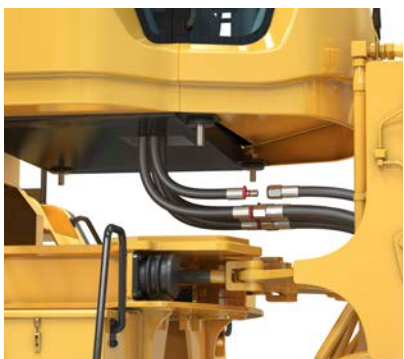
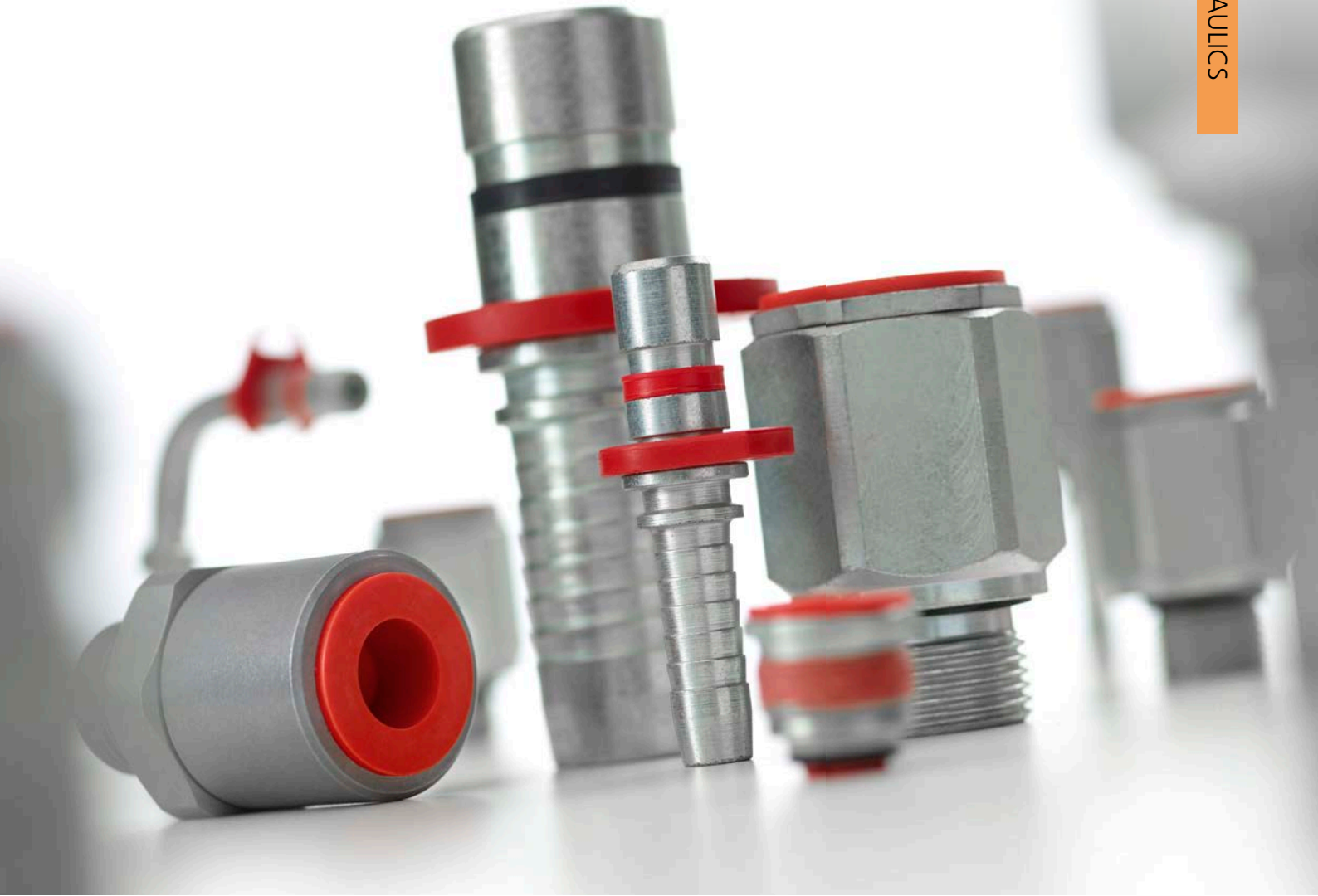




WEO Plug-In

THE INNOVATIVE **PROBLEM SOLVER**

HYDRAULICS



WEO Nipple

The Global open Standard

By releasing the male part (nipple) as an open standard, CEJN sees a future where WEO is even more accessible around the globe thanks to more manufacturers and shorter distribution chains.

Co-operation is now available from CEJN to customers who wish to receive support in their manufacturing process of nipples. Just a registration and an agreement that the CEJN specifications are followed. It should be easy and accessible to become a WEO nipple manufacturer.

As always when an open standard is created, it is to protect the reputation of WEO and to ensure that the end user gets interchangeability, highest quality, performance and safety. The CEJN service will consist of specifications such as drawings and process parameters to reach specified performance and quality level. If changes are made on those parameters, CEJN will update the registered manufacturers.

For more information go to:
www.cejn.com/weo



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WEO Plug-In

THE INNOVATIVE **PROBLEM SOLVER**

Would you be interested in a product that will enhance your design in terms of space, time and cost?

What about an assembly line where people can work safely and quickly carrying out problem-free and quality-assured operations?

Do you wish that leakage and premature hose failures were yesterday's problems and that costly warranty claims were a thing of the past?

Just Plug it in!

AS SIMPLE AS IT SOUNDS. The WEO fitting is a smart plug-in solution from CEJN offering extensive problem-solving features and cost savings. This self-aligning plug-in fitting enables quick and safe hydraulic hose kit assembly without any tools. For even better adaptation to customer applications, we offer the core of our design – the WEO cartridge, for a fully-integrated, compact design, and our reinforced two-in-one WEO plug-in swivel, for swivelling applications at full working pressure.

Stay flexible

WEO PLUG-IN COUPLING

If you are looking for a compact coupling solution but still want to keep your existing manifold design, you don't have to worry. The WEO Plug-In coupling offers a multitude of thread or tube connections and, as no tools are needed for hose assembly, you can still focus on compact design.



WEO Coupling

Integrate

WEO PLUG-IN CARTRIDGE

At the core of our design you will find the WEO Cartridge, a refined component made for compact system integration. Its slim size opens up new design possibilities. As no adapter is needed, costs are reduced and at the same time one potential leakage point is eliminated. Reduce the footprint of your final design and enjoy extensive cost savings.



Swivel under full pressure

WEO PLUG-IN SWIVEL

The ideal solution for applications with pressurized moving and rotating hydraulic hoses is the WEO swivel. The WEO Plug-In swivel can rotate 360° while under full working pressure and includes a combined ball and slide bearing, accommodating both hydraulic and torsion forces, resulting in significantly increased service life for your products. WEO Swivel is both a swivel and a plug-in fitting and is as small and flexible as the basic version of WEO Plug-In, giving you a size and weight advantage over commonly-used swivel solutions.

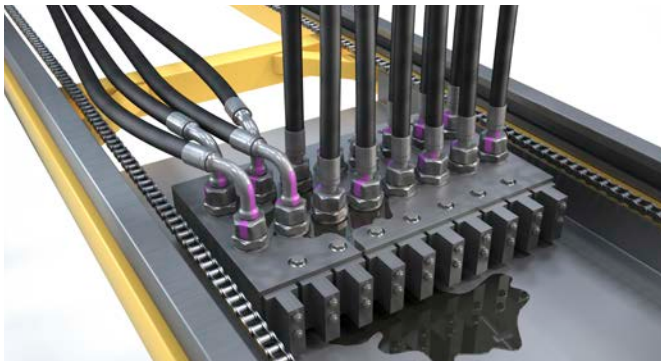
WEO PLUG-IN NIPPLE

Quick connection

WEO is designed with an innovative push-to-connect feature that provides quick and quality-assured engagement of the product's male and female halves. The only time you need a tool is to remove the assembly stop when disconnecting, and this can be done with a screwdriver or similar. Once the assembly stop is removed, you simply push the male nipple all the way in and pull it out from the female component.



Screw fittings VS WEO Plug-In

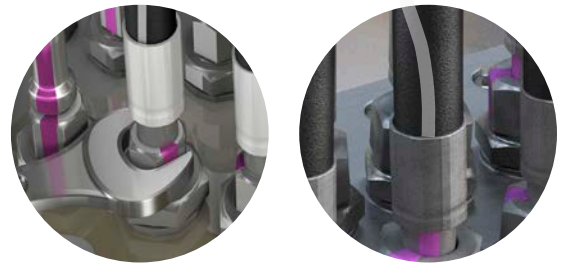


Under or over torque

Torque values are based on calculations and comprehensive testing and getting these values right on the assembly line requires precision. Personnel need to be well trained, have calibrated tooling and be able to access the components to be assembled, which are often difficult to reach and tighten. All of this often leads to over or under torque during assembly. The result is leakage during final testing or later on when the product is delivered to a customer. This leads to costly re-working and claims. All these problems can be solved with WEO, as you just plug in.

Embedded tension from torque

When applying torque to screw fittings there is a big risk of embedded tension in the hoses. As strained hoses are subject to pressure impulses, hose movement and even rotation during operation, the lifetime of any such hose is dramatically reduced, resulting in premature failure and leakage. Premature hose failure frequently leads to warranty claims and can be very costly. With the self-aligning WEO Plug-In, such hose and leakage problems are solved, and with the WEO Swivel, extreme hose movement and full rotation under pressure are no problem at all.



WEO helps you avoid leakage from torque and hose failure due to embedded tension!

CASE STUDY



Connections often need to be made in very confined spaces, where it is preferable to avoid time-consuming torque processes.



WEO Plug-In

FOR SAFE AND QUICK ASSEMBLY

WITH THIS APPLICATION SAFETY IS THE MAJOR FOCUS. In the confined space between chassis and cabin, the operators have to carry out hose connection with a heavy cabin hovering over their head – a very exposed situation. Users of screw-connect fittings always have the challenge of achieving correct torque. Imagine performing this task with no room at all for tools. In many cases this results in leakage from couplings and embedded tension in hoses that subsequently leads to leakage. With WEO you can work quickly and avoid leakage problems, since all you have to do is plug in.



HEALTH & SAFETY

No torque processes in confined spaces that could cause personal injury. Exposure is minimised thanks to a quick assembly process. Good ergonomics – you just plug in and thus avoid awkward postures that can cause strain.



SAVE TIME

The fact that all you have to do is plug in means a considerable reduction in assembly time.



EXTENDED HOSE LIFE

With our self-aligning WEO, hoses last longer. No embedded tension to wear them out.



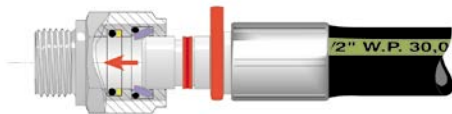
MINIMISE LEAKAGE

With WEO, no torque process is required and leakage problems are avoided – just plug in.

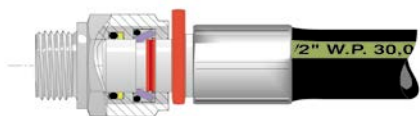


The simplicity of working with WEO Plug-In

CONNECT

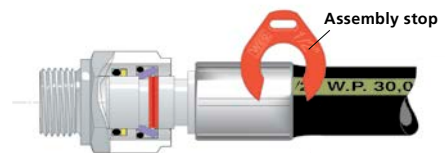


1. The nipple is connected to the coupling by simply plugging in.

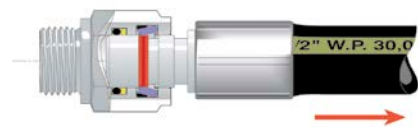


2. The nipple is securely locked with the unique WEO locking hooks.

DISCONNECT



1. Using a screwdriver, remove the assembly stop.



2. Push the nipple all the way in and then pull it firmly out.



WEO Cartridge

FOR INTEGRATED AND COMPACT DESIGN

WE ARE ALWAYS ON THE LOOK-OUT FOR SMARTER SOLUTIONS. With its minimal space requirements, the WEO cartridge allows designers to design new compact hydraulic systems. When incorporating this compact cartridge into your design, you can minimize the footprint of the final design by reducing the space between the ports. This means less material required and reduced costs. Again, since our fittings simply plug in, you don't have to worry about hand-tool clearance, unlike traditional screw fittings where extra clearance for tools is required when tightening.



EXTENDED HOSE LIFE

With our self-aligning WEO, hoses last longer. No embedded tension to wear them out.



SAVE TIME

The fact that all you have to do is plug in means a considerable reduction in assembly time.



HEALTH & SAFETY

No torque processes in confined spaces that could cause personal injury. Good ergonomics – you just plug in and thus avoid awkward postures that can cause strain.



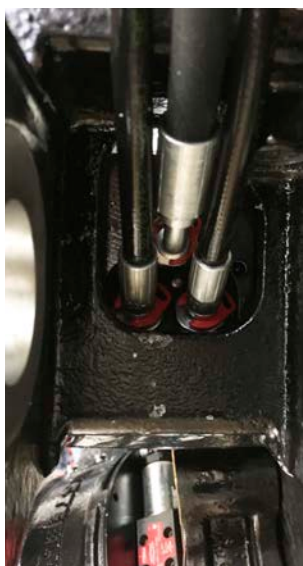
SUPER COMPACT

By integrating the WEO cartridge into your design, you can minimize the footprint thanks to its compact size. In addition, no tools are needed during hose assembly.



MINIMISE LEAKAGE

With WEO, no torque process is required and leakage problems are avoided – just plug in.



Steelwrist: "WEO was the only option"

Steelwrist AB markets, develops and manufactures tiltrotators, quick couplers and work tools for excavators and has used WEO on several previous occasions to achieve flexible installation.

"With this particular design our skilled engineer has managed to use the existing space and create a robust function by taking advantage of the benefits of WEO," says Markus, Development Manager at Steelwrist. The feedback from their assembly line is: "WEO is quick, smooth and suitable for quick maintenance."

Markus Nilsson
Development Manager, **Steelwrist**



CASE STUDY

WEO Plug-In Swivel

FOR EXTREME SWIVELLING APPLICATIONS



EXTENDED HOSE LIFE

With our self-aligning WEO, hoses last longer. No embedded tension to wear them out.



SAVE TIME

The fact that all you have to do is plug in means a considerable reduction in assembly time.



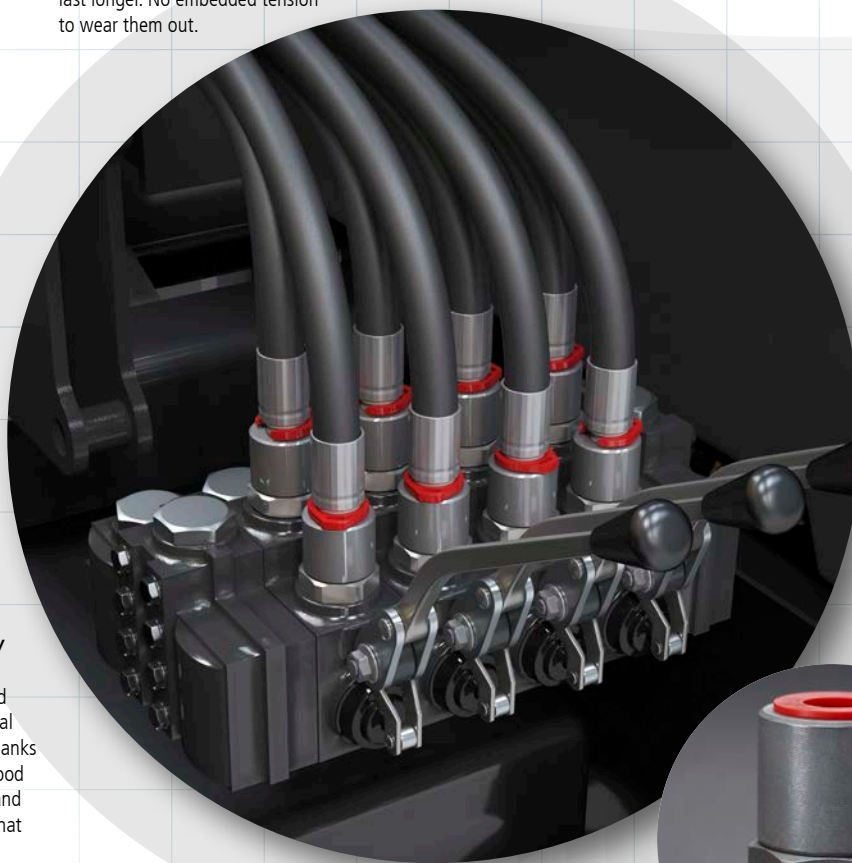
HEALTH & SAFETY

No torque processes in confined spaces that could cause personal injury. Exposure is minimised thanks to a quick assembly process. Good ergonomics – you just plug in and thus avoid awkward postures that can cause strain.



MINIMISE LEAKAGE

WEO Plug-In Swivel eliminates problems with unscrewing and embedded tension in hoses and can handle extreme hose movement and rotation.





WHEN IT COMES TO APPLICATIONS WITH EXTREME HOSE MOVEMENT, the obvious solution is the WEO Swivel. A truck-mounted crane causes the hoses on the valve blocks to twist and rotate in a way that causes them to wear out. When using the WEO swivel, the hoses can move freely and self-align, with 360-degree rotation under full working pressure. The result is longer hose service life and fewer claims.



FASSI: "Our vision is to have the WEO Plug-In on all our machines"

Roberto Signori
R&D-SPE Manager, FASSI

Crane manufacturer FASSI choose **WEO Swivel**

When CEJN came into contact with FASSI, they were suffering leakage, quality and dimension problems with their current connections on hydraulic control valves. There were also delivery problems with the connections, causing frustration. In applications like this, when hoses are constantly being twisted, a good swivel function is a must to enable long hose life. With the WEO swivel, FASSI immediately saw these benefits together with the advantage of fewer components, meaning a reduced number of leakage points. Leakage was often due to difficulty in assembling the different parts in narrow spaces. Another appealing feature was the plug-in system, which would cut the assembly time considerably.

FASSI has now been using the WEO swivel for over two years and they are very satisfied, especially with the reduced number of components, meaning fewer connection points to cause problems and leaks. The time savings are very important as well: "With WEO we can connect without the need for tools and it is extremely quick. When assembling, we save at least ten minutes on every crane," states Roberto.

WEO is currently being used on the distributor bank of small and medium-sized cranes and when we ask Roberto about the future for WEO, he feels that the next step is to implement the WEO plug-in on the large models too: "For me, the fast assembly time is the most important aspect. My vision is to have the WEO plug-in on all our machines. Always WEO", explains Roberto.



WEO Plug-In Fittings

Nipples - Straight Hose Connection

Straight, Nipple with Hose Connection

Series 710 features Plug-In nipples with straight hose connections for one/two wire braided hydraulic hose in sizes 1/4" to 1"



Nipples - 45° Hose Connection

45°, Nipple with Hose Connection

Series 712 features Plug-In nipples with 45° hose connections for one/two wire braided hydraulic hose in sizes 1/4" to 3/4"



Nipples - 90° Hose Connection

90°, Nipple with Hose Connection

Series 714 features Plug-In nipples with 90° hose connections for one/two wire braided hydraulic hose in sizes 1/4" to 3/4"



Nipples - Female plug

Female G-Thread

Series 721 features Plug-In nipples with female G-Thread (ISO 228/1) in size 3/8" to 3/4"



Double Nipples

Double Nipples

Series 722 features Plug-In nipples in size 1/4" to 1"



Nipples - Male Blind Plug

Male Blind Plug

Series 723 features Plug-In blind nipples in size 1/4" to 1"



Nipples - Male plug

Male G-Thread DIN 3852-2 Type A

Series 724 features Plug-In nipples with male G-Thread (ISO 228/1) in size 1/4" to 1"



Nipples - Male plug

Male UNF-Thread ISO 8434-2 (JIC 37°-SAE J514)

Series 727 features Plug-In nipples in size 1/4" to 3/4"



Nipples - Male plug

Male G-Thread, Integral NBR Rubber Seal ISO 1179-2

Series 744 features Plug-In Nipples with male G-thread (ISO 228/1) in size 1/4" to 1"



Couplings - Female Blind Plug

Female Blind Plug

Series 811 features Plug-In blind coupling in sizes 1/4" up to 1"



Couplings - Straight Hose Connection

Straight Hose Connection

Series 817 features Plug-In couplings with straight hose connections for one/two wire braided hydraulic hose in sizes 1/4" up to 1"



Couplings - Male JIC

Male 37° cone, Male UNF-Thread ISO 8434-2 (JIC 37°-SAE J514)

Series 824 features Plug-In couplings with UNF-thread in sizes 1/4" up to 3/4"



Nipples - Male plug

Female NPTF-Thread

Series 729 features Plug-In nipples in size 3/8" to 3/4"



Couplings - Male G-Thread (ISO 228/1)

Male G-Thread DIN 3852-2 Type A

Series 810 features Plug-In couplings with male G-thread (ISO 228/1) in sizes 1/4" up to 1"



Couplings - Bulkhead

Bulkhead, male M-Thread

Series 813 features Plug-In bulkhead couplings in sizes 1/4" up to 1"



Couplings - Male M-thread

Female 24° cone, Male M-Thread ISO 8434-1

Series 822 features Plug-In couplings in sizes 1/4" up to 3/4"



Couplings - Male SAE J514 O-Ring Boss

Male UNF-Thread, O-Ring Boss ISO 11926-3 (SAE J1926-3 / former SAE J514 ORB)

Series 826 features Plug-In couplings with O-ring Boss in sizes 1/4" up to 1". Including NBR O-ring.



Couplings - Male G-Thread with Integral Rubber Seal

Male G-Thread, Integral NBR Rubber Seal ISO 1179-2

Series 830 features Plug-In couplings with male G-thread (ISO 228/1) with integral rubber seal in sizes 1/4" up to 1"



Couplings - Male M-Thread

Male M-Thread, Integral NBR Rubber Seal ISO 9974-2

Series 837 features Plug-In couplings with male M-thread with integral rubber seal in sizes 1/4" up to 1/2", including seal



Couplings - Female ORFS

Female ORFS, UNIF-Thread ISO 8434-3

Series 850 features Plug-In couplings with female O-ring face seal connectors in sizes 1/4" up to 3/4"



Nipples - Straight Hose Connection

Straight Hose Connection

Series 716 features Plug-In nipples with straight hose connections for one/two wire braided hydraulic hose in sizes 3/8" to 1". This nipples are specifically made to correspond to the WEO Plug-In swivel Series 860.



Couplings - Male metric ISO 6149-3

Male M-Thread, O-Ring Boss ISO 6149-3

Series 831 features Plug-In couplings with male metric thread in sizes 1/4" up to 3/4". Including NBR O-ring.



Couplings - Female G-Thread

Female G-Thread

Series 840 features Plug-In couplings with female G-thread (ISO 228/1) in sizes 1/4" up to 3/4"



Swivel Couplings

Swivel, Integral NBR Rubber Seal ISO 1179-2

Series 860 features Plug-In swivel couplings with male G-thread (ISO 228/1) with internal rubber seal in sizes 3/8" up to 1". Only to be used with Series 716 nipples.



Series 800, Plug-In Cartridge

Plug-In Cartridge

Series 800 features Plug-In Cartridge in sizes 1/4" to 3/4"



The WEO business

WHEN DOING BUSINESS WITH CEJN, you get customer-focused thinking, where WEO as a product is part of a greater whole. In addition to making high-quality products that solve problems and reduce costs, we are always focused on optimum service through communication, flexibility and support.

Logistics

CEJN has developed special prognosis routines for WEO, with direct and close contact with our OEM customers. This system helps us keep track of quantities and deliveries, and if any deviations occur, we can quickly readjust to new quantities and deadlines.

Certification

CEJN has been certified by several customers through supplier certification programmes for service, logistics, quality and delivery. The feedback has been more than satisfactory and we encourage our customers to put us to the test.

Quality assurance

CEJN has an automated production line for WEO with a number of vision cameras and test stations guaranteeing a quality-assured product.

Engineering and logistics support

Please regard us as your business partner. We are happy to come along and discuss how to achieve smarter solutions and better efficiency. The better we know you, the more we can give back to you.

“Always give the customers what they need on time”

WEO PRODUCTION TEAM, CEJN



Reduce overall costs with WEO

On the drawing board

The designer has scope to create more compact and smarter designs with our small and flexible WEO solutions. Designs that will reduce both size and costs.



On the assembly line

If you are working on improving the efficiency of your assembly line, you will first become aware of the time you save. Plus the possibility of making mistakes is eliminated. With a simple plug-in, the connection is achieved without any complicated torque calculations. You often also need to fit a torque wrench into narrow spaces where application of torque is impossible. With WEO, the job is done in no time. It can reduce the time for final testing, as WEO is a Poka-yoke solution.



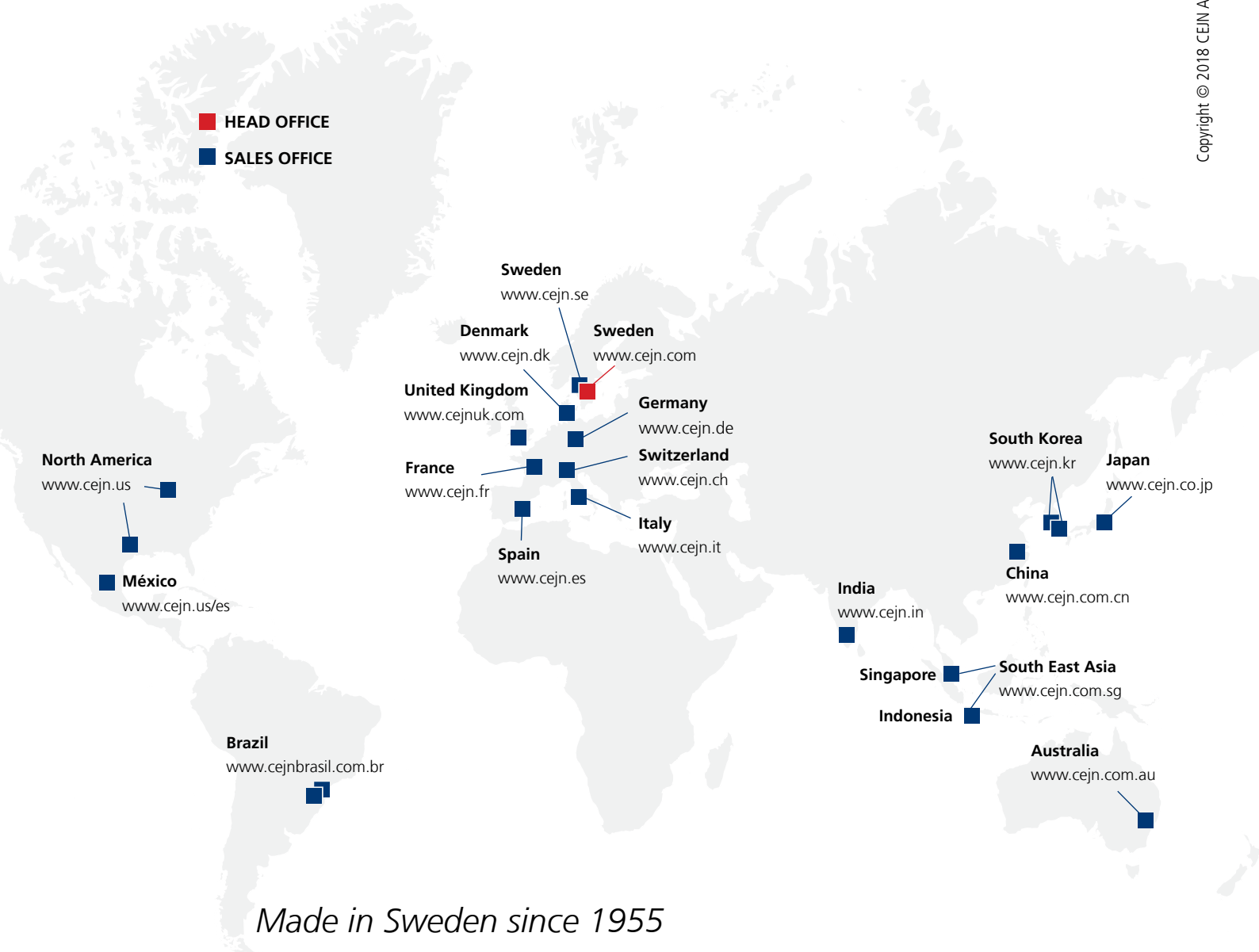
The machine owner

As an owner of a WEO-equipped machine, you will save both time and money. Instances of twisted hoses that burst due to rotation will be minimised and countless hours will be saved thanks to simplified disassembly.



The Quick Connect
Solution Provider

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Made in Sweden since 1955

We have been producing professional, high-quality and innovative quick connect couplings here at CEJN since our first patented coupling was launched in 1955. CEJN is an independent global niche company with its head office in the heart of Sweden. Over the years we have expanded to 22 locations worldwide and are supplying products and services to virtually every industry segment. At CEJN, we are united by our five core values: safety, environment, quality, innovation and performance. They are our cornerstones and define who we are, how we work, what we believe in and what we stand for.

Contact your local sales office or visit www.cejn.com for more information.

09 0012 619 / 2018-11 / CEJN AB, Skövde Sweden