



**EuropCorr**  
OUR SOLUTIONS YOUR EXPECTATIONS

# EuroppCorr

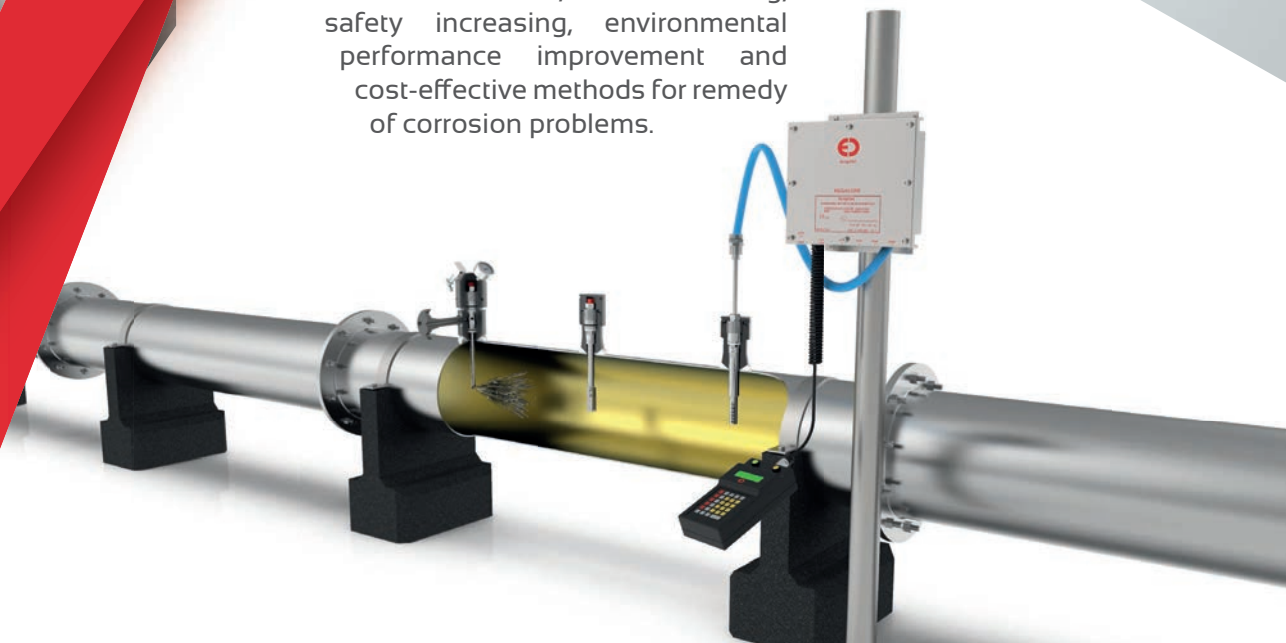
**Corrosion** is one of the most serious ageing mechanism impacting the equipment and assets of process facilities in oil and gas industry.

**Uncontrolled corrosion** can lead to severe safety and environmental hazards, risk of unexpected catastrophic failures, can be costly in terms of interruption or stop in production processes, repair costs, environmental damage and potential harm to humans.

Based on the analysis of results through the application of **Corrosion Monitoring technical solutions**, informed decisions can be made from information about corrosivity, corrosion rate, process data and effect of corrosion inhibitors; not only regarding the remaining life of the object affected by corrosion but also regarding life extension strategies, prospective material selection, risk reducing, safety increasing, environmental performance improvement and cost-effective methods for remedy of corrosion problems.



WHY  
INTERNAL  
CORROSION  
MONITORING





# EuropCorr



## EuropCorr® ITALY IS SPECIALIZED IN...

Design, Manufacturing, Sales and After Sales Services of corrosion monitoring systems mainly for Petrochemical, Oil and Gas Industry. Our technical experts have over decades experience corrosion technology, providing comprehensive corrosion management solutions. The range of internal corrosion monitoring products includes industry standard traditional Access Fittings, Corrosion Coupons, Corrosion/Erosion Probes, Chemical Injection/Sampling and Retrieval Tools as well as Hydraulic Access and Retrieval Tool system, the lightest in weight and smallest in length retrieval system with the best safety record in the industry.

The instrument system has unique field reliability and flexibility, providing both on-line and off-line system configurations. We have engineering capability to provide tailored products as per clients and projects requirements.

Company's Quality Management System is EN ISO 9001:2015 certified. All equipment meets NACE standards, relevant products with CE, PED and ATEX certifications.



## OUR SOLUTIONS YOUR EXPECTATIONS

## EuropCorr's ACTIVITIES AND PRODUCT RANGE:

- ▶ Corrosion and material engineering
- ▶ Corrosion monitoring devices
- ▶ Corrosion monitoring instrumentation and software
- ▶ Chemical injection/sampling equipment
- ▶ Inspection and data management
- ▶ Factory Acceptance Test (PMI, NDE, Pressure test)
- ▶ Corrosion site surveys
- ▶ Failure Analysis
- ▶ Laboratory testing
- ▶ Field monitoring and inspection services
- ▶ Training courses

## EuropCorr's CONCEPT IS...

To combine a scientific approach with practical solutions. We have an extensive knowledge about materials and their behaviour, monitoring and inspection methods, as well as instrumentation and information technology. We also work closely with our clients in technology development, in field services, data management and in planning of inspection and monitoring programs.

CORROSION  
MONITORING  
SYSTEM

OIL & GAS  
INDUSTRY

ENGINEERING  
MANUFACTURING  
SERVICE





# HIGH PRESSURE ACCESS SYSTEM MECHANICAL TYPE

Pressure rating 6000/10000psi

EuropCorr® offers a complete range of access fitting assemblies for installation of corrosion coupon, probe and injection/sampling devices.



▶ 2" Access fitting with Flareweld, Flanged, Buttweld, Socketweld and NPT connection



▶ Solid plug for coupon/injection assembly  
Hollow plug for probe assembly



▶ Heavy duty cover with hole for probe assembly, without hole for coupon/injection assembly.



▶ Pressure retaining cover with bleed valve & pressure gauge





# HIGH PRESSURE ACCESS SYSTEM HYDRAULIC TYPE

Pressure rating 6000/10000psi

EuropCorr® offers a complete range of access fitting assemblies for installation of corrosion coupon, probe and injection/sampling devices. Hydraulic Access system is the safest and most reliable system for installation and retrieving.



▶ 2" Access fitting with Flareweld, Flanged, Buttweld, Socketweld and NPT connection



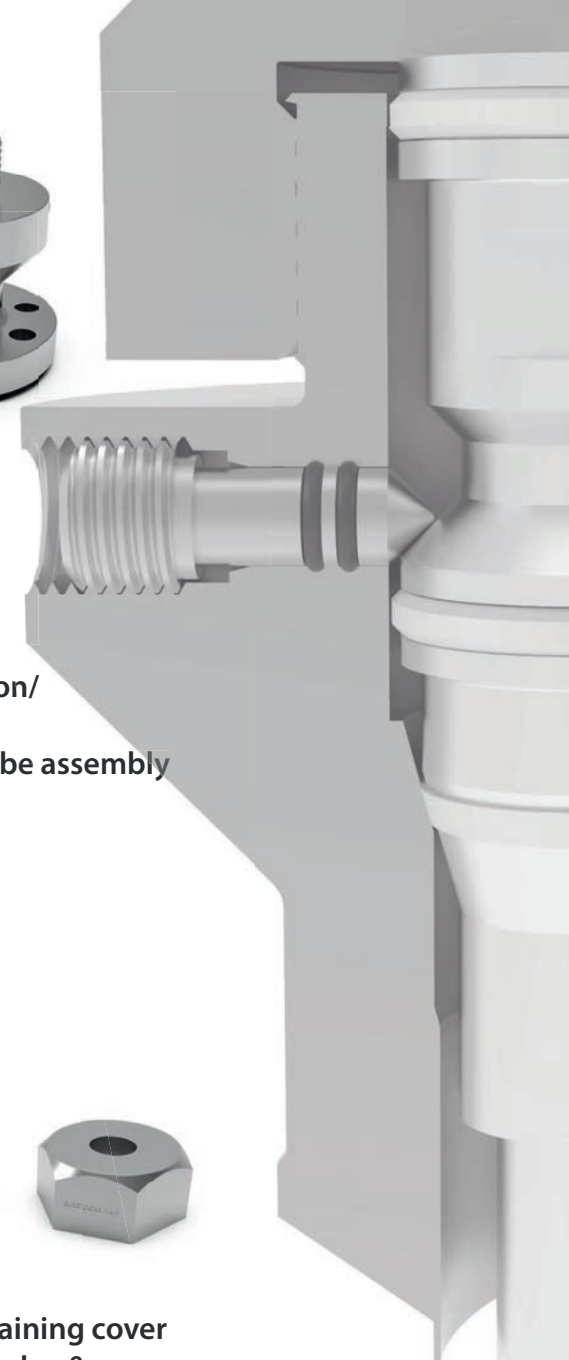
▶ Solid plug for coupon/injection assembly  
Hollow plug for probe assembly



▶ Heavy duty cover with hole for probe assembly, without hole for coupon/injection assembly.



▶ Pressure retaining cover with bleed valve & pressure gauge



## WEIGHT LOSS AND SPECIAL COUPONS

The simplest, common used weight loss coupons are pre-weighted specimen of metal made of the same type of material of monitored object, inserted into the process for a prefixed period; the difference in weight before and after exposure is used to evaluate the average corrosion rate. Different coupon configurations can monitor the top, middle or bottom of the pipeline. The selection of a comprehensive range of weight loss coupons is on the basis of the process conditions, anticipated corrosion mechanism and availability of access.

### Special coupon:

- Bio coupon for monitoring bacterial activity
- Scale coupon for monitoring scale formation
- Pre-stressed coupon for environments where stress corrosion cracking is suspected



▶ Flush disc coupon

▶ 2" Ladder coupon

▶ 3" or 6" Strip Coupon

▶ Multiple Disc Coupon



▶ Bio Coupon



▶ 3" or 6" Scale Coupon



▶ Pre-Stressed Coupon



# CORROSION / EROSION / HYDROGEN PROBE

Probe is a continuous monitoring and assessment of corrosion method

- **ER probe** is based on electrical resistance technique for measuring instantaneous metal loss and corrosion rate on time. The ER probes can be used in all the environments.
- **LPR probe** is based on electro-chemical theory for water-based environments, LPR probe gives instantaneously corrosion rate.
- **Erosion Sand probe** for monitoring erosion caused by sand production in process systems, gives early detection of erosion. Both electrical resistance technique based 45° angled element probe and sacrificial type probe are available.
- **Hydrogen probe** for monitoring hydrogen which has permeated into the steel in acidic environment



**Electrical Resistance Probe**  
Tubular element  
Flush "V" element  
Flush Strip element



**Erosion Sand Probe**  
Electrical type with 45° angled element  
Sacrificial type with hollow sensing element

**Linear Polarization Resistance Probe**  
Projecting 2/3 electrodes,  
Flush 2/3 electrodes



**Hydrogen Probe**







# HIGH PRESSURE CHEMICAL INJECTION/ SAMPLING SYSTEM

Pressure Rating 6000/10000psi

Chemical inhibitor is one of the most practical preventive maintenance methods for minimizing or controlling corrosion in product pipelines, vessels, etc., The injection of chemical treatments and sampling of process fluids are two major requirements for any corrosion control system.

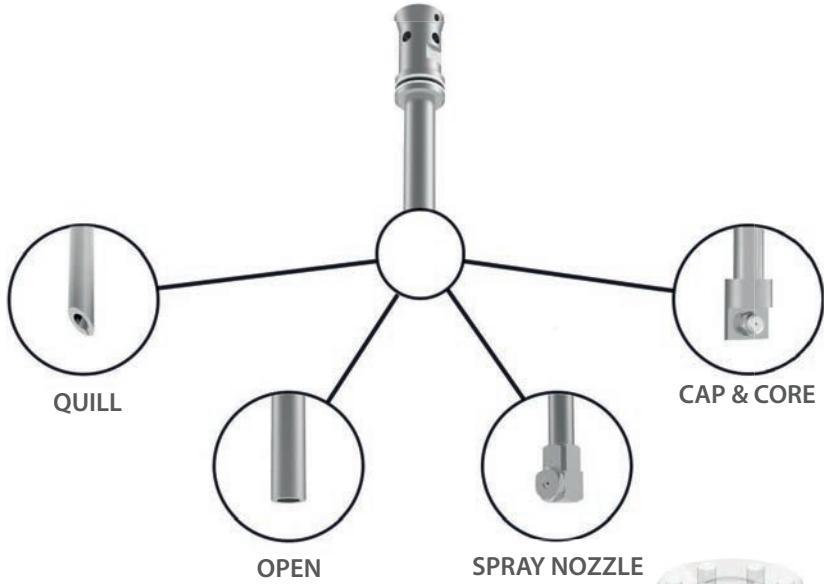
EuropCorr® offers a complete range of access fitting bodies, both for the standard 2" mechanical system as well as for the hydraulic access system. A variety of injection devices and systems can be used to provide the most efficient delivery and dispersion for a given application.



2" Flareweld, Flanged, Butt weld, Socketweld, NPT access fitting with 1/4"-2" NPT or Flanged side tee



Injection/sampling nut with injection/sampling tube with different combination for various applications.



Fixed flanged/drip ring Injection system provide a safe and economical means of injecting chemical inhibitors into a pipeline or vessel





# HIGH PRESSURE RETRIEVAL AND HOT TAP SYSTEM

Pressure rating 6000psi

EuropCorr® Retrieval Tool, Service Valve (double and single isolation) are designed to install and retrieve corrosion monitoring devices safely under full operational pressure without shutdown. The tool kit is PED certified.

EuropCorr® Hot Tap Tool provides a safe and reliable means of boring a clean hole and add access fitting to any pipeline or vessel without shutdown or product loss.



**MECHANICAL  
RETRIEVAL TOOL**



**HYDRAULIC  
RETRIEVAL TOOL**



**SINGLE/DOUBLE  
ISOLATION  
SERVICE VALVE**



**HOT TAP TOOL**



## ADVANTAGES OF HYDRAULIC ACCESS SYSTEM

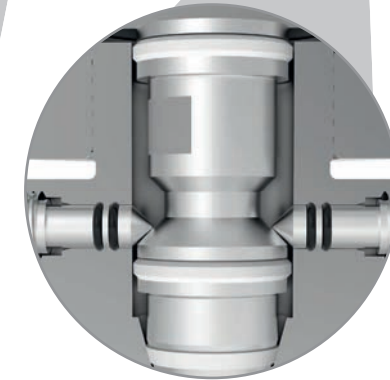
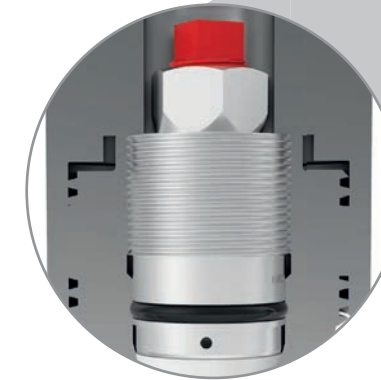
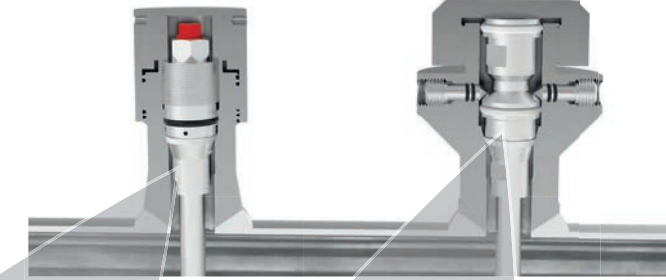
The Hydraulic Access and Retrieval system is the preferred system for safe and easy installation/retrieval of probes/coupons/injection/sampling tubes under full operational pressure. The system has important advantages from an operational and a safety point of view:

- Small size, short length and light weight - increased accessibility due to less operational space required
- No internal threads connections between fitting and plug - avoid galling and seized plugs caused by particles in the process
- No external moving parts - increased safety to operators and assets
- Ease of alignment - precise alignment of tools and equipment in an access fitting of a pressurized system.
- Compatible – any mechanical system can be converted into hydraulic configuration through a suitable hydraulic adapter and plug



Mechanical type

Hydraulic Type



Hydraulic Adapter with plugs





# LOW PRESSURE RETRACTABLE COUPON, PROBE AND CHEMICAL INJECTION / SAMPLING SYSTEM

Pressure rating 1500 psi

The design of the low pressure retractable assembly allows the installation, removal and maintenance of a wide range of probes, coupon holders, injection/sampling devices to the systems operating at the pressures up to 1500psi in a safe and easy manner, eliminating any need for system shutdown.

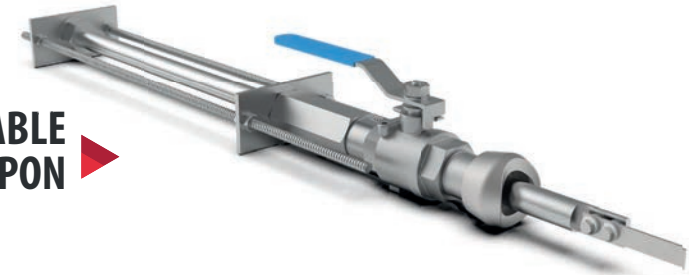
Low pressure retractable assembly is mounted through 1" NPT or flanged packing gland with components of full port ball valve, nipple, safety clamp, etc.

Low pressure retractor tool provides safe and controlled insertion and retraction of various corrosion and erosion monitoring as well as injection and sampling devices in low pressure environment.

Economical alternative to higher pressure system.



RETRACTABLE  
COUPON



RETRACTABLE  
PROBE



RETRACTABLE  
INJECTION/SAMPLING



RETRACTOR

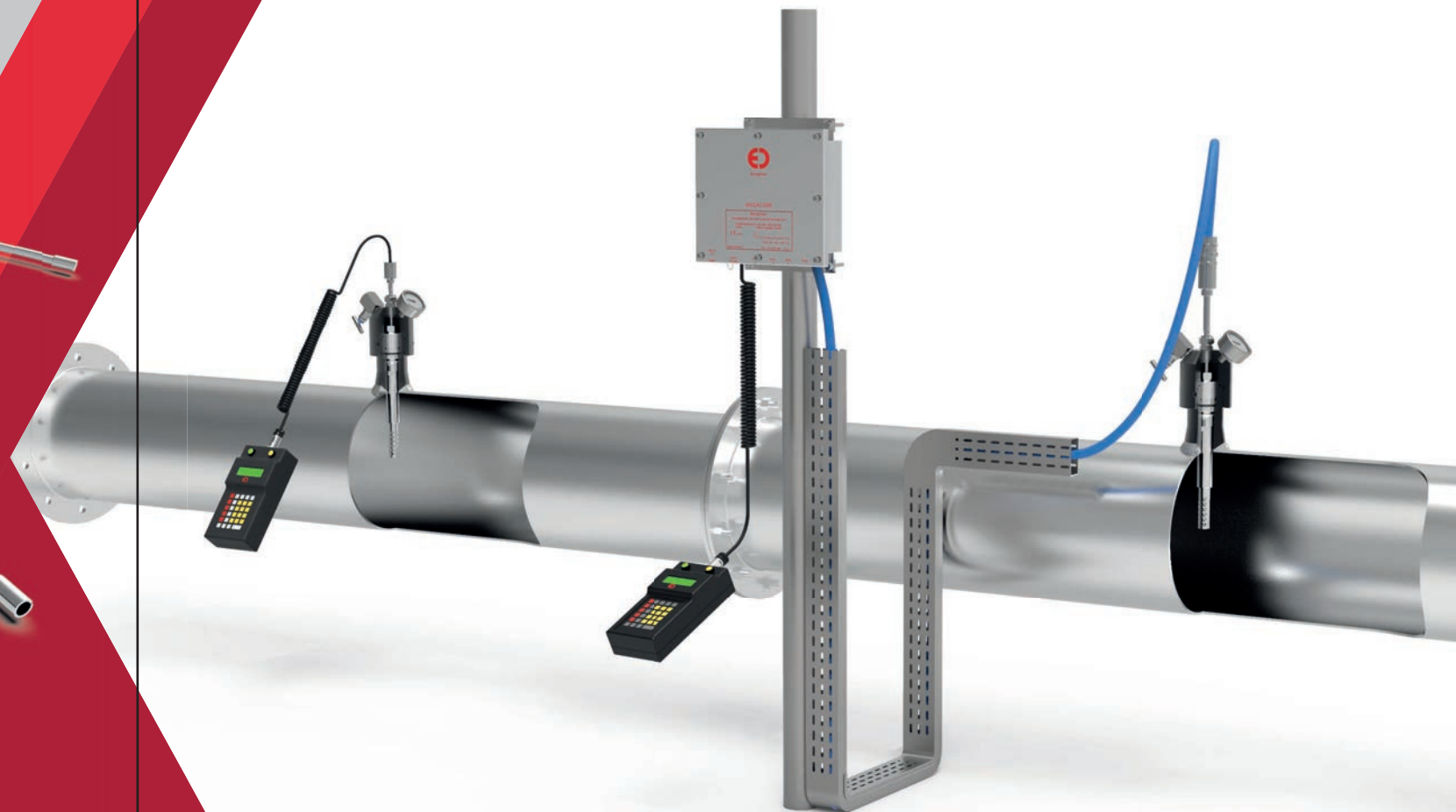


## OFFLINE DATA COLLECTION CORROSION MONITORING



EuropCorr® MaxiCorr is a flexible handheld data acquisition unit designed for direct measure of all types of corrosion probe or used for MegaCorr datalogger setup.

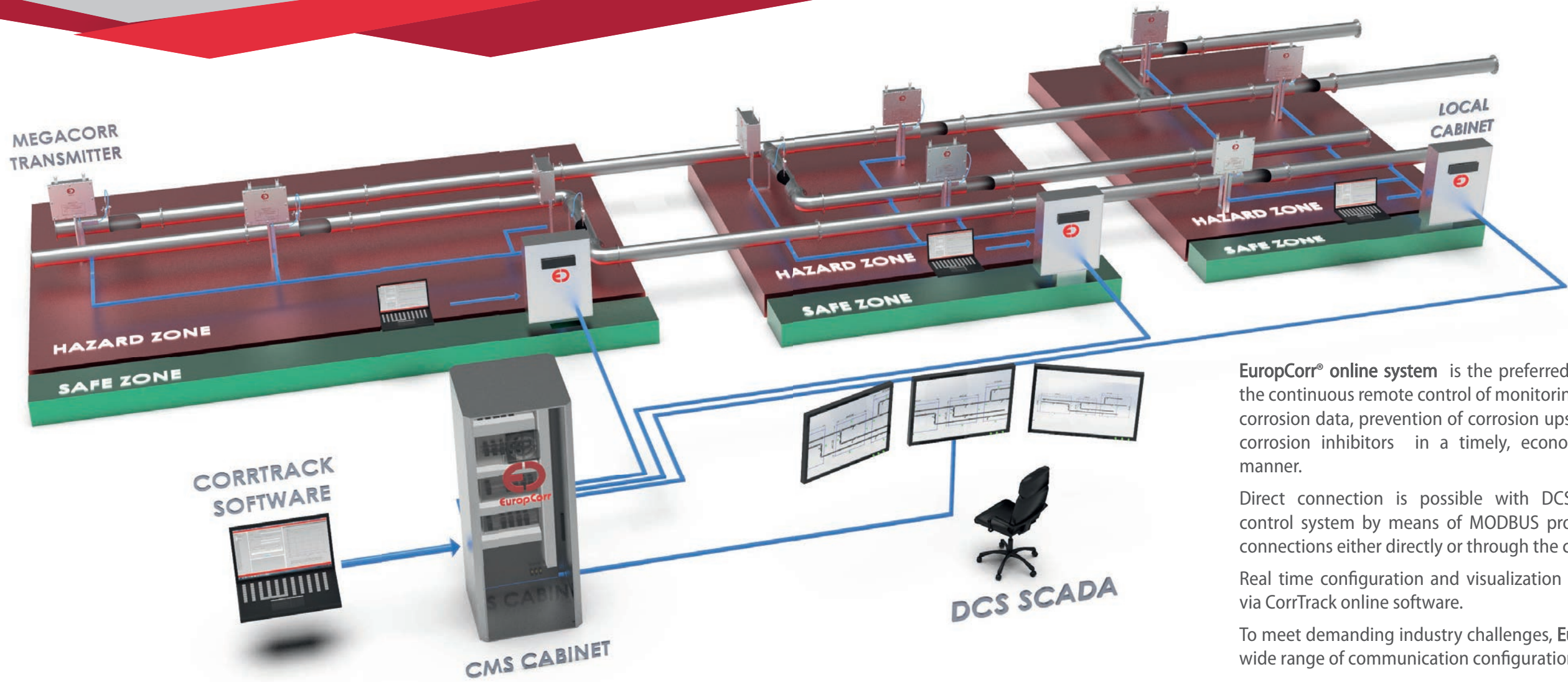
EuropCorr® battery-powered MegaCorr is a stand-alone data logger for continuously data logging of one or more probes at predefined intervals. Setup and download stored corrosion data by using MaxiCorr then transfer data to PC with CorTrack software installed.







# ONLINE DATA COLLECTION CORROSION MONITORING



EuropCorr® online system is the preferred solution to have the continuous remote control of monitoring instrument and corrosion data, prevention of corrosion upsets, regulation of corrosion inhibitors in a timely, economic and reliable manner.

Direct connection is possible with DCS/SCADA process control system by means of MODBUS protocol or 4-20mA connections either directly or through the cabinets.

Real time configuration and visualization of corrosion data via CorrTrack online software.

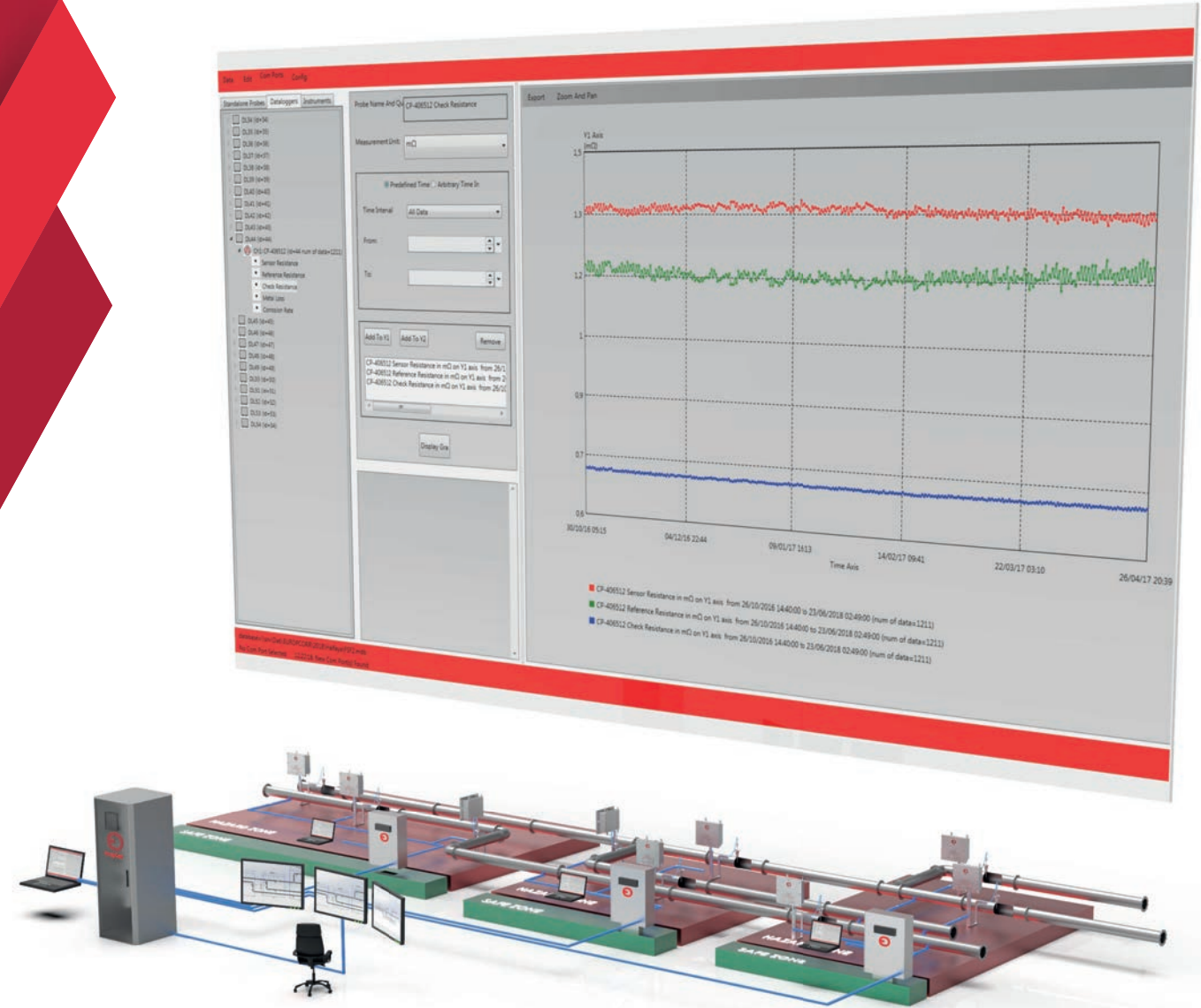
To meet demanding industry challenges, EuropCorr® offers a wide range of communication configurations.

# CORRTRACK SOFTWARE

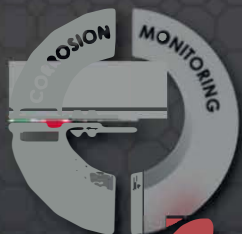
CorrTrack is a Microsoft Windows based corrosion management software. CorrTrack has been designed for interrogating probe systems, configure monitoring instrument MagaCorr and MaxiCorr, storing the measured data and assist in data analysis and present corrosion related parameters through comprehensive and explanatory graphs for probe/coupon and generate custom reports. For online system CorrTrack software provides real time graphs and alarms.



# CorrTrack







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