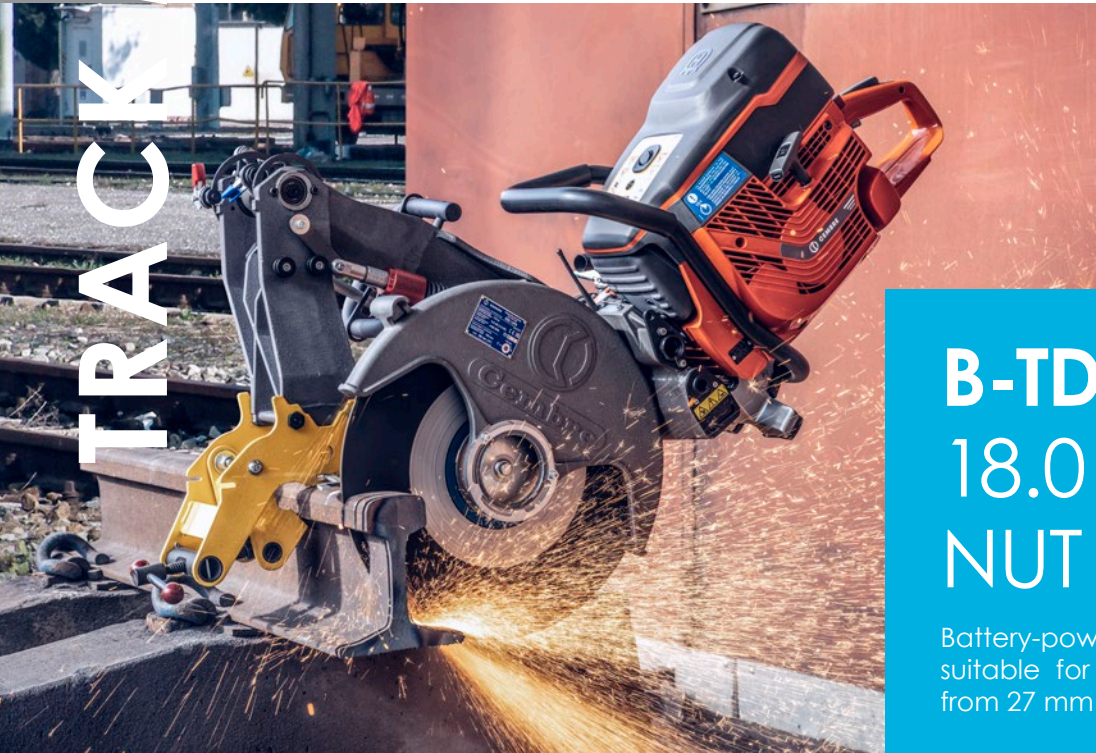
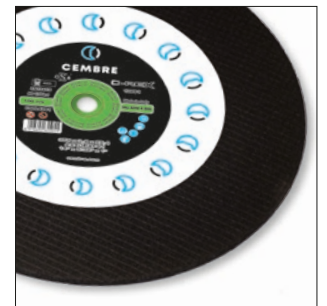
SPEED CONTROL DEVICE

that optimises disk performance for lower power consumption



CUTTING DISCS

Compatible with 350 mm and 400 mm high-performance discs with 1" and 7/8" centring



B-TD410T

18.0 V BATTERY HYDRAULIC NUT SPLITTING TOOL

Battery-powered hydraulic tool, suitable for cutting hexagonal nuts from 27 mm to 41 mm.

Thanks to its design, the B-TD410T is the ideal solution for nut splitting in a safe and secure way.

Thanks to the distance between the nut split and the tool, the user can work properly but at the right distance to avoid danger during the cut.



RAINPROOF PUMPS

ROBUST AND POWERFUL

ELECTRO-HYDRAULIC PUMPS

B85M-P36R / B70M-P36R


B85M-P36R

CRIMPING
 RHU240-3D-850


Pumps **B85M-P36R** and **B70M-P36R** are powered by an high capacity rechargeable battery providing independence and portability. Extremely compact and suitable for a wide range of applications. The new design and ergonomic weight distribution allows the pump to be easily handled during use. Quieter operation, and the absence of vibrations ensure maximum operator comfort. The Cembre logo acts as an indicator by changing colour to provide the operator with instantaneous visual confirmation of the pumps status, such as; pump ready, pump in use, end of cycle, cycle error, anomaly, maintenance required.



TRACK MAINTENANCE

 Special for
OVERHEAD

B70M-P36R

CRIMPING
 RH50
 RHC131

HIGH CRIMPING RANGE
 ECW-H
 ECW-H3D

TFC WIRE CUTTING
 RH-TFC

CUTTING
 TC025
 TC04N
 TC050

BUSH INSTALLATION
 RHTEP-S

NUT SPLITTING
 RHTD270
 RHTD410T

OVERHEAD
CATENARY SOLUTIONS

OVERHEAD



One of the applications of a number of specific CEMBRE products is the overhead contact line to transmit electrical energy to trams, trolleybuses and trains. This is the case of FTGW connecting joints, AD-GW aligners, which speeds up the work of personnel applying full-tension joints to the contact wire, or the MSGW mechanical contact wire straightener. In addition to these, there are wireless and manual tools for cutting and shearing, and special tools developed in cooperation with railway operators, like the RHVD counterbalance device.

HYDRAULIC CUTTING TOOLS
FOR PROFILED CONTACT WIRES
B500ND-TFC

B500ND-TFC

The B500ND-TFC is a cordless tool that can be operated with one hand. Suitable for cutting profiled contact wires, on electrified traction systems.

The tool in combination with MFC series cutting dies ensures a perfectly perpendicular wire cut without deforming the profile, allowing for correct and easy installation of full traction connectors.

Contact wire cut with a traditional cutter



Contact wire cut with the CEMBRE hydraulic tools



KIT-AG1
KIT-AG2



VAL-B70-TE

Metal box designed to be fixed to the TE trolley with the aim of housing the B70M-P36R battery-operated electro-hydraulic pump ready for use for various work interventions.



CONNECTING JOINTS FOR PROFILED CONTACT WIRES FTGW100

DB AG
approved up to
200 km/h

FTGW100

The innovative connector is unique in that it allows a new contact wire to be attached and, at the same time, joined to a worn one. This is possible thanks to the specific profile of the connector, which avoids the time-consuming and difficult manual operation of tapering the new wire, providing the train pantograph with a

uniform and seamless running area. The use of these connectors also minimises working times. In addition to laboratory tests, operational trials have shown that the connector made with **FTGW** performs well both on lines up to 200 km/h and on lines at lower speeds with high current draw (lines on slopes).



TYPE	TORQUE RATIO	GROOVED CONTACT WIRE		
		SECTION mm ²	Ø mm	REFERENCE STANDARD
FTGW100	65 Nm	100	12	EN50149 type AC-100
FTGW120		120	12.9	UNEL 70611-71
			13.2	EN50149 type AC-120
FTGW150		150	14.5	EN50149 type BC-150

ALIGNMENT DEVICES AD-GW / MSGW



AD-GW

The AD-GW device speeds up Electric Traction technicians' in-line work when applying full traction connectors to the contact wire (wire joint clamps) and eliminates the "snags" associated with this type of work. It is supplied complete with the **HC-GW** device for adjusting grooved contact wire.

MSGW

The mechanical straightening device for profiled contact wires allows the easy and continuous straightening of the most common sizes of wires for example: 100 - 120 - 150 mm².

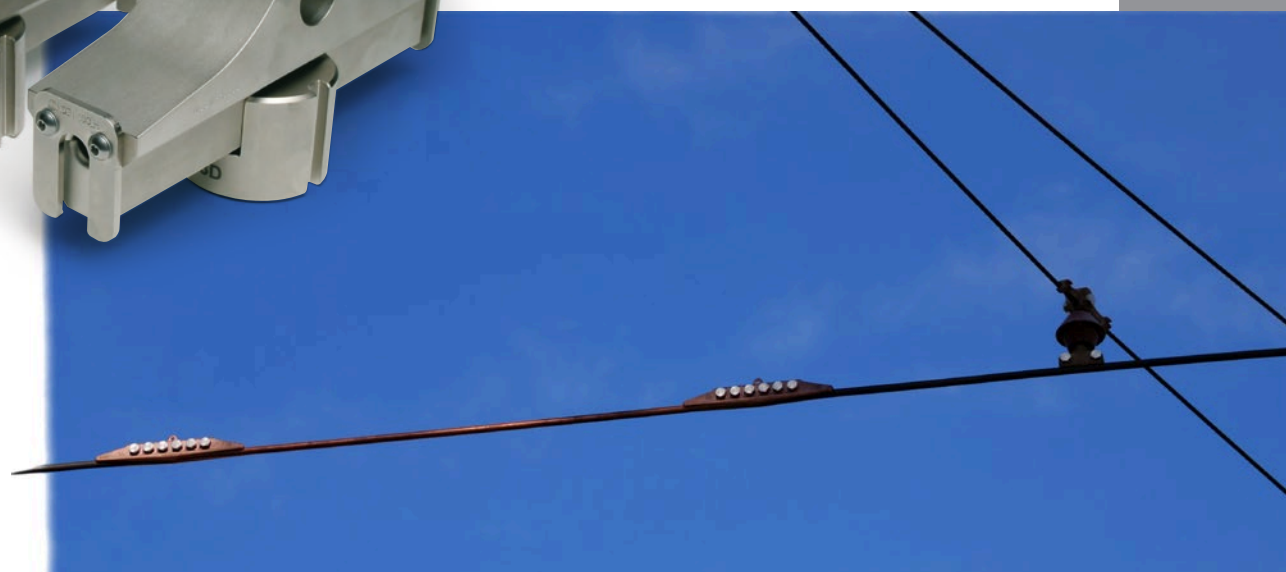
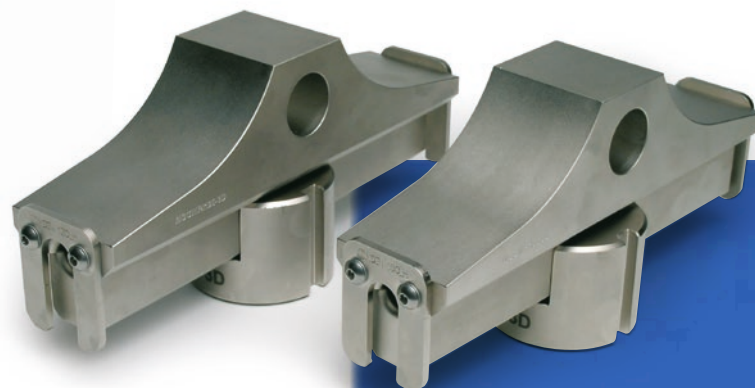


STRAIGHTENING DIE SETS ECW-H3D / MSGW-3D



MSGW-3D

Straightening die sets to be used with **ECW-H3D** hydraulic head. By a combination of the calibrated profile of these dies and the high compression force of the press head, good results in correcting localised misshaping of the wire may be obtained, with only one operation. The head can be connected to a hydraulic pump with a working pressure of 700 bar max.



OVERHEAD

ROLLING STOCK

FULL CONNECTION & ELECTRIFICATION SYSTEMS

ROLLING STOCK



CEMBRE products are used for wiring in train carriages and locomotives. Some of these have been specifically designed in order to guarantee maximum performance in the specific area of use, for example, the insulated, reinforced and vibrating-resistant crimp terminals.

Many CEMBRE products used in the railway sector comply with the EN 45545-2 standard, as they have received the Fire-smoke certification.

Following specific laboratory tests, this certifies the fire behavior of materials and products used on railway vehicles.

CONNECTORS CONNECTION SYSTEM



PK ..
 End sleeve, pre-insulated with PA 6, FOR flexible copper conductors



VP / RP / BP / GP
 Terminal, pre-insulated with PC, for copper conductors, halogen free



ANE-M / ANE-P / ANE-U
 Terminals, pre-insulated with PA 6.6, for copper conductors



A-M / A-L / A-2M
 Ring terminal, for copper conductors



HR-N
 Ring terminal, for copper conductors

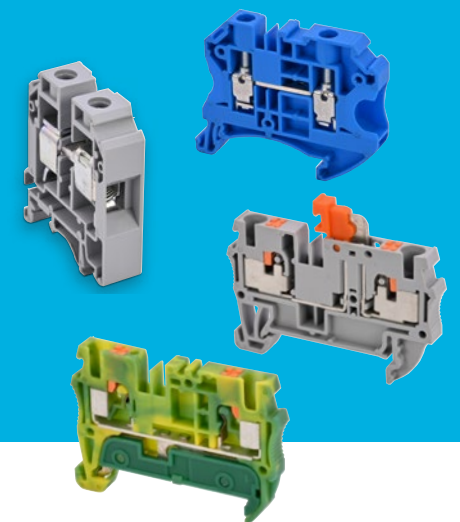
DR-N
 Ring terminal, for copper conductors, DIN 46235



T-M / T-L
 Ring terminal, for copper conductors NF C 20-130 add. 1

T-BLOCK MODULAR TERMINALS SCREW / PUSH-IN CLAMP

The CEMBRE catalogue offers a wide range of modular terminals providing connection solutions in various applications, for example, feed-through, grounding, and fused circuits with protection function. The range includes screw-clamp or push-in clamp connections and are available for applications up to 1000 V, complying with various international standards.



TOOLS
FULL EQUIPMENT FOR CABLING

CEMBRE ensures the best performance by providing a matched system of connectors, tools and related dies, thus ensuring a safe and reliable connection.

CEMBRE manufactures mechanical, pneumatic and hydraulic tools for crimping, cable cutting and hole punching. The hydraulic tools are available in manual or battery operated units with crimping force from 15 kN to 130 kN. CEMBRE also offers crimping heads from 50 kN to 1100 kN of force and pumps developing 700 bar.

Smartool Technology.

Data recording and intelligent control allow complete verification of operational parameters. SMARTOOL technology enables the user to store data up to 200,000 cycles on the integrated memory card for transfer to a computer via a USB cable.

CONNECTION SYSTEMS



B1300-C

Battery-powered hydraulic crimping tool, 132kN, standard, with open c-head, for electrical connectors up to 400 mm²



B1350-C

Battery-powered hydraulic crimping tool, 132kN, pistol, with open c-head, for electrical connectors up to 400 mm²



B-FL750ND

Battery-powered punching tool, bi-linear, suitable for punching sheet metal up to 3.5 mm thickness



CPE-1

Electrically driven hydraulic pump, powered by a 230V/50-60Hz single-phase electric motor



RHC131

Hydraulic crimping head, 130kN, open c-head, for electrical connectors up to 400 mm²



ACCESSORIES FOR CONNECTION SYSTEM

- Flexible Braids
- Heat-Shrinkable Tubing Polyolefin, Shrink ratio 2:1
- Cable Ties, in Polyamide PA6.6



ROLLING STOCK

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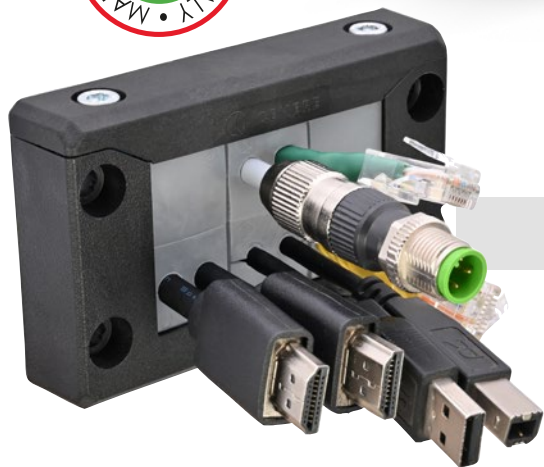
EWO SYSTEM ENTRY WIRE ORGANIZER

NOW
AVAILABLE
WITH FIRE
BARRIER

INTUMESCENT MATERIAL E45 & EI30 STANDARD COMPLIANT



ROLLING STOCK



Fire
prevention
gasket



Plug & Fix

Quick installation on predetermined cables for signal distribution, sensors and power supplies.



Easy to use

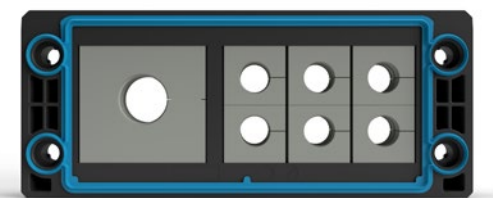
Frame can be fitted after laying the cables, which can also be secured with grommets in the final phase of machine wiring.

Safety without compromise

Extremely safe and protected (IP66) even without an additional external seal. Grommets are perfectly enclosed by the frame, with no protrusions, ensuring IP66 protection and cable sealing in accordance with EN62444.

For industrial automation

Ideal for applications in industrial automation and for cable management on machinery.



CABLE GLANDS WITH EXTENDED RANGE

MAXIblock[®]
MAXIbrass[®]
spiralblock[®]



1940.M and 2940.M series

CEMBRE's MAXIblock and MAXIbrass cable gland range is expanding with a series of new products, becoming increasingly flexible and practical.

Thanks to careful product design, the 1940.M and 2940.M series are characterised by the extended cable entry compared to the standard range.

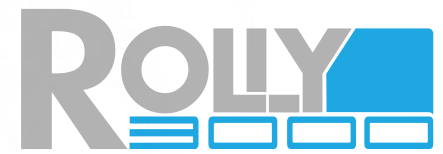
With the same threading as the standard range, the 1940.M and 2940.M fit large-diameter cables, saving space and time in installations.

Thanks to the extended cable entry it is now possible to install large-diameter cables.

Additionally, a longer thread also makes installation on thick plates easier.

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SPECIAL RAIL

MARKING SOLUTIONS FOR ROLLING STOCK



- SPEED**
- QUALITY**
- ECONOMY**
- CONVENIENCE**

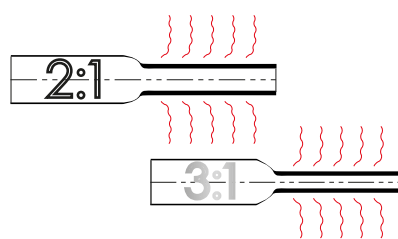


HALOGEN FREE, FLAME RETARDANT, LOW SMOKE IDENTIFICATION TUBE

ROLLING STOCK



TERMO-ROLL
Heat shrinkable tube



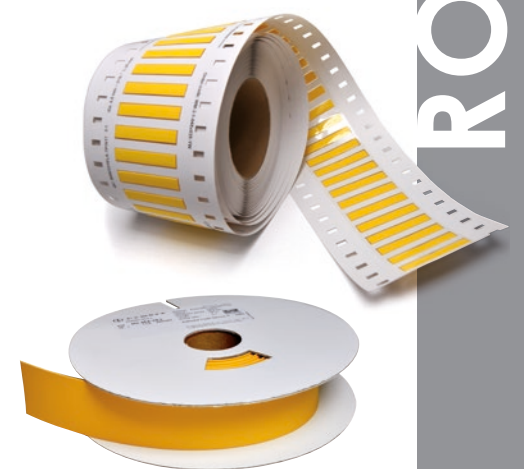
EN 45545-2

EN 50343 App. H

LUL
London Underground

NF F00-608

NFPA 130
US STANDARD

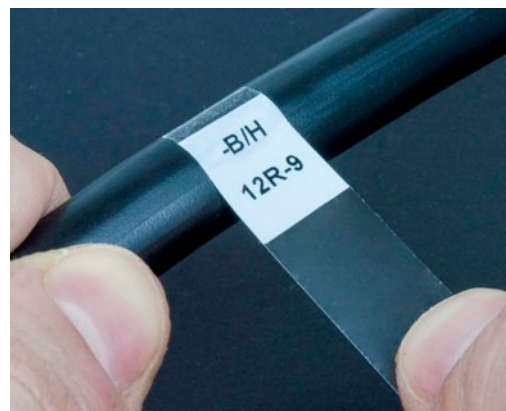


SAE AS

MIL-STD
Military Standard



ETF-ROLL
Tie-on cable tags



KM-ROLL
Wraparound cable markers



SOFTWARE GENIUSPRO®
developed to create and print project for rolling stock



MARKINGENIUS®MG4
printer on sheet media for markers compatible with over 1000 terminal blocks



ROLLY3000TR2
double side printing on heat shrinkable tube

ASSISTANCE

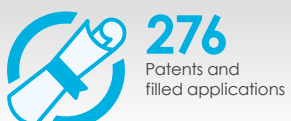
CEMBRE offers a **reliable rail tool and machinery maintenance service to provide comprehensive support to its customers.** Qualified staff receive, **check and maintain** the tools quickly, to avoid annoying disruptions on the lines that also affect rail traffic users.

Main services include **machinery repair** and tool **calibration.** CEMBRE is also able to guarantee spare parts for products and a **range of accessories and consumables** for drilling, all of which are manufactured by CEMBRE.



CEMBRE AT A GLANCE

INNOVATION IS IN OUR DNA



OUR PRODUCT CODES



MAIN MANUFACTURING SITE, ITALY



AUTOMATED WAREHOUSE



www.cembre.com



CEMBRE S.p.A.
via Serenissima, 9
25135 Brescia
Italy
Ph +39 030 36921
ufficio.vendite@cembre.com
sales@cembre.com

CEMBRE Ltd.
Dunton Park,
Kingsbury Road,
Curdworth,
Sutton Coldfield,
West Midlands, B76 9EB
United Kingdom
Ph +44 01675 470440
sales@cembre.co.uk

CEMBRE S.a.r.l.
129 rue Servient
69003 Lyon
France
Ph +33 04 20 93 01 70
info@cembre.fr

CEMBRE España S.L.U.
Calle Verano 6 y 8
Pl Las Monjas
28850 Torrejón de Ardoz
Madrid - Spain
Ph +34 91 4852580
comercial@cembre.es

CEMBRE GmbH
Geschäftsbereich
Energie- und Bahntechnik
Heidemansstr. 166
80939 München - Germany
Ph + 49 89-3580676
info@cembre.de

Geschäftsbereich
Industrie und Handel
Boschstraße 7
71384 Weinstadt - Germany
Ph +49 7151-20536-60
info-w@cembre.de

CEMBRE B.V.
Luchthavenweg 53
5657EA Eindhoven
The Netherlands
info@cembre.nl

CEMBRE Inc.
Raritan Center Business Park
300 Columbus Circle-S.F.
Edison, NJ 08837 USA
Ph +1 (732) 225-7415
sales.us@cembre.com

Midwest Office
1051 Perimeter Dr #470
Schaumburg, IL 60173

Cembre Electrical Connections Shanghai Ltd.
Room 2201,
Jin Hang Mansion, NO.83
Wan Hang Du Road,
Jing An District,
Shanghai
info@cembre.cn
sales@cembre.cn

