



INDUSTRY BRIEF

Oil & Gas

Safe, reliable control for terminals,
pipelines and processing plant.



Control system engineering, integration and analytics since 1997
ISO 9001 certified • Cyber Essentials • CHAS • Constructionline • SafeContractor

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YOUR PRIORITIES

What matters most

Onshore terminals, pipelines and processing plants handle flammable hydrocarbons under pressure, close to people and the environment. Their control and safety systems must hold the process within safe limits, act correctly when it strays, and give you and the regulator clear proof that major-accident risks are under control.

Major-accident prevention

At a COMAH site, control and safety systems are key layers of protection. They must be designed, tested and maintained so that you and the Competent Authority can rely on them when it counts.

Safety instrumented systems

Trips, shutdowns and permissives must achieve the SIL your hazard study requires, with proof testing and bypass management that stay practical for your operators and maintenance team.

Alarms operators can act on

In an upset, operators need to see the few alarms that matter. Rationalised, prioritised alarms and clear displays help them act quickly and correctly under pressure.

Cyber security

Control systems at terminals and pipelines are attractive targets. Segmented networks, controlled remote access and patching you can manage keep the process safe without slowing operations.

WHAT WE WORK ON

Systems we engineer

- Tank farm and terminal automation
- Pipeline and pumping station control
- Emergency shutdown, fire and gas systems
- Loading, unloading and metering
- Compression and gas processing
- Alarm management and control room HMIs

PLATFORMS WE WORK WITH

Siemens TIA Portal, S7 and PCS 7 • Rockwell • ABB
• Schneider • Mitsubishi • Beckhoff • Emerson
DeltaV • Honeywell • GE • WinCC, Ignition, AVEVA
(Wonderware), FactoryTalk, iFIX and Citect SCADA

What this means on your project

On a live hydrocarbon site, safety and production come first. We work within your permit-to-work and management-of-change procedures, prove new logic against a simulation of the process before it reaches site, and plan cut-overs around your shutdowns. You get the design, code and safety documentation to run and maintain the system yourselves.

STANDARDS

The standards that shape your project

Customers ask us first about standards. These are the ones we meet most often in this sector, and what they mean in practice.

Standard	What it covers	How we work with it
IEC 61511	Safety instrumented systems for the process industry, across the whole safety lifecycle.	SIS logic designed and tested against your safety requirements specification and target SILs.
COMAH Regulations 2015	Duties on operators of sites holding dangerous substances to prevent and limit major accidents.	Control and safety systems documented to support your major-accident prevention policy and safety report.
DSEAR 2002 and IEC 60079 series	Explosive atmosphere risk assessment and zoning, and the protection concepts for equipment in hazardous areas.	Instruments, panels and wiring specified to suit your hazardous area classification.
IEC 62443	Cyber security for industrial automation and control systems, for owners, integrators and suppliers.	Its zones, conduits and security levels shape how we design networks and remote access.
EEMUA 191 and IEC 62682	Good practice and requirements for designing and managing industrial alarm systems.	Alarm philosophy, rationalisation and prioritisation, so operators see what needs action.
Pressure Systems Safety Regulations 2000	Safe design, protective devices, safe operating limits and examination of pressure systems.	Control and protective functions that keep plant within its safe operating limits.

The standards listed are those most often relevant to control-system work in this sector. Which apply to your project, and how, is agreed with you at specification stage.

The evidence you receive at handover

✓ Functional design specification	✓ I/O list and cause-and-effect	✓ Alarm list and HMI interface
✓ FAT and SAT records	✓ As-built drawings and source code	✓ Method statements for common faults

ABOUT MATRIX

Standards-led, fully documented control systems that you own and can support.

Matrix International (UK) Ltd has designed, built and supported industrial control systems since 1997. We take projects from specification and electrical design, through PLC, DCS and SCADA software, to installation, commissioning and long-term support, and we build the analysis software that shows how a plant is really performing. We are ISO 9001 certified and hold Cyber Essentials, CHAS, Constructionline and SafeContractor accreditation.

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HOW WE DELIVER

From specification to long-term support

01 Specify

Requirements, applicable standards and risks agreed with you up front, itemised into a clear plan.

02 Design

Electrical and control design, PLC/DCS and SCADA software, to your standards and ours.

03 Test

Logic proven against a simulated plant, then factory acceptance testing before anything reaches site.

04 Commission

Installation, commissioning and site acceptance testing, planned around your operation.

05 Hand over

Full documentation, method statements for common faults, and training for your team.

06 Support

Maintenance, upgrades and analysis for the life of the system, with 24/7 cover under a support agreement.

WHY MATRIX

Why customers choose us

Standards first

An ISO 9001 certified quality system, designing to the standards your sector demands, plus any you specify.

You own the system

Clear structure, open interfaces and complete documentation, so you can support it yourself or with any vendor.

Tested before site

Control code is version-controlled and tested against a simulated plant before factory and site acceptance.

Multi-vendor

Siemens, Rockwell, ABB, Schneider, Mitsubishi, Beckhoff, Emerson, Honeywell and GE platforms.

In it for the long term

For us a project is not finished until the control system is decommissioned. 24/7 support is available under a support agreement.

OUR PROMISE

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Talk to us about your project

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