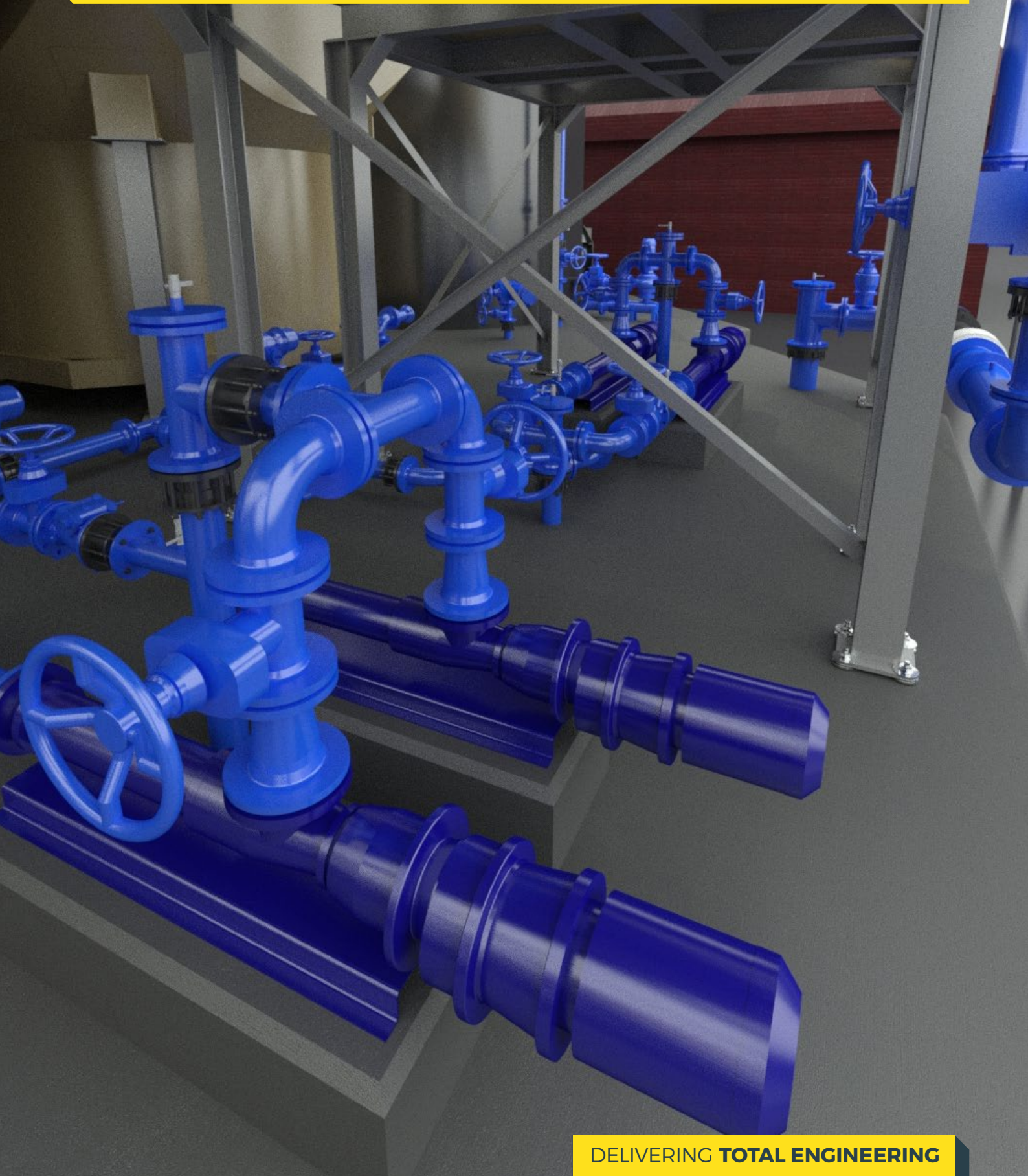




INNOVATION DESIGN & SOLUTIONS



DELIVERING **TOTAL ENGINEERING**



INNOVATIVE COMBINATION OF TECHNOLOGIES

OUR INNOVATION DESIGN & SOLUTIONS SERVICES

Our in-house Innovation Design & Solutions team will analyse client designs and develop technology based innovative solutions to maximise client efficiencies.

Our in-house Innovation Design & Solutions (IDS) team provide a unique problem solving resource. Innovation and efficiency are embedded into each project with a primary focus on delivering engineering solutions, which benefit our clients, construction and commissioning teams. Having an in-house design team supporting our delivery teams ensures that key project milestones are achieved without programme risk from external design consultants.

Our engineering design teams have capability to develop solutions through FEED, outline and detailed design phases of projects using the latest BIM processes, 3D modelling and virtual reality simulations. Our design and Offsite Manufacture & Assembly (OMA) teams work collaboratively to identify offsite fabrication solutions resulting in reduced site programme durations.

Commissioning factored into design at outline design stage

Principal Designer Role

Process Design



- Process technology assessment
- DSEAR assessments
- Sampling and testing
- Mass balances
- Energy balances
- P&ID development
- Process flow diagrams
- Compliance plans
- Process optimisation

Mechanical Design



- Hydraulic analysis
- Pressurised system design
- Fluid distribution modelling
- Modular component design
- Pressure surge analysis
- Critical systems stress analysis
- Computational Fluid Dynamic modelling (CFD)
- Finite Element Analysis (FEA)
- Process integration

EICA Design



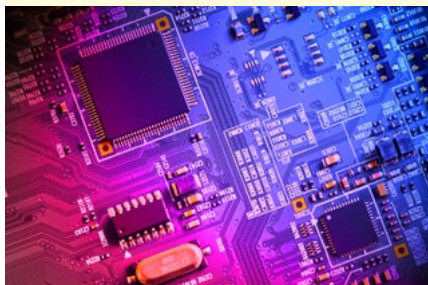
- HV & LV power distribution
- Hazardous area equipment
- Process control and automation
- DCS & PLC system design
- Certified Fieldbus designers (Profibus)
- Critical trip systems and SIL level assessment
- Pneumatic control systems
- Analytical & process Instrumentation

Civil Design



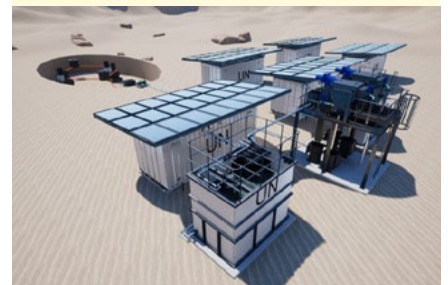
- Topographical survey & LiDAR
- Geotechnical investigations
- Structural steel design
- RC design and detailing
- Tank farms and bunds
- Temporary works
- Underground infrastructure
- Process plant buildings standard and modular construction
- Process support structures

Innovation



- Challenging mind-set
- Value engineering
- Optimisation
- Collaborative thinking
- Technology partnerships
- Offsite manufacture and assembly
- Research & development
- Total engineering solutions
- Alternative methodologies

BIM & Virtual Reality



- Real world capture
- Collaboration using common data environments
- Adobe Autodesk software
- Clash detection
- Cost databases
- Asset information and management
- Operational and maintenance information
- Augmented reality and VR



About Trant Engineering

Our mission is to be the first choice Engineering Procurement and Construction Company for our clients in the UK and overseas.

Our clients can benefit from an extensive range of in-house services including process, MEICA and civil design, Offsite Manufacture & Assembly, Instrumentation Control & Automation products and Commissioning services. This internal capability allows us offer innovation and efficiency to the whole life cycle of EPC projects across all our sectors.

Our fully Integrated Management Procedures with dedicated gateways and managerial swim lanes ensures the technical and commercial health of our projects. These robust procedures give us the ability to deliver complex work programmes in the most challenging and regulated work environments.

Clients can be assured of our commitment to complete their project to high specification, with zero incidents and minimal impact on their operations and neighbouring environment.

Services



Innovation Design & Solutions



Automation Control & Technology



Offsite Manufacture & Assembly

Sectors



Process & Water



Energy



Oil & Gas



International

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